FINAL

United States Army Corps of Engineers
New England District

2023 Annual Operations, Maintenance, and Monitoring Report

Shepley's Hill Landfill

Former Fort Devens Army Installation

Devens, Massachusetts

Contract No. W912WJ-19-D-0014

Contract Delivery Order No. W912WJ-23-F-0055

July 2024

2023 Annual Operations, Maintenance, and Monitoring Report

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Former Fort Devens Army Installation
Devens, Massachusetts

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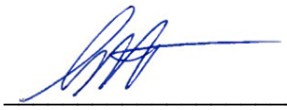
Prepared By:
SERES-Arcadis 8(a) JV 2, LLC
669 Marina Drive, Suite B-7
Charleston, South Carolina 29492
Tel 843 216 8531

Prepared For:
United States Army Corps of Engineers,
New England District

CERTIFICATION

I hereby certify that the enclosed Report, shown and marked in this submittal, is that proposed to be incorporated with Contract Number W912WJ-19-D-0014. This document was prepared in accordance with the United States Army Corps of Engineers (USACE) Scope of Work and is hereby submitted for Government approval.

Reviewed By:



Andy Vitolins, PG
Project Manager



Heather Levesque, PMP
Deputy Project Manager

Received By:

REDDY.PENELOPE.W.1502105066

Digitally signed by REDDY.PENELOPE.W.1502105066
Date: 2024.07.30 11:50:40 -04'00'

Penelope Reddy
USACE Project Manager

NOTICE

The United States Department of Defense, Department of Army, funded wholly or in part the preparation of this document and work described herein under Contract No. W912WJ-19-D-0014. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

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Acronyms and Abbreviations

µg/L	microgram per liter
AOC	area of contamination
Army	United States Army
ATP	arsenic treatment plant
bgs	below ground surface
CIP	clean-in-place
CL	cleanup level
COC	contaminant of concern
DO	dissolved oxygen
DoD	Department of Defense
DOE	Department of Energy
Eurofins	Eurofins TestAmerica Laboratories
EW	extraction well
FBRO	filter bed roll-off
Fort Devens	former Fort Devens Army Installation
ft	foot
ft/ft	foot per foot
gpm	gallon per minute
IC	institutional control
KGS	KOMAN Government Solutions, LLC
LEL	lower explosive limit
LGP	landfill gas point
LTM	long-term monitoring
LTMMP	Long-Term Monitoring and Maintenance Plan
LTMMP Addendum	Addendum to the Long-Term Monitoring and Maintenance Plan Update
LTMMP Update	Long-Term Monitoring and Maintenance Plan Update
LUC	land use control
LUCIP	Land Use Control Implementation Plan
MassDEP	Massachusetts Department of Environmental Protection
MassDevelopment	Massachusetts Development and Finance Agency

MCL	maximum contaminant level
MF	microfiltration
mg/L	milligram per liter
MS	matrix spike
MSD	matrix spike duplicate
mV	millivolt
NAVD88	North American Vertical Datum of 1988
NIA	North Impact Area
O&M	operation and maintenance
ORP	oxidation-reduction potential
PLC	programmable login controller
ppm	part per million
QAPP	Quality Assurance Project Plan
QC	quality control
Quality Systems Manual	Department of Defense (DoD) and Department of Energy (DOE) Consolidated Quality Systems Manual for Environmental Laboratories, Version 5.4
redox	oxidation-reduction
RI	remedial investigation
ROD	Record of Decision
S-A JV	SERES-Arcadis 8(a) Joint Venture 2, LLC
SHL	Shepley's Hill Landfill
Sovereign	Sovereign Consulting, Inc.
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound

1 Introduction

SERES-Arcadis 8(a) Joint Venture 2, LLC (S-A JV) prepared this 2023 Annual Operations, Maintenance, and Monitoring Report for the United States Army Corps of Engineering (USACE) – New England District, under Contract Number W912WJ-19-D-0014. This report summarizes the long-term monitoring (LTM) program and operation and maintenance (O&M) activities conducted during 2023 at the Shepley's Hill Landfill (SHL) site, located at the former Fort Devens Army Installation (Fort Devens) in Devens, Massachusetts (Figure 1). LTM and O&M activities were conducted in accordance with the Long-Term Monitoring and Maintenance Plan Update (LTMMP Update; Sovereign Consulting, Inc. [Sovereign] 2015), the 2018 Addendum to the Long-Term Monitoring and Maintenance Plan Update (LTMMP Addendum; KOMAN Government Solutions, LLC [KGS] 2018), and the Quality Assurance Project Plan (QAPP) for the Annual Long-Term Monitoring and Maintenance Program (S-A JV 2020).

1.1 Site Location

Fort Devens is located approximately 35 miles northwest of the city of Boston, within the towns of Ayer and Shirley in Middlesex County and Harvard and Lancaster in Worcester County. Fort Devens was established in 1917 for military training and logistical support during World War I and operated as a permanent base from 1931 until closure by the Base Realignment and Closure Committee in 1996.

SHL encompasses approximately 84 acres in the northeast corner of the Main Post of Fort Devens (Figure 2). The landfill is bordered to the east by Plow Shop Pond and land formerly containing a railroad roundhouse, to the west by Shepley's Hill, to the south by recent commercial development, and to the north by wooded and residential areas. Plow Show Pond to the east drains to Nonacoicus Brook to the north, which flows north/northwest and discharges to the Nashua River. Nonacoicus Brook is located north of the landfill in the North Impact Area (NIA; Figure 3).

1.2 Site Background

The United States Army (Army) reportedly began operating SHL by the early 1940s; however, evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-19th century. SHL contains a variety of waste materials (more than 1.5 million cubic yards) that extend to a depth of approximately 40 feet (ft) below ground surface in the central portion of the landfill. Approximately 160,000 cubic yards (11% of the total waste mass) appear to have been emplaced below the water table in a former wetland, and peat deposits have been identified below the waste (Harding ESE 2003; Sovereign 2011).

The Massachusetts Department of Environmental Protection (MassDEP) approved the landfill closure plan for SHL in 1985. The landfill was closed in five phases between 1987 and 1993 in accordance with 310 Code of Massachusetts Regulations 19.000. Closure consisted of capping the landfill, covering the cap with soil and vegetation, installing gas vents and groundwater monitoring wells, and constructing drainage swales. The MassDEP issued a Landfill Capping Compliance Letter approving the closure in February 1996 (Harding ESE 2003; Sovereign 2011).

After closure of SHL, the Army completed remedial investigations (RIs) under the Comprehensive Environmental Response, Compensation, and Liability Act to characterize soil, sediment, surface water, and groundwater. RIs

confirmed the presence of various contaminants at the site, the most predominant of which is arsenic. A subsequent feasibility study and Record of Decision (ROD; USACE 1995) resulted in a remedial action, which included long-term O&M of the landfill cap, groundwater monitoring, and a contingent remedial component requiring the design and construction of a groundwater extraction and treatment system if the landfill cap did not result in a reduction of groundwater contaminant concentrations (primarily arsenic) below risk-based cleanup goals by 2008. The remedial action objectives for SHL are to:

- Protect potential residential receptors from exposure to impacted groundwater migrating from the landfill that contains chemicals in excess of United States Environmental Protection Agency (USEPA) maximum contaminant levels (MCLs).
- Prevent impacted groundwater from contributing to the contamination of Plow Shop Pond sediments in excess of human health and ecological risk-based concentrations.

Table 1, below, lists the contaminants of concern (COCs) identified in the ROD and their target cleanup levels (CLs). Of the COCs listed below, only arsenic, iron, and manganese are currently sampled as part of the LTM program, in accordance with the LTMMP Update and LTMMP Addendum (Sovereign 2015; KGS 2018, respectively).

Table 1 ROD-Specified Contaminants of Concern and Cleanup Levels

COC	Cleanup Level (µg/L)	Selection Basis
Arsenic	10	MCL[a]
Manganese	1,715	Background[b]
Iron	9,100	Background
Chromium	100	MCL
1,2-Dichlorobenzene	600	MCL
1,4-Dichlorobenzene	5	MCL
1,2-Dichloroethane	5	MCL
Lead	15	Action level
Nickel	100	MCL
Sodium	20,000	Health advisory
Aluminum	6,870	Background

Notes:
[a] In accordance with the 2005 Five-Year Review Report, data are screened against the updated standard of 10 µg/L (USACE 2005) rather than the original standard of 50 µg/L from the ROD (USACE 1995).
[b] Revised from ROD (USACE 1995) CL based on background evaluation.
µg/L = microgram per liter

Groundwater Extraction and Treatment

In March 2006, the Army installed two extraction wells (EW-01 and EW-04) near the downgradient edge of the landfill (the "toe" of the landfill) to capture groundwater flowing from beneath the landfill and constructed a groundwater extraction and treatment system. The system was designed to remove dissolved arsenic through oxidation using chlorine dioxide co-precipitation with iron and manganese, and microfiltration. System operation

started with an initial pumping rate of 25 gallons per minute (gpm) in 2006, and then gradually increased the combined extraction rate to approximately 50 gpm by 2014.

In 2023, the system operated similarly to the previous years of operation for the first eight months of the year extracting approximately 50.3 gpm on average with an up-time of approximately 89%. On August 25, 2023, the system was shut down for significant upgrades. The purpose of the upgrades was to install an alternative oxidation system using potassium permanganate in place of the existing chlorine dioxide generation and dosing system to improve the performance and overall safety of the plant. The upgrades included the removal of all chlorine dioxide generation and dosing equipment and the installation potassium permanganate injection and clarification systems. This change was accompanied by a set of changes to mixing vessels, pumps, settling tanks, etc. These changes are described in more detail in Section 4. Due to these changes, the operation of the system was curtailed for the last four months of 2023 while the upgraded system was brought on-line.

Between September 5 and September 11, 2023, a new additional extraction well (EW-03) was installed southeast of the treatment building and near the landfill access gate. Once the treatment system came back on-line and following prove-out testing, groundwater extraction was performed from all three wells; EW-01, -04, and -03. The target for the upgraded system operation is to maintain the overall 50 gpm flow rate by reducing pumping EW-04 to 10 gpm and extract water from EW-03 at a rate of 15 gpm.

Plow Shop Pond and Red Cove

In 2011, the Army investigated Red Cove/Plow Shop Pond (known as Area of Contamination [AOC] 72) located east of SHL. The AOC 72 RI (AMEC 2011) concluded that the SHL remedy in place in 2011 (landfill capping and groundwater extraction) did not eliminate groundwater flow and arsenic migration from SHL to Red Cove/Plow Shop Pond, and that groundwater discharge was contributing arsenic to sediment that could accumulate to levels that posed unacceptable risk to receptors. As a result, in August and September 2012, the Army installed a barrier wall between SHL and AOC 72 as a non-time critical removal action. Documentation of the barrier wall installation was provided in a Removal Action Completion Report (Sovereign 2013a).

In addition to LTM and O&M activities, land use controls (LUCs) were established for the NIA in 2013 (Sovereign 2013b), and the Army subsequently issued an LUC Implementation Plan (LUCIP) for SHL in 2014 (Sovereign 2014). The LUC area is shown on Figure 4 and discussed in Section 5.

2 Groundwater and Hydraulic Monitoring

Groundwater monitoring was conducted at SHL in 2023 in accordance with the LTMMP Update, LTMMP Addendum, additional work requested by USEPA, and QAPP (Sovereign 2015; KGS 2018; S-A JV 2020, respectively). Sampling events for 2023 occurred in June and October/November. Results of sampling are presented in the following sections.

The LTM program includes wells in the Barrier Wall Area, Landfill Area, Nearfield Area, NIA, and Upgradient Area. These sampling and hydraulic monitoring locations are summarized in Tables 2 and 3, respectively. A site plan showing the LTM well network is provided on Figure 5. Groundwater monitoring field forms, laboratory analytical reports, and data validation reports are provided in Appendix A, Appendix B, and Appendix C, respectively.

2.1 Hydraulic Monitoring

Groundwater elevations at SHL monitoring wells and piezometers, including piezometers used to monitor performance of the barrier wall, were gauged on June 12 and November 20, 2023, while the ATP was online and groundwater was being pumped from extraction wells (EW-01 and EW-04 during the spring event and EW-01 and EW-04 during the fall event). Hydraulic monitoring data are provided in Table 4. During each monitoring event, an electronic water level meter was used to measure depth to water with an accuracy of ±0.01 foot from the marked reference point at the top of the inside casing of each monitoring well/piezometer. LTM network wells were inspected, and new well locks were installed during the 2023 monitoring events where replacements were needed.

A total of 62 monitoring wells were measured during the spring 2023 monitoring event. In fall 2023, 154 monitoring wells and one staff gauge was measured; three of the four stream gauges included in Table 4 could not be accessed or viewed, as they are located in wetland areas and were partially obscured by dirt and mud.

Groundwater elevation contour maps for June 12 and November 20, 2023 (Figures 6 and 7, respectively) were developed using survey data from the 2017 and 2018 monitoring well survey reports, which use the Massachusetts State Plane Coordinate System of North American Datum of 1983 for horizontal control and the North American Vertical Datum of 1988 (NAVD88) for vertical control. As described in Table 4 (last column) each groundwater contour map includes contour values for shallow overburden wells only; deep paired overburden well and bedrock well data were excluded, but several were used to assess vertical gradients. Similar to previous monitoring events, the water levels measured on November 20, 2023, illustrate that groundwater flows generally from the southwest to the north toward Nonacoicus Brook, with a deflection of groundwater flow to the north by the barrier wall in the area west of the wall. Groundwater elevations in overburden well locations were observed to be lower on June 12 than November 20 by an average of 0.90 ft (Table 4). Historical groundwater elevations from the last 5 years (2019 through 2023) are included in Appendix D; groundwater elevations in overburden well locations were observed to be lower in fall 2022 compared to November 20, 2023, by an average of 1.91 ft. The following groundwater hydraulic gradients were calculated in 2023:

- The gradient across the southern portion of the Landfill Area was calculated as 0.012 foot per foot (ft/ft) on November 20, 2023, using wells SHL-15 (Upgradient Area) and PZ-12-10 (Barrier Wall Area).

- The gradient across the northern portion of the Landfill Area was calculated as 0.009 ft/ft on November 20, 2023, using wells SHM-10-15 (Landfill Area) and SHL-23 (Nearfield Area).
- The gradient across the Nearfield Area ranged from 0.002 ft/ft (June 12, 2023) using wells EPA-PZ-2012-1A and SHP-2016-2A (Nearfield Area) to 0.005 ft/ft (November 20, 2023) using wells SHM-10-06A and SHM-10-16 (Nearfield Area).
- The gradient across the NIA ranged from 0.003 ft/ft (June 12, 2023) using wells SHM-05-40X and SHM-13-08 (NIA) to 0.004 ft/ft (November 20, 2023) using wells SHM-05-40X and SHM-13-03 (NIA), respectively.
- The gradient across the Barrier Wall Area was calculated as 0.088 ft/ft on June 12, 2023, and 0.101 ft/ft on November 20, 2023, using wells PZ-12-05 and PZ-12-06 (Barrier Wall Area).
- In general, the horizontal hydraulic gradient is steepest across the Landfill Area and across the barrier wall (typically two to three times greater in 2023) compared to other areas, and the gradient across the NIA is comparable to the gradient of the Nearfield Area.

The four sets of overburden and bedrock well pairs gauged during the November 20, 2023, monitoring event were assessed with respect to the presence of vertical gradients, as shown in Table 5. The vertical gradient observations are summarized below:

- A positive vertical gradient (downward flow component) was observed in the Upgradient Area from overburden to bedrock. This is consistent with recent historical observations. The Upgradient Area cluster had a vertical gradient equal to that of the horizontal gradient in the southern part of the landfill (Table 5).
- A negative vertical gradient (upward flow component) was observed in the Barrier Wall Area near Red Cove. Gradients have fluctuated between positive and negative over the last six fall gauging events (-0.006 to 0.002), most likely due to the relative degree of groundwater discharge from the bedrock towards Plow Shop Pond, compared to the relative degree of influence from the water levels in Plow Shop Pond at the time of gauging.
- A negative vertical gradient (upward flow component) was observed in the Nearfield Area. The gradient in this area has fluctuated between positive/downward flow component in previous fall gauging events. These fluctuations are likely due to changes in precipitation from year to year and/or flow rates at the extraction wells at the time of gauging. At overburden triplet monitoring well SHM-05-41A/B/C, groundwater flow had both an upward and downward component from 64 ft bgs toward the 44 ft bgs and 93 ft bgs intervals (Table 5).
- In the North Impact Area, the vertical gradient was two-times greater than the horizontal gradient in the landfill indicating primarily vertical flow (Table 5).

2.2 Groundwater Sampling

A total of 62 and 121 well locations were sampled in spring and fall 2023, respectively. All locations were sampled in accordance with the LTMMP Update, LTMMP Addendum, and QAPP (Sovereign 2015; KGS 2018; S-A JV 2020, respectively).

Samples were collected in accordance with the procedures outlined in the Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells Revision 3 and 4 (USEPA 2017). Dissolved metals and dissolved organic carbon samples were field-filtered using a 0.45-micrometer polyethersulphone filter. Groundwater was purged using a bladder pump or peristaltic pump,

depending on the measured water level. Groundwater was purged through a calibrated YSI multi-meter and a turbidity meter to monitor groundwater chemistry parameters, and samples were collected upon achievement of field parameter stability. Calibration records are included in Appendix A.

Groundwater samples were submitted to Eurofins TestAmerica Laboratories (Eurofins) of Savannah, Georgia for the following analyses: dissolved metals (arsenic, iron, and manganese), chloride/sulfate, total alkalinity, and dissolved organic carbon. In accordance with the QAPP (S-A JV 2020), quality assurance / quality control (QC) procedures included the collection of field duplicate samples, matrix spike (MS)/matrix spike duplicate (MSD) samples, and equipment blank samples.

2.2.1 2023 Data Summary

The spring and fall 2023 sampling results are summarized in Tables 6 and 7, respectively. A summary of historical groundwater sampling results is provided in Appendix E. Figures 8 and 9 present dissolved arsenic concentration results for the spring and fall 2023 sampling events, respectively. The following is a summary of dissolved metals results from the sampling events conducted in 2023:

Spring 2023 Sampling Event

- Dissolved arsenic concentrations in groundwater exceeded the CL of 10 µg/L at 41 of the 62 sampled locations (66%, compared to 63% in 2022), with the highest concentration of 3,100 µg/L detected in extraction well EW-04 (Nearfield Area).
- Dissolved iron concentrations in groundwater exceeded the CL of 9,100 µg/L at 30 of the 62 sampled locations (48%, compared to 44% in 2022), with the highest concentration of 74,000 µg/L detected in well SHL-11 (Barrier Wall Area, east of Landfill Area, north of the barrier wall).
- Dissolved manganese concentrations in groundwater exceeded the CL of 1,715 µg/L at 20 of the 62 sampled locations (32%, equal to that in 2022), with the highest concentration of 10,000 µg/L detected in well EPA-PZ-2012-5B (Nearfield Area).

Fall 2023 Sampling Event

- Dissolved arsenic concentrations in groundwater exceeded the CL of 10 µg/L at 67 of the 121 sampled locations (55%, compared to 58% in 2022), with the highest concentration of 7,400 µg/L detected in well SHM-10-15 (Landfill Area).
- Dissolved iron concentrations in groundwater exceeded the CL of 9,100 µg/L at 52 of the 121 sampled locations (43%, equal to that in 2021), with the highest concentration of 79,000 µg/L detected in well PZ-12-02 (Barrier Wall, east of Landfill Area, west of the barrier wall).
- Dissolved manganese concentrations in groundwater exceeded the CL of 1,715 µg/L at 44 of the 121 sampled locations (36%, compared to 34% in 2022), with the highest concentration of 10,000 µg/L detected in well SHM-13-02 (Northern Impact Area).

2.2.2 Arsenic Concentration Trends

Arsenic concentration trends over time were performed at 61 wells specified in the LTMMP Update (Sovereign 2015). Criteria for performing the statistical analyses include using wells that have a minimum of four rounds of data available and have dissolved arsenic concentrations greater than or equal to 10 µg/L. Of the 61 wells

specified in the LTMMP Update, a total of 23 wells (37%) had arsenic concentrations less than the CL in 2023, and a total of 38 wells (62%) exceeded the CL in 2023.

Arsenic data for the subset of 38 wells exceeding the CL in 2023 were evaluated using the Mann-Kendall trend test available in the ProUCL statistical software for environmental applications. The wells were evaluated to identify whether there are statistically significant trends for arsenic concentrations over time at each location at a 95% confidence level.

The evaluation identified that of the 38 wells statistically tested, 23 wells (61%) exhibited statistically significant decreasing concentrations, 13 wells (34%) exhibited no statistically significant trend, and two wells (5%; SHM-10-07 and SHM-10-11) exhibited increasing concentrations at the selected 95% confidence level. Monitoring wells SHM-10-07 and SHM-10-11 are in the east-central portion and southern portion of the Landfill Area, respectively. Results are shown in Table 8, below. Figure 10 shows the arsenic concentration trend results and identifies locations included in the LTMMP Update (Sovereign 2015) for trend evaluation that exhibited arsenic concentrations less than the CL in 2023. ProUCL outputs for each well are included in Appendix F.

Table 8 2023 Mann-Kendall Trend Analysis Results

Arsenic Concentration Below the CL of 10 µg/L in 2023	Statistically Significant Evidence of a Decreasing Trend	Insufficient Evidence of a Statistically Significant Trend	Statistically Significant Evidence of an Increasing Trend
EPA-PZ-2012-1A	EPA-PZ-2012-1B	EPA-PZ-2012-3A	SHM-10-07
EPA-PZ-2012-2A	EPA-PZ-2012-3B	EPA-PZ-2012-5B	SHM-10-11
EPA-PZ-2012-2B	EPA-PZ-2012-4B	EPA-PZ-2012-7B	
EPA-PZ-2012-4A	EPA-PZ-2012-6B	SHL-5	
EPA-PZ-2012-5A	N5-P1	SHL-9	
EPA-PZ-2012-6A	SHL-22	SHM-10-06A	
EPA-PZ-2012-7A	SHM-05-40X	SHM-10-12	
SHL-8S	SHM-05-41A	SHM-10-14	
SHL-8D	SHM-05-41B	SHM-10-15	
SHL-23	SHM-05-41C	SHM-10-16	
SHM-05-42A	SHM-05-42B	SHM-13-05	
SHM-10-02	SHM-10-06	SHM-93-22C	
SHM-10-03	SHM-10-13	SHM-13-03[a]	
SHM-10-04	SHM-13-04		
SHM-10-05A	SHM-13-06		
SHM-10-08	SHM-13-07		
SHM-10-10	SHM-13-08		
SHM-13-01	SHM-93-22B		
SHM-13-02	SHM-96-5B[b]		
SHM-13-14S	SHM-96-5C		
SHM-13-14D	SHM-99-31C		
SHM-13-15	SHM-99-32X		
	SHP-99-29X		

Notes:
a. SHM-13-03 was incorrectly listed twice in Data Quality Objective Step 5 of the LTMMP Update as SHP-13-03.
b. SHM-96-5B was incorrectly listed in Data Quality Objective Step 5 of the LTMMP Update as SHL-96-5B.

2.2.3 Groundwater Monitoring Field Parameters

Water quality parameters (including pH, specific conductivity, dissolved oxygen [DO], temperature, and oxidation-reduction potential [ORP]) were collected during each of the 2023 sampling events. ORP and DO are particularly significant field parameters at SHL, as they can be used as indicators of oxidation-reduction (redox) conditions in the aquifer (ITRC 2022). Under the reducing conditions present at much of the site, naturally occurring arsenic associated with iron and manganese oxyhydroxide minerals is released into solution due to reductive dissolution. For example, ferric iron present in the oxides is reduced to ferrous iron, which is more soluble. Similarly, solid manganese (Mn^{4+}) minerals are reduced to more soluble manganese (Mn^{2+}). These dissolution processes also release arsenic associated with the minerals; and the iron, manganese, and arsenic can then be detected in dissolved metals analyses. Microbial reduction of iron and manganese (frequently coupled to organic matter oxidation) is most favorable in the absence of oxygen, and dissolved oxygen can reoxidize iron and manganese; therefore, low DO is expected in zones with elevated iron and manganese. The ORP is a measure of the presence of redox-sensitive species in solution (including iron and manganese). Therefore, higher concentrations of iron and manganese would be expected in locations where low/negative ORP values and low DO concentrations are measured (Gannett Fleming, Inc. 2011). There are two sources of carbon reducing conditions at SHL. Historically, the peat and wetlands underlying the landfill likely provided reducing conditions and mobilized arsenic through reductive dissolution of iron hydroxyoxides on which arsenic was entrained (KGS 2016). In addition, the presence of the cap deters the percolation of oxygenated waters enhancing the reducing conditions in the aquifer.

Metals concentrations and associated field ORP measurements from the spring and fall 2023 groundwater sampling events are shown in Tables 6 and 7. The summary of correlations presented below indicates that dissolved metals in groundwater at SHL are more likely to exceed the CL when the redox state in groundwater is reducing and that the redox condition of the aquifer influences whether groundwater meets or exceeds the CLs for arsenic, iron, and manganese.

Spring 2023 Sampling Event

- Of the 62 groundwater samples collected and analyzed for arsenic during the spring 2023 event, 41 samples had concentrations exceeding the CL for arsenic and 21 samples had concentrations that either were not detected above the limit of detection or were detected below the CL:
  - Of the 21 samples that met the CL for arsenic, DO and ORP measurements indicate that 11 samples (52%) were collected from locations where the aquifer was oxidizing (ORP greater than 50 millivolts [mV] and DO greater than 1 milligram per liter [mg/L]), 5 samples (24%) were collected from locations screened in groundwater that was moderately reducing (where either ORP was greater than 50 mV or DO was greater than 1 mg/L), and 4 samples (19%) were collected at locations with groundwater that was reducing (ORP less than 50 mV and DO less than 1 mg/L).
  - In comparison, of the 41 samples that exceeded the CL for arsenic, samples were generally collected from locations with more strongly reducing geochemical conditions: no samples were collected from oxidizing conditions, six samples (15%) from moderately reducing conditions, and 35 samples (85%) where the aquifer was reducing.
  - Of the samples that met the CL for arsenic, the average ORP value was 80.9 mV (median of 90.3 mV) and the average DO concentration was 3.63 mg/L (median of 2.88 mg/L).

  - In comparison, samples that exceeded the CL for arsenic had a lower ORP and DO concentration: an average ORP of -67.3 mV (median of -71.3 mV) and an average DO concentration of 1.00 mg/L (median of 0.73 mg/L).
- Locations where iron and/or manganese concentrations exceeded the CL generally overlapped with locations that exceeded the CL for arsenic, indicating reducing conditions in groundwater has affected all three of these naturally occurring metals:
  - Of the 30 samples that exceeded the CL for iron in spring 2023, 29 samples (97%) also exceeded the CL for arsenic.
  - Of the 20 samples that exceeded the CL for manganese in spring 2023, 19 samples (95%) also exceeded the CL for arsenic.

Fall 2023 Sampling Event

- Of the 121 groundwater samples collected and analyzed for arsenic during the fall 2023 sampling event, 67 samples had concentrations exceeding the CL for arsenic and 54 samples had concentrations that either were not detected above the limit of detection or were detected at concentrations equal to or below the CL:
  - Of the 54 samples that met the CL for arsenic, DO and ORP measurements indicate that 21 samples (39%) were collected from locations where the aquifer was oxidizing, 21 samples (39%) were collected from locations screened in groundwater that was moderately reducing, and 12 samples (22%) were collected at locations with groundwater that was reducing.
  - In comparison, of the 67 samples that exceeded the CL for arsenic, samples were collected from locations with more strongly reducing geochemical conditions: one sample (2%) from groundwater under oxidizing conditions, 15 samples (22%) from moderately reducing conditions, and 51 samples (76%) where the aquifer was reducing.
  - Of the samples that met the CL for arsenic, the average ORP value was 73.6 mV (median of 86.3 mV) and the average DO concentration was 2.64 mg/L (median of 1.28 mg/L).
  - In comparison, samples that exceeded the CL for arsenic had a lower ORP and DO concentration: an average ORP of -53.8 mV (median of -55.0 mV) and an average DO concentration of 0.69 mg/L (median of 0.49 mg/L).
- Locations where iron and/or manganese concentrations exceeded the CL generally overlapped with locations that exceeded the CL for arsenic, indicating reducing conditions in groundwater has affected all three of these naturally occurring metals:
  - Of the 52 samples that exceeded the CL for iron in fall 2023, 51 samples (98%) also exceeded the CL for arsenic.
  - Of the 44 samples that exceeded the CL for manganese fall 2023, 34 samples (77%) also exceeded the CL for arsenic.

2.2.4 Quality Assurance/Quality Control

Eurofins was the primary contract laboratory used for the spring and fall 2023 LTM sampling events. Eurofins is compliant with the United States Department of Defense (DoD) and Department of Defense (DOE) Consolidated Quality Systems Manual for Environmental Laboratories, Version 5.4 (Quality Systems Manual; DoD and DOE

2021) under the DoD Environmental Laboratory Accreditation Program and holds current National Environmental Laboratory Accreditation Program accreditation for applicable analytical methods.

As part of the 2023 groundwater sampling events, quality assurance/QC samples were collected to confirm that the data quality objectives were met for the laboratory analysis. Field duplicate samples were collected during sampling events to evaluate field precision at the rate of 10% (1 per 10 samples). MS/MSD pairs were also submitted at a rate of 5% (1 per 20 samples) to evaluate matrix effects on analytical precision and accuracy.

Analytical results from the 2023 sampling events were reviewed and evaluated for data acceptability by Laboratory Data Consultants, Inc. of Carlsbad, California in accordance with the USEPA Region 1 Environmental Data Review Program Guidance (USEPA 2018), the QAPP (S-A JV 2020), and the DoD General Data Validation Guidelines (DoD 2019). The method requirements from the Quality Systems Manual (DoD and DOE 2021) and the USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 (USEPA 2014) were also used as supplemental information.

Laboratory Data Consultants, Inc. of Carlsbad, California reviewed and updated the database with appropriate data qualifiers as needed. Laboratory analyses were confirmed to have been performed in general compliance with the precision, accuracy, representativeness, completeness, comparability, and sensitivity requirements listed in the QAPP (S-A JV 2020). Sample results that were qualified as estimated (UJ/J) due to QC exceedances are usable with caution; no results were rejected. Analytical results reported for the 2023 LTM samples were deemed valid and usable for intended purposes. The data validation reports and a summary of quality control exceptions noted for the SHL 2023 LTM sampling data are presented in Appendix C.

2.3 Conclusions

The results of the spring monitoring event and the more comprehensive fall 2023 site-wide monitoring event continue to illustrate a general groundwater flow direction from the west/southwest to the north toward Nonacoicus Brook, with a deflection of groundwater flow to the north in the area west of the barrier wall near Red Cove at Plow Shop Pond. Concentrations of arsenic, iron, and manganese in groundwater continue to exceed CLs in various wells at SHL and in the NIA (Tables 6 and 7). Locations where dissolved metals (arsenic, iron, and manganese) concentrations exceed the CL are generally under more reducing geochemical conditions than locations where dissolved metals concentrations meet the CL.

The groundwater monitoring program will continue in accordance with the LTMMP Update and LTMMP Addendum (Sovereign 2015; KGS 2018, respectively) until a new Long-Term Monitoring and Maintenance Plan (LTMMP) is prepared.

The 2023 scope included the following additional work requested by USEPA in addition to what is included in the LTMMP Update and LTMMP Addendum:

- Continued collection of geochemical and hydrologic data from the nested piezometers (SHP 2016-1A/B through SHP 2016-5A/B) in spring and fall.
- Continued collection of geochemical and hydrologic data for USEPA-monitoring network added wells (SHM-05-39A/B, SHM-99-31A/B).
- Continued collection of water level data from piezometers SHP-2017-01 and SHP-2017-02 located near the extraction wells in spring and fall.

- Continued collection of geochemical and hydrologic data from bedrock wells SHP-2016-06A/B/C and SHP-2016-07A/B in spring and fall.
- Continued collection of hydrologic data from wells SHM-10-11, N6-P1, and SHP-99-35X in spring and fall to provide more hydraulic control in the southern portion of the landfill.

Geochemical and hydrologic data was collected from 10 newly installed monitoring wells (SHP-2023-1A,B; SHP-2023-2A,B; SHP-2023-3A,B; SHP-2023-4A,B, SHP-2023-5A,B) and one newly installed extraction well (EW-03) in the fall as part of the effort to re-evaluate and optimize the capture of the arsenic plume (USACE 2022, S-A JV 2023).

The Army is currently conducting an assessment to confirm the effectiveness of the barrier wall installed adjacent to Red Cove. The results of the assessment will be reported under a separate cover and will be considered as part of the LTMMP update.

3 Landfill Maintenance and Monitoring

In accordance with the LTMMP Update (Sovereign 2015), SHL was inspected, and routine maintenance was performed during 2023. All landfill maintenance and monitoring activities were completed by Sovereign.

3.1 Landfill Inspection

The annual inspection identifies and corrects problems pertaining to the effectiveness of the cap system, erosional controls, gas vents, and sampling points. The landfill inspection report with supporting photographs is presented in Appendix G. A summary of the report findings is provided below:

- The surface cover had no new depressions. No tree or shrub growth was observed on the landfill surface during the inspection. Small tree and shrub growth on the margins of the landfill were removed during the annual mowing event.
- An annual inspection of the landfill and adjacent areas was conducted on October 19, 2023. The overall condition of the landfill, utility berm, and culverts was found to be satisfactory. Vegetation atop the utility berm was mowed during the annual mowing event between October 3 and October 5, 2023. The southern drainage swale exhibited large vegetative growth that was removed during annual mowing activities. Small growth and wetland plant life were not disturbed, as they have become a natural retardant to erosive forces. Vegetation in the northern drainage swales was also removed during annual mowing activities. No new topographic depressions or significant erosion was observed.
- As noted in previous reports, gas vent GV-3 continues to be leaning at a 15 to 20 angle off-center. This includes the concrete pad the vent is set in. The vent is still firmly in the ground, is stable, and does not rock or move in any way. There is no evidence that the vent was struck by a vehicle, and the vent still appears to be functional and appears to be in otherwise good condition (see photograph in Appendix G). The remaining landfill gas points (LGPs) and gas vents (Figure 11) were in good condition.
- Monitoring wells and piezometers located on the landfill cap or perimeter that are currently part of the LTM network were observed to be in good condition overall.
- The landfill access road was observed to be in good condition.
- Perimeter fencing was not installed historically along much of the western boundary of the landfill (wooded area along Shepley's Hill) and along the southeastern boundary near the railroad tracks. No roads have open access to the landfill and the fence gates across roads that access the landfill are secured with chains and padlocks.
- Wetland encroachment was observed in the swales located in the southern portion of the landfill. Overall, the areas of encroachment are small and confined to the swales.
- The recreational field located south of the access road in the middle of the southern half of the landfill appeared to be in good condition. There was no tire rutting observed between the field and the landfill access road.

Sovereign provided the following recommendations for 2024:

- Continue monitoring for settlement that creates depressions.
- Continue monitoring for tree and shrub growth on the surface cover. Remove tree/shrub growth as necessary.
- Continue monitoring the utility berm for negative impacts on the drainage patterns.

- Continue annual inspections and mowing of the landfill cap, utility berm, drainage swales, and culverts (including removal of tree and shrub growth).
- Continue to monitor GV-3 to ensure the angle of the vent does not worsen. Continue monitoring the condition of the remaining LGPs and monitoring wells.
- Continue monitoring for erosion and depressions/settlement within the landfill and repair, as necessary.
- Conduct routine checks of the recreational field to confirm the integrity of the landfill cover, gas vents, and monitoring wells in this area.
- Continue to monitor road condition and repair as needed.

3.2 Landfill Gas Monitoring

Sovereign completed annual sampling of landfill gas vents and LGPs (Figure 11) on October 19, 2023. Sampling activities were conducted in accordance with procedures described in the MassDEP Landfill Technical Guidance Manual, as revised May 1997 (MassDEP 1997):

- Landfill gas monitoring is conducted by first capping off the gas vents and connecting the handheld monitoring devices to the sample port on the cap for the initial readings.
- Following collection of the initial readings, an adjustable flow rate sampling pump is connected to the sample port on the cap. Two vent volumes are purged from the gas vents using the sampling pump, and the post-purge monitoring readings are collected with the handheld monitoring device.
- Each handheld monitoring device is equipped with an internal pump and is allowed to operate for approximately one minute before recording the monitoring data.

Landfill gas sampling was conducted with a multi-gas meter and landfill gas meter and included the following parameters: volatile organic compounds (VOCs), oxygen, hydrogen sulfide, lower explosive limit (LEL), carbon monoxide, carbon dioxide, and methane. Each parameter was measured and recorded twice (initial reading and post-purge reading). Gas monitoring results (Table G-1 and Table G-2) and gas probe construction details (Table G-3) are provided in Appendix G. Results appear to be generally consistent or lower than historical observations. The landfill gas monitoring results are summarized below:

- Field readings of barometric pressure were variable and ranged from 29.70 to 30.45 inches of mercury. The background barometric pressure ranged from 29.88 at the start of the day to 30.45 at mid-day and decreased to 29.70 at the end of the day.
- VOC detections ranged from 0.0 to 1.4 parts per million (ppm) in initial readings, and ranged from 0.0 to 0.6 ppm in post-purge readings. The highest initial reading of 1.4 ppm (gas probes LGP-09-08X) decreased to 0.5 ppm post-purge.
- Oxygen ranged from 6.0 to 20.9% in initial readings; and 4.9 to 20.9% post-purge.
- Hydrogen sulfide remained at 0.0 ppm for all initial and post purge readings.
- The LEL ranged from 0.0 to 99% (initial) and 0.0 to 99% (post-purge).
- Carbon monoxide remained at 0.0 ppm for all initial and post purge readings.
- Carbon dioxide detections ranged from 0.0 to 15.5% (initial) and 0.0 to 0.7% (post-purge).
- Methane detections ranged from 0.0 to 16.8% in initial readings; and 0.0 to 11.7% post-purge. The highest initial readings were detected at gas probe LGP-09-08X.

4 Arsenic Treatment Plant Operations, Maintenance, and Monitoring

The SHL ATP treated and discharged 19,026,200 gallons of groundwater between January 1 and December 31, 2023 (Table G-4 and Table G-5), bringing the cumulative treated volume total to approximately 393,329,675 gallons since system startup in 2006 (Table G-6). All ATP operations, maintenance, and monitoring in 2023 was conducted by Sovereign; data are presented in the following sections.

4.1 System Description

The ATP is designed to remove dissolved arsenic from extracted groundwater through oxidation and precipitation of dissolved iron and co-precipitation of the arsenic. Until September 2023, the ATP consisted of the following components:

- Extraction system (extraction wells EW-01 and EW-04)
- Chlorine dioxide generation and addition in order to oxidize iron
- Coagulation via a contact tank with a direct drive batch tank mixer
- Microfiltration (MF) of the water to concentrate precipitated solids
- Solids removal via an inclined plate clarifier
- Bag filtration and discharge of the inclined plate clarifier decant water
- Polymer-aided flocculation of sludge using a filter bed roll-off (FBRO)
- Treated water discharge to the Devens publicly owned treatment works.

Historical monthly discharge totals and an operational summary of the monthly online hours, flow totals, and operating status during the first eight months of 2023 are presented in Appendix G.

In September and October 2023, the ATP was upgraded and modified to replace the existing onsite 17-year old chlorine dioxide generation and dosing system with a new potassium permanganate oxidation and clarification system to improve the performance and safety of the plant. Following completion of the upgrades, the system continued to utilize oxidation and co-precipitation of iron and arsenic as the primary treatment methodology, but system operations were significantly altered from those utilized between 2006 and the first half of 2023.

The upgraded ATP now consists of the following components (the changed processes are **bolded**).

- Extraction system (extraction wells EW-01, **EW-03**, and EW-04)
- **Potassium permanganate addition to oxidize dissolved iron**
- Coagulation via contact tanks with a direct drive batch tank mixers
- **Precipitated solids separation and removal via new Lamella Gravity Settler inclined plate clarifiers**
- **MF of the water exiting the Lamella clarifies to "polish" the decant water and concentrate residual precipitated solids**
- **Tertiary solids removal via an inclined plate clarifier**
- Bag filtration and discharge of the inclined plate clarifier decant water

- Polymer-aided flocculation of sludge using a filter bed roll-off (FBRO)
- Treated water discharge to the Devens publicly owned treatment works

4.1.1 System Efficiency and Routine Maintenance

Routine Operations from January 1 through August 25, 2023

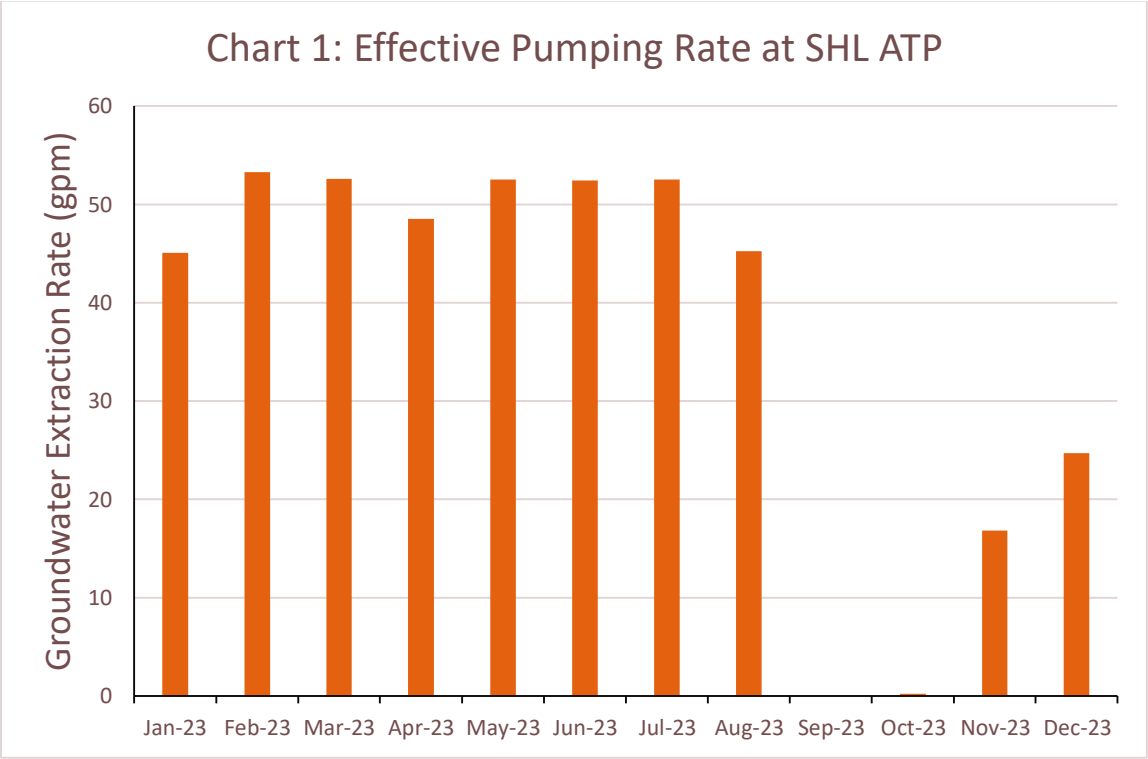
During the first eight months of 2023, prior to system upgrades, and during a period of typical operation, the treatment plant was operational approximately 89% of the total available hours during the calendar year (i.e., "uptime"), which is similar to the uptime in 2022 of 88% (Table G-4). When online before September 2023, the plant achieved an effective average extraction rate (i.e., the extraction rate calculated by dividing the volume pumped by the elapsed time during the eight months, not the actual system online time) of 50.3 gpm in 2023 (compared to 48.05 gpm in 2022). The monthly effective pumping rates for 2023 are displayed in Chart 1 below.

Non-operational time during the period through August 2023 is associated with both routine and non-routine system maintenance, repairs, and upgrades (Section 4.1.2). The ATP MF system continued to require monthly clean-in-place (CIP) procedures to prevent long-term fouling of the filter membranes (Table G-8). Extended CIP events have been conducted only in situations when the level of filter fouling is greater than normal, most likely because of a non-optimal dosage concentration of chlorine dioxide.

The FBRO was emptied routinely (every 1 to 2 weeks) in 2023 due to high sludge generation from inorganics (primarily iron) in the influent. This is consistent with historical FBRO maintenance. A total of 203.45 tons of sludge were removed in 2023 by Global Remediation Services, Inc. (Table G-7). The sludge removal process was optimized, which resulted in zero downtime attributable to FBRO operations for the ATP in 2023.

ATP System Upgrades and Testing – September through December 2023

The system was offline from August 25 to October 31, 2023, for system upgrade activities, with minor on periods for system testing, and during this period during which time almost no groundwater was extracted and treated. In November and December 2023, the newly upgraded system was operated intermittently during startup and shakedown in an effort to optimize the performance of the revised system. During November and December, the system extracted and treated groundwater at effective pumping rates of approximately 17 and 25 gpm, respectively, as shown in Chart 1 below, and groundwater was extracted at varying rates from EW-01, EW-03, and EW-04 as part of system testing. Also during this period, the FBRO was again emptied routinely (every 2 weeks), and due to reduced filter loading as a result of the upgrades, no CIP events were conducted as well.



Note: System offline between August 25 and October 31, 2023 for upgrades.

4.1.2 Non-Routine System Maintenance, Repairs, and Upgrades

This section details major system non-routine maintenance and upgrade activities encountered or implemented during 2023. Monthly shutdown and maintenance events, along with associated system downtimes, are presented in Table G-8. The non-routine maintenance activities are summarized below:

Non-Routine Maintenance Activities of the System through August 2023

- January 5, 2023 – The system could not be restarted following a regularly scheduled clean-in-place (CIP) due to a fault on the chlorine dioxide skid Programmable Logic Controller (PLC). On January 9, 2023, a programmer inspected the PLC and reset the fault.
- January 9, 2023 – The system was offline briefly to repair a leaking potable water backflow preventor.
- January 16, 2023 – The system was offline briefly to clean the chlorine dioxide eductor.
- January 26, 2023 – The system was shut down to facilitate the replacement of microfilter Pump P2 and microfilter valve V4. The pump and valve were observed to be leaking, and each was replaced in kind.
- January 30, 2023 – The seal in Effluent Pump 1 was found to be leaking and was replaced. The work was completed during a CIP to minimize downtime.
- February 9, 2023 – The system was shut down due to a failure of a fitting on the potable water line of the polymer skid. The fitting was subsequently replaced, and the system was restarted on February 10, 2023.
- May 22, 2023 – The system shut down briefly to clean and inspect the microfilter basket strainer due to observed high pressure. The system was subsequently restarted following the cleaning.

- June 7, 2023 – The oil cooler was replaced in the original air compressor for the system, and this air compressor was subsequently brought back online. As a result, the temporary air compressor rented to replace the original air compressor was removed from the facility. This work was conducted during a routine CIP resulting in no additional downtime.
- August 20, 2023 – A piping union on Effluent Pump 2 failed resulting in system shutdown. The union was subsequently replaced on August 21, 2023, during a CIP to minimize downtime.
- August 24, 2023 – The input/output (I/O) card for the microfilter skid failed due to normal wear. A new I/O card was subsequently installed on August 25, 2023, and the system was restarted.

Maintenance Activities Associated with the Upgrade of the System through from September through December 2023

- August 25, 2023 – The system was shut down and drained ahead of upgrade activities. The purpose of the upgrades was to install an alternative metals removal system to replace the existing chlorine dioxide dosing system and improve the performance and safety of the ATP.
- Between August 28 and September 1, 2023 – The chlorine dioxide dosing system was subsequently removed. This included the removal of the chlorine dioxide generation skid, the chlorine gas cabinet, and the sodium chlorite storage tank.
- Between September 5 and September 11, 2023 – A new extraction well (EW-03) was installed using a mini-sonic drill rig southeast of the treatment building and near the landfill access gate. The new extraction well was completed to 74 ft bgs as a 6-inch diameter PVC well with 25 ft of stainless steel 20-slot well screen.
- Between September 5 and October 30, 2023 – Two Lamella Gravity Settlers with flash mix and flocculator tanks and an associated access platform as well as potassium permanganate injection pumps with an associated chemical storage area were installed. In addition, the existing water conveyance piping and sludge transfer piping were replaced and reconfigured for the upgraded system.
- The system was leak tested with potable water on October 23, 2023, and beginning on October 31, 2023, the system was restarted for testing using extracted groundwater. Throughout November and December 2023, the upgraded system was operated intermittently at flow rates between 10 and 50 gpm using a combination of extraction wells EW-01, EW-03, and EW-04 to test system components. Control system modifications were also implemented in November and December 2023 to incorporate new system components within the existing PLC for the facility.
- December 15, 2023 – The electrical contactor for extraction well EW-04 failed, and the well was brought offline. The system was subsequently operated using only extraction wells EW-01 and EW-03 until the contactor could be subsequently replaced on December 29, 2023.

4.2 Arsenic Treatment Plant Monitoring

This section describes the ATP influent and effluent sampling conducted in 2023 to monitor for arsenic and other parameters. Samples were analyzed by SGS Laboratories of Orlando, Florida. The associated laboratory analytical reports and data validation reports for the ATP monitoring conducted by Sovereign are included in Appendix B and Appendix C, respectively.

4.2.1 Influent

ATP influent was sampled for metals (arsenic, iron, and manganese), VOCs, and dissolved gases (methane and ethane), as described in the sections below.

4.2.1.1 Metals

The ATP system influent is sampled quarterly for metals (arsenic, iron, and manganese). Although influent inorganic sampling is not required by ATP Landfill Discharge Permit Number 020 (Massachusetts Development and Finance Agency [MassDevelopment] 2019) or by the LTMMP Update (Sovereign 2015), it is monitored to gauge system loading and to verify that a sufficient iron concentration is maintained to promote iron and arsenic co-precipitation and coagulation. The original system design recommended a minimum iron concentration of 40 mg/L. Current influent iron concentrations remain above this level (average of 60.2 mg/L in 2023). The ATP was designed with a ferric chloride addition system with the ability to add ferric chloride to the influent if deemed necessary based on results of influent inorganic sampling; this component of the system has not been needed and has been decommissioned.

Average concentrations for arsenic, iron, and manganese in extraction well EW-01 since 2006 are 1.66, 65.5, and 2.15 mg/L, respectively; compared to average concentrations of 1.70, 67.3, and 2.16 mg/L in 2023. Average concentrations for arsenic, iron, and manganese in extraction well EW-04 since 2006 are 3.49, 41.9, and 2.49 mg/L, respectively; compared to average concentrations of 4.15, 54.1, and 2.79 mg/L in 2023. Average concentrations in extraction well EW-03, installed in 2023, for arsenic, iron, and manganese are 1.14, 58.4, and 1.98 mg/L, respectively, in 2023. Influent loading concentrations of iron, arsenic, and manganese are presented and graphically illustrated in Table G-9.

4.2.1.2 Volatile Organic Compounds and Dissolved Gases

In accordance with the LTMMP Update (Sovereign 2015), and as part of the landfill closure monitoring program, annual ATP influent sampling was conducted for VOCs and dissolved gases (methane and ethane) in November 2023. Results are documented in Table G-10 and summarized below:

- Methane was detected at concentrations of 3,810 µg/L (EW-01), 156 µg/L(EW-03), and 2,360 µg/L (EW-04) in the sampled influent, compared to the 2022 sampling results of 2,120 µg/L (EW-01) and 1,060 µg/L (EW-04), before EW-03 was installed in 2023.
- Ethane was detected at concentrations of 2.0 µg/L (EW-01) and non-detect (EW-03 and EW-04), compared to the 2022 concentrations of 0.68 µg/L (EW-01) and non-detect (EW-04), prior to EW-03 installation in 2023.
- Total VOC concentrations were 0.53J µg/L (EW-01), 0.84J µg/L (EW-03), and 0.65J µg/L (EW-04). All VOC detections were of benzene which has an MCL of 5.0 µg/L. These low concentrations are consistent with historical observations.

4.2.2 Effluent

The USACE is authorized to discharge treated groundwater from the ATP to the Devens municipal sewerage system in accordance with Landfill Discharge Permit Number 020 (MassDevelopment). The current permit, which mandates effluent sampling for arsenic and other select parameters on a monthly, quarterly, and/or annual basis and a maximum daily flow of 93,600 gallons per day (65 gpm), was last renewed on June 28, 2022, and is in

effect until June 28, 2025 (MassDevelopment 2022). There were no changes made to the permit conditions. Effluent sampling results are included in Appendix G and summarized below:

- Arsenic samples were collected monthly, with results ranging from 4.88 to 30.9 µg/L. As shown in Table G-11, each sampling result was below the effluent limitation of 75 µg/L (MassDevelopment 2022).
- Select metals (barium, manganese, and magnesium) and other parameters (chloride, nitrate, and sulfate) were sampled quarterly (March, June, November, and December 2023) (Table G-12). Sampling for these parameters is required by the permit, but no effluent limitations have been established.
- Select metals (chromium [total], cadmium, copper, lead, silver, selenium, and mercury) along with total toxic organics and total petroleum hydrocarbons were sampled on an annual basis in November 2023 (Table G-13). Total toxic organics are equal to the sum of total VOCs, semi-volatile organic compounds, pesticides, and polychlorinated biphenyls. Concentrations of all parameters were within permit-defined discharge limitations.

4.3 Arsenic Treatment Plant Optimization and Recommendations

In September and October 2023, the Army upgraded the ATP to install an alternative metals removal system which replaced the chlorine dioxide generation and dosing system with a new potassium permanganate oxidation and clarification system in order to improve the performance and safety of the ATP. This upgrade included from the removal of all chlorine dioxide related components originally installed in 2006 and the installation of potassium permanganate injection equipment and two inclined plate settlers (e.g., a Lamella Gravity Settler).

Although no additional significant changes are proposed for the ATP operation and maintenance based on the data presented herein, the system continues to be optimized following the upgrade to increase operational efficiency. The plant will also continue to operate at a flow rate of approximately 50 gpm each month, with continued maintenance to include the following:

- The influent piping will be inspected annually and cleaned, if necessary, during scheduled CIP events. This will prevent the build-up of precipitate within the system that could restrict flow.
- System components will be regularly inspected and replaced before the end of their operational life. This will minimize operational downtime associated with equipment failure.

5 Land Use Controls

In accordance with the LUCIP (Sovereign 2014), the Army conducts annual monitoring and maintenance activities, which include institutional controls (ICs) and affirmative measures.

5.1 Institutional Controls

The LUC area (Figure 4) is actively monitored, and any required changes to the area are updated in the LUCIP (Sovereign 2014), in consultation with and concurrence from the USEPA and MassDEP. Reports on the implementation and enforcement of the ICs are provided to the Town of Ayer and MassDEP, including any instances where groundwater extraction is observed.

A review of the ICs was conducted during 2023. The Town of Ayer will be completing the West Main Street Massworks project in 2023, which involves sidewalks, curbing, and paving. The West Main Street bridge (crossing the Nonacoicus Brook) is also scheduled to be replaced; no other new construction activities or other changes were observed.

5.2 Affirmative Measures

Affirmative measures for the SHL LUCs include the following:

- Annual informational pamphlets with contact information were distributed to properties within the NIA via the United States Postal Service in September 2023. The pamphlet was also provided to the Town of Ayer Board of Health on January 11, 2024, to post on its public website. A copy of the pamphlet is included in Appendix H.
- A door-to-door survey is conducted every 5 years at residences within the LUC area to provide the information pamphlet in person and general information on the groundwater moratorium. A survey was completed in 2019, with the next survey scheduled for 2024.
- A list of property owners and resident addresses within the LUC area is updated annually for implementation of the LUCIP actions noted; the LUCIP (Sovereign 2014) is distributed to appropriate parties.
- The Army meets with the Town of Ayer Board of Health annually or as needed if a change in the groundwater contamination distribution in the aquifer occurs. The Army met with Nashoba Board of Health Agency, Town Engineer and Town Manager on March 7, 2024, to discuss implementation of the land use controls. It was discussed that prior to the door-to-door survey in 2024 a notification will be provided by Army to the town to send to property owners and residents so they are aware of the survey.

In summary, no deficiencies or deviations from the LUCs were noted; no corrective actions are required. The completed LUCIP checklist, list of properties/addresses within the LUC area, and educational pamphlet are included in Appendix H.

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Tables

Table 2
LTMMP Sampling Program
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Location	Monitoring Frequency	TOR Elevation (feet NAVD88)	Screen Interval (feet bgs)	Screen Elevation (feet NAVD88)	Formation Type at Screen Interval
PZ-12-01	Barrier Wall	Semiannual	237.55	24.0 - 34.0	213.55 - 203.55	OB (shallow)
PZ-12-02	Barrier Wall	Semiannual	237.79	24.0 - 34.0	213.79 - 203.79	OB (shallow)
PZ-12-03	Barrier Wall	Semiannual	236.40	22.0 - 32.0	214.40 - 204.40	OB (shallow)
PZ-12-04	Barrier Wall	Semiannual	238.20	22.0 - 32.0	216.20 - 206.20	OB (shallow)
PZ-12-05	Barrier Wall	Semiannual	238.73	26.0 - 36.0	212.73 - 202.73	OB (mid)
PZ-12-06	Barrier Wall	Semiannual	242.18	26.0 - 36.0	216.18 - 206.18	OB (mid)
PZ-12-07	Barrier Wall	Semiannual	244.59	18.0 - 28.0	226.59 - 216.59	OB (mid)
PZ-12-08	Barrier Wall	Semiannual	244.83	18.0 - 28.0	226.83 - 216.83	OB (mid)
PZ-12-09	Barrier Wall	Semiannual	241.93	22.0 - 32.0	219.93 - 209.93	OB (shallow)
PZ-12-10	Barrier Wall	Semiannual	242.28	22.0 - 32.0	220.28 - 210.28	OB (shallow)
SHL-10	Barrier Wall	Semiannual	248.02	24.0 - 39.0	224.02 - 216.02	OB (shallow)
SHL-11	Barrier Wall	Semiannual	235.47	12.0 - 27.0	223.47 - 208.47	OB (shallow)
SHL-19	Barrier Wall	Semiannual	240.50	20.0 - 30.0	220.50 - 210.50	OB (shallow)
SHL-20	Barrier Wall	Semiannual	235.95	39.0 - 49.0	196.95 - 186.95	OB (Deep)
SHL-3	Barrier Wall	Annual	246.95	24.0 - 34.0	222.95 - 212.95	OB (mid)
SHL-4	Barrier Wall	Semiannual	227.48	3.0 - 13.0	224.48 - 214.48	OB (shallow)
SHM-11-02	Barrier Wall	Semiannual	240.73	39.0 - 49.0	201.73 - 191.73	BR
SHM-11-06	Barrier Wall	Semiannual	236.17	25.0 - 35.0	211.17 - 201.17	OB (shallow)
SHM-93-10D	Barrier Wall	Annual	248.01	46.0 - 56.0	202.01 - 192.01	BR
SHP-01-36X	Barrier Wall	Semiannual	223.95	3.0 - 8.0	220.95 - 215.95	OB (shallow)
SHP-01-37X	Barrier Wall	Semiannual	222.79	1.0 - 6.0	221.79 - 216.79	OB (shallow)
SHP-01-38A	Barrier Wall	Semiannual	220.86	1.5 - 6.5	219.36 - 214.36	OB (shallow)
N5-P1	Landfill Area	Annual	242.65	95.5 - 97.5*	147.15 - 145.15	BR
SHM-10-07	Landfill Area	Annual	246.82	40.0 - 50.0	206.82 - 196.82	OB (mid)
SHM-10-11	Landfill Area	Annual	263.76	50.0 - 60.0	213.76 - 203.76	OB (deep)
SHM-10-12	Landfill Area	Annual	255.17	45.0 - 55.0	210.17 - 200.17	OB (mid)
SHM-10-13	Landfill Area	Annual	244.77	60.0 - 70.0	184.77 - 174.77	OB (deep)
SHM-10-14	Landfill Area	Annual	237.62	60.0 - 80.0	177.62 - 157.62	OB (deep)
SHM-10-15	Landfill Area	Annual	243.68	45.0 - 55.0	198.68 - 188.68	OB (mid)
SHP-2016-07A	Landfill Area	Semiannual	265.30	22.0 - 32.0	243.30 - 233.30	BR
SHP-2016-07B	Landfill Area	Semiannual	265.33	70.0 - 80.0	195.33 - 185.33	BR
SHP-99-29X	Landfill Area	Annual	243.34	19.0 - 29.0	254.16 - 244.16	OB (shallow)
EPA-PZ-2012-1A	Nearfield Area	Semiannual	223.79	20.0 - 25.0	203.79 - 198.79	OB (shallow)
EPA-PZ-2012-1B	Nearfield Area	Semiannual	223.53	70.0 - 75.0	153.53 - 148.53	OB (deep)
EPA-PZ-2012-2A	Nearfield Area	Semiannual	223.38	20.0 - 25.0	203.38 - 198.38	OB (shallow)
EPA-PZ-2012-2B	Nearfield Area	Semiannual	223.37	75.0 - 80.0	148.37 - 143.47	OB (deep)
EPA-PZ-2012-3A	Nearfield Area	Semiannual	222.65	20.0 - 25.0	202.65 - 197.65	OB (shallow)
EPA-PZ-2012-3B	Nearfield Area	Semiannual	222.57	70.0 - 75.0	152.57 - 147.57	OB (deep)
EPA-PZ-2012-4A	Nearfield Area	Semiannual	226.60	20.0 - 25.0	206.60 - 201.60	OB (shallow)
EPA-PZ-2012-4B	Nearfield Area	Semiannual	226.39	70.0 - 75.0	156.39 - 151.39	OB (deep)
EPA-PZ-2012-5A	Nearfield Area	Semiannual	220.01	20.0 - 25.0	200.01 - 195.01	OB (shallow)
EPA-PZ-2012-5B	Nearfield Area	Semiannual	219.38	80.0 - 85.0	139.38 - 134.38	OB (deep)
EPA-PZ-2012-6A	Nearfield Area	Semiannual	234.25	25.0 - 30.0	209.25 - 204.25	OB (shallow)
EPA-PZ-2012-6B	Nearfield Area	Semiannual	234.08	75.0 - 80.0	159.08 - 154.08	OB (deep)
EPA-PZ-2012-7A	Nearfield Area	Semiannual	234.16	25.0 - 30.0	209.16 - 204.16	OB (shallow)
EPA-PZ-2012-7B	Nearfield Area	Semiannual	234.03	60.0 - 65.0	174.03 - 169.03	OB (deep)
EW-01	Nearfield Area	Semiannual	226.80	60.0 - 85.0	166.80 - 141.80	OB (deep)
EW-3	Nearfield Area	Annual	221.46	47.0-72.0	174.93-149.93	OB (deep)
EW-04	Nearfield Area	Semiannual	227.03	70.0 - 95.0	157.03 - 132.03	OB (deep)
SHL-22	Nearfield Area	Annual	219.58	105.0 - 115.0	114.58 - 104.58	OB (deep)/Till
SHL-23	Nearfield Area	Annual	241.29	23.0 - 33.0	218.29 - 208.29	OB (shallow)
SHL-5	Nearfield Area	Annual	217.60	3.0 - 13.0	214.60 - 204.60	OB (shallow)
SHL-8D	Nearfield Area	Annual	220.78	68.0 - 70.0	152.78 - 150.78	OB (deep)
SHL-8S	Nearfield Area	Annual	220.97	52.0 - 54.0	168.97 - 166.97	OB (shallow)
SHL-9	Nearfield Area	Annual	221.95	15.0 - 25.0	206.95 - 196.95	OB (shallow)
SHM-05-41A	Nearfield Area	Annual	222.48	42.0 - 44.0	180.48 - 178.48	OB (shallow)
SHM-05-41B	Nearfield Area	Semiannual	222.33	62.0 - 64.0	160.33 - 158.33	OB (mid)
SHM-05-41C	Nearfield Area	Semiannual	222.57	88.0 - 93.0	134.57 - 129.57	OB (deep)/Till
SHM-05-42A	Nearfield Area	Annual	216.81	40.0 - 42.0	176.81 - 174.81	OB (shallow)
SHM-05-42B	Nearfield Area	Annual	216.80	70.0 - 72.0	146.80 - 144.80	OB (mid)
SHM-10-06	Nearfield Area	Annual	232.91	69.5 - 79.5	163.41 - 153.41	OB (deep)
SHM-10-06A	Nearfield Area	Annual	248.54	77.0 - 87.0	171.54 - 161.54	OB (deep)
SHM-10-16	Nearfield Area	Annual	219.23	75.0 - 85.0	144.23 - 134.23	OB (deep)
SHM-93-22B	Nearfield Area	Semiannual	219.39	82.3 - 92.3	137.09 - 127.09	OB (mid)
SHM-93-22C	Nearfield Area	Annual	220.69	124.3 - 134.3	96.39 - 86.39	BR
SHM-96-5B	Nearfield Area	Semiannual	218.92	80.0 - 90.0	138.92 - 128.92	OB/Till
SHM-96-5C	Nearfield Area	Annual	218.39	50.0 - 60.0	168.39 - 158.39	OB (mid)
SHP-2016-06A	Nearfield Area	Semiannual	241.90	81.0 - 86.0	160.90 - 155.90	BR
SHP-2016-06B	Nearfield Area	Semiannual	241.89	102.0 -112.0	139.89 - 129.89	BR
SHP-2016-06C	Nearfield Area	Semiannual	241.92	123.0 - 133.0	118.92 - 108.92	BR
SHP-2016-1A	Nearfield Area	Semiannual	227.27	13.9 - 23.0	213.37 - 204.27	OB (shallow)
SHP-2016-1B	Nearfield Area	Semiannual	227.24	75.0 - 85.0	152.24 - 142.24	OB (deep)
SHP-2016-2A	Nearfield Area	Semiannual	225.93	20.0 - 25.0	205.93 - 200.93	OB (shallow)
SHP-2016-2B	Nearfield Area	Semiannual	225.95	80.0 - 85.0	145.95 - 140.95	OB (deep)
SHP-2016-3A	Nearfield Area	Semiannual	223.18	20.0 - 25.0	203.18 - 198.18	OB (shallow)

Table 2
LTMMP Sampling Program
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Location	Monitoring Frequency	TOR Elevation (feet NAVD88)	Screen Interval (feet bgs)	Screen Elevation (feet NAVD88)	Formation Type at Screen Interval
SHP-2016-3B	Nearfield Area	Semiannual	223.18	80.0 - 85.0	143.18 - 138.18	OB (deep)
SHP-2016-4A	Nearfield Area	Semiannual	229.97	25.0 - 30.0	204.97 - 199.97	OB (shallow)
SHP-2016-4B	Nearfield Area	Semiannual	229.75	85.0 - 90.0	144.75 - 139.75	OB (deep)
SHP-2016-5A	Nearfield Area	Semiannual	227.01	25.0 - 30.0	202.01 - 197.01	OB (shallow)
SHP-2016-5B	Nearfield Area	Semiannual	226.95	85.0 - 90.0	141.95 - 136.95	OB (deep)
SHM-05-39A[b]	Northern Impact Area	Annual	221.53	37.0 - 39.0	184.53 - 182.53	OB (mid)
SHM-05-39B[b]	Northern Impact Area	Annual	221.51	66.0 - 68.0	155.51 - 153.51	OB (deep)
SHM-05-40X	Northern Impact Area	Semiannual	223.19	32.0 - 34.0	191.34 - 189.34	OB (mid)/Till
SHM-07-03	Northern Impact Area	Semiannual	227.90	25.0 - 35.0	202.90 - 192.90	OB (shallow)
SHM-07-05X	Northern Impact Area	Semiannual	223.40	56.0 - 66.0	167.40 - 157.40	OB (mid)
SHM-10-02	Northern Impact Area	Annual	223.03	53.0 - 63.0	170.03 - 160.03	OB (mid)
SHM-10-03	Northern Impact Area	Annual	232.05	58.5 - 68.5	173.55 - 163.55	OB (mid)
SHM-10-04	Northern Impact Area	Annual	212.61	55.0 - 65.0	157.61 - 147.61	OB (mid)
SHM-10-05A	Northern Impact Area	Annual	235.09	50.0 - 60.0	185.09 - 175.09	OB (mid)
SHM-10-08	Northern Impact Area	Annual	214.36	46.0 - 56.0	168.36 - 158.36	OB (deep)/Till
SHM-10-10	Northern Impact Area	Annual	217.11	56.0 - 66.0	161.11 - 151.11	OB (deep)/Till
SHM-13-01	Northern Impact Area	Annual	208.08	39.0 - 49.0	169.08 - 159.08	OB (mid)
SHM-13-02	Northern Impact Area	Annual	218.72	60.0 - 70.0	158.72 - 148.72	OB (deep)
SHM-13-03	Northern Impact Area	Semiannual	212.05	42.0 - 52.0	170.05 - 160.05	OB (deep)/Till
SHM-13-04	Northern Impact Area	Semiannual	227.02	20.0 - 30.0	207.02 - 197.02	OB (shallow)
SHM-13-05	Northern Impact Area	Annual	225.14	75.0 - 85.0	150.14 - 140.14	OB (deep)
SHM-13-06	Northern Impact Area	Semiannual	223.89	36.0 - 46.0	187.89 - 177.89	OB (deep)
SHM-13-07	Northern Impact Area	Semiannual	225.64	27.0 - 37.0	198.64 - 188.64	Unknown
SHM-13-08	Northern Impact Area	Semiannual	227.90	55.0 - 65.0	172.90 - 162.90	OB (mid)/Till
SHM-13-14D	Northern Impact Area	Annual	210.48	45.0 - 55.0	165.68 - 155.68	OB (deep)
SHM-13-14S	Northern Impact Area	Annual	210.55	5.0 - 15.0	206.03 - 196.03	OB (shallow)
SHM-13-15	Northern Impact Area	Annual	210.58	50.0 - 60.0	160.58 - 150.58	OB (deep)
SHM-99-31A[b]	Northern Impact Area	Annual	214.34	4.0 - 14.0	210.34 - 200.34	OB (shallow)
SHM-99-31B[b]	Northern Impact Area	Annual	214.39	50.0 - 60.0	164.39 - 154.39	OB (mid)
SHM-99-31C	Northern Impact Area	Annual	214.60	68.0 - 78.0	146.60 - 136.60	OB (deep)
SHM-99-32X	Northern Impact Area	Annual	221.28	72.0 - 82.0	149.28 - 139.28	OB (deep)
SHL-12	Upgradient Area	Annual	248.62	15.0 - 30.0	233.62 - 218.62	OB
SHL-15	Upgradient Area	Annual	259.92	14.5 - 24.5	245.42 - 235.42	OB
SHL-24	Upgradient Area	Annual	238.75	110.0 - 120.0[a]	128.75 - 118.75	OB//Till/BR
SHL-7	Upgradient Area	Annual	236.33	11.0 - 21.0	225.33 - 215.33	OB
SHM-93-18B	Upgradient Area	Annual	237.31	78.5 - 88.5	158.81 - 148.81	OB
SHM-93-24A	Upgradient Area	Annual	238.42	13.2 - 23.2	225.22 - 215.22	OB
SHP-2023-1A	Nearfield Area	Annual	237.34	25.0-35.0	209.59-199.59	OB (shallow)
SHP-2023-1B	Nearfield Area	Annual	236.66	73.0-83.0	161.25-151.25	OB (deep)
SHP-2023-2A	Nearfield Area	Annual	221.34	25.0-35.0	196.60-186.60	OB (shallow)
SHP-2023-2B	Nearfield Area	Annual	221.40	59.0-69.0	162.77-152.77	OB (deep)
SHP-2023-3A	Nearfield Area	Annual	228.11	25.0-35.0	200.20-190.20	OB (shallow)
SHP-2023-3B	Nearfield Area	Annual	228.74	60.0-70.0	165.83-155.83	OB (deep)
SHP-2023-4A	Nearfield Area	Annual	254.49	40.0-50.0	211.63-210.63	OB (shallow)
SHP-2023-4B	Nearfield Area	Annual	253.87	100.0-110.0	151.00-141.00	OB (deep)
SHP-2023-5A	Nearfield Area	Annual	260.26	40.0-50.0	217.87-207.87	OB (shallow)
SHP-2023-5B	Nearfield Area	Annual	260.65	107.0-117.0	150.69-140.69	OB (deep)

Notes:

1. TOR elevations from November 2017 Shepley's Hill Landfill (SHL) survey data (North American Vertical Datum [NAVD] 1988)
2, Locations compiled from the SHL LTMMP Update (Sovereign Consulting, Inc. 2015) and LTMMP Addendum (KOMAN Government Solutions, LLC 2018).
3. [a] Estimated value derived from Supplemental Groundwater Investigation (Harding ESE 2003).
4. [b] Location added to LTMMP list in response to United States Environmental Protection Agency (USEPA) informal dispute resolution letter dated (USEPA 2016).

Acronyms and Abbreviations:

amsl = above mean sea level (NAVD 88)
ATP = arsenic treatment plant
bgs = below ground surface
BR = bedrock
DQO = data quality objective
LTM = long-term monitoring
LTMMP = Long-Term Monitoring and Maintenance Plan
OB = overburden
TOR = top of riser

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Table 3
LTMMP Hydraulic Monitoring Program
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Location	Monitoring Frequency	TOR Elevation (feet NAVD88)	Screen Interval (feet bgs)	Screen Elevation (feet NAVD88)	Formation Type at Screen Interval
N1-P1	Barrier Wall	Annual	229.92	65.0 - 70.0	164.92 - 159.92	OB (deep)
N1-P2	Barrier Wall	Annual	229.93	40.0 - 45.0	189.93 - 184.93	OB (mid)
N1-P3	Barrier Wall	Annual	230.08	12.0 - 17.0	218.08 - 213.08	OB (shallow)
N2-P1	Barrier Wall	Annual	222.01	35.0 - 40.0	187.01 - 182.01	BR
N2-P2	Barrier Wall	Annual	222.16	4.0 - 9.0	218.16 - 213.16	OB (shallow)
N3-P1	Barrier Wall	Annual	220.83	33.0 - 35.0*	187.83 - 185.83	BR
N3-P2	Barrier Wall	Annual	220.84	4.0 - 9.0*	216.84 - 211.84	OB (shallow)
PZ-12-01	Barrier Wall	Semiannual	237.55	24.0 - 34.0	213.55 - 203.55	OB (shallow)
PZ-12-02	Barrier Wall	Semiannual	237.79	24.0 - 34.0	213.79 - 203.79	OB (shallow)
PZ-12-03	Barrier Wall	Semiannual	236.40	22.0 - 32.0	214.40 - 204.40	OB (shallow)
PZ-12-04	Barrier Wall	Semiannual	238.20	22.0 - 32.0	216.20 - 206.20	OB (shallow)
PZ-12-05	Barrier Wall	Semiannual	238.73	26.0 - 36.0	212.73 - 202.73	OB (mid)
PZ-12-06	Barrier Wall	Semiannual	242.18	26.0 - 36.0	216.18 - 206.18	OB (mid)
PZ-12-07	Barrier Wall	Semiannual	244.59	18.0 - 28.0	226.59 - 216.59	OB (mid)
PZ-12-08	Barrier Wall	Semiannual	244.83	18.0 - 28.0	226.83 - 216.83	OB (mid)
PZ-12-09	Barrier Wall	Semiannual	241.93	22.0 - 32.0	219.93 - 209.93	OB (shallow)
PZ-12-10	Barrier Wall	Semiannual	242.28	22.0 - 32.0	220.28 - 210.28	OB (shallow)
SHL-10	Barrier Wall	Annual	248.02	24.0 - 39.0	224.02 - 216.02	OB (shallow)
SHL-11	Barrier Wall	Annual	235.47	12.0 - 27.0	223.47 - 208.47	OB (shallow)
SHL-19	Barrier Wall	Annual	238.43	20.0 - 30.0	220.50 - 210.50	OB (shallow)
SHL-20	Barrier Wall	Annual	235.95	39.0 - 49.0	196.95 - 186.95	OB (deep)
SHL-3	Barrier Wall	Annual	246.95	24.0 - 34.0	222.95 - 212.95	OB (mid)
SHL-4	Barrier Wall	Annual	225.50	3.0 - 13.0	224.48 - 214.48	OB (shallow)
SHM-11-02	Barrier Wall	Annual	240.73	39.0 - 49.0	201.73 - 191.73	BR
SHM-11-06	Barrier Wall	Annual	236.17	25.0 - 35.0	211.17 - 201.17	OB (shallow)
SHM-11-07	Barrier Wall	Annual	240.83	41.0 - 46.0	199.83 - 194.83	BR
SHM-93-10D	Barrier Wall	Annual	248.01	46.0 - 56.0	202.01 - 192.01	BR
SHP-01-36X	Barrier Wall	Annual	223.95	3.0 - 8.0	220.95 - 215.95	OB (shallow)
SHP-01-37X	Barrier Wall	Annual	222.79	1.0 - 6.0	221.79 - 216.79	OB (shallow)
SHP-01-38A	Barrier Wall	Annual	218.77	1.5 - 6.5	219.36 - 214.36	OB (shallow)
SHP-01-38B	Barrier Wall	Annual	221.03	18.0 - 23.0	203.03 - 198.03	OB (deep)
SHP-05-43	Barrier Wall	Annual	260.71	50.5 - 60.5	209.67 - 199.67	OB (shallow)
SHP-05-44	Barrier Wall	Annual	258.14	51.0 - 61.0	207.55 - 197.55	OB (mid)
N5-P1	Landfill Area	Annual	242.65	95.5 - 97.5	147.15 - 145.15	BR
N5-P2	Landfill Area	Annual	242.69	23.0 - 28.0*	219.69 - 214.69	BR
N6-P1	Landfill Area	Annual	259.02	85.5 - 87.5*	173.52 - 171.52	BR
SHL-18	Landfill Area	Annual	235.71	16.0 - 26.0	221.56 - 211.56	OB
SHM-10-07	Landfill Area	Annual	246.82	40.0 - 50.0	206.82 - 196.82	OB (mid)
SHM-10-11	Landfill Area	Annual	263.76	50.0 - 60.0	213.76 - 203.76	OB (deep)
SHM-10-12	Landfill Area	Annual	255.17	45.0 - 55.0	210.17 - 200.17	OB (mid)
SHM-10-13	Landfill Area	Annual	244.77	60.0 - 70.0	184.77 - 174.77	OB (deep)
SHM-10-14	Landfill Area	Annual	237.62	60.0 - 80.0	177.62 - 157.62	OB (deep)
SHM-10-15	Landfill Area	Annual	243.68	45.0 - 55.0	198.68 - 188.68	OB (mid)
SHM-93-18B	Landfill Area	Annual	237.31	78.5 - 88.5	158.81 - 148.81	OB
SHP-2016-07A	Landfill Area	Semiannual	265.30	22.0 - 32.0	243.30 - 233.30	BR
SHP-2016-07B	Landfill Area	Semiannual	265.33	70.0 - 80.0	195.33 - 185.33	BR
SHP-95-27X	Landfill Area	Annual	237.45	30.5 - 40.5	206.95 - 196.95	OB
SHP-99-01C	Landfill Area	Annual	274.15	19.7 - 29.7	254.45 - 244.45	BR
SHP-99-29X	Landfill Area	Annual	243.34	19.0 - 29.0	254.16 - 244.16	OB (shallow)
SHP-99-35X	Landfill Area	Annual	258.49	30.2 - 40.2	228.29 - 218.29	OB (shallow)
EPA-PZ-2012-1A	Nearfield Area	Semiannual	223.79	20.0 - 25.0	203.79 - 198.79	OB (shallow)
EPA-PZ-2012-1B	Nearfield Area	Semiannual	223.53	70.0 - 75.0	153.53 - 148.53	OB (deep)
EPA-PZ-2012-2A	Nearfield Area	Semiannual	223.38	20.0 - 25.0	203.38 - 198.38	OB (shallow)
EPA-PZ-2012-2B	Nearfield Area	Semiannual	223.37	75.0 - 80.0	148.37 - 143.47	OB (deep)
EPA-PZ-2012-3A	Nearfield Area	Semiannual	222.65	20.0 - 25.0	202.65 - 197.65	OB (shallow)
EPA-PZ-2012-3B	Nearfield Area	Semiannual	222.57	70.0 - 75.0	152.57 - 147.57	OB (deep)
EPA-PZ-2012-4A	Nearfield Area	Semiannual	226.60	20.0 - 25.0	206.60 - 201.60	OB (shallow)
EPA-PZ-2012-4B	Nearfield Area	Semiannual	226.39	70.0 - 75.0	156.39 - 151.39	OB (deep)
EPA-PZ-2012-5A	Nearfield Area	Semiannual	220.01	20.0 - 25.0	200.01 - 195.01	OB (shallow)
EPA-PZ-2012-5B	Nearfield Area	Semiannual	219.38	80.0 - 85.0	139.38 - 134.38	OB (deep)
EPA-PZ-2012-6A	Nearfield Area	Semiannual	234.25	25.0 - 30.0	209.25 - 204.25	OB (shallow)
EPA-PZ-2012-6B	Nearfield Area	Semiannual	234.08	75.0 - 80.0	159.08 - 154.08	OB (deep)
EPA-PZ-2012-7A	Nearfield Area	Semiannual	234.16	25.0 - 30.0	209.16 - 204.16	OB (shallow)
EPA-PZ-2012-7B	Nearfield Area	Semiannual	234.03	60.0 - 65.0	174.03 - 169.03	OB (deep)
SHL-13	Nearfield Area	Annual	220.71	5.0 - 20.0	215.71 - 200.71	OB (shallow)
SHL-22	Nearfield Area	Annual	219.58	105.0 - 115.0	114.58 - 104.58	OB (deep)/Till
SHL-23	Nearfield Area	Annual	241.29	23.0 - 33.0	218.29 - 208.29	OB
SHL-5	Nearfield Area	Annual	216.81	3.0 - 13.0	214.60 - 204.60	OB (shallow)
SHL-8D	Nearfield Area	Annual	220.78	68.0 - 70.0	152.78 - 150.78	OB (deep)
SHL-8S	Nearfield Area	Annual	220.97	52.0 - 54.0	168.97 - 166.97	OB (shallow)
SHL-9	Nearfield Area	Annual	220.88	15.0 - 25.0	206.95 - 196.95	OB (shallow)
SHM-05-41A	Nearfield Area	Annual	222.48	42.0 - 44.0	180.48 - 178.48	OB (shallow)
SHM-05-41B	Nearfield Area	Annual	222.33	62.0 - 64.0	160.33 - 158.33	OB (mid)
SHM-05-41C	Nearfield Area	Annual	222.57	88.0 - 93.0	134.57 - 129.57	OB (deep)/Till
SHM-05-42A	Nearfield Area	Annual	216.81	40.0 - 42.0	176.81 - 174.81	OB (shallow)

Table 3
LTMMP Hydraulic Monitoring Program
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Location	Monitoring Frequency	TOR Elevation (feet NAVD88)	Screen Interval (feet bgs)	Screen Elevation (feet NAVD88)	Formation Type at Screen Interval
SHM-05-42B	Nearfield Area	Annual	216.80	70.0 - 72.0	146.80 - 144.80	OB (mid)
SHM-10-06	Nearfield Area	Annual	232.91	69.5 - 79.5	163.41 - 153.41	OB (deep)
SHM-10-06A	Nearfield Area	Annual	248.54	77.0 - 87.0	171.54 - 161.54	OB (deep)
SHM-10-16	Nearfield Area	Annual	219.23	75.0 - 85.0	144.23 - 134.23	OB (deep)
SHM-93-22B	Nearfield Area	Annual	219.39	82.3 - 92.3	137.09 - 127.09	OB (mid)
SHM-93-22C	Nearfield Area	Annual	220.69	124.3 - 134.3	96.39 - 86.39	BR
SHM-96-5B	Nearfield Area	Annual	218.92	80.0 - 90.0	138.92 - 128.92	OB
SHM-96-5C	Nearfield Area	Annual	218.39	50.0 - 60.0	168.39 - 158.39	OB (mid)
SHP-05-45A	Nearfield Area	Annual	228.48	20.0 - 25.0	208.48 - 203.48	OB (shallow)
SHP-05-45B	Nearfield Area	Annual	229.11	65.0 - 75.0	164.11 - 154.11	OB (mid)
SHP-05-46A	Nearfield Area	Annual	228.18	20.0 - 25.0	208.18 - 203.18	OB (mid)
SHP-05-46B	Nearfield Area	Annual	227.60	65.0 - 75.0	162.60 - 152.60	OB (shallow)
SHP-05-47A	Nearfield Area	Annual	217.39	1.0 - 2.0	216.39 - 215.39	OB (shallow)
SHP-05-47B	Nearfield Area	Annual	215.40	3.0 - 4.0	212.40 - 211.40	OB (shallow)
SHP-2016-06A	Nearfield Area	Semiannual	241.90	81.0 - 86.0	160.90 - 155.90	BR
SHP-2016-06B	Nearfield Area	Semiannual	241.89	102.0 -112.0	139.89 - 129.89	BR
SHP-2016-06C	Nearfield Area	Semiannual	241.92	123.0 - 133.0	118.92 - 108.92	BR
SHP-2016-1A	Nearfield Area	Semiannual	227.27	13.9 - 23.0	213.37 - 204.27	OB (shallow)
SHP-2016-1B	Nearfield Area	Semiannual	227.24	75.0 - 85.0	152.24 - 142.24	OB (deep)
SHP-2016-2A	Nearfield Area	Semiannual	225.93	20.0 - 25.0	205.93 - 200.93	OB (shallow)
SHP-2016-2B	Nearfield Area	Semiannual	225.95	80.0 - 85.0	145.95 - 140.95	OB (deep)
SHP-2016-3A	Nearfield Area	Semiannual	223.18	20.0 - 25.0	203.18 - 198.18	OB (shallow)
SHP-2016-3B	Nearfield Area	Semiannual	223.18	80.0 - 85.0	143.18 - 138.18	OB (deep)
SHP-2016-4A	Nearfield Area	Semiannual	229.97	25.0 - 30.0	204.97 - 199.97	OB (shallow)
SHP-2016-4B	Nearfield Area	Semiannual	229.75	85.0 - 90.0	144.75 - 139.75	OB (deep)
SHP-2016-5A	Nearfield Area	Semiannual	227.01	25.0 - 30.0	202.01 - 197.01	OB (shallow)
SHP-2016-5B	Nearfield Area	Semiannual	226.95	85.0 - 90.0	141.95 - 136.95	OB (deep)
SHP-2017-01	Nearfield Area	Semiannual	229.63	74.0 - 79.0	155.63 - 150.63	OB
SHP-2017-02	Nearfield Area	Semiannual	230.05	89.5 - 94.5	140.55 - 135.55	Overburden
SHP-2023-1A	Nearfield Area	Annual	237.34	25.0-35.0	209.59-199.59	OB (shallow)
SHP-2023-1B	Nearfield Area	Annual	236.66	73.0-83.0	161.25-151.25	OB (deep)
SHP-2023-2A	Nearfield Area	Annual	221.34	25.0-35.0	196.60-186.60	OB (shallow)
SHP-2023-2B	Nearfield Area	Annual	221.40	59.0-69.0	162.77-152.77	OB (deep)
SHP-2023-3A	Nearfield Area	Annual	228.11	25.0-35.0	200.20-190.20	OB (shallow)
SHP-2023-3B	Nearfield Area	Annual	228.74	60.0-70.0	165.83-155.83	OB (deep)
SHP-2023-4A	Nearfield Area	Annual	254.49	40.0-50.0	211.63-210.63	OB (shallow)
SHP-2023-4B	Nearfield Area	Annual	253.87	100.0-110.0	151.00-141.00	OB (deep)
SHP-2023-5A	Nearfield Area	Annual	260.26	40.0-50.0	217.87-207.87	OB (shallow)
SHP-2023-5B	Nearfield Area	Annual	260.65	107.0-117.0	150.69-140.69	OB (deep)
SHM-05-39A	Northern Impact Area	Annual	221.53	37.0 - 39.0	184.53 - 182.53	OB (mid)
SHM-05-39B	Northern Impact Area	Annual	221.51	66.0 - 68.0	155.51 - 153.51	OB (deep)
SHM-05-40X	Northern Impact Area	Semiannual	223.34	32.0 - 34.0	191.34 - 189.34	OB (mid)/Till
SHM-07-03	Northern Impact Area	Semiannual	227.90	25.0 - 35.0	202.90 - 192.90	OB (shallow)
SHM-07-05X	Northern Impact Area	Semiannual	223.40	56.0 - 66.0	167.40 - 157.40	BR
SHM-10-01	Northern Impact Area	Annual	209.65	60.5 - 70.5	149.15 - 139.15	OB (deep)/Till
SHM-10-02	Northern Impact Area	Annual	223.03	53.0 - 63.0	170.03 - 160.03	OB (mid)
SHM-10-03	Northern Impact Area	Annual	232.05	58.5 - 68.5	173.55 - 163.55	OB (mid)
SHM-10-04	Northern Impact Area	Annual	212.61	55.0 - 65.0	157.61 - 147.61	OB (mid)
SHM-10-05A	Northern Impact Area	Annual	235.09	50.0 - 60.0	185.09 - 175.09	OB (mid)
SHM-10-08	Northern Impact Area	Annual	214.36	46.0 - 56.0	168.36 - 158.36	OB (deep)/Till
SHM-10-10	Northern Impact Area	Annual	217.11	56.0 - 66.0	161.11 - 151.11	OB (deep)/Till
SHM-13-01	Northern Impact Area	Annual	208.08	39.0 - 49.0	169.08 - 159.08	OB (mid)
SHM-13-02	Northern Impact Area	Annual	218.72	60.0 - 70.0	158.72 - 148.72	OB (deep)
SHM-13-03	Northern Impact Area	Semiannual	212.05	42.0 - 52.0	170.05 - 160.05	OB (deep)/Till
SHM-13-04	Northern Impact Area	Semiannual	227.02	20.0 - 30.0	207.02 - 197.02	OB (shallow)
SHM-13-05	Northern Impact Area	Annual	225.14	75.0 - 85.0	150.14 - 140.14	OB (deep)
SHM-13-06	Northern Impact Area	Semiannual	223.89	36.0 - 46.0	187.89 - 177.89	OB (deep)/Till
SHM-13-07	Northern Impact Area	Semiannual	225.64	27.0 - 37.0	198.64 - 188.64	Unknown
SHM-13-08	Northern Impact Area	Semiannual	227.90	55.0 - 65.0	172.90 - 162.90	OB (mid)/Till
SHM-13-14D	Northern Impact Area	Annual	210.68	45.0 - 55.0	165.68 - 155.68	OB (deep)
SHM-13-14S	Northern Impact Area	Annual	211.03	5.0 - 15.0	206.03 - 196.03	OB (shallow)
SHM-13-15	Northern Impact Area	Annual	210.58	50.0 - 60.0	160.58 - 150.58	OB (deep)
SHM-99-31A	Northern Impact Area	Annual	214.34	4.0 - 14.0	210.34 - 200.34	OB (shallow)
SHM-99-31B	Northern Impact Area	Annual	214.39	50.0 - 60.0	164.39 - 154.39	OB (mid)
SHM-99-31C	Northern Impact Area	Annual	214.60	68.0 - 78.0	146.60 - 136.60	OB (deep)
SHM-99-32X	Northern Impact Area	Annual	221.28	72.0 - 82.0	149.28 - 139.28	OB (deep)
SHM-99-34B	Northern Impact Area	Annual	224.91	74.5-79.5	150.40 - 145.40	OB (deep)
SHP-05-48A	Northern Impact Area	Annual	217.31	1.0 - 2.0	216.31 - 215.31	OB (shallow)
SHP-05-48B	Northern Impact Area	Annual	215.96	2.0 - 3.0	213.96 - 212.96	OB (shallow)
SHP-05-49A	Northern Impact Area	Annual	216.67	1.0 - 2.0	215.67 - 214.67	OB (shallow)
SHP-05-49B	Northern Impact Area	Annual	215.14	2.5 - 3.5	212.64 - 211.64	OB (shallow)
SHSG-13-01G	Surface Water	Annual	205.53	NA	NA	Staff Gauge
SHSG-13-02G	Surface Water	Annual	205.01	NA	NA	Staff Gauge
SHSG-13-03G	Surface Water	Annual	209.99	NA	NA	Staff Gauge
SHSG-14-01G	Surface Water	Annual	213.01	NA	NA	Staff Gauge

Table 3
LTMMP Hydraulic Monitoring Program
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Location	Monitoring Frequency	TOR Elevation (feet NAVD88)	Screen Interval (feet bgs)	Screen Elevation (feet NAVD88)	Formation Type at Screen Interval
N7-P1	Upgradient Area	Annual	255.59	66.0 - 68.0[a]	189.59 - 187.59	BR
N7-P2	Upgradient Area	Annual	256.04	29.0 - 34.0[a]	227.04 - 222.04	OB
SHL-12	Upgradient Area	Annual	248.62	15.0 - 30.0	233.62 - 218.62	OB
SHL-15	Upgradient Area	Annual	258.83	14.5 - 24.5	245.42 - 235.42	OB
SHL-17	Upgradient Area	Annual	233.79	6.0 - 16.0	227.79 - 217.79	OB
SHL-24	Upgradient Area	Annual	238.75	110.0 - 120.0[a]	128.75 - 118.75	OB/Till/BR
SHL-7	Upgradient Area	Annual	236.33	11.0 - 21.0	225.33 - 215.33	OB
SHM-93-24A	Upgradient Area	Annual	238.42	13.2 - 23.2	225.22 - 215.22	OB

Notes:
1. TOR elevations from November 2017 Shepley's Hill Landfill (SHL) survey data (North American Vertical Datum [NAVD] 1988)
2. Locations compiled from the SHL LTMMP Update (Sovereign Consulting, Inc. 2015) and LTMMP Addendum (KOMAN Government Solutions, LLC 2018).
3. [a] Estimated value derived from Supplemental Groundwater Investigation (Harding ESE 2003).

Acronyms and Abbreviations:
bgs = below ground surface
BR = bedrock
LTMMP = Long-Term Monitoring and Maintenance Plan
NA = not applicable
OB = overburden
TOR = top of riser

References:
Harding ESE. 2003. Shepley's Hill Landfill Supplemental Groundwater Investigation, Devens, Massachusetts. February.
KOMAN Government Solutions, LLC. 2018. Addendum to the Long-Term Monitoring and Maintenance Plan Update, Shepley's Hill Landfill, Former Fort Devens Army Installation, Devens, MA. January 25.
Sovereign Consulting, Inc. 2015. Long-Term Monitoring and Maintenance Plan Update, Former Fort Devens Army Installation, Devens, Massachusetts. August.

Table 4
Hydraulic Monitoring Data for Spring and Fall 2023
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Location	Well Identification	TOR Elevation (feet NAVD88)	Depth to Bottom (ft bmp)	Depth to Water (ft bmp) 6/12/2023	Groundwater Elevation (ft NAVD88) 6/12/2023	Depth to Water (ft bmp) 11/20/2023	Groundwater Elevation (ft NAVD88) 11/20/2023	Screen Interval (ft bmp)	Formation Type	Measurement Included on Contour Maps (Y/N)?
Nearfield Area	EPA-PZ-2012-1A	223.79	28.86	11.44	212.35	10.38	213.41	23.88 - 28.88	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-1B	223.53	77.50	11.13	212.40	10.09	213.44	23.72 - 78.72	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-2A	223.38	28.40	10.86	212.52	10.06	213.32	23.66 - 28.66	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-2B	223.37	83.20	10.92	212.45	10.02	213.35	78.62 - 83.62	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-3A	222.65	26.70	10.86	211.79	9.66	212.99	23.45 - 28.45	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-3B	222.57	76.69	10.85	211.72	9.59	212.98	73.32 - 78.32	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-4A	226.60	28.00	15.03	211.57	13.76	212.84	23.30 - 28.30	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-4B	226.39	77.00	14.94	211.45	13.67	212.72	72.88 - 77.88	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-5A	220.01	27.13	8.31	211.70	7.28	212.73	23.68 - 28.68	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-5B	219.38	85.42	7.66	211.72	6.49	212.89	83.18 - 88.18	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-6A	234.25	33.00	22.68	211.57	21.31	212.94	28.54 - 33.54	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-6B	234.08	81.60	22.63	211.45	21.28	212.80	78.23 - 83.23	OB (deep)	N; deep OB paired well
Nearfield Area	EPA-PZ-2012-7A	234.16	29.40	22.53	211.63	21.31	212.85	24.74 - 29.74	OB (shallow)	Y
Nearfield Area	EPA-PZ-2012-7B	234.03	64.60	22.51	211.52	21.25	212.78	59.75 - 64.75	OB (deep)	N; deep OB paired well
Barrier Wall	N1-P1	229.92	73.00	--	--	14.26	215.66	67.14 - 72.14	OB (deep)	N; deep OB paired well
Barrier Wall	N1-P2	229.93	48.25	--	--	14.18	215.75	42.15 - 47.15	OB (mid)	N; deep OB paired well
Barrier Wall	N1-P3	230.08	21.10	--	--	13.99	216.09	14.30 - 19.30	OB (shallow)	Y
Barrier Wall	N2-P1	222.01	41.76	--	--	5.55	216.46	36.46 - 41.46	BR	N; bedrock well
Barrier Wall	N2-P2	222.16	12.73	--	--	5.71	216.45	5.61 - 10.61	OB (shallow)	Y
Barrier Wall	N3-P1	220.83	37.95	--	--	4.41	216.42	35.02 - 37.02	BR	N; bedrock well
Barrier Wall	N3-P2	220.84	12.51	--	--	4.46	216.38	6.03 - 11.03	OB (shallow)	N; located in Plow Shop Pond
Landfill Area	N5-P1	242.65	99.75	--	--	21.81	220.84	97.69 - 99.69	BR	N; bedrock well
Landfill Area	N5-P2	242.69	32.80	--	--	22.01	220.68	25.23 - 30.23	BR	N; bedrock well
Landfill Area	N6-P1	258.60	90.78	--	--	34.60	224.00	88.39 - 90.39	BR	N; bedrock well
Upgradient Area	N7-P1	255.59	71.30	--	--	28.96	226.63	68.41 - 70.41	BR	N; bedrock well
Upgradient Area	N7-P2	256.04	37.32	--	--	29.03	227.01	31.86 - 36.86	OB	Y
Barrier Wall	PZ-12-01	237.55	35.81	20.67	216.88	20.42	217.13	27.70 - 37.70	OB (shallow)	Y
Barrier Wall	PZ-12-02	237.79	34.50	19.99	217.80	19.44	218.35	28.04 - 38.04	OB (shallow)	Y
Barrier Wall	PZ-12-03	236.40	36.60	19.77	216.63	19.52	216.88	27.55 - 37.55	OB (shallow)	Y
Barrier Wall	PZ-12-04	238.20	37.10	19.38	218.82	18.83	219.37	27.15 - 37.15	OB (shallow)	Y
Barrier Wall	PZ-12-05	238.73	34.70	21.90	216.83	21.68	217.05	28.65 - 38.65	OB (mid)	Y
Barrier Wall	PZ-12-06	242.18	35.95	23.12	219.06	22.58	219.60	28.76 - 38.76	OB (mid)	Y
Barrier Wall	PZ-12-07	244.59	33.43	27.98	216.61	27.75	216.84	23.79 - 33.79	OB (mid)	Y
Barrier Wall	PZ-12-08	244.83	32.40	24.60	220.23	24.08	220.75	21.09 - 35.09	OB (mid)	Y
Barrier Wall	PZ-12-09	241.93	33.30	24.10	217.83	23.75	218.18	23.50 - 33.50	OB (shallow)	Y
Barrier Wall	PZ-12-10	242.28	32.40	21.89	220.39	21.32	220.96	23.30 - 33.30	OB (shallow)	Y
Barrier Wall	SHL-10	248.02	38.70	31.31	216.71	31.11	216.91	25.40 - 40.40	OB (shallow)	Y
Barrier Wall	SHL-11	235.47	29.50	18.83	216.64	18.53	216.94	13.52 - 28.52	OB (shallow)	Y
Upgradient Area	SHL-12	248.62	28.23	--	--	19.51	229.11	16.40 - 31.40	OB	Y
Nearfield Area	SHL-13	220.71	21.00	--	--	6.71	214.00	6.73 - 21.73	OB (shallow)	Y
Upgradient Area	SHL-15	258.83	26.16	17.62	241.21	18.01	240.82	15.40 - 25.40	OB	Y
Upgradient Area	SHL-17	233.79	18.17	--	--	5.35	228.44	7.91 - 17.91	OB	Y
Landfill Area	SHL-18	235.71	28.51	--	--	18.86	216.85	7.89 - 27.89	OB	Y
Barrier Wall	SHL-19	238.43	32.60	26.96	211.47	23.59	214.84	21.91 - 31.91	OB (shallow)	Y
Barrier Wall	SHL-20	235.95	50.60	17.74	218.21	17.53	218.42	40.23 - 50.23	OB (deep)	Y
Nearfield Area	SHL-21	260.00	54.86	--	--	44.72	215.28	43.86 - 53.86	OB (shallow)	Y
Nearfield Area	SHL-22	219.58	112.95	--	--	6.73	212.85	105.68 - 115.68	OB (deep)/Till	N; screened into till
Nearfield Area	SHL-23	241.29	35.66	--	--	27.07	214.22	24.85 - 34.85	OB	Y
Upgradient Area	SHL-24	238.75	120.38	--	--	14.41	224.34	111.96 - 121.96	OB (deep)	N; deep OB paired well
Barrier Wall	SHL-3	246.95	33.95	--	--	30.22	216.73	25.15 - 35.15	OB (mid)	Y
Barrier Wall	SHL-4	225.50	14.54	10.90	214.60	10.62	214.88	4.40 - 14.40	OB (shallow)	Y
Nearfield Area	SHL-5	216.81	13.95	--	--	3.43	213.38	3.70 - 13.70	OB (shallow)	Y
Upgradient Area	SHL-7	236.33	23.50	--	--	17.60	218.73	12.55 - 22.55	OB	Y
Nearfield Area	SHL-8D	220.78	69.00	--	--	7.21	213.57	70.95 - 72.95	OB (deep)	N; deep OB paired well
Nearfield Area	SHL-8S	220.97	56.24	--	--	7.38	213.59	54.14 - 56.14	OB (shallow)	Y
Nearfield Area	SHL-9	220.88	24.12	--	--	9.17	211.71	16.23 - 26.23	OB (shallow)	Y
North Impact Area	SHM-05-39A	221.53	38.50	--	--	11.20	210.33	36.74 - 38.74	OB (mid)	Y
North Impact Area	SHM-05-39B	221.51	66.28	--	--	12.02	209.49	65.74 - 67.74	OB (deep)	N; deep OB paired well
North Impact Area	SHM-05-40X	223.19	33.11	14.52	208.67	13.86	209.33	31.93 - 33.93	OB (mid)	Y
Nearfield Area	SHM-05-41A	222.48	40.75	--	--	10.02	212.46	41.76 - 43.76	OB (shallow)	Y
Nearfield Area	SHM-05-41B	222.33	61.49	10.95	211.38	9.83	212.50	61.83 - 63.83	OB (mid)	N; deep OB paired well
Nearfield Area	SHM-05-41C	222.57	87.56	11.17	211.40	10.10	212.47	97.66 - 92.66	OB (deep)	N; deep OB paired well
Nearfield Area	SHM-05-42A	216.81	44.19	--	--	4.28	212.53	43.16 - 45.16	OB (shallow)	Y
Nearfield Area	SHM-05-42B	216.80	73.71	--	--	4.25	212.55	73.15 - 75.15	OB (mid)	N; deep OB paired well
North Impact Area	SHM-07-05X	223.40	64.02	14.70	208.70	13.71	209.69	54.83 - 64.83	BR	N; bedrock well
North Impact Area	SHM-10-01	209.65	70.46	--	--	4.25	205.40	63.46 - 73.46	OB (deep)	Y
North Impact Area	SHM-10-02	223.03	63.92	--	--	18.16	204.87	55.84 - 65.84	OB (mid)	Y
North Impact Area	SHM-10-03	232.05	56.22	--	--	26.61	205.44	60.78 - 70.78	OB (mid)	Y
North Impact Area	SHM-10-04	212.61	64.05	--	--	5.93	206.68	57.61 - 67.61	OB (mid)	Y
North Impact Area	SHM-10-05A	235.09	57.50	--	--	24.55	210.54	49.68 - 59.68	OB (mid)	Y
Nearfield Area	SHM-10-06	232.91	81.30	--	--	18.22	214.69	72.38 - 82.38	OB (deep)	Y
Nearfield Area	SHM-10-06A	248.54	89.23	--	--	33.82	214.72	79.58 - 89.58	OB (deep)	Y
Landfill Area	SHM-10-07	246.82	50.18	--	--	25.36	221.46	41.84 - 51.84	OB (mid)	Y
North Impact Area	SHM-10-08	214.36	56.33	--	--	9.69	204.67	48.50 - 58.50	OB (deep)	Y
North Impact Area	SHM-10-10	217.11	66.30	--	--	10.87	206.24	57.71 - 67.71	OB (deep)	Y
Landfill Area	SHM-10-11	263.76	62.30	--	--	38.16	225.60	52.60 - 62.60	OB (deep)	Y
Landfill Area	SHM-10-12	255.17	57.34	--	--	31.75	223.42	47.60 - 57.60	OB (mid)	Y
Landfill Area	SHM-10-13	244.77	73.30	--	--	23.96	220.81	63.26 - 73.26	OB (deep)	Y
Landfill Area	SHM-10-14	237.62	82.85	--	--	18.21	219.41	62.82 - 82.82	OB (deep)	Y
Landfill Area	SHM-10-15	243.68	56.70	--	--	22.11	221.57	46.73 - 56.73	OB (mid)	Y
Nearfield Area	SHM-10-16	219.23	87.48	--	--	6.77	212.46	77.51 - 87.51	OB (deep)	Y
Barrier Wall	SHM-11-02	240.73	68.17	22.22	218.51	21.75	218.98	41.07 - 51.07 [a]	BR	N; bedrock well
Barrier Wall	SHM-11-06	236.17	35.56	19.88	216.29	19.14	217.03	27.84 - 37.84	OB (shallow)	Y
Barrier Wall	SHM-11-07	240.83	48.01	--	--	21.21	219.62	43.61 - 48.61	BR	N; bedrock well
North Impact Area	SHM-13-01	208.08	50.68	--	--	3.23	204.85	41.31 - 51.31	OB (mid)	Y
North Impact Area	SHM-13-02	218.72	71.88	--	--	12.90	205.82	61.80 - 71.80	OB (deep)	Y
North Impact Area	SHM-13-03	212.05	50.60	5.84	206.21	5.57	206.48	44.14 - 54.14	OB (deep)	Y
North Impact Area	SHM-13-04	227.02	29.98	19.33	207.69	18.79	208.23	19.68 - 29.68	OB (shallow)	Y
North Impact Area	SHM-13-05	225.14	84.80	--	--	16.31	208.83	74.75 - 84.75	OB (deep)	Y
North Impact Area	SHM-13-06	223.89	45.71	17.73	206.16	17.41	206.48	35.66 - 45.66	OB (deep)	Y
North Impact Area	SHM-13-07	225.64	35.17	19.25	206.39	18.82	206.82	26.53 - 36.53	OB (shallow)	Y
North Impact Area	SHM-13-08	227.90	65.10	20.65	207.25	20.23	207.67	54.71 - 64.71	OB (deep)	Y
North Impact Area	SHM-13-14D	210.48	56.63	--	--	3.56	206.92	48.20 - 58.20	OB (deep)	N; deep OB paired well
North Impact Area	SHM-13-14S	210.55	17.55	--	--	3.76	206.79	8.36 - 18.36	OB (shallow)	Y
North Impact Area	SHM-13-15	210.58	61.88	--	--	4.07	206.51	54.60 - 64.60	OB (deep)	Y
Barrier Wall	SHM-93-10D	248.01	58.41	--	--	30.22	217.79	48.70 - 58.70 [a]	BR	N; bedrock well
Landfill Area	SHM-93-18B	237.31	91.17	--	--	18.51	218.80	80.60 - 90.60	OB	N; deep OB paired well
Nearfield Area	SHM-93-22B	219.39	92.30	7.71	211.68	6.60	212.79	82.55 - 92.55	OB (mid)	Y
Nearfield Area	SHM-93-22C	220.69	142.80	--	--	7.64	213.05	126.07 - 136.07	BR	N; bedrock well
Upgradient Area	SHM-93-24A	238.42	25.22	--	--	14.98	223.44	16.23 - 26.23	OB	Y
Nearfield Area	SHM-96-5B	218.92	90.62	6.80	212.12	5.74	213.18	81.54 - 91.54	OB (deep)/Till	N; deep OB paired well
Nearfield Area	SHM-96-5C	218.39	79.75	--	--	5.22	213.17	51.0 - 61.0	OB (mid)	N; deep OB paired well
North Impact Area	SHM-99-31A	214.34	15.83	--	--	3.00	211.34	5.52 - 15.52	OB (shallow)	Y
North Impact Area	SHM-99-31B	214.39	61.50	--	--	3.54	210.85	51.87 - 61.87	OB (mid)	N; deep OB paired well
North Impact Area	SHM-99-31C	214.60	78.85	--	--	3.92	210.68	69.96 - 79.96	OB (deep)	N; deep OB paired well
North Impact Area	SHM-99-32X	221.28	84.10	--	--	9.38	211.90	74.16 - 84.16	OB (deep)	Y
Barrier Wall	SHP-01-36X	223.95	12.90	7.89	216.06	7.69	216.26	6.96 - 11.98	OB (shallow)	Y
Barrier Wall	SHP-01-37X	222.79	11.14	7.56	215.23	6.48	216.31	5.12 - 10.12	OB (shallow)	Y
Barrier Wall	SHP-01-38A	218.77	9.08	4.28	214.49	4.15	214.62	3.59 - 8.59	OB (shallow)	Y
Barrier Wall	SHP-01-38B	221.03	25.53	--	--	4.27	216.76	20.15 - 25.15	OB (deep)	N; deep OB paired well
Barrier Wall	SHP-05-43	260.71	61.18	--	--	44.58	216.13	52.29 - 62.29	OB (shallow)	Y
Barrier Wall	SHP-05-44	258.14	60.70	--	--	41.72	216.42	53.99 - 63.99	OB (mid)	Y

Table 4
Hydraulic Monitoring Data for Spring and Fall 2023
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Location	Well Identification	TOR Elevation (feet NAVD88)	Depth to Bottom (ft bmp)	Depth to Water (ft bmp) 6/12/2023	Groundwater Elevation (ft NAVD88) 6/12/2023	Depth to Water (ft bmp) 11/20/2023	Groundwater Elevation (ft NAVD88) 11/20/2023	Screen Interval (ft bmp)	Formation Type	Measurement Included on Contour Maps (Y/N)?
Nearfield Area	SHP-05-45A	228.48	27.30	--	--	15.31	213.17	22.16 - 27.16	OB (shallow)	Y
Nearfield Area	SHP-05-45B	229.11	75.30	--	--	15.92	213.19	67.39 - 77.39	OB (mid)	N; deep OB paired well
Nearfield Area	SHP-05-46A	228.18	27.30	--	--	14.68	213.50	21.87 - 26.87	OB (shallow)	Y
Nearfield Area	SHP-05-46B	227.60	75.80	--	--	14.00	213.60	66.57 - 76.57	OB (mid)	N; deep OB paired well
Nearfield Area	SHP-05-47A	217.39	6.02	--	--	4.83	212.56	5.04 - 6.04	OB (shallow)	Y
Nearfield Area	SHP-05-47B	215.40	5.95	--	--	2.98	212.42	5.07 - 6.07	OB (shallow)	N; deep OB paired well
North Impact Area	SHP-05-48A	217.31	5.42	--	--	4.84	212.47	5.22 - 6.22	OB (shallow)	N; well dry
North Impact Area	SHP-05-48B	215.96	5.25	--	--	3.68	212.28	4.93 - 5.93	OB (shallow)	N; deep OB paired well
North Impact Area	SHP-05-49A	216.67	6.02	--	--	5.05	211.62	5.33 - 6.33	OB (shallow)	Y
North Impact Area	SHP-05-49B	215.14	5.40	--	--	3.95	211.19	4.25 - 6.25	OB (shallow)	N; deep OB paired well
Nearfield Area	SHP-2016-06A	241.90	85.80	29.97	211.93	27.15	214.75	82.85 - 87.85	BR	N; bedrock well
Nearfield Area	SHP-2016-06B	241.89	111.90	21.68	220.21	20.13	221.76	103.84 - 113.84	BR	N; bedrock well
Nearfield Area	SHP-2016-06C	241.92	132.83	21.40	220.52	21.12	220.80	124.87 - 134.87	BR	N; bedrock well
Landfill Area	SHP-2016-07A	265.30	31.59	19.35	245.95	18.92	246.38	24.32 - 34.32	BR	N; bedrock well
Landfill Area	SHP-2016-07B	265.33	79.60	25.34	239.99	24.82	240.51	72.35 - 82.35	BR	N; bedrock well
Nearfield Area	SHP-2016-1A	227.27	26.20	15.59	211.68	14.15	213.12	15.59 - 25.59	OB (shallow)	Y
Nearfield Area	SHP-2016-1B	227.24	85.70	17.05	210.19	15.10	212.14	77.56 - 87.56	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2016-2A	225.93	27.18	14.39	211.54	13.20	212.73	22.20 - 27.20	OB (shallow)	Y
Nearfield Area	SHP-2016-2B	225.95	87.63	14.40	211.55	13.23	212.72	82.22 - 87.22	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2016-3A	223.18	27.28	11.59	211.59	10.46	212.72	22.05 - 27.05	OB (shallow)	Y
Nearfield Area	SHP-2016-3B	223.18	87.31	11.59	211.59	10.44	212.74	82.05 - 87.05	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2016-4A	229.97	92.51	18.41	211.56	17.29	212.68	27.40 - 32.40	OB (shallow)	Y
Nearfield Area	SHP-2016-4B	229.75	33.73	18.22	211.53	16.95	212.80	87.18 - 92.18	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2016-5A	227.01	32.51	15.43	211.58	14.19	212.82	27.13 - 32.13	OB (shallow)	Y
Nearfield Area	SHP-2016-5B	226.95	92.30	15.36	211.59	14.11	212.84	87.07 - 92.07	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2017-01	229.63	78.26	19.38	210.25	17.31	212.32	74.00 - 79.00	OB	Y
Nearfield Area	SHP-2017-02	230.05	93.28	19.74	210.31	17.62	212.43	89.50 - 94.50	OB	Y
Nearfield Area	SHP-2023-1A	237.34	37.90	--	--	23.19	214.15	27.75 - 37.75	OB (shallow)	Y
Nearfield Area	SHP-2023-1B	236.66	56.60	--	--	23.33	213.33	75.41 - 85.41	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2023-2A	221.34	34.00	--	--	7.91	213.43	24.74 - 34.74	OB (shallow)	Y
Nearfield Area	SHP-2023-2B	221.40	66.90	--	--	7.91	213.49	58.53 - 68.63	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2023-3A	228.11	38.22	--	--	14.00	214.11	27.91 - 37.91	OB (shallow)	Y
Nearfield Area	SHP-2023-3B	228.74	66.22	--	--	14.69	214.05	62.91 - 72.91	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2023-4A	254.49	53.06	--	--	39.96	214.53	42.86 - 52.86	OB (shallow)	Y
Nearfield Area	SHP-2023-4B	253.87	112.11	--	--	39.68	214.19	102.87 - 112.87	OB (deep)	N; deep OB paired well
Nearfield Area	SHP-2023-5A	260.26	51.46	--	--	45.25	215.01	42.39 - 52.39	OB (shallow)	Y
Nearfield Area	SHP-2023-5B	260.65	120.45	--	--	45.93	214.72	109.96 - 119.96	OB (deep)	N; deep OB paired well
Landfill Area	SHP-95-27X	237.45	42.72	--	--	14.81	222.64	32.64 - 42.64	OB	Y
Landfill Area	SHP-99-01C	274.15	32.05	--	--	11.64	262.51	21.69 - 31.69	BR	N; bedrock well
Landfill Area	SHP-99-29X	243.34	30.90	--	--	21.01	222.33	20.88 - 30.88	OB (shallow)	Y
North Impact Area	SHP-99-34B	224.91	74.20	--	--	12.15	212.76	76.72 - 81.72	OB (deep)	Y
Landfill Area	SHP-99-35X	258.23	41.60	--	--	36.56	221.67	31.96 - 41.96	OB (shallow)	Y
Surface Water	SHSG-13-01G	205.53	--	--	--	--	--	(4 ft mark)	Staff Gauge	N; cannot be accessed/viewed
Surface Water	SHSG-13-02G	205.01	--	--	--	--	--	(4 ft mark)	Staff Gauge	N; cannot be accessed/viewed
Surface Water	SHSG-13-03G	209.99	--	--	--	--	--	(6 ft mark)	Staff Gauge	N; cannot be accessed/viewed
Surface Water	SHSG-14-01G	213.01	--	--	--	1.50	211.51	(3 ft mark)	Staff Gauge	Y

Notes:
[a] Screen interval approximated based on soil boring depth and measured well depth (no well construction log).
1. TOR elevations from November 2017 Shepley's Hill Landfill (SHL) survey data (North American Vertical Datum [NAVD] 1988)
2. -- = not measured

Acronyms and Abbreviations:
bmp = below measuring point
BR = bedrock
OB = overburden
TOR = top of riser (referenced measuring point)

Table 5
Historical Vertical Hydraulic Gradients
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

Well ID	Depth to Water Fall 2023 (feet below MPE)	Groundwater Elevation Fall 2023 (ft NAVD88)	Bottom of Screen (ft NAVD88)	Top of Screen (ft NAVD88)	Mid-Point of Screen (ft NAVD88)	Mid-Point of Screen Separation (ft)	Vertical Gradient Fall 2018	Vertical Gradient Fall 2019	Vertical Gradient Fall 2020	Vertical Gradient Fall 2021	Vertical Gradient Fall 2022	Vertical Gradient Fall 2023
Upgradient Area												
N7-P2 (OB)	29.03	227.01	222.04	227.04	224.54	35.96	**-0.003**	**0.011**	**0.010**	**0.010**	**0.010**	**0.011**
N7-P1 (BR)	28.96	226.63	187.59	189.58	188.59							
Barrier Wall Area												
N2-P2 (OB)	5.71	216.45	213.16	218.16	215.66	31.15	**0.002**	**-0.006**	**-0.001**	**-0.001**	**0.002**	**-0.0003**
N2-P1 (BR)	5.55	216.46	182.01	187.01	184.51							
Nearfield Area												
SHM-93-22B (OB)	6.60	212.79	127.09	137.09	132.09	40.70	**-0.002**	**0.002**	**0.008**	**0.007**	**-0.002**	**-0.006**
SHM-93-22C (BR)	7.64	213.05	86.39	96.39	91.39							
SHM-05-41A (OB)	10.02	212.46	178.48	180.48	179.48	20.15	--	--	--	--	--	**-0.002**
SHM-05-41B (OB)	9.83	212.50	158.33	160.33	159.33							
SHM-05-41B (OB)	9.83	212.50	158.33	160.33	159.33	27.26	--	--	--	--	--	**0.001**
SHM-05-41C (OB)	10.10	212.47	129.57	134.57	132.07							
North Impact Area												
SHM-05-40X (OB)	13.86	209.33	189.34	191.34	190.34	27.94	**0.013**	**0.005**	**-0.009**	**0.004**	**0.003**	**-0.013**
SHM-07-05X (BR)	13.71	209.69	167.40	157.40	162.40							

Note:
Negative gradient indicates upward flow, positive gradient indicates downward flow

Acronyms and Abbrevations:
BR: bedrock
MPE: measuring point elevation
NAVD88: North American Vertical Datum of 1988
OB: overburden

Table 6
Spring 2023 LTM Analytical Results and Field Parameters
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

		Analytical Method	Metals						General Chemisty						Field Parameters					
		Analyte	Arsenic		Iron		Manganese		Alkalinity		Chloride		DOC		Sulfate		DO	ORP	pH	SPC	Temp	Turbidity
		Units	µg/L		µg/L		µg/L		mg/L		mg/L		mg/L		mg/L		mg/L	mV	SU	µS/cm	°C	NTU
		Screening Limit[a]	10		9,100		1,715															
Location	Sample ID	Date																				
EPA-PZ-2012-1A	EPA-PZ-2012-1A-SPR23	06/09/2023	1.1	J	350		250		41		5.8		2.0		1.6		0.83	55.6	5.96	0.12	9.7	1
EPA-PZ-2012-1B	EPA-PZ-2012-1B-SPR23	06/09/2023	**170**		**10,000**		**8,300**		160		38		1.4	J	25		0.76	-69.3	6.43	0.55	10.1	1.2
EPA-PZ-2012-2A	EPA-PZ-2012-2A-SPR23	06/12/2023	3	U	50	U	1.5	J	11		2.7		1.0	U	6.5		4.44	192	5.29	0.06	13.5	0.21
EPA-PZ-2012-2B	EPA-PZ-2012-2B-SPR23	06/13/2023	2.6	J	**9,300**		**4,900**		130		37		1.4	J	11		0.18	7.9	5.83	0.44	16.5	16.5
EPA-PZ-2012-3A	EPA-PZ-2012-3A-SPR23	06/16/2023	**16**		**14,000**		860		84		26		8.0		1.0	U	0.71	28.6	5.44	0.33	12.2	0.86
EPA-PZ-2012-3B	EPA-PZ-2012-3B-SPR23	06/16/2023	**2,400**		**38,000**		**5,900**		170		35		1.5		17		0.71	-79.4	6.26	0.65	13.3	3.7
EPA-PZ-2012-4A	EPA-PZ-2012-4A-SPR23	06/14/2023	2.5	J	3,900		540		71		14		8.7		1.1		0.67	-13.3	6.12	0.22	17.4	0.75
EPA-PZ-2012-4B	EPA-DUP01-SPR23	06/14/2023	**1,600**		**45,000**		1,000		94		31		1.8		27		--	--	--	--	--	--
EPA-PZ-2012-4B	EPA-PZ-2012-4B-SPR23	06/14/2023	**1,700**		**46,000**		1,000		95		31		1.9		27		0.54	-104	6.44	0.51	17.5	4.12
EPA-PZ-2012-5A	EPA-PZ-2012-5A-SPR23	06/14/2023	1.1	J	5,600		89		23		14		7.1		4.3		0.71	92.7	5.08	0.13	11.5	3.3
EPA-PZ-2012-5B	EPA-PZ-2012-5B-SPR23	06/14/2023	**12**		550		**10,000**		160		46		1.2	J	19		0.64	45.8	5.88	0.54	11.8	1.3
EPA-PZ-2012-6A	EPA-PZ-2012-6A-SPR23	06/15/2023	0.97	J	50	U	5	U	29		1.2		0.66	J	1.8		9.68	143	6.26	0.07	14.1	0.66
EPA-PZ-2012-6B	EPA-PZ-2012-6B-SPR23	06/15/2023	**270**		**19,000**		730		46		9.3		1.4	J	4.6		0.73	-105	6.58	0.19	14.4	4.42
EPA-PZ-2012-7A	EPA-PZ-2012-7A-SPR23	06/13/2023	3	U	50	U	2.7	J	24		67		0.65	J	6.1		6.89	232	5.66	0.31	13.3	0.02
EPA-PZ-2012-7B	EPA-PZ-2012-7B-SPR23	06/09/2023	**1,200**		**18,000**		**3,500**		36		0.96		0.92	J	3.0		0.82	-91.2	6.59	0.16	12.4	1.5
EW-01	EW-01-SPR23	06/16/2023	**1,600**		**63,000**		**2,100**		220		17		4.2		5.5		3.68	-50.6	5.99	0.717	13.5	1
EW-04	EW-04-SPR23	06/16/2023	**3,100**		**34,000**		**2,300**		110		4.9		1.6		4.8		3.5	-47.2	6.1	0.374	13.3	1.8
PZ-12-01	PZ-12-01-SPR23	06/12/2023	**540**		**63,000**		**2,800**		170		93		2.5		21		0.74	-71.3	6.2	0.9	17	22.4
PZ-12-02	PZ-12-02-SPR23	06/13/2023	**270**		**66,000**		1,400		190		50		3.5		1.0	U	0.74	-75.5	6.12	0.8	13.5	22.4
PZ-12-03	PZ-12-03-SPR23	06/13/2023	**710**		**44,000**		**3,700**		140		85		1.9		7.8		0.68	-89.9	6.33	0.79	15.7	5.3
PZ-12-04	PZ-12-04-SPR23	06/13/2023	**730**		**56,000**		1,500		130		31		2.0		2.2		0.57	-82.1	6.2	0.58	15.9	5.3
PZ-12-05	PZ-12-05-SPR23	06/13/2023	1.7	J	380		180		40		1.1		0.83	J	3.4		5.49	104	5.65	0.07	18	8.2
PZ-12-06	PZ-12-06-SPR23	06/13/2023	3	U	50	U	160		41		1.8		0.96	J	42		0.69	202	5.18	0.31	17.3	4.23
PZ-12-06	SHL-DUP02-SPR23	06/13/2023	3	U	31	J	160		40		1.8		0.9	J	42		--	--	--	--	--	--
PZ-12-07	PZ-12-07-SPR23	06/15/2023	**62**		2,100		1,200		90		1		0.98	J	17		4.76	-24.9	6.51	0.27	10.5	24.3
PZ-12-08	PZ-12-08-SPR23	06/15/2023	1.9	J	2,100		770		42		1.1		0.99	J	15		0.85	55.4	5.7	0.16	13.4	59.1
PZ-12-09	PZ-12-09-SPR23	06/14/2023	1.4	J	20	J	4.5	J	71		1.1		1.0	U	10		3.2	90.2	6.46	0.22	15.1	2.4
PZ-12-10	PZ-12-10-SPR23	06/14/2023	3	U	24	J	5	U	45		0.81		0.62	J	4.9		6.17	119	6.05	0.13	15.8	1.2
SHL-10	SHL-10-SPR23	06/15/2023	1.5	J	200		31		12		1.5		0.62	J	1.8		1.48	90.3	5.57	0.05	13.4	6.1
SHL-11	SHL-11-SPR23	06/14/2023	**840**		**74,000**		1,400		150		100		2.0		0.5	J	0.73	-104	6.38	0.99	16.5	8.2
SHL-19	SHL-19-SPR23	06/16/2023	1.5	J	20	J	5	U	49		1.0		1.0	U	3.5		7.84	67	6.57	0.15	14.3	12.5
SHL-20	SHL-20-SPR23	06/15/2023	**820**		**49,000**		**3,600**		86		110		1.5		53		0.68	-109	6.38	0.91	18.7	8.5
SHL-20	SHL-DUP03-SPR23	06/15/2023	**780**		**47,000**		**3,500**		84		110		1.5		54		--	--	--	--	--	--
SHL-4	SHL-4-SPR23	06/16/2023	**170**		**18,000**		**2,100**		110		2.0		2.1		66		0.76	-54.6	6.13	0.474	14.1	10.3
SHM-05-40X	SHM-05-40X-SPR23	06/21/2023	**2,000**		**20,000**		630	J	100		15		1.4	J	4.4		0.24	-97.6	6.57	0.3	15.5	23.9
SHM-05-41B	SHM-05-41B-SPR23	06/09/2023	**630**		**30,000**		930		66		7.0		2.0		3.0		0.76	-125	6.54	0.27	11.2	16.4
SHM-05-41C	SHM-05-41C-SPR23	06/14/2023	**37**		2,200		60		26		87		4.0		1.0	U	0.66	-37.4	6.26	0.43	11.7	4.1
SHM-07-05X	SHM-07-05X-SPR23	06/16/2023	**370**		5,500		860		140		98		10		2.6		0.6	-125	6.89	0.71	19.3	2.3
SHM-11-02	SHM-11-02-SPR23	06/16/2023	3	U	670		120		69		48		1.5		0.41	J	0.66	-237	8.43	0.351	15.8	18.3
SHM-11-06	SHM-11-06-SPR23	06/15/2023	**650**		**60,000**		1,300		190		92		2.8		21		0.66	-87.1	6.27	1.01	13.4	8.3
SHM-13-03	SHM-13-03-SPR23	06/20/2023	**180**		7,500		**7,200**		220		34		2.1		4.5		0.22	-53.1	6.45	0.6	17.9	1.6
SHM-13-04	SHM-13-04-SPR23	06/16/2023	**320**		2,600		120		33		240		1.2	J	10		4.73	37.5	6.11	1.022	15.3	1.05
SHM-13-06	SHM-13-06-SPR23	06/16/2023	**2,300**		**21,000**		1,300		43		110		0.95	J	6.9		0.24	-116.3	6.71	0.541	15.7	4.39
SHM-13-07	SHM-13-07-SPR23	06/16/2023	**280**		**18,000**		**2,400**		41		73		0.79	J	7.6		0.32	-52.3	6.23	0.371	15.2	5.25
SHM-13-08	SHM-13-08-SPR23	06/20/2023	**780**		**23,000**		670	J	77		8.7		1.7		4.8		0.21	-137	6.92	0.28	16	1.02
SHM-93-22B	SHM-93-22B-SPR23	06/12/2023	**100**		5,000		**9,400**		180		40		1.3	J	17		0.74	-6	6.2	0.53	11	13.9
SHM-96-5B	SHM-96-5B-SPR23	06/14/2023	**950**		**14,000**		**8,400**		180		37		1.4	J	25		0.84	-45	6.21	0.59	12.6	1
SHM-96-5B	SHM-DUP04-SPR23	06/14/2023	**880**		**13,000**		**8,500**		170		37		1.4	J	24		--	--	--	--	--	--
SHP-01-36X	SHP-01-36X-SPR23	06/21/2023	8.4		590		25		28		83		3.2		4.8		0.28	1.6	6.34	0.37	19.5	0.72
SHP-01-37X	SHP-01-37X-SPR23	06/21/2023	**12**		960		85		44		76		3.0		6.7		0.34	-34.5	6.54	0.39	17.8	1.61
SHP-01-38A	SHP-01-38A-SPR23	06/14/2023	**80**		**15,000**		1,500		58		1.1		0.96	J	9.9		0.85	-6.9	5.96	0.18	11.7	1.5
SHP-01-38A	SHP-DUP05-SPR23	06/14/2023	**77**		**14,000**		1,400		58		1.0		0.97	J	9.8		--	--	--	--	--	--

Table 6
Spring 2023 LTM Analytical Results and Field Parameters
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

		Analytical Method	Metals						General Chemisty						Field Parameters					
		Analyte	Arsenic		Iron		Manganese		Alkalinity	Chloride	DOC		Sulfate		DO	ORP	pH	SPC	Temp	Turbidity
		Units	µg/L		µg/L		µg/L		mg/L	mg/L	mg/L		mg/L		mg/L	mV	SU	µS/cm	°C	NTU
		Screening Limit[a]	10		9,100		1,715													
Location	Sample ID	Date																		
SHP-2016-06A	SHP-2016-06A-SPR23	06/15/2023	**1,900**		860		1,100		140	5.9	7.7		61		1.1	-125	7.4	0.52	17.8	26.7
SHP-2016-06B	SHP-2016-06B-SPR23	06/14/2023	**330**		130		140		120	1.5	1.0	U	12		0.82	-65.7	7.46	0.29	16.1	4.89
SHP-2016-06C	SHP-2016-06C-SPR23	06/14/2023	**320**		120		150		120	1.6	1.0	U	9.0		0.29	-125	7.5	0.27	18	35
SHP-2016-07A	SHP-2016-07A-SPR23	06/15/2023	**180**		**9,600**		**3,900**		41	1.7	1.8		1.9		0.8	-32.9	5.83	0.11	14.5	2.13
SHP-2016-07B	SHP-2016-07B-SPR23	06/15/2023	**63**		270		400		110	1.9	1.6		16		0.74	-62.5	6.94	0.31	18.9	12.8
SHP-2016-1A	SHP-2016-1A-SPR23	06/14/2023	3	U	50	U	5	U	22	0.8	0.71	J	3.0		8.55	137	5.82	0.07	15	4.39
SHP-2016-1B	SHP-2016-1B-SPR23	06/26/2023	**110**		**17,000**		830		54	3.3	1.9		3.3		1.09	-68.7	6.47	0.13	19.1	6.63
SHP-2016-2A	SHP-2016-2A-SPR23	06/13/2023	3.2	J	50	U	130		39	2.7	0.54	J	3.5		4.81	165	6.75	0.1	10.1	1.8
SHP-2016-2B	SHP-2016-2B-SPR23	06/13/2023	**420**		**33,000**		**2,300**		110	10	1.6		4.5		0.73	-74.3	6.18	0.38	11.4	2.1
SHP-2016-3A	SHP-2016-3A-SPR23	06/09/2023	3.4	J	6,300		260		32	2.7	0.89	J	2.6		2.88	-29	6.41	0.11	8.7	3.3
SHP-2016-3B	SHP-2016-3B-SPR23	06/12/2023	**220**		**40,000**		**2,900**		120	19	1.8		6.1		0.7	-67.7	6.27	0.4	11.8	2
SHP-2016-4A	SHP-2016-4A-SPR23	06/13/2023	3	U	50	U	40		8.1	3.9	0.73	J	4.5		9.26	224	5.45	0.05	10.5	2.9
SHP-2016-4B	SHP-2016-4B-SPR23	06/13/2023	**1,100**		**36,000**		**2,800**		120	9.7	1.5		5.6		0.7	-75.2	6.21	0.4	11.9	1.26
SHP-2016-5A	SHP-2016-5A-SPR23	06/16/2023	2.4	J	1,600		210		46	24	5.0		1.2		0.71	-0.7	6.2	0.21	11.2	2.9
SHP-2016-5A	SHP-DUP06-SPR23	06/16/2023	2.6	J	1,600		210		46	24	4.9		1.2		--	--	--	--	--	--
SHP-2016-5B	SHP-2016-5B-SPR23	06/16/2023	**590**		**55,000**		**2,800**		140	29	2.0		9.3		0.71	-92.6	6.4	0.61	13.2	1.8

560 =Above Cleanup Goal

Notes:

1. [a]Screening Limits: Shepley's Hill Landfill (SHL) Cleanup Goals
2. Screening Limits Source: USACE. 1995. Record of Decision, Shepley's Hill Landfill Operable Unit, Fort Devens, Massachusetts. September.
3. -- = no data available

Acronyms and Abbreviations:

°C = degrees Celsius
µg/L = microgram per liter
µS/cm = microSiemens per centimeter
DO = dissolved oxygen
DOC = dissolved organic carbon
FD = field duplicate
J = The analyte was positively identified, the quantitation is an estimation.
LTM = long-term monitoring
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SPC = specific conductivity
SU = standard unit
Temp = temperature
U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
UJ = Estimated non-detect because of QC outliers.
USACE = U.S. Army Corps of Engineers

Table 7
Fall 2023 LTM Analytical Results and Field Parameters
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

		Analytical Method	Metals						General Chemisty								Field Parameters											
		Analyte	Arsenic		Iron		Manganese		Alkalinity		Chloride		DOC		Sulfate		DO		ORP		pH		SPC		Temp		Turbidity	
		Units	µg/L		µg/L		µg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mV		SU		µS/cm		°C		NTU	
		Screening Limit[a]	10		9,100		1,715																					
Location	Sample ID	Date																										
EPA-PZ-2012-1A	EPA-PZ-2012-1A-FAL23	10/30/2023	1.7	J	240		170		36		16		1.8		1.9		0.33		97.8		6.15		0.106		11.2		3.79	
EPA-PZ-2012-1B	EPA-PZ-2012-1B-FAL23	10/30/2023	**120**		**12,000**		**9,700**		190		41		1.5		21		0.31		-23.6		6.41		0.480		10.8		3.70	
EPA-PZ-2012-2A	EPA-PZ-2012-2A-FAL23	10/30/2023	3.0	U	50	U	5.9	J	15		3.9		1.0	U	5.8		3.31		203.0		5.57		0.057		10.6		4.10	
EPA-PZ-2012-2B	EPA-PZ-2012-2B-FAL23	10/30/2023	2.7	J	8,000		**4,200**		110		38		1.1	J	7.7		0.33		31.3		6.03		0.303		10.4		9.00	
EPA-PZ-2012-3A	EPA-PZ-2012-3A-FAL23	11/01/2023	**17**		**13,000**		730		85		57		7.4		3.8		0.01		22.3		5.80		0.255		11.9		7.40	
EPA-PZ-2012-3B	EPA-PZ-2012-3B-FAL23	11/01/2023	**2,500**		**48,000**		**4,100**		140		40		1.7		13		0.01		-88.2		6.60		0.494		11.8		7.10	
EPA-PZ-2012-4A	EPA-PZ-2012-4A-FAL23	10/30/2023	4.3	J	8,000		1,100		78		56		7.4		1.0	U	0.01		-16.5		6.02		0.308		13.3		2.02	
EPA-PZ-2012-4B	EPA-PZ-2012-4B-FAL23	10/30/2023	**3,000**		**68,000**		**2,600**		230		22		2.6		13		0.01		-79.8		6.31		0.431		12.3		2.51	
EPA-PZ-2012-4B	SHL-DUP11-FAL23	10/30/2023	**3,100**		**68,000**		**2,600**		230		22		2.4		13		---		---		---		---		---		---	
EPA-PZ-2012-5A	EPA-PZ-2012-5A-FAL23	11/01/2023	4.3	J	4,600		100		25		14		6.0		3.4		0.09		90.6		5.55		0.092		10.7		14.50	
EPA-PZ-2012-5B	EPA-PZ-2012-5B-FAL23	11/01/2023	2.9	J	230		**9,000**		160		44		1.2	J	19		0.02		53.7		6.33		0.427		10.5		4.10	
EPA-PZ-2012-6A	EPA-PZ-2012-6A-FAL23	10/30/2023	7.0		32	J	1.6	J	38		3.8		0.91	J	3.2		6.88		119.2		6.08		0.088		11.3		2.58	
EPA-PZ-2012-6B	EPA-PZ-2012-6B-FAL23	10/30/2023	**430**		**66,000**		**2,300**		140		3.1		1.9		3.0		0.04		-89.9		6.30		0.316		10.4		1.83	
EPA-PZ-2012-6B	SHL-DUP12-FAL23	10/30/2023	**450**		**67,000**		**2,300**		150		3.1		2		3.2		---		---		---		---		---		---	
EPA-PZ-2012-7A	EPA-PZ-2012-7A-FAL23	10/31/2023	1.5	J	32	J	2.3	J	29		2.9		4.1		2.0	U	4.13		-4.1		5.99		0.102		11.5		22.90	
EPA-PZ-2012-7B	EPA-PZ-2012-7B-FAL23	10/31/2023	**1,000**		**27,000**		**4,900**		71		1.4		1.2	J	3.2		0.49		-53.5		6.69		0.203		11.7		0.28	
EW-01	EW-01-FAL23	11/03/2023	**1,900**		**69,000**		**2,100**		250		21		4.2		2.1		2.15		-55.0		6.42		0.365		10.6		0.01	
EW-03	EW-03-FAL23	11/03/2023	**540**		**45,000**		**1,800**		170		25		2.5		22		2.10		-52.0		6.50		0.345		10.2		1.78	
EW-04	EW-04-FAL23	11/03/2023	**5,900**		**68,000**		**2,700**		230		11		3.5		5.5		3.31		-58.0		6.36		0.321		10.4		0.18	
N5-P1	N5-P1-FAL23	10/24/2023	**4,300**		**22,000**		**6,900**		220		15		2.7		10		1.05		-76.5		6.44		0.561		13.1		1.1	
PZ-12-01	PZ-12-01-FAL23	10/25/2023	**610**		**65,000**		**2,900**		160		100		6.0		25		0.66		-52.9		6.36		0.353		20.0		1.40	
PZ-12-02	PZ-12-02-FAL23	10/25/2023	**280**		**79,000**		1,700		220		82		5.8		1.0	U	0.49		-53.7		6.31		0.351		17.8		0.49	
PZ-12-03	PZ-12-03-FAL23	10/24/2023	**840**		**51,000**		**4,100**		160		100		2.4		5.7		0.55		-55.3		6.51		0.467		14.9		3.31	
PZ-12-04	PZ-12-04-FAL23	10/24/2023	**720**		**62,000**		1,600		120		57		2.4		0.60	J	0.57		-61.8		6.36		0.433		16.2		1.89	
PZ-12-05	PZ-12-05-FAL23	10/24/2023	3.6	J	150		130		35		0.55		1.3	J	1.3	J	3.11		-0.8		5.65		0.135		14.7		0.29	
PZ-12-06	PZ-12-06-FAL23	10/24/2023	3.0	U	50	U	29		26		0.79		0.75	J	11		0.88		13.2		5.64		0.115		13.2		2.23	
PZ-12-06	SHL-DUP01-FAL23	10/24/2023	3.0	U	50	U	29		27		0.79		0.98	J	11		---		---		---		---		---		---	
PZ-12-07	PZ-12-07-FAL23	10/20/2023	**74**		2,500		1,100		88		0.98		3.7		22		3.12		-36.6		6.63		0.236		13.6		29.8	
PZ-12-08	PZ-12-08-FAL23	10/20/2023	3.0	U	4,100		1,100		50		0.63		2.9		9.7		0.65		-22.9		6.08		0.174		15.8		21.2	
PZ-12-09	PZ-12-09-FAL23	10/25/2023	2.1	J	50	U	10		88		0.9		5.1		9.2		2.12		-27.8		6.78		0.181		18.6		4.49	
PZ-12-10	PZ-12-10-FAL23	10/25/2023	3.0	U	50	U	5.0	U	74		0.45	J	2.0		3.2		6.02		-1.2		6.28		0.169		17.1		0.70	
SHL-10	SHL-10-FAL23	10/30/2023	3.6	J	20	J	4.2	J	10		0.92		0.76	J	1.6		7.22		228.7		5.78		0.024		10.2		1.3	
SHL-11	SHL-11-FAL23	10/26/2023	**950**		**77,000**		**1,800**		170		120		5.2		11		0.56		-55.0		6.46		0.168		16.1		19.77	
SHL-12	SHL-12-FAL23	10/26/2023	5.0		500		380		130		25		2.8		60		2.32		155.0		6.11		0.448		14.9		7.30	
SHL-15	SHL-15-FAL23	10/26/2023	**23**		7,800		400		99		20		7.8		3.6		0.43		-53.5		6.05		0.137		17.4		7.31	
SHL-19	SHL-19-FAL23	10/26/2023	1.5	J	50	U	5.0	U	71		0.71		4.5		8.4		6.86		-11.2		6.61		0.068		22.4		4.67	
SHL-20	SHL-20-FAL23	10/24/2023	**880**		**62,000**		**4,000**		110		100		3.9		59		0.42		-55.0		6.43		0.399		13.7		1.67	
SHL-20	SHL-DUP02-FAL23	10/24/2023	**890**		**62,000**		**4,000**		130		100		3.9		60		---		---		---		---		---		---	
SHL-22	SHL-22-FAL23	10/27/2023	10		140		**8,200**		270		35		1.4	J	16		0.54		33.8		6.63		0.492		14.2		2.90	
SHL-22	SHL-DUP03-FAL23	10/27/2023	**11**		160		**8,000**		270		33		1.2	J	16		---		---		---		---		---		---	
SHL-23	SHL-23-FAL23	11/02/2023	2.4	J	29	J	17		7.1	J	2.7		1.3	J	4.9		9.87		31.5		5.45		0.063		9.5		2.95	
SHL-24	SHL-24-FAL23	11/01/2023	4.3	J	50	U	5.0	U	52		45		1.00	U	25		1.91		61.6		6.97		0.296		12.2		1.81	
SHL-24	SHL-DUP04-FAL23	11/01/2023	3.8	J	50	U	5	U	50		44		1.00	U	25		---		---		---		---		---		---	
SHL-3	SHL-3-FAL23	10/30/2023	3.0	U	50	U	5.0	U	89		0.61		0.95	J	7.6		9.64		260.2		6.32		0.177		11.1		6.1	
SHL-4	SHL-4-FAL23	10/30/2023	**170**		**12,000**		1,500		70		1.1		1.2	J	12		1.17		-45.2		6.34		0.166		11.2		2.30	
SHL-5	SHL-5-FAL23	10/24/2023	**16**		3,900		270		56		24		7.1		1.0	U	0.36		49.1		5.61		0.149		14.7		3.9	
SHL-7	SHL-7-FAL23	10/26/2023	3.0	U	28	J	17		42		3.7		0.93	J	3.8		0.90		137.8		5.96		0.091		17.8		5.2	
SHL-8D	SHL-8D-FAL23	10/24/2023	3.0	U	50	U	3.9	J	40		52		1.0	U	6.1		1.26		154.9		5.57		0.170		11.6		2.10	
SHL-8S	SHL-8S-FAL23	10/24/2023	3.0	U	50	U	5.0	U	24		7.9		1.0	U	5.8		4.68		133.7		5.91		0.062		10.4		3.80	
SHL-9	SHL-9-FAL23	10/27/2023	**43**		7,400		540		69		55		5.1		0.86	J	0.30		-8.6		6.22		0.257		15.8		5.70	
SHM-05-39A	SHM-05-39A-FAL23	10/31/2023	**150**		**15,000**		610		48		21		1.7		3.2		0.22		-53.0		6.45		0.174		12.7		31.1	
SHM-05-39B	SHM-05-39B-FAL23	10/31/2023	**59**		1,400		160		79		74		1.8		6.3		0.07		-56.7		6.72		0.355		12.7		29.6	

Table 7
Fall 2023 LTM Analytical Results and Field Parameters
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

		Analytical Method	Metals						General Chemisty								Field Parameters					
		Analyte	Arsenic		Iron		Manganese		Alkalinity		Chloride		DOC		Sulfate		DO	ORP	pH	SPC	Temp	Turbidity
		Units	µg/L		µg/L		µg/L		mg/L		mg/L		mg/L		mg/L		mg/L	mV	SU	µS/cm	°C	NTU
		Screening Limit[a]	10		9,100		1,715															
Location	Sample ID	Date																				
SHM-05-40X	SHM-05-40X-FAL23	10/31/2023	**1,500**		**12,000**		390		79		6.3		4.8		4.3		0.65	-53.4	6.86	0.175	8.8	0.83
SHM-05-41A	SHM-05-41A-FAL23	10/30/2023	4.6	J	360		21		13		14		13		1.3	J	0.67	-18.6	6.31	0.075	11.2	1.64
SHM-05-41B	SHM-05-41B-FAL23	10/30/2023	**420**		**18,000**		640		54		5.8		6.1		2.4		0.50	-56.1	6.71	0.107	10.8	3.38
SHM-05-41C	SHM-05-41C-FAL23	10/30/2023	**57**		3,600		300		44		90		5.4		1.0	U	0.46	-42.4	6.39	0.259	11.2	0.2
SHM-05-42A	SHM-05-42A-FAL23	10/25/2023	3.0	U	240		22		23		2.6		0.52	J	3.8		1.66	127.7	5.85	0.044	12.5	3.60
SHM-05-42B	SHM-05-42B-FAL23	10/25/2023	**140**		**25,000**		**6,600**		140		49		1.3	J	9.1		0.25	-34.8	6.23	0.365	12.2	2.10
SHM-07-05X	SHM-07-05X-FAL23	10/31/2023	**760**		**14,000**		1,200		170		59		8.7		2.7		0.56	-59.9	6.82	0.290	7.8	0.5
SHM-10-02	SHM-10-02-FAL23	10/23/2023	3.0	U	50	U	**6,800**		130		580		1.1	J	19		0.04	112.6	6.05	0.944	12.1	0.02
SHM-10-03	SHM-10-03-FAL23	10/23/2023	3.0	U	50	U	30		130		730		0.81	J	15		0.31	90.9	6.21	1.267	11.8	0.02
SHM-10-04	SHM-10-04-FAL23	10/24/2023	3.0	U	50	U	600		77		92		1.1	J	27		0.23	119.3	6.27	0.264	11.9	0.02
SHM-10-05A	SHM-10-05A-FAL23	10/25/2023	1.2	J	50	U	3.8	J	23		58		0.56	J	6.5		3.29	110.2	5.73	0.176	18.4	0.02
SHM-10-06	SHM-10-06-FAL23	10/31/2023	**250**		**30,000**		1,100		93		30		1.8		6.3		0.34	-73.4	6.52	0.340	15.5	3.61
SHM-10-06A	SHM-10-06A-FAL23	11/03/2023	**59**		**11,000**		950		62		5.5		8.5		4.9		0.01	-12.5	6.30	0.159	12.2	28.7
SHM-10-07	SHM-10-07-FAL23	10/23/2023	**1,100**		**52,000**		**2,300**		100		110		1.8		11		0.02	-104.1	6.33	0.389	12.4	8.76
SHM-10-08	SHM-10-08-FAL23	10/24/2023	3.6	J	35	J	540		160		120		1.1	J	6.2		0.07	75.8	6.46	0.379	11.5	0.02
SHM-10-10	SHM-10-10-FAL23	10/26/2023	1.7	J	21	J	**4,700**		160		29		1.5		2.7		0.02	78.4	6.44	0.240	15.5	0.02
SHM-10-11	SHM-10-11-FAL23	10/25/2023	**560**		**51,000**		**2,600**		89		51		2.4		59		0.87	-77.9	6.12	0.542	15.7	7.3
SHM-10-12	SHM-10-12-FAL23	10/25/2023	**3,700**		**71,000**		**5,600**		160		3.0		3.3		2.0		0.96	-56.4	5.87	0.389	13.1	17.5
SHM-10-13	SHM-10-13-FAL23	10/24/2023	**510**		**75,000**		990		220		28		4.1		1.0	U	1.05	-100.5	6.28	0.713	13.8	4.2
SHM-10-14	SHM-10-14-FAL23	10/24/2023	**4,600**		**74,000**		**2,300**		170		3.8		4.4		1	U	1.14	-78.5	6.16	0.535	13.4	42.4
SHM-10-15	SHM-10-15-FAL23	10/24/2023	**7,400**		**45,000**		**7,600**		180		7.7		3.1		9.6		1.06	-82.3	6.25	0.499	16.2	2.7
SHM-10-16	SHM-10-16-FAL23	10/25/2023	**940**		**28,000**		**2,600**		250		30		1.7		6.2		0.38	-87.1	6.59	0.471	12.4	8.3
SHM-11-02	SHM-11-02-FAL23	10/20/2023	**13**		**9,900**		690		210		62		4.7		6.2		0.67	-107.3	7.36	0.413	16.0	47.84
SHM-11-06	SHM-11-06-FAL23	10/26/2023	**800**		**76,000**		**1,800**		190		78		3.4		13		0.54	-51.1	6.39	0.162	18.6	0.96
SHM-11-06	SHL-DUP06-FAL23	10/26/2023	**780**		**76,000**		**1,900**		190		78		3.7		13		---	---	---	---	---	---
SHM-13-01	SHM-13-01-FAL23	10/31/2023	1.7	J	50	U	1.3	J	29		290		0.71	J	14		7.45	131.1	5.71	0.829	10.5	3.76
SHM-13-02	SHM-13-02-FAL23	10/27/2023	1.3	J	37	J	**10,000**		170		20		1.4	J	3.2		0.03	86.3	6.36	0.322	16.3	0.02
SHM-13-03	SHM-13-03-FAL23	10/27/2023	**280**		**10,000**		**6,300**		160		120		1.9		4.9		0.01	-46.6	6.32	0.643	13.9	24.9
SHM-13-04	SHM-13-04-FAL23	10/24/2023	**63**		550		61		40		130		0.89	J	9.6		5.17	71.6	6.16	0.282	13.3	66.9
SHM-13-05	SHM-13-05-FAL23	10/25/2023	8.0		1,500		**4,400**		54		31		10		2.1		0.11	-42.3	6.03	0.136	13.9	0.02
SHM-13-06	SHM-13-06-FAL23	10/26/2023	**2,200**		**14,000**		730		56		85		1.0	J	6.2		0.05	-124.2	6.86	0.296	15.5	2.52
SHM-13-07	SHM-13-07-FAL23	10/26/2023	**580**		**12,000**		1,300		65		45		1.0	J	4.8		0.01	-82.1	6.61	0.203	14.0	4.94
SHM-13-08	SHM-13-08-FAL23	10/25/2023	**930**		**32,000**		1,000		87		14		1.8		4.5		0.01	-131.8	6.68	0.168	13.4	3.43
SHM-13-14D	SHM-13-14D-FAL23	10/27/2023	1.7	J	110		6.7	J	460		43		1.3	J	8.4		2.02	164.7	6.21	0.243	14.1	15.60
SHM-13-14S	SHM-13-14S-FAL23	10/27/2023	1.5	J	49	J	15		29		100		0.94	J	12		2.22	174.3	5.83	0.409	13.7	2.80
SHM-13-15	SHM-13-15-FAL23	10/27/2023	1.7	J	36	J	**3,500**		230		63		1.7		5.7		1.18	86.2	6.70	0.599	13.2	3.10
SHM-93-10D	SHM-93-10D-FAL23	11/1/2023	1.1	J	63	J	1.6	J	49		32		1.2	J	22		1.35	-58.8	10.77	0.226	10.0	24.3
SHM-93-18B	SHM-93-18B-FAL23	11/3/2023	3.0	U	50	U	790	J	49		270		3.8		34		0.69	-12.9	6.20	0.575	12.4	0.61
SHM-93-22B	SHM-93-22B-FAL23	10/27/2023	**300**		**10,000**		**9,500**		180		37		1.4	J	17		0.37	-56.0	6.49	0.406	14.6	10.30
SHM-93-22C	SHM-93-22C-FAL23	10/27/2023	8.0		50	U	1.4	J	130		19		2.7		5.8		1.29	2.8	7.48	0.242	13.0	2.80
SHM-93-24A	SHM-93-24A-FAL23	10/26/2023	3.0	U	50	U	13		25		190		1.0	J	52		7.60	208.0	5.71	0.791	17.9	7.50
SHM-96-5B	SHM-96-5B-FAL23	10/24/2023	**1600**		**25,000**		**7,800**		160		38		1.3	J	23		0.60	-65.7	6.39	0.400	12.7	5.90
SHM-96-5B	SHL-DUP07-FAL23	10/24/2023	**1500**		**24,000**		**7,500**		170		38		1.5		24		---	---	---	---	---	---
SHM-96-5C	SHM-96-5C-FAL23	10/24/2023	**64**		**28,000**		**5,700**		150		36		1.9		8.9		0.26	-67.6	5.11	0.355	12.4	5.30
SHM-99-31A	SHM-99-31A-FAL23	10/25/2023	**26**		6,000		330		44		17		6.3		1.7	J	0.38	57.8	5.53	0.119	13.4	2.50
SHM-99-31B	SHM-99-31B-FAL23	10/25/2023	1.0	J	50	U	5	U	34		9.2		1.8		5.2		4.06	87.6	6.43	0.091	13.0	1.90

Table 7
Fall 2023 LTM Analytical Results and Field Parameters
Shepley's Hill Landfill, Former Fort Devens Army Installation
Devens, Massachusetts

		Analytical Method	Metals						General Chemistry								Field Parameters											
		Analyte	Arsenic		Iron		Manganese		Alkalinity		Chloride		DOC		Sulfate		DO		ORP		pH		SPC		Temp		Turbidity	
		Units	µg/L		µg/L		µg/L		mg/L		mg/L		mg/L		mg/L		mg/L		mV		SU		µS/cm		°C		NTU	
		Screening Limit[a]	10		9,100		1,715																					
Location	Sample ID	Date																										
SHM-99-31C	SHM-99-31C-FAL23	10/25/2023	**140**		**13,000**		**5,000**		250		31		1.6		5.8		0.36		-75.0		6.52		0.494		16.2		4.90	
SHM-99-32X	SHM-99-32X-FAL23	10/26/2023	**47**		6,800		**6,100**		160		59		1.2	J	16		0.35		-52.8		6.57		0.394		13.8		3.20	
SHP-01-36X	SHP-01-36X-FAL23	10/31/2023	10		1,300		47		36		53		3.8		2.8		1.07		1.9		6.20		0.228		15.0		0.20	
SHP-01-37X	SHP-01-37X-FAL23	10/31/2023	**21**		2,100		150		59		41		2.4		8.5		1.38		-20.1		6.25		0.247		13.9		0.70	
SHP-01-38A	SHP-01-38A-FAL23	10/31/2023	**110**		**18,000**		**1,800**		74		0.6		1.3	J	6.5		1.11		-11.5		6.01		0.150		12.6		0.50	
SHP-01-38A	SHL-DUP08-FAL23	10/31/2023	**100**		**18,000**		**1,800**		75		0.6		1.2	J	6.8		---		---		---		---		---		---	
SHP-2016-06A	SHP-2016-06A-FAL23	11/2/2023	**1,800**		1,200		1,100		140		5.9		8.7		55		0.54		-49.0		7.40		0.253		6.6		17.89	
SHP-2016-06B	SHP-2016-06B-FAL23	11/2/2023	**340**		150		210		130		1.5		3.2		11		0.54		-48.5		7.64		0.250		7.7		3.87	
SHP-2016-06C	SHP-2016-06C-FAL23	11/2/2023	**300**		120		140		120		1.6		3.7		8.6		0.32		-45.7		7.47		0.267		9.2		0.10	
SHP-2016-07A	SHP-2016-07A-FAL23	11/1/2023	**95**		4,900		**2,300**		25		1.7		0.87	J	3.9		1.23		-6.1		5.79		0.048		12.4		0.60	
SHP-2016-07B	SHP-2016-07B-FAL23	11/1/2023	**74**		420		300		130		2.4		1.5		18		1.18		-93.5		7.01		0.228		11.4		6.73	
SHP-2016-07B	SHL-DUP09-FAL23	11/1/2023	**73**		410		290		130		4.7		1.7		37		---		---		---		---		---		---	
SHP-2016-1A	SHP-2016-1A-FAL23	10/27/2023	3.0	U	27	J	10	U	39		0.47	J	3.6		2.8		7.15		33.5		5.51		0.048		16.2		4.17	
SHP-2016-1B	SHP-2016-1B-FAL23	10/27/2023	**190**		**44,000**		**2,100**		140		9.7		3		4.9		0.30		-40.6		6.27		0.139		18.2		1.66	
SHP-2016-2A	SHP-2016-2A-FAL23	10/26/2023	3.6	J	50	U	130		36		3		0.69	J	3		5.94		167.8		6.83		0.058		11.9		7.50	
SHP-2016-2B	SHP-2016-2B-FAL23	10/26/2023	**370**		**24,000**		1,700		79		3.7		1.5		4		0.43		-84.6		6.54		0.177		11.9		8.80	
SHP-2016-3A	SHP-2016-3A-FAL23	11/1/2023	3.4	J	**11,000**		400		47		34		0.89	J	1.7		0.61		-9.0		6.05		0.197		11.8		3.60	
SHP-2016-3B	SHP-2016-3B-FAL23	11/1/2023	**230**		**43,000**		**3,000**		130		21		1.8		9		0.05		-62.5		6.31		0.373		10.8		27.9	
SHP-2016-4A	SHP-2016-4A-FAL23	10/26/2023	1.1	J	50	U	43		37		4.1		0.73	J	2.8		10.28		173.7		5.85		0.040		13.1		9.30	
SHP-2016-4B	SHP-2016-4B-FAL23	10/26/2023	**1,000**		**32,000**		**2,900**		90		6.7		1.4	J	11		0.49		-91.7		6.62		0.210		12.0		6.50	
SHP-2016-5A	SHP-2016-5A-FAL23	10/31/2023	2.9	J	2,100		270		63		26		6.0		1.6		0.35		-7.3		6.33		0.187		11.3		4.70	
SHP-2016-5B	SHP-2016-5B-FAL23	10/31/2023	**550**		**58,000**		**2,800**		180		22		2.6		12		0.16		-82.3		6.48		0.501		11.6		3.70	
SHP-2023-1A	SHP-2023-1A-FAL23	11/3/2023	1.3	J	37	J	370		38		0.55		0.86	J	1.4	J	1.16		105.0		5.82		0.077		13.5		1.55	
SHP-2023-1B	SHP-2023-1B-FAL23	11/3/2023	**530**		310		1,000		120		33		1	J	20		0.52		-34.1		6.69		0.327		13.6		6.91	
SHP-2023-2A	SHP-2023-2A-FAL23	11/6/2023	**87**		**24,000**		1,300		58		2.7		2.5		4.3		0.44		-41.9		6.29		0.184		11.0		78.8	
SHP-2023-2B	SHP-2023-2B-FAL23	11/6/2023	**890**		**18,000**		**2,900**		180		55		5.4		70		0.52		-54.3		6.70		0.475		12.1		15.98	
SHP-2023-3A	SHP-2023-3A-FAL23	11/1/2023	2.1	J	25	J	6.2	J	28		0.31	J	2.3		0.99	J	0.12		109.4		5.92		0.052		16.1		1.06	
SHP-2023-3B	SHP-2023-3B-FAL23	11/2/2023	**61**		**20,000**		1,200		110		90	J	1.8		520	J	0.16		-49.9		6.44		0.320		12.5		12.23	
SHP-2023-3B	SHL-DUP10-FAL23	11/2/2023	**63**		**20,000**		1,100		110		9	J	1.6		23	J	---		---		---		---		---		---	
SHP-2023-4A	SHP-2023-4A-FAL23	11/2/2023	3	U	50	U	240		14		1.2		0.78	J	4.6		1.57		111.7		5.89		0.038		9.5		11.80	
SHP-2023-4B	SHP-2023-4B-FAL23	11/2/2023	6.3		270		**5,200**		220		54		15		35		0.01		-36.6		6.62		0.529		9.6		157.4	
SHP-2023-5A	SHP-2023-5A-FAL23	11/3/2023	3.0	U	50	U	90		34		2.5		1	J	5.9		6.70		207.4		5.93		0.070		9.7		34.90	
SHP-2023-5B	SHP-2023-5B-FAL23	11/3/2023	6.2		6,700		**6,000**		160		70		1.9		35		0.01		-129.0		6.45		0.551		10.7		14.60	
SHP-99-29X	SHP-99-29X-FAL23	10/24/2023	**1,000**		**36,000**		1,500		86		2.3		2.2		1.1	J	1.10		-46.0		5.80		0.225		12.5		12.30	

560 =Above Cleanup Goal

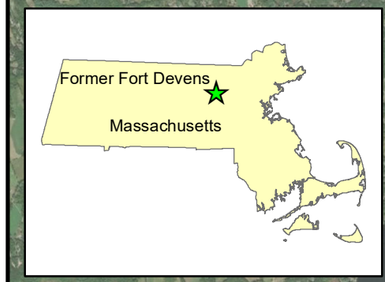
Notes:

1. [a]Screening Limits: Shepley's Hill Landfill (SHL) Cleanup Goals
2. Screening Limits Source: USACE. 1995. Record of Decision, Shepley's Hill Landfill Operable Unit, Fort Devens, Massachusetts. September.
3. -- = no data available

Acronyms and Abbreviations:

°C = degrees Celsius
µg/L = microgram per liter
µS/cm = microSiemens per centimeter
DO = dissolved oxygen
DOC = dissolved organic carbon
FD = field duplicate
J = The analyte was positively identified, the quantitation is an estimation.
LTM = long-term monitoring
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SPC = specific conductivity
SU = standard unit
Temp = temperature
U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
UJ = Estimated non-detect because of QC outliers.
USACE = U.S. Army Corps of Engineers

Figures



N

Former North Post

Downtown Ayer

Shirley

Former Main Post

Middlesex County

Worcester County

George W Stanton Hwy (Route 2)

Lancaster

Harvard

Former Fort Devens Army Installation and Fort Devens Reserve Forces Training Area (South Post)

Aerial Source: ESRI, ArcGIS Online, World Imagery

Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- County Line
- Highway
- Major Road

0 1 2

Miles

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Site Location

SERES Engineering & Services, LLC
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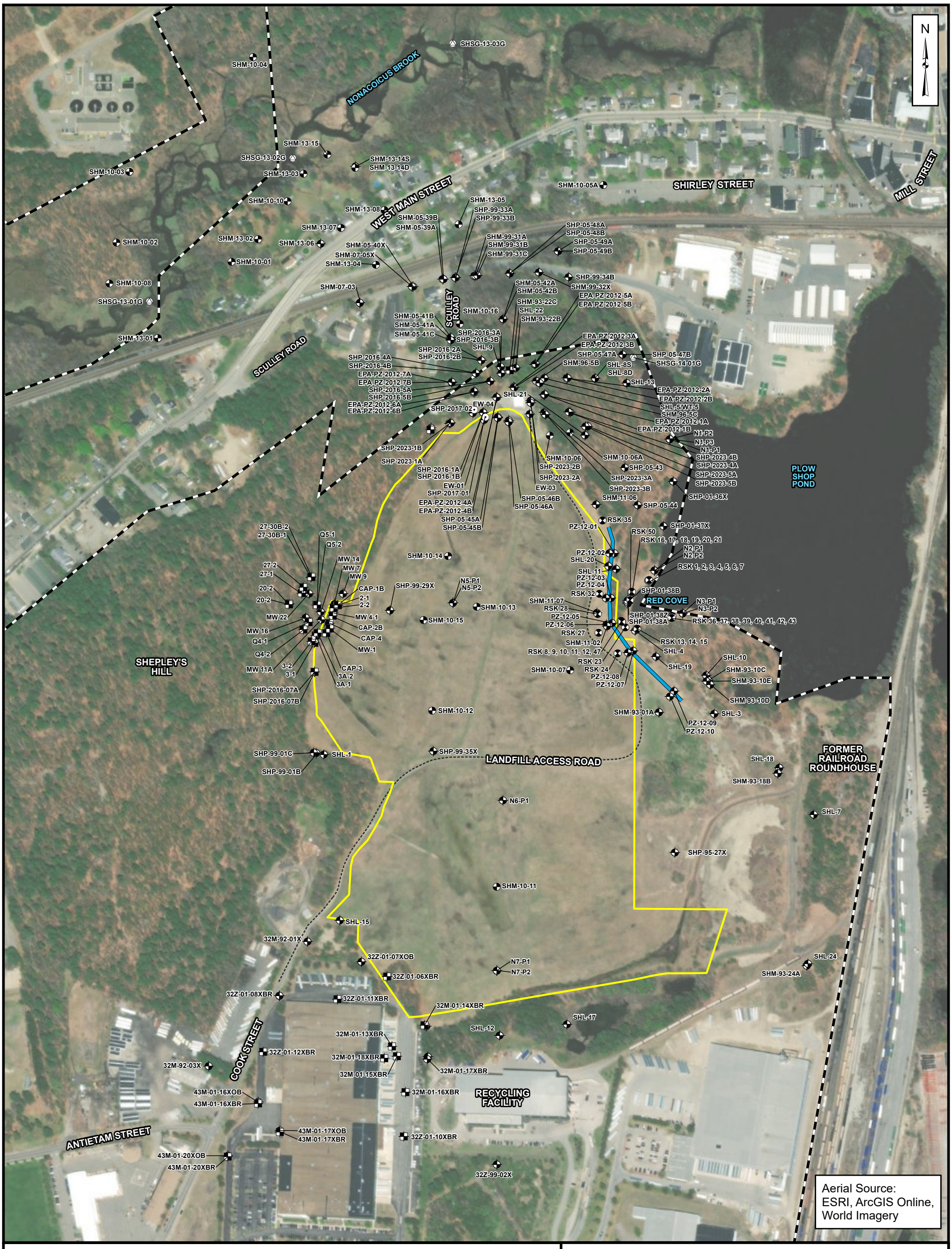
a joint venture

Figure 1



Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall
- Landfill Access Road

0 200 400
Feet

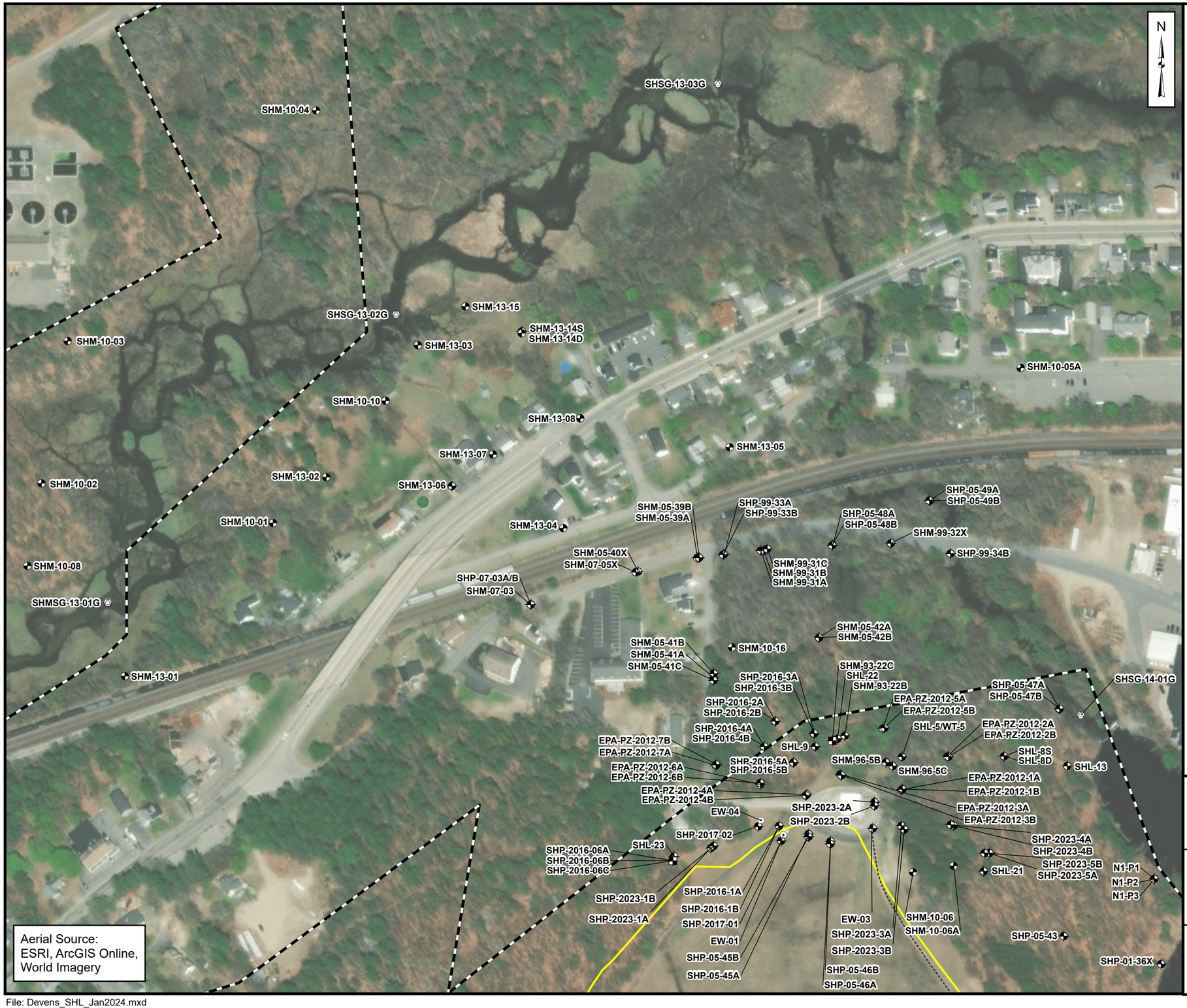
2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Site Plan

SERES Engineering & Services, LLC
ARCADIS a joint venture

Figure
2

File: Devens_SHL_Jan2024.mxd



Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Landfill Access Road

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

North Impact Area

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Figure 3

File: Devens_SHL_Jan2024.mxd



Legend

- Shepley's Hill Landfill Boundary
- Area of Land Use Controls
- Property Boundary
- Community Groundwater Source
- Non-Community Groundwater Source

Parcel Source: Level 3 Assessors' Parcel Mapping

Public Water Supply Source: Massachusetts Department of Environmental Protection

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Area of Land Use Controls

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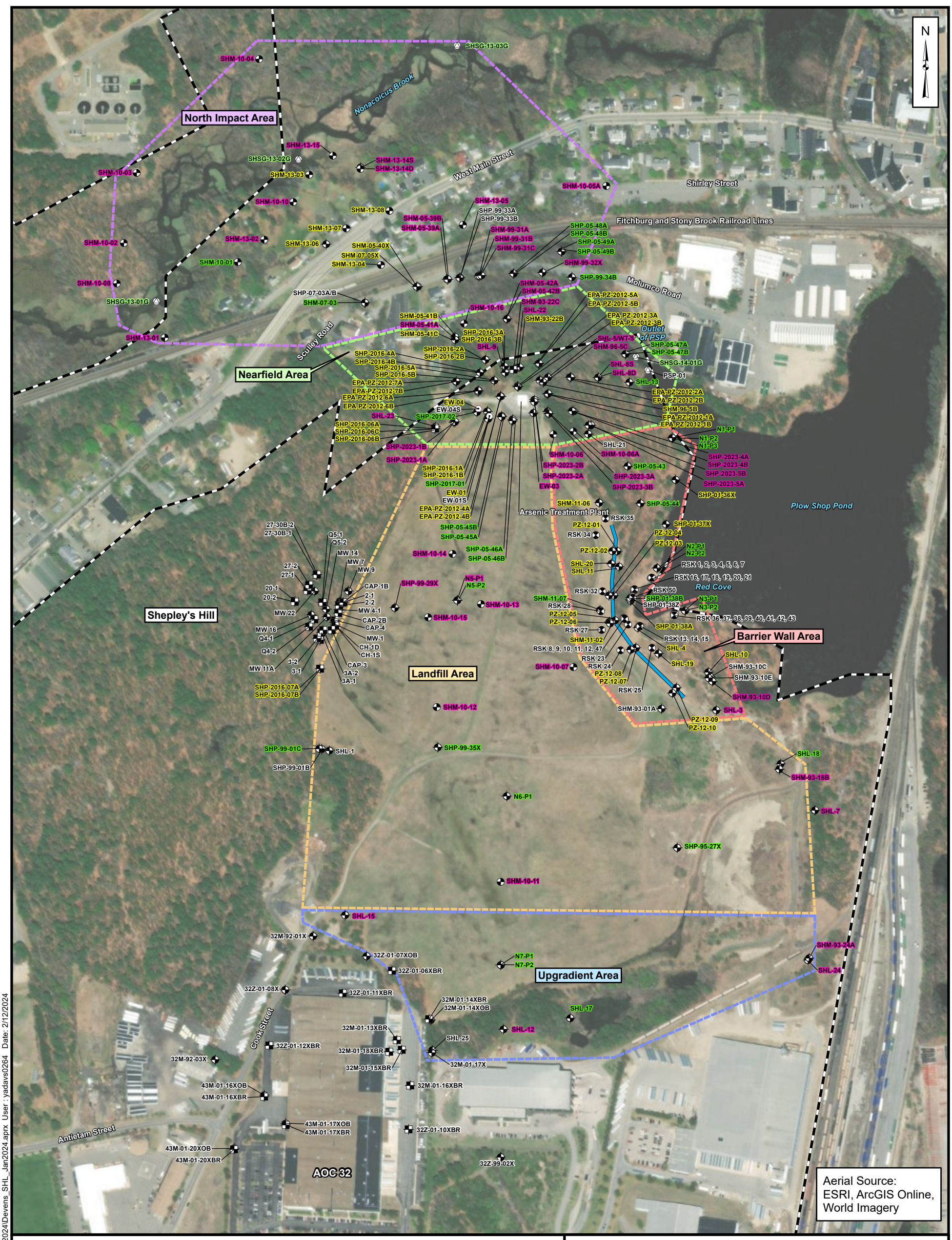
Figure
4

File: Devens_SHL_Jan2024.mxd



Aerial Source: ESRI, ArcGIS Online, World Imagery

Legend

- Former Fort Devens Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall

PZ-12-07	Well/Boring/Gauge Identification
SHM-13-01	LTM Well/Piezometer Annual Sampling (Fall)
SHL-10	LTM Well/Piezometer Semiannual Sampling (Spring/Fall)
SHP-99-01B	LTM Well/Piezometer Hydraulic Monitoring Only

LTM = long-term monitoring
LTMMP = Long-Term Monitoring and Maintenance Plan

Notes:
1. LTM well network established from LTMMP Update (Sovereign 2015) and LTMMP Addendum (KGS 2018).

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Long-Term Monitoring Well Network

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Figure 5

Path: T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AR2024 - SHL\JAN_2024\Devens_SHL_Jan2024.aprx User : yadavs0264 Date: 2/12/2024

File: Devens_SHL_Jan2024.mxd



Aerial Source: ESRI, ArcGIS Online, World Imagery

Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall
- Groundwater Contour (ft NAVD88) (Interval = 2 ft)
- Groundwater Contour (ft NAVD88) (Interval = 2 ft) (Inferred)
- Groundwater Extraction Zone

ft NAVD88 = North American Vertical Datum of 1988

Groundwater Flow Direction

Note:
1. The pumping flow rate was 54.8 gpm for 12 June 2023.

0 350 700
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Groundwater Elevation Contour Map June 12, 2023

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Figure 6

Path: T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AR2024 - SHL\JAN_2024\2024-04-01\Devens_SHL_Jan2024.aprx User : msi01059 Date : 4/2/2024 6:44 PM

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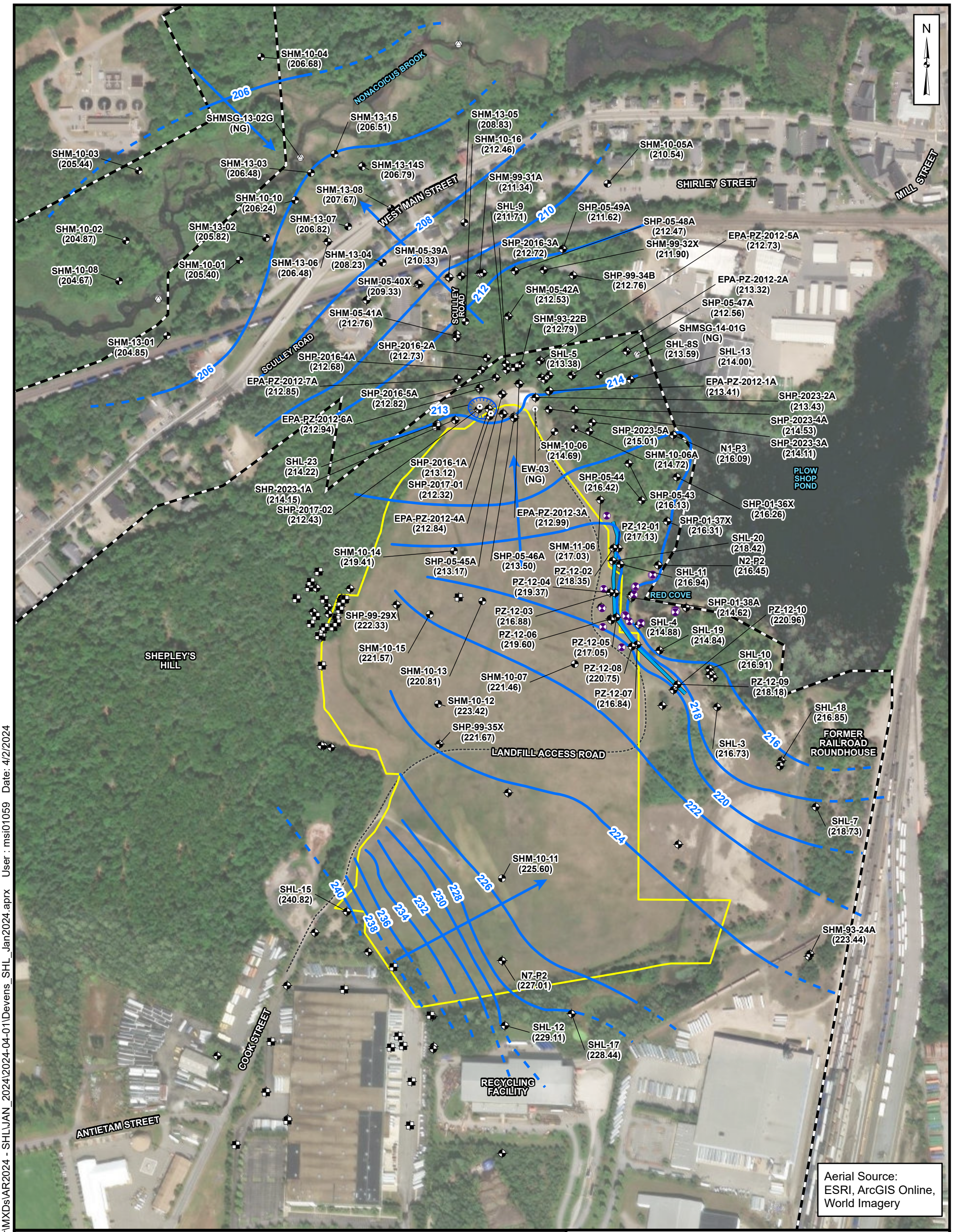

Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall
- Landfill Access Road
- Groundwater Contour (ft NAVD88) (Interval = 2 ft)
- Groundwater Contour (ft NAVD88) (Interval = 2 ft) (Inferred)
- Groundwater Extraction Zone
- Groundwater Flow Direction

Note:
1. NG = Not Gauged
2. Well SHP-99-35X not used for contouring.
3. ft NAVD88 = North American Vertical Datum of 1988
4. 2-ft interval used for drafting contour lines, with the exception of near the EW-1 and EW-4 extraction well area (1-ft interval)
5. The pumping flow rate was 30 gpm and EW-3 was not pumping.

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Groundwater Elevation Contour Map
November 20, 2023

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Figure
7

Document Path: T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AR2024 - SHL\JAN_2024\2024-04-01\Devens_SHL_Jan2024.aprx User : msi01059 Date: 4/2/2024

File: Devens_SHL_Jan2024.aprx

N

SHM-13-07	
Date	06/16/2023
Arsenic	280

SHM-13-04	
Date	06/16/2023
Arsenic	320

SHM-13-08	
Date	06/20/2023
Arsenic	780

SHM-07-05X	
Date	06/16/2023
Arsenic	370

SHM-05-40X	
Date	06/21/2023
Arsenic	2,000

SHM-13-03	
Date	06/20/2023
Arsenic	180

SHP-2016-3A	
Date	06/09/2023
Arsenic	3.4 J

SHP-2016-3B	
Date	06/12/2023
Arsenic	220

SHM-93-22B	
Date	06/12/2023
Arsenic	100

SHM-13-06	
Date	06/16/2023
Arsenic	2,300

SHM-05-41B	
Date	06/09/2023
Arsenic	630

SHM-05-41C	
Date	06/14/2023
Arsenic	37

EPA-PZ-2012-5A	
Date	06/14/2023
Arsenic	1.1 J

EPA-PZ-2012-5B	
Date	06/14/2023
Arsenic	12

SHP-2016-2A	
Date	06/13/2023
Arsenic	3.2 J

SHP-2016-2B	
Date	06/13/2023
Arsenic	420

EPA-PZ-2012-2A	
Date	06/12/2023
Arsenic	3 U

EPA-PZ-2012-2B	
Date	06/13/2023
Arsenic	2.6 J

SHP-2016-4A	
Date	06/13/2023
Arsenic	3 U

SHP-2016-4B	
Date	06/13/2023
Arsenic	1,100

SHM-96-5B	
Date	06/14/2023
Arsenic	950

EPA-PZ-2012-7A	
Date	06/13/2023
Arsenic	3 U

EPA-PZ-2012-7B	
Date	06/09/2023
Arsenic	1,200

EPA-PZ-2012-1A	
Date	06/09/2023
Arsenic	1.1 J

SHP-2016-5A	
Date	06/16/2023
Arsenic	2.4 J

SHP-2016-5B	
Date	06/16/2023
Arsenic	590

EPA-PZ-2012-1B	
Date	06/09/2023
Arsenic	170

SHP-01-36X	
Date	06/21/2023
Arsenic	8.4

SHM-11-06	
Date	06/15/2023
Arsenic	650

EPA-PZ-2012-6A	
Date	06/15/2023
Arsenic	0.97 J

EPA-PZ-2012-6B	
Date	06/15/2023
Arsenic	270

SHP-01-37X	
Date	06/21/2023
Arsenic	12

SHP-2016-06A	
Date	06/15/2023
Arsenic	1,900

SHP-2016-06B	
Date	06/14/2023
Arsenic	330

SHP-2016-06C	
Date	06/14/2023
Arsenic	320

EPA-PZ-2012-3A	
Date	06/16/2023
Arsenic	16

EPA-PZ-2012-3B	
Date	06/16/2023
Arsenic	2,400

PZ-12-01	
Date	06/12/2023
Arsenic	540

PZ-12-02	
Date	06/13/2023
Arsenic	270

SHL-11	
Date	06/14/2023
Arsenic	840

SHL-20	
Date	06/15/2023
Arsenic	820

SHP-01-38A	
Date	06/14/2023
Arsenic	80

SHL-4	
Date	06/16/2023
Arsenic	170

SHL-10	
Date	06/15/2023
Arsenic	1.5 J

SHL-19	
Date	06/16/2023
Arsenic	1.5 J

EW-04	
Date	06/16/2023
Arsenic	3,100

EW-01	
Date	06/16/2023
Arsenic	1,600

PZ-12-04	
Date	06/13/2023
Arsenic	730

PZ-12-03	
Date	06/13/2023
Arsenic	710

PZ-12-09	
Date	06/14/2023
Arsenic	1.4 J

PZ-12-10	
Date	06/14/2023
Arsenic	3 U

SHP-2016-1A	
Date	06/14/2023
Arsenic	3 U

SHP-2016-1B	
Date	06/26/2023
Arsenic	110

SHP-2016-07A	
Date	06/15/2023
Arsenic	180

SHP-2016-07B	
Date	06/15/2023
Arsenic	63

EPA-PZ-2012-4A	
Date	06/14/2023
Arsenic	2.5 J

EPA-PZ-2012-4B	
Date	06/14/2023
Arsenic	1,700

PZ-12-06	
Date	06/13/2023
Arsenic	3 U

SHM-11-02	
Date	06/16/2023
Arsenic	3 U

PZ-12-05	
Date	06/13/2023
Arsenic	1.7 J

PZ-12-08	
Date	06/15/2023
Arsenic	1.9 J

PZ-12-07	
Date	06/15/2023
Arsenic	62

SHM-13-03
SHM-13-08
SHM-13-07
SHM-13-06
SHM-13-04
SHM-07-05X
SHM-05-40X
SHM-07-03
SHM-05-41B
SHP-2016-05A/B
SHM-05-41C
SHP-2016-03A/B
SHM-93-22B
SHP-2016-02A/B
SHP-2016-04A/B
EPA-PZ-2012-5A/B
EPA-PZ-2012-2A/B
EPA-PZ-2012-7A/B
SHM-96-5B
EPA-PZ-2012-1A/B
SHP-2016-01A/B
SHP-2023-3A
SHP-2023-4A
EPA-PZ-2012-6A/B
EW-4
SHP-2023-3B
SHP-2023-4B
SHP-2023-1A/B
SHP-2023-5A
SHP-2016-06A/B/C
EW-1
SHP-2023-2A
SHP-2023-5B
SHP-2023-2B
EW-03
EPA-PZ-2012-3A/B
SHP-01-36X
EPA-PZ-2012-4A/B
SHM-11-06
SHP-01-37X
PZ-12-01
PZ-12-02
SHL-20
SHL-11
PZ-12-03
PZ-12-04
SHP-01-38A
SHM-11-02
PZ-12-05
SHL-4
PZ-12-06
PZ-12-07
SHL-19
SHL-10
PZ-12-08
PZ-12-09
PZ-12-10
EW-01
SHP-2016-07A/B
PZ-12-04
PZ-12-03
PZ-12-06
SHM-11-02
PZ-12-05
PZ-12-08
PZ-12-07
Nonesenjns Brook
West Main Street
Shirley Street
Fitchburg and Stony Brook Railroad Lines
Molumco Road
Old West Main Street
Outlet of PSP
Arsenic Treatment Plant
Plow Shop Pond
Red Cove
Cook Street

Aerial Source:
ESRI, ArcGIS Online,
World Imagery

Document Path: T:_ENV\Devens_RFTA\Seed_Task_Order\MXDs\AR2024 - SHL\JAN_2024\2024-04-04\Devens_SHL_Jan2024.aprx User : msi01059 Date: 4/5/2024

File: Devens_SHL_Jan2024.aprx

Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Well with Arsenic Concentration Above 1,000 µg/L
- Well with Arsenic Concentration Between 100 and 1,000 µg/L
- Well with Arsenic Concentration Between 10 and 100 µg/L
- Well with Arsenic Concentration Below 10 µg/L
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall

Notes:
1. Results are for Dissolved Arsenic.
2. All concentrations in micrograms per liter (µg/L).
3. J = Estimated Result
4. Arsenic GW-1 Standard = 10 µg/L
5. **BOLD** values indicate GW-1 exceedances.

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Dissolved Arsenic in Groundwater
Spring 2023
North Impact Area and Shepley's Hill Landfill

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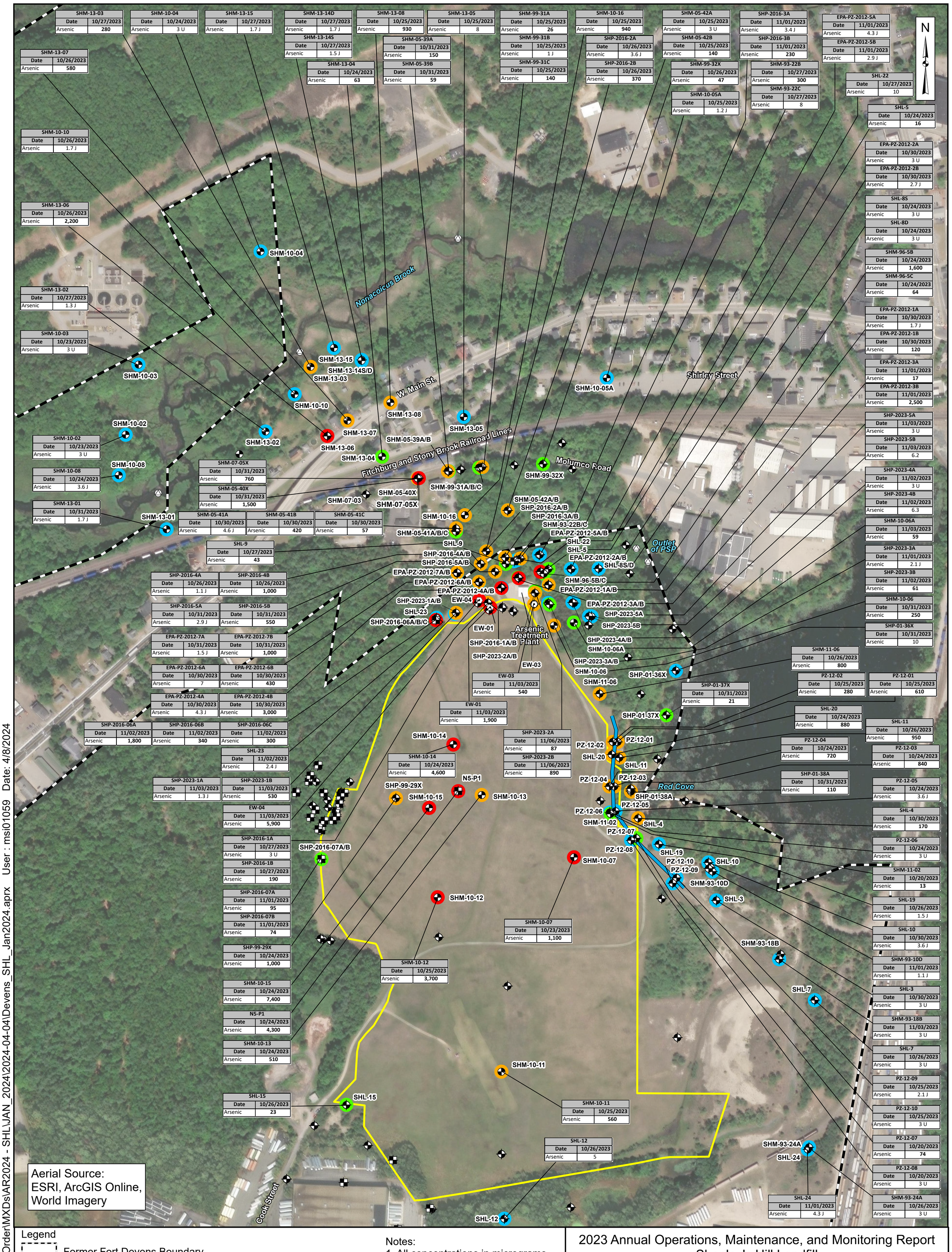
Figure
8


N
Noriacoicus Brook
W. Main St.
Shirley Street
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Cook Street
SHM-10-04
SHM-10-03
SHM-10-10
SHM-10-02
SHM-10-08
SHM-13-01
SHM-13-02
SHM-13-03
SHM-13-04
SHM-13-05
SHM-13-06
SHM-13-07
SHM-13-08
SHM-13-15
SHM-13-14S/D
SHM-05-39A/B
SHM-05-40X
SHM-07-03
SHM-07-05X
SHM-99-31A/B/C
SHM-99-32X
SHM-10-05A
SHM-10-16
SHM-05-41A/B/C
SHM-05-42A/B
SHP-2016-2A/B
SHP-2016-3A/B
SHM-93-22B/C
EPA-PZ-2012-5A/B
SHL-9
SHL-22
SHL-5
SHL-8S/D
SHP-2016-4A/B
SHP-2016-5A/B
EPA-PZ-2012-7A/B
EPA-PZ-2012-6A/B
EPA-PZ-2012-4A/B
EPA-PZ-2012-2A/B
EPA-PZ-2012-1A/B
EPA-PZ-2012-3A/B
SHM-96-5B/C
SHP-2023-1A/B
SHL-23
SHP-2016-06A/B/C
EW-04
EW-01
EW-03
SHP-2016-1A/B
SHP-2023-2A/B
SHP-2023-5A
SHP-2023-5B
SHP-2023-4A/B
SHM-10-06A
SHP-2023-3A/B
SHM-10-06
SHP-01-36X
SHM-11-06
SHM-10-14
SHP-99-29X
N5-P1
SHM-10-15
SHM-10-13
SHM-10-12
SHM-10-07
SHM-10-11
SHL-15
SHL-12
SHP-2016-07A/B
SHP-01-37X
SHP-01-38A
PZ-12-01
PZ-12-02
PZ-12-03
PZ-12-04
PZ-12-05
PZ-12-06
PZ-12-07
PZ-12-08
PZ-12-09
PZ-12-10
SHL-20
SHL-11
SHL-4
SHL-19
SHL-10
SHM-93-10D
SHL-3
SHM-93-18B
SHL-7
SHM-93-24A
SHL-24
SHP-2016-1A
SHP-2016-1B
SHP-2016-07A
SHP-2016-07B
SHP-99-29X
SHM-10-15
N5-P1
SHM-10-13
EW-04
SHP-2023-1A
SHP-2023-1B
SHP-2016-06A
SHP-2016-06B
SHP-2016-06C
EPA-PZ-2012-4A
EPA-PZ-2012-4B
EPA-PZ-2012-6A
EPA-PZ-2012-6B
EPA-PZ-2012-7A
EPA-PZ-2012-7B
SHP-2016-5A
SHP-2016-5B
SHP-2016-4A
SHP-2016-4B
SHL-9
SHM-05-41A
SHM-05-41B
SHM-05-41C
SHM-13-01
SHM-10-02
SHM-10-08
SHM-13-02
SHM-10-10
SHM-13-06
SHM-13-02
SHM-10-03
SHM-13-07
SHM-13-03
SHM-13-15
SHM-13-14D
SHM-13-14S
SHM-13-08
SHM-13-05
SHM-05-39A
SHM-05-39B
SHM-13-04
SHM-99-31A
SHM-99-31B
SHM-99-31C
SHP-2016-2A
SHP-2016-2B
SHM-10-16
SHM-05-42A
SHM-05-42B
SHM-99-32X
SHM-10-05A
SHP-2016-3A
SHP-2016-3B
SHM-93-22B
SHM-93-22C
EPA-PZ-2012-5A
EPA-PZ-2012-5B
SHL-22
SHL-5
EPA-PZ-2012-2A
EPA-PZ-2012-2B
SHL-8S
SHL-8D
SHM-96-5B
SHM-96-5C
EPA-PZ-2012-1A
EPA-PZ-2012-1B
EPA-PZ-2012-3A
EPA-PZ-2012-3B
SHP-2023-5A
SHP-2023-5B
SHP-2023-4A
SHP-2023-4B
SHM-10-06A
SHP-2023-3A
SHP-2023-3B
SHM-10-06
SHP-01-36X
SHM-11-06
PZ-12-02
PZ-12-01
SHP-01-37X
SHL-20
SHL-11
PZ-12-04
PZ-12-03
SHP-01-38A
PZ-12-05
PZ-12-06
PZ-12-07
PZ-12-08
PZ-12-09
PZ-12-10
SHL-4
SHL-10
SHM-11-02
SHL-19
SHM-93-10D
SHL-3
SHM-93-18B
SHL-7
SHM-93-24A
SHL-24
SHM-10-01
SHM-10-02
SHM-10-03
SHM-10-04
SHM-10-05
SHM-10-06
SHM-10-07
SHM-10-08
SHM-10-09
SHM-10-10
SHM-10-11
SHM-10-12
SHM-10-13
SHM-10-14
SHM-10-15
SHM-10-16
SHM-11-01
SHM-11-02
SHM-11-03
SHM-11-04
SHM-11-05
SHM-11-06
SHM-13-01
SHM-13-02
SHM-13-03
SHM-13-04
SHM-13-05
SHM-13-06
SHM-13-07
SHM-13-08
SHM-13-09
SHM-13-10
SHM-13-11
SHM-13-12
SHM-13-13
SHM-13-14D
SHM-13-14S
SHM-13-15
SHM-93-01
SHM-93-02
SHM-93-03
SHM-93-04
SHM-93-05
SHM-93-06
SHM-93-07
SHM-93-08
SHM-93-09
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SHM-93-31
SHM-93-32
SHM-93-33
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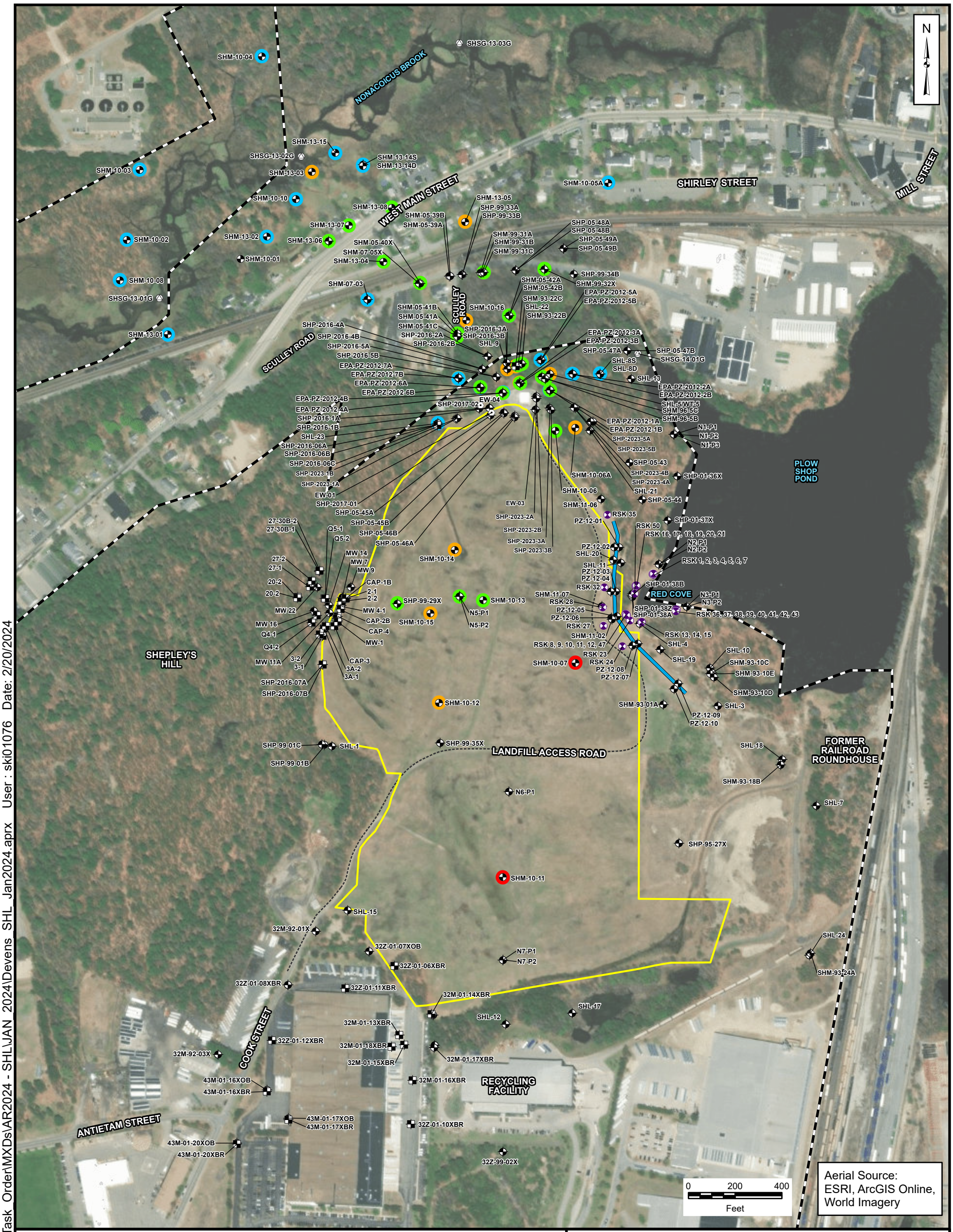
SHM-93-38
SHM-93-39
SHM-93-40



Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Overburden Monitoring Well/Piezometer
- Groundwater Profiling Location/Monitoring Well
- Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream Gauge
- Barrier Wall
- Landfill Access Road
- Statistically Significant Evidence of a Decreasing Trend
- Arsenic Concentration is Below 10 µg/L
- Insufficient Evidence of a Statistically Significant Trend
- Statistically Significant Evidence of an Increasing Trend

µg/L = micrograms per liter

Notes:
1. Arsenic concentration trends evaluated using ProUCL Mann-Kendall statistical software.

2023 Annual Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Arsenic Concentration Trends

SERES Engineering & Services, LLC
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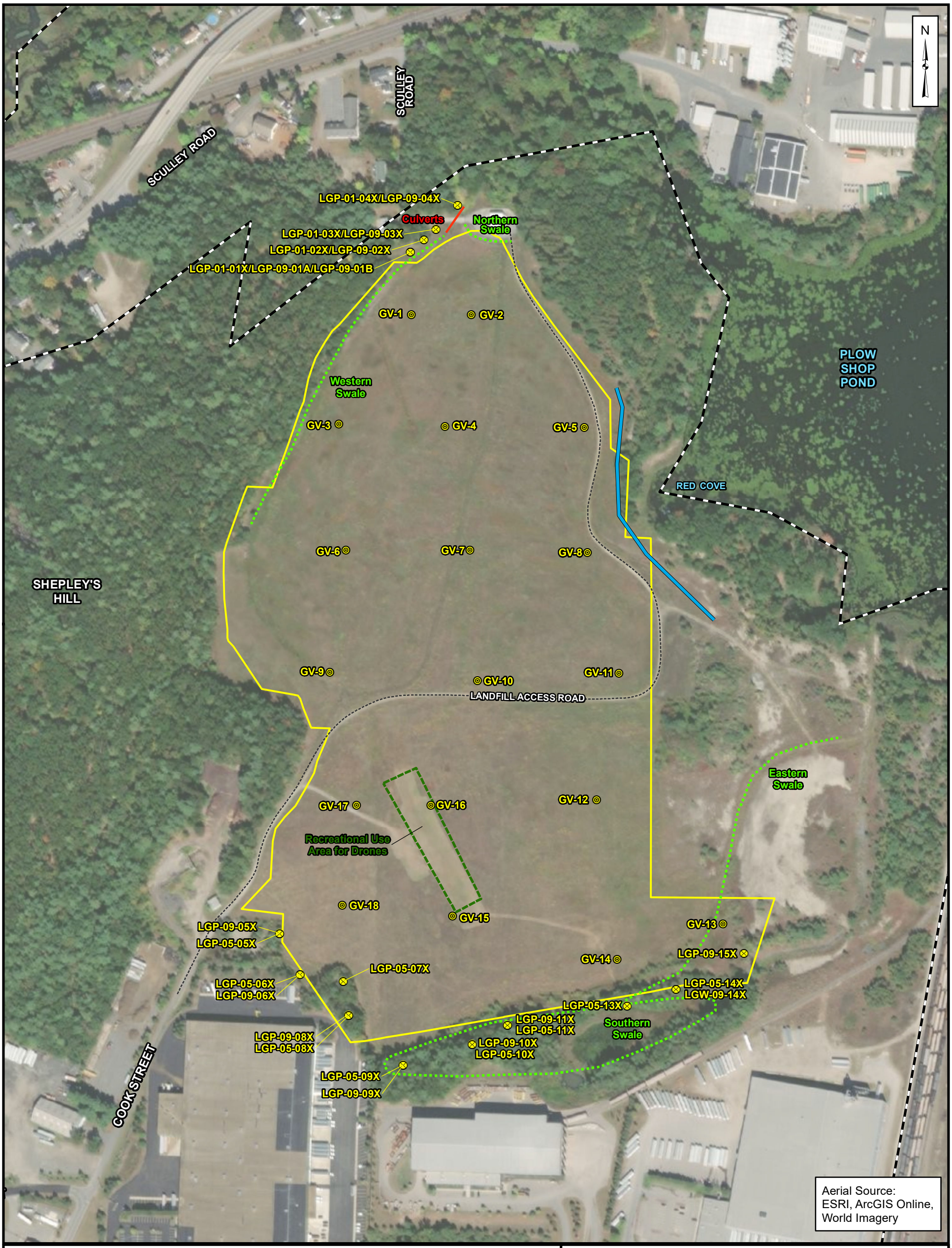
Figure
10

Document Path: T:\ ENV\Devens RFTA\Seed Task Order\MXDs\AR2024 - SHL\JAN 2024\Devens SHL_Jan2024.aprx User : ski01076 Date: 2/20/2024

File: Devens_SHL_Jan2024.mxd



Legend

- Former Fort Devens Boundary
- Shepley's Hill Landfill Boundary
- Gas Vent
- Gas Probe
- Culvert
- Drainage Swale
- Landfill Access Road
- Barrier Wall
- Recreational Use Area for Drones

0 200 400
Feet

2023 Annual Operations, Maintenance, and Monitoring Report
Shepley's Hill Landfill
Former Fort Devens Army Installation
Devens, Massachusetts

Landfill
Gas Probes and Vents

SERES Engineering & Services, LLC
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Figure
11

File: Figure 11 - SHL Gas Probes & Vents.mxd

Appendix A

Groundwater Monitoring Field Forms

SERES Engineering & Services, LLC

ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	6/12/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Spring LTM
Facility Location:	Devens, MA, USA	**Area:**	SHL - Spring
Field Technician:	Frank Martinez	**Equipment:**	Water Level Meter

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Depth to Product (ft bmp)	Well Head PID Reading (ppmv)	Comments
EPA-PZ-2012-1A	06-12-2023	11:09	Yes	11.44	26.78	--	--	
EPA-PZ-2012-1B	06-12-2023	11:16	Yes	11.13	77.36	--	--	
EPA-PZ-2012-2A	06-12-2023	09:05	Yes	10.86	28.31	--	--	Construction depth appears to be from the surface not TOC.
EPA-PZ-2012-2B	06-12-2023	09:10	Yes	10.92	83.16	--	--	Construction depth appears to be from the surface, not TOC.
EPA-PZ-2012-3A	06-12-2023	10:38	Yes	10.86	27.71	--	--	
EPA-PZ-2012-3B	06-12-2023	10:58	Yes	10.85	76.9	--	--	
EPA-PZ-2012-4A	06-12-2023	11:10	Yes	15.03	27.84	--	--	
EPA-PZ-2012-4B	06-12-2023	11:16	Yes	14.94	76.89	--	--	
EPA-PZ-2012-5A	06-12-2023	09:50	Yes	8.31	26.91	--	--	
EPA-PZ-2012-5B	06-12-2023	09:40	Yes	7.66	85.62	--	--	
EPA-PZ-2012-6A	06-12-2023	12:02	Yes	22.68	33.24	--	--	
EPA-PZ-2012-6B	06-12-2023	11:55	Yes	22.63	80.81	--	--	
EPA-PZ-2012-7A	06-12-2023	08:03	Yes	22.53	29.35	--	--	
EPA-PZ-2012-7B	06-12-2023	07:58	Yes	22.51	64.26	--	--	
PZ-12-01	06-12-2023	07:56	Yes	20.67	35.71	--	--	
PZ-12-02	06-12-2023	07:52	Yes	19.99	34.61	--	--	
PZ-12-03	06-12-2023	08:41	Yes	19.77	36.55	--	--	
PZ-12-04	06-12-2023	08:44	Yes	19.38	36.98	--	--	
PZ-12-05	06-12-2023	09:11	Yes	21.9	34.58	--	--	
PZ-12-06	06-12-2023	08:58	Yes	23.12	35.91	--	--	
PZ-12-07	06-12-2023	09:30	Yes	27.98	33.24	--	--	
PZ-12-08	06-12-2023	09:34	Yes	24.6	32.3	--	--	
PZ-12-09	06-12-2023	10:03	Yes	24.1	33.19	--	--	
PZ-12-10	06-12-2023	10:06	Yes	21.89	32.32	--	--	
SHL-10	06-12-2023	09:54	Yes	31.31	38.6	--	--	
SHL-11	06-12-2023	08:33	Yes	18.83	29.87	--	--	
SHL-19	06-12-2023	09:48	Yes	23.96	32.5	--	--	
SHL-20	06-12-2023	08:23	Yes	17.74	50.55	--	--	
SHL-4	06-12-2023	10:26	Yes	10.9	14.72	--	--	
SHM-05-40X	06-12-2023	07:43	Yes	14.52	33.36	--	--	
SHM-05-41B	06-12-2023	11:47	Yes	10.95	64.09	--	--	
SHM-05-41C	06-12-2023	11:52	Yes	11.17	87.65	--	--	Slight odor
SHM-07-05X	06-12-2023	07:46	Yes	14.7	63.23	--	--	
SHM-11-02	06-12-2023	09:20	Yes	22.22	68.38	--	--	
SHM-11-06	06-12-2023	08:14	Yes	19.88	35.83	--	--	
SHM-13-03	06-12-2023	11:28	Yes	5.84	48.08	--	--	
SHM-13-04	06-12-2023	12:01	Yes	19.33	29.89	--	--	
SHM-13-06	06-12-2023	11:49	Yes	17.73	45.72	--	--	
SHM-13-07	06-12-2023	11:17	Yes	19.25	35.22	--	--	
SHM-13-08	06-12-2023	11:06	Yes	20.65	64.45	--	--	
SHM-93-22B	06-12-2023	10:28	Yes	7.71	92.44	--	--	
SHM-96-5B	06-12-2023	09:31	Yes	6.8	88.65	--	--	
SHP-01-36X	06-12-2023	08:34	Yes	7.89	12.94	--	--	Construction depth appears to be from surface not toc.
SHP-01-37X	06-12-2023	08:45	Yes	7.56	11.2	--	--	Construction depth is off.
SHP-01-38A	06-12-2023	10:33	Yes	4.28	9.1	--	--	

ft-bmp = feet below measuring point
ppmV = parts per million by volume

SERES Engineering & Services, LLC

ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	6/12/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Spring LTM
Facility Location:	Devens, MA, USA	**Area:**	SHL - Spring
Field Technician:	Frank Martinez	**Equipment:**	Water Level Meter

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Depth to Product (ft bmp)	Well Head PID Reading (ppmv)	Comments
SHP-2016-06A	06-12-2023	10:04	Yes	29.97	85.5	--	--	
SHP-2016-06B	06-12-2023	10:15	Yes	21.68	112	--	--	
SHP-2016-06C	06-12-2023	10:25	Yes	21.4	133	--	--	
SHP-2016-07A	06-12-2023	09:13	Yes	19.35	31.8	--	--	
SHP-2016-07B	06-12-2023	09:16	Yes	25.34	79.84	--	--	
SHP-2016-1A	06-12-2023	09:32	Yes	15.59	26.12	--	--	Construction depth appears to be from the surface not TOC.
SHP-2016-1B	06-12-2023	09:41	Yes	17.05	85.6	--	--	Sudsy bubbles in well (documented on hands after removing tubing)
SHP-2016-2A	06-12-2023	12:55	Yes	14.39	27.39	--	--	
SHP-2016-2B	06-12-2023	12:45	Yes	14.4	87.84	--	--	
SHP-2016-3A	06-12-2023	10:18	Yes	11.59	27.48	--	--	
SHP-2016-3B	06-12-2023	10:12	Yes	11.59	87.53	--	--	
SHP-2016-4A	06-12-2023	12:25	Yes	18.41	32.76	--	--	
SHP-2016-4B	06-12-2023	12:22	Yes	18.22	92.53	--	--	
SHP-2016-5A	06-12-2023	12:41	Yes	15.43	32.75	--	--	
SHP-2016-5B	06-12-2023	12:34	Yes	15.36	92.51	--	--	
SHP-2017-01	06-12-2023	11:28	Yes	19.38	78.33	--	--	
SHP-2017-02	06-12-2023	11:34	Yes	19.74	93.35	--	--	

ft-bmp = feet below measuring point
ppmV = parts per million by volume

Groundwater Sampling Form

Location ID:	SHP-01-38A	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:71.49 °F, rH:78%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		NA	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	2.00-7.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.28	**Total Depth (ft-bmp):**	9.1	**Water Column(ft):**	4.82	**Gallons in Well:**	0.20
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:30	**Total Volume Purged (gallons):**	1	**Sample ID:**	SHP-01-38A-SPR23	**Sample Time:**	NA
Purge End Time:	13:59	**Well Volumes Purged (total):**	5.00	**Replicate Type / Replicate ID:**	**Duplicate** / SHP-DUP05-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:35	0	150	mL/min	4.39	5.89	0.183	13.5	1.29	12	4.1	Clear	No Odor
13:40	5	150	mL/min	4.39	5.9	0.183	4.7	0.95	11.8	-0.2	Clear	No Odor
13:45	10	150	mL/min	4.39	5.92	0.183	2.2	0.88	11.8	-3.1	Clear	No Odor
13:50	15	150	mL/min	4.39	5.94	0.182	1.9	0.88	11.7	-4.9	Clear	No Odor
13:55	20	150	mL/min	4.39	5.96	0.182	1.5	0.85	11.7	-6.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-20	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:64.04 °F, rH:84%, Clouds: 0%, Wind:1.01mph SE			**Field Technician:**		NA	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	-	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.74	**Total Depth (ft-bmp):**	50.55	**Water Column(ft):**	31.81	**Gallons in Well:**	20.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:40	**Total Volume Purged (gallons):**	1.09	**Sample ID:**	SHL-20-SPR23	**Sample Time:**	NA
Purge End Time:	15:14	**Well Volumes Purged (total):**	0.05	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP03-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:45	0	140	mL/min	17.76	6.2	0.859	15.5	1.12	18.3	-84.2	Clear	Slight
14:49	4	140	mL/min	17.78	6.25	0.884	8.2	0.96	18.5	-92.5	Clear	Slight
14:55	10	140	mL/min	17.78	6.32	0.899	8.4	0.79	18	-101.6	Clear	Slight
15:00	15	140	mL/min	17.79	6.35	0.902	8.4	0.74	18.2	-105	Clear	No Odor
15:05	20	140	mL/min	17.79	6.37	0.9	8.2	0.7	18.5	-107.4	Clear	Slight
15:10	25	140	mL/min	17.78	6.38	0.907	8.5	0.68	18.7	-108.8	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-06	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:65.91 °F, rH:85%, Clouds: 99%, Wind:3.76mph S			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.12	**Total Depth (ft-bmp):**	35.91	**Water Column(ft):**	12.79	**Gallons in Well:**	2.08
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:05	**Total Volume Purged (gallons):**	1.4	**Sample ID:**	PZ-12-06-SPR23	**Sample Time:**	NA
Purge End Time:	15:44	**Well Volumes Purged (total):**	0.67	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP02-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:10	0	150	mL/min	23.13	5.14	0.31	39.2	0.86	17.8	197.2	Clear	No Odor
15:15	5	150	mL/min	23.13	5.15	0.311	9.78	0.81	17.1	201.6	Clear	No Odor
15:20	10	150	mL/min	23.13	5.17	0.311	5.74	0.77	17.1	203.9	Clear	No Odor
15:25	15	150	mL/min	23.13	5.16	0.311	4.38	0.76	17.1	203.9	Clear	No Odor
15:30	20	150	mL/min	23.14	5.18	0.31	4.4	0.73	17.5	201.8	Clear	No Odor
15:35	25	150	mL/min	23.13	5.19	0.31	4.2	0.7	17.5	201.2	Clear	No Odor
15:40	30	150	mL/min	23.13	5.18	0.308	4.23	0.69	17.3	202.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: SHL-DUP02-SPR23 taken at this well

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-1B	**Date(s):**	2023-06-26	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.53 °F, rH:76%, Clouds: 75%, Wind:8.05mph E-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.24	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	68.76	**Gallons in Well:**	2.79
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	80	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:40	**Total Volume Purged (gallons):**	1.8	**Sample ID:**	SHP-2016-1B-SPR23	**Sample Time:**	13:30
Purge End Time:	13:27	**Well Volumes Purged (total):**	0.65	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 19F103281
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:50	0	150	mL/min	17.21	6.52	0.136	69.06	1.24	19.9	-69.1	Clear	No Odor
12:55	5	150	mL/min	17.28	6.51	0.133	5.25	1.16	19	-70.8	Clear	No Odor
13:00	10	150	mL/min	17.31	6.49	0.134	4.89	1.13	19.5	-71.1	Clear	No Odor
13:05	15	150	mL/min	17.31	6.49	0.134	5.35	1.12	19	-70.9	Clear	No Odor
13:10	20	150	mL/min	17.33	6.47	0.136	5.61	1.09	19.4	-70.3	Clear	No Odor
13:16	26	150	mL/min	17.33	6.47	0.137	6.28	1.09	19.2	-69.9	Clear	No Odor
13:20	30	150	mL/min	17.33	6.46	0.136	6.77	1.08	19	-69.5	Clear	No Odor
13:25	35	150	mL/min	17.31	6.47	0.134	6.63	1.09	19.1	-68.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-11-06	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:63.5 °F, rH:85%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.88	**Total Depth (ft-bmp):**	35.83	**Water Column(ft):**	15.95	**Gallons in Well:**	2.59
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:55	**Total Volume Purged (gallons):**	1.4	**Sample ID:**	SHM-11-06-SPR23	**Sample Time:**	16:40
Purge End Time:	16:39	**Well Volumes Purged (total):**	0.54	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:00	0	130	mL/min	19.97	6.35	0.713	71.4	3.81	14.8	-36.1	Clear	No Odor
16:05	5	130	mL/min	19.97	6.21	0.938	36.2	1.35	14.1	-63.1	Clear	No Odor
16:10	10	130	mL/min	19.97	6.25	0.999	21.9	0.85	13.3	-76.6	Clear	No Odor
16:15	15	130	mL/min	19.97	6.26	0.996	14	0.8	13.5	-80.8	Clear	No Odor
16:20	20	130	mL/min	19.97	6.27	1.002	10.7	0.72	13.7	-83.2	Clear	No Odor
16:26	26	130	mL/min	19.97	6.26	1.005	8	0.68	13.5	-85.4	Clear	No Odor
16:30	30	130	mL/min	19.97	6.26	1.001	8.6	0.66	13.6	-86.6	Clear	No Odor
16:35	35	130	mL/min	19.97	6.27	1.007	8.3	0.66	13.4	-87.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-05-41B	**Date(s):**	2023-06-09	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:62.49 °F, rH:83%, Clouds: 100%, Wind:4.61mph S			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	62.00-64.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.95	**Total Depth (ft-bmp):**	64.09	**Water Column(ft):**	52.14	**Gallons in Well:**	8.47
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:15	**Total Volume Purged (gallons):**	1.4	**Sample ID:**	SHM-05-41B-SPR23	**Sample Time:**	NA
Purge End Time:	14:54	**Well Volumes Purged (total):**	0.17	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	150	mL/min	10.82	6.78	0.379	22	1.08	10.7	-146.4	Clear	No Odor
14:25	6	150	mL/min	10.84	6.69	0.318	22.2	0.89	10.6	-146.6	Clear	Slight
14:30	10	150	mL/min	10.85	6.65	0.301	22.7	0.84	10.8	-144.7	Clear	Slight
14:35	15	150	mL/min	10.85	6.6	0.279	16.1	0.8	10.9	-134.7	Clear	No Odor
14:40	20	150	mL/min	10.84	6.58	0.276	16.5	0.79	11.1	-131.6	Clear	Slight
14:45	25	150	mL/min	10.85	6.56	0.274	16.8	0.77	11.1	-127.6	Clear	Slight
14:50	30	150	mL/min	10.86	6.54	0.271	16.4	0.76	11.2	-124.6	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-05-41C	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:76.86 °F, rH:71%, Clouds: 0%, Wind:6.91mph E			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	88.00-93.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.17	**Total Depth (ft-bmp):**	87.65	**Water Column(ft):**	76.48	**Gallons in Well:**	12.43
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	86	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:45	**Total Volume Purged (gallons):**	1.8	**Sample ID:**	SHM-05-41C-SPR23	**Sample Time:**	12:35
Purge End Time:	12:34	**Well Volumes Purged (total):**	0.14	**Replicate Type / Replicate ID:**	**MS/MSD** / SHM-05-41C-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	150	mL/min	11.48	6	0.415	6.8	1.03	12	102.9	Clear	No Odor
11:55	5	150	mL/min	11.48	5.95	0.415	7.5	0.85	11.9	85.7	Clear	No Odor
12:00	10	150	mL/min	11.48	6.04	0.421	6.1	0.77	12	17.3	Clear	No Odor
12:05	15	150	mL/min	11.48	6.14	0.424	4.5	0.71	11.9	-13.6	Clear	No Odor
12:10	20	150	mL/min	11.48	6.18	0.426	4.6	0.71	11.9	-22	Clear	Slight
12:15	25	150	mL/min	11.48	6.21	0.426	4	0.69	11.6	-28.9	Clear	No Odor
12:20	30	150	mL/min	11.48	6.23	0.427	4.1	0.67	11.6	-32.5	Clear	No Odor
12:25	35	150	mL/min	11.48	6.25	0.427	3.9	0.67	11.4	-35.3	Clear	No Odor
12:30	40	150	mL/min	11.48	6.26	0.425	4.1	0.66	11.7	-37.4	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-05-40X	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:62.73 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		SpencerGust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	32.00-34.0	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.52	**Total Depth (ft-bmp):**	33.36	**Water Column(ft):**	18.84	**Gallons in Well:**	3.06
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:58	**Total Volume Purged (gallons):**	2.37	**Sample ID:**	SHM-05-40X-SPR23	**Sample Time:**	14:46
Purge End Time:	14:46	**Well Volumes Purged (total):**	0.77	**Replicate Type / Replicate ID:**	**MS/MSD**	**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:06	0	200	mL/min	14.3	6.71	0.075	10.49	7.01	16.2	37.7	Clear	No Odor
14:12	6	200	mL/min	14.3	6.31	0.067	9.88	5.89	15.7	53.7	Clear	No Odor
14:18	12	200	mL/min	14.3	6.19	0.097	18.08	3.81	15.2	17.48	Clear	No Odor
14:22	16	200	mL/min	14.3	6.27	0.142	27.63	1.69	14.8	-16.7	Clear	No Odor
14:28	22	200	mL/min	14.3	6.43	0.186	24.27	0.82	15.4	-60.7	Clear	No Odor
14:33	27	200	mL/min	14.3	6.49	0.299	25.58	0.49	15.5	-89.8	Clear	No Odor
14:38	32	200	mL/min	14.3	6.53	0.299	23.62	0.38	15.5	-90	Clear	No Odor
14:43	37	200	mL/min	14.3	6.57	0.299	23.94	0.24	15.5	-97.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-4	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:71.47 °F, rH:78%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	3.00-13.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.9	**Total Depth (ft-bmp):**	14.72	**Water Column(ft):**	3.82	**Gallons in Well:**	0.62
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	12	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:50	**Total Volume Purged (gallons):**	1.72	**Sample ID:**	SHL-4-SPR23	**Sample Time:**	11:40
Purge End Time:	11:39	**Well Volumes Purged (total):**	2.77	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:55	0	100	mL/min	10.92	6.16	0.301	151.4	5.45	17.9	-39.2	Brown	No Odor
11:00	4	150	mL/min	10.94	6.11	0.43	39	5.76	14.7	-33.7	Clear	No Odor
11:05	9	150	mL/min	10.94	6.11	0.496	18.8	0.96	13.8	-48.1	Clear	No Odor
11:10	14	150	mL/min	10.94	6.13	0.488	17.8	0.85	13.8	-50.9	Clear	No Odor
11:15	19	150	mL/min	10.92	6.13	0.482	11.9	0.81	13.5	-52	Clear	No Odor
11:20	24	150	mL/min	10.94	6.13	0.482	9.8	0.78	13.8	-53.3	Clear	No Odor
11:25	29	150	mL/min	10.94	6.12	0.476	10	0.74	14.3	-55	Clear	No Odor
11:30	34	150	mL/min	10.94	6.13	0.477	10.5	0.76	14.5	-54.9	Clear	No Odor
11:35	40	150	mL/min	10.94	6.13	0.474	10.3	0.76	14.1	-54.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: Located inside SHL fence

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-19	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:68.85 °F, rH:72%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.76	**Total Depth (ft-bmp):**	32.5	**Water Column(ft):**	8.74	**Gallons in Well:**	5.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:05	**Total Volume Purged (gallons):**	1	**Sample ID:**	SHL-19-SPR23	**Sample Time:**	12:35
Purge End Time:	12:34	**Well Volumes Purged (total):**	0.18	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:10	0	140	mL/min	23.81	6.68	0.145	11.6	7.71	14.7	41.8	Clear	No Odor
12:15	5	140	mL/min	23.81	6.58	0.144	13.7	7.87	14.7	54.4	Clear	No Odor
12:20	10	140	mL/min	23.83	6.58	0.145	12.9	8.06	14.1	60.7	Clear	No Odor
12:25	15	140	mL/min	23.83	6.57	0.145	12.3	7.89	14.2	65	Clear	No Odor
12:30	20	140	mL/min	23.83	6.57	0.145	12.5	7.84	14.3	67	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-11	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:64.58 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	12.00-27.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.83	**Total Depth (ft-bmp):**	29.87	**Water Column(ft):**	11.04	**Gallons in Well:**	1.79
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:40	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	SHL-11-SPR23	**Sample Time:**	15:15
Purge End Time:	15:14	**Well Volumes Purged (total):**	0.61	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:45	0	125	mL/min	18.83	6.35	0.999	44.9	0.88	16.6	-99.8	Clear	No Odor
14:50	5	120	mL/min	18.83	6.34	0.991	19.6	0.81	16.5	-100.8	Clear	No Odor
14:55	10	120	mL/min	18.83	6.35	0.988	8.2	0.79	16.9	-102.1	Clear	No Odor
15:00	15	120	mL/min	18.82	6.36	0.989	8.6	0.75	16.5	-102.8	Clear	No Odor
15:05	20	120	mL/min	18.83	6.37	0.991	8.8	0.73	16.8	-103.3	Clear	No Odor
15:10	25	120	mL/min	18.83	6.38	0.993	8.2	0.73	16.5	-103.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-10	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:70.74 °F, rH:74%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.89	**Total Depth (ft-bmp):**	32.32	**Water Column(ft):**	10.43	**Gallons in Well:**	1.69
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	31	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:05	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	PZ-12-10-SPR23	**Sample Time:**	10:40
Purge End Time:	10:39	**Well Volumes Purged (total):**	0.77	**Replicate Type / Replicate ID:**	**MS/MSD** / PZ-12-10-SPR23	**Water Quality Meter/ ID:**	/ NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:10	0	150	mL/min	21.86	6.12	0.128	4.2	6	15.4	100.3	Clear	No Odor
10:15	5	150	mL/min	21.86	6.03	0.129	2.3	5.88	15.8	113.4	Clear	No Odor
10:20	10	150	mL/min	21.87	6.05	0.134	1.5	6.23	15.7	116.5	Clear	No Odor
10:25	15	150	mL/min	21.86	6.04	0.133	3.2	6.25	15.5	117.4	Clear	No Odor
10:30	20	150	mL/min	21.86	6.05	0.133	1.2	6.2	15.8	118	Clear	No Odor
10:35	25	150	mL/min	21.86	6.05	0.132	1.2	6.17	15.8	118.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: MS/MSD taken at this well at 1040

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-10	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:68.85 °F, rH:72%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-39.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	31.31	**Total Depth (ft-bmp):**	38.6	**Water Column(ft):**	7.29	**Gallons in Well:**	1.18
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	36	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:15	**Total Volume Purged (gallons):**	1.71	**Sample ID:**	SHL-10-SPR23	**Sample Time:**	9:55
Purge End Time:	09:54	**Well Volumes Purged (total):**	1.45	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:20	0	115	mL/min	31.4	5.86	0.126	31.7	3.21	12.9	92.3	Clear	No Odor
09:25	5	200	mL/min	31.4	5.66	0.064	26.7	1.63	13.1	84.7	Clear	No Odor
09:30	10	200	mL/min	31.4	5.6	0.058	9.4	1.51	13.1	83.8	Clear	No Odor
09:35	15	200	mL/min	31.4	5.58	0.054	6.1	1.42	13.2	80.6	Clear	No Odor
09:40	20	200	mL/min	31.4	5.58	0.052	6.4	1.45	13.1	81.7	Clear	No Odor
09:45	25	200	mL/min	31.4	5.57	0.052	6.2	1.43	13.1	88.7	Clear	No Odor
09:50	30	200	mL/min	31.4	5.57	0.052	6.1	1.48	13.4	90.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-08	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.96 °F, rH:84%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	24.6	**Total Depth (ft-bmp):**	32.3	**Water Column(ft):**	7.7	**Gallons in Well:**	1.25
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	12:45	**Total Volume Purged (gallons):**	2.1	**Sample ID:**	PZ-12-08-SPR23	**Sample Time:**	13:25
Purge End Time:	13:24	**Well Volumes Purged (total):**	1.68	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:50	0	225	mL/min	24.71	5.69	0.152	105.4	1.16	13.8	120.9	Reddish Brown	No Odor
12:55	5	225	mL/min	24.71	5.67	0.154	81.5	0.96	14.3	89.4	Clear	No Odor
13:00	10	225	mL/min	24.71	5.68	0.156	69.8	0.9	13.5	78	Clear	No Odor
13:05	15	225	mL/min	24.71	5.68	0.158	63.9	0.87	13.9	70.3	Clear	No Odor
13:10	20	225	mL/min	24.71	5.71	0.161	65.1	0.9	13.1	62.5	Clear	No Odor
13:15	25	225	mL/min	24.71	5.72	0.161	59.5	0.88	13.1	58.2	Clear	No Odor
13:20	30	225	mL/min	24.71	5.7	0.162	59.1	0.85	13.4	55.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-09	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:70.74 °F, rH:74%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	24.1	**Total Depth (ft-bmp):**	33.19	**Water Column(ft):**	9.09	**Gallons in Well:**	1.48
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	31	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:45	**Total Volume Purged (gallons):**	1.89	**Sample ID:**	PZ-12-09-SPR23	**Sample Time:**	9:45
Purge End Time:	09:44	**Well Volumes Purged (total):**	1.28	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	/ NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:50	0	140	mL/min	24.12	6.5	0.249	11.6	2	15.5	88.6	Clear	No Odor
08:55	5	140	mL/min	24.12	6.47	0.249	9.1	1.82	15.1	89.1	Clear	No Odor
09:00	10	130	mL/min	24.12	6.47	0.248	10.2	1.8	15.2	87.9	Clear	No Odor
09:05	15	130	mL/min	24.12	6.5	0.245	9.4	1.79	15	85.3	Clear	No Odor
09:10	20	130	mL/min	24.12	6.51	0.245	7.3	1.82	15.4	83.8	Clear	No Odor
09:15	25	130	mL/min	12.12	6.54	0.242	5.2	1.87	15.3	83	Clear	No Odor
09:20	30	130	mL/min	24.12	6.53	0.239	2.1	2.03	15.2	82.4	Clear	No Odor
09:25	35	130	mL/min	24.12	6.51	0.229	2.1	2.38	15.3	83.5	Clear	No Odor
09:30	40	130	mL/min	24.12	6.49	0.223	2.4	2.94	15.4	86.6	Clear	No Odor
09:35	45	130	mL/min	24.12	6.48	0.22	2.1	3.2	15.3	87.4	Clear	No Odor
09:40	50	130	mL/min	24.12	6.46	0.218	2.4	3.2	15.1	90.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-07	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.96 °F, rH:84%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	27.98	**Total Depth (ft-bmp):**	33.24	**Water Column(ft):**	5.26	**Gallons in Well:**	0.85
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	31	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	11:15	**Total Volume Purged (gallons):**	4.05	**Sample ID:**	PZ-12-07-SPR23	**Sample Time:**	12:10
Purge End Time:	12:09	**Well Volumes Purged (total):**	4.76	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:20	0	340	mL/min	27.95	6.14	0.076	201.4	9.32	10.4	72.9	Reddish Brown	No Odor
11:25	5	300	mL/min	27.97	6.09	0.115	133.5	8.3	10.2	56.2	Clear	No Odor
11:30	10	300	mL/min	29.97	6.16	0.161	82.5	6.78	10.2	34.6	Clear	No Odor
11:35	15	300	mL/min	27.97	6.28	0.223	44.5	5.55	10	4.6	Clear	No Odor
11:40	20	300	mL/min	27.97	6.32	0.233	32.7	5.39	10	-0.2	Clear	No Odor
11:45	25	300	mL/min	27.97	6.37	0.253	28.7	5.06	10.3	-11.4	Clear	No Odor
11:50	30	300	mL/min	27.97	6.42	0.266	24.5	4.86	10.2	18.3	Clear	No Odor
11:55	35	300	mL/min	27.97	6.46	0.263	24.3	4.83	10.4	-21.2	Clear	No Odor
12:00	40	300	mL/min	27.97	6.48	0.27	24.2	4.79	10.2	-23.3	Clear	No Odor
12:05	45	300	mL/min	27.97	6.51	0.27	24.3	4.76	10.5	-24.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-05	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.36 °F, rH:82%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	26.00-36.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.9	**Total Depth (ft-bmp):**	34.58	**Water Column(ft):**	12.68	**Gallons in Well:**	2.06
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:35	**Total Volume Purged (gallons):**	1.49	**Sample ID:**	PZ-12-05-SPR23	**Sample Time:**	14:25
Purge End Time:	14:24	**Well Volumes Purged (total):**	0.72	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:40	0	125	mL/min	21.89	5.58	0.064	218.3	5.99	17.6	119.9	Reddish Brown	No Odor
13:45	5	125	mL/min	21.89	5.58	0.066	278.1	5.87	17.5	109.6	Clear	No Odor
13:50	10	125	mL/min	21.89	5.59	0.066	278.5	5.77	17.8	106.3	Clear	No Odor
13:55	15	125	mL/min	21.89	5.61	0.066	223.8	5.64	18.4	108.7	Clear	No Odor
14:00	20	125	mL/min	21.89	5.65	0.067	111.2	5.58	18.8	110.2	Clear	No Odor
14:05	25	125	mL/min	21.89	5.65	0.067	11.2	5.55	18.5	105.2	Clear	No Odor
14:10	30	125	mL/min	21.89	5.65	0.068	8.11	5.56	17.9	103.4	Clear	No Odor
14:15	35	125	mL/min	21.9	5.65	0.067	8.1	5.5	18	103.1	Clear	No Odor
14:19	39	125	mL/min	21.89	5.65	0.068	8.2	5.49	18	104.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: Water color during purge

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-04	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:65.39 °F, rH:77%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.38	**Total Depth (ft-bmp):**	36.98	**Water Column(ft):**	17.6	**Gallons in Well:**	2.86
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	34	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:20	**Total Volume Purged (gallons):**	2.09	**Sample ID:**	PZ-12-04-SPR23	**Sample Time:**	12:20
Purge End Time:	12:19	**Well Volumes Purged (total):**	0.73	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:25	0	145	mL/min	19.38	6.19	0.585	8.6	0.73	15.5	-74.4	Clear	No Odor
11:30	5	145	mL/min	19.39	6.19	0.583	8.6	0.7	15.7	-75.3	Clear	No Odor
11:35	10	145	mL/min	19.39	6.19	0.581	6.7	0.66	16	-77.8	Clear	No Odor
11:40	15	145	mL/min	19.38	6.2	0.577	6.4	0.63	15.9	-79.4	Clear	No Odor
11:45	20	145	mL/min	19.39	6.2	0.578	5.8	0.62	16.5	-80.7	Clear	No Odor
11:50	25	145	mL/min	19.38	6.2	0.577	5.8	0.6	16.9	-81.9	Clear	No Odor
11:55	30	145	mL/min	19.38	6.2	0.577	5.7	0.6	16.2	-81.7	Clear	No Odor
12:00	35	145	mL/min	19.39	6.2	0.576	5.8	0.59	16.1	-81.9	Clear	No Odor
12:05	40	145	mL/min	19.38	6.2	0.577	5.3	0.59	15.7	-81.4	Clear	No Odor
12:10	45	145	mL/min	19.38	6.2	0.574	5.3	0.58	15.9	-81.6	Clear	No Odor
12:15	50	145	mL/min	19.38	6.2	0.577	5.3	0.57	15.9	-82.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-03	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:65.39 °F, rH:77%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.77	**Total Depth (ft-bmp):**	36.55	**Water Column(ft):**	16.78	**Gallons in Well:**	2.73
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	34	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:55	**Total Volume Purged (gallons):**	1.6	**Sample ID:**	PZ-12-03-SPR23	**Sample Time:**	10:50
Purge End Time:	10:49	**Well Volumes Purged (total):**	0.59	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	120	mL/min	19.79	6.34	0.791	49.5	0.9	15.5	-83.4	Clear	No Odor
10:05	5	120	mL/min	19.79	6.34	0.791	44.6	0.79	15.3	-86.7	Clear	No Odor
10:10	10	120	mL/min	19.8	6.34	0.791	14.1	0.76	15.4	-87.3	Clear	Slight
10:15	15	120	mL/min	19.79	6.34	0.79	6.1	0.75	15.3	-88.7	Clear	Slight
10:20	20	120	mL/min	19.8	6.34	0.79	8.6	0.73	15.4	-89	Clear	Slight
10:25	25	120	mL/min	19.8	6.34	0.791	4.1	0.72	15.4	-89	Clear	No Odor
10:30	30	120	mL/min	19.78	6.33	0.791	5.3	0.7	15.7	-89.3	Clear	No Odor
10:35	35	120	mL/min	19.78	6.33	0.79	5.1	0.72	15.8	-89.4	Clear	No Odor
10:40	40	120	mL/min	19.78	6.33	0.79	5.2	0.7	15.7	-89.6	Clear	No Odor
10:45	45	120	mL/min	19.78	6.33	0.789	5.3	0.68	15.7	-89.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly:	yes
Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-02	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:62.73 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.99	**Total Depth (ft-bmp):**	34.61	**Water Column(ft):**	13.62	**Gallons in Well:**	2.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:30	**Total Volume Purged (gallons):**	1.44	**Sample ID:**	PZ-12-02-SPR23	**Sample Time:**	9:10
Purge End Time:	09:09	**Well Volumes Purged (total):**	0.65	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:35	0	150	mL/min	19.96	5.96	0.799	35.3	1.26	13.8	-64.2	Clear	No Odor
08:40	5	150	mL/min	19.97	6.01	0.797	36.4	0.89	13.6	-69.4	Clear	No Odor
08:45	10	150	mL/min	19.97	6.05	0.797	21.4	0.8	13.7	-73.1	Clear	No Odor
08:52	17	150	mL/min	19.97	6.07	0.794	21.5	0.78	13.8	-74.4	Clear	No Odor
08:55	20	150	mL/min	19.98	6.09	0.794	22.3	0.76	13.9	-75.1	Clear	No Odor
09:00	25	150	mL/min	19.97	6.11	0.794	22.6	0.75	13.9	-75.4	Clear	No Odor
09:06	31	150	mL/min	19.97	6.12	0.796	22.4	0.74	13.5	-75.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	PZ-12-01	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:62.89 °F, rH:83%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.67	**Total Depth (ft-bmp):**	35.71	**Water Column(ft):**	15.04	**Gallons in Well:**	2.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:55	**Total Volume Purged (gallons):**	1.59	**Sample ID:**	PZ-12-01-SPR23	**Sample Time:**	15:50
Purge End Time:	15:49	**Well Volumes Purged (total):**	0.65	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00	0	115	mL/min	20.67	6.11	0.901	25.8	0.93	18	-73.6	Clear	Slight
15:05	5	120	mL/min	20.67	6.14	0.895	22.7	0.82	17.9	-74.7	Clear	No Odor
15:10	10	120	mL/min	20.68	6.16	0.897	22.7	0.81	17.8	-75.1	Clear	Slight
15:15	15	120	mL/min	20.68	6.18	0.892	22.6	0.76	18.3	-75.4	Clear	Slight
15:20	20	120	mL/min	20.68	6.19	0.899	22.6	0.76	17.5	-74.3	Clear	Slight
15:25	25	120	mL/min	20.68	6.19	0.894	22.3	0.75	17.7	-73.7	Clear	Slight
15:30	30	120	mL/min	20.69	6.2	0.899	22.6	0.74	17.1	-72.9	Clear	Slight
15:35	35	120	mL/min	20.68	6.2	0.897	22.5	0.74	17.2	-72.3	Clear	Slight
15:40	40	120	mL/min	20.69	6.2	0.903	22.5	0.74	17.2	-72	Clear	No Odor
15:45	45	120	mL/min	20.69	6.2	0.9	22.4	0.74	17	-71.3	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EW-04	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:67.01 °F, rH:80%, Clouds: 75%, Wind:8.05mph NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-95.00	**Casing Diameter (in):**	6.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	95	**Water Column(ft):**	0	**Gallons in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Volumetric	**Purging Equipment:**	Dedicated Pump
Purge Start Time:	08:02	**Total Volume Purged (gallons):**	0.16	**Sample ID:**	EW-04-SPR23	**Sample Time:**	NA
Purge End Time:	08:07	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:06	0	150	mL/min		6.1	0.374	1.8	3.5	13.3	-47.2	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: Sampled at 0808

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EW-01	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:66.22 °F, rH:82%, Clouds: 75%, Wind:8.05mph NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-85.00	**Casing Diameter (in):**	6.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	0	**Gallons in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Volumetric	**Purging Equipment:**	Dedicated Pump
Purge Start Time:	07:56	**Total Volume Purged (gallons):**	0.5	**Sample ID:**	EW-01-SPR23	**Sample Time:**	NA
Purge End Time:	08:00	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
07:58	0	0	mL/min		5.99	0.717	1	3.68	13.5	-50.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: Sampled at 0758

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-1B	**Date(s):**	2023-06-09	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:63.72 °F, rH:73%, Clouds: 100%, Wind:8.05mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	73.56-78.56	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.13	**Total Depth (ft-bmp):**	77.36	**Water Column(ft):**	66.23	**Gallons in Well:**	2.69
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:05	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	EPA-PZ-2012-1B-SPR23	**Sample Time:**	12:40
Purge End Time:	12:39	**Well Volumes Purged (total):**	0.45	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:10	0	150	mL/min	11.16	6.32	0.512	0.9	1.04	10.4	-40.9	Clear	No Odor
12:15	5	150	mL/min	11.2	6.34	0.518	1.4	0.89	10.5	-47.3	Clear	No Odor
12:20	10	150	mL/min	11.2	6.38	0.543	1.2	0.83	10.3	-63.3	Clear	No Odor
12:25	15	150	mL/min	11.2	6.41	0.548	1.1	0.78	10.2	-68	Clear	No Odor
12:30	20	150	mL/min	11.2	6.42	0.549	1.2	0.77	10	-68.6	Clear	No Odor
12:35	25	150	mL/min	11.2	6.43	0.549	1.2	0.76	10.1	-69.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-1A	**Date(s):**	2023-06-09	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:61.7 °F, rH:77%, Clouds: 75%, Wind:5.75mph S-SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.70-28.70	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.44	**Total Depth (ft-bmp):**	26.78	**Water Column(ft):**	15.34	**Gallons in Well:**	0.62
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	24	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:20	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	EPA-PZ-2012-1A-SPR23	**Sample Time:**	11:50
Purge End Time:	11:49	**Well Volumes Purged (total):**	1.77	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:25	0	150	mL/min	11.34	6.2	0.129	3.6	2.07	9.8	15.8	Clear	No Odor
11:30	5	150	mL/min	11.44	5.98	0.123	1.2	1.03	9.9	53.7	Clear	No Odor
11:35	10	150	mL/min	11.44	5.95	0.123	1	0.92	9.8	57.3	Clear	No Odor
11:40	15	150	mL/min	11.45	5.95	0.122	1	0.85	9.6	57	Clear	No Odor
11:45	20	150	mL/min	11.44	5.96	0.121	1	0.83	9.7	55.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-07-05X	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:62.73 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	55.00-65.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.7	**Total Depth (ft-bmp):**	63.23	**Water Column(ft):**	48.53	**Gallons in Well:**	7.89
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:25	**Total Volume Purged (gallons):**	1.02	**Sample ID:**	SHM-07-05X-SPR23	**Sample Time:**	14:00
Purge End Time:	13:56	**Well Volumes Purged (total):**	0.13	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:30	0	130	mL/min	16.45	6.95	0.719	2.2	0.87	18.6	-99.9	Clear	No Odor
13:35	5	130	mL/min	17.46	6.9	0.726	2	0.77	18.5	-110.8	Clear	No Odor
13:40	10	130	mL/min	18.23	6.88	0.719	2.4	0.68	18.8	-115.9	Clear	No Odor
13:45	15	130	mL/min	19.14	6.88	0.718	2.3	0.66	19.4	-120.2	Clear	No Odor
13:50	20	130	mL/min	19.97	6.88	0.713	1.7	0.62	19.4	-122.6	Clear	No Odor
13:55	25	130	mL/min	20.88	6.89	0.71	2.3	0.6	19.3	-124.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: no

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-6A	**Date(s):**	2023-06-15	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:77.47 °F, rH:69%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.19-29.19	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.68	**Total Depth (ft-bmp):**	33.24	**Water Column(ft):**	10.56	**Gallons in Well:**	0.43
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:01	**Total Volume Purged (gallons):**	1.25	**Sample ID:**	EPA-PZ-2012-6A-SPR23	**Sample Time:**	15:45
Purge End Time:	15:41	**Well Volumes Purged (total):**	2.91	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:05	0	120	mL/min	22.75	6.83	0.068	5.43	9.63	14.1	74	Clear	No Odor
15:10	5	120	mL/min	22.75	6.46	0.067	4.8	9.67	14.1	96.2	Clear	No Odor
15:15	10	120	mL/min	22.75	6.37	0.067	2.78	9.73	14.1	110.5	Clear	No Odor
15:20	15	120	mL/min	22.75	6.34	0.067	1.85	9.74	13.6	119.8	Clear	No Odor
15:25	20	120	mL/min	22.75	6.29	0.068	2.53	9.65	14.2	126.9	Clear	No Odor
15:30	25	120	mL/min	22.75	6.28	0.067	1.43	9.67	14.4	133.2	Clear	No Odor
15:35	30	120	mL/min	22.75	6.28	0.067	0.76	9.62	14.3	137.8	Clear	No Odor
15:40	35	120	mL/min	22.75	6.26	0.067	0.66	9.68	14.1	142.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-5A	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.64 °F, rH:65%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.43	**Total Depth (ft-bmp):**	32.75	**Water Column(ft):**	17.32	**Gallons in Well:**	0.70
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:58	**Total Volume Purged (gallons):**	1.09	**Sample ID:**	SHP-2016-5A-SPR23	**Sample Time:**	12:35
Purge End Time:	12:31	**Well Volumes Purged (total):**	1.56	**Replicate Type / Replicate ID:**	**Duplicate** / SHP-DUP06-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:05	0	130	mL/min	15.57	6.24	0.207	3.7	0.91	11.7	0.2	Clear	No Odor
12:10	5	130	mL/min	15.59	6.24	0.207	3.2	0.81	11.1	0.9	Clear	No Odor
12:15	10	130	mL/min	15.59	6.22	0.208	3.3	0.76	11.7	0.4	Clear	No Odor
12:20	15	130	mL/min	15.59	6.22	0.207	4.3	0.74	11.2	0.2	Clear	No Odor
12:25	20	130	mL/min	15.59	6.21	0.208	4.6	0.73	11.3	-0.6	Clear	No Odor
12:30	25	130	mL/min	15.59	6.2	0.207	2.9	0.71	11.2	-0.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-5B	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.64 °F, rH:65%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.36	**Total Depth (ft-bmp):**	92.51	**Water Column(ft):**	77.15	**Gallons in Well:**	3.13
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	88	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:57	**Total Volume Purged (gallons):**	1.16	**Sample ID:**	SHP-2016-5B-SPR23	**Sample Time:**	11:35
Purge End Time:	11:31	**Well Volumes Purged (total):**	0.37	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	130	mL/min	15.49	6.45	0.623	45.5	0.9	12.7	-86.3	Clear	No Odor
11:10	5	130	mL/min	15.53	6.43	0.62	14.6	0.81	12.8	-88.5	Clear	No Odor
11:15	10	130	mL/min	15.53	6.43	0.619	5.18	0.77	12.9	-90.1	Clear	No Odor
11:20	15	130	mL/min	15.52	6.42	0.618	3.4	0.77	13	-91.1	Clear	No Odor
11:25	20	130	mL/min	15.53	6.41	0.616	2.6	0.75	12.9	-91.9	Clear	No Odor
11:31	26	130	mL/min	15.53	6.4	0.612	1.8	0.71	13.2	-92.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-4B	**Date(s):**	2023-06-13	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.17 °F, rH:66%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.22	**Total Depth (ft-bmp):**	92.53	**Water Column(ft):**	74.31	**Gallons in Well:**	3.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	87	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:14	**Total Volume Purged (gallons):**	1	**Sample ID:**	SHP-2016-4B-SPR23	**Sample Time:**	14:55
Purge End Time:	14:50	**Well Volumes Purged (total):**	0.33	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	104	mL/min	18.23	6.25	0.409	16.2	1.04	11.8	-67.8	Clear	No Odor
14:25	5	104	mL/min	18.26	6.2	0.396	13.6	0.88	11.6	-68	Clear	No Odor
14:30	10	104	mL/min	18.26	6.2	0.398	5.85	0.82	11.3	-69.9	Clear	No Odor
14:35	15	104	mL/min	18.26	6.19	0.396	3.5	0.76	11.7	-71.5	Clear	No Odor
14:40	20	104	mL/min	18.24	6.19	0.396	2.22	0.73	12.1	-73.3	Clear	No Odor
14:45	25	104	mL/min	18.26	6.21	0.396	1.42	0.71	12.1	-74.5	Clear	No Odor
14:50	30	104	mL/min	18.26	6.21	0.396	1.26	0.7	11.9	-75.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-4A	**Date(s):**	2023-06-13	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.22 °F, rH:66%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.41	**Total Depth (ft-bmp):**	32.76	**Water Column(ft):**	14.35	**Gallons in Well:**	0.58
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:53	**Total Volume Purged (gallons):**	1.65	**Sample ID:**	SHP-2016-4A-SPR23	**Sample Time:**	13:50
Purge End Time:	13:45	**Well Volumes Purged (total):**	2.84	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:55	0	128	mL/min	18.72	6.08	0.052	14.8	9.9	10.8	64.1	Clear	No Odor
13:00	5	124	mL/min	18.72	5.74	0.052	5.78	9.86	10.7	119.8	Clear	No Odor
13:05	10	124	mL/min	18.72	5.66	0.052	3.9	9.77	10.6	147.9	Clear	No Odor
13:10	15	124	mL/min	18.72	5.64	0.052	3.1	9.76	10.5	164.2	Clear	No Odor
13:15	20	120	mL/min	18.72	5.63	0.052	2.9	9.69	10.4	177.3	Clear	No Odor
13:20	25	120	mL/min	18.72	5.61	0.052	3.4	9.59	10.8	187.9	Clear	No Odor
13:25	30	120	mL/min	18.72	5.6	0.052	3.7	9.52	10.7	196.2	Clear	No Odor
13:30	35	120	mL/min	18.72	5.59	0.052	3.7	9.45	10.5	203.6	Clear	No Odor
13:35	40	120	mL/min	18.72	5.47	0.052	2	9.44	10.3	214.8	Clear	No Odor
13:40	45	124	mL/min	18.72	5.46	0.052	2.2	9.32	10.5	219.3	Clear	No Odor
13:45	50	124	mL/min	18.72	5.45	0.052	2.9	9.26	10.5	223.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-3B	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:70.93 °F, rH:74%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.59	**Total Depth (ft-bmp):**	87.53	**Water Column(ft):**	75.94	**Gallons in Well:**	3.08
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:03	**Total Volume Purged (gallons):**	1.4	**Sample ID:**	SHP-2016-3B-SPR23	**Sample Time:**	14:50
Purge End Time:	14:46	**Well Volumes Purged (total):**	0.45	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:10	0	124	mL/min	11.62	6.42	0.296	15.8	1.05	11.8	-56.8	Clear	No Odor
14:15	5	124	mL/min	11.62	6.32	0.34	5.02	0.81	11.7	-58.7	Clear	Slight
14:20	10	124	mL/min	11.62	6.29	0.363	3.37	0.79	11.3	-61	Clear	No Odor
14:25	15	124	mL/min	11.62	6.27	0.375	2.74	0.75	11.6	-62.7	Clear	No Odor
14:30	20	124	mL/min	11.62	6.27	0.385	1.9	0.74	11.6	-64.3	Clear	No Odor
14:35	25	122	mL/min	11.62	6.27	0.39	3.1	0.71	11.7	-65.5	Clear	No Odor
14:40	30	122	mL/min	11.62	6.27	0.398	2.4	0.71	11.8	-66.7	Clear	No Odor
14:45	35	122	mL/min	11.62	6.27	0.4	2	0.7	11.8	-67.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-3A	**Date(s):**	2023-06-09	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:62.28 °F, rH:76%, Clouds: 75%, Wind:5.75mph S-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.59	**Total Depth (ft-bmp):**	27.48	**Water Column(ft):**	15.89	**Gallons in Well:**	0.65
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:25	**Total Volume Purged (gallons):**	2.5	**Sample ID:**	SHP-2016-3A-SPR23	**Sample Time:**	12:30
Purge End Time:	12:26	**Well Volumes Purged (total):**	3.85	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:30	0	150	mL/min	12.33	6.83	0.136	1.4	1.11	9.1	-94.7	Clear	No Odor
11:35	5	150	mL/min	12.35	6.66	0.129	1.5	0.94	8.6	-79.2	Clear	No Odor
11:40	10	150	mL/min	12.35	6.59	0.125	1.2	0.99	8.8	-71.1	Clear	No Odor
11:45	15	150	mL/min	12.35	6.55	0.124	1.3	1.23	8.6	-63.8	Clear	No Odor
11:50	20	150	mL/min	12.35	6.52	0.122	1.3	1.52	8.8	-57.5	Clear	No Odor
11:55	25	150	mL/min	12.35	6.49	0.12	1.4	1.81	9.1	-52.1	Clear	No Odor
12:00	30	150	mL/min	12.35	6.47	0.119	1.5	1.99	9.3	-47.6	Clear	No Odor
12:05	35	150	mL/min	12.35	6.46	0.118	1.5	2.21	8.8	-43.1	Clear	No Odor
12:10	40	150	mL/min	12.35	6.44	0.117	1.8	2.45	8.9	-39	Clear	No Odor
12:16	46	150	mL/min	12.35	6.43	0.116	2.3	2.65	8.9	-35	Clear	No Odor
12:20	50	150	mL/min	12.35	6.42	0.115	2.6	2.71	8.7	-32.5	Clear	No Odor
12:25	55	150	mL/min	12.35	6.41	0.114	3.3	2.88	8.7	-29	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

Location ID:	SHP-2016-2B	**Date(s):**	2023-06-13	**Work Order(s):**		2023 Spring LTM	

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:78.64 °F, rH:65%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.4	**Total Depth (ft-bmp):**	87.84	**Water Column(ft):**	73.44	**Gallons in Well:**	2.98
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:57	**Total Volume Purged (gallons):**	0.65	**Sample ID:**	SHP-2016-2B-SPR23	**Sample Time:**	12:20
Purge End Time:	12:15	**Well Volumes Purged (total):**	0.22	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:00	0	134	mL/min	14.48	6.21	0.391	2.55	1.15	11.2	-65.9	Clear	No Odor
12:05	5	134	mL/min	14.44	6.19	0.387	3.8	0.81	11.4	-70.5	Clear	No Odor
12:10	10	136	mL/min	14.47	6.18	0.385	3	0.75	11.5	-73.2	Clear	No Odor
12:15	15	136	mL/min	14.47	6.18	0.383	2.1	0.73	11.4	-74.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-2A	**Date(s):**	2023-06-13	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:79.09 °F, rH:63%, Clouds: 20%, Wind:12.66mph E-SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.39	**Total Depth (ft-bmp):**	27.39	**Water Column(ft):**	13	**Gallons in Well:**	0.53
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:59	**Total Volume Purged (gallons):**	0.6	**Sample ID:**	SHP-2016-2A-SPR23	**Sample Time:**	11:20
Purge End Time:	11:20	**Well Volumes Purged (total):**	1.13	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	138	mL/min	14.49	6.77	0.103	1.7	4.95	10.3	167.3	Clear	No Odor
11:10	5	134	mL/min	14.52	6.78	0.103	1.6	4.83	10.1	165.3	Clear	No Odor
11:15	10	134	mL/min	14.52	6.75	0.103	1.8	4.81	10.1	164.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-07B	**Date(s):**	2023-06-15	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.36 °F, rH:82%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-80.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	25.34	**Total Depth (ft-bmp):**	79.84	**Water Column(ft):**	54.5	**Gallons in Well:**	8.86
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:30	**Total Volume Purged (gallons):**	0.75	**Sample ID:**	SHP-2016-07B-SPR23	**Sample Time:**	13:15
Purge End Time:	13:11	**Well Volumes Purged (total):**	0.08	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	86	mL/min	26.98	6.96	0.315	95.5	1.03	19.8	-62.8	Gray	No Odor
12:40	5	86	mL/min	27.41	6.94	0.313	57.1	0.88	19.6	-65.1	Clear	No Odor
12:45	10	86	mL/min	27.86	6.95	0.311	20.3	0.77	18.6	-62.8	Clear	No Odor
12:50	15	86	mL/min	28.23	6.94	0.31	11.4	0.76	17.7	-59.7	Clear	No Odor
12:55	20	86	mL/min	28.61	6.89	0.308	10.8	0.75	18.5	-60.1	Clear	No Odor
13:00	25	86	mL/min	28.9	6.91	0.309	12.3	0.73	19.3	-62.1	Clear	No Odor
13:05	30	86	mL/min	29.08	6.93	0.31	13.2	0.73	19.3	-63.1	Clear	No Odor
13:10	35	86	mL/min	29.31	6.94	0.31	12.8	0.74	18.9	-62.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-07A	**Date(s):**	2023-06-15	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.36 °F, rH:82%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.35	**Total Depth (ft-bmp):**	31.8	**Water Column(ft):**	12.45	**Gallons in Well:**	1.14
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:56	**Total Volume Purged (gallons):**	2.9	**Sample ID:**	SHP-2016-07A-SPR23	**Sample Time:**	12:00
Purge End Time:	11:55	**Well Volumes Purged (total):**	2.54	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	104	mL/min	19.79	6.05	0.259	2.78	1.93	17.4	-20.2	Clear	No Odor
10:05	5	104	mL/min	19.88	6.02	0.246	4.69	1.3	14.2	-14.3	Clear	No Odor
10:10	10	106	mL/min	19.94	5.95	0.238	3.3	0.96	14	-15.6	Clear	No Odor
10:15	15	106	mL/min	19.98	5.94	0.226	2.43	0.88	13.5	-17.2	Clear	No Odor
10:20	20	106	mL/min	19.98	5.92	0.208	4.1	0.86	13.5	-19.9	Clear	No Odor
10:25	25	106	mL/min	19.99	5.91	0.199	2.39	0.86	13.4	-22.4	Clear	No Odor
10:30	30	106	mL/min	20.03	5.92	0.182	4.49	0.86	13.3	-25.5	Clear	No Odor
10:35	35	102	mL/min	20.05	5.92	0.168	1.83	0.87	13.1	-28.7	Clear	No Odor
10:40	40	102	mL/min	20.08	5.93	0.162	2.92	0.88	12.9	-31.8	Clear	No Odor
10:45	45	102	mL/min	20.09	5.88	0.158	1.59	0.87	13.2	-31.9	Clear	No Odor
10:50	50	102	mL/min	20.11	5.91	0.154	3.51	0.88	13	-34.9	Clear	No Odor
10:55	55	102	mL/min	20.12	5.88	0.148	2.88	0.87	13.2	-34.9	Clear	No Odor
11:00	60	102	mL/min	20.13	5.91	0.145	1.73	0.87	13.2	-37.4	Clear	No Odor
11:05	65	102	mL/min	19.14	5.9	0.142	3.12	0.86	13.3	-38.1	Clear	No Odor
11:10	70	102	mL/min	20.15	5.87	0.139	0.85	0.85	13.5	-36.7	Clear	No Odor
11:14	74	96	mL/min	20.16	5.88	0.135	2.33	0.85	13.6	-37.9	Clear	No Odor
11:18	78	96	mL/min	20.16	5.89	0.132	2.29	0.85	13.7	-38.9	Clear	No Odor
11:22	82	96	mL/min	20.17	5.86	0.129	1.43	0.84	13.9	-37.9	Clear	No Odor
11:26	86	96	mL/min	20.17	5.88	0.126	1.4	0.84	13.8	-36.4	Clear	No Odor
11:30	90	96	mL/min	20.18	5.86	0.124	1.78	0.84	13.8	-37	Clear	No Odor
11:34	94	96	mL/min	20.18	5.83	0.121	2.57	0.84	13.8	-36.7	Clear	No Odor
11:38	98	96	mL/min	20.2	5.86	0.118	4.32	0.83	13.7	-36.5	Clear	No Odor
11:42	102	96	mL/min	20.21	5.85	0.113	2.64	0.82	13.8	-36	Clear	No Odor
11:46	106	96	mL/min	20.22	5.83	0.113	1.83	0.81	14.3	-32.4	Clear	No Odor
11:50	110	96	mL/min	20.23	5.81	0.112	1.12	0.81	14.3	-33.2	Clear	No Odor
11:54	114	94	mL/min	20.22	5.83	0.11	2.13	0.8	14.5	-32.9	Clear	No Odor

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-96-5B	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:67.42 °F, rH:81%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-90.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.8	**Total Depth (ft-bmp):**	88.65	**Water Column(ft):**	81.85	**Gallons in Well:**	13.30
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	85	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:39	**Total Volume Purged (gallons):**	1.75	**Sample ID:**	SHM-96-5B-SPR23	**Sample Time:**	13:30
Purge End Time:	13:26	**Well Volumes Purged (total):**	0.13	**Replicate Type / Replicate ID:**	**Duplicate** / SHM-DUP04-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	148	mL/min	6.98	6.38	0.572	14.6	2.56	12.5	-40.9	Clear	No Odor
12:50	5	148	mL/min	6.97	6.3	0.582	4.17	1.87	12.7	-41.5	Clear	No Odor
12:55	10	148	mL/min	6.97	6.28	0.584	3.41	1.46	12.9	-42.5	Clear	No Odor
13:00	15	148	mL/min	6.97	6.26	0.586	2.86	1.28	12.4	-42.7	Clear	No Odor
13:05	20	144	mL/min	6.97	6.22	0.584	3.08	1.04	12.9	-42.6	Clear	No Odor
13:10	25	144	mL/min	6.97	6.22	0.586	1.57	0.96	13.2	-43.8	Clear	No Odor
13:15	30	144	mL/min	6.97	6.22	0.585	1.32	0.92	12.8	-44	Clear	No Odor
13:20	35	144	mL/min	6.97	6.2	0.583	1.44	0.86	12.8	-44.2	Clear	No Odor
13:25	40	144	mL/min	6.97	6.21	0.585	1	0.84	12.6	-45	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-93-22B	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:71.46 °F, rH:76%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	82.30-92.30	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.71	**Total Depth (ft-bmp):**	92.44	**Water Column(ft):**	84.73	**Gallons in Well:**	55.07
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	87	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:22	**Total Volume Purged (gallons):**	0.7	**Sample ID:**	SHM-93-22B-SPR23	**Sample Time:**	15:50
Purge End Time:	15:45	**Well Volumes Purged (total):**	0.01	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:25	0	110	mL/min	7.73	6.31	0.541	12.1	1.35	11.6	-4.8	Clear	No Odor
15:30	5	110	mL/min	7.74	6.23	0.535	15.4	0.93	11.4	-5.1	Clear	No Odor
15:35	10	110	mL/min	7.7	6.21	0.533	14.3	0.82	11.1	-5.4	Clear	No Odor
15:40	15	110	mL/min	7.71	6.21	0.531	13.6	0.76	11	-5.6	Clear	No Odor
15:45	20	110	mL/min	7.71	6.2	0.531	13.9	0.74	11	-6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-7B	**Date(s):**	2023-06-09	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLOUDS, T:62.47 °F, rH:83%, Clouds: 100%, Wind:4.61mph S			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	58.82-63.82	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.51	**Total Depth (ft-bmp):**	64.26	**Water Column(ft):**	41.75	**Gallons in Well:**	1.70
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:16	**Total Volume Purged (gallons):**	0.65	**Sample ID:**	EPA-PZ-2012-7B-SPR23	**Sample Time:**	14:45
Purge End Time:	14:40	**Well Volumes Purged (total):**	0.38	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:20	0	106	mL/min	22.34	6.6	0.179	1.6	1.29	12.1	-79.6	Clear	No Odor
14:25	5	106	mL/min	22.38	6.59	0.162	2.3	1.02	12.1	-85.5	Clear	No Odor
14:30	10	106	mL/min	22.38	6.59	0.159	1.6	0.9	12.2	-88.8	Clear	No Odor
14:35	15	106	mL/min	22.38	6.59	0.158	1.2	0.86	12.1	-90.2	Clear	No Odor
14:40	20	106	mL/min	22.38	6.59	0.157	1.5	0.82	12.4	-91.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-5A	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:68.88 °F, rH:72%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	17.95-22.95	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.31	**Total Depth (ft-bmp):**	26.91	**Water Column(ft):**	18.6	**Gallons in Well:**	0.76
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:54	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	EPA-PZ-2012-5A-SPR23	**Sample Time:**	10:30
Purge End Time:	10:25	**Well Volumes Purged (total):**	1.45	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	130	mL/min	8.4	5.13	0.13	3.2	0.95	11.6	98.7	Clear	No Odor
10:05	5	130	mL/min	8.4	5.08	0.131	2.7	0.84	11.6	97	Clear	No Odor
10:10	10	130	mL/min	8.4	5.09	0.129	2.1	0.79	11.7	94.5	Clear	No Odor
10:15	15	130	mL/min	8.4	5.09	0.127	4.8	0.76	11.4	93.7	Clear	No Odor
10:20	20	130	mL/min	8.4	5.08	0.125	3.1	0.74	11.3	93.3	Clear	No Odor
10:25	25	130	mL/min	8.4	5.08	0.125	3.3	0.71	11.5	92.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-7A	**Date(s):**	2023-06-13	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:63.27 °F, rH:87%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.87 - 28.87	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.53	**Total Depth (ft-bmp):**	29.35	**Water Column(ft):**	6.82	**Gallons in Well:**	0.28
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:35	**Total Volume Purged (gallons):**	0.6	**Sample ID:**	EPA-PZ-2012-7A-SPR23	**Sample Time:**	10:00
Purge End Time:	09:56	**Well Volumes Purged (total):**	2.14	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:40	0	110	mL/min	22.58	5.73	0.31	2.1	6.87	13.2	215.1	Clear	No Odor
09:45	5	110	mL/min	22.58	5.68	0.313	0.02	7.26	13.3	222.7	Clear	No Odor
09:50	10	126	mL/min	22.58	5.67	0.314	0.02	6.96	13.3	227.6	Clear	No Odor
09:55	15	124	mL/min	22.58	5.66	0.314	0.02	6.89	13.3	232.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-6B	**Date(s):**	2023-06-15	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:76.86 °F, rH:71%, Clouds: 0%, Wind:6.91mph E			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	74.23-79.23	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.63	**Total Depth (ft-bmp):**	80.81	**Water Column(ft):**	58.18	**Gallons in Well:**	2.36
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	78	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	16:19	**Total Volume Purged (gallons):**	1.37	**Sample ID:**	EPA-PZ-2012-6B-SPR23	**Sample Time:**	17:10
Purge End Time:	17:05	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:25	0	110	mL/min	22.74	6.55	0.187	50.5	1.02	14.4	-84.8	Clear	No Odor
16:30	5	110	mL/min	22.72	6.56	0.188	18	0.9	14.8	-96.8	Clear	No Odor
16:35	10	110	mL/min	22.72	6.58	0.188	10.1	0.84	14.9	-102.3	Clear	No Odor
16:40	15	110	mL/min	22.72	6.58	0.188	8.02	0.8	14.9	-103.9	Clear	No Odor
16:45	20	110	mL/min	22.72	6.59	0.189	4.78	0.79	14.4	-104.7	Clear	No Odor
16:50	25	110	mL/min	22.72	6.59	0.189	5.08	0.77	14.2	-105	Clear	No Odor
16:55	30	110	mL/min	22.72	6.58	0.188	3.63	0.75	14.4	-105.1	Clear	No Odor
17:00	35	110	mL/min	22.72	6.58	0.189	4.5	0.73	14.5	-105	Clear	No Odor
17:05	40	110	mL/min	22.72	6.58	0.189	4.42	0.73	14.4	-104.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-5B	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:67.8 °F, rH:72%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.46-73.46	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.66	**Total Depth (ft-bmp):**	85.62	**Water Column(ft):**	77.96	**Gallons in Well:**	3.17
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:57	**Total Volume Purged (gallons):**	0.85	**Sample ID:**	EPA-PZ-2012-5B-SPR23	**Sample Time:**	11:25
Purge End Time:	11:21	**Well Volumes Purged (total):**	0.27	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:00	0	140	mL/min	7.68	5.78	0.529	4.78	0.96	11.5	55.7	Clear	No Odor
11:05	5	140	mL/min	7.68	5.81	0.537	3.11	0.78	11.6	52.4	Clear	No Odor
11:10	10	140	mL/min	7.68	5.85	0.538	2.45	0.71	11.7	48	Clear	No Odor
11:15	15	140	mL/min	7.68	5.87	0.538	2.14	0.67	11.7	46.3	Clear	No Odor
11:20	20	140	mL/min	7.68	5.88	0.537	1.3	0.64	11.8	45.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-4B	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:75.15 °F, rH:75%, Clouds: 0%, Wind:6.91mph E			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	79.50-84.50	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.94	**Total Depth (ft-bmp):**	76.89	**Water Column(ft):**	61.95	**Gallons in Well:**	2.52
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	82	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:05	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	EPA-PZ-2012-4B-SPR23	**Sample Time:**	15:40
Purge End Time:	15:40	**Well Volumes Purged (total):**	0.48	**Replicate Type / Replicate ID:**	**Duplicate** / EPA-DUP01-SPR23	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:10	0	144	mL/min	15.09	6.46	0.517	43.2	0.75	17	-92.1	Clear	No Odor
15:15	5	144	mL/min	15.08	6.47	0.514	18.1	0.65	16.9	-98.2	Clear	No Odor
15:20	10	144	mL/min	14.96	6.45	0.513	11.9	0.59	17.4	-101.4	Clear	No Odor
15:25	15	136	mL/min	15.09	6.44	0.512	8.68	0.58	17.8	-102.6	Clear	No Odor
15:30	20	136	mL/min	15.08	6.47	0.514	4.44	0.56	17.5	-103.9	Clear	No Odor
15:34	24	136	mL/min	14.95	6.45	0.508	2.87	0.55	17.3	-103.7	Clear	No Odor
15:39	29	136	mL/min	15.08	6.44	0.509	4.12	0.54	17.5	-104.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-4A	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:74.91 °F, rH:74%, Clouds: 0%, Wind:6.91mph E			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	19.56-24.56	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.03	**Total Depth (ft-bmp):**	27.84	**Water Column(ft):**	12.81	**Gallons in Well:**	0.52
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:19	**Total Volume Purged (gallons):**	0.85	**Sample ID:**	EPA-PZ-2012-4A-SPR23	**Sample Time:**	14:50
Purge End Time:	14:50	**Well Volumes Purged (total):**	1.63	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:25	0	118	mL/min	15.14	6.21	0.216	4.7	0.91	17.9	-6.8	Clear	No Odor
14:30	5	118	mL/min	15.12	6.16	0.221	3.01	0.79	17.4	-7.9	Clear	No Odor
14:35	10	118	mL/min	15.03	6.12	0.22	1.41	0.72	17.4	-9.3	Clear	No Odor
14:40	15	118	mL/min	15.12	6.13	0.224	0.92	0.7	17	-11	Clear	No Odor
14:45	20	118	mL/min	15.12	6.12	0.222	0.75	0.67	17.4	-13.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-3B	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:74.34 °F, rH:71%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.70-73.70	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.856	**Total Depth (ft-bmp):**	76.9	**Water Column(ft):**	66.044	**Gallons in Well:**	2.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	73	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:26	**Total Volume Purged (gallons):**	0.86	**Sample ID:**	EPA-PZ-2012-3B-SPR23	**Sample Time:**	09:55
Purge End Time:	09:51	**Well Volumes Purged (total):**	0.32	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:30	0	134	mL/min	10.99	6.21	0.645	4.26	1.16	13	-62.2	Clear	No Odor
09:35	5	134	mL/min	10.93	6.25	0.65	2.75	0.87	12.9	-71	Clear	No Odor
09:40	10	134	mL/min	10.99	6.27	0.65	4.8	0.77	13	-75.5	Clear	No Odor
09:45	15	134	mL/min	10.99	6.27	0.65	4.1	0.73	13	-78.1	Clear	No Odor
09:50	20	134	mL/min	10.99	6.26	0.651	3.7	0.71	13.3	-79.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-3A	**Date(s):**	2023-06-16	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:73.58 °F, rH:71%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Grace Sheckler	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	19.09-24.09	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.86	**Total Depth (ft-bmp):**	27.71	**Water Column(ft):**	16.85	**Gallons in Well:**	0.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:32	**Total Volume Purged (gallons):**	1	**Sample ID:**	EPA-PZ-2012-3A-SPR23	**Sample Time:**	09:05
Purge End Time:	09:01	**Well Volumes Purged (total):**	1.47	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 18G101313
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:35	0	130	mL/min	10.98	5.61	0.35	4.95	1.11	12.3	34.3	Clear	No Odor
08:40	5	130	mL/min	10.99	5.51	0.341	2.96	0.9	12.2	32	Clear	No Odor
08:45	10	130	mL/min	11	5.5	0.332	3.4	0.82	12.1	30.3	Clear	No Odor
08:50	15	130	mL/min	10.98	5.47	0.33	3.8	0.77	12.1	29.9	Clear	No Odor
08:55	20	130	mL/min	10.98	5.44	0.328	2.57	0.73	12	29.7	Clear	No Odor
09:01	26	130	mL/min	10.98	5.44	0.326	0.86	0.71	12.2	28.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHL-20	**Date(s):**	2023-06-15	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	HAZE, T:64.04 °F, rH:84%, Clouds: 0%, Wind:1.01mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	39.00-49.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.74	**Total Depth (ft-bmp):**	50.55	**Water Column(ft):**	31.81	**Gallons in Well:**	20.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	48	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:40	**Total Volume Purged (gallons):**	1.09	**Sample ID:**	SHL-DUP03-SPR23	**Sample Time:**	15:15
Purge End Time:	15:14	**Well Volumes Purged (total):**	0.05	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:45	0	140	mL/min	17.76	6.2	0.859	15.5	1.12	18.3	-84.2	Clear	Slight
14:49	4	140	mL/min	17.78	6.25	0.884	8.2	0.96	18.5	-92.5	Clear	Slight
14:55	10	140	mL/min	17.78	6.32	0.899	8.4	0.79	18	-101.6	Clear	Slight
15:00	15	140	mL/min	17.79	6.35	0.902	8.4	0.74	18.2	-105	Clear	No Odor
15:05	20	140	mL/min	17.79	6.37	0.9	8.2	0.7	18.5	-107.4	Clear	Slight
15:10	25	140	mL/min	17.78	6.38	0.907	8.5	0.68	18.7	-108.8	Clear	Slight

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010),Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-01-38A	**Date(s):**	2023-06-14	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:71.49 °F, rH:78%, Clouds: 0%, Wind:4.61mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	1.50-6.50	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.28	**Total Depth (ft-bmp):**	9.1	**Water Column(ft):**	4.82	**Gallons in Well:**	0.20
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:30	**Total Volume Purged (gallons):**	1	**Sample ID:**	SHP-DUP05-SPR23	**Sample Time:**	14:00
Purge End Time:	13:59	**Well Volumes Purged (total):**	5.00	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:35	0	150	mL/min	4.39	5.89	0.183	13.5	1.29	12	4.1	Clear	No Odor
13:40	5	150	mL/min	4.39	5.9	0.183	4.7	0.95	11.8	-0.2	Clear	No Odor
13:45	10	150	mL/min	4.39	5.92	0.183	2.2	0.88	11.8	-3.1	Clear	No Odor
13:50	15	150	mL/min	4.39	5.94	0.182	1.9	0.88	11.7	-4.9	Clear	No Odor
13:55	20	150	mL/min	4.39	5.96	0.182	1.5	0.85	11.7	-6.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-1A	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	69 Cloudy 4mph NNE.			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-23.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.59	**Total Depth (ft-bmp):**	26.12	**Water Column(ft):**	10.53	**Gallons in Well:**	0.43
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	24	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:18	**Total Volume Purged (gallons):**	0.9	**Sample ID:**	SHP-2016-1A-SPR23	**Sample Time:**	14:53
Purge End Time:	14:53	**Well Volumes Purged (total):**	2.09	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:26	0	100	mL/min	15.69	6.14	0.078	31.21	9.04	15.1	83.6	Clear	No Odor
14:32	6	100	mL/min	15.69	6.01	0.066	13.01	8.84	14.3	111.4	Clear	No Odor
14:37	11	100	mL/min	15.69	5.89	0.066	8.6	8.99	14.5	125.8	Clear	No Odor
14:43	17	100	mL/min	15.69	5.86	0.067	4.22	8.83	14.6	130.4	Clear	No Odor
14:47	21	100	mL/min	15.69	5.83	0.067	3.29	8.63	14.9	134.3	Clear	No Odor
14:52	26	100	mL/min	15.69	5.82	0.066	4.39	8.55	15	137.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival, lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-06C	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	72 Mostly Cloudy 5mph NNW			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	123.00-133.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.4	**Total Depth (ft-bmp):**	133	**Water Column(ft):**	111.6	**Gallons in Well:**	10.20
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	131	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:06	**Total Volume Purged (gallons):**	0.76	**Sample ID:**	SHP-2016-06C-SPR23	**Sample Time:**	12:57
Purge End Time:	12:57	**Well Volumes Purged (total):**	0.07	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:17	0	60	mL/min	21.59	7.4	0.27	1.18	1.38	16.9	-23.5	Clear	No Odor
12:24	7	60	mL/min	21.59	7.45	0.269	6.01	0.53	16.4	-76	Clear	No Odor
12:29	12	60	mL/min	21.59	7.48	0.269	15.71	0.41	16	-97.5	Clear	No Odor
12:34	17	60	mL/min	21.59	7.48	0.269	22.21	0.32	16.6	-110.3	Clear	No Odor
12:39	22	60	mL/min	21.59	7.48	0.229	27.22	0.3	17.4	-118.2	Clear	No Odor
12:44	27	60	mL/min	21.59	7.49	0.268	34.33	0.31	17.8	-121	Clear	No Odor
12:49	32	60	mL/min	21.59	7.5	0.269	35.9	0.3	18	-124.3	Clear	No Odor
12:54	37	60	mL/min	21.59	7.5	0.269	35	0.29	18	-125.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival. Lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-06A	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	71 Cloudy 5mph NNW.			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	81.00-86.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	30.49	**Total Depth (ft-bmp):**	85.5	**Water Column(ft):**	55.01	**Gallons in Well:**	5.03
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	10:58	**Total Volume Purged (gallons):**	0.78	**Sample ID:**	SHP-2016-06A-SPR23	**Sample Time:**	11:30
Purge End Time:	11:30	**Well Volumes Purged (total):**	0.16	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:03	0	100	mL/min	29.97	7.51	0.497	17.1	4.73	17.1	-86	Clear	No Odor
11:08	5	100	mL/min	30.16	7.39	0.507	21.27	4.28	17	-95.6	Clear	No Odor
11:13	10	100	mL/min	30.33	7.38	0.514	26.64	2.53	16.9	-105.8	Clear	No Odor
11:18	15	100	mL/min	30.54	7.4	0.515	24.66	1.15	17.3	-119.3	Clear	No Odor
11:23	20	100	mL/min	30.74	7.4	0.518	25.46	1.13	17.7	-120.6	Clear	No Odor
11:28	25	100	mL/min	31.02	7.4	0.518	26.72	1.1	17.8	-124.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival. Lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-01-37X	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	62 Drizzle 3mph NNE			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	1.00-6.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.56	**Total Depth (ft-bmp):**	11.2	**Water Column(ft):**	3.64	**Gallons in Well:**	0.15
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:49	**Total Volume Purged (gallons):**	0.72	**Sample ID:**	SHP-01-37X-SPR23	**Sample Time:**	12:16
Purge End Time:	12:16	**Well Volumes Purged (total):**	4.80	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:53	0	110	mL/min	3.3	7.52	0.448	15.4	2.07	18.4	-80.7	Clear	No Odor
11:58	5	110	mL/min	3.3	7.01	0.427	7.14	0.54	17.9	-74.5	Clear	No Odor
12:03	10	110	mL/min	3.3	6.57	0.399	2.8	0.39	17.8	-34.6	Clear	No Odor
12:08	15	110	mL/min	3.3	6.53	0.395	2.16	0.34	17.8	-34.1	Clear	No Odor
12:13	20	110	mL/min	3.3	6.54	0.39	1.61	0.34	17.8	-34.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival, lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-01-36X	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	62 Drizzle 3mph NNW.			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	3.00-8.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.89	**Total Depth (ft-bmp):**	12.94	**Water Column(ft):**	5.05	**Gallons in Well:**	0.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:25	**Total Volume Purged (gallons):**	1.12	**Sample ID:**	SHP-01-36X-SPR23	**Sample Time:**	11:04
Purge End Time:	11:04	**Well Volumes Purged (total):**	5.33	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:33	0	110	mL/min	7.6	7.04	0.407	32.57	1	19.7	16.6	Clear	No Odor
10:37	4	110	mL/min	7.6	6.9	0.399	15.62	0.74	19.4	-32.4	Clear	No Odor
10:42	9	110	mL/min	7.6	6.64	0.387	10.25	0.48	19.4	-27.6	Clear	No Odor
10:48	15	110	mL/min	7.6	6.5	0.382	8.22	0.48	19.6	-16.2	Clear	No Odor
10:53	20	110	mL/min	7.6	6.38	0.379	3.51	0.36	19.9	-6.2	Clear	No Odor
10:58	25	110	mL/min	7.6	6.3	0.376	1.86	0.32	19.6	0.7	Clear	No Odor
11:03	30	110	mL/min	7.6	6.34	0.374	0.72	0.28	19.5	1.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival. Lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-13-07	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	75 Cloudy 6mph NNW			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	27.00-37.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.25	**Total Depth (ft-bmp):**	35.22	**Water Column(ft):**	15.97	**Gallons in Well:**	2.59
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:44	**Total Volume Purged (gallons):**	0.88	**Sample ID:**	SHM-13-07-SPR23	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.34	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:53	0	110	mL/min	19.2	6.23	0.358	18.4	20.2	16.2	-16.5	Clear	No Odor
10:59	6	110	mL/min	19.2	6.23	0.363	6.36	0.61	15.6	-40.6	Clear	No Odor
11:04	11	110	mL/min	19.2	6.23	0.367	5.66	0.42	15.4	-47	Clear	No Odor
11:09	16	110	mL/min	19.2	6.23	0.37	5.63	0.35	15.1	-50.5	Clear	No Odor
11:14	21	110	mL/min	19.2	6.23	0.371	5.25	0.32	15.2	-52.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Bolts in flush mount.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-13-06	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	77 Sunny 7mph NNW			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	36.00-46.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	17.73	**Total Depth (ft-bmp):**	45.72	**Water Column(ft):**	27.99	**Gallons in Well:**	4.55
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	43	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:55	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	SHM-13-06-SPR23	**Sample Time:**	12:24
Purge End Time:	12:24	**Well Volumes Purged (total):**	0.18	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:01	0	110	mL/min	17.7	6.41	0.392	12.91	3.93	16.2	-46.6	Clear	No Odor
12:07	6	110	mL/min	17.7	6.66	0.534	11.29	0.94	15.1	-97.9	Clear	No Odor
12:13	12	110	mL/min	17.7	6.68	0.54	4.79	0.37	15.9	-110.2	Clear	No Odor
12:17	16	110	mL/min	17.7	6.7	0.543	4.69	0.32	15.5	-113.9	Clear	No Odor
12:23	22	110	mL/min	17.7	6.71	0.541	4.39	0.24	15.7	-116.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Bolts in flush.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-13-03	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	75 Cloudy 6mph NNW			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	42.00-52.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.84	**Total Depth (ft-bmp):**	48.08	**Water Column(ft):**	42.24	**Gallons in Well:**	6.86
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	46	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:22	**Total Volume Purged (gallons):**	1.27	**Sample ID:**	SHM-13-03-SPR23	**Sample Time:**	13:08
Purge End Time:	13:08	**Well Volumes Purged (total):**	0.19	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:29	0	110	mL/min	5.5	6.5	0.574	5.54	3.84	16.9	23.4	Clear	No Odor
12:35	6	110	mL/min	5.5	6.44	0.565	5.47	0.68	17.9	-43.3	Clear	No Odor
12:40	11	110	mL/min	5.5	6.44	0.567	7.03	0.64	17.6	-46.1	Clear	No Odor
12:45	16	110	mL/min	5.5	6.44	0.566	8.39	0.44	16.3	-45.8	Clear	No Odor
12:50	21	110	mL/min	5.5	6.45	0.566	6.44	0.29	16.8	-46.3	Clear	No Odor
12:55	26	110	mL/min	5.5	6.43	0.587	4.26	0.25	17.9	-46.2	Clear	No Odor
13:00	31	110	mL/min	5.5	6.42	0.592	3.82	0.23	17.9	-46.8	Clear	No Odor
13:05	36	110	mL/min	5.5	6.45	0.596	1.6	0.22	17.9	-53.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival. Lock in good shape.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-11-02	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	CLEAR, T:66.7 °F, rH:82%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	52.00-66.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.22	**Total Depth (ft-bmp):**	68.38	**Water Column(ft):**	46.16	**Gallons in Well:**	30.00
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	66	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:10	**Total Volume Purged (gallons):**	2.5	**Sample ID:**	SHM-11-02-SPR23	**Sample Time:**	10:30
Purge End Time:	10:29	**Well Volumes Purged (total):**	0.08	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:15	0	120	mL/min	22.9	8.28	0.327	18.7	2.06	15.3	65	Clear	No Odor
09:20	5	120	mL/min	22.9	8.57	0.323	18.7	0.97	15.5	-44.4	Clear	No Odor
09:25	10	120	mL/min	22.9	8.64	0.322	18.4	0.88	15.2	-80.9	Clear	No Odor
09:30	15	120	mL/min	22.9	8.68	0.321	18.3	0.83	15.6	-94.7	Clear	No Odor
09:35	20	120	mL/min	23.3	8.71	0.321	18.5	0.81	15.6	-104	Clear	No Odor
09:40	25	120	mL/min	23.5	8.75	0.322	18.4	0.79	15.5	-112.2	Clear	No Odor
09:45	30	120	mL/min	23.6	8.77	0.321	18.6	0.77	15.5	-127.5	Clear	No Odor
09:50	35	120	mL/min	23.7	8.79	0.322	18.2	0.77	15.6	-134.1	Clear	No Odor
09:55	40	120	mL/min	23.9	8.81	0.322	18.3	0.76	15.7	-149	Clear	No Odor
10:00	45	120	mL/min	24	8.78	0.325	18.3	0.74	15.6	-154	Clear	No Odor
10:05	50	120	mL/min	24.15	8.74	0.327	18.4	0.72	15.7	-177	Clear	No Odor
10:10	55	120	mL/min	24.2	8.61	0.339	18.4	0.69	15.4	-215	Clear	No Odor
10:15	60	120	mL/min	24.27	8.49	0.344	18.3	0.69	15.6	-229	Clear	No Odor
10:20	65	120	mL/min	24.3	8.47	0.349	18.1	0.67	15.6	-232	Clear	No Odor
10:25	70	120	mL/min	24.35	8.43	0.351	18.3	0.66	15.8	-237	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Comments: No PVC casing visible

Well Information:

Well Labeled Properly:	yes
Is Well in Good Condition?	good
Well Inspection Comments:	No PVC casing visible

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-2B	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	68 Cloudy 3mph NNE			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	73.16 - 78.16	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.92	**Total Depth (ft-bmp):**	83.16	**Water Column(ft):**	72.24	**Gallons in Well:**	2.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	81	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:46	**Total Volume Purged (gallons):**	1.42	**Sample ID:**	EPA-PZ-2012-2B-SPR23	**Sample Time:**	14:36
Purge End Time:	14:36	**Well Volumes Purged (total):**	0.48	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:53	0	110	mL/min	11.13	5.85	0.387	3.57	1.47	17.1	59.6	Clear	No Odor
13:58	5	110	mL/min	11.13	5.82	0.411	3.4	0.58	16.5	51.2	Clear	No Odor
14:03	10	110	mL/min	11.13	5.74	0.412	3.15	0.4	16.9	50.5	Clear	No Odor
14:08	15	110	mL/min	11.13	5.72	0.411	2.54	0.4	17	48.2	Clear	No Odor
14:14	21	110	mL/min	11.13	5.74	0.413	5.04	0.28	16.8	42.5	Clear	No Odor
14:19	26	110	mL/min	11.13	5.74	0.437	15.8	0.26	17	37	Clear	No Odor
14:24	31	110	mL/min	11.13	5.8	0.434	15.65	0.2	16.6	7.2	Clear	No Odor
14:29	36	110	mL/min	11.13	5.82	0.445	15.45	0.2	16.5	8.5	Clear	No Odor
14:34	41	110	mL/min	11.13	5.83	0.444	16.5	0.18	16.5	7.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival, lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-2A	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	68 Cloudy 3mph NNE			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	18.14 - 23.14	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.9	**Total Depth (ft-bmp):**	28.31	**Water Column(ft):**	17.4	**Gallons in Well:**	0.71
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:37	**Total Volume Purged (gallons):**	0.92	**Sample ID:**	EPA-PZ-2012-2A-SPR23	**Sample Time:**	15:10
Purge End Time:	15:09	**Well Volumes Purged (total):**	1.30	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:42	0	110	mL/min	10.9	5.63	0.055	0	5.31	15.2	159	Clear	No Odor
14:47	5	110	mL/min	10.59	5.56	0.056	0.41	4.74	14.1	170	Clear	No Odor
14:53	11	110	mL/min	10.9	5.41	0.055	0.44	4.57	13.4	181.9	Clear	No Odor
14:58	16	110	mL/min	10.9	5.35	0.055	0.28	4.5	13.5	186.8	Clear	No Odor
15:03	21	110	mL/min	10.9	5.31	0.055	0.18	4.47	13.3	190.3	Clear	No Odor
15:08	26	110	mL/min	10.9	5.29	0.055	0.21	4.44	13.5	191.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival, lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHP-2016-06B	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	72 Cloudy 5mph NNE.			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	102.00-112.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.2	**Total Depth (ft-bmp):**	112	**Water Column(ft):**	90.8	**Gallons in Well:**	8.30
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	110	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:32	**Total Volume Purged (gallons):**	0.47	**Sample ID:**	SHP-2016-06B-SPR23	**Sample Time:**	11:20
Purge End Time:	11:20	**Well Volumes Purged (total):**	0.06	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:46	0	40	mL/min	21.7	7.5	0.295	0.63	3.35	17.8	64	Clear	No Odor
10:53	7	40	mL/min	21.91	7.5	0.289	0.48	1.71	16.8	13.9	Clear	No Odor
10:58	12	40	mL/min	22.05	7.48	0.289	1.3	1.43	16.7	-16.9	Clear	No Odor
11:03	17	40	mL/min	21.2	7.47	0.289	1.93	1.18	16.5	-37.7	Clear	No Odor
11:08	22	40	mL/min	22.2	7.47	0.288	3.06	0.89	16.2	-57.6	Clear	No Odor
11:13	27	40	mL/min	22.25	7.46	0.288	4.07	0.85	16	-58.5	Clear	No Odor
11:18	32	40	mL/min	22.27	7.46	0.288	4.89	0.82	16.1	-65.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Locked on arrival. Lock in good condition.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-13-08	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	74 Cloudy 6mph NNW			**Field Technician:**		Spencer Gust	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	55.00-65.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.65	**Total Depth (ft-bmp):**	64.45	**Water Column(ft):**	43.8	**Gallons in Well:**	7.12
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:27	**Total Volume Purged (gallons):**	0.72	**Sample ID:**	SHM-13-08-SPR23	**Sample Time:**	14:54
Purge End Time:	14:54	**Well Volumes Purged (total):**	0.10	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:33	0	110	mL/min	20.44	6.88	0.358	2.95	4.85	17.3	-83.5	Clear	No Odor
14:40	7	110	mL/min	20.44	6.95	0.287	1.27	0.48	16	-129.6	Clear	No Odor
14:47	14	110	mL/min	20.44	6.94	0.281	1.86	0.26	16	-137.3	Clear	No Odor
14:52	19	110	mL/min	20.44	6.92	0.28	1.02	0.21	16	-137.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: All bolts in flush.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

Groundwater Sampling Form

Location ID:	SHM-13-04	**Date(s):**	2023-06-12	**Work Order(s):**		2023 Spring LTM	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA	**Area:**	SHL - Spring
Weather(°F):	77 Sunny 7mph NNW.			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.33	**Total Depth (ft-bmp):**	29.89	**Water Column(ft):**	10.56	**Gallons in Well:**	1.72
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:17	**Total Volume Purged (gallons):**	1.04	**Sample ID:**	SHM-13-04-SPR23	**Sample Time:**	13:54
Purge End Time:	13:54	**Well Volumes Purged (total):**	0.60	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 22B103383
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
										Color	Odor
13:24	0	110	mL/min	19.33	6.13	1.021	4.71	15.9	86.3	Reddish Brown	No Odor
13:31	7	110	mL/min	19.33	6.2	1.045	5.66	15.7	45.7	Reddish Brown	No Odor
13:37	13	110	mL/min	19.33	6.15	1.038	5	15.4	39.6	Reddish Brown	No Odor
13:42	18	110	mL/min	19.33	6.13	1.036	4.97	15.3	38.7	Reddish Brown	No Odor
13:47	23	110	mL/min	19.33	6.12	1.023	4.83	15.3	37.2	Reddish Brown	No Odor
13:53	29	110	mL/min	119.33	6.11	1.022	4.73	15.3	37.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
TOC (SW9060)	Amber Glass	3	H2SO4
Anions (SW9056A)	Plastic	1	None
GenChem (A2320)	Plastic	1	None
Metals (SW6010), Metals (SW6020)	Plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Bolts in flush mount.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/09/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.12	7	yes	07:49
pH	3.97	4	yes	07:51
pH	9.92	10	yes	07:53
Conductivity	1.722	1.413	yes	07:57
ORP	232.1	231	yes	08:01
DO	97.7	99	yes	08:04
Turbidity	0.1	0.02	yes	08:04
Turbidity	20	19.5	yes	08:10
Turbidity	100	101	yes	08:10
Turbidity	800	844	yes	08:11

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/9/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/09/2023

SINGLE POINT CALIBRATION

LOT NUMBER	22370021
EXPIRATION DATE	2024-09-09

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	3.93	4	yes	08:05
pH	7.05	7	yes	08:07
pH	9.94	10	yes	08:11
Conductivity	1.41	1.413	yes	08:16
ORP	246	243.5	yes	08:38
DO	99.9	99.8	yes	08:47

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/9/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/12/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.11	7	yes	14:23
pH	4.05	4	yes	14:28
pH	9.9	10	yes	14:29
Conductivity	1.356	1.413	yes	14:35
ORP	212	231	yes	14:39
DO	100.2	99.2	yes	14:43
Turbidity	--	--	--	--

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/12/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/12/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-12

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	4.16	4	yes	13:15
pH	7.13	7	yes	13:18
pH	9.94	10	yes	13:20
Conductivity	1.713	1.413	yes	13:22
ORP	231.9	232.17	yes	13:24
DO	99.7	100	yes	13:14

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/12/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/13/2023

SINGLE POINT CALIBRATION

LOT NUMBER	22130200
EXPIRATION DATE	2027-04-13

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	4.15	4	yes	08:16
pH	7.15	7	yes	08:20
pH	9.9	10	yes	08:22
Conductivity	1.338	1.413	yes	08:12
ORP	232	235.29	yes	08:09
DO	99.5	99.5	yes	08:03

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/13/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/13/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.17	7	yes	07:29
pH	4.01	4	yes	07:32
pH	9.98	10	yes	07:35
Conductivity	1.364	1.413	yes	07:37
ORP	236.5	231	yes	07:40
DO	99.5	98.7	yes	07:43

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/13/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/14/2023

SINGLE POINT CALIBRATION

LOT NUMBER	22420139
EXPIRATION DATE	2024-09-17

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.11	7	yes	08:29
pH	3.96	4	yes	08:32
pH	9.98	10	yes	08:35
Conductivity	1.424	1.413	yes	08:25
ORP	236.4	234.6	yes	08:22
DO	99.3	99.3	yes	08:17

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/14/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/14/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.94	7	yes	07:29
pH	3.81	4	yes	07:32
pH	9.81	10	yes	07:39
Conductivity	1.375	1.413	yes	07:43
ORP	241	231	yes	07:45
DO	95.3	98.6	yes	07:51

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/14/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/15/2023

SINGLE POINT CALIBRATION

LOT NUMBER	M066-02
EXPIRATION DATE	2024-03-07

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	3.95	4	yes	08:21
pH	7.01	7	yes	08:25
pH	9.88	10	yes	08:30
Conductivity	1.322	1.413	yes	08:40
ORP	239.5	236	yes	08:42
DO	99.5	99	yes	08:20

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/15/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/15/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.2	7	yes	07:31
pH	4.03	4	yes	07:33
pH	9.9	10	yes	07:35
Conductivity	1.36	1.413	yes	07:38
ORP	231.6	231	yes	07:40
DO	98.1	98.1	yes	07:42
Turbidity	0.01	0.02	yes	07:42
Turbidity	20	21	yes	07:42
Turbidity	104	100	yes	07:43
Turbidity	808	800	yes	07:43

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	18G101313
SAMPLER	Grace Sheckler
DATE	06/16/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-16

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	3.98	4	yes	07:29
pH	7.07	7	yes	07:39
pH	9.97	10	yes	07:40
Conductivity	1.407	1.413	yes	07:49
ORP	236.6	236.4	yes	07:44
DO	99.2	99.6	yes	07:28

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/16/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	06/16/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.18	7.02	yes	07:31
pH	3.96	4	yes	07:33
pH	9.93	10	yes	07:35
Conductivity	1.366	1.413	yes	07:37
ORP	229	231	yes	07:40
DO	99.87	99.88	yes	07:42

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

6/16/2023
DATE

SERES Engineering & Services, LLC
ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	11/20/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Fall LTM Gauging
Facility Location:	Devens, MA	**Area:**	SHL
Field Technician:	Diane Champagne, Frank Martinez, Grace Sheckler, Allyson Fenton	**Equipment:**	Solinst 101 water level probes

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Comments
EPA-PZ-2012-1A	11-20-2023	15:36	Yes	10.38	27.78	
EPA-PZ-2012-1B	11-20-2023	15:39	Yes	10.09	77.32	
EPA-PZ-2012-2A	11-20-2023	15:46	Yes	10.06	28.1	
EPA-PZ-2012-2B	11-20-2023	15:50	Yes	10.02	83.03	
EPA-PZ-2012-3A	11-20-2023	10:32	Yes	9.66	27.7	
EPA-PZ-2012-3B	11-20-2023	10:33	Yes	9.59	76.95	
EPA-PZ-2012-4A	11-20-2023	15:20	Yes	13.76	27.95	
EPA-PZ-2012-4B	11-20-2023	15:36	Yes	13.67	66.95	
EPA-PZ-2012-5A	11-20-2023	10:03	Yes	7.28	27.3	
EPA-PZ-2012-5B	11-20-2023	10:04	Yes	6.49	77.06	
EPA-PZ-2012-6A	11-20-2023	14:03	Yes	21.31	33.28	
EPA-PZ-2012-6B	11-20-2023	14:05	Yes	21.28	80.4	
EPA-PZ-2012-7A	11-20-2023	13:47	Yes	21.31	29.4	
EPA-PZ-2012-7B	11-20-2023	13:49	Yes	21.25	64.4	
N1-P1	11-20-2023	09:25	Yes	14.26	72.58	
N1-P2	11-20-2023	09:30	Yes	14.18	47.9	
N1-P3	11-20-2023	09:31	Yes	13.99	21.04	
N2-P1	11-20-2023	09:42	Yes	5.55	41.71	
N2-P2	11-20-2023	09:46	Yes	5.71	10.65	
N3-P1	11-20-2023	10:07	Yes	4.41	37.95	
N3-P2	11-20-2023	10:11	Yes	4.46	12	
N5-P1	11-20-2023	14:51	Yes	21.81	100.5	
N5-P2	11-20-2023	14:55	Yes	22.01	31	
N6-P1	11-20-2023	13:39	Yes	34.6	90.5	
N7-P1	11-20-2023	13:11	Yes	28.96	71.17	
N7-P2	11-20-2023	13:14	Yes	29.03	38.12	
PZ-12-01	11-20-2023	09:10	Yes	20.42	35.74	
PZ-12-02	11-20-2023	09:15	Yes	19.44	34.43	
PZ-12-03	11-20-2023	09:52	Yes	19.52	36.6	
PZ-12-04	11-20-2023	09:56	Yes	18.83	37.03	
PZ-12-05	11-20-2023	10:11	Yes	21.68	34.6	
PZ-12-06	11-20-2023	10:15	Yes	22.58	35.98	
PZ-12-07	11-20-2023	10:48	Yes	27.75	33.21	
PZ-12-08	11-20-2023	10:56	Yes	24.08	32.4	
PZ-12-09	11-20-2023	11:14	Yes	23.75	33.2	
PZ-12-10	11-20-2023	11:19	Yes	21.32	32.35	
SHL-10	11-20-2023	11:24	Yes	31.11	38.68	
SHL-11	11-20-2023	09:40	Yes	18.53	29.83	
SHL-12	11-20-2023	12:42	Yes	19.51	28.79	
SHL-13	11-20-2023	09:05	Yes	6.71	21.3	
SHL-15	11-20-2023	12:13	Yes	18.01	26.55	
SHL-17	11-20-2023	12:35	Yes	5.35	18.48	
SHL-18	11-20-2023	11:45	Yes	18.86	28.75	
SHL-19	11-20-2023	11:03	Yes	23.59	32.5	
SHL-20	11-20-2023	09:30	Yes	17.53	50.7	
SHL-21	11-20-2023	08:20	Yes	44.72	54.86	
SHL-22	11-20-2023	11:29	Yes	6.73	112.45	

ft-bmp = feet below measuring point

SERES Engineering & Services, LLC
ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	11/20/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Fall LTM Gauging
Facility Location:	Devens, MA	**Area:**	SHL
Field Technician:	Diane Champagne, Frank Martinez, Grace Sheckler, Allyson Fenton	**Equipment:**	Solinst 101 water level probes

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Comments
SHL-23	11-20-2023	15:16	Yes	27.07	35.51	
SHL-24	11-20-2023	12:10	Yes	14.41	120.12	
SHL-3	11-20-2023	10:59	Yes	30.22	34.2	
SHL-4	11-20-2023	15:49	Yes	10.62	14.75	
SHL-5	11-20-2023	09:33	Yes	3.43	13.85	
SHL-7	11-20-2023	11:55	Yes	17.6	23.98	
SHL-8D	11-20-2023	08:58	Yes	7.21	67.7	
SHL-8S	11-20-2023	08:59	Yes	7.38	56.09	
SHL-9	11-20-2023	10:46	Yes	9.17	26.3	
SHM-05-39A	11-20-2023	12:58	Yes	11.2	38.8	
SHM-05-39B	11-20-2023	12:59	Yes	12.02	65.9	
SHM-05-40X	11-20-2023	12:37	Yes	13.86	33.45	
SHM-05-41A	11-20-2023	13:24	Yes	10.02	40.75	
SHM-05-41B	11-20-2023	13:28	Yes	9.83	61.5	
SHM-05-41C	11-20-2023	13:30	Yes	10.1	87.77	
SHM-05-42A	11-20-2023	13:06	Yes	4.28	44.15	
SHM-05-42B	11-20-2023	13:07	Yes	4.25	73.7	
SHM-07-05X	11-20-2023	12:38	Yes	13.71	63.21	
SHM-10-01	11-20-2023	10:54	Yes	4.25	70.79	
SHM-10-02	11-20-2023	12:45	Yes	18.16	64.18	
SHM-10-03	11-20-2023	12:30	Yes	26.61	69.54	
SHM-10-04	11-20-2023	13:34	Yes	5.93	64.49	
SHM-10-05A	11-20-2023	14:38	Yes	24.55	60	
SHM-10-06	11-20-2023	08:36	Yes	18.22	81.3	
SHM-10-06A	11-20-2023	08:42	Yes	33.82	87.92	
SHM-10-07	11-20-2023	15:26	Yes	25.36	50.21	
SHM-10-08	11-20-2023	12:52	Yes	9.69	56.68	
SHM-10-10	11-20-2023	10:34	Yes	10.87	66.6	
SHM-10-11	11-20-2023	13:02	Yes	38.16	62.3	
SHM-10-12	11-20-2023	14:31	Yes	31.75	57.3	
SHM-10-13	11-20-2023	14:59	Yes	23.96	73	
SHM-10-14	11-20-2023	15:09	Yes	18.21	82.13	
SHM-10-15	11-20-2023	14:37	Yes	22.11	56.63	
SHM-10-16	11-20-2023	13:23	Yes	6.77	88.55	
SHM-11-02	11-20-2023	10:20	Yes	21.75	68.5	
SHM-11-06	11-20-2023	09:07	Yes	19.14	35.7	
SHM-11-07	11-20-2023	15:54	Yes	21.21	48.02	
SHM-13-01	11-20-2023	11:35	Yes	3.23	51.15	
SHM-13-02	11-20-2023	10:47	Yes	12.9	73	
SHM-13-03	11-20-2023	09:24	Yes	5.57	48	
SHM-13-04	11-20-2023	11:53	Yes	18.79	29.97	
SHM-13-05	11-20-2023	12:03	Yes	16.31	85.28	
SHM-13-06	11-20-2023	10:23	Yes	17.41	44.68	
SHM-13-07	11-20-2023	11:04	Yes	18.82	35.18	
SHM-13-08	11-20-2023	08:29	Yes	20.23	64.37	
SHM-13-14D	11-20-2023	08:52	Yes	3.56	57.1	
SHM-13-14S	11-20-2023	08:48	Yes	3.76	17.75	

ft-bmp = feet below measuring point

SERES Engineering & Services, LLC
ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	11/20/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Fall LTM Gauging
Facility Location:	Devens, MA	**Area:**	SHL
Field Technician:	Diane Champagne, Frank Martinez, Grace Sheckler, Allyson Fenton	**Equipment:**	Solinst 101 water level probes

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Comments
SHM-13-15	11-20-2023	09:00	Yes	4.07	62.36	
SHM-93-10D	11-20-2023	11:20	Yes	30.22	57.91	
SHM-93-18B	11-20-2023	11:38	Yes	18.51	90.82	
SHM-93-22B	11-20-2023	11:21	Yes	6.6	93.61	
SHM-93-22C	11-20-2023	11:13	Yes	7.64	139.5	
SHM-93-24A	11-20-2023	12:15	Yes	14.98	25.85	
SHM-96-5B	11-20-2023	13:46	Yes	5.74	90.2	
SHM-96-5C	11-20-2023	09:39	Yes	5.22	81	
SHM-99-31A	11-20-2023	14:52	Yes	3	15.85	
SHM-99-31B	11-20-2023	14:58	Yes	3.54	84.93	
SHM-99-31C	11-20-2023	15:04	Yes	3.92	80.1	
SHM-99-32X	11-20-2023	14:02	Yes	9.38	84.93	
SHP-01-36X	11-20-2023	09:17	Yes	7.69	12.9	
SHP-01-37X	11-20-2023	09:04	Yes	6.48	11.17	
SHP-01-38A	11-20-2023	09:58	Yes	4.15	9.07	
SHP-01-38B	11-20-2023	09:53	Yes	4.27	25.54	
SHP-05-43	11-20-2023	10:29	Yes	44.58	61.01	
SHP-05-44	11-20-2023	10:35	Yes	41.72	60.56	
SHP-05-45A	11-20-2023	14:27	Yes	15.31	27.25	
SHP-05-45B	11-20-2023	14:28	Yes	15.92	75.63	
SHP-05-46A	11-20-2023	14:15	Yes	14.68	27.3	
SHP-05-46B	11-20-2023	14:17	Yes	14	75.58	
SHP-05-47A	11-20-2023	09:21	Yes	4.83	6	
SHP-05-47B	11-20-2023	09:22	Yes	2.98	5.9	
SHP-05-48A	11-20-2023	15:15	Yes	4.84	5.45	
SHP-05-48B	11-20-2023	15:16	Yes	3.68	5.29	
SHP-05-49A	11-20-2023	14:36	Yes	5.05	6	
SHP-05-49B	11-20-2023	14:37	Yes	3.95	5.37	
SHP-2016-06A	11-20-2023	15:03	Yes	27.15	85.54	
SHP-2016-06B	11-20-2023	15:10	Yes	20.13	111.72	
SHP-2016-06C	11-20-2023	15:06	Yes	21.12	133.35	
SHP-2016-07A	11-20-2023	14:05	Yes	18.92	31.8	
SHP-2016-07B	11-20-2023	14:07	Yes	24.82	79.82	
SHP-2016-1A	11-20-2023	14:59	Yes	14.15	25.13	
SHP-2016-1B	11-20-2023	15:00	Yes	15.1	85.81	
SHP-2016-2A	11-20-2023	12:28	Yes	13.2	27.42	
SHP-2016-2B	11-20-2023	12:27	Yes	13.23	87.9	
SHP-2016-3A	11-20-2023	11:02	Yes	10.46	27.5	
SHP-2016-3B	11-20-2023	11:01	Yes	10.44	87.65	
SHP-2016-4A	11-20-2023	12:03	Yes	17.29	32.76	
SHP-2016-4B	11-20-2023	12:04	Yes	16.95	92.56	
SHP-2016-5A	11-20-2023	12:15	Yes	14.19	32.77	
SHP-2016-5B	11-20-2023	12:16	Yes	14.11	87.17	
SHP-2017-01	11-20-2023	14:39	Yes	17.31	78.2	
SHP-2017-02	11-20-2023	15:04	Yes	17.62	93.35	
SHP-2023-1A	11-20-2023	08:23	Yes	23.19	37.9	
SHP-2023-1B	11-20-2023	08:17	Yes	23.33	86.6	

ft-bmp = feet below measuring point

SERES Engineering & Services, LLC
ARCADIS a joint venture

Gauging Log

Client:	USACE	**Date(s):**	11/20/2023
Facility:	Former Fort Devens	**Work Order(s):**	2023 Fall LTM Gauging
Facility Location:	Devens, MA	**Area:**	SHL
Field Technician:	Diane Champagne, Frank Martinez, Grace Sheckler, Allyson Fenton	**Equipment:**	Solinst 101 water level probes

Location	Date	Time	Scope of Work Completed?	Depth to Water(ft bmp)	Total Depth (ft bmp)	Comments
SHP-2023-2A	11-20-2023	08-32	Yes	7.91	34	
SHP-2023-2B	11-20-2023	08:34	Yes	7.91	66.9	
SHP-2023-3A	11-20-2023	08:29	Yes	14	38.22	
SHP-2023-3B	11-20-2023	08:25	Yes	14.69	66.22	
SHP-2023-4A	11-20-2023	08:40	Yes	39.96	53.06	
SHP-2023-4B	11-20-2023	08:42	Yes	39.68	112.11	
SHP-2023-5A	11-20-2023	08:25	Yes	45.25	51.46	
SHP-2023-5B	11-20-2023	08:32	Yes	45.93	120.45	
SHP-95-27X	11-20-2023	13:27	Yes	14.81	42.68	
SHP-99-01C	11-20-2023	13:56	Yes	11.64	31.98	
SHP-99-29X	11-20-2023	14:45	Yes	21.01	30.81	
SHP-99-34B	11-20-2023	14:12	Yes	12.15	74.17	
SHP-99-35X	11-20-2023	14:36	Yes	36.56	41.53	
SHSG-13-01G	11-20-2023	13:03	No	--	--	Cannot read due to dirt/mud obscuring the gauge
SHSG-13-02G	11-20-2023	09:32	No	--	--	Cannot read due to dirt/mud obscuring the gauge
SHSG-13-03G	11-20-2023	13:58	No	--	--	Cannot read due to dirt/mud obscuring the gauge
SHSG-14-01G	11-20-2023	09:13	Yes	1.5	0	

ft-bmp = feet below measuring point

Groundwater Sampling Form

Location ID:	EPA-PZ-2012-1A	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:49.05 °F, rH:92%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.38	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	15.62	**Liters in Well:**	2.41
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:05	**Total Volume Purged (liters):**	4.5	**Sample ID:**	EPA-PZ-2012-1A-FAL23	**Sample Time:**	13:35
Purge End Time:	13:35	**Well Volumes Purged (total):**	1.87	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:10	0	150	mL/min	9.44	6.33	0.084	72.9	1.14	11.8	87.2	Clear	No Odor
13:15	5	150	mL/min	9.44	6.18	0.098	195.3	0.58	11.4	92.2	Clear	No Odor
13:20	10	150	mL/min	9.44	6.17	0.103	373	0.48	11.4	93.2	Clear	No Odor
13:25	15	150	mL/min	9.44	6.16	0.106	513.8	0.39	11.2	95.7	Clear	No Odor
13:30	20	150	mL/min	9.44	6.16	0.106	135.5	0.35	11.2	97.2	Clear	No Odor
13:35	25	150	mL/min	9.44	6.15	0.106	3.79	0.33	11.2	97.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-1B	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:49.41 °F, rH:91%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.1	**Total Depth (ft-bmp):**	75	**Water Column(ft):**	65.9	**Liters in Well:**	10.18
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	72	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:00	**Total Volume Purged (liters):**	4.25	**Sample ID:**	EPA-PZ-2012-1B-FAL23	**Sample Time:**	14:30
Purge End Time:	14:30	**Well Volumes Purged (total):**	0.42	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:05	0	150	mL/min	9.2	6.43	0.432	2.9	0.78	11.1	2.5	Clear	No Odor
14:10	5	150	mL/min	9.2	6.44	0.434	2.8	0.49	11	-3.5	Clear	No Odor
14:15	10	100	mL/min	9.2	6.38	0.471	4.8	0.38	11	-11.8	Clear	No Odor
14:20	15	150	mL/min	9.2	6.4	0.478	3.8	0.33	10.9	-19.1	Clear	No Odor
14:25	20	150	mL/min	9.2	6.4	0.479	3.6	0.32	10.9	-21.1	Clear	No Odor
14:30	25	150	mL/min	9.2	6.41	0.48	3.7	0.31	10.8	-23.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-2A	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	MIST, T:47.91 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.2	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	15.8	**Liters in Well:**	2.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:15	**Total Volume Purged (liters):**	1.9	**Sample ID:**	EPA-PZ-2012-2A-FAL23	**Sample Time:**	10:45
Purge End Time:	10:45	**Well Volumes Purged (total):**	0.78	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:20	0	100	mL/min	9.25	5.62	0.06	6.6	3.6	10.7	175	Clear	No Odor
10:25	5	100	mL/min	9.25	5.57	0.059	5.7	3.38	10.6	185.7	Clear	No Odor
10:30	10	100	mL/min	9.25	5.56	0.058	4.2	3.32	10.6	192.7	Clear	No Odor
10:35	15	100	mL/min	9.25	5.57	0.057	3.8	3.3	10.6	196.3	Clear	No Odor
10:40	20	100	mL/min	9.25	5.57	0.057	3.9	3.3	10.5	200.3	Clear	No Odor
10:45	25	100	mL/min	9.25	5.57	0.057	4.1	3.31	10.6	203	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-2B	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-80.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.2	**Total Depth (ft-bmp):**	80	**Water Column(ft):**	70.8	**Liters in Well:**	10.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	78	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:10	**Total Volume Purged (liters):**	5	**Sample ID:**	EPA-PZ-2012-2B-FAL23	**Sample Time:**	12:00
Purge End Time:	12:00	**Well Volumes Purged (total):**	0.46	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	100	mL/min	9.25	5.99	0.205	10.3	1.96	10.5	177.4	Clear	No Odor
11:20	5	100	mL/min	9.25	6.03	0.205	13	0.82	10.4	134.7	Clear	No Odor
11:25	10	100	mL/min	9.25	6.06	0.206	25.4	0.55	10.4	111.7	Clear	No Odor
11:30	15	100	mL/min	9.25	6.02	0.225	41.5	0.48	10.4	101.9	Clear	No Odor
11:35	20	100	mL/min	9.25	5.96	0.278	28.4	0.43	10.4	64.6	Clear	No Odor
11:40	25	100	mL/min	9.25	5.99	0.296	19.1	0.4	10.4	43.7	Clear	No Odor
11:45	30	100	mL/min	9.25	6.01	0.299	14	0.39	10.4	40.4	Clear	No Odor
11:50	35	100	mL/min	9.25	6.02	0.299	12.7	0.37	10.4	36.6	Clear	No Odor
11:55	40	100	mL/min	9.25	6.03	0.3	11.2	0.35	10.4	34.2	Clear	No Odor
12:00	45	100	mL/min	9.25	6.03	0.303	9	0.33	10.4	31.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-3A	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:42.17 °F, rH:71%, Clouds: 36%, Wind:1.99mph E			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.55	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	16.45	**Liters in Well:**	2.54
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:10	**Total Volume Purged (liters):**	6.3	**Sample ID:**	EPA-PZ-2012-3A-FAL23	**Sample Time:**	11:45
Purge End Time:	11:45	**Well Volumes Purged (total):**	2.48	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	180	mL/min	8.65	5.83	0.258	8.1	0.27	12.1	26	Clear	No Odor
11:20	5	180	mL/min	8.65	5.82	0.258	5.5	0.19	12.1	26	Clear	No Odor
11:25	10	180	mL/min	8.65	5.81	0.258	9.4	0.08	12.1	25	Clear	No Odor
11:30	15	180	mL/min	8.65	5.81	0.256	23.7	0.05	12	24.4	Clear	No Odor
11:35	20	180	mL/min	8.65	5.81	0.256	19	0.04	11.9	23.8	Clear	No Odor
11:40	25	180	mL/min	8.65	5.8	0.254	16.6	0.01	11.8	22.9	Clear	No Odor
11:45	30	180	mL/min	8.65	5.8	0.255	7.4	0.01	11.9	22.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-3B	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:44.24 °F, rH:64%, Clouds: 52%, Wind:1.99mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-75.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.47	**Total Depth (ft-bmp):**	75	**Water Column(ft):**	66.53	**Liters in Well:**	10.28
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	72	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:00	**Total Volume Purged (liters):**	5.4	**Sample ID:**	EPA-PZ-2012-3B-FAL23	**Sample Time:**	12:30
Purge End Time:	12:30	**Well Volumes Purged (total):**	0.53	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:05	0	180	mL/min	8.59	6.55	0.492	7.4	0.39	11.9	-66.7	Clear	No Odor
12:10	5	180	mL/min	8.59	6.58	0.492	7.3	0.14	11.7	-77.2	Clear	No Odor
12:15	10	180	mL/min	8.59	6.59	0.493	6.4	0.07	11.7	-82.4	Clear	No Odor
12:20	15	180	mL/min	8.59	6.59	0.493	7.1	0.05	11.8	-84.6	Clear	No Odor
12:25	20	180	mL/min	8.59	6.6	0.494	8.1	0.03	11.8	-86.6	Clear	No Odor
12:30	25	180	mL/min	8.59	6.6	0.494	7.1	0.01	11.8	-88.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Lock on well is not an EPA lock

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-4A	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.38	**Total Depth (ft-bmp):**	27.93	**Water Column(ft):**	15.55	**Liters in Well:**	2.4
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:33	**Total Volume Purged (liters):**	10.17	**Sample ID:**	EPA-PZ-2012-4A-FAL23	**Sample Time:**	13:20
Purge End Time:	13:20	**Well Volumes Purged (total):**	4.24	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	225	mL/min	12.45	5.96	0.268	39.4	1.6	13.7	32.5	Clear	No Odor
12:40	5	225	mL/min	12.48	5.94	0.28	13.5	0.36	13.6	14.1	Clear	No Odor
12:45	10	215	mL/min	12.46	5.96	0.282	5.09	0.17	13.4	4	Clear	No Odor
12:50	15	215	mL/min	12.46	5.98	0.284	3.4	0.1	13.5	-2.1	Clear	No Odor
12:55	20	215	mL/min	12.44	5.99	0.287	3.16	0.06	13.4	-6.3	Clear	No Odor
13:00	25	215	mL/min	12.45	5.99	0.292	2.34	0.03	13.5	-9.2	Clear	No Odor
13:05	30	215	mL/min	12.45	6	0.296	3.02	0.01	13.5	-11.9	Clear	No Odor
13:10	35	215	mL/min	12.45	6.01	0.302	2.4	0.01	13.4	-13.4	Clear	No Odor
13:15	40	215	mL/min	12.45	6.01	0.306	3.31	0.01	13.5	-15.4	Clear	No Odor
13:20	45	215	mL/min	12.45	6.02	0.308	2.02	0.01	13.3	-16.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-4B	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.15	**Total Depth (ft-bmp):**	75.91	**Water Column(ft):**	63.76	**Liters in Well:**	9.85
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	70	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:55	**Total Volume Purged (liters):**	7.04	**Sample ID:**	EPA-PZ-2012-4B-FAL23	**Sample Time:**	14:27
Purge End Time:	14:27	**Well Volumes Purged (total):**	0.71	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP11-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:57	0	220	mL/min	12.2	6.31	0.309	142	1.77	13.2	-2.3	Clear	No Odor
14:02	5	220	mL/min	12.2	6.25	0.43	51	0.35	12.6	-52.3	Clear	No Odor
14:07	10	220	mL/min	12.2	6.28	0.432	13.9	0.14	12.4	-67.5	Clear	No Odor
14:12	15	220	mL/min	12.21	6.29	0.433	5.08	0.08	12.4	-72.7	Clear	No Odor
14:17	20	220	mL/min	12.21	6.3	0.432	3.73	0.03	12.3	-76.2	Clear	No Odor
14:22	25	220	mL/min	12.21	6.3	0.432	3.09	0.01	12.3	-78.6	Clear	No Odor
14:27	30	220	mL/min	12.2	6.31	0.431	2.51	0.01	12.3	-79.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-5A	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:45.72 °F, rH:55%, Clouds: 75%, Wind:8.05mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.18	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	18.82	**Liters in Well:**	2.91
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:45	**Total Volume Purged (liters):**	5.4	**Sample ID:**	EPA-PZ-2012-5A-FAL23	**Sample Time:**	14:15
Purge End Time:	14:15	**Well Volumes Purged (total):**	1.86	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:50	0	180	mL/min	6.24	5.59	0.094	7.6	0.52	11	91.1	Clear	Slight
13:55	5	180	mL/min	6.24	5.58	0.093	8.8	0.24	10.9	91.5	Clear	Slight
14:00	10	180	mL/min	6.24	5.57	0.092	11.2	0.17	10.8	91.6	Clear	Slight
14:05	15	180	mL/min	6.24	5.55	0.092	15.9	0.14	10.8	92	Clear	Slight
14:10	20	180	mL/min	6.24	5.55	0.092	19.6	0.11	10.8	91.3	Clear	Slight
14:15	25	180	mL/min	6.24	5.55	0.092	14.5	0.09	10.7	90.6	Clear	Slight

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-5B	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:45.57 °F, rH:54%, Clouds: 75%, Wind:4.61mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.42	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	79.58	**Liters in Well:**	12.29
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	82	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:30	**Total Volume Purged (liters):**	5.4	**Sample ID:**	EPA-PZ-2012-5B-FAL23	**Sample Time:**	15:00
Purge End Time:	15:00	**Well Volumes Purged (total):**	0.44	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:35	0	180	mL/min	5.54	6.3	0.426	4.4	0.31	10.7	46.5	Clear	No Odor
14:40	5	180	mL/min	5.54	6.32	0.427	4.3	0.09	10.6	49.9	Clear	No Odor
14:45	10	180	mL/min	5.54	6.32	0.427	4.2	0.07	10.5	50.8	Clear	No Odor
14:50	15	180	mL/min	5.54	6.32	0.427	4.3	0.04	10.5	52	Clear	No Odor
14:55	20	180	mL/min	5.54	6.33	0.426	4.2	0.03	10.5	53	Clear	No Odor
15:00	25	180	mL/min	5.54	6.33	0.427	4.1	0.02	10.5	53.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-6A	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.1	**Total Depth (ft-bmp):**	32.27	**Water Column(ft):**	12.17	**Liters in Well:**	1.88
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:30	**Total Volume Purged (liters):**	10.4	**Sample ID:**	EPA-PZ-2012-6A-FAL23	**Sample Time:**	10:11
Purge End Time:	10:11	**Well Volumes Purged (total):**	5.53	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:36	0	250	mL/min	20.12	6.86	0.09	122	8.57	11.9	44.6	Clear	No Odor
09:41	5	190	mL/min	20.12	6.5	0.091	72.4	7.11	11.4	73.5	Clear	No Odor
09:46	10	190	mL/min	20.12	6.1	0.091	24.9	6.8	11.4	91.2	Clear	No Odor
09:51	15	190	mL/min	20.12	6.08	0.09	9.51	6.71	11.4	100.7	Clear	No Odor
09:56	20	190	mL/min	20.12	6.08	0.089	5.46	6.82	11.3	106.2	Clear	No Odor
10:01	25	190	mL/min	20.12	6.08	0.09	4.51	6.67	11.3	111.9	Clear	No Odor
10:06	30	190	mL/min	20.12	6.08	0.089	2.14	6.88	11.3	115.6	Clear	No Odor
10:11	35	190	mL/min	20.12	6.08	0.088	2.58	6.88	11.3	119.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-6B	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-80.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.02	**Total Depth (ft-bmp):**	80.2	**Water Column(ft):**	60.18	**Liters in Well:**	9.29
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	75	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:38	**Total Volume Purged (liters):**	5.85	**Sample ID:**	EPA-PZ-2012-6B-FAL23	**Sample Time:**	11:17
Purge End Time:	11:17	**Well Volumes Purged (total):**	0.63	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP12-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:42	0	150	mL/min	20.05	6.02	0.198	25.6	4.45	10.7	8.5	Clear	No Odor
10:47	5	150	mL/min	20.05	6.24	0.307	141	0.5	10.4	-52.5	Clear	No Odor
10:52	10	150	mL/min	20.05	6.27	0.329	26.4	0.26	10.5	-71.5	Clear	No Odor
10:57	15	150	mL/min	20.06	6.28	0.331	10.6	0.17	10.5	-78.7	Clear	No Odor
11:02	20	150	mL/min	20.05	6.29	0.328	7.12	0.11	10.4	-82.7	Clear	No Odor
11:07	25	150	mL/min	20.05	6.3	0.325	4.71	0.09	10.4	-86.2	Clear	No Odor
11:12	30	150	mL/min	20.05	6.3	0.322	2.43	0.08	10.4	-88.4	Clear	No Odor
11:17	35	150	mL/min	20.05	6.3	0.316	1.83	0.04	10.4	-89.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-7A	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:46.9 °F, rH:50%, Clouds: 20%, Wind:1.01mph NW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.22	**Total Depth (ft-bmp):**	30	**Water Column(ft):**	9.78	**Liters in Well:**	1.51
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:50	**Total Volume Purged (liters):**	9	**Sample ID:**	EPA-PZ-2012-7A-FAL23	**Sample Time:**	14:50
Purge End Time:	14:52	**Well Volumes Purged (total):**	5.96	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	150	mL/min	20.15	6.08	0.096	0.71	4.27	13	-24.3	Clear	No Odor
14:00	5	150	mL/min	20.15	6.01	0.096	3.92	4.14	12.5	-15.4	Clear	No Odor
14:05	10	150	mL/min	20.15	6	0.097	8.68	4.08	12.5	-10.7	Clear	No Odor
14:10	15	150	mL/min	20.15	6	0.098	11.59	4.1	12.5	-9.4	Clear	No Odor
14:15	20	150	mL/min	20.15	6	0.1	15.44	4.11	12.3	-7	Clear	No Odor
14:20	25	150	mL/min	20.15	5.99	0.099	17.7	4.12	12.4	-6.2	Clear	No Odor
14:25	30	150	mL/min	20.15	5.99	0.101	19.46	4.08	12.6	-5.1	Clear	No Odor
14:30	35	150	mL/min	20.15	5.99	0.101	19.91	4.07	11.9	-5.4	Clear	No Odor
14:35	40	150	mL/min	20.14	5.99	0.102	18.49	4.13	11.7	-5	Clear	No Odor
14:40	45	150	mL/min	20.14	5.99	0.102	22.61	4.11	11.6	-5.5	Clear	No Odor
14:45	50	150	mL/min	20.14	5.99	0.102	22.79	4.2	11.7	-4.3	Clear	No Odor
14:50	55	150	mL/min	20.14	5.99	0.102	22.9	4.13	11.5	-4.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EPA-PZ-2012-7B	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:45.14 °F, rH:53%, Clouds: 0%, Wind:4.61mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-65.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.11	**Total Depth (ft-bmp):**	65	**Water Column(ft):**	44.89	**Liters in Well:**	6.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:20	**Total Volume Purged (liters):**	6.88	**Sample ID:**	EPA-PZ-2012-7B-FAL23	**Sample Time:**	13:15
Purge End Time:	13:17	**Well Volumes Purged (total):**	0.99	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:30	0	125	mL/min	20.11	6.62	0.164	0.93	1.33	10.7	-45.3	Clear	No Odor
12:35	5	125	mL/min	20.11	6.64	0.174	0.13	0.98	10.9	-47.4	Clear	No Odor
12:40	10	125	mL/min	20.11	6.67	0.176	0.19	0.74	11	-49.5	Clear	No Odor
12:45	15	125	mL/min	20.11	6.67	0.179	0.27	0.64	11	-50.2	Clear	No Odor
12:50	20	125	mL/min	20.11	6.68	0.182	0.04	0.6	10.9	-50.9	Clear	No Odor
12:55	25	125	mL/min	20.11	6.68	0.192	0.07	0.57	11	-51.4	Clear	No Odor
13:00	30	125	mL/min	20.11	6.69	0.196	0.13	0.54	11	-51.7	Clear	No Odor
13:06	36	125	mL/min	20.1	6.68	0.199	0.12	0.53	11.5	-52.2	Clear	No Odor
13:10	40	125	mL/min	20.1	6.69	0.202	0.07	0.51	11.6	-52.9	Clear	No Odor
13:15	45	125	mL/min	20.1	6.69	0.203	0.28	0.49	11.7	-53.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EW-01	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-85.00	**Casing Diameter (in):**	6	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	NA / NA	**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	ATP system	**Purging Equipment:**	System port
Purge Start Time:	8:50	**Total Volume Purged (liters):**	NA	**Sample ID:**	EW-01-FAL23	**Sample Time:**	9:00
Purge End Time:	9:00	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
9:00	--	--	--	--	6.42	0.365	0.01	2.15	10.6	-55	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EW-03	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	47.00-72.00	**Casing Diameter (in):**	6	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	72	**Water Column(ft):**	NA / NA	**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	ATP system	**Purging Equipment:**	System port
Purge Start Time:	9:20	**Total Volume Purged (liters):**	NA	**Sample ID:**	EW-03-FAL23	**Sample Time:**	9:30
Purge End Time:	9:30	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
9:30	--	--	--	--	6.5	0.345	1.78	2.1	10.2	-52	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	EW-04	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-95.00	**Casing Diameter (in):**	6	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	NA	**Total Depth (ft-bmp):**	95	**Water Column(ft):**	NA / NA	**Liters in Well:**	NA
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	ATP system	**Purging Equipment:**	System port
Purge Start Time:	9:05	**Total Volume Purged (liters):**	NA	**Sample ID:**	EW-04-FAL23	**Sample Time:**	9:15
Purge End Time:	9:15	**Well Volumes Purged (total):**	NA	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
9:15	--	--	--	--	6.36	0.321	0.18	3.31	10.4	-58	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	N5-P1	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:49.51 °F, rH:80%, Clouds: 0%, Wind:3.44mph E-SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	95.50-97.50	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.6	**Total Depth (ft-bmp):**	100.5	**Water Column(ft):**	79.9	**Gallons in Well:**	3.26
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	96	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:40	**Total Volume Purged (gallons):**	2.6	**Sample ID:**	N5-P1-FAL23	**Sample Time:**	12:02
Purge End Time:	11:58	**Well Volumes Purged (total):**	0.80	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:45	0	130	mL/min	21.84	6.77	0.344	3.3	2.97	13.1	-41.5	Clear	No Odor
10:50	5	130	mL/min	21.82	6.89	0.344	4.9	1.67	13.8	-59.9	Clear	No Odor
10:55	10	130	mL/min	21.82	6.96	0.344	5.2	1.44	14.1	-72.8	Clear	No Odor
11:00	15	130	mL/min	21.82	7.08	0.345	3.1	1.33	14.3	-86	Clear	No Odor
11:05	20	130	mL/min	21.82	7.11	0.349	1.9	1.26	14.2	-92.5	Clear	No Odor
11:10	25	130	mL/min	21.83	7.05	0.372	2.9	1.22	13.4	-80.4	Clear	No Odor
11:15	30	130	mL/min	21.82	6.75	0.438	3.2	1.15	14.5	-57.7	Clear	No Odor
11:20	35	130	mL/min	21.82	6.65	0.464	3.7	1.15	13.7	-52.4	Clear	No Odor
11:25	40	130	mL/min	21.82	6.59	0.488	3.3	1.13	13.3	-47.5	Clear	No Odor
11:30	45	130	mL/min	21.82	6.55	0.515	2.5	1.12	12.8	-44	Clear	No Odor
11:35	50	130	mL/min	21.82	6.51	0.535	1.5	1.1	12.8	-43.9	Clear	No Odor
11:40	55	130	mL/min	21.83	6.49	0.548	1.1	1.09	12.9	-50.1	Clear	No Odor
11:45	60	130	mL/min	21.82	6.47	0.554	1.1	1.07	13.1	-68.1	Clear	No Odor
11:50	65	130	mL/min	21.83	6.44	0.56	1.1	1.05	13.1	-70.3	Clear	No Odor
11:55	70	130	mL/min	21.8	6.44	0.561	1.1	1.05	13.1	-76.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1202

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-01	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:66.83 °F, rH:59%, Clouds: 0%, Wind:5.75mph S-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.89	**Total Depth (ft-bmp):**	34	**Water Column(ft):**	14.11	**Liters in Well:**	8.72
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:45	**Total Volume Purged (liters):**	6.15	**Sample ID:**	PZ-12-01-FAL23	**Sample Time:**	12:26
Purge End Time:	12:26	**Well Volumes Purged (total):**	0.71	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:00	0	150	mL/min	19.89	6.36	0.352	1.21	0.79	19.6	-51.9	Clear	No Odor
12:10	10	150	mL/min	19.89	6.36	0.351	1.15	0.7	19.6	-52.5	Clear	No Odor
12:15	15	150	mL/min	19.89	6.36	0.349	1	0.67	20.3	-53.3	Clear	No Odor
12:20	20	150	mL/min	19.89	6.36	0.352	1.41	0.66	19.9	-53.1	Clear	No Odor
12:26	26	150	mL/min	19.89	6.36	0.353	1.4	0.66	20	-52.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-02	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:58.33 °F, rH:72%, Clouds: 0%, Wind:4.61mph E-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.02	**Total Depth (ft-bmp):**	34	**Water Column(ft):**	14.98	**Liters in Well:**	9.25
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:20	**Total Volume Purged (liters):**	9.9	**Sample ID:**	PZ-12-02-FAL23	**Sample Time:**	11:26
Purge End Time:	11:27	**Well Volumes Purged (total):**	1.07	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:25	0	150	mL/min	19.03	6.32	0.351	1.04	1.23	16.3	-55	Clear	No Odor
10:35	10	150	mL/min	19.03	6.32	0.35	0.74	0.67	15.6	-54.8	Clear	No Odor
10:40	15	150	mL/min	19.03	6.31	0.35	0.29	0.61	16.2	-54.9	Clear	No Odor
10:45	20	150	mL/min	19.03	6.31	0.349	0.27	0.57	16.6	-55.1	Clear	No Odor
10:51	26	150	mL/min	19.03	6.31	0.349	0.11	0.54	16.6	-54.7	Clear	No Odor
10:56	31	150	mL/min	19.03	6.31	0.349	0.19	0.53	17.1	-54.8	Clear	No Odor
11:00	35	150	mL/min	19.03	6.31	0.349	0.29	0.52	16.8	-54.5	Clear	No Odor
11:06	41	150	mL/min	19.03	6.3	0.347	0.53	0.58	18	-54.8	Clear	No Odor
11:10	45	150	mL/min	19.03	6.31	0.351	0.53	0.49	17.3	-54.1	Clear	No Odor
11:15	50	150	mL/min	19.02	6.31	0.352	0.53	0.48	17.5	-54	Clear	No Odor
11:26	61	150	mL/min	19.03	6.31	0.351	0.49	0.49	17.8	-53.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-03	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:58.78 °F, rH:61%, Clouds: 0%, Wind:8.05mph SW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.95	**Total Depth (ft-bmp):**	32	**Water Column(ft):**	13.05	**Liters in Well:**	8.06
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:25	**Total Volume Purged (liters):**	9	**Sample ID:**	PZ-12-03-FAL23	**Sample Time:**	14:25
Purge End Time:	14:26	**Well Volumes Purged (total):**	1.12	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:35	0	150	mL/min	18.95	6.46	0.45	++++	1.57	16.9	-60.4	Clear	No Odor
13:40	5	150	mL/min	18.95	6.51	0.484	47.6	0.74	15.9	-64.5	Orange	No Odor
13:45	10	150	mL/min	18.96	6.51	0.492	16.69	0.65	15.4	-64.3	Orange	No Odor
13:50	15	150	mL/min	18.95	6.51	0.492	7.01	0.65	15.2	-64	Clear	No Odor
13:55	20	150	mL/min	18.95	6.51	0.491	6.48	0.6	15.4	-64.1	Clear	No Odor
14:00	25	150	mL/min	18.95	6.51	0.488	8.25	0.6	15.1	-63.6	Clear	No Odor
14:05	30	150	mL/min	18.95	6.51	0.485	7.77	0.58	15.1	-63.2	Clear	No Odor
14:10	35	150	mL/min	18.95	6.51	0.481	5.34	0.57	15	-62.8	Clear	No Odor
14:16	41	150	mL/min	18.95	6.51	0.475	4.15	0.57	15.2	-62.4	Clear	No Odor
14:20	45	150	mL/min	18.95	6.51	0.472	3.31	0.56	15	-62.1	Clear	No Odor
14:25	50	150	mL/min	18.95	6.51	0.467	3.31	0.55	14.9	-55.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-04	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	Cloudy			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.48	**Total Depth (ft-bmp):**	32	**Water Column(ft):**	13.52	**Liters in Well:**	8.35
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:35	**Total Volume Purged (liters):**	5.25	**Sample ID:**	PZ-12-04-FAL23	**Sample Time:**	13:10
Purge End Time:	13:11	**Well Volumes Purged (total):**	0.63	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	150	mL/min	18.48	6.27	0.408	3.25	1.97	15.5	-57.3	Clear	No Odor
12:50	5	150	mL/min	18.49	6.35	0.438	3.59	0.82	15.5	-63.1	Clear	No Odor
12:55	10	150	mL/min	18.48	6.36	0.44	1.03	0.68	15.8	-63	Clear	No Odor
13:00	15	150	mL/min	18.48	6.36	0.439	2.07	0.62	16	-62.7	Clear	No Odor
13:05	20	150	mL/min	18.48	6.36	0.436	1.99	0.59	15.9	-62.1	Clear	No Odor
13:10	25	150	mL/min	18.48	6.36	0.433	1.89	0.57	16.2	-61.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-05	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:51.28 °F, rH:75%, Clouds: 0%, Wind:3.44mph E-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	26.00-36.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.02	**Total Depth (ft-bmp):**	36	**Water Column(ft):**	14.98	**Liters in Well:**	9.25
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	19	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:35	**Total Volume Purged (liters):**	10.5	**Sample ID:**	PZ-12-05-FAL23	**Sample Time:**	11:45
Purge End Time:	11:46	**Well Volumes Purged (total):**	1.14	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:50	0	150	mL/min	22.01	5.82	0.129	72.25	4.8	16.1	-18.4	--	No Odor
10:55	5	150	mL/min	22.01	5.7	0.126	25.55	3.71	16	-6.3	Orange	No Odor
11:00	10	150	mL/min	22.01	5.68	0.127	6.44	3.45	16.3	-1.4	Clear	No Odor
11:05	15	150	mL/min	22.01	5.68	0.128	3.26	3.33	16.7	0	Orange	No Odor
11:10	20	150	mL/min	22.01	5.67	0.129	0.54	3.25	15.8	0	Clear	No Odor
11:15	25	150	mL/min	22.01	5.67	0.13	0.15	3.24	16	0.6	Clear	No Odor
11:20	30	150	mL/min	22.01	5.67	0.129	0.08	3.17	16.7	0.8	Clear	No Odor
11:25	35	150	mL/min	22.01	5.67	0.132	0.26	3.13	14.8	-0.8	Clear	No Odor
11:30	40	150	mL/min	21.02	5.66	0.133	0.16	3.14	14.3	-0.5	Clear	No Odor
11:35	45	150	mL/min	21.02	5.66	0.135	0.35	3.16	14.8	-0.5	Clear	No Odor
11:40	50	150	mL/min	21.02	5.66	0.135	0.14	3.12	14.9	-0.7	Orange	No Odor
11:45	55	150	mL/min	21.02	5.65	0.135	0.29	3.11	14.7	-0.8	Orange	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-06	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:43.29 °F, rH:78%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	26.00-36.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.29	**Total Depth (ft-bmp):**	36	**Water Column(ft):**	13.71	**Liters in Well:**	8.47
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	34	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:10	**Total Volume Purged (liters):**	6	**Sample ID:**	PZ-12-06-FAL23	**Sample Time:**	9:55
Purge End Time:	09:56	**Well Volumes Purged (total):**	0.71	**Replicate Type / Replicate ID:**	Duplicate / SHL-DUP01-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:15	0	100	mL/min	22.29	5.68	0.124	39.42	1.99	11.6	8.1	Clear	No Odor
09:20	5	100	mL/min	22.29	5.64	0.116	14.75	1.32	12	19.9	Clear	No Odor
09:25	10	100	mL/min	22.29	5.64	0.115	8.3	1.19	11.9	20.2	Clear	No Odor
09:30	15	150	mL/min	22.29	5.64	0.114	4.79	1.02	12.1	19.3	Clear	No Odor
09:35	20	150	mL/min	22.29	5.64	0.114	3.69	0.96	12.2	18.3	Clear	No Odor
09:40	25	150	mL/min	22.29	5.64	0.114	2.66	0.96	12.7	17.9	Clear	No Odor
09:45	30	150	mL/min	22.29	5.64	0.115	2.75	0.92	12.9	15.6	Clear	No Odor
09:50	35	150	mL/min	22.29	5.64	0.115	2.7	0.9	13.1	14.8	Clear	No Odor
09:55	40	150	mL/min	22.29	5.64	0.115	2.23	0.88	13.2	13.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-07	**Date(s):**	2023-10-20	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:55.31 °F, rH:90%, Clouds: 100%, Wind:5.75mph S-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	18.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	27.38	**Total Depth (ft-bmp):**	29	**Water Column(ft):**	1.62	**Liters in Well:**	1
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	27.5	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:45	**Total Volume Purged (liters):**	22	**Sample ID:**	PZ-12-07-FAL23	**Sample Time:**	10:35
Purge End Time:	10:38	**Well Volumes Purged (total):**	22.00	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:50	0	200	mL/min	27.37	6.54	0.201	123.05	4.07	13.3	-33.7	Clear	No Odor
08:55	5	200	mL/min	27.37	6.62	0.206	78.25	3.29	13.3	-37	Clear	No Odor
09:00	10	200	mL/min	27.37	6.61	0.207	65.09	3.37	13.3	-37	Clear	No Odor
09:05	15	200	mL/min	27.38	6.63	0.219	46.45	3.28	13.4	-37.1	Orange	No Odor
09:15	25	200	mL/min	27.37	6.64	0.222	37.25	3.22	13.4	-37.1	Clear	No Odor
09:20	30	200	mL/min	27.38	6.63	0.223	34.68	3.33	13.5	-37.1	Clear	No Odor
09:25	35	200	mL/min	27.38	6.64	0.226	28.17	3.16	13.4	-36.9	Clear	No Odor
09:30	40	200	mL/min	27.38	6.64	0.226	29.77	3.15	13.3	-36.8	Clear	No Odor
09:35	45	200	mL/min	27.37	6.64	0.228	26.42	3.31	13.5	-36.8	Orange	No Odor
09:40	50	200	mL/min	27.37	6.62	0.228	22.18	3.23	13.5	-36.5	Clear	No Odor
09:45	55	200	mL/min	27.37	6.64	0.229	24.87	3.17	13.5	-36.7	Clear	No Odor
09:50	60	200	mL/min	27.36	6.64	0.231	21.09	3.15	13.6	-36.8	Clear	No Odor
09:55	65	200	mL/min	27.36	6.64	0.233	39.73	3.25	13.6	-36.7	Clear	No Odor
10:00	70	200	mL/min	27.36	6.65	0.233	33.99	3.28	13.6	-36.9	Clear	No Odor
10:05	75	200	mL/min	27.38	6.63	0.235	31.39	3.23	13.5	-36.4	Orange	No Odor
10:10	80	200	mL/min	27.36	6.63	0.235	28.61	3.12	13.6	-36.3	Orange	No Odor
10:15	85	200	mL/min	27.36	6.63	0.235	22.88	3.26	13.6	-36.4	Clear	No Odor
10:20	90	200	mL/min	27.38	6.63	0.236	28.82	3.13	13.5	-36.4	Clear	No Odor
10:30	100	200	mL/min	27.38	6.64	0.236	28.71	3.22	13.9	-36.4	Clear	No Odor
10:35	105	200	mL/min	27.38	6.63	0.236	29.77	3.12	13.6	-36.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
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Location ID:	PZ-12-08	**Date(s):**	2023-10-20	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:56.12 °F, rH:88%, Clouds: 100%, Wind:4.61mph S-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	18.00-28.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.78	**Total Depth (ft-bmp):**	28	**Water Column(ft):**	4.22	**Liters in Well:**	2.61
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	26	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	11:15	**Total Volume Purged (liters):**	9.75	**Sample ID:**	PZ-12-08-FAL23	**Sample Time:**	12:20
Purge End Time:	12:21	**Well Volumes Purged (total):**	3.74	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:30	0	150	mL/min	23.78	6.12	0.178	751.1	0.94	14.4	-23.7	Orange	No Odor
11:35	5	150	mL/min	23.78	6.11	0.179	91.41	0.74	14.5	-22.5	Orange	No Odor
11:40	10	150	mL/min	23.77	6.1	0.178	54.64	0.68	14.9	-22.4	Clear	No Odor
11:45	15	150	mL/min	23.78	6.1	0.178	47.21	0.66	15.1	-22.7	Clear	No Odor
11:50	20	150	mL/min	23.77	6.09	0.177	41.75	0.62	15	-23.1	Clear	No Odor
11:55	25	150	mL/min	23.78	6.09	0.174	29.95	0.61	15.1	-23.1	Clear	No Odor
12:00	30	150	mL/min	23.77	6.09	0.173	26.25	0.62	15	-23.1	Clear	No Odor
12:05	35	150	mL/min	23.77	6.09	0.176	25.29	0.64	15.1	-22.9	Clear	No Odor
12:10	40	150	mL/min	23.78	6.08	0.175	22.45	0.63	15.6	-22.8	Clear	No Odor
12:15	45	150	mL/min	23.77	6.08	0.174	23.51	0.64	15.8	-22.9	Clear	No Odor
12:20	50	150	mL/min	23.78	6.08	0.174	21.16	0.65	15.8	-22.9	Orange	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
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Location ID:	PZ-12-09	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:74.32 °F, rH:50%, Clouds: 0%, Wind:4.61mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.18	**Total Depth (ft-bmp):**	32	**Water Column(ft):**	8.82	**Liters in Well:**	5.45
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	9.75	**Sample ID:**	PZ-12-09-FAL23	**Sample Time:**	14:20
Purge End Time:	14:21	**Well Volumes Purged (total):**	1.79	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 16.c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	150	mL/min	23.18	7.01	0.195	40.42	2.21	18.2	-37	Clear	No Odor
13:25	5	150	mL/min	23.19	6.95	0.196	29.41	1.53	17.7	-34.2	Clear	No Odor
13:30	10	150	mL/min	23.19	6.92	0.195	18.76	1.55	18	-32.7	Clear	No Odor
13:35	15	150	mL/min	23.2	6.9	0.193	18.05	1.66	17.6	-31.7	Clear	No Odor
13:40	20	150	mL/min	23.2	6.87	0.191	15.76	1.78	18.2	-30.6	Clear	No Odor
13:45	25	150	mL/min	23.2	6.85	0.191	15.03	1.84	18.4	-30.3	Clear	No Odor
13:50	30	150	mL/min	23.2	6.83	0.188	11.86	1.92	18.1	-29.9	Clear	No Odor
14:00	40	150	mL/min	23.21	6.8	0.186	10.27	1.97	18.6	-28.8	Clear	No Odor
14:05	45	150	mL/min	23.21	6.81	0.185	7.68	1.98	18.1	-28.8	Clear	No Odor
14:10	50	150	mL/min	23.21	6.79	0.184	4.98	2.01	18.5	-28.4	Clear	No Odor
14:15	55	150	mL/min	23.2	6.79	0.183	4.71	2.03	18.2	-28.5	Clear	No Odor
14:20	60	150	mL/min	23.2	6.78	0.181	4.49	2.12	18.6	-27.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Tall grass

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	PZ-12-10	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:72.63 °F, rH:58%, Clouds: 0%, Wind:4.61mph SW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.96	**Total Depth (ft-bmp):**	32	**Water Column(ft):**	11.04	**Liters in Well:**	6.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:55	**Total Volume Purged (liters):**	5.25	**Sample ID:**	PZ-12-10-FAL23	**Sample Time:**	15:30
Purge End Time:	15:31	**Well Volumes Purged (total):**	0.77	**Replicate Type / Replicate ID:**	MS/MSD / PZ-12-10-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:00	0	150	mL/min	20.96	6.63	0.164	0.8	6.69	19	-20.7	Clear	No Odor
15:05	5	150	mL/min	20.96	6.35	0.16	0.83	6.16	17.4	-8.5	Clear	No Odor
15:10	10	150	mL/min	20.96	6.33	0.16	0.59	6.09	17.2	-6.8	Clear	No Odor
15:15	15	150	mL/min	20.96	6.32	0.165	0.71	6.11	17.1	-4.7	Clear	No Odor
15:20	20	150	mL/min	20.96	6.3	0.168	0.68	6.09	17.4	-3.5	Clear	No Odor
15:25	25	150	mL/min	20.96	6.29	0.169	0.64	6.03	17	-2.4	Clear	No Odor
15:30	30	150	mL/min	20.96	6.28	0.169	0.7	6.02	17.1	-1.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: In tall grass and weeds.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-10	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	MIST, T:47.14 °F, rH:88%, Clouds: 100%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-39.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	30.64	**Total Depth (ft-bmp):**	38.62	**Water Column(ft):**	7.98	**Gallons in Well:**	1.3
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	36	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:55	**Total Volume Purged (gallons):**	1.5	**Sample ID:**	SHL-10-FAL23	**Sample Time:**	10:35
Purge End Time:	10:34	**Well Volumes Purged (total):**	1.15	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	160	mL/min	30.72	6.14	0.032	27	9.22	10.1	183.2	Clear	No Odor
10:05	5	160	mL/min	30.72	5.86	0.027	26.7	8.89	10.2	203.8	Clear	No Odor
10:10	10	160	mL/min	30.72	5.82	0.021	16	8.6	10.3	211.3	Clear	No Odor
10:15	15	160	mL/min	30.72	5.79	0.024	6.3	7.89	10.2	217.3	Clear	No Odor
10:20	20	160	mL/min	30.73	5.8	0.024	2.1	7.51	10.2	220.9	Clear	No Odor
10:25	25	160	mL/min	30.72	5.77	0.024	1.2	7.37	10.3	224.7	Clear	No Odor
10:30	30	160	mL/min	30.72	5.78	0.024	1.3	7.22	10.2	228.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 10:35

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-11	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:63.34 °F, rH:71%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	12.00-27.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.11	**Total Depth (ft-bmp):**	27	**Water Column(ft):**	8.89	**Liters in Well:**	5.49
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:20	**Total Volume Purged (liters):**	4.65	**Sample ID:**	SHL-11-FAL23	**Sample Time:**	11:45
Purge End Time:	11:40	**Well Volumes Purged (total):**	0.85	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:25	0	150	mL/min	18.11	6.32	0.144	0.45	2.9	14.3	-55.6	Clear	No Odor
10:31	6	150	mL/min	18.11	6.4	0.151	0.07	0.85	14.5	-56.7	Clear	No Odor
10:36	11	150	mL/min	18.11	6.41	0.152	0.33	0.71	14.8	-55.9	Clear	No Odor
10:40	15	150	mL/min	18.11	6.41	0.152	0.25	0.68	15.2	-55.6	Clear	No Odor
10:51	26	150	mL/min	18.11	6.42	0.155	1	0.62	15.4	-53.3	Clear	No Odor
11:10	45	150	mL/min	18.11	6.44	0.161	22.92	0.56	16	-52.5	Clear	No Odor
11:16	51	150	mL/min	18.11	6.44	0.162	20.69	0.58	16.5	-53.5	Clear	No Odor
11:25	60	150	mL/min	18.11	6.46	0.162	22.33	0.56	18.5	-53.9	Clear	No Odor
11:30	65	150	mL/min	18.11	6.47	0.165	19.29	0.55	16.2	-53.8	Clear	No Odor
11:35	70	150	mL/min	18.11	6.46	0.167	19.73	0.56	16.4	-54.2	Clear	No Odor
11:40	75	150	mL/min	18.11	6.46	0.168	19.77	0.56	16.1	-55	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-12	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:69.8 °F, rH:57%, Clouds: 20%, Wind:4.61mph N-NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.79	**Total Depth (ft-bmp):**	28.74	**Water Column(ft):**	8.95	**Gallons in Well:**	1.46
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:40	**Total Volume Purged (gallons):**	1.5	**Sample ID:**	SHL-12-FAL23	**Sample Time:**	12:30
Purge End Time:	12:29	**Well Volumes Purged (total):**	1.03	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:45	0	120	mL/min	18.8	6.23	0.533	34.1	2.17	14.8	136.5	Clear	No Odor
11:50	5	120	mL/min	18.8	6.18	0.424	23.9	1.79	15.2	141	Clear	No Odor
11:55	10	120	mL/min	18.81	6.17	0.407	13.7	1.42	15.4	146.1	Clear	No Odor
12:00	15	120	mL/min	18.81	6.16	0.422	10.8	1.63	15.5	149.1	Clear	No Odor
12:05	20	120	mL/min	18.81	6.14	0.436	8.4	1.88	15.4	153.2	Clear	No Odor
12:10	25	120	mL/min	18.8	6.13	0.443	7.5	2.03	15	156.6	Clear	No Odor
12:15	30	120	mL/min	18.81	6.12	0.446	7.6	2.15	14.9	158.5	Clear	No Odor
12:20	35	120	mL/min	18.8	6.11	0.45	7.5	2.25	14.8	154	Clear	No Odor
12:25	40	120	mL/min	18.81	6.11	0.448	7.3	2.32	14.9	155	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1230

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-15	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:76.41 °F, rH:52%, Clouds: 0%, Wind:12.66mph W			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	14.00-24.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	17.26	**Total Depth (ft-bmp):**	24	**Water Column(ft):**	6.74	**Liters in Well:**	16.66
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	22	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:25	**Total Volume Purged (liters):**	6.75	**Sample ID:**	SHL-15-FAL23	**Sample Time:**	16:15
Purge End Time:	16:11	**Well Volumes Purged (total):**	0.41	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:35	0	150	mL/min	17.26	6.13	0.111	6.31	0.77	17.9	-41.6	Clear	No Odor
15:41	6	150	mL/min	17.29	6.1	0.119	5.88	0.56	18.1	-50.1	Clear	No Odor
15:46	11	150	mL/min	17.31	6.09	0.125	7.08	0.54	18.3	-52.9	Clear	No Odor
15:50	15	150	mL/min	17.35	6.08	0.127	6.67	0.47	18	-54.4	Clear	No Odor
15:55	20	150	mL/min	17.36	6.07	0.13	7.09	0.46	17.4	-54.9	Clear	No Odor
16:00	25	150	mL/min	17.35	6.06	0.134	7.86	0.45	17.7	-54.8	Clear	No Odor
16:06	31	150	mL/min	17.35	6.06	0.136	7.39	0.44	17.2	-54.6	Clear	No Odor
16:10	35	150	mL/min	17.35	6.05	0.137	7.31	0.43	17.4	-53.5	Clear	Slight

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-19	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:72.21 °F, rH:51%, Clouds: 75%, Wind:5.75mph W			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.92	**Total Depth (ft-bmp):**	30	**Water Column(ft):**	7.08	**Liters in Well:**	17.5
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:35	**Total Volume Purged (liters):**	6	**Sample ID:**	SHL-19-FAL23	**Sample Time:**	13:20
Purge End Time:	13:16	**Well Volumes Purged (total):**	0.34	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:50	0	150	mL/min	22.92	6.67	0.068	14.09	6.71	22	-15.2	Clear	No Odor
12:55	5	150	mL/min	20.93	6.63	0.068	5.37	6.95	22.2	-12.9	Clear	No Odor
13:00	10	150	mL/min	20.93	6.61	0.067	5.61	6.7	23	-12.1	Clear	No Odor
13:05	15	150	mL/min	20.93	6.62	0.068	3.51	7.13	22.5	-12.2	Clear	No Odor
13:10	20	150	mL/min	20.93	6.62	0.069	2.79	7.05	22.2	-11.5	Clear	No Odor
13:15	25	150	mL/min	20.93	6.61	0.068	4.67	6.86	22.4	-11.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Weeds, brush

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-20	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:60.13 °F, rH:58%, Clouds: 20%, Wind:5.75mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	39.00-49.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.87	**Total Depth (ft-bmp):**	49	**Water Column(ft):**	32.13	**Liters in Well:**	79.4
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	43	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:10	**Total Volume Purged (liters):**	6.75	**Sample ID:**	SHL-20-FAL23	**Sample Time:**	15:55
Purge End Time:	15:56	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**	Duplicate / SHL-DUP02-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:15	0	150	mL/min	16.87	6.43	0.424	0.4	1.01	14.3	-47.1	Clear	No Odor
15:20	5	150	mL/min	16.87	6.43	0.426	0.18	0.69	14.1	-48.9	Clear	No Odor
15:25	10	150	mL/min	16.87	6.44	0.423	0.35	0.56	13.9	-49.9	Clear	No Odor
15:30	15	150	mL/min	16.87	6.44	0.413	0.42	0.53	13.7	-49.9	Clear	No Odor
15:35	20	150	mL/min	16.87	6.44	0.413	0.18	0.49	14.3	-53.9	Clear	No Odor
15:40	25	150	mL/min	16.88	6.44	0.412	0.25	0.47	14	-54.4	Clear	No Odor
15:45	30	150	mL/min	16.87	6.43	0.409	0.51	0.46	13.6	-54.7	Clear	No Odor
15:50	35	150	mL/min	16.87	6.43	0.405	2.33	0.44	13.5	-54.9	Clear	No Odor
15:55	40	150	mL/min	16.88	6.43	0.399	1.67	0.42	13.7	-55	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-22	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:65.95 °F, rH:69%, Clouds: 0%, Wind:3.44mph N-NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	105.00-115.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.6	**Total Depth (ft-bmp):**	115	**Water Column(ft):**	109.4	**Gallons in Well:**	71.42
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	112	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:15	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	SHL-22-FAL23	**Sample Time:**	10:45
Purge End Time:	10:45	**Well Volumes Purged (total):**	0.01	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP03-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:20	0	100	mL/min	5.82	6.62	0.485	2.9	1.32	14.3	42	Clear	No Odor
10:25	5	100	mL/min	5.82	6.61	0.494	2.9	0.71	14.2	40.3	Clear	No Odor
10:30	10	100	mL/min	5.82	6.62	0.494	2.9	0.59	14.2	37.5	Clear	No Odor
10:35	15	100	mL/min	5.82	6.63	0.494	3.2	0.55	14.3	35.3	Clear	No Odor
10:40	20	100	mL/min	5.82	6.63	0.492	2.8	0.52	14.2	35.4	Clear	No Odor
10:45	25	100	mL/min	5.82	6.63	0.492	2.9	0.54	14.2	33.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-23	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:30.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	23.00-33.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	26.02	**Total Depth (ft-bmp):**	33	**Water Column(ft):**	6.98	**Liters in Well:**	4.31
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	31	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	14:00	**Total Volume Purged (liters):**	9	**Sample ID:**	SHL-23-FAL23	**Sample Time:**	14:36
Purge End Time:	14:36	**Well Volumes Purged (total):**	2.09	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:05	0	250	mL/min	26.04	5.78	0.06	0.45	10.88	9.5	-5.4	Clear	No Odor
14:10	5	250	mL/min	26.04	5.64	0.061	1.1	10.9	9.4	4.1	Clear	No Odor
14:15	10	250	mL/min	26.05	5.53	0.061	1.13	9.88	9.5	16.2	Clear	No Odor
14:20	15	250	mL/min	26.05	5.51	0.063	1.61	9.87	9.5	23.5	Clear	No Odor
14:25	20	250	mL/min	26.05	5.49	0.063	2.19	9.87	9.5	27.3	Clear	No Odor
14:30	25	250	mL/min	26.06	5.45	0.063	2.58	9.87	9.5	29.8	Clear	No Odor
14:36	31	250	mL/min	26.06	5.45	0.063	2.95	9.87	9.5	31.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-24	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:42.17 °F, rH:71%, Clouds: 36%, Wind:1.99mph E			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	110.00-120.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.8	**Total Depth (ft-bmp):**	123.39	**Water Column(ft):**	109.59	**Liters in Well:**	270.81
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	115	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:26	**Total Volume Purged (liters):**	7.29	**Sample ID:**	SHL-24-FAL23	**Sample Time:**	11:09
Purge End Time:	11:09	**Well Volumes Purged (total):**	0.03	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP04-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:29	0	175	mL/min	14.09	7.11	0.294	6.53	7.31	12.3	65.9	Clear	No Odor
10:34	5	175	mL/min	14.34	6.95	0.307	6.96	2.56	12.3	62.7	Clear	No Odor
10:39	10	175	mL/min	14.63	6.97	0.306	4.67	2.31	12.2	57.4	Clear	No Odor
10:44	15	175	mL/min	14.89	6.97	0.304	4.51	2.25	12.3	55.4	Clear	No Odor
10:49	20	175	mL/min	15.15	6.94	0.302	7.27	2.21	12.4	58.3	Clear	No Odor
10:54	25	175	mL/min	15.33	6.95	0.301	6.33	2.14	12.3	59.9	Clear	No Odor
10:59	30	175	mL/min	15.56	6.95	0.299	4.62	1.92	12.3	60.9	Clear	No Odor
11:04	35	150	mL/min	15.73	6.96	0.298	2.44	1.92	12.2	61.3	Clear	No Odor
11:09	40	150	mL/min	15.85	6.97	0.296	1.81	1.91	12.2	61.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Location ID:	SHL-3	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:88%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	24.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	29.84	**Total Depth (ft-bmp):**	34.15	**Water Column(ft):**	4.31	**Gallons in Well:**	0.7
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	11:30	**Total Volume Purged (gallons):**	1.7	**Sample ID:**	SHL-3-FAL23	**Sample Time:**	12:15
Purge End Time:	12:14	**Well Volumes Purged (total):**	2.43	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:35	0	160	mL/min	29.96	6.17	0.058	12.8	10.3	11.2	250.2	Clear	No Odor
11:40	5	160	mL/min	29.96	6.23	0.09	11.6	10.02	11.2	253.6	Clear	No Odor
11:45	10	160	mL/min	29.96	6.26	0.139	10.1	9.8	11.3	257.3	Clear	No Odor
11:50	15	160	mL/min	29.96	6.3	0.164	7.85	9.7	11.2	259.1	Clear	No Odor
11:55	20	160	mL/min	29.97	6.31	0.171	6.7	9.68	11	259.7	Clear	No Odor
12:00	25	160	mL/min	29.97	6.32	0.174	6	9.67	10.9	260	Clear	No Odor
12:05	30	160	mL/min	29.97	6.32	0.176	6.2	9.66	11	260	Clear	No Odor
12:10	35	160	mL/min	29.97	6.32	0.177	6.1	9.64	11.1	260.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC

ARCADIS a joint venture

Location ID:	SHL-4	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:49.26 °F, rH:89%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	3.00-13.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.38	**Total Depth (ft-bmp):**	14.75	**Water Column(ft):**	4.37	**Gallons in Well:**	0.71
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	13	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:40	**Total Volume Purged (gallons):**	2.75	**Sample ID:**	SHL-4-FAL23	**Sample Time:**	14:50
Purge End Time:	14:49	**Well Volumes Purged (total):**	3.87	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:45	0	160	mL/min	10.42	6.36	0.165	144.6	2.15	11.1	-19.2	Reddish Brown	No Odor
13:51	6	160	mL/min	10.42	6.36	0.166	94.3	1.61	11.2	-30.3	Clear	No Odor
13:55	10	160	mL/min	10.43	6.35	0.166	70.5	1.49	11.3	-34.3	Clear	No Odor
14:00	15	160	mL/min	10.43	6.35	0.166	38.8	1.4	11.2	-37.6	Clear	No Odor
14:05	20	160	mL/min	10.43	6.35	0.166	35.3	1.33	11.3	-39.5	Clear	No Odor
14:10	25	160	mL/min	10.44	6.35	0.166	23.5	1.29	11.4	-41.1	Clear	No Odor
14:15	30	160	mL/min	10.43	6.35	0.167	20.7	1.26	11.4	-42.3	Clear	No Odor
14:20	35	160	mL/min	10.43	6.35	0.166	11.9	1.24	11.2	-43	Clear	No Odor
14:25	40	160	mL/min	10.44	6.34	0.167	8.8	1.37	11.2	-43.7	Clear	No Odor
14:30	45	160	mL/min	10.42	6.35	0.166	6.6	1.21	11.1	-44.2	Clear	No Odor
14:35	50	160	mL/min	10.42	6.35	0.167	4.5	1.19	11.1	-44.5	Clear	No Odor
14:40	55	160	mL/min	10.42	6.35	0.166	3.04	1.17	11.2	-44.9	Clear	No Odor
14:45	60	160	mL/min	10.43	6.34	0.166	2.3	1.17	11.2	-45.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-5	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:55.87 °F, rH:68%, Clouds: 75%, Wind:5.75mph S-SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	3.00-13.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	2.11	**Total Depth (ft-bmp):**	13	**Water Column(ft):**	10.89	**Gallons in Well:**	1.77
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:25	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	SHL-5-FAL23	**Sample Time:**	13:10
Purge End Time:	13:10	**Well Volumes Purged (total):**	0.68	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:30	0	100	mL/min	2.11	5.62	0.148	5.6	1.12	13.9	56	Clear	No Odor
12:35	5	100	mL/min	2.11	5.62	0.147	5.9	0.6	13.9	52.7	Clear	No Odor
12:40	10	100	mL/min	2.11	5.62	0.148	6.1	0.5	14.1	51	Clear	No Odor
12:45	15	100	mL/min	2.11	5.62	0.149	5.6	0.44	14.3	49.6	Clear	No Odor
12:50	20	100	mL/min	2.11	5.62	0.149	4.4	0.41	14.3	59	Clear	No Odor
12:55	25	100	mL/min	2.11	5.62	0.148	4.3	0.39	14.3	48.4	Clear	No Odor
13:00	30	100	mL/min	2.11	5.62	0.148	4.4	0.37	14.3	48.3	Clear	No Odor
13:05	35	100	mL/min	2.11	5.61	0.148	4.5	0.36	14.4	47.7	Clear	No Odor
13:10	40	100	mL/min	2.11	5.61	0.149	3.9	0.36	14.7	49.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-7	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:76.87 °F, rH:46%, Clouds: 0%, Wind:8.05mph W			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	11.00-21.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.84	**Total Depth (ft-bmp):**	21	**Water Column(ft):**	4.16	**Gallons in Well:**	0.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	18	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:10	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	SHL-7-FAL23	**Sample Time:**	14:45
Purge End Time:	14:44	**Well Volumes Purged (total):**	1.62	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:15	0	140	mL/min	16.87	6.04	0.092	28.3	1.32	17.9	139.1	Clear	No Odor
14:20	5	140	mL/min	16.87	5.97	0.088	8.5	1.1	17.6	142.7	Clear	No Odor
14:25	10	140	mL/min	16.88	5.95	0.088	5.8	1	17.6	140.5	Clear	No Odor
14:30	15	140	mL/min	16.88	5.96	0.089	5.2	0.97	17.5	139.3	Clear	No Odor
14:35	20	140	mL/min	16.88	5.96	0.09	5.3	0.93	17.7	138.3	Clear	No Odor
14:40	25	140	mL/min	16.88	5.96	0.091	5.2	0.9	17.8	137.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Access road needs trimming (grass is very high). Sampled at 1445

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-8D	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:45.03 °F, rH:79%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.35	**Total Depth (ft-bmp):**	70	**Water Column(ft):**	63.65	**Gallons in Well:**	10.37
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	69	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:45	**Total Volume Purged (gallons):**	3.15	**Sample ID:**	SHL-8D-FAL23	**Sample Time:**	11:45
Purge End Time:	11:45	**Well Volumes Purged (total):**	0.3	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:50	0	100	mL/min	6.35	5.88	0.135	3.9	1.4	10.4	72.5	Clear	No Odor
09:55	5	100	mL/min	6.35	5.89	0.121	3	0.92	10.4	61.7	Clear	No Odor
10:00	10	100	mL/min	6.35	5.83	0.121	3.5	0.74	10.5	66.5	Clear	No Odor
10:05	15	100	mL/min	6.35	5.78	0.126	2.5	0.67	10.6	75.5	Clear	No Odor
10:10	20	100	mL/min	6.35	5.63	0.148	3.9	0.65	10.7	100.2	Clear	No Odor
10:15	25	100	mL/min	6.35	5.6	0.154	2.6	0.63	10.8	109.4	Clear	No Odor
10:20	30	100	mL/min	6.35	5.58	0.159	2	0.63	10.8	117.9	Clear	No Odor
10:25	35	100	mL/min	6.35	5.57	0.162	2.1	0.61	10.6	123.9	Clear	No Odor
10:30	40	100	mL/min	6.35	5.57	0.164	2.3	0.6	10.9	127.4	Clear	No Odor
10:35	45	100	mL/min	6.35	5.56	0.165	2	0.58	11	132.7	Clear	No Odor
11:25	95	100	mL/min	6.35	5.62	0.171	2	2.1	12.3	142.6	Clear	No Odor
11:30	100	100	mL/min	6.35	5.61	0.163	2	1.59	11.5	143.1	Clear	No Odor
11:35	105	100	mL/min	6.35	5.58	0.167	2.3	1.4	11.6	146.6	Clear	No Odor
11:40	110	100	mL/min	6.35	5.58	0.17	2	1.32	11.6	150.4	Clear	No Odor
11:45	115	100	mL/min	6.35	5.57	0.17	2.1	1.26	11.6	154.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHL-8S	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:41.92 °F, rH:91%, Clouds: 40%, Wind:0mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	52.00-54.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.95	**Total Depth (ft-bmp):**	54	**Water Column(ft):**	47.05	**Gallons in Well:**	7.67
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	53	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:45	**Total Volume Purged (gallons):**	0.92	**Sample ID:**	SHL-8S-FAL23	**Sample Time:**	9:20
Purge End Time:	09:20	**Well Volumes Purged (total):**	0.12	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:50	0	100	mL/min	6.95	6.02	0.065	5.4	5.23	10.4	75.9	Clear	No Odor
08:55	5	100	mL/min	6.95	5.92	0.062	5.8	4.89	10.3	102.3	Clear	No Odor
09:00	10	100	mL/min	6.95	5.92	0.062	4.8	4.9	10.3	111.1	Clear	No Odor
09:05	15	100	mL/min	6.95	5.92	0.062	4.9	4.86	10.3	119	Clear	No Odor
09:10	20	100	mL/min	6.95	5.91	0.062	4.1	4.81	10.5	123.7	Clear	No Odor
09:15	25	100	mL/min	6.95	5.91	0.062	4.2	4.75	10.3	129.2	Clear	No Odor
09:20	30	100	mL/min	6.95	5.91	0.062	3.8	4.68	10.4	133.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC

ARCADIS a joint venture

Location ID:	SHL-9	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:75.52 °F, rH:54%, Clouds: 0%, Wind:6.91mph S-SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	15.00-25.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.96	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	17.04	**Gallons in Well:**	2.78
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:20	**Total Volume Purged (gallons):**	1.7	**Sample ID:**	SHL-9-FAL23	**Sample Time:**	13:35
Purge End Time:	13:25	**Well Volumes Purged (total):**	0.61	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:25	0	100	mL/min	8.2	6.78	0.038	16.7	6.89	16.9	47.2	Clear	No Odor
12:30	5	100	mL/min	8.2	6.25	0.047	10.2	3.74	16.7	91.6	Clear	No Odor
12:36	11	100	mL/min	8.2	6	0.067	6.8	1.3	16.5	112.3	Clear	No Odor
12:40	15	100	mL/min	8.2	6	0.094	5.1	0.99	16.4	59.1	Clear	No Odor
12:45	20	100	mL/min	8.2	6.16	0.19	12	0.65	16.3	13.5	Clear	No Odor
12:50	25	100	mL/min	8.2	6.2	0.216	16	0.51	16.4	14.4	Clear	No Odor
12:55	30	100	mL/min	8.2	6.21	0.241	13.8	0.42	16.2	-2.3	Clear	No Odor
13:00	35	100	mL/min	8.2	6.21	0.243	40.1	0.39	15.9	-3	Clear	No Odor
13:05	40	100	mL/min	8.2	6.21	0.254	4.1	0.35	16.3	-5.2	Clear	No Odor
13:10	45	100	mL/min	8.2	6.21	0.256	3.3	0.34	16.3	-6.6	Clear	No Odor
13:15	50	100	mL/min	8.2	6.21	0.257	15.8	0.32	15.8	-7.4	Clear	No Odor
13:20	55	100	mL/min	8.2	6.22	0.257	6.8	0.32	15.8	-8.2	Clear	No Odor
13:25	60	100	mL/min	8.2	6.22	0.257	5.7	0.3	15.8	-8.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-05-39A	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:39.43 °F, rH:77%, Clouds: 0%, Wind:1.01mph NE			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	37.00-39.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.62	**Total Depth (ft-bmp):**	38.8	**Water Column(ft):**	28.18	**Liters in Well:**	17.41
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:27	**Total Volume Purged (liters):**	16.9	**Sample ID:**	SHM-05-39A-FAL23	**Sample Time:**	16:00
Purge End Time:	16:00	**Well Volumes Purged (total):**	0.97	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:30	0	200	mL/min	10.74	6.77	0.176	25.9	4.82	13.9	8.2	Clear	No Odor
14:35	5	200	mL/min	10.74	6.51	0.17	23.8	3.58	13.5	28.5	Clear	No Odor
14:40	10	200	mL/min	10.74	6.42	0.168	24.5	3.22	13.2	40.6	Clear	No Odor
14:45	15	500	mL/min	10.74	6.39	0.166	28.4	2.9	13.3	49	Clear	No Odor
14:50	20	200	mL/min	10.74	6.38	0.164	35.6	2.69	13.1	51.8	Clear	No Odor
14:55	25	200	mL/min	10.74	6.39	0.163	23.3	2.45	13.2	54.1	Clear	No Odor
15:00	30	200	mL/min	10.74	6.38	0.162	32.3	2.3	12.9	56.4	Clear	No Odor
15:05	35	200	mL/min	10.74	6.38	0.161	37.7	2.13	13	57.8	Clear	No Odor
15:10	40	200	mL/min	10.74	6.34	0.16	46	1.95	13	61.8	Clear	No Odor
15:15	45	150	mL/min	10.74	6.33	0.16	50.8	1.88	13	63.4	Clear	No Odor
15:20	50	150	mL/min	10.74	6.34	0.159	65.7	1.83	12.8	55.9	Clear	No Odor
15:25	55	10.72	mL/min	10.72	6.3	0.161	71.8	1.64	12.6	38.6	Clear	No Odor
15:30	60	150	mL/min	10.72	6.33	0.173	74.2	0.79	12.6	-2.8	Clear	No Odor
15:35	65	150	mL/min	10.72	6.38	0.176	64.2	0.52	12.8	-25.9	Clear	No Odor
15:40	70	150	mL/min	10.72	6.4	0.175	58.4	0.42	12.6	-35.6	Clear	No Odor
15:45	75	150	mL/min	10.72	6.43	0.175	49.5	0.34	12.5	-42.5	Clear	No Odor
15:50	80	150	mL/min	10.72	6.42	0.174	47.1	0.31	12.5	-46.4	Clear	No Odor
15:55	85	150	mL/min	10.72	6.42	0.174	36.2	0.26	12.6	-49.6	Clear	No Odor
16:00	90	150	mL/min	10.72	6.45	0.174	31.1	0.22	12.7	-53	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-05-39B	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:39.43 °F, rH:77%, Clouds: 0%, Wind:1.01mph NE			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	66.00-68.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	11.39	**Total Depth (ft-bmp):**	65.9	**Water Column(ft):**	54.51	**Liters in Well:**	33.68
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	60	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:21	**Total Volume Purged (liters):**	14.27	**Sample ID:**	SHM-05-39B-FAL23	**Sample Time:**	14:03
Purge End Time:	14:03	**Well Volumes Purged (total):**	0.42	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:23	0	210	mL/min	12.37	6.74	0.366	277	0.86	13.4	58.2	Clear	No Odor
12:28	5	175	mL/min	13.32	6.71	0.353	218	0.39	13.3	47.5	Clear	No Odor
12:33	10	175	mL/min	14.16	6.69	0.352	165	0.28	13.4	36.9	Clear	No Odor
12:38	15	150	mL/min	14.65	6.71	0.349	134	0.24	13.3	22.7	Clear	No Odor
12:43	20	150	mL/min	15.07	6.7	0.346	126	0.21	13.2	5.6	Clear	No Odor
12:48	25	150	mL/min	15.27	6.68	0.344	131	0.21	13.1	-10.4	Clear	No Odor
12:53	30	150	mL/min	15.51	6.7	0.343	137	0.2	13	-25.3	Clear	No Odor
12:58	35	130	mL/min	15.62	6.74	0.339	133	0.2	12.9	-39.6	Clear	No Odor
13:03	40	130	mL/min	15.65	6.75	0.338	124	0.18	12.8	-49.1	Clear	No Odor
13:08	45	130	mL/min	15.69	6.77	0.337	107	0.15	12.7	-55.5	Clear	No Odor
13:13	50	130	mL/min	15.72	6.79	0.336	98	0.15	12.7	-62.1	Clear	No Odor
13:18	55	130	mL/min	15.74	6.8	0.335	82.2	0.13	12.7	-65.6	Clear	No Odor
13:23	60	130	mL/min	15.73	6.79	0.335	72.1	0.11	12.7	-67.2	Clear	No Odor
13:28	65	130	mL/min	15.71	6.8	0.337	65.9	0.1	12.7	-68.6	Clear	No Odor
13:33	70	130	mL/min	15.7	6.8	0.338	54.3	0.1	12.7	-68.8	Clear	No Odor
13:38	75	130	mL/min	15.68	6.79	0.34	48	0.1	12.7	-69.4	Clear	No Odor
13:42	79	130	mL/min	15.66	6.78	0.342	37	0.1	12.7	-66.7	Clear	No Odor
13:48	85	130	mL/min	15.64	6.8	0.344	36.5	0.09	12.7	-65.3	Clear	No Odor
13:53	90	130	mL/min	15.65	6.76	0.347	32.4	0.08	12.8	-62.8	Clear	No Odor
13:58	95	130	mL/min	15.65	6.77	0.351	31.4	0.08	12.7	-60.6	Clear	No Odor
14:03	100	130	mL/min	15.66	6.72	0.355	29.6	0.07	12.7	-56.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Well Labeled Properly:	yes
Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC

ARCADIS a joint venture

Location ID:	SHM-05-40X	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:39.43 °F, rH:77%, Clouds: 0%, Wind:1.01mph NE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	32.00-34.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.31	**Total Depth (ft-bmp):**	34	**Water Column(ft):**	20.69	**Liters in Well:**	12.78
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:05	**Total Volume Purged (liters):**	7	**Sample ID:**	SHM-05-40X-FAL23	**Sample Time:**	11:15
Purge End Time:	11:16	**Well Volumes Purged (total):**	0.55	**Replicate Type / Replicate ID:**	Duplicate; SHL-DUP04-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:15	0	100	mL/min	13.33	6.94	0.177	1.72	1.96	8.2	-56.2	Clear	No Odor
10:20	5	100	mL/min	13.33	6.93	0.189	1.63	1.1	8.1	-55.5	Clear	No Odor
10:25	10	100	mL/min	13.3	6.92	0.192	1.33	0.91	8.4	-55.2	Clear	No Odor
10:30	15	100	mL/min	13.33	6.91	0.193	1.82	0.79	8.1	-54.7	Clear	No Odor
10:35	20	100	mL/min	13.33	6.87	0.172	0.24	0.74	8.4	-53.9	Clear	No Odor
10:40	25	100	mL/min	13.32	6.86	0.173	0.35	0.71	8.2	-53.7	Clear	No Odor
10:45	30	100	mL/min	13.32	6.86	0.172	0.4	0.7	8.5	-53.7	Clear	No Odor
10:50	35	100	mL/min	13.32	6.86	0.168	0.74	0.72	8.4	-53.6	Clear	No Odor
10:55	40	100	mL/min	13.31	6.86	0.177	0.73	0.68	8.6	-53.6	Clear	No Odor
11:00	45	100	mL/min	13.31	6.86	0.177	0.83	0.68	8.6	-53.5	Clear	No Odor
11:05	50	100	mL/min	13.31	6.86	0.171	0.8	0.67	8.6	-53.5	Clear	No Odor
11:10	55	100	mL/min	13.31	6.86	0.173	0.79	0.66	8.6	-53.4	Clear	No Odor
11:15	60	100	mL/min	13.31	6.86	0.175	0.83	0.65	8.8	-53.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-05-41A	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:48.54 °F, rH:91%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	42.00-44.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.08	**Total Depth (ft-bmp):**	44	**Water Column(ft):**	34.92	**Liters in Well:**	21.57
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	42	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:10	**Total Volume Purged (liters):**	13.25	**Sample ID:**	SHM-05-41A-FAL23	**Sample Time:**	12:45
Purge End Time:	12:45	**Well Volumes Purged (total):**	0.61	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:15	0	150	mL/min	9.08	6.4	0.119	0.25	1.06	11.2	-38.4	Clear	No Odor
11:20	5	150	mL/min	9.09	6.44	0.12	2.06	0.7	11.2	-42.6	Clear	No Odor
11:25	10	150	mL/min	9.09	6.45	0.124	0.26	0.57	11.2	-44.9	Clear	No Odor
11:30	15	150	mL/min	9.09	6.47	0.128	0.35	0.52	11.2	-46.7	Clear	No Odor
11:35	20	150	mL/min	9.09	6.46	0.129	0.21	0.48	11.2	-47	Clear	No Odor
11:40	25	150	mL/min	9.08	6.44	0.127	1.04	0.45	11.1	-46.1	Clear	No Odor
11:45	30	150	mL/min	9.08	6.44	0.138	2.57	0.45	11.1	-46.7	Clear	No Odor
11:51	36	150	mL/min	9.08	6.44	0.147	2.22	0.96	11	-46.9	Clear	No Odor
11:55	40	150	mL/min	9.08	6.45	0.151	1.27	0.92	10.8	-46.9	Clear	No Odor
12:00	45	150	mL/min	9.08	6.42	0.156	0.17	0.54	11	-45.1	Clear	No Odor
12:05	50	150	mL/min	9.08	6.37	0.161	0.75	0.67	10.9	-41.3	Clear	No Odor
12:10	55	150	mL/min	9.08	6.3	0.154	0.81	0.67	11	-33.1	Clear	No Odor
12:15	60	150	mL/min	9.08	6.32	0.134	0.92	3.14	11	-31.3	Clear	No Odor
12:20	65	150	mL/min	9.08	6.34	0.104	0.9	1.23	11	-26.7	Clear	No Odor
12:25	70	150	mL/min	9.08	6.35	0.09	1.96	0.63	11.1	-23.7	Clear	No Odor
12:30	75	150	mL/min	9.08	6.34	0.081	1.89	0.81	11.1	-21.7	Clear	No Odor
12:35	80	150	mL/min	9.08	6.35	0.075	1.82	0.68	11.2	-20.7	Clear	No Odor
12:40	85	150	mL/min	9.08	6.32	0.074	1.71	0.72	11.2	-19.3	Clear	No Odor
12:45	90	150	mL/min	9.08	6.31	0.075	1.64	0.67	11.2	-18.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Well Labeled Properly:	yes
Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-05-41B	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	MIST, T:47.1 °F, rH:91%, Clouds: 100%, Wind:0mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	62.00-64.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.93	**Total Depth (ft-bmp):**	64	**Water Column(ft):**	55.07	**Liters in Well:**	34.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	62	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:05	**Total Volume Purged (liters):**	12.01	**Sample ID:**	SHM-05-41B-FAL23	**Sample Time:**	10:30
Purge End Time:	10:31	**Well Volumes Purged (total):**	0.35	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:15	0	150	mL/min	8.93	6.72	0.114	7.55	1.04	11	-68.4	Clear	No Odor
09:20	4	150	mL/min	8.93	6.72	0.092	6.71	0.75	11	-65.6	Clear	No Odor
09:25	10	150	mL/min	8.93	6.72	0.096	3.49	0.67	11	-64.3	Clear	No Odor
09:30	15	150	mL/min	8.93	6.72	0.093	2.75	0.63	11	-62.8	Clear	No Odor
09:35	20	150	mL/min	8.93	6.72	0.101	1.06	0.6	10.8	-61.4	Clear	No Odor
09:40	25	1.5	mL/min	8.93	6.72	0.095	0.96	0.58	10.9	-60.8	Clear	No Odor
09:46	31	150	mL/min	8.93	6.71	0.086	0.58	0.56	10.8	-60.1	Clear	No Odor
09:50	35	150	mL/min	8.93	6.72	0.089	0.77	0.55	10.8	-59.6	Clear	No Odor
10:10	55	150	mL/min	8.93	6.72	0.097	1.92	0.52	10.8	-57.6	Clear	No Odor
10:15	60	150	mL/min	8.92	6.71	0.092	2.34	0.52	10.8	-57.5	Clear	No Odor
10:20	65	150	mL/min	8.93	6.72	0.104	2.66	0.51	10.8	-57.1	Clear	No Odor
10:26	71	150	mL/min	8.92	6.72	0.105	3.14	0.51	10.9	-56.4	Clear	No Odor
10:30	75	150	mL/min	8.92	6.71	0.107	3.38	0.5	10.8	-56.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-05-41C	**Date(s):**	2023-10-30	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	RAIN, T:49.14 °F, rH:92%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	88.00-93.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.09	**Total Depth (ft-bmp):**	93	**Water Column(ft):**	83.91	**Liters in Well:**	51.84
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	91	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	7.5	**Sample ID:**	SHM-05-41C-FAL23	**Sample Time:**	14:05
Purge End Time:	14:08	**Well Volumes Purged (total):**	0.14	**Replicate Type / Replicate ID:**	**MS/MSD** / SHM-05-41C-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	150	mL/min	9.09	6.08	0.206	0.98	5.76	11.7	-24.7	Clear	No Odor
13:25	5	150	mL/min	9.09	6.27	0.213	0.41	1.43	11.2	-32.9	Clear	No Odor
13:30	10	150	mL/min	9.09	6.32	0.23	0.01	0.77	11.4	-37.1	Clear	No Odor
13:35	15	150	mL/min	9.09	6.35	0.229	0.12	0.63	11.4	-38.9	Clear	No Odor
13:40	20	150	mL/min	9.09	6.35	0.231	0.09	0.57	11.3	-39.6	Clear	No Odor
13:50	30	150	mL/min	9.09	6.36	0.241	0.32	0.5	11.3	-40.7	Clear	No Odor
13:56	36	150	mL/min	9.09	6.37	0.254	0.29	0.47	10.9	-41.3	Clear	No Odor
14:00	40	150	mL/min	9.09	6.37	0.252	0.3	0.47	11	-41.7	Clear	No Odor
14:05	45	150	mL/min	9.09	6.39	0.259	0.23	0.46	11.2	-42.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
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Groundwater Sampling Form

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Location ID:	SHM-05-42A	**Date(s):**	2023-10-25	**Work Order(s):**		Order #4 - 2023 Fall LTM + SRI Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:73.17 °F, rH:56%, Clouds: 0%, Wind:4.61mph SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	40.00-42.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.25	**Total Depth (ft-bmp):**	42	**Water Column(ft):**	38.75	**Gallons in Well:**	1.58
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	41	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:20	**Total Volume Purged (gallons):**	0.92	**Sample ID:**	SHM-05-42A-FAL23	**Sample Time:**	15:55
Purge End Time:	15:55	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:25	0	100	mL/min	3.25	6.14	0.06	21.3	2.19	15.3	104	Clear	No Odor
15:30	5	100	mL/min	3.25	5.9	0.047	4.9	1.45	12.8	122.2	Clear	No Odor
15:35	10	100	mL/min	3.25	5.87	0.046	4.1	1.51	12.8	125	Clear	No Odor
15:40	15	100	mL/min	3.25	5.86	0.046	4.9	1.56	12.7	127.3	Clear	No Odor
15:45	20	100	mL/min	3.25	5.86	0.045	2.1	1.58	12.5	127.9	Clear	No Odor
15:50	25	100	mL/min	3.25	5.85	0.044	2.3	1.59	12.5	128.2	Clear	No Odor
15:55	30	100	mL/min	3.25	5.85	0.044	3.6	1.66	12.5	127.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Needs new lock

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

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Location ID:	SHM-05-42B	**Date(s):**	2023-10-25	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLOUDS, T:71.6 °F, rH:63%, Clouds: 100%, Wind:6.02mph S-SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-72.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.15	**Total Depth (ft-bmp):**	72	**Water Column(ft):**	68.85	**Gallons in Well:**	2.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	71	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	16:10	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	SHM-05-42B-FAL23	**Sample Time:**	16:40
Purge End Time:	16:40	**Well Volumes Purged (total):**	0.28	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
16:15	0	100	mL/min	3.15	6.19	0.368	4.2	0.56	12.7	-23.6	Clear	No Odor
16:20	5	100	mL/min	3.15	6.2	0.367	3.4	0.4	12.5	-27.3	Clear	No Odor
16:25	10	100	mL/min	3.15	6.22	0.367	2.5	0.31	12.4	-31	Clear	No Odor
16:30	15	100	mL/min	3.15	6.22	0.366	2.2	0.29	12.4	-32.2	Clear	No Odor
16:35	20	100	mL/min	3.15	6.23	0.366	2.2	0.26	12.3	-33.9	Clear	No Odor
16:40	25	100	mL/min	3.15	6.23	0.365	2.1	0.25	12.2	-34.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Needs new lock

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-07-05X	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:35.17 °F, rH:91%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	56.00-66.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	13.67	**Total Depth (ft-bmp):**	66	**Water Column(ft):**	52.33	**Liters in Well:**	32.33
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	64	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:50	**Total Volume Purged (liters):**	5	**Sample ID:**	SHM-07-05X-FAL23	**Sample Time:**	9:40
Purge End Time:	09:43	**Well Volumes Purged (total):**	0.15	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:55	0	100	mL/min	13.77	6.65	0.876	0.42	1.55	7.2	-57.4	Clear	No Odor
09:00	5	100	mL/min	13.93	6.7	0.849	0.56	1.19	7.3	-59.8	Clear	No Odor
09:05	10	100	mL/min	15.37	6.74	0.815	0.12	0.91	7.4	-60.5	Clear	No Odor
09:10	15	100	mL/min	15.87	6.76	0.801	0.47	0.82	7.4	-60.7	Clear	No Odor
09:15	20	100	mL/min	16.51	6.78	0.767	0.72	0.73	7.4	-60.7	Clear	No Odor
09:20	25	100	mL/min	17	6.79	0.302	0.53	0.63	7.4	-60.6	Clear	No Odor
09:25	30	100	mL/min	17.38	6.79	0.296	0.71	0.61	7.6	-60.6	Clear	No Odor
09:30	35	100	mL/min	17.83	6.8	0.285	0.82	0.59	7.8	-60.4	Clear	No Odor
09:35	40	100	mL/min	18.01	6.81	0.286	0.57	0.58	7.9	-60.2	Clear	No Odor
09:40	45	100	mL/min	18.38	6.82	0.29	0.53	0.56	7.8	-59.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-02	**Date(s):**	2023-10-23	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	Upper 50s, mostly sunny			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	53.00-63.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.81	**Total Depth (ft-bmp):**	64.89	**Water Column(ft):**	48.08	**Liters in Well:**	16.71
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	59	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:13	**Total Volume Purged (liters):**	12.9	**Sample ID:**	SHM-10-02-FAL23	**Sample Time:**	NA
Purge End Time:	16:10	**Well Volumes Purged (total):**	0.77	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:15	0	200	mL/min	16.9	7.29	0.339	165	7.75	12.6	70.9	Clear	No Odor
15:20	5	200	mL/min	16.91	6.85	0.319	10.5	6.68	12.2	81.8	Clear	No Odor
15:25	10	200	mL/min	16.9	6.64	0.333	29	5.01	12.2	89.8	Clear	No Odor
15:30	15	200	mL/min	16.91	6.27	0.38	3.13	1.19	12.1	95.2	Clear	No Odor
15:35	20	200	mL/min	16.91	6.24	0.384	0.71	0.55	12.1	90.2	Clear	No Odor
15:40	25	200	mL/min	16.91	6.23	0.383	1.61	0.44	12.1	87.1	Clear	No Odor
15:45	30	500	mL/min	16.91	6.2	0.413	0.43	0.38	15	86	Clear	No Odor
15:50	35	200	mL/min	16.91	6.1	0.78	10	0.3	12	102.3	Clear	No Odor
15:55	40	200	mL/min	16.91	6.01	0.876	5.35	0.14	12.1	105.8	Clear	No Odor
16:00	45	200	mL/min	16.91	6.02	0.925	1.95	0.08	12.1	108.8	Clear	No Odor
16:05	50	200	mL/min	16.91	6.04	0.94	0.02	0.06	12.1	110.6	Clear	No Odor
16:10	55	200	mL/min	16.91	6.05	0.944	0.02	0.04	12.1	112.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-03	**Date(s):**	2023-10-23	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	Upper 50s, mostly sunny			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	58.50-68.50	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	25.63	**Total Depth (ft-bmp):**	70.34	**Water Column(ft):**	44.71	**Liters in Well:**	15.54
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	65	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:34	**Total Volume Purged (liters):**	6.6	**Sample ID:**	SHM-10-03-FAL23	**Sample Time:**	14:17
Purge End Time:	14:17	**Well Volumes Purged (total):**	0.42	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:37	0	150	mL/min	25.66	6.85	0.601	243	3.09	12.6	58.2	Clear	No Odor
13:42	5	150	mL/min	25.66	6.59	0.63	20.4	0.83	11.9	51.8	Clear	No Odor
13:47	10	150	mL/min	25.66	6.55	0.641	10.1	0.64	11.9	52.5	Clear	No Odor
13:52	15	150	mL/min	25.66	6.53	0.654	0.02	0.54	11.9	54.1	Clear	No Odor
13:57	20	150	mL/min	25.66	6.45	0.738	0.02	0.47	11.9	60.7	Clear	No Odor
14:02	25	150	mL/min	25.66	6.29	1.087	0.02	0.43	11.9	74.4	Clear	No Odor
14:07	30	180	mL/min	25.66	6.2	1.236	0.02	0.39	11.8	83.2	Clear	No Odor
14:12	35	150	mL/min	2566	6.21	1.255	0.02	0.34	11.8	87.4	Clear	No Odor
14:17	40	150	mL/min	25.66	6.21	1.267	0.02	0.31	11.8	90.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-04	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:41.92 °F, rH:91%, Clouds: 40%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	55.00-65.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.33	**Total Depth (ft-bmp):**	65.16	**Water Column(ft):**	59.83	**Liters in Well:**	20.79
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	60	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:43	**Total Volume Purged (liters):**	8.41	**Sample ID:**	SHM-10-04-FAL23	**Sample Time:**	14:20
Purge End Time:	14:20	**Well Volumes Purged (total):**	0.40	**Replicate Type / Replicate ID:**	**MS/MSD** / SHM-10-04-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:45	0	260	mL/min	5.36	7.45	0.267	115	4.23	12.5	93.4	Clear	No Odor
13:50	5	225	mL/min	5.35	6.4	0.277	27.4	1.11	12.3	102.8	Clear	No Odor
13:55	10	225	mL/min	5.35	6.33	0.275	6.7	0.86	12.2	107.8	Clear	No Odor
14:00	15	225	mL/min	5.35	6.3	0.273	1.43	0.76	12.1	111.2	Clear	No Odor
14:05	20	225	mL/min	5.36	6.29	0.271	0.02	0.64	12	114.1	Clear	No Odor
14:10	25	225	mL/min	5.35	6.28	0.268	0.02	0.44	12	116.2	Clear	No Odor
14:15	30	225	mL/min	5.35	6.27	0.267	0.02	0.29	12	117.6	Clear	No Odor
14:20	35	225	mL/min	5.35	6.27	0.264	0.02	0.23	11.9	119.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? poor

Issues: Stickup - Cannot Lock and Close

Well Inspection Comments: Lock was rusted. Cannot open/close. New lock needed.

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-05A	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:73.24 °F, rH:50%, Clouds: 0%, Wind:1.99mph E-SE			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	50.00-60.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	24.42	**Total Depth (ft-bmp):**	61.12	**Water Column(ft):**	36.7	**Liters in Well:**	12.75
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	56	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:49	**Total Volume Purged (liters):**	2.31	**Sample ID:**	SHM-10-05A-FAL23	**Sample Time:**	13:20
Purge End Time:	13:20	**Well Volumes Purged (total):**	0.18	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:50	0	75	mL/min	24.44	5.96	0.17	23.3	5.92	24.9	62.1	Clear	No Odor
12:55	5	75	mL/min	24.44	5.77	0.182	30.8	3.54	18.7	83.9	Clear	No Odor
13:00	10	75	mL/min	24.43	5.75	0.181	8.09	3.46	18.3	93.6	Clear	No Odor
13:05	15	75	mL/min	24.44	5.73	0.179	2.28	3.47	18.2	100.1	Clear	No Odor
13:10	20	75	mL/min	24.43	5.73	0.178	0.79	3.45	18	104.4	Clear	No Odor
13:15	25	75	mL/min	24.43	5.73	0.177	0.1	3.35	18.3	107.1	Clear	No Odor
13:20	30	75	mL/min	24.44	5.73	0.176	0.02	3.29	18.4	110.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Very slow initial purge with Peristaltic pump. Possible blockage?

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC

ARCADIS a joint venture

Location ID:	SHM-10-06	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:45.14 °F, rH:53%, Clouds: 0%, Wind:4.61mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-80.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	17.28	**Total Depth (ft-bmp):**	80	**Water Column(ft):**	62.72	**Liters in Well:**	21.8
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	77	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:40	**Total Volume Purged (liters):**	4.2	**Sample ID:**	SHM-10-06-FAL23	**Sample Time:**	13:15
Purge End Time:	13:15	**Well Volumes Purged (total):**	0.19	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	120	mL/min	17.33	6.55	0.344	263.4	0.76	15.5	-55.4	Clear	No Odor
12:50	5	120	mL/min	17.33	6.51	0.341	386.7	0.56	15.4	-60.5	Clear	No Odor
12:55	10	120	mL/min	17.33	6.51	0.341	155.5	0.46	15.5	-65.2	Clear	No Odor
13:00	15	120	mL/min	17.33	6.52	0.34	207.3	0.41	15.3	-68.4	Clear	No Odor
13:05	20	120	mL/min	17.33	6.52	0.342	93.1	0.38	15.6	-70.6	Clear	No Odor
13:10	25	120	mL/min	17.33	6.52	0.342	57.1	0.36	15.4	-72.2	Clear	No Odor
13:15	30	120	mL/min	17.33	6.52	0.34	3.61	0.34	15.5	-73.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-06A	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	77.00-87.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	33.14	**Total Depth (ft-bmp):**	87	**Water Column(ft):**	53.86	**Liters in Well:**	18.72
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	84	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	12:40	**Total Volume Purged (liters):**	3.3	**Sample ID:**	SHM-10-06A-FAL23	**Sample Time:**	13:35
Purge End Time:	13:35	**Well Volumes Purged (total):**	0.18	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:45	0	60	mL/min	33.15	6.41	0.126	18.5	1.69	11	11.6	Clear	No Odor
12:50	5	60	mL/min	33.15	6.29	0.127	20.6	0.25	10.7	10.8	Clear	No Odor
12:55	10	60	mL/min	33.15	6.27	0.129	29.4	0.06	10.8	9.3	Clear	No Odor
13:00	15	60	mL/min	33.15	6.27	0.133	24.8	0.01	11	6.9	Clear	No Odor
13:05	20	60	mL/min	33.15	6.27	0.137	50	0.01	11.2	4.3	Clear	No Odor
13:10	25	60	mL/min	33.15	6.27	0.142	54	0.01	11.5	1.1	Clear	No Odor
13:15	30	60	mL/min	33.15	6.28	0.144	56.2	0.01	11.6	-1.6	Clear	No Odor
13:20	35	60	mL/min	33.15	6.28	0.147	62.2	0.01	11.8	-3.5	Clear	No Odor
13:25	40	60	mL/min	33.15	6.29	0.152	28	0.01	12.1	-7.2	Clear	No Odor
13:28	43	60	mL/min	33.15	6.29	0.155	25.9	0.01	12.2	-9.6	Clear	No Odor
13:31	46	60	mL/min	33.15	6.3	0.157	37	0.01	12.2	-11	Clear	No Odor
13:35	50	60	mL/min	33.15	6.3	0.159	28.7	0.01	12.2	-12.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-07	**Date(s):**	2023-10-23	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	Upper 50s, mostly sunny			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	40.00-50.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	25.22	**Total Depth (ft-bmp):**	51.07	**Water Column(ft):**	25.85	**Liters in Well:**	15.97
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	46	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	11:22	**Total Volume Purged (liters):**	9.6	**Sample ID:**	SHM-10-07-FAL23	**Sample Time:**	12:16
Purge End Time:	12:16	**Well Volumes Purged (total):**	0.60	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:26	0	150	mL/min	25.32	6.28	0.402	462	1.07	12.6	-60.2	Clear	No Odor
11:31	5	450	mL/min	25.32	6.37	0.408	220	0.35	12.2	-86.4	Clear	No Odor
11:36	10	150	mL/min	25.31	6.37	0.403	151	0.22	12.2	-92.9	Clear	No Odor
11:41	15	150	mL/min	25.32	6.37	0.398	131	0.16	12.2	-96.9	Clear	No Odor
11:46	20	150	mL/min	25.32	6.35	0.399	34.2	0.12	12.2	-98.6	Clear	No Odor
11:51	25	150	mL/min	25.3	6.34	0.399	19.8	0.09	12.3	-100.2	Clear	No Odor
11:56	30	150	mL/min	25.32	6.33	0.398	16.5	0.07	12.4	-101.5	Clear	No Odor
12:01	35	150	mL/min	25.31	6.33	0.396	15.4	0.05	12.3	-102.3	Clear	No Odor
12:06	40	150	mL/min	25.31	6.33	0.394	9.5	0.04	12.3	-102.9	Clear	No Odor
12:11	45	150	mL/min	25.31	6.33	0.392	9.59	0.02	12.4	-103.5	Clear	No Odor
12:16	50	150	mL/min	25.31	6.33	0.389	8.76	0.02	12.4	-104.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
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mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-08	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:41.92 °F, rH:91%, Clouds: 40%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	46.00-56.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.32	**Total Depth (ft-bmp):**	56.69	**Water Column(ft):**	48.37	**Liters in Well:**	16.81
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	51	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:48	**Total Volume Purged (liters):**	5.51	**Sample ID:**	SHM-10-08-FAL23	**Sample Time:**	10:20
Purge End Time:	10:20	**Well Volumes Purged (total):**	0.33	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:50	0	185	mL/min	8.36	7.32	0.375	65.8	4.12	11.4	33.1	Clear	No Odor
09:55	5	105	mL/min	8.36	6.59	0.368	10.1	1.21	11.4	58.1	Clear	No Odor
10:00	10	185	mL/min	8.36	6.48	0.367	3.27	0.45	11.4	68.2	Clear	No Odor
10:05	15	185	mL/min	8.37	6.46	0.366	0.77	0.25	11.4	70.4	Clear	No Odor
10:10	20	185	mL/min	8.37	6.46	0.369	0.02	0.17	11.5	72.4	Clear	No Odor
10:15	25	185	mL/min	8.37	6.46	0.378	0.02	0.11	11.5	74.7	Clear	No Odor
10:20	30	185	mL/min	8.37	6.46	0.379	0.02	0.07	11.5	75.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-10	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:74.08 °F, rH:59%, Clouds: 100%, Wind:5.75mph SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	56.00-66.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.27	**Total Depth (ft-bmp):**	66.63	**Water Column(ft):**	56.36	**Liters in Well:**	19.59
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	61	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:35	**Total Volume Purged (liters):**	6.6	**Sample ID:**	SHM-10-10-FAL23	**Sample Time:**	15:08
Purge End Time:	15:08	**Well Volumes Purged (total):**	0.34	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:38	0	200	mL/min	10.31	6.61	0.256	8.45	2.67	16.8	62.8	Clear	No Odor
14:43	5	200	mL/min	10.31	6.47	0.242	0.02	0.34	15.7	69.1	Clear	No Odor
14:48	10	200	mL/min	10.31	6.46	0.239	0.02	0.22	15.9	71.8	Clear	No Odor
14:53	15	200	mL/min	10.31	6.45	0.237	0.02	0.14	15.2	74.9	Clear	No Odor
14:58	20	200	mL/min	40.31	6.44	0.24	0.02	0.11	15.1	76.4	Clear	No Odor
15:03	25	200	mL/min	10.31	6.44	0.24	0.02	0.09	15.4	77.5	Clear	No Odor
15:08	30	200	mL/min	10.31	6.44	0.24	0.02	0.02	15.5	78.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Needs new lock

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-11	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:68.11 °F, rH:57%, Clouds: 0%, Wind:5.75mph E-SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	50.00-60.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	37.85	**Total Depth (ft-bmp):**	62.25	**Water Column(ft):**	24.4	**Gallons in Well:**	3.98
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	55	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	12:25	**Total Volume Purged (gallons):**	2.9	**Sample ID:**	SHM-10-11-FAL23	**Sample Time:**	13:35
Purge End Time:	13:34	**Well Volumes Purged (total):**	0.73	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:30	0	170	mL/min	37.89	6.08	0.535	148.1	2.28	16.9	-55.8	Clear	No Odor
12:35	5	170	mL/min	37.9	6.09	0.536	148.7	1.67	16.4	-60.9	Clear	No Odor
12:40	10	170	mL/min	37.9	6.1	0.536	69.7	1.35	16.1	-63.9	Clear	No Odor
12:45	15	170	mL/min	37.9	6.11	0.537	36.4	1.12	16.2	-67.4	Clear	No Odor
12:50	20	170	mL/min	37.9	6.12	0.541	35.5	1.05	16.1	-71.2	Clear	No Odor
12:55	25	170	mL/min	37.9	6.12	0.542	43.9	1	16	-72.7	Clear	No Odor
13:00	30	170	mL/min	37.9	6.12	0.54	56	0.96	16.2	-74.3	Clear	No Odor
13:05	35	170	mL/min	37.9	6.12	0.542	25.6	0.93	16.8	-75.1	Clear	No Odor
13:10	40	170	mL/min	37.9	6.12	0.542	29.2	0.92	16.5	-76	Clear	No Odor
13:15	45	170	mL/min	37.9	6.12	0.542	37.5	0.9	16.1	-76.4	Clear	No Odor
13:20	50	170	mL/min	37.9	6.13	0.543	7.9	0.89	15.8	-77.2	Clear	No Odor
13:25	55	170	mL/min	37.9	6.12	0.542	7.2	0.87	16	-77.8	Clear	No Odor
13:30	60	170	mL/min	37.9	6.12	0.542	7.3	0.87	15.7	-77.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1335

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-12	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:55.8 °F, rH:81%, Clouds: 0%, Wind:3.44mph SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	45.00-55.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	31.68	**Total Depth (ft-bmp):**	57.28	**Water Column(ft):**	25.6	**Gallons in Well:**	4.18
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	50	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:55	**Total Volume Purged (gallons):**	2.7	**Sample ID:**	SHM-10-12-FAL23	**Sample Time:**	11:00
Purge End Time:	10:58	**Well Volumes Purged (total):**	0.65	**Replicate Type / Replicate ID:**	**MS/MSD** / SHM-10-12-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:00	0	165	mL/min	31.69	5.84	0.394	311.3	2.58	13.8	-44.3	Brown	No Odor
10:05	5	165	mL/min	31.69	5.84	0.391	237	1.6	13.2	-46.2	Clear	No Odor
10:10	10	165	mL/min	31.7	5.85	0.391	282.1	1.33	13.6	-49.4	Clear	No Odor
10:15	15	165	mL/min	31.71	5.86	0.389	129	1.23	12.9	-50.2	Clear	No Odor
10:20	20	165	mL/min	31.71	5.86	0.387	109	1.16	13.1	-51.6	Clear	No Odor
10:25	25	165	mL/min	31.7	5.87	0.388	62.2	1.1	13	-52.8	Clear	No Odor
10:30	30	165	mL/min	31.7	5.88	0.388	51	1.08	12.3	-53.5	Clear	No Odor
10:35	35	165	mL/min	31.7	5.88	0.388	41.8	1.04	12.8	-54.7	Clear	No Odor
10:40	40	165	mL/min	31.7	5.87	0.389	31.6	1.01	13.1	-55.5	Clear	No Odor
10:45	45	165	mL/min	31.7	5.88	0.389	18.9	1	12.9	-55.9	Clear	No Odor
10:50	50	165	mL/min	31.7	5.87	0.389	17.9	0.98	12.9	-56.1	Clear	No Odor
10:55	55	165	mL/min	31.7	5.87	0.389	17.5	0.96	13.1	-56.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1100

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-13	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:58.87 °F, rH:60%, Clouds: 0%, Wind:8.05mph SW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	23.71	**Total Depth (ft-bmp):**	73	**Water Column(ft):**	49.29	**Gallons in Well:**	8.04
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	65	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:55	**Total Volume Purged (gallons):**	1.8	**Sample ID:**	SHM-10-13-FAL23	**Sample Time:**	14:50
Purge End Time:	14:49	**Well Volumes Purged (total):**	0.22	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:00	0	125	mL/min	23.73	6.27	0.713	4.7	1.52	14.2	-92.1	Clear	No Odor
14:05	5	125	mL/min	23.75	6.27	0.713	3.2	1.33	14.1	-95.5	Clear	No Odor
14:10	10	125	mL/min	23.75	6.27	0.711	7.5	1.24	14.1	-97.2	Clear	No Odor
14:15	15	128	mL/min	23.78	6.28	0.712	5.6	1.18	14.2	-98.2	Clear	No Odor
14:20	20	125	mL/min	23.78	6.28	0.713	6.1	1.14	14.2	-99	Clear	No Odor
14:25	25	125	mL/min	23.78	6.28	0.713	41.6	1.1	14	-99.3	Clear	No Odor
14:30	30	128	mL/min	21.78	6.28	0.712	9.6	1.08	13.8	-99.6	Clear	No Odor
14:35	35	125	mL/min	21.78	6.28	0.712	4.4	1.07	13.8	-99.8	Clear	No Odor
14:40	40	125	mL/min	21.78	6.27	0.713	4.3	1.06	13.7	-100.1	Clear	No Odor
14:45	45	128	mL/min	23.78	6.28	0.713	4.2	1.05	13.8	-100.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1450

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-14	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:59.67 °F, rH:59%, Clouds: 20%, Wind:5.75mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-80.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	17.77	**Total Depth (ft-bmp):**	82.13	**Water Column(ft):**	64.36	**Gallons in Well:**	10.5
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	70	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:20	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	SHM-10-14-FAL23	**Sample Time:**	15:55
Purge End Time:	15:54	**Well Volumes Purged (total):**	0.11	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:25	0	150	mL/min	17.8	6.16	0.527	26.7	2.87	14.8	-70.8	Clear	No Odor
15:30	5	150	mL/min	17.8	6.13	0.535	35.6	1.69	14.4	-73.5	Clear	No Odor
15:35	10	150	mL/min	17.8	6.15	0.535	47.4	1.35	14.5	-76.4	Clear	No Odor
15:40	15	150	mL/min	17.8	6.15	0.532	44.2	1.23	13.8	-77.2	Clear	No Odor
15:45	20	150	mL/min	17.8	6.16	0.531	42.8	1.18	13.6	-77.9	Clear	No Odor
15:50	25	150	mL/min	17.8	6.16	0.535	42.4	1.14	13.4	-78.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1555

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-15	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:55.72 °F, rH:68%, Clouds: 75%, Wind:5.75mph S-SW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	45.00-55.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.96	**Total Depth (ft-bmp):**	56.6	**Water Column(ft):**	34.64	**Gallons in Well:**	5.65
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	50	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:30	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	SHM-10-15-FAL23	**Sample Time:**	13:10
Purge End Time:	13:09	**Well Volumes Purged (total):**	0.21	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	120	mL/min	21.98	6.28	0.493	5.2	1.65	13.9	-73.9	Clear	No Odor
12:40	5	120	mL/min	21.98	6.28	0.493	5.2	1.35	14	-75.1	Clear	No Odor
12:45	10	120	mL/min	21.98	6.27	0.495	4.9	1.2	15.5	-78.2	Clear	No Odor
12:50	15	120	mL/min	21.98	6.26	0.497	4.9	1.15	15.7	-79.6	Clear	No Odor
12:55	20	120	mL/min	21.98	6.25	0.498	4.3	1.11	16.3	-80.6	Clear	No Odor
13:00	25	120	mL/min	21.98	6.25	0.498	3.1	1.07	16.2	-81.7	Clear	No Odor
13:05	30	120	mL/min	22	6.25	0.499	2.7	1.06	16.2	-82.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1310

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-10-16	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:73.24 °F, rH:50%, Clouds: 0%, Wind:1.99mph E-SE			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-85.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.63	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	79.37	**Gallons in Well:**	12.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	80	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:35	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	SHM-10-16-FAL23	**Sample Time:**	14:25
Purge End Time:	14:25	**Well Volumes Purged (total):**	0.1	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:40	0	100	mL/min	5.63	6.68	0.575	600	0.98	12.8	-86.5	Clear	No Odor
13:50	10	100	mL/min	5.63	6.58	0.537	45	0.84	12.8	-77.1	Clear	No Odor
13:55	15	100	mL/min	5.63	6.6	0.531	16.2	0.59	12.7	-80.3	Clear	No Odor
14:00	20	100	mL/min	5.63	6.61	0.522	11.6	0.51	12.6	-82.2	Clear	No Odor
14:05	25	100	mL/min	5.63	6.61	0.511	10.5	0.45	12.6	-83.6	Clear	No Odor
14:10	30	100	mL/min	5.63	6.6	0.497	9.4	0.43	12.5	-84.6	Clear	No Odor
14:15	35	100	mL/min	5.63	6.6	0.482	8.9	0.41	12.5	-85.7	Clear	No Odor
14:20	40	100	mL/min	5.63	6.59	0.478	8.7	0.4	12.5	-86.3	Clear	No Odor
14:25	45	100	mL/min	5.63	6.59	0.471	8.3	0.38	12.4	-87.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-11-02	**Date(s):**	2023-10-20	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:60.37 °F, rH:84%, Clouds: 100%, Wind:6.91mph E-SE			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	52.00-66.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	21.49	**Total Depth (ft-bmp):**	66	**Water Column(ft):**	44.51	**Liters in Well:**	109.99
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	63	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:15	**Total Volume Purged (liters):**	5.25	**Sample ID:**	SHM-11-02-FAL23	**Sample Time:**	13:50
Purge End Time:	13:31	**Well Volumes Purged (total):**	0.05	**Replicate Type / Replicate ID:**	none	**Water Quality Meter/ ID:**	YSI Pro DSS / 16c100431
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:20	0	150	mL/min	21.54	7.28	0.339	15.64	1.87	15.7	-77.7	Clear	No Odor
13:25	5	150	mL/min	21.68	7.35	0.417	51.87	1.06	15.5	-97	Clear	No Odor
13:30	10	150	mL/min	21.84	7.35	0.419	48.6	0.93	15.7	-100.4	Clear	No Odor
13:40	20	150	mL/min	21.93	7.37	0.416	49.65	0.73	15.8	-104.6	Orange	No Odor
13:45	25	150	mL/min	22.12	7.37	0.414	44.73	0.69	15.8	-105.2	Clear	No Odor
13:50	30	150	mL/min	22.22	7.36	0.413	47.84	0.67	16	-107.3	Orange	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	1	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-11-06	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:76.62 °F, rH:45%, Clouds: 0%, Wind:6.91mph W			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.49	**Total Depth (ft-bmp):**	35	**Water Column(ft):**	16.51	**Liters in Well:**	10.2
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:00	**Total Volume Purged (liters):**	6	**Sample ID:**	SHM-11-06-FAL23	**Sample Time:**	14:45
Purge End Time:	14:41	**Well Volumes Purged (total):**	0.59	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:10	0	150	mL/min	18.49	6.35	0.147	19.5	0.84	18.1	-47.3	Clear	No Odor
14:16	6	150	mL/min	18.59	6.39	6.39	3.2	0.62	17.6	-52	Clear	No Odor
14:26	16	150	mL/min	18.59	6.39	0.157	0.88	0.6	18	-51.8	Clear	No Odor
14:31	21	150	mL/min	18.59	6.39	0.161	1.36	0.6	18.2	-51.5	Clear	No Odor
14:36	26	150	mL/min	18.59	6.39	0.161	0.62	0.54	18.4	-51.2	Clear	No Odor
14:40	30	150	mL/min	18.59	6.39	0.162	0.96	0.54	18.6	-51.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: In tall grass

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-01	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:36.23 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	39.00-49.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	2.38	**Total Depth (ft-bmp):**	51.17	**Water Column(ft):**	48.79	**Liters in Well:**	30.14
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	46	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:05	**Total Volume Purged (liters):**	15.33	**Sample ID:**	SHM-13-01-FAL23	**Sample Time:**	11:18
Purge End Time:	11:18	**Well Volumes Purged (total):**	0.51	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:08	0	210	mL/min	2.39	7.16	0.734	8.15	9.08	10.4	25.4	Clear	No Odor
10:13	5	210	mL/min	2.39	6.14	0.758	8.13	7.94	10.9	73.1	Clear	No Odor
10:18	10	210	mL/min	2.39	5.84	0.755	6.68	7.84	10.8	95.2	Clear	No Odor
10:23	15	210	mL/min	2.39	5.81	0.728	0.54	7.79	10.8	101.4	Clear	No Odor
10:28	20	210	mL/min	2.39	5.81	0.727	2.67	7.97	10	104.3	Clear	No Odor
10:33	25	210	mL/min	2.4	5.79	0.727	2.79	7.79	10.4	105.7	Clear	No Odor
10:38	30	210	mL/min	2.39	5.76	0.795	3.08	7.8	10.5	109.1	Clear	No Odor
10:43	35	210	mL/min	2.39	5.79	0.79	4.93	7.75	10.2	110.3	Clear	No Odor
10:48	40	210	mL/min	2.4	5.77	0.819	4.62	7.67	10.2	109.8	Clear	No Odor
10:53	45	210	mL/min	2.4	5.74	0.865	2.48	7.54	10.8	112.3	Clear	No Odor
10:58	50	210	mL/min	2.4	5.73	0.845	4.76	7.51	10	119.8	Clear	No Odor
11:03	55	210	mL/min	2.4	5.8	0.852	2.67	7.48	10.5	112.6	Clear	No Odor
11:08	60	210	mL/min	2.4	5.71	0.848	2.52	7.44	10.7	122.2	Clear	No Odor
11:13	65	210	mL/min	2.4	5.71	0.84	1.63	7.43	10.8	127.6	Clear	No Odor
11:18	70	210	mL/min	2.4	5.71	0.829	3.76	7.45	10.5	131.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-02	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:36.23 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.21	**Total Depth (ft-bmp):**	74.37	**Water Column(ft):**	62.16	**Liters in Well:**	38.4
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	65	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:00	**Total Volume Purged (liters):**	17.13	**Sample ID:**	SHM-13-02-FAL23	**Sample Time:**	13:25
Purge End Time:	13:25	**Well Volumes Purged (total):**	0.45	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:05	0	225	mL/min	12.22	6.83	0.327	11.6	6.26	16.3	55.8	Clear	No Odor
12:10	5	200	mL/min	12.23	6.35	0.305	0.02	1.03	14.6	71.5	Clear	No Odor
12:15	10	200	mL/min	12.22	6.3	0.293	0.02	0.53	17.4	76.6	Clear	No Odor
12:20	15	200	mL/min	12.22	6.3	0.297	0.02	0.21	14.5	80.3	Clear	No Odor
12:25	20	200	mL/min	12.22	6.29	0.291	0.04	0.17	14.3	83.9	Clear	No Odor
12:30	25	200	mL/min	12.2	6.28	0.291	0.48	0.14	14.7	85.8	Clear	No Odor
12:35	30	200	mL/min	12.22	6.28	0.29	1.01	0.19	15.5	87.5	Clear	No Odor
12:40	35	200	mL/min	12.22	6.29	0.299	0.2	0.46	19.1	88.1	Clear	No Odor
12:45	40	200	mL/min	12.22	6.29	0.306	1.09	0.46	20.8	87.3	Clear	No Odor
12:50	45	200	mL/min	12.22	6.3	0.295	0.56	0.16	18	89.1	Clear	No Odor
12:55	50	200	mL/min	12.22	6.31	0.296	0.02	0.16	15.6	90.1	Clear	No Odor
13:00	55	200	mL/min	12.22	6.34	0.29	0.88	1.31	18.3	93.3	Clear	No Odor
13:05	60	200	mL/min	12.22	6.31	0.297	1.62	0.11	16.1	92.1	Clear	No Odor
13:10	65	200	mL/min	12.22	6.31	0.284	0.02	0.26	16.9	92.3	Clear	No Odor
13:15	70	200	mL/min	12.22	6.36	0.313	0.37	0.04	16	89.7	Clear	No Odor
13:20	75	200	mL/min	12.22	6.36	0.313	0.85	0.02	16.1	87.5	Clear	No Odor
13:25	80	200	mL/min	12.24	6.36	0.322	0.02	0.03	16.3	86.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Well needs new lock

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-03	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:36.23 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	42.00-52.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.08	**Total Depth (ft-bmp):**	48.82	**Water Column(ft):**	43.74	**Liters in Well:**	27.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	47	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:56	**Total Volume Purged (liters):**	9.24	**Sample ID:**	SHM-13-03-FAL23	**Sample Time:**	10:49
Purge End Time:	10:49	**Well Volumes Purged (total):**	0.34	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:59	0	215	mL/min	5.09	6.76	0.533	7.24	3.9	13.6	58.9	Clear	No Odor
10:04	5	185	mL/min	5.1	6.35	0.515	4.29	0.31	13.2	-14.4	Clear	No Odor
10:09	10	185	mL/min	5.1	6.32	0.517	3.93	0.19	13.6	-23.5	Clear	No Odor
10:14	15	185	mL/min	5.1	6.33	0.552	4.61	0.12	13.7	-31.3	Clear	No Odor
10:19	20	185	mL/min	5.1	6.33	0.598	4.62	0.06	13.6	-37.7	Clear	No Odor
10:24	25	185	mL/min	5.1	6.33	0.6	6.4	0.04	13.6	-40.6	Clear	No Odor
10:29	30	185	mL/min	5.1	6.33	0.604	6.18	0.02	13.7	-42.4	Clear	No Odor
10:34	35	185	mL/min	5.1	6.3	0.637	10.1	0.01	13.8	-42.3	Clear	No Odor
10:39	40	185	mL/min	5.1	6.3	0.648	25.1	0.01	13.8	-43.6	Clear	No Odor
10:44	45	185	mL/min	5.1	6.31	0.647	27.3	0.01	13.9	-45.4	Clear	No Odor
10:49	50	185	mL/min	5.1	6.32	0.643	24.9	0.01	13.9	-46.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-04	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:41.92 °F, rH:91%, Clouds: 40%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-30.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.1	**Total Depth (ft-bmp):**	30.47	**Water Column(ft):**	12.37	**Liters in Well:**	7.64
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	25	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:40	**Total Volume Purged (liters):**	15.77	**Sample ID:**	SHM-13-04-FAL23	**Sample Time:**	17:03
Purge End Time:	17:03	**Well Volumes Purged (total):**	2.06	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:43	0	190	mL/min	18.11	6.38	0.258	1070	8.21	13.5	137.1	Clear	No Odor
15:48	5	190	mL/min	18.11	6.23	0.24	1100	8.37	13.1	132.7	Clear	No Odor
15:53	10	190	mL/min	18.11	6.19	0.237	883	8.31	13.1	132.4	Clear	No Odor
15:58	15	190	mL/min	18.11	6.18	0.235	518	8.11	13.3	133.5	Clear	No Odor
16:03	20	190	mL/min	18.11	6.18	0.227	412	7.85	13.2	134.8	Clear	No Odor
16:08	25	190	mL/min	18.11	6.15	0.248	295	7.59	13.4	136.9	Clear	No Odor
16:13	30	190	mL/min	18.11	6.16	0.259	237	6.96	13.6	137.4	Clear	No Odor
16:18	35	190	mL/min	18.11	6.17	0.262	221	6.67	13.7	135	Clear	No Odor
16:23	40	190	mL/min	18.11	6.16	0.271	181	6.39	13.5	131.8	Clear	No Odor
16:28	45	190	mL/min	18.11	6.16	0.274	152	6.08	13.5	125.3	Clear	No Odor
16:33	50	190	mL/min	18.11	6.19	0.279	141	5.92	13.5	112.1	Clear	No Odor
16:38	55	190	mL/min	18.11	6.17	0.276	114	5.59	13.5	97.7	Clear	No Odor
16:43	60	190	mL/min	18.11	6.17	0.277	89.9	5.52	13.4	86.9	Clear	No Odor
16:48	65	190	mL/min	18.11	6.17	0.273	83	5.2	13.3	79.6	Clear	No Odor
16:53	70	190	mL/min	18.11	6.17	0.278	63.1	5.29	13.3	76.9	Clear	No Odor
16:58	75	190	mL/min	18.11	6.17	0.276	63.4	5.22	13.2	75.1	Clear	No Odor
17:03	80	190	mL/min	18.11	6.16	0.282	66.9	5.17	13.3	71.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-05	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:73.24 °F, rH:50%, Clouds: 0%, Wind:1.99mph E-SE			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-85.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.73	**Total Depth (ft-bmp):**	86.85	**Water Column(ft):**	71.12	**Liters in Well:**	43.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	81	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:15	**Total Volume Purged (liters):**	4.85	**Sample ID:**	SHM-13-05-FAL23	**Sample Time:**	10:51
Purge End Time:	10:51	**Well Volumes Purged (total):**	0.11	**Replicate Type / Replicate ID:**	**MS/MSD** / SHM-13-05-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:21	0	135	mL/min	17.82	6.68	0.162	7.92	3.29	14.6	-72.5	Clear	No Odor
10:26	5	135	mL/min	17.82	6.19	0.137	0.36	0.44	13.6	-64.6	Clear	No Odor
10:31	10	135	mL/min	18.82	6.16	0.135	0.3	0.28	13.3	-52.8	Clear	No Odor
10:36	15	135	mL/min	17.82	6.1	0.136	0.3	0.21	13.8	-50.2	Clear	No Odor
10:41	20	135	mL/min	17.83	6.09	0.135	0.02	0.15	13.7	-48	Clear	No Odor
10:46	25	135	mL/min	17.82	6.11	0.135	0.02	0.13	13.8	-47.7	Clear	No Odor
10:51	30	135	mL/min	17.82	6.03	0.136	0.02	0.11	13.9	-42.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-06	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:74.08 °F, rH:59%, Clouds: 100%, Wind:5.75mph SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	36.00-46.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.74	**Total Depth (ft-bmp):**	45.72	**Water Column(ft):**	28.98	**Liters in Well:**	17.9
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	40	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:32	**Total Volume Purged (liters):**	8.77	**Sample ID:**	SHM-13-06-FAL23	**Sample Time:**	NA
Purge End Time:	11:44	**Well Volumes Purged (total):**	0.49	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:44	0	125	mL/min	16.72	6.42	0.176	68	4.56	16.7	14.6	Clear	No Odor
10:49	5	125	mL/min	16.73	6.55	0.194	36.5	1.2	14.8	-51.2	Clear	No Odor
10:54	10	125	mL/min	16.73	6.71	0.202	24.7	0.52	14.5	-77.9	Clear	No Odor
10:59	15	125	mL/min	16.72	6.8	0.207	12.4	0.33	15	-93.7	Clear	No Odor
11:04	20	125	mL/min	16.73	6.86	0.212	8.7	0.23	15	-106.1	Clear	No Odor
11:09	25	125	mL/min	16.72	6.89	0.219	3.92	0.16	15.3	-115.5	Clear	No Odor
11:14	30	125	mL/min	16.72	6.9	0.232	3.43	0.13	15.5	-119	Clear	No Odor
11:19	35	125	mL/min	16.72	6.89	0.248	1.29	0.11	15.5	-121.3	Clear	No Odor
11:24	40	115	mL/min	16.73	6.87	0.268	1.17	0.09	15.6	-122.4	Clear	No Odor
11:29	45	115	mL/min	16.73	6.86	0.281	1.06	0.08	15.5	-122.6	Clear	No Odor
11:34	50	115	mL/min	16.73	6.86	0.29	0.53	0.07	15.6	-123.1	Clear	No Odor
11:39	55	115	mL/min	16.72	6.86	0.296	2.1	0.06	15.6	-123.5	Clear	No Odor
11:44	60	115	mL/min	16.73	6.86	0.296	2.52	0.05	15.5	-124.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-07	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:74.08 °F, rH:59%, Clouds: 100%, Wind:5.75mph SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	27.00-37.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.18	**Total Depth (ft-bmp):**	35.22	**Water Column(ft):**	17.04	**Liters in Well:**	10.53
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:34	**Total Volume Purged (liters):**	10.84	**Sample ID:**	SHM-13-07-FAL23	**Sample Time:**	13:36
Purge End Time:	13:36	**Well Volumes Purged (total):**	1.03	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:36	0	175	mL/min	18.2	6.54	0.237	26.4	2.06	14.6	39.8	Clear	No Odor
12:41	5	175	mL/min	18.2	6.53	0.237	34	0.39	14.3	-5.6	Clear	No Odor
12:46	10	175	mL/min	18.2	6.58	0.231	19.2	0.19	14.3	-32.9	Clear	No Odor
12:51	15	175	mL/min	18.2	6.61	0.225	11.9	0.13	14.1	-46.8	Clear	No Odor
12:56	20	175	mL/min	18.19	6.61	0.218	9.61	0.1	14.1	-56.2	Clear	No Odor
13:01	25	175	mL/min	18.19	6.6	0.212	8.86	0.07	14	-63.2	Clear	No Odor
13:06	30	175	mL/min	18.19	6.6	0.21	8.04	0.06	14.4	-68.3	Clear	No Odor
13:11	35	175	mL/min	18.19	6.6	0.207	5.1	0.05	14.4	-71.4	Clear	No Odor
13:16	40	175	mL/min	18.19	6.61	0.207	4.74	0.04	14.3	-75.1	Clear	No Odor
13:21	45	175	mL/min	18.19	6.61	0.205	5.32	0.03	14.1	-77.4	Clear	No Odor
13:26	50	175	mL/min	18.19	6.61	0.205	4.49	0.02	13.9	-79.5	Clear	No Odor
13:31	55	175	mL/min	18.19	6.61	0.206	4.41	0.02	14	-81.2	Clear	No Odor
13:36	60	175	mL/min	18.19	6.61	0.203	4.94	0.01	14	-82.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-08	**Date(s):**	2023-10-25	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:73.24 °F, rH:50%, Clouds: 0%, Wind:1.99mph E-SE			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	55.00-65.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.44	**Total Depth (ft-bmp):**	64.47	**Water Column(ft):**	45.03	**Liters in Well:**	27.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	59	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:49	**Total Volume Purged (liters):**	11.95	**Sample ID:**	SHM-13-08-FAL23	**Sample Time:**	15:46
Purge End Time:	15:46	**Well Volumes Purged (total):**	0.43	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:51	0	225	mL/min	19.65	6.57	0.166	131	0.85	14	45	Clear	No Odor
14:56	5	200	mL/min	19.65	6.4	0.16	283	0.29	13.7	-19.5	Clear	No Odor
15:01	10	480	mL/min	19.65	3.58	0.155	134	0.1	13.7	-80.3	Clear	No Odor
15:06	15	180	mL/min	19.65	6.64	0.16	24.8	0.05	13.7	-107.2	Clear	No Odor
15:11	20	180	mL/min	19.65	6.65	0.164	15.3	0.02	13.8	-117.3	Clear	No Odor
15:16	25	180	mL/min	19.66	6.65	0.166	12.9	0.01	13.9	-122.6	Clear	No Odor
15:21	30	180	mL/min	19.65	6.65	0.167	9.67	0.01	13.8	-125.7	Clear	No Odor
15:26	35	180	mL/min	19.65	6.65	0.168	9.55	0.01	13.6	-127.8	Clear	No Odor
15:31	40	180	mL/min	19.65	6.66	0.168	6.42	0.01	13.6	-129.2	Clear	No Odor
15:36	45	180	mL/min	19.66	6.69	0.168	4.15	0.01	13.6	-130.2	Clear	No Odor
15:41	50	180	mL/min	19.66	6.67	0.168	3.92	0.01	13.5	-131.2	Clear	No Odor
15:46	55	180	mL/min	19.66	6.68	0.168	3.43	0.01	13.4	-131.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-14D	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:72.25 °F, rH:62%, Clouds: 0%, Wind:4.61mph E-SE			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	45.00-55.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.14	**Total Depth (ft-bmp):**	57.16	**Water Column(ft):**	54.02	**Gallons in Well:**	8.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	55	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:35	**Total Volume Purged (gallons):**	1.5	**Sample ID:**	SHM-13-14D-FAL23	**Sample Time:**	12:02
Purge End Time:	12:08	**Well Volumes Purged (total):**	0.17	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:38	0	200	mL/min	3.17	6.24	0.245	32.5	3.53	14.1	171.9	Clear	No Odor
11:41	3	200	mL/min	3.17	6.23	0.243	33.6	2.6	14	171.1	Clear	No Odor
11:44	6	200	mL/min	3.18	6.22	0.213	33.6	2.47	14.1	169.9	Clear	No Odor
11:47	9	200	mL/min	3.18	6.22	0.242	30.4	2.31	14.2	169.2	Clear	No Odor
11:50	12	200	mL/min	3.18	6.22	0.243	32.3	2.18	14.1	168.1	Clear	No Odor
11:53	15	200	mL/min	3.18	6.22	0.243	22.8	2.12	14.1	167.1	Clear	No Odor
11:56	18	200	mL/min	3.19	6.22	0.242	15.7	2.1	14.2	166.4	Clear	No Odor
11:59	21	200	mL/min	3.18	6.2	0.243	15.2	2.05	14.2	165.2	Clear	No Odor
12:02	24	200	mL/min	3.18	6.21	0.243	15.6	2.02	14.1	164.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-14S	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:69.87 °F, rH:66%, Clouds: 0%, Wind:3.44mph N-NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	5.00-15.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.3	**Total Depth (ft-bmp):**	17.87	**Water Column(ft):**	14.57	**Gallons in Well:**	2.38
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	15	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:00	**Total Volume Purged (gallons):**	1	**Sample ID:**	SHM-13-14S-FAL23	**Sample Time:**	11:20
Purge End Time:	11:19	**Well Volumes Purged (total):**	0.42	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:03	0	200	mL/min	3.41	6.37	0.422	4.3	3.21	13.5	135	Clear	No Odor
11:06	3	200	mL/min	3.42	6.07	0.417	4.1	2.53	13.6	153.5	Clear	No Odor
11:09	6	200	mL/min	3.43	5.95	0.413	4.3	2.37	13.6	160.3	Clear	No Odor
11:12	9	200	mL/min	3.43	5.88	0.411	3.3	2.31	13.5	166.5	Clear	No Odor
11:15	12	200	mL/min	3.43	5.85	0.409	2.2	2.26	13.6	171	Clear	No Odor
11:18	15	200	mL/min	3.43	5.83	0.409	2.8	2.22	13.7	174.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 11:20

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-13-15	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:65.59 °F, rH:73%, Clouds: 81%, Wind:5.41mph W-SW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	50.00-60.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.64	**Total Depth (ft-bmp):**	62.5	**Water Column(ft):**	58.86	**Gallons in Well:**	9.61
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	60	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:00	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	SHM-13-15-FAL23	**Sample Time:**	10:32
Purge End Time:	10:35	**Well Volumes Purged (total):**	0.14	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	140	mL/min	4.62	6.66	0.598	3.1	2.57	13.3	180.7	Clear	No Odor
10:08	3	140	mL/min	3.62	6.66	0.601	3.2	1.92	13.2	173.3	Clear	No Odor
10:11	6	140	mL/min	3.62	6.68	0.601	3.3	1.6	13.2	160.2	Clear	No Odor
10:14	9	140	mL/min	3.63	6.69	0.6	3.3	1.45	13.2	144.8	Clear	No Odor
10:17	12	140	mL/min	3.63	6.7	0.6	3.3	1.37	13.2	128	Clear	No Odor
10:20	15	140	mL/min	3.62	6.7	0.599	3.2	1.31	13.2	114.1	Clear	No Odor
10:23	18	140	mL/min	3.62	6.7	0.599	3.2	1.27	13.2	103.2	Clear	No Odor
10:26	21	140	mL/min	3.62	6.7	0.599	3.2	1.24	13.2	93.1	Clear	No Odor
10:29	24	140	mL/min	3.63	6.7	0.598	3.1	1.21	13.3	90.3	Clear	No Odor
10:32	27	140	mL/min	3.62	6.7	0.599	3.1	1.18	13.2	86.2	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 10:40

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-93-10D	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:45.7 °F, rH:55%, Clouds: 75%, Wind:8.05mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	46.00-56.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	29.78	**Total Depth (ft-bmp):**	56	**Water Column(ft):**	26.22	**Gallons in Well:**	17.12
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	55	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	14:00	**Total Volume Purged (gallons):**	2	**Sample ID:**	SHM-93-10D-FAL23	**Sample Time:**	14:40
Purge End Time:	14:39	**Well Volumes Purged (total):**	0.12	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:05	0	210	mL/min	30.05	10.39	0.213	16.6	3.21	10.5	-38.7	Clear	No Odor
14:10	5	210	mL/min	30.67	10.66	0.219	22.7	1.94	10.3	-51.5	Clear	No Odor
14:15	10	210	mL/min	30.9	10.69	0.222	23.3	1.8	10.2	-53.7	Clear	No Odor
14:20	15	210	mL/min	31.3	10.71	0.223	24.2	1.62	10.2	-56.1	Clear	No Odor
14:25	20	210	mL/min	31.75	10.74	0.225	24.6	1.45	10.1	-57.4	Clear	No Odor
14:30	25	210	mL/min	31.9	10.76	0.226	24.5	1.37	9.9	-58.2	Clear	No Odor
14:35	30	210	mL/min	32.1	10.77	0.226	24.3	1.35	10	-58.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1440

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-93-18B	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	78.50-88.50	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	18.11	**Total Depth (ft-bmp):**	88.5	**Water Column(ft):**	70.39	**Liters in Well:**	173.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	86	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:10	**Total Volume Purged (liters):**	9.75	**Sample ID:**	SHM-93-18B-FAL23	**Sample Time:**	13:20
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.06	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:15	0	150	mL/min	18.11	6.42	0.4	4.38	3.38	9.9	-26	Clear	No Odor
10:20	5	150	mL/min	18.21	6.23	0.511	0.84	1.46	9.9	-13.9	Clear	No Odor
10:25	10	150	mL/min	18.34	6.22	0.53	0.38	1.21	9.7	-10.9	Clear	No Odor
10:30	15	150	mL/min	18.44	6.21	0.536	1.28	1	11	-8.7	Clear	No Odor
10:35	20	150	mL/min	18.53	6.21	0.545	0.64	0.94	10.8	-9.1	Clear	No Odor
10:40	25	150	mL/min	18.65	6.21	0.547	0.6	0.83	11.1	-8.7	Clear	No Odor
10:45	30	150	mL/min	18.64	6.21	0.57	0.5	0.76	11.6	-9.1	Clear	No Odor
10:50	35	150	mL/min	18.68	6.21	0.568	0.29	0.75	11.4	-9.6	Clear	No Odor
10:55	40	150	mL/min	6.75	6.21	0.573	0.22	0.73	10.9	-10.4	Clear	No Odor
11:00	45	150	mL/min	18.83	6.21	0.579	0.38	0.68	11.8	-10.2	Clear	No Odor
11:05	50	150	mL/min	18.88	6.2	0.573	0.16	0.67	12.1	-10.5	Clear	No Odor
11:10	55	150	mL/min	18.88	6.21	0.576	0.59	0.68	12.2	-11.9	Clear	No Odor
11:15	60	150	mL/min	18.88	6.2	0.575	0.61	0.69	12.4	-12.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-93-22B	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:71.65 °F, rH:62%, Clouds: 0%, Wind:4.61mph E-SE			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	82.00-92.30	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.45	**Total Depth (ft-bmp):**	92.3	**Water Column(ft):**	86.85	**Gallons in Well:**	56.7
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	90	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:15	**Total Volume Purged (gallons):**	1.05	**Sample ID:**	SHM-93-22B-FAL23	**Sample Time:**	11:55
Purge End Time:	11:55	**Well Volumes Purged (total):**	0.02	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:20	0	100	mL/min	5.45	6.52	0.449	65	0.69	14.7	-63.9	Clear	No Odor
11:25	5	100	mL/min	5.45	6.59	0.453	51.8	0.44	14.6	-79.4	Clear	No Odor
11:30	10	100	mL/min	5.45	6.59	0.445	43.1	0.39	14.6	-79.2	Clear	No Odor
11:35	15	100	mL/min	5.45	6.58	0.44	34.1	0.37	14.7	-77.4	Clear	No Odor
11:40	20	100	mL/min	5.45	6.55	0.428	25.4	0.39	14.6	-72.4	Clear	No Odor
11:45	25	100	mL/min	5.45	6.52	0.415	19.4	0.34	14.5	-64.8	Clear	No Odor
11:50	30	100	mL/min	5.45	6.5	0.41	14.5	0.34	14.6	-60.1	Clear	No Odor
11:55	35	100	mL/min	5.45	6.49	0.406	10.3	0.37	14.6	-56	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC

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Location ID:	SHM-93-22C	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:61.21 °F, rH:74%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	124.00-134.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.6	**Total Depth (ft-bmp):**	134	**Water Column(ft):**	127.4	**Gallons in Well:**	83.17
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	132	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	08:45	**Total Volume Purged (gallons):**	1.7	**Sample ID:**	SHM-93-22C-FAL23	**Sample Time:**	09:50
Purge End Time:	09:50	**Well Volumes Purged (total):**	0.02	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
08:50	0	100	mL/min	6.9	7.36	0.244	3.2	1.8	12.6	148.1	Clear	No Odor
08:55	5	100	mL/min	6.9	7.4	0.241	3	1.5	12.6	128.5	Clear	No Odor
09:00	10	100	mL/min	6.9	7.43	0.24	3.1	1.42	12.6	117.1	Clear	No Odor
09:05	15	100	mL/min	6.9	7.45	0.24	2.9	1.38	12.6	109.7	Clear	No Odor
09:10	20	100	mL/min	6.9	7.45	0.24	3	1.36	12.7	104.4	Clear	No Odor
09:15	25	100	mL/min	6.9	7.44	0.242	3.5	1.25	12.7	18.4	Clear	No Odor
09:20	30	100	mL/min	6.9	7.44	0.243	3.2	1.24	12.7	-12.3	Clear	No Odor
09:25	35	100	mL/min	6.9	7.46	0.241	2.9	1.28	12.7	-22.4	Clear	No Odor
09:30	40	100	mL/min	6.9	7.47	0.241	2.9	1.29	12.8	-17.8	Clear	No Odor
09:35	45	100	mL/min	6.9	7.48	0.241	2.9	1.3	12.8	-12	Clear	No Odor
09:40	50	100	mL/min	6.9	7.48	0.241	2.8	1.31	12.8	-7	Clear	No Odor
09:45	55	100	mL/min	6.9	7.48	0.242	2.9	1.3	12.9	-3.4	Clear	No Odor
09:50	60	100	mL/min	6.9	7.48	0.242	2.8	1.29	13	2.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-93-24A	**Date(s):**	2023-10-26	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:76.87 °F, rH:51%, Clouds: 0%, Wind:12.66mph W			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-23.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14.39	**Total Depth (ft-bmp):**	23	**Water Column(ft):**	8.61	**Gallons in Well:**	5.62
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	20	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:20	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	SHM-93-24A-FAL23	**Sample Time:**	15:55
Purge End Time:	15:54	**Well Volumes Purged (total):**	0.20	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:25	0	140	mL/min	14.4	5.8	0.8	1.7	7.6	17.2	191.9	Clear	No Odor
15:30	5	140	mL/min	14.4	5.79	0.798	1.5	7.66	17.5	195.4	Clear	No Odor
15:35	10	140	mL/min	14.4	5.78	0.794	15.2	7.59	17.7	198.9	Clear	No Odor
15:40	15	140	mL/min	14.4	5.77	0.79	7.2	7.76	17.5	205.7	Clear	No Odor
15:45	20	140	mL/min	14.4	5.74	0.787	7.4	7.7	17.4	206.5	Clear	No Odor
15:50	25	140	mL/min	14.4	5.71	0.791	7.5	7.6	17.9	208	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1555

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-96-5B	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:59.67 °F, rH:59%, Clouds: 20%, Wind:5.75mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-90.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.65	**Total Depth (ft-bmp):**	90	**Water Column(ft):**	85.35	**Gallons in Well:**	13.9
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	85	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:10	**Total Volume Purged (gallons):**	0.23	**Sample ID:**	SHM-96-5B-FAL23	**Sample Time:**	16:10
Purge End Time:	16:10	**Well Volumes Purged (total):**	0.01	**Replicate Type / Replicate ID:**	Duplicate / SHL-DUP07-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:15	0	200	mL/min	4.65	6.36	0.403	31.4	1.34	13.5	-54.8	Clear	No Odor
15:20	5	200	mL/min	4.65	6.37	0.406	25.8	0.99	13.4	-58.8	Clear	No Odor
15:25	10	200	mL/min	4.65	6.37	0.406	18.5	0.79	13.3	-61.5	Clear	No Odor
15:30	15	200	mL/min	4.65	6.37	0.407	16.1	0.74	13.4	-63.1	Clear	No Odor
15:35	20	200	mL/min	4.65	6.38	0.406	13.5	0.63	13.3	-64.4	Clear	No Odor
15:40	25	200	mL/min	4.65	6.38	0.402	10.8	0.62	12.8	-64.6	Clear	No Odor
15:45	30	200	mL/min	4.65	6.38	0.399	10.6	0.62	12.7	-64.7	Clear	No Odor
15:50	35	200	mL/min	4.65	6.38	0.399	8.8	0.73	12.6	-64.8	Clear	No Odor
15:55	40	200	mL/min	4.65	6.38	0.4	8.3	0.69	12.7	-65.2	Clear	No Odor
16:00	45	200	mL/min	4.65	6.39	0.401	7.4	0.63	12.8	-65.5	Clear	No Odor
16:05	50	200	mL/min	4.65	6.39	0.4	6.5	0.63	12.7	-65.5	Clear	No Odor
16:10	55	200	mL/min	4.65	6.39	0.4	5.9	0.6	12.7	-65.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-96-5C	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:58.78 °F, rH:61%, Clouds: 0%, Wind:8.05mph SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	50.00-60.00	**Casing Diameter (in):**	4.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	4.37	**Total Depth (ft-bmp):**	60	**Water Column(ft):**	53.63	**Gallons in Well:**	35.02
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	55	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	13:35	**Total Volume Purged (gallons):**	1.7	**Sample ID:**	SHM-96-5C-FAL23	**Sample Time:**	14:40
Purge End Time:	14:40	**Well Volumes Purged (total):**	0.05	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:40	0	100	mL/min	4	4.37	0.651	23.1	0.44	12.9	34	Clear	No Odor
13:45	5	100	mL/min	4	4.37	0.592	84.6	0.28	12.9	-116	Clear	No Odor
13:50	10	100	mL/min	4	4.33	0.518	43.3	0.26	12.8	-109.3	Clear	No Odor
13:55	15	100	mL/min	4	5.17	0.454	20.3	0.26	12.7	-98	Clear	No Odor
14:00	20	100	mL/min	4	5.19	0.394	24.4	0.28	12.6	-79.5	Clear	No Odor
14:05	25	100	mL/min	4	5.14	0.364	24.2	0.29	12.5	-68.8	Clear	No Odor
14:10	30	100	mL/min	4	5.12	0.359	21.9	0.29	12.5	-65.6	Clear	No Odor
14:15	35	100	mL/min	4	5.11	0.385	14.2	0.28	12.5	-65.1	Clear	No Odor
14:20	40	100	mL/min	4	5.11	0.357	13.1	0.28	12.6	-65.2	Clear	No Odor
14:25	45	100	mL/min	4	5.11	0.356	10.7	0.27	12.4	-65.5	Clear	No Odor
14:30	50	100	mL/min	4	5.11	0.355	8.5	0.27	12.3	-66.2	Clear	No Odor
14:35	55	100	mL/min	4	5.11	0.355	6.6	0.26	12.4	-66.9	Clear	No Odor
14:40	60	100	mL/min	4	5.11	0.355	5.3	0.26	12.4	-67.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-99-31A	**Date(s):**	2023-10-25	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:52.75 °F, rH:82%, Clouds: 0%, Wind:3.44mph SE			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	4.00-14.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	1.58	**Total Depth (ft-bmp):**	14	**Water Column(ft):**	8.42	**Gallons in Well:**	1.37
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	10	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:05	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	SHM-99-31A-FAL23	**Sample Time:**	9:35
Purge End Time:	09:35	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:10	0	100	mL/min	1.6	5.58	0.162	3.6	0.94	13	36.1	Clear	No Odor
09:15	5	100	mL/min	1.6	5.54	0.122	2.2	0.55	13.1	51.2	Clear	No Odor
09:20	10	100	mL/min	1.6	5.53	0.121	2.2	0.47	13.2	54.3	Clear	No Odor
09:25	15	100	mL/min	6.1	5.53	0.12	2.3	0.42	13.2	56.3	Clear	No Odor
09:30	20	100	mL/min	1.6	5.53	0.119	2.1	0.4	13.4	58.3	Clear	No Odor
09:35	25	100	mL/min	1.6	5.53	0.119	2.5	0.38	13.4	57.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-99-31B	**Date(s):**	2023-10-25	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:59.52 °F, rH:72%, Clouds: 0%, Wind:4.61mph E-SE			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	50.00-60.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	2.95	**Total Depth (ft-bmp):**	60	**Water Column(ft):**	57.05	**Gallons in Well:**	9.29
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	55	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:25	**Total Volume Purged (gallons):**	0.8	**Sample ID:**	SHM-99-31B-FAL23	**Sample Time:**	10:55
Purge End Time:	10:55	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:30	0	100	mL/min	2.95	6.45	0.089	2	4.17	12.5	70.6	Clear	No Odor
10:35	5	100	mL/min	2.95	6.45	0.09	1.8	38.9	12.6	73.6	Clear	No Odor
10:40	10	100	mL/min	2.95	6.45	0.09	2	4.11	12.8	78.2	Clear	No Odor
10:45	15	100	mL/min	2.95	6.45	0.09	1.8	4.11	12.9	80.6	Clear	No Odor
10:50	20	100	mL/min	2.95	6.42	0.09	1.8	4.08	12.9	85.4	Clear	No Odor
10:55	25	100	mL/min	2.95	6.43	0.091	1.9	4.06	13	87.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-99-31C	**Date(s):**	2023-10-25	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:64.27 °F, rH:64%, Clouds: 0%, Wind:5.75mph S-SE			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	68.00-78.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.54	**Total Depth (ft-bmp):**	78	**Water Column(ft):**	71.46	**Gallons in Well:**	11.64
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	73	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:20	**Total Volume Purged (gallons):**	1.1	**Sample ID:**	SHM-99-31C-FAL23	**Sample Time:**	12:00
Purge End Time:	12:00	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:25	0	100	mL/min	3.2	6.54	0.463	4	1.02	15.1	-63.8	Clear	No Odor
11:30	5	100	mL/min	3.2	6.56	0.47	3.1	0.53	15.2	-73.2	Clear	No Odor
11:35	10	100	mL/min	3.2	6.56	0.477	3.9	0.45	15.4	-76.1	Clear	No Odor
11:40	15	100	mL/min	3.2	6.54	0.48	3.1	0.39	15.5	-74.8	Clear	No Odor
11:45	20	100	mL/min	3.2	6.53	0.495	3	0.36	15.6	-74.5	Clear	No Odor
11:50	25	100	mL/min	3.2	6.52	0.489	3.4	0.34	16	-74.6	Clear	No Odor
11:55	30	100	mL/min	3.2	6.52	0.493	2.8	0.34	16.1	-74.8	Clear	No Odor
12:00	35	100	mL/min	3.2	6.52	0.494	4.9	0.36	16.2	-75	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHM-99-32X	**Date(s):**	2023-10-26	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLOUDS, T:74.08 °F, rH:59%, Clouds: 100%, Wind:5.75mph SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	72.00-82.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	8.75	**Total Depth (ft-bmp):**	82	**Water Column(ft):**	73.25	**Gallons in Well:**	11.94
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	NA	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:35	**Total Volume Purged (gallons):**	3.4	**Sample ID:**	SHM-99-32X-FAL23	**Sample Time:**	17:45
Purge End Time:	17:45	**Well Volumes Purged (total):**	0.28	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:40	0	100	mL/min	8.75	6.73	0.272	18.7	4.78	15.6	136.7	Clear	No Odor
15:45	5	100	mL/min	8.75	6.67	0.271	8.5	4.67	15.6	131.7	Clear	No Odor
15:50	10	100	mL/min	8.75	6.78	0.271	7.8	4.66	15.3	128.6	Clear	No Odor
15:55	15	100	mL/min	8.75	6.79	0.269	7.5	4.64	15.2	127	Clear	No Odor
16:00	20	100	mL/min	8.75	6.8	0.267	6.8	4.61	14.9	126.2	Clear	No Odor
16:05	25	100	mL/min	8.75	6.79	0.265	7.9	4.57	14.4	117	Clear	No Odor
16:10	30	100	mL/min	8.75	6.74	0.269	9.1	4.34	15.1	59	Clear	No Odor
16:15	35	100	mL/min	8.75	6.7	0.269	8.4	3.95	14.8	21.2	Clear	No Odor
16:20	40	100	mL/min	8.75	6.68	0.27	9.3	3.34	14.5	4.3	Clear	No Odor
16:25	45	100	mL/min	8.75	6.69	0.268	6.7	3.15	14.1	-3.8	Clear	No Odor
16:30	50	100	mL/min	8.75	6.7	0.27	7.5	3.16	14.4	-8.3	Clear	No Odor
16:35	55	100	mL/min	8.75	6.67	0.275	5.2	2.75	14.1	-16.2	Clear	No Odor
16:40	60	100	mL/min	8.75	6.64	0.285	4.6	2.44	14.1	-23	Clear	No Odor
16:45	65	100	mL/min	8.75	6.6	0.305	3.7	1.9	14.1	-31	Clear	No Odor
16:50	70	100	mL/min	8.75	6.57	0.333	3.4	0.98	14.1	-40.1	Clear	No Odor
16:55	75	100	mL/min	8.75	6.57	0.335	3.3	0.83	14.1	-44.7	Clear	No Odor
17:00	80	100	mL/min	8.75	6.56	0.338	4.1	0.78	13.9	-46.1	Clear	No Odor
17:05	85	100	mL/min	8.75	6.55	0.347	3.2	0.65	13.9	-47.7	Clear	No Odor
17:10	90	100	mL/min	8.75	6.55	0.355	3	0.57	14.2	-49.7	Clear	No Odor
17:15	95	100	mL/min	8.75	6.55	0.359	3.1	0.54	14	-51.1	Clear	No Odor
17:20	100	100	mL/min	8.75	6.56	0.367	3.1	0.48	13.9	-53.1	Clear	No Odor
17:30	110	100	mL/min	8.75	6.57	0.379	3.1	0.41	13.8	-54.4	Clear	No Odor
17:35	115	100	mL/min	8.75	6.57	0.388	3.1	0.38	13.9	-54	Clear	No Odor
17:40	120	100	mL/min	8.75	6.57	0.393	3.4	0.36	13.7	-53.1	Clear	No Odor
17:45	125	100	mL/min	8.75	6.57	0.394	3.2	0.35	13.8	-52.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Comments: None

Well Information:

Well Labeled Properly:	NA
Is Well in Good Condition?	NA
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-01-36X	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:36.23 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	3.00-8.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.22	**Total Depth (ft-bmp):**	8	**Water Column(ft):**	0.78	**Gallons in Well:**	0.03
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	7	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:25	**Total Volume Purged (gallons):**	1.2	**Sample ID:**	SHP-01-36X-FAL23	**Sample Time:**	10:00
Purge End Time:	09:59	**Well Volumes Purged (total):**	40.00	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:30	0	150	mL/min	7.26	6.46	0.225	11.6	1.63	15.2	-14	Clear	No Odor
09:35	5	150	mL/min	7.28	6.37	0.226	6.7	1.37	15.1	-4.7	Clear	No Odor
09:40	10	150	mL/min	7.28	6.3	0.228	3.7	1.24	15	-0.9	Clear	No Odor
09:45	15	150	mL/min	7.28	6.25	0.228	1.3	1.16	15.3	0.4	Clear	No Odor
09:50	20	150	mL/min	7.28	6.22	0.228	0.5	1.1	15.2	1.5	Clear	No Odor
09:55	25	150	mL/min	7.28	6.2	0.228	0.2	1.07	15	1.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1000

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-01-37X	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:41 °F, rH:69%, Clouds: 0%, Wind:3.44mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	1.00-6.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	5.99	**Total Depth (ft-bmp):**	9	**Water Column(ft):**	3.01	**Gallons in Well:**	0.12
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:35	**Total Volume Purged (gallons):**	1.85	**Sample ID:**	SHP-01-37X-FAL23	**Sample Time:**	11:20
Purge End Time:	11:19	**Well Volumes Purged (total):**	15.42	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:40	0	150	mL/min	6.01	6.6	0.308	50	2.5	13.9	-45.3	Clear	No Odor
10:45	5	450	mL/min	6.02	6.38	0.269	4.2	1.49	13.7	-27.1	Clear	No Odor
10:50	10	150	mL/min	6.1	6.32	0.261	1.4	1.41	13.9	-24.1	Clear	No Odor
10:55	15	150	mL/min	6.1	6.3	0.256	0.31	1.39	13.9	-22.9	Clear	No Odor
11:00	20	150	mL/min	6.1	6.28	0.251	0.3	1.39	13.9	-21.3	Clear	No Odor
11:05	25	150	mL/min	6.1	6.26	0.248	0.5	1.39	13.8	-20.4	Clear	No Odor
11:10	30	150	mL/min	6.1	6.25	0.247	0.7	1.38	13.9	-20.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1120

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-01-38A	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:45.09 °F, rH:54%, Clouds: 0%, Wind:4.61mph N			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	1.50-6.50	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	3.69	**Total Depth (ft-bmp):**	6.5	**Water Column(ft):**	2.81	**Gallons in Well:**	0.11
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	6	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:20	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	SHP-01-38A-FAL23	**Sample Time:**	13:00
Purge End Time:	12:58	**Well Volumes Purged (total):**	11.82	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP08-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:25	0	150	mL/min	3.75	6.16	0.16	5.7	2.14	12.7	-6.5	Clear	No Odor
12:30	5	150	mL/min	3.75	6.09	0.153	2.2	1.45	12.7	-6.6	Clear	No Odor
12:35	10	150	mL/min	3.75	6.06	0.151	1.05	1.29	12.8	-7.6	Clear	No Odor
12:40	15	150	mL/min	3.75	6.05	0.15	0.1	1.21	12.7	-9.1	Clear	No Odor
12:45	20	150	mL/min	3.76	6.03	0.15	0	1.15	12.7	-10.5	Clear	No Odor
12:50	25	150	mL/min	3.75	6.01	0.15	0.5	1.11	12.6	-11.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1300. SHL-DUP08 taken here

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-06A	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:30.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	81.00-86.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	27	**Total Depth (ft-bmp):**	86	**Water Column(ft):**	60	**Liters in Well:**	20.85
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	84	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:20	**Total Volume Purged (liters):**	5	**Sample ID:**	SHP-2016-06a-fal23	**Sample Time:**	10:15
Purge End Time:	10:11	**Well Volumes Purged (total):**	0.24	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:25	0	100	mL/min	27.11	7.3	0.293	0.15	4.85	5.4	-42.7	Clear	No Odor
09:30	5	100	mL/min	27.81	7.28	0.292	1.17	2.63	5.8	-47.9	Clear	No Odor
09:35	10	100	mL/min	28.55	7.28	0.287	5.48	1.27	6	-51.3	Clear	No Odor
09:40	15	100	mL/min	29.11	7.3	0.283	12.76	0.94	6.1	-51.8	Clear	No Odor
09:45	20	100	mL/min	29.83	7.32	0.277	41.27	0.77	6.3	-51.5	Clear	No Odor
09:50	25	100	mL/min	30.13	7.33	0.26	59.59	0.69	6.2	-50.6	Clear	No Odor
09:55	30	100	mL/min	30.81	7.34	0.247	19.15	0.64	6.4	-49.9	Clear	No Odor
10:01	36	100	mL/min	31.11	7.36	0.248	18.75	0.59	6.7	-49.6	Clear	No Odor
10:05	40	100	mL/min	31.68	7.38	0.251	18.59	0.57	6.6	-49.2	Clear	No Odor
10:10	45	100	mL/min	33.1	7.4	0.253	17.89	0.54	6.6	-49	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-06B	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:30.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	102.00-112.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	19.3	**Total Depth (ft-bmp):**	112	**Water Column(ft):**	92.7	**Liters in Well:**	32.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	110	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:50	**Total Volume Purged (liters):**	9.5	**Sample ID:**	SHP-2016-06B-FAL23	**Sample Time:**	12:25
Purge End Time:	12:26	**Well Volumes Purged (total):**	0.29	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:55	0	100	mL/min	19.3	7.67	0.221	10.1	4.46	5.9	-37.5	Clear	No Odor
11:00	5	100	mL/min	19.71	7.67	0.222	47.88	2.62	6.3	-39.6	Clear	No Odor
11:05	10	100	mL/min	20.04	7.67	0.224	16.36	1.84	6.3	-41.4	Clear	No Odor
11:10	15	100	mL/min	20.42	7.67	0.225	7.17	1.9	6.5	-42.4	Clear	No Odor
11:16	21	100	mL/min	20.73	7.67	0.227	3.88	1.94	6.4	-42.8	Clear	No Odor
11:20	25	100	mL/min	21.01	7.67	0.23	3.66	1.79	6.6	-43.2	Clear	No Odor
11:25	30	100	mL/min	21.11	7.66	0.233	3.73	1.54	6.6	-43.5	Clear	No Odor
11:30	35	100	mL/min	21.11	7.66	0.235	3.99	1.29	6.8	-44	Clear	No Odor
11:35	40	100	mL/min	21.11	7.64	0.238	4.87	1.08	7	-44.5	Clear	No Odor
11:41	46	100	mL/min	21.11	7.63	0.241	3.77	0.96	7.2	-45	Clear	No Odor
11:45	50	100	mL/min	21.11	7.63	0.24	4.29	0.89	7.1	-45.1	Clear	No Odor
11:50	55	100	mL/min	21.12	7.62	0.238	2.98	0.79	7.2	-45.2	Clear	No Odor
11:55	60	100	mL/min	20.13	7.62	0.24	4.53	0.7	7.7	-46	Clear	No Odor
12:10	75	100	mL/min	21.15	7.63	0.245	4.76	0.62	7.7	-45.9	Clear	No Odor
12:15	80	100	mL/min	21.18	7.64	0.247	4.46	0.58	7.7	-45.1	Clear	No Odor
12:20	85	100	mL/min	21.18	7.64	0.248	4.91	0.55	7.7	-46.3	Clear	No Odor
12:25	90	100	mL/min	21.19	7.64	0.25	3.87	0.54	7.7	-48.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-06C	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:30.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	123.00-133.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.18	**Total Depth (ft-bmp):**	133	**Water Column(ft):**	112.82	**Liters in Well:**	39.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	131	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:55	**Total Volume Purged (liters):**	3.5	**Sample ID:**	SHP-2016-06C-FAL23	**Sample Time:**	13:30
Purge End Time:	13:31	**Well Volumes Purged (total):**	0.09	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:00	0	100	mL/min	20.3	7.51	0.251	4.01	4.87	8.7	-38	Clear	No Odor
13:05	5	100	mL/min	20.3	7.47	0.256	1.54	1.9	9	-40.9	Clear	No Odor
13:10	10	100	mL/min	20.3	7.45	0.257	0.93	0.73	9.1	-43.3	Clear	No Odor
13:15	15	100	mL/min	20.3	7.46	0.261	0.38	0.47	9.1	-44.4	Clear	No Odor
13:20	20	100	mL/min	20.3	7.46	0.266	0.2	0.4	9.1	-45	Clear	No Odor
13:25	25	100	mL/min	20.3	7.46	0.266	0.13	0.34	9.2	-45.5	Clear	No Odor
13:30	30	100	mL/min	20.3	7.47	0.267	0.1	0.32	9.2	-45.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-07A	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:38.08 °F, rH:78%, Clouds: 100%, Wind:8.05mph N-NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	22.00-32.00	**Casing Diameter (in):**	1.50	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	17.56	**Total Depth (ft-bmp):**	31.79	**Water Column(ft):**	14.23	**Gallons in Well:**	1.31
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:50	**Total Volume Purged (gallons):**	1.3	**Sample ID:**	SHP-2016-07A-FAL23	**Sample Time:**	10:25
Purge End Time:	10:24	**Well Volumes Purged (total):**	0.99	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:55	0	150	mL/min	17.84	5.84	0.052	0.3	2.09	12.1	4.5	Clear	No Odor
10:00	5	150	mL/min	18.02	5.8	0.05	0.3	1.6	12.2	2.1	Clear	No Odor
10:05	10	150	mL/min	18.04	5.79	0.049	0.5	1.44	12.2	-1.9	Clear	No Odor
10:11	16	150	mL/min	18.04	5.79	0.049	0.6	1.34	12.2	-4.1	Clear	No Odor
10:15	20	150	mL/min	18.04	5.79	0.049	0.6	1.28	12.2	-5.4	Clear	No Odor
10:20	25	150	mL/min	18.06	5.79	0.048	0.6	1.23	12.4	-6.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1025

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-07B	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:41.14 °F, rH:73%, Clouds: 100%, Wind:9.22mph N-NW			**Field Technician:**		Frank Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	70.00-80.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	24.68	**Total Depth (ft-bmp):**	79.79	**Water Column(ft):**	55.11	**Gallons in Well:**	8.99
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	77	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:56	**Total Volume Purged (gallons):**	2	**Sample ID:**	SHP-2016-07B-FAL23	**Sample Time:**	12:10
Purge End Time:	12:09	**Well Volumes Purged (total):**	0.22	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP09-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:05	0	130	mL/min	24.91	6.69	0.211	5.04	4.19	12	-25.1	Clear	No Odor
11:10	5	130	mL/min	25.43	6.89	0.218	5.37	1.91	11.3	-46.1	Clear	No Odor
11:15	10	130	mL/min	26.13	6.95	0.218	6.5	1.51	11.8	-56.9	Clear	No Odor
11:20	15	100	mL/min	26.73	6.97	0.217	6.3	1.37	12.3	-65.5	Clear	No Odor
11:25	20	100	mL/min	27.3	6.98	0.216	5.9	1.28	12.4	-72.4	Clear	No Odor
11:30	25	100	mL/min	27.87	6.98	0.215	5.15	1.25	12.4	-78.9	Clear	No Odor
11:35	30	100	mL/min	28.3	6.99	0.217	5	1.26	11.5	-81.7	Clear	No Odor
11:40	35	100	mL/min	28.65	7	0.218	5.18	1.23	11.1	-83.4	Clear	No Odor
11:45	40	100	mL/min	29.04	7.01	0.221	5.24	1.2	11.2	-86.2	Clear	No Odor
11:50	45	100	mL/min	29.22	7.01	0.22	6.06	1.19	11.4	-87.7	Clear	No Odor
11:55	50	100	mL/min	29.4	7.01	0.224	6.4	1.18	11.4	-90	Clear	No Odor
12:00	55	100	mL/min	29.56	7.01	0.225	6.7	1.18	11.4	-91.5	Clear	No Odor
12:05	60	100	mL/min	29.71	7.01	0.228	6.73	1.18	11.4	-93.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Sampled at 1210

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-1A	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:61.75 °F, rH:74%, Clouds: 0%, Wind:1.01mph W			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	13.00-23.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.71	**Total Depth (ft-bmp):**	23	**Water Column(ft):**	10.29	**Liters in Well:**	1.59
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	21	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:20	**Total Volume Purged (liters):**	9.7	**Sample ID:**	SHP-2016-1a-fal23	**Sample Time:**	10:15
Purge End Time:	10:12	**Well Volumes Purged (total):**	6.10	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:25	0	150	mL/min	12.73	5.54	0.068	10.13	7.99	15.2	14.6	Clear	No Odor
09:30	5	200	mL/min	12.73	5.5	0.061	14.75	7.84	15.4	26.1	Clear	No Odor
09:35	10	150	mL/min	12.73	5.49	0.049	8.77	7.64	15.5	31.1	Clear	No Odor
09:40	15	200	mL/min	12.73	5.49	0.046	6.44	7.51	15.3	34.8	Clear	No Odor
09:45	20	200	mL/min	12.73	5.49	0.046	12.62	7.46	15.5	35.3	Clear	No Odor
09:50	25	200	mL/min	12.73	5.49	0.047	1.41	7.4	15.6	35.8	Clear	No Odor
09:55	30	200	mL/min	12.73	5.49	0.047	9.2	7.38	15.9	35.4	Clear	No Odor
10:00	35	200	mL/min	12.73	5.5	0.047	0.55	7.29	16.2	35	Clear	No Odor
10:05	40	200	mL/min	12.72	5.51	0.047	4.47	7.22	16.2	34.2	Clear	No Odor
10:11	46	200	mL/min	12.73	5.51	0.048	4.17	7.15	16.2	33.5	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-1B	**Date(s):**	2023-10-27	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:66.97 °F, rH:67%, Clouds: 0%, Wind:3.44mph N-NW			**Field Technician:**		Diane Champagne	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	75.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.91	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	72.09	**Liters in Well:**	44.48
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:25	**Total Volume Purged (liters):**	23.63	**Sample ID:**	SHP-2016-1B-fal23	**Sample Time:**	12:45
Purge End Time:	12:42	**Well Volumes Purged (total):**	0.53	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:30	0	175	mL/min	12.91	6.17	0.1	7.15	2.4	16.6	-29.9	Clear	No Odor
10:36	6	175	mL/min	13.03	6.17	0.13	40.14	0.7	16.3	-48.3	Clear	No Odor
10:45	15	175	mL/min	12.99	6.19	0.135	14.48	0.48	16.2	-47.8	Clear	No Odor
10:50	20	175	mL/min	12.99	6.19	0.139	11.42	0.43	16.5	-45.7	Clear	No Odor
10:55	25	175	mL/min	12.99	6.2	0.151	8.17	0.4	16.4	-44.5	Clear	No Odor
11:00	30	175	mL/min	12.99	6.21	0.127	12.04	0.37	16.6	-43.6	Clear	No Odor
11:05	35	175	mL/min	13	6.21	0.149	11.47	0.36	16.7	-43.7	Clear	No Odor
11:10	40	175	mL/min	12.99	6.22	0.138	9.05	0.35	17	-43.3	Clear	No Odor
11:15	45	175	mL/min	12.99	6.23	0.165	12.36	0.34	16.9	-42.7	Clear	No Odor
11:21	51	175	mL/min	12.99	6.23	0.17	4.48	0.33	16.7	-42.1	Clear	No Odor
11:25	55	175	mL/min	12.99	6.23	0.17	4.21	0.32	17	-42	Clear	No Odor
11:31	61	175	mL/min	12.99	6.23	0.164	4.56	0.32	17.2	-42.2	Clear	No Odor
11:35	65	175	mL/min	12.99	6.23	0.159	4.61	0.32	17.2	-42.2	Clear	No Odor
11:40	70	175	mL/min	12.99	6.24	0.166	4.59	0.31	17.2	-42.1	Clear	No Odor
11:45	75	175	mL/min	12.99	6.24	0.167	4.14	0.31	17.6	-41.5	Clear	No Odor
11:50	80	175	mL/min	12.99	6.24	0.116	2.15	0.31	18.1	-41.9	Clear	No Odor
11:56	86	175	mL/min	12.99	6.24	0.133	2.1	0.3	18.1	-42.1	Clear	No Odor
12:00	90	175	mL/min	12.99	6.25	0.138	1.23	0.3	18	-42.2	Clear	No Odor
12:05	95	175	mL/min	12.99	6.25	0.136	1.1	0.3	18.5	-42.6	Clear	No Odor
12:10	100	175	mL/min	12.99	6.25	1.33	4.02	0.3	18.3	-42.3	Clear	No Odor
12:20	110	175	mL/min	13	6.25	0.165	3.07	0.29	18.5	-42.1	Clear	No Odor
12:30	120	175	mL/min	12.99	6.25	0.14	3.21	0.29	18.1	-41.2	Clear	No Odor
12:35	125	175	mL/min	12.99	6.25	0.141	2.56	0.29	18.1	-41.5	Clear	No Odor
12:40	130	175	mL/min	12.99	6.27	0.139	1.66	0.3	18.2	-40.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

Comments: None

Well Information:

Well Labeled Properly:	yes
Is Well in Good Condition?	good
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-2A	**Date(s):**	2023-10-26	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLOUDS, T:59.76 °F, rH:81%, Clouds: 100%, Wind:0mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.05	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	12.95	**Gallons in Well:**	0.53
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:25	**Total Volume Purged (gallons):**	0.92	**Sample ID:**	SHP-2016-2A-FAL23	**Sample Time:**	10:00
Purge End Time:	10:00	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:30	0	100	mL/min	12.05	6.43	0.047	4.9	6.03	12	165.1	Clear	No Odor
09:35	5	100	mL/min	12.05	6.69	0.058	6.9	5.7	11.8	167.4	Clear	No Odor
09:40	10	100	mL/min	12.1	6.81	0.059	9.3	5.74	11.9	166.9	Clear	No Odor
09:45	15	100	mL/min	12.1	6.84	0.059	5.2	5.68	11.9	166.7	Clear	No Odor
09:50	20	100	mL/min	12.1	6.85	0.059	6	5.77	11.8	166.9	Clear	No Odor
09:55	25	100	mL/min	12.1	6.85	0.059	16.8	5.93	11.9	167.2	Clear	No Odor
10:00	30	100	mL/min	12.1	6.83	0.058	7.5	5.94	11.9	167.8	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-2B	**Date(s):**	2023-10-26	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLOUDS, T:63.45 °F, rH:73%, Clouds: 100%, Wind:4.61mph N-NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.05	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	72.95	**Gallons in Well:**	2.99
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	83	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:40	**Total Volume Purged (gallons):**	0.92	**Sample ID:**	SHP-2016-2B-FAL23	**Sample Time:**	11:15
Purge End Time:	11:15	**Well Volumes Purged (total):**	0.31	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:45	0	100	mL/min	12.05	6.47	0.212	8.9	1.03	12	-55.6	Clear	No Odor
10:50	5	100	mL/min	12.05	6.51	0.186	6.5	0.62	11.8	-73.5	Clear	No Odor
10:55	10	100	mL/min	12.05	6.52	0.18	12.9	0.53	11.7	-78.6	Clear	No Odor
11:00	15	100	mL/min	12.05	6.53	0.179	11.1	0.51	11.8	-81.5	Clear	No Odor
11:05	20	100	mL/min	12.05	6.54	0.177	20.2	0.49	11.8	-83.3	Clear	No Odor
11:10	25	100	mL/min	12.05	6.54	0.177	14.3	0.47	11.8	-84	Clear	No Odor
11:15	30	100	mL/min	12.05	6.54	0.177	8.8	0.43	11.9	-84.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-3A	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:36.61 °F, rH:81%, Clouds: 100%, Wind:3.44mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	20.00-25.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	10.15	**Total Depth (ft-bmp):**	25	**Water Column(ft):**	15.78	**Liters in Well:**	2.44
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	23	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:00	**Total Volume Purged (liters):**	7.2	**Sample ID:**	SHP-2016-3A-FAL23	**Sample Time:**	09:45
Purge End Time:	09:45	**Well Volumes Purged (total):**	2.95	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:05	0	160	mL/min	10.15	6.28	0.202	4.4	0.66	12.1	-59	Clear	No Odor
09:10	5	160	mL/min	10.15	6.12	0.2	4.1	0.42	11.9	-35.7	Clear	No Odor
09:15	10	160	mL/min	10.15	6.08	0.42	4.4	0.42	11.8	-26.3	Clear	No Odor
09:20	15	160	mL/min	10.15	6.06	0.199	3.7	0.46	11.8	-20.3	Clear	No Odor
09:25	20	160	mL/min	10.15	6.06	0.198	3.8	0.5	11.8	-16	Clear	No Odor
09:30	25	160	mL/min	10.15	6.06	0.198	3.6	0.53	11.8	-14.3	Clear	No Odor
09:35	30	160	mL/min	10.15	6.06	0.198	3.6	0.56	11.8	-12.3	Clear	No Odor
09:40	35	160	mL/min	10.15	6.06	0.197	3.6	0.59	11.8	-10.5	Clear	No Odor
09:45	40	160	mL/min	10.15	6.05	0.197	3.6	0.61	11.8	-9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-3B	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:38.86 °F, rH:76%, Clouds: 36%, Wind:1.01mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	80.00-85.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	9.33	**Total Depth (ft-bmp):**	85	**Water Column(ft):**	75.67	**Liters in Well:**	11.69
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	82	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:00	**Total Volume Purged (liters):**	6.8	**Sample ID:**	SHP-2016-3B-FAL23	**Sample Time:**	10:45
Purge End Time:	10:45	**Well Volumes Purged (total):**	0.58	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:05	0	160	mL/min	9.34	6.28	0.312	4.3	0.72	11.5	-42.1	Clear	Slight
10:10	5	160	mL/min	9.34	6.24	0.334	4.3	0.25	11.2	-46.3	Clear	Slight
10:15	10	160	mL/min	9.34	6.26	0.352	6.9	0.13	11.1	-51.7	Clear	Slight
10:20	15	160	mL/min	9.34	6.27	0.357	8.5	0.9	11	-54.8	Clear	Slight
10:25	20	120	mL/min	9.34	6.29	0.363	18.2	0.8	11	-58.1	Clear	Slight
10:30	25	160	mL/min	9.35	6.29	0.365	9.8	0.08	10.9	-59.3	Clear	Slight
10:35	30	120	mL/min	9.35	6.3	0.368	14.5	0.06	10.9	-60.7	Clear	Slight
10:40	35	160	mL/min	9.35	6.31	0.371	22.1	0.06	10.9	-61.9	Clear	Slight
10:45	40	160	mL/min	9.35	6.31	0.373	27.9	0.05	10.8	-62.5	Clear	Slight

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-4A	**Date(s):**	2023-10-26	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:76.6 °F, rH:46%, Clouds: 0%, Wind:6.91mph W			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	16.15	**Total Depth (ft-bmp):**	30	**Water Column(ft):**	13.85	**Gallons in Well:**	0.57
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	13:50	**Total Volume Purged (gallons):**	1.45	**Sample ID:**	SHP-2016-4A-FAL23	**Sample Time:**	14:45
Purge End Time:	14:45	**Well Volumes Purged (total):**	0.39	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
13:55	0	100	mL/min	16.15	6.03	0.039	5.2	10.32	13	59.3	Clear	No Odor
14:00	5	100	mL/min	16.15	5.89	0.041	8.9	10.42	13	97	Clear	No Odor
14:05	10	100	mL/min	16.15	5.86	0.04	15.9	10.4	12.8	117.2	Clear	No Odor
14:10	15	100	mL/min	16.15	5.85	0.04	22.8	10.46	12.5	133.3	Clear	No Odor
14:15	20	100	mL/min	16.15	5.85	0.039	27	10.46	12.2	140.7	Clear	No Odor
14:20	25	100	mL/min	16.15	5.85	0.039	35	10.39	12.4	149.1	Clear	No Odor
14:25	30	100	mL/min	16.15	5.85	0.039	43.5	10.44	12.4	155.3	Clear	No Odor
14:30	35	100	mL/min	16.15	5.84	0.039	47.6	10.34	12.4	162.7	Clear	No Odor
14:35	40	100	mL/min	16.15	5.84	0.04	57.2	10.33	13.3	167	Clear	No Odor
14:40	45	100	mL/min	16.15	5.84	0.04	6.1	10.34	13.2	171	Clear	No Odor
14:45	50	100	mL/min	16.15	5.85	0.04	9.3	10.28	13.1	173.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Needs new lock

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-4B	**Date(s):**	2023-10-26	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLOUDS, T:73.27 °F, rH:50%, Clouds: 75%, Wind:5.75mph W			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	15.75	**Total Depth (ft-bmp):**	90	**Water Column(ft):**	74.25	**Gallons in Well:**	3.04
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	88	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	12:30	**Total Volume Purged (gallons):**	1.6	**Sample ID:**	SHP-2016-4B-FAL23	**Sample Time:**	13:30
Purge End Time:	13:30	**Well Volumes Purged (total):**	0.53	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:35	0	100	mL/min	15.75	6.62	0.193	87	0.61	12	-86.4	Clear	No Odor
12:40	5	100	mL/min	15.75	6.62	0.195	52.2	0.51	12	-88.5	Clear	No Odor
12:45	10	100	mL/min	15.75	6.63	0.194	20.4	0.52	11.7	-90.2	Clear	No Odor
12:50	15	100	mL/min	15.75	6.63	0.194	13.6	0.52	12.2	-91	Clear	No Odor
12:55	20	100	mL/min	15.75	6.63	0.194	12.9	0.56	12	-91.9	Clear	No Odor
13:00	25	100	mL/min	15.75	6.63	0.198	9.8	0.51	12.1	-91.9	Clear	No Odor
13:05	30	100	mL/min	15.75	6.62	0.201	10.7	0.52	12.3	-92.1	Clear	No Odor
13:10	35	100	mL/min	15.75	6.62	0.206	9.3	0.48	12.1	-92.1	Clear	No Odor
13:15	40	100	mL/min	15.75	6.62	0.205	8.7	0.44	12.1	-91.1	Clear	No Odor
13:20	45	100	mL/min	15.75	6.62	0.207	8	0.53	11.8	-91.4	Clear	No Odor
13:25	50	100	mL/min	15.75	6.62	0.209	5.7	0.52	11.9	-91.9	Clear	No Odor
13:30	55	100	mL/min	15.75	6.62	0.21	6.5	0.49	12	-91.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Needs new lock

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-5A	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:37.71 °F, rH:86%, Clouds: 0%, Wind:0mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-30.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.93	**Total Depth (ft-bmp):**	30	**Water Column(ft):**	17.07	**Liters in Well:**	2.64
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	28	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:35	**Total Volume Purged (liters):**	4.5	**Sample ID:**	SHP-2016-5A-FAL23	**Sample Time:**	10:05
Purge End Time:	10:05	**Well Volumes Purged (total):**	1.70	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:40	0	150	mL/min	13	6.33	0.187	4.4	0.64	11.5	0.8	Clear	Slight
09:45	5	150	mL/min	13	6.32	0.186	4.7	0.51	11.4	-0.3	Clear	Slight
09:50	10	150	mL/min	13	6.32	0.186	4	0.42	11.3	-3.4	Clear	Slight
09:55	15	150	mL/min	13	6.32	0.186	4.3	0.4	11.2	-4.7	Clear	Slight
10:00	20	150	mL/min	13	6.33	0.187	4.4	0.37	11.3	-6.2	Clear	Slight
10:05	25	150	mL/min	13	6.33	0.187	4.7	0.35	11.3	-7.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	Plastic	1	
Metals (SW6010)	Plastic	1	
GenChem (A2320)	Plastic	1	
Anions (SW9056A)	Plastic	1	
TOC (SW9060)	Amber Glass	1	

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2016-5B	**Date(s):**	2023-10-31	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:40.98 °F, rH:69%, Clouds: 0%, Wind:3.44mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	85.00-90.00	**Casing Diameter (in):**	1.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.95	**Total Depth (ft-bmp):**	90	**Water Column(ft):**	77.05	**Liters in Well:**	11.9
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	87	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	10:25	**Total Volume Purged (liters):**	5.4	**Sample ID:**	SHP-2016-5B-FAL23	**Sample Time:**	11:10
Purge End Time:	11:10	**Well Volumes Purged (total):**	0.45	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:30	0	120	mL/min	12.98	6.49	0.442	45.1	0.86	11.8	-60.3	Clear	No Odor
10:35	5	120	mL/min	12.98	6.45	0.446	62.5	0.34	11.6	-67.8	Clear	No Odor
10:40	10	120	mL/min	12.98	6.46	0.459	17.9	0.28	11.6	-71.9	Clear	No Odor
10:45	15	120	mL/min	12.98	6.47	0.472	33.3	0.24	11.5	-75.1	Clear	No Odor
10:50	20	120	mL/min	12.98	6.47	0.485	22	0.2	11.4	-77.8	Clear	No Odor
10:55	25	120	mL/min	12.98	6.47	0.489	10.3	0.19	11.5	-79.1	Clear	No Odor
11:00	30	120	mL/min	12.98	6.48	0.495	33	0.18	11.6	-80.4	Clear	No Odor
11:05	35	120	mL/min	12.98	6.48	0.497	31.6	0.16	11.6	-81.8	Clear	No Odor
11:10	40	120	mL/min	12.98	6.48	0.501	3.7	0.16	11.6	-82.3	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	Plastic	1	
Metals (SW6010)	Plastic	1	
GenChem (A2320)	Plastic	1	
Anions (SW9056A)	Plastic	1	
TOC (SW9060)	Amber Glass	1	

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-1A	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.21	**Total Depth (ft-bmp):**	37.76	**Water Column(ft):**	15.55	**Liters in Well:**	9.61
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	32	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:02	**Total Volume Purged (liters):**	7	**Sample ID:**	SHP-2023-1A-FAL23	**Sample Time:**	11:37
Purge End Time:	11:37	**Well Volumes Purged (total):**	0.73	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:07	0	200	mL/min	22.34	6.39	0.087	28.3	2.95	13	79.3	Clear	No Odor
11:12	5	200	mL/min	22.36	5.88	0.081	22.8	1.39	12.7	94.4	Clear	No Odor
11:17	10	200	mL/min	22.36	5.83	0.08	18.7	1.2	12.9	99.7	Clear	No Odor
11:22	15	200	mL/min	22.37	5.82	0.079	11.4	1.15	13	103.2	Clear	No Odor
11:27	20	200	mL/min	22.37	5.82	0.078	3.84	1.13	13.2	105.4	Clear	No Odor
11:32	25	200	mL/min	22.36	5.83	0.078	2.45	1.14	13.5	104.8	Clear	No Odor
11:37	30	200	mL/min	22.36	5.82	0.077	1.55	1.16	13.5	105	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Well needs new lock

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-1B	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:54.32 °F, rH:37%, Clouds: 0%, Wind:9.22mph S-SW			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	73.00-83.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	22.34	**Total Depth (ft-bmp):**	87.42	**Water Column(ft):**	65.08	**Liters in Well:**	40.21
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	82	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	12:34	**Total Volume Purged (liters):**	7.95	**Sample ID:**	SHP-2023-1B-FAL23	**Sample Time:**	13:27
Purge End Time:	13:27	**Well Volumes Purged (total):**	0.20	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
12:42	0	150	mL/min	22.45	6.89	0.372	11.6	2.27	14.9	67.1	Clear	No Odor
12:47	5	150	mL/min	22.46	6.69	0.344	11.2	0.89	13.6	18.2	Clear	No Odor
12:52	10	150	mL/min	22.45	6.68	0.339	10.2	0.73	13.6	-3	Clear	No Odor
12:57	15	150	mL/min	22.45	6.69	0.336	9.67	0.67	13.4	-14.4	Clear	No Odor
13:02	20	150	mL/min	22.45	6.69	0.333	9.87	0.63	13.5	-21	Clear	No Odor
13:07	25	150	mL/min	22.45	6.69	0.333	9.19	0.63	13.6	-25.8	Clear	No Odor
13:12	30	150	mL/min	22.45	6.7	0.332	8.84	0.6	13.5	-29.2	Clear	No Odor
13:17	35	150	mL/min	22.45	6.69	0.328	7.36	0.56	13.6	-31	Clear	No Odor
13:22	40	150	mL/min	22.45	6.68	0.328	7.12	0.52	13.6	-31.9	Clear	No Odor
13:27	45	150	mL/min	22.45	6.69	0.327	6.91	0.52	13.6	-34.1	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: Well needs new lock

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-2A	**Date(s):**	2023-11-06	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	Sun 42			**Field Technician:**			Diane Champagne
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.38	**Total Depth (ft-bmp):**	34.6	**Water Column(ft):**	27.22	**Liters in Well:**	16.82
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	30	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:20	**Total Volume Purged (liters):**	15	**Sample ID:**	SHL-2023-2A-fal23	**Sample Time:**	10:40
Purge End Time:	10:37	**Well Volumes Purged (total):**	0.89	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:30	0	200	mL/min	7.38	6.3	0.231	32.29	0.81	10.4	-43.5	Clear	No Odor
09:35	5	200	mL/min	7.38	6.3	0.219	39.07	0.75	10.5	-42.9	Brown	No Odor
09:40	10	200	mL/min	7.38	6.29	0.212	41.84	0.59	10.5	-42.6	Clear	No Odor
09:45	15	200	mL/min	7.38	6.29	0.2	48.62	0.53	10.5	-42.3	Clear	No Odor
09:50	20	200	mL/min	7.39	6.3	0.194	50.42	0.51	10.6	-42.2	Clear	No Odor
09:55	25	200	mL/min	7.39	6.29	0.191	55.24	0.5	10.7	-42	Clear	No Odor
10:00	30	200	mL/min	7.39	6.29	0.186	68.35	0.48	10.9	-42.1	Clear	No Odor
10:05	35	200	mL/min	7.39	6.29	0.185	73.71	0.47	10.9	-42.1	Clear	No Odor
10:10	40	200	mL/min	7.39	6.29	0.178	79.12	0.47	10.8	-42	Clear	No Odor
10:15	45	200	mL/min	7.39	6.29	0.176	89.34	0.46	10.7	-42	Clear	No Odor
10:20	50	200	mL/min	7.39	6.29	0.178	89.26	0.45	11.1	-42.1	Clear	No Odor
10:25	55	200	mL/min	7.39	6.29	0.179	79.44	0.45	11	-42.1	Clear	No Odor
10:30	60	200	mL/min	7.39	6.29	0.181	78.41	0.45	11.1	-42	Clear	No Odor
10:35	65	200	mL/min	7.39	6.29	0.184	78.8	0.44	11	-41.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: no

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-2B	**Date(s):**	2023-11-06	**Work Order(s):**			Order #4 - 2023 Fall LTM + SRI Sampling
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	Cloud, 42			**Field Technician:**			Diane Champagne
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	59.00-69.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.6	**Total Depth (ft-bmp):**	69	**Water Column(ft):**	61.4	**Liters in Well:**	37.93
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	64	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:00	**Total Volume Purged (liters):**	12	**Sample ID:**	SHP-2023-2B-FAL23	**Sample Time:**	12:00
Purge End Time:	12:04	**Well Volumes Purged (total):**	0.32	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / 21f102556
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:10	0	200	mL/min	7.61	6.8	0.505	17.59	1.86	11.7	-51.4	Brown	No Odor
11:15	5	200	mL/min	7.61	6.74	0.453	6.5	0.76	11.9	-55.6	Brown	No Odor
11:20	10	200	mL/min	7.63	6.71	0.439	8.05	0.68	12.2	-55.3	Brown	No Odor
11:30	20	200	mL/min	7.63	6.7	0.435	8.88	0.72	12.2	-55.1	Brown	No Odor
11:35	25	200	mL/min	7.66	6.71	0.445	9.39	0.59	12.1	-55.2	Clear	No Odor
11:40	30	200	mL/min	7.63	6.71	0.454	10.94	0.58	11.9	-54.9	Clear	No Odor
11:45	35	200	mL/min	7.63	6.7	0.46	12.55	0.56	11.8	-54.5	Clear	No Odor
11:50	40	200	mL/min	7.64	6.69	0.47	15.23	0.54	12.1	-54.4	Clear	No Odor
11:55	45	200	mL/min	7.64	6.69	0.471	15.35	0.53	12.1	-54.5	Clear	No Odor
12:00	50	200	mL/min	7.64	6.7	0.475	15.98	0.52	12.1	-54.3	Brown	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: no

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-3A	**Date(s):**	2023-11-01	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:42.17 °F, rH:71%, Clouds: 36%, Wind:1.99mph E			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	25.00-35.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	12.76	**Total Depth (ft-bmp):**	38.22	**Water Column(ft):**	25.46	**Liters in Well:**	15.73
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	33	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	15:24	**Total Volume Purged (liters):**	6.6	**Sample ID:**	SHP-2023-3A-FAL23	**Sample Time:**	15:57
Purge End Time:	15:57	**Well Volumes Purged (total):**	0.42	**Replicate Type / Replicate ID:**		**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
15:27	0	200	mL/min	12.77	6.32	0.063	1.72	1.06	16.3	81.6	Clear	No Odor
15:32	5	200	mL/min	12.77	6.02	0.055	1.19	0.45	16.3	92	Clear	No Odor
15:37	10	200	mL/min	12.77	5.95	0.054	0.02	0.28	16.1	98.7	Clear	No Odor
15:42	15	200	mL/min	12.77	5.93	0.053	2.47	0.2	16.3	103.5	Clear	No Odor
15:47	20	200	mL/min	12.77	5.92	0.053	0.86	0.17	16.5	105.7	Clear	No Odor
15:52	25	200	mL/min	12.77	5.92	0.053	1.84	0.15	16.4	107.7	Clear	No Odor
15:57	30	200	mL/min	12.77	5.92	0.052	1.06	0.12	16.1	109.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: Well needs new lock

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-3B	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLEAR, T:30.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	60.00-70.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	14	**Total Depth (ft-bmp):**	70	**Water Column(ft):**	56	**Liters in Well:**	34.6
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	66	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:05	**Total Volume Purged (liters):**	6.75	**Sample ID:**	SHP-2023-3B-FAL23	**Sample Time:**	09:50
Purge End Time:	09:50	**Well Volumes Purged (total):**	0.20	**Replicate Type / Replicate ID:**	**Duplicate** / SHL-DUP10-FAL23	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:10	0	150	mL/min	14.1	6.54	0.385	39.9	0.89	12.7	-50.2	Clear	No Odor
09:15	5	150	mL/min	14.1	6.51	0.376	49.7	0.53	12.4	-48.5	Clear	No Odor
09:20	10	150	mL/min	14.1	6.49	0.367	67.8	0.37	12.6	-48.7	Clear	No Odor
09:25	15	150	mL/min	14.1	6.47	0.351	86.6	0.27	12.6	-48.7	Clear	No Odor
09:30	20	150	mL/min	14.1	6.45	0.344	108	0.25	12.6	-48.7	Clear	No Odor
09:35	25	150	mL/min	14.1	6.45	0.34	143.7	0.21	12.8	-49.6	Clear	No Odor
09:40	30	150	mL/min	14.1	6.44	0.326	184	0.19	12.7	-49.6	Clear	No Odor
09:45	35	150	mL/min	14.1	6.44	0.325	211	0.17	12.7	-50	Clear	No Odor
09:50	40	150	mL/min	14.1	6.44	0.32	12.23	0.16	12.5	-49.9	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-4A	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:43.63 °F, rH:54%, Clouds: 12%, Wind:5.99mph NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	40.00-50.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	39.08	**Total Depth (ft-bmp):**	50	**Water Column(ft):**	10.92	**Liters in Well:**	6.75
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	45	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	14:20	**Total Volume Purged (liters):**	11	**Sample ID:**	SHP-2023-4A-FAL23	**Sample Time:**	15:15
Purge End Time:	15:15	**Well Volumes Purged (total):**	1.63	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
14:25	0	200	mL/min	39.18	6.57	0.036	36.3	1.79	9.4	22.1	Clear	No Odor
14:30	5	200	mL/min	39.18	6.24	0.037	38.6	1.66	9.4	41.8	Clear	No Odor
14:35	10	200	mL/min	39.18	6	0.038	27.7	1.58	9.4	67.7	Clear	No Odor
14:40	15	200	mL/min	39.18	5.96	0.038	26.6	1.41	9.4	75.1	Clear	No Odor
14:45	20	200	mL/min	39.18	5.93	0.038	23.5	1.58	9.4	83.2	Clear	No Odor
14:50	25	200	mL/min	39.18	5.91	0.038	18.5	1.52	9.4	90.1	Clear	No Odor
14:55	30	200	mL/min	39.18	5.91	0.038	17.8	1.52	9.5	95.1	Clear	No Odor
15:00	35	200	mL/min	39.18	5.9	0.038	15.4	1.58	9.4	100.5	Clear	No Odor
15:05	40	200	mL/min	39.18	5.9	0.038	13.8	1.69	9.4	104.6	Clear	No Odor
15:10	45	200	mL/min	39.18	5.89	0.038	13.8	1.56	9.4	108.6	Clear	No Odor
15:15	50	200	mL/min	39.18	5.89	0.038	11.8	1.57	9.5	111.7	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-4B	**Date(s):**	2023-11-02	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:38.03 °F, rH:54%, Clouds: 22%, Wind:3.99mph NW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	100.00-110.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	39.02	**Total Depth (ft-bmp):**	110	**Water Column(ft):**	70.98	**Liters in Well:**	43.85
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	105	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	11:45	**Total Volume Purged (liters):**	24	**Sample ID:**	SHP-2023-4B-FAL23	**Sample Time:**	13:45
Purge End Time:	13:45	**Well Volumes Purged (total):**	0.55	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
11:50	0	200	mL/min	39.08	6.91	0.627	583	0.05	9.3	-20.3	Clear	No Odor
11:55	5	200	mL/min	39.08	6.89	0.62	535	0.03	9.3	-22.3	Clear	No Odor
12:00	10	200	mL/min	39.08	6.87	0.614	509	0.02	9.4	-25.2	Clear	No Odor
12:05	15	200	mL/min	39.08	6.84	0.598	429	0.01	9.3	-29.2	Clear	No Odor
12:10	20	200	mL/min	39.08	6.82	0.596	408	0.01	9.3	-30.6	Clear	No Odor
12:20	30	200	mL/min	39.08	6.79	0.585	360	0.01	9.1	-33.8	Clear	No Odor
12:25	35	200	mL/min	39.08	6.79	0.582	354	0.01	9	-36.1	Clear	No Odor
12:40	50	200	mL/min	39.08	6.75	0.583	376	0.01	9.4	-32.6	Clear	No Odor
12:45	55	200	mL/min	39.08	6.73	0.574	340	0.01	9.5	-31.3	Clear	No Odor
12:50	60	200	mL/min	39.08	6.72	0.572	323	0.01	9.6	-31.3	Clear	No Odor
12:55	65	200	mL/min	39.08	6.71	0.566	299	0.01	9.6	-31.8	Clear	No Odor
13:00	70	200	mL/min	39.08	6.71	0.562	283	0.01	9.4	-33.1	Clear	No Odor
13:05	75	200	mL/min	39.08	6.69	0.557	255	0.01	9.5	-34.1	Clear	No Odor
13:15	85	200	mL/min	39.08	6.68	0.55	226	0.01	9.6	-35.5	Clear	No Odor
13:25	95	200	mL/min	39.08	6.66	0.543	203	0.01	9.6	-36.4	Clear	No Odor
13:30	100	200	mL/min	39.08	6.65	0.537	173	0.01	9.5	-36.4	Clear	No Odor
13:35	105	200	mL/min	39.08	6.64	0.535	174	0.01	9.6	-36.6	Clear	No Odor
13:45	115	200	mL/min	39.08	6.62	0.529	157.4	0.01	9.6	-36.6	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-5A	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:41.89 °F, rH:54%, Clouds: 22%, Wind:6.93mph N			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	40.00-50.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	44.6	**Total Depth (ft-bmp):**	50	**Water Column(ft):**	5.4	**Liters in Well:**	3.34
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	47	**Purge Method:**	Low Flow	**Purging Equipment:**	Portable Bladder
Purge Start Time:	09:15	**Total Volume Purged (liters):**	10	**Sample ID:**	SHP-2023-5A-FAL23	**Sample Time:**	10:05
Purge End Time:	10:05	**Well Volumes Purged (total):**	2.99	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm^c)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:20	0	200	mL/min	44.73	6.02	0.072	209	6.53	9.4	113.4	Clear	No Odor
09:25	5	200	mL/min	44.73	5.87	0.072	180	6.55	9.4	161	Clear	No Odor
09:30	10	200	mL/min	44.73	5.86	0.072	179.9	6.65	9.5	171.2	Clear	No Odor
09:35	15	200	mL/min	44.73	5.87	0.071	148.7	6.59	9.6	179.7	Clear	No Odor
09:40	20	200	mL/min	44.73	5.88	0.071	88.8	6.65	9.6	186.3	Clear	No Odor
09:45	25	200	mL/min	44.73	5.89	0.071	54.5	6.65	9.7	191.7	Clear	No Odor
09:50	30	200	mL/min	44.73	5.9	0.071	35.6	6.65	9.7	197.6	Clear	No Odor
09:55	35	200	mL/min	44.73	5.91	0.071	40	6.65	9.7	202.1	Clear	No Odor
10:00	40	200	mL/min	44.73	5.93	0.071	28.1	6.65	9.7	204.9	Clear	No Odor
10:05	45	200	mL/min	44.73	5.93	0.07	34.9	6.7	9.7	207.4	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
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Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-2023-5B	**Date(s):**	2023-11-03	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA, USA Updated	**Area:**	SHL
Weather(°F):	CLEAR, T:45.77 °F, rH:54%, Clouds: 32%, Wind:8.75mph SW			**Field Technician:**		Allyson Fenton	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	107.00-117.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	45.26	**Total Depth (ft-bmp):**	117	**Water Column(ft):**	71.74	**Liters in Well:**	44.32
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	110	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	10:45	**Total Volume Purged (liters):**	11	**Sample ID:**	SHP-2023-5B-FAL23	**Sample Time:**	11:40
Purge End Time:	11:40	**Well Volumes Purged (total):**	0.25	**Replicate Type / Replicate ID:**	NA / NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
10:50	0	200	mL/min	46.36	6.38	0.543	20.4	0.52	9.9	-16.8	Clear	No Odor
10:55	5	200	mL/min	46.36	6.41	0.542	20.6	0.28	9.8	-32.5	Clear	No Odor
11:00	10	200	mL/min	46.36	6.44	0.552	17.3	0.14	9.9	-54.7	Clear	No Odor
11:05	15	200	mL/min	46.36	6.47	0.558	16.3	0.08	9.9	-71.4	Clear	No Odor
11:10	20	200	mL/min	46.36	6.47	0.557	15.5	0.04	10.1	-83.6	Clear	No Odor
11:15	25	200	mL/min	46.36	6.46	0.557	15	0.01	10.4	-95	Clear	No Odor
11:20	30	200	mL/min	46.36	6.46	0.556	14.5	0.01	10.4	-102.2	Clear	No Odor
11:25	35	200	mL/min	46.36	6.46	0.553	14.5	0.01	10.5	-112.7	Clear	No Odor
11:30	40	200	mL/min	46.36	6.45	0.553	13.3	0.01	10.7	-119.1	Clear	No Odor
11:35	45	200	mL/min	46.36	6.45	0.554	13.6	0.01	10.9	-124.9	Clear	No Odor
11:40	50	200	mL/min	46.36	6.45	0.551	14.6	0.01	10.7	-129	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Metals (SW6020)	250 mL plastic	1	HNO3
Metals (SW6010)	250 mL plastic	1	HN03
GenChem (A2320)	250 mL plastic	1	none
Anions (SW9056A)	125 mL plastic	1	none
TOC (SW9060)	250 mL amber	1	H2S04

Comments: None

Well Information:

Well Labeled Properly: NA

Is Well in Good Condition? NA

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

Groundwater Sampling Form

SERES Engineering & Services, LLC
ARCADIS a joint venture

Location ID:	SHP-99-29X	**Date(s):**	2023-10-24	**Work Order(s):**		2023 Fall LTM Sampling	
Client:	USACE	**Facility:**	Former Fort Devens	**Facility Location:**	Devens, MA	**Area:**	SHL
Weather(°F):	CLOUDS, T:42.22 °F, rH:93%, Clouds: 40%, Wind:0mph N			**Field Technician:**		Nelson Martinez	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	19.00-29.00	**Casing Diameter (in):**	2.00	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	20.87	**Total Depth (ft-bmp):**	30.77	**Water Column(ft):**	9.9	**Gallons in Well:**	1.62
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	24	**Purge Method:**	Low Flow	**Purging Equipment:**	Peristaltic Pump
Purge Start Time:	09:10	**Total Volume Purged (gallons):**	1.6	**Sample ID:**	SHP-99-29X-FAL23	**Sample Time:**	9:55
Purge End Time:	09:58	**Well Volumes Purged (total):**	0.99	**Replicate Type / Replicate ID:**	NA	**Water Quality Meter/ ID:**	YSI Pro DSS / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Specific Conductivity (mS/cm[c])	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
											Color	Odor
09:15	0	130	mL/min	20.9	5.79	0.281	8.2	1.73	11.5	-38.9	Clear	No Odor
09:20	5	130	mL/min	20.91	5.79	0.261	7.92	1.46	11.5	-42.3	Clear	No Odor
09:25	10	130	mL/min	20.92	5.8	0.254	8.4	1.33	12.1	-43.9	Clear	No Odor
09:30	15	130	mL/min	20.91	5.79	0.245	12.1	1.26	12.2	-43.5	Clear	No Odor
09:35	20	130	mL/min	20.91	5.78	0.235	12.1	1.2	12.2	-43.4	Clear	No Odor
09:40	25	130	mL/min	20.91	5.78	0.231	12.9	1.17	12.1	-44.3	Clear	No Odor
09:45	30	130	mL/min	20.91	5.8	0.227	12.2	1.13	12.2	-44.6	Clear	No Odor
09:50	35	130	mL/min	20.91	5.8	0.224	12.3	1.11	12.4	-45.2	Clear	No Odor
09:55	40	130	mL/min	20.92	5.8	0.225	12.3	1.1	12.5	-46	Clear	No Odor

Constituent Sampled	Container	Number	Preservative
Dissolved Organic Carbon	250 mL amber	1	H2SO4
Alkalinity	250 mL plastic	1	None
Chloride, Sulfate	125 mL plastic	1	None
Dissolved Metals	250 mL plastic	2	HNO3

Comments: Sampled at 1000

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? good

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute

NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milliSiemens per centimeter

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/20/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.99	7.06	yes	08:08
pH	4.1	3.95	yes	08:10
pH	10.2	10.17	yes	08:18
Conductivity	0.989	0.992	yes	08:25
ORP	237.5	294.2	yes	08:22

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/20/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	10/20/2023

SINGLE POINT CALIBRATION				
LOT NUMBER	N/A			
EXPIRATION DATE	N/A			
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7	7	yes	07:43
pH	3.99	4	yes	07:44
pH	9.96	10	yes	07:49
Conductivity	1.352	1.413	yes	07:52
ORP	228.6	231	yes	07:55
DO	100.1	100.1	yes	08:01

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/20/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/23/2023

SINGLE POINT CALIBRATION				
LOT NUMBER	24001219			
EXPIRATION DATE	2024-04-01			
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	09:51
pH	4	4	yes	09:53
pH	10	10	yes	09:55
Conductivity	1.413	1.413	yes	09:59
ORP	235.1	231	yes	09:48
DO	0.2	0	yes	09:05
DO	98.7	100.3	yes	09:40

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

Nelson Martinez — SIGNED

10/23/2023 — DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/23/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	4.12	4	--	15:55
pH	7.09	7.04	yes	15:52
pH	10.07	10.12	yes	15:58
Conductivity	1.122	1.126	yes	16:00
ORP	239.6	242	yes	16:04

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/23/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/24/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.04	7	yes	09:39
pH	10.29	10.14	yes	09:46
pH	4.18	4	yes	09:49
Conductivity	0.999	1	yes	09:50
ORP	251	248	yes	09:52

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/24/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	10/24/2023

SINGLE POINT CALIBRATION				
LOT NUMBER	N/A			
EXPIRATION DATE	N/A			
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7	7	yes	07:53
pH	4.01	4	yes	07:56
pH	10.06	10	yes	07:58
Conductivity	1.436	1.413	yes	08:01
ORP	236	231	yes	08:02
DO	101	101.5	yes	08:05

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/24/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/24/2023

SINGLE POINT CALIBRATION

LOT NUMBER	22420139
EXPIRATION DATE	2024-09-17

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.93	7	yes	08:19
pH	3.89	4	yes	08:22
pH	10.03	10	yes	08:24
Conductivity	1.406	1.413	yes	08:28
ORP	231.3	231	yes	08:18
DO	0.1	0	yes	07:54
DO	101.4	101.1	yes	08:11

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/24/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	16c100431
SAMPLER	Diane Champagne
DATE	10/24/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.83	7	yes	08:06
pH	4.01	4.01	yes	08:14
pH	9.98	9.99	yes	08:16
Conductivity	--	--	--	--
ORP	240.2	240.3	yes	08:00
DO	100.5	100.1	yes	08:01
Turbidity	34.4	0	yes	08:15

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

Cleaned turbidity probe to remove iron fouling

SIGNED

10/24/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/25/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7	7	yes	08:11
pH	4	4	yes	08:15
pH	10	10	yes	08:19
Conductivity	1.391	1.413	yes	08:21
ORP	231	231	yes	08:09
DO	0.4	0	yes	07:49
DO	100.5	100.6	yes	08:04

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/25/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	16c100431
SAMPLER	Diane Champagne
DATE	10/25/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.02	7.01	yes	09:07
pH	4.11	4	yes	09:13
pH	9.98	9.99	yes	09:19
Conductivity	1.513	1.414	yes	09:22
ORP	260.1	240.4	yes	09:35
DO	100	100	yes	08:57
Turbidity	9.16	0	yes	09:06

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

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10/25/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/25/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.06	7.04	yes	07:47
pH	4.08	4	yes	07:49
pH	9.92	10.13	yes	07:54
Conductivity	1.098	1.099	yes	07:56
ORP	240.5	243.7	yes	08:00

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

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10/25/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	10/25/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A			
EXPIRATION DATE	N/A			
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN	TIME
pH	7.03	7	yes	07:58
pH	4.08	4	yes	08:00
pH	10.01	10	yes	08:03
Conductivity	1.482	1.413	yes	08:05
ORP	225.1	231	yes	08:11
DO	101.8	101.1	yes	08:13

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

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10/25/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/26/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001213
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7	7	yes	08:50
pH	3.97	4	yes	08:50
pH	9.98	10	yes	08:56
Conductivity	1.416	1.413	yes	09:33
ORP	228	231	yes	08:43
DO	0.1	0	yes	08:11
DO	100.3	99.9	yes	08:38

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

Conductivity solution potentially causing calibration issues. Considering replacing calibration fluid.

SIGNED

10/26/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	16c100431
SAMPLER	Diane Champagne
DATE	10/26/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.07	7	yes	08:09
pH	4.01	4	yes	08:04
pH	9.83	10	yes	08:00
Conductivity	1.11	1.413	yes	07:31
ORP	248.6	240	yes	07:43
DO	100.9	100.9	yes	08:11
Turbidity	-0.27	0	yes	07:54

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/26/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/26/2023

SINGLE POINT CALIBRATION				
LOT NUMBER	N/A			
EXPIRATION DATE	N/A			
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	07:59
pH	4.24	4	yes	08:03
pH	9.97	10.09	yes	08:06
Conductivity	1.128	1.128	yes	08:13
ORP	238.9	240.1	yes	08:09

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

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10/26/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	10/27/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.13	7	yes	07:42
pH	4.04	4	yes	07:35
pH	9.86	10	yes	07:52
Conductivity	1.415	1.413	yes	07:53
ORP	244.6	241.7	yes	07:16
DO	97.8	99.7	yes	07:31
Turbidity	0.42	0	yes	07:54

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/27/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/27/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.02	7	yes	08:14
pH	4.01	4	yes	08:15
pH	9.97	10	yes	08:18
Conductivity	1.336	1.413	yes	08:23
ORP	228.3	231	yes	08:08
DO	99.5	99.5	yes	07:43
DO	0.3	0	yes	07:43

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/27/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/27/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.25	7.03	yes	07:43
pH	4.29	4	yes	07:53
pH	9.96	10.1	yes	07:58
Conductivity	1.139	1.13	yes	08:01
ORP	241.8	241.4	yes	08:04

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/27/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	10/30/2023

SINGLE POINT CALIBRATION

LOT NUMBER				
EXPIRATION DATE				
PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.54	7	yes	08:21
pH	4.21	4	yes	08:12
pH	9.83	0.98	yes	08:01
Conductivity	1.094	1.413	yes	07:50
Conductivity	--	--	--	--
ORP	238.6	241.1	yes	08:07
DO	98.7	98.7	yes	08:06
Turbidity	2.03	0	yes	08:21

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/30/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/30/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.25	7.09	yes	15:24
pH	4.22	4.05	yes	15:31
pH	9.75	10.1	yes	15:49
Conductivity	1.316	1.321	yes	16:02
ORP	220.4	232.2	yes	15:55

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/30/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	10/30/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	15:47
pH	4	4	yes	15:48
pH	9.96	10	yes	15:51
Conductivity	1.405	1.413	yes	15:54
ORP	231	231	yes	15:43
DO	0	0	yes	15:32
DO	98.6	98.1	yes	15:40

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/30/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	10/30/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.92	7	yes	07:49
pH	4	4	yes	07:51
pH	10	10	yes	07:53
Conductivity	1.414	1.413	yes	07:54
ORP	236.2	231	yes	07:59
DO	99.6	100	yes	08:02

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/30/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	10/31/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	08:33
pH	4.23	4	yes	08:44
pH	9.95	10.16	yes	08:54
Conductivity	1.404	1.123	yes	08:56
ORP	246.6	242.2	yes	09:30

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/31/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	10/31/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.84	7	yes	08:04
pH	3.86	4	yes	08:08
pH	9.87	9.98	yes	08:00
Conductivity	1.411	1.413	yes	07:47
ORP	240	240.1	yes	07:55
DO	98.3	99.8	yes	07:51
Turbidity	2.9	0.01	yes	08:06

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

10/31/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	10/31/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	08:02
pH	4.02	4	yes	08:04
pH	10.01	10	yes	08:06
Conductivity	1.464	1.413	yes	08:10
ORP	233.6	231	yes	08:14
DO	100.8	100.6	yes	08:16

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

Fr

SIGNED

10/31/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	11/01/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.98	7	yes	07:35
pH	4.03	4	yes	07:30
pH	9.87	9.98	yes	07:33
Conductivity	1.203	1.413	yes	07:36
ORP	237.7	240.1	yes	07:25
DO	99.8	99.8	yes	07:37
Turbidity	0.38	0	yes	07:25

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/1/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	11/01/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.07	7.05	yes	07:54
pH	4.37	4.09	yes	07:56
pH	9.7	10.04	yes	08:06
Conductivity	1.446	1.435	yes	08:17
ORP	233.4	244.3	yes	08:12

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/1/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	11/01/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	6.97	7	yes	07:50
pH	3.96	4	yes	07:51
pH	10	10	yes	07:53
Conductivity	1.547	1.413	yes	07:55
ORP	240.6	231	yes	08:02
DO	104.2	100.4	yes	08:16

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/1/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	11/01/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001219
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.01	7	yes	08:52
pH	4	4	yes	08:57
pH	10	10	yes	09:00
Conductivity	1.404	1.413	yes	09:04
ORP	229.1	231	yes	08:51
DO	0.3	0	yes	08:15
DO	99.2	99.2	yes	08:47

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/1/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	11/02/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	2023-11-02

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.06	7.05	yes	07:47
pH	4.29	4.04	yes	07:54
pH	9.6	10.09	yes	08:09
Conductivity	1.283	1.286	yes	08:21
ORP	227.9	245.2	yes	08:18

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/2/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	11/02/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.02	7	yes	07:15
pH	4.12	4	yes	07:18
pH	9.99	9.98	yes	07:22
Conductivity	1.44	1.412	yes	07:31
ORP	247.3	240.1	yes	07:26
DO	99.8	99.8	yes	07:33
Turbidity	0.16	0	yes	07:31

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/2/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Frank Martinez
DATE	11/02/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.07	7	yes	07:38
pH	4.06	4	yes	07:39
pH	9.98	10	yes	07:42
Conductivity	1.484	1.413	yes	07:46
ORP	221.2	231	yes	07:49
DO	103	101.6	yes	08:00

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/2/2023
DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	11/03/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.03	7	yes	07:16
pH	4.12	4	yes	07:20
pH	10.1	10.01	yes	07:36
Conductivity	1.134	1.413	yes	07:23
ORP	234.7	240.1	yes	07:35
DO	100.7	100.7	yes	07:28
Turbidity	1.11	0	yes	07:33

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/3/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	15E102902
SAMPLER	Nelson Martinez
DATE	11/03/2023

SINGLE POINT CALIBRATION

LOT NUMBER	24001213
EXPIRATION DATE	2024-04-01

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.03	7	yes	10:22
pH	4.03	4	yes	10:24
pH	10.02	10	yes	10:27
Conductivity	1.373	1.413	yes	10:30
ORP	231.3	231	yes	10:20
DO	0.6	0	yes	09:59
DO	100.3	100.7	yes	10:15

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/3/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	N/A
SAMPLER	Allyson Fenton
DATE	11/03/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.2	7.07	yes	07:44
pH	4.3	4.12	yes	07:54
pH	9.64	10.05	yes	08:00
Conductivity	1.239	1.252	yes	08:13
ORP	198.8	242.8	yes	08:09
DO	77.1	1.5	yes	08:17
Turbidity	12	0.05	yes	08:24

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/3/2023

DATE

WATER QUALITY METER CALIBRATION LOG

PROJECT NAME	NE Devens TO LTM RAO SJV
PROJECT NUMBER	30167457
MODEL	YSI ProDSS
SERIAL NUMBER	21F102556
SAMPLER	Diane Champagne
DATE	11/06/2023

SINGLE POINT CALIBRATION

LOT NUMBER	N/A
EXPIRATION DATE	N/A

PARAMETERS	PRE-CALIBRATION	POST-CALIBRATION	SINGLE POINT CALIBRATION WITHIN RANGE	TIME
pH	7.11	7	yes	08:07
pH	9.83	9.99	yes	08:10
pH	4.16	4.01	yes	08:17
Conductivity	1.481	1.413	yes	08:24
ORP	240	240.1	yes	08:13
DO	100.6	100.5	yes	08:25
Turbidity	1.06	0	yes	08:05

[1] CALIBRATION RANGES ARE SPECIFIC TO THE MODEL OF THE QUALITY METER

NOTES:

SIGNED

11/6/2023

DATE

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 6/29/2023 7:29:53 PM Revision 1

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236128-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236128-1	EPA-PZ-2012-1A-SPR23	Water	06/09/23 11:50	06/10/23 09:32
680-236128-2	EPA-PZ-2012-1B-SPR23	Water	06/09/23 12:40	06/10/23 09:32
680-236128-3	EPA-PZ-2012-7B-SPR23	Water	06/09/23 14:45	06/10/23 09:32
680-236128-4	SHM-05-41B-SPR23	Water	06/09/23 14:55	06/10/23 09:32
680-236128-5	SHP-2016-3A-SPR23	Water	06/09/23 12:30	06/10/23 09:32

Job ID: 680-236128-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236128-1

Receipt
The samples were received on 6/10/2023 9:32 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.7°C and 5.7°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-1A-SPR23
Lab Sample ID: 680-236128-1

Date Collected: 06/09/23 11:50
Matrix: Water
Date Received: 06/10/23 09:32

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	5.8		0.50	0.50	0.20	mg/L		06/17/23 13:16	1
Sulfate	1.6		1.0	1.0	0.40	mg/L		06/17/23 13:16	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	350		100	50	20	ug/L		06/14/23 14:02	1
Manganese	250		10	5.0	1.3	ug/L		06/14/23 14:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.1	J	5.0	3.0	0.86	ug/L		06/14/23 23:54	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	41		5.0	5.0	2.2	mg/L		06/16/23 18:24	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		06/17/23 19:56	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-1B-SPR23
Lab Sample ID: 680-236128-2

Date Collected: 06/09/23 12:40
Matrix: Water
Date Received: 06/10/23 09:32

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	38		0.50	0.50	0.20	mg/L		06/17/23 13:28	1
Sulfate	25	M	1.0	1.0	0.40	mg/L		06/17/23 13:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	10000		100	50	20	ug/L		06/14/23 14:04	1
Manganese	8300		10	5.0	1.3	ug/L		06/14/23 14:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	170		5.0	3.0	0.86	ug/L		06/15/23 00:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	160		5.0	5.0	2.2	mg/L		06/16/23 18:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		06/17/23 20:53	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-7B-SPR23
Lab Sample ID: 680-236128-3

Date Collected: 06/09/23 14:45
Matrix: Water
Date Received: 06/10/23 09:32

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.96		0.50	0.50	0.20	mg/L		06/17/23 13:41	1
Sulfate	3.0		1.0	1.0	0.40	mg/L		06/17/23 13:41	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		06/14/23 14:06	1
Manganese	3500		10	5.0	1.3	ug/L		06/14/23 14:06	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1200		5.0	3.0	0.86	ug/L		06/15/23 00:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	36		5.0	5.0	2.2	mg/L		06/16/23 18:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.92	J	1.5	1.0	0.50	mg/L		06/17/23 21:12	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-05-41B-SPR23
Lab Sample ID: 680-236128-4

Date Collected: 06/09/23 14:55
Matrix: Water
Date Received: 06/10/23 09:32

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	7.0		0.50	0.50	0.20	mg/L		06/17/23 13:54	1
Sulfate	3.0		1.0	1.0	0.40	mg/L		06/17/23 13:54	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	30000		100	50	20	ug/L		06/14/23 14:08	1
Manganese	930		10	5.0	1.3	ug/L		06/14/23 14:08	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	630		5.0	3.0	0.86	ug/L		06/15/23 00:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	66		5.0	5.0	2.2	mg/L		06/16/23 18:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		06/17/23 21:32	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-3A-SPR23
Lab Sample ID: 680-236128-5

Date Collected: 06/09/23 12:30
Matrix: Water
Date Received: 06/10/23 09:32

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.7		0.50	0.50	0.20	mg/L		06/17/23 14:06	1
Sulfate	2.6		1.0	1.0	0.40	mg/L		06/17/23 14:06	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	6300		100	50	20	ug/L		06/14/23 14:10	1
Manganese	260		10	5.0	1.3	ug/L		06/14/23 14:10	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.4	J	5.0	3.0	0.86	ug/L		06/15/23 00:26	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	32		5.0	5.0	2.2	mg/L		06/16/23 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.89	J	1.5	1.0	0.50	mg/L		06/17/23 21:52	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-784086/2
Matrix: Water
Analysis Batch: 784086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		06/17/23 10:11	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		06/17/23 10:11	1

Lab Sample ID: LCS 680-784086/4
Matrix: Water
Analysis Batch: 784086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.82		mg/L		98	87 - 111
Sulfate	10.0	9.72	M	mg/L		97	87 - 112

Lab Sample ID: LCSD 680-784086/5
Matrix: Water
Analysis Batch: 784086

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.86		mg/L		99	87 - 111	0	15
Sulfate	10.0	9.73		mg/L		97	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-783510/1-A
Matrix: Water
Analysis Batch: 783688

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783510

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/14/23 13:44	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/14/23 13:44	1

Lab Sample ID: LCS 680-783510/2-A
Matrix: Water
Analysis Batch: 783688

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783510

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	5000	5340		ug/L		107	87 - 115
Manganese	400	441		ug/L		110	90 - 114

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-783511/1-A
Matrix: Water
Analysis Batch: 783691

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783511

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/14/23 23:33	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-783511/2-A
Matrix: Water
Analysis Batch: 783691

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783511

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	111		ug/L		111	84 - 116

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-784252/4
Matrix: Water
Analysis Batch: 784252

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/16/23 17:18	1

Lab Sample ID: LCS 680-784252/6
Matrix: Water
Analysis Batch: 784252

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	250	241		mg/L		96	90 - 112

Lab Sample ID: LCSD 680-784252/31
Matrix: Water
Analysis Batch: 784252

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	250	246		mg/L		99	90 - 112	2	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-784470/2
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/17/23 18:49	1

Lab Sample ID: LCS 680-784470/3
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	20.1		mg/L		101	80 - 120

Lab Sample ID: LCSD 680-784470/4
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	20.6		mg/L		103	80 - 120	2	20

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 680-236128-1 MS
Client Sample ID: EPA-PZ-2012-1A-SPR23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 784470

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	2.0		20.0	22.9		mg/L		105	80 - 120		

Lab Sample ID: 680-236128-1 MSD
Client Sample ID: EPA-PZ-2012-1A-SPR23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 784470

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	2.0		20.0	23.2		mg/L		106	80 - 120	1	20

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236128-1

HPLC/IC

Analysis Batch: 784086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Total/NA	Water	9056A	
680-236128-2	EPA-PZ-2012-1B-SPR23	Total/NA	Water	9056A	
680-236128-3	EPA-PZ-2012-7B-SPR23	Total/NA	Water	9056A	
680-236128-4	SHM-05-41B-SPR23	Total/NA	Water	9056A	
680-236128-5	SHP-2016-3A-SPR23	Total/NA	Water	9056A	
MB 680-784086/2	Method Blank	Total/NA	Water	9056A	
LCS 680-784086/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-784086/5	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 783510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Dissolved	Water	3005A	
680-236128-2	EPA-PZ-2012-1B-SPR23	Dissolved	Water	3005A	
680-236128-3	EPA-PZ-2012-7B-SPR23	Dissolved	Water	3005A	
680-236128-4	SHM-05-41B-SPR23	Dissolved	Water	3005A	
680-236128-5	SHP-2016-3A-SPR23	Dissolved	Water	3005A	
MB 680-783510/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783510/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 783511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Dissolved	Water	3005A	
680-236128-2	EPA-PZ-2012-1B-SPR23	Dissolved	Water	3005A	
680-236128-3	EPA-PZ-2012-7B-SPR23	Dissolved	Water	3005A	
680-236128-4	SHM-05-41B-SPR23	Dissolved	Water	3005A	
680-236128-5	SHP-2016-3A-SPR23	Dissolved	Water	3005A	
MB 680-783511/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783511/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 783688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Dissolved	Water	6010C	783510
680-236128-2	EPA-PZ-2012-1B-SPR23	Dissolved	Water	6010C	783510
680-236128-3	EPA-PZ-2012-7B-SPR23	Dissolved	Water	6010C	783510
680-236128-4	SHM-05-41B-SPR23	Dissolved	Water	6010C	783510
680-236128-5	SHP-2016-3A-SPR23	Dissolved	Water	6010C	783510
MB 680-783510/1-A	Method Blank	Total Recoverable	Water	6010C	783510
LCS 680-783510/2-A	Lab Control Sample	Total Recoverable	Water	6010C	783510

Analysis Batch: 783691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Dissolved	Water	6020A	783511
680-236128-2	EPA-PZ-2012-1B-SPR23	Dissolved	Water	6020A	783511
680-236128-3	EPA-PZ-2012-7B-SPR23	Dissolved	Water	6020A	783511
680-236128-4	SHM-05-41B-SPR23	Dissolved	Water	6020A	783511
680-236128-5	SHP-2016-3A-SPR23	Dissolved	Water	6020A	783511
MB 680-783511/1-A	Method Blank	Total Recoverable	Water	6020A	783511
LCS 680-783511/2-A	Lab Control Sample	Total Recoverable	Water	6020A	783511

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236128-1

General Chemistry

Analysis Batch: 784252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Total/NA	Water	2320B-2011	
680-236128-2	EPA-PZ-2012-1B-SPR23	Total/NA	Water	2320B-2011	
680-236128-3	EPA-PZ-2012-7B-SPR23	Total/NA	Water	2320B-2011	
680-236128-4	SHM-05-41B-SPR23	Total/NA	Water	2320B-2011	
680-236128-5	SHP-2016-3A-SPR23	Total/NA	Water	2320B-2011	
MB 680-784252/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784252/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784252/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 784470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236128-1	EPA-PZ-2012-1A-SPR23	Dissolved	Water	9060A	
680-236128-2	EPA-PZ-2012-1B-SPR23	Dissolved	Water	9060A	
680-236128-3	EPA-PZ-2012-7B-SPR23	Dissolved	Water	9060A	
680-236128-4	SHM-05-41B-SPR23	Dissolved	Water	9060A	
680-236128-5	SHP-2016-3A-SPR23	Dissolved	Water	9060A	
MB 680-784470/2	Method Blank	Dissolved	Water	9060A	
LCS 680-784470/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-784470/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-236128-1 MS	EPA-PZ-2012-1A-SPR23	Dissolved	Water	9060A	
680-236128-1 MSD	EPA-PZ-2012-1A-SPR23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-1A-SPR23
Lab Sample ID: 680-236128-1
Date Collected: 06/09/23 11:50
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	784086	06/17/23 13:16	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783510	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6010C		1			783688	06/14/23 14:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783511	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6020A		1			783691	06/14/23 23:54	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784252	06/16/23 18:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 19:56	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-1B-SPR23
Lab Sample ID: 680-236128-2
Date Collected: 06/09/23 12:40
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	784086	06/17/23 13:28	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783510	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6010C		1			783688	06/14/23 14:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783511	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6020A		1			783691	06/15/23 00:06	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784252	06/16/23 18:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 20:53	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-7B-SPR23
Lab Sample ID: 680-236128-3
Date Collected: 06/09/23 14:45
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	784086	06/17/23 13:41	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783510	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6010C		1			783688	06/14/23 14:06	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783511	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6020A		1			783691	06/15/23 00:10	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-7B-SPR23
Lab Sample ID: 680-236128-3
Date Collected: 06/09/23 14:45
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784252	06/16/23 18:16	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 21:12	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-41B-SPR23
Lab Sample ID: 680-236128-4
Date Collected: 06/09/23 14:55
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	784086	06/17/23 13:54	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783510	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6010C		1			783688	06/14/23 14:08	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783511	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6020A		1			783691	06/15/23 00:22	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784252	06/16/23 18:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 21:32	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-3A-SPR23
Lab Sample ID: 680-236128-5
Date Collected: 06/09/23 12:30
Matrix: Water
Date Received: 06/10/23 09:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	784086	06/17/23 14:06	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783510	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6010C		1			783688	06/14/23 14:10	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783511	06/14/23 08:41	RR	EET SAV
Dissolved	Analysis	6020A		1			783691	06/15/23 00:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784252	06/16/23 19:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 21:52	JU	EET SAV
	Instrument ID: TOC7									

Laboratory References:
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236128-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Boston #215

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic HNO3 pH < 2; Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
2	EPA-PZ-2012-1A-SPR23	WG	6/9/23	11:50	FG	X	X	X	X	X	EPA-PZ-2012-1A	N1	23 70	28 70	1	
3	EPA-PZ-2012-1B-SPR23	WG	6/9/23	12:40	FG	X	X	X	X	X	EPA-PZ-2012-1B	N1	73 56	78 56	1	
4	EPA-PZ-2012-2A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-2A	N1	18 14	23 14	1	
5	EPA-PZ-2012-2B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-2B	N1	73 16	78 16	1	
6	EPA-PZ-2012-3A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3A	N1	19 09	24 09	1	
7	EPA-PZ-2012-3B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3B	N1	68 70	73 70	1	
8	EPA-PZ-2012-4A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4A	N1	19 56	24 56	1	
9	EPA-PZ-2012-4B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	N1	79 50	84 50	1	
1	EPA-DUP01-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	FD1	79 50	84 50	1	
10	EPA-PZ-2012-5A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5A	N1	17 95	22 95	1	
11	EPA-PZ-2012-5B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5B	N1	68 46	73 46	1	
12	EPA-PZ-2012-6A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6A	N1	24 19	29 19	1	
13	EPA-PZ-2012-6B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6B	N1	74 23	79 23	1	
14	EPA-PZ-2012-7A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-7A	N1	23 87	28 87	1	
15	EPA-PZ-2012-7B-SPR23	WG	6/9/23	14.45	GS	X	X	X	X	X	EPA-PZ-2012-7B	N1	58 82	63 82	1	
16	EW-01-SPR23	WG				X	X	X	X	X	EW-01	N1	60 00	85 00	1	
17	EW-04-SPR23	WG				X	X	X	X	X	EW-04	N1	70 00	95 00	1	
18	PZ-12-01-SPR23	WG				X	X	X	X	X	PZ-12-01	N1	24 00	34 00	1	
19	PZ-12-02-SPR23	WG				X	X	X	X	X	PZ-12-02	N1	24 00	34 00	1	
20	PZ-12-03-SPR23	WG				X	X	X	X	X	PZ-12-03	N1	24 00	34 00	1	
21	PZ-12-04-SPR23	WG				X	X	X	X	X	PZ-12-04	N1	24 00	34 00	1	

680-236128 Chain of Custody

Relinquished by (Signature) [signature]
Date 6/9/2023
Time 16 57
Received by (Signature) [signature] 6/9/23 1700

Received by Laboratory (Signature) [signature] 6/9/23 1637
Date
Time

[signature] TA 9-10-23 932
5.9/5.7 2.9/2.7

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®
Boston
#215

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2, Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Analytical Test Method

| | | |

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Boston #215

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2; Cool < 6degC
8	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

| | | |

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236128-1

Login Number: 236128
List Number: 1
Creator: Sims, Robert D

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 7/7/2023 5:03:25 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236378-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Heather Trotter, Project Manager
Heather.Trotter@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236378-1	EPA-PZ-2012-2A-SPR23	Water	06/12/23 15:10	06/15/23 10:19
680-236378-2	EPA-PZ-2012-2B-SPR23	Water	06/13/23 14:36	06/15/23 10:19
680-236378-3	EPA-PZ-2012-7A-SPR23	Water	06/13/23 10:00	06/15/23 10:19
680-236378-4	PZ-12-01-SPR23	Water	06/12/23 15:50	06/15/23 10:19
680-236378-5	PZ-12-02-SPR23	Water	06/13/23 09:10	06/15/23 10:19
680-236378-6	PZ-12-03-SPR23	Water	06/13/23 10:50	06/15/23 10:19
680-236378-7	PZ-12-04-SPR23	Water	06/13/23 12:20	06/15/23 10:19
680-236378-8	PZ-12-05-SPR23	Water	06/13/23 14:25	06/15/23 10:19
680-236378-9	SHM-93-22B-SPR23	Water	06/12/23 15:50	06/15/23 10:19
680-236378-10	SHP-2016-2A-SPR23	Water	06/13/23 11:20	06/15/23 10:19
680-236378-11	SHP-2016-2B-SPR23	Water	06/13/23 12:20	06/15/23 10:19
680-236378-12	SHP-2016-3B-SPR23	Water	06/12/23 14:50	06/15/23 10:19
680-236378-13	SHP-2016-4A-SPR23	Water	06/13/23 13:50	06/15/23 10:19
680-236378-14	SHP-2016-4B-SPR23	Water	06/13/23 14:55	06/15/23 10:19

Job ID: 680-236378-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236378-1

Comments
No additional comments.

Receipt
The samples were received on 6/15/2023 10:19 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.5º C and 3.8º C.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-2A-SPR23
Lab Sample ID: 680-236378-1

Date Collected: 06/12/23 15:10
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**2.7**		0.50	0.50	0.20	mg/L		07/03/23 19:23	1
Sulfate	**6.5**		1.0	1.0	0.40	mg/L		07/03/23 19:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	**9400**		100	50	20	ug/L		06/16/23 17:41	1
Manganese	**4900**		10	5.0	1.3	ug/L		06/16/23 17:41	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/16/23 21:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**11**		5.0	5.0	2.2	mg/L		06/19/23 21:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		06/17/23 22:11	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: EPA-PZ-2012-2B-SPR23

Date Collected: 06/13/23 14:36
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	37		0.50	0.50	0.20	mg/L		07/03/23 19:35	1
Sulfate	11	M	1.0	1.0	0.40	mg/L		07/03/23 19:35	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	370		100	50	20	ug/L		06/16/23 17:38	1
Manganese	180		10	5.0	1.3	ug/L		06/16/23 17:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.9	J	5.0	3.0	0.86	ug/L		06/16/23 21:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	130		5.0	5.0	2.2	mg/L		06/19/23 21:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		06/17/23 22:30	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: EPA-PZ-2012-7A-SPR23

Date Collected: 06/13/23 10:00
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	67		0.50	0.50	0.20	mg/L		07/03/23 19:48	1
Sulfate	6.1	M	1.0	1.0	0.40	mg/L		07/03/23 19:48	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	55000		100	50	20	ug/L		06/16/23 17:20	1
Manganese	1500		10	5.0	1.3	ug/L		06/16/23 17:20	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/16/23 20:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	24		5.0	5.0	2.2	mg/L		06/19/23 20:53	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.65	J	1.5	1.0	0.50	mg/L		06/17/23 22:49	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: PZ-12-01-SPR23

Date Collected: 06/12/23 15:50
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-4

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	93		0.50	0.50	0.20	mg/L		07/03/23 20:01	1
Sulfate	21		1.0	1.0	0.40	mg/L		07/03/23 20:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	44000		100	50	20	ug/L		06/16/23 17:25	1
Manganese	3600		10	5.0	1.3	ug/L		06/16/23 17:25	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	610		5.0	3.0	0.86	ug/L		06/16/23 20:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	170		5.0	5.0	2.2	mg/L		06/20/23 02:53	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.5		1.5	1.0	0.50	mg/L		06/17/23 23:43	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: PZ-12-02-SPR23

Date Collected: 06/13/23 09:10
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-5

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	50		0.50	0.50	0.20	mg/L		07/05/23 13:50	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/05/23 13:50	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	65000	J1	100	50	20	ug/L		06/16/23 16:54	1
Manganese	1400		10	5.0	1.3	ug/L		06/16/23 16:54	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	270		5.0	3.0	0.86	ug/L		06/16/23 20:14	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	190		5.0	5.0	2.2	mg/L		06/20/23 03:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.5		1.5	1.0	0.50	mg/L		06/18/23 00:04	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: PZ-12-03-SPR23

Date Collected: 06/13/23 10:50
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**85**		0.50	0.50	0.20	mg/L		07/05/23 14:28	1
Sulfate	**7.8**		1.0	1.0	0.40	mg/L		07/05/23 14:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 17:23	1
Manganese	**2.7**	**J**	10	5.0	1.3	ug/L		06/16/23 17:23	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**790**		5.0	3.0	0.86	ug/L		06/16/23 20:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**140**		5.0	5.0	2.2	mg/L		06/20/23 03:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.9**		1.5	1.0	0.50	mg/L		06/18/23 00:24	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: PZ-12-04-SPR23

Date Collected: 06/13/23 12:20
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	31		0.50	0.50	0.20	mg/L		07/05/23 14:41	1
Sulfate	2.2		1.0	1.0	0.40	mg/L		07/05/23 14:41	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	4900		100	50	20	ug/L		06/16/23 17:18	1
Manganese	9000		10	5.0	1.3	ug/L		06/16/23 17:18	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	720		5.0	3.0	0.86	ug/L		06/16/23 20:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	130		5.0	5.0	2.2	mg/L		06/20/23 02:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		06/18/23 00:44	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: PZ-12-05-SPR23

Date Collected: 06/13/23 14:25
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.1		0.50	0.50	0.20	mg/L		07/05/23 21:26	1
Sulfate	3.4		1.0	1.0	0.40	mg/L		07/05/23 21:26	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	37000		100	50	20	ug/L		06/16/23 17:36	1
Manganese	2500		10	5.0	1.3	ug/L		06/16/23 17:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.9	J	5.0	3.0	0.86	ug/L		06/16/23 21:03	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	40		5.0	5.0	2.2	mg/L		06/20/23 19:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.83	J	1.5	1.0	0.50	mg/L		06/18/23 01:04	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: SHM-93-22B-SPR23

Date Collected: 06/12/23 15:50
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**40**		0.50	0.50	0.20	mg/L		07/05/23 21:39	1
Sulfate	**17**		1.0	1.0	0.40	mg/L		07/05/23 21:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 17:15	1
Manganese	**130**		10	5.0	1.3	ug/L		06/16/23 17:15	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**110**		5.0	3.0	0.86	ug/L		06/16/23 20:30	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**180**		5.0	5.0	2.2	mg/L		06/20/23 19:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.3**	**J**	1.5	1.0	0.50	mg/L		06/18/23 01:23	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: SHP-2016-2A-SPR23

Date Collected: 06/13/23 11:20
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.7		0.50	0.50	0.20	mg/L		07/05/23 21:51	1
Sulfate	3.5		1.0	1.0	0.40	mg/L		07/05/23 21:51	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 17:12	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/16/23 17:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.1	J	5.0	3.0	0.86	ug/L		06/16/23 20:26	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	39		5.0	5.0	2.2	mg/L		06/20/23 19:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.54	J	1.5	1.0	0.50	mg/L		06/18/23 01:43	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: SHP-2016-2B-SPR23

Lab Sample ID: 680-236378-11

Date Collected: 06/13/23 12:20

Matrix: Water

Date Received: 06/15/23 10:19

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	10		0.50	0.50	0.20	mg/L		07/05/23 22:04	1
Sulfate	4.5		1.0	1.0	0.40	mg/L		07/05/23 22:04	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	34000		100	50	20	ug/L		06/16/23 17:07	1
Manganese	2300		10	5.0	1.3	ug/L		06/16/23 17:07	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	430		5.0	3.0	0.86	ug/L		06/16/23 20:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	110		5.0	5.0	2.2	mg/L		06/20/23 19:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.6		1.5	1.0	0.50	mg/L		06/18/23 02:02	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: SHP-2016-3B-SPR23

Date Collected: 06/12/23 14:50
Date Received: 06/15/23 10:19

Lab Sample ID: 680-236378-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	19		0.50	0.50	0.20	mg/L		07/05/23 22:17	1
Sulfate	6.1		1.0	1.0	0.40	mg/L		07/05/23 22:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	39000		100	50	20	ug/L		06/16/23 17:10	1
Manganese	2800		10	5.0	1.3	ug/L		06/16/23 17:10	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	230		5.0	3.0	0.86	ug/L		06/16/23 20:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	120		5.0	5.0	2.2	mg/L		06/20/23 20:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		06/18/23 02:22	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236378-1

Client Sample ID: SHP-2016-4A-SPR23

Lab Sample ID: 680-236378-13

Date Collected: 06/13/23 13:50

Matrix: Water

Date Received: 06/15/23 10:19

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**3.9**		0.50	0.50	0.20	mg/L		07/05/23 22:29	1
Sulfate	**4.5**		1.0	1.0	0.40	mg/L		07/05/23 22:29	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 16:12	1
Manganese	**35**		10	5.0	1.3	ug/L		06/16/23 16:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/16/23 21:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**8.1**		5.0	5.0	2.2	mg/L		06/20/23 19:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.73**	**J**	1.5	1.0	0.50	mg/L		06/18/23 02:42	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-4B-SPR23
Lab Sample ID: 680-236378-14

Date Collected: 06/13/23 14:55
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	9.7		0.50	0.50	0.20	mg/L		07/05/23 23:33	1
Sulfate	5.6		1.0	1.0	0.40	mg/L		07/05/23 23:33	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	63000		100	50	20	ug/L		06/16/23 17:33	1
Manganese	2700		10	5.0	1.3	ug/L		06/16/23 17:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1200		5.0	3.0	0.86	ug/L		06/16/23 20:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	120		5.0	5.0	2.2	mg/L		06/20/23 19:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		06/24/23 07:53	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-786676/1011
Matrix: Water
Analysis Batch: 786676

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/03/23 15:07	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/03/23 15:07	1

Lab Sample ID: LCS 680-786676/12
Matrix: Water
Analysis Batch: 786676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.3		mg/L		103	87 - 112

Lab Sample ID: LCSD 680-786676/13
Matrix: Water
Analysis Batch: 786676

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.3		mg/L		103	87 - 112	0	15

Lab Sample ID: MB 680-786800/2
Matrix: Water
Analysis Batch: 786800

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/05/23 09:56	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/05/23 09:56	1

Lab Sample ID: LCS 680-786800/4
Matrix: Water
Analysis Batch: 786800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.1		mg/L		101	87 - 112

Lab Sample ID: LCSD 680-786800/5
Matrix: Water
Analysis Batch: 786800

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.2		mg/L		102	87 - 112	0	15

Lab Sample ID: LLCS 680-786800/3
Matrix: Water
Analysis Batch: 786800

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.516		mg/L		103	
Sulfate	1.00	1.11		mg/L		111	

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-236378-5 MS
Matrix: Water
Analysis Batch: 786800

Client Sample ID: PZ-12-02-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	50		10.0	59.4	4	mg/L		99	87 - 111
Sulfate	1.0	U	10.0	9.98	M	mg/L		100	87 - 112

Lab Sample ID: 680-236378-5 MSD
Matrix: Water
Analysis Batch: 786800

Client Sample ID: PZ-12-02-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	50		10.0	59.2	4	mg/L		97	87 - 111	0	15
Sulfate	1.0	U	10.0	8.84		mg/L		88	87 - 112	12	15

Lab Sample ID: MB 680-786801/33
Matrix: Water
Analysis Batch: 786801

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/05/23 16:35	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/05/23 16:35	1

Lab Sample ID: LCS 680-786801/34
Matrix: Water
Analysis Batch: 786801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.2	M	mg/L		102	87 - 112

Lab Sample ID: LCSD 680-786801/35
Matrix: Water
Analysis Batch: 786801

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.2	M	mg/L		102	87 - 112	1	15

Lab Sample ID: MB 680-787239/63
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/05/23 22:55	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/05/23 22:55	1

Lab Sample ID: LCS 680-787239/64
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.98		mg/L		100	87 - 111
Sulfate	10.0	9.91	M	mg/L		99	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-787239/65
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	9.97		mg/L		100	87 - 111	0	15
Sulfate			10.0	9.95		mg/L		99	87 - 112	0	15

Lab Sample ID: 680-236378-14 MS
Matrix: Water
Analysis Batch: 787239

Client Sample ID: SHP-2016-4B-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	9.7		10.0	19.7		mg/L		100	87 - 111
Sulfate	5.6		10.0	15.4	M	mg/L		98	87 - 112

Lab Sample ID: 680-236378-14 MSD
Matrix: Water
Analysis Batch: 787239

Client Sample ID: SHP-2016-4B-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.7		10.0	19.3		mg/L		96	87 - 111	2	15
Sulfate	5.6		10.0	15.0		mg/L		94	87 - 112	3	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-783910/1-A
Matrix: Water
Analysis Batch: 784099

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783910

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 16:41	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/16/23 16:41	1

Lab Sample ID: LCS 680-783910/2-A
Matrix: Water
Analysis Batch: 784099

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783910

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron			4990	5060		ug/L		101	87 - 115
Manganese			400	413		ug/L		103	90 - 114

Lab Sample ID: MB 680-783918/1-A
Matrix: Water
Analysis Batch: 784099

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783918

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/16/23 15:59	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/16/23 15:59	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-783918/2-A
Matrix: Water
Analysis Batch: 784099

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5240		ug/L		105	87 - 115
Manganese	400	423		ug/L		106	90 - 114

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-783903/1-A
Matrix: Water
Analysis Batch: 784090

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783903

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/16/23 19:13	1

Lab Sample ID: LCS 680-783903/2-A
Matrix: Water
Analysis Batch: 784090

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783903

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	105		ug/L		105	84 - 116

Lab Sample ID: MB 680-783916/1-A
Matrix: Water
Analysis Batch: 784090

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 783916

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/16/23 21:23	1

Lab Sample ID: LCS 680-783916/2-A
Matrix: Water
Analysis Batch: 784090

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 783916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	105		ug/L		105	84 - 116

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-784472/4
Matrix: Water
Analysis Batch: 784472

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/19/23 18:33	1

Lab Sample ID: LCS 680-784472/6
Matrix: Water
Analysis Batch: 784472

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	250	246		mg/L		99	90 - 112

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-784472/31
Matrix: Water
Analysis Batch: 784472

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	248		mg/L		99	90 - 112	1	30

Lab Sample ID: 680-236378-3 DU
Matrix: Water
Analysis Batch: 784472

Client Sample ID: EPA-PZ-2012-7A-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	24			21.7		mg/L				11	30

Lab Sample ID: MB 680-784477/4
Matrix: Water
Analysis Batch: 784477

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/20/23 00:06	1

Lab Sample ID: LCS 680-784477/6
Matrix: Water
Analysis Batch: 784477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	244		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-784477/31
Matrix: Water
Analysis Batch: 784477

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	247		mg/L		99	90 - 112	1	30

Lab Sample ID: MB 680-784705/4
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/20/23 18:35	1

Lab Sample ID: LCS 680-784705/6
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	246		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-784705/31
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	252		mg/L		101	90 - 112	3	30

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: 680-236378-8 DU
Matrix: Water
Analysis Batch: 784705

Client Sample ID: PZ-12-05-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	40			39.6		mg/L				0.9	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-784470/2
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/17/23 18:49	1

Lab Sample ID: LCS 680-784470/3
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	20.1		mg/L		101	80 - 120		

Lab Sample ID: LCSD 680-784470/4
Matrix: Water
Analysis Batch: 784470

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	20.6		mg/L		103	80 - 120	2	20

Lab Sample ID: MB 680-785368/2
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/24/23 05:29	1

Lab Sample ID: LCS 680-785368/3
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.1		mg/L		95	80 - 120		

Lab Sample ID: LCSD 680-785368/4
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.2		mg/L		96	80 - 120	1	20

HPLC/IC

Analysis Batch: 786676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Total/NA	Water	9056A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Total/NA	Water	9056A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Total/NA	Water	9056A	
680-236378-4	PZ-12-01-SPR23	Total/NA	Water	9056A	
MB 680-786676/1011	Method Blank	Total/NA	Water	9056A	
LCS 680-786676/12	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-786676/13	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 786800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-5	PZ-12-02-SPR23	Total/NA	Water	9056A	
680-236378-6	PZ-12-03-SPR23	Total/NA	Water	9056A	
680-236378-7	PZ-12-04-SPR23	Total/NA	Water	9056A	
MB 680-786800/2	Method Blank	Total/NA	Water	9056A	
LCS 680-786800/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-786800/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 680-786800/3	Lab Control Sample	Total/NA	Water	9056A	
680-236378-5 MS	PZ-12-02-SPR23	Total/NA	Water	9056A	
680-236378-5 MSD	PZ-12-02-SPR23	Total/NA	Water	9056A	

Analysis Batch: 786801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-8	PZ-12-05-SPR23	Total/NA	Water	9056A	
680-236378-9	SHM-93-22B-SPR23	Total/NA	Water	9056A	
680-236378-10	SHP-2016-2A-SPR23	Total/NA	Water	9056A	
680-236378-11	SHP-2016-2B-SPR23	Total/NA	Water	9056A	
680-236378-12	SHP-2016-3B-SPR23	Total/NA	Water	9056A	
680-236378-13	SHP-2016-4A-SPR23	Total/NA	Water	9056A	
MB 680-786801/33	Method Blank	Total/NA	Water	9056A	
LCS 680-786801/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-786801/35	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 787239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-14	SHP-2016-4B-SPR23	Total/NA	Water	9056A	
MB 680-787239/63	Method Blank	Total/NA	Water	9056A	
LCS 680-787239/64	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787239/65	Lab Control Sample Dup	Total/NA	Water	9056A	
680-236378-14 MS	SHP-2016-4B-SPR23	Total/NA	Water	9056A	
680-236378-14 MSD	SHP-2016-4B-SPR23	Total/NA	Water	9056A	

Metals

Prep Batch: 783903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	3005A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	3005A	
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	3005A	
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	3005A	
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 783903 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	3005A	
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	3005A	
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	3005A	
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	3005A	
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	3005A	
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	3005A	
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	3005A	
MB 680-783903/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783903/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 783910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	3005A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	3005A	
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	3005A	
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	3005A	
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	3005A	
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	3005A	
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	3005A	
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	3005A	
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	3005A	
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	3005A	
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	3005A	
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	3005A	
MB 680-783910/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783910/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 783916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	3005A	
MB 680-783916/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783916/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 783918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	3005A	
MB 680-783918/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-783918/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 784090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6020A	783903
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	6020A	783903
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	6020A	783903
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	6020A	783903
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	6020A	783903
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	6020A	783903
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	6020A	783903
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	6020A	783903
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	6020A	783903

Metals (Continued)

Analysis Batch: 784090 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	6020A	783903
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	6020A	783903
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	6020A	783903
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	6020A	783916
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	6020A	783903
MB 680-783903/1-A	Method Blank	Total Recoverable	Water	6020A	783903
MB 680-783916/1-A	Method Blank	Total Recoverable	Water	6020A	783916
LCS 680-783903/2-A	Lab Control Sample	Total Recoverable	Water	6020A	783903
LCS 680-783916/2-A	Lab Control Sample	Total Recoverable	Water	6020A	783916

Analysis Batch: 784099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6010C	783910
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	6010C	783910
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	6010C	783910
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	6010C	783910
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	6010C	783910
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	6010C	783910
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	6010C	783910
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	6010C	783910
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	6010C	783910
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	6010C	783910
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	6010C	783910
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	6010C	783910
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	6010C	783918
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	6010C	783910
MB 680-783910/1-A	Method Blank	Total Recoverable	Water	6010C	783910
MB 680-783918/1-A	Method Blank	Total Recoverable	Water	6010C	783918
LCS 680-783910/2-A	Lab Control Sample	Total Recoverable	Water	6010C	783910
LCS 680-783918/2-A	Lab Control Sample	Total Recoverable	Water	6010C	783918

General Chemistry

Analysis Batch: 784470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	9060A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	9060A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	9060A	
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	9060A	
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	9060A	
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	9060A	
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	9060A	
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	9060A	
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	9060A	
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	9060A	
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	9060A	
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	9060A	
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	9060A	
MB 680-784470/2	Method Blank	Dissolved	Water	9060A	
LCS 680-784470/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-784470/4	Lab Control Sample Dup	Dissolved	Water	9060A	

General Chemistry

Analysis Batch: 784472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Total/NA	Water	2320B-2011	
680-236378-2	EPA-PZ-2012-2B-SPR23	Total/NA	Water	2320B-2011	
680-236378-3	EPA-PZ-2012-7A-SPR23	Total/NA	Water	2320B-2011	
MB 680-784472/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784472/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784472/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236378-3 DU	EPA-PZ-2012-7A-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 784477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-4	PZ-12-01-SPR23	Total/NA	Water	2320B-2011	
680-236378-5	PZ-12-02-SPR23	Total/NA	Water	2320B-2011	
680-236378-6	PZ-12-03-SPR23	Total/NA	Water	2320B-2011	
680-236378-7	PZ-12-04-SPR23	Total/NA	Water	2320B-2011	
MB 680-784477/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784477/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784477/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 784705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-8	PZ-12-05-SPR23	Total/NA	Water	2320B-2011	
680-236378-9	SHM-93-22B-SPR23	Total/NA	Water	2320B-2011	
680-236378-10	SHP-2016-2A-SPR23	Total/NA	Water	2320B-2011	
680-236378-11	SHP-2016-2B-SPR23	Total/NA	Water	2320B-2011	
680-236378-12	SHP-2016-3B-SPR23	Total/NA	Water	2320B-2011	
680-236378-13	SHP-2016-4A-SPR23	Total/NA	Water	2320B-2011	
680-236378-14	SHP-2016-4B-SPR23	Total/NA	Water	2320B-2011	
MB 680-784705/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784705/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784705/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236378-8 DU	PZ-12-05-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 785368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	9060A	
MB 680-785368/2	Method Blank	Dissolved	Water	9060A	
LCS 680-785368/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-785368/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-2A-SPR23
Lab Sample ID: 680-236378-1
Date Collected: 06/12/23 15:10
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786676	07/03/23 19:23	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:41	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 21:11	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784472	06/19/23 21:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 22:11	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-2B-SPR23
Lab Sample ID: 680-236378-2
Date Collected: 06/13/23 14:36
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786676	07/03/23 19:35	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:38	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 21:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784472	06/19/23 21:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 22:30	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-7A-SPR23
Lab Sample ID: 680-236378-3
Date Collected: 06/13/23 10:00
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786676	07/03/23 19:48	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:20	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:39	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-7A-SPR23
Lab Sample ID: 680-236378-3
Date Collected: 06/13/23 10:00
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784472	06/19/23 20:53	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 22:49	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-01-SPR23
Lab Sample ID: 680-236378-4
Date Collected: 06/12/23 15:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786676	07/03/23 20:01	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:25	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:55	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784477	06/20/23 02:53	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/17/23 23:43	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-02-SPR23
Lab Sample ID: 680-236378-5
Date Collected: 06/13/23 09:10
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786800	07/05/23 13:50	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 16:54	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:14	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784477	06/20/23 03:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 00:04	JU	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-03-SPR23
Lab Sample ID: 680-236378-6
Date Collected: 06/13/23 10:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786800	07/05/23 14:28	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:23	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784477	06/20/23 03:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 00:24	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-04-SPR23
Lab Sample ID: 680-236378-7
Date Collected: 06/13/23 12:20
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786800	07/05/23 14:41	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:18	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:35	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784477	06/20/23 02:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 00:44	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-05-SPR23
Lab Sample ID: 680-236378-8
Date Collected: 06/13/23 14:25
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 21:26	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:36	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 21:03	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-05-SPR23
Lab Sample ID: 680-236378-8
Date Collected: 06/13/23 14:25
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:00	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 01:04	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-93-22B-SPR23
Lab Sample ID: 680-236378-9
Date Collected: 06/12/23 15:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 21:39	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:15	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:30	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 01:23	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-2A-SPR23
Lab Sample ID: 680-236378-10
Date Collected: 06/13/23 11:20
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 21:51	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 01:43	JU	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-2B-SPR23
Lab Sample ID: 680-236378-11
Date Collected: 06/13/23 12:20
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 22:04	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:07	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:18	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 02:02	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-3B-SPR23
Lab Sample ID: 680-236378-12
Date Collected: 06/12/23 14:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 22:17	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:10	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:22	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 20:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 02:22	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-4A-SPR23
Lab Sample ID: 680-236378-13
Date Collected: 06/13/23 13:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	786801	07/05/23 22:29	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783918	06/16/23 08:13	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 16:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783916	06/16/23 08:13	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 21:52	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-4A-SPR23
Lab Sample ID: 680-236378-13
Date Collected: 06/13/23 13:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:43	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	784470	06/18/23 02:42	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-4B-SPR23
Lab Sample ID: 680-236378-14
Date Collected: 06/13/23 14:55
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787239	07/05/23 23:33	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	783910	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6010C		1			784099	06/16/23 17:33	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	783903	06/16/23 07:31	RR	EET SAV
Dissolved	Analysis	6020A		1			784090	06/16/23 20:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 19:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 07:53	JU	EET SAV
	Instrument ID: TOC8									

Laboratory References:
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number. DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code:	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
2	EPA-PZ-2012-1A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-1A	N1	23 70	28.70	1	
3	EPA-PZ-2012-1B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-1B	N1	73 56	78 56	1	
4	EPA-PZ-2012-2A-SPR23	WG	6/12/23	15:10	SG	X	X	X	X	X	EPA-PZ-2012-2A	N1	18 14	23 14	1	
5	EPA-PZ-2012-2B-SPR23	WG	6/13/23	14.30	SG	X	X	X	X	X	EPA-PZ-2012-2B	N1	73 16	78 16	1	
6	EPA-PZ-2012-3A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3A	N1	19 09	24 09	1	
7	EPA-PZ-2012-3B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3B	N1	68 70	73 70	1	
8	EPA-PZ-2012-4A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4A	N1	19 56	24 56	1	
9	EPA-PZ-2012-4B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	N1	79 50	84 50	1	
1	EPA-DUP01-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	FD1	79 50	84 50	1	
10	EPA-PZ-2012-5A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5A	N1	17 95	22 95	1	
11	EPA-PZ-2012-5B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5B	N1	68 46	73 46	1	
12	EPA-PZ-2012-6A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6A	N1	24 19	29 19	1	
13	EPA-PZ-2012-6B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6B	N1	74 23	79 23	1	
14	EPA-PZ-2012-7A-SPR23	WG	6/13/23	10.00	GS	X	X	X	X	X	EPA-PZ-2012-7A	N1	23 87	28 87	1	
15	EPA-PZ-2012-7B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-7B	N1	58 82	63 82	1	
16	EW-01-SPR23	WG				X	X	X	X	X	EW-01	N1	60 00	85 00	1	
17	EW-04-SPR23	WG				X	X	X	X	X	EW-04	N1	70 00	95 00	1	
18	PZ-12-01-SPR23	WG	6/12/23	15:50	FG	X	X	X	X	X	PZ-12-01	N1	24 00	34 00	1	
19	PZ-12-02-SPR23	WG	6/13/23	9:10	FG	X	X	X	X	X	PZ-12-02	N1	24 00	34 00	1	
20	PZ-12-03-SPR23	WG	6/13/23	10 50	FG	X	X	X	X	X	PZ-12-03	N1	24 00	34 00	1	
21	PZ-12-04-SPR23	WG	6/13/23	12 20	FG	X	X	X	X	X	PZ-12-04	N1	24 00	34 00	1	

680-236378 Chain of Custody

Relinquished by (Signature) Heather Levesque
Date 6/13/2023
Time 16 45
Received by (Signature)

6/14/23
1639
Received by Laboratory (Signature) C.M.
Date 6/15/23
Time 1018

7/7/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
22	PZ-12-05-SPR23	WG	6/13/23	14'25	FG	X	X	X	X	X	PZ-12-05	N1	26 00	36 00	1	
23	PZ-12-06-SPR23	WG				X	X	X	X	X	PZ-12-06	N1	25 00	35 00	1	
30	SHL-DUP02-SPR23	WG				X	X	X	X	X	PZ-12-06	FD1	25 00	35 00	1	
24	PZ-12-07-SPR23	WG				X	X	X	X	X	PZ-12-07	N1	20 00	30 00	1	
25	PZ-12-08-SPR23	WG				X	X	X	X	X	PZ-12-08	N1	22 00	32 00	1	
26	PZ-12-09-SPR23	WG				X	X	X	X	X	PZ-12-09	N1	20 00	30 00	1	
28	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	N1	20 00	30 00	1	
27	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	MS1	20 00	30 00	1	
29	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	SD1	20 00	30 00	1	
31	SHL-10-SPR23	WG				X	X	X	X	X	SHL-10	N1	24 00	39 00	1	
32	SHL-11-SPR23	WG				X	X	X	X	X	SHL-11	N1	12 00	27 00	1	
33	SHL-19-SPR23	WG				X	X	X	X	X	SHL-19	N1	20 00	30 00	1	
34	SHL-20-SPR23	WG				X	X	X	X	X	SHL-20	N1	39 00	49 00	1	
36	SHL-DUP03-SPR23	WG				X	X	X	X	X	SHL-20	FD1	39 00	49 00	1	
35	SHL-4-SPR23	WG				X	X	X	X	X	SHL-4	N1	3 00	13 00	1	
38	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	N1	32 00	34 00	1	
37	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	MS1	32 00	34 00	1	
39	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	SD1	32 00	34 00	1	
40	SHM-05-41B-SPR23	WG				X	X	X	X	X	SHM-05-41B	N1	62 00	64 00	1	
42	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	N1	88 00	93 00	1	
41	SHM-05-41C SPR23	WG				X	X	X	X	X	SHM-05-41C	MS1	88 00	93 00	1	

Relinquished by (Signature)
Date 6/13/2023
Time 16 45
Received by (Signature)

6/14/23
630
Received by Laboratory (Signature) C.M
Date 6/15/23
Time

3.7/3.5 4.0/3.8

7/7/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number. DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic HNO3 pH < 2, Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init												Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
43	SHM-05-41C-SPR23	WG				X	X	X	X	X							SHM-05-41C	SD1	88 00	93 00	1	
44	SHM-07-05X-SPR23	WG				X	X	X	X	X							SHM-07-05X	N1	55 00	65 00	1	
45	SHM-11-02-SPR23	WG				X	X	X	X	X							SHM-11-02	N1	52 00	66 00	1	
46	SHM-11-06-SPR23	WG				X	X	X	X	X							SHM-11-06	N1	25 00	35 00	1	
47	SHM-13-03-SPR23	WG				X	X	X	X	X							SHM-13-03	N1	42 00	52 00	1	
48	SHM-13-04-SPR23	WG				X	X	X	X	X							SHM-13-04	N1	20 00	30 00	1	
49	SHM-13-06-SPR23	WG				X	X	X	X	X							SHM-13-06	N1	36 00	46 00	1	
50	SHM-13-07-SPR23	WG				X	X	X	X	X							SHM-13-07	N1	27 00	37 00	1	
51	SHM-13-08-SPR23	WG				X	X	X	X	X							SHM-13-08	N1	55 00	65 00	1	
52	SHM-93-22B-SPR23	WG	6/12/23	15.50	GS	X	X	X	X	X							SHM-93-22B	N1	82 30	92 30	1	
53	SHM-96-5B-SPR23	WG				X	X	X	X	X							SHM-96-5B	N1	80 00	90 00	1	
54	SHM-DUP04-SPR23	WG				X	X	X	X	X							SHM-96-5B	FD1	80 00	90.00	1	
55	SHP-01-36X-SPR23	WG				X	X	X	X	X							SHP-01-36X	N1	3 00	8 00	1	
56	SHP-01-37X-SPR23	WG				X	X	X	X	X							SHP-01-37X	N1	1 00	6 00	1	
57	SHP-01-38A-SPR23	WG				X	X	X	X	X							SHP-01-38A	N1	1 50	6 50	1	
73	SHP-DUP05-SPR23	WG				X	X	X	X	X							SHP-01-38A	FD1	1 50	6 50	1	
58	SHP-2016-06A-SPR23	WG				X	X	X	X	X							SHP-2016-06A	N1	81 00	86 00	1	
59	SHP-2016-06B-SPR23	WG				X	X	X	X	X							SHP-2016-06B	N1	102 00	112 00	1	
60	SHP-2016-06C-SPR23	WG				X	X	X	X	X							SHP-2016-06C	N1	123 00	133 00	1	
61	SHP-2016-07A-SPR23	WG				X	X	X	X	X							SHP-2016-07A	N1	22 00	32 00	1	
62	SHP-2016-07B-SPR23	WG				X	X	X	X	X							SHP-2016-07B	N1	70 00	80 00	1	

Relinquished by (Signature) Grace Burke
Date 6/13/2023
Time 10:45
Received by (Signature)

6/14/23
1630
Received by Laboratory (Signature)
Date 6/15/23
Time

37/35 40/38

7/7/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number: DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment.

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2· Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

	Sample ID	Matrix	Date	Time	Samp Init	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023					46	9	9	5	3						
63	SHP-2016-1A-SPR23	WG				X	X	X	X	X	SHP-2016-1A	N1	13 00	23 00	1	
64	SHP-2016-1B-SPR23	WG				X	X	X	X	X	SHP-2016-1B	N1	75 00	85 00	1	
65	SHP-2016-2A-SPR23	WG	6/13/23	11:20	GS	X	X	X	X	X	SHP-2016-2A	N1	20 00	25 00	1	
66	SHP-2016-2B-SPR23	WG	6/13/23	12 20	GS	X	X	X	X	X	SHP-2016-2B	N1	80 00	85 00	1	
67	SHP-2016-3A-SPR23	WG				X	X	X	X	X	SHP-2016-3A	N1	20 00	25 00	1	
68	SHP-2016-3B-SPR23	WG	6/12/23	14:50	GS	X	X	X	X	X	SHP-2016-3B	N1	80 00	85 00	1	
69	SHP-2016-4A-SPR23	WG	6/13/23	13:50	GS	X	X	X	X	X	SHP-2016-4A	N1	25 00	30 00	1	
70	SHP-2016-4B-SPR23	WG	6/13/23	14.55	GS	X	X	X	X	X	SHP-2016-4B	N1	85 00	90 00	1	
71	SHP-2016-5A-SPR23	WG				X	X	X	X	X	SHP-2016-5A	N1	25 00	30 00	1	
72	SHP-2016-5B-SPR23	WG				X	X	X	X	X	SHP-2016-5B	N1	85 00	90 00	1	
74	SHP-DUP06-SPR23	WG				X	X	X	X	X	SHP-2016-5A	FD1	25 00	30 00	1	
75																
76																
77																
78																
79																

Turnaround Time Standard

Relinquished by (Signature) [signature]
Date 6/13/2023
Time 1645
Received by (Signature) [signature]

[signature] 6/14/23
1639

Received by Laboratory (Signature) C [signature] 37/35 4.0/38
Date 6/15/23
Time [illegible]

7/7/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236378-1

Login Number: 236378
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

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JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236378-2

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Qualifiers

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236378-1	EPA-PZ-2012-2A-SPR23	Water	06/12/23 15:10	06/15/23 10:19
680-236378-2	EPA-PZ-2012-2B-SPR23	Water	06/13/23 14:36	06/15/23 10:19
680-236378-3	EPA-PZ-2012-7A-SPR23	Water	06/13/23 10:00	06/15/23 10:19
680-236378-4	PZ-12-01-SPR23	Water	06/12/23 15:50	06/15/23 10:19
680-236378-5	PZ-12-02-SPR23	Water	06/13/23 09:10	06/15/23 10:19
680-236378-6	PZ-12-03-SPR23	Water	06/13/23 10:50	06/15/23 10:19
680-236378-7	PZ-12-04-SPR23	Water	06/13/23 12:20	06/15/23 10:19
680-236378-8	PZ-12-05-SPR23	Water	06/13/23 14:25	06/15/23 10:19
680-236378-9	SHM-93-22B-SPR23	Water	06/12/23 15:50	06/15/23 10:19
680-236378-10	SHP-2016-2A-SPR23	Water	06/13/23 11:20	06/15/23 10:19
680-236378-11	SHP-2016-2B-SPR23	Water	06/13/23 12:20	06/15/23 10:19
680-236378-12	SHP-2016-3B-SPR23	Water	06/12/23 14:50	06/15/23 10:19
680-236378-13	SHP-2016-4A-SPR23	Water	06/13/23 13:50	06/15/23 10:19
680-236378-14	SHP-2016-4B-SPR23	Water	06/13/23 14:55	06/15/23 10:19

Job ID: 680-236378-2

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236378-2

Receipt

The samples were received on 6/15/2023 10:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.5°C and 3.8°C

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-2A-SPR23
Lab Sample ID: 680-236378-1

Date Collected: 06/12/23 15:10
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		08/17/23 15:12	1
Manganese	**1.5**	**J**	10	5.0	1.3	ug/L		08/17/23 15:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		08/14/23 15:38	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-2B-SPR23
Lab Sample ID: 680-236378-2
Date Collected: 06/13/23 14:36
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	9300		100	50	20	ug/L		08/17/23 15:19	1
Manganese	4900		10	5.0	1.3	ug/L		08/17/23 15:19	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.6	J	5.0	3.0	0.86	ug/L		08/14/23 15:58	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-7A-SPR23
Lab Sample ID: 680-236378-3
Date Collected: 06/13/23 10:00
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		08/17/23 15:22	1
Manganese	**2.7**	**J**	10	5.0	1.3	ug/L		08/17/23 15:22	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		08/14/23 16:02	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-01-SPR23
Lab Sample ID: 680-236378-4

Date Collected: 06/12/23 15:50
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	63000		100	50	20	ug/L		08/17/23 15:33	1
Manganese	2800		10	5.0	1.3	ug/L		08/17/23 15:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	540	D	10	6.0	1.7	ug/L		08/15/23 10:04	2

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-02-SPR23
Lab Sample ID: 680-236378-5
Date Collected: 06/13/23 09:10
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	66000		100	50	20	ug/L		08/17/23 15:36	1
Manganese	1400		10	5.0	1.3	ug/L		08/17/23 15:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	270		5.0	3.0	0.86	ug/L		08/14/23 16:19	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-03-SPR23
Lab Sample ID: 680-236378-6

Date Collected: 06/13/23 10:50
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	44000		100	50	20	ug/L		08/17/23 15:38	1
Manganese	3700		10	5.0	1.3	ug/L		08/17/23 15:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	710	D	10	6.0	1.7	ug/L		08/15/23 10:08	2

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-04-SPR23
Lab Sample ID: 680-236378-7

Date Collected: 06/13/23 12:20
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	56000		100	50	20	ug/L		08/17/23 15:40	1
Manganese	1500		10	5.0	1.3	ug/L		08/17/23 15:40	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	730	D	10	6.0	1.7	ug/L		08/15/23 10:12	2

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-05-SPR23
Lab Sample ID: 680-236378-8
Date Collected: 06/13/23 14:25
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	380		100	50	20	ug/L		08/17/23 15:43	1
Manganese	180		10	5.0	1.3	ug/L		08/17/23 15:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		08/14/23 16:31	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-93-22B-SPR23
Lab Sample ID: 680-236378-9
Date Collected: 06/12/23 15:50
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	5000		100	50	20	ug/L		08/17/23 15:45	1
Manganese	9400		10	5.0	1.3	ug/L		08/17/23 15:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	100		5.0	3.0	0.86	ug/L		08/14/23 16:35	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-2A-SPR23
Lab Sample ID: 680-236378-10
Date Collected: 06/13/23 11:20
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		08/17/23 15:48	1
Manganese	**130**		10	5.0	1.3	ug/L		08/17/23 15:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.2**	**J**	5.0	3.0	0.86	ug/L		08/14/23 16:39	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-2B-SPR23
Lab Sample ID: 680-236378-11

Date Collected: 06/13/23 12:20
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	33000		100	50	20	ug/L		08/17/23 15:50	1
Manganese	2300		10	5.0	1.3	ug/L		08/17/23 15:50	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	420		5.0	3.0	0.86	ug/L		08/14/23 16:43	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-3B-SPR23
Lab Sample ID: 680-236378-12

Date Collected: 06/12/23 14:50
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	40000		100	50	20	ug/L		08/17/23 15:52	1
Manganese	2900		10	5.0	1.3	ug/L		08/17/23 15:52	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	220		5.0	3.0	0.86	ug/L		08/14/23 16:47	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-4A-SPR23
Lab Sample ID: 680-236378-13
Date Collected: 06/13/23 13:50
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		08/17/23 15:59	1
Manganese	**40**		10	5.0	1.3	ug/L		08/17/23 15:59	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		08/14/23 16:51	1

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-4B-SPR23
Lab Sample ID: 680-236378-14
Date Collected: 06/13/23 14:55
Matrix: Water
Date Received: 06/15/23 10:19

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	36000		100	50	20	ug/L		08/17/23 16:02	1
Manganese	2800		10	5.0	1.3	ug/L		08/17/23 16:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1100	D	20	12	3.4	ug/L		08/15/23 10:16	4

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-793008/1-A
Matrix: Water
Analysis Batch: 793938

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 793008

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	44.5	J	100	50	20	ug/L		08/17/23 15:07	1
Manganese	5.0	U	10	5.0	1.3	ug/L		08/17/23 15:07	1

Lab Sample ID: LCS 680-793008/2-A
Matrix: Water
Analysis Batch: 793938

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 793008

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	4980		ug/L		100	87 - 115
Manganese	400	412		ug/L		103	90 - 114

Lab Sample ID: 680-236378-1 MS
Matrix: Water
Analysis Batch: 793938

Client Sample ID: EPA-PZ-2012-2A-SPR23
Prep Type: Dissolved
Prep Batch: 793008

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	50	U	4990	5080		ug/L		102	87 - 115
Manganese	1.5	J	400	421		ug/L		105	90 - 114

Lab Sample ID: 680-236378-1 MSD
Matrix: Water
Analysis Batch: 793938

Client Sample ID: EPA-PZ-2012-2A-SPR23
Prep Type: Dissolved
Prep Batch: 793008

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	50	U	4990	4930		ug/L		99	87 - 115	3	20
Manganese	1.5	J	400	413		ug/L		103	90 - 114	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-793011/1-A
Matrix: Water
Analysis Batch: 793491

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 793011

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		08/14/23 15:30	1

Lab Sample ID: LCS 680-793011/2-A
Matrix: Water
Analysis Batch: 793491

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 793011

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	101		ug/L		101	84 - 116

Lab Sample ID: 680-236378-1 MS
Matrix: Water
Analysis Batch: 793491

Client Sample ID: EPA-PZ-2012-2A-SPR23
Prep Type: Dissolved
Prep Batch: 793011

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.0	U	100	103		ug/L		103	84 - 116

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-236378-1 MSD
Client Sample ID: EPA-PZ-2012-2A-SPR23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 793491
Prep Batch: 793011

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.0	U	100	103		ug/L		103	84 - 116	1	20

Metals

Prep Batch: 793008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	3005A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	3005A	
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	3005A	
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	3005A	
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	3005A	
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	3005A	
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	3005A	
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	3005A	
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	3005A	
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	3005A	
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	3005A	
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	3005A	
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	3005A	
MB 680-793008/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-793008/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236378-1 MS	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-1 MSD	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	

Prep Batch: 793011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	3005A	
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	3005A	
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	3005A	
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	3005A	
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	3005A	
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	3005A	
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	3005A	
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	3005A	
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	3005A	
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	3005A	
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	3005A	
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	3005A	
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	3005A	
MB 680-793011/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-793011/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236378-1 MS	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	
680-236378-1 MSD	EPA-PZ-2012-2A-SPR23	Dissolved	Water	3005A	

Analysis Batch: 793491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6020A	793011
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	6020A	793011
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	6020A	793011
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	6020A	793011
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	6020A	793011
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	6020A	793011
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	6020A	793011
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	6020A	793011
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	6020A	793011

Metals (Continued)

Analysis Batch: 793491 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	6020A	793011
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	6020A	793011
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	6020A	793011
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	6020A	793011
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	6020A	793011
MB 680-793011/1-A	Method Blank	Total Recoverable	Water	6020A	793011
LCS 680-793011/2-A	Lab Control Sample	Total Recoverable	Water	6020A	793011
680-236378-1 MS	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6020A	793011
680-236378-1 MSD	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6020A	793011

Analysis Batch: 793938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236378-1	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6010C	793008
680-236378-2	EPA-PZ-2012-2B-SPR23	Dissolved	Water	6010C	793008
680-236378-3	EPA-PZ-2012-7A-SPR23	Dissolved	Water	6010C	793008
680-236378-4	PZ-12-01-SPR23	Dissolved	Water	6010C	793008
680-236378-5	PZ-12-02-SPR23	Dissolved	Water	6010C	793008
680-236378-6	PZ-12-03-SPR23	Dissolved	Water	6010C	793008
680-236378-7	PZ-12-04-SPR23	Dissolved	Water	6010C	793008
680-236378-8	PZ-12-05-SPR23	Dissolved	Water	6010C	793008
680-236378-9	SHM-93-22B-SPR23	Dissolved	Water	6010C	793008
680-236378-10	SHP-2016-2A-SPR23	Dissolved	Water	6010C	793008
680-236378-11	SHP-2016-2B-SPR23	Dissolved	Water	6010C	793008
680-236378-12	SHP-2016-3B-SPR23	Dissolved	Water	6010C	793008
680-236378-13	SHP-2016-4A-SPR23	Dissolved	Water	6010C	793008
680-236378-14	SHP-2016-4B-SPR23	Dissolved	Water	6010C	793008
MB 680-793008/1-A	Method Blank	Total Recoverable	Water	6010C	793008
LCS 680-793008/2-A	Lab Control Sample	Total Recoverable	Water	6010C	793008
680-236378-1 MS	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6010C	793008
680-236378-1 MSD	EPA-PZ-2012-2A-SPR23	Dissolved	Water	6010C	793008

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-2A-SPR23
Lab Sample ID: 680-236378-1
Date Collected: 06/12/23 15:10
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:12	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 15:38	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: EPA-PZ-2012-2B-SPR23
Lab Sample ID: 680-236378-2
Date Collected: 06/13/23 14:36
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:19	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 15:58	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: EPA-PZ-2012-7A-SPR23
Lab Sample ID: 680-236378-3
Date Collected: 06/13/23 10:00
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:22	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:02	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: PZ-12-01-SPR23
Lab Sample ID: 680-236378-4
Date Collected: 06/12/23 15:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:33	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		2			793491	08/15/23 10:04	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: PZ-12-02-SPR23
Lab Sample ID: 680-236378-5

Date Collected: 06/13/23 09:10
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:36	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:19	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: PZ-12-03-SPR23
Lab Sample ID: 680-236378-6

Date Collected: 06/13/23 10:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:38	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		2			793491	08/15/23 10:08	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: PZ-12-04-SPR23
Lab Sample ID: 680-236378-7

Date Collected: 06/13/23 12:20
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:40	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		2			793491	08/15/23 10:12	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: PZ-12-05-SPR23
Lab Sample ID: 680-236378-8

Date Collected: 06/13/23 14:25
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:43	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:31	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-93-22B-SPR23

Lab Sample ID: 680-236378-9

Date Collected: 06/12/23 15:50

Matrix: Water

Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:45	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:35	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHP-2016-2A-SPR23

Lab Sample ID: 680-236378-10

Date Collected: 06/13/23 11:20

Matrix: Water

Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:48	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:39	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHP-2016-2B-SPR23

Lab Sample ID: 680-236378-11

Date Collected: 06/13/23 12:20

Matrix: Water

Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:50	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:43	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHP-2016-3B-SPR23

Lab Sample ID: 680-236378-12

Date Collected: 06/12/23 14:50

Matrix: Water

Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:52	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:47	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-4A-SPR23
Lab Sample ID: 680-236378-13
Date Collected: 06/13/23 13:50
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 15:59	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		1			793491	08/14/23 16:51	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHP-2016-4B-SPR23
Lab Sample ID: 680-236378-14
Date Collected: 06/13/23 14:55
Matrix: Water
Date Received: 06/15/23 10:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	793008	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6010C		1			793938	08/17/23 16:02	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	793011	08/11/23 13:04	RR	EET SAV
Dissolved	Analysis	6020A		4			793491	08/15/23 10:16	BWR	EET SAV
	Instrument ID: ICPMSC									

Laboratory References:
EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236378-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number. DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code:	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
2	EPA-PZ-2012-1A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-1A	N1	23 70	28.70	1	
3	EPA-PZ-2012-1B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-1B	N1	73 56	78 56	1	
4	EPA-PZ-2012-2A-SPR23	WG	6/12/23	15:10	SG	X	X	X	X	X	EPA-PZ-2012-2A	N1	18 14	23 14	1	
5	EPA-PZ-2012-2B-SPR23	WG	6/13/23	14.30	SG	X	X	X	X	X	EPA-PZ-2012-2B	N1	73 16	78 16	1	
6	EPA-PZ-2012-3A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3A	N1	19 09	24 09	1	
7	EPA-PZ-2012-3B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-3B	N1	68 70	73 70	1	
8	EPA-PZ-2012-4A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4A	N1	19 56	24 56	1	
9	EPA-PZ-2012-4B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	N1	79 50	84 50	1	
1	EPA-DUP01-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-4B	FD1	79 50	84 50	1	
10	EPA-PZ-2012-5A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5A	N1	17 95	22 95	1	
11	EPA-PZ-2012-5B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-5B	N1	68 46	73 46	1	
12	EPA-PZ-2012-6A-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6A	N1	24 19	29 19	1	
13	EPA-PZ-2012-6B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-6B	N1	74 23	79 23	1	
14	EPA-PZ-2012-7A-SPR23	WG	6/13/23	10.00	GS	X	X	X	X	X	EPA-PZ-2012-7A	N1	23 87	28 87	1	
15	EPA-PZ-2012-7B-SPR23	WG				X	X	X	X	X	EPA-PZ-2012-7B	N1	58 82	63 82	1	
16	EW-01-SPR23	WG				X	X	X	X	X	EW-01	N1	60 00	85 00	1	
17	EW-04-SPR23	WG				X	X	X	X	X	EW-04	N1	70 00	95 00	1	
18	PZ-12-01-SPR23	WG	6/12/23	15:50	FG	X	X	X	X	X	PZ-12-01	N1	24 00	34 00	1	
19	PZ-12-02-SPR23	WG	6/13/23	9:10	FG	X	X	X	X	X	PZ-12-02	N1	24 00	34 00	1	
20	PZ-12-03-SPR23	WG	6/13/23	10 50	FG	X	X	X	X	X	PZ-12-03	N1	24 00	34 00	1	
21	PZ-12-04-SPR23	WG	6/13/23	12 20	FG	X	X	X	X	X	PZ-12-04	N1	24 00	34 00	1	

680-236378 Chain of Custody

Relinquished by (Signature) Terrance Hatcher
Date 6/13/2023
Time 16 45
Received by (Signature)

6/14/23
1639
Received by Laboratory (Signature) C.M.
Date 6/15/23
Time 1018

8/17/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Analytical Test Method

Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
22	PZ-12-05-SPR23	WG	6/13/23	14'25	FG	X	X	X	X	X	PZ-12-05	N1	26 00	36 00	1	
23	PZ-12-06-SPR23	WG				X	X	X	X	X	PZ-12-06	N1	25 00	35 00	1	
30	SHL-DUP02-SPR23	WG				X	X	X	X	X	PZ-12-06	FD1	25 00	35 00	1	
24	PZ-12-07-SPR23	WG				X	X	X	X	X	PZ-12-07	N1	20 00	30 00	1	
25	PZ-12-08-SPR23	WG				X	X	X	X	X	PZ-12-08	N1	22 00	32 00	1	
26	PZ-12-09-SPR23	WG				X	X	X	X	X	PZ-12-09	N1	20 00	30 00	1	
28	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	N1	20 00	30 00	1	
27	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	MS1	20 00	30 00	1	
29	PZ-12-10-SPR23	WG				X	X	X	X	X	PZ-12-10	SD1	20 00	30 00	1	
31	SHL-10-SPR23	WG				X	X	X	X	X	SHL-10	N1	24 00	39 00	1	
32	SHL-11-SPR23	WG				X	X	X	X	X	SHL-11	N1	12 00	27 00	1	
33	SHL-19-SPR23	WG				X	X	X	X	X	SHL-19	N1	20 00	30 00	1	
34	SHL-20-SPR23	WG				X	X	X	X	X	SHL-20	N1	39 00	49 00	1	
36	SHL-DUP03-SPR23	WG				X	X	X	X	X	SHL-20	FD1	39 00	49 00	1	
35	SHL-4-SPR23	WG				X	X	X	X	X	SHL-4	N1	3 00	13 00	1	
38	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	N1	32 00	34 00	1	
37	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	MS1	32 00	34 00	1	
39	SHM-05-40X-SPR23	WG				X	X	X	X	X	SHM-05-40X	SD1	32 00	34 00	1	
40	SHM-05-41B-SPR23	WG				X	X	X	X	X	SHM-05-41B	N1	62 00	64 00	1	
42	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	N1	88 00	93 00	1	
41	SHM-05-41C SPR23	WG				X	X	X	X	X	SHM-05-41C	MS1	88 00	93 00	1	

Relinquished by (Signature)
Date 6/13/2023
Time 16 45
Received by (Signature)

6/14/23
630
Received by Laboratory (Signature) C.M
Date 6/15/23
Time

3.7/3.5 4.0/3.8

8/17/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number. DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic HNO3 pH < 2, Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
43	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	SD1	88 00	93 00	1	
44	SHM-07-05X-SPR23	WG				X	X	X	X	X	SHM-07-05X	N1	55 00	65 00	1	
45	SHM-11-02-SPR23	WG				X	X	X	X	X	SHM-11-02	N1	52 00	66 00	1	
46	SHM-11-06-SPR23	WG				X	X	X	X	X	SHM-11-06	N1	25 00	35 00	1	
47	SHM-13-03-SPR23	WG				X	X	X	X	X	SHM-13-03	N1	42 00	52 00	1	
48	SHM-13-04-SPR23	WG				X	X	X	X	X	SHM-13-04	N1	20 00	30 00	1	
49	SHM-13-06-SPR23	WG				X	X	X	X	X	SHM-13-06	N1	36 00	46 00	1	
50	SHM-13-07-SPR23	WG				X	X	X	X	X	SHM-13-07	N1	27 00	37 00	1	
51	SHM-13-08-SPR23	WG				X	X	X	X	X	SHM-13-08	N1	55 00	65 00	1	
52	SHM-93-22B-SPR23	WG	6/12/23	15.50	GS	X	X	X	X	X	SHM-93-22B	N1	82 30	92 30	1	
53	SHM-96-5B-SPR23	WG				X	X	X	X	X	SHM-96-5B	N1	80 00	90 00	1	
54	SHM-DUP04-SPR23	WG				X	X	X	X	X	SHM-96-5B	FD1	80 00	90.00	1	
55	SHP-01-36X-SPR23	WG				X	X	X	X	X	SHP-01-36X	N1	3 00	8 00	1	
56	SHP-01-37X-SPR23	WG				X	X	X	X	X	SHP-01-37X	N1	1 00	6 00	1	
57	SHP-01-38A-SPR23	WG				X	X	X	X	X	SHP-01-38A	N1	1 50	6 50	1	
73	SHP-DUP05-SPR23	WG				X	X	X	X	X	SHP-01-38A	FD1	1 50	6 50	1	
58	SHP-2016-06A-SPR23	WG				X	X	X	X	X	SHP-2016-06A	N1	81 00	86 00	1	
59	SHP-2016-06B-SPR23	WG				X	X	X	X	X	SHP-2016-06B	N1	102 00	112 00	1	
60	SHP-2016-06C-SPR23	WG				X	X	X	X	X	SHP-2016-06C	N1	123 00	133 00	1	
61	SHP-2016-07A-SPR23	WG				X	X	X	X	X	SHP-2016-07A	N1	22 00	32 00	1	
62	SHP-2016-07B-SPR23	WG				X	X	X	X	X	SHP-2016-07B	N1	70 00	80 00	1	

Relinquished by (Signature) Grace Burke
Date 6/13/2023
Time 10:45
Received by (Signature)

6/14/23
1630
Received by Laboratory (Signature)
Date 6/15/23
Time

37/35 40/38

8/17/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number: DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
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SW9060A/FLDFLT (B) = DOC

Equipment.

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Boston #215

Analytical Test Method

| | | |

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236378-2

Login Number: 236378

List Source: Eurofins Savannah

List Number: 1

Creator: Munro, Caroline

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 7/12/2023 11:04:39 AM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236434-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
7/12/2023 11:04:39 AM

Authorized for release by
Heather Trotter, Project Manager
Heather.Trotter@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236434-1	EPA-PZ-2012-4A-SPR23	Water	06/14/23 14:50	06/16/23 10:08
680-236434-2	EPA-PZ-2012-4B-SPR23	Water	06/14/23 15:40	06/16/23 10:08
680-236434-3	EPA-DUP01-SPR23	Water	06/14/23 15:40	06/16/23 10:08
680-236434-4	EPA-PZ-2012-5A-SPR23	Water	06/14/23 10:30	06/16/23 10:08
680-236434-5	EPA-PZ-2012-5B-SPR23	Water	06/14/23 11:25	06/16/23 10:08
680-236434-6	PZ-12-06-SPR23	Water	06/13/23 15:45	06/16/23 10:08
680-236434-7	SHL-DUP02-SPR23	Water	06/13/23 15:45	06/16/23 10:08
680-236434-8	PZ-12-09-SPR23	Water	06/14/23 09:45	06/16/23 10:08
680-236434-9	PZ-12-10-SPR23	Water	06/14/23 10:40	06/16/23 10:08
680-236434-10	SHL-11-SPR23	Water	06/14/23 15:15	06/16/23 10:08
680-236434-11	SHM-05-41C-SPR23	Water	06/14/23 12:35	06/16/23 10:08
680-236434-12	SHM-96-5B-SPR23	Water	06/14/23 13:30	06/16/23 10:08
680-236434-13	SHM-DUP04-SPR23	Water	06/14/23 13:30	06/16/23 10:08
680-236434-14	SHP-01-38A-SPR23	Water	06/14/23 14:00	06/16/23 10:08
680-236434-15	SHP-DUP05-SPR23	Water	06/14/23 14:00	06/16/23 10:08
680-236434-16	SHP-2016-06B-SPR23	Water	06/14/23 11:20	06/16/23 10:08
680-236434-17	SHP-2016-06C-SPR23	Water	06/14/23 12:57	06/16/23 10:08
680-236434-18	SHP-2016-1A-SPR23	Water	06/14/23 14:53	06/16/23 10:08

Job ID: 680-236434-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236434-1

Receipt
The samples were received on 6/16/2023 10:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.0°C and 3.9°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9060A_Diss: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 680-785368 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: EPA-PZ-2012-4A-SPR23

Lab Sample ID: 680-236434-1

Date Collected: 06/14/23 14:50

Matrix: Water

Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	14		0.50	0.50	0.20	mg/L		07/06/23 00:11	1
Sulfate	1.1		1.0	1.0	0.40	mg/L		07/06/23 00:11	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	3900		100	50	20	ug/L		06/20/23 12:51	1
Manganese	540		10	5.0	1.3	ug/L		06/20/23 12:51	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.5	J	5.0	3.0	0.86	ug/L		06/20/23 21:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	71		5.0	5.0	2.2	mg/L		06/20/23 21:40	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	8.7		1.5	1.0	0.50	mg/L		06/24/23 08:16	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-4B-SPR23
Lab Sample ID: 680-236434-2

Date Collected: 06/14/23 15:40
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	31		0.50	0.50	0.20	mg/L		07/06/23 00:23	1
Sulfate	27	M	1.0	1.0	0.40	mg/L		07/06/23 00:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	46000		100	50	20	ug/L		06/20/23 12:53	1
Manganese	1000		10	5.0	1.3	ug/L		06/20/23 12:53	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1700		5.0	3.0	0.86	ug/L		06/20/23 22:05	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	95		5.0	5.0	2.2	mg/L		06/21/23 01:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		06/24/23 08:36	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-DUP01-SPR23
Lab Sample ID: 680-236434-3
Date Collected: 06/14/23 15:40
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	31		0.50	0.50	0.20	mg/L		07/07/23 18:39	1
Sulfate	27		1.0	1.0	0.40	mg/L		07/07/23 18:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	45000		100	50	20	ug/L		06/20/23 12:56	1
Manganese	1000		10	5.0	1.3	ug/L		06/20/23 12:56	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1600		5.0	3.0	0.86	ug/L		06/20/23 22:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	94		5.0	5.0	2.2	mg/L		06/20/23 21:49	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		06/24/23 09:01	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-5A-SPR23
Lab Sample ID: 680-236434-4

Date Collected: 06/14/23 10:30
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	14		0.50	0.50	0.20	mg/L		07/07/23 18:51	1
Sulfate	4.3	M	1.0	1.0	0.40	mg/L		07/07/23 18:51	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	5600		100	50	20	ug/L		06/20/23 13:03	1
Manganese	89		10	5.0	1.3	ug/L		06/20/23 13:03	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.1	J	5.0	3.0	0.86	ug/L		06/20/23 22:21	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	23		5.0	5.0	2.2	mg/L		06/20/23 21:58	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.1		1.5	1.0	0.50	mg/L		06/24/23 09:20	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-5B-SPR23
Lab Sample ID: 680-236434-5

Date Collected: 06/14/23 11:25
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	46		0.50	0.50	0.20	mg/L		07/07/23 19:04	1
Sulfate	19	M	1.0	1.0	0.40	mg/L		07/07/23 19:04	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	550		100	50	20	ug/L		06/20/23 13:06	1
Manganese	10000		10	5.0	1.3	ug/L		06/20/23 13:06	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	12		5.0	3.0	0.86	ug/L		06/20/23 22:25	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	160		5.0	5.0	2.2	mg/L		06/21/23 01:44	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		06/24/23 09:43	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: PZ-12-06-SPR23

Date Collected: 06/13/23 15:45
Date Received: 06/16/23 10:08

Lab Sample ID: 680-236434-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**1.8**		0.50	0.50	0.20	mg/L		07/06/23 00:36	1
Sulfate	**42**		1.0	1.0	0.40	mg/L		07/06/23 00:36	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 13:08	1
Manganese	**160**		10	5.0	1.3	ug/L		06/20/23 13:08	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 22:29	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**41**		5.0	5.0	2.2	mg/L		06/21/23 01:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.96**	**J**	1.5	1.0	0.50	mg/L		06/24/23 10:05	1

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-DUP02-SPR23
Lab Sample ID: 680-236434-7
Date Collected: 06/13/23 15:45
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.8		0.50	0.50	0.20	mg/L		07/07/23 23:05	1
Sulfate	42		1.0	1.0	0.40	mg/L		07/07/23 23:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	31	J	100	50	20	ug/L		06/20/23 13:11	1
Manganese	160		10	5.0	1.3	ug/L		06/20/23 13:11	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 22:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	40		5.0	5.0	2.2	mg/L		06/20/23 21:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.90	J	1.5	1.0	0.50	mg/L		06/24/23 11:05	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: PZ-12-09-SPR23

Date Collected: 06/14/23 09:45
Date Received: 06/16/23 10:08

Lab Sample ID: 680-236434-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.1		0.50	0.50	0.20	mg/L		07/07/23 19:17	1
Sulfate	10		1.0	1.0	0.40	mg/L		07/07/23 19:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20	J	100	50	20	ug/L		06/20/23 13:14	1
Manganese	4.5	J	10	5.0	1.3	ug/L		06/20/23 13:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.4	J	5.0	3.0	0.86	ug/L		06/20/23 22:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	71		5.0	5.0	2.2	mg/L		06/20/23 21:31	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		06/24/23 11:25	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-10-SPR23
Lab Sample ID: 680-236434-9
Date Collected: 06/14/23 10:40
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**0.81**		0.50	0.50	0.20	mg/L		07/07/23 18:01	1
Sulfate	**4.9**		1.0	1.0	0.40	mg/L		07/07/23 18:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	**24**	**J**	100	50	20	ug/L		06/20/23 12:38	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 12:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 21:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**45**		5.0	5.0	2.2	mg/L		06/21/23 01:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.62**	**J J1**	1.5	1.0	0.50	mg/L		06/24/23 06:53	1

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-11-SPR23
Lab Sample ID: 680-236434-10

Date Collected: 06/14/23 15:15
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.50	0.50	0.20	mg/L		07/07/23 19:29	1
Sulfate	0.50	J	1.0	1.0	0.40	mg/L		07/07/23 19:29	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	74000		100	50	20	ug/L		06/20/23 13:16	1
Manganese	1400		10	5.0	1.3	ug/L		06/20/23 13:16	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	840		5.0	3.0	0.86	ug/L		06/20/23 22:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	150		5.0	5.0	2.2	mg/L		06/21/23 00:49	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		06/24/23 11:43	1

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-05-41C-SPR23
Lab Sample ID: 680-236434-11
Date Collected: 06/14/23 12:35
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	87		0.50	0.50	0.20	mg/L		07/07/23 20:58	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/07/23 20:58	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2200		100	50	20	ug/L		06/19/23 16:50	1
Manganese	60		10	5.0	1.3	ug/L		06/19/23 16:50	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	37		5.0	3.0	0.86	ug/L		06/19/23 22:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	26		5.0	5.0	2.2	mg/L		06/21/23 01:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.0		1.5	1.0	0.50	mg/L		06/29/23 03:33	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-96-5B-SPR23
Lab Sample ID: 680-236434-12
Date Collected: 06/14/23 13:30
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	37		0.50	0.50	0.20	mg/L		07/07/23 19:55	1
Sulfate	25	M	1.0	1.0	0.40	mg/L		07/07/23 19:55	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	14000		100	50	20	ug/L		06/20/23 13:19	1
Manganese	8400		10	5.0	1.3	ug/L		06/20/23 13:19	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	950		5.0	3.0	0.86	ug/L		06/20/23 22:45	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	180		5.0	5.0	2.2	mg/L		06/20/23 22:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		06/24/23 12:05	1

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-DUP04-SPR23
Lab Sample ID: 680-236434-13

Date Collected: 06/14/23 13:30
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	37		0.50	0.50	0.20	mg/L		07/07/23 20:07	1
Sulfate	24		1.0	1.0	0.40	mg/L		07/07/23 20:07	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	13000		100	50	20	ug/L		06/20/23 13:21	1
Manganese	8500		10	5.0	1.3	ug/L		06/20/23 13:21	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	880		5.0	3.0	0.86	ug/L		06/20/23 22:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	170		5.0	5.0	2.2	mg/L		06/21/23 01:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		06/24/23 12:24	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: SHP-01-38A-SPR23

Lab Sample ID: 680-236434-14

Date Collected: 06/14/23 14:00

Matrix: Water

Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.1		0.50	0.50	0.20	mg/L		07/07/23 20:20	1
Sulfate	9.9		1.0	1.0	0.40	mg/L		07/07/23 20:20	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	15000		100	50	20	ug/L		06/20/23 13:24	1
Manganese	1500		10	5.0	1.3	ug/L		06/20/23 13:24	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	80		5.0	3.0	0.86	ug/L		06/20/23 22:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	58		5.0	5.0	2.2	mg/L		06/20/23 20:12	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.96	J	1.5	1.0	0.50	mg/L		06/24/23 12:49	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: SHP-DUP05-SPR23

Date Collected: 06/14/23 14:00
Date Received: 06/16/23 10:08

Lab Sample ID: 680-236434-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.0		0.50	0.50	0.20	mg/L		07/07/23 19:42	1
Sulfate	9.8		1.0	1.0	0.40	mg/L		07/07/23 19:42	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	14000		100	50	20	ug/L		06/20/23 13:26	1
Manganese	1400		10	5.0	1.3	ug/L		06/20/23 13:26	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	77		5.0	3.0	0.86	ug/L		06/20/23 22:57	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	58		5.0	5.0	2.2	mg/L		06/20/23 20:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.97	J	1.5	1.0	0.50	mg/L		06/24/23 13:08	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: SHP-2016-06B-SPR23

Lab Sample ID: 680-236434-16

Date Collected: 06/14/23 11:20

Matrix: Water

Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.5		0.50	0.50	0.20	mg/L		07/07/23 21:36	1
Sulfate	12	M	1.0	1.0	0.40	mg/L		07/07/23 21:36	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	130		100	50	20	ug/L		06/20/23 13:34	1
Manganese	140		10	5.0	1.3	ug/L		06/20/23 13:34	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	330		5.0	3.0	0.86	ug/L		06/20/23 23:10	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	120		5.0	5.0	2.2	mg/L		06/20/23 22:28	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		06/24/23 13:32	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Client Sample ID: SHP-2016-06C-SPR23

Lab Sample ID: 680-236434-17

Date Collected: 06/14/23 12:57

Matrix: Water

Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.6		0.50	0.50	0.20	mg/L		07/07/23 21:49	1
Sulfate	9.0	M	1.0	1.0	0.40	mg/L		07/07/23 21:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	120		100	50	20	ug/L		06/20/23 13:37	1
Manganese	150		10	5.0	1.3	ug/L		06/20/23 13:37	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	320		5.0	3.0	0.86	ug/L		06/20/23 23:14	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	120		5.0	5.0	2.2	mg/L		06/20/23 22:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		06/24/23 13:50	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-1A-SPR23
Lab Sample ID: 680-236434-18
Date Collected: 06/14/23 14:53
Matrix: Water
Date Received: 06/16/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**0.80**		0.50	0.50	0.20	mg/L		07/07/23 22:01	1
Sulfate	**3.0**	**M**	1.0	1.0	0.40	mg/L		07/07/23 22:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 13:39	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 13:39	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 23:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	**22**		5.0	5.0	2.2	mg/L		06/21/23 02:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.71**	**J**	1.5	1.0	0.50	mg/L		06/24/23 14:10	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-787239/63
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/05/23 22:55	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/05/23 22:55	1

Lab Sample ID: LCS 680-787239/64
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.98		mg/L		100	87 - 111
Sulfate	10.0	9.91	M	mg/L		99	87 - 112

Lab Sample ID: LCSD 680-787239/65
Matrix: Water
Analysis Batch: 787239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	87 - 111	0	15
Sulfate	10.0	9.95		mg/L		99	87 - 112	0	15

Lab Sample ID: MB 680-787265/33
Matrix: Water
Analysis Batch: 787265

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/07/23 17:23	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/07/23 17:23	1

Lab Sample ID: LCS 680-787265/34
Matrix: Water
Analysis Batch: 787265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.0		mg/L		100	87 - 111
Sulfate	10.0	10.0		mg/L		100	87 - 112

Lab Sample ID: LCSD 680-787265/35
Matrix: Water
Analysis Batch: 787265

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.1		mg/L		101	87 - 112	0	15

Lab Sample ID: 680-236434-9 MS
Matrix: Water
Analysis Batch: 787265

Client Sample ID: PZ-12-10-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.81		10.0	10.8		mg/L		100	87 - 111
Sulfate	4.9		10.0	15.0		mg/L		101	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-236434-9 MSD
Matrix: Water
Analysis Batch: 787265

Client Sample ID: PZ-12-10-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	0.81		10.0	10.9		mg/L		101	87 - 111	1	15
Sulfate	4.9		10.0	15.5	M	mg/L		107	87 - 112	4	15

Lab Sample ID: 680-236434-11 MS
Matrix: Water
Analysis Batch: 787265

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	87		10.0	96.2	4	mg/L		96	87 - 111
Sulfate	1.0	U	10.0	10.1	M	mg/L		101	87 - 112

Lab Sample ID: 680-236434-11 MSD
Matrix: Water
Analysis Batch: 787265

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	87		10.0	96.3	4	mg/L		97	87 - 111	0	15
Sulfate	1.0	U	10.0	10.2	M	mg/L		102	87 - 112	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-784224/1-A
Matrix: Water
Analysis Batch: 784408

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784224

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/19/23 16:44	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/19/23 16:44	1

Lab Sample ID: LCS 680-784224/2-A
Matrix: Water
Analysis Batch: 784408

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784224

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	4920		ug/L		99	87 - 115
Manganese	400	405		ug/L		101	90 - 114

Lab Sample ID: MB 680-784261/1-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784261

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 12:33	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 12:33	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-784261/2-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784261

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	5000		ug/L		100	87 - 115		
Manganese			400	420		ug/L		105	90 - 114		

Lab Sample ID: 680-236434-11 MS
Matrix: Water
Analysis Batch: 784408

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved
Prep Batch: 784224

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	2200		4990	6990		ug/L		95	87 - 115		
Manganese	60		400	459		ug/L		100	90 - 114		

Lab Sample ID: 680-236434-11 MSD
Matrix: Water
Analysis Batch: 784408

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved
Prep Batch: 784224

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	2200		4990	7040		ug/L		96	87 - 115	1	20
Manganese	60		400	460		ug/L		100	90 - 114	0	20

Lab Sample ID: 680-236434-9 MS
Matrix: Water
Analysis Batch: 784671

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved
Prep Batch: 784261

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	24	J	4990	5020		ug/L		100	87 - 115		
Manganese	5.0	U	400	426		ug/L		107	90 - 114		

Lab Sample ID: 680-236434-9 MSD
Matrix: Water
Analysis Batch: 784671

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved
Prep Batch: 784261

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	24	J	4990	5110		ug/L		102	87 - 115	2	20
Manganese	5.0	U	400	413		ug/L		103	90 - 114	3	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-784236/1-A
Matrix: Water
Analysis Batch: 784435

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784236

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/19/23 22:08	1

Lab Sample ID: LCS 680-784236/2-A
Matrix: Water
Analysis Batch: 784435

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784236

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	106		ug/L		106	84 - 116		

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 680-784262/1-A
Matrix: Water
Analysis Batch: 784687

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784262

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 21:32	1

Lab Sample ID: LCS 680-784262/2-A
Matrix: Water
Analysis Batch: 784687

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	102		ug/L		102	84 - 116

Lab Sample ID: 680-236434-11 MS
Matrix: Water
Analysis Batch: 784435

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved
Prep Batch: 784236

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	37		100	147		ug/L		110	84 - 116

Lab Sample ID: 680-236434-11 MSD
Matrix: Water
Analysis Batch: 784435

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved
Prep Batch: 784236

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	37		100	151		ug/L		113	84 - 116	2	20

Lab Sample ID: 680-236434-9 MS
Matrix: Water
Analysis Batch: 784687

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved
Prep Batch: 784262

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.0	U	100	105		ug/L		105	84 - 116

Lab Sample ID: 680-236434-9 MSD
Matrix: Water
Analysis Batch: 784687

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved
Prep Batch: 784262

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.0	U	100	107		ug/L		107	84 - 116	1	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-784705/4
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/20/23 18:35	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-784705/6
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	246		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-784705/31
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	252		mg/L		101	90 - 112	3	30

Lab Sample ID: MB 680-784715/4
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/21/23 00:23	1

Lab Sample ID: LCS 680-784715/6
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	250		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-784715/31
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	251		mg/L		100	90 - 112	0	30

Lab Sample ID: 680-236434-10 DU
Matrix: Water
Analysis Batch: 784715

Client Sample ID: SHL-11-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	150			153		mg/L				0.5	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-785368/2
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/24/23 05:29	1

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 680-785368/3
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.1		mg/L		95	80 - 120

Lab Sample ID: LCSD 680-785368/4
Matrix: Water
Analysis Batch: 785368

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.2		mg/L		96	80 - 120	1	20

Lab Sample ID: 680-236434-9 MS
Matrix: Water
Analysis Batch: 785368

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	0.62	J1	25.0	19.6	J1	mg/L		76	80 - 120

Lab Sample ID: 680-236434-9 MSD
Matrix: Water
Analysis Batch: 785368

Client Sample ID: PZ-12-10-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	0.62	J1	25.0	19.9	J1	mg/L		77	80 - 120	1	20

Lab Sample ID: MB 680-786243/2
Matrix: Water
Analysis Batch: 786243

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/29/23 02:04	1

Lab Sample ID: LCS 680-786243/3
Matrix: Water
Analysis Batch: 786243

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.9		mg/L		99	80 - 120

Lab Sample ID: LCSD 680-786243/4
Matrix: Water
Analysis Batch: 786243

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	20.0		mg/L		100	80 - 120	0	20

Lab Sample ID: 680-236434-11 MS
Matrix: Water
Analysis Batch: 786243

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	4.0		20.0	24.7		mg/L		104	80 - 120

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236434-1

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: 680-236434-11 MSD
Matrix: Water
Analysis Batch: 786243

Client Sample ID: SHM-05-41C-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	4.0		20.0	24.8		mg/L		104	80 - 120	0	20

HPLC/IC

Analysis Batch: 787239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Total/NA	Water	9056A	
680-236434-2	EPA-PZ-2012-4B-SPR23	Total/NA	Water	9056A	
680-236434-6	PZ-12-06-SPR23	Total/NA	Water	9056A	
MB 680-787239/63	Method Blank	Total/NA	Water	9056A	
LCS 680-787239/64	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787239/65	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 787265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-3	EPA-DUP01-SPR23	Total/NA	Water	9056A	
680-236434-4	EPA-PZ-2012-5A-SPR23	Total/NA	Water	9056A	
680-236434-5	EPA-PZ-2012-5B-SPR23	Total/NA	Water	9056A	
680-236434-7	SHL-DUP02-SPR23	Total/NA	Water	9056A	
680-236434-8	PZ-12-09-SPR23	Total/NA	Water	9056A	
680-236434-9	PZ-12-10-SPR23	Total/NA	Water	9056A	
680-236434-10	SHL-11-SPR23	Total/NA	Water	9056A	
680-236434-11	SHM-05-41C-SPR23	Total/NA	Water	9056A	
680-236434-12	SHM-96-5B-SPR23	Total/NA	Water	9056A	
680-236434-13	SHM-DUP04-SPR23	Total/NA	Water	9056A	
680-236434-14	SHP-01-38A-SPR23	Total/NA	Water	9056A	
680-236434-15	SHP-DUP05-SPR23	Total/NA	Water	9056A	
680-236434-16	SHP-2016-06B-SPR23	Total/NA	Water	9056A	
680-236434-17	SHP-2016-06C-SPR23	Total/NA	Water	9056A	
680-236434-18	SHP-2016-1A-SPR23	Total/NA	Water	9056A	
MB 680-787265/33	Method Blank	Total/NA	Water	9056A	
LCS 680-787265/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787265/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-236434-9 MS	PZ-12-10-SPR23	Total/NA	Water	9056A	
680-236434-9 MSD	PZ-12-10-SPR23	Total/NA	Water	9056A	
680-236434-11 MS	SHM-05-41C-SPR23	Total/NA	Water	9056A	
680-236434-11 MSD	SHM-05-41C-SPR23	Total/NA	Water	9056A	

Metals

Prep Batch: 784224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11	SHM-05-41C-SPR23	Dissolved	Water	3005A	
MB 680-784224/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784224/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236434-11 MS	SHM-05-41C-SPR23	Dissolved	Water	3005A	
680-236434-11 MSD	SHM-05-41C-SPR23	Dissolved	Water	3005A	

Prep Batch: 784236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11	SHM-05-41C-SPR23	Dissolved	Water	3005A	
MB 680-784236/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784236/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236434-11 MS	SHM-05-41C-SPR23	Dissolved	Water	3005A	
680-236434-11 MSD	SHM-05-41C-SPR23	Dissolved	Water	3005A	

Metals

Prep Batch: 784261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Dissolved	Water	3005A	
680-236434-2	EPA-PZ-2012-4B-SPR23	Dissolved	Water	3005A	
680-236434-3	EPA-DUP01-SPR23	Dissolved	Water	3005A	
680-236434-4	EPA-PZ-2012-5A-SPR23	Dissolved	Water	3005A	
680-236434-5	EPA-PZ-2012-5B-SPR23	Dissolved	Water	3005A	
680-236434-6	PZ-12-06-SPR23	Dissolved	Water	3005A	
680-236434-7	SHL-DUP02-SPR23	Dissolved	Water	3005A	
680-236434-8	PZ-12-09-SPR23	Dissolved	Water	3005A	
680-236434-9	PZ-12-10-SPR23	Dissolved	Water	3005A	
680-236434-10	SHL-11-SPR23	Dissolved	Water	3005A	
680-236434-12	SHM-96-5B-SPR23	Dissolved	Water	3005A	
680-236434-13	SHM-DUP04-SPR23	Dissolved	Water	3005A	
680-236434-14	SHP-01-38A-SPR23	Dissolved	Water	3005A	
680-236434-15	SHP-DUP05-SPR23	Dissolved	Water	3005A	
680-236434-16	SHP-2016-06B-SPR23	Dissolved	Water	3005A	
680-236434-17	SHP-2016-06C-SPR23	Dissolved	Water	3005A	
680-236434-18	SHP-2016-1A-SPR23	Dissolved	Water	3005A	
MB 680-784261/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784261/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236434-9 MS	PZ-12-10-SPR23	Dissolved	Water	3005A	
680-236434-9 MSD	PZ-12-10-SPR23	Dissolved	Water	3005A	

Prep Batch: 784262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Dissolved	Water	3005A	
680-236434-2	EPA-PZ-2012-4B-SPR23	Dissolved	Water	3005A	
680-236434-3	EPA-DUP01-SPR23	Dissolved	Water	3005A	
680-236434-4	EPA-PZ-2012-5A-SPR23	Dissolved	Water	3005A	
680-236434-5	EPA-PZ-2012-5B-SPR23	Dissolved	Water	3005A	
680-236434-6	PZ-12-06-SPR23	Dissolved	Water	3005A	
680-236434-7	SHL-DUP02-SPR23	Dissolved	Water	3005A	
680-236434-8	PZ-12-09-SPR23	Dissolved	Water	3005A	
680-236434-9	PZ-12-10-SPR23	Dissolved	Water	3005A	
680-236434-10	SHL-11-SPR23	Dissolved	Water	3005A	
680-236434-12	SHM-96-5B-SPR23	Dissolved	Water	3005A	
680-236434-13	SHM-DUP04-SPR23	Dissolved	Water	3005A	
680-236434-14	SHP-01-38A-SPR23	Dissolved	Water	3005A	
680-236434-15	SHP-DUP05-SPR23	Dissolved	Water	3005A	
680-236434-16	SHP-2016-06B-SPR23	Dissolved	Water	3005A	
680-236434-17	SHP-2016-06C-SPR23	Dissolved	Water	3005A	
680-236434-18	SHP-2016-1A-SPR23	Dissolved	Water	3005A	
MB 680-784262/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784262/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236434-9 MS	PZ-12-10-SPR23	Dissolved	Water	3005A	
680-236434-9 MSD	PZ-12-10-SPR23	Dissolved	Water	3005A	

Analysis Batch: 784408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11	SHM-05-41C-SPR23	Dissolved	Water	6010C	784224
MB 680-784224/1-A	Method Blank	Total Recoverable	Water	6010C	784224
LCS 680-784224/2-A	Lab Control Sample	Total Recoverable	Water	6010C	784224

Metals (Continued)

Analysis Batch: 784408 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11 MS	SHM-05-41C-SPR23	Dissolved	Water	6010C	784224
680-236434-11 MSD	SHM-05-41C-SPR23	Dissolved	Water	6010C	784224

Analysis Batch: 784435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11	SHM-05-41C-SPR23	Dissolved	Water	6020A	784236
MB 680-784236/1-A	Method Blank	Total Recoverable	Water	6020A	784236
LCS 680-784236/2-A	Lab Control Sample	Total Recoverable	Water	6020A	784236
680-236434-11 MS	SHM-05-41C-SPR23	Dissolved	Water	6020A	784236
680-236434-11 MSD	SHM-05-41C-SPR23	Dissolved	Water	6020A	784236

Analysis Batch: 784671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Dissolved	Water	6010C	784261
680-236434-2	EPA-PZ-2012-4B-SPR23	Dissolved	Water	6010C	784261
680-236434-3	EPA-DUP01-SPR23	Dissolved	Water	6010C	784261
680-236434-4	EPA-PZ-2012-5A-SPR23	Dissolved	Water	6010C	784261
680-236434-5	EPA-PZ-2012-5B-SPR23	Dissolved	Water	6010C	784261
680-236434-6	PZ-12-06-SPR23	Dissolved	Water	6010C	784261
680-236434-7	SHL-DUP02-SPR23	Dissolved	Water	6010C	784261
680-236434-8	PZ-12-09-SPR23	Dissolved	Water	6010C	784261
680-236434-9	PZ-12-10-SPR23	Dissolved	Water	6010C	784261
680-236434-10	SHL-11-SPR23	Dissolved	Water	6010C	784261
680-236434-12	SHM-96-5B-SPR23	Dissolved	Water	6010C	784261
680-236434-13	SHM-DUP04-SPR23	Dissolved	Water	6010C	784261
680-236434-14	SHP-01-38A-SPR23	Dissolved	Water	6010C	784261
680-236434-15	SHP-DUP05-SPR23	Dissolved	Water	6010C	784261
680-236434-16	SHP-2016-06B-SPR23	Dissolved	Water	6010C	784261
680-236434-17	SHP-2016-06C-SPR23	Dissolved	Water	6010C	784261
680-236434-18	SHP-2016-1A-SPR23	Dissolved	Water	6010C	784261
MB 680-784261/1-A	Method Blank	Total Recoverable	Water	6010C	784261
LCS 680-784261/2-A	Lab Control Sample	Total Recoverable	Water	6010C	784261
680-236434-9 MS	PZ-12-10-SPR23	Dissolved	Water	6010C	784261
680-236434-9 MSD	PZ-12-10-SPR23	Dissolved	Water	6010C	784261

Analysis Batch: 784687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Dissolved	Water	6020A	784262
680-236434-2	EPA-PZ-2012-4B-SPR23	Dissolved	Water	6020A	784262
680-236434-3	EPA-DUP01-SPR23	Dissolved	Water	6020A	784262
680-236434-4	EPA-PZ-2012-5A-SPR23	Dissolved	Water	6020A	784262
680-236434-5	EPA-PZ-2012-5B-SPR23	Dissolved	Water	6020A	784262
680-236434-6	PZ-12-06-SPR23	Dissolved	Water	6020A	784262
680-236434-7	SHL-DUP02-SPR23	Dissolved	Water	6020A	784262
680-236434-8	PZ-12-09-SPR23	Dissolved	Water	6020A	784262
680-236434-9	PZ-12-10-SPR23	Dissolved	Water	6020A	784262
680-236434-10	SHL-11-SPR23	Dissolved	Water	6020A	784262
680-236434-12	SHM-96-5B-SPR23	Dissolved	Water	6020A	784262
680-236434-13	SHM-DUP04-SPR23	Dissolved	Water	6020A	784262
680-236434-14	SHP-01-38A-SPR23	Dissolved	Water	6020A	784262
680-236434-15	SHP-DUP05-SPR23	Dissolved	Water	6020A	784262

Metals (Continued)

Analysis Batch: 784687 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-16	SHP-2016-06B-SPR23	Dissolved	Water	6020A	784262
680-236434-17	SHP-2016-06C-SPR23	Dissolved	Water	6020A	784262
680-236434-18	SHP-2016-1A-SPR23	Dissolved	Water	6020A	784262
MB 680-784262/1-A	Method Blank	Total Recoverable	Water	6020A	784262
LCS 680-784262/2-A	Lab Control Sample	Total Recoverable	Water	6020A	784262
680-236434-9 MS	PZ-12-10-SPR23	Dissolved	Water	6020A	784262
680-236434-9 MSD	PZ-12-10-SPR23	Dissolved	Water	6020A	784262

General Chemistry

Analysis Batch: 784705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Total/NA	Water	2320B-2011	
680-236434-3	EPA-DUP01-SPR23	Total/NA	Water	2320B-2011	
680-236434-4	EPA-PZ-2012-5A-SPR23	Total/NA	Water	2320B-2011	
680-236434-7	SHL-DUP02-SPR23	Total/NA	Water	2320B-2011	
680-236434-8	PZ-12-09-SPR23	Total/NA	Water	2320B-2011	
680-236434-12	SHM-96-5B-SPR23	Total/NA	Water	2320B-2011	
680-236434-14	SHP-01-38A-SPR23	Total/NA	Water	2320B-2011	
680-236434-15	SHP-DUP05-SPR23	Total/NA	Water	2320B-2011	
680-236434-16	SHP-2016-06B-SPR23	Total/NA	Water	2320B-2011	
680-236434-17	SHP-2016-06C-SPR23	Total/NA	Water	2320B-2011	
MB 680-784705/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784705/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784705/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 784715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-2	EPA-PZ-2012-4B-SPR23	Total/NA	Water	2320B-2011	
680-236434-5	EPA-PZ-2012-5B-SPR23	Total/NA	Water	2320B-2011	
680-236434-6	PZ-12-06-SPR23	Total/NA	Water	2320B-2011	
680-236434-9	PZ-12-10-SPR23	Total/NA	Water	2320B-2011	
680-236434-10	SHL-11-SPR23	Total/NA	Water	2320B-2011	
680-236434-11	SHM-05-41C-SPR23	Total/NA	Water	2320B-2011	
680-236434-13	SHM-DUP04-SPR23	Total/NA	Water	2320B-2011	
680-236434-18	SHP-2016-1A-SPR23	Total/NA	Water	2320B-2011	
MB 680-784715/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784715/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784715/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236434-10 DU	SHL-11-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 785368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-1	EPA-PZ-2012-4A-SPR23	Dissolved	Water	9060A	
680-236434-2	EPA-PZ-2012-4B-SPR23	Dissolved	Water	9060A	
680-236434-3	EPA-DUP01-SPR23	Dissolved	Water	9060A	
680-236434-4	EPA-PZ-2012-5A-SPR23	Dissolved	Water	9060A	
680-236434-5	EPA-PZ-2012-5B-SPR23	Dissolved	Water	9060A	
680-236434-6	PZ-12-06-SPR23	Dissolved	Water	9060A	
680-236434-7	SHL-DUP02-SPR23	Dissolved	Water	9060A	
680-236434-8	PZ-12-09-SPR23	Dissolved	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 785368 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-9	PZ-12-10-SPR23	Dissolved	Water	9060A	
680-236434-10	SHL-11-SPR23	Dissolved	Water	9060A	
680-236434-12	SHM-96-5B-SPR23	Dissolved	Water	9060A	
680-236434-13	SHM-DUP04-SPR23	Dissolved	Water	9060A	
680-236434-14	SHP-01-38A-SPR23	Dissolved	Water	9060A	
680-236434-15	SHP-DUP05-SPR23	Dissolved	Water	9060A	
680-236434-16	SHP-2016-06B-SPR23	Dissolved	Water	9060A	
680-236434-17	SHP-2016-06C-SPR23	Dissolved	Water	9060A	
680-236434-18	SHP-2016-1A-SPR23	Dissolved	Water	9060A	
MB 680-785368/2	Method Blank	Dissolved	Water	9060A	
LCS 680-785368/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-785368/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-236434-9 MS	PZ-12-10-SPR23	Dissolved	Water	9060A	
680-236434-9 MSD	PZ-12-10-SPR23	Dissolved	Water	9060A	

Analysis Batch: 786243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236434-11	SHM-05-41C-SPR23	Dissolved	Water	9060A	
MB 680-786243/2	Method Blank	Dissolved	Water	9060A	
LCS 680-786243/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-786243/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-236434-11 MS	SHM-05-41C-SPR23	Dissolved	Water	9060A	
680-236434-11 MSD	SHM-05-41C-SPR23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-4A-SPR23
Lab Sample ID: 680-236434-1
Date Collected: 06/14/23 14:50
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787239	07/06/23 00:11	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 12:51	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:40	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 08:16	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-4B-SPR23
Lab Sample ID: 680-236434-2
Date Collected: 06/14/23 15:40
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787239	07/06/23 00:23	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 12:53	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:05	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 08:36	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-DUP01-SPR23
Lab Sample ID: 680-236434-3
Date Collected: 06/14/23 15:40
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 18:39	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 12:56	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:09	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-DUP01-SPR23
Lab Sample ID: 680-236434-3
Date Collected: 06/14/23 15:40
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:49	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 09:01	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-5A-SPR23
Lab Sample ID: 680-236434-4
Date Collected: 06/14/23 10:30
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 18:51	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:03	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:21	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:58	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 09:20	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-5B-SPR23
Lab Sample ID: 680-236434-5
Date Collected: 06/14/23 11:25
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 19:04	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:06	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:25	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 09:43	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: PZ-12-06-SPR23
Lab Sample ID: 680-236434-6

Date Collected: 06/13/23 15:45
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787239	07/06/23 00:36	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:08	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:29	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:34	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 10:05	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-DUP02-SPR23
Lab Sample ID: 680-236434-7

Date Collected: 06/13/23 15:45
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 23:05	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:11	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:33	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 11:05	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: PZ-12-09-SPR23
Lab Sample ID: 680-236434-8

Date Collected: 06/14/23 09:45
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 19:17	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:14	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:37	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-09-SPR23
Lab Sample ID: 680-236434-8
Date Collected: 06/14/23 09:45
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:31	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 11:25	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: PZ-12-10-SPR23
Lab Sample ID: 680-236434-9
Date Collected: 06/14/23 10:40
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 18:01	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 12:38	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:40	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 06:53	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-11-SPR23
Lab Sample ID: 680-236434-10
Date Collected: 06/14/23 15:15
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 19:29	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:16	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:41	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 00:49	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 11:43	JU	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-05-41C-SPR23
Lab Sample ID: 680-236434-11
Date Collected: 06/14/23 12:35
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 20:58	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784224	06/19/23 08:05	RR	EET SAV
Dissolved	Analysis	6010C		1			784408	06/19/23 16:50	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784236	06/19/23 08:05	RR	EET SAV
Dissolved	Analysis	6020A		1			784435	06/19/23 22:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 03:33	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-96-5B-SPR23
Lab Sample ID: 680-236434-12
Date Collected: 06/14/23 13:30
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 19:55	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:19	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:45	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 22:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 12:05	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-DUP04-SPR23
Lab Sample ID: 680-236434-13
Date Collected: 06/14/23 13:30
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 20:07	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:21	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:49	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-DUP04-SPR23
Lab Sample ID: 680-236434-13

Date Collected: 06/14/23 13:30
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 01:54	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 12:24	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-01-38A-SPR23
Lab Sample ID: 680-236434-14

Date Collected: 06/14/23 14:00
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 20:20	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:24	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 20:12	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 12:49	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-DUP05-SPR23
Lab Sample ID: 680-236434-15

Date Collected: 06/14/23 14:00
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 19:42	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:26	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 22:57	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 20:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 13:08	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06B-SPR23

Lab Sample ID: 680-236434-16

Date Collected: 06/14/23 11:20

Matrix: Water

Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 21:36	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:34	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:10	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 22:28	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 13:32	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06C-SPR23

Lab Sample ID: 680-236434-17

Date Collected: 06/14/23 12:57

Matrix: Water

Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 21:49	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:37	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:14	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 22:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 13:50	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-1A-SPR23

Lab Sample ID: 680-236434-18

Date Collected: 06/14/23 14:53

Matrix: Water

Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787265	07/07/23 22:01	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784261	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 13:39	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784262	06/19/23 10:07	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:18	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-1A-SPR23
Lab Sample ID: 680-236434-18
Date Collected: 06/14/23 14:53
Matrix: Water
Date Received: 06/16/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 02:03	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	785368	06/24/23 14:10	JU	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	07-09-23

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236434-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7, Charleston, SC 29492
(843) 619-370-0374 jennifer singer@arcadis.com

COC # SHL_SPR23

Bostor

#215

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing (TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number: DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment.

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

| | | |

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

Boston #215

COC # SHL_SPR23

US Army Corps of Engineers

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code·	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)									
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023						46	9	9	5	3									
	Sample ID	Matrix	Date	Time	Samp Init											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
22	PZ-12-05-SPR23	WG					X	X	X	X	X					PZ-12-05	N1	26 00	36 00	1	
23	PZ-12-06-SPR23	WG	6/13/23	15:45	FG		X	X	X	X	X					PZ-12-06	N1	25 00	35 00	1	
30	SHL-DUP02-SPR23	WG	6/13/23	15:45	FG		X	X	X	X	X					PZ-12-06	FD1	25 00	35 00	1	
24	PZ-12-07-SPR23	WG					X	X	X	X	X					PZ-12-07	N1	20 00	30 00	1	
25	PZ-12-08-SPR23	WG					X	X	X	X	X					PZ-12-08	N1	22 00	32 00	1	
26	PZ-12-09-SPR23	WG	6/14/23	9:45	FG		X	X	X	X	X					PZ-12-09	N1	20 00	30 00	1	
28	PZ-12-10-SPR23	WG	6/14/23	10:40	FG		X	X	X	X	X					PZ-12-10	N1	20 00	30 00	1	
27	PZ-12-10-SPR23	WG	6/14/23	10:40	FG		X	X	X	X	X					PZ-12-10	MS1	20 00	30 00	1	
29	PZ-12-10-SPR23	WG	6/14/23	10:40	FG		X	X	X	X	X					PZ-12-10	SD1	20 00	30 00	1	
31	SHL-10-SPR23	WG					X	X	X	X	X					SHL-10	N1	24 00	39 00	1	
32	SHL-11-SPR23	WG	6/14/23	15:15	FG		X	X	X	X	X					SHL-11	N1	12 00	27 00	1	
33	SHL-19-SPR23	WG					X	X	X	X	X					SHL-19	N1	20 00	30 00	1	
34	SHL-20-SPR23	WG					X	X	X	X	X					SHL-20	N1	39 00	49 00	1	
36	SHL-DUP03-SPR23	WG					X	X	X	X	X					SHL-20	FD1	39 00	49 00	1	
35	SHL-4-SPR23	WG					X	X	X	X	X					SHL-4	N1	3 00	13 00	1	
38	SHM-05-40X-SPR23	WG					X	X	X	X	X					SHM-05-40X	N1	32 00	34 00	1	
37	SHM-05-40X-SPR23	WG					X	X	X	X	X					SHM-05-40X	MS1	32 00	34 00	1	
39	SHM-05-40X-SPR23	WG					X	X	X	X	X					SHM-05-40X	SD1	32 00	34 00	1	
40	SHM-05-41B-SPR23	WG					X	X	X	X	X					SHM-05-41B	N1	62 00	64 00	1	
42	SHM-05-41C-SPR23	WG	6/14/23	12:35	FG		X	X	X	X	X					SHM-05-41C	N1	88 00	93 00	1	
41	SHM-05-41C-SPR23	WG	6/14/23	12:35	FG		X	X	X	X	X					SHM-05-41C	MS1	88 00	93 00	1	

Relinquished by (Signature)
Date 6/14/23
Time 17:08
Received by (Signature)

6/15/23 1200

Received by Laboratory (Signature) C. M
Date 6/16/23
Time 1008

41/39 12/1-0

7/12/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Boston #215

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus.com	
WBS Code·	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment.

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2 Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

						Analytical Test Method															
						A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023					46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
43	SHM-05-41C-SPR23	WG	6/14/23	12:35	FG	X	X	X	X	X						SHM-05-41C	SD1	88 00	93 00	1	
44	SHM-07-05X-SPR23	WG				X	X	X	X	X						SHM-07-05X	N1	55 00	65 00	1	
45	SHM-11-02-SPR23	WG				X	X	X	X	X						SHM-11-02	N1	52 00	66 00	1	
46	SHM-11-06-SPR23	WG				X	X	X	X	X						SHM-11-06	N1	25 00	35 00	1	
47	SHM-13-03-SPR23	WG				X	X	X	X	X						SHM-13-03	N1	42 00	52 00	1	
48	SHM-13-04-SPR23	WG				X	X	X	X	X						SHM-13-04	N1	20 00	30 00	1	
49	SHM-13-06-SPR23	WG				X	X	X	X	X						SHM-13-06	N1	36 00	46 00	1	
50	SHM-13-07-SPR23	WG				X	X	X	X	X						SHM-13-07	N1	27 00	37 00	1	
51	SHM-13-08-SPR23	WG				X	X	X	X	X						SHM-13-08	N1	55 00	65 00	1	
52	SHM-93-22B-SPR23	WG				X	X	X	X	X						SHM-93-22B	N1	82 30	92 30	1	
53	SHM-96-5B-SPR23	WG	6/14/23	13:30	GS	X	X	X	X	X						SHM-96-5B	N1	80 00	90 00	1	
54	SHM-DUP04-SPR23	WG	6/14/23	13:30	GS	X	X	X	X	X						SHM-96-5B	FD1	80 00	90 00	1	
55	SHP-01-36X-SPR23	WG				X	X	X	X	X						SHP-01-36X	N1	3 00	8 00	1	
56	SHP-01-37X-SPR23	WG				X	X	X	X	X						SHP-01-37X	N1	1 00	6 00	1	
57	SHP-01-38A-SPR23	WG	6/14/23	14:00	FG	X	X	X	X	X						SHP-01-38A	N1	1 50	6 50	1	
73	SHP-DUP05-SPR23	WG	6/14/23	14:00	FG	X	X	X	X	X						SHP-01-38A	FD1	1 50	6 50	1	
58	SHP-2016-06A-SPR23	WG				X	X	X	X	X						SHP-2016-06A	N1	81 00	86 00	1	
59	SHP-2016-06B-SPR23	WG	6/14/23	11:20	SG	X	X	X	X	X						SHP-2016-06B	N1	102 00	112 00	1	
60	SHP-2016-06C-SPR23	WG	6/14/23	12.57	SG	X	X	X	X	X						SHP-2016-06C	N1	123 00	133 00	1	
61	SHP-2016-07A-SPR23	WG				X	X	X	X	X						SHP-2016-07A	N1	22 00	32 00	1	
62	SHP-2016-07B-SPR23	WG				X	X	X	X	X						SHP-2016-07B	N1	70 00	80 00	1	

Relinquished by (Signature)
Date 6/14/2023
Time 17.08
Received by (Signature)

6/15/23 1100

Received by Laboratory (Signature)
Date 6/16/23
Time 1008

4.1/3.9 12/10

7/12/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

Boston #215

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing/TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2; Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
63	SHP-2016-1A-SPR23	WG	6/14/23	14:53	SG		X	X	X	X	X						SHP-2016-1A	N1	13 00	23 00	1	
64	SHP-2016-1B-SPR23	WG					X	X	X	X	X						SHP-2016-1B	N1	75 00	85 00	1	
65	SHP-2016-2A-SPR23	WG					X	X	X	X	X						SHP-2016-2A	N1	20 00	25 00	1	
66	SHP-2016-2B-SPR23	WG					X	X	X	X	X						SHP-2016-2B	N1	80 00	85 00	1	
67	SHP-2016-3A-SPR23	WG					X	X	X	X	X						SHP-2016-3A	N1	20 00	25 00	1	
68	SHP-2016-3B-SPR23	WG					X	X	X	X	X						SHP-2016-3B	N1	80 00	85 00	1	
69	SHP-2016-4A-SPR23	WG					X	X	X	X	X						SHP-2016-4A	N1	25 00	30 00	1	
70	SHP-2016-4B-SPR23	WG					X	X	X	X	X						SHP-2016-4B	N1	85 00	90 00	1	
71	SHP-2016-5A-SPR23	WG					X	X	X	X	X						SHP-2016-5A	N1	25 00	30 00	1	
72	SHP-2016-5B-SPR23	WG					X	X	X	X	X						SHP-2016-5B	N1	85 00	90 00	1	
74	SHP-DUP06-SPR23	WG					X	X	X	X	X						SHP-2016-5A	FD1	25 00	30 00	1	
75																						
76																						
77																						
78																						
79																						

Turnaround Time Standard

Relinquished by (Signature)
Date 6/14/2023
Time 17:05
Received by (Signature)

6/15/23 1700

Received by Laboratory (Signature)
Date 6/16/23
Time 1008

41/39 12/10

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236434-1

Login Number: 236434
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 7/19/2023 7:06:28 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236498-2

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236498-4	SHM-07-05X-SPR23	Water	06/16/23 14:00	06/17/23 09:30
680-236498-5	SHM-11-02-SPR23	Water	06/16/23 10:30	06/17/23 09:30
680-236498-6	SHM-11-06-SPR23	Water	06/15/23 16:40	06/17/23 09:30
680-236498-7	SHM-13-04-SPR23	Water	06/16/23 13:54	06/17/23 09:30
680-236498-8	SHM-13-06-SPR23	Water	06/16/23 12:24	06/17/23 09:30
680-236498-9	SHM-13-07-SPR23	Water	06/16/23 11:15	06/17/23 09:30
680-236498-10	SHP-2016-06A-SPR23	Water	06/15/23 11:30	06/17/23 09:30
680-236498-11	SHP-2016-07A-SPR23	Water	06/15/23 12:00	06/17/23 09:30
680-236498-12	SHP-2016-07B-SPR23	Water	06/15/23 13:15	06/17/23 09:30
680-236498-13	PZ-12-07-SPR23	Water	06/15/23 12:10	06/17/23 09:30
680-236498-14	PZ-12-08-SPR23	Water	06/15/23 13:25	06/17/23 09:30
680-236498-15	SHL-10-SPR23	Water	06/15/23 09:55	06/17/23 09:30
680-236498-16	SHL-19-SPR23	Water	06/16/23 12:35	06/17/23 09:30
680-236498-17	SHL-20-SPR23	Water	06/15/23 15:15	06/17/23 09:30
680-236498-18	SHL-DUP03-SPR23	Water	06/15/23 15:15	06/17/23 09:30
680-236498-19	SHL-4-SPR23	Water	06/16/23 11:40	06/17/23 09:30
680-236498-20	EPA-PZ-2012-3A-SPR23	Water	06/16/23 09:05	06/17/23 09:30
680-236498-21	EPA-PZ-2012-3B-SPR23	Water	06/16/23 09:55	06/17/23 09:30
680-236498-22	EPA-PZ-2012-6A-SPR23	Water	06/15/23 15:45	06/17/23 09:30
680-236498-23	EPA-PZ-2012-6B-SPR23	Water	06/15/23 17:10	06/17/23 09:30
680-236498-24	EW-01-SPR23	Water	06/16/23 07:58	06/17/23 09:30
680-236498-25	EW-04-SPR23	Water	06/16/23 08:08	06/17/23 09:30
680-236498-26	SHP-2016-5A-SPR23	Water	06/16/23 12:35	06/17/23 09:30
680-236498-27	SHP-2016-5B-SPR23	Water	06/16/23 11:35	06/17/23 09:30
680-236498-28	SHP-DUP06-SPR23	Water	06/16/23 12:35	06/17/23 09:30
680-236498-29	SHL-RB01-SPR23	Water	06/16/23 13:16	06/17/23 09:30

Job ID: 680-236498-2

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236498-2

Receipt
The samples were received on 6/17/2023 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.6°C, 3.4°C and 5.7°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-07-05X-SPR23
Lab Sample ID: 680-236498-4
Date Collected: 06/16/23 14:00
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	98		0.50	0.50	0.20	mg/L		07/12/23 00:01	1
Sulfate	2.6		1.0	1.0	0.40	mg/L		07/12/23 00:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	5500		100	50	20	ug/L		06/20/23 18:15	1
Manganese	860		10	5.0	1.3	ug/L		06/20/23 18:15	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	370		5.0	3.0	0.86	ug/L		06/20/23 20:35	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	140		5.0	5.0	2.2	mg/L		06/21/23 02:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	10		1.5	1.0	0.50	mg/L		06/29/23 07:53	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-11-02-SPR23
Lab Sample ID: 680-236498-5
Date Collected: 06/16/23 10:30
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	48		0.50	0.50	0.20	mg/L		07/12/23 00:39	1
Sulfate	0.41	J	1.0	1.0	0.40	mg/L		07/12/23 00:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	670		100	50	20	ug/L		06/20/23 18:10	1
Manganese	120		10	5.0	1.3	ug/L		06/20/23 18:10	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 20:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	69		5.0	5.0	2.2	mg/L		06/21/23 02:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		06/29/23 08:17	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-11-06-SPR23
Lab Sample ID: 680-236498-6
Date Collected: 06/15/23 16:40
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	92		0.50	0.50	0.20	mg/L		07/12/23 00:52	1
Sulfate	21		1.0	1.0	0.40	mg/L		07/12/23 00:52	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	60000		100	50	20	ug/L		06/20/23 18:22	1
Manganese	1300		10	5.0	1.3	ug/L		06/20/23 18:22	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	650		5.0	3.0	0.86	ug/L		06/20/23 20:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	190		5.0	5.0	2.2	mg/L		06/20/23 22:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.8		1.5	1.0	0.50	mg/L		06/29/23 08:40	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-04-SPR23
Lab Sample ID: 680-236498-7
Date Collected: 06/16/23 13:54
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	240	D	2.5	2.5	1.0	mg/L		07/12/23 16:15	5
Sulfate	10		1.0	1.0	0.40	mg/L		07/12/23 01:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2600		100	50	20	ug/L		06/20/23 18:17	1
Manganese	120		10	5.0	1.3	ug/L		06/20/23 18:17	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	320		5.0	3.0	0.86	ug/L		06/20/23 20:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	33		5.0	5.0	2.2	mg/L		06/21/23 04:07	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		06/29/23 09:00	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-06-SPR23
Lab Sample ID: 680-236498-8
Date Collected: 06/16/23 12:24
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	110		0.50	0.50	0.20	mg/L		07/12/23 01:18	1
Sulfate	6.9	M	1.0	1.0	0.40	mg/L		07/12/23 01:18	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	21000		100	50	20	ug/L		06/20/23 18:20	1
Manganese	1300		10	5.0	1.3	ug/L		06/20/23 18:20	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2300		5.0	3.0	0.86	ug/L		06/20/23 20:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	43		5.0	5.0	2.2	mg/L		06/21/23 03:39	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.95	J	1.5	1.0	0.50	mg/L		06/29/23 09:25	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-07-SPR23
Lab Sample ID: 680-236498-9
Date Collected: 06/16/23 11:15
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	73		0.50	0.50	0.20	mg/L		07/12/23 01:30	1
Sulfate	7.6		1.0	1.0	0.40	mg/L		07/12/23 01:30	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000	J1	100	50	20	ug/L		06/20/23 17:29	1
Manganese	2400	J1	10	5.0	1.3	ug/L		06/20/23 17:29	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	280	J1	5.0	3.0	0.86	ug/L		06/20/23 19:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	41		5.0	5.0	2.2	mg/L		06/21/23 03:47	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.79	J	1.5	1.0	0.50	mg/L		06/29/23 09:47	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-06A-SPR23
Lab Sample ID: 680-236498-10
Date Collected: 06/15/23 11:30
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	5.9		0.50	0.50	0.20	mg/L		07/12/23 01:43	1
Sulfate	61		1.0	1.0	0.40	mg/L		07/12/23 01:43	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	860		100	50	20	ug/L		06/20/23 17:19	1
Manganese	1100		10	5.0	1.3	ug/L		06/20/23 17:19	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1900		5.0	3.0	0.86	ug/L		06/20/23 15:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	140		5.0	5.0	2.2	mg/L		06/21/23 03:58	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.7		1.5	1.0	0.50	mg/L		06/29/23 10:08	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-07A-SPR23
Lab Sample ID: 680-236498-11
Date Collected: 06/15/23 12:00
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.7		0.50	0.50	0.20	mg/L		07/12/23 01:55	1
Sulfate	1.9		1.0	1.0	0.40	mg/L		07/12/23 01:55	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	9600		100	50	20	ug/L		06/20/23 17:21	1
Manganese	3900		10	5.0	1.3	ug/L		06/20/23 17:21	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	180		5.0	3.0	0.86	ug/L		06/20/23 15:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	41		5.0	5.0	2.2	mg/L		06/20/23 21:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		06/29/23 10:31	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-07B-SPR23
Lab Sample ID: 680-236498-12
Date Collected: 06/15/23 13:15
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.9		0.50	0.50	0.20	mg/L		07/12/23 02:08	1
Sulfate	16		1.0	1.0	0.40	mg/L		07/12/23 02:08	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	270		100	50	20	ug/L		06/20/23 18:00	1
Manganese	400		10	5.0	1.3	ug/L		06/20/23 18:00	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	63		5.0	3.0	0.86	ug/L		06/20/23 20:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	110		5.0	5.0	2.2	mg/L		06/20/23 20:31	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.6		1.5	1.0	0.50	mg/L		06/29/23 10:51	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-07-SPR23
Lab Sample ID: 680-236498-13
Date Collected: 06/15/23 12:10
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.0		0.50	0.50	0.20	mg/L		07/12/23 02:21	1
Sulfate	17		1.0	1.0	0.40	mg/L		07/12/23 02:21	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2100		100	50	20	ug/L		06/20/23 18:02	1
Manganese	1200		10	5.0	1.3	ug/L		06/20/23 18:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	62		5.0	3.0	0.86	ug/L		06/20/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	90		5.0	5.0	2.2	mg/L		06/21/23 02:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.98	J	1.5	1.0	0.50	mg/L		06/29/23 11:44	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: PZ-12-08-SPR23
Lab Sample ID: 680-236498-14
Date Collected: 06/15/23 13:25
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.1		0.50	0.50	0.20	mg/L		07/12/23 02:59	1
Sulfate	15		1.0	1.0	0.40	mg/L		07/12/23 02:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2100		100	50	20	ug/L		06/20/23 18:25	1
Manganese	770		10	5.0	1.3	ug/L		06/20/23 18:25	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.9	J	5.0	3.0	0.86	ug/L		06/20/23 20:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	42		5.0	5.0	2.2	mg/L		06/21/23 03:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.99	J	1.5	1.0	0.50	mg/L		07/01/23 05:11	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-10-SPR23
Lab Sample ID: 680-236498-15
Date Collected: 06/15/23 09:55
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.5		0.50	0.50	0.20	mg/L		07/12/23 03:37	1
Sulfate	1.8	M	1.0	1.0	0.40	mg/L		07/12/23 03:37	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	200		100	50	20	ug/L		06/20/23 18:28	1
Manganese	31		10	5.0	1.3	ug/L		06/20/23 18:28	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.5	J	5.0	3.0	0.86	ug/L		06/20/23 20:56	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	12		5.0	5.0	2.2	mg/L		06/21/23 03:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.62	J	1.5	1.0	0.50	mg/L		07/01/23 05:32	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-19-SPR23
Lab Sample ID: 680-236498-16
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.0		0.50	0.50	0.20	mg/L		07/12/23 03:49	1
Sulfate	3.5		1.0	1.0	0.40	mg/L		07/12/23 03:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20	J	100	50	20	ug/L		06/20/23 18:30	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 18:30	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.5	J	5.0	3.0	0.86	ug/L		06/20/23 21:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	49		5.0	5.0	2.2	mg/L		06/21/23 03:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		07/01/23 05:51	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-20-SPR23
Lab Sample ID: 680-236498-17
Date Collected: 06/15/23 15:15
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	110		0.50	0.50	0.20	mg/L		07/12/23 04:02	1
Sulfate	53		1.0	1.0	0.40	mg/L		07/12/23 04:02	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	49000		100	50	20	ug/L		06/20/23 18:33	1
Manganese	3600		10	5.0	1.3	ug/L		06/20/23 18:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	820		5.0	3.0	0.86	ug/L		06/20/23 21:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	86		5.0	5.0	2.2	mg/L		06/23/23 12:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		07/01/23 06:11	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-DUP03-SPR23
Lab Sample ID: 680-236498-18
Date Collected: 06/15/23 15:15
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	110		0.50	0.50	0.20	mg/L		07/12/23 04:15	1
Sulfate	54		1.0	1.0	0.40	mg/L		07/12/23 04:15	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	47000		100	50	20	ug/L		06/20/23 18:40	1
Manganese	3500		10	5.0	1.3	ug/L		06/20/23 18:40	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	780		5.0	3.0	0.86	ug/L		06/20/23 21:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	84		5.0	5.0	2.2	mg/L		06/23/23 12:44	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		07/01/23 06:30	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-4-SPR23
Lab Sample ID: 680-236498-19
Date Collected: 06/16/23 11:40
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.0		0.50	0.50	0.20	mg/L		07/12/23 04:27	1
Sulfate	66		1.0	1.0	0.40	mg/L		07/12/23 04:27	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		06/20/23 18:43	1
Manganese	2100		10	5.0	1.3	ug/L		06/20/23 18:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	170		5.0	3.0	0.86	ug/L		06/20/23 21:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	110		5.0	5.0	2.2	mg/L		06/23/23 13:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.1		1.5	1.0	0.50	mg/L		07/01/23 06:52	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-3A-SPR23
Lab Sample ID: 680-236498-20
Date Collected: 06/16/23 09:05
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	26		0.50	0.50	0.20	mg/L		07/12/23 04:40	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/12/23 04:40	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	14000		100	50	20	ug/L		06/20/23 17:47	1
Manganese	860		10	5.0	1.3	ug/L		06/20/23 17:47	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	16		5.0	3.0	0.86	ug/L		06/20/23 19:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	84		5.0	5.0	2.2	mg/L		06/23/23 12:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	8.0		1.5	1.0	0.50	mg/L		07/01/23 07:15	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-3B-SPR23
Lab Sample ID: 680-236498-21
Date Collected: 06/16/23 09:55
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	35		0.50	0.50	0.20	mg/L		07/12/23 04:53	1
Sulfate	17		1.0	1.0	0.40	mg/L		07/12/23 04:53	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	38000		100	50	20	ug/L		06/20/23 17:54	1
Manganese	5900		10	5.0	1.3	ug/L		06/20/23 17:54	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2400		5.0	3.0	0.86	ug/L		06/20/23 20:03	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	170		5.0	5.0	2.2	mg/L		06/23/23 14:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		07/01/23 08:17	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-6A-SPR23
Lab Sample ID: 680-236498-22
Date Collected: 06/15/23 15:45
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.2		0.50	0.50	0.20	mg/L		07/12/23 05:05	1
Sulfate	1.8	M	1.0	1.0	0.40	mg/L		07/12/23 05:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 17:57	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 17:57	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	0.97	J	5.0	3.0	0.86	ug/L		06/20/23 20:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	29		5.0	5.0	2.2	mg/L		06/23/23 14:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.66	J	1.5	1.0	0.50	mg/L		07/01/23 08:36	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EPA-PZ-2012-6B-SPR23
Lab Sample ID: 680-236498-23
Date Collected: 06/15/23 17:10
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	9.3		0.50	0.50	0.20	mg/L		07/12/23 05:18	1
Sulfate	4.6	M	1.0	1.0	0.40	mg/L		07/12/23 05:18	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	19000		100	50	20	ug/L		06/20/23 17:49	1
Manganese	730		10	5.0	1.3	ug/L		06/20/23 17:49	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	270		5.0	3.0	0.86	ug/L		06/20/23 19:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	46		5.0	5.0	2.2	mg/L		06/23/23 14:09	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		07/01/23 08:56	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EW-01-SPR23
Lab Sample ID: 680-236498-24
Date Collected: 06/16/23 07:58
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	17		0.50	0.50	0.20	mg/L		07/12/23 18:22	1
Sulfate	5.5		1.0	1.0	0.40	mg/L		07/12/23 18:22	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	63000		100	50	20	ug/L		06/20/23 15:47	1
Manganese	2100		10	5.0	1.3	ug/L		06/20/23 15:47	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1600		5.0	3.0	0.86	ug/L		06/21/23 00:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	220		5.0	5.0	2.2	mg/L		06/23/23 14:37	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.2		1.5	1.0	0.50	mg/L		07/01/23 09:16	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: EW-04-SPR23
Lab Sample ID: 680-236498-25
Date Collected: 06/16/23 08:08
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	4.9		0.50	0.50	0.20	mg/L		07/12/23 18:34	1
Sulfate	4.8		1.0	1.0	0.40	mg/L		07/12/23 18:34	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	34000		100	50	20	ug/L		06/20/23 15:44	1
Manganese	2300		10	5.0	1.3	ug/L		06/20/23 15:44	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3100		5.0	3.0	0.86	ug/L		06/21/23 00:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	110		5.0	5.0	2.2	mg/L		06/23/23 14:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.6		1.5	1.0	0.50	mg/L		07/01/23 09:39	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-5A-SPR23
Lab Sample ID: 680-236498-26
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	24		0.50	0.50	0.20	mg/L		07/12/23 18:47	1
Sulfate	1.2		1.0	1.0	0.40	mg/L		07/12/23 18:47	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1600		100	50	20	ug/L		06/20/23 15:42	1
Manganese	210		10	5.0	1.3	ug/L		06/20/23 15:42	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.4	J	5.0	3.0	0.86	ug/L		06/20/23 23:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	46		5.0	5.0	2.2	mg/L		06/23/23 15:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.0		1.5	1.0	0.50	mg/L		07/01/23 10:01	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-5B-SPR23
Lab Sample ID: 680-236498-27
Date Collected: 06/16/23 11:35
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	29		0.50	0.50	0.20	mg/L		07/12/23 18:59	1
Sulfate	9.3	M	1.0	1.0	0.40	mg/L		07/12/23 18:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	55000		100	50	20	ug/L		06/20/23 15:39	1
Manganese	2800		10	5.0	1.3	ug/L		06/20/23 15:39	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	590		5.0	3.0	0.86	ug/L		06/20/23 23:54	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	140		5.0	5.0	2.2	mg/L		06/23/23 14:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		07/01/23 10:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-DUP06-SPR23
Lab Sample ID: 680-236498-28
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	24		0.50	0.50	0.20	mg/L		07/12/23 19:12	1
Sulfate	1.2		1.0	1.0	0.40	mg/L		07/12/23 19:12	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1600		100	50	20	ug/L		06/20/23 17:52	1
Manganese	210		10	5.0	1.3	ug/L		06/20/23 17:52	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.6	J	5.0	3.0	0.86	ug/L		06/20/23 19:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	46		5.0	5.0	2.2	mg/L		06/23/23 15:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.9		1.5	1.0	0.50	mg/L		07/01/23 10:47	1

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-RB01-SPR23
Lab Sample ID: 680-236498-29
Date Collected: 06/16/23 13:16
Matrix: Water
Date Received: 06/17/23 09:30

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 15:21	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 15:21	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 23:50	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-787772/41
Matrix: Water
Analysis Batch: 787772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/11/23 23:23	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/11/23 23:23	1

Lab Sample ID: LCS 680-787772/42
Matrix: Water
Analysis Batch: 787772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.1		mg/L		101	87 - 111		
Sulfate			10.0	10.3		mg/L		103	87 - 112		

Lab Sample ID: LCSD 680-787772/43
Matrix: Water
Analysis Batch: 787772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate			10.0	10.3		mg/L		103	87 - 112	0	15

Lab Sample ID: 680-236498-4 MS
Matrix: Water
Analysis Batch: 787772

Client Sample ID: SHM-07-05X-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	98		10.0	107	4	mg/L		91	87 - 111		
Sulfate	2.6		10.0	12.2	M	mg/L		96	87 - 112		

Lab Sample ID: 680-236498-4 MSD
Matrix: Water
Analysis Batch: 787772

Client Sample ID: SHM-07-05X-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	98		10.0	106	4	mg/L		89	87 - 111	0	15
Sulfate	2.6		10.0	12.1	M	mg/L		95	87 - 112	1	15

Lab Sample ID: 680-236498-14 MS
Matrix: Water
Analysis Batch: 787772

Client Sample ID: PZ-12-08-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1.1		10.0	11.0		mg/L		99	87 - 111		
Sulfate	15		10.0	25.5	M	mg/L		103	87 - 112		

Lab Sample ID: 680-236498-14 MSD
Matrix: Water
Analysis Batch: 787772

Client Sample ID: PZ-12-08-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1.1		10.0	11.0		mg/L		99	87 - 111	0	15
Sulfate	15		10.0	25.2		mg/L		100	87 - 112	1	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-787903/2
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/12/23 10:30	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/12/23 10:30	1

Lab Sample ID: LCS 680-787903/4
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	9.98		mg/L		100	87 - 112

Lab Sample ID: LCSD 680-787903/5
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.0		mg/L		100	87 - 112	0	15

Lab Sample ID: LLCS 680-787903/3
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.487	J	mg/L		97	
Sulfate	1.00	1.03		mg/L		103	

Lab Sample ID: MB 680-787904/33
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/12/23 17:06	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/12/23 17:06	1

Lab Sample ID: LCS 680-787904/34
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.1		mg/L		101	87 - 112

Lab Sample ID: LCSD 680-787904/35
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.1		mg/L		101	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-784395/1-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784395

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 16:58	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 16:58	1

Lab Sample ID: LCS 680-784395/2-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784395

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5080		ug/L		102	87 - 115
Manganese	400	421		ug/L		105	90 - 114

Lab Sample ID: MB 680-784396/1-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784396

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 17:24	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 17:24	1

Lab Sample ID: LCS 680-784396/2-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784396

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	4950		ug/L		99	87 - 115
Manganese	400	420		ug/L		105	90 - 114

Lab Sample ID: MB 680-784400/1-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 784400

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/20/23 15:06	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/20/23 15:06	1

Lab Sample ID: LCS 680-784400/2-A
Matrix: Water
Analysis Batch: 784671

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 784400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5020		ug/L		101	87 - 115
Manganese	400	422		ug/L		105	90 - 114

Lab Sample ID: 680-236498-9 MS
Matrix: Water
Analysis Batch: 784671

Client Sample ID: SHM-13-07-SPR23
Prep Type: Dissolved
Prep Batch: 784396

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	18000	J1	4990	21600	J1	ug/L		82	87 - 115
Manganese	2400	J1	400	2670	4	ug/L		73	90 - 114

Method: 6010C - Metals (ICP)

Lab Sample ID: 680-236498-9 MSD
Client Sample ID: SHM-13-07-SPR23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 784671
Prep Batch: 784396

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	18000	J1	4990	21700	J1	ug/L		82	87 - 115	0	20
Manganese	2400	J1	400	2700	4	ug/L		79	90 - 114	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-784394/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784394

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 13:21	1

Lab Sample ID: LCS 680-784394/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784394

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	111		ug/L		111	84 - 116

Lab Sample ID: MB 680-784398/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784398

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 19:31	1

Lab Sample ID: LCS 680-784398/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	112		ug/L		112	84 - 116

Lab Sample ID: MB 680-784401/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784401

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/20/23 23:30	1

Lab Sample ID: LCS 680-784401/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total Recoverable
Analysis Batch: 784687
Prep Batch: 784401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	103		ug/L		103	84 - 116

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-236498-9 MS
Matrix: Water
Analysis Batch: 784687

Client Sample ID: SHM-13-07-SPR23
Prep Type: Dissolved
Prep Batch: 784398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	280	J1	100	368		ug/L		85	84 - 116		

Lab Sample ID: 680-236498-9 MSD
Matrix: Water
Analysis Batch: 784687

Client Sample ID: SHM-13-07-SPR23
Prep Type: Dissolved
Prep Batch: 784398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	280	J1	100	364	J1	ug/L		81	84 - 116	1	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-784705/4
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/20/23 18:35	1

Lab Sample ID: LCS 680-784705/6
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	246		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-784705/31
Matrix: Water
Analysis Batch: 784705

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	252		mg/L		101	90 - 112	3	30

Lab Sample ID: 680-236498-11 DU
Matrix: Water
Analysis Batch: 784705

Client Sample ID: SHP-2016-07A-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	41			39.0		mg/L				5	30

Lab Sample ID: MB 680-784715/4
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/21/23 00:23	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-784715/6
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	250		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-784715/31
Matrix: Water
Analysis Batch: 784715

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	251		mg/L		100	90 - 112	0	30

Lab Sample ID: 680-236498-13 DU
Matrix: Water
Analysis Batch: 784715

Client Sample ID: PZ-12-07-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	90			86.7		mg/L				4	30

Lab Sample ID: MB 680-785491/4
Matrix: Water
Analysis Batch: 785491

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/23/23 10:54	1

Lab Sample ID: LCS 680-785491/6
Matrix: Water
Analysis Batch: 785491

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	246		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-785491/31
Matrix: Water
Analysis Batch: 785491

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	253		mg/L		101	90 - 112	3	30

Lab Sample ID: 680-236498-19 DU
Matrix: Water
Analysis Batch: 785491

Client Sample ID: SHL-4-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	110			107		mg/L				0	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-786243/2
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786243

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		06/29/23 02:04	1

Lab Sample ID: LCS 680-786243/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.9		mg/L		99	80 - 120

Lab Sample ID: LCSD 680-786243/4
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786243

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	20.0		mg/L		100	80 - 120	0	20

Lab Sample ID: MB 680-786498/2
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786498

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		07/01/23 02:37	1

Lab Sample ID: LCS 680-786498/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.7		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-786498/4
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 786498

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120	0	20

HPLC/IC

Analysis Batch: 787772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Total/NA	Water	9056A	
680-236498-5	SHM-11-02-SPR23	Total/NA	Water	9056A	
680-236498-6	SHM-11-06-SPR23	Total/NA	Water	9056A	
680-236498-7	SHM-13-04-SPR23	Total/NA	Water	9056A	
680-236498-8	SHM-13-06-SPR23	Total/NA	Water	9056A	
680-236498-9	SHM-13-07-SPR23	Total/NA	Water	9056A	
680-236498-10	SHP-2016-06A-SPR23	Total/NA	Water	9056A	
680-236498-11	SHP-2016-07A-SPR23	Total/NA	Water	9056A	
680-236498-12	SHP-2016-07B-SPR23	Total/NA	Water	9056A	
680-236498-13	PZ-12-07-SPR23	Total/NA	Water	9056A	
680-236498-14	PZ-12-08-SPR23	Total/NA	Water	9056A	
680-236498-15	SHL-10-SPR23	Total/NA	Water	9056A	
680-236498-16	SHL-19-SPR23	Total/NA	Water	9056A	
680-236498-17	SHL-20-SPR23	Total/NA	Water	9056A	
680-236498-18	SHL-DUP03-SPR23	Total/NA	Water	9056A	
680-236498-19	SHL-4-SPR23	Total/NA	Water	9056A	
680-236498-20	EPA-PZ-2012-3A-SPR23	Total/NA	Water	9056A	
680-236498-21	EPA-PZ-2012-3B-SPR23	Total/NA	Water	9056A	
680-236498-22	EPA-PZ-2012-6A-SPR23	Total/NA	Water	9056A	
680-236498-23	EPA-PZ-2012-6B-SPR23	Total/NA	Water	9056A	
MB 680-787772/41	Method Blank	Total/NA	Water	9056A	
LCS 680-787772/42	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787772/43	Lab Control Sample Dup	Total/NA	Water	9056A	
680-236498-4 MS	SHM-07-05X-SPR23	Total/NA	Water	9056A	
680-236498-4 MSD	SHM-07-05X-SPR23	Total/NA	Water	9056A	
680-236498-14 MS	PZ-12-08-SPR23	Total/NA	Water	9056A	
680-236498-14 MSD	PZ-12-08-SPR23	Total/NA	Water	9056A	

Analysis Batch: 787903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-7	SHM-13-04-SPR23	Total/NA	Water	9056A	
MB 680-787903/2	Method Blank	Total/NA	Water	9056A	
LCS 680-787903/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787903/5	Lab Control Sample Dup	Total/NA	Water	9056A	
LLCS 680-787903/3	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 787904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-24	EW-01-SPR23	Total/NA	Water	9056A	
680-236498-25	EW-04-SPR23	Total/NA	Water	9056A	
680-236498-26	SHP-2016-5A-SPR23	Total/NA	Water	9056A	
680-236498-27	SHP-2016-5B-SPR23	Total/NA	Water	9056A	
680-236498-28	SHP-DUP06-SPR23	Total/NA	Water	9056A	
MB 680-787904/33	Method Blank	Total/NA	Water	9056A	
LCS 680-787904/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787904/35	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 784394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-10	SHP-2016-06A-SPR23	Dissolved	Water	3005A	
680-236498-11	SHP-2016-07A-SPR23	Dissolved	Water	3005A	
MB 680-784394/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784394/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 784395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-10	SHP-2016-06A-SPR23	Dissolved	Water	3005A	
680-236498-11	SHP-2016-07A-SPR23	Dissolved	Water	3005A	
MB 680-784395/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784395/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 784396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Dissolved	Water	3005A	
680-236498-5	SHM-11-02-SPR23	Dissolved	Water	3005A	
680-236498-6	SHM-11-06-SPR23	Dissolved	Water	3005A	
680-236498-7	SHM-13-04-SPR23	Dissolved	Water	3005A	
680-236498-8	SHM-13-06-SPR23	Dissolved	Water	3005A	
680-236498-9	SHM-13-07-SPR23	Dissolved	Water	3005A	
680-236498-12	SHP-2016-07B-SPR23	Dissolved	Water	3005A	
680-236498-13	PZ-12-07-SPR23	Dissolved	Water	3005A	
680-236498-14	PZ-12-08-SPR23	Dissolved	Water	3005A	
680-236498-15	SHL-10-SPR23	Dissolved	Water	3005A	
680-236498-16	SHL-19-SPR23	Dissolved	Water	3005A	
680-236498-17	SHL-20-SPR23	Dissolved	Water	3005A	
680-236498-18	SHL-DUP03-SPR23	Dissolved	Water	3005A	
680-236498-19	SHL-4-SPR23	Dissolved	Water	3005A	
680-236498-20	EPA-PZ-2012-3A-SPR23	Dissolved	Water	3005A	
680-236498-21	EPA-PZ-2012-3B-SPR23	Dissolved	Water	3005A	
680-236498-22	EPA-PZ-2012-6A-SPR23	Dissolved	Water	3005A	
680-236498-23	EPA-PZ-2012-6B-SPR23	Dissolved	Water	3005A	
680-236498-28	SHP-DUP06-SPR23	Dissolved	Water	3005A	
MB 680-784396/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784396/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236498-9 MS	SHM-13-07-SPR23	Dissolved	Water	3005A	
680-236498-9 MSD	SHM-13-07-SPR23	Dissolved	Water	3005A	

Prep Batch: 784398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Dissolved	Water	3005A	
680-236498-5	SHM-11-02-SPR23	Dissolved	Water	3005A	
680-236498-6	SHM-11-06-SPR23	Dissolved	Water	3005A	
680-236498-7	SHM-13-04-SPR23	Dissolved	Water	3005A	
680-236498-8	SHM-13-06-SPR23	Dissolved	Water	3005A	
680-236498-9	SHM-13-07-SPR23	Dissolved	Water	3005A	
680-236498-12	SHP-2016-07B-SPR23	Dissolved	Water	3005A	
680-236498-13	PZ-12-07-SPR23	Dissolved	Water	3005A	
680-236498-14	PZ-12-08-SPR23	Dissolved	Water	3005A	
680-236498-15	SHL-10-SPR23	Dissolved	Water	3005A	
680-236498-16	SHL-19-SPR23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 784398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-17	SHL-20-SPR23	Dissolved	Water	3005A	
680-236498-18	SHL-DUP03-SPR23	Dissolved	Water	3005A	
680-236498-19	SHL-4-SPR23	Dissolved	Water	3005A	
680-236498-20	EPA-PZ-2012-3A-SPR23	Dissolved	Water	3005A	
680-236498-21	EPA-PZ-2012-3B-SPR23	Dissolved	Water	3005A	
680-236498-22	EPA-PZ-2012-6A-SPR23	Dissolved	Water	3005A	
680-236498-23	EPA-PZ-2012-6B-SPR23	Dissolved	Water	3005A	
680-236498-28	SHP-DUP06-SPR23	Dissolved	Water	3005A	
MB 680-784398/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784398/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236498-9 MS	SHM-13-07-SPR23	Dissolved	Water	3005A	
680-236498-9 MSD	SHM-13-07-SPR23	Dissolved	Water	3005A	

Prep Batch: 784400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-24	EW-01-SPR23	Dissolved	Water	3005A	
680-236498-25	EW-04-SPR23	Dissolved	Water	3005A	
680-236498-26	SHP-2016-5A-SPR23	Dissolved	Water	3005A	
680-236498-27	SHP-2016-5B-SPR23	Dissolved	Water	3005A	
680-236498-29	SHL-RB01-SPR23	Dissolved	Water	3005A	
MB 680-784400/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784400/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 784401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-24	EW-01-SPR23	Dissolved	Water	3005A	
680-236498-25	EW-04-SPR23	Dissolved	Water	3005A	
680-236498-26	SHP-2016-5A-SPR23	Dissolved	Water	3005A	
680-236498-27	SHP-2016-5B-SPR23	Dissolved	Water	3005A	
680-236498-29	SHL-RB01-SPR23	Dissolved	Water	3005A	
MB 680-784401/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-784401/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 784671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Dissolved	Water	6010C	784396
680-236498-5	SHM-11-02-SPR23	Dissolved	Water	6010C	784396
680-236498-6	SHM-11-06-SPR23	Dissolved	Water	6010C	784396
680-236498-7	SHM-13-04-SPR23	Dissolved	Water	6010C	784396
680-236498-8	SHM-13-06-SPR23	Dissolved	Water	6010C	784396
680-236498-9	SHM-13-07-SPR23	Dissolved	Water	6010C	784396
680-236498-10	SHP-2016-06A-SPR23	Dissolved	Water	6010C	784395
680-236498-11	SHP-2016-07A-SPR23	Dissolved	Water	6010C	784395
680-236498-12	SHP-2016-07B-SPR23	Dissolved	Water	6010C	784396
680-236498-13	PZ-12-07-SPR23	Dissolved	Water	6010C	784396
680-236498-14	PZ-12-08-SPR23	Dissolved	Water	6010C	784396
680-236498-15	SHL-10-SPR23	Dissolved	Water	6010C	784396
680-236498-16	SHL-19-SPR23	Dissolved	Water	6010C	784396
680-236498-17	SHL-20-SPR23	Dissolved	Water	6010C	784396
680-236498-18	SHL-DUP03-SPR23	Dissolved	Water	6010C	784396
680-236498-19	SHL-4-SPR23	Dissolved	Water	6010C	784396

Metals (Continued)

Analysis Batch: 784671 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-20	EPA-PZ-2012-3A-SPR23	Dissolved	Water	6010C	784396
680-236498-21	EPA-PZ-2012-3B-SPR23	Dissolved	Water	6010C	784396
680-236498-22	EPA-PZ-2012-6A-SPR23	Dissolved	Water	6010C	784396
680-236498-23	EPA-PZ-2012-6B-SPR23	Dissolved	Water	6010C	784396
680-236498-24	EW-01-SPR23	Dissolved	Water	6010C	784400
680-236498-25	EW-04-SPR23	Dissolved	Water	6010C	784400
680-236498-26	SHP-2016-5A-SPR23	Dissolved	Water	6010C	784400
680-236498-27	SHP-2016-5B-SPR23	Dissolved	Water	6010C	784400
680-236498-28	SHP-DUP06-SPR23	Dissolved	Water	6010C	784396
680-236498-29	SHL-RB01-SPR23	Dissolved	Water	6010C	784400
MB 680-784395/1-A	Method Blank	Total Recoverable	Water	6010C	784395
MB 680-784396/1-A	Method Blank	Total Recoverable	Water	6010C	784396
MB 680-784400/1-A	Method Blank	Total Recoverable	Water	6010C	784400
LCS 680-784395/2-A	Lab Control Sample	Total Recoverable	Water	6010C	784395
LCS 680-784396/2-A	Lab Control Sample	Total Recoverable	Water	6010C	784396
LCS 680-784400/2-A	Lab Control Sample	Total Recoverable	Water	6010C	784400
680-236498-9 MS	SHM-13-07-SPR23	Dissolved	Water	6010C	784396
680-236498-9 MSD	SHM-13-07-SPR23	Dissolved	Water	6010C	784396

Analysis Batch: 784687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Dissolved	Water	6020A	784398
680-236498-5	SHM-11-02-SPR23	Dissolved	Water	6020A	784398
680-236498-6	SHM-11-06-SPR23	Dissolved	Water	6020A	784398
680-236498-7	SHM-13-04-SPR23	Dissolved	Water	6020A	784398
680-236498-8	SHM-13-06-SPR23	Dissolved	Water	6020A	784398
680-236498-9	SHM-13-07-SPR23	Dissolved	Water	6020A	784398
680-236498-10	SHP-2016-06A-SPR23	Dissolved	Water	6020A	784394
680-236498-11	SHP-2016-07A-SPR23	Dissolved	Water	6020A	784394
680-236498-12	SHP-2016-07B-SPR23	Dissolved	Water	6020A	784398
680-236498-13	PZ-12-07-SPR23	Dissolved	Water	6020A	784398
680-236498-14	PZ-12-08-SPR23	Dissolved	Water	6020A	784398
680-236498-15	SHL-10-SPR23	Dissolved	Water	6020A	784398
680-236498-16	SHL-19-SPR23	Dissolved	Water	6020A	784398
680-236498-17	SHL-20-SPR23	Dissolved	Water	6020A	784398
680-236498-18	SHL-DUP03-SPR23	Dissolved	Water	6020A	784398
680-236498-19	SHL-4-SPR23	Dissolved	Water	6020A	784398
680-236498-20	EPA-PZ-2012-3A-SPR23	Dissolved	Water	6020A	784398
680-236498-21	EPA-PZ-2012-3B-SPR23	Dissolved	Water	6020A	784398
680-236498-22	EPA-PZ-2012-6A-SPR23	Dissolved	Water	6020A	784398
680-236498-23	EPA-PZ-2012-6B-SPR23	Dissolved	Water	6020A	784398
680-236498-24	EW-01-SPR23	Dissolved	Water	6020A	784401
680-236498-25	EW-04-SPR23	Dissolved	Water	6020A	784401
680-236498-26	SHP-2016-5A-SPR23	Dissolved	Water	6020A	784401
680-236498-27	SHP-2016-5B-SPR23	Dissolved	Water	6020A	784401
680-236498-28	SHP-DUP06-SPR23	Dissolved	Water	6020A	784398
680-236498-29	SHL-RB01-SPR23	Dissolved	Water	6020A	784401
MB 680-784394/1-A	Method Blank	Total Recoverable	Water	6020A	784394
MB 680-784398/1-A	Method Blank	Total Recoverable	Water	6020A	784398
MB 680-784401/1-A	Method Blank	Total Recoverable	Water	6020A	784401
LCS 680-784394/2-A	Lab Control Sample	Total Recoverable	Water	6020A	784394

Metals (Continued)

Analysis Batch: 784687 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-784398/2-A	Lab Control Sample	Total Recoverable	Water	6020A	784398
LCS 680-784401/2-A	Lab Control Sample	Total Recoverable	Water	6020A	784401
680-236498-9 MS	SHM-13-07-SPR23	Dissolved	Water	6020A	784398
680-236498-9 MSD	SHM-13-07-SPR23	Dissolved	Water	6020A	784398

General Chemistry

Analysis Batch: 784705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-6	SHM-11-06-SPR23	Total/NA	Water	2320B-2011	
680-236498-11	SHP-2016-07A-SPR23	Total/NA	Water	2320B-2011	
680-236498-12	SHP-2016-07B-SPR23	Total/NA	Water	2320B-2011	
MB 680-784705/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784705/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784705/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236498-11 DU	SHP-2016-07A-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 784715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Total/NA	Water	2320B-2011	
680-236498-5	SHM-11-02-SPR23	Total/NA	Water	2320B-2011	
680-236498-7	SHM-13-04-SPR23	Total/NA	Water	2320B-2011	
680-236498-8	SHM-13-06-SPR23	Total/NA	Water	2320B-2011	
680-236498-9	SHM-13-07-SPR23	Total/NA	Water	2320B-2011	
680-236498-10	SHP-2016-06A-SPR23	Total/NA	Water	2320B-2011	
680-236498-13	PZ-12-07-SPR23	Total/NA	Water	2320B-2011	
680-236498-14	PZ-12-08-SPR23	Total/NA	Water	2320B-2011	
680-236498-15	SHL-10-SPR23	Total/NA	Water	2320B-2011	
680-236498-16	SHL-19-SPR23	Total/NA	Water	2320B-2011	
MB 680-784715/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-784715/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-784715/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236498-13 DU	PZ-12-07-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 785491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-17	SHL-20-SPR23	Total/NA	Water	2320B-2011	
680-236498-18	SHL-DUP03-SPR23	Total/NA	Water	2320B-2011	
680-236498-19	SHL-4-SPR23	Total/NA	Water	2320B-2011	
680-236498-20	EPA-PZ-2012-3A-SPR23	Total/NA	Water	2320B-2011	
680-236498-21	EPA-PZ-2012-3B-SPR23	Total/NA	Water	2320B-2011	
680-236498-22	EPA-PZ-2012-6A-SPR23	Total/NA	Water	2320B-2011	
680-236498-23	EPA-PZ-2012-6B-SPR23	Total/NA	Water	2320B-2011	
680-236498-24	EW-01-SPR23	Total/NA	Water	2320B-2011	
680-236498-25	EW-04-SPR23	Total/NA	Water	2320B-2011	
680-236498-26	SHP-2016-5A-SPR23	Total/NA	Water	2320B-2011	
680-236498-27	SHP-2016-5B-SPR23	Total/NA	Water	2320B-2011	
680-236498-28	SHP-DUP06-SPR23	Total/NA	Water	2320B-2011	
MB 680-785491/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-785491/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-785491/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 785491 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-19 DU	SHL-4-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 786243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-4	SHM-07-05X-SPR23	Dissolved	Water	9060A	
680-236498-5	SHM-11-02-SPR23	Dissolved	Water	9060A	
680-236498-6	SHM-11-06-SPR23	Dissolved	Water	9060A	
680-236498-7	SHM-13-04-SPR23	Dissolved	Water	9060A	
680-236498-8	SHM-13-06-SPR23	Dissolved	Water	9060A	
680-236498-9	SHM-13-07-SPR23	Dissolved	Water	9060A	
680-236498-10	SHP-2016-06A-SPR23	Dissolved	Water	9060A	
680-236498-11	SHP-2016-07A-SPR23	Dissolved	Water	9060A	
680-236498-12	SHP-2016-07B-SPR23	Dissolved	Water	9060A	
680-236498-13	PZ-12-07-SPR23	Dissolved	Water	9060A	
MB 680-786243/2	Method Blank	Dissolved	Water	9060A	
LCS 680-786243/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-786243/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Analysis Batch: 786498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236498-14	PZ-12-08-SPR23	Dissolved	Water	9060A	
680-236498-15	SHL-10-SPR23	Dissolved	Water	9060A	
680-236498-16	SHL-19-SPR23	Dissolved	Water	9060A	
680-236498-17	SHL-20-SPR23	Dissolved	Water	9060A	
680-236498-18	SHL-DUP03-SPR23	Dissolved	Water	9060A	
680-236498-19	SHL-4-SPR23	Dissolved	Water	9060A	
680-236498-20	EPA-PZ-2012-3A-SPR23	Dissolved	Water	9060A	
680-236498-21	EPA-PZ-2012-3B-SPR23	Dissolved	Water	9060A	
680-236498-22	EPA-PZ-2012-6A-SPR23	Dissolved	Water	9060A	
680-236498-23	EPA-PZ-2012-6B-SPR23	Dissolved	Water	9060A	
680-236498-24	EW-01-SPR23	Dissolved	Water	9060A	
680-236498-25	EW-04-SPR23	Dissolved	Water	9060A	
680-236498-26	SHP-2016-5A-SPR23	Dissolved	Water	9060A	
680-236498-27	SHP-2016-5B-SPR23	Dissolved	Water	9060A	
680-236498-28	SHP-DUP06-SPR23	Dissolved	Water	9060A	
MB 680-786498/2	Method Blank	Dissolved	Water	9060A	
LCS 680-786498/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-786498/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Client Sample ID: SHM-07-05X-SPR23
Lab Sample ID: 680-236498-4

Date Collected: 06/16/23 14:00
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 00:01	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:15	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:35	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 02:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 07:53	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-11-02-SPR23
Lab Sample ID: 680-236498-5

Date Collected: 06/16/23 10:30
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 00:39	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:10	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 02:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 08:17	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-11-06-SPR23
Lab Sample ID: 680-236498-6

Date Collected: 06/15/23 16:40
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 00:52	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:22	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:48	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-236498-2

Client Sample ID: SHM-11-06-SPR23

Lab Sample ID: 680-236498-6

Date Collected: 06/15/23 16:40
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 22:39	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 08:40	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-13-04-SPR23

Lab Sample ID: 680-236498-7

Date Collected: 06/16/23 13:54
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 01:05	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A		5	5 mL	5 mL	787903	07/12/23 16:15	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:17	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:40	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 04:07	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 09:00	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-13-06-SPR23

Lab Sample ID: 680-236498-8

Date Collected: 06/16/23 12:24
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 01:18	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:20	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:44	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:39	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 09:25	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-13-07-SPR23
Lab Sample ID: 680-236498-9

Date Collected: 06/16/23 11:15
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 01:30	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:29	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 19:39	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:47	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 09:47	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06A-SPR23
Lab Sample ID: 680-236498-10

Date Collected: 06/15/23 11:30
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 01:43	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784395	06/20/23 05:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:19	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784394	06/20/23 05:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 15:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:58	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 10:08	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-07A-SPR23
Lab Sample ID: 680-236498-11

Date Collected: 06/15/23 12:00
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 01:55	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784395	06/20/23 05:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:21	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784394	06/20/23 05:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 15:11	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-07A-SPR23
Lab Sample ID: 680-236498-11
Date Collected: 06/15/23 12:00
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 21:03	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 10:31	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-07B-SPR23
Lab Sample ID: 680-236498-12
Date Collected: 06/15/23 13:15
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 02:08	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:00	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:19	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784705	06/20/23 20:31	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 10:51	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: PZ-12-07-SPR23
Lab Sample ID: 680-236498-13
Date Collected: 06/15/23 12:10
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 02:21	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:23	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 02:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786243	06/29/23 11:44	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: PZ-12-08-SPR23
Lab Sample ID: 680-236498-14

Date Collected: 06/15/23 13:25
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 02:59	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:25	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:52	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 05:11	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-10-SPR23
Lab Sample ID: 680-236498-15

Date Collected: 06/15/23 09:55
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 03:37	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:28	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:56	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:30	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 05:32	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-19-SPR23
Lab Sample ID: 680-236498-16

Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 03:49	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:30	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:08	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-19-SPR23
Lab Sample ID: 680-236498-16
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			784715	06/21/23 03:22	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 05:51	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-20-SPR23
Lab Sample ID: 680-236498-17
Date Collected: 06/15/23 15:15
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 04:02	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:33	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:12	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 12:35	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 06:11	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-DUP03-SPR23
Lab Sample ID: 680-236498-18
Date Collected: 06/15/23 15:15
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 04:15	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:40	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 12:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 06:30	JU	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-4-SPR23
Lab Sample ID: 680-236498-19
Date Collected: 06/16/23 11:40
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 04:27	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 18:43	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 21:20	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 13:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 06:52	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-3A-SPR23
Lab Sample ID: 680-236498-20
Date Collected: 06/16/23 09:05
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 04:40	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:47	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 19:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 12:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 07:15	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-3B-SPR23
Lab Sample ID: 680-236498-21
Date Collected: 06/16/23 09:55
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 04:53	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:54	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:03	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: EPA-PZ-2012-3B-SPR23
Lab Sample ID: 680-236498-21

Date Collected: 06/16/23 09:55
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:26	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 08:17	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-6A-SPR23
Lab Sample ID: 680-236498-22

Date Collected: 06/15/23 15:45
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 05:05	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:57	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 20:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 08:36	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-6B-SPR23
Lab Sample ID: 680-236498-23

Date Collected: 06/15/23 17:10
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787772	07/12/23 05:18	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:49	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 19:55	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:09	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 08:56	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EW-01-SPR23
Lab Sample ID: 680-236498-24

Date Collected: 06/16/23 07:58
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 18:22	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784400	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 15:47	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784401	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/21/23 00:06	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:37	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 09:16	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EW-04-SPR23
Lab Sample ID: 680-236498-25

Date Collected: 06/16/23 08:08
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 18:34	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784400	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 15:44	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784401	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/21/23 00:02	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 09:39	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-5A-SPR23
Lab Sample ID: 680-236498-26

Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 18:47	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784400	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 15:42	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784401	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:58	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-5A-SPR23
Lab Sample ID: 680-236498-26
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 15:13	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 10:01	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-5B-SPR23
Lab Sample ID: 680-236498-27
Date Collected: 06/16/23 11:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 18:59	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784400	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 15:39	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784401	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:54	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 14:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 10:27	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-DUP06-SPR23
Lab Sample ID: 680-236498-28
Date Collected: 06/16/23 12:35
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 19:12	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	784396	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 17:52	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784398	06/20/23 05:36	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 19:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			785491	06/23/23 15:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 10:47	JU	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHL-RB01-SPR23
Lab Sample ID: 680-236498-29
Date Collected: 06/16/23 13:16
Matrix: Water
Date Received: 06/17/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	784400	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6010C		1			784671	06/20/23 15:21	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	784401	06/20/23 06:29	RR	EET SAV
Dissolved	Analysis	6020A		1			784687	06/20/23 23:50	BWR	EET SAV
	Instrument ID: ICPMSC									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236498-2
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston, SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH < 2, Cool < 6degC
8	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2, Cool < 6degC
46	1x 250mL, plastic Cool < 6degC

Analytical Test Method

		A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)
	Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023	46	9	9	5	3

	Sample ID	Matrix	Date	Time	Samp Init	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
43	SHM-05-41C-SPR23	WG				SHM-05-41C	SD1	88 00	93 00	1	
44	SHM-07-05X-SPR23	WG	6/16/23	14:00	GS	SHM-07-05X	N1	55 00	65 00	1	
45	SHM-11-02-SPR23	WG	6/16/23	10:30	FG	SHM-11-02	N1	52 00	66 00	1	
46	SHM-11-06-SPR23	WG	6/15/23	16:40	FG	SHM-11-06	N1	25 00	35 00	1	
47	SHM-13-03-SPR23	WG				SHM-13-03	N1	42 00	52 00	1	
48	SHM-13-04-SPR23	WG	6/16/23	13.54	SG	SHM-13-04	N1	20 00	30 00	1	
49	SHM-13-06-SPR23	WG	6/16/23	12:24	SG	SHM-13-06	N1	36 00	46 00	1	
50	SHM-13-07-SPR23	WG	6/16/23	11:15	SG	SHM-13-07	N1	27 00	37 00	1	
51	SHM-13-08-SPR23	WG				SHM-13-08	N1	55 00	65 00	1	
52	SHM-93-22B-SPR23	WG				SHM-93-22B	N1	82 30	92 30	1	
53	SHM-96-5B-SPR23	WG				SHM-96-5B	N1	80 00	90 00	1	
54	SHM-DUP04-SPR23	WG				SHM-96-5B	FD1	80 00	90 00	1	
55	SHP-01-36X-SPR23	WG				SHP-01-36X	N1	3 00	8 00	1	
56	SHP-01-37X-SPR23	WG				SHP-01-37X	N1	1 00	6 00	1	
57	SHP-01-38A-SPR23	WG				SHP-01-38A	N1	1 50	6 50	1	
73	SHP-DUP05-SPR23	WG				SHP-01-38A	FD1	1 50	6 50	1	
58	SHP-2016-06A-SPR23	WG	6/15/23	11:30	SG	SHP-2016-06A	N1	81 00	86 00	1	
59	SHP-2016-06B-SPR23	WG				SHP-2016-06B	N1	102 00	112 00	1	
60	SHP-2016-06C-SPR23	WG				SHP-2016-06C	N1	123 00	133 00	1	
61	SHP-2016-07A-SPR23	WG	6/15/23	12:00	GS	SHP-2016-07A	N1	22 00	32 00	1	
62	SHP-2016-07B-SPR23	WG	6/15/23	13:15	GS	SHP-2016-07B	N1	70 00	80 00	1	

Relinquished by (Signature)
Date 6/16/2023
Time 16:10
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Date
Time

TA 6-17-23 930

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment.

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2 Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Event. Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)												
							46	9	9	5	3												
	Sample ID	Matrix	Date	Time	Samp Init												Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
22	PZ-12-05-SPR23	WG					X	X	X	X	X						PZ-12-05	N1	26 00	36 00	1	
23	PZ-12-06-SPR23	WG					X	X	X	X	X						PZ-12-06	N1	25 00	35 00	1	
30	SHL-DUP02-SPR23	WG					X	X	X	X	X						PZ-12-06	FD1	25 00	35 00	1	
24	PZ-12-07-SPR23	WG	6/15/23	12:10	FG		X	X	X	X	X						PZ-12-07	N1	20 00	30 00	1	
25	PZ-12-08-SPR23	WG	6/15/23	13:25	FG		X	X	X	X	X						PZ-12-08	N1	22 00	32 00	1	
26	PZ-12-09-SPR23	WG					X	X	X	X	X						PZ-12-09	N1	20 00	30 00	1	
28	PZ-12-10-SPR23	WG					X	X	X	X	X						PZ-12-10	N1	20 00	30 00	1	
27	PZ-12-10-SPR23	WG					X	X	X	X	X						PZ-12-10	MS1	20 00	30 00	1	
29	PZ-12-10-SPR23	WG					X	X	X	X	X						PZ-12-10	SD1	20 00	30 00	1	
31	SHL-10-SPR23	WG	6/15/23	9:55	FG		X	X	X	X	X						SHL-10	N1	24 00	39 00	1	
32	SHL-11-SPR23	WG					X	X	X	X	X						SHL-11	N1	12 00	27 00	1	
33	SHL-19-SPR23	WG	6/16/23	12:35	FG		X	X	X	X	X						SHL-19	N1	20 00	30 00	1	
34	SHL-20-SPR23	WG	6/15/23	15:15	FG		X	X	X	X	X						SHL-20	N1	39 00	49 00	1	
36	SHL-DUP03-SPR23	WG	6/15/23	15:15	FG		X	X	X	X	X						SHL-20	FD1	39 00	49 00	1	
35	SHL-4-SPR23	WG	6/16/23	11:40	FG		X	X	X	X	X						SHL-4	N1	3 00	13 00	1	
38	SHM-05-40X-SPR23	WG					X	X	X	X	X						SHM-05-40X	N1	32 00	34 00	1	
37	SHM-05-40X-SPR23	WG					X	X	X	X	X						SHM-05-40X	MS1	32 00	34 00	1	
39	SHM-05-40X-SPR23	WG					X	X	X	X	X						SHM-05-40X	SD1	32 00	34 00	1	
40	SHM-05-41B-SPR23	WG					X	X	X	X	X						SHM-05-41B	N1	62 00	64 00	1	
42	SHM-05-41C-SPR23	WG					X	X	X	X	X						SHM-05-41C	N1	88 00	93 00	1	
41	SHM-05-41C-SPR23	WG					X	X	X	X	X						SHM-05-41C	MS1	88 00	93 00	1	

Relinquished by (Signature) Date 6/16/2023 Time 16:10 Received by (Signature)

Received by Laboratory (Signature) Date Time

TA 6-17-23 930

7/19/2023

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive Suite B7 Charleston SC 29492
(843) 619-370-0374 jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name. Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL amber glass H2SO4 pH < 2, Cool < 6degC
5	1x 125mL plastic Cool < 6degC
9	1x 250mL, plastic HNO3, pH < 2, Cool < 6degC
46	1x 250mL plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
2	EPA-PZ-2012-1A-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-1A	N1	23 70	28 70	1	
3	EPA-PZ-2012-1B-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-1B	N1	73 56	78 56	1	
4	EPA-PZ-2012-2A-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-2A	N1	18 14	23 14	1	
5	EPA-PZ-2012-2B-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-2B	N1	73 16	78 16	1	
6	EPA-PZ-2012-3A-SPR23	WG	6/16/23	9:05	GS		X	X	X	X	X					EPA-PZ-2012-3A	N1	19 09	24 09	1	
7	EPA-PZ-2012-3B-SPR23	WG	6/16/23	9:55	GS		X	X	X	X	X					EPA-PZ-2012-3B	N1	68 70	73 70	1	
8	EPA-PZ-2012-4A-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-4A	N1	19 56	24 56	1	
9	EPA-PZ-2012-4B-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-4B	N1	79 50	84 50	1	
1	EPA-DUP01-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-4B	FD1	79 50	84 50	1	
10	EPA-PZ-2012-5A-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-5A	N1	17 95	22 95	1	
11	EPA-PZ-2012-5B-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-5B	N1	68 46	73 46	1	
12	EPA-PZ-2012-6A-SPR23	WG	6/15/23	15:45	GS		X	X	X	X	X					EPA-PZ-2012-6A	N1	24 19	29 19	1	
13	EPA-PZ-2012-6B-SPR23	WG	6/15/23	17:10	GS		X	X	X	X	X					EPA-PZ-2012-6B	N1	74 23	79 23	1	
14	EPA-PZ-2012-7A-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-7A	N1	23 87	28 87	1	
15	EPA-PZ-2012-7B-SPR23	WG					X	X	X	X	X					EPA-PZ-2012-7B	N1	58 82	63 82	1	
16	EW-01-SPR23	WG	6/16/23	07:58	FG		X	X	X	X	X					EW-01	N1	60 00	85 00	1	
17	EW-04-SPR23	WG	6/16/23	8:08	FG		X	X	X	X	X					EW-04	N1	70 00	95 00	1	
18	PZ-12-01-SPR23	WG					X	X	X	X	X					PZ-12-01	N1	24 00	34 00	1	
19	PZ-12-02-SPR23	WG					X	X	X	X	X					PZ-12-02	N1	24 00	34 00	1	
20	PZ-12-03-SPR23	WG					X	X	X	X	X					PZ-12-03	N1	24 00	34 00	1	
21	PZ-12-04-SPR23	WG					X	X	X	X	X					PZ-12-04	N1	24 00	34 00	1	

Relinquished by (Signature)
Date 6/16/2023
Time 16:10
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Received by Laboratory (Signature)
Date 6-17-23
Time 930

7/19/2023

CHAIN-OF-CUSTODY RECORD

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COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

		A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)									Depth (ft bgs)			
	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023	46	9	9	5	3												
	Sample ID	Matrix	Date	Time	Samp Init										Location ID	Sample Type	Top	Bottom	Cooler	Comments
63	SHP-2016-1A-SPR23	WG				X	X	X	X	X					SHP-2016-1A	N1	13 00	23 00	1	
64	SHP-2016-1B-SPR23	WG				X	X	X	X	X					SHP-2016-1B	N1	75 00	85 00	1	
65	SHP-2016-2A-SPR23	WG				X	X	X	X	X					SHP-2016-2A	N1	20 00	25 00	1	
66	SHP-2016-2B-SPR23	WG				X	X	X	X	X					SHP-2016-2B	N1	80 00	85 00	1	
67	SHP-2016-3A-SPR23	WG				X	X	X	X	X					SHP-2016-3A	N1	20 00	25 00	1	
68	SHP-2016-3B-SPR23	WG				X	X	X	X	X					SHP-2016-3B	N1	80 00	85 00	1	
69	SHP-2016-4A-SPR23	WG				X	X	X	X	X					SHP-2016-4A	N1	25 00	30 00	1	
70	SHP-2016-4B-SPR23	WG				X	X	X	X	X					SHP-2016-4B	N1	85 00	90 00	1	
71	SHP-2016-5A-SPR23	WG	6/16/23	12:35	GS	X	X	X	X	X					SHP-2016-5A	N1	25 00	30 00	1	
72	SHP-2016-5B-SPR23	WG	6/16/23	11:35	GS	X	X	X	X	X					SHP-2016-5B	N1	85 00	90 00	1	
74	SHP-DUP06-SPR23	WG	6/16/23	12:35	GS	X	X	X	X	X					SHP-2016-5A	FD1	25 00	30 00	1	
75	SHL-RB01-SPR23	WG	6/16/23	13:16	FG		X	X												
76																				
77																				
78																				
79																				

Turnaround Time Standard

Relinquished by (Signature)
Date 6/16/2023
Time 16:10
Received by (Signature)

Received by Laboratory (Signature)
Date
Time

TA 6.17.23 930

7/19/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236498-2

Login Number: 236498

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 7/14/2023 1:01:20 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-236818-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Heather Trotter, Project Manager
Heather.Trotter@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-236818-1	SHM-13-03-SPR23	Water	06/20/23 13:08	06/23/23 10:12
680-236818-2	SHM-13-08-SPR23	Water	06/20/23 14:54	06/23/23 10:12
680-236818-3	SHP-01-36X-SPR23	Water	06/21/23 11:04	06/23/23 10:12
680-236818-4	SHP-01-37X-SPR23	Water	06/21/23 12:16	06/23/23 10:12
680-236818-5	SHM-05-40X-SPR23	Water	06/21/23 14:46	06/23/23 10:12

Job ID: 680-236818-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-236818-1

Receipt
The samples were received on 6/23/2023 10:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.5°C

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: According to 2320B SOP the method titrates down to about 4.5, this method does not pH down to 1.(MB 680-786607/4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-03-SPR23
Lab Sample ID: 680-236818-1

Date Collected: 06/20/23 13:08
Matrix: Water

Date Received: 06/23/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	34		0.50	0.50	0.20	mg/L		07/12/23 19:25	1
Sulfate	4.5		1.0	1.0	0.40	mg/L		07/12/23 19:25	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	7500		100	50	20	ug/L		06/26/23 15:56	1
Manganese	7200		10	5.0	1.3	ug/L		06/26/23 15:56	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	180		5.0	3.0	0.86	ug/L		06/26/23 15:25	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	220		5.0	5.0	2.2	mg/L		06/30/23 14:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.1		1.5	1.0	0.50	mg/L		07/01/23 11:07	1

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-08-SPR23
Lab Sample ID: 680-236818-2
Date Collected: 06/20/23 14:54
Matrix: Water
Date Received: 06/23/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	8.7		0.50	0.50	0.20	mg/L		07/12/23 19:38	1
Sulfate	4.8		1.0	1.0	0.40	mg/L		07/12/23 19:38	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	23000		100	50	20	ug/L		06/26/23 15:43	1
Manganese	670		10	5.0	1.3	ug/L		06/26/23 15:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	780		5.0	3.0	0.86	ug/L		06/26/23 15:21	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	77		5.0	5.0	2.2	mg/L		06/30/23 14:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		07/01/23 11:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-01-36X-SPR23
Lab Sample ID: 680-236818-3
Date Collected: 06/21/23 11:04
Matrix: Water
Date Received: 06/23/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	83		0.50	0.50	0.20	mg/L		07/12/23 19:50	1
Sulfate	4.8		1.0	1.0	0.40	mg/L		07/12/23 19:50	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	590		100	50	20	ug/L		06/26/23 16:04	1
Manganese	25		10	5.0	1.3	ug/L		06/26/23 16:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	8.4		5.0	3.0	0.86	ug/L		06/26/23 15:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	28		5.0	5.0	2.2	mg/L		06/30/23 13:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.2		1.5	1.0	0.50	mg/L		07/05/23 12:39	1

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-01-37X-SPR23
Lab Sample ID: 680-236818-4
Date Collected: 06/21/23 12:16
Matrix: Water
Date Received: 06/23/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	76		0.50	0.50	0.20	mg/L		07/12/23 20:03	1
Sulfate	6.7		1.0	1.0	0.40	mg/L		07/12/23 20:03	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	960		100	50	20	ug/L		06/26/23 16:02	1
Manganese	85		10	5.0	1.3	ug/L		06/26/23 16:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	12		5.0	3.0	0.86	ug/L		06/26/23 15:41	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	44		5.0	5.0	2.2	mg/L		06/30/23 14:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.0		1.5	1.0	0.50	mg/L		07/05/23 13:45	1

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-05-40X-SPR23
Lab Sample ID: 680-236818-5
Date Collected: 06/21/23 14:46
Matrix: Water
Date Received: 06/23/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	15		0.50	0.50	0.20	mg/L		07/12/23 11:24	1
Sulfate	4.4		1.0	1.0	0.40	mg/L		07/12/23 11:24	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20000		100	50	20	ug/L		06/26/23 15:04	1
Manganese	630	J1	10	5.0	1.3	ug/L		06/26/23 15:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2000	J1	5.0	3.0	0.86	ug/L		06/26/23 13:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	100		5.0	5.0	2.2	mg/L		06/30/23 14:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		07/01/23 04:00	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-787903/2
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/12/23 10:30	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/12/23 10:30	1

Lab Sample ID: LCS 680-787903/4
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	9.98		mg/L		100	87 - 112

Lab Sample ID: LCSD 680-787903/5
Matrix: Water
Analysis Batch: 787903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	10.0		mg/L		100	87 - 112	0	15

Lab Sample ID: 680-236818-5 MS
Matrix: Water
Analysis Batch: 787903

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15		10.0	24.8		mg/L		102	87 - 111
Sulfate	4.4		10.0	14.2		mg/L		98	87 - 112

Lab Sample ID: 680-236818-5 MSD
Matrix: Water
Analysis Batch: 787903

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	15		10.0	24.4		mg/L		97	87 - 111	2	15
Sulfate	4.4		10.0	13.7	M	mg/L		94	87 - 112	3	15

Lab Sample ID: MB 680-787904/33
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/12/23 17:06	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/12/23 17:06	1

Lab Sample ID: LCS 680-787904/34
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	10.1		mg/L		101	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-787904/35
Matrix: Water
Analysis Batch: 787904

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate			10.0	10.1		mg/L		101	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-785423/1-A
Matrix: Water
Analysis Batch: 785646

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 785423

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/26/23 14:59	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/26/23 14:59	1

Lab Sample ID: LCS 680-785423/2-A
Matrix: Water
Analysis Batch: 785646

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 785423

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	4960		ug/L		99	87 - 115		
Manganese			400	407		ug/L		102	90 - 114		

Lab Sample ID: MB 680-785425/1-A
Matrix: Water
Analysis Batch: 785646

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 785425

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/26/23 15:30	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/26/23 15:30	1

Lab Sample ID: LCS 680-785425/2-A
Matrix: Water
Analysis Batch: 785646

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 785425

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	5100		ug/L		102	87 - 115		
Manganese			400	417		ug/L		104	90 - 114		

Lab Sample ID: 680-236818-5 MS
Matrix: Water
Analysis Batch: 785646

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved
Prep Batch: 785423

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	20000		4990	25700		ug/L		115	87 - 115		
Manganese	630	J1	400	977	J1	ug/L		87	90 - 114		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 680-236818-5 MSD
Matrix: Water
Analysis Batch: 785646

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved
Prep Batch: 785423

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	20000		4990	24400		ug/L		90	87 - 115	5	20
Manganese	630	J1	400	977	J1	ug/L		87	90 - 114	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-785424/1-A
Matrix: Water
Analysis Batch: 785664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 785424

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/26/23 12:59	1

Lab Sample ID: LCS 680-785424/2-A
Matrix: Water
Analysis Batch: 785664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 785424

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	107		ug/L		107	84 - 116

Lab Sample ID: MB 680-785426/1-A
Matrix: Water
Analysis Batch: 785664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 785426

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/26/23 14:52	1

Lab Sample ID: LCS 680-785426/2-A
Matrix: Water
Analysis Batch: 785664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 785426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	107		ug/L		107	84 - 116

Lab Sample ID: 680-236818-5 MS
Matrix: Water
Analysis Batch: 785664

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved
Prep Batch: 785424

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	2000	J1	100	2150	4	ug/L		142	84 - 116

Lab Sample ID: 680-236818-5 MSD
Matrix: Water
Analysis Batch: 785664

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved
Prep Batch: 785424

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	2000	J1	100	2020	4	ug/L		6	84 - 116	7	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-786607/4
Matrix: Water
Analysis Batch: 786607

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		06/30/23 11:31	1

Lab Sample ID: LCS 680-786607/6
Matrix: Water
Analysis Batch: 786607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	250	244		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-786607/29
Matrix: Water
Analysis Batch: 786607

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity	250	249		mg/L		100	90 - 112	2	30

Lab Sample ID: 680-236818-4 DU
Matrix: Water
Analysis Batch: 786607

Client Sample ID: SHP-01-37X-SPR23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	44		41.7		mg/L		6	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-786498/2
Matrix: Water
Analysis Batch: 786498

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		07/01/23 02:37	1

Lab Sample ID: LCS 680-786498/3
Matrix: Water
Analysis Batch: 786498

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.7		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-786498/4
Matrix: Water
Analysis Batch: 786498

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120	0	20

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LLCS 680-786498/5
Matrix: Water
Analysis Batch: 786498

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			1.00	1.21	J	mg/L		121	50 - 150		

Lab Sample ID: 680-236818-5 MS
Matrix: Water
Analysis Batch: 786498

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	1.4	J	20.0	20.3		mg/L		94	80 - 120		

Lab Sample ID: 680-236818-5 MSD
Matrix: Water
Analysis Batch: 786498

Client Sample ID: SHM-05-40X-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	1.4	J	20.0	20.2		mg/L		94	80 - 120	0	20

Lab Sample ID: MB 680-787097/3
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		07/05/23 11:13	1

Lab Sample ID: LCS 680-787097/4
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.4		mg/L		97	80 - 120		

Lab Sample ID: LCSD 680-787097/5
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.7		mg/L		98	80 - 120	1	20

Lab Sample ID: 680-236818-3 MS
Matrix: Water
Analysis Batch: 787097

Client Sample ID: SHP-01-36X-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon	3.2		20.0	23.4		mg/L		101	80 - 120		

Lab Sample ID: 680-236818-3 MSD
Matrix: Water
Analysis Batch: 787097

Client Sample ID: SHP-01-36X-SPR23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.2		20.0	23.3		mg/L		100	80 - 120	1	20

HPLC/IC

Analysis Batch: 787903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-5	SHM-05-40X-SPR23	Total/NA	Water	9056A	
MB 680-787903/2	Method Blank	Total/NA	Water	9056A	
LCS 680-787903/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787903/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-236818-5 MS	SHM-05-40X-SPR23	Total/NA	Water	9056A	
680-236818-5 MSD	SHM-05-40X-SPR23	Total/NA	Water	9056A	

Analysis Batch: 787904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Total/NA	Water	9056A	
680-236818-2	SHM-13-08-SPR23	Total/NA	Water	9056A	
680-236818-3	SHP-01-36X-SPR23	Total/NA	Water	9056A	
680-236818-4	SHP-01-37X-SPR23	Total/NA	Water	9056A	
MB 680-787904/33	Method Blank	Total/NA	Water	9056A	
LCS 680-787904/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787904/35	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 785423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-5	SHM-05-40X-SPR23	Dissolved	Water	3005A	
MB 680-785423/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-785423/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236818-5 MS	SHM-05-40X-SPR23	Dissolved	Water	3005A	
680-236818-5 MSD	SHM-05-40X-SPR23	Dissolved	Water	3005A	

Prep Batch: 785424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-5	SHM-05-40X-SPR23	Dissolved	Water	3005A	
MB 680-785424/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-785424/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-236818-5 MS	SHM-05-40X-SPR23	Dissolved	Water	3005A	
680-236818-5 MSD	SHM-05-40X-SPR23	Dissolved	Water	3005A	

Prep Batch: 785425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Dissolved	Water	3005A	
680-236818-2	SHM-13-08-SPR23	Dissolved	Water	3005A	
680-236818-3	SHP-01-36X-SPR23	Dissolved	Water	3005A	
680-236818-4	SHP-01-37X-SPR23	Dissolved	Water	3005A	
MB 680-785425/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-785425/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 785426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Dissolved	Water	3005A	
680-236818-2	SHM-13-08-SPR23	Dissolved	Water	3005A	
680-236818-3	SHP-01-36X-SPR23	Dissolved	Water	3005A	
680-236818-4	SHP-01-37X-SPR23	Dissolved	Water	3005A	
MB 680-785426/1-A	Method Blank	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 785426 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-785426/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 785646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Dissolved	Water	6010C	785425
680-236818-2	SHM-13-08-SPR23	Dissolved	Water	6010C	785425
680-236818-3	SHP-01-36X-SPR23	Dissolved	Water	6010C	785425
680-236818-4	SHP-01-37X-SPR23	Dissolved	Water	6010C	785425
680-236818-5	SHM-05-40X-SPR23	Dissolved	Water	6010C	785423
MB 680-785423/1-A	Method Blank	Total Recoverable	Water	6010C	785423
MB 680-785425/1-A	Method Blank	Total Recoverable	Water	6010C	785425
LCS 680-785423/2-A	Lab Control Sample	Total Recoverable	Water	6010C	785423
LCS 680-785425/2-A	Lab Control Sample	Total Recoverable	Water	6010C	785425
680-236818-5 MS	SHM-05-40X-SPR23	Dissolved	Water	6010C	785423
680-236818-5 MSD	SHM-05-40X-SPR23	Dissolved	Water	6010C	785423

Analysis Batch: 785664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Dissolved	Water	6020A	785426
680-236818-2	SHM-13-08-SPR23	Dissolved	Water	6020A	785426
680-236818-3	SHP-01-36X-SPR23	Dissolved	Water	6020A	785426
680-236818-4	SHP-01-37X-SPR23	Dissolved	Water	6020A	785426
680-236818-5	SHM-05-40X-SPR23	Dissolved	Water	6020A	785424
MB 680-785424/1-A	Method Blank	Total Recoverable	Water	6020A	785424
MB 680-785426/1-A	Method Blank	Total Recoverable	Water	6020A	785426
LCS 680-785424/2-A	Lab Control Sample	Total Recoverable	Water	6020A	785424
LCS 680-785426/2-A	Lab Control Sample	Total Recoverable	Water	6020A	785426
680-236818-5 MS	SHM-05-40X-SPR23	Dissolved	Water	6020A	785424
680-236818-5 MSD	SHM-05-40X-SPR23	Dissolved	Water	6020A	785424

General Chemistry

Analysis Batch: 786498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Dissolved	Water	9060A	
680-236818-2	SHM-13-08-SPR23	Dissolved	Water	9060A	
680-236818-5	SHM-05-40X-SPR23	Dissolved	Water	9060A	
MB 680-786498/2	Method Blank	Dissolved	Water	9060A	
LCS 680-786498/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-786498/4	Lab Control Sample Dup	Dissolved	Water	9060A	
LLCS 680-786498/5	Lab Control Sample	Dissolved	Water	9060A	
680-236818-5 MS	SHM-05-40X-SPR23	Dissolved	Water	9060A	
680-236818-5 MSD	SHM-05-40X-SPR23	Dissolved	Water	9060A	

Analysis Batch: 786607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-1	SHM-13-03-SPR23	Total/NA	Water	2320B-2011	
680-236818-2	SHM-13-08-SPR23	Total/NA	Water	2320B-2011	
680-236818-3	SHP-01-36X-SPR23	Total/NA	Water	2320B-2011	
680-236818-4	SHP-01-37X-SPR23	Total/NA	Water	2320B-2011	
680-236818-5	SHM-05-40X-SPR23	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 786607 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-786607/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-786607/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-786607/29	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-236818-4 DU	SHP-01-37X-SPR23	Total/NA	Water	2320B-2011	

Analysis Batch: 787097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-236818-3	SHP-01-36X-SPR23	Dissolved	Water	9060A	
680-236818-4	SHP-01-37X-SPR23	Dissolved	Water	9060A	
MB 680-787097/3	Method Blank	Dissolved	Water	9060A	
LCS 680-787097/4	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-787097/5	Lab Control Sample Dup	Dissolved	Water	9060A	
680-236818-3 MS	SHP-01-36X-SPR23	Dissolved	Water	9060A	
680-236818-3 MSD	SHP-01-36X-SPR23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHM-13-03-SPR23
Lab Sample ID: 680-236818-1
Date Collected: 06/20/23 13:08
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 19:25	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	785425	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6010C		1			785646	06/26/23 15:56	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	785426	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6020A		1			785664	06/26/23 15:25	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			786607	06/30/23 14:36	DR	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 11:07	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-13-08-SPR23
Lab Sample ID: 680-236818-2
Date Collected: 06/20/23 14:54
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 19:38	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	785425	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6010C		1			785646	06/26/23 15:43	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	785426	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6020A		1			785664	06/26/23 15:21	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			786607	06/30/23 14:45	DR	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 11:27	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-01-36X-SPR23
Lab Sample ID: 680-236818-3
Date Collected: 06/21/23 11:04
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 19:50	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	785425	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6010C		1			785646	06/26/23 16:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	785426	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6020A		1			785664	06/26/23 15:46	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-01-36X-SPR23
Lab Sample ID: 680-236818-3
Date Collected: 06/21/23 11:04
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			786607	06/30/23 13:36	DR	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	787097	07/05/23 12:39	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-01-37X-SPR23
Lab Sample ID: 680-236818-4
Date Collected: 06/21/23 12:16
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787904	07/12/23 20:03	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	785425	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6010C		1			785646	06/26/23 16:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	785426	06/26/23 05:48	RR	EET SAV
Dissolved	Analysis	6020A		1			785664	06/26/23 15:41	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			786607	06/30/23 14:08	DR	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	787097	07/05/23 13:45	JU	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-05-40X-SPR23
Lab Sample ID: 680-236818-5
Date Collected: 06/21/23 14:46
Matrix: Water
Date Received: 06/23/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787903	07/12/23 11:24	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	785423	06/26/23 05:07	RR	EET SAV
Dissolved	Analysis	6010C		1			785646	06/26/23 15:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	785424	06/26/23 05:07	RR	EET SAV
Dissolved	Analysis	6020A		1			785664	06/26/23 13:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			786607	06/30/23 14:26	DR	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	786498	07/01/23 04:00	JU	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-236818-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7 Charleston, SC 29492
(843) 619-3370-0374, jennifer.singer@arcadis.com

COC # SHL_SPR23

Boston #215

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing Testamerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring SHL, Spring 2023
Project Number: DEVNS-LTM	POC: Jerry Lanier, 912-250-0231 jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 50mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 25mL plastic Cool < 6degC
9	1x 50mL plastic, HNO3 pH < 2; Cool < 6degC
46	1x 50mL, plastic, Cool < 6degC

Event: Seres-Arcadis JV, Long Term Monitoring, SHL Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	4	3						
43	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	SD1	88.00	93.00	1	
44	SHM-07-05X-SPR23	WG				X	X	X	X	X	SHM-07-05X	N1	55.00	65.00	1	
45	SHM-11-02-SPR23	WG				X	X	X	X	X	SHM-11-02	N1	52.00	66.00	1	
46	SHM-11-06-SPR23	WG				X	X	X	X	X	SHM-11-06	N1	25.00	35.00	1	
47	SHM-13-03-SPR23	WG	06.20.23	13:08		X	X	X	X	X	SHM-13-03	N1	42.00	52.00	1	
48	SHM-13-04-SPR23	WG				X	X	X	X	X	SHM-13-04	N1	20.00	30.00	1	
49	SHM-13-06-SPR23	WG				X	X	X	X	X	SHM-13-06	N1	36.00	46.00	1	
50	SHM-13-07-SPR23	WG				X	X	X	X	X	SHM-13-07	N1	27.00	37.00	1	
51	SHM-13-08-SPR23	WG	06.20.23	14:54		X	X	X	X	X	SHM-13-08	N1	55.00	65.00	1	
52	SHM-93-22B-SPR23	WG				X	X	X	X	X	SHM-93-22B	N1	82.30	92.30	1	
53	SHM-96-5B-SPR23	WG				X	X	X	X	X	SHM-96-5B	N1	80.00	90.00	1	
54	SHM-DUP04-SPR23	WG				X	X	X	X	X	SHM-96-5B	FD1	80.00	90.00	1	
55	SHP-01-36X-SPR23	WG	06.21.23	11:04		X	X	X	X	X	SHP-01-36X	N1	3.00	8.00	1	
56	SHP-01-37X-SPR23	WG	06.21.23	12:16		X	X	X	X	X	SHP-01-37X	N1	1.00	6.00	1	
57	SHP-01-38A-SPR23	WG				X	X	X	X	X	SHP-01-38A	N1	1.50	6.50	1	
73	SHP-DUP05-SPR23	WG				X	X	X	X	X	SHP-01-38A	FD1	1.50	6.50	1	
58	SHP-2016-06A-SPR23	WG				X	X	X	X	X	SHP 2016-06A	N1	81.00	86.00	1	
59	SHP-2016-06B-SPR23	WG				X	X	X	X	X	SHP 2016-06B	N1	102.00	112.00	1	
60	SHP-2016-06C-SPR23	WG				X	X	X	X	X	SHP 2016-06C	N1	123.00	133.00	1	
61	SHP-2016-07A-SPR23	WG				X	X	X	X	X	SHP 2016-07A	N1	22.00	32.00	1	
62	SHP-2016-07B-SPR23	WG				X	X	X	X	X	SHP 2016-07B	N1	70.00	80.00	1	

680-236818 Chain of Custody

Relinquished by: (Signature) Jenna Pyle
Date: 6.22.2023
Time
Received by: (Signature) 6/22/23 1220

Received by Laboratory: (Signature) 6/22/23 1700
Date
Time TA 6.23.23 1012 3.7/35

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7 Charleston, SC 29492
(843) 619-3707 jennifer.singer@arcadis.com

COC # SHL_SPR23

US Army Corps of Engineers

Boston #215

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring SHL, Spring 2023
Project Number: DEVNS-LTM	POC: Jerry Lanier, 912-250-0281 jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica 5102 LaRoche Avenue Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4 pH 2; Cool 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3 pH < 2, Cool < 6degC
46	1x 250mL plastic, Cool < 6degC

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
22	PZ-12 05-SPR23	WG				X	X	X	X	X	PZ-12-05	N1	26 00	36 00	1	
23	PZ-12 06-SPR23	WG				X	X	X	X	X	PZ-12-06	N1	25 00	35 00	1	
30	SHL-DUP02-SPR23	WG				X	X	X	X	X	PZ-12-06	FD1	25 00	35 00	1	
24	PZ-12 07-SPR23	WG				X	X	X	X	X	PZ-12-07	N1	20 00	30 00	1	
25	PZ-12 08-SPR23	WG				X	X	X	X	X	PZ-12-08	N1	22 00	32 00	1	
26	PZ-12 09-SPR23	WG				X	X	X	X	X	PZ-12-09	N1	20 00	30 00	1	
28	PZ-12 10-SPR23	WG				X	X	X	X	X	PZ-12-10	N1	20 00	30 00	1	
27	PZ-12 10-SPR23	WG				X	X	X	X	X	PZ-12-10	MS1	20 00	30 00	1	
29	PZ-12 10-SPR23	WG				X	X	X	X	X	PZ-12-10	SD1	20 00	30 00	1	
31	SHL-10-SPR23	WG				X	X	X	X	X	SHL-10	N1	24 00	39 00	1	
32	SHL-11-SPR23	WG				X	X	X	X	X	SHL-11	N1	12 00	27 00	1	
33	SHL-19-SPR23	WG				X	X	X	X	X	SHL-19	N1	20 00	30 00	1	
34	SHL-20-SPR23	WG				X	X	X	X	X	SHL-20	N1	39 00	49 00	1	
36	SHL-DUP03-SPR23	WG				X	X	X	X	X	SHL-20	FD1	39 00	49 00	1	
35	SHL-4-SPR23	WG				X	X	X	X	X	SHL-4	N1	3 00	13 00	1	
38	SHM-05-40X-SPR23	WG	06.21.23	14:46		X	X	X	X	X	SHM-05-40X	N1	32 00	34 00	1	
37	SHM-05-40X-SPR23	WG	06.21.23	14:46		X	X	X	X	X	SHM-05-40X	MS1	32 00	34 00	1	
39	SHM-05-40X-SPR23	WG	06 21.23	14:46		X	X	X	X	X	SHM-05-40X	SD1	32 00	34 00	1	
40	SHM-05-41B-SPR23	WG				X	X	X	X	X	SHM-05-41B	N1	62 00	64 00	1	
42	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	N1	88 00	93 00	1	
41	SHM-05-41C-SPR23	WG				X	X	X	X	X	SHM-05-41C	MS1	88 00	93 00	1	

Relinquished by: (Signature) Spencer Pratt
Date 06.22.2023
Time
Received by: (Signature) 6/22/23 1220

Received by Laboratory. (Signature) 6/22/23 1700
Date 6.23.23
Time 1012

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-236818-1

Login Number: 236818

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 7/12/2023 12:26:34 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Spring 2023

JOB NUMBER

680-237047-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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7/12/2023 12:26:34 PM

Authorized for release by
Heather Trotter, Project Manager
Heather.Trotter@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-237047-1	SHP-2016-1B-SPR23	Water	06/26/23 13:30	06/28/23 09:48

Job ID: 680-237047-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-237047-1

Receipt
The sample was received on 6/28/2023 9:48 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-1B-SPR23
Lab Sample ID: 680-237047-1

Date Collected: 06/26/23 13:30
Matrix: Water
Date Received: 06/28/23 09:48

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.3		0.50	0.50	0.20	mg/L		07/11/23 22:45	1
Sulfate	3.3		1.0	1.0	0.40	mg/L		07/11/23 22:45	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	17000		100	50	20	ug/L		06/29/23 14:18	1
Manganese	830		10	5.0	1.3	ug/L		06/29/23 14:18	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	110		5.0	3.0	0.86	ug/L		06/30/23 13:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity (SM 2320B-2011)	54		5.0	5.0	2.2	mg/L		07/06/23 12:50	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		07/05/23 14:05	1

QC Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-237047-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-787771/1011
Matrix: Water
Analysis Batch: 787771

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.50	0.50	0.20	mg/L		07/11/23 16:59	1
Sulfate	1.0	U	1.0	1.0	0.40	mg/L		07/11/23 16:59	1

Lab Sample ID: LCS 680-787771/12
Matrix: Water
Analysis Batch: 787771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.0		mg/L		100	87 - 111
Sulfate	10.0	9.94		mg/L		99	87 - 112

Lab Sample ID: LCSD 680-787771/13
Matrix: Water
Analysis Batch: 787771

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	87 - 111	0	15
Sulfate	10.0	9.97		mg/L		100	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-786051/1-A
Matrix: Water
Analysis Batch: 786253

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 786051

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		06/29/23 13:55	1
Manganese	5.0	U	10	5.0	1.3	ug/L		06/29/23 13:55	1

Lab Sample ID: LCS 680-786051/2-A
Matrix: Water
Analysis Batch: 786253

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 786051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5000		ug/L		100	87 - 115
Manganese	400	413		ug/L		103	90 - 114

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-786053/1-A
Matrix: Water
Analysis Batch: 786471

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 786053

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		06/30/23 13:16	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-786053/2-A
Matrix: Water
Analysis Batch: 786471

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 786053

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	101		ug/L		101	84 - 116		

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-787183/4
Matrix: Water
Analysis Batch: 787183

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	2.2	mg/L		07/06/23 11:00	1

Lab Sample ID: LCS 680-787183/6
Matrix: Water
Analysis Batch: 787183

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			250	245		mg/L		98	90 - 112		

Lab Sample ID: LCSD 680-787183/31
Matrix: Water
Analysis Batch: 787183

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Alkalinity			250	244		mg/L		98	90 - 112	0	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-787097/3
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		07/05/23 11:13	1

Lab Sample ID: LCS 680-787097/4
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.4		mg/L		97	80 - 120		

Lab Sample ID: LCSD 680-787097/5
Matrix: Water
Analysis Batch: 787097

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.7		mg/L		98	80 - 120	1	20

QC Association Summary

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Job ID: 680-237047-1

HPLC/IC

Analysis Batch: 787771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Total/NA	Water	9056A	
MB 680-787771/1011	Method Blank	Total/NA	Water	9056A	
LCS 680-787771/12	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-787771/13	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 786051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Dissolved	Water	3005A	
MB 680-786051/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-786051/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 786053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Dissolved	Water	3005A	
MB 680-786053/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-786053/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 786253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Dissolved	Water	6010C	786051
MB 680-786051/1-A	Method Blank	Total Recoverable	Water	6010C	786051
LCS 680-786051/2-A	Lab Control Sample	Total Recoverable	Water	6010C	786051

Analysis Batch: 786471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Dissolved	Water	6020A	786053
MB 680-786053/1-A	Method Blank	Total Recoverable	Water	6020A	786053
LCS 680-786053/2-A	Lab Control Sample	Total Recoverable	Water	6020A	786053

General Chemistry

Analysis Batch: 787097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Dissolved	Water	9060A	
MB 680-787097/3	Method Blank	Dissolved	Water	9060A	
LCS 680-787097/4	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-787097/5	Lab Control Sample Dup	Dissolved	Water	9060A	

Analysis Batch: 787183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-237047-1	SHP-2016-1B-SPR23	Total/NA	Water	2320B-2011	
MB 680-787183/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-787183/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-787183/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Client Sample ID: SHP-2016-1B-SPR23
Lab Sample ID: 680-237047-1

Date Collected: 06/26/23 13:30
Matrix: Water

Date Received: 06/28/23 09:48

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	787771	07/11/23 22:45	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	786051	06/29/23 06:06	RR	EET SAV
Dissolved	Analysis	6010C		1			786253	06/29/23 14:18	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	786053	06/29/23 06:06	RR	EET SAV
Dissolved	Analysis	6020A		1			786471	06/30/23 13:37	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			787183	07/06/23 12:50	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	787097	07/05/23 14:05	JU	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-237047-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Spring 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

Seres-Arcadis JV
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer singer@arcadis com

COC # SHL_SPR23

US Army Corps of Engineers ®

Project Name Former Fort Devens, Long Term Monitoring	Laboratory Eurofins Environment Testing TestAmerica, Savannah, GA	Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Project Number DEVNS-LTM	POC Jerry Lanier, 912-250-0281, jerry lanier@eurofinsus com	
WBS Code	Ship to Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass H2SO4 pH < 2 Cool < 6degC
8	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2 Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Event Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023

	Sample ID	Matrix	Date	Time	Samp Init	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
63	SHP-2016-1A-SPR23	WG				X	X	X	X	X	SHP-2016-1A	N1	13 00	23 00	1	
64	SHP-2016-1B-SPR23	WG	6 26 23	1330	DC	X	X	X	X	X	SHP-2016-1B	N1	75 00	85 00	1	
65	SHP-2016-2A-SPR23	WG				X	X	X	X	X	SHP-2016-2A	N1	20 00	25 00	1	
66	SHP-2016-2B-SPR23	WG				X	X	X	X	X	SHP-2016-2B	N1	80 00	85 00	1	
67	SHP-2016-3A-SPR23	WG				X	X	X	X	X	SHP-2016-3A	N1	20 00	25 00	1	
68	SHP-2016-3B-SPR23	WG				X	X	X	X	X	SHP-2016-3B	N1	80 00	85 00	1	
69	SHP-2016-4A-SPR23	WG				X	X	X	X	X	SHP-2016-4A	N1	25 00	30 00	1	
70	SHP-2016-4B-SPR23	WG				X	X	X	X	X	SHP-2016-4B	N1	85 00	90 00	1	
71	SHP-2016-5A-SPR23	WG				X	X	X	X	X	SHP-2016-5A	N1	25 00	30 00	1	
72	SHP-2016-5B-SPR23	WG				X	X	X	X	X	SHP-2016-5B	N1	85 00	90 00	1	
74	SHP-DUP06-SPR23	WG				X	X	X	X	X	SHP-2016-5A	FD1	25 00	30 00	1	
75																
76																
77																
78																
79																

Turnaround Time Standard

680-237047 Chain of Custody

Relinquished by (Signature) [signature]
Date 6/27/23
Time 1020
Received by (Signature) [signature]

[signature] 6/27/23 1655 FedEx

Received by Laboratory (Signature) C Mmo
Date 6/28/23
Time 0948

14/1.2

7/12/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-237047-1

Login Number: 237047
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 11/30/2023 7:02:20 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Fall 2023

JOB NUMBER

680-242110-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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11/30/2023 7:02:20 PM

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242110-1	PZ-12-07-FAL23	Water	10/20/23 10:40	10/24/23 10:02
680-242110-2	PZ-12-08-FAL23	Water	10/20/23 12:25	10/24/23 10:02
680-242110-3	SHM-11-02-FAL23	Water	10/20/23 13:55	10/24/23 10:02

Job ID: 680-242110-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-242110-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/24/2023 10:02 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
Method 6010C_DOD5: The method blank for preparation batch 680-804427 and analytical batch 680-804706 contained iron above the <CHOOSE_ONE> method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9060A_Diss: The low level check standard recovery associated with batch 680-805419 is outside the acceptance criteria for the following analyte(s): TOC.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-07-FAL23
Lab Sample ID: 680-242110-1
Date Collected: 10/20/23 10:40
Matrix: Water
Date Received: 10/24/23 10:02

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.98		0.55	0.50	0.20	mg/L		11/09/23 00:10	1
Sulfate	22	M	1.5	1.0	0.40	mg/L		11/09/23 00:10	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2500	B	100	50	20	ug/L		10/25/23 14:55	1
Manganese	1100		10	5.0	1.3	ug/L		10/25/23 14:55	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	74		5.0	3.0	0.86	ug/L		10/26/23 03:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	88		5.5	5.0	2.2	mg/L		11/02/23 15:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.7		1.5	1.0	0.50	mg/L		10/29/23 04:54	1

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-08-FAL23
Lab Sample ID: 680-242110-2
Date Collected: 10/20/23 12:25
Matrix: Water
Date Received: 10/24/23 10:02

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.63		0.55	0.50	0.20	mg/L		11/09/23 00:48	1
Sulfate	9.7		1.5	1.0	0.40	mg/L		11/09/23 00:48	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	4100	B	100	50	20	ug/L		10/25/23 14:57	1
Manganese	1100		10	5.0	1.3	ug/L		10/25/23 14:57	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		10/26/23 03:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	50		5.5	5.0	2.2	mg/L		11/02/23 16:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.9		1.5	1.0	0.50	mg/L		10/29/23 05:23	1

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-11-02-FAL23
Lab Sample ID: 680-242110-3
Date Collected: 10/20/23 13:55
Matrix: Water
Date Received: 10/24/23 10:02

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	62		0.55	0.50	0.20	mg/L		11/09/23 01:26	1
Sulfate	6.2		1.5	1.0	0.40	mg/L		11/09/23 01:26	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	9900	B	100	50	20	ug/L		10/25/23 14:59	1
Manganese	690		10	5.0	1.3	ug/L		10/25/23 14:59	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	13		5.0	3.0	0.86	ug/L		10/26/23 03:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	210		5.5	5.0	2.2	mg/L		11/02/23 16:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.7		1.5	1.0	0.50	mg/L		10/29/23 05:49	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-807207/106
Matrix: Water
Analysis Batch: 807207

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/08/23 21:13	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/08/23 21:13	1

Lab Sample ID: LCS 680-807207/107
Matrix: Water
Analysis Batch: 807207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.0		mg/L		100	87 - 111
Sulfate	10.0	9.67		mg/L		97	87 - 112

Lab Sample ID: LCSD 680-807207/108
Matrix: Water
Analysis Batch: 807207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.0		mg/L		100	87 - 111	0	15
Sulfate	10.0	9.67		mg/L		97	87 - 112	0	15

Lab Sample ID: 680-242110-2 MS
Matrix: Water
Analysis Batch: 807207

Client Sample ID: PZ-12-08-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.63		10.0	10.4		mg/L		98	87 - 111
Sulfate	9.7		10.0	19.5		mg/L		98	87 - 112

Lab Sample ID: 680-242110-2 MSD
Matrix: Water
Analysis Batch: 807207

Client Sample ID: PZ-12-08-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	0.63		10.0	10.3		mg/L		96	87 - 111	2	15
Sulfate	9.7		10.0	19.8	M	mg/L		101	87 - 112	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-804427/1-A
Matrix: Water
Analysis Batch: 804706

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 804427

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	52.1	J	100	50	20	ug/L		10/25/23 14:34	1
Manganese	5.0	U	10	5.0	1.3	ug/L		10/25/23 14:34	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-804427/2-A
Matrix: Water
Analysis Batch: 804706

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 804427

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5100		ug/L		102	87 - 115
Manganese	400	416		ug/L		104	90 - 114

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-804425/1-A
Matrix: Water
Analysis Batch: 804717

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 804425

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		10/26/23 01:30	1

Lab Sample ID: LCS 680-804425/2-A
Matrix: Water
Analysis Batch: 804717

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 804425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	113		ug/L		113	84 - 116

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-806261/4
Matrix: Water
Analysis Batch: 806261

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/02/23 13:11	1

Lab Sample ID: LCS 680-806261/6
Matrix: Water
Analysis Batch: 806261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	246		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-806261/31
Matrix: Water
Analysis Batch: 806261

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112	0	30

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242110-1

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-805419/2
Matrix: Water
Analysis Batch: 805419

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		10/28/23 17:51	1

Lab Sample ID: LCS 680-805419/3
Matrix: Water
Analysis Batch: 805419

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	20.0		mg/L		100	80 - 120		

Lab Sample ID: LCSD 680-805419/4
Matrix: Water
Analysis Batch: 805419

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	20.2		mg/L		101	80 - 120	1	20

HPLC/IC

Analysis Batch: 807207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Total/NA	Water	9056A	
680-242110-2	PZ-12-08-FAL23	Total/NA	Water	9056A	
680-242110-3	SHM-11-02-FAL23	Total/NA	Water	9056A	
MB 680-807207/106	Method Blank	Total/NA	Water	9056A	
LCS 680-807207/107	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-807207/108	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242110-2 MS	PZ-12-08-FAL23	Total/NA	Water	9056A	
680-242110-2 MSD	PZ-12-08-FAL23	Total/NA	Water	9056A	

Metals

Prep Batch: 804425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Dissolved	Water	3005A	
680-242110-2	PZ-12-08-FAL23	Dissolved	Water	3005A	
680-242110-3	SHM-11-02-FAL23	Dissolved	Water	3005A	
MB 680-804425/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-804425/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 804427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Dissolved	Water	3005A	
680-242110-2	PZ-12-08-FAL23	Dissolved	Water	3005A	
680-242110-3	SHM-11-02-FAL23	Dissolved	Water	3005A	
MB 680-804427/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-804427/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 804706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Dissolved	Water	6010C	804427
680-242110-2	PZ-12-08-FAL23	Dissolved	Water	6010C	804427
680-242110-3	SHM-11-02-FAL23	Dissolved	Water	6010C	804427
MB 680-804427/1-A	Method Blank	Total Recoverable	Water	6010C	804427
LCS 680-804427/2-A	Lab Control Sample	Total Recoverable	Water	6010C	804427

Analysis Batch: 804717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Dissolved	Water	6020A	804425
680-242110-2	PZ-12-08-FAL23	Dissolved	Water	6020A	804425
680-242110-3	SHM-11-02-FAL23	Dissolved	Water	6020A	804425
MB 680-804425/1-A	Method Blank	Total Recoverable	Water	6020A	804425
LCS 680-804425/2-A	Lab Control Sample	Total Recoverable	Water	6020A	804425

General Chemistry

Analysis Batch: 805419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Dissolved	Water	9060A	
680-242110-2	PZ-12-08-FAL23	Dissolved	Water	9060A	
680-242110-3	SHM-11-02-FAL23	Dissolved	Water	9060A	
MB 680-805419/2	Method Blank	Dissolved	Water	9060A	
LCS 680-805419/3	Lab Control Sample	Dissolved	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 805419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-805419/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Analysis Batch: 806261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242110-1	PZ-12-07-FAL23	Total/NA	Water	2320B-2011	
680-242110-2	PZ-12-08-FAL23	Total/NA	Water	2320B-2011	
680-242110-3	SHM-11-02-FAL23	Total/NA	Water	2320B-2011	
MB 680-806261/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806261/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806261/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Client Sample ID: PZ-12-07-FAL23
Lab Sample ID: 680-242110-1

Date Collected: 10/20/23 10:40
Matrix: Water
Date Received: 10/24/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807207	11/09/23 00:10	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	804427	10/25/23 07:48	RR	EET SAV
Dissolved	Analysis	6010C		1			804706	10/25/23 14:55	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	804425	10/25/23 07:49	RR	EET SAV
Dissolved	Analysis	6020A		1			804717	10/26/23 03:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806261	11/02/23 15:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	805419	10/29/23 04:54	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-08-FAL23
Lab Sample ID: 680-242110-2

Date Collected: 10/20/23 12:25
Matrix: Water
Date Received: 10/24/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807207	11/09/23 00:48	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	804427	10/25/23 07:48	RR	EET SAV
Dissolved	Analysis	6010C		1			804706	10/25/23 14:57	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	804425	10/25/23 07:49	RR	EET SAV
Dissolved	Analysis	6020A		1			804717	10/26/23 03:20	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806261	11/02/23 16:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	805419	10/29/23 05:23	JU	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-11-02-FAL23
Lab Sample ID: 680-242110-3

Date Collected: 10/20/23 13:55
Matrix: Water
Date Received: 10/24/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807207	11/09/23 01:26	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	804427	10/25/23 07:48	RR	EET SAV
Dissolved	Analysis	6010C		1			804706	10/25/23 14:59	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	804425	10/25/23 07:49	RR	EET SAV
Dissolved	Analysis	6020A		1			804717	10/26/23 03:24	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-11-02-FAL23
Lab Sample ID: 680-242110-3
Date Collected: 10/20/23 13:55
Matrix: Water
Date Received: 10/24/23 10:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806261	11/02/23 16:13	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	805419	10/29/23 05:49	JU	EET SAV
	Instrument ID: TOC7									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242110-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A) 46	SW6010C/FLDFLT (B) 9	SW6020A/FLDFLT (B) 9	SW9056A (A) 5	SW9060A/FLDFLT (B) 3	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
21	EPA-PZ-2012-5A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-5A	N1	17.95	22.95	1	
22	EPA-PZ-2012-5B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-5B	N1	68.46	73.46	1	
23	EPA-PZ-2012-6A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-6A	N1	24.19	29.19	1	
24	EPA-PZ-2012-6B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-6B	N1	74.23	79.23	1	
25	EPA-PZ-2012-7A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-7A	N1	23.87	28.87	1	
26	EPA-PZ-2012-7B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-7B	N1	58.82	63.82	1	
27	EW-01-FAL23	WG				X	X	X	X	X	EW-01	N1	60.00	85.00	1	
28	EW-03-FAL23	WG				X	X	X	X	X	EW-03	N1	0.00	0.00	1	
29	EW-04-FAL23	WG				X	X	X	X	X	EW-04	N1	70.00	95.00	1	
30	N5-P1-FAL23	WG				X	X	X	X	X	N5-P1	N1	95.50	97.50	1	
31	PZ-12-01-FAL23	WG				X	X	X	X	X	PZ-12-01	N1	24.00	34.00	1	
32	PZ-12-02-FAL23	WG				X	X	X	X	X	PZ-12-02	N1	24.00	34.00	1	
33	PZ-12-03-FAL23	WG				X	X	X	X	X	PZ-12-03	N1	24.00	34.00	1	
34	PZ-12-04-FAL23	WG				X	X	X	X	X	PZ-12-04	N1	24.00	34.00	1	
35	PZ-12-05-FAL23	WG				X	X	X	X	X	PZ-12-05	N1	26.00	36.00	1	
36	PZ-12-06-FAL23	WG	[illegible]			X	X	X	X	X	PZ-12-06	N1	25.00	35.00	1	
37	PZ-12-07-FAL23	WG	10.20.23	1040	DC	X	X	X	X	X	PZ-12-07	N1	20.00	30.00	1	
38	PZ-12-08-FAL23	WG	10.20.23	1225	DC	X	X	X	X	X	PZ-12-08	N1	22.00	32.00	1	
39	PZ-12-09-FAL23	WG				X	X	X	X	X	PZ-12-09	N1	20.00	30.00	1	
40	PZ-12-10-FAL23	WG				X	X	X	X	X	PZ-12-10	MS1	20.00	30.00	1	

680-242110 Chain of Custody

Relinquished by: (Signature) [signature]
Date 10-20-23
Time 1515
Received by: (Signature)

Received by Laboratory: (Signature) [signature]
Date 10/20/23
Time 1515

[signature] TA 10.24.23 1002 2.3/2.6

11/30/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)					Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3										
81	SHM-10-11-FAL23	WG				X	X	X	X	X					SHM-10-11	N1	50.00	60.00	1	
82	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	MS1	45.00	55.00	1	
83	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	N1	45.00	55.00	1	
84	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	SD1	45.00	55.00	1	
85	SHM-10-13-FAL23	WG				X	X	X	X	X					SHM-10-13	N1	60.00	70.00	1	
86	SHM-10-14-FAL23	WG				X	X	X	X	X					SHM-10-14	N1	60.00	80.00	1	
87	SHM-10-15-FAL23	WG				X	X	X	X	X					SHM-10-15	N1	45.00	55.00	1	
88	SHM-10-16-FAL23	WG				X	X	X	X	X					SHM-10-16	N1	75.00	85.00	1	
89	SHM-11-02-FAL23	WG	10.20.23	1355	DC	X	X	X	X	X					SHM-11-02	N1	52.00	66.00	1	
90	SHM-11-06-FAL23	WG				X	X	X	X	X					SHM-11-06	N1	25.00	35.00	1	
91	SHM-13-01-FAL23	WG				X	X	X	X	X					SHM-13-01	N1	39.00	49.00	1	
92	SHM-13-02-FAL23	WG				X	X	X	X	X					SHM-13-02	N1	60.00	70.00	1	
93	SHM-13-03-FAL23	WG				X	X	X	X	X					SHM-13-03	N1	42.00	52.00	1	
94	SHM-13-04-FAL23	WG				X	X	X	X	X					SHM-13-04	N1	20.00	30.00	1	
95	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	MS1	75.00	85.00	1	
96	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	N1	75.00	85.00	1	
97	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	SD1	75.00	85.00	1	
98	SHM-13-06-FAL23	WG				X	X	X	X	X					SHM-13-06	N1	36.00	46.00	1	
99	SHM-13-07-FAL23	WG				X	X	X	X	X					SHM-13-07	N1	27.00	37.00	1	
100	SHM-13-08-FAL23	WG				X	X	X	X	X					SHM-13-08	N1	55.00	65.00	1	

Relinquished by: (Signature) DMcLaw
Date 10/20/23
Time 1515
Received by: (Signature)

Received by Laboratory: (Signature) Brii Hunter
Date 10/20/23
Time 1515

DM 10-24-23
1002

11/30/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242110-1

Login Number: 242110

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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1 2 3 4 5 6 7 8 9 10 11 12

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 11/19/2023 9:43:14 AM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Fall 2023

JOB NUMBER

680-242420-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
11/19/2023 9:43:14 AM

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242420-1	SHL-DUP03-FAL23	Water	10/27/23 10:45	11/01/23 10:12
680-242420-2	SHL-DUP06-FAL23	Water	10/26/23 14:45	11/01/23 10:12
680-242420-3	PZ-12-01-FAL23	Water	10/25/23 12:30	11/01/23 10:12
680-242420-4	PZ-12-02-FAL23	Water	10/25/23 11:30	11/01/23 10:12
680-242420-5	PZ-12-09-FAL23	Water	10/25/23 14:25	11/01/23 10:12
680-242420-6	PZ-12-10-FAL23	Water	10/25/23 15:35	11/01/23 10:12
680-242420-7	SHL-11-FAL23	Water	10/26/23 11:45	11/01/23 10:12
680-242420-8	SHL-12-FAL23	Water	10/26/23 12:30	11/01/23 10:12
680-242420-9	SHL-15-FAL23	Water	10/26/23 16:15	11/01/23 10:12
680-242420-10	SHL-19-FAL23	Water	10/26/23 13:20	11/01/23 10:12
680-242420-11	SHL-22-FAL23	Water	10/27/23 10:45	11/01/23 10:12
680-242420-12	SHL-7-FAL23	Water	10/26/23 14:45	11/01/23 10:12
680-242420-13	SHL-9-FAL23	Water	10/27/23 13:25	11/01/23 10:12
680-242420-14	SHM-05-42A-FAL23	Water	10/25/23 15:55	11/01/23 10:12
680-242420-15	SHM-05-42B-FAL23	Water	10/25/23 16:40	11/01/23 10:12
680-242420-16	SHM-10-05A-FAL23	Water	10/25/23 13:25	11/01/23 10:12
680-242420-17	SHM-10-10-FAL23	Water	10/26/23 15:10	11/01/23 10:12
680-242420-18	SHM-10-11-FAL23	Water	10/25/23 13:35	11/01/23 10:12
680-242420-19	SHM-10-12-FAL23	Water	10/25/23 11:00	11/01/23 10:12
680-242420-20	SHM-10-16-FAL23	Water	10/25/23 14:25	11/01/23 10:12
680-242420-21	SHM-11-06-FAL23	Water	10/26/23 14:45	11/01/23 10:12
680-242420-22	SHM-13-02-FAL23	Water	10/27/23 13:30	11/01/23 10:12
680-242420-23	SHM-13-03-FAL23	Water	10/27/23 10:50	11/01/23 10:12
680-242420-24	SHM-13-05-FAL23	Water	10/25/23 10:55	11/01/23 10:12
680-242420-25	SHM-13-06-FAL23	Water	10/26/23 11:45	11/01/23 10:12
680-242420-26	SHM-13-07-FAL23	Water	10/26/23 13:40	11/01/23 10:12
680-242420-27	SHM-13-08-FAL23	Water	10/25/23 15:50	11/01/23 10:12
680-242420-28	SHM-13-14D-FAL23	Water	10/27/23 12:10	11/01/23 10:12
680-242420-29	SHM-13-14S-FAL23	Water	10/27/23 11:20	11/01/23 10:12
680-242420-30	SHM-13-15-FAL23	Water	10/27/23 10:40	11/01/23 10:12
680-242420-31	SHM-93-22B-FAL23	Water	10/27/23 11:55	11/01/23 10:12
680-242420-32	SHM-93-22C-FAL23	Water	10/27/23 09:50	11/01/23 10:12
680-242420-33	SHM-93-24A-FAL23	Water	10/26/23 15:55	11/01/23 10:12
680-242420-34	SHM-99-31A-FAL23	Water	10/25/23 09:35	11/01/23 10:12
680-242420-35	SHM-99-31B-FAL23	Water	10/25/23 10:55	11/01/23 10:12
680-242420-36	SHM-99-31C-FAL23	Water	10/25/23 12:00	11/01/23 10:12
680-242420-37	SHM-99-32X-FAL23	Water	10/26/23 17:45	11/01/23 10:12
680-242420-38	SHP-2016-1A-FAL23	Water	10/27/23 10:15	11/01/23 10:12
680-242420-39	SHP-2016-1B-FAL23	Water	10/27/23 12:50	11/01/23 10:12
680-242420-40	SHP-2016-2A-FAL23	Water	10/26/23 10:00	11/01/23 10:12
680-242420-41	SHP-2016-2B-FAL23	Water	10/26/23 11:15	11/01/23 10:12
680-242420-42	SHP-2016-4A-FAL23	Water	10/26/23 14:45	11/01/23 10:12
680-242420-43	SHP-2016-4B-FAL23	Water	10/26/23 13:30	11/01/23 10:12
680-242420-44	SHL-RB01-FAL23	Water	10/25/23 14:00	11/01/23 10:12

Job ID: 680-242420-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-242420-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/1/2023 10:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.8°C, 1.4°C, 2.6°C and 5.4°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-806892 was outside control limits: (680-242420-A-6 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method 9060A_Diss: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 680-808659. A sample duplicate was analyzed with the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-DUP03-FAL23
Lab Sample ID: 680-242420-1

Date Collected: 10/27/23 10:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	33		0.55	0.50	0.20	mg/L		11/15/23 21:23	1
Sulfate	16	M	1.5	1.0	0.40	mg/L		11/15/23 21:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	160		100	50	20	ug/L		11/02/23 18:06	1
Manganese	8000		10	5.0	1.3	ug/L		11/02/23 18:06	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	11		5.0	3.0	0.86	ug/L		11/02/23 20:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	270		5.5	5.0	2.2	mg/L		11/07/23 19:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/14/23 23:43	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-DUP06-FAL23
Lab Sample ID: 680-242420-2
Date Collected: 10/26/23 14:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	78		0.55	0.50	0.20	mg/L		11/15/23 21:57	1
Sulfate	13	M	1.5	1.0	0.40	mg/L		11/15/23 21:57	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	76000		100	50	20	ug/L		11/02/23 18:08	1
Manganese	1900		10	5.0	1.3	ug/L		11/02/23 18:08	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	780		5.0	3.0	0.86	ug/L		11/02/23 20:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	190		5.5	5.0	2.2	mg/L		11/06/23 13:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.7		1.5	1.0	0.50	mg/L		11/12/23 04:10	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-01-FAL23
Lab Sample ID: 680-242420-3
Date Collected: 10/25/23 12:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.55	0.50	0.20	mg/L		11/15/23 22:08	1
Sulfate	25	M	1.5	1.0	0.40	mg/L		11/15/23 22:08	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	65000		100	50	20	ug/L		11/02/23 18:10	1
Manganese	2900		10	5.0	1.3	ug/L		11/02/23 18:10	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	610		5.0	3.0	0.86	ug/L		11/02/23 20:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/06/23 14:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	6.0		1.5	1.0	0.50	mg/L		11/12/23 04:30	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-02-FAL23
Lab Sample ID: 680-242420-4
Date Collected: 10/25/23 11:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	82		0.55	0.50	0.20	mg/L		11/15/23 22:20	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/15/23 22:20	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	79000		100	50	20	ug/L		11/02/23 18:12	1
Manganese	1700		10	5.0	1.3	ug/L		11/02/23 18:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	280		5.0	3.0	0.86	ug/L		11/02/23 20:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	220		5.5	5.0	2.2	mg/L		11/06/23 14:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.8		1.5	1.0	0.50	mg/L		11/12/23 04:49	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-09-FAL23
Lab Sample ID: 680-242420-5
Date Collected: 10/25/23 14:25
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.90		0.55	0.50	0.20	mg/L		11/15/23 22:31	1
Sulfate	9.2		1.5	1.0	0.40	mg/L		11/15/23 22:31	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 18:14	1
Manganese	10		10	5.0	1.3	ug/L		11/02/23 18:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.1	J	5.0	3.0	0.86	ug/L		11/02/23 20:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	88		5.5	5.0	2.2	mg/L		11/06/23 13:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.1		1.5	1.0	0.50	mg/L		11/12/23 05:08	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: PZ-12-10-FAL23
Lab Sample ID: 680-242420-6
Date Collected: 10/25/23 15:35
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.45	J	0.55	0.50	0.20	mg/L		11/15/23 22:43	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/15/23 22:43	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 18:21	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 18:21	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 20:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	74		5.5	5.0	2.2	mg/L		11/06/23 14:47	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		11/12/23 05:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-11-FAL23

Lab Sample ID: 680-242420-7

Date Collected: 10/26/23 11:45

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	120		0.55	0.50	0.20	mg/L		11/15/23 22:54	1
Sulfate	11	M	1.5	1.0	0.40	mg/L		11/15/23 22:54	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	77000		100	50	20	ug/L		11/02/23 18:23	1
Manganese	1800		10	5.0	1.3	ug/L		11/02/23 18:23	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	950		5.0	3.0	0.86	ug/L		11/02/23 21:03	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/07/23 20:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.2		1.5	1.0	0.50	mg/L		11/15/23 00:01	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-12-FAL23
Lab Sample ID: 680-242420-8

Date Collected: 10/26/23 12:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	25		0.55	0.50	0.20	mg/L		11/15/23 23:05	1
Sulfate	60		1.5	1.0	0.40	mg/L		11/15/23 23:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	500		100	50	20	ug/L		11/02/23 18:25	1
Manganese	380		10	5.0	1.3	ug/L		11/02/23 18:25	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	5.0		5.0	3.0	0.86	ug/L		11/02/23 21:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/07/23 20:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.8		1.5	1.0	0.50	mg/L		11/15/23 00:21	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-15-FAL23
Lab Sample ID: 680-242420-9
Date Collected: 10/26/23 16:15
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	20		0.55	0.50	0.20	mg/L		11/15/23 23:17	1
Sulfate	3.6		1.5	1.0	0.40	mg/L		11/15/23 23:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	7800		100	50	20	ug/L		11/02/23 18:27	1
Manganese	400		10	5.0	1.3	ug/L		11/02/23 18:27	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	23		5.0	3.0	0.86	ug/L		11/02/23 21:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	99		5.5	5.0	2.2	mg/L		11/07/23 20:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.8		1.5	1.0	0.50	mg/L		11/15/23 00:37	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-19-FAL23
Lab Sample ID: 680-242420-10

Date Collected: 10/26/23 13:20
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.71		0.55	0.50	0.20	mg/L		11/15/23 23:28	1
Sulfate	8.4		1.5	1.0	0.40	mg/L		11/15/23 23:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 18:29	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 18:29	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.5	J	5.0	3.0	0.86	ug/L		11/02/23 21:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	71		5.5	5.0	2.2	mg/L		11/07/23 19:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.5		1.5	1.0	0.50	mg/L		11/15/23 00:57	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-22-FAL23
Lab Sample ID: 680-242420-11

Date Collected: 10/27/23 10:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	35		0.55	0.50	0.20	mg/L		11/16/23 12:59	1
Sulfate	16		1.5	1.0	0.40	mg/L		11/16/23 12:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	140		100	50	20	ug/L		11/02/23 18:31	1
Manganese	8200		10	5.0	1.3	ug/L		11/02/23 18:31	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10		5.0	3.0	0.86	ug/L		11/02/23 21:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	270		5.5	5.0	2.2	mg/L		11/07/23 19:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		11/15/23 01:15	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHL-7-FAL23

Date Collected: 10/26/23 14:45
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.7		0.55	0.50	0.20	mg/L		11/16/23 11:55	1
Sulfate	3.8		1.5	1.0	0.40	mg/L		11/16/23 11:55	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	28	J	100	50	20	ug/L		11/02/23 18:34	1
Manganese	17		10	5.0	1.3	ug/L		11/02/23 18:34	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 21:32	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	42		5.5	5.0	2.2	mg/L		11/07/23 19:25	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.93	J	1.5	1.0	0.50	mg/L		11/15/23 01:33	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-9-FAL23
Lab Sample ID: 680-242420-13
Date Collected: 10/27/23 13:25
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	55		0.55	0.50	0.20	mg/L		11/17/23 12:46	1
Sulfate	0.86	J	1.5	1.0	0.40	mg/L		11/17/23 12:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	7400		100	50	20	ug/L		11/02/23 18:36	1
Manganese	540		10	5.0	1.3	ug/L		11/02/23 18:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	43		5.0	3.0	0.86	ug/L		11/02/23 21:36	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	69		5.5	5.0	2.2	mg/L		11/07/23 20:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.1		1.5	1.0	0.50	mg/L		11/15/23 01:49	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-05-42A-FAL23

Lab Sample ID: 680-242420-14

Date Collected: 10/25/23 15:55

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.6		0.55	0.50	0.20	mg/L		11/16/23 12:06	1
Sulfate	3.8	M	1.5	1.0	0.40	mg/L		11/16/23 12:06	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	240		100	50	20	ug/L		11/02/23 18:38	1
Manganese	22		10	5.0	1.3	ug/L		11/02/23 18:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 21:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	23		5.5	5.0	2.2	mg/L		11/06/23 15:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.52	J	1.5	1.0	0.50	mg/L		11/12/23 05:45	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-05-42B-FAL23
Lab Sample ID: 680-242420-15
Date Collected: 10/25/23 16:40
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	49		0.55	0.50	0.20	mg/L		11/16/23 12:17	1
Sulfate	9.1		1.5	1.0	0.40	mg/L		11/16/23 12:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	25000		100	50	20	ug/L		11/02/23 18:40	1
Manganese	6600		10	5.0	1.3	ug/L		11/02/23 18:40	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	140		5.0	3.0	0.86	ug/L		11/02/23 21:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	140		5.5	5.0	2.2	mg/L		11/06/23 15:14	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/12/23 06:03	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-10-05A-FAL23
Lab Sample ID: 680-242420-16
Date Collected: 10/25/23 13:25
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	58		0.55	0.50	0.20	mg/L		11/16/23 12:27	1
Sulfate	6.5		1.5	1.0	0.40	mg/L		11/16/23 12:27	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 18:46	1
Manganese	3.8	J	10	5.0	1.3	ug/L		11/02/23 18:46	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.2	J	5.0	3.0	0.86	ug/L		11/02/23 21:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	23		5.5	5.0	2.2	mg/L		11/06/23 15:32	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.56	J	1.5	1.0	0.50	mg/L		11/12/23 06:21	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-10-10-FAL23

Date Collected: 10/26/23 15:10
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	29		0.55	0.50	0.20	mg/L		11/16/23 12:38	1
Sulfate	2.7		1.5	1.0	0.40	mg/L		11/16/23 12:38	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	21	J	100	50	20	ug/L		11/02/23 19:23	1
Manganese	4700		10	5.0	1.3	ug/L		11/02/23 19:23	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		11/02/23 22:29	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/07/23 21:24	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		11/15/23 02:08	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-10-11-FAL23
Lab Sample ID: 680-242420-18
Date Collected: 10/25/23 13:35
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	51		0.55	0.50	0.20	mg/L		11/16/23 12:49	1
Sulfate	59	M	1.5	1.0	0.40	mg/L		11/16/23 12:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	51000		100	50	20	ug/L		11/02/23 19:25	1
Manganese	2600		10	5.0	1.3	ug/L		11/02/23 19:25	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	560		5.0	3.0	0.86	ug/L		11/02/23 22:33	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	89		5.5	5.0	2.2	mg/L		11/06/23 15:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.4		1.5	1.0	0.50	mg/L		11/12/23 06:39	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-10-12-FAL23

Date Collected: 10/25/23 11:00
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-19

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.0		0.55	0.50	0.20	mg/L		11/16/23 11:23	1
Sulfate	2.0		1.5	1.0	0.40	mg/L		11/16/23 11:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	71000	J1	100	50	20	ug/L		11/02/23 19:12	1
Manganese	5600	J1	10	5.0	1.3	ug/L		11/02/23 19:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3700	J1	5.0	3.0	0.86	ug/L		11/02/23 22:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/06/23 15:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.3		1.5	1.0	0.50	mg/L		11/12/23 07:48	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-10-16-FAL23
Lab Sample ID: 680-242420-20
Date Collected: 10/25/23 14:25
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	30		0.55	0.50	0.20	mg/L		11/16/23 13:10	1
Sulfate	6.2		1.5	1.0	0.40	mg/L		11/16/23 13:10	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	28000		100	50	20	ug/L		11/02/23 19:27	1
Manganese	2600		10	5.0	1.3	ug/L		11/02/23 19:27	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	940		5.0	3.0	0.86	ug/L		11/02/23 22:37	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	250		5.5	5.0	2.2	mg/L		11/06/23 15:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		11/12/23 06:57	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-11-06-FAL23
Date Collected: 10/26/23 14:45
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-21
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	78		0.55	0.50	0.20	mg/L		11/16/23 13:21	1
Sulfate	13		1.5	1.0	0.40	mg/L		11/16/23 13:21	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	76000		100	50	20	ug/L		11/02/23 19:33	1
Manganese	1800		10	5.0	1.3	ug/L		11/02/23 19:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	800		5.0	3.0	0.86	ug/L		11/02/23 22:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	190		5.5	5.0	2.2	mg/L		11/07/23 21:14	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.4		1.5	1.0	0.50	mg/L		11/15/23 02:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-02-FAL23
Lab Sample ID: 680-242420-22
Date Collected: 10/27/23 13:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	20		0.55	0.50	0.20	mg/L		11/16/23 14:25	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/16/23 14:25	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	37	J	100	50	20	ug/L		11/02/23 19:36	1
Manganese	10000		10	5.0	1.3	ug/L		11/02/23 19:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.3	J	5.0	3.0	0.86	ug/L		11/02/23 22:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/07/23 21:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		11/15/23 03:18	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-03-FAL23
Lab Sample ID: 680-242420-23
Date Collected: 10/27/23 10:50
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	120		0.55	0.50	0.20	mg/L		11/16/23 14:35	1
Sulfate	4.9		1.5	1.0	0.40	mg/L		11/16/23 14:35	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	10000		100	50	20	ug/L		11/02/23 19:38	1
Manganese	6300		10	5.0	1.3	ug/L		11/02/23 19:38	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	280		5.0	3.0	0.86	ug/L		11/02/23 22:57	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/07/23 21:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		11/15/23 03:39	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-05-FAL23
Lab Sample ID: 680-242420-24
Date Collected: 10/25/23 10:55
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	31		0.55	0.50	0.20	mg/L		11/16/23 13:53	1
Sulfate	2.1		1.5	1.0	0.40	mg/L		11/16/23 13:53	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1500		100	50	20	ug/L		11/02/23 15:18	1
Manganese	4400	J1	10	5.0	1.3	ug/L		11/02/23 15:18	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	8.0		5.0	3.0	0.86	ug/L		11/03/23 02:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	54		5.5	5.0	2.2	mg/L		11/06/23 16:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	10		1.5	1.0	0.50	mg/L		11/15/23 03:55	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-06-FAL23
Lab Sample ID: 680-242420-25
Date Collected: 10/26/23 11:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	85		0.55	0.50	0.20	mg/L		11/16/23 14:46	1
Sulfate	6.2	M	1.5	1.0	0.40	mg/L		11/16/23 14:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	14000		100	50	20	ug/L		11/02/23 19:40	1
Manganese	730		10	5.0	1.3	ug/L		11/02/23 19:40	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2200		5.0	3.0	0.86	ug/L		11/02/23 23:01	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	56		5.5	5.0	2.2	mg/L		11/07/23 21:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	J	1.5	1.0	0.50	mg/L		11/15/23 04:49	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-07-FAL23
Lab Sample ID: 680-242420-26
Date Collected: 10/26/23 13:40
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	45		0.55	0.50	0.20	mg/L		11/16/23 14:56	1
Sulfate	4.8	M	1.5	1.0	0.40	mg/L		11/16/23 14:56	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	12000		100	50	20	ug/L		11/02/23 19:42	1
Manganese	1300		10	5.0	1.3	ug/L		11/02/23 19:42	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	580		5.0	3.0	0.86	ug/L		11/02/23 23:05	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	65		5.5	5.0	2.2	mg/L		11/08/23 00:38	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	J	1.5	1.0	0.50	mg/L		11/15/23 05:07	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-08-FAL23
Lab Sample ID: 680-242420-27
Date Collected: 10/25/23 15:50
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	14		0.55	0.50	0.20	mg/L		11/16/23 15:07	1
Sulfate	4.5		1.5	1.0	0.40	mg/L		11/16/23 15:07	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	32000		100	50	20	ug/L		11/02/23 19:44	1
Manganese	1000		10	5.0	1.3	ug/L		11/02/23 19:44	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	930		5.0	3.0	0.86	ug/L		11/02/23 23:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	87		5.5	5.0	2.2	mg/L		11/06/23 16:09	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/12/23 08:44	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-14D-FAL23
Lab Sample ID: 680-242420-28
Date Collected: 10/27/23 12:10
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	43		0.55	0.50	0.20	mg/L		11/16/23 15:18	1
Sulfate	8.4		1.5	1.0	0.40	mg/L		11/16/23 15:18	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	110		100	50	20	ug/L		11/02/23 19:46	1
Manganese	6.7	J	10	5.0	1.3	ug/L		11/02/23 19:46	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		11/02/23 23:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	460		5.5	5.0	2.2	mg/L		11/08/23 00:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/15/23 05:25	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-13-14S-FAL23

Date Collected: 10/27/23 11:20
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-29

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.55	0.50	0.20	mg/L		11/16/23 15:28	1
Sulfate	12		1.5	1.0	0.40	mg/L		11/16/23 15:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	49	J	100	50	20	ug/L		11/02/23 19:48	1
Manganese	15		10	5.0	1.3	ug/L		11/02/23 19:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.5	J	5.0	3.0	0.86	ug/L		11/02/23 23:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	29		5.5	5.0	2.2	mg/L		11/08/23 01:32	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.94	J	1.5	1.0	0.50	mg/L		11/15/23 05:43	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-13-15-FAL23
Lab Sample ID: 680-242420-30
Date Collected: 10/27/23 10:40
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	63		0.55	0.50	0.20	mg/L		11/16/23 15:39	1
Sulfate	5.7		1.5	1.0	0.40	mg/L		11/16/23 15:39	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	36	J	100	50	20	ug/L		11/02/23 19:51	1
Manganese	3500		10	5.0	1.3	ug/L		11/02/23 19:51	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		11/02/23 23:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	230		5.5	5.0	2.2	mg/L		11/07/23 22:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		11/15/23 06:01	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-93-22B-FAL23

Date Collected: 10/27/23 11:55
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-31

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	37		0.55	0.50	0.20	mg/L		11/16/23 15:50	1
Sulfate	17		1.5	1.0	0.40	mg/L		11/16/23 15:50	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	10000		100	50	20	ug/L		11/02/23 19:53	1
Manganese	9500		10	5.0	1.3	ug/L		11/02/23 19:53	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	300		5.0	3.0	0.86	ug/L		11/02/23 23:26	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	180		5.5	5.0	2.2	mg/L		11/08/23 01:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		11/15/23 23:40	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-93-22C-FAL23
Lab Sample ID: 680-242420-32
Date Collected: 10/27/23 09:50
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	19		0.55	0.50	0.20	mg/L		11/16/23 17:29	1
Sulfate	5.8		1.5	1.0	0.40	mg/L		11/16/23 17:29	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 19:59	1
Manganese	1.4	J	10	5.0	1.3	ug/L		11/02/23 19:59	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	8.0		5.0	3.0	0.86	ug/L		11/02/23 23:38	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/07/23 22:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.7		1.5	1.0	0.50	mg/L		11/16/23 00:01	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-93-24A-FAL23

Date Collected: 10/26/23 15:55
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-33

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**190**		0.55	0.50	0.20	mg/L		11/16/23 18:01	1
Sulfate	**52**		1.5	1.0	0.40	mg/L		11/16/23 18:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 20:01	1
Manganese	**13**		10	5.0	1.3	ug/L		11/02/23 20:01	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 23:42	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**25**		5.5	5.0	2.2	mg/L		11/08/23 01:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.0**	**J**	1.5	1.0	0.50	mg/L		11/16/23 00:20	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-99-31A-FAL23
Lab Sample ID: 680-242420-34
Date Collected: 10/25/23 09:35
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	17		0.55	0.50	0.20	mg/L		11/17/23 10:06	1
Sulfate	1.7		1.5	1.0	0.40	mg/L		11/17/23 10:06	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	6000		100	50	20	ug/L		11/02/23 20:04	1
Manganese	330		10	5.0	1.3	ug/L		11/02/23 20:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	26		5.0	3.0	0.86	ug/L		11/02/23 23:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	44		5.5	5.0	2.2	mg/L		11/06/23 18:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	6.3		1.5	1.0	0.50	mg/L		11/12/23 09:03	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHM-99-31B-FAL23
Date Collected: 10/25/23 10:55
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-35
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	9.2		0.55	0.50	0.20	mg/L		11/17/23 10:17	1
Sulfate	5.2		1.5	1.0	0.40	mg/L		11/17/23 10:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 20:06	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 20:06	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.0	J	5.0	3.0	0.86	ug/L		11/02/23 23:50	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	34		5.5	5.0	2.2	mg/L		11/06/23 16:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/12/23 09:22	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-99-31C-FAL23
Lab Sample ID: 680-242420-36
Date Collected: 10/25/23 12:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	31		0.55	0.50	0.20	mg/L		11/17/23 10:27	1
Sulfate	5.8		1.5	1.0	0.40	mg/L		11/17/23 10:27	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	13000		100	50	20	ug/L		11/02/23 20:08	1
Manganese	5000		10	5.0	1.3	ug/L		11/02/23 20:08	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	140		5.0	3.0	0.86	ug/L		11/02/23 23:54	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	250		5.5	5.0	2.2	mg/L		11/06/23 18:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.6		1.5	1.0	0.50	mg/L		11/12/23 09:40	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHM-99-32X-FAL23
Lab Sample ID: 680-242420-37
Date Collected: 10/26/23 17:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	59		0.55	0.50	0.20	mg/L		11/17/23 10:38	1
Sulfate	16		1.5	1.0	0.40	mg/L		11/17/23 10:38	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	6800		100	50	20	ug/L		11/02/23 20:10	1
Manganese	6100		10	5.0	1.3	ug/L		11/02/23 20:10	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	47		5.0	3.0	0.86	ug/L		11/02/23 23:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/07/23 22:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/16/23 00:38	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHP-2016-1A-FAL23
Date Collected: 10/27/23 10:15
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-38
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.47	J	0.55	0.50	0.20	mg/L		11/17/23 10:49	1
Sulfate	2.8		1.5	1.0	0.40	mg/L		11/17/23 10:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	27	J	100	50	20	ug/L		11/02/23 15:33	1
Manganese	2.8	J	10	5.0	1.3	ug/L		11/02/23 15:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 02:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	39		5.5	5.0	2.2	mg/L		11/08/23 01:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.6		1.5	1.0	0.50	mg/L		11/16/23 00:56	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-1B-FAL23
Lab Sample ID: 680-242420-39
Date Collected: 10/27/23 12:50
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	9.7		0.55	0.50	0.20	mg/L		11/17/23 10:59	1
Sulfate	4.9		1.5	1.0	0.40	mg/L		11/17/23 10:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	44000		100	50	20	ug/L		11/02/23 15:35	1
Manganese	2100		10	5.0	1.3	ug/L		11/02/23 15:35	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	190		5.0	3.0	0.86	ug/L		11/03/23 02:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	140		5.5	5.0	2.2	mg/L		11/08/23 01:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.0		1.5	1.0	0.50	mg/L		11/16/23 01:15	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-2A-FAL23
Lab Sample ID: 680-242420-40
Date Collected: 10/26/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.0		0.55	0.50	0.20	mg/L		11/17/23 11:10	1
Sulfate	3.0		1.5	1.0	0.40	mg/L		11/17/23 11:10	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 15:37	1
Manganese	130		10	5.0	1.3	ug/L		11/02/23 15:37	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.6	J	5.0	3.0	0.86	ug/L		11/03/23 02:57	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	36		5.5	5.0	2.2	mg/L		11/07/23 22:13	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.69	J	1.5	1.0	0.50	mg/L		11/16/23 01:33	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-2B-FAL23
Lab Sample ID: 680-242420-41
Date Collected: 10/26/23 11:15
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.7		0.55	0.50	0.20	mg/L		11/17/23 11:21	1
Sulfate	4.0		1.5	1.0	0.40	mg/L		11/17/23 11:21	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	24000		100	50	20	ug/L		11/02/23 15:39	1
Manganese	1700		10	5.0	1.3	ug/L		11/02/23 15:39	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	370		5.0	3.0	0.86	ug/L		11/03/23 03:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	79		5.5	5.0	2.2	mg/L		11/08/23 01:59	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		11/16/23 01:51	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-4A-FAL23
Lab Sample ID: 680-242420-42
Date Collected: 10/26/23 14:45
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	4.1		0.55	0.50	0.20	mg/L		11/17/23 12:24	1
Sulfate	2.8	M	1.5	1.0	0.40	mg/L		11/17/23 12:24	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 15:41	1
Manganese	43		10	5.0	1.3	ug/L		11/02/23 15:41	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.1	J	5.0	3.0	0.86	ug/L		11/03/23 03:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	37		5.5	5.0	2.2	mg/L		11/08/23 02:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.73	J	1.5	1.0	0.50	mg/L		11/16/23 02:09	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-4B-FAL23
Lab Sample ID: 680-242420-43
Date Collected: 10/26/23 13:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	6.7		0.55	0.50	0.20	mg/L		11/17/23 12:35	1
Sulfate	11		1.5	1.0	0.40	mg/L		11/17/23 12:35	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	32000		100	50	20	ug/L		11/02/23 15:43	1
Manganese	2900		10	5.0	1.3	ug/L		11/02/23 15:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1000		5.0	3.0	0.86	ug/L		11/03/23 03:17	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	90		5.5	5.0	2.2	mg/L		11/08/23 01:50	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.4	J	1.5	1.0	0.50	mg/L		11/16/23 02:27	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHL-RB01-FAL23

Date Collected: 10/25/23 14:00
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242420-44

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/17/23 12:56	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 12:56	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 15:45	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 15:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**1.1**	**J**	5.0	3.0	0.86	ug/L		11/03/23 03:21	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0	U	5.5	5.0	2.2	mg/L		11/06/23 19:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/12/23 09:58	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-808387/33
Matrix: Water
Analysis Batch: 808387

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/15/23 18:09	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/15/23 18:09	1

Lab Sample ID: LCS 680-808387/34
Matrix: Water
Analysis Batch: 808387

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.42		mg/L		94	87 - 112

Lab Sample ID: LCSD 680-808387/35
Matrix: Water
Analysis Batch: 808387

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.41	M	mg/L		94	87 - 112	0	15

Lab Sample ID: 680-242420-1 MS
Matrix: Water
Analysis Batch: 808387

Client Sample ID: SHL-DUP03-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	33		10.0	42.8		mg/L		97	87 - 111
Sulfate	16	M	10.0	25.2		mg/L		93	87 - 112

Lab Sample ID: 680-242420-1 MSD
Matrix: Water
Analysis Batch: 808387

Client Sample ID: SHL-DUP03-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	33		10.0	42.7		mg/L		96	87 - 111	0	15
Sulfate	16	M	10.0	25.1	M	mg/L		92	87 - 112	1	15

Lab Sample ID: MB 680-808614/2
Matrix: Water
Analysis Batch: 808614

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/16/23 10:41	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/16/23 10:41	1

Lab Sample ID: LCS 680-808614/4
Matrix: Water
Analysis Batch: 808614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.51		mg/L		95	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-808614/5
Matrix: Water
Analysis Batch: 808614

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	9.50	M	mg/L		95	87 - 112	0	15

Lab Sample ID: 680-242420-19 MS
Matrix: Water
Analysis Batch: 808614

Client Sample ID: SHM-10-12-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	3.0		10.0	13.0		mg/L		101	87 - 111
Sulfate	2.0		10.0	11.3		mg/L		93	87 - 112

Lab Sample ID: 680-242420-19 MSD
Matrix: Water
Analysis Batch: 808614

Client Sample ID: SHM-10-12-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3.0		10.0	12.8		mg/L		98	87 - 111	2	15
Sulfate	2.0		10.0	11.1	M	mg/L		91	87 - 112	2	15

Lab Sample ID: 680-242420-24 MS
Matrix: Water
Analysis Batch: 808614

Client Sample ID: SHM-13-05-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	31		10.0	41.1		mg/L		99	87 - 111
Sulfate	2.1		10.0	11.5		mg/L		94	87 - 112

Lab Sample ID: 680-242420-24 MSD
Matrix: Water
Analysis Batch: 808614

Client Sample ID: SHM-13-05-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	31		10.0	40.7		mg/L		95	87 - 111	1	15
Sulfate	2.1		10.0	11.3		mg/L		91	87 - 112	2	15

Lab Sample ID: MB 680-808615/33
Matrix: Water
Analysis Batch: 808615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/16/23 16:11	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/16/23 16:11	1

Lab Sample ID: LCS 680-808615/34
Matrix: Water
Analysis Batch: 808615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride			10.0	10.3		mg/L		103	87 - 111
Sulfate			10.0	9.34		mg/L		93	87 - 112

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCSD 680-808615/35
Matrix: Water
Analysis Batch: 808615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	9.39		mg/L		94	87 - 112	1	15

Lab Sample ID: 680-242420-32 MS
Matrix: Water
Analysis Batch: 808615

Client Sample ID: SHM-93-22C-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	19		10.0	29.0		mg/L		104	87 - 111
Sulfate	5.8		10.0	15.6	M	mg/L		97	87 - 112

Lab Sample ID: 680-242420-32 MSD
Matrix: Water
Analysis Batch: 808615

Client Sample ID: SHM-93-22C-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	19		10.0	28.9		mg/L		102	87 - 111	0	15
Sulfate	5.8		10.0	15.4	M	mg/L		96	87 - 112	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-805941/1-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805941

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 17:40	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 17:40	1

Lab Sample ID: LCS 680-805941/2-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805941

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron			4990	5110		ug/L		102	87 - 115
Manganese			400	419		ug/L		105	90 - 114

Lab Sample ID: MB 680-805942/1-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805942

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 19:08	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 19:08	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-805942/2-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805942

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5100		ug/L		102	87 - 115
Manganese	400	427		ug/L		107	90 - 114

Lab Sample ID: MB 680-805945/1-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805945

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 15:13	1
Manganese	2.29	J	10	5.0	1.3	ug/L		11/02/23 15:13	1

Lab Sample ID: LCS 680-805945/2-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5060		ug/L		101	87 - 115
Manganese	400	411		ug/L		103	90 - 114

Lab Sample ID: 680-242420-19 MS
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved
Prep Batch: 805942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	71000	J1	4990	74300	4	ug/L		70	87 - 115
Manganese	5600	J1	400	5920	4	ug/L		89	90 - 114

Lab Sample ID: 680-242420-19 MSD
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved
Prep Batch: 805942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	71000	J1	4990	71900	4	ug/L		22	87 - 115	3	20
Manganese	5600	J1	400	5780	4	ug/L		55	90 - 114	2	20

Lab Sample ID: 680-242420-24 MS
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved
Prep Batch: 805945

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	1500		4990	6450		ug/L		99	87 - 115
Manganese	4400	J1	400	4580	4	ug/L		49	90 - 114

Lab Sample ID: 680-242420-24 MSD
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved
Prep Batch: 805945

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	1500		4990	6510		ug/L		100	87 - 115	1	20
Manganese	4400	J1	400	4660	4	ug/L		70	90 - 114	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-805940/1-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805940

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 19:50	1

Lab Sample ID: LCS 680-805940/2-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	110		ug/L		110	84 - 116

Lab Sample ID: MB 680-805943/1-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805943

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 22:00	1

Lab Sample ID: LCS 680-805943/2-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805943

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	114		ug/L		114	84 - 116

Lab Sample ID: MB 680-805946/1-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805946

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 02:20	1

Lab Sample ID: LCS 680-805946/2-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	104		ug/L		104	84 - 116

Lab Sample ID: 680-242420-19 MS
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved
Prep Batch: 805943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3700	J1	100	3680	4	ug/L		31	84 - 116

Lab Sample ID: 680-242420-19 MSD
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved
Prep Batch: 805943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3700	J1	100	3510	4	ug/L		-138	84 - 116	5	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 680-242420-24 MS
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved
Prep Batch: 805946

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	8.0		100	117		ug/L		109	84 - 116

Lab Sample ID: 680-242420-24 MSD
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved
Prep Batch: 805946

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	8.0		100	111		ug/L		103	84 - 116	6	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-806892/4
Matrix: Water
Analysis Batch: 806892

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/06/23 11:55	1

Lab Sample ID: LCS 680-806892/6
Matrix: Water
Analysis Batch: 806892

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112

Lab Sample ID: LCSD 680-806892/31
Matrix: Water
Analysis Batch: 806892

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	252		mg/L		101	90 - 112	1	30

Lab Sample ID: 680-242420-6 DU
Matrix: Water
Analysis Batch: 806892

Client Sample ID: PZ-12-10-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	74		70.1		mg/L		6	30

Lab Sample ID: MB 680-806900/4
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/06/23 18:07	1

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCS 680-806900/6
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-806900/31
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	253		mg/L		101	90 - 112	1	30

Lab Sample ID: 680-242420-36 DU
Matrix: Water
Analysis Batch: 806900

Client Sample ID: SHM-99-31C-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250			253		mg/L				0.3	30

Lab Sample ID: MB 680-807051/4
Matrix: Water
Analysis Batch: 807051

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/07/23 18:15	1

Lab Sample ID: LCS 680-807051/6
Matrix: Water
Analysis Batch: 807051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	248		mg/L		99	90 - 112		

Lab Sample ID: LCSD 680-807051/31
Matrix: Water
Analysis Batch: 807051

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	250		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-242420-13 DU
Matrix: Water
Analysis Batch: 807051

Client Sample ID: SHL-9-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	69			64.8		mg/L				6	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 680-807056/4
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 00:12	1

Lab Sample ID: LCS 680-807056/6
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	246		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-807056/31
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-242420-26 DU
Matrix: Water
Analysis Batch: 807056

Client Sample ID: SHM-13-07-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	65		63.7		mg/L		2	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-808063/2
Matrix: Water
Analysis Batch: 808063

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/12/23 03:01	1

Lab Sample ID: LCS 680-808063/3
Matrix: Water
Analysis Batch: 808063

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-808063/4
Matrix: Water
Analysis Batch: 808063

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120	0	20

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 680-242420-19 MS
Matrix: Water
Analysis Batch: 808063

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	3.3		20.0	23.0		mg/L		98	80 - 120

Lab Sample ID: 680-242420-19 MSD
Matrix: Water
Analysis Batch: 808063

Client Sample ID: SHM-10-12-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.3		20.0	22.8		mg/L		97	80 - 120	1	20

Lab Sample ID: MB 680-808354/2
Matrix: Water
Analysis Batch: 808354

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/14/23 22:37	1

Lab Sample ID: LCS 680-808354/3
Matrix: Water
Analysis Batch: 808354

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.2		mg/L		96	80 - 120

Lab Sample ID: LCSD 680-808354/4
Matrix: Water
Analysis Batch: 808354

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.2		mg/L		96	80 - 120	0	20

Lab Sample ID: 680-242420-24 MS
Matrix: Water
Analysis Batch: 808354

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	10		20.0	29.8		mg/L		99	80 - 120

Lab Sample ID: 680-242420-24 MSD
Matrix: Water
Analysis Batch: 808354

Client Sample ID: SHM-13-05-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	10		20.0	30.2		mg/L		101	80 - 120	1	20

Lab Sample ID: MB 680-808659/2
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/15/23 22:32	1

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: LCS 680-808659/3
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Dissolved Organic Carbon			20.0	19.2		mg/L		96	80 - 120		

Lab Sample ID: LCSD 680-808659/4
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon			20.0	19.1		mg/L		96	80 - 120	0	20

HPLC/IC

Analysis Batch: 808387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Total/NA	Water	9056A	
680-242420-2	SHL-DUP06-FAL23	Total/NA	Water	9056A	
680-242420-3	PZ-12-01-FAL23	Total/NA	Water	9056A	
680-242420-4	PZ-12-02-FAL23	Total/NA	Water	9056A	
680-242420-5	PZ-12-09-FAL23	Total/NA	Water	9056A	
680-242420-6	PZ-12-10-FAL23	Total/NA	Water	9056A	
680-242420-7	SHL-11-FAL23	Total/NA	Water	9056A	
680-242420-8	SHL-12-FAL23	Total/NA	Water	9056A	
680-242420-9	SHL-15-FAL23	Total/NA	Water	9056A	
680-242420-10	SHL-19-FAL23	Total/NA	Water	9056A	
MB 680-808387/33	Method Blank	Total/NA	Water	9056A	
LCS 680-808387/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808387/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242420-1 MS	SHL-DUP03-FAL23	Total/NA	Water	9056A	
680-242420-1 MSD	SHL-DUP03-FAL23	Total/NA	Water	9056A	

Analysis Batch: 808614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-11	SHL-22-FAL23	Total/NA	Water	9056A	
680-242420-12	SHL-7-FAL23	Total/NA	Water	9056A	
680-242420-14	SHM-05-42A-FAL23	Total/NA	Water	9056A	
680-242420-15	SHM-05-42B-FAL23	Total/NA	Water	9056A	
680-242420-16	SHM-10-05A-FAL23	Total/NA	Water	9056A	
680-242420-17	SHM-10-10-FAL23	Total/NA	Water	9056A	
680-242420-18	SHM-10-11-FAL23	Total/NA	Water	9056A	
680-242420-19	SHM-10-12-FAL23	Total/NA	Water	9056A	
680-242420-20	SHM-10-16-FAL23	Total/NA	Water	9056A	
680-242420-21	SHM-11-06-FAL23	Total/NA	Water	9056A	
680-242420-22	SHM-13-02-FAL23	Total/NA	Water	9056A	
680-242420-23	SHM-13-03-FAL23	Total/NA	Water	9056A	
680-242420-24	SHM-13-05-FAL23	Total/NA	Water	9056A	
680-242420-25	SHM-13-06-FAL23	Total/NA	Water	9056A	
680-242420-26	SHM-13-07-FAL23	Total/NA	Water	9056A	
680-242420-27	SHM-13-08-FAL23	Total/NA	Water	9056A	
680-242420-28	SHM-13-14D-FAL23	Total/NA	Water	9056A	
680-242420-29	SHM-13-14S-FAL23	Total/NA	Water	9056A	
680-242420-30	SHM-13-15-FAL23	Total/NA	Water	9056A	
680-242420-31	SHM-93-22B-FAL23	Total/NA	Water	9056A	
MB 680-808614/2	Method Blank	Total/NA	Water	9056A	
LCS 680-808614/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808614/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242420-19 MS	SHM-10-12-FAL23	Total/NA	Water	9056A	
680-242420-19 MSD	SHM-10-12-FAL23	Total/NA	Water	9056A	
680-242420-24 MS	SHM-13-05-FAL23	Total/NA	Water	9056A	
680-242420-24 MSD	SHM-13-05-FAL23	Total/NA	Water	9056A	

Analysis Batch: 808615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-13	SHL-9-FAL23	Total/NA	Water	9056A	
680-242420-32	SHM-93-22C-FAL23	Total/NA	Water	9056A	
680-242420-33	SHM-93-24A-FAL23	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 808615 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-34	SHM-99-31A-FAL23	Total/NA	Water	9056A	
680-242420-35	SHM-99-31B-FAL23	Total/NA	Water	9056A	
680-242420-36	SHM-99-31C-FAL23	Total/NA	Water	9056A	
680-242420-37	SHM-99-32X-FAL23	Total/NA	Water	9056A	
680-242420-38	SHP-2016-1A-FAL23	Total/NA	Water	9056A	
680-242420-39	SHP-2016-1B-FAL23	Total/NA	Water	9056A	
680-242420-40	SHP-2016-2A-FAL23	Total/NA	Water	9056A	
680-242420-41	SHP-2016-2B-FAL23	Total/NA	Water	9056A	
680-242420-42	SHP-2016-4A-FAL23	Total/NA	Water	9056A	
680-242420-43	SHP-2016-4B-FAL23	Total/NA	Water	9056A	
680-242420-44	SHL-RB01-FAL23	Total/NA	Water	9056A	
MB 680-808615/33	Method Blank	Total/NA	Water	9056A	
LCS 680-808615/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808615/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242420-32 MS	SHM-93-22C-FAL23	Total/NA	Water	9056A	
680-242420-32 MSD	SHM-93-22C-FAL23	Total/NA	Water	9056A	

Metals

Prep Batch: 805940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Dissolved	Water	3005A	
680-242420-2	SHL-DUP06-FAL23	Dissolved	Water	3005A	
680-242420-3	PZ-12-01-FAL23	Dissolved	Water	3005A	
680-242420-4	PZ-12-02-FAL23	Dissolved	Water	3005A	
680-242420-5	PZ-12-09-FAL23	Dissolved	Water	3005A	
680-242420-6	PZ-12-10-FAL23	Dissolved	Water	3005A	
680-242420-7	SHL-11-FAL23	Dissolved	Water	3005A	
680-242420-8	SHL-12-FAL23	Dissolved	Water	3005A	
680-242420-9	SHL-15-FAL23	Dissolved	Water	3005A	
680-242420-10	SHL-19-FAL23	Dissolved	Water	3005A	
680-242420-11	SHL-22-FAL23	Dissolved	Water	3005A	
680-242420-12	SHL-7-FAL23	Dissolved	Water	3005A	
680-242420-13	SHL-9-FAL23	Dissolved	Water	3005A	
680-242420-14	SHM-05-42A-FAL23	Dissolved	Water	3005A	
680-242420-15	SHM-05-42B-FAL23	Dissolved	Water	3005A	
680-242420-16	SHM-10-05A-FAL23	Dissolved	Water	3005A	
MB 680-805940/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805940/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 805941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Dissolved	Water	3005A	
680-242420-2	SHL-DUP06-FAL23	Dissolved	Water	3005A	
680-242420-3	PZ-12-01-FAL23	Dissolved	Water	3005A	
680-242420-4	PZ-12-02-FAL23	Dissolved	Water	3005A	
680-242420-5	PZ-12-09-FAL23	Dissolved	Water	3005A	
680-242420-6	PZ-12-10-FAL23	Dissolved	Water	3005A	
680-242420-7	SHL-11-FAL23	Dissolved	Water	3005A	
680-242420-8	SHL-12-FAL23	Dissolved	Water	3005A	
680-242420-9	SHL-15-FAL23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 805941 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-10	SHL-19-FAL23	Dissolved	Water	3005A	
680-242420-11	SHL-22-FAL23	Dissolved	Water	3005A	
680-242420-12	SHL-7-FAL23	Dissolved	Water	3005A	
680-242420-13	SHL-9-FAL23	Dissolved	Water	3005A	
680-242420-14	SHM-05-42A-FAL23	Dissolved	Water	3005A	
680-242420-15	SHM-05-42B-FAL23	Dissolved	Water	3005A	
680-242420-16	SHM-10-05A-FAL23	Dissolved	Water	3005A	
MB 680-805941/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805941/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 805942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-17	SHM-10-10-FAL23	Dissolved	Water	3005A	
680-242420-18	SHM-10-11-FAL23	Dissolved	Water	3005A	
680-242420-19	SHM-10-12-FAL23	Dissolved	Water	3005A	
680-242420-20	SHM-10-16-FAL23	Dissolved	Water	3005A	
680-242420-21	SHM-11-06-FAL23	Dissolved	Water	3005A	
680-242420-22	SHM-13-02-FAL23	Dissolved	Water	3005A	
680-242420-23	SHM-13-03-FAL23	Dissolved	Water	3005A	
680-242420-25	SHM-13-06-FAL23	Dissolved	Water	3005A	
680-242420-26	SHM-13-07-FAL23	Dissolved	Water	3005A	
680-242420-27	SHM-13-08-FAL23	Dissolved	Water	3005A	
680-242420-28	SHM-13-14D-FAL23	Dissolved	Water	3005A	
680-242420-29	SHM-13-14S-FAL23	Dissolved	Water	3005A	
680-242420-30	SHM-13-15-FAL23	Dissolved	Water	3005A	
680-242420-31	SHM-93-22B-FAL23	Dissolved	Water	3005A	
680-242420-32	SHM-93-22C-FAL23	Dissolved	Water	3005A	
680-242420-33	SHM-93-24A-FAL23	Dissolved	Water	3005A	
680-242420-34	SHM-99-31A-FAL23	Dissolved	Water	3005A	
680-242420-35	SHM-99-31B-FAL23	Dissolved	Water	3005A	
680-242420-36	SHM-99-31C-FAL23	Dissolved	Water	3005A	
680-242420-37	SHM-99-32X-FAL23	Dissolved	Water	3005A	
MB 680-805942/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805942/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242420-19 MS	SHM-10-12-FAL23	Dissolved	Water	3005A	
680-242420-19 MSD	SHM-10-12-FAL23	Dissolved	Water	3005A	

Prep Batch: 805943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-17	SHM-10-10-FAL23	Dissolved	Water	3005A	
680-242420-18	SHM-10-11-FAL23	Dissolved	Water	3005A	
680-242420-19	SHM-10-12-FAL23	Dissolved	Water	3005A	
680-242420-20	SHM-10-16-FAL23	Dissolved	Water	3005A	
680-242420-21	SHM-11-06-FAL23	Dissolved	Water	3005A	
680-242420-22	SHM-13-02-FAL23	Dissolved	Water	3005A	
680-242420-23	SHM-13-03-FAL23	Dissolved	Water	3005A	
680-242420-25	SHM-13-06-FAL23	Dissolved	Water	3005A	
680-242420-26	SHM-13-07-FAL23	Dissolved	Water	3005A	
680-242420-27	SHM-13-08-FAL23	Dissolved	Water	3005A	
680-242420-28	SHM-13-14D-FAL23	Dissolved	Water	3005A	
680-242420-29	SHM-13-14S-FAL23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 805943 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-30	SHM-13-15-FAL23	Dissolved	Water	3005A	
680-242420-31	SHM-93-22B-FAL23	Dissolved	Water	3005A	
680-242420-32	SHM-93-22C-FAL23	Dissolved	Water	3005A	
680-242420-33	SHM-93-24A-FAL23	Dissolved	Water	3005A	
680-242420-34	SHM-99-31A-FAL23	Dissolved	Water	3005A	
680-242420-35	SHM-99-31B-FAL23	Dissolved	Water	3005A	
680-242420-36	SHM-99-31C-FAL23	Dissolved	Water	3005A	
680-242420-37	SHM-99-32X-FAL23	Dissolved	Water	3005A	
MB 680-805943/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805943/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242420-19 MS	SHM-10-12-FAL23	Dissolved	Water	3005A	
680-242420-19 MSD	SHM-10-12-FAL23	Dissolved	Water	3005A	

Prep Batch: 805945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-24	SHM-13-05-FAL23	Dissolved	Water	3005A	
680-242420-38	SHP-2016-1A-FAL23	Dissolved	Water	3005A	
680-242420-39	SHP-2016-1B-FAL23	Dissolved	Water	3005A	
680-242420-40	SHP-2016-2A-FAL23	Dissolved	Water	3005A	
680-242420-41	SHP-2016-2B-FAL23	Dissolved	Water	3005A	
680-242420-42	SHP-2016-4A-FAL23	Dissolved	Water	3005A	
680-242420-43	SHP-2016-4B-FAL23	Dissolved	Water	3005A	
680-242420-44	SHL-RB01-FAL23	Dissolved	Water	3005A	
MB 680-805945/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805945/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242420-24 MS	SHM-13-05-FAL23	Dissolved	Water	3005A	
680-242420-24 MSD	SHM-13-05-FAL23	Dissolved	Water	3005A	

Prep Batch: 805946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-24	SHM-13-05-FAL23	Dissolved	Water	3005A	
680-242420-38	SHP-2016-1A-FAL23	Dissolved	Water	3005A	
680-242420-39	SHP-2016-1B-FAL23	Dissolved	Water	3005A	
680-242420-40	SHP-2016-2A-FAL23	Dissolved	Water	3005A	
680-242420-41	SHP-2016-2B-FAL23	Dissolved	Water	3005A	
680-242420-42	SHP-2016-4A-FAL23	Dissolved	Water	3005A	
680-242420-43	SHP-2016-4B-FAL23	Dissolved	Water	3005A	
680-242420-44	SHL-RB01-FAL23	Dissolved	Water	3005A	
MB 680-805946/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805946/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242420-24 MS	SHM-13-05-FAL23	Dissolved	Water	3005A	
680-242420-24 MSD	SHM-13-05-FAL23	Dissolved	Water	3005A	

Analysis Batch: 806195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Dissolved	Water	6010C	805941
680-242420-2	SHL-DUP06-FAL23	Dissolved	Water	6010C	805941
680-242420-3	PZ-12-01-FAL23	Dissolved	Water	6010C	805941
680-242420-4	PZ-12-02-FAL23	Dissolved	Water	6010C	805941
680-242420-5	PZ-12-09-FAL23	Dissolved	Water	6010C	805941
680-242420-6	PZ-12-10-FAL23	Dissolved	Water	6010C	805941

Metals (Continued)

Analysis Batch: 806195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-7	SHL-11-FAL23	Dissolved	Water	6010C	805941
680-242420-8	SHL-12-FAL23	Dissolved	Water	6010C	805941
680-242420-9	SHL-15-FAL23	Dissolved	Water	6010C	805941
680-242420-10	SHL-19-FAL23	Dissolved	Water	6010C	805941
680-242420-11	SHL-22-FAL23	Dissolved	Water	6010C	805941
680-242420-12	SHL-7-FAL23	Dissolved	Water	6010C	805941
680-242420-13	SHL-9-FAL23	Dissolved	Water	6010C	805941
680-242420-14	SHM-05-42A-FAL23	Dissolved	Water	6010C	805941
680-242420-15	SHM-05-42B-FAL23	Dissolved	Water	6010C	805941
680-242420-16	SHM-10-05A-FAL23	Dissolved	Water	6010C	805941
680-242420-17	SHM-10-10-FAL23	Dissolved	Water	6010C	805942
680-242420-18	SHM-10-11-FAL23	Dissolved	Water	6010C	805942
680-242420-19	SHM-10-12-FAL23	Dissolved	Water	6010C	805942
680-242420-20	SHM-10-16-FAL23	Dissolved	Water	6010C	805942
680-242420-21	SHM-11-06-FAL23	Dissolved	Water	6010C	805942
680-242420-22	SHM-13-02-FAL23	Dissolved	Water	6010C	805942
680-242420-23	SHM-13-03-FAL23	Dissolved	Water	6010C	805942
680-242420-24	SHM-13-05-FAL23	Dissolved	Water	6010C	805945
680-242420-25	SHM-13-06-FAL23	Dissolved	Water	6010C	805942
680-242420-26	SHM-13-07-FAL23	Dissolved	Water	6010C	805942
680-242420-27	SHM-13-08-FAL23	Dissolved	Water	6010C	805942
680-242420-28	SHM-13-14D-FAL23	Dissolved	Water	6010C	805942
680-242420-29	SHM-13-14S-FAL23	Dissolved	Water	6010C	805942
680-242420-30	SHM-13-15-FAL23	Dissolved	Water	6010C	805942
680-242420-31	SHM-93-22B-FAL23	Dissolved	Water	6010C	805942
680-242420-32	SHM-93-22C-FAL23	Dissolved	Water	6010C	805942
680-242420-33	SHM-93-24A-FAL23	Dissolved	Water	6010C	805942
680-242420-34	SHM-99-31A-FAL23	Dissolved	Water	6010C	805942
680-242420-35	SHM-99-31B-FAL23	Dissolved	Water	6010C	805942
680-242420-36	SHM-99-31C-FAL23	Dissolved	Water	6010C	805942
680-242420-37	SHM-99-32X-FAL23	Dissolved	Water	6010C	805942
680-242420-38	SHP-2016-1A-FAL23	Dissolved	Water	6010C	805945
680-242420-39	SHP-2016-1B-FAL23	Dissolved	Water	6010C	805945
680-242420-40	SHP-2016-2A-FAL23	Dissolved	Water	6010C	805945
680-242420-41	SHP-2016-2B-FAL23	Dissolved	Water	6010C	805945
680-242420-42	SHP-2016-4A-FAL23	Dissolved	Water	6010C	805945
680-242420-43	SHP-2016-4B-FAL23	Dissolved	Water	6010C	805945
680-242420-44	SHL-RB01-FAL23	Dissolved	Water	6010C	805945
MB 680-805941/1-A	Method Blank	Total Recoverable	Water	6010C	805941
MB 680-805942/1-A	Method Blank	Total Recoverable	Water	6010C	805942
MB 680-805945/1-A	Method Blank	Total Recoverable	Water	6010C	805945
LCS 680-805941/2-A	Lab Control Sample	Total Recoverable	Water	6010C	805941
LCS 680-805942/2-A	Lab Control Sample	Total Recoverable	Water	6010C	805942
LCS 680-805945/2-A	Lab Control Sample	Total Recoverable	Water	6010C	805945
680-242420-19 MS	SHM-10-12-FAL23	Dissolved	Water	6010C	805942
680-242420-19 MSD	SHM-10-12-FAL23	Dissolved	Water	6010C	805942
680-242420-24 MS	SHM-13-05-FAL23	Dissolved	Water	6010C	805945
680-242420-24 MSD	SHM-13-05-FAL23	Dissolved	Water	6010C	805945

Metals

Analysis Batch: 806228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Dissolved	Water	6020A	805940
680-242420-2	SHL-DUP06-FAL23	Dissolved	Water	6020A	805940
680-242420-3	PZ-12-01-FAL23	Dissolved	Water	6020A	805940
680-242420-4	PZ-12-02-FAL23	Dissolved	Water	6020A	805940
680-242420-5	PZ-12-09-FAL23	Dissolved	Water	6020A	805940
680-242420-6	PZ-12-10-FAL23	Dissolved	Water	6020A	805940
680-242420-7	SHL-11-FAL23	Dissolved	Water	6020A	805940
680-242420-8	SHL-12-FAL23	Dissolved	Water	6020A	805940
680-242420-9	SHL-15-FAL23	Dissolved	Water	6020A	805940
680-242420-10	SHL-19-FAL23	Dissolved	Water	6020A	805940
680-242420-11	SHL-22-FAL23	Dissolved	Water	6020A	805940
680-242420-12	SHL-7-FAL23	Dissolved	Water	6020A	805940
680-242420-13	SHL-9-FAL23	Dissolved	Water	6020A	805940
680-242420-14	SHM-05-42A-FAL23	Dissolved	Water	6020A	805940
680-242420-15	SHM-05-42B-FAL23	Dissolved	Water	6020A	805940
680-242420-16	SHM-10-05A-FAL23	Dissolved	Water	6020A	805940
680-242420-17	SHM-10-10-FAL23	Dissolved	Water	6020A	805943
680-242420-18	SHM-10-11-FAL23	Dissolved	Water	6020A	805943
680-242420-19	SHM-10-12-FAL23	Dissolved	Water	6020A	805943
680-242420-20	SHM-10-16-FAL23	Dissolved	Water	6020A	805943
680-242420-21	SHM-11-06-FAL23	Dissolved	Water	6020A	805943
680-242420-22	SHM-13-02-FAL23	Dissolved	Water	6020A	805943
680-242420-23	SHM-13-03-FAL23	Dissolved	Water	6020A	805943
680-242420-24	SHM-13-05-FAL23	Dissolved	Water	6020A	805946
680-242420-25	SHM-13-06-FAL23	Dissolved	Water	6020A	805943
680-242420-26	SHM-13-07-FAL23	Dissolved	Water	6020A	805943
680-242420-27	SHM-13-08-FAL23	Dissolved	Water	6020A	805943
680-242420-28	SHM-13-14D-FAL23	Dissolved	Water	6020A	805943
680-242420-29	SHM-13-14S-FAL23	Dissolved	Water	6020A	805943
680-242420-30	SHM-13-15-FAL23	Dissolved	Water	6020A	805943
680-242420-31	SHM-93-22B-FAL23	Dissolved	Water	6020A	805943
680-242420-32	SHM-93-22C-FAL23	Dissolved	Water	6020A	805943
680-242420-33	SHM-93-24A-FAL23	Dissolved	Water	6020A	805943
680-242420-34	SHM-99-31A-FAL23	Dissolved	Water	6020A	805943
680-242420-35	SHM-99-31B-FAL23	Dissolved	Water	6020A	805943
680-242420-36	SHM-99-31C-FAL23	Dissolved	Water	6020A	805943
680-242420-37	SHM-99-32X-FAL23	Dissolved	Water	6020A	805943
680-242420-38	SHP-2016-1A-FAL23	Dissolved	Water	6020A	805946
680-242420-39	SHP-2016-1B-FAL23	Dissolved	Water	6020A	805946
680-242420-40	SHP-2016-2A-FAL23	Dissolved	Water	6020A	805946
680-242420-41	SHP-2016-2B-FAL23	Dissolved	Water	6020A	805946
680-242420-42	SHP-2016-4A-FAL23	Dissolved	Water	6020A	805946
680-242420-43	SHP-2016-4B-FAL23	Dissolved	Water	6020A	805946
680-242420-44	SHL-RB01-FAL23	Dissolved	Water	6020A	805946
MB 680-805940/1-A	Method Blank	Total Recoverable	Water	6020A	805940
MB 680-805943/1-A	Method Blank	Total Recoverable	Water	6020A	805943
MB 680-805946/1-A	Method Blank	Total Recoverable	Water	6020A	805946
LCS 680-805940/2-A	Lab Control Sample	Total Recoverable	Water	6020A	805940
LCS 680-805943/2-A	Lab Control Sample	Total Recoverable	Water	6020A	805943
LCS 680-805946/2-A	Lab Control Sample	Total Recoverable	Water	6020A	805946
680-242420-19 MS	SHM-10-12-FAL23	Dissolved	Water	6020A	805943

Metals (Continued)

Analysis Batch: 806228 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-19 MSD	SHM-10-12-FAL23	Dissolved	Water	6020A	805943
680-242420-24 MS	SHM-13-05-FAL23	Dissolved	Water	6020A	805946
680-242420-24 MSD	SHM-13-05-FAL23	Dissolved	Water	6020A	805946

General Chemistry

Analysis Batch: 806892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-2	SHL-DUP06-FAL23	Total/NA	Water	2320B-2011	
680-242420-3	PZ-12-01-FAL23	Total/NA	Water	2320B-2011	
680-242420-4	PZ-12-02-FAL23	Total/NA	Water	2320B-2011	
680-242420-5	PZ-12-09-FAL23	Total/NA	Water	2320B-2011	
680-242420-6	PZ-12-10-FAL23	Total/NA	Water	2320B-2011	
680-242420-14	SHM-05-42A-FAL23	Total/NA	Water	2320B-2011	
680-242420-15	SHM-05-42B-FAL23	Total/NA	Water	2320B-2011	
680-242420-16	SHM-10-05A-FAL23	Total/NA	Water	2320B-2011	
680-242420-18	SHM-10-11-FAL23	Total/NA	Water	2320B-2011	
680-242420-19	SHM-10-12-FAL23	Total/NA	Water	2320B-2011	
680-242420-20	SHM-10-16-FAL23	Total/NA	Water	2320B-2011	
680-242420-24	SHM-13-05-FAL23	Total/NA	Water	2320B-2011	
680-242420-27	SHM-13-08-FAL23	Total/NA	Water	2320B-2011	
680-242420-35	SHM-99-31B-FAL23	Total/NA	Water	2320B-2011	
MB 680-806892/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806892/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806892/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242420-6 DU	PZ-12-10-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 806900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-34	SHM-99-31A-FAL23	Total/NA	Water	2320B-2011	
680-242420-36	SHM-99-31C-FAL23	Total/NA	Water	2320B-2011	
680-242420-44	SHL-RB01-FAL23	Total/NA	Water	2320B-2011	
MB 680-806900/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806900/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806900/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242420-36 DU	SHM-99-31C-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Total/NA	Water	2320B-2011	
680-242420-7	SHL-11-FAL23	Total/NA	Water	2320B-2011	
680-242420-8	SHL-12-FAL23	Total/NA	Water	2320B-2011	
680-242420-9	SHL-15-FAL23	Total/NA	Water	2320B-2011	
680-242420-10	SHL-19-FAL23	Total/NA	Water	2320B-2011	
680-242420-11	SHL-22-FAL23	Total/NA	Water	2320B-2011	
680-242420-12	SHL-7-FAL23	Total/NA	Water	2320B-2011	
680-242420-13	SHL-9-FAL23	Total/NA	Water	2320B-2011	
680-242420-17	SHM-10-10-FAL23	Total/NA	Water	2320B-2011	
680-242420-21	SHM-11-06-FAL23	Total/NA	Water	2320B-2011	
680-242420-22	SHM-13-02-FAL23	Total/NA	Water	2320B-2011	
680-242420-23	SHM-13-03-FAL23	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 807051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-25	SHM-13-06-FAL23	Total/NA	Water	2320B-2011	
680-242420-30	SHM-13-15-FAL23	Total/NA	Water	2320B-2011	
680-242420-32	SHM-93-22C-FAL23	Total/NA	Water	2320B-2011	
680-242420-37	SHM-99-32X-FAL23	Total/NA	Water	2320B-2011	
680-242420-40	SHP-2016-2A-FAL23	Total/NA	Water	2320B-2011	
MB 680-807051/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807051/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807051/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242420-13 DU	SHL-9-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-26	SHM-13-07-FAL23	Total/NA	Water	2320B-2011	
680-242420-28	SHM-13-14D-FAL23	Total/NA	Water	2320B-2011	
680-242420-29	SHM-13-14S-FAL23	Total/NA	Water	2320B-2011	
680-242420-31	SHM-93-22B-FAL23	Total/NA	Water	2320B-2011	
680-242420-33	SHM-93-24A-FAL23	Total/NA	Water	2320B-2011	
680-242420-38	SHP-2016-1A-FAL23	Total/NA	Water	2320B-2011	
680-242420-39	SHP-2016-1B-FAL23	Total/NA	Water	2320B-2011	
680-242420-41	SHP-2016-2B-FAL23	Total/NA	Water	2320B-2011	
680-242420-42	SHP-2016-4A-FAL23	Total/NA	Water	2320B-2011	
680-242420-43	SHP-2016-4B-FAL23	Total/NA	Water	2320B-2011	
MB 680-807056/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807056/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807056/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242420-26 DU	SHM-13-07-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 808063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-2	SHL-DUP06-FAL23	Dissolved	Water	9060A	
680-242420-3	PZ-12-01-FAL23	Dissolved	Water	9060A	
680-242420-4	PZ-12-02-FAL23	Dissolved	Water	9060A	
680-242420-5	PZ-12-09-FAL23	Dissolved	Water	9060A	
680-242420-6	PZ-12-10-FAL23	Dissolved	Water	9060A	
680-242420-14	SHM-05-42A-FAL23	Dissolved	Water	9060A	
680-242420-15	SHM-05-42B-FAL23	Dissolved	Water	9060A	
680-242420-16	SHM-10-05A-FAL23	Dissolved	Water	9060A	
680-242420-18	SHM-10-11-FAL23	Dissolved	Water	9060A	
680-242420-19	SHM-10-12-FAL23	Dissolved	Water	9060A	
680-242420-20	SHM-10-16-FAL23	Dissolved	Water	9060A	
680-242420-27	SHM-13-08-FAL23	Dissolved	Water	9060A	
680-242420-34	SHM-99-31A-FAL23	Dissolved	Water	9060A	
680-242420-35	SHM-99-31B-FAL23	Dissolved	Water	9060A	
680-242420-36	SHM-99-31C-FAL23	Dissolved	Water	9060A	
680-242420-44	SHL-RB01-FAL23	Dissolved	Water	9060A	
MB 680-808063/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808063/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808063/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242420-19 MS	SHM-10-12-FAL23	Dissolved	Water	9060A	
680-242420-19 MSD	SHM-10-12-FAL23	Dissolved	Water	9060A	

General Chemistry

Analysis Batch: 808354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-1	SHL-DUP03-FAL23	Dissolved	Water	9060A	
680-242420-7	SHL-11-FAL23	Dissolved	Water	9060A	
680-242420-8	SHL-12-FAL23	Dissolved	Water	9060A	
680-242420-9	SHL-15-FAL23	Dissolved	Water	9060A	
680-242420-10	SHL-19-FAL23	Dissolved	Water	9060A	
680-242420-11	SHL-22-FAL23	Dissolved	Water	9060A	
680-242420-12	SHL-7-FAL23	Dissolved	Water	9060A	
680-242420-13	SHL-9-FAL23	Dissolved	Water	9060A	
680-242420-17	SHM-10-10-FAL23	Dissolved	Water	9060A	
680-242420-21	SHM-11-06-FAL23	Dissolved	Water	9060A	
680-242420-22	SHM-13-02-FAL23	Dissolved	Water	9060A	
680-242420-23	SHM-13-03-FAL23	Dissolved	Water	9060A	
680-242420-24	SHM-13-05-FAL23	Dissolved	Water	9060A	
680-242420-25	SHM-13-06-FAL23	Dissolved	Water	9060A	
680-242420-26	SHM-13-07-FAL23	Dissolved	Water	9060A	
680-242420-28	SHM-13-14D-FAL23	Dissolved	Water	9060A	
680-242420-29	SHM-13-14S-FAL23	Dissolved	Water	9060A	
680-242420-30	SHM-13-15-FAL23	Dissolved	Water	9060A	
MB 680-808354/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808354/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808354/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242420-24 MS	SHM-13-05-FAL23	Dissolved	Water	9060A	
680-242420-24 MSD	SHM-13-05-FAL23	Dissolved	Water	9060A	

Analysis Batch: 808659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242420-31	SHM-93-22B-FAL23	Dissolved	Water	9060A	
680-242420-32	SHM-93-22C-FAL23	Dissolved	Water	9060A	
680-242420-33	SHM-93-24A-FAL23	Dissolved	Water	9060A	
680-242420-37	SHM-99-32X-FAL23	Dissolved	Water	9060A	
680-242420-38	SHP-2016-1A-FAL23	Dissolved	Water	9060A	
680-242420-39	SHP-2016-1B-FAL23	Dissolved	Water	9060A	
680-242420-40	SHP-2016-2A-FAL23	Dissolved	Water	9060A	
680-242420-41	SHP-2016-2B-FAL23	Dissolved	Water	9060A	
680-242420-42	SHP-2016-4A-FAL23	Dissolved	Water	9060A	
680-242420-43	SHP-2016-4B-FAL23	Dissolved	Water	9060A	
MB 680-808659/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808659/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808659/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Client Sample ID: SHL-DUP03-FAL23
Lab Sample ID: 680-242420-1

Date Collected: 10/27/23 10:45
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 21:23	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:06	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:39	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 19:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/14/23 23:43	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-DUP06-FAL23
Lab Sample ID: 680-242420-2

Date Collected: 10/26/23 14:45
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 21:57	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:08	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:43	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 13:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 04:10	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-01-FAL23
Lab Sample ID: 680-242420-3

Date Collected: 10/25/23 12:30
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 22:08	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:10	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:47	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: PZ-12-01-FAL23

Lab Sample ID: 680-242420-3

Date Collected: 10/25/23 12:30

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 14:05	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 04:30	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-02-FAL23

Lab Sample ID: 680-242420-4

Date Collected: 10/25/23 11:30

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 22:20	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 14:15	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 04:49	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-09-FAL23

Lab Sample ID: 680-242420-5

Date Collected: 10/25/23 14:25

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 22:31	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:14	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:55	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 13:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 05:08	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-10-FAL23

Lab Sample ID: 680-242420-6

Date Collected: 10/25/23 15:35

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 22:43	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:21	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 14:47	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 05:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-11-FAL23

Lab Sample ID: 680-242420-7

Date Collected: 10/26/23 11:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 22:54	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:23	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:03	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 20:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 00:01	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-12-FAL23

Lab Sample ID: 680-242420-8

Date Collected: 10/26/23 12:30

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 23:05	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:25	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:08	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHL-12-FAL23

Lab Sample ID: 680-242420-8

Date Collected: 10/26/23 12:30

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 20:04	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 00:21	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-15-FAL23

Lab Sample ID: 680-242420-9

Date Collected: 10/26/23 16:15

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 23:17	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:27	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:12	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 20:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 00:37	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-19-FAL23

Lab Sample ID: 680-242420-10

Date Collected: 10/26/23 13:20

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808387	11/15/23 23:28	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:29	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 19:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 00:57	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-22-FAL23

Lab Sample ID: 680-242420-11

Date Collected: 10/27/23 10:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:59	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:31	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:28	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 19:35	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 01:15	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-7-FAL23

Lab Sample ID: 680-242420-12

Date Collected: 10/26/23 14:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 11:55	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:34	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 19:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 01:33	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-9-FAL23

Lab Sample ID: 680-242420-13

Date Collected: 10/27/23 13:25

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 12:46	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:36	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:36	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242420-1

Client Sample ID: SHL-9-FAL23

Lab Sample ID: 680-242420-13

Date Collected: 10/27/23 13:25
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 20:54	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 01:49	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-42A-FAL23

Lab Sample ID: 680-242420-14

Date Collected: 10/25/23 15:55
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:06	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:38	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:40	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 05:45	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-42B-FAL23

Lab Sample ID: 680-242420-15

Date Collected: 10/25/23 16:40
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:17	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:40	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:44	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 06:03	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-05A-FAL23
Lab Sample ID: 680-242420-16

Date Collected: 10/25/23 13:25
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:27	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:46	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 21:48	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:32	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 06:21	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-10-FAL23
Lab Sample ID: 680-242420-17

Date Collected: 10/26/23 15:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:38	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:23	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:29	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 21:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 02:08	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-11-FAL23
Lab Sample ID: 680-242420-18

Date Collected: 10/25/23 13:35
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 12:49	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:25	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:33	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-10-11-FAL23

Lab Sample ID: 680-242420-18

Date Collected: 10/25/23 13:35

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:23	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 06:39	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-12-FAL23

Lab Sample ID: 680-242420-19

Date Collected: 10/25/23 11:00

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 11:23	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:08	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:41	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 07:48	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-16-FAL23

Lab Sample ID: 680-242420-20

Date Collected: 10/25/23 14:25

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 13:10	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:27	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:37	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 15:52	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 06:57	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-11-06-FAL23
Lab Sample ID: 680-242420-21

Date Collected: 10/26/23 14:45
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 13:21	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:33	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:49	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 21:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 02:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-02-FAL23
Lab Sample ID: 680-242420-22

Date Collected: 10/27/23 13:30
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 14:25	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:36	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 21:34	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 03:18	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-03-FAL23
Lab Sample ID: 680-242420-23

Date Collected: 10/27/23 10:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 14:35	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:38	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 22:57	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-13-03-FAL23

Lab Sample ID: 680-242420-23

Date Collected: 10/27/23 10:50

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 21:43	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 03:39	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-05-FAL23

Lab Sample ID: 680-242420-24

Date Collected: 10/25/23 10:55

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 13:53	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:18	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:28	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 16:00	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 03:55	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-06-FAL23

Lab Sample ID: 680-242420-25

Date Collected: 10/26/23 11:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 14:46	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:40	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:01	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 21:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 04:49	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-07-FAL23
Lab Sample ID: 680-242420-26

Date Collected: 10/26/23 13:40
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 14:56	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:42	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:05	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 00:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 05:07	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-08-FAL23
Lab Sample ID: 680-242420-27

Date Collected: 10/25/23 15:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 15:07	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:44	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 16:09	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 08:44	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-14D-FAL23
Lab Sample ID: 680-242420-28

Date Collected: 10/27/23 12:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 15:18	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:46	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:13	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-13-14D-FAL23

Lab Sample ID: 680-242420-28

Date Collected: 10/27/23 12:10

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 00:56	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 05:25	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-14S-FAL23

Lab Sample ID: 680-242420-29

Date Collected: 10/27/23 11:20

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 15:28	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:48	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:18	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:32	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 05:43	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-15-FAL23

Lab Sample ID: 680-242420-30

Date Collected: 10/27/23 10:40

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 15:39	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:51	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:22	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 22:03	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808354	11/15/23 06:01	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-93-22B-FAL23
Lab Sample ID: 680-242420-31

Date Collected: 10/27/23 11:55
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808614	11/16/23 15:50	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:53	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/15/23 23:40	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-93-22C-FAL23
Lab Sample ID: 680-242420-32

Date Collected: 10/27/23 09:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/16/23 17:29	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 19:59	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:38	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 22:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 00:01	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-93-24A-FAL23
Lab Sample ID: 680-242420-33

Date Collected: 10/26/23 15:55
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/16/23 18:01	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 20:01	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:42	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-93-24A-FAL23

Lab Sample ID: 680-242420-33

Date Collected: 10/26/23 15:55

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:41	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 00:20	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-99-31A-FAL23

Lab Sample ID: 680-242420-34

Date Collected: 10/25/23 09:35

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:06	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 20:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:46	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 18:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 09:03	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-99-31B-FAL23

Lab Sample ID: 680-242420-35

Date Collected: 10/25/23 10:55

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:17	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 20:06	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:50	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806892	11/06/23 16:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 09:22	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-99-31C-FAL23
Lab Sample ID: 680-242420-36

Date Collected: 10/25/23 12:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:27	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 20:08	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:54	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 18:35	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 09:40	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-99-32X-FAL23
Lab Sample ID: 680-242420-37

Date Collected: 10/26/23 17:45
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:38	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805942	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 20:10	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805943	11/02/23 06:49	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 23:58	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 22:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 00:38	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-1A-FAL23
Lab Sample ID: 680-242420-38

Date Collected: 10/27/23 10:15
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:49	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:33	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:49	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-1A-FAL23
Lab Sample ID: 680-242420-38
Date Collected: 10/27/23 10:15
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:04	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 00:56	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-1B-FAL23
Lab Sample ID: 680-242420-39
Date Collected: 10/27/23 12:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 10:59	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:35	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 01:15	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-2A-FAL23
Lab Sample ID: 680-242420-40
Date Collected: 10/26/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 11:10	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:37	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:57	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807051	11/07/23 22:13	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 01:33	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-2B-FAL23

Lab Sample ID: 680-242420-41

Date Collected: 10/26/23 11:15

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 11:21	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:39	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 03:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:59	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 01:51	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-4A-FAL23

Lab Sample ID: 680-242420-42

Date Collected: 10/26/23 14:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 12:24	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:41	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 03:13	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 02:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 02:09	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-4B-FAL23

Lab Sample ID: 680-242420-43

Date Collected: 10/26/23 13:30

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 12:35	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:43	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 03:17	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-4B-FAL23
Lab Sample ID: 680-242420-43
Date Collected: 10/26/23 13:30
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 01:50	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 02:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-RB01-FAL23
Lab Sample ID: 680-242420-44
Date Collected: 10/25/23 14:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808615	11/17/23 12:56	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805945	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:45	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805946	11/02/23 06:53	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 03:21	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:00	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 09:58	KMB	EET SAV
	Instrument ID: TOC7									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242420-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

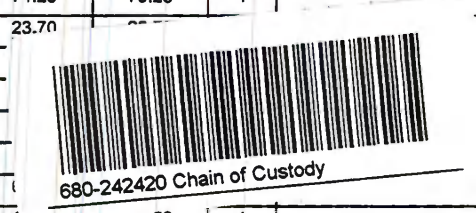
Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)						Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
	Sample ID	Matrix	Date	Time	Samp Init.	46	9	9	5	3											
1	SHL-DUP01-FAL23	WG				X	X	X	X	X						PZ-12-06	FD1	25.00	35.00	1	
2	SHL-DUP02-FAL23	WG				X	X	X	X	X						SHL-20	FD1	39.00	49.00	1	
3	SHL-DUP03-FAL23	WG	10.27.23	1045	AF	X	X	X	X	X						SHL-22	FD1	105.00	115.00	1	
4	SHL-DUP04-FAL23	WG				X	X	X	X	X						SHL-24	FD1	110.00	120.00	1	
5	SHL-DUP05-FAL23	WG				X	X	X	X	X						SHM-05-40X	FD1	32.00	34.00	1	
6	SHL-DUP06-FAL23	WG	10.26.23	1445	DC	X	X	X	X	X						SHM-11-06	FD1	25.00	35.00	1	
7	SHL-DUP07-FAL23	WG				X	X	X	X	X						SHM-96-5B	FD1	80.00	90.00	1	
8	SHL-DUP08-FAL23	WG				X	X	X	X	X						SHP-01-38A	FD1	1.50	6.50	1	
9	SHL-DUP09-FAL23	WG				X	X	X	X	X						SHP-2016-07B	FD1	70.00	80.00	1	
10	SHL-DUP10-FAL23	WG				X	X	X	X	X						SHP-2023-3B	FD1	0.00	0.00	1	
11	SHL-DUP11-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-4B	FD1	79.50	84.50	1	
12	SHL-DUP12-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-6B	FD1	74.23	79.23	1	
13	EPA-PZ-2012-1A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-1A	N1	23.70			
14	EPA-PZ-2012-1B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-1B	N1				
15	EPA-PZ-2012-2A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-2A	N1				
16	EPA-PZ-2012-2B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-2B	N1				
17	EPA-PZ-2012-3A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-3A	N1				
18	EPA-PZ-2012-3B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-3B	N1				
19	EPA-PZ-2012-4A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-4A	N1		24.56	1	
20	EPA-PZ-2012-4B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-4B	N1	79.50	84.50	1	



Relinquished by: (Signature) Drew Clyne
Date 10-27-23
Time
Received by: (Signature)

Received by Laboratory: (Signature) JA
Date 11-1-23
Time 1012

0.5/0.8 1.1/1.4 5.1/5.4 2.3/2.6

11/19/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)												
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3												
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
21	EPA-PZ-2012-5A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5A	N1	17.95	22.95	1	
22	EPA-PZ-2012-5B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5B	N1	68.46	73.46	1	
23	EPA-PZ-2012-6A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-6A	N1	24.19	29.19	1	
24	EPA-PZ-2012-6B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-6B	N1	74.23	79.23	1	
25	EPA-PZ-2012-7A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-7A	N1	23.87	28.87	1	
26	EPA-PZ-2012-7B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-7B	N1	58.82	63.82	1	
27	EW-01-FAL23	WG					X	X	X	X	X					EW-01	N1	60.00	85.00	1	
28	EW-03-FAL23	WG					X	X	X	X	X					EW-03	N1	0.00	0.00	1	
29	EW-04-FAL23	WG					X	X	X	X	X					EW-04	N1	70.00	95.00	1	
30	N5-P1-FAL23	WG					X	X	X	X	X					N5-P1	N1	95.50	97.50	1	
31	PZ-12-01-FAL23	WG	10-25-23	1230	DC		X	X	X	X	X					PZ-12-01	N1	24.00	34.00	1	
32	PZ-12-02-FAL23	WG	10-25-23	1130	DC		X	X	X	X	X					PZ-12-02	N1	24.00	34.00	1	
33	PZ-12-03-FAL23	WG					X	X	X	X	X					PZ-12-03	N1	24.00	34.00	1	
34	PZ-12-04-FAL23	WG					X	X	X	X	X					PZ-12-04	N1	24.00	34.00	1	
35	PZ-12-05-FAL23	WG					X	X	X	X	X					PZ-12-05	N1	26.00	36.00	1	
36	PZ-12-06-FAL23	WG					X	X	X	X	X					PZ-12-06	N1	25.00	35.00	1	
37	PZ-12-07-FAL23	WG					X	X	X	X	X					PZ-12-07	N1	20.00	30.00	1	
38	PZ-12-08-FAL23	WG					X	X	X	X	X					PZ-12-08	N1	22.00	32.00	1	
39	PZ-12-09-FAL23	WG	10-25-23	1425	DC		X	X	X	X	X					PZ-12-09	N1	20.00	30.00	1	
40	PZ-12-10-FAL23	WG	10-25-23	1535	DC		X	X	X	X	X					PZ-12-10	MS1	20.00	30.00	1	

Relinquished by: (Signature) Diane Clyburn
Date 10-27-23
Time
Received by: (Signature)

Received by Laboratory: (Signature) [illegible] TA
Date 11-1-23
Time 1012

11/19/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
41	PZ-12-10-FAL23	WG				X	X	X	X	X						PZ-12-10	N1	20.00	30.00	1	
42	PZ-12-10-FAL23	WG				X	X	X	X	X						PZ-12-10	SD1	20.00	30.00	1	
43	SHL-10-FAL23	WG				X	X	X	X	X						SHL-10	N1	24.00	39.00	1	
44	SHL-11-FAL23	WG	10-26-23	1145	DC	X	X	X	X	X						SHL-11	N1	12.00	27.00	1	
45	SHL-12-FAL23	WG	10-26-23	1230	FM	X	X	X	X	X						SHL-12	N1	15.00	30.00	1	
46	SHL-15-FAL23	WG	10-26-23	1615	DC	X	X	X	X	X						SHL-15	N1	14.00	24.00	1	
47	SHL-19-FAL23	WG	10.26.23	1320	DC	X	X	X	X	X						SHL-19	N1	20.00	30.00	1	
48	SHL-20-FAL23	WG				X	X	X	X	X						SHL-20	N1	39.00	49.00	1	
49	SHL-22-FAL23	WG	10.27.23	1045	AF	X	X	X	X	X						SHL-22	N1	105.00	115.00	1	
50	SHL-23-FAL23	WG				X	X	X	X	X						SHL-23	N1	23.00	33.00	1	
51	SHL-24-FAL23	WG				X	X	X	X	X						SHL-24	N1	110.00	120.00	1	
52	SHL-3-FAL23	WG				X	X	X	X	X						SHL-3	N1	24.00	34.00	1	
53	SHL-4-FAL23	WG				X	X	X	X	X						SHL-4	N1	3.00	13.00	1	
54	SHL-5-FAL23	WG				X	X	X	X	X						SHL-5	N1	3.00	13.00	1	
55	SHL-7-FAL23	WG	10.26.23	1445	FM	X	X	X	X	X						SHL-7	N1	11.00	21.00	1	
56	SHL-8D-FAL23	WG				X	X	X	X	X						SHL-8D	N1	68.00	70.00	1	
57	SHL-8S-FAL23	WG				X	X	X	X	X						SHL-8S	N1	52.00	54.00	1	
58	SHL-9-FAL23	WG	3.27.23	1325	AF	X	X	X	X	X						SHL-9	N1	15.00	25.00	1	
59	SHM-05-39A-FAL23	WG				X	X	X	X	X						SHM-05-39A	N1	37.00	39.00	1	
60	SHM-05-39B-FAL23	WG				X	X	X	X	X						SHM-05-39B	N1	66.00	68.00	1	

Relinquished by: (Signature) Diane Clapp
Date 10-27-23

Received by Laboratory: (Signature) [signature] TA
Date 10-1-23
Time 1012

11/19/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

| | | |

CHAIN-OF-CUSTODY RECORD

ARVC
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(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
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SW9056A (A) = Cl SO4
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WG	Ground Water

Code	Container/Preservative
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						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)									
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3									
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
81	SHM-10-11-FAL23	WG	10-25-23	1335	FM	X	X	X	X	X					SHM-10-11	N1	50.00	60.00	1	
82	SHM-10-12-FAL23	WG	10-25-23	1100	FM	X	X	X	X	X					SHM-10-12	MS1	45.00	55.00	1	
83	SHM-10-12-FAL23	WG	10-25-23	1100	FM	X	X	X	X	X					SHM-10-12	N1	45.00	55.00	1	
84	SHM-10-12-FAL23	WG	10-25-23	1100	FM	X	X	X	X	X					SHM-10-12	SD1	45.00	55.00	1	
85	SHM-10-13-FAL23	WG				X	X	X	X	X					SHM-10-13	N1	60.00	70.00	1	
86	SHM-10-14-FAL23	WG				X	X	X	X	X					SHM-10-14	N1	60.00	80.00	1	
87	SHM-10-15-FAL23	WG				X	X	X	X	X					SHM-10-15	N1	45.00	55.00	1	
88	SHM-10-16-FAL23	WG	10-25-23	1425	AF	X	X	X	X	X					SHM-10-16	N1	75.00	85.00	1	
89	SHM-11-02-FAL23	WG				X	X	X	X	X					SHM-11-02	N1	52.00	66.00	1	
90	SHM-11-06-FAL23	WG	10-26-23	1445	DC	X	X	X	X	X					SHM-11-06	N1	25.00	35.00	1	
91	SHM-13-01-FAL23	WG				X	X	X	X	X					SHM-13-01	N1	39.00	49.00	1	
92	SHM-13-02-FAL23	WG	10-27-23	1330	NM	X	X	X	X	X					SHM-13-02	N1	60.00	70.00	1	
93	SHM-13-03-FAL23	WG	10-27-23	1050	NM	X	X	X	X	X					SHM-13-03	N1	42.00	52.00	1	
94	SHM-13-04-FAL23	WG	[illegible]			X	X	X	X	X					SHM-13-04	N1	20.00	30.00	1	
95	SHM-13-05-FAL23	WG	10-25-23	1055	NM	X	X	X	X	X					SHM-13-05	MS1	75.00	85.00	1	
96	SHM-13-05-FAL23	WG	10-25-23	1055	NM	X	X	X	X	X					SHM-13-05	N1	75.00	85.00	1	
97	SHM-13-05-FAL23	WG	10-25-23	1055	NM	X	X	X	X	X					SHM-13-05	SD1	75.00	85.00	1	
98	SHM-13-06-FAL23	WG	10-26-23	1145	NM	X	X	X	X	X					SHM-13-06	N1	36.00	46.00	1	
99	SHM-13-07-FAL23	WG	10-26-23	1340	NM	X	X	X	X	X					SHM-13-07	N1	27.00	37.00	1	
100	SHM-13-08-FAL23	WG	10-25-23	1550	NM	X	X	X	X	X					SHM-13-08	N1	55.00	65.00	1	

Relinquished by: (Signature) Dmulligan
Date 10-27-23
Time
Received by: (Signature)

Received by Laboratory: (Signature) JM
Date 11-1-23
Time 1012

11/19/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)							Depth (ft bgs)			
	Sample ID	Matrix	Date	Time	Samp Init.		46	9	9	5	3						Location ID	Sample Type	Top	Bottom	Cooler	Comments
101	SHM-13-14D-FAL23	WG	10.27.23	1210	FM		X	X	X	X	X						SHM-13-14D	N1	45.00	55.00	1	
102	SHM-13-14S-FAL23	WG	10.27.23	1120	FM		X	X	X	X	X						SHM-13-14S	N1	5.00	15.00	1	
103	SHM-13-15-FAL23	WG	10.27.23	1040	FM		X	X	X	X	X						SHM-13-15	N1	50.00	60.00	1	
104	SHM-93-10D-FAL23	WG					X	X	X	X	X						SHM-93-10D	N1	48.70	58.70	1	
105	SHM-93-18B-FAL23	WG					X	X	X	X	X						SHM-93-18B	MS1	78.50	88.50	1	
106	SHM-93-18B-FAL23	WG					X	X	X	X	X						SHM-93-18B	N1	78.50	88.50	1	
107	SHM-93-18B-FAL23	WG					X	X	X	X	X						SHM-93-18B	SD1	78.50	88.50	1	
108	SHM-93-22B-FAL23	WG	10.27.23	1155	AF		X	X	X	X	X						SHM-93-22B	N1	82.30	92.30	1	
109	SHM-93-22C-FAL23	WG	10.27.23	0950	AF		X	X	X	X	X						SHM-93-22C	N1	124.30	134.30	1	
110	SHM-93-24A-FAL23	WG	10.26.23	1555	FM		X	X	X	X	X						SHM-93-24A	N1	13.20	23.20	1	
111	SHM-96-5B-FAL23	WG					X	X	X	X	X						SHM-96-5B	N1	80.00	90.00	1	
112	SHM-96-5C-FAL23	WG					X	X	X	X	X						SHM-96-5C	N1	50.00	60.00	1	
113	SHM-99-31A-FAL23	WG	10.25.23	0935	AF		X	X	X	X	X						SHM-99-31A	N1	4.00	14.00	1	
114	SHM-99-31B-FAL23	WG	10.25.23	1055	AF		X	X	X	X	X						SHM-99-31B	N1	50.00	60.00	1	
115	SHM-99-31C-FAL23	WG	10.25.23	1200	AF		X	X	X	X	X						SHM-99-31C	N1	68.00	78.00	1	
116	SHM-99-32X-FAL23	WG	10.26.23	1745	AF		X	X	X	X	X						SHM-99-32X	N1	72.00	82.00	1	
117	SHP-01-36X-FAL23	WG					X	X	X	X	X						SHP-01-36X	N1	3.00	8.00	1	
118	SHP-01-37X-FAL23	WG					X	X	X	X	X						SHP-01-37X	N1	1.00	6.00	1	
119	SHP-01-38A-FAL23	WG					X	X	X	X	X						SHP-01-38A	N1	1.50	6.50	1	
120	SHP-2016-06A-FAL23	WG					X	X	X	X	X						SHP-2016-06A	N1	81.00	86.00	1	

Relinquished by: (Signature) Drew Clapp
Date 10-27-23
Time
Received by: (Signature)

Received by Laboratory: (Signature) JM
Date 11-1-23
Time 1012

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

| | | |

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
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Equipment:

Code	Matrix
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Code	Container/Preservative
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46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
141	SHP-2023-4A-FAL23	WG				X	X	X	X	X					SHP-2023-4A	N1	0.00	0.00	1	
142	SHP-2023-4B-FAL23	WG				X	X	X	X	X					SHP-2023-4B	N1	0.00	0.00	1	
143	SHP-2023-5A-FAL23	WG				X	X	X	X	X					SHP-2023-5A	N1	0.00	0.00	1	
144	SHP-2023-5B-FAL23	WG				X	X	X	X	X					SHP-2023-5B	N1	0.00	0.00	1	
145	SHP-99-29X-FAL23	WG				X	X	X	X	X					SHP-99-29X	N1	19.00	29.00	1	
146	SHL-RBOI-Fal23	–	10.25.23	1400	FM	X	X	X	X	X					Rinse blank					
147																				
148																				
149																				
150																				
151																				
152																				
153																				

Turnaround Time: Standard

Relinquished by: (Signature) Diane Clupper
Date 10-27-23
Time
Received by: (Signature)

Received by Laboratory: (Signature) TA
Date 11-1-23
Time 1012

11/19/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242420-1

Login Number: 242420

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 11/22/2023 7:51:14 PM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL Fall 2023

JOB NUMBER

680-242429-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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11/22/2023 7:51:14 PM

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242429-1	SHL-DUP01-FAL23	Water	10/24/23 10:00	11/01/23 10:12
680-242429-2	SHL-DUP02-FAL23	Water	10/24/23 16:00	11/01/23 10:12
680-242429-3	SHL-DUP07-FAL23	Water	10/24/23 16:10	11/01/23 10:12
680-242429-4	N5-P1-FAL23	Water	10/24/23 12:02	11/01/23 10:12
680-242429-5	PZ-12-03-FAL23	Water	10/24/23 14:30	11/01/23 10:12
680-242429-6	PZ-12-04-FAL23	Water	10/24/23 13:15	11/01/23 10:12
680-242429-7	PZ-12-05-FAL23	Water	10/24/23 11:50	11/01/23 10:12
680-242429-8	PZ-12-06-FAL23	Water	10/24/23 10:00	11/01/23 10:12
680-242429-9	SHL-20-FAL23	Water	10/24/23 16:00	11/01/23 10:12
680-242429-10	SHL-5-FAL23	Water	10/24/23 13:10	11/01/23 10:12
680-242429-11	SHL-8D-FAL23	Water	10/24/23 11:45	11/01/23 10:12
680-242429-12	SHL-8S-FAL23	Water	10/24/23 09:20	11/01/23 10:12
680-242429-13	SHM-10-02-FAL23	Water	10/23/23 16:15	11/01/23 10:12
680-242429-14	SHM-10-03-FAL23	Water	10/23/23 14:20	11/01/23 10:12
680-242429-15	SHM-10-04-FAL23	Water	10/24/23 14:25	11/01/23 10:12
680-242429-16	SHM-10-07-FAL23	Water	10/23/23 12:20	11/01/23 10:12
680-242429-17	SHM-10-08-FAL23	Water	10/24/23 10:25	11/01/23 10:12
680-242429-18	SHM-10-13-FAL23	Water	10/24/23 14:50	11/01/23 10:12
680-242429-19	SHM-10-14-FAL23	Water	10/24/23 15:55	11/01/23 10:12
680-242429-20	SHM-10-15-FAL23	Water	10/24/23 13:10	11/01/23 10:12
680-242429-21	SHM-13-04-FAL23	Water	10/24/23 17:05	11/01/23 10:12
680-242429-22	SHM-96-5B-FAL23	Water	10/24/23 16:10	11/01/23 10:12
680-242429-23	SHM-96-5C-FAL23	Water	10/24/23 14:40	11/01/23 10:12
680-242429-24	SHP-99-29X-FAL23	Water	10/24/23 10:00	11/01/23 10:12

Job ID: 680-242429-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-242429-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/1/2023 10:12 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6°C, 1.5°C and 3.2°C

Receipt Exceptions
The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): SHL-5-FAL23 (680-242429-10).

-Sample -12 label does not match COC. Label on sample is "SHL-05-FAL23" collected @ 920. Time does not match sample with the same ID (sample 10).

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-DUP01-FAL23
Lab Sample ID: 680-242429-1

Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**0.79**		0.55	0.50	0.20	mg/L		11/17/23 14:54	1
Sulfate	**11**		1.5	1.0	0.40	mg/L		11/17/23 14:54	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:24	1
Manganese	**29**		10	5.0	1.3	ug/L		11/02/23 14:24	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 00:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**27**		5.5	5.0	2.2	mg/L		11/03/23 18:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.98**	**J**	1.5	1.0	0.50	mg/L		11/11/23 08:16	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-DUP02-FAL23
Lab Sample ID: 680-242429-2

Date Collected: 10/24/23 16:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.55	0.50	0.20	mg/L		11/17/23 15:26	1
Sulfate	60		1.5	1.0	0.40	mg/L		11/17/23 15:26	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	62000		100	50	20	ug/L		11/02/23 14:27	1
Manganese	4000		10	5.0	1.3	ug/L		11/02/23 14:27	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	890		5.0	3.0	0.86	ug/L		11/03/23 00:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/03/23 19:14	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.9		1.5	1.0	0.50	mg/L		11/11/23 08:32	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-DUP07-FAL23
Lab Sample ID: 680-242429-3

Date Collected: 10/24/23 16:10
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	38		0.55	0.50	0.20	mg/L		11/17/23 15:36	1
Sulfate	24	M	1.5	1.0	0.40	mg/L		11/17/23 15:36	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	24000		100	50	20	ug/L		11/02/23 14:29	1
Manganese	7500		10	5.0	1.3	ug/L		11/02/23 14:29	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1500		5.0	3.0	0.86	ug/L		11/03/23 00:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/03/23 15:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		11/11/23 08:50	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: N5-P1-FAL23
Lab Sample ID: 680-242429-4
Date Collected: 10/24/23 12:02
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	15		0.55	0.50	0.20	mg/L		11/17/23 15:47	1
Sulfate	10		1.5	1.0	0.40	mg/L		11/17/23 15:47	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	22000		100	50	20	ug/L		11/02/23 14:35	1
Manganese	6900		10	5.0	1.3	ug/L		11/02/23 14:35	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	4300		5.0	3.0	0.86	ug/L		11/03/23 00:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	220		5.5	5.0	2.2	mg/L		11/03/23 15:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.7		1.5	1.0	0.50	mg/L		11/11/23 09:08	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: PZ-12-03-FAL23
Lab Sample ID: 680-242429-5
Date Collected: 10/24/23 14:30
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.55	0.50	0.20	mg/L		11/17/23 15:58	1
Sulfate	5.7		1.5	1.0	0.40	mg/L		11/17/23 15:58	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	51000		100	50	20	ug/L		11/02/23 14:37	1
Manganese	4100		10	5.0	1.3	ug/L		11/02/23 14:37	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	840		5.0	3.0	0.86	ug/L		11/03/23 01:03	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/03/23 18:55	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.4		1.5	1.0	0.50	mg/L		11/11/23 09:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: PZ-12-04-FAL23
Lab Sample ID: 680-242429-6
Date Collected: 10/24/23 13:15
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	57		0.55	0.50	0.20	mg/L		11/17/23 16:08	1
Sulfate	0.60	J	1.5	1.0	0.40	mg/L		11/17/23 16:08	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	62000		100	50	20	ug/L		11/02/23 14:39	1
Manganese	1600		10	5.0	1.3	ug/L		11/02/23 14:39	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	720		5.0	3.0	0.86	ug/L		11/03/23 01:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	120		5.5	5.0	2.2	mg/L		11/03/23 19:04	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.4		1.5	1.0	0.50	mg/L		11/11/23 09:45	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: PZ-12-05-FAL23

Lab Sample ID: 680-242429-7

Date Collected: 10/24/23 11:50

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.55		0.55	0.50	0.20	mg/L		11/17/23 16:19	1
Sulfate	1.3	J	1.5	1.0	0.40	mg/L		11/17/23 16:19	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	150		100	50	20	ug/L		11/02/23 14:41	1
Manganese	130		10	5.0	1.3	ug/L		11/02/23 14:41	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.6	J	5.0	3.0	0.86	ug/L		11/03/23 01:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	35		5.5	5.0	2.2	mg/L		11/03/23 18:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/11/23 10:04	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: PZ-12-06-FAL23
Lab Sample ID: 680-242429-8
Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**0.79**		0.55	0.50	0.20	mg/L		11/17/23 16:30	1
Sulfate	**11**		1.5	1.0	0.40	mg/L		11/17/23 16:30	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:44	1
Manganese	**29**		10	5.0	1.3	ug/L		11/02/23 14:44	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 01:15	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**26**		5.5	5.0	2.2	mg/L		11/06/23 19:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.75**	**J**	1.5	1.0	0.50	mg/L		11/11/23 10:21	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-20-FAL23
Lab Sample ID: 680-242429-9

Date Collected: 10/24/23 16:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	100		0.55	0.50	0.20	mg/L		11/17/23 16:40	1
Sulfate	59		1.5	1.0	0.40	mg/L		11/17/23 16:40	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	62000		100	50	20	ug/L		11/02/23 14:46	1
Manganese	4000		10	5.0	1.3	ug/L		11/02/23 14:46	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	880		5.0	3.0	0.86	ug/L		11/03/23 01:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.5	5.0	2.2	mg/L		11/06/23 19:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.9		1.5	1.0	0.50	mg/L		11/11/23 10:37	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHL-5-FAL23

Date Collected: 10/24/23 13:10
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242429-10

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	24		0.55	0.50	0.20	mg/L		11/17/23 16:51	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 16:51	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	3900		100	50	20	ug/L		11/02/23 14:48	1
Manganese	270		10	5.0	1.3	ug/L		11/02/23 14:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	16		5.0	3.0	0.86	ug/L		11/03/23 01:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	56		5.5	5.0	2.2	mg/L		11/06/23 19:34	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.1		1.5	1.0	0.50	mg/L		11/11/23 10:56	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHL-8D-FAL23

Date Collected: 10/24/23 11:45
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242429-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**52**		0.55	0.50	0.20	mg/L		11/17/23 21:07	1
Sulfate	**6.1**		1.5	1.0	0.40	mg/L		11/17/23 21:07	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:50	1
Manganese	**3.9**	**J**	10	5.0	1.3	ug/L		11/02/23 14:50	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 01:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**40**		5.5	5.0	2.2	mg/L		11/06/23 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/11/23 11:48	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHL-8S-FAL23

Date Collected: 10/24/23 09:20
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242429-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**7.9**		0.55	0.50	0.20	mg/L		11/17/23 17:55	1
Sulfate	**5.8**		1.5	1.0	0.40	mg/L		11/17/23 17:55	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:52	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 14:52	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 01:32	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**24**		5.5	5.0	2.2	mg/L		11/06/23 19:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/11/23 12:05	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-02-FAL23
Lab Sample ID: 680-242429-13
Date Collected: 10/23/23 16:15
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	**19**		1.5	1.0	0.40	mg/L		11/13/23 19:36	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**580**	**D**	5.5	5.0	2.0	mg/L		11/14/23 14:16	10

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:54	1
Manganese	**6800**		10	5.0	1.3	ug/L		11/02/23 14:54	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 01:36	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**130**		5.5	5.0	2.2	mg/L		11/03/23 18:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.1**	**J**	1.5	1.0	0.50	mg/L		11/11/23 12:23	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHM-10-03-FAL23
Date Collected: 10/23/23 14:20
Date Received: 11/01/23 10:12

Lab Sample ID: 680-242429-14
Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	**15**		1.5	1.0	0.40	mg/L		11/13/23 19:48	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**730**	**D**	5.5	5.0	2.0	mg/L		11/14/23 14:28	10

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 15:01	1
Manganese	**30**		10	5.0	1.3	ug/L		11/02/23 15:01	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 01:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**130**		5.5	5.0	2.2	mg/L		11/03/23 18:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.81**	**J**	1.5	1.0	0.50	mg/L		11/11/23 12:41	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHM-10-04-FAL23

Lab Sample ID: 680-242429-15

Date Collected: 10/24/23 14:25

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**92**		0.55	0.50	0.20	mg/L		11/17/23 17:23	1
Sulfate	**27**	**M**	1.5	1.0	0.40	mg/L		11/17/23 17:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:14	1
Manganese	**600**		10	5.0	1.3	ug/L		11/02/23 14:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 00:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**77**		5.5	5.0	2.2	mg/L		11/06/23 19:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.1**	**J**	1.5	1.0	0.50	mg/L		11/11/23 12:59	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-07-FAL23
Lab Sample ID: 680-242429-16
Date Collected: 10/23/23 12:20
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	110		0.55	0.50	0.20	mg/L		11/13/23 19:59	1
Sulfate	11		1.5	1.0	0.40	mg/L		11/13/23 19:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	52000		100	50	20	ug/L		11/02/23 15:03	1
Manganese	2300		10	5.0	1.3	ug/L		11/02/23 15:03	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1100		5.0	3.0	0.86	ug/L		11/03/23 01:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	100		5.5	5.0	2.2	mg/L		11/03/23 18:46	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/11/23 13:51	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-08-FAL23
Lab Sample ID: 680-242429-17
Date Collected: 10/24/23 10:25
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	120		0.55	0.50	0.20	mg/L		11/17/23 21:17	1
Sulfate	6.2		1.5	1.0	0.40	mg/L		11/17/23 21:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	35	J	100	50	20	ug/L		11/02/23 15:05	1
Manganese	540		10	5.0	1.3	ug/L		11/02/23 15:05	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.6	J	5.0	3.0	0.86	ug/L		11/03/23 01:56	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/06/23 20:02	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.1	J	1.5	1.0	0.50	mg/L		11/11/23 14:09	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-13-FAL23
Lab Sample ID: 680-242429-18
Date Collected: 10/24/23 14:50
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	28		0.55	0.50	0.20	mg/L		11/17/23 18:05	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 18:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	75000		100	50	20	ug/L		11/02/23 15:07	1
Manganese	990		10	5.0	1.3	ug/L		11/02/23 15:07	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	510		5.0	3.0	0.86	ug/L		11/03/23 02:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	220		5.5	5.0	2.2	mg/L		11/06/23 20:36	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.1		1.5	1.0	0.50	mg/L		11/11/23 14:27	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-14-FAL23
Lab Sample ID: 680-242429-19
Date Collected: 10/24/23 15:55
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.8		0.55	0.50	0.20	mg/L		11/17/23 18:16	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 18:16	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	74000		100	50	20	ug/L		11/02/23 15:09	1
Manganese	2300		10	5.0	1.3	ug/L		11/02/23 15:09	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	4600		5.0	3.0	0.86	ug/L		11/03/23 02:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/06/23 20:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.4		1.5	1.0	0.50	mg/L		11/11/23 14:46	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-15-FAL23
Lab Sample ID: 680-242429-20

Date Collected: 10/24/23 13:10
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	7.7		0.55	0.50	0.20	mg/L		11/17/23 18:27	1
Sulfate	9.6		1.5	1.0	0.40	mg/L		11/17/23 18:27	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	45000		100	50	20	ug/L		11/02/23 15:11	1
Manganese	7600		10	5.0	1.3	ug/L		11/02/23 15:11	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	7400		5.0	3.0	0.86	ug/L		11/03/23 02:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	180		5.5	5.0	2.2	mg/L		11/06/23 21:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.1		1.5	1.0	0.50	mg/L		11/11/23 15:05	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-13-04-FAL23
Lab Sample ID: 680-242429-21
Date Collected: 10/24/23 17:05
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	130		0.55	0.50	0.20	mg/L		11/17/23 18:37	1
Sulfate	9.6	M	1.5	1.0	0.40	mg/L		11/17/23 18:37	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	550		100	50	20	ug/L		11/02/23 17:45	1
Manganese	61		10	5.0	1.3	ug/L		11/02/23 17:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	63		5.0	3.0	0.86	ug/L		11/02/23 19:59	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	40		5.5	5.0	2.2	mg/L		11/06/23 21:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.89	J	1.5	1.0	0.50	mg/L		11/12/23 10:16	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHM-96-5B-FAL23

Lab Sample ID: 680-242429-22

Date Collected: 10/24/23 16:10

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	38		0.55	0.50	0.20	mg/L		11/17/23 20:13	1
Sulfate	23		1.5	1.0	0.40	mg/L		11/17/23 20:13	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	25000		100	50	20	ug/L		11/02/23 18:00	1
Manganese	7800		10	5.0	1.3	ug/L		11/02/23 18:00	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1600		5.0	3.0	0.86	ug/L		11/02/23 20:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/06/23 21:25	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/12/23 10:34	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHM-96-5C-FAL23

Lab Sample ID: 680-242429-23

Date Collected: 10/24/23 14:40

Matrix: Water

Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	36		0.55	0.50	0.20	mg/L		11/17/23 20:45	1
Sulfate	8.9	M	1.5	1.0	0.40	mg/L		11/17/23 20:45	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	28000		100	50	20	ug/L		11/02/23 18:02	1
Manganese	5700		10	5.0	1.3	ug/L		11/02/23 18:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	64		5.0	3.0	0.86	ug/L		11/02/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	150		5.5	5.0	2.2	mg/L		11/06/23 21:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		11/12/23 11:25	1

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHP-99-29X-FAL23
Lab Sample ID: 680-242429-24
Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.3		0.55	0.50	0.20	mg/L		11/17/23 20:56	1
Sulfate	1.1	J	1.5	1.0	0.40	mg/L		11/17/23 20:56	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	36000		100	50	20	ug/L		11/02/23 18:04	1
Manganese	1500		10	5.0	1.3	ug/L		11/02/23 18:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1000		5.0	3.0	0.86	ug/L		11/02/23 20:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	86		5.5	5.0	2.2	mg/L		11/06/23 21:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.2		1.5	1.0	0.50	mg/L		11/12/23 11:46	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-807895/33
Matrix: Water
Analysis Batch: 807895

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/13/23 18:28	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/13/23 18:28	1

Lab Sample ID: LCS 680-807895/34
Matrix: Water
Analysis Batch: 807895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.49	M	mg/L		95	87 - 112

Lab Sample ID: LCSD 680-807895/35
Matrix: Water
Analysis Batch: 807895

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.43		mg/L		94	87 - 112	1	15

Lab Sample ID: MB 680-808145/2
Matrix: Water
Analysis Batch: 808145

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/14/23 11:33	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/14/23 11:33	1

Lab Sample ID: LCS 680-808145/4
Matrix: Water
Analysis Batch: 808145

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.59	M	mg/L		96	87 - 112

Lab Sample ID: LCSD 680-808145/5
Matrix: Water
Analysis Batch: 808145

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.52		mg/L		95	87 - 112	1	15

Lab Sample ID: MB 680-808935/1002
Matrix: Water
Analysis Batch: 808935

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/17/23 14:11	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 14:11	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 680-808935/4
Matrix: Water
Analysis Batch: 808935

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.3		mg/L		103	87 - 111		
Sulfate			10.0	9.44		mg/L		94	87 - 112		

Lab Sample ID: LCSD 680-808935/5
Matrix: Water
Analysis Batch: 808935

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	9.49	M	mg/L		95	87 - 112	1	15

Lab Sample ID: 680-242429-1 MS
Matrix: Water
Analysis Batch: 808935

Client Sample ID: SHL-DUP01-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	0.79		10.0	11.0		mg/L		102	87 - 111		
Sulfate	11		10.0	21.3	M	mg/L		102	87 - 112		

Lab Sample ID: 680-242429-1 MSD
Matrix: Water
Analysis Batch: 808935

Client Sample ID: SHL-DUP01-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	0.79		10.0	10.8		mg/L		100	87 - 111	2	15
Sulfate	11		10.0	21.1	M	mg/L		101	87 - 112	1	15

Lab Sample ID: 680-242429-15 MS
Matrix: Water
Analysis Batch: 808935

Client Sample ID: SHM-10-04-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	92		10.0	101	4	mg/L		93	87 - 111		
Sulfate	27	M	10.0	36.8	M	mg/L		97	87 - 112		

Lab Sample ID: 680-242429-15 MSD
Matrix: Water
Analysis Batch: 808935

Client Sample ID: SHM-10-04-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	92		10.0	101	4	mg/L		91	87 - 111	0	15
Sulfate	27	M	10.0	36.3		mg/L		92	87 - 112	1	15

Lab Sample ID: MB 680-808959/124
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/17/23 19:41	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 19:41	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 680-808959/120
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			10.0	10.3		mg/L		103	87 - 111		
Sulfate			10.0	9.57	M	mg/L		96	87 - 112		

Lab Sample ID: LCSD 680-808959/96
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate			10.0	9.50		mg/L		95	87 - 112	1	15

Lab Sample ID: 680-242429-22 MS
Matrix: Water
Analysis Batch: 808959

Client Sample ID: SHM-96-5B-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	38		10.0	48.2		mg/L		97	87 - 111		
Sulfate	23		10.0	32.5		mg/L		94	87 - 112		

Lab Sample ID: 680-242429-22 MSD
Matrix: Water
Analysis Batch: 808959

Client Sample ID: SHM-96-5B-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	38		10.0	48.5		mg/L		100	87 - 111	1	15
Sulfate	23		10.0	32.8		mg/L		97	87 - 112	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-805938/1-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805938

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 14:09	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 14:09	1

Lab Sample ID: LCS 680-805938/2-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805938

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	5140		ug/L		103	87 - 115		
Manganese			400	407		ug/L		102	90 - 114		

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 680-805941/1-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805941

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/02/23 17:40	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/02/23 17:40	1

Lab Sample ID: LCS 680-805941/2-A
Matrix: Water
Analysis Batch: 806195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805941

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5110		ug/L		102	87 - 115
Manganese	400	419		ug/L		105	90 - 114

Lab Sample ID: 680-242429-15 MS
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-10-04-FAL23
Prep Type: Dissolved
Prep Batch: 805938

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	50	U	4990	5130		ug/L		103	87 - 115
Manganese	600		400	981		ug/L		95	90 - 114

Lab Sample ID: 680-242429-15 MSD
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-10-04-FAL23
Prep Type: Dissolved
Prep Batch: 805938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	50	U	4990	5050		ug/L		101	87 - 115	2	20
Manganese	600		400	975		ug/L		93	90 - 114	1	20

Lab Sample ID: 680-242429-21 MS
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-13-04-FAL23
Prep Type: Dissolved
Prep Batch: 805941

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	550		4990	5680		ug/L		103	87 - 115
Manganese	61		400	477		ug/L		104	90 - 114

Lab Sample ID: 680-242429-21 MSD
Matrix: Water
Analysis Batch: 806195

Client Sample ID: SHM-13-04-FAL23
Prep Type: Dissolved
Prep Batch: 805941

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	550		4990	5550		ug/L		100	87 - 115	2	20
Manganese	61		400	476		ug/L		104	90 - 114	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-805939/1-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805939

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/03/23 00:10	1

Lab Sample ID: LCS 680-805939/2-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	104		ug/L		104	84 - 116

Lab Sample ID: MB 680-805940/1-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 805940

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/02/23 19:50	1

Lab Sample ID: LCS 680-805940/2-A
Matrix: Water
Analysis Batch: 806228

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 805940

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	110		ug/L		110	84 - 116

Lab Sample ID: 680-242429-15 MS
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-10-04-FAL23
Prep Type: Dissolved
Prep Batch: 805939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.0	U	100	105		ug/L		105	84 - 116

Lab Sample ID: 680-242429-15 MSD
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-10-04-FAL23
Prep Type: Dissolved
Prep Batch: 805939

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.0	U	100	106		ug/L		106	84 - 116	1	20

Lab Sample ID: 680-242429-21 MS
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-13-04-FAL23
Prep Type: Dissolved
Prep Batch: 805940

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	63		100	171		ug/L		108	84 - 116

Lab Sample ID: 680-242429-21 MSD
Matrix: Water
Analysis Batch: 806228

Client Sample ID: SHM-13-04-FAL23
Prep Type: Dissolved
Prep Batch: 805940

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	63		100	169		ug/L		107	84 - 116	1	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-806624/4
Matrix: Water
Analysis Batch: 806624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/03/23 11:17	1

Lab Sample ID: LCS 680-806624/6
Matrix: Water
Analysis Batch: 806624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	245		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-806624/31
Matrix: Water
Analysis Batch: 806624

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	248		mg/L		99	90 - 112	1	30

Lab Sample ID: MB 680-806633/4
Matrix: Water
Analysis Batch: 806633

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/03/23 17:34	1

Lab Sample ID: LCS 680-806633/6
Matrix: Water
Analysis Batch: 806633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-806633/31
Matrix: Water
Analysis Batch: 806633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	254		mg/L		102	90 - 112	3	30

Lab Sample ID: 680-242429-13 DU
Matrix: Water
Analysis Batch: 806633

Client Sample ID: SHM-10-02-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	130		127		mg/L		0.4	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: MB 680-806900/4
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/06/23 18:07	1

Lab Sample ID: LCS 680-806900/6
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	250		mg/L		100	90 - 112

Lab Sample ID: LCSD 680-806900/31
Matrix: Water
Analysis Batch: 806900

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	253		mg/L		101	90 - 112	1	30

Lab Sample ID: 680-242429-18 DU
Matrix: Water
Analysis Batch: 806900

Client Sample ID: SHM-10-13-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	220		217		mg/L		1	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-807773/2
Matrix: Water
Analysis Batch: 807773

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/11/23 07:06	1

Lab Sample ID: LCS 680-807773/3
Matrix: Water
Analysis Batch: 807773

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.5		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-807773/4
Matrix: Water
Analysis Batch: 807773

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.5		mg/L		97	80 - 120	0	20

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 680-242429-15 MS
Client Sample ID: SHM-10-04-FAL23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 807773

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	1.1	J	20.0	20.4		mg/L		96	80 - 120

Lab Sample ID: 680-242429-15 MSD
Client Sample ID: SHM-10-04-FAL23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 807773

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	1.1	J	20.0	20.4		mg/L		96	80 - 120	0	20

Lab Sample ID: MB 680-808063/2
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 808063

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/12/23 03:01	1

Lab Sample ID: LCS 680-808063/3
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 808063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-808063/4
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 808063

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.6		mg/L		98	80 - 120	0	20

HPLC/IC

Analysis Batch: 807895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-13	SHM-10-02-FAL23	Total/NA	Water	9056A	
680-242429-14	SHM-10-03-FAL23	Total/NA	Water	9056A	
680-242429-16	SHM-10-07-FAL23	Total/NA	Water	9056A	
MB 680-807895/33	Method Blank	Total/NA	Water	9056A	
LCS 680-807895/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-807895/35	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 808145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-13 - DL	SHM-10-02-FAL23	Total/NA	Water	9056A	
680-242429-14 - DL	SHM-10-03-FAL23	Total/NA	Water	9056A	
MB 680-808145/2	Method Blank	Total/NA	Water	9056A	
LCS 680-808145/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808145/5	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 808935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Total/NA	Water	9056A	
680-242429-2	SHL-DUP02-FAL23	Total/NA	Water	9056A	
680-242429-3	SHL-DUP07-FAL23	Total/NA	Water	9056A	
680-242429-4	N5-P1-FAL23	Total/NA	Water	9056A	
680-242429-5	PZ-12-03-FAL23	Total/NA	Water	9056A	
680-242429-6	PZ-12-04-FAL23	Total/NA	Water	9056A	
680-242429-7	PZ-12-05-FAL23	Total/NA	Water	9056A	
680-242429-8	PZ-12-06-FAL23	Total/NA	Water	9056A	
680-242429-9	SHL-20-FAL23	Total/NA	Water	9056A	
680-242429-10	SHL-5-FAL23	Total/NA	Water	9056A	
680-242429-12	SHL-8S-FAL23	Total/NA	Water	9056A	
680-242429-15	SHM-10-04-FAL23	Total/NA	Water	9056A	
680-242429-18	SHM-10-13-FAL23	Total/NA	Water	9056A	
680-242429-19	SHM-10-14-FAL23	Total/NA	Water	9056A	
680-242429-20	SHM-10-15-FAL23	Total/NA	Water	9056A	
680-242429-21	SHM-13-04-FAL23	Total/NA	Water	9056A	
MB 680-808935/1002	Method Blank	Total/NA	Water	9056A	
LCS 680-808935/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808935/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242429-1 MS	SHL-DUP01-FAL23	Total/NA	Water	9056A	
680-242429-1 MSD	SHL-DUP01-FAL23	Total/NA	Water	9056A	
680-242429-15 MS	SHM-10-04-FAL23	Total/NA	Water	9056A	
680-242429-15 MSD	SHM-10-04-FAL23	Total/NA	Water	9056A	

Analysis Batch: 808959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-11	SHL-8D-FAL23	Total/NA	Water	9056A	
680-242429-17	SHM-10-08-FAL23	Total/NA	Water	9056A	
680-242429-22	SHM-96-5B-FAL23	Total/NA	Water	9056A	
680-242429-23	SHM-96-5C-FAL23	Total/NA	Water	9056A	
680-242429-24	SHP-99-29X-FAL23	Total/NA	Water	9056A	
MB 680-808959/124	Method Blank	Total/NA	Water	9056A	
LCS 680-808959/120	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808959/96	Lab Control Sample Dup	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 808959 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-22 MS	SHM-96-5B-FAL23	Total/NA	Water	9056A	
680-242429-22 MSD	SHM-96-5B-FAL23	Total/NA	Water	9056A	

Metals

Prep Batch: 805938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Dissolved	Water	3005A	
680-242429-2	SHL-DUP02-FAL23	Dissolved	Water	3005A	
680-242429-3	SHL-DUP07-FAL23	Dissolved	Water	3005A	
680-242429-4	N5-P1-FAL23	Dissolved	Water	3005A	
680-242429-5	PZ-12-03-FAL23	Dissolved	Water	3005A	
680-242429-6	PZ-12-04-FAL23	Dissolved	Water	3005A	
680-242429-7	PZ-12-05-FAL23	Dissolved	Water	3005A	
680-242429-8	PZ-12-06-FAL23	Dissolved	Water	3005A	
680-242429-9	SHL-20-FAL23	Dissolved	Water	3005A	
680-242429-10	SHL-5-FAL23	Dissolved	Water	3005A	
680-242429-11	SHL-8D-FAL23	Dissolved	Water	3005A	
680-242429-12	SHL-8S-FAL23	Dissolved	Water	3005A	
680-242429-13	SHM-10-02-FAL23	Dissolved	Water	3005A	
680-242429-14	SHM-10-03-FAL23	Dissolved	Water	3005A	
680-242429-15	SHM-10-04-FAL23	Dissolved	Water	3005A	
680-242429-16	SHM-10-07-FAL23	Dissolved	Water	3005A	
680-242429-17	SHM-10-08-FAL23	Dissolved	Water	3005A	
680-242429-18	SHM-10-13-FAL23	Dissolved	Water	3005A	
680-242429-19	SHM-10-14-FAL23	Dissolved	Water	3005A	
680-242429-20	SHM-10-15-FAL23	Dissolved	Water	3005A	
MB 680-805938/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805938/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242429-15 MS	SHM-10-04-FAL23	Dissolved	Water	3005A	
680-242429-15 MSD	SHM-10-04-FAL23	Dissolved	Water	3005A	

Prep Batch: 805939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Dissolved	Water	3005A	
680-242429-2	SHL-DUP02-FAL23	Dissolved	Water	3005A	
680-242429-3	SHL-DUP07-FAL23	Dissolved	Water	3005A	
680-242429-4	N5-P1-FAL23	Dissolved	Water	3005A	
680-242429-5	PZ-12-03-FAL23	Dissolved	Water	3005A	
680-242429-6	PZ-12-04-FAL23	Dissolved	Water	3005A	
680-242429-7	PZ-12-05-FAL23	Dissolved	Water	3005A	
680-242429-8	PZ-12-06-FAL23	Dissolved	Water	3005A	
680-242429-9	SHL-20-FAL23	Dissolved	Water	3005A	
680-242429-10	SHL-5-FAL23	Dissolved	Water	3005A	
680-242429-11	SHL-8D-FAL23	Dissolved	Water	3005A	
680-242429-12	SHL-8S-FAL23	Dissolved	Water	3005A	
680-242429-13	SHM-10-02-FAL23	Dissolved	Water	3005A	
680-242429-14	SHM-10-03-FAL23	Dissolved	Water	3005A	
680-242429-15	SHM-10-04-FAL23	Dissolved	Water	3005A	
680-242429-16	SHM-10-07-FAL23	Dissolved	Water	3005A	
680-242429-17	SHM-10-08-FAL23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 805939 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-18	SHM-10-13-FAL23	Dissolved	Water	3005A	
680-242429-19	SHM-10-14-FAL23	Dissolved	Water	3005A	
680-242429-20	SHM-10-15-FAL23	Dissolved	Water	3005A	
MB 680-805939/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805939/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242429-15 MS	SHM-10-04-FAL23	Dissolved	Water	3005A	
680-242429-15 MSD	SHM-10-04-FAL23	Dissolved	Water	3005A	

Prep Batch: 805940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-21	SHM-13-04-FAL23	Dissolved	Water	3005A	
680-242429-22	SHM-96-5B-FAL23	Dissolved	Water	3005A	
680-242429-23	SHM-96-5C-FAL23	Dissolved	Water	3005A	
680-242429-24	SHP-99-29X-FAL23	Dissolved	Water	3005A	
MB 680-805940/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805940/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242429-21 MS	SHM-13-04-FAL23	Dissolved	Water	3005A	
680-242429-21 MSD	SHM-13-04-FAL23	Dissolved	Water	3005A	

Prep Batch: 805941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-21	SHM-13-04-FAL23	Dissolved	Water	3005A	
680-242429-22	SHM-96-5B-FAL23	Dissolved	Water	3005A	
680-242429-23	SHM-96-5C-FAL23	Dissolved	Water	3005A	
680-242429-24	SHP-99-29X-FAL23	Dissolved	Water	3005A	
MB 680-805941/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-805941/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242429-21 MS	SHM-13-04-FAL23	Dissolved	Water	3005A	
680-242429-21 MSD	SHM-13-04-FAL23	Dissolved	Water	3005A	

Analysis Batch: 806195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Dissolved	Water	6010C	805938
680-242429-2	SHL-DUP02-FAL23	Dissolved	Water	6010C	805938
680-242429-3	SHL-DUP07-FAL23	Dissolved	Water	6010C	805938
680-242429-4	N5-P1-FAL23	Dissolved	Water	6010C	805938
680-242429-5	PZ-12-03-FAL23	Dissolved	Water	6010C	805938
680-242429-6	PZ-12-04-FAL23	Dissolved	Water	6010C	805938
680-242429-7	PZ-12-05-FAL23	Dissolved	Water	6010C	805938
680-242429-8	PZ-12-06-FAL23	Dissolved	Water	6010C	805938
680-242429-9	SHL-20-FAL23	Dissolved	Water	6010C	805938
680-242429-10	SHL-5-FAL23	Dissolved	Water	6010C	805938
680-242429-11	SHL-8D-FAL23	Dissolved	Water	6010C	805938
680-242429-12	SHL-8S-FAL23	Dissolved	Water	6010C	805938
680-242429-13	SHM-10-02-FAL23	Dissolved	Water	6010C	805938
680-242429-14	SHM-10-03-FAL23	Dissolved	Water	6010C	805938
680-242429-15	SHM-10-04-FAL23	Dissolved	Water	6010C	805938
680-242429-16	SHM-10-07-FAL23	Dissolved	Water	6010C	805938
680-242429-17	SHM-10-08-FAL23	Dissolved	Water	6010C	805938
680-242429-18	SHM-10-13-FAL23	Dissolved	Water	6010C	805938
680-242429-19	SHM-10-14-FAL23	Dissolved	Water	6010C	805938

Metals (Continued)

Analysis Batch: 806195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-20	SHM-10-15-FAL23	Dissolved	Water	6010C	805938
680-242429-21	SHM-13-04-FAL23	Dissolved	Water	6010C	805941
680-242429-22	SHM-96-5B-FAL23	Dissolved	Water	6010C	805941
680-242429-23	SHM-96-5C-FAL23	Dissolved	Water	6010C	805941
680-242429-24	SHP-99-29X-FAL23	Dissolved	Water	6010C	805941
MB 680-805938/1-A	Method Blank	Total Recoverable	Water	6010C	805938
MB 680-805941/1-A	Method Blank	Total Recoverable	Water	6010C	805941
LCS 680-805938/2-A	Lab Control Sample	Total Recoverable	Water	6010C	805938
LCS 680-805941/2-A	Lab Control Sample	Total Recoverable	Water	6010C	805941
680-242429-15 MS	SHM-10-04-FAL23	Dissolved	Water	6010C	805938
680-242429-15 MSD	SHM-10-04-FAL23	Dissolved	Water	6010C	805938
680-242429-21 MS	SHM-13-04-FAL23	Dissolved	Water	6010C	805941
680-242429-21 MSD	SHM-13-04-FAL23	Dissolved	Water	6010C	805941

Analysis Batch: 806228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Dissolved	Water	6020A	805939
680-242429-2	SHL-DUP02-FAL23	Dissolved	Water	6020A	805939
680-242429-3	SHL-DUP07-FAL23	Dissolved	Water	6020A	805939
680-242429-4	N5-P1-FAL23	Dissolved	Water	6020A	805939
680-242429-5	PZ-12-03-FAL23	Dissolved	Water	6020A	805939
680-242429-6	PZ-12-04-FAL23	Dissolved	Water	6020A	805939
680-242429-7	PZ-12-05-FAL23	Dissolved	Water	6020A	805939
680-242429-8	PZ-12-06-FAL23	Dissolved	Water	6020A	805939
680-242429-9	SHL-20-FAL23	Dissolved	Water	6020A	805939
680-242429-10	SHL-5-FAL23	Dissolved	Water	6020A	805939
680-242429-11	SHL-8D-FAL23	Dissolved	Water	6020A	805939
680-242429-12	SHL-8S-FAL23	Dissolved	Water	6020A	805939
680-242429-13	SHM-10-02-FAL23	Dissolved	Water	6020A	805939
680-242429-14	SHM-10-03-FAL23	Dissolved	Water	6020A	805939
680-242429-15	SHM-10-04-FAL23	Dissolved	Water	6020A	805939
680-242429-16	SHM-10-07-FAL23	Dissolved	Water	6020A	805939
680-242429-17	SHM-10-08-FAL23	Dissolved	Water	6020A	805939
680-242429-18	SHM-10-13-FAL23	Dissolved	Water	6020A	805939
680-242429-19	SHM-10-14-FAL23	Dissolved	Water	6020A	805939
680-242429-20	SHM-10-15-FAL23	Dissolved	Water	6020A	805939
680-242429-21	SHM-13-04-FAL23	Dissolved	Water	6020A	805940
680-242429-22	SHM-96-5B-FAL23	Dissolved	Water	6020A	805940
680-242429-23	SHM-96-5C-FAL23	Dissolved	Water	6020A	805940
680-242429-24	SHP-99-29X-FAL23	Dissolved	Water	6020A	805940
MB 680-805939/1-A	Method Blank	Total Recoverable	Water	6020A	805939
MB 680-805940/1-A	Method Blank	Total Recoverable	Water	6020A	805940
LCS 680-805939/2-A	Lab Control Sample	Total Recoverable	Water	6020A	805939
LCS 680-805940/2-A	Lab Control Sample	Total Recoverable	Water	6020A	805940
680-242429-15 MS	SHM-10-04-FAL23	Dissolved	Water	6020A	805939
680-242429-15 MSD	SHM-10-04-FAL23	Dissolved	Water	6020A	805939
680-242429-21 MS	SHM-13-04-FAL23	Dissolved	Water	6020A	805940
680-242429-21 MSD	SHM-13-04-FAL23	Dissolved	Water	6020A	805940

General Chemistry

Analysis Batch: 806624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-3	SHL-DUP07-FAL23	Total/NA	Water	2320B-2011	
680-242429-4	N5-P1-FAL23	Total/NA	Water	2320B-2011	
MB 680-806624/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806624/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806624/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 806633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Total/NA	Water	2320B-2011	
680-242429-2	SHL-DUP02-FAL23	Total/NA	Water	2320B-2011	
680-242429-5	PZ-12-03-FAL23	Total/NA	Water	2320B-2011	
680-242429-6	PZ-12-04-FAL23	Total/NA	Water	2320B-2011	
680-242429-7	PZ-12-05-FAL23	Total/NA	Water	2320B-2011	
680-242429-13	SHM-10-02-FAL23	Total/NA	Water	2320B-2011	
680-242429-14	SHM-10-03-FAL23	Total/NA	Water	2320B-2011	
680-242429-16	SHM-10-07-FAL23	Total/NA	Water	2320B-2011	
MB 680-806633/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806633/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806633/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242429-13 DU	SHM-10-02-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 806900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-8	PZ-12-06-FAL23	Total/NA	Water	2320B-2011	
680-242429-9	SHL-20-FAL23	Total/NA	Water	2320B-2011	
680-242429-10	SHL-5-FAL23	Total/NA	Water	2320B-2011	
680-242429-11	SHL-8D-FAL23	Total/NA	Water	2320B-2011	
680-242429-12	SHL-8S-FAL23	Total/NA	Water	2320B-2011	
680-242429-15	SHM-10-04-FAL23	Total/NA	Water	2320B-2011	
680-242429-17	SHM-10-08-FAL23	Total/NA	Water	2320B-2011	
680-242429-18	SHM-10-13-FAL23	Total/NA	Water	2320B-2011	
680-242429-19	SHM-10-14-FAL23	Total/NA	Water	2320B-2011	
680-242429-20	SHM-10-15-FAL23	Total/NA	Water	2320B-2011	
680-242429-21	SHM-13-04-FAL23	Total/NA	Water	2320B-2011	
680-242429-22	SHM-96-5B-FAL23	Total/NA	Water	2320B-2011	
680-242429-23	SHM-96-5C-FAL23	Total/NA	Water	2320B-2011	
680-242429-24	SHP-99-29X-FAL23	Total/NA	Water	2320B-2011	
MB 680-806900/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-806900/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-806900/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242429-18 DU	SHM-10-13-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-1	SHL-DUP01-FAL23	Dissolved	Water	9060A	
680-242429-2	SHL-DUP02-FAL23	Dissolved	Water	9060A	
680-242429-3	SHL-DUP07-FAL23	Dissolved	Water	9060A	
680-242429-4	N5-P1-FAL23	Dissolved	Water	9060A	
680-242429-5	PZ-12-03-FAL23	Dissolved	Water	9060A	
680-242429-6	PZ-12-04-FAL23	Dissolved	Water	9060A	
680-242429-7	PZ-12-05-FAL23	Dissolved	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 807773 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-8	PZ-12-06-FAL23	Dissolved	Water	9060A	
680-242429-9	SHL-20-FAL23	Dissolved	Water	9060A	
680-242429-10	SHL-5-FAL23	Dissolved	Water	9060A	
680-242429-11	SHL-8D-FAL23	Dissolved	Water	9060A	
680-242429-12	SHL-8S-FAL23	Dissolved	Water	9060A	
680-242429-13	SHM-10-02-FAL23	Dissolved	Water	9060A	
680-242429-14	SHM-10-03-FAL23	Dissolved	Water	9060A	
680-242429-15	SHM-10-04-FAL23	Dissolved	Water	9060A	
680-242429-16	SHM-10-07-FAL23	Dissolved	Water	9060A	
680-242429-17	SHM-10-08-FAL23	Dissolved	Water	9060A	
680-242429-18	SHM-10-13-FAL23	Dissolved	Water	9060A	
680-242429-19	SHM-10-14-FAL23	Dissolved	Water	9060A	
680-242429-20	SHM-10-15-FAL23	Dissolved	Water	9060A	
MB 680-807773/2	Method Blank	Dissolved	Water	9060A	
LCS 680-807773/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-807773/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242429-15 MS	SHM-10-04-FAL23	Dissolved	Water	9060A	
680-242429-15 MSD	SHM-10-04-FAL23	Dissolved	Water	9060A	

Analysis Batch: 808063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242429-21	SHM-13-04-FAL23	Dissolved	Water	9060A	
680-242429-22	SHM-96-5B-FAL23	Dissolved	Water	9060A	
680-242429-23	SHM-96-5C-FAL23	Dissolved	Water	9060A	
680-242429-24	SHP-99-29X-FAL23	Dissolved	Water	9060A	
MB 680-808063/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808063/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808063/4	Lab Control Sample Dup	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-DUP01-FAL23
Lab Sample ID: 680-242429-1
Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 14:54	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:24	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 00:39	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 08:16	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-DUP02-FAL23
Lab Sample ID: 680-242429-2
Date Collected: 10/24/23 16:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 15:26	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:27	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 00:43	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 19:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 08:32	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-DUP07-FAL23
Lab Sample ID: 680-242429-3
Date Collected: 10/24/23 16:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 15:36	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:29	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 00:47	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHL-DUP07-FAL23
Lab Sample ID: 680-242429-3
Date Collected: 10/24/23 16:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806624	11/03/23 15:35	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 08:50	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: N5-P1-FAL23
Lab Sample ID: 680-242429-4
Date Collected: 10/24/23 12:02
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 15:47	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:35	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 00:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806624	11/03/23 15:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 09:08	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-03-FAL23
Lab Sample ID: 680-242429-5
Date Collected: 10/24/23 14:30
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 15:58	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:37	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:03	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:55	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 09:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-04-FAL23
Lab Sample ID: 680-242429-6

Date Collected: 10/24/23 13:15
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 16:08	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:39	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 19:04	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 09:45	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-05-FAL23
Lab Sample ID: 680-242429-7

Date Collected: 10/24/23 11:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 16:19	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:41	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:11	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 10:04	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: PZ-12-06-FAL23
Lab Sample ID: 680-242429-8

Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 16:30	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:44	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:15	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: PZ-12-06-FAL23

Lab Sample ID: 680-242429-8

Date Collected: 10/24/23 10:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:17	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 10:21	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-20-FAL23

Lab Sample ID: 680-242429-9

Date Collected: 10/24/23 16:00
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 16:40	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:46	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:19	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 10:37	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-5-FAL23

Lab Sample ID: 680-242429-10

Date Collected: 10/24/23 13:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 16:51	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:48	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:23	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:34	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 10:56	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-8D-FAL23

Lab Sample ID: 680-242429-11

Date Collected: 10/24/23 11:45

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/17/23 21:07	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:50	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 11:48	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-8S-FAL23

Lab Sample ID: 680-242429-12

Date Collected: 10/24/23 09:20

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 17:55	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:52	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 12:05	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-02-FAL23

Lab Sample ID: 680-242429-13

Date Collected: 10/23/23 16:15

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807895	11/13/23 19:36	GE	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A	DL	10	5 mL	5 mL	808145	11/14/23 14:16	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:54	BJB	EET SAV
	Instrument ID: ICPH									

Client Sample ID: SHM-10-02-FAL23

Lab Sample ID: 680-242429-13

Date Collected: 10/23/23 16:15

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:36	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:00	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 12:23	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-03-FAL23

Lab Sample ID: 680-242429-14

Date Collected: 10/23/23 14:20

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807895	11/13/23 19:48	GE	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A	DL	10	5 mL	5 mL	808145	11/14/23 14:28	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:01	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:48	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:36	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 12:41	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-04-FAL23

Lab Sample ID: 680-242429-15

Date Collected: 10/24/23 14:25

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 17:23	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 14:14	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 00:18	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 19:52	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 12:59	KMB	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Client Sample ID: SHM-10-07-FAL23
Lab Sample ID: 680-242429-16
Date Collected: 10/23/23 12:20
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	807895	11/13/23 19:59	GE	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:03	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:52	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806633	11/03/23 18:46	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 13:51	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-08-FAL23
Lab Sample ID: 680-242429-17
Date Collected: 10/24/23 10:25
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/17/23 21:17	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:05	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 01:56	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 20:02	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 14:09	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-13-FAL23
Lab Sample ID: 680-242429-18
Date Collected: 10/24/23 14:50
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 18:05	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:07	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:00	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-10-13-FAL23

Lab Sample ID: 680-242429-18

Date Collected: 10/24/23 14:50

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 20:36	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 14:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-14-FAL23

Lab Sample ID: 680-242429-19

Date Collected: 10/24/23 15:55

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 18:16	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:09	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:04	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 20:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 14:46	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-15-FAL23

Lab Sample ID: 680-242429-20

Date Collected: 10/24/23 13:10

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 18:27	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805938	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 15:11	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805939	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/03/23 02:08	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 21:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	807773	11/11/23 15:05	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-04-FAL23
Lab Sample ID: 680-242429-21

Date Collected: 10/24/23 17:05
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808935	11/17/23 18:37	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 17:45	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 19:59	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 21:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 10:16	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-96-5B-FAL23
Lab Sample ID: 680-242429-22

Date Collected: 10/24/23 16:10
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/17/23 20:13	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:00	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:19	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 21:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 10:34	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-96-5C-FAL23
Lab Sample ID: 680-242429-23

Date Collected: 10/24/23 14:40
Matrix: Water
Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/17/23 20:45	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:23	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Job ID: 680-242429-1

Client Sample ID: SHM-96-5C-FAL23

Lab Sample ID: 680-242429-23

Date Collected: 10/24/23 14:40

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 21:15	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 11:25	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-99-29X-FAL23

Lab Sample ID: 680-242429-24

Date Collected: 10/24/23 10:00

Matrix: Water

Date Received: 11/01/23 10:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/17/23 20:56	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	805941	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6010C		1			806195	11/02/23 18:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	805940	11/02/23 06:39	RR	EET SAV
Dissolved	Analysis	6020A		1			806228	11/02/23 20:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			806900	11/06/23 21:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808063	11/12/23 11:46	KMB	EET SAV
	Instrument ID: TOC7									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242429-1
Project/Site: Seres-Arcadis JV, LTM, SHL Fall 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	SHL-DUP01-FAL23	WG	10.24.23	1000	DC		X	X	X	X	X				PZ-12-06	FD1	25.00	35.00	1	
2	SHL-DUP02-FAL23	WG	10.24.23	1600	DC		X	X	X	X	X				SHL-20	FD1	39.00	49.00	1	
3	SHL-DUP03-FAL23	WG					X	X	X	X	X				SHL-22	FD1	105.00	115.00	1	
4	SHL-DUP04-FAL23	WG					X	X	X	X	X				SHL-24	FD1	110.00	120.00	1	
5	SHL-DUP05-FAL23	WG					X	X	X	X	X				SHM-05-40X	FD1	32.00	34.00	1	
6	SHL-DUP06-FAL23	WG					X	X	X	X	X				SHM-11-06	FD1	25.00	35.00	1	
7	SHL-DUP07-FAL23	WG	10.24.23	1610	DC		X	X	X	X	X				SHM-96-5B	FD1	80.00	90.00	1	
8	SHL-DUP08-FAL23	WG					X	X	X	X	X				SHP-01-38A	FD1	1.50	6.50	1	
9	SHL-DUP09-FAL23	WG					X	X	X	X	X				SHP-2016-07B	FD1	70.00	80.00	1	
10	SHL-DUP10-FAL23	WG					X	X	X	X	X				SHP-2023-3B	FD1	0.00	0.00	1	
11	SHL-DUP11-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-4B	FD1	79.50	84.50	1	
12	SHL-DUP12-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-6B	FD1	74.23	79.23	1	
13	EPA-PZ-2012-1A-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-1A	N1	23.70	28.70	1	
14	EPA-PZ-2012-1B-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-1B	N1	73.56			
15	EPA-PZ-2012-2A-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-2A	N1	18.14			
16	EPA-PZ-2012-2B-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-2B	N1	73.16			
17	EPA-PZ-2012-3A-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-3A	N1	19.09			
18	EPA-PZ-2012-3B-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-3B	N1	68.70			
19	EPA-PZ-2012-4A-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-4A	N1	19.56			
20	EPA-PZ-2012-4B-FAL23	WG					X	X	X	X	X				EPA-PZ-2012-4B	N1	79.50	84.50	1	

680-242429 Chain of Custody

Relinquished by: (Signature) DMC
Date 10-25-23
Time 0800
Received by: (Signature)

Received by Laboratory: (Signature) DM TA
Date 11-1-23
Time 1012
1.2/1.5 0.3/0.6 2.9/3.2

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	**Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA**	**Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023**
Project Number: DEVNS-LTM PO 2312 - 00000001	**POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com**	
WBS Code:	**Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404**	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
21	EPA-PZ-2012-5A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5A	N1	17.95	22.95	1	
22	EPA-PZ-2012-5B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5B	N1	68.46	73.46	1	
23	EPA-PZ-2012-6A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-6A	N1	24.19	29.19	1	
24	EPA-PZ-2012-6B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-6B	N1	74.23	79.23	1	
25	EPA-PZ-2012-7A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-7A	N1	23.87	28.87	1	
26	EPA-PZ-2012-7B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-7B	N1	58.82	63.82	1	
27	EW-01-FAL23	WG					X	X	X	X	X					EW-01	N1	60.00	85.00	1	
28	EW-03-FAL23	WG					X	X	X	X	X					EW-03	N1	0.00	0.00	1	
29	EW-04-FAL23	WG					X	X	X	X	X					EW-04	N1	70.00	95.00	1	
30	N5-P1-FAL23	WG	10.24.23	1202	FM		X	X	X	X	X					N5-P1	N1	95.50	97.50	1	
31	PZ-12-01-FAL23	WG					X	X	X	X	X					PZ-12-01	N1	24.00	34.00	1	
32	PZ-12-02-FAL23	WG					X	X	X	X	X					PZ-12-02	N1	24.00	34.00	1	
33	PZ-12-03-FAL23	WG	10.24.23	1430	DC		X	X	X	X	X					PZ-12-03	N1	24.00	34.00	1	
34	PZ-12-04-FAL23	WG	10.25.23	1315	DC		X	X	X	X	X					PZ-12-04	N1	24.00	34.00	1	
35	PZ-12-05-FAL23	WG	10.24.23	1150	DC		X	X	X	X	X					PZ-12-05	N1	26.00	36.00	1	
36	PZ-12-06-FAL23	WG	10.24.23	1000	DC		X	X	X	X	X					PZ-12-06	N1	25.00	35.00	1	
37	PZ-12-07-FAL23	WG					X	X	X	X	X					PZ-12-07	N1	20.00	30.00	1	
38	PZ-12-08-FAL23	WG					X	X	X	X	X					PZ-12-08	N1	22.00	32.00	1	
39	PZ-12-09-FAL23	WG					X	X	X	X	X					PZ-12-09	N1	20.00	30.00	1	
40	PZ-12-10-FAL23	WG					X	X	X	X	X					PZ-12-10	MS1	20.00	30.00	1	

Relinquished by: (Signature) Brian Clyn
Date 10-25-23
Time 0800
Received by: (Signature)

Received by Laboratory: (Signature) DLL
Date 11-1-23
Time 1012

11/22/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
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COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

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WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
41	PZ-12-10-FAL23	WG				X	X	X	X	X					PZ-12-10	N1	20.00	30.00	1	
42	PZ-12-10-FAL23	WG				X	X	X	X	X					PZ-12-10	SD1	20.00	30.00	1	
43	SHL-10-FAL23	WG				X	X	X	X	X					SHL-10	N1	24.00	39.00	1	
44	SHL-11-FAL23	WG				X	X	X	X	X					SHL-11	N1	12.00	27.00	1	
45	SHL-12-FAL23	WG				X	X	X	X	X					SHL-12	N1	15.00	30.00	1	
46	SHL-15-FAL23	WG				X	X	X	X	X					SHL-15	N1	14.00	24.00	1	
47	SHL-19-FAL23	WG				X	X	X	X	X					SHL-19	N1	20.00	30.00	1	
48	SHL-20-FAL23	WG	10.24.23	1600	DC	X	X	X	X	X					SHL-20	N1	39.00	49.00	1	
49	SHL-22-FAL23	WG				X	X	X	X	X					SHL-22	N1	105.00	115.00	1	
50	SHL-23-FAL23	WG				X	X	X	X	X					SHL-23	N1	23.00	33.00	1	
51	SHL-24-FAL23	WG				X	X	X	X	X					SHL-24	N1	110.00	120.00	1	
52	SHL-3-FAL23	WG				X	X	X	X	X					SHL-3	N1	24.00	34.00	1	
53	SHL-4-FAL23	WG				X	X	X	X	X					SHL-4	N1	3.00	13.00	1	
54	SHL-5-FAL23	WG	10.24.23	1310	AF	X	X	X	X	X					SHL-5	N1	3.00	13.00	1	
55	SHL-7-FAL23	WG				X	X	X	X	X					SHL-7	N1	11.00	21.00	1	
56	SHL-8D-FAL23	WG	10.24.23	1145	AF	X	X	X	X	X					SHL-8D	N1	68.00	70.00	1	
57	SHL-8S-FAL23	WG	10.24.23	920	AF	X	X	X	X	X					SHL-8S	N1	52.00	54.00	1	
58	SHL-9-FAL23	WG	~~10.24.23~~	~~1025~~	~~AF~~	X	X	X	X	X					SHL-9	N1	15.00	25.00	1	
59	SHM-05-39A-FAL23	WG				X	X	X	X	X					SHM-05-39A	N1	37.00	39.00	1	
60	SHM-05-39B-FAL23	WG				X	X	X	X	X					SHM-05-39B	N1	66.00	68.00	1	

Relinquished by: (Signature) Drew Clay
Date 10.25.23
Time 800
Received by: (Signature)

Received by Laboratory: (Signature) TM
Date 11-1-23
Time 1012

11/22/2023

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)							Sample	Depth (ft bgs)			
	Sample ID	Matrix	Date	Time	Samp Init.	46	9	9	5	3							Location ID	Type	Top	Bottom	Cooler	Comments
61	SHM-05-40X-FAL23	WG				X	X	X	X	X							SHM-05-40X	N1	32.00	34.00	1	
62	SHM-05-41A-FAL23	WG				X	X	X	X	X							SHM-05-41A	N1	42.00	44.00	1	
63	SHM-05-41B-FAL23	WG				X	X	X	X	X							SHM-05-41B	N1	62.00	64.00	1	
64	SHM-05-41C-FAL23	WG				X	X	X	X	X							SHM-05-41C	MS1	88.00	93.00	1	
65	SHM-05-41C-FAL23	WG				X	X	X	X	X							SHM-05-41C	N1	88.00	93.00	1	
66	SHM-05-41C-FAL23	WG				X	X	X	X	X							SHM-05-41C	SD1	88.00	93.00	1	
67	SHM-05-42A-FAL23	WG				X	X	X	X	X							SHM-05-42A	N1	40.00	42.00	1	
68	SHM-05-42B-FAL23	WG				X	X	X	X	X							SHM-05-42B	N1	70.00	72.00	1	
69	SHM-07-05X-FAL23	WG				X	X	X	X	X							SHM-07-05X	N1	55.00	65.00	1	
70	SHM-10-02-FAL23	WG	10-23-23	1615	NM	X	X	X	X	X							SHM-10-02	N1	53.00	63.00	1	
71	SHM-10-03-FAL23	WG	10-23-23	1420	NM	X	X	X	X	X							SHM-10-03	N1	58.50	68.50	1	
72	SHM-10-04-FAL23	WG	10-24-23	1425	NM	X	X	X	X	X							SHM-10-04	MS1	55.00	65.00	1	
73	SHM-10-04-FAL23	WG				X	X	X	X	X							SHM-10-04	N1	55.00	65.00	1	
74	SHM-10-04-FAL23	WG				X	X	X	X	X							SHM-10-04	SD1	55.00	65.00	1	
75	SHM-10-05A-FAL23	WG				X	X	X	X	X							SHM-10-05A	N1	50.00	60.00	1	
76	SHM-10-06-FAL23	WG				X	X	X	X	X							SHM-10-06	N1	69.50	79.50	1	
77	SHM-10-06A-FAL23	WG				X	X	X	X	X							SHM-10-06A	N1	77.00	87.00	1	
78	SHM-10-07-FAL23	WG	10-25-23	1220	NM	X	X	X	X	X							SHM-10-07	N1	40.00	50.00	1	
79	SHM-10-08-FAL23	WG	10-24-23	1025	NM	X	X	X	X	X							SHM-10-08	N1	46.00	56.00	1	
80	SHM-10-10-FAL23	WG				X	X	X	X	X							SHM-10-10	N1	56.00	66.00	1	

Relinquished by: (Signature) Brian Chan
Date 10-25-23
Time 0800
Received by: (Signature)

Received by Laboratory: (Signature) [signature] TM
Date 11-1-23
Time 1012

CHAIN-OF-CUSTODY RECORD

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COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
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Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)						Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
81	SHM-10-11-FAL23	WG				X	X	X	X	X						SHM-10-11	N1	50.00	60.00	1	
82	SHM-10-12-FAL23	WG				X	X	X	X	X						SHM-10-12	MS1	45.00	55.00	1	
83	SHM-10-12-FAL23	WG				X	X	X	X	X						SHM-10-12	N1	45.00	55.00	1	
84	SHM-10-12-FAL23	WG				X	X	X	X	X						SHM-10-12	SD1	45.00	55.00	1	
85	SHM-10-13-FAL23	WG	10.24.23	1450	FM	X	X	X	X	X						SHM-10-13	N1	60.00	70.00	1	
86	SHM-10-14-FAL23	WG	10.24.23	1555	FM	X	X	X	X	X						SHM-10-14	N1	60.00	80.00	1	
87	SHM-10-15-FAL23	WG	10.24.23	1310	FM	X	X	X	X	X						SHM-10-15	N1	45.00	55.00	1	
88	SHM-10-16-FAL23	WG				X	X	X	X	X						SHM-10-16	N1	75.00	85.00	1	
89	SHM-11-02-FAL23	WG				X	X	X	X	X						SHM-11-02	N1	52.00	66.00	1	
90	SHM-11-06-FAL23	WG				X	X	X	X	X						SHM-11-06	N1	25.00	35.00	1	
91	SHM-13-01-FAL23	WG				X	X	X	X	X						SHM-13-01	N1	39.00	49.00	1	
92	SHM-13-02-FAL23	WG				X	X	X	X	X						SHM-13-02	N1	60.00	70.00	1	
93	SHM-13-03-FAL23	WG				X	X	X	X	X						SHM-13-03	N1	42.00	52.00	1	
94	SHM-13-04-FAL23	WG	10.24.23	1705	NM	X	X	X	X	X						SHM-13-04	N1	20.00	30.00	1	
95	SHM-13-05-FAL23	WG				X	X	X	X	X						SHM-13-05	MS1	75.00	85.00	1	
96	SHM-13-05-FAL23	WG				X	X	X	X	X						SHM-13-05	N1	75.00	85.00	1	
97	SHM-13-05-FAL23	WG				X	X	X	X	X						SHM-13-05	SD1	75.00	85.00	1	
98	SHM-13-06-FAL23	WG				X	X	X	X	X						SHM-13-06	N1	36.00	46.00	1	
99	SHM-13-07-FAL23	WG				X	X	X	X	X						SHM-13-07	N1	27.00	37.00	1	
100	SHM-13-08-FAL23	WG				X	X	X	X	X						SHM-13-08	N1	55.00	65.00	1	

Relinquished by: (Signature) Drew Clay
Date 10-25-23
Time 0800

Received by Laboratory: (Signature) [signature] M
Date 11.1.23
Time 1012

11/22/2023

CHAIN-OF-CUSTODY RECORD

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Heather Levesque
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COC # SHL-LTM-FAL23

US Army Corps of Engineers

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WG	Ground Water

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3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)						Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
101	SHM-13-14D-FAL23	WG				X	X	X	X	X						SHM-13-14D	N1	45.00	55.00	1	
102	SHM-13-14S-FAL23	WG				X	X	X	X	X						SHM-13-14S	N1	5.00	15.00	1	
103	SHM-13-15-FAL23	WG				X	X	X	X	X						SHM-13-15	N1	50.00	60.00	1	
104	SHM-93-10D-FAL23	WG				X	X	X	X	X						SHM-93-10D	N1	48.70	58.70	1	
105	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	MS1	78.50	88.50	1	
106	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	N1	78.50	88.50	1	
107	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	SD1	78.50	88.50	1	
108	SHM-93-22B-FAL23	WG				X	X	X	X	X						SHM-93-22B	N1	82.30	92.30	1	
109	SHM-93-22C-FAL23	WG				X	X	X	X	X						SHM-93-22C	N1	124.30	134.30	1	
110	SHM-93-24A-FAL23	WG				X	X	X	X	X						SHM-93-24A	N1	13.20	23.20	1	
111	SHM-96-5B-FAL23	WG	10.24.23	1610	AF	X	X	X	X	X						SHM-96-5B	N1	80.00	90.00	1	
112	SHM-96-5C-FAL23	WG	10.24.23	1440	AF	X	X	X	X	X						SHM-96-5C	N1	50.00	60.00	1	
113	SHM-99-31A-FAL23	WG				X	X	X	X	X						SHM-99-31A	N1	4.00	14.00	1	
114	SHM-99-31B-FAL23	WG				X	X	X	X	X						SHM-99-31B	N1	50.00	60.00	1	
115	SHM-99-31C-FAL23	WG				X	X	X	X	X						SHM-99-31C	N1	68.00	78.00	1	
116	SHM-99-32X-FAL23	WG				X	X	X	X	X						SHM-99-32X	N1	72.00	82.00	1	
117	SHP-01-36X-FAL23	WG				X	X	X	X	X						SHP-01-36X	N1	3.00	8.00	1	
118	SHP-01-37X-FAL23	WG				X	X	X	X	X						SHP-01-37X	N1	1.00	6.00	1	
119	SHP-01-38A-FAL23	WG				X	X	X	X	X						SHP-01-38A	N1	1.50	6.50	1	
120	SHP-2016-06A-FAL23	WG				X	X	X	X	X						SHP-2016-06A	N1	81.00	86.00	1	

Relinquished by: (Signature) Dan Clapp
Date 10-25-23
Time 6800
Received by: (Signature)

Received by Laboratory: (Signature) DM
Date 11-1-23
Time 1012

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID		Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
121	SHP-2016-06B-FAL23	WG				X	X	X	X	X					SHP-2016-06B		N1	102.00	112.00	1	
122	SHP-2016-06C-FAL23	WG				X	X	X	X	X					SHP-2016-06C		N1	123.00	133.00	1	
123	SHP-2016-07A-FAL23	WG				X	X	X	X	X					SHP-2016-07A		N1	22.00	32.00	1	
124	SHP-2016-07B-FAL23	WG				X	X	X	X	X					SHP-2016-07B		N1	70.00	80.00	1	
125	SHP-2016-1A-FAL23	WG				X	X	X	X	X					SHP-2016-1A		N1	13.00	23.00	1	
126	SHP-2016-1B-FAL23	WG				X	X	X	X	X					SHP-2016-1B		N1	75.00	85.00	1	
127	SHP-2016-2A-FAL23	WG				X	X	X	X	X					SHP-2016-2A		N1	20.00	25.00	1	
128	SHP-2016-2B-FAL23	WG				X	X	X	X	X					SHP-2016-2B		N1	80.00	85.00	1	
129	SHP-2016-3A-FAL23	WG				X	X	X	X	X					SHP-2016-3A		N1	20.00	25.00	1	
130	SHP-2016-3B-FAL23	WG				X	X	X	X	X					SHP-2016-3B		N1	80.00	85.00	1	
131	SHP-2016-4A-FAL23	WG				X	X	X	X	X					SHP-2016-4A		N1	25.00	30.00	1	
132	SHP-2016-4B-FAL23	WG				X	X	X	X	X					SHP-2016-4B		N1	85.00	90.00	1	
133	SHP-2016-5A-FAL23	WG				X	X	X	X	X					SHP-2016-5A		N1	25.00	30.00	1	
134	SHP-2016-5B-FAL23	WG				X	X	X	X	X					SHP-2016-5B		N1	85.00	90.00	1	
135	SHP-2023-1A-FAL23	WG				X	X	X	X	X					SHP-2023-1A		N1	0.00	0.00	1	
136	SHP-2023-1B-FAL23	WG				X	X	X	X	X					SHP-2023-1B		N1	0.00	0.00	1	
137	SHP-2023-2A-FAL23	WG				X	X	X	X	X					SHP-2023-2A		N1	0.00	0.00	1	
138	SHP-2023-2B-FAL23	WG				X	X	X	X	X					SHP-2023-2B		N1	0.00	0.00	1	
139	SHP-2023-3A-FAL23	WG				X	X	X	X	X					SHP-2023-3A		N1	0.00	0.00	1	
140	SHP-2023-3B-FAL23	WG				X	X	X	X	X					SHP-2023-3B		N1	0.00	0.00	1	

Relinquished by: (Signature)
Date
Time
Received by: (Signature)

Received by Laboratory: (Signature) TA 11-1-23 10R
Date
Time

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

					Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023					46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
141	SHP-2023-4A-FAL23	WG				X	X	X	X	X						SHP-2023-4A	N1	0.00	0.00	1	
142	SHP-2023-4B-FAL23	WG				X	X	X	X	X						SHP-2023-4B	N1	0.00	0.00	1	
143	SHP-2023-5A-FAL23	WG				X	X	X	X	X						SHP-2023-5A	N1	0.00	0.00	1	
144	SHP-2023-5B-FAL23	WG				X	X	X	X	X						SHP-2023-5B	N1	0.00	0.00	1	
145	SHP-99-29X-FAL23	WG	10.24.23	1000	FM	X	X	X	X	X						SHP-99-29X	N1	19.00	29.00	1	
146																					
147																					
148																					
149																					
150																					
151																					
152																					
153																					

Turnaround Time: Standard

Relinquished by: (Signature) Diane Clyne
Date 10-25-23
Time 0800
Received by: (Signature) DLL TA

Received by Laboratory: (Signature) DLL TA
Date 10-1-23
Time 1012

11/22/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242429-1

Login Number: 242429

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 1/8/2024 11:00:31 AM Revision 1

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Fall 2023

JOB NUMBER

680-242517-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
1/8/2024 11:00:31 AM
Revision 1

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242517-1	SHL-DUP08-FAL23	Water	10/31/23 13:00	11/02/23 10:08
680-242517-2	SHL-DUP11-FAL23	Water	10/30/23 14:30	11/02/23 10:08
680-242517-3	SHL-DUP12-FAL23	Water	10/30/23 11:20	11/02/23 10:08
680-242517-4	EPA-PZ-2012-1A-FAL23	Water	10/30/23 13:35	11/02/23 10:08
680-242517-5	EPA-PZ-2012-1B-FAL23	Water	10/30/23 14:30	11/02/23 10:08
680-242517-6	EPA-PZ-2012-2A-FAL23	Water	10/30/23 10:45	11/02/23 10:08
680-242517-7	EPA-PZ-2012-2B-FAL23	Water	10/30/23 12:00	11/02/23 10:08
680-242517-8	EPA-PZ-2012-4A-FAL23	Water	10/30/23 13:25	11/02/23 10:08
680-242517-9	EPA-PZ-2012-4B-FAL23	Water	10/30/23 14:30	11/02/23 10:08
680-242517-10	EPA-PZ-2012-6A-FAL23	Water	10/30/23 10:15	11/02/23 10:08
680-242517-11	EPA-PZ-2012-6B-FAL23	Water	10/30/23 11:20	11/02/23 10:08
680-242517-12	EPA-PZ-2012-7A-FAL23	Water	10/31/23 14:55	11/02/23 10:08
680-242517-13	EPA-PZ-2012-7B-FAL23	Water	10/31/23 13:20	11/02/23 10:08
680-242517-14	SHL-10-FAL23	Water	10/30/23 10:35	11/02/23 10:08
680-242517-15	SHL-3-FAL23	Water	10/30/23 12:20	11/02/23 10:08
680-242517-16	SHL-4-FAL23	Water	10/30/23 14:50	11/02/23 10:08
680-242517-17	SHM-05-39A-FAL23	Water	10/31/23 16:05	11/02/23 10:08
680-242517-18	SHM-05-39B-FAL23	Water	10/31/23 14:05	11/02/23 10:08
680-242517-19	SHM-05-40X-FAL23	Water	10/31/23 11:20	11/02/23 10:08
680-242517-20	SHM-05-41A-FAL23	Water	10/30/23 12:45	11/02/23 10:08
680-242517-21	SHM-05-41B-FAL23	Water	10/30/23 10:35	11/02/23 10:08
680-242517-22	SHM-05-41C-FAL23	Water	10/30/23 13:15	11/02/23 10:08
680-242517-23	SHM-07-05X-FAL23	Water	10/31/23 09:45	11/02/23 10:08
680-242517-24	SHM-10-06-FAL23	Water	10/31/23 13:15	11/02/23 10:08
680-242517-25	SHM-13-01-FAL23	Water	10/31/23 11:20	11/02/23 10:08
680-242517-26	SHP-01-36X-FAL23	Water	10/31/23 10:00	11/02/23 10:08
680-242517-27	SHP-01-37X-FAL23	Water	10/31/23 11:20	11/02/23 10:08
680-242517-28	SHP-01-38A-FAL23	Water	10/31/23 13:00	11/02/23 10:08
680-242517-29	SHP-2016-5A-FAL23	Water	10/31/23 10:05	11/02/23 10:08
680-242517-30	SHP-2016-5B-FAL23	Water	10/31/23 11:10	11/02/23 10:08
680-242517-31	SHL-RB02-FAL23	Water	10/30/23 15:00	11/02/23 10:08

Job Narrative
680-242517-1

REVISION

The report being provided is a revision of the original report sent on 11/22/2023. The report (revision 1) is being revised to report the re-analyzed metals results which were more consistent with historical site results.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/2/2023 10:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4°C, 0.6°C and 1.2°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9060A_Diss: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 680-808659. A sample duplicate was analyzed with the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-DUP08-FAL23

Date Collected: 10/31/23 13:00
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.60		0.55	0.50	0.20	mg/L		11/19/23 17:46	1
Sulfate	6.8		1.5	1.0	0.40	mg/L		11/19/23 17:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		12/28/23 13:43	1
Manganese	1800		10	5.0	1.3	ug/L		12/28/23 13:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	100		5.0	3.0	0.86	ug/L		12/27/23 21:39	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	75		5.5	5.0	2.2	mg/L		11/08/23 02:40	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/15/23 13:39	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-DUP11-FAL23

Date Collected: 10/30/23 14:30
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	22		0.55	0.50	0.20	mg/L		11/19/23 17:57	1
Sulfate	13		1.5	1.0	0.40	mg/L		11/19/23 17:57	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	68000		100	50	20	ug/L		12/28/23 13:46	1
Manganese	2600		10	5.0	1.3	ug/L		12/28/23 13:46	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3100		5.0	3.0	0.86	ug/L		12/27/23 21:43	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	230		5.5	5.0	2.2	mg/L		11/08/23 13:29	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.4		1.5	1.0	0.50	mg/L		11/16/23 03:19	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-DUP12-FAL23

Date Collected: 10/30/23 11:20
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.1		0.55	0.50	0.20	mg/L		11/19/23 18:08	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/19/23 18:08	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	67000		100	50	20	ug/L		12/28/23 13:48	1
Manganese	2300		10	5.0	1.3	ug/L		12/28/23 13:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	450		5.0	3.0	0.86	ug/L		12/27/23 21:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	150		5.5	5.0	2.2	mg/L		11/08/23 12:52	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.0		1.5	1.0	0.50	mg/L		11/16/23 03:37	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-1A-FAL23
Lab Sample ID: 680-242517-4
Date Collected: 10/30/23 13:35
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	16		0.55	0.50	0.20	mg/L		11/19/23 18:20	1
Sulfate	1.9		1.5	1.0	0.40	mg/L		11/19/23 18:20	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	240		100	50	20	ug/L		12/28/23 13:55	1
Manganese	170		10	5.0	1.3	ug/L		12/28/23 13:55	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		12/27/23 22:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	36		5.5	5.0	2.2	mg/L		11/08/23 13:09	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/16/23 04:14	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-1B-FAL23
Lab Sample ID: 680-242517-5
Date Collected: 10/30/23 14:30
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	41		0.55	0.50	0.20	mg/L		11/18/23 00:40	1
Sulfate	21		1.5	1.0	0.40	mg/L		11/18/23 00:40	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	12000		100	50	20	ug/L		12/28/23 13:58	1
Manganese	9700		10	5.0	1.3	ug/L		12/28/23 13:58	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	120		5.0	3.0	0.86	ug/L		12/27/23 22:04	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	190		5.5	5.0	2.2	mg/L		11/08/23 12:43	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		11/16/23 04:33	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-2A-FAL23

Date Collected: 10/30/23 10:45
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**3.9**		0.55	0.50	0.20	mg/L		11/19/23 18:43	1
Sulfate	**5.8**		1.5	1.0	0.40	mg/L		11/19/23 18:43	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		12/28/23 14:00	1
Manganese	**5.9**	**J**	10	5.0	1.3	ug/L		12/28/23 14:00	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		12/27/23 22:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**15**		5.5	5.0	2.2	mg/L		11/08/23 14:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/16/23 04:51	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-2B-FAL23

Date Collected: 10/30/23 12:00
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	38		0.55	0.50	0.20	mg/L		11/19/23 18:54	1
Sulfate	7.7		1.5	1.0	0.40	mg/L		11/19/23 18:54	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	8000		100	50	20	ug/L		12/28/23 14:02	1
Manganese	4200		10	5.0	1.3	ug/L		12/28/23 14:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.7	J	5.0	3.0	0.86	ug/L		12/27/23 22:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.5	5.0	2.2	mg/L		11/08/23 12:15	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.1	J	1.5	1.0	0.50	mg/L		11/16/23 05:09	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-4A-FAL23

Lab Sample ID: 680-242517-8

Date Collected: 10/30/23 13:25

Matrix: Water

Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	56		0.55	0.50	0.20	mg/L		11/19/23 19:05	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/19/23 19:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	8000		100	50	20	ug/L		12/28/23 14:05	1
Manganese	1100		10	5.0	1.3	ug/L		12/28/23 14:05	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	4.3	J	5.0	3.0	0.86	ug/L		12/27/23 22:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	78		5.5	5.0	2.2	mg/L		11/08/23 12:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.4		1.5	1.0	0.50	mg/L		11/16/23 05:28	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-4B-FAL23

Date Collected: 10/30/23 14:30
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	22		0.55	0.50	0.20	mg/L		11/19/23 19:17	1
Sulfate	13		1.5	1.0	0.40	mg/L		11/19/23 19:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	68000		100	50	20	ug/L		12/28/23 14:07	1
Manganese	2600		10	5.0	1.3	ug/L		12/28/23 14:07	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3000		5.0	3.0	0.86	ug/L		12/27/23 22:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	230		5.5	5.0	2.2	mg/L		11/08/23 14:54	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.6		1.5	1.0	0.50	mg/L		11/16/23 05:47	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-6A-FAL23
Lab Sample ID: 680-242517-10
Date Collected: 10/30/23 10:15
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.8		0.55	0.50	0.20	mg/L		11/19/23 21:45	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/19/23 21:45	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	32	J	100	50	20	ug/L		12/28/23 14:09	1
Manganese	1.6	J	10	5.0	1.3	ug/L		12/28/23 14:09	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	7.0		5.0	3.0	0.86	ug/L		12/27/23 22:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	38		5.5	5.0	2.2	mg/L		11/08/23 14:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.91	J	1.5	1.0	0.50	mg/L		11/16/23 06:06	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-6B-FAL23

Lab Sample ID: 680-242517-11

Date Collected: 10/30/23 11:20

Matrix: Water

Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	3.1		0.55	0.50	0.20	mg/L		11/19/23 21:56	1
Sulfate	3.0		1.5	1.0	0.40	mg/L		11/19/23 21:56	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	66000		100	50	20	ug/L		12/28/23 14:12	1
Manganese	2300		10	5.0	1.3	ug/L		12/28/23 14:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	430		5.0	3.0	0.86	ug/L		12/27/23 22:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	140		5.5	5.0	2.2	mg/L		11/08/23 15:12	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		11/16/23 06:24	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-7A-FAL23
Lab Sample ID: 680-242517-12
Date Collected: 10/31/23 14:55
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.9	D	1.1	1.0	0.40	mg/L		11/19/23 22:08	2
Sulfate	2.0	U	3.0	2.0	0.80	mg/L		11/19/23 22:08	2

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	32	J	100	50	20	ug/L		12/28/23 14:14	1
Manganese	2.3	J	10	5.0	1.3	ug/L		12/28/23 14:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.5	J	5.0	3.0	0.86	ug/L		12/27/23 22:32	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	29		5.5	5.0	2.2	mg/L		11/08/23 14:44	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.1		1.5	1.0	0.50	mg/L		11/15/23 13:58	1

Client Sample ID: EPA-PZ-2012-7B-FAL23
Lab Sample ID: 680-242517-13

Date Collected: 10/31/23 13:20
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.4		0.55	0.50	0.20	mg/L		11/19/23 22:19	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/19/23 22:19	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	27000		100	50	20	ug/L		12/28/23 14:17	1
Manganese	4900		10	5.0	1.3	ug/L		12/28/23 14:17	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1000		5.0	3.0	0.86	ug/L		12/27/23 22:36	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	71		5.5	5.0	2.2	mg/L		11/08/23 15:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/15/23 14:17	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-10-FAL23
Lab Sample ID: 680-242517-14

Date Collected: 10/30/23 10:35
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.92		0.55	0.50	0.20	mg/L		11/19/23 22:31	1
Sulfate	1.6		1.5	1.0	0.40	mg/L		11/19/23 22:31	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20	J	100	50	20	ug/L		12/28/23 14:24	1
Manganese	4.2	J	10	5.0	1.3	ug/L		12/28/23 14:24	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.6	J	5.0	3.0	0.86	ug/L		12/27/23 22:49	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	10		5.5	5.0	2.2	mg/L		11/08/23 15:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.76	J	1.5	1.0	0.50	mg/L		11/15/23 14:35	1

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-3-FAL23
Lab Sample ID: 680-242517-15

Date Collected: 10/30/23 12:20
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.61		0.55	0.50	0.20	mg/L		11/19/23 23:05	1
Sulfate	7.6		1.5	1.0	0.40	mg/L		11/19/23 23:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		12/28/23 14:26	1
Manganese	5.0	U	10	5.0	1.3	ug/L		12/28/23 14:26	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		12/27/23 22:53	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	89		5.5	5.0	2.2	mg/L		11/08/23 13:01	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.95	J	1.5	1.0	0.50	mg/L		11/15/23 14:53	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-4-FAL23

Date Collected: 10/30/23 14:50
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-16

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.1		0.55	0.50	0.20	mg/L		11/19/23 23:16	1
Sulfate	12		1.5	1.0	0.40	mg/L		11/19/23 23:16	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	12000		100	50	20	ug/L		12/28/23 14:28	1
Manganese	1500		10	5.0	1.3	ug/L		12/28/23 14:28	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	170		5.0	3.0	0.86	ug/L		12/27/23 22:57	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	70		5.5	5.0	2.2	mg/L		11/08/23 12:24	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/15/23 15:12	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-39A-FAL23

Date Collected: 10/31/23 16:05
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	21		0.55	0.50	0.20	mg/L		11/19/23 23:28	1
Sulfate	3.2		1.5	1.0	0.40	mg/L		11/19/23 23:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	15000		100	50	20	ug/L		12/28/23 14:31	1
Manganese	610		10	5.0	1.3	ug/L		12/28/23 14:31	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	150		5.0	3.0	0.86	ug/L		12/27/23 23:01	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	48		5.5	5.0	2.2	mg/L		11/08/23 18:12	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		11/15/23 15:30	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-39B-FAL23

Date Collected: 10/31/23 14:05
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-18

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	74	D	1.1	1.0	0.40	mg/L		11/20/23 00:02	2
Sulfate	6.3	D	3.0	2.0	0.80	mg/L		11/20/23 00:02	2

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1400		100	50	20	ug/L		12/28/23 14:33	1
Manganese	160		10	5.0	1.3	ug/L		12/28/23 14:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	59		5.0	3.0	0.86	ug/L		12/27/23 23:05	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	79		5.5	5.0	2.2	mg/L		11/08/23 18:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/15/23 15:49	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-40X-FAL23

Lab Sample ID: 680-242517-19

Date Collected: 10/31/23 11:20
Date Received: 11/02/23 10:08

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	6.3		0.55	0.50	0.20	mg/L		11/20/23 00:13	1
Sulfate	4.3		1.5	1.0	0.40	mg/L		11/20/23 00:13	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	12000		100	50	20	ug/L		12/28/23 14:36	1
Manganese	390		10	5.0	1.3	ug/L		12/28/23 14:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1500		5.0	3.0	0.86	ug/L		12/27/23 23:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	79		5.5	5.0	2.2	mg/L		11/08/23 14:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.8		1.5	1.0	0.50	mg/L		11/15/23 16:06	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-41A-FAL23

Date Collected: 10/30/23 12:45
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-20

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	14		0.55	0.50	0.20	mg/L		11/20/23 00:25	1
Sulfate	1.3	J	1.5	1.0	0.40	mg/L		11/20/23 00:25	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	360		100	50	20	ug/L		12/28/23 14:43	1
Manganese	21		10	5.0	1.3	ug/L		12/28/23 14:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	4.6	J J1	5.0	3.0	0.86	ug/L		12/27/23 17:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	13		5.5	5.0	2.2	mg/L		11/08/23 18:38	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	13		1.5	1.0	0.50	mg/L		11/15/23 16:23	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-41B-FAL23

Date Collected: 10/30/23 10:35
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-21

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	5.8		0.55	0.50	0.20	mg/L		11/20/23 00:36	1
Sulfate	2.4		1.5	1.0	0.40	mg/L		11/20/23 00:36	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		12/28/23 14:59	1
Manganese	640		10	5.0	1.3	ug/L		12/28/23 14:59	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	420		5.0	3.0	0.86	ug/L		12/27/23 17:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	54		5.5	5.0	2.2	mg/L		11/08/23 18:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	6.1		1.5	1.0	0.50	mg/L		11/15/23 17:16	1

Client Sample ID: SHM-05-41C-FAL23
Lab Sample ID: 680-242517-22

Date Collected: 10/30/23 13:15
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	90		0.55	0.50	0.20	mg/L		11/20/23 13:01	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/20/23 13:01	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	3600		100	50	20	ug/L		12/28/23 13:31	1
Manganese	300		10	5.0	1.3	ug/L		12/28/23 13:31	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	57		5.0	3.0	0.86	ug/L		12/27/23 21:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	44		5.5	5.0	2.2	mg/L		11/08/23 13:18	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.4		1.5	1.0	0.50	mg/L		11/15/23 17:58	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-07-05X-FAL23

Date Collected: 10/31/23 09:45
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-23

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	59		0.55	0.50	0.20	mg/L		11/20/23 00:47	1
Sulfate	2.7		1.5	1.0	0.40	mg/L		11/20/23 00:47	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	14000		100	50	20	ug/L		12/28/23 15:02	1
Manganese	1200		10	5.0	1.3	ug/L		12/28/23 15:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	760		5.0	3.0	0.86	ug/L		12/27/23 17:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/08/23 18:48	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	8.7		1.5	1.0	0.50	mg/L		11/15/23 18:53	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-10-06-FAL23

Date Collected: 10/31/23 13:15
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-24

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	30		0.55	0.50	0.20	mg/L		11/20/23 00:59	1
Sulfate	6.3		1.5	1.0	0.40	mg/L		11/20/23 00:59	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	30000		100	50	20	ug/L		12/28/23 15:04	1
Manganese	1100		10	5.0	1.3	ug/L		12/28/23 15:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	250		5.0	3.0	0.86	ug/L		12/27/23 17:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	93		5.5	5.0	2.2	mg/L		11/08/23 11:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/15/23 19:13	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-13-01-FAL23

Date Collected: 10/31/23 11:20
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-25

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	14		1.5	1.0	0.40	mg/L		11/20/23 01:10	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	290	D	5.5	5.0	2.0	mg/L		11/21/23 13:12	10

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		12/28/23 15:06	1
Manganese	1.3	J	10	5.0	1.3	ug/L		12/28/23 15:06	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.7	J	5.0	3.0	0.86	ug/L		12/27/23 18:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	29		5.5	5.0	2.2	mg/L		11/08/23 19:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.71	J	1.5	1.0	0.50	mg/L		11/15/23 19:31	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-01-36X-FAL23

Lab Sample ID: 680-242517-26

Date Collected: 10/31/23 10:00
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	53		0.55	0.50	0.20	mg/L		11/20/23 14:10	1
Sulfate	2.8		1.5	1.0	0.40	mg/L		11/20/23 14:10	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1300		100	50	20	ug/L		12/28/23 15:09	1
Manganese	47		10	5.0	1.3	ug/L		12/28/23 15:09	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10		5.0	3.0	0.86	ug/L		12/27/23 18:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	36		5.5	5.0	2.2	mg/L		11/08/23 14:35	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.8		1.5	1.0	0.50	mg/L		11/15/23 19:49	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-01-37X-FAL23

Lab Sample ID: 680-242517-27

Date Collected: 10/31/23 11:20
Date Received: 11/02/23 10:08

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	41		0.55	0.50	0.20	mg/L		11/20/23 14:21	1
Sulfate	8.5		1.5	1.0	0.40	mg/L		11/20/23 14:21	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2100		100	50	20	ug/L		12/28/23 15:11	1
Manganese	150		10	5.0	1.3	ug/L		12/28/23 15:11	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	21		5.0	3.0	0.86	ug/L		12/27/23 18:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	59		5.5	5.0	2.2	mg/L		11/08/23 18:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.4		1.5	1.0	0.50	mg/L		11/15/23 20:08	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-01-38A-FAL23

Date Collected: 10/31/23 13:00
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-28

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.60		0.55	0.50	0.20	mg/L		11/20/23 14:32	1
Sulfate	6.5		1.5	1.0	0.40	mg/L		11/20/23 14:32	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		12/28/23 15:14	1
Manganese	1800		10	5.0	1.3	ug/L		12/28/23 15:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	110		5.0	3.0	0.86	ug/L		12/27/23 18:20	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	74		5.5	5.0	2.2	mg/L		11/08/23 18:57	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/15/23 20:27	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-2016-5A-FAL23

Date Collected: 10/31/23 10:05
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-29

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	26		0.55	0.50	0.20	mg/L		11/20/23 14:44	1
Sulfate	1.6		1.5	1.0	0.40	mg/L		11/20/23 14:44	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	2100		100	50	20	ug/L		12/28/23 15:21	1
Manganese	270		10	5.0	1.3	ug/L		12/28/23 15:21	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.9	J	5.0	3.0	0.86	ug/L		12/27/23 18:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	63		5.5	5.0	2.2	mg/L		11/08/23 17:45	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	6.0		1.5	1.0	0.50	mg/L		11/15/23 21:18	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-2016-5B-FAL23

Date Collected: 10/31/23 11:10
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-30

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	22		0.55	0.50	0.20	mg/L		11/20/23 14:55	1
Sulfate	12	M	1.5	1.0	0.40	mg/L		11/20/23 14:55	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	58000		100	50	20	ug/L		12/28/23 15:23	1
Manganese	2800		10	5.0	1.3	ug/L		12/28/23 15:23	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	550		5.0	3.0	0.86	ug/L		12/27/23 18:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	180		5.5	5.0	2.2	mg/L		11/08/23 15:22	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.6		1.5	1.0	0.50	mg/L		11/15/23 21:38	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHL-RB02-FAL23
Lab Sample ID: 680-242517-31
Date Collected: 10/30/23 15:00
Matrix: Water
Date Received: 11/02/23 10:08

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/20/23 15:07	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/20/23 15:07	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	**20**	**J**	100	50	20	ug/L		12/28/23 15:25	1
Manganese	5.0	U	10	5.0	1.3	ug/L		12/28/23 15:25	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		12/27/23 18:32	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 19:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/15/23 21:56	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-808959/124
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/17/23 19:41	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/17/23 19:41	1

Lab Sample ID: LCS 680-808959/120
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.57	M	mg/L		96	87 - 112

Lab Sample ID: LCSD 680-808959/96
Matrix: Water
Analysis Batch: 808959

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.50		mg/L		95	87 - 112	1	15

Lab Sample ID: MB 680-809132/1002
Matrix: Water
Analysis Batch: 809132

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/19/23 13:42	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/19/23 13:42	1

Lab Sample ID: LCS 680-809132/4
Matrix: Water
Analysis Batch: 809132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.92	M	mg/L		99	87 - 112

Lab Sample ID: LCSD 680-809132/5
Matrix: Water
Analysis Batch: 809132

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.95	M	mg/L		99	87 - 112	0	15

Lab Sample ID: MB 680-809133/33
Matrix: Water
Analysis Batch: 809133

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/19/23 19:51	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/19/23 19:51	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: LCS 680-809133/34
Matrix: Water
Analysis Batch: 809133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.55		mg/L		95	87 - 112

Lab Sample ID: LCSD 680-809133/35
Matrix: Water
Analysis Batch: 809133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.58		mg/L		96	87 - 112	0	15

Lab Sample ID: 680-242517-17 MS
Matrix: Water
Analysis Batch: 809133

Client Sample ID: SHM-05-39A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	21		10.0	31.1		mg/L		104	87 - 111
Sulfate	3.2		10.0	13.4	M	mg/L		103	87 - 112

Lab Sample ID: 680-242517-17 MSD
Matrix: Water
Analysis Batch: 809133

Client Sample ID: SHM-05-39A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	21		10.0	31.0		mg/L		104	87 - 111	0	15
Sulfate	3.2		10.0	13.4	M	mg/L		102	87 - 112	0	15

Lab Sample ID: MB 680-809260/2
Matrix: Water
Analysis Batch: 809260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/20/23 12:00	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/20/23 12:00	1

Lab Sample ID: LCS 680-809260/4
Matrix: Water
Analysis Batch: 809260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.65		mg/L		96	87 - 112

Lab Sample ID: LCSD 680-809260/5
Matrix: Water
Analysis Batch: 809260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.64	M	mg/L		96	87 - 112	0	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 680-242517-22 MS
Matrix: Water
Analysis Batch: 809260

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	90		10.0	99.6	4	mg/L		96	87 - 111
Sulfate	1.0	U	10.0	9.55		mg/L		95	87 - 112

Lab Sample ID: 680-242517-22 MSD
Matrix: Water
Analysis Batch: 809260

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	90		10.0	99.7	4	mg/L		98	87 - 111	0	15
Sulfate	1.0	U	10.0	9.69	M	mg/L		97	87 - 112	2	15

Lab Sample ID: MB 680-809473/1002
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/21/23 11:52	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/21/23 11:52	1

Lab Sample ID: LCS 680-809473/3
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.65		mg/L		97	87 - 112

Lab Sample ID: LCSD 680-809473/4
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.68		mg/L		97	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-815247/1-A
Matrix: Water
Analysis Batch: 815720

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 815247

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		12/28/23 13:27	1
Manganese	5.0	U	10	5.0	1.3	ug/L		12/28/23 13:27	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 680-815247/2-A
Matrix: Water
Analysis Batch: 815720

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 815247

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	4830		ug/L		97	87 - 115		
Manganese			400	383		ug/L		96	90 - 114		

Lab Sample ID: MB 680-815248/1-A
Matrix: Water
Analysis Batch: 815720

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 815248

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		12/28/23 14:38	1
Manganese	5.0	U	10	5.0	1.3	ug/L		12/28/23 14:38	1

Lab Sample ID: LCS 680-815248/2-A
Matrix: Water
Analysis Batch: 815720

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 815248

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			4990	4910		ug/L		98	87 - 115		
Manganese			400	392		ug/L		98	90 - 114		

Lab Sample ID: 680-242517-22 MS
Matrix: Water
Analysis Batch: 815720

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved
Prep Batch: 815247

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	3600		4990	8450		ug/L		97	87 - 115		
Manganese	300		400	744		ug/L		111	90 - 114		

Lab Sample ID: 680-242517-22 MSD
Matrix: Water
Analysis Batch: 815720

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved
Prep Batch: 815247

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	3600		4990	8620		ug/L		100	87 - 115	2	20
Manganese	300		400	708		ug/L		102	90 - 114	5	20

Lab Sample ID: 680-242517-20 MS
Matrix: Water
Analysis Batch: 815720

Client Sample ID: SHM-05-41A-FAL23
Prep Type: Dissolved
Prep Batch: 815248

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	360		4990	5270		ug/L		98	87 - 115		
Manganese	21		400	410		ug/L		97	90 - 114		

Lab Sample ID: 680-242517-20 MSD
Matrix: Water
Analysis Batch: 815720

Client Sample ID: SHM-05-41A-FAL23
Prep Type: Dissolved
Prep Batch: 815248

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	360		4990	5130		ug/L		96	87 - 115	3	20
Manganese	21		400	401		ug/L		95	90 - 114	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-815240/1-A
Matrix: Water
Analysis Batch: 815524

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 815240

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		12/27/23 21:11	1

Lab Sample ID: LCS 680-815240/2-A
Matrix: Water
Analysis Batch: 815524

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 815240

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	100		ug/L		100	84 - 116		

Lab Sample ID: MB 680-815255/1-A
Matrix: Water
Analysis Batch: 815524

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 815255

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		12/27/23 17:19	1

Lab Sample ID: LCS 680-815255/2-A
Matrix: Water
Analysis Batch: 815524

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 815255

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			100	105		ug/L		105	84 - 116		

Lab Sample ID: 680-242517-22 MS
Matrix: Water
Analysis Batch: 815524

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved
Prep Batch: 815240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	57		100	161		ug/L		104	84 - 116		

Lab Sample ID: 680-242517-22 MSD
Matrix: Water
Analysis Batch: 815524

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved
Prep Batch: 815240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	57		100	158		ug/L		101	84 - 116	2	20

Lab Sample ID: 680-242517-20 MS
Matrix: Water
Analysis Batch: 815524

Client Sample ID: SHM-05-41A-FAL23
Prep Type: Dissolved
Prep Batch: 815255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic	4.6	J1	100	104		ug/L		100	84 - 116		

Lab Sample ID: 680-242517-20 MSD
Matrix: Water
Analysis Batch: 815524

Client Sample ID: SHM-05-41A-FAL23
Prep Type: Dissolved
Prep Batch: 815255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	4.6	J1	100	102		ug/L		97	84 - 116	2	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-807056/4
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 00:12	1

Lab Sample ID: LCS 680-807056/6
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	246		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-807056/31
Matrix: Water
Analysis Batch: 807056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112	1	30

Lab Sample ID: 680-242517-1 DU
Matrix: Water
Analysis Batch: 807056

Client Sample ID: SHL-DUP08-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	75		74.3		mg/L		1	30

Lab Sample ID: MB 680-807345/4
Matrix: Water
Analysis Batch: 807345

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 11:31	1

Lab Sample ID: LCS 680-807345/6
Matrix: Water
Analysis Batch: 807345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		99	90 - 112

Lab Sample ID: LCSD 680-807345/31
Matrix: Water
Analysis Batch: 807345

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	254		mg/L		101	90 - 112	2	30

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: 680-242517-10 DU
Matrix: Water
Analysis Batch: 807345

Client Sample ID: EPA-PZ-2012-6A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	38			33.5		mg/L				12	30

Lab Sample ID: 680-242517-24 DU
Matrix: Water
Analysis Batch: 807345

Client Sample ID: SHM-10-06-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	93			94.3		mg/L				1	30

Lab Sample ID: MB 680-807347/4
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 17:19	1

Lab Sample ID: LCS 680-807347/6
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	249		mg/L		100	90 - 112		

Lab Sample ID: LCSD 680-807347/31
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	254		mg/L		101	90 - 112	2	30

Lab Sample ID: 680-242517-29 DU
Matrix: Water
Analysis Batch: 807347

Client Sample ID: SHP-2016-5A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	63			61.9		mg/L				2	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-808658/2
Matrix: Water
Analysis Batch: 808658

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/15/23 11:10	1

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: LCS 680-808658/4
Matrix: Water
Analysis Batch: 808658

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	18.8		mg/L		94	80 - 120

Lab Sample ID: LCSD 680-808658/5
Matrix: Water
Analysis Batch: 808658

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	18.8		mg/L		94	80 - 120	0	20

Lab Sample ID: 680-242517-22 MS
Matrix: Water
Analysis Batch: 808658

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	5.4		20.0	24.5		mg/L		95	80 - 120

Lab Sample ID: 680-242517-22 MSD
Matrix: Water
Analysis Batch: 808658

Client Sample ID: SHM-05-41C-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	5.4		20.0	24.6		mg/L		96	80 - 120	1	20

Lab Sample ID: MB 680-808659/2
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/15/23 22:32	1

Lab Sample ID: LCS 680-808659/3
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.2		mg/L		96	80 - 120

Lab Sample ID: LCSD 680-808659/4
Matrix: Water
Analysis Batch: 808659

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.1		mg/L		96	80 - 120	0	20

Lab Sample ID: 680-242517-3 DU
Matrix: Water
Analysis Batch: 808659

Client Sample ID: SHL-DUP12-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Dissolved Organic Carbon	2.0		1.83		mg/L		10	30

HPLC/IC

Analysis Batch: 808959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-5	EPA-PZ-2012-1B-FAL23	Total/NA	Water	9056A	
MB 680-808959/124	Method Blank	Total/NA	Water	9056A	
LCS 680-808959/120	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-808959/96	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 809132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Total/NA	Water	9056A	
680-242517-2	SHL-DUP11-FAL23	Total/NA	Water	9056A	
680-242517-3	SHL-DUP12-FAL23	Total/NA	Water	9056A	
680-242517-4	EPA-PZ-2012-1A-FAL23	Total/NA	Water	9056A	
680-242517-6	EPA-PZ-2012-2A-FAL23	Total/NA	Water	9056A	
680-242517-7	EPA-PZ-2012-2B-FAL23	Total/NA	Water	9056A	
680-242517-8	EPA-PZ-2012-4A-FAL23	Total/NA	Water	9056A	
680-242517-9	EPA-PZ-2012-4B-FAL23	Total/NA	Water	9056A	
MB 680-809132/1002	Method Blank	Total/NA	Water	9056A	
LCS 680-809132/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809132/5	Lab Control Sample Dup	Total/NA	Water	9056A	

Analysis Batch: 809133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-10	EPA-PZ-2012-6A-FAL23	Total/NA	Water	9056A	
680-242517-11	EPA-PZ-2012-6B-FAL23	Total/NA	Water	9056A	
680-242517-12	EPA-PZ-2012-7A-FAL23	Total/NA	Water	9056A	
680-242517-13	EPA-PZ-2012-7B-FAL23	Total/NA	Water	9056A	
680-242517-14	SHL-10-FAL23	Total/NA	Water	9056A	
680-242517-15	SHL-3-FAL23	Total/NA	Water	9056A	
680-242517-16	SHL-4-FAL23	Total/NA	Water	9056A	
680-242517-17	SHM-05-39A-FAL23	Total/NA	Water	9056A	
680-242517-18	SHM-05-39B-FAL23	Total/NA	Water	9056A	
680-242517-19	SHM-05-40X-FAL23	Total/NA	Water	9056A	
680-242517-20	SHM-05-41A-FAL23	Total/NA	Water	9056A	
680-242517-21	SHM-05-41B-FAL23	Total/NA	Water	9056A	
680-242517-23	SHM-07-05X-FAL23	Total/NA	Water	9056A	
680-242517-24	SHM-10-06-FAL23	Total/NA	Water	9056A	
680-242517-25	SHM-13-01-FAL23	Total/NA	Water	9056A	
MB 680-809133/33	Method Blank	Total/NA	Water	9056A	
LCS 680-809133/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809133/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242517-17 MS	SHM-05-39A-FAL23	Total/NA	Water	9056A	
680-242517-17 MSD	SHM-05-39A-FAL23	Total/NA	Water	9056A	

Analysis Batch: 809260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-22	SHM-05-41C-FAL23	Total/NA	Water	9056A	
680-242517-26	SHP-01-36X-FAL23	Total/NA	Water	9056A	
680-242517-27	SHP-01-37X-FAL23	Total/NA	Water	9056A	
680-242517-28	SHP-01-38A-FAL23	Total/NA	Water	9056A	
680-242517-29	SHP-2016-5A-FAL23	Total/NA	Water	9056A	
680-242517-30	SHP-2016-5B-FAL23	Total/NA	Water	9056A	
680-242517-31	SHL-RB02-FAL23	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 809260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-809260/2	Method Blank	Total/NA	Water	9056A	
LCS 680-809260/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809260/5	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242517-22 MS	SHM-05-41C-FAL23	Total/NA	Water	9056A	
680-242517-22 MSD	SHM-05-41C-FAL23	Total/NA	Water	9056A	

Analysis Batch: 809473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-25 - DL	SHM-13-01-FAL23	Total/NA	Water	9056A	
MB 680-809473/1002	Method Blank	Total/NA	Water	9056A	
LCS 680-809473/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809473/4	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 815240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Dissolved	Water	3005A	
680-242517-2	SHL-DUP11-FAL23	Dissolved	Water	3005A	
680-242517-3	SHL-DUP12-FAL23	Dissolved	Water	3005A	
680-242517-4	EPA-PZ-2012-1A-FAL23	Dissolved	Water	3005A	
680-242517-5	EPA-PZ-2012-1B-FAL23	Dissolved	Water	3005A	
680-242517-6	EPA-PZ-2012-2A-FAL23	Dissolved	Water	3005A	
680-242517-7	EPA-PZ-2012-2B-FAL23	Dissolved	Water	3005A	
680-242517-8	EPA-PZ-2012-4A-FAL23	Dissolved	Water	3005A	
680-242517-9	EPA-PZ-2012-4B-FAL23	Dissolved	Water	3005A	
680-242517-10	EPA-PZ-2012-6A-FAL23	Dissolved	Water	3005A	
680-242517-11	EPA-PZ-2012-6B-FAL23	Dissolved	Water	3005A	
680-242517-12	EPA-PZ-2012-7A-FAL23	Dissolved	Water	3005A	
680-242517-13	EPA-PZ-2012-7B-FAL23	Dissolved	Water	3005A	
680-242517-14	SHL-10-FAL23	Dissolved	Water	3005A	
680-242517-15	SHL-3-FAL23	Dissolved	Water	3005A	
680-242517-16	SHL-4-FAL23	Dissolved	Water	3005A	
680-242517-17	SHM-05-39A-FAL23	Dissolved	Water	3005A	
680-242517-18	SHM-05-39B-FAL23	Dissolved	Water	3005A	
680-242517-19	SHM-05-40X-FAL23	Dissolved	Water	3005A	
680-242517-22	SHM-05-41C-FAL23	Dissolved	Water	3005A	
MB 680-815240/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-815240/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242517-22 MS	SHM-05-41C-FAL23	Dissolved	Water	3005A	
680-242517-22 MSD	SHM-05-41C-FAL23	Dissolved	Water	3005A	

Prep Batch: 815247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Dissolved	Water	3005A	
680-242517-2	SHL-DUP11-FAL23	Dissolved	Water	3005A	
680-242517-3	SHL-DUP12-FAL23	Dissolved	Water	3005A	
680-242517-4	EPA-PZ-2012-1A-FAL23	Dissolved	Water	3005A	
680-242517-5	EPA-PZ-2012-1B-FAL23	Dissolved	Water	3005A	
680-242517-6	EPA-PZ-2012-2A-FAL23	Dissolved	Water	3005A	
680-242517-7	EPA-PZ-2012-2B-FAL23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 815247 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-8	EPA-PZ-2012-4A-FAL23	Dissolved	Water	3005A	
680-242517-9	EPA-PZ-2012-4B-FAL23	Dissolved	Water	3005A	
680-242517-10	EPA-PZ-2012-6A-FAL23	Dissolved	Water	3005A	
680-242517-11	EPA-PZ-2012-6B-FAL23	Dissolved	Water	3005A	
680-242517-12	EPA-PZ-2012-7A-FAL23	Dissolved	Water	3005A	
680-242517-13	EPA-PZ-2012-7B-FAL23	Dissolved	Water	3005A	
680-242517-14	SHL-10-FAL23	Dissolved	Water	3005A	
680-242517-15	SHL-3-FAL23	Dissolved	Water	3005A	
680-242517-16	SHL-4-FAL23	Dissolved	Water	3005A	
680-242517-17	SHM-05-39A-FAL23	Dissolved	Water	3005A	
680-242517-18	SHM-05-39B-FAL23	Dissolved	Water	3005A	
680-242517-19	SHM-05-40X-FAL23	Dissolved	Water	3005A	
680-242517-22	SHM-05-41C-FAL23	Dissolved	Water	3005A	
MB 680-815247/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-815247/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242517-22 MS	SHM-05-41C-FAL23	Dissolved	Water	3005A	
680-242517-22 MSD	SHM-05-41C-FAL23	Dissolved	Water	3005A	

Prep Batch: 815248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-20	SHM-05-41A-FAL23	Dissolved	Water	3005A	
680-242517-21	SHM-05-41B-FAL23	Dissolved	Water	3005A	
680-242517-23	SHM-07-05X-FAL23	Dissolved	Water	3005A	
680-242517-24	SHM-10-06-FAL23	Dissolved	Water	3005A	
680-242517-25	SHM-13-01-FAL23	Dissolved	Water	3005A	
680-242517-26	SHP-01-36X-FAL23	Dissolved	Water	3005A	
680-242517-27	SHP-01-37X-FAL23	Dissolved	Water	3005A	
680-242517-28	SHP-01-38A-FAL23	Dissolved	Water	3005A	
680-242517-29	SHP-2016-5A-FAL23	Dissolved	Water	3005A	
680-242517-30	SHP-2016-5B-FAL23	Dissolved	Water	3005A	
680-242517-31	SHL-RB02-FAL23	Dissolved	Water	3005A	
MB 680-815248/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-815248/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242517-20 MS	SHM-05-41A-FAL23	Dissolved	Water	3005A	
680-242517-20 MSD	SHM-05-41A-FAL23	Dissolved	Water	3005A	

Prep Batch: 815255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-20	SHM-05-41A-FAL23	Dissolved	Water	3005A	
680-242517-21	SHM-05-41B-FAL23	Dissolved	Water	3005A	
680-242517-23	SHM-07-05X-FAL23	Dissolved	Water	3005A	
680-242517-24	SHM-10-06-FAL23	Dissolved	Water	3005A	
680-242517-25	SHM-13-01-FAL23	Dissolved	Water	3005A	
680-242517-26	SHP-01-36X-FAL23	Dissolved	Water	3005A	
680-242517-27	SHP-01-37X-FAL23	Dissolved	Water	3005A	
680-242517-28	SHP-01-38A-FAL23	Dissolved	Water	3005A	
680-242517-29	SHP-2016-5A-FAL23	Dissolved	Water	3005A	
680-242517-30	SHP-2016-5B-FAL23	Dissolved	Water	3005A	
680-242517-31	SHL-RB02-FAL23	Dissolved	Water	3005A	
MB 680-815255/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-815255/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 815255 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-20 MS	SHM-05-41A-FAL23	Dissolved	Water	3005A	
680-242517-20 MSD	SHM-05-41A-FAL23	Dissolved	Water	3005A	

Analysis Batch: 815524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Dissolved	Water	6020A	815240
680-242517-2	SHL-DUP11-FAL23	Dissolved	Water	6020A	815240
680-242517-3	SHL-DUP12-FAL23	Dissolved	Water	6020A	815240
680-242517-4	EPA-PZ-2012-1A-FAL23	Dissolved	Water	6020A	815240
680-242517-5	EPA-PZ-2012-1B-FAL23	Dissolved	Water	6020A	815240
680-242517-6	EPA-PZ-2012-2A-FAL23	Dissolved	Water	6020A	815240
680-242517-7	EPA-PZ-2012-2B-FAL23	Dissolved	Water	6020A	815240
680-242517-8	EPA-PZ-2012-4A-FAL23	Dissolved	Water	6020A	815240
680-242517-9	EPA-PZ-2012-4B-FAL23	Dissolved	Water	6020A	815240
680-242517-10	EPA-PZ-2012-6A-FAL23	Dissolved	Water	6020A	815240
680-242517-11	EPA-PZ-2012-6B-FAL23	Dissolved	Water	6020A	815240
680-242517-12	EPA-PZ-2012-7A-FAL23	Dissolved	Water	6020A	815240
680-242517-13	EPA-PZ-2012-7B-FAL23	Dissolved	Water	6020A	815240
680-242517-14	SHL-10-FAL23	Dissolved	Water	6020A	815240
680-242517-15	SHL-3-FAL23	Dissolved	Water	6020A	815240
680-242517-16	SHL-4-FAL23	Dissolved	Water	6020A	815240
680-242517-17	SHM-05-39A-FAL23	Dissolved	Water	6020A	815240
680-242517-18	SHM-05-39B-FAL23	Dissolved	Water	6020A	815240
680-242517-19	SHM-05-40X-FAL23	Dissolved	Water	6020A	815240
680-242517-20	SHM-05-41A-FAL23	Dissolved	Water	6020A	815255
680-242517-21	SHM-05-41B-FAL23	Dissolved	Water	6020A	815255
680-242517-22	SHM-05-41C-FAL23	Dissolved	Water	6020A	815240
680-242517-23	SHM-07-05X-FAL23	Dissolved	Water	6020A	815255
680-242517-24	SHM-10-06-FAL23	Dissolved	Water	6020A	815255
680-242517-25	SHM-13-01-FAL23	Dissolved	Water	6020A	815255
680-242517-26	SHP-01-36X-FAL23	Dissolved	Water	6020A	815255
680-242517-27	SHP-01-37X-FAL23	Dissolved	Water	6020A	815255
680-242517-28	SHP-01-38A-FAL23	Dissolved	Water	6020A	815255
680-242517-29	SHP-2016-5A-FAL23	Dissolved	Water	6020A	815255
680-242517-30	SHP-2016-5B-FAL23	Dissolved	Water	6020A	815255
680-242517-31	SHL-RB02-FAL23	Dissolved	Water	6020A	815255
MB 680-815240/1-A	Method Blank	Total Recoverable	Water	6020A	815240
MB 680-815255/1-A	Method Blank	Total Recoverable	Water	6020A	815255
LCS 680-815240/2-A	Lab Control Sample	Total Recoverable	Water	6020A	815240
LCS 680-815255/2-A	Lab Control Sample	Total Recoverable	Water	6020A	815255
680-242517-20 MS	SHM-05-41A-FAL23	Dissolved	Water	6020A	815255
680-242517-20 MSD	SHM-05-41A-FAL23	Dissolved	Water	6020A	815255
680-242517-22 MS	SHM-05-41C-FAL23	Dissolved	Water	6020A	815240
680-242517-22 MSD	SHM-05-41C-FAL23	Dissolved	Water	6020A	815240

Analysis Batch: 815720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Dissolved	Water	6010C	815247
680-242517-2	SHL-DUP11-FAL23	Dissolved	Water	6010C	815247
680-242517-3	SHL-DUP12-FAL23	Dissolved	Water	6010C	815247
680-242517-4	EPA-PZ-2012-1A-FAL23	Dissolved	Water	6010C	815247

Metals (Continued)

Analysis Batch: 815720 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-5	EPA-PZ-2012-1B-FAL23	Dissolved	Water	6010C	815247
680-242517-6	EPA-PZ-2012-2A-FAL23	Dissolved	Water	6010C	815247
680-242517-7	EPA-PZ-2012-2B-FAL23	Dissolved	Water	6010C	815247
680-242517-8	EPA-PZ-2012-4A-FAL23	Dissolved	Water	6010C	815247
680-242517-9	EPA-PZ-2012-4B-FAL23	Dissolved	Water	6010C	815247
680-242517-10	EPA-PZ-2012-6A-FAL23	Dissolved	Water	6010C	815247
680-242517-11	EPA-PZ-2012-6B-FAL23	Dissolved	Water	6010C	815247
680-242517-12	EPA-PZ-2012-7A-FAL23	Dissolved	Water	6010C	815247
680-242517-13	EPA-PZ-2012-7B-FAL23	Dissolved	Water	6010C	815247
680-242517-14	SHL-10-FAL23	Dissolved	Water	6010C	815247
680-242517-15	SHL-3-FAL23	Dissolved	Water	6010C	815247
680-242517-16	SHL-4-FAL23	Dissolved	Water	6010C	815247
680-242517-17	SHM-05-39A-FAL23	Dissolved	Water	6010C	815247
680-242517-18	SHM-05-39B-FAL23	Dissolved	Water	6010C	815247
680-242517-19	SHM-05-40X-FAL23	Dissolved	Water	6010C	815247
680-242517-20	SHM-05-41A-FAL23	Dissolved	Water	6010C	815248
680-242517-21	SHM-05-41B-FAL23	Dissolved	Water	6010C	815248
680-242517-22	SHM-05-41C-FAL23	Dissolved	Water	6010C	815247
680-242517-23	SHM-07-05X-FAL23	Dissolved	Water	6010C	815248
680-242517-24	SHM-10-06-FAL23	Dissolved	Water	6010C	815248
680-242517-25	SHM-13-01-FAL23	Dissolved	Water	6010C	815248
680-242517-26	SHP-01-36X-FAL23	Dissolved	Water	6010C	815248
680-242517-27	SHP-01-37X-FAL23	Dissolved	Water	6010C	815248
680-242517-28	SHP-01-38A-FAL23	Dissolved	Water	6010C	815248
680-242517-29	SHP-2016-5A-FAL23	Dissolved	Water	6010C	815248
680-242517-30	SHP-2016-5B-FAL23	Dissolved	Water	6010C	815248
680-242517-31	SHL-RB02-FAL23	Dissolved	Water	6010C	815248
MB 680-815247/1-A	Method Blank	Total Recoverable	Water	6010C	815247
MB 680-815248/1-A	Method Blank	Total Recoverable	Water	6010C	815248
LCS 680-815247/2-A	Lab Control Sample	Total Recoverable	Water	6010C	815247
LCS 680-815248/2-A	Lab Control Sample	Total Recoverable	Water	6010C	815248
680-242517-20 MS	SHM-05-41A-FAL23	Dissolved	Water	6010C	815248
680-242517-20 MSD	SHM-05-41A-FAL23	Dissolved	Water	6010C	815248
680-242517-22 MS	SHM-05-41C-FAL23	Dissolved	Water	6010C	815247
680-242517-22 MSD	SHM-05-41C-FAL23	Dissolved	Water	6010C	815247

General Chemistry

Analysis Batch: 807056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Total/NA	Water	2320B-2011	
MB 680-807056/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807056/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807056/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242517-1 DU	SHL-DUP08-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-2	SHL-DUP11-FAL23	Total/NA	Water	2320B-2011	
680-242517-3	SHL-DUP12-FAL23	Total/NA	Water	2320B-2011	
680-242517-4	EPA-PZ-2012-1A-FAL23	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 807345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-5	EPA-PZ-2012-1B-FAL23	Total/NA	Water	2320B-2011	
680-242517-6	EPA-PZ-2012-2A-FAL23	Total/NA	Water	2320B-2011	
680-242517-7	EPA-PZ-2012-2B-FAL23	Total/NA	Water	2320B-2011	
680-242517-8	EPA-PZ-2012-4A-FAL23	Total/NA	Water	2320B-2011	
680-242517-9	EPA-PZ-2012-4B-FAL23	Total/NA	Water	2320B-2011	
680-242517-10	EPA-PZ-2012-6A-FAL23	Total/NA	Water	2320B-2011	
680-242517-11	EPA-PZ-2012-6B-FAL23	Total/NA	Water	2320B-2011	
680-242517-12	EPA-PZ-2012-7A-FAL23	Total/NA	Water	2320B-2011	
680-242517-13	EPA-PZ-2012-7B-FAL23	Total/NA	Water	2320B-2011	
680-242517-14	SHL-10-FAL23	Total/NA	Water	2320B-2011	
680-242517-15	SHL-3-FAL23	Total/NA	Water	2320B-2011	
680-242517-16	SHL-4-FAL23	Total/NA	Water	2320B-2011	
680-242517-19	SHM-05-40X-FAL23	Total/NA	Water	2320B-2011	
680-242517-22	SHM-05-41C-FAL23	Total/NA	Water	2320B-2011	
680-242517-24	SHM-10-06-FAL23	Total/NA	Water	2320B-2011	
680-242517-26	SHP-01-36X-FAL23	Total/NA	Water	2320B-2011	
680-242517-30	SHP-2016-5B-FAL23	Total/NA	Water	2320B-2011	
MB 680-807345/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807345/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807345/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242517-10 DU	EPA-PZ-2012-6A-FAL23	Total/NA	Water	2320B-2011	
680-242517-24 DU	SHM-10-06-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-17	SHM-05-39A-FAL23	Total/NA	Water	2320B-2011	
680-242517-18	SHM-05-39B-FAL23	Total/NA	Water	2320B-2011	
680-242517-20	SHM-05-41A-FAL23	Total/NA	Water	2320B-2011	
680-242517-21	SHM-05-41B-FAL23	Total/NA	Water	2320B-2011	
680-242517-23	SHM-07-05X-FAL23	Total/NA	Water	2320B-2011	
680-242517-25	SHM-13-01-FAL23	Total/NA	Water	2320B-2011	
680-242517-27	SHP-01-37X-FAL23	Total/NA	Water	2320B-2011	
680-242517-28	SHP-01-38A-FAL23	Total/NA	Water	2320B-2011	
680-242517-29	SHP-2016-5A-FAL23	Total/NA	Water	2320B-2011	
680-242517-31	SHL-RB02-FAL23	Total/NA	Water	2320B-2011	
MB 680-807347/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807347/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807347/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242517-29 DU	SHP-2016-5A-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 808658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-1	SHL-DUP08-FAL23	Dissolved	Water	9060A	
680-242517-12	EPA-PZ-2012-7A-FAL23	Dissolved	Water	9060A	
680-242517-13	EPA-PZ-2012-7B-FAL23	Dissolved	Water	9060A	
680-242517-14	SHL-10-FAL23	Dissolved	Water	9060A	
680-242517-15	SHL-3-FAL23	Dissolved	Water	9060A	
680-242517-16	SHL-4-FAL23	Dissolved	Water	9060A	
680-242517-17	SHM-05-39A-FAL23	Dissolved	Water	9060A	
680-242517-18	SHM-05-39B-FAL23	Dissolved	Water	9060A	
680-242517-19	SHM-05-40X-FAL23	Dissolved	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 808658 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-20	SHM-05-41A-FAL23	Dissolved	Water	9060A	
680-242517-21	SHM-05-41B-FAL23	Dissolved	Water	9060A	
680-242517-22	SHM-05-41C-FAL23	Dissolved	Water	9060A	
680-242517-23	SHM-07-05X-FAL23	Dissolved	Water	9060A	
680-242517-24	SHM-10-06-FAL23	Dissolved	Water	9060A	
680-242517-25	SHM-13-01-FAL23	Dissolved	Water	9060A	
680-242517-26	SHP-01-36X-FAL23	Dissolved	Water	9060A	
680-242517-27	SHP-01-37X-FAL23	Dissolved	Water	9060A	
680-242517-28	SHP-01-38A-FAL23	Dissolved	Water	9060A	
680-242517-29	SHP-2016-5A-FAL23	Dissolved	Water	9060A	
680-242517-30	SHP-2016-5B-FAL23	Dissolved	Water	9060A	
680-242517-31	SHL-RB02-FAL23	Dissolved	Water	9060A	
MB 680-808658/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808658/4	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808658/5	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242517-22 MS	SHM-05-41C-FAL23	Dissolved	Water	9060A	
680-242517-22 MSD	SHM-05-41C-FAL23	Dissolved	Water	9060A	

Analysis Batch: 808659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242517-2	SHL-DUP11-FAL23	Dissolved	Water	9060A	
680-242517-3	SHL-DUP12-FAL23	Dissolved	Water	9060A	
680-242517-4	EPA-PZ-2012-1A-FAL23	Dissolved	Water	9060A	
680-242517-5	EPA-PZ-2012-1B-FAL23	Dissolved	Water	9060A	
680-242517-6	EPA-PZ-2012-2A-FAL23	Dissolved	Water	9060A	
680-242517-7	EPA-PZ-2012-2B-FAL23	Dissolved	Water	9060A	
680-242517-8	EPA-PZ-2012-4A-FAL23	Dissolved	Water	9060A	
680-242517-9	EPA-PZ-2012-4B-FAL23	Dissolved	Water	9060A	
680-242517-10	EPA-PZ-2012-6A-FAL23	Dissolved	Water	9060A	
680-242517-11	EPA-PZ-2012-6B-FAL23	Dissolved	Water	9060A	
MB 680-808659/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808659/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808659/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242517-3 DU	SHL-DUP12-FAL23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-DUP08-FAL23

Lab Sample ID: 680-242517-1
Date Collected: 10/31/23 13:00
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 17:46	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:43	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 21:39	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807056	11/08/23 02:40	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 13:39	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-DUP11-FAL23

Lab Sample ID: 680-242517-2
Date Collected: 10/30/23 14:30
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 17:57	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:46	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 21:43	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 13:29	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 03:19	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-DUP12-FAL23

Lab Sample ID: 680-242517-3
Date Collected: 10/30/23 11:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 18:08	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:48	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 21:47	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHL-DUP12-FAL23

Lab Sample ID: 680-242517-3

Date Collected: 10/30/23 11:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 12:52	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 03:37	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-1A-FAL23

Lab Sample ID: 680-242517-4

Date Collected: 10/30/23 13:35
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 18:20	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:55	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:00	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 13:09	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 04:14	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-1B-FAL23

Lab Sample ID: 680-242517-5

Date Collected: 10/30/23 14:30
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	808959	11/18/23 00:40	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:58	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:04	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 12:43	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 04:33	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-2A-FAL23

Lab Sample ID: 680-242517-6

Date Collected: 10/30/23 10:45

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 18:43	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:00	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:08	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 04:51	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-2B-FAL23

Lab Sample ID: 680-242517-7

Date Collected: 10/30/23 12:00

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 18:54	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:12	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 12:15	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 05:09	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-4A-FAL23

Lab Sample ID: 680-242517-8

Date Collected: 10/30/23 13:25

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 19:05	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:05	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:16	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: EPA-PZ-2012-4A-FAL23

Lab Sample ID: 680-242517-8

Date Collected: 10/30/23 13:25

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 12:33	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 05:28	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-4B-FAL23

Lab Sample ID: 680-242517-9

Date Collected: 10/30/23 14:30

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809132	11/19/23 19:17	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:07	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:20	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:54	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 05:47	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-6A-FAL23

Lab Sample ID: 680-242517-10

Date Collected: 10/30/23 10:15

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 21:45	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:09	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:24	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:01	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 06:06	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-6B-FAL23

Lab Sample ID: 680-242517-11

Date Collected: 10/30/23 11:20

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 21:56	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:28	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 15:12	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808659	11/16/23 06:24	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-7A-FAL23

Lab Sample ID: 680-242517-12

Date Collected: 10/31/23 14:55

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	5 mL	5 mL	809133	11/19/23 22:08	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:14	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:44	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 13:58	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: EPA-PZ-2012-7B-FAL23

Lab Sample ID: 680-242517-13

Date Collected: 10/31/23 13:20

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 22:19	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:17	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:36	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: EPA-PZ-2012-7B-FAL23

Lab Sample ID: 680-242517-13
Date Collected: 10/31/23 13:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 15:03	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 14:17	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-10-FAL23

Lab Sample ID: 680-242517-14
Date Collected: 10/30/23 10:35
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 22:31	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:24	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:49	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 15:30	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 14:35	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHL-3-FAL23

Lab Sample ID: 680-242517-15
Date Collected: 10/30/23 12:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 23:05	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:26	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:53	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 13:01	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 14:53	KMB	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-4-FAL23

Lab Sample ID: 680-242517-16

Date Collected: 10/30/23 14:50

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 23:16	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:28	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 22:57	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 12:24	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 15:12	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-39A-FAL23

Lab Sample ID: 680-242517-17

Date Collected: 10/31/23 16:05

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/19/23 23:28	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:31	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 23:01	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:12	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 15:30	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-39B-FAL23

Lab Sample ID: 680-242517-18

Date Collected: 10/31/23 14:05

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	5 mL	5 mL	809133	11/20/23 00:02	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:33	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 23:05	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-39B-FAL23

Lab Sample ID: 680-242517-18
Date Collected: 10/31/23 14:05
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:03	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 15:49	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-40X-FAL23

Lab Sample ID: 680-242517-19
Date Collected: 10/31/23 11:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 00:13	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:36	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 23:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 16:06	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-41A-FAL23

Lab Sample ID: 680-242517-20
Date Collected: 10/30/23 12:45
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 00:25	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:43	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 17:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 16:23	KMB	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-05-41B-FAL23

Lab Sample ID: 680-242517-21

Date Collected: 10/30/23 10:35
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 00:36	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 14:59	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 17:47	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:30	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 17:16	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-05-41C-FAL23

Lab Sample ID: 680-242517-22

Date Collected: 10/30/23 13:15
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 13:01	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815247	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 13:31	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815240	12/27/23 06:47	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 21:19	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 13:18	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 17:58	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-07-05X-FAL23

Lab Sample ID: 680-242517-23

Date Collected: 10/31/23 09:45
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 00:47	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:02	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 17:51	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHM-07-05X-FAL23

Lab Sample ID: 680-242517-23
Date Collected: 10/31/23 09:45
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:48	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 18:53	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-10-06-FAL23

Lab Sample ID: 680-242517-24
Date Collected: 10/31/23 13:15
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 00:59	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:04	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 17:55	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 11:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 19:13	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHM-13-01-FAL23

Lab Sample ID: 680-242517-25
Date Collected: 10/31/23 11:20
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809133	11/20/23 01:10	KMB	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A	DL	10	5 mL	5 mL	809473	11/21/23 13:12	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:06	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 19:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 19:31	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-01-36X-FAL23

Lab Sample ID: 680-242517-26

Date Collected: 10/31/23 10:00

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 14:10	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:09	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:12	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 14:35	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 19:49	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-01-37X-FAL23

Lab Sample ID: 680-242517-27

Date Collected: 10/31/23 11:20

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 14:21	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:11	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 20:08	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-01-38A-FAL23

Lab Sample ID: 680-242517-28

Date Collected: 10/31/23 13:00

Matrix: Water

Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 14:32	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:14	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:20	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHP-01-38A-FAL23

Lab Sample ID: 680-242517-28
Date Collected: 10/31/23 13:00
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 18:57	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 20:27	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-5A-FAL23

Lab Sample ID: 680-242517-29
Date Collected: 10/31/23 10:05
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 14:44	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:21	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:24	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 17:45	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 21:18	KMB	EET SAV
	Instrument ID: TOC7									

Client Sample ID: SHP-2016-5B-FAL23

Lab Sample ID: 680-242517-30
Date Collected: 10/31/23 11:10
Matrix: Water
Date Received: 11/02/23 10:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 14:55	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:23	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:28	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807345	11/08/23 15:22	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 21:38	KMB	EET SAV
	Instrument ID: TOC7									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242517-1

Client Sample ID: SHL-RB02-FAL23

Date Collected: 10/30/23 15:00
Date Received: 11/02/23 10:08

Lab Sample ID: 680-242517-31

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809260	11/20/23 15:07	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	815248	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6010C		1			815720	12/28/23 15:25	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	815255	12/27/23 06:52	RR	EET SAV
Dissolved	Analysis	6020A		1			815524	12/27/23 18:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 19:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808658	11/15/23 21:56	KMB	EET SAV
	Instrument ID: TOC7									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242517-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers ®

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

680-242517 Chain of Custody

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
1	SHL-DUP01-FAL23	WG				X	X	X	X	X	PZ-12-06	FD1	25.00	35.00	1	
2	SHL-DUP02-FAL23	WG				X	X	X	X	X	SHL-20	FD1	39.00	49.00	1	
3	SHL-DUP03-FAL23	WG				X	X	X	X	X	SHL-22	FD1	105.00	115.00	1	
4	SHL-DUP04-FAL23	WG				X	X	X	X	X	SHL-24	FD1	110.00	120.00	1	
5	SHL-DUP05-FAL23	WG				X	X	X	X	X	SHM-05-40X	FD1	32.00	34.00	1	
6	SHL-DUP06-FAL23	WG				X	X	X	X	X	SHM-11-06	FD1	25.00	35.00	1	
7	SHL-DUP07-FAL23	WG				X	X	X	X	X	SHM-96-5B	FD1	80.00	90.00	1	
8	SHL-DUP08-FAL23	WG	10-31-23	1300	FM	X	X	X	X	X	SHP-01-38A	FD1	1.50	6.50	1	
9	SHL-DUP09-FAL23	WG				X	X	X	X	X	SHP-2016-07B	FD1	70.00	80.00	1	
10	SHL-DUP10-FAL23	WG				X	X	X	X	X	SHP-2023-3B	FD1	0.00	0.00	1	
11	SHL-DUP11-FAL23	WG	10.30.23	1430	NM	X	X	X	X	X	EPA-PZ-2012-4B	FD1	79.50	84.50	1	
12	SHL-DUP12-FAL23	WG	10.30.23	1120	NM	X	X	X	X	X	EPA-PZ-2012-6B	FD1	74.23	79.23	1	
13	EPA-PZ-2012-1A-FAL23	WG	10-30-23	1335	AF	X	X	X	X	X	EPA-PZ-2012-1A	N1	23.70	28.70	1	
14	EPA-PZ-2012-1B-FAL23	WG	10.30.23	1430	AF	X	X	X	X	X	EPA-PZ-2012-1B	N1	73.56	78.56	1	
15	EPA-PZ-2012-2A-FAL23	WG	10.30.23	1045	AF	X	X	X	X	X	EPA-PZ-2012-2A	N1	18.14	23.14	1	
16	EPA-PZ-2012-2B-FAL23	WG	10-30.23	1200	AF	X	X	X	X	X	EPA-PZ-2012-2B	N1	73.16	78.16	1	
17	EPA-PZ-2012-3A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-3A	N1	19.09	24.09	1	
18	EPA-PZ-2012-3B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-3B	N1	68.70	73.70	1	
19	EPA-PZ-2012-4A-FAL23	WG	10.30.23	1325	NM	X	X	X	X	X	EPA-PZ-2012-4A	N1	19.56	24.56	1	
20	EPA-PZ-2012-4B-FAL23	WG	10-30-23	1430	NM	X	X	X	X	X	EPA-PZ-2012-4B	N1	79.50	84.50	1	

Relinquished by: (Signature) Diane Clyne
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature)
Date 11/2/23
Time 1008

0.9/1.2 0.3/0.6 0.1/0.4

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
21	EPA-PZ-2012-5A-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5A	N1	17.95	22.95	1	
22	EPA-PZ-2012-5B-FAL23	WG					X	X	X	X	X					EPA-PZ-2012-5B	N1	68.46	73.46	1	
23	EPA-PZ-2012-6A-FAL23	WG	10.30.23	1015	NM		X	X	X	X	X					EPA-PZ-2012-6A	N1	24.19	29.19	1	
24	EPA-PZ-2012-6B-FAL23	WG	10.30.23	1120	NM		X	X	X	X	X					EPA-PZ-2012-6B	N1	74.23	79.23	1	
25	EPA-PZ-2012-7A-FAL23	WG	10.31.23	1455	DC		X	X	X	X	X					EPA-PZ-2012-7A	N1	23.87	28.87	1	
26	EPA-PZ-2012-7B-FAL23	WG	10.31.23	1320	DC		X	X	X	X	X					EPA-PZ-2012-7B	N1	58.82	63.82	1	
27	EW-01-FAL23	WG					X	X	X	X	X					EW-01	N1	60.00	85.00	1	
28	EW-03-FAL23	WG					X	X	X	X	X					EW-03	N1	0.00	0.00	1	
29	EW-04-FAL23	WG					X	X	X	X	X					EW-04	N1	70.00	95.00	1	
30	N5-P1-FAL23	WG					X	X	X	X	X					N5-P1	N1	95.50	97.50	1	
31	PZ-12-01-FAL23	WG					X	X	X	X	X					PZ-12-01	N1	24.00	34.00	1	
32	PZ-12-02-FAL23	WG					X	X	X	X	X					PZ-12-02	N1	24.00	34.00	1	
33	PZ-12-03-FAL23	WG					X	X	X	X	X					PZ-12-03	N1	24.00	34.00	1	
34	PZ-12-04-FAL23	WG					X	X	X	X	X					PZ-12-04	N1	24.00	34.00	1	
35	PZ-12-05-FAL23	WG					X	X	X	X	X					PZ-12-05	N1	26.00	36.00	1	
36	PZ-12-06-FAL23	WG					X	X	X	X	X					PZ-12-06	N1	25.00	35.00	1	
37	PZ-12-07-FAL23	WG					X	X	X	X	X					PZ-12-07	N1	20.00	30.00	1	
38	PZ-12-08-FAL23	WG					X	X	X	X	X					PZ-12-08	N1	22.00	32.00	1	
39	PZ-12-09-FAL23	WG					X	X	X	X	X					PZ-12-09	N1	20.00	30.00	1	
40	PZ-12-10-FAL23	WG					X	X	X	X	X					PZ-12-10	MS1	20.00	30.00	1	

Relinquished by: (Signature) Danielle Clupper
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature)
Date 11/2/23
Time 1008

1/8/2024 (Rev. 1)

CHAIN-OF-CUSTODY RECORD

ARVC
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COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
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Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
							46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
41	PZ-12-10-FAL23	WG				X	X	X	X	X						PZ-12-10	N1	20.00	30.00	1	
42	PZ-12-10-FAL23	WG				X	X	X	X	X						PZ-12-10	SD1	20.00	30.00	1	
43	SHL-10-FAL23	WG	10-30-23	1035	FM	X	X	X	X	X						SHL-10	N1	24.00	39.00	1	
44	SHL-11-FAL23	WG				X	X	X	X	X						SHL-11	N1	12.00	27.00	1	
45	SHL-12-FAL23	WG				X	X	X	X	X						SHL-12	N1	15.00	30.00	1	
46	SHL-15-FAL23	WG				X	X	X	X	X						SHL-15	N1	14.00	24.00	1	
47	SHL-19-FAL23	WG				X	X	X	X	X						SHL-19	N1	20.00	30.00	1	
48	SHL-20-FAL23	WG				X	X	X	X	X						SHL-20	N1	39.00	49.00	1	
49	SHL-22-FAL23	WG				X	X	X	X	X						SHL-22	N1	105.00	115.00	1	
50	SHL-23-FAL23	WG				X	X	X	X	X						SHL-23	N1	23.00	33.00	1	
51	SHL-24-FAL23	WG				X	X	X	X	X						SHL-24	N1	110.00	120.00	1	
52	SHL-3-FAL23	WG	10-30-23	1220	FM	X	X	X	X	X						SHL-3	N1	24.00	34.00	1	
53	SHL-4-FAL23	WG	10-30-23	1450	FM	X	X	X	X	X						SHL-4	N1	3.00	13.00	1	
54	SHL-5-FAL23	WG				X	X	X	X	X						SHL-5	N1	3.00	13.00	1	
55	SHL-7-FAL23	WG				X	X	X	X	X						SHL-7	N1	11.00	21.00	1	
56	SHL-8D-FAL23	WG				X	X	X	X	X						SHL-8D	N1	68.00	70.00	1	
57	SHL-8S-FAL23	WG				X	X	X	X	X						SHL-8S	N1	52.00	54.00	1	
58	SHL-9-FAL23	WG				X	X	X	X	X						SHL-9	N1	15.00	25.00	1	
59	SHM-05-39A-FAL23	WG	10-31-23	1603	NM	X	X	X	X	X						SHM-05-39A	N1	37.00	39.00	1	
60	SHM-05-39B-FAL23	WG	10-31-23	1405	NM	X	X	X	X	X						SHM-05-39B	N1	66.00	68.00	1	

Relinquished by: (Signature) Brian Clp
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature) [signature]
Date 11/2/2023
Time 1008

1/8/2024 (Rev. 1)

CHAIN-OF-CUSTODY RECORD

ARVC
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COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
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WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)											
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
61	SHM-05-40X-FAL23	WG	10.31.23	1120	DC	X	X	X	X	X					SHM-05-40X	N1	32.00	34.00	1	
62	SHM-05-41A-FAL23	WG	10.30.23	1245	DC	X	X	X	X	X					SHM-05-41A	N1	42.00	44.00	1	
63	SHM-05-41B-FAL23	WG	10.30.23	1035	DC	X	X	X	X	X					SHM-05-41B	N1	62.00	64.00	1	
64	SHM-05-41C-FAL23	WG	10.30.23	1315	DC	X	X	X	X	X					SHM-05-41C	MS1	88.00	93.00	1	
65	SHM-05-41C-FAL23	WG	10.30.23	1315	DC	X	X	X	X	X					SHM-05-41C	N1	88.00	93.00	1	
66	SHM-05-41C-FAL23	WG	10.30.23	1315	DC	X	X	X	X	X					SHM-05-41C	SD1	88.00	93.00	1	
67	SHM-05-42A-FAL23	WG				X	X	X	X	X					SHM-05-42A	N1	40.00	42.00	1	
68	SHM-05-42B-FAL23	WG				X	X	X	X	X					SHM-05-42B	N1	70.00	72.00	1	
69	SHM-07-05X-FAL23	WG	10.31.23	945	DC	X	X	X	X	X					SHM-07-05X	N1	55.00	65.00	1	
70	SHM-10-02-FAL23	WG				X	X	X	X	X					SHM-10-02	N1	53.00	63.00	1	
71	SHM-10-03-FAL23	WG				X	X	X	X	X					SHM-10-03	N1	58.50	68.50	1	
72	SHM-10-04-FAL23	WG				X	X	X	X	X					SHM-10-04	MS1	55.00	65.00	1	
73	SHM-10-04-FAL23	WG				X	X	X	X	X					SHM-10-04	N1	55.00	65.00	1	
74	SHM-10-04-FAL23	WG				X	X	X	X	X					SHM-10-04	SD1	55.00	65.00	1	
75	SHM-10-05A-FAL23	WG				X	X	X	X	X					SHM-10-05A	N1	50.00	60.00	1	
76	SHM-10-06-FAL23	WG	10-31-23	1315	AE	X	X	X	X	X					SHM-10-06	N1	69.50	79.50	1	
77	SHM-10-06A-FAL23	WG				X	X	X	X	X					SHM-10-06A	N1	77.00	87.00	1	
78	SHM-10-07-FAL23	WG				X	X	X	X	X					SHM-10-07	N1	40.00	50.00	1	
79	SHM-10-08-FAL23	WG				X	X	X	X	X					SHM-10-08	N1	46.00	56.00	1	
80	SHM-10-10-FAL23	WG				X	X	X	X	X					SHM-10-10	N1	56.00	66.00	1	

Relinquished by: (Signature) Diane Clyne
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature) [signature]
Date 11/2/23
Time 1008

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Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
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Analytical Test Method

| | | |

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Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
							46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
101	SHM-13-14D-FAL23	WG				X	X	X	X	X						SHM-13-14D	N1	45.00	55.00	1	
102	SHM-13-14S-FAL23	WG				X	X	X	X	X						SHM-13-14S	N1	5.00	15.00	1	
103	SHM-13-15-FAL23	WG				X	X	X	X	X						SHM-13-15	N1	50.00	60.00	1	
104	SHM-93-10D-FAL23	WG				X	X	X	X	X						SHM-93-10D	N1	48.70	58.70	1	
105	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	MS1	78.50	88.50	1	
106	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	N1	78.50	88.50	1	
107	SHM-93-18B-FAL23	WG				X	X	X	X	X						SHM-93-18B	SD1	78.50	88.50	1	
108	SHM-93-22B-FAL23	WG				X	X	X	X	X						SHM-93-22B	N1	82.30	92.30	1	
109	SHM-93-22C-FAL23	WG				X	X	X	X	X						SHM-93-22C	N1	124.30	134.30	1	
110	SHM-93-24A-FAL23	WG				X	X	X	X	X						SHM-93-24A	N1	13.20	23.20	1	
111	SHM-96-5B-FAL23	WG				X	X	X	X	X						SHM-96-5B	N1	80.00	90.00	1	
112	SHM-96-5C-FAL23	WG				X	X	X	X	X						SHM-96-5C	N1	50.00	60.00	1	
113	SHM-99-31A-FAL23	WG				X	X	X	X	X						SHM-99-31A	N1	4.00	14.00	1	
114	SHM-99-31B-FAL23	WG				X	X	X	X	X						SHM-99-31B	N1	50.00	60.00	1	
115	SHM-99-31C-FAL23	WG				X	X	X	X	X						SHM-99-31C	N1	68.00	78.00	1	
116	SHM-99-32X-FAL23	WG				X	X	X	X	X						SHM-99-32X	N1	72.00	82.00	1	
117	SHP-01-36X-FAL23	WG	10-31-23	1000	FM	X	X	X	X	X						SHP-01-36X	N1	3.00	8.00	1	
118	SHP-01-37X-FAL23	WG	10.31.23	1120	FM	X	X	X	X	X						SHP-01-37X	N1	1.00	6.00	1	
119	SHP-01-38A-FAL23	WG	10-31-23	1308	FM	X	X	X	X	X						SHP-01-38A	N1	1.50	6.50	1	
120	SHP-2016-06A-FAL23	WG				X	X	X	X	X						SHP-2016-06A	N1	81.00	86.00	1	

Relinquished by: (Signature) D Mc Cann
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature) A J
Date 11/2/23
Time 1008

1/8/2024 (Rev. 1)

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
121	SHP-2016-06B-FAL23	WG				X	X	X	X	X	SHP-2016-06B	N1	102.00	112.00	1	
122	SHP-2016-06C-FAL23	WG				X	X	X	X	X	SHP-2016-06C	N1	123.00	133.00	1	
123	SHP-2016-07A-FAL23	WG				X	X	X	X	X	SHP-2016-07A	N1	22.00	32.00	1	
124	SHP-2016-07B-FAL23	WG				X	X	X	X	X	SHP-2016-07B	N1	70.00	80.00	1	
125	SHP-2016-1A-FAL23	WG				X	X	X	X	X	SHP-2016-1A	N1	13.00	23.00	1	
126	SHP-2016-1B-FAL23	WG				X	X	X	X	X	SHP-2016-1B	N1	75.00	85.00	1	
127	SHP-2016-2A-FAL23	WG				X	X	X	X	X	SHP-2016-2A	N1	20.00	25.00	1	
128	SHP-2016-2B-FAL23	WG				X	X	X	X	X	SHP-2016-2B	N1	80.00	85.00	1	
129	SHP-2016-3A-FAL23	WG				X	X	X	X	X	SHP-2016-3A	N1	20.00	25.00	1	
130	SHP-2016-3B-FAL23	WG				X	X	X	X	X	SHP-2016-3B	N1	80.00	85.00	1	
131	SHP-2016-4A-FAL23	WG				X	X	X	X	X	SHP-2016-4A	N1	25.00	30.00	1	
132	SHP-2016-4B-FAL23	WG				X	X	X	X	X	SHP-2016-4B	N1	85.00	90.00	1	
133	SHP-2016-5A-FAL23	WG	10-31-23	1005	AF	X	X	X	X	X	SHP-2016-5A	N1	25.00	30.00	1	
134	SHP-2016-5B-FAL23	WG	10-31-23	1110	AF	X	X	X	X	X	SHP-2016-5B	N1	85.00	90.00	1	
135	SHP-2023-1A-FAL23	WG				X	X	X	X	X	SHP-2023-1A	N1	0.00	0.00	1	
136	SHP-2023-1B-FAL23	WG				X	X	X	X	X	SHP-2023-1B	N1	0.00	0.00	1	
137	SHP-2023-2A-FAL23	WG				X	X	X	X	X	SHP-2023-2A	N1	0.00	0.00	1	
138	SHP-2023-2B-FAL23	WG				X	X	X	X	X	SHP-2023-2B	N1	0.00	0.00	1	
139	SHP-2023-3A-FAL23	WG				X	X	X	X	X	SHP-2023-3A	N1	0.00	0.00	1	
140	SHP-2023-3B-FAL23	WG				X	X	X	X	X	SHP-2023-3B	N1	0.00	0.00	1	

Relinquished by: (Signature) [signature]
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature) [signature]
Date 11/2/23
Time 1008

1/8/2024 (Rev. 1)

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
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SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

						A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)						Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3											
	Sample ID	Matrix	Date	Time	Samp Init.																
141	SHP-2023-4A-FAL23	WG				X	X	X	X	X						SHP-2023-4A	N1	0.00	0.00	1	
142	SHP-2023-4B-FAL23	WG				X	X	X	X	X						SHP-2023-4B	N1	0.00	0.00	1	
143	SHP-2023-5A-FAL23	WG				X	X	X	X	X						SHP-2023-5A	N1	0.00	0.00	1	
144	SHP-2023-5B-FAL23	WG				X	X	X	X	X						SHP-2023-5B	N1	0.00	0.00	1	
145	SHP-99-29X-FAL23	WG				X	X	X	X	X						SHP-99-29X	N1	19.00	29.00	1	
146	SHL-RB02-Fal23	~~WG~~	10-30-23	1500	DC	X	X	X	X	X											
147																					
148																					
149																					
150																					
151																					
152																					
153																					

Turnaround Time: Standard

Relinquished by: (Signature) Drew Clapp
Date 11-1-23
Time 0745
Received by: (Signature)

Received by Laboratory: (Signature) 11/2/23
Date
Time 1008

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242517-1

Login Number: 242517
List Number: 1
Creator: Johnson, Corey M

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

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JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Fall 2023

JOB NUMBER

680-242677-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

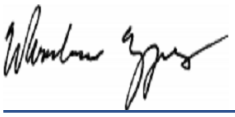
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
Woodrow Eggers, EDD Analyst (IT)
woodrow.eggers@et.eurofinsus.com
Designee for
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
D	The reported value is from a dilution.
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242677-1	SHL-DUP04-FAL23	Water	11/01/23 11:10	11/07/23 09:53
680-242677-2	SHL-DUP09-FAL23	Water	11/01/23 12:10	11/07/23 09:53
680-242677-3	SHL-DUP10-FAL23	Water	11/02/23 09:50	11/07/23 09:53
680-242677-4	EPA-PZ-2012-3A-FAL23	Water	11/01/23 11:45	11/07/23 09:53
680-242677-5	EPA-PZ-2012-3B-FAL23	Water	11/01/23 12:30	11/07/23 09:53
680-242677-6	EPA-PZ-2012-5A-FAL23	Water	11/01/23 14:15	11/07/23 09:53
680-242677-7	EPA-PZ-2012-5B-FAL23	Water	11/01/23 15:00	11/07/23 09:53
680-242677-8	EW-01-FAL23	Water	11/03/23 09:15	11/07/23 09:53
680-242677-9	EW-03-FAL23	Water	11/03/23 09:30	11/07/23 09:53
680-242677-10	EW-04-FAL23	Water	11/03/23 09:00	11/07/23 09:53
680-242677-11	SHL-23-FAL23	Water	11/02/23 14:40	11/07/23 09:53
680-242677-12	SHL-24-FAL23	Water	11/01/23 11:10	11/07/23 09:53
680-242677-13	SHM-10-06A-FAL23	Water	11/03/23 13:35	11/07/23 09:53
680-242677-14	SHM-93-10D-FAL23	Water	11/01/23 14:40	11/07/23 09:53
680-242677-15	SHM-93-18B-FAL23	Water	11/03/23 13:20	11/07/23 09:53
680-242677-16	SHP-2016-06A-FAL23	Water	11/02/23 10:15	11/07/23 09:53
680-242677-17	SHP-2016-06B-FAL23	Water	11/02/23 12:30	11/07/23 09:53
680-242677-18	SHP-2016-06C-FAL23	Water	11/02/23 13:35	11/07/23 09:53
680-242677-19	SHP-2016-07A-FAL23	Water	11/01/23 10:25	11/07/23 09:53
680-242677-20	SHP-2016-07B-FAL23	Water	11/01/23 12:10	11/07/23 09:53
680-242677-21	SHP-2016-3A-FAL23	Water	11/01/23 09:45	11/07/23 09:53
680-242677-22	SHP-2016-3B-FAL23	Water	11/01/23 10:45	11/07/23 09:53
680-242677-23	SHP-2023-1A-FAL23	Water	11/03/23 11:40	11/07/23 09:53
680-242677-24	SHP-2023-1B-FAL23	Water	11/03/23 13:30	11/07/23 09:53
680-242677-25	SHP-2023-3A-FAL23	Water	11/01/23 16:00	11/07/23 09:53
680-242677-26	SHP-2023-3B-FAL23	Water	11/02/23 09:50	11/07/23 09:53
680-242677-27	SHP-2023-4A-FAL23	Water	11/02/23 15:15	11/07/23 09:53
680-242677-28	SHP-2023-4B-FAL23	Water	11/02/23 13:45	11/07/23 09:53
680-242677-29	SHP-2023-5A-FAL23	Water	11/03/23 10:05	11/07/23 09:53
680-242677-30	SHP-2023-5B-FAL23	Water	11/03/23 11:40	11/07/23 09:53
680-242677-31	SHL-RB03-FAL23	Water	11/02/23 15:15	11/07/23 09:53

Job ID: 680-242677-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-242677-1

REVISION

The report being provided is a revision of the original report sent on 11/22/2023. The report (revision 1) is being revised due to Revision to change -21 and -22 sample IDs per client request..

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/7/2023 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.1°C and 5.0°C

HPLC/IC
Method 9056A_OF_28D_D5: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 680-809261 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 2320B: The sample duplicate precision for the following sample associated with analytical batch 680-807616 was outside control limits: (680-242677-B-28 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

Method 9060A_Diss: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-808927. A sample duplicate was analyzed with the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-DUP04-FAL23

Date Collected: 11/01/23 11:10
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-1

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**44**		0.55	0.50	0.20	mg/L		11/20/23 22:08	1
Sulfate	**25**	**M**	1.5	1.0	0.40	mg/L		11/20/23 22:08	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 22:26	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/09/23 22:26	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.8**	**J**	5.0	3.0	0.86	ug/L		11/09/23 18:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**50**		5.5	5.0	2.2	mg/L		11/08/23 21:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/16/23 12:56	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-DUP09-FAL23

Date Collected: 11/01/23 12:10
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-2

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	4.7	D	1.1	1.0	0.40	mg/L		11/20/23 20:26	2
Sulfate	37	D	3.0	2.0	0.80	mg/L		11/20/23 20:26	2

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	410		100	50	20	ug/L		11/09/23 22:29	1
Manganese	290		10	5.0	1.3	ug/L		11/09/23 22:29	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	73		5.0	3.0	0.86	ug/L		11/09/23 19:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/08/23 20:50	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		11/16/23 13:29	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-DUP10-FAL23

Date Collected: 11/02/23 09:50
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-3

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	9.0		0.55	0.50	0.20	mg/L		11/20/23 22:43	1
Sulfate	23		1.5	1.0	0.40	mg/L		11/20/23 22:43	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20000		100	50	20	ug/L		11/09/23 22:31	1
Manganese	1100		10	5.0	1.3	ug/L		11/09/23 22:31	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	63		5.0	3.0	0.86	ug/L		11/09/23 19:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.5	5.0	2.2	mg/L		11/08/23 21:09	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.6		1.5	1.0	0.50	mg/L		11/16/23 13:46	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-3A-FAL23
Lab Sample ID: 680-242677-4

Date Collected: 11/01/23 11:45
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	57	D	1.1	1.0	0.40	mg/L		11/20/23 22:20	2
Sulfate	3.8	D	3.0	2.0	0.80	mg/L		11/20/23 22:20	2

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	13000		100	50	20	ug/L		11/09/23 22:33	1
Manganese	730		10	5.0	1.3	ug/L		11/09/23 22:33	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	17		5.0	3.0	0.86	ug/L		11/09/23 19:18	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	85		5.5	5.0	2.2	mg/L		11/09/23 14:00	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	7.4		1.5	1.0	0.50	mg/L		11/16/23 14:05	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EPA-PZ-2012-3B-FAL23
Lab Sample ID: 680-242677-5

Date Collected: 11/01/23 12:30
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	40		0.55	0.50	0.20	mg/L		11/20/23 23:17	1
Sulfate	13	M	1.5	1.0	0.40	mg/L		11/20/23 23:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	48000		100	50	20	ug/L		11/09/23 22:36	1
Manganese	4100		10	5.0	1.3	ug/L		11/09/23 22:36	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2500		5.0	3.0	0.86	ug/L		11/09/23 19:22	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	140		5.5	5.0	2.2	mg/L		11/09/23 14:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.7		1.5	1.0	0.50	mg/L		11/16/23 14:22	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: EPA-PZ-2012-5A-FAL23

Date Collected: 11/01/23 14:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-6

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	14		0.55	0.50	0.20	mg/L		11/20/23 19:17	1
Sulfate	3.4		1.5	1.0	0.40	mg/L		11/20/23 19:17	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	4600		100	50	20	ug/L		11/09/23 22:43	1
Manganese	100		10	5.0	1.3	ug/L		11/09/23 22:43	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	4.3	J	5.0	3.0	0.86	ug/L		11/09/23 19:26	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	25		5.5	5.0	2.2	mg/L		11/09/23 14:29	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	6.0		1.5	1.0	0.50	mg/L		11/16/23 14:40	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: EPA-PZ-2012-5B-FAL23

Date Collected: 11/01/23 15:00
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-7

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	44		0.55	0.50	0.20	mg/L		11/20/23 19:40	1
Sulfate	19		1.5	1.0	0.40	mg/L		11/20/23 19:40	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	230		100	50	20	ug/L		11/09/23 22:45	1
Manganese	9000		10	5.0	1.3	ug/L		11/09/23 22:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.9	J	5.0	3.0	0.86	ug/L		11/09/23 19:30	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/09/23 15:30	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/16/23 14:58	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: EW-01-FAL23

Date Collected: 11/03/23 09:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-8

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	21		0.55	0.50	0.20	mg/L		11/20/23 22:54	1
Sulfate	2.1		1.5	1.0	0.40	mg/L		11/20/23 22:54	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	69000		100	50	20	ug/L		11/09/23 22:48	1
Manganese	2100		10	5.0	1.3	ug/L		11/09/23 22:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1900		5.0	3.0	0.86	ug/L		11/09/23 19:34	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	250		5.5	5.0	2.2	mg/L		11/09/23 15:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	4.2		1.5	1.0	0.50	mg/L		11/16/23 21:12	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: EW-03-FAL23

Date Collected: 11/03/23 09:30
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-9

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	25		0.55	0.50	0.20	mg/L		11/20/23 23:06	1
Sulfate	22		1.5	1.0	0.40	mg/L		11/20/23 23:06	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	45000		100	50	20	ug/L		11/09/23 22:50	1
Manganese	1800		10	5.0	1.3	ug/L		11/09/23 22:50	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	540		5.0	3.0	0.86	ug/L		11/09/23 19:38	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	170		5.5	5.0	2.2	mg/L		11/09/23 15:41	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.5		1.5	1.0	0.50	mg/L		11/16/23 21:30	1

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: EW-04-FAL23
Lab Sample ID: 680-242677-10

Date Collected: 11/03/23 09:00
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	11		0.55	0.50	0.20	mg/L		11/20/23 23:28	1
Sulfate	5.5		1.5	1.0	0.40	mg/L		11/20/23 23:28	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	68000		100	50	20	ug/L		11/09/23 22:52	1
Manganese	2700		10	5.0	1.3	ug/L		11/09/23 22:52	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	5900		5.0	3.0	0.86	ug/L		11/09/23 19:42	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	230		5.5	5.0	2.2	mg/L		11/09/23 14:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.5		1.5	1.0	0.50	mg/L		11/16/23 21:48	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-23-FAL23

Date Collected: 11/02/23 14:40
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-11

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.7		0.55	0.50	0.20	mg/L		11/20/23 20:37	1
Sulfate	4.9		1.5	1.0	0.40	mg/L		11/20/23 20:37	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	29	J	100	50	20	ug/L		11/09/23 22:55	1
Manganese	17		10	5.0	1.3	ug/L		11/09/23 22:55	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.4	J	5.0	3.0	0.86	ug/L		11/09/23 19:46	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	7.1		5.5	5.0	2.2	mg/L		11/09/23 15:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.3	J	1.5	1.0	0.50	mg/L		11/16/23 15:16	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-24-FAL23

Date Collected: 11/01/23 11:10
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-12

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**45**		0.55	0.50	0.20	mg/L		11/20/23 21:23	1
Sulfate	**25**		1.5	1.0	0.40	mg/L		11/20/23 21:23	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 22:57	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/09/23 22:57	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**4.3**	**J**	5.0	3.0	0.86	ug/L		11/09/23 19:51	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**52**		5.5	5.0	2.2	mg/L		11/09/23 15:50	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/16/23 15:34	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHM-10-06A-FAL23

Date Collected: 11/03/23 13:35
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-13

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	5.5		0.55	0.50	0.20	mg/L		11/20/23 22:31	1
Sulfate	4.9		1.5	1.0	0.40	mg/L		11/20/23 22:31	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	11000		100	50	20	ug/L		11/09/23 23:00	1
Manganese	950		10	5.0	1.3	ug/L		11/09/23 23:00	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	59		5.0	3.0	0.86	ug/L		11/09/23 19:55	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	62		5.5	5.0	2.2	mg/L		11/09/23 15:58	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	8.5		1.5	1.0	0.50	mg/L		11/16/23 22:06	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHM-93-10D-FAL23

Date Collected: 11/01/23 14:40
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-14

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	32		0.55	0.50	0.20	mg/L		11/21/23 12:38	1
Sulfate	22	M	1.5	1.0	0.40	mg/L		11/21/23 12:38	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	63	J	100	50	20	ug/L		11/09/23 23:02	1
Manganese	1.6	J	10	5.0	1.3	ug/L		11/09/23 23:02	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.1	J	5.0	3.0	0.86	ug/L		11/09/23 20:07	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	49		5.5	5.0	2.2	mg/L		11/09/23 16:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.2	J	1.5	1.0	0.50	mg/L		11/16/23 16:00	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHM-93-18B-FAL23

Date Collected: 11/03/23 13:20
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-15

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	**34**		1.5	1.0	0.40	mg/L		11/20/23 18:43	1

Method: SW846 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**270**	**D**	5.5	5.0	2.0	mg/L		11/21/23 13:23	10

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U J1	100	50	20	ug/L		11/09/23 22:14	1
Manganese	**790**	**J1**	10	5.0	1.3	ug/L		11/09/23 22:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 18:38	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**49**		5.5	5.0	2.2	mg/L		11/09/23 19:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**3.8**		1.5	1.0	0.50	mg/L		11/16/23 22:24	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-06A-FAL23
Lab Sample ID: 680-242677-16

Date Collected: 11/02/23 10:15
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	5.9		0.55	0.50	0.20	mg/L		11/20/23 20:03	1
Sulfate	55	M	1.5	1.0	0.40	mg/L		11/20/23 20:03	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	1200		100	50	20	ug/L		11/09/23 23:04	1
Manganese	1100		10	5.0	1.3	ug/L		11/09/23 23:04	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1800		5.0	3.0	0.86	ug/L		11/09/23 20:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	140		5.5	5.0	2.2	mg/L		11/09/23 16:17	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	8.7		1.5	1.0	0.50	mg/L		11/16/23 16:50	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-06B-FAL23

Date Collected: 11/02/23 12:30
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-17

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.5		0.55	0.50	0.20	mg/L		11/20/23 20:49	1
Sulfate	11		1.5	1.0	0.40	mg/L		11/20/23 20:49	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	150		100	50	20	ug/L		11/09/23 23:12	1
Manganese	210		10	5.0	1.3	ug/L		11/09/23 23:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	340		5.0	3.0	0.86	ug/L		11/09/23 20:15	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/09/23 16:27	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.2		1.5	1.0	0.50	mg/L		11/16/23 17:08	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-06C-FAL23

Date Collected: 11/02/23 13:35
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-18

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.6		0.55	0.50	0.20	mg/L		11/20/23 20:14	1
Sulfate	8.6		1.5	1.0	0.40	mg/L		11/20/23 20:14	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	120		100	50	20	ug/L		11/09/23 23:14	1
Manganese	140		10	5.0	1.3	ug/L		11/09/23 23:14	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	300		5.0	3.0	0.86	ug/L		11/09/23 20:19	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	120		5.5	5.0	2.2	mg/L		11/09/23 16:37	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	3.7		1.5	1.0	0.50	mg/L		11/16/23 17:27	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2016-07A-FAL23
Lab Sample ID: 680-242677-19
Date Collected: 11/01/23 10:25
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	1.7		0.55	0.50	0.20	mg/L		11/20/23 21:57	1
Sulfate	3.9		1.5	1.0	0.40	mg/L		11/20/23 21:57	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	4900		100	50	20	ug/L		11/09/23 23:16	1
Manganese	2300		10	5.0	1.3	ug/L		11/09/23 23:16	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	95		5.0	3.0	0.86	ug/L		11/09/23 20:23	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	25		5.5	5.0	2.2	mg/L		11/09/23 18:53	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.87	J	1.5	1.0	0.50	mg/L		11/16/23 17:45	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-07B-FAL23

Date Collected: 11/01/23 12:10
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-20

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.4		0.55	0.50	0.20	mg/L		11/21/23 13:35	1
Sulfate	18		1.5	1.0	0.40	mg/L		11/21/23 13:35	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	420		100	50	20	ug/L		11/09/23 23:19	1
Manganese	300		10	5.0	1.3	ug/L		11/09/23 23:19	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	74		5.0	3.0	0.86	ug/L		11/09/23 20:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/09/23 19:21	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.5		1.5	1.0	0.50	mg/L		11/16/23 18:03	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-3A-FAL23

Date Collected: 11/01/23 09:45
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-21

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	34		0.55	0.50	0.20	mg/L		11/21/23 13:46	1
Sulfate	1.7		1.5	1.0	0.40	mg/L		11/21/23 13:46	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	11000		100	50	20	ug/L		11/09/23 10:48	1
Manganese	400		10	5.0	1.3	ug/L		11/09/23 10:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.4	J	5.0	3.0	0.86	ug/L		11/09/23 20:47	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	47		5.5	5.0	2.2	mg/L		11/09/23 19:38	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.89	J	1.5	1.0	0.50	mg/L		11/16/23 18:21	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-3B-FAL23

Date Collected: 11/01/23 10:45
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-22

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	21		0.55	0.50	0.20	mg/L		11/21/23 13:57	1
Sulfate	9.0		1.5	1.0	0.40	mg/L		11/21/23 13:57	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	43000		100	50	20	ug/L		11/09/23 11:00	1
Manganese	3000		10	5.0	1.3	ug/L		11/09/23 11:00	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	230		5.0	3.0	0.86	ug/L		11/09/23 21:08	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	130		5.5	5.0	2.2	mg/L		11/09/23 19:47	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/16/23 18:39	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-1A-FAL23

Date Collected: 11/03/23 11:40
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-23

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.55		0.55	0.50	0.20	mg/L		11/21/23 14:09	1
Sulfate	1.4	J	1.5	1.0	0.40	mg/L		11/21/23 14:09	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	37	J	100	50	20	ug/L		11/09/23 11:03	1
Manganese	370		10	5.0	1.3	ug/L		11/09/23 11:03	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	1.3	J	5.0	3.0	0.86	ug/L		11/09/23 21:12	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	38		5.5	5.0	2.2	mg/L		11/09/23 19:29	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	0.86	J	1.5	1.0	0.50	mg/L		11/16/23 23:13	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-1B-FAL23

Date Collected: 11/03/23 13:30
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-24

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	33		0.55	0.50	0.20	mg/L		11/21/23 14:20	1
Sulfate	20		1.5	1.0	0.40	mg/L		11/21/23 14:20	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	310		100	50	20	ug/L		11/09/23 11:05	1
Manganese	1000		10	5.0	1.3	ug/L		11/09/23 11:05	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	530		5.0	3.0	0.86	ug/L		11/09/23 21:16	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	120		5.5	5.0	2.2	mg/L		11/09/23 20:05	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	J	1.5	1.0	0.50	mg/L		11/16/23 23:31	1

Client Sample Results

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2023-3A-FAL23
Lab Sample ID: 680-242677-25
Date Collected: 11/01/23 16:00
Matrix: Water
Date Received: 11/07/23 09:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.31	J	0.55	0.50	0.20	mg/L		11/21/23 14:32	1
Sulfate	0.99	J	1.5	1.0	0.40	mg/L		11/21/23 14:32	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	25	J	100	50	20	ug/L		11/09/23 11:12	1
Manganese	6.2	J	10	5.0	1.3	ug/L		11/09/23 11:12	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	2.1	J	5.0	3.0	0.86	ug/L		11/09/23 21:28	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	28		5.5	5.0	2.2	mg/L		11/09/23 19:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.3		1.5	1.0	0.50	mg/L		11/16/23 18:57	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-3B-FAL23

Date Collected: 11/02/23 09:50
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-26

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	90	D	5.5	5.0	2.0	mg/L		11/21/23 17:24	10
Sulfate	520	D	15	10	4.0	mg/L		11/21/23 17:24	10

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	20000		100	50	20	ug/L		11/09/23 11:15	1
Manganese	1200		10	5.0	1.3	ug/L		11/09/23 11:15	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	61		5.0	3.0	0.86	ug/L		11/09/23 21:32	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	110		5.5	5.0	2.2	mg/L		11/09/23 20:23	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.8		1.5	1.0	0.50	mg/L		11/16/23 19:15	1

Client Sample Results

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-4A-FAL23

Date Collected: 11/02/23 15:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-27

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**1.2**		0.55	0.50	0.20	mg/L		11/21/23 15:19	1
Sulfate	**4.6**		1.5	1.0	0.40	mg/L		11/21/23 15:19	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 11:17	1
Manganese	**240**		10	5.0	1.3	ug/L		11/09/23 11:17	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 21:36	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**14**		5.5	5.0	2.2	mg/L		11/09/23 20:14	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**0.78**	**J**	1.5	1.0	0.50	mg/L		11/16/23 19:33	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-4B-FAL23

Date Collected: 11/02/23 13:45
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-28

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	54		0.55	0.50	0.20	mg/L		11/21/23 15:53	1
Sulfate	35		1.5	1.0	0.40	mg/L		11/21/23 15:53	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	270		100	50	20	ug/L		11/09/23 11:19	1
Manganese	5200		10	5.0	1.3	ug/L		11/09/23 11:19	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	6.3		5.0	3.0	0.86	ug/L		11/09/23 21:40	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	220		5.5	5.0	2.2	mg/L		11/09/23 20:56	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	15		1.5	1.0	0.50	mg/L		11/16/23 23:47	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-5A-FAL23

Date Collected: 11/03/23 10:05
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-29

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	**2.5**		0.55	0.50	0.20	mg/L		11/21/23 16:04	1
Sulfate	**5.9**		1.5	1.0	0.40	mg/L		11/21/23 16:04	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 11:22	1
Manganese	**90**		10	5.0	1.3	ug/L		11/09/23 11:22	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 21:44	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**34**		5.5	5.0	2.2	mg/L		11/09/23 21:16	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	**1.0**	**J**	1.5	1.0	0.50	mg/L		11/17/23 00:37	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-5B-FAL23

Date Collected: 11/03/23 11:40
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-30

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	70		0.55	0.50	0.20	mg/L		11/21/23 16:16	1
Sulfate	35	M	1.5	1.0	0.40	mg/L		11/21/23 16:16	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	6700		100	50	20	ug/L		11/09/23 11:24	1
Manganese	6000		10	5.0	1.3	ug/L		11/09/23 11:24	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	6.2		5.0	3.0	0.86	ug/L		11/09/23 21:48	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	160		5.5	5.0	2.2	mg/L		11/09/23 21:26	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.9		1.5	1.0	0.50	mg/L		11/17/23 00:55	1

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-RB03-FAL23

Date Collected: 11/02/23 15:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-31

Matrix: Water

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/21/23 16:27	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/21/23 16:27	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 11:26	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/09/23 11:26	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 21:52	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	**4.4**	**J**	5.5	5.0	2.2	mg/L		11/09/23 21:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	1.0	U	1.5	1.0	0.50	mg/L		11/17/23 01:13	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-809261/33
Matrix: Water
Analysis Batch: 809261

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/20/23 18:09	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/20/23 18:09	1

Lab Sample ID: LCS 680-809261/34
Matrix: Water
Analysis Batch: 809261

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.53		mg/L		95	87 - 112

Lab Sample ID: LCSD 680-809261/35
Matrix: Water
Analysis Batch: 809261

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.60		mg/L		96	87 - 112	1	15

Lab Sample ID: 680-242677-12 MS
Matrix: Water
Analysis Batch: 809261

Client Sample ID: SHL-24-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	45		10.0	55.0	4	mg/L		104	87 - 111
Sulfate	25		10.0	34.8	M	mg/L		102	87 - 112

Lab Sample ID: 680-242677-12 MSD
Matrix: Water
Analysis Batch: 809261

Client Sample ID: SHL-24-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	45		10.0	55.2	4	mg/L		105	87 - 111	0	15
Sulfate	25		10.0	35.0	M	mg/L		103	87 - 112	0	15

Lab Sample ID: 680-242677-15 MS
Matrix: Water
Analysis Batch: 809261

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	270	J1	10.0	280	J1 4	mg/L		82	87 - 111
Sulfate	34		10.0	44.3		mg/L		102	87 - 112

Lab Sample ID: 680-242677-15 MSD
Matrix: Water
Analysis Batch: 809261

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	270	J1	10.0	280	J1 4	mg/L		85	87 - 111	0	15
Sulfate	34		10.0	44.5		mg/L		104	87 - 112	0	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-809473/1002
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/21/23 11:52	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/21/23 11:52	1

Lab Sample ID: LCS 680-809473/3
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.3		mg/L		103	87 - 111
Sulfate	10.0	9.65		mg/L		97	87 - 112

Lab Sample ID: LCSD 680-809473/4
Matrix: Water
Analysis Batch: 809473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.3		mg/L		103	87 - 111	0	15
Sulfate	10.0	9.68		mg/L		97	87 - 112	0	15

Lab Sample ID: 680-242677-14 MS
Matrix: Water
Analysis Batch: 809473

Client Sample ID: SHM-93-10D-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	32		10.0	42.7		mg/L		105	87 - 111
Sulfate	22	M	10.0	32.2	M	mg/L		103	87 - 112

Lab Sample ID: 680-242677-14 MSD
Matrix: Water
Analysis Batch: 809473

Client Sample ID: SHM-93-10D-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	32		10.0	42.7		mg/L		105	87 - 111	0	15
Sulfate	22	M	10.0	32.2	M	mg/L		103	87 - 112	0	15

Lab Sample ID: 680-242677-27 MS
Matrix: Water
Analysis Batch: 809473

Client Sample ID: SHP-2023-4A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1.2		10.0	11.8		mg/L		106	87 - 111
Sulfate	4.6		10.0	14.9	M	mg/L		103	87 - 112

Lab Sample ID: 680-242677-27 MSD
Matrix: Water
Analysis Batch: 809473

Client Sample ID: SHP-2023-4A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1.2		10.0	11.8		mg/L		106	87 - 111	0	15
Sulfate	4.6		10.0	15.0	M	mg/L		104	87 - 112	1	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-807016/1-A
Matrix: Water
Analysis Batch: 807415

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807016

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 10:44	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/09/23 10:44	1

Lab Sample ID: LCS 680-807016/2-A
Matrix: Water
Analysis Batch: 807415

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807016

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	4990		ug/L		100	87 - 115
Manganese	400	402		ug/L		100	90 - 114

Lab Sample ID: MB 680-807206/1-A
Matrix: Water
Analysis Batch: 807542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807206

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/09/23 22:05	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/09/23 22:05	1

Lab Sample ID: LCS 680-807206/2-A
Matrix: Water
Analysis Batch: 807542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	4920		ug/L		99	87 - 115
Manganese	400	397		ug/L		99	90 - 114

Lab Sample ID: 680-242677-21 MS
Matrix: Water
Analysis Batch: 807415

Client Sample ID: SHP-2016-3A-FAL23
Prep Type: Dissolved
Prep Batch: 807016

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	11000		4990	15200		ug/L		93	87 - 115
Manganese	400		400	793		ug/L		98	90 - 114

Lab Sample ID: 680-242677-21 MSD
Matrix: Water
Analysis Batch: 807415

Client Sample ID: SHP-2016-3A-FAL23
Prep Type: Dissolved
Prep Batch: 807016

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	11000		4990	15300		ug/L		95	87 - 115	1	20
Manganese	400		400	792		ug/L		98	90 - 114	0	20

Lab Sample ID: 680-242677-15 MS
Matrix: Water
Analysis Batch: 807542

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved
Prep Batch: 807206

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	50	U J1	4990	4830		ug/L		97	87 - 115
Manganese	790	J1	400	1160		ug/L		93	90 - 114

Method: 6010C - Metals (ICP)

Lab Sample ID: 680-242677-15 MSD
Matrix: Water
Analysis Batch: 807542

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved
Prep Batch: 807206

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	50	U J1	4990	4810		ug/L		96	87 - 115	1	20
Manganese	790	J1	400	1140	J1	ug/L		87	90 - 114	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-807014/1-A
Matrix: Water
Analysis Batch: 807545

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807014

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 18:30	1

Lab Sample ID: LCS 680-807014/2-A
Matrix: Water
Analysis Batch: 807545

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	108		ug/L		108	84 - 116

Lab Sample ID: MB 680-807015/1-A
Matrix: Water
Analysis Batch: 807545

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807015

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/09/23 20:39	1

Lab Sample ID: LCS 680-807015/2-A
Matrix: Water
Analysis Batch: 807545

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	110		ug/L		110	84 - 116

Lab Sample ID: 680-242677-15 MS
Matrix: Water
Analysis Batch: 807545

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved
Prep Batch: 807014

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.0	U	100	109		ug/L		109	84 - 116

Lab Sample ID: 680-242677-15 MSD
Matrix: Water
Analysis Batch: 807545

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved
Prep Batch: 807014

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.0	U	100	107		ug/L		107	84 - 116	2	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 680-242677-21 MS
Matrix: Water
Analysis Batch: 807545

Client Sample ID: SHP-2016-3A-FAL23
Prep Type: Dissolved
Prep Batch: 807015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	3.4	J	100	110		ug/L		107	84 - 116

Lab Sample ID: 680-242677-21 MSD
Matrix: Water
Analysis Batch: 807545

Client Sample ID: SHP-2016-3A-FAL23
Prep Type: Dissolved
Prep Batch: 807015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	3.4	J	100	114		ug/L		111	84 - 116	4	20

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-807347/4
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/08/23 17:19	1

Lab Sample ID: LCS 680-807347/6
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112

Lab Sample ID: LCSD 680-807347/31
Matrix: Water
Analysis Batch: 807347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	254		mg/L		101	90 - 112	2	30

Lab Sample ID: MB 680-807612/4
Matrix: Water
Analysis Batch: 807612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/09/23 12:38	1

Lab Sample ID: LCS 680-807612/6
Matrix: Water
Analysis Batch: 807612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	247		mg/L		99	90 - 112

Method: 2320B-2011 - Alkalinity, Total (Continued)

Lab Sample ID: LCSD 680-807612/31
Matrix: Water
Analysis Batch: 807612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	252		mg/L		101	90 - 112	2	30

Lab Sample ID: 680-242677-8 DU
Matrix: Water
Analysis Batch: 807612

Client Sample ID: EW-01-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250			249		mg/L				0.3	30

Lab Sample ID: MB 680-807616/4
Matrix: Water
Analysis Batch: 807616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/09/23 18:26	1

Lab Sample ID: LCS 680-807616/6
Matrix: Water
Analysis Batch: 807616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Alkalinity as CaCO3 to pH 4.5			250	249		mg/L		99	90 - 112		

Lab Sample ID: LCSD 680-807616/31
Matrix: Water
Analysis Batch: 807616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5			250	259		mg/L		104	90 - 112	4	30

Lab Sample ID: 680-242677-19 DU
Matrix: Water
Analysis Batch: 807616

Client Sample ID: SHP-2016-07A-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	25			26.5		mg/L				5	30

Lab Sample ID: 680-242677-28 DU
Matrix: Water
Analysis Batch: 807616

Client Sample ID: SHP-2023-4B-FAL23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	220			220		mg/L				0.4	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-808927/3
Matrix: Water
Analysis Batch: 808927

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/16/23 10:27	1

Lab Sample ID: LCS 680-808927/4
Matrix: Water
Analysis Batch: 808927

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	18.8		mg/L		94	80 - 120

Lab Sample ID: LCSD 680-808927/5
Matrix: Water
Analysis Batch: 808927

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.0		mg/L		95	80 - 120	1	20

Lab Sample ID: 680-242677-1 DU
Matrix: Water
Analysis Batch: 808927

Client Sample ID: SHL-DUP04-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Dissolved Organic Carbon	1.0	U	1.0	U	mg/L		NC	30

Lab Sample ID: MB 680-808928/2
Matrix: Water
Analysis Batch: 808928

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		11/16/23 20:05	1

Lab Sample ID: LCS 680-808928/3
Matrix: Water
Analysis Batch: 808928

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	18.2		mg/L		91	80 - 120

Lab Sample ID: LCSD 680-808928/4
Matrix: Water
Analysis Batch: 808928

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	18.5		mg/L		93	80 - 120	2	20

Lab Sample ID: 680-242677-15 MS
Matrix: Water
Analysis Batch: 808928

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	3.8		20.0	22.0		mg/L		91	80 - 120

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: 680-242677-15 MSD
Matrix: Water
Analysis Batch: 808928

Client Sample ID: SHM-93-18B-FAL23
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	3.8		20.0	21.5		mg/L		89	80 - 120	2	20

HPLC/IC

Analysis Batch: 809261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Total/NA	Water	9056A	
680-242677-2	SHL-DUP09-FAL23	Total/NA	Water	9056A	
680-242677-3	SHL-DUP10-FAL23	Total/NA	Water	9056A	
680-242677-4	EPA-PZ-2012-3A-FAL23	Total/NA	Water	9056A	
680-242677-5	EPA-PZ-2012-3B-FAL23	Total/NA	Water	9056A	
680-242677-6	EPA-PZ-2012-5A-FAL23	Total/NA	Water	9056A	
680-242677-7	EPA-PZ-2012-5B-FAL23	Total/NA	Water	9056A	
680-242677-8	EW-01-FAL23	Total/NA	Water	9056A	
680-242677-9	EW-03-FAL23	Total/NA	Water	9056A	
680-242677-10	EW-04-FAL23	Total/NA	Water	9056A	
680-242677-11	SHL-23-FAL23	Total/NA	Water	9056A	
680-242677-12	SHL-24-FAL23	Total/NA	Water	9056A	
680-242677-13	SHM-10-06A-FAL23	Total/NA	Water	9056A	
680-242677-15	SHM-93-18B-FAL23	Total/NA	Water	9056A	
680-242677-16	SHP-2016-06A-FAL23	Total/NA	Water	9056A	
680-242677-17	SHP-2016-06B-FAL23	Total/NA	Water	9056A	
680-242677-18	SHP-2016-06C-FAL23	Total/NA	Water	9056A	
680-242677-19	SHP-2016-07A-FAL23	Total/NA	Water	9056A	
MB 680-809261/33	Method Blank	Total/NA	Water	9056A	
LCS 680-809261/34	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809261/35	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242677-12 MS	SHL-24-FAL23	Total/NA	Water	9056A	
680-242677-12 MSD	SHL-24-FAL23	Total/NA	Water	9056A	
680-242677-15 MS	SHM-93-18B-FAL23	Total/NA	Water	9056A	
680-242677-15 MSD	SHM-93-18B-FAL23	Total/NA	Water	9056A	

Analysis Batch: 809473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-14	SHM-93-10D-FAL23	Total/NA	Water	9056A	
680-242677-15 - DL	SHM-93-18B-FAL23	Total/NA	Water	9056A	
680-242677-20	SHP-2016-07B-FAL23	Total/NA	Water	9056A	
680-242677-21	SHP-2016-3A-FAL23	Total/NA	Water	9056A	
680-242677-22	SHP-2016-3B-FAL23	Total/NA	Water	9056A	
680-242677-23	SHP-2023-1A-FAL23	Total/NA	Water	9056A	
680-242677-24	SHP-2023-1B-FAL23	Total/NA	Water	9056A	
680-242677-25	SHP-2023-3A-FAL23	Total/NA	Water	9056A	
680-242677-26	SHP-2023-3B-FAL23	Total/NA	Water	9056A	
680-242677-27	SHP-2023-4A-FAL23	Total/NA	Water	9056A	
680-242677-28	SHP-2023-4B-FAL23	Total/NA	Water	9056A	
680-242677-29	SHP-2023-5A-FAL23	Total/NA	Water	9056A	
680-242677-30	SHP-2023-5B-FAL23	Total/NA	Water	9056A	
680-242677-31	SHL-RB03-FAL23	Total/NA	Water	9056A	
MB 680-809473/1002	Method Blank	Total/NA	Water	9056A	
LCS 680-809473/3	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809473/4	Lab Control Sample Dup	Total/NA	Water	9056A	
680-242677-14 MS	SHM-93-10D-FAL23	Total/NA	Water	9056A	
680-242677-14 MSD	SHM-93-10D-FAL23	Total/NA	Water	9056A	
680-242677-27 MS	SHP-2023-4A-FAL23	Total/NA	Water	9056A	
680-242677-27 MSD	SHP-2023-4A-FAL23	Total/NA	Water	9056A	

Metals

Prep Batch: 807014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Dissolved	Water	3005A	
680-242677-2	SHL-DUP09-FAL23	Dissolved	Water	3005A	
680-242677-3	SHL-DUP10-FAL23	Dissolved	Water	3005A	
680-242677-4	EPA-PZ-2012-3A-FAL23	Dissolved	Water	3005A	
680-242677-5	EPA-PZ-2012-3B-FAL23	Dissolved	Water	3005A	
680-242677-6	EPA-PZ-2012-5A-FAL23	Dissolved	Water	3005A	
680-242677-7	EPA-PZ-2012-5B-FAL23	Dissolved	Water	3005A	
680-242677-8	EW-01-FAL23	Dissolved	Water	3005A	
680-242677-9	EW-03-FAL23	Dissolved	Water	3005A	
680-242677-10	EW-04-FAL23	Dissolved	Water	3005A	
680-242677-11	SHL-23-FAL23	Dissolved	Water	3005A	
680-242677-12	SHL-24-FAL23	Dissolved	Water	3005A	
680-242677-13	SHM-10-06A-FAL23	Dissolved	Water	3005A	
680-242677-14	SHM-93-10D-FAL23	Dissolved	Water	3005A	
680-242677-15	SHM-93-18B-FAL23	Dissolved	Water	3005A	
680-242677-16	SHP-2016-06A-FAL23	Dissolved	Water	3005A	
680-242677-17	SHP-2016-06B-FAL23	Dissolved	Water	3005A	
680-242677-18	SHP-2016-06C-FAL23	Dissolved	Water	3005A	
680-242677-19	SHP-2016-07A-FAL23	Dissolved	Water	3005A	
680-242677-20	SHP-2016-07B-FAL23	Dissolved	Water	3005A	
MB 680-807014/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807014/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242677-15 MS	SHM-93-18B-FAL23	Dissolved	Water	3005A	
680-242677-15 MSD	SHM-93-18B-FAL23	Dissolved	Water	3005A	

Prep Batch: 807015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-21	SHP-2016-3A-FAL23	Dissolved	Water	3005A	
680-242677-22	SHP-2016-3B-FAL23	Dissolved	Water	3005A	
680-242677-23	SHP-2023-1A-FAL23	Dissolved	Water	3005A	
680-242677-24	SHP-2023-1B-FAL23	Dissolved	Water	3005A	
680-242677-25	SHP-2023-3A-FAL23	Dissolved	Water	3005A	
680-242677-26	SHP-2023-3B-FAL23	Dissolved	Water	3005A	
680-242677-27	SHP-2023-4A-FAL23	Dissolved	Water	3005A	
680-242677-28	SHP-2023-4B-FAL23	Dissolved	Water	3005A	
680-242677-29	SHP-2023-5A-FAL23	Dissolved	Water	3005A	
680-242677-30	SHP-2023-5B-FAL23	Dissolved	Water	3005A	
680-242677-31	SHL-RB03-FAL23	Dissolved	Water	3005A	
MB 680-807015/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807015/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242677-21 MS	SHP-2016-3A-FAL23	Dissolved	Water	3005A	
680-242677-21 MSD	SHP-2016-3A-FAL23	Dissolved	Water	3005A	

Prep Batch: 807016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-21	SHP-2016-3A-FAL23	Dissolved	Water	3005A	
680-242677-22	SHP-2016-3B-FAL23	Dissolved	Water	3005A	
680-242677-23	SHP-2023-1A-FAL23	Dissolved	Water	3005A	
680-242677-24	SHP-2023-1B-FAL23	Dissolved	Water	3005A	
680-242677-25	SHP-2023-3A-FAL23	Dissolved	Water	3005A	
680-242677-26	SHP-2023-3B-FAL23	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 807016 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-27	SHP-2023-4A-FAL23	Dissolved	Water	3005A	
680-242677-28	SHP-2023-4B-FAL23	Dissolved	Water	3005A	
680-242677-29	SHP-2023-5A-FAL23	Dissolved	Water	3005A	
680-242677-30	SHP-2023-5B-FAL23	Dissolved	Water	3005A	
680-242677-31	SHL-RB03-FAL23	Dissolved	Water	3005A	
MB 680-807016/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807016/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242677-21 MS	SHP-2016-3A-FAL23	Dissolved	Water	3005A	
680-242677-21 MSD	SHP-2016-3A-FAL23	Dissolved	Water	3005A	

Prep Batch: 807206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Dissolved	Water	3005A	
680-242677-2	SHL-DUP09-FAL23	Dissolved	Water	3005A	
680-242677-3	SHL-DUP10-FAL23	Dissolved	Water	3005A	
680-242677-4	EPA-PZ-2012-3A-FAL23	Dissolved	Water	3005A	
680-242677-5	EPA-PZ-2012-3B-FAL23	Dissolved	Water	3005A	
680-242677-6	EPA-PZ-2012-5A-FAL23	Dissolved	Water	3005A	
680-242677-7	EPA-PZ-2012-5B-FAL23	Dissolved	Water	3005A	
680-242677-8	EW-01-FAL23	Dissolved	Water	3005A	
680-242677-9	EW-03-FAL23	Dissolved	Water	3005A	
680-242677-10	EW-04-FAL23	Dissolved	Water	3005A	
680-242677-11	SHL-23-FAL23	Dissolved	Water	3005A	
680-242677-12	SHL-24-FAL23	Dissolved	Water	3005A	
680-242677-13	SHM-10-06A-FAL23	Dissolved	Water	3005A	
680-242677-14	SHM-93-10D-FAL23	Dissolved	Water	3005A	
680-242677-15	SHM-93-18B-FAL23	Dissolved	Water	3005A	
680-242677-16	SHP-2016-06A-FAL23	Dissolved	Water	3005A	
680-242677-17	SHP-2016-06B-FAL23	Dissolved	Water	3005A	
680-242677-18	SHP-2016-06C-FAL23	Dissolved	Water	3005A	
680-242677-19	SHP-2016-07A-FAL23	Dissolved	Water	3005A	
680-242677-20	SHP-2016-07B-FAL23	Dissolved	Water	3005A	
MB 680-807206/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807206/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
680-242677-15 MS	SHM-93-18B-FAL23	Dissolved	Water	3005A	
680-242677-15 MSD	SHM-93-18B-FAL23	Dissolved	Water	3005A	

Analysis Batch: 807415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-21	SHP-2016-3A-FAL23	Dissolved	Water	6010C	807016
680-242677-22	SHP-2016-3B-FAL23	Dissolved	Water	6010C	807016
680-242677-23	SHP-2023-1A-FAL23	Dissolved	Water	6010C	807016
680-242677-24	SHP-2023-1B-FAL23	Dissolved	Water	6010C	807016
680-242677-25	SHP-2023-3A-FAL23	Dissolved	Water	6010C	807016
680-242677-26	SHP-2023-3B-FAL23	Dissolved	Water	6010C	807016
680-242677-27	SHP-2023-4A-FAL23	Dissolved	Water	6010C	807016
680-242677-28	SHP-2023-4B-FAL23	Dissolved	Water	6010C	807016
680-242677-29	SHP-2023-5A-FAL23	Dissolved	Water	6010C	807016
680-242677-30	SHP-2023-5B-FAL23	Dissolved	Water	6010C	807016
680-242677-31	SHL-RB03-FAL23	Dissolved	Water	6010C	807016
MB 680-807016/1-A	Method Blank	Total Recoverable	Water	6010C	807016

Metals (Continued)

Analysis Batch: 807415 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-807016/2-A	Lab Control Sample	Total Recoverable	Water	6010C	807016
680-242677-21 MS	SHP-2016-3A-FAL23	Dissolved	Water	6010C	807016
680-242677-21 MSD	SHP-2016-3A-FAL23	Dissolved	Water	6010C	807016

Analysis Batch: 807542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Dissolved	Water	6010C	807206
680-242677-2	SHL-DUP09-FAL23	Dissolved	Water	6010C	807206
680-242677-3	SHL-DUP10-FAL23	Dissolved	Water	6010C	807206
680-242677-4	EPA-PZ-2012-3A-FAL23	Dissolved	Water	6010C	807206
680-242677-5	EPA-PZ-2012-3B-FAL23	Dissolved	Water	6010C	807206
680-242677-6	EPA-PZ-2012-5A-FAL23	Dissolved	Water	6010C	807206
680-242677-7	EPA-PZ-2012-5B-FAL23	Dissolved	Water	6010C	807206
680-242677-8	EW-01-FAL23	Dissolved	Water	6010C	807206
680-242677-9	EW-03-FAL23	Dissolved	Water	6010C	807206
680-242677-10	EW-04-FAL23	Dissolved	Water	6010C	807206
680-242677-11	SHL-23-FAL23	Dissolved	Water	6010C	807206
680-242677-12	SHL-24-FAL23	Dissolved	Water	6010C	807206
680-242677-13	SHM-10-06A-FAL23	Dissolved	Water	6010C	807206
680-242677-14	SHM-93-10D-FAL23	Dissolved	Water	6010C	807206
680-242677-15	SHM-93-18B-FAL23	Dissolved	Water	6010C	807206
680-242677-16	SHP-2016-06A-FAL23	Dissolved	Water	6010C	807206
680-242677-17	SHP-2016-06B-FAL23	Dissolved	Water	6010C	807206
680-242677-18	SHP-2016-06C-FAL23	Dissolved	Water	6010C	807206
680-242677-19	SHP-2016-07A-FAL23	Dissolved	Water	6010C	807206
680-242677-20	SHP-2016-07B-FAL23	Dissolved	Water	6010C	807206
MB 680-807206/1-A	Method Blank	Total Recoverable	Water	6010C	807206
LCS 680-807206/2-A	Lab Control Sample	Total Recoverable	Water	6010C	807206
680-242677-15 MS	SHM-93-18B-FAL23	Dissolved	Water	6010C	807206
680-242677-15 MSD	SHM-93-18B-FAL23	Dissolved	Water	6010C	807206

Analysis Batch: 807545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Dissolved	Water	6020A	807014
680-242677-2	SHL-DUP09-FAL23	Dissolved	Water	6020A	807014
680-242677-3	SHL-DUP10-FAL23	Dissolved	Water	6020A	807014
680-242677-4	EPA-PZ-2012-3A-FAL23	Dissolved	Water	6020A	807014
680-242677-5	EPA-PZ-2012-3B-FAL23	Dissolved	Water	6020A	807014
680-242677-6	EPA-PZ-2012-5A-FAL23	Dissolved	Water	6020A	807014
680-242677-7	EPA-PZ-2012-5B-FAL23	Dissolved	Water	6020A	807014
680-242677-8	EW-01-FAL23	Dissolved	Water	6020A	807014
680-242677-9	EW-03-FAL23	Dissolved	Water	6020A	807014
680-242677-10	EW-04-FAL23	Dissolved	Water	6020A	807014
680-242677-11	SHL-23-FAL23	Dissolved	Water	6020A	807014
680-242677-12	SHL-24-FAL23	Dissolved	Water	6020A	807014
680-242677-13	SHM-10-06A-FAL23	Dissolved	Water	6020A	807014
680-242677-14	SHM-93-10D-FAL23	Dissolved	Water	6020A	807014
680-242677-15	SHM-93-18B-FAL23	Dissolved	Water	6020A	807014
680-242677-16	SHP-2016-06A-FAL23	Dissolved	Water	6020A	807014
680-242677-17	SHP-2016-06B-FAL23	Dissolved	Water	6020A	807014
680-242677-18	SHP-2016-06C-FAL23	Dissolved	Water	6020A	807014

Metals (Continued)

Analysis Batch: 807545 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-19	SHP-2016-07A-FAL23	Dissolved	Water	6020A	807014
680-242677-20	SHP-2016-07B-FAL23	Dissolved	Water	6020A	807014
680-242677-21	SHP-2016-3A-FAL23	Dissolved	Water	6020A	807015
680-242677-22	SHP-2016-3B-FAL23	Dissolved	Water	6020A	807015
680-242677-23	SHP-2023-1A-FAL23	Dissolved	Water	6020A	807015
680-242677-24	SHP-2023-1B-FAL23	Dissolved	Water	6020A	807015
680-242677-25	SHP-2023-3A-FAL23	Dissolved	Water	6020A	807015
680-242677-26	SHP-2023-3B-FAL23	Dissolved	Water	6020A	807015
680-242677-27	SHP-2023-4A-FAL23	Dissolved	Water	6020A	807015
680-242677-28	SHP-2023-4B-FAL23	Dissolved	Water	6020A	807015
680-242677-29	SHP-2023-5A-FAL23	Dissolved	Water	6020A	807015
680-242677-30	SHP-2023-5B-FAL23	Dissolved	Water	6020A	807015
680-242677-31	SHL-RB03-FAL23	Dissolved	Water	6020A	807015
MB 680-807014/1-A	Method Blank	Total Recoverable	Water	6020A	807014
MB 680-807015/1-A	Method Blank	Total Recoverable	Water	6020A	807015
LCS 680-807014/2-A	Lab Control Sample	Total Recoverable	Water	6020A	807014
LCS 680-807015/2-A	Lab Control Sample	Total Recoverable	Water	6020A	807015
680-242677-15 MS	SHM-93-18B-FAL23	Dissolved	Water	6020A	807014
680-242677-15 MSD	SHM-93-18B-FAL23	Dissolved	Water	6020A	807014
680-242677-21 MS	SHP-2016-3A-FAL23	Dissolved	Water	6020A	807015
680-242677-21 MSD	SHP-2016-3A-FAL23	Dissolved	Water	6020A	807015

General Chemistry

Analysis Batch: 807347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Total/NA	Water	2320B-2011	
680-242677-2	SHL-DUP09-FAL23	Total/NA	Water	2320B-2011	
680-242677-3	SHL-DUP10-FAL23	Total/NA	Water	2320B-2011	
MB 680-807347/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807347/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807347/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 807612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-4	EPA-PZ-2012-3A-FAL23	Total/NA	Water	2320B-2011	
680-242677-5	EPA-PZ-2012-3B-FAL23	Total/NA	Water	2320B-2011	
680-242677-6	EPA-PZ-2012-5A-FAL23	Total/NA	Water	2320B-2011	
680-242677-7	EPA-PZ-2012-5B-FAL23	Total/NA	Water	2320B-2011	
680-242677-8	EW-01-FAL23	Total/NA	Water	2320B-2011	
680-242677-9	EW-03-FAL23	Total/NA	Water	2320B-2011	
680-242677-10	EW-04-FAL23	Total/NA	Water	2320B-2011	
680-242677-11	SHL-23-FAL23	Total/NA	Water	2320B-2011	
680-242677-12	SHL-24-FAL23	Total/NA	Water	2320B-2011	
680-242677-13	SHM-10-06A-FAL23	Total/NA	Water	2320B-2011	
680-242677-14	SHM-93-10D-FAL23	Total/NA	Water	2320B-2011	
680-242677-16	SHP-2016-06A-FAL23	Total/NA	Water	2320B-2011	
680-242677-17	SHP-2016-06B-FAL23	Total/NA	Water	2320B-2011	
680-242677-18	SHP-2016-06C-FAL23	Total/NA	Water	2320B-2011	
MB 680-807612/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807612/6	Lab Control Sample	Total/NA	Water	2320B-2011	

General Chemistry (Continued)

Analysis Batch: 807612 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-807612/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242677-8 DU	EW-01-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 807616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-15	SHM-93-18B-FAL23	Total/NA	Water	2320B-2011	
680-242677-19	SHP-2016-07A-FAL23	Total/NA	Water	2320B-2011	
680-242677-20	SHP-2016-07B-FAL23	Total/NA	Water	2320B-2011	
680-242677-21	SHP-2016-3A-FAL23	Total/NA	Water	2320B-2011	
680-242677-22	SHP-2016-3B-FAL23	Total/NA	Water	2320B-2011	
680-242677-23	SHP-2023-1A-FAL23	Total/NA	Water	2320B-2011	
680-242677-24	SHP-2023-1B-FAL23	Total/NA	Water	2320B-2011	
680-242677-25	SHP-2023-3A-FAL23	Total/NA	Water	2320B-2011	
680-242677-26	SHP-2023-3B-FAL23	Total/NA	Water	2320B-2011	
680-242677-27	SHP-2023-4A-FAL23	Total/NA	Water	2320B-2011	
680-242677-28	SHP-2023-4B-FAL23	Total/NA	Water	2320B-2011	
680-242677-29	SHP-2023-5A-FAL23	Total/NA	Water	2320B-2011	
680-242677-30	SHP-2023-5B-FAL23	Total/NA	Water	2320B-2011	
680-242677-31	SHL-RB03-FAL23	Total/NA	Water	2320B-2011	
MB 680-807616/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-807616/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-807616/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	
680-242677-19 DU	SHP-2016-07A-FAL23	Total/NA	Water	2320B-2011	
680-242677-28 DU	SHP-2023-4B-FAL23	Total/NA	Water	2320B-2011	

Analysis Batch: 808927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-1	SHL-DUP04-FAL23	Dissolved	Water	9060A	
680-242677-2	SHL-DUP09-FAL23	Dissolved	Water	9060A	
680-242677-3	SHL-DUP10-FAL23	Dissolved	Water	9060A	
680-242677-4	EPA-PZ-2012-3A-FAL23	Dissolved	Water	9060A	
680-242677-5	EPA-PZ-2012-3B-FAL23	Dissolved	Water	9060A	
680-242677-6	EPA-PZ-2012-5A-FAL23	Dissolved	Water	9060A	
680-242677-7	EPA-PZ-2012-5B-FAL23	Dissolved	Water	9060A	
680-242677-11	SHL-23-FAL23	Dissolved	Water	9060A	
680-242677-12	SHL-24-FAL23	Dissolved	Water	9060A	
680-242677-14	SHM-93-10D-FAL23	Dissolved	Water	9060A	
680-242677-16	SHP-2016-06A-FAL23	Dissolved	Water	9060A	
680-242677-17	SHP-2016-06B-FAL23	Dissolved	Water	9060A	
680-242677-18	SHP-2016-06C-FAL23	Dissolved	Water	9060A	
680-242677-19	SHP-2016-07A-FAL23	Dissolved	Water	9060A	
680-242677-20	SHP-2016-07B-FAL23	Dissolved	Water	9060A	
680-242677-21	SHP-2016-3A-FAL23	Dissolved	Water	9060A	
680-242677-22	SHP-2016-3B-FAL23	Dissolved	Water	9060A	
680-242677-25	SHP-2023-3A-FAL23	Dissolved	Water	9060A	
680-242677-26	SHP-2023-3B-FAL23	Dissolved	Water	9060A	
680-242677-27	SHP-2023-4A-FAL23	Dissolved	Water	9060A	
MB 680-808927/3	Method Blank	Dissolved	Water	9060A	
LCS 680-808927/4	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808927/5	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242677-1 DU	SHL-DUP04-FAL23	Dissolved	Water	9060A	

QC Association Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

General Chemistry

Analysis Batch: 808928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242677-8	EW-01-FAL23	Dissolved	Water	9060A	
680-242677-9	EW-03-FAL23	Dissolved	Water	9060A	
680-242677-10	EW-04-FAL23	Dissolved	Water	9060A	
680-242677-13	SHM-10-06A-FAL23	Dissolved	Water	9060A	
680-242677-15	SHM-93-18B-FAL23	Dissolved	Water	9060A	
680-242677-23	SHP-2023-1A-FAL23	Dissolved	Water	9060A	
680-242677-24	SHP-2023-1B-FAL23	Dissolved	Water	9060A	
680-242677-28	SHP-2023-4B-FAL23	Dissolved	Water	9060A	
680-242677-29	SHP-2023-5A-FAL23	Dissolved	Water	9060A	
680-242677-30	SHP-2023-5B-FAL23	Dissolved	Water	9060A	
680-242677-31	SHL-RB03-FAL23	Dissolved	Water	9060A	
MB 680-808928/2	Method Blank	Dissolved	Water	9060A	
LCS 680-808928/3	Lab Control Sample	Dissolved	Water	9060A	
LCSD 680-808928/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242677-15 MS	SHM-93-18B-FAL23	Dissolved	Water	9060A	
680-242677-15 MSD	SHM-93-18B-FAL23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-DUP04-FAL23

Lab Sample ID: 680-242677-1
Date Collected: 11/01/23 11:10
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 22:08	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:26	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 18:58	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 21:00	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 12:56	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-DUP09-FAL23

Lab Sample ID: 680-242677-2
Date Collected: 11/01/23 12:10
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	5 mL	5 mL	809261	11/20/23 20:26	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:29	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:02	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 20:50	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 13:29	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-DUP10-FAL23

Lab Sample ID: 680-242677-3
Date Collected: 11/02/23 09:50
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 22:43	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:31	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:06	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-DUP10-FAL23

Lab Sample ID: 680-242677-3
Matrix: Water
Date Collected: 11/02/23 09:50
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807347	11/08/23 21:09	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 13:46	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-3A-FAL23

Lab Sample ID: 680-242677-4
Matrix: Water
Date Collected: 11/01/23 11:45
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		2	5 mL	5 mL	809261	11/20/23 22:20	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:33	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:18	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 14:00	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 14:05	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-3B-FAL23

Lab Sample ID: 680-242677-5
Matrix: Water
Date Collected: 11/01/23 12:30
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 23:17	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:36	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:22	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 14:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 14:22	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-5A-FAL23

Lab Sample ID: 680-242677-6

Date Collected: 11/01/23 14:15

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 19:17	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:43	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:26	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 14:29	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 14:40	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EPA-PZ-2012-5B-FAL23

Lab Sample ID: 680-242677-7

Date Collected: 11/01/23 15:00

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 19:40	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:45	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:30	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:30	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 14:58	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EW-01-FAL23

Lab Sample ID: 680-242677-8

Date Collected: 11/03/23 09:15

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 22:54	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:48	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:34	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: EW-01-FAL23

Date Collected: 11/03/23 09:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:03	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 21:12	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EW-03-FAL23

Date Collected: 11/03/23 09:30
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 23:06	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:50	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:38	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:41	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 21:30	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: EW-04-FAL23

Date Collected: 11/03/23 09:00
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 23:28	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:52	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:42	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 14:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 21:48	KMB	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-23-FAL23

Lab Sample ID: 680-242677-11

Date Collected: 11/02/23 14:40

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 20:37	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:55	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:46	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 15:16	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHL-24-FAL23

Lab Sample ID: 680-242677-12

Date Collected: 11/01/23 11:10

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 21:23	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:57	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:51	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:50	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 15:34	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-10-06A-FAL23

Lab Sample ID: 680-242677-13

Date Collected: 11/03/23 13:35

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 22:31	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:00	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 19:55	BWR	EET SAV
	Instrument ID: ICPMSC									

Client Sample ID: SHM-10-06A-FAL23

Lab Sample ID: 680-242677-13

Date Collected: 11/03/23 13:35

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 15:58	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 22:06	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-93-10D-FAL23

Lab Sample ID: 680-242677-14

Date Collected: 11/01/23 14:40

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 12:38	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:02	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:07	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 16:08	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 16:00	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHM-93-18B-FAL23

Lab Sample ID: 680-242677-15

Date Collected: 11/03/23 13:20

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 18:43	UI	EET SAV
	Instrument ID: CICK									
Total/NA	Analysis	9056A	DL	10	5 mL	5 mL	809473	11/21/23 13:23	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 22:14	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 18:38	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:11	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 22:24	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06A-FAL23

Lab Sample ID: 680-242677-16

Date Collected: 11/02/23 10:15

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 20:03	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:04	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:11	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 16:17	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 16:50	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06B-FAL23

Lab Sample ID: 680-242677-17

Date Collected: 11/02/23 12:30

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 20:49	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:12	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:15	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 16:27	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 17:08	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-06C-FAL23

Lab Sample ID: 680-242677-18

Date Collected: 11/02/23 13:35

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 20:14	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:14	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:19	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-06C-FAL23

Lab Sample ID: 680-242677-18
Date Collected: 11/02/23 13:35
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807612	11/09/23 16:37	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 17:27	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-07A-FAL23

Lab Sample ID: 680-242677-19
Date Collected: 11/01/23 10:25
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809261	11/20/23 21:57	UI	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:16	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:23	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 18:53	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 17:45	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-07B-FAL23

Lab Sample ID: 680-242677-20
Date Collected: 11/01/23 12:10
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 13:35	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807206	11/08/23 18:41	BCB	EET SAV
Dissolved	Analysis	6010C		1			807542	11/09/23 23:19	BCB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807014	11/08/23 05:58	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:27	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:21	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 18:03	KMB	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2016-3A-FAL23

Lab Sample ID: 680-242677-21

Date Collected: 11/01/23 09:45
Date Received: 11/07/23 09:53

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 13:46	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 10:48	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 20:47	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:38	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 18:21	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2016-3B-FAL23

Lab Sample ID: 680-242677-22

Date Collected: 11/01/23 10:45
Date Received: 11/07/23 09:53

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 13:57	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:00	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:08	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:47	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 18:39	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-1A-FAL23

Lab Sample ID: 680-242677-23

Date Collected: 11/03/23 11:40
Date Received: 11/07/23 09:53

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 14:09	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:03	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:12	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-1A-FAL23

Lab Sample ID: 680-242677-23

Date Collected: 11/03/23 11:40
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:29	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 23:13	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-1B-FAL23

Lab Sample ID: 680-242677-24

Date Collected: 11/03/23 13:30
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 14:20	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:05	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:16	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 20:05	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 23:31	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-3A-FAL23

Lab Sample ID: 680-242677-25

Date Collected: 11/01/23 16:00
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 14:32	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:12	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:28	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 19:56	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 18:57	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-3B-FAL23

Lab Sample ID: 680-242677-26

Date Collected: 11/02/23 09:50

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		10	5 mL	5 mL	809473	11/21/23 17:24	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:15	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:32	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 20:23	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 19:15	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-4A-FAL23

Lab Sample ID: 680-242677-27

Date Collected: 11/02/23 15:15

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 15:19	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:17	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:36	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 20:14	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808927	11/16/23 19:33	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-4B-FAL23

Lab Sample ID: 680-242677-28

Date Collected: 11/02/23 13:45

Matrix: Water

Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 15:53	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:19	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:40	BWR	EET SAV
	Instrument ID: ICPMSC									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHP-2023-4B-FAL23

Lab Sample ID: 680-242677-28

Date Collected: 11/02/23 13:45
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 20:56	PG	EET SAV
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/16/23 23:47	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-5A-FAL23

Lab Sample ID: 680-242677-29

Date Collected: 11/03/23 10:05
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 16:04	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:22	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:44	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 21:16	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/17/23 00:37	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-5B-FAL23

Lab Sample ID: 680-242677-30

Date Collected: 11/03/23 11:40
Matrix: Water
Date Received: 11/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 16:16	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:24	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:48	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 21:26	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/17/23 00:55	KMB	EET SAV
	Instrument ID: TOC8									

Lab Chronicle

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Client Sample ID: SHL-RB03-FAL23

Date Collected: 11/02/23 15:15
Date Received: 11/07/23 09:53

Lab Sample ID: 680-242677-31

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809473	11/21/23 16:27	KMB	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807016	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6010C		1			807415	11/09/23 11:26	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807015	11/08/23 06:02	RR	EET SAV
Dissolved	Analysis	6020A		1			807545	11/09/23 21:52	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			807616	11/09/23 21:33	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	808928	11/17/23 01:13	KMB	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242677-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Job ID: 680-242677-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

680-242677 Chain of Custody

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	46 A2320B (A)	9 SW6010C/FLDFLT (B)	9 SW6020A/FLDFLT (B)	5 SW9056A (A)	3 SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
1	SHL-DUP01-FAL23	WG				X	X	X	X	X	PZ-12-06	FD1	25.00	35.00	1	
2	SHL-DUP02-FAL23	WG				X	X	X	X	X	SHL-20	FD1	39.00	49.00	1	
3	SHL-DUP03-FAL23	WG				X	X	X	X	X	SHL-22	FD1	105.00	115.00	1	
4	SHL-DUP04-FAL23	WG	11-1-23	1110	NM	X	X	X	X	X	SHL-24	FD1	110.00	120.00	1	
5	SHL-DUP05-FAL23	WG				X	X	X	X	X	SHM-05-40X	FD1	32.00	34.00	1	
6	SHL-DUP06-FAL23	WG				X	X	X	X	X	SHM-11-06	FD1	25.00	35.00	1	
7	SHL-DUP07-FAL23	WG				X	X	X	X	X	SHM-96-5B	FD1	80.00	90.00	1	
8	SHL-DUP08-FAL23	WG				X	X	X	X	X	SHP-01-38A	FD1	1.50	6.50	1	
9	SHL-DUP09-FAL23	WG	11-1-23	1210	FM	X	X	X	X	X	SHP-2016-07B	FD1	70.00	80.00	1	
10	SHL-DUP10-FAL23	WG	11-2-23	0950	AF	X	X	X	X	X	SHP-2023-3B	FD1	0.00	0.00	1	
11	SHL-DUP11-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-4B	FD1	79.50	84.50	1	
12	SHL-DUP12-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-6B	FD1	74.23	79.23	1	
13	EPA-PZ-2012-1A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-1A	N1	23.70	28.70	1	
14	EPA-PZ-2012-1B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-1B	N1	73.56	78.56	1	
15	EPA-PZ-2012-2A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-2A	N1	18.14	23.14	1	
16	EPA-PZ-2012-2B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-2B	N1	73.16	78.16	1	
17	EPA-PZ-2012-3A-FAL23	WG	11-1-23	1145	AF	X	X	X	X	X	EPA-PZ-2012-3A	N1	19.09	24.09	1	
18	EPA-PZ-2012-3B-FAL23	WG	11-1-23	1230	AF	X	X	X	X	X	EPA-PZ-2012-3B	N1	68.70	73.70	1	
19	EPA-PZ-2012-4A-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-4A	N1	19.56	24.56	1	
20	EPA-PZ-2012-4B-FAL23	WG				X	X	X	X	X	EPA-PZ-2012-4B	N1	79.50	84.50	1	

Relinquished by: (Signature) DmuChn
Date 11-3-23
Time 1400
Received by: (Signature)

Received by Laboratory: (Signature) C. Munro
Date 11/7/23
Time 0953
2.8/3.1 4.7/5.0

CHAIN-OF-CUSTODY RECORD

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COC # SHL-LTM-FAL23

US Army Corps of Engineers

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Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
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WG	Ground Water

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46	1x 250mL, plastic, Cool < 6degC

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	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)					Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3										
21	EPA-PZ-2012-5A-FAL23	WG	11-1-23	1415	AF	X	X	X	X	X						EPA-PZ-2012-5A	N1	17.95	22.95	1	
22	EPA-PZ-2012-5B-FAL23	WG	11-1-23	1500	AF	X	X	X	X	X						EPA-PZ-2012-5B	N1	68.46	73.46	1	
23	EPA-PZ-2012-6A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-6A	N1	24.19	29.19	1	
24	EPA-PZ-2012-6B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-6B	N1	74.23	79.23	1	
25	EPA-PZ-2012-7A-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-7A	N1	23.87	28.87	1	
26	EPA-PZ-2012-7B-FAL23	WG				X	X	X	X	X						EPA-PZ-2012-7B	N1	58.82	63.82	1	
27	EW-01-FAL23	WG	11-3-23	915	DC	X	X	X	X	X						EW-01	N1	60.00	85.00	1	
28	EW-03-FAL23	WG	11-3-23	930	DC	X	X	X	X	X						EW-03	N1	0.00	0.00	1	
29	EW-04-FAL23	WG	11-3-23	900	DC	X	X	X	X	X						EW-04	N1	70.00	95.00	1	
30	N5-P1-FAL23	WG				X	X	X	X	X						N5-P1	N1	95.50	97.50	1	
31	PZ-12-01-FAL23	WG				X	X	X	X	X						PZ-12-01	N1	24.00	34.00	1	
32	PZ-12-02-FAL23	WG				X	X	X	X	X						PZ-12-02	N1	24.00	34.00	1	
33	PZ-12-03-FAL23	WG				X	X	X	X	X						PZ-12-03	N1	24.00	34.00	1	
34	PZ-12-04-FAL23	WG				X	X	X	X	X						PZ-12-04	N1	24.00	34.00	1	
35	PZ-12-05-FAL23	WG				X	X	X	X	X						PZ-12-05	N1	26.00	36.00	1	
36	PZ-12-06-FAL23	WG				X	X	X	X	X						PZ-12-06	N1	25.00	35.00	1	
37	PZ-12-07-FAL23	WG				X	X	X	X	X						PZ-12-07	N1	20.00	30.00	1	
38	PZ-12-08-FAL23	WG				X	X	X	X	X						PZ-12-08	N1	22.00	32.00	1	
39	PZ-12-09-FAL23	WG				X	X	X	X	X						PZ-12-09	N1	20.00	30.00	1	
40	PZ-12-10-FAL23	WG				X	X	X	X	X						PZ-12-10	MS1	20.00	30.00	1	

Relinquished by: (Signature) Dana Clar
Date 11-3-23
Time 1400
Received by: (Signature)

Received by Laboratory: (Signature) C. Munro
Date 11/1/23
Time 0953
2.8/3.1 4.7/5.0

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3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
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Analytical Test Method

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						A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)							Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3												
41	PZ-12-10-FAL23	WG				X	X	X	X	X							PZ-12-10	N1	20.00	30.00	1	
42	PZ-12-10-FAL23	WG				X	X	X	X	X							PZ-12-10	SD1	20.00	30.00	1	
43	SHL-10-FAL23	WG				X	X	X	X	X							SHL-10	N1	24.00	39.00	1	
44	SHL-11-FAL23	WG				X	X	X	X	X							SHL-11	N1	12.00	27.00	1	
45	SHL-12-FAL23	WG				X	X	X	X	X							SHL-12	N1	15.00	30.00	1	
46	SHL-15-FAL23	WG				X	X	X	X	X							SHL-15	N1	14.00	24.00	1	
47	SHL-19-FAL23	WG				X	X	X	X	X							SHL-19	N1	20.00	30.00	1	
48	SHL-20-FAL23	WG				X	X	X	X	X							SHL-20	N1	39.00	49.00	1	
49	SHL-22-FAL23	WG				X	X	X	X	X							SHL-22	N1	105.00	115.00	1	
50	SHL-23-FAL23	WG	11-2-23	1440	DC	X	X	X	X	X							SHL-23	N1	23.00	33.00	1	
51	SHL-24-FAL23	WG	11-2-23	1110	NM	X	X	X	X	X							SHL-24	N1	110.00	120.00	1	
52	SHL-3-FAL23	WG				X	X	X	X	X							SHL-3	N1	24.00	34.00	1	
53	SHL-4-FAL23	WG				X	X	X	X	X							SHL-4	N1	3.00	13.00	1	
54	SHL-5-FAL23	WG				X	X	X	X	X							SHL-5	N1	3.00	13.00	1	
55	SHL-7-FAL23	WG				X	X	X	X	X							SHL-7	N1	11.00	21.00	1	
56	SHL-8D-FAL23	WG				X	X	X	X	X							SHL-8D	N1	68.00	70.00	1	
57	SHL-8S-FAL23	WG				X	X	X	X	X							SHL-8S	N1	52.00	54.00	1	
58	SHL-9-FAL23	WG				X	X	X	X	X							SHL-9	N1	15.00	25.00	1	
59	SHM-05-39A-FAL23	WG				X	X	X	X	X							SHM-05-39A	N1	37.00	39.00	1	
60	SHM-05-39B-FAL23	WG				X	X	X	X	X							SHM-05-39B	N1	66.00	68.00	1	

Relinquished by: (Signature) Date 11-3-23 Time 1400
Received by: (Signature)

Received by Laboratory: (Signature) C. M... Date 11/1/23 Time 0953
2-8/31 4.7/5.0

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WG	Ground Water

Code	Container/Preservative
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5	1x 125mL plastic, Cool < 6degC
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46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
61	SHM-05-40X-FAL23	WG				X	X	X	X	X						SHM-05-40X	N1	32.00	34.00	1	
62	SHM-05-41A-FAL23	WG				X	X	X	X	X						SHM-05-41A	N1	42.00	44.00	1	
63	SHM-05-41B-FAL23	WG				X	X	X	X	X						SHM-05-41B	N1	62.00	64.00	1	
64	SHM-05-41C-FAL23	WG				X	X	X	X	X						SHM-05-41C	MS1	88.00	93.00	1	
65	SHM-05-41C-FAL23	WG				X	X	X	X	X						SHM-05-41C	N1	88.00	93.00	1	
66	SHM-05-41C-FAL23	WG				X	X	X	X	X						SHM-05-41C	SD1	88.00	93.00	1	
67	SHM-05-42A-FAL23	WG				X	X	X	X	X						SHM-05-42A	N1	40.00	42.00	1	
68	SHM-05-42B-FAL23	WG				X	X	X	X	X						SHM-05-42B	N1	70.00	72.00	1	
69	SHM-07-05X-FAL23	WG				X	X	X	X	X						SHM-07-05X	N1	55.00	65.00	1	
70	SHM-10-02-FAL23	WG				X	X	X	X	X						SHM-10-02	N1	53.00	63.00	1	
71	SHM-10-03-FAL23	WG				X	X	X	X	X						SHM-10-03	N1	58.50	68.50	1	
72	SHM-10-04-FAL23	WG				X	X	X	X	X						SHM-10-04	MS1	55.00	65.00	1	
73	SHM-10-04-FAL23	WG				X	X	X	X	X						SHM-10-04	N1	55.00	65.00	1	
74	SHM-10-04-FAL23	WG				X	X	X	X	X						SHM-10-04	SD1	55.00	65.00	1	
75	SHM-10-05A-FAL23	WG				X	X	X	X	X						SHM-10-05A	N1	50.00	60.00	1	
76	SHM-10-06-FAL23	WG				X	X	X	X	X						SHM-10-06	N1	69.50	79.50	1	
77	SHM-10-06A-FAL23	WG	11-3-23	1335	AE	X	X	X	X	X						SHM-10-06A	N1	77.00	87.00	1	
78	SHM-10-07-FAL23	WG				X	X	X	X	X						SHM-10-07	N1	40.00	50.00	1	
79	SHM-10-08-FAL23	WG				X	X	X	X	X						SHM-10-08	N1	46.00	56.00	1	
80	SHM-10-10-FAL23	WG				X	X	X	X	X						SHM-10-10	N1	56.00	66.00	1	

Relinquished by: (Signature) Drew Clapp
Date 11-3-23
Time 14:00
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Received by Laboratory: (Signature) O. Mmuo
Date 11/7/23
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46	1x 250mL, plastic, Cool < 6degC

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	Sample ID	Matrix	Date	Time	Samp Init.	Analytical Test Method: A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)					Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3										
81	SHM-10-11-FAL23	WG				X	X	X	X	X					SHM-10-11	N1	50.00	60.00	1	
82	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	MS1	45.00	55.00	1	
83	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	N1	45.00	55.00	1	
84	SHM-10-12-FAL23	WG				X	X	X	X	X					SHM-10-12	SD1	45.00	55.00	1	
85	SHM-10-13-FAL23	WG				X	X	X	X	X					SHM-10-13	N1	60.00	70.00	1	
86	SHM-10-14-FAL23	WG				X	X	X	X	X					SHM-10-14	N1	60.00	80.00	1	
87	SHM-10-15-FAL23	WG				X	X	X	X	X					SHM-10-15	N1	45.00	55.00	1	
88	SHM-10-16-FAL23	WG				X	X	X	X	X					SHM-10-16	N1	75.00	85.00	1	
89	SHM-11-02-FAL23	WG				X	X	X	X	X					SHM-11-02	N1	52.00	66.00	1	
90	SHM-11-06-FAL23	WG				X	X	X	X	X					SHM-11-06	N1	25.00	35.00	1	
91	SHM-13-01-FAL23	WG				X	X	X	X	X					SHM-13-01	N1	39.00	49.00	1	
92	SHM-13-02-FAL23	WG				X	X	X	X	X					SHM-13-02	N1	60.00	70.00	1	
93	SHM-13-03-FAL23	WG				X	X	X	X	X					SHM-13-03	N1	42.00	52.00	1	
94	SHM-13-04-FAL23	WG				X	X	X	X	X					SHM-13-04	N1	20.00	30.00	1	
95	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	MS1	75.00	85.00	1	
96	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	N1	75.00	85.00	1	
97	SHM-13-05-FAL23	WG				X	X	X	X	X					SHM-13-05	SD1	75.00	85.00	1	
98	SHM-13-06-FAL23	WG				X	X	X	X	X					SHM-13-06	N1	36.00	46.00	1	
99	SHM-13-07-FAL23	WG				X	X	X	X	X					SHM-13-07	N1	27.00	37.00	1	
100	SHM-13-08-FAL23	WG				X	X	X	X	X					SHM-13-08	N1	55.00	65.00	1	

Relinquished by: (Signature)
Date
Time
Received by: (Signature)

Received by Laboratory: (Signature) C. Mu 11/7/23 0953
Date 2-8/3-1
Time 4-7/5-0

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)									
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3									
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
101	SHM-13-14D-FAL23	WG				X	X	X	X	X					SHM-13-14D	N1	45.00	55.00	1	
102	SHM-13-14S-FAL23	WG				X	X	X	X	X					SHM-13-14S	N1	5.00	15.00	1	
103	SHM-13-15-FAL23	WG				X	X	X	X	X					SHM-13-15	N1	50.00	60.00	1	
104	SHM-93-10D-FAL23	WG	11-1-23	1440	FM	X	X	X	X	X					SHM-93-10D	N1	48.70	58.70	1	
105	SHM-93-18B-FAL23	WG	11-3-23	1320	DC	X	X	X	X	X					SHM-93-18B	MS1	78.50	88.50	1	
106	SHM-93-18B-FAL23	WG	11-3-23	1320	DC	X	X	X	X	X					SHM-93-18B	N1	78.50	88.50	1	
107	SHM-93-18B-FAL23	WG	11-3-23	1320	DC	X	X	X	X	X					SHM-93-18B	SD1	78.50	88.50	1	
108	SHM-93-22B-FAL23	WG				X	X	X	X	X					SHM-93-22B	N1	82.30	92.30	1	
109	SHM-93-22C-FAL23	WG				X	X	X	X	X					SHM-93-22C	N1	124.30	134.30	1	
110	SHM-93-24A-FAL23	WG				X	X	X	X	X					SHM-93-24A	N1	13.20	23.20	1	
111	SHM-96-5B-FAL23	WG				X	X	X	X	X					SHM-96-5B	N1	80.00	90.00	1	
112	SHM-96-5C-FAL23	WG				X	X	X	X	X					SHM-96-5C	N1	50.00	60.00	1	
113	SHM-99-31A-FAL23	WG				X	X	X	X	X					SHM-99-31A	N1	4.00	14.00	1	
114	SHM-99-31B-FAL23	WG				X	X	X	X	X					SHM-99-31B	N1	50.00	60.00	1	
115	SHM-99-31C-FAL23	WG				X	X	X	X	X					SHM-99-31C	N1	68.00	78.00	1	
116	SHM-99-32X-FAL23	WG				X	X	X	X	X					SHM-99-32X	N1	72.00	82.00	1	
117	SHP-01-36X-FAL23	WG				X	X	X	X	X					SHP-01-36X	N1	3.00	8.00	1	
118	SHP-01-37X-FAL23	WG				X	X	X	X	X					SHP-01-37X	N1	1.00	6.00	1	
119	SHP-01-38A-FAL23	WG				X	X	X	X	X					SHP-01-38A	N1	1.50	6.50	1	
120	SHP-2016-06A-FAL23	WG	11-2-23	1015	DC	X	X	X	X	X					SHP-2016-06A	N1	81.00	86.00	1	

Relinquished by: (Signature) Dana Clapp
Date 11-3-23
Time 1400
Received by: (Signature) C. Mims

Received by Laboratory: (Signature) C. Mims
Date 11/7/23
Time 0953

28/3.1 4.7/5.0

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)										
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3										
	Sample ID	Matrix	Date	Time	Samp Init.										Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
121	SHP-2016-06B-FAL23	WG	11-2-23	1230	DC	X	X	X	X	X					SHP-2016-06B	N1	102.00	112.00	1	
122	SHP-2016-06C-FAL23	WG	11-2-23	1335	DC	X	X	X	X	X					SHP-2016-06C	N1	123.00	133.00	1	
123	SHP-2016-07A-FAL23	WG	11-1-23	1025	FM	X	X	X	X	X					SHP-2016-07A	N1	22.00	32.00	1	
124	SHP-2016-07B-FAL23	WG	11-1-23	1210	FM	X	X	X	X	X					SHP-2016-07B	N1	70.00	80.00	1	
125	SHP-2016-1A-FAL23	WG				X	X	X	X	X					SHP-2016-1A	N1	13.00	23.00	1	
126	SHP-2016-1B-FAL23	WG				X	X	X	X	X					SHP-2016-1B	N1	75.00	85.00	1	
127	SHP-2016-2A-FAL23	WG				X	X	X	X	X					SHP-2016-2A	N1	20.00	25.00	1	
128	SHP-2016-2B-FAL23	WG				X	X	X	X	X					SHP-2016-2B	N1	80.00	85.00	1	
129	SHP-2016-3A-FAL23	WG	11-1-23	0945	AF	X	X	X	X	X					SHP-2016-3A	N1	20.00	25.00	1	
130	SHP-2016-3B-FAL23	WG	11-1-23	1045	AF	X	X	X	X	X					SHP-2016-3B	N1	80.00	85.00	1	
131	SHP-2016-4A-FAL23	WG				X	X	X	X	X					SHP-2016-4A	N1	25.00	30.00	1	
132	SHP-2016-4B-FAL23	WG				X	X	X	X	X					SHP-2016-4B	N1	85.00	90.00	1	
133	SHP-2016-5A-FAL23	WG				X	X	X	X	X					SHP-2016-5A	N1	25.00	30.00	1	
134	SHP-2016-5B-FAL23	WG				X	X	X	X	X					SHP-2016-5B	N1	85.00	90.00	1	
135	SHP-2023-1A-FAL23	WG	11-3-23	1140	NM	X	X	X	X	X					SHP-2023-1A	N1	0.00	0.00	1	
136	SHP-2023-1B-FAL23	WG	11-3-23	1330	NM	X	X	X	X	X					SHP-2023-1B	N1	0.00	0.00	1	
137	SHP-2023-2A-FAL23	WG				X	X	X	X	X					SHP-2023-2A	N1	0.00	0.00	1	
138	SHP-2023-2B-FAL23	WG				X	X	X	X	X					SHP-2023-2B	N1	0.00	0.00	1	
139	SHP-2023-3A-FAL23	WG	11-1-23	1600	NM	X	X	X	X	X					SHP-2023-3A	N1	0.00	0.00	1	
140	SHP-2023-3B-FAL23	WG	11-2-23	0950	AF	X	X	X	X	X					SHP-2023-3B	N1	0.00	0.00	1	

Relinquished by: (Signature) Date: 11-3-23 Time: 1400
Received by: (Signature)

Received by Laboratory: (Signature) C. Mm 11/7/23 0953
Date / Time 11-8-23 0745

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Number: DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

Analytical Test Method

Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023

	Sample ID	Matrix	Date	Time	Samp Init.	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)	Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
						46	9	9	5	3						
141	SHP-2023-4A-FAL23	WG	11-2-23	1515	AF	X	X	X	X	X	SHP-2023-4A	N1	0.00	0.00	1	
142	SHP-2023-4B-FAL23	WG	11-2-23	1345	AF	X	X	X	X	X	SHP-2023-4B	N1	0.00	0.00	1	
143	SHP-2023-5A-FAL23	WG	11-3-23	1005	AF	X	X	X	X	X	SHP-2023-5A	N1	0.00	0.00	1	
144	SHP-2023-5B-FAL23	WG	11-3-23	1140	AF	X	X	X	X	X	SHP-2023-5B	N1	0.00	0.00	1	
145	SHP-99-29X-FAL23	WG				X	X	X	X	X	SHP-99-29X	N1	19.00	29.00	1	
146	SHL-RB03-Fal23		11-2-23	1515	DC	X	X	X	X	X	Rinseblank					
147																
148																
149																
150																
151																
152																
153																

Turnaround Time: Standard

Relinquished by: (Signature) Drew Clipper 11-3-23 1400
Date
Time
Received by: (Signature)

Received by Laboratory: (Signature) C. [signature] 11/7/23 0753
Date
Time 2.8/3.1 4.7/5.0

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242677-1

Login Number: 242677
List Number: 1
Creator: Munro, Caroline

List Source: Eurofins Savannah

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Heather Levesque
Seres Engineering & Services LLC
669 Marina Drive
Suite B7
Charleston, South Carolina 29492

Generated 12/7/2023 9:03:23 AM

JOB DESCRIPTION

Seres-Arcadis JV, LTM, SHL, Fall 2023

JOB NUMBER

680-242827-1

Eurofins Savannah
5102 LaRoche Avenue
Savannah GA 31404

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
12/7/2023 9:03:23 AM

Authorized for release by
Jerry Lanier, Project Manager I
Jerry.Lanier@et.eurofinsus.com
(912)250-0281

Definitions/Glossary

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
M	Manual integrated compound.
U	Undetected at the Limit of Detection.

Metals

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
680-242827-1	SHP-2023-2A-FAL23	Water	11/06/23 10:40	11/10/23 10:06
680-242827-2	SHP-2023-2B-FAL23	Water	11/06/23 12:05	11/10/23 10:06

Job ID: 680-242827-1

Laboratory: Eurofins Savannah

Narrative

Job Narrative
680-242827-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 11/10/2023 10:06 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 9060A_Diss: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-811544. A sample duplicate was analyzed with the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2023-2A-FAL23
Lab Sample ID: 680-242827-1
Date Collected: 11/06/23 10:40
Matrix: Water
Date Received: 11/10/23 10:06

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	2.7		0.55	0.50	0.20	mg/L		11/26/23 14:05	1
Sulfate	4.3		1.5	1.0	0.40	mg/L		11/26/23 14:05	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	24000		100	50	20	ug/L		11/13/23 17:45	1
Manganese	1300		10	5.0	1.3	ug/L		11/13/23 17:45	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	87		5.0	3.0	0.86	ug/L		11/13/23 19:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	58		5.5	5.0	2.2	mg/L		11/16/23 11:25	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	2.5		1.5	1.0	0.50	mg/L		12/04/23 17:20	1

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2023-2B-FAL23
Lab Sample ID: 680-242827-2

Date Collected: 11/06/23 12:05
Matrix: Water
Date Received: 11/10/23 10:06

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	55		0.55	0.50	0.20	mg/L		11/26/23 14:16	1
Sulfate	70	M	1.5	1.0	0.40	mg/L		11/26/23 14:16	1

Method: SW846 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	18000		100	50	20	ug/L		11/13/23 17:48	1
Manganese	2900		10	5.0	1.3	ug/L		11/13/23 17:48	1

Method: SW846 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	890		5.0	3.0	0.86	ug/L		11/13/23 19:13	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5 (SM 2320B-2011)	180		5.5	5.0	2.2	mg/L		11/16/23 11:25	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon (SW846 9060A)	5.4		1.5	1.0	0.50	mg/L		12/04/23 17:53	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-809950/2
Matrix: Water
Analysis Batch: 809950

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Chloride	0.50	U	0.55	0.50	0.20	mg/L		11/26/23 13:08	1
Sulfate	1.0	U	1.5	1.0	0.40	mg/L		11/26/23 13:08	1

Lab Sample ID: LCS 680-809950/4
Matrix: Water
Analysis Batch: 809950

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.1		mg/L		101	87 - 111
Sulfate	10.0	9.45		mg/L		94	87 - 112

Lab Sample ID: LCSD 680-809950/5
Matrix: Water
Analysis Batch: 809950

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.0	10.1		mg/L		101	87 - 111	0	15
Sulfate	10.0	9.40		mg/L		94	87 - 112	0	15

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 680-807788/1-A
Matrix: Water
Analysis Batch: 808013

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807788

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Iron	50	U	100	50	20	ug/L		11/13/23 17:21	1
Manganese	5.0	U	10	5.0	1.3	ug/L		11/13/23 17:21	1

Lab Sample ID: LCS 680-807788/2-A
Matrix: Water
Analysis Batch: 808013

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807788

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	4990	5110		ug/L		102	87 - 115
Manganese	400	417		ug/L		104	90 - 114

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 680-807790/1-A
Matrix: Water
Analysis Batch: 808049

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 807790

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	3.0	U	5.0	3.0	0.86	ug/L		11/13/23 18:13	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 680-807790/2-A
Matrix: Water
Analysis Batch: 808049

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 807790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	110		ug/L		110	84 - 116

Method: 2320B-2011 - Alkalinity, Total

Lab Sample ID: MB 680-808619/4
Matrix: Water
Analysis Batch: 808619

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	5.0	U	5.5	5.0	2.2	mg/L		11/16/23 11:25	1

Lab Sample ID: LCS 680-808619/6
Matrix: Water
Analysis Batch: 808619

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Alkalinity as CaCO3 to pH 4.5	250	244		mg/L		98	90 - 112

Lab Sample ID: LCSD 680-808619/31
Matrix: Water
Analysis Batch: 808619

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	250	249		mg/L		100	90 - 112	2	30

Method: 9060A - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 680-811544/2
Matrix: Water
Analysis Batch: 811544

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Dissolved Organic Carbon	1.0	U	1.5	1.0	0.50	mg/L		12/04/23 14:32	1

Lab Sample ID: LCS 680-811544/3
Matrix: Water
Analysis Batch: 811544

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dissolved Organic Carbon	20.0	19.5		mg/L		98	80 - 120

Lab Sample ID: LCSD 680-811544/4
Matrix: Water
Analysis Batch: 811544

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dissolved Organic Carbon	20.0	19.2		mg/L		96	80 - 120	2	20

Method: 9060A - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 680-242827-1 DU
Client Sample ID: SHP-2023-2A-FAL23
Matrix: Water
Prep Type: Dissolved
Analysis Batch: 811544

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Dissolved Organic Carbon	2.5			2.43		mg/L				1	30

HPLC/IC

Analysis Batch: 809950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Total/NA	Water	9056A	
680-242827-2	SHP-2023-2B-FAL23	Total/NA	Water	9056A	
MB 680-809950/2	Method Blank	Total/NA	Water	9056A	
LCS 680-809950/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 680-809950/5	Lab Control Sample Dup	Total/NA	Water	9056A	

Metals

Prep Batch: 807788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Dissolved	Water	3005A	
680-242827-2	SHP-2023-2B-FAL23	Dissolved	Water	3005A	
MB 680-807788/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807788/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 807790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Dissolved	Water	3005A	
680-242827-2	SHP-2023-2B-FAL23	Dissolved	Water	3005A	
MB 680-807790/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 680-807790/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 808013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Dissolved	Water	6010C	807788
680-242827-2	SHP-2023-2B-FAL23	Dissolved	Water	6010C	807788
MB 680-807788/1-A	Method Blank	Total Recoverable	Water	6010C	807788
LCS 680-807788/2-A	Lab Control Sample	Total Recoverable	Water	6010C	807788

Analysis Batch: 808049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Dissolved	Water	6020A	807790
680-242827-2	SHP-2023-2B-FAL23	Dissolved	Water	6020A	807790
MB 680-807790/1-A	Method Blank	Total Recoverable	Water	6020A	807790
LCS 680-807790/2-A	Lab Control Sample	Total Recoverable	Water	6020A	807790

General Chemistry

Analysis Batch: 808619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Total/NA	Water	2320B-2011	
680-242827-2	SHP-2023-2B-FAL23	Total/NA	Water	2320B-2011	
MB 680-808619/4	Method Blank	Total/NA	Water	2320B-2011	
LCS 680-808619/6	Lab Control Sample	Total/NA	Water	2320B-2011	
LCSD 680-808619/31	Lab Control Sample Dup	Total/NA	Water	2320B-2011	

Analysis Batch: 811544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-242827-1	SHP-2023-2A-FAL23	Dissolved	Water	9060A	
680-242827-2	SHP-2023-2B-FAL23	Dissolved	Water	9060A	
MB 680-811544/2	Method Blank	Dissolved	Water	9060A	
LCS 680-811544/3	Lab Control Sample	Dissolved	Water	9060A	

General Chemistry (Continued)

Analysis Batch: 811544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 680-811544/4	Lab Control Sample Dup	Dissolved	Water	9060A	
680-242827-1 DU	SHP-2023-2A-FAL23	Dissolved	Water	9060A	

Lab Chronicle

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Client Sample ID: SHP-2023-2A-FAL23
Lab Sample ID: 680-242827-1

Date Collected: 11/06/23 10:40
Matrix: Water
Date Received: 11/10/23 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809950	11/26/23 14:05	T1C	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807788	11/13/23 06:37	RR	EET SAV
Dissolved	Analysis	6010C		1			808013	11/13/23 17:45	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807790	11/13/23 06:37	RR	EET SAV
Dissolved	Analysis	6020A		1			808049	11/13/23 19:09	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			808619	11/16/23 11:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	811544	12/04/23 17:20	KMB	EET SAV
	Instrument ID: TOC8									

Client Sample ID: SHP-2023-2B-FAL23
Lab Sample ID: 680-242827-2

Date Collected: 11/06/23 12:05
Matrix: Water
Date Received: 11/10/23 10:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	5 mL	5 mL	809950	11/26/23 14:16	T1C	EET SAV
	Instrument ID: CICK									
Dissolved	Prep	3005A			25 mL	25 mL	807788	11/13/23 06:37	RR	EET SAV
Dissolved	Analysis	6010C		1			808013	11/13/23 17:48	BJB	EET SAV
	Instrument ID: ICPH									
Dissolved	Prep	3005A			25 mL	125 mL	807790	11/13/23 06:37	RR	EET SAV
Dissolved	Analysis	6020A		1			808049	11/13/23 19:13	BWR	EET SAV
	Instrument ID: ICPMSC									
Total/NA	Analysis	2320B-2011		1			808619	11/16/23 11:25	PG	EET SAV
	Instrument ID: MANTECH 2									
Dissolved	Analysis	9060A		1	40 mL	40 mL	811544	12/04/23 17:53	KMB	EET SAV
	Instrument ID: TOC8									

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Laboratory: Eurofins Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2463	09-22-24

Method Summary

Client: Seres Engineering & Services LLC
Job ID: 680-242827-1
Project/Site: Seres-Arcadis JV, LTM, SHL, Fall 2023

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET SAV
6010C	Metals (ICP)	SW846	EET SAV
6020A	Metals (ICP/MS)	SW846	EET SAV
2320B-2011	Alkalinity, Total	SM	EET SAV
9060A	Organic Carbon, Dissolved (DOC)	SW846	EET SAV
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SAV

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

CHAIN-OF-CUSTODY RECORD

ARVC
Heather Levesque
669 Marina Drive, Suite B7, Charleston, SC 29492
(843) 619-370-0374, jennifer.singer@arcadis.com

COC # SHL-LTM-FAL23

US Army Corps of Engineers

Project Name: Former Fort Devens, Long Term Monitoring	Laboratory: Eurofins Environment Testing TestAmerica, Savannah, GA	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Project Num DEVNS-LTM PO 2312 - 00000001	POC: Jerry Lanier, 912-250-0281, jerry.lanier@eurofinsus.com	
WBS Code:	Ship to: Eurofins TestAmerica, 5102 LaRoche Avenue, Savannah, GA 31404	

Comments:
A2320B (A) = Alkalinity
SW6010C/FLDFLT (B) = Fe Mn
SW6020A/FLDFLT (B) = As
SW9056A (A) = Cl SO4
SW9060A/FLDFLT (B) = DOC

Equipment:

Code	Matrix
WG	Ground Water

Code	Container/Preservative
3	1x 250mL, amber glass, H2SO4, pH < 2; Cool < 6degC
5	1x 125mL plastic, Cool < 6degC
9	1x 250mL, plastic, HNO3, pH < 2; Cool < 6degC
46	1x 250mL, plastic, Cool < 6degC

						Analytical Test Method	A2320B (A)	SW6010C/FLDFLT (B)	SW6020A/FLDFLT (B)	SW9056A (A)	SW9060A/FLDFLT (B)									
	Event: Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023						46	9	9	5	3									
	Sample ID	Matrix	Date	Time	Samp Init.											Location ID	Sample Type	Depth (ft bgs) Top	Depth (ft bgs) Bottom	Cooler	Comments
121	SHP-2016-06B-FAL23	WG				X	X	X	X	X						SHP-2016-06B	N1	102.00	112.00	1	
122	SHP-2016-06C-FAL23	WG				X	X	X	X	X						SHP-2016-06C	N1	123.00	133.00	1	
123	SHP-2016-07A-FAL23	WG				X	X	X	X	X						SHP-2016-07A	N1	22.00	32.00	1	
124	SHP-2016-07B-FAL23	WG				X	X	X	X	X						SHP-2016-07B	N1	70.00	80.00	1	
125	SHP-2016-1A-FAL23	WG				X	X	X	X	X						SHP-2016-1A	N1	13.00	23.00	1	
126	SHP-2016-1B-FAL23	WG				X	X	X	X	X						SHP-2016-1B	N1	75.00	85.00	1	
127	SHP-2016-2A-FAL23	WG				X	X	X	X	X						SHP-2016-2A	N1	20.00	25.00	1	
128	SHP-2016-2B-FAL23	WG				X	X	X	X	X						SHP-2016-2B	N1	80.00	85.00	1	
129	SHP-2016-3A-FAL23	WG				X	X	X	X	X						SHP-2016-3A	N1	20.00	25.00	1	
130	SHP-2016-3B-FAL23	WG				X	X	X	X	X						SHP-2016-3B	N1	80.00	85.00	1	
131	SHP-2016-4A-FAL23	WG				X	X	X	X	X						SHP-2016-4A	N1	25.00	30.00	1	
132	SHP-2016-4B-FAL23	WG				X	X	X	X	X						SHP-2016-4B	N1	85.00	90.00	1	
133	SHP-2016-5A-FAL23	WG				X	X	X	X	X						SHP-2016-5A	N1	25.00	30.00	1	
134	SHP-2016-5B-FAL23	WG				X	X	X	X	X						SHP-2016-5B	N1	85.00			
135	SHP-2023-1A-FAL23	WG				X	X	X	X	X						SHP-2023-1A	N1	0.00			
136	SHP-2023-1B-FAL23	WG				X	X	X	X	X						SHP-2023-1B	N1	0.00			
137	SHP-2023-2A-FAL23	WG	11-6-23	1040	DC	X	X	X	X	X						SHP-2023-2A	N1	0.00			
138	SHP-2023-2B-FAL23	WG	11-6-23	1205	DC	X	X	X	X	X						SHP-2023-2B	N1	0.00			
139	SHP-2023-3A-FAL23	WG				X	X	X	X	X						SHP-2023-3A	N1	0.00			
140	SHP-2023-3B-FAL23	WG				X	X	X	X	X						SHP-2023-3B	N1	0.00	0.00	1	

680-242827 Chain of Custody

Relinquished by: (Signature) Diane Clyne
Date
Time
Received by: (Signature)

Received by Laboratory: (Signature) TS
Date 11-10-23
Time 1006

1.9/2.2

12/7/2023

Login Sample Receipt Checklist

Client: Seres Engineering & Services LLC

Job Number: 680-242827-1

Login Number: 242827

List Source: Eurofins Savannah

List Number: 1

Creator: Sims, Robert D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC1773

Sampling Date: 01/09/23

Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **241**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC1773

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FC1773-1	01/09/23	12:55	JR	01/10/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC1773

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 1/18/2023 1:26:24 PM

On 01/10/2023, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 2.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC1773 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP41715

Sample(s) FC1721-2DUP, FC1721-2MS, FC1721-2MSD, FC1721-2SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP41715-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC1773
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 01/09/23

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC1773-1	**EFFLUENT**					
Arsenic		24.1	2.0	1.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC1773-1	**Date Sampled:**	01/09/23
Matrix:	AQ - Water	**Date Received:**	01/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	24.1	2.0	1.0	0.21	ug/l	2	01/12/23	01/16/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19162
(2) Prep QC Batch: MP41715

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando
Chain of Custody

FC1773

SGS - ORLANDO JOB # : PAGE 1 OF 1

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
1	Effluent	1/9/23	12:55	JWR	aq	1					x					X	

INITIAL ASSESSMENT

LABEL VERIFICATION

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
x 5 Day- Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center Northborough, MA

n/a

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	1-9-23 1400	2 Thelma Fry (SC)	3 Thelma Fry	1/9/23 1700	4 Fed Ex
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5	1/10/23 1000	6 Carlos M Delgado	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.2IR

C$. 0316 02631

http://www.sgs.com/en/terms-and-conditions

FC1773: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC1773 **Client:** SOVEREIGN CONSULTING INC. **Project:** SHEPLEY'S HILL (SHL) DEVENS, MA

Date / Time Received: 1/10/2023 10:00:00 AM **Delivery Method:** FEDEX **Airbill #'s:**

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: CARLOSD Date: 1/10/2023 10:00:00 A Reviewer: _____ Date: _____

QC Evaluation: DOD QSM5.x Limits

Job Number: FC1773
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 01/09/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP41715	SW846 6020B						
MP41715-B1	7440-38-2	Arsenic	BSP	REC	110.5	%	84-116
MP41715-S1*	7440-38-2	Arsenic	MS	REC	111.8	%	84-116
MP41715-S2*	7440-38-2	Arsenic	MSD	REC	108.3	%	84-116
MP41715-S2*	7440-38-2	Arsenic	MSD	RPD	3.2	%	20
MP41715-D1*	7440-38-2	Arsenic	DUP	RPD	6.5	%	20

* Sample used for QC is not from job FC1773

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:52	MA19162-STD1	1		STDA
11:56	MA19162-STD2	1		STDB
12:00	MA19162-STD3	1		STDC
12:04	MA19162-STD4	1		STDD
12:08	MA19162-STD5	1		STDE
12:12	MA19162-STD6	1		STDF
12:16	MA19162-STD7	1		STDG
12:20	MA19162-HSTD1	1		
12:24	MA19162-HSTD2	1		
12:28	MA19162-ICV1	1		
12:32	MA19162-ICB1	1		
12:52	MA19162-CRIA1	1		
12:55	MA19162-ICSA1	1		
12:59	MA19162-ICSAB1	1		
13:03	MA19162-CCV1	1		
13:07	MA19162-CCV2	1		
13:11	MA19162-CCB1	1		
13:14	FC1666-3F	100		(sample used for QC only; not part of login FC1773)
13:18	MP41702-D1	100		
13:22	MP41702-SD1	500		
13:26	MP41702-S1	100		
13:30	MP41702-S2	100		
13:33	MP41702-PS1	100		
13:37	ZZZZZZ	100		
13:41	ZZZZZZ	100		
13:45	ZZZZZZ	100		
13:48	ZZZZZZ	100		
13:52	MA19162-CCV3	1		
13:56	MA19162-CCV4	1		
14:00	MA19162-CCB2	1		
14:07	MP41722-MB1	2		
14:11	MP41722-B1	2		
14:15	FC1789-1	2		(sample used for QC only; not part of login FC1773)

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:19	MP41722-D1	2		
14:23	MP41722-SD1	10		
14:26	MP41722-S1	2		
14:30	MP41722-S2	2		
14:34	MP41722-PS1	2		
14:38	ZZZZZZ	2		
14:42	MA19162-CCV5	1		
14:45	MA19162-CCV6	1		
14:49	MA19162-CCB3	1		
14:53	ZZZZZZ	2		
14:57	ZZZZZZ	2		
15:01	ZZZZZZ	2		
15:04	ZZZZZZ	2		
15:08	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:16	ZZZZZZ	2		
15:19	MP41715-MB1	2		
15:23	MP41715-B1	2		
15:27	FC1721-2	2		(sample used for QC only; not part of login FC1773)
15:31	MA19162-CCV7	1		
15:35	MA19162-CCV8	1		
15:38	MA19162-CCB4	1		
15:42	MP41715-D1	2		
15:46	MP41715-SD1	10		
15:50	MP41715-S1	2		
15:54	MP41715-S2	2		
15:57	MP41715-PS1	2		
16:01	ZZZZZZ	2		
16:05	ZZZZZZ	2		
16:09	ZZZZZZ	2		
16:12	FC1773-1	2		
16:16	ZZZZZZ	2		
16:20	MA19162-CCV9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:24	MA19162-CCV10	1		
16:28	MA19162-CCB5	1		
16:31	ZZZZZZ	2		
17:09	MA19162-CCV11	1		
17:13	MA19162-CCV12	1		
17:17	MA19162-CCB6	1		
17:21	FC1721-2	10		(sample used for QC only; not part of login FC1773)
17:24	MP41715-D1	10		
17:28	MP41715-SD1	50		
17:32	MP41715-S1	10		
17:36	MP41715-S2	10		
17:39	MP41715-PS1	10		
---------->	Last reportable sample/prep for job FC1773			
17:43	ZZZZZZ	10		
17:47	ZZZZZZ	10		
17:51	MA19162-CCV13	1		
17:55	MA19162-CCV14	1		
17:58	MA19162-CCB7	1		
---------->	Last reportable CCB for job FC1773			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Element: Dilution	As
12:20	MA19162-HSTD1	1	
12:24	MA19162-HSTD2	1	X
12:28	MA19162-ICV1	1	X
12:32	MA19162-ICB1	1	X
12:52	MA19162-CRIA1	1	X
12:55	MA19162-ICSA1	1	X
12:59	MA19162-ICSAB1	1	X
13:03	MA19162-CCV1	1	
13:07	MA19162-CCV2	1	X
13:11	MA19162-CCB1	1	X
13:14	FC1666-3F	100	(a)
13:18	MP41702-D1	100	
13:22	MP41702-SD1	500	
13:26	MP41702-S1	100	
13:30	MP41702-S2	100	
13:33	MP41702-PS1	100	
13:37	ZZZZZZ	100	
13:41	ZZZZZZ	100	
13:45	ZZZZZZ	100	
13:48	ZZZZZZ	100	
13:52	MA19162-CCV3	1	
13:56	MA19162-CCV4	1	X
14:00	MA19162-CCB2	1	X
14:07	MP41722-MB1	2	
14:11	MP41722-B1	2	
14:15	FC1789-1	2	(a)
14:19	MP41722-D1	2	
14:23	MP41722-SD1	10	
14:26	MP41722-S1	2	
14:30	MP41722-S2	2	
14:34	MP41722-PS1	2	
14:38	ZZZZZZ	2	
14:42	MA19162-CCV5	1	
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:45	MA19162-CCV6	1	X	
14:49	MA19162-CCB3	1	X	
14:53	ZZZZZZ	2		
14:57	ZZZZZZ	2		
15:01	ZZZZZZ	2		
15:04	ZZZZZZ	2		
15:08	ZZZZZZ	2		
15:12	ZZZZZZ	2		
15:16	ZZZZZZ	2		
15:19	MP41715-MB1	2	X	
15:23	MP41715-B1	2	X	
15:27	FC1721-2	2	X	(a)
15:31	MA19162-CCV7	1		
15:35	MA19162-CCV8	1	X	
15:38	MA19162-CCB4	1	X	
15:42	MP41715-D1	2	X	
15:46	MP41715-SD1	10	X	
15:50	MP41715-S1	2	X	
15:54	MP41715-S2	2	X	
15:57	MP41715-PS1	2		
16:01	ZZZZZZ	2		
16:05	ZZZZZZ	2		
16:09	ZZZZZZ	2		
16:12	FC1773-1	2	X	
16:16	ZZZZZZ	2		
16:20	MA19162-CCV9	1		
16:24	MA19162-CCV10	1	X	
16:28	MA19162-CCB5	1	X	
16:31	ZZZZZZ	2		
17:09	MA19162-CCV11	1		
17:13	MA19162-CCV12	1	X	
17:17	MA19162-CCB6	1	X	
17:21	FC1721-2	10		(a)
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Dilution	Element: As
17:24	MP41715-D1	10	
17:28	MP41715-SD1	50	
17:32	MP41715-S1	10	
17:36	MP41715-S2	10	
17:39	MP41715-PS1	10	
17:43	ZZZZZZ	10	
17:47	ZZZZZZ	10	
17:51	MA19162-CCV13	1	
17:55	MA19162-CCV14	1	X
17:58	MA19162-CCB7	1	X

(a) Sample used for QC only; not part of login FC1773.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:52	MA19162-STD1	100	100	100	100	100	100	100
11:56	MA19162-STD2	98.5	102.3	102	103	102	101.5	100.4
12:00	MA19162-STD3	98.3	101.3	101.7	101.8	101.8	100.8	100.2
12:04	MA19162-STD4	96.1	102.1	101.9	102.8	102.2	101.4	101.3
12:08	MA19162-STD5	94.6	104.2	104.3	104.1	102.8	102.7	100.5
12:12	MA19162-STD6	103.9	103.8	103.1	103.1	101.2	101.9	98.1
12:16	MA19162-STD7	99	98.8	99.8	98.7	97.7	99.2	93.9
12:20	MA19162-HSTD1	96.8	98.8	99.9	99.7	98	99.8	97.3
12:24	MA19162-HSTD2	105.5	99	99.6	99.7	97.9	99.3	94.7
12:28	MA19162-ICV1	109	100.3	100.9	100.7	99.2	100.6	97.2
12:32	MA19162-ICB1	105	99.8	100	100.9	100.7	99.5	99
12:52	MA19162-CRIA1	97.5	102.9	105.3	106	105	102.5	102.2
12:55	MA19162-ICSA1	94.4	100.5	102.3	99.4	94.8	96.5	88.8
12:59	MA19162-ICSAB1	83.6	102.4	104.1	100.9	95.8	97.9	90
13:03	MA19162-CCV1	91.5	104.4	106.7	107.8	105.1	104.6	103
13:07	MA19162-CCV2	99	102.9	106.5	106	104	103.8	100.6
13:11	MA19162-CCB1	101.2	105.2	107.9	107.9	106.7	104.2	103.4
13:14	FC1666-3F	92	106.1	109.1	110.8	107.6	104.6	103.2
13:18	MP41702-D1	95.1	107.6	112	112.4	108.7	105.3	104
13:22	MP41702-SD1	97.6	106.6	110.5	110.2	108	104.6	104.2
13:26	MP41702-S1	97.2	107	110.7	110.5	107.2	105.1	102.5
13:30	MP41702-S2	96.7	107.4	110.8	110.8	107.7	104.6	103
13:33	MP41702-PS1	No results reported for the elements associated with this internal standard.						
13:37	ZZZZZZ	94.7	110.7	113.5	114.8	110.5	105.9	103.9
13:41	ZZZZZZ	97.8	108.7	111.5	112.4	108.6	104.7	103.7
13:45	ZZZZZZ	90.8	107.3	110.5	110.5	108.4	104.3	102.2
13:48	ZZZZZZ	100.6	107.6	111.4	112	108.6	104.1	102.5
13:52	MA19162-CCV3	90.2	106.5	108.5	109	106.5	104.7	102
13:56	MA19162-CCV4	96.4	107.1	110	109.1	105.9	105	100.8
14:00	MA19162-CCB2	94.5	104.9	106.8	107.8	106	103.3	102.5
14:07	MP41722-MB1	86.7	98.4	100.8	101.7	99.8	98.9	99
14:11	MP41722-B1	89.9	99	102.2	102.7	99	99.8	96
14:15	FC1789-1	86.4	98.9	101.5	102	100.5	100.4	97.9

INTERNAL STANDARD SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:19	MP41722-D1	86.7	101.4	104.3	104.2	102.4	101.1	99
14:23	MP41722-SD1	101.7	109.8	111	111.9	109.2	105	103.5
14:26	MP41722-S1	92.6	98.1	101.1	101	97.9	99.6	94.7
14:30	MP41722-S2	87.3	97.9	101.2	100.9	98	99	94
14:34	MP41722-PS1	No results reported for the elements associated with this internal standard.						
14:38	ZZZZZZ	97.1	100.2	102.8	103.6	101.2	100.6	98.4
14:42	MA19162-CCV5	100.9	109.7	110.9	110.7	108	105.4	101.7
14:45	MA19162-CCV6	95.2	108.9	109.9	110	106.2	104.4	100.2
14:49	MA19162-CCB3	103.2	107.3	107.6	107.9	106.7	102.5	101.6
14:53	ZZZZZZ	92.1	98.4	100.8	101.7	99.8	99.5	98.7
14:57	ZZZZZZ	95.8	99.4	102	102.1	100	99.5	97.6
15:01	ZZZZZZ	82.5	96.1	97.5	98.7	97.4	97.2	95.7
15:04	ZZZZZZ	88.3	97.4	100.1	101.2	99.5	99.2	97.3
15:08	ZZZZZZ	94.7	98.4	100.6	101	99.8	99.8	97
15:12	ZZZZZZ	90.7	97.6	101	101.2	99.7	99.1	98.6
15:16	ZZZZZZ	92.2	98	100.6	101.7	100.5	99.8	97.4
15:19	MP41715-MB1	89.5	98.9	101	101.4	100.1	99.3	97.9
15:23	MP41715-B1	84.6	95.9	98.8	98.4	97	98.5	94.9
15:27	FC1721-2	93.7	95.9	98	98.3	96.1	98.5	95.7
15:31	MA19162-CCV7	104.8	105.7	107.6	107.9	105.3	103.7	101.4
15:35	MA19162-CCV8	97.8	105.5	106.4	106.2	103.7	102.1	98.9
15:38	MA19162-CCB4	105.6	104	103.9	104.7	104.4	100.9	99.6
15:42	MP41715-D1	90.5	94.3	95	96.4	95.3	97	93.7
15:46	MP41715-SD1	98.9	102.4	103.7	103.5	102.3	101.2	100.3
15:50	MP41715-S1	83	94.6	96.3	96.4	94.1	97	92.3
15:54	MP41715-S2	90.1	95.3	97.2	97.4	94.6	97.5	92.5
15:57	MP41715-PS1	No results reported for the elements associated with this internal standard.						
16:01	ZZZZZZ	96.9	93.2	95.9	96.1	94.9	96.3	94.9
16:05	ZZZZZZ	98.2	93.2	94.8	96.2	94.3	96.2	95.9
16:09	ZZZZZZ	88.6	91.9	94.9	95	94.4	95.6	94.6
16:12	FC1773-1	93	90.7	93.8	94.6	93.4	95.7	93.8
16:16	ZZZZZZ	96.7	92.2	95.1	95.3	92.7	95.3	91.7
16:20	MA19162-CCV9	107.9	104.2	104.1	105	102.9	101.9	99.4

INTERNAL STANDARD SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19162
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:24	MA19162-CCV10	106	102.2	103.4	103.9	101.5	100.6	97.2
16:28	MA19162-CCB5	113.2	100.7	101.1	102	101.2	99.3	98.2
16:31	ZZZZZZ	93.2	91.9	94.3	94.9	92	94.4	91.1
17:09	MA19162-CCV11	91.2	101.3	101.6	101.9	100.5	99.6	97.1
17:13	MA19162-CCV12	106	101.2	102.6	102.9	100	99.6	96
17:17	MA19162-CCB6	112.8	101.2	101.4	102.2	101	98.3	97.2
17:21	FC1721-2	97.8	97.5	98.3	99	98.1	97.5	96.8
17:24	MP41715-D1	96.9	97.2	98.2	98.8	98.6	97.5	96.7
17:28	MP41715-SD1	95.6	99.8	100.8	101.9	101	98.7	98.5
17:32	MP41715-S1	91.7	97.6	98.8	98.8	98	97.9	95.9
17:36	MP41715-S2	96.5	97.8	98.7	99.8	97.7	97.8	96
17:39	MP41715-PS1	95	98	98.1	98.8	98	97.2	96.5
17:43	ZZZZZZ	100	97.5	99.1	99.7	97.9	97.8	95.9
17:47	ZZZZZZ	97	97.8	99.3	99.8	98.1	97.7	96
17:51	MA19162-CCV13	97.9	102.8	102.9	103.3	101.6	100.3	97.5
17:55	MA19162-CCV14	101.2	103	103.2	103.3	100.6	99.7	95.7
17:58	MA19162-CCB7	103.5	103.2	102.8	102.9	102.6	99.1	98.3

! = Outside limits.

LEGEND:

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19162 Units: ug/l

Time: / Sample ID:			12:32 ICB1		13:11 CCB1		14:00 CCB2		14:49 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0392	<1.0	0.0125	<1.0	0.0254	<1.0	0.0156	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19162 Units: ug/l

Time: / Sample ID:			15:38 CCB4		16:28 CCB5		17:17 CCB6		17:58 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0205	<1.0	0.00946	<1.0	0.0215	<1.0	0.0213	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		12:28			13:03			13:07	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	108	108.0				100	97.5	97.5
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		13:52			13:56			14:42	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.5	97.5			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		14:45			15:31			15:35	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	96.9	96.9				100	97.4	97.4
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		16:20			16:24			17:09	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.8	97.8			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		17:13			17:51			17:55	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	96.6	96.6				100	96.1	96.1
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19162 Units: ug/l

Time:		12:20			12:24	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	200	100.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19162 Units: ug/l

Time:			12:52	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	0.983	98.3
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0		
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0		
Thallium	1.0	1.0	anr	
Tin	1.0	1.0		
Titanium	1.0	1.0		
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA011623M1.CSV Date Analyzed: 01/16/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19162 Units: ug/l

Time:			12:55		12:59	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96000	96.0	94100	94.1
Antimony			0.0736		0.0869	
Arsenic		20	0.0770		19.3	96.5
Barium			0.540		0.507	
Beryllium			0.00261		0.00471	
Cadmium		20	0.659		19.7	98.5
Calcium	100000	100000	99100	99.1	97300	97.3
Chromium		20	2.11*(a)		21.5	107.5
Cobalt		20	0.117		19.4	97.0
Copper		20	-0.0585		18.7	93.5
Iron	100000	100000	100000	100.0	99500	99.5
Lead			0.0461		0.0484	
Magnesium	100000	100000	99700	99.7	98400	98.4
Manganese		20	0.267		19.6	98.0
Molybdenum	2000	2000	2120	106.0	2100	105.0
Nickel		20	0.414		19.4	97.0
Potassium	100000	100000	103000	103.0	102000	102.0
Selenium			0.157		0.170	
Silver		20	-0.129		18.7	93.5
Sodium	100000	100000	102000	102.0	100000	100.0
Strontium			0.845		0.828	
Thallium			0.00949		0.00885	
Tin			0.0728		0.0714	
Titanium	2000	2000	2010	100.5	1990	99.5
Vanadium			0.0731		0.0739	
Zinc		20	0.743		19.4	97.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 01/12/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.16	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			01/12/23					01/12/23	
Metal	FC1721-2 Original	DUP	RPD	QC Limits	FC1721-2 Original	MS	Spikelot MPICPMS1 % Rec		QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	1.5	1.6	6.5	0-20	1.5	225	200	111.8	80-120
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/12/23

Metal	FC1721-2 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	1.5	218	200	108.3	3.2	20
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 01/12/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	221	200	110.5	80-120
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 01/12/23

Metal	FC1721-2 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	1.54	1.37	11.1 (a)	0-10
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FC1773
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41715
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 01/12/23

Metal	Sample ml	Final ml	FC1721-2 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP41715: FC1773-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC1773
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19162

Instrument Linear Ranges

Job Number: FC1773
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19162

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 11:44
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	355.56	508.68	2.516E-03	Pulse	0.50	3
As			1	0.002	ug/l	342.50	80.67	3.987E-04	Pulse	1.00	3
Mo			1	0.017	ug/l	34.33	262.00	8.698E-04	Pulse	0.50	3
Pb			1	0.001	ug/l	390.09	887.02	2.335E-04	Pulse	1.00	3
Be			1	-0.002	ug/l	-1282.16	1.67	5.438E-06	Pulse	2.00	3
Ag			1	0.034	ug/l	28.75	7,506.20	2.492E-02	Pulse	0.50	3
Ba			1	-0.001	ug/l	-97.68	5.33	2.736E-06	Pulse	0.50	3
Tl			1	0.002	ug/l	39.27	314.00	8.271E-05	Pulse	0.50	3
Sn			1	0.008	ug/l	68.37	202.22	1.038E-04	Pulse	0.30	3
Sr			1	0.001	ug/l	444.01	315.33	1.619E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	130.79	436.68	1.150E-04	Pulse	0.50	3
Ca			1	1.410	ug/l	62.57	677.35	2.203E-03	Pulse	0.50	3
Ti			1	0.002	ug/l	655.47	6.00	1.954E-05	Pulse	0.50	3
Na			1	1.423	ug/l	2.37	37,478.51	1.219E-01	Pulse	1.00	3
Mg			1	0.015	ug/l	59.63	455.34	1.482E-03	Pulse	1.00	3
K			1	-0.703	ug/l	-63.80	81,924.65	2.666E-01	Pulse	1.00	3
V			1	-0.003	ug/l	-294.79	1,297.38	4.222E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	-7252.92	190.67	9.436E-04	Pulse	0.50	3
Fe			1	0.137	ug/l	22.99	25,170.30	1.244E-01	Pulse	0.50	3
Co			1	-0.001	ug/l	-109.23	91.33	4.520E-04	Pulse	0.50	3
Ni			1	-0.002	ug/l	-407.68	420.01	2.077E-03	Pulse	0.50	3
Cu			1	-0.003	ug/l	-503.90	8,126.40	4.018E-02	Pulse	0.50	3
Zn			1	-0.005	ug/l	-541.41	976.36	3.242E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	63.09	16.00	5.310E-05	Pulse	0.50	3
Al			1	0.208	ug/l	84.16	820.69	2.671E-03	Pulse	1.00	3
Se			1	-0.007	ug/l	-1255.18	95.00	3.153E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	15.47	292.67	9.715E-04	Pulse	1.00	3
Se			1	-0.028	ug/l	-267.78	58.55	1.944E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,798,981.33	0.98	100.0	Pulse	0.50	3
1	Sc		307,336.51	0.49	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		202,265.10	0.72	100.0	Pulse	0.30	3
1	In		1,948,239.64	0.19	100.0	Pulse	0.30	3
1	Tb		5,279,036.00	0.04	100.0	Pulse	0.50	3
1	Lu		4,031,702.83	0.44	100.0	Pulse	0.50	3
1	Ge		301,226.66	0.32	100.0	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,122.26	3.96	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 11:48
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.010	ug/l	8.30	570.01	3.043E-03	Pulse	0.50	3
As			1	0.000	ug/l	-43183.88	71.33	3.809E-04	Pulse	1.00	3
Mo			1	0.006	ug/l	87.12	166.00	6.014E-04	Pulse	0.50	3
Pb			1	-0.001	ug/l	-480.16	778.69	2.235E-04	Pulse	1.00	3
Be			1	-0.005	ug/l	-110.77	1.33	4.799E-06	Pulse	2.00	3
Ag			1	0.007	ug/l	51.85	6,337.78	2.295E-02	Pulse	0.50	3
Ba			1	-0.002	ug/l	-34.43	2.00	1.117E-06	Pulse	0.50	3
Tl			1	0.001	ug/l	43.47	252.67	7.243E-05	Pulse	0.50	3
Sn			1	0.006	ug/l	90.67	164.45	9.283E-05	Pulse	0.30	3
Sr			1	-0.001	ug/l	-379.40	270.00	1.521E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	149.85	406.01	1.167E-04	Pulse	0.50	3
Ca			1	2.790	ug/l	32.63	678.01	2.432E-03	Pulse	0.50	3
Ti			1	0.002	ug/l	181.21	5.33	1.912E-05	Pulse	0.50	3
Na			1	2.779	ug/l	16.45	36,053.59	1.294E-01	Pulse	1.00	3
Mg			1	0.078	ug/l	39.72	462.01	1.657E-03	Pulse	1.00	3
K			1	6.701	ug/l	30.14	81,024.28	2.908E-01	Pulse	1.00	3
V			1	0.006	ug/l	94.27	1,260.05	4.523E-03	Pulse	0.50	3
Mn			1	0.003	ug/l	55.23	201.33	1.075E-03	Pulse	0.50	3
Fe			1	2.713	ug/l	22.03	48,629.09	2.599E-01	Pulse	0.50	3
Co			1	0.004	ug/l	21.74	168.67	9.007E-04	Pulse	0.50	3
Ni			1	0.002	ug/l	197.63	408.68	2.180E-03	Pulse	0.50	3
Cu			1	0.001	ug/l	2551.55	7,571.51	4.043E-02	Pulse	0.50	3
Zn			1	0.075	ug/l	32.37	1,082.70	3.921E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	48.98	13.33	4.823E-05	Pulse	0.50	3
Al			1	0.264	ug/l	37.57	763.35	2.740E-03	Pulse	1.00	3
Se			1	0.049	ug/l	130.02	94.45	3.420E-04	Pulse	3.00	3
Sb			1	-0.001	ug/l	-297.35	194.33	7.038E-04	Pulse	1.00	3
Se			1	0.121	ug/l	9.62	62.89	2.277E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,484,403.25	1.85	100.0	Pulse	0.50	3
1	Sc		278,694.59	1.92	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		187,348.50	1.73	100.0	Pulse	0.30	3
1	In		1,774,874.44	1.45	100.0	Pulse	0.30	3
1	Tb		4,830,845.33	1.50	100.0	Pulse	0.50	3
1	Lu		3,694,068.42	1.72	100.0	Pulse	0.50	3
1	Ge		276,182.27	1.09	100.0	Pulse	0.30	3
1	Te		2.00	173.21	100.0	Pulse	0.50	3
1	Li		1,073.37	7.30	100.0	Pulse	0.30	3

Quantitation Report

File Name 003CALB.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 11:52
Sample Name CALSTD-1
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	509.34	2.436E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	79.67	3.810E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	144.67	4.671E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	883.36	2.282E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.83	5.806E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	6,946.66	2.246E-02	Pulse	0.50	3
Ba			1	0.000	ug/l	---	8.67	4.337E-06	Pulse	0.50	3
Tl			1	0.000	ug/l	---	219.33	5.673E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	135.56	6.794E-05	Pulse	0.30	3
Sr			1	0.000	ug/l	---	316.67	1.587E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	412.68	1.067E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	621.34	1.970E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	---	5.33	1.690E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	35,986.81	1.141E-01	Pulse	1.00	3
Mg			1	0.000	ug/l	---	454.34	1.441E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	84,777.24	2.689E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,359.39	4.312E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	198.00	9.473E-04	Pulse	0.50	3
Fe			1	0.000	ug/l	---	24,508.79	1.172E-01	Pulse	0.50	3
Co			1	0.000	ug/l	---	115.33	5.516E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	443.34	2.121E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	8,441.21	4.037E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,015.70	3.282E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	10.00	3.214E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	760.35	2.411E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	98.56	3.187E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	227.67	7.358E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	62.11	2.007E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,869,442.33	1.20	100.0	Pulse	0.50	3
1	Sc		315,319.00	0.31	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		209,046.66	0.62	100.0	Pulse	0.30	3
1	In		1,995,836.80	0.97	100.0	Pulse	0.30	3
1	Tb		5,377,833.67	0.66	100.0	Pulse	0.50	3
1	Lu		4,114,432.25	0.09	100.0	Pulse	0.50	3
1	Ge		309,345.47	1.15	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,188.93	1.64	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 11:56
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.491	ug/l	3.49	6,863.23	3.219E-02	Pulse	0.50	3
As			1	0.459	ug/l	5.74	953.36	4.472E-03	Pulse	1.00	3
Mo			1	0.450	ug/l	0.83	3,509.01	1.101E-02	Pulse	0.50	3
Pb			1	0.473	ug/l	1.54	17,617.39	4.536E-03	Pulse	1.00	3
Be			1	0.484	ug/l	15.65	32.17	9.979E-05	Pulse	2.00	3
Ag			1	0.431	ug/l	2.70	17,187.96	5.393E-02	Pulse	0.50	3
Ba			1	0.443	ug/l	0.94	1,747.42	8.583E-04	Pulse	0.50	3
Tl			1	0.463	ug/l	2.13	23,793.84	6.127E-03	Pulse	0.50	3
Sn			1	0.465	ug/l	4.86	4,248.30	2.087E-03	Pulse	0.30	3
Sr			1	0.543	ug/l	4.06	6,271.73	3.080E-03	Pulse	0.50	3
[Pb]			1	0.465	ug/l	1.46	8,415.43	2.167E-03	Pulse	0.50	3
Ca			1	73.856	ug/l	5.54	4,572.55	1.418E-02	Pulse	0.50	3
Ti			1	0.486	ug/l	2.92	183.33	5.686E-04	Pulse	0.50	3
Na			1	47.322	ug/l	0.59	120,609.56	3.741E-01	Pulse	1.00	3
Mg			1	48.492	ug/l	0.73	43,891.83	1.361E-01	Pulse	1.00	3
K			1	47.830	ug/l	0.39	137,206.73	4.255E-01	Pulse	1.00	3
V			1	0.441	ug/l	4.01	6,078.30	1.885E-02	Pulse	0.50	3
Mn			1	0.575	ug/l	2.49	4,791.94	2.248E-02	Pulse	0.50	3
Fe			1	53.025	ug/l	0.71	619,305.04	2.905E+00	Pulse	0.50	3
Co			1	0.555	ug/l	2.34	11,314.67	5.307E-02	Pulse	0.50	3
Ni			1	0.490	ug/l	4.16	3,051.59	1.431E-02	Pulse	0.50	3
Cu			1	1.337	ug/l	2.73	27,504.20	1.290E-01	Pulse	0.50	3
Zn			1	3.338	ug/l	1.21	10,151.68	3.185E-02	Pulse	1.00	3
Cd			1	0.476	ug/l	2.90	1,828.76	5.738E-03	Pulse	0.50	3
Al			1	46.384	ug/l	0.50	19,449.10	6.032E-02	Pulse	1.00	3
Se			1	0.412	ug/l	10.13	163.56	5.132E-04	Pulse	3.00	3
Sb			1	0.453	ug/l	1.60	5,688.89	1.785E-02	Pulse	1.00	3
Se			1	0.503	ug/l	6.81	99.78	3.131E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,883,534.33	0.90	100.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		322,439.19	0.28	102.3	Pulse	0.30	3
1	Ge		213,205.15	0.44	102.0	Pulse	0.30	3
1	In		2,036,017.00	0.50	102.0	Pulse	0.30	3
1	Tb		5,457,125.50	0.57	101.5	Pulse	0.50	3
1	Lu		4,155,247.42	0.74	101.0	Pulse	0.50	3
1	Ge		318,712.85	0.41	103.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,171.15	6.58	98.5	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:00
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.996	ug/l	0.21	13,355.94	6.283E-02	Pulse	0.50	3
As			1	0.942	ug/l	2.43	1,863.43	8.767E-03	Pulse	1.00	3
Mo			1	0.946	ug/l	2.04	7,132.05	2.265E-02	Pulse	0.50	3
Pb			1	0.973	ug/l	0.92	35,253.84	9.088E-03	Pulse	1.00	3
Be			1	0.847	ug/l	12.14	54.33	1.702E-04	Pulse	2.00	3
Ag			1	0.957	ug/l	1.38	29,059.34	9.230E-02	Pulse	0.50	3
Ba			1	0.951	ug/l	7.60	3,729.73	1.836E-03	Pulse	0.50	3
Tl			1	0.965	ug/l	1.54	49,288.04	1.271E-02	Pulse	0.50	3
Sn			1	0.996	ug/l	2.66	8,918.88	4.391E-03	Pulse	0.30	3
Sr			1	1.042	ug/l	0.47	11,716.33	5.768E-03	Pulse	0.50	3
[Pb]			1	0.964	ug/l	1.13	16,988.46	4.380E-03	Pulse	0.50	3
Ca			1	131.029	ug/l	0.22	7,547.48	2.364E-02	Pulse	0.50	3
Ti			1	0.955	ug/l	8.49	351.34	1.100E-03	Pulse	0.50	3
Na			1	98.238	ug/l	0.54	208,753.09	6.537E-01	Pulse	1.00	3
Mg			1	100.598	ug/l	0.18	89,681.62	2.808E-01	Pulse	1.00	3
K			1	99.639	ug/l	1.09	190,070.84	5.952E-01	Pulse	1.00	3
V			1	0.964	ug/l	4.83	11,531.44	3.611E-02	Pulse	0.50	3
Mn			1	1.098	ug/l	1.21	8,937.41	4.204E-02	Pulse	0.50	3
Fe			1	103.734	ug/l	0.78	1,184,078.29	5.571E+00	Pulse	0.50	3
Co			1	1.077	ug/l	2.17	21,794.26	1.025E-01	Pulse	0.50	3
Ni			1	0.998	ug/l	3.69	5,732.20	2.697E-02	Pulse	0.50	3
Cu			1	1.415	ug/l	2.12	28,515.01	1.342E-01	Pulse	0.50	3
Zn			1	4.380	ug/l	0.95	12,835.28	4.077E-02	Pulse	1.00	3
Cd			1	0.960	ug/l	2.34	3,630.37	1.153E-02	Pulse	0.50	3
Al			1	96.148	ug/l	0.61	39,100.42	1.224E-01	Pulse	1.00	3
Se			1	0.967	ug/l	4.72	243.89	7.747E-04	Pulse	3.00	3
Sb			1	0.956	ug/l	0.22	11,595.67	3.683E-02	Pulse	1.00	3
Se			1	0.969	ug/l	19.34	131.33	4.170E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,878,964.33	0.61	100.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		319,326.39	0.07	101.3	Pulse	0.30	3
1	Ge		212,563.99	0.66	101.7	Pulse	0.30	3
1	In		2,031,270.47	0.27	101.8	Pulse	0.30	3
1	Tb		5,418,607.50	0.41	100.8	Pulse	0.50	3
1	Lu		4,137,838.00	0.82	100.6	Pulse	0.50	3
1	Ge		314,840.25	0.47	101.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,168.93	16.03	98.3	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:04
Sample Name	CALSTD-4
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.514	ug/l	0.31	136,336.91	6.400E-01	Pulse	0.50	3
As			1	10.284	ug/l	1.28	19,590.34	9.196E-02	Pulse	1.00	3
Mo			1	10.010	ug/l	0.96	74,742.47	2.351E-01	Pulse	0.50	3
Pb			1	10.329	ug/l	0.18	369,533.58	9.432E-02	Pulse	1.00	3
Be			1	10.244	ug/l	3.19	642.01	1.994E-03	Pulse	2.00	3
Ag			1	10.649	ug/l	0.98	254,194.34	7.997E-01	Pulse	0.50	3
Ba			1	10.201	ug/l	1.23	40,097.54	1.967E-02	Pulse	0.50	3
Tl			1	10.377	ug/l	0.77	533,338.08	1.361E-01	Pulse	0.50	3
Sn			1	10.029	ug/l	1.06	88,871.01	4.359E-02	Pulse	0.30	3
Sr			1	10.106	ug/l	0.38	111,211.50	5.454E-02	Pulse	0.50	3
[Pb]			1	10.141	ug/l	0.43	176,460.62	4.504E-02	Pulse	0.50	3
Ca			1	1054.239	ug/l	0.97	56,743.45	1.763E-01	Pulse	0.50	3
Ti			1	10.022	ug/l	1.00	3,667.02	1.139E-02	Pulse	0.50	3
Na			1	1037.407	ug/l	0.38	1,870,876.62	5.812E+00	Pulse	1.00	3
Mg			1	1052.628	ug/l	0.58	941,508.23	2.925E+00	Pulse	1.00	3
K			1	1041.809	ug/l	0.35	1,184,892.29	3.681E+00	Pulse	1.00	3
V			1	10.262	ug/l	0.85	110,304.31	3.427E-01	Pulse	0.50	3
Mn			1	10.687	ug/l	0.60	85,376.65	4.008E-01	Pulse	0.50	3
Fe			1	1056.991	ug/l	0.55	11,862,336.00	5.568E+01	Analog	0.50	3
Co			1	10.708	ug/l	0.34	216,124.94	1.015E+00	Pulse	0.50	3
Ni			1	10.676	ug/l	1.21	57,076.32	2.679E-01	Pulse	0.50	3
Cu			1	10.951	ug/l	1.47	163,215.35	7.662E-01	Pulse	0.50	3
Zn			1	13.466	ug/l	0.38	37,673.61	1.185E-01	Pulse	1.00	3
Cd			1	10.293	ug/l	0.64	39,212.05	1.234E-01	Pulse	0.50	3
Al			1	1022.252	ug/l	0.70	411,559.86	1.279E+00	Pulse	1.00	3
Se			1	10.130	ug/l	3.53	1,620.07	5.097E-03	Pulse	3.00	3
Sb			1	10.153	ug/l	0.97	122,084.98	3.841E-01	Pulse	1.00	3
Se			1	9.662	ug/l	4.40	749.57	2.358E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,917,911.25	0.41	101.3	Pulse	0.50	3
1	Sc		321,878.40	0.23	102.1	Pulse	0.30	3
1	Ge		213,029.38	0.14	101.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,038,929.99	0.13	102.2	Pulse	0.30	3
1	Tb		5,452,966.17	0.14	101.4	Pulse	0.50	3
1	Lu		4,206,133.17	0.13	102.2	Pulse	0.50	3
1	Ge		317,857.37	0.37	102.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,142.26	2.65	96.1	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:08
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.966	ug/l	0.39	634,686.57	2.911E+00	Pulse	0.50	3
As			1	47.227	ug/l	0.15	91,781.85	4.210E-01	Pulse	1.00	3
Mo			1	46.405	ug/l	0.28	350,401.05	1.088E+00	Pulse	0.50	3
Pb			1	47.522	ug/l	0.31	1,684,811.29	4.331E-01	Pulse	1.00	3
Be			1	46.708	ug/l	0.98	2,982.39	9.073E-03	Pulse	2.00	3
Ag			1	48.770	ug/l	0.68	1,153,200.88	3.582E+00	Pulse	0.50	3
Ba			1	47.179	ug/l	0.68	186,555.57	9.094E-02	Pulse	0.50	3
Tl			1	47.727	ug/l	0.22	2,434,720.33	6.259E-01	Pulse	0.50	3
Sn			1	46.818	ug/l	0.18	416,921.97	2.032E-01	Pulse	0.30	3
Sr			1	47.002	ug/l	0.19	519,238.89	2.531E-01	Pulse	0.50	3
[Pb]			1	46.254	ug/l	0.39	797,562.71	2.050E-01	Pulse	0.50	3
Ca			1	4744.520	ug/l	0.14	258,524.65	7.865E-01	Pulse	0.50	3
Ti			1	47.176	ug/l	3.20	17,608.59	5.356E-02	Pulse	0.50	3
Na			1	4745.481	ug/l	0.29	8,605,756.00	2.618E+01	Analog	1.00	3
Mg			1	4774.250	ug/l	0.21	4,359,311.50	1.326E+01	Pulse	1.00	3
K			1	4668.269	ug/l	0.86	5,114,375.17	1.556E+01	Analog	1.00	3
V			1	47.366	ug/l	0.44	514,828.65	1.566E+00	Pulse	0.50	3
Mn			1	48.250	ug/l	1.02	393,783.23	1.806E+00	Pulse	0.50	3
Fe			1	4728.856	ug/l	0.21	54,228,017.33	2.487E+02	Analog	0.50	3
Co			1	47.451	ug/l	0.61	979,816.06	4.494E+00	Pulse	0.50	3
Ni			1	48.062	ug/l	0.78	261,367.24	1.199E+00	Pulse	0.50	3
Cu			1	48.336	ug/l	0.66	707,297.08	3.244E+00	Pulse	0.50	3
Zn			1	49.616	ug/l	0.52	137,761.73	4.279E-01	Pulse	1.00	3
Cd			1	47.277	ug/l	0.51	182,373.81	5.665E-01	Pulse	0.50	3
Al			1	4704.857	ug/l	0.37	1,931,555.08	5.876E+00	Pulse	1.00	3
Se			1	46.770	ug/l	1.10	7,204.80	2.238E-02	Pulse	3.00	3
Sb			1	46.758	ug/l	0.65	568,619.92	1.766E+00	Pulse	1.00	3
Se			1	47.098	ug/l	1.05	3,450.42	1.072E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,889,823.08	0.62	100.5	Pulse	0.50	3
1	Sc		328,717.79	0.78	104.2	Pulse	0.30	3
1	Ge		218,031.23	0.21	104.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,051,517.84	0.60	102.8	Pulse	0.30	3
1	Tb		5,521,881.33	0.13	102.7	Pulse	0.50	3
1	Lu		4,247,251.67	0.98	103.2	Pulse	0.50	3
1	Ge		321,937.80	0.10	104.1	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,124.48	4.60	94.6	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:12
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.227	ug/l	0.20	1,310,784.25	6.080E+00	Pulse	0.50	3
As			1	99.223	ug/l	0.18	190,582.66	8.840E-01	Pulse	1.00	3
Mo			1	98.092	ug/l	0.94	733,678.06	2.300E+00	Pulse	0.50	3
Pb			1	100.632	ug/l	0.51	3,481,783.50	9.170E-01	Pulse	1.00	3
Be			1	99.655	ug/l	0.59	6,333.99	1.935E-02	Pulse	2.00	3
Ag			1	100.551	ug/l	1.44	2,347,891.58	7.361E+00	Pulse	0.50	3
Ba			1	99.198	ug/l	0.61	386,130.19	1.912E-01	Pulse	0.50	3
Tl			1	100.432	ug/l	0.29	5,001,079.33	1.317E+00	Pulse	0.50	3
Sn			1	98.385	ug/l	0.69	862,354.41	4.270E-01	Pulse	0.30	3
Sr			1	98.908	ug/l	0.31	1,075,314.29	5.324E-01	Pulse	0.50	3
[Pb]			1	98.045	ug/l	0.60	1,649,897.29	4.345E-01	Pulse	0.50	3
Ca			1	9854.217	ug/l	0.53	533,959.73	1.631E+00	Pulse	0.50	3
Ti			1	98.836	ug/l	1.72	36,720.98	1.122E-01	Pulse	0.50	3
Na			1	9850.587	ug/l	0.65	17,747,209.33	5.422E+01	Analog	1.00	3
Mg			1	9785.389	ug/l	0.41	8,896,338.33	2.718E+01	Analog	1.00	3
K			1	9769.022	ug/l	0.49	10,561,080.67	3.227E+01	Analog	1.00	3
V			1	98.757	ug/l	0.83	1,067,273.37	3.261E+00	Pulse	0.50	3
Mn			1	99.800	ug/l	0.36	805,176.52	3.735E+00	Pulse	0.50	3
Fe			1	9952.708	ug/l	0.48	112,827,274.67	5.233E+02	Analog	0.50	3
Co			1	99.555	ug/l	0.15	2,032,569.42	9.428E+00	Pulse	0.50	3
Ni			1	99.425	ug/l	0.29	534,143.33	2.478E+00	Pulse	0.50	3
Cu			1	100.453	ug/l	0.33	1,444,078.50	6.698E+00	Pulse	0.50	3
Zn			1	100.693	ug/l	1.12	275,910.58	8.650E-01	Pulse	1.00	3
Cd			1	98.610	ug/l	0.89	376,868.09	1.182E+00	Pulse	0.50	3
Al			1	9755.580	ug/l	0.34	3,987,224.67	1.218E+01	Pulse	1.00	3
Se			1	98.004	ug/l	0.19	14,847.41	4.655E-02	Pulse	3.00	3
Sb			1	97.996	ug/l	0.86	1,180,437.54	3.701E+00	Pulse	1.00	3
Se			1	97.590	ug/l	1.93	7,014.29	2.199E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,797,120.00	0.13	98.1	Pulse	0.50	3
1	Sc		327,311.68	0.51	103.8	Pulse	0.30	3
1	Ge		215,590.00	0.44	103.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,019,599.92	0.57	101.2	Pulse	0.30	3
1	Tb		5,478,629.00	0.46	101.9	Pulse	0.50	3
1	Lu		4,214,869.00	0.56	102.4	Pulse	0.50	3
1	Ge		318,982.85	1.20	103.1	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		1,235.60	6.75	103.9	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:16
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.370	ug/l	0.60	2,535,738.08	1.215E+01	Pulse	0.50	3
As			1	201.068	ug/l	0.55	373,701.47	1.791E+00	Pulse	1.00	3
Mo			1	201.853	ug/l	0.27	1,445,708.09	4.733E+00	Pulse	0.50	3
Pb			1	200.288	ug/l	0.15	6,633,225.83	1.825E+00	Analog	1.00	3
Be			1	200.984	ug/l	0.91	12,155.46	3.902E-02	Pulse	2.00	3
Ag			1	193.019	ug/l	0.35	4,310,375.67	1.411E+01	Pulse	0.50	3
Ba			1	201.096	ug/l	0.66	755,664.33	3.876E-01	Pulse	0.50	3
Tl			1	200.334	ug/l	0.26	9,549,786.33	2.627E+00	Analog	0.50	3
Sn			1	201.602	ug/l	0.32	1,705,740.45	8.749E-01	Pulse	0.30	3
Sr			1	201.290	ug/l	0.40	2,112,302.25	1.083E+00	Pulse	0.50	3
[Pb]			1	201.907	ug/l	0.68	3,252,181.33	8.947E-01	Pulse	0.50	3
Ca			1	20133.835	ug/l	0.80	1,037,636.08	3.331E+00	Pulse	0.50	3
Ti			1	201.287	ug/l	0.99	71,173.80	2.285E-01	Pulse	0.50	3
Na			1	20136.482	ug/l	0.60	34,489,732.00	1.107E+02	Analog	1.00	3
Mg			1	20161.112	ug/l	0.68	17,443,524.67	5.600E+01	Analog	1.00	3
K			1	20196.339	ug/l	0.44	20,690,842.67	6.642E+01	Analog	1.00	3
V			1	201.267	ug/l	0.28	2,068,794.04	6.641E+00	Pulse	0.50	3
Mn			1	200.503	ug/l	0.69	1,565,427.04	7.502E+00	Pulse	0.50	3
Fe			1	20088.556	ug/l	0.70	220,384,496.00	1.056E+03	Analog	0.50	3
Co			1	200.824	ug/l	0.61	3,968,194.00	1.902E+01	Pulse	0.50	3
Ni			1	200.738	ug/l	0.44	1,043,318.04	5.000E+00	Pulse	0.50	3
Cu			1	200.140	ug/l	0.68	2,776,289.75	1.331E+01	Pulse	0.50	3
Zn			1	199.552	ug/l	0.82	522,672.90	1.711E+00	Pulse	1.00	3
Cd			1	201.362	ug/l	0.83	736,965.39	2.413E+00	Pulse	0.50	3
Al			1	20194.912	ug/l	0.67	7,854,417.67	2.521E+01	Analog	1.00	3
Se			1	201.799	ug/l	0.30	29,174.51	9.551E-02	Pulse	3.00	3
Sb			1	201.805	ug/l	1.01	2,327,697.33	7.621E+00	Pulse	1.00	3
Se			1	201.947	ug/l	0.40	13,836.57	4.530E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,635,053.42	0.38	93.9	Pulse	0.50	3
1	Sc		311,519.49	1.25	98.8	Pulse	0.30	3
1	Ge		208,658.12	0.22	99.8	Pulse	0.30	3
1	In		1,949,668.60	0.65	97.7	Pulse	0.30	3
1	Tb		5,333,559.67	0.17	99.2	Pulse	0.50	3
1	Lu		4,104,129.67	0.40	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		305,470.12	1.01	98.7	Pulse	0.30	3
1	Te		9.33	32.73		Pulse	0.50	3
1	Li		1,176.71	8.34	99.0	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:20
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.502	ug/l	1.09	1,247,382.46	5.975E+00	Pulse	0.50	3
As			1	97.662	ug/l	0.70	181,634.77	8.701E-01	Pulse	1.00	3
Mo			1	97.301	ug/l	0.65	703,667.06	2.282E+00	Pulse	0.50	3
Pb			1	98.590	ug/l	0.72	3,383,114.75	8.984E-01	Pulse	1.00	3
Be			1	98.700	ug/l	0.30	5,972.38	1.917E-02	Pulse	2.00	3
Ag			1	100.262	ug/l	0.58	2,263,753.58	7.340E+00	Pulse	0.50	3
Ba			1	98.888	ug/l	1.33	372,926.36	1.906E-01	Pulse	0.50	3
Tl			1	99.515	ug/l	0.60	4,914,690.83	1.305E+00	Pulse	0.50	3
Sn			1	98.059	ug/l	0.74	832,710.07	4.256E-01	Pulse	0.30	3
Sr			1	98.084	ug/l	0.64	1,033,137.60	5.280E-01	Pulse	0.50	3
[Pb]			1	96.649	ug/l	1.33	1,613,020.17	4.283E-01	Pulse	0.50	3
Ca			1	9795.170	ug/l	0.62	505,294.95	1.622E+00	Pulse	0.50	3
Ti			1	96.386	ug/l	3.01	34,092.92	1.094E-01	Pulse	0.50	3
Na			1	9970.428	ug/l	0.20	17,100,948.00	5.488E+01	Analog	1.00	3
Mg			1	9905.808	ug/l	0.57	8,573,652.00	2.751E+01	Analog	1.00	3
K			1	9772.628	ug/l	0.35	10,058,072.67	3.228E+01	Analog	1.00	3
V			1	98.224	ug/l	0.65	1,010,606.17	3.243E+00	Pulse	0.50	3
Mn			1	98.210	ug/l	1.01	767,214.89	3.675E+00	Pulse	0.50	3
Fe			1	9835.311	ug/l	0.87	107,960,832.00	5.172E+02	Analog	0.50	3
Co			1	97.831	ug/l	0.65	1,934,036.92	9.265E+00	Pulse	0.50	3
Ni			1	98.065	ug/l	0.91	510,138.05	2.444E+00	Pulse	0.50	3
Cu			1	98.690	ug/l	0.82	1,373,891.50	6.581E+00	Pulse	0.50	3
Zn			1	98.889	ug/l	0.50	262,022.30	8.496E-01	Pulse	1.00	3
Cd			1	98.210	ug/l	0.43	362,912.76	1.177E+00	Pulse	0.50	3
Al			1	9787.607	ug/l	1.01	3,808,316.17	1.222E+01	Pulse	1.00	3
Se			1	96.628	ug/l	0.61	14,154.78	4.590E-02	Pulse	3.00	3
Sb			1	97.602	ug/l	0.62	1,136,770.08	3.686E+00	Pulse	1.00	3
Se			1	97.854	ug/l	1.26	6,800.66	2.205E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,765,974.50	0.62	97.3	Pulse	0.50	3
1	Sc		311,608.91	0.25	98.8	Pulse	0.30	3
1	Ge		208,756.91	0.49	99.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,956,714.30	0.81	98.0	Pulse	0.30	3
1	Tb		5,368,962.67	0.28	99.8	Pulse	0.50	3
1	Lu		4,149,603.00	0.51	100.9	Pulse	0.50	3
1	Ge		308,402.47	0.13	99.7	Pulse	0.30	3
1	Te		3.33	173.21		Pulse	0.50	3
1	Li		1,151.15	1.10	96.8	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:24
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.231	ug/l	0.76	2,529,028.58	1.214E+01	Pulse	0.50	3
As			1	200.094	ug/l	0.61	371,164.84	1.782E+00	Pulse	1.00	3
Mo			1	199.841	ug/l	1.22	1,445,770.88	4.686E+00	Pulse	0.50	3
Pb			1	198.144	ug/l	0.55	6,617,194.33	1.805E+00	Analog	1.00	3
Be			1	201.505	ug/l	1.76	12,209.99	3.912E-02	Pulse	2.00	3
Ag			1	189.060	ug/l	1.44	4,264,582.33	1.382E+01	Pulse	0.50	3
Ba			1	200.695	ug/l	0.23	755,448.02	3.868E-01	Pulse	0.50	3
Tl			1	197.033	ug/l	0.54	9,471,116.00	2.584E+00	Analog	0.50	3
Sn			1	199.667	ug/l	0.39	1,692,258.27	8.665E-01	Pulse	0.30	3
Sr			1	200.461	ug/l	0.45	2,107,195.92	1.079E+00	Pulse	0.50	3
[Pb]			1	199.690	ug/l	0.59	3,243,515.75	8.849E-01	Pulse	0.50	3
Ca			1	20019.566	ug/l	1.32	1,033,703.29	3.312E+00	Pulse	0.50	3
Ti			1	201.392	ug/l	0.54	71,344.47	2.286E-01	Pulse	0.50	3
Na			1	20036.377	ug/l	0.71	34,383,600.00	1.102E+02	Analog	1.00	3
Mg			1	20036.316	ug/l	0.98	17,368,434.67	5.565E+01	Analog	1.00	3
K			1	20083.269	ug/l	0.69	20,613,784.67	6.605E+01	Analog	1.00	3
V			1	200.353	ug/l	1.06	2,063,222.91	6.611E+00	Pulse	0.50	3
Mn			1	199.883	ug/l	0.77	1,557,531.37	7.479E+00	Pulse	0.50	3
Fe			1	19973.543	ug/l	0.83	218,695,962.67	1.050E+03	Analog	0.50	3
Co			1	198.723	ug/l	0.73	3,919,008.50	1.882E+01	Pulse	0.50	3
Ni			1	198.669	ug/l	0.93	1,030,545.89	4.949E+00	Pulse	0.50	3
Cu			1	198.006	ug/l	0.78	2,741,412.50	1.316E+01	Pulse	0.50	3
Zn			1	195.723	ug/l	0.90	517,863.24	1.678E+00	Pulse	1.00	3
Cd			1	197.859	ug/l	1.73	731,477.88	2.371E+00	Pulse	0.50	3
Al			1	19949.033	ug/l	1.25	7,773,432.00	2.491E+01	Analog	1.00	3
Se			1	197.565	ug/l	0.68	28,852.47	9.351E-02	Pulse	3.00	3
Sb			1	198.878	ug/l	1.49	2,317,192.33	7.510E+00	Pulse	1.00	3
Se			1	198.501	ug/l	1.76	13,738.28	4.453E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,665,549.58	0.37	94.7	Pulse	0.50	3
1	Sc		312,101.48	0.40	99.0	Pulse	0.30	3
1	Ge		208,254.25	0.39	99.6	Pulse	0.30	3
1	In		1,952,980.75	0.39	97.9	Pulse	0.30	3
1	Tb		5,342,545.33	0.23	99.3	Pulse	0.50	3
1	Lu		4,120,912.17	0.41	100.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		308,562.98	0.55	99.7	Pulse	0.30	3
1	Te		4.00	86.60		Pulse	0.50	3
1	Li		1,253.94	5.57	105.5	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:28
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	106.991	ug/l	1.71	1,368,219.67	6.490E+00	Pulse	0.50	3
As			1	107.877	ug/l	1.26	202,608.63	9.611E-01	Pulse	1.00	3
Mo			1	107.139	ug/l	0.12	782,700.87	2.512E+00	Pulse	0.50	3
Pb			1	107.227	ug/l	0.81	3,675,729.58	9.770E-01	Pulse	1.00	3
Be			1	108.787	ug/l	1.22	6,677.26	2.112E-02	Pulse	2.00	3
Ag			1	51.334	ug/l	0.29	1,174,290.54	3.769E+00	Pulse	0.50	3
Ba			1	102.756	ug/l	1.39	392,066.51	1.981E-01	Pulse	0.50	3
Tl			1	107.174	ug/l	0.28	5,287,578.83	1.405E+00	Pulse	0.50	3
Sn			1	98.650	ug/l	1.38	847,550.49	4.281E-01	Pulse	0.30	3
Sr			1	105.253	ug/l	0.94	1,121,639.63	5.666E-01	Pulse	0.50	3
[Pb]			1	104.789	ug/l	0.96	1,747,097.08	4.644E-01	Pulse	0.50	3
Ca			1	10008.615	ug/l	0.83	523,730.00	1.657E+00	Pulse	0.50	3
Ti			1	104.707	ug/l	0.57	37,571.23	1.189E-01	Pulse	0.50	3
Na			1	10585.865	ug/l	0.66	18,415,866.00	5.826E+01	Analog	1.00	3
Mg			1	10859.526	ug/l	1.09	9,534,368.67	3.016E+01	Analog	1.00	3
K			1	10370.488	ug/l	0.67	10,821,943.67	3.424E+01	Analog	1.00	3
V			1	105.894	ug/l	0.52	1,105,134.00	3.496E+00	Pulse	0.50	3
Mn			1	106.664	ug/l	1.34	841,479.11	3.992E+00	Pulse	0.50	3
Fe			1	10423.164	ug/l	1.21	115,543,386.67	5.481E+02	Analog	0.50	3
Co			1	106.295	ug/l	1.15	2,122,132.92	1.007E+01	Pulse	0.50	3
Ni			1	105.921	ug/l	1.53	556,412.71	2.639E+00	Pulse	0.50	3
Cu			1	108.601	ug/l	1.51	1,525,936.58	7.238E+00	Pulse	0.50	3
Zn			1	107.302	ug/l	0.90	287,123.00	9.216E-01	Pulse	1.00	3
Cd			1	106.232	ug/l	1.23	396,557.30	1.273E+00	Pulse	0.50	3
Al			1	10231.376	ug/l	1.00	4,038,346.17	1.278E+01	Pulse	1.00	3
Se			1	105.588	ug/l	0.34	15,615.81	5.012E-02	Pulse	3.00	3
Sb			1	105.919	ug/l	0.75	1,246,197.25	4.000E+00	Pulse	1.00	3
Se			1	106.558	ug/l	0.95	7,475.58	2.400E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,762,111.67	0.26	97.2	Pulse	0.50	3
1	Sc		316,107.39	0.79	100.3	Pulse	0.30	3
1	Ge		210,832.99	0.91	100.9	Pulse	0.30	3
1	In		1,979,723.18	0.71	99.2	Pulse	0.30	3
1	Tb		5,408,724.50	0.24	100.6	Pulse	0.50	3
1	Lu		4,152,185.17	0.23	100.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		311,549.01	0.26	100.7	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		1,295.61	8.99	109.0	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:32
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.030	ug/l	10.85	888.02	4.250E-03	Pulse	0.50	3
As			1	0.039	ug/l	30.07	152.67	7.305E-04	Pulse	1.00	3
Mo			1	0.149	ug/l	23.27	1,235.38	3.960E-03	Pulse	0.50	3
Pb			1	0.034	ug/l	12.83	2,054.46	5.362E-04	Pulse	1.00	3
Be			1	0.085	ug/l	19.78	7.00	2.225E-05	Pulse	2.00	3
Ag			1	-0.060	ug/l	-6.41	5,650.21	1.810E-02	Pulse	0.50	3
Ba			1	0.018	ug/l	31.61	77.33	3.852E-05	Pulse	0.50	3
Tl			1	0.047	ug/l	15.74	2,574.21	6.720E-04	Pulse	0.50	3
Sn			1	0.178	ug/l	20.70	1,686.76	8.391E-04	Pulse	0.30	3
Sr			1	0.019	ug/l	1.60	520.68	2.592E-04	Pulse	0.50	3
[Pb]			1	0.036	ug/l	20.59	1,024.70	2.675E-04	Pulse	0.50	3
Ca			1	1.533	ug/l	50.09	700.02	2.224E-03	Pulse	0.50	3
Ti			1	0.037	ug/l	56.53	18.67	5.928E-05	Pulse	0.50	3
Na			1	2.993	ug/l	22.16	41,101.93	1.306E-01	Pulse	1.00	3
Mg			1	2.246	ug/l	21.03	2,418.82	7.680E-03	Pulse	1.00	3
K			1	6.267	ug/l	0.43	91,093.74	2.894E-01	Pulse	1.00	3
V			1	0.015	ug/l	91.63	1,511.40	4.802E-03	Pulse	0.50	3
Mn			1	0.021	ug/l	8.97	363.34	1.739E-03	Pulse	0.50	3
Fe			1	2.071	ug/l	16.48	47,242.74	2.261E-01	Pulse	0.50	3
Co			1	0.022	ug/l	25.46	549.34	2.630E-03	Pulse	0.50	3
Ni			1	0.021	ug/l	54.28	554.68	2.654E-03	Pulse	0.50	3
Cu			1	-0.034	ug/l	-28.61	7,961.66	3.810E-02	Pulse	0.50	3
Zn			1	0.024	ug/l	74.01	1,087.36	3.484E-03	Pulse	1.00	3
Cd			1	0.039	ug/l	18.76	156.67	5.015E-04	Pulse	0.50	3
Al			1	1.675	ug/l	30.77	1,417.72	4.502E-03	Pulse	1.00	3
Se			1	0.109	ug/l	29.04	115.56	3.703E-04	Pulse	3.00	3
Sb			1	0.064	ug/l	12.70	985.03	3.157E-03	Pulse	1.00	3
Se			1	0.144	ug/l	62.16	72.67	2.329E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,832,049.75	0.48	99.0	Pulse	0.50	3
1	Sc		314,777.69	0.60	99.8	Pulse	0.30	3

Quantitation Report

1	Ge		208,977.74	0.46	100.0	Pulse	0.30	3
1	In		2,009,058.95	0.53	100.7	Pulse	0.30	3
1	Tb		5,349,351.17	0.73	99.5	Pulse	0.50	3
1	Lu		4,097,794.42	0.65	99.6	Pulse	0.50	3
1	Ge		312,129.62	0.69	100.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,247.82	7.66	105.0	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:35
Sample Name CRIA
Sample Type CRIA
Comment =std 2
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.985	ug/l	3.52	13,161.81	6.217E-02	Pulse	0.50	3
As			1	0.958	ug/l	1.70	1,886.10	8.910E-03	Pulse	1.00	3
Mo			1	0.954	ug/l	5.72	7,264.09	2.284E-02	Pulse	0.50	3
Pb			1	0.972	ug/l	1.05	35,426.86	9.086E-03	Pulse	1.00	3
Be			1	1.047	ug/l	5.72	67.00	2.091E-04	Pulse	2.00	3
Ag			1	0.865	ug/l	1.73	27,213.23	8.558E-02	Pulse	0.50	3
Ba			1	1.021	ug/l	2.98	4,031.13	1.972E-03	Pulse	0.50	3
Tl			1	0.969	ug/l	0.59	49,773.34	1.277E-02	Pulse	0.50	3
Sn			1	1.014	ug/l	2.42	9,134.54	4.468E-03	Pulse	0.30	3
Sr			1	1.022	ug/l	1.78	11,565.56	5.658E-03	Pulse	0.50	3
[Pb]			1	0.955	ug/l	0.49	16,907.70	4.336E-03	Pulse	0.50	3
Ca			1	120.546	ug/l	4.19	7,017.27	2.190E-02	Pulse	0.50	3
Ti			1	0.922	ug/l	6.71	340.67	1.063E-03	Pulse	0.50	3
Na			1	96.471	ug/l	0.63	206,340.31	6.440E-01	Pulse	1.00	3
Mg			1	98.297	ug/l	0.53	87,934.25	2.745E-01	Pulse	1.00	3
K			1	100.731	ug/l	0.87	191,850.04	5.988E-01	Pulse	1.00	3
V			1	0.946	ug/l	1.78	11,374.01	3.550E-02	Pulse	0.50	3
Mn			1	1.113	ug/l	2.28	9,016.13	4.259E-02	Pulse	0.50	3
Fe			1	103.564	ug/l	0.26	1,177,396.08	5.562E+00	Pulse	0.50	3
Co			1	1.072	ug/l	1.67	21,613.42	1.021E-01	Pulse	0.50	3
Ni			1	0.973	ug/l	2.38	5,579.49	2.636E-02	Pulse	0.50	3
Cu			1	1.142	ug/l	1.11	24,572.94	1.161E-01	Pulse	0.50	3
Zn			1	4.190	ug/l	0.95	12,448.68	3.914E-02	Pulse	1.00	3
Cd			1	0.978	ug/l	1.74	3,737.06	1.175E-02	Pulse	0.50	3
Al			1	94.165	ug/l	1.26	38,437.12	1.200E-01	Pulse	1.00	3
Se			1	0.982	ug/l	9.53	248.67	7.817E-04	Pulse	3.00	3
Sb			1	0.945	ug/l	1.04	11,582.32	3.642E-02	Pulse	1.00	3
Se			1	1.077	ug/l	12.00	140.22	4.411E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,898,925.83	0.88	100.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		320,395.92	0.36	101.6	Pulse	0.30	3
1	Ge		211,700.66	0.66	101.3	Pulse	0.30	3
1	In		2,044,134.92	0.66	102.4	Pulse	0.30	3
1	Tb		5,433,984.17	0.28	101.0	Pulse	0.50	3
1	Lu		4,158,998.75	0.89	101.1	Pulse	0.50	3
1	Ge		318,012.14	0.87	102.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,217.82	6.60	102.4	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:39
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.271	ug/l	0.34	29,101.00	1.401E-01	Pulse	0.50	3
As			1	0.114	ug/l	12.88	290.67	1.400E-03	Pulse	1.00	3
Mo			1	2263.171	ug/l	0.68	15,521,757.00	5.306E+01	Analog	0.50	3
Pb			1	0.087	ug/l	7.05	3,451.69	1.020E-03	Pulse	1.00	3
Be			1	0.029	ug/l	177.60	3.50	1.137E-05	Pulse	2.00	3
Ag			1	-0.089	ug/l	-12.07	4,672.63	1.597E-02	Pulse	0.50	3
Ba			1	0.624	ug/l	4.01	2,218.15	1.206E-03	Pulse	0.50	3
Tl			1	0.034	ug/l	25.95	1,708.10	5.041E-04	Pulse	0.50	3
Sn			1	0.176	ug/l	11.35	1,527.85	8.302E-04	Pulse	0.30	3
Sr			1	1.138	ug/l	2.33	11,552.22	6.282E-03	Pulse	0.50	3
[Pb]			1	0.086	ug/l	8.56	1,642.75	4.858E-04	Pulse	0.50	3
Ca			1	104269.592	ug/l	0.23	5,312,613.50	1.724E+01	Analog	0.50	3
Ti			1	2129.013	ug/l	0.48	744,538.98	2.416E+00	Pulse	0.50	3
Na			1	108405.560	ug/l	0.45	183,495,072.00	5.956E+02	Analog	1.00	3
Mg			1	106389.532	ug/l	0.18	91,043,962.67	2.955E+02	Analog	1.00	3
K			1	108351.682	ug/l	0.55	109,426,056.00	3.552E+02	Analog	1.00	3
V			1	0.084	ug/l	9.91	2,185.46	7.092E-03	Pulse	0.50	3
Mn			1	0.813	ug/l	4.04	6,515.11	3.138E-02	Pulse	0.50	3
Fe			1	105261.391	ug/l	0.80	1,149,202,304.00	5.534E+03	Analog	0.50	3
Co			1	0.324	ug/l	2.23	6,481.77	3.121E-02	Pulse	0.50	3
Ni			1	0.488	ug/l	4.13	2,964.90	1.428E-02	Pulse	0.50	3
Cu			1	1.114	ug/l	7.54	23,725.25	1.142E-01	Pulse	0.50	3
Zn			1	9.823	ug/l	2.28	25,554.22	8.735E-02	Pulse	1.00	3
Cd			1	0.717	ug/l	1.97	2,522.18	8.623E-03	Pulse	0.50	3
Al			1	103081.880	ug/l	0.27	39,651,652.00	1.287E+02	Analog	1.00	3
Se			1	0.286	ug/l	16.80	132.67	4.535E-04	Pulse	3.00	3
Sb			1	0.092	ug/l	1.33	1,235.04	4.222E-03	Pulse	1.00	3
Se			1	0.253	ug/l	26.05	75.22	2.572E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,381,674.75	1.39	87.4	Pulse	0.50	3
1	Sc		308,110.36	0.80	97.7	Pulse	0.30	3
1	Ge		207,664.15	0.62	99.3	Pulse	0.30	3
1	In		1,839,151.39	1.38	92.1	Pulse	0.30	3
1	Tb		5,080,293.50	1.62	94.5	Pulse	0.50	3
1	Lu		3,953,006.75	1.28	96.1	Pulse	0.50	3
1	Ge		292,527.86	0.93	94.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,045.59	3.99	87.9	Pulse	0.30	3

Quantitation Report

File Name	017LCCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:52
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.987	ug/l	0.52	13,702.85	6.226E-02	Pulse	0.50	3
As			1	0.983	ug/l	1.84	2,010.77	9.135E-03	Pulse	1.00	3
Mo			1	1.161	ug/l	1.38	9,081.56	2.769E-02	Pulse	0.50	3
Pb			1	0.988	ug/l	0.33	36,479.72	9.229E-03	Pulse	1.00	3
Be			1	0.905	ug/l	13.22	58.83	1.814E-04	Pulse	2.00	3
Ag			1	0.914	ug/l	0.34	29,238.98	8.915E-02	Pulse	0.50	3
Ba			1	0.942	ug/l	4.90	3,813.08	1.819E-03	Pulse	0.50	3
Tl			1	0.998	ug/l	0.36	51,933.69	1.314E-02	Pulse	0.50	3
Sn			1	0.956	ug/l	4.92	8,838.84	4.217E-03	Pulse	0.30	3
Sr			1	0.963	ug/l	1.50	11,189.34	5.340E-03	Pulse	0.50	3
[Pb]			1	0.985	ug/l	1.71	17,672.47	4.471E-03	Pulse	0.50	3
Ca			1	102.273	ug/l	1.61	6,127.64	1.888E-02	Pulse	0.50	3
Ti			1	1.140	ug/l	3.59	425.34	1.311E-03	Pulse	0.50	3
Na			1	109.872	ug/l	1.64	232,884.91	7.176E-01	Pulse	1.00	3
Mg			1	103.153	ug/l	0.99	93,443.91	2.879E-01	Pulse	1.00	3
K			1	112.486	ug/l	1.86	206,818.37	6.373E-01	Pulse	1.00	3
V			1	1.007	ug/l	1.01	12,180.49	3.753E-02	Pulse	0.50	3
Mn			1	0.972	ug/l	2.68	8,212.42	3.731E-02	Pulse	0.50	3
Fe			1	104.846	ug/l	0.33	1,238,945.79	5.629E+00	Pulse	0.50	3
Co			1	0.996	ug/l	1.36	20,879.94	9.486E-02	Pulse	0.50	3
Ni			1	0.975	ug/l	1.61	5,808.89	2.639E-02	Pulse	0.50	3
Cu			1	0.933	ug/l	2.20	22,489.76	1.022E-01	Pulse	0.50	3
Zn			1	0.988	ug/l	1.77	3,849.73	1.174E-02	Pulse	1.00	3
Cd			1	1.002	ug/l	1.03	3,947.10	1.203E-02	Pulse	0.50	3
Al			1	98.764	ug/l	1.11	40,796.11	1.257E-01	Pulse	1.00	3
Se			1	1.000	ug/l	8.92	259.11	7.902E-04	Pulse	3.00	3
Sb			1	0.972	ug/l	0.56	12,272.77	3.742E-02	Pulse	1.00	3
Se			1	1.067	ug/l	5.20	144.00	4.390E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,952,846.17	1.46	102.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		324,541.71	0.88	102.9	Pulse	0.30	3
1	Ge		220,103.41	1.10	105.3	Pulse	0.30	3
1	In		2,095,402.97	0.98	105.0	Pulse	0.30	3
1	Tb		5,514,541.00	0.90	102.5	Pulse	0.50	3
1	Lu		4,203,168.33	1.45	102.2	Pulse	0.50	3
1	Ge		327,978.56	1.08	106.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,158.93	3.65	97.5	Pulse	0.30	3

Quantitation Report

File Name 018ICSA.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 12:55
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.109	ug/l	0.51	27,862.52	1.303E-01	Pulse	0.50	3
As			1	0.077	ug/l	8.04	228.00	1.067E-03	Pulse	1.00	3
Mo			1	2124.686	ug/l	0.14	15,312,841.67	4.981E+01	Analog	0.50	3
Pb			1	0.046	ug/l	4.75	2,225.48	6.479E-04	Pulse	1.00	3
Be			1	0.003	ug/l	622.83	2.00	6.313E-06	Pulse	2.00	3
Ag			1	-0.129	ug/l	-2.72	4,005.78	1.303E-02	Pulse	0.50	3
Ba			1	0.540	ug/l	1.50	1,976.78	1.045E-03	Pulse	0.50	3
Tl			1	0.009	ug/l	18.57	622.68	1.812E-04	Pulse	0.50	3
Sn			1	0.073	ug/l	18.59	726.69	3.836E-04	Pulse	0.30	3
Sr			1	0.844	ug/l	1.55	8,902.12	4.703E-03	Pulse	0.50	3
[Pb]			1	0.047	ug/l	9.93	1,082.04	3.150E-04	Pulse	0.50	3
Ca			1	99144.691	ug/l	0.83	5,195,036.17	1.640E+01	Analog	0.50	3
Ti			1	2010.657	ug/l	1.00	723,112.36	2.282E+00	Pulse	0.50	3
Na			1	101748.428	ug/l	0.56	177,124,128.00	5.590E+02	Analog	1.00	3
Mg			1	99671.760	ug/l	0.60	87,718,072.00	2.768E+02	Analog	1.00	3
K			1	103113.488	ug/l	0.36	107,100,386.67	3.380E+02	Analog	1.00	3
V			1	0.073	ug/l	11.05	2,130.12	6.723E-03	Pulse	0.50	3
Mn			1	0.267	ug/l	5.45	2,337.48	1.093E-02	Pulse	0.50	3
Fe			1	100260.626	ug/l	0.24	1,126,806,826.67	5.271E+03	Analog	0.50	3
Co			1	0.117	ug/l	2.03	2,488.84	1.164E-02	Pulse	0.50	3
Ni			1	0.414	ug/l	3.89	2,656.86	1.243E-02	Pulse	0.50	3
Cu			1	-0.058	ug/l	-56.69	7,804.27	3.650E-02	Pulse	0.50	3
Zn			1	0.743	ug/l	4.68	2,964.57	9.643E-03	Pulse	1.00	3
Cd			1	0.659	ug/l	9.29	2,437.50	7.930E-03	Pulse	0.50	3
Al			1	95970.367	ug/l	0.74	37,964,789.33	1.198E+02	Analog	1.00	3
Se			1	0.157	ug/l	18.50	120.78	3.929E-04	Pulse	3.00	3
Sb			1	0.074	ug/l	4.00	1,080.03	3.513E-03	Pulse	1.00	3
Se			1	0.178	ug/l	65.66	73.89	2.403E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,434,491.83	0.79	88.8	Pulse	0.50	3
1	Sc		316,860.50	0.04	100.5	Pulse	0.30	3
1	Ge		213,780.76	0.76	102.3	Pulse	0.30	3
1	In		1,892,530.20	1.07	94.8	Pulse	0.30	3
1	Tb		5,189,982.00	1.38	96.5	Pulse	0.50	3
1	Lu		4,011,252.75	1.16	97.5	Pulse	0.50	3
1	Ge		307,407.79	0.59	99.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		1,122.26	10.14	94.4	Pulse	0.30	3

Quantitation Report

File Name	019ICSB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 12:59
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.538	ug/l	1.31	284,831.89	1.308E+00	Pulse	0.50	3
As			1	19.317	ug/l	0.81	37,530.64	1.724E-01	Pulse	1.00	3
Mo			1	2101.957	ug/l	0.44	15,387,780.67	4.928E+01	Analog	0.50	3
Pb			1	0.048	ug/l	6.10	2,330.17	6.689E-04	Pulse	1.00	3
Be			1	0.005	ug/l	353.06	2.17	6.720E-06	Pulse	2.00	3
Ag			1	18.690	ug/l	0.71	432,952.88	1.387E+00	Pulse	0.50	3
Ba			1	0.507	ug/l	1.18	1,875.44	9.808E-04	Pulse	0.50	3
Tl			1	0.009	ug/l	13.07	602.01	1.728E-04	Pulse	0.50	3
Sn			1	0.071	ug/l	6.04	722.24	3.778E-04	Pulse	0.30	3
Sr			1	0.828	ug/l	2.97	8,825.42	4.616E-03	Pulse	0.50	3
[Pb]			1	0.046	ug/l	14.09	1,082.04	3.105E-04	Pulse	0.50	3
Ca			1	97335.574	ug/l	0.82	5,194,828.67	1.610E+01	Analog	0.50	3
Ti			1	1986.978	ug/l	0.49	727,874.19	2.255E+00	Pulse	0.50	3
Na			1	100189.754	ug/l	0.19	177,653,978.67	5.504E+02	Analog	1.00	3
Mg			1	98389.045	ug/l	0.14	88,199,893.33	2.733E+02	Analog	1.00	3
K			1	101522.922	ug/l	0.89	107,404,392.00	3.328E+02	Analog	1.00	3
V			1	0.074	ug/l	15.60	2,179.47	6.750E-03	Pulse	0.50	3
Mn			1	19.628	ug/l	1.29	160,053.96	7.353E-01	Pulse	0.50	3
Fe			1	99531.961	ug/l	1.41	1,139,030,016.00	5.233E+03	Analog	0.50	3
Co			1	19.439	ug/l	1.08	400,823.00	1.841E+00	Pulse	0.50	3
Ni			1	19.401	ug/l	1.78	105,606.89	4.852E-01	Pulse	0.50	3
Cu			1	18.731	ug/l	1.56	279,030.12	1.282E+00	Pulse	0.50	3
Zn			1	19.433	ug/l	1.22	52,959.31	1.696E-01	Pulse	1.00	3
Cd			1	19.652	ug/l	0.76	73,535.83	2.355E-01	Pulse	0.50	3
Al			1	94138.775	ug/l	0.31	37,932,577.33	1.175E+02	Analog	1.00	3
Se			1	0.170	ug/l	39.23	124.56	3.988E-04	Pulse	3.00	3
Sb			1	0.087	ug/l	6.99	1,255.05	4.019E-03	Pulse	1.00	3
Se			1	0.140	ug/l	98.61	72.44	2.320E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,482,398.42	1.18	90.0	Pulse	0.50	3
1	Sc		322,755.24	1.11	102.4	Pulse	0.30	3
1	Ge		217,693.81	0.78	104.1	Pulse	0.30	3
1	In		1,912,154.23	0.60	95.8	Pulse	0.30	3
1	Tb		5,265,097.67	0.54	97.9	Pulse	0.50	3
1	Lu		4,048,807.08	0.68	98.4	Pulse	0.50	3
1	Ge		312,249.90	0.49	100.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.00	---		Pulse	0.50	3
1	Li		994.48	9.73	83.6	Pulse	0.30	3

Quantitation Report

File Name 020CCVA.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:03
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.893	ug/l	0.74	648,330.83	2.907E+00	Pulse	0.50	3
As			1	47.879	ug/l	0.79	95,194.06	4.268E-01	Pulse	1.00	3
Mo			1	48.125	ug/l	0.44	376,293.93	1.129E+00	Pulse	0.50	3
Pb			1	48.187	ug/l	0.45	1,750,297.83	4.392E-01	Pulse	1.00	3
Be			1	46.363	ug/l	1.39	2,964.05	9.006E-03	Pulse	2.00	3
Ag			1	49.166	ug/l	0.25	1,203,798.79	3.611E+00	Pulse	0.50	3
Ba			1	47.627	ug/l	0.97	192,509.56	9.180E-02	Pulse	0.50	3
Tl			1	48.277	ug/l	0.79	2,523,190.17	6.331E-01	Pulse	0.50	3
Sn			1	47.514	ug/l	1.26	432,528.90	2.062E-01	Pulse	0.30	3
Sr			1	47.057	ug/l	0.43	531,395.42	2.534E-01	Pulse	0.50	3
[Pb]			1	47.084	ug/l	1.00	831,800.02	2.087E-01	Pulse	0.50	3
Ca			1	4744.474	ug/l	0.79	258,807.46	7.865E-01	Pulse	0.50	3
Ti			1	47.073	ug/l	1.19	17,587.23	5.345E-02	Pulse	0.50	3
Na			1	4798.663	ug/l	0.73	8,711,384.67	2.647E+01	Analog	1.00	3
Mg			1	4695.702	ug/l	1.23	4,292,196.17	1.304E+01	Pulse	1.00	3
K			1	4783.063	ug/l	0.62	5,243,945.33	1.594E+01	Analog	1.00	3
V			1	48.351	ug/l	1.02	526,074.23	1.599E+00	Pulse	0.50	3
Mn			1	47.513	ug/l	1.13	396,716.98	1.779E+00	Pulse	0.50	3
Fe			1	4811.040	ug/l	1.06	56,442,002.67	2.530E+02	Analog	0.50	3
Co			1	48.188	ug/l	0.73	1,017,986.27	4.564E+00	Pulse	0.50	3
Ni			1	48.194	ug/l	1.41	268,120.89	1.202E+00	Pulse	0.50	3
Cu			1	48.964	ug/l	0.96	732,908.92	3.286E+00	Pulse	0.50	3
Zn			1	49.873	ug/l	1.01	143,386.32	4.301E-01	Pulse	1.00	3
Cd			1	47.490	ug/l	0.30	189,704.16	5.690E-01	Pulse	0.50	3
Al			1	4492.593	ug/l	1.24	1,846,440.96	5.611E+00	Pulse	1.00	3
Se			1	46.282	ug/l	0.05	7,383.98	2.215E-02	Pulse	3.00	3
Sb			1	46.956	ug/l	1.26	591,300.54	1.774E+00	Pulse	1.00	3
Se			1	46.002	ug/l	1.47	3,491.43	1.047E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,985,190.58	0.24	103.0	Pulse	0.50	3
1	Sc		329,092.02	1.01	104.4	Pulse	0.30	3
1	Ge		223,063.79	0.60	106.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,097,107.21	0.46	105.1	Pulse	0.30	3
1	Tb		5,627,729.83	0.34	104.6	Pulse	0.50	3
1	Lu		4,290,796.50	0.34	104.3	Pulse	0.50	3
1	Ge		333,375.51	0.26	107.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,087.81	14.73	91.5	Pulse	0.30	3

Quantitation Report

File Name 021_CCV.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:07
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.616	ug/l	1.10	1,317,831.91	5.922E+00	Pulse	0.50	3
As			1	97.491	ug/l	0.74	193,297.53	8.686E-01	Pulse	1.00	3
Mo			1	98.837	ug/l	1.42	759,665.75	2.318E+00	Pulse	0.50	3
Pb			1	99.776	ug/l	0.64	3,539,256.33	9.092E-01	Pulse	1.00	3
Be			1	95.146	ug/l	1.75	5,994.72	1.848E-02	Pulse	2.00	3
Ag			1	100.859	ug/l	0.83	2,420,332.25	7.384E+00	Pulse	0.50	3
Ba			1	98.043	ug/l	1.30	392,255.33	1.890E-01	Pulse	0.50	3
Tl			1	100.591	ug/l	0.37	5,135,325.33	1.319E+00	Pulse	0.50	3
Sn			1	98.251	ug/l	0.87	885,145.83	4.264E-01	Pulse	0.30	3
Sr			1	97.721	ug/l	0.95	1,091,982.21	5.261E-01	Pulse	0.50	3
[Pb]			1	97.765	ug/l	0.19	1,686,659.46	4.333E-01	Pulse	0.50	3
Ca			1	9781.069	ug/l	0.89	525,385.52	1.619E+00	Pulse	0.50	3
Ti			1	98.221	ug/l	1.52	36,176.63	1.115E-01	Pulse	0.50	3
Na			1	9881.564	ug/l	0.69	17,648,122.67	5.439E+01	Analog	1.00	3
Mg			1	9714.171	ug/l	1.18	8,754,590.33	2.698E+01	Analog	1.00	3
K			1	9924.560	ug/l	0.47	10,634,574.33	3.278E+01	Analog	1.00	3
V			1	100.039	ug/l	1.14	1,071,723.29	3.303E+00	Pulse	0.50	3
Mn			1	96.939	ug/l	1.19	807,309.40	3.628E+00	Pulse	0.50	3
Fe			1	9830.388	ug/l	0.98	115,033,992.00	5.169E+02	Analog	0.50	3
Co			1	98.186	ug/l	0.70	2,069,278.63	9.298E+00	Pulse	0.50	3
Ni			1	98.269	ug/l	0.91	544,973.73	2.449E+00	Pulse	0.50	3
Cu			1	99.625	ug/l	0.65	1,478,442.00	6.643E+00	Pulse	0.50	3
Zn			1	99.370	ug/l	0.97	279,843.84	8.537E-01	Pulse	1.00	3
Cd			1	97.944	ug/l	1.34	384,676.36	1.174E+00	Pulse	0.50	3
Al			1	9381.872	ug/l	1.32	3,801,055.67	1.172E+01	Pulse	1.00	3
Se			1	95.039	ug/l	0.94	14,798.94	4.515E-02	Pulse	3.00	3
Sb			1	97.341	ug/l	1.35	1,204,954.17	3.676E+00	Pulse	1.00	3
Se			1	95.762	ug/l	1.15	7,074.87	2.158E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,892,844.92	0.28	100.6	Pulse	0.50	3
1	Sc		324,470.77	0.47	102.9	Pulse	0.30	3
1	Ge		222,545.77	0.36	106.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,075,849.99	0.47	104.0	Pulse	0.30	3
1	Tb		5,579,786.50	0.48	103.8	Pulse	0.50	3
1	Lu		4,251,741.17	0.11	103.3	Pulse	0.50	3
1	Ge		327,800.85	0.89	106.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,176.71	6.63	99.0	Pulse	0.30	3

Quantitation Report

File Name 022_CCB.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:11
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.011	ug/l	28.90	706.02	3.129E-03	Pulse	0.50	3
As			1	0.012	ug/l	51.65	111.00	4.919E-04	Pulse	1.00	3
Mo			1	0.247	ug/l	15.27	2,088.79	6.254E-03	Pulse	0.50	3
Pb			1	0.021	ug/l	14.05	1,661.75	4.154E-04	Pulse	1.00	3
Be			1	0.001	ug/l	1765.93	2.00	6.032E-06	Pulse	2.00	3
Ag			1	-0.131	ug/l	-3.68	4,306.52	1.291E-02	Pulse	0.50	3
Ba			1	0.013	ug/l	39.78	62.00	2.914E-05	Pulse	0.50	3
Tl			1	0.022	ug/l	15.81	1,372.73	3.433E-04	Pulse	0.50	3
Sn			1	0.111	ug/l	25.10	1,170.05	5.493E-04	Pulse	0.30	3
Sr			1	0.014	ug/l	59.07	500.01	2.349E-04	Pulse	0.50	3
[Pb]			1	0.022	ug/l	9.12	813.35	2.033E-04	Pulse	0.50	3
Ca			1	2.781	ug/l	55.42	806.02	2.430E-03	Pulse	0.50	3
Ti			1	0.082	ug/l	22.41	36.67	1.105E-04	Pulse	0.50	3
Na			1	12.901	ug/l	11.86	61,358.74	1.850E-01	Pulse	1.00	3
Mg			1	4.835	ug/l	22.24	4,932.30	1.487E-02	Pulse	1.00	3
K			1	12.443	ug/l	7.80	102,697.83	3.096E-01	Pulse	1.00	3
V			1	-0.003	ug/l	-198.38	1,396.05	4.209E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	58.88	270.67	1.199E-03	Pulse	0.50	3
Fe			1	4.844	ug/l	21.82	83,915.60	3.719E-01	Pulse	0.50	3
Co			1	0.012	ug/l	39.27	379.34	1.681E-03	Pulse	0.50	3
Ni			1	0.021	ug/l	3.81	594.68	2.636E-03	Pulse	0.50	3
Cu			1	-0.086	ug/l	-11.41	7,828.95	3.470E-02	Pulse	0.50	3
Zn			1	0.011	ug/l	116.42	1,127.70	3.379E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	56.30	61.33	1.843E-04	Pulse	0.50	3
Al			1	3.568	ug/l	30.41	2,277.47	6.866E-03	Pulse	1.00	3
Se			1	0.130	ug/l	17.49	126.78	3.799E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	8.56	791.35	2.371E-03	Pulse	1.00	3
Se			1	0.031	ug/l	413.09	69.33	2.076E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,001,378.00	0.70	103.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		331,688.18	0.17	105.2	Pulse	0.30	3
1	Ge		225,636.86	0.25	107.9	Pulse	0.30	3
1	In		2,128,588.46	0.58	106.7	Pulse	0.30	3
1	Tb		5,604,309.67	0.49	104.2	Pulse	0.50	3
1	Lu		4,264,709.33	0.78	103.7	Pulse	0.50	3
1	Ge		333,752.77	0.87	107.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,203.38	5.52	101.2	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:14
Sample Name FC1666-3F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.827	ug/l	49.13	670.01	2.938E-03	Pulse	0.50	3
As			1	2.335	ug/l	56.54	134.33	5.889E-04	Pulse	1.00	3
Mo			1	12.243	ug/l	25.13	1,144.71	3.338E-03	Pulse	0.50	3
Pb			1	1.170	ug/l	11.99	1,336.72	3.348E-04	Pulse	1.00	3
Be			1	2.660	ug/l	18.37	3.67	1.097E-05	Pulse	2.00	3
Ag			1	-15.601	ug/l	-1.92	3,794.40	1.107E-02	Pulse	0.50	3
Ba			1	25.396	ug/l	7.35	1,060.04	4.938E-04	Pulse	0.50	3
Tl			1	0.808	ug/l	18.10	649.35	1.626E-04	Pulse	0.50	3
Sn			1	4.494	ug/l	17.79	564.46	2.629E-04	Pulse	0.30	3
Sr			1	6219.462	ug/l	0.89	718,816.84	3.349E-01	Pulse	0.50	3
[Pb]			1	1.158	ug/l	54.24	630.68	1.580E-04	Pulse	0.50	3
Ca			1	404848.381	ug/l	1.29	224,490.48	6.714E-01	Pulse	0.50	3
Ti			1	9.915	ug/l	51.49	43.33	1.294E-04	Pulse	0.50	3
Na			1	1455321.770	ug/l	1.19	26,767,337.33	8.005E+01	Analog	1.00	3
Mg			1	407874.198	ug/l	1.60	3,788,333.75	1.133E+01	Pulse	1.00	3
K			1	53119.658	ug/l	1.30	671,673.75	2.009E+00	Pulse	1.00	3
V			1	1.021	ug/l	69.18	1,554.07	4.649E-03	Pulse	0.50	3
Mn			1	8049.518	ug/l	1.00	687,009.19	3.012E+00	Pulse	0.50	3
Fe			1	819.976	ug/l	2.52	125,036.48	5.483E-01	Pulse	0.50	3
Co			1	3.653	ug/l	6.73	914.69	4.011E-03	Pulse	0.50	3
Ni			1	11.207	ug/l	7.57	1,120.04	4.912E-03	Pulse	0.50	3
Cu			1	8.576	ug/l	7.46	10,503.55	4.606E-02	Pulse	0.50	3
Zn			1	31.934	ug/l	4.63	2,060.78	6.015E-03	Pulse	1.00	3
Cd			1	1.015	ug/l	5.94	52.67	1.537E-04	Pulse	0.50	3
Al			1	117.224	ug/l	11.72	1,296.05	3.875E-03	Pulse	1.00	3
Se			1	12.005	ug/l	46.74	128.55	3.753E-04	Pulse	3.00	3
Sb			1	1.910	ug/l	9.22	499.34	1.457E-03	Pulse	1.00	3
Se			1	4.670	ug/l	247.13	72.33	2.111E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,992,791.08	0.15	103.2	Pulse	0.50	3
1	Sc		334,403.95	1.12	106.1	Pulse	0.30	3
1	Ge		228,050.19	0.32	109.1	Pulse	0.30	3
1	In		2,146,600.26	0.14	107.6	Pulse	0.30	3
1	Tb		5,624,916.00	0.56	104.6	Pulse	0.50	3
1	Lu		4,309,572.67	0.18	104.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		342,629.21	0.71	110.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,093.37	6.34	92.0	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:18
Sample Name MP41702-D1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.580	ug/l	4.23	652.68	2.788E-03	Pulse	0.50	3
As			1	1.701	ug/l	1.27	124.67	5.325E-04	Pulse	1.00	3
Mo			1	9.874	ug/l	25.21	967.36	2.782E-03	Pulse	0.50	3
Pb			1	0.644	ug/l	16.44	1,154.71	2.869E-04	Pulse	1.00	3
Be			1	0.554	ug/l	418.79	2.33	6.882E-06	Pulse	2.00	3
Ag			1	-16.402	ug/l	-0.37	3,646.37	1.049E-02	Pulse	0.50	3
Ba			1	23.493	ug/l	4.39	991.36	4.571E-04	Pulse	0.50	3
Tl			1	0.266	ug/l	2.19	368.68	9.158E-05	Pulse	0.50	3
Sn			1	2.896	ug/l	7.67	420.01	1.936E-04	Pulse	0.30	3
Sr			1	6019.772	ug/l	0.26	702,966.48	3.241E-01	Pulse	0.50	3
[Pb]			1	0.633	ug/l	50.15	542.01	1.347E-04	Pulse	0.50	3
Ca			1	390449.417	ug/l	0.72	219,698.55	6.476E-01	Pulse	0.50	3
Ti			1	8.546	ug/l	38.84	38.67	1.139E-04	Pulse	0.50	3
Na			1	1411594.054	ug/l	0.45	26,343,988.00	7.765E+01	Analog	1.00	3
Mg			1	395588.001	ug/l	0.61	3,728,096.58	1.099E+01	Pulse	1.00	3
K			1	51409.113	ug/l	0.12	662,492.29	1.953E+00	Pulse	1.00	3
V			1	0.606	ug/l	123.66	1,530.73	4.512E-03	Pulse	0.50	3
Mn			1	7668.862	ug/l	0.76	671,924.33	2.870E+00	Pulse	0.50	3
Fe			1	660.341	ug/l	0.36	108,718.89	4.644E-01	Pulse	0.50	3
Co			1	2.512	ug/l	16.37	686.01	2.930E-03	Pulse	0.50	3
Ni			1	9.414	ug/l	4.77	1,045.36	4.465E-03	Pulse	0.50	3
Cu			1	1.265	ug/l	79.41	9,648.44	4.121E-02	Pulse	0.50	3
Zn			1	23.373	ug/l	12.13	1,836.09	5.282E-03	Pulse	1.00	3
Cd			1	0.581	ug/l	62.90	35.33	1.017E-04	Pulse	0.50	3
Al			1	27.847	ug/l	25.69	936.02	2.759E-03	Pulse	1.00	3
Se			1	7.655	ug/l	4.64	123.33	3.548E-04	Pulse	3.00	3
Sb			1	2.010	ug/l	16.21	519.68	1.495E-03	Pulse	1.00	3
Se			1	0.745	ug/l	845.33	70.33	2.023E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,025,974.08	0.90	104.0	Pulse	0.50	3
1	Sc		339,268.68	0.36	107.6	Pulse	0.30	3
1	Ge		234,114.77	0.26	112.0	Pulse	0.30	3
1	In		2,168,843.73	0.58	108.7	Pulse	0.30	3
1	Tb		5,663,683.83	0.40	105.3	Pulse	0.50	3
1	Lu		4,344,237.33	0.40	105.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		347,616.03	0.29	112.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,130.59	10.63	95.1	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:22
Sample Name MP41702-SD1
Sample Type Sample
Comment
Prep Dilution 500.000
Auto Dilution N/A
Total Dilution 500.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-1.077	ug/l	-122.79	532.68	2.306E-03	Pulse	0.50	3
As			1	-2.354	ug/l	-32.59	78.33	3.391E-04	Pulse	1.00	3
Mo			1	19.832	ug/l	32.59	476.01	1.397E-03	Pulse	0.50	3
Pb			1	1.281	ug/l	6.72	1,014.03	2.516E-04	Pulse	1.00	3
Be			1	5.460	ug/l	160.44	2.67	7.926E-06	Pulse	2.00	3
Ag			1	-85.015	ug/l	-1.36	3,427.66	1.005E-02	Pulse	0.50	3
Ba			1	28.083	ug/l	13.76	242.67	1.126E-04	Pulse	0.50	3
Tl			1	0.744	ug/l	35.84	307.34	7.625E-05	Pulse	0.50	3
Sn			1	7.499	ug/l	34.52	286.67	1.330E-04	Pulse	0.30	3
Sr			1	6254.374	ug/l	0.95	145,421.06	6.748E-02	Pulse	0.50	3
[Pb]			1	1.012	ug/l	71.34	466.01	1.156E-04	Pulse	0.50	3
Ca			1	405293.301	ug/l	0.68	45,713.60	1.360E-01	Pulse	0.50	3
Ti			1	37.094	ug/l	50.87	34.00	1.011E-04	Pulse	0.50	3
Na			1	1479138.266	ug/l	0.38	5,500,268.83	1.636E+01	Analog	1.00	3
Mg			1	414542.007	ug/l	0.76	774,506.06	2.304E+00	Pulse	1.00	3
K			1	57191.293	ug/l	0.27	216,308.49	6.435E-01	Pulse	1.00	3
V			1	3.139	ug/l	136.58	1,518.73	4.519E-03	Pulse	0.50	3
Mn			1	8042.051	ug/l	0.66	139,230.32	6.027E-01	Pulse	0.50	3
Fe			1	1492.222	ug/l	59.65	63,339.75	2.741E-01	Pulse	0.50	3
Co			1	6.428	ug/l	11.75	408.68	1.769E-03	Pulse	0.50	3
Ni			1	11.064	ug/l	41.09	617.35	2.672E-03	Pulse	0.50	3
Cu			1	-5.074	ug/l	-57.38	9,171.54	3.970E-02	Pulse	0.50	3
Zn			1	224.425	ug/l	0.20	2,429.16	7.123E-03	Pulse	1.00	3
Cd			1	2.004	ug/l	25.62	27.33	8.016E-05	Pulse	0.50	3
Al			1	-179.726	ug/l	-15.40	659.68	1.962E-03	Pulse	1.00	3
Se			1	38.314	ug/l	29.67	121.00	3.548E-04	Pulse	3.00	3
Sb			1	3.639	ug/l	12.03	344.67	1.011E-03	Pulse	1.00	3
Se			1	-53.926	ug/l	-29.77	60.22	1.766E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,031,026.58	0.64	104.2	Pulse	0.50	3
1	Sc		336,136.16	0.35	106.6	Pulse	0.30	3
1	Ge		231,013.51	0.12	110.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,155,168.94	0.11	108.0	Pulse	0.30	3
1	Tb		5,625,231.33	0.11	104.6	Pulse	0.50	3
1	Lu		4,298,856.33	0.56	104.5	Pulse	0.50	3
1	Ge		341,007.18	0.87	110.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,160.04	2.77	97.6	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:26
Sample Name MP41702-S1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	219.628	ug/l	0.25	31,379.84	1.356E-01	Pulse	0.50	3
As			1	234.101	ug/l	4.43	4,913.31	2.123E-02	Pulse	1.00	3
Mo			1	226.749	ug/l	1.79	18,336.98	5.363E-02	Pulse	0.50	3
Pb			1	227.207	ug/l	0.74	83,021.30	2.093E-02	Pulse	1.00	3
Be			1	189.874	ug/l	19.65	126.33	3.744E-04	Pulse	2.00	3
Ag			1	87.185	ug/l	2.58	29,435.96	8.609E-02	Pulse	0.50	3
Ba			1	244.829	ug/l	2.10	10,108.17	4.723E-03	Pulse	0.50	3
Tl			1	212.355	ug/l	1.38	110,705.53	2.790E-02	Pulse	0.50	3
Sn			1	216.455	ug/l	0.56	20,246.75	9.461E-03	Pulse	0.30	3
Sr			1	6688.475	ug/l	0.25	770,638.23	3.601E-01	Pulse	0.50	3
[Pb]			1	211.607	ug/l	0.83	37,618.54	9.482E-03	Pulse	0.50	3
Ca			1	438516.784	ug/l	0.91	245,269.38	7.270E-01	Pulse	0.50	3
Ti			1	230.529	ug/l	8.35	888.69	2.633E-03	Pulse	0.50	3
Na			1	1533857.335	ug/l	0.70	28,460,924.00	8.437E+01	Analog	1.00	3
Mg			1	445209.588	ug/l	1.16	4,171,917.50	1.237E+01	Pulse	1.00	3
K			1	76713.328	ug/l	0.69	938,353.13	2.782E+00	Pulse	1.00	3
V			1	228.711	ug/l	1.64	26,895.85	7.973E-02	Pulse	0.50	3
Mn			1	8484.257	ug/l	0.41	734,660.21	3.175E+00	Pulse	0.50	3
Fe			1	22321.093	ug/l	0.13	2,742,310.67	1.185E+01	Pulse	0.50	3
Co			1	227.289	ug/l	0.43	49,930.08	2.158E-01	Pulse	0.50	3
Ni			1	231.218	ug/l	1.33	13,811.62	5.969E-02	Pulse	0.50	3
Cu			1	224.507	ug/l	0.71	43,770.73	1.892E-01	Pulse	0.50	3
Zn			1	255.736	ug/l	3.41	8,604.93	2.517E-02	Pulse	1.00	3
Cd			1	220.327	ug/l	0.32	9,037.56	2.643E-02	Pulse	0.50	3
Al			1	20303.324	ug/l	1.12	86,322.14	2.559E-01	Pulse	1.00	3
Se			1	226.644	ug/l	6.35	474.45	1.388E-03	Pulse	3.00	3
Sb			1	221.675	ug/l	2.77	28,868.60	8.444E-02	Pulse	1.00	3
Se			1	206.962	ug/l	5.96	226.67	6.628E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,967,320.83	0.40	102.5	Pulse	0.50	3
1	Sc		337,361.34	0.66	107.0	Pulse	0.30	3
1	Ge		231,385.97	1.07	110.7	Pulse	0.30	3
1	In		2,140,049.91	0.78	107.2	Pulse	0.30	3
1	Tb		5,650,885.83	0.53	105.1	Pulse	0.50	3
1	Lu		4,316,218.17	0.29	104.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		341,931.50	0.67	110.5	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,155.60	13.32	97.2	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:30
Sample Name MP41702-S2
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	215.613	ug/l	1.50	30,847.69	1.332E-01	Pulse	0.50	3
As			1	225.061	ug/l	0.40	4,730.26	2.042E-02	Pulse	1.00	3
Mo			1	217.738	ug/l	1.82	17,664.99	5.151E-02	Pulse	0.50	3
Pb			1	219.065	ug/l	0.53	80,440.17	2.018E-02	Pulse	1.00	3
Be			1	199.478	ug/l	7.53	133.17	3.931E-04	Pulse	2.00	3
Ag			1	84.922	ug/l	1.78	28,951.17	8.444E-02	Pulse	0.50	3
Ba			1	240.781	ug/l	1.49	9,986.11	4.645E-03	Pulse	0.50	3
Tl			1	207.244	ug/l	1.53	108,534.55	2.723E-02	Pulse	0.50	3
Sn			1	207.757	ug/l	2.79	19,527.13	9.083E-03	Pulse	0.30	3
Sr			1	6572.894	ug/l	1.11	760,782.10	3.539E-01	Pulse	0.50	3
[Pb]			1	207.442	ug/l	1.84	37,055.34	9.298E-03	Pulse	0.50	3
Ca			1	433973.491	ug/l	1.02	243,783.82	7.195E-01	Pulse	0.50	3
Ti			1	225.268	ug/l	3.71	872.02	2.574E-03	Pulse	0.50	3
Na			1	1508277.571	ug/l	0.42	28,107,556.00	8.296E+01	Analog	1.00	3
Mg			1	436691.269	ug/l	0.78	4,109,825.92	1.213E+01	Pulse	1.00	3
K			1	75477.880	ug/l	0.63	928,684.79	2.741E+00	Pulse	1.00	3
V			1	226.802	ug/l	1.67	26,799.71	7.910E-02	Pulse	0.50	3
Mn			1	8391.738	ug/l	0.39	727,374.56	3.141E+00	Pulse	0.50	3
Fe			1	21793.343	ug/l	0.22	2,680,704.83	1.157E+01	Pulse	0.50	3
Co			1	220.945	ug/l	1.39	48,588.63	2.098E-01	Pulse	0.50	3
Ni			1	225.320	ug/l	0.57	13,484.73	5.822E-02	Pulse	0.50	3
Cu			1	227.013	ug/l	1.36	44,201.06	1.908E-01	Pulse	0.50	3
Zn			1	270.121	ug/l	1.67	9,052.13	2.640E-02	Pulse	1.00	3
Cd			1	211.982	ug/l	2.04	8,719.41	2.543E-02	Pulse	0.50	3
Al			1	19839.166	ug/l	0.62	84,732.10	2.501E-01	Pulse	1.00	3
Se			1	210.590	ug/l	3.40	449.90	1.312E-03	Pulse	3.00	3
Sb			1	217.484	ug/l	1.90	28,405.54	8.285E-02	Pulse	1.00	3
Se			1	208.730	ug/l	8.26	228.67	6.667E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,985,206.83	0.49	103.0	Pulse	0.50	3
1	Sc		338,806.72	0.19	107.4	Pulse	0.30	3
1	Ge		231,610.21	0.57	110.8	Pulse	0.30	3
1	In		2,149,806.79	0.15	107.7	Pulse	0.30	3
1	Tb		5,625,115.67	0.65	104.6	Pulse	0.50	3
1	Lu		4,301,183.50	0.65	104.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		342,876.71	0.87	110.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,150.04	2.26	96.7	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:33
Sample Name MP41702-PS1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.007	ug/l	7.70	1,980.78	8.505E-03	Pulse	0.50	3
As			1	12.602	ug/l	9.93	350.00	1.503E-03	Pulse	1.00	3
Mo			1	12.614	ug/l	14.04	1,188.71	3.424E-03	Pulse	0.50	3
Pb			1	9.924	ug/l	2.52	4,526.94	1.132E-03	Pulse	1.00	3
Be			1	8.803	ug/l	55.56	7.83	2.290E-05	Pulse	2.00	3
Ag			1	-15.860	ug/l	-2.17	3,777.73	1.089E-02	Pulse	0.50	3
Ba			1	33.792	ug/l	3.09	1,420.73	6.556E-04	Pulse	0.50	3
Tl			1	9.002	ug/l	1.97	4,946.06	1.237E-03	Pulse	0.50	3
Sn			1	9.916	ug/l	7.71	1,080.04	4.982E-04	Pulse	0.30	3
Sr			1	6172.891	ug/l	0.14	720,320.98	3.324E-01	Pulse	0.50	3
[Pb]			1	9.407	ug/l	2.50	2,092.80	5.235E-04	Pulse	0.50	3
Ca			1	399550.600	ug/l	0.83	226,556.41	6.626E-01	Pulse	0.50	3
Ti			1	13.284	ug/l	39.68	57.33	1.677E-04	Pulse	0.50	3
Na			1	1441148.055	ug/l	0.32	27,104,958.00	7.927E+01	Analog	1.00	3
Mg			1	403088.473	ug/l	0.33	3,828,484.17	1.120E+01	Pulse	1.00	3
K			1	53343.542	ug/l	0.64	689,322.69	2.016E+00	Pulse	1.00	3
V			1	17.394	ug/l	3.45	3,435.65	1.005E-02	Pulse	0.50	3
Mn			1	7918.603	ug/l	0.46	690,153.92	2.964E+00	Pulse	0.50	3
Fe			1	1631.333	ug/l	1.60	227,038.13	9.748E-01	Pulse	0.50	3
Co			1	12.550	ug/l	2.78	2,896.23	1.244E-02	Pulse	0.50	3
Ni			1	18.476	ug/l	6.24	1,565.40	6.721E-03	Pulse	0.50	3
Cu			1	12.619	ug/l	15.19	11,349.36	4.874E-02	Pulse	0.50	3
Zn			1	75.968	ug/l	2.12	3,394.97	9.784E-03	Pulse	1.00	3
Cd			1	14.096	ug/l	3.48	597.34	1.721E-03	Pulse	0.50	3
Al			1	902.679	ug/l	1.51	4,677.89	1.368E-02	Pulse	1.00	3
Se			1	17.359	ug/l	18.11	139.00	4.006E-04	Pulse	3.00	3
Sb			1	9.181	ug/l	5.64	1,458.73	4.203E-03	Pulse	1.00	3
Se			1	10.821	ug/l	41.08	78.00	2.248E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,998,169.50	0.55	103.3	Pulse	0.50	3
1	Sc		341,920.27	0.61	108.4	Pulse	0.30	3
1	Ge		232,884.44	0.62	111.4	Pulse	0.30	3
1	In		2,167,291.37	0.82	108.6	Pulse	0.30	3
1	Tb		5,656,619.83	0.35	105.2	Pulse	0.50	3
1	Lu		4,346,155.00	0.57	105.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		347,026.24	0.77	112.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,164.48	1.01	97.9	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:37
Sample Name FC1666-1F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.874	ug/l	9.46	848.02	3.573E-03	Pulse	0.50	3
As			1	0.869	ug/l	145.99	109.00	4.584E-04	Pulse	1.00	3
Mo			1	2.431	ug/l	40.79	368.67	1.037E-03	Pulse	0.50	3
Pb			1	0.418	ug/l	30.16	1,071.04	2.663E-04	Pulse	1.00	3
Be			1	-1.020	ug/l	-182.33	1.33	3.825E-06	Pulse	2.00	3
Ag			1	-18.594	ug/l	-3.33	3,156.28	8.889E-03	Pulse	0.50	3
Ba			1	11.317	ug/l	3.07	490.68	2.225E-04	Pulse	0.50	3
Tl			1	0.020	ug/l	254.19	238.67	5.933E-05	Pulse	0.50	3
Sn			1	1.265	ug/l	52.27	271.11	1.228E-04	Pulse	0.30	3
Sr			1	8388.551	ug/l	0.44	996,184.25	4.516E-01	Pulse	0.50	3
[Pb]			1	0.451	ug/l	60.34	509.34	1.266E-04	Pulse	0.50	3
Ca			1	426221.209	ug/l	1.21	246,591.37	7.067E-01	Pulse	0.50	3
Ti			1	6.255	ug/l	28.40	30.67	8.789E-05	Pulse	0.50	3
Na			1	1699626.678	ug/l	0.33	32,614,083.33	9.347E+01	Analog	1.00	3
Mg			1	457398.362	ug/l	0.60	4,433,217.33	1.271E+01	Pulse	1.00	3
K			1	13200.902	ug/l	0.47	244,678.88	7.012E-01	Pulse	1.00	3
V			1	8.689	ug/l	6.26	2,504.17	7.177E-03	Pulse	0.50	3
Mn			1	41.554	ug/l	3.02	3,913.74	1.649E-02	Pulse	0.50	3
Fe			1	74.290	ug/l	32.34	37,100.02	1.563E-01	Pulse	0.50	3
Co			1	0.695	ug/l	21.55	287.33	1.210E-03	Pulse	0.50	3
Ni			1	3.615	ug/l	25.29	716.68	3.021E-03	Pulse	0.50	3
Cu			1	1.344	ug/l	158.08	9,790.49	4.126E-02	Pulse	0.50	3
Zn			1	76.075	ug/l	2.69	3,477.32	9.793E-03	Pulse	1.00	3
Cd			1	0.045	ug/l	213.03	13.33	3.749E-05	Pulse	0.50	3
Al			1	-47.749	ug/l	-19.52	633.34	1.815E-03	Pulse	1.00	3
Se			1	19.238	ug/l	37.84	145.33	4.094E-04	Pulse	3.00	3
Sb			1	1.216	ug/l	6.07	424.34	1.195E-03	Pulse	1.00	3
Se			1	5.253	ug/l	252.88	75.44	2.124E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,021,986.17	0.30	103.9	Pulse	0.50	3
1	Sc		348,920.60	0.18	110.7	Pulse	0.30	3
1	Ge		237,326.90	1.17	113.5	Pulse	0.30	3
1	In		2,205,881.79	0.64	110.5	Pulse	0.30	3
1	Tb		5,694,512.67	0.22	105.9	Pulse	0.50	3
1	Lu		4,371,125.67	0.83	106.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		355,108.29	0.79	114.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,125.59	3.94	94.7	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:41
Sample Name FC1666-2F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.213	ug/l	162.27	598.01	2.565E-03	Pulse	0.50	3
As			1	-0.602	ug/l	-115.52	76.33	3.274E-04	Pulse	1.00	3
Mo			1	2.800	ug/l	27.22	390.67	1.124E-03	Pulse	0.50	3
Pb			1	1.099	ug/l	13.91	1,317.72	3.283E-04	Pulse	1.00	3
Be			1	-0.985	ug/l	-44.97	1.33	3.893E-06	Pulse	2.00	3
Ag			1	-18.411	ug/l	-2.89	3,137.61	9.023E-03	Pulse	0.50	3
Ba			1	17.729	ug/l	3.75	750.02	3.460E-04	Pulse	0.50	3
Tl			1	-0.027	ug/l	-327.59	213.33	5.317E-05	Pulse	0.50	3
Sn			1	0.797	ug/l	44.54	222.22	1.025E-04	Pulse	0.30	3
Sr			1	3477.731	ug/l	0.91	406,003.34	1.873E-01	Pulse	0.50	3
[Pb]			1	0.945	ug/l	15.73	596.01	1.485E-04	Pulse	0.50	3
Ca			1	310029.690	ug/l	0.80	176,377.51	5.146E-01	Pulse	0.50	3
Ti			1	3.301	ug/l	90.67	18.67	5.437E-05	Pulse	0.50	3
Na			1	929756.309	ug/l	0.73	17,542,569.33	5.118E+01	Analog	1.00	3
Mg			1	214019.870	ug/l	0.94	2,037,806.04	5.946E+00	Pulse	1.00	3
K			1	11000.438	ug/l	0.26	215,648.09	6.292E-01	Pulse	1.00	3
V			1	8.367	ug/l	7.30	2,423.49	7.071E-03	Pulse	0.50	3
Mn			1	148.177	ug/l	2.00	13,145.14	5.638E-02	Pulse	0.50	3
Fe			1	43.734	ug/l	56.99	32,700.55	1.402E-01	Pulse	0.50	3
Co			1	0.722	ug/l	5.25	288.00	1.235E-03	Pulse	0.50	3
Ni			1	6.532	ug/l	16.60	874.03	3.748E-03	Pulse	0.50	3
Cu			1	4.098	ug/l	61.33	10,045.30	4.309E-02	Pulse	0.50	3
Zn			1	24.411	ug/l	5.15	1,868.10	5.371E-03	Pulse	1.00	3
Cd			1	0.068	ug/l	70.82	14.00	4.026E-05	Pulse	0.50	3
Al			1	-67.362	ug/l	-17.57	538.34	1.570E-03	Pulse	1.00	3
Se			1	7.751	ug/l	55.92	123.56	3.553E-04	Pulse	3.00	3
Sb			1	0.892	ug/l	13.03	373.00	1.073E-03	Pulse	1.00	3
Se			1	-2.285	ug/l	-319.17	68.00	1.956E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,012,628.67	0.73	103.7	Pulse	0.50	3
1	Sc		342,748.91	0.79	108.7	Pulse	0.30	3
1	Ge		233,149.68	0.56	111.5	Pulse	0.30	3
1	In		2,167,480.33	0.01	108.6	Pulse	0.30	3
1	Tb		5,631,389.50	0.73	104.7	Pulse	0.50	3
1	Lu		4,300,158.00	0.60	104.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		347,777.07	0.41	112.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,162.26	12.37	97.8	Pulse	0.30	3

Quantitation Report

File Name 031SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:45
Sample Name FC1666-4F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.940	ug/l	43.49	694.68	3.006E-03	Pulse	0.50	3
As			1	-0.261	ug/l	-152.09	82.67	3.578E-04	Pulse	1.00	3
Mo			1	2.558	ug/l	14.22	364.67	1.067E-03	Pulse	0.50	3
Pb			1	0.359	ug/l	13.38	1,031.36	2.609E-04	Pulse	1.00	3
Be			1	0.059	ug/l	1341.26	2.00	5.920E-06	Pulse	2.00	3
Ag			1	-18.606	ug/l	-0.38	3,035.59	8.881E-03	Pulse	0.50	3
Ba			1	21.043	ug/l	3.97	886.69	4.099E-04	Pulse	0.50	3
Tl			1	-0.096	ug/l	-38.13	174.67	4.420E-05	Pulse	0.50	3
Sn			1	0.481	ug/l	60.05	192.23	8.880E-05	Pulse	0.30	3
Sr			1	6184.077	ug/l	0.59	720,263.23	3.330E-01	Pulse	0.50	3
[Pb]			1	0.280	ug/l	145.94	470.68	1.190E-04	Pulse	0.50	3
Ca			1	522221.738	ug/l	0.60	292,874.32	8.655E-01	Pulse	0.50	3
Ti			1	38.636	ug/l	66.21	154.02	4.554E-04	Pulse	0.50	3
Na			1	1417540.439	ug/l	0.63	26,387,693.33	7.798E+01	Analog	1.00	3
Mg			1	300509.582	ug/l	0.47	2,825,032.00	8.348E+00	Pulse	1.00	3
K			1	8003.319	ug/l	2.33	179,687.30	5.310E-01	Pulse	1.00	3
V			1	9.310	ug/l	1.96	2,498.17	7.382E-03	Pulse	0.50	3
Mn			1	20.368	ug/l	6.24	1,979.44	8.568E-03	Pulse	0.50	3
Fe			1	423.315	ug/l	12.27	78,531.51	3.398E-01	Pulse	0.50	3
Co			1	0.713	ug/l	20.54	283.33	1.227E-03	Pulse	0.50	3
Ni			1	4.330	ug/l	6.12	739.35	3.199E-03	Pulse	0.50	3
Cu			1	3.441	ug/l	37.89	9,855.86	4.265E-02	Pulse	0.50	3
Zn			1	27.778	ug/l	1.59	1,934.43	5.659E-03	Pulse	1.00	3
Cd			1	0.236	ug/l	113.64	20.67	6.043E-05	Pulse	0.50	3
Al			1	291.313	ug/l	0.30	2,046.78	6.048E-03	Pulse	1.00	3
Se			1	19.480	ug/l	11.46	140.33	4.106E-04	Pulse	3.00	3
Sb			1	0.182	ug/l	55.16	275.00	8.045E-04	Pulse	1.00	3
Se			1	2.872	ug/l	391.21	70.78	2.071E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,952,699.92	0.41	102.2	Pulse	0.50	3
1	Sc		338,420.05	1.12	107.3	Pulse	0.30	3
1	Ge		231,068.73	0.59	110.5	Pulse	0.30	3
1	In		2,163,272.27	0.83	108.4	Pulse	0.30	3
1	Tb		5,610,907.67	0.67	104.3	Pulse	0.50	3
1	Lu		4,285,533.17	0.69	104.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		341,813.81	0.40	110.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,080.03	7.57	90.8	Pulse	0.30	3

Quantitation Report

File Name 032SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 13:48
Sample Name FC1666-5F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.887	ug/l	13.97	692.68	2.974E-03	Pulse	0.50	3
As			1	-0.210	ug/l	-259.66	84.33	3.623E-04	Pulse	1.00	3
Mo			1	2.718	ug/l	28.79	382.67	1.104E-03	Pulse	0.50	3
Pb			1	0.274	ug/l	16.40	1,004.03	2.532E-04	Pulse	1.00	3
Be			1	0.561	ug/l	287.02	2.33	6.894E-06	Pulse	2.00	3
Ag			1	-18.898	ug/l	-3.64	3,002.26	8.667E-03	Pulse	0.50	3
Ba			1	21.303	ug/l	7.42	898.69	4.149E-04	Pulse	0.50	3
Tl			1	-0.092	ug/l	-57.73	177.33	4.469E-05	Pulse	0.50	3
Sn			1	0.408	ug/l	107.31	185.56	8.563E-05	Pulse	0.30	3
Sr			1	6097.856	ug/l	0.52	711,314.69	3.283E-01	Pulse	0.50	3
[Pb]			1	0.127	ug/l	222.44	445.34	1.123E-04	Pulse	0.50	3
Ca			1	517540.707	ug/l	1.21	290,976.97	8.577E-01	Pulse	0.50	3
Ti			1	10.268	ug/l	22.05	45.33	1.334E-04	Pulse	0.50	3
Na			1	1408226.951	ug/l	0.83	26,279,408.67	7.747E+01	Analog	1.00	3
Mg			1	297992.237	ug/l	0.93	2,808,295.83	8.278E+00	Pulse	1.00	3
K			1	7894.448	ug/l	2.09	178,925.95	5.274E-01	Pulse	1.00	3
V			1	8.539	ug/l	15.34	2,418.16	7.128E-03	Pulse	0.50	3
Mn			1	14.003	ug/l	2.62	1,440.73	6.186E-03	Pulse	0.50	3
Fe			1	326.948	ug/l	11.02	67,334.20	2.891E-01	Pulse	0.50	3
Co			1	0.881	ug/l	7.53	322.67	1.386E-03	Pulse	0.50	3
Ni			1	6.084	ug/l	7.16	846.69	3.636E-03	Pulse	0.50	3
Cu			1	0.469	ug/l	274.56	9,475.68	4.068E-02	Pulse	0.50	3
Zn			1	39.757	ug/l	1.85	2,315.14	6.685E-03	Pulse	1.00	3
Cd			1	0.390	ug/l	30.30	27.33	7.887E-05	Pulse	0.50	3
Al			1	188.580	ug/l	4.65	1,616.74	4.765E-03	Pulse	1.00	3
Se			1	15.633	ug/l	33.71	135.89	3.924E-04	Pulse	3.00	3
Sb			1	-0.012	ug/l	-1326.96	253.33	7.313E-04	Pulse	1.00	3
Se			1	-6.372	ug/l	-61.04	64.55	1.864E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,965,842.33	0.64	102.5	Pulse	0.50	3
1	Sc		339,259.22	1.04	107.6	Pulse	0.30	3
1	Ge		232,894.44	0.68	111.4	Pulse	0.30	3
1	In		2,166,517.28	0.66	108.6	Pulse	0.30	3
1	Tb		5,599,392.83	0.61	104.1	Pulse	0.50	3
1	Lu		4,295,813.67	0.51	104.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		346,333.05	0.55	112.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,195.60	6.36	100.6	Pulse	0.30	3

Quantitation Report

File Name	033CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 13:52
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.571	ug/l	0.90	654,597.17	2.887E+00	Pulse	0.50	3
As			1	47.331	ug/l	1.01	95,655.08	4.219E-01	Pulse	1.00	3
Mo			1	46.363	ug/l	0.83	366,675.64	1.087E+00	Pulse	0.50	3
Pb			1	48.215	ug/l	1.20	1,734,296.21	4.395E-01	Pulse	1.00	3
Be			1	44.909	ug/l	1.67	2,928.55	8.724E-03	Pulse	2.00	3
Ag			1	48.408	ug/l	0.75	1,198,929.29	3.556E+00	Pulse	0.50	3
Ba			1	46.930	ug/l	0.55	192,325.95	9.046E-02	Pulse	0.50	3
Tl			1	48.255	ug/l	1.15	2,497,516.92	6.328E-01	Pulse	0.50	3
Sn			1	46.756	ug/l	2.01	431,511.78	2.030E-01	Pulse	0.30	3
Sr			1	47.005	ug/l	1.00	538,173.16	2.531E-01	Pulse	0.50	3
[Pb]			1	47.112	ug/l	1.36	824,186.29	2.088E-01	Pulse	0.50	3
Ca			1	4721.416	ug/l	0.80	262,721.99	7.826E-01	Pulse	0.50	3
Ti			1	47.433	ug/l	1.26	18,077.04	5.385E-02	Pulse	0.50	3
Na			1	4747.479	ug/l	0.78	8,791,789.67	2.619E+01	Analog	1.00	3
Mg			1	4661.970	ug/l	1.11	4,346,918.50	1.295E+01	Pulse	1.00	3
K			1	4779.041	ug/l	0.32	5,344,821.83	1.592E+01	Analog	1.00	3
V			1	47.805	ug/l	1.07	530,587.98	1.581E+00	Pulse	0.50	3
Mn			1	47.466	ug/l	0.45	402,859.50	1.777E+00	Pulse	0.50	3
Fe			1	4763.415	ug/l	1.03	56,804,404.00	2.505E+02	Analog	0.50	3
Co			1	47.248	ug/l	0.61	1,014,579.77	4.475E+00	Pulse	0.50	3
Ni			1	47.632	ug/l	1.46	269,369.52	1.188E+00	Pulse	0.50	3
Cu			1	48.071	ug/l	0.87	731,551.90	3.226E+00	Pulse	0.50	3
Zn			1	49.328	ug/l	0.32	143,456.49	4.254E-01	Pulse	1.00	3
Cd			1	46.644	ug/l	0.47	188,459.75	5.589E-01	Pulse	0.50	3
Al			1	4495.537	ug/l	1.30	1,884,728.75	5.615E+00	Pulse	1.00	3
Se			1	45.671	ug/l	1.20	7,371.53	2.186E-02	Pulse	3.00	3
Sb			1	46.411	ug/l	0.50	591,144.71	1.753E+00	Pulse	1.00	3
Se			1	46.000	ug/l	0.83	3,531.22	1.047E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,946,692.67	0.77	102.0	Pulse	0.50	3
1	Sc		335,691.73	0.76	106.5	Pulse	0.30	3
1	Ge		226,739.48	0.65	108.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,126,195.40	0.54	106.5	Pulse	0.30	3
1	Tb		5,630,265.17	0.28	104.7	Pulse	0.50	3
1	Lu		4,299,434.67	0.29	104.5	Pulse	0.50	3
1	Ge		337,190.93	0.12	109.0	Pulse	0.30	3
1	Te		5.33	94.37		Pulse	0.50	3
1	Li		1,072.25	6.45	90.2	Pulse	0.30	3

Quantitation Report

File Name	034_CCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 13:56
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.160	ug/l	0.66	1,355,638.62	5.894E+00	Pulse	0.50	3
As			1	97.453	ug/l	0.89	199,693.87	8.682E-01	Pulse	1.00	3
Mo			1	96.665	ug/l	0.91	765,113.88	2.267E+00	Pulse	0.50	3
Pb			1	99.562	ug/l	0.67	3,537,667.67	9.072E-01	Pulse	1.00	3
Be			1	92.389	ug/l	1.22	6,058.74	1.794E-02	Pulse	2.00	3
Ag			1	99.278	ug/l	0.89	2,453,382.58	7.268E+00	Pulse	0.50	3
Ba			1	97.948	ug/l	0.39	398,842.20	1.888E-01	Pulse	0.50	3
Tl			1	100.279	ug/l	0.68	5,128,095.33	1.315E+00	Pulse	0.50	3
Sn			1	98.214	ug/l	0.63	900,546.70	4.263E-01	Pulse	0.30	3
Sr			1	98.528	ug/l	0.16	1,120,561.37	5.304E-01	Pulse	0.50	3
[Pb]			1	97.686	ug/l	1.15	1,688,148.04	4.329E-01	Pulse	0.50	3
Ca			1	9689.667	ug/l	1.34	541,706.02	1.604E+00	Pulse	0.50	3
Ti			1	97.487	ug/l	1.38	37,370.87	1.107E-01	Pulse	0.50	3
Na			1	9780.033	ug/l	1.14	18,179,528.00	5.383E+01	Analog	1.00	3
Mg			1	9613.405	ug/l	1.43	9,017,102.00	2.670E+01	Analog	1.00	3
K			1	9899.796	ug/l	0.68	11,041,120.67	3.269E+01	Analog	1.00	3
V			1	98.826	ug/l	1.30	1,101,926.38	3.263E+00	Pulse	0.50	3
Mn			1	97.032	ug/l	0.80	835,164.00	3.631E+00	Pulse	0.50	3
Fe			1	9784.805	ug/l	0.56	118,339,029.33	5.145E+02	Analog	0.50	3
Co			1	96.447	ug/l	0.63	2,100,722.12	9.134E+00	Pulse	0.50	3
Ni			1	96.771	ug/l	0.97	554,659.85	2.412E+00	Pulse	0.50	3
Cu			1	98.015	ug/l	0.68	1,503,447.79	6.537E+00	Pulse	0.50	3
Zn			1	98.399	ug/l	1.13	285,357.25	8.454E-01	Pulse	1.00	3
Cd			1	96.599	ug/l	1.16	390,684.43	1.157E+00	Pulse	0.50	3
Al			1	9309.938	ug/l	1.58	3,925,756.42	1.163E+01	Pulse	1.00	3
Se			1	94.767	ug/l	1.94	15,195.25	4.502E-02	Pulse	3.00	3
Sb			1	96.080	ug/l	1.17	1,224,762.62	3.629E+00	Pulse	1.00	3
Se			1	95.305	ug/l	0.38	7,251.27	2.148E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,899,508.33	0.11	100.8	Pulse	0.50	3
1	Sc		337,719.09	0.89	107.1	Pulse	0.30	3
1	Ge		230,005.91	0.79	110.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,112,698.46	0.33	105.9	Pulse	0.30	3
1	Tb		5,645,499.17	0.16	105.0	Pulse	0.50	3
1	Lu		4,327,278.17	0.27	105.2	Pulse	0.50	3
1	Ge		337,549.70	0.53	109.1	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,145.59	12.37	96.4	Pulse	0.30	3

Quantitation Report

File Name 035_CCB.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:00
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.008	ug/l	56.44	655.35	2.935E-03	Pulse	0.50	3
As			1	0.025	ug/l	10.97	135.67	6.073E-04	Pulse	1.00	3
Mo			1	0.110	ug/l	20.73	1,015.37	3.046E-03	Pulse	0.50	3
Pb			1	0.016	ug/l	12.26	1,466.07	3.698E-04	Pulse	1.00	3
Be			1	0.038	ug/l	114.42	4.33	1.312E-05	Pulse	2.00	3
Ag			1	-0.178	ug/l	-1.54	3,152.95	9.451E-03	Pulse	0.50	3
Ba			1	0.008	ug/l	23.56	40.00	1.890E-05	Pulse	0.50	3
Tl			1	0.025	ug/l	21.40	1,513.41	3.820E-04	Pulse	0.50	3
Sn			1	0.120	ug/l	14.92	1,247.83	5.896E-04	Pulse	0.30	3
Sr			1	0.007	ug/l	79.90	415.34	1.963E-04	Pulse	0.50	3
[Pb]			1	0.017	ug/l	31.28	726.02	1.832E-04	Pulse	0.50	3
Ca			1	-1.741	ug/l	-43.71	556.68	1.682E-03	Pulse	0.50	3
Ti			1	0.015	ug/l	80.90	11.33	3.429E-05	Pulse	0.50	3
Na			1	3.830	ug/l	21.61	44,724.35	1.352E-01	Pulse	1.00	3
Mg			1	1.334	ug/l	23.82	1,703.08	5.145E-03	Pulse	1.00	3
K			1	11.330	ug/l	1.97	101,236.32	3.060E-01	Pulse	1.00	3
V			1	0.010	ug/l	69.26	1,534.06	4.636E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	64.20	272.67	1.221E-03	Pulse	0.50	3
Fe			1	0.841	ug/l	30.18	36,061.53	1.615E-01	Pulse	0.50	3
Co			1	0.009	ug/l	32.85	307.34	1.376E-03	Pulse	0.50	3
Ni			1	0.010	ug/l	65.25	532.01	2.382E-03	Pulse	0.50	3
Cu			1	-0.092	ug/l	-17.63	7,653.54	3.427E-02	Pulse	0.50	3
Zn			1	0.024	ug/l	28.87	1,164.71	3.491E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	27.41	72.00	2.155E-04	Pulse	0.50	3
Al			1	-0.048	ug/l	-565.20	778.35	2.352E-03	Pulse	1.00	3
Se			1	0.111	ug/l	53.03	123.89	3.713E-04	Pulse	3.00	3
Sb			1	0.047	ug/l	5.89	838.69	2.514E-03	Pulse	1.00	3
Se			1	0.047	ug/l	125.10	70.45	2.112E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,965,309.58	0.67	102.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		330,860.99	0.43	104.9	Pulse	0.30	3
1	Ge		223,359.61	0.99	106.8	Pulse	0.30	3
1	In		2,116,194.92	0.15	106.0	Pulse	0.30	3
1	Tb		5,552,763.17	0.52	103.3	Pulse	0.50	3
1	Lu		4,240,038.50	0.13	103.1	Pulse	0.50	3
1	Ge		333,600.21	0.89	107.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,123.37	4.15	94.5	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:04
Sample Name CRIA
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.332	ug/l	0.77	141,674.63	6.289E-01	Pulse	0.50	3
As			1	10.238	ug/l	0.12	20,623.75	9.155E-02	Pulse	1.00	3
Mo			1	9.941	ug/l	0.54	78,366.55	2.335E-01	Pulse	0.50	3
Pb			1	10.241	ug/l	0.45	373,725.53	9.352E-02	Pulse	1.00	3
Be			1	10.038	ug/l	3.75	655.51	1.954E-03	Pulse	2.00	3
Ag			1	10.323	ug/l	1.40	260,378.22	7.759E-01	Pulse	0.50	3
Ba			1	10.160	ug/l	0.45	41,616.29	1.959E-02	Pulse	0.50	3
Tl			1	10.206	ug/l	0.47	535,067.29	1.339E-01	Pulse	0.50	3
Sn			1	9.920	ug/l	1.14	91,610.06	4.311E-02	Pulse	0.30	3
Sr			1	10.138	ug/l	0.70	116,257.46	5.472E-02	Pulse	0.50	3
[Pb]			1	10.100	ug/l	0.63	179,245.86	4.485E-02	Pulse	0.50	3
Ca			1	1045.237	ug/l	1.72	58,621.01	1.748E-01	Pulse	0.50	3
Ti			1	9.901	ug/l	0.87	3,774.38	1.125E-02	Pulse	0.50	3
Na			1	1016.775	ug/l	0.29	1,911,288.25	5.699E+00	Pulse	1.00	3
Mg			1	1013.119	ug/l	1.07	944,163.10	2.815E+00	Pulse	1.00	3
K			1	1047.862	ug/l	0.30	1,241,205.00	3.701E+00	Pulse	1.00	3
V			1	10.207	ug/l	1.83	114,316.05	3.409E-01	Pulse	0.50	3
Mn			1	10.427	ug/l	1.45	88,086.14	3.910E-01	Pulse	0.50	3
Fe			1	1057.199	ug/l	0.72	12,546,126.33	5.570E+01	Analog	0.50	3
Co			1	10.469	ug/l	0.58	223,444.31	9.919E-01	Pulse	0.50	3
Ni			1	10.542	ug/l	1.34	59,606.55	2.646E-01	Pulse	0.50	3
Cu			1	10.639	ug/l	0.90	167,936.05	7.455E-01	Pulse	0.50	3
Zn			1	13.501	ug/l	1.64	39,878.37	1.188E-01	Pulse	1.00	3
Cd			1	10.145	ug/l	1.93	40,803.48	1.216E-01	Pulse	0.50	3
Al			1	970.997	ug/l	1.02	407,349.57	1.215E+00	Pulse	1.00	3
Se			1	9.802	ug/l	0.98	1,658.41	4.942E-03	Pulse	3.00	3
Sb			1	9.979	ug/l	0.73	126,688.29	3.775E-01	Pulse	1.00	3
Se			1	9.563	ug/l	2.79	783.91	2.336E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,996,107.17	0.75	103.3	Pulse	0.50	3
1	Sc		335,370.06	0.30	106.4	Pulse	0.30	3
1	Ge		225,263.67	0.17	107.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,124,734.64	0.72	106.5	Pulse	0.30	3
1	Tb		5,590,638.67	0.27	104.0	Pulse	0.50	3
1	Lu		4,280,203.50	0.41	104.0	Pulse	0.50	3
1	Ge		335,574.98	0.49	108.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,130.04	7.16	95.0	Pulse	0.30	3

Quantitation Report

File Name 037_MB.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:07
Sample Name MP41722-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.230	ug/l	3.92	1,980.11	9.396E-03	Pulse	0.50	3
As			1	0.200	ug/l	15.43	268.00	1.273E-03	Pulse	1.00	3
Mo			1	0.118	ug/l	34.70	582.68	1.848E-03	Pulse	0.50	3
Pb			1	0.104	ug/l	8.03	2,685.88	7.012E-04	Pulse	1.00	3
Be			1	0.012	ug/l	494.63	2.17	6.924E-06	Pulse	2.00	3
Ag			1	-0.335	ug/l	-2.59	3,220.29	1.024E-02	Pulse	0.50	3
Ba			1	0.102	ug/l	18.97	204.00	1.027E-04	Pulse	0.50	3
Tl			1	0.035	ug/l	22.96	1,085.37	2.836E-04	Pulse	0.50	3
Sn			1	0.410	ug/l	10.50	1,907.90	9.577E-04	Pulse	0.30	3
Sr			1	0.089	ug/l	12.07	790.02	3.971E-04	Pulse	0.50	3
[Pb]			1	0.104	ug/l	17.76	1,290.72	3.371E-04	Pulse	0.50	3
Ca			1	20.456	ug/l	13.15	1,135.37	3.662E-03	Pulse	0.50	3
Ti			1	0.229	ug/l	51.57	45.33	1.468E-04	Pulse	0.50	3
Na			1	20.118	ug/l	7.07	52,543.42	1.694E-01	Pulse	1.00	3
Mg			1	3.288	ug/l	17.01	1,861.09	6.006E-03	Pulse	1.00	3
K			1	34.618	ug/l	12.49	100,991.36	3.256E-01	Pulse	1.00	3
V			1	0.932	ug/l	1.83	6,102.31	1.967E-02	Pulse	0.50	3
Mn			1	0.129	ug/l	14.87	708.02	3.358E-03	Pulse	0.50	3
Fe			1	11.085	ug/l	7.35	86,065.06	4.086E-01	Pulse	0.50	3
Co			1	0.035	ug/l	18.68	464.01	2.204E-03	Pulse	0.50	3
Ni			1	0.088	ug/l	11.49	676.68	3.212E-03	Pulse	0.50	3
Cu			1	1.954	ug/l	3.68	22,156.04	1.051E-01	Pulse	0.50	3
Zn			1	2.649	ug/l	3.01	4,600.22	1.462E-02	Pulse	1.00	3
Cd			1	0.029	ug/l	40.27	64.00	2.039E-04	Pulse	0.50	3
Al			1	3.016	ug/l	16.22	1,331.38	4.294E-03	Pulse	1.00	3
Se			1	0.237	ug/l	54.45	117.78	3.745E-04	Pulse	3.00	3
Sb			1	0.092	ug/l	5.65	775.35	2.464E-03	Pulse	1.00	3
Se			1	0.174	ug/l	163.08	69.22	2.201E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,831,621.83	0.82	99.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		310,280.21	1.59	98.4	Pulse	0.30	3
1	Ge		210,703.06	1.09	100.8	Pulse	0.30	3
1	In		1,991,169.09	1.91	99.8	Pulse	0.30	3
1	Tb		5,321,025.00	1.92	98.9	Pulse	0.50	3
1	Lu		4,052,117.08	2.05	98.5	Pulse	0.50	3
1	Ge		314,682.08	1.21	101.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,031.14	10.71	86.7	Pulse	0.30	3

Quantitation Report

File Name	038_BSP.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 14:11
Sample Name	MP41722-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	216.842	ug/l	0.49	1,404,803.67	6.577E+00	Pulse	0.50	3
As			1	222.476	ug/l	0.64	211,664.86	9.910E-01	Pulse	1.00	3
Mo			1	219.683	ug/l	0.82	818,573.40	2.576E+00	Pulse	0.50	3
Pb			1	224.126	ug/l	0.70	3,792,381.17	1.021E+00	Pulse	1.00	3
Be			1	210.946	ug/l	2.33	6,393.01	2.048E-02	Pulse	2.00	3
Ag			1	101.448	ug/l	0.56	1,183,773.88	3.725E+00	Pulse	0.50	3
Ba			1	216.794	ug/l	0.86	412,690.82	2.089E-01	Pulse	0.50	3
Tl			1	213.353	ug/l	0.94	5,195,462.83	1.399E+00	Pulse	0.50	3
Sn			1	212.573	ug/l	0.38	911,209.89	4.613E-01	Pulse	0.30	3
Sr			1	212.678	ug/l	0.31	1,130,775.21	5.724E-01	Pulse	0.50	3
[Pb]			1	209.550	ug/l	1.09	1,724,412.63	4.643E-01	Pulse	0.50	3
Ca			1	20354.847	ug/l	1.01	525,965.65	1.685E+00	Pulse	0.50	3
Ti			1	211.990	ug/l	1.49	37,560.54	1.203E-01	Pulse	0.50	3
Na			1	20714.537	ug/l	1.31	17,795,357.33	5.700E+01	Analog	1.00	3
Mg			1	20302.790	ug/l	0.77	8,802,737.33	2.820E+01	Analog	1.00	3
K			1	20786.115	ug/l	1.12	10,710,993.67	3.431E+01	Analog	1.00	3
V			1	220.443	ug/l	0.85	1,136,013.04	3.639E+00	Pulse	0.50	3
Mn			1	214.894	ug/l	1.46	858,721.46	4.021E+00	Pulse	0.50	3
Fe			1	20638.654	ug/l	0.61	115,898,333.33	5.426E+02	Analog	0.50	3
Co			1	216.391	ug/l	0.31	2,188,550.17	1.025E+01	Pulse	0.50	3
Ni			1	214.784	ug/l	0.58	571,558.31	2.676E+00	Pulse	0.50	3
Cu			1	217.070	ug/l	0.85	1,545,084.79	7.234E+00	Pulse	0.50	3
Zn			1	205.895	ug/l	0.52	281,069.61	8.843E-01	Pulse	1.00	3
Cd			1	209.742	ug/l	0.44	399,361.98	1.257E+00	Pulse	0.50	3
Al			1	18960.369	ug/l	0.56	3,695,777.25	1.184E+01	Pulse	1.00	3
Se			1	203.526	ug/l	1.22	15,356.37	4.832E-02	Pulse	3.00	3
Sb			1	214.990	ug/l	0.41	1,290,217.54	4.060E+00	Pulse	1.00	3
Se			1	205.188	ug/l	0.64	7,344.75	2.311E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,714,108.00	1.76	96.0	Pulse	0.50	3
1	Sc		312,219.07	1.64	99.0	Pulse	0.30	3
1	Ge		213,600.69	1.54	102.2	Pulse	0.30	3
1	In		1,975,431.73	1.07	99.0	Pulse	0.30	3
1	Tb		5,369,253.00	1.77	99.8	Pulse	0.50	3
1	Lu		4,091,221.42	1.57	99.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		317,829.27	1.04	102.7	Pulse	0.30	3
1	Te		5.33	57.28		Pulse	0.50	3
1	Li		1,068.92	4.01	89.9	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:15
Sample Name FC1789-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.044	ug/l	1.33	7,237.37	3.410E-02	Pulse	0.50	3
As			1	1.156	ug/l	0.71	1,173.04	5.527E-03	Pulse	1.00	3
Mo			1	0.920	ug/l	0.39	3,549.02	1.125E-02	Pulse	0.50	3
Pb			1	0.350	ug/l	4.61	6,897.07	1.821E-03	Pulse	1.00	3
Be			1	0.023	ug/l	330.11	2.50	8.019E-06	Pulse	2.00	3
Ag			1	-0.348	ug/l	-2.01	3,074.27	9.748E-03	Pulse	0.50	3
Ba			1	8.278	ug/l	1.08	16,007.78	7.981E-03	Pulse	0.50	3
Tl			1	0.108	ug/l	9.38	2,899.60	7.660E-04	Pulse	0.50	3
Sn			1	0.403	ug/l	3.31	1,890.11	9.420E-04	Pulse	0.30	3
Sr			1	554.741	ug/l	0.61	2,994,364.00	1.493E+00	Pulse	0.50	3
[Pb]			1	0.329	ug/l	2.68	3,166.31	8.355E-04	Pulse	0.50	3
Ca			1	74826.491	ug/l	0.19	1,930,096.75	6.188E+00	Pulse	0.50	3
Ti			1	0.742	ug/l	13.80	136.67	4.380E-04	Pulse	0.50	3
Na			1	3372.449	ug/l	0.87	2,924,224.25	9.376E+00	Pulse	1.00	3
Mg			1	3187.185	ug/l	0.40	1,380,940.66	4.428E+00	Pulse	1.00	3
K			1	2891.804	ug/l	0.79	1,560,882.04	5.005E+00	Pulse	1.00	3
V			1	3.070	ug/l	2.02	17,134.86	5.493E-02	Pulse	0.50	3
Mn			1	39.820	ug/l	0.90	158,287.68	7.458E-01	Pulse	0.50	3
Fe			1	395.676	ug/l	0.88	2,232,371.08	1.052E+01	Pulse	0.50	3
Co			1	0.162	ug/l	7.69	1,744.75	8.227E-03	Pulse	0.50	3
Ni			1	0.538	ug/l	6.78	1,871.43	8.815E-03	Pulse	0.50	3
Cu			1	1.386	ug/l	7.46	18,312.05	8.632E-02	Pulse	0.50	3
Zn			1	18.211	ug/l	1.22	25,615.62	8.121E-02	Pulse	1.00	3
Cd			1	0.064	ug/l	38.85	131.33	4.184E-04	Pulse	0.50	3
Al			1	40.303	ug/l	2.40	8,597.53	2.757E-02	Pulse	1.00	3
Se			1	0.520	ug/l	19.01	139.11	4.412E-04	Pulse	3.00	3
Sb			1	0.721	ug/l	2.32	4,527.90	1.436E-02	Pulse	1.00	3
Se			1	0.319	ug/l	29.72	74.56	2.362E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,789,390.17	1.85	97.9	Pulse	0.50	3
1	Sc		311,899.29	1.30	98.9	Pulse	0.30	3
1	Ge		212,247.58	1.74	101.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,005,966.73	2.03	100.5	Pulse	0.30	3
1	Tb		5,400,324.33	2.13	100.4	Pulse	0.50	3
1	Lu		4,091,132.75	2.07	99.4	Pulse	0.50	3
1	Ge		315,478.75	2.18	102.0	Pulse	0.30	3
1	Te		7.33	41.66		Pulse	0.50	3
1	Li		1,027.81	5.64	86.4	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:19
Sample Name MP41722-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.969	ug/l	2.71	6,939.93	3.183E-02	Pulse	0.50	3
As			1	1.047	ug/l	3.40	1,100.37	5.044E-03	Pulse	1.00	3
Mo			1	0.816	ug/l	4.80	3,235.63	1.004E-02	Pulse	0.50	3
Pb			1	0.331	ug/l	0.80	6,642.63	1.734E-03	Pulse	1.00	3
Be			1	0.069	ug/l	39.14	4.00	1.250E-05	Pulse	2.00	3
Ag			1	-0.378	ug/l	-4.31	2,790.22	8.651E-03	Pulse	0.50	3
Ba			1	7.954	ug/l	1.17	15,676.16	7.670E-03	Pulse	0.50	3
Tl			1	0.030	ug/l	5.64	982.70	2.565E-04	Pulse	0.50	3
Sn			1	0.283	ug/l	7.36	1,394.51	6.820E-04	Pulse	0.30	3
Sr			1	541.533	ug/l	0.73	2,978,665.33	1.457E+00	Pulse	0.50	3
[Pb]			1	0.335	ug/l	2.77	3,246.99	8.477E-04	Pulse	0.50	3
Ca			1	72467.703	ug/l	0.65	1,916,634.17	5.993E+00	Pulse	0.50	3
Ti			1	0.800	ug/l	47.98	150.00	4.708E-04	Pulse	0.50	3
Na			1	3265.116	ug/l	0.66	2,904,272.33	9.081E+00	Pulse	1.00	3
Mg			1	3091.445	ug/l	0.33	1,373,469.87	4.295E+00	Pulse	1.00	3
K			1	2812.314	ug/l	1.22	1,558,840.12	4.875E+00	Pulse	1.00	3
V			1	3.049	ug/l	0.95	17,459.18	5.459E-02	Pulse	0.50	3
Mn			1	38.601	ug/l	0.48	157,680.18	7.230E-01	Pulse	0.50	3
Fe			1	378.373	ug/l	0.43	2,194,525.83	1.006E+01	Pulse	0.50	3
Co			1	0.132	ug/l	3.48	1,484.06	6.807E-03	Pulse	0.50	3
Ni			1	0.502	ug/l	4.16	1,826.09	8.375E-03	Pulse	0.50	3
Cu			1	1.304	ug/l	4.88	18,228.62	8.358E-02	Pulse	0.50	3
Zn			1	16.181	ug/l	0.21	23,383.47	7.252E-02	Pulse	1.00	3
Cd			1	0.035	ug/l	44.76	77.33	2.395E-04	Pulse	0.50	3
Al			1	39.569	ug/l	0.43	8,670.55	2.711E-02	Pulse	1.00	3
Se			1	0.428	ug/l	30.70	135.33	4.196E-04	Pulse	3.00	3
Sb			1	0.664	ug/l	3.62	4,281.51	1.328E-02	Pulse	1.00	3
Se			1	0.303	ug/l	83.95	75.56	2.345E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,830,475.17	1.87	99.0	Pulse	0.50	3
1	Sc		319,820.14	1.24	101.4	Pulse	0.30	3
1	Ge		218,090.01	1.64	104.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,044,111.31	1.72	102.4	Pulse	0.30	3
1	Tb		5,434,711.33	1.84	101.1	Pulse	0.50	3
1	Lu		4,135,518.00	2.63	100.5	Pulse	0.50	3
1	Ge		322,426.94	0.91	104.2	Pulse	0.30	3
1	Te		6.00	33.33		Pulse	0.50	3
1	Li		1,031.15	6.02	86.7	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:23
Sample Name MP41722-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.003	ug/l	11.95	1,976.11	8.520E-03	Pulse	0.50	3
As			1	1.062	ug/l	9.79	307.67	1.326E-03	Pulse	1.00	3
Mo			1	0.859	ug/l	1.71	858.69	2.480E-03	Pulse	0.50	3
Pb			1	0.326	ug/l	6.81	2,103.47	5.254E-04	Pulse	1.00	3
Be			1	-0.100	ug/l	-173.21	1.33	3.870E-06	Pulse	2.00	3
Ag			1	-1.948	ug/l	-2.73	2,854.23	8.246E-03	Pulse	0.50	3
Ba			1	8.233	ug/l	2.14	3,466.34	1.591E-03	Pulse	0.50	3
Tl			1	0.029	ug/l	18.55	380.01	9.488E-05	Pulse	0.50	3
Sn			1	0.220	ug/l	43.85	356.67	1.636E-04	Pulse	0.30	3
Sr			1	550.096	ug/l	0.53	645,319.88	2.962E-01	Pulse	0.50	3
[Pb]			1	0.319	ug/l	18.17	992.70	2.478E-04	Pulse	0.50	3
Ca			1	74279.886	ug/l	1.22	425,884.41	1.230E+00	Pulse	0.50	3
Ti			1	0.784	ug/l	44.39	36.67	1.059E-04	Pulse	0.50	3
Na			1	3345.698	ug/l	1.23	675,736.06	1.952E+00	Pulse	1.00	3
Mg			1	3184.510	ug/l	1.19	306,705.92	8.859E-01	Pulse	1.00	3
K			1	2964.247	ug/l	0.49	429,229.78	1.240E+00	Pulse	1.00	3
V			1	3.566	ug/l	3.77	5,563.48	1.607E-02	Pulse	0.50	3
Mn			1	39.481	ug/l	1.95	34,495.86	1.487E-01	Pulse	0.50	3
Fe			1	393.988	ug/l	3.36	507,776.15	2.188E+00	Pulse	0.50	3
Co			1	0.168	ug/l	17.27	497.34	2.143E-03	Pulse	0.50	3
Ni			1	0.617	ug/l	15.43	848.69	3.659E-03	Pulse	0.50	3
Cu			1	1.203	ug/l	1.80	11,219.95	4.835E-02	Pulse	0.50	3
Zn			1	26.441	ug/l	2.63	8,968.77	2.591E-02	Pulse	1.00	3
Cd			1	0.021	ug/l	59.66	20.00	5.778E-05	Pulse	0.50	3
Al			1	33.540	ug/l	3.20	2,284.80	6.598E-03	Pulse	1.00	3
Se			1	0.368	ug/l	69.21	116.34	3.361E-04	Pulse	3.00	3
Sb			1	0.680	ug/l	8.20	1,143.37	3.304E-03	Pulse	1.00	3
Se			1	0.371	ug/l	128.48	72.33	2.089E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,004,320.25	0.63	103.5	Pulse	0.50	3
1	Sc		346,223.31	0.89	109.8	Pulse	0.30	3
1	Ge		232,069.61	0.94	111.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,178,693.11	0.46	109.2	Pulse	0.30	3
1	Tb		5,647,409.17	0.70	105.0	Pulse	0.50	3
1	Lu		4,309,756.33	0.44	104.7	Pulse	0.50	3
1	Ge		346,187.65	0.95	111.9	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,208.93	7.11	101.7	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:26
Sample Name MP41722-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	218.994	ug/l	0.83	1,403,963.09	6.642E+00	Pulse	0.50	3
As			1	224.758	ug/l	1.07	211,612.98	1.001E+00	Pulse	1.00	3
Mo			1	223.872	ug/l	0.13	819,683.21	2.625E+00	Pulse	0.50	3
Pb			1	227.007	ug/l	0.32	3,789,498.58	1.034E+00	Pulse	1.00	3
Be			1	210.737	ug/l	1.91	6,328.82	2.046E-02	Pulse	2.00	3
Ag			1	103.188	ug/l	0.16	1,182,997.21	3.788E+00	Pulse	0.50	3
Ba			1	225.447	ug/l	0.64	424,287.27	2.173E-01	Pulse	0.50	3
Tl			1	216.929	ug/l	0.51	5,212,154.50	1.422E+00	Pulse	0.50	3
Sn			1	214.732	ug/l	0.97	909,943.57	4.660E-01	Pulse	0.30	3
Sr			1	760.770	ug/l	1.35	3,997,539.83	2.047E+00	Pulse	0.50	3
[Pb]			1	212.275	ug/l	0.49	1,723,512.92	4.704E-01	Pulse	0.50	3
Ca			1	93259.104	ug/l	0.83	2,385,592.00	7.712E+00	Pulse	0.50	3
Ti			1	211.659	ug/l	0.90	37,164.46	1.201E-01	Pulse	0.50	3
Na			1	24871.734	ug/l	0.56	21,165,376.00	6.842E+01	Analog	1.00	3
Mg			1	24258.953	ug/l	0.20	10,421,900.67	3.369E+01	Analog	1.00	3
K			1	24329.218	ug/l	0.86	12,408,111.33	4.011E+01	Analog	1.00	3
V			1	224.053	ug/l	0.22	1,144,059.54	3.698E+00	Pulse	0.50	3
Mn			1	254.928	ug/l	0.70	1,008,220.50	4.770E+00	Pulse	0.50	3
Fe			1	21952.700	ug/l	0.66	121,996,106.67	5.772E+02	Analog	0.50	3
Co			1	217.481	ug/l	0.84	2,176,657.83	1.030E+01	Pulse	0.50	3
Ni			1	215.499	ug/l	0.46	567,514.69	2.685E+00	Pulse	0.50	3
Cu			1	215.973	ug/l	0.62	1,521,409.21	7.198E+00	Pulse	0.50	3
Zn			1	229.615	ug/l	0.22	307,873.66	9.858E-01	Pulse	1.00	3
Cd			1	212.691	ug/l	0.65	397,943.54	1.274E+00	Pulse	0.50	3
Al			1	19711.622	ug/l	0.26	3,806,999.67	1.231E+01	Pulse	1.00	3
Se			1	134.174	ug/l	0.80	9,981.16	3.196E-02	Pulse	3.00	3
Sb			1	218.331	ug/l	0.22	1,287,474.75	4.123E+00	Pulse	1.00	3
Se			1	135.983	ug/l	0.62	4,804.16	1.538E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,664,225.25	1.23	94.7	Pulse	0.50	3
1	Sc		309,345.57	0.82	98.1	Pulse	0.30	3
1	Ge		211,382.14	1.18	101.1	Pulse	0.30	3
1	In		1,953,023.26	2.09	97.9	Pulse	0.30	3
1	Tb		5,358,578.00	2.26	99.6	Pulse	0.50	3
1	Lu		4,075,005.50	1.52	99.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		312,290.72	0.98	101.0	Pulse	0.30	3
1	Te		4.67	65.47		Pulse	0.50	3
1	Li		1,101.15	10.32	92.6	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:30
Sample Name MP41722-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	222.270	ug/l	0.58	1,425,618.63	6.741E+00	Pulse	0.50	3
As			1	227.770	ug/l	0.47	214,550.01	1.015E+00	Pulse	1.00	3
Mo			1	228.996	ug/l	0.99	838,301.29	2.685E+00	Pulse	0.50	3
Pb			1	231.118	ug/l	0.52	3,828,346.83	1.053E+00	Pulse	1.00	3
Be			1	213.258	ug/l	1.36	6,390.01	2.071E-02	Pulse	2.00	3
Ag			1	104.350	ug/l	0.92	1,196,022.00	3.831E+00	Pulse	0.50	3
Ba			1	227.766	ug/l	1.25	429,357.30	2.195E-01	Pulse	0.50	3
Tl			1	220.880	ug/l	0.77	5,265,725.67	1.448E+00	Pulse	0.50	3
Sn			1	217.694	ug/l	0.45	924,118.71	4.724E-01	Pulse	0.30	3
Sr			1	745.486	ug/l	0.89	3,924,318.50	2.006E+00	Pulse	0.50	3
[Pb]			1	217.073	ug/l	0.12	1,748,890.25	4.810E-01	Pulse	0.50	3
Ca			1	91019.901	ug/l	1.19	2,322,967.58	7.527E+00	Pulse	0.50	3
Ti			1	214.760	ug/l	0.28	37,622.70	1.219E-01	Pulse	0.50	3
Na			1	24593.220	ug/l	1.52	20,879,006.67	6.766E+01	Analog	1.00	3
Mg			1	23990.315	ug/l	1.14	10,282,284.33	3.332E+01	Analog	1.00	3
K			1	24081.641	ug/l	1.72	12,253,561.33	3.971E+01	Analog	1.00	3
V			1	227.589	ug/l	0.91	1,159,396.75	3.757E+00	Pulse	0.50	3
Mn			1	256.060	ug/l	0.75	1,013,102.98	4.791E+00	Pulse	0.50	3
Fe			1	21625.356	ug/l	0.75	120,228,994.67	5.685E+02	Analog	0.50	3
Co			1	219.436	ug/l	0.12	2,197,298.50	1.039E+01	Pulse	0.50	3
Ni			1	217.203	ug/l	0.15	572,258.52	2.706E+00	Pulse	0.50	3
Cu			1	218.206	ug/l	0.27	1,537,721.29	7.272E+00	Pulse	0.50	3
Zn			1	224.282	ug/l	0.70	300,697.95	9.630E-01	Pulse	1.00	3
Cd			1	216.973	ug/l	0.72	405,878.40	1.300E+00	Pulse	0.50	3
Al			1	19438.583	ug/l	1.24	3,745,495.50	1.214E+01	Pulse	1.00	3
Se			1	137.669	ug/l	1.08	10,237.74	3.279E-02	Pulse	3.00	3
Sb			1	221.826	ug/l	0.97	1,307,818.08	4.189E+00	Pulse	1.00	3
Se			1	137.676	ug/l	0.73	4,862.40	1.557E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,636,023.75	1.47	94.0	Pulse	0.50	3
1	Sc		308,657.05	1.81	97.9	Pulse	0.30	3
1	Ge		211,473.91	1.13	101.2	Pulse	0.30	3
1	In		1,956,333.25	1.52	98.0	Pulse	0.30	3
1	Tb		5,325,023.17	1.78	99.0	Pulse	0.50	3
1	Lu		4,058,667.00	2.44	98.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		312,261.40	1.57	100.9	Pulse	0.30	3
1	Te		13.33	70.89		Pulse	0.50	3
1	Li		1,037.81	7.05	87.3	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:34
Sample Name MP41722-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.977	ug/l	2.92	6,801.87	3.205E-02	Pulse	0.50	3
As			1	1.132	ug/l	4.26	1,150.37	5.422E-03	Pulse	1.00	3
Mo			1	0.910	ug/l	3.58	3,518.34	1.113E-02	Pulse	0.50	3
Pb			1	0.332	ug/l	2.15	6,549.93	1.740E-03	Pulse	1.00	3
Be			1	0.142	ug/l	14.33	6.17	1.958E-05	Pulse	2.00	3
Ag			1	-0.373	ug/l	-1.74	2,796.22	8.850E-03	Pulse	0.50	3
Ba			1	8.160	ug/l	2.49	15,768.22	7.868E-03	Pulse	0.50	3
Tl			1	0.125	ug/l	3.23	3,289.00	8.733E-04	Pulse	0.50	3
Sn			1	0.344	ug/l	2.46	1,630.08	8.134E-04	Pulse	0.30	3
Sr			1	548.752	ug/l	1.63	2,959,627.83	1.477E+00	Pulse	0.50	3
[Pb]			1	0.332	ug/l	5.26	3,172.31	8.428E-04	Pulse	0.50	3
Ca			1	73241.777	ug/l	0.94	1,908,559.79	6.057E+00	Pulse	0.50	3
Ti			1	0.536	ug/l	18.75	101.33	3.214E-04	Pulse	0.50	3
Na			1	3325.705	ug/l	1.21	2,913,862.42	9.248E+00	Pulse	1.00	3
Mg			1	3135.588	ug/l	0.88	1,372,518.92	4.356E+00	Pulse	1.00	3
K			1	2839.213	ug/l	1.20	1,549,790.04	4.919E+00	Pulse	1.00	3
V			1	3.005	ug/l	0.62	16,972.74	5.386E-02	Pulse	0.50	3
Mn			1	39.650	ug/l	0.47	157,582.91	7.427E-01	Pulse	0.50	3
Fe			1	385.036	ug/l	0.84	2,172,392.50	1.024E+01	Pulse	0.50	3
Co			1	0.139	ug/l	5.03	1,509.40	7.116E-03	Pulse	0.50	3
Ni			1	0.504	ug/l	3.76	1,782.09	8.398E-03	Pulse	0.50	3
Cu			1	0.792	ug/l	2.94	14,140.55	6.663E-02	Pulse	0.50	3
Zn			1	15.765	ug/l	0.26	22,355.59	7.074E-02	Pulse	1.00	3
Cd			1	0.062	ug/l	31.14	127.33	4.034E-04	Pulse	0.50	3
Al			1	39.402	ug/l	0.61	8,510.49	2.701E-02	Pulse	1.00	3
Se			1	0.512	ug/l	7.12	138.89	4.395E-04	Pulse	3.00	3
Sb			1	0.717	ug/l	3.10	4,512.23	1.428E-02	Pulse	1.00	3
Se			1	0.310	ug/l	34.51	74.33	2.353E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,765,914.75	1.62	97.3	Pulse	0.50	3
1	Sc		315,112.49	1.10	99.9	Pulse	0.30	3
1	Ge		212,196.15	1.12	101.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,004,682.56	2.41	100.4	Pulse	0.30	3
1	Tb		5,343,816.33	2.38	99.4	Pulse	0.50	3
1	Lu		4,075,027.83	2.55	99.0	Pulse	0.50	3
1	Ge		316,001.68	0.78	102.2	Pulse	0.30	3
1	Te		6.67	91.65		Pulse	0.50	3
1	Li		956.69	9.01	80.5	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:38
Sample Name FC1789-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.946	ug/l	3.51	6,685.84	3.110E-02	Pulse	0.50	3
As			1	1.074	ug/l	2.09	1,109.36	5.162E-03	Pulse	1.00	3
Mo			1	0.770	ug/l	4.44	3,045.60	9.498E-03	Pulse	0.50	3
Pb			1	0.303	ug/l	4.57	6,118.77	1.607E-03	Pulse	1.00	3
Be			1	0.028	ug/l	250.50	2.67	8.487E-06	Pulse	2.00	3
Ag			1	-0.387	ug/l	-3.27	2,678.21	8.354E-03	Pulse	0.50	3
Ba			1	7.942	ug/l	0.76	15,473.31	7.658E-03	Pulse	0.50	3
Tl			1	0.043	ug/l	11.74	1,296.72	3.404E-04	Pulse	0.50	3
Sn			1	0.295	ug/l	12.71	1,430.07	7.073E-04	Pulse	0.30	3
Sr			1	528.159	ug/l	0.78	2,871,673.17	1.421E+00	Pulse	0.50	3
[Pb]			1	0.303	ug/l	6.13	2,960.93	7.781E-04	Pulse	0.50	3
Ca			1	70884.567	ug/l	0.74	1,852,048.83	5.862E+00	Pulse	0.50	3
Ti			1	0.513	ug/l	3.91	97.33	3.080E-04	Pulse	0.50	3
Na			1	3191.742	ug/l	1.14	2,805,293.25	8.880E+00	Pulse	1.00	3
Mg			1	3030.538	ug/l	0.93	1,330,034.88	4.210E+00	Pulse	1.00	3
K			1	2741.826	ug/l	1.28	1,503,465.13	4.759E+00	Pulse	1.00	3
V			1	2.957	ug/l	0.73	16,767.92	5.307E-02	Pulse	0.50	3
Mn			1	38.250	ug/l	0.64	153,996.55	7.165E-01	Pulse	0.50	3
Fe			1	374.033	ug/l	1.11	2,138,573.96	9.949E+00	Pulse	0.50	3
Co			1	0.123	ug/l	7.50	1,373.39	6.388E-03	Pulse	0.50	3
Ni			1	0.455	ug/l	7.67	1,674.08	7.788E-03	Pulse	0.50	3
Cu			1	0.921	ug/l	7.96	15,241.38	7.090E-02	Pulse	0.50	3
Zn			1	15.269	ug/l	1.75	21,999.85	6.862E-02	Pulse	1.00	3
Cd			1	0.045	ug/l	18.67	96.00	2.995E-04	Pulse	0.50	3
Al			1	36.208	ug/l	2.55	7,903.91	2.501E-02	Pulse	1.00	3
Se			1	0.332	ug/l	54.26	127.33	3.971E-04	Pulse	3.00	3
Sb			1	0.634	ug/l	1.96	4,074.79	1.271E-02	Pulse	1.00	3
Se			1	0.127	ug/l	40.00	68.89	2.149E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,805,724.83	1.45	98.4	Pulse	0.50	3
1	Sc		315,939.57	1.10	100.2	Pulse	0.30	3
1	Ge		214,945.76	0.76	102.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,020,539.57	1.15	101.2	Pulse	0.30	3
1	Tb		5,407,489.33	2.14	100.6	Pulse	0.50	3
1	Lu		4,114,054.42	1.71	100.0	Pulse	0.50	3
1	Ge		320,598.42	0.70	103.6	Pulse	0.30	3
1	Te		7.33	15.75		Pulse	0.50	3
1	Li		1,154.48	5.81	97.1	Pulse	0.30	3

Quantitation Report

File Name	046CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 14:42
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.601	ug/l	1.24	669,601.19	2.889E+00	Pulse	0.50	3
As			1	46.875	ug/l	0.76	96,848.08	4.178E-01	Pulse	1.00	3
Mo			1	46.459	ug/l	1.39	373,153.52	1.090E+00	Pulse	0.50	3
Pb			1	48.205	ug/l	0.81	1,728,576.58	4.394E-01	Pulse	1.00	3
Be			1	45.425	ug/l	2.13	3,051.07	8.824E-03	Pulse	2.00	3
Ag			1	47.912	ug/l	1.31	1,205,208.21	3.519E+00	Pulse	0.50	3
Ba			1	46.930	ug/l	0.35	194,933.17	9.046E-02	Pulse	0.50	3
Tl			1	48.245	ug/l	0.65	2,489,189.50	6.327E-01	Pulse	0.50	3
Sn			1	46.474	ug/l	0.84	434,750.52	2.017E-01	Pulse	0.30	3
Sr			1	47.144	ug/l	0.58	547,076.00	2.539E-01	Pulse	0.50	3
[Pb]			1	47.346	ug/l	0.48	825,723.85	2.099E-01	Pulse	0.50	3
Ca			1	4743.525	ug/l	1.55	271,883.25	7.863E-01	Pulse	0.50	3
Ti			1	46.771	ug/l	2.56	18,361.29	5.310E-02	Pulse	0.50	3
Na			1	4790.058	ug/l	0.94	9,137,438.67	2.642E+01	Analog	1.00	3
Mg			1	4683.149	ug/l	1.56	4,498,059.33	1.301E+01	Pulse	1.00	3
K			1	4803.973	ug/l	0.86	5,533,920.50	1.600E+01	Analog	1.00	3
V			1	47.478	ug/l	1.96	542,811.10	1.570E+00	Pulse	0.50	3
Mn			1	47.557	ug/l	1.01	412,626.19	1.780E+00	Pulse	0.50	3
Fe			1	4794.114	ug/l	1.17	58,444,806.67	2.521E+02	Analog	0.50	3
Co			1	47.202	ug/l	1.31	1,036,158.44	4.470E+00	Pulse	0.50	3
Ni			1	47.298	ug/l	0.65	273,454.85	1.180E+00	Pulse	0.50	3
Cu			1	47.886	ug/l	1.39	745,003.88	3.214E+00	Pulse	0.50	3
Zn			1	49.506	ug/l	1.32	146,213.39	4.270E-01	Pulse	1.00	3
Cd			1	46.894	ug/l	1.01	192,423.60	5.619E-01	Pulse	0.50	3
Al			1	4488.653	ug/l	1.82	1,938,456.29	5.606E+00	Pulse	1.00	3
Se			1	45.399	ug/l	0.76	7,442.45	2.173E-02	Pulse	3.00	3
Sb			1	46.256	ug/l	1.29	598,343.04	1.747E+00	Pulse	1.00	3
Se			1	45.696	ug/l	1.77	3,563.00	1.040E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,934,176.00	0.72	101.7	Pulse	0.50	3
1	Sc		345,809.63	1.02	109.7	Pulse	0.30	3
1	Ge		231,792.92	0.61	110.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,154,984.15	0.62	108.0	Pulse	0.30	3
1	Tb		5,670,214.83	0.77	105.4	Pulse	0.50	3
1	Lu		4,363,730.33	0.38	106.1	Pulse	0.50	3
1	Ge		342,457.25	0.41	110.7	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,200.04	8.94	100.9	Pulse	0.30	3

Quantitation Report

File Name	047_CCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 14:45
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.834	ug/l	1.28	1,363,852.96	5.935E+00	Pulse	0.50	3
As			1	96.919	ug/l	0.92	198,428.67	8.635E-01	Pulse	1.00	3
Mo			1	96.240	ug/l	0.70	768,203.00	2.257E+00	Pulse	0.50	3
Pb			1	99.494	ug/l	0.70	3,515,536.75	9.066E-01	Pulse	1.00	3
Be			1	94.303	ug/l	0.71	6,289.31	1.831E-02	Pulse	2.00	3
Ag			1	97.535	ug/l	1.01	2,430,850.33	7.141E+00	Pulse	0.50	3
Ba			1	97.417	ug/l	0.70	398,101.24	1.878E-01	Pulse	0.50	3
Tl			1	99.435	ug/l	0.54	5,056,380.83	1.304E+00	Pulse	0.50	3
Sn			1	97.184	ug/l	0.69	894,287.57	4.218E-01	Pulse	0.30	3
Sr			1	98.828	ug/l	0.54	1,127,988.08	5.320E-01	Pulse	0.50	3
[Pb]			1	96.852	ug/l	0.81	1,664,421.84	4.292E-01	Pulse	0.50	3
Ca			1	9713.228	ug/l	1.12	552,229.73	1.608E+00	Pulse	0.50	3
Ti			1	96.387	ug/l	1.43	37,575.25	1.094E-01	Pulse	0.50	3
Na			1	9836.316	ug/l	0.95	18,593,658.67	5.414E+01	Analog	1.00	3
Mg			1	9704.679	ug/l	1.31	9,256,922.67	2.696E+01	Analog	1.00	3
K			1	9937.146	ug/l	0.83	11,269,968.00	3.282E+01	Analog	1.00	3
V			1	98.391	ug/l	1.53	1,115,645.96	3.249E+00	Pulse	0.50	3
Mn			1	97.969	ug/l	1.21	842,500.31	3.666E+00	Pulse	0.50	3
Fe			1	9923.644	ug/l	1.47	119,912,904.00	5.218E+02	Analog	0.50	3
Co			1	96.958	ug/l	0.93	2,110,039.63	9.182E+00	Pulse	0.50	3
Ni			1	97.077	ug/l	0.87	555,923.46	2.419E+00	Pulse	0.50	3
Cu			1	97.693	ug/l	1.07	1,497,237.04	6.515E+00	Pulse	0.50	3
Zn			1	97.422	ug/l	1.61	284,924.49	8.371E-01	Pulse	1.00	3
Cd			1	95.642	ug/l	1.00	390,087.64	1.146E+00	Pulse	0.50	3
Al			1	9351.644	ug/l	1.62	4,010,073.50	1.168E+01	Pulse	1.00	3
Se			1	94.267	ug/l	1.09	15,244.51	4.478E-02	Pulse	3.00	3
Sb			1	95.298	ug/l	1.31	1,225,079.71	3.599E+00	Pulse	1.00	3
Se			1	94.962	ug/l	1.04	7,286.39	2.141E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,877,665.08	0.45	100.2	Pulse	0.50	3
1	Sc		343,436.18	0.89	108.9	Pulse	0.30	3
1	Ge		229,802.46	0.14	109.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,120,251.03	0.24	106.2	Pulse	0.30	3
1	Tb		5,615,163.33	0.27	104.4	Pulse	0.50	3
1	Lu		4,329,729.17	0.18	105.2	Pulse	0.50	3
1	Ge		340,406.23	0.50	110.0	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,132.26	6.64	95.2	Pulse	0.30	3

Quantitation Report

File Name	048_CCB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 14:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.007	ug/l	18.66	638.01	2.836E-03	Pulse	0.50	3
As			1	0.016	ug/l	8.50	117.00	5.200E-04	Pulse	1.00	3
Mo			1	0.103	ug/l	34.76	966.69	2.891E-03	Pulse	0.50	3
Pb			1	0.016	ug/l	27.11	1,462.40	3.724E-04	Pulse	1.00	3
Be			1	0.041	ug/l	85.21	4.67	1.377E-05	Pulse	2.00	3
Ag			1	-0.201	ug/l	-3.29	2,594.86	7.777E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	51.96	62.00	2.919E-05	Pulse	0.50	3
Tl			1	0.026	ug/l	19.25	1,559.41	3.973E-04	Pulse	0.50	3
Sn			1	0.112	ug/l	15.12	1,178.94	5.528E-04	Pulse	0.30	3
Sr			1	0.012	ug/l	48.87	478.68	2.250E-04	Pulse	0.50	3
[Pb]			1	0.014	ug/l	26.99	660.02	1.680E-04	Pulse	0.50	3
Ca			1	-0.219	ug/l	-181.36	654.68	1.934E-03	Pulse	0.50	3
Ti			1	0.011	ug/l	1.35	10.00	2.955E-05	Pulse	0.50	3
Na			1	-1.224	ug/l	-43.58	36,354.15	1.074E-01	Pulse	1.00	3
Mg			1	1.259	ug/l	23.29	1,671.74	4.937E-03	Pulse	1.00	3
K			1	7.321	ug/l	9.91	99,111.90	2.928E-01	Pulse	1.00	3
V			1	0.009	ug/l	98.00	1,559.40	4.608E-03	Pulse	0.50	3
Mn			1	0.009	ug/l	46.88	292.00	1.298E-03	Pulse	0.50	3
Fe			1	0.796	ug/l	33.88	35,789.04	1.591E-01	Pulse	0.50	3
Co			1	0.010	ug/l	32.91	332.67	1.479E-03	Pulse	0.50	3
Ni			1	0.006	ug/l	104.41	513.34	2.283E-03	Pulse	0.50	3
Cu			1	-0.167	ug/l	-4.03	6,587.82	2.928E-02	Pulse	0.50	3
Zn			1	0.022	ug/l	96.82	1,158.70	3.473E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	35.04	70.00	2.100E-04	Pulse	0.50	3
Al			1	-0.279	ug/l	-86.25	698.68	2.063E-03	Pulse	1.00	3
Se			1	0.150	ug/l	67.25	129.89	3.895E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	3.80	578.01	1.732E-03	Pulse	1.00	3
Se			1	0.046	ug/l	229.76	70.45	2.110E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,932,028.17	1.73	101.6	Pulse	0.50	3
1	Sc		338,454.67	0.58	107.3	Pulse	0.30	3

Quantitation Report

1	Ge		224,964.79	0.84	107.6	Pulse	0.30	3
1	In		2,130,175.19	1.34	106.7	Pulse	0.30	3
1	Tb		5,512,005.50	0.57	102.5	Pulse	0.50	3
1	Lu		4,237,112.50	0.90	103.0	Pulse	0.50	3
1	Ge		333,734.49	1.10	107.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,226.71	3.80	103.2	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 14:53
Sample Name FC1789-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.920	ug/l	2.57	6,394.40	3.033E-02	Pulse	0.50	3
As			1	0.959	ug/l	3.60	979.70	4.649E-03	Pulse	1.00	3
Mo			1	0.312	ug/l	6.36	1,299.38	4.127E-03	Pulse	0.50	3
Pb			1	0.374	ug/l	2.85	7,376.60	1.932E-03	Pulse	1.00	3
Be			1	0.089	ug/l	30.53	4.50	1.448E-05	Pulse	2.00	3
Ag			1	-0.404	ug/l	-2.63	2,429.50	7.725E-03	Pulse	0.50	3
Ba			1	35.278	ug/l	1.22	67,734.61	3.400E-02	Pulse	0.50	3
Tl			1	0.104	ug/l	14.21	2,827.58	7.414E-04	Pulse	0.50	3
Sn			1	0.388	ug/l	7.76	1,814.55	9.099E-04	Pulse	0.30	3
Sr			1	57.504	ug/l	0.96	308,552.57	1.549E-01	Pulse	0.50	3
[Pb]			1	0.371	ug/l	5.46	3,545.71	9.288E-04	Pulse	0.50	3
Ca			1	7333.142	ug/l	1.46	188,756.19	6.082E-01	Pulse	0.50	3
Ti			1	2.959	ug/l	4.26	526.68	1.696E-03	Pulse	0.50	3
Na			1	9472.028	ug/l	1.52	8,108,448.83	2.613E+01	Analog	1.00	3
Mg			1	1737.888	ug/l	1.39	749,437.75	2.415E+00	Pulse	1.00	3
K			1	1136.991	ug/l	2.45	661,244.06	2.131E+00	Pulse	1.00	3
V			1	1.706	ug/l	3.28	10,069.95	3.245E-02	Pulse	0.50	3
Mn			1	144.997	ug/l	1.80	571,926.46	2.713E+00	Pulse	0.50	3
Fe			1	653.087	ug/l	0.88	3,643,448.67	1.728E+01	Pulse	0.50	3
Co			1	5.528	ug/l	0.96	55,292.47	2.623E-01	Pulse	0.50	3
Ni			1	1.358	ug/l	5.44	4,009.77	1.902E-02	Pulse	0.50	3
Cu			1	0.662	ug/l	4.66	13,132.49	6.230E-02	Pulse	0.50	3
Zn			1	26.040	ug/l	0.63	36,093.97	1.147E-01	Pulse	1.00	3
Cd			1	0.066	ug/l	22.71	134.67	4.288E-04	Pulse	0.50	3
Al			1	238.219	ug/l	1.25	46,897.22	1.511E-01	Pulse	1.00	3
Se			1	0.356	ug/l	20.29	126.67	4.026E-04	Pulse	3.00	3
Sb			1	0.062	ug/l	9.76	598.01	1.901E-03	Pulse	1.00	3
Se			1	0.557	ug/l	23.59	82.66	2.628E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,819,349.17	1.73	98.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		310,390.39	1.79	98.4	Pulse	0.30	3
1	Ge		210,821.95	1.87	100.8	Pulse	0.30	3
1	In		1,992,315.89	2.08	99.8	Pulse	0.30	3
1	Tb		5,352,426.67	2.09	99.5	Pulse	0.50	3
1	Lu		4,075,140.83	2.05	99.0	Pulse	0.50	3
1	Ge		314,660.22	1.64	101.7	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,095.59	4.58	92.1	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 14:57
Sample Name	FC1830-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.764	ug/l	2.64	5,455.45	2.559E-02	Pulse	0.50	3
As			1	0.816	ug/l	7.83	855.69	4.013E-03	Pulse	1.00	3
Mo			1	10.117	ug/l	0.19	37,602.20	1.191E-01	Pulse	0.50	3
Pb			1	0.033	ug/l	5.27	1,426.73	3.776E-04	Pulse	1.00	3
Be			1	0.017	ug/l	298.79	2.33	7.418E-06	Pulse	2.00	3
Ag			1	-0.432	ug/l	-0.31	2,114.13	6.694E-03	Pulse	0.50	3
Ba			1	50.738	ug/l	1.14	97,553.45	4.890E-02	Pulse	0.50	3
Tl			1	0.129	ug/l	4.31	3,422.36	9.057E-04	Pulse	0.50	3
Sn			1	1.535	ug/l	4.05	6,777.95	3.398E-03	Pulse	0.30	3
Sr			1	513.364	ug/l	0.98	2,756,117.25	1.382E+00	Pulse	0.50	3
[Pb]			1	0.037	ug/l	8.94	716.69	1.896E-04	Pulse	0.50	3
Ca			1	14726.567	ug/l	0.86	382,164.52	1.219E+00	Pulse	0.50	3
Ti			1	0.296	ug/l	36.08	58.00	1.849E-04	Pulse	0.50	3
Na			1	23068.808	ug/l	1.08	19,890,247.33	6.347E+01	Analog	1.00	3
Mg			1	1237.746	ug/l	1.04	539,119.94	1.720E+00	Pulse	1.00	3
K			1	14968.255	ug/l	1.38	7,766,060.17	2.478E+01	Analog	1.00	3
V			1	2.994	ug/l	1.60	16,824.59	5.368E-02	Pulse	0.50	3
Mn			1	72.526	ug/l	0.28	289,458.48	1.358E+00	Pulse	0.50	3
Fe			1	69.861	ug/l	1.30	416,524.45	1.954E+00	Pulse	0.50	3
Co			1	1.332	ug/l	0.28	13,559.43	6.360E-02	Pulse	0.50	3
Ni			1	0.539	ug/l	4.10	1,884.10	8.836E-03	Pulse	0.50	3
Cu			1	1.114	ug/l	4.22	16,479.72	7.729E-02	Pulse	0.50	3
Zn			1	18.662	ug/l	1.19	26,257.15	8.314E-02	Pulse	1.00	3
Cd			1	0.046	ug/l	30.39	96.67	3.056E-04	Pulse	0.50	3
Al			1	28.205	ug/l	0.69	6,273.66	2.002E-02	Pulse	1.00	3
Se			1	0.250	ug/l	35.60	119.33	3.777E-04	Pulse	3.00	3
Sb			1	0.075	ug/l	8.55	678.35	2.147E-03	Pulse	1.00	3
Se			1	0.210	ug/l	40.92	70.78	2.241E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,777,598.08	1.84	97.6	Pulse	0.50	3
1	Sc		313,405.41	1.19	99.4	Pulse	0.30	3
1	Ge		213,206.02	0.66	102.0	Pulse	0.30	3
1	In		1,995,215.06	1.69	100.0	Pulse	0.30	3
1	Tb		5,348,596.17	1.77	99.5	Pulse	0.50	3
1	Lu		4,070,126.00	1.64	98.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		315,825.73	0.88	102.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,138.93	1.76	95.8	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:01
Sample Name FC1830-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.029	ug/l	1.51	25,379.83	1.246E-01	Pulse	0.50	3
As			1	10.965	ug/l	1.17	10,023.64	4.920E-02	Pulse	1.00	3
Mo			1	1.756	ug/l	3.33	6,427.12	2.105E-02	Pulse	0.50	3
Pb			1	0.988	ug/l	1.58	17,503.64	4.729E-03	Pulse	1.00	3
Be			1	-0.015	ug/l	-288.40	1.33	4.385E-06	Pulse	2.00	3
Ag			1	-0.415	ug/l	-0.81	2,230.81	7.308E-03	Pulse	0.50	3
Ba			1	5.024	ug/l	0.79	9,421.15	4.846E-03	Pulse	0.50	3
Tl			1	0.039	ug/l	4.69	1,152.71	3.114E-04	Pulse	0.50	3
Sn			1	0.339	ug/l	11.44	1,562.30	8.033E-04	Pulse	0.30	3
Sr			1	105.287	ug/l	1.05	551,004.77	2.835E-01	Pulse	0.50	3
[Pb]			1	0.964	ug/l	1.45	8,301.37	2.243E-03	Pulse	0.50	3
Ca			1	52996.121	ug/l	1.19	1,328,754.71	4.383E+00	Pulse	0.50	3
Ti			1	10.718	ug/l	32.56	1,855.01	6.099E-03	Pulse	0.50	3
Na			1	1467.927	ug/l	1.67	1,256,625.58	4.146E+00	Pulse	1.00	3
Mg			1	1109.811	ug/l	1.49	467,618.11	1.543E+00	Pulse	1.00	3
K			1	1615.823	ug/l	1.72	883,634.38	2.915E+00	Pulse	1.00	3
V			1	4.418	ug/l	1.98	23,387.36	7.716E-02	Pulse	0.50	3
Mn			1	1.540	ug/l	3.18	6,062.97	2.976E-02	Pulse	0.50	3
Fe			1	454.982	ug/l	0.68	2,460,234.92	1.208E+01	Pulse	0.50	3
Co			1	0.105	ug/l	6.12	1,121.37	5.506E-03	Pulse	0.50	3
Ni			1	0.902	ug/l	5.07	2,720.87	1.335E-02	Pulse	0.50	3
Cu			1	1.775	ug/l	3.65	20,210.60	9.920E-02	Pulse	0.50	3
Zn			1	24.614	ug/l	0.74	33,153.41	1.086E-01	Pulse	1.00	3
Cd			1	0.014	ug/l	12.09	35.33	1.158E-04	Pulse	0.50	3
Al			1	648.298	ug/l	1.41	123,401.83	4.071E-01	Pulse	1.00	3
Se			1	0.525	ug/l	7.03	135.11	4.426E-04	Pulse	3.00	3
Sb			1	0.828	ug/l	2.28	4,995.35	1.636E-02	Pulse	1.00	3
Se			1	0.343	ug/l	98.92	72.89	2.389E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,701,380.08	0.93	95.7	Pulse	0.50	3
1	Sc		303,174.46	1.70	96.1	Pulse	0.30	3
1	Ge		203,729.75	1.22	97.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,943,985.27	1.24	97.4	Pulse	0.30	3
1	Tb		5,224,932.00	1.50	97.2	Mix	0.50	3
1	Lu		3,983,853.50	1.69	96.8	Pulse	0.50	3
1	Ge		305,257.02	0.93	98.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		981.14	5.42	82.5	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:04
Sample Name	FC1830-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.276	ug/l	0.77	2,260.81	1.081E-02	Pulse	0.50	3
As			1	0.278	ug/l	6.39	338.33	1.617E-03	Pulse	1.00	3
Mo			1	0.421	ug/l	5.78	1,692.75	5.408E-03	Pulse	0.50	3
Pb			1	0.065	ug/l	9.90	1,971.45	5.239E-04	Pulse	1.00	3
Be			1	-0.004	ug/l	-847.43	1.67	5.409E-06	Pulse	2.00	3
Ag			1	-0.432	ug/l	-2.35	2,094.79	6.692E-03	Pulse	0.50	3
Ba			1	18.923	ug/l	1.13	36,211.43	1.824E-02	Pulse	0.50	3
Tl			1	0.016	ug/l	9.32	596.01	1.584E-04	Pulse	0.50	3
Sn			1	0.184	ug/l	16.48	928.92	4.676E-04	Pulse	0.30	3
Sr			1	559.808	ug/l	0.41	2,990,888.17	1.506E+00	Pulse	0.50	3
[Pb]			1	0.061	ug/l	16.72	909.36	2.415E-04	Pulse	0.50	3
Ca			1	33263.473	ug/l	0.69	845,459.73	2.752E+00	Pulse	0.50	3
Ti			1	0.188	ug/l	29.97	38.00	1.236E-04	Pulse	0.50	3
Na			1	10283.385	ug/l	0.71	8,711,482.67	2.836E+01	Analog	1.00	3
Mg			1	8061.169	ug/l	0.60	3,439,634.17	1.120E+01	Pulse	1.00	3
K			1	1003.494	ug/l	1.30	587,464.90	1.912E+00	Pulse	1.00	3
V			1	1.164	ug/l	5.24	7,220.03	2.350E-02	Pulse	0.50	3
Mn			1	0.634	ug/l	4.17	2,678.20	1.280E-02	Pulse	0.50	3
Fe			1	4.757	ug/l	8.36	50,673.52	2.423E-01	Pulse	0.50	3
Co			1	0.161	ug/l	1.50	1,709.42	8.171E-03	Pulse	0.50	3
Ni			1	0.505	ug/l	6.55	1,760.09	8.412E-03	Pulse	0.50	3
Cu			1	1.978	ug/l	2.51	22,156.72	1.059E-01	Pulse	0.50	3
Zn			1	4.656	ug/l	1.42	7,262.71	2.321E-02	Pulse	1.00	3
Cd			1	0.006	ug/l	43.28	22.00	7.023E-05	Pulse	0.50	3
Al			1	16.039	ug/l	4.07	3,816.04	1.242E-02	Pulse	1.00	3
Se			1	0.162	ug/l	33.95	111.67	3.569E-04	Pulse	3.00	3
Sb			1	0.029	ug/l	25.92	400.67	1.279E-03	Pulse	1.00	3
Se			1	0.050	ug/l	202.89	64.56	2.062E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,763,222.50	1.30	97.3	Pulse	0.50	3
1	Sc		307,222.79	0.71	97.4	Pulse	0.30	3
1	Ge		209,193.36	0.73	100.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,985,386.87	1.15	99.5	Pulse	0.30	3
1	Tb		5,336,029.33	1.45	99.2	Pulse	0.50	3
1	Lu		4,058,438.75	2.45	98.6	Pulse	0.50	3
1	Ge		312,959.13	1.21	101.2	Pulse	0.30	3
1	Te		6.00	33.33		Pulse	0.50	3
1	Li		1,050.03	5.42	88.3	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:08
Sample Name FC1830-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.807	ug/l	0.27	18,412.05	8.754E-02	Pulse	0.50	3
As			1	1.196	ug/l	2.99	1,200.04	5.706E-03	Pulse	1.00	3
Mo			1	3.300	ug/l	2.71	12,236.79	3.915E-02	Pulse	0.50	3
Pb			1	0.365	ug/l	0.55	7,099.15	1.892E-03	Pulse	1.00	3
Be			1	-0.038	ug/l	-25.82	0.67	2.152E-06	Pulse	2.00	3
Ag			1	-0.432	ug/l	-1.23	2,098.79	6.714E-03	Pulse	0.50	3
Ba			1	7.245	ug/l	2.89	13,913.39	6.986E-03	Pulse	0.50	3
Tl			1	0.009	ug/l	16.90	436.01	1.163E-04	Pulse	0.50	3
Sn			1	0.185	ug/l	7.07	936.70	4.701E-04	Pulse	0.30	3
Sr			1	204.665	ug/l	0.86	1,097,253.84	5.509E-01	Pulse	0.50	3
[Pb]			1	0.357	ug/l	1.95	3,371.68	8.983E-04	Pulse	0.50	3
Ca			1	42349.869	ug/l	0.80	1,087,029.54	3.503E+00	Pulse	0.50	3
Ti			1	4.410	ug/l	20.02	782.70	2.520E-03	Pulse	0.50	3
Na			1	3530.264	ug/l	0.77	3,043,891.25	9.810E+00	Pulse	1.00	3
Mg			1	2857.475	ug/l	0.76	1,231,783.29	3.970E+00	Pulse	1.00	3
K			1	2132.962	ug/l	0.97	1,167,321.38	3.762E+00	Pulse	1.00	3
V			1	4.270	ug/l	1.38	23,180.44	7.471E-02	Pulse	0.50	3
Mn			1	2.518	ug/l	0.89	10,104.68	4.804E-02	Pulse	0.50	3
Fe			1	413.213	ug/l	0.33	2,309,071.08	1.098E+01	Pulse	0.50	3
Co			1	0.070	ug/l	11.54	813.35	3.867E-03	Pulse	0.50	3
Ni			1	0.489	ug/l	2.83	1,726.75	8.210E-03	Pulse	0.50	3
Cu			1	1.162	ug/l	1.33	16,588.49	7.887E-02	Pulse	0.50	3
Zn			1	14.693	ug/l	0.95	20,680.06	6.615E-02	Pulse	1.00	3
Cd			1	0.004	ug/l	106.16	17.33	5.562E-05	Pulse	0.50	3
Al			1	397.485	ug/l	0.83	77,738.48	2.505E-01	Pulse	1.00	3
Se			1	1.533	ug/l	18.66	212.78	6.803E-04	Pulse	3.00	3
Sb			1	0.720	ug/l	1.21	4,476.89	1.432E-02	Pulse	1.00	3
Se			1	1.364	ug/l	5.19	110.33	3.530E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,752,953.08	1.70	97.0	Pulse	0.50	3
1	Sc		310,308.97	0.87	98.4	Pulse	0.30	3
1	Ge		210,318.70	1.02	100.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,991,963.88	1.37	99.8	Pulse	0.30	3
1	Tb		5,369,239.33	2.01	99.8	Pulse	0.50	3
1	Lu		4,070,849.83	1.78	98.9	Pulse	0.50	3
1	Ge		312,592.43	1.02	101.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,125.60	5.65	94.7	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:12
Sample Name	FC1830-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.296	ug/l	4.23	2,410.16	1.141E-02	Pulse	0.50	3
As			1	2.623	ug/l	1.09	2,546.51	1.206E-02	Pulse	1.00	3
Mo			1	24.392	ug/l	0.99	89,659.27	2.864E-01	Pulse	0.50	3
Pb			1	0.057	ug/l	5.92	1,866.77	4.890E-04	Pulse	1.00	3
Be			1	-0.021	ug/l	-181.80	1.17	3.769E-06	Pulse	2.00	3
Ag			1	-0.439	ug/l	-2.30	2,016.12	6.437E-03	Pulse	0.50	3
Ba			1	46.695	ug/l	0.73	89,534.43	4.500E-02	Pulse	0.50	3
Tl			1	0.032	ug/l	3.40	1,026.70	2.690E-04	Pulse	0.50	3
Sn			1	0.763	ug/l	3.79	3,427.01	1.723E-03	Pulse	0.30	3
Sr			1	79.601	ug/l	1.06	426,423.34	2.143E-01	Pulse	0.50	3
[Pb]			1	0.058	ug/l	16.51	896.69	2.350E-04	Pulse	0.50	3
Ca			1	11631.013	ug/l	1.05	296,624.85	9.636E-01	Pulse	0.50	3
Ti			1	1.135	ug/l	107.66	204.73	6.611E-04	Pulse	0.50	3
Na			1	16869.237	ug/l	1.20	14,297,227.67	4.644E+01	Analog	1.00	3
Mg			1	2021.558	ug/l	0.80	864,686.21	2.809E+00	Pulse	1.00	3
K			1	3639.276	ug/l	1.33	1,917,464.62	6.229E+00	Pulse	1.00	3
V			1	1.307	ug/l	1.70	7,960.99	2.586E-02	Pulse	0.50	3
Mn			1	61.182	ug/l	0.40	241,885.07	1.145E+00	Pulse	0.50	3
Fe			1	338.779	ug/l	0.48	1,905,139.79	9.022E+00	Pulse	0.50	3
Co			1	0.594	ug/l	2.40	6,059.63	2.870E-02	Pulse	0.50	3
Ni			1	0.939	ug/l	0.73	2,916.23	1.381E-02	Pulse	0.50	3
Cu			1	0.395	ug/l	8.49	11,287.32	5.345E-02	Pulse	0.50	3
Zn			1	20.056	ug/l	1.45	27,900.45	8.911E-02	Pulse	1.00	3
Cd			1	0.040	ug/l	17.65	84.67	2.704E-04	Pulse	0.50	3
Al			1	14.545	ug/l	2.09	3,538.00	1.149E-02	Pulse	1.00	3
Se			1	0.395	ug/l	32.14	128.89	4.118E-04	Pulse	3.00	3
Sb			1	0.117	ug/l	8.52	923.03	2.947E-03	Pulse	1.00	3
Se			1	0.384	ug/l	16.56	76.22	2.435E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,816,572.08	1.64	98.6	Pulse	0.50	3
1	Sc		307,864.37	1.16	97.6	Pulse	0.30	3
1	Ge		211,169.00	1.09	101.0	Pulse	0.30	3
1	In		1,989,597.08	1.49	99.7	Pulse	0.30	3
1	Tb		5,331,336.00	1.88	99.1	Pulse	0.50	3
1	Lu		4,074,726.67	2.34	99.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		313,078.01	1.28	101.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,077.81	5.32	90.7	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:16
Sample Name	FC1830-6
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.409	ug/l	2.82	9,495.67	4.516E-02	Pulse	0.50	3
As			1	0.227	ug/l	15.11	293.33	1.394E-03	Pulse	1.00	3
Mo			1	0.677	ug/l	2.32	2,643.53	8.403E-03	Pulse	0.50	3
Pb			1	0.742	ug/l	1.32	13,604.75	3.609E-03	Pulse	1.00	3
Be			1	0.007	ug/l	414.72	2.00	6.496E-06	Pulse	2.00	3
Ag			1	-0.448	ug/l	-2.86	1,925.44	6.125E-03	Pulse	0.50	3
Ba			1	2.747	ug/l	1.11	5,322.14	2.652E-03	Pulse	0.50	3
Tl			1	0.005	ug/l	15.13	329.33	8.734E-05	Pulse	0.50	3
Sn			1	0.236	ug/l	1.50	1,163.38	5.797E-04	Pulse	0.30	3
Sr			1	88.275	ug/l	1.21	476,912.81	2.377E-01	Pulse	0.50	3
[Pb]			1	0.726	ug/l	3.05	6,467.25	1.715E-03	Pulse	0.50	3
Ca			1	28759.883	ug/l	0.67	735,306.44	2.380E+00	Pulse	0.50	3
Ti			1	5.963	ug/l	9.36	1,051.40	3.401E-03	Pulse	0.50	3
Na			1	2917.239	ug/l	1.36	2,510,731.25	8.126E+00	Pulse	1.00	3
Mg			1	821.361	ug/l	0.49	352,903.51	1.142E+00	Pulse	1.00	3
K			1	425.822	ug/l	2.00	298,536.97	9.662E-01	Pulse	1.00	3
V			1	3.328	ug/l	1.46	18,290.58	5.918E-02	Pulse	0.50	3
Mn			1	1.039	ug/l	3.03	4,282.49	2.038E-02	Pulse	0.50	3
Fe			1	160.662	ug/l	0.61	912,508.21	4.340E+00	Pulse	0.50	3
Co			1	0.043	ug/l	6.38	546.68	2.601E-03	Pulse	0.50	3
Ni			1	0.324	ug/l	7.94	1,293.38	6.149E-03	Pulse	0.50	3
Cu			1	0.969	ug/l	4.48	15,240.70	7.248E-02	Pulse	0.50	3
Zn			1	16.619	ug/l	1.72	23,404.49	7.440E-02	Pulse	1.00	3
Cd			1	0.006	ug/l	73.48	20.67	6.545E-05	Pulse	0.50	3
Al			1	353.396	ug/l	0.85	68,917.17	2.230E-01	Pulse	1.00	3
Se			1	0.519	ug/l	22.25	138.67	4.411E-04	Pulse	3.00	3
Sb			1	0.412	ug/l	2.29	2,681.53	8.523E-03	Pulse	1.00	3
Se			1	0.359	ug/l	31.64	75.67	2.407E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,770,340.58	0.92	97.4	Pulse	0.50	3
1	Sc		309,012.80	1.41	98.0	Pulse	0.30	3
1	Ge		210,240.51	1.41	100.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,006,711.66	1.76	100.5	Pulse	0.30	3
1	Tb		5,369,536.83	2.30	99.8	Pulse	0.50	3
1	Lu		4,065,102.08	2.03	98.8	Pulse	0.50	3
1	Ge		314,618.61	2.19	101.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,096.70	6.50	92.2	Pulse	0.30	3

Quantitation Report

File Name 056_MB.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:19
Sample Name MP41715-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.372	ug/l	15.30	2,898.41	1.372E-02	Pulse	0.50	3
As			1	0.164	ug/l	5.53	234.33	1.109E-03	Pulse	1.00	3
Mo			1	-0.001	ug/l	-716.36	142.67	4.542E-04	Pulse	0.50	3
Pb			1	0.061	ug/l	4.42	1,920.45	5.071E-04	Pulse	1.00	3
Be			1	-0.021	ug/l	-204.71	1.17	3.792E-06	Pulse	2.00	3
Ag			1	-0.442	ug/l	-1.51	1,983.45	6.321E-03	Pulse	0.50	3
Ba			1	0.022	ug/l	36.16	50.67	2.537E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	136.41	234.00	6.177E-05	Pulse	0.50	3
Sn			1	0.133	ug/l	16.01	712.24	3.561E-04	Pulse	0.30	3
Sr			1	0.040	ug/l	19.03	533.34	2.671E-04	Pulse	0.50	3
[Pb]			1	0.060	ug/l	8.16	911.36	2.406E-04	Pulse	0.50	3
Ca			1	12.620	ug/l	21.77	938.69	3.014E-03	Pulse	0.50	3
Ti			1	0.192	ug/l	46.51	39.33	1.257E-04	Pulse	0.50	3
Na			1	10.990	ug/l	5.75	44,983.53	1.443E-01	Pulse	1.00	3
Mg			1	2.065	ug/l	6.48	1,343.71	4.308E-03	Pulse	1.00	3
K			1	34.894	ug/l	10.57	101,614.57	3.260E-01	Pulse	1.00	3
V			1	1.107	ug/l	2.88	7,031.97	2.256E-02	Pulse	0.50	3
Mn			1	1.054	ug/l	2.58	4,361.84	2.066E-02	Pulse	0.50	3
Fe			1	5.607	ug/l	1.76	55,876.60	2.646E-01	Pulse	0.50	3
Co			1	0.009	ug/l	19.78	211.33	1.001E-03	Pulse	0.50	3
Ni			1	0.137	ug/l	5.04	807.35	3.823E-03	Pulse	0.50	3
Cu			1	1.146	ug/l	1.58	16,545.77	7.835E-02	Pulse	0.50	3
Zn			1	1.849	ug/l	2.03	3,511.99	1.119E-02	Pulse	1.00	3
Cd			1	0.629	ug/l	6.26	1,193.38	3.802E-03	Pulse	0.50	3
Al			1	1.216	ug/l	20.29	987.69	3.170E-03	Pulse	1.00	3
Se			1	0.330	ug/l	55.57	124.44	3.966E-04	Pulse	3.00	3
Sb			1	0.004	ug/l	155.83	256.00	8.150E-04	Pulse	1.00	3
Se			1	-0.013	ug/l	-1006.52	62.44	1.992E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,786,489.50	1.53	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		311,760.30	1.80	98.9	Pulse	0.30	3
1	Ge		211,175.08	1.38	101.0	Pulse	0.30	3
1	In		1,997,267.49	1.72	100.1	Pulse	0.30	3
1	Tb		5,341,364.17	1.32	99.3	Pulse	0.50	3
1	Lu		4,051,816.75	1.90	98.5	Pulse	0.50	3
1	Ge		313,712.08	1.77	101.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,064.48	7.86	89.5	Pulse	0.30	3

Quantitation Report

File Name	057_BSP.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:23
Sample Name	MP41715-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	217.683	ug/l	1.38	1,363,743.63	6.602E+00	Pulse	0.50	3
As			1	221.273	ug/l	1.16	203,590.28	9.856E-01	Pulse	1.00	3
Mo			1	225.461	ug/l	0.97	804,790.40	2.643E+00	Pulse	0.50	3
Pb			1	225.645	ug/l	0.52	3,775,965.42	1.028E+00	Pulse	1.00	3
Be			1	215.654	ug/l	2.01	6,331.82	2.094E-02	Pulse	2.00	3
Ag			1	103.120	ug/l	0.82	1,152,522.13	3.786E+00	Pulse	0.50	3
Ba			1	217.293	ug/l	0.51	405,511.48	2.094E-01	Pulse	0.50	3
Tl			1	215.527	ug/l	0.39	5,190,760.67	1.413E+00	Pulse	0.50	3
Sn			1	213.024	ug/l	0.54	895,172.71	4.623E-01	Pulse	0.30	3
Sr			1	211.112	ug/l	0.94	1,100,367.58	5.682E-01	Pulse	0.50	3
[Pb]			1	211.145	ug/l	1.13	1,718,569.58	4.679E-01	Pulse	0.50	3
Ca			1	20750.811	ug/l	1.04	519,409.22	1.718E+00	Pulse	0.50	3
Ti			1	212.088	ug/l	0.86	36,406.40	1.204E-01	Pulse	0.50	3
Na			1	21231.354	ug/l	1.17	17,668,168.67	5.842E+01	Analog	1.00	3
Mg			1	20858.215	ug/l	0.94	8,760,418.67	2.897E+01	Analog	1.00	3
K			1	21094.183	ug/l	1.73	10,527,862.33	3.481E+01	Analog	1.00	3
V			1	220.444	ug/l	1.09	1,100,446.42	3.639E+00	Pulse	0.50	3
Mn			1	216.044	ug/l	1.32	834,961.60	4.042E+00	Pulse	0.50	3
Fe			1	21298.452	ug/l	1.10	115,662,146.67	5.600E+02	Analog	0.50	3
Co			1	217.095	ug/l	1.36	2,123,265.25	1.028E+01	Pulse	0.50	3
Ni			1	214.891	ug/l	1.38	553,003.96	2.677E+00	Pulse	0.50	3
Cu			1	217.735	ug/l	1.11	1,498,759.75	7.256E+00	Pulse	0.50	3
Zn			1	212.303	ug/l	0.44	277,576.17	9.118E-01	Pulse	1.00	3
Cd			1	216.970	ug/l	1.03	395,740.77	1.300E+00	Pulse	0.50	3
Al			1	19290.693	ug/l	0.79	3,642,401.25	1.204E+01	Pulse	1.00	3
Se			1	206.645	ug/l	1.56	14,933.49	4.905E-02	Pulse	3.00	3
Sb			1	221.269	ug/l	0.71	1,272,002.38	4.178E+00	Pulse	1.00	3
Se			1	206.414	ug/l	0.91	7,077.31	2.325E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,673,002.08	0.89	94.9	Pulse	0.50	3
1	Sc		302,444.67	1.36	95.9	Pulse	0.30	3
1	Ge		206,564.76	0.61	98.8	Pulse	0.30	3
1	In		1,936,567.01	1.27	97.0	Pulse	0.30	3
1	Tb		5,295,190.83	1.72	98.5	Pulse	0.50	3
1	Lu		4,059,467.42	1.60	98.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		304,445.91	0.87	98.4	Pulse	0.30	3
1	Te		3.33	173.21		Pulse	0.50	3
1	Li		1,005.59	8.26	84.6	Pulse	0.30	3

Quantitation Report

File Name	058SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:27
Sample Name	FC1721-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.929	ug/l	3.01	12,482.68	6.093E-02	Pulse	0.50	3
As			1	1.484	ug/l	2.19	1,431.73	6.989E-03	Pulse	1.00	3
Mo			1	1.798	ug/l	1.26	6,552.50	2.154E-02	Pulse	0.50	3
Pb			1	14.083	ug/l	0.60	238,431.02	6.437E-02	Pulse	1.00	3
Be			1	0.054	ug/l	49.35	3.33	1.103E-05	Pulse	2.00	3
Ag			1	-0.423	ug/l	-2.09	2,141.46	7.039E-03	Pulse	0.50	3
Ba			1	148.482	ug/l	0.37	274,514.34	1.431E-01	Pulse	0.50	3
Tl			1	0.106	ug/l	11.98	2,790.24	7.543E-04	Pulse	0.50	3
Sn			1	0.435	ug/l	2.81	1,940.12	1.011E-03	Pulse	0.30	3
Sr			1	371.291	ug/l	0.48	1,916,862.08	9.992E-01	Pulse	0.50	3
[Pb]			1	13.552	ug/l	0.79	111,595.42	3.013E-02	Pulse	0.50	3
Ca			1	114949.366	ug/l	0.78	2,874,547.00	9.505E+00	Pulse	0.50	3
Ti			1	4.288	ug/l	9.19	741.35	2.450E-03	Pulse	0.50	3
Na			1	7073.873	ug/l	0.64	5,909,777.00	1.954E+01	Analog	1.00	3
Mg			1	6511.266	ug/l	0.26	2,735,058.58	9.044E+00	Pulse	1.00	3
K			1	2826.732	ug/l	1.09	1,481,257.71	4.898E+00	Pulse	1.00	3
V			1	2.959	ug/l	2.09	16,058.63	5.310E-02	Pulse	0.50	3
Mn			1	433.562	ug/l	0.77	1,661,764.46	8.111E+00	Pulse	0.50	3
Fe			1	13263.962	ug/l	0.83	71,451,256.00	3.488E+02	Analog	0.50	3
Co			1	2.546	ug/l	0.91	24,807.88	1.211E-01	Pulse	0.50	3
Ni			1	6.207	ug/l	0.47	16,267.53	7.940E-02	Pulse	0.50	3
Cu			1	0.740	ug/l	6.42	13,294.60	6.489E-02	Pulse	0.50	3
Zn			1	96.622	ug/l	0.45	126,773.23	4.167E-01	Pulse	1.00	3
Cd			1	0.058	ug/l	11.16	114.67	3.771E-04	Pulse	0.50	3
Al			1	467.735	ug/l	0.72	89,028.63	2.944E-01	Pulse	1.00	3
Se			1	0.549	ug/l	21.52	136.33	4.482E-04	Pulse	3.00	3
Sb			1	1.394	ug/l	0.45	8,231.85	2.706E-02	Pulse	1.00	3
Se			1	0.872	ug/l	11.86	90.66	2.980E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,704,126.67	2.07	95.7	Pulse	0.50	3
1	Sc		302,427.85	0.91	95.9	Pulse	0.30	3
1	Ge		204,882.72	1.25	98.0	Pulse	0.30	3
1	In		1,918,399.65	0.90	96.1	Pulse	0.30	3
1	Tb		5,297,119.33	2.27	98.5	Pulse	0.50	3
1	Lu		4,047,018.50	2.11	98.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		304,196.76	0.62	98.3	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,114.48	3.90	93.7	Pulse	0.30	3

Quantitation Report

File Name	059CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:31
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.627	ug/l	1.90	650,067.11	2.890E+00	Pulse	0.50	3
As			1	47.036	ug/l	1.85	94,290.65	4.193E-01	Pulse	1.00	3
Mo			1	46.659	ug/l	0.20	365,281.11	1.094E+00	Pulse	0.50	3
Pb			1	48.041	ug/l	0.91	1,718,595.50	4.379E-01	Pulse	1.00	3
Be			1	46.570	ug/l	1.47	3,014.39	9.046E-03	Pulse	2.00	3
Ag			1	48.154	ug/l	0.10	1,180,621.41	3.537E+00	Pulse	0.50	3
Ba			1	47.146	ug/l	0.26	190,949.86	9.087E-02	Pulse	0.50	3
Tl			1	47.980	ug/l	0.81	2,469,767.50	6.292E-01	Pulse	0.50	3
Sn			1	47.068	ug/l	0.48	429,322.53	2.043E-01	Pulse	0.30	3
Sr			1	47.004	ug/l	0.93	531,866.10	2.531E-01	Pulse	0.50	3
[Pb]			1	46.845	ug/l	0.93	815,051.04	2.077E-01	Pulse	0.50	3
Ca			1	4731.723	ug/l	1.45	261,359.04	7.844E-01	Pulse	0.50	3
Ti			1	46.583	ug/l	2.16	17,622.61	5.289E-02	Pulse	0.50	3
Na			1	4852.297	ug/l	0.96	8,919,456.67	2.677E+01	Analog	1.00	3
Mg			1	4731.560	ug/l	1.20	4,379,581.50	1.314E+01	Pulse	1.00	3
K			1	4813.541	ug/l	0.89	5,343,362.00	1.604E+01	Analog	1.00	3
V			1	47.677	ug/l	1.94	525,278.41	1.576E+00	Pulse	0.50	3
Mn			1	47.725	ug/l	2.01	401,776.55	1.786E+00	Pulse	0.50	3
Fe			1	4848.675	ug/l	1.74	57,354,317.33	2.550E+02	Analog	0.50	3
Co			1	47.359	ug/l	1.41	1,008,769.48	4.485E+00	Pulse	0.50	3
Ni			1	47.421	ug/l	2.46	266,006.67	1.183E+00	Pulse	0.50	3
Cu			1	48.073	ug/l	1.51	725,691.27	3.227E+00	Pulse	0.50	3
Zn			1	49.515	ug/l	0.40	142,540.79	4.270E-01	Pulse	1.00	3
Cd			1	46.888	ug/l	0.40	187,530.40	5.618E-01	Pulse	0.50	3
Al			1	4525.244	ug/l	1.74	1,883,263.71	5.652E+00	Pulse	1.00	3
Se			1	45.109	ug/l	0.74	7,208.25	2.160E-02	Pulse	3.00	3
Sb			1	46.466	ug/l	0.32	585,853.52	1.755E+00	Pulse	1.00	3
Se			1	44.990	ug/l	0.73	3,420.31	1.025E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,924,962.58	0.24	101.4	Pulse	0.50	3
1	Sc		333,251.71	1.13	105.7	Pulse	0.30	3
1	Ge		224,931.80	1.11	107.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,101,290.75	0.36	105.3	Pulse	0.30	3
1	Tb		5,575,870.17	0.22	103.7	Pulse	0.50	3
1	Lu		4,286,810.33	0.39	104.2	Pulse	0.50	3
1	Ge		333,782.35	0.42	107.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,245.60	2.95	104.8	Pulse	0.30	3

Quantitation Report

File Name	060_CCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:35
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.897	ug/l	0.88	1,320,999.58	5.939E+00	Pulse	0.50	3
As			1	97.394	ug/l	0.43	193,011.02	8.677E-01	Pulse	1.00	3
Mo			1	97.204	ug/l	1.20	748,478.29	2.279E+00	Pulse	0.50	3
Pb			1	99.304	ug/l	0.63	3,462,790.33	9.049E-01	Pulse	1.00	3
Be			1	93.804	ug/l	1.46	6,057.57	1.822E-02	Pulse	2.00	3
Ag			1	98.327	ug/l	1.32	2,363,953.00	7.199E+00	Pulse	0.50	3
Ba			1	97.102	ug/l	0.84	387,226.06	1.872E-01	Pulse	0.50	3
Tl			1	99.779	ug/l	0.17	5,007,466.33	1.309E+00	Pulse	0.50	3
Sn			1	97.522	ug/l	0.70	875,705.12	4.232E-01	Pulse	0.30	3
Sr			1	98.175	ug/l	1.06	1,093,450.79	5.285E-01	Pulse	0.50	3
[Pb]			1	96.755	ug/l	0.80	1,640,926.37	4.288E-01	Pulse	0.50	3
Ca			1	9679.078	ug/l	0.40	532,869.73	1.602E+00	Pulse	0.50	3
Ti			1	96.430	ug/l	1.07	36,402.37	1.095E-01	Pulse	0.50	3
Na			1	9919.961	ug/l	0.52	18,157,886.67	5.460E+01	Analog	1.00	3
Mg			1	9791.081	ug/l	0.73	9,043,857.33	2.720E+01	Analog	1.00	3
K			1	9912.579	ug/l	0.26	10,886,364.67	3.274E+01	Analog	1.00	3
V			1	98.205	ug/l	1.07	1,078,314.33	3.243E+00	Pulse	0.50	3
Mn			1	97.821	ug/l	0.96	814,263.34	3.661E+00	Pulse	0.50	3
Fe			1	9954.139	ug/l	1.08	116,426,466.67	5.234E+02	Analog	0.50	3
Co			1	96.696	ug/l	0.77	2,036,912.25	9.157E+00	Pulse	0.50	3
Ni			1	96.592	ug/l	0.77	535,415.06	2.407E+00	Pulse	0.50	3
Cu			1	98.001	ug/l	0.96	1,453,786.71	6.536E+00	Pulse	0.50	3
Zn			1	98.016	ug/l	1.50	276,529.68	8.421E-01	Pulse	1.00	3
Cd			1	96.538	ug/l	1.44	379,827.67	1.157E+00	Pulse	0.50	3
Al			1	9376.297	ug/l	0.85	3,893,506.08	1.171E+01	Pulse	1.00	3
Se			1	94.490	ug/l	0.90	14,740.22	4.489E-02	Pulse	3.00	3
Sb			1	96.222	ug/l	1.22	1,193,265.17	3.634E+00	Pulse	1.00	3
Se			1	95.094	ug/l	1.71	7,038.86	2.144E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,826,832.50	0.48	98.9	Pulse	0.50	3
1	Sc		332,546.88	0.07	105.5	Pulse	0.30	3
1	Ge		222,436.36	0.48	106.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,069,002.28	0.41	103.7	Pulse	0.30	3
1	Tb		5,492,837.83	0.41	102.1	Pulse	0.50	3
1	Lu		4,244,243.50	0.24	103.2	Pulse	0.50	3
1	Ge		328,381.34	0.45	106.2	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		1,162.26	2.01	97.8	Pulse	0.30	3

Quantitation Report

File Name	061_CCB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:38
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.007	ug/l	135.91	622.01	2.865E-03	Pulse	0.50	3
As			1	0.020	ug/l	43.79	122.33	5.634E-04	Pulse	1.00	3
Mo			1	0.098	ug/l	20.14	898.03	2.771E-03	Pulse	0.50	3
Pb			1	0.016	ug/l	21.46	1,436.73	3.728E-04	Pulse	1.00	3
Be			1	-0.012	ug/l	-169.96	1.17	3.553E-06	Pulse	2.00	3
Ag			1	-0.219	ug/l	-2.33	2,104.79	6.501E-03	Pulse	0.50	3
Ba			1	0.012	ug/l	62.00	58.67	2.816E-05	Pulse	0.50	3
Tl			1	0.024	ug/l	22.76	1,422.07	3.691E-04	Pulse	0.50	3
Sn			1	0.095	ug/l	24.60	1,005.59	4.820E-04	Pulse	0.30	3
Sr			1	0.009	ug/l	67.40	432.68	2.078E-04	Pulse	0.50	3
[Pb]			1	0.016	ug/l	22.31	687.35	1.784E-04	Pulse	0.50	3
Ca			1	-0.775	ug/l	-139.46	604.01	1.842E-03	Pulse	0.50	3
Ti			1	-0.001	ug/l	-1446.16	5.33	1.626E-05	Pulse	0.50	3
Na			1	-3.325	ug/l	-16.96	31,434.54	9.586E-02	Pulse	1.00	3
Mg			1	1.034	ug/l	36.64	1,414.72	4.313E-03	Pulse	1.00	3
K			1	6.772	ug/l	10.74	95,432.36	2.910E-01	Pulse	1.00	3
V			1	0.009	ug/l	39.77	1,508.07	4.599E-03	Pulse	0.50	3
Mn			1	0.006	ug/l	106.69	251.33	1.158E-03	Pulse	0.50	3
Fe			1	0.729	ug/l	46.35	33,777.60	1.556E-01	Pulse	0.50	3
Co			1	0.010	ug/l	39.74	316.67	1.458E-03	Pulse	0.50	3
Ni			1	-0.009	ug/l	-116.49	410.01	1.888E-03	Pulse	0.50	3
Cu			1	-0.218	ug/l	-5.80	5,635.51	2.595E-02	Pulse	0.50	3
Zn			1	0.027	ug/l	33.57	1,137.04	3.511E-03	Pulse	1.00	3
Cd			1	0.017	ug/l	41.16	77.33	2.390E-04	Pulse	0.50	3
Al			1	-0.368	ug/l	-81.69	640.01	1.951E-03	Pulse	1.00	3
Se			1	0.112	ug/l	29.79	120.22	3.713E-04	Pulse	3.00	3
Sb			1	0.025	ug/l	17.65	546.34	1.687E-03	Pulse	1.00	3
Se			1	0.040	ug/l	92.93	67.89	2.097E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,855,593.83	0.77	99.6	Pulse	0.50	3
1	Sc		327,895.17	0.20	104.0	Pulse	0.30	3

Quantitation Report

1	Ge		217,167.15	0.40	103.9	Pulse	0.30	3
1	In		2,084,190.47	0.91	104.4	Pulse	0.30	3
1	Tb		5,428,604.50	0.88	100.9	Pulse	0.50	3
1	Lu		4,169,308.08	0.55	101.3	Pulse	0.50	3
1	Ge		323,856.56	0.77	104.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,255.60	6.27	105.6	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:42
Sample Name MP41715-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.064	ug/l	3.18	12,908.30	6.502E-02	Pulse	0.50	3
As			1	1.621	ug/l	3.97	1,508.73	7.601E-03	Pulse	1.00	3
Mo			1	2.131	ug/l	0.78	7,587.56	2.545E-02	Pulse	0.50	3
Pb			1	15.743	ug/l	0.46	260,870.87	7.193E-02	Pulse	1.00	3
Be			1	0.068	ug/l	109.57	3.67	1.239E-05	Pulse	2.00	3
Ag			1	-0.415	ug/l	-3.50	2,185.47	7.330E-03	Pulse	0.50	3
Ba			1	152.276	ug/l	0.52	279,204.76	1.468E-01	Pulse	0.50	3
Tl			1	0.056	ug/l	25.27	1,532.08	4.235E-04	Pulse	0.50	3
Sn			1	0.568	ug/l	2.70	2,474.63	1.300E-03	Pulse	0.30	3
Sr			1	379.971	ug/l	0.87	1,945,469.00	1.023E+00	Pulse	0.50	3
[Pb]			1	15.167	ug/l	0.74	122,233.72	3.371E-02	Pulse	0.50	3
Ca			1	119728.354	ug/l	0.97	2,944,740.42	9.900E+00	Pulse	0.50	3
Ti			1	3.722	ug/l	11.83	634.01	2.129E-03	Pulse	0.50	3
Na			1	7372.756	ug/l	0.71	6,056,750.33	2.036E+01	Analog	1.00	3
Mg			1	6779.862	ug/l	0.60	2,801,004.83	9.417E+00	Pulse	1.00	3
K			1	2932.851	ug/l	1.33	1,508,548.09	5.072E+00	Pulse	1.00	3
V			1	3.267	ug/l	0.96	17,308.36	5.818E-02	Pulse	0.50	3
Mn			1	457.056	ug/l	0.90	1,697,469.37	8.551E+00	Pulse	0.50	3
Fe			1	14440.618	ug/l	0.51	75,374,501.33	3.797E+02	Analog	0.50	3
Co			1	2.703	ug/l	1.08	25,518.77	1.285E-01	Pulse	0.50	3
Ni			1	6.500	ug/l	1.56	16,485.70	8.304E-02	Pulse	0.50	3
Cu			1	0.684	ug/l	7.28	12,518.76	6.306E-02	Pulse	0.50	3
Zn			1	99.842	ug/l	0.81	128,370.85	4.305E-01	Pulse	1.00	3
Cd			1	0.076	ug/l	8.18	144.67	4.852E-04	Pulse	0.50	3
Al			1	523.644	ug/l	0.73	97,942.40	3.293E-01	Pulse	1.00	3
Se			1	0.662	ug/l	6.67	141.56	4.748E-04	Pulse	3.00	3
Sb			1	1.459	ug/l	1.41	8,434.28	2.829E-02	Pulse	1.00	3
Se			1	0.592	ug/l	17.01	79.56	2.668E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,626,736.58	2.12	93.7	Pulse	0.50	3
1	Sc		297,463.29	1.40	94.3	Pulse	0.30	3
1	Ge		198,513.19	0.55	95.0	Pulse	0.30	3
1	In		1,902,682.01	1.60	95.3	Pulse	0.30	3
1	Tb		5,214,953.83	2.02	97.0	Pulse	0.50	3
1	Lu		3,979,331.00	2.48	96.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		298,163.18	1.01	96.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,075.59	16.60	90.5	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:46
Sample Name MP41715-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.872	ug/l	6.06	2,986.91	1.379E-02	Pulse	0.50	3
As			1	1.369	ug/l	1.54	346.67	1.600E-03	Pulse	1.00	3
Mo			1	1.711	ug/l	2.17	1,434.73	4.479E-03	Pulse	0.50	3
Pb			1	13.738	ug/l	1.64	49,436.05	1.274E-02	Pulse	1.00	3
Be			1	-0.034	ug/l	-1153.55	1.67	5.146E-06	Pulse	2.00	3
Ag			1	-2.300	ug/l	-1.60	1,816.10	5.672E-03	Pulse	0.50	3
Ba			1	144.268	ug/l	0.71	56,804.59	2.781E-02	Pulse	0.50	3
Tl			1	0.032	ug/l	22.79	383.34	9.882E-05	Pulse	0.50	3
Sn			1	0.333	ug/l	13.35	434.45	2.126E-04	Pulse	0.30	3
Sr			1	365.148	ug/l	0.35	401,716.07	1.967E-01	Pulse	0.50	3
[Pb]			1	13.284	ug/l	0.78	23,246.46	5.992E-03	Pulse	0.50	3
Ca			1	115581.841	ug/l	0.80	617,539.15	1.913E+00	Pulse	0.50	3
Ti			1	4.365	ug/l	16.89	165.33	5.123E-04	Pulse	0.50	3
Na			1	6939.735	ug/l	0.33	1,267,305.96	3.926E+00	Pulse	1.00	3
Mg			1	6581.172	ug/l	1.11	590,499.27	1.829E+00	Pulse	1.00	3
K			1	2916.030	ug/l	0.39	395,099.53	1.224E+00	Pulse	1.00	3
V			1	2.971	ug/l	5.10	4,553.88	1.411E-02	Pulse	0.50	3
Mn			1	434.398	ug/l	1.35	352,362.57	1.626E+00	Pulse	0.50	3
Fe			1	13255.381	ug/l	1.39	15,124,931.33	6.980E+01	Analog	0.50	3
Co			1	2.491	ug/l	4.16	5,229.39	2.414E-02	Pulse	0.50	3
Ni			1	5.902	ug/l	2.25	3,643.69	1.682E-02	Pulse	0.50	3
Cu			1	-1.033	ug/l	-18.62	7,264.72	3.353E-02	Pulse	0.50	3
Zn			1	98.527	ug/l	1.40	28,056.67	8.760E-02	Pulse	1.00	3
Cd			1	0.060	ug/l	26.74	33.33	1.040E-04	Pulse	0.50	3
Al			1	479.664	ug/l	0.86	20,108.45	6.229E-02	Pulse	1.00	3
Se			1	1.299	ug/l	38.69	121.67	3.800E-04	Pulse	3.00	3
Sb			1	1.234	ug/l	2.37	1,728.09	5.395E-03	Pulse	1.00	3
Se			1	-0.360	ug/l	-183.46	61.67	1.926E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,879,326.00	0.55	100.3	Pulse	0.50	3
1	Sc		322,801.91	0.36	102.4	Pulse	0.30	3
1	Ge		216,692.78	0.49	103.7	Pulse	0.30	3
1	In		2,042,607.69	0.99	102.3	Pulse	0.30	3
1	Tb		5,441,878.33	0.98	101.2	Pulse	0.50	3
1	Lu		4,155,239.00	1.11	101.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		320,254.69	0.92	103.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,175.60	11.24	98.9	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:50
Sample Name MP41715-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	220.917	ug/l	1.55	1,349,150.29	6.700E+00	Pulse	0.50	3
As			1	224.796	ug/l	1.38	201,616.42	1.001E+00	Pulse	1.00	3
Mo			1	226.889	ug/l	0.61	793,423.92	2.660E+00	Pulse	0.50	3
Pb			1	243.594	ug/l	0.29	3,965,429.50	1.110E+00	Pulse	1.00	3
Be			1	215.639	ug/l	1.56	6,245.63	2.094E-02	Pulse	2.00	3
Ag			1	103.166	ug/l	0.34	1,129,713.04	3.787E+00	Pulse	0.50	3
Ba			1	368.708	ug/l	1.10	667,530.35	3.553E-01	Pulse	0.50	3
Tl			1	217.244	ug/l	0.53	5,090,182.17	1.424E+00	Pulse	0.50	3
Sn			1	214.584	ug/l	0.73	874,829.55	4.656E-01	Pulse	0.30	3
Sr			1	594.343	ug/l	1.03	3,004,790.83	1.599E+00	Pulse	0.50	3
[Pb]			1	228.838	ug/l	0.30	1,811,844.21	5.071E-01	Pulse	0.50	3
Ca			1	138603.694	ug/l	1.27	3,419,032.25	1.146E+01	Pulse	0.50	3
Ti			1	215.016	ug/l	2.19	36,407.75	1.220E-01	Pulse	0.50	3
Na			1	28773.117	ug/l	1.49	23,607,444.67	7.914E+01	Analog	1.00	3
Mg			1	27695.431	ug/l	1.21	11,474,371.33	3.846E+01	Analog	1.00	3
K			1	24185.022	ug/l	1.83	11,895,213.67	3.988E+01	Analog	1.00	3
V			1	223.539	ug/l	0.80	1,100,826.13	3.690E+00	Pulse	0.50	3
Mn			1	659.027	ug/l	1.73	2,482,410.50	1.233E+01	Pulse	0.50	3
Fe			1	35792.142	ug/l	1.55	189,455,754.67	9.409E+02	Analog	0.50	3
Co			1	220.704	ug/l	1.11	2,104,267.25	1.045E+01	Pulse	0.50	3
Ni			1	220.591	ug/l	0.99	553,397.17	2.748E+00	Pulse	0.50	3
Cu			1	216.678	ug/l	0.71	1,454,035.79	7.221E+00	Pulse	0.50	3
Zn			1	304.455	ug/l	0.27	389,585.62	1.306E+00	Pulse	1.00	3
Cd			1	215.562	ug/l	0.78	385,190.91	1.291E+00	Pulse	0.50	3
Al			1	20158.226	ug/l	1.05	3,754,651.50	1.259E+01	Pulse	1.00	3
Se			1	206.504	ug/l	0.27	14,621.80	4.902E-02	Pulse	3.00	3
Sb			1	220.504	ug/l	0.55	1,241,902.04	4.164E+00	Pulse	1.00	3
Se			1	210.925	ug/l	0.40	7,084.10	2.375E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,573,278.08	1.29	92.3	Pulse	0.50	3
1	Sc		298,361.89	1.67	94.6	Pulse	0.30	3
1	Ge		201,371.99	1.48	96.3	Pulse	0.30	3
1	In		1,878,900.55	1.68	94.1	Pulse	0.30	3
1	Tb		5,214,797.33	2.24	97.0	Pulse	0.50	3
1	Lu		3,995,722.75	1.71	97.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		298,279.27	1.10	96.4	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		986.70	3.22	83.0	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 15:54
Sample Name	MP41715-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	214.673	ug/l	0.44	1,323,288.83	6.511E+00	Pulse	0.50	3
As			1	217.926	ug/l	0.97	197,282.07	9.707E-01	Pulse	1.00	3
Mo			1	221.378	ug/l	1.42	781,805.50	2.596E+00	Pulse	0.50	3
Pb			1	236.538	ug/l	1.06	3,855,912.08	1.078E+00	Pulse	1.00	3
Be			1	210.145	ug/l	1.87	6,128.59	2.040E-02	Pulse	2.00	3
Ag			1	100.181	ug/l	1.34	1,107,926.71	3.678E+00	Pulse	0.50	3
Ba			1	357.554	ug/l	0.34	650,241.90	3.446E-01	Pulse	0.50	3
Tl			1	212.565	ug/l	1.18	4,987,111.17	1.394E+00	Pulse	0.50	3
Sn			1	209.526	ug/l	0.31	857,972.35	4.547E-01	Pulse	0.30	3
Sr			1	568.435	ug/l	0.21	2,886,629.67	1.530E+00	Pulse	0.50	3
[Pb]			1	222.352	ug/l	1.11	1,762,907.75	4.927E-01	Pulse	0.50	3
Ca			1	132574.242	ug/l	0.62	3,292,984.33	1.096E+01	Pulse	0.50	3
Ti			1	208.521	ug/l	0.88	35,552.89	1.184E-01	Pulse	0.50	3
Na			1	27902.118	ug/l	0.77	23,052,672.67	7.674E+01	Analog	1.00	3
Mg			1	26968.273	ug/l	0.59	11,250,395.33	3.745E+01	Analog	1.00	3
K			1	23538.943	ug/l	1.03	11,660,139.67	3.882E+01	Analog	1.00	3
V			1	217.601	ug/l	0.78	1,079,011.79	3.592E+00	Pulse	0.50	3
Mn			1	629.433	ug/l	0.96	2,393,045.42	1.178E+01	Pulse	0.50	3
Fe			1	34581.967	ug/l	0.70	184,760,282.67	9.091E+02	Analog	0.50	3
Co			1	214.093	ug/l	0.22	2,060,336.17	1.014E+01	Pulse	0.50	3
Ni			1	214.942	ug/l	0.68	544,243.90	2.678E+00	Pulse	0.50	3
Cu			1	209.949	ug/l	0.31	1,422,287.00	6.998E+00	Pulse	0.50	3
Zn			1	291.084	ug/l	1.17	376,170.28	1.249E+00	Pulse	1.00	3
Cd			1	208.383	ug/l	1.76	376,025.60	1.248E+00	Pulse	0.50	3
Al			1	19709.167	ug/l	0.43	3,696,397.00	1.231E+01	Pulse	1.00	3
Se			1	201.222	ug/l	0.33	14,390.41	4.778E-02	Pulse	3.00	3
Sb			1	214.436	ug/l	1.27	1,219,589.62	4.049E+00	Pulse	1.00	3
Se			1	202.355	ug/l	0.65	6,865.46	2.279E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,578,220.58	1.45	92.5	Pulse	0.50	3
1	Sc		300,397.05	1.00	95.3	Pulse	0.30	3
1	Ge		203,243.25	1.41	97.2	Pulse	0.30	3
1	In		1,887,069.65	1.29	94.6	Pulse	0.30	3
1	Tb		5,245,717.83	1.81	97.5	Pulse	0.50	3
1	Lu		4,019,378.33	1.85	97.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		301,214.84	1.12	97.4	Pulse	0.30	3
1	Te		3.33	34.64		Pulse	0.50	3
1	Li		1,071.15	4.25	90.1	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 15:57
Sample Name MP41715-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.711	ug/l	0.14	133,791.98	6.607E-01	Pulse	0.50	3
As			1	21.994	ug/l	1.72	19,909.00	9.831E-02	Pulse	1.00	3
Mo			1	21.949	ug/l	0.42	76,879.06	2.578E-01	Pulse	0.50	3
Pb			1	34.691	ug/l	0.58	573,369.10	1.582E-01	Pulse	1.00	3
Be			1	19.446	ug/l	4.54	563.01	1.893E-03	Pulse	2.00	3
Ag			1	5.854	ug/l	3.60	70,407.32	2.361E-01	Pulse	0.50	3
Ba			1	175.098	ug/l	1.17	319,103.90	1.687E-01	Pulse	0.50	3
Tl			1	19.560	ug/l	1.30	464,875.13	1.283E-01	Pulse	0.50	3
Sn			1	18.465	ug/l	0.95	75,884.40	4.013E-02	Pulse	0.30	3
Sr			1	410.798	ug/l	0.55	2,090,483.00	1.106E+00	Pulse	0.50	3
[Pb]			1	32.843	ug/l	0.54	264,017.14	7.286E-02	Pulse	0.50	3
Ca			1	123360.214	ug/l	0.57	3,033,592.58	1.020E+01	Pulse	0.50	3
Ti			1	22.700	ug/l	4.19	3,835.73	1.290E-02	Pulse	0.50	3
Na			1	9535.611	ug/l	0.52	7,822,222.17	2.630E+01	Analog	1.00	3
Mg			1	8864.481	ug/l	0.55	3,661,432.67	1.231E+01	Pulse	1.00	3
K			1	4873.208	ug/l	1.07	2,453,347.58	8.250E+00	Pulse	1.00	3
V			1	23.348	ug/l	0.94	115,761.05	3.893E-01	Pulse	0.50	3
Mn			1	476.366	ug/l	1.15	1,804,695.96	8.912E+00	Pulse	0.50	3
Fe			1	15972.476	ug/l	0.79	85,042,360.00	4.200E+02	Analog	0.50	3
Co			1	22.240	ug/l	0.51	213,345.50	1.054E+00	Pulse	0.50	3
Ni			1	25.795	ug/l	0.58	65,457.29	3.232E-01	Pulse	0.50	3
Cu			1	20.368	ug/l	0.84	144,858.86	7.153E-01	Pulse	0.50	3
Zn			1	121.417	ug/l	0.74	155,938.66	5.228E-01	Pulse	1.00	3
Cd			1	19.479	ug/l	0.55	34,816.64	1.167E-01	Pulse	0.50	3
Al			1	2261.586	ug/l	1.10	420,549.04	1.414E+00	Pulse	1.00	3
Se			1	19.235	ug/l	3.98	1,447.94	4.855E-03	Pulse	3.00	3
Sb			1	20.014	ug/l	0.30	112,913.03	3.786E-01	Pulse	1.00	3
Se			1	19.476	ug/l	3.04	708.46	2.375E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,623,554.50	1.34	93.6	Pulse	0.50	3
1	Sc		297,394.32	0.35	94.3	Pulse	0.30	3
1	Ge		202,501.89	0.23	96.9	Pulse	0.30	3
1	In		1,890,994.37	1.20	94.7	Pulse	0.30	3
1	Tb		5,229,009.67	1.44	97.2	Pulse	0.50	3
1	Lu		3,965,653.83	1.45	96.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		298,256.96	0.82	96.4	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,120.04	3.72	94.2	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:01
Sample Name FC1721-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.381	ug/l	2.23	8,883.38	4.429E-02	Pulse	0.50	3
As			1	3.412	ug/l	2.67	3,123.60	1.557E-02	Pulse	1.00	3
Mo			1	0.116	ug/l	8.27	542.01	1.823E-03	Pulse	0.50	3
Pb			1	0.134	ug/l	4.14	3,086.28	8.406E-04	Pulse	1.00	3
Be			1	0.115	ug/l	44.02	5.00	1.698E-05	Pulse	2.00	3
Ag			1	-0.452	ug/l	-1.82	1,772.09	5.962E-03	Pulse	0.50	3
Ba			1	25.269	ug/l	2.02	46,116.42	2.436E-02	Pulse	0.50	3
Tl			1	0.049	ug/l	2.00	1,384.06	3.770E-04	Pulse	0.50	3
Sn			1	0.405	ug/l	4.07	1,793.43	9.472E-04	Pulse	0.30	3
Sr			1	15.951	ug/l	1.35	81,589.13	4.308E-02	Pulse	0.50	3
[Pb]			1	0.129	ug/l	7.11	1,439.40	3.920E-04	Pulse	0.50	3
Ca			1	2121.386	ug/l	0.57	52,098.08	1.774E-01	Pulse	0.50	3
Ti			1	0.950	ug/l	48.36	163.34	5.558E-04	Pulse	0.50	3
Na			1	12250.864	ug/l	0.99	9,916,259.33	3.376E+01	Analog	1.00	3
Mg			1	1084.402	ug/l	0.72	442,773.06	1.507E+00	Pulse	1.00	3
K			1	264.191	ug/l	2.18	206,054.76	7.015E-01	Pulse	1.00	3
V			1	4.183	ug/l	0.36	21,524.53	7.328E-02	Pulse	0.50	3
Mn			1	93.189	ug/l	0.22	349,844.47	1.744E+00	Pulse	0.50	3
Fe			1	2776.068	ug/l	0.49	14,659,519.00	7.309E+01	Analog	0.50	3
Co			1	3.340	ug/l	0.94	31,829.43	1.587E-01	Pulse	0.50	3
Ni			1	1.747	ug/l	3.58	4,787.94	2.387E-02	Pulse	0.50	3
Cu			1	0.193	ug/l	13.21	9,377.64	4.675E-02	Pulse	0.50	3
Zn			1	9.660	ug/l	2.01	13,263.57	4.462E-02	Pulse	1.00	3
Cd			1	0.044	ug/l	38.11	88.00	2.957E-04	Pulse	0.50	3
Al			1	444.756	ug/l	0.27	82,259.21	2.800E-01	Pulse	1.00	3
Se			1	0.223	ug/l	36.57	110.33	3.712E-04	Pulse	3.00	3
Sb			1	0.103	ug/l	10.05	796.02	2.677E-03	Pulse	1.00	3
Se			1	0.640	ug/l	33.32	80.89	2.721E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,670,438.00	1.73	94.9	Pulse	0.50	3
1	Sc		293,750.04	1.12	93.2	Pulse	0.30	3
1	Ge		200,579.03	0.64	95.9	Pulse	0.30	3
1	In		1,893,872.70	1.71	94.9	Pulse	0.30	3
1	Tb		5,180,017.83	2.18	96.3	Pulse	0.50	3
1	Lu		3,929,760.75	1.93	95.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		297,297.92	0.77	96.1	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,152.26	3.91	96.9	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:05
Sample Name	FC1721-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.352	ug/l	0.75	8,605.26	4.341E-02	Pulse	0.50	3
As			1	1.219	ug/l	1.93	1,151.04	5.808E-03	Pulse	1.00	3
Mo			1	0.127	ug/l	9.17	583.34	1.961E-03	Pulse	0.50	3
Pb			1	0.256	ug/l	2.53	5,178.13	1.395E-03	Pulse	1.00	3
Be			1	0.033	ug/l	242.35	2.67	9.034E-06	Pulse	2.00	3
Ag			1	-0.452	ug/l	-1.83	1,776.76	5.975E-03	Pulse	0.50	3
Ba			1	8.118	ug/l	3.15	14,736.67	7.827E-03	Pulse	0.50	3
Tl			1	0.024	ug/l	1.56	789.35	2.127E-04	Pulse	0.50	3
Sn			1	0.427	ug/l	6.52	1,871.22	9.944E-04	Pulse	0.30	3
Sr			1	5.411	ug/l	2.21	27,702.28	1.472E-02	Pulse	0.50	3
[Pb]			1	0.252	ug/l	4.16	2,468.85	6.652E-04	Pulse	0.50	3
Ca			1	1241.510	ug/l	0.76	30,756.72	1.046E-01	Pulse	0.50	3
Ti			1	3.671	ug/l	21.00	618.02	2.100E-03	Pulse	0.50	3
Na			1	2693.310	ug/l	0.70	2,208,187.00	7.511E+00	Pulse	1.00	3
Mg			1	913.452	ug/l	0.21	373,373.07	1.270E+00	Pulse	1.00	3
K			1	120.908	ug/l	2.39	137,255.40	4.669E-01	Pulse	1.00	3
V			1	1.936	ug/l	2.30	10,653.60	3.623E-02	Pulse	0.50	3
Mn			1	16.792	ug/l	0.67	62,448.36	3.151E-01	Pulse	0.50	3
Fe			1	1161.962	ug/l	0.76	6,077,158.33	3.066E+01	Analog	0.50	3
Co			1	1.087	ug/l	1.38	10,314.10	5.204E-02	Pulse	0.50	3
Ni			1	1.268	ug/l	3.11	3,547.67	1.790E-02	Pulse	0.50	3
Cu			1	0.582	ug/l	1.74	11,824.98	5.966E-02	Pulse	0.50	3
Zn			1	8.324	ug/l	2.30	11,569.81	3.890E-02	Pulse	1.00	3
Cd			1	0.045	ug/l	15.84	90.00	3.021E-04	Pulse	0.50	3
Al			1	430.971	ug/l	0.17	79,801.98	2.714E-01	Pulse	1.00	3
Se			1	0.219	ug/l	25.83	110.11	3.703E-04	Pulse	3.00	3
Sb			1	0.099	ug/l	12.56	777.35	2.613E-03	Pulse	1.00	3
Se			1	0.409	ug/l	88.15	73.22	2.463E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,710,500.67	1.01	95.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		294,001.32	0.70	93.2	Pulse	0.30	3
1	Ge		198,207.36	0.53	94.8	Pulse	0.30	3
1	In		1,882,485.48	0.91	94.3	Pulse	0.30	3
1	Tb		5,172,295.00	2.08	96.2	Pulse	0.50	3
1	Lu		3,960,650.92	1.80	96.3	Pulse	0.50	3
1	Ge		297,450.08	1.80	96.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,167.82	3.94	98.2	Pulse	0.30	3

Quantitation Report

File Name 069SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:09
Sample Name FC1721-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.481	ug/l	1.99	9,388.95	4.735E-02	Pulse	0.50	3
As			1	3.580	ug/l	2.39	3,236.94	1.632E-02	Pulse	1.00	3
Mo			1	0.106	ug/l	5.98	502.01	1.707E-03	Pulse	0.50	3
Pb			1	0.128	ug/l	1.52	2,967.60	8.107E-04	Pulse	1.00	3
Be			1	0.065	ug/l	142.72	3.50	1.207E-05	Pulse	2.00	3
Ag			1	-0.459	ug/l	-0.97	1,684.09	5.727E-03	Pulse	0.50	3
Ba			1	27.607	ug/l	1.00	50,124.37	2.661E-02	Pulse	0.50	3
Tl			1	0.016	ug/l	9.01	602.01	1.644E-04	Pulse	0.50	3
Sn			1	0.328	ug/l	5.41	1,467.85	7.788E-04	Pulse	0.30	3
Sr			1	16.494	ug/l	1.13	83,907.04	4.454E-02	Pulse	0.50	3
[Pb]			1	0.125	ug/l	4.92	1,405.40	3.839E-04	Pulse	0.50	3
Ca			1	2331.246	ug/l	1.18	56,421.28	1.947E-01	Pulse	0.50	3
Ti			1	1.431	ug/l	58.44	240.03	8.290E-04	Pulse	0.50	3
Na			1	12801.064	ug/l	0.16	10,220,709.67	3.527E+01	Analog	1.00	3
Mg			1	1133.916	ug/l	0.43	456,730.96	1.576E+00	Pulse	1.00	3
K			1	279.190	ug/l	0.90	210,402.93	7.261E-01	Pulse	1.00	3
V			1	4.405	ug/l	1.85	22,294.74	7.694E-02	Pulse	0.50	3
Mn			1	106.564	ug/l	0.27	395,496.85	1.994E+00	Pulse	0.50	3
Fe			1	3123.578	ug/l	0.60	16,305,209.00	8.222E+01	Analog	0.50	3
Co			1	3.756	ug/l	1.56	35,380.88	1.784E-01	Pulse	0.50	3
Ni			1	1.792	ug/l	1.02	4,843.95	2.443E-02	Pulse	0.50	3
Cu			1	0.126	ug/l	3.42	8,831.37	4.453E-02	Pulse	0.50	3
Zn			1	10.184	ug/l	0.18	13,778.25	4.686E-02	Pulse	1.00	3
Cd			1	0.017	ug/l	27.73	39.33	1.339E-04	Pulse	0.50	3
Al			1	447.823	ug/l	2.05	81,704.26	2.820E-01	Pulse	1.00	3
Se			1	0.198	ug/l	33.57	107.44	3.653E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	5.73	620.01	2.108E-03	Pulse	1.00	3
Se			1	0.605	ug/l	32.51	78.89	2.681E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,660,055.83	1.41	94.6	Pulse	0.50	3
1	Sc		289,776.19	0.21	91.9	Pulse	0.30	3
1	Ge		198,307.06	0.69	94.9	Pulse	0.30	3
1	In		1,884,004.93	1.84	94.4	Pulse	0.30	3
1	Tb		5,140,185.33	1.86	95.6	Pulse	0.50	3
1	Lu		3,924,105.17	2.02	95.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		294,026.12	1.16	95.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,053.37	6.54	88.6	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:12
Sample Name FC1773-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.460	ug/l	7.43	3,211.61	1.639E-02	Pulse	0.50	3
As			1	24.141	ug/l	0.12	21,145.66	1.079E-01	Pulse	1.00	3
Mo			1	0.245	ug/l	9.19	978.03	3.341E-03	Pulse	0.50	3
Pb			1	0.091	ug/l	1.78	2,338.83	6.447E-04	Pulse	1.00	3
Be			1	-0.048	ug/l	-43.13	0.33	1.157E-06	Pulse	2.00	3
Ag			1	-0.468	ug/l	-2.47	1,577.41	5.385E-03	Pulse	0.50	3
Ba			1	23.655	ug/l	1.26	42,497.07	2.280E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	16.71	352.67	9.718E-05	Pulse	0.50	3
Sn			1	0.247	ug/l	10.02	1,126.71	6.044E-04	Pulse	0.30	3
Sr			1	305.370	ug/l	0.28	1,531,747.66	8.218E-01	Pulse	0.50	3
[Pb]			1	0.079	ug/l	3.86	1,023.37	2.821E-04	Pulse	0.50	3
Ca			1	41406.403	ug/l	0.23	979,379.67	3.425E+00	Pulse	0.50	3
Ti			1	0.258	ug/l	46.43	46.67	1.633E-04	Pulse	0.50	3
Na			1	24305.419	ug/l	0.47	19,119,072.00	6.687E+01	Analog	1.00	3
Mg			1	5612.375	ug/l	0.73	2,228,921.17	7.796E+00	Pulse	1.00	3
K			1	7815.133	ug/l	0.55	3,736,395.50	1.307E+01	Pulse	1.00	3
V			1	0.955	ug/l	1.82	5,732.86	2.005E-02	Pulse	0.50	3
Mn			1	2021.820	ug/l	0.94	7,413,335.33	3.782E+01	Analog	0.50	3
Fe			1	620.442	ug/l	0.56	3,219,705.58	1.643E+01	Pulse	0.50	3
Co			1	15.543	ug/l	0.95	144,357.33	7.365E-01	Pulse	0.50	3
Ni			1	6.205	ug/l	0.55	15,558.27	7.937E-02	Pulse	0.50	3
Cu			1	17.811	ug/l	0.49	123,612.83	6.306E-01	Pulse	0.50	3
Zn			1	12.970	ug/l	0.15	17,210.67	5.878E-02	Pulse	1.00	3
Cd			1	0.009	ug/l	60.88	25.33	8.673E-05	Pulse	0.50	3
Al			1	2.891	ug/l	10.72	1,205.71	4.216E-03	Pulse	1.00	3
Se			1	0.162	ug/l	26.04	104.45	3.568E-04	Pulse	3.00	3
Sb			1	0.048	ug/l	16.78	480.34	1.640E-03	Pulse	1.00	3
Se			1	0.056	ug/l	223.45	60.56	2.069E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,627,964.25	1.54	93.8	Pulse	0.50	3
1	Sc		285,935.01	0.79	90.7	Pulse	0.30	3
1	Ge		196,018.00	1.24	93.8	Pulse	0.30	3
1	In		1,863,799.72	1.28	93.4	Pulse	0.30	3
1	Tb		5,146,503.17	1.98	95.7	Pulse	0.50	3
1	Lu		3,919,848.08	2.13	95.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		292,786.66	0.94	94.6	Pulse	0.30	3
1	Te		4.67	24.74		Pulse	0.50	3
1	Li		1,105.59	2.22	93.0	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:16
Sample Name FC1762-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.085	ug/l	2.08	7,028.63	3.534E-02	Pulse	0.50	3
As			1	0.782	ug/l	6.11	768.69	3.865E-03	Pulse	1.00	3
Mo			1	1.936	ug/l	1.42	6,828.60	2.316E-02	Pulse	0.50	3
Pb			1	0.951	ug/l	1.80	16,165.97	4.558E-03	Pulse	1.00	3
Be			1	0.058	ug/l	62.90	3.33	1.147E-05	Pulse	2.00	3
Ag			1	-0.469	ug/l	-0.71	1,574.08	5.336E-03	Pulse	0.50	3
Ba			1	130.600	ug/l	0.48	232,901.21	1.259E-01	Pulse	0.50	3
Tl			1	0.028	ug/l	4.62	847.36	2.389E-04	Pulse	0.50	3
Sn			1	0.276	ug/l	3.84	1,235.60	6.675E-04	Pulse	0.30	3
Sr			1	549.141	ug/l	0.32	2,734,664.17	1.478E+00	Pulse	0.50	3
[Pb]			1	0.927	ug/l	1.76	7,661.08	2.160E-03	Pulse	0.50	3
Ca			1	100816.379	ug/l	0.49	2,423,702.25	8.337E+00	Pulse	0.50	3
Ti			1	1.627	ug/l	14.12	273.34	9.400E-04	Pulse	0.50	3
Na			1	16463.053	ug/l	0.53	13,177,843.67	4.533E+01	Analog	1.00	3
Mg			1	40730.456	ug/l	0.21	16,445,247.33	5.656E+01	Analog	1.00	3
K			1	7239.315	ug/l	0.81	3,524,790.33	1.212E+01	Pulse	1.00	3
V			1	1.533	ug/l	6.67	8,607.26	2.959E-02	Pulse	0.50	3
Mn			1	52.398	ug/l	1.12	195,066.95	9.811E-01	Pulse	0.50	3
Fe			1	596.486	ug/l	0.46	3,140,718.67	1.580E+01	Pulse	0.50	3
Co			1	2.342	ug/l	0.81	22,155.34	1.114E-01	Pulse	0.50	3
Ni			1	8.640	ug/l	0.56	21,808.28	1.097E-01	Pulse	0.50	3
Cu			1	1.291	ug/l	4.47	16,529.99	8.314E-02	Pulse	0.50	3
Zn			1	12.114	ug/l	1.15	16,256.86	5.512E-02	Pulse	1.00	3
Cd			1	0.032	ug/l	18.77	65.33	2.210E-04	Pulse	0.50	3
Al			1	222.595	ug/l	1.64	41,101.75	1.414E-01	Pulse	1.00	3
Se			1	0.144	ug/l	121.61	104.11	3.526E-04	Pulse	3.00	3
Sb			1	0.245	ug/l	1.96	1,579.74	5.355E-03	Pulse	1.00	3
Se			1	0.174	ug/l	54.28	64.89	2.200E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,546,819.92	1.91	91.7	Pulse	0.50	3
1	Sc		290,732.57	1.26	92.2	Pulse	0.30	3
1	Ge		198,830.54	1.31	95.1	Pulse	0.30	3
1	In		1,850,570.21	1.83	92.7	Pulse	0.30	3
1	Tb		5,122,981.33	2.48	95.3	Pulse	0.50	3
1	Lu		3,910,465.92	2.55	95.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		294,933.30	2.11	95.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,150.04	3.92	96.7	Pulse	0.30	3

Quantitation Report

File Name	072CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:20
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.744	ug/l	2.28	630,257.15	2.898E+00	Pulse	0.50	3
As			1	46.886	ug/l	1.49	90,907.74	4.179E-01	Pulse	1.00	3
Mo			1	46.483	ug/l	1.40	353,989.66	1.090E+00	Pulse	0.50	3
Pb			1	48.017	ug/l	1.35	1,682,771.75	4.376E-01	Pulse	1.00	3
Be			1	47.279	ug/l	2.35	3,016.39	9.184E-03	Pulse	2.00	3
Ag			1	47.688	ug/l	0.87	1,137,451.75	3.503E+00	Pulse	0.50	3
Ba			1	47.069	ug/l	1.31	186,402.45	9.072E-02	Pulse	0.50	3
Tl			1	48.179	ug/l	0.95	2,429,517.08	6.319E-01	Pulse	0.50	3
Sn			1	46.470	ug/l	0.68	414,447.79	2.017E-01	Pulse	0.30	3
Sr			1	46.833	ug/l	0.47	518,148.65	2.522E-01	Pulse	0.50	3
[Pb]			1	46.989	ug/l	1.08	800,916.75	2.083E-01	Pulse	0.50	3
Ca			1	4714.193	ug/l	1.24	256,675.12	7.815E-01	Pulse	0.50	3
Ti			1	46.271	ug/l	1.26	17,255.61	5.253E-02	Pulse	0.50	3
Na			1	4826.939	ug/l	0.94	8,746,115.67	2.663E+01	Analog	1.00	3
Mg			1	4717.911	ug/l	1.34	4,304,482.50	1.311E+01	Pulse	1.00	3
K			1	4785.929	ug/l	0.88	5,237,225.83	1.594E+01	Analog	1.00	3
V			1	47.242	ug/l	1.45	513,088.75	1.562E+00	Pulse	0.50	3
Mn			1	48.025	ug/l	2.33	391,026.33	1.798E+00	Pulse	0.50	3
Fe			1	4884.517	ug/l	1.94	55,880,913.33	2.569E+02	Analog	0.50	3
Co			1	47.558	ug/l	1.90	979,721.40	4.504E+00	Pulse	0.50	3
Ni			1	47.502	ug/l	2.41	257,717.18	1.185E+00	Pulse	0.50	3
Cu			1	47.974	ug/l	1.99	700,416.38	3.220E+00	Pulse	0.50	3
Zn			1	49.519	ug/l	1.44	138,669.64	4.271E-01	Pulse	1.00	3
Cd			1	46.746	ug/l	1.54	181,870.74	5.601E-01	Pulse	0.50	3
Al			1	4532.944	ug/l	1.76	1,859,523.08	5.662E+00	Pulse	1.00	3
Se			1	45.586	ug/l	0.87	7,085.31	2.182E-02	Pulse	3.00	3
Sb			1	46.503	ug/l	0.96	570,360.44	1.757E+00	Pulse	1.00	3
Se			1	45.850	ug/l	0.83	3,389.53	1.044E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,845,000.25	0.25	99.4	Pulse	0.50	3
1	Sc		328,474.06	0.65	104.2	Pulse	0.30	3
1	Ge		217,544.33	0.89	104.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,054,559.15	0.45	102.9	Pulse	0.30	3
1	Tb		5,478,922.67	0.44	101.9	Pulse	0.50	3
1	Lu		4,238,958.83	0.27	103.0	Pulse	0.50	3
1	Ge		324,705.39	0.41	105.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,283.38	6.30	107.9	Pulse	0.30	3

Quantitation Report

File Name 073_CCV.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:24
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.643	ug/l	1.56	1,293,554.79	5.984E+00	Pulse	0.50	3
As			1	97.813	ug/l	1.65	188,375.21	8.714E-01	Pulse	1.00	3
Mo			1	97.129	ug/l	0.64	732,018.31	2.278E+00	Pulse	0.50	3
Pb			1	100.040	ug/l	1.27	3,429,151.17	9.116E-01	Pulse	1.00	3
Be			1	97.698	ug/l	0.34	6,116.42	1.897E-02	Pulse	2.00	3
Ag			1	98.209	ug/l	0.81	2,310,954.83	7.190E+00	Pulse	0.50	3
Ba			1	97.423	ug/l	1.15	380,238.94	1.878E-01	Pulse	0.50	3
Tl			1	100.037	ug/l	0.37	4,935,108.83	1.312E+00	Pulse	0.50	3
Sn			1	97.651	ug/l	1.39	858,202.69	4.238E-01	Pulse	0.30	3
Sr			1	98.024	ug/l	1.02	1,068,559.66	5.277E-01	Pulse	0.50	3
[Pb]			1	97.478	ug/l	1.05	1,625,102.12	4.320E-01	Pulse	0.50	3
Ca			1	9735.068	ug/l	0.77	519,574.04	1.612E+00	Pulse	0.50	3
Ti			1	98.510	ug/l	1.53	36,049.70	1.118E-01	Pulse	0.50	3
Na			1	10048.223	ug/l	0.75	17,830,262.67	5.531E+01	Analog	1.00	3
Mg			1	9938.819	ug/l	1.26	8,899,633.33	2.761E+01	Analog	1.00	3
K			1	9988.639	ug/l	0.79	10,634,094.67	3.299E+01	Analog	1.00	3
V			1	98.825	ug/l	1.33	1,051,938.60	3.263E+00	Pulse	0.50	3
Mn			1	98.974	ug/l	1.25	800,674.27	3.704E+00	Pulse	0.50	3
Fe			1	10110.367	ug/l	1.36	114,923,685.33	5.316E+02	Analog	0.50	3
Co			1	97.111	ug/l	1.64	1,987,982.17	9.196E+00	Pulse	0.50	3
Ni			1	97.094	ug/l	1.31	523,049.60	2.420E+00	Pulse	0.50	3
Cu			1	98.044	ug/l	1.44	1,413,441.41	6.539E+00	Pulse	0.50	3
Zn			1	97.843	ug/l	0.68	270,181.11	8.407E-01	Pulse	1.00	3
Cd			1	96.550	ug/l	1.21	371,805.69	1.157E+00	Pulse	0.50	3
Al			1	9513.327	ug/l	1.32	3,829,612.42	1.188E+01	Pulse	1.00	3
Se			1	93.894	ug/l	0.18	14,336.47	4.461E-02	Pulse	3.00	3
Sb			1	96.653	ug/l	1.13	1,173,133.21	3.650E+00	Pulse	1.00	3
Se			1	94.644	ug/l	0.96	6,857.01	2.133E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,761,812.08	0.09	97.2	Pulse	0.50	3
1	Sc		322,398.69	0.80	102.2	Pulse	0.30	3
1	Ge		216,193.74	1.26	103.4	Pulse	0.30	3
1	In		2,025,049.36	0.47	101.5	Pulse	0.30	3
1	Tb		5,407,896.33	0.54	100.6	Pulse	0.50	3
1	Lu		4,193,393.00	0.19	101.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		321,394.78	0.43	103.9	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,260.05	3.68	106.0	Pulse	0.30	3

Quantitation Report

File Name	074_CCB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:28
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.005	ug/l	124.77	584.01	2.763E-03	Pulse	0.50	3
As			1	0.009	ug/l	59.00	98.33	4.652E-04	Pulse	1.00	3
Mo			1	0.099	ug/l	24.36	878.69	2.785E-03	Pulse	0.50	3
Pb			1	0.014	ug/l	36.53	1,364.72	3.595E-04	Pulse	1.00	3
Be			1	-0.008	ug/l	-149.57	1.33	4.198E-06	Pulse	2.00	3
Ag			1	-0.229	ug/l	-1.90	1,808.09	5.733E-03	Pulse	0.50	3
Ba			1	0.014	ug/l	26.30	61.33	3.038E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	15.92	1,371.40	3.612E-04	Pulse	0.50	3
Sn			1	0.104	ug/l	21.60	1,053.37	5.209E-04	Pulse	0.30	3
Sr			1	0.007	ug/l	38.67	402.01	1.990E-04	Pulse	0.50	3
[Pb]			1	0.014	ug/l	37.97	645.35	1.700E-04	Pulse	0.50	3
Ca			1	-2.803	ug/l	-18.15	478.68	1.507E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	-14328.63	5.33	1.679E-05	Pulse	0.50	3
Na			1	-4.023	ug/l	-12.26	29,232.90	9.203E-02	Pulse	1.00	3
Mg			1	1.312	ug/l	32.55	1,615.07	5.084E-03	Pulse	1.00	3
K			1	5.219	ug/l	13.75	90,835.88	2.860E-01	Pulse	1.00	3
V			1	0.001	ug/l	550.82	1,382.72	4.353E-03	Pulse	0.50	3
Mn			1	0.013	ug/l	75.33	306.00	1.448E-03	Pulse	0.50	3
Fe			1	0.695	ug/l	59.80	32,502.91	1.538E-01	Pulse	0.50	3
Co			1	0.009	ug/l	78.62	303.34	1.435E-03	Pulse	0.50	3
Ni			1	-0.014	ug/l	-92.13	372.01	1.761E-03	Pulse	0.50	3
Cu			1	-0.214	ug/l	-8.16	5,536.82	2.620E-02	Pulse	0.50	3
Zn			1	0.029	ug/l	71.76	1,113.70	3.531E-03	Pulse	1.00	3
Cd			1	0.014	ug/l	34.41	64.00	2.030E-04	Pulse	0.50	3
Al			1	-0.411	ug/l	-91.25	603.01	1.898E-03	Pulse	1.00	3
Se			1	0.149	ug/l	67.34	122.66	3.889E-04	Pulse	3.00	3
Sb			1	0.030	ug/l	8.46	593.01	1.880E-03	Pulse	1.00	3
Se			1	-0.021	ug/l	-112.07	61.78	1.959E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,799,972.75	1.05	98.2	Pulse	0.50	3
1	Sc		317,654.85	0.02	100.7	Pulse	0.30	3

Quantitation Report

1	Ge		211,381.17	0.50	101.1	Pulse	0.30	3
1	In		2,020,407.28	0.71	101.2	Pulse	0.30	3
1	Tb		5,340,449.00	0.92	99.3	Pulse	0.50	3
1	Lu		4,107,744.42	0.79	99.8	Pulse	0.50	3
1	Ge		315,405.09	0.36	102.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,345.61	1.99	113.2	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:31
Sample Name FC1762-2F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.445	ug/l	2.72	3,138.26	1.593E-02	Pulse	0.50	3
As			1	0.505	ug/l	6.38	518.68	2.631E-03	Pulse	1.00	3
Mo			1	2.351	ug/l	3.74	8,225.16	2.802E-02	Pulse	0.50	3
Pb			1	0.076	ug/l	8.92	2,023.45	5.743E-04	Pulse	1.00	3
Be			1	0.070	ug/l	127.86	3.67	1.261E-05	Pulse	2.00	3
Ag			1	-0.449	ug/l	-0.09	1,780.09	6.064E-03	Pulse	0.50	3
Ba			1	97.975	ug/l	0.68	173,374.96	9.442E-02	Pulse	0.50	3
Tl			1	0.065	ug/l	11.63	1,710.09	4.855E-04	Pulse	0.50	3
Sn			1	0.401	ug/l	3.78	1,722.31	9.376E-04	Pulse	0.30	3
Sr			1	574.563	ug/l	0.49	2,839,229.83	1.546E+00	Pulse	0.50	3
[Pb]			1	0.077	ug/l	13.41	976.03	2.771E-04	Pulse	0.50	3
Ca			1	92619.910	ug/l	0.21	2,218,812.00	7.659E+00	Pulse	0.50	3
Ti			1	0.230	ug/l	22.55	42.67	1.475E-04	Pulse	0.50	3
Na			1	16822.251	ug/l	0.26	13,416,604.67	4.631E+01	Analog	1.00	3
Mg			1	42688.057	ug/l	0.41	17,173,739.33	5.928E+01	Analog	1.00	3
K			1	7318.898	ug/l	0.19	3,550,095.50	1.225E+01	Pulse	1.00	3
V			1	1.300	ug/l	9.17	7,463.45	2.575E-02	Pulse	0.50	3
Mn			1	28.605	ug/l	0.71	105,616.66	5.360E-01	Pulse	0.50	3
Fe			1	33.577	ug/l	1.47	196,985.86	9.998E-01	Pulse	0.50	3
Co			1	2.745	ug/l	1.59	25,721.73	1.305E-01	Pulse	0.50	3
Ni			1	8.956	ug/l	0.49	22,385.62	1.136E-01	Pulse	0.50	3
Cu			1	0.275	ug/l	7.92	9,748.49	4.948E-02	Pulse	0.50	3
Zn			1	10.810	ug/l	1.02	14,541.81	4.954E-02	Pulse	1.00	3
Cd			1	0.058	ug/l	11.51	112.00	3.817E-04	Pulse	0.50	3
Al			1	3.209	ug/l	7.66	1,278.38	4.414E-03	Pulse	1.00	3
Se			1	0.369	ug/l	8.81	119.11	4.058E-04	Pulse	3.00	3
Sb			1	0.193	ug/l	9.02	1,285.38	4.378E-03	Pulse	1.00	3
Se			1	0.301	ug/l	35.50	68.78	2.342E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,525,388.67	1.73	91.1	Pulse	0.50	3
1	Sc		289,688.24	1.09	91.9	Pulse	0.30	3
1	Ge		197,033.80	1.44	94.3	Pulse	0.30	3
1	In		1,836,348.40	1.99	92.0	Pulse	0.30	3
1	Tb		5,074,963.17	2.27	94.4	Pulse	0.50	3
1	Lu		3,899,728.83	2.08	94.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		293,559.75	1.09	94.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,107.82	4.82	93.2	Pulse	0.30	3

Quantitation Report

File Name	076_MB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:35
Sample Name	MP41714-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.103	ug/l	5.15	1,190.04	5.545E-03	Pulse	0.50	3
As			1	0.038	ug/l	18.15	118.33	5.513E-04	Pulse	1.00	3
Mo			1	0.004	ug/l	343.50	165.33	5.182E-04	Pulse	0.50	3
Pb			1	0.085	ug/l	6.11	2,367.17	6.137E-04	Pulse	1.00	3
Be			1	-0.038	ug/l	-63.54	0.67	2.072E-06	Pulse	2.00	3
Ag			1	-0.479	ug/l	-1.27	1,581.41	4.964E-03	Pulse	0.50	3
Ba			1	0.035	ug/l	37.53	76.00	3.772E-05	Pulse	0.50	3
Tl			1	0.004	ug/l	11.65	312.67	8.106E-05	Pulse	0.50	3
Sn			1	0.052	ug/l	43.63	364.45	1.806E-04	Pulse	0.30	3
Sr			1	0.095	ug/l	27.15	835.36	4.143E-04	Pulse	0.50	3
[Pb]			1	0.085	ug/l	5.99	1,138.71	2.952E-04	Pulse	0.50	3
Ca			1	19.747	ug/l	16.92	1,158.04	3.603E-03	Pulse	0.50	3
Ti			1	0.164	ug/l	10.21	35.33	1.099E-04	Pulse	0.50	3
Na			1	-0.112	ug/l	-1002.50	36,581.89	1.138E-01	Pulse	1.00	3
Mg			1	6.909	ug/l	32.09	3,547.67	1.104E-02	Pulse	1.00	3
K			1	17.841	ug/l	5.90	95,803.40	2.981E-01	Pulse	1.00	3
V			1	0.333	ug/l	7.20	3,149.60	9.800E-03	Pulse	0.50	3
Mn			1	0.122	ug/l	11.32	692.68	3.227E-03	Pulse	0.50	3
Fe			1	1.169	ug/l	11.33	31,754.55	1.480E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-53.36	84.67	3.946E-04	Pulse	0.50	3
Ni			1	0.465	ug/l	2.21	1,698.08	7.913E-03	Pulse	0.50	3
Cu			1	1.828	ug/l	1.81	21,667.47	1.010E-01	Pulse	0.50	3
Zn			1	2.860	ug/l	0.84	4,945.31	1.552E-02	Pulse	1.00	3
Cd			1	0.001	ug/l	598.57	11.33	3.549E-05	Pulse	0.50	3
Al			1	0.127	ug/l	84.93	800.35	2.490E-03	Pulse	1.00	3
Se			1	0.108	ug/l	42.01	109.66	3.442E-04	Pulse	3.00	3
Sb			1	-0.013	ug/l	-40.86	154.00	4.833E-04	Pulse	1.00	3
Se			1	-0.226	ug/l	-28.89	55.89	1.754E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,856,967.50	0.86	99.7	Pulse	0.50	3
1	Sc		321,396.34	0.14	101.9	Pulse	0.30	3
1	Ge		214,608.83	0.40	102.7	Pulse	0.30	3
1	In		2,017,162.00	0.58	101.1	Pulse	0.30	3
1	Tb		5,384,661.50	0.82	100.1	Pulse	0.50	3
1	Lu		4,103,307.17	0.57	99.7	Pulse	0.50	3
1	Ge		318,608.28	0.63	103.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,391.17	5.72	117.0	Pulse	0.30	3

Quantitation Report

File Name	077_BSP.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:39
Sample Name	MP41714-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.324	ug/l	0.76	1,363,158.42	6.470E+00	Pulse	0.50	3
As			1	219.054	ug/l	0.93	205,574.54	9.758E-01	Pulse	1.00	3
Mo			1	214.648	ug/l	0.85	783,120.77	2.517E+00	Pulse	0.50	3
Pb			1	220.747	ug/l	0.89	3,720,182.25	1.006E+00	Pulse	1.00	3
Be			1	212.139	ug/l	1.67	6,436.69	2.060E-02	Pulse	2.00	3
Ag			1	100.217	ug/l	0.80	1,145,052.08	3.680E+00	Pulse	0.50	3
Ba			1	212.298	ug/l	0.98	402,619.09	2.046E-01	Pulse	0.50	3
Tl			1	208.053	ug/l	0.49	5,046,284.33	1.364E+00	Pulse	0.50	3
Sn			1	207.448	ug/l	0.77	885,885.24	4.502E-01	Pulse	0.30	3
Sr			1	209.556	ug/l	0.80	1,109,960.54	5.640E-01	Pulse	0.50	3
[Pb]			1	206.503	ug/l	0.89	1,692,632.42	4.576E-01	Pulse	0.50	3
Ca			1	20553.923	ug/l	1.02	531,662.56	1.701E+00	Pulse	0.50	3
Ti			1	207.656	ug/l	0.67	36,833.83	1.179E-01	Pulse	0.50	3
Na			1	21275.396	ug/l	0.70	18,296,287.33	5.854E+01	Analog	1.00	3
Mg			1	21098.400	ug/l	1.08	9,157,042.67	2.930E+01	Analog	1.00	3
K			1	21116.704	ug/l	0.53	10,891,747.67	3.485E+01	Analog	1.00	3
V			1	214.185	ug/l	0.75	1,104,963.08	3.536E+00	Pulse	0.50	3
Mn			1	214.633	ug/l	1.33	846,076.25	4.016E+00	Pulse	0.50	3
Fe			1	21255.098	ug/l	0.89	117,732,261.33	5.588E+02	Analog	0.50	3
Co			1	212.951	ug/l	1.34	2,124,353.42	1.008E+01	Pulse	0.50	3
Ni			1	210.669	ug/l	1.19	552,984.52	2.625E+00	Pulse	0.50	3
Cu			1	211.544	ug/l	1.15	1,485,477.87	7.051E+00	Pulse	0.50	3
Zn			1	209.464	ug/l	0.88	279,941.49	8.996E-01	Pulse	1.00	3
Cd			1	211.701	ug/l	1.39	394,673.05	1.268E+00	Pulse	0.50	3
Al			1	19755.316	ug/l	1.25	3,854,531.42	1.233E+01	Pulse	1.00	3
Se			1	203.720	ug/l	0.47	15,050.13	4.836E-02	Pulse	3.00	3
Sb			1	217.028	ug/l	0.73	1,275,232.58	4.098E+00	Pulse	1.00	3
Se			1	207.157	ug/l	1.28	7,259.72	2.333E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,698,966.25	0.72	95.6	Pulse	0.50	3
1	Sc		312,524.55	0.56	99.1	Pulse	0.30	3
1	Ge		210,683.48	0.30	100.8	Pulse	0.30	3
1	In		1,967,944.36	0.44	98.6	Pulse	0.30	3
1	Tb		5,335,090.83	0.64	99.2	Pulse	0.50	3
1	Lu		4,126,194.17	1.01	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		311,181.06	0.33	100.6	Pulse	0.30	3
1	Te		4.67	137.77		Pulse	0.50	3
1	Li		1,163.37	7.52	97.9	Pulse	0.30	3

Quantitation Report

File Name	078SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:43
Sample Name	FC1771-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	34.110	ug/l	0.42	217,654.22	1.037E+00	Pulse	0.50	3
As			1	1.728	ug/l	2.85	1,695.75	8.076E-03	Pulse	1.00	3
Mo			1	7.806	ug/l	1.22	28,837.43	9.197E-02	Pulse	0.50	3
Pb			1	4.380	ug/l	0.60	75,201.87	2.018E-02	Pulse	1.00	3
Be			1	0.109	ug/l	70.38	5.17	1.641E-05	Pulse	2.00	3
Ag			1	-0.447	ug/l	-0.72	1,924.11	6.136E-03	Pulse	0.50	3
Ba			1	64.901	ug/l	1.27	124,406.85	6.255E-02	Pulse	0.50	3
Tl			1	0.107	ug/l	13.33	2,831.58	7.603E-04	Pulse	0.50	3
Sn			1	0.374	ug/l	3.47	1,750.10	8.798E-04	Pulse	0.30	3
Sr			1	105.848	ug/l	0.51	566,789.35	2.850E-01	Pulse	0.50	3
[Pb]			1	4.290	ug/l	1.22	35,814.74	9.610E-03	Pulse	0.50	3
Ca			1	31341.501	ug/l	1.16	815,857.65	2.593E+00	Pulse	0.50	3
Ti			1	126.512	ug/l	2.04	22,593.71	7.181E-02	Pulse	0.50	3
Na			1	24060.010	ug/l	0.65	20,826,359.33	6.619E+01	Analog	1.00	3
Mg			1	3101.832	ug/l	1.15	1,355,748.59	4.309E+00	Pulse	1.00	3
K			1	2505.670	ug/l	0.71	1,375,700.92	4.372E+00	Pulse	1.00	3
V			1	20.744	ug/l	2.00	108,960.24	3.463E-01	Pulse	0.50	3
Mn			1	99.350	ug/l	1.05	390,419.56	1.859E+00	Pulse	0.50	3
Fe			1	4812.385	ug/l	0.75	26,584,764.67	1.266E+02	Analog	0.50	3
Co			1	3.139	ug/l	0.12	31,320.56	1.492E-01	Pulse	0.50	3
Ni			1	15.108	ug/l	0.86	39,935.06	1.902E-01	Pulse	0.50	3
Cu			1	11.659	ug/l	1.16	89,605.04	4.268E-01	Pulse	0.50	3
Zn			1	28.818	ug/l	1.11	39,696.00	1.266E-01	Pulse	1.00	3
Cd			1	0.114	ug/l	3.21	224.67	7.165E-04	Pulse	0.50	3
Al			1	4771.507	ug/l	1.39	937,860.61	2.981E+00	Pulse	1.00	3
Se			1	1.054	ug/l	16.54	177.89	5.674E-04	Pulse	3.00	3
Sb			1	0.705	ug/l	5.07	4,406.20	1.405E-02	Pulse	1.00	3
Se			1	0.977	ug/l	3.31	97.11	3.097E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,726,707.17	0.84	96.3	Pulse	0.50	3
1	Sc		314,641.09	0.62	99.8	Pulse	0.30	3
1	Ge		209,965.57	0.33	100.4	Pulse	0.30	3
1	In		1,988,890.68	0.53	99.7	Pulse	0.30	3
1	Tb		5,355,149.00	0.49	99.6	Pulse	0.50	3
1	Lu		4,109,464.50	1.06	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		313,559.68	0.32	101.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,042.25	6.04	87.7	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:47
Sample Name MP41714-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	34.740	ug/l	1.43	220,556.01	1.056E+00	Pulse	0.50	3
As			1	1.755	ug/l	6.43	1,711.75	8.194E-03	Pulse	1.00	3
Mo			1	7.896	ug/l	2.44	29,093.21	9.302E-02	Pulse	0.50	3
Pb			1	4.442	ug/l	1.06	76,421.18	2.046E-02	Pulse	1.00	3
Be			1	0.137	ug/l	31.65	6.00	1.914E-05	Pulse	2.00	3
Ag			1	-0.467	ug/l	-0.86	1,696.08	5.423E-03	Pulse	0.50	3
Ba			1	66.379	ug/l	0.33	127,250.70	6.397E-02	Pulse	0.50	3
Tl			1	0.044	ug/l	6.87	1,294.72	3.467E-04	Pulse	0.50	3
Sn			1	0.282	ug/l	6.49	1,353.39	6.803E-04	Pulse	0.30	3
Sr			1	108.925	ug/l	0.64	583,320.75	2.933E-01	Pulse	0.50	3
[Pb]			1	4.338	ug/l	0.82	36,292.36	9.716E-03	Pulse	0.50	3
Ca			1	32175.307	ug/l	1.03	834,192.34	2.662E+00	Pulse	0.50	3
Ti			1	124.151	ug/l	0.58	22,084.44	7.047E-02	Pulse	0.50	3
Na			1	24616.198	ug/l	0.97	21,221,406.67	6.772E+01	Analog	1.00	3
Mg			1	3157.534	ug/l	1.21	1,374,554.29	4.386E+00	Pulse	1.00	3
K			1	2548.574	ug/l	0.67	1,392,208.59	4.443E+00	Pulse	1.00	3
V			1	20.956	ug/l	1.89	109,624.04	3.498E-01	Pulse	0.50	3
Mn			1	101.913	ug/l	1.87	398,466.90	1.907E+00	Pulse	0.50	3
Fe			1	4862.939	ug/l	1.02	26,729,274.00	1.279E+02	Analog	0.50	3
Co			1	3.198	ug/l	1.79	31,749.96	1.520E-01	Pulse	0.50	3
Ni			1	15.363	ug/l	0.86	40,399.38	1.934E-01	Pulse	0.50	3
Cu			1	11.739	ug/l	1.75	89,710.28	4.294E-01	Pulse	0.50	3
Zn			1	28.296	ug/l	1.40	38,895.71	1.244E-01	Pulse	1.00	3
Cd			1	0.092	ug/l	26.65	182.67	5.839E-04	Pulse	0.50	3
Al			1	4832.722	ug/l	0.86	946,105.17	3.019E+00	Pulse	1.00	3
Se			1	0.883	ug/l	9.95	164.78	5.269E-04	Pulse	3.00	3
Sb			1	0.681	ug/l	2.96	4,248.50	1.358E-02	Pulse	1.00	3
Se			1	0.767	ug/l	42.68	89.56	2.862E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,735,141.67	0.85	96.5	Pulse	0.50	3
1	Sc		313,385.06	0.87	99.4	Pulse	0.30	3
1	Ge		208,922.92	0.69	99.9	Pulse	0.30	3
1	In		1,989,147.01	0.39	99.7	Pulse	0.30	3
1	Tb		5,351,177.00	0.64	99.5	Pulse	0.50	3
1	Lu		4,114,030.83	0.40	100.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		312,760.53	0.39	101.1	Pulse	0.30	3
1	Te		2.67	43.30		Pulse	0.50	3
1	Li		1,194.49	2.09	100.5	Pulse	0.30	3

Quantitation Report

File Name	080SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 16:50
Sample Name	MP41714-SD1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	33.972	ug/l	0.27	44,319.48	2.084E-01	Pulse	0.50	3
As			1	1.787	ug/l	7.10	419.34	1.972E-03	Pulse	1.00	3
Mo			1	7.710	ug/l	3.94	5,852.27	1.854E-02	Pulse	0.50	3
Pb			1	4.384	ug/l	1.29	16,186.99	4.222E-03	Pulse	1.00	3
Be			1	0.298	ug/l	68.99	3.67	1.160E-05	Pulse	2.00	3
Ag			1	-2.408	ug/l	-2.22	1,540.74	4.882E-03	Pulse	0.50	3
Ba			1	64.715	ug/l	1.75	25,174.80	1.248E-02	Pulse	0.50	3
Tl			1	0.056	ug/l	3.59	501.34	1.308E-04	Pulse	0.50	3
Sn			1	0.308	ug/l	10.98	406.67	2.015E-04	Pulse	0.30	3
Sr			1	105.800	ug/l	0.98	115,191.68	5.710E-02	Pulse	0.50	3
[Pb]			1	4.388	ug/l	0.48	7,862.51	2.051E-03	Pulse	0.50	3
Ca			1	31616.472	ug/l	0.88	165,929.61	5.247E-01	Pulse	0.50	3
Ti			1	125.403	ug/l	3.78	4,505.87	1.425E-02	Pulse	0.50	3
Na			1	23731.531	ug/l	0.19	4,158,017.17	1.315E+01	Pulse	1.00	3
Mg			1	3137.466	ug/l	0.54	276,008.30	8.729E-01	Pulse	1.00	3
K			1	2575.347	ug/l	0.41	351,752.22	1.112E+00	Pulse	1.00	3
V			1	21.312	ug/l	2.03	23,585.58	7.459E-02	Pulse	0.50	3
Mn			1	101.654	ug/l	0.49	81,067.77	3.813E-01	Pulse	0.50	3
Fe			1	4743.668	ug/l	1.20	5,327,568.33	2.506E+01	Mix	0.50	3
Co			1	3.249	ug/l	0.98	6,659.17	3.132E-02	Pulse	0.50	3
Ni			1	15.194	ug/l	2.46	8,494.55	3.995E-02	Pulse	0.50	3
Cu			1	10.155	ug/l	1.19	22,896.25	1.077E-01	Pulse	0.50	3
Zn			1	29.255	ug/l	0.95	8,937.74	2.832E-02	Pulse	1.00	3
Cd			1	0.077	ug/l	24.30	39.33	1.247E-04	Pulse	0.50	3
Al			1	4800.223	ug/l	1.22	190,260.18	6.017E-01	Pulse	1.00	3
Se			1	1.006	ug/l	5.53	115.56	3.661E-04	Pulse	3.00	3
Sb			1	0.597	ug/l	4.64	943.70	2.990E-03	Pulse	1.00	3
Se			1	0.127	ug/l	733.06	64.22	2.035E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,833,709.42	0.44	99.1	Pulse	0.50	3
1	Sc		316,214.37	0.21	100.3	Pulse	0.30	3
1	Ge		212,631.90	0.48	101.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,017,582.70	0.62	101.1	Pulse	0.30	3
1	Tb		5,370,979.50	0.88	99.9	Pulse	0.50	3
1	Lu		4,160,462.75	0.82	101.1	Pulse	0.50	3
1	Ge		315,608.38	0.30	102.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,285.60	7.93	108.1	Pulse	0.30	3

Quantitation Report

File Name 081SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:54
Sample Name MP41714-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	247.972	ug/l	0.64	1,590,503.96	7.521E+00	Pulse	0.50	3
As			1	223.159	ug/l	0.57	210,218.83	9.940E-01	Pulse	1.00	3
Mo			1	223.490	ug/l	0.39	818,410.65	2.620E+00	Pulse	0.50	3
Pb			1	230.636	ug/l	0.87	3,836,092.83	1.051E+00	Pulse	1.00	3
Be			1	210.628	ug/l	1.61	6,463.53	2.045E-02	Pulse	2.00	3
Ag			1	100.284	ug/l	0.53	1,150,105.79	3.682E+00	Pulse	0.50	3
Ba			1	280.140	ug/l	0.70	530,814.97	2.700E-01	Pulse	0.50	3
Tl			1	209.138	ug/l	0.89	5,006,479.50	1.371E+00	Pulse	0.50	3
Sn			1	203.225	ug/l	1.43	867,060.87	4.410E-01	Pulse	0.30	3
Sr			1	319.962	ug/l	0.51	1,693,092.05	8.611E-01	Pulse	0.50	3
[Pb]			1	216.447	ug/l	0.51	1,750,908.00	4.796E-01	Pulse	0.50	3
Ca			1	51243.861	ug/l	1.29	1,339,644.71	4.239E+00	Pulse	0.50	3
Ti			1	344.470	ug/l	2.16	61,788.96	1.955E-01	Pulse	0.50	3
Na			1	44355.885	ug/l	1.13	38,538,796.00	1.219E+02	Analog	1.00	3
Mg			1	23717.871	ug/l	1.58	10,410,732.33	3.294E+01	Analog	1.00	3
K			1	23077.013	ug/l	0.90	12,030,156.67	3.806E+01	Analog	1.00	3
V			1	234.940	ug/l	1.38	1,225,657.33	3.878E+00	Pulse	0.50	3
Mn			1	312.882	ug/l	1.14	1,237,967.87	5.854E+00	Pulse	0.50	3
Fe			1	25832.486	ug/l	0.60	143,624,789.33	6.791E+02	Analog	0.50	3
Co			1	217.578	ug/l	0.98	2,178,729.92	1.030E+01	Pulse	0.50	3
Ni			1	224.749	ug/l	0.98	592,145.83	2.800E+00	Pulse	0.50	3
Cu			1	222.954	ug/l	0.74	1,571,086.29	7.429E+00	Pulse	0.50	3
Zn			1	234.129	ug/l	0.41	313,950.67	1.005E+00	Pulse	1.00	3
Cd			1	212.524	ug/l	0.10	397,687.44	1.273E+00	Pulse	0.50	3
Al			1	23884.008	ug/l	1.72	4,712,823.50	1.491E+01	Pulse	1.00	3
Se			1	206.480	ug/l	1.53	15,307.89	4.902E-02	Pulse	3.00	3
Sb			1	205.307	ug/l	0.33	1,210,867.17	3.877E+00	Pulse	1.00	3
Se			1	209.601	ug/l	0.85	7,371.98	2.360E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,650,715.42	0.91	94.3	Pulse	0.50	3
1	Sc		316,081.60	0.71	100.2	Pulse	0.30	3
1	Ge		211,482.07	0.62	101.2	Pulse	0.30	3
1	In		1,966,140.96	0.83	98.5	Pulse	0.30	3
1	Tb		5,370,385.50	1.06	99.9	Pulse	0.50	3
1	Lu		4,139,336.92	0.56	100.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		312,348.11	1.41	101.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,090.04	2.61	91.7	Pulse	0.30	3

Quantitation Report

File Name 082SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 16:58
Sample Name MP41714-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	252.429	ug/l	1.35	1,606,460.29	7.656E+00	Pulse	0.50	3
As			1	225.688	ug/l	0.88	210,948.51	1.005E+00	Pulse	1.00	3
Mo			1	224.492	ug/l	0.82	819,669.75	2.632E+00	Pulse	0.50	3
Pb			1	233.441	ug/l	0.99	3,878,280.00	1.064E+00	Pulse	1.00	3
Be			1	213.599	ug/l	0.65	6,516.88	2.074E-02	Pulse	2.00	3
Ag			1	97.830	ug/l	0.57	1,118,816.04	3.593E+00	Pulse	0.50	3
Ba			1	284.597	ug/l	0.81	535,303.25	2.743E-01	Pulse	0.50	3
Tl			1	211.160	ug/l	0.34	5,049,070.33	1.385E+00	Pulse	0.50	3
Sn			1	204.798	ug/l	0.77	867,392.12	4.444E-01	Pulse	0.30	3
Sr			1	323.641	ug/l	0.94	1,699,992.67	8.710E-01	Pulse	0.50	3
[Pb]			1	218.816	ug/l	0.63	1,768,092.46	4.849E-01	Pulse	0.50	3
Ca			1	52215.846	ug/l	1.09	1,357,132.66	4.319E+00	Pulse	0.50	3
Ti			1	348.746	ug/l	0.99	62,196.80	1.979E-01	Pulse	0.50	3
Na			1	45453.001	ug/l	0.25	39,262,909.33	1.249E+02	Analog	1.00	3
Mg			1	24156.229	ug/l	0.68	10,541,927.67	3.355E+01	Analog	1.00	3
K			1	23415.333	ug/l	0.77	12,134,477.67	3.862E+01	Analog	1.00	3
V			1	238.043	ug/l	0.90	1,234,642.46	3.929E+00	Pulse	0.50	3
Mn			1	319.771	ug/l	1.05	1,255,382.58	5.983E+00	Pulse	0.50	3
Fe			1	26407.700	ug/l	1.49	145,675,690.67	6.943E+02	Analog	0.50	3
Co			1	219.945	ug/l	1.47	2,185,292.67	1.041E+01	Pulse	0.50	3
Ni			1	228.838	ug/l	1.63	598,204.56	2.851E+00	Pulse	0.50	3
Cu			1	226.648	ug/l	1.48	1,584,495.58	7.551E+00	Pulse	0.50	3
Zn			1	236.789	ug/l	0.66	316,569.90	1.017E+00	Pulse	1.00	3
Cd			1	216.080	ug/l	0.72	403,145.78	1.295E+00	Pulse	0.50	3
Al			1	24407.548	ug/l	2.36	4,788,188.00	1.524E+01	Mix	1.00	3
Se			1	208.213	ug/l	0.55	15,391.63	4.942E-02	Pulse	3.00	3
Sb			1	206.488	ug/l	0.71	1,214,241.46	3.899E+00	Pulse	1.00	3
Se			1	211.977	ug/l	1.22	7,432.89	2.387E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,646,652.08	0.10	94.2	Pulse	0.50	3
1	Sc		314,239.48	0.33	99.7	Pulse	0.30	3
1	Ge		209,844.77	0.85	100.4	Pulse	0.30	3
1	In		1,951,822.28	0.65	97.8	Pulse	0.30	3
1	Tb		5,311,421.83	0.46	98.8	Pulse	0.50	3
1	Lu		4,107,105.42	0.62	99.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		311,419.19	0.27	100.7	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,172.26	4.50	98.6	Pulse	0.30	3

Quantitation Report

File Name	083SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:02
Sample Name	MP41714-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	54.212	ug/l	1.23	341,026.95	1.646E+00	Pulse	0.50	3
As			1	22.838	ug/l	1.28	21,144.99	1.021E-01	Pulse	1.00	3
Mo			1	27.134	ug/l	0.87	98,982.31	3.185E-01	Pulse	0.50	3
Pb			1	24.382	ug/l	1.37	412,572.47	1.113E-01	Pulse	1.00	3
Be			1	19.500	ug/l	1.55	588.51	1.899E-03	Pulse	2.00	3
Ag			1	4.316	ug/l	0.19	55,921.03	1.800E-01	Pulse	0.50	3
Ba			1	85.951	ug/l	0.19	162,646.41	8.283E-02	Pulse	0.50	3
Tl			1	19.453	ug/l	0.84	473,070.52	1.276E-01	Pulse	0.50	3
Sn			1	18.395	ug/l	0.90	78,498.82	3.998E-02	Pulse	0.30	3
Sr			1	127.012	ug/l	0.87	671,375.79	3.419E-01	Pulse	0.50	3
[Pb]			1	22.954	ug/l	1.16	188,910.81	5.096E-02	Pulse	0.50	3
Ca			1	33747.038	ug/l	1.14	865,407.08	2.792E+00	Pulse	0.50	3
Ti			1	146.401	ug/l	1.97	25,758.99	8.310E-02	Pulse	0.50	3
Na			1	26422.279	ug/l	0.78	22,528,139.33	7.268E+01	Analog	1.00	3
Mg			1	5084.953	ug/l	0.86	2,189,289.58	7.063E+00	Pulse	1.00	3
K			1	4438.536	ug/l	1.17	2,336,396.58	7.538E+00	Pulse	1.00	3
V			1	41.033	ug/l	1.42	211,038.75	6.808E-01	Pulse	0.50	3
Mn			1	120.661	ug/l	0.78	467,802.03	2.258E+00	Pulse	0.50	3
Fe			1	6873.283	ug/l	1.08	37,452,729.33	1.808E+02	Analog	0.50	3
Co			1	22.920	ug/l	0.92	224,940.77	1.086E+00	Pulse	0.50	3
Ni			1	35.165	ug/l	0.76	91,132.26	4.399E-01	Pulse	0.50	3
Cu			1	32.041	ug/l	0.70	228,334.90	1.102E+00	Pulse	0.50	3
Zn			1	49.790	ug/l	1.01	67,225.43	2.163E-01	Pulse	1.00	3
Cd			1	19.324	ug/l	0.91	35,982.89	1.158E-01	Pulse	0.50	3
Al			1	6606.767	ug/l	0.90	1,279,067.79	4.126E+00	Pulse	1.00	3
Se			1	19.988	ug/l	0.83	1,563.84	5.033E-03	Pulse	3.00	3
Sb			1	19.050	ug/l	1.01	111,984.76	3.604E-01	Pulse	1.00	3
Se			1	19.626	ug/l	1.36	743.24	2.392E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,707,298.08	0.32	95.8	Pulse	0.50	3
1	Sc		309,971.91	0.66	98.3	Pulse	0.30	3
1	Ge		207,167.80	0.50	99.1	Pulse	0.30	3
1	In		1,963,519.09	0.73	98.4	Pulse	0.30	3
1	Tb		5,309,937.33	1.00	98.7	Pulse	0.50	3
1	Lu		4,091,348.50	0.73	99.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		310,735.67	0.07	100.4	Pulse	0.30	3
1	Te		4.00	0.00		Pulse	0.50	3
1	Li		1,127.82	5.79	94.9	Pulse	0.30	3

Quantitation Report

File Name 084SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 17:05
Sample Name FC1730-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	31.318	ug/l	1.10	198,928.90	9.520E-01	Pulse	0.50	3
As			1	1.153	ug/l	1.44	1,152.71	5.516E-03	Pulse	1.00	3
Mo			1	8.954	ug/l	1.29	32,762.52	1.054E-01	Pulse	0.50	3
Pb			1	2.609	ug/l	0.44	44,771.62	1.211E-02	Pulse	1.00	3
Be			1	0.006	ug/l	694.44	2.00	6.415E-06	Pulse	2.00	3
Ag			1	-0.470	ug/l	-1.68	1,647.41	5.301E-03	Pulse	0.50	3
Ba			1	54.869	ug/l	1.46	104,347.53	5.288E-02	Pulse	0.50	3
Tl			1	0.048	ug/l	2.98	1,382.06	3.740E-04	Pulse	0.50	3
Sn			1	0.209	ug/l	6.03	1,030.04	5.219E-04	Pulse	0.30	3
Sr			1	116.110	ug/l	0.53	616,801.35	3.126E-01	Pulse	0.50	3
[Pb]			1	2.535	ug/l	0.89	21,151.74	5.723E-03	Pulse	0.50	3
Ca			1	34992.639	ug/l	0.74	902,206.23	2.895E+00	Pulse	0.50	3
Ti			1	85.079	ug/l	1.59	15,053.14	4.830E-02	Pulse	0.50	3
Na			1	31919.464	ug/l	0.52	27,355,772.67	8.778E+01	Analog	1.00	3
Mg			1	2125.623	ug/l	0.79	920,399.83	2.953E+00	Pulse	1.00	3
K			1	2568.027	ug/l	0.19	1,394,485.75	4.475E+00	Pulse	1.00	3
V			1	13.359	ug/l	1.21	69,983.37	2.246E-01	Pulse	0.50	3
Mn			1	58.961	ug/l	1.44	230,669.36	1.104E+00	Pulse	0.50	3
Fe			1	2680.391	ug/l	0.77	14,747,370.33	7.057E+01	Analog	0.50	3
Co			1	2.063	ug/l	1.85	20,525.54	9.822E-02	Pulse	0.50	3
Ni			1	9.093	ug/l	2.02	24,098.97	1.153E-01	Pulse	0.50	3
Cu			1	8.070	ug/l	1.67	64,323.86	3.078E-01	Pulse	0.50	3
Zn			1	26.329	ug/l	1.82	36,033.86	1.160E-01	Pulse	1.00	3
Cd			1	0.073	ug/l	22.79	146.00	4.697E-04	Pulse	0.50	3
Al			1	3356.602	ug/l	1.24	653,724.64	2.098E+00	Pulse	1.00	3
Se			1	0.892	ug/l	12.37	164.45	5.291E-04	Pulse	3.00	3
Sb			1	0.711	ug/l	6.62	4,402.87	1.417E-02	Pulse	1.00	3
Se			1	0.838	ug/l	12.97	91.44	2.942E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,696,010.83	1.05	95.5	Pulse	0.50	3
1	Sc		311,652.99	0.53	98.8	Pulse	0.30	3
1	Ge		208,972.60	0.81	100.0	Pulse	0.30	3
1	In		1,973,194.23	0.45	98.9	Pulse	0.30	3
1	Tb		5,288,323.83	0.25	98.3	Pulse	0.50	3
1	Lu		4,059,276.83	1.22	98.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		310,770.48	0.35	100.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,211.15	7.06	101.9	Pulse	0.30	3

Quantitation Report

File Name	085CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:09
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.809	ug/l	1.58	616,338.11	2.902E+00	Pulse	0.50	3
As			1	46.764	ug/l	0.84	88,541.14	4.168E-01	Pulse	1.00	3
Mo			1	47.054	ug/l	0.76	347,925.13	1.104E+00	Pulse	0.50	3
Pb			1	47.982	ug/l	0.47	1,642,848.96	4.373E-01	Pulse	1.00	3
Be			1	46.615	ug/l	3.06	2,892.21	9.055E-03	Pulse	2.00	3
Ag			1	48.306	ug/l	0.38	1,118,590.37	3.548E+00	Pulse	0.50	3
Ba			1	46.959	ug/l	0.32	181,483.73	9.051E-02	Pulse	0.50	3
Tl			1	48.022	ug/l	0.71	2,365,759.83	6.298E-01	Pulse	0.50	3
Sn			1	46.892	ug/l	0.58	408,152.51	2.036E-01	Pulse	0.30	3
Sr			1	47.029	ug/l	0.58	507,810.58	2.533E-01	Pulse	0.50	3
[Pb]			1	46.876	ug/l	0.46	780,600.50	2.078E-01	Pulse	0.50	3
Ca			1	4746.667	ug/l	1.55	251,318.14	7.868E-01	Pulse	0.50	3
Ti			1	46.635	ug/l	2.19	16,911.99	5.295E-02	Pulse	0.50	3
Na			1	4840.392	ug/l	1.39	8,528,615.67	2.670E+01	Analog	1.00	3
Mg			1	4721.598	ug/l	1.85	4,189,127.92	1.312E+01	Pulse	1.00	3
K			1	4809.277	ug/l	0.99	5,117,286.17	1.602E+01	Analog	1.00	3
V			1	47.352	ug/l	1.74	500,113.37	1.566E+00	Pulse	0.50	3
Mn			1	48.138	ug/l	0.71	382,756.80	1.802E+00	Pulse	0.50	3
Fe			1	4933.649	ug/l	1.13	55,118,862.67	2.595E+02	Analog	0.50	3
Co			1	47.470	ug/l	0.87	954,975.63	4.496E+00	Pulse	0.50	3
Ni			1	47.694	ug/l	0.74	252,687.51	1.190E+00	Pulse	0.50	3
Cu			1	47.656	ug/l	0.77	679,505.81	3.199E+00	Pulse	0.50	3
Zn			1	49.917	ug/l	0.86	135,718.65	4.305E-01	Pulse	1.00	3
Cd			1	47.282	ug/l	1.05	178,614.26	5.666E-01	Pulse	0.50	3
Al			1	4540.708	ug/l	1.86	1,811,417.96	5.671E+00	Pulse	1.00	3
Se			1	44.982	ug/l	0.47	6,789.54	2.154E-02	Pulse	3.00	3
Sb			1	46.872	ug/l	0.61	558,185.77	1.771E+00	Pulse	1.00	3
Se			1	46.218	ug/l	1.79	3,316.62	1.052E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,756,470.42	0.97	97.1	Pulse	0.50	3
1	Sc		319,415.42	0.39	101.3	Pulse	0.30	3
1	Ge		212,410.91	0.46	101.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,005,113.05	0.79	100.5	Pulse	0.30	3
1	Tb		5,356,649.67	0.71	99.6	Pulse	0.50	3
1	Lu		4,149,956.75	0.71	100.9	Pulse	0.50	3
1	Ge		315,259.28	0.74	101.9	Pulse	0.30	3
1	Te		4.00	173.21		Pulse	0.50	3
1	Li		1,084.48	1.75	91.2	Pulse	0.30	3

Quantitation Report

File Name	086_CCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:13
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.771	ug/l	1.07	1,271,730.92	5.931E+00	Pulse	0.50	3
As			1	96.609	ug/l	0.49	184,550.16	8.607E-01	Pulse	1.00	3
Mo			1	95.988	ug/l	0.98	716,653.77	2.251E+00	Pulse	0.50	3
Pb			1	99.125	ug/l	0.71	3,353,633.08	9.032E-01	Pulse	1.00	3
Be			1	94.525	ug/l	0.56	5,856.01	1.836E-02	Pulse	2.00	3
Ag			1	97.686	ug/l	0.27	2,277,174.92	7.152E+00	Pulse	0.50	3
Ba			1	97.205	ug/l	1.05	373,982.24	1.874E-01	Pulse	0.50	3
Tl			1	99.460	ug/l	0.42	4,842,833.67	1.304E+00	Pulse	0.50	3
Sn			1	97.681	ug/l	1.18	846,248.82	4.239E-01	Pulse	0.30	3
Sr			1	98.315	ug/l	0.75	1,056,452.29	5.293E-01	Pulse	0.50	3
[Pb]			1	97.379	ug/l	0.90	1,602,340.29	4.316E-01	Pulse	0.50	3
Ca			1	9705.287	ug/l	0.86	512,575.54	1.607E+00	Pulse	0.50	3
Ti			1	97.392	ug/l	1.93	35,270.31	1.106E-01	Pulse	0.50	3
Na			1	10015.894	ug/l	0.49	17,587,600.00	5.513E+01	Analog	1.00	3
Mg			1	9940.373	ug/l	0.86	8,808,417.67	2.761E+01	Analog	1.00	3
K			1	10003.619	ug/l	0.53	10,538,691.33	3.303E+01	Analog	1.00	3
V			1	98.234	ug/l	0.85	1,034,779.81	3.244E+00	Pulse	0.50	3
Mn			1	98.056	ug/l	0.76	786,786.17	3.669E+00	Pulse	0.50	3
Fe			1	10074.959	ug/l	0.77	113,589,869.33	5.298E+02	Analog	0.50	3
Co			1	96.486	ug/l	0.74	1,959,173.21	9.137E+00	Pulse	0.50	3
Ni			1	96.904	ug/l	1.06	517,777.64	2.415E+00	Pulse	0.50	3
Cu			1	97.447	ug/l	0.52	1,393,478.83	6.499E+00	Pulse	0.50	3
Zn			1	97.448	ug/l	0.94	266,580.81	8.373E-01	Pulse	1.00	3
Cd			1	96.296	ug/l	1.35	367,367.59	1.154E+00	Pulse	0.50	3
Al			1	9481.118	ug/l	1.05	3,776,927.75	1.184E+01	Pulse	1.00	3
Se			1	94.015	ug/l	1.07	14,220.83	4.466E-02	Pulse	3.00	3
Sb			1	96.029	ug/l	1.01	1,154,671.71	3.627E+00	Pulse	1.00	3
Se			1	94.181	ug/l	1.46	6,759.53	2.123E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,712,919.00	0.94	96.0	Pulse	0.50	3
1	Sc		319,025.65	0.49	101.2	Pulse	0.30	3
1	Ge		214,409.76	0.51	102.6	Pulse	0.30	3
1	In		1,996,083.40	0.45	100.0	Pulse	0.30	3
1	Tb		5,355,202.67	0.73	99.6	Pulse	0.50	3
1	Lu		4,142,257.75	0.57	100.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		318,384.47	0.44	102.9	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		1,260.05	4.59	106.0	Pulse	0.30	3

Quantitation Report

File Name	087_CCB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:17
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.006	ug/l	85.18	600.01	2.830E-03	Pulse	0.50	3
As			1	0.021	ug/l	41.66	121.33	5.724E-04	Pulse	1.00	3
Mo			1	0.099	ug/l	27.97	881.36	2.790E-03	Pulse	0.50	3
Pb			1	0.017	ug/l	22.12	1,453.73	3.864E-04	Pulse	1.00	3
Be			1	0.021	ug/l	78.71	3.17	9.911E-06	Pulse	2.00	3
Ag			1	-0.237	ug/l	-2.88	1,642.08	5.196E-03	Pulse	0.50	3
Ba			1	0.014	ug/l	30.46	62.00	3.078E-05	Pulse	0.50	3
Tl			1	0.029	ug/l	21.97	1,659.42	4.412E-04	Pulse	0.50	3
Sn			1	0.107	ug/l	19.89	1,072.26	5.317E-04	Pulse	0.30	3
Sr			1	0.011	ug/l	51.87	438.01	2.174E-04	Pulse	0.50	3
[Pb]			1	0.017	ug/l	19.79	688.02	1.828E-04	Pulse	0.50	3
Ca			1	-1.398	ug/l	-56.91	555.34	1.739E-03	Pulse	0.50	3
Ti			1	0.013	ug/l	113.73	10.00	3.126E-05	Pulse	0.50	3
Na			1	-2.213	ug/l	-23.50	32,552.99	1.020E-01	Pulse	1.00	3
Mg			1	1.210	ug/l	33.32	1,533.73	4.800E-03	Pulse	1.00	3
K			1	4.750	ug/l	7.06	90,791.69	2.844E-01	Pulse	1.00	3
V			1	0.002	ug/l	283.58	1,402.06	4.392E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	165.28	257.33	1.215E-03	Pulse	0.50	3
Fe			1	0.885	ug/l	48.32	34,710.03	1.637E-01	Pulse	0.50	3
Co			1	0.008	ug/l	63.45	274.67	1.296E-03	Pulse	0.50	3
Ni			1	-0.010	ug/l	-18.20	398.68	1.880E-03	Pulse	0.50	3
Cu			1	-0.231	ug/l	-7.09	5,310.75	2.505E-02	Pulse	0.50	3
Zn			1	0.020	ug/l	57.65	1,090.70	3.451E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	38.82	72.00	2.276E-04	Pulse	0.50	3
Al			1	-0.290	ug/l	-131.48	654.68	2.049E-03	Pulse	1.00	3
Se			1	0.157	ug/l	4.52	124.11	3.927E-04	Pulse	3.00	3
Sb			1	0.031	ug/l	10.75	597.01	1.889E-03	Pulse	1.00	3
Se			1	-0.089	ug/l	-68.67	57.11	1.807E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,762,652.58	0.65	97.2	Pulse	0.50	3
1	Sc		319,211.24	0.68	101.2	Pulse	0.30	3

Quantitation Report

1	Ge		212,045.83	0.34	101.4	Pulse	0.30	3
1	In		2,016,008.26	0.55	101.0	Pulse	0.30	3
1	Tb		5,284,259.50	0.57	98.3	Pulse	0.50	3
1	Lu		4,036,540.83	0.52	98.1	Pulse	0.50	3
1	Ge		316,020.70	0.54	102.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,341.17	2.49	112.8	Pulse	0.30	3

Quantitation Report

File Name 088SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 17:21
Sample Name FC1721-2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.777	ug/l	3.36	2,715.53	1.321E-02	Pulse	0.50	3
As			1	1.539	ug/l	6.29	360.00	1.751E-03	Pulse	1.00	3
Mo			1	1.879	ug/l	4.22	1,492.07	4.872E-03	Pulse	0.50	3
Pb			1	13.516	ug/l	0.95	46,992.89	1.254E-02	Pulse	1.00	3
Be			1	0.064	ug/l	595.76	2.17	7.041E-06	Pulse	2.00	3
Ag			1	-2.418	ug/l	-1.70	1,472.73	4.810E-03	Pulse	0.50	3
Ba			1	141.257	ug/l	1.09	53,298.02	2.723E-02	Pulse	0.50	3
Tl			1	0.153	ug/l	11.00	965.37	2.577E-04	Pulse	0.50	3
Sn			1	0.742	ug/l	20.26	763.36	3.899E-04	Pulse	0.30	3
Sr			1	357.092	ug/l	0.18	376,455.25	1.923E-01	Pulse	0.50	3
[Pb]			1	12.982	ug/l	2.23	21,953.41	5.859E-03	Pulse	0.50	3
Ca			1	113676.594	ug/l	1.37	578,498.96	1.882E+00	Pulse	0.50	3
Ti			1	6.648	ug/l	20.58	237.34	7.715E-04	Pulse	0.50	3
Na			1	6796.066	ug/l	0.79	1,182,818.09	3.847E+00	Pulse	1.00	3
Mg			1	6483.148	ug/l	1.36	554,060.06	1.802E+00	Pulse	1.00	3
K			1	2820.689	ug/l	0.70	366,730.30	1.193E+00	Pulse	1.00	3
V			1	3.020	ug/l	7.07	4,386.51	1.427E-02	Pulse	0.50	3
Mn			1	428.876	ug/l	1.21	329,979.79	1.605E+00	Pulse	0.50	3
Fe			1	13239.767	ug/l	1.17	14,329,359.33	6.972E+01	Analog	0.50	3
Co			1	2.395	ug/l	0.75	4,775.27	2.323E-02	Pulse	0.50	3
Ni			1	5.919	ug/l	4.31	3,464.32	1.686E-02	Pulse	0.50	3
Cu			1	-1.259	ug/l	-8.88	6,583.15	3.203E-02	Pulse	0.50	3
Zn			1	94.414	ug/l	1.49	25,751.14	8.408E-02	Pulse	1.00	3
Cd			1	0.119	ug/l	17.32	53.33	1.741E-04	Pulse	0.50	3
Al			1	509.187	ug/l	0.24	20,286.98	6.598E-02	Pulse	1.00	3
Se			1	1.635	ug/l	20.53	121.22	3.958E-04	Pulse	3.00	3
Sb			1	1.291	ug/l	2.87	1,718.42	5.610E-03	Pulse	1.00	3
Se			1	0.147	ug/l	609.05	62.44	2.039E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,746,991.50	0.32	96.8	Pulse	0.50	3
1	Sc		307,473.69	0.91	97.5	Pulse	0.30	3
1	Ge		205,531.07	0.63	98.3	Pulse	0.30	3
1	In		1,957,329.51	0.21	98.1	Pulse	0.30	3
1	Tb		5,241,761.17	1.16	97.5	Pulse	0.50	3
1	Lu		4,011,664.25	0.83	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		306,267.48	0.52	99.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,162.26	4.08	97.8	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:24
Sample Name	MP41715-D1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.017	ug/l	2.01	3,011.58	1.466E-02	Pulse	0.50	3
As			1	1.526	ug/l	11.96	357.33	1.740E-03	Pulse	1.00	3
Mo			1	2.055	ug/l	3.75	1,615.41	5.285E-03	Pulse	0.50	3
Pb			1	15.171	ug/l	1.13	52,546.26	1.405E-02	Pulse	1.00	3
Be			1	-0.075	ug/l	-170.10	1.33	4.347E-06	Pulse	2.00	3
Ag			1	-2.451	ug/l	-0.88	1,398.06	4.574E-03	Pulse	0.50	3
Ba			1	148.521	ug/l	1.16	56,355.87	2.863E-02	Pulse	0.50	3
Tl			1	0.068	ug/l	9.26	545.34	1.458E-04	Pulse	0.50	3
Sn			1	0.469	ug/l	14.40	534.46	2.716E-04	Pulse	0.30	3
Sr			1	370.363	ug/l	0.56	392,611.35	1.995E-01	Pulse	0.50	3
[Pb]			1	14.608	ug/l	1.19	24,608.36	6.579E-03	Pulse	0.50	3
Ca			1	118928.534	ug/l	0.85	603,426.90	1.968E+00	Pulse	0.50	3
Ti			1	4.773	ug/l	31.18	171.33	5.587E-04	Pulse	0.50	3
Na			1	7118.800	ug/l	0.34	1,233,651.54	4.024E+00	Pulse	1.00	3
Mg			1	6787.316	ug/l	0.60	578,332.81	1.887E+00	Pulse	1.00	3
K			1	2941.549	ug/l	0.77	377,765.52	1.232E+00	Pulse	1.00	3
V			1	3.405	ug/l	1.26	4,763.27	1.554E-02	Pulse	0.50	3
Mn			1	449.193	ug/l	1.37	345,303.86	1.681E+00	Pulse	0.50	3
Fe			1	14277.047	ug/l	1.35	15,436,821.33	7.517E+01	Analog	0.50	3
Co			1	2.673	ug/l	2.59	5,310.08	2.586E-02	Pulse	0.50	3
Ni			1	6.125	ug/l	4.60	3,567.01	1.737E-02	Pulse	0.50	3
Cu			1	-0.897	ug/l	-28.96	7,071.32	3.443E-02	Pulse	0.50	3
Zn			1	101.497	ug/l	1.03	27,555.94	9.015E-02	Pulse	1.00	3
Cd			1	0.062	ug/l	36.22	32.67	1.070E-04	Pulse	0.50	3
Al			1	535.415	ug/l	1.72	21,230.92	6.925E-02	Pulse	1.00	3
Se			1	1.298	ug/l	38.78	116.11	3.799E-04	Pulse	3.00	3
Sb			1	1.423	ug/l	3.72	1,867.10	6.107E-03	Pulse	1.00	3
Se			1	-0.437	ug/l	-205.33	58.33	1.909E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,740,427.17	0.83	96.7	Pulse	0.50	3
1	Sc		306,549.87	0.45	97.2	Pulse	0.30	3
1	Ge		205,357.76	0.56	98.2	Pulse	0.30	3
1	In		1,968,336.66	1.33	98.6	Pulse	0.30	3
1	Tb		5,244,801.50	0.62	97.5	Pulse	0.50	3
1	Lu		4,026,313.92	1.10	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		305,686.34	0.62	98.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,152.26	9.62	96.9	Pulse	0.30	3

Quantitation Report

File Name	090SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:28
Sample Name	MP41715-SD1
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.195	ug/l	14.54	1,074.04	5.098E-03	Pulse	0.50	3
As			1	1.183	ug/l	30.83	124.67	5.918E-04	Pulse	1.00	3
Mo			1	1.461	ug/l	18.42	363.34	1.152E-03	Pulse	0.50	3
Pb			1	12.639	ug/l	0.48	9,647.07	2.531E-03	Pulse	1.00	3
Be			1	-0.678	ug/l	-60.15	1.00	3.174E-06	Pulse	2.00	3
Ag			1	-12.380	ug/l	-0.17	1,383.39	4.389E-03	Pulse	0.50	3
Ba			1	134.956	ug/l	1.39	10,494.41	5.207E-03	Pulse	0.50	3
Tl			1	0.122	ug/l	12.82	338.00	8.868E-05	Pulse	0.50	3
Sn			1	0.627	ug/l	22.77	246.67	1.223E-04	Pulse	0.30	3
Sr			1	343.989	ug/l	0.95	74,947.78	3.718E-02	Pulse	0.50	3
[Pb]			1	12.688	ug/l	1.02	4,691.99	1.231E-03	Pulse	0.50	3
Ca			1	108417.638	ug/l	1.61	113,499.18	3.605E-01	Pulse	0.50	3
Ti			1	42.334	ug/l	85.93	308.07	9.779E-04	Pulse	0.50	3
Na			1	6275.593	ug/l	1.45	252,983.56	8.035E-01	Pulse	1.00	3
Mg			1	6232.662	ug/l	0.91	109,456.65	3.477E-01	Pulse	1.00	3
K			1	2933.112	ug/l	1.70	145,143.77	4.610E-01	Pulse	1.00	3
V			1	3.416	ug/l	2.38	2,066.79	6.564E-03	Pulse	0.50	3
Mn			1	410.761	ug/l	0.71	64,958.55	3.083E-01	Pulse	0.50	3
Fe			1	12230.660	ug/l	1.25	2,734,162.50	1.298E+01	Pulse	0.50	3
Co			1	2.267	ug/l	5.59	1,020.70	4.845E-03	Pulse	0.50	3
Ni			1	4.931	ug/l	31.59	964.03	4.577E-03	Pulse	0.50	3
Cu			1	-6.825	ug/l	-9.51	6,600.48	3.133E-02	Pulse	0.50	3
Zn			1	91.639	ug/l	4.46	5,978.94	1.897E-02	Pulse	1.00	3
Cd			1	0.183	ug/l	87.56	24.00	7.611E-05	Pulse	0.50	3
Al			1	811.869	ug/l	3.63	7,141.22	2.268E-02	Pulse	1.00	3
Se			1	1.196	ug/l	160.17	104.00	3.300E-04	Pulse	3.00	3
Sb			1	0.728	ug/l	11.52	405.34	1.286E-03	Pulse	1.00	3
Se			1	-2.143	ug/l	-136.96	60.22	1.911E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,811,598.92	0.85	98.5	Pulse	0.50	3
1	Sc		314,842.12	0.21	99.8	Pulse	0.30	3
1	Ge		210,701.74	0.29	100.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,015,654.71	0.42	101.0	Pulse	0.30	3
1	Tb		5,307,694.67	0.56	98.7	Pulse	0.50	3
1	Lu		4,077,632.50	0.95	99.1	Pulse	0.50	3
1	Ge		315,212.06	0.40	101.9	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		1,136.15	3.76	95.6	Pulse	0.30	3

Quantitation Report

File Name 091SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 17:32
Sample Name MP41715-S1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	224.794	ug/l	0.08	282,143.68	1.366E+00	Pulse	0.50	3
As			1	227.877	ug/l	0.59	42,005.88	2.033E-01	Pulse	1.00	3
Mo			1	226.349	ug/l	0.39	162,291.25	5.311E-01	Pulse	0.50	3
Pb			1	242.504	ug/l	1.33	820,651.44	2.211E-01	Pulse	1.00	3
Be			1	219.855	ug/l	1.91	1,315.04	4.274E-03	Pulse	2.00	3
Ag			1	102.435	ug/l	1.04	235,304.82	7.701E-01	Pulse	0.50	3
Ba			1	368.351	ug/l	0.89	138,824.47	7.100E-02	Pulse	0.50	3
Tl			1	214.087	ug/l	0.89	1,042,030.52	2.808E-01	Pulse	0.50	3
Sn			1	213.561	ug/l	0.83	181,342.64	9.274E-02	Pulse	0.30	3
Sr			1	595.060	ug/l	0.24	626,469.73	3.204E-01	Pulse	0.50	3
[Pb]			1	227.941	ug/l	1.53	375,173.09	1.011E-01	Pulse	0.50	3
Ca			1	141252.735	ug/l	0.72	719,256.65	2.338E+00	Pulse	0.50	3
Ti			1	214.991	ug/l	2.41	7,513.46	2.442E-02	Pulse	0.50	3
Na			1	29487.391	ug/l	0.38	5,018,836.50	1.631E+01	Analog	1.00	3
Mg			1	28348.892	ug/l	0.43	2,423,173.75	7.875E+00	Pulse	1.00	3
K			1	24452.504	ug/l	0.74	2,547,113.33	8.278E+00	Pulse	1.00	3
V			1	224.021	ug/l	1.12	228,622.85	7.430E-01	Pulse	0.50	3
Mn			1	677.673	ug/l	0.35	524,025.53	2.536E+00	Pulse	0.50	3
Fe			1	37001.811	ug/l	0.64	40,214,476.00	1.946E+02	Analog	0.50	3
Co			1	224.764	ug/l	1.00	439,878.95	2.129E+00	Pulse	0.50	3
Ni			1	227.106	ug/l	0.68	117,272.23	5.676E-01	Pulse	0.50	3
Cu			1	221.557	ug/l	0.22	311,747.83	1.509E+00	Pulse	0.50	3
Zn			1	318.451	ug/l	1.39	84,278.62	2.758E-01	Pulse	1.00	3
Cd			1	220.857	ug/l	1.20	80,865.43	2.647E-01	Pulse	0.50	3
Al			1	20970.045	ug/l	0.90	806,282.40	2.620E+00	Pulse	1.00	3
Se			1	209.869	ug/l	0.67	3,122.15	1.022E-02	Pulse	3.00	3
Sb			1	223.769	ug/l	1.11	258,388.28	8.456E-01	Pulse	1.00	3
Se			1	212.519	ug/l	1.86	1,511.28	4.946E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,710,898.00	0.41	95.9	Pulse	0.50	3
1	Sc		307,696.96	0.11	97.6	Pulse	0.30	3
1	Ge		206,614.92	1.04	98.8	Pulse	0.30	3
1	In		1,955,324.51	0.76	98.0	Pulse	0.30	3
1	Tb		5,266,240.67	1.14	97.9	Pulse	0.50	3
1	Lu		4,058,049.92	1.04	98.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		305,560.74	0.48	98.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,090.04	3.06	91.7	Pulse	0.30	3

Quantitation Report

File Name	092SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:36
Sample Name	MP41715-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	215.094	ug/l	1.80	269,520.98	1.307E+00	Pulse	0.50	3
As			1	216.365	ug/l	1.01	39,820.27	1.931E-01	Pulse	1.00	3
Mo			1	214.122	ug/l	1.46	155,074.44	5.025E-01	Pulse	0.50	3
Pb			1	230.660	ug/l	1.17	781,662.46	2.104E-01	Pulse	1.00	3
Be			1	209.113	ug/l	3.84	1,253.71	4.065E-03	Pulse	2.00	3
Ag			1	97.936	ug/l	1.14	227,540.63	7.373E-01	Pulse	0.50	3
Ba			1	347.198	ug/l	0.60	130,494.07	6.692E-02	Pulse	0.50	3
Tl			1	203.634	ug/l	1.26	992,487.21	2.671E-01	Pulse	0.50	3
Sn			1	204.700	ug/l	1.10	173,343.49	8.889E-02	Pulse	0.30	3
Sr			1	563.473	ug/l	0.15	591,590.44	3.034E-01	Pulse	0.50	3
[Pb]			1	216.224	ug/l	1.04	356,387.97	9.591E-02	Pulse	0.50	3
Ca			1	132063.611	ug/l	0.82	674,020.44	2.186E+00	Pulse	0.50	3
Ti			1	199.833	ug/l	1.08	6,999.95	2.270E-02	Pulse	0.50	3
Na			1	28017.210	ug/l	0.29	4,781,091.50	1.550E+01	Analog	1.00	3
Mg			1	26940.937	ug/l	0.99	2,308,030.92	7.484E+00	Pulse	1.00	3
K			1	23396.751	ug/l	0.63	2,446,192.67	7.932E+00	Pulse	1.00	3
V			1	213.241	ug/l	0.56	218,176.20	7.075E-01	Pulse	0.50	3
Mn			1	637.458	ug/l	1.09	492,096.73	2.386E+00	Pulse	0.50	3
Fe			1	35095.242	ug/l	1.45	38,078,892.00	1.846E+02	Analog	0.50	3
Co			1	215.697	ug/l	1.01	421,409.86	2.043E+00	Pulse	0.50	3
Ni			1	216.665	ug/l	1.47	111,706.41	5.416E-01	Pulse	0.50	3
Cu			1	210.245	ug/l	1.92	295,743.50	1.434E+00	Pulse	0.50	3
Zn			1	295.765	ug/l	2.47	79,133.67	2.564E-01	Pulse	1.00	3
Cd			1	206.135	ug/l	2.17	76,235.26	2.470E-01	Pulse	0.50	3
Al			1	20130.514	ug/l	1.17	775,775.75	2.516E+00	Pulse	1.00	3
Se			1	198.243	ug/l	1.25	2,984.34	9.670E-03	Pulse	3.00	3
Sb			1	211.331	ug/l	1.28	246,493.97	7.987E-01	Pulse	1.00	3
Se			1	199.123	ug/l	5.86	1,434.17	4.647E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,715,777.08	0.78	96.0	Pulse	0.50	3
1	Sc		308,390.59	0.23	97.8	Pulse	0.30	3
1	Ge		206,264.79	0.71	98.7	Pulse	0.30	3
1	In		1,949,895.34	0.81	97.7	Pulse	0.30	3
1	Tb		5,262,187.00	1.19	97.8	Pulse	0.50	3
1	Lu		4,062,936.92	0.89	98.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		308,629.65	0.12	99.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,147.82	6.81	96.5	Pulse	0.30	3

Quantitation Report

File Name 093SMPL.d
File Path D:\2023\xa011623m4.b
Method File
Method Path
Acq Time 1/16/2023 17:39
Sample Name MP41715-PS1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 1/16/2023 12:56
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	12.328	ug/l	0.49	15,824.44	7.719E-02	Pulse	0.50	3
As			1	12.416	ug/l	1.00	2,344.81	1.144E-02	Pulse	1.00	3
Mo			1	12.044	ug/l	1.88	8,772.74	2.870E-02	Pulse	0.50	3
Pb			1	23.999	ug/l	0.29	82,508.54	2.209E-02	Pulse	1.00	3
Be			1	9.699	ug/l	7.48	60.00	1.941E-04	Pulse	2.00	3
Ag			1	-0.175	ug/l	-10.02	6,474.48	2.119E-02	Pulse	0.50	3
Ba			1	154.395	ug/l	1.02	58,193.67	2.976E-02	Pulse	0.50	3
Tl			1	10.223	ug/l	0.70	50,284.74	1.346E-02	Pulse	0.50	3
Sn			1	9.874	ug/l	4.64	8,510.91	4.352E-03	Pulse	0.30	3
Sr			1	374.644	ug/l	1.12	394,539.53	2.018E-01	Pulse	0.50	3
[Pb]			1	22.774	ug/l	0.47	38,087.58	1.020E-02	Pulse	0.50	3
Ca			1	116224.958	ug/l	1.08	594,749.50	1.924E+00	Pulse	0.50	3
Ti			1	16.628	ug/l	9.32	588.68	1.904E-03	Pulse	0.50	3
Na			1	7889.023	ug/l	0.24	1,374,997.08	4.447E+00	Pulse	1.00	3
Mg			1	7585.590	ug/l	0.79	651,816.92	2.108E+00	Pulse	1.00	3
K			1	3853.103	ug/l	0.40	473,309.25	1.531E+00	Pulse	1.00	3
V			1	13.489	ug/l	0.22	15,085.19	4.879E-02	Pulse	0.50	3
Mn			1	448.353	ug/l	0.14	344,074.75	1.678E+00	Pulse	0.50	3
Fe			1	14579.273	ug/l	0.57	15,736,770.67	7.676E+01	Analog	0.50	3
Co			1	13.191	ug/l	0.10	25,721.72	1.255E-01	Pulse	0.50	3
Ni			1	16.971	ug/l	0.90	9,097.50	4.438E-02	Pulse	0.50	3
Cu			1	9.758	ug/l	3.45	21,537.36	1.050E-01	Pulse	0.50	3
Zn			1	108.631	ug/l	0.56	29,414.37	9.625E-02	Pulse	1.00	3
Cd			1	10.273	ug/l	2.41	3,771.06	1.234E-02	Pulse	0.50	3
Al			1	1464.692	ug/l	0.74	57,279.31	1.853E-01	Pulse	1.00	3
Se			1	11.013	ug/l	8.89	256.11	8.382E-04	Pulse	3.00	3
Sb			1	10.889	ug/l	1.01	12,789.79	4.185E-02	Pulse	1.00	3
Se			1	9.546	ug/l	9.47	126.44	4.138E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,735,141.50	1.38	96.5	Pulse	0.50	3
1	Sc		309,168.94	0.28	98.0	Pulse	0.30	3
1	Ge		205,007.35	0.46	98.1	Pulse	0.30	3
1	In		1,955,279.44	0.36	98.0	Pulse	0.30	3
1	Tb		5,227,390.33	0.83	97.2	Pulse	0.50	3
1	Lu		4,028,542.00	0.91	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		305,596.73	0.72	98.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,128.93	2.99	95.0	Pulse	0.30	3

Quantitation Report

File Name	094SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:43
Sample Name	FC1762-2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.123	ug/l	4.61	1,916.77	9.247E-03	Pulse	0.50	3
As			1	0.701	ug/l	2.87	208.33	1.005E-03	Pulse	1.00	3
Mo			1	1.824	ug/l	8.05	1,462.73	4.743E-03	Pulse	0.50	3
Pb			1	1.063	ug/l	1.83	4,441.58	1.196E-03	Pulse	1.00	3
Be			1	0.008	ug/l	3701.37	1.83	5.960E-06	Pulse	2.00	3
Ag			1	-2.527	ug/l	-0.58	1,238.71	4.017E-03	Pulse	0.50	3
Ba			1	127.465	ug/l	0.76	47,987.92	2.457E-02	Pulse	0.50	3
Tl			1	0.061	ug/l	13.25	508.68	1.370E-04	Pulse	0.50	3
Sn			1	0.319	ug/l	35.80	403.34	2.065E-04	Pulse	0.30	3
Sr			1	540.225	ug/l	0.48	568,102.06	2.909E-01	Pulse	0.50	3
[Pb]			1	1.063	ug/l	2.53	2,144.15	5.776E-04	Pulse	0.50	3
Ca			1	99164.757	ug/l	0.60	504,588.89	1.642E+00	Pulse	0.50	3
Ti			1	5.157	ug/l	83.12	184.70	6.022E-04	Pulse	0.50	3
Na			1	15633.195	ug/l	0.72	2,674,361.75	8.701E+00	Pulse	1.00	3
Mg			1	39504.094	ug/l	0.64	3,372,873.75	1.097E+01	Pulse	1.00	3
K			1	7191.013	ug/l	0.63	806,572.69	2.624E+00	Pulse	1.00	3
V			1	1.470	ug/l	10.78	2,815.55	9.160E-03	Pulse	0.50	3
Mn			1	52.066	ug/l	0.67	40,569.47	1.957E-01	Pulse	0.50	3
Fe			1	606.875	ug/l	0.66	685,525.42	3.308E+00	Pulse	0.50	3
Co			1	2.348	ug/l	3.68	4,723.27	2.278E-02	Pulse	0.50	3
Ni			1	8.445	ug/l	4.13	4,797.28	2.315E-02	Pulse	0.50	3
Cu			1	-0.598	ug/l	-16.67	7,544.83	3.641E-02	Pulse	0.50	3
Zn			1	12.562	ug/l	1.39	4,327.49	1.403E-02	Pulse	1.00	3
Cd			1	0.051	ug/l	16.17	28.67	9.295E-05	Pulse	0.50	3
Al			1	268.204	ug/l	8.91	11,036.04	3.589E-02	Pulse	1.00	3
Se			1	0.935	ug/l	62.26	111.89	3.628E-04	Pulse	3.00	3
Sb			1	0.202	ug/l	21.38	461.68	1.497E-03	Pulse	1.00	3
Se			1	-1.159	ug/l	-134.24	53.89	1.748E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,712,590.92	0.85	95.9	Pulse	0.50	3
1	Sc		307,365.64	0.53	97.5	Pulse	0.30	3
1	Ge		207,264.45	1.21	99.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,952,995.06	0.57	97.9	Pulse	0.30	3
1	Tb		5,258,277.17	1.03	97.8	Pulse	0.50	3
1	Lu		4,022,464.42	0.93	97.8	Pulse	0.50	3
1	Ge		308,380.52	0.11	99.7	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,188.93	7.19	100.0	Pulse	0.30	3

Quantitation Report

File Name	095SMPL.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:47
Sample Name	FC1762-2F
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.462	ug/l	12.20	1,087.37	5.239E-03	Pulse	0.50	3
As			1	0.326	ug/l	21.87	139.33	6.713E-04	Pulse	1.00	3
Mo			1	2.180	ug/l	6.34	1,721.42	5.578E-03	Pulse	0.50	3
Pb			1	0.043	ug/l	25.14	994.03	2.677E-04	Pulse	1.00	3
Be			1	-0.132	ug/l	-126.04	1.00	3.237E-06	Pulse	2.00	3
Ag			1	-2.533	ug/l	-1.00	1,227.38	3.976E-03	Pulse	0.50	3
Ba			1	96.186	ug/l	0.77	36,316.96	1.854E-02	Pulse	0.50	3
Tl			1	0.032	ug/l	4.12	367.34	9.889E-05	Pulse	0.50	3
Sn			1	0.133	ug/l	67.55	246.67	1.258E-04	Pulse	0.30	3
Sr			1	576.637	ug/l	0.57	608,082.83	3.105E-01	Pulse	0.50	3
[Pb]			1	0.070	ug/l	26.90	511.34	1.376E-04	Pulse	0.50	3
Ca			1	93925.268	ug/l	0.29	479,660.80	1.555E+00	Pulse	0.50	3
Ti			1	0.594	ug/l	9.56	26.00	8.429E-05	Pulse	0.50	3
Na			1	16433.092	ug/l	0.22	2,819,469.33	9.140E+00	Pulse	1.00	3
Mg			1	42356.117	ug/l	0.67	3,629,287.50	1.177E+01	Pulse	1.00	3
K			1	7477.922	ug/l	0.70	838,439.00	2.718E+00	Pulse	1.00	3
V			1	1.460	ug/l	11.72	2,814.88	9.126E-03	Pulse	0.50	3
Mn			1	29.876	ug/l	1.12	23,389.37	1.127E-01	Pulse	0.50	3
Fe			1	27.383	ug/l	4.82	54,191.35	2.612E-01	Pulse	0.50	3
Co			1	2.841	ug/l	1.98	5,696.19	2.745E-02	Pulse	0.50	3
Ni			1	9.119	ug/l	3.98	5,152.04	2.483E-02	Pulse	0.50	3
Cu			1	-0.543	ug/l	-37.89	7,630.20	3.678E-02	Pulse	0.50	3
Zn			1	12.793	ug/l	1.31	4,392.51	1.423E-02	Pulse	1.00	3
Cd			1	0.029	ug/l	42.91	20.67	6.695E-05	Pulse	0.50	3
Al			1	-5.937	ug/l	-18.88	515.01	1.670E-03	Pulse	1.00	3
Se			1	0.576	ug/l	119.26	106.78	3.459E-04	Pulse	3.00	3
Sb			1	0.067	ug/l	44.08	305.00	9.879E-04	Pulse	1.00	3
Se			1	0.186	ug/l	459.00	63.22	2.048E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,714,730.00	0.99	96.0	Pulse	0.50	3
1	Sc		308,460.27	0.30	97.8	Pulse	0.30	3
1	Ge		207,502.93	0.64	99.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,958,510.06	0.59	98.1	Pulse	0.30	3
1	Tb		5,254,789.33	1.05	97.7	Pulse	0.50	3
1	Lu		4,039,273.00	1.14	98.2	Pulse	0.50	3
1	Ge		308,653.49	0.37	99.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,153.37	12.10	97.0	Pulse	0.30	3

Quantitation Report

File Name	096CCVA.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:51
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.603	ug/l	1.13	621,440.63	2.889E+00	Pulse	0.50	3
As			1	46.458	ug/l	0.93	89,074.61	4.141E-01	Pulse	1.00	3
Mo			1	46.085	ug/l	1.03	345,479.33	1.081E+00	Pulse	0.50	3
Pb			1	47.416	ug/l	0.73	1,629,891.29	4.322E-01	Pulse	1.00	3
Be			1	45.814	ug/l	2.78	2,883.37	8.900E-03	Pulse	2.00	3
Ag			1	47.489	ug/l	0.94	1,114,996.29	3.489E+00	Pulse	0.50	3
Ba			1	46.375	ug/l	0.46	181,260.34	8.939E-02	Pulse	0.50	3
Tl			1	47.682	ug/l	0.68	2,358,332.75	6.253E-01	Pulse	0.50	3
Sn			1	46.588	ug/l	0.98	410,087.33	2.022E-01	Pulse	0.30	3
Sr			1	46.807	ug/l	0.64	511,116.57	2.521E-01	Pulse	0.50	3
[Pb]			1	46.080	ug/l	0.90	770,362.34	2.043E-01	Pulse	0.50	3
Ca			1	4708.328	ug/l	1.95	252,871.76	7.805E-01	Pulse	0.50	3
Ti			1	46.020	ug/l	1.88	16,928.67	5.225E-02	Pulse	0.50	3
Na			1	4803.626	ug/l	0.84	8,585,931.00	2.650E+01	Analog	1.00	3
Mg			1	4671.480	ug/l	1.51	4,204,272.75	1.298E+01	Pulse	1.00	3
K			1	4801.452	ug/l	0.75	5,182,603.50	1.600E+01	Analog	1.00	3
V			1	46.822	ug/l	1.78	501,625.41	1.548E+00	Pulse	0.50	3
Mn			1	47.664	ug/l	1.06	383,784.87	1.784E+00	Pulse	0.50	3
Fe			1	4900.199	ug/l	1.12	55,437,717.33	2.577E+02	Analog	0.50	3
Co			1	47.169	ug/l	1.13	960,922.50	4.467E+00	Pulse	0.50	3
Ni			1	47.257	ug/l	1.20	253,549.16	1.179E+00	Pulse	0.50	3
Cu			1	47.329	ug/l	0.80	683,432.46	3.177E+00	Pulse	0.50	3
Zn			1	49.325	ug/l	1.62	135,971.69	4.254E-01	Pulse	1.00	3
Cd			1	46.612	ug/l	0.80	178,517.07	5.585E-01	Pulse	0.50	3
Al			1	4517.309	ug/l	1.55	1,827,989.37	5.642E+00	Pulse	1.00	3
Se			1	44.353	ug/l	0.46	6,788.65	2.124E-02	Pulse	3.00	3
Sb			1	46.256	ug/l	1.06	558,460.93	1.747E+00	Pulse	1.00	3
Se			1	45.358	ug/l	1.22	3,301.29	1.033E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,771,380.00	0.48	97.5	Pulse	0.50	3
1	Sc		324,011.81	0.46	102.8	Pulse	0.30	3
1	Ge		215,100.77	0.38	102.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,027,803.25	0.46	101.6	Pulse	0.30	3
1	Tb		5,394,231.67	0.17	100.3	Pulse	0.50	3
1	Lu		4,156,191.58	0.31	101.0	Pulse	0.50	3
1	Ge		319,619.34	0.31	103.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,163.37	0.86	97.9	Pulse	0.30	3

Quantitation Report

File Name	097_CCV.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:55
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.681	ug/l	0.79	1,278,187.00	5.926E+00	Pulse	0.50	3
As			1	96.111	ug/l	0.65	184,704.05	8.563E-01	Pulse	1.00	3
Mo			1	95.463	ug/l	0.78	715,380.77	2.239E+00	Pulse	0.50	3
Pb			1	98.738	ug/l	0.80	3,332,882.08	8.997E-01	Pulse	1.00	3
Be			1	94.324	ug/l	2.45	5,950.54	1.832E-02	Pulse	2.00	3
Ag			1	96.989	ug/l	0.51	2,269,450.42	7.101E+00	Pulse	0.50	3
Ba			1	96.813	ug/l	0.80	374,718.07	1.866E-01	Pulse	0.50	3
Tl			1	98.872	ug/l	0.60	4,803,177.17	1.297E+00	Pulse	0.50	3
Sn			1	97.602	ug/l	1.59	850,668.81	4.236E-01	Pulse	0.30	3
Sr			1	98.270	ug/l	0.54	1,062,328.00	5.290E-01	Pulse	0.50	3
[Pb]			1	96.758	ug/l	0.85	1,588,489.62	4.288E-01	Pulse	0.50	3
Ca			1	9674.966	ug/l	0.87	520,360.00	1.602E+00	Pulse	0.50	3
Ti			1	97.926	ug/l	2.29	36,116.41	1.112E-01	Pulse	0.50	3
Na			1	9888.359	ug/l	0.72	17,682,868.00	5.443E+01	Analog	1.00	3
Mg			1	9813.248	ug/l	1.26	8,855,265.33	2.726E+01	Analog	1.00	3
K			1	9932.942	ug/l	0.49	10,657,083.67	3.280E+01	Analog	1.00	3
V			1	97.171	ug/l	1.22	1,042,370.83	3.209E+00	Pulse	0.50	3
Mn			1	98.522	ug/l	0.71	795,285.94	3.687E+00	Pulse	0.50	3
Fe			1	10073.536	ug/l	0.41	114,256,541.33	5.297E+02	Analog	0.50	3
Co			1	96.002	ug/l	0.88	1,961,080.04	9.091E+00	Pulse	0.50	3
Ni			1	96.091	ug/l	1.04	516,529.97	2.395E+00	Pulse	0.50	3
Cu			1	96.831	ug/l	0.82	1,393,081.33	6.458E+00	Pulse	0.50	3
Zn			1	96.814	ug/l	0.30	265,852.29	8.318E-01	Pulse	1.00	3
Cd			1	95.569	ug/l	0.55	365,958.84	1.145E+00	Pulse	0.50	3
Al			1	9386.532	ug/l	1.52	3,807,834.50	1.172E+01	Pulse	1.00	3
Se			1	93.588	ug/l	0.21	14,209.71	4.446E-02	Pulse	3.00	3
Sb			1	95.631	ug/l	0.35	1,154,211.46	3.612E+00	Pulse	1.00	3
Se			1	94.047	ug/l	0.39	6,775.65	2.120E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,704,333.17	0.55	95.7	Pulse	0.50	3
1	Sc		324,883.94	0.32	103.0	Pulse	0.30	3
1	Ge		215,701.29	0.51	103.2	Pulse	0.30	3
1	In		2,008,128.39	0.38	100.6	Pulse	0.30	3
1	Tb		5,361,815.00	0.46	99.7	Pulse	0.50	3
1	Lu		4,137,667.08	0.59	100.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		319,587.66	0.98	103.3	Pulse	0.30	3
1	Te		4.67	89.21		Pulse	0.50	3
1	Li		1,203.37	10.61	101.2	Pulse	0.30	3

Quantitation Report

File Name	098_CCB.d
File Path	D:\2023\xa011623m4.b
Method File	
Method Path	
Acq Time	1/16/2023 17:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	1/16/2023 12:56
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	250.69	569.35	2.648E-03	Pulse	0.50	3
As			1	0.021	ug/l	43.03	122.67	5.706E-04	Pulse	1.00	3
Mo			1	0.101	ug/l	26.56	905.36	2.844E-03	Pulse	0.50	3
Pb			1	0.015	ug/l	32.67	1,382.06	3.635E-04	Pulse	1.00	3
Be			1	0.036	ug/l	148.90	4.17	1.279E-05	Pulse	2.00	3
Ag			1	-0.247	ug/l	-1.05	1,421.39	4.464E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	25.74	60.00	2.929E-05	Pulse	0.50	3
Tl			1	0.025	ug/l	15.91	1,478.74	3.889E-04	Pulse	0.50	3
Sn			1	0.106	ug/l	10.59	1,085.60	5.299E-04	Pulse	0.30	3
Sr			1	0.006	ug/l	82.51	390.67	1.907E-04	Pulse	0.50	3
[Pb]			1	0.013	ug/l	33.17	632.01	1.662E-04	Pulse	0.50	3
Ca			1	-3.139	ug/l	-34.66	472.01	1.451E-03	Pulse	0.50	3
Ti			1	0.028	ug/l	68.16	16.00	4.909E-05	Pulse	0.50	3
Na			1	-5.560	ug/l	-12.73	27,198.75	8.359E-02	Pulse	1.00	3
Mg			1	1.094	ug/l	47.44	1,458.39	4.480E-03	Pulse	1.00	3
K			1	3.494	ug/l	23.37	91,202.86	2.803E-01	Pulse	1.00	3
V			1	0.002	ug/l	106.54	1,424.06	4.376E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	147.26	260.67	1.211E-03	Pulse	0.50	3
Fe			1	0.869	ug/l	54.52	35,029.45	1.629E-01	Pulse	0.50	3
Co			1	0.008	ug/l	71.09	287.34	1.335E-03	Pulse	0.50	3
Ni			1	-0.002	ug/l	-691.98	445.34	2.071E-03	Pulse	0.50	3
Cu			1	-0.241	ug/l	-2.52	5,234.73	2.437E-02	Pulse	0.50	3
Zn			1	0.022	ug/l	62.34	1,106.04	3.474E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	64.26	52.67	1.654E-04	Pulse	0.50	3
Al			1	-0.307	ug/l	-204.82	660.01	2.027E-03	Pulse	1.00	3
Se			1	0.226	ug/l	15.33	135.33	4.251E-04	Pulse	3.00	3
Sb			1	0.025	ug/l	14.17	532.01	1.671E-03	Pulse	1.00	3
Se			1	-0.016	ug/l	-255.06	62.78	1.972E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,802,268.33	0.04	98.3	Pulse	0.50	3
1	Sc		325,376.25	0.63	103.2	Pulse	0.30	3

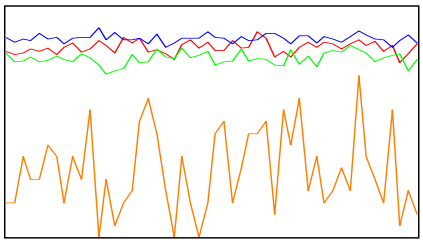
Quantitation Report

1	Ge		214,833.80	0.74	102.8	Pulse	0.30	3
1	In		2,048,642.07	0.39	102.6	Pulse	0.30	3
1	Tb		5,331,107.67	0.86	99.1	Pulse	0.50	3
1	Lu		4,079,553.92	0.90	99.2	Pulse	0.50	3
1	Ge		318,379.08	0.11	102.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,230.05	9.85	103.5	Pulse	0.30	3

Tune Report

Batch Folder	D:\2023\xa011623m1.b
Acq. Date-Time	1/16/2023 10:00
Report Comment	011623
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1645	16445.53	5000.00	
89	2000	1548	15483.31	5000.00	
205	5000	4306	43064.28	5000.00	
78	20	6			

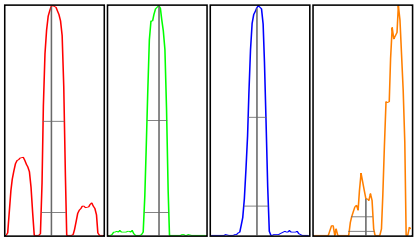
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.22	5.00	
89	3.57	5.00	
205	2.04	5.00	
78	60.87		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.00	2	
89	0.20	2	
205	0.50	2	
78	0.20	5	

Ratio	156/140	0.513 %
Ratio	70/140	1.784 %

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1632.01	58.95	58.9 - 59.1		0.63	0.760	0.900	
89	1615.26	89.05	88.9 - 89.1		0.58	0.747	0.900	

Tune Report

205	4211.09	204.95	204.9 - 205.1	0.52	0.741	0.900
78	5.75	78.10	-	0.64	0.757	

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

Plasma Mode General Purpose

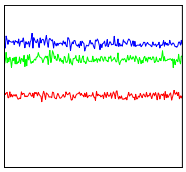
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-180.0 V	Cell Exit	-70 V
Omega Bias	-95 V	Deflect	2.2 V
Omega Lens	10.6 V	Plate Bias	-60 V

Cell Parameters

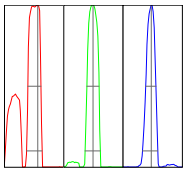
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



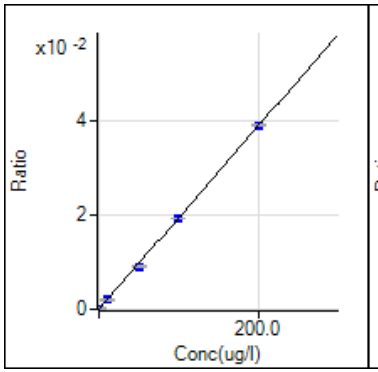
Sensitivity			
Mass	7	89	205
Range	5000	1.0E4	1.0E4
Count	2215.41	6658.04	7652.92
RSD%	3.2	2.8	2.3
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.24%	
Doubly Charged	70/140	2.94%	

Background			
Mass	7	89	205
Count	0.15	0.75	5.05

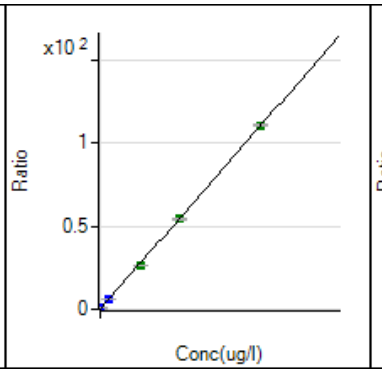


Resolution/Axis			
Mass	7	89	205
Height	2166	6658	7456
Axis	7.20	89.00	204.95
W-50%	0.66	0.61	0.51
W-10%	0.78	0.76	0.76
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

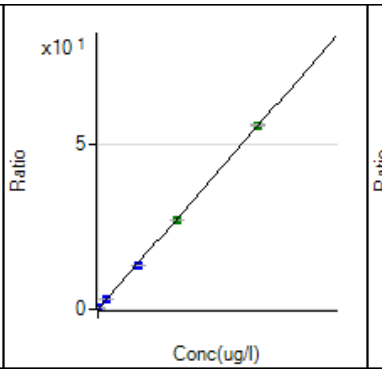
Calibration for D:\2023\xa011623m4.b\001CALB.d



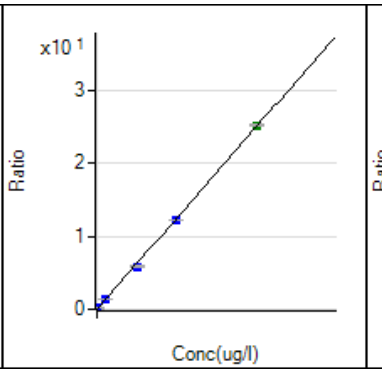
9 Be [2] / ISTD: 45 Sc
y = 1.941E-4 x + 5.806E-6
R 0.9998
DL 0.09869
BEC 0.02991



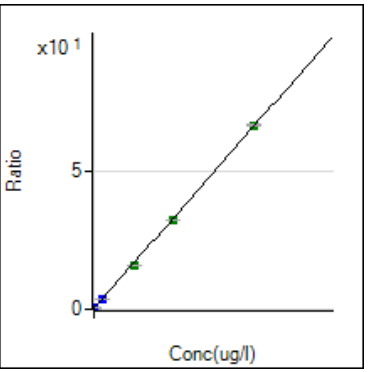
23 Na [2] / ISTD: 45 Sc
y = 5.493E-3 x + 1.141E-1
R 0.9999
DL 0.3263
BEC 20.78



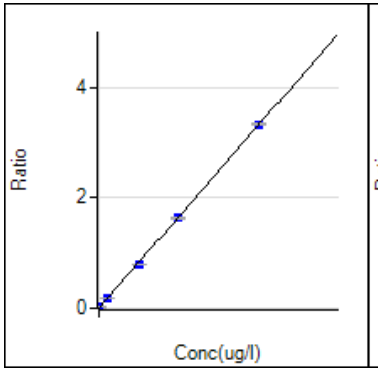
24 Mg [2] / ISTD: 45 Sc
y = 2.777E-3 x + 1.441E-3
R 0.9998
DL 0.1399
BEC 0.5188



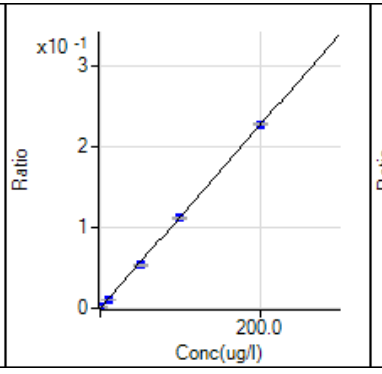
27 Al [2] / ISTD: 45 Sc
y = 1.248E-3 x + 2.411E-3
R 0.9998
DL 0.3327
BEC 1.931



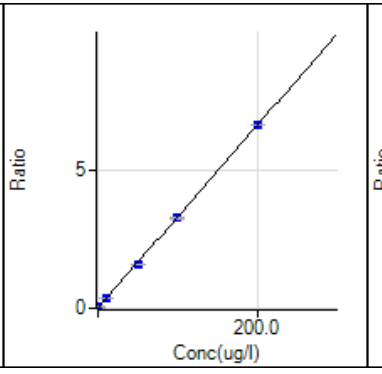
39 K [2] / ISTD: 45 Sc
y = 3.275E-3 x + 2.689E-1
R 0.9997
DL 1.911
BEC 82.09



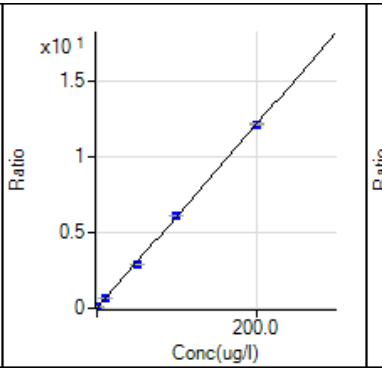
44 Ca [2] / ISTD: 45 Sc
y = 1.653E-4 x + 1.970E-3
R 0.9998
DL 4.353
BEC 11.92



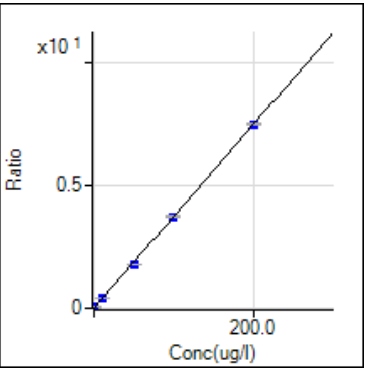
47 Ti [2] / ISTD: 45 Sc
y = 1.135E-3 x + 1.690E-5
R 0.9999
DL 0.02557
BEC 0.01489



51 V [2] / ISTD: 45 Sc
y = 3.297E-2 x + 4.312E-3
R 0.9999
DL 0.02809
BEC 0.1308

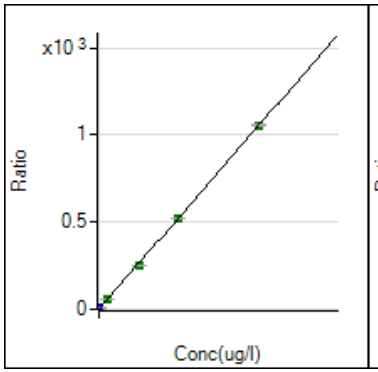


52 Cr [2] / ISTD: 72 Ge
y = 6.064E-2 x + 2.436E-3
R 0.9999
DL 0.001695
BEC 0.04018

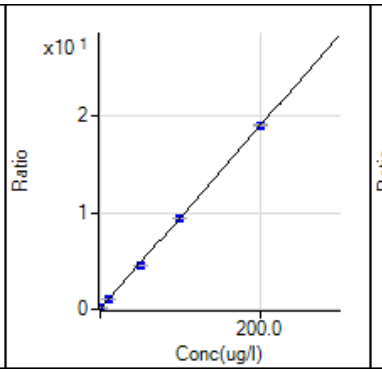


55 Mn [2] / ISTD: 72 Ge
y = 3.741E-2 x + 9.473E-4
R 0.9999
DL 0.001987
BEC 0.02532

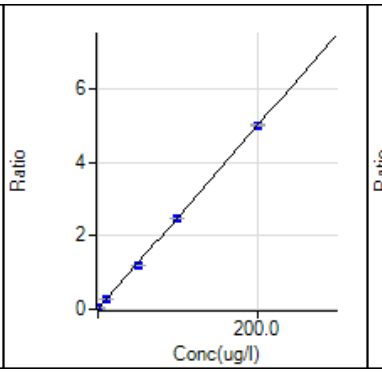
Calibration for D:\2023\xa011623m4.b\001CALB.d



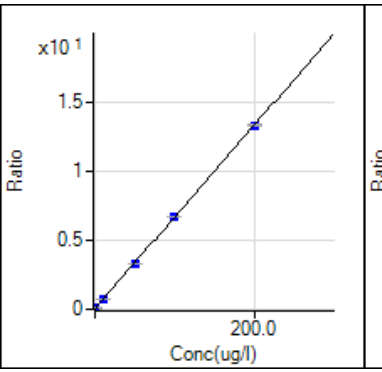
56 Fe [2] / ISTD: 72 Ge
y = 5.257E-2 x + 1.172E-1
R 0.9999
DL 0.215
BEC 2.23



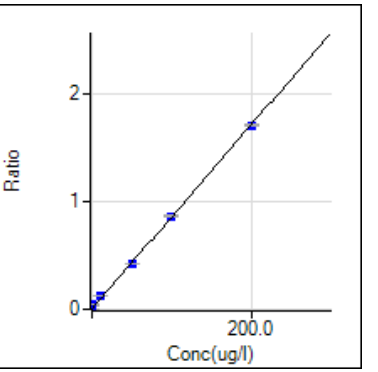
59 Co [2] / ISTD: 72 Ge
y = 9.470E-2 x + 5.516E-4
R 0.9999
DL 0.001345
BEC 0.005825



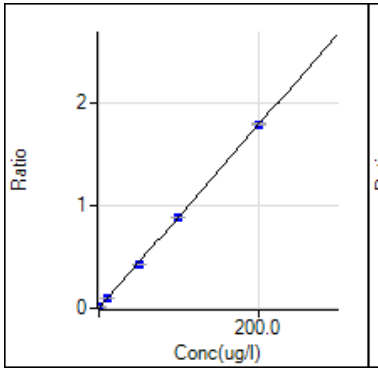
60 Ni [2] / ISTD: 72 Ge
y = 2.490E-2 x + 2.121E-3
R 0.9999
DL 0.02027
BEC 0.0852



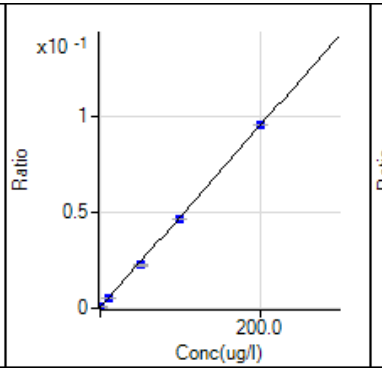
63 Cu [2] / ISTD: 72 Ge
y = 6.628E-2 x + 4.037E-2
R 0.9999
DL 0.08453
BEC 0.6091



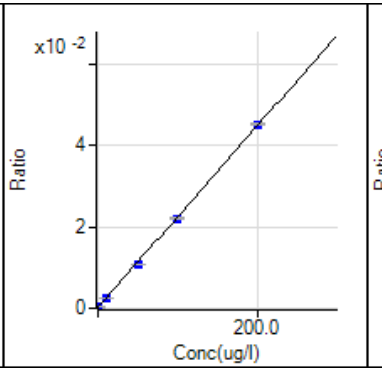
66 Zn [2] / ISTD: 74 Ge
y = 8.558E-3 x + 3.282E-3
R 0.9998
DL 0.08485
BEC 0.3835



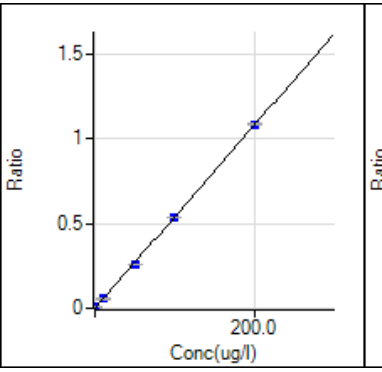
75 As [2] / ISTD: 72 Ge
y = 8.905E-3 x + 3.810E-4
R 0.9999
DL 0.01571
BEC 0.04278



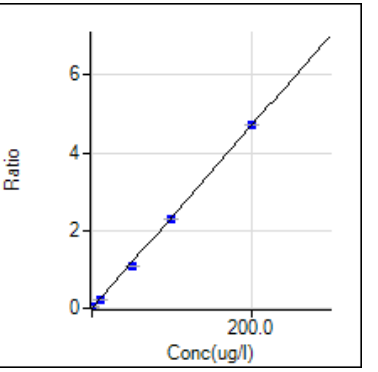
78 Se [2] / ISTD: 74 Ge
y = 4.717E-4 x + 3.187E-4
R 0.9998
DL 0.09124
BEC 0.6756



82 Se [2] / ISTD: 74 Ge
y = 2.233E-4 x + 2.007E-4
R 0.9998
DL 0.3429
BEC 0.8986

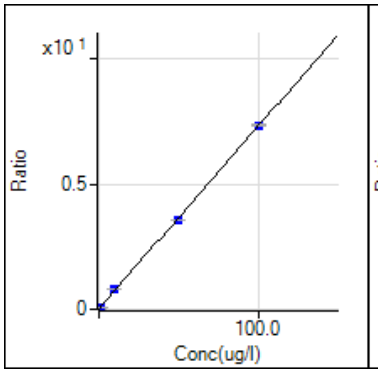


88 Sr [2] / ISTD: 115 In
y = 5.382E-3 x + 1.587E-4
R 0.9998
DL 0.0009011
BEC 0.02948

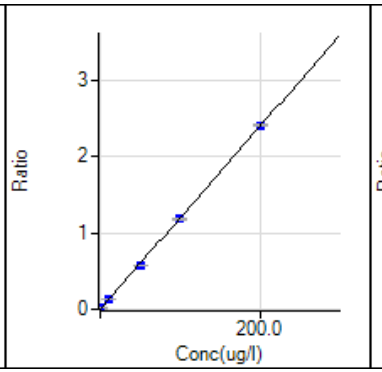


95 Mo [2] / ISTD: 74 Ge
y = 2.344E-2 x + 4.671E-4
R 0.9998
DL 0.009161
BEC 0.01992

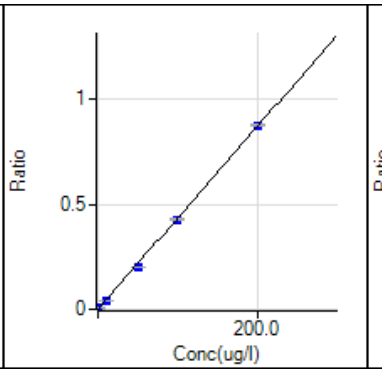
Calibration for D:\2023\xa011623m4.b\001CALB.d



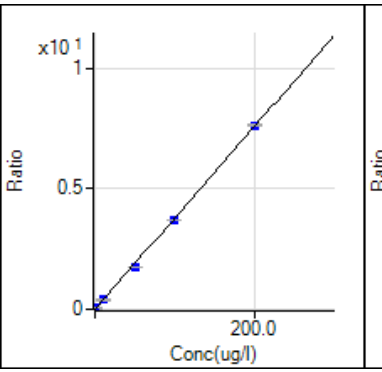
107 Ag [2] / ISTD: 74 Ge
y = 7.299E-2 x + 2.246E-2
R 0.9999
DL 0.02463
BEC 0.3077



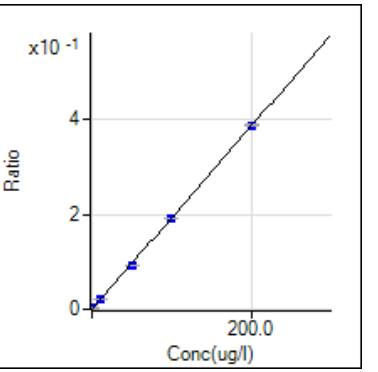
111 Cd [2] / ISTD: 74 Ge
y = 1.198E-2 x + 3.214E-5
R 0.9999
DL 0.00693
BEC 0.002683



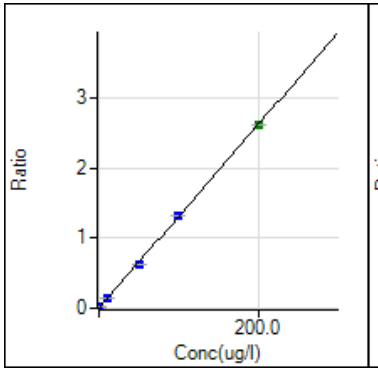
118 Sn [2] / ISTD: 115 In
y = 4.339E-3 x + 6.794E-5
R 0.9998
DL 0.008442
BEC 0.01566



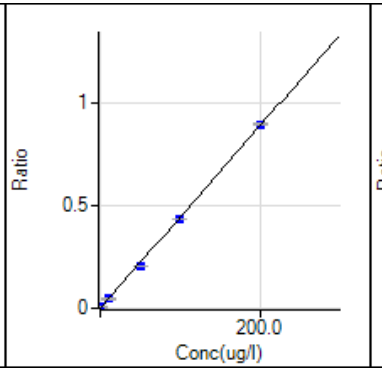
121 Sb [2] / ISTD: 74 Ge
y = 3.776E-2 x + 7.358E-4
R 0.9998
DL 0.002137
BEC 0.01949



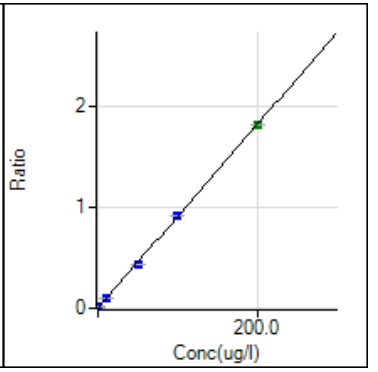
137 Ba [2] / ISTD: 115 In
y = 1.927E-3 x + 4.337E-6
R 0.9999
DL 0.001757
BEC 0.00225



205 Tl [2] / ISTD: 209 Bi
y = 1.311E-2 x + 5.673E-5
R 0.9999
DL 0.00128
BEC 0.004326



206 [Pb] [2] / ISTD: 209 Bi
y = 4.431E-3 x + 1.067E-4
R 0.9997
DL 0.004126
BEC 0.02407



208 Pb [2] / ISTD: 209 Bi
y = 9.110E-3 x + 2.282E-4
R 0.9999
DL 0.004286
BEC 0.02505

SGS Orlando

Date:	01/12/23
Time	16:09

[24hr]

Analysts Name:	Adam K
MP Batch ID:	41715
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22330073	ACC1321	0.05	MU45274
Conc. HCl (B)	22C1662007	ACC1346	0.2	KU15244
NA	NA	MET7330	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	Mercury	**Temp. C**	95	**Corr. Factor**	-2	**Corrected Observed Temp. C**	93
pH Paper Lot Number	230320			**Filter Lot Number**		280632432		**Digestion Tube Lot Number**	2208065

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	10	Matrix Spike(MS)	50	50	Y	
	10	Matrix Spike Dup(MSD)	50	50	Y	
	10	Duplicate(DUP)	50	50	Y	
1(QC) C	10	FC1721-2	50	50	Y	
2	4	FC1721-1	50	50	Y	
3	4	FC1721-3	50	50	Y	
4	4	FC1721-4	50	50	Y	
5	1	FC1773-1	50	50	Y	
6	4	FC1762-2	50	50	Y	
7	5	FC1762-2F	50	50	Y	
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC2422

Sampling Date: 02/03/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **526**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Please share your ideas about how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC2422

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC2422-1	02/03/23	10:30	JR	02/04/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC2422

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 2/10/2023 1:30:52 PM

On 02/04/2023, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC2422 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP41796

Sample(s) FC2279-1MS, FC2279-1MSD, FC2279-1SDL, FC2279-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic are outside control limits for sample MP41796-D1. RPD acceptable due to low duplicate and sample concentrations.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC2422
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 02/03/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC2422-1	**EFFLUENT**					
Arsenic		14.7	2.0	1.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC2422-1	**Date Sampled:**	02/03/23
Matrix:	AQ - Water	**Date Received:**	02/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	14.7	2.0	1.0	0.21	ug/l	2	02/06/23	02/07/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19205
(2) Prep QC Batch: MP41796

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FC2422

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
	Effluent	2/3/23	10:30	JWR	W	1					x					X	

INITIAL ASSESSMENT

LABEL VERIFICATION

2.8 [illegible]

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [X] FULLT1 (EPA LEVEL 4)
- [X] EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center
Northborough, MA
2/3

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature]	2-3-23 1300	2 [signature] (SC)	3 [signature]	2/3/23 1700	4 Fed Ex.
5		6 [signature] SGS 1145 04FEB23	7		8

Lab Use Only: Cooler Temperature (s) Celsius (corrected): #19114

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Monthly AS Only Revised 04-07-22.xlsx Rev 031318

5.1
5

FC2422: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC2422 **Client:** SOVEREIGN CONSULTING INC. **Project:** SHEPELEY'S HILL (SHL), DEVENS, MA

Date / Time Received: 2/4/2023 11:45:00 AM **Delivery Method:** FED EX **Airbill #'s:** 9304 4372 6684

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (3.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: TORYW Date: 2/4/2023 11:45:00 AM Reviewer: _____ Date: _____

FC2422: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FC2422
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 02/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP41796	SW846 6020B						
MP41796-B1	7440-38-2	Arsenic	BSP	REC	104.5	%	84-116
MP41796-S1*	7440-38-2	Arsenic	MS	REC	98.9	%	84-116
MP41796-S2*	7440-38-2	Arsenic	MSD	REC	102.4	%	84-116
MP41796-S2*	7440-38-2	Arsenic	MSD	RPD	3.5	%	20
MP41796-D1*	7440-38-2	Arsenic	DUP	RPD	200 [a]	%	20

(a) RPD acceptable due to low duplicate and sample concentrations.

* Sample used for QC is not from job FC2422

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:51	MA19205-STD1	1		STDA
11:55	MA19205-STD2	1		STDB
11:59	MA19205-STD3	1		STDC
12:03	MA19205-STD4	1		STDD
12:07	MA19205-STD5	1		STDE
12:11	MA19205-STD6	1		STDF
12:15	MA19205-STD7	1		STDG
12:19	MA19205-HSTD1	1		
12:23	MA19205-HSTD2	1		
12:27	MA19205-ICV1	1		
12:31	MA19205-ICB1	1		
12:34	MA19205-CRIA1	1		
12:38	MA19205-ICSA1	1		
12:42	MA19205-ICSAB1	1		
12:46	MA19205-CCV1	1		
12:50	MA19205-CCV2	1		
12:53	MA19205-CCB1	1		
12:57	MP41794-MB1	5		
13:01	MP41794-B1	5		
13:05	FC2193-15	20		(sample used for QC only; not part of login FC2422)
13:09	MP41794-D1	20		
13:12	MP41794-D2	20		
13:16	MP41794-SD1	100		
13:20	MP41794-S1	20		
13:24	MP41794-S2	20		
13:28	MP41794-PS1	20		
13:32	ZZZZZZ	20		
13:35	MA19205-CCV3	1		
13:39	MA19205-CCV4	1		
13:43	MA19205-CCB2	1		
13:47	ZZZZZZ	20		
13:50	ZZZZZZ	20		
13:54	ZZZZZZ	20		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:58	ZZZZZZ	20		
14:02	ZZZZZZ	20		
14:06	ZZZZZZ	20		
14:10	ZZZZZZ	20		
14:13	ZZZZZZ	20		
14:17	ZZZZZZ	20		
14:21	ZZZZZZ	20		
14:25	MA19205-CCV5	1		
14:29	MA19205-CCV6	1		
14:32	MA19205-CCB3	1		
14:36	ZZZZZZ	20		
14:40	ZZZZZZ	20		
14:44	ZZZZZZ	20		
14:48	ZZZZZZ	20		
14:51	ZZZZZZ	20		
14:55	ZZZZZZ	5		
14:59	ZZZZZZ	10		
15:03	ZZZZZZ	20		
15:14	MA19205-CCV7	1		
15:18	MA19205-CCV8	1		
15:22	MA19205-CCB4	1		
15:30	ZZZZZZ	50		
15:33	MP41795-MB1	5		
15:37	MP41795-B1	5		
15:41	FC2193-18	20		(sample used for QC only; not part of login FC2422)
15:45	MP41795-D1	20		
15:49	MP41795-D2	20		
15:52	MP41795-SD1	100		
15:56	MP41795-S1	20		
16:00	MP41795-S2	20		
16:04	MA19205-CCV9	1		
16:08	MA19205-CCV10	1		
16:11	MA19205-CCB5	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:15	MP41795-PS1	20		
16:19	ZZZZZZ	100		
16:23	ZZZZZZ	20		
16:27	ZZZZZZ	20		
16:30	ZZZZZZ	20		
16:34	ZZZZZZ	20		
16:38	ZZZZZZ	20		
16:42	ZZZZZZ	20		
16:46	ZZZZZZ	20		
16:49	ZZZZZZ	20		
16:53	MA19205-CCV11	1		
16:57	MA19205-CCV12	1		
17:01	MA19205-CCB6	1		
17:05	ZZZZZZ	20		
17:08	ZZZZZZ	20		
17:12	MP41796-MB1	2		
17:16	MP41796-B1	2		
17:20	FC2279-1	2		(sample used for QC only; not part of login FC2422)
17:24	MP41796-D1	2		
17:27	MP41796-SD1	10		
17:31	MP41796-S1	2		
17:35	MP41796-S2	2		
17:39	MP41796-PS1	2		
17:42	MA19205-CCV13	1		
17:46	MA19205-CCV14	1		
17:50	MA19205-CCB7	1		
17:54	ZZZZZZ	2		
17:58	ZZZZZZ	2		
18:01	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:09	FC2422-1	2		
---------->	Last reportable sample/prep for job FC2422			
18:13	ZZZZZZ	2		
18:17	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:20	ZZZZZZ	2		
18:24	ZZZZZZ	2		
18:28	ZZZZZZ	2		
18:32	MA19205-CCV15	1		
18:35	MA19205-CCV16	1		
18:39	MA19205-CCB8	1		
---------->	Last reportable CCB for job FC2422			
18:43	ZZZZZZ	2		
18:47	ZZZZZZ	2		
18:51	ZZZZZZ	2		
18:54	ZZZZZZ	2		
18:58	ZZZZZZ	2		
19:02	ZZZZZZ	2		
19:06	FC2193-15	50		(sample used for QC only; not part of login FC2422)
19:10	MP41794-D1	50		
19:13	MP41794-D2	50		
19:17	MP41794-SD1	250		
19:21	MA19205-CCV17	1		
19:25	MA19205-CCV18	1		
19:28	MA19205-CCB9	1		
19:32	MP41794-S1	50		
19:36	MP41794-S2	50		
19:40	MP41794-PS1	50		
19:44	MA19205-CCV19	1		
19:47	MA19205-CCV20	1		
19:51	MA19205-CCB10	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:19	MA19205-HSTD1	1		
12:23	MA19205-HSTD2	1	X	
12:27	MA19205-ICV1	1	X	
12:31	MA19205-ICB1	1	X	
12:34	MA19205-CRIA1	1	X	
12:38	MA19205-ICSA1	1	X	
12:42	MA19205-ICSAB1	1	X	
12:46	MA19205-CCV1	1		
12:50	MA19205-CCV2	1	X	
12:53	MA19205-CCB1	1	X	
12:57	MP41794-MB1	5	X	
13:01	MP41794-B1	5	X	
13:05	FC2193-15	20		(a)
13:09	MP41794-D1	20	X	
13:12	MP41794-D2	20	X	
13:16	MP41794-SD1	100	X	
13:20	MP41794-S1	20	X	
13:24	MP41794-S2	20	X	
13:28	MP41794-PS1	20		
13:32	ZZZZZZ	20		
13:35	MA19205-CCV3	1		
13:39	MA19205-CCV4	1	X	
13:43	MA19205-CCB2	1	X	
13:47	ZZZZZZ	20		
13:50	ZZZZZZ	20		
13:54	ZZZZZZ	20		
13:58	ZZZZZZ	20		
14:02	ZZZZZZ	20		
14:06	ZZZZZZ	20		
14:10	ZZZZZZ	20		
14:13	ZZZZZZ	20		
14:17	ZZZZZZ	20		
14:21	ZZZZZZ	20		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:25	MA19205-CCV5	1		
14:29	MA19205-CCV6	1	X	
14:32	MA19205-CCB3	1	X	
14:36	ZZZZZZ	20		
14:40	ZZZZZZ	20		
14:44	ZZZZZZ	20		
14:48	ZZZZZZ	20		
14:51	ZZZZZZ	20		
14:55	ZZZZZZ	5		
14:59	ZZZZZZ	10		
15:03	ZZZZZZ	20		
15:14	MA19205-CCV7	1		
15:18	MA19205-CCV8	1	X	
15:22	MA19205-CCB4	1	X	
15:30	ZZZZZZ	50		
15:33	MP41795-MB1	5		
15:37	MP41795-B1	5		
15:41	FC2193-18	20		(a)
15:45	MP41795-D1	20		
15:49	MP41795-D2	20		
15:52	MP41795-SD1	100		
15:56	MP41795-S1	20		
16:00	MP41795-S2	20		
16:04	MA19205-CCV9	1		
16:08	MA19205-CCV10	1	X	
16:11	MA19205-CCB5	1	X	
16:15	MP41795-PS1	20		
16:19	ZZZZZZ	100		
16:23	ZZZZZZ	20		
16:27	ZZZZZZ	20		
16:30	ZZZZZZ	20		
16:34	ZZZZZZ	20		
16:38	ZZZZZZ	20		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Element: Dilution	As	
16:42	ZZZZZZ	20		
16:46	ZZZZZZ	20		
16:49	ZZZZZZ	20		
16:53	MA19205-CCV11	1		
16:57	MA19205-CCV12	1	X	
17:01	MA19205-CCB6	1	X	
17:05	ZZZZZZ	20		
17:08	ZZZZZZ	20		
17:12	MP41796-MB1	2	X	
17:16	MP41796-B1	2	X	
17:20	FC2279-1	2	X	(a)
17:24	MP41796-D1	2	X	
17:27	MP41796-SD1	10	X	
17:31	MP41796-S1	2	X	
17:35	MP41796-S2	2	X	
17:39	MP41796-PS1	2		
17:42	MA19205-CCV13	1		
17:46	MA19205-CCV14	1	X	
17:50	MA19205-CCB7	1	X	
17:54	ZZZZZZ	2		
17:58	ZZZZZZ	2		
18:01	ZZZZZZ	2		
18:05	ZZZZZZ	2		
18:09	FC2422-1	2	X	
18:13	ZZZZZZ	2		
18:17	ZZZZZZ	2		
18:20	ZZZZZZ	2		
18:24	ZZZZZZ	2		
18:28	ZZZZZZ	2		
18:32	MA19205-CCV15	1		
18:35	MA19205-CCV16	1	X	
18:39	MA19205-CCB8	1	X	
18:43	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Element: Dilution	As
18:47	ZZZZZZ	2	
18:51	ZZZZZZ	2	
18:54	ZZZZZZ	2	
18:58	ZZZZZZ	2	
19:02	ZZZZZZ	2	
19:06	FC2193-15	50	(a)
19:10	MP41794-D1	50	
19:13	MP41794-D2	50	
19:17	MP41794-SD1	250	
19:21	MA19205-CCV17	1	
19:25	MA19205-CCV18	1	X
19:28	MA19205-CCB9	1	X
19:32	MP41794-S1	50	
19:36	MP41794-S2	50	
19:40	MP41794-PS1	50	
19:44	MA19205-CCV19	1	
19:47	MA19205-CCV20	1	X
19:51	MA19205-CCB10	1	X

(a) Sample used for QC only; not part of login FC2422.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:51	MA19205-STD1	100	100	100	100	100	100	100
11:55	MA19205-STD2	105.7	100.1	100.5	100.4	100.6	100.9	99.9
11:59	MA19205-STD3	102.7	101.7	101.1	101.2	101	101.1	100.3
12:03	MA19205-STD4	111.2	102.5	101.9	102.5	102.2	102.7	101.8
12:07	MA19205-STD5	104.2	101.7	101.8	103	101.9	102.9	100.5
12:11	MA19205-STD6	105.8	100.3	99.9	100.8	98.9	100.8	97.3
12:15	MA19205-STD7	97.9	97.5	98.2	96.9	95.9	98.7	94.3
12:19	MA19205-HSTD1	94.7	97.2	98.2	97.8	96.7	99.2	95.9
12:23	MA19205-HSTD2	92.6	96.1	96.4	95.9	94.6	97.6	93.6
12:27	MA19205-ICV1	100.6	96.9	96.7	96.9	94.9	98.3	94.9
12:31	MA19205-ICB1	99.8	98.2	97.6	98.1	97.4	97.9	97
12:34	MA19205-CRIA1	109	99.7	98.9	99.3	98.7	98.3	97.8
12:38	MA19205-ICSA1	82	93.1	94.4	90.5	87.3	92.3	85.3
12:42	MA19205-ICSAB1	83.8	93.8	95.9	93	88.8	93.8	86.5
12:46	MA19205-CCV1	96	98	101.7	101.7	99.4	102.6	100.2
12:50	MA19205-CCV2	90.1	98.4	100.8	101.2	98.2	101.8	97.6
12:53	MA19205-CCB1	95.9	100.2	102.2	102	99.9	100.6	99.5
12:57	MP41794-MB1	91.6	99.3	99.6	100.2	98.3	100.1	100.2
13:01	MP41794-B1	82.8	97.9	100.4	99.6	96.3	100.4	95.9
13:05	FC2193-15	91.4	105.3	101.7	101.2	98.9	101.3	99.7
13:09	MP41794-D1	94.3	105.3	102.4	102.1	99.5	101.6	99
13:12	MP41794-D2	92.4	107	103.1	102.2	99.5	102.2	99.6
13:16	MP41794-SD1	90.7	105.3	103.6	104.5	100.8	101.8	100.2
13:20	MP41794-S1	87.4	106.2	103.4	102.5	98.8	101.1	97.7
13:24	MP41794-S2	92.6	106.4	102.6	102	98.7	101.5	97.6
13:28	MP41794-PS1	90.7	107.4	103	102.5	99.1	101.6	98.2
13:32	ZZZZZZ	92.9	107.5	102.9	102.1	98.8	100.5	96.8
13:35	MA19205-CCV3	90.9	103.8	105	104.8	101	101.9	98.1
13:39	MA19205-CCV4	86	102	103.7	103.3	98.7	100.3	94.9
13:43	MA19205-CCB2	96.3	104.3	104.5	104.6	100.3	99.5	97
13:47	ZZZZZZ	100.2	106.7	102.9	101.6	98	99.6	95.2
13:50	ZZZZZZ	94	108.6	103.2	102.1	97.9	99.6	96
13:54	ZZZZZZ	88.9	109.3	102.4	101.3	98	99.6	95.4

INTERNAL STANDARD SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
13:58	ZZZZZZ	85.9	109.6	103.8	102.2	98.5	99.9	96.3
14:02	ZZZZZZ	90.7	110.4	104.7	103.2	98	99.1	95.1
14:06	ZZZZZZ	91.8	108.5	104	103	98.4	99.4	94.3
14:10	ZZZZZZ	97.8	108.9	104.4	103.2	98	99.7	95.4
14:13	ZZZZZZ	87.9	109.3	104.6	103.2	99	99.6	95.3
14:17	ZZZZZZ	87.9	108.1	103.9	103	98.7	99.7	94.9
14:21	ZZZZZZ	90.6	109	105.2	104.4	100	99.9	96.7
14:25	MA19205-CCV5	91.3	104.1	105	105.2	100.5	100.5	95.3
14:29	MA19205-CCV6	84.6	104	103.9	104.1	98.4	99.2	93.4
14:32	MA19205-CCB3	94.5	106	104.9	105	99.9	98.3	94.8
14:36	ZZZZZZ	86.9	109.9	104.4	102.7	97.8	98.5	94.2
14:40	ZZZZZZ	82.2	108.6	102.9	101.5	97.3	98.2	94.6
14:44	ZZZZZZ	89.4	107.3	103.5	101.8	97.9	98.4	94.6
14:48	ZZZZZZ	87.1	107.8	103.9	102.8	97.7	98.9	94.5
14:51	ZZZZZZ	90.4	110.3	104.6	103.2	98.1	99.5	94.4
14:55	ZZZZZZ	120.2	102.5	95.2	91.8	89.5	93.5	86.4
14:59	ZZZZZZ	112.4	97.9	94.5	93.2	90.5	94.3	89.4
15:03	ZZZZZZ	95.2	95.3	95	94.4	91.5	94.4	90.9
15:14	MA19205-CCV7	83.1	98	99.4	99.5	94.5	96.5	91.7
15:18	MA19205-CCV8	92.9	98.2	99.1	98.1	93	94.8	89.6
15:22	MA19205-CCB4	88.3	99.1	98.5	99.2	94.3	93.6	91
15:30	ZZZZZZ	95	100	100	99.6	95.1	95.7	93.6
15:33	MP41795-MB1	89.4	96.1	95.9	95.2	91.4	91.7	90.9
15:37	MP41795-B1	81.4	94.5	94.6	95.5	90.1	93.1	87.3
15:41	FC2193-18	91.4	101.7	97.7	97.5	92.6	94.7	91.7
15:45	MP41795-D1	87.7	101.8	96.7	96.3	92.2	94.2	90.6
15:49	MP41795-D2	88.8	101.6	97.2	96.4	92.1	94.4	90.4
15:52	MP41795-SD1	88.5	99.2	97.8	98	93.5	93.4	91.2
15:56	MP41795-S1	82.5	101.4	97.1	96.4	91.1	93.7	89.4
16:00	MP41795-S2	88.9	101.8	97	96.1	91.2	93.7	88.9
16:04	MA19205-CCV9	87.3	96.9	98.4	98.5	93.2	94.3	90
16:08	MA19205-CCV10	85	97.2	97	97.6	91.6	93.5	88.3
16:11	MA19205-CCB5	85.1	99.2	98.1	98.2	93.3	92.7	89.7

INTERNAL STANDARD SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:15	MP41795-PS1	93.9	102.4	98	97.2	92.4	93.7	90.3
16:19	ZZZZZZ	93.7	98	97.6	97.4	93.1	93.5	90.5
16:23	ZZZZZZ	92.7	101.7	96.8	96.8	92.3	93.1	89
16:27	ZZZZZZ	86.1	102.5	96.7	95.9	91.2	92.9	88.6
16:30	ZZZZZZ	86.1	102.4	96.7	96.3	91.5	93.2	89.2
16:34	ZZZZZZ	87.3	102	97	95.9	91.5	93	88.8
16:38	ZZZZZZ	85.5	102.2	97.4	95.8	91.1	92.4	88.6
16:42	ZZZZZZ	84.3	100.5	95.6	94.8	90.1	91.1	89.5
16:46	ZZZZZZ	86.8	100.4	96.8	96	90.4	92.2	88.1
16:49	ZZZZZZ	89.2	99.9	96.2	94.5	89.6	90.8	87.6
16:53	MA19205-CCV11	84.4	96	97.1	96.9	91.3	92.8	88
16:57	MA19205-CCV12	87.5	94.3	94.5	94.4	89.2	91.1	85.7
17:01	MA19205-CCB6	85.3	96.9	95.8	96.5	90.9	90.3	86.8
17:05	ZZZZZZ	91.9	100.5	96.4	95.1	90.2	91.6	87.3
17:08	ZZZZZZ	82.1	100.9	95.4	94.6	90.1	92	88.3
17:12	MP41796-MB1	84	91.3	91.3	91.3	85.9	87	84.2
17:16	MP41796-B1	78.5	89.1	89.4	89.4	84	87.4	81.4
17:20	FC2279-1	86.2	91.1	90.2	90.8	85.5	86.6	83.2
17:24	MP41796-D1	73.8	92.1	91.8	91.8	86	87.2	83.5
17:27	MP41796-SD1	92.3	97.7	95.8	96.2	90.6	90.2	87
17:31	MP41796-S1	77.3	89.5	90	89.5	84.3	87.9	82.2
17:35	MP41796-S2	78.9	86.9	87.3	87.7	82.9	88.2	80.2
17:39	MP41796-PS1	No results reported for the elements associated with this internal standard.						
17:42	MA19205-CCV13	86.9	97	96.5	96.9	90.9	92.7	87.3
17:46	MA19205-CCV14	84	94.1	93.5	93.7	87.9	90.6	84.4
17:50	MA19205-CCB7	90	95	93.4	93.9	88.7	88.9	85.9
17:54	ZZZZZZ	86.3	90.7	89.9	89.7	84.7	86.5	83.5
17:58	ZZZZZZ	79.3	89.8	86.4	86	78.3	82.6	73.9
18:01	ZZZZZZ	79.4	88.5	85.2	85.6	78	82.5	74
18:05	ZZZZZZ	70.1	91.2	80.5	80.3	72.6	76	65 !a
18:09	FC2422-1	78.3	81.4	82.9	83.4	80.4	84.7	81
18:13	ZZZZZZ	77.3	84.6	85.7	85.9	80.7	85.4	79.2
18:17	ZZZZZZ	79.3	85.1	85.3	85.8	82.3	84.7	82.5

INTERNAL STANDARD SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19205
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
18:20	ZZZZZZ	82.7	83.6	84.4	84.9	81.2	84.5	82.4
18:24	ZZZZZZ	87.1	84.2	84.6	84.5	81	84.5	82.5
18:28	ZZZZZZ	84.7	84.9	85.4	85.3	82.1	85.4	82.3
18:32	MA19205-CCV15	87.8	91	92	92.1	88.1	90.5	86.6
18:35	MA19205-CCV16	82.1	90.9	90.8	90.4	86.5	89.4	84.1
18:39	MA19205-CCB8	96.6	88.4	87.8	87.8	84.8	86.4	83.9
18:43	ZZZZZZ	85.6	82.1	81.5	82.4	79.6	83.4	81.1
18:47	ZZZZZZ	83.7	82.6	82.4	82	80	83.5	81.1
18:51	ZZZZZZ	85.1	80.6	80.3	80.6	77.6	81.1	79.3
18:54	ZZZZZZ	80.6	82.6	83.3	83.5	80.4	84.1	81.3
18:58	ZZZZZZ	82	83.4	83.2	83.3	79.8	83.8	81.1
19:02	ZZZZZZ	86.8	84.8	84.5	85.7	82	85.2	82.5
19:06	FC2193-15	94.4	94.4	91.2	91.3	87.7	89.5	86.2
19:10	MP41794-D1	86.8	94	91.5	91.9	87.6	89.4	86.8
19:13	MP41794-D2	87.4	95.7	92.8	91.7	88.8	89.9	86.9
19:17	MP41794-SD1	94.8	94.3	91.9	92.5	88.8	89.5	86.7
19:21	MA19205-CCV17	92.9	93.6	93.5	93.6	89.4	90.7	85.8
19:25	MA19205-CCV18	83.6	91.5	90.9	91	86.6	89.1	83.4
19:28	MA19205-CCB9	86.7	92.1	91	90.9	86.9	87.1	84.3
19:32	MP41794-S1	88.1	95.1	91.9	90.7	87.5	89.4	85.9
19:36	MP41794-S2	87.5	95.3	92.3	91.9	87.7	89.4	85.9
19:40	MP41794-PS1	No results reported for the elements associated with this internal standard.						
19:44	MA19205-CCV19	95.1	93.5	93.2	92.5	88.4	90.1	85.6
19:47	MA19205-CCV20	84.8	91.6	90.9	90.7	86.3	87.7	83.1
19:51	MA19205-CCB10	91.4	91.9	90	90.2	86.2	86.6	83.8

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19205 Units: ug/l

Time: / Sample ID:			12:31 ICB1		12:53 CCB1		13:43 CCB2		14:32 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0286	<1.0	0.00544	<1.0	0.00994	<1.0	0.0310	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1	anr							
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3	anr							
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19205 Units: ug/l

Time: / Sample ID:			15:22 CCB4		16:11 CCB5		17:01 CCB6		17:50 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0303	<1.0	0.0326	<1.0	0.0197	<1.0	0.0130	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1	anr							
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3	anr							
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19205 Units: ug/l

Time:			18:39	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Aluminum	100	4.4	anr	
Antimony	1.0	.1	anr	
Arsenic	1.0	.1	0.0100	<1.0
Barium	1.0	.1	anr	
Beryllium	1.0	.1	anr	
Cadmium	1.0	.1	anr	
Calcium	100	7.2	anr	
Chromium	1.0	.1	anr	
Cobalt	1.0	.1	anr	
Copper	1.0	.1	anr	
Iron	100	7.9	anr	
Lead	1.0	.1	anr	
Magnesium	100	5.2	anr	
Manganese	1.0	.1	anr	
Molybdenum	1.0	.1	anr	
Nickel	1.0	.1	anr	
Potassium	100	6.6	anr	
Selenium	1.0	.11	anr	
Silver	1.0	.1	anr	
Sodium	100	4.8	anr	
Strontium	1.0	.1	anr	
Thallium	1.0	.1	anr	
Tin	1.0	.1	anr	
Titanium	1.0	.3	anr	
Vanadium	1.0	.1	anr	
Zinc	2.0	.29	anr	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		12:27			12:46			12:50	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	107	107.0				100	97.6	97.6
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		13:35			13:39			14:25	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.7	97.7			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		14:29			15:14			15:18	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.0	98.0				100	97.1	97.1
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		16:04			16:08			16:53	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.1	98.1			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		16:57			17:42			17:46	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.2	98.2				100	98.4	98.4
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		18:32			18:35	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	96.7	96.7
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19205 Units: ug/l

Time:		12:19			12:23	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	198	99.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19205 Units: ug/l

Time:			12:34	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	0.938	93.8
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0	anr	
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0	anr	
Thallium	1.0	1.0	anr	
Tin	1.0	1.0	anr	
Titanium	1.0	1.0	anr	
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA020723M1.CSV Date Analyzed: 02/07/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19205 Units: ug/l

Time:			12:38		12:42	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	97900	97.9	96700	96.7
Antimony			0.0778		0.0792	
Arsenic		20	0.0824		18.7	93.5
Barium			0.538		0.545	
Beryllium			0.0114		0.0266	
Cadmium		20	0.750		19.5	97.5
Calcium	100000	100000	97300	97.3	97200	97.2
Chromium		20	2.13*(a)		21.0	105.0
Cobalt		20	0.111		19.2	96.0
Copper		20	0.0836		18.6	93.0
Iron	100000	100000	99800	99.8	100000	100.0
Lead			0.0464		0.0443	
Magnesium	100000	100000	101000	101.0	100000	100.0
Manganese		20	0.277		19.0	95.0
Molybdenum	2000	2000	2080	104.0	2090	104.5
Nickel		20	0.420		18.9	94.5
Potassium	100000	100000	102000	102.0	102000	102.0
Selenium			0.234		0.222	
Silver		20	0.0240		18.6	93.0
Sodium	100000	100000	102000	102.0	102000	102.0
Strontium			0.864		0.846	
Thallium			0.0414		0.0293	
Tin			0.0797		0.0745	
Titanium	2000	2000	1970	98.5	1970	98.5
Vanadium			0.0533		0.0581	
Zinc		20	2.23*(a)		19.5	97.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41796
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 02/06/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.17	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP41796: FC2422-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41796
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			02/06/23					02/06/23	
Metal	FC2279-1 Original	DUP	RPD	QC Limits	FC2279-1 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	0.20	0.0	200.0(a)	0-20	0.20	198	200	98.9	80-120
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

Associated samples MP41796: FC2422-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41796 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 02/06/23

Metal	FC2279-1 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.20	205	200	102.4	3.5	20
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium	anr					
Thallium	anr					
Tin	anr					
Titanium	anr					
Vanadium	anr					
Zinc	anr					

Associated samples MP41796: FC2422-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41796
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 02/06/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	209	200	104.5	80-120
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium	anr			
Zinc	anr			

Associated samples MP41796: FC2422-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC2422
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41796
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 02/06/23

Metal	FC2279-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium	anr			
Zinc	anr			

Associated samples MP41796: FC2422-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC2422
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19205

Instrument Linear Ranges

Job Number: FC2422
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19205

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:43
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	170.95	514.68	2.841E-03	Pulse	0.50	3
As			1	0.001	ug/l	279.91	57.00	3.146E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	64.29	204.67	7.642E-04	Pulse	0.50	3
Pb			1	0.002	ug/l	93.90	1,056.37	3.407E-04	Pulse	1.00	3
Be			1	-0.011	ug/l	-44.91	0.83	2.921E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	45.52	228.67	8.542E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	115.49	42.00	2.515E-05	Pulse	0.50	3
Tl			1	0.011	ug/l	7.80	881.36	2.840E-04	Pulse	0.50	3
Sn			1	0.010	ug/l	102.50	303.34	1.816E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	169.42	349.34	2.096E-04	Pulse	0.50	3
[Pb]			1	0.003	ug/l	100.74	494.68	1.595E-04	Pulse	0.50	3
Ca			1	-1.115	ug/l	-115.77	416.67	1.461E-03	Pulse	0.50	3
Ti			1	-0.008	ug/l	-207.22	4.00	1.405E-05	Pulse	0.50	3
Na			1	0.717	ug/l	25.75	12,862.79	4.510E-02	Pulse	1.00	3
Mg			1	0.041	ug/l	101.00	641.68	2.250E-03	Pulse	1.00	3
K			1	0.214	ug/l	58.88	59,298.07	2.079E-01	Pulse	1.00	3
V			1	0.002	ug/l	676.54	1,266.71	4.442E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	165.51	238.00	1.313E-03	Pulse	0.50	3
Fe			1	0.035	ug/l	110.79	14,599.51	8.057E-02	Pulse	0.50	3
Co			1	0.002	ug/l	61.50	144.00	7.944E-04	Pulse	0.50	3
Ni			1	0.013	ug/l	88.82	508.68	2.808E-03	Pulse	0.50	3
Cu			1	0.034	ug/l	8.82	6,588.47	3.636E-02	Pulse	0.50	3
Zn			1	0.033	ug/l	83.61	1,367.38	5.108E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	73.22	27.33	1.023E-04	Pulse	0.50	3
Al			1	-0.053	ug/l	-189.36	239.33	8.391E-04	Pulse	1.00	3
Se			1	0.033	ug/l	336.57	75.44	2.821E-04	Pulse	3.00	3
Sb			1	0.003	ug/l	138.02	162.00	6.048E-04	Pulse	1.00	3
Se			1	-0.035	ug/l	-162.59	29.55	1.104E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,102,385.42	1.78	100.0	Pulse	0.50	3
1	Sc		285,198.29	0.31	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		181,205.16	0.53	100.0	Pulse	0.30	3
1	In		1,668,425.00	1.35	100.0	Pulse	0.30	3
1	Tb		4,469,609.83	1.91	100.0	Pulse	0.50	3
1	Lu		3,381,887.08	1.45	100.0	Pulse	0.50	3
1	Ge		267,620.62	0.89	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,266.72	8.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:47
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-94.18	457.34	2.507E-03	Pulse	0.50	3
As			1	0.002	ug/l	521.85	59.67	3.273E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	91.87	166.00	6.135E-04	Pulse	0.50	3
Pb			1	0.001	ug/l	190.91	1,035.70	3.285E-04	Pulse	1.00	3
Be			1	0.021	ug/l	149.69	2.67	9.225E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	77.87	221.33	8.189E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	108.92	41.33	2.448E-05	Pulse	0.50	3
Tl			1	0.002	ug/l	61.24	559.34	1.774E-04	Pulse	0.50	3
Sn			1	0.002	ug/l	218.12	252.22	1.493E-04	Pulse	0.30	3
Sr			1	0.001	ug/l	559.31	330.00	1.953E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	124.89	492.68	1.563E-04	Pulse	0.50	3
Ca			1	-0.711	ug/l	-50.72	440.68	1.524E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	70042.88	6.67	2.305E-05	Pulse	0.50	3
Na			1	0.262	ug/l	40.27	12,342.14	4.269E-02	Pulse	1.00	3
Mg			1	-0.021	ug/l	-203.82	602.34	2.083E-03	Pulse	1.00	3
K			1	-0.146	ug/l	-433.14	59,794.57	2.068E-01	Pulse	1.00	3
V			1	0.007	ug/l	94.85	1,326.72	4.589E-03	Pulse	0.50	3
Mn			1	0.002	ug/l	256.85	250.67	1.374E-03	Pulse	0.50	3
Fe			1	0.001	ug/l	316.39	14,383.33	7.885E-02	Pulse	0.50	3
Co			1	-0.001	ug/l	-329.98	103.33	5.661E-04	Pulse	0.50	3
Ni			1	0.005	ug/l	178.89	473.34	2.595E-03	Pulse	0.50	3
Cu			1	0.010	ug/l	84.60	6,345.73	3.479E-02	Pulse	0.50	3
Zn			1	0.015	ug/l	115.70	1,342.72	4.969E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	-1266.02	13.33	4.921E-05	Pulse	0.50	3
Al			1	0.044	ug/l	147.29	275.67	9.536E-04	Pulse	1.00	3
Se			1	-0.023	ug/l	-56.03	69.56	2.575E-04	Pulse	3.00	3
Sb			1	0.002	ug/l	93.21	156.00	5.772E-04	Pulse	1.00	3
Se			1	-0.061	ug/l	-120.25	28.33	1.049E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,152,834.50	0.69	100.0	Pulse	0.50	3
1	Sc		289,091.65	0.25	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		182,408.26	0.34	100.0	Pulse	0.30	3
1	In		1,689,503.13	0.47	100.0	Pulse	0.30	3
1	Tb		4,512,548.17	1.03	100.0	Pulse	0.50	3
1	Lu		3,416,103.92	0.80	100.0	Pulse	0.50	3
1	Ge		270,179.81	0.92	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,297.82	1.82	100.0	Pulse	0.30	3

Quantitation Report

File Name 003CALB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 11:51
Sample Name CALSTD-1
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	498.01	2.697E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	56.67	3.068E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	123.33	4.529E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,007.36	3.195E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.50	5.172E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	204.67	7.515E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	32.00	1.882E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	485.34	1.538E-04	Pulse	0.50	3
Sn			1	0.000	ug/l	---	242.23	1.421E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	324.00	1.905E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	469.34	1.489E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	474.01	1.636E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	---	6.67	2.303E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	11,966.24	4.131E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	620.01	2.140E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	60,042.64	2.073E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,268.71	4.380E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	240.67	1.303E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	14,547.46	7.878E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	114.00	6.181E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	457.34	2.476E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	6,301.04	3.412E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,320.38	4.846E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	14.00	5.138E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	261.33	9.019E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	72.89	2.674E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	139.33	5.109E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	32.11	1.179E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,153,597.58	1.13	100.0	Pulse	0.50	3
1	Sc		289,689.26	0.69	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		184,676.15	1.16	100.0	Pulse	0.30	3
1	In		1,702,263.89	0.84	100.0	Pulse	0.30	3
1	Tb		4,520,061.33	1.07	100.0	Pulse	0.50	3
1	Lu		3,437,452.50	1.12	100.0	Pulse	0.50	3
1	Ge		272,507.90	0.85	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,260.05	4.16	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 11:55
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.462	ug/l	1.77	5,718.86	3.082E-02	Pulse	0.50	3
As			1	0.475	ug/l	2.89	787.35	4.243E-03	Pulse	1.00	3
Mo			1	0.464	ug/l	4.27	3,040.92	1.111E-02	Pulse	0.50	3
Pb			1	0.470	ug/l	0.93	14,233.24	4.518E-03	Pulse	1.00	3
Be			1	0.498	ug/l	3.53	30.00	1.034E-04	Pulse	2.00	3
Ag			1	0.487	ug/l	2.70	9,424.42	3.444E-02	Pulse	0.50	3
Ba			1	0.451	ug/l	2.89	1,428.73	8.346E-04	Pulse	0.50	3
Tl			1	0.476	ug/l	1.88	18,920.45	6.005E-03	Pulse	0.50	3
Sn			1	0.461	ug/l	1.61	3,518.14	2.055E-03	Pulse	0.30	3
Sr			1	0.444	ug/l	2.20	4,299.84	2.511E-03	Pulse	0.50	3
[Pb]			1	0.469	ug/l	4.88	6,748.69	2.143E-03	Pulse	0.50	3
Ca			1	45.319	ug/l	3.65	2,532.84	8.733E-03	Pulse	0.50	3
Ti			1	0.504	ug/l	12.87	166.67	5.747E-04	Pulse	0.50	3
Na			1	47.993	ug/l	1.07	85,519.32	2.949E-01	Pulse	1.00	3
Mg			1	47.653	ug/l	0.13	38,075.68	1.313E-01	Pulse	1.00	3
K			1	47.646	ug/l	0.41	101,514.98	3.500E-01	Pulse	1.00	3
V			1	0.469	ug/l	2.77	5,600.15	1.931E-02	Pulse	0.50	3
Mn			1	0.485	ug/l	3.31	3,575.01	1.927E-02	Pulse	0.50	3
Fe			1	47.888	ug/l	0.63	475,892.71	2.565E+00	Pulse	0.50	3
Co			1	0.481	ug/l	1.16	8,420.52	4.538E-02	Pulse	0.50	3
Ni			1	0.485	ug/l	3.68	2,676.19	1.442E-02	Pulse	0.50	3
Cu			1	0.617	ug/l	4.01	13,765.59	7.419E-02	Pulse	0.50	3
Zn			1	0.390	ug/l	5.50	2,180.13	7.968E-03	Pulse	1.00	3
Cd			1	0.476	ug/l	5.84	1,473.40	5.385E-03	Pulse	0.50	3
Al			1	48.143	ug/l	0.77	16,699.64	5.758E-02	Pulse	1.00	3
Se			1	0.494	ug/l	10.53	133.11	4.865E-04	Pulse	3.00	3
Sb			1	0.460	ug/l	2.01	4,471.89	1.634E-02	Pulse	1.00	3
Se			1	0.442	ug/l	10.08	57.78	2.111E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,150,628.67	1.00	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		290,030.69	0.07	100.1	Pulse	0.30	3
1	Ge		185,542.61	0.29	100.5	Pulse	0.30	3
1	In		1,712,026.50	1.13	100.6	Pulse	0.30	3
1	Tb		4,558,691.83	1.23	100.9	Pulse	0.50	3
1	Lu		3,453,606.92	0.69	100.5	Pulse	0.50	3
1	Ge		273,631.81	0.42	100.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,332.28	6.59	105.7	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 11:59
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.984	ug/l	1.01	11,694.19	6.264E-02	Pulse	0.50	3
As			1	0.976	ug/l	3.35	1,565.73	8.386E-03	Pulse	1.00	3
Mo			1	0.947	ug/l	2.79	6,124.35	2.221E-02	Pulse	0.50	3
Pb			1	0.965	ug/l	1.09	28,260.25	8.936E-03	Pulse	1.00	3
Be			1	0.886	ug/l	14.45	53.00	1.800E-04	Pulse	2.00	3
Ag			1	1.010	ug/l	1.23	19,476.21	7.063E-02	Pulse	0.50	3
Ba			1	0.944	ug/l	5.17	2,968.92	1.726E-03	Pulse	0.50	3
Tl			1	0.990	ug/l	1.36	38,984.19	1.233E-02	Pulse	0.50	3
Sn			1	0.945	ug/l	1.27	6,990.25	4.064E-03	Pulse	0.30	3
Sr			1	0.965	ug/l	1.14	9,007.50	5.236E-03	Pulse	0.50	3
[Pb]			1	0.962	ug/l	1.50	13,410.61	4.240E-03	Pulse	0.50	3
Ca			1	97.435	ug/l	2.22	4,975.98	1.689E-02	Pulse	0.50	3
Ti			1	0.933	ug/l	14.70	307.33	1.043E-03	Pulse	0.50	3
Na			1	98.295	ug/l	0.52	165,122.39	5.606E-01	Pulse	1.00	3
Mg			1	98.172	ug/l	0.62	78,990.63	2.682E-01	Pulse	1.00	3
K			1	98.180	ug/l	0.72	147,680.95	5.014E-01	Pulse	1.00	3
V			1	0.958	ug/l	2.36	10,274.06	3.488E-02	Pulse	0.50	3
Mn			1	0.985	ug/l	5.50	7,055.31	3.779E-02	Pulse	0.50	3
Fe			1	100.510	ug/l	0.19	988,859.89	5.297E+00	Pulse	0.50	3
Co			1	1.009	ug/l	1.17	17,664.06	9.462E-02	Pulse	0.50	3
Ni			1	1.037	ug/l	1.97	5,235.38	2.804E-02	Pulse	0.50	3
Cu			1	1.122	ug/l	3.35	19,983.01	1.070E-01	Pulse	0.50	3
Zn			1	0.934	ug/l	2.74	3,396.31	1.232E-02	Pulse	1.00	3
Cd			1	0.971	ug/l	1.52	3,011.59	1.092E-02	Pulse	0.50	3
Al			1	99.130	ug/l	0.78	34,638.56	1.176E-01	Pulse	1.00	3
Se			1	1.047	ug/l	5.10	201.78	7.318E-04	Pulse	3.00	3
Sb			1	0.962	ug/l	0.46	9,260.00	3.358E-02	Pulse	1.00	3
Se			1	0.906	ug/l	8.59	85.22	3.090E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,162,465.75	1.26	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		294,535.66	0.16	101.7	Pulse	0.30	3
1	Ge		186,692.43	0.45	101.1	Pulse	0.30	3
1	In		1,720,125.21	0.86	101.0	Pulse	0.30	3
1	Tb		4,568,401.33	0.79	101.1	Pulse	0.50	3
1	Lu		3,463,397.83	1.01	100.8	Pulse	0.50	3
1	Ge		275,751.04	0.49	101.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,294.49	6.18	102.7	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:03
Sample Name	CALSTD-4
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.459	ug/l	0.32	120,451.57	6.399E-01	Pulse	0.50	3
As			1	10.157	ug/l	0.33	15,888.93	8.442E-02	Pulse	1.00	3
Mo			1	9.951	ug/l	0.37	63,938.22	2.290E-01	Pulse	0.50	3
Pb			1	10.057	ug/l	0.34	289,184.48	9.011E-02	Pulse	1.00	3
Be			1	10.103	ug/l	1.59	593.68	1.999E-03	Pulse	2.00	3
Ag			1	10.638	ug/l	0.32	205,629.45	7.364E-01	Pulse	0.50	3
Ba			1	10.022	ug/l	1.37	31,586.82	1.815E-02	Pulse	0.50	3
Tl			1	10.342	ug/l	0.15	408,512.90	1.273E-01	Pulse	0.50	3
Sn			1	9.982	ug/l	0.47	72,305.69	4.154E-02	Pulse	0.30	3
Sr			1	10.045	ug/l	0.98	91,703.54	5.269E-02	Pulse	0.50	3
[Pb]			1	10.020	ug/l	0.68	137,278.90	4.278E-02	Pulse	0.50	3
Ca			1	1020.911	ug/l	0.97	47,960.24	1.615E-01	Pulse	0.50	3
Ti			1	10.020	ug/l	2.26	3,261.62	1.098E-02	Pulse	0.50	3
Na			1	1025.154	ug/l	0.27	1,620,543.21	5.457E+00	Pulse	1.00	3
Mg			1	1029.275	ug/l	0.10	828,931.12	2.792E+00	Pulse	1.00	3
K			1	1039.855	ug/l	0.30	986,593.77	3.322E+00	Pulse	1.00	3
V			1	10.096	ug/l	0.82	96,743.78	3.258E-01	Pulse	0.50	3
Mn			1	10.423	ug/l	1.10	72,890.41	3.873E-01	Pulse	0.50	3
Fe			1	1043.878	ug/l	0.75	10,214,581.00	5.427E+01	Analog	0.50	3
Co			1	10.561	ug/l	0.62	185,262.68	9.843E-01	Pulse	0.50	3
Ni			1	10.571	ug/l	0.64	49,512.29	2.631E-01	Pulse	0.50	3
Cu			1	10.702	ug/l	0.37	137,288.21	7.294E-01	Pulse	0.50	3
Zn			1	10.622	ug/l	1.28	25,086.60	8.984E-02	Pulse	1.00	3
Cd			1	10.159	ug/l	2.00	31,770.50	1.138E-01	Pulse	0.50	3
Al			1	1037.178	ug/l	0.33	362,850.96	1.222E+00	Pulse	1.00	3
Se			1	10.199	ug/l	1.88	1,338.16	4.792E-03	Pulse	3.00	3
Sb			1	10.076	ug/l	0.40	96,895.14	3.470E-01	Pulse	1.00	3
Se			1	10.197	ug/l	2.34	634.01	2.270E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,209,244.42	1.16	101.8	Pulse	0.50	3
1	Sc		296,947.64	0.46	102.5	Pulse	0.30	3
1	Ge		188,221.95	0.99	101.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,740,562.36	0.51	102.2	Pulse	0.30	3
1	Tb		4,643,575.50	0.78	102.7	Pulse	0.50	3
1	Lu		3,524,002.17	1.24	102.5	Pulse	0.50	3
1	Ge		279,240.77	0.45	102.5	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,401.17	4.36	111.2	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:07
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.563	ug/l	0.29	556,626.36	2.961E+00	Pulse	0.50	3
As			1	47.985	ug/l	0.60	74,745.99	3.977E-01	Pulse	1.00	3
Mo			1	46.710	ug/l	0.50	301,176.15	1.073E+00	Pulse	0.50	3
Pb			1	47.421	ug/l	0.51	1,343,090.54	4.237E-01	Pulse	1.00	3
Be			1	47.638	ug/l	2.34	2,772.19	9.408E-03	Pulse	2.00	3
Ag			1	49.163	ug/l	0.92	954,379.94	3.401E+00	Pulse	0.50	3
Ba			1	47.403	ug/l	0.58	148,700.32	8.576E-02	Pulse	0.50	3
Tl			1	49.396	ug/l	0.68	1,925,420.21	6.074E-01	Pulse	0.50	3
Sn			1	47.300	ug/l	0.21	340,423.36	1.963E-01	Pulse	0.30	3
Sr			1	47.589	ug/l	0.98	431,597.60	2.489E-01	Pulse	0.50	3
[Pb]			1	47.358	ug/l	0.68	639,122.94	2.016E-01	Pulse	0.50	3
Ca			1	4825.826	ug/l	0.66	223,192.72	7.574E-01	Pulse	0.50	3
Ti			1	47.468	ug/l	2.32	15,305.33	5.195E-02	Pulse	0.50	3
Na			1	4811.391	ug/l	0.94	7,502,603.67	2.546E+01	Analog	1.00	3
Mg			1	4822.312	ug/l	0.97	3,851,606.50	1.307E+01	Pulse	1.00	3
K			1	4857.868	ug/l	0.92	4,349,624.83	1.476E+01	Pulse	1.00	3
V			1	47.938	ug/l	0.77	451,002.92	1.530E+00	Pulse	0.50	3
Mn			1	48.941	ug/l	0.33	340,871.90	1.814E+00	Pulse	0.50	3
Fe			1	4846.986	ug/l	0.71	47,312,378.67	2.517E+02	Analog	0.50	3
Co			1	49.167	ug/l	0.61	860,929.31	4.580E+00	Pulse	0.50	3
Ni			1	49.341	ug/l	0.69	229,092.36	1.219E+00	Pulse	0.50	3
Cu			1	49.282	ug/l	0.82	608,250.42	3.236E+00	Pulse	0.50	3
Zn			1	48.129	ug/l	1.20	109,443.40	3.900E-01	Pulse	1.00	3
Cd			1	48.183	ug/l	0.86	151,404.02	5.395E-01	Pulse	0.50	3
Al			1	4883.618	ug/l	1.19	1,694,394.12	5.750E+00	Pulse	1.00	3
Se			1	47.644	ug/l	0.96	6,007.28	2.140E-02	Pulse	3.00	3
Sb			1	47.351	ug/l	0.66	457,141.81	1.629E+00	Pulse	1.00	3
Se			1	48.083	ug/l	0.68	2,881.77	1.027E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,169,873.25	0.47	100.5	Pulse	0.50	3
1	Sc		294,700.58	1.42	101.7	Pulse	0.30	3
1	Ge		187,963.40	0.24	101.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,733,963.23	0.09	101.9	Pulse	0.30	3
1	Tb		4,649,696.83	0.23	102.9	Pulse	0.50	3
1	Lu		3,536,591.50	0.27	102.9	Pulse	0.50	3
1	Ge		280,668.33	0.77	103.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,313.38	6.44	104.2	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:11
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.640	ug/l	0.49	1,131,557.04	6.134E+00	Pulse	0.50	3
As			1	99.689	ug/l	0.57	152,336.14	8.258E-01	Pulse	1.00	3
Mo			1	97.363	ug/l	0.07	614,287.42	2.236E+00	Pulse	0.50	3
Pb			1	98.865	ug/l	0.44	2,708,621.50	8.830E-01	Pulse	1.00	3
Be			1	99.654	ug/l	0.74	5,715.47	1.967E-02	Pulse	2.00	3
Ag			1	100.355	ug/l	0.74	1,906,497.50	6.941E+00	Pulse	0.50	3
Ba			1	98.587	ug/l	0.85	300,356.27	1.783E-01	Pulse	0.50	3
Tl			1	101.829	ug/l	0.32	3,840,431.25	1.252E+00	Pulse	0.50	3
Sn			1	98.678	ug/l	0.84	689,555.91	4.094E-01	Pulse	0.30	3
Sr			1	98.743	ug/l	0.79	869,485.65	5.163E-01	Pulse	0.50	3
[Pb]			1	98.839	ug/l	0.21	1,290,299.87	4.206E-01	Pulse	0.50	3
Ca			1	9869.531	ug/l	0.81	449,440.77	1.547E+00	Pulse	0.50	3
Ti			1	98.647	ug/l	0.91	31,351.03	1.079E-01	Pulse	0.50	3
Na			1	9895.915	ug/l	0.53	15,198,849.33	5.232E+01	Analog	1.00	3
Mg			1	9901.107	ug/l	0.75	7,794,800.67	2.683E+01	Analog	1.00	3
K			1	9828.923	ug/l	0.42	8,613,684.33	2.965E+01	Analog	1.00	3
V			1	98.944	ug/l	0.51	916,261.58	3.154E+00	Pulse	0.50	3
Mn			1	100.331	ug/l	0.35	685,559.63	3.716E+00	Pulse	0.50	3
Fe			1	9995.350	ug/l	0.32	95,736,733.33	5.190E+02	Analog	0.50	3
Co			1	100.065	ug/l	0.71	1,719,467.12	9.321E+00	Pulse	0.50	3
Ni			1	100.418	ug/l	0.62	457,104.97	2.478E+00	Pulse	0.50	3
Cu			1	100.701	ug/l	0.23	1,213,208.67	6.577E+00	Pulse	0.50	3
Zn			1	99.241	ug/l	0.77	219,460.27	7.989E-01	Pulse	1.00	3
Cd			1	98.170	ug/l	0.52	301,899.33	1.099E+00	Pulse	0.50	3
Al			1	9976.123	ug/l	0.98	3,411,718.58	1.175E+01	Pulse	1.00	3
Se			1	97.704	ug/l	0.27	11,979.75	4.361E-02	Pulse	3.00	3
Sb			1	98.008	ug/l	0.58	925,924.88	3.371E+00	Pulse	1.00	3
Se			1	99.159	ug/l	1.43	5,781.88	2.105E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,067,456.83	0.36	97.3	Pulse	0.50	3
1	Sc		290,490.68	0.92	100.3	Pulse	0.30	3
1	Ge		184,471.24	0.60	99.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,684,243.75	0.33	98.9	Pulse	0.30	3
1	Tb		4,556,625.17	0.40	100.8	Pulse	0.50	3
1	Lu		3,496,283.00	0.66	101.7	Pulse	0.50	3
1	Ge		274,689.52	0.32	100.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,333.38	9.59	105.8	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:15
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.016	ug/l	0.39	2,209,787.42	1.219E+01	Pulse	0.50	3
As			1	200.652	ug/l	0.35	301,295.56	1.662E+00	Pulse	1.00	3
Mo			1	202.144	ug/l	0.48	1,225,736.33	4.642E+00	Pulse	0.50	3
Pb			1	201.209	ug/l	0.04	5,342,505.50	1.797E+00	Pulse	1.00	3
Be			1	200.759	ug/l	1.10	11,197.41	3.963E-02	Pulse	2.00	3
Ag			1	166.180	ug/l	0.93	3,034,319.50	1.149E+01	Pulse	0.50	3
Ba			1	201.355	ug/l	0.27	594,539.17	3.642E-01	Pulse	0.50	3
Tl			1	199.220	ug/l	0.07	7,282,713.50	2.449E+00	Analog	0.50	3
Sn			1	201.337	ug/l	0.69	1,363,398.87	8.352E-01	Pulse	0.30	3
Sr			1	201.229	ug/l	0.54	1,717,071.29	1.052E+00	Pulse	0.50	3
[Pb]			1	201.240	ug/l	0.23	2,546,040.67	8.563E-01	Pulse	0.50	3
Ca			1	20107.757	ug/l	1.02	890,166.10	3.151E+00	Pulse	0.50	3
Ti			1	201.309	ug/l	1.14	62,221.51	2.202E-01	Pulse	0.50	3
Na			1	20097.951	ug/l	0.58	30,012,839.33	1.062E+02	Analog	1.00	3
Mg			1	20092.420	ug/l	0.71	15,385,414.00	5.445E+01	Analog	1.00	3
K			1	20119.094	ug/l	0.88	17,088,178.67	6.048E+01	Analog	1.00	3
V			1	201.039	ug/l	0.49	1,809,560.13	6.404E+00	Pulse	0.50	3
Mn			1	200.078	ug/l	0.18	1,343,408.58	7.410E+00	Pulse	0.50	3
Fe			1	20038.387	ug/l	0.43	188,618,384.00	1.040E+03	Analog	0.50	3
Co			1	200.147	ug/l	0.27	3,380,066.08	1.864E+01	Pulse	0.50	3
Ni			1	199.927	ug/l	0.30	893,999.85	4.931E+00	Pulse	0.50	3
Cu			1	199.793	ug/l	0.41	2,359,583.67	1.301E+01	Pulse	0.50	3
Zn			1	200.817	ug/l	0.68	425,531.15	1.612E+00	Pulse	1.00	3
Cd			1	201.361	ug/l	0.97	595,182.13	2.254E+00	Pulse	0.50	3
Al			1	20039.184	ug/l	0.86	6,665,743.67	2.359E+01	Analog	1.00	3
Se			1	201.727	ug/l	0.70	23,699.20	8.976E-02	Pulse	3.00	3
Sb			1	201.655	ug/l	0.84	1,831,000.83	6.935E+00	Pulse	1.00	3
Se			1	200.890	ug/l	1.21	11,227.75	4.252E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,973,399.42	0.73	94.3	Pulse	0.50	3
1	Sc		282,554.73	0.90	97.5	Pulse	0.30	3
1	Ge		181,300.26	0.14	98.2	Pulse	0.30	3
1	In		1,632,379.80	0.29	95.9	Pulse	0.30	3
1	Tb		4,463,107.33	0.54	98.7	Pulse	0.50	3
1	Lu		3,418,111.33	0.64	99.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,027.88	0.48	96.9	Pulse	0.30	3
1	Te		4.67	65.47		Pulse	0.50	3
1	Li		1,233.38	4.89	97.9	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:19
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.219	ug/l	1.24	1,085,306.25	5.987E+00	Pulse	0.50	3
As			1	97.369	ug/l	0.66	146,230.11	8.066E-01	Pulse	1.00	3
Mo			1	97.409	ug/l	0.88	596,116.98	2.237E+00	Pulse	0.50	3
Pb			1	97.691	ug/l	0.96	2,639,817.08	8.725E-01	Pulse	1.00	3
Be			1	98.189	ug/l	0.33	5,459.73	1.939E-02	Pulse	2.00	3
Ag			1	100.553	ug/l	0.75	1,852,873.25	6.954E+00	Pulse	0.50	3
Ba			1	97.666	ug/l	1.02	290,940.60	1.767E-01	Pulse	0.50	3
Tl			1	100.902	ug/l	1.06	3,753,435.50	1.241E+00	Pulse	0.50	3
Sn			1	98.309	ug/l	0.47	671,687.32	4.079E-01	Pulse	0.30	3
Sr			1	97.820	ug/l	0.29	842,183.77	5.114E-01	Pulse	0.50	3
[Pb]			1	97.357	ug/l	1.32	1,253,561.04	4.143E-01	Pulse	0.50	3
Ca			1	9743.563	ug/l	0.58	430,203.89	1.528E+00	Pulse	0.50	3
Ti			1	97.314	ug/l	0.20	29,985.55	1.065E-01	Pulse	0.50	3
Na			1	9892.169	ug/l	0.52	14,730,426.00	5.230E+01	Analog	1.00	3
Mg			1	9871.713	ug/l	0.16	7,535,149.00	2.675E+01	Analog	1.00	3
K			1	9813.409	ug/l	0.77	8,338,082.83	2.961E+01	Analog	1.00	3
V			1	97.771	ug/l	0.49	877,835.52	3.117E+00	Pulse	0.50	3
Mn			1	98.143	ug/l	0.84	659,058.98	3.635E+00	Pulse	0.50	3
Fe			1	9856.108	ug/l	0.87	92,776,802.67	5.118E+02	Analog	0.50	3
Co			1	98.607	ug/l	0.78	1,665,234.00	9.185E+00	Pulse	0.50	3
Ni			1	98.714	ug/l	1.60	441,611.69	2.436E+00	Pulse	0.50	3
Cu			1	98.969	ug/l	1.37	1,171,888.92	6.464E+00	Pulse	0.50	3
Zn			1	98.519	ug/l	0.38	211,330.12	7.932E-01	Pulse	1.00	3
Cd			1	98.128	ug/l	1.03	292,701.03	1.099E+00	Pulse	0.50	3
Al			1	9815.239	ug/l	0.60	3,254,640.25	1.156E+01	Pulse	1.00	3
Se			1	97.894	ug/l	1.11	11,641.99	4.370E-02	Pulse	3.00	3
Sb			1	97.877	ug/l	1.13	896,911.17	3.366E+00	Pulse	1.00	3
Se			1	98.191	ug/l	0.75	5,553.70	2.084E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,025,435.75	0.20	95.9	Pulse	0.50	3
1	Sc		281,638.62	0.46	97.2	Pulse	0.30	3
1	Ge		181,293.49	0.26	98.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,646,731.46	0.66	96.7	Pulse	0.30	3
1	Tb		4,485,695.17	0.05	99.2	Pulse	0.50	3
1	Lu		3,408,017.58	0.70	99.1	Pulse	0.50	3
1	Ge		266,442.07	0.91	97.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,193.38	1.45	94.7	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:23
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.515	ug/l	1.46	2,154,148.75	1.210E+01	Pulse	0.50	3
As			1	198.455	ug/l	1.13	292,702.30	1.644E+00	Pulse	1.00	3
Mo			1	199.813	ug/l	0.96	1,198,937.88	4.589E+00	Pulse	0.50	3
Pb			1	198.140	ug/l	1.28	5,223,911.00	1.769E+00	Pulse	1.00	3
Be			1	198.931	ug/l	0.27	10,935.27	3.927E-02	Pulse	2.00	3
Ag			1	163.616	ug/l	1.33	2,956,249.17	1.132E+01	Pulse	0.50	3
Ba			1	200.643	ug/l	0.22	584,378.25	3.629E-01	Pulse	0.50	3
Tl			1	197.769	ug/l	0.57	7,178,790.17	2.431E+00	Analog	0.50	3
Sn			1	198.349	ug/l	0.70	1,324,892.76	8.228E-01	Pulse	0.30	3
Sr			1	197.691	ug/l	0.50	1,663,950.50	1.033E+00	Pulse	0.50	3
[Pb]			1	197.384	ug/l	1.19	2,479,682.83	8.399E-01	Pulse	0.50	3
Ca			1	19892.532	ug/l	0.44	867,921.69	3.117E+00	Pulse	0.50	3
Ti			1	199.119	ug/l	1.29	60,655.40	2.178E-01	Pulse	0.50	3
Na			1	20093.137	ug/l	0.43	29,571,104.00	1.062E+02	Analog	1.00	3
Mg			1	19963.184	ug/l	0.83	15,065,188.33	5.410E+01	Analog	1.00	3
K			1	19974.537	ug/l	0.25	16,720,523.00	6.005E+01	Analog	1.00	3
V			1	198.708	ug/l	0.56	1,762,692.17	6.330E+00	Pulse	0.50	3
Mn			1	198.182	ug/l	1.19	1,307,010.62	7.340E+00	Pulse	0.50	3
Fe			1	20035.473	ug/l	1.11	185,238,949.33	1.040E+03	Analog	0.50	3
Co			1	199.478	ug/l	1.25	3,308,875.33	1.858E+01	Pulse	0.50	3
Ni			1	198.205	ug/l	1.17	870,554.25	4.889E+00	Pulse	0.50	3
Cu			1	197.844	ug/l	1.11	2,295,109.58	1.289E+01	Pulse	0.50	3
Zn			1	198.019	ug/l	0.74	415,240.94	1.589E+00	Pulse	1.00	3
Cd			1	200.235	ug/l	1.06	585,677.29	2.242E+00	Pulse	0.50	3
Al			1	19855.463	ug/l	0.74	6,509,130.83	2.338E+01	Analog	1.00	3
Se			1	198.486	ug/l	0.47	23,075.66	8.832E-02	Pulse	3.00	3
Sb			1	199.780	ug/l	1.07	1,794,998.42	6.871E+00	Pulse	1.00	3
Se			1	198.825	ug/l	1.32	10,995.72	4.209E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,952,487.25	0.32	93.6	Pulse	0.50	3
1	Sc		278,459.44	0.50	96.1	Pulse	0.30	3
1	Ge		178,094.76	1.39	96.4	Pulse	0.30	3
1	In		1,610,162.68	0.35	94.6	Pulse	0.30	3
1	Tb		4,409,745.83	1.04	97.6	Pulse	0.50	3
1	Lu		3,382,197.08	0.98	98.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,271.29	0.66	95.9	Pulse	0.30	3
1	Te		4.00	86.60		Pulse	0.50	3
1	Li		1,166.70	4.76	92.6	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:27
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	106.419	ug/l	0.22	1,158,383.25	6.486E+00	Pulse	0.50	3
As			1	106.682	ug/l	0.81	157,822.17	8.837E-01	Pulse	1.00	3
Mo			1	106.712	ug/l	0.39	647,373.10	2.451E+00	Pulse	0.50	3
Pb			1	104.525	ug/l	0.29	2,794,770.58	9.335E-01	Pulse	1.00	3
Be			1	106.248	ug/l	1.20	5,889.35	2.098E-02	Pulse	2.00	3
Ag			1	50.485	ug/l	0.24	922,353.29	3.492E+00	Pulse	0.50	3
Ba			1	101.881	ug/l	0.80	297,850.79	1.843E-01	Pulse	0.50	3
Tl			1	107.785	ug/l	0.14	3,967,489.33	1.325E+00	Pulse	0.50	3
Sn			1	98.626	ug/l	1.06	661,334.00	4.092E-01	Pulse	0.30	3
Sr			1	105.071	ug/l	0.92	887,789.85	5.493E-01	Pulse	0.50	3
[Pb]			1	104.568	ug/l	0.29	1,332,242.88	4.450E-01	Pulse	0.50	3
Ca			1	9947.153	ug/l	0.64	437,818.24	1.559E+00	Pulse	0.50	3
Ti			1	103.501	ug/l	0.87	31,792.39	1.132E-01	Pulse	0.50	3
Na			1	10551.306	ug/l	0.43	15,662,369.00	5.579E+01	Analog	1.00	3
Mg			1	10868.200	ug/l	0.36	8,269,917.33	2.946E+01	Analog	1.00	3
K			1	10401.877	ug/l	0.77	8,807,080.00	3.137E+01	Analog	1.00	3
V			1	104.998	ug/l	0.43	939,703.37	3.347E+00	Pulse	0.50	3
Mn			1	105.542	ug/l	0.64	698,176.02	3.909E+00	Pulse	0.50	3
Fe			1	10571.984	ug/l	0.89	98,030,717.33	5.489E+02	Analog	0.50	3
Co			1	106.637	ug/l	1.12	1,774,002.29	9.933E+00	Pulse	0.50	3
Ni			1	105.554	ug/l	0.72	465,148.65	2.605E+00	Pulse	0.50	3
Cu			1	107.825	ug/l	0.73	1,257,211.71	7.040E+00	Pulse	0.50	3
Zn			1	106.299	ug/l	0.39	225,940.89	8.554E-01	Pulse	1.00	3
Cd			1	105.426	ug/l	0.29	311,757.26	1.180E+00	Pulse	0.50	3
Al			1	10350.565	ug/l	0.29	3,421,425.67	1.219E+01	Pulse	1.00	3
Se			1	105.318	ug/l	0.64	12,411.24	4.699E-02	Pulse	3.00	3
Sb			1	105.276	ug/l	0.33	956,345.42	3.621E+00	Pulse	1.00	3
Se			1	105.351	ug/l	0.23	5,905.03	2.236E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,811.08	1.43	94.9	Pulse	0.50	3
1	Sc		280,766.93	0.81	96.9	Pulse	0.30	3
1	Ge		178,594.13	0.62	96.7	Pulse	0.30	3
1	In		1,616,293.75	1.52	94.9	Pulse	0.30	3
1	Tb		4,441,283.00	1.26	98.3	Pulse	0.50	3
1	Lu		3,376,904.92	0.98	98.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,133.95	0.86	96.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,267.82	5.71	100.6	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:31
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	21.41	677.35	3.759E-03	Pulse	0.50	3
As			1	0.029	ug/l	9.92	98.00	5.439E-04	Pulse	1.00	3
Mo			1	0.206	ug/l	16.72	1,389.39	5.192E-03	Pulse	0.50	3
Pb			1	0.008	ug/l	58.85	1,200.04	3.928E-04	Pulse	1.00	3
Be			1	0.102	ug/l	71.96	7.17	2.527E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	19.89	364.67	1.364E-03	Pulse	0.50	3
Ba			1	0.002	ug/l	215.29	36.00	2.175E-05	Pulse	0.50	3
Tl			1	0.066	ug/l	6.61	2,966.94	9.703E-04	Pulse	0.50	3
Sn			1	0.129	ug/l	21.47	1,122.27	6.760E-04	Pulse	0.30	3
Sr			1	0.008	ug/l	22.05	387.34	2.336E-04	Pulse	0.50	3
[Pb]			1	0.008	ug/l	71.35	564.68	1.848E-04	Pulse	0.50	3
Ca			1	1.138	ug/l	58.60	516.01	1.814E-03	Pulse	0.50	3
Ti			1	0.118	ug/l	32.62	43.33	1.526E-04	Pulse	0.50	3
Na			1	7.892	ug/l	5.16	23,610.28	8.300E-02	Pulse	1.00	3
Mg			1	5.224	ug/l	7.42	4,634.87	1.630E-02	Pulse	1.00	3
K			1	6.861	ug/l	4.90	64,804.88	2.278E-01	Pulse	1.00	3
V			1	0.000	ug/l	4187.79	1,247.38	4.386E-03	Pulse	0.50	3
Mn			1	0.013	ug/l	31.82	320.00	1.776E-03	Pulse	0.50	3
Fe			1	5.946	ug/l	3.63	69,816.03	3.875E-01	Pulse	0.50	3
Co			1	0.011	ug/l	42.86	298.67	1.657E-03	Pulse	0.50	3
Ni			1	0.008	ug/l	97.75	483.34	2.683E-03	Pulse	0.50	3
Cu			1	-0.106	ug/l	-4.46	4,911.31	2.726E-02	Pulse	0.50	3
Zn			1	-0.047	ug/l	-25.87	1,194.71	4.468E-03	Pulse	1.00	3
Cd			1	0.028	ug/l	14.05	96.67	3.616E-04	Pulse	0.50	3
Al			1	5.080	ug/l	8.32	1,957.10	6.882E-03	Pulse	1.00	3
Se			1	0.070	ug/l	31.15	79.89	2.987E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	8.85	557.34	2.083E-03	Pulse	1.00	3
Se			1	0.217	ug/l	44.72	43.78	1.638E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,057,482.92	1.16	97.0	Pulse	0.50	3
1	Sc		284,449.18	0.85	98.2	Pulse	0.30	3

Quantitation Report

1	Ge		180,172.00	0.30	97.6	Pulse	0.30	3
1	In		1,658,703.75	1.39	97.4	Pulse	0.30	3
1	Tb		4,426,410.33	1.26	97.9	Pulse	0.50	3
1	Lu		3,324,348.58	1.14	96.7	Pulse	0.50	3
1	Ge		267,437.58	0.66	98.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,257.82	2.60	99.8	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:34
Sample Name CRIA
Sample Type CRIA
Comment =std 2
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.980	ug/l	1.47	11,397.35	6.242E-02	Pulse	0.50	3
As			1	0.938	ug/l	0.91	1,475.06	8.078E-03	Pulse	1.00	3
Mo			1	0.974	ug/l	2.41	6,173.70	2.281E-02	Pulse	0.50	3
Pb			1	0.972	ug/l	0.46	27,732.71	8.995E-03	Pulse	1.00	3
Be			1	1.070	ug/l	19.23	62.50	2.163E-04	Pulse	2.00	3
Ag			1	1.000	ug/l	1.68	18,914.30	6.988E-02	Pulse	0.50	3
Ba			1	0.970	ug/l	1.91	2,978.26	1.773E-03	Pulse	0.50	3
Tl			1	1.008	ug/l	0.71	38,681.47	1.255E-02	Pulse	0.50	3
Sn			1	0.971	ug/l	4.38	7,002.49	4.168E-03	Pulse	0.30	3
Sr			1	0.945	ug/l	1.96	8,612.65	5.128E-03	Pulse	0.50	3
[Pb]			1	0.971	ug/l	1.77	13,198.47	4.280E-03	Pulse	0.50	3
Ca			1	93.713	ug/l	1.20	4,713.25	1.631E-02	Pulse	0.50	3
Ti			1	0.923	ug/l	15.29	298.00	1.032E-03	Pulse	0.50	3
Na			1	99.318	ug/l	0.48	163,546.39	5.660E-01	Pulse	1.00	3
Mg			1	97.643	ug/l	1.61	77,071.92	2.668E-01	Pulse	1.00	3
K			1	98.016	ug/l	0.80	144,734.20	5.009E-01	Pulse	1.00	3
V			1	0.924	ug/l	2.78	9,768.47	3.381E-02	Pulse	0.50	3
Mn			1	0.985	ug/l	0.97	6,895.24	3.776E-02	Pulse	0.50	3
Fe			1	99.671	ug/l	0.65	959,172.58	5.253E+00	Pulse	0.50	3
Co			1	1.000	ug/l	0.44	17,127.59	9.380E-02	Pulse	0.50	3
Ni			1	1.005	ug/l	0.89	4,974.65	2.724E-02	Pulse	0.50	3
Cu			1	1.241	ug/l	1.75	20,948.69	1.147E-01	Pulse	0.50	3
Zn			1	0.979	ug/l	6.29	3,431.98	1.268E-02	Pulse	1.00	3
Cd			1	0.997	ug/l	1.50	3,035.60	1.122E-02	Pulse	0.50	3
Al			1	96.607	ug/l	2.06	33,120.99	1.146E-01	Pulse	1.00	3
Se			1	1.016	ug/l	3.44	194.33	7.180E-04	Pulse	3.00	3
Sb			1	0.976	ug/l	1.66	9,219.99	3.406E-02	Pulse	1.00	3
Se			1	0.963	ug/l	18.86	86.89	3.211E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,083,125.67	0.96	97.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		288,945.76	0.86	99.7	Pulse	0.30	3
1	Ge		182,588.14	0.99	98.9	Pulse	0.30	3
1	In		1,679,864.38	1.31	98.7	Pulse	0.30	3
1	Tb		4,444,143.83	1.14	98.3	Pulse	0.50	3
1	Lu		3,366,864.75	1.12	97.9	Pulse	0.50	3
1	Ge		270,660.46	0.34	99.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,373.39	6.42	109.0	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:38
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.128	ug/l	2.34	23,076.98	1.324E-01	Pulse	0.50	3
As			1	0.082	ug/l	20.05	172.33	9.892E-04	Pulse	1.00	3
Mo			1	2079.826	ug/l	0.30	11,776,467.33	4.776E+01	Analog	0.50	3
Pb			1	0.046	ug/l	7.80	1,976.12	7.340E-04	Pulse	1.00	3
Be			1	0.011	ug/l	82.82	2.00	7.416E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	22.79	596.01	2.413E-03	Pulse	0.50	3
Ba			1	0.538	ug/l	1.90	1,475.39	9.925E-04	Pulse	0.50	3
Tl			1	0.041	ug/l	25.85	1,788.10	6.633E-04	Pulse	0.50	3
Sn			1	0.080	ug/l	18.70	703.35	4.726E-04	Pulse	0.30	3
Sr			1	0.864	ug/l	2.65	6,996.65	4.705E-03	Pulse	0.50	3
[Pb]			1	0.041	ug/l	7.81	874.69	3.251E-04	Pulse	0.50	3
Ca			1	97303.519	ug/l	0.38	4,109,647.58	1.524E+01	Pulse	0.50	3
Ti			1	1971.326	ug/l	0.68	581,486.23	2.156E+00	Pulse	0.50	3
Na			1	102265.587	ug/l	0.71	145,701,045.33	5.403E+02	Analog	1.00	3
Mg			1	100675.059	ug/l	0.92	73,570,808.00	2.728E+02	Analog	1.00	3
K			1	101808.803	ug/l	0.53	82,301,061.33	3.052E+02	Analog	1.00	3
V			1	0.053	ug/l	15.96	1,638.74	6.078E-03	Pulse	0.50	3
Mn			1	0.277	ug/l	2.57	2,016.11	1.156E-02	Pulse	0.50	3
Fe			1	99758.940	ug/l	0.63	902,850,922.67	5.179E+03	Analog	0.50	3
Co			1	0.111	ug/l	4.24	1,913.43	1.097E-02	Pulse	0.50	3
Ni			1	0.420	ug/l	8.23	2,234.81	1.282E-02	Pulse	0.50	3
Cu			1	0.084	ug/l	138.83	6,903.29	3.955E-02	Pulse	0.50	3
Zn			1	2.229	ug/l	1.83	5,591.48	2.268E-02	Pulse	1.00	3
Cd			1	0.750	ug/l	5.08	2,082.13	8.450E-03	Pulse	0.50	3
Al			1	97886.522	ug/l	0.92	31,074,298.00	1.152E+02	Analog	1.00	3
Se			1	0.234	ug/l	15.75	91.56	3.711E-04	Pulse	3.00	3
Sb			1	0.078	ug/l	2.60	785.69	3.186E-03	Pulse	1.00	3
Se			1	0.279	ug/l	46.35	43.55	1.767E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,691,075.75	1.41	85.3	Pulse	0.50	3
1	Sc		269,664.95	0.88	93.1	Pulse	0.30	3
1	Ge		174,331.98	1.20	94.4	Pulse	0.30	3
1	In		1,486,747.65	1.23	87.3	Pulse	0.30	3
1	Tb		4,173,211.08	1.99	92.3	Pulse	0.50	3
1	Lu		3,174,862.42	1.85	92.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		246,576.44	1.94	90.5	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,033.37	12.18	82.0	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:42
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.991	ug/l	0.35	226,863.56	1.282E+00	Pulse	0.50	3
As			1	18.740	ug/l	0.28	27,527.08	1.555E-01	Pulse	1.00	3
Mo			1	2086.191	ug/l	0.68	12,140,188.67	4.791E+01	Analog	0.50	3
Pb			1	0.044	ug/l	1.50	1,950.45	7.151E-04	Pulse	1.00	3
Be			1	0.027	ug/l	39.44	2.83	1.042E-05	Pulse	2.00	3
Ag			1	18.594	ug/l	0.60	326,046.23	1.287E+00	Pulse	0.50	3
Ba			1	0.545	ug/l	1.22	1,517.40	1.004E-03	Pulse	0.50	3
Tl			1	0.029	ug/l	6.50	1,402.73	5.139E-04	Pulse	0.50	3
Sn			1	0.074	ug/l	9.96	682.24	4.510E-04	Pulse	0.30	3
Sr			1	0.846	ug/l	1.94	6,971.31	4.612E-03	Pulse	0.50	3
[Pb]			1	0.051	ug/l	12.21	996.04	3.648E-04	Pulse	0.50	3
Ca			1	97174.997	ug/l	0.43	4,135,979.83	1.522E+01	Pulse	0.50	3
Ti			1	1971.503	ug/l	0.74	586,044.67	2.157E+00	Pulse	0.50	3
Na			1	102357.192	ug/l	0.42	146,967,109.33	5.408E+02	Analog	1.00	3
Mg			1	100229.479	ug/l	0.61	73,816,469.33	2.716E+02	Analog	1.00	3
K			1	102169.625	ug/l	0.45	83,233,154.67	3.063E+02	Analog	1.00	3
V			1	0.058	ug/l	5.43	1,692.74	6.229E-03	Pulse	0.50	3
Mn			1	18.981	ug/l	1.07	124,644.71	7.041E-01	Pulse	0.50	3
Fe			1	100368.465	ug/l	0.99	922,348,224.00	5.211E+03	Analog	0.50	3
Co			1	19.205	ug/l	0.74	316,754.58	1.789E+00	Pulse	0.50	3
Ni			1	18.869	ug/l	1.02	82,779.07	4.676E-01	Pulse	0.50	3
Cu			1	18.615	ug/l	0.32	220,155.09	1.244E+00	Pulse	0.50	3
Zn			1	19.526	ug/l	0.24	40,822.68	1.611E-01	Pulse	1.00	3
Cd			1	19.509	ug/l	1.12	55,357.69	2.185E-01	Pulse	0.50	3
Al			1	96684.224	ug/l	0.20	30,931,750.67	1.138E+02	Analog	1.00	3
Se			1	0.222	ug/l	57.79	92.89	3.660E-04	Pulse	3.00	3
Sb			1	0.079	ug/l	11.13	820.69	3.235E-03	Pulse	1.00	3
Se			1	0.152	ug/l	15.42	38.00	1.500E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,727,623.75	2.09	86.5	Pulse	0.50	3
1	Sc		271,752.42	0.83	93.8	Pulse	0.30	3
1	Ge		177,027.43	1.71	95.9	Pulse	0.30	3
1	In		1,511,747.75	1.75	88.8	Pulse	0.30	3
1	Tb		4,238,147.75	1.90	93.8	Pulse	0.50	3
1	Lu		3,216,005.67	1.74	93.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		253,409.41	1.70	93.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,055.59	8.12	83.8	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:46
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.401	ug/l	0.15	542,768.31	2.891E+00	Pulse	0.50	3
As			1	46.765	ug/l	0.16	72,774.16	3.876E-01	Pulse	1.00	3
Mo			1	47.935	ug/l	1.25	305,083.61	1.101E+00	Pulse	0.50	3
Pb			1	47.055	ug/l	0.59	1,328,486.63	4.204E-01	Pulse	1.00	3
Be			1	45.998	ug/l	1.94	2,579.67	9.084E-03	Pulse	2.00	3
Ag			1	49.721	ug/l	0.36	952,748.66	3.439E+00	Pulse	0.50	3
Ba			1	46.763	ug/l	1.14	143,170.57	8.460E-02	Pulse	0.50	3
Tl			1	48.650	ug/l	0.61	1,890,298.46	5.982E-01	Pulse	0.50	3
Sn			1	47.778	ug/l	0.97	335,592.80	1.983E-01	Pulse	0.30	3
Sr			1	46.623	ug/l	0.88	412,674.83	2.439E-01	Pulse	0.50	3
[Pb]			1	46.785	ug/l	0.90	629,380.98	1.992E-01	Pulse	0.50	3
Ca			1	4649.807	ug/l	0.90	207,246.78	7.298E-01	Pulse	0.50	3
Ti			1	46.678	ug/l	2.23	14,505.39	5.108E-02	Pulse	0.50	3
Na			1	4844.080	ug/l	0.24	7,279,080.83	2.563E+01	Analog	1.00	3
Mg			1	4681.235	ug/l	0.87	3,603,133.58	1.269E+01	Pulse	1.00	3
K			1	4744.715	ug/l	0.39	4,095,266.17	1.442E+01	Pulse	1.00	3
V			1	47.889	ug/l	0.75	434,172.90	1.529E+00	Pulse	0.50	3
Mn			1	46.784	ug/l	0.25	325,535.80	1.734E+00	Pulse	0.50	3
Fe			1	4815.676	ug/l	0.22	46,958,444.00	2.501E+02	Analog	0.50	3
Co			1	47.980	ug/l	0.27	839,301.64	4.470E+00	Pulse	0.50	3
Ni			1	48.172	ug/l	0.44	223,458.92	1.190E+00	Pulse	0.50	3
Cu			1	48.619	ug/l	0.48	599,569.00	3.193E+00	Pulse	0.50	3
Zn			1	47.981	ug/l	0.43	107,702.81	3.888E-01	Pulse	1.00	3
Cd			1	47.813	ug/l	1.43	148,300.30	5.353E-01	Pulse	0.50	3
Al			1	4580.245	ug/l	1.09	1,531,459.50	5.393E+00	Pulse	1.00	3
Se			1	45.738	ug/l	0.62	5,695.18	2.056E-02	Pulse	3.00	3
Sb			1	46.669	ug/l	0.89	444,745.37	1.605E+00	Pulse	1.00	3
Se			1	45.803	ug/l	0.67	2,711.09	9.786E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,159,674.17	0.72	100.2	Pulse	0.50	3
1	Sc		283,969.14	0.06	98.0	Pulse	0.30	3
1	Ge		187,774.17	1.13	101.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,692,236.95	0.53	99.4	Pulse	0.30	3
1	Tb		4,637,838.83	0.47	102.6	Pulse	0.50	3
1	Lu		3,450,014.25	0.46	100.4	Pulse	0.50	3
1	Ge		277,029.25	0.52	101.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,209.49	4.19	96.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:50
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.364	ug/l	1.02	1,115,957.50	5.995E+00	Pulse	0.50	3
As			1	97.563	ug/l	1.19	150,435.84	8.082E-01	Pulse	1.00	3
Mo			1	98.830	ug/l	0.24	626,027.29	2.270E+00	Pulse	0.50	3
Pb			1	98.248	ug/l	1.05	2,700,386.50	8.775E-01	Pulse	1.00	3
Be			1	95.965	ug/l	0.47	5,402.22	1.895E-02	Pulse	2.00	3
Ag			1	101.291	ug/l	0.54	1,931,979.29	7.005E+00	Pulse	0.50	3
Ba			1	98.204	ug/l	0.59	296,970.33	1.776E-01	Pulse	0.50	3
Tl			1	101.983	ug/l	1.39	3,858,664.92	1.254E+00	Pulse	0.50	3
Sn			1	99.165	ug/l	1.00	687,803.58	4.114E-01	Pulse	0.30	3
Sr			1	97.647	ug/l	1.11	853,448.02	5.105E-01	Pulse	0.50	3
[Pb]			1	98.340	ug/l	1.03	1,287,910.58	4.185E-01	Pulse	0.50	3
Ca			1	9711.454	ug/l	0.52	434,102.64	1.522E+00	Pulse	0.50	3
Ti			1	97.611	ug/l	1.16	30,449.62	1.068E-01	Pulse	0.50	3
Na			1	10004.037	ug/l	0.43	15,081,392.67	5.289E+01	Analog	1.00	3
Mg			1	9862.333	ug/l	0.55	7,621,191.17	2.673E+01	Analog	1.00	3
K			1	9933.358	ug/l	0.46	8,543,903.67	2.997E+01	Analog	1.00	3
V			1	99.455	ug/l	0.57	903,998.79	3.171E+00	Pulse	0.50	3
Mn			1	97.746	ug/l	0.88	673,937.67	3.621E+00	Pulse	0.50	3
Fe			1	9969.974	ug/l	0.89	96,355,600.00	5.177E+02	Analog	0.50	3
Co			1	98.478	ug/l	0.77	1,707,479.66	9.173E+00	Pulse	0.50	3
Ni			1	98.579	ug/l	0.43	452,795.92	2.433E+00	Pulse	0.50	3
Cu			1	99.298	ug/l	0.93	1,207,181.88	6.486E+00	Pulse	0.50	3
Zn			1	98.489	ug/l	0.96	218,679.85	7.929E-01	Pulse	1.00	3
Cd			1	98.919	ug/l	0.56	305,415.71	1.107E+00	Pulse	0.50	3
Al			1	9494.435	ug/l	0.87	3,187,218.00	1.118E+01	Pulse	1.00	3
Se			1	95.873	ug/l	1.16	11,803.64	4.280E-02	Pulse	3.00	3
Sb			1	97.226	ug/l	0.66	922,204.25	3.344E+00	Pulse	1.00	3
Se			1	95.786	ug/l	0.38	5,608.72	2.034E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,077,317.08	0.13	97.6	Pulse	0.50	3
1	Sc		285,124.72	0.17	98.4	Pulse	0.30	3
1	Ge		186,134.73	0.39	100.8	Pulse	0.30	3
1	In		1,671,719.00	0.19	98.2	Pulse	0.30	3
1	Tb		4,600,524.33	0.30	101.8	Pulse	0.50	3
1	Lu		3,449,299.58	0.41	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		275,783.75	0.23	101.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,135.04	15.01	90.1	Pulse	0.30	3

Quantitation Report

File Name 019_CCB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:53
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	665.35	519.34	2.754E-03	Pulse	0.50	3
As			1	0.005	ug/l	139.22	66.33	3.518E-04	Pulse	1.00	3
Mo			1	0.213	ug/l	25.79	1,488.07	5.350E-03	Pulse	0.50	3
Pb			1	0.009	ug/l	36.75	1,254.05	3.999E-04	Pulse	1.00	3
Be			1	0.017	ug/l	0.30	2.50	8.614E-06	Pulse	2.00	3
Ag			1	0.012	ug/l	3.45	444.68	1.600E-03	Pulse	0.50	3
Ba			1	-0.002	ug/l	-132.01	24.67	1.453E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	8.41	1,932.12	6.160E-04	Pulse	0.50	3
Sn			1	0.081	ug/l	17.45	812.25	4.771E-04	Pulse	0.30	3
Sr			1	0.009	ug/l	29.55	401.34	2.360E-04	Pulse	0.50	3
[Pb]			1	0.007	ug/l	21.04	564.68	1.800E-04	Pulse	0.50	3
Ca			1	1.832	ug/l	30.85	558.01	1.923E-03	Pulse	0.50	3
Ti			1	0.036	ug/l	93.41	18.00	6.201E-05	Pulse	0.50	3
Na			1	11.708	ug/l	5.06	29,941.93	1.032E-01	Pulse	1.00	3
Mg			1	3.245	ug/l	7.40	3,173.26	1.093E-02	Pulse	1.00	3
K			1	5.863	ug/l	5.66	65,257.38	2.248E-01	Pulse	1.00	3
V			1	-0.015	ug/l	-7.78	1,136.71	3.916E-03	Pulse	0.50	3
Mn			1	0.052	ug/l	9.96	608.01	3.223E-03	Pulse	0.50	3
Fe			1	3.822	ug/l	4.80	52,311.43	2.772E-01	Pulse	0.50	3
Co			1	0.003	ug/l	82.76	177.33	9.413E-04	Pulse	0.50	3
Ni			1	0.008	ug/l	120.57	504.68	2.675E-03	Pulse	0.50	3
Cu			1	0.035	ug/l	65.59	6,863.91	3.637E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-130.29	1,304.05	4.690E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	49.16	51.33	1.848E-04	Pulse	0.50	3
Al			1	2.917	ug/l	7.03	1,258.38	4.336E-03	Pulse	1.00	3
Se			1	0.118	ug/l	43.18	88.89	3.197E-04	Pulse	3.00	3
Sb			1	0.036	ug/l	1.59	484.01	1.741E-03	Pulse	1.00	3
Se			1	0.040	ug/l	56.51	35.11	1.263E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,137,284.42	1.02	99.5	Pulse	0.50	3
1	Sc		290,238.63	0.12	100.2	Pulse	0.30	3
1	Ge		188,750.12	1.07	102.2	Pulse	0.30	3
1	In		1,701,263.30	0.97	99.9	Pulse	0.30	3
1	Tb		4,545,217.00	1.13	100.6	Pulse	0.50	3
1	Lu		3,394,578.67	0.41	98.8	Pulse	0.50	3
1	Ge		277,996.20	0.37	102.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,208.93	3.43	95.9	Pulse	0.30	3

Quantitation Report

File Name	020_MB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:57
Sample Name	MP41794-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.783	ug/l	0.76	6,733.85	3.661E-02	Pulse	0.50	3
As			1	0.201	ug/l	22.19	117.67	6.399E-04	Pulse	1.00	3
Mo			1	1.192	ug/l	11.78	1,620.08	5.929E-03	Pulse	0.50	3
Pb			1	1.464	ug/l	1.70	9,267.18	2.933E-03	Pulse	1.00	3
Be			1	0.149	ug/l	105.99	3.17	1.106E-05	Pulse	2.00	3
Ag			1	0.098	ug/l	9.40	574.01	2.101E-03	Pulse	0.50	3
Ba			1	0.089	ug/l	29.96	85.33	5.101E-05	Pulse	0.50	3
Tl			1	0.101	ug/l	13.31	1,269.39	4.022E-04	Pulse	0.50	3
Sn			1	24.488	ug/l	0.66	34,239.65	2.046E-02	Pulse	0.30	3
Sr			1	0.078	ug/l	12.39	454.68	2.715E-04	Pulse	0.50	3
[Pb]			1	1.493	ug/l	2.29	4,482.60	1.419E-03	Pulse	0.50	3
Ca			1	35.056	ug/l	17.88	786.02	2.734E-03	Pulse	0.50	3
Ti			1	1.644	ug/l	13.89	110.00	3.827E-04	Pulse	0.50	3
Na			1	72.563	ug/l	7.62	33,931.01	1.180E-01	Pulse	1.00	3
Mg			1	30.736	ug/l	13.26	5,403.75	1.880E-02	Pulse	1.00	3
K			1	58.972	ug/l	19.60	69,787.77	2.426E-01	Pulse	1.00	3
V			1	0.941	ug/l	2.11	2,984.24	1.037E-02	Pulse	0.50	3
Mn			1	0.674	ug/l	8.76	1,157.38	6.295E-03	Pulse	0.50	3
Fe			1	74.640	ug/l	5.43	157,030.14	8.538E-01	Pulse	0.50	3
Co			1	0.050	ug/l	7.55	286.67	1.558E-03	Pulse	0.50	3
Ni			1	1.080	ug/l	8.88	1,435.39	7.800E-03	Pulse	0.50	3
Cu			1	3.094	ug/l	4.14	13,673.54	7.432E-02	Pulse	0.50	3
Zn			1	3.606	ug/l	2.05	2,898.89	1.062E-02	Pulse	1.00	3
Cd			1	0.065	ug/l	35.18	54.00	1.974E-04	Pulse	0.50	3
Al			1	35.383	ug/l	12.25	2,654.19	9.233E-03	Pulse	1.00	3
Se			1	0.322	ug/l	48.67	80.89	2.960E-04	Pulse	3.00	3
Sb			1	0.120	ug/l	21.17	364.00	1.335E-03	Pulse	1.00	3
Se			1	0.110	ug/l	68.81	33.44	1.225E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,158,903.00	1.69	100.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		287,732.36	1.46	99.3	Pulse	0.30	3
1	Ge		183,958.23	1.08	99.6	Pulse	0.30	3
1	In		1,674,027.47	2.22	98.3	Pulse	0.30	3
1	Tb		4,526,731.50	2.09	100.1	Pulse	0.50	3
1	Lu		3,348,084.92	1.91	97.4	Pulse	0.50	3
1	Ge		273,086.28	1.71	100.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,154.48	2.24	91.6	Pulse	0.30	3

Quantitation Report

File Name	021_BSP.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:01
Sample Name	MP41794-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	520.105	ug/l	0.57	1,175,662.04	6.340E+00	Pulse	0.50	3
As			1	524.662	ug/l	0.37	161,183.29	8.692E-01	Pulse	1.00	3
Mo			1	527.925	ug/l	0.66	658,424.58	2.425E+00	Pulse	0.50	3
Pb			1	526.252	ug/l	0.49	2,841,752.50	9.400E-01	Pulse	1.00	3
Be			1	502.173	ug/l	1.48	5,624.95	1.983E-02	Pulse	2.00	3
Ag			1	250.117	ug/l	1.17	939,410.52	3.460E+00	Pulse	0.50	3
Ba			1	518.456	ug/l	0.84	307,511.00	1.876E-01	Pulse	0.50	3
Tl			1	522.572	ug/l	0.43	3,884,489.83	1.285E+00	Pulse	0.50	3
Sn			1	550.338	ug/l	0.41	748,709.46	4.567E-01	Pulse	0.30	3
Sr			1	510.572	ug/l	0.57	875,287.00	5.339E-01	Pulse	0.50	3
[Pb]			1	503.816	ug/l	0.48	1,296,365.46	4.288E-01	Pulse	0.50	3
Ca			1	51240.331	ug/l	1.25	455,736.53	1.607E+00	Pulse	0.50	3
Ti			1	502.010	ug/l	0.39	31,162.72	1.098E-01	Pulse	0.50	3
Na			1	52756.354	ug/l	0.96	15,825,332.67	5.579E+01	Analog	1.00	3
Mg			1	52054.699	ug/l	0.92	8,004,460.00	2.822E+01	Analog	1.00	3
K			1	52485.835	ug/l	1.28	8,979,684.67	3.165E+01	Analog	1.00	3
V			1	523.051	ug/l	0.75	946,005.90	3.335E+00	Pulse	0.50	3
Mn			1	511.152	ug/l	0.25	702,171.79	3.787E+00	Pulse	0.50	3
Fe			1	52596.883	ug/l	0.22	101,279,541.33	5.462E+02	Analog	0.50	3
Co			1	519.378	ug/l	0.38	1,794,270.83	9.676E+00	Pulse	0.50	3
Ni			1	516.038	ug/l	0.47	472,240.66	2.547E+00	Pulse	0.50	3
Cu			1	521.745	ug/l	0.54	1,263,490.79	6.814E+00	Pulse	0.50	3
Zn			1	516.022	ug/l	0.81	225,527.81	8.307E-01	Pulse	1.00	3
Cd			1	512.764	ug/l	0.91	311,720.30	1.148E+00	Pulse	0.50	3
Al			1	48918.874	ug/l	0.78	3,267,811.83	1.152E+01	Pulse	1.00	3
Se			1	490.609	ug/l	0.07	11,891.14	4.380E-02	Pulse	3.00	3
Sb			1	517.936	ug/l	0.76	967,264.56	3.563E+00	Pulse	1.00	3
Se			1	492.445	ug/l	0.49	5,676.51	2.091E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,022,962.92	1.14	95.9	Pulse	0.50	3
1	Sc		283,699.48	0.98	97.9	Pulse	0.30	3
1	Ge		185,428.96	0.62	100.4	Pulse	0.30	3
1	In		1,639,545.11	1.00	96.3	Pulse	0.30	3
1	Tb		4,536,643.17	0.90	100.4	Pulse	0.50	3
1	Lu		3,375,124.08	1.17	98.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		271,501.87	0.41	99.6	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,043.37	2.50	82.8	Pulse	0.30	3

Quantitation Report

File Name 022SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:05
Sample Name FC2193-15
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	669.122	ug/l	0.81	383,184.08	2.041E+00	Pulse	0.50	3
As			1	74.545	ug/l	1.46	5,852.57	3.117E-02	Pulse	1.00	3
Mo			1	12.117	ug/l	3.65	3,959.77	1.437E-02	Pulse	0.50	3
Pb			1	283.935	ug/l	0.46	399,581.41	1.271E-01	Pulse	1.00	3
Be			1	4.180	ug/l	30.00	14.17	4.643E-05	Pulse	2.00	3
Ag			1	1.287	ug/l	5.88	1,433.40	5.201E-03	Pulse	0.50	3
Ba			1	1963.742	ug/l	0.70	299,078.14	1.776E-01	Pulse	0.50	3
Tl			1	2.255	ug/l	3.93	4,841.37	1.540E-03	Pulse	0.50	3
Sn			1	31.465	ug/l	1.48	11,226.82	6.667E-03	Pulse	0.30	3
Sr			1	1423.338	ug/l	0.87	626,628.77	3.721E-01	Pulse	0.50	3
[Pb]			1	281.801	ug/l	0.16	188,958.07	6.009E-02	Pulse	0.50	3
Ca			1	215025.237	ug/l	1.45	514,201.26	1.685E+00	Pulse	0.50	3
Ti			1	17834.339	ug/l	1.73	297,596.28	9.754E-01	Pulse	0.50	3
Na			1	6745.318	ug/l	0.91	556,259.86	1.823E+00	Pulse	1.00	3
Mg			1	97635.027	ug/l	1.21	4,037,110.17	1.323E+01	Pulse	1.00	3
K			1	21085.651	ug/l	0.97	1,026,909.50	3.366E+00	Pulse	1.00	3
V			1	890.555	ug/l	1.45	433,832.06	1.422E+00	Pulse	0.50	3
Mn			1	7699.472	ug/l	0.59	2,676,561.75	1.426E+01	Pulse	0.50	3
Fe			1	376922.426	ug/l	0.28	183,702,432.00	9.785E+02	Analog	0.50	3
Co			1	158.301	ug/l	0.90	138,533.21	7.379E-01	Pulse	0.50	3
Ni			1	672.351	ug/l	0.46	156,053.36	8.312E-01	Pulse	0.50	3
Cu			1	585.534	ug/l	1.22	363,527.28	1.936E+00	Pulse	0.50	3
Zn			1	2087.408	ug/l	0.72	231,550.71	8.400E-01	Pulse	1.00	3
Cd			1	10.417	ug/l	2.86	1,621.41	5.882E-03	Pulse	0.50	3
Al			1	239078.663	ug/l	1.21	4,293,989.33	1.407E+01	Pulse	1.00	3
Se			1	12.253	ug/l	11.86	148.67	5.392E-04	Pulse	3.00	3
Sb			1	5.445	ug/l	2.74	2,721.54	9.873E-03	Pulse	1.00	3
Se			1	36.455	ug/l	9.10	138.56	5.026E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,144,450.58	0.92	99.7	Pulse	0.50	3
1	Sc		305,124.42	0.79	105.3	Pulse	0.30	3
1	Ge		187,744.79	0.57	101.7	Pulse	0.30	3
1	In		1,683,856.64	0.26	98.9	Pulse	0.30	3
1	Tb		4,579,270.00	1.25	101.3	Pulse	0.50	3
1	Lu		3,425,878.50	1.15	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		275,659.45	0.39	101.2	Pulse	0.30	3
1	Te		7.33	41.66		Pulse	0.50	3
1	Li		1,152.26	5.35	91.4	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:09
Sample Name MP41794-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	603.345	ug/l	0.53	348,101.16	1.841E+00	Pulse	0.50	3
As			1	66.205	ug/l	1.77	5,242.06	2.772E-02	Pulse	1.00	3
Mo			1	10.028	ug/l	3.43	3,328.31	1.197E-02	Pulse	0.50	3
Pb			1	252.916	ug/l	0.63	353,597.04	1.132E-01	Pulse	1.00	3
Be			1	2.467	ug/l	12.27	9.00	2.952E-05	Pulse	2.00	3
Ag			1	1.117	ug/l	7.77	1,283.38	4.614E-03	Pulse	0.50	3
Ba			1	1731.729	ug/l	1.02	265,306.39	1.566E-01	Pulse	0.50	3
Tl			1	1.559	ug/l	1.28	3,473.70	1.112E-03	Pulse	0.50	3
Sn			1	28.296	ug/l	3.63	10,180.66	6.010E-03	Pulse	0.30	3
Sr			1	1252.103	ug/l	0.65	554,553.25	3.274E-01	Pulse	0.50	3
[Pb]			1	251.749	ug/l	0.46	167,701.82	5.370E-02	Pulse	0.50	3
Ca			1	191700.395	ug/l	1.09	458,288.31	1.503E+00	Pulse	0.50	3
Ti			1	16373.623	ug/l	1.11	273,121.08	8.955E-01	Pulse	0.50	3
Na			1	5729.163	ug/l	0.65	474,154.63	1.555E+00	Pulse	1.00	3
Mg			1	86105.065	ug/l	1.04	3,558,951.17	1.167E+01	Pulse	1.00	3
K			1	19521.943	ug/l	0.51	955,042.00	3.131E+00	Pulse	1.00	3
V			1	781.330	ug/l	0.78	380,638.42	1.248E+00	Pulse	0.50	3
Mn			1	6650.613	ug/l	0.20	2,328,944.58	1.231E+01	Pulse	0.50	3
Fe			1	328514.447	ug/l	0.06	161,286,586.67	8.528E+02	Analog	0.50	3
Co			1	138.100	ug/l	1.21	121,761.37	6.438E-01	Pulse	0.50	3
Ni			1	583.656	ug/l	0.58	136,528.36	7.219E-01	Pulse	0.50	3
Cu			1	500.389	ug/l	0.77	313,886.88	1.660E+00	Pulse	0.50	3
Zn			1	1807.021	ug/l	0.83	202,413.88	7.278E-01	Pulse	1.00	3
Cd			1	8.674	ug/l	3.63	1,364.72	4.906E-03	Pulse	0.50	3
Al			1	211267.658	ug/l	0.96	3,792,990.83	1.244E+01	Pulse	1.00	3
Se			1	9.229	ug/l	14.74	131.33	4.722E-04	Pulse	3.00	3
Sb			1	4.238	ug/l	2.89	2,168.80	7.797E-03	Pulse	1.00	3
Se			1	27.015	ug/l	10.81	112.11	4.030E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,122,874.25	1.08	99.0	Pulse	0.50	3
1	Sc		304,985.63	0.54	105.3	Pulse	0.30	3
1	Ge		189,122.79	0.70	102.4	Pulse	0.30	3
1	In		1,693,846.42	0.70	99.5	Pulse	0.30	3
1	Tb		4,593,129.50	0.66	101.6	Pulse	0.50	3
1	Lu		3,437,227.83	1.19	100.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,105.89	0.71	102.1	Pulse	0.30	3
1	Te		4.67	49.49		Pulse	0.50	3
1	Li		1,187.82	2.52	94.3	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:12
Sample Name MP41794-D2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	619.512	ug/l	0.31	359,942.34	1.890E+00	Pulse	0.50	3
As			1	70.444	ug/l	1.52	5,613.50	2.947E-02	Pulse	1.00	3
Mo			1	10.013	ug/l	8.14	3,330.31	1.195E-02	Pulse	0.50	3
Pb			1	277.333	ug/l	0.12	389,745.51	1.241E-01	Pulse	1.00	3
Be			1	3.836	ug/l	30.41	13.33	4.303E-05	Pulse	2.00	3
Ag			1	1.113	ug/l	5.25	1,282.05	4.601E-03	Pulse	0.50	3
Ba			1	1854.927	ug/l	0.50	284,266.42	1.678E-01	Pulse	0.50	3
Tl			1	1.457	ug/l	4.85	3,295.66	1.049E-03	Pulse	0.50	3
Sn			1	28.981	ug/l	0.26	10,424.13	6.152E-03	Pulse	0.30	3
Sr			1	1316.310	ug/l	1.09	583,154.14	3.442E-01	Pulse	0.50	3
[Pb]			1	276.664	ug/l	0.15	185,252.03	5.900E-02	Pulse	0.50	3
Ca			1	197671.158	ug/l	1.10	480,252.36	1.549E+00	Pulse	0.50	3
Ti			1	16271.926	ug/l	1.14	275,842.89	8.900E-01	Pulse	0.50	3
Na			1	5810.750	ug/l	0.92	488,557.84	1.576E+00	Pulse	1.00	3
Mg			1	90637.411	ug/l	1.00	3,807,292.83	1.228E+01	Pulse	1.00	3
K			1	19987.628	ug/l	0.63	992,217.40	3.201E+00	Pulse	1.00	3
V			1	818.934	ug/l	1.67	405,387.70	1.308E+00	Pulse	0.50	3
Mn			1	7034.961	ug/l	0.49	2,480,932.83	1.303E+01	Pulse	0.50	3
Fe			1	347511.274	ug/l	0.30	171,814,384.00	9.021E+02	Analog	0.50	3
Co			1	145.683	ug/l	0.13	129,341.03	6.791E-01	Pulse	0.50	3
Ni			1	617.837	ug/l	0.24	145,513.09	7.640E-01	Pulse	0.50	3
Cu			1	533.338	ug/l	0.65	336,486.66	1.767E+00	Pulse	0.50	3
Zn			1	1939.966	ug/l	1.32	217,605.81	7.810E-01	Pulse	1.00	3
Cd			1	9.386	ug/l	2.89	1,478.07	5.305E-03	Pulse	0.50	3
Al			1	218287.352	ug/l	1.08	3,982,821.50	1.285E+01	Pulse	1.00	3
Se			1	9.949	ug/l	7.61	136.00	4.881E-04	Pulse	3.00	3
Sb			1	4.304	ug/l	2.59	2,204.14	7.910E-03	Pulse	1.00	3
Se			1	29.266	ug/l	5.51	118.89	4.267E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,139,924.58	1.50	99.6	Pulse	0.50	3
1	Sc		309,952.21	0.34	107.0	Pulse	0.30	3
1	Ge		190,456.73	0.83	103.1	Pulse	0.30	3
1	In		1,694,331.08	0.66	99.5	Pulse	0.30	3
1	Tb		4,617,970.17	1.37	102.2	Pulse	0.50	3
1	Lu		3,428,652.33	0.94	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,616.12	0.43	102.2	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,164.48	1.86	92.4	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:16
Sample Name MP41794-SD1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	700.927	ug/l	1.24	82,198.06	4.297E-01	Pulse	0.50	3
As			1	77.746	ug/l	0.78	1,290.05	6.745E-03	Pulse	1.00	3
Mo			1	11.605	ug/l	4.06	888.02	3.118E-03	Pulse	0.50	3
Pb			1	291.146	ug/l	0.95	83,172.15	2.631E-02	Pulse	1.00	3
Be			1	4.854	ug/l	61.86	4.50	1.475E-05	Pulse	2.00	3
Ag			1	1.345	ug/l	17.09	479.34	1.681E-03	Pulse	0.50	3
Ba			1	2021.969	ug/l	1.15	62,785.63	3.659E-02	Pulse	0.50	3
Tl			1	1.187	ug/l	14.15	947.36	2.997E-04	Pulse	0.50	3
Sn			1	30.655	ug/l	4.97	2,425.73	1.414E-03	Pulse	0.30	3
Sr			1	1474.885	ug/l	0.24	132,579.15	7.727E-02	Pulse	0.50	3
[Pb]			1	290.383	ug/l	0.44	39,513.44	1.250E-02	Pulse	0.50	3
Ca			1	231654.974	ug/l	1.29	111,173.32	3.644E-01	Pulse	0.50	3
Ti			1	18980.414	ug/l	1.05	63,344.48	2.076E-01	Pulse	0.50	3
Na			1	7547.092	ug/l	0.76	134,240.80	4.400E-01	Pulse	1.00	3
Mg			1	105795.723	ug/l	1.00	875,326.86	2.869E+00	Pulse	1.00	3
K			1	22908.097	ug/l	0.26	272,596.52	8.936E-01	Pulse	1.00	3
V			1	946.955	ug/l	0.56	93,303.93	3.058E-01	Pulse	0.50	3
Mn			1	8116.751	ug/l	0.99	575,122.88	3.007E+00	Pulse	0.50	3
Fe			1	401994.777	ug/l	0.68	39,931,988.00	2.088E+02	Analog	0.50	3
Co			1	166.884	ug/l	1.73	29,848.93	1.561E-01	Pulse	0.50	3
Ni			1	706.287	ug/l	1.16	33,776.06	1.766E-01	Pulse	0.50	3
Cu			1	634.006	ug/l	2.13	85,318.62	4.460E-01	Pulse	0.50	3
Zn			1	2156.449	ug/l	0.30	50,538.52	1.774E-01	Pulse	1.00	3
Cd			1	11.401	ug/l	7.81	378.01	1.328E-03	Pulse	0.50	3
Al			1	259479.243	ug/l	1.29	932,202.08	3.056E+00	Pulse	1.00	3
Se			1	7.350	ug/l	49.57	85.44	3.001E-04	Pulse	3.00	3
Sb			1	4.606	ug/l	2.61	596.68	2.095E-03	Pulse	1.00	3
Se			1	30.680	ug/l	16.11	52.00	1.826E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,160,550.67	1.41	100.2	Pulse	0.50	3
1	Sc		305,067.78	0.42	105.3	Pulse	0.30	3
1	Ge		191,269.29	0.59	103.6	Pulse	0.30	3
1	In		1,715,709.10	1.33	100.8	Pulse	0.30	3
1	Tb		4,599,343.17	1.64	101.8	Pulse	0.50	3
1	Lu		3,415,600.33	1.23	99.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		284,884.92	1.24	104.5	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		1,143.38	8.90	90.7	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:20
Sample Name MP41794-S1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1103.317	ug/l	0.71	642,159.19	3.364E+00	Pulse	0.50	3
As			1	564.273	ug/l	0.46	44,661.18	2.339E-01	Pulse	1.00	3
Mo			1	492.557	ug/l	0.59	158,101.34	5.660E-01	Pulse	0.50	3
Pb			1	747.030	ug/l	0.59	1,028,246.62	3.338E-01	Pulse	1.00	3
Be			1	444.276	ug/l	4.70	1,350.05	4.390E-03	Pulse	2.00	3
Ag			1	268.959	ug/l	1.13	259,981.54	9.307E-01	Pulse	0.50	3
Ba			1	2293.162	ug/l	0.08	348,830.54	2.074E-01	Pulse	0.50	3
Tl			1	490.368	ug/l	0.11	928,969.86	3.016E-01	Pulse	0.50	3
Sn			1	524.679	ug/l	1.01	183,249.21	1.090E-01	Pulse	0.30	3
Sr			1	1855.663	ug/l	0.34	815,900.75	4.851E-01	Pulse	0.50	3
[Pb]			1	723.154	ug/l	0.77	474,308.81	1.540E-01	Pulse	0.50	3
Ca			1	252341.545	ug/l	0.80	608,171.61	1.978E+00	Pulse	0.50	3
Ti			1	17769.981	ug/l	1.32	298,892.49	9.719E-01	Pulse	0.50	3
Na			1	55442.006	ug/l	1.60	4,516,861.83	1.469E+01	Mix	1.00	3
Mg			1	139794.883	ug/l	0.86	5,826,291.17	1.894E+01	Analog	1.00	3
K			1	67868.482	ug/l	0.60	3,190,230.33	1.037E+01	Pulse	1.00	3
V			1	1294.662	ug/l	0.64	635,135.71	2.065E+00	Pulse	0.50	3
Mn			1	7334.198	ug/l	0.55	2,592,534.58	1.358E+01	Pulse	0.50	3
Fe			1	390062.619	ug/l	0.29	193,311,893.33	1.013E+03	Analog	0.50	3
Co			1	640.047	ug/l	0.19	569,198.10	2.982E+00	Pulse	0.50	3
Ni			1	1093.027	ug/l	0.35	257,673.55	1.350E+00	Pulse	0.50	3
Cu			1	1007.678	ug/l	0.10	631,450.65	3.308E+00	Pulse	0.50	3
Zn			1	2351.978	ug/l	0.78	264,198.32	9.458E-01	Pulse	1.00	3
Cd			1	495.922	ug/l	1.17	77,552.64	2.776E-01	Pulse	0.50	3
Al			1	283156.155	ug/l	0.65	5,126,264.83	1.667E+01	Analog	1.00	3
Se			1	478.780	ug/l	0.55	3,041.25	1.089E-02	Pulse	3.00	3
Sb			1	184.800	ug/l	1.45	88,897.13	3.183E-01	Pulse	1.00	3
Se			1	508.102	ug/l	2.11	1,530.84	5.481E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,080,379.75	0.82	97.7	Pulse	0.50	3
1	Sc		307,547.89	0.47	106.2	Pulse	0.30	3
1	Ge		190,909.31	0.39	103.4	Pulse	0.30	3
1	In		1,681,886.67	0.60	98.8	Pulse	0.30	3
1	Tb		4,570,566.17	0.63	101.1	Pulse	0.50	3
1	Lu		3,402,524.75	0.53	99.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,331.23	0.48	102.5	Pulse	0.30	3
1	Te		3.33	69.28		Pulse	0.50	3
1	Li		1,101.15	2.75	87.4	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:24
Sample Name MP41794-S2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1086.146	ug/l	0.51	627,687.04	3.311E+00	Pulse	0.50	3
As			1	560.875	ug/l	0.79	44,076.54	2.325E-01	Pulse	1.00	3
Mo			1	491.280	ug/l	0.96	156,855.23	5.645E-01	Pulse	0.50	3
Pb			1	739.968	ug/l	0.40	1,017,628.04	3.307E-01	Pulse	1.00	3
Be			1	457.300	ug/l	4.48	1,392.55	4.518E-03	Pulse	2.00	3
Ag			1	263.981	ug/l	0.29	253,805.42	9.135E-01	Pulse	0.50	3
Ba			1	2284.777	ug/l	0.98	347,050.48	2.066E-01	Pulse	0.50	3
Tl			1	481.173	ug/l	0.87	910,769.73	2.959E-01	Pulse	0.50	3
Sn			1	514.044	ug/l	1.01	179,274.18	1.067E-01	Pulse	0.30	3
Sr			1	1845.117	ug/l	1.18	810,048.46	4.824E-01	Pulse	0.50	3
[Pb]			1	716.647	ug/l	0.56	469,623.70	1.526E-01	Pulse	0.50	3
Ca			1	250803.740	ug/l	0.28	605,789.38	1.965E+00	Pulse	0.50	3
Ti			1	17840.555	ug/l	0.60	300,742.72	9.758E-01	Pulse	0.50	3
Na			1	54350.279	ug/l	1.24	4,437,812.00	1.440E+01	Mix	1.00	3
Mg			1	140541.069	ug/l	0.49	5,870,178.67	1.905E+01	Analog	1.00	3
K			1	67247.223	ug/l	0.41	3,168,478.50	1.028E+01	Pulse	1.00	3
V			1	1276.463	ug/l	0.53	627,587.10	2.036E+00	Pulse	0.50	3
Mn			1	7408.597	ug/l	0.54	2,600,278.42	1.372E+01	Pulse	0.50	3
Fe			1	392104.893	ug/l	0.57	192,944,997.33	1.018E+03	Analog	0.50	3
Co			1	635.520	ug/l	1.12	561,172.50	2.960E+00	Pulse	0.50	3
Ni			1	1108.043	ug/l	1.09	259,364.56	1.368E+00	Pulse	0.50	3
Cu			1	1003.296	ug/l	0.64	624,273.08	3.293E+00	Pulse	0.50	3
Zn			1	2349.393	ug/l	0.67	262,506.88	9.448E-01	Pulse	1.00	3
Cd			1	492.555	ug/l	1.28	76,619.48	2.758E-01	Pulse	0.50	3
Al			1	281912.982	ug/l	0.21	5,114,855.17	1.660E+01	Analog	1.00	3
Se			1	470.252	ug/l	0.95	2,972.34	1.070E-02	Pulse	3.00	3
Sb			1	193.473	ug/l	0.46	92,566.70	3.332E-01	Pulse	1.00	3
Se			1	492.282	ug/l	0.84	1,476.28	5.314E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,077,579.92	0.89	97.6	Pulse	0.50	3
1	Sc		308,212.86	0.42	106.4	Pulse	0.30	3
1	Ge		189,554.41	0.53	102.6	Pulse	0.30	3
1	In		1,679,427.68	0.45	98.7	Pulse	0.30	3
1	Tb		4,589,221.33	1.00	101.5	Pulse	0.50	3
1	Lu		3,412,171.17	0.63	99.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		277,835.63	0.60	102.0	Pulse	0.30	3
1	Te		4.67	24.74		Pulse	0.50	3
1	Li		1,166.71	13.78	92.6	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:28
Sample Name MP41794-PS1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	684.011	ug/l	1.38	396,935.68	2.086E+00	Pulse	0.50	3
As			1	85.742	ug/l	0.98	6,812.55	3.581E-02	Pulse	1.00	3
Mo			1	21.503	ug/l	1.56	7,025.33	2.514E-02	Pulse	0.50	3
Pb			1	294.625	ug/l	0.72	408,101.41	1.318E-01	Pulse	1.00	3
Be			1	12.991	ug/l	5.81	41.50	1.334E-04	Pulse	2.00	3
Ag			1	3.463	ug/l	6.64	3,556.36	1.273E-02	Pulse	0.50	3
Ba			1	1983.967	ug/l	0.24	302,763.72	1.794E-01	Pulse	0.50	3
Tl			1	12.119	ug/l	1.24	23,533.49	7.603E-03	Pulse	0.50	3
Sn			1	39.954	ug/l	2.64	14,221.11	8.428E-03	Pulse	0.30	3
Sr			1	1455.578	ug/l	0.52	642,087.92	3.806E-01	Pulse	0.50	3
[Pb]			1	294.852	ug/l	0.73	194,601.18	6.287E-02	Pulse	0.50	3
Ca			1	216978.594	ug/l	0.33	529,138.08	1.701E+00	Pulse	0.50	3
Ti			1	17843.783	ug/l	0.56	303,655.05	9.759E-01	Pulse	0.50	3
Na			1	7689.602	ug/l	0.57	644,857.94	2.073E+00	Pulse	1.00	3
Mg			1	98896.699	ug/l	0.32	4,170,155.33	1.340E+01	Pulse	1.00	3
K			1	22170.918	ug/l	0.81	1,097,769.04	3.528E+00	Pulse	1.00	3
V			1	905.151	ug/l	0.57	449,654.60	1.445E+00	Pulse	0.50	3
Mn			1	7778.835	ug/l	1.03	2,740,277.92	1.440E+01	Pulse	0.50	3
Fe			1	383146.565	ug/l	0.76	189,234,218.67	9.946E+02	Analog	0.50	3
Co			1	170.753	ug/l	1.14	151,417.31	7.959E-01	Pulse	0.50	3
Ni			1	685.971	ug/l	1.36	161,334.93	8.480E-01	Pulse	0.50	3
Cu			1	601.802	ug/l	1.33	378,433.56	1.989E+00	Pulse	0.50	3
Zn			1	2104.260	ug/l	0.77	236,588.01	8.467E-01	Pulse	1.00	3
Cd			1	19.768	ug/l	4.31	3,106.27	1.112E-02	Pulse	0.50	3
Al			1	240451.415	ug/l	0.16	4,404,112.67	1.415E+01	Pulse	1.00	3
Se			1	21.489	ug/l	7.12	207.89	7.441E-04	Pulse	3.00	3
Sb			1	14.457	ug/l	3.34	7,088.05	2.537E-02	Pulse	1.00	3
Se			1	40.754	ug/l	2.42	153.11	5.480E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,095,276.67	0.78	98.2	Pulse	0.50	3
1	Sc		311,143.26	0.46	107.4	Pulse	0.30	3
1	Ge		190,257.30	0.20	103.0	Pulse	0.30	3
1	In		1,687,233.75	0.98	99.1	Pulse	0.30	3
1	Tb		4,592,779.67	0.99	101.6	Pulse	0.50	3
1	Lu		3,414,989.67	0.69	99.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,410.50	0.28	102.5	Pulse	0.30	3
1	Te		8.00	66.14		Pulse	0.50	3
1	Li		1,143.37	2.62	90.7	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:32
Sample Name	FC2193-1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	674.872	ug/l	0.50	391,074.81	2.058E+00	Pulse	0.50	3
As			1	136.752	ug/l	1.15	10,815.06	5.693E-02	Pulse	1.00	3
Mo			1	8.455	ug/l	0.42	2,826.89	1.016E-02	Pulse	0.50	3
Pb			1	2061.541	ug/l	0.56	2,809,833.42	9.206E-01	Pulse	1.00	3
Be			1	4.841	ug/l	11.39	16.50	5.294E-05	Pulse	2.00	3
Ag			1	2.073	ug/l	4.40	2,202.81	7.919E-03	Pulse	0.50	3
Ba			1	1560.829	ug/l	0.49	237,409.66	1.412E-01	Pulse	0.50	3
Tl			1	1.335	ug/l	6.26	2,972.94	9.744E-04	Pulse	0.50	3
Sn			1	50.992	ug/l	2.39	18,024.43	1.072E-02	Pulse	0.30	3
Sr			1	1092.332	ug/l	0.20	480,332.49	2.856E-01	Pulse	0.50	3
[Pb]			1	2052.037	ug/l	0.91	1,332,683.17	4.366E-01	Pulse	0.50	3
Ca			1	185974.806	ug/l	0.54	454,143.30	1.458E+00	Pulse	0.50	3
Ti			1	22491.329	ug/l	0.21	383,199.39	1.230E+00	Pulse	0.50	3
Na			1	22713.373	ug/l	0.53	1,881,907.75	6.041E+00	Pulse	1.00	3
Mg			1	121566.125	ug/l	0.58	5,132,006.33	1.647E+01	Analog	1.00	3
K			1	27885.402	ug/l	0.28	1,365,752.00	4.384E+00	Pulse	1.00	3
V			1	1132.637	ug/l	0.40	562,986.56	1.807E+00	Pulse	0.50	3
Mn			1	7792.008	ug/l	0.89	2,740,969.17	1.443E+01	Pulse	0.50	3
Fe			1	466382.252	ug/l	0.30	230,007,936.00	1.211E+03	Analog	0.50	3
Co			1	205.517	ug/l	1.25	181,958.77	9.578E-01	Pulse	0.50	3
Ni			1	673.168	ug/l	1.13	158,106.54	8.322E-01	Pulse	0.50	3
Cu			1	893.218	ug/l	1.50	557,742.41	2.936E+00	Pulse	0.50	3
Zn			1	2204.908	ug/l	0.49	246,778.75	8.870E-01	Pulse	1.00	3
Cd			1	13.475	ug/l	7.58	2,112.13	7.594E-03	Pulse	0.50	3
Al			1	333968.307	ug/l	0.32	6,124,146.50	1.966E+01	Analog	1.00	3
Se			1	12.758	ug/l	6.97	153.11	5.504E-04	Pulse	3.00	3
Sb			1	7.369	ug/l	1.12	3,667.37	1.318E-02	Pulse	1.00	3
Se			1	36.334	ug/l	6.54	139.44	5.013E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,052,027.92	1.09	96.8	Pulse	0.50	3
1	Sc		311,517.92	0.69	107.5	Pulse	0.30	3
1	Ge		189,981.43	0.18	102.9	Pulse	0.30	3
1	In		1,681,597.57	1.31	98.8	Pulse	0.30	3
1	Tb		4,541,628.67	0.85	100.5	Pulse	0.50	3
1	Lu		3,375,245.08	0.68	98.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,212.66	0.76	102.1	Pulse	0.30	3
1	Te		17.33	70.50		Pulse	0.50	3
1	Li		1,170.60	13.64	92.9	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:35
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.868	ug/l	0.88	565,998.13	2.919E+00	Pulse	0.50	3
As			1	46.940	ug/l	0.97	75,429.70	3.890E-01	Pulse	1.00	3
Mo			1	46.857	ug/l	0.53	307,371.85	1.076E+00	Pulse	0.50	3
Pb			1	46.922	ug/l	0.66	1,296,429.04	4.193E-01	Pulse	1.00	3
Be			1	45.358	ug/l	1.79	2,694.35	8.958E-03	Pulse	2.00	3
Ag			1	48.679	ug/l	0.83	961,391.23	3.367E+00	Pulse	0.50	3
Ba			1	46.616	ug/l	1.42	144,938.08	8.433E-02	Pulse	0.50	3
Tl			1	48.590	ug/l	0.86	1,847,613.75	5.975E-01	Pulse	0.50	3
Sn			1	47.784	ug/l	1.02	340,863.09	1.983E-01	Pulse	0.30	3
Sr			1	47.266	ug/l	1.06	424,879.35	2.472E-01	Pulse	0.50	3
[Pb]			1	47.096	ug/l	1.03	620,033.83	2.005E-01	Pulse	0.50	3
Ca			1	4641.908	ug/l	0.81	219,148.45	7.286E-01	Pulse	0.50	3
Ti			1	47.288	ug/l	0.90	15,565.53	5.175E-02	Pulse	0.50	3
Na			1	4877.805	ug/l	0.43	7,763,896.33	2.581E+01	Analog	1.00	3
Mg			1	4656.774	ug/l	1.10	3,796,592.67	1.262E+01	Pulse	1.00	3
K			1	4748.331	ug/l	0.66	4,341,164.50	1.443E+01	Pulse	1.00	3
V			1	47.706	ug/l	0.84	458,127.60	1.523E+00	Pulse	0.50	3
Mn			1	47.433	ug/l	0.40	340,813.91	1.758E+00	Pulse	0.50	3
Fe			1	4920.850	ug/l	0.47	49,549,944.00	2.555E+02	Analog	0.50	3
Co			1	48.173	ug/l	0.33	870,159.43	4.488E+00	Pulse	0.50	3
Ni			1	48.326	ug/l	1.07	231,481.35	1.194E+00	Pulse	0.50	3
Cu			1	48.577	ug/l	1.17	618,590.60	3.190E+00	Pulse	0.50	3
Zn			1	47.858	ug/l	0.81	110,730.73	3.878E-01	Pulse	1.00	3
Cd			1	46.875	ug/l	1.31	149,849.87	5.248E-01	Pulse	0.50	3
Al			1	4556.341	ug/l	1.40	1,613,705.46	5.365E+00	Pulse	1.00	3
Se			1	46.144	ug/l	1.86	5,921.25	2.074E-02	Pulse	3.00	3
Sb			1	46.143	ug/l	1.33	453,211.95	1.587E+00	Pulse	1.00	3
Se			1	46.574	ug/l	0.96	2,840.77	9.949E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,092,153.50	0.72	98.1	Pulse	0.50	3
1	Sc		300,797.19	0.60	103.8	Pulse	0.30	3
1	Ge		193,897.61	0.44	105.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,718,635.38	0.40	101.0	Pulse	0.30	3
1	Tb		4,607,293.33	0.69	101.9	Pulse	0.50	3
1	Lu		3,428,449.92	0.92	99.7	Pulse	0.50	3
1	Ge		285,538.15	0.69	104.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,145.60	4.37	90.9	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:39
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.965	ug/l	1.11	1,154,856.25	6.032E+00	Pulse	0.50	3
As			1	97.745	ug/l	0.84	155,025.62	8.097E-01	Pulse	1.00	3
Mo			1	98.132	ug/l	2.27	634,248.77	2.254E+00	Pulse	0.50	3
Pb			1	98.717	ug/l	0.62	2,637,413.92	8.817E-01	Pulse	1.00	3
Be			1	96.346	ug/l	1.44	5,619.11	1.902E-02	Pulse	2.00	3
Ag			1	99.586	ug/l	1.87	1,938,144.71	6.888E+00	Pulse	0.50	3
Ba			1	97.911	ug/l	1.38	297,504.35	1.771E-01	Pulse	0.50	3
Tl			1	101.843	ug/l	0.24	3,745,630.58	1.252E+00	Pulse	0.50	3
Sn			1	98.869	ug/l	1.01	689,047.47	4.102E-01	Pulse	0.30	3
Sr			1	98.919	ug/l	0.61	868,708.90	5.172E-01	Pulse	0.50	3
[Pb]			1	98.513	ug/l	0.68	1,254,121.04	4.193E-01	Pulse	0.50	3
Ca			1	9705.503	ug/l	0.88	449,451.19	1.522E+00	Pulse	0.50	3
Ti			1	97.631	ug/l	2.22	31,549.43	1.068E-01	Pulse	0.50	3
Na			1	10171.659	ug/l	0.89	15,885,748.33	5.378E+01	Analog	1.00	3
Mg			1	10029.149	ug/l	0.80	8,029,000.50	2.718E+01	Analog	1.00	3
K			1	10167.883	ug/l	0.39	9,059,186.67	3.067E+01	Analog	1.00	3
V			1	99.549	ug/l	1.21	937,410.21	3.174E+00	Pulse	0.50	3
Mn			1	97.313	ug/l	0.61	690,136.96	3.605E+00	Pulse	0.50	3
Fe			1	10114.024	ug/l	0.90	100,542,280.00	5.251E+02	Analog	0.50	3
Co			1	98.494	ug/l	1.36	1,756,551.33	9.175E+00	Pulse	0.50	3
Ni			1	98.798	ug/l	0.73	466,777.14	2.438E+00	Pulse	0.50	3
Cu			1	98.974	ug/l	0.98	1,237,668.46	6.465E+00	Pulse	0.50	3
Zn			1	98.766	ug/l	1.18	223,765.00	7.951E-01	Pulse	1.00	3
Cd			1	97.082	ug/l	2.34	305,839.00	1.087E+00	Pulse	0.50	3
Al			1	9498.399	ug/l	1.49	3,303,152.75	1.118E+01	Pulse	1.00	3
Se			1	95.284	ug/l	1.47	11,970.74	4.254E-02	Pulse	3.00	3
Sb			1	95.771	ug/l	2.01	926,889.19	3.294E+00	Pulse	1.00	3
Se			1	94.509	ug/l	0.45	5,647.73	2.007E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,991,263.08	0.72	94.9	Pulse	0.50	3
1	Sc		295,397.42	0.81	102.0	Pulse	0.30	3
1	Ge		191,463.55	0.69	103.7	Pulse	0.30	3
1	In		1,679,730.25	0.28	98.7	Pulse	0.30	3
1	Tb		4,533,119.83	0.56	100.3	Pulse	0.50	3
1	Lu		3,383,031.00	0.81	98.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,437.82	1.13	103.3	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		1,083.37	10.21	86.0	Pulse	0.30	3

Quantitation Report

File Name 032_CCB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:43
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	262.22	528.68	2.739E-03	Pulse	0.50	3
As			1	0.010	ug/l	115.20	75.00	3.891E-04	Pulse	1.00	3
Mo			1	0.086	ug/l	30.13	695.35	2.439E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	29.02	1,295.72	4.238E-04	Pulse	1.00	3
Be			1	0.035	ug/l	107.36	3.67	1.215E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	29.25	442.68	1.554E-03	Pulse	0.50	3
Ba			1	0.008	ug/l	48.15	57.33	3.366E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	12.51	1,891.45	6.185E-04	Pulse	0.50	3
Sn			1	0.071	ug/l	15.24	744.47	4.359E-04	Pulse	0.30	3
Sr			1	0.014	ug/l	28.17	449.34	2.631E-04	Pulse	0.50	3
[Pb]			1	0.014	ug/l	39.56	637.35	2.085E-04	Pulse	0.50	3
Ca			1	-0.613	ug/l	-216.68	465.34	1.540E-03	Pulse	0.50	3
Ti			1	0.068	ug/l	91.25	29.33	9.690E-05	Pulse	0.50	3
Na			1	5.435	ug/l	8.72	21,155.48	7.002E-02	Pulse	1.00	3
Mg			1	1.218	ug/l	30.82	1,643.41	5.442E-03	Pulse	1.00	3
K			1	3.952	ug/l	10.66	66,204.49	2.191E-01	Pulse	1.00	3
V			1	-0.002	ug/l	-171.94	1,300.72	4.305E-03	Pulse	0.50	3
Mn			1	0.065	ug/l	5.54	718.02	3.720E-03	Pulse	0.50	3
Fe			1	2.318	ug/l	18.26	38,406.29	1.991E-01	Pulse	0.50	3
Co			1	0.006	ug/l	88.82	232.67	1.209E-03	Pulse	0.50	3
Ni			1	0.003	ug/l	235.19	492.68	2.551E-03	Pulse	0.50	3
Cu			1	-0.056	ug/l	-39.81	5,878.91	3.046E-02	Pulse	0.50	3
Zn			1	-0.051	ug/l	-30.29	1,265.04	4.440E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	25.02	61.33	2.153E-04	Pulse	0.50	3
Al			1	1.282	ug/l	27.23	728.35	2.411E-03	Pulse	1.00	3
Se			1	0.152	ug/l	21.23	95.44	3.349E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	9.45	398.34	1.398E-03	Pulse	1.00	3
Se			1	0.014	ug/l	647.13	34.44	1.209E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,059,424.25	1.45	97.0	Pulse	0.50	3
1	Sc		302,142.50	0.42	104.3	Pulse	0.30	3

Quantitation Report

1	Ge		193,032.80	0.92	104.5	Pulse	0.30	3
1	In		1,706,569.66	1.43	100.3	Pulse	0.30	3
1	Tb		4,498,077.50	1.71	99.5	Pulse	0.50	3
1	Lu		3,342,182.75	1.49	97.2	Pulse	0.50	3
1	Ge		284,931.68	0.50	104.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,213.38	2.97	96.3	Pulse	0.30	3

Quantitation Report

File Name 033SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:47
Sample Name FC2193-2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	883.486	ug/l	0.16	511,720.42	2.694E+00	Pulse	0.50	3
As			1	171.813	ug/l	0.82	13,571.15	7.144E-02	Pulse	1.00	3
Mo			1	12.860	ug/l	3.80	4,213.16	1.522E-02	Pulse	0.50	3
Pb			1	21180.969	ug/l	1.11	28,397,633.33	9.456E+00	Analog	1.00	3
Be			1	5.320	ug/l	1.47	17.83	5.768E-05	Pulse	2.00	3
Ag			1	18.039	ug/l	1.29	17,472.23	6.313E-02	Pulse	0.50	3
Ba			1	1849.570	ug/l	0.57	278,932.12	1.673E-01	Pulse	0.50	3
Tl			1	2.769	ug/l	4.71	5,572.26	1.856E-03	Pulse	0.50	3
Sn			1	156.702	ug/l	1.33	54,429.22	3.264E-02	Pulse	0.30	3
Sr			1	928.792	ug/l	0.66	404,997.20	2.429E-01	Pulse	0.50	3
[Pb]			1	21125.155	ug/l	1.14	13,495,667.33	4.494E+00	Analog	0.50	3
Ca			1	156830.536	ug/l	0.59	380,175.56	1.230E+00	Pulse	0.50	3
Ti			1	22157.490	ug/l	0.95	374,662.76	1.212E+00	Pulse	0.50	3
Na			1	15877.616	ug/l	0.43	1,309,515.50	4.236E+00	Pulse	1.00	3
Mg			1	133346.541	ug/l	0.63	5,586,955.67	1.807E+01	Analog	1.00	3
K			1	23783.687	ug/l	0.54	1,165,554.54	3.770E+00	Pulse	1.00	3
V			1	1235.799	ug/l	0.82	609,512.50	1.971E+00	Pulse	0.50	3
Mn			1	8163.436	ug/l	0.21	2,871,103.92	1.512E+01	Pulse	0.50	3
Fe			1	514502.639	ug/l	0.22	253,694,698.67	1.336E+03	Analog	0.50	3
Co			1	218.506	ug/l	0.85	193,419.13	1.018E+00	Pulse	0.50	3
Ni			1	745.026	ug/l	0.39	174,901.15	9.208E-01	Pulse	0.50	3
Cu			1	3069.545	ug/l	0.69	1,900,553.12	1.001E+01	Pulse	0.50	3
Zn			1	5874.213	ug/l	0.76	651,859.21	2.355E+00	Pulse	1.00	3
Cd			1	64.106	ug/l	3.56	9,947.37	3.593E-02	Pulse	0.50	3
Al			1	343083.986	ug/l	0.59	6,243,981.33	2.020E+01	Analog	1.00	3
Se			1	15.616	ug/l	13.09	169.89	6.138E-04	Pulse	3.00	3
Sb			1	41.360	ug/l	2.31	19,824.03	7.163E-02	Pulse	1.00	3
Se			1	41.654	ug/l	8.13	154.34	5.575E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,003,472.25	1.23	95.2	Pulse	0.50	3
1	Sc		309,175.68	0.56	106.7	Pulse	0.30	3
1	Ge		189,948.73	0.51	102.9	Pulse	0.30	3
1	In		1,667,422.92	1.24	98.0	Pulse	0.30	3
1	Tb		4,500,041.67	0.73	99.6	Pulse	0.50	3
1	Lu		3,336,911.92	0.74	97.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,803.76	0.91	101.6	Pulse	0.30	3
1	Te		180.67	6.29		Pulse	0.50	3
1	Li		1,262.27	6.34	100.2	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:50
Sample Name	FC2193-3
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	930.660	ug/l	0.36	540,714.89	2.838E+00	Pulse	0.50	3
As			1	257.510	ug/l	1.14	20,374.82	1.069E-01	Pulse	1.00	3
Mo			1	12.063	ug/l	4.55	3,981.11	1.430E-02	Pulse	0.50	3
Pb			1	1815.867	ug/l	0.51	2,456,227.92	8.109E-01	Pulse	1.00	3
Be			1	5.381	ug/l	36.22	18.33	5.828E-05	Pulse	2.00	3
Ag			1	12.172	ug/l	1.03	11,920.51	4.284E-02	Pulse	0.50	3
Ba			1	2360.914	ug/l	1.35	355,954.11	2.135E-01	Pulse	0.50	3
Tl			1	2.190	ug/l	2.83	4,543.95	1.500E-03	Pulse	0.50	3
Sn			1	44.112	ug/l	4.22	15,484.36	9.290E-03	Pulse	0.30	3
Sr			1	921.776	ug/l	1.51	401,822.39	2.411E-01	Pulse	0.50	3
[Pb]			1	1826.828	ug/l	0.49	1,177,410.04	3.887E-01	Pulse	0.50	3
Ca			1	132891.926	ug/l	0.28	327,843.63	1.042E+00	Pulse	0.50	3
Ti			1	20874.751	ug/l	0.79	359,138.89	1.142E+00	Pulse	0.50	3
Na			1	7020.831	ug/l	0.47	596,390.57	1.896E+00	Pulse	1.00	3
Mg			1	119712.279	ug/l	0.49	5,103,295.17	1.622E+01	Analog	1.00	3
K			1	25159.583	ug/l	0.19	1,250,682.00	3.976E+00	Pulse	1.00	3
V			1	1174.182	ug/l	0.66	589,303.85	1.873E+00	Pulse	0.50	3
Mn			1	8490.687	ug/l	0.32	2,995,664.58	1.572E+01	Pulse	0.50	3
Fe			1	490442.598	ug/l	0.49	242,597,941.33	1.273E+03	Analog	0.50	3
Co			1	211.063	ug/l	0.38	187,420.73	9.836E-01	Pulse	0.50	3
Ni			1	861.373	ug/l	0.46	202,784.06	1.064E+00	Pulse	0.50	3
Cu			1	803.031	ug/l	1.00	503,591.50	2.643E+00	Pulse	0.50	3
Zn			1	2351.420	ug/l	0.23	263,154.98	9.456E-01	Pulse	1.00	3
Cd			1	15.222	ug/l	0.45	2,385.49	8.572E-03	Pulse	0.50	3
Al			1	370824.277	ug/l	0.42	6,866,534.83	2.183E+01	Analog	1.00	3
Se			1	15.658	ug/l	7.27	171.11	6.148E-04	Pulse	3.00	3
Sb			1	11.003	ug/l	0.53	5,406.80	1.943E-02	Pulse	1.00	3
Se			1	48.127	ug/l	6.67	174.11	6.258E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,028,774.00	0.93	96.0	Pulse	0.50	3
1	Sc		314,563.24	0.26	108.6	Pulse	0.30	3
1	Ge		190,548.71	0.80	103.2	Pulse	0.30	3
1	In		1,667,091.81	1.47	97.9	Pulse	0.30	3
1	Tb		4,500,223.33	1.44	99.6	Pulse	0.50	3
1	Lu		3,342,250.58	1.32	97.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,286.67	0.91	102.1	Pulse	0.30	3
1	Te		27.33	59.14		Pulse	0.50	3
1	Li		1,184.49	6.81	94.0	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:54
Sample Name FC2193-4
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	964.712	ug/l	1.18	556,182.96	2.941E+00	Pulse	0.50	3
As			1	241.276	ug/l	1.61	18,946.03	1.002E-01	Pulse	1.00	3
Mo			1	11.935	ug/l	1.45	3,907.75	1.416E-02	Pulse	0.50	3
Pb			1	1810.272	ug/l	0.61	2,431,819.17	8.084E-01	Pulse	1.00	3
Be			1	5.290	ug/l	30.16	18.17	5.738E-05	Pulse	2.00	3
Ag			1	10.040	ug/l	3.44	9,789.95	3.547E-02	Pulse	0.50	3
Ba			1	2522.766	ug/l	0.10	380,641.05	2.282E-01	Pulse	0.50	3
Tl			1	2.219	ug/l	0.17	4,565.96	1.518E-03	Pulse	0.50	3
Sn			1	44.789	ug/l	1.06	15,733.45	9.431E-03	Pulse	0.30	3
Sr			1	925.798	ug/l	0.09	403,912.64	2.421E-01	Pulse	0.50	3
[Pb]			1	1805.521	ug/l	0.30	1,155,624.67	3.842E-01	Pulse	0.50	3
Ca			1	137100.035	ug/l	0.57	340,334.67	1.075E+00	Pulse	0.50	3
Ti			1	21982.977	ug/l	1.16	380,582.46	1.202E+00	Pulse	0.50	3
Na			1	7800.090	ug/l	0.41	665,297.33	2.102E+00	Pulse	1.00	3
Mg			1	125849.134	ug/l	1.00	5,398,578.83	1.705E+01	Analog	1.00	3
K			1	26547.731	ug/l	0.24	1,324,372.08	4.184E+00	Pulse	1.00	3
V			1	1250.223	ug/l	1.20	631,319.65	1.994E+00	Pulse	0.50	3
Mn			1	8749.464	ug/l	1.09	3,063,229.00	1.620E+01	Pulse	0.50	3
Fe			1	517351.982	ug/l	1.05	253,936,325.33	1.343E+03	Analog	0.50	3
Co			1	220.295	ug/l	1.53	194,116.48	1.027E+00	Pulse	0.50	3
Ni			1	899.757	ug/l	1.31	210,161.34	1.112E+00	Pulse	0.50	3
Cu			1	853.903	ug/l	1.93	530,947.45	2.808E+00	Pulse	0.50	3
Zn			1	2586.352	ug/l	1.82	286,958.88	1.040E+00	Pulse	1.00	3
Cd			1	18.952	ug/l	2.94	2,942.91	1.066E-02	Pulse	0.50	3
Al			1	386797.844	ug/l	0.86	7,207,318.67	2.277E+01	Analog	1.00	3
Se			1	19.418	ug/l	10.84	192.67	6.982E-04	Pulse	3.00	3
Sb			1	11.235	ug/l	3.55	5,472.82	1.983E-02	Pulse	1.00	3
Se			1	49.762	ug/l	6.52	177.56	6.431E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,856.17	1.28	95.4	Pulse	0.50	3
1	Sc		316,543.40	0.16	109.3	Pulse	0.30	3
1	Ge		189,090.59	0.89	102.4	Pulse	0.30	3
1	In		1,668,242.36	0.84	98.0	Pulse	0.30	3
1	Tb		4,500,734.17	0.62	99.6	Pulse	0.50	3
1	Lu		3,336,249.08	1.10	97.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,044.61	0.69	101.3	Pulse	0.30	3
1	Te		31.33	16.06		Pulse	0.50	3
1	Li		1,120.04	5.67	88.9	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:58
Sample Name FC2193-5
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	761.674	ug/l	0.60	445,403.84	2.323E+00	Pulse	0.50	3
As			1	188.876	ug/l	0.93	15,052.92	7.851E-02	Pulse	1.00	3
Mo			1	8.320	ug/l	3.04	2,788.22	1.001E-02	Pulse	0.50	3
Pb			1	1158.573	ug/l	0.43	1,572,319.75	5.175E-01	Pulse	1.00	3
Be			1	4.529	ug/l	9.84	15.83	4.987E-05	Pulse	2.00	3
Ag			1	5.995	ug/l	2.25	5,984.98	2.148E-02	Pulse	0.50	3
Ba			1	1901.828	ug/l	1.24	288,565.39	1.720E-01	Pulse	0.50	3
Tl			1	1.671	ug/l	4.32	3,588.39	1.181E-03	Pulse	0.50	3
Sn			1	35.190	ug/l	1.29	12,480.95	7.440E-03	Pulse	0.30	3
Sr			1	672.497	ug/l	0.17	295,110.33	1.759E-01	Pulse	0.50	3
[Pb]			1	1166.021	ug/l	0.39	754,001.90	2.482E-01	Pulse	0.50	3
Ca			1	102346.081	ug/l	0.56	254,912.30	8.030E-01	Pulse	0.50	3
Ti			1	17890.551	ug/l	0.48	310,612.02	9.785E-01	Pulse	0.50	3
Na			1	5602.270	ug/l	0.38	482,884.78	1.521E+00	Pulse	1.00	3
Mg			1	93198.961	ug/l	0.36	4,009,505.42	1.263E+01	Pulse	1.00	3
K			1	19644.303	ug/l	0.42	999,857.11	3.150E+00	Pulse	1.00	3
V			1	989.911	ug/l	0.74	501,582.58	1.580E+00	Pulse	0.50	3
Mn			1	6478.264	ug/l	0.95	2,299,974.25	1.200E+01	Pulse	0.50	3
Fe			1	402079.902	ug/l	0.56	200,136,746.67	1.044E+03	Analog	0.50	3
Co			1	164.113	ug/l	1.08	146,672.46	7.649E-01	Pulse	0.50	3
Ni			1	714.534	ug/l	1.01	169,360.09	8.832E-01	Pulse	0.50	3
Cu			1	618.731	ug/l	0.78	391,938.63	2.044E+00	Pulse	0.50	3
Zn			1	1870.795	ug/l	0.12	209,896.31	7.533E-01	Pulse	1.00	3
Cd			1	9.294	ug/l	4.18	1,463.40	5.254E-03	Pulse	0.50	3
Al			1	296871.966	ug/l	0.28	5,547,431.83	1.748E+01	Analog	1.00	3
Se			1	14.279	ug/l	8.53	162.78	5.842E-04	Pulse	3.00	3
Sb			1	8.099	ug/l	2.33	4,021.78	1.444E-02	Pulse	1.00	3
Se			1	37.361	ug/l	4.96	142.67	5.122E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,038,107.00	0.80	96.3	Pulse	0.50	3
1	Sc		317,437.63	0.33	109.6	Pulse	0.30	3
1	Ge		191,747.42	1.09	103.8	Pulse	0.30	3
1	In		1,677,462.50	0.80	98.5	Pulse	0.30	3
1	Tb		4,515,701.17	1.55	99.9	Pulse	0.50	3
1	Lu		3,330,702.67	0.74	96.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,624.31	1.19	102.2	Pulse	0.30	3
1	Te		16.67	13.86		Pulse	0.50	3
1	Li		1,082.26	2.93	85.9	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:02
Sample Name FC2193-6
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	968.672	ug/l	1.34	570,821.23	2.953E+00	Pulse	0.50	3
As			1	119.630	ug/l	1.85	9,632.76	4.984E-02	Pulse	1.00	3
Mo			1	6.776	ug/l	4.05	2,314.82	8.233E-03	Pulse	0.50	3
Pb			1	1401.075	ug/l	0.15	1,876,252.09	6.258E-01	Pulse	1.00	3
Be			1	6.181	ug/l	11.70	21.17	6.617E-05	Pulse	2.00	3
Ag			1	4.815	ug/l	4.00	4,892.66	1.740E-02	Pulse	0.50	3
Ba			1	1726.346	ug/l	0.79	260,396.09	1.561E-01	Pulse	0.50	3
Tl			1	1.345	ug/l	2.70	2,940.93	9.808E-04	Pulse	0.50	3
Sn			1	33.077	ug/l	1.77	11,674.88	7.002E-03	Pulse	0.30	3
Sr			1	669.034	ug/l	0.29	291,874.56	1.750E-01	Pulse	0.50	3
[Pb]			1	1390.408	ug/l	0.55	887,196.19	2.959E-01	Pulse	0.50	3
Ca			1	104594.277	ug/l	1.47	262,527.77	8.206E-01	Pulse	0.50	3
Ti			1	21228.370	ug/l	1.12	371,428.24	1.161E+00	Pulse	0.50	3
Na			1	5411.614	ug/l	0.65	470,542.32	1.471E+00	Pulse	1.00	3
Mg			1	147475.223	ug/l	1.03	6,393,522.67	1.999E+01	Analog	1.00	3
K			1	19221.539	ug/l	0.71	987,411.04	3.086E+00	Pulse	1.00	3
V			1	1106.946	ug/l	1.51	565,072.42	1.766E+00	Pulse	0.50	3
Mn			1	7963.988	ug/l	0.80	2,850,014.33	1.475E+01	Pulse	0.50	3
Fe			1	494782.544	ug/l	0.48	248,240,538.67	1.284E+03	Analog	0.50	3
Co			1	221.589	ug/l	0.20	199,578.74	1.033E+00	Pulse	0.50	3
Ni			1	1179.310	ug/l	0.91	281,429.80	1.456E+00	Pulse	0.50	3
Cu			1	699.596	ug/l	0.80	445,847.79	2.307E+00	Pulse	0.50	3
Zn			1	1625.401	ug/l	1.02	184,190.64	6.551E-01	Pulse	1.00	3
Cd			1	22.053	ug/l	1.29	3,485.01	1.240E-02	Pulse	0.50	3
Al			1	353452.195	ug/l	1.26	6,656,061.50	2.081E+01	Analog	1.00	3
Se			1	12.835	ug/l	15.33	155.22	5.521E-04	Pulse	3.00	3
Sb			1	6.357	ug/l	2.43	3,216.62	1.144E-02	Pulse	1.00	3
Se			1	41.594	ug/l	1.15	156.55	5.569E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,998,272.00	1.60	95.1	Pulse	0.50	3
1	Sc		319,922.57	0.51	110.4	Pulse	0.30	3
1	Ge		193,273.45	0.48	104.7	Pulse	0.30	3
1	In		1,667,642.89	1.03	98.0	Pulse	0.30	3
1	Tb		4,479,515.83	1.35	99.1	Pulse	0.50	3
1	Lu		3,325,478.42	1.37	96.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,140.31	0.23	103.2	Pulse	0.30	3
1	Te		17.33	52.03		Pulse	0.50	3
1	Li		1,142.26	9.72	90.7	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:06
Sample Name	FC2193-7
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	992.069	ug/l	0.34	580,835.36	3.025E+00	Pulse	0.50	3
As			1	114.735	ug/l	1.26	9,181.21	4.781E-02	Pulse	1.00	3
Mo			1	11.487	ug/l	2.41	3,827.74	1.364E-02	Pulse	0.50	3
Pb			1	9010.383	ug/l	0.75	11,963,733.67	4.023E+00	Analog	1.00	3
Be			1	5.978	ug/l	14.40	20.17	6.417E-05	Pulse	2.00	3
Ag			1	5.675	ug/l	0.30	5,716.23	2.037E-02	Pulse	0.50	3
Ba			1	1689.272	ug/l	0.90	255,852.37	1.528E-01	Pulse	0.50	3
Tl			1	1.377	ug/l	1.48	2,974.94	1.000E-03	Pulse	0.50	3
Sn			1	62.013	ug/l	0.98	21,772.94	1.300E-02	Pulse	0.30	3
Sr			1	747.466	ug/l	0.49	327,399.19	1.955E-01	Pulse	0.50	3
[Pb]			1	8899.466	ug/l	3.40	5,629,546.17	1.893E+00	Mix	0.50	3
Ca			1	130823.946	ug/l	0.80	322,600.91	1.026E+00	Pulse	0.50	3
Ti			1	22817.282	ug/l	0.63	392,388.14	1.248E+00	Pulse	0.50	3
Na			1	11900.993	ug/l	0.82	1,001,434.12	3.185E+00	Pulse	1.00	3
Mg			1	164454.346	ug/l	0.93	7,007,072.67	2.229E+01	Analog	1.00	3
K			1	21128.750	ug/l	0.31	1,060,284.17	3.372E+00	Pulse	1.00	3
V			1	1223.628	ug/l	0.58	613,786.81	1.952E+00	Pulse	0.50	3
Mn			1	8879.694	ug/l	0.67	3,157,273.50	1.644E+01	Pulse	0.50	3
Fe			1	569819.101	ug/l	0.52	284,039,104.00	1.479E+03	Analog	0.50	3
Co			1	251.193	ug/l	0.82	224,763.58	1.170E+00	Pulse	0.50	3
Ni			1	1223.865	ug/l	0.44	290,158.58	1.511E+00	Pulse	0.50	3
Cu			1	2111.909	ug/l	0.75	1,324,018.17	6.895E+00	Pulse	0.50	3
Zn			1	2805.698	ug/l	1.11	316,317.97	1.127E+00	Pulse	1.00	3
Cd			1	82.872	ug/l	2.53	13,030.62	4.644E-02	Pulse	0.50	3
Al			1	366092.770	ug/l	0.83	6,775,934.33	2.155E+01	Analog	1.00	3
Se			1	14.119	ug/l	7.83	162.89	5.806E-04	Pulse	3.00	3
Sb			1	26.605	ug/l	2.54	12,978.92	4.625E-02	Pulse	1.00	3
Se			1	41.712	ug/l	9.58	156.56	5.581E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,974,293.67	1.51	94.3	Pulse	0.50	3
1	Sc		314,426.79	0.57	108.5	Pulse	0.30	3
1	Ge		192,032.26	1.14	104.0	Pulse	0.30	3
1	In		1,674,518.86	0.36	98.4	Pulse	0.30	3
1	Tb		4,494,321.00	1.17	99.4	Pulse	0.50	3
1	Lu		3,326,919.08	1.14	96.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,575.73	0.45	103.0	Pulse	0.30	3
1	Te		19.33	58.82		Pulse	0.50	3
1	Li		1,156.71	1.73	91.8	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:10
Sample Name	FC2193-8
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	683.581	ug/l	1.19	401,845.51	2.085E+00	Pulse	0.50	3
As			1	107.969	ug/l	0.88	8,674.31	4.501E-02	Pulse	1.00	3
Mo			1	5.386	ug/l	4.96	1,866.77	6.637E-03	Pulse	0.50	3
Pb			1	7593.086	ug/l	0.94	10,192,971.33	3.390E+00	Analog	1.00	3
Be			1	3.813	ug/l	47.20	13.50	4.280E-05	Pulse	2.00	3
Ag			1	1.118	ug/l	5.10	1,299.39	4.619E-03	Pulse	0.50	3
Ba			1	1357.218	ug/l	1.69	204,692.61	1.228E-01	Pulse	0.50	3
Tl			1	1.079	ug/l	5.50	2,456.86	8.168E-04	Pulse	0.50	3
Sn			1	29.527	ug/l	6.02	10,446.64	6.265E-03	Pulse	0.30	3
Sr			1	902.581	ug/l	0.79	393,587.08	2.361E-01	Pulse	0.50	3
[Pb]			1	7255.301	ug/l	0.25	4,641,265.50	1.543E+00	Pulse	0.50	3
Ca			1	132298.779	ug/l	0.85	327,464.33	1.038E+00	Pulse	0.50	3
Ti			1	20043.675	ug/l	1.13	345,981.88	1.096E+00	Pulse	0.50	3
Na			1	6537.924	ug/l	0.41	558,101.96	1.768E+00	Pulse	1.00	3
Mg			1	126027.940	ug/l	0.29	5,390,259.83	1.708E+01	Analog	1.00	3
K			1	22203.196	ug/l	0.11	1,115,063.00	3.533E+00	Pulse	1.00	3
V			1	983.577	ug/l	0.91	495,493.48	1.570E+00	Pulse	0.50	3
Mn			1	6964.794	ug/l	0.62	2,485,376.67	1.290E+01	Pulse	0.50	3
Fe			1	427000.664	ug/l	0.44	213,629,786.67	1.108E+03	Analog	0.50	3
Co			1	180.762	ug/l	0.82	162,365.35	8.425E-01	Pulse	0.50	3
Ni			1	813.801	ug/l	1.17	193,797.53	1.006E+00	Pulse	0.50	3
Cu			1	1171.878	ug/l	0.68	740,260.17	3.841E+00	Pulse	0.50	3
Zn			1	1424.453	ug/l	1.11	161,682.79	5.747E-01	Pulse	1.00	3
Cd			1	4.798	ug/l	4.62	770.02	2.737E-03	Pulse	0.50	3
Al			1	269697.438	ug/l	0.72	5,010,555.17	1.588E+01	Analog	1.00	3
Se			1	12.022	ug/l	22.25	150.22	5.341E-04	Pulse	3.00	3
Sb			1	35.217	ug/l	1.37	17,177.69	6.106E-02	Pulse	1.00	3
Se			1	34.901	ug/l	2.51	136.78	4.862E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,003.75	1.14	95.4	Pulse	0.50	3
1	Sc		315,605.09	0.25	108.9	Pulse	0.30	3
1	Ge		192,723.91	0.51	104.4	Pulse	0.30	3
1	In		1,667,400.35	0.52	98.0	Pulse	0.30	3
1	Tb		4,505,028.17	0.88	99.7	Pulse	0.50	3
1	Lu		3,320,136.75	1.05	96.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,302.37	0.39	103.2	Pulse	0.30	3
1	Te		4.67	24.74		Pulse	0.50	3
1	Li		1,232.27	10.34	97.8	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:13
Sample Name FC2193-9
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	698.664	ug/l	0.35	411,613.64	2.131E+00	Pulse	0.50	3
As			1	115.619	ug/l	0.98	9,306.27	4.818E-02	Pulse	1.00	3
Mo			1	5.801	ug/l	2.47	2,000.78	7.114E-03	Pulse	0.50	3
Pb			1	6218.094	ug/l	0.87	8,343,584.17	2.776E+00	Analog	1.00	3
Be			1	3.317	ug/l	14.31	12.00	3.790E-05	Pulse	2.00	3
Ag			1	1.010	ug/l	5.87	1,194.05	4.245E-03	Pulse	0.50	3
Ba			1	1417.980	ug/l	0.91	216,041.31	1.283E-01	Pulse	0.50	3
Tl			1	0.943	ug/l	2.94	2,204.15	7.334E-04	Pulse	0.50	3
Sn			1	30.456	ug/l	4.67	10,879.94	6.458E-03	Pulse	0.30	3
Sr			1	850.046	ug/l	1.09	374,482.17	2.223E-01	Pulse	0.50	3
[Pb]			1	5961.787	ug/l	0.39	3,812,123.67	1.268E+00	Pulse	0.50	3
Ca			1	125384.730	ug/l	1.19	311,312.50	9.834E-01	Pulse	0.50	3
Ti			1	19529.353	ug/l	0.58	338,119.66	1.068E+00	Pulse	0.50	3
Na			1	6483.999	ug/l	0.29	555,280.48	1.754E+00	Pulse	1.00	3
Mg			1	123107.890	ug/l	0.58	5,281,285.00	1.668E+01	Analog	1.00	3
K			1	20239.475	ug/l	0.08	1,025,316.61	3.239E+00	Pulse	1.00	3
V			1	958.967	ug/l	0.93	484,588.48	1.531E+00	Pulse	0.50	3
Mn			1	6807.906	ug/l	0.24	2,434,880.08	1.261E+01	Pulse	0.50	3
Fe			1	406764.230	ug/l	0.18	203,962,410.67	1.056E+03	Analog	0.50	3
Co			1	174.870	ug/l	0.31	157,428.59	8.150E-01	Pulse	0.50	3
Ni			1	799.112	ug/l	0.21	190,734.40	9.875E-01	Pulse	0.50	3
Cu			1	1088.487	ug/l	1.03	689,623.00	3.570E+00	Pulse	0.50	3
Zn			1	1388.007	ug/l	1.38	157,559.65	5.602E-01	Pulse	1.00	3
Cd			1	4.477	ug/l	1.60	719.35	2.558E-03	Pulse	0.50	3
Al			1	265417.332	ug/l	0.74	4,945,915.00	1.562E+01	Analog	1.00	3
Se			1	11.396	ug/l	9.26	146.33	5.202E-04	Pulse	3.00	3
Sb			1	34.042	ug/l	0.89	16,607.17	5.904E-02	Pulse	1.00	3
Se			1	36.593	ug/l	1.87	141.78	5.041E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,005,637.75	1.35	95.3	Pulse	0.50	3
1	Sc		316,558.30	0.27	109.3	Pulse	0.30	3
1	Ge		193,156.94	0.72	104.6	Pulse	0.30	3
1	In		1,684,449.48	0.69	99.0	Pulse	0.30	3
1	Tb		4,503,106.50	1.23	99.6	Pulse	0.50	3
1	Lu		3,357,309.42	0.76	97.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,265.72	0.27	103.2	Pulse	0.30	3
1	Te		6.67	17.32		Pulse	0.50	3
1	Li		1,107.82	8.05	87.9	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:17
Sample Name FC2193-10
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	657.831	ug/l	1.02	384,911.65	2.007E+00	Pulse	0.50	3
As			1	96.973	ug/l	0.57	7,760.92	4.046E-02	Pulse	1.00	3
Mo			1	14.871	ug/l	2.08	4,920.00	1.753E-02	Pulse	0.50	3
Pb			1	13464.496	ug/l	0.58	17,993,457.33	6.011E+00	Analog	1.00	3
Be			1	3.626	ug/l	16.63	12.83	4.096E-05	Pulse	2.00	3
Ag			1	1.173	ug/l	9.78	1,349.39	4.806E-03	Pulse	0.50	3
Ba			1	1307.770	ug/l	0.37	198,790.74	1.183E-01	Pulse	0.50	3
Tl			1	0.940	ug/l	5.96	2,191.48	7.318E-04	Pulse	0.50	3
Sn			1	32.207	ug/l	1.76	11,463.63	6.821E-03	Pulse	0.30	3
Sr			1	837.478	ug/l	0.26	368,102.05	2.190E-01	Pulse	0.50	3
[Pb]			1	13576.822	ug/l	1.49	8,644,740.67	2.888E+00	Analog	0.50	3
Ca			1	123883.992	ug/l	0.22	304,390.95	9.717E-01	Pulse	0.50	3
Ti			1	19011.191	ug/l	0.74	325,727.45	1.040E+00	Pulse	0.50	3
Na			1	5439.735	ug/l	0.71	463,074.75	1.478E+00	Pulse	1.00	3
Mg			1	119390.927	ug/l	0.45	5,068,501.33	1.618E+01	Analog	1.00	3
K			1	19976.740	ug/l	0.57	1,002,298.58	3.200E+00	Pulse	1.00	3
V			1	965.890	ug/l	0.61	483,004.48	1.542E+00	Pulse	0.50	3
Mn			1	6662.381	ug/l	0.63	2,366,398.33	1.234E+01	Pulse	0.50	3
Fe			1	409292.935	ug/l	0.92	203,811,760.00	1.062E+03	Analog	0.50	3
Co			1	163.478	ug/l	0.99	146,168.73	7.620E-01	Pulse	0.50	3
Ni			1	764.128	ug/l	0.53	181,151.61	9.443E-01	Pulse	0.50	3
Cu			1	2527.071	ug/l	1.07	1,581,319.84	8.243E+00	Pulse	0.50	3
Zn			1	1569.959	ug/l	0.68	177,667.32	6.330E-01	Pulse	1.00	3
Cd			1	4.020	ug/l	3.48	646.01	2.302E-03	Pulse	0.50	3
Al			1	247367.911	ug/l	0.66	4,561,672.33	1.456E+01	Pulse	1.00	3
Se			1	12.004	ug/l	18.02	149.78	5.337E-04	Pulse	3.00	3
Sb			1	70.220	ug/l	1.50	34,033.15	1.212E-01	Pulse	1.00	3
Se			1	34.972	ug/l	11.84	136.67	4.870E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,524.50	1.12	94.9	Pulse	0.50	3
1	Sc		313,261.30	0.34	108.1	Pulse	0.30	3
1	Ge		191,832.59	0.85	103.9	Pulse	0.30	3
1	In		1,680,525.25	0.57	98.7	Pulse	0.30	3
1	Tb		4,505,434.83	0.66	99.7	Pulse	0.50	3
1	Lu		3,334,748.25	0.89	97.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,687.14	0.41	103.0	Pulse	0.30	3
1	Te		9.33	24.74		Pulse	0.50	3
1	Li		1,107.82	4.61	87.9	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:21
Sample Name FC2193-11
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	604.330	ug/l	0.19	358,103.30	1.844E+00	Pulse	0.50	3
As			1	149.860	ug/l	0.07	12,111.83	6.235E-02	Pulse	1.00	3
Mo			1	11.488	ug/l	4.75	3,879.75	1.364E-02	Pulse	0.50	3
Pb			1	1033.407	ug/l	0.82	1,408,249.25	4.616E-01	Pulse	1.00	3
Be			1	4.394	ug/l	17.76	15.33	4.854E-05	Pulse	2.00	3
Ag			1	7.948	ug/l	2.20	8,029.09	2.823E-02	Pulse	0.50	3
Ba			1	1585.745	ug/l	0.67	244,163.82	1.434E-01	Pulse	0.50	3
Tl			1	1.483	ug/l	2.37	3,250.32	1.066E-03	Pulse	0.50	3
Sn			1	1241.498	ug/l	0.82	438,551.24	2.576E-01	Pulse	0.30	3
Sr			1	630.658	ug/l	0.38	280,869.48	1.650E-01	Pulse	0.50	3
[Pb]			1	1034.084	ug/l	1.51	671,470.69	2.201E-01	Pulse	0.50	3
Ca			1	97167.745	ug/l	0.63	240,814.83	7.625E-01	Pulse	0.50	3
Ti			1	17203.387	ug/l	0.92	297,164.66	9.409E-01	Pulse	0.50	3
Na			1	5802.169	ug/l	0.34	497,115.62	1.574E+00	Pulse	1.00	3
Mg			1	85455.623	ug/l	0.68	3,657,774.75	1.158E+01	Pulse	1.00	3
K			1	23585.099	ug/l	0.39	1,181,236.29	3.740E+00	Pulse	1.00	3
V			1	914.784	ug/l	0.89	461,262.68	1.460E+00	Pulse	0.50	3
Mn			1	6036.140	ug/l	0.63	2,170,915.33	1.118E+01	Pulse	0.50	3
Fe			1	388644.051	ug/l	0.87	195,961,925.33	1.009E+03	Analog	0.50	3
Co			1	151.027	ug/l	0.62	136,744.13	7.040E-01	Pulse	0.50	3
Ni			1	579.059	ug/l	1.01	139,124.70	7.162E-01	Pulse	0.50	3
Cu			1	2317.498	ug/l	0.66	1,468,987.12	7.563E+00	Pulse	0.50	3
Zn			1	1532.219	ug/l	0.72	175,700.66	6.179E-01	Pulse	1.00	3
Cd			1	16.088	ug/l	5.25	2,575.52	9.057E-03	Pulse	0.50	3
Al			1	242216.969	ug/l	0.83	4,503,243.67	1.426E+01	Pulse	1.00	3
Se			1	9.522	ug/l	12.44	136.11	4.787E-04	Pulse	3.00	3
Sb			1	47.324	ug/l	0.21	23,284.39	8.188E-02	Pulse	1.00	3
Se			1	29.448	ug/l	6.42	121.89	4.287E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,050,402.33	0.58	96.7	Pulse	0.50	3
1	Sc		315,831.59	0.25	109.0	Pulse	0.30	3
1	Ge		194,240.64	0.68	105.2	Pulse	0.30	3
1	In		1,702,353.20	0.85	100.0	Pulse	0.30	3
1	Tb		4,514,254.67	0.75	99.9	Pulse	0.50	3
1	Lu		3,340,870.17	0.87	97.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		284,369.12	0.28	104.4	Pulse	0.30	3
1	Te		13.33	85.29		Pulse	0.50	3
1	Li		1,141.15	3.97	90.6	Pulse	0.30	3

Quantitation Report

File Name 043CCVA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:25
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.931	ug/l	1.09	566,913.87	2.923E+00	Pulse	0.50	3
As			1	47.131	ug/l	1.22	75,760.05	3.906E-01	Pulse	1.00	3
Mo			1	46.749	ug/l	1.58	307,960.17	1.074E+00	Pulse	0.50	3
Pb			1	47.303	ug/l	0.64	1,270,538.42	4.227E-01	Pulse	1.00	3
Be			1	44.885	ug/l	1.46	2,674.01	8.865E-03	Pulse	2.00	3
Ag			1	48.183	ug/l	1.21	955,662.38	3.333E+00	Pulse	0.50	3
Ba			1	46.578	ug/l	0.55	144,124.14	8.427E-02	Pulse	0.50	3
Tl			1	48.759	ug/l	0.39	1,802,404.46	5.996E-01	Pulse	0.50	3
Sn			1	47.782	ug/l	0.71	339,230.72	1.983E-01	Pulse	0.30	3
Sr			1	47.576	ug/l	0.44	425,604.85	2.488E-01	Pulse	0.50	3
[Pb]			1	47.145	ug/l	0.68	603,386.46	2.007E-01	Pulse	0.50	3
Ca			1	4638.939	ug/l	1.06	219,639.38	7.281E-01	Pulse	0.50	3
Ti			1	47.280	ug/l	2.88	15,606.24	5.174E-02	Pulse	0.50	3
Na			1	4910.651	ug/l	0.82	7,838,621.50	2.599E+01	Analog	1.00	3
Mg			1	4641.731	ug/l	1.56	3,795,213.00	1.258E+01	Pulse	1.00	3
K			1	4738.187	ug/l	0.99	4,344,444.67	1.440E+01	Pulse	1.00	3
V			1	47.767	ug/l	1.18	460,039.40	1.525E+00	Pulse	0.50	3
Mn			1	47.488	ug/l	0.74	341,306.74	1.760E+00	Pulse	0.50	3
Fe			1	5026.019	ug/l	0.41	50,623,948.00	2.610E+02	Analog	0.50	3
Co			1	48.527	ug/l	1.11	876,837.75	4.521E+00	Pulse	0.50	3
Ni			1	48.473	ug/l	1.34	232,247.46	1.197E+00	Pulse	0.50	3
Cu			1	48.530	ug/l	1.01	618,183.81	3.187E+00	Pulse	0.50	3
Zn			1	47.717	ug/l	1.52	110,874.47	3.867E-01	Pulse	1.00	3
Cd			1	46.539	ug/l	2.22	149,406.65	5.211E-01	Pulse	0.50	3
Al			1	4517.102	ug/l	1.53	1,604,397.67	5.319E+00	Pulse	1.00	3
Se			1	45.826	ug/l	0.75	5,906.36	2.060E-02	Pulse	3.00	3
Sb			1	45.673	ug/l	2.23	450,504.90	1.571E+00	Pulse	1.00	3
Se			1	46.204	ug/l	1.59	2,830.43	9.871E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,006,034.42	1.40	95.3	Pulse	0.50	3
1	Sc		301,669.52	0.74	104.1	Pulse	0.30	3
1	Ge		193,957.10	0.36	105.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,710,396.60	1.11	100.5	Pulse	0.30	3
1	Tb		4,540,549.83	1.41	100.5	Pulse	0.50	3
1	Lu		3,365,778.50	1.13	97.9	Pulse	0.50	3
1	Ge		286,756.53	0.43	105.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,150.04	4.56	91.3	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:29
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.349	ug/l	0.82	1,162,033.50	6.055E+00	Pulse	0.50	3
As			1	98.015	ug/l	1.10	155,811.95	8.119E-01	Pulse	1.00	3
Mo			1	97.368	ug/l	0.80	634,260.58	2.236E+00	Pulse	0.50	3
Pb			1	98.412	ug/l	0.71	2,590,349.17	8.790E-01	Pulse	1.00	3
Be			1	93.308	ug/l	0.92	5,550.59	1.842E-02	Pulse	2.00	3
Ag			1	98.577	ug/l	0.73	1,933,550.13	6.818E+00	Pulse	0.50	3
Ba			1	97.394	ug/l	1.12	295,118.61	1.762E-01	Pulse	0.50	3
Tl			1	101.567	ug/l	1.03	3,680,238.92	1.249E+00	Pulse	0.50	3
Sn			1	99.060	ug/l	1.06	688,491.01	4.110E-01	Pulse	0.30	3
Sr			1	98.674	ug/l	0.56	864,178.42	5.159E-01	Pulse	0.50	3
[Pb]			1	98.394	ug/l	0.78	1,234,082.50	4.187E-01	Pulse	0.50	3
Ca			1	9586.602	ug/l	0.25	452,829.80	1.503E+00	Pulse	0.50	3
Ti			1	96.745	ug/l	1.02	31,890.52	1.058E-01	Pulse	0.50	3
Na			1	10146.984	ug/l	0.59	16,164,301.33	5.365E+01	Analog	1.00	3
Mg			1	9994.337	ug/l	0.25	8,161,203.67	2.709E+01	Analog	1.00	3
K			1	10222.988	ug/l	1.02	9,289,963.00	3.083E+01	Analog	1.00	3
V			1	98.722	ug/l	0.35	948,232.98	3.147E+00	Pulse	0.50	3
Mn			1	97.712	ug/l	0.25	694,572.25	3.619E+00	Pulse	0.50	3
Fe			1	10364.700	ug/l	0.87	103,272,264.00	5.382E+02	Analog	0.50	3
Co			1	99.260	ug/l	0.85	1,774,356.04	9.246E+00	Pulse	0.50	3
Ni			1	99.464	ug/l	0.89	471,001.42	2.454E+00	Pulse	0.50	3
Cu			1	99.198	ug/l	0.80	1,243,334.96	6.479E+00	Pulse	0.50	3
Zn			1	98.330	ug/l	0.80	224,516.76	7.917E-01	Pulse	1.00	3
Cd			1	96.090	ug/l	1.13	305,099.09	1.076E+00	Pulse	0.50	3
Al			1	9370.114	ug/l	0.64	3,323,847.92	1.103E+01	Pulse	1.00	3
Se			1	95.632	ug/l	0.76	12,108.05	4.269E-02	Pulse	3.00	3
Sb			1	94.755	ug/l	1.33	924,262.00	3.259E+00	Pulse	1.00	3
Se			1	94.767	ug/l	0.37	5,706.63	2.012E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,966.58	0.90	93.4	Pulse	0.50	3
1	Sc		301,294.00	0.19	104.0	Pulse	0.30	3
1	Ge		191,902.27	0.43	103.9	Pulse	0.30	3
1	In		1,675,084.07	0.44	98.4	Pulse	0.30	3
1	Tb		4,485,305.83	0.66	99.2	Pulse	0.50	3
1	Lu		3,333,583.83	1.17	97.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		283,601.78	0.30	104.1	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,065.59	10.94	84.6	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:32
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.018	ug/l	23.46	740.02	3.824E-03	Pulse	0.50	3
As			1	0.031	ug/l	26.61	109.00	5.634E-04	Pulse	1.00	3
Mo			1	0.098	ug/l	20.05	776.02	2.712E-03	Pulse	0.50	3
Pb			1	0.054	ug/l	12.67	2,393.51	8.011E-04	Pulse	1.00	3
Be			1	0.021	ug/l	185.45	2.83	9.221E-06	Pulse	2.00	3
Ag			1	0.021	ug/l	34.51	635.35	2.224E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	38.03	81.33	4.788E-05	Pulse	0.50	3
Tl			1	0.049	ug/l	9.63	2,270.82	7.601E-04	Pulse	0.50	3
Sn			1	0.093	ug/l	13.09	900.03	5.290E-04	Pulse	0.30	3
Sr			1	0.024	ug/l	22.06	536.68	3.155E-04	Pulse	0.50	3
[Pb]			1	0.054	ug/l	6.38	1,134.04	3.793E-04	Pulse	0.50	3
Ca			1	0.142	ug/l	236.37	509.34	1.658E-03	Pulse	0.50	3
Ti			1	0.034	ug/l	18.82	18.67	6.074E-05	Pulse	0.50	3
Na			1	5.659	ug/l	10.52	21,869.57	7.121E-02	Pulse	1.00	3
Mg			1	2.373	ug/l	17.64	2,631.85	8.571E-03	Pulse	1.00	3
K			1	5.108	ug/l	15.44	68,365.81	2.226E-01	Pulse	1.00	3
V			1	0.009	ug/l	73.66	1,437.39	4.679E-03	Pulse	0.50	3
Mn			1	0.082	ug/l	8.73	836.69	4.323E-03	Pulse	0.50	3
Fe			1	3.103	ug/l	10.94	46,414.63	2.398E-01	Pulse	0.50	3
Co			1	0.021	ug/l	25.02	498.68	2.579E-03	Pulse	0.50	3
Ni			1	0.018	ug/l	31.92	566.01	2.922E-03	Pulse	0.50	3
Cu			1	-0.039	ug/l	-32.90	6,110.31	3.156E-02	Pulse	0.50	3
Zn			1	-0.030	ug/l	-49.23	1,317.38	4.604E-03	Pulse	1.00	3
Cd			1	0.032	ug/l	34.93	118.00	4.137E-04	Pulse	0.50	3
Al			1	2.288	ug/l	15.91	1,104.03	3.596E-03	Pulse	1.00	3
Se			1	0.151	ug/l	21.74	95.78	3.346E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	12.29	520.01	1.819E-03	Pulse	1.00	3
Se			1	0.092	ug/l	119.26	39.34	1.373E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,989,717.67	1.34	94.8	Pulse	0.50	3
1	Sc		307,167.02	0.84	106.0	Pulse	0.30	3

Quantitation Report

1	Ge		193,635.33	1.20	104.9	Pulse	0.30	3
1	In		1,700,729.34	0.84	99.9	Pulse	0.30	3
1	Tb		4,441,121.50	1.09	98.3	Pulse	0.50	3
1	Lu		3,273,849.50	0.77	95.2	Pulse	0.50	3
1	Ge		286,126.54	1.67	105.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,191.16	8.86	94.5	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:36
Sample Name FC2193-12
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	751.709	ug/l	0.28	442,103.44	2.293E+00	Pulse	0.50	3
As			1	163.779	ug/l	1.35	13,135.17	6.812E-02	Pulse	1.00	3
Mo			1	10.363	ug/l	4.23	3,457.67	1.235E-02	Pulse	0.50	3
Pb			1	1602.991	ug/l	0.89	2,127,534.92	7.159E-01	Pulse	1.00	3
Be			1	4.294	ug/l	28.69	15.17	4.755E-05	Pulse	2.00	3
Ag			1	2.468	ug/l	1.03	2,598.86	9.284E-03	Pulse	0.50	3
Ba			1	1952.378	ug/l	0.96	293,936.13	1.766E-01	Pulse	0.50	3
Tl			1	1.985	ug/l	1.68	4,081.84	1.374E-03	Pulse	0.50	3
Sn			1	88.573	ug/l	0.80	30,811.44	1.851E-02	Pulse	0.30	3
Sr			1	852.359	ug/l	1.18	371,068.54	2.229E-01	Pulse	0.50	3
[Pb]			1	1595.107	ug/l	0.80	1,008,768.64	3.395E-01	Pulse	0.50	3
Ca			1	122373.546	ug/l	0.90	305,638.76	9.599E-01	Pulse	0.50	3
Ti			1	22256.039	ug/l	0.38	387,611.90	1.217E+00	Pulse	0.50	3
Na			1	6464.470	ug/l	0.48	556,924.00	1.749E+00	Pulse	1.00	3
Mg			1	112942.392	ug/l	1.27	4,873,652.50	1.531E+01	Analog	1.00	3
K			1	26197.256	ug/l	0.60	1,315,570.42	4.131E+00	Pulse	1.00	3
V			1	1165.252	ug/l	1.57	591,977.08	1.859E+00	Pulse	0.50	3
Mn			1	7429.159	ug/l	0.60	2,652,651.25	1.376E+01	Pulse	0.50	3
Fe			1	495838.921	ug/l	0.46	248,213,845.33	1.287E+03	Analog	0.50	3
Co			1	192.360	ug/l	0.67	172,885.90	8.965E-01	Pulse	0.50	3
Ni			1	719.744	ug/l	0.47	171,560.36	8.896E-01	Pulse	0.50	3
Cu			1	1253.769	ug/l	0.69	792,026.25	4.107E+00	Pulse	0.50	3
Zn			1	2328.470	ug/l	0.59	262,127.92	9.364E-01	Pulse	1.00	3
Cd			1	83.004	ug/l	0.74	13,019.93	4.651E-02	Pulse	0.50	3
Al			1	313930.115	ug/l	1.02	5,884,301.83	1.848E+01	Analog	1.00	3
Se			1	12.710	ug/l	7.52	153.78	5.494E-04	Pulse	3.00	3
Sb			1	10.035	ug/l	1.26	4,972.68	1.776E-02	Pulse	1.00	3
Se			1	38.437	ug/l	8.60	146.55	5.235E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,971,644.00	0.80	94.2	Pulse	0.50	3
1	Sc		318,442.80	1.12	109.9	Pulse	0.30	3
1	Ge		192,845.43	0.88	104.4	Pulse	0.30	3
1	In		1,664,560.07	0.22	97.8	Pulse	0.30	3
1	Tb		4,452,380.17	0.76	98.5	Pulse	0.50	3
1	Lu		3,297,634.92	1.45	95.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,921.20	0.10	102.7	Pulse	0.30	3
1	Te		14.00	37.80		Pulse	0.50	3
1	Li		1,094.48	13.73	86.9	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:40
Sample Name FC2193-13
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	691.654	ug/l	1.38	400,888.06	2.110E+00	Pulse	0.50	3
As			1	197.761	ug/l	0.32	15,618.70	8.219E-02	Pulse	1.00	3
Mo			1	9.396	ug/l	2.43	3,109.60	1.124E-02	Pulse	0.50	3
Pb			1	2406.343	ug/l	0.66	3,204,240.58	1.075E+00	Pulse	1.00	3
Be			1	4.805	ug/l	36.87	16.50	5.259E-05	Pulse	2.00	3
Ag			1	4.384	ug/l	2.68	4,400.53	1.591E-02	Pulse	0.50	3
Ba			1	1922.634	ug/l	0.56	287,946.38	1.739E-01	Pulse	0.50	3
Tl			1	1.935	ug/l	3.62	4,003.81	1.343E-03	Pulse	0.50	3
Sn			1	118.098	ug/l	0.86	40,789.65	2.463E-02	Pulse	0.30	3
Sr			1	816.531	ug/l	0.17	353,622.96	2.136E-01	Pulse	0.50	3
[Pb]			1	2396.670	ug/l	0.89	1,520,673.29	5.100E-01	Pulse	0.50	3
Ca			1	117749.119	ug/l	1.36	290,426.45	9.236E-01	Pulse	0.50	3
Ti			1	20787.761	ug/l	1.46	357,493.60	1.137E+00	Pulse	0.50	3
Na			1	7471.107	ug/l	0.96	633,566.42	2.015E+00	Pulse	1.00	3
Mg			1	102210.771	ug/l	1.50	4,355,515.00	1.385E+01	Pulse	1.00	3
K			1	25917.484	ug/l	0.95	1,285,908.71	4.089E+00	Pulse	1.00	3
V			1	1110.259	ug/l	1.85	557,057.15	1.772E+00	Pulse	0.50	3
Mn			1	7474.777	ug/l	1.46	2,630,023.33	1.384E+01	Pulse	0.50	3
Fe			1	473319.010	ug/l	0.98	233,489,936.00	1.229E+03	Analog	0.50	3
Co			1	188.969	ug/l	1.58	167,356.07	8.807E-01	Pulse	0.50	3
Ni			1	664.597	ug/l	1.70	156,134.89	8.217E-01	Pulse	0.50	3
Cu			1	908.363	ug/l	2.38	567,201.56	2.985E+00	Pulse	0.50	3
Zn			1	2039.439	ug/l	1.31	227,027.79	8.208E-01	Pulse	1.00	3
Cd			1	52.092	ug/l	1.94	8,079.12	2.921E-02	Pulse	0.50	3
Al			1	301157.855	ug/l	1.22	5,574,413.67	1.773E+01	Analog	1.00	3
Se			1	12.172	ug/l	4.71	148.66	5.374E-04	Pulse	3.00	3
Sb			1	13.670	ug/l	4.09	6,642.21	2.402E-02	Pulse	1.00	3
Se			1	35.910	ug/l	12.51	137.44	4.969E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,981,866.42	1.09	94.6	Pulse	0.50	3
1	Sc		314,464.64	1.10	108.6	Pulse	0.30	3
1	Ge		190,039.66	0.67	102.9	Pulse	0.30	3
1	In		1,655,808.93	0.95	97.3	Pulse	0.30	3
1	Tb		4,437,214.83	1.45	98.2	Pulse	0.50	3
1	Lu		3,284,969.42	1.21	95.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,601.21	0.36	101.5	Pulse	0.30	3
1	Te		20.00	43.59		Pulse	0.50	3
1	Li		1,035.59	8.27	82.2	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:44
Sample Name	FC2193-14
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	677.978	ug/l	2.21	395,314.65	2.068E+00	Pulse	0.50	3
As			1	72.700	ug/l	1.63	5,812.89	3.041E-02	Pulse	1.00	3
Mo			1	9.304	ug/l	0.84	3,087.60	1.114E-02	Pulse	0.50	3
Pb			1	245.912	ug/l	0.53	328,628.43	1.101E-01	Pulse	1.00	3
Be			1	3.655	ug/l	23.54	12.83	4.124E-05	Pulse	2.00	3
Ag			1	0.919	ug/l	1.43	1,089.37	3.929E-03	Pulse	0.50	3
Ba			1	1755.311	ug/l	0.81	264,657.49	1.588E-01	Pulse	0.50	3
Tl			1	1.376	ug/l	4.17	2,983.61	9.994E-04	Pulse	0.50	3
Sn			1	29.702	ug/l	4.80	10,506.39	6.302E-03	Pulse	0.30	3
Sr			1	1264.166	ug/l	0.40	550,995.27	3.305E-01	Pulse	0.50	3
[Pb]			1	244.906	ug/l	0.65	155,942.89	5.224E-02	Pulse	0.50	3
Ca			1	187919.312	ug/l	1.15	457,857.04	1.473E+00	Pulse	0.50	3
Ti			1	17066.151	ug/l	1.11	290,101.34	9.334E-01	Pulse	0.50	3
Na			1	6006.351	ug/l	0.51	505,976.07	1.628E+00	Pulse	1.00	3
Mg			1	94909.676	ug/l	0.84	3,997,802.50	1.286E+01	Pulse	1.00	3
K			1	20132.996	ug/l	0.80	1,001,722.67	3.223E+00	Pulse	1.00	3
V			1	862.427	ug/l	0.99	428,029.46	1.377E+00	Pulse	0.50	3
Mn			1	6894.097	ug/l	1.25	2,440,242.58	1.277E+01	Pulse	0.50	3
Fe			1	379508.810	ug/l	1.16	188,332,160.00	9.852E+02	Analog	0.50	3
Co			1	157.781	ug/l	2.62	140,589.39	7.354E-01	Pulse	0.50	3
Ni			1	682.411	ug/l	1.89	161,266.71	8.436E-01	Pulse	0.50	3
Cu			1	528.061	ug/l	1.44	334,449.00	1.750E+00	Pulse	0.50	3
Zn			1	1918.783	ug/l	1.75	214,188.35	7.725E-01	Pulse	1.00	3
Cd			1	8.143	ug/l	1.11	1,278.05	4.609E-03	Pulse	0.50	3
Al			1	226203.392	ug/l	1.16	4,138,682.25	1.332E+01	Pulse	1.00	3
Se			1	9.642	ug/l	7.07	133.44	4.813E-04	Pulse	3.00	3
Sb			1	3.737	ug/l	3.07	1,923.11	6.936E-03	Pulse	1.00	3
Se			1	30.980	ug/l	17.38	123.33	4.448E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,984,734.25	1.37	94.6	Pulse	0.50	3
1	Sc		310,816.94	0.80	107.3	Pulse	0.30	3
1	Ge		191,167.03	0.20	103.5	Pulse	0.30	3
1	In		1,666,927.05	0.72	97.9	Pulse	0.30	3
1	Tb		4,448,671.33	1.21	98.4	Pulse	0.50	3
1	Lu		3,310,842.75	1.51	96.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		277,277.08	0.59	101.8	Pulse	0.30	3
1	Te		4.67	137.77		Pulse	0.50	3
1	Li		1,126.71	1.65	89.4	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:48
Sample Name FC2193-16
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	614.510	ug/l	1.79	359,654.98	1.875E+00	Pulse	0.50	3
As			1	69.698	ug/l	2.06	5,595.16	2.916E-02	Pulse	1.00	3
Mo			1	8.160	ug/l	1.05	2,750.88	9.822E-03	Pulse	0.50	3
Pb			1	267.051	ug/l	1.65	356,121.10	1.195E-01	Pulse	1.00	3
Be			1	4.504	ug/l	15.90	15.50	4.962E-05	Pulse	2.00	3
Ag			1	0.840	ug/l	6.15	1,023.36	3.655E-03	Pulse	0.50	3
Ba			1	1548.044	ug/l	1.08	232,941.57	1.400E-01	Pulse	0.50	3
Tl			1	1.339	ug/l	2.50	2,910.26	9.769E-04	Pulse	0.50	3
Sn			1	27.873	ug/l	0.54	9,852.72	5.923E-03	Pulse	0.30	3
Sr			1	1004.608	ug/l	0.53	437,053.73	2.627E-01	Pulse	0.50	3
[Pb]			1	265.919	ug/l	1.62	168,962.11	5.671E-02	Pulse	0.50	3
Ca			1	152050.333	ug/l	0.73	372,474.02	1.192E+00	Pulse	0.50	3
Ti			1	16654.871	ug/l	1.37	284,575.51	9.109E-01	Pulse	0.50	3
Na			1	5902.301	ug/l	0.46	500,007.58	1.600E+00	Pulse	1.00	3
Mg			1	90830.773	ug/l	0.88	3,845,827.33	1.231E+01	Pulse	1.00	3
K			1	20215.107	ug/l	0.58	1,010,752.00	3.235E+00	Pulse	1.00	3
V			1	839.866	ug/l	1.38	419,015.24	1.341E+00	Pulse	0.50	3
Mn			1	6418.383	ug/l	1.28	2,280,095.75	1.188E+01	Pulse	0.50	3
Fe			1	366387.674	ug/l	1.00	182,480,202.67	9.511E+02	Analog	0.50	3
Co			1	149.662	ug/l	0.79	133,847.58	6.976E-01	Pulse	0.50	3
Ni			1	623.530	ug/l	0.88	147,927.10	7.710E-01	Pulse	0.50	3
Cu			1	474.640	ug/l	0.76	302,373.65	1.576E+00	Pulse	0.50	3
Zn			1	1574.378	ug/l	1.33	177,765.04	6.347E-01	Pulse	1.00	3
Cd			1	6.400	ug/l	6.81	1,017.36	3.634E-03	Pulse	0.50	3
Al			1	219987.503	ug/l	1.03	4,045,764.08	1.295E+01	Pulse	1.00	3
Se			1	10.208	ug/l	10.65	138.33	4.939E-04	Pulse	3.00	3
Sb			1	2.906	ug/l	5.11	1,542.40	5.507E-03	Pulse	1.00	3
Se			1	33.756	ug/l	6.62	132.78	4.741E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,979,099.50	0.87	94.5	Pulse	0.50	3
1	Sc		312,420.04	0.56	107.8	Pulse	0.30	3
1	Ge		191,861.85	0.73	103.9	Pulse	0.30	3
1	In		1,663,640.28	1.21	97.7	Pulse	0.30	3
1	Tb		4,468,632.33	1.40	98.9	Pulse	0.50	3
1	Lu		3,301,456.00	1.34	96.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,066.68	0.60	102.8	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,097.82	9.72	87.1	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:51
Sample Name	FC2193-17
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	754.389	ug/l	1.46	444,433.19	2.301E+00	Pulse	0.50	3
As			1	156.476	ug/l	2.92	12,571.80	6.509E-02	Pulse	1.00	3
Mo			1	9.235	ug/l	5.42	3,110.27	1.106E-02	Pulse	0.50	3
Pb			1	3563.208	ug/l	2.23	4,736,518.00	1.591E+00	Pulse	1.00	3
Be			1	4.446	ug/l	3.54	15.67	4.905E-05	Pulse	2.00	3
Ag			1	3.477	ug/l	4.00	3,593.69	1.277E-02	Pulse	0.50	3
Ba			1	1769.726	ug/l	2.28	267,134.18	1.601E-01	Pulse	0.50	3
Tl			1	1.779	ug/l	1.95	3,714.41	1.248E-03	Pulse	0.50	3
Sn			1	52.782	ug/l	0.68	18,508.24	1.109E-02	Pulse	0.30	3
Sr			1	1114.738	ug/l	1.62	486,487.19	2.915E-01	Pulse	0.50	3
[Pb]			1	3525.464	ug/l	2.00	2,233,099.75	7.501E-01	Pulse	0.50	3
Ca			1	164510.881	ug/l	1.61	412,040.92	1.290E+00	Pulse	0.50	3
Ti			1	22745.943	ug/l	2.15	397,400.76	1.244E+00	Pulse	0.50	3
Na			1	17857.543	ug/l	2.08	1,520,082.50	4.759E+00	Pulse	1.00	3
Mg			1	144518.465	ug/l	1.96	6,256,273.50	1.958E+01	Analog	1.00	3
K			1	30832.665	ug/l	2.31	1,541,524.91	4.826E+00	Pulse	1.00	3
V			1	1276.640	ug/l	1.34	650,599.31	2.036E+00	Pulse	0.50	3
Mn			1	8275.063	ug/l	1.51	2,959,645.33	1.532E+01	Pulse	0.50	3
Fe			1	553362.243	ug/l	1.52	277,473,290.67	1.436E+03	Analog	0.50	3
Co			1	226.188	ug/l	1.43	203,608.52	1.054E+00	Pulse	0.50	3
Ni			1	798.988	ug/l	1.67	190,715.57	9.873E-01	Pulse	0.50	3
Cu			1	1368.002	ug/l	1.61	865,038.75	4.478E+00	Pulse	0.50	3
Zn			1	3176.574	ug/l	1.98	358,872.87	1.276E+00	Pulse	1.00	3
Cd			1	94.183	ug/l	1.00	14,845.98	5.277E-02	Pulse	0.50	3
Al			1	345549.655	ug/l	1.61	6,498,169.83	2.034E+01	Analog	1.00	3
Se			1	13.087	ug/l	15.87	157.00	5.577E-04	Pulse	3.00	3
Sb			1	16.778	ug/l	0.97	8,259.21	2.936E-02	Pulse	1.00	3
Se			1	41.965	ug/l	2.37	157.78	5.608E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,977,768.50	2.10	94.4	Pulse	0.50	3
1	Sc		319,513.05	1.58	110.3	Pulse	0.30	3
1	Ge		193,197.03	1.73	104.6	Pulse	0.30	3
1	In		1,669,261.60	1.67	98.1	Pulse	0.30	3
1	Tb		4,496,471.33	1.65	99.5	Pulse	0.50	3
1	Lu		3,317,695.08	1.36	96.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,336.42	1.06	103.2	Pulse	0.30	3
1	Te		14.67	61.49		Pulse	0.50	3
1	Li		1,138.93	7.80	90.4	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:55
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6198.016	ug/l	0.79	13,272,653.00	7.552E+01	Analog	0.50	3
As			1	4499.550	ug/l	0.89	1,309,660.46	7.452E+00	Pulse	1.00	3
Mo			1	1348.822	ug/l	0.35	1,549,528.37	6.195E+00	Pulse	0.50	3
Pb			1	4015.531	ug/l	0.19	19,545,518.67	7.171E+00	Analog	1.00	3
Be			1	3485.586	ug/l	0.25	40,873.02	1.376E-01	Pulse	2.00	3
Ag			1	1263.201	ug/l	0.51	4,369,882.67	1.747E+01	Pulse	0.50	3
Ba			1	9173.537	ug/l	0.13	5,055,600.67	3.319E+00	Pulse	0.50	3
Tl			1	4872.450	ug/l	0.30	32,655,022.00	1.198E+01	Analog	0.50	3
Sn			1	2421.005	ug/l	0.76	3,059,720.09	2.008E+00	Pulse	0.30	3
Sr			1	5781.780	ug/l	0.74	9,207,419.33	6.044E+00	Analog	0.50	3
[Pb]			1	4099.322	ug/l	0.52	9,507,641.00	3.488E+00	Analog	0.50	3
Ca			1	133410.880	ug/l	0.36	1,241,687.08	4.180E+00	Pulse	0.50	3
Ti			1	7117.154	ug/l	0.42	462,498.39	1.557E+00	Pulse	0.50	3
Na			1	10707.206	ug/l	0.37	3,372,838.92	1.135E+01	Pulse	1.00	3
Mg			1	54161.175	ug/l	0.41	8,720,350.33	2.936E+01	Analog	1.00	3
K			1	43776.761	ug/l	0.93	7,852,934.83	2.644E+01	Analog	1.00	3
V			1	2883.323	ug/l	0.19	5,454,387.67	1.836E+01	Analog	0.50	3
Mn			1	11604.338	ug/l	0.50	15,103,464.33	8.594E+01	Analog	0.50	3
Fe			1	229063.520	ug/l	0.81	417,988,896.00	2.378E+03	Analog	0.50	3
Co			1	4555.164	ug/l	1.01	14,912,941.33	8.486E+01	Analog	0.50	3
Ni			1	2780.337	ug/l	1.72	2,409,338.92	1.371E+01	Pulse	0.50	3
Cu			1	3316.100	ug/l	1.12	7,578,458.67	4.312E+01	Analog	0.50	3
Zn			1	9538.996	ug/l	0.37	3,819,408.67	1.527E+01	Pulse	1.00	3
Cd			1	2744.145	ug/l	0.40	1,536,738.79	6.144E+00	Pulse	0.50	3
Al			1	218257.668	ug/l	0.33	15,264,972.33	5.139E+01	Analog	1.00	3
Se			1	2499.245	ug/l	1.42	55,528.25	2.220E-01	Pulse	3.00	3
Sb			1	2039.842	ug/l	0.34	3,509,050.58	1.403E+01	Pulse	1.00	3
Se			1	2517.039	ug/l	0.89	26,607.07	1.064E-01	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,725,781.00	0.65	86.4	Pulse	0.50	3
1	Sc		297,038.39	0.54	102.5	Pulse	0.30	3
1	Ge		175,750.46	1.15	95.2	Pulse	0.30	3
1	In		1,523,455.74	0.47	89.5	Pulse	0.30	3
1	Tb		4,227,320.17	0.66	93.5	Pulse	0.50	3
1	Lu		3,086,093.33	0.62	89.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,115.88	0.53	91.8	Pulse	0.30	3
1	Te		25.33	31.91		Pulse	0.50	3
1	Li		1,514.51	4.35	120.2	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:59
Sample Name	FC2148-3A
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6348.318	ug/l	0.71	6,747,884.50	3.868E+01	Analog	0.50	3
As			1	4644.116	ug/l	0.67	670,966.33	3.846E+00	Pulse	1.00	3
Mo			1	1355.457	ug/l	0.69	790,987.62	3.113E+00	Pulse	0.50	3
Pb			1	4049.973	ug/l	0.51	10,200,667.33	3.616E+00	Analog	1.00	3
Be			1	3782.469	ug/l	1.21	21,178.32	7.466E-02	Pulse	2.00	3
Ag			1	1292.486	ug/l	0.59	2,271,155.50	8.939E+00	Pulse	0.50	3
Ba			1	9407.568	ug/l	1.02	2,620,724.42	1.702E+00	Pulse	0.50	3
Tl			1	4872.907	ug/l	0.26	16,898,871.33	5.991E+00	Analog	0.50	3
Sn			1	2458.493	ug/l	1.26	1,570,683.38	1.020E+00	Pulse	0.30	3
Sr			1	5568.636	ug/l	0.65	4,482,726.50	2.911E+00	Pulse	0.50	3
[Pb]			1	3870.245	ug/l	0.35	4,645,069.17	1.647E+00	Pulse	0.50	3
Ca			1	142571.080	ug/l	0.55	633,795.96	2.234E+00	Pulse	0.50	3
Ti			1	7569.324	ug/l	1.19	234,853.00	8.280E-01	Pulse	0.50	3
Na			1	11538.480	ug/l	0.51	1,740,897.12	6.137E+00	Pulse	1.00	3
Mg			1	54872.555	ug/l	1.06	4,218,682.50	1.487E+01	Pulse	1.00	3
K			1	44856.709	ug/l	0.74	3,870,591.83	1.365E+01	Pulse	1.00	3
V			1	2961.674	ug/l	1.13	2,675,650.42	9.433E+00	Pulse	0.50	3
Mn			1	11934.944	ug/l	0.59	7,710,019.83	4.419E+01	Analog	0.50	3
Fe			1	232485.422	ug/l	0.48	210,573,504.00	1.207E+03	Analog	0.50	3
Co			1	4732.132	ug/l	0.63	7,689,792.67	4.408E+01	Analog	0.50	3
Ni			1	2901.887	ug/l	0.75	1,248,454.00	7.156E+00	Pulse	0.50	3
Cu			1	3281.951	ug/l	0.49	3,725,953.92	2.136E+01	Pulse	0.50	3
Zn			1	9810.048	ug/l	0.38	1,995,688.59	7.855E+00	Pulse	1.00	3
Cd			1	2799.600	ug/l	0.48	796,343.41	3.134E+00	Pulse	0.50	3
Al			1	231163.781	ug/l	1.14	7,719,408.00	2.721E+01	Analog	1.00	3
Se			1	2513.834	ug/l	0.25	28,403.46	1.118E-01	Pulse	3.00	3
Sb			1	2072.614	ug/l	0.92	1,811,059.13	7.128E+00	Pulse	1.00	3
Se			1	2553.738	ug/l	0.61	13,726.49	5.402E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,820,856.50	0.68	89.4	Pulse	0.50	3
1	Sc		283,668.05	1.04	97.9	Pulse	0.30	3
1	Ge		174,459.67	0.46	94.5	Pulse	0.30	3
1	In		1,540,217.89	0.87	90.5	Pulse	0.30	3
1	Tb		4,262,135.83	1.05	94.3	Pulse	0.50	3
1	Lu		3,135,533.17	0.87	91.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		254,079.25	0.30	93.2	Pulse	0.30	3
1	Te		10.67	39.03		Pulse	0.50	3
1	Li		1,416.73	6.60	112.4	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:03
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6177.293	ug/l	1.03	3,301,500.33	1.882E+01	Pulse	0.50	3
As			1	4579.004	ug/l	1.23	332,636.25	1.896E+00	Pulse	1.00	3
Mo			1	1310.661	ug/l	1.23	387,023.49	1.505E+00	Pulse	0.50	3
Pb			1	3717.735	ug/l	0.46	4,758,614.50	1.660E+00	Pulse	1.00	3
Be			1	3835.329	ug/l	0.51	10,451.35	3.786E-02	Pulse	2.00	3
Ag			1	1273.752	ug/l	0.86	1,132,531.75	4.405E+00	Pulse	0.50	3
Ba			1	9216.025	ug/l	0.71	1,297,686.50	8.335E-01	Pulse	0.50	3
Tl			1	4769.473	ug/l	0.59	8,404,617.50	2.932E+00	Analog	0.50	3
Sn			1	2425.364	ug/l	1.13	783,334.33	5.031E-01	Pulse	0.30	3
Sr			1	5530.207	ug/l	0.54	2,250,287.25	1.445E+00	Pulse	0.50	3
[Pb]			1	3763.624	ug/l	0.50	2,295,457.00	8.007E-01	Pulse	0.50	3
Ca			1	144024.908	ug/l	0.26	311,806.02	1.129E+00	Pulse	0.50	3
Ti			1	7730.608	ug/l	0.77	116,731.62	4.228E-01	Pulse	0.50	3
Na			1	11888.383	ug/l	0.19	878,433.38	3.182E+00	Pulse	1.00	3
Mg			1	56646.714	ug/l	0.68	2,119,683.58	7.678E+00	Pulse	1.00	3
K			1	45277.606	ug/l	0.22	1,929,716.21	6.989E+00	Pulse	1.00	3
V			1	3059.138	ug/l	0.77	1,345,552.46	4.874E+00	Pulse	0.50	3
Mn			1	11500.855	ug/l	0.92	3,735,548.67	2.129E+01	Pulse	0.50	3
Fe			1	232519.070	ug/l	0.72	105,895,709.33	6.036E+02	Analog	0.50	3
Co			1	4380.965	ug/l	0.87	3,579,527.75	2.040E+01	Pulse	0.50	3
Ni			1	2869.765	ug/l	1.36	620,941.66	3.540E+00	Pulse	0.50	3
Cu			1	3276.743	ug/l	0.89	1,873,357.29	1.068E+01	Pulse	0.50	3
Zn			1	9778.548	ug/l	1.29	1,007,063.44	3.917E+00	Pulse	1.00	3
Cd			1	2740.990	ug/l	1.59	394,463.37	1.534E+00	Pulse	0.50	3
Al			1	224308.902	ug/l	0.79	3,645,455.92	1.320E+01	Pulse	1.00	3
Se			1	2463.593	ug/l	1.34	14,117.86	5.491E-02	Pulse	3.00	3
Sb			1	2036.518	ug/l	1.08	900,386.92	3.502E+00	Pulse	1.00	3
Se			1	2517.278	ug/l	0.98	6,862.13	2.669E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,866,647.42	0.75	90.9	Pulse	0.50	3
1	Sc		276,088.10	0.94	95.3	Pulse	0.30	3
1	Ge		175,434.08	1.00	95.0	Pulse	0.30	3
1	In		1,556,923.90	0.33	91.5	Pulse	0.30	3
1	Tb		4,265,905.00	0.91	94.4	Pulse	0.50	3
1	Lu		3,147,893.33	0.86	91.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,117.77	1.31	94.4	Pulse	0.30	3
1	Te		5.33	57.28		Pulse	0.50	3
1	Li		1,200.04	4.59	95.2	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:07
Sample Name Pb 20ppm ACC967 4/30/23
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.078	ug/l	83.99	1,284.06	7.426E-03	Pulse	0.50	3
As			1	0.074	ug/l	63.84	158.67	9.172E-04	Pulse	1.00	3
Mo			1	0.074	ug/l	9.47	550.68	2.155E-03	Pulse	0.50	3
Pb			1	20468.499	ug/l	1.22	509,758,869.33	1.827E+02	Analog	1.00	3
Be			1	0.118	ug/l	92.51	7.83	2.846E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	71.34	450.67	1.769E-03	Pulse	0.50	3
Ba			1	0.114	ug/l	74.90	345.34	2.245E-04	Pulse	0.50	3
Tl			1	0.171	ug/l	28.65	6,267.89	2.252E-03	Pulse	0.50	3
Sn			1	0.097	ug/l	3.63	841.14	5.434E-04	Pulse	0.30	3
Sr			1	0.069	ug/l	82.89	852.70	5.536E-04	Pulse	0.50	3
[Pb]			1	19788.461	ug/l	1.29	234,826,986.67	8.419E+01	Analog	0.50	3
Ca			1	3.246	ug/l	27.88	591.34	2.144E-03	Pulse	0.50	3
Ti			1	0.216	ug/l	35.80	71.33	2.588E-04	Pulse	0.50	3
Na			1	3.247	ug/l	9.18	16,126.81	5.847E-02	Pulse	1.00	3
Mg			1	1.169	ug/l	80.93	1,462.73	5.309E-03	Pulse	1.00	3
K			1	3.368	ug/l	31.11	59,959.39	2.174E-01	Pulse	1.00	3
V			1	0.011	ug/l	352.50	1,300.05	4.716E-03	Pulse	0.50	3
Mn			1	0.199	ug/l	67.87	1,496.08	8.653E-03	Pulse	0.50	3
Fe			1	4.310	ug/l	74.29	52,306.30	3.025E-01	Pulse	0.50	3
Co			1	0.059	ug/l	86.43	1,052.71	6.094E-03	Pulse	0.50	3
Ni			1	0.064	ug/l	48.32	704.01	4.066E-03	Pulse	0.50	3
Cu			1	0.588	ug/l	8.54	12,530.09	7.232E-02	Pulse	0.50	3
Zn			1	0.526	ug/l	31.40	2,309.81	9.052E-03	Pulse	1.00	3
Cd			1	0.050	ug/l	54.52	156.00	6.127E-04	Pulse	0.50	3
Al			1	4.239	ug/l	71.16	1,623.09	5.893E-03	Pulse	1.00	3
Se			1	0.149	ug/l	65.45	85.22	3.336E-04	Pulse	3.00	3
Sb			1	0.065	ug/l	16.51	702.35	2.752E-03	Pulse	1.00	3
Se			1	0.165	ug/l	38.18	39.00	1.527E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,789,702.25	1.39	88.5	Pulse	0.50	3
1	Sc		275,852.45	0.42	95.2	Pulse	0.30	3
1	Ge		173,283.94	0.62	93.8	Pulse	0.30	3
1	In		1,548,186.67	1.41	90.9	Pulse	0.30	3
1	Tb		4,113,450.08	1.01	91.0	Pulse	0.50	3
1	Lu		3,038,935.58	1.05	88.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,396.36	0.93	93.7	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,118.93	5.04	88.8	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:11
Sample Name Pb 1ppm ACC967 4/30/23
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-46.29	452.68	2.530E-03	Pulse	0.50	3
As			1	-0.001	ug/l	-350.25	53.67	2.998E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	76.47	206.00	7.793E-04	Pulse	0.50	3
Pb			1	1059.408	ug/l	1.87	26,804,870.67	9.459E+00	Analog	1.00	3
Be			1	0.082	ug/l	9.96	6.00	2.142E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	112.28	240.00	9.079E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-29.66	24.00	1.508E-05	Pulse	0.50	3
Tl			1	0.046	ug/l	4.24	2,046.13	7.221E-04	Pulse	0.50	3
Sn			1	0.012	ug/l	43.81	305.56	1.919E-04	Pulse	0.30	3
Sr			1	0.003	ug/l	70.16	330.00	2.073E-04	Pulse	0.50	3
[Pb]			1	1026.575	ug/l	2.75	12,375,267.00	4.367E+00	Analog	0.50	3
Ca			1	-1.914	ug/l	-56.25	374.00	1.336E-03	Pulse	0.50	3
Ti			1	0.016	ug/l	85.13	11.33	4.046E-05	Pulse	0.50	3
Na			1	1.931	ug/l	1.71	14,423.85	5.151E-02	Pulse	1.00	3
Mg			1	0.029	ug/l	57.71	621.01	2.218E-03	Pulse	1.00	3
K			1	3.006	ug/l	30.06	60,554.83	2.163E-01	Pulse	1.00	3
V			1	-0.023	ug/l	-19.62	1,018.70	3.638E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	11.54	281.33	1.572E-03	Pulse	0.50	3
Fe			1	-0.192	ug/l	-15.99	12,319.26	6.883E-02	Pulse	0.50	3
Co			1	0.000	ug/l	-1104.72	106.67	5.969E-04	Pulse	0.50	3
Ni			1	-0.007	ug/l	-58.49	410.68	2.294E-03	Pulse	0.50	3
Cu			1	0.523	ug/l	0.83	12,187.87	6.810E-02	Pulse	0.50	3
Zn			1	0.111	ug/l	6.59	1,515.39	5.735E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	55.15	39.33	1.490E-04	Pulse	0.50	3
Al			1	0.031	ug/l	41.57	262.67	9.382E-04	Pulse	1.00	3
Se			1	0.039	ug/l	62.00	75.22	2.846E-04	Pulse	3.00	3
Sb			1	0.013	ug/l	42.59	251.00	9.496E-04	Pulse	1.00	3
Se			1	0.105	ug/l	32.42	37.00	1.400E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,834,404.50	1.76	89.9	Pulse	0.50	3
1	Sc		279,998.67	0.78	96.7	Pulse	0.30	3
1	Ge		178,972.31	0.94	96.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,591,214.94	1.16	93.5	Pulse	0.30	3
1	Tb		4,216,899.50	0.59	93.3	Pulse	0.50	3
1	Lu		3,130,187.08	0.84	91.1	Pulse	0.50	3
1	Ge		264,259.28	0.49	97.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,172.26	4.78	93.0	Pulse	0.30	3

Quantitation Report

File Name 056CCVA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:14
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.986	ug/l	0.19	536,897.31	2.926E+00	Pulse	0.50	3
As			1	47.011	ug/l	0.73	71,487.79	3.896E-01	Pulse	1.00	3
Mo			1	46.848	ug/l	0.96	291,871.61	1.076E+00	Pulse	0.50	3
Pb			1	48.154	ug/l	0.11	1,244,016.37	4.303E-01	Pulse	1.00	3
Be			1	47.508	ug/l	0.12	2,663.35	9.382E-03	Pulse	2.00	3
Ag			1	48.272	ug/l	0.43	905,456.21	3.339E+00	Pulse	0.50	3
Ba			1	47.024	ug/l	0.86	136,793.87	8.507E-02	Pulse	0.50	3
Tl			1	49.070	ug/l	0.46	1,744,710.71	6.034E-01	Pulse	0.50	3
Sn			1	48.145	ug/l	1.20	321,328.93	1.998E-01	Pulse	0.30	3
Sr			1	47.667	ug/l	0.54	400,884.68	2.493E-01	Pulse	0.50	3
[Pb]			1	48.105	ug/l	0.50	592,183.31	2.048E-01	Pulse	0.50	3
Ca			1	4649.194	ug/l	0.87	207,143.69	7.297E-01	Pulse	0.50	3
Ti			1	47.070	ug/l	3.00	14,621.49	5.151E-02	Pulse	0.50	3
Na			1	5075.261	ug/l	0.10	7,623,121.83	2.685E+01	Analog	1.00	3
Mg			1	4733.320	ug/l	0.77	3,641,863.67	1.283E+01	Pulse	1.00	3
K			1	4763.193	ug/l	0.38	4,109,467.25	1.448E+01	Pulse	1.00	3
V			1	47.878	ug/l	1.30	433,909.49	1.529E+00	Pulse	0.50	3
Mn			1	47.319	ug/l	0.42	321,714.83	1.753E+00	Pulse	0.50	3
Fe			1	5118.780	ug/l	0.49	48,772,089.33	2.658E+02	Analog	0.50	3
Co			1	48.667	ug/l	0.49	831,863.31	4.534E+00	Pulse	0.50	3
Ni			1	48.674	ug/l	1.15	220,626.17	1.202E+00	Pulse	0.50	3
Cu			1	48.551	ug/l	0.06	585,028.44	3.188E+00	Pulse	0.50	3
Zn			1	47.785	ug/l	1.14	105,008.03	3.872E-01	Pulse	1.00	3
Cd			1	46.520	ug/l	1.03	141,247.93	5.208E-01	Pulse	0.50	3
Al			1	4606.167	ug/l	1.22	1,539,557.33	5.424E+00	Pulse	1.00	3
Se			1	45.927	ug/l	0.22	5,597.82	2.064E-02	Pulse	3.00	3
Sb			1	45.799	ug/l	0.92	427,249.45	1.575E+00	Pulse	1.00	3
Se			1	45.792	ug/l	1.37	2,653.07	9.784E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,891,379.33	1.08	91.7	Pulse	0.50	3
1	Sc		283,865.87	0.22	98.0	Pulse	0.30	3
1	Ge		183,480.91	1.23	99.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,607,911.60	0.83	94.5	Pulse	0.30	3
1	Tb		4,363,816.33	1.24	96.5	Pulse	0.50	3
1	Lu		3,226,800.67	1.65	93.9	Pulse	0.50	3
1	Ge		271,181.73	0.84	99.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,046.70	14.46	83.1	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:18
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.900	ug/l	0.85	1,103,454.33	6.028E+00	Pulse	0.50	3
As			1	97.129	ug/l	0.05	147,285.85	8.046E-01	Pulse	1.00	3
Mo			1	98.388	ug/l	1.21	604,032.48	2.260E+00	Pulse	0.50	3
Pb			1	99.179	ug/l	0.59	2,502,168.17	8.858E-01	Pulse	1.00	3
Be			1	97.535	ug/l	3.45	5,474.74	1.926E-02	Pulse	2.00	3
Ag			1	99.649	ug/l	1.51	1,842,116.16	6.892E+00	Pulse	0.50	3
Ba			1	98.377	ug/l	0.51	281,854.57	1.780E-01	Pulse	0.50	3
Tl			1	102.359	ug/l	0.51	3,554,886.33	1.259E+00	Pulse	0.50	3
Sn			1	99.877	ug/l	1.17	656,343.83	4.144E-01	Pulse	0.30	3
Sr			1	98.519	ug/l	0.77	815,807.48	5.151E-01	Pulse	0.50	3
[Pb]			1	99.008	ug/l	0.47	1,190,135.67	4.214E-01	Pulse	0.50	3
Ca			1	9661.348	ug/l	1.35	430,686.77	1.515E+00	Pulse	0.50	3
Ti			1	96.778	ug/l	2.13	30,105.07	1.059E-01	Pulse	0.50	3
Na			1	10391.500	ug/l	0.86	15,623,153.00	5.494E+01	Analog	1.00	3
Mg			1	10239.543	ug/l	1.45	7,890,978.17	2.775E+01	Analog	1.00	3
K			1	10357.910	ug/l	1.05	8,882,682.00	3.124E+01	Analog	1.00	3
V			1	99.221	ug/l	1.52	899,397.89	3.163E+00	Pulse	0.50	3
Mn			1	97.064	ug/l	0.73	658,148.69	3.595E+00	Pulse	0.50	3
Fe			1	10465.989	ug/l	0.35	99,473,744.00	5.434E+02	Analog	0.50	3
Co			1	98.789	ug/l	0.62	1,684,512.63	9.202E+00	Pulse	0.50	3
Ni			1	98.998	ug/l	0.85	447,183.30	2.443E+00	Pulse	0.50	3
Cu			1	98.825	ug/l	0.60	1,181,569.96	6.455E+00	Pulse	0.50	3
Zn			1	99.353	ug/l	1.16	213,790.59	7.998E-01	Pulse	1.00	3
Cd			1	96.473	ug/l	2.48	288,679.42	1.080E+00	Pulse	0.50	3
Al			1	9408.765	ug/l	1.98	3,149,645.83	1.108E+01	Pulse	1.00	3
Se			1	95.101	ug/l	0.82	11,348.70	4.246E-02	Pulse	3.00	3
Sb			1	95.705	ug/l	1.74	879,807.46	3.292E+00	Pulse	1.00	3
Se			1	94.592	ug/l	1.85	5,368.42	2.009E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,824,583.42	1.14	89.6	Pulse	0.50	3
1	Sc		284,376.45	1.25	98.2	Pulse	0.30	3
1	Ge		183,052.32	0.11	99.1	Pulse	0.30	3
1	In		1,583,813.31	0.37	93.0	Pulse	0.30	3
1	Tb		4,285,939.50	0.96	94.8	Pulse	0.50	3
1	Lu		3,201,591.67	0.73	93.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		267,305.33	0.72	98.1	Pulse	0.30	3
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		1,170.04	5.56	92.9	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:22
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	20.62	710.02	3.903E-03	Pulse	0.50	3
As			1	0.030	ug/l	11.22	101.33	5.573E-04	Pulse	1.00	3
Mo			1	0.104	ug/l	27.21	770.69	2.850E-03	Pulse	0.50	3
Pb			1	0.322	ug/l	3.23	9,162.46	3.192E-03	Pulse	1.00	3
Be			1	0.065	ug/l	66.91	5.17	1.800E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	4.72	576.01	2.131E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	31.68	66.67	4.147E-05	Pulse	0.50	3
Tl			1	0.068	ug/l	4.09	2,843.58	9.905E-04	Pulse	0.50	3
Sn			1	0.096	ug/l	10.83	871.14	5.422E-04	Pulse	0.30	3
Sr			1	0.019	ug/l	26.92	469.34	2.921E-04	Pulse	0.50	3
[Pb]			1	0.327	ug/l	9.70	4,417.92	1.540E-03	Pulse	0.50	3
Ca			1	0.115	ug/l	418.66	474.68	1.654E-03	Pulse	0.50	3
Ti			1	0.028	ug/l	69.49	15.33	5.336E-05	Pulse	0.50	3
Na			1	5.060	ug/l	6.61	19,531.82	6.804E-02	Pulse	1.00	3
Mg			1	1.924	ug/l	3.22	2,111.12	7.355E-03	Pulse	1.00	3
K			1	4.829	ug/l	5.77	63,654.87	2.217E-01	Pulse	1.00	3
V			1	0.005	ug/l	271.01	1,299.38	4.526E-03	Pulse	0.50	3
Mn			1	0.063	ug/l	4.68	661.34	3.636E-03	Pulse	0.50	3
Fe			1	2.462	ug/l	3.45	37,574.23	2.066E-01	Pulse	0.50	3
Co			1	0.018	ug/l	7.20	416.01	2.289E-03	Pulse	0.50	3
Ni			1	0.007	ug/l	158.35	480.01	2.642E-03	Pulse	0.50	3
Cu			1	-0.031	ug/l	-44.39	5,835.57	3.210E-02	Pulse	0.50	3
Zn			1	-0.024	ug/l	-176.71	1,257.71	4.655E-03	Pulse	1.00	3
Cd			1	0.023	ug/l	22.01	82.67	3.061E-04	Pulse	0.50	3
Al			1	1.783	ug/l	3.06	861.35	3.001E-03	Pulse	1.00	3
Se			1	0.095	ug/l	83.11	83.67	3.097E-04	Pulse	3.00	3
Sb			1	0.039	ug/l	14.21	501.01	1.854E-03	Pulse	1.00	3
Se			1	0.073	ug/l	186.42	36.00	1.332E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,871,229.75	1.56	91.0	Pulse	0.50	3
1	Sc		287,065.37	0.39	99.1	Pulse	0.30	3

Quantitation Report

1	Ge		181,853.68	1.46	98.5	Pulse	0.30	3
1	In		1,605,661.01	1.26	94.3	Pulse	0.30	3
1	Tb		4,232,469.42	1.44	93.6	Pulse	0.50	3
1	Lu		3,141,246.17	1.31	91.4	Pulse	0.50	3
1	Ge		270,210.95	0.62	99.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,112.26	7.72	88.3	Pulse	0.30	3

Quantitation Report

File Name	059SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:26
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-166.58	462.01	2.503E-03	Pulse	0.50	3
As			1	0.009	ug/l	87.48	70.33	3.811E-04	Pulse	1.00	3
Mo			1	0.019	ug/l	58.74	240.67	8.804E-04	Pulse	0.50	3
Pb			1	0.247	ug/l	4.05	7,293.23	2.523E-03	Pulse	1.00	3
Be			1	0.095	ug/l	29.50	6.83	2.385E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	40.06	262.67	9.621E-04	Pulse	0.50	3
Ba			1	-0.005	ug/l	-37.76	16.00	9.899E-06	Pulse	0.50	3
Tl			1	0.021	ug/l	4.78	1,182.05	4.088E-04	Pulse	0.50	3
Sn			1	0.016	ug/l	54.83	340.01	2.097E-04	Pulse	0.30	3
Sr			1	0.003	ug/l	226.06	335.34	2.073E-04	Pulse	0.50	3
[Pb]			1	0.236	ug/l	3.23	3,327.00	1.151E-03	Pulse	0.50	3
Ca			1	-2.567	ug/l	-16.22	354.00	1.234E-03	Pulse	0.50	3
Ti			1	-0.010	ug/l	-35.53	3.33	1.163E-05	Pulse	0.50	3
Na			1	2.412	ug/l	10.79	15,504.32	5.405E-02	Pulse	1.00	3
Mg			1	1.214	ug/l	15.61	1,557.40	5.430E-03	Pulse	1.00	3
K			1	2.574	ug/l	11.00	61,673.61	2.150E-01	Pulse	1.00	3
V			1	-0.020	ug/l	-21.15	1,069.37	3.728E-03	Pulse	0.50	3
Mn			1	0.004	ug/l	121.63	264.67	1.434E-03	Pulse	0.50	3
Fe			1	0.014	ug/l	348.30	14,671.56	7.952E-02	Pulse	0.50	3
Co			1	0.002	ug/l	90.28	143.33	7.766E-04	Pulse	0.50	3
Ni			1	-0.011	ug/l	-104.66	406.67	2.204E-03	Pulse	0.50	3
Cu			1	0.381	ug/l	2.38	10,860.41	5.885E-02	Pulse	0.50	3
Zn			1	0.089	ug/l	23.84	1,518.40	5.562E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	41.43	37.33	1.366E-04	Pulse	0.50	3
Al			1	0.677	ug/l	10.15	487.34	1.699E-03	Pulse	1.00	3
Se			1	0.068	ug/l	81.71	81.22	2.974E-04	Pulse	3.00	3
Sb			1	0.005	ug/l	59.38	188.33	6.895E-04	Pulse	1.00	3
Se			1	0.026	ug/l	411.30	33.66	1.234E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,891,100.00	1.06	91.7	Pulse	0.50	3
1	Sc		286,871.57	0.71	99.0	Pulse	0.30	3

Quantitation Report

1	Ge		184,548.76	0.97	99.9	Pulse	0.30	3
1	In		1,619,694.73	0.96	95.1	Pulse	0.30	3
1	Tb		4,257,823.33	1.06	94.2	Pulse	0.50	3
1	Lu		3,154,940.33	0.94	91.8	Pulse	0.50	3
1	Ge		272,967.77	1.01	100.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,153.37	8.79	91.5	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:30
Sample Name	FC2148-3A
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	5981.162	ug/l	1.00	1,346,454.92	7.291E+00	Pulse	0.50	3
As			1	4450.683	ug/l	0.64	136,189.78	7.374E-01	Pulse	1.00	3
Mo			1	1221.929	ug/l	0.59	152,517.73	5.617E-01	Pulse	0.50	3
Pb			1	3570.912	ug/l	0.78	1,883,057.08	6.380E-01	Pulse	1.00	3
Be			1	3684.178	ug/l	1.77	4,214.11	1.455E-02	Pulse	2.00	3
Ag			1	1206.058	ug/l	1.24	453,158.13	1.669E+00	Pulse	0.50	3
Ba			1	8903.083	ug/l	1.47	521,243.85	3.221E-01	Pulse	0.50	3
Tl			1	4292.370	ug/l	0.87	3,115,614.50	1.056E+00	Pulse	0.50	3
Sn			1	2318.613	ug/l	1.57	311,491.91	1.925E-01	Pulse	0.30	3
Sr			1	5406.091	ug/l	0.67	914,830.89	5.653E-01	Pulse	0.50	3
[Pb]			1	3619.120	ug/l	0.59	909,353.23	3.081E-01	Pulse	0.50	3
Ca			1	142472.712	ug/l	0.58	129,725.13	4.479E-01	Pulse	0.50	3
Ti			1	7735.151	ug/l	0.54	49,020.38	1.692E-01	Pulse	0.50	3
Na			1	11680.577	ug/l	0.59	369,450.57	1.276E+00	Pulse	1.00	3
Mg			1	55491.377	ug/l	0.43	871,776.90	3.010E+00	Pulse	1.00	3
K			1	44967.111	ug/l	1.00	840,422.35	2.902E+00	Pulse	1.00	3
V			1	2963.844	ug/l	0.71	547,854.46	1.891E+00	Pulse	0.50	3
Mn			1	11169.175	ug/l	0.90	1,527,848.92	8.273E+00	Pulse	0.50	3
Fe			1	226288.442	ug/l	0.96	43,406,474.67	2.350E+02	Analog	0.50	3
Co			1	4277.175	ug/l	0.85	1,471,696.08	7.969E+00	Pulse	0.50	3
Ni			1	2782.166	ug/l	0.93	253,796.20	1.374E+00	Pulse	0.50	3
Cu			1	3224.469	ug/l	0.93	780,144.88	4.224E+00	Pulse	0.50	3
Zn			1	9445.898	ug/l	0.96	411,802.76	1.517E+00	Pulse	1.00	3
Cd			1	2585.530	ug/l	1.67	157,209.75	5.790E-01	Pulse	0.50	3
Al			1	223479.064	ug/l	0.54	1,524,332.21	5.263E+00	Pulse	1.00	3
Se			1	2389.297	ug/l	1.16	5,829.22	2.147E-02	Pulse	3.00	3
Sb			1	1819.447	ug/l	1.16	339,935.10	1.252E+00	Pulse	1.00	3
Se			1	2429.594	ug/l	2.63	2,817.32	1.038E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,951,562.67	0.80	93.6	Pulse	0.50	3
1	Sc		289,646.49	0.14	100.0	Pulse	0.30	3
1	Ge		184,692.08	0.84	100.0	Pulse	0.30	3
1	In		1,618,427.85	0.58	95.1	Pulse	0.30	3
1	Tb		4,325,006.33	0.27	95.7	Pulse	0.50	3
1	Lu		3,212,892.00	0.52	93.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		271,551.62	0.33	99.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,196.71	4.65	95.0	Pulse	0.30	3

Quantitation Report

File Name	061_MB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:33
Sample Name	MP41795-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.653	ug/l	4.66	4,043.77	2.284E-02	Pulse	0.50	3
As			1	0.339	ug/l	8.64	153.67	8.683E-04	Pulse	1.00	3
Mo			1	0.287	ug/l	31.14	460.67	1.772E-03	Pulse	0.50	3
Pb			1	3.630	ug/l	0.52	19,489.74	6.802E-03	Pulse	1.00	3
Be			1	0.278	ug/l	15.82	4.50	1.616E-05	Pulse	2.00	3
Ag			1	0.046	ug/l	8.90	361.34	1.394E-03	Pulse	0.50	3
Ba			1	0.311	ug/l	30.17	203.33	1.312E-04	Pulse	0.50	3
Tl			1	0.353	ug/l	9.74	2,924.26	1.021E-03	Pulse	0.50	3
Sn			1	22.109	ug/l	0.82	28,745.91	1.848E-02	Pulse	0.30	3
Sr			1	0.211	ug/l	26.87	638.68	4.115E-04	Pulse	0.50	3
[Pb]			1	3.569	ug/l	2.46	9,129.11	3.186E-03	Pulse	0.50	3
Ca			1	27.295	ug/l	14.07	693.35	2.491E-03	Pulse	0.50	3
Ti			1	0.606	ug/l	21.11	43.33	1.555E-04	Pulse	0.50	3
Na			1	29.071	ug/l	2.55	20,053.33	7.203E-02	Pulse	1.00	3
Mg			1	7.302	ug/l	9.89	1,696.74	6.098E-03	Pulse	1.00	3
K			1	43.293	ug/l	21.17	64,920.61	2.332E-01	Pulse	1.00	3
V			1	1.156	ug/l	1.48	3,268.95	1.174E-02	Pulse	0.50	3
Mn			1	0.771	ug/l	11.81	1,240.71	7.014E-03	Pulse	0.50	3
Fe			1	35.534	ug/l	2.27	79,282.03	4.477E-01	Pulse	0.50	3
Co			1	0.115	ug/l	18.51	488.68	2.764E-03	Pulse	0.50	3
Ni			1	0.460	ug/l	11.72	840.02	4.746E-03	Pulse	0.50	3
Cu			1	3.933	ug/l	2.52	15,092.58	8.523E-02	Pulse	0.50	3
Zn			1	5.091	ug/l	4.35	3,368.97	1.299E-02	Pulse	1.00	3
Cd			1	0.130	ug/l	61.54	88.67	3.429E-04	Pulse	0.50	3
Al			1	13.853	ug/l	15.39	1,158.04	4.164E-03	Pulse	1.00	3
Se			1	0.520	ug/l	29.96	81.33	3.136E-04	Pulse	3.00	3
Sb			1	0.139	ug/l	1.62	380.34	1.466E-03	Pulse	1.00	3
Se			1	0.685	ug/l	138.79	38.11	1.468E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,865,248.08	1.37	90.9	Pulse	0.50	3
1	Sc		278,433.77	1.49	96.1	Pulse	0.30	3
1	Ge		177,106.00	1.95	95.9	Pulse	0.30	3
1	In		1,555,501.60	2.33	91.4	Pulse	0.30	3
1	Tb		4,143,484.25	2.28	91.7	Pulse	0.50	3
1	Lu		3,065,400.25	2.22	89.2	Pulse	0.50	3
1	Ge		259,342.78	1.72	95.2	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,126.71	11.33	89.4	Pulse	0.30	3

Quantitation Report

File Name	062_BSP.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:37
Sample Name	MP41795-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	525.361	ug/l	0.74	1,118,598.42	6.404E+00	Pulse	0.50	3
As			1	523.847	ug/l	0.58	151,589.54	8.679E-01	Pulse	1.00	3
Mo			1	521.206	ug/l	0.91	623,007.37	2.394E+00	Pulse	0.50	3
Pb			1	521.937	ug/l	0.25	2,565,892.75	9.323E-01	Pulse	1.00	3
Be			1	509.627	ug/l	1.88	5,508.25	2.012E-02	Pulse	2.00	3
Ag			1	245.349	ug/l	1.03	883,217.11	3.394E+00	Pulse	0.50	3
Ba			1	508.681	ug/l	0.75	282,196.36	1.840E-01	Pulse	0.50	3
Tl			1	515.779	ug/l	1.11	3,490,659.75	1.268E+00	Pulse	0.50	3
Sn			1	545.744	ug/l	0.25	694,443.25	4.529E-01	Pulse	0.30	3
Sr			1	509.038	ug/l	0.67	816,197.96	5.323E-01	Pulse	0.50	3
[Pb]			1	502.942	ug/l	0.53	1,178,166.25	4.281E-01	Pulse	0.50	3
Ca			1	50568.717	ug/l	0.84	434,007.53	1.585E+00	Pulse	0.50	3
Ti			1	488.665	ug/l	0.85	29,269.78	1.069E-01	Pulse	0.50	3
Na			1	54462.724	ug/l	0.93	15,763,909.33	5.759E+01	Analog	1.00	3
Mg			1	53671.442	ug/l	0.80	7,963,580.00	2.909E+01	Analog	1.00	3
K			1	54058.621	ug/l	0.95	8,922,932.33	3.260E+01	Analog	1.00	3
V			1	516.257	ug/l	0.75	900,972.87	3.291E+00	Pulse	0.50	3
Mn			1	512.862	ug/l	0.58	663,626.25	3.799E+00	Pulse	0.50	3
Fe			1	55966.428	ug/l	0.53	101,512,461.33	5.812E+02	Analog	0.50	3
Co			1	523.407	ug/l	0.58	1,703,201.58	9.751E+00	Pulse	0.50	3
Ni			1	520.722	ug/l	1.06	448,857.70	2.570E+00	Pulse	0.50	3
Cu			1	522.412	ug/l	0.67	1,191,635.63	6.822E+00	Pulse	0.50	3
Zn			1	510.078	ug/l	0.35	213,678.37	8.211E-01	Pulse	1.00	3
Cd			1	500.423	ug/l	0.71	291,577.46	1.120E+00	Pulse	0.50	3
Al			1	48003.509	ug/l	1.06	3,094,106.92	1.130E+01	Pulse	1.00	3
Se			1	477.589	ug/l	0.94	11,096.21	4.264E-02	Pulse	3.00	3
Sb			1	502.055	ug/l	0.60	898,653.33	3.453E+00	Pulse	1.00	3
Se			1	478.085	ug/l	1.34	5,282.85	2.030E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,752,265.42	2.16	87.3	Pulse	0.50	3
1	Sc		273,741.41	0.51	94.5	Pulse	0.30	3
1	Ge		174,665.77	0.71	94.6	Pulse	0.30	3
1	In		1,533,526.30	1.65	90.1	Pulse	0.30	3
1	Tb		4,206,055.75	1.47	93.1	Pulse	0.50	3
1	Lu		3,130,309.92	1.89	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		260,216.84	1.03	95.5	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		1,025.59	6.58	81.4	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:41
Sample Name FC2193-18
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	615.303	ug/l	0.18	338,519.58	1.877E+00	Pulse	0.50	3
As			1	114.887	ug/l	3.38	8,633.96	4.787E-02	Pulse	1.00	3
Mo			1	11.131	ug/l	2.67	3,517.67	1.323E-02	Pulse	0.50	3
Pb			1	2665.900	ug/l	0.60	3,443,291.67	1.190E+00	Pulse	1.00	3
Be			1	4.296	ug/l	14.76	14.00	4.757E-05	Pulse	2.00	3
Ag			1	45.896	ug/l	1.28	42,380.85	1.594E-01	Pulse	0.50	3
Ba			1	1670.381	ug/l	0.49	238,243.54	1.511E-01	Pulse	0.50	3
Tl			1	2.492	ug/l	2.72	4,876.04	1.686E-03	Pulse	0.50	3
Sn			1	94.097	ug/l	0.55	30,996.17	1.966E-02	Pulse	0.30	3
Sr			1	636.878	ug/l	0.75	262,747.57	1.666E-01	Pulse	0.50	3
[Pb]			1	2668.166	ug/l	0.17	1,642,059.37	5.677E-01	Pulse	0.50	3
Ca			1	92945.780	ug/l	0.62	214,790.96	7.294E-01	Pulse	0.50	3
Ti			1	17061.213	ug/l	0.87	274,769.84	9.331E-01	Pulse	0.50	3
Na			1	6179.429	ug/l	0.16	492,850.44	1.674E+00	Pulse	1.00	3
Mg			1	96997.283	ug/l	1.31	3,870,739.92	1.315E+01	Pulse	1.00	3
K			1	19446.398	ug/l	0.30	918,796.75	3.120E+00	Pulse	1.00	3
V			1	858.130	ug/l	0.96	403,510.18	1.370E+00	Pulse	0.50	3
Mn			1	6125.212	ug/l	0.57	2,045,434.50	1.134E+01	Pulse	0.50	3
Fe			1	383285.149	ug/l	0.38	179,441,386.67	9.950E+02	Analog	0.50	3
Co			1	153.566	ug/l	0.54	129,101.27	7.158E-01	Pulse	0.50	3
Ni			1	635.100	ug/l	1.08	141,625.92	7.853E-01	Pulse	0.50	3
Cu			1	741.052	ug/l	0.79	440,317.49	2.441E+00	Pulse	0.50	3
Zn			1	1882.560	ug/l	0.92	201,478.97	7.580E-01	Pulse	1.00	3
Cd			1	38.467	ug/l	2.68	5,736.24	2.158E-02	Pulse	0.50	3
Al			1	250682.362	ug/l	1.42	4,345,184.83	1.476E+01	Pulse	1.00	3
Se			1	10.611	ug/l	16.80	133.67	5.028E-04	Pulse	3.00	3
Sb			1	7.876	ug/l	1.80	3,735.39	1.405E-02	Pulse	1.00	3
Se			1	30.612	ug/l	7.01	117.22	4.409E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,422.00	1.05	91.7	Pulse	0.50	3
1	Sc		294,473.24	0.79	101.7	Pulse	0.30	3
1	Ge		180,349.81	0.97	97.7	Pulse	0.30	3
1	In		1,576,908.44	0.65	92.6	Pulse	0.30	3
1	Tb		4,280,234.67	0.63	94.7	Pulse	0.50	3
1	Lu		3,177,235.08	0.78	92.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		265,791.64	0.70	97.5	Pulse	0.30	3
1	Te		8.00	25.00		Pulse	0.50	3
1	Li		1,151.71	1.57	91.4	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:45
Sample Name	MP41795-D1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	756.416	ug/l	0.74	411,805.89	2.307E+00	Pulse	0.50	3
As			1	118.208	ug/l	1.45	8,791.69	4.925E-02	Pulse	1.00	3
Mo			1	10.919	ug/l	1.47	3,408.32	1.299E-02	Pulse	0.50	3
Pb			1	2839.370	ug/l	0.43	3,621,793.75	1.268E+00	Pulse	1.00	3
Be			1	4.800	ug/l	26.66	15.50	5.254E-05	Pulse	2.00	3
Ag			1	49.283	ug/l	0.86	44,910.75	1.712E-01	Pulse	0.50	3
Ba			1	1632.727	ug/l	0.49	231,698.24	1.477E-01	Pulse	0.50	3
Tl			1	1.810	ug/l	1.60	3,618.40	1.267E-03	Pulse	0.50	3
Sn			1	109.479	ug/l	1.80	35,849.40	2.285E-02	Pulse	0.30	3
Sr			1	673.959	ug/l	0.53	276,625.65	1.763E-01	Pulse	0.50	3
[Pb]			1	2846.751	ug/l	0.06	1,730,200.33	6.057E-01	Pulse	0.50	3
Ca			1	104788.702	ug/l	0.78	242,422.72	8.222E-01	Pulse	0.50	3
Ti			1	18518.151	ug/l	0.90	298,639.72	1.013E+00	Pulse	0.50	3
Na			1	7238.952	ug/l	0.91	576,000.02	1.954E+00	Pulse	1.00	3
Mg			1	100330.540	ug/l	0.28	4,009,191.00	1.360E+01	Pulse	1.00	3
K			1	20745.347	ug/l	0.50	977,362.69	3.315E+00	Pulse	1.00	3
V			1	908.526	ug/l	0.87	427,706.01	1.451E+00	Pulse	0.50	3
Mn			1	6267.705	ug/l	1.19	2,071,672.71	1.161E+01	Pulse	0.50	3
Fe			1	399811.258	ug/l	0.52	185,271,536.00	1.038E+03	Analog	0.50	3
Co			1	157.498	ug/l	0.92	131,051.87	7.341E-01	Pulse	0.50	3
Ni			1	667.975	ug/l	1.36	147,419.77	8.258E-01	Pulse	0.50	3
Cu			1	791.981	ug/l	0.73	465,357.69	2.607E+00	Pulse	0.50	3
Zn			1	2002.876	ug/l	0.91	211,535.50	8.062E-01	Pulse	1.00	3
Cd			1	39.416	ug/l	2.06	5,802.92	2.211E-02	Pulse	0.50	3
Al			1	285237.019	ug/l	0.49	4,950,895.17	1.679E+01	Analog	1.00	3
Se			1	11.352	ug/l	13.23	136.22	5.193E-04	Pulse	3.00	3
Sb			1	7.078	ug/l	1.20	3,327.64	1.268E-02	Pulse	1.00	3
Se			1	33.371	ug/l	14.50	123.33	4.701E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,856,561.58	1.39	90.6	Pulse	0.50	3
1	Sc		294,855.14	0.42	101.8	Pulse	0.30	3
1	Ge		178,511.32	0.54	96.7	Pulse	0.30	3
1	In		1,568,962.96	1.13	92.2	Pulse	0.30	3
1	Tb		4,255,930.83	1.12	94.2	Pulse	0.50	3
1	Lu		3,155,812.08	1.59	91.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,391.22	0.46	96.3	Pulse	0.30	3
1	Te		11.33	53.91		Pulse	0.50	3
1	Li		1,105.59	2.53	87.7	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:49
Sample Name MP41795-D2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	650.737	ug/l	0.77	356,415.24	1.985E+00	Pulse	0.50	3
As			1	118.228	ug/l	0.83	8,845.05	4.926E-02	Pulse	1.00	3
Mo			1	9.578	ug/l	5.06	3,007.58	1.145E-02	Pulse	0.50	3
Pb			1	2733.636	ug/l	0.65	3,480,293.75	1.221E+00	Pulse	1.00	3
Be			1	5.903	ug/l	26.73	18.67	6.343E-05	Pulse	2.00	3
Ag			1	48.400	ug/l	0.47	44,146.26	1.681E-01	Pulse	0.50	3
Ba			1	1629.584	ug/l	1.10	231,006.36	1.474E-01	Pulse	0.50	3
Tl			1	1.909	ug/l	5.31	3,785.10	1.327E-03	Pulse	0.50	3
Sn			1	106.888	ug/l	1.10	34,963.29	2.231E-02	Pulse	0.30	3
Sr			1	666.839	ug/l	0.86	273,415.56	1.744E-01	Pulse	0.50	3
[Pb]			1	2749.743	ug/l	0.73	1,668,115.46	5.851E-01	Pulse	0.50	3
Ca			1	102244.987	ug/l	0.50	236,149.45	8.022E-01	Pulse	0.50	3
Ti			1	18229.577	ug/l	1.05	293,485.84	9.970E-01	Pulse	0.50	3
Na			1	6966.420	ug/l	0.97	553,835.00	1.882E+00	Pulse	1.00	3
Mg			1	97015.267	ug/l	1.14	3,870,181.50	1.315E+01	Pulse	1.00	3
K			1	20529.849	ug/l	0.40	966,237.62	3.282E+00	Pulse	1.00	3
V			1	891.889	ug/l	1.16	419,176.48	1.424E+00	Pulse	0.50	3
Mn			1	6098.874	ug/l	0.78	2,027,601.71	1.129E+01	Pulse	0.50	3
Fe			1	386977.357	ug/l	1.06	180,365,312.00	1.005E+03	Analog	0.50	3
Co			1	154.656	ug/l	1.25	129,444.44	7.209E-01	Pulse	0.50	3
Ni			1	649.224	ug/l	0.75	144,136.24	8.027E-01	Pulse	0.50	3
Cu			1	930.421	ug/l	0.60	548,849.12	3.057E+00	Pulse	0.50	3
Zn			1	1930.586	ug/l	0.82	204,118.35	7.772E-01	Pulse	1.00	3
Cd			1	39.050	ug/l	1.29	5,753.58	2.191E-02	Pulse	0.50	3
Al			1	271216.625	ug/l	3.38	4,700,819.83	1.597E+01	Mix	1.00	3
Se			1	11.086	ug/l	20.08	134.78	5.133E-04	Pulse	3.00	3
Sb			1	6.730	ug/l	2.33	3,172.95	1.208E-02	Pulse	1.00	3
Se			1	32.155	ug/l	11.17	120.11	4.572E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,851,137.25	0.70	90.4	Pulse	0.50	3
1	Sc		294,370.25	1.05	101.6	Pulse	0.30	3
1	Ge		179,556.58	1.22	97.2	Pulse	0.30	3
1	In		1,567,281.19	0.49	92.1	Pulse	0.30	3
1	Tb		4,267,262.83	1.10	94.4	Pulse	0.50	3
1	Lu		3,155,446.08	0.83	91.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,609.09	0.73	96.4	Pulse	0.30	3
1	Te		12.67	32.87		Pulse	0.50	3
1	Li		1,118.93	5.85	88.8	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:52
Sample Name MP41795-SD1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	636.820	ug/l	1.69	70,587.63	3.907E-01	Pulse	0.50	3
As			1	118.935	ug/l	3.33	1,835.09	1.016E-02	Pulse	1.00	3
Mo			1	10.012	ug/l	7.53	735.35	2.752E-03	Pulse	0.50	3
Pb			1	2756.713	ug/l	0.57	708,552.81	2.464E-01	Pulse	1.00	3
Be			1	4.132	ug/l	67.97	3.83	1.333E-05	Pulse	2.00	3
Ag			1	47.140	ug/l	1.99	8,908.83	3.335E-02	Pulse	0.50	3
Ba			1	1696.937	ug/l	1.01	48,855.58	3.071E-02	Pulse	0.50	3
Tl			1	1.348	ug/l	9.00	919.36	3.196E-04	Pulse	0.50	3
Sn			1	94.321	ug/l	5.08	6,450.08	4.054E-03	Pulse	0.30	3
Sr			1	651.308	ug/l	0.31	54,453.40	3.423E-02	Pulse	0.50	3
[Pb]			1	2743.706	ug/l	0.49	336,033.68	1.169E-01	Pulse	0.50	3
Ca			1	99983.171	ug/l	1.26	45,448.35	1.582E-01	Pulse	0.50	3
Ti			1	18367.766	ug/l	2.32	57,723.22	2.009E-01	Pulse	0.50	3
Na			1	6790.777	ug/l	0.37	114,927.58	4.001E-01	Pulse	1.00	3
Mg			1	104846.238	ug/l	0.45	816,844.46	2.844E+00	Pulse	1.00	3
K			1	20855.052	ug/l	0.75	239,015.84	8.321E-01	Pulse	1.00	3
V			1	904.341	ug/l	0.80	83,962.65	2.923E-01	Pulse	0.50	3
Mn			1	6344.919	ug/l	0.94	424,720.66	2.351E+00	Pulse	0.50	3
Fe			1	404674.892	ug/l	0.70	37,971,190.67	2.102E+02	Analog	0.50	3
Co			1	158.893	ug/l	0.62	26,852.60	1.486E-01	Pulse	0.50	3
Ni			1	651.169	ug/l	1.10	29,451.00	1.630E-01	Pulse	0.50	3
Cu			1	803.441	ug/l	1.28	100,479.34	5.561E-01	Pulse	0.50	3
Zn			1	1968.064	ug/l	0.39	43,356.51	1.623E-01	Pulse	1.00	3
Cd			1	37.929	ug/l	7.26	1,147.37	4.298E-03	Pulse	0.50	3
Al			1	272096.784	ug/l	1.14	920,466.38	3.204E+00	Pulse	1.00	3
Se			1	9.732	ug/l	56.80	83.00	3.106E-04	Pulse	3.00	3
Sb			1	6.837	ug/l	1.75	764.35	2.862E-03	Pulse	1.00	3
Se			1	34.305	ug/l	59.90	50.89	1.903E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,875,164.67	1.86	91.2	Pulse	0.50	3
1	Sc		287,266.78	0.61	99.2	Pulse	0.30	3
1	Ge		180,676.76	0.74	97.8	Pulse	0.30	3
1	In		1,590,801.33	0.87	93.5	Pulse	0.30	3
1	Tb		4,223,606.00	1.36	93.4	Pulse	0.50	3
1	Lu		3,118,879.83	1.16	90.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		267,099.05	0.93	98.0	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,115.59	6.88	88.5	Pulse	0.30	3

Quantitation Report

File Name	067SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:56
Sample Name	MP41795-S1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1260.974	ug/l	0.84	689,431.42	3.844E+00	Pulse	0.50	3
As			1	615.001	ug/l	1.62	45,727.38	2.549E-01	Pulse	1.00	3
Mo			1	483.559	ug/l	0.88	145,905.85	5.557E-01	Pulse	0.50	3
Pb			1	3493.471	ug/l	0.28	4,397,201.00	1.560E+00	Pulse	1.00	3
Be			1	457.911	ug/l	3.11	1,328.54	4.524E-03	Pulse	2.00	3
Ag			1	300.711	ug/l	1.56	273,201.75	1.041E+00	Pulse	0.50	3
Ba			1	2229.510	ug/l	1.39	312,556.42	2.016E-01	Pulse	0.50	3
Tl			1	490.532	ug/l	0.55	850,444.02	3.017E-01	Pulse	0.50	3
Sn			1	613.780	ug/l	0.82	197,516.34	1.274E-01	Pulse	0.30	3
Sr			1	1259.233	ug/l	0.76	510,344.82	3.293E-01	Pulse	0.50	3
[Pb]			1	3478.598	ug/l	0.23	2,086,316.12	7.401E-01	Pulse	0.50	3
Ca			1	158891.834	ug/l	0.50	365,828.63	1.246E+00	Pulse	0.50	3
Ti			1	19849.800	ug/l	0.97	318,794.82	1.086E+00	Pulse	0.50	3
Na			1	59058.008	ug/l	0.45	4,593,242.67	1.564E+01	Analog	1.00	3
Mg			1	159825.685	ug/l	0.72	6,360,049.17	2.166E+01	Analog	1.00	3
K			1	69030.685	ug/l	0.25	3,097,255.17	1.055E+01	Pulse	1.00	3
V			1	1423.132	ug/l	0.79	666,478.60	2.270E+00	Pulse	0.50	3
Mn			1	6925.449	ug/l	0.43	2,299,938.83	1.282E+01	Pulse	0.50	3
Fe			1	469445.248	ug/l	0.59	218,568,917.33	1.219E+03	Analog	0.50	3
Co			1	664.094	ug/l	0.95	554,851.36	3.093E+00	Pulse	0.50	3
Ni			1	1175.168	ug/l	0.79	260,248.05	1.451E+00	Pulse	0.50	3
Cu			1	1402.197	ug/l	0.59	823,117.25	4.589E+00	Pulse	0.50	3
Zn			1	2571.080	ug/l	0.76	271,365.18	1.033E+00	Pulse	1.00	3
Cd			1	522.063	ug/l	0.90	76,744.02	2.923E-01	Pulse	0.50	3
Al			1	362419.756	ug/l	0.79	6,264,658.33	2.133E+01	Analog	1.00	3
Se			1	475.351	ug/l	1.98	2,838.65	1.081E-02	Pulse	3.00	3
Sb			1	132.280	ug/l	1.39	59,854.23	2.280E-01	Pulse	1.00	3
Se			1	502.722	ug/l	1.62	1,424.17	5.424E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,818,909.92	1.54	89.4	Pulse	0.50	3
1	Sc		293,651.94	0.32	101.4	Pulse	0.30	3
1	Ge		179,357.94	0.48	97.1	Pulse	0.30	3
1	In		1,550,019.87	0.72	91.1	Pulse	0.30	3
1	Tb		4,237,375.00	1.10	93.7	Pulse	0.50	3
1	Lu		3,126,111.58	0.84	90.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,573.44	0.45	96.4	Pulse	0.30	3
1	Te		10.00	105.83		Pulse	0.50	3
1	Li		1,038.92	5.19	82.5	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:00
Sample Name	MP41795-S2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1165.978	ug/l	1.14	636,799.77	3.555E+00	Pulse	0.50	3
As			1	611.996	ug/l	0.50	45,450.70	2.537E-01	Pulse	1.00	3
Mo			1	478.978	ug/l	0.87	144,147.00	5.504E-01	Pulse	0.50	3
Pb			1	3421.759	ug/l	1.20	4,285,247.33	1.528E+00	Pulse	1.00	3
Be			1	444.814	ug/l	1.08	1,295.71	4.395E-03	Pulse	2.00	3
Ag			1	287.660	ug/l	0.89	260,675.66	9.954E-01	Pulse	0.50	3
Ba			1	2160.826	ug/l	1.16	303,564.04	1.954E-01	Pulse	0.50	3
Tl			1	484.650	ug/l	1.02	835,968.16	2.981E-01	Pulse	0.50	3
Sn			1	595.073	ug/l	1.35	191,899.36	1.235E-01	Pulse	0.30	3
Sr			1	1243.597	ug/l	0.63	505,049.96	3.252E-01	Pulse	0.50	3
[Pb]			1	3410.645	ug/l	1.14	2,035,241.25	7.256E-01	Pulse	0.50	3
Ca			1	157629.878	ug/l	0.70	364,357.74	1.236E+00	Pulse	0.50	3
Ti			1	20316.285	ug/l	1.02	327,575.31	1.111E+00	Pulse	0.50	3
Na			1	54334.966	ug/l	0.29	4,243,534.67	1.439E+01	Pulse	1.00	3
Mg			1	158124.055	ug/l	0.75	6,317,184.50	2.143E+01	Analog	1.00	3
K			1	67172.277	ug/l	0.25	3,027,384.25	1.027E+01	Pulse	1.00	3
V			1	1417.808	ug/l	0.84	666,611.56	2.261E+00	Pulse	0.50	3
Mn			1	6943.210	ug/l	0.53	2,303,205.00	1.286E+01	Pulse	0.50	3
Fe			1	470186.059	ug/l	0.69	218,667,002.67	1.221E+03	Analog	0.50	3
Co			1	656.938	ug/l	0.79	548,238.81	3.060E+00	Pulse	0.50	3
Ni			1	1177.335	ug/l	0.83	260,423.73	1.454E+00	Pulse	0.50	3
Cu			1	1275.316	ug/l	1.31	748,326.04	4.177E+00	Pulse	0.50	3
Zn			1	2512.002	ug/l	1.45	264,472.08	1.010E+00	Pulse	1.00	3
Cd			1	516.741	ug/l	0.71	75,763.27	2.893E-01	Pulse	0.50	3
Al			1	356383.669	ug/l	0.74	6,184,639.83	2.098E+01	Analog	1.00	3
Se			1	461.212	ug/l	2.23	2,749.31	1.050E-02	Pulse	3.00	3
Sb			1	132.293	ug/l	1.44	59,704.07	2.280E-01	Pulse	1.00	3
Se			1	495.604	ug/l	2.06	1,400.83	5.349E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,804,631.42	0.88	88.9	Pulse	0.50	3
1	Sc		294,806.91	0.18	101.8	Pulse	0.30	3
1	Ge		179,151.49	0.23	97.0	Pulse	0.30	3
1	In		1,553,223.79	0.29	91.2	Pulse	0.30	3
1	Tb		4,234,618.83	0.93	93.7	Pulse	0.50	3
1	Lu		3,130,361.92	1.20	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,889.98	0.47	96.1	Pulse	0.30	3
1	Te		8.00	50.00		Pulse	0.50	3
1	Li		1,120.04	1.81	88.9	Pulse	0.30	3

Quantitation Report

File Name	069CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:04
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.137	ug/l	1.14	533,160.31	2.935E+00	Pulse	0.50	3
As			1	46.667	ug/l	1.26	70,245.44	3.867E-01	Pulse	1.00	3
Mo			1	46.985	ug/l	0.51	289,610.09	1.079E+00	Pulse	0.50	3
Pb			1	47.364	ug/l	0.11	1,200,536.91	4.232E-01	Pulse	1.00	3
Be			1	47.050	ug/l	2.57	2,609.34	9.292E-03	Pulse	2.00	3
Ag			1	48.335	ug/l	0.27	897,010.83	3.343E+00	Pulse	0.50	3
Ba			1	46.530	ug/l	0.21	133,572.20	8.418E-02	Pulse	0.50	3
Tl			1	48.843	ug/l	0.49	1,703,895.75	6.006E-01	Pulse	0.50	3
Sn			1	48.063	ug/l	0.73	316,562.44	1.995E-01	Pulse	0.30	3
Sr			1	47.556	ug/l	0.24	394,682.59	2.487E-01	Pulse	0.50	3
[Pb]			1	47.280	ug/l	0.43	571,050.23	2.013E-01	Pulse	0.50	3
Ca			1	4670.684	ug/l	0.90	205,864.36	7.331E-01	Pulse	0.50	3
Ti			1	47.067	ug/l	2.09	14,464.02	5.151E-02	Pulse	0.50	3
Na			1	5091.325	ug/l	0.60	7,565,140.83	2.694E+01	Analog	1.00	3
Mg			1	4728.250	ug/l	1.42	3,598,906.25	1.282E+01	Pulse	1.00	3
K			1	4754.120	ug/l	0.47	4,057,734.92	1.445E+01	Pulse	1.00	3
V			1	47.894	ug/l	1.36	429,391.97	1.529E+00	Pulse	0.50	3
Mn			1	47.283	ug/l	1.24	318,250.35	1.752E+00	Pulse	0.50	3
Fe			1	5163.038	ug/l	0.96	48,699,592.00	2.681E+02	Analog	0.50	3
Co			1	48.709	ug/l	1.34	824,186.59	4.538E+00	Pulse	0.50	3
Ni			1	48.477	ug/l	1.28	217,505.00	1.198E+00	Pulse	0.50	3
Cu			1	48.630	ug/l	1.79	580,069.63	3.194E+00	Pulse	0.50	3
Zn			1	47.458	ug/l	0.70	103,189.69	3.846E-01	Pulse	1.00	3
Cd			1	46.356	ug/l	1.01	139,256.55	5.190E-01	Pulse	0.50	3
Al			1	4595.738	ug/l	1.39	1,519,573.75	5.411E+00	Pulse	1.00	3
Se			1	45.897	ug/l	0.65	5,534.47	2.063E-02	Pulse	3.00	3
Sb			1	45.576	ug/l	0.82	420,651.85	1.568E+00	Pulse	1.00	3
Se			1	45.543	ug/l	1.28	2,611.07	9.732E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,836,791.75	1.58	90.0	Pulse	0.50	3
1	Sc		280,819.19	0.12	96.9	Pulse	0.30	3
1	Ge		181,642.41	1.24	98.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,586,783.58	1.48	93.2	Pulse	0.30	3
1	Tb		4,264,644.50	1.45	94.3	Pulse	0.50	3
1	Lu		3,174,328.50	1.94	92.3	Pulse	0.50	3
1	Ge		268,296.80	0.89	98.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,100.04	6.19	87.3	Pulse	0.30	3

Quantitation Report

File Name	070_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:08
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.655	ug/l	1.61	1,098,538.50	6.135E+00	Pulse	0.50	3
As			1	98.081	ug/l	1.48	145,489.25	8.125E-01	Pulse	1.00	3
Mo			1	97.663	ug/l	0.38	596,817.42	2.243E+00	Pulse	0.50	3
Pb			1	98.085	ug/l	0.23	2,439,541.17	8.760E-01	Pulse	1.00	3
Be			1	96.145	ug/l	0.73	5,343.04	1.898E-02	Pulse	2.00	3
Ag			1	98.682	ug/l	0.15	1,815,864.13	6.825E+00	Pulse	0.50	3
Ba			1	97.891	ug/l	1.15	276,145.49	1.771E-01	Pulse	0.50	3
Tl			1	101.669	ug/l	0.49	3,480,845.67	1.250E+00	Pulse	0.50	3
Sn			1	99.743	ug/l	1.15	645,354.23	4.138E-01	Pulse	0.30	3
Sr			1	99.323	ug/l	1.06	809,792.39	5.193E-01	Pulse	0.50	3
[Pb]			1	97.430	ug/l	0.40	1,154,678.08	4.146E-01	Pulse	0.50	3
Ca			1	9672.857	ug/l	0.26	426,857.20	1.516E+00	Pulse	0.50	3
Ti			1	97.559	ug/l	0.70	30,043.64	1.067E-01	Pulse	0.50	3
Na			1	10466.547	ug/l	0.84	15,576,183.67	5.534E+01	Analog	1.00	3
Mg			1	10345.993	ug/l	0.60	7,892,619.17	2.804E+01	Analog	1.00	3
K			1	10438.324	ug/l	0.87	8,860,468.00	3.148E+01	Analog	1.00	3
V			1	99.428	ug/l	0.43	892,199.48	3.170E+00	Pulse	0.50	3
Mn			1	98.358	ug/l	1.35	652,406.96	3.643E+00	Pulse	0.50	3
Fe			1	10708.964	ug/l	1.00	99,566,333.33	5.560E+02	Analog	0.50	3
Co			1	100.234	ug/l	1.21	1,671,966.45	9.337E+00	Pulse	0.50	3
Ni			1	99.506	ug/l	1.86	439,693.14	2.455E+00	Pulse	0.50	3
Cu			1	99.984	ug/l	1.38	1,169,314.88	6.530E+00	Pulse	0.50	3
Zn			1	98.377	ug/l	0.23	210,735.23	7.920E-01	Pulse	1.00	3
Cd			1	95.773	ug/l	0.39	285,289.80	1.072E+00	Pulse	0.50	3
Al			1	9434.831	ug/l	0.54	3,126,705.75	1.111E+01	Pulse	1.00	3
Se			1	94.613	ug/l	0.99	11,237.96	4.224E-02	Pulse	3.00	3
Sb			1	94.548	ug/l	0.42	865,192.41	3.252E+00	Pulse	1.00	3
Se			1	94.490	ug/l	1.23	5,337.86	2.006E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,784,662.08	1.49	88.3	Pulse	0.50	3
1	Sc		281,482.09	0.55	97.2	Pulse	0.30	3
1	Ge		179,076.17	0.98	97.0	Pulse	0.30	3
1	In		1,559,412.44	0.51	91.6	Pulse	0.30	3
1	Tb		4,226,213.92	1.12	93.5	Pulse	0.50	3
1	Lu		3,131,955.17	0.89	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		266,065.09	1.26	97.6	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		1,071.15	5.67	85.0	Pulse	0.30	3

Quantitation Report

File Name 071_CCB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:11
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.024	ug/l	68.29	752.02	4.160E-03	Pulse	0.50	3
As			1	0.033	ug/l	30.81	104.33	5.766E-04	Pulse	1.00	3
Mo			1	0.101	ug/l	23.48	740.68	2.764E-03	Pulse	0.50	3
Pb			1	0.110	ug/l	14.82	3,666.74	1.298E-03	Pulse	1.00	3
Be			1	0.030	ug/l	44.60	3.17	1.101E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	62.29	618.68	2.321E-03	Pulse	0.50	3
Ba			1	0.015	ug/l	100.97	71.33	4.513E-05	Pulse	0.50	3
Tl			1	0.058	ug/l	18.74	2,450.19	8.678E-04	Pulse	0.50	3
Sn			1	0.102	ug/l	7.11	895.03	5.636E-04	Pulse	0.30	3
Sr			1	0.027	ug/l	60.69	524.01	3.307E-04	Pulse	0.50	3
[Pb]			1	0.105	ug/l	12.09	1,680.09	5.946E-04	Pulse	0.50	3
Ca			1	-0.029	ug/l	-7273.62	468.01	1.631E-03	Pulse	0.50	3
Ti			1	0.022	ug/l	198.66	13.33	4.665E-05	Pulse	0.50	3
Na			1	5.321	ug/l	31.32	19,927.96	6.942E-02	Pulse	1.00	3
Mg			1	2.383	ug/l	60.32	2,463.18	8.597E-03	Pulse	1.00	3
K			1	3.994	ug/l	27.89	62,974.74	2.192E-01	Pulse	1.00	3
V			1	0.021	ug/l	52.66	1,449.39	5.048E-03	Pulse	0.50	3
Mn			1	0.074	ug/l	27.65	728.68	4.030E-03	Pulse	0.50	3
Fe			1	3.158	ug/l	45.58	43,863.91	2.427E-01	Pulse	0.50	3
Co			1	0.023	ug/l	54.70	493.34	2.731E-03	Pulse	0.50	3
Ni			1	0.022	ug/l	55.65	546.01	3.017E-03	Pulse	0.50	3
Cu			1	-0.045	ug/l	-46.93	5,643.51	3.118E-02	Pulse	0.50	3
Zn			1	-0.017	ug/l	-107.28	1,259.04	4.707E-03	Pulse	1.00	3
Cd			1	0.024	ug/l	26.48	86.67	3.246E-04	Pulse	0.50	3
Al			1	2.253	ug/l	65.04	1,018.03	3.554E-03	Pulse	1.00	3
Se			1	0.115	ug/l	28.42	85.22	3.186E-04	Pulse	3.00	3
Sb			1	0.040	ug/l	19.85	502.01	1.879E-03	Pulse	1.00	3
Se			1	0.131	ug/l	111.82	38.89	1.455E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,827,876.75	1.56	89.7	Pulse	0.50	3
1	Sc		287,260.99	0.88	99.2	Pulse	0.30	3

Quantitation Report

1	Ge		181,080.65	1.12	98.1	Pulse	0.30	3
1	In		1,587,414.97	1.12	93.3	Pulse	0.30	3
1	Tb		4,189,982.50	0.97	92.7	Pulse	0.50	3
1	Lu		3,089,184.42	1.47	89.9	Pulse	0.50	3
1	Ge		267,543.83	1.32	98.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,072.26	14.54	85.1	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:15
Sample Name	MP41795-PS1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	634.951	ug/l	1.13	350,638.05	1.937E+00	Pulse	0.50	3
As			1	128.592	ug/l	1.66	9,694.13	5.355E-02	Pulse	1.00	3
Mo			1	21.075	ug/l	1.11	6,532.49	2.465E-02	Pulse	0.50	3
Pb			1	2691.463	ug/l	0.16	3,423,019.00	1.202E+00	Pulse	1.00	3
Be			1	14.980	ug/l	18.56	45.33	1.530E-04	Pulse	2.00	3
Ag			1	47.986	ug/l	0.86	44,168.30	1.667E-01	Pulse	0.50	3
Ba			1	1702.902	ug/l	0.53	242,282.05	1.540E-01	Pulse	0.50	3
Tl			1	11.977	ug/l	0.66	21,408.06	7.516E-03	Pulse	0.50	3
Sn			1	104.478	ug/l	1.77	34,300.83	2.181E-02	Pulse	0.30	3
Sr			1	655.536	ug/l	0.37	269,759.23	1.715E-01	Pulse	0.50	3
[Pb]			1	2699.552	ug/l	0.75	1,635,994.50	5.744E-01	Pulse	0.50	3
Ca			1	95772.353	ug/l	1.16	222,835.52	7.516E-01	Pulse	0.50	3
Ti			1	17362.931	ug/l	0.99	281,569.36	9.496E-01	Pulse	0.50	3
Na			1	7186.836	ug/l	0.91	575,147.33	1.940E+00	Pulse	1.00	3
Mg			1	99125.424	ug/l	0.68	3,983,224.25	1.343E+01	Pulse	1.00	3
K			1	20634.310	ug/l	0.95	977,894.17	3.298E+00	Pulse	1.00	3
V			1	876.134	ug/l	1.27	414,797.20	1.399E+00	Pulse	0.50	3
Mn			1	6176.762	ug/l	0.95	2,070,466.21	1.144E+01	Pulse	0.50	3
Fe			1	390818.500	ug/l	0.69	183,663,498.67	1.015E+03	Analog	0.50	3
Co			1	166.347	ug/l	0.86	140,361.06	7.753E-01	Pulse	0.50	3
Ni			1	653.710	ug/l	1.12	146,315.70	8.082E-01	Pulse	0.50	3
Cu			1	756.926	ug/l	0.85	451,314.82	2.493E+00	Pulse	0.50	3
Zn			1	1920.524	ug/l	0.85	204,903.97	7.732E-01	Pulse	1.00	3
Cd			1	49.155	ug/l	0.23	7,304.80	2.757E-02	Pulse	0.50	3
Al			1	255160.444	ug/l	0.67	4,453,655.17	1.502E+01	Pulse	1.00	3
Se			1	21.459	ug/l	2.73	197.00	7.434E-04	Pulse	3.00	3
Sb			1	17.071	ug/l	1.24	7,913.38	2.986E-02	Pulse	1.00	3
Se			1	41.405	ug/l	8.70	147.00	5.549E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,848,212.58	1.15	90.3	Pulse	0.50	3
1	Sc		296,520.41	1.07	102.4	Pulse	0.30	3
1	Ge		181,031.01	0.11	98.0	Pulse	0.30	3
1	In		1,573,033.06	1.30	92.4	Pulse	0.30	3
1	Tb		4,234,899.42	0.99	93.7	Pulse	0.50	3
1	Lu		3,133,483.33	1.50	91.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,993.31	0.56	97.2	Pulse	0.30	3
1	Te		9.33	86.60		Pulse	0.50	3
1	Li		1,183.37	8.23	93.9	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:19
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6580.187	ug/l	1.60	722,735.79	4.012E+00	Pulse	0.50	3
As			1	4853.602	ug/l	1.44	72,465.68	4.022E-01	Pulse	1.00	3
Mo			1	1319.399	ug/l	1.11	80,545.62	3.034E-01	Pulse	0.50	3
Pb			1	3890.981	ug/l	0.90	992,433.75	3.477E-01	Pulse	1.00	3
Be			1	4062.034	ug/l	1.71	2,278.29	8.023E-03	Pulse	2.00	3
Ag			1	1310.437	ug/l	1.08	240,741.29	9.070E-01	Pulse	0.50	3
Ba			1	9634.608	ug/l	0.51	276,188.23	1.743E-01	Pulse	0.50	3
Tl			1	4666.342	ug/l	1.57	1,637,828.58	5.738E-01	Pulse	0.50	3
Sn			1	2514.411	ug/l	0.19	165,487.11	1.044E-01	Pulse	0.30	3
Sr			1	5892.767	ug/l	0.25	488,321.89	3.082E-01	Pulse	0.50	3
[Pb]			1	3941.247	ug/l	0.55	478,972.84	1.678E-01	Pulse	0.50	3
Ca			1	155660.814	ug/l	1.86	69,684.77	2.454E-01	Pulse	0.50	3
Ti			1	8576.271	ug/l	0.96	26,646.12	9.383E-02	Pulse	0.50	3
Na			1	12908.409	ug/l	0.97	205,390.04	7.233E-01	Pulse	1.00	3
Mg			1	60656.467	ug/l	1.53	467,385.28	1.646E+00	Pulse	1.00	3
K			1	49247.537	ug/l	1.14	477,824.29	1.683E+00	Pulse	1.00	3
V			1	3260.070	ug/l	1.99	295,944.01	1.042E+00	Pulse	0.50	3
Mn			1	12258.638	ug/l	1.62	818,014.46	4.540E+00	Pulse	0.50	3
Fe			1	253804.848	ug/l	0.93	23,753,036.00	1.318E+02	Analog	0.50	3
Co			1	4703.043	ug/l	1.83	789,334.00	4.381E+00	Pulse	0.50	3
Ni			1	3070.043	ug/l	1.39	136,796.19	7.593E-01	Pulse	0.50	3
Cu			1	3566.318	ug/l	2.01	423,587.75	2.351E+00	Pulse	0.50	3
Zn			1	10386.952	ug/l	1.43	221,892.16	8.360E-01	Pulse	1.00	3
Cd			1	2820.734	ug/l	1.91	83,830.59	3.158E-01	Pulse	0.50	3
Al			1	244612.381	ug/l	1.79	817,975.54	2.881E+00	Pulse	1.00	3
Se			1	2601.722	ug/l	1.29	3,134.70	1.181E-02	Pulse	3.00	3
Sb			1	1955.779	ug/l	1.64	178,652.16	6.731E-01	Pulse	1.00	3
Se			1	2636.555	ug/l	0.44	1,508.62	5.683E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,854,052.08	1.21	90.5	Pulse	0.50	3
1	Sc		283,987.76	1.05	98.0	Pulse	0.30	3
1	Ge		180,167.83	0.38	97.6	Pulse	0.30	3
1	In		1,584,632.85	1.44	93.1	Pulse	0.30	3
1	Tb		4,226,513.50	1.06	93.5	Pulse	0.50	3
1	Lu		3,120,903.17	1.15	90.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		265,439.87	0.67	97.4	Pulse	0.30	3
1	Te		3.33	34.64		Pulse	0.50	3
1	Li		1,180.04	4.52	93.7	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:23
Sample Name	FC2193-20
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	675.222	ug/l	1.11	368,259.58	2.060E+00	Pulse	0.50	3
As			1	142.300	ug/l	1.45	10,589.60	5.922E-02	Pulse	1.00	3
Mo			1	19.201	ug/l	2.67	5,934.97	2.250E-02	Pulse	0.50	3
Pb			1	4995.724	ug/l	0.57	6,259,188.83	2.230E+00	Analog	1.00	3
Be			1	3.835	ug/l	14.68	12.67	4.302E-05	Pulse	2.00	3
Ag			1	8.602	ug/l	1.99	8,043.77	3.049E-02	Pulse	0.50	3
Ba			1	1467.163	ug/l	0.36	208,438.90	1.327E-01	Pulse	0.50	3
Tl			1	1.866	ug/l	6.98	3,649.74	1.301E-03	Pulse	0.50	3
Sn			1	57.887	ug/l	1.96	19,078.89	1.215E-02	Pulse	0.30	3
Sr			1	644.573	ug/l	0.23	264,860.34	1.686E-01	Pulse	0.50	3
[Pb]			1	4558.147	ug/l	0.68	2,721,504.50	9.697E-01	Pulse	0.50	3
Ca			1	99373.910	ug/l	1.04	229,623.64	7.798E-01	Pulse	0.50	3
Ti			1	17352.079	ug/l	0.95	279,473.72	9.490E-01	Pulse	0.50	3
Na			1	6068.302	ug/l	0.16	484,225.32	1.644E+00	Pulse	1.00	3
Mg			1	91747.819	ug/l	0.96	3,661,594.17	1.243E+01	Pulse	1.00	3
K			1	18801.417	ug/l	0.69	890,380.65	3.024E+00	Pulse	1.00	3
V			1	857.981	ug/l	0.74	403,462.84	1.370E+00	Pulse	0.50	3
Mn			1	6156.270	ug/l	1.01	2,038,228.63	1.140E+01	Pulse	0.50	3
Fe			1	388658.490	ug/l	0.71	180,404,805.33	1.009E+03	Analog	0.50	3
Co			1	150.833	ug/l	1.82	125,714.27	7.031E-01	Pulse	0.50	3
Ni			1	677.620	ug/l	1.07	149,785.14	8.377E-01	Pulse	0.50	3
Cu			1	1105.426	ug/l	1.84	648,180.69	3.625E+00	Pulse	0.50	3
Zn			1	2199.644	ug/l	0.78	233,420.56	8.849E-01	Pulse	1.00	3
Cd			1	36.899	ug/l	1.47	5,461.49	2.071E-02	Pulse	0.50	3
Al			1	249534.624	ug/l	1.31	4,325,637.17	1.469E+01	Pulse	1.00	3
Se			1	11.904	ug/l	10.65	140.22	5.315E-04	Pulse	3.00	3
Sb			1	18.429	ug/l	1.12	8,493.30	3.220E-02	Pulse	1.00	3
Se			1	30.253	ug/l	7.71	115.33	4.372E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,806,325.58	1.15	89.0	Pulse	0.50	3
1	Sc		294,488.53	0.47	101.7	Pulse	0.30	3
1	Ge		178,809.30	0.39	96.8	Pulse	0.30	3
1	In		1,570,683.76	0.82	92.3	Pulse	0.30	3
1	Tb		4,209,368.33	1.15	93.1	Pulse	0.50	3
1	Lu		3,128,511.42	1.23	91.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		263,777.36	0.53	96.8	Pulse	0.30	3
1	Te		8.00	43.30		Pulse	0.50	3
1	Li		1,167.82	1.90	92.7	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:27
Sample Name FC2193-21
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	687.605	ug/l	1.46	374,715.26	2.097E+00	Pulse	0.50	3
As			1	131.705	ug/l	1.62	9,797.85	5.484E-02	Pulse	1.00	3
Mo			1	8.801	ug/l	6.58	2,758.88	1.056E-02	Pulse	0.50	3
Pb			1	2033.338	ug/l	0.83	2,536,320.33	9.080E-01	Pulse	1.00	3
Be			1	5.049	ug/l	14.17	16.33	5.500E-05	Pulse	2.00	3
Ag			1	2.131	ug/l	3.92	2,122.13	8.121E-03	Pulse	0.50	3
Ba			1	2031.145	ug/l	0.82	285,274.73	1.837E-01	Pulse	0.50	3
Tl			1	1.848	ug/l	2.66	3,603.73	1.290E-03	Pulse	0.50	3
Sn			1	33.859	ug/l	1.97	11,124.53	7.164E-03	Pulse	0.30	3
Sr			1	916.274	ug/l	0.96	372,112.98	2.396E-01	Pulse	0.50	3
[Pb]			1	2027.784	ug/l	1.01	1,205,275.50	4.315E-01	Pulse	0.50	3
Ca			1	135639.304	ug/l	0.36	315,955.16	1.064E+00	Pulse	0.50	3
Ti			1	18785.585	ug/l	0.86	305,179.86	1.027E+00	Pulse	0.50	3
Na			1	7211.298	ug/l	0.27	578,074.92	1.946E+00	Pulse	1.00	3
Mg			1	102566.499	ug/l	0.57	4,128,700.42	1.390E+01	Pulse	1.00	3
K			1	24149.268	ug/l	0.03	1,135,999.29	3.825E+00	Pulse	1.00	3
V			1	961.829	ug/l	0.60	456,049.70	1.535E+00	Pulse	0.50	3
Mn			1	8459.404	ug/l	1.04	2,798,481.50	1.566E+01	Pulse	0.50	3
Fe			1	434785.852	ug/l	0.80	201,657,061.33	1.129E+03	Analog	0.50	3
Co			1	176.039	ug/l	1.01	146,592.28	8.205E-01	Pulse	0.50	3
Ni			1	698.705	ug/l	1.24	154,311.05	8.637E-01	Pulse	0.50	3
Cu			1	1654.637	ug/l	1.42	966,440.71	5.409E+00	Pulse	0.50	3
Zn			1	3005.478	ug/l	1.95	315,502.58	1.207E+00	Pulse	1.00	3
Cd			1	7.228	ug/l	6.87	1,070.70	4.097E-03	Pulse	0.50	3
Al			1	305598.027	ug/l	0.45	5,343,307.83	1.799E+01	Analog	1.00	3
Se			1	12.807	ug/l	12.27	144.11	5.515E-04	Pulse	3.00	3
Sb			1	9.839	ug/l	2.62	4,554.24	1.743E-02	Pulse	1.00	3
Se			1	38.753	ug/l	12.19	137.67	5.269E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,793,052.08	1.37	88.6	Pulse	0.50	3
1	Sc		297,024.51	0.33	102.5	Pulse	0.30	3
1	Ge		178,668.11	0.41	96.7	Pulse	0.30	3
1	In		1,552,852.02	0.98	91.2	Pulse	0.30	3
1	Tb		4,199,607.08	1.53	92.9	Pulse	0.50	3
1	Lu		3,114,379.17	1.40	90.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,335.83	0.34	95.9	Pulse	0.30	3
1	Te		8.00	66.14		Pulse	0.50	3
1	Li		1,084.48	9.51	86.1	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:30
Sample Name FC2193-22
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	673.644	ug/l	1.26	366,749.98	2.055E+00	Pulse	0.50	3
As			1	114.013	ug/l	0.99	8,480.55	4.751E-02	Pulse	1.00	3
Mo			1	8.652	ug/l	3.91	2,726.21	1.039E-02	Pulse	0.50	3
Pb			1	1991.818	ug/l	0.55	2,502,182.50	8.895E-01	Pulse	1.00	3
Be			1	4.773	ug/l	28.74	15.50	5.228E-05	Pulse	2.00	3
Ag			1	1.287	ug/l	0.47	1,364.72	5.200E-03	Pulse	0.50	3
Ba			1	1767.886	ug/l	0.36	249,012.39	1.599E-01	Pulse	0.50	3
Tl			1	1.686	ug/l	5.24	3,347.67	1.190E-03	Pulse	0.50	3
Sn			1	32.383	ug/l	1.70	10,680.93	6.858E-03	Pulse	0.30	3
Sr			1	837.178	ug/l	0.85	340,960.36	2.190E-01	Pulse	0.50	3
[Pb]			1	1982.625	ug/l	0.73	1,186,782.08	4.219E-01	Pulse	0.50	3
Ca			1	125499.110	ug/l	0.70	291,911.28	9.843E-01	Pulse	0.50	3
Ti			1	17753.695	ug/l	0.61	287,962.70	9.710E-01	Pulse	0.50	3
Na			1	6978.659	ug/l	0.76	558,948.73	1.885E+00	Pulse	1.00	3
Mg			1	97675.461	ug/l	0.59	3,925,678.83	1.324E+01	Pulse	1.00	3
K			1	23884.765	ug/l	0.64	1,122,473.21	3.785E+00	Pulse	1.00	3
V			1	895.865	ug/l	0.20	424,194.69	1.430E+00	Pulse	0.50	3
Mn			1	7460.115	ug/l	1.02	2,465,490.08	1.381E+01	Pulse	0.50	3
Fe			1	410481.239	ug/l	0.73	190,195,994.67	1.066E+03	Analog	0.50	3
Co			1	159.119	ug/l	1.12	132,382.16	7.417E-01	Pulse	0.50	3
Ni			1	643.740	ug/l	1.74	142,066.38	7.959E-01	Pulse	0.50	3
Cu			1	1090.126	ug/l	1.64	638,172.19	3.575E+00	Pulse	0.50	3
Zn			1	2339.706	ug/l	1.17	246,925.50	9.409E-01	Pulse	1.00	3
Cd			1	6.418	ug/l	6.90	956.03	3.644E-03	Pulse	0.50	3
Al			1	266514.310	ug/l	4.71	4,652,545.33	1.569E+01	Mix	1.00	3
Se			1	9.170	ug/l	11.95	123.55	4.709E-04	Pulse	3.00	3
Sb			1	9.221	ug/l	3.11	4,294.84	1.637E-02	Pulse	1.00	3
Se			1	28.758	ug/l	10.63	110.56	4.214E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,812,952.00	0.95	89.2	Pulse	0.50	3
1	Sc		296,561.26	0.14	102.4	Pulse	0.30	3
1	Ge		178,492.18	0.25	96.7	Pulse	0.30	3
1	In		1,557,302.26	1.36	91.5	Pulse	0.30	3
1	Tb		4,212,233.58	1.07	93.2	Pulse	0.50	3
1	Lu		3,113,668.75	0.72	90.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,423.83	0.44	96.3	Pulse	0.30	3
1	Te		8.67	96.08		Pulse	0.50	3
1	Li		1,084.48	8.54	86.1	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:34
Sample Name FC2193-23
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	595.128	ug/l	0.54	325,326.38	1.816E+00	Pulse	0.50	3
As			1	104.417	ug/l	0.59	7,801.60	4.354E-02	Pulse	1.00	3
Mo			1	7.483	ug/l	1.83	2,363.49	9.045E-03	Pulse	0.50	3
Pb			1	1763.863	ug/l	0.61	2,206,396.58	7.877E-01	Pulse	1.00	3
Be			1	3.590	ug/l	11.90	12.00	4.060E-05	Pulse	2.00	3
Ag			1	1.276	ug/l	3.13	1,348.72	5.162E-03	Pulse	0.50	3
Ba			1	1788.857	ug/l	1.31	251,933.26	1.618E-01	Pulse	0.50	3
Tl			1	1.635	ug/l	0.20	3,245.66	1.159E-03	Pulse	0.50	3
Sn			1	29.119	ug/l	1.81	9,622.58	6.181E-03	Pulse	0.30	3
Sr			1	878.081	ug/l	0.58	357,563.61	2.296E-01	Pulse	0.50	3
[Pb]			1	1755.370	ug/l	1.25	1,046,242.65	3.735E-01	Pulse	0.50	3
Ca			1	128033.627	ug/l	1.59	296,650.35	1.004E+00	Pulse	0.50	3
Ti			1	17183.857	ug/l	1.53	277,645.21	9.398E-01	Pulse	0.50	3
Na			1	6327.650	ug/l	1.17	505,988.62	1.713E+00	Pulse	1.00	3
Mg			1	95534.355	ug/l	1.36	3,824,780.25	1.295E+01	Pulse	1.00	3
K			1	22608.981	ug/l	0.54	1,061,715.62	3.594E+00	Pulse	1.00	3
V			1	882.346	ug/l	1.18	416,203.72	1.409E+00	Pulse	0.50	3
Mn			1	7583.236	ug/l	0.63	2,515,958.17	1.404E+01	Pulse	0.50	3
Fe			1	398574.668	ug/l	0.65	185,398,042.67	1.035E+03	Analog	0.50	3
Co			1	157.657	ug/l	1.09	131,681.44	7.349E-01	Pulse	0.50	3
Ni			1	610.135	ug/l	1.41	135,202.70	7.545E-01	Pulse	0.50	3
Cu			1	1187.671	ug/l	1.28	697,454.77	3.892E+00	Pulse	0.50	3
Zn			1	2652.869	ug/l	1.35	278,579.80	1.066E+00	Pulse	1.00	3
Cd			1	6.360	ug/l	4.81	943.36	3.611E-03	Pulse	0.50	3
Al			1	257657.027	ug/l	1.43	4,480,726.17	1.517E+01	Pulse	1.00	3
Se			1	10.376	ug/l	7.56	130.00	4.976E-04	Pulse	3.00	3
Sb			1	8.434	ug/l	2.08	3,922.76	1.501E-02	Pulse	1.00	3
Se			1	30.364	ug/l	13.55	114.56	4.383E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,800,872.75	1.64	88.8	Pulse	0.50	3
1	Sc		295,430.33	0.71	102.0	Pulse	0.30	3
1	Ge		179,184.43	0.36	97.0	Pulse	0.30	3
1	In		1,557,018.03	1.02	91.5	Pulse	0.30	3
1	Tb		4,203,068.67	1.27	93.0	Pulse	0.50	3
1	Lu		3,113,080.67	1.75	90.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,276.63	0.86	95.9	Pulse	0.30	3
1	Te		9.33	12.37		Pulse	0.50	3
1	Li		1,100.04	3.64	87.3	Pulse	0.30	3

Quantitation Report

File Name 078SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:38
Sample Name FC2193-24
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	696.026	ug/l	0.54	381,704.30	2.123E+00	Pulse	0.50	3
As			1	147.815	ug/l	0.51	11,059.20	6.151E-02	Pulse	1.00	3
Mo			1	6.811	ug/l	4.08	2,158.80	8.274E-03	Pulse	0.50	3
Pb			1	3725.385	ug/l	0.56	4,647,717.17	1.663E+00	Pulse	1.00	3
Be			1	4.950	ug/l	15.87	16.00	5.402E-05	Pulse	2.00	3
Ag			1	1.492	ug/l	10.29	1,542.74	5.912E-03	Pulse	0.50	3
Ba			1	1786.020	ug/l	0.83	250,609.19	1.615E-01	Pulse	0.50	3
Tl			1	1.631	ug/l	3.12	3,230.98	1.157E-03	Pulse	0.50	3
Sn			1	31.622	ug/l	2.84	10,395.21	6.700E-03	Pulse	0.30	3
Sr			1	738.954	ug/l	1.03	299,865.96	1.933E-01	Pulse	0.50	3
[Pb]			1	3712.827	ug/l	0.18	2,207,027.83	7.899E-01	Pulse	0.50	3
Ca			1	111099.429	ug/l	0.49	258,164.55	8.716E-01	Pulse	0.50	3
Ti			1	18253.904	ug/l	0.94	295,720.79	9.984E-01	Pulse	0.50	3
Na			1	6322.341	ug/l	0.44	506,927.31	1.711E+00	Pulse	1.00	3
Mg			1	98577.369	ug/l	0.65	3,957,170.58	1.336E+01	Pulse	1.00	3
K			1	26606.404	ug/l	0.16	1,241,880.25	4.193E+00	Pulse	1.00	3
V			1	944.122	ug/l	0.43	446,436.96	1.507E+00	Pulse	0.50	3
Mn			1	7017.979	ug/l	0.87	2,336,403.67	1.299E+01	Pulse	0.50	3
Fe			1	415157.292	ug/l	0.92	193,770,602.67	1.078E+03	Analog	0.50	3
Co			1	165.063	ug/l	1.03	138,332.75	7.694E-01	Pulse	0.50	3
Ni			1	635.539	ug/l	1.58	141,293.60	7.858E-01	Pulse	0.50	3
Cu			1	771.342	ug/l	1.07	456,674.17	2.540E+00	Pulse	0.50	3
Zn			1	2561.330	ug/l	0.19	268,709.29	1.030E+00	Pulse	1.00	3
Cd			1	6.887	ug/l	2.85	1,019.36	3.906E-03	Pulse	0.50	3
Al			1	298585.979	ug/l	0.51	5,206,263.33	1.758E+01	Analog	1.00	3
Se			1	11.339	ug/l	14.44	135.44	5.190E-04	Pulse	3.00	3
Sb			1	12.579	ug/l	2.76	5,777.92	2.214E-02	Pulse	1.00	3
Se			1	33.656	ug/l	11.59	123.44	4.731E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,794,024.42	1.24	88.6	Pulse	0.50	3
1	Sc		296,204.22	0.13	102.2	Pulse	0.30	3
1	Ge		179,805.32	0.87	97.4	Pulse	0.30	3
1	In		1,551,372.51	0.75	91.1	Pulse	0.30	3
1	Tb		4,178,561.58	0.88	92.4	Pulse	0.50	3
1	Lu		3,096,598.08	0.54	90.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		260,983.66	1.06	95.8	Pulse	0.30	3
1	Te		7.33	83.32		Pulse	0.50	3
1	Li		1,077.81	5.23	85.5	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:42
Sample Name FC2193-25
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	669.697	ug/l	1.14	360,534.72	2.043E+00	Pulse	0.50	3
As			1	150.414	ug/l	0.87	11,045.86	6.258E-02	Pulse	1.00	3
Mo			1	19.445	ug/l	3.11	5,884.94	2.278E-02	Pulse	0.50	3
Pb			1	118317.529	ug/l	0.64	149,092,325.33	5.282E+01	Analog	1.00	3
Be			1	5.458	ug/l	21.79	17.17	5.903E-05	Pulse	2.00	3
Ag			1	5.524	ug/l	1.57	5,128.05	1.985E-02	Pulse	0.50	3
Ba			1	1996.887	ug/l	0.32	277,097.54	1.806E-01	Pulse	0.50	3
Tl			1	1.872	ug/l	7.77	3,685.75	1.305E-03	Pulse	0.50	3
Sn			1	201.158	ug/l	1.41	64,229.53	4.186E-02	Pulse	0.30	3
Sr			1	1079.244	ug/l	1.01	432,926.06	2.822E-01	Pulse	0.50	3
[Pb]			1	118444.536	ug/l	1.87	71,107,674.67	2.520E+01	Analog	0.50	3
Ca			1	144590.919	ug/l	0.24	330,112.81	1.134E+00	Pulse	0.50	3
Ti			1	19428.564	ug/l	0.55	309,371.01	1.063E+00	Pulse	0.50	3
Na			1	8567.066	ug/l	0.64	670,893.29	2.304E+00	Pulse	1.00	3
Mg			1	123198.417	ug/l	0.54	4,860,856.17	1.670E+01	Analog	1.00	3
K			1	30889.947	ug/l	1.03	1,407,422.83	4.834E+00	Pulse	1.00	3
V			1	1008.583	ug/l	0.40	468,682.48	1.610E+00	Pulse	0.50	3
Mn			1	7885.129	ug/l	1.27	2,576,848.17	1.460E+01	Pulse	0.50	3
Fe			1	481396.831	ug/l	0.69	220,560,261.33	1.250E+03	Analog	0.50	3
Co			1	183.258	ug/l	1.67	150,746.03	8.541E-01	Pulse	0.50	3
Ni			1	699.464	ug/l	0.57	152,603.54	8.646E-01	Pulse	0.50	3
Cu			1	7350.256	ug/l	1.05	4,220,315.58	2.391E+01	Pulse	0.50	3
Zn			1	3793.290	ug/l	0.86	393,296.23	1.522E+00	Pulse	1.00	3
Cd			1	8.972	ug/l	3.44	1,310.72	5.073E-03	Pulse	0.50	3
Al			1	300179.166	ug/l	0.29	5,144,754.17	1.767E+01	Analog	1.00	3
Se			1	14.226	ug/l	13.01	150.56	5.830E-04	Pulse	3.00	3
Sb			1	800.032	ug/l	0.39	355,474.89	1.376E+00	Pulse	1.00	3
Se			1	41.048	ug/l	4.83	142.33	5.511E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,822,851.50	1.62	89.5	Pulse	0.50	3
1	Sc		291,151.57	0.96	100.5	Pulse	0.30	3
1	Ge		176,495.89	0.06	95.6	Pulse	0.30	3
1	In		1,534,201.43	1.72	90.1	Pulse	0.30	3
1	Tb		4,118,083.67	0.45	91.1	Pulse	0.50	3
1	Lu		3,072,103.25	0.97	89.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		258,318.76	0.64	94.8	Pulse	0.30	3
1	Te		31.33	3.69		Pulse	0.50	3
1	Li		1,062.26	7.13	84.3	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:46
Sample Name FC2193-26
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	581.086	ug/l	0.72	316,956.17	1.773E+00	Pulse	0.50	3
As			1	121.382	ug/l	1.44	9,039.47	5.056E-02	Pulse	1.00	3
Mo			1	7.161	ug/l	5.17	2,268.15	8.675E-03	Pulse	0.50	3
Pb			1	60052.527	ug/l	0.46	74,506,960.00	2.681E+01	Analog	1.00	3
Be			1	3.829	ug/l	20.54	12.50	4.296E-05	Pulse	2.00	3
Ag			1	2.527	ug/l	6.83	2,482.17	9.489E-03	Pulse	0.50	3
Ba			1	1813.615	ug/l	0.87	252,445.01	1.640E-01	Pulse	0.50	3
Tl			1	1.884	ug/l	1.01	3,645.74	1.312E-03	Pulse	0.50	3
Sn			1	66.807	ug/l	3.15	21,540.48	1.400E-02	Pulse	0.30	3
Sr			1	1021.272	ug/l	0.14	410,987.41	2.671E-01	Pulse	0.50	3
[Pb]			1	60216.103	ug/l	1.01	35,597,486.67	1.281E+01	Analog	0.50	3
Ca			1	141343.125	ug/l	0.84	322,389.57	1.108E+00	Pulse	0.50	3
Ti			1	17979.540	ug/l	1.94	286,023.51	9.834E-01	Pulse	0.50	3
Na			1	8760.353	ug/l	0.57	685,102.44	2.355E+00	Pulse	1.00	3
Mg			1	104551.541	ug/l	0.54	4,121,240.17	1.417E+01	Pulse	1.00	3
K			1	31200.161	ug/l	0.33	1,419,624.91	4.881E+00	Pulse	1.00	3
V			1	935.188	ug/l	0.68	434,249.25	1.493E+00	Pulse	0.50	3
Mn			1	7263.245	ug/l	0.66	2,404,420.58	1.345E+01	Pulse	0.50	3
Fe			1	424722.457	ug/l	0.51	197,115,850.67	1.103E+03	Analog	0.50	3
Co			1	168.922	ug/l	0.68	140,757.29	7.873E-01	Pulse	0.50	3
Ni			1	580.273	ug/l	0.99	128,316.99	7.177E-01	Pulse	0.50	3
Cu			1	4656.555	ug/l	0.57	2,710,583.92	1.516E+01	Pulse	0.50	3
Zn			1	2990.738	ug/l	0.86	314,165.35	1.201E+00	Pulse	1.00	3
Cd			1	7.279	ug/l	4.77	1,078.70	4.126E-03	Pulse	0.50	3
Al			1	260411.478	ug/l	0.98	4,458,789.00	1.533E+01	Pulse	1.00	3
Se			1	9.639	ug/l	12.31	125.89	4.813E-04	Pulse	3.00	3
Sb			1	116.644	ug/l	1.44	52,579.54	2.011E-01	Pulse	1.00	3
Se			1	34.050	ug/l	4.35	124.78	4.772E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,779,334.33	1.30	88.1	Pulse	0.50	3
1	Sc		290,860.44	0.26	100.4	Pulse	0.30	3
1	Ge		178,783.60	0.90	96.8	Pulse	0.30	3
1	In		1,538,897.23	0.70	90.4	Pulse	0.30	3
1	Tb		4,168,759.83	1.25	92.2	Pulse	0.50	3
1	Lu		3,079,901.75	1.19	89.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,504.19	0.87	96.0	Pulse	0.30	3
1	Te		19.33	51.03		Pulse	0.50	3
1	Li		1,093.37	8.42	86.8	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:49
Sample Name	FC2193-27
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	707.801	ug/l	1.60	383,429.35	2.159E+00	Pulse	0.50	3
As			1	149.958	ug/l	2.36	11,081.88	6.240E-02	Pulse	1.00	3
Mo			1	8.883	ug/l	1.11	2,743.54	1.065E-02	Pulse	0.50	3
Pb			1	64173.497	ug/l	0.39	79,155,114.67	2.865E+01	Analog	1.00	3
Be			1	4.557	ug/l	20.69	14.50	5.014E-05	Pulse	2.00	3
Ag			1	3.132	ug/l	3.83	2,982.25	1.158E-02	Pulse	0.50	3
Ba			1	2072.790	ug/l	0.75	286,101.14	1.875E-01	Pulse	0.50	3
Tl			1	1.881	ug/l	6.00	3,619.73	1.310E-03	Pulse	0.50	3
Sn			1	59.559	ug/l	1.07	19,065.49	1.249E-02	Pulse	0.30	3
Sr			1	1114.062	ug/l	0.37	444,560.28	2.913E-01	Pulse	0.50	3
[Pb]			1	64484.560	ug/l	0.58	37,899,654.67	1.372E+01	Analog	0.50	3
Ca			1	150867.952	ug/l	1.31	342,236.17	1.183E+00	Pulse	0.50	3
Ti			1	20461.297	ug/l	1.49	323,752.08	1.119E+00	Pulse	0.50	3
Na			1	9495.361	ug/l	0.72	737,608.60	2.550E+00	Pulse	1.00	3
Mg			1	127628.943	ug/l	0.86	5,003,833.50	1.730E+01	Analog	1.00	3
K			1	30595.913	ug/l	0.51	1,385,854.09	4.790E+00	Pulse	1.00	3
V			1	1054.213	ug/l	1.83	486,722.44	1.682E+00	Pulse	0.50	3
Mn			1	8239.493	ug/l	1.22	2,709,643.92	1.526E+01	Pulse	0.50	3
Fe			1	479659.122	ug/l	0.85	221,151,866.67	1.245E+03	Analog	0.50	3
Co			1	186.159	ug/l	1.83	154,096.94	8.676E-01	Pulse	0.50	3
Ni			1	704.302	ug/l	1.90	154,626.85	8.706E-01	Pulse	0.50	3
Cu			1	5986.647	ug/l	1.82	3,460,228.75	1.948E+01	Pulse	0.50	3
Zn			1	3623.616	ug/l	0.93	374,570.90	1.455E+00	Pulse	1.00	3
Cd			1	9.301	ug/l	3.54	1,353.39	5.257E-03	Pulse	0.50	3
Al			1	326140.694	ug/l	0.83	5,554,223.33	1.920E+01	Analog	1.00	3
Se			1	14.364	ug/l	4.38	150.89	5.861E-04	Pulse	3.00	3
Sb			1	202.219	ug/l	0.67	89,674.33	3.482E-01	Pulse	1.00	3
Se			1	37.072	ug/l	3.16	131.11	5.091E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,763,043.17	0.65	87.6	Pulse	0.50	3
1	Sc		289,310.21	0.35	99.9	Pulse	0.30	3
1	Ge		177,610.83	0.27	96.2	Pulse	0.30	3
1	In		1,526,019.45	0.84	89.6	Pulse	0.30	3
1	Tb		4,106,440.58	1.22	90.8	Pulse	0.50	3
1	Lu		3,042,970.17	1.59	88.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,514.91	1.47	94.5	Pulse	0.30	3
1	Te		20.67	43.64		Pulse	0.50	3
1	Li		1,124.49	3.28	89.2	Pulse	0.30	3

Quantitation Report

File Name	082CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:53
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.322	ug/l	1.88	528,122.11	2.947E+00	Pulse	0.50	3
As			1	46.713	ug/l	1.34	69,384.39	3.871E-01	Pulse	1.00	3
Mo			1	47.089	ug/l	0.54	285,788.32	1.082E+00	Pulse	0.50	3
Pb			1	47.819	ug/l	0.57	1,185,753.54	4.273E-01	Pulse	1.00	3
Be			1	46.034	ug/l	0.31	2,528.33	9.091E-03	Pulse	2.00	3
Ag			1	48.314	ug/l	0.78	882,855.17	3.342E+00	Pulse	0.50	3
Ba			1	46.448	ug/l	0.54	130,622.29	8.403E-02	Pulse	0.50	3
Tl			1	48.822	ug/l	0.61	1,666,164.58	6.004E-01	Pulse	0.50	3
Sn			1	48.378	ug/l	0.73	312,130.39	2.008E-01	Pulse	0.30	3
Sr			1	47.938	ug/l	0.20	389,733.92	2.507E-01	Pulse	0.50	3
[Pb]			1	47.695	ug/l	0.48	563,529.66	2.031E-01	Pulse	0.50	3
Ca			1	4656.091	ug/l	1.03	203,233.38	7.308E-01	Pulse	0.50	3
Ti			1	47.475	ug/l	1.26	14,447.35	5.195E-02	Pulse	0.50	3
Na			1	5114.055	ug/l	0.80	7,525,097.33	2.706E+01	Analog	1.00	3
Mg			1	4705.593	ug/l	1.81	3,546,781.75	1.275E+01	Pulse	1.00	3
K			1	4729.432	ug/l	1.01	3,997,741.83	1.438E+01	Pulse	1.00	3
V			1	48.058	ug/l	1.55	426,667.32	1.534E+00	Pulse	0.50	3
Mn			1	47.332	ug/l	0.87	314,356.83	1.754E+00	Pulse	0.50	3
Fe			1	5225.027	ug/l	1.31	48,631,081.33	2.713E+02	Analog	0.50	3
Co			1	48.540	ug/l	1.61	810,446.04	4.522E+00	Pulse	0.50	3
Ni			1	48.342	ug/l	1.91	214,031.50	1.194E+00	Pulse	0.50	3
Cu			1	48.391	ug/l	1.76	569,607.50	3.178E+00	Pulse	0.50	3
Zn			1	47.596	ug/l	0.36	101,891.87	3.857E-01	Pulse	1.00	3
Cd			1	46.239	ug/l	1.27	136,771.42	5.177E-01	Pulse	0.50	3
Al			1	4557.185	ug/l	1.76	1,492,178.75	5.366E+00	Pulse	1.00	3
Se			1	45.619	ug/l	0.43	5,417.10	2.051E-02	Pulse	3.00	3
Sb			1	45.463	ug/l	0.96	413,161.33	1.564E+00	Pulse	1.00	3
Se			1	45.049	ug/l	2.93	2,543.39	9.627E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,775,364.67	1.88	88.0	Pulse	0.50	3
1	Sc		278,103.31	0.77	96.0	Pulse	0.30	3
1	Ge		179,235.34	0.41	97.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,554,399.49	1.27	91.3	Pulse	0.30	3
1	Tb		4,195,126.25	1.15	92.8	Pulse	0.50	3
1	Lu		3,105,386.25	1.30	90.3	Pulse	0.50	3
1	Ge		264,172.39	0.75	96.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,063.37	6.88	84.4	Pulse	0.30	3

Quantitation Report

File Name 083_CCV.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:57
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.886	ug/l	0.86	1,073,576.83	6.149E+00	Pulse	0.50	3
As			1	98.240	ug/l	0.75	142,086.32	8.138E-01	Pulse	1.00	3
Mo			1	98.629	ug/l	1.30	582,646.00	2.265E+00	Pulse	0.50	3
Pb			1	98.619	ug/l	0.31	2,379,947.67	8.808E-01	Pulse	1.00	3
Be			1	97.299	ug/l	1.76	5,250.18	1.921E-02	Pulse	2.00	3
Ag			1	99.509	ug/l	1.71	1,770,053.17	6.882E+00	Pulse	0.50	3
Ba			1	97.310	ug/l	0.33	267,178.97	1.760E-01	Pulse	0.50	3
Tl			1	101.272	ug/l	1.00	3,364,584.08	1.245E+00	Pulse	0.50	3
Sn			1	99.905	ug/l	1.09	629,183.05	4.145E-01	Pulse	0.30	3
Sr			1	98.615	ug/l	0.29	782,578.15	5.156E-01	Pulse	0.50	3
[Pb]			1	98.785	ug/l	0.56	1,135,955.54	4.204E-01	Pulse	0.50	3
Ca			1	9653.797	ug/l	0.60	413,644.56	1.513E+00	Pulse	0.50	3
Ti			1	98.291	ug/l	1.29	29,389.99	1.075E-01	Pulse	0.50	3
Na			1	10580.161	ug/l	0.14	15,288,403.67	5.594E+01	Analog	1.00	3
Mg			1	10487.098	ug/l	0.56	7,768,069.33	2.842E+01	Analog	1.00	3
K			1	10552.211	ug/l	0.53	8,696,768.67	3.182E+01	Analog	1.00	3
V			1	99.561	ug/l	1.02	867,458.21	3.174E+00	Pulse	0.50	3
Mn			1	98.663	ug/l	0.36	638,070.10	3.655E+00	Pulse	0.50	3
Fe			1	10851.246	ug/l	0.50	98,366,456.00	5.634E+02	Analog	0.50	3
Co			1	100.282	ug/l	0.23	1,630,930.17	9.341E+00	Pulse	0.50	3
Ni			1	100.099	ug/l	1.01	431,264.43	2.470E+00	Pulse	0.50	3
Cu			1	99.813	ug/l	1.12	1,138,183.38	6.519E+00	Pulse	0.50	3
Zn			1	98.791	ug/l	1.46	204,560.17	7.953E-01	Pulse	1.00	3
Cd			1	95.794	ug/l	1.50	275,832.90	1.072E+00	Pulse	0.50	3
Al			1	9475.530	ug/l	1.28	3,048,984.92	1.116E+01	Pulse	1.00	3
Se			1	94.705	ug/l	0.51	10,874.98	4.228E-02	Pulse	3.00	3
Sb			1	95.333	ug/l	1.64	843,305.71	3.279E+00	Pulse	1.00	3
Se			1	95.737	ug/l	2.14	5,227.94	2.033E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,701,915.08	1.20	85.7	Pulse	0.50	3
1	Sc		273,310.84	0.45	94.3	Pulse	0.30	3
1	Ge		174,589.99	0.49	94.5	Pulse	0.30	3
1	In		1,517,811.50	0.80	89.2	Pulse	0.30	3
1	Tb		4,116,284.25	0.96	91.1	Pulse	0.50	3
1	Lu		3,056,551.67	1.13	88.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,205.49	0.40	94.4	Pulse	0.30	3
1	Te		4.67	107.85		Pulse	0.50	3
1	Li		1,102.26	7.30	87.5	Pulse	0.30	3

Quantitation Report

File Name	084_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.008	ug/l	93.41	564.68	3.197E-03	Pulse	0.50	3
As			1	0.020	ug/l	30.95	83.00	4.695E-04	Pulse	1.00	3
Mo			1	0.080	ug/l	30.62	605.35	2.297E-03	Pulse	0.50	3
Pb			1	0.282	ug/l	7.47	7,755.43	2.834E-03	Pulse	1.00	3
Be			1	0.040	ug/l	171.32	3.67	1.310E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	52.40	302.67	1.153E-03	Pulse	0.50	3
Ba			1	0.006	ug/l	99.08	46.67	3.022E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	15.13	1,700.76	6.217E-04	Pulse	0.50	3
Sn			1	0.079	ug/l	17.58	728.91	4.707E-04	Pulse	0.30	3
Sr			1	0.013	ug/l	83.39	398.67	2.580E-04	Pulse	0.50	3
[Pb]			1	0.278	ug/l	8.51	3,647.07	1.333E-03	Pulse	0.50	3
Ca			1	-1.032	ug/l	-62.31	414.01	1.474E-03	Pulse	0.50	3
Ti			1	0.038	ug/l	17.37	18.00	6.410E-05	Pulse	0.50	3
Na			1	3.750	ug/l	16.01	17,160.34	6.112E-02	Pulse	1.00	3
Mg			1	0.910	ug/l	44.59	1,292.71	4.607E-03	Pulse	1.00	3
K			1	2.214	ug/l	21.19	60,065.38	2.139E-01	Pulse	1.00	3
V			1	0.008	ug/l	45.77	1,300.71	4.632E-03	Pulse	0.50	3
Mn			1	0.063	ug/l	5.93	642.01	3.631E-03	Pulse	0.50	3
Fe			1	1.996	ug/l	23.39	32,222.96	1.824E-01	Pulse	0.50	3
Co			1	0.004	ug/l	65.94	173.33	9.820E-04	Pulse	0.50	3
Ni			1	0.006	ug/l	142.22	462.01	2.613E-03	Pulse	0.50	3
Cu			1	-0.032	ug/l	-56.49	5,666.18	3.205E-02	Pulse	0.50	3
Zn			1	-0.030	ug/l	-94.09	1,209.71	4.603E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	55.71	49.33	1.884E-04	Pulse	0.50	3
Al			1	1.137	ug/l	36.12	628.68	2.240E-03	Pulse	1.00	3
Se			1	0.098	ug/l	53.16	81.67	3.109E-04	Pulse	3.00	3
Sb			1	0.024	ug/l	14.07	347.00	1.321E-03	Pulse	1.00	3
Se			1	0.108	ug/l	62.66	37.00	1.406E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,737,901.67	1.43	86.8	Pulse	0.50	3
1	Sc		280,804.69	0.52	96.9	Pulse	0.30	3

Quantitation Report

1	Ge		176,847.24	1.25	95.8	Pulse	0.30	3
1	In		1,547,321.36	1.06	90.9	Pulse	0.30	3
1	Tb		4,080,908.17	1.28	90.3	Pulse	0.50	3
1	Lu		3,013,569.75	1.16	87.7	Pulse	0.50	3
1	Ge		262,875.26	1.53	96.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,074.48	7.48	85.3	Pulse	0.30	3

Quantitation Report

File Name 085SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:05
Sample Name FC2193-28
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	690.149	ug/l	0.75	374,767.27	2.105E+00	Pulse	0.50	3
As			1	83.704	ug/l	0.48	6,225.02	3.496E-02	Pulse	1.00	3
Mo			1	8.642	ug/l	5.51	2,688.87	1.038E-02	Pulse	0.50	3
Pb			1	553.352	ug/l	0.65	680,854.92	2.473E-01	Pulse	1.00	3
Be			1	5.559	ug/l	22.65	17.50	6.003E-05	Pulse	2.00	3
Ag			1	1.201	ug/l	6.95	1,271.38	4.906E-03	Pulse	0.50	3
Ba			1	1466.247	ug/l	0.89	203,689.06	1.326E-01	Pulse	0.50	3
Tl			1	1.289	ug/l	2.46	2,604.21	9.461E-04	Pulse	0.50	3
Sn			1	32.922	ug/l	2.37	10,703.16	6.970E-03	Pulse	0.30	3
Sr			1	785.613	ug/l	0.87	315,616.49	2.055E-01	Pulse	0.50	3
[Pb]			1	553.256	ug/l	0.83	324,364.19	1.178E-01	Pulse	0.50	3
Ca			1	128559.565	ug/l	0.81	293,563.23	1.008E+00	Pulse	0.50	3
Ti			1	16531.971	ug/l	1.39	263,242.59	9.042E-01	Pulse	0.50	3
Na			1	6604.489	ug/l	0.78	519,972.14	1.786E+00	Pulse	1.00	3
Mg			1	109673.642	ug/l	1.38	4,327,198.67	1.486E+01	Pulse	1.00	3
K			1	20387.663	ug/l	0.79	949,477.79	3.261E+00	Pulse	1.00	3
V			1	839.102	ug/l	2.08	390,113.24	1.340E+00	Pulse	0.50	3
Mn			1	6765.834	ug/l	0.93	2,230,327.42	1.253E+01	Pulse	0.50	3
Fe			1	402874.874	ug/l	0.71	186,195,445.33	1.046E+03	Analog	0.50	3
Co			1	159.731	ug/l	1.45	132,545.26	7.445E-01	Pulse	0.50	3
Ni			1	826.477	ug/l	1.19	181,812.14	1.021E+00	Pulse	0.50	3
Cu			1	559.544	ug/l	1.58	329,677.52	1.852E+00	Pulse	0.50	3
Zn			1	1703.713	ug/l	0.51	177,904.90	6.865E-01	Pulse	1.00	3
Cd			1	7.078	ug/l	8.75	1,040.03	4.013E-03	Pulse	0.50	3
Al			1	236705.769	ug/l	1.80	4,056,614.83	1.393E+01	Pulse	1.00	3
Se			1	11.059	ug/l	12.92	132.89	5.128E-04	Pulse	3.00	3
Sb			1	3.665	ug/l	4.62	1,765.42	6.812E-03	Pulse	1.00	3
Se			1	34.937	ug/l	9.61	126.11	4.866E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,752,548.83	1.10	87.3	Pulse	0.50	3
1	Sc		291,162.24	0.96	100.5	Pulse	0.30	3
1	Ge		178,043.41	1.07	96.4	Pulse	0.30	3
1	In		1,535,919.56	0.95	90.2	Pulse	0.30	3
1	Tb		4,140,111.83	0.55	91.6	Pulse	0.50	3
1	Lu		3,050,004.75	1.02	88.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		259,157.25	0.13	95.1	Pulse	0.30	3
1	Te		11.33	73.47		Pulse	0.50	3
1	Li		1,157.82	8.59	91.9	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:08
Sample Name FC2193-29
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	688.320	ug/l	0.88	369,804.62	2.099E+00	Pulse	0.50	3
As			1	71.758	ug/l	2.23	5,287.40	3.002E-02	Pulse	1.00	3
Mo			1	7.264	ug/l	2.03	2,266.15	8.794E-03	Pulse	0.50	3
Pb			1	453.617	ug/l	0.90	564,485.50	2.028E-01	Pulse	1.00	3
Be			1	4.330	ug/l	27.87	14.00	4.791E-05	Pulse	2.00	3
Ag			1	7.789	ug/l	3.74	7,134.73	2.768E-02	Pulse	0.50	3
Ba			1	1485.707	ug/l	0.14	206,057.40	1.344E-01	Pulse	0.50	3
Tl			1	1.094	ug/l	2.07	2,298.83	8.260E-04	Pulse	0.50	3
Sn			1	32.362	ug/l	1.40	10,508.62	6.853E-03	Pulse	0.30	3
Sr			1	729.508	ug/l	0.38	292,606.86	1.908E-01	Pulse	0.50	3
[Pb]			1	454.190	ug/l	0.62	269,296.43	9.676E-02	Pulse	0.50	3
Ca			1	131973.112	ug/l	0.32	302,416.59	1.035E+00	Pulse	0.50	3
Ti			1	16220.727	ug/l	0.59	259,217.11	8.872E-01	Pulse	0.50	3
Na			1	6445.424	ug/l	0.54	509,547.48	1.744E+00	Pulse	1.00	3
Mg			1	106165.555	ug/l	1.05	4,203,911.17	1.439E+01	Pulse	1.00	3
K			1	17582.431	ug/l	0.34	830,081.58	2.841E+00	Pulse	1.00	3
V			1	798.327	ug/l	0.56	372,571.90	1.275E+00	Pulse	0.50	3
Mn			1	6968.545	ug/l	1.25	2,272,773.42	1.290E+01	Pulse	0.50	3
Fe			1	389126.895	ug/l	0.38	177,928,346.67	1.010E+03	Analog	0.50	3
Co			1	155.676	ug/l	0.46	127,816.67	7.256E-01	Pulse	0.50	3
Ni			1	834.105	ug/l	1.31	181,530.12	1.031E+00	Pulse	0.50	3
Cu			1	601.760	ug/l	1.14	350,339.55	1.989E+00	Pulse	0.50	3
Zn			1	1648.658	ug/l	0.76	171,228.60	6.644E-01	Pulse	1.00	3
Cd			1	7.737	ug/l	4.94	1,129.37	4.382E-03	Pulse	0.50	3
Al			1	229131.249	ug/l	1.28	3,941,097.92	1.349E+01	Pulse	1.00	3
Se			1	11.957	ug/l	17.60	137.22	5.327E-04	Pulse	3.00	3
Sb			1	3.431	ug/l	4.34	1,652.08	6.410E-03	Pulse	1.00	3
Se			1	36.431	ug/l	3.78	129.45	5.024E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,783,120.92	1.69	88.3	Pulse	0.50	3
1	Sc		292,184.71	0.20	100.9	Pulse	0.30	3
1	Ge		176,140.51	0.20	95.4	Pulse	0.30	3
1	In		1,533,369.38	1.49	90.1	Pulse	0.30	3
1	Tb		4,159,411.42	1.30	92.0	Pulse	0.50	3
1	Lu		3,069,310.50	1.25	89.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,692.23	0.60	94.6	Pulse	0.30	3
1	Te		4.00	50.00		Pulse	0.50	3
1	Li		1,034.48	7.64	82.1	Pulse	0.30	3

Quantitation Report

File Name 087_MB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:12
Sample Name MP41796-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.911	ug/l	1.12	5,133.36	3.044E-02	Pulse	0.50	3
As			1	0.174	ug/l	14.69	172.67	1.025E-03	Pulse	1.00	3
Mo			1	0.035	ug/l	19.85	214.00	8.593E-04	Pulse	0.50	3
Pb			1	1.188	ug/l	14.59	14,913.56	5.623E-03	Pulse	1.00	3
Be			1	0.024	ug/l	210.52	2.00	7.514E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	46.19	257.33	1.037E-03	Pulse	0.50	3
Ba			1	0.078	ug/l	53.81	129.33	8.898E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	40.46	630.01	2.376E-04	Pulse	0.50	3
Sn			1	0.441	ug/l	15.15	1,547.86	1.056E-03	Pulse	0.30	3
Sr			1	0.049	ug/l	29.24	466.01	3.190E-04	Pulse	0.50	3
[Pb]			1	1.158	ug/l	15.54	6,928.77	2.613E-03	Pulse	0.50	3
Ca			1	9.408	ug/l	22.71	627.34	2.372E-03	Pulse	0.50	3
Ti			1	1.102	ug/l	20.60	165.33	6.257E-04	Pulse	0.50	3
Na			1	14.710	ug/l	4.79	21,205.85	8.017E-02	Pulse	1.00	3
Mg			1	5.620	ug/l	25.51	2,577.17	9.756E-03	Pulse	1.00	3
K			1	15.391	ug/l	25.62	60,925.01	2.303E-01	Pulse	1.00	3
V			1	1.158	ug/l	2.99	6,038.29	2.282E-02	Pulse	0.50	3
Mn			1	0.400	ug/l	18.79	1,464.06	8.701E-03	Pulse	0.50	3
Fe			1	26.861	ug/l	14.16	130,639.44	7.760E-01	Pulse	0.50	3
Co			1	0.026	ug/l	14.09	304.67	1.809E-03	Pulse	0.50	3
Ni			1	0.126	ug/l	11.73	678.68	4.027E-03	Pulse	0.50	3
Cu			1	12.202	ug/l	1.46	72,615.73	4.305E-01	Pulse	0.50	3
Zn			1	7.902	ug/l	1.89	9,066.47	3.646E-02	Pulse	1.00	3
Cd			1	0.020	ug/l	23.88	41.33	1.659E-04	Pulse	0.50	3
Al			1	11.678	ug/l	24.30	2,053.78	7.776E-03	Pulse	1.00	3
Se			1	0.000	ug/l	-74728.86	66.55	2.674E-04	Pulse	3.00	3
Sb			1	0.015	ug/l	19.67	189.33	7.613E-04	Pulse	1.00	3
Se			1	0.128	ug/l	79.93	32.67	1.314E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,655,856.17	1.53	84.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		264,571.32	1.39	91.3	Pulse	0.30	3
1	Ge		168,652.15	2.19	91.3	Pulse	0.30	3
1	In		1,462,422.82	2.18	85.9	Pulse	0.30	3
1	Tb		3,933,806.17	2.41	87.0	Pulse	0.50	3
1	Lu		2,882,897.92	2.20	83.9	Pulse	0.50	3
1	Ge		248,684.93	2.37	91.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,058.92	12.75	84.0	Pulse	0.30	3

Quantitation Report

File Name 088_BSP.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:16
Sample Name MP41796-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	212.196	ug/l	1.26	1,067,157.92	6.467E+00	Pulse	0.50	3
As			1	209.143	ug/l	1.65	142,947.50	8.662E-01	Pulse	1.00	3
Mo			1	213.711	ug/l	0.10	597,846.13	2.454E+00	Pulse	0.50	3
Pb			1	211.800	ug/l	0.07	2,429,201.42	9.458E-01	Pulse	1.00	3
Be			1	204.229	ug/l	1.72	5,202.00	2.016E-02	Pulse	2.00	3
Ag			1	104.132	ug/l	0.22	877,243.57	3.601E+00	Pulse	0.50	3
Ba			1	205.580	ug/l	0.77	265,796.11	1.859E-01	Pulse	0.50	3
Tl			1	209.769	ug/l	0.31	3,312,189.58	1.290E+00	Pulse	0.50	3
Sn			1	212.119	ug/l	0.59	629,027.53	4.400E-01	Pulse	0.30	3
Sr			1	205.583	ug/l	1.39	768,145.92	5.374E-01	Pulse	0.50	3
[Pb]			1	203.405	ug/l	0.07	1,111,633.92	4.328E-01	Pulse	0.50	3
Ca			1	20588.188	ug/l	1.08	416,410.70	1.614E+00	Pulse	0.50	3
Ti			1	199.675	ug/l	1.18	28,187.54	1.092E-01	Pulse	0.50	3
Na			1	22760.807	ug/l	1.61	15,524,637.33	6.017E+01	Analog	1.00	3
Mg			1	22411.005	ug/l	1.47	7,836,321.50	3.037E+01	Analog	1.00	3
K			1	22363.599	ug/l	1.78	8,696,980.67	3.371E+01	Analog	1.00	3
V			1	209.852	ug/l	0.94	863,080.81	3.345E+00	Pulse	0.50	3
Mn			1	205.933	ug/l	0.92	629,424.81	3.814E+00	Pulse	0.50	3
Fe			1	23433.316	ug/l	1.70	100,388,677.33	6.083E+02	Analog	0.50	3
Co			1	210.436	ug/l	0.88	1,617,508.42	9.801E+00	Pulse	0.50	3
Ni			1	209.776	ug/l	0.82	427,128.01	2.588E+00	Pulse	0.50	3
Cu			1	221.085	ug/l	0.68	1,190,910.92	7.216E+00	Pulse	0.50	3
Zn			1	209.628	ug/l	0.43	205,477.05	8.435E-01	Pulse	1.00	3
Cd			1	201.104	ug/l	0.35	274,227.94	1.126E+00	Pulse	0.50	3
Al			1	19559.801	ug/l	1.04	2,971,185.75	1.151E+01	Pulse	1.00	3
Se			1	191.949	ug/l	1.00	10,436.73	4.285E-02	Pulse	3.00	3
Sb			1	203.489	ug/l	0.19	852,408.10	3.499E+00	Pulse	1.00	3
Se			1	189.863	ug/l	0.71	4,909.97	2.016E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,568,366.33	1.83	81.4	Pulse	0.50	3
1	Sc		258,063.03	1.22	89.1	Pulse	0.30	3
1	Ge		165,044.51	1.37	89.4	Pulse	0.30	3
1	In		1,429,584.60	1.95	84.0	Pulse	0.30	3
1	Tb		3,948,321.75	2.03	87.4	Pulse	0.50	3
1	Lu		2,915,112.67	2.46	84.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,594.17	1.01	89.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		988.92	12.75	78.5	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:20
Sample Name	FC2279-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.634	ug/l	5.36	3,669.02	2.202E-02	Pulse	0.50	3
As			1	0.200	ug/l	22.28	188.67	1.133E-03	Pulse	1.00	3
Mo			1	0.045	ug/l	24.46	239.33	9.660E-04	Pulse	0.50	3
Pb			1	0.574	ug/l	5.16	7,554.67	2.882E-03	Pulse	1.00	3
Be			1	0.031	ug/l	73.45	2.17	8.219E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	36.06	275.33	1.113E-03	Pulse	0.50	3
Ba			1	0.033	ug/l	29.71	71.33	4.904E-05	Pulse	0.50	3
Tl			1	0.083	ug/l	8.89	1,734.09	6.617E-04	Pulse	0.50	3
Sn			1	0.433	ug/l	14.40	1,513.40	1.041E-03	Pulse	0.30	3
Sr			1	0.034	ug/l	55.52	407.34	2.800E-04	Pulse	0.50	3
[Pb]			1	0.552	ug/l	5.98	3,468.36	1.323E-03	Pulse	0.50	3
Ca			1	6.859	ug/l	23.16	573.34	2.173E-03	Pulse	0.50	3
Ti			1	0.175	ug/l	39.20	31.33	1.185E-04	Pulse	0.50	3
Na			1	16.458	ug/l	3.52	22,379.12	8.478E-02	Pulse	1.00	3
Mg			1	1.888	ug/l	4.69	1,240.04	4.698E-03	Pulse	1.00	3
K			1	12.615	ug/l	8.41	59,702.64	2.262E-01	Pulse	1.00	3
V			1	1.062	ug/l	6.24	5,620.16	2.129E-02	Pulse	0.50	3
Mn			1	0.107	ug/l	16.19	546.01	3.279E-03	Pulse	0.50	3
Fe			1	8.504	ug/l	5.25	49,865.02	2.995E-01	Pulse	0.50	3
Co			1	0.023	ug/l	5.16	282.67	1.698E-03	Pulse	0.50	3
Ni			1	0.153	ug/l	10.60	726.02	4.361E-03	Pulse	0.50	3
Cu			1	1.405	ug/l	1.39	13,287.93	7.978E-02	Pulse	0.50	3
Zn			1	5.796	ug/l	1.13	6,938.92	2.803E-02	Pulse	1.00	3
Cd			1	0.024	ug/l	34.30	46.00	1.860E-04	Pulse	0.50	3
Al			1	3.230	ug/l	7.22	739.68	2.803E-03	Pulse	1.00	3
Se			1	0.128	ug/l	24.89	73.22	2.958E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	9.17	289.33	1.169E-03	Pulse	1.00	3
Se			1	0.265	ug/l	24.87	36.11	1.458E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,622,814.17	1.94	83.2	Pulse	0.50	3
1	Sc		263,980.15	1.05	91.1	Pulse	0.30	3
1	Ge		166,570.16	2.01	90.2	Pulse	0.30	3
1	In		1,455,267.41	1.83	85.5	Pulse	0.30	3
1	Tb		3,913,854.92	1.94	86.6	Pulse	0.50	3
1	Lu		2,858,863.33	2.37	83.2	Pulse	0.50	3
1	Ge		247,494.69	1.24	90.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,086.70	5.97	86.2	Pulse	0.30	3

Quantitation Report

File Name 090SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:24
Sample Name MP41796-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.603	ug/l	1.19	3,573.67	2.107E-02	Pulse	0.50	3
As			1	0.175	ug/l	16.56	174.67	1.031E-03	Pulse	1.00	3
Mo			1	0.010	ug/l	97.01	141.33	5.643E-04	Pulse	0.50	3
Pb			1	0.504	ug/l	1.41	6,770.68	2.570E-03	Pulse	1.00	3
Be			1	0.042	ug/l	87.60	2.50	9.336E-06	Pulse	2.00	3
Ag			1	0.004	ug/l	104.19	222.00	8.890E-04	Pulse	0.50	3
Ba			1	0.025	ug/l	17.81	60.67	4.142E-05	Pulse	0.50	3
Tl			1	0.020	ug/l	14.57	725.35	2.752E-04	Pulse	0.50	3
Sn			1	0.351	ug/l	5.85	1,273.38	8.695E-04	Pulse	0.30	3
Sr			1	0.046	ug/l	18.46	454.01	3.101E-04	Pulse	0.50	3
[Pb]			1	0.493	ug/l	2.15	3,154.30	1.198E-03	Pulse	0.50	3
Ca			1	9.722	ug/l	25.72	639.35	2.397E-03	Pulse	0.50	3
Ti			1	0.163	ug/l	46.14	30.00	1.124E-04	Pulse	0.50	3
Na			1	18.527	ug/l	1.19	24,090.74	9.025E-02	Pulse	1.00	3
Mg			1	1.962	ug/l	4.22	1,281.38	4.799E-03	Pulse	1.00	3
K			1	13.397	ug/l	16.64	60,679.23	2.273E-01	Pulse	1.00	3
V			1	1.088	ug/l	4.99	5,792.88	2.170E-02	Pulse	0.50	3
Mn			1	0.572	ug/l	1.14	2,016.78	1.189E-02	Pulse	0.50	3
Fe			1	35.080	ug/l	1.28	167,795.88	9.894E-01	Pulse	0.50	3
Co			1	0.018	ug/l	13.00	243.33	1.434E-03	Pulse	0.50	3
Ni			1	0.176	ug/l	2.68	788.02	4.647E-03	Pulse	0.50	3
Cu			1	1.546	ug/l	1.86	14,303.98	8.434E-02	Pulse	0.50	3
Zn			1	6.552	ug/l	1.87	7,765.91	3.106E-02	Pulse	1.00	3
Cd			1	0.010	ug/l	8.41	27.33	1.093E-04	Pulse	0.50	3
Al			1	3.591	ug/l	1.82	805.02	3.016E-03	Pulse	1.00	3
Se			1	-0.024	ug/l	-481.85	65.56	2.622E-04	Pulse	3.00	3
Sb			1	0.016	ug/l	57.38	198.00	7.902E-04	Pulse	1.00	3
Se			1	0.083	ug/l	154.24	31.67	1.266E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,634,199.58	1.48	83.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		266,942.21	1.45	92.1	Pulse	0.30	3
1	Ge		169,585.78	1.30	91.8	Pulse	0.30	3
1	In		1,463,901.57	1.62	86.0	Pulse	0.30	3
1	Tb		3,942,752.58	2.67	87.2	Pulse	0.50	3
1	Lu		2,885,970.67	2.41	84.0	Pulse	0.50	3
1	Ge		250,064.35	1.73	91.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		930.03	5.90	73.8	Pulse	0.30	3

Quantitation Report

File Name	091SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:27
Sample Name	MP41796-SD1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.603	ug/l	5.87	1,126.70	6.370E-03	Pulse	0.50	3
As			1	0.064	ug/l	76.78	63.67	3.601E-04	Pulse	1.00	3
Mo			1	-0.078	ug/l	-25.21	72.00	2.747E-04	Pulse	0.50	3
Pb			1	1.283	ug/l	2.87	4,019.14	1.465E-03	Pulse	1.00	3
Be			1	0.036	ug/l	285.58	1.67	5.888E-06	Pulse	2.00	3
Ag			1	-0.012	ug/l	-71.08	176.00	6.717E-04	Pulse	0.50	3
Ba			1	0.001	ug/l	3746.06	29.33	1.906E-05	Pulse	0.50	3
Tl			1	-0.039	ug/l	-19.63	290.00	1.058E-04	Pulse	0.50	3
Sn			1	-0.009	ug/l	-329.07	213.33	1.385E-04	Pulse	0.30	3
Sr			1	0.091	ug/l	38.67	366.67	2.378E-04	Pulse	0.50	3
[Pb]			1	1.302	ug/l	4.45	1,928.12	7.029E-04	Pulse	0.50	3
Ca			1	11.926	ug/l	40.88	516.01	1.822E-03	Pulse	0.50	3
Ti			1	0.436	ug/l	51.66	20.00	7.068E-05	Pulse	0.50	3
Na			1	33.791	ug/l	2.42	16,751.65	5.916E-02	Pulse	1.00	3
Mg			1	3.938	ug/l	20.02	908.02	3.207E-03	Pulse	1.00	3
K			1	16.943	ug/l	36.21	60,127.26	2.124E-01	Pulse	1.00	3
V			1	1.121	ug/l	1.29	2,250.81	7.949E-03	Pulse	0.50	3
Mn			1	0.061	ug/l	88.45	270.00	1.528E-03	Pulse	0.50	3
Fe			1	2.845	ug/l	18.65	16,542.39	9.355E-02	Pulse	0.50	3
Co			1	0.010	ug/l	113.11	125.33	7.084E-04	Pulse	0.50	3
Ni			1	0.019	ug/l	650.65	446.01	2.522E-03	Pulse	0.50	3
Cu			1	5.388	ug/l	5.45	12,223.89	6.913E-02	Pulse	0.50	3
Zn			1	6.911	ug/l	1.87	2,719.20	1.038E-02	Pulse	1.00	3
Cd			1	-0.014	ug/l	-154.70	9.33	3.557E-05	Pulse	0.50	3
Al			1	4.580	ug/l	12.25	408.00	1.441E-03	Pulse	1.00	3
Se			1	0.022	ug/l	2370.05	70.33	2.684E-04	Pulse	3.00	3
Sb			1	-0.040	ug/l	-39.41	97.67	3.726E-04	Pulse	1.00	3
Se			1	-0.078	ug/l	-934.72	30.45	1.162E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,743,527.50	1.13	87.0	Pulse	0.50	3
1	Sc		283,151.94	0.42	97.7	Pulse	0.30	3
1	Ge		176,850.46	0.61	95.8	Pulse	0.30	3
1	In		1,541,638.10	1.44	90.6	Pulse	0.30	3
1	Tb		4,077,069.75	1.83	90.2	Pulse	0.50	3
1	Lu		2,986,688.58	1.64	86.9	Pulse	0.50	3
1	Ge		262,065.62	0.31	96.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,163.38	6.95	92.3	Pulse	0.30	3

Quantitation Report

File Name 092SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:31
Sample Name MP41796-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.751	ug/l	1.46	1,006,608.08	6.057E+00	Pulse	0.50	3
As			1	197.691	ug/l	1.27	136,079.10	8.188E-01	Pulse	1.00	3
Mo			1	200.542	ug/l	0.42	561,639.17	2.303E+00	Pulse	0.50	3
Pb			1	197.596	ug/l	0.13	2,286,299.33	8.824E-01	Pulse	1.00	3
Be			1	193.558	ug/l	2.09	4,954.44	1.911E-02	Pulse	2.00	3
Ag			1	97.883	ug/l	0.57	825,528.71	3.385E+00	Pulse	0.50	3
Ba			1	195.119	ug/l	0.27	253,205.35	1.765E-01	Pulse	0.50	3
Tl			1	197.358	ug/l	0.74	3,143,499.50	1.213E+00	Pulse	0.50	3
Sn			1	199.432	ug/l	0.78	593,561.14	4.137E-01	Pulse	0.30	3
Sr			1	194.285	ug/l	0.83	728,641.79	5.079E-01	Pulse	0.50	3
[Pb]			1	189.790	ug/l	0.91	1,046,345.17	4.039E-01	Pulse	0.50	3
Ca			1	19718.438	ug/l	0.99	400,799.33	1.546E+00	Pulse	0.50	3
Ti			1	189.360	ug/l	1.00	26,861.05	1.036E-01	Pulse	0.50	3
Na			1	21835.794	ug/l	1.40	14,967,730.33	5.772E+01	Analog	1.00	3
Mg			1	21434.178	ug/l	0.95	7,531,863.17	2.905E+01	Analog	1.00	3
K			1	21484.641	ug/l	1.94	8,398,509.17	3.239E+01	Analog	1.00	3
V			1	198.671	ug/l	1.01	821,168.83	3.167E+00	Pulse	0.50	3
Mn			1	193.782	ug/l	0.34	596,470.33	3.589E+00	Pulse	0.50	3
Fe			1	22364.505	ug/l	0.82	96,490,677.33	5.806E+02	Analog	0.50	3
Co			1	198.346	ug/l	1.06	1,535,306.79	9.238E+00	Pulse	0.50	3
Ni			1	197.220	ug/l	1.10	404,406.72	2.433E+00	Pulse	0.50	3
Cu			1	198.092	ug/l	1.72	1,075,091.84	6.469E+00	Pulse	0.50	3
Zn			1	197.320	ug/l	0.40	193,699.45	7.943E-01	Pulse	1.00	3
Cd			1	189.351	ug/l	0.26	258,481.10	1.060E+00	Pulse	0.50	3
Al			1	18728.587	ug/l	0.90	2,858,911.83	1.103E+01	Pulse	1.00	3
Se			1	181.897	ug/l	1.12	9,904.34	4.062E-02	Pulse	3.00	3
Sb			1	191.745	ug/l	0.59	804,116.42	3.297E+00	Pulse	1.00	3
Se			1	181.446	ug/l	1.33	4,698.69	1.927E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,590,965.92	1.67	82.2	Pulse	0.50	3
1	Sc		259,322.24	0.80	89.5	Pulse	0.30	3
1	Ge		166,195.26	0.53	90.0	Pulse	0.30	3
1	In		1,434,737.06	1.35	84.3	Pulse	0.30	3
1	Tb		3,974,988.42	1.96	87.9	Pulse	0.50	3
1	Lu		2,928,621.50	1.93	85.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,860.96	0.55	89.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		974.47	1.88	77.3	Pulse	0.30	3

Quantitation Report

File Name 093SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:35
Sample Name MP41796-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	207.077	ug/l	4.33	1,016,497.65	6.311E+00	Pulse	0.50	3
As			1	205.268	ug/l	3.55	136,966.78	8.502E-01	Pulse	1.00	3
Mo			1	207.647	ug/l	4.50	569,489.42	2.385E+00	Pulse	0.50	3
Pb			1	206.414	ug/l	3.13	2,329,975.00	9.218E-01	Pulse	1.00	3
Be			1	203.275	ug/l	2.76	5,049.13	2.007E-02	Pulse	2.00	3
Ag			1	101.120	ug/l	5.29	835,017.71	3.497E+00	Pulse	0.50	3
Ba			1	199.292	ug/l	2.28	254,256.78	1.803E-01	Pulse	0.50	3
Tl			1	205.146	ug/l	3.38	3,187,662.67	1.261E+00	Pulse	0.50	3
Sn			1	205.477	ug/l	1.73	601,353.55	4.263E-01	Pulse	0.30	3
Sr			1	199.302	ug/l	1.54	734,964.96	5.210E-01	Pulse	0.50	3
[Pb]			1	198.226	ug/l	2.99	1,066,195.94	4.218E-01	Pulse	0.50	3
Ca			1	19557.960	ug/l	3.26	385,721.43	1.533E+00	Pulse	0.50	3
Ti			1	193.746	ug/l	1.59	26,674.81	1.060E-01	Pulse	0.50	3
Na			1	21795.702	ug/l	2.80	14,497,315.67	5.762E+01	Analog	1.00	3
Mg			1	21420.252	ug/l	2.27	7,304,419.17	2.903E+01	Analog	1.00	3
K			1	21326.240	ug/l	2.43	8,090,540.83	3.215E+01	Analog	1.00	3
V			1	204.866	ug/l	2.45	821,700.75	3.265E+00	Pulse	0.50	3
Mn			1	201.070	ug/l	3.68	599,909.23	3.724E+00	Pulse	0.50	3
Fe			1	22289.833	ug/l	3.39	93,225,106.67	5.787E+02	Analog	0.50	3
Co			1	205.845	ug/l	3.80	1,544,442.13	9.587E+00	Pulse	0.50	3
Ni			1	204.677	ug/l	3.24	406,861.05	2.525E+00	Pulse	0.50	3
Cu			1	205.922	ug/l	3.81	1,083,155.96	6.724E+00	Pulse	0.50	3
Zn			1	202.707	ug/l	4.04	194,855.80	8.158E-01	Pulse	1.00	3
Cd			1	196.671	ug/l	4.94	262,877.32	1.101E+00	Pulse	0.50	3
Al			1	18659.421	ug/l	2.26	2,764,231.58	1.098E+01	Pulse	1.00	3
Se			1	187.616	ug/l	3.48	10,004.84	4.188E-02	Pulse	3.00	3
Sb			1	198.476	ug/l	4.28	815,141.35	3.413E+00	Pulse	1.00	3
Se			1	188.529	ug/l	4.49	4,779.93	2.002E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,528,811.00	2.68	80.2	Pulse	0.50	3
1	Sc		251,741.43	2.63	86.9	Pulse	0.30	3
1	Ge		161,221.91	3.28	87.3	Pulse	0.30	3
1	In		1,410,948.10	2.06	82.9	Pulse	0.30	3
1	Tb		3,984,685.92	3.34	88.2	Mix	0.50	3
1	Lu		2,873,911.25	2.33	83.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		239,055.80	3.56	87.7	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		994.48	12.07	78.9	Pulse	0.30	3

Quantitation Report

File Name 094SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:39
Sample Name MP41796-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.814	ug/l	1.27	106,369.22	6.367E-01	Pulse	0.50	3
As			1	20.678	ug/l	1.56	14,355.73	8.592E-02	Pulse	1.00	3
Mo			1	19.915	ug/l	0.54	56,608.29	2.291E-01	Pulse	0.50	3
Pb			1	20.131	ug/l	0.31	236,486.78	9.019E-02	Pulse	1.00	3
Be			1	19.980	ug/l	4.11	517.51	1.977E-03	Pulse	2.00	3
Ag			1	4.409	ug/l	0.67	37,855.06	1.532E-01	Pulse	0.50	3
Ba			1	19.446	ug/l	0.90	25,756.31	1.761E-02	Pulse	0.50	3
Tl			1	20.049	ug/l	0.02	323,562.96	1.234E-01	Pulse	0.50	3
Sn			1	18.569	ug/l	1.04	56,544.35	3.865E-02	Pulse	0.30	3
Sr			1	19.372	ug/l	0.36	74,345.28	5.081E-02	Pulse	0.50	3
[Pb]			1	19.413	ug/l	1.12	108,662.18	4.144E-02	Pulse	0.50	3
Ca			1	1935.415	ug/l	0.75	40,102.83	1.532E-01	Pulse	0.50	3
Ti			1	18.624	ug/l	5.17	2,670.86	1.021E-02	Pulse	0.50	3
Na			1	1985.783	ug/l	1.29	1,383,895.92	5.287E+00	Pulse	1.00	3
Mg			1	1928.188	ug/l	1.19	684,474.17	2.615E+00	Pulse	1.00	3
K			1	1915.362	ug/l	1.42	805,252.42	3.076E+00	Pulse	1.00	3
V			1	21.218	ug/l	1.09	89,554.61	3.421E-01	Pulse	0.50	3
Mn			1	19.890	ug/l	1.42	61,746.86	3.695E-01	Pulse	0.50	3
Fe			1	2167.274	ug/l	1.58	9,410,731.00	5.634E+01	Analog	0.50	3
Co			1	20.476	ug/l	0.54	159,434.87	9.542E-01	Pulse	0.50	3
Ni			1	20.613	ug/l	1.21	42,859.89	2.566E-01	Pulse	0.50	3
Cu			1	22.107	ug/l	0.90	125,703.92	7.523E-01	Pulse	0.50	3
Zn			1	26.779	ug/l	1.03	27,668.13	1.120E-01	Pulse	1.00	3
Cd			1	18.956	ug/l	0.67	26,231.89	1.062E-01	Pulse	0.50	3
Al			1	1754.583	ug/l	0.77	270,599.13	1.034E+00	Pulse	1.00	3
Se			1	18.356	ug/l	2.32	1,072.59	4.339E-03	Pulse	3.00	3
Sb			1	18.037	ug/l	0.52	76,752.28	3.106E-01	Pulse	1.00	3
Se			1	19.093	ug/l	1.21	527.12	2.133E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,622,278.75	2.49	83.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		261,804.56	2.05	90.4	Pulse	0.30	3
1	Ge		167,092.00	2.56	90.5	Pulse	0.30	3
1	In		1,463,184.63	2.23	86.0	Pulse	0.30	3
1	Tb		3,979,267.50	2.68	88.0	Pulse	0.50	3
1	Lu		2,910,102.92	2.40	84.7	Pulse	0.50	3
1	Ge		247,099.87	2.65	90.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,094.48	2.73	86.9	Pulse	0.30	3

Quantitation Report

File Name	095CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:42
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.800	ug/l	1.52	530,486.15	2.976E+00	Pulse	0.50	3
As			1	47.130	ug/l	0.99	69,628.57	3.906E-01	Pulse	1.00	3
Mo			1	47.123	ug/l	1.01	285,864.29	1.083E+00	Pulse	0.50	3
Pb			1	47.410	ug/l	0.75	1,166,465.63	4.236E-01	Pulse	1.00	3
Be			1	47.353	ug/l	2.07	2,627.01	9.352E-03	Pulse	2.00	3
Ag			1	48.284	ug/l	1.23	881,851.77	3.340E+00	Pulse	0.50	3
Ba			1	46.366	ug/l	0.53	129,866.09	8.388E-02	Pulse	0.50	3
Tl			1	49.001	ug/l	0.42	1,659,201.50	6.026E-01	Pulse	0.50	3
Sn			1	48.247	ug/l	0.85	310,029.74	2.003E-01	Pulse	0.30	3
Sr			1	47.887	ug/l	0.61	387,759.52	2.505E-01	Pulse	0.50	3
[Pb]			1	47.117	ug/l	0.67	552,378.25	2.006E-01	Pulse	0.50	3
Ca			1	4623.947	ug/l	1.55	203,848.52	7.258E-01	Pulse	0.50	3
Ti			1	47.239	ug/l	0.67	14,520.06	5.169E-02	Pulse	0.50	3
Na			1	5124.786	ug/l	0.72	7,616,499.50	2.712E+01	Analog	1.00	3
Mg			1	4694.888	ug/l	0.97	3,574,340.83	1.273E+01	Pulse	1.00	3
K			1	4687.814	ug/l	0.17	4,002,970.83	1.425E+01	Pulse	1.00	3
V			1	47.705	ug/l	0.81	427,798.30	1.523E+00	Pulse	0.50	3
Mn			1	47.875	ug/l	1.19	316,253.86	1.774E+00	Pulse	0.50	3
Fe			1	5303.442	ug/l	0.92	49,096,401.33	2.754E+02	Analog	0.50	3
Co			1	49.003	ug/l	1.24	813,805.69	4.565E+00	Pulse	0.50	3
Ni			1	48.971	ug/l	0.81	215,654.99	1.210E+00	Pulse	0.50	3
Cu			1	49.059	ug/l	1.30	574,296.35	3.222E+00	Pulse	0.50	3
Zn			1	47.743	ug/l	1.09	102,152.90	3.869E-01	Pulse	1.00	3
Cd			1	46.021	ug/l	1.18	136,052.17	5.153E-01	Pulse	0.50	3
Al			1	4542.742	ug/l	1.16	1,502,406.17	5.349E+00	Pulse	1.00	3
Se			1	45.400	ug/l	0.32	5,389.09	2.041E-02	Pulse	3.00	3
Sb			1	45.347	ug/l	1.02	411,901.53	1.560E+00	Pulse	1.00	3
Se			1	45.336	ug/l	1.49	2,557.95	9.688E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,753,562.17	0.91	87.3	Pulse	0.50	3
1	Sc		280,890.95	0.66	97.0	Pulse	0.30	3
1	Ge		178,276.87	0.70	96.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,548,170.42	0.43	90.9	Pulse	0.30	3
1	Tb		4,188,057.00	1.25	92.7	Pulse	0.50	3
1	Lu		3,083,176.92	1.04	89.7	Pulse	0.50	3
1	Ge		264,063.37	0.93	96.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,095.59	11.25	86.9	Pulse	0.30	3

Quantitation Report

File Name	096_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:46
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.617	ug/l	1.85	1,069,335.75	6.194E+00	Pulse	0.50	3
As			1	98.356	ug/l	1.98	140,671.61	8.148E-01	Pulse	1.00	3
Mo			1	98.182	ug/l	0.89	575,784.96	2.255E+00	Pulse	0.50	3
Pb			1	99.112	ug/l	0.43	2,355,740.08	8.852E-01	Pulse	1.00	3
Be			1	99.624	ug/l	1.07	5,361.38	1.967E-02	Pulse	2.00	3
Ag			1	99.126	ug/l	0.53	1,750,453.54	6.856E+00	Pulse	0.50	3
Ba			1	97.625	ug/l	0.95	264,204.07	1.766E-01	Pulse	0.50	3
Tl			1	101.821	ug/l	0.72	3,331,680.42	1.252E+00	Pulse	0.50	3
Sn			1	100.172	ug/l	1.16	621,825.39	4.156E-01	Pulse	0.30	3
Sr			1	99.495	ug/l	0.74	778,252.37	5.202E-01	Pulse	0.50	3
[Pb]			1	98.993	ug/l	0.21	1,121,107.83	4.213E-01	Pulse	0.50	3
Ca			1	9704.439	ug/l	0.29	414,710.96	1.521E+00	Pulse	0.50	3
Ti			1	97.660	ug/l	1.01	29,126.95	1.068E-01	Pulse	0.50	3
Na			1	10647.579	ug/l	0.42	15,345,065.33	5.629E+01	Analog	1.00	3
Mg			1	10548.814	ug/l	0.18	7,793,188.50	2.859E+01	Analog	1.00	3
K			1	10569.932	ug/l	0.90	8,688,045.67	3.187E+01	Analog	1.00	3
V			1	99.325	ug/l	1.00	863,079.69	3.166E+00	Pulse	0.50	3
Mn			1	98.708	ug/l	1.37	631,282.31	3.656E+00	Pulse	0.50	3
Fe			1	10962.559	ug/l	1.08	98,277,797.33	5.692E+02	Analog	0.50	3
Co			1	100.198	ug/l	1.27	1,611,520.75	9.334E+00	Pulse	0.50	3
Ni			1	100.010	ug/l	1.65	426,090.54	2.468E+00	Pulse	0.50	3
Cu			1	99.758	ug/l	1.34	1,124,938.71	6.515E+00	Pulse	0.50	3
Zn			1	98.828	ug/l	0.64	203,147.00	7.956E-01	Pulse	1.00	3
Cd			1	96.059	ug/l	1.26	274,585.59	1.075E+00	Pulse	0.50	3
Al			1	9494.215	ug/l	0.69	3,046,897.50	1.118E+01	Pulse	1.00	3
Se			1	94.232	ug/l	0.41	10,742.24	4.207E-02	Pulse	3.00	3
Sb			1	94.977	ug/l	1.36	834,046.44	3.267E+00	Pulse	1.00	3
Se			1	94.527	ug/l	0.67	5,124.80	2.007E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,661,140.75	1.20	84.4	Pulse	0.50	3
1	Sc		272,589.80	0.92	94.1	Pulse	0.30	3
1	Ge		172,670.58	0.90	93.5	Pulse	0.30	3
1	In		1,496,098.65	0.78	87.9	Pulse	0.30	3
1	Tb		4,094,692.50	0.72	90.6	Pulse	0.50	3
1	Lu		3,026,845.50	0.69	88.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,327.03	0.34	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,057.81	7.73	84.0	Pulse	0.30	3

Quantitation Report

File Name	097_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:50
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.007	ug/l	55.77	543.34	3.152E-03	Pulse	0.50	3
As			1	0.013	ug/l	70.74	71.33	4.140E-04	Pulse	1.00	3
Mo			1	0.089	ug/l	22.03	642.02	2.504E-03	Pulse	0.50	3
Pb			1	0.085	ug/l	6.68	2,921.26	1.079E-03	Pulse	1.00	3
Be			1	0.044	ug/l	83.04	3.83	1.391E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	38.09	292.00	1.142E-03	Pulse	0.50	3
Ba			1	0.004	ug/l	267.20	38.67	2.574E-05	Pulse	0.50	3
Tl			1	0.043	ug/l	10.29	1,847.44	6.827E-04	Pulse	0.50	3
Sn			1	0.087	ug/l	15.59	760.02	5.029E-04	Pulse	0.30	3
Sr			1	0.010	ug/l	51.31	364.67	2.416E-04	Pulse	0.50	3
[Pb]			1	0.083	ug/l	8.30	1,359.39	5.023E-04	Pulse	0.50	3
Ca			1	-1.109	ug/l	-144.63	402.00	1.462E-03	Pulse	0.50	3
Ti			1	-0.003	ug/l	-415.68	5.33	1.939E-05	Pulse	0.50	3
Na			1	3.883	ug/l	14.49	17,010.54	6.183E-02	Pulse	1.00	3
Mg			1	0.901	ug/l	39.26	1,259.71	4.582E-03	Pulse	1.00	3
K			1	2.241	ug/l	26.25	58,883.18	2.140E-01	Pulse	1.00	3
V			1	0.004	ug/l	216.72	1,241.38	4.512E-03	Pulse	0.50	3
Mn			1	0.075	ug/l	31.96	705.37	4.094E-03	Pulse	0.50	3
Fe			1	1.303	ug/l	31.06	25,244.63	1.464E-01	Pulse	0.50	3
Co			1	0.006	ug/l	92.70	207.33	1.203E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	-1154.33	425.34	2.467E-03	Pulse	0.50	3
Cu			1	-0.056	ug/l	-39.79	5,255.40	3.048E-02	Pulse	0.50	3
Zn			1	-0.026	ug/l	-48.42	1,186.37	4.635E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	45.43	56.00	2.193E-04	Pulse	0.50	3
Al			1	0.743	ug/l	76.46	488.34	1.777E-03	Pulse	1.00	3
Se			1	0.071	ug/l	61.37	76.56	2.989E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	7.79	371.67	1.453E-03	Pulse	1.00	3
Se			1	0.050	ug/l	245.40	32.89	1.285E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,708,007.33	1.43	85.9	Pulse	0.50	3
1	Sc		275,178.56	0.74	95.0	Pulse	0.30	3

Quantitation Report

1	Ge		172,443.25	0.88	93.4	Pulse	0.30	3
1	In		1,510,392.13	1.13	88.7	Pulse	0.30	3
1	Tb		4,016,438.75	1.11	88.9	Pulse	0.50	3
1	Lu		2,965,002.58	1.73	86.3	Pulse	0.50	3
1	Ge		255,960.97	1.31	93.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,134.48	15.04	90.0	Pulse	0.30	3

Quantitation Report

File Name	098SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:54
Sample Name	FC2279-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.676	ug/l	0.81	3,865.06	2.328E-02	Pulse	0.50	3
As			1	0.182	ug/l	2.21	176.00	1.060E-03	Pulse	1.00	3
Mo			1	0.079	ug/l	39.20	332.67	1.357E-03	Pulse	0.50	3
Pb			1	0.338	ug/l	3.72	4,815.02	1.829E-03	Pulse	1.00	3
Be			1	0.064	ug/l	92.74	3.00	1.146E-05	Pulse	2.00	3
Ag			1	0.016	ug/l	22.41	322.00	1.318E-03	Pulse	0.50	3
Ba			1	0.067	ug/l	13.57	114.67	7.957E-05	Pulse	0.50	3
Tl			1	0.056	ug/l	6.51	1,308.72	4.972E-04	Pulse	0.50	3
Sn			1	0.488	ug/l	7.93	1,664.53	1.154E-03	Pulse	0.30	3
Sr			1	0.046	ug/l	24.30	446.01	3.095E-04	Pulse	0.50	3
[Pb]			1	0.348	ug/l	2.96	2,341.50	8.893E-04	Pulse	0.50	3
Ca			1	11.997	ug/l	13.82	676.68	2.575E-03	Pulse	0.50	3
Ti			1	0.332	ug/l	74.52	54.00	2.047E-04	Pulse	0.50	3
Na			1	32.518	ug/l	1.18	33,416.04	1.272E-01	Pulse	1.00	3
Mg			1	2.350	ug/l	12.57	1,398.72	5.325E-03	Pulse	1.00	3
K			1	29.983	ug/l	7.95	66,243.62	2.522E-01	Pulse	1.00	3
V			1	0.992	ug/l	3.36	5,296.73	2.017E-02	Pulse	0.50	3
Mn			1	0.125	ug/l	12.86	599.34	3.612E-03	Pulse	0.50	3
Fe			1	10.449	ug/l	3.24	58,096.41	3.500E-01	Pulse	0.50	3
Co			1	0.025	ug/l	18.45	299.33	1.805E-03	Pulse	0.50	3
Ni			1	0.116	ug/l	6.44	647.34	3.900E-03	Pulse	0.50	3
Cu			1	1.668	ug/l	1.35	14,657.59	8.829E-02	Pulse	0.50	3
Zn			1	7.222	ug/l	0.75	8,251.78	3.374E-02	Pulse	1.00	3
Cd			1	0.036	ug/l	28.07	62.00	2.535E-04	Pulse	0.50	3
Al			1	3.123	ug/l	7.01	719.68	2.740E-03	Pulse	1.00	3
Se			1	0.109	ug/l	72.13	71.33	2.915E-04	Pulse	3.00	3
Sb			1	0.039	ug/l	6.26	287.33	1.175E-03	Pulse	1.00	3
Se			1	0.132	ug/l	157.75	32.22	1.318E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,633,616.08	2.19	83.5	Pulse	0.50	3
1	Sc		262,698.60	0.98	90.7	Pulse	0.30	3
1	Ge		166,037.34	2.20	89.9	Pulse	0.30	3
1	In		1,442,047.48	1.66	84.7	Pulse	0.30	3
1	Tb		3,908,535.08	2.37	86.5	Pulse	0.50	3
1	Lu		2,865,400.67	1.99	83.4	Pulse	0.50	3
1	Ge		244,572.13	1.32	89.7	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,087.81	6.80	86.3	Pulse	0.30	3

Quantitation Report

File Name	099SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:58
Sample Name	FC2331-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	85.497	ug/l	1.12	416,142.71	2.607E+00	Pulse	0.50	3
As			1	8.755	ug/l	1.17	5,834.90	3.656E-02	Pulse	1.00	3
Mo			1	1.893	ug/l	3.33	5,199.40	2.219E-02	Pulse	0.50	3
Pb			1	1.603	ug/l	2.64	17,424.53	7.476E-03	Pulse	1.00	3
Be			1	0.097	ug/l	50.36	3.83	1.472E-05	Pulse	2.00	3
Ag			1	0.068	ug/l	6.76	726.02	3.098E-03	Pulse	0.50	3
Ba			1	106.776	ug/l	0.25	128,658.28	9.658E-02	Pulse	0.50	3
Tl			1	0.085	ug/l	13.82	1,576.08	6.754E-04	Pulse	0.50	3
Sn			1	3.158	ug/l	0.35	8,913.32	6.691E-03	Pulse	0.30	3
Sr			1	55.870	ug/l	0.90	194,724.50	1.462E-01	Pulse	0.50	3
[Pb]			1	1.615	ug/l	3.20	8,355.40	3.584E-03	Pulse	0.50	3
Ca			1	11646.134	ug/l	0.46	237,705.31	9.136E-01	Pulse	0.50	3
Ti			1	537.017	ug/l	0.07	76,426.72	2.937E-01	Pulse	0.50	3
Na			1	676364.546	ug/l	0.70	464,896,586.67	1.787E+03	Analog	1.00	3
Mg			1	4212.944	ug/l	0.22	1,485,905.04	5.711E+00	Pulse	1.00	3
K			1	13021.408	ug/l	0.96	5,128,970.83	1.971E+01	Analog	1.00	3
V			1	450.376	ug/l	0.55	1,866,427.67	7.173E+00	Pulse	0.50	3
Mn			1	140.861	ug/l	0.85	416,494.71	2.609E+00	Pulse	0.50	3
Fe			1	5749.397	ug/l	1.89	23,832,135.33	1.493E+02	Analog	0.50	3
Co			1	2.325	ug/l	0.68	17,385.81	1.089E-01	Pulse	0.50	3
Ni			1	17.432	ug/l	0.81	34,695.01	2.173E-01	Pulse	0.50	3
Cu			1	2.479	ug/l	2.00	18,302.03	1.147E-01	Pulse	0.50	3
Zn			1	16.031	ug/l	0.57	16,165.77	6.898E-02	Pulse	1.00	3
Cd			1	0.015	ug/l	43.76	31.33	1.338E-04	Pulse	0.50	3
Al			1	1656.223	ug/l	0.18	253,899.16	9.758E-01	Pulse	1.00	3
Se			1	1.089	ug/l	11.67	119.33	5.091E-04	Pulse	3.00	3
Sb			1	0.194	ug/l	7.27	902.36	3.852E-03	Pulse	1.00	3
Se			1	4.593	ug/l	4.01	141.22	6.026E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,330,217.58	2.04	73.9	Pulse	0.50	3
1	Sc		260,195.96	0.49	89.8	Pulse	0.30	3
1	Ge		159,637.64	1.59	86.4	Pulse	0.30	3
1	In		1,332,081.40	1.36	78.3	Pulse	0.30	3
1	Tb		3,733,958.25	2.64	82.6	Pulse	0.50	3
1	Lu		2,769,993.08	2.75	80.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		234,344.29	0.91	86.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		998.92	9.91	79.3	Pulse	0.30	3

Quantitation Report

File Name 100SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:01
Sample Name FC2331-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	69.947	ug/l	0.98	335,745.57	2.133E+00	Pulse	0.50	3
As			1	9.222	ug/l	0.80	6,056.96	3.849E-02	Pulse	1.00	3
Mo			1	1.828	ug/l	1.31	5,002.01	2.144E-02	Pulse	0.50	3
Pb			1	0.979	ug/l	1.48	10,949.51	4.688E-03	Pulse	1.00	3
Be			1	0.146	ug/l	26.01	5.00	1.956E-05	Pulse	2.00	3
Ag			1	0.044	ug/l	15.17	527.34	2.261E-03	Pulse	0.50	3
Ba			1	22.325	ug/l	0.79	26,821.82	2.021E-02	Pulse	0.50	3
Tl			1	0.046	ug/l	3.57	1,025.37	4.392E-04	Pulse	0.50	3
Sn			1	2.352	ug/l	2.24	6,661.24	5.020E-03	Pulse	0.30	3
Sr			1	30.802	ug/l	0.28	107,081.06	8.068E-02	Pulse	0.50	3
[Pb]			1	0.974	ug/l	1.60	5,186.80	2.221E-03	Pulse	0.50	3
Ca			1	5190.430	ug/l	1.03	104,546.56	4.081E-01	Pulse	0.50	3
Ti			1	390.020	ug/l	1.27	54,655.15	2.133E-01	Pulse	0.50	3
Na			1	553082.670	ug/l	1.18	374,320,992.00	1.461E+03	Analog	1.00	3
Mg			1	2023.357	ug/l	0.97	702,982.73	2.744E+00	Pulse	1.00	3
K			1	17255.497	ug/l	1.56	6,674,872.00	2.605E+01	Analog	1.00	3
V			1	301.719	ug/l	0.56	1,231,643.08	4.807E+00	Pulse	0.50	3
Mn			1	42.928	ug/l	1.19	125,279.35	7.961E-01	Pulse	0.50	3
Fe			1	5052.907	ug/l	1.26	20,652,450.67	1.312E+02	Analog	0.50	3
Co			1	1.251	ug/l	2.66	9,262.23	5.886E-02	Pulse	0.50	3
Ni			1	9.642	ug/l	1.49	19,091.44	1.213E-01	Pulse	0.50	3
Cu			1	3.780	ug/l	3.24	24,687.77	1.569E-01	Pulse	0.50	3
Zn			1	16.462	ug/l	1.08	16,496.38	7.071E-02	Pulse	1.00	3
Cd			1	0.008	ug/l	63.13	22.67	9.742E-05	Pulse	0.50	3
Al			1	1373.419	ug/l	0.27	207,372.81	8.093E-01	Pulse	1.00	3
Se			1	0.698	ug/l	21.95	98.44	4.223E-04	Pulse	3.00	3
Sb			1	0.089	ug/l	9.03	474.68	2.035E-03	Pulse	1.00	3
Se			1	2.506	ug/l	6.20	89.22	3.823E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,334,932.42	2.28	74.0	Pulse	0.50	3
1	Sc		256,233.56	1.69	88.5	Pulse	0.30	3
1	Ge		157,383.90	1.52	85.2	Pulse	0.30	3
1	In		1,327,247.86	1.85	78.0	Pulse	0.30	3
1	Tb		3,729,704.58	2.79	82.5	Pulse	0.50	3
1	Lu		2,770,565.08	3.00	80.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		233,283.89	1.34	85.6	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,000.03	6.12	79.4	Pulse	0.30	3

Quantitation Report

File Name	101SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:05
Sample Name	FC2331-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1523.420	ug/l	0.48	6,898,440.33	4.641E+01	Analog	0.50	3
As			1	207.582	ug/l	0.83	127,808.07	8.598E-01	Pulse	1.00	3
Mo			1	86.117	ug/l	0.76	216,386.69	9.892E-01	Pulse	0.50	3
Pb			1	11.244	ug/l	1.47	103,526.88	5.051E-02	Pulse	1.00	3
Be			1	0.127	ug/l	61.12	4.67	1.768E-05	Pulse	2.00	3
Ag			1	0.810	ug/l	0.91	6,289.09	2.875E-02	Pulse	0.50	3
Ba			1	26.671	ug/l	0.96	29,822.52	2.414E-02	Pulse	0.50	3
Tl			1	0.645	ug/l	2.87	8,447.45	4.121E-03	Pulse	0.50	3
Sn			1	34.311	ug/l	2.00	88,067.06	7.130E-02	Pulse	0.30	3
Sr			1	38.066	ug/l	1.40	123,118.31	9.966E-02	Pulse	0.50	3
[Pb]			1	11.217	ug/l	1.35	49,206.44	2.401E-02	Pulse	0.50	3
Ca			1	4812.950	ug/l	0.15	99,987.13	3.785E-01	Pulse	0.50	3
Ti			1	4024.136	ug/l	0.82	581,358.08	2.201E+00	Pulse	0.50	3
Na			1	2958152.887	ug/l	1.01	2,064,058,282.67	7.814E+03	Analog	1.00	3
Mg			1	1979.051	ug/l	0.53	708,931.52	2.684E+00	Pulse	1.00	3
K			1	53533.274	ug/l	1.87	21,233,865.33	8.039E+01	Analog	1.00	3
V			1	4965.214	ug/l	0.98	20,877,320.00	7.904E+01	Analog	0.50	3
Mn			1	58.350	ug/l	0.18	160,775.79	1.082E+00	Pulse	0.50	3
Fe			1	22072.905	ug/l	0.32	85,178,562.67	5.730E+02	Analog	0.50	3
Co			1	13.565	ug/l	0.07	94,004.20	6.324E-01	Pulse	0.50	3
Ni			1	310.372	ug/l	0.44	569,046.15	3.828E+00	Pulse	0.50	3
Cu			1	3.488	ug/l	3.28	21,916.43	1.474E-01	Pulse	0.50	3
Zn			1	44.564	ug/l	0.90	40,062.76	1.831E-01	Pulse	1.00	3
Cd			1	0.254	ug/l	12.34	322.67	1.475E-03	Pulse	0.50	3
Al			1	5734.649	ug/l	0.39	891,921.56	3.376E+00	Pulse	1.00	3
Se			1	5.264	ug/l	3.01	313.89	1.435E-03	Pulse	3.00	3
Sb			1	4.740	ug/l	1.58	17,936.07	8.201E-02	Pulse	1.00	3
Se			1	23.256	ug/l	4.02	562.67	2.572E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,049,220.63	1.68	65.0	Pulse	0.50	3
1	Sc		264,167.13	1.47	91.2	Pulse	0.30	3
1	Ge		148,647.14	0.76	80.5	Pulse	0.30	3
1	In		1,235,522.94	1.90	72.6	Pulse	0.30	3
1	Tb		3,436,814.92	1.86	76.0	Pulse	0.50	3
1	Lu		2,585,642.83	2.33	75.2	Pulse	0.50	3
1	Ge		218,749.64	1.70	80.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		26.00	40.70		Pulse	0.50	3
1	Li		883.36	10.92	70.1	Pulse	0.30	3

Quantitation Report

File Name 102SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:09
Sample Name FC2422-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.892	ug/l	2.69	4,571.88	2.986E-02	Pulse	0.50	3
As			1	14.668	ug/l	2.50	9,349.29	6.104E-02	Pulse	1.00	3
Mo			1	0.274	ug/l	8.05	818.02	3.598E-03	Pulse	0.50	3
Pb			1	0.690	ug/l	11.44	8,668.54	3.400E-03	Pulse	1.00	3
Be			1	-0.003	ug/l	-1253.18	1.17	4.918E-06	Pulse	2.00	3
Ag			1	0.017	ug/l	40.13	301.33	1.329E-03	Pulse	0.50	3
Ba			1	21.835	ug/l	0.95	27,044.82	1.977E-02	Pulse	0.50	3
Tl			1	0.010	ug/l	10.92	542.68	2.125E-04	Pulse	0.50	3
Sn			1	0.319	ug/l	5.92	1,098.93	8.033E-04	Pulse	0.30	3
Sr			1	281.324	ug/l	0.28	1,006,142.75	7.353E-01	Pulse	0.50	3
[Pb]			1	0.679	ug/l	10.34	4,065.17	1.594E-03	Pulse	0.50	3
Ca			1	37444.150	ug/l	0.72	691,814.40	2.934E+00	Pulse	0.50	3
Ti			1	0.697	ug/l	12.43	95.33	4.044E-04	Pulse	0.50	3
Na			1	26030.128	ug/l	1.47	16,223,366.00	6.880E+01	Analog	1.00	3
Mg			1	5170.859	ug/l	0.45	1,652,850.92	7.009E+00	Pulse	1.00	3
K			1	7159.854	ug/l	0.84	2,577,945.08	1.093E+01	Pulse	1.00	3
V			1	1.252	ug/l	6.69	5,728.86	2.431E-02	Pulse	0.50	3
Mn			1	1367.176	ug/l	1.26	3,876,644.83	2.531E+01	Pulse	0.50	3
Fe			1	400.848	ug/l	1.00	1,605,631.04	1.048E+01	Pulse	0.50	3
Co			1	14.395	ug/l	1.14	102,774.41	6.710E-01	Pulse	0.50	3
Ni			1	5.681	ug/l	0.51	11,105.87	7.250E-02	Pulse	0.50	3
Cu			1	14.083	ug/l	0.13	75,302.56	4.916E-01	Pulse	0.50	3
Zn			1	11.211	ug/l	2.20	11,292.65	4.970E-02	Pulse	1.00	3
Cd			1	-0.002	ug/l	-233.71	8.67	3.823E-05	Pulse	0.50	3
Al			1	6.311	ug/l	10.50	1,088.03	4.617E-03	Pulse	1.00	3
Se			1	0.014	ug/l	759.18	61.45	2.707E-04	Pulse	3.00	3
Sb			1	0.055	ug/l	10.85	331.67	1.459E-03	Pulse	1.00	3
Se			1	-0.002	ug/l	-9007.54	26.78	1.177E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,553,730.25	2.41	81.0	Pulse	0.50	3
1	Sc		235,838.34	1.74	81.4	Pulse	0.30	3
1	Ge		153,179.43	2.72	82.9	Pulse	0.30	3
1	In		1,368,306.23	1.57	80.4	Pulse	0.30	3
1	Tb		3,827,875.42	2.16	84.7	Pulse	0.50	3
1	Lu		2,837,515.00	1.94	82.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		227,222.95	1.92	83.4	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		986.70	15.06	78.3	Pulse	0.30	3

Quantitation Report

File Name 103SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:13
Sample Name FC2302-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.897	ug/l	5.36	4,749.93	3.001E-02	Pulse	0.50	3
As			1	0.520	ug/l	9.78	389.67	2.461E-03	Pulse	1.00	3
Mo			1	7.774	ug/l	1.64	21,014.44	8.972E-02	Pulse	0.50	3
Pb			1	0.493	ug/l	2.52	6,297.83	2.521E-03	Pulse	1.00	3
Be			1	-0.004	ug/l	-351.21	1.17	4.787E-06	Pulse	2.00	3
Ag			1	0.015	ug/l	10.30	299.33	1.277E-03	Pulse	0.50	3
Ba			1	73.259	ug/l	1.03	91,023.04	6.627E-02	Pulse	0.50	3
Tl			1	0.030	ug/l	2.34	846.02	3.386E-04	Pulse	0.50	3
Sn			1	1.023	ug/l	7.30	3,113.62	2.264E-03	Pulse	0.30	3
Sr			1	557.485	ug/l	0.68	2,001,277.46	1.457E+00	Pulse	0.50	3
[Pb]			1	0.481	ug/l	2.05	2,929.60	1.173E-03	Pulse	0.50	3
Ca			1	77630.657	ug/l	0.82	1,490,201.46	6.080E+00	Pulse	0.50	3
Ti			1	0.658	ug/l	28.67	93.33	3.830E-04	Pulse	0.50	3
Na			1	57854.488	ug/l	1.80	37,458,025.33	1.529E+02	Analog	1.00	3
Mg			1	37939.930	ug/l	1.50	12,598,393.00	5.141E+01	Analog	1.00	3
K			1	3134.513	ug/l	1.49	1,201,369.21	4.902E+00	Pulse	1.00	3
V			1	1.354	ug/l	8.29	6,366.39	2.594E-02	Pulse	0.50	3
Mn			1	438.147	ug/l	0.87	1,283,790.13	8.113E+00	Pulse	0.50	3
Fe			1	681.835	ug/l	1.18	2,813,084.58	1.778E+01	Pulse	0.50	3
Co			1	0.718	ug/l	3.55	5,394.10	3.408E-02	Pulse	0.50	3
Ni			1	6.135	ug/l	0.53	12,356.63	7.810E-02	Pulse	0.50	3
Cu			1	8.056	ug/l	1.36	46,809.16	2.958E-01	Pulse	0.50	3
Zn			1	5.595	ug/l	1.76	6,378.73	2.723E-02	Pulse	1.00	3
Cd			1	0.011	ug/l	48.70	26.00	1.106E-04	Pulse	0.50	3
Al			1	19.615	ug/l	6.21	3,050.62	1.245E-02	Pulse	1.00	3
Se			1	0.168	ug/l	70.92	71.44	3.048E-04	Pulse	3.00	3
Sb			1	0.094	ug/l	10.05	498.68	2.129E-03	Pulse	1.00	3
Se			1	0.430	ug/l	43.57	38.22	1.632E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,498,542.17	2.11	79.2	Pulse	0.50	3
1	Sc		245,128.32	3.19	84.6	Pulse	0.30	3
1	Ge		158,219.85	1.56	85.7	Pulse	0.30	3
1	In		1,373,747.79	2.99	80.7	Pulse	0.30	3
1	Tb		3,859,908.08	2.68	85.4	Pulse	0.50	3
1	Lu		2,850,664.50	2.78	82.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		234,189.90	2.01	85.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		974.48	5.46	77.3	Pulse	0.30	3

Quantitation Report

File Name 104SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:17
Sample Name FC2353-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.014	ug/l	1.71	5,288.07	3.358E-02	Pulse	0.50	3
As			1	0.347	ug/l	11.48	274.67	1.745E-03	Pulse	1.00	3
Mo			1	0.015	ug/l	66.62	145.33	6.219E-04	Pulse	0.50	3
Pb			1	0.688	ug/l	4.31	8,811.61	3.389E-03	Pulse	1.00	3
Be			1	0.023	ug/l	183.57	1.83	7.418E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	29.78	239.33	1.024E-03	Pulse	0.50	3
Ba			1	5.114	ug/l	2.39	6,504.51	4.644E-03	Pulse	0.50	3
Tl			1	-0.007	ug/l	-48.33	294.67	1.133E-04	Pulse	0.50	3
Sn			1	0.227	ug/l	11.90	860.03	6.132E-04	Pulse	0.30	3
Sr			1	2.270	ug/l	0.56	8,574.64	6.121E-03	Pulse	0.50	3
[Pb]			1	0.670	ug/l	1.54	4,091.84	1.573E-03	Pulse	0.50	3
Ca			1	151.148	ug/l	5.15	3,319.63	1.347E-02	Pulse	0.50	3
Ti			1	0.176	ug/l	86.13	29.33	1.193E-04	Pulse	0.50	3
Na			1	698.455	ug/l	1.38	464,823.17	1.886E+00	Pulse	1.00	3
Mg			1	8.469	ug/l	11.24	3,351.96	1.362E-02	Pulse	1.00	3
K			1	34.343	ug/l	11.22	63,745.80	2.587E-01	Pulse	1.00	3
V			1	1.617	ug/l	4.11	7,419.43	3.012E-02	Pulse	0.50	3
Mn			1	0.317	ug/l	5.64	1,130.71	7.180E-03	Pulse	0.50	3
Fe			1	13.415	ug/l	1.77	67,246.88	4.270E-01	Pulse	0.50	3
Co			1	0.028	ug/l	12.83	303.33	1.927E-03	Pulse	0.50	3
Ni			1	0.442	ug/l	11.50	1,248.05	7.928E-03	Pulse	0.50	3
Cu			1	4.479	ug/l	3.39	28,288.69	1.796E-01	Pulse	0.50	3
Zn			1	8.972	ug/l	0.41	9,525.70	4.074E-02	Pulse	1.00	3
Cd			1	-0.004	ug/l	-64.75	7.33	3.136E-05	Pulse	0.50	3
Al			1	5.745	ug/l	5.66	1,056.03	4.284E-03	Pulse	1.00	3
Se			1	0.066	ug/l	267.08	66.00	2.822E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	8.69	231.67	9.912E-04	Pulse	1.00	3
Se			1	-0.021	ug/l	-486.31	27.00	1.156E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,601,196.58	1.72	82.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		246,458.14	1.90	85.1	Pulse	0.30	3
1	Ge		157,505.11	1.18	85.3	Pulse	0.30	3
1	In		1,400,750.39	2.07	82.3	Pulse	0.30	3
1	Tb		3,828,409.75	2.23	84.7	Pulse	0.50	3
1	Lu		2,827,077.58	2.09	82.2	Pulse	0.50	3
1	Ge		233,794.13	1.40	85.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		998.92	3.66	79.3	Pulse	0.30	3

Quantitation Report

File Name 105SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:20
Sample Name FC2355-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.227	ug/l	3.87	6,250.37	4.008E-02	Pulse	0.50	3
As			1	0.178	ug/l	4.66	163.00	1.046E-03	Pulse	1.00	3
Mo			1	0.013	ug/l	97.74	140.00	6.031E-04	Pulse	0.50	3
Pb			1	0.428	ug/l	3.52	5,797.99	2.232E-03	Pulse	1.00	3
Be			1	-0.017	ug/l	-365.22	0.83	3.508E-06	Pulse	2.00	3
Ag			1	0.009	ug/l	33.09	245.33	1.059E-03	Pulse	0.50	3
Ba			1	0.532	ug/l	5.60	691.02	5.000E-04	Pulse	0.50	3
Tl			1	-0.011	ug/l	-2.17	228.00	8.775E-05	Pulse	0.50	3
Sn			1	0.294	ug/l	7.27	1,038.93	7.509E-04	Pulse	0.30	3
Sr			1	0.153	ug/l	8.76	818.02	5.912E-04	Pulse	0.50	3
[Pb]			1	0.419	ug/l	5.64	2,702.23	1.040E-03	Pulse	0.50	3
Ca			1	147.493	ug/l	6.64	3,194.94	1.318E-02	Pulse	0.50	3
Ti			1	0.235	ug/l	9.85	36.67	1.514E-04	Pulse	0.50	3
Na			1	752.323	ug/l	0.62	491,241.02	2.029E+00	Pulse	1.00	3
Mg			1	22.643	ug/l	0.47	7,948.25	3.282E-02	Pulse	1.00	3
K			1	33.135	ug/l	5.97	62,208.29	2.569E-01	Pulse	1.00	3
V			1	1.409	ug/l	3.17	6,491.10	2.681E-02	Pulse	0.50	3
Mn			1	0.215	ug/l	0.58	824.69	5.290E-03	Pulse	0.50	3
Fe			1	12.462	ug/l	0.87	62,705.25	4.023E-01	Pulse	0.50	3
Co			1	0.010	ug/l	14.19	171.33	1.100E-03	Pulse	0.50	3
Ni			1	0.179	ug/l	45.02	731.37	4.681E-03	Pulse	0.50	3
Cu			1	4.582	ug/l	2.76	28,517.67	1.830E-01	Pulse	0.50	3
Zn			1	8.545	ug/l	1.20	9,031.12	3.904E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-67.07	6.00	2.594E-05	Pulse	0.50	3
Al			1	6.894	ug/l	2.96	1,201.04	4.960E-03	Pulse	1.00	3
Se			1	-0.124	ug/l	-135.31	55.55	2.400E-04	Pulse	3.00	3
Sb			1	0.011	ug/l	26.49	162.33	7.013E-04	Pulse	1.00	3
Se			1	-0.035	ug/l	-439.28	26.45	1.141E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,598,571.00	2.37	82.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		242,170.29	1.67	83.6	Pulse	0.30	3
1	Ge		155,877.75	1.84	84.4	Pulse	0.30	3
1	In		1,382,447.79	2.20	81.2	Pulse	0.30	3
1	Tb		3,821,096.00	2.59	84.5	Pulse	0.50	3
1	Lu		2,817,152.00	2.89	82.0	Pulse	0.50	3
1	Ge		231,333.52	2.31	84.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,042.26	2.90	82.7	Pulse	0.30	3

Quantitation Report

File Name 106SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:24
Sample Name FC2366-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.949	ug/l	0.69	4,937.31	3.160E-02	Pulse	0.50	3
As			1	0.185	ug/l	10.56	168.00	1.075E-03	Pulse	1.00	3
Mo			1	0.019	ug/l	24.86	154.67	6.708E-04	Pulse	0.50	3
Pb			1	0.352	ug/l	2.55	4,913.71	1.889E-03	Pulse	1.00	3
Be			1	-0.032	ug/l	-110.85	0.50	2.018E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	73.19	220.00	9.528E-04	Pulse	0.50	3
Ba			1	0.746	ug/l	9.58	954.70	6.935E-04	Pulse	0.50	3
Tl			1	-0.012	ug/l	-13.63	205.33	7.897E-05	Pulse	0.50	3
Sn			1	1.725	ug/l	2.61	5,130.75	3.720E-03	Pulse	0.30	3
Sr			1	0.228	ug/l	2.63	1,084.04	7.865E-04	Pulse	0.50	3
[Pb]			1	0.346	ug/l	0.11	2,299.50	8.839E-04	Pulse	0.50	3
Ca			1	281.907	ug/l	1.42	5,784.21	2.371E-02	Pulse	0.50	3
Ti			1	0.392	ug/l	15.63	58.00	2.376E-04	Pulse	0.50	3
Na			1	1213.830	ug/l	1.35	792,183.19	3.248E+00	Pulse	1.00	3
Mg			1	46.061	ug/l	1.14	15,748.52	6.455E-02	Pulse	1.00	3
K			1	29.856	ug/l	12.26	61,458.96	2.520E-01	Pulse	1.00	3
V			1	1.414	ug/l	0.90	6,559.79	2.689E-02	Pulse	0.50	3
Mn			1	0.264	ug/l	7.46	968.03	6.196E-03	Pulse	0.50	3
Fe			1	9.451	ug/l	2.30	50,645.89	3.241E-01	Pulse	0.50	3
Co			1	0.014	ug/l	10.75	198.67	1.271E-03	Pulse	0.50	3
Ni			1	0.246	ug/l	11.44	860.02	5.506E-03	Pulse	0.50	3
Cu			1	3.436	ug/l	0.93	22,774.76	1.457E-01	Pulse	0.50	3
Zn			1	6.106	ug/l	2.15	6,743.52	2.928E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-57.41	6.00	2.584E-05	Pulse	0.50	3
Al			1	6.456	ug/l	6.62	1,146.37	4.702E-03	Pulse	1.00	3
Se			1	-0.012	ug/l	-745.46	61.00	2.647E-04	Pulse	3.00	3
Sb			1	0.007	ug/l	64.89	145.67	6.312E-04	Pulse	1.00	3
Se			1	-0.130	ug/l	-4.88	24.00	1.042E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,601,437.00	1.46	82.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,961.08	2.13	84.2	Pulse	0.30	3
1	Ge		156,278.47	2.48	84.6	Pulse	0.30	3
1	In		1,378,721.72	2.43	81.0	Pulse	0.30	3
1	Tb		3,820,955.83	2.22	84.5	Pulse	0.50	3
1	Lu		2,814,020.75	2.05	81.9	Pulse	0.50	3
1	Ge		230,394.99	2.20	84.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,097.81	8.60	87.1	Pulse	0.30	3

Quantitation Report

File Name 107SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:28
Sample Name FC2367-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.076	ug/l	3.49	5,595.49	3.546E-02	Pulse	0.50	3
As			1	0.180	ug/l	6.50	166.33	1.054E-03	Pulse	1.00	3
Mo			1	0.012	ug/l	19.52	138.00	5.930E-04	Pulse	0.50	3
Pb			1	0.310	ug/l	5.57	4,420.91	1.703E-03	Pulse	1.00	3
Be			1	-0.039	ug/l	-30.31	0.33	1.341E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	251.89	192.67	8.300E-04	Pulse	0.50	3
Ba			1	1.266	ug/l	3.45	1,626.75	1.164E-03	Pulse	0.50	3
Tl			1	-0.015	ug/l	-3.30	161.33	6.209E-05	Pulse	0.50	3
Sn			1	19.058	ug/l	0.75	55,454.47	3.966E-02	Pulse	0.30	3
Sr			1	0.127	ug/l	10.49	728.68	5.214E-04	Pulse	0.50	3
[Pb]			1	0.283	ug/l	10.28	1,947.45	7.502E-04	Pulse	0.50	3
Ca			1	107.974	ug/l	10.94	2,478.83	1.009E-02	Pulse	0.50	3
Ti			1	0.295	ug/l	28.52	45.33	1.846E-04	Pulse	0.50	3
Na			1	859.290	ug/l	1.81	568,353.60	2.311E+00	Pulse	1.00	3
Mg			1	16.702	ug/l	1.91	6,091.93	2.477E-02	Pulse	1.00	3
K			1	23.695	ug/l	14.61	59,697.64	2.428E-01	Pulse	1.00	3
V			1	1.340	ug/l	1.94	6,325.71	2.571E-02	Pulse	0.50	3
Mn			1	0.267	ug/l	10.25	984.03	6.242E-03	Pulse	0.50	3
Fe			1	12.445	ug/l	1.67	63,396.79	4.018E-01	Pulse	0.50	3
Co			1	0.013	ug/l	18.91	191.33	1.212E-03	Pulse	0.50	3
Ni			1	0.174	ug/l	22.84	729.35	4.620E-03	Pulse	0.50	3
Cu			1	3.672	ug/l	2.16	24,199.15	1.534E-01	Pulse	0.50	3
Zn			1	7.942	ug/l	1.56	8,518.89	3.662E-02	Pulse	1.00	3
Cd			1	-0.006	ug/l	-88.24	4.67	2.001E-05	Pulse	0.50	3
Al			1	5.489	ug/l	7.36	1,016.03	4.133E-03	Pulse	1.00	3
Se			1	-0.047	ug/l	-257.48	59.78	2.571E-04	Pulse	3.00	3
Sb			1	0.008	ug/l	56.49	150.67	6.471E-04	Pulse	1.00	3
Se			1	0.146	ug/l	20.23	31.00	1.333E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,596,961.25	2.13	82.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		245,973.71	2.06	84.9	Pulse	0.30	3
1	Ge		157,762.55	1.52	85.4	Pulse	0.30	3
1	In		1,398,229.88	2.15	82.1	Pulse	0.30	3
1	Tb		3,860,486.33	2.34	85.4	Pulse	0.50	3
1	Lu		2,833,251.25	2.67	82.4	Pulse	0.50	3
1	Ge		232,583.71	1.87	85.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,066.70	3.60	84.7	Pulse	0.30	3

Quantitation Report

File Name	108CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:32
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.038	ug/l	2.16	497,456.06	2.929E+00	Pulse	0.50	3
As			1	46.385	ug/l	1.57	65,282.74	3.844E-01	Pulse	1.00	3
Mo			1	47.339	ug/l	1.13	273,004.57	1.088E+00	Pulse	0.50	3
Pb			1	47.108	ug/l	0.70	1,149,818.21	4.209E-01	Pulse	1.00	3
Be			1	47.835	ug/l	0.49	2,489.99	9.447E-03	Pulse	2.00	3
Ag			1	48.466	ug/l	1.22	841,525.94	3.352E+00	Pulse	0.50	3
Ba			1	46.684	ug/l	0.65	126,654.21	8.446E-02	Pulse	0.50	3
Tl			1	48.506	ug/l	0.97	1,629,335.66	5.965E-01	Pulse	0.50	3
Sn			1	48.070	ug/l	1.00	299,199.92	1.995E-01	Pulse	0.30	3
Sr			1	47.396	ug/l	1.11	371,754.74	2.479E-01	Pulse	0.50	3
[Pb]			1	46.892	ug/l	0.70	545,361.42	1.996E-01	Pulse	0.50	3
Ca			1	4642.422	ug/l	1.19	192,053.98	7.287E-01	Pulse	0.50	3
Ti			1	46.511	ug/l	2.00	13,415.28	5.090E-02	Pulse	0.50	3
Na			1	5143.349	ug/l	0.44	7,173,136.67	2.721E+01	Analog	1.00	3
Mg			1	4704.583	ug/l	1.22	3,360,960.75	1.275E+01	Pulse	1.00	3
K			1	4685.844	ug/l	0.63	3,754,708.33	1.425E+01	Pulse	1.00	3
V			1	47.716	ug/l	1.55	401,521.89	1.523E+00	Pulse	0.50	3
Mn			1	47.343	ug/l	1.85	297,921.02	1.754E+00	Pulse	0.50	3
Fe			1	5249.951	ug/l	1.87	46,299,296.00	2.726E+02	Analog	0.50	3
Co			1	48.292	ug/l	1.98	763,987.77	4.499E+00	Pulse	0.50	3
Ni			1	48.197	ug/l	2.04	202,190.54	1.191E+00	Pulse	0.50	3
Cu			1	47.985	ug/l	2.12	535,217.11	3.152E+00	Pulse	0.50	3
Zn			1	47.498	ug/l	1.48	96,619.98	3.849E-01	Pulse	1.00	3
Cd			1	46.680	ug/l	2.07	131,186.83	5.226E-01	Pulse	0.50	3
Al			1	4593.138	ug/l	1.37	1,425,424.46	5.408E+00	Pulse	1.00	3
Se			1	44.943	ug/l	1.82	5,072.45	2.021E-02	Pulse	3.00	3
Sb			1	46.089	ug/l	1.44	397,969.82	1.585E+00	Pulse	1.00	3
Se			1	45.487	ug/l	2.50	2,439.71	9.720E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,731,651.92	0.73	86.6	Pulse	0.50	3
1	Sc		263,583.82	0.71	91.0	Pulse	0.30	3
1	Ge		169,850.18	1.43	92.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,499,634.87	0.40	88.1	Pulse	0.30	3
1	Tb		4,089,960.67	0.71	90.5	Pulse	0.50	3
1	Lu		3,056,141.00	0.62	88.9	Pulse	0.50	3
1	Ge		251,041.92	0.92	92.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,106.70	2.57	87.8	Pulse	0.30	3

Quantitation Report

File Name	109_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:35
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.199	ug/l	1.18	1,014,411.98	6.046E+00	Pulse	0.50	3
As			1	96.676	ug/l	0.92	134,362.80	8.009E-01	Pulse	1.00	3
Mo			1	98.589	ug/l	0.47	557,993.09	2.264E+00	Pulse	0.50	3
Pb			1	98.251	ug/l	0.72	2,328,550.42	8.775E-01	Pulse	1.00	3
Be			1	97.421	ug/l	2.18	5,061.96	1.923E-02	Pulse	2.00	3
Ag			1	99.242	ug/l	0.80	1,691,317.71	6.864E+00	Pulse	0.50	3
Ba			1	96.933	ug/l	0.85	258,279.22	1.753E-01	Pulse	0.50	3
Tl			1	100.622	ug/l	0.37	3,282,843.58	1.237E+00	Pulse	0.50	3
Sn			1	99.012	ug/l	1.03	605,108.00	4.108E-01	Pulse	0.30	3
Sr			1	98.454	ug/l	1.23	758,198.06	5.147E-01	Pulse	0.50	3
[Pb]			1	98.189	ug/l	1.09	1,108,838.21	4.179E-01	Pulse	0.50	3
Ca			1	9578.322	ug/l	1.06	395,218.32	1.502E+00	Pulse	0.50	3
Ti			1	96.926	ug/l	1.47	27,909.84	1.060E-01	Pulse	0.50	3
Na			1	10511.829	ug/l	1.05	14,627,225.00	5.558E+01	Analog	1.00	3
Mg			1	10404.491	ug/l	1.06	7,421,582.83	2.820E+01	Analog	1.00	3
K			1	10395.418	ug/l	0.95	8,251,036.67	3.135E+01	Analog	1.00	3
V			1	98.327	ug/l	1.01	825,001.92	3.135E+00	Pulse	0.50	3
Mn			1	97.806	ug/l	0.90	607,827.86	3.623E+00	Pulse	0.50	3
Fe			1	10791.422	ug/l	0.53	94,005,208.00	5.603E+02	Analog	0.50	3
Co			1	98.275	ug/l	0.93	1,535,884.25	9.155E+00	Pulse	0.50	3
Ni			1	98.035	ug/l	1.61	405,882.34	2.419E+00	Pulse	0.50	3
Cu			1	97.563	ug/l	0.68	1,069,190.88	6.373E+00	Pulse	0.50	3
Zn			1	98.038	ug/l	0.98	194,501.34	7.893E-01	Pulse	1.00	3
Cd			1	96.594	ug/l	1.39	266,491.36	1.081E+00	Pulse	0.50	3
Al			1	9442.317	ug/l	1.41	2,925,848.83	1.112E+01	Pulse	1.00	3
Se			1	94.214	ug/l	1.08	10,365.59	4.206E-02	Pulse	3.00	3
Sb			1	95.803	ug/l	0.67	811,937.31	3.295E+00	Pulse	1.00	3
Se			1	94.378	ug/l	0.69	4,938.08	2.004E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,653,538.42	1.86	84.1	Pulse	0.50	3
1	Sc		263,202.59	0.75	90.9	Pulse	0.30	3
1	Ge		167,772.01	0.39	90.8	Pulse	0.30	3
1	In		1,472,951.12	1.10	86.5	Pulse	0.30	3
1	Tb		4,040,496.50	0.50	89.4	Pulse	0.50	3
1	Lu		3,010,030.25	0.84	87.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		246,410.67	0.90	90.4	Pulse	0.30	3
1	Te		2.67	43.30		Pulse	0.50	3
1	Li		1,034.48	8.86	82.1	Pulse	0.30	3

Quantitation Report

File Name 110_CCB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:39
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	123.72	457.34	2.821E-03	Pulse	0.50	3
As			1	0.010	ug/l	144.67	63.33	3.898E-04	Pulse	1.00	3
Mo			1	0.091	ug/l	24.25	606.68	2.536E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	14.00	2,217.48	8.384E-04	Pulse	1.00	3
Be			1	0.010	ug/l	372.83	1.83	7.152E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	36.62	316.00	1.322E-03	Pulse	0.50	3
Ba			1	0.004	ug/l	141.76	38.67	2.682E-05	Pulse	0.50	3
Tl			1	0.034	ug/l	11.35	1,520.74	5.750E-04	Pulse	0.50	3
Sn			1	0.082	ug/l	25.39	698.91	4.840E-04	Pulse	0.30	3
Sr			1	0.008	ug/l	63.29	334.00	2.315E-04	Pulse	0.50	3
[Pb]			1	0.060	ug/l	8.32	1,072.04	4.051E-04	Pulse	0.50	3
Ca			1	-2.450	ug/l	-30.15	320.67	1.252E-03	Pulse	0.50	3
Ti			1	0.005	ug/l	212.96	7.33	2.864E-05	Pulse	0.50	3
Na			1	27.730	ug/l	2.37	48,109.04	1.878E-01	Pulse	1.00	3
Mg			1	0.912	ug/l	48.40	1,181.04	4.613E-03	Pulse	1.00	3
K			1	1.939	ug/l	29.81	54,583.60	2.131E-01	Pulse	1.00	3
V			1	0.000	ug/l	4677.74	1,124.04	4.388E-03	Pulse	0.50	3
Mn			1	0.045	ug/l	8.12	481.34	2.968E-03	Pulse	0.50	3
Fe			1	1.246	ug/l	38.36	23,236.88	1.435E-01	Pulse	0.50	3
Co			1	0.004	ug/l	130.03	156.67	9.684E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	237888.78	401.34	2.476E-03	Pulse	0.50	3
Cu			1	-0.022	ug/l	-76.80	5,296.74	3.266E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-159.47	1,123.37	4.698E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	110.87	41.33	1.730E-04	Pulse	0.50	3
Al			1	0.830	ug/l	60.15	481.01	1.879E-03	Pulse	1.00	3
Se			1	0.068	ug/l	123.68	71.22	2.977E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	4.53	348.17	1.456E-03	Pulse	1.00	3
Se			1	0.010	ug/l	494.99	28.67	1.199E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,646,505.17	1.15	83.9	Pulse	0.50	3

Quantitation Report

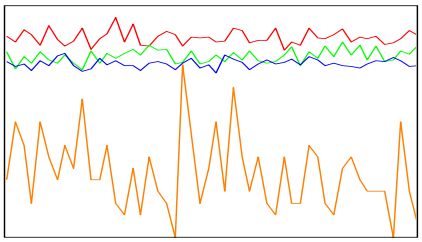
Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		256,160.34	0.33	88.4	Pulse	0.30	3
1	Ge		162,170.88	1.27	87.8	Pulse	0.30	3
1	In		1,442,938.93	1.05	84.8	Pulse	0.30	3
1	Tb		3,904,702.08	0.49	86.4	Pulse	0.50	3
1	Lu		2,890,875.33	0.61	84.1	Pulse	0.50	3
1	Ge		239,155.79	0.39	87.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,217.82	6.58	96.6	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Tune Report

Batch Folder	D:\2023\xa020723m1.b
Acq. Date-Time	2/7/2023 10:46
Report Comment	020723
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1735	17353.52	5000.00	
89	2000	1575	15745.13	5000.00	
205	5000	3771	37714.79	5000.00	
78	20	6			

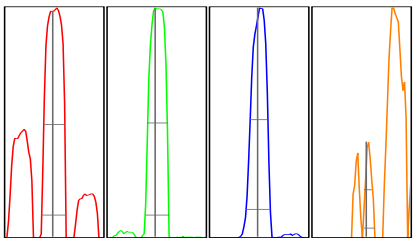
Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.45	5.00	
89	3.72	5.00	
205	2.52	5.00	
78	58.17		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.00	2	
89	0.20	2	
205	0.10	2	
78	0.00	5	

Ratio	156/140	0.465 %
Ratio	70/140	3.484 %

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1702.57	59.00	58.9 - 59.1		0.63	0.727	0.900	
89	1606.24	89.00	88.9 - 89.1		0.58	0.709	0.900	

Tune Report

205	3852.47	205.00	204.9 - 205.1	0.52	0.727	0.900
78	8.75	78.15	-	0.23	0.329	

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

Plasma Mode General Purpose

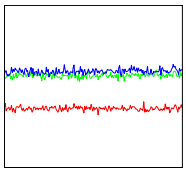
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-38 V
Extract 2	-160.0 V	Cell Exit	-70 V
Omega Bias	-95 V	Deflect	2.6 V
Omega Lens	10.4 V	Plate Bias	-60 V

Cell Parameters

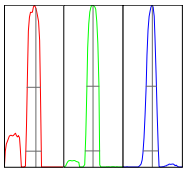
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



Sensitivity			
Mass	7	89	205
Range	5000	1.0E4	1.0E4
Count	1815.58	5668.45	5925.50
RSD%	3.4	2.5	2.6
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.14%	
Doubly Charged	70/140	5.64%	

Background			
Mass	7	89	205
Count	0.10	0.40	2.70



Resolution/Axis			
Mass	7	89	205
Height	1820	5704	5895
Axis	7.10	89.00	205.00
W-50%	0.66	0.60	0.51
W-10%	0.77	0.72	0.75
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

Quantitation Report

File Name 001CALB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 11:43
Sample Name Blank
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	170.95	514.68	2.841E-03	Pulse	0.50	3
As			1	0.001	ug/l	279.91	57.00	3.146E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	64.29	204.67	7.642E-04	Pulse	0.50	3
Pb			1	0.002	ug/l	93.90	1,056.37	3.407E-04	Pulse	1.00	3
Be			1	-0.011	ug/l	-44.91	0.83	2.921E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	45.52	228.67	8.542E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	115.49	42.00	2.515E-05	Pulse	0.50	3
Tl			1	0.011	ug/l	7.80	881.36	2.840E-04	Pulse	0.50	3
Sn			1	0.010	ug/l	102.50	303.34	1.816E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	169.42	349.34	2.096E-04	Pulse	0.50	3
[Pb]			1	0.003	ug/l	100.74	494.68	1.595E-04	Pulse	0.50	3
Ca			1	-1.115	ug/l	-115.77	416.67	1.461E-03	Pulse	0.50	3
Ti			1	-0.008	ug/l	-207.22	4.00	1.405E-05	Pulse	0.50	3
Na			1	0.717	ug/l	25.75	12,862.79	4.510E-02	Pulse	1.00	3
Mg			1	0.041	ug/l	101.00	641.68	2.250E-03	Pulse	1.00	3
K			1	0.214	ug/l	58.88	59,298.07	2.079E-01	Pulse	1.00	3
V			1	0.002	ug/l	676.54	1,266.71	4.442E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	165.51	238.00	1.313E-03	Pulse	0.50	3
Fe			1	0.035	ug/l	110.79	14,599.51	8.057E-02	Pulse	0.50	3
Co			1	0.002	ug/l	61.50	144.00	7.944E-04	Pulse	0.50	3
Ni			1	0.013	ug/l	88.82	508.68	2.808E-03	Pulse	0.50	3
Cu			1	0.034	ug/l	8.82	6,588.47	3.636E-02	Pulse	0.50	3
Zn			1	0.033	ug/l	83.61	1,367.38	5.108E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	73.22	27.33	1.023E-04	Pulse	0.50	3
Al			1	-0.053	ug/l	-189.36	239.33	8.391E-04	Pulse	1.00	3
Se			1	0.033	ug/l	336.57	75.44	2.821E-04	Pulse	3.00	3
Sb			1	0.003	ug/l	138.02	162.00	6.048E-04	Pulse	1.00	3
Se			1	-0.035	ug/l	-162.59	29.55	1.104E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,102,385.42	1.78	100.0	Pulse	0.50	3
1	Sc		285,198.29	0.31	100.0	Pulse	0.30	3

1	Ge		181,205.16	0.53	100.0	Pulse	0.30	3
1	In		1,668,425.00	1.35	100.0	Pulse	0.30	3
1	Tb		4,469,609.83	1.91	100.0	Pulse	0.50	3
1	Lu		3,381,887.08	1.45	100.0	Pulse	0.50	3
1	Ge		267,620.62	0.89	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,266.72	8.84	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:47
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-94.18	457.34	2.507E-03	Pulse	0.50	3
As			1	0.002	ug/l	521.85	59.67	3.273E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	91.87	166.00	6.135E-04	Pulse	0.50	3
Pb			1	0.001	ug/l	190.91	1,035.70	3.285E-04	Pulse	1.00	3
Be			1	0.021	ug/l	149.69	2.67	9.225E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	77.87	221.33	8.189E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	108.92	41.33	2.448E-05	Pulse	0.50	3
Tl			1	0.002	ug/l	61.24	559.34	1.774E-04	Pulse	0.50	3
Sn			1	0.002	ug/l	218.12	252.22	1.493E-04	Pulse	0.30	3
Sr			1	0.001	ug/l	559.31	330.00	1.953E-04	Pulse	0.50	3
[Pb]			1	0.002	ug/l	124.89	492.68	1.563E-04	Pulse	0.50	3
Ca			1	-0.711	ug/l	-50.72	440.68	1.524E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	70042.88	6.67	2.305E-05	Pulse	0.50	3
Na			1	0.262	ug/l	40.27	12,342.14	4.269E-02	Pulse	1.00	3
Mg			1	-0.021	ug/l	-203.82	602.34	2.083E-03	Pulse	1.00	3
K			1	-0.146	ug/l	-433.14	59,794.57	2.068E-01	Pulse	1.00	3
V			1	0.007	ug/l	94.85	1,326.72	4.589E-03	Pulse	0.50	3
Mn			1	0.002	ug/l	256.85	250.67	1.374E-03	Pulse	0.50	3
Fe			1	0.001	ug/l	316.39	14,383.33	7.885E-02	Pulse	0.50	3
Co			1	-0.001	ug/l	-329.98	103.33	5.661E-04	Pulse	0.50	3
Ni			1	0.005	ug/l	178.89	473.34	2.595E-03	Pulse	0.50	3
Cu			1	0.010	ug/l	84.60	6,345.73	3.479E-02	Pulse	0.50	3
Zn			1	0.015	ug/l	115.70	1,342.72	4.969E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	-1266.02	13.33	4.921E-05	Pulse	0.50	3
Al			1	0.044	ug/l	147.29	275.67	9.536E-04	Pulse	1.00	3
Se			1	-0.023	ug/l	-56.03	69.56	2.575E-04	Pulse	3.00	3
Sb			1	0.002	ug/l	93.21	156.00	5.772E-04	Pulse	1.00	3
Se			1	-0.061	ug/l	-120.25	28.33	1.049E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,152,834.50	0.69	100.0	Pulse	0.50	3
1	Sc		289,091.65	0.25	100.0	Pulse	0.30	3

1	Ge		182,408.26	0.34	100.0	Pulse	0.30	3
1	In		1,689,503.13	0.47	100.0	Pulse	0.30	3
1	Tb		4,512,548.17	1.03	100.0	Pulse	0.50	3
1	Lu		3,416,103.92	0.80	100.0	Pulse	0.50	3
1	Ge		270,179.81	0.92	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,297.82	1.82	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:51
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	498.01	2.697E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	56.67	3.068E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	123.33	4.529E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,007.36	3.195E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.50	5.172E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	204.67	7.515E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	32.00	1.882E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	485.34	1.538E-04	Pulse	0.50	3
Sn			1	0.000	ug/l	---	242.23	1.421E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	324.00	1.905E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	469.34	1.489E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	474.01	1.636E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	---	6.67	2.303E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	11,966.24	4.131E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	620.01	2.140E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	60,042.64	2.073E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,268.71	4.380E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	240.67	1.303E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	14,547.46	7.878E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	114.00	6.181E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	457.34	2.476E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	6,301.04	3.412E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,320.38	4.846E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	14.00	5.138E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	261.33	9.019E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	72.89	2.674E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	139.33	5.109E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	32.11	1.179E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,153,597.58	1.13	100.0	Pulse	0.50	3
1	Sc		289,689.26	0.69	100.0	Pulse	0.30	3

1	Ge		184,676.15	1.16	100.0	Pulse	0.30	3
1	In		1,702,263.89	0.84	100.0	Pulse	0.30	3
1	Tb		4,520,061.33	1.07	100.0	Pulse	0.50	3
1	Lu		3,437,452.50	1.12	100.0	Pulse	0.50	3
1	Ge		272,507.90	0.85	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,260.05	4.16	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:55
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.462	ug/l	1.77	5,718.86	3.082E-02	Pulse	0.50	3
As			1	0.475	ug/l	2.89	787.35	4.243E-03	Pulse	1.00	3
Mo			1	0.464	ug/l	4.27	3,040.92	1.111E-02	Pulse	0.50	3
Pb			1	0.470	ug/l	0.93	14,233.24	4.518E-03	Pulse	1.00	3
Be			1	0.498	ug/l	3.53	30.00	1.034E-04	Pulse	2.00	3
Ag			1	0.487	ug/l	2.70	9,424.42	3.444E-02	Pulse	0.50	3
Ba			1	0.451	ug/l	2.89	1,428.73	8.346E-04	Pulse	0.50	3
Tl			1	0.476	ug/l	1.88	18,920.45	6.005E-03	Pulse	0.50	3
Sn			1	0.461	ug/l	1.61	3,518.14	2.055E-03	Pulse	0.30	3
Sr			1	0.444	ug/l	2.20	4,299.84	2.511E-03	Pulse	0.50	3
[Pb]			1	0.469	ug/l	4.88	6,748.69	2.143E-03	Pulse	0.50	3
Ca			1	45.319	ug/l	3.65	2,532.84	8.733E-03	Pulse	0.50	3
Ti			1	0.504	ug/l	12.87	166.67	5.747E-04	Pulse	0.50	3
Na			1	47.993	ug/l	1.07	85,519.32	2.949E-01	Pulse	1.00	3
Mg			1	47.653	ug/l	0.13	38,075.68	1.313E-01	Pulse	1.00	3
K			1	47.646	ug/l	0.41	101,514.98	3.500E-01	Pulse	1.00	3
V			1	0.469	ug/l	2.77	5,600.15	1.931E-02	Pulse	0.50	3
Mn			1	0.485	ug/l	3.31	3,575.01	1.927E-02	Pulse	0.50	3
Fe			1	47.888	ug/l	0.63	475,892.71	2.565E+00	Pulse	0.50	3
Co			1	0.481	ug/l	1.16	8,420.52	4.538E-02	Pulse	0.50	3
Ni			1	0.485	ug/l	3.68	2,676.19	1.442E-02	Pulse	0.50	3
Cu			1	0.617	ug/l	4.01	13,765.59	7.419E-02	Pulse	0.50	3
Zn			1	0.390	ug/l	5.50	2,180.13	7.968E-03	Pulse	1.00	3
Cd			1	0.476	ug/l	5.84	1,473.40	5.385E-03	Pulse	0.50	3
Al			1	48.143	ug/l	0.77	16,699.64	5.758E-02	Pulse	1.00	3
Se			1	0.494	ug/l	10.53	133.11	4.865E-04	Pulse	3.00	3
Sb			1	0.460	ug/l	2.01	4,471.89	1.634E-02	Pulse	1.00	3
Se			1	0.442	ug/l	10.08	57.78	2.111E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,150,628.67	1.00	99.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		290,030.69	0.07	100.1	Pulse	0.30	3
1	Ge		185,542.61	0.29	100.5	Pulse	0.30	3
1	In		1,712,026.50	1.13	100.6	Pulse	0.30	3
1	Tb		4,558,691.83	1.23	100.9	Pulse	0.50	3
1	Lu		3,453,606.92	0.69	100.5	Pulse	0.50	3
1	Ge		273,631.81	0.42	100.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,332.28	6.59	105.7	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 11:59
Sample Name	CALSTD-3
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.984	ug/l	1.01	11,694.19	6.264E-02	Pulse	0.50	3
As			1	0.976	ug/l	3.35	1,565.73	8.386E-03	Pulse	1.00	3
Mo			1	0.947	ug/l	2.79	6,124.35	2.221E-02	Pulse	0.50	3
Pb			1	0.965	ug/l	1.09	28,260.25	8.936E-03	Pulse	1.00	3
Be			1	0.886	ug/l	14.45	53.00	1.800E-04	Pulse	2.00	3
Ag			1	1.010	ug/l	1.23	19,476.21	7.063E-02	Pulse	0.50	3
Ba			1	0.944	ug/l	5.17	2,968.92	1.726E-03	Pulse	0.50	3
Tl			1	0.990	ug/l	1.36	38,984.19	1.233E-02	Pulse	0.50	3
Sn			1	0.945	ug/l	1.27	6,990.25	4.064E-03	Pulse	0.30	3
Sr			1	0.965	ug/l	1.14	9,007.50	5.236E-03	Pulse	0.50	3
[Pb]			1	0.962	ug/l	1.50	13,410.61	4.240E-03	Pulse	0.50	3
Ca			1	97.435	ug/l	2.22	4,975.98	1.689E-02	Pulse	0.50	3
Ti			1	0.933	ug/l	14.70	307.33	1.043E-03	Pulse	0.50	3
Na			1	98.295	ug/l	0.52	165,122.39	5.606E-01	Pulse	1.00	3
Mg			1	98.172	ug/l	0.62	78,990.63	2.682E-01	Pulse	1.00	3
K			1	98.180	ug/l	0.72	147,680.95	5.014E-01	Pulse	1.00	3
V			1	0.958	ug/l	2.36	10,274.06	3.488E-02	Pulse	0.50	3
Mn			1	0.985	ug/l	5.50	7,055.31	3.779E-02	Pulse	0.50	3
Fe			1	100.510	ug/l	0.19	988,859.89	5.297E+00	Pulse	0.50	3
Co			1	1.009	ug/l	1.17	17,664.06	9.462E-02	Pulse	0.50	3
Ni			1	1.037	ug/l	1.97	5,235.38	2.804E-02	Pulse	0.50	3
Cu			1	1.122	ug/l	3.35	19,983.01	1.070E-01	Pulse	0.50	3
Zn			1	0.934	ug/l	2.74	3,396.31	1.232E-02	Pulse	1.00	3
Cd			1	0.971	ug/l	1.52	3,011.59	1.092E-02	Pulse	0.50	3
Al			1	99.130	ug/l	0.78	34,638.56	1.176E-01	Pulse	1.00	3
Se			1	1.047	ug/l	5.10	201.78	7.318E-04	Pulse	3.00	3
Sb			1	0.962	ug/l	0.46	9,260.00	3.358E-02	Pulse	1.00	3
Se			1	0.906	ug/l	8.59	85.22	3.090E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,162,465.75	1.26	100.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		294,535.66	0.16	101.7	Pulse	0.30	3
1	Ge		186,692.43	0.45	101.1	Pulse	0.30	3
1	In		1,720,125.21	0.86	101.0	Pulse	0.30	3
1	Tb		4,568,401.33	0.79	101.1	Pulse	0.50	3
1	Lu		3,463,397.83	1.01	100.8	Pulse	0.50	3
1	Ge		275,751.04	0.49	101.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,294.49	6.18	102.7	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:03
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.459	ug/l	0.32	120,451.57	6.399E-01	Pulse	0.50	3
As			1	10.157	ug/l	0.33	15,888.93	8.442E-02	Pulse	1.00	3
Mo			1	9.951	ug/l	0.37	63,938.22	2.290E-01	Pulse	0.50	3
Pb			1	10.057	ug/l	0.34	289,184.48	9.011E-02	Pulse	1.00	3
Be			1	10.103	ug/l	1.59	593.68	1.999E-03	Pulse	2.00	3
Ag			1	10.638	ug/l	0.32	205,629.45	7.364E-01	Pulse	0.50	3
Ba			1	10.022	ug/l	1.37	31,586.82	1.815E-02	Pulse	0.50	3
Tl			1	10.342	ug/l	0.15	408,512.90	1.273E-01	Pulse	0.50	3
Sn			1	9.982	ug/l	0.47	72,305.69	4.154E-02	Pulse	0.30	3
Sr			1	10.045	ug/l	0.98	91,703.54	5.269E-02	Pulse	0.50	3
[Pb]			1	10.020	ug/l	0.68	137,278.90	4.278E-02	Pulse	0.50	3
Ca			1	1020.911	ug/l	0.97	47,960.24	1.615E-01	Pulse	0.50	3
Ti			1	10.020	ug/l	2.26	3,261.62	1.098E-02	Pulse	0.50	3
Na			1	1025.154	ug/l	0.27	1,620,543.21	5.457E+00	Pulse	1.00	3
Mg			1	1029.275	ug/l	0.10	828,931.12	2.792E+00	Pulse	1.00	3
K			1	1039.855	ug/l	0.30	986,593.77	3.322E+00	Pulse	1.00	3
V			1	10.096	ug/l	0.82	96,743.78	3.258E-01	Pulse	0.50	3
Mn			1	10.423	ug/l	1.10	72,890.41	3.873E-01	Pulse	0.50	3
Fe			1	1043.878	ug/l	0.75	10,214,581.00	5.427E+01	Analog	0.50	3
Co			1	10.561	ug/l	0.62	185,262.68	9.843E-01	Pulse	0.50	3
Ni			1	10.571	ug/l	0.64	49,512.29	2.631E-01	Pulse	0.50	3
Cu			1	10.702	ug/l	0.37	137,288.21	7.294E-01	Pulse	0.50	3
Zn			1	10.622	ug/l	1.28	25,086.60	8.984E-02	Pulse	1.00	3
Cd			1	10.159	ug/l	2.00	31,770.50	1.138E-01	Pulse	0.50	3
Al			1	1037.178	ug/l	0.33	362,850.96	1.222E+00	Pulse	1.00	3
Se			1	10.199	ug/l	1.88	1,338.16	4.792E-03	Pulse	3.00	3
Sb			1	10.076	ug/l	0.40	96,895.14	3.470E-01	Pulse	1.00	3
Se			1	10.197	ug/l	2.34	634.01	2.270E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,209,244.42	1.16	101.8	Pulse	0.50	3
1	Sc		296,947.64	0.46	102.5	Pulse	0.30	3
1	Ge		188,221.95	0.99	101.9	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,740,562.36	0.51	102.2	Pulse	0.30	3
1	Tb		4,643,575.50	0.78	102.7	Pulse	0.50	3
1	Lu		3,524,002.17	1.24	102.5	Pulse	0.50	3
1	Ge		279,240.77	0.45	102.5	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,401.17	4.36	111.2	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:07
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.563	ug/l	0.29	556,626.36	2.961E+00	Pulse	0.50	3
As			1	47.985	ug/l	0.60	74,745.99	3.977E-01	Pulse	1.00	3
Mo			1	46.710	ug/l	0.50	301,176.15	1.073E+00	Pulse	0.50	3
Pb			1	47.421	ug/l	0.51	1,343,090.54	4.237E-01	Pulse	1.00	3
Be			1	47.638	ug/l	2.34	2,772.19	9.408E-03	Pulse	2.00	3
Ag			1	49.163	ug/l	0.92	954,379.94	3.401E+00	Pulse	0.50	3
Ba			1	47.403	ug/l	0.58	148,700.32	8.576E-02	Pulse	0.50	3
Tl			1	49.396	ug/l	0.68	1,925,420.21	6.074E-01	Pulse	0.50	3
Sn			1	47.300	ug/l	0.21	340,423.36	1.963E-01	Pulse	0.30	3
Sr			1	47.589	ug/l	0.98	431,597.60	2.489E-01	Pulse	0.50	3
[Pb]			1	47.358	ug/l	0.68	639,122.94	2.016E-01	Pulse	0.50	3
Ca			1	4825.826	ug/l	0.66	223,192.72	7.574E-01	Pulse	0.50	3
Ti			1	47.468	ug/l	2.32	15,305.33	5.195E-02	Pulse	0.50	3
Na			1	4811.391	ug/l	0.94	7,502,603.67	2.546E+01	Analog	1.00	3
Mg			1	4822.312	ug/l	0.97	3,851,606.50	1.307E+01	Pulse	1.00	3
K			1	4857.868	ug/l	0.92	4,349,624.83	1.476E+01	Pulse	1.00	3
V			1	47.938	ug/l	0.77	451,002.92	1.530E+00	Pulse	0.50	3
Mn			1	48.941	ug/l	0.33	340,871.90	1.814E+00	Pulse	0.50	3
Fe			1	4846.986	ug/l	0.71	47,312,378.67	2.517E+02	Analog	0.50	3
Co			1	49.167	ug/l	0.61	860,929.31	4.580E+00	Pulse	0.50	3
Ni			1	49.341	ug/l	0.69	229,092.36	1.219E+00	Pulse	0.50	3
Cu			1	49.282	ug/l	0.82	608,250.42	3.236E+00	Pulse	0.50	3
Zn			1	48.129	ug/l	1.20	109,443.40	3.900E-01	Pulse	1.00	3
Cd			1	48.183	ug/l	0.86	151,404.02	5.395E-01	Pulse	0.50	3
Al			1	4883.618	ug/l	1.19	1,694,394.12	5.750E+00	Pulse	1.00	3
Se			1	47.644	ug/l	0.96	6,007.28	2.140E-02	Pulse	3.00	3
Sb			1	47.351	ug/l	0.66	457,141.81	1.629E+00	Pulse	1.00	3
Se			1	48.083	ug/l	0.68	2,881.77	1.027E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,169,873.25	0.47	100.5	Pulse	0.50	3
1	Sc		294,700.58	1.42	101.7	Pulse	0.30	3
1	Ge		187,963.40	0.24	101.8	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,733,963.23	0.09	101.9	Pulse	0.30	3
1	Tb		4,649,696.83	0.23	102.9	Pulse	0.50	3
1	Lu		3,536,591.50	0.27	102.9	Pulse	0.50	3
1	Ge		280,668.33	0.77	103.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,313.38	6.44	104.2	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:11
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.640	ug/l	0.49	1,131,557.04	6.134E+00	Pulse	0.50	3
As			1	99.689	ug/l	0.57	152,336.14	8.258E-01	Pulse	1.00	3
Mo			1	97.363	ug/l	0.07	614,287.42	2.236E+00	Pulse	0.50	3
Pb			1	98.865	ug/l	0.44	2,708,621.50	8.830E-01	Pulse	1.00	3
Be			1	99.654	ug/l	0.74	5,715.47	1.967E-02	Pulse	2.00	3
Ag			1	100.355	ug/l	0.74	1,906,497.50	6.941E+00	Pulse	0.50	3
Ba			1	98.587	ug/l	0.85	300,356.27	1.783E-01	Pulse	0.50	3
Tl			1	101.829	ug/l	0.32	3,840,431.25	1.252E+00	Pulse	0.50	3
Sn			1	98.678	ug/l	0.84	689,555.91	4.094E-01	Pulse	0.30	3
Sr			1	98.743	ug/l	0.79	869,485.65	5.163E-01	Pulse	0.50	3
[Pb]			1	98.839	ug/l	0.21	1,290,299.87	4.206E-01	Pulse	0.50	3
Ca			1	9869.531	ug/l	0.81	449,440.77	1.547E+00	Pulse	0.50	3
Ti			1	98.647	ug/l	0.91	31,351.03	1.079E-01	Pulse	0.50	3
Na			1	9895.915	ug/l	0.53	15,198,849.33	5.232E+01	Analog	1.00	3
Mg			1	9901.107	ug/l	0.75	7,794,800.67	2.683E+01	Analog	1.00	3
K			1	9828.923	ug/l	0.42	8,613,684.33	2.965E+01	Analog	1.00	3
V			1	98.944	ug/l	0.51	916,261.58	3.154E+00	Pulse	0.50	3
Mn			1	100.331	ug/l	0.35	685,559.63	3.716E+00	Pulse	0.50	3
Fe			1	9995.350	ug/l	0.32	95,736,733.33	5.190E+02	Analog	0.50	3
Co			1	100.065	ug/l	0.71	1,719,467.12	9.321E+00	Pulse	0.50	3
Ni			1	100.418	ug/l	0.62	457,104.97	2.478E+00	Pulse	0.50	3
Cu			1	100.701	ug/l	0.23	1,213,208.67	6.577E+00	Pulse	0.50	3
Zn			1	99.241	ug/l	0.77	219,460.27	7.989E-01	Pulse	1.00	3
Cd			1	98.170	ug/l	0.52	301,899.33	1.099E+00	Pulse	0.50	3
Al			1	9976.123	ug/l	0.98	3,411,718.58	1.175E+01	Pulse	1.00	3
Se			1	97.704	ug/l	0.27	11,979.75	4.361E-02	Pulse	3.00	3
Sb			1	98.008	ug/l	0.58	925,924.88	3.371E+00	Pulse	1.00	3
Se			1	99.159	ug/l	1.43	5,781.88	2.105E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,067,456.83	0.36	97.3	Pulse	0.50	3
1	Sc		290,490.68	0.92	100.3	Pulse	0.30	3
1	Ge		184,471.24	0.60	99.9	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,684,243.75	0.33	98.9	Pulse	0.30	3
1	Tb		4,556,625.17	0.40	100.8	Pulse	0.50	3
1	Lu		3,496,283.00	0.66	101.7	Pulse	0.50	3
1	Ge		274,689.52	0.32	100.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,333.38	9.59	105.8	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:15
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.016	ug/l	0.39	2,209,787.42	1.219E+01	Pulse	0.50	3
As			1	200.652	ug/l	0.35	301,295.56	1.662E+00	Pulse	1.00	3
Mo			1	202.144	ug/l	0.48	1,225,736.33	4.642E+00	Pulse	0.50	3
Pb			1	201.209	ug/l	0.04	5,342,505.50	1.797E+00	Pulse	1.00	3
Be			1	200.759	ug/l	1.10	11,197.41	3.963E-02	Pulse	2.00	3
Ag			1	166.180	ug/l	0.93	3,034,319.50	1.149E+01	Pulse	0.50	3
Ba			1	201.355	ug/l	0.27	594,539.17	3.642E-01	Pulse	0.50	3
Tl			1	199.220	ug/l	0.07	7,282,713.50	2.449E+00	Analog	0.50	3
Sn			1	201.337	ug/l	0.69	1,363,398.87	8.352E-01	Pulse	0.30	3
Sr			1	201.229	ug/l	0.54	1,717,071.29	1.052E+00	Pulse	0.50	3
[Pb]			1	201.240	ug/l	0.23	2,546,040.67	8.563E-01	Pulse	0.50	3
Ca			1	20107.757	ug/l	1.02	890,166.10	3.151E+00	Pulse	0.50	3
Ti			1	201.309	ug/l	1.14	62,221.51	2.202E-01	Pulse	0.50	3
Na			1	20097.951	ug/l	0.58	30,012,839.33	1.062E+02	Analog	1.00	3
Mg			1	20092.420	ug/l	0.71	15,385,414.00	5.445E+01	Analog	1.00	3
K			1	20119.094	ug/l	0.88	17,088,178.67	6.048E+01	Analog	1.00	3
V			1	201.039	ug/l	0.49	1,809,560.13	6.404E+00	Pulse	0.50	3
Mn			1	200.078	ug/l	0.18	1,343,408.58	7.410E+00	Pulse	0.50	3
Fe			1	20038.387	ug/l	0.43	188,618,384.00	1.040E+03	Analog	0.50	3
Co			1	200.147	ug/l	0.27	3,380,066.08	1.864E+01	Pulse	0.50	3
Ni			1	199.927	ug/l	0.30	893,999.85	4.931E+00	Pulse	0.50	3
Cu			1	199.793	ug/l	0.41	2,359,583.67	1.301E+01	Pulse	0.50	3
Zn			1	200.817	ug/l	0.68	425,531.15	1.612E+00	Pulse	1.00	3
Cd			1	201.361	ug/l	0.97	595,182.13	2.254E+00	Pulse	0.50	3
Al			1	20039.184	ug/l	0.86	6,665,743.67	2.359E+01	Analog	1.00	3
Se			1	201.727	ug/l	0.70	23,699.20	8.976E-02	Pulse	3.00	3
Sb			1	201.655	ug/l	0.84	1,831,000.83	6.935E+00	Pulse	1.00	3
Se			1	200.890	ug/l	1.21	11,227.75	4.252E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,973,399.42	0.73	94.3	Pulse	0.50	3
1	Sc		282,554.73	0.90	97.5	Pulse	0.30	3
1	Ge		181,300.26	0.14	98.2	Pulse	0.30	3
1	In		1,632,379.80	0.29	95.9	Pulse	0.30	3
1	Tb		4,463,107.33	0.54	98.7	Pulse	0.50	3
1	Lu		3,418,111.33	0.64	99.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,027.88	0.48	96.9	Pulse	0.30	3
1	Te		4.67	65.47		Pulse	0.50	3
1	Li		1,233.38	4.89	97.9	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:19
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.219	ug/l	1.24	1,085,306.25	5.987E+00	Pulse	0.50	3
As			1	97.369	ug/l	0.66	146,230.11	8.066E-01	Pulse	1.00	3
Mo			1	97.409	ug/l	0.88	596,116.98	2.237E+00	Pulse	0.50	3
Pb			1	97.691	ug/l	0.96	2,639,817.08	8.725E-01	Pulse	1.00	3
Be			1	98.189	ug/l	0.33	5,459.73	1.939E-02	Pulse	2.00	3
Ag			1	100.553	ug/l	0.75	1,852,873.25	6.954E+00	Pulse	0.50	3
Ba			1	97.666	ug/l	1.02	290,940.60	1.767E-01	Pulse	0.50	3
Tl			1	100.902	ug/l	1.06	3,753,435.50	1.241E+00	Pulse	0.50	3
Sn			1	98.309	ug/l	0.47	671,687.32	4.079E-01	Pulse	0.30	3
Sr			1	97.820	ug/l	0.29	842,183.77	5.114E-01	Pulse	0.50	3
[Pb]			1	97.357	ug/l	1.32	1,253,561.04	4.143E-01	Pulse	0.50	3
Ca			1	9743.563	ug/l	0.58	430,203.89	1.528E+00	Pulse	0.50	3
Ti			1	97.314	ug/l	0.20	29,985.55	1.065E-01	Pulse	0.50	3
Na			1	9892.169	ug/l	0.52	14,730,426.00	5.230E+01	Analog	1.00	3
Mg			1	9871.713	ug/l	0.16	7,535,149.00	2.675E+01	Analog	1.00	3
K			1	9813.409	ug/l	0.77	8,338,082.83	2.961E+01	Analog	1.00	3
V			1	97.771	ug/l	0.49	877,835.52	3.117E+00	Pulse	0.50	3
Mn			1	98.143	ug/l	0.84	659,058.98	3.635E+00	Pulse	0.50	3
Fe			1	9856.108	ug/l	0.87	92,776,802.67	5.118E+02	Analog	0.50	3
Co			1	98.607	ug/l	0.78	1,665,234.00	9.185E+00	Pulse	0.50	3
Ni			1	98.714	ug/l	1.60	441,611.69	2.436E+00	Pulse	0.50	3
Cu			1	98.969	ug/l	1.37	1,171,888.92	6.464E+00	Pulse	0.50	3
Zn			1	98.519	ug/l	0.38	211,330.12	7.932E-01	Pulse	1.00	3
Cd			1	98.128	ug/l	1.03	292,701.03	1.099E+00	Pulse	0.50	3
Al			1	9815.239	ug/l	0.60	3,254,640.25	1.156E+01	Pulse	1.00	3
Se			1	97.894	ug/l	1.11	11,641.99	4.370E-02	Pulse	3.00	3
Sb			1	97.877	ug/l	1.13	896,911.17	3.366E+00	Pulse	1.00	3
Se			1	98.191	ug/l	0.75	5,553.70	2.084E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,025,435.75	0.20	95.9	Pulse	0.50	3
1	Sc		281,638.62	0.46	97.2	Pulse	0.30	3
1	Ge		181,293.49	0.26	98.2	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,646,731.46	0.66	96.7	Pulse	0.30	3
1	Tb		4,485,695.17	0.05	99.2	Pulse	0.50	3
1	Lu		3,408,017.58	0.70	99.1	Pulse	0.50	3
1	Ge		266,442.07	0.91	97.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,193.38	1.45	94.7	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:23
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.515	ug/l	1.46	2,154,148.75	1.210E+01	Pulse	0.50	3
As			1	198.455	ug/l	1.13	292,702.30	1.644E+00	Pulse	1.00	3
Mo			1	199.813	ug/l	0.96	1,198,937.88	4.589E+00	Pulse	0.50	3
Pb			1	198.140	ug/l	1.28	5,223,911.00	1.769E+00	Pulse	1.00	3
Be			1	198.931	ug/l	0.27	10,935.27	3.927E-02	Pulse	2.00	3
Ag			1	163.616	ug/l	1.33	2,956,249.17	1.132E+01	Pulse	0.50	3
Ba			1	200.643	ug/l	0.22	584,378.25	3.629E-01	Pulse	0.50	3
Tl			1	197.769	ug/l	0.57	7,178,790.17	2.431E+00	Analog	0.50	3
Sn			1	198.349	ug/l	0.70	1,324,892.76	8.228E-01	Pulse	0.30	3
Sr			1	197.691	ug/l	0.50	1,663,950.50	1.033E+00	Pulse	0.50	3
[Pb]			1	197.384	ug/l	1.19	2,479,682.83	8.399E-01	Pulse	0.50	3
Ca			1	19892.532	ug/l	0.44	867,921.69	3.117E+00	Pulse	0.50	3
Ti			1	199.119	ug/l	1.29	60,655.40	2.178E-01	Pulse	0.50	3
Na			1	20093.137	ug/l	0.43	29,571,104.00	1.062E+02	Analog	1.00	3
Mg			1	19963.184	ug/l	0.83	15,065,188.33	5.410E+01	Analog	1.00	3
K			1	19974.537	ug/l	0.25	16,720,523.00	6.005E+01	Analog	1.00	3
V			1	198.708	ug/l	0.56	1,762,692.17	6.330E+00	Pulse	0.50	3
Mn			1	198.182	ug/l	1.19	1,307,010.62	7.340E+00	Pulse	0.50	3
Fe			1	20035.473	ug/l	1.11	185,238,949.33	1.040E+03	Analog	0.50	3
Co			1	199.478	ug/l	1.25	3,308,875.33	1.858E+01	Pulse	0.50	3
Ni			1	198.205	ug/l	1.17	870,554.25	4.889E+00	Pulse	0.50	3
Cu			1	197.844	ug/l	1.11	2,295,109.58	1.289E+01	Pulse	0.50	3
Zn			1	198.019	ug/l	0.74	415,240.94	1.589E+00	Pulse	1.00	3
Cd			1	200.235	ug/l	1.06	585,677.29	2.242E+00	Pulse	0.50	3
Al			1	19855.463	ug/l	0.74	6,509,130.83	2.338E+01	Analog	1.00	3
Se			1	198.486	ug/l	0.47	23,075.66	8.832E-02	Pulse	3.00	3
Sb			1	199.780	ug/l	1.07	1,794,998.42	6.871E+00	Pulse	1.00	3
Se			1	198.825	ug/l	1.32	10,995.72	4.209E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,952,487.25	0.32	93.6	Pulse	0.50	3
1	Sc		278,459.44	0.50	96.1	Pulse	0.30	3
1	Ge		178,094.76	1.39	96.4	Pulse	0.30	3
1	In		1,610,162.68	0.35	94.6	Pulse	0.30	3
1	Tb		4,409,745.83	1.04	97.6	Pulse	0.50	3
1	Lu		3,382,197.08	0.98	98.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,271.29	0.66	95.9	Pulse	0.30	3
1	Te		4.00	86.60		Pulse	0.50	3
1	Li		1,166.70	4.76	92.6	Pulse	0.30	3

Quantitation Report

File Name	012_ICV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:27
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	106.419	ug/l	0.22	1,158,383.25	6.486E+00	Pulse	0.50	3
As			1	106.682	ug/l	0.81	157,822.17	8.837E-01	Pulse	1.00	3
Mo			1	106.712	ug/l	0.39	647,373.10	2.451E+00	Pulse	0.50	3
Pb			1	104.525	ug/l	0.29	2,794,770.58	9.335E-01	Pulse	1.00	3
Be			1	106.248	ug/l	1.20	5,889.35	2.098E-02	Pulse	2.00	3
Ag			1	50.485	ug/l	0.24	922,353.29	3.492E+00	Pulse	0.50	3
Ba			1	101.881	ug/l	0.80	297,850.79	1.843E-01	Pulse	0.50	3
Tl			1	107.785	ug/l	0.14	3,967,489.33	1.325E+00	Pulse	0.50	3
Sn			1	98.626	ug/l	1.06	661,334.00	4.092E-01	Pulse	0.30	3
Sr			1	105.071	ug/l	0.92	887,789.85	5.493E-01	Pulse	0.50	3
[Pb]			1	104.568	ug/l	0.29	1,332,242.88	4.450E-01	Pulse	0.50	3
Ca			1	9947.153	ug/l	0.64	437,818.24	1.559E+00	Pulse	0.50	3
Ti			1	103.501	ug/l	0.87	31,792.39	1.132E-01	Pulse	0.50	3
Na			1	10551.306	ug/l	0.43	15,662,369.00	5.579E+01	Analog	1.00	3
Mg			1	10868.200	ug/l	0.36	8,269,917.33	2.946E+01	Analog	1.00	3
K			1	10401.877	ug/l	0.77	8,807,080.00	3.137E+01	Analog	1.00	3
V			1	104.998	ug/l	0.43	939,703.37	3.347E+00	Pulse	0.50	3
Mn			1	105.542	ug/l	0.64	698,176.02	3.909E+00	Pulse	0.50	3
Fe			1	10571.984	ug/l	0.89	98,030,717.33	5.489E+02	Analog	0.50	3
Co			1	106.637	ug/l	1.12	1,774,002.29	9.933E+00	Pulse	0.50	3
Ni			1	105.554	ug/l	0.72	465,148.65	2.605E+00	Pulse	0.50	3
Cu			1	107.825	ug/l	0.73	1,257,211.71	7.040E+00	Pulse	0.50	3
Zn			1	106.299	ug/l	0.39	225,940.89	8.554E-01	Pulse	1.00	3
Cd			1	105.426	ug/l	0.29	311,757.26	1.180E+00	Pulse	0.50	3
Al			1	10350.565	ug/l	0.29	3,421,425.67	1.219E+01	Pulse	1.00	3
Se			1	105.318	ug/l	0.64	12,411.24	4.699E-02	Pulse	3.00	3
Sb			1	105.276	ug/l	0.33	956,345.42	3.621E+00	Pulse	1.00	3
Se			1	105.351	ug/l	0.23	5,905.03	2.236E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,811.08	1.43	94.9	Pulse	0.50	3
1	Sc		280,766.93	0.81	96.9	Pulse	0.30	3
1	Ge		178,594.13	0.62	96.7	Pulse	0.30	3
1	In		1,616,293.75	1.52	94.9	Pulse	0.30	3
1	Tb		4,441,283.00	1.26	98.3	Pulse	0.50	3
1	Lu		3,376,904.92	0.98	98.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,133.95	0.86	96.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,267.82	5.71	100.6	Pulse	0.30	3

Quantitation Report

File Name 013_ICB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:31
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	21.41	677.35	3.759E-03	Pulse	0.50	3
As			1	0.029	ug/l	9.92	98.00	5.439E-04	Pulse	1.00	3
Mo			1	0.206	ug/l	16.72	1,389.39	5.192E-03	Pulse	0.50	3
Pb			1	0.008	ug/l	58.85	1,200.04	3.928E-04	Pulse	1.00	3
Be			1	0.102	ug/l	71.96	7.17	2.527E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	19.89	364.67	1.364E-03	Pulse	0.50	3
Ba			1	0.002	ug/l	215.29	36.00	2.175E-05	Pulse	0.50	3
Tl			1	0.066	ug/l	6.61	2,966.94	9.703E-04	Pulse	0.50	3
Sn			1	0.129	ug/l	21.47	1,122.27	6.760E-04	Pulse	0.30	3
Sr			1	0.008	ug/l	22.05	387.34	2.336E-04	Pulse	0.50	3
[Pb]			1	0.008	ug/l	71.35	564.68	1.848E-04	Pulse	0.50	3
Ca			1	1.138	ug/l	58.60	516.01	1.814E-03	Pulse	0.50	3
Ti			1	0.118	ug/l	32.62	43.33	1.526E-04	Pulse	0.50	3
Na			1	7.892	ug/l	5.16	23,610.28	8.300E-02	Pulse	1.00	3
Mg			1	5.224	ug/l	7.42	4,634.87	1.630E-02	Pulse	1.00	3
K			1	6.861	ug/l	4.90	64,804.88	2.278E-01	Pulse	1.00	3
V			1	0.000	ug/l	4187.79	1,247.38	4.386E-03	Pulse	0.50	3
Mn			1	0.013	ug/l	31.82	320.00	1.776E-03	Pulse	0.50	3
Fe			1	5.946	ug/l	3.63	69,816.03	3.875E-01	Pulse	0.50	3
Co			1	0.011	ug/l	42.86	298.67	1.657E-03	Pulse	0.50	3
Ni			1	0.008	ug/l	97.75	483.34	2.683E-03	Pulse	0.50	3
Cu			1	-0.106	ug/l	-4.46	4,911.31	2.726E-02	Pulse	0.50	3
Zn			1	-0.047	ug/l	-25.87	1,194.71	4.468E-03	Pulse	1.00	3
Cd			1	0.028	ug/l	14.05	96.67	3.616E-04	Pulse	0.50	3
Al			1	5.080	ug/l	8.32	1,957.10	6.882E-03	Pulse	1.00	3
Se			1	0.070	ug/l	31.15	79.89	2.987E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	8.85	557.34	2.083E-03	Pulse	1.00	3
Se			1	0.217	ug/l	44.72	43.78	1.638E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,057,482.92	1.16	97.0	Pulse	0.50	3
1	Sc		284,449.18	0.85	98.2	Pulse	0.30	3

1	Ge		180,172.00	0.30	97.6	Pulse	0.30	3
1	In		1,658,703.75	1.39	97.4	Pulse	0.30	3
1	Tb		4,426,410.33	1.26	97.9	Pulse	0.50	3
1	Lu		3,324,348.58	1.14	96.7	Pulse	0.50	3
1	Ge		267,437.58	0.66	98.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,257.82	2.60	99.8	Pulse	0.30	3

Quantitation Report

File Name	014LCCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:34
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.980	ug/l	1.47	11,397.35	6.242E-02	Pulse	0.50	3
As			1	0.938	ug/l	0.91	1,475.06	8.078E-03	Pulse	1.00	3
Mo			1	0.974	ug/l	2.41	6,173.70	2.281E-02	Pulse	0.50	3
Pb			1	0.972	ug/l	0.46	27,732.71	8.995E-03	Pulse	1.00	3
Be			1	1.070	ug/l	19.23	62.50	2.163E-04	Pulse	2.00	3
Ag			1	1.000	ug/l	1.68	18,914.30	6.988E-02	Pulse	0.50	3
Ba			1	0.970	ug/l	1.91	2,978.26	1.773E-03	Pulse	0.50	3
Tl			1	1.008	ug/l	0.71	38,681.47	1.255E-02	Pulse	0.50	3
Sn			1	0.971	ug/l	4.38	7,002.49	4.168E-03	Pulse	0.30	3
Sr			1	0.945	ug/l	1.96	8,612.65	5.128E-03	Pulse	0.50	3
[Pb]			1	0.971	ug/l	1.77	13,198.47	4.280E-03	Pulse	0.50	3
Ca			1	93.713	ug/l	1.20	4,713.25	1.631E-02	Pulse	0.50	3
Ti			1	0.923	ug/l	15.29	298.00	1.032E-03	Pulse	0.50	3
Na			1	99.318	ug/l	0.48	163,546.39	5.660E-01	Pulse	1.00	3
Mg			1	97.643	ug/l	1.61	77,071.92	2.668E-01	Pulse	1.00	3
K			1	98.016	ug/l	0.80	144,734.20	5.009E-01	Pulse	1.00	3
V			1	0.924	ug/l	2.78	9,768.47	3.381E-02	Pulse	0.50	3
Mn			1	0.985	ug/l	0.97	6,895.24	3.776E-02	Pulse	0.50	3
Fe			1	99.671	ug/l	0.65	959,172.58	5.253E+00	Pulse	0.50	3
Co			1	1.000	ug/l	0.44	17,127.59	9.380E-02	Pulse	0.50	3
Ni			1	1.005	ug/l	0.89	4,974.65	2.724E-02	Pulse	0.50	3
Cu			1	1.241	ug/l	1.75	20,948.69	1.147E-01	Pulse	0.50	3
Zn			1	0.979	ug/l	6.29	3,431.98	1.268E-02	Pulse	1.00	3
Cd			1	0.997	ug/l	1.50	3,035.60	1.122E-02	Pulse	0.50	3
Al			1	96.607	ug/l	2.06	33,120.99	1.146E-01	Pulse	1.00	3
Se			1	1.016	ug/l	3.44	194.33	7.180E-04	Pulse	3.00	3
Sb			1	0.976	ug/l	1.66	9,219.99	3.406E-02	Pulse	1.00	3
Se			1	0.963	ug/l	18.86	86.89	3.211E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,083,125.67	0.96	97.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		288,945.76	0.86	99.7	Pulse	0.30	3
1	Ge		182,588.14	0.99	98.9	Pulse	0.30	3
1	In		1,679,864.38	1.31	98.7	Pulse	0.30	3
1	Tb		4,444,143.83	1.14	98.3	Pulse	0.50	3
1	Lu		3,366,864.75	1.12	97.9	Pulse	0.50	3
1	Ge		270,660.46	0.34	99.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,373.39	6.42	109.0	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:38
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.128	ug/l	2.34	23,076.98	1.324E-01	Pulse	0.50	3
As			1	0.082	ug/l	20.05	172.33	9.892E-04	Pulse	1.00	3
Mo			1	2079.826	ug/l	0.30	11,776,467.33	4.776E+01	Analog	0.50	3
Pb			1	0.046	ug/l	7.80	1,976.12	7.340E-04	Pulse	1.00	3
Be			1	0.011	ug/l	82.82	2.00	7.416E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	22.79	596.01	2.413E-03	Pulse	0.50	3
Ba			1	0.538	ug/l	1.90	1,475.39	9.925E-04	Pulse	0.50	3
Tl			1	0.041	ug/l	25.85	1,788.10	6.633E-04	Pulse	0.50	3
Sn			1	0.080	ug/l	18.70	703.35	4.726E-04	Pulse	0.30	3
Sr			1	0.864	ug/l	2.65	6,996.65	4.705E-03	Pulse	0.50	3
[Pb]			1	0.041	ug/l	7.81	874.69	3.251E-04	Pulse	0.50	3
Ca			1	97303.519	ug/l	0.38	4,109,647.58	1.524E+01	Pulse	0.50	3
Ti			1	1971.326	ug/l	0.68	581,486.23	2.156E+00	Pulse	0.50	3
Na			1	102265.587	ug/l	0.71	145,701,045.33	5.403E+02	Analog	1.00	3
Mg			1	100675.059	ug/l	0.92	73,570,808.00	2.728E+02	Analog	1.00	3
K			1	101808.803	ug/l	0.53	82,301,061.33	3.052E+02	Analog	1.00	3
V			1	0.053	ug/l	15.96	1,638.74	6.078E-03	Pulse	0.50	3
Mn			1	0.277	ug/l	2.57	2,016.11	1.156E-02	Pulse	0.50	3
Fe			1	99758.940	ug/l	0.63	902,850,922.67	5.179E+03	Analog	0.50	3
Co			1	0.111	ug/l	4.24	1,913.43	1.097E-02	Pulse	0.50	3
Ni			1	0.420	ug/l	8.23	2,234.81	1.282E-02	Pulse	0.50	3
Cu			1	0.084	ug/l	138.83	6,903.29	3.955E-02	Pulse	0.50	3
Zn			1	2.229	ug/l	1.83	5,591.48	2.268E-02	Pulse	1.00	3
Cd			1	0.750	ug/l	5.08	2,082.13	8.450E-03	Pulse	0.50	3
Al			1	97886.522	ug/l	0.92	31,074,298.00	1.152E+02	Analog	1.00	3
Se			1	0.234	ug/l	15.75	91.56	3.711E-04	Pulse	3.00	3
Sb			1	0.078	ug/l	2.60	785.69	3.186E-03	Pulse	1.00	3
Se			1	0.279	ug/l	46.35	43.55	1.767E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,691,075.75	1.41	85.3	Pulse	0.50	3
1	Sc		269,664.95	0.88	93.1	Pulse	0.30	3
1	Ge		174,331.98	1.20	94.4	Pulse	0.30	3
1	In		1,486,747.65	1.23	87.3	Pulse	0.30	3
1	Tb		4,173,211.08	1.99	92.3	Pulse	0.50	3
1	Lu		3,174,862.42	1.85	92.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		246,576.44	1.94	90.5	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,033.37	12.18	82.0	Pulse	0.30	3

Quantitation Report

File Name 016ICSB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:42
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.991	ug/l	0.35	226,863.56	1.282E+00	Pulse	0.50	3
As			1	18.740	ug/l	0.28	27,527.08	1.555E-01	Pulse	1.00	3
Mo			1	2086.191	ug/l	0.68	12,140,188.67	4.791E+01	Analog	0.50	3
Pb			1	0.044	ug/l	1.50	1,950.45	7.151E-04	Pulse	1.00	3
Be			1	0.027	ug/l	39.44	2.83	1.042E-05	Pulse	2.00	3
Ag			1	18.594	ug/l	0.60	326,046.23	1.287E+00	Pulse	0.50	3
Ba			1	0.545	ug/l	1.22	1,517.40	1.004E-03	Pulse	0.50	3
Tl			1	0.029	ug/l	6.50	1,402.73	5.139E-04	Pulse	0.50	3
Sn			1	0.074	ug/l	9.96	682.24	4.510E-04	Pulse	0.30	3
Sr			1	0.846	ug/l	1.94	6,971.31	4.612E-03	Pulse	0.50	3
[Pb]			1	0.051	ug/l	12.21	996.04	3.648E-04	Pulse	0.50	3
Ca			1	97174.997	ug/l	0.43	4,135,979.83	1.522E+01	Pulse	0.50	3
Ti			1	1971.503	ug/l	0.74	586,044.67	2.157E+00	Pulse	0.50	3
Na			1	102357.192	ug/l	0.42	146,967,109.33	5.408E+02	Analog	1.00	3
Mg			1	100229.479	ug/l	0.61	73,816,469.33	2.716E+02	Analog	1.00	3
K			1	102169.625	ug/l	0.45	83,233,154.67	3.063E+02	Analog	1.00	3
V			1	0.058	ug/l	5.43	1,692.74	6.229E-03	Pulse	0.50	3
Mn			1	18.981	ug/l	1.07	124,644.71	7.041E-01	Pulse	0.50	3
Fe			1	100368.465	ug/l	0.99	922,348,224.00	5.211E+03	Analog	0.50	3
Co			1	19.205	ug/l	0.74	316,754.58	1.789E+00	Pulse	0.50	3
Ni			1	18.869	ug/l	1.02	82,779.07	4.676E-01	Pulse	0.50	3
Cu			1	18.615	ug/l	0.32	220,155.09	1.244E+00	Pulse	0.50	3
Zn			1	19.526	ug/l	0.24	40,822.68	1.611E-01	Pulse	1.00	3
Cd			1	19.509	ug/l	1.12	55,357.69	2.185E-01	Pulse	0.50	3
Al			1	96684.224	ug/l	0.20	30,931,750.67	1.138E+02	Analog	1.00	3
Se			1	0.222	ug/l	57.79	92.89	3.660E-04	Pulse	3.00	3
Sb			1	0.079	ug/l	11.13	820.69	3.235E-03	Pulse	1.00	3
Se			1	0.152	ug/l	15.42	38.00	1.500E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,727,623.75	2.09	86.5	Pulse	0.50	3
1	Sc		271,752.42	0.83	93.8	Pulse	0.30	3
1	Ge		177,027.43	1.71	95.9	Pulse	0.30	3
1	In		1,511,747.75	1.75	88.8	Pulse	0.30	3
1	Tb		4,238,147.75	1.90	93.8	Pulse	0.50	3
1	Lu		3,216,005.67	1.74	93.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		253,409.41	1.70	93.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,055.59	8.12	83.8	Pulse	0.30	3

Quantitation Report

File Name 017CCVA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 12:46
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.401	ug/l	0.15	542,768.31	2.891E+00	Pulse	0.50	3
As			1	46.765	ug/l	0.16	72,774.16	3.876E-01	Pulse	1.00	3
Mo			1	47.935	ug/l	1.25	305,083.61	1.101E+00	Pulse	0.50	3
Pb			1	47.055	ug/l	0.59	1,328,486.63	4.204E-01	Pulse	1.00	3
Be			1	45.998	ug/l	1.94	2,579.67	9.084E-03	Pulse	2.00	3
Ag			1	49.721	ug/l	0.36	952,748.66	3.439E+00	Pulse	0.50	3
Ba			1	46.763	ug/l	1.14	143,170.57	8.460E-02	Pulse	0.50	3
Tl			1	48.650	ug/l	0.61	1,890,298.46	5.982E-01	Pulse	0.50	3
Sn			1	47.778	ug/l	0.97	335,592.80	1.983E-01	Pulse	0.30	3
Sr			1	46.623	ug/l	0.88	412,674.83	2.439E-01	Pulse	0.50	3
[Pb]			1	46.785	ug/l	0.90	629,380.98	1.992E-01	Pulse	0.50	3
Ca			1	4649.807	ug/l	0.90	207,246.78	7.298E-01	Pulse	0.50	3
Ti			1	46.678	ug/l	2.23	14,505.39	5.108E-02	Pulse	0.50	3
Na			1	4844.080	ug/l	0.24	7,279,080.83	2.563E+01	Analog	1.00	3
Mg			1	4681.235	ug/l	0.87	3,603,133.58	1.269E+01	Pulse	1.00	3
K			1	4744.715	ug/l	0.39	4,095,266.17	1.442E+01	Pulse	1.00	3
V			1	47.889	ug/l	0.75	434,172.90	1.529E+00	Pulse	0.50	3
Mn			1	46.784	ug/l	0.25	325,535.80	1.734E+00	Pulse	0.50	3
Fe			1	4815.676	ug/l	0.22	46,958,444.00	2.501E+02	Analog	0.50	3
Co			1	47.980	ug/l	0.27	839,301.64	4.470E+00	Pulse	0.50	3
Ni			1	48.172	ug/l	0.44	223,458.92	1.190E+00	Pulse	0.50	3
Cu			1	48.619	ug/l	0.48	599,569.00	3.193E+00	Pulse	0.50	3
Zn			1	47.981	ug/l	0.43	107,702.81	3.888E-01	Pulse	1.00	3
Cd			1	47.813	ug/l	1.43	148,300.30	5.353E-01	Pulse	0.50	3
Al			1	4580.245	ug/l	1.09	1,531,459.50	5.393E+00	Pulse	1.00	3
Se			1	45.738	ug/l	0.62	5,695.18	2.056E-02	Pulse	3.00	3
Sb			1	46.669	ug/l	0.89	444,745.37	1.605E+00	Pulse	1.00	3
Se			1	45.803	ug/l	0.67	2,711.09	9.786E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,159,674.17	0.72	100.2	Pulse	0.50	3
1	Sc		283,969.14	0.06	98.0	Pulse	0.30	3
1	Ge		187,774.17	1.13	101.7	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,692,236.95	0.53	99.4	Pulse	0.30	3
1	Tb		4,637,838.83	0.47	102.6	Pulse	0.50	3
1	Lu		3,450,014.25	0.46	100.4	Pulse	0.50	3
1	Ge		277,029.25	0.52	101.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,209.49	4.19	96.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:50
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.364	ug/l	1.02	1,115,957.50	5.995E+00	Pulse	0.50	3
As			1	97.563	ug/l	1.19	150,435.84	8.082E-01	Pulse	1.00	3
Mo			1	98.830	ug/l	0.24	626,027.29	2.270E+00	Pulse	0.50	3
Pb			1	98.248	ug/l	1.05	2,700,386.50	8.775E-01	Pulse	1.00	3
Be			1	95.965	ug/l	0.47	5,402.22	1.895E-02	Pulse	2.00	3
Ag			1	101.291	ug/l	0.54	1,931,979.29	7.005E+00	Pulse	0.50	3
Ba			1	98.204	ug/l	0.59	296,970.33	1.776E-01	Pulse	0.50	3
Tl			1	101.983	ug/l	1.39	3,858,664.92	1.254E+00	Pulse	0.50	3
Sn			1	99.165	ug/l	1.00	687,803.58	4.114E-01	Pulse	0.30	3
Sr			1	97.647	ug/l	1.11	853,448.02	5.105E-01	Pulse	0.50	3
[Pb]			1	98.340	ug/l	1.03	1,287,910.58	4.185E-01	Pulse	0.50	3
Ca			1	9711.454	ug/l	0.52	434,102.64	1.522E+00	Pulse	0.50	3
Ti			1	97.611	ug/l	1.16	30,449.62	1.068E-01	Pulse	0.50	3
Na			1	10004.037	ug/l	0.43	15,081,392.67	5.289E+01	Analog	1.00	3
Mg			1	9862.333	ug/l	0.55	7,621,191.17	2.673E+01	Analog	1.00	3
K			1	9933.358	ug/l	0.46	8,543,903.67	2.997E+01	Analog	1.00	3
V			1	99.455	ug/l	0.57	903,998.79	3.171E+00	Pulse	0.50	3
Mn			1	97.746	ug/l	0.88	673,937.67	3.621E+00	Pulse	0.50	3
Fe			1	9969.974	ug/l	0.89	96,355,600.00	5.177E+02	Analog	0.50	3
Co			1	98.478	ug/l	0.77	1,707,479.66	9.173E+00	Pulse	0.50	3
Ni			1	98.579	ug/l	0.43	452,795.92	2.433E+00	Pulse	0.50	3
Cu			1	99.298	ug/l	0.93	1,207,181.88	6.486E+00	Pulse	0.50	3
Zn			1	98.489	ug/l	0.96	218,679.85	7.929E-01	Pulse	1.00	3
Cd			1	98.919	ug/l	0.56	305,415.71	1.107E+00	Pulse	0.50	3
Al			1	9494.435	ug/l	0.87	3,187,218.00	1.118E+01	Pulse	1.00	3
Se			1	95.873	ug/l	1.16	11,803.64	4.280E-02	Pulse	3.00	3
Sb			1	97.226	ug/l	0.66	922,204.25	3.344E+00	Pulse	1.00	3
Se			1	95.786	ug/l	0.38	5,608.72	2.034E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,077,317.08	0.13	97.6	Pulse	0.50	3
1	Sc		285,124.72	0.17	98.4	Pulse	0.30	3
1	Ge		186,134.73	0.39	100.8	Pulse	0.30	3
1	In		1,671,719.00	0.19	98.2	Pulse	0.30	3
1	Tb		4,600,524.33	0.30	101.8	Pulse	0.50	3
1	Lu		3,449,299.58	0.41	100.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		275,783.75	0.23	101.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,135.04	15.01	90.1	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:53
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	665.35	519.34	2.754E-03	Pulse	0.50	3
As			1	0.005	ug/l	139.22	66.33	3.518E-04	Pulse	1.00	3
Mo			1	0.213	ug/l	25.79	1,488.07	5.350E-03	Pulse	0.50	3
Pb			1	0.009	ug/l	36.75	1,254.05	3.999E-04	Pulse	1.00	3
Be			1	0.017	ug/l	0.30	2.50	8.614E-06	Pulse	2.00	3
Ag			1	0.012	ug/l	3.45	444.68	1.600E-03	Pulse	0.50	3
Ba			1	-0.002	ug/l	-132.01	24.67	1.453E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	8.41	1,932.12	6.160E-04	Pulse	0.50	3
Sn			1	0.081	ug/l	17.45	812.25	4.771E-04	Pulse	0.30	3
Sr			1	0.009	ug/l	29.55	401.34	2.360E-04	Pulse	0.50	3
[Pb]			1	0.007	ug/l	21.04	564.68	1.800E-04	Pulse	0.50	3
Ca			1	1.832	ug/l	30.85	558.01	1.923E-03	Pulse	0.50	3
Ti			1	0.036	ug/l	93.41	18.00	6.201E-05	Pulse	0.50	3
Na			1	11.708	ug/l	5.06	29,941.93	1.032E-01	Pulse	1.00	3
Mg			1	3.245	ug/l	7.40	3,173.26	1.093E-02	Pulse	1.00	3
K			1	5.863	ug/l	5.66	65,257.38	2.248E-01	Pulse	1.00	3
V			1	-0.015	ug/l	-7.78	1,136.71	3.916E-03	Pulse	0.50	3
Mn			1	0.052	ug/l	9.96	608.01	3.223E-03	Pulse	0.50	3
Fe			1	3.822	ug/l	4.80	52,311.43	2.772E-01	Pulse	0.50	3
Co			1	0.003	ug/l	82.76	177.33	9.413E-04	Pulse	0.50	3
Ni			1	0.008	ug/l	120.57	504.68	2.675E-03	Pulse	0.50	3
Cu			1	0.035	ug/l	65.59	6,863.91	3.637E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-130.29	1,304.05	4.690E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	49.16	51.33	1.848E-04	Pulse	0.50	3
Al			1	2.917	ug/l	7.03	1,258.38	4.336E-03	Pulse	1.00	3
Se			1	0.118	ug/l	43.18	88.89	3.197E-04	Pulse	3.00	3
Sb			1	0.036	ug/l	1.59	484.01	1.741E-03	Pulse	1.00	3
Se			1	0.040	ug/l	56.51	35.11	1.263E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,137,284.42	1.02	99.5	Pulse	0.50	3
1	Sc		290,238.63	0.12	100.2	Pulse	0.30	3
1	Ge		188,750.12	1.07	102.2	Pulse	0.30	3
1	In		1,701,263.30	0.97	99.9	Pulse	0.30	3
1	Tb		4,545,217.00	1.13	100.6	Pulse	0.50	3
1	Lu		3,394,578.67	0.41	98.8	Pulse	0.50	3
1	Ge		277,996.20	0.37	102.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,208.93	3.43	95.9	Pulse	0.30	3

Quantitation Report

File Name	020_MB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 12:57
Sample Name	MP41794-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.783	ug/l	0.76	6,733.85	3.661E-02	Pulse	0.50	3
As			1	0.201	ug/l	22.19	117.67	6.399E-04	Pulse	1.00	3
Mo			1	1.192	ug/l	11.78	1,620.08	5.929E-03	Pulse	0.50	3
Pb			1	1.464	ug/l	1.70	9,267.18	2.933E-03	Pulse	1.00	3
Be			1	0.149	ug/l	105.99	3.17	1.106E-05	Pulse	2.00	3
Ag			1	0.098	ug/l	9.40	574.01	2.101E-03	Pulse	0.50	3
Ba			1	0.089	ug/l	29.96	85.33	5.101E-05	Pulse	0.50	3
Tl			1	0.101	ug/l	13.31	1,269.39	4.022E-04	Pulse	0.50	3
Sn			1	24.488	ug/l	0.66	34,239.65	2.046E-02	Pulse	0.30	3
Sr			1	0.078	ug/l	12.39	454.68	2.715E-04	Pulse	0.50	3
[Pb]			1	1.493	ug/l	2.29	4,482.60	1.419E-03	Pulse	0.50	3
Ca			1	35.056	ug/l	17.88	786.02	2.734E-03	Pulse	0.50	3
Ti			1	1.644	ug/l	13.89	110.00	3.827E-04	Pulse	0.50	3
Na			1	72.563	ug/l	7.62	33,931.01	1.180E-01	Pulse	1.00	3
Mg			1	30.736	ug/l	13.26	5,403.75	1.880E-02	Pulse	1.00	3
K			1	58.972	ug/l	19.60	69,787.77	2.426E-01	Pulse	1.00	3
V			1	0.941	ug/l	2.11	2,984.24	1.037E-02	Pulse	0.50	3
Mn			1	0.674	ug/l	8.76	1,157.38	6.295E-03	Pulse	0.50	3
Fe			1	74.640	ug/l	5.43	157,030.14	8.538E-01	Pulse	0.50	3
Co			1	0.050	ug/l	7.55	286.67	1.558E-03	Pulse	0.50	3
Ni			1	1.080	ug/l	8.88	1,435.39	7.800E-03	Pulse	0.50	3
Cu			1	3.094	ug/l	4.14	13,673.54	7.432E-02	Pulse	0.50	3
Zn			1	3.606	ug/l	2.05	2,898.89	1.062E-02	Pulse	1.00	3
Cd			1	0.065	ug/l	35.18	54.00	1.974E-04	Pulse	0.50	3
Al			1	35.383	ug/l	12.25	2,654.19	9.233E-03	Pulse	1.00	3
Se			1	0.322	ug/l	48.67	80.89	2.960E-04	Pulse	3.00	3
Sb			1	0.120	ug/l	21.17	364.00	1.335E-03	Pulse	1.00	3
Se			1	0.110	ug/l	68.81	33.44	1.225E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,158,903.00	1.69	100.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		287,732.36	1.46	99.3	Pulse	0.30	3
1	Ge		183,958.23	1.08	99.6	Pulse	0.30	3
1	In		1,674,027.47	2.22	98.3	Pulse	0.30	3
1	Tb		4,526,731.50	2.09	100.1	Pulse	0.50	3
1	Lu		3,348,084.92	1.91	97.4	Pulse	0.50	3
1	Ge		273,086.28	1.71	100.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,154.48	2.24	91.6	Pulse	0.30	3

Quantitation Report

File Name	021_BSP.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:01
Sample Name	MP41794-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	520.105	ug/l	0.57	1,175,662.04	6.340E+00	Pulse	0.50	3
As			1	524.662	ug/l	0.37	161,183.29	8.692E-01	Pulse	1.00	3
Mo			1	527.925	ug/l	0.66	658,424.58	2.425E+00	Pulse	0.50	3
Pb			1	526.252	ug/l	0.49	2,841,752.50	9.400E-01	Pulse	1.00	3
Be			1	502.173	ug/l	1.48	5,624.95	1.983E-02	Pulse	2.00	3
Ag			1	250.117	ug/l	1.17	939,410.52	3.460E+00	Pulse	0.50	3
Ba			1	518.456	ug/l	0.84	307,511.00	1.876E-01	Pulse	0.50	3
Tl			1	522.572	ug/l	0.43	3,884,489.83	1.285E+00	Pulse	0.50	3
Sn			1	550.338	ug/l	0.41	748,709.46	4.567E-01	Pulse	0.30	3
Sr			1	510.572	ug/l	0.57	875,287.00	5.339E-01	Pulse	0.50	3
[Pb]			1	503.816	ug/l	0.48	1,296,365.46	4.288E-01	Pulse	0.50	3
Ca			1	51240.331	ug/l	1.25	455,736.53	1.607E+00	Pulse	0.50	3
Ti			1	502.010	ug/l	0.39	31,162.72	1.098E-01	Pulse	0.50	3
Na			1	52756.354	ug/l	0.96	15,825,332.67	5.579E+01	Analog	1.00	3
Mg			1	52054.699	ug/l	0.92	8,004,460.00	2.822E+01	Analog	1.00	3
K			1	52485.835	ug/l	1.28	8,979,684.67	3.165E+01	Analog	1.00	3
V			1	523.051	ug/l	0.75	946,005.90	3.335E+00	Pulse	0.50	3
Mn			1	511.152	ug/l	0.25	702,171.79	3.787E+00	Pulse	0.50	3
Fe			1	52596.883	ug/l	0.22	101,279,541.33	5.462E+02	Analog	0.50	3
Co			1	519.378	ug/l	0.38	1,794,270.83	9.676E+00	Pulse	0.50	3
Ni			1	516.038	ug/l	0.47	472,240.66	2.547E+00	Pulse	0.50	3
Cu			1	521.745	ug/l	0.54	1,263,490.79	6.814E+00	Pulse	0.50	3
Zn			1	516.022	ug/l	0.81	225,527.81	8.307E-01	Pulse	1.00	3
Cd			1	512.764	ug/l	0.91	311,720.30	1.148E+00	Pulse	0.50	3
Al			1	48918.874	ug/l	0.78	3,267,811.83	1.152E+01	Pulse	1.00	3
Se			1	490.609	ug/l	0.07	11,891.14	4.380E-02	Pulse	3.00	3
Sb			1	517.936	ug/l	0.76	967,264.56	3.563E+00	Pulse	1.00	3
Se			1	492.445	ug/l	0.49	5,676.51	2.091E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,022,962.92	1.14	95.9	Pulse	0.50	3
1	Sc		283,699.48	0.98	97.9	Pulse	0.30	3
1	Ge		185,428.96	0.62	100.4	Pulse	0.30	3
1	In		1,639,545.11	1.00	96.3	Pulse	0.30	3
1	Tb		4,536,643.17	0.90	100.4	Pulse	0.50	3
1	Lu		3,375,124.08	1.17	98.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		271,501.87	0.41	99.6	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,043.37	2.50	82.8	Pulse	0.30	3

Quantitation Report

File Name	022SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:05
Sample Name	FC2193-15
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	669.122	ug/l	0.81	383,184.08	2.041E+00	Pulse	0.50	3
As			1	74.545	ug/l	1.46	5,852.57	3.117E-02	Pulse	1.00	3
Mo			1	12.117	ug/l	3.65	3,959.77	1.437E-02	Pulse	0.50	3
Pb			1	283.935	ug/l	0.46	399,581.41	1.271E-01	Pulse	1.00	3
Be			1	4.180	ug/l	30.00	14.17	4.643E-05	Pulse	2.00	3
Ag			1	1.287	ug/l	5.88	1,433.40	5.201E-03	Pulse	0.50	3
Ba			1	1963.742	ug/l	0.70	299,078.14	1.776E-01	Pulse	0.50	3
Tl			1	2.255	ug/l	3.93	4,841.37	1.540E-03	Pulse	0.50	3
Sn			1	31.465	ug/l	1.48	11,226.82	6.667E-03	Pulse	0.30	3
Sr			1	1423.338	ug/l	0.87	626,628.77	3.721E-01	Pulse	0.50	3
[Pb]			1	281.801	ug/l	0.16	188,958.07	6.009E-02	Pulse	0.50	3
Ca			1	215025.237	ug/l	1.45	514,201.26	1.685E+00	Pulse	0.50	3
Ti			1	17834.339	ug/l	1.73	297,596.28	9.754E-01	Pulse	0.50	3
Na			1	6745.318	ug/l	0.91	556,259.86	1.823E+00	Pulse	1.00	3
Mg			1	97635.027	ug/l	1.21	4,037,110.17	1.323E+01	Pulse	1.00	3
K			1	21085.651	ug/l	0.97	1,026,909.50	3.366E+00	Pulse	1.00	3
V			1	890.555	ug/l	1.45	433,832.06	1.422E+00	Pulse	0.50	3
Mn			1	7699.472	ug/l	0.59	2,676,561.75	1.426E+01	Pulse	0.50	3
Fe			1	376922.426	ug/l	0.28	183,702,432.00	9.785E+02	Analog	0.50	3
Co			1	158.301	ug/l	0.90	138,533.21	7.379E-01	Pulse	0.50	3
Ni			1	672.351	ug/l	0.46	156,053.36	8.312E-01	Pulse	0.50	3
Cu			1	585.534	ug/l	1.22	363,527.28	1.936E+00	Pulse	0.50	3
Zn			1	2087.408	ug/l	0.72	231,550.71	8.400E-01	Pulse	1.00	3
Cd			1	10.417	ug/l	2.86	1,621.41	5.882E-03	Pulse	0.50	3
Al			1	239078.663	ug/l	1.21	4,293,989.33	1.407E+01	Pulse	1.00	3
Se			1	12.253	ug/l	11.86	148.67	5.392E-04	Pulse	3.00	3
Sb			1	5.445	ug/l	2.74	2,721.54	9.873E-03	Pulse	1.00	3
Se			1	36.455	ug/l	9.10	138.56	5.026E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,144,450.58	0.92	99.7	Pulse	0.50	3
1	Sc		305,124.42	0.79	105.3	Pulse	0.30	3
1	Ge		187,744.79	0.57	101.7	Pulse	0.30	3
1	In		1,683,856.64	0.26	98.9	Pulse	0.30	3
1	Tb		4,579,270.00	1.25	101.3	Pulse	0.50	3
1	Lu		3,425,878.50	1.15	99.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		275,659.45	0.39	101.2	Pulse	0.30	3
1	Te		7.33	41.66		Pulse	0.50	3
1	Li		1,152.26	5.35	91.4	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:09
Sample Name	MP41794-D1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	603.345	ug/l	0.53	348,101.16	1.841E+00	Pulse	0.50	3
As			1	66.205	ug/l	1.77	5,242.06	2.772E-02	Pulse	1.00	3
Mo			1	10.028	ug/l	3.43	3,328.31	1.197E-02	Pulse	0.50	3
Pb			1	252.916	ug/l	0.63	353,597.04	1.132E-01	Pulse	1.00	3
Be			1	2.467	ug/l	12.27	9.00	2.952E-05	Pulse	2.00	3
Ag			1	1.117	ug/l	7.77	1,283.38	4.614E-03	Pulse	0.50	3
Ba			1	1731.729	ug/l	1.02	265,306.39	1.566E-01	Pulse	0.50	3
Tl			1	1.559	ug/l	1.28	3,473.70	1.112E-03	Pulse	0.50	3
Sn			1	28.296	ug/l	3.63	10,180.66	6.010E-03	Pulse	0.30	3
Sr			1	1252.103	ug/l	0.65	554,553.25	3.274E-01	Pulse	0.50	3
[Pb]			1	251.749	ug/l	0.46	167,701.82	5.370E-02	Pulse	0.50	3
Ca			1	191700.395	ug/l	1.09	458,288.31	1.503E+00	Pulse	0.50	3
Ti			1	16373.623	ug/l	1.11	273,121.08	8.955E-01	Pulse	0.50	3
Na			1	5729.163	ug/l	0.65	474,154.63	1.555E+00	Pulse	1.00	3
Mg			1	86105.065	ug/l	1.04	3,558,951.17	1.167E+01	Pulse	1.00	3
K			1	19521.943	ug/l	0.51	955,042.00	3.131E+00	Pulse	1.00	3
V			1	781.330	ug/l	0.78	380,638.42	1.248E+00	Pulse	0.50	3
Mn			1	6650.613	ug/l	0.20	2,328,944.58	1.231E+01	Pulse	0.50	3
Fe			1	328514.447	ug/l	0.06	161,286,586.67	8.528E+02	Analog	0.50	3
Co			1	138.100	ug/l	1.21	121,761.37	6.438E-01	Pulse	0.50	3
Ni			1	583.656	ug/l	0.58	136,528.36	7.219E-01	Pulse	0.50	3
Cu			1	500.389	ug/l	0.77	313,886.88	1.660E+00	Pulse	0.50	3
Zn			1	1807.021	ug/l	0.83	202,413.88	7.278E-01	Pulse	1.00	3
Cd			1	8.674	ug/l	3.63	1,364.72	4.906E-03	Pulse	0.50	3
Al			1	211267.658	ug/l	0.96	3,792,990.83	1.244E+01	Pulse	1.00	3
Se			1	9.229	ug/l	14.74	131.33	4.722E-04	Pulse	3.00	3
Sb			1	4.238	ug/l	2.89	2,168.80	7.797E-03	Pulse	1.00	3
Se			1	27.015	ug/l	10.81	112.11	4.030E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,122,874.25	1.08	99.0	Pulse	0.50	3
1	Sc		304,985.63	0.54	105.3	Pulse	0.30	3
1	Ge		189,122.79	0.70	102.4	Pulse	0.30	3
1	In		1,693,846.42	0.70	99.5	Pulse	0.30	3
1	Tb		4,593,129.50	0.66	101.6	Pulse	0.50	3
1	Lu		3,437,227.83	1.19	100.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,105.89	0.71	102.1	Pulse	0.30	3
1	Te		4.67	49.49		Pulse	0.50	3
1	Li		1,187.82	2.52	94.3	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:12
Sample Name	MP41794-D2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	619.512	ug/l	0.31	359,942.34	1.890E+00	Pulse	0.50	3
As			1	70.444	ug/l	1.52	5,613.50	2.947E-02	Pulse	1.00	3
Mo			1	10.013	ug/l	8.14	3,330.31	1.195E-02	Pulse	0.50	3
Pb			1	277.333	ug/l	0.12	389,745.51	1.241E-01	Pulse	1.00	3
Be			1	3.836	ug/l	30.41	13.33	4.303E-05	Pulse	2.00	3
Ag			1	1.113	ug/l	5.25	1,282.05	4.601E-03	Pulse	0.50	3
Ba			1	1854.927	ug/l	0.50	284,266.42	1.678E-01	Pulse	0.50	3
Tl			1	1.457	ug/l	4.85	3,295.66	1.049E-03	Pulse	0.50	3
Sn			1	28.981	ug/l	0.26	10,424.13	6.152E-03	Pulse	0.30	3
Sr			1	1316.310	ug/l	1.09	583,154.14	3.442E-01	Pulse	0.50	3
[Pb]			1	276.664	ug/l	0.15	185,252.03	5.900E-02	Pulse	0.50	3
Ca			1	197671.158	ug/l	1.10	480,252.36	1.549E+00	Pulse	0.50	3
Ti			1	16271.926	ug/l	1.14	275,842.89	8.900E-01	Pulse	0.50	3
Na			1	5810.750	ug/l	0.92	488,557.84	1.576E+00	Pulse	1.00	3
Mg			1	90637.411	ug/l	1.00	3,807,292.83	1.228E+01	Pulse	1.00	3
K			1	19987.628	ug/l	0.63	992,217.40	3.201E+00	Pulse	1.00	3
V			1	818.934	ug/l	1.67	405,387.70	1.308E+00	Pulse	0.50	3
Mn			1	7034.961	ug/l	0.49	2,480,932.83	1.303E+01	Pulse	0.50	3
Fe			1	347511.274	ug/l	0.30	171,814,384.00	9.021E+02	Analog	0.50	3
Co			1	145.683	ug/l	0.13	129,341.03	6.791E-01	Pulse	0.50	3
Ni			1	617.837	ug/l	0.24	145,513.09	7.640E-01	Pulse	0.50	3
Cu			1	533.338	ug/l	0.65	336,486.66	1.767E+00	Pulse	0.50	3
Zn			1	1939.966	ug/l	1.32	217,605.81	7.810E-01	Pulse	1.00	3
Cd			1	9.386	ug/l	2.89	1,478.07	5.305E-03	Pulse	0.50	3
Al			1	218287.352	ug/l	1.08	3,982,821.50	1.285E+01	Pulse	1.00	3
Se			1	9.949	ug/l	7.61	136.00	4.881E-04	Pulse	3.00	3
Sb			1	4.304	ug/l	2.59	2,204.14	7.910E-03	Pulse	1.00	3
Se			1	29.266	ug/l	5.51	118.89	4.267E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,139,924.58	1.50	99.6	Pulse	0.50	3
1	Sc		309,952.21	0.34	107.0	Pulse	0.30	3
1	Ge		190,456.73	0.83	103.1	Pulse	0.30	3
1	In		1,694,331.08	0.66	99.5	Pulse	0.30	3
1	Tb		4,617,970.17	1.37	102.2	Pulse	0.50	3
1	Lu		3,428,652.33	0.94	99.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,616.12	0.43	102.2	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,164.48	1.86	92.4	Pulse	0.30	3

File Name	025SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:16
Sample Name	MP41794-SD1
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	700.927	ug/l	1.24	82,198.06	4.297E-01	Pulse	0.50	3
As			1	77.746	ug/l	0.78	1,290.05	6.745E-03	Pulse	1.00	3
Mo			1	11.605	ug/l	4.06	888.02	3.118E-03	Pulse	0.50	3
Pb			1	291.146	ug/l	0.95	83,172.15	2.631E-02	Pulse	1.00	3
Be			1	4.854	ug/l	61.86	4.50	1.475E-05	Pulse	2.00	3
Ag			1	1.345	ug/l	17.09	479.34	1.681E-03	Pulse	0.50	3
Ba			1	2021.969	ug/l	1.15	62,785.63	3.659E-02	Pulse	0.50	3
Tl			1	1.187	ug/l	14.15	947.36	2.997E-04	Pulse	0.50	3
Sn			1	30.655	ug/l	4.97	2,425.73	1.414E-03	Pulse	0.30	3
Sr			1	1474.885	ug/l	0.24	132,579.15	7.727E-02	Pulse	0.50	3
[Pb]			1	290.383	ug/l	0.44	39,513.44	1.250E-02	Pulse	0.50	3
Ca			1	231654.974	ug/l	1.29	111,173.32	3.644E-01	Pulse	0.50	3
Ti			1	18980.414	ug/l	1.05	63,344.48	2.076E-01	Pulse	0.50	3
Na			1	7547.092	ug/l	0.76	134,240.80	4.400E-01	Pulse	1.00	3
Mg			1	105795.723	ug/l	1.00	875,326.86	2.869E+00	Pulse	1.00	3
K			1	22908.097	ug/l	0.26	272,596.52	8.936E-01	Pulse	1.00	3
V			1	946.955	ug/l	0.56	93,303.93	3.058E-01	Pulse	0.50	3
Mn			1	8116.751	ug/l	0.99	575,122.88	3.007E+00	Pulse	0.50	3
Fe			1	401994.777	ug/l	0.68	39,931,988.00	2.088E+02	Analog	0.50	3
Co			1	166.884	ug/l	1.73	29,848.93	1.561E-01	Pulse	0.50	3
Ni			1	706.287	ug/l	1.16	33,776.06	1.766E-01	Pulse	0.50	3
Cu			1	634.006	ug/l	2.13	85,318.62	4.460E-01	Pulse	0.50	3
Zn			1	2156.449	ug/l	0.30	50,538.52	1.774E-01	Pulse	1.00	3
Cd			1	11.401	ug/l	7.81	378.01	1.328E-03	Pulse	0.50	3
Al			1	259479.243	ug/l	1.29	932,202.08	3.056E+00	Pulse	1.00	3
Se			1	7.350	ug/l	49.57	85.44	3.001E-04	Pulse	3.00	3
Sb			1	4.606	ug/l	2.61	596.68	2.095E-03	Pulse	1.00	3
Se			1	30.680	ug/l	16.11	52.00	1.826E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,160,550.67	1.41	100.2	Pulse	0.50	3
1	Sc		305,067.78	0.42	105.3	Pulse	0.30	3
1	Ge		191,269.29	0.59	103.6	Pulse	0.30	3
1	In		1,715,709.10	1.33	100.8	Pulse	0.30	3
1	Tb		4,599,343.17	1.64	101.8	Pulse	0.50	3
1	Lu		3,415,600.33	1.23	99.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		284,884.92	1.24	104.5	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		1,143.38	8.90	90.7	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:20
Sample Name	MP41794-S1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1103.317	ug/l	0.71	642,159.19	3.364E+00	Pulse	0.50	3
As			1	564.273	ug/l	0.46	44,661.18	2.339E-01	Pulse	1.00	3
Mo			1	492.557	ug/l	0.59	158,101.34	5.660E-01	Pulse	0.50	3
Pb			1	747.030	ug/l	0.59	1,028,246.62	3.338E-01	Pulse	1.00	3
Be			1	444.276	ug/l	4.70	1,350.05	4.390E-03	Pulse	2.00	3
Ag			1	268.959	ug/l	1.13	259,981.54	9.307E-01	Pulse	0.50	3
Ba			1	2293.162	ug/l	0.08	348,830.54	2.074E-01	Pulse	0.50	3
Tl			1	490.368	ug/l	0.11	928,969.86	3.016E-01	Pulse	0.50	3
Sn			1	524.679	ug/l	1.01	183,249.21	1.090E-01	Pulse	0.30	3
Sr			1	1855.663	ug/l	0.34	815,900.75	4.851E-01	Pulse	0.50	3
[Pb]			1	723.154	ug/l	0.77	474,308.81	1.540E-01	Pulse	0.50	3
Ca			1	252341.545	ug/l	0.80	608,171.61	1.978E+00	Pulse	0.50	3
Ti			1	17769.981	ug/l	1.32	298,892.49	9.719E-01	Pulse	0.50	3
Na			1	55442.006	ug/l	1.60	4,516,861.83	1.469E+01	Mix	1.00	3
Mg			1	139794.883	ug/l	0.86	5,826,291.17	1.894E+01	Analog	1.00	3
K			1	67868.482	ug/l	0.60	3,190,230.33	1.037E+01	Pulse	1.00	3
V			1	1294.662	ug/l	0.64	635,135.71	2.065E+00	Pulse	0.50	3
Mn			1	7334.198	ug/l	0.55	2,592,534.58	1.358E+01	Pulse	0.50	3
Fe			1	390062.619	ug/l	0.29	193,311,893.33	1.013E+03	Analog	0.50	3
Co			1	640.047	ug/l	0.19	569,198.10	2.982E+00	Pulse	0.50	3
Ni			1	1093.027	ug/l	0.35	257,673.55	1.350E+00	Pulse	0.50	3
Cu			1	1007.678	ug/l	0.10	631,450.65	3.308E+00	Pulse	0.50	3
Zn			1	2351.978	ug/l	0.78	264,198.32	9.458E-01	Pulse	1.00	3
Cd			1	495.922	ug/l	1.17	77,552.64	2.776E-01	Pulse	0.50	3
Al			1	283156.155	ug/l	0.65	5,126,264.83	1.667E+01	Analog	1.00	3
Se			1	478.780	ug/l	0.55	3,041.25	1.089E-02	Pulse	3.00	3
Sb			1	184.800	ug/l	1.45	88,897.13	3.183E-01	Pulse	1.00	3
Se			1	508.102	ug/l	2.11	1,530.84	5.481E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,080,379.75	0.82	97.7	Pulse	0.50	3
1	Sc		307,547.89	0.47	106.2	Pulse	0.30	3
1	Ge		190,909.31	0.39	103.4	Pulse	0.30	3
1	In		1,681,886.67	0.60	98.8	Pulse	0.30	3
1	Tb		4,570,566.17	0.63	101.1	Pulse	0.50	3
1	Lu		3,402,524.75	0.53	99.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,331.23	0.48	102.5	Pulse	0.30	3
1	Te		3.33	69.28		Pulse	0.50	3
1	Li		1,101.15	2.75	87.4	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:24
Sample Name MP41794-S2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1086.146	ug/l	0.51	627,687.04	3.311E+00	Pulse	0.50	3
As			1	560.875	ug/l	0.79	44,076.54	2.325E-01	Pulse	1.00	3
Mo			1	491.280	ug/l	0.96	156,855.23	5.645E-01	Pulse	0.50	3
Pb			1	739.968	ug/l	0.40	1,017,628.04	3.307E-01	Pulse	1.00	3
Be			1	457.300	ug/l	4.48	1,392.55	4.518E-03	Pulse	2.00	3
Ag			1	263.981	ug/l	0.29	253,805.42	9.135E-01	Pulse	0.50	3
Ba			1	2284.777	ug/l	0.98	347,050.48	2.066E-01	Pulse	0.50	3
Tl			1	481.173	ug/l	0.87	910,769.73	2.959E-01	Pulse	0.50	3
Sn			1	514.044	ug/l	1.01	179,274.18	1.067E-01	Pulse	0.30	3
Sr			1	1845.117	ug/l	1.18	810,048.46	4.824E-01	Pulse	0.50	3
[Pb]			1	716.647	ug/l	0.56	469,623.70	1.526E-01	Pulse	0.50	3
Ca			1	250803.740	ug/l	0.28	605,789.38	1.965E+00	Pulse	0.50	3
Ti			1	17840.555	ug/l	0.60	300,742.72	9.758E-01	Pulse	0.50	3
Na			1	54350.279	ug/l	1.24	4,437,812.00	1.440E+01	Mix	1.00	3
Mg			1	140541.069	ug/l	0.49	5,870,178.67	1.905E+01	Analog	1.00	3
K			1	67247.223	ug/l	0.41	3,168,478.50	1.028E+01	Pulse	1.00	3
V			1	1276.463	ug/l	0.53	627,587.10	2.036E+00	Pulse	0.50	3
Mn			1	7408.597	ug/l	0.54	2,600,278.42	1.372E+01	Pulse	0.50	3
Fe			1	392104.893	ug/l	0.57	192,944,997.33	1.018E+03	Analog	0.50	3
Co			1	635.520	ug/l	1.12	561,172.50	2.960E+00	Pulse	0.50	3
Ni			1	1108.043	ug/l	1.09	259,364.56	1.368E+00	Pulse	0.50	3
Cu			1	1003.296	ug/l	0.64	624,273.08	3.293E+00	Pulse	0.50	3
Zn			1	2349.393	ug/l	0.67	262,506.88	9.448E-01	Pulse	1.00	3
Cd			1	492.555	ug/l	1.28	76,619.48	2.758E-01	Pulse	0.50	3
Al			1	281912.982	ug/l	0.21	5,114,855.17	1.660E+01	Analog	1.00	3
Se			1	470.252	ug/l	0.95	2,972.34	1.070E-02	Pulse	3.00	3
Sb			1	193.473	ug/l	0.46	92,566.70	3.332E-01	Pulse	1.00	3
Se			1	492.282	ug/l	0.84	1,476.28	5.314E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,077,579.92	0.89	97.6	Pulse	0.50	3
1	Sc		308,212.86	0.42	106.4	Pulse	0.30	3
1	Ge		189,554.41	0.53	102.6	Pulse	0.30	3
1	In		1,679,427.68	0.45	98.7	Pulse	0.30	3
1	Tb		4,589,221.33	1.00	101.5	Pulse	0.50	3
1	Lu		3,412,171.17	0.63	99.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		277,835.63	0.60	102.0	Pulse	0.30	3
1	Te		4.67	24.74		Pulse	0.50	3
1	Li		1,166.71	13.78	92.6	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:28
Sample Name	MP41794-PS1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	684.011	ug/l	1.38	396,935.68	2.086E+00	Pulse	0.50	3
As			1	85.742	ug/l	0.98	6,812.55	3.581E-02	Pulse	1.00	3
Mo			1	21.503	ug/l	1.56	7,025.33	2.514E-02	Pulse	0.50	3
Pb			1	294.625	ug/l	0.72	408,101.41	1.318E-01	Pulse	1.00	3
Be			1	12.991	ug/l	5.81	41.50	1.334E-04	Pulse	2.00	3
Ag			1	3.463	ug/l	6.64	3,556.36	1.273E-02	Pulse	0.50	3
Ba			1	1983.967	ug/l	0.24	302,763.72	1.794E-01	Pulse	0.50	3
Tl			1	12.119	ug/l	1.24	23,533.49	7.603E-03	Pulse	0.50	3
Sn			1	39.954	ug/l	2.64	14,221.11	8.428E-03	Pulse	0.30	3
Sr			1	1455.578	ug/l	0.52	642,087.92	3.806E-01	Pulse	0.50	3
[Pb]			1	294.852	ug/l	0.73	194,601.18	6.287E-02	Pulse	0.50	3
Ca			1	216978.594	ug/l	0.33	529,138.08	1.701E+00	Pulse	0.50	3
Ti			1	17843.783	ug/l	0.56	303,655.05	9.759E-01	Pulse	0.50	3
Na			1	7689.602	ug/l	0.57	644,857.94	2.073E+00	Pulse	1.00	3
Mg			1	98896.699	ug/l	0.32	4,170,155.33	1.340E+01	Pulse	1.00	3
K			1	22170.918	ug/l	0.81	1,097,769.04	3.528E+00	Pulse	1.00	3
V			1	905.151	ug/l	0.57	449,654.60	1.445E+00	Pulse	0.50	3
Mn			1	7778.835	ug/l	1.03	2,740,277.92	1.440E+01	Pulse	0.50	3
Fe			1	383146.565	ug/l	0.76	189,234,218.67	9.946E+02	Analog	0.50	3
Co			1	170.753	ug/l	1.14	151,417.31	7.959E-01	Pulse	0.50	3
Ni			1	685.971	ug/l	1.36	161,334.93	8.480E-01	Pulse	0.50	3
Cu			1	601.802	ug/l	1.33	378,433.56	1.989E+00	Pulse	0.50	3
Zn			1	2104.260	ug/l	0.77	236,588.01	8.467E-01	Pulse	1.00	3
Cd			1	19.768	ug/l	4.31	3,106.27	1.112E-02	Pulse	0.50	3
Al			1	240451.415	ug/l	0.16	4,404,112.67	1.415E+01	Pulse	1.00	3
Se			1	21.489	ug/l	7.12	207.89	7.441E-04	Pulse	3.00	3
Sb			1	14.457	ug/l	3.34	7,088.05	2.537E-02	Pulse	1.00	3
Se			1	40.754	ug/l	2.42	153.11	5.480E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,095,276.67	0.78	98.2	Pulse	0.50	3
1	Sc		311,143.26	0.46	107.4	Pulse	0.30	3
1	Ge		190,257.30	0.20	103.0	Pulse	0.30	3
1	In		1,687,233.75	0.98	99.1	Pulse	0.30	3
1	Tb		4,592,779.67	0.99	101.6	Pulse	0.50	3
1	Lu		3,414,989.67	0.69	99.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,410.50	0.28	102.5	Pulse	0.30	3
1	Te		8.00	66.14		Pulse	0.50	3
1	Li		1,143.37	2.62	90.7	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:32
Sample Name FC2193-1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	674.872	ug/l	0.50	391,074.81	2.058E+00	Pulse	0.50	3
As			1	136.752	ug/l	1.15	10,815.06	5.693E-02	Pulse	1.00	3
Mo			1	8.455	ug/l	0.42	2,826.89	1.016E-02	Pulse	0.50	3
Pb			1	2061.541	ug/l	0.56	2,809,833.42	9.206E-01	Pulse	1.00	3
Be			1	4.841	ug/l	11.39	16.50	5.294E-05	Pulse	2.00	3
Ag			1	2.073	ug/l	4.40	2,202.81	7.919E-03	Pulse	0.50	3
Ba			1	1560.829	ug/l	0.49	237,409.66	1.412E-01	Pulse	0.50	3
Tl			1	1.335	ug/l	6.26	2,972.94	9.744E-04	Pulse	0.50	3
Sn			1	50.992	ug/l	2.39	18,024.43	1.072E-02	Pulse	0.30	3
Sr			1	1092.332	ug/l	0.20	480,332.49	2.856E-01	Pulse	0.50	3
[Pb]			1	2052.037	ug/l	0.91	1,332,683.17	4.366E-01	Pulse	0.50	3
Ca			1	185974.806	ug/l	0.54	454,143.30	1.458E+00	Pulse	0.50	3
Ti			1	22491.329	ug/l	0.21	383,199.39	1.230E+00	Pulse	0.50	3
Na			1	22713.373	ug/l	0.53	1,881,907.75	6.041E+00	Pulse	1.00	3
Mg			1	121566.125	ug/l	0.58	5,132,006.33	1.647E+01	Analog	1.00	3
K			1	27885.402	ug/l	0.28	1,365,752.00	4.384E+00	Pulse	1.00	3
V			1	1132.637	ug/l	0.40	562,986.56	1.807E+00	Pulse	0.50	3
Mn			1	7792.008	ug/l	0.89	2,740,969.17	1.443E+01	Pulse	0.50	3
Fe			1	466382.252	ug/l	0.30	230,007,936.00	1.211E+03	Analog	0.50	3
Co			1	205.517	ug/l	1.25	181,958.77	9.578E-01	Pulse	0.50	3
Ni			1	673.168	ug/l	1.13	158,106.54	8.322E-01	Pulse	0.50	3
Cu			1	893.218	ug/l	1.50	557,742.41	2.936E+00	Pulse	0.50	3
Zn			1	2204.908	ug/l	0.49	246,778.75	8.870E-01	Pulse	1.00	3
Cd			1	13.475	ug/l	7.58	2,112.13	7.594E-03	Pulse	0.50	3
Al			1	333968.307	ug/l	0.32	6,124,146.50	1.966E+01	Analog	1.00	3
Se			1	12.758	ug/l	6.97	153.11	5.504E-04	Pulse	3.00	3
Sb			1	7.369	ug/l	1.12	3,667.37	1.318E-02	Pulse	1.00	3
Se			1	36.334	ug/l	6.54	139.44	5.013E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,052,027.92	1.09	96.8	Pulse	0.50	3
1	Sc		311,517.92	0.69	107.5	Pulse	0.30	3
1	Ge		189,981.43	0.18	102.9	Pulse	0.30	3
1	In		1,681,597.57	1.31	98.8	Pulse	0.30	3
1	Tb		4,541,628.67	0.85	100.5	Pulse	0.50	3
1	Lu		3,375,245.08	0.68	98.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,212.66	0.76	102.1	Pulse	0.30	3
1	Te		17.33	70.50		Pulse	0.50	3
1	Li		1,170.60	13.64	92.9	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:35
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.868	ug/l	0.88	565,998.13	2.919E+00	Pulse	0.50	3
As			1	46.940	ug/l	0.97	75,429.70	3.890E-01	Pulse	1.00	3
Mo			1	46.857	ug/l	0.53	307,371.85	1.076E+00	Pulse	0.50	3
Pb			1	46.922	ug/l	0.66	1,296,429.04	4.193E-01	Pulse	1.00	3
Be			1	45.358	ug/l	1.79	2,694.35	8.958E-03	Pulse	2.00	3
Ag			1	48.679	ug/l	0.83	961,391.23	3.367E+00	Pulse	0.50	3
Ba			1	46.616	ug/l	1.42	144,938.08	8.433E-02	Pulse	0.50	3
Tl			1	48.590	ug/l	0.86	1,847,613.75	5.975E-01	Pulse	0.50	3
Sn			1	47.784	ug/l	1.02	340,863.09	1.983E-01	Pulse	0.30	3
Sr			1	47.266	ug/l	1.06	424,879.35	2.472E-01	Pulse	0.50	3
[Pb]			1	47.096	ug/l	1.03	620,033.83	2.005E-01	Pulse	0.50	3
Ca			1	4641.908	ug/l	0.81	219,148.45	7.286E-01	Pulse	0.50	3
Ti			1	47.288	ug/l	0.90	15,565.53	5.175E-02	Pulse	0.50	3
Na			1	4877.805	ug/l	0.43	7,763,896.33	2.581E+01	Analog	1.00	3
Mg			1	4656.774	ug/l	1.10	3,796,592.67	1.262E+01	Pulse	1.00	3
K			1	4748.331	ug/l	0.66	4,341,164.50	1.443E+01	Pulse	1.00	3
V			1	47.706	ug/l	0.84	458,127.60	1.523E+00	Pulse	0.50	3
Mn			1	47.433	ug/l	0.40	340,813.91	1.758E+00	Pulse	0.50	3
Fe			1	4920.850	ug/l	0.47	49,549,944.00	2.555E+02	Analog	0.50	3
Co			1	48.173	ug/l	0.33	870,159.43	4.488E+00	Pulse	0.50	3
Ni			1	48.326	ug/l	1.07	231,481.35	1.194E+00	Pulse	0.50	3
Cu			1	48.577	ug/l	1.17	618,590.60	3.190E+00	Pulse	0.50	3
Zn			1	47.858	ug/l	0.81	110,730.73	3.878E-01	Pulse	1.00	3
Cd			1	46.875	ug/l	1.31	149,849.87	5.248E-01	Pulse	0.50	3
Al			1	4556.341	ug/l	1.40	1,613,705.46	5.365E+00	Pulse	1.00	3
Se			1	46.144	ug/l	1.86	5,921.25	2.074E-02	Pulse	3.00	3
Sb			1	46.143	ug/l	1.33	453,211.95	1.587E+00	Pulse	1.00	3
Se			1	46.574	ug/l	0.96	2,840.77	9.949E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,092,153.50	0.72	98.1	Pulse	0.50	3
1	Sc		300,797.19	0.60	103.8	Pulse	0.30	3
1	Ge		193,897.61	0.44	105.0	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,718,635.38	0.40	101.0	Pulse	0.30	3
1	Tb		4,607,293.33	0.69	101.9	Pulse	0.50	3
1	Lu		3,428,449.92	0.92	99.7	Pulse	0.50	3
1	Ge		285,538.15	0.69	104.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,145.60	4.37	90.9	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:39
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.965	ug/l	1.11	1,154,856.25	6.032E+00	Pulse	0.50	3
As			1	97.745	ug/l	0.84	155,025.62	8.097E-01	Pulse	1.00	3
Mo			1	98.132	ug/l	2.27	634,248.77	2.254E+00	Pulse	0.50	3
Pb			1	98.717	ug/l	0.62	2,637,413.92	8.817E-01	Pulse	1.00	3
Be			1	96.346	ug/l	1.44	5,619.11	1.902E-02	Pulse	2.00	3
Ag			1	99.586	ug/l	1.87	1,938,144.71	6.888E+00	Pulse	0.50	3
Ba			1	97.911	ug/l	1.38	297,504.35	1.771E-01	Pulse	0.50	3
Tl			1	101.843	ug/l	0.24	3,745,630.58	1.252E+00	Pulse	0.50	3
Sn			1	98.869	ug/l	1.01	689,047.47	4.102E-01	Pulse	0.30	3
Sr			1	98.919	ug/l	0.61	868,708.90	5.172E-01	Pulse	0.50	3
[Pb]			1	98.513	ug/l	0.68	1,254,121.04	4.193E-01	Pulse	0.50	3
Ca			1	9705.503	ug/l	0.88	449,451.19	1.522E+00	Pulse	0.50	3
Ti			1	97.631	ug/l	2.22	31,549.43	1.068E-01	Pulse	0.50	3
Na			1	10171.659	ug/l	0.89	15,885,748.33	5.378E+01	Analog	1.00	3
Mg			1	10029.149	ug/l	0.80	8,029,000.50	2.718E+01	Analog	1.00	3
K			1	10167.883	ug/l	0.39	9,059,186.67	3.067E+01	Analog	1.00	3
V			1	99.549	ug/l	1.21	937,410.21	3.174E+00	Pulse	0.50	3
Mn			1	97.313	ug/l	0.61	690,136.96	3.605E+00	Pulse	0.50	3
Fe			1	10114.024	ug/l	0.90	100,542,280.00	5.251E+02	Analog	0.50	3
Co			1	98.494	ug/l	1.36	1,756,551.33	9.175E+00	Pulse	0.50	3
Ni			1	98.798	ug/l	0.73	466,777.14	2.438E+00	Pulse	0.50	3
Cu			1	98.974	ug/l	0.98	1,237,668.46	6.465E+00	Pulse	0.50	3
Zn			1	98.766	ug/l	1.18	223,765.00	7.951E-01	Pulse	1.00	3
Cd			1	97.082	ug/l	2.34	305,839.00	1.087E+00	Pulse	0.50	3
Al			1	9498.399	ug/l	1.49	3,303,152.75	1.118E+01	Pulse	1.00	3
Se			1	95.284	ug/l	1.47	11,970.74	4.254E-02	Pulse	3.00	3
Sb			1	95.771	ug/l	2.01	926,889.19	3.294E+00	Pulse	1.00	3
Se			1	94.509	ug/l	0.45	5,647.73	2.007E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,991,263.08	0.72	94.9	Pulse	0.50	3
1	Sc		295,397.42	0.81	102.0	Pulse	0.30	3
1	Ge		191,463.55	0.69	103.7	Pulse	0.30	3
1	In		1,679,730.25	0.28	98.7	Pulse	0.30	3
1	Tb		4,533,119.83	0.56	100.3	Pulse	0.50	3
1	Lu		3,383,031.00	0.81	98.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,437.82	1.13	103.3	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		1,083.37	10.21	86.0	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:43
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.001	ug/l	262.22	528.68	2.739E-03	Pulse	0.50	3
As			1	0.010	ug/l	115.20	75.00	3.891E-04	Pulse	1.00	3
Mo			1	0.086	ug/l	30.13	695.35	2.439E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	29.02	1,295.72	4.238E-04	Pulse	1.00	3
Be			1	0.035	ug/l	107.36	3.67	1.215E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	29.25	442.68	1.554E-03	Pulse	0.50	3
Ba			1	0.008	ug/l	48.15	57.33	3.366E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	12.51	1,891.45	6.185E-04	Pulse	0.50	3
Sn			1	0.071	ug/l	15.24	744.47	4.359E-04	Pulse	0.30	3
Sr			1	0.014	ug/l	28.17	449.34	2.631E-04	Pulse	0.50	3
[Pb]			1	0.014	ug/l	39.56	637.35	2.085E-04	Pulse	0.50	3
Ca			1	-0.613	ug/l	-216.68	465.34	1.540E-03	Pulse	0.50	3
Ti			1	0.068	ug/l	91.25	29.33	9.690E-05	Pulse	0.50	3
Na			1	5.435	ug/l	8.72	21,155.48	7.002E-02	Pulse	1.00	3
Mg			1	1.218	ug/l	30.82	1,643.41	5.442E-03	Pulse	1.00	3
K			1	3.952	ug/l	10.66	66,204.49	2.191E-01	Pulse	1.00	3
V			1	-0.002	ug/l	-171.94	1,300.72	4.305E-03	Pulse	0.50	3
Mn			1	0.065	ug/l	5.54	718.02	3.720E-03	Pulse	0.50	3
Fe			1	2.318	ug/l	18.26	38,406.29	1.991E-01	Pulse	0.50	3
Co			1	0.006	ug/l	88.82	232.67	1.209E-03	Pulse	0.50	3
Ni			1	0.003	ug/l	235.19	492.68	2.551E-03	Pulse	0.50	3
Cu			1	-0.056	ug/l	-39.81	5,878.91	3.046E-02	Pulse	0.50	3
Zn			1	-0.051	ug/l	-30.29	1,265.04	4.440E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	25.02	61.33	2.153E-04	Pulse	0.50	3
Al			1	1.282	ug/l	27.23	728.35	2.411E-03	Pulse	1.00	3
Se			1	0.152	ug/l	21.23	95.44	3.349E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	9.45	398.34	1.398E-03	Pulse	1.00	3
Se			1	0.014	ug/l	647.13	34.44	1.209E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,059,424.25	1.45	97.0	Pulse	0.50	3
1	Sc		302,142.50	0.42	104.3	Pulse	0.30	3

1	Ge		193,032.80	0.92	104.5	Pulse	0.30	3
1	In		1,706,569.66	1.43	100.3	Pulse	0.30	3
1	Tb		4,498,077.50	1.71	99.5	Pulse	0.50	3
1	Lu		3,342,182.75	1.49	97.2	Pulse	0.50	3
1	Ge		284,931.68	0.50	104.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,213.38	2.97	96.3	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:47
Sample Name	FC2193-2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	883.486	ug/l	0.16	511,720.42	2.694E+00	Pulse	0.50	3
As			1	171.813	ug/l	0.82	13,571.15	7.144E-02	Pulse	1.00	3
Mo			1	12.860	ug/l	3.80	4,213.16	1.522E-02	Pulse	0.50	3
Pb			1	21180.969	ug/l	1.11	28,397,633.33	9.456E+00	Analog	1.00	3
Be			1	5.320	ug/l	1.47	17.83	5.768E-05	Pulse	2.00	3
Ag			1	18.039	ug/l	1.29	17,472.23	6.313E-02	Pulse	0.50	3
Ba			1	1849.570	ug/l	0.57	278,932.12	1.673E-01	Pulse	0.50	3
Tl			1	2.769	ug/l	4.71	5,572.26	1.856E-03	Pulse	0.50	3
Sn			1	156.702	ug/l	1.33	54,429.22	3.264E-02	Pulse	0.30	3
Sr			1	928.792	ug/l	0.66	404,997.20	2.429E-01	Pulse	0.50	3
[Pb]			1	21125.155	ug/l	1.14	13,495,667.33	4.494E+00	Analog	0.50	3
Ca			1	156830.536	ug/l	0.59	380,175.56	1.230E+00	Pulse	0.50	3
Ti			1	22157.490	ug/l	0.95	374,662.76	1.212E+00	Pulse	0.50	3
Na			1	15877.616	ug/l	0.43	1,309,515.50	4.236E+00	Pulse	1.00	3
Mg			1	133346.541	ug/l	0.63	5,586,955.67	1.807E+01	Analog	1.00	3
K			1	23783.687	ug/l	0.54	1,165,554.54	3.770E+00	Pulse	1.00	3
V			1	1235.799	ug/l	0.82	609,512.50	1.971E+00	Pulse	0.50	3
Mn			1	8163.436	ug/l	0.21	2,871,103.92	1.512E+01	Pulse	0.50	3
Fe			1	514502.639	ug/l	0.22	253,694,698.67	1.336E+03	Analog	0.50	3
Co			1	218.506	ug/l	0.85	193,419.13	1.018E+00	Pulse	0.50	3
Ni			1	745.026	ug/l	0.39	174,901.15	9.208E-01	Pulse	0.50	3
Cu			1	3069.545	ug/l	0.69	1,900,553.12	1.001E+01	Pulse	0.50	3
Zn			1	5874.213	ug/l	0.76	651,859.21	2.355E+00	Pulse	1.00	3
Cd			1	64.106	ug/l	3.56	9,947.37	3.593E-02	Pulse	0.50	3
Al			1	343083.986	ug/l	0.59	6,243,981.33	2.020E+01	Analog	1.00	3
Se			1	15.616	ug/l	13.09	169.89	6.138E-04	Pulse	3.00	3
Sb			1	41.360	ug/l	2.31	19,824.03	7.163E-02	Pulse	1.00	3
Se			1	41.654	ug/l	8.13	154.34	5.575E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,003,472.25	1.23	95.2	Pulse	0.50	3
1	Sc		309,175.68	0.56	106.7	Pulse	0.30	3
1	Ge		189,948.73	0.51	102.9	Pulse	0.30	3
1	In		1,667,422.92	1.24	98.0	Pulse	0.30	3
1	Tb		4,500,041.67	0.73	99.6	Pulse	0.50	3
1	Lu		3,336,911.92	0.74	97.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,803.76	0.91	101.6	Pulse	0.30	3
1	Te		180.67	6.29		Pulse	0.50	3
1	Li		1,262.27	6.34	100.2	Pulse	0.30	3

Quantitation Report

File Name	034SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:50
Sample Name	FC2193-3
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	930.660	ug/l	0.36	540,714.89	2.838E+00	Pulse	0.50	3
As			1	257.510	ug/l	1.14	20,374.82	1.069E-01	Pulse	1.00	3
Mo			1	12.063	ug/l	4.55	3,981.11	1.430E-02	Pulse	0.50	3
Pb			1	1815.867	ug/l	0.51	2,456,227.92	8.109E-01	Pulse	1.00	3
Be			1	5.381	ug/l	36.22	18.33	5.828E-05	Pulse	2.00	3
Ag			1	12.172	ug/l	1.03	11,920.51	4.284E-02	Pulse	0.50	3
Ba			1	2360.914	ug/l	1.35	355,954.11	2.135E-01	Pulse	0.50	3
Tl			1	2.190	ug/l	2.83	4,543.95	1.500E-03	Pulse	0.50	3
Sn			1	44.112	ug/l	4.22	15,484.36	9.290E-03	Pulse	0.30	3
Sr			1	921.776	ug/l	1.51	401,822.39	2.411E-01	Pulse	0.50	3
[Pb]			1	1826.828	ug/l	0.49	1,177,410.04	3.887E-01	Pulse	0.50	3
Ca			1	132891.926	ug/l	0.28	327,843.63	1.042E+00	Pulse	0.50	3
Ti			1	20874.751	ug/l	0.79	359,138.89	1.142E+00	Pulse	0.50	3
Na			1	7020.831	ug/l	0.47	596,390.57	1.896E+00	Pulse	1.00	3
Mg			1	119712.279	ug/l	0.49	5,103,295.17	1.622E+01	Analog	1.00	3
K			1	25159.583	ug/l	0.19	1,250,682.00	3.976E+00	Pulse	1.00	3
V			1	1174.182	ug/l	0.66	589,303.85	1.873E+00	Pulse	0.50	3
Mn			1	8490.687	ug/l	0.32	2,995,664.58	1.572E+01	Pulse	0.50	3
Fe			1	490442.598	ug/l	0.49	242,597,941.33	1.273E+03	Analog	0.50	3
Co			1	211.063	ug/l	0.38	187,420.73	9.836E-01	Pulse	0.50	3
Ni			1	861.373	ug/l	0.46	202,784.06	1.064E+00	Pulse	0.50	3
Cu			1	803.031	ug/l	1.00	503,591.50	2.643E+00	Pulse	0.50	3
Zn			1	2351.420	ug/l	0.23	263,154.98	9.456E-01	Pulse	1.00	3
Cd			1	15.222	ug/l	0.45	2,385.49	8.572E-03	Pulse	0.50	3
Al			1	370824.277	ug/l	0.42	6,866,534.83	2.183E+01	Analog	1.00	3
Se			1	15.658	ug/l	7.27	171.11	6.148E-04	Pulse	3.00	3
Sb			1	11.003	ug/l	0.53	5,406.80	1.943E-02	Pulse	1.00	3
Se			1	48.127	ug/l	6.67	174.11	6.258E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,028,774.00	0.93	96.0	Pulse	0.50	3
1	Sc		314,563.24	0.26	108.6	Pulse	0.30	3
1	Ge		190,548.71	0.80	103.2	Pulse	0.30	3
1	In		1,667,091.81	1.47	97.9	Pulse	0.30	3
1	Tb		4,500,223.33	1.44	99.6	Pulse	0.50	3
1	Lu		3,342,250.58	1.32	97.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,286.67	0.91	102.1	Pulse	0.30	3
1	Te		27.33	59.14		Pulse	0.50	3
1	Li		1,184.49	6.81	94.0	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 13:54
Sample Name	FC2193-4
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	964.712	ug/l	1.18	556,182.96	2.941E+00	Pulse	0.50	3
As			1	241.276	ug/l	1.61	18,946.03	1.002E-01	Pulse	1.00	3
Mo			1	11.935	ug/l	1.45	3,907.75	1.416E-02	Pulse	0.50	3
Pb			1	1810.272	ug/l	0.61	2,431,819.17	8.084E-01	Pulse	1.00	3
Be			1	5.290	ug/l	30.16	18.17	5.738E-05	Pulse	2.00	3
Ag			1	10.040	ug/l	3.44	9,789.95	3.547E-02	Pulse	0.50	3
Ba			1	2522.766	ug/l	0.10	380,641.05	2.282E-01	Pulse	0.50	3
Tl			1	2.219	ug/l	0.17	4,565.96	1.518E-03	Pulse	0.50	3
Sn			1	44.789	ug/l	1.06	15,733.45	9.431E-03	Pulse	0.30	3
Sr			1	925.798	ug/l	0.09	403,912.64	2.421E-01	Pulse	0.50	3
[Pb]			1	1805.521	ug/l	0.30	1,155,624.67	3.842E-01	Pulse	0.50	3
Ca			1	137100.035	ug/l	0.57	340,334.67	1.075E+00	Pulse	0.50	3
Ti			1	21982.977	ug/l	1.16	380,582.46	1.202E+00	Pulse	0.50	3
Na			1	7800.090	ug/l	0.41	665,297.33	2.102E+00	Pulse	1.00	3
Mg			1	125849.134	ug/l	1.00	5,398,578.83	1.705E+01	Analog	1.00	3
K			1	26547.731	ug/l	0.24	1,324,372.08	4.184E+00	Pulse	1.00	3
V			1	1250.223	ug/l	1.20	631,319.65	1.994E+00	Pulse	0.50	3
Mn			1	8749.464	ug/l	1.09	3,063,229.00	1.620E+01	Pulse	0.50	3
Fe			1	517351.982	ug/l	1.05	253,936,325.33	1.343E+03	Analog	0.50	3
Co			1	220.295	ug/l	1.53	194,116.48	1.027E+00	Pulse	0.50	3
Ni			1	899.757	ug/l	1.31	210,161.34	1.112E+00	Pulse	0.50	3
Cu			1	853.903	ug/l	1.93	530,947.45	2.808E+00	Pulse	0.50	3
Zn			1	2586.352	ug/l	1.82	286,958.88	1.040E+00	Pulse	1.00	3
Cd			1	18.952	ug/l	2.94	2,942.91	1.066E-02	Pulse	0.50	3
Al			1	386797.844	ug/l	0.86	7,207,318.67	2.277E+01	Analog	1.00	3
Se			1	19.418	ug/l	10.84	192.67	6.982E-04	Pulse	3.00	3
Sb			1	11.235	ug/l	3.55	5,472.82	1.983E-02	Pulse	1.00	3
Se			1	49.762	ug/l	6.52	177.56	6.431E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,856.17	1.28	95.4	Pulse	0.50	3
1	Sc		316,543.40	0.16	109.3	Pulse	0.30	3
1	Ge		189,090.59	0.89	102.4	Pulse	0.30	3
1	In		1,668,242.36	0.84	98.0	Pulse	0.30	3
1	Tb		4,500,734.17	0.62	99.6	Pulse	0.50	3
1	Lu		3,336,249.08	1.10	97.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,044.61	0.69	101.3	Pulse	0.30	3
1	Te		31.33	16.06		Pulse	0.50	3
1	Li		1,120.04	5.67	88.9	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 13:58
Sample Name FC2193-5
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	761.674	ug/l	0.60	445,403.84	2.323E+00	Pulse	0.50	3
As			1	188.876	ug/l	0.93	15,052.92	7.851E-02	Pulse	1.00	3
Mo			1	8.320	ug/l	3.04	2,788.22	1.001E-02	Pulse	0.50	3
Pb			1	1158.573	ug/l	0.43	1,572,319.75	5.175E-01	Pulse	1.00	3
Be			1	4.529	ug/l	9.84	15.83	4.987E-05	Pulse	2.00	3
Ag			1	5.995	ug/l	2.25	5,984.98	2.148E-02	Pulse	0.50	3
Ba			1	1901.828	ug/l	1.24	288,565.39	1.720E-01	Pulse	0.50	3
Tl			1	1.671	ug/l	4.32	3,588.39	1.181E-03	Pulse	0.50	3
Sn			1	35.190	ug/l	1.29	12,480.95	7.440E-03	Pulse	0.30	3
Sr			1	672.497	ug/l	0.17	295,110.33	1.759E-01	Pulse	0.50	3
[Pb]			1	1166.021	ug/l	0.39	754,001.90	2.482E-01	Pulse	0.50	3
Ca			1	102346.081	ug/l	0.56	254,912.30	8.030E-01	Pulse	0.50	3
Ti			1	17890.551	ug/l	0.48	310,612.02	9.785E-01	Pulse	0.50	3
Na			1	5602.270	ug/l	0.38	482,884.78	1.521E+00	Pulse	1.00	3
Mg			1	93198.961	ug/l	0.36	4,009,505.42	1.263E+01	Pulse	1.00	3
K			1	19644.303	ug/l	0.42	999,857.11	3.150E+00	Pulse	1.00	3
V			1	989.911	ug/l	0.74	501,582.58	1.580E+00	Pulse	0.50	3
Mn			1	6478.264	ug/l	0.95	2,299,974.25	1.200E+01	Pulse	0.50	3
Fe			1	402079.902	ug/l	0.56	200,136,746.67	1.044E+03	Analog	0.50	3
Co			1	164.113	ug/l	1.08	146,672.46	7.649E-01	Pulse	0.50	3
Ni			1	714.534	ug/l	1.01	169,360.09	8.832E-01	Pulse	0.50	3
Cu			1	618.731	ug/l	0.78	391,938.63	2.044E+00	Pulse	0.50	3
Zn			1	1870.795	ug/l	0.12	209,896.31	7.533E-01	Pulse	1.00	3
Cd			1	9.294	ug/l	4.18	1,463.40	5.254E-03	Pulse	0.50	3
Al			1	296871.966	ug/l	0.28	5,547,431.83	1.748E+01	Analog	1.00	3
Se			1	14.279	ug/l	8.53	162.78	5.842E-04	Pulse	3.00	3
Sb			1	8.099	ug/l	2.33	4,021.78	1.444E-02	Pulse	1.00	3
Se			1	37.361	ug/l	4.96	142.67	5.122E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,038,107.00	0.80	96.3	Pulse	0.50	3
1	Sc		317,437.63	0.33	109.6	Pulse	0.30	3
1	Ge		191,747.42	1.09	103.8	Pulse	0.30	3
1	In		1,677,462.50	0.80	98.5	Pulse	0.30	3
1	Tb		4,515,701.17	1.55	99.9	Pulse	0.50	3
1	Lu		3,330,702.67	0.74	96.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		278,624.31	1.19	102.2	Pulse	0.30	3
1	Te		16.67	13.86		Pulse	0.50	3
1	Li		1,082.26	2.93	85.9	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:02
Sample Name	FC2193-6
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	968.672	ug/l	1.34	570,821.23	2.953E+00	Pulse	0.50	3
As			1	119.630	ug/l	1.85	9,632.76	4.984E-02	Pulse	1.00	3
Mo			1	6.776	ug/l	4.05	2,314.82	8.233E-03	Pulse	0.50	3
Pb			1	1401.075	ug/l	0.15	1,876,252.09	6.258E-01	Pulse	1.00	3
Be			1	6.181	ug/l	11.70	21.17	6.617E-05	Pulse	2.00	3
Ag			1	4.815	ug/l	4.00	4,892.66	1.740E-02	Pulse	0.50	3
Ba			1	1726.346	ug/l	0.79	260,396.09	1.561E-01	Pulse	0.50	3
Tl			1	1.345	ug/l	2.70	2,940.93	9.808E-04	Pulse	0.50	3
Sn			1	33.077	ug/l	1.77	11,674.88	7.002E-03	Pulse	0.30	3
Sr			1	669.034	ug/l	0.29	291,874.56	1.750E-01	Pulse	0.50	3
[Pb]			1	1390.408	ug/l	0.55	887,196.19	2.959E-01	Pulse	0.50	3
Ca			1	104594.277	ug/l	1.47	262,527.77	8.206E-01	Pulse	0.50	3
Ti			1	21228.370	ug/l	1.12	371,428.24	1.161E+00	Pulse	0.50	3
Na			1	5411.614	ug/l	0.65	470,542.32	1.471E+00	Pulse	1.00	3
Mg			1	147475.223	ug/l	1.03	6,393,522.67	1.999E+01	Analog	1.00	3
K			1	19221.539	ug/l	0.71	987,411.04	3.086E+00	Pulse	1.00	3
V			1	1106.946	ug/l	1.51	565,072.42	1.766E+00	Pulse	0.50	3
Mn			1	7963.988	ug/l	0.80	2,850,014.33	1.475E+01	Pulse	0.50	3
Fe			1	494782.544	ug/l	0.48	248,240,538.67	1.284E+03	Analog	0.50	3
Co			1	221.589	ug/l	0.20	199,578.74	1.033E+00	Pulse	0.50	3
Ni			1	1179.310	ug/l	0.91	281,429.80	1.456E+00	Pulse	0.50	3
Cu			1	699.596	ug/l	0.80	445,847.79	2.307E+00	Pulse	0.50	3
Zn			1	1625.401	ug/l	1.02	184,190.64	6.551E-01	Pulse	1.00	3
Cd			1	22.053	ug/l	1.29	3,485.01	1.240E-02	Pulse	0.50	3
Al			1	353452.195	ug/l	1.26	6,656,061.50	2.081E+01	Analog	1.00	3
Se			1	12.835	ug/l	15.33	155.22	5.521E-04	Pulse	3.00	3
Sb			1	6.357	ug/l	2.43	3,216.62	1.144E-02	Pulse	1.00	3
Se			1	41.594	ug/l	1.15	156.55	5.569E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,998,272.00	1.60	95.1	Pulse	0.50	3
1	Sc		319,922.57	0.51	110.4	Pulse	0.30	3
1	Ge		193,273.45	0.48	104.7	Pulse	0.30	3
1	In		1,667,642.89	1.03	98.0	Pulse	0.30	3
1	Tb		4,479,515.83	1.35	99.1	Pulse	0.50	3
1	Lu		3,325,478.42	1.37	96.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,140.31	0.23	103.2	Pulse	0.30	3
1	Te		17.33	52.03		Pulse	0.50	3
1	Li		1,142.26	9.72	90.7	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:06
Sample Name FC2193-7
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	992.069	ug/l	0.34	580,835.36	3.025E+00	Pulse	0.50	3
As			1	114.735	ug/l	1.26	9,181.21	4.781E-02	Pulse	1.00	3
Mo			1	11.487	ug/l	2.41	3,827.74	1.364E-02	Pulse	0.50	3
Pb			1	9010.383	ug/l	0.75	11,963,733.67	4.023E+00	Analog	1.00	3
Be			1	5.978	ug/l	14.40	20.17	6.417E-05	Pulse	2.00	3
Ag			1	5.675	ug/l	0.30	5,716.23	2.037E-02	Pulse	0.50	3
Ba			1	1689.272	ug/l	0.90	255,852.37	1.528E-01	Pulse	0.50	3
Tl			1	1.377	ug/l	1.48	2,974.94	1.000E-03	Pulse	0.50	3
Sn			1	62.013	ug/l	0.98	21,772.94	1.300E-02	Pulse	0.30	3
Sr			1	747.466	ug/l	0.49	327,399.19	1.955E-01	Pulse	0.50	3
[Pb]			1	8899.466	ug/l	3.40	5,629,546.17	1.893E+00	Mix	0.50	3
Ca			1	130823.946	ug/l	0.80	322,600.91	1.026E+00	Pulse	0.50	3
Ti			1	22817.282	ug/l	0.63	392,388.14	1.248E+00	Pulse	0.50	3
Na			1	11900.993	ug/l	0.82	1,001,434.12	3.185E+00	Pulse	1.00	3
Mg			1	164454.346	ug/l	0.93	7,007,072.67	2.229E+01	Analog	1.00	3
K			1	21128.750	ug/l	0.31	1,060,284.17	3.372E+00	Pulse	1.00	3
V			1	1223.628	ug/l	0.58	613,786.81	1.952E+00	Pulse	0.50	3
Mn			1	8879.694	ug/l	0.67	3,157,273.50	1.644E+01	Pulse	0.50	3
Fe			1	569819.101	ug/l	0.52	284,039,104.00	1.479E+03	Analog	0.50	3
Co			1	251.193	ug/l	0.82	224,763.58	1.170E+00	Pulse	0.50	3
Ni			1	1223.865	ug/l	0.44	290,158.58	1.511E+00	Pulse	0.50	3
Cu			1	2111.909	ug/l	0.75	1,324,018.17	6.895E+00	Pulse	0.50	3
Zn			1	2805.698	ug/l	1.11	316,317.97	1.127E+00	Pulse	1.00	3
Cd			1	82.872	ug/l	2.53	13,030.62	4.644E-02	Pulse	0.50	3
Al			1	366092.770	ug/l	0.83	6,775,934.33	2.155E+01	Analog	1.00	3
Se			1	14.119	ug/l	7.83	162.89	5.806E-04	Pulse	3.00	3
Sb			1	26.605	ug/l	2.54	12,978.92	4.625E-02	Pulse	1.00	3
Se			1	41.712	ug/l	9.58	156.56	5.581E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,974,293.67	1.51	94.3	Pulse	0.50	3
1	Sc		314,426.79	0.57	108.5	Pulse	0.30	3
1	Ge		192,032.26	1.14	104.0	Pulse	0.30	3
1	In		1,674,518.86	0.36	98.4	Pulse	0.30	3
1	Tb		4,494,321.00	1.17	99.4	Pulse	0.50	3
1	Lu		3,326,919.08	1.14	96.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,575.73	0.45	103.0	Pulse	0.30	3
1	Te		19.33	58.82		Pulse	0.50	3
1	Li		1,156.71	1.73	91.8	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:10
Sample Name FC2193-8
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	683.581	ug/l	1.19	401,845.51	2.085E+00	Pulse	0.50	3
As			1	107.969	ug/l	0.88	8,674.31	4.501E-02	Pulse	1.00	3
Mo			1	5.386	ug/l	4.96	1,866.77	6.637E-03	Pulse	0.50	3
Pb			1	7593.086	ug/l	0.94	10,192,971.33	3.390E+00	Analog	1.00	3
Be			1	3.813	ug/l	47.20	13.50	4.280E-05	Pulse	2.00	3
Ag			1	1.118	ug/l	5.10	1,299.39	4.619E-03	Pulse	0.50	3
Ba			1	1357.218	ug/l	1.69	204,692.61	1.228E-01	Pulse	0.50	3
Tl			1	1.079	ug/l	5.50	2,456.86	8.168E-04	Pulse	0.50	3
Sn			1	29.527	ug/l	6.02	10,446.64	6.265E-03	Pulse	0.30	3
Sr			1	902.581	ug/l	0.79	393,587.08	2.361E-01	Pulse	0.50	3
[Pb]			1	7255.301	ug/l	0.25	4,641,265.50	1.543E+00	Pulse	0.50	3
Ca			1	132298.779	ug/l	0.85	327,464.33	1.038E+00	Pulse	0.50	3
Ti			1	20043.675	ug/l	1.13	345,981.88	1.096E+00	Pulse	0.50	3
Na			1	6537.924	ug/l	0.41	558,101.96	1.768E+00	Pulse	1.00	3
Mg			1	126027.940	ug/l	0.29	5,390,259.83	1.708E+01	Analog	1.00	3
K			1	22203.196	ug/l	0.11	1,115,063.00	3.533E+00	Pulse	1.00	3
V			1	983.577	ug/l	0.91	495,493.48	1.570E+00	Pulse	0.50	3
Mn			1	6964.794	ug/l	0.62	2,485,376.67	1.290E+01	Pulse	0.50	3
Fe			1	427000.664	ug/l	0.44	213,629,786.67	1.108E+03	Analog	0.50	3
Co			1	180.762	ug/l	0.82	162,365.35	8.425E-01	Pulse	0.50	3
Ni			1	813.801	ug/l	1.17	193,797.53	1.006E+00	Pulse	0.50	3
Cu			1	1171.878	ug/l	0.68	740,260.17	3.841E+00	Pulse	0.50	3
Zn			1	1424.453	ug/l	1.11	161,682.79	5.747E-01	Pulse	1.00	3
Cd			1	4.798	ug/l	4.62	770.02	2.737E-03	Pulse	0.50	3
Al			1	269697.438	ug/l	0.72	5,010,555.17	1.588E+01	Analog	1.00	3
Se			1	12.022	ug/l	22.25	150.22	5.341E-04	Pulse	3.00	3
Sb			1	35.217	ug/l	1.37	17,177.69	6.106E-02	Pulse	1.00	3
Se			1	34.901	ug/l	2.51	136.78	4.862E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,003.75	1.14	95.4	Pulse	0.50	3
1	Sc		315,605.09	0.25	108.9	Pulse	0.30	3
1	Ge		192,723.91	0.51	104.4	Pulse	0.30	3
1	In		1,667,400.35	0.52	98.0	Pulse	0.30	3
1	Tb		4,505,028.17	0.88	99.7	Pulse	0.50	3
1	Lu		3,320,136.75	1.05	96.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,302.37	0.39	103.2	Pulse	0.30	3
1	Te		4.67	24.74		Pulse	0.50	3
1	Li		1,232.27	10.34	97.8	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:13
Sample Name FC2193-9
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	698.664	ug/l	0.35	411,613.64	2.131E+00	Pulse	0.50	3
As			1	115.619	ug/l	0.98	9,306.27	4.818E-02	Pulse	1.00	3
Mo			1	5.801	ug/l	2.47	2,000.78	7.114E-03	Pulse	0.50	3
Pb			1	6218.094	ug/l	0.87	8,343,584.17	2.776E+00	Analog	1.00	3
Be			1	3.317	ug/l	14.31	12.00	3.790E-05	Pulse	2.00	3
Ag			1	1.010	ug/l	5.87	1,194.05	4.245E-03	Pulse	0.50	3
Ba			1	1417.980	ug/l	0.91	216,041.31	1.283E-01	Pulse	0.50	3
Tl			1	0.943	ug/l	2.94	2,204.15	7.334E-04	Pulse	0.50	3
Sn			1	30.456	ug/l	4.67	10,879.94	6.458E-03	Pulse	0.30	3
Sr			1	850.046	ug/l	1.09	374,482.17	2.223E-01	Pulse	0.50	3
[Pb]			1	5961.787	ug/l	0.39	3,812,123.67	1.268E+00	Pulse	0.50	3
Ca			1	125384.730	ug/l	1.19	311,312.50	9.834E-01	Pulse	0.50	3
Ti			1	19529.353	ug/l	0.58	338,119.66	1.068E+00	Pulse	0.50	3
Na			1	6483.999	ug/l	0.29	555,280.48	1.754E+00	Pulse	1.00	3
Mg			1	123107.890	ug/l	0.58	5,281,285.00	1.668E+01	Analog	1.00	3
K			1	20239.475	ug/l	0.08	1,025,316.61	3.239E+00	Pulse	1.00	3
V			1	958.967	ug/l	0.93	484,588.48	1.531E+00	Pulse	0.50	3
Mn			1	6807.906	ug/l	0.24	2,434,880.08	1.261E+01	Pulse	0.50	3
Fe			1	406764.230	ug/l	0.18	203,962,410.67	1.056E+03	Analog	0.50	3
Co			1	174.870	ug/l	0.31	157,428.59	8.150E-01	Pulse	0.50	3
Ni			1	799.112	ug/l	0.21	190,734.40	9.875E-01	Pulse	0.50	3
Cu			1	1088.487	ug/l	1.03	689,623.00	3.570E+00	Pulse	0.50	3
Zn			1	1388.007	ug/l	1.38	157,559.65	5.602E-01	Pulse	1.00	3
Cd			1	4.477	ug/l	1.60	719.35	2.558E-03	Pulse	0.50	3
Al			1	265417.332	ug/l	0.74	4,945,915.00	1.562E+01	Analog	1.00	3
Se			1	11.396	ug/l	9.26	146.33	5.202E-04	Pulse	3.00	3
Sb			1	34.042	ug/l	0.89	16,607.17	5.904E-02	Pulse	1.00	3
Se			1	36.593	ug/l	1.87	141.78	5.041E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,005,637.75	1.35	95.3	Pulse	0.50	3
1	Sc		316,558.30	0.27	109.3	Pulse	0.30	3
1	Ge		193,156.94	0.72	104.6	Pulse	0.30	3
1	In		1,684,449.48	0.69	99.0	Pulse	0.30	3
1	Tb		4,503,106.50	1.23	99.6	Pulse	0.50	3
1	Lu		3,357,309.42	0.76	97.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,265.72	0.27	103.2	Pulse	0.30	3
1	Te		6.67	17.32		Pulse	0.50	3
1	Li		1,107.82	8.05	87.9	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:17
Sample Name FC2193-10
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	657.831	ug/l	1.02	384,911.65	2.007E+00	Pulse	0.50	3
As			1	96.973	ug/l	0.57	7,760.92	4.046E-02	Pulse	1.00	3
Mo			1	14.871	ug/l	2.08	4,920.00	1.753E-02	Pulse	0.50	3
Pb			1	13464.496	ug/l	0.58	17,993,457.33	6.011E+00	Analog	1.00	3
Be			1	3.626	ug/l	16.63	12.83	4.096E-05	Pulse	2.00	3
Ag			1	1.173	ug/l	9.78	1,349.39	4.806E-03	Pulse	0.50	3
Ba			1	1307.770	ug/l	0.37	198,790.74	1.183E-01	Pulse	0.50	3
Tl			1	0.940	ug/l	5.96	2,191.48	7.318E-04	Pulse	0.50	3
Sn			1	32.207	ug/l	1.76	11,463.63	6.821E-03	Pulse	0.30	3
Sr			1	837.478	ug/l	0.26	368,102.05	2.190E-01	Pulse	0.50	3
[Pb]			1	13576.822	ug/l	1.49	8,644,740.67	2.888E+00	Analog	0.50	3
Ca			1	123883.992	ug/l	0.22	304,390.95	9.717E-01	Pulse	0.50	3
Ti			1	19011.191	ug/l	0.74	325,727.45	1.040E+00	Pulse	0.50	3
Na			1	5439.735	ug/l	0.71	463,074.75	1.478E+00	Pulse	1.00	3
Mg			1	119390.927	ug/l	0.45	5,068,501.33	1.618E+01	Analog	1.00	3
K			1	19976.740	ug/l	0.57	1,002,298.58	3.200E+00	Pulse	1.00	3
V			1	965.890	ug/l	0.61	483,004.48	1.542E+00	Pulse	0.50	3
Mn			1	6662.381	ug/l	0.63	2,366,398.33	1.234E+01	Pulse	0.50	3
Fe			1	409292.935	ug/l	0.92	203,811,760.00	1.062E+03	Analog	0.50	3
Co			1	163.478	ug/l	0.99	146,168.73	7.620E-01	Pulse	0.50	3
Ni			1	764.128	ug/l	0.53	181,151.61	9.443E-01	Pulse	0.50	3
Cu			1	2527.071	ug/l	1.07	1,581,319.84	8.243E+00	Pulse	0.50	3
Zn			1	1569.959	ug/l	0.68	177,667.32	6.330E-01	Pulse	1.00	3
Cd			1	4.020	ug/l	3.48	646.01	2.302E-03	Pulse	0.50	3
Al			1	247367.911	ug/l	0.66	4,561,672.33	1.456E+01	Pulse	1.00	3
Se			1	12.004	ug/l	18.02	149.78	5.337E-04	Pulse	3.00	3
Sb			1	70.220	ug/l	1.50	34,033.15	1.212E-01	Pulse	1.00	3
Se			1	34.972	ug/l	11.84	136.67	4.870E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,524.50	1.12	94.9	Pulse	0.50	3
1	Sc		313,261.30	0.34	108.1	Pulse	0.30	3
1	Ge		191,832.59	0.85	103.9	Pulse	0.30	3
1	In		1,680,525.25	0.57	98.7	Pulse	0.30	3
1	Tb		4,505,434.83	0.66	99.7	Pulse	0.50	3
1	Lu		3,334,748.25	0.89	97.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,687.14	0.41	103.0	Pulse	0.30	3
1	Te		9.33	24.74		Pulse	0.50	3
1	Li		1,107.82	4.61	87.9	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:21
Sample Name FC2193-11
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	604.330	ug/l	0.19	358,103.30	1.844E+00	Pulse	0.50	3
As			1	149.860	ug/l	0.07	12,111.83	6.235E-02	Pulse	1.00	3
Mo			1	11.488	ug/l	4.75	3,879.75	1.364E-02	Pulse	0.50	3
Pb			1	1033.407	ug/l	0.82	1,408,249.25	4.616E-01	Pulse	1.00	3
Be			1	4.394	ug/l	17.76	15.33	4.854E-05	Pulse	2.00	3
Ag			1	7.948	ug/l	2.20	8,029.09	2.823E-02	Pulse	0.50	3
Ba			1	1585.745	ug/l	0.67	244,163.82	1.434E-01	Pulse	0.50	3
Tl			1	1.483	ug/l	2.37	3,250.32	1.066E-03	Pulse	0.50	3
Sn			1	1241.498	ug/l	0.82	438,551.24	2.576E-01	Pulse	0.30	3
Sr			1	630.658	ug/l	0.38	280,869.48	1.650E-01	Pulse	0.50	3
[Pb]			1	1034.084	ug/l	1.51	671,470.69	2.201E-01	Pulse	0.50	3
Ca			1	97167.745	ug/l	0.63	240,814.83	7.625E-01	Pulse	0.50	3
Ti			1	17203.387	ug/l	0.92	297,164.66	9.409E-01	Pulse	0.50	3
Na			1	5802.169	ug/l	0.34	497,115.62	1.574E+00	Pulse	1.00	3
Mg			1	85455.623	ug/l	0.68	3,657,774.75	1.158E+01	Pulse	1.00	3
K			1	23585.099	ug/l	0.39	1,181,236.29	3.740E+00	Pulse	1.00	3
V			1	914.784	ug/l	0.89	461,262.68	1.460E+00	Pulse	0.50	3
Mn			1	6036.140	ug/l	0.63	2,170,915.33	1.118E+01	Pulse	0.50	3
Fe			1	388644.051	ug/l	0.87	195,961,925.33	1.009E+03	Analog	0.50	3
Co			1	151.027	ug/l	0.62	136,744.13	7.040E-01	Pulse	0.50	3
Ni			1	579.059	ug/l	1.01	139,124.70	7.162E-01	Pulse	0.50	3
Cu			1	2317.498	ug/l	0.66	1,468,987.12	7.563E+00	Pulse	0.50	3
Zn			1	1532.219	ug/l	0.72	175,700.66	6.179E-01	Pulse	1.00	3
Cd			1	16.088	ug/l	5.25	2,575.52	9.057E-03	Pulse	0.50	3
Al			1	242216.969	ug/l	0.83	4,503,243.67	1.426E+01	Pulse	1.00	3
Se			1	9.522	ug/l	12.44	136.11	4.787E-04	Pulse	3.00	3
Sb			1	47.324	ug/l	0.21	23,284.39	8.188E-02	Pulse	1.00	3
Se			1	29.448	ug/l	6.42	121.89	4.287E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,050,402.33	0.58	96.7	Pulse	0.50	3
1	Sc		315,831.59	0.25	109.0	Pulse	0.30	3
1	Ge		194,240.64	0.68	105.2	Pulse	0.30	3
1	In		1,702,353.20	0.85	100.0	Pulse	0.30	3
1	Tb		4,514,254.67	0.75	99.9	Pulse	0.50	3
1	Lu		3,340,870.17	0.87	97.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		284,369.12	0.28	104.4	Pulse	0.30	3
1	Te		13.33	85.29		Pulse	0.50	3
1	Li		1,141.15	3.97	90.6	Pulse	0.30	3

Quantitation Report

File Name	043CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:25
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.931	ug/l	1.09	566,913.87	2.923E+00	Pulse	0.50	3
As			1	47.131	ug/l	1.22	75,760.05	3.906E-01	Pulse	1.00	3
Mo			1	46.749	ug/l	1.58	307,960.17	1.074E+00	Pulse	0.50	3
Pb			1	47.303	ug/l	0.64	1,270,538.42	4.227E-01	Pulse	1.00	3
Be			1	44.885	ug/l	1.46	2,674.01	8.865E-03	Pulse	2.00	3
Ag			1	48.183	ug/l	1.21	955,662.38	3.333E+00	Pulse	0.50	3
Ba			1	46.578	ug/l	0.55	144,124.14	8.427E-02	Pulse	0.50	3
Tl			1	48.759	ug/l	0.39	1,802,404.46	5.996E-01	Pulse	0.50	3
Sn			1	47.782	ug/l	0.71	339,230.72	1.983E-01	Pulse	0.30	3
Sr			1	47.576	ug/l	0.44	425,604.85	2.488E-01	Pulse	0.50	3
[Pb]			1	47.145	ug/l	0.68	603,386.46	2.007E-01	Pulse	0.50	3
Ca			1	4638.939	ug/l	1.06	219,639.38	7.281E-01	Pulse	0.50	3
Ti			1	47.280	ug/l	2.88	15,606.24	5.174E-02	Pulse	0.50	3
Na			1	4910.651	ug/l	0.82	7,838,621.50	2.599E+01	Analog	1.00	3
Mg			1	4641.731	ug/l	1.56	3,795,213.00	1.258E+01	Pulse	1.00	3
K			1	4738.187	ug/l	0.99	4,344,444.67	1.440E+01	Pulse	1.00	3
V			1	47.767	ug/l	1.18	460,039.40	1.525E+00	Pulse	0.50	3
Mn			1	47.488	ug/l	0.74	341,306.74	1.760E+00	Pulse	0.50	3
Fe			1	5026.019	ug/l	0.41	50,623,948.00	2.610E+02	Analog	0.50	3
Co			1	48.527	ug/l	1.11	876,837.75	4.521E+00	Pulse	0.50	3
Ni			1	48.473	ug/l	1.34	232,247.46	1.197E+00	Pulse	0.50	3
Cu			1	48.530	ug/l	1.01	618,183.81	3.187E+00	Pulse	0.50	3
Zn			1	47.717	ug/l	1.52	110,874.47	3.867E-01	Pulse	1.00	3
Cd			1	46.539	ug/l	2.22	149,406.65	5.211E-01	Pulse	0.50	3
Al			1	4517.102	ug/l	1.53	1,604,397.67	5.319E+00	Pulse	1.00	3
Se			1	45.826	ug/l	0.75	5,906.36	2.060E-02	Pulse	3.00	3
Sb			1	45.673	ug/l	2.23	450,504.90	1.571E+00	Pulse	1.00	3
Se			1	46.204	ug/l	1.59	2,830.43	9.871E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,006,034.42	1.40	95.3	Pulse	0.50	3
1	Sc		301,669.52	0.74	104.1	Pulse	0.30	3
1	Ge		193,957.10	0.36	105.0	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,710,396.60	1.11	100.5	Pulse	0.30	3
1	Tb		4,540,549.83	1.41	100.5	Pulse	0.50	3
1	Lu		3,365,778.50	1.13	97.9	Pulse	0.50	3
1	Ge		286,756.53	0.43	105.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,150.04	4.56	91.3	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:29
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.349	ug/l	0.82	1,162,033.50	6.055E+00	Pulse	0.50	3
As			1	98.015	ug/l	1.10	155,811.95	8.119E-01	Pulse	1.00	3
Mo			1	97.368	ug/l	0.80	634,260.58	2.236E+00	Pulse	0.50	3
Pb			1	98.412	ug/l	0.71	2,590,349.17	8.790E-01	Pulse	1.00	3
Be			1	93.308	ug/l	0.92	5,550.59	1.842E-02	Pulse	2.00	3
Ag			1	98.577	ug/l	0.73	1,933,550.13	6.818E+00	Pulse	0.50	3
Ba			1	97.394	ug/l	1.12	295,118.61	1.762E-01	Pulse	0.50	3
Tl			1	101.567	ug/l	1.03	3,680,238.92	1.249E+00	Pulse	0.50	3
Sn			1	99.060	ug/l	1.06	688,491.01	4.110E-01	Pulse	0.30	3
Sr			1	98.674	ug/l	0.56	864,178.42	5.159E-01	Pulse	0.50	3
[Pb]			1	98.394	ug/l	0.78	1,234,082.50	4.187E-01	Pulse	0.50	3
Ca			1	9586.602	ug/l	0.25	452,829.80	1.503E+00	Pulse	0.50	3
Ti			1	96.745	ug/l	1.02	31,890.52	1.058E-01	Pulse	0.50	3
Na			1	10146.984	ug/l	0.59	16,164,301.33	5.365E+01	Analog	1.00	3
Mg			1	9994.337	ug/l	0.25	8,161,203.67	2.709E+01	Analog	1.00	3
K			1	10222.988	ug/l	1.02	9,289,963.00	3.083E+01	Analog	1.00	3
V			1	98.722	ug/l	0.35	948,232.98	3.147E+00	Pulse	0.50	3
Mn			1	97.712	ug/l	0.25	694,572.25	3.619E+00	Pulse	0.50	3
Fe			1	10364.700	ug/l	0.87	103,272,264.00	5.382E+02	Analog	0.50	3
Co			1	99.260	ug/l	0.85	1,774,356.04	9.246E+00	Pulse	0.50	3
Ni			1	99.464	ug/l	0.89	471,001.42	2.454E+00	Pulse	0.50	3
Cu			1	99.198	ug/l	0.80	1,243,334.96	6.479E+00	Pulse	0.50	3
Zn			1	98.330	ug/l	0.80	224,516.76	7.917E-01	Pulse	1.00	3
Cd			1	96.090	ug/l	1.13	305,099.09	1.076E+00	Pulse	0.50	3
Al			1	9370.114	ug/l	0.64	3,323,847.92	1.103E+01	Pulse	1.00	3
Se			1	95.632	ug/l	0.76	12,108.05	4.269E-02	Pulse	3.00	3
Sb			1	94.755	ug/l	1.33	924,262.00	3.259E+00	Pulse	1.00	3
Se			1	94.767	ug/l	0.37	5,706.63	2.012E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,966.58	0.90	93.4	Pulse	0.50	3
1	Sc		301,294.00	0.19	104.0	Pulse	0.30	3
1	Ge		191,902.27	0.43	103.9	Pulse	0.30	3
1	In		1,675,084.07	0.44	98.4	Pulse	0.30	3
1	Tb		4,485,305.83	0.66	99.2	Pulse	0.50	3
1	Lu		3,333,583.83	1.17	97.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		283,601.78	0.30	104.1	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,065.59	10.94	84.6	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:32
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.018	ug/l	23.46	740.02	3.824E-03	Pulse	0.50	3
As			1	0.031	ug/l	26.61	109.00	5.634E-04	Pulse	1.00	3
Mo			1	0.098	ug/l	20.05	776.02	2.712E-03	Pulse	0.50	3
Pb			1	0.054	ug/l	12.67	2,393.51	8.011E-04	Pulse	1.00	3
Be			1	0.021	ug/l	185.45	2.83	9.221E-06	Pulse	2.00	3
Ag			1	0.021	ug/l	34.51	635.35	2.224E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	38.03	81.33	4.788E-05	Pulse	0.50	3
Tl			1	0.049	ug/l	9.63	2,270.82	7.601E-04	Pulse	0.50	3
Sn			1	0.093	ug/l	13.09	900.03	5.290E-04	Pulse	0.30	3
Sr			1	0.024	ug/l	22.06	536.68	3.155E-04	Pulse	0.50	3
[Pb]			1	0.054	ug/l	6.38	1,134.04	3.793E-04	Pulse	0.50	3
Ca			1	0.142	ug/l	236.37	509.34	1.658E-03	Pulse	0.50	3
Ti			1	0.034	ug/l	18.82	18.67	6.074E-05	Pulse	0.50	3
Na			1	5.659	ug/l	10.52	21,869.57	7.121E-02	Pulse	1.00	3
Mg			1	2.373	ug/l	17.64	2,631.85	8.571E-03	Pulse	1.00	3
K			1	5.108	ug/l	15.44	68,365.81	2.226E-01	Pulse	1.00	3
V			1	0.009	ug/l	73.66	1,437.39	4.679E-03	Pulse	0.50	3
Mn			1	0.082	ug/l	8.73	836.69	4.323E-03	Pulse	0.50	3
Fe			1	3.103	ug/l	10.94	46,414.63	2.398E-01	Pulse	0.50	3
Co			1	0.021	ug/l	25.02	498.68	2.579E-03	Pulse	0.50	3
Ni			1	0.018	ug/l	31.92	566.01	2.922E-03	Pulse	0.50	3
Cu			1	-0.039	ug/l	-32.90	6,110.31	3.156E-02	Pulse	0.50	3
Zn			1	-0.030	ug/l	-49.23	1,317.38	4.604E-03	Pulse	1.00	3
Cd			1	0.032	ug/l	34.93	118.00	4.137E-04	Pulse	0.50	3
Al			1	2.288	ug/l	15.91	1,104.03	3.596E-03	Pulse	1.00	3
Se			1	0.151	ug/l	21.74	95.78	3.346E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	12.29	520.01	1.819E-03	Pulse	1.00	3
Se			1	0.092	ug/l	119.26	39.34	1.373E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,989,717.67	1.34	94.8	Pulse	0.50	3
1	Sc		307,167.02	0.84	106.0	Pulse	0.30	3

1	Ge		193,635.33	1.20	104.9	Pulse	0.30	3
1	In		1,700,729.34	0.84	99.9	Pulse	0.30	3
1	Tb		4,441,121.50	1.09	98.3	Pulse	0.50	3
1	Lu		3,273,849.50	0.77	95.2	Pulse	0.50	3
1	Ge		286,126.54	1.67	105.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,191.16	8.86	94.5	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:36
Sample Name FC2193-12
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	751.709	ug/l	0.28	442,103.44	2.293E+00	Pulse	0.50	3
As			1	163.779	ug/l	1.35	13,135.17	6.812E-02	Pulse	1.00	3
Mo			1	10.363	ug/l	4.23	3,457.67	1.235E-02	Pulse	0.50	3
Pb			1	1602.991	ug/l	0.89	2,127,534.92	7.159E-01	Pulse	1.00	3
Be			1	4.294	ug/l	28.69	15.17	4.755E-05	Pulse	2.00	3
Ag			1	2.468	ug/l	1.03	2,598.86	9.284E-03	Pulse	0.50	3
Ba			1	1952.378	ug/l	0.96	293,936.13	1.766E-01	Pulse	0.50	3
Tl			1	1.985	ug/l	1.68	4,081.84	1.374E-03	Pulse	0.50	3
Sn			1	88.573	ug/l	0.80	30,811.44	1.851E-02	Pulse	0.30	3
Sr			1	852.359	ug/l	1.18	371,068.54	2.229E-01	Pulse	0.50	3
[Pb]			1	1595.107	ug/l	0.80	1,008,768.64	3.395E-01	Pulse	0.50	3
Ca			1	122373.546	ug/l	0.90	305,638.76	9.599E-01	Pulse	0.50	3
Ti			1	22256.039	ug/l	0.38	387,611.90	1.217E+00	Pulse	0.50	3
Na			1	6464.470	ug/l	0.48	556,924.00	1.749E+00	Pulse	1.00	3
Mg			1	112942.392	ug/l	1.27	4,873,652.50	1.531E+01	Analog	1.00	3
K			1	26197.256	ug/l	0.60	1,315,570.42	4.131E+00	Pulse	1.00	3
V			1	1165.252	ug/l	1.57	591,977.08	1.859E+00	Pulse	0.50	3
Mn			1	7429.159	ug/l	0.60	2,652,651.25	1.376E+01	Pulse	0.50	3
Fe			1	495838.921	ug/l	0.46	248,213,845.33	1.287E+03	Analog	0.50	3
Co			1	192.360	ug/l	0.67	172,885.90	8.965E-01	Pulse	0.50	3
Ni			1	719.744	ug/l	0.47	171,560.36	8.896E-01	Pulse	0.50	3
Cu			1	1253.769	ug/l	0.69	792,026.25	4.107E+00	Pulse	0.50	3
Zn			1	2328.470	ug/l	0.59	262,127.92	9.364E-01	Pulse	1.00	3
Cd			1	83.004	ug/l	0.74	13,019.93	4.651E-02	Pulse	0.50	3
Al			1	313930.115	ug/l	1.02	5,884,301.83	1.848E+01	Analog	1.00	3
Se			1	12.710	ug/l	7.52	153.78	5.494E-04	Pulse	3.00	3
Sb			1	10.035	ug/l	1.26	4,972.68	1.776E-02	Pulse	1.00	3
Se			1	38.437	ug/l	8.60	146.55	5.235E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,971,644.00	0.80	94.2	Pulse	0.50	3
1	Sc		318,442.80	1.12	109.9	Pulse	0.30	3
1	Ge		192,845.43	0.88	104.4	Pulse	0.30	3
1	In		1,664,560.07	0.22	97.8	Pulse	0.30	3
1	Tb		4,452,380.17	0.76	98.5	Pulse	0.50	3
1	Lu		3,297,634.92	1.45	95.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		279,921.20	0.10	102.7	Pulse	0.30	3
1	Te		14.00	37.80		Pulse	0.50	3
1	Li		1,094.48	13.73	86.9	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:40
Sample Name FC2193-13
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	691.654	ug/l	1.38	400,888.06	2.110E+00	Pulse	0.50	3
As			1	197.761	ug/l	0.32	15,618.70	8.219E-02	Pulse	1.00	3
Mo			1	9.396	ug/l	2.43	3,109.60	1.124E-02	Pulse	0.50	3
Pb			1	2406.343	ug/l	0.66	3,204,240.58	1.075E+00	Pulse	1.00	3
Be			1	4.805	ug/l	36.87	16.50	5.259E-05	Pulse	2.00	3
Ag			1	4.384	ug/l	2.68	4,400.53	1.591E-02	Pulse	0.50	3
Ba			1	1922.634	ug/l	0.56	287,946.38	1.739E-01	Pulse	0.50	3
Tl			1	1.935	ug/l	3.62	4,003.81	1.343E-03	Pulse	0.50	3
Sn			1	118.098	ug/l	0.86	40,789.65	2.463E-02	Pulse	0.30	3
Sr			1	816.531	ug/l	0.17	353,622.96	2.136E-01	Pulse	0.50	3
[Pb]			1	2396.670	ug/l	0.89	1,520,673.29	5.100E-01	Pulse	0.50	3
Ca			1	117749.119	ug/l	1.36	290,426.45	9.236E-01	Pulse	0.50	3
Ti			1	20787.761	ug/l	1.46	357,493.60	1.137E+00	Pulse	0.50	3
Na			1	7471.107	ug/l	0.96	633,566.42	2.015E+00	Pulse	1.00	3
Mg			1	102210.771	ug/l	1.50	4,355,515.00	1.385E+01	Pulse	1.00	3
K			1	25917.484	ug/l	0.95	1,285,908.71	4.089E+00	Pulse	1.00	3
V			1	1110.259	ug/l	1.85	557,057.15	1.772E+00	Pulse	0.50	3
Mn			1	7474.777	ug/l	1.46	2,630,023.33	1.384E+01	Pulse	0.50	3
Fe			1	473319.010	ug/l	0.98	233,489,936.00	1.229E+03	Analog	0.50	3
Co			1	188.969	ug/l	1.58	167,356.07	8.807E-01	Pulse	0.50	3
Ni			1	664.597	ug/l	1.70	156,134.89	8.217E-01	Pulse	0.50	3
Cu			1	908.363	ug/l	2.38	567,201.56	2.985E+00	Pulse	0.50	3
Zn			1	2039.439	ug/l	1.31	227,027.79	8.208E-01	Pulse	1.00	3
Cd			1	52.092	ug/l	1.94	8,079.12	2.921E-02	Pulse	0.50	3
Al			1	301157.855	ug/l	1.22	5,574,413.67	1.773E+01	Analog	1.00	3
Se			1	12.172	ug/l	4.71	148.66	5.374E-04	Pulse	3.00	3
Sb			1	13.670	ug/l	4.09	6,642.21	2.402E-02	Pulse	1.00	3
Se			1	35.910	ug/l	12.51	137.44	4.969E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,981,866.42	1.09	94.6	Pulse	0.50	3
1	Sc		314,464.64	1.10	108.6	Pulse	0.30	3
1	Ge		190,039.66	0.67	102.9	Pulse	0.30	3
1	In		1,655,808.93	0.95	97.3	Pulse	0.30	3
1	Tb		4,437,214.83	1.45	98.2	Pulse	0.50	3
1	Lu		3,284,969.42	1.21	95.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		276,601.21	0.36	101.5	Pulse	0.30	3
1	Te		20.00	43.59		Pulse	0.50	3
1	Li		1,035.59	8.27	82.2	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:44
Sample Name	FC2193-14
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	677.978	ug/l	2.21	395,314.65	2.068E+00	Pulse	0.50	3
As			1	72.700	ug/l	1.63	5,812.89	3.041E-02	Pulse	1.00	3
Mo			1	9.304	ug/l	0.84	3,087.60	1.114E-02	Pulse	0.50	3
Pb			1	245.912	ug/l	0.53	328,628.43	1.101E-01	Pulse	1.00	3
Be			1	3.655	ug/l	23.54	12.83	4.124E-05	Pulse	2.00	3
Ag			1	0.919	ug/l	1.43	1,089.37	3.929E-03	Pulse	0.50	3
Ba			1	1755.311	ug/l	0.81	264,657.49	1.588E-01	Pulse	0.50	3
Tl			1	1.376	ug/l	4.17	2,983.61	9.994E-04	Pulse	0.50	3
Sn			1	29.702	ug/l	4.80	10,506.39	6.302E-03	Pulse	0.30	3
Sr			1	1264.166	ug/l	0.40	550,995.27	3.305E-01	Pulse	0.50	3
[Pb]			1	244.906	ug/l	0.65	155,942.89	5.224E-02	Pulse	0.50	3
Ca			1	187919.312	ug/l	1.15	457,857.04	1.473E+00	Pulse	0.50	3
Ti			1	17066.151	ug/l	1.11	290,101.34	9.334E-01	Pulse	0.50	3
Na			1	6006.351	ug/l	0.51	505,976.07	1.628E+00	Pulse	1.00	3
Mg			1	94909.676	ug/l	0.84	3,997,802.50	1.286E+01	Pulse	1.00	3
K			1	20132.996	ug/l	0.80	1,001,722.67	3.223E+00	Pulse	1.00	3
V			1	862.427	ug/l	0.99	428,029.46	1.377E+00	Pulse	0.50	3
Mn			1	6894.097	ug/l	1.25	2,440,242.58	1.277E+01	Pulse	0.50	3
Fe			1	379508.810	ug/l	1.16	188,332,160.00	9.852E+02	Analog	0.50	3
Co			1	157.781	ug/l	2.62	140,589.39	7.354E-01	Pulse	0.50	3
Ni			1	682.411	ug/l	1.89	161,266.71	8.436E-01	Pulse	0.50	3
Cu			1	528.061	ug/l	1.44	334,449.00	1.750E+00	Pulse	0.50	3
Zn			1	1918.783	ug/l	1.75	214,188.35	7.725E-01	Pulse	1.00	3
Cd			1	8.143	ug/l	1.11	1,278.05	4.609E-03	Pulse	0.50	3
Al			1	226203.392	ug/l	1.16	4,138,682.25	1.332E+01	Pulse	1.00	3
Se			1	9.642	ug/l	7.07	133.44	4.813E-04	Pulse	3.00	3
Sb			1	3.737	ug/l	3.07	1,923.11	6.936E-03	Pulse	1.00	3
Se			1	30.980	ug/l	17.38	123.33	4.448E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,984,734.25	1.37	94.6	Pulse	0.50	3
1	Sc		310,816.94	0.80	107.3	Pulse	0.30	3
1	Ge		191,167.03	0.20	103.5	Pulse	0.30	3
1	In		1,666,927.05	0.72	97.9	Pulse	0.30	3
1	Tb		4,448,671.33	1.21	98.4	Pulse	0.50	3
1	Lu		3,310,842.75	1.51	96.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		277,277.08	0.59	101.8	Pulse	0.30	3
1	Te		4.67	137.77		Pulse	0.50	3
1	Li		1,126.71	1.65	89.4	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:48
Sample Name	FC2193-16
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	614.510	ug/l	1.79	359,654.98	1.875E+00	Pulse	0.50	3
As			1	69.698	ug/l	2.06	5,595.16	2.916E-02	Pulse	1.00	3
Mo			1	8.160	ug/l	1.05	2,750.88	9.822E-03	Pulse	0.50	3
Pb			1	267.051	ug/l	1.65	356,121.10	1.195E-01	Pulse	1.00	3
Be			1	4.504	ug/l	15.90	15.50	4.962E-05	Pulse	2.00	3
Ag			1	0.840	ug/l	6.15	1,023.36	3.655E-03	Pulse	0.50	3
Ba			1	1548.044	ug/l	1.08	232,941.57	1.400E-01	Pulse	0.50	3
Tl			1	1.339	ug/l	2.50	2,910.26	9.769E-04	Pulse	0.50	3
Sn			1	27.873	ug/l	0.54	9,852.72	5.923E-03	Pulse	0.30	3
Sr			1	1004.608	ug/l	0.53	437,053.73	2.627E-01	Pulse	0.50	3
[Pb]			1	265.919	ug/l	1.62	168,962.11	5.671E-02	Pulse	0.50	3
Ca			1	152050.333	ug/l	0.73	372,474.02	1.192E+00	Pulse	0.50	3
Ti			1	16654.871	ug/l	1.37	284,575.51	9.109E-01	Pulse	0.50	3
Na			1	5902.301	ug/l	0.46	500,007.58	1.600E+00	Pulse	1.00	3
Mg			1	90830.773	ug/l	0.88	3,845,827.33	1.231E+01	Pulse	1.00	3
K			1	20215.107	ug/l	0.58	1,010,752.00	3.235E+00	Pulse	1.00	3
V			1	839.866	ug/l	1.38	419,015.24	1.341E+00	Pulse	0.50	3
Mn			1	6418.383	ug/l	1.28	2,280,095.75	1.188E+01	Pulse	0.50	3
Fe			1	366387.674	ug/l	1.00	182,480,202.67	9.511E+02	Analog	0.50	3
Co			1	149.662	ug/l	0.79	133,847.58	6.976E-01	Pulse	0.50	3
Ni			1	623.530	ug/l	0.88	147,927.10	7.710E-01	Pulse	0.50	3
Cu			1	474.640	ug/l	0.76	302,373.65	1.576E+00	Pulse	0.50	3
Zn			1	1574.378	ug/l	1.33	177,765.04	6.347E-01	Pulse	1.00	3
Cd			1	6.400	ug/l	6.81	1,017.36	3.634E-03	Pulse	0.50	3
Al			1	219987.503	ug/l	1.03	4,045,764.08	1.295E+01	Pulse	1.00	3
Se			1	10.208	ug/l	10.65	138.33	4.939E-04	Pulse	3.00	3
Sb			1	2.906	ug/l	5.11	1,542.40	5.507E-03	Pulse	1.00	3
Se			1	33.756	ug/l	6.62	132.78	4.741E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,979,099.50	0.87	94.5	Pulse	0.50	3
1	Sc		312,420.04	0.56	107.8	Pulse	0.30	3
1	Ge		191,861.85	0.73	103.9	Pulse	0.30	3
1	In		1,663,640.28	1.21	97.7	Pulse	0.30	3
1	Tb		4,468,632.33	1.40	98.9	Pulse	0.50	3
1	Lu		3,301,456.00	1.34	96.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		280,066.68	0.60	102.8	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		1,097.82	9.72	87.1	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:51
Sample Name	FC2193-17
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	754.389	ug/l	1.46	444,433.19	2.301E+00	Pulse	0.50	3
As			1	156.476	ug/l	2.92	12,571.80	6.509E-02	Pulse	1.00	3
Mo			1	9.235	ug/l	5.42	3,110.27	1.106E-02	Pulse	0.50	3
Pb			1	3563.208	ug/l	2.23	4,736,518.00	1.591E+00	Pulse	1.00	3
Be			1	4.446	ug/l	3.54	15.67	4.905E-05	Pulse	2.00	3
Ag			1	3.477	ug/l	4.00	3,593.69	1.277E-02	Pulse	0.50	3
Ba			1	1769.726	ug/l	2.28	267,134.18	1.601E-01	Pulse	0.50	3
Tl			1	1.779	ug/l	1.95	3,714.41	1.248E-03	Pulse	0.50	3
Sn			1	52.782	ug/l	0.68	18,508.24	1.109E-02	Pulse	0.30	3
Sr			1	1114.738	ug/l	1.62	486,487.19	2.915E-01	Pulse	0.50	3
[Pb]			1	3525.464	ug/l	2.00	2,233,099.75	7.501E-01	Pulse	0.50	3
Ca			1	164510.881	ug/l	1.61	412,040.92	1.290E+00	Pulse	0.50	3
Ti			1	22745.943	ug/l	2.15	397,400.76	1.244E+00	Pulse	0.50	3
Na			1	17857.543	ug/l	2.08	1,520,082.50	4.759E+00	Pulse	1.00	3
Mg			1	144518.465	ug/l	1.96	6,256,273.50	1.958E+01	Analog	1.00	3
K			1	30832.665	ug/l	2.31	1,541,524.91	4.826E+00	Pulse	1.00	3
V			1	1276.640	ug/l	1.34	650,599.31	2.036E+00	Pulse	0.50	3
Mn			1	8275.063	ug/l	1.51	2,959,645.33	1.532E+01	Pulse	0.50	3
Fe			1	553362.243	ug/l	1.52	277,473,290.67	1.436E+03	Analog	0.50	3
Co			1	226.188	ug/l	1.43	203,608.52	1.054E+00	Pulse	0.50	3
Ni			1	798.988	ug/l	1.67	190,715.57	9.873E-01	Pulse	0.50	3
Cu			1	1368.002	ug/l	1.61	865,038.75	4.478E+00	Pulse	0.50	3
Zn			1	3176.574	ug/l	1.98	358,872.87	1.276E+00	Pulse	1.00	3
Cd			1	94.183	ug/l	1.00	14,845.98	5.277E-02	Pulse	0.50	3
Al			1	345549.655	ug/l	1.61	6,498,169.83	2.034E+01	Analog	1.00	3
Se			1	13.087	ug/l	15.87	157.00	5.577E-04	Pulse	3.00	3
Sb			1	16.778	ug/l	0.97	8,259.21	2.936E-02	Pulse	1.00	3
Se			1	41.965	ug/l	2.37	157.78	5.608E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,977,768.50	2.10	94.4	Pulse	0.50	3
1	Sc		319,513.05	1.58	110.3	Pulse	0.30	3
1	Ge		193,197.03	1.73	104.6	Pulse	0.30	3
1	In		1,669,261.60	1.67	98.1	Pulse	0.30	3
1	Tb		4,496,471.33	1.65	99.5	Pulse	0.50	3
1	Lu		3,317,695.08	1.36	96.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		281,336.42	1.06	103.2	Pulse	0.30	3
1	Te		14.67	61.49		Pulse	0.50	3
1	Li		1,138.93	7.80	90.4	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 14:55
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6198.016	ug/l	0.79	13,272,653.00	7.552E+01	Analog	0.50	3
As			1	4499.550	ug/l	0.89	1,309,660.46	7.452E+00	Pulse	1.00	3
Mo			1	1348.822	ug/l	0.35	1,549,528.37	6.195E+00	Pulse	0.50	3
Pb			1	4015.531	ug/l	0.19	19,545,518.67	7.171E+00	Analog	1.00	3
Be			1	3485.586	ug/l	0.25	40,873.02	1.376E-01	Pulse	2.00	3
Ag			1	1263.201	ug/l	0.51	4,369,882.67	1.747E+01	Pulse	0.50	3
Ba			1	9173.537	ug/l	0.13	5,055,600.67	3.319E+00	Pulse	0.50	3
Tl			1	4872.450	ug/l	0.30	32,655,022.00	1.198E+01	Analog	0.50	3
Sn			1	2421.005	ug/l	0.76	3,059,720.09	2.008E+00	Pulse	0.30	3
Sr			1	5781.780	ug/l	0.74	9,207,419.33	6.044E+00	Analog	0.50	3
[Pb]			1	4099.322	ug/l	0.52	9,507,641.00	3.488E+00	Analog	0.50	3
Ca			1	133410.880	ug/l	0.36	1,241,687.08	4.180E+00	Pulse	0.50	3
Ti			1	7117.154	ug/l	0.42	462,498.39	1.557E+00	Pulse	0.50	3
Na			1	10707.206	ug/l	0.37	3,372,838.92	1.135E+01	Pulse	1.00	3
Mg			1	54161.175	ug/l	0.41	8,720,350.33	2.936E+01	Analog	1.00	3
K			1	43776.761	ug/l	0.93	7,852,934.83	2.644E+01	Analog	1.00	3
V			1	2883.323	ug/l	0.19	5,454,387.67	1.836E+01	Analog	0.50	3
Mn			1	11604.338	ug/l	0.50	15,103,464.33	8.594E+01	Analog	0.50	3
Fe			1	229063.520	ug/l	0.81	417,988,896.00	2.378E+03	Analog	0.50	3
Co			1	4555.164	ug/l	1.01	14,912,941.33	8.486E+01	Analog	0.50	3
Ni			1	2780.337	ug/l	1.72	2,409,338.92	1.371E+01	Pulse	0.50	3
Cu			1	3316.100	ug/l	1.12	7,578,458.67	4.312E+01	Analog	0.50	3
Zn			1	9538.996	ug/l	0.37	3,819,408.67	1.527E+01	Pulse	1.00	3
Cd			1	2744.145	ug/l	0.40	1,536,738.79	6.144E+00	Pulse	0.50	3
Al			1	218257.668	ug/l	0.33	15,264,972.33	5.139E+01	Analog	1.00	3
Se			1	2499.245	ug/l	1.42	55,528.25	2.220E-01	Pulse	3.00	3
Sb			1	2039.842	ug/l	0.34	3,509,050.58	1.403E+01	Pulse	1.00	3
Se			1	2517.039	ug/l	0.89	26,607.07	1.064E-01	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,725,781.00	0.65	86.4	Pulse	0.50	3
1	Sc		297,038.39	0.54	102.5	Pulse	0.30	3
1	Ge		175,750.46	1.15	95.2	Pulse	0.30	3
1	In		1,523,455.74	0.47	89.5	Pulse	0.30	3
1	Tb		4,227,320.17	0.66	93.5	Pulse	0.50	3
1	Lu		3,086,093.33	0.62	89.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,115.88	0.53	91.8	Pulse	0.30	3
1	Te		25.33	31.91		Pulse	0.50	3
1	Li		1,514.51	4.35	120.2	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 14:59
Sample Name	FC2148-3A
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6348.318	ug/l	0.71	6,747,884.50	3.868E+01	Analog	0.50	3
As			1	4644.116	ug/l	0.67	670,966.33	3.846E+00	Pulse	1.00	3
Mo			1	1355.457	ug/l	0.69	790,987.62	3.113E+00	Pulse	0.50	3
Pb			1	4049.973	ug/l	0.51	10,200,667.33	3.616E+00	Analog	1.00	3
Be			1	3782.469	ug/l	1.21	21,178.32	7.466E-02	Pulse	2.00	3
Ag			1	1292.486	ug/l	0.59	2,271,155.50	8.939E+00	Pulse	0.50	3
Ba			1	9407.568	ug/l	1.02	2,620,724.42	1.702E+00	Pulse	0.50	3
Tl			1	4872.907	ug/l	0.26	16,898,871.33	5.991E+00	Analog	0.50	3
Sn			1	2458.493	ug/l	1.26	1,570,683.38	1.020E+00	Pulse	0.30	3
Sr			1	5568.636	ug/l	0.65	4,482,726.50	2.911E+00	Pulse	0.50	3
[Pb]			1	3870.245	ug/l	0.35	4,645,069.17	1.647E+00	Pulse	0.50	3
Ca			1	142571.080	ug/l	0.55	633,795.96	2.234E+00	Pulse	0.50	3
Ti			1	7569.324	ug/l	1.19	234,853.00	8.280E-01	Pulse	0.50	3
Na			1	11538.480	ug/l	0.51	1,740,897.12	6.137E+00	Pulse	1.00	3
Mg			1	54872.555	ug/l	1.06	4,218,682.50	1.487E+01	Pulse	1.00	3
K			1	44856.709	ug/l	0.74	3,870,591.83	1.365E+01	Pulse	1.00	3
V			1	2961.674	ug/l	1.13	2,675,650.42	9.433E+00	Pulse	0.50	3
Mn			1	11934.944	ug/l	0.59	7,710,019.83	4.419E+01	Analog	0.50	3
Fe			1	232485.422	ug/l	0.48	210,573,504.00	1.207E+03	Analog	0.50	3
Co			1	4732.132	ug/l	0.63	7,689,792.67	4.408E+01	Analog	0.50	3
Ni			1	2901.887	ug/l	0.75	1,248,454.00	7.156E+00	Pulse	0.50	3
Cu			1	3281.951	ug/l	0.49	3,725,953.92	2.136E+01	Pulse	0.50	3
Zn			1	9810.048	ug/l	0.38	1,995,688.59	7.855E+00	Pulse	1.00	3
Cd			1	2799.600	ug/l	0.48	796,343.41	3.134E+00	Pulse	0.50	3
Al			1	231163.781	ug/l	1.14	7,719,408.00	2.721E+01	Analog	1.00	3
Se			1	2513.834	ug/l	0.25	28,403.46	1.118E-01	Pulse	3.00	3
Sb			1	2072.614	ug/l	0.92	1,811,059.13	7.128E+00	Pulse	1.00	3
Se			1	2553.738	ug/l	0.61	13,726.49	5.402E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,820,856.50	0.68	89.4	Pulse	0.50	3
1	Sc		283,668.05	1.04	97.9	Pulse	0.30	3
1	Ge		174,459.67	0.46	94.5	Pulse	0.30	3
1	In		1,540,217.89	0.87	90.5	Pulse	0.30	3
1	Tb		4,262,135.83	1.05	94.3	Pulse	0.50	3
1	Lu		3,135,533.17	0.87	91.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		254,079.25	0.30	93.2	Pulse	0.30	3
1	Te		10.67	39.03		Pulse	0.50	3
1	Li		1,416.73	6.60	112.4	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:03
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6177.293	ug/l	1.03	3,301,500.33	1.882E+01	Pulse	0.50	3
As			1	4579.004	ug/l	1.23	332,636.25	1.896E+00	Pulse	1.00	3
Mo			1	1310.661	ug/l	1.23	387,023.49	1.505E+00	Pulse	0.50	3
Pb			1	3717.735	ug/l	0.46	4,758,614.50	1.660E+00	Pulse	1.00	3
Be			1	3835.329	ug/l	0.51	10,451.35	3.786E-02	Pulse	2.00	3
Ag			1	1273.752	ug/l	0.86	1,132,531.75	4.405E+00	Pulse	0.50	3
Ba			1	9216.025	ug/l	0.71	1,297,686.50	8.335E-01	Pulse	0.50	3
Tl			1	4769.473	ug/l	0.59	8,404,617.50	2.932E+00	Analog	0.50	3
Sn			1	2425.364	ug/l	1.13	783,334.33	5.031E-01	Pulse	0.30	3
Sr			1	5530.207	ug/l	0.54	2,250,287.25	1.445E+00	Pulse	0.50	3
[Pb]			1	3763.624	ug/l	0.50	2,295,457.00	8.007E-01	Pulse	0.50	3
Ca			1	144024.908	ug/l	0.26	311,806.02	1.129E+00	Pulse	0.50	3
Ti			1	7730.608	ug/l	0.77	116,731.62	4.228E-01	Pulse	0.50	3
Na			1	11888.383	ug/l	0.19	878,433.38	3.182E+00	Pulse	1.00	3
Mg			1	56646.714	ug/l	0.68	2,119,683.58	7.678E+00	Pulse	1.00	3
K			1	45277.606	ug/l	0.22	1,929,716.21	6.989E+00	Pulse	1.00	3
V			1	3059.138	ug/l	0.77	1,345,552.46	4.874E+00	Pulse	0.50	3
Mn			1	11500.855	ug/l	0.92	3,735,548.67	2.129E+01	Pulse	0.50	3
Fe			1	232519.070	ug/l	0.72	105,895,709.33	6.036E+02	Analog	0.50	3
Co			1	4380.965	ug/l	0.87	3,579,527.75	2.040E+01	Pulse	0.50	3
Ni			1	2869.765	ug/l	1.36	620,941.66	3.540E+00	Pulse	0.50	3
Cu			1	3276.743	ug/l	0.89	1,873,357.29	1.068E+01	Pulse	0.50	3
Zn			1	9778.548	ug/l	1.29	1,007,063.44	3.917E+00	Pulse	1.00	3
Cd			1	2740.990	ug/l	1.59	394,463.37	1.534E+00	Pulse	0.50	3
Al			1	224308.902	ug/l	0.79	3,645,455.92	1.320E+01	Pulse	1.00	3
Se			1	2463.593	ug/l	1.34	14,117.86	5.491E-02	Pulse	3.00	3
Sb			1	2036.518	ug/l	1.08	900,386.92	3.502E+00	Pulse	1.00	3
Se			1	2517.278	ug/l	0.98	6,862.13	2.669E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,866,647.42	0.75	90.9	Pulse	0.50	3
1	Sc		276,088.10	0.94	95.3	Pulse	0.30	3
1	Ge		175,434.08	1.00	95.0	Pulse	0.30	3
1	In		1,556,923.90	0.33	91.5	Pulse	0.30	3
1	Tb		4,265,905.00	0.91	94.4	Pulse	0.50	3
1	Lu		3,147,893.33	0.86	91.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,117.77	1.31	94.4	Pulse	0.30	3
1	Te		5.33	57.28		Pulse	0.50	3
1	Li		1,200.04	4.59	95.2	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:07
Sample Name Pb 20ppm ACC967 4/30/23
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.078	ug/l	83.99	1,284.06	7.426E-03	Pulse	0.50	3
As			1	0.074	ug/l	63.84	158.67	9.172E-04	Pulse	1.00	3
Mo			1	0.074	ug/l	9.47	550.68	2.155E-03	Pulse	0.50	3
Pb			1	20468.499	ug/l	1.22	509,758,869.33	1.827E+02	Analog	1.00	3
Be			1	0.118	ug/l	92.51	7.83	2.846E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	71.34	450.67	1.769E-03	Pulse	0.50	3
Ba			1	0.114	ug/l	74.90	345.34	2.245E-04	Pulse	0.50	3
Tl			1	0.171	ug/l	28.65	6,267.89	2.252E-03	Pulse	0.50	3
Sn			1	0.097	ug/l	3.63	841.14	5.434E-04	Pulse	0.30	3
Sr			1	0.069	ug/l	82.89	852.70	5.536E-04	Pulse	0.50	3
[Pb]			1	19788.461	ug/l	1.29	234,826,986.67	8.419E+01	Analog	0.50	3
Ca			1	3.246	ug/l	27.88	591.34	2.144E-03	Pulse	0.50	3
Ti			1	0.216	ug/l	35.80	71.33	2.588E-04	Pulse	0.50	3
Na			1	3.247	ug/l	9.18	16,126.81	5.847E-02	Pulse	1.00	3
Mg			1	1.169	ug/l	80.93	1,462.73	5.309E-03	Pulse	1.00	3
K			1	3.368	ug/l	31.11	59,959.39	2.174E-01	Pulse	1.00	3
V			1	0.011	ug/l	352.50	1,300.05	4.716E-03	Pulse	0.50	3
Mn			1	0.199	ug/l	67.87	1,496.08	8.653E-03	Pulse	0.50	3
Fe			1	4.310	ug/l	74.29	52,306.30	3.025E-01	Pulse	0.50	3
Co			1	0.059	ug/l	86.43	1,052.71	6.094E-03	Pulse	0.50	3
Ni			1	0.064	ug/l	48.32	704.01	4.066E-03	Pulse	0.50	3
Cu			1	0.588	ug/l	8.54	12,530.09	7.232E-02	Pulse	0.50	3
Zn			1	0.526	ug/l	31.40	2,309.81	9.052E-03	Pulse	1.00	3
Cd			1	0.050	ug/l	54.52	156.00	6.127E-04	Pulse	0.50	3
Al			1	4.239	ug/l	71.16	1,623.09	5.893E-03	Pulse	1.00	3
Se			1	0.149	ug/l	65.45	85.22	3.336E-04	Pulse	3.00	3
Sb			1	0.065	ug/l	16.51	702.35	2.752E-03	Pulse	1.00	3
Se			1	0.165	ug/l	38.18	39.00	1.527E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,789,702.25	1.39	88.5	Pulse	0.50	3
1	Sc		275,852.45	0.42	95.2	Pulse	0.30	3
1	Ge		173,283.94	0.62	93.8	Pulse	0.30	3
1	In		1,548,186.67	1.41	90.9	Pulse	0.30	3
1	Tb		4,113,450.08	1.01	91.0	Pulse	0.50	3
1	Lu		3,038,935.58	1.05	88.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,396.36	0.93	93.7	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,118.93	5.04	88.8	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:11
Sample Name Pb 1ppm ACC967 4/30/23
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-46.29	452.68	2.530E-03	Pulse	0.50	3
As			1	-0.001	ug/l	-350.25	53.67	2.998E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	76.47	206.00	7.793E-04	Pulse	0.50	3
Pb			1	1059.408	ug/l	1.87	26,804,870.67	9.459E+00	Analog	1.00	3
Be			1	0.082	ug/l	9.96	6.00	2.142E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	112.28	240.00	9.079E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-29.66	24.00	1.508E-05	Pulse	0.50	3
Tl			1	0.046	ug/l	4.24	2,046.13	7.221E-04	Pulse	0.50	3
Sn			1	0.012	ug/l	43.81	305.56	1.919E-04	Pulse	0.30	3
Sr			1	0.003	ug/l	70.16	330.00	2.073E-04	Pulse	0.50	3
[Pb]			1	1026.575	ug/l	2.75	12,375,267.00	4.367E+00	Analog	0.50	3
Ca			1	-1.914	ug/l	-56.25	374.00	1.336E-03	Pulse	0.50	3
Ti			1	0.016	ug/l	85.13	11.33	4.046E-05	Pulse	0.50	3
Na			1	1.931	ug/l	1.71	14,423.85	5.151E-02	Pulse	1.00	3
Mg			1	0.029	ug/l	57.71	621.01	2.218E-03	Pulse	1.00	3
K			1	3.006	ug/l	30.06	60,554.83	2.163E-01	Pulse	1.00	3
V			1	-0.023	ug/l	-19.62	1,018.70	3.638E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	11.54	281.33	1.572E-03	Pulse	0.50	3
Fe			1	-0.192	ug/l	-15.99	12,319.26	6.883E-02	Pulse	0.50	3
Co			1	0.000	ug/l	-1104.72	106.67	5.969E-04	Pulse	0.50	3
Ni			1	-0.007	ug/l	-58.49	410.68	2.294E-03	Pulse	0.50	3
Cu			1	0.523	ug/l	0.83	12,187.87	6.810E-02	Pulse	0.50	3
Zn			1	0.111	ug/l	6.59	1,515.39	5.735E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	55.15	39.33	1.490E-04	Pulse	0.50	3
Al			1	0.031	ug/l	41.57	262.67	9.382E-04	Pulse	1.00	3
Se			1	0.039	ug/l	62.00	75.22	2.846E-04	Pulse	3.00	3
Sb			1	0.013	ug/l	42.59	251.00	9.496E-04	Pulse	1.00	3
Se			1	0.105	ug/l	32.42	37.00	1.400E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,834,404.50	1.76	89.9	Pulse	0.50	3
1	Sc		279,998.67	0.78	96.7	Pulse	0.30	3
1	Ge		178,972.31	0.94	96.9	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,591,214.94	1.16	93.5	Pulse	0.30	3
1	Tb		4,216,899.50	0.59	93.3	Pulse	0.50	3
1	Lu		3,130,187.08	0.84	91.1	Pulse	0.50	3
1	Ge		264,259.28	0.49	97.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,172.26	4.78	93.0	Pulse	0.30	3

Quantitation Report

File Name	056CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:14
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.986	ug/l	0.19	536,897.31	2.926E+00	Pulse	0.50	3
As			1	47.011	ug/l	0.73	71,487.79	3.896E-01	Pulse	1.00	3
Mo			1	46.848	ug/l	0.96	291,871.61	1.076E+00	Pulse	0.50	3
Pb			1	48.154	ug/l	0.11	1,244,016.37	4.303E-01	Pulse	1.00	3
Be			1	47.508	ug/l	0.12	2,663.35	9.382E-03	Pulse	2.00	3
Ag			1	48.272	ug/l	0.43	905,456.21	3.339E+00	Pulse	0.50	3
Ba			1	47.024	ug/l	0.86	136,793.87	8.507E-02	Pulse	0.50	3
Tl			1	49.070	ug/l	0.46	1,744,710.71	6.034E-01	Pulse	0.50	3
Sn			1	48.145	ug/l	1.20	321,328.93	1.998E-01	Pulse	0.30	3
Sr			1	47.667	ug/l	0.54	400,884.68	2.493E-01	Pulse	0.50	3
[Pb]			1	48.105	ug/l	0.50	592,183.31	2.048E-01	Pulse	0.50	3
Ca			1	4649.194	ug/l	0.87	207,143.69	7.297E-01	Pulse	0.50	3
Ti			1	47.070	ug/l	3.00	14,621.49	5.151E-02	Pulse	0.50	3
Na			1	5075.261	ug/l	0.10	7,623,121.83	2.685E+01	Analog	1.00	3
Mg			1	4733.320	ug/l	0.77	3,641,863.67	1.283E+01	Pulse	1.00	3
K			1	4763.193	ug/l	0.38	4,109,467.25	1.448E+01	Pulse	1.00	3
V			1	47.878	ug/l	1.30	433,909.49	1.529E+00	Pulse	0.50	3
Mn			1	47.319	ug/l	0.42	321,714.83	1.753E+00	Pulse	0.50	3
Fe			1	5118.780	ug/l	0.49	48,772,089.33	2.658E+02	Analog	0.50	3
Co			1	48.667	ug/l	0.49	831,863.31	4.534E+00	Pulse	0.50	3
Ni			1	48.674	ug/l	1.15	220,626.17	1.202E+00	Pulse	0.50	3
Cu			1	48.551	ug/l	0.06	585,028.44	3.188E+00	Pulse	0.50	3
Zn			1	47.785	ug/l	1.14	105,008.03	3.872E-01	Pulse	1.00	3
Cd			1	46.520	ug/l	1.03	141,247.93	5.208E-01	Pulse	0.50	3
Al			1	4606.167	ug/l	1.22	1,539,557.33	5.424E+00	Pulse	1.00	3
Se			1	45.927	ug/l	0.22	5,597.82	2.064E-02	Pulse	3.00	3
Sb			1	45.799	ug/l	0.92	427,249.45	1.575E+00	Pulse	1.00	3
Se			1	45.792	ug/l	1.37	2,653.07	9.784E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,891,379.33	1.08	91.7	Pulse	0.50	3
1	Sc		283,865.87	0.22	98.0	Pulse	0.30	3
1	Ge		183,480.91	1.23	99.4	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,607,911.60	0.83	94.5	Pulse	0.30	3
1	Tb		4,363,816.33	1.24	96.5	Pulse	0.50	3
1	Lu		3,226,800.67	1.65	93.9	Pulse	0.50	3
1	Ge		271,181.73	0.84	99.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,046.70	14.46	83.1	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:18
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.900	ug/l	0.85	1,103,454.33	6.028E+00	Pulse	0.50	3
As			1	97.129	ug/l	0.05	147,285.85	8.046E-01	Pulse	1.00	3
Mo			1	98.388	ug/l	1.21	604,032.48	2.260E+00	Pulse	0.50	3
Pb			1	99.179	ug/l	0.59	2,502,168.17	8.858E-01	Pulse	1.00	3
Be			1	97.535	ug/l	3.45	5,474.74	1.926E-02	Pulse	2.00	3
Ag			1	99.649	ug/l	1.51	1,842,116.16	6.892E+00	Pulse	0.50	3
Ba			1	98.377	ug/l	0.51	281,854.57	1.780E-01	Pulse	0.50	3
Tl			1	102.359	ug/l	0.51	3,554,886.33	1.259E+00	Pulse	0.50	3
Sn			1	99.877	ug/l	1.17	656,343.83	4.144E-01	Pulse	0.30	3
Sr			1	98.519	ug/l	0.77	815,807.48	5.151E-01	Pulse	0.50	3
[Pb]			1	99.008	ug/l	0.47	1,190,135.67	4.214E-01	Pulse	0.50	3
Ca			1	9661.348	ug/l	1.35	430,686.77	1.515E+00	Pulse	0.50	3
Ti			1	96.778	ug/l	2.13	30,105.07	1.059E-01	Pulse	0.50	3
Na			1	10391.500	ug/l	0.86	15,623,153.00	5.494E+01	Analog	1.00	3
Mg			1	10239.543	ug/l	1.45	7,890,978.17	2.775E+01	Analog	1.00	3
K			1	10357.910	ug/l	1.05	8,882,682.00	3.124E+01	Analog	1.00	3
V			1	99.221	ug/l	1.52	899,397.89	3.163E+00	Pulse	0.50	3
Mn			1	97.064	ug/l	0.73	658,148.69	3.595E+00	Pulse	0.50	3
Fe			1	10465.989	ug/l	0.35	99,473,744.00	5.434E+02	Analog	0.50	3
Co			1	98.789	ug/l	0.62	1,684,512.63	9.202E+00	Pulse	0.50	3
Ni			1	98.998	ug/l	0.85	447,183.30	2.443E+00	Pulse	0.50	3
Cu			1	98.825	ug/l	0.60	1,181,569.96	6.455E+00	Pulse	0.50	3
Zn			1	99.353	ug/l	1.16	213,790.59	7.998E-01	Pulse	1.00	3
Cd			1	96.473	ug/l	2.48	288,679.42	1.080E+00	Pulse	0.50	3
Al			1	9408.765	ug/l	1.98	3,149,645.83	1.108E+01	Pulse	1.00	3
Se			1	95.101	ug/l	0.82	11,348.70	4.246E-02	Pulse	3.00	3
Sb			1	95.705	ug/l	1.74	879,807.46	3.292E+00	Pulse	1.00	3
Se			1	94.592	ug/l	1.85	5,368.42	2.009E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,824,583.42	1.14	89.6	Pulse	0.50	3
1	Sc		284,376.45	1.25	98.2	Pulse	0.30	3
1	Ge		183,052.32	0.11	99.1	Pulse	0.30	3
1	In		1,583,813.31	0.37	93.0	Pulse	0.30	3
1	Tb		4,285,939.50	0.96	94.8	Pulse	0.50	3
1	Lu		3,201,591.67	0.73	93.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		267,305.33	0.72	98.1	Pulse	0.30	3
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		1,170.04	5.56	92.9	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:22
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	20.62	710.02	3.903E-03	Pulse	0.50	3
As			1	0.030	ug/l	11.22	101.33	5.573E-04	Pulse	1.00	3
Mo			1	0.104	ug/l	27.21	770.69	2.850E-03	Pulse	0.50	3
Pb			1	0.322	ug/l	3.23	9,162.46	3.192E-03	Pulse	1.00	3
Be			1	0.065	ug/l	66.91	5.17	1.800E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	4.72	576.01	2.131E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	31.68	66.67	4.147E-05	Pulse	0.50	3
Tl			1	0.068	ug/l	4.09	2,843.58	9.905E-04	Pulse	0.50	3
Sn			1	0.096	ug/l	10.83	871.14	5.422E-04	Pulse	0.30	3
Sr			1	0.019	ug/l	26.92	469.34	2.921E-04	Pulse	0.50	3
[Pb]			1	0.327	ug/l	9.70	4,417.92	1.540E-03	Pulse	0.50	3
Ca			1	0.115	ug/l	418.66	474.68	1.654E-03	Pulse	0.50	3
Ti			1	0.028	ug/l	69.49	15.33	5.336E-05	Pulse	0.50	3
Na			1	5.060	ug/l	6.61	19,531.82	6.804E-02	Pulse	1.00	3
Mg			1	1.924	ug/l	3.22	2,111.12	7.355E-03	Pulse	1.00	3
K			1	4.829	ug/l	5.77	63,654.87	2.217E-01	Pulse	1.00	3
V			1	0.005	ug/l	271.01	1,299.38	4.526E-03	Pulse	0.50	3
Mn			1	0.063	ug/l	4.68	661.34	3.636E-03	Pulse	0.50	3
Fe			1	2.462	ug/l	3.45	37,574.23	2.066E-01	Pulse	0.50	3
Co			1	0.018	ug/l	7.20	416.01	2.289E-03	Pulse	0.50	3
Ni			1	0.007	ug/l	158.35	480.01	2.642E-03	Pulse	0.50	3
Cu			1	-0.031	ug/l	-44.39	5,835.57	3.210E-02	Pulse	0.50	3
Zn			1	-0.024	ug/l	-176.71	1,257.71	4.655E-03	Pulse	1.00	3
Cd			1	0.023	ug/l	22.01	82.67	3.061E-04	Pulse	0.50	3
Al			1	1.783	ug/l	3.06	861.35	3.001E-03	Pulse	1.00	3
Se			1	0.095	ug/l	83.11	83.67	3.097E-04	Pulse	3.00	3
Sb			1	0.039	ug/l	14.21	501.01	1.854E-03	Pulse	1.00	3
Se			1	0.073	ug/l	186.42	36.00	1.332E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,871,229.75	1.56	91.0	Pulse	0.50	3
1	Sc		287,065.37	0.39	99.1	Pulse	0.30	3

1	Ge		181,853.68	1.46	98.5	Pulse	0.30	3
1	In		1,605,661.01	1.26	94.3	Pulse	0.30	3
1	Tb		4,232,469.42	1.44	93.6	Pulse	0.50	3
1	Lu		3,141,246.17	1.31	91.4	Pulse	0.50	3
1	Ge		270,210.95	0.62	99.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,112.26	7.72	88.3	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:26
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-166.58	462.01	2.503E-03	Pulse	0.50	3
As			1	0.009	ug/l	87.48	70.33	3.811E-04	Pulse	1.00	3
Mo			1	0.019	ug/l	58.74	240.67	8.804E-04	Pulse	0.50	3
Pb			1	0.247	ug/l	4.05	7,293.23	2.523E-03	Pulse	1.00	3
Be			1	0.095	ug/l	29.50	6.83	2.385E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	40.06	262.67	9.621E-04	Pulse	0.50	3
Ba			1	-0.005	ug/l	-37.76	16.00	9.899E-06	Pulse	0.50	3
Tl			1	0.021	ug/l	4.78	1,182.05	4.088E-04	Pulse	0.50	3
Sn			1	0.016	ug/l	54.83	340.01	2.097E-04	Pulse	0.30	3
Sr			1	0.003	ug/l	226.06	335.34	2.073E-04	Pulse	0.50	3
[Pb]			1	0.236	ug/l	3.23	3,327.00	1.151E-03	Pulse	0.50	3
Ca			1	-2.567	ug/l	-16.22	354.00	1.234E-03	Pulse	0.50	3
Ti			1	-0.010	ug/l	-35.53	3.33	1.163E-05	Pulse	0.50	3
Na			1	2.412	ug/l	10.79	15,504.32	5.405E-02	Pulse	1.00	3
Mg			1	1.214	ug/l	15.61	1,557.40	5.430E-03	Pulse	1.00	3
K			1	2.574	ug/l	11.00	61,673.61	2.150E-01	Pulse	1.00	3
V			1	-0.020	ug/l	-21.15	1,069.37	3.728E-03	Pulse	0.50	3
Mn			1	0.004	ug/l	121.63	264.67	1.434E-03	Pulse	0.50	3
Fe			1	0.014	ug/l	348.30	14,671.56	7.952E-02	Pulse	0.50	3
Co			1	0.002	ug/l	90.28	143.33	7.766E-04	Pulse	0.50	3
Ni			1	-0.011	ug/l	-104.66	406.67	2.204E-03	Pulse	0.50	3
Cu			1	0.381	ug/l	2.38	10,860.41	5.885E-02	Pulse	0.50	3
Zn			1	0.089	ug/l	23.84	1,518.40	5.562E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	41.43	37.33	1.366E-04	Pulse	0.50	3
Al			1	0.677	ug/l	10.15	487.34	1.699E-03	Pulse	1.00	3
Se			1	0.068	ug/l	81.71	81.22	2.974E-04	Pulse	3.00	3
Sb			1	0.005	ug/l	59.38	188.33	6.895E-04	Pulse	1.00	3
Se			1	0.026	ug/l	411.30	33.66	1.234E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,891,100.00	1.06	91.7	Pulse	0.50	3
1	Sc		286,871.57	0.71	99.0	Pulse	0.30	3

1	Ge		184,548.76	0.97	99.9	Pulse	0.30	3
1	In		1,619,694.73	0.96	95.1	Pulse	0.30	3
1	Tb		4,257,823.33	1.06	94.2	Pulse	0.50	3
1	Lu		3,154,940.33	0.94	91.8	Pulse	0.50	3
1	Ge		272,967.77	1.01	100.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,153.37	8.79	91.5	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:30
Sample Name	FC2148-3A
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	5981.162	ug/l	1.00	1,346,454.92	7.291E+00	Pulse	0.50	3
As			1	4450.683	ug/l	0.64	136,189.78	7.374E-01	Pulse	1.00	3
Mo			1	1221.929	ug/l	0.59	152,517.73	5.617E-01	Pulse	0.50	3
Pb			1	3570.912	ug/l	0.78	1,883,057.08	6.380E-01	Pulse	1.00	3
Be			1	3684.178	ug/l	1.77	4,214.11	1.455E-02	Pulse	2.00	3
Ag			1	1206.058	ug/l	1.24	453,158.13	1.669E+00	Pulse	0.50	3
Ba			1	8903.083	ug/l	1.47	521,243.85	3.221E-01	Pulse	0.50	3
Tl			1	4292.370	ug/l	0.87	3,115,614.50	1.056E+00	Pulse	0.50	3
Sn			1	2318.613	ug/l	1.57	311,491.91	1.925E-01	Pulse	0.30	3
Sr			1	5406.091	ug/l	0.67	914,830.89	5.653E-01	Pulse	0.50	3
[Pb]			1	3619.120	ug/l	0.59	909,353.23	3.081E-01	Pulse	0.50	3
Ca			1	142472.712	ug/l	0.58	129,725.13	4.479E-01	Pulse	0.50	3
Ti			1	7735.151	ug/l	0.54	49,020.38	1.692E-01	Pulse	0.50	3
Na			1	11680.577	ug/l	0.59	369,450.57	1.276E+00	Pulse	1.00	3
Mg			1	55491.377	ug/l	0.43	871,776.90	3.010E+00	Pulse	1.00	3
K			1	44967.111	ug/l	1.00	840,422.35	2.902E+00	Pulse	1.00	3
V			1	2963.844	ug/l	0.71	547,854.46	1.891E+00	Pulse	0.50	3
Mn			1	11169.175	ug/l	0.90	1,527,848.92	8.273E+00	Pulse	0.50	3
Fe			1	226288.442	ug/l	0.96	43,406,474.67	2.350E+02	Analog	0.50	3
Co			1	4277.175	ug/l	0.85	1,471,696.08	7.969E+00	Pulse	0.50	3
Ni			1	2782.166	ug/l	0.93	253,796.20	1.374E+00	Pulse	0.50	3
Cu			1	3224.469	ug/l	0.93	780,144.88	4.224E+00	Pulse	0.50	3
Zn			1	9445.898	ug/l	0.96	411,802.76	1.517E+00	Pulse	1.00	3
Cd			1	2585.530	ug/l	1.67	157,209.75	5.790E-01	Pulse	0.50	3
Al			1	223479.064	ug/l	0.54	1,524,332.21	5.263E+00	Pulse	1.00	3
Se			1	2389.297	ug/l	1.16	5,829.22	2.147E-02	Pulse	3.00	3
Sb			1	1819.447	ug/l	1.16	339,935.10	1.252E+00	Pulse	1.00	3
Se			1	2429.594	ug/l	2.63	2,817.32	1.038E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,951,562.67	0.80	93.6	Pulse	0.50	3
1	Sc		289,646.49	0.14	100.0	Pulse	0.30	3
1	Ge		184,692.08	0.84	100.0	Pulse	0.30	3
1	In		1,618,427.85	0.58	95.1	Pulse	0.30	3
1	Tb		4,325,006.33	0.27	95.7	Pulse	0.50	3
1	Lu		3,212,892.00	0.52	93.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		271,551.62	0.33	99.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,196.71	4.65	95.0	Pulse	0.30	3

Quantitation Report

File Name	061_MB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:33
Sample Name	MP41795-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.653	ug/l	4.66	4,043.77	2.284E-02	Pulse	0.50	3
As			1	0.339	ug/l	8.64	153.67	8.683E-04	Pulse	1.00	3
Mo			1	0.287	ug/l	31.14	460.67	1.772E-03	Pulse	0.50	3
Pb			1	3.630	ug/l	0.52	19,489.74	6.802E-03	Pulse	1.00	3
Be			1	0.278	ug/l	15.82	4.50	1.616E-05	Pulse	2.00	3
Ag			1	0.046	ug/l	8.90	361.34	1.394E-03	Pulse	0.50	3
Ba			1	0.311	ug/l	30.17	203.33	1.312E-04	Pulse	0.50	3
Tl			1	0.353	ug/l	9.74	2,924.26	1.021E-03	Pulse	0.50	3
Sn			1	22.109	ug/l	0.82	28,745.91	1.848E-02	Pulse	0.30	3
Sr			1	0.211	ug/l	26.87	638.68	4.115E-04	Pulse	0.50	3
[Pb]			1	3.569	ug/l	2.46	9,129.11	3.186E-03	Pulse	0.50	3
Ca			1	27.295	ug/l	14.07	693.35	2.491E-03	Pulse	0.50	3
Ti			1	0.606	ug/l	21.11	43.33	1.555E-04	Pulse	0.50	3
Na			1	29.071	ug/l	2.55	20,053.33	7.203E-02	Pulse	1.00	3
Mg			1	7.302	ug/l	9.89	1,696.74	6.098E-03	Pulse	1.00	3
K			1	43.293	ug/l	21.17	64,920.61	2.332E-01	Pulse	1.00	3
V			1	1.156	ug/l	1.48	3,268.95	1.174E-02	Pulse	0.50	3
Mn			1	0.771	ug/l	11.81	1,240.71	7.014E-03	Pulse	0.50	3
Fe			1	35.534	ug/l	2.27	79,282.03	4.477E-01	Pulse	0.50	3
Co			1	0.115	ug/l	18.51	488.68	2.764E-03	Pulse	0.50	3
Ni			1	0.460	ug/l	11.72	840.02	4.746E-03	Pulse	0.50	3
Cu			1	3.933	ug/l	2.52	15,092.58	8.523E-02	Pulse	0.50	3
Zn			1	5.091	ug/l	4.35	3,368.97	1.299E-02	Pulse	1.00	3
Cd			1	0.130	ug/l	61.54	88.67	3.429E-04	Pulse	0.50	3
Al			1	13.853	ug/l	15.39	1,158.04	4.164E-03	Pulse	1.00	3
Se			1	0.520	ug/l	29.96	81.33	3.136E-04	Pulse	3.00	3
Sb			1	0.139	ug/l	1.62	380.34	1.466E-03	Pulse	1.00	3
Se			1	0.685	ug/l	138.79	38.11	1.468E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,865,248.08	1.37	90.9	Pulse	0.50	3
1	Sc		278,433.77	1.49	96.1	Pulse	0.30	3
1	Ge		177,106.00	1.95	95.9	Pulse	0.30	3
1	In		1,555,501.60	2.33	91.4	Pulse	0.30	3
1	Tb		4,143,484.25	2.28	91.7	Pulse	0.50	3
1	Lu		3,065,400.25	2.22	89.2	Pulse	0.50	3
1	Ge		259,342.78	1.72	95.2	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,126.71	11.33	89.4	Pulse	0.30	3

Quantitation Report

File Name	062_BSP.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:37
Sample Name	MP41795-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	525.361	ug/l	0.74	1,118,598.42	6.404E+00	Pulse	0.50	3
As			1	523.847	ug/l	0.58	151,589.54	8.679E-01	Pulse	1.00	3
Mo			1	521.206	ug/l	0.91	623,007.37	2.394E+00	Pulse	0.50	3
Pb			1	521.937	ug/l	0.25	2,565,892.75	9.323E-01	Pulse	1.00	3
Be			1	509.627	ug/l	1.88	5,508.25	2.012E-02	Pulse	2.00	3
Ag			1	245.349	ug/l	1.03	883,217.11	3.394E+00	Pulse	0.50	3
Ba			1	508.681	ug/l	0.75	282,196.36	1.840E-01	Pulse	0.50	3
Tl			1	515.779	ug/l	1.11	3,490,659.75	1.268E+00	Pulse	0.50	3
Sn			1	545.744	ug/l	0.25	694,443.25	4.529E-01	Pulse	0.30	3
Sr			1	509.038	ug/l	0.67	816,197.96	5.323E-01	Pulse	0.50	3
[Pb]			1	502.942	ug/l	0.53	1,178,166.25	4.281E-01	Pulse	0.50	3
Ca			1	50568.717	ug/l	0.84	434,007.53	1.585E+00	Pulse	0.50	3
Ti			1	488.665	ug/l	0.85	29,269.78	1.069E-01	Pulse	0.50	3
Na			1	54462.724	ug/l	0.93	15,763,909.33	5.759E+01	Analog	1.00	3
Mg			1	53671.442	ug/l	0.80	7,963,580.00	2.909E+01	Analog	1.00	3
K			1	54058.621	ug/l	0.95	8,922,932.33	3.260E+01	Analog	1.00	3
V			1	516.257	ug/l	0.75	900,972.87	3.291E+00	Pulse	0.50	3
Mn			1	512.862	ug/l	0.58	663,626.25	3.799E+00	Pulse	0.50	3
Fe			1	55966.428	ug/l	0.53	101,512,461.33	5.812E+02	Analog	0.50	3
Co			1	523.407	ug/l	0.58	1,703,201.58	9.751E+00	Pulse	0.50	3
Ni			1	520.722	ug/l	1.06	448,857.70	2.570E+00	Pulse	0.50	3
Cu			1	522.412	ug/l	0.67	1,191,635.63	6.822E+00	Pulse	0.50	3
Zn			1	510.078	ug/l	0.35	213,678.37	8.211E-01	Pulse	1.00	3
Cd			1	500.423	ug/l	0.71	291,577.46	1.120E+00	Pulse	0.50	3
Al			1	48003.509	ug/l	1.06	3,094,106.92	1.130E+01	Pulse	1.00	3
Se			1	477.589	ug/l	0.94	11,096.21	4.264E-02	Pulse	3.00	3
Sb			1	502.055	ug/l	0.60	898,653.33	3.453E+00	Pulse	1.00	3
Se			1	478.085	ug/l	1.34	5,282.85	2.030E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,752,265.42	2.16	87.3	Pulse	0.50	3
1	Sc		273,741.41	0.51	94.5	Pulse	0.30	3
1	Ge		174,665.77	0.71	94.6	Pulse	0.30	3
1	In		1,533,526.30	1.65	90.1	Pulse	0.30	3
1	Tb		4,206,055.75	1.47	93.1	Pulse	0.50	3
1	Lu		3,130,309.92	1.89	91.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		260,216.84	1.03	95.5	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		1,025.59	6.58	81.4	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:41
Sample Name	FC2193-18
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	615.303	ug/l	0.18	338,519.58	1.877E+00	Pulse	0.50	3
As			1	114.887	ug/l	3.38	8,633.96	4.787E-02	Pulse	1.00	3
Mo			1	11.131	ug/l	2.67	3,517.67	1.323E-02	Pulse	0.50	3
Pb			1	2665.900	ug/l	0.60	3,443,291.67	1.190E+00	Pulse	1.00	3
Be			1	4.296	ug/l	14.76	14.00	4.757E-05	Pulse	2.00	3
Ag			1	45.896	ug/l	1.28	42,380.85	1.594E-01	Pulse	0.50	3
Ba			1	1670.381	ug/l	0.49	238,243.54	1.511E-01	Pulse	0.50	3
Tl			1	2.492	ug/l	2.72	4,876.04	1.686E-03	Pulse	0.50	3
Sn			1	94.097	ug/l	0.55	30,996.17	1.966E-02	Pulse	0.30	3
Sr			1	636.878	ug/l	0.75	262,747.57	1.666E-01	Pulse	0.50	3
[Pb]			1	2668.166	ug/l	0.17	1,642,059.37	5.677E-01	Pulse	0.50	3
Ca			1	92945.780	ug/l	0.62	214,790.96	7.294E-01	Pulse	0.50	3
Ti			1	17061.213	ug/l	0.87	274,769.84	9.331E-01	Pulse	0.50	3
Na			1	6179.429	ug/l	0.16	492,850.44	1.674E+00	Pulse	1.00	3
Mg			1	96997.283	ug/l	1.31	3,870,739.92	1.315E+01	Pulse	1.00	3
K			1	19446.398	ug/l	0.30	918,796.75	3.120E+00	Pulse	1.00	3
V			1	858.130	ug/l	0.96	403,510.18	1.370E+00	Pulse	0.50	3
Mn			1	6125.212	ug/l	0.57	2,045,434.50	1.134E+01	Pulse	0.50	3
Fe			1	383285.149	ug/l	0.38	179,441,386.67	9.950E+02	Analog	0.50	3
Co			1	153.566	ug/l	0.54	129,101.27	7.158E-01	Pulse	0.50	3
Ni			1	635.100	ug/l	1.08	141,625.92	7.853E-01	Pulse	0.50	3
Cu			1	741.052	ug/l	0.79	440,317.49	2.441E+00	Pulse	0.50	3
Zn			1	1882.560	ug/l	0.92	201,478.97	7.580E-01	Pulse	1.00	3
Cd			1	38.467	ug/l	2.68	5,736.24	2.158E-02	Pulse	0.50	3
Al			1	250682.362	ug/l	1.42	4,345,184.83	1.476E+01	Pulse	1.00	3
Se			1	10.611	ug/l	16.80	133.67	5.028E-04	Pulse	3.00	3
Sb			1	7.876	ug/l	1.80	3,735.39	1.405E-02	Pulse	1.00	3
Se			1	30.612	ug/l	7.01	117.22	4.409E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,422.00	1.05	91.7	Pulse	0.50	3
1	Sc		294,473.24	0.79	101.7	Pulse	0.30	3
1	Ge		180,349.81	0.97	97.7	Pulse	0.30	3
1	In		1,576,908.44	0.65	92.6	Pulse	0.30	3
1	Tb		4,280,234.67	0.63	94.7	Pulse	0.50	3
1	Lu		3,177,235.08	0.78	92.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		265,791.64	0.70	97.5	Pulse	0.30	3
1	Te		8.00	25.00		Pulse	0.50	3
1	Li		1,151.71	1.57	91.4	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:45
Sample Name MP41795-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	756.416	ug/l	0.74	411,805.89	2.307E+00	Pulse	0.50	3
As			1	118.208	ug/l	1.45	8,791.69	4.925E-02	Pulse	1.00	3
Mo			1	10.919	ug/l	1.47	3,408.32	1.299E-02	Pulse	0.50	3
Pb			1	2839.370	ug/l	0.43	3,621,793.75	1.268E+00	Pulse	1.00	3
Be			1	4.800	ug/l	26.66	15.50	5.254E-05	Pulse	2.00	3
Ag			1	49.283	ug/l	0.86	44,910.75	1.712E-01	Pulse	0.50	3
Ba			1	1632.727	ug/l	0.49	231,698.24	1.477E-01	Pulse	0.50	3
Tl			1	1.810	ug/l	1.60	3,618.40	1.267E-03	Pulse	0.50	3
Sn			1	109.479	ug/l	1.80	35,849.40	2.285E-02	Pulse	0.30	3
Sr			1	673.959	ug/l	0.53	276,625.65	1.763E-01	Pulse	0.50	3
[Pb]			1	2846.751	ug/l	0.06	1,730,200.33	6.057E-01	Pulse	0.50	3
Ca			1	104788.702	ug/l	0.78	242,422.72	8.222E-01	Pulse	0.50	3
Ti			1	18518.151	ug/l	0.90	298,639.72	1.013E+00	Pulse	0.50	3
Na			1	7238.952	ug/l	0.91	576,000.02	1.954E+00	Pulse	1.00	3
Mg			1	100330.540	ug/l	0.28	4,009,191.00	1.360E+01	Pulse	1.00	3
K			1	20745.347	ug/l	0.50	977,362.69	3.315E+00	Pulse	1.00	3
V			1	908.526	ug/l	0.87	427,706.01	1.451E+00	Pulse	0.50	3
Mn			1	6267.705	ug/l	1.19	2,071,672.71	1.161E+01	Pulse	0.50	3
Fe			1	399811.258	ug/l	0.52	185,271,536.00	1.038E+03	Analog	0.50	3
Co			1	157.498	ug/l	0.92	131,051.87	7.341E-01	Pulse	0.50	3
Ni			1	667.975	ug/l	1.36	147,419.77	8.258E-01	Pulse	0.50	3
Cu			1	791.981	ug/l	0.73	465,357.69	2.607E+00	Pulse	0.50	3
Zn			1	2002.876	ug/l	0.91	211,535.50	8.062E-01	Pulse	1.00	3
Cd			1	39.416	ug/l	2.06	5,802.92	2.211E-02	Pulse	0.50	3
Al			1	285237.019	ug/l	0.49	4,950,895.17	1.679E+01	Analog	1.00	3
Se			1	11.352	ug/l	13.23	136.22	5.193E-04	Pulse	3.00	3
Sb			1	7.078	ug/l	1.20	3,327.64	1.268E-02	Pulse	1.00	3
Se			1	33.371	ug/l	14.50	123.33	4.701E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,856,561.58	1.39	90.6	Pulse	0.50	3
1	Sc		294,855.14	0.42	101.8	Pulse	0.30	3
1	Ge		178,511.32	0.54	96.7	Pulse	0.30	3
1	In		1,568,962.96	1.13	92.2	Pulse	0.30	3
1	Tb		4,255,930.83	1.12	94.2	Pulse	0.50	3
1	Lu		3,155,812.08	1.59	91.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,391.22	0.46	96.3	Pulse	0.30	3
1	Te		11.33	53.91		Pulse	0.50	3
1	Li		1,105.59	2.53	87.7	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:49
Sample Name	MP41795-D2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	650.737	ug/l	0.77	356,415.24	1.985E+00	Pulse	0.50	3
As			1	118.228	ug/l	0.83	8,845.05	4.926E-02	Pulse	1.00	3
Mo			1	9.578	ug/l	5.06	3,007.58	1.145E-02	Pulse	0.50	3
Pb			1	2733.636	ug/l	0.65	3,480,293.75	1.221E+00	Pulse	1.00	3
Be			1	5.903	ug/l	26.73	18.67	6.343E-05	Pulse	2.00	3
Ag			1	48.400	ug/l	0.47	44,146.26	1.681E-01	Pulse	0.50	3
Ba			1	1629.584	ug/l	1.10	231,006.36	1.474E-01	Pulse	0.50	3
Tl			1	1.909	ug/l	5.31	3,785.10	1.327E-03	Pulse	0.50	3
Sn			1	106.888	ug/l	1.10	34,963.29	2.231E-02	Pulse	0.30	3
Sr			1	666.839	ug/l	0.86	273,415.56	1.744E-01	Pulse	0.50	3
[Pb]			1	2749.743	ug/l	0.73	1,668,115.46	5.851E-01	Pulse	0.50	3
Ca			1	102244.987	ug/l	0.50	236,149.45	8.022E-01	Pulse	0.50	3
Ti			1	18229.577	ug/l	1.05	293,485.84	9.970E-01	Pulse	0.50	3
Na			1	6966.420	ug/l	0.97	553,835.00	1.882E+00	Pulse	1.00	3
Mg			1	97015.267	ug/l	1.14	3,870,181.50	1.315E+01	Pulse	1.00	3
K			1	20529.849	ug/l	0.40	966,237.62	3.282E+00	Pulse	1.00	3
V			1	891.889	ug/l	1.16	419,176.48	1.424E+00	Pulse	0.50	3
Mn			1	6098.874	ug/l	0.78	2,027,601.71	1.129E+01	Pulse	0.50	3
Fe			1	386977.357	ug/l	1.06	180,365,312.00	1.005E+03	Analog	0.50	3
Co			1	154.656	ug/l	1.25	129,444.44	7.209E-01	Pulse	0.50	3
Ni			1	649.224	ug/l	0.75	144,136.24	8.027E-01	Pulse	0.50	3
Cu			1	930.421	ug/l	0.60	548,849.12	3.057E+00	Pulse	0.50	3
Zn			1	1930.586	ug/l	0.82	204,118.35	7.772E-01	Pulse	1.00	3
Cd			1	39.050	ug/l	1.29	5,753.58	2.191E-02	Pulse	0.50	3
Al			1	271216.625	ug/l	3.38	4,700,819.83	1.597E+01	Mix	1.00	3
Se			1	11.086	ug/l	20.08	134.78	5.133E-04	Pulse	3.00	3
Sb			1	6.730	ug/l	2.33	3,172.95	1.208E-02	Pulse	1.00	3
Se			1	32.155	ug/l	11.17	120.11	4.572E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,851,137.25	0.70	90.4	Pulse	0.50	3
1	Sc		294,370.25	1.05	101.6	Pulse	0.30	3
1	Ge		179,556.58	1.22	97.2	Pulse	0.30	3
1	In		1,567,281.19	0.49	92.1	Pulse	0.30	3
1	Tb		4,267,262.83	1.10	94.4	Pulse	0.50	3
1	Lu		3,155,446.08	0.83	91.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,609.09	0.73	96.4	Pulse	0.30	3
1	Te		12.67	32.87		Pulse	0.50	3
1	Li		1,118.93	5.85	88.8	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 15:52
Sample Name	MP41795-SD1
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	636.820	ug/l	1.69	70,587.63	3.907E-01	Pulse	0.50	3
As			1	118.935	ug/l	3.33	1,835.09	1.016E-02	Pulse	1.00	3
Mo			1	10.012	ug/l	7.53	735.35	2.752E-03	Pulse	0.50	3
Pb			1	2756.713	ug/l	0.57	708,552.81	2.464E-01	Pulse	1.00	3
Be			1	4.132	ug/l	67.97	3.83	1.333E-05	Pulse	2.00	3
Ag			1	47.140	ug/l	1.99	8,908.83	3.335E-02	Pulse	0.50	3
Ba			1	1696.937	ug/l	1.01	48,855.58	3.071E-02	Pulse	0.50	3
Tl			1	1.348	ug/l	9.00	919.36	3.196E-04	Pulse	0.50	3
Sn			1	94.321	ug/l	5.08	6,450.08	4.054E-03	Pulse	0.30	3
Sr			1	651.308	ug/l	0.31	54,453.40	3.423E-02	Pulse	0.50	3
[Pb]			1	2743.706	ug/l	0.49	336,033.68	1.169E-01	Pulse	0.50	3
Ca			1	99983.171	ug/l	1.26	45,448.35	1.582E-01	Pulse	0.50	3
Ti			1	18367.766	ug/l	2.32	57,723.22	2.009E-01	Pulse	0.50	3
Na			1	6790.777	ug/l	0.37	114,927.58	4.001E-01	Pulse	1.00	3
Mg			1	104846.238	ug/l	0.45	816,844.46	2.844E+00	Pulse	1.00	3
K			1	20855.052	ug/l	0.75	239,015.84	8.321E-01	Pulse	1.00	3
V			1	904.341	ug/l	0.80	83,962.65	2.923E-01	Pulse	0.50	3
Mn			1	6344.919	ug/l	0.94	424,720.66	2.351E+00	Pulse	0.50	3
Fe			1	404674.892	ug/l	0.70	37,971,190.67	2.102E+02	Analog	0.50	3
Co			1	158.893	ug/l	0.62	26,852.60	1.486E-01	Pulse	0.50	3
Ni			1	651.169	ug/l	1.10	29,451.00	1.630E-01	Pulse	0.50	3
Cu			1	803.441	ug/l	1.28	100,479.34	5.561E-01	Pulse	0.50	3
Zn			1	1968.064	ug/l	0.39	43,356.51	1.623E-01	Pulse	1.00	3
Cd			1	37.929	ug/l	7.26	1,147.37	4.298E-03	Pulse	0.50	3
Al			1	272096.784	ug/l	1.14	920,466.38	3.204E+00	Pulse	1.00	3
Se			1	9.732	ug/l	56.80	83.00	3.106E-04	Pulse	3.00	3
Sb			1	6.837	ug/l	1.75	764.35	2.862E-03	Pulse	1.00	3
Se			1	34.305	ug/l	59.90	50.89	1.903E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,875,164.67	1.86	91.2	Pulse	0.50	3
1	Sc		287,266.78	0.61	99.2	Pulse	0.30	3
1	Ge		180,676.76	0.74	97.8	Pulse	0.30	3
1	In		1,590,801.33	0.87	93.5	Pulse	0.30	3
1	Tb		4,223,606.00	1.36	93.4	Pulse	0.50	3
1	Lu		3,118,879.83	1.16	90.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		267,099.05	0.93	98.0	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,115.59	6.88	88.5	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 15:56
Sample Name MP41795-S1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1260.974	ug/l	0.84	689,431.42	3.844E+00	Pulse	0.50	3
As			1	615.001	ug/l	1.62	45,727.38	2.549E-01	Pulse	1.00	3
Mo			1	483.559	ug/l	0.88	145,905.85	5.557E-01	Pulse	0.50	3
Pb			1	3493.471	ug/l	0.28	4,397,201.00	1.560E+00	Pulse	1.00	3
Be			1	457.911	ug/l	3.11	1,328.54	4.524E-03	Pulse	2.00	3
Ag			1	300.711	ug/l	1.56	273,201.75	1.041E+00	Pulse	0.50	3
Ba			1	2229.510	ug/l	1.39	312,556.42	2.016E-01	Pulse	0.50	3
Tl			1	490.532	ug/l	0.55	850,444.02	3.017E-01	Pulse	0.50	3
Sn			1	613.780	ug/l	0.82	197,516.34	1.274E-01	Pulse	0.30	3
Sr			1	1259.233	ug/l	0.76	510,344.82	3.293E-01	Pulse	0.50	3
[Pb]			1	3478.598	ug/l	0.23	2,086,316.12	7.401E-01	Pulse	0.50	3
Ca			1	158891.834	ug/l	0.50	365,828.63	1.246E+00	Pulse	0.50	3
Ti			1	19849.800	ug/l	0.97	318,794.82	1.086E+00	Pulse	0.50	3
Na			1	59058.008	ug/l	0.45	4,593,242.67	1.564E+01	Analog	1.00	3
Mg			1	159825.685	ug/l	0.72	6,360,049.17	2.166E+01	Analog	1.00	3
K			1	69030.685	ug/l	0.25	3,097,255.17	1.055E+01	Pulse	1.00	3
V			1	1423.132	ug/l	0.79	666,478.60	2.270E+00	Pulse	0.50	3
Mn			1	6925.449	ug/l	0.43	2,299,938.83	1.282E+01	Pulse	0.50	3
Fe			1	469445.248	ug/l	0.59	218,568,917.33	1.219E+03	Analog	0.50	3
Co			1	664.094	ug/l	0.95	554,851.36	3.093E+00	Pulse	0.50	3
Ni			1	1175.168	ug/l	0.79	260,248.05	1.451E+00	Pulse	0.50	3
Cu			1	1402.197	ug/l	0.59	823,117.25	4.589E+00	Pulse	0.50	3
Zn			1	2571.080	ug/l	0.76	271,365.18	1.033E+00	Pulse	1.00	3
Cd			1	522.063	ug/l	0.90	76,744.02	2.923E-01	Pulse	0.50	3
Al			1	362419.756	ug/l	0.79	6,264,658.33	2.133E+01	Analog	1.00	3
Se			1	475.351	ug/l	1.98	2,838.65	1.081E-02	Pulse	3.00	3
Sb			1	132.280	ug/l	1.39	59,854.23	2.280E-01	Pulse	1.00	3
Se			1	502.722	ug/l	1.62	1,424.17	5.424E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,818,909.92	1.54	89.4	Pulse	0.50	3
1	Sc		293,651.94	0.32	101.4	Pulse	0.30	3
1	Ge		179,357.94	0.48	97.1	Pulse	0.30	3
1	In		1,550,019.87	0.72	91.1	Pulse	0.30	3
1	Tb		4,237,375.00	1.10	93.7	Pulse	0.50	3
1	Lu		3,126,111.58	0.84	90.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,573.44	0.45	96.4	Pulse	0.30	3
1	Te		10.00	105.83		Pulse	0.50	3
1	Li		1,038.92	5.19	82.5	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:00
Sample Name	MP41795-S2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1165.978	ug/l	1.14	636,799.77	3.555E+00	Pulse	0.50	3
As			1	611.996	ug/l	0.50	45,450.70	2.537E-01	Pulse	1.00	3
Mo			1	478.978	ug/l	0.87	144,147.00	5.504E-01	Pulse	0.50	3
Pb			1	3421.759	ug/l	1.20	4,285,247.33	1.528E+00	Pulse	1.00	3
Be			1	444.814	ug/l	1.08	1,295.71	4.395E-03	Pulse	2.00	3
Ag			1	287.660	ug/l	0.89	260,675.66	9.954E-01	Pulse	0.50	3
Ba			1	2160.826	ug/l	1.16	303,564.04	1.954E-01	Pulse	0.50	3
Tl			1	484.650	ug/l	1.02	835,968.16	2.981E-01	Pulse	0.50	3
Sn			1	595.073	ug/l	1.35	191,899.36	1.235E-01	Pulse	0.30	3
Sr			1	1243.597	ug/l	0.63	505,049.96	3.252E-01	Pulse	0.50	3
[Pb]			1	3410.645	ug/l	1.14	2,035,241.25	7.256E-01	Pulse	0.50	3
Ca			1	157629.878	ug/l	0.70	364,357.74	1.236E+00	Pulse	0.50	3
Ti			1	20316.285	ug/l	1.02	327,575.31	1.111E+00	Pulse	0.50	3
Na			1	54334.966	ug/l	0.29	4,243,534.67	1.439E+01	Pulse	1.00	3
Mg			1	158124.055	ug/l	0.75	6,317,184.50	2.143E+01	Analog	1.00	3
K			1	67172.277	ug/l	0.25	3,027,384.25	1.027E+01	Pulse	1.00	3
V			1	1417.808	ug/l	0.84	666,611.56	2.261E+00	Pulse	0.50	3
Mn			1	6943.210	ug/l	0.53	2,303,205.00	1.286E+01	Pulse	0.50	3
Fe			1	470186.059	ug/l	0.69	218,667,002.67	1.221E+03	Analog	0.50	3
Co			1	656.938	ug/l	0.79	548,238.81	3.060E+00	Pulse	0.50	3
Ni			1	1177.335	ug/l	0.83	260,423.73	1.454E+00	Pulse	0.50	3
Cu			1	1275.316	ug/l	1.31	748,326.04	4.177E+00	Pulse	0.50	3
Zn			1	2512.002	ug/l	1.45	264,472.08	1.010E+00	Pulse	1.00	3
Cd			1	516.741	ug/l	0.71	75,763.27	2.893E-01	Pulse	0.50	3
Al			1	356383.669	ug/l	0.74	6,184,639.83	2.098E+01	Analog	1.00	3
Se			1	461.212	ug/l	2.23	2,749.31	1.050E-02	Pulse	3.00	3
Sb			1	132.293	ug/l	1.44	59,704.07	2.280E-01	Pulse	1.00	3
Se			1	495.604	ug/l	2.06	1,400.83	5.349E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,804,631.42	0.88	88.9	Pulse	0.50	3
1	Sc		294,806.91	0.18	101.8	Pulse	0.30	3
1	Ge		179,151.49	0.23	97.0	Pulse	0.30	3
1	In		1,553,223.79	0.29	91.2	Pulse	0.30	3
1	Tb		4,234,618.83	0.93	93.7	Pulse	0.50	3
1	Lu		3,130,361.92	1.20	91.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,889.98	0.47	96.1	Pulse	0.30	3
1	Te		8.00	50.00		Pulse	0.50	3
1	Li		1,120.04	1.81	88.9	Pulse	0.30	3

Quantitation Report

File Name	069CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:04
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.137	ug/l	1.14	533,160.31	2.935E+00	Pulse	0.50	3
As			1	46.667	ug/l	1.26	70,245.44	3.867E-01	Pulse	1.00	3
Mo			1	46.985	ug/l	0.51	289,610.09	1.079E+00	Pulse	0.50	3
Pb			1	47.364	ug/l	0.11	1,200,536.91	4.232E-01	Pulse	1.00	3
Be			1	47.050	ug/l	2.57	2,609.34	9.292E-03	Pulse	2.00	3
Ag			1	48.335	ug/l	0.27	897,010.83	3.343E+00	Pulse	0.50	3
Ba			1	46.530	ug/l	0.21	133,572.20	8.418E-02	Pulse	0.50	3
Tl			1	48.843	ug/l	0.49	1,703,895.75	6.006E-01	Pulse	0.50	3
Sn			1	48.063	ug/l	0.73	316,562.44	1.995E-01	Pulse	0.30	3
Sr			1	47.556	ug/l	0.24	394,682.59	2.487E-01	Pulse	0.50	3
[Pb]			1	47.280	ug/l	0.43	571,050.23	2.013E-01	Pulse	0.50	3
Ca			1	4670.684	ug/l	0.90	205,864.36	7.331E-01	Pulse	0.50	3
Ti			1	47.067	ug/l	2.09	14,464.02	5.151E-02	Pulse	0.50	3
Na			1	5091.325	ug/l	0.60	7,565,140.83	2.694E+01	Analog	1.00	3
Mg			1	4728.250	ug/l	1.42	3,598,906.25	1.282E+01	Pulse	1.00	3
K			1	4754.120	ug/l	0.47	4,057,734.92	1.445E+01	Pulse	1.00	3
V			1	47.894	ug/l	1.36	429,391.97	1.529E+00	Pulse	0.50	3
Mn			1	47.283	ug/l	1.24	318,250.35	1.752E+00	Pulse	0.50	3
Fe			1	5163.038	ug/l	0.96	48,699,592.00	2.681E+02	Analog	0.50	3
Co			1	48.709	ug/l	1.34	824,186.59	4.538E+00	Pulse	0.50	3
Ni			1	48.477	ug/l	1.28	217,505.00	1.198E+00	Pulse	0.50	3
Cu			1	48.630	ug/l	1.79	580,069.63	3.194E+00	Pulse	0.50	3
Zn			1	47.458	ug/l	0.70	103,189.69	3.846E-01	Pulse	1.00	3
Cd			1	46.356	ug/l	1.01	139,256.55	5.190E-01	Pulse	0.50	3
Al			1	4595.738	ug/l	1.39	1,519,573.75	5.411E+00	Pulse	1.00	3
Se			1	45.897	ug/l	0.65	5,534.47	2.063E-02	Pulse	3.00	3
Sb			1	45.576	ug/l	0.82	420,651.85	1.568E+00	Pulse	1.00	3
Se			1	45.543	ug/l	1.28	2,611.07	9.732E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,836,791.75	1.58	90.0	Pulse	0.50	3
1	Sc		280,819.19	0.12	96.9	Pulse	0.30	3
1	Ge		181,642.41	1.24	98.4	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,586,783.58	1.48	93.2	Pulse	0.30	3
1	Tb		4,264,644.50	1.45	94.3	Pulse	0.50	3
1	Lu		3,174,328.50	1.94	92.3	Pulse	0.50	3
1	Ge		268,296.80	0.89	98.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,100.04	6.19	87.3	Pulse	0.30	3

Quantitation Report

File Name	070_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:08
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.655	ug/l	1.61	1,098,538.50	6.135E+00	Pulse	0.50	3
As			1	98.081	ug/l	1.48	145,489.25	8.125E-01	Pulse	1.00	3
Mo			1	97.663	ug/l	0.38	596,817.42	2.243E+00	Pulse	0.50	3
Pb			1	98.085	ug/l	0.23	2,439,541.17	8.760E-01	Pulse	1.00	3
Be			1	96.145	ug/l	0.73	5,343.04	1.898E-02	Pulse	2.00	3
Ag			1	98.682	ug/l	0.15	1,815,864.13	6.825E+00	Pulse	0.50	3
Ba			1	97.891	ug/l	1.15	276,145.49	1.771E-01	Pulse	0.50	3
Tl			1	101.669	ug/l	0.49	3,480,845.67	1.250E+00	Pulse	0.50	3
Sn			1	99.743	ug/l	1.15	645,354.23	4.138E-01	Pulse	0.30	3
Sr			1	99.323	ug/l	1.06	809,792.39	5.193E-01	Pulse	0.50	3
[Pb]			1	97.430	ug/l	0.40	1,154,678.08	4.146E-01	Pulse	0.50	3
Ca			1	9672.857	ug/l	0.26	426,857.20	1.516E+00	Pulse	0.50	3
Ti			1	97.559	ug/l	0.70	30,043.64	1.067E-01	Pulse	0.50	3
Na			1	10466.547	ug/l	0.84	15,576,183.67	5.534E+01	Analog	1.00	3
Mg			1	10345.993	ug/l	0.60	7,892,619.17	2.804E+01	Analog	1.00	3
K			1	10438.324	ug/l	0.87	8,860,468.00	3.148E+01	Analog	1.00	3
V			1	99.428	ug/l	0.43	892,199.48	3.170E+00	Pulse	0.50	3
Mn			1	98.358	ug/l	1.35	652,406.96	3.643E+00	Pulse	0.50	3
Fe			1	10708.964	ug/l	1.00	99,566,333.33	5.560E+02	Analog	0.50	3
Co			1	100.234	ug/l	1.21	1,671,966.45	9.337E+00	Pulse	0.50	3
Ni			1	99.506	ug/l	1.86	439,693.14	2.455E+00	Pulse	0.50	3
Cu			1	99.984	ug/l	1.38	1,169,314.88	6.530E+00	Pulse	0.50	3
Zn			1	98.377	ug/l	0.23	210,735.23	7.920E-01	Pulse	1.00	3
Cd			1	95.773	ug/l	0.39	285,289.80	1.072E+00	Pulse	0.50	3
Al			1	9434.831	ug/l	0.54	3,126,705.75	1.111E+01	Pulse	1.00	3
Se			1	94.613	ug/l	0.99	11,237.96	4.224E-02	Pulse	3.00	3
Sb			1	94.548	ug/l	0.42	865,192.41	3.252E+00	Pulse	1.00	3
Se			1	94.490	ug/l	1.23	5,337.86	2.006E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,784,662.08	1.49	88.3	Pulse	0.50	3
1	Sc		281,482.09	0.55	97.2	Pulse	0.30	3
1	Ge		179,076.17	0.98	97.0	Pulse	0.30	3
1	In		1,559,412.44	0.51	91.6	Pulse	0.30	3
1	Tb		4,226,213.92	1.12	93.5	Pulse	0.50	3
1	Lu		3,131,955.17	0.89	91.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		266,065.09	1.26	97.6	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		1,071.15	5.67	85.0	Pulse	0.30	3

Quantitation Report

File Name	071_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:11
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.024	ug/l	68.29	752.02	4.160E-03	Pulse	0.50	3
As			1	0.033	ug/l	30.81	104.33	5.766E-04	Pulse	1.00	3
Mo			1	0.101	ug/l	23.48	740.68	2.764E-03	Pulse	0.50	3
Pb			1	0.110	ug/l	14.82	3,666.74	1.298E-03	Pulse	1.00	3
Be			1	0.030	ug/l	44.60	3.17	1.101E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	62.29	618.68	2.321E-03	Pulse	0.50	3
Ba			1	0.015	ug/l	100.97	71.33	4.513E-05	Pulse	0.50	3
Tl			1	0.058	ug/l	18.74	2,450.19	8.678E-04	Pulse	0.50	3
Sn			1	0.102	ug/l	7.11	895.03	5.636E-04	Pulse	0.30	3
Sr			1	0.027	ug/l	60.69	524.01	3.307E-04	Pulse	0.50	3
[Pb]			1	0.105	ug/l	12.09	1,680.09	5.946E-04	Pulse	0.50	3
Ca			1	-0.029	ug/l	-7273.62	468.01	1.631E-03	Pulse	0.50	3
Ti			1	0.022	ug/l	198.66	13.33	4.665E-05	Pulse	0.50	3
Na			1	5.321	ug/l	31.32	19,927.96	6.942E-02	Pulse	1.00	3
Mg			1	2.383	ug/l	60.32	2,463.18	8.597E-03	Pulse	1.00	3
K			1	3.994	ug/l	27.89	62,974.74	2.192E-01	Pulse	1.00	3
V			1	0.021	ug/l	52.66	1,449.39	5.048E-03	Pulse	0.50	3
Mn			1	0.074	ug/l	27.65	728.68	4.030E-03	Pulse	0.50	3
Fe			1	3.158	ug/l	45.58	43,863.91	2.427E-01	Pulse	0.50	3
Co			1	0.023	ug/l	54.70	493.34	2.731E-03	Pulse	0.50	3
Ni			1	0.022	ug/l	55.65	546.01	3.017E-03	Pulse	0.50	3
Cu			1	-0.045	ug/l	-46.93	5,643.51	3.118E-02	Pulse	0.50	3
Zn			1	-0.017	ug/l	-107.28	1,259.04	4.707E-03	Pulse	1.00	3
Cd			1	0.024	ug/l	26.48	86.67	3.246E-04	Pulse	0.50	3
Al			1	2.253	ug/l	65.04	1,018.03	3.554E-03	Pulse	1.00	3
Se			1	0.115	ug/l	28.42	85.22	3.186E-04	Pulse	3.00	3
Sb			1	0.040	ug/l	19.85	502.01	1.879E-03	Pulse	1.00	3
Se			1	0.131	ug/l	111.82	38.89	1.455E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,827,876.75	1.56	89.7	Pulse	0.50	3
1	Sc		287,260.99	0.88	99.2	Pulse	0.30	3

1	Ge		181,080.65	1.12	98.1	Pulse	0.30	3
1	In		1,587,414.97	1.12	93.3	Pulse	0.30	3
1	Tb		4,189,982.50	0.97	92.7	Pulse	0.50	3
1	Lu		3,089,184.42	1.47	89.9	Pulse	0.50	3
1	Ge		267,543.83	1.32	98.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,072.26	14.54	85.1	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:15
Sample Name	MP41795-PS1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	634.951	ug/l	1.13	350,638.05	1.937E+00	Pulse	0.50	3
As			1	128.592	ug/l	1.66	9,694.13	5.355E-02	Pulse	1.00	3
Mo			1	21.075	ug/l	1.11	6,532.49	2.465E-02	Pulse	0.50	3
Pb			1	2691.463	ug/l	0.16	3,423,019.00	1.202E+00	Pulse	1.00	3
Be			1	14.980	ug/l	18.56	45.33	1.530E-04	Pulse	2.00	3
Ag			1	47.986	ug/l	0.86	44,168.30	1.667E-01	Pulse	0.50	3
Ba			1	1702.902	ug/l	0.53	242,282.05	1.540E-01	Pulse	0.50	3
Tl			1	11.977	ug/l	0.66	21,408.06	7.516E-03	Pulse	0.50	3
Sn			1	104.478	ug/l	1.77	34,300.83	2.181E-02	Pulse	0.30	3
Sr			1	655.536	ug/l	0.37	269,759.23	1.715E-01	Pulse	0.50	3
[Pb]			1	2699.552	ug/l	0.75	1,635,994.50	5.744E-01	Pulse	0.50	3
Ca			1	95772.353	ug/l	1.16	222,835.52	7.516E-01	Pulse	0.50	3
Ti			1	17362.931	ug/l	0.99	281,569.36	9.496E-01	Pulse	0.50	3
Na			1	7186.836	ug/l	0.91	575,147.33	1.940E+00	Pulse	1.00	3
Mg			1	99125.424	ug/l	0.68	3,983,224.25	1.343E+01	Pulse	1.00	3
K			1	20634.310	ug/l	0.95	977,894.17	3.298E+00	Pulse	1.00	3
V			1	876.134	ug/l	1.27	414,797.20	1.399E+00	Pulse	0.50	3
Mn			1	6176.762	ug/l	0.95	2,070,466.21	1.144E+01	Pulse	0.50	3
Fe			1	390818.500	ug/l	0.69	183,663,498.67	1.015E+03	Analog	0.50	3
Co			1	166.347	ug/l	0.86	140,361.06	7.753E-01	Pulse	0.50	3
Ni			1	653.710	ug/l	1.12	146,315.70	8.082E-01	Pulse	0.50	3
Cu			1	756.926	ug/l	0.85	451,314.82	2.493E+00	Pulse	0.50	3
Zn			1	1920.524	ug/l	0.85	204,903.97	7.732E-01	Pulse	1.00	3
Cd			1	49.155	ug/l	0.23	7,304.80	2.757E-02	Pulse	0.50	3
Al			1	255160.444	ug/l	0.67	4,453,655.17	1.502E+01	Pulse	1.00	3
Se			1	21.459	ug/l	2.73	197.00	7.434E-04	Pulse	3.00	3
Sb			1	17.071	ug/l	1.24	7,913.38	2.986E-02	Pulse	1.00	3
Se			1	41.405	ug/l	8.70	147.00	5.549E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,848,212.58	1.15	90.3	Pulse	0.50	3
1	Sc		296,520.41	1.07	102.4	Pulse	0.30	3
1	Ge		181,031.01	0.11	98.0	Pulse	0.30	3
1	In		1,573,033.06	1.30	92.4	Pulse	0.30	3
1	Tb		4,234,899.42	0.99	93.7	Pulse	0.50	3
1	Lu		3,133,483.33	1.50	91.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		264,993.31	0.56	97.2	Pulse	0.30	3
1	Te		9.33	86.60		Pulse	0.50	3
1	Li		1,183.37	8.23	93.9	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:19
Sample Name FC2148-3A
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	6580.187	ug/l	1.60	722,735.79	4.012E+00	Pulse	0.50	3
As			1	4853.602	ug/l	1.44	72,465.68	4.022E-01	Pulse	1.00	3
Mo			1	1319.399	ug/l	1.11	80,545.62	3.034E-01	Pulse	0.50	3
Pb			1	3890.981	ug/l	0.90	992,433.75	3.477E-01	Pulse	1.00	3
Be			1	4062.034	ug/l	1.71	2,278.29	8.023E-03	Pulse	2.00	3
Ag			1	1310.437	ug/l	1.08	240,741.29	9.070E-01	Pulse	0.50	3
Ba			1	9634.608	ug/l	0.51	276,188.23	1.743E-01	Pulse	0.50	3
Tl			1	4666.342	ug/l	1.57	1,637,828.58	5.738E-01	Pulse	0.50	3
Sn			1	2514.411	ug/l	0.19	165,487.11	1.044E-01	Pulse	0.30	3
Sr			1	5892.767	ug/l	0.25	488,321.89	3.082E-01	Pulse	0.50	3
[Pb]			1	3941.247	ug/l	0.55	478,972.84	1.678E-01	Pulse	0.50	3
Ca			1	155660.814	ug/l	1.86	69,684.77	2.454E-01	Pulse	0.50	3
Ti			1	8576.271	ug/l	0.96	26,646.12	9.383E-02	Pulse	0.50	3
Na			1	12908.409	ug/l	0.97	205,390.04	7.233E-01	Pulse	1.00	3
Mg			1	60656.467	ug/l	1.53	467,385.28	1.646E+00	Pulse	1.00	3
K			1	49247.537	ug/l	1.14	477,824.29	1.683E+00	Pulse	1.00	3
V			1	3260.070	ug/l	1.99	295,944.01	1.042E+00	Pulse	0.50	3
Mn			1	12258.638	ug/l	1.62	818,014.46	4.540E+00	Pulse	0.50	3
Fe			1	253804.848	ug/l	0.93	23,753,036.00	1.318E+02	Analog	0.50	3
Co			1	4703.043	ug/l	1.83	789,334.00	4.381E+00	Pulse	0.50	3
Ni			1	3070.043	ug/l	1.39	136,796.19	7.593E-01	Pulse	0.50	3
Cu			1	3566.318	ug/l	2.01	423,587.75	2.351E+00	Pulse	0.50	3
Zn			1	10386.952	ug/l	1.43	221,892.16	8.360E-01	Pulse	1.00	3
Cd			1	2820.734	ug/l	1.91	83,830.59	3.158E-01	Pulse	0.50	3
Al			1	244612.381	ug/l	1.79	817,975.54	2.881E+00	Pulse	1.00	3
Se			1	2601.722	ug/l	1.29	3,134.70	1.181E-02	Pulse	3.00	3
Sb			1	1955.779	ug/l	1.64	178,652.16	6.731E-01	Pulse	1.00	3
Se			1	2636.555	ug/l	0.44	1,508.62	5.683E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,854,052.08	1.21	90.5	Pulse	0.50	3
1	Sc		283,987.76	1.05	98.0	Pulse	0.30	3
1	Ge		180,167.83	0.38	97.6	Pulse	0.30	3
1	In		1,584,632.85	1.44	93.1	Pulse	0.30	3
1	Tb		4,226,513.50	1.06	93.5	Pulse	0.50	3
1	Lu		3,120,903.17	1.15	90.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		265,439.87	0.67	97.4	Pulse	0.30	3
1	Te		3.33	34.64		Pulse	0.50	3
1	Li		1,180.04	4.52	93.7	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:23
Sample Name FC2193-20
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	675.222	ug/l	1.11	368,259.58	2.060E+00	Pulse	0.50	3
As			1	142.300	ug/l	1.45	10,589.60	5.922E-02	Pulse	1.00	3
Mo			1	19.201	ug/l	2.67	5,934.97	2.250E-02	Pulse	0.50	3
Pb			1	4995.724	ug/l	0.57	6,259,188.83	2.230E+00	Analog	1.00	3
Be			1	3.835	ug/l	14.68	12.67	4.302E-05	Pulse	2.00	3
Ag			1	8.602	ug/l	1.99	8,043.77	3.049E-02	Pulse	0.50	3
Ba			1	1467.163	ug/l	0.36	208,438.90	1.327E-01	Pulse	0.50	3
Tl			1	1.866	ug/l	6.98	3,649.74	1.301E-03	Pulse	0.50	3
Sn			1	57.887	ug/l	1.96	19,078.89	1.215E-02	Pulse	0.30	3
Sr			1	644.573	ug/l	0.23	264,860.34	1.686E-01	Pulse	0.50	3
[Pb]			1	4558.147	ug/l	0.68	2,721,504.50	9.697E-01	Pulse	0.50	3
Ca			1	99373.910	ug/l	1.04	229,623.64	7.798E-01	Pulse	0.50	3
Ti			1	17352.079	ug/l	0.95	279,473.72	9.490E-01	Pulse	0.50	3
Na			1	6068.302	ug/l	0.16	484,225.32	1.644E+00	Pulse	1.00	3
Mg			1	91747.819	ug/l	0.96	3,661,594.17	1.243E+01	Pulse	1.00	3
K			1	18801.417	ug/l	0.69	890,380.65	3.024E+00	Pulse	1.00	3
V			1	857.981	ug/l	0.74	403,462.84	1.370E+00	Pulse	0.50	3
Mn			1	6156.270	ug/l	1.01	2,038,228.63	1.140E+01	Pulse	0.50	3
Fe			1	388658.490	ug/l	0.71	180,404,805.33	1.009E+03	Analog	0.50	3
Co			1	150.833	ug/l	1.82	125,714.27	7.031E-01	Pulse	0.50	3
Ni			1	677.620	ug/l	1.07	149,785.14	8.377E-01	Pulse	0.50	3
Cu			1	1105.426	ug/l	1.84	648,180.69	3.625E+00	Pulse	0.50	3
Zn			1	2199.644	ug/l	0.78	233,420.56	8.849E-01	Pulse	1.00	3
Cd			1	36.899	ug/l	1.47	5,461.49	2.071E-02	Pulse	0.50	3
Al			1	249534.624	ug/l	1.31	4,325,637.17	1.469E+01	Pulse	1.00	3
Se			1	11.904	ug/l	10.65	140.22	5.315E-04	Pulse	3.00	3
Sb			1	18.429	ug/l	1.12	8,493.30	3.220E-02	Pulse	1.00	3
Se			1	30.253	ug/l	7.71	115.33	4.372E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,806,325.58	1.15	89.0	Pulse	0.50	3
1	Sc		294,488.53	0.47	101.7	Pulse	0.30	3
1	Ge		178,809.30	0.39	96.8	Pulse	0.30	3
1	In		1,570,683.76	0.82	92.3	Pulse	0.30	3
1	Tb		4,209,368.33	1.15	93.1	Pulse	0.50	3
1	Lu		3,128,511.42	1.23	91.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		263,777.36	0.53	96.8	Pulse	0.30	3
1	Te		8.00	43.30		Pulse	0.50	3
1	Li		1,167.82	1.90	92.7	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:27
Sample Name	FC2193-21
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	687.605	ug/l	1.46	374,715.26	2.097E+00	Pulse	0.50	3
As			1	131.705	ug/l	1.62	9,797.85	5.484E-02	Pulse	1.00	3
Mo			1	8.801	ug/l	6.58	2,758.88	1.056E-02	Pulse	0.50	3
Pb			1	2033.338	ug/l	0.83	2,536,320.33	9.080E-01	Pulse	1.00	3
Be			1	5.049	ug/l	14.17	16.33	5.500E-05	Pulse	2.00	3
Ag			1	2.131	ug/l	3.92	2,122.13	8.121E-03	Pulse	0.50	3
Ba			1	2031.145	ug/l	0.82	285,274.73	1.837E-01	Pulse	0.50	3
Tl			1	1.848	ug/l	2.66	3,603.73	1.290E-03	Pulse	0.50	3
Sn			1	33.859	ug/l	1.97	11,124.53	7.164E-03	Pulse	0.30	3
Sr			1	916.274	ug/l	0.96	372,112.98	2.396E-01	Pulse	0.50	3
[Pb]			1	2027.784	ug/l	1.01	1,205,275.50	4.315E-01	Pulse	0.50	3
Ca			1	135639.304	ug/l	0.36	315,955.16	1.064E+00	Pulse	0.50	3
Ti			1	18785.585	ug/l	0.86	305,179.86	1.027E+00	Pulse	0.50	3
Na			1	7211.298	ug/l	0.27	578,074.92	1.946E+00	Pulse	1.00	3
Mg			1	102566.499	ug/l	0.57	4,128,700.42	1.390E+01	Pulse	1.00	3
K			1	24149.268	ug/l	0.03	1,135,999.29	3.825E+00	Pulse	1.00	3
V			1	961.829	ug/l	0.60	456,049.70	1.535E+00	Pulse	0.50	3
Mn			1	8459.404	ug/l	1.04	2,798,481.50	1.566E+01	Pulse	0.50	3
Fe			1	434785.852	ug/l	0.80	201,657,061.33	1.129E+03	Analog	0.50	3
Co			1	176.039	ug/l	1.01	146,592.28	8.205E-01	Pulse	0.50	3
Ni			1	698.705	ug/l	1.24	154,311.05	8.637E-01	Pulse	0.50	3
Cu			1	1654.637	ug/l	1.42	966,440.71	5.409E+00	Pulse	0.50	3
Zn			1	3005.478	ug/l	1.95	315,502.58	1.207E+00	Pulse	1.00	3
Cd			1	7.228	ug/l	6.87	1,070.70	4.097E-03	Pulse	0.50	3
Al			1	305598.027	ug/l	0.45	5,343,307.83	1.799E+01	Analog	1.00	3
Se			1	12.807	ug/l	12.27	144.11	5.515E-04	Pulse	3.00	3
Sb			1	9.839	ug/l	2.62	4,554.24	1.743E-02	Pulse	1.00	3
Se			1	38.753	ug/l	12.19	137.67	5.269E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,793,052.08	1.37	88.6	Pulse	0.50	3
1	Sc		297,024.51	0.33	102.5	Pulse	0.30	3
1	Ge		178,668.11	0.41	96.7	Pulse	0.30	3
1	In		1,552,852.02	0.98	91.2	Pulse	0.30	3
1	Tb		4,199,607.08	1.53	92.9	Pulse	0.50	3
1	Lu		3,114,379.17	1.40	90.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,335.83	0.34	95.9	Pulse	0.30	3
1	Te		8.00	66.14		Pulse	0.50	3
1	Li		1,084.48	9.51	86.1	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:30
Sample Name	FC2193-22
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	673.644	ug/l	1.26	366,749.98	2.055E+00	Pulse	0.50	3
As			1	114.013	ug/l	0.99	8,480.55	4.751E-02	Pulse	1.00	3
Mo			1	8.652	ug/l	3.91	2,726.21	1.039E-02	Pulse	0.50	3
Pb			1	1991.818	ug/l	0.55	2,502,182.50	8.895E-01	Pulse	1.00	3
Be			1	4.773	ug/l	28.74	15.50	5.228E-05	Pulse	2.00	3
Ag			1	1.287	ug/l	0.47	1,364.72	5.200E-03	Pulse	0.50	3
Ba			1	1767.886	ug/l	0.36	249,012.39	1.599E-01	Pulse	0.50	3
Tl			1	1.686	ug/l	5.24	3,347.67	1.190E-03	Pulse	0.50	3
Sn			1	32.383	ug/l	1.70	10,680.93	6.858E-03	Pulse	0.30	3
Sr			1	837.178	ug/l	0.85	340,960.36	2.190E-01	Pulse	0.50	3
[Pb]			1	1982.625	ug/l	0.73	1,186,782.08	4.219E-01	Pulse	0.50	3
Ca			1	125499.110	ug/l	0.70	291,911.28	9.843E-01	Pulse	0.50	3
Ti			1	17753.695	ug/l	0.61	287,962.70	9.710E-01	Pulse	0.50	3
Na			1	6978.659	ug/l	0.76	558,948.73	1.885E+00	Pulse	1.00	3
Mg			1	97675.461	ug/l	0.59	3,925,678.83	1.324E+01	Pulse	1.00	3
K			1	23884.765	ug/l	0.64	1,122,473.21	3.785E+00	Pulse	1.00	3
V			1	895.865	ug/l	0.20	424,194.69	1.430E+00	Pulse	0.50	3
Mn			1	7460.115	ug/l	1.02	2,465,490.08	1.381E+01	Pulse	0.50	3
Fe			1	410481.239	ug/l	0.73	190,195,994.67	1.066E+03	Analog	0.50	3
Co			1	159.119	ug/l	1.12	132,382.16	7.417E-01	Pulse	0.50	3
Ni			1	643.740	ug/l	1.74	142,066.38	7.959E-01	Pulse	0.50	3
Cu			1	1090.126	ug/l	1.64	638,172.19	3.575E+00	Pulse	0.50	3
Zn			1	2339.706	ug/l	1.17	246,925.50	9.409E-01	Pulse	1.00	3
Cd			1	6.418	ug/l	6.90	956.03	3.644E-03	Pulse	0.50	3
Al			1	266514.310	ug/l	4.71	4,652,545.33	1.569E+01	Mix	1.00	3
Se			1	9.170	ug/l	11.95	123.55	4.709E-04	Pulse	3.00	3
Sb			1	9.221	ug/l	3.11	4,294.84	1.637E-02	Pulse	1.00	3
Se			1	28.758	ug/l	10.63	110.56	4.214E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,812,952.00	0.95	89.2	Pulse	0.50	3
1	Sc		296,561.26	0.14	102.4	Pulse	0.30	3
1	Ge		178,492.18	0.25	96.7	Pulse	0.30	3
1	In		1,557,302.26	1.36	91.5	Pulse	0.30	3
1	Tb		4,212,233.58	1.07	93.2	Pulse	0.50	3
1	Lu		3,113,668.75	0.72	90.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		262,423.83	0.44	96.3	Pulse	0.30	3
1	Te		8.67	96.08		Pulse	0.50	3
1	Li		1,084.48	8.54	86.1	Pulse	0.30	3

Quantitation Report

File Name	077SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:34
Sample Name	FC2193-23
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	595.128	ug/l	0.54	325,326.38	1.816E+00	Pulse	0.50	3
As			1	104.417	ug/l	0.59	7,801.60	4.354E-02	Pulse	1.00	3
Mo			1	7.483	ug/l	1.83	2,363.49	9.045E-03	Pulse	0.50	3
Pb			1	1763.863	ug/l	0.61	2,206,396.58	7.877E-01	Pulse	1.00	3
Be			1	3.590	ug/l	11.90	12.00	4.060E-05	Pulse	2.00	3
Ag			1	1.276	ug/l	3.13	1,348.72	5.162E-03	Pulse	0.50	3
Ba			1	1788.857	ug/l	1.31	251,933.26	1.618E-01	Pulse	0.50	3
Tl			1	1.635	ug/l	0.20	3,245.66	1.159E-03	Pulse	0.50	3
Sn			1	29.119	ug/l	1.81	9,622.58	6.181E-03	Pulse	0.30	3
Sr			1	878.081	ug/l	0.58	357,563.61	2.296E-01	Pulse	0.50	3
[Pb]			1	1755.370	ug/l	1.25	1,046,242.65	3.735E-01	Pulse	0.50	3
Ca			1	128033.627	ug/l	1.59	296,650.35	1.004E+00	Pulse	0.50	3
Ti			1	17183.857	ug/l	1.53	277,645.21	9.398E-01	Pulse	0.50	3
Na			1	6327.650	ug/l	1.17	505,988.62	1.713E+00	Pulse	1.00	3
Mg			1	95534.355	ug/l	1.36	3,824,780.25	1.295E+01	Pulse	1.00	3
K			1	22608.981	ug/l	0.54	1,061,715.62	3.594E+00	Pulse	1.00	3
V			1	882.346	ug/l	1.18	416,203.72	1.409E+00	Pulse	0.50	3
Mn			1	7583.236	ug/l	0.63	2,515,958.17	1.404E+01	Pulse	0.50	3
Fe			1	398574.668	ug/l	0.65	185,398,042.67	1.035E+03	Analog	0.50	3
Co			1	157.657	ug/l	1.09	131,681.44	7.349E-01	Pulse	0.50	3
Ni			1	610.135	ug/l	1.41	135,202.70	7.545E-01	Pulse	0.50	3
Cu			1	1187.671	ug/l	1.28	697,454.77	3.892E+00	Pulse	0.50	3
Zn			1	2652.869	ug/l	1.35	278,579.80	1.066E+00	Pulse	1.00	3
Cd			1	6.360	ug/l	4.81	943.36	3.611E-03	Pulse	0.50	3
Al			1	257657.027	ug/l	1.43	4,480,726.17	1.517E+01	Pulse	1.00	3
Se			1	10.376	ug/l	7.56	130.00	4.976E-04	Pulse	3.00	3
Sb			1	8.434	ug/l	2.08	3,922.76	1.501E-02	Pulse	1.00	3
Se			1	30.364	ug/l	13.55	114.56	4.383E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,800,872.75	1.64	88.8	Pulse	0.50	3
1	Sc		295,430.33	0.71	102.0	Pulse	0.30	3
1	Ge		179,184.43	0.36	97.0	Pulse	0.30	3
1	In		1,557,018.03	1.02	91.5	Pulse	0.30	3
1	Tb		4,203,068.67	1.27	93.0	Pulse	0.50	3
1	Lu		3,113,080.67	1.75	90.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,276.63	0.86	95.9	Pulse	0.30	3
1	Te		9.33	12.37		Pulse	0.50	3
1	Li		1,100.04	3.64	87.3	Pulse	0.30	3

Quantitation Report

File Name	078SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:38
Sample Name	FC2193-24
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	696.026	ug/l	0.54	381,704.30	2.123E+00	Pulse	0.50	3
As			1	147.815	ug/l	0.51	11,059.20	6.151E-02	Pulse	1.00	3
Mo			1	6.811	ug/l	4.08	2,158.80	8.274E-03	Pulse	0.50	3
Pb			1	3725.385	ug/l	0.56	4,647,717.17	1.663E+00	Pulse	1.00	3
Be			1	4.950	ug/l	15.87	16.00	5.402E-05	Pulse	2.00	3
Ag			1	1.492	ug/l	10.29	1,542.74	5.912E-03	Pulse	0.50	3
Ba			1	1786.020	ug/l	0.83	250,609.19	1.615E-01	Pulse	0.50	3
Tl			1	1.631	ug/l	3.12	3,230.98	1.157E-03	Pulse	0.50	3
Sn			1	31.622	ug/l	2.84	10,395.21	6.700E-03	Pulse	0.30	3
Sr			1	738.954	ug/l	1.03	299,865.96	1.933E-01	Pulse	0.50	3
[Pb]			1	3712.827	ug/l	0.18	2,207,027.83	7.899E-01	Pulse	0.50	3
Ca			1	111099.429	ug/l	0.49	258,164.55	8.716E-01	Pulse	0.50	3
Ti			1	18253.904	ug/l	0.94	295,720.79	9.984E-01	Pulse	0.50	3
Na			1	6322.341	ug/l	0.44	506,927.31	1.711E+00	Pulse	1.00	3
Mg			1	98577.369	ug/l	0.65	3,957,170.58	1.336E+01	Pulse	1.00	3
K			1	26606.404	ug/l	0.16	1,241,880.25	4.193E+00	Pulse	1.00	3
V			1	944.122	ug/l	0.43	446,436.96	1.507E+00	Pulse	0.50	3
Mn			1	7017.979	ug/l	0.87	2,336,403.67	1.299E+01	Pulse	0.50	3
Fe			1	415157.292	ug/l	0.92	193,770,602.67	1.078E+03	Analog	0.50	3
Co			1	165.063	ug/l	1.03	138,332.75	7.694E-01	Pulse	0.50	3
Ni			1	635.539	ug/l	1.58	141,293.60	7.858E-01	Pulse	0.50	3
Cu			1	771.342	ug/l	1.07	456,674.17	2.540E+00	Pulse	0.50	3
Zn			1	2561.330	ug/l	0.19	268,709.29	1.030E+00	Pulse	1.00	3
Cd			1	6.887	ug/l	2.85	1,019.36	3.906E-03	Pulse	0.50	3
Al			1	298585.979	ug/l	0.51	5,206,263.33	1.758E+01	Analog	1.00	3
Se			1	11.339	ug/l	14.44	135.44	5.190E-04	Pulse	3.00	3
Sb			1	12.579	ug/l	2.76	5,777.92	2.214E-02	Pulse	1.00	3
Se			1	33.656	ug/l	11.59	123.44	4.731E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,794,024.42	1.24	88.6	Pulse	0.50	3
1	Sc		296,204.22	0.13	102.2	Pulse	0.30	3
1	Ge		179,805.32	0.87	97.4	Pulse	0.30	3
1	In		1,551,372.51	0.75	91.1	Pulse	0.30	3
1	Tb		4,178,561.58	0.88	92.4	Pulse	0.50	3
1	Lu		3,096,598.08	0.54	90.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		260,983.66	1.06	95.8	Pulse	0.30	3
1	Te		7.33	83.32		Pulse	0.50	3
1	Li		1,077.81	5.23	85.5	Pulse	0.30	3

Quantitation Report

File Name	079SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:42
Sample Name	FC2193-25
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	669.697	ug/l	1.14	360,534.72	2.043E+00	Pulse	0.50	3
As			1	150.414	ug/l	0.87	11,045.86	6.258E-02	Pulse	1.00	3
Mo			1	19.445	ug/l	3.11	5,884.94	2.278E-02	Pulse	0.50	3
Pb			1	118317.529	ug/l	0.64	149,092,325.33	5.282E+01	Analog	1.00	3
Be			1	5.458	ug/l	21.79	17.17	5.903E-05	Pulse	2.00	3
Ag			1	5.524	ug/l	1.57	5,128.05	1.985E-02	Pulse	0.50	3
Ba			1	1996.887	ug/l	0.32	277,097.54	1.806E-01	Pulse	0.50	3
Tl			1	1.872	ug/l	7.77	3,685.75	1.305E-03	Pulse	0.50	3
Sn			1	201.158	ug/l	1.41	64,229.53	4.186E-02	Pulse	0.30	3
Sr			1	1079.244	ug/l	1.01	432,926.06	2.822E-01	Pulse	0.50	3
[Pb]			1	118444.536	ug/l	1.87	71,107,674.67	2.520E+01	Analog	0.50	3
Ca			1	144590.919	ug/l	0.24	330,112.81	1.134E+00	Pulse	0.50	3
Ti			1	19428.564	ug/l	0.55	309,371.01	1.063E+00	Pulse	0.50	3
Na			1	8567.066	ug/l	0.64	670,893.29	2.304E+00	Pulse	1.00	3
Mg			1	123198.417	ug/l	0.54	4,860,856.17	1.670E+01	Analog	1.00	3
K			1	30889.947	ug/l	1.03	1,407,422.83	4.834E+00	Pulse	1.00	3
V			1	1008.583	ug/l	0.40	468,682.48	1.610E+00	Pulse	0.50	3
Mn			1	7885.129	ug/l	1.27	2,576,848.17	1.460E+01	Pulse	0.50	3
Fe			1	481396.831	ug/l	0.69	220,560,261.33	1.250E+03	Analog	0.50	3
Co			1	183.258	ug/l	1.67	150,746.03	8.541E-01	Pulse	0.50	3
Ni			1	699.464	ug/l	0.57	152,603.54	8.646E-01	Pulse	0.50	3
Cu			1	7350.256	ug/l	1.05	4,220,315.58	2.391E+01	Pulse	0.50	3
Zn			1	3793.290	ug/l	0.86	393,296.23	1.522E+00	Pulse	1.00	3
Cd			1	8.972	ug/l	3.44	1,310.72	5.073E-03	Pulse	0.50	3
Al			1	300179.166	ug/l	0.29	5,144,754.17	1.767E+01	Analog	1.00	3
Se			1	14.226	ug/l	13.01	150.56	5.830E-04	Pulse	3.00	3
Sb			1	800.032	ug/l	0.39	355,474.89	1.376E+00	Pulse	1.00	3
Se			1	41.048	ug/l	4.83	142.33	5.511E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,822,851.50	1.62	89.5	Pulse	0.50	3
1	Sc		291,151.57	0.96	100.5	Pulse	0.30	3
1	Ge		176,495.89	0.06	95.6	Pulse	0.30	3
1	In		1,534,201.43	1.72	90.1	Pulse	0.30	3
1	Tb		4,118,083.67	0.45	91.1	Pulse	0.50	3
1	Lu		3,072,103.25	0.97	89.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		258,318.76	0.64	94.8	Pulse	0.30	3
1	Te		31.33	3.69		Pulse	0.50	3
1	Li		1,062.26	7.13	84.3	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:46
Sample Name FC2193-26
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	581.086	ug/l	0.72	316,956.17	1.773E+00	Pulse	0.50	3
As			1	121.382	ug/l	1.44	9,039.47	5.056E-02	Pulse	1.00	3
Mo			1	7.161	ug/l	5.17	2,268.15	8.675E-03	Pulse	0.50	3
Pb			1	60052.527	ug/l	0.46	74,506,960.00	2.681E+01	Analog	1.00	3
Be			1	3.829	ug/l	20.54	12.50	4.296E-05	Pulse	2.00	3
Ag			1	2.527	ug/l	6.83	2,482.17	9.489E-03	Pulse	0.50	3
Ba			1	1813.615	ug/l	0.87	252,445.01	1.640E-01	Pulse	0.50	3
Tl			1	1.884	ug/l	1.01	3,645.74	1.312E-03	Pulse	0.50	3
Sn			1	66.807	ug/l	3.15	21,540.48	1.400E-02	Pulse	0.30	3
Sr			1	1021.272	ug/l	0.14	410,987.41	2.671E-01	Pulse	0.50	3
[Pb]			1	60216.103	ug/l	1.01	35,597,486.67	1.281E+01	Analog	0.50	3
Ca			1	141343.125	ug/l	0.84	322,389.57	1.108E+00	Pulse	0.50	3
Ti			1	17979.540	ug/l	1.94	286,023.51	9.834E-01	Pulse	0.50	3
Na			1	8760.353	ug/l	0.57	685,102.44	2.355E+00	Pulse	1.00	3
Mg			1	104551.541	ug/l	0.54	4,121,240.17	1.417E+01	Pulse	1.00	3
K			1	31200.161	ug/l	0.33	1,419,624.91	4.881E+00	Pulse	1.00	3
V			1	935.188	ug/l	0.68	434,249.25	1.493E+00	Pulse	0.50	3
Mn			1	7263.245	ug/l	0.66	2,404,420.58	1.345E+01	Pulse	0.50	3
Fe			1	424722.457	ug/l	0.51	197,115,850.67	1.103E+03	Analog	0.50	3
Co			1	168.922	ug/l	0.68	140,757.29	7.873E-01	Pulse	0.50	3
Ni			1	580.273	ug/l	0.99	128,316.99	7.177E-01	Pulse	0.50	3
Cu			1	4656.555	ug/l	0.57	2,710,583.92	1.516E+01	Pulse	0.50	3
Zn			1	2990.738	ug/l	0.86	314,165.35	1.201E+00	Pulse	1.00	3
Cd			1	7.279	ug/l	4.77	1,078.70	4.126E-03	Pulse	0.50	3
Al			1	260411.478	ug/l	0.98	4,458,789.00	1.533E+01	Pulse	1.00	3
Se			1	9.639	ug/l	12.31	125.89	4.813E-04	Pulse	3.00	3
Sb			1	116.644	ug/l	1.44	52,579.54	2.011E-01	Pulse	1.00	3
Se			1	34.050	ug/l	4.35	124.78	4.772E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,779,334.33	1.30	88.1	Pulse	0.50	3
1	Sc		290,860.44	0.26	100.4	Pulse	0.30	3
1	Ge		178,783.60	0.90	96.8	Pulse	0.30	3
1	In		1,538,897.23	0.70	90.4	Pulse	0.30	3
1	Tb		4,168,759.83	1.25	92.2	Pulse	0.50	3
1	Lu		3,079,901.75	1.19	89.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		261,504.19	0.87	96.0	Pulse	0.30	3
1	Te		19.33	51.03		Pulse	0.50	3
1	Li		1,093.37	8.42	86.8	Pulse	0.30	3

Quantitation Report

File Name 081SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 16:49
Sample Name FC2193-27
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	707.801	ug/l	1.60	383,429.35	2.159E+00	Pulse	0.50	3
As			1	149.958	ug/l	2.36	11,081.88	6.240E-02	Pulse	1.00	3
Mo			1	8.883	ug/l	1.11	2,743.54	1.065E-02	Pulse	0.50	3
Pb			1	64173.497	ug/l	0.39	79,155,114.67	2.865E+01	Analog	1.00	3
Be			1	4.557	ug/l	20.69	14.50	5.014E-05	Pulse	2.00	3
Ag			1	3.132	ug/l	3.83	2,982.25	1.158E-02	Pulse	0.50	3
Ba			1	2072.790	ug/l	0.75	286,101.14	1.875E-01	Pulse	0.50	3
Tl			1	1.881	ug/l	6.00	3,619.73	1.310E-03	Pulse	0.50	3
Sn			1	59.559	ug/l	1.07	19,065.49	1.249E-02	Pulse	0.30	3
Sr			1	1114.062	ug/l	0.37	444,560.28	2.913E-01	Pulse	0.50	3
[Pb]			1	64484.560	ug/l	0.58	37,899,654.67	1.372E+01	Analog	0.50	3
Ca			1	150867.952	ug/l	1.31	342,236.17	1.183E+00	Pulse	0.50	3
Ti			1	20461.297	ug/l	1.49	323,752.08	1.119E+00	Pulse	0.50	3
Na			1	9495.361	ug/l	0.72	737,608.60	2.550E+00	Pulse	1.00	3
Mg			1	127628.943	ug/l	0.86	5,003,833.50	1.730E+01	Analog	1.00	3
K			1	30595.913	ug/l	0.51	1,385,854.09	4.790E+00	Pulse	1.00	3
V			1	1054.213	ug/l	1.83	486,722.44	1.682E+00	Pulse	0.50	3
Mn			1	8239.493	ug/l	1.22	2,709,643.92	1.526E+01	Pulse	0.50	3
Fe			1	479659.122	ug/l	0.85	221,151,866.67	1.245E+03	Analog	0.50	3
Co			1	186.159	ug/l	1.83	154,096.94	8.676E-01	Pulse	0.50	3
Ni			1	704.302	ug/l	1.90	154,626.85	8.706E-01	Pulse	0.50	3
Cu			1	5986.647	ug/l	1.82	3,460,228.75	1.948E+01	Pulse	0.50	3
Zn			1	3623.616	ug/l	0.93	374,570.90	1.455E+00	Pulse	1.00	3
Cd			1	9.301	ug/l	3.54	1,353.39	5.257E-03	Pulse	0.50	3
Al			1	326140.694	ug/l	0.83	5,554,223.33	1.920E+01	Analog	1.00	3
Se			1	14.364	ug/l	4.38	150.89	5.861E-04	Pulse	3.00	3
Sb			1	202.219	ug/l	0.67	89,674.33	3.482E-01	Pulse	1.00	3
Se			1	37.072	ug/l	3.16	131.11	5.091E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,763,043.17	0.65	87.6	Pulse	0.50	3
1	Sc		289,310.21	0.35	99.9	Pulse	0.30	3
1	Ge		177,610.83	0.27	96.2	Pulse	0.30	3
1	In		1,526,019.45	0.84	89.6	Pulse	0.30	3
1	Tb		4,106,440.58	1.22	90.8	Pulse	0.50	3
1	Lu		3,042,970.17	1.59	88.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,514.91	1.47	94.5	Pulse	0.30	3
1	Te		20.67	43.64		Pulse	0.50	3
1	Li		1,124.49	3.28	89.2	Pulse	0.30	3

Quantitation Report

File Name	082CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:53
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.322	ug/l	1.88	528,122.11	2.947E+00	Pulse	0.50	3
As			1	46.713	ug/l	1.34	69,384.39	3.871E-01	Pulse	1.00	3
Mo			1	47.089	ug/l	0.54	285,788.32	1.082E+00	Pulse	0.50	3
Pb			1	47.819	ug/l	0.57	1,185,753.54	4.273E-01	Pulse	1.00	3
Be			1	46.034	ug/l	0.31	2,528.33	9.091E-03	Pulse	2.00	3
Ag			1	48.314	ug/l	0.78	882,855.17	3.342E+00	Pulse	0.50	3
Ba			1	46.448	ug/l	0.54	130,622.29	8.403E-02	Pulse	0.50	3
Tl			1	48.822	ug/l	0.61	1,666,164.58	6.004E-01	Pulse	0.50	3
Sn			1	48.378	ug/l	0.73	312,130.39	2.008E-01	Pulse	0.30	3
Sr			1	47.938	ug/l	0.20	389,733.92	2.507E-01	Pulse	0.50	3
[Pb]			1	47.695	ug/l	0.48	563,529.66	2.031E-01	Pulse	0.50	3
Ca			1	4656.091	ug/l	1.03	203,233.38	7.308E-01	Pulse	0.50	3
Ti			1	47.475	ug/l	1.26	14,447.35	5.195E-02	Pulse	0.50	3
Na			1	5114.055	ug/l	0.80	7,525,097.33	2.706E+01	Analog	1.00	3
Mg			1	4705.593	ug/l	1.81	3,546,781.75	1.275E+01	Pulse	1.00	3
K			1	4729.432	ug/l	1.01	3,997,741.83	1.438E+01	Pulse	1.00	3
V			1	48.058	ug/l	1.55	426,667.32	1.534E+00	Pulse	0.50	3
Mn			1	47.332	ug/l	0.87	314,356.83	1.754E+00	Pulse	0.50	3
Fe			1	5225.027	ug/l	1.31	48,631,081.33	2.713E+02	Analog	0.50	3
Co			1	48.540	ug/l	1.61	810,446.04	4.522E+00	Pulse	0.50	3
Ni			1	48.342	ug/l	1.91	214,031.50	1.194E+00	Pulse	0.50	3
Cu			1	48.391	ug/l	1.76	569,607.50	3.178E+00	Pulse	0.50	3
Zn			1	47.596	ug/l	0.36	101,891.87	3.857E-01	Pulse	1.00	3
Cd			1	46.239	ug/l	1.27	136,771.42	5.177E-01	Pulse	0.50	3
Al			1	4557.185	ug/l	1.76	1,492,178.75	5.366E+00	Pulse	1.00	3
Se			1	45.619	ug/l	0.43	5,417.10	2.051E-02	Pulse	3.00	3
Sb			1	45.463	ug/l	0.96	413,161.33	1.564E+00	Pulse	1.00	3
Se			1	45.049	ug/l	2.93	2,543.39	9.627E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,775,364.67	1.88	88.0	Pulse	0.50	3
1	Sc		278,103.31	0.77	96.0	Pulse	0.30	3
1	Ge		179,235.34	0.41	97.1	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,554,399.49	1.27	91.3	Pulse	0.30	3
1	Tb		4,195,126.25	1.15	92.8	Pulse	0.50	3
1	Lu		3,105,386.25	1.30	90.3	Pulse	0.50	3
1	Ge		264,172.39	0.75	96.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,063.37	6.88	84.4	Pulse	0.30	3

Quantitation Report

File Name	083_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 16:57
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.886	ug/l	0.86	1,073,576.83	6.149E+00	Pulse	0.50	3
As			1	98.240	ug/l	0.75	142,086.32	8.138E-01	Pulse	1.00	3
Mo			1	98.629	ug/l	1.30	582,646.00	2.265E+00	Pulse	0.50	3
Pb			1	98.619	ug/l	0.31	2,379,947.67	8.808E-01	Pulse	1.00	3
Be			1	97.299	ug/l	1.76	5,250.18	1.921E-02	Pulse	2.00	3
Ag			1	99.509	ug/l	1.71	1,770,053.17	6.882E+00	Pulse	0.50	3
Ba			1	97.310	ug/l	0.33	267,178.97	1.760E-01	Pulse	0.50	3
Tl			1	101.272	ug/l	1.00	3,364,584.08	1.245E+00	Pulse	0.50	3
Sn			1	99.905	ug/l	1.09	629,183.05	4.145E-01	Pulse	0.30	3
Sr			1	98.615	ug/l	0.29	782,578.15	5.156E-01	Pulse	0.50	3
[Pb]			1	98.785	ug/l	0.56	1,135,955.54	4.204E-01	Pulse	0.50	3
Ca			1	9653.797	ug/l	0.60	413,644.56	1.513E+00	Pulse	0.50	3
Ti			1	98.291	ug/l	1.29	29,389.99	1.075E-01	Pulse	0.50	3
Na			1	10580.161	ug/l	0.14	15,288,403.67	5.594E+01	Analog	1.00	3
Mg			1	10487.098	ug/l	0.56	7,768,069.33	2.842E+01	Analog	1.00	3
K			1	10552.211	ug/l	0.53	8,696,768.67	3.182E+01	Analog	1.00	3
V			1	99.561	ug/l	1.02	867,458.21	3.174E+00	Pulse	0.50	3
Mn			1	98.663	ug/l	0.36	638,070.10	3.655E+00	Pulse	0.50	3
Fe			1	10851.246	ug/l	0.50	98,366,456.00	5.634E+02	Analog	0.50	3
Co			1	100.282	ug/l	0.23	1,630,930.17	9.341E+00	Pulse	0.50	3
Ni			1	100.099	ug/l	1.01	431,264.43	2.470E+00	Pulse	0.50	3
Cu			1	99.813	ug/l	1.12	1,138,183.38	6.519E+00	Pulse	0.50	3
Zn			1	98.791	ug/l	1.46	204,560.17	7.953E-01	Pulse	1.00	3
Cd			1	95.794	ug/l	1.50	275,832.90	1.072E+00	Pulse	0.50	3
Al			1	9475.530	ug/l	1.28	3,048,984.92	1.116E+01	Pulse	1.00	3
Se			1	94.705	ug/l	0.51	10,874.98	4.228E-02	Pulse	3.00	3
Sb			1	95.333	ug/l	1.64	843,305.71	3.279E+00	Pulse	1.00	3
Se			1	95.737	ug/l	2.14	5,227.94	2.033E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,701,915.08	1.20	85.7	Pulse	0.50	3
1	Sc		273,310.84	0.45	94.3	Pulse	0.30	3
1	Ge		174,589.99	0.49	94.5	Pulse	0.30	3
1	In		1,517,811.50	0.80	89.2	Pulse	0.30	3
1	Tb		4,116,284.25	0.96	91.1	Pulse	0.50	3
1	Lu		3,056,551.67	1.13	88.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,205.49	0.40	94.4	Pulse	0.30	3
1	Te		4.67	107.85		Pulse	0.50	3
1	Li		1,102.26	7.30	87.5	Pulse	0.30	3

Quantitation Report

File Name	084_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.008	ug/l	93.41	564.68	3.197E-03	Pulse	0.50	3
As			1	0.020	ug/l	30.95	83.00	4.695E-04	Pulse	1.00	3
Mo			1	0.080	ug/l	30.62	605.35	2.297E-03	Pulse	0.50	3
Pb			1	0.282	ug/l	7.47	7,755.43	2.834E-03	Pulse	1.00	3
Be			1	0.040	ug/l	171.32	3.67	1.310E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	52.40	302.67	1.153E-03	Pulse	0.50	3
Ba			1	0.006	ug/l	99.08	46.67	3.022E-05	Pulse	0.50	3
Tl			1	0.038	ug/l	15.13	1,700.76	6.217E-04	Pulse	0.50	3
Sn			1	0.079	ug/l	17.58	728.91	4.707E-04	Pulse	0.30	3
Sr			1	0.013	ug/l	83.39	398.67	2.580E-04	Pulse	0.50	3
[Pb]			1	0.278	ug/l	8.51	3,647.07	1.333E-03	Pulse	0.50	3
Ca			1	-1.032	ug/l	-62.31	414.01	1.474E-03	Pulse	0.50	3
Ti			1	0.038	ug/l	17.37	18.00	6.410E-05	Pulse	0.50	3
Na			1	3.750	ug/l	16.01	17,160.34	6.112E-02	Pulse	1.00	3
Mg			1	0.910	ug/l	44.59	1,292.71	4.607E-03	Pulse	1.00	3
K			1	2.214	ug/l	21.19	60,065.38	2.139E-01	Pulse	1.00	3
V			1	0.008	ug/l	45.77	1,300.71	4.632E-03	Pulse	0.50	3
Mn			1	0.063	ug/l	5.93	642.01	3.631E-03	Pulse	0.50	3
Fe			1	1.996	ug/l	23.39	32,222.96	1.824E-01	Pulse	0.50	3
Co			1	0.004	ug/l	65.94	173.33	9.820E-04	Pulse	0.50	3
Ni			1	0.006	ug/l	142.22	462.01	2.613E-03	Pulse	0.50	3
Cu			1	-0.032	ug/l	-56.49	5,666.18	3.205E-02	Pulse	0.50	3
Zn			1	-0.030	ug/l	-94.09	1,209.71	4.603E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	55.71	49.33	1.884E-04	Pulse	0.50	3
Al			1	1.137	ug/l	36.12	628.68	2.240E-03	Pulse	1.00	3
Se			1	0.098	ug/l	53.16	81.67	3.109E-04	Pulse	3.00	3
Sb			1	0.024	ug/l	14.07	347.00	1.321E-03	Pulse	1.00	3
Se			1	0.108	ug/l	62.66	37.00	1.406E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,737,901.67	1.43	86.8	Pulse	0.50	3
1	Sc		280,804.69	0.52	96.9	Pulse	0.30	3

1	Ge		176,847.24	1.25	95.8	Pulse	0.30	3
1	In		1,547,321.36	1.06	90.9	Pulse	0.30	3
1	Tb		4,080,908.17	1.28	90.3	Pulse	0.50	3
1	Lu		3,013,569.75	1.16	87.7	Pulse	0.50	3
1	Ge		262,875.26	1.53	96.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,074.48	7.48	85.3	Pulse	0.30	3

Quantitation Report

File Name 085SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:05
Sample Name FC2193-28
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	690.149	ug/l	0.75	374,767.27	2.105E+00	Pulse	0.50	3
As			1	83.704	ug/l	0.48	6,225.02	3.496E-02	Pulse	1.00	3
Mo			1	8.642	ug/l	5.51	2,688.87	1.038E-02	Pulse	0.50	3
Pb			1	553.352	ug/l	0.65	680,854.92	2.473E-01	Pulse	1.00	3
Be			1	5.559	ug/l	22.65	17.50	6.003E-05	Pulse	2.00	3
Ag			1	1.201	ug/l	6.95	1,271.38	4.906E-03	Pulse	0.50	3
Ba			1	1466.247	ug/l	0.89	203,689.06	1.326E-01	Pulse	0.50	3
Tl			1	1.289	ug/l	2.46	2,604.21	9.461E-04	Pulse	0.50	3
Sn			1	32.922	ug/l	2.37	10,703.16	6.970E-03	Pulse	0.30	3
Sr			1	785.613	ug/l	0.87	315,616.49	2.055E-01	Pulse	0.50	3
[Pb]			1	553.256	ug/l	0.83	324,364.19	1.178E-01	Pulse	0.50	3
Ca			1	128559.565	ug/l	0.81	293,563.23	1.008E+00	Pulse	0.50	3
Ti			1	16531.971	ug/l	1.39	263,242.59	9.042E-01	Pulse	0.50	3
Na			1	6604.489	ug/l	0.78	519,972.14	1.786E+00	Pulse	1.00	3
Mg			1	109673.642	ug/l	1.38	4,327,198.67	1.486E+01	Pulse	1.00	3
K			1	20387.663	ug/l	0.79	949,477.79	3.261E+00	Pulse	1.00	3
V			1	839.102	ug/l	2.08	390,113.24	1.340E+00	Pulse	0.50	3
Mn			1	6765.834	ug/l	0.93	2,230,327.42	1.253E+01	Pulse	0.50	3
Fe			1	402874.874	ug/l	0.71	186,195,445.33	1.046E+03	Analog	0.50	3
Co			1	159.731	ug/l	1.45	132,545.26	7.445E-01	Pulse	0.50	3
Ni			1	826.477	ug/l	1.19	181,812.14	1.021E+00	Pulse	0.50	3
Cu			1	559.544	ug/l	1.58	329,677.52	1.852E+00	Pulse	0.50	3
Zn			1	1703.713	ug/l	0.51	177,904.90	6.865E-01	Pulse	1.00	3
Cd			1	7.078	ug/l	8.75	1,040.03	4.013E-03	Pulse	0.50	3
Al			1	236705.769	ug/l	1.80	4,056,614.83	1.393E+01	Pulse	1.00	3
Se			1	11.059	ug/l	12.92	132.89	5.128E-04	Pulse	3.00	3
Sb			1	3.665	ug/l	4.62	1,765.42	6.812E-03	Pulse	1.00	3
Se			1	34.937	ug/l	9.61	126.11	4.866E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,752,548.83	1.10	87.3	Pulse	0.50	3
1	Sc		291,162.24	0.96	100.5	Pulse	0.30	3
1	Ge		178,043.41	1.07	96.4	Pulse	0.30	3
1	In		1,535,919.56	0.95	90.2	Pulse	0.30	3
1	Tb		4,140,111.83	0.55	91.6	Pulse	0.50	3
1	Lu		3,050,004.75	1.02	88.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		259,157.25	0.13	95.1	Pulse	0.30	3
1	Te		11.33	73.47		Pulse	0.50	3
1	Li		1,157.82	8.59	91.9	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:08
Sample Name FC2193-29
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	688.320	ug/l	0.88	369,804.62	2.099E+00	Pulse	0.50	3
As			1	71.758	ug/l	2.23	5,287.40	3.002E-02	Pulse	1.00	3
Mo			1	7.264	ug/l	2.03	2,266.15	8.794E-03	Pulse	0.50	3
Pb			1	453.617	ug/l	0.90	564,485.50	2.028E-01	Pulse	1.00	3
Be			1	4.330	ug/l	27.87	14.00	4.791E-05	Pulse	2.00	3
Ag			1	7.789	ug/l	3.74	7,134.73	2.768E-02	Pulse	0.50	3
Ba			1	1485.707	ug/l	0.14	206,057.40	1.344E-01	Pulse	0.50	3
Tl			1	1.094	ug/l	2.07	2,298.83	8.260E-04	Pulse	0.50	3
Sn			1	32.362	ug/l	1.40	10,508.62	6.853E-03	Pulse	0.30	3
Sr			1	729.508	ug/l	0.38	292,606.86	1.908E-01	Pulse	0.50	3
[Pb]			1	454.190	ug/l	0.62	269,296.43	9.676E-02	Pulse	0.50	3
Ca			1	131973.112	ug/l	0.32	302,416.59	1.035E+00	Pulse	0.50	3
Ti			1	16220.727	ug/l	0.59	259,217.11	8.872E-01	Pulse	0.50	3
Na			1	6445.424	ug/l	0.54	509,547.48	1.744E+00	Pulse	1.00	3
Mg			1	106165.555	ug/l	1.05	4,203,911.17	1.439E+01	Pulse	1.00	3
K			1	17582.431	ug/l	0.34	830,081.58	2.841E+00	Pulse	1.00	3
V			1	798.327	ug/l	0.56	372,571.90	1.275E+00	Pulse	0.50	3
Mn			1	6968.545	ug/l	1.25	2,272,773.42	1.290E+01	Pulse	0.50	3
Fe			1	389126.895	ug/l	0.38	177,928,346.67	1.010E+03	Analog	0.50	3
Co			1	155.676	ug/l	0.46	127,816.67	7.256E-01	Pulse	0.50	3
Ni			1	834.105	ug/l	1.31	181,530.12	1.031E+00	Pulse	0.50	3
Cu			1	601.760	ug/l	1.14	350,339.55	1.989E+00	Pulse	0.50	3
Zn			1	1648.658	ug/l	0.76	171,228.60	6.644E-01	Pulse	1.00	3
Cd			1	7.737	ug/l	4.94	1,129.37	4.382E-03	Pulse	0.50	3
Al			1	229131.249	ug/l	1.28	3,941,097.92	1.349E+01	Pulse	1.00	3
Se			1	11.957	ug/l	17.60	137.22	5.327E-04	Pulse	3.00	3
Sb			1	3.431	ug/l	4.34	1,652.08	6.410E-03	Pulse	1.00	3
Se			1	36.431	ug/l	3.78	129.45	5.024E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,783,120.92	1.69	88.3	Pulse	0.50	3
1	Sc		292,184.71	0.20	100.9	Pulse	0.30	3
1	Ge		176,140.51	0.20	95.4	Pulse	0.30	3
1	In		1,533,369.38	1.49	90.1	Pulse	0.30	3
1	Tb		4,159,411.42	1.30	92.0	Pulse	0.50	3
1	Lu		3,069,310.50	1.25	89.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,692.23	0.60	94.6	Pulse	0.30	3
1	Te		4.00	50.00		Pulse	0.50	3
1	Li		1,034.48	7.64	82.1	Pulse	0.30	3

Quantitation Report

File Name	087_MB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:12
Sample Name	MP41796-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.911	ug/l	1.12	5,133.36	3.044E-02	Pulse	0.50	3
As			1	0.174	ug/l	14.69	172.67	1.025E-03	Pulse	1.00	3
Mo			1	0.035	ug/l	19.85	214.00	8.593E-04	Pulse	0.50	3
Pb			1	1.188	ug/l	14.59	14,913.56	5.623E-03	Pulse	1.00	3
Be			1	0.024	ug/l	210.52	2.00	7.514E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	46.19	257.33	1.037E-03	Pulse	0.50	3
Ba			1	0.078	ug/l	53.81	129.33	8.898E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	40.46	630.01	2.376E-04	Pulse	0.50	3
Sn			1	0.441	ug/l	15.15	1,547.86	1.056E-03	Pulse	0.30	3
Sr			1	0.049	ug/l	29.24	466.01	3.190E-04	Pulse	0.50	3
[Pb]			1	1.158	ug/l	15.54	6,928.77	2.613E-03	Pulse	0.50	3
Ca			1	9.408	ug/l	22.71	627.34	2.372E-03	Pulse	0.50	3
Ti			1	1.102	ug/l	20.60	165.33	6.257E-04	Pulse	0.50	3
Na			1	14.710	ug/l	4.79	21,205.85	8.017E-02	Pulse	1.00	3
Mg			1	5.620	ug/l	25.51	2,577.17	9.756E-03	Pulse	1.00	3
K			1	15.391	ug/l	25.62	60,925.01	2.303E-01	Pulse	1.00	3
V			1	1.158	ug/l	2.99	6,038.29	2.282E-02	Pulse	0.50	3
Mn			1	0.400	ug/l	18.79	1,464.06	8.701E-03	Pulse	0.50	3
Fe			1	26.861	ug/l	14.16	130,639.44	7.760E-01	Pulse	0.50	3
Co			1	0.026	ug/l	14.09	304.67	1.809E-03	Pulse	0.50	3
Ni			1	0.126	ug/l	11.73	678.68	4.027E-03	Pulse	0.50	3
Cu			1	12.202	ug/l	1.46	72,615.73	4.305E-01	Pulse	0.50	3
Zn			1	7.902	ug/l	1.89	9,066.47	3.646E-02	Pulse	1.00	3
Cd			1	0.020	ug/l	23.88	41.33	1.659E-04	Pulse	0.50	3
Al			1	11.678	ug/l	24.30	2,053.78	7.776E-03	Pulse	1.00	3
Se			1	0.000	ug/l	-74728.86	66.55	2.674E-04	Pulse	3.00	3
Sb			1	0.015	ug/l	19.67	189.33	7.613E-04	Pulse	1.00	3
Se			1	0.128	ug/l	79.93	32.67	1.314E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,655,856.17	1.53	84.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		264,571.32	1.39	91.3	Pulse	0.30	3
1	Ge		168,652.15	2.19	91.3	Pulse	0.30	3
1	In		1,462,422.82	2.18	85.9	Pulse	0.30	3
1	Tb		3,933,806.17	2.41	87.0	Pulse	0.50	3
1	Lu		2,882,897.92	2.20	83.9	Pulse	0.50	3
1	Ge		248,684.93	2.37	91.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,058.92	12.75	84.0	Pulse	0.30	3

Quantitation Report

File Name 088_BSP.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:16
Sample Name MP41796-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	212.196	ug/l	1.26	1,067,157.92	6.467E+00	Pulse	0.50	3
As			1	209.143	ug/l	1.65	142,947.50	8.662E-01	Pulse	1.00	3
Mo			1	213.711	ug/l	0.10	597,846.13	2.454E+00	Pulse	0.50	3
Pb			1	211.800	ug/l	0.07	2,429,201.42	9.458E-01	Pulse	1.00	3
Be			1	204.229	ug/l	1.72	5,202.00	2.016E-02	Pulse	2.00	3
Ag			1	104.132	ug/l	0.22	877,243.57	3.601E+00	Pulse	0.50	3
Ba			1	205.580	ug/l	0.77	265,796.11	1.859E-01	Pulse	0.50	3
Tl			1	209.769	ug/l	0.31	3,312,189.58	1.290E+00	Pulse	0.50	3
Sn			1	212.119	ug/l	0.59	629,027.53	4.400E-01	Pulse	0.30	3
Sr			1	205.583	ug/l	1.39	768,145.92	5.374E-01	Pulse	0.50	3
[Pb]			1	203.405	ug/l	0.07	1,111,633.92	4.328E-01	Pulse	0.50	3
Ca			1	20588.188	ug/l	1.08	416,410.70	1.614E+00	Pulse	0.50	3
Ti			1	199.675	ug/l	1.18	28,187.54	1.092E-01	Pulse	0.50	3
Na			1	22760.807	ug/l	1.61	15,524,637.33	6.017E+01	Analog	1.00	3
Mg			1	22411.005	ug/l	1.47	7,836,321.50	3.037E+01	Analog	1.00	3
K			1	22363.599	ug/l	1.78	8,696,980.67	3.371E+01	Analog	1.00	3
V			1	209.852	ug/l	0.94	863,080.81	3.345E+00	Pulse	0.50	3
Mn			1	205.933	ug/l	0.92	629,424.81	3.814E+00	Pulse	0.50	3
Fe			1	23433.316	ug/l	1.70	100,388,677.33	6.083E+02	Analog	0.50	3
Co			1	210.436	ug/l	0.88	1,617,508.42	9.801E+00	Pulse	0.50	3
Ni			1	209.776	ug/l	0.82	427,128.01	2.588E+00	Pulse	0.50	3
Cu			1	221.085	ug/l	0.68	1,190,910.92	7.216E+00	Pulse	0.50	3
Zn			1	209.628	ug/l	0.43	205,477.05	8.435E-01	Pulse	1.00	3
Cd			1	201.104	ug/l	0.35	274,227.94	1.126E+00	Pulse	0.50	3
Al			1	19559.801	ug/l	1.04	2,971,185.75	1.151E+01	Pulse	1.00	3
Se			1	191.949	ug/l	1.00	10,436.73	4.285E-02	Pulse	3.00	3
Sb			1	203.489	ug/l	0.19	852,408.10	3.499E+00	Pulse	1.00	3
Se			1	189.863	ug/l	0.71	4,909.97	2.016E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,568,366.33	1.83	81.4	Pulse	0.50	3
1	Sc		258,063.03	1.22	89.1	Pulse	0.30	3
1	Ge		165,044.51	1.37	89.4	Pulse	0.30	3
1	In		1,429,584.60	1.95	84.0	Pulse	0.30	3
1	Tb		3,948,321.75	2.03	87.4	Pulse	0.50	3
1	Lu		2,915,112.67	2.46	84.8	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,594.17	1.01	89.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		988.92	12.75	78.5	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:20
Sample Name	FC2279-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.634	ug/l	5.36	3,669.02	2.202E-02	Pulse	0.50	3
As			1	0.200	ug/l	22.28	188.67	1.133E-03	Pulse	1.00	3
Mo			1	0.045	ug/l	24.46	239.33	9.660E-04	Pulse	0.50	3
Pb			1	0.574	ug/l	5.16	7,554.67	2.882E-03	Pulse	1.00	3
Be			1	0.031	ug/l	73.45	2.17	8.219E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	36.06	275.33	1.113E-03	Pulse	0.50	3
Ba			1	0.033	ug/l	29.71	71.33	4.904E-05	Pulse	0.50	3
Tl			1	0.083	ug/l	8.89	1,734.09	6.617E-04	Pulse	0.50	3
Sn			1	0.433	ug/l	14.40	1,513.40	1.041E-03	Pulse	0.30	3
Sr			1	0.034	ug/l	55.52	407.34	2.800E-04	Pulse	0.50	3
[Pb]			1	0.552	ug/l	5.98	3,468.36	1.323E-03	Pulse	0.50	3
Ca			1	6.859	ug/l	23.16	573.34	2.173E-03	Pulse	0.50	3
Ti			1	0.175	ug/l	39.20	31.33	1.185E-04	Pulse	0.50	3
Na			1	16.458	ug/l	3.52	22,379.12	8.478E-02	Pulse	1.00	3
Mg			1	1.888	ug/l	4.69	1,240.04	4.698E-03	Pulse	1.00	3
K			1	12.615	ug/l	8.41	59,702.64	2.262E-01	Pulse	1.00	3
V			1	1.062	ug/l	6.24	5,620.16	2.129E-02	Pulse	0.50	3
Mn			1	0.107	ug/l	16.19	546.01	3.279E-03	Pulse	0.50	3
Fe			1	8.504	ug/l	5.25	49,865.02	2.995E-01	Pulse	0.50	3
Co			1	0.023	ug/l	5.16	282.67	1.698E-03	Pulse	0.50	3
Ni			1	0.153	ug/l	10.60	726.02	4.361E-03	Pulse	0.50	3
Cu			1	1.405	ug/l	1.39	13,287.93	7.978E-02	Pulse	0.50	3
Zn			1	5.796	ug/l	1.13	6,938.92	2.803E-02	Pulse	1.00	3
Cd			1	0.024	ug/l	34.30	46.00	1.860E-04	Pulse	0.50	3
Al			1	3.230	ug/l	7.22	739.68	2.803E-03	Pulse	1.00	3
Se			1	0.128	ug/l	24.89	73.22	2.958E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	9.17	289.33	1.169E-03	Pulse	1.00	3
Se			1	0.265	ug/l	24.87	36.11	1.458E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,622,814.17	1.94	83.2	Pulse	0.50	3
1	Sc		263,980.15	1.05	91.1	Pulse	0.30	3
1	Ge		166,570.16	2.01	90.2	Pulse	0.30	3
1	In		1,455,267.41	1.83	85.5	Pulse	0.30	3
1	Tb		3,913,854.92	1.94	86.6	Pulse	0.50	3
1	Lu		2,858,863.33	2.37	83.2	Pulse	0.50	3
1	Ge		247,494.69	1.24	90.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,086.70	5.97	86.2	Pulse	0.30	3

Quantitation Report

File Name 090SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:24
Sample Name MP41796-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.603	ug/l	1.19	3,573.67	2.107E-02	Pulse	0.50	3
As			1	0.175	ug/l	16.56	174.67	1.031E-03	Pulse	1.00	3
Mo			1	0.010	ug/l	97.01	141.33	5.643E-04	Pulse	0.50	3
Pb			1	0.504	ug/l	1.41	6,770.68	2.570E-03	Pulse	1.00	3
Be			1	0.042	ug/l	87.60	2.50	9.336E-06	Pulse	2.00	3
Ag			1	0.004	ug/l	104.19	222.00	8.890E-04	Pulse	0.50	3
Ba			1	0.025	ug/l	17.81	60.67	4.142E-05	Pulse	0.50	3
Tl			1	0.020	ug/l	14.57	725.35	2.752E-04	Pulse	0.50	3
Sn			1	0.351	ug/l	5.85	1,273.38	8.695E-04	Pulse	0.30	3
Sr			1	0.046	ug/l	18.46	454.01	3.101E-04	Pulse	0.50	3
[Pb]			1	0.493	ug/l	2.15	3,154.30	1.198E-03	Pulse	0.50	3
Ca			1	9.722	ug/l	25.72	639.35	2.397E-03	Pulse	0.50	3
Ti			1	0.163	ug/l	46.14	30.00	1.124E-04	Pulse	0.50	3
Na			1	18.527	ug/l	1.19	24,090.74	9.025E-02	Pulse	1.00	3
Mg			1	1.962	ug/l	4.22	1,281.38	4.799E-03	Pulse	1.00	3
K			1	13.397	ug/l	16.64	60,679.23	2.273E-01	Pulse	1.00	3
V			1	1.088	ug/l	4.99	5,792.88	2.170E-02	Pulse	0.50	3
Mn			1	0.572	ug/l	1.14	2,016.78	1.189E-02	Pulse	0.50	3
Fe			1	35.080	ug/l	1.28	167,795.88	9.894E-01	Pulse	0.50	3
Co			1	0.018	ug/l	13.00	243.33	1.434E-03	Pulse	0.50	3
Ni			1	0.176	ug/l	2.68	788.02	4.647E-03	Pulse	0.50	3
Cu			1	1.546	ug/l	1.86	14,303.98	8.434E-02	Pulse	0.50	3
Zn			1	6.552	ug/l	1.87	7,765.91	3.106E-02	Pulse	1.00	3
Cd			1	0.010	ug/l	8.41	27.33	1.093E-04	Pulse	0.50	3
Al			1	3.591	ug/l	1.82	805.02	3.016E-03	Pulse	1.00	3
Se			1	-0.024	ug/l	-481.85	65.56	2.622E-04	Pulse	3.00	3
Sb			1	0.016	ug/l	57.38	198.00	7.902E-04	Pulse	1.00	3
Se			1	0.083	ug/l	154.24	31.67	1.266E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,634,199.58	1.48	83.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		266,942.21	1.45	92.1	Pulse	0.30	3
1	Ge		169,585.78	1.30	91.8	Pulse	0.30	3
1	In		1,463,901.57	1.62	86.0	Pulse	0.30	3
1	Tb		3,942,752.58	2.67	87.2	Pulse	0.50	3
1	Lu		2,885,970.67	2.41	84.0	Pulse	0.50	3
1	Ge		250,064.35	1.73	91.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		930.03	5.90	73.8	Pulse	0.30	3

Quantitation Report

File Name	091SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:27
Sample Name	MP41796-SD1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.603	ug/l	5.87	1,126.70	6.370E-03	Pulse	0.50	3
As			1	0.064	ug/l	76.78	63.67	3.601E-04	Pulse	1.00	3
Mo			1	-0.078	ug/l	-25.21	72.00	2.747E-04	Pulse	0.50	3
Pb			1	1.283	ug/l	2.87	4,019.14	1.465E-03	Pulse	1.00	3
Be			1	0.036	ug/l	285.58	1.67	5.888E-06	Pulse	2.00	3
Ag			1	-0.012	ug/l	-71.08	176.00	6.717E-04	Pulse	0.50	3
Ba			1	0.001	ug/l	3746.06	29.33	1.906E-05	Pulse	0.50	3
Tl			1	-0.039	ug/l	-19.63	290.00	1.058E-04	Pulse	0.50	3
Sn			1	-0.009	ug/l	-329.07	213.33	1.385E-04	Pulse	0.30	3
Sr			1	0.091	ug/l	38.67	366.67	2.378E-04	Pulse	0.50	3
[Pb]			1	1.302	ug/l	4.45	1,928.12	7.029E-04	Pulse	0.50	3
Ca			1	11.926	ug/l	40.88	516.01	1.822E-03	Pulse	0.50	3
Ti			1	0.436	ug/l	51.66	20.00	7.068E-05	Pulse	0.50	3
Na			1	33.791	ug/l	2.42	16,751.65	5.916E-02	Pulse	1.00	3
Mg			1	3.938	ug/l	20.02	908.02	3.207E-03	Pulse	1.00	3
K			1	16.943	ug/l	36.21	60,127.26	2.124E-01	Pulse	1.00	3
V			1	1.121	ug/l	1.29	2,250.81	7.949E-03	Pulse	0.50	3
Mn			1	0.061	ug/l	88.45	270.00	1.528E-03	Pulse	0.50	3
Fe			1	2.845	ug/l	18.65	16,542.39	9.355E-02	Pulse	0.50	3
Co			1	0.010	ug/l	113.11	125.33	7.084E-04	Pulse	0.50	3
Ni			1	0.019	ug/l	650.65	446.01	2.522E-03	Pulse	0.50	3
Cu			1	5.388	ug/l	5.45	12,223.89	6.913E-02	Pulse	0.50	3
Zn			1	6.911	ug/l	1.87	2,719.20	1.038E-02	Pulse	1.00	3
Cd			1	-0.014	ug/l	-154.70	9.33	3.557E-05	Pulse	0.50	3
Al			1	4.580	ug/l	12.25	408.00	1.441E-03	Pulse	1.00	3
Se			1	0.022	ug/l	2370.05	70.33	2.684E-04	Pulse	3.00	3
Sb			1	-0.040	ug/l	-39.41	97.67	3.726E-04	Pulse	1.00	3
Se			1	-0.078	ug/l	-934.72	30.45	1.162E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,743,527.50	1.13	87.0	Pulse	0.50	3
1	Sc		283,151.94	0.42	97.7	Pulse	0.30	3
1	Ge		176,850.46	0.61	95.8	Pulse	0.30	3
1	In		1,541,638.10	1.44	90.6	Pulse	0.30	3
1	Tb		4,077,069.75	1.83	90.2	Pulse	0.50	3
1	Lu		2,986,688.58	1.64	86.9	Pulse	0.50	3
1	Ge		262,065.62	0.31	96.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,163.38	6.95	92.3	Pulse	0.30	3

Quantitation Report

File Name 092SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:31
Sample Name MP41796-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.751	ug/l	1.46	1,006,608.08	6.057E+00	Pulse	0.50	3
As			1	197.691	ug/l	1.27	136,079.10	8.188E-01	Pulse	1.00	3
Mo			1	200.542	ug/l	0.42	561,639.17	2.303E+00	Pulse	0.50	3
Pb			1	197.596	ug/l	0.13	2,286,299.33	8.824E-01	Pulse	1.00	3
Be			1	193.558	ug/l	2.09	4,954.44	1.911E-02	Pulse	2.00	3
Ag			1	97.883	ug/l	0.57	825,528.71	3.385E+00	Pulse	0.50	3
Ba			1	195.119	ug/l	0.27	253,205.35	1.765E-01	Pulse	0.50	3
Tl			1	197.358	ug/l	0.74	3,143,499.50	1.213E+00	Pulse	0.50	3
Sn			1	199.432	ug/l	0.78	593,561.14	4.137E-01	Pulse	0.30	3
Sr			1	194.285	ug/l	0.83	728,641.79	5.079E-01	Pulse	0.50	3
[Pb]			1	189.790	ug/l	0.91	1,046,345.17	4.039E-01	Pulse	0.50	3
Ca			1	19718.438	ug/l	0.99	400,799.33	1.546E+00	Pulse	0.50	3
Ti			1	189.360	ug/l	1.00	26,861.05	1.036E-01	Pulse	0.50	3
Na			1	21835.794	ug/l	1.40	14,967,730.33	5.772E+01	Analog	1.00	3
Mg			1	21434.178	ug/l	0.95	7,531,863.17	2.905E+01	Analog	1.00	3
K			1	21484.641	ug/l	1.94	8,398,509.17	3.239E+01	Analog	1.00	3
V			1	198.671	ug/l	1.01	821,168.83	3.167E+00	Pulse	0.50	3
Mn			1	193.782	ug/l	0.34	596,470.33	3.589E+00	Pulse	0.50	3
Fe			1	22364.505	ug/l	0.82	96,490,677.33	5.806E+02	Analog	0.50	3
Co			1	198.346	ug/l	1.06	1,535,306.79	9.238E+00	Pulse	0.50	3
Ni			1	197.220	ug/l	1.10	404,406.72	2.433E+00	Pulse	0.50	3
Cu			1	198.092	ug/l	1.72	1,075,091.84	6.469E+00	Pulse	0.50	3
Zn			1	197.320	ug/l	0.40	193,699.45	7.943E-01	Pulse	1.00	3
Cd			1	189.351	ug/l	0.26	258,481.10	1.060E+00	Pulse	0.50	3
Al			1	18728.587	ug/l	0.90	2,858,911.83	1.103E+01	Pulse	1.00	3
Se			1	181.897	ug/l	1.12	9,904.34	4.062E-02	Pulse	3.00	3
Sb			1	191.745	ug/l	0.59	804,116.42	3.297E+00	Pulse	1.00	3
Se			1	181.446	ug/l	1.33	4,698.69	1.927E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,590,965.92	1.67	82.2	Pulse	0.50	3
1	Sc		259,322.24	0.80	89.5	Pulse	0.30	3
1	Ge		166,195.26	0.53	90.0	Pulse	0.30	3
1	In		1,434,737.06	1.35	84.3	Pulse	0.30	3
1	Tb		3,974,988.42	1.96	87.9	Pulse	0.50	3
1	Lu		2,928,621.50	1.93	85.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,860.96	0.55	89.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		974.47	1.88	77.3	Pulse	0.30	3

Quantitation Report

File Name	093SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:35
Sample Name	MP41796-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	207.077	ug/l	4.33	1,016,497.65	6.311E+00	Pulse	0.50	3
As			1	205.268	ug/l	3.55	136,966.78	8.502E-01	Pulse	1.00	3
Mo			1	207.647	ug/l	4.50	569,489.42	2.385E+00	Pulse	0.50	3
Pb			1	206.414	ug/l	3.13	2,329,975.00	9.218E-01	Pulse	1.00	3
Be			1	203.275	ug/l	2.76	5,049.13	2.007E-02	Pulse	2.00	3
Ag			1	101.120	ug/l	5.29	835,017.71	3.497E+00	Pulse	0.50	3
Ba			1	199.292	ug/l	2.28	254,256.78	1.803E-01	Pulse	0.50	3
Tl			1	205.146	ug/l	3.38	3,187,662.67	1.261E+00	Pulse	0.50	3
Sn			1	205.477	ug/l	1.73	601,353.55	4.263E-01	Pulse	0.30	3
Sr			1	199.302	ug/l	1.54	734,964.96	5.210E-01	Pulse	0.50	3
[Pb]			1	198.226	ug/l	2.99	1,066,195.94	4.218E-01	Pulse	0.50	3
Ca			1	19557.960	ug/l	3.26	385,721.43	1.533E+00	Pulse	0.50	3
Ti			1	193.746	ug/l	1.59	26,674.81	1.060E-01	Pulse	0.50	3
Na			1	21795.702	ug/l	2.80	14,497,315.67	5.762E+01	Analog	1.00	3
Mg			1	21420.252	ug/l	2.27	7,304,419.17	2.903E+01	Analog	1.00	3
K			1	21326.240	ug/l	2.43	8,090,540.83	3.215E+01	Analog	1.00	3
V			1	204.866	ug/l	2.45	821,700.75	3.265E+00	Pulse	0.50	3
Mn			1	201.070	ug/l	3.68	599,909.23	3.724E+00	Pulse	0.50	3
Fe			1	22289.833	ug/l	3.39	93,225,106.67	5.787E+02	Analog	0.50	3
Co			1	205.845	ug/l	3.80	1,544,442.13	9.587E+00	Pulse	0.50	3
Ni			1	204.677	ug/l	3.24	406,861.05	2.525E+00	Pulse	0.50	3
Cu			1	205.922	ug/l	3.81	1,083,155.96	6.724E+00	Pulse	0.50	3
Zn			1	202.707	ug/l	4.04	194,855.80	8.158E-01	Pulse	1.00	3
Cd			1	196.671	ug/l	4.94	262,877.32	1.101E+00	Pulse	0.50	3
Al			1	18659.421	ug/l	2.26	2,764,231.58	1.098E+01	Pulse	1.00	3
Se			1	187.616	ug/l	3.48	10,004.84	4.188E-02	Pulse	3.00	3
Sb			1	198.476	ug/l	4.28	815,141.35	3.413E+00	Pulse	1.00	3
Se			1	188.529	ug/l	4.49	4,779.93	2.002E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,528,811.00	2.68	80.2	Pulse	0.50	3
1	Sc		251,741.43	2.63	86.9	Pulse	0.30	3
1	Ge		161,221.91	3.28	87.3	Pulse	0.30	3
1	In		1,410,948.10	2.06	82.9	Pulse	0.30	3
1	Tb		3,984,685.92	3.34	88.2	Mix	0.50	3
1	Lu		2,873,911.25	2.33	83.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		239,055.80	3.56	87.7	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		994.48	12.07	78.9	Pulse	0.30	3

Quantitation Report

File Name 094SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:39
Sample Name MP41796-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.814	ug/l	1.27	106,369.22	6.367E-01	Pulse	0.50	3
As			1	20.678	ug/l	1.56	14,355.73	8.592E-02	Pulse	1.00	3
Mo			1	19.915	ug/l	0.54	56,608.29	2.291E-01	Pulse	0.50	3
Pb			1	20.131	ug/l	0.31	236,486.78	9.019E-02	Pulse	1.00	3
Be			1	19.980	ug/l	4.11	517.51	1.977E-03	Pulse	2.00	3
Ag			1	4.409	ug/l	0.67	37,855.06	1.532E-01	Pulse	0.50	3
Ba			1	19.446	ug/l	0.90	25,756.31	1.761E-02	Pulse	0.50	3
Tl			1	20.049	ug/l	0.02	323,562.96	1.234E-01	Pulse	0.50	3
Sn			1	18.569	ug/l	1.04	56,544.35	3.865E-02	Pulse	0.30	3
Sr			1	19.372	ug/l	0.36	74,345.28	5.081E-02	Pulse	0.50	3
[Pb]			1	19.413	ug/l	1.12	108,662.18	4.144E-02	Pulse	0.50	3
Ca			1	1935.415	ug/l	0.75	40,102.83	1.532E-01	Pulse	0.50	3
Ti			1	18.624	ug/l	5.17	2,670.86	1.021E-02	Pulse	0.50	3
Na			1	1985.783	ug/l	1.29	1,383,895.92	5.287E+00	Pulse	1.00	3
Mg			1	1928.188	ug/l	1.19	684,474.17	2.615E+00	Pulse	1.00	3
K			1	1915.362	ug/l	1.42	805,252.42	3.076E+00	Pulse	1.00	3
V			1	21.218	ug/l	1.09	89,554.61	3.421E-01	Pulse	0.50	3
Mn			1	19.890	ug/l	1.42	61,746.86	3.695E-01	Pulse	0.50	3
Fe			1	2167.274	ug/l	1.58	9,410,731.00	5.634E+01	Analog	0.50	3
Co			1	20.476	ug/l	0.54	159,434.87	9.542E-01	Pulse	0.50	3
Ni			1	20.613	ug/l	1.21	42,859.89	2.566E-01	Pulse	0.50	3
Cu			1	22.107	ug/l	0.90	125,703.92	7.523E-01	Pulse	0.50	3
Zn			1	26.779	ug/l	1.03	27,668.13	1.120E-01	Pulse	1.00	3
Cd			1	18.956	ug/l	0.67	26,231.89	1.062E-01	Pulse	0.50	3
Al			1	1754.583	ug/l	0.77	270,599.13	1.034E+00	Pulse	1.00	3
Se			1	18.356	ug/l	2.32	1,072.59	4.339E-03	Pulse	3.00	3
Sb			1	18.037	ug/l	0.52	76,752.28	3.106E-01	Pulse	1.00	3
Se			1	19.093	ug/l	1.21	527.12	2.133E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,622,278.75	2.49	83.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		261,804.56	2.05	90.4	Pulse	0.30	3
1	Ge		167,092.00	2.56	90.5	Pulse	0.30	3
1	In		1,463,184.63	2.23	86.0	Pulse	0.30	3
1	Tb		3,979,267.50	2.68	88.0	Pulse	0.50	3
1	Lu		2,910,102.92	2.40	84.7	Pulse	0.50	3
1	Ge		247,099.87	2.65	90.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,094.48	2.73	86.9	Pulse	0.30	3

Quantitation Report

File Name	095CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:42
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.800	ug/l	1.52	530,486.15	2.976E+00	Pulse	0.50	3
As			1	47.130	ug/l	0.99	69,628.57	3.906E-01	Pulse	1.00	3
Mo			1	47.123	ug/l	1.01	285,864.29	1.083E+00	Pulse	0.50	3
Pb			1	47.410	ug/l	0.75	1,166,465.63	4.236E-01	Pulse	1.00	3
Be			1	47.353	ug/l	2.07	2,627.01	9.352E-03	Pulse	2.00	3
Ag			1	48.284	ug/l	1.23	881,851.77	3.340E+00	Pulse	0.50	3
Ba			1	46.366	ug/l	0.53	129,866.09	8.388E-02	Pulse	0.50	3
Tl			1	49.001	ug/l	0.42	1,659,201.50	6.026E-01	Pulse	0.50	3
Sn			1	48.247	ug/l	0.85	310,029.74	2.003E-01	Pulse	0.30	3
Sr			1	47.887	ug/l	0.61	387,759.52	2.505E-01	Pulse	0.50	3
[Pb]			1	47.117	ug/l	0.67	552,378.25	2.006E-01	Pulse	0.50	3
Ca			1	4623.947	ug/l	1.55	203,848.52	7.258E-01	Pulse	0.50	3
Ti			1	47.239	ug/l	0.67	14,520.06	5.169E-02	Pulse	0.50	3
Na			1	5124.786	ug/l	0.72	7,616,499.50	2.712E+01	Analog	1.00	3
Mg			1	4694.888	ug/l	0.97	3,574,340.83	1.273E+01	Pulse	1.00	3
K			1	4687.814	ug/l	0.17	4,002,970.83	1.425E+01	Pulse	1.00	3
V			1	47.705	ug/l	0.81	427,798.30	1.523E+00	Pulse	0.50	3
Mn			1	47.875	ug/l	1.19	316,253.86	1.774E+00	Pulse	0.50	3
Fe			1	5303.442	ug/l	0.92	49,096,401.33	2.754E+02	Analog	0.50	3
Co			1	49.003	ug/l	1.24	813,805.69	4.565E+00	Pulse	0.50	3
Ni			1	48.971	ug/l	0.81	215,654.99	1.210E+00	Pulse	0.50	3
Cu			1	49.059	ug/l	1.30	574,296.35	3.222E+00	Pulse	0.50	3
Zn			1	47.743	ug/l	1.09	102,152.90	3.869E-01	Pulse	1.00	3
Cd			1	46.021	ug/l	1.18	136,052.17	5.153E-01	Pulse	0.50	3
Al			1	4542.742	ug/l	1.16	1,502,406.17	5.349E+00	Pulse	1.00	3
Se			1	45.400	ug/l	0.32	5,389.09	2.041E-02	Pulse	3.00	3
Sb			1	45.347	ug/l	1.02	411,901.53	1.560E+00	Pulse	1.00	3
Se			1	45.336	ug/l	1.49	2,557.95	9.688E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,753,562.17	0.91	87.3	Pulse	0.50	3
1	Sc		280,890.95	0.66	97.0	Pulse	0.30	3
1	Ge		178,276.87	0.70	96.5	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,548,170.42	0.43	90.9	Pulse	0.30	3
1	Tb		4,188,057.00	1.25	92.7	Pulse	0.50	3
1	Lu		3,083,176.92	1.04	89.7	Pulse	0.50	3
1	Ge		264,063.37	0.93	96.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,095.59	11.25	86.9	Pulse	0.30	3

Quantitation Report

File Name 096_CCV.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 17:46
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.617	ug/l	1.85	1,069,335.75	6.194E+00	Pulse	0.50	3
As			1	98.356	ug/l	1.98	140,671.61	8.148E-01	Pulse	1.00	3
Mo			1	98.182	ug/l	0.89	575,784.96	2.255E+00	Pulse	0.50	3
Pb			1	99.112	ug/l	0.43	2,355,740.08	8.852E-01	Pulse	1.00	3
Be			1	99.624	ug/l	1.07	5,361.38	1.967E-02	Pulse	2.00	3
Ag			1	99.126	ug/l	0.53	1,750,453.54	6.856E+00	Pulse	0.50	3
Ba			1	97.625	ug/l	0.95	264,204.07	1.766E-01	Pulse	0.50	3
Tl			1	101.821	ug/l	0.72	3,331,680.42	1.252E+00	Pulse	0.50	3
Sn			1	100.172	ug/l	1.16	621,825.39	4.156E-01	Pulse	0.30	3
Sr			1	99.495	ug/l	0.74	778,252.37	5.202E-01	Pulse	0.50	3
[Pb]			1	98.993	ug/l	0.21	1,121,107.83	4.213E-01	Pulse	0.50	3
Ca			1	9704.439	ug/l	0.29	414,710.96	1.521E+00	Pulse	0.50	3
Ti			1	97.660	ug/l	1.01	29,126.95	1.068E-01	Pulse	0.50	3
Na			1	10647.579	ug/l	0.42	15,345,065.33	5.629E+01	Analog	1.00	3
Mg			1	10548.814	ug/l	0.18	7,793,188.50	2.859E+01	Analog	1.00	3
K			1	10569.932	ug/l	0.90	8,688,045.67	3.187E+01	Analog	1.00	3
V			1	99.325	ug/l	1.00	863,079.69	3.166E+00	Pulse	0.50	3
Mn			1	98.708	ug/l	1.37	631,282.31	3.656E+00	Pulse	0.50	3
Fe			1	10962.559	ug/l	1.08	98,277,797.33	5.692E+02	Analog	0.50	3
Co			1	100.198	ug/l	1.27	1,611,520.75	9.334E+00	Pulse	0.50	3
Ni			1	100.010	ug/l	1.65	426,090.54	2.468E+00	Pulse	0.50	3
Cu			1	99.758	ug/l	1.34	1,124,938.71	6.515E+00	Pulse	0.50	3
Zn			1	98.828	ug/l	0.64	203,147.00	7.956E-01	Pulse	1.00	3
Cd			1	96.059	ug/l	1.26	274,585.59	1.075E+00	Pulse	0.50	3
Al			1	9494.215	ug/l	0.69	3,046,897.50	1.118E+01	Pulse	1.00	3
Se			1	94.232	ug/l	0.41	10,742.24	4.207E-02	Pulse	3.00	3
Sb			1	94.977	ug/l	1.36	834,046.44	3.267E+00	Pulse	1.00	3
Se			1	94.527	ug/l	0.67	5,124.80	2.007E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,661,140.75	1.20	84.4	Pulse	0.50	3
1	Sc		272,589.80	0.92	94.1	Pulse	0.30	3
1	Ge		172,670.58	0.90	93.5	Pulse	0.30	3
1	In		1,496,098.65	0.78	87.9	Pulse	0.30	3
1	Tb		4,094,692.50	0.72	90.6	Pulse	0.50	3
1	Lu		3,026,845.50	0.69	88.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,327.03	0.34	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,057.81	7.73	84.0	Pulse	0.30	3

Quantitation Report

File Name	097_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:50
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.007	ug/l	55.77	543.34	3.152E-03	Pulse	0.50	3
As			1	0.013	ug/l	70.74	71.33	4.140E-04	Pulse	1.00	3
Mo			1	0.089	ug/l	22.03	642.02	2.504E-03	Pulse	0.50	3
Pb			1	0.085	ug/l	6.68	2,921.26	1.079E-03	Pulse	1.00	3
Be			1	0.044	ug/l	83.04	3.83	1.391E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	38.09	292.00	1.142E-03	Pulse	0.50	3
Ba			1	0.004	ug/l	267.20	38.67	2.574E-05	Pulse	0.50	3
Tl			1	0.043	ug/l	10.29	1,847.44	6.827E-04	Pulse	0.50	3
Sn			1	0.087	ug/l	15.59	760.02	5.029E-04	Pulse	0.30	3
Sr			1	0.010	ug/l	51.31	364.67	2.416E-04	Pulse	0.50	3
[Pb]			1	0.083	ug/l	8.30	1,359.39	5.023E-04	Pulse	0.50	3
Ca			1	-1.109	ug/l	-144.63	402.00	1.462E-03	Pulse	0.50	3
Ti			1	-0.003	ug/l	-415.68	5.33	1.939E-05	Pulse	0.50	3
Na			1	3.883	ug/l	14.49	17,010.54	6.183E-02	Pulse	1.00	3
Mg			1	0.901	ug/l	39.26	1,259.71	4.582E-03	Pulse	1.00	3
K			1	2.241	ug/l	26.25	58,883.18	2.140E-01	Pulse	1.00	3
V			1	0.004	ug/l	216.72	1,241.38	4.512E-03	Pulse	0.50	3
Mn			1	0.075	ug/l	31.96	705.37	4.094E-03	Pulse	0.50	3
Fe			1	1.303	ug/l	31.06	25,244.63	1.464E-01	Pulse	0.50	3
Co			1	0.006	ug/l	92.70	207.33	1.203E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	-1154.33	425.34	2.467E-03	Pulse	0.50	3
Cu			1	-0.056	ug/l	-39.79	5,255.40	3.048E-02	Pulse	0.50	3
Zn			1	-0.026	ug/l	-48.42	1,186.37	4.635E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	45.43	56.00	2.193E-04	Pulse	0.50	3
Al			1	0.743	ug/l	76.46	488.34	1.777E-03	Pulse	1.00	3
Se			1	0.071	ug/l	61.37	76.56	2.989E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	7.79	371.67	1.453E-03	Pulse	1.00	3
Se			1	0.050	ug/l	245.40	32.89	1.285E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,708,007.33	1.43	85.9	Pulse	0.50	3
1	Sc		275,178.56	0.74	95.0	Pulse	0.30	3

1	Ge		172,443.25	0.88	93.4	Pulse	0.30	3
1	In		1,510,392.13	1.13	88.7	Pulse	0.30	3
1	Tb		4,016,438.75	1.11	88.9	Pulse	0.50	3
1	Lu		2,965,002.58	1.73	86.3	Pulse	0.50	3
1	Ge		255,960.97	1.31	93.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,134.48	15.04	90.0	Pulse	0.30	3

Quantitation Report

File Name	098SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:54
Sample Name	FC2279-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.676	ug/l	0.81	3,865.06	2.328E-02	Pulse	0.50	3
As			1	0.182	ug/l	2.21	176.00	1.060E-03	Pulse	1.00	3
Mo			1	0.079	ug/l	39.20	332.67	1.357E-03	Pulse	0.50	3
Pb			1	0.338	ug/l	3.72	4,815.02	1.829E-03	Pulse	1.00	3
Be			1	0.064	ug/l	92.74	3.00	1.146E-05	Pulse	2.00	3
Ag			1	0.016	ug/l	22.41	322.00	1.318E-03	Pulse	0.50	3
Ba			1	0.067	ug/l	13.57	114.67	7.957E-05	Pulse	0.50	3
Tl			1	0.056	ug/l	6.51	1,308.72	4.972E-04	Pulse	0.50	3
Sn			1	0.488	ug/l	7.93	1,664.53	1.154E-03	Pulse	0.30	3
Sr			1	0.046	ug/l	24.30	446.01	3.095E-04	Pulse	0.50	3
[Pb]			1	0.348	ug/l	2.96	2,341.50	8.893E-04	Pulse	0.50	3
Ca			1	11.997	ug/l	13.82	676.68	2.575E-03	Pulse	0.50	3
Ti			1	0.332	ug/l	74.52	54.00	2.047E-04	Pulse	0.50	3
Na			1	32.518	ug/l	1.18	33,416.04	1.272E-01	Pulse	1.00	3
Mg			1	2.350	ug/l	12.57	1,398.72	5.325E-03	Pulse	1.00	3
K			1	29.983	ug/l	7.95	66,243.62	2.522E-01	Pulse	1.00	3
V			1	0.992	ug/l	3.36	5,296.73	2.017E-02	Pulse	0.50	3
Mn			1	0.125	ug/l	12.86	599.34	3.612E-03	Pulse	0.50	3
Fe			1	10.449	ug/l	3.24	58,096.41	3.500E-01	Pulse	0.50	3
Co			1	0.025	ug/l	18.45	299.33	1.805E-03	Pulse	0.50	3
Ni			1	0.116	ug/l	6.44	647.34	3.900E-03	Pulse	0.50	3
Cu			1	1.668	ug/l	1.35	14,657.59	8.829E-02	Pulse	0.50	3
Zn			1	7.222	ug/l	0.75	8,251.78	3.374E-02	Pulse	1.00	3
Cd			1	0.036	ug/l	28.07	62.00	2.535E-04	Pulse	0.50	3
Al			1	3.123	ug/l	7.01	719.68	2.740E-03	Pulse	1.00	3
Se			1	0.109	ug/l	72.13	71.33	2.915E-04	Pulse	3.00	3
Sb			1	0.039	ug/l	6.26	287.33	1.175E-03	Pulse	1.00	3
Se			1	0.132	ug/l	157.75	32.22	1.318E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,633,616.08	2.19	83.5	Pulse	0.50	3
1	Sc		262,698.60	0.98	90.7	Pulse	0.30	3
1	Ge		166,037.34	2.20	89.9	Pulse	0.30	3
1	In		1,442,047.48	1.66	84.7	Pulse	0.30	3
1	Tb		3,908,535.08	2.37	86.5	Pulse	0.50	3
1	Lu		2,865,400.67	1.99	83.4	Pulse	0.50	3
1	Ge		244,572.13	1.32	89.7	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,087.81	6.80	86.3	Pulse	0.30	3

Quantitation Report

File Name	099SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 17:58
Sample Name	FC2331-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	85.497	ug/l	1.12	416,142.71	2.607E+00	Pulse	0.50	3
As			1	8.755	ug/l	1.17	5,834.90	3.656E-02	Pulse	1.00	3
Mo			1	1.893	ug/l	3.33	5,199.40	2.219E-02	Pulse	0.50	3
Pb			1	1.603	ug/l	2.64	17,424.53	7.476E-03	Pulse	1.00	3
Be			1	0.097	ug/l	50.36	3.83	1.472E-05	Pulse	2.00	3
Ag			1	0.068	ug/l	6.76	726.02	3.098E-03	Pulse	0.50	3
Ba			1	106.776	ug/l	0.25	128,658.28	9.658E-02	Pulse	0.50	3
Tl			1	0.085	ug/l	13.82	1,576.08	6.754E-04	Pulse	0.50	3
Sn			1	3.158	ug/l	0.35	8,913.32	6.691E-03	Pulse	0.30	3
Sr			1	55.870	ug/l	0.90	194,724.50	1.462E-01	Pulse	0.50	3
[Pb]			1	1.615	ug/l	3.20	8,355.40	3.584E-03	Pulse	0.50	3
Ca			1	11646.134	ug/l	0.46	237,705.31	9.136E-01	Pulse	0.50	3
Ti			1	537.017	ug/l	0.07	76,426.72	2.937E-01	Pulse	0.50	3
Na			1	676364.546	ug/l	0.70	464,896,586.67	1.787E+03	Analog	1.00	3
Mg			1	4212.944	ug/l	0.22	1,485,905.04	5.711E+00	Pulse	1.00	3
K			1	13021.408	ug/l	0.96	5,128,970.83	1.971E+01	Analog	1.00	3
V			1	450.376	ug/l	0.55	1,866,427.67	7.173E+00	Pulse	0.50	3
Mn			1	140.861	ug/l	0.85	416,494.71	2.609E+00	Pulse	0.50	3
Fe			1	5749.397	ug/l	1.89	23,832,135.33	1.493E+02	Analog	0.50	3
Co			1	2.325	ug/l	0.68	17,385.81	1.089E-01	Pulse	0.50	3
Ni			1	17.432	ug/l	0.81	34,695.01	2.173E-01	Pulse	0.50	3
Cu			1	2.479	ug/l	2.00	18,302.03	1.147E-01	Pulse	0.50	3
Zn			1	16.031	ug/l	0.57	16,165.77	6.898E-02	Pulse	1.00	3
Cd			1	0.015	ug/l	43.76	31.33	1.338E-04	Pulse	0.50	3
Al			1	1656.223	ug/l	0.18	253,899.16	9.758E-01	Pulse	1.00	3
Se			1	1.089	ug/l	11.67	119.33	5.091E-04	Pulse	3.00	3
Sb			1	0.194	ug/l	7.27	902.36	3.852E-03	Pulse	1.00	3
Se			1	4.593	ug/l	4.01	141.22	6.026E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,330,217.58	2.04	73.9	Pulse	0.50	3
1	Sc		260,195.96	0.49	89.8	Pulse	0.30	3
1	Ge		159,637.64	1.59	86.4	Pulse	0.30	3
1	In		1,332,081.40	1.36	78.3	Pulse	0.30	3
1	Tb		3,733,958.25	2.64	82.6	Pulse	0.50	3
1	Lu		2,769,993.08	2.75	80.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		234,344.29	0.91	86.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		998.92	9.91	79.3	Pulse	0.30	3

Quantitation Report

File Name	100SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:01
Sample Name	FC2331-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	69.947	ug/l	0.98	335,745.57	2.133E+00	Pulse	0.50	3
As			1	9.222	ug/l	0.80	6,056.96	3.849E-02	Pulse	1.00	3
Mo			1	1.828	ug/l	1.31	5,002.01	2.144E-02	Pulse	0.50	3
Pb			1	0.979	ug/l	1.48	10,949.51	4.688E-03	Pulse	1.00	3
Be			1	0.146	ug/l	26.01	5.00	1.956E-05	Pulse	2.00	3
Ag			1	0.044	ug/l	15.17	527.34	2.261E-03	Pulse	0.50	3
Ba			1	22.325	ug/l	0.79	26,821.82	2.021E-02	Pulse	0.50	3
Tl			1	0.046	ug/l	3.57	1,025.37	4.392E-04	Pulse	0.50	3
Sn			1	2.352	ug/l	2.24	6,661.24	5.020E-03	Pulse	0.30	3
Sr			1	30.802	ug/l	0.28	107,081.06	8.068E-02	Pulse	0.50	3
[Pb]			1	0.974	ug/l	1.60	5,186.80	2.221E-03	Pulse	0.50	3
Ca			1	5190.430	ug/l	1.03	104,546.56	4.081E-01	Pulse	0.50	3
Ti			1	390.020	ug/l	1.27	54,655.15	2.133E-01	Pulse	0.50	3
Na			1	553082.670	ug/l	1.18	374,320,992.00	1.461E+03	Analog	1.00	3
Mg			1	2023.357	ug/l	0.97	702,982.73	2.744E+00	Pulse	1.00	3
K			1	17255.497	ug/l	1.56	6,674,872.00	2.605E+01	Analog	1.00	3
V			1	301.719	ug/l	0.56	1,231,643.08	4.807E+00	Pulse	0.50	3
Mn			1	42.928	ug/l	1.19	125,279.35	7.961E-01	Pulse	0.50	3
Fe			1	5052.907	ug/l	1.26	20,652,450.67	1.312E+02	Analog	0.50	3
Co			1	1.251	ug/l	2.66	9,262.23	5.886E-02	Pulse	0.50	3
Ni			1	9.642	ug/l	1.49	19,091.44	1.213E-01	Pulse	0.50	3
Cu			1	3.780	ug/l	3.24	24,687.77	1.569E-01	Pulse	0.50	3
Zn			1	16.462	ug/l	1.08	16,496.38	7.071E-02	Pulse	1.00	3
Cd			1	0.008	ug/l	63.13	22.67	9.742E-05	Pulse	0.50	3
Al			1	1373.419	ug/l	0.27	207,372.81	8.093E-01	Pulse	1.00	3
Se			1	0.698	ug/l	21.95	98.44	4.223E-04	Pulse	3.00	3
Sb			1	0.089	ug/l	9.03	474.68	2.035E-03	Pulse	1.00	3
Se			1	2.506	ug/l	6.20	89.22	3.823E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,334,932.42	2.28	74.0	Pulse	0.50	3
1	Sc		256,233.56	1.69	88.5	Pulse	0.30	3
1	Ge		157,383.90	1.52	85.2	Pulse	0.30	3
1	In		1,327,247.86	1.85	78.0	Pulse	0.30	3
1	Tb		3,729,704.58	2.79	82.5	Pulse	0.50	3
1	Lu		2,770,565.08	3.00	80.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		233,283.89	1.34	85.6	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		1,000.03	6.12	79.4	Pulse	0.30	3

Quantitation Report

File Name	101SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:05
Sample Name	FC2331-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1523.420	ug/l	0.48	6,898,440.33	4.641E+01	Analog	0.50	3
As			1	207.582	ug/l	0.83	127,808.07	8.598E-01	Pulse	1.00	3
Mo			1	86.117	ug/l	0.76	216,386.69	9.892E-01	Pulse	0.50	3
Pb			1	11.244	ug/l	1.47	103,526.88	5.051E-02	Pulse	1.00	3
Be			1	0.127	ug/l	61.12	4.67	1.768E-05	Pulse	2.00	3
Ag			1	0.810	ug/l	0.91	6,289.09	2.875E-02	Pulse	0.50	3
Ba			1	26.671	ug/l	0.96	29,822.52	2.414E-02	Pulse	0.50	3
Tl			1	0.645	ug/l	2.87	8,447.45	4.121E-03	Pulse	0.50	3
Sn			1	34.311	ug/l	2.00	88,067.06	7.130E-02	Pulse	0.30	3
Sr			1	38.066	ug/l	1.40	123,118.31	9.966E-02	Pulse	0.50	3
[Pb]			1	11.217	ug/l	1.35	49,206.44	2.401E-02	Pulse	0.50	3
Ca			1	4812.950	ug/l	0.15	99,987.13	3.785E-01	Pulse	0.50	3
Ti			1	4024.136	ug/l	0.82	581,358.08	2.201E+00	Pulse	0.50	3
Na			1	2958152.887	ug/l	1.01	2,064,058,282.67	7.814E+03	Analog	1.00	3
Mg			1	1979.051	ug/l	0.53	708,931.52	2.684E+00	Pulse	1.00	3
K			1	53533.274	ug/l	1.87	21,233,865.33	8.039E+01	Analog	1.00	3
V			1	4965.214	ug/l	0.98	20,877,320.00	7.904E+01	Analog	0.50	3
Mn			1	58.350	ug/l	0.18	160,775.79	1.082E+00	Pulse	0.50	3
Fe			1	22072.905	ug/l	0.32	85,178,562.67	5.730E+02	Analog	0.50	3
Co			1	13.565	ug/l	0.07	94,004.20	6.324E-01	Pulse	0.50	3
Ni			1	310.372	ug/l	0.44	569,046.15	3.828E+00	Pulse	0.50	3
Cu			1	3.488	ug/l	3.28	21,916.43	1.474E-01	Pulse	0.50	3
Zn			1	44.564	ug/l	0.90	40,062.76	1.831E-01	Pulse	1.00	3
Cd			1	0.254	ug/l	12.34	322.67	1.475E-03	Pulse	0.50	3
Al			1	5734.649	ug/l	0.39	891,921.56	3.376E+00	Pulse	1.00	3
Se			1	5.264	ug/l	3.01	313.89	1.435E-03	Pulse	3.00	3
Sb			1	4.740	ug/l	1.58	17,936.07	8.201E-02	Pulse	1.00	3
Se			1	23.256	ug/l	4.02	562.67	2.572E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,049,220.63	1.68	65.0	Pulse	0.50	3
1	Sc		264,167.13	1.47	91.2	Pulse	0.30	3
1	Ge		148,647.14	0.76	80.5	Pulse	0.30	3
1	In		1,235,522.94	1.90	72.6	Pulse	0.30	3
1	Tb		3,436,814.92	1.86	76.0	Pulse	0.50	3
1	Lu		2,585,642.83	2.33	75.2	Pulse	0.50	3
1	Ge		218,749.64	1.70	80.3	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		26.00	40.70		Pulse	0.50	3
1	Li		883.36	10.92	70.1	Pulse	0.30	3

Quantitation Report

File Name	102SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:09
Sample Name	FC2422-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.892	ug/l	2.69	4,571.88	2.986E-02	Pulse	0.50	3
As			1	14.668	ug/l	2.50	9,349.29	6.104E-02	Pulse	1.00	3
Mo			1	0.274	ug/l	8.05	818.02	3.598E-03	Pulse	0.50	3
Pb			1	0.690	ug/l	11.44	8,668.54	3.400E-03	Pulse	1.00	3
Be			1	-0.003	ug/l	-1253.18	1.17	4.918E-06	Pulse	2.00	3
Ag			1	0.017	ug/l	40.13	301.33	1.329E-03	Pulse	0.50	3
Ba			1	21.835	ug/l	0.95	27,044.82	1.977E-02	Pulse	0.50	3
Tl			1	0.010	ug/l	10.92	542.68	2.125E-04	Pulse	0.50	3
Sn			1	0.319	ug/l	5.92	1,098.93	8.033E-04	Pulse	0.30	3
Sr			1	281.324	ug/l	0.28	1,006,142.75	7.353E-01	Pulse	0.50	3
[Pb]			1	0.679	ug/l	10.34	4,065.17	1.594E-03	Pulse	0.50	3
Ca			1	37444.150	ug/l	0.72	691,814.40	2.934E+00	Pulse	0.50	3
Ti			1	0.697	ug/l	12.43	95.33	4.044E-04	Pulse	0.50	3
Na			1	26030.128	ug/l	1.47	16,223,366.00	6.880E+01	Analog	1.00	3
Mg			1	5170.859	ug/l	0.45	1,652,850.92	7.009E+00	Pulse	1.00	3
K			1	7159.854	ug/l	0.84	2,577,945.08	1.093E+01	Pulse	1.00	3
V			1	1.252	ug/l	6.69	5,728.86	2.431E-02	Pulse	0.50	3
Mn			1	1367.176	ug/l	1.26	3,876,644.83	2.531E+01	Pulse	0.50	3
Fe			1	400.848	ug/l	1.00	1,605,631.04	1.048E+01	Pulse	0.50	3
Co			1	14.395	ug/l	1.14	102,774.41	6.710E-01	Pulse	0.50	3
Ni			1	5.681	ug/l	0.51	11,105.87	7.250E-02	Pulse	0.50	3
Cu			1	14.083	ug/l	0.13	75,302.56	4.916E-01	Pulse	0.50	3
Zn			1	11.211	ug/l	2.20	11,292.65	4.970E-02	Pulse	1.00	3
Cd			1	-0.002	ug/l	-233.71	8.67	3.823E-05	Pulse	0.50	3
Al			1	6.311	ug/l	10.50	1,088.03	4.617E-03	Pulse	1.00	3
Se			1	0.014	ug/l	759.18	61.45	2.707E-04	Pulse	3.00	3
Sb			1	0.055	ug/l	10.85	331.67	1.459E-03	Pulse	1.00	3
Se			1	-0.002	ug/l	-9007.54	26.78	1.177E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,553,730.25	2.41	81.0	Pulse	0.50	3
1	Sc		235,838.34	1.74	81.4	Pulse	0.30	3
1	Ge		153,179.43	2.72	82.9	Pulse	0.30	3
1	In		1,368,306.23	1.57	80.4	Pulse	0.30	3
1	Tb		3,827,875.42	2.16	84.7	Pulse	0.50	3
1	Lu		2,837,515.00	1.94	82.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		227,222.95	1.92	83.4	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		986.70	15.06	78.3	Pulse	0.30	3

Quantitation Report

File Name 103SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:13
Sample Name FC2302-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.897	ug/l	5.36	4,749.93	3.001E-02	Pulse	0.50	3
As			1	0.520	ug/l	9.78	389.67	2.461E-03	Pulse	1.00	3
Mo			1	7.774	ug/l	1.64	21,014.44	8.972E-02	Pulse	0.50	3
Pb			1	0.493	ug/l	2.52	6,297.83	2.521E-03	Pulse	1.00	3
Be			1	-0.004	ug/l	-351.21	1.17	4.787E-06	Pulse	2.00	3
Ag			1	0.015	ug/l	10.30	299.33	1.277E-03	Pulse	0.50	3
Ba			1	73.259	ug/l	1.03	91,023.04	6.627E-02	Pulse	0.50	3
Tl			1	0.030	ug/l	2.34	846.02	3.386E-04	Pulse	0.50	3
Sn			1	1.023	ug/l	7.30	3,113.62	2.264E-03	Pulse	0.30	3
Sr			1	557.485	ug/l	0.68	2,001,277.46	1.457E+00	Pulse	0.50	3
[Pb]			1	0.481	ug/l	2.05	2,929.60	1.173E-03	Pulse	0.50	3
Ca			1	77630.657	ug/l	0.82	1,490,201.46	6.080E+00	Pulse	0.50	3
Ti			1	0.658	ug/l	28.67	93.33	3.830E-04	Pulse	0.50	3
Na			1	57854.488	ug/l	1.80	37,458,025.33	1.529E+02	Analog	1.00	3
Mg			1	37939.930	ug/l	1.50	12,598,393.00	5.141E+01	Analog	1.00	3
K			1	3134.513	ug/l	1.49	1,201,369.21	4.902E+00	Pulse	1.00	3
V			1	1.354	ug/l	8.29	6,366.39	2.594E-02	Pulse	0.50	3
Mn			1	438.147	ug/l	0.87	1,283,790.13	8.113E+00	Pulse	0.50	3
Fe			1	681.835	ug/l	1.18	2,813,084.58	1.778E+01	Pulse	0.50	3
Co			1	0.718	ug/l	3.55	5,394.10	3.408E-02	Pulse	0.50	3
Ni			1	6.135	ug/l	0.53	12,356.63	7.810E-02	Pulse	0.50	3
Cu			1	8.056	ug/l	1.36	46,809.16	2.958E-01	Pulse	0.50	3
Zn			1	5.595	ug/l	1.76	6,378.73	2.723E-02	Pulse	1.00	3
Cd			1	0.011	ug/l	48.70	26.00	1.106E-04	Pulse	0.50	3
Al			1	19.615	ug/l	6.21	3,050.62	1.245E-02	Pulse	1.00	3
Se			1	0.168	ug/l	70.92	71.44	3.048E-04	Pulse	3.00	3
Sb			1	0.094	ug/l	10.05	498.68	2.129E-03	Pulse	1.00	3
Se			1	0.430	ug/l	43.57	38.22	1.632E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,498,542.17	2.11	79.2	Pulse	0.50	3
1	Sc		245,128.32	3.19	84.6	Pulse	0.30	3
1	Ge		158,219.85	1.56	85.7	Pulse	0.30	3
1	In		1,373,747.79	2.99	80.7	Pulse	0.30	3
1	Tb		3,859,908.08	2.68	85.4	Pulse	0.50	3
1	Lu		2,850,664.50	2.78	82.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		234,189.90	2.01	85.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		974.48	5.46	77.3	Pulse	0.30	3

Quantitation Report

File Name 104SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:17
Sample Name FC2353-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.014	ug/l	1.71	5,288.07	3.358E-02	Pulse	0.50	3
As			1	0.347	ug/l	11.48	274.67	1.745E-03	Pulse	1.00	3
Mo			1	0.015	ug/l	66.62	145.33	6.219E-04	Pulse	0.50	3
Pb			1	0.688	ug/l	4.31	8,811.61	3.389E-03	Pulse	1.00	3
Be			1	0.023	ug/l	183.57	1.83	7.418E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	29.78	239.33	1.024E-03	Pulse	0.50	3
Ba			1	5.114	ug/l	2.39	6,504.51	4.644E-03	Pulse	0.50	3
Tl			1	-0.007	ug/l	-48.33	294.67	1.133E-04	Pulse	0.50	3
Sn			1	0.227	ug/l	11.90	860.03	6.132E-04	Pulse	0.30	3
Sr			1	2.270	ug/l	0.56	8,574.64	6.121E-03	Pulse	0.50	3
[Pb]			1	0.670	ug/l	1.54	4,091.84	1.573E-03	Pulse	0.50	3
Ca			1	151.148	ug/l	5.15	3,319.63	1.347E-02	Pulse	0.50	3
Ti			1	0.176	ug/l	86.13	29.33	1.193E-04	Pulse	0.50	3
Na			1	698.455	ug/l	1.38	464,823.17	1.886E+00	Pulse	1.00	3
Mg			1	8.469	ug/l	11.24	3,351.96	1.362E-02	Pulse	1.00	3
K			1	34.343	ug/l	11.22	63,745.80	2.587E-01	Pulse	1.00	3
V			1	1.617	ug/l	4.11	7,419.43	3.012E-02	Pulse	0.50	3
Mn			1	0.317	ug/l	5.64	1,130.71	7.180E-03	Pulse	0.50	3
Fe			1	13.415	ug/l	1.77	67,246.88	4.270E-01	Pulse	0.50	3
Co			1	0.028	ug/l	12.83	303.33	1.927E-03	Pulse	0.50	3
Ni			1	0.442	ug/l	11.50	1,248.05	7.928E-03	Pulse	0.50	3
Cu			1	4.479	ug/l	3.39	28,288.69	1.796E-01	Pulse	0.50	3
Zn			1	8.972	ug/l	0.41	9,525.70	4.074E-02	Pulse	1.00	3
Cd			1	-0.004	ug/l	-64.75	7.33	3.136E-05	Pulse	0.50	3
Al			1	5.745	ug/l	5.66	1,056.03	4.284E-03	Pulse	1.00	3
Se			1	0.066	ug/l	267.08	66.00	2.822E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	8.69	231.67	9.912E-04	Pulse	1.00	3
Se			1	-0.021	ug/l	-486.31	27.00	1.156E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,601,196.58	1.72	82.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		246,458.14	1.90	85.1	Pulse	0.30	3
1	Ge		157,505.11	1.18	85.3	Pulse	0.30	3
1	In		1,400,750.39	2.07	82.3	Pulse	0.30	3
1	Tb		3,828,409.75	2.23	84.7	Pulse	0.50	3
1	Lu		2,827,077.58	2.09	82.2	Pulse	0.50	3
1	Ge		233,794.13	1.40	85.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		998.92	3.66	79.3	Pulse	0.30	3

Quantitation Report

File Name 105SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:20
Sample Name FC2355-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.227	ug/l	3.87	6,250.37	4.008E-02	Pulse	0.50	3
As			1	0.178	ug/l	4.66	163.00	1.046E-03	Pulse	1.00	3
Mo			1	0.013	ug/l	97.74	140.00	6.031E-04	Pulse	0.50	3
Pb			1	0.428	ug/l	3.52	5,797.99	2.232E-03	Pulse	1.00	3
Be			1	-0.017	ug/l	-365.22	0.83	3.508E-06	Pulse	2.00	3
Ag			1	0.009	ug/l	33.09	245.33	1.059E-03	Pulse	0.50	3
Ba			1	0.532	ug/l	5.60	691.02	5.000E-04	Pulse	0.50	3
Tl			1	-0.011	ug/l	-2.17	228.00	8.775E-05	Pulse	0.50	3
Sn			1	0.294	ug/l	7.27	1,038.93	7.509E-04	Pulse	0.30	3
Sr			1	0.153	ug/l	8.76	818.02	5.912E-04	Pulse	0.50	3
[Pb]			1	0.419	ug/l	5.64	2,702.23	1.040E-03	Pulse	0.50	3
Ca			1	147.493	ug/l	6.64	3,194.94	1.318E-02	Pulse	0.50	3
Ti			1	0.235	ug/l	9.85	36.67	1.514E-04	Pulse	0.50	3
Na			1	752.323	ug/l	0.62	491,241.02	2.029E+00	Pulse	1.00	3
Mg			1	22.643	ug/l	0.47	7,948.25	3.282E-02	Pulse	1.00	3
K			1	33.135	ug/l	5.97	62,208.29	2.569E-01	Pulse	1.00	3
V			1	1.409	ug/l	3.17	6,491.10	2.681E-02	Pulse	0.50	3
Mn			1	0.215	ug/l	0.58	824.69	5.290E-03	Pulse	0.50	3
Fe			1	12.462	ug/l	0.87	62,705.25	4.023E-01	Pulse	0.50	3
Co			1	0.010	ug/l	14.19	171.33	1.100E-03	Pulse	0.50	3
Ni			1	0.179	ug/l	45.02	731.37	4.681E-03	Pulse	0.50	3
Cu			1	4.582	ug/l	2.76	28,517.67	1.830E-01	Pulse	0.50	3
Zn			1	8.545	ug/l	1.20	9,031.12	3.904E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-67.07	6.00	2.594E-05	Pulse	0.50	3
Al			1	6.894	ug/l	2.96	1,201.04	4.960E-03	Pulse	1.00	3
Se			1	-0.124	ug/l	-135.31	55.55	2.400E-04	Pulse	3.00	3
Sb			1	0.011	ug/l	26.49	162.33	7.013E-04	Pulse	1.00	3
Se			1	-0.035	ug/l	-439.28	26.45	1.141E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,598,571.00	2.37	82.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		242,170.29	1.67	83.6	Pulse	0.30	3
1	Ge		155,877.75	1.84	84.4	Pulse	0.30	3
1	In		1,382,447.79	2.20	81.2	Pulse	0.30	3
1	Tb		3,821,096.00	2.59	84.5	Pulse	0.50	3
1	Lu		2,817,152.00	2.89	82.0	Pulse	0.50	3
1	Ge		231,333.52	2.31	84.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,042.26	2.90	82.7	Pulse	0.30	3

Quantitation Report

File Name	106SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:24
Sample Name	FC2366-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.949	ug/l	0.69	4,937.31	3.160E-02	Pulse	0.50	3
As			1	0.185	ug/l	10.56	168.00	1.075E-03	Pulse	1.00	3
Mo			1	0.019	ug/l	24.86	154.67	6.708E-04	Pulse	0.50	3
Pb			1	0.352	ug/l	2.55	4,913.71	1.889E-03	Pulse	1.00	3
Be			1	-0.032	ug/l	-110.85	0.50	2.018E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	73.19	220.00	9.528E-04	Pulse	0.50	3
Ba			1	0.746	ug/l	9.58	954.70	6.935E-04	Pulse	0.50	3
Tl			1	-0.012	ug/l	-13.63	205.33	7.897E-05	Pulse	0.50	3
Sn			1	1.725	ug/l	2.61	5,130.75	3.720E-03	Pulse	0.30	3
Sr			1	0.228	ug/l	2.63	1,084.04	7.865E-04	Pulse	0.50	3
[Pb]			1	0.346	ug/l	0.11	2,299.50	8.839E-04	Pulse	0.50	3
Ca			1	281.907	ug/l	1.42	5,784.21	2.371E-02	Pulse	0.50	3
Ti			1	0.392	ug/l	15.63	58.00	2.376E-04	Pulse	0.50	3
Na			1	1213.830	ug/l	1.35	792,183.19	3.248E+00	Pulse	1.00	3
Mg			1	46.061	ug/l	1.14	15,748.52	6.455E-02	Pulse	1.00	3
K			1	29.856	ug/l	12.26	61,458.96	2.520E-01	Pulse	1.00	3
V			1	1.414	ug/l	0.90	6,559.79	2.689E-02	Pulse	0.50	3
Mn			1	0.264	ug/l	7.46	968.03	6.196E-03	Pulse	0.50	3
Fe			1	9.451	ug/l	2.30	50,645.89	3.241E-01	Pulse	0.50	3
Co			1	0.014	ug/l	10.75	198.67	1.271E-03	Pulse	0.50	3
Ni			1	0.246	ug/l	11.44	860.02	5.506E-03	Pulse	0.50	3
Cu			1	3.436	ug/l	0.93	22,774.76	1.457E-01	Pulse	0.50	3
Zn			1	6.106	ug/l	2.15	6,743.52	2.928E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-57.41	6.00	2.584E-05	Pulse	0.50	3
Al			1	6.456	ug/l	6.62	1,146.37	4.702E-03	Pulse	1.00	3
Se			1	-0.012	ug/l	-745.46	61.00	2.647E-04	Pulse	3.00	3
Sb			1	0.007	ug/l	64.89	145.67	6.312E-04	Pulse	1.00	3
Se			1	-0.130	ug/l	-4.88	24.00	1.042E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,601,437.00	1.46	82.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,961.08	2.13	84.2	Pulse	0.30	3
1	Ge		156,278.47	2.48	84.6	Pulse	0.30	3
1	In		1,378,721.72	2.43	81.0	Pulse	0.30	3
1	Tb		3,820,955.83	2.22	84.5	Pulse	0.50	3
1	Lu		2,814,020.75	2.05	81.9	Pulse	0.50	3
1	Ge		230,394.99	2.20	84.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,097.81	8.60	87.1	Pulse	0.30	3

Quantitation Report

File Name 107SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:28
Sample Name FC2367-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.076	ug/l	3.49	5,595.49	3.546E-02	Pulse	0.50	3
As			1	0.180	ug/l	6.50	166.33	1.054E-03	Pulse	1.00	3
Mo			1	0.012	ug/l	19.52	138.00	5.930E-04	Pulse	0.50	3
Pb			1	0.310	ug/l	5.57	4,420.91	1.703E-03	Pulse	1.00	3
Be			1	-0.039	ug/l	-30.31	0.33	1.341E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	251.89	192.67	8.300E-04	Pulse	0.50	3
Ba			1	1.266	ug/l	3.45	1,626.75	1.164E-03	Pulse	0.50	3
Tl			1	-0.015	ug/l	-3.30	161.33	6.209E-05	Pulse	0.50	3
Sn			1	19.058	ug/l	0.75	55,454.47	3.966E-02	Pulse	0.30	3
Sr			1	0.127	ug/l	10.49	728.68	5.214E-04	Pulse	0.50	3
[Pb]			1	0.283	ug/l	10.28	1,947.45	7.502E-04	Pulse	0.50	3
Ca			1	107.974	ug/l	10.94	2,478.83	1.009E-02	Pulse	0.50	3
Ti			1	0.295	ug/l	28.52	45.33	1.846E-04	Pulse	0.50	3
Na			1	859.290	ug/l	1.81	568,353.60	2.311E+00	Pulse	1.00	3
Mg			1	16.702	ug/l	1.91	6,091.93	2.477E-02	Pulse	1.00	3
K			1	23.695	ug/l	14.61	59,697.64	2.428E-01	Pulse	1.00	3
V			1	1.340	ug/l	1.94	6,325.71	2.571E-02	Pulse	0.50	3
Mn			1	0.267	ug/l	10.25	984.03	6.242E-03	Pulse	0.50	3
Fe			1	12.445	ug/l	1.67	63,396.79	4.018E-01	Pulse	0.50	3
Co			1	0.013	ug/l	18.91	191.33	1.212E-03	Pulse	0.50	3
Ni			1	0.174	ug/l	22.84	729.35	4.620E-03	Pulse	0.50	3
Cu			1	3.672	ug/l	2.16	24,199.15	1.534E-01	Pulse	0.50	3
Zn			1	7.942	ug/l	1.56	8,518.89	3.662E-02	Pulse	1.00	3
Cd			1	-0.006	ug/l	-88.24	4.67	2.001E-05	Pulse	0.50	3
Al			1	5.489	ug/l	7.36	1,016.03	4.133E-03	Pulse	1.00	3
Se			1	-0.047	ug/l	-257.48	59.78	2.571E-04	Pulse	3.00	3
Sb			1	0.008	ug/l	56.49	150.67	6.471E-04	Pulse	1.00	3
Se			1	0.146	ug/l	20.23	31.00	1.333E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,596,961.25	2.13	82.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		245,973.71	2.06	84.9	Pulse	0.30	3
1	Ge		157,762.55	1.52	85.4	Pulse	0.30	3
1	In		1,398,229.88	2.15	82.1	Pulse	0.30	3
1	Tb		3,860,486.33	2.34	85.4	Pulse	0.50	3
1	Lu		2,833,251.25	2.67	82.4	Pulse	0.50	3
1	Ge		232,583.71	1.87	85.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,066.70	3.60	84.7	Pulse	0.30	3

Quantitation Report

File Name	108CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:32
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.038	ug/l	2.16	497,456.06	2.929E+00	Pulse	0.50	3
As			1	46.385	ug/l	1.57	65,282.74	3.844E-01	Pulse	1.00	3
Mo			1	47.339	ug/l	1.13	273,004.57	1.088E+00	Pulse	0.50	3
Pb			1	47.108	ug/l	0.70	1,149,818.21	4.209E-01	Pulse	1.00	3
Be			1	47.835	ug/l	0.49	2,489.99	9.447E-03	Pulse	2.00	3
Ag			1	48.466	ug/l	1.22	841,525.94	3.352E+00	Pulse	0.50	3
Ba			1	46.684	ug/l	0.65	126,654.21	8.446E-02	Pulse	0.50	3
Tl			1	48.506	ug/l	0.97	1,629,335.66	5.965E-01	Pulse	0.50	3
Sn			1	48.070	ug/l	1.00	299,199.92	1.995E-01	Pulse	0.30	3
Sr			1	47.396	ug/l	1.11	371,754.74	2.479E-01	Pulse	0.50	3
[Pb]			1	46.892	ug/l	0.70	545,361.42	1.996E-01	Pulse	0.50	3
Ca			1	4642.422	ug/l	1.19	192,053.98	7.287E-01	Pulse	0.50	3
Ti			1	46.511	ug/l	2.00	13,415.28	5.090E-02	Pulse	0.50	3
Na			1	5143.349	ug/l	0.44	7,173,136.67	2.721E+01	Analog	1.00	3
Mg			1	4704.583	ug/l	1.22	3,360,960.75	1.275E+01	Pulse	1.00	3
K			1	4685.844	ug/l	0.63	3,754,708.33	1.425E+01	Pulse	1.00	3
V			1	47.716	ug/l	1.55	401,521.89	1.523E+00	Pulse	0.50	3
Mn			1	47.343	ug/l	1.85	297,921.02	1.754E+00	Pulse	0.50	3
Fe			1	5249.951	ug/l	1.87	46,299,296.00	2.726E+02	Analog	0.50	3
Co			1	48.292	ug/l	1.98	763,987.77	4.499E+00	Pulse	0.50	3
Ni			1	48.197	ug/l	2.04	202,190.54	1.191E+00	Pulse	0.50	3
Cu			1	47.985	ug/l	2.12	535,217.11	3.152E+00	Pulse	0.50	3
Zn			1	47.498	ug/l	1.48	96,619.98	3.849E-01	Pulse	1.00	3
Cd			1	46.680	ug/l	2.07	131,186.83	5.226E-01	Pulse	0.50	3
Al			1	4593.138	ug/l	1.37	1,425,424.46	5.408E+00	Pulse	1.00	3
Se			1	44.943	ug/l	1.82	5,072.45	2.021E-02	Pulse	3.00	3
Sb			1	46.089	ug/l	1.44	397,969.82	1.585E+00	Pulse	1.00	3
Se			1	45.487	ug/l	2.50	2,439.71	9.720E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,731,651.92	0.73	86.6	Pulse	0.50	3
1	Sc		263,583.82	0.71	91.0	Pulse	0.30	3
1	Ge		169,850.18	1.43	92.0	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,499,634.87	0.40	88.1	Pulse	0.30	3
1	Tb		4,089,960.67	0.71	90.5	Pulse	0.50	3
1	Lu		3,056,141.00	0.62	88.9	Pulse	0.50	3
1	Ge		251,041.92	0.92	92.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,106.70	2.57	87.8	Pulse	0.30	3

Quantitation Report

File Name	109_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:35
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.199	ug/l	1.18	1,014,411.98	6.046E+00	Pulse	0.50	3
As			1	96.676	ug/l	0.92	134,362.80	8.009E-01	Pulse	1.00	3
Mo			1	98.589	ug/l	0.47	557,993.09	2.264E+00	Pulse	0.50	3
Pb			1	98.251	ug/l	0.72	2,328,550.42	8.775E-01	Pulse	1.00	3
Be			1	97.421	ug/l	2.18	5,061.96	1.923E-02	Pulse	2.00	3
Ag			1	99.242	ug/l	0.80	1,691,317.71	6.864E+00	Pulse	0.50	3
Ba			1	96.933	ug/l	0.85	258,279.22	1.753E-01	Pulse	0.50	3
Tl			1	100.622	ug/l	0.37	3,282,843.58	1.237E+00	Pulse	0.50	3
Sn			1	99.012	ug/l	1.03	605,108.00	4.108E-01	Pulse	0.30	3
Sr			1	98.454	ug/l	1.23	758,198.06	5.147E-01	Pulse	0.50	3
[Pb]			1	98.189	ug/l	1.09	1,108,838.21	4.179E-01	Pulse	0.50	3
Ca			1	9578.322	ug/l	1.06	395,218.32	1.502E+00	Pulse	0.50	3
Ti			1	96.926	ug/l	1.47	27,909.84	1.060E-01	Pulse	0.50	3
Na			1	10511.829	ug/l	1.05	14,627,225.00	5.558E+01	Analog	1.00	3
Mg			1	10404.491	ug/l	1.06	7,421,582.83	2.820E+01	Analog	1.00	3
K			1	10395.418	ug/l	0.95	8,251,036.67	3.135E+01	Analog	1.00	3
V			1	98.327	ug/l	1.01	825,001.92	3.135E+00	Pulse	0.50	3
Mn			1	97.806	ug/l	0.90	607,827.86	3.623E+00	Pulse	0.50	3
Fe			1	10791.422	ug/l	0.53	94,005,208.00	5.603E+02	Analog	0.50	3
Co			1	98.275	ug/l	0.93	1,535,884.25	9.155E+00	Pulse	0.50	3
Ni			1	98.035	ug/l	1.61	405,882.34	2.419E+00	Pulse	0.50	3
Cu			1	97.563	ug/l	0.68	1,069,190.88	6.373E+00	Pulse	0.50	3
Zn			1	98.038	ug/l	0.98	194,501.34	7.893E-01	Pulse	1.00	3
Cd			1	96.594	ug/l	1.39	266,491.36	1.081E+00	Pulse	0.50	3
Al			1	9442.317	ug/l	1.41	2,925,848.83	1.112E+01	Pulse	1.00	3
Se			1	94.214	ug/l	1.08	10,365.59	4.206E-02	Pulse	3.00	3
Sb			1	95.803	ug/l	0.67	811,937.31	3.295E+00	Pulse	1.00	3
Se			1	94.378	ug/l	0.69	4,938.08	2.004E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,653,538.42	1.86	84.1	Pulse	0.50	3
1	Sc		263,202.59	0.75	90.9	Pulse	0.30	3
1	Ge		167,772.01	0.39	90.8	Pulse	0.30	3
1	In		1,472,951.12	1.10	86.5	Pulse	0.30	3
1	Tb		4,040,496.50	0.50	89.4	Pulse	0.50	3
1	Lu		3,010,030.25	0.84	87.6	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		246,410.67	0.90	90.4	Pulse	0.30	3
1	Te		2.67	43.30		Pulse	0.50	3
1	Li		1,034.48	8.86	82.1	Pulse	0.30	3

Quantitation Report

File Name 110_CCB.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 18:39
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	123.72	457.34	2.821E-03	Pulse	0.50	3
As			1	0.010	ug/l	144.67	63.33	3.898E-04	Pulse	1.00	3
Mo			1	0.091	ug/l	24.25	606.68	2.536E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	14.00	2,217.48	8.384E-04	Pulse	1.00	3
Be			1	0.010	ug/l	372.83	1.83	7.152E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	36.62	316.00	1.322E-03	Pulse	0.50	3
Ba			1	0.004	ug/l	141.76	38.67	2.682E-05	Pulse	0.50	3
Tl			1	0.034	ug/l	11.35	1,520.74	5.750E-04	Pulse	0.50	3
Sn			1	0.082	ug/l	25.39	698.91	4.840E-04	Pulse	0.30	3
Sr			1	0.008	ug/l	63.29	334.00	2.315E-04	Pulse	0.50	3
[Pb]			1	0.060	ug/l	8.32	1,072.04	4.051E-04	Pulse	0.50	3
Ca			1	-2.450	ug/l	-30.15	320.67	1.252E-03	Pulse	0.50	3
Ti			1	0.005	ug/l	212.96	7.33	2.864E-05	Pulse	0.50	3
Na			1	27.730	ug/l	2.37	48,109.04	1.878E-01	Pulse	1.00	3
Mg			1	0.912	ug/l	48.40	1,181.04	4.613E-03	Pulse	1.00	3
K			1	1.939	ug/l	29.81	54,583.60	2.131E-01	Pulse	1.00	3
V			1	0.000	ug/l	4677.74	1,124.04	4.388E-03	Pulse	0.50	3
Mn			1	0.045	ug/l	8.12	481.34	2.968E-03	Pulse	0.50	3
Fe			1	1.246	ug/l	38.36	23,236.88	1.435E-01	Pulse	0.50	3
Co			1	0.004	ug/l	130.03	156.67	9.684E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	237888.78	401.34	2.476E-03	Pulse	0.50	3
Cu			1	-0.022	ug/l	-76.80	5,296.74	3.266E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-159.47	1,123.37	4.698E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	110.87	41.33	1.730E-04	Pulse	0.50	3
Al			1	0.830	ug/l	60.15	481.01	1.879E-03	Pulse	1.00	3
Se			1	0.068	ug/l	123.68	71.22	2.977E-04	Pulse	3.00	3
Sb			1	0.027	ug/l	4.53	348.17	1.456E-03	Pulse	1.00	3
Se			1	0.010	ug/l	494.99	28.67	1.199E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,646,505.17	1.15	83.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		256,160.34	0.33	88.4	Pulse	0.30	3
1	Ge		162,170.88	1.27	87.8	Pulse	0.30	3
1	In		1,442,938.93	1.05	84.8	Pulse	0.30	3
1	Tb		3,904,702.08	0.49	86.4	Pulse	0.50	3
1	Lu		2,890,875.33	0.61	84.1	Pulse	0.50	3
1	Ge		239,155.79	0.39	87.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,217.82	6.58	96.6	Pulse	0.30	3

Quantitation Report

File Name	111SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:43
Sample Name	FC2397-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.579	ug/l	3.49	3,060.92	2.033E-02	Pulse	0.50	3
As			1	0.173	ug/l	29.22	153.33	1.021E-03	Pulse	1.00	3
Mo			1	0.082	ug/l	52.53	315.34	1.398E-03	Pulse	0.50	3
Pb			1	0.259	ug/l	5.44	3,776.76	1.477E-03	Pulse	1.00	3
Be			1	-0.010	ug/l	-227.39	1.00	4.219E-06	Pulse	2.00	3
Ag			1	0.016	ug/l	15.64	296.00	1.319E-03	Pulse	0.50	3
Ba			1	0.023	ug/l	141.23	53.33	3.995E-05	Pulse	0.50	3
Tl			1	0.036	ug/l	21.80	961.36	3.763E-04	Pulse	0.50	3
Sn			1	0.376	ug/l	12.20	1,251.16	9.213E-04	Pulse	0.30	3
Sr			1	0.038	ug/l	30.04	392.68	2.903E-04	Pulse	0.50	3
[Pb]			1	0.258	ug/l	13.98	1,780.10	6.967E-04	Pulse	0.50	3
Ca			1	3.792	ug/l	48.18	460.01	1.933E-03	Pulse	0.50	3
Ti			1	0.208	ug/l	60.34	32.67	1.368E-04	Pulse	0.50	3
Na			1	65.450	ug/l	4.46	50,955.67	2.142E-01	Pulse	1.00	3
Mg			1	2.274	ug/l	15.83	1,241.38	5.221E-03	Pulse	1.00	3
K			1	13.109	ug/l	14.66	53,993.31	2.269E-01	Pulse	1.00	3
V			1	0.919	ug/l	1.86	4,524.54	1.901E-02	Pulse	0.50	3
Mn			1	0.105	ug/l	4.90	488.01	3.240E-03	Pulse	0.50	3
Fe			1	10.971	ug/l	2.85	54,731.41	3.636E-01	Pulse	0.50	3
Co			1	0.022	ug/l	31.30	244.67	1.629E-03	Pulse	0.50	3
Ni			1	0.062	ug/l	41.04	488.01	3.241E-03	Pulse	0.50	3
Cu			1	2.924	ug/l	2.53	19,438.47	1.291E-01	Pulse	0.50	3
Zn			1	3.521	ug/l	0.67	4,253.14	1.893E-02	Pulse	1.00	3
Cd			1	0.016	ug/l	87.91	32.00	1.434E-04	Pulse	0.50	3
Al			1	5.800	ug/l	4.98	1,027.03	4.316E-03	Pulse	1.00	3
Se			1	-0.031	ug/l	-294.36	58.55	2.606E-04	Pulse	3.00	3
Sb			1	0.040	ug/l	22.82	271.00	1.205E-03	Pulse	1.00	3
Se			1	0.073	ug/l	205.16	28.22	1.255E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,557,923.83	1.76	81.1	Pulse	0.50	3
1	Sc		237,977.17	1.58	82.1	Pulse	0.30	3
1	Ge		150,587.91	2.10	81.5	Pulse	0.30	3
1	In		1,355,310.02	3.00	79.6	Pulse	0.30	3
1	Tb		3,769,633.17	2.57	83.4	Pulse	0.50	3
1	Lu		2,783,131.58	2.39	81.0	Pulse	0.50	3
1	Ge		224,646.59	1.74	82.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,078.92	5.18	85.6	Pulse	0.30	3

Quantitation Report

File Name	112SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:47
Sample Name	FC2398-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.560	ug/l	3.85	3,003.58	1.975E-02	Pulse	0.50	3
As			1	0.166	ug/l	9.93	151.33	9.953E-04	Pulse	1.00	3
Mo			1	0.018	ug/l	128.03	147.33	6.580E-04	Pulse	0.50	3
Pb			1	0.205	ug/l	6.06	3,160.63	1.236E-03	Pulse	1.00	3
Be			1	-0.010	ug/l	-214.57	1.00	4.193E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	12.13	232.00	1.038E-03	Pulse	0.50	3
Ba			1	0.010	ug/l	172.23	38.00	2.775E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	327.09	402.68	1.574E-04	Pulse	0.50	3
Sn			1	0.230	ug/l	9.96	842.24	6.184E-04	Pulse	0.30	3
Sr			1	0.023	ug/l	46.92	342.00	2.513E-04	Pulse	0.50	3
[Pb]			1	0.189	ug/l	10.54	1,412.06	5.518E-04	Pulse	0.50	3
Ca			1	2.987	ug/l	60.50	446.68	1.870E-03	Pulse	0.50	3
Ti			1	0.203	ug/l	52.70	32.00	1.340E-04	Pulse	0.50	3
Na			1	60.041	ug/l	3.29	47,799.61	1.999E-01	Pulse	1.00	3
Mg			1	1.094	ug/l	25.05	866.35	3.623E-03	Pulse	1.00	3
K			1	13.302	ug/l	22.14	54,330.21	2.272E-01	Pulse	1.00	3
V			1	0.890	ug/l	2.59	4,434.52	1.854E-02	Pulse	0.50	3
Mn			1	0.087	ug/l	19.08	443.34	2.911E-03	Pulse	0.50	3
Fe			1	5.348	ug/l	6.36	33,123.57	2.176E-01	Pulse	0.50	3
Co			1	0.004	ug/l	15.93	121.33	7.971E-04	Pulse	0.50	3
Ni			1	0.059	ug/l	16.91	488.01	3.206E-03	Pulse	0.50	3
Cu			1	1.644	ug/l	1.11	13,317.94	8.753E-02	Pulse	0.50	3
Zn			1	1.984	ug/l	2.64	2,857.22	1.278E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	1074.91	12.00	5.352E-05	Pulse	0.50	3
Al			1	2.305	ug/l	9.38	540.01	2.259E-03	Pulse	1.00	3
Se			1	0.058	ug/l	351.22	62.56	2.803E-04	Pulse	3.00	3
Sb			1	0.012	ug/l	56.18	160.00	7.151E-04	Pulse	1.00	3
Se			1	0.145	ug/l	87.10	29.78	1.331E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,558,935.67	1.90	81.1	Pulse	0.50	3
1	Sc		239,195.57	2.30	82.6	Pulse	0.30	3
1	Ge		152,157.05	1.86	82.4	Pulse	0.30	3
1	In		1,360,983.14	1.89	80.0	Pulse	0.30	3
1	Tb		3,775,462.08	1.74	83.5	Pulse	0.50	3
1	Lu		2,776,278.33	1.83	80.8	Pulse	0.50	3
1	Ge		223,459.46	1.25	82.0	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,054.48	7.36	83.7	Pulse	0.30	3

Quantitation Report

File Name	113SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:51
Sample Name	FC2400-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.684	ug/l	8.01	3,480.32	2.353E-02	Pulse	0.50	3
As			1	0.151	ug/l	14.66	138.67	9.313E-04	Pulse	1.00	3
Mo			1	0.006	ug/l	343.50	115.33	5.167E-04	Pulse	0.50	3
Pb			1	0.193	ug/l	10.80	2,943.26	1.182E-03	Pulse	1.00	3
Be			1	0.027	ug/l	157.79	1.83	7.811E-06	Pulse	2.00	3
Ag			1	0.004	ug/l	97.09	192.00	8.774E-04	Pulse	0.50	3
Ba			1	0.011	ug/l	150.02	37.33	2.893E-05	Pulse	0.50	3
Tl			1	-0.007	ug/l	-5.57	284.67	1.138E-04	Pulse	0.50	3
Sn			1	0.239	ug/l	9.27	840.03	6.381E-04	Pulse	0.30	3
Sr			1	0.038	ug/l	17.14	382.68	2.904E-04	Pulse	0.50	3
[Pb]			1	0.193	ug/l	13.96	1,393.40	5.600E-04	Pulse	0.50	3
Ca			1	2.810	ug/l	79.90	432.01	1.856E-03	Pulse	0.50	3
Ti			1	0.221	ug/l	22.04	33.33	1.437E-04	Pulse	0.50	3
Na			1	61.146	ug/l	8.51	47,227.64	2.028E-01	Pulse	1.00	3
Mg			1	0.985	ug/l	9.89	810.35	3.475E-03	Pulse	1.00	3
K			1	16.191	ug/l	70.55	53,894.39	2.315E-01	Pulse	1.00	3
V			1	0.955	ug/l	14.10	4,552.55	1.958E-02	Pulse	0.50	3
Mn			1	0.114	ug/l	18.47	503.34	3.413E-03	Pulse	0.50	3
Fe			1	8.410	ug/l	5.92	43,959.54	2.971E-01	Pulse	0.50	3
Co			1	0.007	ug/l	19.71	138.67	9.376E-04	Pulse	0.50	3
Ni			1	0.130	ug/l	16.39	602.68	4.074E-03	Pulse	0.50	3
Cu			1	2.216	ug/l	10.35	15,683.05	1.061E-01	Pulse	0.50	3
Zn			1	5.095	ug/l	5.40	5,531.47	2.523E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	-861.11	10.67	4.933E-05	Pulse	0.50	3
Al			1	2.435	ug/l	26.30	541.68	2.335E-03	Pulse	1.00	3
Se			1	-0.079	ug/l	-155.78	55.11	2.498E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	49.52	134.00	6.087E-04	Pulse	1.00	3
Se			1	0.129	ug/l	215.01	28.67	1.315E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,500,137.25	7.03	79.3	Pulse	0.50	3
1	Sc		233,576.75	6.98	80.6	Pulse	0.30	3
1	Ge		148,269.24	7.04	80.3	Pulse	0.30	3
1	In		1,321,001.34	7.63	77.6	Pulse	0.30	3
1	Tb		3,664,834.75	7.87	81.1	Pulse	0.50	3
1	Lu		2,703,560.58	7.90	78.7	Pulse	0.50	3
1	Ge		219,664.10	6.71	80.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,072.26	3.76	85.1	Pulse	0.30	3

Quantitation Report

File Name	114SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:54
Sample Name	FC2401-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.584	ug/l	2.60	3,149.60	2.048E-02	Pulse	0.50	3
As			1	0.158	ug/l	13.89	147.67	9.609E-04	Pulse	1.00	3
Mo			1	-0.009	ug/l	-152.88	79.33	3.471E-04	Pulse	0.50	3
Pb			1	0.192	ug/l	2.06	3,022.61	1.179E-03	Pulse	1.00	3
Be			1	-0.003	ug/l	-736.38	1.17	4.851E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	172.01	188.00	8.262E-04	Pulse	0.50	3
Ba			1	0.038	ug/l	5.51	73.33	5.359E-05	Pulse	0.50	3
Tl			1	-0.012	ug/l	-6.16	208.00	8.106E-05	Pulse	0.50	3
Sn			1	0.193	ug/l	4.52	742.24	5.424E-04	Pulse	0.30	3
Sr			1	0.062	ug/l	37.75	480.68	3.520E-04	Pulse	0.50	3
[Pb]			1	0.188	ug/l	4.43	1,406.73	5.483E-04	Pulse	0.50	3
Ca			1	6.050	ug/l	42.34	505.34	2.109E-03	Pulse	0.50	3
Ti			1	0.172	ug/l	81.27	28.00	1.172E-04	Pulse	0.50	3
Na			1	59.075	ug/l	2.17	47,242.32	1.974E-01	Pulse	1.00	3
Mg			1	1.320	ug/l	11.11	940.02	3.928E-03	Pulse	1.00	3
K			1	12.646	ug/l	14.90	54,151.78	2.262E-01	Pulse	1.00	3
V			1	0.918	ug/l	1.69	4,546.55	1.899E-02	Pulse	0.50	3
Mn			1	0.071	ug/l	20.87	402.01	2.616E-03	Pulse	0.50	3
Fe			1	6.782	ug/l	3.41	39,187.50	2.548E-01	Pulse	0.50	3
Co			1	0.006	ug/l	81.20	134.67	8.763E-04	Pulse	0.50	3
Ni			1	0.096	ug/l	14.04	562.01	3.656E-03	Pulse	0.50	3
Cu			1	2.339	ug/l	0.11	16,928.76	1.101E-01	Pulse	0.50	3
Zn			1	2.501	ug/l	1.54	3,378.63	1.485E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-37.93	5.33	2.354E-05	Pulse	0.50	3
Al			1	2.345	ug/l	3.27	546.34	2.282E-03	Pulse	1.00	3
Se			1	-0.126	ug/l	-42.41	54.44	2.394E-04	Pulse	3.00	3
Sb			1	0.009	ug/l	63.79	151.33	6.641E-04	Pulse	1.00	3
Se			1	0.077	ug/l	219.29	28.67	1.260E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,564,772.67	1.92	81.3	Pulse	0.50	3
1	Sc		239,404.75	1.44	82.6	Pulse	0.30	3
1	Ge		153,769.20	1.01	83.3	Pulse	0.30	3
1	In		1,369,036.92	2.30	80.4	Pulse	0.30	3
1	Tb		3,801,526.17	2.21	84.1	Pulse	0.50	3
1	Lu		2,783,869.92	2.69	81.0	Pulse	0.50	3
1	Ge		227,523.01	1.55	83.5	Pulse	0.30	3
1	Te		3.33	173.21		Pulse	0.50	3
1	Li		1,015.59	13.82	80.6	Pulse	0.30	3

Quantitation Report

File Name	115SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 18:58
Sample Name	FC2402-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.594	ug/l	3.89	3,192.94	2.079E-02	Pulse	0.50	3
As			1	0.164	ug/l	5.56	151.33	9.855E-04	Pulse	1.00	3
Mo			1	-0.005	ug/l	-56.37	88.67	3.907E-04	Pulse	0.50	3
Pb			1	0.201	ug/l	4.75	3,106.62	1.215E-03	Pulse	1.00	3
Be			1	-0.025	ug/l	-129.64	0.67	2.743E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	107.62	188.00	8.282E-04	Pulse	0.50	3
Ba			1	0.033	ug/l	41.31	66.00	4.860E-05	Pulse	0.50	3
Tl			1	-0.014	ug/l	-13.45	174.00	6.797E-05	Pulse	0.50	3
Sn			1	0.190	ug/l	5.55	726.69	5.355E-04	Pulse	0.30	3
Sr			1	0.029	ug/l	43.82	362.01	2.661E-04	Pulse	0.50	3
[Pb]			1	0.203	ug/l	6.59	1,488.07	5.816E-04	Pulse	0.50	3
Ca			1	2.255	ug/l	28.47	438.01	1.812E-03	Pulse	0.50	3
Ti			1	0.099	ug/l	45.20	18.67	7.702E-05	Pulse	0.50	3
Na			1	57.429	ug/l	2.86	46,641.57	1.930E-01	Pulse	1.00	3
Mg			1	0.872	ug/l	7.16	803.02	3.322E-03	Pulse	1.00	3
K			1	11.739	ug/l	16.76	54,342.61	2.249E-01	Pulse	1.00	3
V			1	0.956	ug/l	3.37	4,735.92	1.960E-02	Pulse	0.50	3
Mn			1	0.075	ug/l	23.03	412.01	2.684E-03	Pulse	0.50	3
Fe			1	4.799	ug/l	2.66	31,233.06	2.033E-01	Pulse	0.50	3
Co			1	0.003	ug/l	95.52	114.67	7.465E-04	Pulse	0.50	3
Ni			1	0.044	ug/l	48.85	464.68	3.023E-03	Pulse	0.50	3
Cu			1	2.877	ug/l	1.18	19,591.28	1.276E-01	Pulse	0.50	3
Zn			1	2.640	ug/l	3.72	3,495.32	1.541E-02	Pulse	1.00	3
Cd			1	-0.004	ug/l	-20.63	6.67	2.933E-05	Pulse	0.50	3
Al			1	2.219	ug/l	4.20	533.68	2.208E-03	Pulse	1.00	3
Se			1	-0.066	ug/l	-143.04	57.33	2.529E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	79.05	140.00	6.160E-04	Pulse	1.00	3
Se			1	0.153	ug/l	73.04	30.45	1.340E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,558,172.75	1.96	81.1	Pulse	0.50	3
1	Sc		241,695.45	1.28	83.4	Pulse	0.30	3
1	Ge		153,573.93	1.58	83.2	Pulse	0.30	3
1	In		1,357,948.66	2.81	79.8	Pulse	0.30	3
1	Tb		3,788,808.58	2.42	83.8	Pulse	0.50	3
1	Lu		2,791,593.00	2.69	81.2	Pulse	0.50	3
1	Ge		226,944.16	2.22	83.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,033.36	5.31	82.0	Pulse	0.30	3

Quantitation Report

File Name	116SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:02
Sample Name	FC2403-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.345	ug/l	5.08	2,061.45	1.321E-02	Pulse	0.50	3
As			1	0.103	ug/l	18.07	114.33	7.329E-04	Pulse	1.00	3
Mo			1	-0.018	ug/l	-5.05	57.33	2.454E-04	Pulse	0.50	3
Pb			1	0.169	ug/l	2.66	2,799.23	1.076E-03	Pulse	1.00	3
Be			1	0.016	ug/l	147.37	1.67	6.794E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	93.53	191.33	8.189E-04	Pulse	0.50	3
Ba			1	0.015	ug/l	67.89	44.67	3.211E-05	Pulse	0.50	3
Tl			1	-0.015	ug/l	-2.60	157.33	6.046E-05	Pulse	0.50	3
Sn			1	0.074	ug/l	8.63	412.23	2.954E-04	Pulse	0.30	3
Sr			1	0.018	ug/l	28.70	331.34	2.376E-04	Pulse	0.50	3
[Pb]			1	0.176	ug/l	1.90	1,362.06	5.233E-04	Pulse	0.50	3
Ca			1	3.680	ug/l	71.32	472.68	1.924E-03	Pulse	0.50	3
Ti			1	0.131	ug/l	49.95	23.33	9.469E-05	Pulse	0.50	3
Na			1	52.358	ug/l	2.51	44,138.29	1.796E-01	Pulse	1.00	3
Mg			1	1.006	ug/l	17.83	861.02	3.504E-03	Pulse	1.00	3
K			1	9.754	ug/l	14.80	54,528.77	2.219E-01	Pulse	1.00	3
V			1	0.685	ug/l	3.53	3,756.38	1.529E-02	Pulse	0.50	3
Mn			1	0.062	ug/l	22.59	382.67	2.453E-03	Pulse	0.50	3
Fe			1	3.962	ug/l	2.50	28,344.60	1.816E-01	Pulse	0.50	3
Co			1	0.000	ug/l	-2516.74	95.33	6.104E-04	Pulse	0.50	3
Ni			1	0.062	ug/l	9.75	506.01	3.242E-03	Pulse	0.50	3
Cu			1	2.646	ug/l	1.46	18,740.45	1.201E-01	Pulse	0.50	3
Zn			1	15.894	ug/l	2.91	15,982.95	6.843E-02	Pulse	1.00	3
Cd			1	-0.006	ug/l	-42.62	4.67	2.008E-05	Pulse	0.50	3
Al			1	2.462	ug/l	8.51	578.01	2.351E-03	Pulse	1.00	3
Se			1	-0.133	ug/l	-88.64	55.55	2.380E-04	Pulse	3.00	3
Sb			1	-0.002	ug/l	-164.05	110.00	4.709E-04	Pulse	1.00	3
Se			1	0.128	ug/l	268.77	30.67	1.313E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,603,046.08	1.70	82.5	Pulse	0.50	3
1	Sc		245,765.59	1.06	84.8	Pulse	0.30	3
1	Ge		156,048.46	0.80	84.5	Pulse	0.30	3
1	In		1,395,384.74	1.76	82.0	Pulse	0.30	3
1	Tb		3,850,505.75	2.18	85.2	Pulse	0.50	3
1	Lu		2,839,336.58	1.74	82.6	Pulse	0.50	3
1	Ge		233,559.21	1.07	85.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,093.37	3.52	86.8	Pulse	0.30	3

Quantitation Report

File Name 117SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:06
Sample Name FC2193-15
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	647.978	ug/l	0.54	133,373.41	7.922E-01	Pulse	0.50	3
As			1	68.074	ug/l	1.38	1,949.77	1.158E-02	Pulse	1.00	3
Mo			1	8.889	ug/l	4.31	1,128.04	4.535E-03	Pulse	0.50	3
Pb			1	271.430	ug/l	0.39	132,610.20	4.879E-02	Pulse	1.00	3
Be			1	3.020	ug/l	54.99	4.67	1.709E-05	Pulse	2.00	3
Ag			1	1.057	ug/l	8.62	550.68	2.214E-03	Pulse	0.50	3
Ba			1	1840.770	ug/l	0.99	99,476.96	6.661E-02	Pulse	0.50	3
Tl			1	0.984	ug/l	12.85	1,075.37	3.958E-04	Pulse	0.50	3
Sn			1	28.742	ug/l	1.43	3,772.63	2.526E-03	Pulse	0.30	3
Sr			1	1361.220	ug/l	1.08	212,783.77	1.425E-01	Pulse	0.50	3
[Pb]			1	268.870	ug/l	2.57	62,600.00	2.303E-02	Pulse	0.50	3
Ca			1	209021.735	ug/l	1.55	179,491.54	6.563E-01	Pulse	0.50	3
Ti			1	17455.158	ug/l	0.86	104,435.49	3.819E-01	Pulse	0.50	3
Na			1	7545.555	ug/l	0.54	229,320.05	8.386E-01	Pulse	1.00	3
Mg			1	96869.826	ug/l	0.59	1,436,416.08	5.253E+00	Pulse	1.00	3
K			1	20391.835	ug/l	0.15	390,797.02	1.429E+00	Pulse	1.00	3
V			1	868.503	ug/l	1.20	152,425.64	5.574E-01	Pulse	0.50	3
Mn			1	7467.759	ug/l	0.61	931,213.27	5.532E+00	Pulse	0.50	3
Fe			1	396622.427	ug/l	0.77	69,335,816.00	4.119E+02	Analog	0.50	3
Co			1	151.788	ug/l	0.82	47,711.11	2.834E-01	Pulse	0.50	3
Ni			1	637.337	ug/l	0.39	53,315.05	3.167E-01	Pulse	0.50	3
Cu			1	575.328	ug/l	0.47	131,600.10	7.817E-01	Pulse	0.50	3
Zn			1	1992.404	ug/l	1.38	80,497.87	3.237E-01	Pulse	1.00	3
Cd			1	8.809	ug/l	6.38	503.34	2.024E-03	Pulse	0.50	3
Al			1	237377.735	ug/l	1.06	1,528,736.58	5.590E+00	Pulse	1.00	3
Se			1	7.761	ug/l	48.71	83.67	3.363E-04	Pulse	3.00	3
Sb			1	4.230	ug/l	4.24	850.69	3.420E-03	Pulse	1.00	3
Se			1	34.636	ug/l	18.90	65.67	2.641E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,718,071.17	1.37	86.2	Pulse	0.50	3
1	Sc		273,461.93	0.81	94.4	Pulse	0.30	3
1	Ge		168,350.53	1.85	91.2	Pulse	0.30	3
1	In		1,493,340.60	1.34	87.7	Pulse	0.30	3
1	Tb		4,045,675.83	1.45	89.5	Pulse	0.50	3
1	Lu		3,003,573.25	1.30	87.4	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		248,670.18	0.74	91.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,188.93	2.97	94.4	Pulse	0.30	3

Quantitation Report

File Name 118SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:10
Sample Name MP41794-D1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	575.563	ug/l	0.50	119,007.52	7.040E-01	Pulse	0.50	3
As			1	61.807	ug/l	2.63	1,781.75	1.054E-02	Pulse	1.00	3
Mo			1	8.086	ug/l	1.71	1,043.36	4.167E-03	Pulse	0.50	3
Pb			1	237.578	ug/l	0.56	117,030.71	4.274E-02	Pulse	1.00	3
Be			1	1.789	ug/l	83.34	3.33	1.223E-05	Pulse	2.00	3
Ag			1	0.887	ug/l	11.03	495.34	1.978E-03	Pulse	0.50	3
Ba			1	1617.808	ug/l	0.24	87,330.42	5.854E-02	Pulse	0.50	3
Tl			1	0.799	ug/l	13.82	960.03	3.503E-04	Pulse	0.50	3
Sn			1	24.261	ug/l	2.35	3,213.63	2.155E-03	Pulse	0.30	3
Sr			1	1196.195	ug/l	1.02	186,817.32	1.252E-01	Pulse	0.50	3
[Pb]			1	237.290	ug/l	1.31	55,696.90	2.034E-02	Pulse	0.50	3
Ca			1	184539.221	ug/l	0.74	157,852.53	5.796E-01	Pulse	0.50	3
Ti			1	15731.745	ug/l	1.72	93,730.54	3.442E-01	Pulse	0.50	3
Na			1	6614.197	ug/l	1.39	201,575.47	7.402E-01	Pulse	1.00	3
Mg			1	84439.353	ug/l	1.44	1,246,947.08	4.579E+00	Pulse	1.00	3
K			1	18718.721	ug/l	0.89	361,883.47	1.329E+00	Pulse	1.00	3
V			1	754.879	ug/l	1.96	132,082.85	4.850E-01	Pulse	0.50	3
Mn			1	6417.401	ug/l	0.39	803,561.79	4.754E+00	Pulse	0.50	3
Fe			1	341573.889	ug/l	0.36	59,961,752.00	3.547E+02	Analog	0.50	3
Co			1	130.625	ug/l	1.04	41,239.04	2.440E-01	Pulse	0.50	3
Ni			1	548.998	ug/l	0.95	46,173.47	2.732E-01	Pulse	0.50	3
Cu			1	492.101	ug/l	0.80	113,858.25	6.736E-01	Pulse	0.50	3
Zn			1	1718.505	ug/l	1.03	70,088.54	2.799E-01	Pulse	1.00	3
Cd			1	7.510	ug/l	3.66	434.01	1.733E-03	Pulse	0.50	3
Al			1	208006.542	ug/l	1.56	1,333,993.46	4.898E+00	Pulse	1.00	3
Se			1	5.457	ug/l	26.03	79.11	3.159E-04	Pulse	3.00	3
Sb			1	3.416	ug/l	10.27	716.35	2.860E-03	Pulse	1.00	3
Se			1	26.296	ug/l	18.92	57.33	2.289E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,738,047.92	2.00	86.8	Pulse	0.50	3
1	Sc		272,335.30	0.20	94.0	Pulse	0.30	3
1	Ge		169,036.70	1.38	91.5	Pulse	0.30	3
1	In		1,491,731.99	1.28	87.6	Pulse	0.30	3
1	Tb		4,040,343.33	1.49	89.4	Pulse	0.50	3
1	Lu		2,999,179.00	1.23	87.3	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,427.67	0.71	91.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,093.37	8.01	86.8	Pulse	0.30	3

Quantitation Report

File Name 119SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:13
Sample Name MP41794-D2
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	600.260	ug/l	1.32	125,762.09	7.341E-01	Pulse	0.50	3
As			1	66.568	ug/l	1.47	1,941.10	1.133E-02	Pulse	1.00	3
Mo			1	8.016	ug/l	0.49	1,033.36	4.135E-03	Pulse	0.50	3
Pb			1	267.169	ug/l	0.34	131,560.46	4.803E-02	Pulse	1.00	3
Be			1	3.567	ug/l	37.36	5.33	1.925E-05	Pulse	2.00	3
Ag			1	0.730	ug/l	11.02	440.01	1.761E-03	Pulse	0.50	3
Ba			1	1759.897	ug/l	0.87	96,254.63	6.368E-02	Pulse	0.50	3
Tl			1	0.903	ug/l	5.14	1,029.37	3.759E-04	Pulse	0.50	3
Sn			1	26.721	ug/l	6.96	3,563.70	2.359E-03	Pulse	0.30	3
Sr			1	1261.420	ug/l	0.73	199,576.05	1.320E-01	Pulse	0.50	3
[Pb]			1	267.112	ug/l	0.92	62,669.47	2.288E-02	Pulse	0.50	3
Ca			1	194106.642	ug/l	0.45	168,939.50	6.096E-01	Pulse	0.50	3
Ti			1	16052.728	ug/l	0.55	97,329.98	3.512E-01	Pulse	0.50	3
Na			1	6628.409	ug/l	0.17	205,545.09	7.417E-01	Pulse	1.00	3
Mg			1	90465.986	ug/l	1.30	1,359,479.83	4.905E+00	Pulse	1.00	3
K			1	19385.572	ug/l	0.56	379,334.36	1.369E+00	Pulse	1.00	3
V			1	797.840	ug/l	1.39	141,995.06	5.124E-01	Pulse	0.50	3
Mn			1	6880.846	ug/l	1.02	873,177.81	5.097E+00	Pulse	0.50	3
Fe			1	365688.807	ug/l	0.18	65,056,553.33	3.798E+02	Analog	0.50	3
Co			1	140.654	ug/l	1.13	44,993.96	2.626E-01	Pulse	0.50	3
Ni			1	592.395	ug/l	1.09	50,459.40	2.945E-01	Pulse	0.50	3
Cu			1	529.200	ug/l	0.76	123,641.67	7.218E-01	Pulse	0.50	3
Zn			1	1910.160	ug/l	1.15	77,618.24	3.105E-01	Pulse	1.00	3
Cd			1	8.938	ug/l	8.22	513.34	2.053E-03	Pulse	0.50	3
Al			1	219121.968	ug/l	1.62	1,430,076.75	5.160E+00	Pulse	1.00	3
Se			1	6.482	ug/l	22.82	81.22	3.250E-04	Pulse	3.00	3
Sb			1	3.583	ug/l	1.44	743.69	2.975E-03	Pulse	1.00	3
Se			1	27.275	ug/l	15.49	58.22	2.330E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,739,241.75	1.50	86.9	Pulse	0.50	3
1	Sc		277,130.50	0.28	95.7	Pulse	0.30	3
1	Ge		171,302.92	0.74	92.8	Pulse	0.30	3
1	In		1,511,364.17	1.41	88.8	Pulse	0.30	3
1	Tb		4,062,402.50	1.78	89.9	Pulse	0.50	3
1	Lu		3,030,964.33	1.55	88.2	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		249,932.51	1.25	91.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,101.15	3.35	87.4	Pulse	0.30	3

Quantitation Report

File Name	120SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:17
Sample Name	MP41794-SD1
Sample Type	Sample
Comment	
Prep Dilution	250.000
Auto Dilution	N/A
Total Dilution	250.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	704.397	ug/l	0.92	29,595.72	1.744E-01	Pulse	0.50	3
As			1	74.497	ug/l	6.79	471.01	2.774E-03	Pulse	1.00	3
Mo			1	6.502	ug/l	9.64	264.67	1.050E-03	Pulse	0.50	3
Pb			1	297.928	ug/l	0.86	29,962.14	1.096E-02	Pulse	1.00	3
Be			1	1.207	ug/l	488.75	1.67	6.124E-06	Pulse	2.00	3
Ag			1	0.544	ug/l	35.47	227.33	9.020E-04	Pulse	0.50	3
Ba			1	1991.474	ug/l	0.55	21,815.82	1.443E-02	Pulse	0.50	3
Tl			1	-0.872	ug/l	-14.20	303.33	1.109E-04	Pulse	0.50	3
Sn			1	23.325	ug/l	2.25	800.02	5.291E-04	Pulse	0.30	3
Sr			1	1486.153	ug/l	0.70	47,270.86	3.126E-02	Pulse	0.50	3
[Pb]			1	291.507	ug/l	0.20	13,968.39	5.109E-03	Pulse	0.50	3
Ca			1	229313.970	ug/l	0.33	39,681.27	1.453E-01	Pulse	0.50	3
Ti			1	19134.105	ug/l	0.85	22,872.00	8.374E-02	Pulse	0.50	3
Na			1	12015.390	ug/l	0.49	80,633.62	2.952E-01	Pulse	1.00	3
Mg			1	107173.408	ug/l	0.82	317,908.11	1.164E+00	Pulse	1.00	3
K			1	22514.215	ug/l	0.61	130,302.87	4.771E-01	Pulse	1.00	3
V			1	954.714	ug/l	2.02	34,404.25	1.260E-01	Pulse	0.50	3
Mn			1	8173.137	ug/l	1.65	205,711.86	1.212E+00	Pulse	0.50	3
Fe			1	437008.183	ug/l	1.05	15,417,575.00	9.083E+01	Analog	0.50	3
Co			1	165.352	ug/l	1.96	10,562.90	6.223E-02	Pulse	0.50	3
Ni			1	681.644	ug/l	1.02	11,829.63	6.969E-02	Pulse	0.50	3
Cu			1	721.395	ug/l	0.97	37,615.17	2.216E-01	Pulse	0.50	3
Zn			1	2174.973	ug/l	1.36	18,767.77	7.446E-02	Pulse	1.00	3
Cd			1	8.598	ug/l	11.22	110.00	4.364E-04	Pulse	0.50	3
Al			1	264144.233	ug/l	1.29	339,997.48	1.245E+00	Pulse	1.00	3
Se			1	9.504	ug/l	232.38	71.67	2.843E-04	Pulse	3.00	3
Sb			1	2.054	ug/l	15.88	200.00	7.934E-04	Pulse	1.00	3
Se			1	23.783	ug/l	93.67	34.78	1.379E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,733,865.17	1.45	86.7	Pulse	0.50	3
1	Sc		273,129.67	0.72	94.3	Pulse	0.30	3
1	Ge		169,743.33	0.42	91.9	Pulse	0.30	3
1	In		1,512,184.11	1.04	88.8	Pulse	0.30	3
1	Tb		4,044,123.25	1.15	89.5	Pulse	0.50	3
1	Lu		3,015,076.33	0.95	87.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		252,042.62	0.41	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,194.49	5.27	94.8	Pulse	0.30	3

Quantitation Report

File Name 121CCVA.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:21
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.126	ug/l	1.37	506,636.27	2.935E+00	Pulse	0.50	3
As			1	46.804	ug/l	1.03	66,956.45	3.879E-01	Pulse	1.00	3
Mo			1	46.832	ug/l	0.98	274,481.65	1.076E+00	Pulse	0.50	3
Pb			1	47.242	ug/l	0.48	1,141,822.38	4.221E-01	Pulse	1.00	3
Be			1	45.979	ug/l	0.12	2,461.98	9.081E-03	Pulse	2.00	3
Ag			1	47.726	ug/l	0.97	842,177.44	3.301E+00	Pulse	0.50	3
Ba			1	46.536	ug/l	0.76	128,133.51	8.419E-02	Pulse	0.50	3
Tl			1	48.646	ug/l	0.35	1,618,111.75	5.982E-01	Pulse	0.50	3
Sn			1	47.653	ug/l	1.27	301,045.88	1.978E-01	Pulse	0.30	3
Sr			1	47.820	ug/l	0.80	380,678.47	2.501E-01	Pulse	0.50	3
[Pb]			1	47.185	ug/l	0.68	543,417.77	2.009E-01	Pulse	0.50	3
Ca			1	4678.590	ug/l	1.78	199,076.84	7.343E-01	Pulse	0.50	3
Ti			1	46.653	ug/l	2.32	13,840.26	5.105E-02	Pulse	0.50	3
Na			1	5078.145	ug/l	0.96	7,284,800.33	2.687E+01	Analog	1.00	3
Mg			1	4660.787	ug/l	1.76	3,424,854.08	1.263E+01	Pulse	1.00	3
K			1	4685.785	ug/l	1.10	3,861,960.33	1.424E+01	Pulse	1.00	3
V			1	47.295	ug/l	2.03	409,359.34	1.510E+00	Pulse	0.50	3
Mn			1	47.514	ug/l	0.46	303,940.04	1.761E+00	Pulse	0.50	3
Fe			1	5266.337	ug/l	0.35	47,210,509.33	2.735E+02	Analog	0.50	3
Co			1	48.000	ug/l	0.55	771,944.52	4.472E+00	Pulse	0.50	3
Ni			1	47.741	ug/l	0.47	203,593.12	1.179E+00	Pulse	0.50	3
Cu			1	47.840	ug/l	0.68	542,460.14	3.142E+00	Pulse	0.50	3
Zn			1	47.446	ug/l	1.33	98,090.66	3.845E-01	Pulse	1.00	3
Cd			1	46.093	ug/l	1.63	131,654.79	5.161E-01	Pulse	0.50	3
Al			1	4602.353	ug/l	2.34	1,469,079.00	5.419E+00	Pulse	1.00	3
Se			1	45.557	ug/l	1.17	5,224.27	2.048E-02	Pulse	3.00	3
Sb			1	45.631	ug/l	1.44	400,445.86	1.570E+00	Pulse	1.00	3
Se			1	45.558	ug/l	1.30	2,483.50	9.735E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,704,939.50	1.33	85.8	Pulse	0.50	3
1	Sc		271,125.99	0.78	93.6	Pulse	0.30	3
1	Ge		172,626.96	0.60	93.5	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,521,982.68	0.91	89.4	Pulse	0.30	3
1	Tb		4,098,555.67	1.29	90.7	Pulse	0.50	3
1	Lu		3,057,350.42	1.12	88.9	Pulse	0.50	3
1	Ge		255,114.47	0.19	93.6	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,170.04	4.59	92.9	Pulse	0.30	3

Quantitation Report

File Name	122_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:25
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.227	ug/l	1.01	1,025,305.81	6.109E+00	Pulse	0.50	3
As			1	97.386	ug/l	1.10	135,400.77	8.067E-01	Pulse	1.00	3
Mo			1	98.437	ug/l	0.73	560,772.90	2.261E+00	Pulse	0.50	3
Pb			1	98.118	ug/l	0.45	2,305,343.17	8.763E-01	Pulse	1.00	3
Be			1	98.009	ug/l	0.99	5,128.81	1.935E-02	Pulse	2.00	3
Ag			1	98.303	ug/l	0.31	1,686,177.58	6.799E+00	Pulse	0.50	3
Ba			1	98.302	ug/l	1.20	262,045.38	1.778E-01	Pulse	0.50	3
Tl			1	101.187	ug/l	0.67	3,272,889.08	1.244E+00	Pulse	0.50	3
Sn			1	98.937	ug/l	0.56	604,908.33	4.105E-01	Pulse	0.30	3
Sr			1	99.347	ug/l	0.58	765,410.69	5.194E-01	Pulse	0.50	3
[Pb]			1	97.814	ug/l	0.32	1,095,077.13	4.163E-01	Pulse	0.50	3
Ca			1	9629.646	ug/l	0.83	400,146.25	1.510E+00	Pulse	0.50	3
Ti			1	98.126	ug/l	1.10	28,454.62	1.074E-01	Pulse	0.50	3
Na			1	10540.183	ug/l	0.25	14,770,774.00	5.573E+01	Analog	1.00	3
Mg			1	10486.792	ug/l	0.42	7,533,341.50	2.842E+01	Analog	1.00	3
K			1	10510.135	ug/l	0.44	8,400,572.17	3.169E+01	Analog	1.00	3
V			1	98.438	ug/l	1.06	831,788.46	3.138E+00	Pulse	0.50	3
Mn			1	98.631	ug/l	0.54	613,169.79	3.653E+00	Pulse	0.50	3
Fe			1	10969.723	ug/l	0.68	95,593,053.33	5.696E+02	Analog	0.50	3
Co			1	99.017	ug/l	0.97	1,548,069.04	9.224E+00	Pulse	0.50	3
Ni			1	98.577	ug/l	1.22	408,275.56	2.433E+00	Pulse	0.50	3
Cu			1	98.429	ug/l	0.57	1,079,023.66	6.429E+00	Pulse	0.50	3
Zn			1	97.850	ug/l	0.47	195,395.92	7.878E-01	Pulse	1.00	3
Cd			1	95.987	ug/l	0.68	266,534.71	1.075E+00	Pulse	0.50	3
Al			1	9559.827	ug/l	0.98	2,983,264.50	1.126E+01	Pulse	1.00	3
Se			1	94.940	ug/l	0.57	10,512.66	4.239E-02	Pulse	3.00	3
Sb			1	95.473	ug/l	0.43	814,419.62	3.284E+00	Pulse	1.00	3
Se			1	95.879	ug/l	1.98	5,049.34	2.036E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,630,549.92	1.39	83.4	Pulse	0.50	3
1	Sc		265,060.06	0.71	91.5	Pulse	0.30	3
1	Ge		167,832.07	0.41	90.9	Pulse	0.30	3
1	In		1,473,584.66	0.56	86.6	Pulse	0.30	3
1	Tb		4,025,295.17	1.43	89.1	Pulse	0.50	3
1	Lu		3,024,410.67	0.85	88.0	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		248,016.45	0.83	91.0	Pulse	0.30	3
1	Te		5.33	21.65		Pulse	0.50	3
1	Li		1,053.37	2.51	83.6	Pulse	0.30	3

Quantitation Report

File Name	123_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:28
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.016	ug/l	21.05	620.01	3.691E-03	Pulse	0.50	3
As			1	0.026	ug/l	32.34	88.33	5.262E-04	Pulse	1.00	3
Mo			1	0.090	ug/l	26.12	623.68	2.514E-03	Pulse	0.50	3
Pb			1	0.043	ug/l	10.74	1,873.44	7.047E-04	Pulse	1.00	3
Be			1	0.028	ug/l	52.56	2.83	1.062E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	19.74	506.01	2.044E-03	Pulse	0.50	3
Ba			1	0.012	ug/l	66.50	58.67	3.977E-05	Pulse	0.50	3
Tl			1	0.044	ug/l	13.25	1,858.77	6.994E-04	Pulse	0.50	3
Sn			1	0.081	ug/l	35.90	708.91	4.784E-04	Pulse	0.30	3
Sr			1	0.021	ug/l	36.95	442.68	2.997E-04	Pulse	0.50	3
[Pb]			1	0.046	ug/l	14.78	915.36	3.443E-04	Pulse	0.50	3
Ca			1	-1.941	ug/l	-30.39	355.34	1.332E-03	Pulse	0.50	3
Ti			1	0.011	ug/l	95.87	9.33	3.497E-05	Pulse	0.50	3
Na			1	18.710	ug/l	3.47	37,402.05	1.402E-01	Pulse	1.00	3
Mg			1	2.073	ug/l	13.90	2,070.44	7.759E-03	Pulse	1.00	3
K			1	2.583	ug/l	9.96	57,378.11	2.150E-01	Pulse	1.00	3
V			1	0.014	ug/l	53.34	1,290.71	4.837E-03	Pulse	0.50	3
Mn			1	0.059	ug/l	15.05	584.68	3.482E-03	Pulse	0.50	3
Fe			1	2.420	ug/l	12.49	34,323.02	2.044E-01	Pulse	0.50	3
Co			1	0.015	ug/l	32.60	334.67	1.994E-03	Pulse	0.50	3
Ni			1	0.018	ug/l	56.34	489.34	2.914E-03	Pulse	0.50	3
Cu			1	-0.049	ug/l	-39.17	5,197.38	3.095E-02	Pulse	0.50	3
Zn			1	-0.025	ug/l	-54.73	1,150.04	4.643E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	35.97	61.33	2.482E-04	Pulse	0.50	3
Al			1	1.785	ug/l	28.19	801.35	3.003E-03	Pulse	1.00	3
Se			1	0.066	ug/l	25.11	73.44	2.966E-04	Pulse	3.00	3
Sb			1	0.034	ug/l	4.74	415.68	1.679E-03	Pulse	1.00	3
Se			1	0.089	ug/l	137.00	33.89	1.367E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,659,912.33	1.27	84.3	Pulse	0.50	3
1	Sc		266,856.61	0.18	92.1	Pulse	0.30	3
1	Ge		167,966.59	0.64	91.0	Pulse	0.30	3
1	In		1,478,606.50	1.37	86.9	Pulse	0.30	3
1	Tb		3,935,898.42	1.18	87.1	Pulse	0.50	3
1	Lu		2,937,821.08	1.17	85.5	Pulse	0.50	3
1	Ge		247,666.63	1.28	90.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,092.26	3.86	86.7	Pulse	0.30	3

Quantitation Report

File Name 124SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:32
Sample Name MP41794-S1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1086.436	ug/l	0.62	225,209.10	1.326E+00	Pulse	0.50	3
As			1	550.052	ug/l	1.75	15,517.95	9.140E-02	Pulse	1.00	3
Mo			1	476.556	ug/l	0.71	54,202.50	2.193E-01	Pulse	0.50	3
Pb			1	721.224	ug/l	0.86	349,613.01	1.291E-01	Pulse	1.00	3
Be			1	463.175	ug/l	2.42	505.01	1.834E-03	Pulse	2.00	3
Ag			1	257.384	ug/l	0.30	88,159.06	3.567E-01	Pulse	0.50	3
Ba			1	2214.607	ug/l	0.24	119,315.65	8.013E-02	Pulse	0.50	3
Tl			1	472.385	ug/l	0.92	314,937.11	1.163E-01	Pulse	0.50	3
Sn			1	504.184	ug/l	0.79	62,491.24	4.197E-02	Pulse	0.30	3
Sr			1	1810.792	ug/l	0.67	282,107.30	1.895E-01	Pulse	0.50	3
[Pb]			1	704.121	ug/l	2.07	162,651.34	6.006E-02	Pulse	0.50	3
Ca			1	250213.399	ug/l	1.00	216,283.53	7.853E-01	Pulse	0.50	3
Ti			1	17781.236	ug/l	0.95	107,138.04	3.890E-01	Pulse	0.50	3
Na			1	55174.907	ug/l	0.30	1,616,910.96	5.871E+00	Pulse	1.00	3
Mg			1	136090.392	ug/l	0.50	2,031,998.08	7.378E+00	Pulse	1.00	3
K			1	66129.369	ug/l	0.35	1,148,250.79	4.169E+00	Pulse	1.00	3
V			1	1283.085	ug/l	1.18	226,196.55	8.213E-01	Pulse	0.50	3
Mn			1	7296.830	ug/l	0.37	917,654.29	5.405E+00	Pulse	0.50	3
Fe			1	417454.795	ug/l	0.21	73,598,456.00	4.335E+02	Analog	0.50	3
Co			1	617.174	ug/l	0.65	195,306.29	1.150E+00	Pulse	0.50	3
Ni			1	1077.067	ug/l	0.62	90,574.23	5.335E-01	Pulse	0.50	3
Cu			1	999.631	ug/l	1.25	226,333.86	1.333E+00	Pulse	0.50	3
Zn			1	2310.841	ug/l	0.66	92,590.40	3.747E-01	Pulse	1.00	3
Cd			1	475.850	ug/l	0.78	26,343.37	1.066E-01	Pulse	0.50	3
Al			1	276992.006	ug/l	0.75	1,796,387.42	6.523E+00	Pulse	1.00	3
Se			1	463.546	ug/l	0.39	1,082.48	4.380E-03	Pulse	3.00	3
Sb			1	177.721	ug/l	1.46	30,333.28	1.227E-01	Pulse	1.00	3
Se			1	492.314	ug/l	4.43	542.67	2.196E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,707,888.08	1.26	85.9	Pulse	0.50	3
1	Sc		275,397.15	0.55	95.1	Pulse	0.30	3
1	Ge		169,771.85	1.07	91.9	Pulse	0.30	3
1	In		1,489,020.63	1.17	87.5	Pulse	0.30	3
1	Tb		4,039,278.83	1.32	89.4	Pulse	0.50	3
1	Lu		3,021,275.42	1.16	87.9	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		247,125.38	0.89	90.7	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		1,110.03	7.83	88.1	Pulse	0.30	3

Quantitation Report

File Name 125SMPL.d
File Path D:\2023\xa020723m2.b
Method File
Method Path
Acq Time 2/7/2023 19:36
Sample Name MP41794-S2
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2/7/2023 12:17
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1042.896	ug/l	0.79	217,041.47	1.273E+00	Pulse	0.50	3
As			1	523.428	ug/l	1.46	14,827.08	8.699E-02	Pulse	1.00	3
Mo			1	452.770	ug/l	0.73	52,185.58	2.084E-01	Pulse	0.50	3
Pb			1	699.630	ug/l	0.35	339,393.27	1.252E-01	Pulse	1.00	3
Be			1	434.378	ug/l	1.38	474.68	1.720E-03	Pulse	2.00	3
Ag			1	245.955	ug/l	0.48	85,372.71	3.409E-01	Pulse	0.50	3
Ba			1	2151.103	ug/l	0.79	116,229.11	7.783E-02	Pulse	0.50	3
Tl			1	453.813	ug/l	0.45	302,764.52	1.117E-01	Pulse	0.50	3
Sn			1	487.556	ug/l	0.87	60,609.43	4.059E-02	Pulse	0.30	3
Sr			1	1765.880	ug/l	1.33	275,916.66	1.848E-01	Pulse	0.50	3
[Pb]			1	674.948	ug/l	0.29	156,024.31	5.758E-02	Pulse	0.50	3
Ca			1	242754.619	ug/l	0.31	210,301.62	7.620E-01	Pulse	0.50	3
Ti			1	17338.187	ug/l	1.06	104,694.93	3.793E-01	Pulse	0.50	3
Na			1	53623.321	ug/l	0.53	1,575,174.83	5.707E+00	Pulse	1.00	3
Mg			1	134216.028	ug/l	0.28	2,008,395.29	7.277E+00	Pulse	1.00	3
K			1	63900.911	ug/l	0.33	1,113,908.92	4.036E+00	Pulse	1.00	3
V			1	1231.927	ug/l	0.99	217,702.59	7.887E-01	Pulse	0.50	3
Mn			1	7164.040	ug/l	1.10	904,464.54	5.307E+00	Pulse	0.50	3
Fe			1	405456.122	ug/l	0.80	71,763,272.00	4.211E+02	Analog	0.50	3
Co			1	600.400	ug/l	1.13	190,736.08	1.119E+00	Pulse	0.50	3
Ni			1	1037.328	ug/l	1.05	87,588.83	5.139E-01	Pulse	0.50	3
Cu			1	965.549	ug/l	1.55	219,653.40	1.289E+00	Pulse	0.50	3
Zn			1	2240.826	ug/l	0.43	91,011.95	3.635E-01	Pulse	1.00	3
Cd			1	459.308	ug/l	1.48	25,766.57	1.029E-01	Pulse	0.50	3
Al			1	271299.749	ug/l	0.60	1,763,317.54	6.389E+00	Pulse	1.00	3
Se			1	446.155	ug/l	1.63	1,058.14	4.226E-03	Pulse	3.00	3
Sb			1	178.739	ug/l	0.13	30,910.55	1.234E-01	Pulse	1.00	3
Se			1	471.647	ug/l	2.99	528.12	2.109E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,709,757.83	1.54	85.9	Pulse	0.50	3
1	Sc		275,998.92	0.71	95.3	Pulse	0.30	3
1	Ge		170,434.90	0.34	92.3	Pulse	0.30	3
1	In		1,493,256.82	1.11	87.7	Pulse	0.30	3
1	Tb		4,038,706.00	0.96	89.4	Pulse	0.50	3
1	Lu		3,006,059.25	0.92	87.5	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,408.58	1.01	91.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		1,102.26	6.96	87.5	Pulse	0.30	3

Quantitation Report

File Name	126SMPL.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:40
Sample Name	MP41794-PS1
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	661.669	ug/l	0.77	137,335.91	8.089E-01	Pulse	0.50	3
As			1	83.593	ug/l	3.23	2,401.82	1.415E-02	Pulse	1.00	3
Mo			1	19.428	ug/l	2.10	2,358.82	9.376E-03	Pulse	0.50	3
Pb			1	280.740	ug/l	1.14	136,642.12	5.045E-02	Pulse	1.00	3
Be			1	13.928	ug/l	24.91	16.67	6.015E-05	Pulse	2.00	3
Ag			1	3.373	ug/l	1.74	1,362.72	5.417E-03	Pulse	0.50	3
Ba			1	1863.036	ug/l	0.68	101,271.59	6.741E-02	Pulse	0.50	3
Tl			1	11.615	ug/l	1.09	8,151.96	3.010E-03	Pulse	0.50	3
Sn			1	41.074	ug/l	3.79	5,333.03	3.549E-03	Pulse	0.30	3
Sr			1	1398.451	ug/l	1.14	219,883.41	1.464E-01	Pulse	0.50	3
[Pb]			1	277.464	ug/l	1.01	64,345.60	2.376E-02	Pulse	0.50	3
Ca			1	211817.460	ug/l	0.94	184,227.86	6.651E-01	Pulse	0.50	3
Ti			1	17480.629	ug/l	2.20	105,938.86	3.824E-01	Pulse	0.50	3
Na			1	8341.461	ug/l	0.49	255,588.57	9.227E-01	Pulse	1.00	3
Mg			1	97906.490	ug/l	1.09	1,470,533.54	5.309E+00	Pulse	1.00	3
K			1	21546.699	ug/l	0.54	415,025.52	1.498E+00	Pulse	1.00	3
V			1	876.624	ug/l	1.42	155,822.71	5.625E-01	Pulse	0.50	3
Mn			1	7580.633	ug/l	0.63	953,322.40	5.615E+00	Pulse	0.50	3
Fe			1	403271.098	ug/l	0.62	71,099,162.67	4.188E+02	Analog	0.50	3
Co			1	163.322	ug/l	0.58	51,762.18	3.049E-01	Pulse	0.50	3
Ni			1	649.471	ug/l	0.82	54,784.45	3.227E-01	Pulse	0.50	3
Cu			1	586.484	ug/l	0.84	135,180.18	7.962E-01	Pulse	0.50	3
Zn			1	2006.915	ug/l	0.72	82,010.58	3.260E-01	Pulse	1.00	3
Cd			1	19.605	ug/l	4.45	1,116.70	4.441E-03	Pulse	0.50	3
Al			1	240733.626	ug/l	1.51	1,570,336.92	5.669E+00	Pulse	1.00	3
Se			1	18.665	ug/l	12.21	108.89	4.330E-04	Pulse	3.00	3
Sb			1	13.361	ug/l	2.37	2,439.50	9.700E-03	Pulse	1.00	3
Se			1	45.986	ug/l	11.19	78.44	3.120E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,708,215.75	1.68	85.9	Pulse	0.50	3
1	Sc		277,002.33	0.21	95.6	Pulse	0.30	3
1	Ge		169,773.88	1.33	91.9	Pulse	0.30	3
1	In		1,502,164.18	1.16	88.2	Pulse	0.30	3
1	Tb		4,047,074.42	1.39	89.5	Pulse	0.50	3
1	Lu		3,013,799.42	1.28	87.7	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		251,548.36	1.29	92.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,122.26	4.01	89.1	Pulse	0.30	3

Quantitation Report

File Name	127CCVA.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:44
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.233	ug/l	0.32	506,165.77	2.941E+00	Pulse	0.50	3
As			1	46.715	ug/l	0.31	66,624.92	3.871E-01	Pulse	1.00	3
Mo			1	47.122	ug/l	0.61	272,923.65	1.083E+00	Pulse	0.50	3
Pb			1	47.034	ug/l	0.52	1,134,129.04	4.203E-01	Pulse	1.00	3
Be			1	45.857	ug/l	0.69	2,453.98	9.056E-03	Pulse	2.00	3
Ag			1	48.115	ug/l	0.99	839,054.54	3.328E+00	Pulse	0.50	3
Ba			1	47.289	ug/l	0.91	128,715.44	8.555E-02	Pulse	0.50	3
Tl			1	48.139	ug/l	0.23	1,597,488.50	5.920E-01	Pulse	0.50	3
Sn			1	47.641	ug/l	1.18	297,506.09	1.977E-01	Pulse	0.30	3
Sr			1	48.105	ug/l	0.89	378,548.78	2.516E-01	Pulse	0.50	3
[Pb]			1	46.843	ug/l	1.26	538,225.77	1.994E-01	Pulse	0.50	3
Ca			1	4698.636	ug/l	0.69	199,827.05	7.375E-01	Pulse	0.50	3
Ti			1	46.856	ug/l	0.74	13,894.28	5.128E-02	Pulse	0.50	3
Na			1	5096.407	ug/l	0.61	7,306,960.50	2.697E+01	Analog	1.00	3
Mg			1	4668.860	ug/l	0.75	3,429,063.83	1.265E+01	Pulse	1.00	3
K			1	4693.363	ug/l	0.28	3,866,056.00	1.427E+01	Pulse	1.00	3
V			1	47.270	ug/l	0.68	408,947.72	1.509E+00	Pulse	0.50	3
Mn			1	47.659	ug/l	0.32	303,916.80	1.766E+00	Pulse	0.50	3
Fe			1	5305.126	ug/l	0.67	47,407,514.67	2.755E+02	Analog	0.50	3
Co			1	47.863	ug/l	0.29	767,309.40	4.459E+00	Pulse	0.50	3
Ni			1	47.815	ug/l	0.52	203,276.04	1.181E+00	Pulse	0.50	3
Cu			1	47.709	ug/l	0.84	539,322.40	3.134E+00	Pulse	0.50	3
Zn			1	47.502	ug/l	1.07	97,048.74	3.849E-01	Pulse	1.00	3
Cd			1	46.102	ug/l	1.94	130,134.10	5.162E-01	Pulse	0.50	3
Al			1	4634.405	ug/l	0.93	1,478,626.21	5.457E+00	Pulse	1.00	3
Se			1	45.729	ug/l	0.44	5,181.92	2.055E-02	Pulse	3.00	3
Sb			1	45.991	ug/l	1.15	398,849.04	1.582E+00	Pulse	1.00	3
Se			1	45.659	ug/l	0.46	2,459.60	9.756E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,698,608.83	0.98	85.6	Pulse	0.50	3
1	Sc		270,968.51	0.43	93.5	Pulse	0.30	3
1	Ge		172,089.74	1.11	93.2	Pulse	0.30	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,504,494.39	0.58	88.4	Pulse	0.30	3
1	Tb		4,071,051.42	0.61	90.1	Pulse	0.50	3
1	Lu		3,058,028.17	1.22	89.0	Pulse	0.50	3
1	Ge		252,113.38	0.65	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,198.93	9.01	95.1	Pulse	0.30	3

Quantitation Report

File Name	128_CCV.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:47
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.814	ug/l	0.92	1,020,710.10	6.084E+00	Pulse	0.50	3
As			1	97.173	ug/l	0.27	135,060.07	8.050E-01	Pulse	1.00	3
Mo			1	97.767	ug/l	0.74	554,947.21	2.246E+00	Pulse	0.50	3
Pb			1	97.804	ug/l	0.37	2,289,949.67	8.735E-01	Pulse	1.00	3
Be			1	96.252	ug/l	0.71	5,040.13	1.900E-02	Pulse	2.00	3
Ag			1	97.840	ug/l	0.86	1,672,258.42	6.767E+00	Pulse	0.50	3
Ba			1	97.069	ug/l	1.46	257,948.10	1.756E-01	Pulse	0.50	3
Tl			1	100.257	ug/l	0.43	3,231,406.25	1.233E+00	Pulse	0.50	3
Sn			1	98.513	ug/l	1.20	600,446.90	4.087E-01	Pulse	0.30	3
Sr			1	99.064	ug/l	0.70	760,847.75	5.179E-01	Pulse	0.50	3
[Pb]			1	97.883	ug/l	1.19	1,092,075.29	4.166E-01	Pulse	0.50	3
Ca			1	9669.873	ug/l	0.91	402,053.92	1.516E+00	Pulse	0.50	3
Ti			1	95.709	ug/l	0.84	27,771.67	1.047E-01	Pulse	0.50	3
Na			1	10572.841	ug/l	0.30	14,825,488.33	5.590E+01	Analog	1.00	3
Mg			1	10502.135	ug/l	0.57	7,548,849.33	2.846E+01	Analog	1.00	3
K			1	10530.056	ug/l	0.31	8,421,751.83	3.175E+01	Analog	1.00	3
V			1	98.434	ug/l	0.94	832,241.17	3.138E+00	Pulse	0.50	3
Mn			1	98.565	ug/l	1.16	612,542.79	3.651E+00	Pulse	0.50	3
Fe			1	11018.195	ug/l	0.97	95,980,757.33	5.721E+02	Analog	0.50	3
Co			1	98.848	ug/l	0.89	1,544,856.71	9.208E+00	Pulse	0.50	3
Ni			1	98.027	ug/l	0.72	405,854.52	2.419E+00	Pulse	0.50	3
Cu			1	97.916	ug/l	0.78	1,073,075.54	6.396E+00	Pulse	0.50	3
Zn			1	98.012	ug/l	1.07	195,012.49	7.891E-01	Pulse	1.00	3
Cd			1	95.650	ug/l	0.76	264,639.46	1.071E+00	Pulse	0.50	3
Al			1	9507.656	ug/l	1.07	2,968,722.83	1.119E+01	Pulse	1.00	3
Se			1	94.861	ug/l	0.71	10,466.20	4.235E-02	Pulse	3.00	3
Sb			1	95.199	ug/l	1.40	809,159.23	3.274E+00	Pulse	1.00	3
Se			1	94.367	ug/l	0.62	4,951.98	2.004E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,621,402.83	0.86	83.1	Pulse	0.50	3
1	Sc		265,221.06	0.74	91.6	Pulse	0.30	3
1	Ge		167,783.91	0.98	90.9	Pulse	0.30	3
1	In		1,469,022.41	0.55	86.3	Pulse	0.30	3
1	Tb		3,963,614.67	0.87	87.7	Pulse	0.50	3
1	Lu		2,995,700.33	1.13	87.1	Pulse	0.50	3

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		247,131.61	0.21	90.7	Pulse	0.30	3
1	Te		3.33	173.21		Pulse	0.50	3
1	Li		1,068.93	2.26	84.8	Pulse	0.30	3

Quantitation Report

File Name	129_CCB.d
File Path	D:\2023\xa020723m2.b
Method File	
Method Path	
Acq Time	2/7/2023 19:51
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2/7/2023 12:17
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	37.32	655.35	3.944E-03	Pulse	0.50	3
As			1	0.031	ug/l	11.10	94.33	5.675E-04	Pulse	1.00	3
Mo			1	0.101	ug/l	27.24	680.68	2.764E-03	Pulse	0.50	3
Pb			1	0.048	ug/l	19.00	1,964.12	7.444E-04	Pulse	1.00	3
Be			1	0.025	ug/l	97.89	2.67	1.003E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	37.24	594.01	2.422E-03	Pulse	0.50	3
Ba			1	0.022	ug/l	18.82	86.67	5.912E-05	Pulse	0.50	3
Tl			1	0.052	ug/l	12.65	2,091.47	7.926E-04	Pulse	0.50	3
Sn			1	0.088	ug/l	11.84	744.46	5.072E-04	Pulse	0.30	3
Sr			1	0.030	ug/l	41.96	506.68	3.458E-04	Pulse	0.50	3
[Pb]			1	0.050	ug/l	21.71	958.03	3.630E-04	Pulse	0.50	3
Ca			1	-0.560	ug/l	-98.76	412.01	1.548E-03	Pulse	0.50	3
Ti			1	0.025	ug/l	115.66	13.33	5.003E-05	Pulse	0.50	3
Na			1	17.173	ug/l	5.04	35,133.30	1.320E-01	Pulse	1.00	3
Mg			1	2.596	ug/l	24.06	2,440.49	9.176E-03	Pulse	1.00	3
K			1	2.748	ug/l	24.16	57,349.37	2.155E-01	Pulse	1.00	3
V			1	0.014	ug/l	56.29	1,282.71	4.821E-03	Pulse	0.50	3
Mn			1	0.059	ug/l	2.03	582.68	3.504E-03	Pulse	0.50	3
Fe			1	3.051	ug/l	17.80	39,412.16	2.372E-01	Pulse	0.50	3
Co			1	0.022	ug/l	29.73	442.01	2.662E-03	Pulse	0.50	3
Ni			1	0.016	ug/l	65.91	478.01	2.876E-03	Pulse	0.50	3
Cu			1	-0.045	ug/l	-44.81	5,186.71	3.119E-02	Pulse	0.50	3
Zn			1	-0.013	ug/l	-100.43	1,165.37	4.743E-03	Pulse	1.00	3
Cd			1	0.025	ug/l	30.27	80.67	3.291E-04	Pulse	0.50	3
Al			1	2.437	ug/l	23.19	1,003.03	3.771E-03	Pulse	1.00	3
Se			1	0.122	ug/l	25.97	79.00	3.215E-04	Pulse	3.00	3
Sb			1	0.042	ug/l	5.99	478.18	1.946E-03	Pulse	1.00	3
Se			1	0.059	ug/l	112.83	32.00	1.304E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,641,420.42	1.54	83.8	Pulse	0.50	3
1	Sc		266,118.38	0.69	91.9	Pulse	0.30	3
1	Ge		166,273.47	0.83	90.0	Pulse	0.30	3
1	In		1,467,139.38	0.95	86.2	Pulse	0.30	3
1	Tb		3,913,825.33	1.43	86.6	Pulse	0.50	3
1	Lu		2,926,360.00	1.67	85.1	Pulse	0.50	3
1	Ge		245,723.23	1.39	90.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,152.26	5.95	91.4	Pulse	0.30	3

SGS Orlando

Date:	02/06/23
[24hr] **Time**	12:24

Analysts Name:	Thomas F
MP Batch ID:	MP41796
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22I2062003	ACC1321	0.05	MU45274
Conc. HCl (B)	22410207	ACC1346	0.2	KU15244
NA	NA	MET7346	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	95	**Corr. Factor**	-2	**Corrected Observed Temp. C**	93
pH Paper Lot Number	230320			**Filter Lot Number**	306067223			**Digestion Tube Lot Number**	2210117

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	1	Matrix Spike(MS)	50	50	Y	
	1	Matrix Spike Dup(MSD)	50	50	Y	
	1	Duplicate(DUP)	50	50	Y	
1(QC) C	1	FC2279-1	50	50	Y	
2	1	FC2279-2	50	50	Y	
3	1	FC2331-1	50	50	Y	Heavy Sediment, Odor
4	1	FC2331-2	50	50	Y	Heavy Sediment, Odor
5	1	FC2331-3	50	50	Y	Heavy Sediment, Odor, Reactive to Nitric
6	1	FC2422-1	50	50	Y	
7	9	FC2302-1	50	50	Y	
8	1	FC2353-4	50	50	Y	Bottle Blank, DI only
9	1	FC2355-4	50	50	Y	Bottle Blank, DI only
10	1	FC2366-1	50	50	Y	Bottle Blank, DI only
11	1	FC2367-1	50	50	Y	Bottle Blank, DI only
12	1	FC2397-3	50	50	Y	Bottle Blank, DI only
13	1	FC2398-3	50	50	Y	Bottle Blank, DI only
14	1	FC2400-3	50	50	Y	Bottle Blank, DI only
15	1	FC2401-3	50	50	Y	Bottle Blank, DI only
16	1	FC2402-3	50	50	Y	Bottle Blank, DI only
17	1	FC2403-4	50	50	Y	Bottle Blank, DI only
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

ICPMS_WaterPrep_Logbook
Rev. 07/09/2021
DM

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC3333

Sampling Date: 03/10/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: 726

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC3333

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC3333-1	03/10/23	09:30	JR	03/10/23	AQ	Water	EFFLUENT
FC3333-1A	03/10/23	09:30	JR	03/10/23	AQ	Water	EFFLUENT
FC3333-1B	03/10/23	09:30	JR	03/10/23	AQ	Water	EFFLUENT
FC3333-2	03/10/23	10:00	JR	03/10/23	AQ	Water	INFLUENT EW-01
FC3333-2A	03/10/23	10:00	JR	03/10/23	AQ	Water	INFLUENT EW-01
FC3333-3	03/10/23	10:15	JR	03/10/23	AQ	Water	INFLUENT EW-04
FC3333-3A	03/10/23	10:15	JR	03/10/23	AQ	Water	INFLUENT EW-04

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC3333

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 3/28/2023 5:26:00 PM

On 03/10/2023, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC3333 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP41991

Sample(s) FC3338-7DUP, FC3338-7MS, FC3338-7MSD, FC3338-7PS, FC3338-7SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Iron, Magnesium, Manganese are outside control limits. Spike recovery indicates possible matrix interference.

RPD(s) for Serial Dilution for Iron, Magnesium, Manganese are outside control limits for sample MP41991-SD1. Probable cause is due to sample non-homogeneity.

MP41991-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP41991-PS1 for Manganese: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP41991-PS1 for Iron: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP41959

Sample(s) FC3062-3MS, FC3062-3MSD, FC3062-3SDL, FC3062-3DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic are outside control limits for sample MP41959-D1. RPD acceptable due to low duplicate and sample concentrations.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP38546

Sample(s) FC3397-1MS, FC3397-1MSD were used as the QC samples for Chloride, Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** N:GP45587

FC3333-1A for Nitrogen, Nitrate + Nitrite: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** N:R202584

FC3333-1A for Nitrogen, Nitrate: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** N:GN39166

FC3333-1A for Nitrogen, Nitrite: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FC3333
Site:	SCMAW: Shepley's Hill (SHL); Devens, MA	**Report Date**	3/15/2023 12:02:05 P

On 03/10/2023, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 2.8 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of FC3333 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP45587

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD61861-2DUP, JD61861-2MS were used as the QC samples for the Nitrogen, Nitrate + Nitrite analysis.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN39166

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD61737-2MS, JD61737-2MSD were used as the QC samples for the Nitrogen, Nitrite analysis.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: FC3333
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 03/10/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC3333-1	**EFFLUENT**					
Barium		20.1 J	200	5.0	ug/l	SW846 6010D
Magnesium		4980 J	5000	100	ug/l	SW846 6010D
Manganese		467	15	2.0	ug/l	SW846 6010D
Chloride		29.9	2.0	1.0	mg/l	EPA 300/SW846 9056A
Sulfate		5.8	2.0	1.0	mg/l	EPA 300/SW846 9056A
FC3333-1A	**EFFLUENT**					
Nitrogen, Nitrate [a]		0.14	0.11	0.10	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]		0.14	0.10	0.095	mg/l	EPA 353.2/LACHAT
FC3333-1B	**EFFLUENT**					
Arsenic		14.1	2.0	1.0	ug/l	SW846 6020B
FC3333-2	**INFLUENT EW-01**					
Arsenic		1590	10	5.0	ug/l	SW846 6020B
FC3333-2A	**INFLUENT EW-01**					
Iron		62500	300	50	ug/l	SW846 6010D
Manganese		2130	15	2.0	ug/l	SW846 6010D
FC3333-3	**INFLUENT EW-04**					
Arsenic		2860	20	10	ug/l	SW846 6020B
FC3333-3A	**INFLUENT EW-04**					
Iron		37400	300	50	ug/l	SW846 6010D
Manganese		2470	15	2.0	ug/l	SW846 6010D

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: FC3333-1
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 03/10/23
Date Received: 03/10/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	20.1 J	200	5.0	1.0	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]
Magnesium	4980 J	5000	100	35	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	467	15	2.0	1.0	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19303
(2) Prep QC Batch: MP41991

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC3333-1	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	29.9	2.0	1.0	0.80	mg/l	1	03/14/23 20:51	JB	EPA 300/SW846 9056A
Sulfate	5.8	2.0	1.0	0.60	mg/l	1	03/14/23 20:51	JB	EPA 300/SW846 9056A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC3333-1A	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	0.14	0.11	0.10	0.093	mg/l	1	03/14/23 19:09	ANJ	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]	0.14	0.10	0.095	0.090	mg/l	1	03/14/23 19:09	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrite [b]	0.0050 U	0.010	0.0050	0.0030	mg/l	1	03/11/23 13:28	ANJ	SM4500NO2 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC3333-1B	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	14.1	2.0	1.0	0.21	ug/l	2	03/16/23	03/20/23	DM	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19288
(2) Prep QC Batch: MP41959

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-01		
Lab Sample ID:	FC3333-2	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1590	10	5.0	1.1	ug/l	10	03/16/23	03/20/23	DM	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19288
(2) Prep QC Batch: MP41959

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-01		
Lab Sample ID:	FC3333-2A	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	62500	300	50	17	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2130	15	2.0	1.0	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19303
(2) Prep QC Batch: MP41991

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-04		
Lab Sample ID:	FC3333-3	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2860	20	10	2.1	ug/l	20	03/16/23	03/20/23	DM	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19288
(2) Prep QC Batch: MP41959

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-04		
Lab Sample ID:	FC3333-3A	**Date Sampled:**	03/10/23
Matrix:	AQ - Water	**Date Received:**	03/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	37400	300	50	17	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2470	15	2.0	1.0	ug/l	1	03/23/23	03/24/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19303
(2) Prep QC Batch: MP41991

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando
Chain of Custody

FC3333

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

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SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C
1	Effluent	3/10/23	9:30	JWR	W	4		x			x					X	X	X	X	X	
2	Influent EW-01	3/10/23	10:00	JWR	W	1					x					X					X
3	Influent EW-04	3/10/23	10:15	JWR	W	1					x					X					X

* Nitrate directly subbed to Dayton from MASS

INITIAL ASSESSMENT

LABEL VERIFICATION

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

LAB USE ONLY

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center
Northborough, MA 3/10

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		3-10-23 2515	2 Thelma F. Ivey (SC)	3 Thelma Fahey	3/10/23 1700	4 Fed Ex
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
		3/10/23	6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 1.8 IR1 C3 # 17512

http://www.sgs.com/en/terms-and-conditions

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FC3333

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@soycon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed): Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Sampled By	Matrix	Total # of Bottles	Container: Other	Container: None	Container: HCl	Container: NaOH	Container: H2SO4	Container: NaOH+ZnAc	Container: DI Water	Container: MeOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C	Lab Use Only
	Effluent	3/10/23	9:30	JWR	W	4		x			x				X	X	X	X	X		
	Influent EW-01	3/10/23	10:00	JWR	W	1					x				X					X	
	Influent EW-04	3/10/23	10:15	JWR	W	1					x				X					X	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

X 10 Day (Business) — Approved By: / Date:
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	3-10-23 2530	2 Thelma F	3		4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

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FC3333: Chain of Custody
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SGS Sample Receipt Summary

Job Number: FC3333 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY HILL (SHL) DEVENS, MA

Date / Time Received: 3/11/2023 9:30:00 AM **Delivery Method:** FX **Airbill #'s:** 930443728014

Therm ID: IR 1; **Therm CF:** 0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.8);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 3/11/2023 9:30:00 AM Reviewer: _____ Date: _____

QC Evaluation: DOD QSM5.x Limits

Job Number: FC3333
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 03/10/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP41959	SW846 6020B						
MP41959-B1	7440-38-2	Arsenic	BSP	REC	109.5	%	84-116
MP41959-S1*	7440-38-2	Arsenic	MS	REC	108.3	%	84-116
MP41959-S2*	7440-38-2	Arsenic	MSD	REC	108.8	%	84-116
MP41959-S2*	7440-38-2	Arsenic	MSD	RPD	3.1	%	20
MP41959-D1*	7440-38-2	Arsenic	DUP	RPD	25 [a]	%	20
MP41991	SW846 6010D						
MP41991-B1	7440-39-3	Barium	BSP	REC	104.5	%	88-113
MP41991-B1	7439-89-6	Iron	BSP	REC	97.3	%	87-115
MP41991-B1	7439-95-4	Magnesium	BSP	REC	105.6	%	85-113
MP41991-B1	7439-96-5	Manganese	BSP	REC	102	%	90-114
MP41991-S1*	7440-39-3	Barium	MS	REC	83	%	88-113
MP41991-S1*	7439-89-6	Iron	MS	REC	77.7 [b]	%	87-115
MP41991-S1*	7439-95-4	Magnesium	MS	REC	70 [b]	%	85-113
MP41991-S1*	7439-96-5	Manganese	MS	REC	77.4 [b]	%	90-114
MP41991-S2*	7440-39-3	Barium	MSD	REC	86.5	%	88-113
MP41991-S2*	7440-39-3	Barium	MSD	RPD	4.1	%	20
MP41991-S2*	7439-89-6	Iron	MSD	REC	85	%	87-115
MP41991-S2*	7439-89-6	Iron	MSD	RPD	3.4	%	20
MP41991-S2*	7439-95-4	Magnesium	MSD	REC	80.4	%	85-113
MP41991-S2*	7439-95-4	Magnesium	MSD	RPD	3.4	%	20
MP41991-S2*	7439-96-5	Manganese	MSD	REC	85.4	%	90-114
MP41991-S2*	7439-96-5	Manganese	MSD	RPD	3.7	%	20
MP41991-D1*	7440-39-3	Barium	DUP	RPD	1	%	20
MP41991-D1*	7439-89-6	Iron	DUP	RPD	1.2	%	20
MP41991-D1*	7439-95-4	Magnesium	DUP	RPD	2.1	%	20
MP41991-D1*	7439-96-5	Manganese	DUP	RPD	1.2	%	20
GP38546	EPA 300/SW846 9056A						
GP38546-B1	16887-00-6	Chloride	BSP	REC	97.4	%	87-111
GP38546-B1	14808-79-8	Sulfate	BSP	REC	96.2	%	87-112
GP38546-S1*	16887-00-6	Chloride	MS	REC	99.6	%	87-111
GP38546-S1*	14808-79-8	Sulfate	MS	REC	97	%	87-112
GP38546-S2*	16887-00-6	Chloride	MSD	RPD	0	%	15
GP38546-S2*	16887-00-6	Chloride	MSD	REC	99.6	%	87-111
GP38546-S2*	14808-79-8	Sulfate	MSD	RPD	0	%	15
GP38546-S2*	14808-79-8	Sulfate	MSD	REC	97	%	87-112

(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Spike recovery indicates possible matrix interference.

* Sample used for QC is not from job FC3333

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:40	MA19288-STD1	1		STDA
10:44	MA19288-STD2	1		STDB
10:48	MA19288-STD3	1		STDC
10:52	MA19288-STD4	1		STDD
10:56	MA19288-STD5	1		STDE
11:00	MA19288-STD6	1		STDF
11:04	MA19288-STD7	1		STDG
11:08	MA19288-HSTD1	1		
11:12	MA19288-HSTD2	1		
11:15	MA19288-ICV1	1		
11:19	MA19288-ICB1	1		
11:23	MA19288-CRIA1	1		
11:27	MA19288-ICSA1	1		
11:30	MA19288-ICSAB1	1		
11:34	MA19288-CCV1	1		
11:38	MA19288-CCV2	1		
11:42	MA19288-CCB1	1		
11:46	FC3062-3	2		(sample used for QC only; not part of login FC3333)
12:24	MA19288-CCV3	1		
12:27	MA19288-CCV4	1		
12:31	MA19288-CCB2	1		
13:01	MP41959-MB1	2		
13:05	MP41959-B1	2		
13:09	ZZZZZZ	2		
13:13	MA19288-CCV5	1		
13:17	MA19288-CCV6	1		
13:20	MA19288-CCB3	1		
13:24	ZZZZZZ	2		
13:28	ZZZZZZ	2		
13:32	ZZZZZZ	2		
13:36	ZZZZZZ	2		
13:39	ZZZZZZ	2		
13:43	ZZZZZZ	100		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:47	ZZZZZZ	100		
13:51	ZZZZZZ	100		
13:54	FC3333-1B	2		
13:58	FC3333-2	2		
14:09	MA19288-CCV7	1		
14:13	MA19288-CCV8	1		
14:17	MA19288-CCB4	1		
14:21	FC3333-3	2		
14:24	MP41959-D1	2		
14:28	MP41959-SD1	10		
14:32	MP41959-S1	2		
14:36	MP41959-S2	2		
14:39	MP41959-PS1	2		
14:43	MP41962-MB1	5		
14:47	MP41962-B1	5		
14:51	FC2728-25R	5		(sample used for QC only; not part of login FC3333)
14:55	MP41962-D1	5		
14:58	MA19288-CCV9	1		
15:02	MA19288-CCV10	1		
15:06	MA19288-CCB5	1		
15:10	MP41962-SD1	25		
15:14	MP41962-S1	5		
15:17	MP41962-S2	5		
15:21	MP41962-PS1	5		
15:25	ZZZZZZ	5		
15:48	MA19288-CCV11	1		
15:51	MA19288-CCV12	1		
15:55	MA19288-CCB6	1		
16:03	FC3062-3	5		(sample used for QC only; not part of login FC3333)
16:07	MP41959-D1	5		
16:10	MP41959-SD1	25		
16:14	MP41959-S1	5		
16:18	MP41959-S2	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:22	MP41959-PS1	5		
16:26	ZZZZZZ	5		
16:29	ZZZZZZ	10		
16:33	FC3333-2	10		
16:37	MA19288-CCV13	1		
16:41	MA19288-CCV14	1		
16:44	MA19288-CCB7	1		
16:48	FC3333-3	20		
---------->	Last reportable sample/prep for job FC3333			
17:26	MA19288-CCV15	1		
17:30	MA19288-CCV16	1		
17:34	MA19288-CCB8	1		
---------->	Last reportable CCB for job FC3333			
	Refer to raw data for calibration curve and standards.			

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:08	MA19288-HSTD1	1		
11:12	MA19288-HSTD2	1	X	
11:15	MA19288-ICV1	1	X	
11:19	MA19288-ICB1	1	X	
11:23	MA19288-CRIA1	1	X	
11:27	MA19288-ICSA1	1	X	
11:30	MA19288-ICSAB1	1	X	
11:34	MA19288-CCV1	1		
11:38	MA19288-CCV2	1	X	
11:42	MA19288-CCB1	1	X	
11:46	FC3062-3	2	X	(a)
12:24	MA19288-CCV3	1		
12:27	MA19288-CCV4	1	X	
12:31	MA19288-CCB2	1	X	
13:01	MP41959-MB1	2	X	
13:05	MP41959-B1	2	X	
13:09	ZZZZZZ	2		
13:13	MA19288-CCV5	1		
13:17	MA19288-CCV6	1	X	
13:20	MA19288-CCB3	1	X	
13:24	ZZZZZZ	2		
13:28	ZZZZZZ	2		
13:32	ZZZZZZ	2		
13:36	ZZZZZZ	2		
13:39	ZZZZZZ	2		
13:43	ZZZZZZ	100		
13:47	ZZZZZZ	100		
13:51	ZZZZZZ	100		
13:54	FC3333-1B	2	X	
13:58	FC3333-2	2		
14:09	MA19288-CCV7	1		
14:13	MA19288-CCV8	1	X	
14:17	MA19288-CCB4	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:21	FC3333-3	2		
14:24	MP41959-D1	2	X	
14:28	MP41959-SD1	10	X	
14:32	MP41959-S1	2	X	
14:36	MP41959-S2	2	X	
14:39	MP41959-PS1	2		
14:43	MP41962-MB1	5		
14:47	MP41962-B1	5		
14:51	FC2728-25R	5		(a)
14:55	MP41962-D1	5		
14:58	MA19288-CCV9	1		
15:02	MA19288-CCV10	1	X	
15:06	MA19288-CCB5	1	X	
15:10	MP41962-SD1	25		
15:14	MP41962-S1	5		
15:17	MP41962-S2	5		
15:21	MP41962-PS1	5		
15:25	ZZZZZZ	5		
15:48	MA19288-CCV11	1		
15:51	MA19288-CCV12	1	X	
15:55	MA19288-CCB6	1	X	
16:03	FC3062-3	5		(a)
16:07	MP41959-D1	5		
16:10	MP41959-SD1	25		
16:14	MP41959-S1	5		
16:18	MP41959-S2	5		
16:22	MP41959-PS1	5		
16:26	ZZZZZZ	5		
16:29	ZZZZZZ	10		
16:33	FC3333-2	10	X	
16:37	MA19288-CCV13	1		
16:41	MA19288-CCV14	1	X	
16:44	MA19288-CCB7	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Element: Dilution	As
16:48	FC3333-3	20	X
17:26	MA19288-CCV15	1	
17:30	MA19288-CCV16	1	X
17:34	MA19288-CCB8	1	X

(a) Sample used for QC only; not part of login FC3333.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
10:40	MA19288-STD1	100	100	100	100	100	100	100
10:44	MA19288-STD2	98.5	100.4	101.3	101.6	100.3	100.4	100
10:48	MA19288-STD3	98.6	100.6	102.2	103	101.5	101	100.8
10:52	MA19288-STD4	109.2	100.8	102.3	102.2	100.9	101	100.3
10:56	MA19288-STD5	99.7	100.4	100.5	100.2	98.5	100.1	98.3
11:00	MA19288-STD6	92.8	97.7	97.7	97.8	95.9	98.2	95
11:04	MA19288-STD7	83.3	95.3	94.6	94.7	92.2	95.5	90.7
11:08	MA19288-HSTD1	94.1	92.6	93.2	93.9	91	94.4	90.9
11:12	MA19288-HSTD2	85.6	93.5	94.8	93.9	91.1	94.4	89.3
11:15	MA19288-ICV1	89.4	85.9	85.6	86.1	83.9	89.7	87.7
11:19	MA19288-ICB1	91.2	96.4	95.8	96.6	94.9	96.1	94.9
11:23	MA19288-CRIA1	99.8	97.9	97.4	97.8	95.8	96.6	94.8
11:27	MA19288-ICSA1	79.1	90.9	90.4	87.3	83.5	88.4	79.4
11:30	MA19288-ICSAB1	79.3	89.5	89	86.9	82.2	87.3	79.1
11:34	MA19288-CCV1	90	92.1	93.5	94.2	92.1	94.2	91.2
11:38	MA19288-CCV2	84.3	92.6	93.5	93.5	90.8	93.8	89.7
11:42	MA19288-CCB1	89.2	94.8	94.8	94.9	93.5	93.9	91.9
11:46	FC3062-3	95.2	85.6	84.4	84.7	83.1	87.8	84.3
12:24	MA19288-CCV3	94.3	92.4	92.6	92.2	89.9	92.4	88.9
12:27	MA19288-CCV4	93.2	92.5	91.1	92.4	89.3	92.4	87.7
12:31	MA19288-CCB2	92	91.7	92	92.5	90.9	92.3	90.6
13:01	MP41959-MB1	85.7	84.8	85	85.5	85.1	88.6	88.7
13:05	MP41959-B1	78.5	82.9	82.2	82.6	81.3	86.9	82.6
13:09	ZZZZZZ	80.8	84.2	83.4	84.2	82.7	87.4	83
13:13	MA19288-CCV5	98.1	91.9	93.3	93.6	91.1	93.6	90.6
13:17	MA19288-CCV6	100.4	93.5	93	93.7	90.5	93.4	88.8
13:20	MA19288-CCB3	93.7	91	90.6	91.1	90.2	91.3	89.8
13:24	ZZZZZZ	88.1	85.6	86	86.4	85.4	89.1	86.7
13:28	ZZZZZZ	82.8	84.9	83.8	83.6	81.4	87	82
13:32	ZZZZZZ	86.6	87.3	80.6	80.6	77.5	81.7	71.7
13:36	ZZZZZZ	80.9	84.2	78.2	78.3	75.7	80.1	70.6
13:39	ZZZZZZ	82.9	84.4	79.3	79.7	76.7	80.6	71.5
13:43	ZZZZZZ	97.9	94.4	93.5	95.2	92.9	94	90.8

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
13:47	ZZZZZZ	95.1	92.9	93.7	94	91.5	93.1	90.1
13:51	ZZZZZZ	94.4	92.5	93.3	92.3	90.8	92	89.5
13:54	FC3333-1B	82.5	85.9	86.4	86.1	85	88.5	85.1
13:58	FC3333-2	83	84.2	85.3	84.3	84.1	88.4	84.4
14:09	MA19288-CCV7	92.5	95.8	95.6	96	93.5	95.7	91.5
14:13	MA19288-CCV8	85.9	95.3	95.6	96	92.8	95.7	90.5
14:17	MA19288-CCB4	95.1	91.2	91.8	91.9	90.9	92	90.3
14:21	FC3333-3	85.5	86.7	88.8	87.6	86.9	90.4	87.9
14:24	MP41959-D1	86.7	90.1	89.8	90.3	87.9	91.8	85.7
14:28	MP41959-SD1	96.2	95.5	95.6	96.5	94.6	96.3	92.7
14:32	MP41959-S1	83.6	85.7	86.6	86.6	84.8	89.8	83.4
14:36	MP41959-S2	93.5	87.9	88.8	88.1	86.8	91.4	84.4
14:39	MP41959-PS1	No results reported for the elements associated with this internal standard.						
14:43	MP41962-MB1	97.8	94.1	94.4	94.8	92.5	94.2	91.8
14:47	MP41962-B1	87.7	88.2	88.9	88.9	87.2	91.5	85.5
14:51	FC2728-25R	98.1	94.9	93.9	94.5	93.3	95.1	93.1
14:55	MP41962-D1	96.7	95.6	95.2	95.2	93.6	95.4	92.4
14:58	MA19288-CCV9	97.8	96.1	96.8	96.3	93.7	95.5	91.2
15:02	MA19288-CCV10	98	95.7	96.1	96.2	93.1	95	89.2
15:06	MA19288-CCB5	109.8	96.2	95.4	96.1	93.6	93.7	91.2
15:10	MP41962-SD1	101.6	96.7	96.1	97.1	94.5	94.8	92.6
15:14	MP41962-S1	78.2	90.1	90.6	90.5	88.7	92.3	86.3
15:17	MP41962-S2	88.5	90.5	91.7	91.3	88.5	92.5	86.8
15:21	MP41962-PS1	No results reported for the elements associated with this internal standard.						
15:25	ZZZZZZ	99.2	94	93.9	93.8	92.2	94.4	91.6
15:48	MA19288-CCV11	100	96.7	95	95.7	92.7	93.9	89.5
15:51	MA19288-CCV12	91.1	97.2	97	96.3	93	95.2	89
15:55	MA19288-CCB6	93.4	94.1	93.7	93.9	92.3	92.4	89.4
16:03	FC3062-3	90.7	92.5	92.6	93	90.8	91.9	87.3
16:07	MP41959-D1	99.6	92.8	93.3	92.9	91.2	92.4	87.9
16:10	MP41959-SD1	96.4	96.8	96.1	95.9	93.4	93.2	90
16:14	MP41959-S1	90.1	88.3	88.5	88.3	86.5	90.2	84.6
16:18	MP41959-S2	90.1	89.4	89.2	89.3	87.5	90.2	84.9

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19288
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:22	MP41959-PS1	No results reported for the elements associated with this internal standard.						
16:26	ZZZZZZ	89.8	91.4	91.5	92	89.9	91.2	86.6
16:29	ZZZZZZ	97.1	93.8	92.4	93.9	91.1	92.1	88.1
16:33	FC3333-2	100	90.8	90.3	90.3	88.7	90.2	87.6
16:37	MA19288-CCV13	93.4	93.7	93.9	93.9	91.7	93.3	88.7
16:41	MA19288-CCV14	94.1	94.2	93.7	94.8	91.5	93.5	87.3
16:44	MA19288-CCB7	99.8	95.3	93.5	94.5	91.8	91.8	88.7
16:48	FC3333-3	100.3	94.5	93.6	94.4	92.8	92.3	89.5
17:26	MA19288-CCV15	91.2	96.2	95.2	95	92.4	93.5	88.9
17:30	MA19288-CCV16	92	94.5	94.1	94.1	91.3	93	87.4
17:34	MA19288-CCB8	85.2	91	89.2	89.7	88.3	87.8	84.8

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19288 Units: ug/l

Time: / Sample ID:			11:19 ICB1		11:42 CCB1		12:31 CCB2		13:20 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0324	<1.0	0.0190	<1.0	0.0168	<1.0	0.00559	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19288 Units: ug/l

Time: / Sample ID:			14:17 CCB4		15:06 CCB5		15:55 CCB6		16:44 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0325	<1.0	0.00835	<1.0	0.0241	<1.0	0.00723	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19288 Units: ug/l

Time:			17:34	
Sample ID:			CCB8	
Metal	RL	IDL	raw	final
Aluminum	100	4.4	anr	
Antimony	1.0	.1	anr	
Arsenic	1.0	.1	0.0685	<1.0
Barium	1.0	.1	anr	
Beryllium	1.0	.1	anr	
Cadmium	1.0	.1	anr	
Calcium	100	7.2	anr	
Chromium	1.0	.1	anr	
Cobalt	1.0	.1	anr	
Copper	1.0	.1	anr	
Iron	100	7.9	anr	
Lead	1.0	.1	anr	
Magnesium	100	5.2	anr	
Manganese	1.0	.1	anr	
Molybdenum	1.0	.1	anr	
Nickel	1.0	.1	anr	
Potassium	100	6.6	anr	
Selenium	1.0	.11	anr	
Silver	1.0	.1	anr	
Sodium	100	4.8	anr	
Strontium	1.0	.1		
Thallium	1.0	.1	anr	
Tin	1.0	.1	anr	
Titanium	1.0	.3		
Vanadium	1.0	.1	anr	
Zinc	2.0	.29	anr	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		11:15			11:34			11:38	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	105	105.0				100	102	102.0
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		12:24			12:27			13:13	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	99.3	99.3			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		13:17			14:09			14:13	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.2	98.2				100	97.4	97.4
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		14:58			15:02				15:48	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV		CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True		Results	% Rec
Aluminum										
Antimony										
Arsenic				100	97.5	97.5				
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver	anr									
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		15:51			16:37			16:41	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	97.6	97.6				100	98.1	98.1
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		17:26			17:30	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	96.8	96.8
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19288 Units: ug/l

Time:		11:08			11:12	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	199	99.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19288 Units: ug/l

Time:			11:23	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	0.942	94.2
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0	anr	
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0		
Thallium	1.0	1.0	anr	
Tin	1.0	1.0	anr	
Titanium	1.0	1.0		
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA032023M1.CSV Date Analyzed: 03/20/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19288 Units: ug/l

Time:			11:27		11:30	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	104000	104.0	104000	104.0
Antimony			0.0694		0.0616	
Arsenic		20	0.0749		20.6	103.0
Barium			0.553		0.535	
Beryllium			-0.0157		-0.110	
Cadmium		20	0.755		20.1	100.5
Calcium	100000	100000	104000	104.0	104000	104.0
Chromium		20	2.12*(a)		22.5	112.5
Cobalt		20	0.110		20.0	100.0
Copper		20	1.62*(a)		19.5	97.5
Iron	100000	100000	106000	106.0	107000	107.0
Lead			0.0434		0.0427	
Magnesium	100000	100000	105000	105.0	105000	105.0
Manganese		20	0.430		20.9	104.5
Molybdenum	2000	2000	2230	111.5	2210	110.5
Nickel		20	0.291		19.6	98.0
Potassium	100000	100000	108000	108.0	108000	108.0
Selenium			0.227		0.274	
Silver		20	0.0114		19.1	95.5
Sodium	100000	100000	107000	107.0	106000	106.0
Strontium			0.961		0.961	
Thallium			0.0213		0.0138	
Tin			0.0911		0.0688	
Titanium	2000	2000	2170	108.5	2170	108.5
Vanadium			0.0401		0.0560	
Zinc		20	1.48		21.4	107.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:38	MA19303-STD1	1		STDA
10:44	MA19303-STD2	1		STDB
10:48	MA19303-STD3	1		STDC
10:52	MA19303-STD4	1		STDD
10:55	MA19303-STD5	1		STDE
10:59	MA19303-STD6	1		STDF
11:03	MA19303-STD7	1		STDG
11:12	MA19303-CRIA1	1		
11:20	MA19303-HSTD1	1		
11:28	MA19303-ICV1	1		
11:34	MA19303-ICB1	1		
11:38	MA19303-ICSA1	1		
11:56	MA19303-ICSAB1	1		
12:05	MA19303-CCV1	1		
12:18	MA19303-CCB1	1		
12:24	MP41991-MB1	1		
12:29	MP41991-B1	1		
13:06	ZZZZZZ	1		
13:17	MA19303-CCV2	1		
13:22	MA19303-CCB2	1		
13:32	ZZZZZZ	1		
13:37	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:59	ZZZZZZ	1		
14:04	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:20	MA19303-CCV3	1		
14:25	MA19303-CCB3	1		
14:30	MP41992-MB1	1		
14:35	MP41992-B1	1		
14:40	FC3611-1	1		(sample used for QC only; not part of login FC3333)

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:45	MP41992-D1	1		
14:51	MP41992-SD1	5		
14:56	MP41992-PS1	1		
15:01	MP41992-S1	1		
15:06	MP41992-S2	1		
15:11	ZZZZZZ	1		
15:16	FC3333-1	1		
15:21	MA19303-CCV4	1		
15:37	MA19303-CCB4	1		
15:42	FC3333-2A	1		
15:48	FC3333-3A	1		
---------->	Last reportable sample/prep for job FC3333			
15:53	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:03	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:13	ZZZZZZ	1		
16:19	MP41994-MB1	1		
16:24	MP41994-B1	1		
16:29	FC3523-2	1		(sample used for QC only; not part of login FC3333)
16:34	MA19303-CCV5	1		
16:39	MA19303-CCB5	1		
---------->	Last reportable CCB for job FC3333			
16:44	MP41994-D1	1		
16:50	MP41994-SD1	5		
16:55	MP41994-PS1	1		
17:00	MP41994-S1	1		
17:05	MP41994-S2	1		
17:10	ZZZZZZ	1		
17:15	ZZZZZZ	1		
17:20	ZZZZZZ	1		
17:26	ZZZZZZ	1		
17:36	MA19303-CCV6	1		
17:41	MA19303-CCB6	1		
17:52	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:57	ZZZZZZ	5		
18:08	ZZZZZZ	5		
18:13	ZZZZZZ	5		
18:18	ZZZZZZ	5		
18:24	ZZZZZZ	5		
18:29	ZZZZZZ	5		
18:34	ZZZZZZ	5		
18:39	MA19303-CCV7	1		
18:44	MA19303-CCB7	1		
18:55	ZZZZZZ	5		
19:00	ZZZZZZ	5		
19:06	ZZZZZZ	5		
19:11	MP41996-MB1	1		
19:16	MP41996-B1	1		
19:21	FC3586-3	1		(sample used for QC only; not part of login FC3333)
19:26	MP41996-D1	1		
19:31	MP41996-SD1	5		
19:37	MP41996-PS1	1		
19:42	MA19303-CCV8	1		
19:47	MA19303-CCB8	1		
19:52	MP41996-S1	1		
19:57	MP41996-S2	1		
20:02	ZZZZZZ	1		
20:07	ZZZZZZ	1		
20:12	ZZZZZZ	1		
20:17	ZZZZZZ	1		
20:22	ZZZZZZ	1		
20:28	ZZZZZZ	1		
20:33	ZZZZZZ	1		
20:38	ZZZZZZ	1		
20:43	MA19303-CCV9	1		
20:48	MA19303-CCB9	1		
20:54	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
20:59	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:09	ZZZZZZ	1		
21:14	ZZZZZZ	1		
21:19	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:30	ZZZZZZ	1		
21:35	ZZZZZZ	1		
21:40	ZZZZZZ	1		
21:45	MA19303-CCV10	1		
21:50	MA19303-CCB10	1		
21:56	MA19303-CCV11	1		
22:01	MA19303-CCB11	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
11:12	MA19303-CRIA1	1	X	X	X	X	
11:20	MA19303-HSTD1	1	X	X	X	X	
11:28	MA19303-ICV1	1	X	X	X	X	
11:34	MA19303-ICB1	1	X	X	X	X	
11:38	MA19303-ICSA1	1	X	X	X	X	
11:56	MA19303-ICSAB1	1	X	X	X	X	
12:05	MA19303-CCV1	1	X	X	X	X	
12:18	MA19303-CCB1	1	X	X	X	X	
12:24	MP41991-MB1	1	X	X	X	X	
12:29	MP41991-B1	1	X	X	X	X	
13:06	ZZZZZZ	1					
13:17	MA19303-CCV2	1	X	X	X	X	
13:22	MA19303-CCB2	1	X	X	X	X	
13:32	ZZZZZZ	1					
13:37	ZZZZZZ	1					
13:42	ZZZZZZ	1					
13:48	ZZZZZZ	1					
13:59	ZZZZZZ	1					
14:04	ZZZZZZ	1					
14:09	ZZZZZZ	1					
14:14	ZZZZZZ	1					
14:20	MA19303-CCV3	1	X	X	X	X	
14:25	MA19303-CCB3	1	X	X	X	X	
14:30	MP41992-MB1	1					
14:35	MP41992-B1	1					
14:40	FC3611-1	1					(a)
14:45	MP41992-D1	1					
14:51	MP41992-SD1	5					
14:56	MP41992-PS1	1					
15:01	MP41992-S1	1					
15:06	MP41992-S2	1					
15:11	ZZZZZZ	1					
15:16	FC3333-1	1	X		X	X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution	Element: Ba	Fe	Mg	Mn	
15:21	MA19303-CCV4	1	X	X	X	X	
15:37	MA19303-CCB4	1	X	X	X	X	
15:42	FC3333-2A	1		X		X	
15:48	FC3333-3A	1		X		X	
15:53	ZZZZZZ	1					
15:58	ZZZZZZ	1					
16:03	ZZZZZZ	1					
16:08	ZZZZZZ	1					
16:13	ZZZZZZ	1					
16:19	MP41994-MB1	1	X				
16:24	MP41994-B1	1	X				
16:29	FC3523-2	1					(a)
16:34	MA19303-CCV5	1	X	X	X	X	
16:39	MA19303-CCB5	1	X	X	X	X	
16:44	MP41994-D1	1	X				
16:50	MP41994-SD1	5	X				
16:55	MP41994-PS1	1	X				
17:00	MP41994-S1	1	X				
17:05	MP41994-S2	1	X				
17:10	ZZZZZZ	1					
17:15	ZZZZZZ	1					
17:20	ZZZZZZ	1					
17:26	ZZZZZZ	1					
17:36	MA19303-CCV6	1	X	X	X	X	
17:41	MA19303-CCB6	1	X	X	X	X	
17:52	ZZZZZZ	5					
17:57	ZZZZZZ	5					
18:08	ZZZZZZ	5					
18:13	ZZZZZZ	5					
18:18	ZZZZZZ	5					
18:24	ZZZZZZ	5					
18:29	ZZZZZZ	5					
18:34	ZZZZZZ	5					
		Element:	Ba	Fe	Mg	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution	Element: Ba	Fe	Mg	Mn	
18:39	MA19303-CCV7	1	X	X	X	X	
18:44	MA19303-CCB7	1	X	X	X	X	
18:55	ZZZZZZ	5					
19:00	ZZZZZZ	5					
19:06	ZZZZZZ	5					
19:11	MP41996-MB1	1		X		X	
19:16	MP41996-B1	1		X		X	
19:21	FC3586-3	1		X		X	(a)
19:26	MP41996-D1	1		X		X	
19:31	MP41996-SD1	5		X		X	
19:37	MP41996-PS1	1		X		X	
19:42	MA19303-CCV8	1	X	X	X	X	
19:47	MA19303-CCB8	1	X	X	X	X	
19:52	MP41996-S1	1		X		X	
19:57	MP41996-S2	1		X		X	
20:02	ZZZZZZ	1					
20:07	ZZZZZZ	1					
20:12	ZZZZZZ	1					
20:17	ZZZZZZ	1					
20:22	ZZZZZZ	1					
20:28	ZZZZZZ	1					
20:33	ZZZZZZ	1					
20:38	ZZZZZZ	1					
20:43	MA19303-CCV9	1	X	X	X	X	
20:48	MA19303-CCB9	1	X	X	X	X	
20:54	ZZZZZZ	1					
20:59	ZZZZZZ	1					
21:04	ZZZZZZ	1					
21:09	ZZZZZZ	1					
21:14	ZZZZZZ	1					
21:19	ZZZZZZ	1					
21:25	ZZZZZZ	1					
21:30	ZZZZZZ	1					
		Element:	Ba	Fe	Mg	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n
21:35	ZZZZZZ	1				
21:40	ZZZZZZ	1				
21:45	MA19303-CCV10	1	X	X	X	X
21:50	MA19303-CCB10	1	X	X	X	X
21:56	MA19303-CCV11	1	X	X	X	X
22:01	MA19303-CCB11	1	X	X	X	X

(a) Sample used for QC only; not part of login FC3333.

Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:38	MA19303-STD1	4805	43219	7548	2335
10:44	MA19303-STD2	4701	41824	7450	2223
10:48	MA19303-STD3	4759	42604	7546	2247
10:52	MA19303-STD4	4687	41909	7507	2171
10:55	MA19303-STD5	4621	41256	7495	2085
10:59	MA19303-STD6	4515	40322	7468	1975
11:03	MA19303-STD7	4313	39101	7399	1818
11:12	MA19303-CRIA1	4728	42048	7571	2233
11:20	MA19303-HSTD1	4269	39260	7315	1814
11:28	MA19303-ICV1	4506	40566	7589	1974
11:34	MA19303-ICB1	4809 R	43023 R	7664 R	2333 R
11:38	MA19303-ICSA1	3997	35875	7169	1723
11:56	MA19303-ICSAB1	4081	36243	7078	1653
12:05	MA19303-CCV1	4477	40488	7363	1964
12:18	MA19303-CCB1	4736	43074	7507	2309
12:24	MP41991-MB1	4694	43030	7386	2275
12:29	MP41991-B1	4541	40962	7325	2041
13:06	ZZZZZZ	4285	39537	7414	1949
13:17	MA19303-CCV2	4356	40298	7470	1923
13:22	MA19303-CCB2	4646	42910	7625	2273
13:32	ZZZZZZ	4466	40713	7926	1891
13:37	ZZZZZZ	4472	40836	7943	1916
13:42	ZZZZZZ	5051	47407	8791	2084
13:48	ZZZZZZ	4135	38245	7309	1835
13:59	ZZZZZZ	4349	40529	7564	2044
14:04	ZZZZZZ	4444	41318	7386	2087
14:09	ZZZZZZ	4399	40366	7600	2013
14:14	ZZZZZZ	4314	39256	7481	1942
14:20	MA19303-CCV3	4463	40712	7709	1930
14:25	MA19303-CCB3	4767	43396	7893	2284
14:30	MP41992-MB1	4722	43524	7896	2274
14:35	MP41992-B1	4532	41063	7662	2031
14:40	FC3611-1	4538	41147	7690	2094

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:45	MP41992-D1	4532	41122	7687	2087
14:51	MP41992-SD1	4687	42689	7796	2235
14:56	MP41992-PS1	4491	40992	7660	2045
15:01	MP41992-S1	4464	40553	7711	1965
15:06	MP41992-S2	4444	40379	7601	1957
15:11	ZZZZZZ	4542	41382	7666	2101
15:16	FC3333-1	4500	40954	7615	2100
15:21	MA19303-CCV4	4440	40685	7590	1941
15:37	MA19303-CCB4	4761	43270	7783	2302
15:42	FC3333-2A	4506	41248	7685	2095
15:48	FC3333-3A	4575	41805	7677	2159
15:53	ZZZZZZ	4665	42580	7793	2207
15:58	ZZZZZZ	4629	42494	7813	2121
16:03	ZZZZZZ	4616	42205	7793	2120
16:08	ZZZZZZ	4600	42238	7782	2137
16:13	ZZZZZZ	3183	27789	6533	1249 !a
16:19	MP41994-MB1	4669	43555	7810	2276
16:24	MP41994-B1	4448	40975	7591	2019
16:29	FC3523-2	4818	42970	8268	1944
16:34	MA19303-CCV5	4384	40359	7637	1927
16:39	MA19303-CCB5	4686	43128	7786	2282
16:44	MP41994-D1	4773	43148	8252	1974
16:50	MP41994-SD1	4711	43146	8012	2154
16:55	MP41994-PS1	4754	42755	8290	1924
17:00	MP41994-S1	4632	41535	8103	1815
17:05	MP41994-S2	4728	42069	8254	1856
17:10	ZZZZZZ	4719	43288	7974	2139
17:15	ZZZZZZ	4761	43647	7940	2202
17:20	ZZZZZZ	4808	42525	8235	1982
17:26	ZZZZZZ	4825	44123	8062	2179
17:36	MA19303-CCV6	4412	40442	7779	1922
17:41	MA19303-CCB6	4690	42919	7925	2255
17:52	ZZZZZZ	4394	40697	7905	1921

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:57	ZZZZZZ	4482	41266	8033	1971
18:08	ZZZZZZ	4325	39149	7808	1777
18:13	ZZZZZZ	4593	42628	8196	2114
18:18	ZZZZZZ	4386	40752	8005	1997
18:24	ZZZZZZ	4182	38672	7934	1802
18:29	ZZZZZZ	4129	37936	7855	1788
18:34	ZZZZZZ	4214	39029	7955	1844
18:39	MA19303-CCV7	4473	40845	8069	1937
18:44	MA19303-CCB7	4692	42867	8172	2244
18:55	ZZZZZZ	4447	41478	8061	2021
19:00	ZZZZZZ	4158	39465	8003	1850
19:06	ZZZZZZ	4249	39119	7930	1820
19:11	MP41996-MB1	4692	43187	8011	2226
19:16	MP41996-B1	4503	40996	8069	2014
19:21	FC3586-3	4573	41962	8113	2145
19:26	MP41996-D1	4569	41941	8080	2140
19:31	MP41996-SD1	4614	42350	7904	2199
19:37	MP41996-PS1	4536	41858	7960	2087
19:42	MA19303-CCV8	4404	40495	7966	1917
19:47	MA19303-CCB8	4666	42638	7977	2239
19:52	MP41996-S1	4462	40815	7907	1980
19:57	MP41996-S2	4490	41202	7919	1999
20:02	ZZZZZZ	4600	42385	8078	2153
20:07	ZZZZZZ	4534	41851	7894	2103
20:12	ZZZZZZ	4595	42218	8008	2156
20:17	ZZZZZZ	4631	43078	8055	2171
20:22	ZZZZZZ	4599	42363	7933	2153
20:28	ZZZZZZ	4594	42486	7910	2131
20:33	ZZZZZZ	4610	42512	7864	2170
20:38	ZZZZZZ	4632	42760	7854	2185
20:43	MA19303-CCV9	4411	40715	7705	1930
20:48	MA19303-CCB9	4714	43233	7874	2294
20:54	ZZZZZZ	4449	40956	7711	2053

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19303
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
20:59	ZZZZZZ	4587	42276	7833	2185
21:04	ZZZZZZ	4543	41633	7800	2131
21:09	ZZZZZZ	4488	41216	7721	2104
21:14	ZZZZZZ	4400	40398	7694	2024
21:19	ZZZZZZ	4497	41505	7747	2108
21:25	ZZZZZZ	4482	41335	7774	2100
21:30	ZZZZZZ	4650	42931	7845	2230
21:35	ZZZZZZ	4452	40975	7767	1995
21:40	ZZZZZZ	4665	43229	7850	2250
21:45	MA19303-CCV10	4445	41000	7754	1963
21:50	MA19303-CCB10	4780	44150	8009	2337
21:56	MA19303-CCV11	4446	40782	7962	1938
22:01	MA19303-CCB11	4777	43407	8245	2274

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19303 Units: ug/l

Time: / Sample ID:			11:34 ICB1		12:18 CCB1		13:22 CCB2		14:25 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	-0.100	<200	0.00	<200	0.200	<200	0.200	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50								
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	1.30	<300	1.50	<300	3.70	<300	4.00	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	1.20	<5000	11.6	<5000	9.00	<5000	11.7	<5000
Manganese	15	.25	0.100	<15	0.00	<15	0.200	<15	0.200	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5	anr							
Vanadium	50	.5								
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19303 Units: ug/l

Time: / Sample ID:			15:37 CCB4		16:39 CCB5	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	14	anr			
Antimony	20	1	anr			
Arsenic	10	1.3	anr			
Barium	200	.5	0.00	<200	0.100	<200
Beryllium	5.0	.1	anr			
Boron	100	5				
Cadmium	4.0	.1	anr			
Calcium	5000	50				
Chromium	10	.5	anr			
Cobalt	50	.2	anr			
Copper	25	1	anr			
Iron	300	15	2.60	<300	4.00	<300
Lead	20	1	anr			
Lithium	20	.5				
Magnesium	5000	35	5.10	<5000	1.20	<5000
Manganese	15	.25	0.100	<15	0.100	<15
Molybdenum	50	.3	anr			
Nickel	40	.4	anr			
Potassium	10000	100				
Selenium	20	2	anr			
Silver	10	.5	anr			
Sodium	10000	250	anr			
Strontium	10	.25				
Thallium	10	1	anr			
Tin	50	.5	anr			
Titanium	10	.5	anr			
Vanadium	50	.5				
Zinc	20	3	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19303 Units: ug/l

Time:		11:28			12:05			13:17	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2010	100.5	2000	2050	102.5	2000	2110	105.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40000	100.0	40000	39400	98.5	40000	39100	97.8
Lead	anr								
Lithium									
Magnesium	40000	41900	104.8	40000	42300	105.8	40000	41600	104.0
Manganese	2000	2080	104.0	2000	2010	100.5	2000	2000	100.0
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19303 Units: ug/l

Time:		14:20			15:21			16:34	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2020	101.0	2000	2050	102.5	2000	2070	103.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	38400	96.0	40000	38500	96.3	40000	38600	96.5
Lead	anr								
Lithium									
Magnesium	40000	39700	99.3	40000	40400	101.0	40000	40400	101.0
Manganese	2000	1970	98.5	2000	1970	98.5	2000	1990	99.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19303 Units: ug/l

Time:		11:20	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	4000	4150	103.8
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	80200	100.3
Lead	anr		
Lithium			
Magnesium	80000	82800	103.5
Manganese	4000	4010	100.3
Molybdenum	anr		
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium	anr		
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19303 Units: ug/l

Time:			11:12	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200	anr	
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	193	96.5
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	anr	
Calcium	2000	1000		
Chromium	20	10	anr	
Cobalt	100	50	anr	
Copper	50	25	anr	
Iron	600	300	293	97.7
Lead	10	5.0	anr	
Lithium	18	9.0		
Magnesium	10000	5000	4770	95.4
Manganese	30	15	15.0	100.0
Molybdenum	100	50	anr	
Nickel	80	40	anr	
Potassium	20000	10000		
Selenium	20	10	anr	
Silver	20	10	anr	
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50	anr	
Titanium	20	10	anr	
Vanadium	100	50		
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA032423M1.ICP Date Analyzed: 03/24/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19303 Units: ug/l

Time:			11:38		11:56	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	524000	104.8	514000	102.8
Antimony		1000	1.00		963	96.3
Arsenic		1000	0.00		937	93.7
Barium		500	-0.100		507	101.4
Beryllium		500	0.00		526	105.2
Boron		1000	-0.800		926	92.6
Cadmium		1000	0.00		957	95.7
Calcium	500000	500000	464000	92.8	461000	92.2
Chromium		500	-0.700		499	99.8
Cobalt		500	-0.100		471	94.2
Copper		500	-1.90		541	108.2
Iron	500000	200000	468000	93.6	182000	91.0
Lead		1000	-0.100		1000	100.0
Lithium		1000	0.300		1060	106.0
Magnesium	500000	500000	530000	106.0	571000	114.2
Manganese		500	-0.600		506	101.2
Molybdenum		1000	0.100		873	87.3
Nickel		1000	0.100		900	90.0
Potassium			12.6		37.3	
Selenium		1000	0.00		896	89.6
Silver		1000	-0.300		1120	112.0
Sodium			294		304	
Strontium		1000	0.300		947	94.7
Thallium		1000	0.00		886	88.6
Tin		1000	0.00		857	85.7
Titanium		1000	-0.400		1020	102.0
Vanadium		500	0.00		515	103.0
Zinc		1000	0.300		907	90.7

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:34	MA19307-STD1	1		STDB
09:38	MA19307-STD2	1		STDC
09:45	MA19307-STD3	1		STDD
09:49	MA19307-STD4	1		STDE
09:52	MA19307-STD5	1		STDF
09:56	MA19307-STD6	1		STDG
10:06	MA19307-STD7	1		STDA
10:12	MA19307-CRIA1	1		
10:29	MA19307-CRIA2	1		
10:36	MA19307-HSTD1	1		
10:43	MA19307-ICV1	1		
10:48	MA19307-ICB1	1		
10:53	MA19307-ICSA1	1		
11:03	MA19307-ICSAB1	1		
11:10	MA19307-CCV1	1		
11:16	MA19307-CCB1	1		
11:22	MP41997-MB1	1		
11:26	MP41997-B1	1		
11:31	FC3570-19	1		(sample used for QC only; not part of login FC3333)
11:36	MP41997-D1	1		
11:41	MP41997-SD1	5		
11:45	MP41997-PS1	1		
11:50	MP41997-S1	1		
11:55	ZZZZZZ	1		
12:00	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:10	MA19307-CCV2	1		
12:14	MA19307-CCB2	1		
12:19	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:29	ZZZZZZ	1		
12:33	ZZZZZZ	1		
12:38	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:43	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:52	ZZZZZZ	1		
12:58	MP42004-B1	1		
13:02	ZZZZZZ	1		
13:07	MA19307-CCV3	1		
13:12	MA19307-CCB3	1		
13:16	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:26	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:36	ZZZZZZ	5		
13:41	ZZZZZZ	1		
13:46	ZZZZZZ	10		
13:50	MP41997-MB2A	1		
13:55	MP42004-MB1	1		
14:00	FC3490-1	1		(sample used for QC only; not part of login FC3333)
14:05	MA19307-CCV4	1		
14:10	MA19307-CCB4	1		
14:15	MP42004-D1	1		
14:20	MP42004-SD1	5		
14:25	MP42004-PS1	1		
14:29	MP42004-S1	1		
14:34	MP42004-S2	1		
14:39	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:49	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:04	MA19307-CCV5	1		
15:08	MA19307-CCB5	1		
15:13	ZZZZZZ	1		
15:18	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:23	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:47	ZZZZZZ	1		
15:53	ZZZZZZ	1		
15:57	ZZZZZZ	1		
16:02	MA19307-CCV6	1		
16:07	MA19307-CCB6	1		
17:15	MA19307-CCV7	1		
17:22	MA19307-CCB7	1		
17:27	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:42	ZZZZZZ	1		
17:47	ZZZZZZ	20		
17:52	FC3338-7	5		(sample used for QC only; not part of login FC3333)
17:57	MP41991-D1	5		
18:02	MP41991-S1	5		
18:07	MP41991-S2	5		
18:12	MP41991-PS1	5		
18:16	MA19307-CCV8	1		
18:21	MA19307-CCB8	1		
18:26	MP41991-SD1	25		
---------->	Last reportable sample/prep for job FC3333			
19:00	ZZZZZZ	5		
19:05	ZZZZZZ	5		
19:10	ZZZZZZ	5		
19:15	MA19307-CCV9	1		
19:19	MA19307-CCB9	1		
---------->	Last reportable CCB for job FC3333			
19:24	ZZZZZZ	20		
19:29	ZZZZZZ	5		
19:34	ZZZZZZ	50		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:39	ZZZZZZ	5		
19:44	ZZZZZZ	5		
19:49	ZZZZZZ	500		
19:59	ZZZZZZ	500		
20:04	ZZZZZZ	500		
20:09	ZZZZZZ	25		
20:14	MA19307-CCV10	1		
20:18	MA19307-CCB10	1		
20:23	ZZZZZZ	20		
20:28	ZZZZZZ	5		
20:33	ZZZZZZ	25		
20:37	ZZZZZZ	25		
20:42	ZZZZZZ	500		
20:47	ZZZZZZ	20		
20:52	MP42002-MB1	1		
20:57	MP42002-B1	1		
21:01	FC3418-1	1		(sample used for QC only; not part of login FC3333)
21:06	MP42002-D1	1		
21:11	MA19307-CCV11	1		
21:16	MA19307-CCB11	1		
21:21	MP42002-SD1	5		
21:26	MP42002-PS1	1		
21:30	MP42002-S1	1		
21:35	MP42002-S2	1		
21:39	ZZZZZZ	1		
21:44	ZZZZZZ	1		
21:49	ZZZZZZ	1		
21:54	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:04	ZZZZZZ	1		
22:09	MA19307-CCV12	1		
22:13	MA19307-CCB12	1		
22:18	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:23	ZZZZZZ	1		
22:28	ZZZZZZ	1		
22:33	ZZZZZZ	1		
22:38	ZZZZZZ	1		
22:42	ZZZZZZ	1		
22:47	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:57	ZZZZZZ	1		
23:02	ZZZZZZ	1		
23:07	MA19307-CCV13	1		
23:12	MA19307-CCB13	1		
23:17	ZZZZZZ	1		
23:21	ZZZZZZ	1		
23:26	ZZZZZZ	1		
23:31	MP42003-MB1	1		
23:36	MP42003-B1	1		
23:41	FC3620-1	1		(sample used for QC only; not part of login FC3333)
23:46	MP42003-D1	1		
23:50	MP42003-SD1	5		
23:55	MP42003-PS1	1		
00:00	MP42003-S1	1		
00:05	MA19307-CCV14	1		
00:09	MA19307-CCB14	1		
00:14	MP42003-S2	1		
00:19	ZZZZZZ	1		
00:24	ZZZZZZ	1		
00:29	ZZZZZZ	1		
00:34	ZZZZZZ	1		
00:39	ZZZZZZ	1		
00:43	ZZZZZZ	1		
00:48	ZZZZZZ	1		
00:53	ZZZZZZ	1		
00:58	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
01:03	MA19307-CCV15	1		
01:08	MA19307-CCB15	1		
01:12	ZZZZZZ	1		
01:17	ZZZZZZ	1		
01:22	ZZZZZZ	1		
01:27	ZZZZZZ	1		
01:32	ZZZZZZ	1		
01:37	ZZZZZZ	1		
01:42	ZZZZZZ	1		
01:47	MA19307-CCV16	1		
01:51	MA19307-CCB16	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
10:12	MA19307-CRIA1	1	X	X	X	X	
10:29	MA19307-CRIA2	1					
10:36	MA19307-HSTD1	1	X	X	X	X	
10:43	MA19307-ICV1	1	X	X	X	X	
10:48	MA19307-ICB1	1	X	X	X	X	
10:53	MA19307-ICSA1	1	X	X	X	X	
11:03	MA19307-ICSAB1	1	X	X	X	X	
11:10	MA19307-CCV1	1	X	X	X	X	
11:16	MA19307-CCB1	1	X	X	X	X	
11:22	MP41997-MB1	1	X				
11:26	MP41997-B1	1	X				
11:31	FC3570-19	1	X				(a)
11:36	MP41997-D1	1	X				
11:41	MP41997-SD1	5	X				
11:45	MP41997-PS1	1	X				
11:50	MP41997-S1	1	X				
11:55	ZZZZZZ	1					
12:00	ZZZZZZ	1					
12:05	ZZZZZZ	1					
12:10	MA19307-CCV2	1	X	X	X	X	
12:14	MA19307-CCB2	1	X	X	X	X	
12:19	ZZZZZZ	1					
12:24	ZZZZZZ	1					
12:29	ZZZZZZ	1					
12:33	ZZZZZZ	1					
12:38	ZZZZZZ	1					
12:43	ZZZZZZ	1					
12:48	ZZZZZZ	1					
12:52	ZZZZZZ	1					
12:58	MP42004-B1	1	X	X	X	X	
13:02	ZZZZZZ	1					
13:07	MA19307-CCV3	1	X	X	X	X	
13:12	MA19307-CCB3	1	X	X	X	X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
13:16	ZZZZZZ	1					
13:21	ZZZZZZ	1					
13:26	ZZZZZZ	1					
13:31	ZZZZZZ	1					
13:36	ZZZZZZ	5					
13:41	ZZZZZZ	1					
13:46	ZZZZZZ	10					
13:50	MP41997-MB2A	1	X				
13:55	MP42004-MB1	1	X	X	X	X	
14:00	FC3490-1	1		X		X	(a)
14:05	MA19307-CCV4	1	X	X	X	X	
14:10	MA19307-CCB4	1	X	X	X	X	
14:15	MP42004-D1	1	X	X	X	X	
14:20	MP42004-SD1	5	X	X	X	X	
14:25	MP42004-PS1	1	X	X	X	X	
14:29	MP42004-S1	1	X	X	X	X	
14:34	MP42004-S2	1	X	X	X	X	
14:39	ZZZZZZ	1					
14:44	ZZZZZZ	1					
14:49	ZZZZZZ	1					
14:54	ZZZZZZ	1					
14:59	ZZZZZZ	1					
15:04	MA19307-CCV5	1	X	X	X	X	
15:08	MA19307-CCB5	1	X	X	X	X	
15:13	ZZZZZZ	1					
15:18	ZZZZZZ	1					
15:23	ZZZZZZ	1					
15:28	ZZZZZZ	1					
15:33	ZZZZZZ	1					
15:38	ZZZZZZ	1					
15:43	ZZZZZZ	1					
15:47	ZZZZZZ	1					
15:53	ZZZZZZ	1					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
15:57	ZZZZZZ	1					
16:02	MA19307-CCV6	1	X	X	X	X	
16:07	MA19307-CCB6	1	X	X	X	X	
17:15	MA19307-CCV7	1	X	X	X	X	
17:22	MA19307-CCB7	1	X	X	X	X	
17:27	ZZZZZZ	1					
17:32	ZZZZZZ	1					
17:37	ZZZZZZ	1					
17:42	ZZZZZZ	1					
17:47	ZZZZZZ	20					
17:52	FC3338-7	5		X			(a)
17:57	MP41991-D1	5	X	X	X	X	
18:02	MP41991-S1	5	X	X	X	X	
18:07	MP41991-S2	5	X	X	X	X	
18:12	MP41991-PS1	5	X	X	X	X	
18:16	MA19307-CCV8	1	X	X	X	X	
18:21	MA19307-CCB8	1	X	X	X	X	
18:26	MP41991-SD1	25	X	X	X	X	
19:00	ZZZZZZ	5					
19:05	ZZZZZZ	5					
19:10	ZZZZZZ	5					
19:15	MA19307-CCV9	1	X	X	X	X	
19:19	MA19307-CCB9	1	X	X	X	X	
19:24	ZZZZZZ	20					
19:29	ZZZZZZ	5					
19:34	ZZZZZZ	50					
19:39	ZZZZZZ	5					
19:44	ZZZZZZ	5					
19:49	ZZZZZZ	500					
19:59	ZZZZZZ	500					
20:04	ZZZZZZ	500					
20:09	ZZZZZZ	25					
20:14	MA19307-CCV10	1	X	X	X	X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution	Element: Ba	Fe	Mg	Mn	
20:18	MA19307-CCB10	1	X	X	X	X	
20:23	ZZZZZZ	20					
20:28	ZZZZZZ	5					
20:33	ZZZZZZ	25					
20:37	ZZZZZZ	25					
20:42	ZZZZZZ	500					
20:47	ZZZZZZ	20					
20:52	MP42002-MB1	1	X	X	X	X	
20:57	MP42002-B1	1	X	X	X	X	
21:01	FC3418-1	1		X			(a)
21:06	MP42002-D1	1	X	X	X	X	
21:11	MA19307-CCV11	1	X	X	X	X	
21:16	MA19307-CCB11	1	X	X	X	X	
21:21	MP42002-SD1	5	X	X	X	X	
21:26	MP42002-PS1	1	X	X	X	X	
21:30	MP42002-S1	1	X	X	X	X	
21:35	MP42002-S2	1	X	X	X	X	
21:39	ZZZZZZ	1					
21:44	ZZZZZZ	1					
21:49	ZZZZZZ	1					
21:54	ZZZZZZ	1					
21:59	ZZZZZZ	1					
22:04	ZZZZZZ	1					
22:09	MA19307-CCV12	1	X	X	X	X	
22:13	MA19307-CCB12	1	X	X	X	X	
22:18	ZZZZZZ	1					
22:23	ZZZZZZ	1					
22:28	ZZZZZZ	1					
22:33	ZZZZZZ	1					
22:38	ZZZZZZ	1					
22:42	ZZZZZZ	1					
22:47	ZZZZZZ	1					
22:52	ZZZZZZ	1					
		Element:	Ba	Fe	Mg	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
22:57	ZZZZZZ	1					
23:02	ZZZZZZ	1					
23:07	MA19307-CCV13	1	X	X	X	X	
23:12	MA19307-CCB13	1	X	X	X	X	
23:17	ZZZZZZ	1					
23:21	ZZZZZZ	1					
23:26	ZZZZZZ	1					
23:31	MP42003-MB1	1	X	X	X	X	
23:36	MP42003-B1	1	X	X	X	X	
23:41	FC3620-1	1	X	X	X	X	(a)
23:46	MP42003-D1	1	X	X	X	X	
23:50	MP42003-SD1	5	X	X	X	X	
23:55	MP42003-PS1	1	X	X	X	X	
00:00	MP42003-S1	1	X	X	X	X	
00:05	MA19307-CCV14	1	X	X	X	X	
00:09	MA19307-CCB14	1	X	X	X	X	
00:14	MP42003-S2	1	X	X	X	X	
00:19	ZZZZZZ	1					
00:24	ZZZZZZ	1					
00:29	ZZZZZZ	1					
00:34	ZZZZZZ	1					
00:39	ZZZZZZ	1					
00:43	ZZZZZZ	1					
00:48	ZZZZZZ	1					
00:53	ZZZZZZ	1					
00:58	ZZZZZZ	1					
01:03	MA19307-CCV15	1	X	X	X	X	
01:08	MA19307-CCB15	1	X	X	X	X	
01:12	ZZZZZZ	1					
01:17	ZZZZZZ	1					
01:22	ZZZZZZ	1					
01:27	ZZZZZZ	1					
01:32	ZZZZZZ	1					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n
01:37	ZZZZZZ	1				
01:42	ZZZZZZ	1				
01:47	MA19307-CCV16	1	X	X	X	X
01:51	MA19307-CCB16	1	X	X	X	X

(a) Sample used for QC only; not part of login FC3333.

Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:34	MA19307-STD1	2724	25547	4135	1074
09:38	MA19307-STD2	2717	25526	4128	1065
09:45	MA19307-STD3	2697	25279	4173	1028
09:49	MA19307-STD4	2645	24775	4161	982
09:52	MA19307-STD5	2560	24096	4132	918
09:56	MA19307-STD6	2425	23362	4111	833
10:06	MA19307-STD7	2782	26269	4266	1137
10:12	MA19307-CRIA1	2788	25891	4301	1069
10:29	MA19307-CRIA2	2761			
10:36	MA19307-HSTD1	2527	23730	4185	828
10:43	MA19307-ICV1	2619	24424	4245	910
10:48	MA19307-ICB1	2783 R	26107 R	4246 R	1126 R
10:53	MA19307-ICSA1	2314	21564	4023	862
11:03	MA19307-ICSAB1	2366	21680	4050	802
11:10	MA19307-CCV1	2533	23914	4089	906
11:16	MA19307-CCB1	2761	25785	4210	1114
11:22	MP41997-MB1	2713	25515	4050	1064
11:26	MP41997-B1	2569	24037	3989	930
11:31	FC3570-19	2510	24810	4324	964
11:36	MP41997-D1	2478	24490	4248	954
11:41	MP41997-SD1	2723	25950	4359	1066
11:45	MP41997-PS1	2559	24743	4384	945
11:50	MP41997-S1	2659	24733	4290	936
11:55	ZZZZZZ	2643	25410	4318	1001
12:00	ZZZZZZ	2525	24415	4134	1001
12:05	ZZZZZZ	2564	24271	4205	1045
12:10	MA19307-CCV2	2472	23886	4048	922
12:14	MA19307-CCB2	2624	25540	4089	1139
12:19	ZZZZZZ	2515	24155	4204	939
12:24	ZZZZZZ	2645	25395	4157	1057
12:29	ZZZZZZ	2648	25418	4195	1046
12:33	ZZZZZZ	2650	25581	4180	1065
12:38	ZZZZZZ	2586	24908	4109	1033

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:43	ZZZZZZ	2555	24756	4050	1053
12:48	ZZZZZZ	2534	24741	4077	1061
12:52	ZZZZZZ	2500	24208	4229	942
12:58	MP42004-B1	2513	24025	4037	972
13:02	ZZZZZZ	2528	24424	4123	992
13:07	MA19307-CCV3	2474	23761	4033	927
13:12	MA19307-CCB3	2650	25548	4073	1129
13:16	ZZZZZZ	2592	24829	4140	1017
13:21	ZZZZZZ	2604	25787	4473	913
13:26	ZZZZZZ	2530	24668	4031	1027
13:31	ZZZZZZ	2541	24577	4162	980
13:36	ZZZZZZ	2476	25208	4234	984
13:41	ZZZZZZ	2595	25388	4548	877
13:46	ZZZZZZ	2661	25460	4123	1106
13:50	MP41997-MB2A	2686	26025	4186	1122
13:55	MP42004-MB1	2691	25751	4127	1123
14:00	FC3490-1	2491	23729	4055	944
14:05	MA19307-CCV4	2507	23877	3977	918
14:10	MA19307-CCB4	2695	25667	4074	1134
14:15	MP42004-D1	2493	23721	4069	944
14:20	MP42004-SD1	2642	25089	4086	1060
14:25	MP42004-PS1	2497	23654	4049	934
14:29	MP42004-S1	2484	23501	4025	901
14:34	MP42004-S2	2490	23426	4057	902
14:39	ZZZZZZ	2615	24697	4079	1015
14:44	ZZZZZZ	2629	24738	4052	1021
14:49	ZZZZZZ	2592	24517	4031	1013
14:54	ZZZZZZ	2568	24283	4023	995
14:59	ZZZZZZ	2592	24563	4003	1011
15:04	MA19307-CCV5	2504	23702	3988	916
15:08	MA19307-CCB5	2715	25594	4072	1137
15:13	ZZZZZZ	2631	24750	4039	1018
15:18	ZZZZZZ	2714	25401	4155	1067

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
15:23	ZZZZZZ	2701	25496	4109	1063
15:28	ZZZZZZ	2511	23678	4073	922
15:33	ZZZZZZ	2418	22832	3997	881
15:38	ZZZZZZ	2695	25365	4145	1069
15:43	ZZZZZZ	2680	25380	4096	1067
15:47	ZZZZZZ	2377	22028	4105	836
15:53	ZZZZZZ	2314	21223	4059	796
15:57	ZZZZZZ	2628	24710	4216	995
16:02	MA19307-CCV6	2539	24026	4115	920
16:07	MA19307-CCB6	2706	26040	4112	1134
17:15	MA19307-CCV7	2465	23800	4038	905
17:22	MA19307-CCB7	2662	25643	4113	1135
17:27	ZZZZZZ	2568	24372	4069	998
17:32	ZZZZZZ	2587	24546	4016	1004
17:37	ZZZZZZ	2661	25368	4086	1058
17:42	ZZZZZZ	2643	25141	4109	1044
17:47	ZZZZZZ	2092	18921	3997	680
17:52	FC3338-7	2979	28019	4976	925
17:57	MP41991-D1	3003	28014	4974	926
18:02	MP41991-S1	2976	27892	4882	919
18:07	MP41991-S2	2994	28169	4930	914
18:12	MP41991-PS1	3014	28340	5039	905
18:16	MA19307-CCV8	2542	24057	4047	917
18:21	MA19307-CCB8	2726	25872	4097	1137
18:26	MP41991-SD1	2765	25874	4235	1032
19:00	ZZZZZZ	2674	24970	4087	1017
19:05	ZZZZZZ	2691	25046	4094	1032
19:10	ZZZZZZ	2592	24441	4090	1002
19:15	MA19307-CCV9	2536	23837	4027	920
19:19	MA19307-CCB9	2711	25757	4048	1133
19:24	ZZZZZZ	2873	26636	4533	929
19:29	ZZZZZZ	2302	20745	4033	795
19:34	ZZZZZZ	2624	24347	4112	983

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:39	ZZZZZZ	2404	22548	4036	813
19:44	ZZZZZZ	3006	27791	4979	802
19:49	ZZZZZZ	2748	26122	4114	1135
19:59	ZZZZZZ	2753	26137	4133	1137
20:04	ZZZZZZ	2742	26047	4128	1132
20:09	ZZZZZZ	2628	25050	4191	1017
20:14	MA19307-CCV10	2520	23878	3961	921
20:18	MA19307-CCB10	2700	25708	4040	1136
20:23	ZZZZZZ	2572	24460	4074	995
20:28	ZZZZZZ	2580	24244	4124	970
20:33	ZZZZZZ	2712	25410	4137	1074
20:37	ZZZZZZ	2729	25928	4111	1112
20:42	ZZZZZZ	2712	25913	4051	1126
20:47	ZZZZZZ	2634	24977	4109	1027
20:52	MP42002-MB1	2696	25746	4007	1122
20:57	MP42002-B1	2569	24280	3970	982
21:01	FC3418-1	2594	24596	3983	1012
21:06	MP42002-D1	2594	24647	3981	1006
21:11	MA19307-CCV11	2532	23964	3949	924
21:16	MA19307-CCB11	2710	25813	4034	1144
21:21	MP42002-SD1	2700	25535	4018	1095
21:26	MP42002-PS1	2567	24231	3967	985
21:30	MP42002-S1	2543	23936	3933	944
21:35	MP42002-S2	2562	23864	3926	949
21:39	ZZZZZZ	2617	24761	3967	1025
21:44	ZZZZZZ	2689	25309	4002	1064
21:49	ZZZZZZ	2688	25491	4036	1075
21:54	ZZZZZZ	2709	25633	3997	1088
21:59	ZZZZZZ	2701	25557	4034	1075
22:04	ZZZZZZ	2544	24110	3993	952
22:09	MA19307-CCV12	2561	24091	3951	929
22:13	MA19307-CCB12	2759	25881	3986	1154
22:18	ZZZZZZ	2723	25453	3961	1074

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:23	ZZZZZZ	2730	25593	3951	1085
22:28	ZZZZZZ	2728	25533	3972	1088
22:33	ZZZZZZ	2716	25446	3987	1079
22:38	ZZZZZZ	2350	22063	3841	914
22:42	ZZZZZZ	2730	25414	3997	1085
22:47	ZZZZZZ	2731	25618	3964	1080
22:52	ZZZZZZ	2726	25485	4009	1079
22:57	ZZZZZZ	2723	25542	3945	1075
23:02	ZZZZZZ	2730	25567	3970	1085
23:07	MA19307-CCV13	2579	24033	3915	932
23:12	MA19307-CCB13	2766	26013	3952	1148
23:17	ZZZZZZ	2730	25415	3925	1066
23:21	ZZZZZZ	2734	25603	3944	1087
23:26	ZZZZZZ	2731	25708	3971	1092
23:31	MP42003-MB1	2782	26218	3981	1141
23:36	MP42003-B1	2645	24558	3931	988
23:41	FC3620-1	2719	25406	3942	1079
23:46	MP42003-D1	2737	25532	3994	1079
23:50	MP42003-SD1	2783	26161	4000	1131
23:55	MP42003-PS1	2691	25086	3950	1039
00:00	MP42003-S1	2622	24400	3943	977
00:05	MA19307-CCV14	2578	24070	3901	933
00:09	MA19307-CCB14	2741	25807	3914	1148
00:14	MP42003-S2	2583	24159	3887	971
00:19	ZZZZZZ	2693	25341	3913	1076
00:24	ZZZZZZ	2707	25424	3933	1074
00:29	ZZZZZZ	2732	25671	3923	1090
00:34	ZZZZZZ	2711	25202	3913	1073
00:39	ZZZZZZ	2719	25478	3927	1088
00:43	ZZZZZZ	2722	25385	3972	1082
00:48	ZZZZZZ	2705	25305	3931	1066
00:53	ZZZZZZ	2707	25485	3981	1074
00:58	ZZZZZZ	2706	25576	3970	1082

INTERNAL STANDARD SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19307
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
01:03	MA19307-CCV15	2544	23997	3894	934
01:08	MA19307-CCB15	2723	25746	3923	1154
01:12	ZZZZZZ	2698	25525	3963	1080
01:17	ZZZZZZ	2643	25009	3917	1045
01:22	ZZZZZZ	2681	25238	3917	1069
01:27	ZZZZZZ	2665	25018	3931	1063
01:32	ZZZZZZ	2630	24978	3915	1046
01:37	ZZZZZZ	2597	24451	3874	1006
01:42	ZZZZZZ	2603	24459	3872	1011
01:47	MA19307-CCV16	2528	23790	3846	933
01:51	MA19307-CCB16	2706	25630	3900	1152

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19307 Units: ug/l

Time: / Sample ID:			10:48 ICB1		11:16 CCB1		12:14 CCB2		13:12 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.200	<200	0.200	<200	0.400	<200	0.300	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	1.60	<300	2.00	<300	1.70	<300	0.200	<300
Lead	20	1	anr							
Magnesium	5000	35	5.80	<5000	3.30	<5000	13.8	<5000	-2.20	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5	anr							
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19307 Units: ug/l

Time: / Sample ID:			14:10 CCB4		15:08 CCB5		16:07 CCB6		17:22 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.300	<200	0.100	<200	0.200	<200	-0.100	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.900	<300	1.50	<300	1.30	<300	-0.200	<300
Lead	20	1	anr							
Magnesium	5000	35	1.20	<5000	-9.50	<5000	3.60	<5000	-26.7	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.00	<15	-0.200	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5	anr							
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19307 Units: ug/l

Time: / Sample ID:			18:21 CCB8		19:19 CCB9	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	14	anr			
Antimony	20	1	anr			
Arsenic	10	1.3	anr			
Barium	200	.5	-0.100	<200	0.100	<200
Beryllium	5.0	.1	anr			
Boron	100	5				
Cadmium	4.0	.1	anr			
Calcium	5000	50	anr			
Chromium	10	.5	anr			
Cobalt	50	.2	anr			
Copper	25	1	anr			
Iron	300	15	1.10	<300	-0.500	<300
Lead	20	1	anr			
Magnesium	5000	35	-5.30	<5000	-11.9	<5000
Manganese	15	.25	-0.100	<15	-0.200	<15
Molybdenum	50	.3	anr			
Nickel	40	.4	anr			
Potassium	10000	100	anr			
Selenium	20	2	anr			
Silver	10	.5	anr			
Sodium	10000	250	anr			
Strontium	10	.25				
Thallium	10	1	anr			
Tin	50	.5	anr			
Titanium	10	.5	anr			
Vanadium	50	.5	anr			
Zinc	20	3	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19307 Units: ug/l

Time:		10:43			11:10			12:10	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2100	105.0	2000	2040	102.0	2000	2050	102.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	41500	103.8	40000	40300	100.8	40000	39800	99.5
Lead	anr								
Magnesium	40000	40200	100.5	40000	39900	99.8	40000	41100	102.8
Manganese	2000	2110	105.5	2000	2050	102.5	2000	2010	100.5
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19307 Units: ug/l

Time:		13:07			14:05			15:04	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2050	102.5	2000	2040	102.0	2000	2050	102.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39900	99.8	40000	40100	100.3	40000	40300	100.8
Lead	anr								
Magnesium	40000	41300	103.3	40000	40800	102.0	40000	41100	102.8
Manganese	2000	2030	101.5	2000	2080	104.0	2000	2120	106.0
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19307 Units: ug/l

Time:		16:02			17:15			18:16	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2070	103.5	2000	2030	101.5	2000	2030	101.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40100	100.3	40000	40000	100.0	40000	39900	99.8
Lead	anr								
Magnesium	40000	39900	99.8	40000	40100	100.3	40000	39200	98.0
Manganese	2000	2110	105.5	2000	2020	101.0	2000	2050	102.5
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19307 Units: ug/l

Time:		19:15	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	2000	2030	101.5
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	40000	39800	99.5
Lead	anr		
Magnesium	40000	39300	98.3
Manganese	2000	2060	103.0
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium	anr		
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19307 Units: ug/l

Time:		10:36	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	4000	4100	102.5
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	80100	100.1
Lead	anr		
Magnesium	80000	77100	96.4
Manganese	4000	4070	101.8
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium	anr		
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19307 Units: ug/l

Time:			10:12		10:29	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	anr			
Barium	400	200	191	95.5		
Beryllium	10	5.0	anr			
Boron	100	50				
Cadmium	10	5.0	anr			
Calcium	2000	1000	anr			
Chromium	20	10	anr			
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	290	96.7		
Lead	10	5.0	anr			
Magnesium	10000	5000	4710	94.2		
Manganese	30	15	14.8	98.7		
Molybdenum	100	50	anr			
Nickel	80	40	anr			
Potassium	20000	10000	anr			
Selenium	20	10				
Silver	20	10	anr			
Sodium	20000	10000	anr			
Strontium	20	10				
Thallium	20	10	anr			
Tin	100	50	anr			
Titanium	20	10	anr			
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB032723M1.ICP Date Analyzed: 03/27/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19307 Units: ug/l

Time:			10:53		11:03	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	528000	105.6	538000	107.6
Antimony		1000	1.30		864	86.4
Arsenic		1000	-0.800		912	91.2
Barium		500	0.00		510	102.0
Beryllium		500	0.00		477	95.4
Boron		1000	-11.3		943	94.3
Cadmium		1000	0.900		953	95.3
Calcium	500000	500000	456000	91.2	462000	92.4
Chromium		500	0.600		487	97.4
Cobalt		500	-0.300		467	93.4
Copper		500	-0.800		524	104.8
Iron	500000	200000	495000	99.0	187000	93.5
Lead		1000	-0.100		970	97.0
Magnesium	500000	500000	501000	100.2	502000	100.4
Manganese		500	-0.200		518	103.6
Molybdenum		1000	0.600		858	85.8
Nickel		1000	1.00		871	87.1
Potassium			47.2		23.5	
Selenium		1000	0.00		859	85.9
Silver		1000	-0.200		1050	105.0
Sodium			251		261	
Strontium		1000	-0.200		920	92.0
Thallium		1000	0.800		808	80.8
Tin		1000	0.500		817	81.7
Titanium		1000	1.50		975	97.5
Vanadium		500	0.900		507	101.4
Zinc		1000	1.90		915	91.5

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41959
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/16/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.18	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP41959: FC3333-2, FC3333-3, FC3333-1B

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41959
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			03/16/23					03/16/23	
Metal	FC3062-3 Original	DUP	RPD	QC Limits	FC3062-3 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	3.6	4.5	25.0 (a)	0-20	3.6	220	200	108.3	80-120
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP41959: FC3333-2, FC3333-3, FC3333-1B

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41959 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 03/16/23

Metal	FC3062-3 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	3.6	221	200	108.8	3.1	20
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP41959: FC3333-2, FC3333-3, FC3333-1B

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41959
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/16/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	219	200	109.5	80-120
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP41959: FC3333-2, FC3333-3, FC3333-1B

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41959
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 03/16/23

Metal	FC3062-3 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	3.53	3.42	3.3	0-10
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP41959: FC3333-2, FC3333-3, FC3333-1B

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1	-0.10	<200
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2		
Calcium	1000	50	50		
Chromium	10	.5	1		
Cobalt	50	.2	.2		
Copper	25	1	1		
Iron	300	15	17	12.0	<300
Lead	5.0	1	1.1		
Lithium	10	.5	1.3		
Magnesium	5000	35	35	11.3	<5000
Manganese	15	.25	1	0.10	<15
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9		
Silver	10	.5	.7		
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4		

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23 03/23/23

Metal	FC3338-7 Original	DUP	RPD	QC Limits	FC3338-7 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	33.5	29.4 (a)	1.0	0-20	33.5	1690 (a)	2000	83.0	80-120
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40500	34400(a)	1.2	0-20	40500	54200(a)	26000	77.7N(b)	80-120
Lead	anr								
Lithium									
Magnesium	56900	58100(a)	2.1	0-20	56900	74400(a)	25000	70.0N(b)	80-120
Manganese	817	691 (a)	1.2	0-20	817	1070 (a)	500	77.4N(b)	80-120
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium									
Zinc	anr								

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.
(b) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23

Metal	FC3338-7 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	33.5	1760 (a)	2000	86.5	4.1	20
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	40500	56100(a)	26000	85.0	3.4	20
Lead	anr					
Lithium						
Magnesium	56900	77000(a)	25000	80.4	3.4	20
Manganese	817	1110 (a)	500	85.4	3.7	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin	anr					
Titanium	anr					
Vanadium						
Zinc	anr					

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Elevated reporting limit(s) due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	2090	2000	104.5	80-120
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	25300	26000	97.3	80-120
Lead	anr			
Lithium				
Magnesium	26400	25000	105.6	80-120
Manganese	510	500	102.0	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium				
Zinc	anr			

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23

Metal	FC3338-7 Original	SDL 5:25	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	33.5	30.1	3.4	0-10
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	40500	38100	11.9*(a)	0-10
Lead	anr			
Lithium				
Magnesium	56900	63400	11.4*(a)	0-10
Manganese	817	775	13.3*(a)	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium				
Zinc	anr			

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP41991
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/23/23

Metal	Sample ml	Final ml	FC3338-7 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	9.8	10	33.5	28.518	235.2	0.2	12.5	250	82.7	80-120
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	40470	33339.6	38550	0.2	150	3000	173.7*(a	80-120
Lead										
Lithium										
Magnesium	9.8	10	56870	55732.6	64160	0.2	250	5000	168.5*(a	80-120
Manganese	9.8	10	817.3	669.634	757.7	0.2	2.5	50	176.1*(a	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP41991: FC3333-1, FC3333-2A, FC3333-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Instrument Detection Limits

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19288

Instrument Detection Limits

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19303

Instrument Detection Limits

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19307

Instrument Linear Ranges

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19288

Instrument Linear Ranges

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19303

Instrument Linear Ranges

Job Number: FC3333
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19307

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 10:32
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.102	ug/l	60.71	1,908.77	1.635E-02	Pulse	0.50	3
As			1	0.012	ug/l	100.65	108.67	9.318E-04	Pulse	1.00	3
Mo			1	0.164	ug/l	26.37	1,137.37	6.455E-03	Pulse	0.50	3
Pb			1	0.029	ug/l	6.47	7,293.89	2.207E-03	Pulse	1.00	3
Be			1	-0.046	ug/l	-1.64	5.50	3.530E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	3.69	348.67	1.979E-03	Pulse	0.50	3
Ba			1	-0.012	ug/l	-89.95	302.00	2.385E-04	Pulse	0.50	3
Tl			1	0.003	ug/l	76.93	3,871.78	1.172E-03	Pulse	0.50	3
Sn			1	0.122	ug/l	40.34	1,927.89	1.521E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	101.30	836.69	6.604E-04	Pulse	0.50	3
[Pb]			1	0.022	ug/l	18.30	3,325.01	1.006E-03	Pulse	0.50	3
Ca			1	-0.179	ug/l	-657.29	118.00	7.571E-04	Pulse	0.50	3
Ti			1	-0.120	ug/l	-19.72	22.00	1.412E-04	Pulse	0.50	3
Na			1	2.536	ug/l	17.45	14,446.20	9.272E-02	Pulse	1.00	3
Mg			1	0.835	ug/l	16.26	3,926.06	2.520E-02	Pulse	1.00	3
K			1	-1.011	ug/l	-49.38	21,714.24	1.394E-01	Pulse	1.00	3
V			1	-0.011	ug/l	-152.20	1,275.38	8.186E-03	Pulse	0.50	3
Mn			1	0.048	ug/l	21.16	756.02	6.478E-03	Pulse	0.50	3
Fe			1	12.766	ug/l	62.05	95,016.75	8.127E-01	Pulse	0.50	3
Co			1	0.003	ug/l	149.77	1,132.04	9.706E-03	Pulse	0.50	3
Ni			1	0.130	ug/l	66.43	2,889.56	2.478E-02	Pulse	0.50	3
Cu			1	0.105	ug/l	33.31	6,316.39	5.415E-02	Pulse	0.50	3
Zn			1	0.368	ug/l	48.37	1,111.70	6.309E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	162.92	186.67	1.060E-03	Pulse	0.50	3
Al			1	2.552	ug/l	21.07	1,146.03	7.353E-03	Pulse	1.00	3
Se			1	0.218	ug/l	11.89	43.89	2.492E-04	Pulse	3.00	3
Sb			1	0.012	ug/l	29.82	1,105.04	6.273E-03	Pulse	1.00	3
Se			1	0.027	ug/l	394.69	17.22	9.776E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,304,551.08	1.23	100.0	Pulse	0.50	3
1	Sc		155,819.43	0.50	100.0	Pulse	0.30	3
1	Ge		116,665.74	1.02	100.0	Pulse	0.30	3
1	In		1,266,522.73	0.79	100.0	Pulse	0.30	3
1	Tb		4,075,409.58	0.67	100.0	Pulse	0.50	3
1	Lu		3,137,867.58	1.14	100.0	Pulse	0.50	3
1	Ge		176,138.85	0.38	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,010.03	5.95	100.0	Pulse	0.30	3

Quantitation Report

File Name 002CALB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 10:36
Sample Name Blank
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.005	ug/l	-185.04	1,280.71	1.074E-02	Pulse	0.50	3
As			1	0.007	ug/l	97.18	107.00	8.972E-04	Pulse	1.00	3
Mo			1	0.018	ug/l	51.00	550.01	3.069E-03	Pulse	0.50	3
Pb			1	0.004	ug/l	62.05	6,685.31	1.998E-03	Pulse	1.00	3
Be			1	-0.047	ug/l	-120.25	5.50	3.512E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	61.98	296.67	1.656E-03	Pulse	0.50	3
Ba			1	0.001	ug/l	2300.51	332.67	2.599E-04	Pulse	0.50	3
Tl			1	-0.001	ug/l	-231.06	3,765.76	1.126E-03	Pulse	0.50	3
Sn			1	0.037	ug/l	49.95	1,528.96	1.194E-03	Pulse	0.30	3
Sr			1	0.018	ug/l	56.73	851.36	6.650E-04	Pulse	0.50	3
[Pb]			1	-0.003	ug/l	-348.70	3,034.28	9.071E-04	Pulse	0.50	3
Ca			1	-0.873	ug/l	-108.80	103.33	6.579E-04	Pulse	0.50	3
Ti			1	-0.171	ug/l	-19.75	14.67	9.335E-05	Pulse	0.50	3
Na			1	0.690	ug/l	45.60	13,065.59	8.329E-02	Pulse	1.00	3
Mg			1	0.217	ug/l	119.84	3,693.35	2.354E-02	Pulse	1.00	3
K			1	-0.725	ug/l	-120.07	21,977.18	1.401E-01	Pulse	1.00	3
V			1	-0.002	ug/l	-339.69	1,326.72	8.457E-03	Pulse	0.50	3
Mn			1	0.012	ug/l	133.36	634.01	5.315E-03	Pulse	0.50	3
Fe			1	0.324	ug/l	14.31	28,157.69	2.361E-01	Pulse	0.50	3
Co			1	0.001	ug/l	682.07	1,138.71	9.544E-03	Pulse	0.50	3
Ni			1	0.059	ug/l	66.15	2,765.54	2.319E-02	Pulse	0.50	3
Cu			1	0.012	ug/l	53.50	5,793.56	4.857E-02	Pulse	0.50	3
Zn			1	-0.007	ug/l	-128.57	621.68	3.469E-03	Pulse	1.00	3
Cd			1	-0.008	ug/l	-174.64	157.33	8.787E-04	Pulse	0.50	3
Al			1	0.546	ug/l	38.19	804.02	5.125E-03	Pulse	1.00	3
Se			1	0.079	ug/l	141.21	35.00	1.955E-04	Pulse	3.00	3
Sb			1	-0.009	ug/l	-64.61	986.70	5.506E-03	Pulse	1.00	3
Se			1	0.022	ug/l	50.68	17.33	9.674E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,345,717.67	0.64	100.0	Pulse	0.50	3
1	Sc		156,888.89	0.82	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		119,278.38	0.80	100.0	Pulse	0.30	3
1	In		1,280,187.41	0.46	100.0	Pulse	0.30	3
1	Tb		4,161,421.92	0.81	100.0	Pulse	0.50	3
1	Lu		3,201,090.92	0.76	100.0	Pulse	0.50	3
1	Ge		179,177.43	0.67	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,058.92	6.53	100.0	Pulse	0.30	3

Quantitation Report

File Name 003CALB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 10:40
Sample Name CALSTD-1
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	1,307.38	1.100E-02	Pulse	0.50	3
As			1	0.000	ug/l	---	100.67	8.469E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	469.34	2.642E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	6,608.28	1.967E-03	Pulse	1.00	3
Be			1	0.000	ug/l	---	7.17	4.595E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	---	245.33	1.379E-03	Pulse	0.50	3
Ba			1	0.000	ug/l	---	333.34	2.589E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	---	3,827.78	1.139E-03	Pulse	0.50	3
Sn			1	0.000	ug/l	---	1,354.51	1.052E-03	Pulse	0.30	3
Sr			1	0.000	ug/l	---	764.02	5.931E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	3,086.96	9.188E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	122.00	7.826E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	39.34	2.529E-04	Pulse	0.50	3
Na			1	0.000	ug/l	---	12,438.85	7.976E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	3,580.99	2.296E-02	Pulse	1.00	3
K			1	0.000	ug/l	---	22,139.05	1.420E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,328.05	8.516E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	586.68	4.938E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	26,269.07	2.211E-01	Pulse	0.50	3
Co			1	0.000	ug/l	---	1,124.04	9.458E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	---	2,600.18	2.188E-02	Pulse	0.50	3
Cu			1	0.000	ug/l	---	5,684.86	4.784E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	626.68	3.525E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	173.33	9.749E-04	Pulse	0.50	3
Al			1	0.000	ug/l	---	704.68	4.518E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	29.34	1.650E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	1,038.03	5.838E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	16.45	9.267E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,359,951.58	0.79	100.0	Pulse	0.50	3
1	Sc		155,960.40	0.39	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		118,827.90	0.42	100.0	Pulse	0.30	3
1	In		1,287,980.26	0.37	100.0	Pulse	0.30	3
1	Tb		4,193,248.75	0.45	100.0	Pulse	0.50	3
1	Lu		3,227,321.92	0.26	100.0	Pulse	0.50	3
1	Ge		177,804.93	1.06	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,012.25	4.17	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 10:44
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.455	ug/l	6.34	4,189.13	3.479E-02	Pulse	0.50	3
As			1	0.465	ug/l	1.52	491.34	4.081E-03	Pulse	1.00	3
Mo			1	0.433	ug/l	6.17	2,296.82	1.272E-02	Pulse	0.50	3
Pb			1	0.418	ug/l	1.84	18,430.91	5.486E-03	Pulse	1.00	3
Be			1	0.453	ug/l	15.87	23.67	1.512E-04	Pulse	2.00	3
Ag			1	0.476	ug/l	0.72	6,965.33	3.857E-02	Pulse	0.50	3
Ba			1	0.451	ug/l	6.02	1,346.72	1.043E-03	Pulse	0.50	3
Tl			1	0.448	ug/l	1.03	21,715.78	6.464E-03	Pulse	0.50	3
Sn			1	0.484	ug/l	9.29	3,772.63	2.921E-03	Pulse	0.30	3
Sr			1	0.451	ug/l	7.77	3,100.93	2.403E-03	Pulse	0.50	3
[Pb]			1	0.425	ug/l	4.35	8,748.26	2.604E-03	Pulse	0.50	3
Ca			1	43.867	ug/l	6.02	1,104.04	7.050E-03	Pulse	0.50	3
Ti			1	0.308	ug/l	40.24	84.67	5.402E-04	Pulse	0.50	3
Na			1	43.631	ug/l	1.72	47,409.03	3.027E-01	Pulse	1.00	3
Mg			1	46.895	ug/l	1.57	23,250.43	1.485E-01	Pulse	1.00	3
K			1	46.203	ug/l	1.95	40,794.57	2.605E-01	Pulse	1.00	3
V			1	0.464	ug/l	5.70	3,608.35	2.304E-02	Pulse	0.50	3
Mn			1	0.457	ug/l	3.88	2,353.49	1.954E-02	Pulse	0.50	3
Fe			1	46.774	ug/l	1.15	287,604.89	2.389E+00	Pulse	0.50	3
Co			1	0.471	ug/l	0.68	5,924.93	4.921E-02	Pulse	0.50	3
Ni			1	0.574	ug/l	4.53	4,173.13	3.466E-02	Pulse	0.50	3
Cu			1	0.500	ug/l	2.47	9,379.64	7.790E-02	Pulse	0.50	3
Zn			1	0.303	ug/l	3.63	1,050.70	5.818E-03	Pulse	1.00	3
Cd			1	0.489	ug/l	5.00	1,303.38	7.217E-03	Pulse	0.50	3
Al			1	46.087	ug/l	1.72	8,723.58	5.570E-02	Pulse	1.00	3
Se			1	0.599	ug/l	10.10	71.44	3.955E-04	Pulse	3.00	3
Sb			1	0.450	ug/l	1.18	4,127.47	2.285E-02	Pulse	1.00	3
Se			1	0.516	ug/l	14.72	34.33	1.901E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,359,405.58	0.84	100.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		156,615.39	0.64	100.4	Pulse	0.30	3
1	Ge		120,410.98	0.29	101.3	Pulse	0.30	3
1	In		1,291,204.12	1.17	100.3	Pulse	0.30	3
1	Tb		4,208,315.83	0.63	100.4	Pulse	0.50	3
1	Lu		3,247,521.83	0.66	100.6	Pulse	0.50	3
1	Ge		180,598.50	0.36	101.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		996.70	1.74	98.5	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 10:48
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.932	ug/l	2.09	7,257.37	5.974E-02	Pulse	0.50	3
As			1	0.917	ug/l	3.91	878.02	7.228E-03	Pulse	1.00	3
Mo			1	0.932	ug/l	2.49	4,455.88	2.434E-02	Pulse	0.50	3
Pb			1	0.897	ug/l	1.62	32,258.93	9.524E-03	Pulse	1.00	3
Be			1	0.809	ug/l	11.93	36.67	2.337E-04	Pulse	2.00	3
Ag			1	0.960	ug/l	2.68	13,973.94	7.634E-02	Pulse	0.50	3
Ba			1	0.940	ug/l	5.19	2,474.18	1.893E-03	Pulse	0.50	3
Tl			1	0.930	ug/l	0.90	41,281.58	1.219E-02	Pulse	0.50	3
Sn			1	0.935	ug/l	2.34	6,091.05	4.661E-03	Pulse	0.30	3
Sr			1	0.956	ug/l	1.54	5,783.58	4.426E-03	Pulse	0.50	3
[Pb]			1	0.898	ug/l	1.45	15,180.08	4.482E-03	Pulse	0.50	3
Ca			1	94.417	ug/l	1.86	2,239.47	1.427E-02	Pulse	0.50	3
Ti			1	0.830	ug/l	26.25	161.33	1.028E-03	Pulse	0.50	3
Na			1	92.749	ug/l	0.34	86,890.87	5.537E-01	Pulse	1.00	3
Mg			1	96.844	ug/l	0.74	44,271.97	2.821E-01	Pulse	1.00	3
K			1	95.824	ug/l	0.41	60,850.09	3.878E-01	Pulse	1.00	3
V			1	0.998	ug/l	6.17	6,237.02	3.975E-02	Pulse	0.50	3
Mn			1	0.940	ug/l	6.04	4,247.81	3.497E-02	Pulse	0.50	3
Fe			1	95.789	ug/l	0.15	566,089.06	4.660E+00	Pulse	0.50	3
Co			1	0.961	ug/l	1.76	11,003.81	9.058E-02	Pulse	0.50	3
Ni			1	1.020	ug/l	4.33	5,416.78	4.459E-02	Pulse	0.50	3
Cu			1	0.993	ug/l	1.79	13,069.11	1.076E-01	Pulse	0.50	3
Zn			1	0.826	ug/l	5.37	1,787.75	9.766E-03	Pulse	1.00	3
Cd			1	0.984	ug/l	4.17	2,479.51	1.354E-02	Pulse	0.50	3
Al			1	95.870	ug/l	0.13	17,417.25	1.110E-01	Pulse	1.00	3
Se			1	1.090	ug/l	5.95	107.00	5.845E-04	Pulse	3.00	3
Sb			1	0.919	ug/l	2.51	7,440.51	4.064E-02	Pulse	1.00	3
Se			1	0.878	ug/l	16.21	47.33	2.584E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,387,059.67	0.76	100.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		156,916.99	0.11	100.6	Pulse	0.30	3
1	Ge		121,480.88	0.15	102.2	Pulse	0.30	3
1	In		1,306,789.50	0.77	101.5	Pulse	0.30	3
1	Tb		4,235,416.50	0.09	101.0	Pulse	0.50	3
1	Lu		3,261,485.83	0.60	101.1	Pulse	0.50	3
1	Ge		183,095.38	1.16	103.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		997.81	8.32	98.6	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 10:52
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.234	ug/l	1.32	66,417.71	5.464E-01	Pulse	0.50	3
As			1	10.324	ug/l	2.21	8,832.38	7.266E-02	Pulse	1.00	3
Mo			1	9.986	ug/l	0.55	42,716.40	2.351E-01	Pulse	0.50	3
Pb			1	10.093	ug/l	0.24	292,992.03	8.697E-02	Pulse	1.00	3
Be			1	10.244	ug/l	1.65	381.17	2.424E-03	Pulse	2.00	3
Ag			1	10.683	ug/l	0.02	151,800.55	8.356E-01	Pulse	0.50	3
Ba			1	10.085	ug/l	0.82	23,116.73	1.779E-02	Pulse	0.50	3
Tl			1	10.190	ug/l	0.12	411,780.11	1.222E-01	Pulse	0.50	3
Sn			1	10.011	ug/l	0.72	51,604.51	3.971E-02	Pulse	0.30	3
Sr			1	10.020	ug/l	0.49	52,979.88	4.077E-02	Pulse	0.50	3
[Pb]			1	10.108	ug/l	0.98	138,238.22	4.103E-02	Pulse	0.50	3
Ca			1	1031.824	ug/l	0.19	23,301.17	1.482E-01	Pulse	0.50	3
Ti			1	10.131	ug/l	3.21	1,526.73	9.711E-03	Pulse	0.50	3
Na			1	1027.731	ug/l	0.60	838,304.13	5.332E+00	Pulse	1.00	3
Mg			1	1041.583	ug/l	0.25	441,885.11	2.810E+00	Pulse	1.00	3
K			1	1037.577	ug/l	0.37	440,840.57	2.804E+00	Pulse	1.00	3
V			1	10.253	ug/l	1.50	51,791.02	3.294E-01	Pulse	0.50	3
Mn			1	10.338	ug/l	1.04	40,733.79	3.351E-01	Pulse	0.50	3
Fe			1	1021.434	ug/l	0.62	5,780,570.17	4.755E+01	Analog	0.50	3
Co			1	10.440	ug/l	0.91	108,285.33	8.908E-01	Pulse	0.50	3
Ni			1	10.616	ug/l	0.99	31,376.66	2.581E-01	Pulse	0.50	3
Cu			1	10.571	ug/l	1.39	83,095.54	6.836E-01	Pulse	0.50	3
Zn			1	10.438	ug/l	0.55	14,969.81	8.241E-02	Pulse	1.00	3
Cd			1	10.394	ug/l	1.49	24,297.94	1.338E-01	Pulse	0.50	3
Al			1	1034.713	ug/l	0.56	181,397.45	1.154E+00	Pulse	1.00	3
Se			1	10.661	ug/l	3.52	775.57	4.269E-03	Pulse	3.00	3
Sb			1	10.128	ug/l	0.48	70,710.80	3.892E-01	Pulse	1.00	3
Se			1	10.278	ug/l	0.53	369.45	2.034E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,368,960.08	0.53	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		157,229.59	0.35	100.8	Pulse	0.30	3
1	Ge		121,560.39	0.57	102.3	Pulse	0.30	3
1	In		1,299,491.30	0.59	100.9	Pulse	0.30	3
1	Tb		4,236,238.17	0.30	101.0	Pulse	0.50	3
1	Lu		3,256,039.58	0.49	100.9	Pulse	0.50	3
1	Ge		181,666.15	0.99	102.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,105.59	10.15	109.2	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 10:56
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.240	ug/l	0.23	296,477.30	2.483E+00	Pulse	0.50	3
As			1	47.258	ug/l	0.64	39,360.61	3.296E-01	Pulse	1.00	3
Mo			1	46.902	ug/l	0.79	194,971.27	1.095E+00	Pulse	0.50	3
Pb			1	46.904	ug/l	0.51	1,311,129.08	3.970E-01	Pulse	1.00	3
Be			1	47.865	ug/l	1.22	1,746.58	1.116E-02	Pulse	2.00	3
Ag			1	49.360	ug/l	0.67	686,756.96	3.856E+00	Pulse	0.50	3
Ba			1	47.472	ug/l	0.56	105,000.54	8.277E-02	Pulse	0.50	3
Tl			1	47.609	ug/l	0.29	1,872,070.04	5.669E-01	Pulse	0.50	3
Sn			1	47.172	ug/l	0.28	232,407.73	1.832E-01	Pulse	0.30	3
Sr			1	47.118	ug/l	0.90	240,411.15	1.895E-01	Pulse	0.50	3
[Pb]			1	46.936	ug/l	0.22	618,200.15	1.872E-01	Pulse	0.50	3
Ca			1	4739.474	ug/l	0.70	106,111.49	6.779E-01	Pulse	0.50	3
Ti			1	47.111	ug/l	0.65	6,924.57	4.424E-02	Pulse	0.50	3
Na			1	4688.711	ug/l	0.36	3,763,122.08	2.404E+01	Pulse	1.00	3
Mg			1	4727.725	ug/l	0.50	1,984,079.88	1.268E+01	Pulse	1.00	3
K			1	4731.460	ug/l	0.34	1,922,272.38	1.228E+01	Pulse	1.00	3
V			1	47.121	ug/l	0.71	232,173.32	1.483E+00	Pulse	0.50	3
Mn			1	47.534	ug/l	0.78	181,877.54	1.523E+00	Pulse	0.50	3
Fe			1	4705.407	ug/l	0.69	26,066,640.00	2.183E+02	Analog	0.50	3
Co			1	48.057	ug/l	0.37	485,662.99	4.067E+00	Pulse	0.50	3
Ni			1	48.377	ug/l	1.15	131,174.15	1.098E+00	Pulse	0.50	3
Cu			1	49.004	ug/l	0.82	357,686.94	2.995E+00	Pulse	0.50	3
Zn			1	48.711	ug/l	0.76	66,190.56	3.716E-01	Pulse	1.00	3
Cd			1	48.111	ug/l	1.66	109,641.24	6.156E-01	Pulse	0.50	3
Al			1	4663.024	ug/l	0.74	811,362.92	5.184E+00	Pulse	1.00	3
Se			1	48.245	ug/l	1.56	3,337.18	1.874E-02	Pulse	3.00	3
Sb			1	47.247	ug/l	0.84	319,575.60	1.794E+00	Pulse	1.00	3
Se			1	48.206	ug/l	1.06	1,638.07	9.196E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,302,595.58	0.47	98.3	Pulse	0.50	3
1	Sc		156,536.07	1.10	100.4	Pulse	0.30	3
1	Ge		119,426.98	0.60	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,268,531.51	0.81	98.5	Pulse	0.30	3
1	Tb		4,199,005.50	0.37	100.1	Pulse	0.50	3
1	Lu		3,245,145.75	0.59	100.6	Pulse	0.50	3
1	Ge		178,109.10	0.87	100.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,008.92	5.00	99.7	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:00
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.144	ug/l	0.50	597,357.29	5.146E+00	Pulse	0.50	3
As			1	98.322	ug/l	0.89	79,497.67	6.848E-01	Pulse	1.00	3
Mo			1	97.361	ug/l	0.90	394,644.99	2.270E+00	Pulse	0.50	3
Pb			1	97.534	ug/l	0.50	2,627,382.50	8.234E-01	Pulse	1.00	3
Be			1	97.234	ug/l	0.13	3,447.79	2.262E-02	Pulse	2.00	3
Ag			1	100.252	ug/l	1.09	1,361,527.92	7.830E+00	Pulse	0.50	3
Ba			1	97.584	ug/l	0.42	209,730.38	1.699E-01	Pulse	0.50	3
Tl			1	99.123	ug/l	0.16	3,761,994.33	1.179E+00	Pulse	0.50	3
Sn			1	98.015	ug/l	0.20	468,587.41	3.796E-01	Pulse	0.30	3
Sr			1	97.873	ug/l	0.55	485,247.01	3.931E-01	Pulse	0.50	3
[Pb]			1	97.692	ug/l	0.37	1,239,999.87	3.886E-01	Pulse	0.50	3
Ca			1	9877.230	ug/l	0.75	215,201.51	1.412E+00	Pulse	0.50	3
Ti			1	99.940	ug/l	0.48	14,259.20	9.355E-02	Pulse	0.50	3
Na			1	9854.755	ug/l	0.29	7,688,111.17	5.044E+01	Analog	1.00	3
Mg			1	9790.110	ug/l	0.22	3,996,920.33	2.622E+01	Pulse	1.00	3
K			1	9751.088	ug/l	0.35	3,834,559.08	2.516E+01	Pulse	1.00	3
V			1	98.439	ug/l	0.50	470,862.78	3.089E+00	Pulse	0.50	3
Mn			1	98.076	ug/l	0.31	364,184.18	3.137E+00	Pulse	0.50	3
Fe			1	9790.587	ug/l	0.20	52,695,360.00	4.539E+02	Analog	0.50	3
Co			1	99.001	ug/l	0.34	971,405.00	8.368E+00	Pulse	0.50	3
Ni			1	99.330	ug/l	0.50	259,142.40	2.232E+00	Pulse	0.50	3
Cu			1	100.003	ug/l	0.34	703,786.44	6.062E+00	Pulse	0.50	3
Zn			1	99.398	ug/l	0.88	131,236.36	7.547E-01	Pulse	1.00	3
Cd			1	98.392	ug/l	0.93	218,750.83	1.258E+00	Pulse	0.50	3
Al			1	9762.707	ug/l	0.03	1,653,345.21	1.085E+01	Pulse	1.00	3
Se			1	99.605	ug/l	2.18	6,696.40	3.851E-02	Pulse	3.00	3
Sb			1	98.043	ug/l	0.90	646,373.17	3.717E+00	Pulse	1.00	3
Se			1	99.612	ug/l	1.92	3,287.17	1.890E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,190,895.50	0.18	95.0	Pulse	0.50	3
1	Sc		152,417.52	0.41	97.7	Pulse	0.30	3
1	Ge		116,091.48	0.65	97.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,234,580.68	0.43	95.9	Pulse	0.30	3
1	Tb		4,117,752.50	0.48	98.2	Pulse	0.50	3
1	Lu		3,177,481.67	0.51	98.5	Pulse	0.50	3
1	Ge		173,897.10	1.09	97.8	Pulse	0.30	3
1	Te		3.33	124.90		Pulse	0.50	3
1	Li		938.91	10.78	92.8	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:04
Sample Name CALSTD-7
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	201.607	ug/l	1.39	1,186,683.29	1.056E+01	Pulse	0.50	3
As			1	201.509	ug/l	1.50	157,631.19	1.403E+00	Pulse	1.00	3
Mo			1	202.095	ug/l	2.18	792,481.04	4.708E+00	Pulse	0.50	3
Pb			1	202.003	ug/l	0.39	5,189,183.67	1.703E+00	Pulse	1.00	3
Be			1	201.906	ug/l	1.16	6,974.03	4.692E-02	Pulse	2.00	3
Ag			1	137.549	ug/l	2.06	1,808,234.09	1.074E+01	Pulse	0.50	3
Ba			1	201.836	ug/l	0.18	416,847.07	3.511E-01	Pulse	0.50	3
Tl			1	201.027	ug/l	0.51	7,280,925.67	2.390E+00	Analog	0.50	3
Sn			1	201.699	ug/l	0.16	926,004.03	7.799E-01	Pulse	0.30	3
Sr			1	201.783	ug/l	0.29	961,349.87	8.097E-01	Pulse	0.50	3
[Pb]			1	201.915	ug/l	0.69	2,444,028.25	8.022E-01	Pulse	0.50	3
Ca			1	20124.969	ug/l	0.92	427,468.46	2.876E+00	Pulse	0.50	3
Ti			1	200.747	ug/l	0.85	27,894.47	1.877E-01	Pulse	0.50	3
Na			1	20149.110	ug/l	0.82	15,316,207.00	1.030E+02	Analog	1.00	3
Mg			1	20170.958	ug/l	0.80	8,026,800.67	5.400E+01	Analog	1.00	3
K			1	20189.742	ug/l	0.50	7,719,747.50	5.194E+01	Analog	1.00	3
V			1	201.488	ug/l	0.82	938,514.86	6.314E+00	Pulse	0.50	3
Mn			1	201.562	ug/l	1.82	723,971.25	6.442E+00	Pulse	0.50	3
Fe			1	20177.312	ug/l	1.84	105,104,144.00	9.352E+02	Analog	0.50	3
Co			1	200.963	ug/l	1.86	1,907,794.33	1.698E+01	Pulse	0.50	3
Ni			1	200.710	ug/l	1.95	504,396.51	4.488E+00	Pulse	0.50	3
Cu			1	200.219	ug/l	1.72	1,358,704.09	1.209E+01	Pulse	0.50	3
Zn			1	200.603	ug/l	1.80	255,780.90	1.520E+00	Pulse	1.00	3
Cd			1	201.257	ug/l	2.40	432,942.72	2.572E+00	Pulse	0.50	3
Al			1	20201.185	ug/l	0.47	3,335,499.92	2.244E+01	Pulse	1.00	3
Se			1	200.603	ug/l	1.40	13,028.54	7.739E-02	Pulse	3.00	3
Sb			1	201.661	ug/l	2.00	1,285,950.58	7.640E+00	Pulse	1.00	3
Se			1	200.629	ug/l	1.28	6,393.96	3.798E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,046,648.50	0.53	90.7	Pulse	0.50	3
1	Sc		148,637.82	0.86	95.3	Pulse	0.30	3
1	Ge		112,410.70	2.03	94.6	Pulse	0.30	3
1	In		1,187,274.54	0.49	92.2	Pulse	0.30	3
1	Tb		4,005,503.75	0.53	95.5	Pulse	0.50	3
1	Lu		3,097,502.50	0.37	96.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		168,369.58	2.01	94.7	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		843.36	9.59	83.3	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:08
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.073	ug/l	2.41	581,066.15	5.247E+00	Pulse	0.50	3
As			1	100.381	ug/l	1.98	77,432.98	6.991E-01	Pulse	1.00	3
Mo			1	99.784	ug/l	2.10	388,370.37	2.326E+00	Pulse	0.50	3
Pb			1	99.913	ug/l	3.15	2,573,886.25	8.434E-01	Pulse	1.00	3
Be			1	102.784	ug/l	2.87	3,450.46	2.391E-02	Pulse	2.00	3
Ag			1	102.799	ug/l	2.41	1,340,527.92	8.029E+00	Pulse	0.50	3
Ba			1	99.984	ug/l	3.09	203,925.95	1.741E-01	Pulse	0.50	3
Tl			1	101.961	ug/l	3.02	3,700,819.67	1.213E+00	Pulse	0.50	3
Sn			1	100.633	ug/l	3.95	456,430.35	3.897E-01	Pulse	0.30	3
Sr			1	99.368	ug/l	3.28	467,515.34	3.990E-01	Pulse	0.50	3
[Pb]			1	100.160	ug/l	3.60	1,215,639.37	3.984E-01	Pulse	0.50	3
Ca			1	10098.902	ug/l	2.83	208,336.85	1.444E+00	Pulse	0.50	3
Ti			1	101.757	ug/l	3.61	13,744.18	9.525E-02	Pulse	0.50	3
Na			1	10205.523	ug/l	2.95	7,537,907.83	5.223E+01	Analog	1.00	3
Mg			1	10055.849	ug/l	3.09	3,886,864.50	2.693E+01	Pulse	1.00	3
K			1	9986.324	ug/l	3.45	3,717,288.33	2.576E+01	Pulse	1.00	3
V			1	101.484	ug/l	3.02	459,575.62	3.185E+00	Pulse	0.50	3
Mn			1	99.929	ug/l	2.49	353,982.81	3.196E+00	Pulse	0.50	3
Fe			1	10048.204	ug/l	2.05	51,597,308.00	4.659E+02	Analog	0.50	3
Co			1	100.646	ug/l	2.27	942,128.58	8.507E+00	Pulse	0.50	3
Ni			1	101.640	ug/l	2.26	252,925.82	2.284E+00	Pulse	0.50	3
Cu			1	101.303	ug/l	2.07	680,114.15	6.141E+00	Pulse	0.50	3
Zn			1	100.471	ug/l	2.18	127,364.38	7.628E-01	Pulse	1.00	3
Cd			1	100.608	ug/l	2.30	214,769.44	1.286E+00	Pulse	0.50	3
Al			1	10106.410	ug/l	3.21	1,620,412.55	1.123E+01	Pulse	1.00	3
Se			1	99.973	ug/l	3.12	6,452.64	3.865E-02	Pulse	3.00	3
Sb			1	99.537	ug/l	2.33	630,080.77	3.774E+00	Pulse	1.00	3
Se			1	101.106	ug/l	2.20	3,203.60	1.919E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,054,047.58	3.77	90.9	Pulse	0.50	3
1	Sc		144,413.01	3.55	92.6	Pulse	0.30	3
1	Ge		110,798.49	2.68	93.2	Pulse	0.30	3
1	In		1,172,596.34	4.02	91.0	Pulse	0.30	3
1	Tb		3,957,492.08	3.90	94.4	Pulse	0.50	3
1	Lu		3,028,272.00	4.07	93.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,034.13	2.78	93.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		952.25	5.25	94.1	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:12
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	199.113	ug/l	0.37	1,174,137.88	1.043E+01	Pulse	0.50	3
As			1	198.828	ug/l	0.74	155,809.81	1.384E+00	Pulse	1.00	3
Mo			1	201.250	ug/l	1.29	782,582.75	4.688E+00	Pulse	0.50	3
Pb			1	201.079	ug/l	0.63	5,090,087.67	1.695E+00	Pulse	1.00	3
Be			1	202.928	ug/l	0.70	6,878.83	4.716E-02	Pulse	2.00	3
Ag			1	138.132	ug/l	0.86	1,800,717.42	1.079E+01	Pulse	0.50	3
Ba			1	200.290	ug/l	1.50	408,902.97	3.484E-01	Pulse	0.50	3
Tl			1	202.284	ug/l	0.47	7,219,432.50	2.405E+00	Analog	0.50	3
Sn			1	199.605	ug/l	1.23	905,874.51	7.719E-01	Pulse	0.30	3
Sr			1	199.409	ug/l	1.13	939,134.08	8.002E-01	Pulse	0.50	3
[Pb]			1	200.897	ug/l	0.53	2,396,209.83	7.982E-01	Pulse	0.50	3
Ca			1	20156.196	ug/l	0.26	420,161.56	2.880E+00	Pulse	0.50	3
Ti			1	202.872	ug/l	1.40	27,664.15	1.897E-01	Pulse	0.50	3
Na			1	20393.288	ug/l	0.84	15,212,978.33	1.043E+02	Analog	1.00	3
Mg			1	20420.352	ug/l	0.94	7,974,707.00	5.467E+01	Analog	1.00	3
K			1	20437.059	ug/l	0.27	7,668,510.50	5.257E+01	Analog	1.00	3
V			1	202.582	ug/l	1.24	926,038.36	6.349E+00	Pulse	0.50	3
Mn			1	198.210	ug/l	0.39	713,253.25	6.335E+00	Pulse	0.50	3
Fe			1	20050.383	ug/l	0.17	104,637,368.00	9.294E+02	Analog	0.50	3
Co			1	197.355	ug/l	0.51	1,876,986.42	1.667E+01	Pulse	0.50	3
Ni			1	196.088	ug/l	0.42	493,754.78	4.385E+00	Pulse	0.50	3
Cu			1	195.598	ug/l	0.49	1,329,878.29	1.181E+01	Pulse	0.50	3
Zn			1	199.457	ug/l	0.69	252,185.52	1.511E+00	Pulse	1.00	3
Cd			1	198.580	ug/l	1.19	423,632.78	2.538E+00	Pulse	0.50	3
Al			1	20273.267	ug/l	0.92	3,285,022.75	2.252E+01	Pulse	1.00	3
Se			1	199.032	ug/l	0.61	12,817.07	7.679E-02	Pulse	3.00	3
Sb			1	199.194	ug/l	0.96	1,259,593.96	7.546E+00	Pulse	1.00	3
Se			1	201.466	ug/l	0.26	6,366.06	3.814E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,002,097.50	0.81	89.3	Pulse	0.50	3
1	Sc		145,866.03	0.44	93.5	Pulse	0.30	3
1	Ge		112,592.83	1.06	94.8	Pulse	0.30	3
1	In		1,173,657.21	0.39	91.1	Pulse	0.30	3
1	Tb		3,959,812.08	0.44	94.4	Pulse	0.50	3
1	Lu		3,067,622.50	0.35	95.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		166,914.72	0.17	93.9	Pulse	0.30	3
1	Te		4.00	86.60		Pulse	0.50	3
1	Li		866.69	4.16	85.6	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:15
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	105.963	ug/l	0.52	565,287.94	5.555E+00	Pulse	0.50	3
As			1	104.907	ug/l	1.24	74,343.24	7.306E-01	Pulse	1.00	3
Mo			1	108.046	ug/l	0.21	385,646.12	2.518E+00	Pulse	0.50	3
Pb			1	102.703	ug/l	2.29	2,554,516.25	8.669E-01	Pulse	1.00	3
Be			1	109.614	ug/l	0.94	3,414.95	2.549E-02	Pulse	2.00	3
Ag			1	54.779	ug/l	0.62	655,287.69	4.279E+00	Pulse	0.50	3
Ba			1	104.378	ug/l	0.61	196,309.96	1.817E-01	Pulse	0.50	3
Tl			1	103.991	ug/l	2.12	3,644,421.33	1.237E+00	Pulse	0.50	3
Sn			1	106.173	ug/l	0.73	444,155.19	4.111E-01	Pulse	0.30	3
Sr			1	106.185	ug/l	0.11	460,697.14	4.264E-01	Pulse	0.50	3
[Pb]			1	102.814	ug/l	2.20	1,204,958.13	4.089E-01	Pulse	0.50	3
Ca			1	9795.987	ug/l	0.61	187,573.68	1.400E+00	Pulse	0.50	3
Ti			1	107.893	ug/l	1.26	13,528.03	1.010E-01	Pulse	0.50	3
Na			1	10488.009	ug/l	0.96	7,189,852.33	5.368E+01	Analog	1.00	3
Mg			1	10495.341	ug/l	0.71	3,765,385.50	2.811E+01	Pulse	1.00	3
K			1	10079.684	ug/l	1.18	3,482,646.42	2.600E+01	Pulse	1.00	3
V			1	105.882	ug/l	0.71	445,015.85	3.322E+00	Pulse	0.50	3
Mn			1	103.772	ug/l	0.53	337,747.84	3.319E+00	Pulse	0.50	3
Fe			1	10341.585	ug/l	0.37	48,790,577.33	4.794E+02	Analog	0.50	3
Co			1	104.754	ug/l	0.65	900,940.23	8.853E+00	Pulse	0.50	3
Ni			1	104.637	ug/l	0.87	239,183.84	2.350E+00	Pulse	0.50	3
Cu			1	107.494	ug/l	0.50	662,759.31	6.513E+00	Pulse	0.50	3
Zn			1	102.952	ug/l	0.55	119,682.67	7.816E-01	Pulse	1.00	3
Cd			1	105.117	ug/l	1.02	205,794.02	1.344E+00	Pulse	0.50	3
Al			1	9775.207	ug/l	0.67	1,454,860.54	1.086E+01	Pulse	1.00	3
Se			1	101.663	ug/l	1.20	6,018.50	3.930E-02	Pulse	3.00	3
Sb			1	103.165	ug/l	0.30	598,931.75	3.911E+00	Pulse	1.00	3
Se			1	101.276	ug/l	1.77	2,943.45	1.922E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,850.67	0.61	87.7	Pulse	0.50	3
1	Sc		133,955.71	1.26	85.9	Pulse	0.30	3
1	Ge		101,762.91	1.02	85.6	Pulse	0.30	3
1	In		1,080,491.42	1.05	83.9	Pulse	0.30	3
1	Tb		3,762,079.33	1.74	89.7	Pulse	0.50	3
1	Lu		2,881,935.33	1.24	89.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		153,136.58	1.26	86.1	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		904.47	7.57	89.4	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:19
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.001	ug/l	-2942.49	1,248.04	1.097E-02	Pulse	0.50	3
As			1	0.032	ug/l	53.10	122.00	1.073E-03	Pulse	1.00	3
Mo			1	0.100	ug/l	39.40	855.36	4.976E-03	Pulse	0.50	3
Pb			1	-0.010	ug/l	-208.03	6,004.06	1.883E-03	Pulse	1.00	3
Be			1	0.036	ug/l	102.38	8.17	5.434E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	66.70	301.33	1.755E-03	Pulse	0.50	3
Ba			1	0.015	ug/l	100.16	348.67	2.852E-04	Pulse	0.50	3
Tl			1	0.047	ug/l	5.20	5,409.54	1.697E-03	Pulse	0.50	3
Sn			1	0.268	ug/l	119.12	2,544.07	2.085E-03	Pulse	0.30	3
Sr			1	0.024	ug/l	53.18	841.36	6.886E-04	Pulse	0.50	3
[Pb]			1	-0.013	ug/l	-81.99	2,768.23	8.682E-04	Pulse	0.50	3
Ca			1	0.635	ug/l	90.93	131.33	8.734E-04	Pulse	0.50	3
Ti			1	-0.138	ug/l	-21.20	18.67	1.241E-04	Pulse	0.50	3
Na			1	2.729	ug/l	38.64	14,086.29	9.370E-02	Pulse	1.00	3
Mg			1	1.149	ug/l	16.97	3,914.05	2.604E-02	Pulse	1.00	3
K			1	1.315	ug/l	57.86	21,846.05	1.453E-01	Pulse	1.00	3
V			1	-0.017	ug/l	-111.28	1,200.71	7.986E-03	Pulse	0.50	3
Mn			1	0.014	ug/l	80.97	614.68	5.401E-03	Pulse	0.50	3
Fe			1	1.037	ug/l	60.66	30,624.90	2.691E-01	Pulse	0.50	3
Co			1	0.027	ug/l	21.30	1,340.05	1.177E-02	Pulse	0.50	3
Ni			1	-0.120	ug/l	-5.50	2,188.13	1.922E-02	Pulse	0.50	3
Cu			1	-0.010	ug/l	-98.50	5,379.43	4.726E-02	Pulse	0.50	3
Zn			1	-0.080	ug/l	-24.07	501.34	2.919E-03	Pulse	1.00	3
Cd			1	0.026	ug/l	42.05	224.00	1.304E-03	Pulse	0.50	3
Al			1	-0.225	ug/l	-142.39	641.68	4.269E-03	Pulse	1.00	3
Se			1	0.128	ug/l	78.17	36.78	2.142E-04	Pulse	3.00	3
Sb			1	0.045	ug/l	13.27	1,295.05	7.540E-03	Pulse	1.00	3
Se			1	0.115	ug/l	83.09	19.66	1.144E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,188,739.83	0.35	94.9	Pulse	0.50	3
1	Sc		150,331.70	0.74	96.4	Pulse	0.30	3

Quantitation Report

1	Ge		113,831.32	1.00	95.8	Pulse	0.30	3
1	In		1,222,053.14	0.40	94.9	Pulse	0.30	3
1	Tb		4,030,734.25	0.98	96.1	Pulse	0.50	3
1	Lu		3,072,806.67	0.25	95.2	Pulse	0.50	3
1	Ge		171,761.51	0.64	96.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		923.36	9.71	91.2	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:23
Sample Name CRIA
Sample Type CRIA
Comment =std 2
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.957	ug/l	0.58	7,067.30	6.106E-02	Pulse	0.50	3
As			1	0.942	ug/l	5.32	857.02	7.402E-03	Pulse	1.00	3
Mo			1	0.994	ug/l	0.49	4,485.22	2.578E-02	Pulse	0.50	3
Pb			1	0.919	ug/l	0.81	30,920.48	9.702E-03	Pulse	1.00	3
Be			1	0.945	ug/l	2.31	40.50	2.653E-04	Pulse	2.00	3
Ag			1	0.977	ug/l	0.22	13,512.27	7.767E-02	Pulse	0.50	3
Ba			1	0.930	ug/l	3.50	2,312.82	1.875E-03	Pulse	0.50	3
Tl			1	0.971	ug/l	1.08	40,410.13	1.268E-02	Pulse	0.50	3
Sn			1	0.946	ug/l	2.38	5,804.28	4.706E-03	Pulse	0.30	3
Sr			1	0.945	ug/l	1.62	5,407.46	4.384E-03	Pulse	0.50	3
[Pb]			1	0.938	ug/l	2.19	14,793.76	4.642E-03	Pulse	0.50	3
Ca			1	99.691	ug/l	3.30	2,293.48	1.503E-02	Pulse	0.50	3
Ti			1	0.992	ug/l	6.37	180.00	1.179E-03	Pulse	0.50	3
Na			1	94.763	ug/l	0.79	86,109.16	5.640E-01	Pulse	1.00	3
Mg			1	95.850	ug/l	0.17	42,668.52	2.795E-01	Pulse	1.00	3
K			1	96.041	ug/l	2.19	59,286.71	3.883E-01	Pulse	1.00	3
V			1	0.918	ug/l	3.80	5,688.18	3.726E-02	Pulse	0.50	3
Mn			1	0.957	ug/l	3.95	4,107.78	3.549E-02	Pulse	0.50	3
Fe			1	96.819	ug/l	0.70	544,886.40	4.708E+00	Pulse	0.50	3
Co			1	1.006	ug/l	0.99	10,924.44	9.439E-02	Pulse	0.50	3
Ni			1	0.887	ug/l	4.59	4,816.62	4.162E-02	Pulse	0.50	3
Cu			1	1.021	ug/l	2.38	12,648.17	1.093E-01	Pulse	0.50	3
Zn			1	0.826	ug/l	5.04	1,699.08	9.765E-03	Pulse	1.00	3
Cd			1	1.022	ug/l	1.40	2,440.84	1.403E-02	Pulse	0.50	3
Al			1	94.018	ug/l	1.93	16,633.25	1.089E-01	Pulse	1.00	3
Se			1	0.991	ug/l	7.58	95.11	5.466E-04	Pulse	3.00	3
Sb			1	0.931	ug/l	2.13	7,147.06	4.108E-02	Pulse	1.00	3
Se			1	1.140	ug/l	22.21	53.56	3.080E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,186,800.83	0.52	94.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		152,675.07	1.09	97.9	Pulse	0.30	3
1	Ge		115,741.42	0.98	97.4	Pulse	0.30	3
1	In		1,233,301.13	1.00	95.8	Pulse	0.30	3
1	Tb		4,052,002.75	0.66	96.6	Pulse	0.50	3
1	Lu		3,086,401.58	0.71	95.6	Pulse	0.50	3
1	Ge		173,974.83	0.56	97.8	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,010.03	2.93	99.8	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:27
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.118	ug/l	1.62	13,091.09	1.218E-01	Pulse	0.50	3
As			1	0.075	ug/l	60.91	147.00	1.368E-03	Pulse	1.00	3
Mo			1	2228.752	ug/l	0.91	8,056,963.33	5.190E+01	Analog	0.50	3
Pb			1	0.043	ug/l	4.96	6,220.80	2.333E-03	Pulse	1.00	3
Be			1	-0.016	ug/l	-677.55	6.00	4.231E-05	Pulse	2.00	3
Ag			1	0.011	ug/l	29.95	352.00	2.268E-03	Pulse	0.50	3
Ba			1	0.553	ug/l	5.60	1,312.05	1.220E-03	Pulse	0.50	3
Tl			1	0.021	ug/l	29.48	3,713.09	1.392E-03	Pulse	0.50	3
Sn			1	0.091	ug/l	14.09	1,508.96	1.403E-03	Pulse	0.30	3
Sr			1	0.961	ug/l	2.62	4,779.29	4.446E-03	Pulse	0.50	3
[Pb]			1	0.043	ug/l	14.90	2,908.26	1.090E-03	Pulse	0.50	3
Ca			1	104408.940	ug/l	0.77	2,113,620.17	1.492E+01	Pulse	0.50	3
Ti			1	2172.538	ug/l	0.80	287,409.58	2.028E+00	Pulse	0.50	3
Na			1	106674.486	ug/l	0.67	77,250,797.33	5.452E+02	Analog	1.00	3
Mg			1	104830.873	ug/l	1.14	39,753,004.00	2.806E+02	Analog	1.00	3
K			1	108158.070	ug/l	0.46	39,335,189.33	2.776E+02	Analog	1.00	3
V			1	0.040	ug/l	60.96	1,384.05	9.770E-03	Pulse	0.50	3
Mn			1	0.430	ug/l	3.84	2,006.77	1.867E-02	Pulse	0.50	3
Fe			1	106075.675	ug/l	0.34	528,316,128.00	4.916E+03	Analog	0.50	3
Co			1	0.110	ug/l	9.36	2,014.78	1.875E-02	Pulse	0.50	3
Ni			1	0.291	ug/l	15.19	3,048.25	2.837E-02	Pulse	0.50	3
Cu			1	1.619	ug/l	0.72	15,606.34	1.452E-01	Pulse	0.50	3
Zn			1	1.483	ug/l	0.59	2,287.81	1.474E-02	Pulse	1.00	3
Cd			1	0.755	ug/l	5.63	1,648.75	1.062E-02	Pulse	0.50	3
Al			1	104116.751	ug/l	1.15	16,384,737.67	1.156E+02	Analog	1.00	3
Se			1	0.227	ug/l	78.85	39.22	2.523E-04	Pulse	3.00	3
Sb			1	0.069	ug/l	11.81	1,314.05	8.464E-03	Pulse	1.00	3
Se			1	0.040	ug/l	229.44	15.56	1.003E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,666,951.58	0.96	79.4	Pulse	0.50	3
1	Sc		141,690.22	0.47	90.9	Pulse	0.30	3
1	Ge		107,475.04	0.74	90.4	Pulse	0.30	3
1	In		1,075,124.58	0.59	83.5	Pulse	0.30	3
1	Tb		3,705,350.67	1.11	88.4	Pulse	0.50	3
1	Lu		2,864,289.83	1.17	88.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		155,256.66	0.91	87.3	Pulse	0.30	3
1	Te		3.33	34.64		Pulse	0.50	3
1	Li		801.13	12.72	79.1	Pulse	0.30	3

Quantitation Report

File Name 016ICSB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:30
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.464	ug/l	1.91	125,481.62	1.186E+00	Pulse	0.50	3
As			1	20.609	ug/l	1.45	15,253.40	1.442E-01	Pulse	1.00	3
Mo			1	2209.237	ug/l	0.79	7,944,264.00	5.144E+01	Analog	0.50	3
Pb			1	0.043	ug/l	14.21	6,180.12	2.326E-03	Pulse	1.00	3
Be			1	-0.110	ug/l	-49.27	2.83	2.031E-05	Pulse	2.00	3
Ag			1	19.127	ug/l	0.80	230,881.33	1.495E+00	Pulse	0.50	3
Ba			1	0.535	ug/l	12.27	1,258.71	1.188E-03	Pulse	0.50	3
Tl			1	0.014	ug/l	22.74	3,463.03	1.304E-03	Pulse	0.50	3
Sn			1	0.069	ug/l	2.95	1,394.51	1.317E-03	Pulse	0.30	3
Sr			1	0.961	ug/l	2.39	4,705.94	4.445E-03	Pulse	0.50	3
[Pb]			1	0.045	ug/l	24.57	2,920.26	1.099E-03	Pulse	0.50	3
Ca			1	104283.591	ug/l	1.21	2,080,874.79	1.490E+01	Pulse	0.50	3
Ti			1	2170.784	ug/l	1.46	283,064.85	2.027E+00	Pulse	0.50	3
Na			1	106351.425	ug/l	1.29	75,914,322.67	5.436E+02	Analog	1.00	3
Mg			1	104623.689	ug/l	1.52	39,106,904.00	2.800E+02	Analog	1.00	3
K			1	108069.074	ug/l	0.99	38,739,958.67	2.774E+02	Analog	1.00	3
V			1	0.056	ug/l	22.30	1,434.06	1.027E-02	Pulse	0.50	3
Mn			1	20.873	ug/l	0.97	71,036.88	6.715E-01	Pulse	0.50	3
Fe			1	106637.851	ug/l	1.04	522,746,720.00	4.942E+03	Analog	0.50	3
Co			1	19.986	ug/l	1.33	179,486.11	1.697E+00	Pulse	0.50	3
Ni			1	19.581	ug/l	0.84	48,409.60	4.576E-01	Pulse	0.50	3
Cu			1	19.505	ug/l	1.50	129,156.53	1.221E+00	Pulse	0.50	3
Zn			1	21.430	ug/l	1.21	25,553.21	1.655E-01	Pulse	1.00	3
Cd			1	20.117	ug/l	0.75	39,844.04	2.580E-01	Pulse	0.50	3
Al			1	103924.179	ug/l	1.70	16,120,402.00	1.154E+02	Analog	1.00	3
Se			1	0.274	ug/l	31.99	41.78	2.704E-04	Pulse	3.00	3
Sb			1	0.062	ug/l	22.65	1,262.04	8.168E-03	Pulse	1.00	3
Se			1	0.100	ug/l	60.18	17.22	1.115E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,656,990.83	0.86	79.1	Pulse	0.50	3
1	Sc		139,661.58	0.33	89.5	Pulse	0.30	3
1	Ge		105,781.13	0.84	89.0	Pulse	0.30	3
1	In		1,058,693.54	0.99	82.2	Pulse	0.30	3
1	Tb		3,660,656.25	0.87	87.3	Pulse	0.50	3
1	Lu		2,842,298.33	0.72	88.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		154,434.64	1.36	86.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		802.24	4.82	79.3	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:34
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.633	ug/l	0.80	283,893.45	2.555E+00	Pulse	0.50	3
As			1	48.894	ug/l	0.46	37,878.32	3.410E-01	Pulse	1.00	3
Mo			1	49.372	ug/l	2.03	193,014.75	1.152E+00	Pulse	0.50	3
Pb			1	48.402	ug/l	0.65	1,255,634.17	4.096E-01	Pulse	1.00	3
Be			1	49.447	ug/l	2.38	1,655.57	1.153E-02	Pulse	2.00	3
Ag			1	50.676	ug/l	1.74	663,181.77	3.959E+00	Pulse	0.50	3
Ba			1	48.196	ug/l	0.58	99,712.92	8.403E-02	Pulse	0.50	3
Tl			1	49.255	ug/l	0.80	1,797,614.04	5.864E-01	Pulse	0.50	3
Sn			1	48.637	ug/l	1.08	224,114.05	1.889E-01	Pulse	0.30	3
Sr			1	48.208	ug/l	0.78	230,080.56	1.939E-01	Pulse	0.50	3
[Pb]			1	48.669	ug/l	0.71	594,878.94	1.941E-01	Pulse	0.50	3
Ca			1	4927.062	ug/l	0.51	101,226.65	7.047E-01	Pulse	0.50	3
Ti			1	48.934	ug/l	3.38	6,597.81	4.594E-02	Pulse	0.50	3
Na			1	4847.745	ug/l	0.82	3,569,980.00	2.485E+01	Pulse	1.00	3
Mg			1	4857.355	ug/l	1.27	1,870,530.21	1.302E+01	Pulse	1.00	3
K			1	4894.095	ug/l	0.66	1,823,926.92	1.270E+01	Pulse	1.00	3
V			1	49.095	ug/l	1.38	221,924.30	1.545E+00	Pulse	0.50	3
Mn			1	48.546	ug/l	0.28	172,782.81	1.555E+00	Pulse	0.50	3
Fe			1	4984.160	ug/l	0.12	25,683,208.67	2.312E+02	Analog	0.50	3
Co			1	49.262	ug/l	0.44	463,089.21	4.168E+00	Pulse	0.50	3
Ni			1	49.031	ug/l	0.08	123,642.56	1.113E+00	Pulse	0.50	3
Cu			1	49.443	ug/l	0.18	335,670.30	3.022E+00	Pulse	0.50	3
Zn			1	48.747	ug/l	1.37	62,307.06	3.719E-01	Pulse	1.00	3
Cd			1	48.999	ug/l	1.82	105,033.57	6.270E-01	Pulse	0.50	3
Al			1	4790.895	ug/l	1.45	764,959.54	5.326E+00	Pulse	1.00	3
Se			1	47.567	ug/l	3.08	3,094.92	1.848E-02	Pulse	3.00	3
Sb			1	48.301	ug/l	2.09	307,276.27	1.834E+00	Pulse	1.00	3
Se			1	48.063	ug/l	1.69	1,536.06	9.169E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,065,331.42	0.53	91.2	Pulse	0.50	3
1	Sc		143,646.70	0.61	92.1	Pulse	0.30	3
1	Ge		111,093.24	0.76	93.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,186,540.75	0.63	92.1	Pulse	0.30	3
1	Tb		3,950,008.25	0.84	94.2	Pulse	0.50	3
1	Lu		3,026,288.25	0.66	93.8	Pulse	0.50	3
1	Ge		167,544.53	1.36	94.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		911.14	8.48	90.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:38
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.994	ug/l	0.98	594,212.39	5.347E+00	Pulse	0.50	3
As			1	102.108	ug/l	1.09	79,024.80	7.111E-01	Pulse	1.00	3
Mo			1	102.681	ug/l	1.64	397,940.50	2.393E+00	Pulse	0.50	3
Pb			1	101.719	ug/l	0.57	2,587,482.58	8.587E-01	Pulse	1.00	3
Be			1	102.200	ug/l	0.85	3,433.79	2.377E-02	Pulse	2.00	3
Ag			1	104.856	ug/l	1.12	1,361,672.46	8.190E+00	Pulse	0.50	3
Ba			1	101.913	ug/l	0.32	207,506.84	1.774E-01	Pulse	0.50	3
Tl			1	103.509	ug/l	0.83	3,709,793.08	1.231E+00	Pulse	0.50	3
Sn			1	102.012	ug/l	0.88	462,006.96	3.950E-01	Pulse	0.30	3
Sr			1	101.677	ug/l	1.08	477,581.11	4.083E-01	Pulse	0.50	3
[Pb]			1	102.219	ug/l	0.96	1,225,171.67	4.066E-01	Pulse	0.50	3
Ca			1	10289.241	ug/l	0.81	212,435.69	1.471E+00	Pulse	0.50	3
Ti			1	102.901	ug/l	0.75	13,912.29	9.632E-02	Pulse	0.50	3
Na			1	10355.713	ug/l	0.66	7,655,236.17	5.300E+01	Analog	1.00	3
Mg			1	9992.014	ug/l	0.69	3,865,657.25	2.676E+01	Pulse	1.00	3
K			1	10103.770	ug/l	0.35	3,764,435.67	2.606E+01	Pulse	1.00	3
V			1	103.577	ug/l	1.01	469,432.58	3.250E+00	Pulse	0.50	3
Mn			1	101.775	ug/l	1.17	361,749.00	3.255E+00	Pulse	0.50	3
Fe			1	10354.415	ug/l	1.09	53,346,296.00	4.800E+02	Analog	0.50	3
Co			1	101.760	ug/l	1.08	955,761.40	8.601E+00	Pulse	0.50	3
Ni			1	101.880	ug/l	0.88	254,374.61	2.289E+00	Pulse	0.50	3
Cu			1	102.030	ug/l	0.89	687,244.46	6.184E+00	Pulse	0.50	3
Zn			1	101.417	ug/l	1.53	128,015.92	7.700E-01	Pulse	1.00	3
Cd			1	101.916	ug/l	1.02	216,656.51	1.303E+00	Pulse	0.50	3
Al			1	9857.803	ug/l	0.87	1,582,024.29	1.095E+01	Pulse	1.00	3
Se			1	100.700	ug/l	2.65	6,472.43	3.893E-02	Pulse	3.00	3
Sb			1	101.281	ug/l	1.29	638,443.21	3.840E+00	Pulse	1.00	3
Se			1	102.165	ug/l	1.04	3,223.38	1.939E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,013,361.42	0.46	89.7	Pulse	0.50	3
1	Sc		144,437.60	0.23	92.6	Pulse	0.30	3
1	Ge		111,129.81	0.48	93.5	Pulse	0.30	3
1	In		1,169,667.56	0.29	90.8	Pulse	0.30	3
1	Tb		3,934,787.00	0.62	93.8	Pulse	0.50	3
1	Lu		3,028,393.17	1.00	93.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		166,281.31	1.17	93.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		853.36	7.04	84.3	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:42
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.016	ug/l	-91.69	1,147.37	1.018E-02	Pulse	0.50	3
As			1	0.019	ug/l	12.68	110.33	9.794E-04	Pulse	1.00	3
Mo			1	0.246	ug/l	25.20	1,414.73	8.377E-03	Pulse	0.50	3
Pb			1	-0.030	ug/l	-16.83	5,295.16	1.716E-03	Pulse	1.00	3
Be			1	-0.037	ug/l	-317.47	5.50	3.736E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	225.45	266.00	1.580E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	79.13	340.00	2.823E-04	Pulse	0.50	3
Tl			1	0.030	ug/l	16.76	4,615.97	1.496E-03	Pulse	0.50	3
Sn			1	0.148	ug/l	14.37	1,956.79	1.624E-03	Pulse	0.30	3
Sr			1	0.018	ug/l	16.85	799.35	6.636E-04	Pulse	0.50	3
[Pb]			1	-0.035	ug/l	-23.93	2,412.18	7.818E-04	Pulse	0.50	3
Ca			1	2.449	ug/l	64.00	167.33	1.133E-03	Pulse	0.50	3
Ti			1	-0.102	ug/l	-74.31	23.33	1.581E-04	Pulse	0.50	3
Na			1	4.075	ug/l	23.69	14,867.54	1.006E-01	Pulse	1.00	3
Mg			1	3.052	ug/l	13.56	4,601.87	3.113E-02	Pulse	1.00	3
K			1	5.292	ug/l	27.54	22,993.34	1.555E-01	Pulse	1.00	3
V			1	0.010	ug/l	88.56	1,306.72	8.838E-03	Pulse	0.50	3
Mn			1	-0.022	ug/l	-26.20	478.68	4.250E-03	Pulse	0.50	3
Fe			1	3.024	ug/l	21.80	40,672.57	3.612E-01	Pulse	0.50	3
Co			1	0.010	ug/l	17.75	1,164.71	1.034E-02	Pulse	0.50	3
Ni			1	-0.284	ug/l	-6.30	1,752.75	1.556E-02	Pulse	0.50	3
Cu			1	-0.128	ug/l	-13.77	4,520.54	4.012E-02	Pulse	0.50	3
Zn			1	-0.065	ug/l	-45.24	511.68	3.034E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	80.95	202.67	1.201E-03	Pulse	0.50	3
Al			1	0.746	ug/l	94.92	790.02	5.347E-03	Pulse	1.00	3
Se			1	0.151	ug/l	30.41	37.67	2.232E-04	Pulse	3.00	3
Sb			1	0.035	ug/l	10.36	1,209.04	7.166E-03	Pulse	1.00	3
Se			1	0.073	ug/l	193.74	18.00	1.065E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,086,127.33	0.79	91.9	Pulse	0.50	3
1	Sc		147,857.84	0.89	94.8	Pulse	0.30	3

Quantitation Report

1	Ge		112,653.37	1.05	94.8	Pulse	0.30	3
1	In		1,204,633.70	0.34	93.5	Pulse	0.30	3
1	Tb		3,939,297.00	0.62	93.9	Pulse	0.50	3
1	Lu		2,994,710.83	0.98	92.8	Pulse	0.50	3
1	Ge		168,702.30	1.06	94.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		903.36	17.23	89.2	Pulse	0.30	3

Quantitation Report

File Name	020SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:46
Sample Name	FC3062-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.205	ug/l	4.08	6,888.57	6.868E-02	Pulse	0.50	3
As			1	3.560	ug/l	2.59	1,326.05	1.323E-02	Pulse	1.00	3
Mo			1	2.866	ug/l	7.97	5,426.14	3.601E-02	Pulse	0.50	3
Pb			1	0.228	ug/l	2.81	8,296.35	2.929E-03	Pulse	1.00	3
Be			1	0.065	ug/l	216.46	7.17	5.344E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	24.18	288.00	1.911E-03	Pulse	0.50	3
Ba			1	17.196	ug/l	0.80	16,280.02	1.520E-02	Pulse	0.50	3
Tl			1	0.059	ug/l	17.45	4,213.20	1.488E-03	Pulse	0.50	3
Sn			1	0.624	ug/l	3.95	2,415.73	2.255E-03	Pulse	0.30	3
Sr			1	151.222	ug/l	0.65	325,269.75	3.038E-01	Pulse	0.50	3
[Pb]			1	0.229	ug/l	5.43	3,887.79	1.373E-03	Pulse	0.50	3
Ca			1	74356.592	ug/l	0.90	708,732.19	5.312E+00	Pulse	0.50	3
Ti			1	1.387	ug/l	49.49	120.67	9.001E-04	Pulse	0.50	3
Na			1	38589.752	ug/l	1.00	13,165,139.00	9.868E+01	Analog	1.00	3
Mg			1	6515.523	ug/l	0.66	1,166,238.45	8.741E+00	Pulse	1.00	3
K			1	3779.701	ug/l	1.17	665,732.40	4.990E+00	Pulse	1.00	3
V			1	4.705	ug/l	1.52	10,959.77	8.215E-02	Pulse	0.50	3
Mn			1	34.668	ug/l	0.14	56,001.45	5.585E-01	Pulse	0.50	3
Fe			1	3826.549	ug/l	0.64	8,912,301.33	8.888E+01	Analog	0.50	3
Co			1	0.323	ug/l	10.77	2,316.15	2.311E-02	Pulse	0.50	3
Ni			1	0.042	ug/l	311.94	2,239.47	2.235E-02	Pulse	0.50	3
Cu			1	2.154	ug/l	4.81	11,287.98	1.126E-01	Pulse	0.50	3
Zn			1	19.800	ug/l	1.77	11,791.27	7.834E-02	Pulse	1.00	3
Cd			1	0.088	ug/l	19.07	231.33	1.535E-03	Pulse	0.50	3
Al			1	388.562	ug/l	1.72	29,389.20	2.203E-01	Pulse	1.00	3
Se			1	0.467	ug/l	34.85	38.45	2.550E-04	Pulse	3.00	3
Sb			1	0.268	ug/l	2.04	1,643.08	1.091E-02	Pulse	1.00	3
Se			1	1.603	ug/l	27.84	36.78	2.440E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,833,043.83	1.88	84.3	Pulse	0.50	3
1	Sc		133,429.92	2.55	85.6	Pulse	0.30	3
1	Ge		100,268.34	1.80	84.4	Pulse	0.30	3
1	In		1,070,814.13	2.44	83.1	Pulse	0.30	3
1	Tb		3,681,687.92	2.70	87.8	Pulse	0.50	3
1	Lu		2,805,039.83	2.32	86.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		150,545.00	2.04	84.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		963.36	1.59	95.2	Pulse	0.30	3

Quantitation Report

File Name	021_MB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:49
Sample Name	MP41960-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.038	ug/l	66.50	1,366.05	1.199E-02	Pulse	0.50	3
As			1	0.000	ug/l	3831.67	96.67	8.486E-04	Pulse	1.00	3
Mo			1	0.191	ug/l	37.44	825.36	4.866E-03	Pulse	0.50	3
Pb			1	-0.060	ug/l	-3.04	5,398.19	1.714E-03	Pulse	1.00	3
Be			1	-0.020	ug/l	-118.83	6.50	4.359E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-9.97	155.33	9.154E-04	Pulse	0.50	3
Ba			1	0.023	ug/l	125.18	337.34	2.791E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-76.73	3,488.37	1.108E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	39.20	1,373.39	1.137E-03	Pulse	0.30	3
Sr			1	0.063	ug/l	30.59	869.36	7.195E-04	Pulse	0.50	3
[Pb]			1	-0.066	ug/l	-4.10	2,481.52	7.880E-04	Pulse	0.50	3
Ca			1	24.664	ug/l	21.41	378.67	2.544E-03	Pulse	0.50	3
Ti			1	-0.234	ug/l	-32.51	21.33	1.435E-04	Pulse	0.50	3
Na			1	10.395	ug/l	9.42	15,842.58	1.063E-01	Pulse	1.00	3
Mg			1	6.761	ug/l	9.12	4,768.58	3.201E-02	Pulse	1.00	3
K			1	8.352	ug/l	24.67	22,746.71	1.527E-01	Pulse	1.00	3
V			1	-0.043	ug/l	-72.43	1,168.70	7.846E-03	Pulse	0.50	3
Mn			1	0.169	ug/l	20.79	870.02	7.636E-03	Pulse	0.50	3
Fe			1	9.279	ug/l	9.32	49,679.22	4.361E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-405.66	1,048.70	9.205E-03	Pulse	0.50	3
Ni			1	-0.712	ug/l	-12.08	1,590.74	1.396E-02	Pulse	0.50	3
Cu			1	1.217	ug/l	5.42	9,620.43	8.443E-02	Pulse	0.50	3
Zn			1	1.555	ug/l	2.81	1,595.40	9.403E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	-9220.33	165.33	9.744E-04	Pulse	0.50	3
Al			1	0.421	ug/l	152.03	707.68	4.752E-03	Pulse	1.00	3
Se			1	0.279	ug/l	35.55	37.11	2.188E-04	Pulse	3.00	3
Sb			1	-0.011	ug/l	-152.22	956.36	5.637E-03	Pulse	1.00	3
Se			1	0.018	ug/l	760.23	16.00	9.432E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,149,215.17	0.42	93.7	Pulse	0.50	3
1	Sc		149,019.45	1.35	95.5	Pulse	0.30	3
1	Ge		113,940.59	0.43	95.9	Pulse	0.30	3
1	In		1,208,257.14	0.62	93.8	Pulse	0.30	3
1	Tb		3,983,385.00	0.51	95.0	Pulse	0.50	3
1	Lu		3,014,215.08	0.30	93.4	Pulse	0.50	3
1	Ge		169,679.90	0.41	95.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,011.14	8.28	99.9	Pulse	0.30	3

Quantitation Report

File Name 022_BSP.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 11:53
Sample Name MP41960-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	217.129	ug/l	0.15	640,258.06	5.691E+00	Pulse	0.50	3
As			1	223.064	ug/l	0.36	87,378.83	7.767E-01	Pulse	1.00	3
Mo			1	218.151	ug/l	1.01	427,316.24	2.542E+00	Pulse	0.50	3
Pb			1	219.064	ug/l	0.45	2,767,257.08	9.245E-01	Pulse	1.00	3
Be			1	216.506	ug/l	1.48	3,745.85	2.518E-02	Pulse	2.00	3
Ag			1	102.682	ug/l	0.72	674,104.12	4.011E+00	Pulse	0.50	3
Ba			1	214.895	ug/l	0.37	221,057.45	1.870E-01	Pulse	0.50	3
Tl			1	214.803	ug/l	0.68	3,823,602.17	1.277E+00	Pulse	0.50	3
Sn			1	227.824	ug/l	0.73	521,173.42	4.409E-01	Pulse	0.30	3
Sr			1	223.785	ug/l	0.68	531,020.14	4.493E-01	Pulse	0.50	3
[Pb]			1	211.075	ug/l	0.41	1,256,442.00	4.197E-01	Pulse	0.50	3
Ca			1	20185.116	ug/l	1.12	214,637.40	1.443E+00	Pulse	0.50	3
Ti			1	224.717	ug/l	1.40	15,642.94	1.051E-01	Pulse	0.50	3
Na			1	20422.433	ug/l	0.93	7,775,385.83	5.226E+01	Analog	1.00	3
Mg			1	19534.934	ug/l	1.28	3,892,326.08	2.616E+01	Pulse	1.00	3
K			1	19769.921	ug/l	0.96	3,793,993.67	2.550E+01	Pulse	1.00	3
V			1	217.099	ug/l	1.25	506,680.03	3.406E+00	Pulse	0.50	3
Mn			1	216.484	ug/l	0.41	389,469.34	3.462E+00	Pulse	0.50	3
Fe			1	20684.903	ug/l	0.58	53,945,160.00	4.795E+02	Analog	0.50	3
Co			1	215.366	ug/l	0.46	1,023,863.44	9.101E+00	Pulse	0.50	3
Ni			1	212.635	ug/l	0.76	268,631.48	2.388E+00	Pulse	0.50	3
Cu			1	214.082	ug/l	0.08	729,675.83	6.486E+00	Pulse	0.50	3
Zn			1	216.840	ug/l	0.65	138,308.23	8.229E-01	Pulse	1.00	3
Cd			1	214.784	ug/l	0.67	230,771.76	1.373E+00	Pulse	0.50	3
Al			1	19087.061	ug/l	1.73	1,577,580.21	1.060E+01	Pulse	1.00	3
Se			1	214.098	ug/l	1.69	6,954.15	4.138E-02	Pulse	3.00	3
Sb			1	217.888	ug/l	0.59	694,157.38	4.130E+00	Pulse	1.00	3
Se			1	211.875	ug/l	0.28	3,378.30	2.010E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,993,361.42	0.38	89.1	Pulse	0.50	3
1	Sc		148,785.23	1.08	95.4	Pulse	0.30	3
1	Ge		112,505.70	0.64	94.7	Pulse	0.30	3
1	In		1,181,941.97	0.73	91.8	Pulse	0.30	3
1	Tb		3,950,583.92	0.64	94.2	Pulse	0.50	3
1	Lu		3,025,173.00	0.57	93.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		168,080.27	0.67	94.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		952.25	4.43	94.1	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 11:57
Sample Name	FC3348-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.339	ug/l	7.17	5,054.01	4.604E-02	Pulse	0.50	3
As			1	5.951	ug/l	1.31	2,366.15	2.154E-02	Pulse	1.00	3
Mo			1	1.622	ug/l	3.75	3,563.69	2.152E-02	Pulse	0.50	3
Pb			1	0.160	ug/l	20.86	7,879.16	2.639E-03	Pulse	1.00	3
Be			1	0.045	ug/l	172.85	7.50	5.114E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	134.27	338.67	2.045E-03	Pulse	0.50	3
Ba			1	56.475	ug/l	0.98	57,844.58	4.934E-02	Pulse	0.50	3
Tl			1	0.119	ug/l	25.03	5,519.58	1.849E-03	Pulse	0.50	3
Sn			1	0.439	ug/l	2.41	2,225.71	1.899E-03	Pulse	0.30	3
Sr			1	745.586	ug/l	0.79	1,753,096.21	1.495E+00	Pulse	0.50	3
[Pb]			1	0.147	ug/l	16.41	3,617.73	1.211E-03	Pulse	0.50	3
Ca			1	112623.877	ug/l	0.84	1,179,908.21	8.046E+00	Pulse	0.50	3
Ti			1	0.111	ug/l	107.21	44.67	3.046E-04	Pulse	0.50	3
Na			1	34964.856	ug/l	0.68	13,113,107.33	8.942E+01	Analog	1.00	3
Mg			1	15055.524	ug/l	1.01	2,957,679.08	2.017E+01	Pulse	1.00	3
K			1	6589.877	ug/l	0.29	1,260,412.63	8.595E+00	Pulse	1.00	3
V			1	0.233	ug/l	15.46	1,783.42	1.216E-02	Pulse	0.50	3
Mn			1	1096.601	ug/l	0.58	1,923,502.58	1.752E+01	Pulse	0.50	3
Fe			1	2021.707	ug/l	0.56	5,168,469.17	4.706E+01	Pulse	0.50	3
Co			1	0.431	ug/l	4.49	3,037.58	2.767E-02	Pulse	0.50	3
Ni			1	3.714	ug/l	4.60	6,941.26	6.320E-02	Pulse	0.50	3
Cu			1	1.719	ug/l	3.43	10,930.46	9.955E-02	Pulse	0.50	3
Zn			1	35.385	ug/l	1.10	22,722.68	1.372E-01	Pulse	1.00	3
Cd			1	0.088	ug/l	34.12	254.67	1.538E-03	Pulse	0.50	3
Al			1	10.311	ug/l	24.87	1,502.06	1.024E-02	Pulse	1.00	3
Se			1	0.781	ug/l	12.13	52.22	3.154E-04	Pulse	3.00	3
Sb			1	0.187	ug/l	2.80	1,552.07	9.374E-03	Pulse	1.00	3
Se			1	1.016	ug/l	38.91	31.22	1.886E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,987,401.92	1.53	88.9	Pulse	0.50	3
1	Sc		146,644.31	0.15	94.0	Pulse	0.30	3
1	Ge		109,819.05	1.20	92.4	Pulse	0.30	3
1	In		1,172,278.39	0.70	91.0	Pulse	0.30	3
1	Tb		3,902,605.33	1.08	93.1	Pulse	0.50	3
1	Lu		3,002,015.08	0.98	93.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		165,578.72	0.05	93.1	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		926.69	2.94	91.5	Pulse	0.30	3

Quantitation Report

File Name	024SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:01
Sample Name	MP41960-D1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.160	ug/l	1.05	4,539.88	4.136E-02	Pulse	0.50	3
As			1	5.710	ug/l	6.23	2,272.47	2.071E-02	Pulse	1.00	3
Mo			1	1.383	ug/l	2.88	3,080.93	1.875E-02	Pulse	0.50	3
Pb			1	0.058	ug/l	9.66	6,599.95	2.210E-03	Pulse	1.00	3
Be			1	-0.108	ug/l	-110.40	4.83	3.341E-05	Pulse	2.00	3
Ag			1	-0.020	ug/l	-6.72	96.67	5.885E-04	Pulse	0.50	3
Ba			1	56.398	ug/l	0.67	57,591.10	4.928E-02	Pulse	0.50	3
Tl			1	0.016	ug/l	34.62	3,683.74	1.234E-03	Pulse	0.50	3
Sn			1	0.171	ug/l	41.84	1,615.64	1.382E-03	Pulse	0.30	3
Sr			1	741.366	ug/l	0.21	1,737,941.96	1.487E+00	Pulse	0.50	3
[Pb]			1	0.038	ug/l	63.91	2,968.94	9.945E-04	Pulse	0.50	3
Ca			1	112949.944	ug/l	1.01	1,166,045.29	8.069E+00	Pulse	0.50	3
Ti			1	-0.077	ug/l	-125.66	31.33	2.169E-04	Pulse	0.50	3
Na			1	35424.284	ug/l	0.90	13,091,328.00	9.059E+01	Analog	1.00	3
Mg			1	15261.076	ug/l	1.17	2,954,220.00	2.044E+01	Pulse	1.00	3
K			1	6638.464	ug/l	0.60	1,251,039.17	8.657E+00	Pulse	1.00	3
V			1	0.196	ug/l	10.89	1,674.74	1.159E-02	Pulse	0.50	3
Mn			1	1089.894	ug/l	0.59	1,910,871.83	1.741E+01	Pulse	0.50	3
Fe			1	1997.656	ug/l	0.95	5,104,969.67	4.651E+01	Pulse	0.50	3
Co			1	0.381	ug/l	3.60	2,802.21	2.553E-02	Pulse	0.50	3
Ni			1	3.546	ug/l	5.51	6,732.53	6.134E-02	Pulse	0.50	3
Cu			1	1.501	ug/l	5.06	10,206.06	9.298E-02	Pulse	0.50	3
Zn			1	34.791	ug/l	0.89	22,183.05	1.350E-01	Pulse	1.00	3
Cd			1	-0.006	ug/l	-401.96	154.00	9.361E-04	Pulse	0.50	3
Al			1	4.260	ug/l	10.38	994.69	6.884E-03	Pulse	1.00	3
Se			1	0.649	ug/l	29.23	47.67	2.899E-04	Pulse	3.00	3
Sb			1	0.075	ug/l	12.33	1,191.04	7.249E-03	Pulse	1.00	3
Se			1	0.380	ug/l	40.32	21.11	1.286E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,985,703.17	1.25	88.9	Pulse	0.50	3
1	Sc		144,509.31	0.54	92.7	Pulse	0.30	3
1	Ge		109,768.86	0.45	92.4	Pulse	0.30	3
1	In		1,168,781.27	0.94	90.7	Pulse	0.30	3
1	Tb		3,913,245.25	0.37	93.3	Pulse	0.50	3
1	Lu		3,005,835.58	0.46	93.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		164,330.29	0.99	92.4	Pulse	0.30	3
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		931.14	6.14	92.0	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:05
Sample Name MP41960-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.224	ug/l	9.21	1,973.44	1.741E-02	Pulse	0.50	3
As			1	5.789	ug/l	8.39	552.34	4.874E-03	Pulse	1.00	3
Mo			1	1.589	ug/l	22.77	1,068.04	6.341E-03	Pulse	0.50	3
Pb			1	-0.404	ug/l	-7.47	5,021.41	1.627E-03	Pulse	1.00	3
Be			1	-0.505	ug/l	-102.59	5.00	3.423E-05	Pulse	2.00	3
Ag			1	-0.113	ug/l	-10.09	83.33	4.952E-04	Pulse	0.50	3
Ba			1	54.442	ug/l	1.81	11,721.82	9.722E-03	Pulse	0.50	3
Tl			1	0.009	ug/l	127.21	3,549.71	1.150E-03	Pulse	0.50	3
Sn			1	0.351	ug/l	8.34	1,431.18	1.187E-03	Pulse	0.30	3
Sr			1	725.128	ug/l	1.14	351,285.75	2.914E-01	Pulse	0.50	3
[Pb]			1	-0.404	ug/l	-9.60	2,341.50	7.587E-04	Pulse	0.50	3
Ca			1	112732.819	ug/l	0.40	234,913.91	1.611E+00	Pulse	0.50	3
Ti			1	-0.453	ug/l	-135.41	30.67	2.106E-04	Pulse	0.50	3
Na			1	34479.414	ug/l	0.89	2,580,284.08	1.770E+01	Pulse	1.00	3
Mg			1	15385.103	ug/l	1.21	603,567.58	4.140E+00	Pulse	1.00	3
K			1	6697.529	ug/l	1.53	271,169.02	1.860E+00	Pulse	1.00	3
V			1	0.566	ug/l	19.56	1,499.40	1.029E-02	Pulse	0.50	3
Mn			1	1075.581	ug/l	0.66	389,945.88	3.440E+00	Pulse	0.50	3
Fe			1	1971.489	ug/l	0.56	1,060,709.12	9.357E+00	Pulse	0.50	3
Co			1	0.246	ug/l	22.42	1,307.38	1.153E-02	Pulse	0.50	3
Ni			1	0.602	ug/l	58.49	2,632.85	2.322E-02	Pulse	0.50	3
Cu			1	7.838	ug/l	1.62	10,767.69	9.499E-02	Pulse	0.50	3
Zn			1	38.990	ug/l	1.34	5,555.47	3.299E-02	Pulse	1.00	3
Cd			1	-0.035	ug/l	-116.40	156.67	9.303E-04	Pulse	0.50	3
Al			1	-14.438	ug/l	-22.88	424.67	2.915E-03	Pulse	1.00	3
Se			1	1.177	ug/l	82.51	35.44	2.103E-04	Pulse	3.00	3
Sb			1	0.077	ug/l	57.33	1,032.36	6.130E-03	Pulse	1.00	3
Se			1	-0.046	ug/l	-2176.14	15.44	9.179E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,086,733.92	1.30	91.9	Pulse	0.50	3
1	Sc		145,787.59	0.89	93.5	Pulse	0.30	3
1	Ge		113,360.66	0.57	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,205,760.68	0.97	93.6	Pulse	0.30	3
1	Tb		3,954,066.42	1.29	94.3	Pulse	0.50	3
1	Lu		3,023,260.17	1.16	93.7	Pulse	0.50	3
1	Ge		168,394.91	0.63	94.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		978.92	4.26	96.7	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:08
Sample Name MP41960-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	217.969	ug/l	1.39	590,641.85	5.713E+00	Pulse	0.50	3
As			1	228.411	ug/l	1.48	82,222.10	7.953E-01	Pulse	1.00	3
Mo			1	218.959	ug/l	1.23	399,232.11	2.552E+00	Pulse	0.50	3
Pb			1	216.289	ug/l	0.87	2,589,912.67	9.128E-01	Pulse	1.00	3
Be			1	214.588	ug/l	0.20	3,420.12	2.496E-02	Pulse	2.00	3
Ag			1	100.213	ug/l	0.55	612,401.38	3.914E+00	Pulse	0.50	3
Ba			1	269.877	ug/l	0.67	260,682.94	2.348E-01	Pulse	0.50	3
Tl			1	213.157	ug/l	0.56	3,596,507.42	1.268E+00	Pulse	0.50	3
Sn			1	225.138	ug/l	0.53	483,763.11	4.358E-01	Pulse	0.30	3
Sr			1	958.240	ug/l	0.90	2,133,536.33	1.922E+00	Pulse	0.50	3
[Pb]			1	208.822	ug/l	0.62	1,178,285.79	4.153E-01	Pulse	0.50	3
Ca			1	132367.500	ug/l	1.92	1,295,712.13	9.456E+00	Pulse	0.50	3
Ti			1	219.441	ug/l	2.85	14,069.06	1.027E-01	Pulse	0.50	3
Na			1	55905.347	ug/l	1.87	19,583,906.67	1.429E+02	Analog	1.00	3
Mg			1	35900.946	ug/l	2.03	6,585,415.67	4.806E+01	Analog	1.00	3
K			1	26435.121	ug/l	1.57	4,665,836.83	3.405E+01	Pulse	1.00	3
V			1	218.312	ug/l	1.98	469,250.25	3.425E+00	Pulse	0.50	3
Mn			1	1316.993	ug/l	1.25	2,174,741.25	2.103E+01	Pulse	0.50	3
Fe			1	22629.127	ug/l	1.32	54,231,057.33	5.245E+02	Analog	0.50	3
Co			1	211.410	ug/l	1.11	923,645.71	8.934E+00	Pulse	0.50	3
Ni			1	213.378	ug/l	1.52	247,721.73	2.396E+00	Pulse	0.50	3
Cu			1	210.710	ug/l	1.50	660,054.37	6.384E+00	Pulse	0.50	3
Zn			1	244.831	ug/l	0.88	145,292.38	9.286E-01	Pulse	1.00	3
Cd			1	211.331	ug/l	0.81	211,363.10	1.351E+00	Pulse	0.50	3
Al			1	19555.856	ug/l	2.00	1,488,627.08	1.086E+01	Pulse	1.00	3
Se			1	209.788	ug/l	0.45	6,343.83	4.055E-02	Pulse	3.00	3
Sb			1	218.483	ug/l	1.21	647,908.90	4.141E+00	Pulse	1.00	3
Se			1	209.202	ug/l	1.00	3,105.25	1.985E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,837,290.67	0.82	84.4	Pulse	0.50	3
1	Sc		137,044.52	1.42	87.9	Pulse	0.30	3
1	Ge		103,393.60	0.55	87.0	Pulse	0.30	3
1	In		1,110,172.60	0.18	86.2	Pulse	0.30	3
1	Tb		3,780,668.67	0.28	90.2	Pulse	0.50	3
1	Lu		2,911,342.25	0.40	90.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		156,458.45	0.50	88.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		925.58	1.26	91.4	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:12
Sample Name MP41960-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.066	ug/l	0.72	592,962.27	5.585E+00	Pulse	0.50	3
As			1	223.527	ug/l	1.02	82,637.17	7.783E-01	Pulse	1.00	3
Mo			1	215.327	ug/l	1.25	399,569.38	2.509E+00	Pulse	0.50	3
Pb			1	212.465	ug/l	0.76	2,568,419.08	8.967E-01	Pulse	1.00	3
Be			1	212.771	ug/l	1.24	3,445.79	2.475E-02	Pulse	2.00	3
Ag			1	98.800	ug/l	1.07	614,467.48	3.859E+00	Pulse	0.50	3
Ba			1	265.797	ug/l	0.14	259,122.21	2.313E-01	Pulse	0.50	3
Tl			1	208.943	ug/l	0.40	3,559,076.50	1.243E+00	Pulse	0.50	3
Sn			1	222.393	ug/l	0.59	482,298.47	4.305E-01	Pulse	0.30	3
Sr			1	949.697	ug/l	0.56	2,134,110.67	1.905E+00	Pulse	0.50	3
[Pb]			1	204.699	ug/l	0.40	1,166,067.54	4.071E-01	Pulse	0.50	3
Ca			1	130423.003	ug/l	0.52	1,297,457.46	9.317E+00	Pulse	0.50	3
Ti			1	217.535	ug/l	1.44	14,175.16	1.018E-01	Pulse	0.50	3
Na			1	54919.212	ug/l	0.21	19,551,658.67	1.404E+02	Analog	1.00	3
Mg			1	35213.453	ug/l	0.50	6,564,570.00	4.714E+01	Analog	1.00	3
K			1	25849.511	ug/l	0.17	4,637,004.33	3.330E+01	Pulse	1.00	3
V			1	215.395	ug/l	0.58	470,535.52	3.379E+00	Pulse	0.50	3
Mn			1	1282.399	ug/l	0.74	2,174,771.42	2.048E+01	Pulse	0.50	3
Fe			1	21969.471	ug/l	0.69	54,071,574.67	5.093E+02	Analog	0.50	3
Co			1	206.236	ug/l	0.77	925,368.98	8.715E+00	Pulse	0.50	3
Ni			1	207.649	ug/l	0.80	247,639.10	2.332E+00	Pulse	0.50	3
Cu			1	204.009	ug/l	0.79	656,475.33	6.183E+00	Pulse	0.50	3
Zn			1	239.485	ug/l	1.52	144,648.31	9.084E-01	Pulse	1.00	3
Cd			1	207.721	ug/l	1.31	211,433.58	1.328E+00	Pulse	0.50	3
Al			1	19023.050	ug/l	0.50	1,471,664.13	1.057E+01	Pulse	1.00	3
Se			1	203.245	ug/l	1.91	6,255.58	3.929E-02	Pulse	3.00	3
Sb			1	214.034	ug/l	1.25	645,976.00	4.057E+00	Pulse	1.00	3
Se			1	206.101	ug/l	2.09	3,113.70	1.955E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,864,347.83	0.47	85.2	Pulse	0.50	3
1	Sc		139,249.56	0.10	89.3	Pulse	0.30	3
1	Ge		106,178.68	0.13	89.4	Pulse	0.30	3
1	In		1,120,447.63	0.33	87.0	Pulse	0.30	3
1	Tb		3,804,693.92	0.45	90.7	Pulse	0.50	3
1	Lu		2,925,344.92	0.54	90.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		159,232.12	0.47	89.6	Pulse	0.30	3
1	Te		2.67	86.60		Pulse	0.50	3
1	Li		887.80	13.45	87.7	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:16
Sample Name MP41960-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.964	ug/l	1.49	60,332.11	5.594E-01	Pulse	0.50	3
As			1	26.865	ug/l	2.20	10,169.04	9.428E-02	Pulse	1.00	3
Mo			1	21.160	ug/l	1.95	40,555.66	2.490E-01	Pulse	0.50	3
Pb			1	19.584	ug/l	0.39	244,678.26	8.444E-02	Pulse	1.00	3
Be			1	19.833	ug/l	6.82	335.00	2.348E-03	Pulse	2.00	3
Ag			1	4.121	ug/l	1.05	26,438.79	1.623E-01	Pulse	0.50	3
Ba			1	75.828	ug/l	0.41	75,910.65	6.616E-02	Pulse	0.50	3
Tl			1	19.533	ug/l	0.50	339,582.71	1.172E-01	Pulse	0.50	3
Sn			1	19.360	ug/l	0.40	44,096.08	3.843E-02	Pulse	0.30	3
Sr			1	764.559	ug/l	1.10	1,759,415.79	1.533E+00	Pulse	0.50	3
[Pb]			1	18.835	ug/l	0.97	110,964.52	3.829E-02	Pulse	0.50	3
Ca			1	115477.566	ug/l	0.27	1,177,214.29	8.250E+00	Pulse	0.50	3
Ti			1	19.453	ug/l	7.58	1,331.38	9.334E-03	Pulse	0.50	3
Na			1	37532.494	ug/l	0.28	13,695,784.33	9.598E+01	Analog	1.00	3
Mg			1	17028.220	ug/l	0.19	3,254,634.17	2.281E+01	Pulse	1.00	3
K			1	8513.620	ug/l	0.20	1,578,562.38	1.106E+01	Pulse	1.00	3
V			1	20.470	ug/l	0.40	46,921.48	3.288E-01	Pulse	0.50	3
Mn			1	1114.049	ug/l	0.85	1,919,127.50	1.779E+01	Pulse	0.50	3
Fe			1	4056.299	ug/l	0.91	10,160,322.33	9.420E+01	Analog	0.50	3
Co			1	19.630	ug/l	0.50	90,389.22	8.381E-01	Pulse	0.50	3
Ni			1	23.249	ug/l	0.41	30,258.91	2.806E-01	Pulse	0.50	3
Cu			1	20.956	ug/l	0.05	73,128.15	6.780E-01	Pulse	0.50	3
Zn			1	55.847	ug/l	1.02	34,948.18	2.145E-01	Pulse	1.00	3
Cd			1	19.412	ug/l	1.67	20,358.54	1.250E-01	Pulse	0.50	3
Al			1	1874.910	ug/l	0.65	149,217.42	1.046E+00	Pulse	1.00	3
Se			1	19.542	ug/l	4.36	639.46	3.927E-03	Pulse	3.00	3
Sb			1	18.466	ug/l	0.55	57,880.55	3.553E-01	Pulse	1.00	3
Se			1	19.850	ug/l	4.96	320.45	1.967E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,897,744.67	0.43	86.2	Pulse	0.50	3
1	Sc		142,693.93	0.70	91.5	Pulse	0.30	3
1	Ge		107,853.52	0.50	90.8	Pulse	0.30	3
1	In		1,147,347.00	0.19	89.1	Pulse	0.30	3
1	Tb		3,846,135.83	0.47	91.7	Pulse	0.50	3
1	Lu		2,949,738.33	0.80	91.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		162,889.19	1.00	91.6	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,001.14	13.44	98.9	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:20
Sample Name	FC3100-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.447	ug/l	4.85	2,536.84	2.269E-02	Pulse	0.50	3
As			1	0.041	ug/l	164.38	110.67	9.902E-04	Pulse	1.00	3
Mo			1	0.144	ug/l	19.58	723.35	4.314E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-13.18	5,178.79	1.685E-03	Pulse	1.00	3
Be			1	-0.008	ug/l	-1089.28	6.67	4.508E-05	Pulse	2.00	3
Ag			1	-0.018	ug/l	-15.92	114.67	6.836E-04	Pulse	0.50	3
Ba			1	0.066	ug/l	64.78	377.34	3.162E-04	Pulse	0.50	3
Tl			1	0.021	ug/l	27.99	3,887.13	1.265E-03	Pulse	0.50	3
Sn			1	0.242	ug/l	20.01	1,812.32	1.518E-03	Pulse	0.30	3
Sr			1	0.610	ug/l	11.88	2,168.13	1.817E-03	Pulse	0.50	3
[Pb]			1	-0.079	ug/l	-13.85	2,342.17	7.624E-04	Pulse	0.50	3
Ca			1	85.821	ug/l	13.28	1,022.03	6.913E-03	Pulse	0.50	3
Ti			1	-0.203	ug/l	-30.55	23.33	1.580E-04	Pulse	0.50	3
Na			1	15.719	ug/l	22.22	17,724.86	1.199E-01	Pulse	1.00	3
Mg			1	7.644	ug/l	19.77	4,904.94	3.319E-02	Pulse	1.00	3
K			1	12.558	ug/l	12.21	23,349.42	1.581E-01	Pulse	1.00	3
V			1	0.023	ug/l	139.31	1,310.05	8.871E-03	Pulse	0.50	3
Mn			1	0.241	ug/l	41.18	982.03	8.786E-03	Pulse	0.50	3
Fe			1	1.493	ug/l	21.41	28,580.34	2.557E-01	Pulse	0.50	3
Co			1	0.005	ug/l	104.81	1,080.04	9.661E-03	Pulse	0.50	3
Ni			1	-0.676	ug/l	-32.92	1,605.41	1.436E-02	Pulse	0.50	3
Cu			1	0.691	ug/l	10.08	7,670.87	6.861E-02	Pulse	0.50	3
Zn			1	0.831	ug/l	14.97	1,117.37	6.665E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	161.53	177.33	1.057E-03	Pulse	0.50	3
Al			1	19.266	ug/l	4.01	2,247.80	1.522E-02	Pulse	1.00	3
Se			1	0.182	ug/l	42.35	33.55	2.000E-04	Pulse	3.00	3
Sb			1	0.061	ug/l	21.74	1,173.04	6.996E-03	Pulse	1.00	3
Se			1	0.212	ug/l	113.17	18.89	1.127E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,072,393.50	0.75	91.4	Pulse	0.50	3
1	Sc		147,734.26	1.04	94.7	Pulse	0.30	3
1	Ge		111,793.77	0.33	94.1	Pulse	0.30	3
1	In		1,193,769.81	0.56	92.7	Pulse	0.30	3
1	Tb		3,925,732.33	0.77	93.6	Pulse	0.50	3
1	Lu		2,984,886.17	0.60	92.5	Pulse	0.50	3
1	Ge		167,692.59	0.61	94.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,017.81	7.00	100.5	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:24
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.169	ug/l	1.04	272,775.24	2.479E+00	Pulse	0.50	3
As			1	47.360	ug/l	0.91	36,346.37	3.303E-01	Pulse	1.00	3
Mo			1	47.489	ug/l	0.89	181,605.60	1.108E+00	Pulse	0.50	3
Pb			1	47.433	ug/l	0.43	1,198,798.92	4.015E-01	Pulse	1.00	3
Be			1	48.389	ug/l	1.31	1,626.07	1.128E-02	Pulse	2.00	3
Ag			1	49.342	ug/l	0.45	631,564.05	3.855E+00	Pulse	0.50	3
Ba			1	47.207	ug/l	0.82	95,274.54	8.231E-02	Pulse	0.50	3
Tl			1	48.473	ug/l	0.58	1,723,376.00	5.771E-01	Pulse	0.50	3
Sn			1	47.392	ug/l	0.64	213,040.24	1.841E-01	Pulse	0.30	3
Sr			1	47.051	ug/l	0.35	219,060.35	1.893E-01	Pulse	0.50	3
[Pb]			1	47.459	ug/l	0.47	565,161.79	1.893E-01	Pulse	0.50	3
Ca			1	4746.982	ug/l	0.92	97,873.88	6.790E-01	Pulse	0.50	3
Ti			1	47.062	ug/l	4.38	6,369.06	4.419E-02	Pulse	0.50	3
Na			1	4763.809	ug/l	0.35	3,520,805.50	2.442E+01	Pulse	1.00	3
Mg			1	4762.022	ug/l	0.84	1,840,374.88	1.277E+01	Pulse	1.00	3
K			1	4764.910	ug/l	0.40	1,782,604.92	1.237E+01	Pulse	1.00	3
V			1	47.612	ug/l	0.54	216,023.10	1.499E+00	Pulse	0.50	3
Mn			1	47.510	ug/l	1.32	167,506.76	1.522E+00	Pulse	0.50	3
Fe			1	4917.077	ug/l	1.30	25,098,306.67	2.281E+02	Analog	0.50	3
Co			1	47.614	ug/l	0.96	443,403.81	4.029E+00	Pulse	0.50	3
Ni			1	47.224	ug/l	1.04	118,050.64	1.073E+00	Pulse	0.50	3
Cu			1	48.234	ug/l	1.28	324,502.61	2.949E+00	Pulse	0.50	3
Zn			1	48.226	ug/l	0.85	60,293.34	3.680E-01	Pulse	1.00	3
Cd			1	47.877	ug/l	0.49	100,381.36	6.126E-01	Pulse	0.50	3
Al			1	4647.777	ug/l	1.42	744,744.27	5.167E+00	Pulse	1.00	3
Se			1	48.114	ug/l	1.21	3,062.02	1.869E-02	Pulse	3.00	3
Sb			1	47.252	ug/l	0.51	294,040.91	1.795E+00	Pulse	1.00	3
Se			1	47.876	ug/l	1.37	1,496.61	9.134E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,986,133.17	0.33	88.9	Pulse	0.50	3
1	Sc		144,153.11	0.49	92.4	Pulse	0.30	3
1	Ge		110,049.08	0.64	92.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,157,453.46	0.24	89.9	Pulse	0.30	3
1	Tb		3,872,731.58	0.39	92.4	Pulse	0.50	3
1	Lu		2,961,228.25	0.27	91.8	Pulse	0.50	3
1	Ge		163,849.56	0.11	92.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		954.47	12.23	94.3	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:27
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.290	ug/l	1.27	569,023.90	5.258E+00	Pulse	0.50	3
As			1	99.272	ug/l	1.12	74,822.30	6.914E-01	Pulse	1.00	3
Mo			1	98.364	ug/l	1.11	376,736.21	2.293E+00	Pulse	0.50	3
Pb			1	98.084	ug/l	0.71	2,440,282.92	8.280E-01	Pulse	1.00	3
Be			1	100.652	ug/l	2.15	3,376.12	2.341E-02	Pulse	2.00	3
Ag			1	100.250	ug/l	0.37	1,286,488.29	7.830E+00	Pulse	0.50	3
Ba			1	98.289	ug/l	0.86	196,813.37	1.711E-01	Pulse	0.50	3
Tl			1	100.029	ug/l	0.51	3,506,146.17	1.190E+00	Pulse	0.50	3
Sn			1	98.974	ug/l	1.45	440,841.30	3.833E-01	Pulse	0.30	3
Sr			1	98.291	ug/l	1.00	454,024.70	3.947E-01	Pulse	0.50	3
[Pb]			1	98.421	ug/l	0.66	1,153,759.96	3.915E-01	Pulse	0.50	3
Ca			1	9857.418	ug/l	1.15	203,180.86	1.409E+00	Pulse	0.50	3
Ti			1	99.774	ug/l	1.96	13,467.32	9.340E-02	Pulse	0.50	3
Na			1	10085.628	ug/l	0.74	7,443,345.50	5.162E+01	Analog	1.00	3
Mg			1	9599.125	ug/l	1.17	3,707,486.67	2.571E+01	Pulse	1.00	3
K			1	9714.685	ug/l	0.60	3,614,180.08	2.506E+01	Pulse	1.00	3
V			1	99.108	ug/l	1.40	448,467.30	3.110E+00	Pulse	0.50	3
Mn			1	99.514	ug/l	1.14	344,465.59	3.183E+00	Pulse	0.50	3
Fe			1	10229.411	ug/l	1.27	51,323,360.00	4.742E+02	Analog	0.50	3
Co			1	98.881	ug/l	1.30	904,454.23	8.358E+00	Pulse	0.50	3
Ni			1	97.852	ug/l	1.43	238,016.44	2.199E+00	Pulse	0.50	3
Cu			1	99.086	ug/l	1.18	650,102.04	6.007E+00	Pulse	0.50	3
Zn			1	97.256	ug/l	0.80	121,339.29	7.385E-01	Pulse	1.00	3
Cd			1	97.571	ug/l	0.70	204,971.96	1.248E+00	Pulse	0.50	3
Al			1	9437.665	ug/l	1.33	1,512,048.87	1.049E+01	Pulse	1.00	3
Se			1	97.392	ug/l	0.32	6,187.45	3.766E-02	Pulse	3.00	3
Sb			1	96.964	ug/l	0.57	604,045.17	3.676E+00	Pulse	1.00	3
Se			1	97.019	ug/l	0.76	3,025.58	1.841E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,947,013.25	0.50	87.7	Pulse	0.50	3
1	Sc		144,197.15	0.53	92.5	Pulse	0.30	3
1	Ge		108,222.46	0.41	91.1	Pulse	0.30	3
1	In		1,150,237.28	0.36	89.3	Pulse	0.30	3
1	Tb		3,874,456.67	0.33	92.4	Pulse	0.50	3
1	Lu		2,957,736.83	0.14	91.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		164,302.03	0.27	92.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		943.36	4.63	93.2	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:31
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.015	ug/l	-56.09	1,117.37	1.023E-02	Pulse	0.50	3
As			1	0.017	ug/l	111.78	105.33	9.639E-04	Pulse	1.00	3
Mo			1	0.144	ug/l	14.08	986.70	5.998E-03	Pulse	0.50	3
Pb			1	-0.015	ug/l	-13.02	5,596.26	1.838E-03	Pulse	1.00	3
Be			1	0.018	ug/l	317.95	7.17	5.006E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	64.75	299.33	1.822E-03	Pulse	0.50	3
Ba			1	0.020	ug/l	126.83	342.67	2.930E-04	Pulse	0.50	3
Tl			1	0.027	ug/l	24.29	4,456.59	1.465E-03	Pulse	0.50	3
Sn			1	0.212	ug/l	16.18	2,190.15	1.869E-03	Pulse	0.30	3
Sr			1	0.055	ug/l	13.83	952.03	8.131E-04	Pulse	0.50	3
[Pb]			1	-0.018	ug/l	-69.31	2,577.54	8.471E-04	Pulse	0.50	3
Ca			1	5.744	ug/l	20.28	229.33	1.603E-03	Pulse	0.50	3
Ti			1	-0.116	ug/l	-73.14	20.67	1.443E-04	Pulse	0.50	3
Na			1	3.876	ug/l	13.43	14,243.73	9.956E-02	Pulse	1.00	3
Mg			1	2.750	ug/l	16.40	4,337.81	3.032E-02	Pulse	1.00	3
K			1	5.170	ug/l	5.78	22,206.45	1.552E-01	Pulse	1.00	3
V			1	-0.011	ug/l	-80.60	1,168.04	8.163E-03	Pulse	0.50	3
Mn			1	0.040	ug/l	21.80	678.68	6.212E-03	Pulse	0.50	3
Fe			1	0.589	ug/l	92.81	27,119.70	2.484E-01	Pulse	0.50	3
Co			1	0.016	ug/l	32.94	1,180.71	1.081E-02	Pulse	0.50	3
Ni			1	-0.461	ug/l	-3.60	1,270.05	1.163E-02	Pulse	0.50	3
Cu			1	-0.109	ug/l	-23.29	4,513.88	4.131E-02	Pulse	0.50	3
Zn			1	0.001	ug/l	2960.32	580.34	3.530E-03	Pulse	1.00	3
Cd			1	0.024	ug/l	85.42	210.00	1.279E-03	Pulse	0.50	3
Al			1	-0.350	ug/l	-191.21	590.68	4.129E-03	Pulse	1.00	3
Se			1	0.238	ug/l	54.06	42.22	2.567E-04	Pulse	3.00	3
Sb			1	0.031	ug/l	23.69	1,155.71	7.028E-03	Pulse	1.00	3
Se			1	0.147	ug/l	96.61	19.78	1.205E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,043,915.83	0.94	90.6	Pulse	0.50	3
1	Sc		143,071.12	0.58	91.7	Pulse	0.30	3

Quantitation Report

1	Ge		109,273.75	1.19	92.0	Pulse	0.30	3
1	In		1,171,092.70	1.42	90.9	Pulse	0.30	3
1	Tb		3,868,901.42	0.68	92.3	Pulse	0.50	3
1	Lu		2,952,758.08	1.00	91.5	Pulse	0.50	3
1	Ge		164,420.92	0.92	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		931.14	3.66	92.0	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:35
Sample Name	FC3100-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.397	ug/l	12.53	2,393.49	2.139E-02	Pulse	0.50	3
As			1	0.035	ug/l	51.27	108.33	9.687E-04	Pulse	1.00	3
Mo			1	0.131	ug/l	36.34	694.68	4.161E-03	Pulse	0.50	3
Pb			1	-0.057	ug/l	-13.30	5,318.83	1.728E-03	Pulse	1.00	3
Be			1	-0.013	ug/l	-18.46	6.50	4.450E-05	Pulse	2.00	3
Ag			1	-0.014	ug/l	-23.94	136.00	8.143E-04	Pulse	0.50	3
Ba			1	0.085	ug/l	18.50	395.34	3.330E-04	Pulse	0.50	3
Tl			1	0.014	ug/l	47.81	3,754.43	1.220E-03	Pulse	0.50	3
Sn			1	0.294	ug/l	7.66	1,921.23	1.618E-03	Pulse	0.30	3
Sr			1	1.023	ug/l	4.69	3,139.61	2.645E-03	Pulse	0.50	3
[Pb]			1	-0.060	ug/l	-39.41	2,460.19	7.990E-04	Pulse	0.50	3
Ca			1	142.063	ug/l	6.22	1,596.74	1.093E-02	Pulse	0.50	3
Ti			1	-0.189	ug/l	-71.89	24.00	1.645E-04	Pulse	0.50	3
Na			1	20.836	ug/l	4.63	19,427.72	1.330E-01	Pulse	1.00	3
Mg			1	7.194	ug/l	14.44	4,760.24	3.259E-02	Pulse	1.00	3
K			1	8.379	ug/l	13.90	22,306.88	1.527E-01	Pulse	1.00	3
V			1	-0.040	ug/l	-56.84	1,152.04	7.886E-03	Pulse	0.50	3
Mn			1	0.043	ug/l	42.15	628.68	5.622E-03	Pulse	0.50	3
Fe			1	0.333	ug/l	55.40	25,586.15	2.288E-01	Pulse	0.50	3
Co			1	-0.017	ug/l	-63.00	975.36	8.724E-03	Pulse	0.50	3
Ni			1	-0.937	ug/l	-3.41	1,282.05	1.146E-02	Pulse	0.50	3
Cu			1	0.713	ug/l	8.42	7,748.24	6.928E-02	Pulse	0.50	3
Zn			1	1.044	ug/l	10.59	1,247.38	7.472E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-289.88	153.33	9.179E-04	Pulse	0.50	3
Al			1	50.951	ug/l	2.89	4,793.91	3.281E-02	Pulse	1.00	3
Se			1	0.294	ug/l	51.49	37.00	2.217E-04	Pulse	3.00	3
Sb			1	0.001	ug/l	554.19	979.36	5.866E-03	Pulse	1.00	3
Se			1	0.175	ug/l	79.43	18.22	1.092E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,078,450.83	0.63	91.6	Pulse	0.50	3
1	Sc		146,085.37	0.60	93.7	Pulse	0.30	3
1	Ge		111,841.99	0.90	94.1	Pulse	0.30	3
1	In		1,187,278.81	0.45	92.2	Pulse	0.30	3
1	Tb		3,906,178.75	0.28	93.2	Pulse	0.50	3
1	Lu		2,978,667.75	0.05	92.3	Pulse	0.50	3
1	Ge		166,956.26	0.48	93.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		967.81	4.88	95.6	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:39
Sample Name FC3100-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.374	ug/l	4.83	2,280.15	2.078E-02	Pulse	0.50	3
As			1	0.284	ug/l	20.77	201.33	1.836E-03	Pulse	1.00	3
Mo			1	0.576	ug/l	6.87	1,555.40	9.350E-03	Pulse	0.50	3
Pb			1	0.810	ug/l	1.20	16,018.15	5.378E-03	Pulse	1.00	3
Be			1	-0.071	ug/l	-215.58	5.50	3.766E-05	Pulse	2.00	3
Ag			1	-0.023	ug/l	-10.54	78.00	4.690E-04	Pulse	0.50	3
Ba			1	38.593	ug/l	0.52	39,625.15	3.380E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	1690.31	3,399.68	1.142E-03	Pulse	0.50	3
Sn			1	0.238	ug/l	21.64	1,771.21	1.510E-03	Pulse	0.30	3
Sr			1	246.266	ug/l	0.25	579,506.60	4.943E-01	Pulse	0.50	3
[Pb]			1	0.785	ug/l	2.09	7,377.61	2.477E-03	Pulse	0.50	3
Ca			1	30195.793	ug/l	1.40	315,462.38	2.158E+00	Pulse	0.50	3
Ti			1	0.015	ug/l	1257.65	38.00	2.601E-04	Pulse	0.50	3
Na			1	23406.178	ug/l	0.66	8,755,154.33	5.989E+01	Analog	1.00	3
Mg			1	5152.900	ug/l	0.86	1,011,407.54	6.918E+00	Pulse	1.00	3
K			1	1621.100	ug/l	0.65	324,759.43	2.221E+00	Pulse	1.00	3
V			1	0.268	ug/l	16.09	1,858.10	1.271E-02	Pulse	0.50	3
Mn			1	3.043	ug/l	1.99	5,872.24	5.352E-02	Pulse	0.50	3
Fe			1	64.353	ug/l	2.39	187,855.85	1.712E+00	Pulse	0.50	3
Co			1	0.037	ug/l	36.05	1,210.04	1.103E-02	Pulse	0.50	3
Ni			1	-0.047	ug/l	-107.67	2,344.15	2.136E-02	Pulse	0.50	3
Cu			1	3.339	ug/l	2.68	16,269.52	1.483E-01	Pulse	0.50	3
Zn			1	285.084	ug/l	0.92	179,759.84	1.081E+00	Pulse	1.00	3
Cd			1	0.008	ug/l	295.07	170.67	1.026E-03	Pulse	0.50	3
Al			1	17.338	ug/l	6.10	2,068.11	1.415E-02	Pulse	1.00	3
Se			1	0.326	ug/l	60.98	37.89	2.279E-04	Pulse	3.00	3
Sb			1	0.100	ug/l	13.61	1,285.38	7.728E-03	Pulse	1.00	3
Se			1	0.249	ug/l	130.70	19.33	1.162E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,978,554.00	0.68	88.6	Pulse	0.50	3
1	Sc		146,197.44	0.37	93.7	Pulse	0.30	3
1	Ge		109,724.12	0.94	92.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,172,288.77	1.02	91.0	Pulse	0.30	3
1	Tb		3,883,282.33	0.49	92.6	Pulse	0.50	3
1	Lu		2,964,912.67	0.89	91.9	Pulse	0.50	3
1	Ge		166,325.14	0.45	93.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		957.81	7.22	94.6	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:42
Sample Name	FC3100-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.303	ug/l	4.68	2,104.79	1.892E-02	Pulse	0.50	3
As			1	0.225	ug/l	16.60	181.33	1.630E-03	Pulse	1.00	3
Mo			1	0.596	ug/l	5.77	1,593.41	9.586E-03	Pulse	0.50	3
Pb			1	0.624	ug/l	0.93	13,807.91	4.596E-03	Pulse	1.00	3
Be			1	-0.150	ug/l	-79.18	4.17	2.854E-05	Pulse	2.00	3
Ag			1	-0.021	ug/l	-17.99	94.67	5.696E-04	Pulse	0.50	3
Ba			1	37.894	ug/l	0.43	38,738.59	3.319E-02	Pulse	0.50	3
Tl			1	-0.001	ug/l	-163.47	3,402.35	1.132E-03	Pulse	0.50	3
Sn			1	0.184	ug/l	31.55	1,641.20	1.407E-03	Pulse	0.30	3
Sr			1	257.575	ug/l	0.15	603,390.58	5.170E-01	Pulse	0.50	3
[Pb]			1	0.630	ug/l	3.66	6,513.93	2.168E-03	Pulse	0.50	3
Ca			1	28360.476	ug/l	0.91	295,396.43	2.027E+00	Pulse	0.50	3
Ti			1	-0.101	ug/l	-53.01	30.00	2.059E-04	Pulse	0.50	3
Na			1	23145.786	ug/l	0.70	8,631,516.33	5.922E+01	Analog	1.00	3
Mg			1	5938.161	ug/l	0.42	1,161,493.33	7.969E+00	Pulse	1.00	3
K			1	1719.892	ug/l	0.63	342,242.14	2.348E+00	Pulse	1.00	3
V			1	0.364	ug/l	14.88	2,071.46	1.421E-02	Pulse	0.50	3
Mn			1	2.093	ug/l	2.80	4,267.15	3.835E-02	Pulse	0.50	3
Fe			1	12.014	ug/l	1.97	55,566.33	4.994E-01	Pulse	0.50	3
Co			1	0.044	ug/l	9.55	1,257.38	1.130E-02	Pulse	0.50	3
Ni			1	-0.151	ug/l	-70.16	2,247.47	2.020E-02	Pulse	0.50	3
Cu			1	3.016	ug/l	1.88	15,412.83	1.385E-01	Pulse	0.50	3
Zn			1	164.874	ug/l	1.70	104,141.41	6.265E-01	Pulse	1.00	3
Cd			1	0.019	ug/l	80.41	182.67	1.099E-03	Pulse	0.50	3
Al			1	13.154	ug/l	3.02	1,723.41	1.182E-02	Pulse	1.00	3
Se			1	0.327	ug/l	9.22	37.89	2.279E-04	Pulse	3.00	3
Sb			1	0.070	ug/l	26.95	1,191.71	7.170E-03	Pulse	1.00	3
Se			1	0.207	ug/l	67.60	18.66	1.122E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,004,453.50	0.82	89.4	Pulse	0.50	3
1	Sc		145,755.56	0.70	93.5	Pulse	0.30	3
1	Ge		111,257.26	0.40	93.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,167,065.65	0.73	90.6	Pulse	0.30	3
1	Tb		3,892,346.00	1.16	92.8	Pulse	0.50	3
1	Lu		2,982,297.58	0.96	92.4	Pulse	0.50	3
1	Ge		166,229.73	0.69	93.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		897.80	5.80	88.7	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:46
Sample Name	FC3102-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.065	ug/l	46.15	1,418.06	1.269E-02	Pulse	0.50	3
As			1	0.004	ug/l	1236.90	96.33	8.626E-04	Pulse	1.00	3
Mo			1	0.043	ug/l	66.76	528.68	3.147E-03	Pulse	0.50	3
Pb			1	-0.105	ug/l	-6.85	4,734.66	1.526E-03	Pulse	1.00	3
Be			1	0.011	ug/l	708.55	7.00	4.721E-05	Pulse	2.00	3
Ag			1	-0.024	ug/l	-9.88	76.67	4.572E-04	Pulse	0.50	3
Ba			1	0.056	ug/l	98.57	366.01	3.071E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-120.23	3,437.69	1.108E-03	Pulse	0.50	3
Sn			1	0.105	ug/l	41.56	1,495.63	1.255E-03	Pulse	0.30	3
Sr			1	0.197	ug/l	16.00	1,178.71	9.889E-04	Pulse	0.50	3
[Pb]			1	-0.112	ug/l	-10.54	2,162.81	6.971E-04	Pulse	0.50	3
Ca			1	53.880	ug/l	2.87	686.68	4.632E-03	Pulse	0.50	3
Ti			1	-0.166	ug/l	-46.05	26.00	1.754E-04	Pulse	0.50	3
Na			1	24.028	ug/l	13.41	20,927.91	1.412E-01	Pulse	1.00	3
Mg			1	8.947	ug/l	9.32	5,179.34	3.493E-02	Pulse	1.00	3
K			1	11.429	ug/l	11.85	23,219.94	1.566E-01	Pulse	1.00	3
V			1	0.054	ug/l	90.84	1,387.39	9.358E-03	Pulse	0.50	3
Mn			1	-0.010	ug/l	-260.19	534.01	4.779E-03	Pulse	0.50	3
Fe			1	-1.074	ug/l	-8.65	21,924.36	1.962E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-90.80	1,005.36	8.993E-03	Pulse	0.50	3
Ni			1	-0.963	ug/l	-4.95	1,248.05	1.117E-02	Pulse	0.50	3
Cu			1	1.095	ug/l	4.05	9,024.80	8.076E-02	Pulse	0.50	3
Zn			1	14.109	ug/l	1.25	9,542.03	5.684E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-423.48	158.00	9.410E-04	Pulse	0.50	3
Al			1	-0.606	ug/l	-33.19	620.01	4.182E-03	Pulse	1.00	3
Se			1	0.298	ug/l	15.56	37.33	2.224E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-45.39	909.69	5.420E-03	Pulse	1.00	3
Se			1	-0.021	ug/l	-322.20	15.22	9.065E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,102,251.50	0.42	92.3	Pulse	0.50	3
1	Sc		148,262.72	0.08	95.1	Pulse	0.30	3
1	Ge		111,758.89	0.93	94.1	Pulse	0.30	3
1	In		1,191,979.71	0.29	92.5	Pulse	0.30	3
1	Tb		3,910,008.83	0.12	93.2	Pulse	0.50	3
1	Lu		2,976,902.50	0.31	92.2	Pulse	0.50	3
1	Ge		167,877.63	0.95	94.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		957.81	3.56	94.6	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:50
Sample Name	FC3102-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.072	ug/l	3.73	1,428.73	1.288E-02	Pulse	0.50	3
As			1	0.011	ug/l	207.13	98.33	8.867E-04	Pulse	1.00	3
Mo			1	0.047	ug/l	6.09	532.01	3.194E-03	Pulse	0.50	3
Pb			1	-0.103	ug/l	-3.09	4,695.98	1.533E-03	Pulse	1.00	3
Be			1	0.053	ug/l	307.69	7.67	5.207E-05	Pulse	2.00	3
Ag			1	-0.024	ug/l	-4.89	75.33	4.519E-04	Pulse	0.50	3
Ba			1	0.065	ug/l	45.63	374.01	3.149E-04	Pulse	0.50	3
Tl			1	-0.015	ug/l	-48.72	3,225.65	1.053E-03	Pulse	0.50	3
Sn			1	0.112	ug/l	57.69	1,505.63	1.268E-03	Pulse	0.30	3
Sr			1	0.118	ug/l	34.89	985.36	8.298E-04	Pulse	0.50	3
[Pb]			1	-0.106	ug/l	-4.04	2,169.48	7.081E-04	Pulse	0.50	3
Ca			1	17.799	ug/l	7.62	302.67	2.054E-03	Pulse	0.50	3
Ti			1	-0.097	ug/l	-220.44	30.67	2.078E-04	Pulse	0.50	3
Na			1	9.423	ug/l	3.62	15,298.82	1.038E-01	Pulse	1.00	3
Mg			1	5.756	ug/l	4.11	4,517.85	3.066E-02	Pulse	1.00	3
K			1	8.762	ug/l	18.93	22,571.18	1.532E-01	Pulse	1.00	3
V			1	-0.028	ug/l	-117.40	1,190.04	8.075E-03	Pulse	0.50	3
Mn			1	0.081	ug/l	18.87	691.35	6.234E-03	Pulse	0.50	3
Fe			1	15.917	ug/l	0.45	65,418.10	5.899E-01	Pulse	0.50	3
Co			1	-0.018	ug/l	-37.60	965.36	8.705E-03	Pulse	0.50	3
Ni			1	-1.084	ug/l	-3.75	1,088.70	9.817E-03	Pulse	0.50	3
Cu			1	0.655	ug/l	4.29	7,490.81	6.754E-02	Pulse	0.50	3
Zn			1	14.628	ug/l	1.58	9,796.16	5.880E-02	Pulse	1.00	3
Cd			1	0.019	ug/l	147.16	182.67	1.096E-03	Pulse	0.50	3
Al			1	-0.318	ug/l	-2.46	639.68	4.342E-03	Pulse	1.00	3
Se			1	0.182	ug/l	51.57	33.33	2.001E-04	Pulse	3.00	3
Sb			1	-0.030	ug/l	-24.20	878.02	5.272E-03	Pulse	1.00	3
Se			1	-0.111	ug/l	-207.93	13.67	8.219E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,063,982.00	0.50	91.2	Pulse	0.50	3
1	Sc		147,337.97	0.46	94.5	Pulse	0.30	3
1	Ge		110,905.22	0.31	93.3	Pulse	0.30	3
1	In		1,187,560.48	0.05	92.2	Pulse	0.30	3
1	Tb		3,868,084.00	0.25	92.2	Pulse	0.50	3
1	Lu		2,963,868.42	0.42	91.8	Pulse	0.50	3
1	Ge		166,583.99	1.30	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,003.36	4.49	99.1	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 12:54
Sample Name FC3102-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.086	ug/l	5.48	4,370.51	3.942E-02	Pulse	0.50	3
As			1	0.353	ug/l	11.20	230.00	2.074E-03	Pulse	1.00	3
Mo			1	0.371	ug/l	26.61	1,154.04	6.960E-03	Pulse	0.50	3
Pb			1	2.680	ug/l	0.51	40,837.49	1.325E-02	Pulse	1.00	3
Be			1	-0.072	ug/l	-287.49	5.50	3.757E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	44.69	284.67	1.716E-03	Pulse	0.50	3
Ba			1	16.123	ug/l	0.42	16,865.20	1.427E-02	Pulse	0.50	3
Tl			1	0.001	ug/l	295.54	3,532.38	1.146E-03	Pulse	0.50	3
Sn			1	0.370	ug/l	11.04	2,086.80	1.766E-03	Pulse	0.30	3
Sr			1	7.964	ug/l	1.29	19,570.81	1.656E-02	Pulse	0.50	3
[Pb]			1	2.642	ug/l	0.83	18,982.55	6.161E-03	Pulse	0.50	3
Ca			1	1594.410	ug/l	2.05	16,683.10	1.147E-01	Pulse	0.50	3
Ti			1	7.080	ug/l	10.02	518.01	3.558E-03	Pulse	0.50	3
Na			1	1739.834	ug/l	2.09	658,321.85	4.525E+00	Pulse	1.00	3
Mg			1	350.031	ug/l	2.60	71,474.91	4.913E-01	Pulse	1.00	3
K			1	707.075	ug/l	2.13	152,598.29	1.049E+00	Pulse	1.00	3
V			1	1.452	ug/l	2.90	4,543.88	3.123E-02	Pulse	0.50	3
Mn			1	8.517	ug/l	2.81	15,625.65	1.409E-01	Pulse	0.50	3
Fe			1	374.354	ug/l	1.39	986,188.27	8.895E+00	Pulse	0.50	3
Co			1	0.266	ug/l	2.52	2,291.47	2.067E-02	Pulse	0.50	3
Ni			1	0.725	ug/l	17.05	3,319.63	2.995E-02	Pulse	0.50	3
Cu			1	5.519	ug/l	2.35	23,705.88	2.138E-01	Pulse	0.50	3
Zn			1	78.930	ug/l	1.61	50,072.66	3.018E-01	Pulse	1.00	3
Cd			1	0.444	ug/l	9.73	632.68	3.814E-03	Pulse	0.50	3
Al			1	326.328	ug/l	1.68	27,021.22	1.857E-01	Pulse	1.00	3
Se			1	0.132	ug/l	349.07	31.67	1.904E-04	Pulse	3.00	3
Sb			1	0.284	ug/l	7.39	1,860.43	1.121E-02	Pulse	1.00	3
Se			1	0.295	ug/l	12.75	20.00	1.205E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,081,427.33	1.23	91.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		145,504.39	1.46	93.3	Pulse	0.30	3
1	Ge		110,879.52	0.76	93.3	Pulse	0.30	3
1	In		1,181,783.32	0.40	91.8	Pulse	0.30	3
1	Tb		3,900,376.33	0.35	93.0	Pulse	0.50	3
1	Lu		2,970,971.92	0.60	92.1	Pulse	0.50	3
1	Ge		165,935.10	0.77	93.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		955.58	11.21	94.4	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 12:58
Sample Name	FC3102-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.061	ug/l	3.28	4,266.49	3.875E-02	Pulse	0.50	3
As			1	0.316	ug/l	23.63	214.33	1.947E-03	Pulse	1.00	3
Mo			1	0.375	ug/l	13.20	1,158.04	7.009E-03	Pulse	0.50	3
Pb			1	2.277	ug/l	0.84	35,697.06	1.156E-02	Pulse	1.00	3
Be			1	0.031	ug/l	457.14	7.17	4.950E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	32.31	290.00	1.755E-03	Pulse	0.50	3
Ba			1	14.039	ug/l	2.12	14,674.63	1.246E-02	Pulse	0.50	3
Tl			1	-0.009	ug/l	-127.14	3,361.68	1.088E-03	Pulse	0.50	3
Sn			1	0.324	ug/l	3.92	1,974.56	1.677E-03	Pulse	0.30	3
Sr			1	7.444	ug/l	2.65	18,276.17	1.552E-02	Pulse	0.50	3
[Pb]			1	2.243	ug/l	1.06	16,584.04	5.369E-03	Pulse	0.50	3
Ca			1	1442.725	ug/l	1.18	15,027.10	1.038E-01	Pulse	0.50	3
Ti			1	6.593	ug/l	9.45	482.01	3.330E-03	Pulse	0.50	3
Na			1	1699.583	ug/l	0.41	639,971.54	4.422E+00	Pulse	1.00	3
Mg			1	318.409	ug/l	1.31	64,978.36	4.490E-01	Pulse	1.00	3
K			1	756.309	ug/l	0.28	160,931.32	1.112E+00	Pulse	1.00	3
V			1	1.349	ug/l	0.95	4,286.49	2.962E-02	Pulse	0.50	3
Mn			1	7.352	ug/l	1.10	13,470.69	1.223E-01	Pulse	0.50	3
Fe			1	333.299	ug/l	1.22	874,649.96	7.944E+00	Pulse	0.50	3
Co			1	0.236	ug/l	1.87	2,136.79	1.941E-02	Pulse	0.50	3
Ni			1	0.660	ug/l	10.56	3,217.61	2.922E-02	Pulse	0.50	3
Cu			1	5.208	ug/l	0.81	22,513.13	2.045E-01	Pulse	0.50	3
Zn			1	77.858	ug/l	0.53	49,189.73	2.977E-01	Pulse	1.00	3
Cd			1	0.461	ug/l	5.81	648.01	3.923E-03	Pulse	0.50	3
Al			1	266.782	ug/l	1.15	22,093.52	1.527E-01	Pulse	1.00	3
Se			1	0.087	ug/l	268.57	30.00	1.817E-04	Pulse	3.00	3
Sb			1	0.270	ug/l	4.02	1,808.10	1.094E-02	Pulse	1.00	3
Se			1	0.171	ug/l	216.55	18.00	1.088E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,088,883.17	0.74	91.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		144,709.93	0.49	92.8	Pulse	0.30	3
1	Ge		110,109.71	0.32	92.7	Pulse	0.30	3
1	In		1,177,657.18	0.41	91.4	Pulse	0.30	3
1	Tb		3,893,228.25	0.52	92.8	Pulse	0.50	3
1	Lu		2,967,770.50	0.79	92.0	Pulse	0.50	3
1	Ge		165,225.75	0.91	92.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,011.14	7.42	99.9	Pulse	0.30	3

Quantitation Report

File Name 040_MB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:01
Sample Name MP41959-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.486	ug/l	7.20	2,395.49	2.370E-02	Pulse	0.50	3
As			1	0.177	ug/l	47.55	148.00	1.462E-03	Pulse	1.00	3
Mo			1	0.048	ug/l	50.16	486.01	3.196E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	24.74	6,589.28	2.211E-03	Pulse	1.00	3
Be			1	-0.221	ug/l	-31.95	2.67	2.025E-05	Pulse	2.00	3
Ag			1	-0.014	ug/l	-15.72	124.00	8.167E-04	Pulse	0.50	3
Ba			1	0.129	ug/l	47.27	408.01	3.713E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	2330.44	3,401.01	1.141E-03	Pulse	0.50	3
Sn			1	0.292	ug/l	21.53	1,773.43	1.616E-03	Pulse	0.30	3
Sr			1	0.049	ug/l	36.56	758.02	6.912E-04	Pulse	0.50	3
[Pb]			1	0.053	ug/l	33.82	3,052.29	1.024E-03	Pulse	0.50	3
Ca			1	21.007	ug/l	11.46	302.00	2.283E-03	Pulse	0.50	3
Ti			1	-0.208	ug/l	-119.46	20.67	1.560E-04	Pulse	0.50	3
Na			1	4.660	ug/l	22.39	12,123.34	9.167E-02	Pulse	1.00	3
Mg			1	9.753	ug/l	6.39	4,765.58	3.601E-02	Pulse	1.00	3
K			1	11.093	ug/l	20.55	20,659.44	1.562E-01	Pulse	1.00	3
V			1	0.963	ug/l	4.32	3,120.92	2.358E-02	Pulse	0.50	3
Mn			1	0.043	ug/l	108.11	569.34	5.627E-03	Pulse	0.50	3
Fe			1	1.420	ug/l	18.51	25,652.93	2.540E-01	Pulse	0.50	3
Co			1	0.017	ug/l	32.14	1,028.03	1.018E-02	Pulse	0.50	3
Ni			1	-0.987	ug/l	-9.66	1,101.37	1.091E-02	Pulse	0.50	3
Cu			1	1.224	ug/l	7.85	8,553.92	8.464E-02	Pulse	0.50	3
Zn			1	1.597	ug/l	1.51	1,452.73	9.561E-03	Pulse	1.00	3
Cd			1	0.019	ug/l	101.37	166.67	1.096E-03	Pulse	0.50	3
Al			1	-3.675	ug/l	-7.10	328.00	2.477E-03	Pulse	1.00	3
Se			1	0.273	ug/l	71.37	33.00	2.176E-04	Pulse	3.00	3
Sb			1	-0.010	ug/l	-115.60	859.69	5.658E-03	Pulse	1.00	3
Se			1	0.367	ug/l	83.85	19.33	1.273E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,315.58	0.86	88.7	Pulse	0.50	3
1	Sc		132,308.96	2.21	84.8	Pulse	0.30	3
1	Ge		101,025.60	1.88	85.0	Pulse	0.30	3
1	In		1,096,583.08	2.13	85.1	Pulse	0.30	3
1	Tb		3,714,551.67	1.75	88.6	Pulse	0.50	3
1	Lu		2,820,067.00	1.95	87.4	Pulse	0.50	3
1	Ge		151,938.09	1.66	85.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		867.80	7.89	85.7	Pulse	0.30	3

Quantitation Report

File Name	041_BSP.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 13:05
Sample Name	MP41959-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	219.848	ug/l	2.14	562,756.25	5.762E+00	Pulse	0.50	3
As			1	219.329	ug/l	2.28	74,584.40	7.637E-01	Pulse	1.00	3
Mo			1	225.206	ug/l	2.05	385,379.88	2.624E+00	Pulse	0.50	3
Pb			1	220.763	ug/l	1.54	2,585,175.58	9.316E-01	Pulse	1.00	3
Be			1	220.791	ug/l	3.09	3,316.11	2.568E-02	Pulse	2.00	3
Ag			1	103.613	ug/l	2.17	594,245.59	4.047E+00	Pulse	0.50	3
Ba			1	217.977	ug/l	2.05	198,578.47	1.897E-01	Pulse	0.50	3
Tl			1	215.932	ug/l	1.04	3,563,448.25	1.284E+00	Pulse	0.50	3
Sn			1	229.758	ug/l	2.46	465,426.68	4.447E-01	Pulse	0.30	3
Sr			1	222.129	ug/l	2.22	466,790.70	4.459E-01	Pulse	0.50	3
[Pb]			1	211.622	ug/l	1.69	1,167,734.13	4.208E-01	Pulse	0.50	3
Ca			1	19539.740	ug/l	2.52	180,378.02	1.397E+00	Pulse	0.50	3
Ti			1	221.655	ug/l	3.65	13,392.60	1.037E-01	Pulse	0.50	3
Na			1	20303.560	ug/l	3.14	6,709,736.00	5.196E+01	Analog	1.00	3
Mg			1	19409.296	ug/l	3.20	3,356,790.83	2.599E+01	Pulse	1.00	3
K			1	19174.196	ug/l	3.02	3,194,589.17	2.474E+01	Pulse	1.00	3
V			1	217.853	ug/l	3.15	441,325.97	3.418E+00	Pulse	0.50	3
Mn			1	217.678	ug/l	2.83	339,908.48	3.481E+00	Pulse	0.50	3
Fe			1	20587.852	ug/l	2.29	46,608,908.00	4.772E+02	Analog	0.50	3
Co			1	218.302	ug/l	1.84	900,988.23	9.225E+00	Pulse	0.50	3
Ni			1	215.421	ug/l	2.19	236,229.54	2.419E+00	Pulse	0.50	3
Cu			1	217.967	ug/l	2.09	644,851.42	6.602E+00	Pulse	0.50	3
Zn			1	211.115	ug/l	1.74	117,663.42	8.012E-01	Pulse	1.00	3
Cd			1	217.692	ug/l	2.00	204,342.59	1.392E+00	Pulse	0.50	3
Al			1	18612.254	ug/l	3.00	1,335,361.37	1.034E+01	Pulse	1.00	3
Se			1	205.008	ug/l	2.75	5,818.00	3.963E-02	Pulse	3.00	3
Sb			1	221.236	ug/l	1.63	615,797.31	4.193E+00	Pulse	1.00	3
Se			1	205.689	ug/l	0.81	2,866.33	1.951E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,775,707.25	2.82	82.6	Pulse	0.50	3
1	Sc		129,238.44	3.80	82.9	Pulse	0.30	3
1	Ge		97,710.42	3.14	82.2	Pulse	0.30	3
1	In		1,047,267.53	3.50	81.3	Pulse	0.30	3
1	Tb		3,643,273.33	3.49	86.9	Pulse	0.50	3
1	Lu		2,798,920.50	3.86	86.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		146,903.23	3.13	82.6	Pulse	0.30	3
1	Te		3.33	91.65		Pulse	0.50	3
1	Li		794.46	9.46	78.5	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:09
Sample Name FC3062-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.139	ug/l	3.05	6,637.15	6.696E-02	Pulse	0.50	3
As			1	3.404	ug/l	7.34	1,256.71	1.269E-02	Pulse	1.00	3
Mo			1	2.432	ug/l	1.26	4,633.93	3.095E-02	Pulse	0.50	3
Pb			1	0.204	ug/l	3.33	7,877.48	2.824E-03	Pulse	1.00	3
Be			1	0.239	ug/l	96.68	9.67	7.371E-05	Pulse	2.00	3
Ag			1	-0.001	ug/l	-173.10	198.00	1.323E-03	Pulse	0.50	3
Ba			1	17.050	ug/l	1.51	16,050.46	1.508E-02	Pulse	0.50	3
Tl			1	0.091	ug/l	10.34	4,679.99	1.678E-03	Pulse	0.50	3
Sn			1	0.501	ug/l	4.31	2,150.14	2.019E-03	Pulse	0.30	3
Sr			1	158.814	ug/l	0.47	339,653.38	3.190E-01	Pulse	0.50	3
[Pb]			1	0.202	ug/l	13.07	3,681.08	1.320E-03	Pulse	0.50	3
Ca			1	79164.603	ug/l	0.83	742,733.19	5.656E+00	Pulse	0.50	3
Ti			1	0.500	ug/l	63.99	64.00	4.862E-04	Pulse	0.50	3
Na			1	40854.506	ug/l	0.84	13,718,620.33	1.045E+02	Analog	1.00	3
Mg			1	6910.114	ug/l	0.30	1,217,325.71	9.269E+00	Pulse	1.00	3
K			1	4234.439	ug/l	0.75	731,920.98	5.574E+00	Pulse	1.00	3
V			1	4.845	ug/l	3.39	11,070.49	8.433E-02	Pulse	0.50	3
Mn			1	35.272	ug/l	1.52	56,335.88	5.682E-01	Pulse	0.50	3
Fe			1	3810.006	ug/l	0.71	8,773,310.00	8.850E+01	Analog	0.50	3
Co			1	0.339	ug/l	4.83	2,354.15	2.375E-02	Pulse	0.50	3
Ni			1	-0.138	ug/l	-30.85	2,016.11	2.034E-02	Pulse	0.50	3
Cu			1	1.571	ug/l	3.21	9,427.66	9.509E-02	Pulse	0.50	3
Zn			1	20.725	ug/l	1.69	12,256.57	8.184E-02	Pulse	1.00	3
Cd			1	0.057	ug/l	55.23	200.00	1.338E-03	Pulse	0.50	3
Al			1	325.302	ug/l	0.49	24,317.09	1.852E-01	Pulse	1.00	3
Se			1	0.587	ug/l	43.10	41.67	2.780E-04	Pulse	3.00	3
Sb			1	0.193	ug/l	3.60	1,421.72	9.493E-03	Pulse	1.00	3
Se			1	1.293	ug/l	29.11	32.22	2.148E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,789,992.00	2.17	83.0	Pulse	0.50	3
1	Sc		131,330.59	1.87	84.2	Pulse	0.30	3
1	Ge		99,138.09	1.69	83.4	Pulse	0.30	3
1	In		1,064,758.67	2.46	82.7	Pulse	0.30	3
1	Tb		3,664,190.00	2.45	87.4	Pulse	0.50	3
1	Lu		2,801,011.67	2.62	86.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		149,746.77	1.80	84.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		817.80	8.38	80.8	Pulse	0.30	3

Quantitation Report

File Name 043CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:13
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.295	ug/l	1.24	275,541.70	2.485E+00	Pulse	0.50	3
As			1	46.789	ug/l	1.15	36,177.05	3.263E-01	Pulse	1.00	3
Mo			1	47.214	ug/l	0.81	183,392.91	1.102E+00	Pulse	0.50	3
Pb			1	47.230	ug/l	1.00	1,217,220.12	3.997E-01	Pulse	1.00	3
Be			1	50.269	ug/l	4.34	1,678.91	1.172E-02	Pulse	2.00	3
Ag			1	49.182	ug/l	0.39	639,412.69	3.842E+00	Pulse	0.50	3
Ba			1	47.174	ug/l	0.49	96,534.10	8.226E-02	Pulse	0.50	3
Tl			1	48.176	ug/l	0.25	1,746,548.91	5.736E-01	Pulse	0.50	3
Sn			1	46.923	ug/l	0.22	213,884.80	1.823E-01	Pulse	0.30	3
Sr			1	47.146	ug/l	0.36	222,560.73	1.896E-01	Pulse	0.50	3
[Pb]			1	47.319	ug/l	0.80	574,602.21	1.887E-01	Pulse	0.50	3
Ca			1	4775.503	ug/l	1.32	97,875.37	6.831E-01	Pulse	0.50	3
Ti			1	46.981	ug/l	1.31	6,321.04	4.411E-02	Pulse	0.50	3
Na			1	4808.881	ug/l	0.43	3,532,775.58	2.465E+01	Pulse	1.00	3
Mg			1	4783.129	ug/l	0.84	1,837,502.08	1.282E+01	Pulse	1.00	3
K			1	4764.487	ug/l	0.34	1,771,799.62	1.237E+01	Pulse	1.00	3
V			1	47.835	ug/l	0.65	215,735.38	1.506E+00	Pulse	0.50	3
Mn			1	47.090	ug/l	1.33	167,270.66	1.509E+00	Pulse	0.50	3
Fe			1	4880.414	ug/l	0.98	25,097,855.33	2.264E+02	Analog	0.50	3
Co			1	47.659	ug/l	0.87	447,136.42	4.033E+00	Pulse	0.50	3
Ni			1	47.117	ug/l	2.02	118,667.83	1.070E+00	Pulse	0.50	3
Cu			1	48.392	ug/l	1.28	327,977.15	2.958E+00	Pulse	0.50	3
Zn			1	47.852	ug/l	0.47	60,770.86	3.652E-01	Pulse	1.00	3
Cd			1	47.777	ug/l	0.61	101,748.77	6.114E-01	Pulse	0.50	3
Al			1	4626.435	ug/l	0.94	736,923.02	5.143E+00	Pulse	1.00	3
Se			1	47.334	ug/l	1.20	3,059.91	1.839E-02	Pulse	3.00	3
Sb			1	46.941	ug/l	0.88	296,710.56	1.783E+00	Pulse	1.00	3
Se			1	46.513	ug/l	1.71	1,477.17	8.877E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,044,913.50	0.63	90.6	Pulse	0.50	3
1	Sc		143,290.50	0.13	91.9	Pulse	0.30	3
1	Ge		110,869.54	0.74	93.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,173,572.07	0.71	91.1	Pulse	0.30	3
1	Tb		3,926,223.83	0.28	93.6	Pulse	0.50	3
1	Lu		3,016,589.25	0.87	93.5	Pulse	0.50	3
1	Ge		166,422.31	0.90	93.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		993.36	8.07	98.1	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 13:17
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.773	ug/l	1.19	566,711.21	5.126E+00	Pulse	0.50	3
As			1	98.197	ug/l	0.72	75,607.39	6.839E-01	Pulse	1.00	3
Mo			1	97.900	ug/l	1.55	380,095.39	2.282E+00	Pulse	0.50	3
Pb			1	97.682	ug/l	0.53	2,461,504.42	8.247E-01	Pulse	1.00	3
Be			1	100.213	ug/l	0.89	3,398.62	2.331E-02	Pulse	2.00	3
Ag			1	99.932	ug/l	1.62	1,299,958.50	7.805E+00	Pulse	0.50	3
Ba			1	98.247	ug/l	1.76	199,277.75	1.710E-01	Pulse	0.50	3
Tl			1	100.152	ug/l	0.80	3,555,646.42	1.191E+00	Pulse	0.50	3
Sn			1	98.499	ug/l	1.68	444,403.63	3.814E-01	Pulse	0.30	3
Sr			1	98.740	ug/l	1.30	462,011.39	3.965E-01	Pulse	0.50	3
[Pb]			1	98.125	ug/l	0.67	1,165,071.67	3.903E-01	Pulse	0.50	3
Ca			1	9710.760	ug/l	1.29	202,355.49	1.388E+00	Pulse	0.50	3
Ti			1	95.810	ug/l	3.67	13,074.39	8.970E-02	Pulse	0.50	3
Na			1	10122.684	ug/l	1.18	7,552,575.00	5.181E+01	Analog	1.00	3
Mg			1	9746.845	ug/l	1.41	3,805,789.75	2.611E+01	Pulse	1.00	3
K			1	9702.129	ug/l	0.91	3,649,151.83	2.503E+01	Pulse	1.00	3
V			1	97.904	ug/l	1.61	447,892.92	3.073E+00	Pulse	0.50	3
Mn			1	97.649	ug/l	1.73	345,290.90	3.123E+00	Pulse	0.50	3
Fe			1	10117.966	ug/l	1.08	51,857,498.67	4.691E+02	Analog	0.50	3
Co			1	98.555	ug/l	1.23	920,877.19	8.330E+00	Pulse	0.50	3
Ni			1	98.084	ug/l	0.88	243,714.52	2.205E+00	Pulse	0.50	3
Cu			1	98.604	ug/l	0.91	660,895.81	5.978E+00	Pulse	0.50	3
Zn			1	97.757	ug/l	1.74	123,629.96	7.423E-01	Pulse	1.00	3
Cd			1	97.488	ug/l	1.95	207,599.40	1.246E+00	Pulse	0.50	3
Al			1	9621.856	ug/l	1.70	1,558,444.37	1.069E+01	Pulse	1.00	3
Se			1	97.825	ug/l	1.77	6,300.04	3.783E-02	Pulse	3.00	3
Sb			1	97.089	ug/l	1.97	613,088.02	3.681E+00	Pulse	1.00	3
Se			1	96.481	ug/l	1.15	3,050.25	1.831E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,984,830.17	0.59	88.8	Pulse	0.50	3
1	Sc		145,783.00	0.73	93.5	Pulse	0.30	3
1	Ge		110,553.20	0.37	93.0	Pulse	0.30	3
1	In		1,165,182.25	0.48	90.5	Pulse	0.30	3
1	Tb		3,916,894.42	0.52	93.4	Pulse	0.50	3
1	Lu		3,010,620.08	0.11	93.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		166,568.44	0.89	93.7	Pulse	0.30	3
1	Te		4.67	137.77		Pulse	0.50	3
1	Li		1,016.70	5.69	100.4	Pulse	0.30	3

Quantitation Report

File Name 045_CCB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:20
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.026	ug/l	-47.57	1,036.70	9.634E-03	Pulse	0.50	3
As			1	0.006	ug/l	106.82	95.33	8.858E-04	Pulse	1.00	3
Mo			1	0.129	ug/l	16.85	915.36	5.649E-03	Pulse	0.50	3
Pb			1	-0.021	ug/l	-24.62	5,405.86	1.792E-03	Pulse	1.00	3
Be			1	-0.067	ug/l	-32.49	4.33	3.049E-05	Pulse	2.00	3
Ag			1	-0.001	ug/l	-415.86	204.67	1.265E-03	Pulse	0.50	3
Ba			1	0.019	ug/l	51.14	340.00	2.926E-04	Pulse	0.50	3
Tl			1	0.018	ug/l	29.84	4,080.50	1.353E-03	Pulse	0.50	3
Sn			1	0.173	ug/l	12.49	1,999.01	1.720E-03	Pulse	0.30	3
Sr			1	0.015	ug/l	98.41	760.02	6.538E-04	Pulse	0.50	3
[Pb]			1	-0.023	ug/l	-38.95	2,501.53	8.294E-04	Pulse	0.50	3
Ca			1	0.666	ug/l	132.73	124.67	8.777E-04	Pulse	0.50	3
Ti			1	-0.115	ug/l	-29.03	20.67	1.459E-04	Pulse	0.50	3
Na			1	1.329	ug/l	17.70	12,286.43	8.655E-02	Pulse	1.00	3
Mg			1	0.607	ug/l	76.99	3,488.97	2.459E-02	Pulse	1.00	3
K			1	3.455	ug/l	25.41	21,406.23	1.508E-01	Pulse	1.00	3
V			1	-0.011	ug/l	-88.90	1,159.37	8.170E-03	Pulse	0.50	3
Mn			1	-0.001	ug/l	-550.29	527.34	4.899E-03	Pulse	0.50	3
Fe			1	-0.547	ug/l	-114.96	21,054.26	1.957E-01	Pulse	0.50	3
Co			1	0.003	ug/l	141.13	1,041.36	9.675E-03	Pulse	0.50	3
Ni			1	-0.598	ug/l	-7.45	924.03	8.585E-03	Pulse	0.50	3
Cu			1	-0.135	ug/l	-25.28	4,277.83	3.975E-02	Pulse	0.50	3
Zn			1	-0.007	ug/l	-384.57	562.68	3.474E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	24601.27	158.00	9.755E-04	Pulse	0.50	3
Al			1	-0.908	ug/l	-79.80	498.01	3.510E-03	Pulse	1.00	3
Se			1	0.209	ug/l	67.69	39.78	2.453E-04	Pulse	3.00	3
Sb			1	0.022	ug/l	57.10	1,082.03	6.680E-03	Pulse	1.00	3
Se			1	-0.030	ug/l	-204.85	14.11	8.708E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,016,993.00	0.98	89.8	Pulse	0.50	3
1	Sc		141,954.47	1.31	91.0	Pulse	0.30	3

Quantitation Report

1	Ge		107,649.04	0.83	90.6	Pulse	0.30	3
1	In		1,162,030.61	0.58	90.2	Pulse	0.30	3
1	Tb		3,830,043.92	0.77	91.3	Pulse	0.50	3
1	Lu		2,914,619.83	1.05	90.3	Pulse	0.50	3
1	Ge		161,993.52	0.59	91.1	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		948.92	7.32	93.7	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 13:24
Sample Name	FC2883-48
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.983	ug/l	0.92	3,753.04	3.671E-02	Pulse	0.50	3
As			1	0.226	ug/l	6.24	167.00	1.634E-03	Pulse	1.00	3
Mo			1	1.590	ug/l	1.23	3,251.63	2.116E-02	Pulse	0.50	3
Pb			1	-0.053	ug/l	-7.01	5,079.09	1.744E-03	Pulse	1.00	3
Be			1	-0.026	ug/l	-995.45	5.67	4.290E-05	Pulse	2.00	3
Ag			1	-0.003	ug/l	-244.49	192.67	1.253E-03	Pulse	0.50	3
Ba			1	19.966	ug/l	1.02	19,369.05	1.761E-02	Pulse	0.50	3
Tl			1	0.043	ug/l	36.11	4,059.83	1.395E-03	Pulse	0.50	3
Sn			1	0.634	ug/l	16.49	2,504.63	2.275E-03	Pulse	0.30	3
Sr			1	601.232	ug/l	0.37	1,326,164.04	1.206E+00	Pulse	0.50	3
[Pb]			1	-0.060	ug/l	-31.40	2,328.17	7.994E-04	Pulse	0.50	3
Ca			1	38053.711	ug/l	0.59	363,029.61	2.719E+00	Pulse	0.50	3
Ti			1	-0.212	ug/l	-73.65	20.67	1.538E-04	Pulse	0.50	3
Na			1	10224.860	ug/l	1.02	3,498,557.25	2.621E+01	Pulse	1.00	3
Mg			1	9183.478	ug/l	0.69	1,643,701.33	1.231E+01	Pulse	1.00	3
K			1	1027.907	ug/l	1.07	194,977.48	1.460E+00	Pulse	1.00	3
V			1	1.108	ug/l	11.56	3,454.99	2.585E-02	Pulse	0.50	3
Mn			1	0.261	ug/l	6.60	931.36	9.109E-03	Pulse	0.50	3
Fe			1	3.658	ug/l	5.55	31,261.77	3.058E-01	Pulse	0.50	3
Co			1	0.148	ug/l	6.84	1,606.74	1.572E-02	Pulse	0.50	3
Ni			1	-0.719	ug/l	-3.71	1,419.39	1.389E-02	Pulse	0.50	3
Cu			1	2.152	ug/l	0.86	11,506.12	1.125E-01	Pulse	0.50	3
Zn			1	16.212	ug/l	2.80	9,959.25	6.478E-02	Pulse	1.00	3
Cd			1	0.009	ug/l	150.49	158.67	1.033E-03	Pulse	0.50	3
Al			1	9.403	ug/l	11.26	1,301.38	9.740E-03	Pulse	1.00	3
Se			1	0.356	ug/l	24.89	35.89	2.336E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	27.94	1,023.03	6.654E-03	Pulse	1.00	3
Se			1	0.411	ug/l	54.22	20.22	1.315E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,912,146.50	2.44	86.7	Pulse	0.50	3
1	Sc		133,515.09	2.40	85.6	Pulse	0.30	3
1	Ge		102,226.66	1.94	86.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,099,604.99	2.31	85.4	Pulse	0.30	3
1	Tb		3,735,642.92	3.32	89.1	Pulse	0.50	3
1	Lu		2,832,327.83	3.42	87.8	Pulse	0.50	3
1	Ge		153,688.70	1.82	86.4	Pulse	0.30	3
1	Te		2.00	0.00		Pulse	0.50	3
1	Li		892.25	4.67	88.1	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 13:28
Sample Name	FC3083-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	17.799	ug/l	0.71	47,471.47	4.766E-01	Pulse	0.50	3
As			1	2.842	ug/l	4.67	1,069.03	1.073E-02	Pulse	1.00	3
Mo			1	10.896	ug/l	0.80	19,249.88	1.295E-01	Pulse	0.50	3
Pb			1	3.337	ug/l	0.33	44,150.68	1.602E-02	Pulse	1.00	3
Be			1	-0.038	ug/l	-240.47	5.50	4.160E-05	Pulse	2.00	3
Ag			1	-0.008	ug/l	-18.06	158.00	1.062E-03	Pulse	0.50	3
Ba			1	46.006	ug/l	0.53	42,203.65	4.024E-02	Pulse	0.50	3
Tl			1	0.066	ug/l	9.80	4,221.87	1.532E-03	Pulse	0.50	3
Sn			1	1.955	ug/l	0.80	5,061.84	4.827E-03	Pulse	0.30	3
Sr			1	89.706	ug/l	1.08	189,216.66	1.804E-01	Pulse	0.50	3
[Pb]			1	3.367	ug/l	1.63	20,947.52	7.601E-03	Pulse	0.50	3
Ca			1	12301.480	ug/l	0.23	116,501.10	8.795E-01	Pulse	0.50	3
Ti			1	28.558	ug/l	2.57	1,799.43	1.358E-02	Pulse	0.50	3
Na			1	117466.530	ug/l	0.92	39,764,889.33	3.002E+02	Analog	1.00	3
Mg			1	2150.019	ug/l	0.60	384,105.78	2.900E+00	Pulse	1.00	3
K			1	2680.727	ug/l	1.21	474,244.03	3.581E+00	Pulse	1.00	3
V			1	19.206	ug/l	1.30	40,934.07	3.091E-01	Pulse	0.50	3
Mn			1	148.492	ug/l	0.61	236,658.01	2.376E+00	Pulse	0.50	3
Fe			1	11091.615	ug/l	0.27	25,618,585.33	2.572E+02	Analog	0.50	3
Co			1	1.594	ug/l	2.22	7,642.20	7.673E-02	Pulse	0.50	3
Ni			1	3.679	ug/l	0.44	6,256.36	6.282E-02	Pulse	0.50	3
Cu			1	4.545	ug/l	3.00	18,380.08	1.845E-01	Pulse	0.50	3
Zn			1	77.637	ug/l	0.30	44,130.90	2.969E-01	Pulse	1.00	3
Cd			1	0.052	ug/l	29.66	194.00	1.306E-03	Pulse	0.50	3
Al			1	4531.301	ug/l	0.50	333,907.60	2.521E+00	Pulse	1.00	3
Se			1	0.993	ug/l	24.70	53.00	3.562E-04	Pulse	3.00	3
Sb			1	0.463	ug/l	3.29	2,168.80	1.459E-02	Pulse	1.00	3
Se			1	1.898	ug/l	15.29	40.44	2.719E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,755,850.17	0.92	82.0	Pulse	0.50	3
1	Sc		132,458.56	1.05	84.9	Pulse	0.30	3
1	Ge		99,600.35	0.50	83.8	Pulse	0.30	3
1	In		1,048,749.99	2.07	81.4	Pulse	0.30	3
1	Tb		3,648,876.33	1.54	87.0	Pulse	0.50	3
1	Lu		2,782,764.92	2.04	86.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		148,648.07	1.27	83.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		837.80	6.57	82.8	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:32
Sample Name FC3178-2F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.780	ug/l	8.71	5,514.81	5.756E-02	Pulse	0.50	3
As			1	0.889	ug/l	7.17	377.33	3.939E-03	Pulse	1.00	3
Mo			1	1.545	ug/l	3.24	2,956.91	2.063E-02	Pulse	0.50	3
Pb			1	0.551	ug/l	3.14	10,332.80	4.288E-03	Pulse	1.00	3
Be			1	-0.082	ug/l	-195.48	5.00	3.647E-05	Pulse	2.00	3
Ag			1	0.037	ug/l	10.02	406.68	2.837E-03	Pulse	0.50	3
Ba			1	25.239	ug/l	2.07	22,162.94	2.219E-02	Pulse	0.50	3
Tl			1	0.051	ug/l	21.76	3,467.03	1.440E-03	Pulse	0.50	3
Sn			1	0.469	ug/l	8.39	1,955.68	1.957E-03	Pulse	0.30	3
Sr			1	5899.583	ug/l	1.29	11,811,492.00	1.183E+01	Analog	0.50	3
[Pb]			1	0.566	ug/l	3.77	4,920.74	2.042E-03	Pulse	0.50	3
Ca			1	437892.762	ug/l	1.12	4,256,378.17	3.128E+01	Pulse	0.50	3
Ti			1	39.336	ug/l	32.98	2,534.19	1.861E-02	Pulse	0.50	3
Na			1	1338907.361	ug/l	1.24	465,506,197.33	3.421E+03	Analog	1.00	3
Mg			1	326853.763	ug/l	0.83	59,516,882.67	4.374E+02	Analog	1.00	3
K			1	7884.705	ug/l	1.29	1,395,470.83	1.026E+01	Pulse	1.00	3
V			1	3.731	ug/l	9.20	9,111.51	6.691E-02	Pulse	0.50	3
Mn			1	116.036	ug/l	1.18	177,962.10	1.858E+00	Pulse	0.50	3
Fe			1	863.068	ug/l	2.15	1,936,748.92	2.022E+01	Pulse	0.50	3
Co			1	0.709	ug/l	5.94	3,771.04	3.937E-02	Pulse	0.50	3
Ni			1	5.443	ug/l	1.17	7,898.30	8.245E-02	Pulse	0.50	3
Cu			1	2.851	ug/l	3.34	12,796.94	1.336E-01	Pulse	0.50	3
Zn			1	13.596	ug/l	1.04	7,865.94	5.490E-02	Pulse	1.00	3
Cd			1	0.075	ug/l	20.17	208.00	1.451E-03	Pulse	0.50	3
Al			1	1966.576	ug/l	2.48	149,275.01	1.097E+00	Pulse	1.00	3
Se			1	1.951	ug/l	19.68	77.33	5.406E-04	Pulse	3.00	3
Sb			1	0.103	ug/l	11.62	1,116.70	7.795E-03	Pulse	1.00	3
Se			1	3.000	ug/l	20.71	53.89	3.759E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,409,201.33	2.16	71.7	Pulse	0.50	3
1	Sc		136,089.56	2.18	87.3	Pulse	0.30	3
1	Ge		95,793.51	0.77	80.6	Pulse	0.30	3
1	In		998,704.82	2.02	77.5	Pulse	0.30	3
1	Tb		3,425,687.08	2.46	81.7	Pulse	0.50	3
1	Lu		2,651,231.75	2.23	82.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		143,279.89	1.80	80.6	Pulse	0.30	3
1	Te		8.67	96.08		Pulse	0.50	3
1	Li		876.69	7.22	86.6	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:36
Sample Name FC3178-4F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.210	ug/l	8.09	3,959.75	4.265E-02	Pulse	0.50	3
As			1	1.907	ug/l	6.59	694.68	7.479E-03	Pulse	1.00	3
Mo			1	2.745	ug/l	1.69	4,818.64	3.460E-02	Pulse	0.50	3
Pb			1	0.010	ug/l	63.07	4,758.67	2.007E-03	Pulse	1.00	3
Be			1	-0.200	ug/l	-64.52	3.00	2.273E-05	Pulse	2.00	3
Ag			1	-0.001	ug/l	-617.46	188.67	1.355E-03	Pulse	0.50	3
Ba			1	60.924	ug/l	0.30	51,884.58	5.321E-02	Pulse	0.50	3
Tl			1	0.019	ug/l	16.78	2,971.61	1.254E-03	Pulse	0.50	3
Sn			1	0.343	ug/l	8.15	1,671.20	1.713E-03	Pulse	0.30	3
Sr			1	6430.090	ug/l	1.19	12,570,091.33	1.289E+01	Analog	0.50	3
[Pb]			1	0.000	ug/l	11780.88	2,181.48	9.194E-04	Pulse	0.50	3
Ca			1	523814.700	ug/l	0.64	4,915,855.67	3.742E+01	Pulse	0.50	3
Ti			1	0.077	ug/l	511.80	38.00	2.890E-04	Pulse	0.50	3
Na			1	1297627.240	ug/l	0.66	435,597,450.67	3.316E+03	Analog	1.00	3
Mg			1	302041.802	ug/l	0.67	53,098,978.67	4.042E+02	Analog	1.00	3
K			1	9440.238	ug/l	1.19	1,609,418.67	1.225E+01	Pulse	1.00	3
V			1	2.919	ug/l	3.62	7,119.99	5.420E-02	Pulse	0.50	3
Mn			1	0.494	ug/l	10.96	1,192.04	1.283E-02	Pulse	0.50	3
Fe			1	5.009	ug/l	6.76	31,303.15	3.371E-01	Pulse	0.50	3
Co			1	0.389	ug/l	1.43	2,403.49	2.588E-02	Pulse	0.50	3
Ni			1	1.776	ug/l	3.62	3,867.07	4.164E-02	Pulse	0.50	3
Cu			1	3.436	ug/l	2.05	14,038.45	1.512E-01	Pulse	0.50	3
Zn			1	12.603	ug/l	2.67	7,122.65	5.115E-02	Pulse	1.00	3
Cd			1	0.131	ug/l	21.27	252.00	1.810E-03	Pulse	0.50	3
Al			1	-0.801	ug/l	-47.55	535.01	4.074E-03	Pulse	1.00	3
Se			1	7.317	ug/l	2.84	219.11	1.573E-03	Pulse	3.00	3
Sb			1	0.266	ug/l	9.36	1,513.40	1.087E-02	Pulse	1.00	3
Se			1	8.542	ug/l	5.29	125.22	8.993E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,370,864.83	1.65	70.6	Pulse	0.50	3
1	Sc		131,378.63	1.10	84.2	Pulse	0.30	3
1	Ge		92,872.52	1.42	78.2	Pulse	0.30	3
1	In		975,115.17	1.61	75.7	Pulse	0.30	3
1	Tb		3,359,513.33	2.11	80.1	Pulse	0.50	3
1	Lu		2,610,963.25	2.06	80.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		139,257.07	0.12	78.3	Pulse	0.30	3
1	Te		10.00	91.65		Pulse	0.50	3
1	Li		818.91	4.70	80.9	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:39
Sample Name FC3178-5F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.394	ug/l	2.68	4,475.20	4.748E-02	Pulse	0.50	3
As			1	2.122	ug/l	1.25	775.69	8.227E-03	Pulse	1.00	3
Mo			1	2.739	ug/l	5.30	4,891.99	3.453E-02	Pulse	0.50	3
Pb			1	0.091	ug/l	11.06	5,650.28	2.351E-03	Pulse	1.00	3
Be			1	-0.101	ug/l	-63.95	4.50	3.421E-05	Pulse	2.00	3
Ag			1	-0.005	ug/l	-108.66	168.00	1.186E-03	Pulse	0.50	3
Ba			1	60.859	ug/l	0.94	52,503.74	5.315E-02	Pulse	0.50	3
Tl			1	0.012	ug/l	92.56	2,915.60	1.213E-03	Pulse	0.50	3
Sn			1	0.327	ug/l	16.30	1,662.34	1.684E-03	Pulse	0.30	3
Sr			1	5953.099	ug/l	1.49	11,788,784.33	1.194E+01	Analog	0.50	3
[Pb]			1	0.077	ug/l	11.13	2,576.20	1.072E-03	Pulse	0.50	3
Ca			1	500886.188	ug/l	0.51	4,707,176.17	3.578E+01	Pulse	0.50	3
Ti			1	-0.119	ug/l	-188.48	26.00	1.973E-04	Pulse	0.50	3
Na			1	1212948.842	ug/l	0.88	407,719,125.33	3.099E+03	Analog	1.00	3
Mg			1	285773.795	ug/l	0.52	50,308,709.33	3.824E+02	Analog	1.00	3
K			1	9364.129	ug/l	1.19	1,598,741.75	1.215E+01	Pulse	1.00	3
V			1	3.059	ug/l	0.34	7,416.76	5.638E-02	Pulse	0.50	3
Mn			1	0.489	ug/l	3.13	1,202.04	1.275E-02	Pulse	0.50	3
Fe			1	7.247	ug/l	5.70	36,663.86	3.890E-01	Pulse	0.50	3
Co			1	0.324	ug/l	2.69	2,180.80	2.313E-02	Pulse	0.50	3
Ni			1	1.445	ug/l	6.03	3,578.34	3.796E-02	Pulse	0.50	3
Cu			1	2.444	ug/l	2.08	11,438.75	1.213E-01	Pulse	0.50	3
Zn			1	11.754	ug/l	0.98	6,792.20	4.794E-02	Pulse	1.00	3
Cd			1	0.093	ug/l	29.08	222.67	1.572E-03	Pulse	0.50	3
Al			1	-1.470	ug/l	-85.97	486.02	3.702E-03	Pulse	1.00	3
Se			1	6.163	ug/l	1.90	191.44	1.351E-03	Pulse	3.00	3
Sb			1	0.246	ug/l	8.36	1,486.40	1.049E-02	Pulse	1.00	3
Se			1	8.028	ug/l	8.42	120.56	8.508E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,402,569.08	1.84	71.5	Pulse	0.50	3
1	Sc		131,560.95	1.62	84.4	Pulse	0.30	3
1	Ge		94,280.52	1.73	79.3	Pulse	0.30	3
1	In		987,844.61	1.97	76.7	Pulse	0.30	3
1	Tb		3,379,452.83	2.12	80.6	Pulse	0.50	3
1	Lu		2,632,734.33	2.02	81.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		141,678.13	0.38	79.7	Pulse	0.30	3
1	Te		4.67	65.47		Pulse	0.50	3
1	Li		838.91	10.56	82.9	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:43
Sample Name FC3178-2F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.981	ug/l	-102.92	1,165.37	1.049E-02	Pulse	0.50	3
As			1	4.219	ug/l	36.17	126.67	1.140E-03	Pulse	1.00	3
Mo			1	2.068	ug/l	39.03	528.68	3.123E-03	Pulse	0.50	3
Pb			1	-5.228	ug/l	-6.78	4,654.31	1.526E-03	Pulse	1.00	3
Be			1	-5.155	ug/l	-85.82	5.00	3.399E-05	Pulse	2.00	3
Ag			1	-0.778	ug/l	-23.41	130.67	7.719E-04	Pulse	0.50	3
Ba			1	24.132	ug/l	5.06	811.35	6.783E-04	Pulse	0.50	3
Tl			1	-0.393	ug/l	-94.19	3,331.00	1.092E-03	Pulse	0.50	3
Sn			1	3.874	ug/l	19.85	1,436.73	1.201E-03	Pulse	0.30	3
Sr			1	5760.122	ug/l	0.15	276,987.94	2.316E-01	Pulse	0.50	3
[Pb]			1	-6.284	ug/l	-11.35	2,040.80	6.694E-04	Pulse	0.50	3
Ca			1	476093.718	ug/l	0.46	100,247.80	6.810E-01	Pulse	0.50	3
Ti			1	0.075	ug/l	12533.37	37.33	2.536E-04	Pulse	0.50	3
Na			1	1484249.160	ug/l	0.42	11,177,764.33	7.593E+01	Analog	1.00	3
Mg			1	348705.436	ug/l	0.70	1,377,196.00	9.355E+00	Pulse	1.00	3
K			1	8802.175	ug/l	0.91	54,141.07	3.678E-01	Pulse	1.00	3
V			1	40.244	ug/l	10.62	3,108.26	2.111E-02	Pulse	0.50	3
Mn			1	117.063	ug/l	2.40	4,702.58	4.232E-02	Pulse	0.50	3
Fe			1	366.888	ug/l	4.11	43,453.45	3.911E-01	Pulse	0.50	3
Co			1	-1.252	ug/l	-24.93	933.36	8.401E-03	Pulse	0.50	3
Ni			1	-66.053	ug/l	-2.91	798.02	7.184E-03	Pulse	0.50	3
Cu			1	77.309	ug/l	6.02	10,482.87	9.434E-02	Pulse	0.50	3
Zn			1	41.477	ug/l	4.67	1,127.37	6.660E-03	Pulse	1.00	3
Cd			1	-0.788	ug/l	-40.46	148.00	8.743E-04	Pulse	0.50	3
Al			1	805.290	ug/l	4.15	1,981.77	1.346E-02	Pulse	1.00	3
Se			1	12.370	ug/l	39.10	36.00	2.127E-04	Pulse	3.00	3
Sb			1	-1.225	ug/l	-40.35	909.69	5.374E-03	Pulse	1.00	3
Se			1	-2.495	ug/l	-64.45	14.89	8.796E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,049,247.00	0.88	90.8	Pulse	0.50	3
1	Sc		147,212.67	0.49	94.4	Pulse	0.30	3
1	Ge		111,115.39	0.71	93.5	Pulse	0.30	3
1	In		1,196,138.36	1.10	92.9	Pulse	0.30	3
1	Tb		3,943,571.33	0.83	94.0	Pulse	0.50	3
1	Lu		3,009,702.25	0.80	93.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		169,277.52	0.08	95.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		991.14	5.55	97.9	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:47
Sample Name FC3178-4F
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.210	ug/l	-615.46	1,212.04	1.089E-02	Pulse	0.50	3
As			1	3.082	ug/l	97.61	118.00	1.061E-03	Pulse	1.00	3
Mo			1	4.195	ug/l	21.54	604.68	3.619E-03	Pulse	0.50	3
Pb			1	-5.552	ug/l	-5.12	4,535.61	1.499E-03	Pulse	1.00	3
Be			1	-6.393	ug/l	-42.06	4.50	3.111E-05	Pulse	2.00	3
Ag			1	-1.122	ug/l	-9.31	84.00	5.028E-04	Pulse	0.50	3
Ba			1	56.157	ug/l	4.64	1,454.73	1.235E-03	Pulse	0.50	3
Tl			1	-0.507	ug/l	-99.39	3,264.99	1.079E-03	Pulse	0.50	3
Sn			1	3.157	ug/l	37.21	1,382.28	1.173E-03	Pulse	0.30	3
Sr			1	5982.478	ug/l	0.65	283,259.84	2.405E-01	Pulse	0.50	3
[Pb]			1	-7.396	ug/l	-3.36	1,892.11	6.253E-04	Pulse	0.50	3
Ca			1	539966.842	ug/l	0.45	111,835.74	7.722E-01	Pulse	0.50	3
Ti			1	-8.369	ug/l	-24.55	25.33	1.748E-04	Pulse	0.50	3
Na			1	1369151.495	ug/l	0.91	10,144,064.33	7.005E+01	Analog	1.00	3
Mg			1	305241.809	ug/l	0.65	1,186,347.50	8.192E+00	Pulse	1.00	3
K			1	10134.289	ug/l	2.28	58,205.17	4.019E-01	Pulse	1.00	3
V			1	41.186	ug/l	5.37	3,099.59	2.141E-02	Pulse	0.50	3
Mn			1	-2.828	ug/l	-54.41	449.34	4.035E-03	Pulse	0.50	3
Fe			1	-228.745	ug/l	-0.96	12,807.57	1.151E-01	Pulse	0.50	3
Co			1	-1.306	ug/l	-31.70	930.02	8.355E-03	Pulse	0.50	3
Ni			1	-67.021	ug/l	-3.37	775.35	6.968E-03	Pulse	0.50	3
Cu			1	75.872	ug/l	2.39	10,403.50	9.348E-02	Pulse	0.50	3
Zn			1	51.382	ug/l	9.48	1,238.71	7.408E-03	Pulse	1.00	3
Cd			1	-0.445	ug/l	-267.91	153.33	9.181E-04	Pulse	0.50	3
Al			1	-241.193	ug/l	-1.60	266.33	1.839E-03	Pulse	1.00	3
Se			1	21.360	ug/l	5.88	41.33	2.473E-04	Pulse	3.00	3
Sb			1	-1.610	ug/l	-9.17	874.02	5.228E-03	Pulse	1.00	3
Se			1	12.104	ug/l	94.26	19.33	1.155E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,025,765.17	0.51	90.1	Pulse	0.50	3
1	Sc		144,828.45	1.38	92.9	Pulse	0.30	3
1	Ge		111,302.07	0.82	93.7	Pulse	0.30	3
1	In		1,177,861.72	0.39	91.5	Pulse	0.30	3
1	Tb		3,905,010.17	0.86	93.1	Pulse	0.50	3
1	Lu		2,975,934.25	0.64	92.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,162.17	0.97	94.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		962.25	6.84	95.1	Pulse	0.30	3

Quantitation Report

File Name	053SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 13:51
Sample Name	FC3178-5F
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.956	ug/l	-96.62	1,164.04	1.050E-02	Pulse	0.50	3
As			1	3.229	ug/l	108.68	118.67	1.072E-03	Pulse	1.00	3
Mo			1	2.085	ug/l	38.19	513.34	3.127E-03	Pulse	0.50	3
Pb			1	-6.103	ug/l	-1.31	4,369.23	1.453E-03	Pulse	1.00	3
Be			1	-7.361	ug/l	-41.52	4.17	2.886E-05	Pulse	2.00	3
Ag			1	-1.173	ug/l	-10.32	76.00	4.629E-04	Pulse	0.50	3
Ba			1	58.275	ug/l	6.62	1,487.40	1.272E-03	Pulse	0.50	3
Tl			1	-0.744	ug/l	-43.33	3,160.97	1.051E-03	Pulse	0.50	3
Sn			1	0.377	ug/l	233.69	1,246.72	1.066E-03	Pulse	0.30	3
Sr			1	5581.943	ug/l	0.13	262,428.64	2.244E-01	Pulse	0.50	3
[Pb]			1	-6.522	ug/l	-11.05	1,984.79	6.600E-04	Pulse	0.50	3
Ca			1	514802.666	ug/l	1.35	106,194.69	7.363E-01	Pulse	0.50	3
Ti			1	-6.748	ug/l	-123.98	27.33	1.899E-04	Pulse	0.50	3
Na			1	1262781.232	ug/l	0.73	9,318,889.67	6.461E+01	Analog	1.00	3
Mg			1	285626.561	ug/l	0.97	1,105,817.21	7.667E+00	Pulse	1.00	3
K			1	9954.340	ug/l	2.06	57,304.60	3.973E-01	Pulse	1.00	3
V			1	42.222	ug/l	1.90	3,134.26	2.173E-02	Pulse	0.50	3
Mn			1	-4.103	ug/l	-7.59	402.01	3.627E-03	Pulse	0.50	3
Fe			1	-284.127	ug/l	-1.16	9,909.88	8.941E-02	Pulse	0.50	3
Co			1	-0.840	ug/l	-120.17	969.36	8.749E-03	Pulse	0.50	3
Ni			1	-69.389	ug/l	-0.82	714.02	6.441E-03	Pulse	0.50	3
Cu			1	72.214	ug/l	5.95	10,116.01	9.128E-02	Pulse	0.50	3
Zn			1	34.922	ug/l	14.14	1,012.69	6.164E-03	Pulse	1.00	3
Cd			1	-0.916	ug/l	-107.20	140.67	8.580E-04	Pulse	0.50	3
Al			1	-274.667	ug/l	-0.93	211.67	1.468E-03	Pulse	1.00	3
Se			1	16.139	ug/l	36.33	37.33	2.272E-04	Pulse	3.00	3
Sb			1	-1.524	ug/l	-49.79	864.02	5.261E-03	Pulse	1.00	3
Se			1	2.977	ug/l	373.54	16.11	9.829E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,805.92	0.64	89.5	Pulse	0.50	3
1	Sc		144,233.05	0.93	92.5	Pulse	0.30	3
1	Ge		110,840.38	0.62	93.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,169,360.27	0.88	90.8	Pulse	0.30	3
1	Tb		3,858,343.75	1.05	92.0	Pulse	0.50	3
1	Lu		2,949,842.75	0.68	91.4	Pulse	0.50	3
1	Ge		164,179.13	1.54	92.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		955.58	10.37	94.4	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:54
Sample Name FC3333-1B
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.747	ug/l	7.49	3,136.93	3.055E-02	Pulse	0.50	3
As			1	14.116	ug/l	1.51	5,127.70	4.994E-02	Pulse	1.00	3
Mo			1	0.269	ug/l	13.68	885.36	5.777E-03	Pulse	0.50	3
Pb			1	7.117	ug/l	0.80	91,289.54	3.194E-02	Pulse	1.00	3
Be			1	-0.052	ug/l	-359.61	5.33	3.987E-05	Pulse	2.00	3
Ag			1	-0.015	ug/l	-13.54	122.67	8.003E-04	Pulse	0.50	3
Ba			1	20.841	ug/l	0.89	20,113.17	1.837E-02	Pulse	0.50	3
Tl			1	-0.003	ug/l	-284.50	3,198.31	1.120E-03	Pulse	0.50	3
Sn			1	1.021	ug/l	1.48	3,309.21	3.022E-03	Pulse	0.30	3
Sr			1	312.741	ug/l	0.88	687,111.68	6.276E-01	Pulse	0.50	3
[Pb]			1	7.149	ug/l	1.39	43,175.57	1.510E-02	Pulse	0.50	3
Ca			1	40666.801	ug/l	0.72	389,489.68	2.906E+00	Pulse	0.50	3
Ti			1	-0.066	ug/l	-324.75	30.00	2.221E-04	Pulse	0.50	3
Na			1	26379.878	ug/l	1.21	9,044,139.33	6.748E+01	Analog	1.00	3
Mg			1	5535.214	ug/l	0.50	995,828.75	7.430E+00	Pulse	1.00	3
K			1	7646.092	ug/l	0.90	1,333,565.96	9.950E+00	Pulse	1.00	3
V			1	2.267	ug/l	8.98	5,890.91	4.400E-02	Pulse	0.50	3
Mn			1	490.810	ug/l	0.84	805,278.15	7.842E+00	Pulse	0.50	3
Fe			1	375.244	ug/l	0.90	915,481.96	8.915E+00	Pulse	0.50	3
Co			1	10.512	ug/l	1.71	46,540.35	4.532E-01	Pulse	0.50	3
Ni			1	58.833	ug/l	0.96	69,464.48	6.765E-01	Pulse	0.50	3
Cu			1	49.216	ug/l	1.09	156,881.08	1.528E+00	Pulse	0.50	3
Zn			1	94.332	ug/l	0.64	55,113.66	3.600E-01	Pulse	1.00	3
Cd			1	0.023	ug/l	72.90	171.33	1.120E-03	Pulse	0.50	3
Al			1	-2.124	ug/l	-94.07	445.37	3.339E-03	Pulse	1.00	3
Se			1	0.319	ug/l	61.79	34.67	2.265E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	77.91	975.69	6.368E-03	Pulse	1.00	3
Se			1	0.296	ug/l	73.82	18.44	1.206E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,858,231.25	2.34	85.1	Pulse	0.50	3
1	Sc		134,045.38	2.57	85.9	Pulse	0.30	3
1	Ge		102,702.35	3.07	86.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,094,965.44	3.19	85.0	Pulse	0.30	3
1	Tb		3,711,586.83	3.36	88.5	Pulse	0.50	3
1	Lu		2,830,703.17	3.57	87.7	Pulse	0.50	3
1	Ge		153,107.53	1.90	86.1	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		835.58	6.00	82.5	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 13:58
Sample Name FC3333-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.756	ug/l	2.19	3,120.93	3.078E-02	Pulse	0.50	3
As			1	1568.984	ug/l	0.37	553,277.17	5.458E+00	Pulse	1.00	3
Mo			1	1.374	ug/l	2.94	2,794.89	1.863E-02	Pulse	0.50	3
Pb			1	-0.085	ug/l	-7.53	4,561.29	1.607E-03	Pulse	1.00	3
Be			1	-0.112	ug/l	-94.52	4.33	3.301E-05	Pulse	2.00	3
Ag			1	-0.021	ug/l	-5.18	84.67	5.644E-04	Pulse	0.50	3
Ba			1	50.382	ug/l	0.74	47,695.93	4.405E-02	Pulse	0.50	3
Tl			1	-0.007	ug/l	-117.98	3,118.30	1.099E-03	Pulse	0.50	3
Sn			1	0.308	ug/l	15.35	1,782.32	1.647E-03	Pulse	0.30	3
Sr			1	390.811	ug/l	0.35	849,031.77	7.841E-01	Pulse	0.50	3
[Pb]			1	-0.091	ug/l	-17.65	2,092.80	7.375E-04	Pulse	0.50	3
Ca			1	48153.201	ug/l	1.37	451,788.50	3.441E+00	Pulse	0.50	3
Ti			1	0.090	ug/l	265.29	38.67	2.949E-04	Pulse	0.50	3
Na			1	13121.629	ug/l	0.58	4,412,907.33	3.361E+01	Pulse	1.00	3
Mg			1	6475.672	ug/l	0.93	1,140,825.37	8.688E+00	Pulse	1.00	3
K			1	8426.204	ug/l	0.67	1,437,883.13	1.095E+01	Pulse	1.00	3
V			1	1.217	ug/l	12.79	3,616.35	2.755E-02	Pulse	0.50	3
Mn			1	2158.763	ug/l	0.85	3,494,728.92	3.448E+01	Pulse	0.50	3
Fe			1	69025.331	ug/l	0.46	162,144,565.33	1.600E+03	Analog	0.50	3
Co			1	17.105	ug/l	0.90	74,160.42	7.315E-01	Pulse	0.50	3
Ni			1	4.549	ug/l	2.53	7,350.74	7.250E-02	Pulse	0.50	3
Cu			1	0.564	ug/l	13.23	6,569.80	6.480E-02	Pulse	0.50	3
Zn			1	3.909	ug/l	4.47	2,742.53	1.829E-02	Pulse	1.00	3
Cd			1	-0.015	ug/l	-166.57	132.00	8.809E-04	Pulse	0.50	3
Al			1	9.049	ug/l	94.66	1,249.98	9.543E-03	Pulse	1.00	3
Se			1	0.324	ug/l	8.69	34.11	2.274E-04	Pulse	3.00	3
Sb			1	0.070	ug/l	33.13	1,073.03	7.161E-03	Pulse	1.00	3
Se			1	0.502	ug/l	3.59	21.00	1.400E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,837,228.25	1.70	84.4	Pulse	0.50	3
1	Sc		131,302.86	0.76	84.2	Pulse	0.30	3
1	Ge		101,369.07	2.13	85.3	Pulse	0.30	3
1	In		1,082,770.65	1.84	84.1	Pulse	0.30	3
1	Tb		3,706,948.67	1.63	88.4	Pulse	0.50	3
1	Lu		2,844,876.00	1.55	88.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		149,959.06	2.31	84.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		840.02	3.10	83.0	Pulse	0.30	3

Quantitation Report

File Name	056CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:09
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.345	ug/l	0.84	282,669.78	2.488E+00	Pulse	0.50	3
As			1	47.214	ug/l	1.38	37,407.08	3.293E-01	Pulse	1.00	3
Mo			1	47.045	ug/l	1.04	187,392.99	1.098E+00	Pulse	0.50	3
Pb			1	47.087	ug/l	0.35	1,225,391.71	3.985E-01	Pulse	1.00	3
Be			1	47.557	ug/l	2.41	1,655.57	1.109E-02	Pulse	2.00	3
Ag			1	48.609	ug/l	1.15	648,060.85	3.797E+00	Pulse	0.50	3
Ba			1	47.239	ug/l	0.56	99,249.83	8.237E-02	Pulse	0.50	3
Tl			1	48.064	ug/l	0.48	1,759,513.00	5.723E-01	Pulse	0.50	3
Sn			1	46.883	ug/l	0.68	219,414.06	1.821E-01	Pulse	0.30	3
Sr			1	47.252	ug/l	0.73	229,006.07	1.901E-01	Pulse	0.50	3
[Pb]			1	47.052	ug/l	0.84	576,959.94	1.876E-01	Pulse	0.50	3
Ca			1	4747.810	ug/l	1.43	101,409.55	6.791E-01	Pulse	0.50	3
Ti			1	46.292	ug/l	2.83	6,491.10	4.347E-02	Pulse	0.50	3
Na			1	4688.894	ug/l	0.53	3,590,200.58	2.404E+01	Pulse	1.00	3
Mg			1	4645.773	ug/l	0.94	1,860,081.88	1.246E+01	Pulse	1.00	3
K			1	4730.321	ug/l	0.60	1,833,429.79	1.228E+01	Pulse	1.00	3
V			1	47.187	ug/l	1.37	221,797.77	1.485E+00	Pulse	0.50	3
Mn			1	47.461	ug/l	1.16	172,771.11	1.521E+00	Pulse	0.50	3
Fe			1	4944.873	ug/l	0.94	26,058,069.33	2.294E+02	Analog	0.50	3
Co			1	47.711	ug/l	1.11	458,692.96	4.037E+00	Pulse	0.50	3
Ni			1	47.185	ug/l	1.20	121,775.52	1.072E+00	Pulse	0.50	3
Cu			1	48.361	ug/l	0.84	335,888.62	2.956E+00	Pulse	0.50	3
Zn			1	47.499	ug/l	0.32	61,862.26	3.625E-01	Pulse	1.00	3
Cd			1	47.375	ug/l	1.44	103,463.60	6.062E-01	Pulse	0.50	3
Al			1	4543.823	ug/l	1.23	754,284.98	5.051E+00	Pulse	1.00	3
Se			1	48.104	ug/l	1.61	3,188.82	1.868E-02	Pulse	3.00	3
Sb			1	46.836	ug/l	0.89	303,580.72	1.779E+00	Pulse	1.00	3
Se			1	46.544	ug/l	0.90	1,515.95	8.883E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,074,611.83	1.19	91.5	Pulse	0.50	3
1	Sc		149,336.02	0.50	95.8	Pulse	0.30	3
1	Ge		113,616.67	1.04	95.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,204,879.50	1.22	93.5	Pulse	0.30	3
1	Tb		4,015,023.17	0.63	95.7	Pulse	0.50	3
1	Lu		3,062,688.67	1.15	94.9	Pulse	0.50	3
1	Ge		170,659.89	0.55	96.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		936.69	7.85	92.5	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:13
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.917	ug/l	1.29	577,158.08	5.082E+00	Pulse	0.50	3
As			1	97.436	ug/l	1.37	77,077.57	6.786E-01	Pulse	1.00	3
Mo			1	97.899	ug/l	0.86	389,686.50	2.282E+00	Pulse	0.50	3
Pb			1	97.623	ug/l	0.36	2,504,776.50	8.242E-01	Pulse	1.00	3
Be			1	99.043	ug/l	0.52	3,423.79	2.304E-02	Pulse	2.00	3
Ag			1	99.412	ug/l	0.81	1,325,887.67	7.765E+00	Pulse	0.50	3
Ba			1	98.561	ug/l	0.66	205,149.35	1.716E-01	Pulse	0.50	3
Tl			1	100.073	ug/l	0.39	3,617,461.08	1.190E+00	Pulse	0.50	3
Sn			1	98.272	ug/l	1.22	454,985.10	3.805E-01	Pulse	0.30	3
Sr			1	99.082	ug/l	0.86	475,739.46	3.979E-01	Pulse	0.50	3
[Pb]			1	98.082	ug/l	0.63	1,185,741.54	3.902E-01	Pulse	0.50	3
Ca			1	9704.008	ug/l	1.15	206,123.38	1.387E+00	Pulse	0.50	3
Ti			1	96.438	ug/l	0.41	13,415.94	9.029E-02	Pulse	0.50	3
Na			1	10057.787	ug/l	0.82	7,649,326.00	5.148E+01	Analog	1.00	3
Mg			1	9676.335	ug/l	1.21	3,851,323.42	2.592E+01	Pulse	1.00	3
K			1	9775.611	ug/l	1.02	3,747,650.50	2.522E+01	Pulse	1.00	3
V			1	97.756	ug/l	1.36	455,863.79	3.068E+00	Pulse	0.50	3
Mn			1	97.450	ug/l	0.95	354,043.03	3.117E+00	Pulse	0.50	3
Fe			1	10132.707	ug/l	1.20	53,356,566.67	4.698E+02	Analog	0.50	3
Co			1	98.498	ug/l	1.04	945,583.52	8.325E+00	Pulse	0.50	3
Ni			1	97.287	ug/l	1.17	248,377.70	2.187E+00	Pulse	0.50	3
Cu			1	98.643	ug/l	1.44	679,274.88	5.981E+00	Pulse	0.50	3
Zn			1	97.917	ug/l	0.81	126,968.92	7.435E-01	Pulse	1.00	3
Cd			1	97.242	ug/l	0.95	212,309.81	1.243E+00	Pulse	0.50	3
Al			1	9573.947	ug/l	1.48	1,580,674.37	1.064E+01	Pulse	1.00	3
Se			1	97.594	ug/l	0.64	6,444.64	3.774E-02	Pulse	3.00	3
Sb			1	96.901	ug/l	0.80	627,380.56	3.674E+00	Pulse	1.00	3
Se			1	97.949	ug/l	0.65	3,174.60	1.859E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,039,147.50	0.75	90.5	Pulse	0.50	3
1	Sc		148,597.38	0.52	95.3	Pulse	0.30	3
1	Ge		113,584.15	0.42	95.6	Pulse	0.30	3
1	In		1,195,643.15	0.27	92.8	Pulse	0.30	3
1	Tb		4,012,805.92	0.54	95.7	Pulse	0.50	3
1	Lu		3,086,409.83	0.40	95.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		170,771.65	1.36	96.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		870.02	6.71	85.9	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:17
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.021	ug/l	-100.12	1,078.04	9.895E-03	Pulse	0.50	3
As			1	0.033	ug/l	25.94	117.00	1.073E-03	Pulse	1.00	3
Mo			1	0.131	ug/l	28.88	932.03	5.703E-03	Pulse	0.50	3
Pb			1	-0.026	ug/l	-21.84	5,308.83	1.750E-03	Pulse	1.00	3
Be			1	-0.036	ug/l	-240.88	5.33	3.756E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	-1036.79	219.33	1.343E-03	Pulse	0.50	3
Ba			1	0.017	ug/l	69.88	338.00	2.887E-04	Pulse	0.50	3
Tl			1	0.013	ug/l	71.64	3,930.46	1.296E-03	Pulse	0.50	3
Sn			1	0.169	ug/l	19.79	1,997.90	1.705E-03	Pulse	0.30	3
Sr			1	0.026	ug/l	61.63	814.02	6.959E-04	Pulse	0.50	3
[Pb]			1	-0.030	ug/l	-6.06	2,426.85	8.000E-04	Pulse	0.50	3
Ca			1	0.496	ug/l	224.14	121.33	8.535E-04	Pulse	0.50	3
Ti			1	-0.100	ug/l	-127.61	22.67	1.592E-04	Pulse	0.50	3
Na			1	13.992	ug/l	6.02	21,515.85	1.513E-01	Pulse	1.00	3
Mg			1	-1.248	ug/l	-43.49	2,790.53	1.962E-02	Pulse	1.00	3
K			1	3.437	ug/l	16.74	21,447.60	1.508E-01	Pulse	1.00	3
V			1	-0.020	ug/l	-74.76	1,121.37	7.883E-03	Pulse	0.50	3
Mn			1	-0.015	ug/l	-16.79	487.34	4.469E-03	Pulse	0.50	3
Fe			1	-1.072	ug/l	-49.05	18,674.47	1.714E-01	Pulse	0.50	3
Co			1	0.006	ug/l	204.81	1,084.04	9.949E-03	Pulse	0.50	3
Ni			1	-0.723	ug/l	-1.17	630.68	5.784E-03	Pulse	0.50	3
Cu			1	-0.132	ug/l	-10.93	4,353.17	3.993E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-142.68	552.01	3.378E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	109.27	196.00	1.200E-03	Pulse	0.50	3
Al			1	-1.103	ug/l	-67.10	468.01	3.293E-03	Pulse	1.00	3
Se			1	0.190	ug/l	45.25	38.89	2.380E-04	Pulse	3.00	3
Sb			1	0.031	ug/l	20.75	1,144.04	7.002E-03	Pulse	1.00	3
Se			1	0.046	ug/l	221.38	16.56	1.013E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,033,818.17	1.16	90.3	Pulse	0.50	3
1	Sc		142,258.02	0.58	91.2	Pulse	0.30	3
1	Ge		109,034.69	1.01	91.8	Pulse	0.30	3
1	In		1,170,839.57	1.50	90.9	Pulse	0.30	3
1	Tb		3,859,461.50	1.38	92.0	Pulse	0.50	3
1	Lu		2,943,022.25	1.51	91.2	Pulse	0.50	3
1	Ge		163,395.56	0.34	91.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		962.25	10.39	95.1	Pulse	0.30	3

Quantitation Report

File Name	059SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:21
Sample Name	FC3333-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.625	ug/l	4.10	2,887.56	2.735E-02	Pulse	0.50	3
As			1	2867.890	ug/l	2.20	1,053,167.96	9.975E+00	Pulse	1.00	3
Mo			1	2.188	ug/l	2.90	4,379.86	2.812E-02	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.04	4,948.73	1.675E-03	Pulse	1.00	3
Be			1	0.017	ug/l	1995.92	6.50	4.798E-05	Pulse	2.00	3
Ag			1	-0.009	ug/l	-54.86	162.00	1.042E-03	Pulse	0.50	3
Ba			1	12.815	ug/l	0.67	12,758.52	1.140E-02	Pulse	0.50	3
Tl			1	0.029	ug/l	22.46	3,873.79	1.312E-03	Pulse	0.50	3
Sn			1	0.477	ug/l	4.04	2,207.93	1.972E-03	Pulse	0.30	3
Sr			1	166.964	ug/l	0.12	375,401.30	3.353E-01	Pulse	0.50	3
[Pb]			1	-0.078	ug/l	-7.91	2,256.83	7.636E-04	Pulse	0.50	3
Ca			1	23801.583	ug/l	0.54	229,910.26	1.701E+00	Pulse	0.50	3
Ti			1	-0.129	ug/l	-67.38	26.00	1.926E-04	Pulse	0.50	3
Na			1	5488.557	ug/l	1.33	1,906,026.50	1.410E+01	Pulse	1.00	3
Mg			1	2694.136	ug/l	0.55	490,371.54	3.628E+00	Pulse	1.00	3
K			1	3285.518	ug/l	1.04	588,758.96	4.356E+00	Pulse	1.00	3
V			1	0.767	ug/l	3.66	2,773.54	2.051E-02	Pulse	0.50	3
Mn			1	2363.581	ug/l	2.23	3,985,107.08	3.775E+01	Pulse	0.50	3
Fe			1	39004.749	ug/l	1.98	95,435,581.33	9.040E+02	Analog	0.50	3
Co			1	12.815	ug/l	2.19	58,110.64	5.504E-01	Pulse	0.50	3
Ni			1	3.933	ug/l	3.79	6,930.59	6.565E-02	Pulse	0.50	3
Cu			1	0.607	ug/l	13.32	6,977.28	6.609E-02	Pulse	0.50	3
Zn			1	3.194	ug/l	2.43	2,428.82	1.559E-02	Pulse	1.00	3
Cd			1	0.038	ug/l	64.11	189.33	1.216E-03	Pulse	0.50	3
Al			1	-1.585	ug/l	-24.47	491.34	3.638E-03	Pulse	1.00	3
Se			1	0.420	ug/l	23.43	38.33	2.459E-04	Pulse	3.00	3
Sb			1	0.153	ug/l	10.64	1,359.05	8.724E-03	Pulse	1.00	3
Se			1	0.483	ug/l	38.47	21.56	1.383E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,954,727.17	2.41	87.9	Pulse	0.50	3
1	Sc		135,171.83	2.62	86.7	Pulse	0.30	3
1	Ge		105,572.26	0.23	88.8	Pulse	0.30	3
1	In		1,119,458.39	2.40	86.9	Pulse	0.30	3
1	Tb		3,789,870.58	2.35	90.4	Pulse	0.50	3
1	Lu		2,892,425.08	2.65	89.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		155,745.10	1.48	87.6	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		865.58	5.77	85.5	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:24
Sample Name	MP41959-D1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.273	ug/l	3.12	7,524.14	7.047E-02	Pulse	0.50	3
As			1	4.460	ug/l	5.67	1,747.08	1.636E-02	Pulse	1.00	3
Mo			1	2.557	ug/l	1.41	5,202.74	3.241E-02	Pulse	0.50	3
Pb			1	0.238	ug/l	2.76	8,550.81	2.969E-03	Pulse	1.00	3
Be			1	0.074	ug/l	63.00	7.67	5.457E-05	Pulse	2.00	3
Ag			1	-0.005	ug/l	-69.07	190.00	1.186E-03	Pulse	0.50	3
Ba			1	18.122	ug/l	1.78	18,126.43	1.601E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	53.09	3,414.36	1.186E-03	Pulse	0.50	3
Sn			1	0.433	ug/l	8.57	2,136.81	1.887E-03	Pulse	0.30	3
Sr			1	159.325	ug/l	0.19	362,325.88	3.200E-01	Pulse	0.50	3
[Pb]			1	0.241	ug/l	6.53	4,024.48	1.398E-03	Pulse	0.50	3
Ca			1	76942.049	ug/l	0.64	772,623.42	5.497E+00	Pulse	0.50	3
Ti			1	1.000	ug/l	57.86	101.33	7.197E-04	Pulse	0.50	3
Na			1	40336.421	ug/l	1.58	14,494,683.33	1.031E+02	Analog	1.00	3
Mg			1	6849.379	ug/l	1.14	1,291,297.21	9.188E+00	Pulse	1.00	3
K			1	3997.986	ug/l	1.53	740,618.94	5.270E+00	Pulse	1.00	3
V			1	4.893	ug/l	3.13	11,953.02	8.508E-02	Pulse	0.50	3
Mn			1	35.810	ug/l	1.54	61,583.61	5.768E-01	Pulse	0.50	3
Fe			1	4163.016	ug/l	1.00	10,322,217.33	9.668E+01	Analog	0.50	3
Co			1	0.336	ug/l	4.36	2,522.17	2.362E-02	Pulse	0.50	3
Ni			1	-0.685	ug/l	-10.61	1,522.73	1.426E-02	Pulse	0.50	3
Cu			1	1.709	ug/l	2.47	10,594.93	9.923E-02	Pulse	0.50	3
Zn			1	20.381	ug/l	0.89	12,927.33	8.054E-02	Pulse	1.00	3
Cd			1	0.058	ug/l	50.82	215.33	1.344E-03	Pulse	0.50	3
Al			1	432.214	ug/l	1.26	34,365.46	2.445E-01	Pulse	1.00	3
Se			1	0.591	ug/l	27.37	44.78	2.787E-04	Pulse	3.00	3
Sb			1	0.168	ug/l	11.39	1,445.06	9.008E-03	Pulse	1.00	3
Se			1	1.223	ug/l	14.06	33.44	2.082E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,879,827.17	2.50	85.7	Pulse	0.50	3
1	Sc		140,570.75	3.30	90.1	Pulse	0.30	3
1	Ge		106,762.00	1.31	89.8	Pulse	0.30	3
1	In		1,132,201.76	2.73	87.9	Pulse	0.30	3
1	Tb		3,847,952.33	2.97	91.8	Pulse	0.50	3
1	Lu		2,928,501.42	2.85	90.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		160,500.76	2.29	90.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		877.80	10.37	86.7	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:28
Sample Name MP41959-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.798	ug/l	2.45	2,319.48	2.041E-02	Pulse	0.50	3
As			1	3.418	ug/l	9.29	366.33	3.225E-03	Pulse	1.00	3
Mo			1	2.551	ug/l	13.06	1,472.73	8.580E-03	Pulse	0.50	3
Pb			1	-0.365	ug/l	-5.26	5,167.79	1.659E-03	Pulse	1.00	3
Be			1	-0.775	ug/l	-20.82	4.17	2.797E-05	Pulse	2.00	3
Ag			1	-0.107	ug/l	-28.12	93.33	5.437E-04	Pulse	0.50	3
Ba			1	17.006	ug/l	3.24	3,915.77	3.215E-03	Pulse	0.50	3
Tl			1	-0.015	ug/l	-112.80	3,492.37	1.121E-03	Pulse	0.50	3
Sn			1	0.486	ug/l	33.74	1,508.96	1.239E-03	Pulse	0.30	3
Sr			1	149.152	ug/l	0.19	73,564.21	6.040E-02	Pulse	0.50	3
[Pb]			1	-0.350	ug/l	-15.88	2,429.52	7.799E-04	Pulse	0.50	3
Ca			1	73466.319	ug/l	0.47	156,394.14	1.050E+00	Pulse	0.50	3
Ti			1	-0.072	ug/l	-1690.78	36.67	2.462E-04	Pulse	0.50	3
Na			1	37120.895	ug/l	0.02	2,836,391.75	1.905E+01	Pulse	1.00	3
Mg			1	6456.384	ug/l	0.77	260,683.55	1.751E+00	Pulse	1.00	3
K			1	3811.466	ug/l	0.52	166,729.75	1.120E+00	Pulse	1.00	3
V			1	4.317	ug/l	3.34	3,279.62	2.203E-02	Pulse	0.50	3
Mn			1	33.633	ug/l	0.97	12,766.88	1.123E-01	Pulse	0.50	3
Fe			1	3573.533	ug/l	0.79	1,906,964.17	1.678E+01	Pulse	0.50	3
Co			1	0.215	ug/l	9.70	1,281.38	1.128E-02	Pulse	0.50	3
Ni			1	-6.714	ug/l	-2.25	788.69	6.941E-03	Pulse	0.50	3
Cu			1	7.514	ug/l	1.98	10,572.92	9.304E-02	Pulse	0.50	3
Zn			1	21.915	ug/l	2.73	3,447.65	2.009E-02	Pulse	1.00	3
Cd			1	-0.046	ug/l	-203.60	157.33	9.168E-04	Pulse	0.50	3
Al			1	359.921	ug/l	3.68	6,624.77	4.449E-02	Pulse	1.00	3
Se			1	1.934	ug/l	42.62	41.11	2.395E-04	Pulse	3.00	3
Sb			1	0.078	ug/l	53.85	1,052.70	6.133E-03	Pulse	1.00	3
Se			1	0.852	ug/l	119.06	18.67	1.088E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,114,700.08	0.88	92.7	Pulse	0.50	3
1	Sc		148,894.10	0.52	95.5	Pulse	0.30	3
1	Ge		113,640.09	0.57	95.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,217,927.87	0.30	94.6	Pulse	0.30	3
1	Tb		4,036,887.25	0.48	96.3	Pulse	0.50	3
1	Lu		3,055,567.92	0.77	94.7	Pulse	0.50	3
1	Ge		171,636.81	0.14	96.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		973.36	3.61	96.2	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:32
Sample Name MP41959-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	214.964	ug/l	0.57	579,553.54	5.634E+00	Pulse	0.50	3
As			1	220.115	ug/l	1.00	78,825.64	7.664E-01	Pulse	1.00	3
Mo			1	224.159	ug/l	0.98	402,395.93	2.612E+00	Pulse	0.50	3
Pb			1	219.097	ug/l	0.55	2,591,533.17	9.246E-01	Pulse	1.00	3
Be			1	219.101	ug/l	1.74	3,405.45	2.548E-02	Pulse	2.00	3
Ag			1	103.268	ug/l	0.75	621,312.94	4.033E+00	Pulse	0.50	3
Ba			1	233.305	ug/l	0.36	221,837.76	2.030E-01	Pulse	0.50	3
Tl			1	214.748	ug/l	0.39	3,579,253.75	1.277E+00	Pulse	0.50	3
Sn			1	226.752	ug/l	0.64	479,502.69	4.389E-01	Pulse	0.30	3
Sr			1	375.132	ug/l	0.38	822,474.54	7.527E-01	Pulse	0.50	3
[Pb]			1	211.099	ug/l	0.48	1,176,616.04	4.198E-01	Pulse	0.50	3
Ca			1	95167.170	ug/l	0.86	908,736.81	6.799E+00	Pulse	0.50	3
Ti			1	218.062	ug/l	0.87	13,640.78	1.020E-01	Pulse	0.50	3
Na			1	59997.975	ug/l	1.48	20,498,798.67	1.534E+02	Analog	1.00	3
Mg			1	26206.365	ug/l	1.12	4,689,840.67	3.509E+01	Pulse	1.00	3
K			1	23537.354	ug/l	1.59	4,053,918.42	3.033E+01	Pulse	1.00	3
V			1	221.248	ug/l	0.75	463,896.86	3.471E+00	Pulse	0.50	3
Mn			1	245.965	ug/l	0.68	404,488.20	3.932E+00	Pulse	0.50	3
Fe			1	24614.364	ug/l	0.76	58,683,062.67	5.705E+02	Analog	0.50	3
Co			1	213.155	ug/l	0.50	926,499.96	9.007E+00	Pulse	0.50	3
Ni			1	210.151	ug/l	0.90	242,762.08	2.360E+00	Pulse	0.50	3
Cu			1	210.988	ug/l	0.35	657,590.96	6.393E+00	Pulse	0.50	3
Zn			1	224.311	ug/l	0.89	131,104.67	8.511E-01	Pulse	1.00	3
Cd			1	211.855	ug/l	0.35	208,604.61	1.354E+00	Pulse	0.50	3
Al			1	19505.153	ug/l	0.89	1,448,359.04	1.084E+01	Pulse	1.00	3
Se			1	201.915	ug/l	0.71	6,011.83	3.903E-02	Pulse	3.00	3
Sb			1	216.891	ug/l	0.49	633,236.90	4.111E+00	Pulse	1.00	3
Se			1	204.806	ug/l	0.50	2,992.90	1.943E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,802,736.33	1.54	83.4	Pulse	0.50	3
1	Sc		133,677.20	2.60	85.7	Pulse	0.30	3
1	Ge		102,867.78	2.63	86.6	Pulse	0.30	3
1	In		1,092,695.20	2.44	84.8	Pulse	0.30	3
1	Tb		3,767,012.50	2.38	89.8	Pulse	0.50	3
1	Lu		2,888,259.92	2.20	89.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		154,027.95	1.33	86.6	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		846.69	11.86	83.6	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:36
Sample Name MP41959-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	216.405	ug/l	1.27	598,217.50	5.672E+00	Pulse	0.50	3
As			1	221.383	ug/l	1.01	81,296.27	7.708E-01	Pulse	1.00	3
Mo			1	228.347	ug/l	0.58	416,854.16	2.661E+00	Pulse	0.50	3
Pb			1	221.674	ug/l	0.12	2,652,100.25	9.354E-01	Pulse	1.00	3
Be			1	219.086	ug/l	1.03	3,490.80	2.548E-02	Pulse	2.00	3
Ag			1	102.738	ug/l	0.86	628,607.44	4.013E+00	Pulse	0.50	3
Ba			1	234.979	ug/l	1.10	228,555.66	2.045E-01	Pulse	0.50	3
Tl			1	217.128	ug/l	0.43	3,660,741.75	1.291E+00	Pulse	0.50	3
Sn			1	228.028	ug/l	0.81	493,271.02	4.413E-01	Pulse	0.30	3
Sr			1	375.340	ug/l	0.11	841,705.52	7.531E-01	Pulse	0.50	3
[Pb]			1	214.003	ug/l	0.17	1,206,490.04	4.256E-01	Pulse	0.50	3
Ca			1	94016.117	ug/l	0.19	920,292.37	6.717E+00	Pulse	0.50	3
Ti			1	224.485	ug/l	1.60	14,391.98	1.050E-01	Pulse	0.50	3
Na			1	59384.858	ug/l	0.70	20,799,980.67	1.518E+02	Analog	1.00	3
Mg			1	26798.834	ug/l	2.25	4,917,968.67	3.588E+01	Mix	1.00	3
K			1	23546.257	ug/l	0.36	4,157,713.42	3.035E+01	Pulse	1.00	3
V			1	223.403	ug/l	0.45	480,170.07	3.504E+00	Pulse	0.50	3
Mn			1	247.467	ug/l	0.81	417,279.08	3.956E+00	Pulse	0.50	3
Fe			1	24365.791	ug/l	0.81	59,564,886.67	5.648E+02	Analog	0.50	3
Co			1	216.295	ug/l	1.03	963,949.27	9.140E+00	Pulse	0.50	3
Ni			1	212.544	ug/l	1.08	251,733.17	2.387E+00	Pulse	0.50	3
Cu			1	213.481	ug/l	1.30	682,117.92	6.468E+00	Pulse	0.50	3
Zn			1	227.374	ug/l	0.88	135,145.49	8.627E-01	Pulse	1.00	3
Cd			1	213.742	ug/l	1.06	214,036.49	1.366E+00	Pulse	0.50	3
Al			1	19527.385	ug/l	0.28	1,486,498.42	1.085E+01	Pulse	1.00	3
Se			1	205.001	ug/l	0.60	6,207.79	3.963E-02	Pulse	3.00	3
Sb			1	220.207	ug/l	0.83	653,844.61	4.174E+00	Pulse	1.00	3
Se			1	207.164	ug/l	1.89	3,078.58	1.965E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,835,102.25	1.69	84.4	Pulse	0.50	3
1	Sc		137,017.67	1.92	87.9	Pulse	0.30	3
1	Ge		105,463.75	1.19	88.8	Pulse	0.30	3
1	In		1,117,607.32	1.51	86.8	Pulse	0.30	3
1	Tb		3,830,839.75	2.13	91.4	Pulse	0.50	3
1	Lu		2,928,015.75	2.21	90.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		156,653.59	1.53	88.1	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		946.69	4.89	93.5	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:39
Sample Name MP41959-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.264	ug/l	4.94	62,335.73	5.934E-01	Pulse	0.50	3
As			1	24.815	ug/l	5.11	9,154.53	8.716E-02	Pulse	1.00	3
Mo			1	22.975	ug/l	5.71	42,354.24	2.701E-01	Pulse	0.50	3
Pb			1	20.684	ug/l	5.27	247,985.22	8.907E-02	Pulse	1.00	3
Be			1	22.467	ug/l	9.85	361.83	2.654E-03	Pulse	2.00	3
Ag			1	4.486	ug/l	4.93	27,690.64	1.766E-01	Pulse	0.50	3
Ba			1	37.717	ug/l	6.53	36,261.55	3.304E-02	Pulse	0.50	3
Tl			1	20.309	ug/l	4.37	339,216.20	1.218E-01	Pulse	0.50	3
Sn			1	20.604	ug/l	6.61	44,811.10	4.083E-02	Pulse	0.30	3
Sr			1	176.895	ug/l	6.79	389,824.58	3.553E-01	Pulse	0.50	3
[Pb]			1	19.798	ug/l	5.91	111,919.75	4.020E-02	Pulse	0.50	3
Ca			1	78369.435	ug/l	7.09	764,199.67	5.599E+00	Pulse	0.50	3
Ti			1	21.810	ug/l	6.03	1,425.39	1.043E-02	Pulse	0.50	3
Na			1	42291.891	ug/l	6.92	14,760,407.00	1.081E+02	Analog	1.00	3
Mg			1	8797.703	ug/l	7.06	1,609,930.63	1.180E+01	Pulse	1.00	3
K			1	5953.463	ug/l	6.74	1,061,832.25	7.779E+00	Pulse	1.00	3
V			1	25.619	ug/l	7.11	55,882.28	4.094E-01	Pulse	0.50	3
Mn			1	54.947	ug/l	4.29	92,679.82	8.823E-01	Pulse	0.50	3
Fe			1	5988.936	ug/l	4.47	14,599,542.67	1.390E+02	Analog	0.50	3
Co			1	20.937	ug/l	4.80	93,827.50	8.933E-01	Pulse	0.50	3
Ni			1	19.663	ug/l	3.31	25,286.49	2.407E-01	Pulse	0.50	3
Cu			1	22.656	ug/l	6.09	76,576.88	7.292E-01	Pulse	0.50	3
Zn			1	41.375	ug/l	5.21	25,073.26	1.599E-01	Pulse	1.00	3
Cd			1	20.072	ug/l	5.42	20,259.10	1.292E-01	Pulse	0.50	3
Al			1	2322.885	ug/l	7.34	176,678.63	1.294E+00	Pulse	1.00	3
Se			1	20.050	ug/l	4.99	631.23	4.024E-03	Pulse	3.00	3
Sb			1	19.402	ug/l	5.29	58,504.65	3.731E-01	Pulse	1.00	3
Se			1	21.781	ug/l	10.92	336.67	2.149E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,787,243.50	3.58	83.0	Pulse	0.50	3
1	Sc		136,856.20	6.02	87.8	Pulse	0.30	3
1	Ge		105,130.25	3.18	88.5	Pulse	0.30	3
1	In		1,099,914.16	5.62	85.4	Pulse	0.30	3
1	Tb		3,735,964.83	4.83	89.1	Pulse	0.50	3
1	Lu		2,851,757.25	5.17	88.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		157,002.92	3.83	88.3	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		836.69	8.35	82.7	Pulse	0.30	3

Quantitation Report

File Name	065_MB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:43
Sample Name	MP41962-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.054	ug/l	1.99	2,471.50	2.203E-02	Pulse	0.50	3
As			1	0.235	ug/l	33.00	131.67	1.174E-03	Pulse	1.00	3
Mo			1	0.206	ug/l	22.97	607.34	3.602E-03	Pulse	0.50	3
Pb			1	-0.125	ug/l	-6.94	5,419.53	1.757E-03	Pulse	1.00	3
Be			1	-0.062	ug/l	-602.88	6.33	4.308E-05	Pulse	2.00	3
Ag			1	-0.045	ug/l	-8.32	115.33	6.838E-04	Pulse	0.50	3
Ba			1	-0.013	ug/l	-408.18	302.67	2.542E-04	Pulse	0.50	3
Tl			1	0.030	ug/l	46.16	3,736.42	1.211E-03	Pulse	0.50	3
Sn			1	23.039	ug/l	0.69	22,451.54	1.884E-02	Pulse	0.30	3
Sr			1	0.297	ug/l	20.59	990.70	8.316E-04	Pulse	0.50	3
[Pb]			1	-0.104	ug/l	-12.83	2,580.21	8.362E-04	Pulse	0.50	3
Ca			1	51.821	ug/l	32.71	332.00	2.263E-03	Pulse	0.50	3
Ti			1	-0.551	ug/l	-79.82	22.00	1.501E-04	Pulse	0.50	3
Na			1	68.965	ug/l	8.10	22,053.44	1.502E-01	Pulse	1.00	3
Mg			1	-2.338	ug/l	-86.64	3,186.59	2.171E-02	Pulse	1.00	3
K			1	45.833	ug/l	13.35	24,290.56	1.655E-01	Pulse	1.00	3
V			1	1.966	ug/l	5.07	3,057.58	2.082E-02	Pulse	0.50	3
Mn			1	0.242	ug/l	34.32	727.35	6.482E-03	Pulse	0.50	3
Fe			1	7.859	ug/l	2.54	32,972.56	2.939E-01	Pulse	0.50	3
Co			1	-0.012	ug/l	-74.94	1,038.03	9.252E-03	Pulse	0.50	3
Ni			1	-3.565	ug/l	-2.86	674.68	6.016E-03	Pulse	0.50	3
Cu			1	3.178	ug/l	6.25	9,654.44	8.607E-02	Pulse	0.50	3
Zn			1	2.791	ug/l	3.17	1,305.71	7.744E-03	Pulse	1.00	3
Cd			1	0.049	ug/l	49.37	185.33	1.099E-03	Pulse	0.50	3
Al			1	-9.767	ug/l	-9.99	344.67	2.349E-03	Pulse	1.00	3
Se			1	0.887	ug/l	36.86	39.33	2.334E-04	Pulse	3.00	3
Sb			1	0.012	ug/l	158.69	1,000.03	5.931E-03	Pulse	1.00	3
Se			1	0.670	ug/l	47.17	19.89	1.180E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,085,412.17	1.09	91.8	Pulse	0.50	3
1	Sc		146,812.85	0.81	94.1	Pulse	0.30	3
1	Ge		112,189.39	0.87	94.4	Pulse	0.30	3
1	In		1,191,344.61	1.04	92.5	Pulse	0.30	3
1	Tb		3,950,676.08	1.26	94.2	Pulse	0.50	3
1	Lu		2,995,700.17	1.02	92.8	Pulse	0.50	3
1	Ge		168,612.58	0.49	94.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		990.03	5.74	97.8	Pulse	0.30	3

Quantitation Report

File Name	066_BSP.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:47
Sample Name	MP41962-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	527.013	ug/l	1.33	583,399.63	5.525E+00	Pulse	0.50	3
As			1	533.552	ug/l	1.83	78,469.96	7.431E-01	Pulse	1.00	3
Mo			1	545.546	ug/l	1.44	402,007.98	2.543E+00	Pulse	0.50	3
Pb			1	539.327	ug/l	0.58	2,616,584.25	9.104E-01	Pulse	1.00	3
Be			1	541.265	ug/l	2.39	3,461.13	2.518E-02	Pulse	2.00	3
Ag			1	255.106	ug/l	0.99	630,026.38	3.986E+00	Pulse	0.50	3
Ba			1	531.757	ug/l	0.22	208,015.27	1.851E-01	Pulse	0.50	3
Tl			1	526.102	ug/l	0.48	3,596,604.00	1.251E+00	Pulse	0.50	3
Sn			1	580.927	ug/l	0.73	505,364.95	4.497E-01	Pulse	0.30	3
Sr			1	544.597	ug/l	0.60	491,442.76	4.373E-01	Pulse	0.50	3
[Pb]			1	519.937	ug/l	0.90	1,188,698.58	4.136E-01	Pulse	0.50	3
Ca			1	50477.482	ug/l	0.62	198,423.46	1.443E+00	Pulse	0.50	3
Ti			1	540.445	ug/l	0.84	13,909.62	1.012E-01	Pulse	0.50	3
Na			1	52428.444	ug/l	0.81	7,378,531.33	5.366E+01	Analog	1.00	3
Mg			1	49911.061	ug/l	0.29	3,676,422.50	2.674E+01	Pulse	1.00	3
K			1	49941.486	ug/l	0.63	3,542,785.00	2.577E+01	Pulse	1.00	3
V			1	528.572	ug/l	0.22	456,103.94	3.317E+00	Pulse	0.50	3
Mn			1	523.664	ug/l	1.24	353,672.09	3.350E+00	Pulse	0.50	3
Fe			1	52674.044	ug/l	1.26	51,566,705.33	4.884E+02	Analog	0.50	3
Co			1	528.896	ug/l	1.39	943,898.44	8.940E+00	Pulse	0.50	3
Ni			1	524.233	ug/l	1.90	248,644.83	2.355E+00	Pulse	0.50	3
Cu			1	531.408	ug/l	1.51	679,968.46	6.440E+00	Pulse	0.50	3
Zn			1	520.534	ug/l	0.95	124,922.35	7.903E-01	Pulse	1.00	3
Cd			1	524.366	ug/l	1.41	211,954.35	1.341E+00	Pulse	0.50	3
Al			1	48260.296	ug/l	0.33	1,474,734.50	1.072E+01	Pulse	1.00	3
Se			1	503.134	ug/l	1.34	6,149.65	3.890E-02	Pulse	3.00	3
Sb			1	535.106	ug/l	1.35	641,336.94	4.057E+00	Pulse	1.00	3
Se			1	509.046	ug/l	1.81	3,053.91	1.932E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,873,836.92	1.98	85.5	Pulse	0.50	3
1	Sc		137,505.56	2.00	88.2	Pulse	0.30	3
1	Ge		105,582.22	1.17	88.9	Pulse	0.30	3
1	In		1,123,641.34	1.80	87.2	Pulse	0.30	3
1	Tb		3,837,467.17	2.06	91.5	Pulse	0.50	3
1	Lu		2,935,642.50	2.29	91.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		158,064.72	0.90	88.9	Pulse	0.30	3
1	Te		2.67	114.56		Pulse	0.50	3
1	Li		887.80	12.60	87.7	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:51
Sample Name FC2728-25R
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	23.262	ug/l	1.17	28,380.64	2.544E-01	Pulse	0.50	3
As			1	2.705	ug/l	6.44	514.01	4.610E-03	Pulse	1.00	3
Mo			1	1.362	ug/l	10.67	1,510.07	8.983E-03	Pulse	0.50	3
Pb			1	451.811	ug/l	0.98	2,386,540.42	7.630E-01	Pulse	1.00	3
Be			1	-0.112	ug/l	-301.16	6.00	4.074E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-85.49	206.00	1.228E-03	Pulse	0.50	3
Ba			1	8.608	ug/l	2.38	3,905.10	3.251E-03	Pulse	0.50	3
Tl			1	0.176	ug/l	12.76	4,868.71	1.557E-03	Pulse	0.50	3
Sn			1	17.174	ug/l	2.98	17,198.17	1.432E-02	Pulse	0.30	3
Sr			1	34.532	ug/l	1.44	33,991.90	2.829E-02	Pulse	0.50	3
[Pb]			1	463.174	ug/l	1.00	1,152,719.29	3.685E-01	Pulse	0.50	3
Ca			1	2542.887	ug/l	2.62	10,873.71	7.344E-02	Pulse	0.50	3
Ti			1	806.525	ug/l	1.89	22,325.39	1.508E-01	Pulse	0.50	3
Na			1	147.241	ug/l	3.22	34,070.80	2.302E-01	Pulse	1.00	3
Mg			1	432.267	ug/l	1.00	37,640.86	2.543E-01	Pulse	1.00	3
K			1	63.595	ug/l	11.64	25,833.50	1.746E-01	Pulse	1.00	3
V			1	5.144	ug/l	1.99	6,025.61	4.071E-02	Pulse	0.50	3
Mn			1	13.592	ug/l	0.47	10,233.39	9.175E-02	Pulse	0.50	3
Fe			1	771.430	ug/l	0.74	822,182.96	7.371E+00	Pulse	0.50	3
Co			1	0.319	ug/l	2.94	1,654.74	1.484E-02	Pulse	0.50	3
Ni			1	2.135	ug/l	9.29	3,500.33	3.138E-02	Pulse	0.50	3
Cu			1	4.065	ug/l	3.30	10,789.70	9.675E-02	Pulse	0.50	3
Zn			1	13.511	ug/l	1.07	4,021.76	2.395E-02	Pulse	1.00	3
Cd			1	0.109	ug/l	96.19	210.00	1.253E-03	Pulse	0.50	3
Al			1	4808.647	ug/l	1.20	158,778.06	1.073E+00	Pulse	1.00	3
Se			1	2.514	ug/l	2.64	60.22	3.586E-04	Pulse	3.00	3
Sb			1	4.268	ug/l	1.69	6,407.12	3.815E-02	Pulse	1.00	3
Se			1	2.545	ug/l	23.51	31.66	1.888E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,127,435.50	1.85	93.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		148,015.37	2.03	94.9	Pulse	0.30	3
1	Ge		111,540.21	1.76	93.9	Pulse	0.30	3
1	In		1,201,404.47	2.32	93.3	Pulse	0.30	3
1	Tb		3,986,704.08	2.24	95.1	Pulse	0.50	3
1	Lu		3,010,727.00	2.55	93.3	Pulse	0.50	3
1	Ge		167,952.74	1.80	94.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		993.36	3.69	98.1	Pulse	0.30	3

Quantitation Report

File Name 068SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 14:55
Sample Name MP41962-D1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	30.233	ug/l	1.50	37,030.40	3.273E-01	Pulse	0.50	3
As			1	3.342	ug/l	0.56	621.68	5.496E-03	Pulse	1.00	3
Mo			1	1.487	ug/l	3.17	1,618.74	9.566E-03	Pulse	0.50	3
Pb			1	528.573	ug/l	1.28	2,770,245.67	8.923E-01	Pulse	1.00	3
Be			1	-0.050	ug/l	-456.51	6.50	4.364E-05	Pulse	2.00	3
Ag			1	-0.019	ug/l	-44.58	184.00	1.087E-03	Pulse	0.50	3
Ba			1	11.030	ug/l	2.88	4,935.36	4.093E-03	Pulse	0.50	3
Tl			1	0.024	ug/l	103.08	3,709.75	1.195E-03	Pulse	0.50	3
Sn			1	21.597	ug/l	1.37	21,373.59	1.773E-02	Pulse	0.30	3
Sr			1	43.252	ug/l	0.60	42,521.66	3.528E-02	Pulse	0.50	3
[Pb]			1	545.002	ug/l	1.51	1,345,761.12	4.335E-01	Pulse	0.50	3
Ca			1	3093.077	ug/l	2.70	13,301.85	8.916E-02	Pulse	0.50	3
Ti			1	1293.580	ug/l	2.20	36,061.11	2.418E-01	Pulse	0.50	3
Na			1	159.581	ug/l	2.26	36,223.56	2.429E-01	Pulse	1.00	3
Mg			1	529.849	ug/l	0.99	45,726.91	3.066E-01	Pulse	1.00	3
K			1	67.429	ug/l	6.89	26,333.48	1.765E-01	Pulse	1.00	3
V			1	6.444	ug/l	2.04	7,287.38	4.885E-02	Pulse	0.50	3
Mn			1	20.662	ug/l	3.13	15,487.53	1.369E-01	Pulse	0.50	3
Fe			1	1069.654	ug/l	1.14	1,146,380.25	1.013E+01	Pulse	0.50	3
Co			1	0.313	ug/l	14.00	1,668.08	1.475E-02	Pulse	0.50	3
Ni			1	3.455	ug/l	5.91	4,213.81	3.726E-02	Pulse	0.50	3
Cu			1	5.928	ug/l	3.57	13,479.40	1.192E-01	Pulse	0.50	3
Zn			1	16.163	ug/l	0.99	4,730.59	2.796E-02	Pulse	1.00	3
Cd			1	0.052	ug/l	5.58	187.33	1.107E-03	Pulse	0.50	3
Al			1	6122.055	ug/l	0.68	203,532.60	1.364E+00	Pulse	1.00	3
Se			1	2.999	ug/l	5.62	67.00	3.959E-04	Pulse	3.00	3
Sb			1	6.496	ug/l	2.53	9,310.70	5.502E-02	Pulse	1.00	3
Se			1	3.838	ug/l	12.73	40.22	2.376E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,104,383.92	1.20	92.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		149,172.71	1.27	95.6	Pulse	0.30	3
1	Ge		113,112.72	1.32	95.2	Pulse	0.30	3
1	In		1,205,308.39	1.80	93.6	Pulse	0.30	3
1	Tb		4,001,222.92	1.53	95.4	Pulse	0.50	3
1	Lu		3,023,702.42	1.95	93.7	Pulse	0.50	3
1	Ge		169,224.00	0.57	95.2	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		978.92	17.25	96.7	Pulse	0.30	3

Quantitation Report

File Name	069CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 14:58
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.276	ug/l	0.27	285,700.53	2.484E+00	Pulse	0.50	3
As			1	46.972	ug/l	0.41	37,672.59	3.276E-01	Pulse	1.00	3
Mo			1	47.702	ug/l	0.09	190,644.26	1.113E+00	Pulse	0.50	3
Pb			1	47.294	ug/l	0.87	1,226,714.67	4.003E-01	Pulse	1.00	3
Be			1	49.413	ug/l	2.99	1,725.41	1.152E-02	Pulse	2.00	3
Ag			1	48.925	ug/l	0.71	654,467.02	3.822E+00	Pulse	0.50	3
Ba			1	47.552	ug/l	0.83	100,109.10	8.292E-02	Pulse	0.50	3
Tl			1	48.094	ug/l	0.78	1,754,890.33	5.726E-01	Pulse	0.50	3
Sn			1	47.066	ug/l	0.71	220,711.49	1.828E-01	Pulse	0.30	3
Sr			1	47.414	ug/l	0.88	230,267.25	1.907E-01	Pulse	0.50	3
[Pb]			1	47.346	ug/l	0.57	578,631.54	1.888E-01	Pulse	0.50	3
Ca			1	4722.434	ug/l	1.47	101,186.49	6.755E-01	Pulse	0.50	3
Ti			1	47.358	ug/l	1.47	6,661.82	4.447E-02	Pulse	0.50	3
Na			1	4721.261	ug/l	0.47	3,626,457.08	2.421E+01	Pulse	1.00	3
Mg			1	4672.764	ug/l	1.00	1,876,813.62	1.253E+01	Pulse	1.00	3
K			1	4741.856	ug/l	0.44	1,843,730.42	1.231E+01	Pulse	1.00	3
V			1	47.607	ug/l	1.23	224,473.00	1.498E+00	Pulse	0.50	3
Mn			1	47.195	ug/l	0.31	173,896.44	1.512E+00	Pulse	0.50	3
Fe			1	4959.413	ug/l	0.47	26,454,187.33	2.300E+02	Analog	0.50	3
Co			1	47.560	ug/l	0.34	462,838.29	4.025E+00	Pulse	0.50	3
Ni			1	47.041	ug/l	0.48	122,897.77	1.069E+00	Pulse	0.50	3
Cu			1	48.367	ug/l	0.12	340,029.58	2.957E+00	Pulse	0.50	3
Zn			1	47.643	ug/l	0.97	62,256.17	3.636E-01	Pulse	1.00	3
Cd			1	47.404	ug/l	0.95	103,873.08	6.066E-01	Pulse	0.50	3
Al			1	4552.735	ug/l	1.06	758,169.29	5.061E+00	Pulse	1.00	3
Se			1	47.998	ug/l	1.24	3,192.38	1.864E-02	Pulse	3.00	3
Sb			1	46.897	ug/l	0.72	304,989.97	1.781E+00	Pulse	1.00	3
Se			1	47.499	ug/l	2.38	1,551.95	9.063E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,064,613.08	0.25	91.2	Pulse	0.50	3
1	Sc		149,815.26	0.96	96.1	Pulse	0.30	3
1	Ge		114,999.32	0.25	96.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,207,376.93	0.21	93.7	Pulse	0.30	3
1	Tb		4,003,305.33	0.42	95.5	Pulse	0.50	3
1	Lu		3,051,216.75	0.11	94.5	Pulse	0.50	3
1	Ge		171,239.09	0.34	96.3	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		990.03	11.80	97.8	Pulse	0.30	3

Quantitation Report

File Name 070_CCV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:02
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.768	ug/l	0.69	585,167.17	5.126E+00	Pulse	0.50	3
As			1	97.508	ug/l	0.97	77,527.03	6.791E-01	Pulse	1.00	3
Mo			1	98.612	ug/l	1.07	392,993.12	2.299E+00	Pulse	0.50	3
Pb			1	98.148	ug/l	0.72	2,483,027.33	8.286E-01	Pulse	1.00	3
Be			1	99.313	ug/l	1.30	3,447.13	2.310E-02	Pulse	2.00	3
Ag			1	99.566	ug/l	0.80	1,329,508.25	7.777E+00	Pulse	0.50	3
Ba			1	98.234	ug/l	0.86	205,083.46	1.710E-01	Pulse	0.50	3
Tl			1	99.948	ug/l	0.66	3,562,366.83	1.189E+00	Pulse	0.50	3
Sn			1	98.476	ug/l	1.41	457,313.44	3.813E-01	Pulse	0.30	3
Sr			1	99.619	ug/l	0.90	479,756.40	4.001E-01	Pulse	0.50	3
[Pb]			1	98.975	ug/l	0.64	1,179,799.21	3.937E-01	Pulse	0.50	3
Ca			1	9869.869	ug/l	0.66	210,511.22	1.411E+00	Pulse	0.50	3
Ti			1	100.006	ug/l	2.14	13,967.68	9.362E-02	Pulse	0.50	3
Na			1	10186.754	ug/l	0.91	7,779,138.33	5.214E+01	Analog	1.00	3
Mg			1	9717.450	ug/l	1.36	3,883,607.50	2.603E+01	Pulse	1.00	3
K			1	9828.730	ug/l	0.86	3,783,437.58	2.536E+01	Pulse	1.00	3
V			1	98.783	ug/l	1.68	462,536.29	3.100E+00	Pulse	0.50	3
Mn			1	97.799	ug/l	0.22	357,098.21	3.128E+00	Pulse	0.50	3
Fe			1	10255.259	ug/l	0.55	54,275,050.67	4.754E+02	Analog	0.50	3
Co			1	98.270	ug/l	0.31	948,156.31	8.306E+00	Pulse	0.50	3
Ni			1	97.708	ug/l	1.28	250,709.91	2.196E+00	Pulse	0.50	3
Cu			1	98.673	ug/l	0.14	682,913.61	5.982E+00	Pulse	0.50	3
Zn			1	97.575	ug/l	0.49	126,676.99	7.409E-01	Pulse	1.00	3
Cd			1	97.256	ug/l	1.60	212,589.71	1.244E+00	Pulse	0.50	3
Al			1	9614.182	ug/l	1.82	1,593,856.67	1.068E+01	Pulse	1.00	3
Se			1	97.804	ug/l	2.13	6,465.76	3.782E-02	Pulse	3.00	3
Sb			1	96.742	ug/l	0.96	627,111.50	3.668E+00	Pulse	1.00	3
Se			1	97.848	ug/l	1.43	3,175.04	1.857E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,996,670.17	0.89	89.2	Pulse	0.50	3
1	Sc		149,207.58	0.32	95.7	Pulse	0.30	3
1	Ge		114,152.98	0.68	96.1	Pulse	0.30	3
1	In		1,199,214.33	0.36	93.1	Pulse	0.30	3
1	Tb		3,983,464.92	0.37	95.0	Pulse	0.50	3
1	Lu		3,051,249.58	0.38	94.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		170,970.17	1.08	96.2	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		992.25	2.72	98.0	Pulse	0.30	3

Quantitation Report

File Name	071_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:06
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.023	ug/l	-23.37	1,108.71	9.778E-03	Pulse	0.50	3
As			1	0.008	ug/l	89.66	102.67	9.051E-04	Pulse	1.00	3
Mo			1	0.124	ug/l	19.70	945.36	5.530E-03	Pulse	0.50	3
Pb			1	-0.022	ug/l	-22.34	5,463.21	1.783E-03	Pulse	1.00	3
Be			1	-0.073	ug/l	-81.23	4.33	2.889E-05	Pulse	2.00	3
Ag			1	-0.001	ug/l	-1736.93	227.34	1.337E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	123.30	339.34	2.812E-04	Pulse	0.50	3
Tl			1	0.022	ug/l	44.89	4,295.22	1.403E-03	Pulse	0.50	3
Sn			1	0.158	ug/l	14.81	2,002.35	1.660E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	97.59	794.69	6.599E-04	Pulse	0.50	3
[Pb]			1	-0.029	ug/l	-62.60	2,463.52	8.045E-04	Pulse	0.50	3
Ca			1	-0.064	ug/l	-1193.02	116.00	7.735E-04	Pulse	0.50	3
Ti			1	-0.157	ug/l	-32.66	16.00	1.066E-04	Pulse	0.50	3
Na			1	7.896	ug/l	12.67	18,017.75	1.201E-01	Pulse	1.00	3
Mg			1	-2.848	ug/l	-24.63	2,300.14	1.534E-02	Pulse	1.00	3
K			1	4.403	ug/l	13.07	22,993.34	1.532E-01	Pulse	1.00	3
V			1	-0.034	ug/l	-18.03	1,117.37	7.446E-03	Pulse	0.50	3
Mn			1	-0.015	ug/l	-89.89	506.01	4.462E-03	Pulse	0.50	3
Fe			1	-1.191	ug/l	-42.56	18,789.22	1.659E-01	Pulse	0.50	3
Co			1	0.001	ug/l	656.42	1,079.37	9.521E-03	Pulse	0.50	3
Ni			1	-0.702	ug/l	-2.37	708.68	6.251E-03	Pulse	0.50	3
Cu			1	-0.146	ug/l	-12.83	4,426.52	3.904E-02	Pulse	0.50	3
Zn			1	-0.014	ug/l	-350.96	583.34	3.418E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	220.22	194.00	1.138E-03	Pulse	0.50	3
Al			1	-1.290	ug/l	-41.77	462.67	3.086E-03	Pulse	1.00	3
Se			1	0.221	ug/l	32.25	42.78	2.502E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	19.69	1,167.71	6.836E-03	Pulse	1.00	3
Se			1	0.126	ug/l	35.62	19.89	1.164E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,064,848.50	1.37	91.2	Pulse	0.50	3
1	Sc		150,048.38	0.88	96.2	Pulse	0.30	3

Quantitation Report

1	Ge		113,412.00	1.66	95.4	Pulse	0.30	3
1	In		1,205,552.97	1.93	93.6	Pulse	0.30	3
1	Tb		3,929,402.58	1.55	93.7	Pulse	0.50	3
1	Lu		2,987,457.08	1.90	92.6	Pulse	0.50	3
1	Ge		170,811.09	1.19	96.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,111.15	5.10	109.8	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:10
Sample Name MP41962-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.725	ug/l	0.29	6,684.50	5.856E-02	Pulse	0.50	3
As			1	2.374	ug/l	9.88	172.00	1.508E-03	Pulse	1.00	3
Mo			1	1.876	ug/l	30.97	758.02	4.389E-03	Pulse	0.50	3
Pb			1	441.562	ug/l	0.63	469,008.24	1.507E-01	Pulse	1.00	3
Be			1	-1.020	ug/l	-161.41	5.50	3.649E-05	Pulse	2.00	3
Ag			1	-0.205	ug/l	-4.86	127.33	7.375E-04	Pulse	0.50	3
Ba			1	8.668	ug/l	7.84	1,048.04	8.616E-04	Pulse	0.50	3
Tl			1	0.062	ug/l	92.24	3,637.07	1.169E-03	Pulse	0.50	3
Sn			1	17.727	ug/l	3.13	4,610.61	3.790E-03	Pulse	0.30	3
Sr			1	34.425	ug/l	0.31	7,438.83	6.115E-03	Pulse	0.50	3
[Pb]			1	452.237	ug/l	0.29	226,236.37	7.271E-02	Pulse	0.50	3
Ca			1	2461.819	ug/l	3.00	2,238.80	1.485E-02	Pulse	0.50	3
Ti			1	795.783	ug/l	6.85	4,517.88	2.997E-02	Pulse	0.50	3
Na			1	248.548	ug/l	1.98	19,684.36	1.306E-01	Pulse	1.00	3
Mg			1	357.798	ug/l	2.07	9,236.81	6.126E-02	Pulse	1.00	3
K			1	148.145	ug/l	24.34	23,689.81	1.572E-01	Pulse	1.00	3
V			1	4.373	ug/l	7.01	2,108.79	1.399E-02	Pulse	0.50	3
Mn			1	13.229	ug/l	2.29	2,492.17	2.184E-02	Pulse	0.50	3
Fe			1	691.934	ug/l	1.42	171,627.95	1.504E+00	Pulse	0.50	3
Co			1	0.264	ug/l	61.14	1,180.71	1.035E-02	Pulse	0.50	3
Ni			1	-12.440	ug/l	-3.79	1,233.38	1.081E-02	Pulse	0.50	3
Cu			1	18.772	ug/l	2.73	10,614.93	9.301E-02	Pulse	0.50	3
Zn			1	19.372	ug/l	2.66	1,619.40	9.381E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	2205.49	169.33	9.817E-04	Pulse	0.50	3
Al			1	4678.996	ug/l	1.53	32,018.88	2.124E-01	Pulse	1.00	3
Se			1	4.997	ug/l	36.11	41.78	2.420E-04	Pulse	3.00	3
Sb			1	3.988	ug/l	3.93	2,050.12	1.188E-02	Pulse	1.00	3
Se			1	5.207	ug/l	26.92	22.78	1.320E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,111,561.83	1.44	92.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		150,764.93	1.00	96.7	Pulse	0.30	3
1	Ge		114,149.78	1.69	96.1	Pulse	0.30	3
1	In		1,216,533.11	0.72	94.5	Pulse	0.30	3
1	Tb		3,974,138.00	1.33	94.8	Pulse	0.50	3
1	Lu		3,005,024.75	1.12	93.1	Pulse	0.50	3
1	Ge		172,619.95	0.77	97.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,028.92	6.61	101.6	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:14
Sample Name MP41962-S1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	539.119	ug/l	1.14	608,248.85	5.652E+00	Pulse	0.50	3
As			1	511.604	ug/l	1.16	76,685.68	7.126E-01	Pulse	1.00	3
Mo			1	523.051	ug/l	0.51	392,515.72	2.438E+00	Pulse	0.50	3
Pb			1	1024.695	ug/l	0.59	5,010,164.17	1.728E+00	Pulse	1.00	3
Be			1	534.117	ug/l	2.39	3,490.13	2.485E-02	Pulse	2.00	3
Ag			1	251.633	ug/l	0.92	632,868.35	3.931E+00	Pulse	0.50	3
Ba			1	529.123	ug/l	1.19	210,489.22	1.842E-01	Pulse	0.50	3
Tl			1	511.308	ug/l	0.53	3,526,438.58	1.216E+00	Pulse	0.50	3
Sn			1	558.648	ug/l	1.27	494,215.08	4.325E-01	Pulse	0.30	3
Sr			1	575.800	ug/l	1.04	528,309.19	4.624E-01	Pulse	0.50	3
[Pb]			1	1019.591	ug/l	0.44	2,349,015.67	8.102E-01	Pulse	0.50	3
Ca			1	52553.997	ug/l	1.37	211,064.05	1.502E+00	Pulse	0.50	3
Ti			1	680.000	ug/l	1.27	17,871.51	1.272E-01	Pulse	0.50	3
Na			1	51547.840	ug/l	0.80	7,412,611.50	5.276E+01	Analog	1.00	3
Mg			1	49490.660	ug/l	1.13	3,724,511.83	2.651E+01	Pulse	1.00	3
K			1	49226.130	ug/l	1.29	3,568,067.00	2.540E+01	Pulse	1.00	3
V			1	516.918	ug/l	1.10	455,723.08	3.244E+00	Pulse	0.50	3
Mn			1	513.593	ug/l	1.07	353,549.35	3.285E+00	Pulse	0.50	3
Fe			1	52500.631	ug/l	0.72	52,386,222.67	4.868E+02	Analog	0.50	3
Co			1	516.538	ug/l	1.25	939,602.33	8.731E+00	Pulse	0.50	3
Ni			1	517.255	ug/l	1.18	250,091.52	2.324E+00	Pulse	0.50	3
Cu			1	517.762	ug/l	0.73	675,373.77	6.276E+00	Pulse	0.50	3
Zn			1	518.055	ug/l	0.48	126,610.08	7.865E-01	Pulse	1.00	3
Cd			1	511.798	ug/l	0.73	210,672.72	1.309E+00	Pulse	0.50	3
Al			1	53335.175	ug/l	1.40	1,664,931.83	1.185E+01	Pulse	1.00	3
Se			1	494.878	ug/l	0.74	6,160.21	3.827E-02	Pulse	3.00	3
Sb			1	504.792	ug/l	0.99	616,163.02	3.828E+00	Pulse	1.00	3
Se			1	505.314	ug/l	0.60	3,087.25	1.918E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,899,424.92	1.64	86.3	Pulse	0.50	3
1	Sc		140,490.86	1.14	90.1	Pulse	0.30	3
1	Ge		107,615.68	0.19	90.6	Pulse	0.30	3
1	In		1,142,744.33	1.82	88.7	Pulse	0.30	3
1	Tb		3,869,367.00	2.14	92.3	Pulse	0.50	3
1	Lu		2,957,457.50	2.08	91.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		160,973.35	0.80	90.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		791.13	3.82	78.2	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:17
Sample Name MP41962-S2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	544.768	ug/l	0.97	622,422.54	5.711E+00	Pulse	0.50	3
As			1	521.832	ug/l	0.61	79,208.96	7.268E-01	Pulse	1.00	3
Mo			1	531.340	ug/l	0.75	402,030.84	2.477E+00	Pulse	0.50	3
Pb			1	1055.579	ug/l	0.41	5,189,098.67	1.780E+00	Pulse	1.00	3
Be			1	541.009	ug/l	0.72	3,552.31	2.517E-02	Pulse	2.00	3
Ag			1	253.823	ug/l	0.72	643,652.12	3.966E+00	Pulse	0.50	3
Ba			1	546.274	ug/l	0.62	216,863.66	1.902E-01	Pulse	0.50	3
Tl			1	519.609	ug/l	0.24	3,603,153.92	1.236E+00	Pulse	0.50	3
Sn			1	573.641	ug/l	1.44	506,450.20	4.441E-01	Pulse	0.30	3
Sr			1	596.829	ug/l	0.31	546,499.96	4.792E-01	Pulse	0.50	3
[Pb]			1	1054.730	ug/l	0.49	2,443,069.75	8.381E-01	Pulse	0.50	3
Ca			1	53851.832	ug/l	0.93	217,302.52	1.540E+00	Pulse	0.50	3
Ti			1	701.691	ug/l	1.59	18,530.80	1.313E-01	Pulse	0.50	3
Na			1	52549.910	ug/l	0.70	7,592,147.33	5.379E+01	Analog	1.00	3
Mg			1	50506.915	ug/l	0.70	3,819,033.33	2.706E+01	Pulse	1.00	3
K			1	50375.385	ug/l	0.67	3,668,278.50	2.599E+01	Pulse	1.00	3
V			1	528.749	ug/l	0.54	468,358.84	3.318E+00	Pulse	0.50	3
Mn			1	523.747	ug/l	0.40	365,094.74	3.350E+00	Pulse	0.50	3
Fe			1	53169.175	ug/l	0.52	53,724,585.33	4.930E+02	Analog	0.50	3
Co			1	525.637	ug/l	0.92	968,283.10	8.885E+00	Pulse	0.50	3
Ni			1	529.557	ug/l	1.00	259,238.75	2.379E+00	Pulse	0.50	3
Cu			1	528.102	ug/l	0.63	697,490.89	6.400E+00	Pulse	0.50	3
Zn			1	526.899	ug/l	0.87	129,830.69	7.999E-01	Pulse	1.00	3
Cd			1	520.018	ug/l	1.11	215,828.10	1.330E+00	Pulse	0.50	3
Al			1	54662.125	ug/l	1.08	1,714,555.58	1.215E+01	Pulse	1.00	3
Se			1	501.426	ug/l	1.40	6,293.37	3.877E-02	Pulse	3.00	3
Sb			1	514.692	ug/l	0.90	633,423.29	3.903E+00	Pulse	1.00	3
Se			1	503.231	ug/l	0.55	3,100.03	1.910E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,915,128.17	1.29	86.8	Pulse	0.50	3
1	Sc		141,154.21	1.34	90.5	Pulse	0.30	3
1	Ge		108,974.54	1.16	91.7	Pulse	0.30	3
1	In		1,140,343.74	0.78	88.5	Pulse	0.30	3
1	Tb		3,879,243.67	1.40	92.5	Pulse	0.50	3
1	Lu		2,960,872.42	1.31	91.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		162,302.26	0.81	91.3	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		895.58	5.94	88.5	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:21
Sample Name MP41962-PS1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	74.749	ug/l	0.23	88,970.80	7.931E-01	Pulse	0.50	3
As			1	55.001	ug/l	1.35	8,679.31	7.736E-02	Pulse	1.00	3
Mo			1	51.736	ug/l	3.45	41,107.58	2.436E-01	Pulse	0.50	3
Pb			1	520.161	ug/l	0.30	2,674,943.50	8.781E-01	Pulse	1.00	3
Be			1	50.840	ug/l	0.89	355.33	2.407E-03	Pulse	2.00	3
Ag			1	13.407	ug/l	1.92	35,571.28	2.108E-01	Pulse	0.50	3
Ba			1	60.082	ug/l	0.96	25,076.67	2.115E-02	Pulse	0.50	3
Tl			1	49.074	ug/l	0.28	358,724.37	1.178E-01	Pulse	0.50	3
Sn			1	66.782	ug/l	0.95	62,412.03	5.263E-02	Pulse	0.30	3
Sr			1	88.385	ug/l	0.17	84,770.93	7.148E-02	Pulse	0.50	3
[Pb]			1	530.969	ug/l	0.74	1,286,571.50	4.223E-01	Pulse	0.50	3
Ca			1	7728.430	ug/l	0.33	32,720.52	2.216E-01	Pulse	0.50	3
Ti			1	895.419	ug/l	2.07	24,722.30	1.674E-01	Pulse	0.50	3
Na			1	5063.129	ug/l	0.44	775,799.79	5.255E+00	Pulse	1.00	3
Mg			1	5386.153	ug/l	0.47	429,041.05	2.906E+00	Pulse	1.00	3
K			1	4966.939	ug/l	0.31	397,228.23	2.690E+00	Pulse	1.00	3
V			1	56.226	ug/l	2.23	53,225.61	3.605E-01	Pulse	0.50	3
Mn			1	63.976	ug/l	1.02	46,395.11	4.136E-01	Pulse	0.50	3
Fe			1	6036.929	ug/l	0.11	6,301,016.67	5.617E+01	Analog	0.50	3
Co			1	52.012	ug/l	0.44	99,578.52	8.877E-01	Pulse	0.50	3
Ni			1	54.042	ug/l	1.08	29,437.67	2.624E-01	Pulse	0.50	3
Cu			1	56.385	ug/l	0.27	81,446.56	7.261E-01	Pulse	0.50	3
Zn			1	66.861	ug/l	1.07	17,650.06	1.046E-01	Pulse	1.00	3
Cd			1	49.971	ug/l	1.94	21,714.08	1.287E-01	Pulse	0.50	3
Al			1	9604.978	ug/l	0.55	315,683.70	2.138E+00	Pulse	1.00	3
Se			1	53.202	ug/l	4.77	719.24	4.261E-03	Pulse	3.00	3
Sb			1	51.582	ug/l	0.89	66,894.33	3.964E-01	Pulse	1.00	3
Se			1	53.358	ug/l	3.26	355.78	2.108E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,046,088.08	1.74	90.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		147,644.88	0.91	94.7	Pulse	0.30	3
1	Ge		112,174.88	1.56	94.4	Pulse	0.30	3
1	In		1,186,015.16	1.86	92.1	Pulse	0.30	3
1	Tb		3,970,618.08	1.89	94.7	Pulse	0.50	3
1	Lu		3,002,318.67	2.01	93.0	Pulse	0.50	3
1	Ge		168,766.31	0.27	94.9	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		936.69	5.52	92.5	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:25
Sample Name FC2778-26R
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	25.771	ug/l	1.61	31,312.40	2.807E-01	Pulse	0.50	3
As			1	3.034	ug/l	2.01	565.34	5.068E-03	Pulse	1.00	3
Mo			1	1.593	ug/l	3.75	1,678.08	1.006E-02	Pulse	0.50	3
Pb			1	606.756	ug/l	0.81	3,150,608.33	1.024E+00	Pulse	1.00	3
Be			1	-0.130	ug/l	-289.83	5.83	3.990E-05	Pulse	2.00	3
Ag			1	-0.016	ug/l	-70.76	188.00	1.126E-03	Pulse	0.50	3
Ba			1	5.183	ug/l	4.15	2,446.84	2.061E-03	Pulse	0.50	3
Tl			1	0.045	ug/l	8.45	3,829.78	1.245E-03	Pulse	0.50	3
Sn			1	21.597	ug/l	0.31	21,061.00	1.773E-02	Pulse	0.30	3
Sr			1	20.146	ug/l	0.84	19,896.48	1.675E-02	Pulse	0.50	3
[Pb]			1	623.625	ug/l	0.44	1,525,677.79	4.959E-01	Pulse	0.50	3
Ca			1	1736.218	ug/l	1.38	7,384.75	5.039E-02	Pulse	0.50	3
Ti			1	1122.354	ug/l	1.20	30,746.84	2.098E-01	Pulse	0.50	3
Na			1	125.237	ug/l	2.78	30,442.33	2.078E-01	Pulse	1.00	3
Mg			1	271.126	ug/l	1.79	24,632.42	1.681E-01	Pulse	1.00	3
K			1	67.808	ug/l	2.44	25,899.24	1.767E-01	Pulse	1.00	3
V			1	6.089	ug/l	0.32	6,832.55	4.663E-02	Pulse	0.50	3
Mn			1	15.863	ug/l	2.73	11,853.64	1.063E-01	Pulse	0.50	3
Fe			1	724.732	ug/l	0.53	774,001.25	6.938E+00	Pulse	0.50	3
Co			1	0.266	ug/l	20.58	1,556.07	1.395E-02	Pulse	0.50	3
Ni			1	3.285	ug/l	11.62	4,071.11	3.650E-02	Pulse	0.50	3
Cu			1	4.196	ug/l	2.80	10,967.14	9.831E-02	Pulse	0.50	3
Zn			1	17.173	ug/l	2.10	4,916.30	2.948E-02	Pulse	1.00	3
Cd			1	0.070	ug/l	130.30	192.67	1.154E-03	Pulse	0.50	3
Al			1	3121.937	ug/l	0.09	102,283.50	6.980E-01	Pulse	1.00	3
Se			1	2.227	ug/l	9.82	56.11	3.365E-04	Pulse	3.00	3
Sb			1	5.633	ug/l	3.22	8,087.79	4.849E-02	Pulse	1.00	3
Se			1	1.869	ug/l	8.17	27.22	1.633E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,076,546.92	1.40	91.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		146,539.27	0.88	94.0	Pulse	0.30	3
1	Ge		111,560.26	0.98	93.9	Pulse	0.30	3
1	In		1,187,783.60	1.48	92.2	Pulse	0.30	3
1	Tb		3,956,526.00	1.99	94.4	Pulse	0.50	3
1	Lu		2,991,152.83	1.67	92.7	Pulse	0.50	3
1	Ge		166,778.95	0.98	93.8	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,004.48	1.17	99.2	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:29
Sample Name FC3348-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.865	ug/l	15.40	1,812.09	1.553E-02	Pulse	0.50	3
As			1	5.262	ug/l	4.83	526.01	4.507E-03	Pulse	1.00	3
Mo			1	1.210	ug/l	2.24	960.03	5.458E-03	Pulse	0.50	3
Pb			1	-0.097	ug/l	-78.54	5,806.66	1.885E-03	Pulse	1.00	3
Be			1	-0.623	ug/l	-78.97	4.83	3.148E-05	Pulse	2.00	3
Ag			1	-0.113	ug/l	-9.82	88.00	4.998E-04	Pulse	0.50	3
Ba			1	53.704	ug/l	1.32	11,925.29	9.594E-03	Pulse	0.50	3
Tl			1	0.015	ug/l	204.51	3,564.38	1.157E-03	Pulse	0.50	3
Sn			1	0.317	ug/l	62.07	1,458.96	1.174E-03	Pulse	0.30	3
Sr			1	726.471	ug/l	0.27	362,836.17	2.919E-01	Pulse	0.50	3
[Pb]			1	-0.025	ug/l	-460.52	2,799.57	9.089E-04	Pulse	0.50	3
Ca			1	110808.352	ug/l	1.13	243,134.88	1.584E+00	Pulse	0.50	3
Ti			1	-0.571	ug/l	-176.21	30.67	1.996E-04	Pulse	0.50	3
Na			1	33662.787	ug/l	0.50	2,652,982.00	1.728E+01	Pulse	1.00	3
Mg			1	14866.201	ug/l	0.77	614,249.69	4.001E+00	Pulse	1.00	3
K			1	6613.845	ug/l	0.41	282,255.36	1.839E+00	Pulse	1.00	3
V			1	0.041	ug/l	600.22	1,326.72	8.644E-03	Pulse	0.50	3
Mn			1	1072.073	ug/l	1.14	400,158.79	3.429E+00	Pulse	0.50	3
Fe			1	1952.937	ug/l	1.19	1,082,004.66	9.271E+00	Pulse	0.50	3
Co			1	0.326	ug/l	11.89	1,425.39	1.221E-02	Pulse	0.50	3
Ni			1	-3.158	ug/l	-13.42	1,734.08	1.486E-02	Pulse	0.50	3
Cu			1	7.305	ug/l	3.62	10,711.67	9.178E-02	Pulse	0.50	3
Zn			1	36.471	ug/l	3.29	5,468.12	3.109E-02	Pulse	1.00	3
Cd			1	-0.061	ug/l	-172.39	158.00	8.976E-04	Pulse	0.50	3
Al			1	-15.755	ug/l	-8.57	425.01	2.768E-03	Pulse	1.00	3
Se			1	1.996	ug/l	36.28	42.56	2.419E-04	Pulse	3.00	3
Sb			1	-0.035	ug/l	-281.52	1,003.36	5.705E-03	Pulse	1.00	3
Se			1	0.379	ug/l	96.68	17.56	9.983E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,080,621.42	0.53	91.7	Pulse	0.50	3
1	Sc		153,508.30	0.33	98.4	Pulse	0.30	3
1	Ge		116,712.66	0.43	98.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,243,026.75	0.68	96.5	Pulse	0.30	3
1	Tb		4,032,134.33	0.31	96.2	Pulse	0.50	3
1	Lu		3,061,035.00	0.25	94.8	Pulse	0.50	3
1	Ge		175,889.60	0.85	98.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,063.37	10.85	105.1	Pulse	0.30	3

Quantitation Report

File Name	078SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:33
Sample Name	MP41960-D1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.991	ug/l	12.75	1,900.10	1.619E-02	Pulse	0.50	3
As			1	5.480	ug/l	2.97	546.68	4.659E-03	Pulse	1.00	3
Mo			1	1.654	ug/l	14.08	1,143.37	6.494E-03	Pulse	0.50	3
Pb			1	-0.278	ug/l	-11.80	5,374.52	1.733E-03	Pulse	1.00	3
Be			1	-0.441	ug/l	-94.84	5.50	3.571E-05	Pulse	2.00	3
Ag			1	-0.106	ug/l	-11.18	97.33	5.529E-04	Pulse	0.50	3
Ba			1	56.568	ug/l	2.52	12,538.37	1.009E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	105.77	3,564.39	1.149E-03	Pulse	0.50	3
Sn			1	0.312	ug/l	39.71	1,455.63	1.172E-03	Pulse	0.30	3
Sr			1	755.687	ug/l	0.57	377,219.58	3.036E-01	Pulse	0.50	3
[Pb]			1	-0.273	ug/l	-29.14	2,514.19	8.106E-04	Pulse	0.50	3
Ca			1	114841.763	ug/l	0.67	252,822.05	1.642E+00	Pulse	0.50	3
Ti			1	-0.901	ug/l	-30.81	26.00	1.688E-04	Pulse	0.50	3
Na			1	34906.973	ug/l	0.28	2,759,677.92	1.792E+01	Pulse	1.00	3
Mg			1	15392.289	ug/l	0.53	637,980.27	4.142E+00	Pulse	1.00	3
K			1	6850.006	ug/l	0.14	292,520.67	1.899E+00	Pulse	1.00	3
V			1	0.141	ug/l	64.06	1,379.38	8.957E-03	Pulse	0.50	3
Mn			1	1108.988	ug/l	1.12	416,183.75	3.547E+00	Pulse	0.50	3
Fe			1	2014.693	ug/l	0.82	1,121,533.58	9.557E+00	Pulse	0.50	3
Co			1	0.373	ug/l	8.60	1,479.39	1.261E-02	Pulse	0.50	3
Ni			1	-2.529	ug/l	-18.32	1,907.44	1.625E-02	Pulse	0.50	3
Cu			1	7.994	ug/l	1.62	11,257.30	9.592E-02	Pulse	0.50	3
Zn			1	38.359	ug/l	2.70	5,724.52	3.251E-02	Pulse	1.00	3
Cd			1	-0.043	ug/l	-216.81	162.00	9.200E-04	Pulse	0.50	3
Al			1	-2.700	ug/l	-42.04	649.68	4.218E-03	Pulse	1.00	3
Se			1	1.548	ug/l	60.82	39.56	2.246E-04	Pulse	3.00	3
Sb			1	-0.036	ug/l	-194.28	1,004.03	5.702E-03	Pulse	1.00	3
Se			1	-0.462	ug/l	-219.24	14.78	8.394E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,102,196.00	0.92	92.3	Pulse	0.50	3
1	Sc		154,014.95	0.42	98.8	Pulse	0.30	3
1	Ge		117,351.02	0.99	98.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,242,402.80	0.65	96.5	Pulse	0.30	3
1	Tb		4,016,512.25	0.58	95.8	Pulse	0.50	3
1	Lu		3,061,774.58	0.46	94.9	Pulse	0.50	3
1	Ge		176,066.73	0.15	99.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,011.14	7.26	99.9	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:36
Sample Name MP41960-SD1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.192	ug/l	-440.03	1,284.72	1.080E-02	Pulse	0.50	3
As			1	4.926	ug/l	26.50	182.33	1.532E-03	Pulse	1.00	3
Mo			1	1.888	ug/l	27.24	632.68	3.521E-03	Pulse	0.50	3
Pb			1	-2.939	ug/l	-4.12	4,631.97	1.472E-03	Pulse	1.00	3
Be			1	-2.635	ug/l	-214.83	5.33	3.372E-05	Pulse	2.00	3
Ag			1	-0.581	ug/l	-13.69	84.67	4.715E-04	Pulse	0.50	3
Ba			1	49.805	ug/l	4.91	2,516.18	1.990E-03	Pulse	0.50	3
Tl			1	-0.311	ug/l	-21.98	3,353.01	1.065E-03	Pulse	0.50	3
Sn			1	0.234	ug/l	379.54	1,352.28	1.070E-03	Pulse	0.30	3
Sr			1	681.997	ug/l	0.54	69,891.16	5.529E-02	Pulse	0.50	3
[Pb]			1	-3.376	ug/l	-12.68	2,048.80	6.509E-04	Pulse	0.50	3
Ca			1	104917.897	ug/l	1.13	47,475.07	3.006E-01	Pulse	0.50	3
Ti			1	-4.034	ug/l	-128.29	28.00	1.776E-04	Pulse	0.50	3
Na			1	32063.376	ug/l	0.65	530,203.98	3.357E+00	Pulse	1.00	3
Mg			1	14054.147	ug/l	0.60	122,441.59	7.752E-01	Pulse	1.00	3
K			1	6441.027	ug/l	1.34	74,619.61	4.724E-01	Pulse	1.00	3
V			1	-0.642	ug/l	-113.92	1,281.38	8.114E-03	Pulse	0.50	3
Mn			1	1014.292	ug/l	1.26	77,647.86	6.528E-01	Pulse	0.50	3
Fe			1	1742.067	ug/l	1.03	218,347.06	1.836E+00	Pulse	0.50	3
Co			1	-0.045	ug/l	-435.06	1,116.04	9.383E-03	Pulse	0.50	3
Ni			1	-32.252	ug/l	-4.37	895.36	7.528E-03	Pulse	0.50	3
Cu			1	35.385	ug/l	3.22	10,754.36	9.041E-02	Pulse	0.50	3
Zn			1	45.055	ug/l	7.45	1,857.42	1.034E-02	Pulse	1.00	3
Cd			1	0.378	ug/l	128.75	192.67	1.072E-03	Pulse	0.50	3
Al			1	-139.174	ug/l	-1.12	225.33	1.427E-03	Pulse	1.00	3
Se			1	7.079	ug/l	36.38	39.44	2.195E-04	Pulse	3.00	3
Sb			1	-0.896	ug/l	-54.47	927.36	5.159E-03	Pulse	1.00	3
Se			1	-2.434	ug/l	-54.50	15.00	8.348E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,147,617.25	0.57	93.7	Pulse	0.50	3
1	Sc		157,950.57	0.51	101.3	Pulse	0.30	3
1	Ge		118,953.20	0.43	100.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,264,126.48	0.53	98.1	Pulse	0.30	3
1	Tb		4,041,264.42	1.01	96.4	Pulse	0.50	3
1	Lu		3,070,257.83	0.60	95.1	Pulse	0.50	3
1	Ge		179,700.01	0.70	101.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,072.26	11.67	105.9	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 15:40
Sample Name MP41960-S1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	212.159	ug/l	1.78	127,319.87	1.121E+00	Pulse	0.50	3
As			1	222.206	ug/l	1.60	17,652.13	1.554E-01	Pulse	1.00	3
Mo			1	215.693	ug/l	1.62	85,687.47	5.049E-01	Pulse	0.50	3
Pb			1	212.349	ug/l	0.29	548,588.77	1.808E-01	Pulse	1.00	3
Be			1	215.189	ug/l	1.94	747.18	5.042E-03	Pulse	2.00	3
Ag			1	101.016	ug/l	0.11	134,128.95	7.902E-01	Pulse	0.50	3
Ba			1	268.696	ug/l	0.90	56,434.09	4.696E-02	Pulse	0.50	3
Tl			1	208.983	ug/l	0.57	756,891.55	2.495E-01	Pulse	0.50	3
Sn			1	222.830	ug/l	2.35	104,662.21	8.710E-02	Pulse	0.30	3
Sr			1	965.664	ug/l	1.17	466,004.88	3.878E-01	Pulse	0.50	3
[Pb]			1	203.000	ug/l	0.79	247,220.40	8.148E-02	Pulse	0.50	3
Ca			1	133456.728	ug/l	0.40	282,681.81	1.907E+00	Pulse	0.50	3
Ti			1	217.682	ug/l	2.45	3,048.92	2.058E-02	Pulse	0.50	3
Na			1	54269.961	ug/l	0.77	4,121,869.92	2.781E+01	Pulse	1.00	3
Mg			1	34784.329	ug/l	0.81	1,382,949.33	9.332E+00	Pulse	1.00	3
K			1	26795.211	ug/l	0.61	1,039,784.50	7.016E+00	Pulse	1.00	3
V			1	214.488	ug/l	0.58	100,741.88	6.798E-01	Pulse	0.50	3
Mn			1	1295.442	ug/l	1.35	470,461.80	4.142E+00	Pulse	0.50	3
Fe			1	23139.333	ug/l	1.22	12,204,369.67	1.074E+02	Analog	0.50	3
Co			1	212.319	ug/l	1.34	204,673.39	1.802E+00	Pulse	0.50	3
Ni			1	209.782	ug/l	0.90	55,511.77	4.887E-01	Pulse	0.50	3
Cu			1	218.062	ug/l	1.14	154,400.48	1.359E+00	Pulse	0.50	3
Zn			1	253.169	ug/l	1.13	33,072.24	1.949E-01	Pulse	1.00	3
Cd			1	212.977	ug/l	1.06	46,349.73	2.731E-01	Pulse	0.50	3
Al			1	19011.141	ug/l	0.77	313,578.05	2.116E+00	Pulse	1.00	3
Se			1	211.043	ug/l	1.12	1,407.06	8.290E-03	Pulse	3.00	3
Sb			1	215.266	ug/l	1.26	139,301.85	8.207E-01	Pulse	1.00	3
Se			1	214.538	ug/l	1.59	703.46	4.144E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,034,026.33	0.88	90.3	Pulse	0.50	3
1	Sc		148,198.98	0.64	95.0	Pulse	0.30	3
1	Ge		113,591.76	0.93	95.6	Pulse	0.30	3
1	In		1,201,675.96	0.55	93.3	Pulse	0.30	3
1	Tb		3,956,218.50	0.92	94.3	Pulse	0.50	3
1	Lu		3,007,084.17	0.64	93.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		169,737.71	0.58	95.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,014.48	2.79	100.2	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:44
Sample Name	MP41960-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	207.999	ug/l	1.09	124,954.14	1.099E+00	Pulse	0.50	3
As			1	219.373	ug/l	1.19	17,443.60	1.534E-01	Pulse	1.00	3
Mo			1	212.483	ug/l	0.59	84,605.27	4.974E-01	Pulse	0.50	3
Pb			1	208.657	ug/l	1.06	538,636.08	1.777E-01	Pulse	1.00	3
Be			1	206.206	ug/l	5.80	713.01	4.833E-03	Pulse	2.00	3
Ag			1	100.066	ug/l	0.62	133,158.77	7.828E-01	Pulse	0.50	3
Ba			1	261.596	ug/l	1.31	54,844.62	4.573E-02	Pulse	0.50	3
Tl			1	204.722	ug/l	1.01	740,809.04	2.444E-01	Pulse	0.50	3
Sn			1	219.277	ug/l	1.43	102,816.51	8.573E-02	Pulse	0.30	3
Sr			1	953.225	ug/l	0.36	459,126.42	3.828E-01	Pulse	0.50	3
[Pb]			1	201.164	ug/l	0.97	244,767.42	8.075E-02	Pulse	0.50	3
Ca			1	131516.321	ug/l	2.21	277,381.29	1.880E+00	Pulse	0.50	3
Ti			1	212.773	ug/l	2.31	2,968.90	2.012E-02	Pulse	0.50	3
Na			1	53309.456	ug/l	1.37	4,032,163.42	2.732E+01	Pulse	1.00	3
Mg			1	34235.222	ug/l	1.96	1,355,413.04	9.185E+00	Pulse	1.00	3
K			1	26207.357	ug/l	1.41	1,013,163.31	6.865E+00	Pulse	1.00	3
V			1	211.055	ug/l	1.95	98,729.58	6.690E-01	Pulse	0.50	3
Mn			1	1274.559	ug/l	1.39	463,249.27	4.075E+00	Pulse	0.50	3
Fe			1	22468.865	ug/l	0.95	11,861,127.00	1.043E+02	Analog	0.50	3
Co			1	207.566	ug/l	1.47	200,268.93	1.762E+00	Pulse	0.50	3
Ni			1	204.631	ug/l	2.28	54,252.30	4.772E-01	Pulse	0.50	3
Cu			1	213.366	ug/l	1.25	151,313.00	1.331E+00	Pulse	0.50	3
Zn			1	245.072	ug/l	1.38	32,104.61	1.887E-01	Pulse	1.00	3
Cd			1	207.029	ug/l	2.26	45,159.52	2.655E-01	Pulse	0.50	3
Al			1	18642.886	ug/l	2.53	306,198.78	2.075E+00	Pulse	1.00	3
Se			1	206.287	ug/l	1.12	1,378.94	8.107E-03	Pulse	3.00	3
Sb			1	210.112	ug/l	0.83	136,290.88	8.012E-01	Pulse	1.00	3
Se			1	211.307	ug/l	4.25	694.57	4.083E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,031,079.75	0.45	90.2	Pulse	0.50	3
1	Sc		147,595.59	1.47	94.6	Pulse	0.30	3
1	Ge		113,684.55	1.30	95.7	Pulse	0.30	3
1	In		1,199,314.95	0.22	93.1	Pulse	0.30	3
1	Tb		3,942,289.17	0.60	94.0	Pulse	0.50	3
1	Lu		3,009,016.58	0.60	93.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		170,103.31	0.28	95.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,001.14	11.50	98.9	Pulse	0.30	3

Quantitation Report

File Name	082CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:48
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.492	ug/l	0.18	281,813.67	2.496E+00	Pulse	0.50	3
As			1	47.220	ug/l	0.20	37,185.65	3.293E-01	Pulse	1.00	3
Mo			1	47.284	ug/l	0.77	187,776.70	1.104E+00	Pulse	0.50	3
Pb			1	47.136	ug/l	0.59	1,200,035.37	3.990E-01	Pulse	1.00	3
Be			1	47.873	ug/l	1.80	1,683.07	1.116E-02	Pulse	2.00	3
Ag			1	48.421	ug/l	0.58	643,607.06	3.783E+00	Pulse	0.50	3
Ba			1	47.472	ug/l	1.36	98,842.90	8.278E-02	Pulse	0.50	3
Tl			1	48.017	ug/l	0.38	1,719,639.25	5.717E-01	Pulse	0.50	3
Sn			1	46.986	ug/l	0.97	217,916.64	1.825E-01	Pulse	0.30	3
Sr			1	47.893	ug/l	0.18	230,030.56	1.926E-01	Pulse	0.50	3
[Pb]			1	47.109	ug/l	0.94	565,109.02	1.879E-01	Pulse	0.50	3
Ca			1	4710.167	ug/l	1.46	101,599.94	6.737E-01	Pulse	0.50	3
Ti			1	47.060	ug/l	1.10	6,663.82	4.419E-02	Pulse	0.50	3
Na			1	4659.965	ug/l	0.69	3,603,378.25	2.389E+01	Pulse	1.00	3
Mg			1	4612.733	ug/l	0.88	1,865,138.38	1.237E+01	Pulse	1.00	3
K			1	4714.455	ug/l	0.61	1,845,414.29	1.224E+01	Pulse	1.00	3
V			1	46.831	ug/l	0.82	222,314.51	1.474E+00	Pulse	0.50	3
Mn			1	47.608	ug/l	0.90	172,235.22	1.525E+00	Pulse	0.50	3
Fe			1	5012.136	ug/l	0.17	26,251,544.00	2.325E+02	Analog	0.50	3
Co			1	47.773	ug/l	0.60	456,495.16	4.043E+00	Pulse	0.50	3
Ni			1	47.383	ug/l	1.17	121,536.18	1.076E+00	Pulse	0.50	3
Cu			1	48.105	ug/l	0.28	332,107.45	2.941E+00	Pulse	0.50	3
Zn			1	47.250	ug/l	0.99	61,357.38	3.606E-01	Pulse	1.00	3
Cd			1	47.012	ug/l	1.05	102,360.70	6.016E-01	Pulse	0.50	3
Al			1	4520.556	ug/l	0.74	757,856.92	5.025E+00	Pulse	1.00	3
Se			1	47.354	ug/l	1.38	3,129.92	1.840E-02	Pulse	3.00	3
Sb			1	46.525	ug/l	0.87	300,663.44	1.767E+00	Pulse	1.00	3
Se			1	47.060	ug/l	1.18	1,527.95	8.980E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,007,901.83	0.55	89.5	Pulse	0.50	3
1	Sc		150,811.90	0.49	96.7	Pulse	0.30	3
1	Ge		112,919.25	0.76	95.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,194,103.32	0.11	92.7	Pulse	0.30	3
1	Tb		3,937,459.00	0.59	93.9	Pulse	0.50	3
1	Lu		3,003,311.17	0.60	93.1	Pulse	0.50	3
1	Ge		170,149.44	0.09	95.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,012.25	3.90	100.0	Pulse	0.30	3

Quantitation Report

File Name	083_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:51
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.411	ug/l	1.37	594,497.38	5.160E+00	Pulse	0.50	3
As			1	97.606	ug/l	1.68	78,326.67	6.798E-01	Pulse	1.00	3
Mo			1	98.787	ug/l	0.98	394,213.91	2.303E+00	Pulse	0.50	3
Pb			1	97.728	ug/l	1.12	2,467,770.58	8.250E-01	Pulse	1.00	3
Be			1	99.224	ug/l	0.37	3,499.80	2.308E-02	Pulse	2.00	3
Ag			1	99.509	ug/l	0.74	1,330,538.17	7.772E+00	Pulse	0.50	3
Ba			1	99.032	ug/l	0.63	206,554.23	1.724E-01	Pulse	0.50	3
Tl			1	99.854	ug/l	0.73	3,552,365.25	1.188E+00	Pulse	0.50	3
Sn			1	98.279	ug/l	1.21	455,982.19	3.806E-01	Pulse	0.30	3
Sr			1	100.874	ug/l	1.01	485,345.93	4.051E-01	Pulse	0.50	3
[Pb]			1	97.973	ug/l	1.15	1,165,703.75	3.897E-01	Pulse	0.50	3
Ca			1	9850.962	ug/l	1.32	213,509.51	1.408E+00	Pulse	0.50	3
Ti			1	96.761	ug/l	0.41	13,734.83	9.059E-02	Pulse	0.50	3
Na			1	10176.697	ug/l	0.33	7,897,324.50	5.209E+01	Analog	1.00	3
Mg			1	9686.713	ug/l	0.74	3,934,042.92	2.595E+01	Pulse	1.00	3
K			1	9856.871	ug/l	0.27	3,855,642.92	2.543E+01	Pulse	1.00	3
V			1	97.889	ug/l	0.98	465,792.81	3.072E+00	Pulse	0.50	3
Mn			1	98.156	ug/l	1.65	361,733.26	3.140E+00	Pulse	0.50	3
Fe			1	10338.524	ug/l	1.64	55,223,480.00	4.793E+02	Analog	0.50	3
Co			1	98.198	ug/l	1.95	956,269.79	8.300E+00	Pulse	0.50	3
Ni			1	97.513	ug/l	1.69	252,529.80	2.192E+00	Pulse	0.50	3
Cu			1	97.823	ug/l	1.75	683,366.96	5.931E+00	Pulse	0.50	3
Zn			1	98.127	ug/l	1.10	127,557.74	7.451E-01	Pulse	1.00	3
Cd			1	96.848	ug/l	1.00	211,988.49	1.238E+00	Pulse	0.50	3
Al			1	9567.378	ug/l	1.11	1,611,792.87	1.063E+01	Pulse	1.00	3
Se			1	99.123	ug/l	1.45	6,560.90	3.833E-02	Pulse	3.00	3
Sb			1	96.937	ug/l	1.08	629,213.75	3.675E+00	Pulse	1.00	3
Se			1	97.380	ug/l	1.39	3,164.04	1.848E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,991,010.00	0.60	89.0	Pulse	0.50	3
1	Sc		151,621.28	0.26	97.2	Pulse	0.30	3
1	Ge		115,233.88	1.73	97.0	Pulse	0.30	3
1	In		1,198,115.92	0.50	93.0	Pulse	0.30	3
1	Tb		3,992,823.17	0.66	95.2	Pulse	0.50	3
1	Lu		3,055,364.17	0.80	94.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		171,199.78	1.05	96.3	Pulse	0.30	3
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		922.25	7.43	91.1	Pulse	0.30	3

Quantitation Report

File Name	084_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:55
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.017	ug/l	-102.68	1,127.37	1.012E-02	Pulse	0.50	3
As			1	0.024	ug/l	74.91	113.00	1.014E-03	Pulse	1.00	3
Mo			1	0.122	ug/l	14.40	917.36	5.488E-03	Pulse	0.50	3
Pb			1	-0.026	ug/l	-36.21	5,242.48	1.745E-03	Pulse	1.00	3
Be			1	-0.017	ug/l	-368.27	6.17	4.205E-05	Pulse	2.00	3
Ag			1	0.001	ug/l	619.66	244.00	1.466E-03	Pulse	0.50	3
Ba			1	0.011	ug/l	216.34	330.67	2.784E-04	Pulse	0.50	3
Tl			1	0.023	ug/l	35.95	4,236.54	1.410E-03	Pulse	0.50	3
Sn			1	0.157	ug/l	28.79	1,973.45	1.658E-03	Pulse	0.30	3
Sr			1	0.019	ug/l	10.45	796.69	6.701E-04	Pulse	0.50	3
[Pb]			1	-0.027	ug/l	-28.71	2,437.52	8.113E-04	Pulse	0.50	3
Ca			1	0.053	ug/l	1104.00	116.00	7.902E-04	Pulse	0.50	3
Ti			1	-0.115	ug/l	-28.78	21.33	1.452E-04	Pulse	0.50	3
Na			1	5.519	ug/l	13.47	15,847.93	1.080E-01	Pulse	1.00	3
Mg			1	-2.695	ug/l	-17.48	2,311.47	1.575E-02	Pulse	1.00	3
K			1	6.440	ug/l	9.42	23,265.31	1.585E-01	Pulse	1.00	3
V			1	-0.023	ug/l	-53.30	1,145.37	7.801E-03	Pulse	0.50	3
Mn			1	-0.024	ug/l	-51.47	463.34	4.160E-03	Pulse	0.50	3
Fe			1	-1.091	ug/l	-39.05	18,986.73	1.705E-01	Pulse	0.50	3
Co			1	0.006	ug/l	107.46	1,112.04	9.985E-03	Pulse	0.50	3
Ni			1	-0.688	ug/l	-1.25	732.02	6.571E-03	Pulse	0.50	3
Cu			1	-0.126	ug/l	-12.15	4,483.20	4.025E-02	Pulse	0.50	3
Zn			1	-0.012	ug/l	-264.36	574.01	3.438E-03	Pulse	1.00	3
Cd			1	0.020	ug/l	131.94	204.67	1.228E-03	Pulse	0.50	3
Al			1	-1.401	ug/l	-33.50	434.67	2.963E-03	Pulse	1.00	3
Se			1	0.179	ug/l	35.48	39.11	2.340E-04	Pulse	3.00	3
Sb			1	0.022	ug/l	20.88	1,116.37	6.685E-03	Pulse	1.00	3
Se			1	-0.075	ug/l	-80.09	13.11	7.847E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,005,318.42	1.21	89.4	Pulse	0.50	3
1	Sc		146,807.39	0.52	94.1	Pulse	0.30	3

Quantitation Report

1	Ge		111,393.55	0.55	93.7	Pulse	0.30	3
1	In		1,189,039.33	1.18	92.3	Pulse	0.30	3
1	Tb		3,874,370.08	1.43	92.4	Pulse	0.50	3
1	Lu		2,938,007.25	1.78	91.0	Pulse	0.50	3
1	Ge		167,043.52	1.39	93.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		945.59	4.60	93.4	Pulse	0.30	3

Quantitation Report

File Name	085SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 15:59
Sample Name	MP41960-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.705	ug/l	3.99	8,217.09	7.224E-02	Pulse	0.50	3
As			1	17.043	ug/l	3.91	1,444.73	1.270E-02	Pulse	1.00	3
Mo			1	11.993	ug/l	0.29	5,221.41	3.057E-02	Pulse	0.50	3
Pb			1	9.904	ug/l	1.93	31,098.82	1.031E-02	Pulse	1.00	3
Be			1	12.344	ug/l	5.95	49.50	3.325E-04	Pulse	2.00	3
Ag			1	2.094	ug/l	2.69	3,028.26	1.773E-02	Pulse	0.50	3
Ba			1	65.329	ug/l	2.06	14,095.51	1.161E-02	Pulse	0.50	3
Tl			1	10.292	ug/l	0.64	40,329.29	1.337E-02	Pulse	0.50	3
Sn			1	10.303	ug/l	9.56	6,106.61	5.030E-03	Pulse	0.30	3
Sr			1	749.107	ug/l	0.97	365,284.69	3.010E-01	Pulse	0.50	3
[Pb]			1	9.535	ug/l	2.55	14,188.56	4.703E-03	Pulse	0.50	3
Ca			1	114743.500	ug/l	0.85	244,187.83	1.640E+00	Pulse	0.50	3
Ti			1	8.563	ug/l	5.80	156.67	1.052E-03	Pulse	0.50	3
Na			1	35578.516	ug/l	0.19	2,718,792.67	1.826E+01	Pulse	1.00	3
Mg			1	16263.532	ug/l	0.72	651,432.96	4.375E+00	Pulse	1.00	3
K			1	7821.035	ug/l	0.66	319,863.03	2.148E+00	Pulse	1.00	3
V			1	10.910	ug/l	5.13	6,352.39	4.266E-02	Pulse	0.50	3
Mn			1	1098.776	ug/l	1.10	399,728.91	3.514E+00	Pulse	0.50	3
Fe			1	3002.921	ug/l	0.96	1,608,140.87	1.414E+01	Pulse	0.50	3
Co			1	10.788	ug/l	2.05	11,435.39	1.005E-01	Pulse	0.50	3
Ni			1	7.826	ug/l	6.86	4,470.53	3.930E-02	Pulse	0.50	3
Cu			1	17.981	ug/l	1.62	17,745.50	1.560E-01	Pulse	0.50	3
Zn			1	49.148	ug/l	3.14	6,946.92	4.067E-02	Pulse	1.00	3
Cd			1	10.641	ug/l	3.08	2,488.85	1.457E-02	Pulse	0.50	3
Al			1	970.652	ug/l	1.28	16,723.66	1.123E-01	Pulse	1.00	3
Se			1	13.454	ug/l	4.49	116.67	6.830E-04	Pulse	3.00	3
Sb			1	9.561	ug/l	3.11	7,180.08	4.203E-02	Pulse	1.00	3
Se			1	11.659	ug/l	16.05	53.44	3.129E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,016,755.83	0.96	89.8	Pulse	0.50	3
1	Sc		148,879.68	0.68	95.5	Pulse	0.30	3
1	Ge		113,758.46	1.44	95.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,213,628.04	0.61	94.2	Pulse	0.30	3
1	Tb		3,932,773.33	0.98	93.8	Pulse	0.50	3
1	Lu		2,985,573.83	1.03	92.5	Pulse	0.50	3
1	Ge		170,825.26	0.14	96.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		991.14	1.97	97.9	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:03
Sample Name FC3062-3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.006	ug/l	5.61	3,520.33	3.200E-02	Pulse	0.50	3
As			1	3.534	ug/l	3.89	634.01	5.763E-03	Pulse	1.00	3
Mo			1	2.390	ug/l	2.83	2,277.48	1.377E-02	Pulse	0.50	3
Pb			1	0.023	ug/l	9.56	5,880.35	2.005E-03	Pulse	1.00	3
Be			1	-0.014	ug/l	-4329.92	6.50	4.530E-05	Pulse	2.00	3
Ag			1	-0.035	ug/l	-32.24	138.67	8.397E-04	Pulse	0.50	3
Ba			1	16.862	ug/l	1.19	7,157.44	6.121E-03	Pulse	0.50	3
Tl			1	0.018	ug/l	72.20	3,466.36	1.182E-03	Pulse	0.50	3
Sn			1	0.598	ug/l	25.27	1,770.10	1.513E-03	Pulse	0.30	3
Sr			1	152.670	ug/l	0.31	143,851.94	1.230E-01	Pulse	0.50	3
[Pb]			1	0.079	ug/l	60.26	2,878.25	9.813E-04	Pulse	0.50	3
Ca			1	75147.358	ug/l	0.67	310,008.35	2.148E+00	Pulse	0.50	3
Ti			1	0.501	ug/l	25.64	50.00	3.465E-04	Pulse	0.50	3
Na			1	39743.568	ug/l	1.01	5,873,694.83	4.070E+01	Analog	1.00	3
Mg			1	6678.351	ug/l	0.78	519,214.38	3.598E+00	Pulse	1.00	3
K			1	3935.573	ug/l	0.89	311,913.95	2.161E+00	Pulse	1.00	3
V			1	4.621	ug/l	3.10	5,404.10	3.744E-02	Pulse	0.50	3
Mn			1	34.422	ug/l	1.86	24,742.38	2.248E-01	Pulse	0.50	3
Fe			1	3641.222	ug/l	0.24	3,738,233.92	3.397E+01	Pulse	0.50	3
Co			1	0.214	ug/l	27.41	1,439.39	1.308E-02	Pulse	0.50	3
Ni			1	-2.953	ug/l	-6.82	960.69	8.739E-03	Pulse	0.50	3
Cu			1	3.503	ug/l	3.97	9,905.23	8.998E-02	Pulse	0.50	3
Zn			1	21.028	ug/l	0.53	5,839.23	3.531E-02	Pulse	1.00	3
Cd			1	0.066	ug/l	85.39	189.33	1.144E-03	Pulse	0.50	3
Al			1	389.701	ug/l	0.72	13,146.00	9.108E-02	Pulse	1.00	3
Se			1	1.066	ug/l	18.06	40.89	2.471E-04	Pulse	3.00	3
Sb			1	0.119	ug/l	17.44	1,115.04	6.741E-03	Pulse	1.00	3
Se			1	1.015	ug/l	15.47	21.67	1.310E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,933,467.42	1.27	87.3	Pulse	0.50	3
1	Sc		144,329.39	1.45	92.5	Pulse	0.30	3
1	Ge		110,051.65	1.82	92.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,169,261.28	1.21	90.8	Pulse	0.30	3
1	Tb		3,854,029.75	1.66	91.9	Pulse	0.50	3
1	Lu		2,929,052.58	1.86	90.8	Pulse	0.50	3
1	Ge		165,380.73	1.05	93.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		917.80	8.40	90.7	Pulse	0.30	3

Quantitation Report

File Name 087SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:07
Sample Name MP41959-D1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.129	ug/l	7.58	3,686.36	3.328E-02	Pulse	0.50	3
As			1	3.684	ug/l	3.87	662.01	5.973E-03	Pulse	1.00	3
Mo			1	2.618	ug/l	1.79	2,450.84	1.483E-02	Pulse	0.50	3
Pb			1	0.030	ug/l	30.78	5,957.38	2.017E-03	Pulse	1.00	3
Be			1	-0.122	ug/l	-298.39	5.83	4.028E-05	Pulse	2.00	3
Ag			1	-0.046	ug/l	-16.84	108.67	6.581E-04	Pulse	0.50	3
Ba			1	17.986	ug/l	1.59	7,650.31	6.512E-03	Pulse	0.50	3
Tl			1	-0.003	ug/l	-498.63	3,344.34	1.133E-03	Pulse	0.50	3
Sn			1	0.415	ug/l	2.62	1,612.31	1.372E-03	Pulse	0.30	3
Sr			1	158.151	ug/l	0.41	149,703.01	1.274E-01	Pulse	0.50	3
[Pb]			1	0.047	ug/l	62.42	2,824.25	9.565E-04	Pulse	0.50	3
Ca			1	77126.381	ug/l	1.01	319,125.56	2.205E+00	Pulse	0.50	3
Ti			1	1.456	ug/l	107.66	76.00	5.248E-04	Pulse	0.50	3
Na			1	40767.279	ug/l	0.87	6,042,748.50	4.175E+01	Analog	1.00	3
Mg			1	6849.047	ug/l	0.93	533,976.33	3.689E+00	Pulse	1.00	3
K			1	4027.701	ug/l	1.06	319,687.01	2.209E+00	Pulse	1.00	3
V			1	4.931	ug/l	2.88	5,702.19	3.938E-02	Pulse	0.50	3
Mn			1	35.409	ug/l	1.69	25,610.83	2.311E-01	Pulse	0.50	3
Fe			1	3886.812	ug/l	0.37	4,017,479.08	3.624E+01	Pulse	0.50	3
Co			1	0.289	ug/l	20.53	1,590.74	1.434E-02	Pulse	0.50	3
Ni			1	-2.886	ug/l	-3.73	1,002.03	9.040E-03	Pulse	0.50	3
Cu			1	3.609	ug/l	6.84	10,111.34	9.126E-02	Pulse	0.50	3
Zn			1	20.813	ug/l	1.32	5,780.21	3.498E-02	Pulse	1.00	3
Cd			1	0.016	ug/l	407.36	168.00	1.016E-03	Pulse	0.50	3
Al			1	419.970	ug/l	1.86	14,159.35	9.781E-02	Pulse	1.00	3
Se			1	0.904	ug/l	29.98	38.78	2.346E-04	Pulse	3.00	3
Sb			1	0.125	ug/l	14.63	1,121.04	6.784E-03	Pulse	1.00	3
Se			1	0.894	ug/l	38.77	20.89	1.264E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,953,328.92	1.33	87.9	Pulse	0.50	3
1	Sc		144,758.98	1.29	92.8	Pulse	0.30	3
1	Ge		110,841.70	1.72	93.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,174,780.20	1.41	91.2	Pulse	0.30	3
1	Tb		3,876,639.17	1.63	92.4	Pulse	0.50	3
1	Lu		2,941,988.00	1.31	91.2	Pulse	0.50	3
1	Ge		165,225.97	0.93	92.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,007.81	13.76	99.6	Pulse	0.30	3

Quantitation Report

File Name 088SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:10
Sample Name MP41959-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.072	ug/l	20.17	1,511.40	1.325E-02	Pulse	0.50	3
As			1	3.543	ug/l	23.68	209.33	1.833E-03	Pulse	1.00	3
Mo			1	2.647	ug/l	15.49	870.69	5.107E-03	Pulse	0.50	3
Pb			1	-1.362	ug/l	-2.52	4,560.28	1.508E-03	Pulse	1.00	3
Be			1	-0.556	ug/l	-197.15	6.17	4.079E-05	Pulse	2.00	3
Ag			1	-0.299	ug/l	-6.92	76.00	4.462E-04	Pulse	0.50	3
Ba			1	15.655	ug/l	1.41	1,621.41	1.347E-03	Pulse	0.50	3
Tl			1	-0.066	ug/l	-122.20	3,350.34	1.108E-03	Pulse	0.50	3
Sn			1	0.239	ug/l	192.90	1,308.94	1.088E-03	Pulse	0.30	3
Sr			1	145.142	ug/l	3.34	28,722.48	2.387E-02	Pulse	0.50	3
[Pb]			1	-1.515	ug/l	-13.83	2,052.80	6.783E-04	Pulse	0.50	3
Ca			1	71886.045	ug/l	3.36	62,094.22	4.116E-01	Pulse	0.50	3
Ti			1	-1.079	ug/l	-205.29	32.00	2.126E-04	Pulse	0.50	3
Na			1	36303.802	ug/l	2.14	1,131,780.21	7.501E+00	Pulse	1.00	3
Mg			1	6265.885	ug/l	2.45	104,671.27	6.937E-01	Pulse	1.00	3
K			1	3864.252	ug/l	2.64	81,255.56	5.385E-01	Pulse	1.00	3
V			1	4.496	ug/l	7.48	2,134.12	1.414E-02	Pulse	0.50	3
Mn			1	33.037	ug/l	2.85	5,379.43	4.714E-02	Pulse	0.50	3
Fe			1	3447.663	ug/l	3.07	754,450.77	6.612E+00	Pulse	0.50	3
Co			1	0.090	ug/l	92.46	1,114.04	9.761E-03	Pulse	0.50	3
Ni			1	-15.732	ug/l	-1.48	899.35	7.879E-03	Pulse	0.50	3
Cu			1	18.517	ug/l	3.84	10,544.23	9.239E-02	Pulse	0.50	3
Zn			1	27.138	ug/l	5.88	1,999.77	1.173E-02	Pulse	1.00	3
Cd			1	0.113	ug/l	186.39	176.00	1.033E-03	Pulse	0.50	3
Al			1	298.086	ug/l	2.50	2,680.18	1.776E-02	Pulse	1.00	3
Se			1	4.012	ug/l	35.94	38.67	2.268E-04	Pulse	3.00	3
Sb			1	-0.202	ug/l	-79.90	943.69	5.531E-03	Pulse	1.00	3
Se			1	2.359	ug/l	245.68	18.78	1.105E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,024,895.00	1.39	90.0	Pulse	0.50	3
1	Sc		150,935.31	2.15	96.8	Pulse	0.30	3
1	Ge		114,148.65	1.74	96.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,203,590.06	1.87	93.4	Pulse	0.30	3
1	Tb		3,908,705.67	1.38	93.2	Pulse	0.50	3
1	Lu		2,958,155.58	1.53	91.7	Pulse	0.50	3
1	Ge		170,545.19	1.40	95.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		975.59	4.13	96.4	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 16:14
Sample Name	MP41959-S1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	222.429	ug/l	1.62	245,853.82	2.338E+00	Pulse	0.50	3
As			1	228.446	ug/l	2.23	33,502.88	3.187E-01	Pulse	1.00	3
Mo			1	230.267	ug/l	1.31	168,846.89	1.075E+00	Pulse	0.50	3
Pb			1	224.779	ug/l	1.38	1,082,170.29	3.806E-01	Pulse	1.00	3
Be			1	232.023	ug/l	1.66	1,489.73	1.082E-02	Pulse	2.00	3
Ag			1	106.528	ug/l	1.05	261,544.60	1.665E+00	Pulse	0.50	3
Ba			1	241.549	ug/l	1.77	93,799.10	8.423E-02	Pulse	0.50	3
Tl			1	219.464	ug/l	1.53	1,486,254.62	5.227E-01	Pulse	0.50	3
Sn			1	235.113	ug/l	1.11	203,371.91	1.826E-01	Pulse	0.30	3
Sr			1	391.718	ug/l	1.12	350,478.73	3.147E-01	Pulse	0.50	3
[Pb]			1	216.155	ug/l	1.87	490,443.75	1.725E-01	Pulse	0.50	3
Ca			1	98614.628	ug/l	0.95	388,114.69	2.819E+00	Pulse	0.50	3
Ti			1	232.674	ug/l	2.00	6,016.94	4.370E-02	Pulse	0.50	3
Na			1	63063.328	ug/l	1.41	8,885,892.67	6.453E+01	Analog	1.00	3
Mg			1	27536.258	ug/l	1.13	2,032,632.79	1.476E+01	Pulse	1.00	3
K			1	24752.077	ug/l	1.28	1,768,281.00	1.284E+01	Pulse	1.00	3
V			1	226.686	ug/l	1.21	196,557.98	1.427E+00	Pulse	0.50	3
Mn			1	256.289	ug/l	1.40	172,624.71	1.642E+00	Pulse	0.50	3
Fe			1	26186.483	ug/l	1.21	25,539,361.33	2.429E+02	Analog	0.50	3
Co			1	223.376	ug/l	1.60	397,543.25	3.781E+00	Pulse	0.50	3
Ni			1	218.580	ug/l	1.54	104,578.85	9.947E-01	Pulse	0.50	3
Cu			1	223.721	ug/l	1.96	287,965.08	2.739E+00	Pulse	0.50	3
Zn			1	239.351	ug/l	1.90	57,378.60	3.653E-01	Pulse	1.00	3
Cd			1	221.131	ug/l	1.65	88,901.82	5.660E-01	Pulse	0.50	3
Al			1	20436.776	ug/l	1.18	625,733.62	4.544E+00	Pulse	1.00	3
Se			1	217.177	ug/l	2.03	2,652.74	1.689E-02	Pulse	3.00	3
Sb			1	224.867	ug/l	1.97	268,338.08	1.708E+00	Pulse	1.00	3
Se			1	215.989	ug/l	2.63	1,295.71	8.251E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,843,244.17	0.67	84.6	Pulse	0.50	3
1	Sc		137,711.18	1.70	88.3	Pulse	0.30	3
1	Ge		105,134.15	0.82	88.5	Pulse	0.30	3
1	In		1,113,488.67	0.71	86.5	Pulse	0.30	3
1	Tb		3,780,732.83	1.20	90.2	Pulse	0.50	3
1	Lu		2,880,824.58	1.38	89.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		157,070.09	0.94	88.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		912.25	14.81	90.1	Pulse	0.30	3

Quantitation Report

File Name 090SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:18
Sample Name MP41959-S2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.974	ug/l	0.46	238,445.51	2.250E+00	Pulse	0.50	3
As			1	220.601	ug/l	0.71	32,612.35	3.078E-01	Pulse	1.00	3
Mo			1	219.909	ug/l	0.33	163,054.21	1.027E+00	Pulse	0.50	3
Pb			1	215.113	ug/l	0.45	1,039,383.98	3.643E-01	Pulse	1.00	3
Be			1	214.498	ug/l	0.47	1,395.22	1.001E-02	Pulse	2.00	3
Ag			1	101.047	ug/l	0.50	250,846.10	1.580E+00	Pulse	0.50	3
Ba			1	229.381	ug/l	0.45	90,151.42	8.000E-02	Pulse	0.50	3
Tl			1	210.368	ug/l	0.47	1,429,555.92	5.011E-01	Pulse	0.50	3
Sn			1	223.628	ug/l	0.77	195,805.51	1.738E-01	Pulse	0.30	3
Sr			1	371.524	ug/l	0.58	336,401.11	2.985E-01	Pulse	0.50	3
[Pb]			1	207.140	ug/l	1.25	471,707.41	1.653E-01	Pulse	0.50	3
Ca			1	92797.230	ug/l	0.43	369,847.61	2.652E+00	Pulse	0.50	3
Ti			1	216.375	ug/l	2.80	5,668.17	4.065E-02	Pulse	0.50	3
Na			1	59084.478	ug/l	0.38	8,431,613.67	6.047E+01	Analog	1.00	3
Mg			1	25860.683	ug/l	0.68	1,933,325.37	1.386E+01	Pulse	1.00	3
K			1	23297.320	ug/l	0.48	1,686,602.25	1.210E+01	Pulse	1.00	3
V			1	218.017	ug/l	1.02	191,475.92	1.373E+00	Pulse	0.50	3
Mn			1	246.177	ug/l	0.96	167,142.69	1.577E+00	Pulse	0.50	3
Fe			1	24672.115	ug/l	0.67	24,254,866.00	2.289E+02	Analog	0.50	3
Co			1	215.359	ug/l	0.63	386,354.56	3.646E+00	Pulse	0.50	3
Ni			1	210.115	ug/l	0.14	101,422.96	9.570E-01	Pulse	0.50	3
Cu			1	215.359	ug/l	0.91	279,587.86	2.638E+00	Pulse	0.50	3
Zn			1	228.516	ug/l	0.38	55,413.12	3.489E-01	Pulse	1.00	3
Cd			1	209.647	ug/l	0.84	85,229.42	5.367E-01	Pulse	0.50	3
Al			1	19232.852	ug/l	0.87	596,350.60	4.277E+00	Pulse	1.00	3
Se			1	206.687	ug/l	0.81	2,553.51	1.608E-02	Pulse	3.00	3
Sb			1	215.095	ug/l	0.98	259,566.12	1.634E+00	Pulse	1.00	3
Se			1	206.471	ug/l	2.11	1,253.38	7.891E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,852,944.75	1.11	84.9	Pulse	0.50	3
1	Sc		139,440.91	0.56	89.4	Pulse	0.30	3
1	Ge		105,978.84	1.80	89.2	Pulse	0.30	3
1	In		1,126,864.68	1.65	87.5	Pulse	0.30	3
1	Tb		3,781,552.75	1.39	90.2	Pulse	0.50	3
1	Lu		2,886,503.58	1.55	89.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		158,813.08	0.94	89.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		912.25	11.03	90.1	Pulse	0.30	3

Quantitation Report

File Name 091SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:22
Sample Name MP41959-PS1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	12.586	ug/l	1.35	15,426.81	1.427E-01	Pulse	0.50	3
As			1	14.536	ug/l	1.32	2,277.81	2.107E-02	Pulse	1.00	3
Mo			1	13.214	ug/l	1.02	10,380.22	6.417E-02	Pulse	0.50	3
Pb			1	10.625	ug/l	1.08	57,940.89	1.986E-02	Pulse	1.00	3
Be			1	12.215	ug/l	14.78	86.67	6.131E-04	Pulse	2.00	3
Ag			1	2.713	ug/l	2.68	7,077.37	4.375E-02	Pulse	0.50	3
Ba			1	27.768	ug/l	0.79	11,462.99	9.912E-03	Pulse	0.50	3
Tl			1	10.643	ug/l	0.94	77,092.18	2.643E-02	Pulse	0.50	3
Sn			1	10.661	ug/l	2.00	10,735.41	9.285E-03	Pulse	0.30	3
Sr			1	162.973	ug/l	1.35	151,844.32	1.313E-01	Pulse	0.50	3
[Pb]			1	10.083	ug/l	2.06	26,023.74	8.921E-03	Pulse	0.50	3
Ca			1	76960.811	ug/l	0.32	311,310.99	2.200E+00	Pulse	0.50	3
Ti			1	11.839	ug/l	6.56	348.67	2.464E-03	Pulse	0.50	3
Na			1	41297.062	ug/l	0.41	5,984,124.83	4.229E+01	Analog	1.00	3
Mg			1	7792.083	ug/l	0.42	593,454.79	4.194E+00	Pulse	1.00	3
K			1	5005.790	ug/l	0.50	383,541.71	2.710E+00	Pulse	1.00	3
V			1	15.887	ug/l	1.99	15,276.00	1.080E-01	Pulse	0.50	3
Mn			1	45.034	ug/l	0.89	31,633.68	2.926E-01	Pulse	0.50	3
Fe			1	4695.702	ug/l	1.41	4,729,351.67	4.374E+01	Pulse	0.50	3
Co			1	11.006	ug/l	0.46	21,114.18	1.953E-01	Pulse	0.50	3
Ni			1	7.549	ug/l	4.61	5,998.28	5.548E-02	Pulse	0.50	3
Cu			1	14.647	ug/l	2.28	24,219.86	2.240E-01	Pulse	0.50	3
Zn			1	32.884	ug/l	3.77	8,610.93	5.323E-02	Pulse	1.00	3
Cd			1	10.840	ug/l	2.91	4,637.93	2.867E-02	Pulse	0.50	3
Al			1	1399.311	ug/l	1.11	44,627.92	3.153E-01	Pulse	1.00	3
Se			1	11.475	ug/l	6.20	169.67	1.049E-03	Pulse	3.00	3
Sb			1	10.157	ug/l	0.17	13,381.87	8.274E-02	Pulse	1.00	3
Se			1	12.244	ug/l	6.18	89.78	5.551E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,916,699.42	1.23	86.8	Pulse	0.50	3
1	Sc		141,513.50	1.31	90.7	Pulse	0.30	3
1	Ge		108,115.00	1.02	91.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,156,378.36	1.54	89.8	Pulse	0.30	3
1	Tb		3,841,234.42	1.32	91.6	Pulse	0.50	3
1	Lu		2,915,511.17	1.76	90.3	Pulse	0.50	3
1	Ge		161,738.60	1.17	91.0	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		904.47	9.82	89.4	Pulse	0.30	3

Quantitation Report

File Name 092SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:26
Sample Name FC3062-4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.816	ug/l	10.13	3,263.62	3.001E-02	Pulse	0.50	3
As			1	3.187	ug/l	6.87	574.34	5.281E-03	Pulse	1.00	3
Mo			1	2.311	ug/l	3.59	2,192.14	1.340E-02	Pulse	0.50	3
Pb			1	0.049	ug/l	37.83	5,963.72	2.049E-03	Pulse	1.00	3
Be			1	-0.182	ug/l	-174.77	5.33	3.748E-05	Pulse	2.00	3
Ag			1	-0.043	ug/l	-28.62	115.33	7.053E-04	Pulse	0.50	3
Ba			1	16.829	ug/l	0.32	7,073.40	6.109E-03	Pulse	0.50	3
Tl			1	0.011	ug/l	21.60	3,392.35	1.166E-03	Pulse	0.50	3
Sn			1	0.439	ug/l	6.14	1,610.08	1.390E-03	Pulse	0.30	3
Sr			1	158.345	ug/l	1.09	147,723.08	1.276E-01	Pulse	0.50	3
[Pb]			1	0.040	ug/l	43.46	2,766.24	9.506E-04	Pulse	0.50	3
Ca			1	78843.251	ug/l	0.61	321,129.01	2.254E+00	Pulse	0.50	3
Ti			1	0.124	ug/l	212.32	39.33	2.761E-04	Pulse	0.50	3
Na			1	41002.193	ug/l	0.16	5,982,692.67	4.199E+01	Analog	1.00	3
Mg			1	6877.880	ug/l	0.51	527,844.99	3.704E+00	Pulse	1.00	3
K			1	4291.224	ug/l	0.12	333,962.90	2.344E+00	Pulse	1.00	3
V			1	4.493	ug/l	1.75	5,220.72	3.664E-02	Pulse	0.50	3
Mn			1	35.273	ug/l	0.60	25,032.78	2.302E-01	Pulse	0.50	3
Fe			1	3577.781	ug/l	1.73	3,629,343.00	3.338E+01	Pulse	0.50	3
Co			1	0.263	ug/l	14.01	1,510.73	1.390E-02	Pulse	0.50	3
Ni			1	-3.202	ug/l	-1.36	830.02	7.634E-03	Pulse	0.50	3
Cu			1	3.411	ug/l	5.13	9,662.45	8.888E-02	Pulse	0.50	3
Zn			1	22.015	ug/l	1.60	6,018.28	3.680E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	-58111.83	159.33	9.744E-04	Pulse	0.50	3
Al			1	313.715	ug/l	0.30	10,573.47	7.420E-02	Pulse	1.00	3
Se			1	1.182	ug/l	31.93	41.89	2.561E-04	Pulse	3.00	3
Sb			1	0.077	ug/l	19.71	1,050.36	6.423E-03	Pulse	1.00	3
Se			1	0.569	ug/l	175.71	18.67	1.142E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,909,883.42	1.52	86.6	Pulse	0.50	3
1	Sc		142,491.44	0.80	91.4	Pulse	0.30	3
1	Ge		108,727.35	0.54	91.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,157,797.39	1.27	89.9	Pulse	0.30	3
1	Tb		3,825,098.33	1.42	91.2	Pulse	0.50	3
1	Lu		2,905,855.75	1.69	90.0	Pulse	0.50	3
1	Ge		163,530.34	0.56	92.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		908.91	10.41	89.8	Pulse	0.30	3

Quantitation Report

File Name 093SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:29
Sample Name FC3083-1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	17.237	ug/l	0.56	11,111.85	1.012E-01	Pulse	0.50	3
As			1	2.705	ug/l	9.31	299.67	2.728E-03	Pulse	1.00	3
Mo			1	10.600	ug/l	3.14	4,559.24	2.732E-02	Pulse	0.50	3
Pb			1	2.729	ug/l	1.68	12,625.32	4.265E-03	Pulse	1.00	3
Be			1	-0.114	ug/l	-208.10	6.33	4.331E-05	Pulse	2.00	3
Ag			1	-0.106	ug/l	-17.11	91.33	5.478E-04	Pulse	0.50	3
Ba			1	43.924	ug/l	1.21	9,263.74	7.894E-03	Pulse	0.50	3
Tl			1	0.026	ug/l	22.89	3,463.70	1.170E-03	Pulse	0.50	3
Sn			1	1.606	ug/l	26.77	1,962.34	1.672E-03	Pulse	0.30	3
Sr			1	88.703	ug/l	1.18	42,438.17	3.616E-02	Pulse	0.50	3
[Pb]			1	2.614	ug/l	1.64	5,790.33	1.956E-03	Pulse	0.50	3
Ca			1	12207.846	ug/l	1.23	25,632.04	1.752E-01	Pulse	0.50	3
Ti			1	26.183	ug/l	2.21	394.68	2.697E-03	Pulse	0.50	3
Na			1	118796.796	ug/l	1.01	8,893,853.33	6.079E+01	Analog	1.00	3
Mg			1	2111.866	ug/l	1.12	86,050.47	5.881E-01	Pulse	1.00	3
K			1	2766.885	ug/l	1.56	124,621.55	8.518E-01	Pulse	1.00	3
V			1	19.144	ug/l	1.20	10,012.60	6.843E-02	Pulse	0.50	3
Mn			1	149.520	ug/l	1.72	52,979.75	4.824E-01	Pulse	0.50	3
Fe			1	11353.181	ug/l	1.08	5,801,903.83	5.283E+01	Analog	0.50	3
Co			1	1.624	ug/l	5.49	2,544.84	2.317E-02	Pulse	0.50	3
Ni			1	-2.317	ug/l	-15.62	1,836.76	1.673E-02	Pulse	0.50	3
Cu			1	11.098	ug/l	0.52	12,584.80	1.146E-01	Pulse	0.50	3
Zn			1	81.496	ug/l	1.97	10,865.73	6.511E-02	Pulse	1.00	3
Cd			1	0.134	ug/l	63.34	191.33	1.146E-03	Pulse	0.50	3
Al			1	4513.306	ug/l	0.66	74,002.45	5.058E-01	Pulse	1.00	3
Se			1	2.734	ug/l	57.92	45.11	2.703E-04	Pulse	3.00	3
Sb			1	0.375	ug/l	51.42	1,210.38	7.255E-03	Pulse	1.00	3
Se			1	0.701	ug/l	88.55	17.67	1.059E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,959,944.25	0.39	88.1	Pulse	0.50	3
1	Sc		146,316.16	0.89	93.8	Pulse	0.30	3
1	Ge		109,822.36	0.56	92.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,173,535.82	0.37	91.1	Pulse	0.30	3
1	Tb		3,861,828.75	0.34	92.1	Pulse	0.50	3
1	Lu		2,931,624.92	0.52	90.8	Pulse	0.50	3
1	Ge		166,884.53	0.58	93.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		983.37	3.91	97.1	Pulse	0.30	3

Quantitation Report

File Name 094SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:33
Sample Name FC3333-2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.466	ug/l	18.70	1,440.73	1.344E-02	Pulse	0.50	3
As			1	1587.957	ug/l	1.55	118,529.47	1.105E+00	Pulse	1.00	3
Mo			1	1.495	ug/l	10.28	982.70	6.123E-03	Pulse	0.50	3
Pb			1	-0.639	ug/l	-3.40	4,202.19	1.428E-03	Pulse	1.00	3
Be			1	-0.457	ug/l	-88.87	5.00	3.534E-05	Pulse	2.00	3
Ag			1	-0.119	ug/l	-17.17	72.67	4.523E-04	Pulse	0.50	3
Ba			1	49.485	ug/l	2.71	10,127.53	8.861E-03	Pulse	0.50	3
Tl			1	-0.019	ug/l	-258.66	3,285.66	1.117E-03	Pulse	0.50	3
Sn			1	0.602	ug/l	38.02	1,467.85	1.284E-03	Pulse	0.30	3
Sr			1	392.377	ug/l	0.91	180,505.21	1.579E-01	Pulse	0.50	3
[Pb]			1	-0.655	ug/l	-8.72	1,938.12	6.587E-04	Pulse	0.50	3
Ca			1	48033.359	ug/l	0.80	97,244.14	6.870E-01	Pulse	0.50	3
Ti			1	-1.246	ug/l	-13.93	19.33	1.366E-04	Pulse	0.50	3
Na			1	13073.586	ug/l	0.54	956,948.52	6.761E+00	Pulse	1.00	3
Mg			1	6407.349	ug/l	0.71	245,960.38	1.738E+00	Pulse	1.00	3
K			1	8426.453	ug/l	0.65	326,078.46	2.304E+00	Pulse	1.00	3
V			1	0.765	ug/l	45.54	1,544.07	1.091E-02	Pulse	0.50	3
Mn			1	2194.023	ug/l	1.77	751,799.98	7.012E+00	Pulse	0.50	3
Fe			1	71590.496	ug/l	1.24	35,596,221.33	3.320E+02	Analog	0.50	3
Co			1	17.070	ug/l	3.89	16,463.01	1.536E-01	Pulse	0.50	3
Ni			1	-1.238	ug/l	-45.66	2,050.78	1.913E-02	Pulse	0.50	3
Cu			1	6.424	ug/l	3.89	9,274.25	8.648E-02	Pulse	0.50	3
Zn			1	5.252	ug/l	5.95	1,203.04	7.494E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-1357.64	155.33	9.679E-04	Pulse	0.50	3
Al			1	-21.087	ug/l	-8.64	308.00	2.176E-03	Pulse	1.00	3
Se			1	1.000	ug/l	48.11	32.66	2.035E-04	Pulse	3.00	3
Sb			1	-0.051	ug/l	-137.06	905.69	5.643E-03	Pulse	1.00	3
Se			1	0.371	ug/l	75.74	16.00	9.967E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,942,510.42	0.72	87.6	Pulse	0.50	3
1	Sc		141,544.63	0.22	90.8	Pulse	0.30	3
1	Ge		107,243.52	1.87	90.3	Pulse	0.30	3
1	In		1,142,899.47	0.54	88.7	Pulse	0.30	3
1	Tb		3,783,191.42	0.93	90.2	Pulse	0.50	3
1	Lu		2,883,683.00	0.78	89.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		160,523.03	0.41	90.3	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,012.25	13.30	100.0	Pulse	0.30	3

Quantitation Report

File Name 095CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:37
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.233	ug/l	1.35	277,009.39	2.482E+00	Pulse	0.50	3
As			1	46.868	ug/l	0.86	36,478.94	3.269E-01	Pulse	1.00	3
Mo			1	47.276	ug/l	1.48	184,135.31	1.103E+00	Pulse	0.50	3
Pb			1	47.005	ug/l	0.67	1,186,219.67	3.978E-01	Pulse	1.00	3
Be			1	47.837	ug/l	2.66	1,629.57	1.115E-02	Pulse	2.00	3
Ag			1	48.832	ug/l	1.23	636,597.38	3.815E+00	Pulse	0.50	3
Ba			1	47.461	ug/l	2.11	97,791.53	8.276E-02	Pulse	0.50	3
Tl			1	48.067	ug/l	0.13	1,706,310.08	5.723E-01	Pulse	0.50	3
Sn			1	47.392	ug/l	0.64	217,492.87	1.841E-01	Pulse	0.30	3
Sr			1	47.578	ug/l	0.57	226,131.07	1.914E-01	Pulse	0.50	3
[Pb]			1	47.330	ug/l	0.85	562,765.29	1.887E-01	Pulse	0.50	3
Ca			1	4780.358	ug/l	1.82	99,907.21	6.837E-01	Pulse	0.50	3
Ti			1	48.042	ug/l	2.77	6,590.46	4.510E-02	Pulse	0.50	3
Na			1	4740.551	ug/l	0.77	3,551,509.50	2.431E+01	Pulse	1.00	3
Mg			1	4678.685	ug/l	1.36	1,832,927.17	1.254E+01	Pulse	1.00	3
K			1	4775.067	ug/l	0.78	1,810,748.54	1.239E+01	Pulse	1.00	3
V			1	47.342	ug/l	1.50	217,736.62	1.490E+00	Pulse	0.50	3
Mn			1	47.344	ug/l	0.87	169,287.02	1.517E+00	Pulse	0.50	3
Fe			1	5007.126	ug/l	1.11	25,919,237.33	2.322E+02	Analog	0.50	3
Co			1	47.327	ug/l	0.97	446,966.69	4.005E+00	Pulse	0.50	3
Ni			1	46.733	ug/l	0.37	118,500.71	1.062E+00	Pulse	0.50	3
Cu			1	47.910	ug/l	1.02	326,911.11	2.929E+00	Pulse	0.50	3
Zn			1	47.473	ug/l	1.37	60,457.53	3.623E-01	Pulse	1.00	3
Cd			1	47.585	ug/l	1.46	101,614.08	6.089E-01	Pulse	0.50	3
Al			1	4550.251	ug/l	1.69	739,103.35	5.058E+00	Pulse	1.00	3
Se			1	47.690	ug/l	1.72	3,091.47	1.852E-02	Pulse	3.00	3
Sb			1	46.885	ug/l	1.66	297,151.58	1.781E+00	Pulse	1.00	3
Se			1	47.762	ug/l	3.40	1,520.73	9.112E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,981,504.00	1.02	88.7	Pulse	0.50	3
1	Sc		146,121.27	0.24	93.7	Pulse	0.30	3
1	Ge		111,600.30	0.27	93.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,181,607.11	0.45	91.7	Pulse	0.30	3
1	Tb		3,914,151.50	0.12	93.3	Pulse	0.50	3
1	Lu		2,971,434.50	0.77	92.1	Pulse	0.50	3
1	Ge		166,878.16	0.23	93.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		945.58	2.40	93.4	Pulse	0.30	3

Quantitation Report

File Name	096_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 16:41
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.003	ug/l	0.65	572,036.15	5.138E+00	Pulse	0.50	3
As			1	98.084	ug/l	0.39	76,049.86	6.831E-01	Pulse	1.00	3
Mo			1	97.781	ug/l	0.47	384,285.72	2.279E+00	Pulse	0.50	3
Pb			1	97.465	ug/l	0.97	2,414,626.25	8.228E-01	Pulse	1.00	3
Be			1	98.546	ug/l	0.98	3,367.62	2.293E-02	Pulse	2.00	3
Ag			1	98.538	ug/l	0.89	1,297,526.87	7.696E+00	Pulse	0.50	3
Ba			1	98.355	ug/l	0.62	201,823.51	1.712E-01	Pulse	0.50	3
Tl			1	99.676	ug/l	0.32	3,478,960.83	1.186E+00	Pulse	0.50	3
Sn			1	97.756	ug/l	0.40	446,224.19	3.785E-01	Pulse	0.30	3
Sr			1	99.451	ug/l	0.45	470,770.18	3.994E-01	Pulse	0.50	3
[Pb]			1	97.960	ug/l	0.44	1,143,487.04	3.897E-01	Pulse	0.50	3
Ca			1	9906.833	ug/l	1.34	208,024.61	1.416E+00	Pulse	0.50	3
Ti			1	99.019	ug/l	0.62	13,616.76	9.270E-02	Pulse	0.50	3
Na			1	10247.341	ug/l	0.64	7,704,284.17	5.245E+01	Analog	1.00	3
Mg			1	9738.763	ug/l	1.09	3,831,894.75	2.609E+01	Pulse	1.00	3
K			1	9879.237	ug/l	1.08	3,743,879.25	2.549E+01	Pulse	1.00	3
V			1	98.088	ug/l	1.15	452,190.55	3.078E+00	Pulse	0.50	3
Mn			1	99.297	ug/l	0.53	353,586.21	3.176E+00	Pulse	0.50	3
Fe			1	10446.301	ug/l	0.11	53,914,941.33	4.843E+02	Analog	0.50	3
Co			1	98.956	ug/l	0.29	931,109.29	8.364E+00	Pulse	0.50	3
Ni			1	97.977	ug/l	0.84	245,156.71	2.202E+00	Pulse	0.50	3
Cu			1	98.416	ug/l	0.64	664,282.83	5.967E+00	Pulse	0.50	3
Zn			1	96.409	ug/l	0.63	123,431.15	7.321E-01	Pulse	1.00	3
Cd			1	96.440	ug/l	0.61	207,893.17	1.233E+00	Pulse	0.50	3
Al			1	9626.036	ug/l	1.55	1,571,119.50	1.070E+01	Pulse	1.00	3
Se			1	97.598	ug/l	0.38	6,362.62	3.774E-02	Pulse	3.00	3
Sb			1	95.912	ug/l	0.64	613,114.77	3.637E+00	Pulse	1.00	3
Se			1	96.967	ug/l	2.92	3,102.70	1.841E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,934,480.75	0.49	87.3	Pulse	0.50	3
1	Sc		146,899.14	0.43	94.2	Pulse	0.30	3
1	Ge		111,325.57	0.77	93.7	Pulse	0.30	3
1	In		1,178,748.70	0.79	91.5	Pulse	0.30	3
1	Tb		3,922,672.58	0.63	93.5	Pulse	0.50	3
1	Lu		2,999,147.33	0.77	92.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		168,597.20	0.93	94.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		952.25	5.96	94.1	Pulse	0.30	3

Quantitation Report

File Name	097_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 16:44
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.014	ug/l	-104.87	1,141.37	1.028E-02	Pulse	0.50	3
As			1	0.007	ug/l	190.19	99.67	8.972E-04	Pulse	1.00	3
Mo			1	0.141	ug/l	7.48	994.70	5.918E-03	Pulse	0.50	3
Pb			1	-0.022	ug/l	-56.61	5,307.50	1.781E-03	Pulse	1.00	3
Be			1	0.020	ug/l	372.67	7.50	5.051E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	426.66	255.33	1.524E-03	Pulse	0.50	3
Ba			1	0.027	ug/l	45.53	361.34	3.054E-04	Pulse	0.50	3
Tl			1	0.025	ug/l	53.07	4,293.89	1.442E-03	Pulse	0.50	3
Sn			1	0.139	ug/l	15.98	1,877.89	1.587E-03	Pulse	0.30	3
Sr			1	0.020	ug/l	44.85	794.02	6.715E-04	Pulse	0.50	3
[Pb]			1	-0.022	ug/l	-74.96	2,472.19	8.298E-04	Pulse	0.50	3
Ca			1	0.081	ug/l	285.13	118.00	7.942E-04	Pulse	0.50	3
Ti			1	-0.170	ug/l	-14.74	14.00	9.425E-05	Pulse	0.50	3
Na			1	4.573	ug/l	19.83	15,321.85	1.031E-01	Pulse	1.00	3
Mg			1	-2.229	ug/l	-33.45	2,524.83	1.700E-02	Pulse	1.00	3
K			1	5.120	ug/l	14.29	23,041.41	1.551E-01	Pulse	1.00	3
V			1	-0.029	ug/l	-24.61	1,130.04	7.607E-03	Pulse	0.50	3
Mn			1	-0.007	ug/l	-486.81	523.34	4.717E-03	Pulse	0.50	3
Fe			1	-0.554	ug/l	-160.23	21,673.13	1.954E-01	Pulse	0.50	3
Co			1	0.011	ug/l	86.14	1,154.71	1.040E-02	Pulse	0.50	3
Ni			1	-0.668	ug/l	-2.58	780.02	7.020E-03	Pulse	0.50	3
Cu			1	-0.158	ug/l	-12.52	4,259.82	3.835E-02	Pulse	0.50	3
Zn			1	-0.013	ug/l	-83.02	576.34	3.430E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	39.43	190.00	1.131E-03	Pulse	0.50	3
Al			1	-0.700	ug/l	-134.33	555.68	3.740E-03	Pulse	1.00	3
Se			1	0.214	ug/l	29.76	41.56	2.473E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	27.71	1,161.71	6.913E-03	Pulse	1.00	3
Se			1	0.042	ug/l	207.26	16.89	1.005E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,802.92	0.97	88.7	Pulse	0.50	3
1	Sc		148,569.69	0.35	95.3	Pulse	0.30	3

Quantitation Report

1	Ge		111,074.10	1.03	93.5	Pulse	0.30	3
1	In		1,182,972.49	1.29	91.8	Pulse	0.30	3
1	Tb		3,848,507.50	0.99	91.8	Pulse	0.50	3
1	Lu		2,920,314.75	1.10	90.5	Pulse	0.50	3
1	Ge		168,054.57	1.30	94.5	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,010.03	5.19	99.8	Pulse	0.30	3

Quantitation Report

File Name 098SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:48
Sample Name FC3333-3
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.165	ug/l	112.47	1,271.38	1.144E-02	Pulse	0.50	3
As			1	2863.726	ug/l	1.33	110,841.28	9.969E-01	Pulse	1.00	3
Mo			1	2.643	ug/l	22.75	960.03	5.719E-03	Pulse	0.50	3
Pb			1	-1.202	ug/l	-5.70	4,394.23	1.461E-03	Pulse	1.00	3
Be			1	-1.813	ug/l	-49.86	3.67	2.491E-05	Pulse	2.00	3
Ag			1	-0.174	ug/l	-2.42	117.33	6.992E-04	Pulse	0.50	3
Ba			1	11.493	ug/l	6.93	1,502.74	1.258E-03	Pulse	0.50	3
Tl			1	0.031	ug/l	296.68	3,483.70	1.158E-03	Pulse	0.50	3
Sn			1	1.046	ug/l	25.63	1,497.85	1.254E-03	Pulse	0.30	3
Sr			1	161.607	ug/l	1.94	39,429.68	3.299E-02	Pulse	0.50	3
[Pb]			1	-1.435	ug/l	-2.76	1,908.12	6.342E-04	Pulse	0.50	3
Ca			1	22951.716	ug/l	0.48	24,287.67	1.647E-01	Pulse	0.50	3
Ti			1	-2.803	ug/l	-57.54	18.00	1.221E-04	Pulse	0.50	3
Na			1	5303.227	ug/l	0.29	211,536.11	1.435E+00	Pulse	1.00	3
Mg			1	2538.142	ug/l	0.98	53,459.57	3.626E-01	Pulse	1.00	3
K			1	3275.215	ug/l	0.89	82,866.82	5.621E-01	Pulse	1.00	3
V			1	-0.336	ug/l	-86.15	1,178.04	7.991E-03	Pulse	0.50	3
Mn			1	2351.226	ug/l	0.86	418,006.12	3.759E+00	Pulse	0.50	3
Fe			1	39169.524	ug/l	0.86	10,115,656.00	9.098E+01	Analog	0.50	3
Co			1	12.605	ug/l	3.47	6,967.94	6.266E-02	Pulse	0.50	3
Ni			1	-8.178	ug/l	-4.05	1,421.39	1.278E-02	Pulse	0.50	3
Cu			1	12.726	ug/l	3.84	9,574.40	8.611E-02	Pulse	0.50	3
Zn			1	6.716	ug/l	10.05	1,017.36	6.063E-03	Pulse	1.00	3
Cd			1	-0.021	ug/l	-899.26	161.33	9.614E-04	Pulse	0.50	3
Al			1	-57.829	ug/l	-2.39	192.67	1.307E-03	Pulse	1.00	3
Se			1	4.460	ug/l	19.55	42.11	2.509E-04	Pulse	3.00	3
Sb			1	-0.009	ug/l	-1746.17	977.03	5.821E-03	Pulse	1.00	3
Se			1	0.708	ug/l	277.88	16.67	9.936E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,008,796.67	0.91	89.5	Pulse	0.50	3
1	Sc		147,431.88	0.63	94.5	Pulse	0.30	3
1	Ge		111,189.08	0.54	93.6	Pulse	0.30	3
1	In		1,194,941.69	0.78	92.8	Pulse	0.30	3
1	Tb		3,868,523.67	0.71	92.3	Pulse	0.50	3
1	Lu		2,939,046.92	0.82	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,814.63	0.61	94.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,015.59	3.80	100.3	Pulse	0.30	3

Quantitation Report

File Name	099SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 16:52
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.054	ug/l	17.68	1,560.73	1.385E-02	Pulse	0.50	3
As			1	0.062	ug/l	34.06	143.67	1.277E-03	Pulse	1.00	3
Mo			1	0.039	ug/l	32.77	597.34	3.544E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-8.94	4,258.54	1.418E-03	Pulse	1.00	3
Be			1	-0.026	ug/l	-282.63	6.00	3.988E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-7.69	90.67	5.387E-04	Pulse	0.50	3
Ba			1	0.016	ug/l	59.95	344.67	2.875E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	824.92	3,428.36	1.142E-03	Pulse	0.50	3
Sn			1	0.089	ug/l	12.09	1,673.42	1.397E-03	Pulse	0.30	3
Sr			1	0.004	ug/l	242.32	728.02	6.073E-04	Pulse	0.50	3
[Pb]			1	-0.063	ug/l	-7.09	2,012.79	6.706E-04	Pulse	0.50	3
Ca			1	-2.396	ug/l	-24.84	66.00	4.403E-04	Pulse	0.50	3
Ti			1	-0.199	ug/l	-25.78	10.00	6.681E-05	Pulse	0.50	3
Na			1	0.922	ug/l	27.75	12,669.33	8.447E-02	Pulse	1.00	3
Mg			1	-2.422	ug/l	-8.24	2,472.82	1.648E-02	Pulse	1.00	3
K			1	5.088	ug/l	18.04	23,249.96	1.550E-01	Pulse	1.00	3
V			1	0.055	ug/l	31.13	1,535.40	1.024E-02	Pulse	0.50	3
Mn			1	-0.013	ug/l	-90.28	510.01	4.523E-03	Pulse	0.50	3
Fe			1	-1.310	ug/l	-2.94	18,085.11	1.604E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-38.33	1,033.36	9.165E-03	Pulse	0.50	3
Ni			1	-0.704	ug/l	-0.89	701.35	6.220E-03	Pulse	0.50	3
Cu			1	-0.059	ug/l	-49.98	4,988.00	4.427E-02	Pulse	0.50	3
Zn			1	-0.085	ug/l	-3.93	485.34	2.882E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-906.26	161.33	9.589E-04	Pulse	0.50	3
Al			1	-2.379	ug/l	-6.51	281.67	1.876E-03	Pulse	1.00	3
Se			1	0.154	ug/l	22.23	37.78	2.244E-04	Pulse	3.00	3
Sb			1	-0.006	ug/l	-81.91	945.36	5.610E-03	Pulse	1.00	3
Se			1	0.156	ug/l	45.52	20.56	1.222E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,001,603.67	1.82	89.3	Pulse	0.50	3
1	Sc		150,013.48	1.61	96.2	Pulse	0.30	3

Quantitation Report

1	Ge		112,741.61	2.55	94.9	Pulse	0.30	3
1	In		1,197,828.08	1.99	93.0	Pulse	0.30	3
1	Tb		3,884,006.58	1.83	92.6	Pulse	0.50	3
1	Lu		2,949,711.92	1.71	91.4	Pulse	0.50	3
1	Ge		168,440.41	2.28	94.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,005.59	3.08	99.3	Pulse	0.30	3

Quantitation Report

File Name 100SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 16:56
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.051	ug/l	19.68	1,557.40	1.367E-02	Pulse	0.50	3
As			1	0.010	ug/l	289.69	104.33	9.163E-04	Pulse	1.00	3
Mo			1	0.008	ug/l	87.83	484.01	2.836E-03	Pulse	0.50	3
Pb			1	-0.062	ug/l	-2.14	4,356.57	1.442E-03	Pulse	1.00	3
Be			1	-0.031	ug/l	-238.42	5.83	3.874E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-8.28	94.00	5.505E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-149.69	294.67	2.435E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-199.57	3,424.36	1.134E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	30.34	1,530.07	1.265E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	142.71	770.02	6.366E-04	Pulse	0.50	3
[Pb]			1	-0.065	ug/l	-6.32	1,994.79	6.604E-04	Pulse	0.50	3
Ca			1	-1.832	ug/l	-41.71	78.67	5.209E-04	Pulse	0.50	3
Ti			1	-0.167	ug/l	-34.59	14.67	9.727E-05	Pulse	0.50	3
Na			1	0.518	ug/l	27.38	12,435.52	8.241E-02	Pulse	1.00	3
Mg			1	-2.176	ug/l	-10.33	2,585.50	1.714E-02	Pulse	1.00	3
K			1	6.044	ug/l	6.80	23,759.91	1.575E-01	Pulse	1.00	3
V			1	0.051	ug/l	12.95	1,527.40	1.012E-02	Pulse	0.50	3
Mn			1	-0.023	ug/l	-37.25	480.01	4.214E-03	Pulse	0.50	3
Fe			1	-1.949	ug/l	-4.81	14,891.73	1.307E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-26.23	1,018.03	8.939E-03	Pulse	0.50	3
Ni			1	-0.723	ug/l	-2.21	660.01	5.795E-03	Pulse	0.50	3
Cu			1	-0.072	ug/l	-29.92	4,957.99	4.354E-02	Pulse	0.50	3
Zn			1	-0.060	ug/l	-19.21	524.01	3.070E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	-3671.44	165.33	9.693E-04	Pulse	0.50	3
Al			1	-2.574	ug/l	-5.25	250.33	1.660E-03	Pulse	1.00	3
Se			1	0.129	ug/l	28.37	36.67	2.148E-04	Pulse	3.00	3
Sb			1	-0.014	ug/l	-67.67	909.02	5.325E-03	Pulse	1.00	3
Se			1	0.075	ug/l	129.28	18.22	1.068E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,020,334.67	1.38	89.9	Pulse	0.50	3
1	Sc		150,901.57	0.86	96.8	Pulse	0.30	3

Quantitation Report

1	Ge		113,890.29	0.59	95.8	Pulse	0.30	3
1	In		1,209,557.76	0.64	93.9	Pulse	0.30	3
1	Tb		3,917,870.33	1.00	93.4	Pulse	0.50	3
1	Lu		2,963,717.08	1.36	91.8	Pulse	0.50	3
1	Ge		170,694.26	0.70	96.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,037.81	3.04	102.5	Pulse	0.30	3

Quantitation Report

File Name 101SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 17:00
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.069	ug/l	8.19	1,628.08	1.463E-02	Pulse	0.50	3
As			1	0.012	ug/l	80.03	103.67	9.310E-04	Pulse	1.00	3
Mo			1	0.003	ug/l	58.28	452.68	2.705E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-2.47	4,219.53	1.414E-03	Pulse	1.00	3
Be			1	-0.077	ug/l	-143.09	4.17	2.802E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-17.74	105.33	6.298E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-391.92	304.00	2.548E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-42.93	3,281.00	1.100E-03	Pulse	0.50	3
Sn			1	0.079	ug/l	25.95	1,618.98	1.357E-03	Pulse	0.30	3
Sr			1	0.013	ug/l	137.31	771.02	6.460E-04	Pulse	0.50	3
[Pb]			1	-0.061	ug/l	-8.23	2,019.46	6.769E-04	Pulse	0.50	3
Ca			1	-1.315	ug/l	-87.45	88.67	5.948E-04	Pulse	0.50	3
Ti			1	-0.142	ug/l	-37.20	18.00	1.208E-04	Pulse	0.50	3
Na			1	0.438	ug/l	101.60	12,235.74	8.200E-02	Pulse	1.00	3
Mg			1	-2.189	ug/l	-3.52	2,552.50	1.710E-02	Pulse	1.00	3
K			1	5.742	ug/l	11.57	23,383.12	1.567E-01	Pulse	1.00	3
V			1	0.059	ug/l	19.95	1,545.40	1.036E-02	Pulse	0.50	3
Mn			1	-0.023	ug/l	-38.80	468.01	4.206E-03	Pulse	0.50	3
Fe			1	-1.903	ug/l	-7.53	14,779.66	1.329E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-116.03	964.03	8.657E-03	Pulse	0.50	3
Ni			1	-0.715	ug/l	-2.03	664.01	5.968E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-3.53	4,863.96	4.371E-02	Pulse	0.50	3
Zn			1	-0.069	ug/l	-67.79	502.01	3.003E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	763.29	164.67	9.837E-04	Pulse	0.50	3
Al			1	-2.487	ug/l	-3.02	262.00	1.756E-03	Pulse	1.00	3
Se			1	0.213	ug/l	7.07	41.34	2.471E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-32.28	865.35	5.173E-03	Pulse	1.00	3
Se			1	0.131	ug/l	102.84	19.67	1.174E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,983,941.42	1.11	88.8	Pulse	0.50	3
1	Sc		149,248.99	1.09	95.7	Pulse	0.30	3

Quantitation Report

1	Ge		111,281.94	1.26	93.6	Pulse	0.30	3
1	In		1,193,405.30	0.68	92.7	Pulse	0.30	3
1	Tb		3,866,344.75	0.65	92.2	Pulse	0.50	3
1	Lu		2,931,527.58	1.32	90.8	Pulse	0.50	3
1	Ge		167,309.04	1.15	94.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		976.70	1.18	96.5	Pulse	0.30	3

Quantitation Report

File Name	102SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:03
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.050	ug/l	30.10	1,517.40	1.362E-02	Pulse	0.50	3
As			1	0.017	ug/l	86.70	107.67	9.658E-04	Pulse	1.00	3
Mo			1	0.012	ug/l	95.22	490.01	2.928E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-5.15	4,151.18	1.389E-03	Pulse	1.00	3
Be			1	-0.096	ug/l	-52.38	3.50	2.376E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-11.56	75.33	4.498E-04	Pulse	0.50	3
Ba			1	-0.022	ug/l	-85.89	262.67	2.204E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-25.35	3,176.31	1.063E-03	Pulse	0.50	3
Sn			1	0.056	ug/l	7.10	1,513.41	1.270E-03	Pulse	0.30	3
Sr			1	0.013	ug/l	25.43	767.35	6.437E-04	Pulse	0.50	3
[Pb]			1	-0.069	ug/l	-4.57	1,924.78	6.442E-04	Pulse	0.50	3
Ca			1	-2.808	ug/l	-9.12	56.00	3.815E-04	Pulse	0.50	3
Ti			1	-0.130	ug/l	-56.82	19.33	1.313E-04	Pulse	0.50	3
Na			1	0.316	ug/l	151.69	11,944.24	8.137E-02	Pulse	1.00	3
Mg			1	-2.115	ug/l	-9.21	2,540.17	1.730E-02	Pulse	1.00	3
K			1	6.808	ug/l	18.78	23,402.16	1.594E-01	Pulse	1.00	3
V			1	0.073	ug/l	33.88	1,586.74	1.081E-02	Pulse	0.50	3
Mn			1	-0.036	ug/l	-32.41	422.67	3.792E-03	Pulse	0.50	3
Fe			1	-2.293	ug/l	-1.13	12,795.58	1.148E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-56.14	966.69	8.675E-03	Pulse	0.50	3
Ni			1	-0.732	ug/l	-1.25	624.01	5.598E-03	Pulse	0.50	3
Cu			1	-0.078	ug/l	-19.49	4,812.61	4.318E-02	Pulse	0.50	3
Zn			1	-0.057	ug/l	-18.97	517.68	3.092E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-1802.46	162.00	9.682E-04	Pulse	0.50	3
Al			1	-2.628	ug/l	-5.45	234.67	1.599E-03	Pulse	1.00	3
Se			1	0.130	ug/l	49.78	36.00	2.150E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-12.22	852.02	5.090E-03	Pulse	1.00	3
Se			1	0.142	ug/l	98.97	20.00	1.196E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,987,612.83	1.39	88.9	Pulse	0.50	3
1	Sc		146,817.46	1.04	94.1	Pulse	0.30	3

Quantitation Report

1	Ge		111,459.59	0.91	93.8	Pulse	0.30	3
1	In		1,192,115.72	0.65	92.6	Pulse	0.30	3
1	Tb		3,866,023.08	1.29	92.2	Pulse	0.50	3
1	Lu		2,922,085.25	1.48	90.5	Pulse	0.50	3
1	Ge		167,412.28	0.74	94.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		937.81	6.28	92.6	Pulse	0.30	3

Quantitation Report

File Name	103SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:07
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.060	ug/l	15.93	1,568.07	1.416E-02	Pulse	0.50	3
As			1	-0.003	ug/l	-211.21	91.67	8.274E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	189.79	466.68	2.801E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-8.62	4,108.84	1.376E-03	Pulse	1.00	3
Be			1	-0.120	ug/l	-35.32	2.67	1.808E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-2.51	80.00	4.803E-04	Pulse	0.50	3
Ba			1	-0.024	ug/l	-33.03	258.67	2.180E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-89.34	3,222.31	1.079E-03	Pulse	0.50	3
Sn			1	0.050	ug/l	14.28	1,477.85	1.245E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	149.44	754.68	6.353E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-5.49	1,880.77	6.301E-04	Pulse	0.50	3
Ca			1	-2.354	ug/l	-7.13	66.00	4.463E-04	Pulse	0.50	3
Ti			1	-0.150	ug/l	-24.52	16.67	1.128E-04	Pulse	0.50	3
Na			1	-0.068	ug/l	-228.63	11,742.11	7.941E-02	Pulse	1.00	3
Mg			1	-2.038	ug/l	-10.60	2,588.84	1.751E-02	Pulse	1.00	3
K			1	5.988	ug/l	18.88	23,260.97	1.573E-01	Pulse	1.00	3
V			1	0.069	ug/l	21.30	1,576.74	1.066E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-18.46	417.34	3.766E-03	Pulse	0.50	3
Fe			1	-2.280	ug/l	-1.79	12,786.90	1.154E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-110.90	1,015.36	9.165E-03	Pulse	0.50	3
Ni			1	-0.734	ug/l	-0.85	615.34	5.556E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-7.86	4,841.96	4.371E-02	Pulse	0.50	3
Zn			1	-0.082	ug/l	-17.09	483.34	2.902E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-191.90	152.67	9.165E-04	Pulse	0.50	3
Al			1	-2.710	ug/l	-3.20	223.00	1.508E-03	Pulse	1.00	3
Se			1	0.152	ug/l	57.98	37.22	2.236E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-51.87	836.35	5.023E-03	Pulse	1.00	3
Se			1	0.054	ug/l	155.46	17.11	1.028E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,985,044.83	1.71	88.8	Pulse	0.50	3
1	Sc		147,876.37	0.75	94.8	Pulse	0.30	3

Quantitation Report

1	Ge		110,776.62	1.12	93.2	Pulse	0.30	3
1	In		1,186,833.81	1.61	92.1	Pulse	0.30	3
1	Tb		3,859,507.75	1.76	92.0	Pulse	0.50	3
1	Lu		2,923,291.75	1.33	90.6	Pulse	0.50	3
1	Ge		166,560.41	0.71	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,067.81	6.42	105.5	Pulse	0.30	3

Quantitation Report

File Name	104SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:11
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.043	ug/l	29.83	1,479.40	1.327E-02	Pulse	0.50	3
As			1	0.003	ug/l	638.57	97.00	8.702E-04	Pulse	1.00	3
Mo			1	0.011	ug/l	185.02	484.68	2.898E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-2.90	4,200.86	1.411E-03	Pulse	1.00	3
Be			1	-0.063	ug/l	-36.30	4.67	3.135E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-4.32	76.67	4.587E-04	Pulse	0.50	3
Ba			1	-0.001	ug/l	-701.66	304.67	2.575E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-79.48	3,185.64	1.070E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	62.05	1,446.74	1.222E-03	Pulse	0.30	3
Sr			1	0.003	ug/l	137.11	716.69	6.059E-04	Pulse	0.50	3
[Pb]			1	-0.069	ug/l	-20.35	1,916.12	6.439E-04	Pulse	0.50	3
Ca			1	-2.688	ug/l	-12.99	59.33	3.987E-04	Pulse	0.50	3
Ti			1	-0.199	ug/l	-7.37	10.00	6.718E-05	Pulse	0.50	3
Na			1	-0.167	ug/l	-155.13	11,749.78	7.891E-02	Pulse	1.00	3
Mg			1	-2.193	ug/l	-6.94	2,545.17	1.709E-02	Pulse	1.00	3
K			1	4.768	ug/l	16.68	22,959.64	1.542E-01	Pulse	1.00	3
V			1	0.064	ug/l	31.46	1,564.07	1.050E-02	Pulse	0.50	3
Mn			1	-0.030	ug/l	-42.03	443.34	3.977E-03	Pulse	0.50	3
Fe			1	-2.348	ug/l	-1.27	12,516.72	1.123E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-153.37	1,019.36	9.145E-03	Pulse	0.50	3
Ni			1	-0.723	ug/l	-1.59	645.34	5.789E-03	Pulse	0.50	3
Cu			1	-0.078	ug/l	-18.52	4,813.28	4.318E-02	Pulse	0.50	3
Zn			1	-0.070	ug/l	-31.18	501.01	2.996E-03	Pulse	1.00	3
Cd			1	-0.012	ug/l	-52.93	136.67	8.175E-04	Pulse	0.50	3
Al			1	-2.725	ug/l	-5.89	222.00	1.492E-03	Pulse	1.00	3
Se			1	0.134	ug/l	87.41	36.22	2.166E-04	Pulse	3.00	3
Sb			1	-0.010	ug/l	-67.46	913.69	5.465E-03	Pulse	1.00	3
Se			1	0.079	ug/l	54.00	18.00	1.077E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,976,546.08	1.15	88.6	Pulse	0.50	3
1	Sc		148,922.57	0.96	95.5	Pulse	0.30	3

Quantitation Report

1	Ge		111,471.96	0.06	93.8	Pulse	0.30	3
1	In		1,183,064.71	1.29	91.9	Pulse	0.30	3
1	Tb		3,854,014.25	1.34	91.9	Pulse	0.50	3
1	Lu		2,926,268.00	1.10	90.7	Pulse	0.50	3
1	Ge		167,168.65	0.48	94.0	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		991.14	11.00	97.9	Pulse	0.30	3

Quantitation Report

File Name	105SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:15
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.059	ug/l	40.44	1,548.07	1.408E-02	Pulse	0.50	3
As			1	0.005	ug/l	232.13	97.33	8.844E-04	Pulse	1.00	3
Mo			1	0.002	ug/l	157.26	446.68	2.684E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-8.24	4,194.86	1.408E-03	Pulse	1.00	3
Be			1	-0.100	ug/l	-42.88	3.33	2.272E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-10.12	77.33	4.653E-04	Pulse	0.50	3
Ba			1	-0.008	ug/l	-19.19	288.00	2.449E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-98.27	3,266.33	1.096E-03	Pulse	0.50	3
Sn			1	0.063	ug/l	56.85	1,521.20	1.294E-03	Pulse	0.30	3
Sr			1	0.026	ug/l	31.92	819.35	6.966E-04	Pulse	0.50	3
[Pb]			1	-0.068	ug/l	-13.43	1,932.79	6.492E-04	Pulse	0.50	3
Ca			1	-2.969	ug/l	-16.45	52.67	3.585E-04	Pulse	0.50	3
Ti			1	-0.145	ug/l	-58.87	17.33	1.179E-04	Pulse	0.50	3
Na			1	-0.373	ug/l	-35.16	11,436.59	7.785E-02	Pulse	1.00	3
Mg			1	-1.730	ug/l	-14.92	2,693.19	1.833E-02	Pulse	1.00	3
K			1	5.311	ug/l	26.33	22,852.84	1.556E-01	Pulse	1.00	3
V			1	0.065	ug/l	36.75	1,548.07	1.054E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-58.09	430.01	3.915E-03	Pulse	0.50	3
Fe			1	-2.304	ug/l	-2.56	12,568.78	1.143E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-18.90	949.36	8.632E-03	Pulse	0.50	3
Ni			1	-0.729	ug/l	-4.21	622.01	5.663E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-47.71	4,830.62	4.394E-02	Pulse	0.50	3
Zn			1	-0.096	ug/l	-27.68	466.34	2.801E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-53.42	150.00	9.012E-04	Pulse	0.50	3
Al			1	-2.856	ug/l	-2.16	197.67	1.346E-03	Pulse	1.00	3
Se			1	0.114	ug/l	14.75	34.78	2.089E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-23.93	833.35	5.009E-03	Pulse	1.00	3
Se			1	0.116	ug/l	146.59	19.11	1.146E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,978,895.17	1.60	88.7	Pulse	0.50	3
1	Sc		146,904.09	0.62	94.2	Pulse	0.30	3

Quantitation Report

1	Ge		109,983.42	1.64	92.6	Pulse	0.30	3
1	In		1,176,133.04	0.87	91.3	Pulse	0.30	3
1	Tb		3,841,602.50	1.52	91.6	Pulse	0.50	3
1	Lu		2,906,315.17	1.22	90.1	Pulse	0.50	3
1	Ge		166,421.58	1.10	93.6	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		940.03	10.26	92.9	Pulse	0.30	3

Quantitation Report

File Name	106SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:19
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.051	ug/l	28.47	1,512.73	1.366E-02	Pulse	0.50	3
As			1	0.024	ug/l	17.05	112.33	1.015E-03	Pulse	1.00	3
Mo			1	0.010	ug/l	64.32	477.34	2.867E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-1.81	4,228.20	1.419E-03	Pulse	1.00	3
Be			1	-0.072	ug/l	-51.31	4.33	2.932E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-10.20	70.67	4.239E-04	Pulse	0.50	3
Ba			1	-0.020	ug/l	-105.14	264.00	2.235E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-71.02	3,204.31	1.075E-03	Pulse	0.50	3
Sn			1	0.048	ug/l	50.46	1,461.18	1.237E-03	Pulse	0.30	3
Sr			1	0.009	ug/l	84.47	742.02	6.287E-04	Pulse	0.50	3
[Pb]			1	-0.069	ug/l	-13.64	1,927.45	6.470E-04	Pulse	0.50	3
Ca			1	-2.735	ug/l	-42.02	58.00	3.919E-04	Pulse	0.50	3
Ti			1	-0.174	ug/l	-19.42	13.33	9.028E-05	Pulse	0.50	3
Na			1	-0.558	ug/l	-61.93	11,369.56	7.691E-02	Pulse	1.00	3
Mg			1	-1.776	ug/l	-0.85	2,691.85	1.821E-02	Pulse	1.00	3
K			1	5.402	ug/l	5.11	23,036.39	1.558E-01	Pulse	1.00	3
V			1	0.076	ug/l	13.29	1,608.74	1.088E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-15.64	416.01	3.756E-03	Pulse	0.50	3
Fe			1	-2.341	ug/l	-1.54	12,463.35	1.126E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-25.82	952.70	8.607E-03	Pulse	0.50	3
Ni			1	-0.741	ug/l	-2.19	596.01	5.388E-03	Pulse	0.50	3
Cu			1	-0.066	ug/l	-50.58	4,857.30	4.390E-02	Pulse	0.50	3
Zn			1	-0.051	ug/l	-102.22	523.34	3.142E-03	Pulse	1.00	3
Cd			1	-0.004	ug/l	-187.60	154.00	9.246E-04	Pulse	0.50	3
Al			1	-2.665	ug/l	-5.73	230.33	1.558E-03	Pulse	1.00	3
Se			1	0.091	ug/l	153.79	33.33	2.002E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-35.40	873.02	5.242E-03	Pulse	1.00	3
Se			1	0.128	ug/l	111.49	19.45	1.169E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,455.33	1.38	88.7	Pulse	0.50	3
1	Sc		147,849.59	0.75	94.8	Pulse	0.30	3

Quantitation Report

1	Ge		110,692.94	1.59	93.2	Pulse	0.30	3
1	In		1,180,509.05	1.39	91.7	Pulse	0.30	3
1	Tb		3,852,433.83	1.31	91.9	Pulse	0.50	3
1	Lu		2,926,518.00	1.35	90.7	Pulse	0.50	3
1	Ge		166,530.22	1.01	93.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,006.70	2.01	99.5	Pulse	0.30	3

Quantitation Report

File Name	107SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:22
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.052	ug/l	28.58	1,517.40	1.371E-02	Pulse	0.50	3
As			1	0.021	ug/l	86.15	110.33	9.960E-04	Pulse	1.00	3
Mo			1	-0.004	ug/l	-157.92	426.01	2.559E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-2.02	4,106.83	1.384E-03	Pulse	1.00	3
Be			1	-0.106	ug/l	-55.16	3.17	2.135E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-7.90	63.33	3.808E-04	Pulse	0.50	3
Ba			1	-0.020	ug/l	-88.25	264.00	2.235E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-27.47	3,206.32	1.081E-03	Pulse	0.50	3
Sn			1	0.036	ug/l	52.55	1,406.73	1.191E-03	Pulse	0.30	3
Sr			1	0.000	ug/l	4829.53	702.01	5.943E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-6.49	1,866.11	6.288E-04	Pulse	0.50	3
Ca			1	-3.463	ug/l	-13.05	42.67	2.879E-04	Pulse	0.50	3
Ti			1	-0.078	ug/l	-68.45	26.67	1.797E-04	Pulse	0.50	3
Na			1	-0.512	ug/l	-94.67	11,436.28	7.714E-02	Pulse	1.00	3
Mg			1	-1.631	ug/l	-12.17	2,757.20	1.860E-02	Pulse	1.00	3
K			1	5.216	ug/l	4.92	23,029.04	1.553E-01	Pulse	1.00	3
V			1	0.058	ug/l	21.16	1,534.07	1.035E-02	Pulse	0.50	3
Mn			1	-0.040	ug/l	-38.07	405.34	3.658E-03	Pulse	0.50	3
Fe			1	-2.368	ug/l	-1.42	12,322.60	1.113E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-49.35	968.70	8.754E-03	Pulse	0.50	3
Ni			1	-0.742	ug/l	-3.95	593.34	5.365E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-5.34	4,839.29	4.372E-02	Pulse	0.50	3
Zn			1	-0.081	ug/l	-22.23	485.01	2.915E-03	Pulse	1.00	3
Cd			1	-0.015	ug/l	-35.08	130.00	7.809E-04	Pulse	0.50	3
Al			1	-2.795	ug/l	-4.44	209.67	1.414E-03	Pulse	1.00	3
Se			1	0.199	ug/l	25.29	40.22	2.417E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-41.83	858.02	5.154E-03	Pulse	1.00	3
Se			1	0.042	ug/l	482.91	16.78	1.006E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,966,945.92	1.24	88.3	Pulse	0.50	3
1	Sc		148,259.03	0.67	95.1	Pulse	0.30	3

Quantitation Report

1	Ge		110,695.15	1.36	93.2	Pulse	0.30	3
1	In		1,181,040.72	1.36	91.7	Pulse	0.30	3
1	Tb		3,850,643.50	1.08	91.8	Pulse	0.50	3
1	Lu		2,915,808.67	1.56	90.3	Pulse	0.50	3
1	Ge		166,406.97	1.09	93.6	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		957.80	8.03	94.6	Pulse	0.30	3

Quantitation Report

File Name 108CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 17:26
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.170	ug/l	0.70	280,521.93	2.479E+00	Pulse	0.50	3
As			1	46.786	ug/l	1.74	36,926.14	3.263E-01	Pulse	1.00	3
Mo			1	47.133	ug/l	0.94	185,809.28	1.100E+00	Pulse	0.50	3
Pb			1	46.849	ug/l	0.48	1,184,450.50	3.965E-01	Pulse	1.00	3
Be			1	47.702	ug/l	1.96	1,668.57	1.112E-02	Pulse	2.00	3
Ag			1	48.252	ug/l	0.61	636,682.96	3.769E+00	Pulse	0.50	3
Ba			1	47.089	ug/l	0.93	97,714.92	8.211E-02	Pulse	0.50	3
Tl			1	47.792	ug/l	0.51	1,699,641.21	5.690E-01	Pulse	0.50	3
Sn			1	47.009	ug/l	0.70	217,289.36	1.826E-01	Pulse	0.30	3
Sr			1	47.852	ug/l	0.36	229,054.48	1.925E-01	Pulse	0.50	3
[Pb]			1	46.825	ug/l	0.60	557,811.75	1.867E-01	Pulse	0.50	3
Ca			1	4729.779	ug/l	1.25	101,499.43	6.765E-01	Pulse	0.50	3
Ti			1	46.512	ug/l	3.84	6,552.46	4.368E-02	Pulse	0.50	3
Na			1	4654.794	ug/l	0.36	3,580,893.25	2.387E+01	Pulse	1.00	3
Mg			1	4600.733	ug/l	0.83	1,850,725.37	1.234E+01	Pulse	1.00	3
K			1	4731.205	ug/l	0.50	1,842,367.13	1.228E+01	Pulse	1.00	3
V			1	46.476	ug/l	1.27	219,504.18	1.463E+00	Pulse	0.50	3
Mn			1	47.144	ug/l	0.62	170,941.19	1.511E+00	Pulse	0.50	3
Fe			1	4988.251	ug/l	0.98	26,184,201.33	2.314E+02	Analog	0.50	3
Co			1	47.268	ug/l	0.76	452,674.40	4.000E+00	Pulse	0.50	3
Ni			1	46.601	ug/l	1.15	119,832.28	1.059E+00	Pulse	0.50	3
Cu			1	47.844	ug/l	1.27	331,056.07	2.925E+00	Pulse	0.50	3
Zn			1	47.112	ug/l	1.71	60,731.76	3.596E-01	Pulse	1.00	3
Cd			1	46.897	ug/l	1.52	101,365.32	6.001E-01	Pulse	0.50	3
Al			1	4515.248	ug/l	1.29	753,062.65	5.019E+00	Pulse	1.00	3
Se			1	46.972	ug/l	1.67	3,082.25	1.825E-02	Pulse	3.00	3
Sb			1	46.405	ug/l	1.30	297,698.46	1.762E+00	Pulse	1.00	3
Se			1	46.989	ug/l	1.66	1,514.51	8.967E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,986,945.75	0.96	88.9	Pulse	0.50	3
1	Sc		150,034.83	0.31	96.2	Pulse	0.30	3
1	Ge		113,168.31	0.16	95.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,190,057.87	0.38	92.4	Pulse	0.30	3
1	Tb		3,921,598.92	0.80	93.5	Pulse	0.50	3
1	Lu		2,982,651.42	0.38	92.4	Pulse	0.50	3
1	Ge		168,909.67	0.17	95.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		923.36	13.72	91.2	Pulse	0.30	3

Quantitation Report

File Name	109_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:30
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.630	ug/l	3.17	572,119.00	5.119E+00	Pulse	0.50	3
As			1	96.753	ug/l	2.14	75,323.29	6.739E-01	Pulse	1.00	3
Mo			1	97.974	ug/l	0.83	382,176.75	2.284E+00	Pulse	0.50	3
Pb			1	97.079	ug/l	0.69	2,405,849.00	8.196E-01	Pulse	1.00	3
Be			1	98.734	ug/l	1.29	3,385.78	2.297E-02	Pulse	2.00	3
Ag			1	98.563	ug/l	0.87	1,288,211.63	7.698E+00	Pulse	0.50	3
Ba			1	98.155	ug/l	0.84	200,881.41	1.709E-01	Pulse	0.50	3
Tl			1	98.784	ug/l	0.70	3,448,979.33	1.175E+00	Pulse	0.50	3
Sn			1	97.910	ug/l	0.83	445,723.33	3.791E-01	Pulse	0.30	3
Sr			1	99.176	ug/l	0.56	468,209.50	3.983E-01	Pulse	0.50	3
[Pb]			1	97.353	ug/l	1.26	1,136,812.96	3.873E-01	Pulse	0.50	3
Ca			1	9809.275	ug/l	0.72	206,699.33	1.402E+00	Pulse	0.50	3
Ti			1	97.491	ug/l	0.63	13,453.98	9.127E-02	Pulse	0.50	3
Na			1	10118.771	ug/l	0.22	7,634,285.83	5.179E+01	Analog	1.00	3
Mg			1	9577.254	ug/l	0.37	3,781,642.67	2.565E+01	Pulse	1.00	3
K			1	9781.652	ug/l	0.40	3,720,026.17	2.524E+01	Pulse	1.00	3
V			1	97.513	ug/l	0.45	451,132.70	3.060E+00	Pulse	0.50	3
Mn			1	98.388	ug/l	2.39	351,761.24	3.147E+00	Pulse	0.50	3
Fe			1	10322.133	ug/l	2.30	53,490,053.33	4.785E+02	Analog	0.50	3
Co			1	97.563	ug/l	2.84	921,691.38	8.246E+00	Pulse	0.50	3
Ni			1	95.627	ug/l	2.97	240,294.46	2.150E+00	Pulse	0.50	3
Cu			1	96.384	ug/l	2.98	653,265.31	5.845E+00	Pulse	0.50	3
Zn			1	96.590	ug/l	1.62	122,741.21	7.335E-01	Pulse	1.00	3
Cd			1	96.662	ug/l	1.14	206,817.79	1.236E+00	Pulse	0.50	3
Al			1	9485.237	ug/l	0.49	1,553,624.29	1.054E+01	Pulse	1.00	3
Se			1	97.317	ug/l	0.41	6,296.93	3.763E-02	Pulse	3.00	3
Sb			1	96.199	ug/l	1.03	610,361.67	3.647E+00	Pulse	1.00	3
Se			1	97.429	ug/l	2.38	3,094.58	1.849E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,935,417.33	0.46	87.4	Pulse	0.50	3
1	Sc		147,409.50	0.72	94.5	Pulse	0.30	3
1	Ge		111,798.14	1.28	94.1	Pulse	0.30	3
1	In		1,175,564.08	0.62	91.3	Pulse	0.30	3
1	Tb		3,900,465.33	0.51	93.0	Pulse	0.50	3
1	Lu		2,987,590.83	0.72	92.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,337.03	0.30	94.1	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		931.14	6.37	92.0	Pulse	0.30	3

Quantitation Report

File Name	110_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:34
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.013	ug/l	198.02	1,232.71	1.167E-02	Pulse	0.50	3
As			1	0.069	ug/l	14.67	140.00	1.324E-03	Pulse	1.00	3
Mo			1	0.141	ug/l	9.87	942.03	5.922E-03	Pulse	0.50	3
Pb			1	-0.006	ug/l	-293.27	5,441.87	1.918E-03	Pulse	1.00	3
Be			1	0.067	ug/l	135.01	8.67	6.160E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	65.57	445.34	2.836E-03	Pulse	0.50	3
Ba			1	0.033	ug/l	55.36	358.67	3.169E-04	Pulse	0.50	3
Tl			1	0.038	ug/l	31.96	4,502.61	1.588E-03	Pulse	0.50	3
Sn			1	0.178	ug/l	14.37	1,982.34	1.739E-03	Pulse	0.30	3
Sr			1	0.050	ug/l	8.24	902.69	7.950E-04	Pulse	0.50	3
[Pb]			1	-0.001	ug/l	-3083.33	2,598.21	9.162E-04	Pulse	0.50	3
Ca			1	2.706	ug/l	7.94	166.00	1.169E-03	Pulse	0.50	3
Ti			1	-0.088	ug/l	-81.83	24.67	1.704E-04	Pulse	0.50	3
Na			1	4.806	ug/l	48.19	14,712.73	1.043E-01	Pulse	1.00	3
Mg			1	-0.297	ug/l	-460.38	3,117.25	2.217E-02	Pulse	1.00	3
K			1	9.035	ug/l	60.50	23,320.38	1.651E-01	Pulse	1.00	3
V			1	-0.024	ug/l	-156.05	1,094.70	7.767E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	4781.37	522.01	4.953E-03	Pulse	0.50	3
Fe			1	1.209	ug/l	99.21	29,123.57	2.771E-01	Pulse	0.50	3
Co			1	0.021	ug/l	36.81	1,190.04	1.125E-02	Pulse	0.50	3
Ni			1	-0.678	ug/l	-4.29	717.35	6.795E-03	Pulse	0.50	3
Cu			1	-0.109	ug/l	-30.57	4,369.84	4.130E-02	Pulse	0.50	3
Zn			1	0.007	ug/l	98.34	570.68	3.580E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	25.10	218.00	1.371E-03	Pulse	0.50	3
Al			1	0.918	ug/l	160.29	773.69	5.538E-03	Pulse	1.00	3
Se			1	0.225	ug/l	16.12	40.22	2.517E-04	Pulse	3.00	3
Sb			1	0.044	ug/l	12.98	1,193.71	7.490E-03	Pulse	1.00	3
Se			1	0.187	ug/l	97.65	20.22	1.281E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,848,654.08	7.84	84.8	Pulse	0.50	3
1	Sc		141,848.09	7.79	91.0	Pulse	0.30	3

Quantitation Report

1	Ge		106,035.26	6.90	89.2	Pulse	0.30	3
1	In		1,136,704.95	7.97	88.3	Pulse	0.30	3
1	Tb		3,682,836.50	8.03	87.8	Pulse	0.50	3
1	Lu		2,794,976.50	7.95	86.6	Pulse	0.50	3
1	Ge		159,516.42	7.57	89.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		862.25	17.69	85.2	Pulse	0.30	3

Quantitation Report

File Name	111SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:37
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.050	ug/l	13.07	1,483.40	1.360E-02	Pulse	0.50	3
As			1	0.019	ug/l	127.01	107.00	9.805E-04	Pulse	1.00	3
Mo			1	0.044	ug/l	17.79	604.01	3.657E-03	Pulse	0.50	3
Pb			1	-0.058	ug/l	-9.02	4,359.23	1.480E-03	Pulse	1.00	3
Be			1	-0.124	ug/l	-11.80	2.50	1.714E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-8.01	98.67	5.981E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	-1718.38	303.33	2.584E-04	Pulse	0.50	3
Tl			1	0.007	ug/l	84.30	3,610.39	1.226E-03	Pulse	0.50	3
Sn			1	0.094	ug/l	18.18	1,660.09	1.415E-03	Pulse	0.30	3
Sr			1	0.023	ug/l	28.35	802.69	6.843E-04	Pulse	0.50	3
[Pb]			1	-0.062	ug/l	-9.93	1,984.12	6.735E-04	Pulse	0.50	3
Ca			1	-2.726	ug/l	-39.72	57.33	3.931E-04	Pulse	0.50	3
Ti			1	-0.149	ug/l	-23.81	16.67	1.140E-04	Pulse	0.50	3
Na			1	-0.059	ug/l	-808.70	11,584.42	7.946E-02	Pulse	1.00	3
Mg			1	-2.592	ug/l	-6.63	2,336.14	1.602E-02	Pulse	1.00	3
K			1	5.001	ug/l	13.47	22,570.19	1.548E-01	Pulse	1.00	3
V			1	0.054	ug/l	19.33	1,490.06	1.022E-02	Pulse	0.50	3
Mn			1	-0.036	ug/l	-19.58	411.34	3.774E-03	Pulse	0.50	3
Fe			1	-1.647	ug/l	-9.51	15,778.43	1.448E-01	Pulse	0.50	3
Co			1	-0.005	ug/l	-145.84	988.03	9.058E-03	Pulse	0.50	3
Ni			1	-0.703	ug/l	-3.32	679.35	6.230E-03	Pulse	0.50	3
Cu			1	-0.052	ug/l	-34.65	4,878.63	4.474E-02	Pulse	0.50	3
Zn			1	-0.062	ug/l	-19.80	504.68	3.056E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	543.98	168.67	1.019E-03	Pulse	0.50	3
Al			1	-2.405	ug/l	-15.12	269.00	1.847E-03	Pulse	1.00	3
Se			1	0.246	ug/l	15.14	42.89	2.597E-04	Pulse	3.00	3
Sb			1	-0.007	ug/l	-45.45	918.69	5.564E-03	Pulse	1.00	3
Se			1	0.097	ug/l	150.69	18.33	1.109E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,312.25	1.84	87.7	Pulse	0.50	3
1	Sc		145,828.17	1.19	93.5	Pulse	0.30	3

Quantitation Report

1	Ge		109,037.04	1.12	91.8	Pulse	0.30	3
1	In		1,173,368.18	1.59	91.1	Pulse	0.30	3
1	Tb		3,830,307.83	1.70	91.3	Pulse	0.50	3
1	Lu		2,898,091.33	1.73	89.8	Pulse	0.50	3
1	Ge		165,130.67	1.31	92.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		992.25	12.45	98.0	Pulse	0.30	3

Quantitation Report

File Name 112SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 17:41
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.047	ug/l	14.04	1,512.06	1.347E-02	Pulse	0.50	3
As			1	0.023	ug/l	123.71	112.67	1.005E-03	Pulse	1.00	3
Mo			1	0.015	ug/l	43.41	500.68	2.994E-03	Pulse	0.50	3
Pb			1	-0.064	ug/l	-1.18	4,254.20	1.424E-03	Pulse	1.00	3
Be			1	-0.086	ug/l	-68.54	3.83	2.589E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-15.71	83.33	4.984E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-112.53	291.33	2.440E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-4014.96	3,400.35	1.137E-03	Pulse	0.50	3
Sn			1	0.071	ug/l	33.41	1,578.96	1.324E-03	Pulse	0.30	3
Sr			1	-0.005	ug/l	-323.98	682.68	5.724E-04	Pulse	0.50	3
[Pb]			1	-0.069	ug/l	-4.30	1,932.78	6.468E-04	Pulse	0.50	3
Ca			1	-1.919	ug/l	-50.86	75.33	5.085E-04	Pulse	0.50	3
Ti			1	-0.117	ug/l	-37.44	21.33	1.440E-04	Pulse	0.50	3
Na			1	-0.758	ug/l	-24.72	11,264.84	7.589E-02	Pulse	1.00	3
Mg			1	-2.251	ug/l	-6.17	2,514.83	1.694E-02	Pulse	1.00	3
K			1	5.439	ug/l	7.57	23,144.19	1.559E-01	Pulse	1.00	3
V			1	0.065	ug/l	55.94	1,566.07	1.056E-02	Pulse	0.50	3
Mn			1	-0.036	ug/l	-25.30	425.34	3.789E-03	Pulse	0.50	3
Fe			1	-2.211	ug/l	-1.53	13,311.26	1.186E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-50.51	998.03	8.892E-03	Pulse	0.50	3
Ni			1	-0.729	ug/l	-2.07	634.01	5.651E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-16.47	4,902.64	4.369E-02	Pulse	0.50	3
Zn			1	-0.056	ug/l	-25.22	518.34	3.099E-03	Pulse	1.00	3
Cd			1	-0.004	ug/l	-324.05	155.33	9.278E-04	Pulse	0.50	3
Al			1	-2.619	ug/l	-1.88	239.00	1.610E-03	Pulse	1.00	3
Se			1	0.162	ug/l	23.53	38.00	2.273E-04	Pulse	3.00	3
Sb			1	-0.010	ug/l	-100.72	913.69	5.464E-03	Pulse	1.00	3
Se			1	0.210	ug/l	56.99	22.11	1.323E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,988,213.08	1.42	88.9	Pulse	0.50	3
1	Sc		148,448.52	1.14	95.2	Pulse	0.30	3

Quantitation Report

1	Ge		112,228.72	1.05	94.4	Pulse	0.30	3
1	In		1,193,286.69	2.09	92.6	Pulse	0.30	3
1	Tb		3,875,857.25	1.22	92.4	Pulse	0.50	3
1	Lu		2,933,656.33	1.58	90.9	Pulse	0.50	3
1	Ge		167,225.15	1.08	94.0	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		968.92	8.30	95.7	Pulse	0.30	3

Quantitation Report

File Name	113SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:45
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.066	ug/l	8.58	1,615.41	1.444E-02	Pulse	0.50	3
As			1	0.010	ug/l	64.52	102.67	9.175E-04	Pulse	1.00	3
Mo			1	0.009	ug/l	127.98	482.01	2.845E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-8.14	4,236.86	1.411E-03	Pulse	1.00	3
Be			1	-0.078	ug/l	-43.04	4.17	2.795E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-8.57	66.00	3.901E-04	Pulse	0.50	3
Ba			1	-0.014	ug/l	-231.78	281.33	2.342E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-14.98	3,282.99	1.093E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	27.70	1,470.07	1.223E-03	Pulse	0.30	3
Sr			1	0.016	ug/l	26.93	788.69	6.559E-04	Pulse	0.50	3
[Pb]			1	-0.066	ug/l	-13.82	1,972.79	6.565E-04	Pulse	0.50	3
Ca			1	-2.222	ug/l	-39.20	69.33	4.652E-04	Pulse	0.50	3
Ti			1	-0.146	ug/l	-15.04	17.33	1.163E-04	Pulse	0.50	3
Na			1	-1.071	ug/l	-13.28	11,073.39	7.428E-02	Pulse	1.00	3
Mg			1	-1.926	ug/l	-7.70	2,654.51	1.781E-02	Pulse	1.00	3
K			1	5.370	ug/l	3.88	23,214.26	1.557E-01	Pulse	1.00	3
V			1	0.071	ug/l	24.22	1,601.41	1.074E-02	Pulse	0.50	3
Mn			1	-0.040	ug/l	-16.57	410.01	3.664E-03	Pulse	0.50	3
Fe			1	-2.278	ug/l	-0.85	12,922.32	1.155E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-180.04	1,024.03	9.150E-03	Pulse	0.50	3
Ni			1	-0.700	ug/l	-1.02	704.68	6.300E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-13.73	4,916.64	4.395E-02	Pulse	0.50	3
Zn			1	-0.062	ug/l	-46.60	518.01	3.059E-03	Pulse	1.00	3
Cd			1	-0.003	ug/l	-108.98	158.67	9.370E-04	Pulse	0.50	3
Al			1	-2.755	ug/l	-5.85	217.33	1.458E-03	Pulse	1.00	3
Se			1	0.232	ug/l	37.70	43.11	2.544E-04	Pulse	3.00	3
Sb			1	-0.015	ug/l	-37.41	890.02	5.255E-03	Pulse	1.00	3
Se			1	0.073	ug/l	232.22	18.00	1.064E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,003,637.25	1.34	89.4	Pulse	0.50	3
1	Sc		149,067.38	0.14	95.6	Pulse	0.30	3

Quantitation Report

1	Ge		111,876.28	0.93	94.1	Pulse	0.30	3
1	In		1,202,677.00	1.41	93.4	Pulse	0.30	3
1	Tb		3,887,642.92	1.43	92.7	Pulse	0.50	3
1	Lu		2,944,261.17	1.35	91.2	Pulse	0.50	3
1	Ge		169,363.47	0.70	95.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		964.48	6.09	95.3	Pulse	0.30	3

Quantitation Report

File Name	114SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:49
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.052	ug/l	27.70	1,526.73	1.372E-02	Pulse	0.50	3
As			1	0.015	ug/l	171.75	105.67	9.491E-04	Pulse	1.00	3
Mo			1	0.016	ug/l	46.96	504.01	3.016E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-2.75	4,089.50	1.372E-03	Pulse	1.00	3
Be			1	-0.150	ug/l	-23.96	1.67	1.117E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-14.15	95.33	5.698E-04	Pulse	0.50	3
Ba			1	-0.010	ug/l	-40.10	288.00	2.414E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-25.05	3,249.66	1.090E-03	Pulse	0.50	3
Sn			1	0.059	ug/l	46.12	1,526.74	1.280E-03	Pulse	0.30	3
Sr			1	0.015	ug/l	37.93	778.02	6.523E-04	Pulse	0.50	3
[Pb]			1	-0.074	ug/l	-14.24	1,862.78	6.248E-04	Pulse	0.50	3
Ca			1	-1.744	ug/l	-53.50	79.33	5.335E-04	Pulse	0.50	3
Ti			1	-0.160	ug/l	-37.40	15.33	1.031E-04	Pulse	0.50	3
Na			1	-1.306	ug/l	-27.19	10,887.97	7.308E-02	Pulse	1.00	3
Mg			1	-2.120	ug/l	-9.28	2,575.17	1.729E-02	Pulse	1.00	3
K			1	5.129	ug/l	28.34	23,108.80	1.551E-01	Pulse	1.00	3
V			1	0.063	ug/l	25.62	1,564.07	1.049E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-8.68	436.68	3.925E-03	Pulse	0.50	3
Fe			1	-2.311	ug/l	-0.88	12,684.16	1.140E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-144.42	997.36	8.967E-03	Pulse	0.50	3
Ni			1	-0.695	ug/l	-1.51	714.02	6.416E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-12.73	4,887.97	4.393E-02	Pulse	0.50	3
Zn			1	-0.037	ug/l	-24.70	542.01	3.245E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	109.25	172.67	1.033E-03	Pulse	0.50	3
Al			1	-2.538	ug/l	-9.30	253.33	1.699E-03	Pulse	1.00	3
Se			1	0.109	ug/l	45.95	34.55	2.069E-04	Pulse	3.00	3
Sb			1	-0.017	ug/l	-10.50	866.35	5.187E-03	Pulse	1.00	3
Se			1	-0.043	ug/l	-60.79	14.11	8.451E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,940.83	0.82	88.7	Pulse	0.50	3
1	Sc		149,018.36	1.66	95.5	Pulse	0.30	3

Quantitation Report

1	Ge		111,271.68	0.87	93.6	Pulse	0.30	3
1	In		1,192,831.03	1.41	92.6	Pulse	0.30	3
1	Tb		3,854,965.42	1.22	91.9	Pulse	0.50	3
1	Lu		2,925,485.50	1.69	90.6	Pulse	0.50	3
1	Ge		167,034.45	1.50	93.9	Pulse	0.30	3
1	Te		1.33	86.60		Pulse	0.50	3
1	Li		1,016.70	11.10	100.4	Pulse	0.30	3

Quantitation Report

File Name	115SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 17:53
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.067	ug/l	26.23	1,623.41	1.453E-02	Pulse	0.50	3
As			1	-0.007	ug/l	-70.03	89.00	7.968E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	-4325.84	442.01	2.638E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.46	4,140.51	1.387E-03	Pulse	1.00	3
Be			1	-0.029	ug/l	-121.48	5.83	3.925E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-10.21	72.67	4.334E-04	Pulse	0.50	3
Ba			1	0.012	ug/l	66.63	333.34	2.790E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-40.75	3,285.66	1.101E-03	Pulse	0.50	3
Sn			1	0.047	ug/l	32.48	1,473.41	1.234E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	85.61	760.69	6.369E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-6.95	1,882.11	6.309E-04	Pulse	0.50	3
Ca			1	-2.964	ug/l	-5.94	53.33	3.591E-04	Pulse	0.50	3
Ti			1	-0.136	ug/l	-73.47	18.67	1.262E-04	Pulse	0.50	3
Na			1	-1.174	ug/l	-30.23	10,947.99	7.376E-02	Pulse	1.00	3
Mg			1	-1.836	ug/l	-6.67	2,679.18	1.805E-02	Pulse	1.00	3
K			1	5.837	ug/l	11.18	23,295.02	1.569E-01	Pulse	1.00	3
V			1	0.065	ug/l	21.30	1,566.74	1.056E-02	Pulse	0.50	3
Mn			1	-0.035	ug/l	-36.69	427.34	3.825E-03	Pulse	0.50	3
Fe			1	-2.340	ug/l	-5.21	12,584.78	1.127E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-32.69	972.03	8.702E-03	Pulse	0.50	3
Ni			1	-0.708	ug/l	-6.97	684.68	6.128E-03	Pulse	0.50	3
Cu			1	-0.075	ug/l	-18.91	4,839.95	4.333E-02	Pulse	0.50	3
Zn			1	-0.073	ug/l	-19.42	498.68	2.977E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	406.29	166.67	9.955E-04	Pulse	0.50	3
Al			1	-2.760	ug/l	-2.91	215.67	1.453E-03	Pulse	1.00	3
Se			1	0.209	ug/l	4.95	41.11	2.455E-04	Pulse	3.00	3
Sb			1	-0.014	ug/l	-82.54	888.02	5.300E-03	Pulse	1.00	3
Se			1	0.036	ug/l	94.86	16.67	9.948E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,984,008.50	1.36	88.8	Pulse	0.50	3
1	Sc		148,452.99	0.88	95.2	Pulse	0.30	3

Quantitation Report

1	Ge		111,706.40	0.40	94.0	Pulse	0.30	3
1	In		1,194,441.72	1.50	92.7	Pulse	0.30	3
1	Tb		3,876,136.58	1.44	92.4	Pulse	0.50	3
1	Lu		2,931,392.00	1.50	90.8	Pulse	0.50	3
1	Ge		167,482.83	0.88	94.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,077.82	9.65	106.5	Pulse	0.30	3

Quantitation Report

File Name 116SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 17:56
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.056	ug/l	45.64	1,553.40	1.391E-02	Pulse	0.50	3
As			1	0.013	ug/l	209.75	104.67	9.384E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	58.80	472.68	2.813E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-10.54	4,121.17	1.381E-03	Pulse	1.00	3
Be			1	-0.082	ug/l	-19.11	4.00	2.698E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-3.82	73.33	4.369E-04	Pulse	0.50	3
Ba			1	-0.010	ug/l	-76.40	286.67	2.407E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-40.38	3,286.33	1.102E-03	Pulse	0.50	3
Sn			1	0.062	ug/l	71.24	1,538.96	1.291E-03	Pulse	0.30	3
Sr			1	0.010	ug/l	162.07	755.35	6.336E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-11.54	1,853.44	6.211E-04	Pulse	0.50	3
Ca			1	-2.269	ug/l	-11.13	68.00	4.584E-04	Pulse	0.50	3
Ti			1	-0.155	ug/l	-8.35	16.00	1.077E-04	Pulse	0.50	3
Na			1	-1.276	ug/l	-24.88	10,862.95	7.324E-02	Pulse	1.00	3
Mg			1	-1.671	ug/l	-10.90	2,742.19	1.849E-02	Pulse	1.00	3
K			1	6.105	ug/l	6.11	23,382.12	1.576E-01	Pulse	1.00	3
V			1	0.063	ug/l	9.96	1,555.40	1.048E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-35.47	400.67	3.589E-03	Pulse	0.50	3
Fe			1	-2.337	ug/l	-0.65	12,599.44	1.128E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-35.88	982.03	8.794E-03	Pulse	0.50	3
Ni			1	-0.674	ug/l	-4.44	770.69	6.894E-03	Pulse	0.50	3
Cu			1	-0.096	ug/l	-37.29	4,698.59	4.208E-02	Pulse	0.50	3
Zn			1	-0.079	ug/l	-17.90	491.34	2.926E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-84.52	150.00	8.922E-04	Pulse	0.50	3
Al			1	-2.816	ug/l	-2.80	206.33	1.391E-03	Pulse	1.00	3
Se			1	0.253	ug/l	19.90	44.11	2.624E-04	Pulse	3.00	3
Sb			1	-0.021	ug/l	-36.73	847.35	5.042E-03	Pulse	1.00	3
Se			1	0.084	ug/l	65.71	18.22	1.086E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,983,226.25	0.76	88.8	Pulse	0.50	3
1	Sc		148,354.30	1.29	95.1	Pulse	0.30	3

Quantitation Report

1	Ge		111,700.97	1.59	94.0	Pulse	0.30	3
1	In		1,191,364.05	0.98	92.5	Pulse	0.30	3
1	Tb		3,864,293.17	1.55	92.2	Pulse	0.50	3
1	Lu		2,936,309.17	1.64	91.0	Pulse	0.50	3
1	Ge		167,989.35	1.58	94.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,007.81	14.49	99.6	Pulse	0.30	3

Quantitation Report

File Name	117SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:00
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.055	ug/l	20.67	1,560.74	1.386E-02	Pulse	0.50	3
As			1	-0.004	ug/l	-443.94	92.00	8.170E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-360.49	441.34	2.602E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-3.76	4,129.84	1.371E-03	Pulse	1.00	3
Be			1	-0.078	ug/l	-60.74	4.17	2.784E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-22.85	71.33	4.205E-04	Pulse	0.50	3
Ba			1	0.001	ug/l	1594.18	313.33	2.606E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-20.56	3,257.65	1.081E-03	Pulse	0.50	3
Sn			1	0.048	ug/l	16.60	1,486.74	1.236E-03	Pulse	0.30	3
Sr			1	0.007	ug/l	67.65	745.35	6.196E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-6.07	1,928.78	6.400E-04	Pulse	0.50	3
Ca			1	-2.334	ug/l	-20.03	67.33	4.491E-04	Pulse	0.50	3
Ti			1	-0.171	ug/l	-38.99	14.00	9.365E-05	Pulse	0.50	3
Na			1	-1.611	ug/l	-12.38	10,725.87	7.153E-02	Pulse	1.00	3
Mg			1	-1.431	ug/l	-9.84	2,868.88	1.913E-02	Pulse	1.00	3
K			1	4.686	ug/l	19.30	23,087.45	1.540E-01	Pulse	1.00	3
V			1	0.054	ug/l	49.27	1,531.40	1.022E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-39.05	424.01	3.765E-03	Pulse	0.50	3
Fe			1	-2.367	ug/l	-0.57	12,539.40	1.114E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-257.61	1,031.37	9.159E-03	Pulse	0.50	3
Ni			1	-0.708	ug/l	-1.28	689.35	6.124E-03	Pulse	0.50	3
Cu			1	-0.095	ug/l	-11.37	4,744.60	4.214E-02	Pulse	0.50	3
Zn			1	-0.083	ug/l	-3.88	492.01	2.901E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-1466.87	164.00	9.670E-04	Pulse	0.50	3
Al			1	-2.733	ug/l	-1.30	222.33	1.483E-03	Pulse	1.00	3
Se			1	0.082	ug/l	55.08	33.33	1.965E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-26.83	886.36	5.226E-03	Pulse	1.00	3
Se			1	0.068	ug/l	261.57	17.89	1.055E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,013,311.83	1.07	89.7	Pulse	0.50	3
1	Sc		149,957.84	0.96	96.2	Pulse	0.30	3

Quantitation Report

1	Ge		112,571.32	0.68	94.7	Pulse	0.30	3
1	In		1,203,241.69	1.01	93.4	Pulse	0.30	3
1	Tb		3,907,725.67	0.36	93.2	Pulse	0.50	3
1	Lu		2,956,220.83	0.90	91.6	Pulse	0.50	3
1	Ge		169,607.91	0.12	95.4	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,020.03	11.45	100.8	Pulse	0.30	3

Quantitation Report

File Name 118SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 18:04
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.060	ug/l	19.98	1,584.74	1.413E-02	Pulse	0.50	3
As			1	0.005	ug/l	415.99	99.00	8.831E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	188.89	471.34	2.806E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-2.67	4,232.19	1.409E-03	Pulse	1.00	3
Be			1	-0.121	ug/l	-38.58	2.67	1.793E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-9.98	70.00	4.167E-04	Pulse	0.50	3
Ba			1	-0.026	ug/l	-82.31	255.33	2.141E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-47.21	3,168.30	1.055E-03	Pulse	0.50	3
Sn			1	0.032	ug/l	58.68	1,398.95	1.174E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	88.81	762.02	6.389E-04	Pulse	0.50	3
[Pb]			1	-0.074	ug/l	-2.76	1,880.11	6.262E-04	Pulse	0.50	3
Ca			1	-3.188	ug/l	-25.88	48.67	3.272E-04	Pulse	0.50	3
Ti			1	-0.194	ug/l	-21.56	10.67	7.181E-05	Pulse	0.50	3
Na			1	-1.424	ug/l	-10.73	10,785.25	7.248E-02	Pulse	1.00	3
Mg			1	-1.258	ug/l	-16.62	2,915.55	1.959E-02	Pulse	1.00	3
K			1	5.710	ug/l	15.90	23,301.02	1.566E-01	Pulse	1.00	3
V			1	0.059	ug/l	26.90	1,542.07	1.037E-02	Pulse	0.50	3
Mn			1	-0.045	ug/l	-22.99	393.34	3.506E-03	Pulse	0.50	3
Fe			1	-2.391	ug/l	-1.98	12,368.62	1.103E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-56.17	954.03	8.505E-03	Pulse	0.50	3
Ni			1	-0.712	ug/l	-2.98	678.01	6.046E-03	Pulse	0.50	3
Cu			1	-0.063	ug/l	-21.40	4,945.32	4.408E-02	Pulse	0.50	3
Zn			1	-0.059	ug/l	-110.78	517.34	3.081E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-18.67	150.00	8.934E-04	Pulse	0.50	3
Al			1	-2.592	ug/l	-6.19	244.00	1.640E-03	Pulse	1.00	3
Se			1	0.092	ug/l	14.54	33.67	2.005E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-31.79	841.69	5.013E-03	Pulse	1.00	3
Se			1	0.045	ug/l	121.96	17.00	1.012E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,002,762.42	0.52	89.4	Pulse	0.50	3
1	Sc		148,801.07	0.55	95.4	Pulse	0.30	3

Quantitation Report

1	Ge		112,175.75	0.55	94.4	Pulse	0.30	3
1	In		1,192,085.16	1.32	92.6	Pulse	0.30	3
1	Tb		3,877,376.58	0.92	92.5	Pulse	0.50	3
1	Lu		2,944,305.33	0.77	91.2	Pulse	0.50	3
1	Ge		167,905.25	0.76	94.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,034.48	3.55	102.2	Pulse	0.30	3

Quantitation Report

File Name	119SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:08
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.029	ug/l	49.34	1,408.06	1.253E-02	Pulse	0.50	3
As			1	0.024	ug/l	98.57	114.00	1.015E-03	Pulse	1.00	3
Mo			1	0.002	ug/l	877.12	448.68	2.684E-03	Pulse	0.50	3
Pb			1	-0.073	ug/l	-3.04	4,040.48	1.353E-03	Pulse	1.00	3
Be			1	-0.106	ug/l	-38.66	3.17	2.125E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-12.09	58.00	3.464E-04	Pulse	0.50	3
Ba			1	-0.005	ug/l	-75.03	298.00	2.500E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-61.62	3,236.98	1.084E-03	Pulse	0.50	3
Sn			1	0.062	ug/l	33.30	1,538.97	1.290E-03	Pulse	0.30	3
Sr			1	0.018	ug/l	29.25	795.35	6.669E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-8.45	1,873.45	6.273E-04	Pulse	0.50	3
Ca			1	-2.271	ug/l	-18.15	68.00	4.582E-04	Pulse	0.50	3
Ti			1	-0.175	ug/l	-17.11	13.33	8.977E-05	Pulse	0.50	3
Na			1	-1.718	ug/l	-8.76	10,542.44	7.098E-02	Pulse	1.00	3
Mg			1	-1.464	ug/l	-8.19	2,828.87	1.904E-02	Pulse	1.00	3
K			1	4.876	ug/l	20.52	22,941.29	1.545E-01	Pulse	1.00	3
V			1	0.071	ug/l	14.04	1,594.74	1.074E-02	Pulse	0.50	3
Mn			1	-0.056	ug/l	-15.55	355.33	3.164E-03	Pulse	0.50	3
Fe			1	-2.327	ug/l	-4.78	12,718.59	1.132E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-52.08	965.36	8.592E-03	Pulse	0.50	3
Ni			1	-0.714	ug/l	-0.97	672.68	5.989E-03	Pulse	0.50	3
Cu			1	-0.092	ug/l	-16.22	4,754.60	4.233E-02	Pulse	0.50	3
Zn			1	-0.070	ug/l	-42.44	501.01	2.998E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	1300.54	164.67	9.858E-04	Pulse	0.50	3
Al			1	-2.718	ug/l	-7.92	223.00	1.500E-03	Pulse	1.00	3
Se			1	0.105	ug/l	30.62	34.34	2.053E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-4.00	865.02	5.175E-03	Pulse	1.00	3
Se			1	-0.019	ug/l	-296.77	14.89	8.910E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,985,871.33	1.37	88.9	Pulse	0.50	3
1	Sc		148,541.27	1.10	95.2	Pulse	0.30	3

Quantitation Report

1	Ge		112,333.42	0.72	94.5	Pulse	0.30	3
1	In		1,192,272.28	1.52	92.6	Pulse	0.30	3
1	Tb		3,868,928.25	1.48	92.3	Pulse	0.50	3
1	Lu		2,922,718.50	1.33	90.6	Pulse	0.50	3
1	Ge		167,156.82	0.79	94.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		940.58	2.14	92.9	Pulse	0.30	3

Quantitation Report

File Name	120SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:12
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.052	ug/l	21.58	1,528.06	1.374E-02	Pulse	0.50	3
As			1	0.007	ug/l	204.62	99.33	8.924E-04	Pulse	1.00	3
Mo			1	0.005	ug/l	61.76	462.68	2.767E-03	Pulse	0.50	3
Pb			1	-0.068	ug/l	-3.21	4,161.18	1.396E-03	Pulse	1.00	3
Be			1	-0.048	ug/l	-167.75	5.17	3.487E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-7.96	64.00	3.835E-04	Pulse	0.50	3
Ba			1	-0.015	ug/l	-230.99	278.00	2.334E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-57.23	3,141.63	1.054E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	21.96	1,503.41	1.264E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	63.91	745.35	6.263E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-8.96	1,851.44	6.213E-04	Pulse	0.50	3
Ca			1	-2.015	ug/l	-17.59	73.33	4.947E-04	Pulse	0.50	3
Ti			1	-0.184	ug/l	-43.64	12.00	8.092E-05	Pulse	0.50	3
Na			1	-1.642	ug/l	-12.41	10,578.48	7.137E-02	Pulse	1.00	3
Mg			1	-1.378	ug/l	-4.98	2,856.87	1.927E-02	Pulse	1.00	3
K			1	5.472	ug/l	10.32	23,122.15	1.560E-01	Pulse	1.00	3
V			1	0.077	ug/l	8.48	1,619.41	1.093E-02	Pulse	0.50	3
Mn			1	-0.043	ug/l	-26.91	395.34	3.551E-03	Pulse	0.50	3
Fe			1	-2.396	ug/l	-1.61	12,244.54	1.100E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-39.64	993.36	8.929E-03	Pulse	0.50	3
Ni			1	-0.707	ug/l	-4.42	684.01	6.147E-03	Pulse	0.50	3
Cu			1	-0.070	ug/l	-20.50	4,856.63	4.366E-02	Pulse	0.50	3
Zn			1	-0.051	ug/l	-65.07	524.34	3.138E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-2959.48	161.33	9.671E-04	Pulse	0.50	3
Al			1	-2.701	ug/l	-4.55	225.00	1.518E-03	Pulse	1.00	3
Se			1	0.157	ug/l	47.32	37.67	2.255E-04	Pulse	3.00	3
Sb			1	-0.021	ug/l	-35.15	842.35	5.039E-03	Pulse	1.00	3
Se			1	0.104	ug/l	22.13	18.78	1.122E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,051.17	1.15	88.7	Pulse	0.50	3
1	Sc		148,228.02	0.09	95.0	Pulse	0.30	3

Quantitation Report

1	Ge		111,255.98	0.82	93.6	Pulse	0.30	3
1	In		1,190,037.00	1.33	92.4	Pulse	0.30	3
1	Tb		3,862,467.75	1.44	92.1	Pulse	0.50	3
1	Lu		2,918,392.08	1.11	90.4	Pulse	0.50	3
1	Ge		167,235.32	1.59	94.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		968.92	10.35	95.7	Pulse	0.30	3

Quantitation Report

File Name 121CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 18:15
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	46.994	ug/l	1.59	280,063.15	2.470E+00	Pulse	0.50	3
As			1	46.717	ug/l	2.17	36,947.19	3.258E-01	Pulse	1.00	3
Mo			1	47.093	ug/l	1.61	186,828.99	1.099E+00	Pulse	0.50	3
Pb			1	46.750	ug/l	0.83	1,182,469.54	3.957E-01	Pulse	1.00	3
Be			1	48.104	ug/l	3.39	1,680.74	1.121E-02	Pulse	2.00	3
Ag			1	48.075	ug/l	1.61	638,360.14	3.756E+00	Pulse	0.50	3
Ba			1	47.229	ug/l	2.32	98,461.69	8.235E-02	Pulse	0.50	3
Tl			1	47.849	ug/l	0.89	1,702,462.75	5.697E-01	Pulse	0.50	3
Sn			1	47.045	ug/l	1.77	218,461.19	1.827E-01	Pulse	0.30	3
Sr			1	47.963	ug/l	0.66	230,647.71	1.929E-01	Pulse	0.50	3
[Pb]			1	47.211	ug/l	1.14	562,617.73	1.883E-01	Pulse	0.50	3
Ca			1	4783.939	ug/l	0.88	102,553.44	6.843E-01	Pulse	0.50	3
Ti			1	46.711	ug/l	1.36	6,573.79	4.386E-02	Pulse	0.50	3
Na			1	4668.206	ug/l	0.45	3,587,406.33	2.394E+01	Pulse	1.00	3
Mg			1	4631.131	ug/l	0.85	1,860,987.13	1.242E+01	Pulse	1.00	3
K			1	4781.203	ug/l	0.56	1,859,656.75	1.241E+01	Pulse	1.00	3
V			1	46.893	ug/l	1.10	221,232.58	1.476E+00	Pulse	0.50	3
Mn			1	47.319	ug/l	1.03	171,927.97	1.516E+00	Pulse	0.50	3
Fe			1	5010.576	ug/l	1.18	26,355,820.67	2.324E+02	Analog	0.50	3
Co			1	47.324	ug/l	1.89	454,146.22	4.005E+00	Pulse	0.50	3
Ni			1	46.558	ug/l	1.25	119,973.77	1.058E+00	Pulse	0.50	3
Cu			1	47.692	ug/l	1.75	330,699.84	2.916E+00	Pulse	0.50	3
Zn			1	47.189	ug/l	2.22	61,215.29	3.601E-01	Pulse	1.00	3
Cd			1	46.966	ug/l	1.54	102,155.69	6.010E-01	Pulse	0.50	3
Al			1	4561.844	ug/l	1.12	760,038.21	5.071E+00	Pulse	1.00	3
Se			1	46.983	ug/l	1.85	3,102.36	1.825E-02	Pulse	3.00	3
Sb			1	46.325	ug/l	1.76	299,062.97	1.759E+00	Pulse	1.00	3
Se			1	47.717	ug/l	1.66	1,547.51	9.104E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,988,165.92	0.82	88.9	Pulse	0.50	3
1	Sc		149,876.88	0.17	96.1	Pulse	0.30	3
1	Ge		113,405.32	0.57	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,195,543.35	0.35	92.8	Pulse	0.30	3
1	Tb		3,933,900.33	0.62	93.8	Pulse	0.50	3
1	Lu		2,995,288.33	0.85	92.8	Pulse	0.50	3
1	Ge		169,976.90	0.59	95.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,084.48	15.19	107.1	Pulse	0.30	3

Quantitation Report

File Name 122_CCV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 18:19
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.382	ug/l	1.09	574,179.42	5.106E+00	Pulse	0.50	3
As			1	96.979	ug/l	1.30	75,955.13	6.754E-01	Pulse	1.00	3
Mo			1	97.838	ug/l	2.44	385,935.71	2.281E+00	Pulse	0.50	3
Pb			1	97.515	ug/l	0.51	2,418,906.92	8.232E-01	Pulse	1.00	3
Be			1	97.532	ug/l	1.07	3,366.45	2.269E-02	Pulse	2.00	3
Ag			1	98.128	ug/l	2.62	1,296,930.59	7.664E+00	Pulse	0.50	3
Ba			1	97.710	ug/l	1.03	201,790.80	1.701E-01	Pulse	0.50	3
Tl			1	99.274	ug/l	0.62	3,469,421.25	1.181E+00	Pulse	0.50	3
Sn			1	97.707	ug/l	1.36	448,857.78	3.784E-01	Pulse	0.30	3
Sr			1	99.615	ug/l	0.45	474,554.16	4.000E-01	Pulse	0.50	3
[Pb]			1	98.130	ug/l	0.96	1,146,964.75	3.903E-01	Pulse	0.50	3
Ca			1	9826.042	ug/l	0.77	208,402.07	1.405E+00	Pulse	0.50	3
Ti			1	97.187	ug/l	2.74	13,500.02	9.098E-02	Pulse	0.50	3
Na			1	10120.251	ug/l	0.36	7,685,149.83	5.180E+01	Analog	1.00	3
Mg			1	9584.003	ug/l	0.70	3,808,928.25	2.567E+01	Pulse	1.00	3
K			1	9792.459	ug/l	0.39	3,748,449.08	2.526E+01	Pulse	1.00	3
V			1	97.623	ug/l	0.78	454,570.83	3.064E+00	Pulse	0.50	3
Mn			1	97.945	ug/l	1.01	352,307.54	3.133E+00	Pulse	0.50	3
Fe			1	10313.779	ug/l	0.71	53,771,181.33	4.782E+02	Analog	0.50	3
Co			1	97.228	ug/l	1.16	924,161.36	8.218E+00	Pulse	0.50	3
Ni			1	95.522	ug/l	0.78	241,499.11	2.148E+00	Pulse	0.50	3
Cu			1	96.371	ug/l	0.87	657,185.94	5.844E+00	Pulse	0.50	3
Zn			1	95.980	ug/l	2.12	123,342.90	7.289E-01	Pulse	1.00	3
Cd			1	95.984	ug/l	2.63	207,673.50	1.227E+00	Pulse	0.50	3
Al			1	9478.153	ug/l	1.27	1,562,563.29	1.053E+01	Pulse	1.00	3
Se			1	97.460	ug/l	3.01	6,376.84	3.769E-02	Pulse	3.00	3
Sb			1	95.870	ug/l	2.53	615,111.40	3.635E+00	Pulse	1.00	3
Se			1	97.182	ug/l	2.14	3,121.48	1.845E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,938,163.50	0.97	87.4	Pulse	0.50	3
1	Sc		148,370.00	0.40	95.1	Pulse	0.30	3
1	Ge		112,454.32	0.54	94.6	Pulse	0.30	3
1	In		1,186,251.31	0.60	92.1	Pulse	0.30	3
1	Tb		3,933,523.08	0.60	93.8	Pulse	0.50	3
1	Lu		3,002,456.75	0.69	93.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		169,252.97	1.18	95.2	Pulse	0.30	3
1	Te		4.67	107.85		Pulse	0.50	3
1	Li		973.36	3.56	96.2	Pulse	0.30	3

Quantitation Report

File Name	123_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:23
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.014	ug/l	-153.48	1,138.04	1.028E-02	Pulse	0.50	3
As			1	0.004	ug/l	467.02	97.00	8.767E-04	Pulse	1.00	3
Mo			1	0.136	ug/l	27.00	972.70	5.819E-03	Pulse	0.50	3
Pb			1	-0.023	ug/l	-21.52	5,245.14	1.770E-03	Pulse	1.00	3
Be			1	-0.071	ug/l	-64.51	4.33	2.943E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	107.47	307.34	1.840E-03	Pulse	0.50	3
Ba			1	0.009	ug/l	59.15	326.00	2.751E-04	Pulse	0.50	3
Tl			1	0.027	ug/l	33.04	4,326.56	1.460E-03	Pulse	0.50	3
Sn			1	0.161	ug/l	20.33	1,982.34	1.672E-03	Pulse	0.30	3
Sr			1	0.035	ug/l	26.54	868.69	7.330E-04	Pulse	0.50	3
[Pb]			1	-0.028	ug/l	-34.08	2,389.51	8.064E-04	Pulse	0.50	3
Ca			1	0.536	ug/l	190.96	126.67	8.593E-04	Pulse	0.50	3
Ti			1	-0.136	ug/l	-96.13	18.67	1.262E-04	Pulse	0.50	3
Na			1	1.856	ug/l	60.35	13,165.33	8.925E-02	Pulse	1.00	3
Mg			1	-1.384	ug/l	-53.67	2,840.87	1.926E-02	Pulse	1.00	3
K			1	5.541	ug/l	18.52	23,044.06	1.562E-01	Pulse	1.00	3
V			1	-0.028	ug/l	-65.89	1,126.04	7.630E-03	Pulse	0.50	3
Mn			1	-0.024	ug/l	-65.64	462.68	4.178E-03	Pulse	0.50	3
Fe			1	-0.740	ug/l	-77.68	20,673.85	1.868E-01	Pulse	0.50	3
Co			1	0.005	ug/l	279.04	1,096.04	9.905E-03	Pulse	0.50	3
Ni			1	-0.642	ug/l	-1.30	840.02	7.586E-03	Pulse	0.50	3
Cu			1	-0.146	ug/l	-11.60	4,321.84	3.903E-02	Pulse	0.50	3
Zn			1	-0.024	ug/l	-49.23	558.34	3.341E-03	Pulse	1.00	3
Cd			1	0.023	ug/l	8.18	211.33	1.265E-03	Pulse	0.50	3
Al			1	-1.006	ug/l	-57.43	501.34	3.401E-03	Pulse	1.00	3
Se			1	0.253	ug/l	11.25	43.89	2.626E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	14.41	1,142.37	6.836E-03	Pulse	1.00	3
Se			1	0.104	ug/l	86.61	18.78	1.123E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,964,045.75	1.00	88.2	Pulse	0.50	3
1	Sc		147,575.34	1.02	94.6	Pulse	0.30	3

Quantitation Report

1	Ge		110,737.49	1.11	93.2	Pulse	0.30	3
1	In		1,185,451.79	0.85	92.0	Pulse	0.30	3
1	Tb		3,840,356.58	0.90	91.6	Pulse	0.50	3
1	Lu		2,913,769.83	0.92	90.3	Pulse	0.50	3
1	Ge		167,119.92	0.17	94.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,007.81	12.69	99.6	Pulse	0.30	3

Quantitation Report

File Name	124SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:27
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.051	ug/l	18.61	1,484.73	1.365E-02	Pulse	0.50	3
As			1	0.002	ug/l	352.30	94.00	8.635E-04	Pulse	1.00	3
Mo			1	0.030	ug/l	23.74	544.01	3.333E-03	Pulse	0.50	3
Pb			1	-0.063	ug/l	-7.59	4,220.19	1.432E-03	Pulse	1.00	3
Be			1	-0.079	ug/l	-70.84	4.00	2.769E-05	Pulse	2.00	3
Ag			1	-0.009	ug/l	-19.90	108.00	6.628E-04	Pulse	0.50	3
Ba			1	-0.010	ug/l	-65.29	281.33	2.406E-04	Pulse	0.50	3
Tl			1	0.006	ug/l	31.57	3,549.72	1.205E-03	Pulse	0.50	3
Sn			1	0.134	ug/l	12.96	1,834.55	1.567E-03	Pulse	0.30	3
Sr			1	0.012	ug/l	132.53	752.69	6.432E-04	Pulse	0.50	3
[Pb]			1	-0.059	ug/l	-9.84	2,016.13	6.845E-04	Pulse	0.50	3
Ca			1	-2.456	ug/l	-10.70	62.67	4.318E-04	Pulse	0.50	3
Ti			1	-0.157	ug/l	-22.62	15.33	1.061E-04	Pulse	0.50	3
Na			1	-1.484	ug/l	-16.51	10,466.74	7.217E-02	Pulse	1.00	3
Mg			1	-2.683	ug/l	-3.90	2,289.47	1.578E-02	Pulse	1.00	3
K			1	4.558	ug/l	22.17	22,281.52	1.536E-01	Pulse	1.00	3
V			1	0.051	ug/l	7.68	1,465.39	1.010E-02	Pulse	0.50	3
Mn			1	-0.020	ug/l	-53.13	466.68	4.290E-03	Pulse	0.50	3
Fe			1	-1.850	ug/l	-2.44	14,732.27	1.353E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-41.89	996.03	9.147E-03	Pulse	0.50	3
Ni			1	-0.634	ug/l	-1.92	846.02	7.775E-03	Pulse	0.50	3
Cu			1	-0.089	ug/l	-8.39	4,625.90	4.249E-02	Pulse	0.50	3
Zn			1	-0.052	ug/l	-41.01	510.68	3.129E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	52.79	178.67	1.095E-03	Pulse	0.50	3
Al			1	-2.511	ug/l	-5.45	251.00	1.730E-03	Pulse	1.00	3
Se			1	0.164	ug/l	42.34	37.22	2.281E-04	Pulse	3.00	3
Sb			1	-0.006	ug/l	-131.13	917.36	5.622E-03	Pulse	1.00	3
Se			1	0.161	ug/l	77.03	20.11	1.231E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,645.25	2.05	87.7	Pulse	0.50	3
1	Sc		145,044.70	1.83	93.0	Pulse	0.30	3

Quantitation Report

1	Ge		108,863.79	2.71	91.6	Pulse	0.30	3
1	In		1,170,148.50	2.49	90.9	Pulse	0.30	3
1	Tb		3,814,760.25	2.24	91.0	Pulse	0.50	3
1	Lu		2,891,226.75	2.42	89.6	Pulse	0.50	3
1	Ge		163,139.21	1.47	91.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		977.81	3.65	96.6	Pulse	0.30	3

Quantitation Report

File Name	125SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:30
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.065	ug/l	13.41	1,573.40	1.440E-02	Pulse	0.50	3
As			1	0.003	ug/l	1026.25	94.67	8.674E-04	Pulse	1.00	3
Mo			1	0.020	ug/l	112.28	514.68	3.102E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-1.23	4,199.52	1.416E-03	Pulse	1.00	3
Be			1	-0.041	ug/l	-49.87	5.33	3.636E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-11.09	82.67	4.979E-04	Pulse	0.50	3
Ba			1	-0.005	ug/l	-265.27	293.33	2.500E-04	Pulse	0.50	3
Tl			1	0.001	ug/l	178.40	3,413.69	1.151E-03	Pulse	0.50	3
Sn			1	0.077	ug/l	39.49	1,583.41	1.348E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	58.89	748.69	6.376E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-12.11	1,846.11	6.223E-04	Pulse	0.50	3
Ca			1	-1.978	ug/l	-42.42	73.33	5.001E-04	Pulse	0.50	3
Ti			1	-0.188	ug/l	-25.21	11.33	7.746E-05	Pulse	0.50	3
Na			1	-1.857	ug/l	-4.93	10,296.65	7.027E-02	Pulse	1.00	3
Mg			1	-2.249	ug/l	-6.68	2,483.16	1.694E-02	Pulse	1.00	3
K			1	4.810	ug/l	10.77	22,608.55	1.543E-01	Pulse	1.00	3
V			1	0.057	ug/l	16.86	1,510.73	1.031E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-22.77	392.01	3.591E-03	Pulse	0.50	3
Fe			1	-2.124	ug/l	-2.85	13,403.99	1.227E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-133.13	1,002.03	9.169E-03	Pulse	0.50	3
Ni			1	-0.671	ug/l	-3.66	758.02	6.943E-03	Pulse	0.50	3
Cu			1	-0.058	ug/l	-37.13	4,847.96	4.438E-02	Pulse	0.50	3
Zn			1	-0.104	ug/l	-25.51	454.68	2.741E-03	Pulse	1.00	3
Cd			1	-0.003	ug/l	-477.18	156.00	9.409E-04	Pulse	0.50	3
Al			1	-2.738	ug/l	-6.55	216.33	1.477E-03	Pulse	1.00	3
Se			1	0.151	ug/l	64.89	37.00	2.230E-04	Pulse	3.00	3
Sb			1	-0.017	ug/l	-45.75	864.02	5.206E-03	Pulse	1.00	3
Se			1	0.063	ug/l	125.72	17.33	1.045E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,965,534.67	1.37	88.3	Pulse	0.50	3
1	Sc		146,542.01	1.22	94.0	Pulse	0.30	3

Quantitation Report

1	Ge		109,260.37	1.58	91.9	Pulse	0.30	3
1	In		1,174,339.57	1.41	91.2	Pulse	0.30	3
1	Tb		3,821,682.25	1.60	91.1	Pulse	0.50	3
1	Lu		2,899,161.83	1.79	89.8	Pulse	0.50	3
1	Ge		165,919.41	0.67	93.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,075.59	6.53	106.3	Pulse	0.30	3

Quantitation Report

File Name	126SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:34
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.061	ug/l	33.24	1,560.74	1.419E-02	Pulse	0.50	3
As			1	-0.017	ug/l	-112.26	80.67	7.314E-04	Pulse	1.00	3
Mo			1	0.004	ug/l	98.33	458.68	2.744E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-7.35	4,052.49	1.363E-03	Pulse	1.00	3
Be			1	-0.106	ug/l	-34.37	3.17	2.140E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-6.35	67.33	4.024E-04	Pulse	0.50	3
Ba			1	-0.004	ug/l	-154.53	298.67	2.518E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-130.06	3,232.31	1.087E-03	Pulse	0.50	3
Sn			1	0.082	ug/l	37.77	1,620.08	1.368E-03	Pulse	0.30	3
Sr			1	0.013	ug/l	91.87	762.69	6.436E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-8.92	1,870.77	6.292E-04	Pulse	0.50	3
Ca			1	-2.511	ug/l	-44.95	62.67	4.239E-04	Pulse	0.50	3
Ti			1	-0.097	ug/l	-96.98	24.00	1.621E-04	Pulse	0.50	3
Na			1	-2.003	ug/l	-1.94	10,282.97	6.952E-02	Pulse	1.00	3
Mg			1	-1.941	ug/l	-19.64	2,627.51	1.777E-02	Pulse	1.00	3
K			1	5.167	ug/l	13.96	22,955.96	1.552E-01	Pulse	1.00	3
V			1	0.057	ug/l	49.02	1,525.40	1.031E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-67.86	413.34	3.753E-03	Pulse	0.50	3
Fe			1	-2.154	ug/l	-1.39	13,345.26	1.212E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-60.86	971.36	8.828E-03	Pulse	0.50	3
Ni			1	-0.711	ug/l	-1.60	667.35	6.065E-03	Pulse	0.50	3
Cu			1	-0.060	ug/l	-58.77	4,865.96	4.422E-02	Pulse	0.50	3
Zn			1	-0.081	ug/l	-43.39	486.34	2.910E-03	Pulse	1.00	3
Cd			1	-0.002	ug/l	-925.18	159.33	9.536E-04	Pulse	0.50	3
Al			1	-2.836	ug/l	-2.72	202.33	1.368E-03	Pulse	1.00	3
Se			1	0.100	ug/l	107.96	34.00	2.034E-04	Pulse	3.00	3
Sb			1	-0.015	ug/l	-29.22	880.35	5.265E-03	Pulse	1.00	3
Se			1	0.076	ug/l	125.89	17.89	1.070E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,973,748.08	1.34	88.5	Pulse	0.50	3
1	Sc		147,903.50	0.32	94.8	Pulse	0.30	3

Quantitation Report

1	Ge		110,076.05	1.91	92.6	Pulse	0.30	3
1	In		1,185,640.89	1.56	92.1	Pulse	0.30	3
1	Tb		3,849,853.67	1.31	91.8	Pulse	0.50	3
1	Lu		2,910,816.58	1.72	90.2	Pulse	0.50	3
1	Ge		167,182.57	0.88	94.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		968.92	7.86	95.7	Pulse	0.30	3

Quantitation Report

File Name	127SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:38
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.046	ug/l	6.83	1,498.06	1.343E-02	Pulse	0.50	3
As			1	0.008	ug/l	218.83	100.67	9.017E-04	Pulse	1.00	3
Mo			1	0.023	ug/l	12.96	528.01	3.175E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-4.64	4,217.20	1.418E-03	Pulse	1.00	3
Be			1	-0.052	ug/l	-48.78	5.00	3.379E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-4.24	76.00	4.569E-04	Pulse	0.50	3
Ba			1	-0.015	ug/l	-41.26	276.00	2.329E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-25.21	3,292.33	1.107E-03	Pulse	0.50	3
Sn			1	0.081	ug/l	55.25	1,612.34	1.362E-03	Pulse	0.30	3
Sr			1	0.006	ug/l	110.22	732.02	6.177E-04	Pulse	0.50	3
[Pb]			1	-0.062	ug/l	-8.25	1,994.13	6.709E-04	Pulse	0.50	3
Ca			1	-2.138	ug/l	-33.18	70.67	4.771E-04	Pulse	0.50	3
Ti			1	-0.126	ug/l	-30.00	20.00	1.350E-04	Pulse	0.50	3
Na			1	-2.032	ug/l	-7.50	10,268.64	6.937E-02	Pulse	1.00	3
Mg			1	-1.583	ug/l	-25.19	2,771.20	1.872E-02	Pulse	1.00	3
K			1	5.096	ug/l	9.90	22,947.96	1.550E-01	Pulse	1.00	3
V			1	0.075	ug/l	16.83	1,607.41	1.086E-02	Pulse	0.50	3
Mn			1	-0.027	ug/l	-82.81	454.67	4.080E-03	Pulse	0.50	3
Fe			1	-2.294	ug/l	-0.48	12,799.57	1.148E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-124.86	1,000.03	8.972E-03	Pulse	0.50	3
Ni			1	-0.701	ug/l	-4.57	701.35	6.291E-03	Pulse	0.50	3
Cu			1	-0.087	ug/l	-25.68	4,753.93	4.263E-02	Pulse	0.50	3
Zn			1	-0.066	ug/l	-6.20	503.01	3.025E-03	Pulse	1.00	3
Cd			1	-0.003	ug/l	-508.44	155.33	9.333E-04	Pulse	0.50	3
Al			1	-2.677	ug/l	-1.15	228.67	1.545E-03	Pulse	1.00	3
Se			1	0.149	ug/l	34.86	37.00	2.225E-04	Pulse	3.00	3
Sb			1	-0.021	ug/l	-47.34	841.35	5.058E-03	Pulse	1.00	3
Se			1	0.075	ug/l	119.67	17.78	1.069E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,972,758.25	1.20	88.5	Pulse	0.50	3
1	Sc		148,024.02	0.47	94.9	Pulse	0.30	3

Quantitation Report

1	Ge		111,535.42	1.51	93.9	Pulse	0.30	3
1	In		1,184,526.97	1.36	92.0	Pulse	0.30	3
1	Tb		3,855,933.08	1.23	92.0	Pulse	0.50	3
1	Lu		2,920,813.92	1.77	90.5	Pulse	0.50	3
1	Ge		166,296.97	0.55	93.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		962.25	9.37	95.1	Pulse	0.30	3

Quantitation Report

File Name	128SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:42
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.059	ug/l	28.90	1,564.07	1.408E-02	Pulse	0.50	3
As			1	0.011	ug/l	110.95	102.33	9.207E-04	Pulse	1.00	3
Mo			1	0.020	ug/l	44.32	514.68	3.097E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-4.36	4,108.83	1.389E-03	Pulse	1.00	3
Be			1	-0.081	ug/l	-61.11	4.00	2.704E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-7.14	67.33	4.051E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-619.49	300.67	2.546E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-24.52	3,167.64	1.071E-03	Pulse	0.50	3
Sn			1	0.078	ug/l	3.38	1,598.97	1.353E-03	Pulse	0.30	3
Sr			1	0.002	ug/l	1005.25	709.35	6.003E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-9.95	1,832.77	6.197E-04	Pulse	0.50	3
Ca			1	-2.562	ug/l	-42.64	61.33	4.167E-04	Pulse	0.50	3
Ti			1	-0.169	ug/l	-32.11	14.00	9.524E-05	Pulse	0.50	3
Na			1	-2.181	ug/l	-19.43	10,134.57	6.861E-02	Pulse	1.00	3
Mg			1	-1.639	ug/l	-3.01	2,744.53	1.857E-02	Pulse	1.00	3
K			1	5.012	ug/l	21.89	22,869.20	1.548E-01	Pulse	1.00	3
V			1	0.067	ug/l	24.93	1,566.74	1.060E-02	Pulse	0.50	3
Mn			1	-0.033	ug/l	-34.58	430.01	3.871E-03	Pulse	0.50	3
Fe			1	-2.321	ug/l	-0.38	12,613.45	1.135E-01	Pulse	0.50	3
Co			1	-0.005	ug/l	-21.66	1,008.03	9.072E-03	Pulse	0.50	3
Ni			1	-0.705	ug/l	-1.96	689.35	6.204E-03	Pulse	0.50	3
Cu			1	-0.078	ug/l	-33.85	4,793.94	4.315E-02	Pulse	0.50	3
Zn			1	-0.060	ug/l	-21.14	511.01	3.073E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	48.56	182.67	1.099E-03	Pulse	0.50	3
Al			1	-2.825	ug/l	-3.56	204.00	1.381E-03	Pulse	1.00	3
Se			1	0.189	ug/l	17.36	39.56	2.379E-04	Pulse	3.00	3
Sb			1	-0.019	ug/l	-19.20	849.02	5.108E-03	Pulse	1.00	3
Se			1	0.022	ug/l	430.47	16.11	9.684E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,957,701.67	1.14	88.0	Pulse	0.50	3
1	Sc		147,750.13	1.62	94.7	Pulse	0.30	3

Quantitation Report

1	Ge		111,115.10	0.68	93.5	Pulse	0.30	3
1	In		1,181,960.09	1.39	91.8	Pulse	0.30	3
1	Tb		3,826,216.83	1.25	91.2	Pulse	0.50	3
1	Lu		2,914,135.17	1.43	90.3	Pulse	0.50	3
1	Ge		166,243.70	0.66	93.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		980.03	6.21	96.8	Pulse	0.30	3

Quantitation Report

File Name	129SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:46
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.055	ug/l	41.88	1,552.07	1.390E-02	Pulse	0.50	3
As			1	0.003	ug/l	473.69	97.33	8.711E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	320.73	470.68	2.805E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-5.60	4,063.82	1.361E-03	Pulse	1.00	3
Be			1	-0.106	ug/l	-66.89	3.17	2.136E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-1.31	84.00	5.002E-04	Pulse	0.50	3
Ba			1	-0.006	ug/l	-129.73	296.00	2.490E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-34.92	3,226.32	1.081E-03	Pulse	0.50	3
Sn			1	0.045	ug/l	6.19	1,457.85	1.227E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	227.47	742.02	6.249E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-2.29	1,859.44	6.229E-04	Pulse	0.50	3
Ca			1	-1.808	ug/l	-40.82	77.33	5.243E-04	Pulse	0.50	3
Ti			1	-0.130	ug/l	-34.69	19.33	1.313E-04	Pulse	0.50	3
Na			1	-2.137	ug/l	-22.04	10,173.92	6.884E-02	Pulse	1.00	3
Mg			1	-1.263	ug/l	-9.40	2,895.88	1.958E-02	Pulse	1.00	3
K			1	5.229	ug/l	20.14	22,967.97	1.554E-01	Pulse	1.00	3
V			1	0.067	ug/l	18.31	1,569.40	1.062E-02	Pulse	0.50	3
Mn			1	-0.040	ug/l	-16.75	410.01	3.669E-03	Pulse	0.50	3
Fe			1	-2.363	ug/l	-1.65	12,472.69	1.116E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-221.59	1,030.03	9.208E-03	Pulse	0.50	3
Ni			1	-0.704	ug/l	-1.59	694.68	6.214E-03	Pulse	0.50	3
Cu			1	-0.093	ug/l	-42.08	4,718.59	4.224E-02	Pulse	0.50	3
Zn			1	-0.080	ug/l	-45.24	491.01	2.924E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	238.79	174.67	1.040E-03	Pulse	0.50	3
Al			1	-2.750	ug/l	-3.42	216.67	1.464E-03	Pulse	1.00	3
Se			1	0.171	ug/l	16.18	38.78	2.310E-04	Pulse	3.00	3
Sb			1	-0.024	ug/l	-18.53	825.69	4.916E-03	Pulse	1.00	3
Se			1	-0.004	ug/l	-1041.66	15.45	9.194E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,985,397.92	1.21	88.9	Pulse	0.50	3
1	Sc		147,865.64	2.04	94.8	Pulse	0.30	3

Quantitation Report

1	Ge		111,788.35	1.72	94.1	Pulse	0.30	3
1	In		1,188,561.27	1.30	92.3	Pulse	0.30	3
1	Tb		3,867,623.50	1.19	92.2	Pulse	0.50	3
1	Lu		2,934,584.00	1.22	90.9	Pulse	0.50	3
1	Ge		167,934.67	0.65	94.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		994.48	4.46	98.2	Pulse	0.30	3

Quantitation Report

File Name	130SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:49
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.073	ug/l	26.77	1,636.08	1.484E-02	Pulse	0.50	3
As			1	-0.002	ug/l	-1217.86	92.00	8.328E-04	Pulse	1.00	3
Mo			1	0.003	ug/l	269.57	449.34	2.710E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-5.20	4,081.83	1.373E-03	Pulse	1.00	3
Be			1	-0.120	ug/l	-18.09	2.67	1.803E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-19.91	74.67	4.514E-04	Pulse	0.50	3
Ba			1	-0.022	ug/l	-68.13	262.00	2.212E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-19.03	3,236.32	1.089E-03	Pulse	0.50	3
Sn			1	0.083	ug/l	26.89	1,625.64	1.373E-03	Pulse	0.30	3
Sr			1	-0.002	ug/l	-623.80	690.02	5.835E-04	Pulse	0.50	3
[Pb]			1	-0.071	ug/l	-5.29	1,888.78	6.354E-04	Pulse	0.50	3
Ca			1	-2.732	ug/l	-20.38	58.00	3.923E-04	Pulse	0.50	3
Ti			1	-0.121	ug/l	-30.67	20.67	1.400E-04	Pulse	0.50	3
Na			1	-2.324	ug/l	-9.65	10,028.85	6.788E-02	Pulse	1.00	3
Mg			1	-2.192	ug/l	-4.22	2,525.50	1.710E-02	Pulse	1.00	3
K			1	5.547	ug/l	1.86	23,073.43	1.562E-01	Pulse	1.00	3
V			1	0.046	ug/l	11.51	1,472.73	9.968E-03	Pulse	0.50	3
Mn			1	-0.031	ug/l	-13.69	434.01	3.935E-03	Pulse	0.50	3
Fe			1	-2.285	ug/l	-1.50	12,706.18	1.152E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-207.00	985.36	8.941E-03	Pulse	0.50	3
Ni			1	-0.584	ug/l	-4.08	980.03	8.880E-03	Pulse	0.50	3
Cu			1	-0.092	ug/l	-11.71	4,667.24	4.230E-02	Pulse	0.50	3
Zn			1	-0.065	ug/l	-38.74	503.68	3.037E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	562.31	166.00	1.000E-03	Pulse	0.50	3
Al			1	-2.510	ug/l	-1.13	255.67	1.731E-03	Pulse	1.00	3
Se			1	0.099	ug/l	42.71	33.67	2.030E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-27.75	841.69	5.075E-03	Pulse	1.00	3
Se			1	0.100	ug/l	184.35	18.56	1.116E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,972,164.08	1.21	88.5	Pulse	0.50	3
1	Sc		147,735.30	0.66	94.7	Pulse	0.30	3

Quantitation Report

1	Ge		110,313.91	1.57	92.8	Pulse	0.30	3
1	In		1,183,475.86	1.14	91.9	Pulse	0.30	3
1	Tb		3,845,894.92	1.38	91.7	Pulse	0.50	3
1	Lu		2,913,162.83	1.07	90.3	Pulse	0.50	3
1	Ge		165,786.03	1.47	93.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		961.14	7.31	95.0	Pulse	0.30	3

Quantitation Report

File Name	131SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:53
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.045	ug/l	20.65	1,475.40	1.333E-02	Pulse	0.50	3
As			1	0.009	ug/l	115.20	100.67	9.097E-04	Pulse	1.00	3
Mo			1	0.002	ug/l	772.78	445.34	2.687E-03	Pulse	0.50	3
Pb			1	-0.073	ug/l	-3.32	4,004.14	1.355E-03	Pulse	1.00	3
Be			1	-0.135	ug/l	-16.26	2.17	1.467E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-6.08	67.33	4.062E-04	Pulse	0.50	3
Ba			1	-0.014	ug/l	-123.10	278.00	2.353E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-66.43	3,234.32	1.094E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	30.90	1,492.29	1.265E-03	Pulse	0.30	3
Sr			1	0.005	ug/l	370.35	722.68	6.125E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-15.18	1,874.78	6.342E-04	Pulse	0.50	3
Ca			1	-2.571	ug/l	-29.16	61.33	4.153E-04	Pulse	0.50	3
Ti			1	-0.199	ug/l	-33.44	10.00	6.753E-05	Pulse	0.50	3
Na			1	-2.554	ug/l	-5.49	9,838.75	6.671E-02	Pulse	1.00	3
Mg			1	-2.132	ug/l	-1.10	2,545.17	1.726E-02	Pulse	1.00	3
K			1	5.494	ug/l	23.04	23,014.36	1.560E-01	Pulse	1.00	3
V			1	0.050	ug/l	24.60	1,488.06	1.009E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-16.58	413.34	3.735E-03	Pulse	0.50	3
Fe			1	-2.194	ug/l	-2.47	13,214.52	1.194E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-211.70	1,022.70	9.241E-03	Pulse	0.50	3
Ni			1	-0.585	ug/l	-5.11	980.03	8.856E-03	Pulse	0.50	3
Cu			1	-0.103	ug/l	-4.30	4,611.23	4.167E-02	Pulse	0.50	3
Zn			1	-0.089	ug/l	-48.22	472.34	2.850E-03	Pulse	1.00	3
Cd			1	-0.015	ug/l	-45.87	130.67	7.883E-04	Pulse	0.50	3
Al			1	-2.740	ug/l	-2.37	217.67	1.475E-03	Pulse	1.00	3
Se			1	0.207	ug/l	29.99	40.56	2.447E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-4.64	857.02	5.170E-03	Pulse	1.00	3
Se			1	0.123	ug/l	12.51	19.22	1.160E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,955,251.67	1.15	88.0	Pulse	0.50	3
1	Sc		147,501.30	0.85	94.6	Pulse	0.30	3

Quantitation Report

1	Ge		110,661.63	0.29	93.1	Pulse	0.30	3
1	In		1,180,052.31	1.63	91.6	Pulse	0.30	3
1	Tb		3,821,725.50	1.30	91.1	Pulse	0.50	3
1	Lu		2,901,235.00	1.32	89.9	Pulse	0.50	3
1	Ge		165,763.56	0.15	93.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,008.92	8.52	99.7	Pulse	0.30	3

Quantitation Report

File Name	132SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 18:57
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.055	ug/l	23.19	1,514.73	1.386E-02	Pulse	0.50	3
As			1	0.015	ug/l	70.26	104.00	9.512E-04	Pulse	1.00	3
Mo			1	0.004	ug/l	166.26	456.01	2.743E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-4.26	4,086.16	1.387E-03	Pulse	1.00	3
Be			1	-0.056	ug/l	-97.64	4.83	3.287E-05	Pulse	2.00	3
Ag			1	-0.014	ug/l	-8.26	50.67	3.047E-04	Pulse	0.50	3
Ba			1	-0.004	ug/l	-177.49	295.33	2.515E-04	Pulse	0.50	3
Tl			1	-0.008	ug/l	-44.40	3,081.62	1.046E-03	Pulse	0.50	3
Sn			1	0.038	ug/l	41.92	1,407.84	1.199E-03	Pulse	0.30	3
Sr			1	0.016	ug/l	33.78	772.02	6.575E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-7.28	1,848.11	6.272E-04	Pulse	0.50	3
Ca			1	-2.238	ug/l	-18.77	68.00	4.630E-04	Pulse	0.50	3
Ti			1	-0.159	ug/l	-18.51	15.33	1.042E-04	Pulse	0.50	3
Na			1	-2.679	ug/l	-5.82	9,705.36	6.607E-02	Pulse	1.00	3
Mg			1	-1.973	ug/l	-12.53	2,597.84	1.768E-02	Pulse	1.00	3
K			1	4.921	ug/l	21.45	22,706.34	1.546E-01	Pulse	1.00	3
V			1	0.084	ug/l	22.05	1,638.08	1.115E-02	Pulse	0.50	3
Mn			1	-0.034	ug/l	-16.69	421.34	3.856E-03	Pulse	0.50	3
Fe			1	-2.112	ug/l	-2.27	13,465.35	1.232E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-60.46	974.70	8.916E-03	Pulse	0.50	3
Ni			1	-0.622	ug/l	-2.57	878.02	8.032E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-22.77	4,775.27	4.369E-02	Pulse	0.50	3
Zn			1	-0.092	ug/l	-10.74	470.01	2.827E-03	Pulse	1.00	3
Cd			1	-0.007	ug/l	-72.23	147.33	8.862E-04	Pulse	0.50	3
Al			1	-2.721	ug/l	-6.99	220.00	1.497E-03	Pulse	1.00	3
Se			1	0.111	ug/l	110.52	34.56	2.079E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-16.61	833.02	5.010E-03	Pulse	1.00	3
Se			1	0.132	ug/l	80.50	19.56	1.176E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,169.42	1.19	87.7	Pulse	0.50	3
1	Sc		146,906.00	0.88	94.2	Pulse	0.30	3

Quantitation Report

1	Ge		109,292.76	0.97	92.0	Pulse	0.30	3
1	In		1,174,037.00	1.33	91.2	Pulse	0.30	3
1	Tb		3,829,022.33	1.21	91.3	Pulse	0.50	3
1	Lu		2,906,060.75	1.03	90.0	Pulse	0.50	3
1	Ge		166,279.12	0.28	93.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		995.59	1.84	98.4	Pulse	0.30	3

Quantitation Report

File Name	133SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:01
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.055	ug/l	11.32	1,522.06	1.386E-02	Pulse	0.50	3
As			1	0.001	ug/l	2205.66	93.67	8.537E-04	Pulse	1.00	3
Mo			1	0.017	ug/l	26.59	499.34	3.046E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-5.58	4,059.49	1.377E-03	Pulse	1.00	3
Be			1	-0.149	ug/l	-22.35	1.67	1.135E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-10.85	62.00	3.782E-04	Pulse	0.50	3
Ba			1	-0.012	ug/l	-128.71	280.00	2.383E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-23.97	3,108.96	1.055E-03	Pulse	0.50	3
Sn			1	0.065	ug/l	11.25	1,533.41	1.304E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	91.32	736.69	6.264E-04	Pulse	0.50	3
[Pb]			1	-0.074	ug/l	-8.68	1,840.10	6.243E-04	Pulse	0.50	3
Ca			1	-1.552	ug/l	-17.33	82.00	5.609E-04	Pulse	0.50	3
Ti			1	-0.135	ug/l	-48.00	18.67	1.273E-04	Pulse	0.50	3
Na			1	-2.571	ug/l	-5.12	9,740.37	6.662E-02	Pulse	1.00	3
Mg			1	-1.517	ug/l	-3.49	2,763.53	1.890E-02	Pulse	1.00	3
K			1	5.438	ug/l	15.91	22,796.11	1.559E-01	Pulse	1.00	3
V			1	0.084	ug/l	5.01	1,629.41	1.114E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-46.76	431.34	3.929E-03	Pulse	0.50	3
Fe			1	-2.132	ug/l	-1.05	13,422.66	1.223E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-214.16	1,001.36	9.125E-03	Pulse	0.50	3
Ni			1	-0.653	ug/l	-1.13	808.02	7.362E-03	Pulse	0.50	3
Cu			1	-0.060	ug/l	-19.63	4,856.63	4.424E-02	Pulse	0.50	3
Zn			1	-0.062	ug/l	-25.08	501.34	3.059E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-149.00	147.33	8.989E-04	Pulse	0.50	3
Al			1	-2.777	ug/l	-0.68	209.67	1.434E-03	Pulse	1.00	3
Se			1	0.145	ug/l	25.74	36.22	2.209E-04	Pulse	3.00	3
Sb			1	-0.012	ug/l	-43.98	884.69	5.397E-03	Pulse	1.00	3
Se			1	0.201	ug/l	106.71	21.44	1.307E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,947,336.83	1.42	87.7	Pulse	0.50	3
1	Sc		146,221.89	1.02	93.8	Pulse	0.30	3

Quantitation Report

1	Ge		109,769.92	1.12	92.4	Pulse	0.30	3
1	In		1,175,698.25	0.93	91.3	Pulse	0.30	3
1	Tb		3,829,810.33	1.91	91.3	Pulse	0.50	3
1	Lu		2,892,622.67	1.27	89.6	Pulse	0.50	3
1	Ge		163,932.60	0.41	92.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,020.03	4.49	100.8	Pulse	0.30	3

Quantitation Report

File Name	134CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:05
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.088	ug/l	1.62	279,744.64	2.475E+00	Pulse	0.50	3
As			1	46.826	ug/l	1.23	36,918.76	3.266E-01	Pulse	1.00	3
Mo			1	47.062	ug/l	1.22	185,243.47	1.098E+00	Pulse	0.50	3
Pb			1	46.832	ug/l	0.60	1,169,740.66	3.964E-01	Pulse	1.00	3
Be			1	47.497	ug/l	2.07	1,659.40	1.107E-02	Pulse	2.00	3
Ag			1	48.180	ug/l	1.36	634,746.56	3.764E+00	Pulse	0.50	3
Ba			1	47.198	ug/l	0.67	98,133.15	8.230E-02	Pulse	0.50	3
Tl			1	47.947	ug/l	0.42	1,684,619.87	5.709E-01	Pulse	0.50	3
Sn			1	46.808	ug/l	1.48	216,786.48	1.818E-01	Pulse	0.30	3
Sr			1	47.692	ug/l	1.28	228,740.54	1.918E-01	Pulse	0.50	3
[Pb]			1	47.064	ug/l	0.90	553,877.71	1.877E-01	Pulse	0.50	3
Ca			1	4767.102	ug/l	0.39	102,174.25	6.819E-01	Pulse	0.50	3
Ti			1	46.468	ug/l	0.75	6,538.44	4.363E-02	Pulse	0.50	3
Na			1	4644.019	ug/l	0.48	3,568,122.25	2.381E+01	Pulse	1.00	3
Mg			1	4618.314	ug/l	0.36	1,855,506.71	1.238E+01	Pulse	1.00	3
K			1	4757.074	ug/l	0.42	1,849,996.25	1.235E+01	Pulse	1.00	3
V			1	46.475	ug/l	0.36	219,230.35	1.463E+00	Pulse	0.50	3
Mn			1	47.778	ug/l	1.59	173,051.25	1.531E+00	Pulse	0.50	3
Fe			1	5014.697	ug/l	1.02	26,295,197.33	2.326E+02	Analog	0.50	3
Co			1	47.304	ug/l	1.65	452,542.99	4.003E+00	Pulse	0.50	3
Ni			1	46.439	ug/l	1.52	119,297.60	1.055E+00	Pulse	0.50	3
Cu			1	47.259	ug/l	1.66	326,728.07	2.890E+00	Pulse	0.50	3
Zn			1	47.033	ug/l	1.85	60,537.14	3.590E-01	Pulse	1.00	3
Cd			1	46.736	ug/l	1.66	100,862.03	5.981E-01	Pulse	0.50	3
Al			1	4537.357	ug/l	0.39	755,830.94	5.044E+00	Pulse	1.00	3
Se			1	47.758	ug/l	1.24	3,128.48	1.855E-02	Pulse	3.00	3
Sb			1	46.351	ug/l	1.56	296,891.77	1.760E+00	Pulse	1.00	3
Se			1	47.470	ug/l	2.83	1,527.51	9.057E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,950,851.92	0.99	87.8	Pulse	0.50	3
1	Sc		149,847.00	0.66	96.1	Pulse	0.30	3
1	Ge		113,048.84	0.10	95.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,192,383.84	0.09	92.6	Pulse	0.30	3
1	Tb		3,899,243.50	0.39	93.0	Pulse	0.50	3
1	Lu		2,978,766.50	0.44	92.3	Pulse	0.50	3
1	Ge		168,644.96	0.07	94.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		962.25	10.61	95.1	Pulse	0.30	3

Quantitation Report

File Name 135_CCV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 19:08
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.803	ug/l	0.93	573,505.44	5.128E+00	Pulse	0.50	3
As			1	96.618	ug/l	1.02	75,262.04	6.729E-01	Pulse	1.00	3
Mo			1	97.923	ug/l	1.37	382,539.75	2.283E+00	Pulse	0.50	3
Pb			1	97.189	ug/l	0.61	2,393,092.75	8.205E-01	Pulse	1.00	3
Be			1	98.523	ug/l	1.80	3,379.28	2.292E-02	Pulse	2.00	3
Ag			1	98.682	ug/l	1.31	1,291,681.79	7.708E+00	Pulse	0.50	3
Ba			1	97.647	ug/l	1.00	201,366.18	1.700E-01	Pulse	0.50	3
Tl			1	99.118	ug/l	0.25	3,438,364.17	1.179E+00	Pulse	0.50	3
Sn			1	97.643	ug/l	1.17	447,902.15	3.781E-01	Pulse	0.30	3
Sr			1	99.566	ug/l	1.12	473,636.58	3.998E-01	Pulse	0.50	3
[Pb]			1	97.274	ug/l	0.53	1,128,582.88	3.869E-01	Pulse	0.50	3
Ca			1	9869.093	ug/l	1.59	207,969.05	1.411E+00	Pulse	0.50	3
Ti			1	98.296	ug/l	2.17	13,565.38	9.202E-02	Pulse	0.50	3
Na			1	10136.286	ug/l	1.18	7,648,034.33	5.188E+01	Analog	1.00	3
Mg			1	9595.778	ug/l	1.62	3,789,062.58	2.570E+01	Pulse	1.00	3
K			1	9841.113	ug/l	0.96	3,742,879.00	2.539E+01	Pulse	1.00	3
V			1	97.825	ug/l	1.31	452,589.08	3.070E+00	Pulse	0.50	3
Mn			1	98.271	ug/l	1.33	351,553.79	3.143E+00	Pulse	0.50	3
Fe			1	10364.439	ug/l	1.62	53,740,221.33	4.805E+02	Analog	0.50	3
Co			1	97.241	ug/l	1.09	919,236.87	8.219E+00	Pulse	0.50	3
Ni			1	96.029	ug/l	1.08	241,444.72	2.159E+00	Pulse	0.50	3
Cu			1	96.582	ug/l	1.43	655,006.23	5.857E+00	Pulse	0.50	3
Zn			1	96.009	ug/l	2.11	122,180.31	7.291E-01	Pulse	1.00	3
Cd			1	96.710	ug/l	1.69	207,222.36	1.237E+00	Pulse	0.50	3
Al			1	9518.306	ug/l	2.09	1,559,024.92	1.058E+01	Pulse	1.00	3
Se			1	97.735	ug/l	0.89	6,333.38	3.779E-02	Pulse	3.00	3
Sb			1	96.443	ug/l	1.91	612,795.21	3.657E+00	Pulse	1.00	3
Se			1	98.267	ug/l	0.96	3,125.70	1.865E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,916,540.00	0.90	86.8	Pulse	0.50	3
1	Sc		147,429.76	0.91	94.5	Pulse	0.30	3
1	Ge		111,844.14	0.55	94.1	Pulse	0.30	3
1	In		1,184,546.17	0.26	92.0	Pulse	0.30	3
1	Tb		3,903,341.08	0.36	93.1	Pulse	0.50	3
1	Lu		2,978,296.75	0.63	92.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,596.99	0.72	94.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		985.58	10.80	97.4	Pulse	0.30	3

Quantitation Report

File Name	136_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:12
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	818.22	1,226.04	1.109E-02	Pulse	0.50	3
As			1	0.026	ug/l	16.92	114.00	1.030E-03	Pulse	1.00	3
Mo			1	0.128	ug/l	21.06	934.03	5.613E-03	Pulse	0.50	3
Pb			1	-0.008	ug/l	-91.89	5,576.92	1.900E-03	Pulse	1.00	3
Be			1	-0.013	ug/l	-531.03	6.33	4.285E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	31.08	486.01	2.921E-03	Pulse	0.50	3
Ba			1	0.036	ug/l	27.62	378.68	3.206E-04	Pulse	0.50	3
Tl			1	0.036	ug/l	32.78	4,605.30	1.570E-03	Pulse	0.50	3
Sn			1	0.169	ug/l	15.88	2,013.46	1.705E-03	Pulse	0.30	3
Sr			1	0.037	ug/l	3.82	874.69	7.406E-04	Pulse	0.50	3
[Pb]			1	-0.017	ug/l	-77.33	2,498.86	8.515E-04	Pulse	0.50	3
Ca			1	2.368	ug/l	56.16	166.00	1.121E-03	Pulse	0.50	3
Ti			1	-0.141	ug/l	-52.29	18.00	1.217E-04	Pulse	0.50	3
Na			1	1.962	ug/l	50.45	13,303.42	8.979E-02	Pulse	1.00	3
Mg			1	0.772	ug/l	44.51	3,708.68	2.503E-02	Pulse	1.00	3
K			1	6.342	ug/l	11.50	23,452.55	1.582E-01	Pulse	1.00	3
V			1	-0.008	ug/l	-231.19	1,225.38	8.267E-03	Pulse	0.50	3
Mn			1	-0.003	ug/l	-249.46	536.01	4.847E-03	Pulse	0.50	3
Fe			1	0.867	ug/l	70.06	28,872.89	2.612E-01	Pulse	0.50	3
Co			1	0.016	ug/l	63.61	1,193.38	1.079E-02	Pulse	0.50	3
Ni			1	-0.630	ug/l	-2.28	870.02	7.866E-03	Pulse	0.50	3
Cu			1	-0.159	ug/l	-18.37	4,233.82	3.828E-02	Pulse	0.50	3
Zn			1	0.022	ug/l	62.20	614.34	3.692E-03	Pulse	1.00	3
Cd			1	0.033	ug/l	1.68	232.67	1.398E-03	Pulse	0.50	3
Al			1	0.328	ug/l	267.86	722.68	4.883E-03	Pulse	1.00	3
Se			1	0.171	ug/l	66.55	38.45	2.310E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	27.35	1,209.04	7.266E-03	Pulse	1.00	3
Se			1	0.107	ug/l	45.53	18.78	1.129E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,935,015.17	0.64	87.4	Pulse	0.50	3
1	Sc		148,235.83	1.19	95.0	Pulse	0.30	3

Quantitation Report

1	Ge		110,632.52	1.40	93.1	Pulse	0.30	3
1	In		1,181,039.26	0.54	91.7	Pulse	0.30	3
1	Tb		3,810,206.17	0.43	90.9	Pulse	0.50	3
1	Lu		2,887,829.17	0.91	89.5	Pulse	0.50	3
1	Ge		166,388.17	0.07	93.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,024.48	11.72	101.2	Pulse	0.30	3

Quantitation Report

File Name	137SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:16
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.060	ug/l	11.35	1,535.40	1.416E-02	Pulse	0.50	3
As			1	0.035	ug/l	12.49	118.33	1.092E-03	Pulse	1.00	3
Mo			1	0.047	ug/l	25.50	607.34	3.735E-03	Pulse	0.50	3
Pb			1	-0.062	ug/l	-9.84	4,194.19	1.444E-03	Pulse	1.00	3
Be			1	-0.084	ug/l	-52.85	3.83	2.649E-05	Pulse	2.00	3
Ag			1	-0.008	ug/l	-13.98	124.67	7.671E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	3073.12	300.67	2.591E-04	Pulse	0.50	3
Tl			1	0.005	ug/l	21.48	3,475.03	1.196E-03	Pulse	0.50	3
Sn			1	0.101	ug/l	16.53	1,671.20	1.440E-03	Pulse	0.30	3
Sr			1	0.024	ug/l	31.05	802.02	6.909E-04	Pulse	0.50	3
[Pb]			1	-0.071	ug/l	-5.81	1,849.44	6.365E-04	Pulse	0.50	3
Ca			1	-2.603	ug/l	-20.35	59.33	4.108E-04	Pulse	0.50	3
Ti			1	-0.142	ug/l	-23.85	17.33	1.200E-04	Pulse	0.50	3
Na			1	-2.301	ug/l	-16.24	9,817.74	6.800E-02	Pulse	1.00	3
Mg			1	-1.123	ug/l	-25.66	2,881.88	1.995E-02	Pulse	1.00	3
K			1	5.662	ug/l	14.33	22,594.88	1.565E-01	Pulse	1.00	3
V			1	0.050	ug/l	16.76	1,456.06	1.008E-02	Pulse	0.50	3
Mn			1	-0.034	ug/l	-40.99	417.34	3.854E-03	Pulse	0.50	3
Fe			1	-1.542	ug/l	-6.57	16,214.12	1.496E-01	Pulse	0.50	3
Co			1	-0.012	ug/l	-64.40	915.36	8.446E-03	Pulse	0.50	3
Ni			1	-0.613	ug/l	-2.98	894.02	8.246E-03	Pulse	0.50	3
Cu			1	-0.093	ug/l	-33.57	4,581.23	4.227E-02	Pulse	0.50	3
Zn			1	-0.072	ug/l	-22.99	485.34	2.984E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	257.48	168.00	1.034E-03	Pulse	0.50	3
Al			1	-2.545	ug/l	-13.43	244.00	1.692E-03	Pulse	1.00	3
Se			1	0.227	ug/l	22.49	41.00	2.523E-04	Pulse	3.00	3
Sb			1	-0.010	ug/l	-28.47	889.69	5.473E-03	Pulse	1.00	3
Se			1	0.037	ug/l	221.55	16.22	9.969E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,905,385.83	1.19	86.5	Pulse	0.50	3
1	Sc		144,404.38	1.05	92.6	Pulse	0.30	3

Quantitation Report

1	Ge		108,393.15	1.20	91.2	Pulse	0.30	3
1	In		1,160,583.12	1.59	90.1	Pulse	0.30	3
1	Tb		3,762,819.58	1.55	89.7	Pulse	0.50	3
1	Lu		2,850,748.58	1.40	88.3	Pulse	0.50	3
1	Ge		162,582.37	0.93	91.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,002.25	7.03	99.0	Pulse	0.30	3

Quantitation Report

File Name	138SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:20
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.058	ug/l	8.50	1,538.07	1.404E-02	Pulse	0.50	3
As			1	0.018	ug/l	46.18	106.67	9.740E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	66.06	490.01	2.978E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-4.07	4,073.49	1.387E-03	Pulse	1.00	3
Be			1	-0.070	ug/l	-52.42	4.33	2.961E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-3.41	62.67	3.808E-04	Pulse	0.50	3
Ba			1	-0.027	ug/l	-63.40	248.67	2.122E-04	Pulse	0.50	3
Tl			1	-0.002	ug/l	-89.18	3,282.99	1.118E-03	Pulse	0.50	3
Sn			1	0.082	ug/l	17.19	1,605.64	1.370E-03	Pulse	0.30	3
Sr			1	0.009	ug/l	212.58	737.35	6.286E-04	Pulse	0.50	3
[Pb]			1	-0.067	ug/l	-8.84	1,922.12	6.546E-04	Pulse	0.50	3
Ca			1	-2.511	ug/l	-40.45	62.00	4.239E-04	Pulse	0.50	3
Ti			1	-0.149	ug/l	-45.27	16.67	1.138E-04	Pulse	0.50	3
Na			1	-2.771	ug/l	-2.16	9,596.97	6.560E-02	Pulse	1.00	3
Mg			1	-0.699	ug/l	-34.59	3,085.24	2.109E-02	Pulse	1.00	3
K			1	4.590	ug/l	14.61	22,489.08	1.537E-01	Pulse	1.00	3
V			1	0.056	ug/l	16.96	1,503.40	1.028E-02	Pulse	0.50	3
Mn			1	-0.044	ug/l	-27.91	386.01	3.521E-03	Pulse	0.50	3
Fe			1	-1.939	ug/l	-2.74	14,374.00	1.312E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-70.50	952.69	8.699E-03	Pulse	0.50	3
Ni			1	-0.635	ug/l	-4.35	850.02	7.763E-03	Pulse	0.50	3
Cu			1	-0.064	ug/l	-35.67	4,817.28	4.398E-02	Pulse	0.50	3
Zn			1	-0.059	ug/l	-8.93	506.34	3.078E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	353.05	164.00	9.966E-04	Pulse	0.50	3
Al			1	-2.677	ug/l	-1.65	226.00	1.545E-03	Pulse	1.00	3
Se			1	0.149	ug/l	63.52	36.55	2.223E-04	Pulse	3.00	3
Sb			1	-0.005	ug/l	-262.40	929.02	5.646E-03	Pulse	1.00	3
Se			1	0.067	ug/l	134.37	17.33	1.053E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,936,366.83	1.41	87.4	Pulse	0.50	3
1	Sc		146,299.20	0.78	93.8	Pulse	0.30	3

Quantitation Report

1	Ge		109,547.52	0.97	92.2	Pulse	0.30	3
1	In		1,172,555.40	1.32	91.0	Pulse	0.30	3
1	Tb		3,796,191.58	1.46	90.5	Pulse	0.50	3
1	Lu		2,874,939.08	1.91	89.1	Pulse	0.50	3
1	Ge		164,526.26	0.31	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		928.91	8.94	91.8	Pulse	0.30	3

Quantitation Report

File Name	139SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:23
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.050	ug/l	17.73	1,513.40	1.364E-02	Pulse	0.50	3
As			1	-0.002	ug/l	-271.76	92.67	8.347E-04	Pulse	1.00	3
Mo			1	0.001	ug/l	735.29	443.34	2.670E-03	Pulse	0.50	3
Pb			1	-0.064	ug/l	-4.31	4,194.19	1.426E-03	Pulse	1.00	3
Be			1	-0.071	ug/l	-102.90	4.33	2.942E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-0.76	92.67	5.582E-04	Pulse	0.50	3
Ba			1	-0.011	ug/l	-123.42	282.67	2.406E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-28.60	3,156.30	1.073E-03	Pulse	0.50	3
Sn			1	0.065	ug/l	27.25	1,531.19	1.304E-03	Pulse	0.30	3
Sr			1	-0.002	ug/l	-619.06	688.02	5.864E-04	Pulse	0.50	3
[Pb]			1	-0.071	ug/l	-13.72	1,877.44	6.386E-04	Pulse	0.50	3
Ca			1	-1.984	ug/l	-16.23	73.33	4.992E-04	Pulse	0.50	3
Ti			1	-0.159	ug/l	-19.06	15.33	1.044E-04	Pulse	0.50	3
Na			1	-2.852	ug/l	-8.53	9,576.30	6.518E-02	Pulse	1.00	3
Mg			1	-0.369	ug/l	-69.92	3,229.27	2.197E-02	Pulse	1.00	3
K			1	5.024	ug/l	8.32	22,750.39	1.548E-01	Pulse	1.00	3
V			1	0.070	ug/l	10.04	1,575.40	1.072E-02	Pulse	0.50	3
Mn			1	-0.033	ug/l	-8.04	431.34	3.886E-03	Pulse	0.50	3
Fe			1	-2.093	ug/l	-1.71	13,768.90	1.241E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-35.89	962.03	8.670E-03	Pulse	0.50	3
Ni			1	-0.676	ug/l	-3.53	759.35	6.847E-03	Pulse	0.50	3
Cu			1	-0.089	ug/l	-5.37	4,717.26	4.251E-02	Pulse	0.50	3
Zn			1	-0.064	ug/l	-48.95	504.68	3.040E-03	Pulse	1.00	3
Cd			1	0.004	ug/l	155.76	171.33	1.032E-03	Pulse	0.50	3
Al			1	-2.791	ug/l	-4.14	208.33	1.418E-03	Pulse	1.00	3
Se			1	0.194	ug/l	17.15	39.78	2.396E-04	Pulse	3.00	3
Sb			1	-0.014	ug/l	-77.03	881.02	5.306E-03	Pulse	1.00	3
Se			1	0.045	ug/l	297.98	16.78	1.011E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,941,219.58	1.50	87.5	Pulse	0.50	3
1	Sc		146,932.86	1.11	94.2	Pulse	0.30	3

Quantitation Report

1	Ge		110,974.60	1.42	93.4	Pulse	0.30	3
1	In		1,174,087.56	1.27	91.2	Pulse	0.30	3
1	Tb		3,818,674.42	1.44	91.1	Pulse	0.50	3
1	Lu		2,882,908.17	1.74	89.3	Pulse	0.50	3
1	Ge		166,018.01	0.26	93.4	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		968.92	8.84	95.7	Pulse	0.30	3

Quantitation Report

File Name 140SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 19:27
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.053	ug/l	13.40	1,536.73	1.377E-02	Pulse	0.50	3
As			1	0.001	ug/l	809.99	95.67	8.573E-04	Pulse	1.00	3
Mo			1	0.009	ug/l	16.51	474.68	2.858E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-5.86	4,052.49	1.380E-03	Pulse	1.00	3
Be			1	-0.125	ug/l	-23.03	2.50	1.692E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-7.78	63.33	3.810E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-53.96	286.67	2.435E-04	Pulse	0.50	3
Tl			1	0.001	ug/l	314.36	3,382.35	1.151E-03	Pulse	0.50	3
Sn			1	0.052	ug/l	39.55	1,476.73	1.253E-03	Pulse	0.30	3
Sr			1	0.004	ug/l	164.14	715.35	6.077E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-9.69	1,885.44	6.421E-04	Pulse	0.50	3
Ca			1	-2.128	ug/l	-63.21	70.67	4.786E-04	Pulse	0.50	3
Ti			1	-0.194	ug/l	-22.68	10.67	7.207E-05	Pulse	0.50	3
Na			1	-2.995	ug/l	-7.37	9,498.59	6.445E-02	Pulse	1.00	3
Mg			1	-0.531	ug/l	-36.98	3,175.59	2.154E-02	Pulse	1.00	3
K			1	4.845	ug/l	38.26	22,749.73	1.544E-01	Pulse	1.00	3
V			1	0.052	ug/l	38.77	1,494.06	1.014E-02	Pulse	0.50	3
Mn			1	-0.040	ug/l	-8.13	408.01	3.656E-03	Pulse	0.50	3
Fe			1	-2.234	ug/l	-1.71	13,117.11	1.175E-01	Pulse	0.50	3
Co			1	-0.013	ug/l	-49.58	932.03	8.352E-03	Pulse	0.50	3
Ni			1	-0.703	ug/l	-2.85	695.35	6.234E-03	Pulse	0.50	3
Cu			1	-0.102	ug/l	-19.03	4,654.58	4.172E-02	Pulse	0.50	3
Zn			1	-0.064	ug/l	-13.31	505.68	3.045E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	8695.92	162.00	9.758E-04	Pulse	0.50	3
Al			1	-2.722	ug/l	-5.87	220.33	1.495E-03	Pulse	1.00	3
Se			1	0.190	ug/l	37.68	39.56	2.382E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-29.09	832.69	5.016E-03	Pulse	1.00	3
Se			1	-0.041	ug/l	-110.21	14.11	8.500E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,937,024.25	0.88	87.4	Pulse	0.50	3
1	Sc		147,403.14	1.52	94.5	Pulse	0.30	3

Quantitation Report

1	Ge		111,595.90	1.10	93.9	Pulse	0.30	3
1	In		1,177,595.48	1.63	91.4	Pulse	0.30	3
1	Tb		3,824,774.58	1.45	91.2	Pulse	0.50	3
1	Lu		2,892,039.08	1.12	89.6	Pulse	0.50	3
1	Ge		166,060.91	1.06	93.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		982.25	3.75	97.0	Pulse	0.30	3

Quantitation Report

File Name	141SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:31
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.049	ug/l	35.08	1,497.40	1.356E-02	Pulse	0.50	3
As			1	-0.005	ug/l	-53.70	89.67	8.120E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	76.52	496.01	2.967E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-5.28	4,167.85	1.421E-03	Pulse	1.00	3
Be			1	-0.110	ug/l	-26.63	3.00	2.047E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-5.00	62.67	3.750E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-390.72	300.67	2.547E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-43.57	3,118.30	1.063E-03	Pulse	0.50	3
Sn			1	0.057	ug/l	0.69	1,498.96	1.270E-03	Pulse	0.30	3
Sr			1	0.004	ug/l	205.24	717.35	6.077E-04	Pulse	0.50	3
[Pb]			1	-0.077	ug/l	-12.47	1,803.44	6.143E-04	Pulse	0.50	3
Ca			1	-2.547	ug/l	-18.57	61.33	4.187E-04	Pulse	0.50	3
Ti			1	-0.130	ug/l	-32.47	19.33	1.320E-04	Pulse	0.50	3
Na			1	-3.057	ug/l	-5.69	9,395.21	6.414E-02	Pulse	1.00	3
Mg			1	-0.320	ug/l	-55.36	3,238.26	2.211E-02	Pulse	1.00	3
K			1	5.735	ug/l	1.92	22,949.28	1.567E-01	Pulse	1.00	3
V			1	0.048	ug/l	6.71	1,467.39	1.002E-02	Pulse	0.50	3
Mn			1	-0.044	ug/l	-7.61	391.34	3.543E-03	Pulse	0.50	3
Fe			1	-2.229	ug/l	-1.43	13,004.38	1.178E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-57.02	972.03	8.801E-03	Pulse	0.50	3
Ni			1	-0.693	ug/l	-2.80	712.68	6.453E-03	Pulse	0.50	3
Cu			1	-0.084	ug/l	-28.70	4,727.25	4.281E-02	Pulse	0.50	3
Zn			1	-0.074	ug/l	-47.49	495.34	2.963E-03	Pulse	1.00	3
Cd			1	-0.002	ug/l	-345.57	158.00	9.446E-04	Pulse	0.50	3
Al			1	-2.884	ug/l	-4.78	192.67	1.315E-03	Pulse	1.00	3
Se			1	0.108	ug/l	65.23	34.56	2.067E-04	Pulse	3.00	3
Sb			1	-0.026	ug/l	-14.58	809.02	4.838E-03	Pulse	1.00	3
Se			1	-0.001	ug/l	-2891.33	15.44	9.241E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,934,361.17	1.19	87.3	Pulse	0.50	3
1	Sc		146,484.93	0.32	93.9	Pulse	0.30	3

Quantitation Report

1	Ge		110,426.93	0.59	92.9	Pulse	0.30	3
1	In		1,179,859.61	1.36	91.6	Pulse	0.30	3
1	Tb		3,822,082.17	1.32	91.1	Pulse	0.50	3
1	Lu		2,898,081.92	1.09	89.8	Pulse	0.50	3
1	Ge		167,200.39	0.76	94.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,006.70	8.27	99.5	Pulse	0.30	3

Quantitation Report

File Name	142SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:35
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.059	ug/l	12.32	1,559.40	1.408E-02	Pulse	0.50	3
As			1	-0.009	ug/l	-206.64	87.00	7.839E-04	Pulse	1.00	3
Mo			1	0.013	ug/l	94.25	488.68	2.944E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-11.55	4,156.51	1.409E-03	Pulse	1.00	3
Be			1	-0.110	ug/l	-65.97	3.00	2.031E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-1.85	72.67	4.378E-04	Pulse	0.50	3
Ba			1	-0.003	ug/l	-244.02	300.00	2.530E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-62.19	3,176.30	1.076E-03	Pulse	0.50	3
Sn			1	0.071	ug/l	51.99	1,572.30	1.325E-03	Pulse	0.30	3
Sr			1	-0.004	ug/l	-226.19	682.68	5.758E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-9.34	1,872.78	6.343E-04	Pulse	0.50	3
Ca			1	-2.548	ug/l	-31.62	62.00	4.185E-04	Pulse	0.50	3
Ti			1	-0.145	ug/l	-46.67	17.33	1.174E-04	Pulse	0.50	3
Na			1	-3.277	ug/l	-3.22	9,324.51	6.301E-02	Pulse	1.00	3
Mg			1	-0.950	ug/l	-4.80	3,021.57	2.042E-02	Pulse	1.00	3
K			1	4.846	ug/l	5.47	22,846.50	1.544E-01	Pulse	1.00	3
V			1	0.059	ug/l	27.18	1,532.07	1.035E-02	Pulse	0.50	3
Mn			1	-0.036	ug/l	-17.18	418.68	3.782E-03	Pulse	0.50	3
Fe			1	-2.222	ug/l	-5.06	13,073.08	1.181E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-79.65	990.70	8.939E-03	Pulse	0.50	3
Ni			1	-0.651	ug/l	-2.23	819.35	7.402E-03	Pulse	0.50	3
Cu			1	-0.080	ug/l	-17.65	4,769.28	4.305E-02	Pulse	0.50	3
Zn			1	-0.077	ug/l	-16.94	488.01	2.940E-03	Pulse	1.00	3
Cd			1	-0.002	ug/l	-204.69	156.67	9.441E-04	Pulse	0.50	3
Al			1	-2.648	ug/l	-6.53	233.33	1.577E-03	Pulse	1.00	3
Se			1	0.119	ug/l	68.71	35.00	2.110E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-46.19	869.69	5.241E-03	Pulse	1.00	3
Se			1	0.059	ug/l	139.05	17.22	1.038E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,951,328.33	1.71	87.8	Pulse	0.50	3
1	Sc		147,987.24	0.65	94.9	Pulse	0.30	3

Quantitation Report

1	Ge		110,770.36	2.84	93.2	Pulse	0.30	3
1	In		1,185,354.57	1.41	92.0	Pulse	0.30	3
1	Tb		3,838,793.58	2.22	91.5	Pulse	0.50	3
1	Lu		2,908,138.42	1.49	90.1	Pulse	0.50	3
1	Ge		165,956.38	0.64	93.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		991.14	7.52	97.9	Pulse	0.30	3

Quantitation Report

File Name	143SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:39
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.047	ug/l	3.18	1,495.39	1.348E-02	Pulse	0.50	3
As			1	0.005	ug/l	196.55	98.00	8.831E-04	Pulse	1.00	3
Mo			1	0.020	ug/l	32.01	514.01	3.099E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-2.46	4,010.15	1.362E-03	Pulse	1.00	3
Be			1	-0.066	ug/l	-68.90	4.50	3.059E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-10.00	76.67	4.618E-04	Pulse	0.50	3
Ba			1	-0.030	ug/l	-10.70	245.33	2.072E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-89.35	3,158.30	1.072E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	44.50	1,446.73	1.222E-03	Pulse	0.30	3
Sr			1	0.003	ug/l	352.74	715.35	6.041E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-8.06	1,864.11	6.331E-04	Pulse	0.50	3
Ca			1	-2.068	ug/l	-30.32	72.00	4.872E-04	Pulse	0.50	3
Ti			1	-0.189	ug/l	-48.67	11.33	7.635E-05	Pulse	0.50	3
Na			1	-3.240	ug/l	-15.91	9,323.17	6.320E-02	Pulse	1.00	3
Mg			1	-0.291	ug/l	-68.79	3,272.94	2.218E-02	Pulse	1.00	3
K			1	4.446	ug/l	9.58	22,629.24	1.534E-01	Pulse	1.00	3
V			1	0.083	ug/l	31.49	1,639.41	1.111E-02	Pulse	0.50	3
Mn			1	-0.035	ug/l	-19.40	423.34	3.813E-03	Pulse	0.50	3
Fe			1	-2.184	ug/l	-2.22	13,300.58	1.199E-01	Pulse	0.50	3
Co			1	-0.005	ug/l	-45.50	999.36	9.006E-03	Pulse	0.50	3
Ni			1	-0.653	ug/l	-0.98	816.02	7.352E-03	Pulse	0.50	3
Cu			1	-0.078	ug/l	-9.30	4,786.61	4.313E-02	Pulse	0.50	3
Zn			1	-0.064	ug/l	-29.50	503.68	3.039E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-306.76	142.00	8.563E-04	Pulse	0.50	3
Al			1	-2.731	ug/l	-3.57	219.00	1.485E-03	Pulse	1.00	3
Se			1	0.155	ug/l	66.30	37.33	2.248E-04	Pulse	3.00	3
Sb			1	-0.021	ug/l	-50.39	835.35	5.042E-03	Pulse	1.00	3
Se			1	0.070	ug/l	72.27	17.56	1.060E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,945,121.75	1.50	87.7	Pulse	0.50	3
1	Sc		147,566.43	1.35	94.6	Pulse	0.30	3

Quantitation Report

1	Ge		110,977.77	0.98	93.4	Pulse	0.30	3
1	In		1,184,507.49	1.01	92.0	Pulse	0.30	3
1	Tb		3,835,489.75	1.32	91.5	Pulse	0.50	3
1	Lu		2,902,620.50	1.33	89.9	Pulse	0.50	3
1	Ge		165,786.04	1.34	93.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		947.81	1.42	93.6	Pulse	0.30	3

Quantitation Report

File Name	144SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:42
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.044	ug/l	44.22	1,486.06	1.329E-02	Pulse	0.50	3
As			1	0.012	ug/l	158.61	103.67	9.270E-04	Pulse	1.00	3
Mo			1	0.012	ug/l	79.87	486.68	2.923E-03	Pulse	0.50	3
Pb			1	-0.068	ug/l	-6.41	4,139.84	1.397E-03	Pulse	1.00	3
Be			1	-0.062	ug/l	-60.99	4.67	3.146E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-2.40	63.33	3.805E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-97.15	289.33	2.434E-04	Pulse	0.50	3
Tl			1	-0.009	ug/l	-44.74	3,062.95	1.033E-03	Pulse	0.50	3
Sn			1	0.040	ug/l	35.96	1,433.40	1.206E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	65.37	757.35	6.367E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-11.61	1,837.44	6.194E-04	Pulse	0.50	3
Ca			1	-2.277	ug/l	-15.50	68.00	4.574E-04	Pulse	0.50	3
Ti			1	-0.184	ug/l	-20.97	12.00	8.088E-05	Pulse	0.50	3
Na			1	-3.100	ug/l	-5.81	9,496.60	6.391E-02	Pulse	1.00	3
Mg			1	-0.215	ug/l	-53.74	3,326.28	2.239E-02	Pulse	1.00	3
K			1	4.665	ug/l	20.05	22,869.53	1.539E-01	Pulse	1.00	3
V			1	0.056	ug/l	10.40	1,526.06	1.027E-02	Pulse	0.50	3
Mn			1	-0.028	ug/l	-26.78	450.68	4.029E-03	Pulse	0.50	3
Fe			1	-2.258	ug/l	-1.16	13,021.72	1.164E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-48.27	986.03	8.816E-03	Pulse	0.50	3
Ni			1	-0.680	ug/l	-2.51	754.02	6.741E-03	Pulse	0.50	3
Cu			1	-0.091	ug/l	-11.16	4,741.93	4.239E-02	Pulse	0.50	3
Zn			1	-0.065	ug/l	-47.15	505.01	3.035E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-488.54	152.67	9.163E-04	Pulse	0.50	3
Al			1	-2.793	ug/l	-3.58	210.33	1.416E-03	Pulse	1.00	3
Se			1	0.187	ug/l	42.49	39.44	2.371E-04	Pulse	3.00	3
Sb			1	-0.023	ug/l	-26.72	828.69	4.977E-03	Pulse	1.00	3
Se			1	0.116	ug/l	123.20	19.11	1.146E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,964,964.42	1.53	88.2	Pulse	0.50	3
1	Sc		148,599.74	1.33	95.3	Pulse	0.30	3

Quantitation Report

1	Ge		111,850.71	0.22	94.1	Pulse	0.30	3
1	In		1,189,089.88	1.24	92.3	Pulse	0.30	3
1	Tb		3,859,620.00	1.29	92.0	Pulse	0.50	3
1	Lu		2,924,405.00	1.78	90.6	Pulse	0.50	3
1	Ge		166,432.82	1.77	93.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,008.36	7.43	99.6	Pulse	0.30	3

Quantitation Report

File Name	145SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:46
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.054	ug/l	13.92	1,560.74	1.382E-02	Pulse	0.50	3
As			1	-0.016	ug/l	-125.09	83.33	7.376E-04	Pulse	1.00	3
Mo			1	0.008	ug/l	85.44	474.68	2.833E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-7.31	4,042.15	1.357E-03	Pulse	1.00	3
Be			1	-0.131	ug/l	-33.32	2.33	1.556E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-2.65	64.67	3.856E-04	Pulse	0.50	3
Ba			1	-0.011	ug/l	-90.47	286.67	2.403E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-46.17	3,188.31	1.071E-03	Pulse	0.50	3
Sn			1	0.061	ug/l	27.56	1,536.74	1.288E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	96.03	742.69	6.232E-04	Pulse	0.50	3
[Pb]			1	-0.073	ug/l	-5.50	1,878.11	6.306E-04	Pulse	0.50	3
Ca			1	-2.010	ug/l	-46.03	74.00	4.955E-04	Pulse	0.50	3
Ti			1	-0.152	ug/l	-23.11	16.67	1.112E-04	Pulse	0.50	3
Na			1	-3.467	ug/l	-8.53	9,278.82	6.204E-02	Pulse	1.00	3
Mg			1	0.205	ug/l	99.31	3,516.65	2.351E-02	Pulse	1.00	3
K			1	4.299	ug/l	20.08	22,880.87	1.530E-01	Pulse	1.00	3
V			1	0.067	ug/l	16.46	1,586.07	1.061E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-10.28	424.01	3.756E-03	Pulse	0.50	3
Fe			1	-2.264	ug/l	-0.67	13,111.79	1.161E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-73.32	1,000.03	8.860E-03	Pulse	0.50	3
Ni			1	-0.678	ug/l	-3.40	768.02	6.804E-03	Pulse	0.50	3
Cu			1	-0.092	ug/l	-23.50	4,777.27	4.231E-02	Pulse	0.50	3
Zn			1	-0.061	ug/l	-16.22	513.34	3.062E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-695.80	160.67	9.585E-04	Pulse	0.50	3
Al			1	-2.776	ug/l	-4.31	214.67	1.435E-03	Pulse	1.00	3
Se			1	0.099	ug/l	110.82	34.00	2.031E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-38.94	849.35	5.065E-03	Pulse	1.00	3
Se			1	0.067	ug/l	123.11	17.67	1.054E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,978,392.17	0.96	88.6	Pulse	0.50	3
1	Sc		149,579.24	0.97	95.9	Pulse	0.30	3

Quantitation Report

1	Ge		112,891.23	0.72	95.0	Pulse	0.30	3
1	In		1,192,194.29	1.77	92.6	Pulse	0.30	3
1	Tb		3,855,552.42	1.08	91.9	Pulse	0.50	3
1	Lu		2,923,369.58	1.07	90.6	Pulse	0.50	3
1	Ge		167,630.86	1.09	94.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		994.47	4.56	98.2	Pulse	0.30	3

Quantitation Report

File Name	146SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 19:50
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.063	ug/l	14.77	1,578.74	1.428E-02	Pulse	0.50	3
As			1	-0.009	ug/l	-96.81	87.00	7.867E-04	Pulse	1.00	3
Mo			1	0.009	ug/l	58.30	474.68	2.857E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-5.22	4,076.49	1.382E-03	Pulse	1.00	3
Be			1	-0.111	ug/l	-58.92	3.00	2.008E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-5.85	79.33	4.776E-04	Pulse	0.50	3
Ba			1	-0.014	ug/l	-79.91	279.33	2.353E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-79.25	3,125.63	1.060E-03	Pulse	0.50	3
Sn			1	0.052	ug/l	39.51	1,483.40	1.251E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	100.63	782.02	6.594E-04	Pulse	0.50	3
[Pb]			1	-0.068	ug/l	-17.44	1,916.12	6.498E-04	Pulse	0.50	3
Ca			1	-2.688	ug/l	-17.79	59.33	3.986E-04	Pulse	0.50	3
Ti			1	-0.151	ug/l	-43.49	16.67	1.121E-04	Pulse	0.50	3
Na			1	-3.761	ug/l	-1.79	9,016.03	6.054E-02	Pulse	1.00	3
Mg			1	0.445	ug/l	37.64	3,597.33	2.415E-02	Pulse	1.00	3
K			1	5.284	ug/l	24.48	23,158.87	1.555E-01	Pulse	1.00	3
V			1	0.074	ug/l	7.64	1,613.41	1.083E-02	Pulse	0.50	3
Mn			1	-0.039	ug/l	-8.05	406.68	3.678E-03	Pulse	0.50	3
Fe			1	-2.217	ug/l	-1.61	13,085.77	1.183E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-49.45	971.36	8.785E-03	Pulse	0.50	3
Ni			1	-0.704	ug/l	-3.23	688.02	6.222E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-19.25	4,830.62	4.369E-02	Pulse	0.50	3
Zn			1	-0.071	ug/l	-29.27	496.34	2.987E-03	Pulse	1.00	3
Cd			1	-0.008	ug/l	-245.43	146.00	8.780E-04	Pulse	0.50	3
Al			1	-2.716	ug/l	-2.61	223.67	1.502E-03	Pulse	1.00	3
Se			1	0.214	ug/l	12.90	41.11	2.474E-04	Pulse	3.00	3
Sb			1	-0.025	ug/l	-11.04	814.02	4.899E-03	Pulse	1.00	3
Se			1	0.068	ug/l	90.62	17.55	1.056E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,948,694.75	1.05	87.8	Pulse	0.50	3
1	Sc		148,934.27	0.66	95.5	Pulse	0.30	3

Quantitation Report

1	Ge		110,576.83	0.13	93.1	Pulse	0.30	3
1	In		1,186,464.78	1.08	92.1	Pulse	0.30	3
1	Tb		3,831,953.00	1.55	91.4	Pulse	0.50	3
1	Lu		2,905,897.50	1.63	90.0	Pulse	0.50	3
1	Ge		166,178.38	0.58	93.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		1,020.04	3.68	100.8	Pulse	0.30	3

Quantitation Report

File Name 147CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 19:54
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.309	ug/l	1.08	280,070.70	2.486E+00	Pulse	0.50	3
As			1	46.961	ug/l	0.56	36,896.06	3.275E-01	Pulse	1.00	3
Mo			1	47.163	ug/l	1.00	185,977.14	1.101E+00	Pulse	0.50	3
Pb			1	46.669	ug/l	0.92	1,171,203.13	3.950E-01	Pulse	1.00	3
Be			1	47.512	ug/l	2.88	1,666.40	1.108E-02	Pulse	2.00	3
Ag			1	47.946	ug/l	1.11	632,808.12	3.745E+00	Pulse	0.50	3
Ba			1	46.860	ug/l	1.12	97,247.69	8.171E-02	Pulse	0.50	3
Tl			1	47.697	ug/l	0.38	1,683,754.96	5.679E-01	Pulse	0.50	3
Sn			1	46.872	ug/l	0.85	216,668.84	1.821E-01	Pulse	0.30	3
Sr			1	47.722	ug/l	0.37	228,444.44	1.920E-01	Pulse	0.50	3
[Pb]			1	46.750	ug/l	0.63	552,797.27	1.864E-01	Pulse	0.50	3
Ca			1	4768.529	ug/l	1.07	102,623.25	6.821E-01	Pulse	0.50	3
Ti			1	47.423	ug/l	3.01	6,698.50	4.453E-02	Pulse	0.50	3
Na			1	4622.541	ug/l	0.94	3,566,243.58	2.370E+01	Pulse	1.00	3
Mg			1	4608.726	ug/l	1.03	1,859,217.42	1.236E+01	Pulse	1.00	3
K			1	4744.199	ug/l	0.95	1,852,605.62	1.231E+01	Pulse	1.00	3
V			1	46.727	ug/l	1.00	221,310.60	1.471E+00	Pulse	0.50	3
Mn			1	47.858	ug/l	0.69	172,736.37	1.533E+00	Pulse	0.50	3
Fe			1	5062.460	ug/l	0.86	26,452,953.33	2.348E+02	Analog	0.50	3
Co			1	47.402	ug/l	1.50	451,904.41	4.011E+00	Pulse	0.50	3
Ni			1	46.869	ug/l	0.82	119,960.99	1.065E+00	Pulse	0.50	3
Cu			1	47.772	ug/l	1.28	329,063.73	2.921E+00	Pulse	0.50	3
Zn			1	47.313	ug/l	1.73	61,004.96	3.611E-01	Pulse	1.00	3
Cd			1	46.804	ug/l	1.10	101,191.02	5.989E-01	Pulse	0.50	3
Al			1	4530.658	ug/l	1.20	757,793.69	5.036E+00	Pulse	1.00	3
Se			1	47.525	ug/l	1.10	3,119.15	1.846E-02	Pulse	3.00	3
Sb			1	46.401	ug/l	1.21	297,750.71	1.762E+00	Pulse	1.00	3
Se			1	46.868	ug/l	2.61	1,511.06	8.944E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,964,809.58	1.10	88.2	Pulse	0.50	3
1	Sc		150,468.07	0.99	96.5	Pulse	0.30	3
1	Ge		112,655.44	0.30	94.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,190,118.25	0.30	92.4	Pulse	0.30	3
1	Tb		3,884,779.67	0.73	92.6	Pulse	0.50	3
1	Lu		2,962,379.75	0.65	91.8	Pulse	0.50	3
1	Ge		168,954.21	0.29	95.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		954.47	3.01	94.3	Pulse	0.30	3

Quantitation Report

File Name 148_CCV.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 19:58
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.434	ug/l	0.90	572,419.15	5.161E+00	Pulse	0.50	3
As			1	97.505	ug/l	1.11	75,325.01	6.791E-01	Pulse	1.00	3
Mo			1	97.396	ug/l	1.21	381,343.75	2.270E+00	Pulse	0.50	3
Pb			1	97.240	ug/l	0.95	2,371,751.42	8.209E-01	Pulse	1.00	3
Be			1	97.604	ug/l	1.29	3,357.78	2.271E-02	Pulse	2.00	3
Ag			1	97.887	ug/l	0.60	1,284,153.17	7.645E+00	Pulse	0.50	3
Ba			1	98.012	ug/l	0.84	199,801.21	1.706E-01	Pulse	0.50	3
Tl			1	99.014	ug/l	0.35	3,402,305.33	1.178E+00	Pulse	0.50	3
Sn			1	97.739	ug/l	1.43	443,214.24	3.785E-01	Pulse	0.30	3
Sr			1	99.779	ug/l	0.82	469,213.39	4.007E-01	Pulse	0.50	3
[Pb]			1	97.236	ug/l	0.95	1,117,488.87	3.868E-01	Pulse	0.50	3
Ca			1	9814.145	ug/l	0.55	207,445.46	1.403E+00	Pulse	0.50	3
Ti			1	96.459	ug/l	2.45	13,353.91	9.031E-02	Pulse	0.50	3
Na			1	10080.258	ug/l	0.35	7,628,876.83	5.159E+01	Analog	1.00	3
Mg			1	9526.571	ug/l	0.44	3,773,355.08	2.552E+01	Pulse	1.00	3
K			1	9776.954	ug/l	0.63	3,729,795.33	2.522E+01	Pulse	1.00	3
V			1	97.484	ug/l	0.74	452,395.02	3.059E+00	Pulse	0.50	3
Mn			1	99.166	ug/l	1.40	351,816.76	3.172E+00	Pulse	0.50	3
Fe			1	10457.185	ug/l	0.90	53,772,462.67	4.848E+02	Analog	0.50	3
Co			1	97.855	ug/l	1.25	917,376.21	8.271E+00	Pulse	0.50	3
Ni			1	96.281	ug/l	1.16	240,070.59	2.164E+00	Pulse	0.50	3
Cu			1	96.963	ug/l	1.48	652,143.46	5.880E+00	Pulse	0.50	3
Zn			1	95.856	ug/l	1.74	122,267.76	7.279E-01	Pulse	1.00	3
Cd			1	96.191	ug/l	2.14	206,580.57	1.230E+00	Pulse	0.50	3
Al			1	9460.436	ug/l	0.57	1,554,385.71	1.051E+01	Pulse	1.00	3
Se			1	97.820	ug/l	1.18	6,353.06	3.782E-02	Pulse	3.00	3
Sb			1	95.314	ug/l	1.55	607,016.14	3.614E+00	Pulse	1.00	3
Se			1	97.026	ug/l	0.60	3,093.26	1.842E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,888,950.58	0.74	86.0	Pulse	0.50	3
1	Sc		147,868.63	0.86	94.8	Pulse	0.30	3
1	Ge		110,916.42	0.70	93.3	Pulse	0.30	3
1	In		1,170,957.42	0.62	90.9	Pulse	0.30	3
1	Tb		3,870,672.33	0.70	92.3	Pulse	0.50	3
1	Lu		2,951,013.92	0.38	91.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		167,962.67	0.23	94.5	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		955.58	5.67	94.4	Pulse	0.30	3

Quantitation Report

File Name	149_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.019	ug/l	-47.49	1,107.37	1.002E-02	Pulse	0.50	3
As			1	0.014	ug/l	153.47	104.33	9.449E-04	Pulse	1.00	3
Mo			1	0.121	ug/l	20.09	912.03	5.464E-03	Pulse	0.50	3
Pb			1	-0.028	ug/l	-31.87	5,095.10	1.730E-03	Pulse	1.00	3
Be			1	-0.014	ug/l	-496.88	6.33	4.259E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	1874.16	235.33	1.409E-03	Pulse	0.50	3
Ba			1	0.011	ug/l	224.15	327.34	2.778E-04	Pulse	0.50	3
Tl			1	0.023	ug/l	44.13	4,159.86	1.412E-03	Pulse	0.50	3
Sn			1	0.162	ug/l	18.51	1,976.78	1.677E-03	Pulse	0.30	3
Sr			1	0.038	ug/l	38.91	877.36	7.443E-04	Pulse	0.50	3
[Pb]			1	-0.030	ug/l	-9.90	2,356.17	7.998E-04	Pulse	0.50	3
Ca			1	0.418	ug/l	255.13	125.33	8.423E-04	Pulse	0.50	3
Ti			1	-0.103	ug/l	-18.17	23.33	1.568E-04	Pulse	0.50	3
Na			1	0.162	ug/l	747.52	11,993.93	8.059E-02	Pulse	1.00	3
Mg			1	0.111	ug/l	684.32	3,461.31	2.326E-02	Pulse	1.00	3
K			1	5.054	ug/l	27.26	23,065.44	1.549E-01	Pulse	1.00	3
V			1	-0.029	ug/l	-77.84	1,131.37	7.601E-03	Pulse	0.50	3
Mn			1	-0.010	ug/l	-63.50	512.01	4.633E-03	Pulse	0.50	3
Fe			1	-0.815	ug/l	-84.50	20,268.86	1.833E-01	Pulse	0.50	3
Co			1	0.003	ug/l	332.60	1,069.37	9.678E-03	Pulse	0.50	3
Ni			1	-0.680	ug/l	-3.39	745.35	6.745E-03	Pulse	0.50	3
Cu			1	-0.150	ug/l	-13.15	4,289.16	3.882E-02	Pulse	0.50	3
Zn			1	-0.012	ug/l	-223.15	573.34	3.434E-03	Pulse	1.00	3
Cd			1	0.029	ug/l	77.18	224.67	1.346E-03	Pulse	0.50	3
Al			1	-0.964	ug/l	-87.22	512.34	3.448E-03	Pulse	1.00	3
Se			1	0.209	ug/l	27.17	41.00	2.456E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	29.02	1,136.70	6.809E-03	Pulse	1.00	3
Se			1	0.122	ug/l	53.22	19.34	1.158E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,946,129.50	0.67	87.7	Pulse	0.50	3
1	Sc		148,915.42	1.17	95.5	Pulse	0.30	3

Quantitation Report

1	Ge		110,487.27	0.58	93.0	Pulse	0.30	3
1	In		1,178,908.50	0.69	91.5	Pulse	0.30	3
1	Tb		3,833,369.42	0.57	91.4	Pulse	0.50	3
1	Lu		2,898,572.58	0.70	89.8	Pulse	0.50	3
1	Ge		166,938.16	0.13	93.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		1,041.14	2.87	102.9	Pulse	0.30	3

Quantitation Report

File Name 150SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 20:05
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.060	ug/l	10.08	1,556.07	1.416E-02	Pulse	0.50	3
As			1	0.033	ug/l	90.87	118.00	1.075E-03	Pulse	1.00	3
Mo			1	0.041	ug/l	33.01	592.68	3.589E-03	Pulse	0.50	3
Pb			1	-0.058	ug/l	-3.76	4,317.55	1.476E-03	Pulse	1.00	3
Be			1	-0.065	ug/l	-119.85	4.50	3.086E-05	Pulse	2.00	3
Ag			1	-0.007	ug/l	-17.39	133.33	8.084E-04	Pulse	0.50	3
Ba			1	-0.008	ug/l	-364.09	288.00	2.448E-04	Pulse	0.50	3
Tl			1	0.007	ug/l	26.41	3,591.06	1.227E-03	Pulse	0.50	3
Sn			1	0.115	ug/l	13.27	1,760.10	1.498E-03	Pulse	0.30	3
Sr			1	0.014	ug/l	63.40	764.69	6.505E-04	Pulse	0.50	3
[Pb]			1	-0.068	ug/l	-10.81	1,898.78	6.491E-04	Pulse	0.50	3
Ca			1	-2.045	ug/l	-28.85	71.33	4.905E-04	Pulse	0.50	3
Ti			1	-0.168	ug/l	-17.13	14.00	9.599E-05	Pulse	0.50	3
Na			1	-2.911	ug/l	-6.48	9,447.90	6.488E-02	Pulse	1.00	3
Mg			1	-0.250	ug/l	-40.83	3,246.60	2.229E-02	Pulse	1.00	3
K			1	5.497	ug/l	19.85	22,722.69	1.561E-01	Pulse	1.00	3
V			1	0.070	ug/l	35.72	1,560.07	1.071E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-6.23	409.34	3.724E-03	Pulse	0.50	3
Fe			1	-1.660	ug/l	-2.86	15,847.14	1.442E-01	Pulse	0.50	3
Co			1	-0.003	ug/l	-298.48	1,010.03	9.196E-03	Pulse	0.50	3
Ni			1	-0.681	ug/l	-3.75	738.02	6.719E-03	Pulse	0.50	3
Cu			1	-0.055	ug/l	-56.30	4,890.64	4.451E-02	Pulse	0.50	3
Zn			1	-0.059	ug/l	-42.80	508.68	3.080E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-264.40	158.67	9.609E-04	Pulse	0.50	3
Al			1	-2.441	ug/l	-6.08	263.33	1.807E-03	Pulse	1.00	3
Se			1	0.251	ug/l	8.91	43.22	2.619E-04	Pulse	3.00	3
Sb			1	-0.008	ug/l	-109.60	911.03	5.516E-03	Pulse	1.00	3
Se			1	0.090	ug/l	198.74	18.11	1.096E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,925,461.58	1.57	87.1	Pulse	0.50	3
1	Sc		145,632.22	1.45	93.4	Pulse	0.30	3

Quantitation Report

1	Ge		109,936.45	1.64	92.5	Pulse	0.30	3
1	In		1,174,951.31	1.37	91.2	Pulse	0.30	3
1	Tb		3,803,842.92	1.65	90.7	Pulse	0.50	3
1	Lu		2,868,277.17	1.78	88.9	Pulse	0.50	3
1	Ge		165,086.60	1.04	92.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		931.14	5.22	92.0	Pulse	0.30	3

Quantitation Report

File Name 151SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 20:09
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.051	ug/l	24.65	1,517.40	1.368E-02	Pulse	0.50	3
As			1	0.025	ug/l	56.23	113.33	1.022E-03	Pulse	1.00	3
Mo			1	0.006	ug/l	182.61	463.34	2.783E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-5.61	4,186.19	1.423E-03	Pulse	1.00	3
Be			1	-0.082	ug/l	-62.35	4.00	2.689E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-9.56	105.33	6.324E-04	Pulse	0.50	3
Ba			1	0.002	ug/l	941.38	310.00	2.619E-04	Pulse	0.50	3
Tl			1	0.003	ug/l	41.67	3,452.36	1.173E-03	Pulse	0.50	3
Sn			1	0.074	ug/l	31.99	1,582.30	1.336E-03	Pulse	0.30	3
Sr			1	0.021	ug/l	60.88	801.35	6.769E-04	Pulse	0.50	3
[Pb]			1	-0.071	ug/l	-6.73	1,869.44	6.353E-04	Pulse	0.50	3
Ca			1	-2.329	ug/l	-34.16	66.67	4.499E-04	Pulse	0.50	3
Ti			1	-0.194	ug/l	-23.15	10.67	7.215E-05	Pulse	0.50	3
Na			1	-3.101	ug/l	-8.28	9,485.92	6.391E-02	Pulse	1.00	3
Mg			1	-0.078	ug/l	-144.18	3,376.96	2.275E-02	Pulse	1.00	3
K			1	5.090	ug/l	17.51	23,008.03	1.550E-01	Pulse	1.00	3
V			1	0.054	ug/l	14.38	1,516.73	1.022E-02	Pulse	0.50	3
Mn			1	-0.039	ug/l	-44.89	409.34	3.692E-03	Pulse	0.50	3
Fe			1	-1.952	ug/l	-2.86	14,491.42	1.306E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-63.51	971.36	8.757E-03	Pulse	0.50	3
Ni			1	-0.685	ug/l	-0.84	735.35	6.629E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-43.16	4,875.96	4.396E-02	Pulse	0.50	3
Zn			1	-0.059	ug/l	-2.50	512.34	3.078E-03	Pulse	1.00	3
Cd			1	-0.003	ug/l	-313.07	155.33	9.339E-04	Pulse	0.50	3
Al			1	-2.588	ug/l	-10.13	243.67	1.644E-03	Pulse	1.00	3
Se			1	0.156	ug/l	24.26	37.45	2.250E-04	Pulse	3.00	3
Sb			1	-0.007	ug/l	-109.66	930.02	5.587E-03	Pulse	1.00	3
Se			1	0.004	ug/l	739.20	15.55	9.342E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,942,237.50	0.84	87.6	Pulse	0.50	3
1	Sc		148,443.91	1.10	95.2	Pulse	0.30	3

Quantitation Report

1	Ge		110,924.43	0.61	93.3	Pulse	0.30	3
1	In		1,183,921.59	0.79	91.9	Pulse	0.30	3
1	Tb		3,836,775.42	0.98	91.5	Pulse	0.50	3
1	Lu		2,897,319.50	1.10	89.8	Pulse	0.50	3
1	Ge		166,449.55	1.02	93.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		966.70	10.35	95.5	Pulse	0.30	3

Quantitation Report

File Name	152SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:13
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.069	ug/l	27.33	1,598.74	1.463E-02	Pulse	0.50	3
As			1	-0.007	ug/l	-39.96	87.33	7.987E-04	Pulse	1.00	3
Mo			1	0.013	ug/l	138.37	488.01	2.949E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.79	4,028.15	1.384E-03	Pulse	1.00	3
Be			1	-0.054	ug/l	-67.61	4.83	3.336E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-6.96	82.67	5.000E-04	Pulse	0.50	3
Ba			1	-0.001	ug/l	-1276.56	298.00	2.562E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-1700.98	3,309.67	1.137E-03	Pulse	0.50	3
Sn			1	0.079	ug/l	42.31	1,580.08	1.356E-03	Pulse	0.30	3
Sr			1	0.009	ug/l	83.56	730.68	6.275E-04	Pulse	0.50	3
[Pb]			1	-0.068	ug/l	-14.99	1,887.44	6.482E-04	Pulse	0.50	3
Ca			1	-2.805	ug/l	-30.38	55.33	3.819E-04	Pulse	0.50	3
Ti			1	0.020	ug/l	1420.91	39.33	2.718E-04	Pulse	0.50	3
Na			1	-3.326	ug/l	-2.22	9,085.06	6.276E-02	Pulse	1.00	3
Mg			1	0.030	ug/l	627.57	3,335.62	2.304E-02	Pulse	1.00	3
K			1	5.710	ug/l	3.53	22,669.64	1.566E-01	Pulse	1.00	3
V			1	0.069	ug/l	31.50	1,543.40	1.066E-02	Pulse	0.50	3
Mn			1	-0.030	ug/l	-46.00	436.01	3.989E-03	Pulse	0.50	3
Fe			1	-2.101	ug/l	-3.92	13,526.07	1.237E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-103.39	982.70	8.989E-03	Pulse	0.50	3
Ni			1	-0.687	ug/l	-5.44	721.35	6.603E-03	Pulse	0.50	3
Cu			1	-0.079	ug/l	-32.38	4,713.25	4.312E-02	Pulse	0.50	3
Zn			1	-0.069	ug/l	-32.77	496.34	3.001E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	91.85	172.00	1.040E-03	Pulse	0.50	3
Al			1	-2.621	ug/l	-4.68	232.67	1.608E-03	Pulse	1.00	3
Se			1	0.149	ug/l	18.89	36.78	2.224E-04	Pulse	3.00	3
Sb			1	-0.021	ug/l	-40.44	833.02	5.036E-03	Pulse	1.00	3
Se			1	0.089	ug/l	14.65	18.11	1.095E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,911,550.17	0.59	86.7	Pulse	0.50	3
1	Sc		144,761.53	0.55	92.8	Pulse	0.30	3

Quantitation Report

1	Ge		109,328.70	0.98	92.0	Pulse	0.30	3
1	In		1,164,160.86	1.83	90.4	Pulse	0.30	3
1	Tb		3,778,224.08	1.14	90.1	Pulse	0.50	3
1	Lu		2,857,959.00	1.05	88.6	Pulse	0.50	3
1	Ge		165,367.56	0.82	93.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		958.92	2.81	94.7	Pulse	0.30	3

Quantitation Report

File Name	153SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:16
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.057	ug/l	23.35	1,533.40	1.401E-02	Pulse	0.50	3
As			1	-0.004	ug/l	-433.43	89.67	8.185E-04	Pulse	1.00	3
Mo			1	0.016	ug/l	39.61	497.34	3.025E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-6.84	4,086.16	1.399E-03	Pulse	1.00	3
Be			1	-0.094	ug/l	-28.20	3.50	2.405E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-14.32	78.00	4.748E-04	Pulse	0.50	3
Ba			1	-0.013	ug/l	-142.49	276.00	2.358E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-25.64	3,130.96	1.072E-03	Pulse	0.50	3
Sn			1	0.090	ug/l	16.11	1,637.86	1.400E-03	Pulse	0.30	3
Sr			1	0.012	ug/l	97.32	751.35	6.422E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-2.13	1,815.44	6.214E-04	Pulse	0.50	3
Ca			1	-1.732	ug/l	-12.69	78.00	5.351E-04	Pulse	0.50	3
Ti			1	-0.188	ug/l	-23.33	11.33	7.749E-05	Pulse	0.50	3
Na			1	-3.401	ug/l	-11.69	9,093.07	6.238E-02	Pulse	1.00	3
Mg			1	0.033	ug/l	627.19	3,360.29	2.305E-02	Pulse	1.00	3
K			1	5.137	ug/l	10.75	22,617.26	1.551E-01	Pulse	1.00	3
V			1	0.063	ug/l	18.56	1,529.40	1.049E-02	Pulse	0.50	3
Mn			1	-0.031	ug/l	-34.40	430.68	3.937E-03	Pulse	0.50	3
Fe			1	-2.159	ug/l	-2.16	13,237.20	1.210E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-54.75	929.36	8.490E-03	Pulse	0.50	3
Ni			1	-0.688	ug/l	-1.21	718.02	6.566E-03	Pulse	0.50	3
Cu			1	-0.066	ug/l	-17.71	4,799.28	4.387E-02	Pulse	0.50	3
Zn			1	-0.037	ug/l	-51.40	533.68	3.246E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-1821.77	158.67	9.642E-04	Pulse	0.50	3
Al			1	-2.646	ug/l	-2.46	230.33	1.580E-03	Pulse	1.00	3
Se			1	0.182	ug/l	27.52	38.67	2.352E-04	Pulse	3.00	3
Sb			1	-0.017	ug/l	-9.75	852.69	5.186E-03	Pulse	1.00	3
Se			1	0.043	ug/l	142.71	16.56	1.007E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,921,521.17	1.09	87.0	Pulse	0.50	3
1	Sc		145,805.95	1.29	93.5	Pulse	0.30	3

Quantitation Report

1	Ge		109,390.10	1.56	92.1	Pulse	0.30	3
1	In		1,170,507.32	1.09	90.9	Pulse	0.30	3
1	Tb		3,792,673.58	1.25	90.4	Pulse	0.50	3
1	Lu		2,861,818.58	1.33	88.7	Pulse	0.50	3
1	Ge		164,421.07	0.73	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,041.14	3.08	102.9	Pulse	0.30	3

Quantitation Report

File Name	154SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:20
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.054	ug/l	42.39	1,518.07	1.381E-02	Pulse	0.50	3
As			1	0.008	ug/l	188.26	99.00	9.008E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	187.68	464.01	2.807E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-1.44	4,041.82	1.387E-03	Pulse	1.00	3
Be			1	-0.101	ug/l	-87.37	3.33	2.242E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-16.23	91.33	5.518E-04	Pulse	0.50	3
Ba			1	-0.016	ug/l	-60.79	270.67	2.314E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-63.95	3,132.30	1.075E-03	Pulse	0.50	3
Sn			1	0.096	ug/l	71.59	1,664.65	1.422E-03	Pulse	0.30	3
Sr			1	0.018	ug/l	48.80	777.35	6.650E-04	Pulse	0.50	3
[Pb]			1	-0.074	ug/l	-7.02	1,820.77	6.250E-04	Pulse	0.50	3
Ca			1	-2.969	ug/l	-12.72	52.67	3.584E-04	Pulse	0.50	3
Ti			1	-0.174	ug/l	-25.24	13.33	9.056E-05	Pulse	0.50	3
Na			1	-3.749	ug/l	-9.56	8,916.32	6.060E-02	Pulse	1.00	3
Mg			1	0.011	ug/l	1397.36	3,384.63	2.299E-02	Pulse	1.00	3
K			1	4.971	ug/l	9.48	22,768.42	1.547E-01	Pulse	1.00	3
V			1	0.071	ug/l	26.75	1,580.74	1.074E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-1.29	411.34	3.744E-03	Pulse	0.50	3
Fe			1	-2.240	ug/l	-1.98	12,886.29	1.173E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-107.02	985.36	8.967E-03	Pulse	0.50	3
Ni			1	-0.672	ug/l	-1.82	762.02	6.935E-03	Pulse	0.50	3
Cu			1	-0.074	ug/l	-39.14	4,766.60	4.338E-02	Pulse	0.50	3
Zn			1	-0.091	ug/l	-27.21	467.68	2.834E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-828.85	158.67	9.596E-04	Pulse	0.50	3
Al			1	-2.675	ug/l	-4.28	227.67	1.547E-03	Pulse	1.00	3
Se			1	0.116	ug/l	44.35	34.67	2.097E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-20.00	866.69	5.248E-03	Pulse	1.00	3
Se			1	-0.018	ug/l	-543.50	14.78	8.932E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,913,073.00	1.50	86.7	Pulse	0.50	3
1	Sc		147,186.04	1.84	94.4	Pulse	0.30	3

Quantitation Report

1	Ge		109,873.76	0.44	92.5	Pulse	0.30	3
1	In		1,169,475.61	1.13	90.8	Pulse	0.30	3
1	Tb		3,785,954.75	1.30	90.3	Pulse	0.50	3
1	Lu		2,869,581.67	1.38	88.9	Pulse	0.50	3
1	Ge		165,130.78	1.48	92.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,020.03	4.81	100.8	Pulse	0.30	3

Quantitation Report

File Name	155SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:24
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.065	ug/l	16.01	1,592.74	1.441E-02	Pulse	0.50	3
As			1	-0.006	ug/l	-282.02	88.67	8.021E-04	Pulse	1.00	3
Mo			1	0.012	ug/l	140.73	484.68	2.915E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-3.90	4,032.48	1.368E-03	Pulse	1.00	3
Be			1	-0.086	ug/l	-19.41	3.83	2.606E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-14.12	83.33	5.015E-04	Pulse	0.50	3
Ba			1	0.001	ug/l	730.49	307.33	2.614E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-59.59	3,158.97	1.072E-03	Pulse	0.50	3
Sn			1	0.068	ug/l	37.17	1,546.74	1.316E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	63.13	751.35	6.388E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-9.77	1,867.44	6.339E-04	Pulse	0.50	3
Ca			1	-1.898	ug/l	-46.38	75.33	5.115E-04	Pulse	0.50	3
Ti			1	-0.149	ug/l	-40.13	16.67	1.136E-04	Pulse	0.50	3
Na			1	-3.423	ug/l	-4.84	9,158.09	6.226E-02	Pulse	1.00	3
Mg			1	0.114	ug/l	92.46	3,421.97	2.327E-02	Pulse	1.00	3
K			1	5.177	ug/l	25.58	22,831.15	1.552E-01	Pulse	1.00	3
V			1	0.080	ug/l	23.90	1,620.74	1.102E-02	Pulse	0.50	3
Mn			1	-0.034	ug/l	-22.50	426.68	3.863E-03	Pulse	0.50	3
Fe			1	-2.197	ug/l	-2.50	13,180.50	1.193E-01	Pulse	0.50	3
Co			1	-0.013	ug/l	-55.51	925.36	8.375E-03	Pulse	0.50	3
Ni			1	-0.665	ug/l	-1.45	783.35	7.090E-03	Pulse	0.50	3
Cu			1	-0.073	ug/l	-22.23	4,799.95	4.344E-02	Pulse	0.50	3
Zn			1	0.653	ug/l	53.45	1,405.39	8.461E-03	Pulse	1.00	3
Cd			1	-0.010	ug/l	-56.38	141.33	8.502E-04	Pulse	0.50	3
Al			1	-2.844	ug/l	-7.64	199.67	1.359E-03	Pulse	1.00	3
Se			1	0.164	ug/l	55.29	37.89	2.280E-04	Pulse	3.00	3
Sb			1	-0.015	ug/l	-28.06	877.35	5.278E-03	Pulse	1.00	3
Se			1	-0.006	ug/l	-616.47	15.22	9.157E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,947,293.00	1.36	87.7	Pulse	0.50	3
1	Sc		147,098.24	1.17	94.3	Pulse	0.30	3

Quantitation Report

1	Ge		110,487.40	0.90	93.0	Pulse	0.30	3
1	In		1,175,981.79	0.77	91.3	Pulse	0.30	3
1	Tb		3,826,293.00	1.00	91.2	Pulse	0.50	3
1	Lu		2,894,143.67	1.19	89.7	Pulse	0.50	3
1	Ge		166,210.67	0.33	93.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		968.36	7.63	95.7	Pulse	0.30	3

Quantitation Report

File Name	156SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:28
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.063	ug/l	10.01	1,552.73	1.429E-02	Pulse	0.50	3
As			1	0.010	ug/l	209.05	99.33	9.147E-04	Pulse	1.00	3
Mo			1	-0.002	ug/l	-442.57	425.34	2.586E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-4.91	3,983.14	1.369E-03	Pulse	1.00	3
Be			1	-0.011	ug/l	-540.49	6.33	4.340E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-19.43	86.00	5.228E-04	Pulse	0.50	3
Ba			1	-0.017	ug/l	-131.70	267.33	2.299E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-58.10	3,106.29	1.068E-03	Pulse	0.50	3
Sn			1	0.049	ug/l	13.01	1,440.07	1.240E-03	Pulse	0.30	3
Sr			1	0.011	ug/l	72.48	740.69	6.382E-04	Pulse	0.50	3
[Pb]			1	-0.069	ug/l	-4.85	1,873.44	6.439E-04	Pulse	0.50	3
Ca			1	-1.927	ug/l	-39.37	74.00	5.073E-04	Pulse	0.50	3
Ti			1	-0.158	ug/l	-29.90	15.33	1.051E-04	Pulse	0.50	3
Na			1	-3.559	ug/l	-3.28	8,985.68	6.157E-02	Pulse	1.00	3
Mg			1	0.007	ug/l	4488.71	3,353.62	2.298E-02	Pulse	1.00	3
K			1	6.055	ug/l	8.95	22,982.66	1.575E-01	Pulse	1.00	3
V			1	0.087	ug/l	16.41	1,638.74	1.123E-02	Pulse	0.50	3
Mn			1	-0.028	ug/l	-25.34	439.34	4.043E-03	Pulse	0.50	3
Fe			1	-2.197	ug/l	-2.44	12,956.34	1.193E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-62.08	976.03	8.983E-03	Pulse	0.50	3
Ni			1	-0.631	ug/l	-5.41	852.02	7.840E-03	Pulse	0.50	3
Cu			1	-0.051	ug/l	-31.88	4,861.96	4.476E-02	Pulse	0.50	3
Zn			1	0.006	ug/l	84.88	587.01	3.570E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-194.29	141.33	8.593E-04	Pulse	0.50	3
Al			1	-2.717	ug/l	-3.85	219.00	1.501E-03	Pulse	1.00	3
Se			1	0.075	ug/l	105.80	31.89	1.939E-04	Pulse	3.00	3
Sb			1	-0.013	ug/l	-44.46	880.35	5.353E-03	Pulse	1.00	3
Se			1	-0.101	ug/l	-133.97	12.11	7.361E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,909,113.83	0.90	86.6	Pulse	0.50	3
1	Sc		145,936.77	0.44	93.6	Pulse	0.30	3

Quantitation Report

1	Ge		108,636.81	0.64	91.4	Pulse	0.30	3
1	In		1,161,091.21	1.33	90.1	Pulse	0.30	3
1	Tb		3,770,137.25	1.39	89.9	Pulse	0.50	3
1	Lu		2,866,201.58	1.35	88.8	Pulse	0.50	3
1	Ge		164,447.10	0.22	92.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		955.58	7.68	94.4	Pulse	0.30	3

Quantitation Report

File Name	157SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:32
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.059	ug/l	13.57	1,518.73	1.410E-02	Pulse	0.50	3
As			1	0.004	ug/l	209.21	94.00	8.726E-04	Pulse	1.00	3
Mo			1	0.006	ug/l	48.02	452.01	2.790E-03	Pulse	0.50	3
Pb			1	-0.066	ug/l	-4.17	4,081.49	1.409E-03	Pulse	1.00	3
Be			1	-0.033	ug/l	-246.87	5.50	3.820E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-10.78	72.67	4.492E-04	Pulse	0.50	3
Ba			1	-0.013	ug/l	-103.61	272.67	2.358E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-15.30	3,129.63	1.080E-03	Pulse	0.50	3
Sn			1	0.045	ug/l	19.11	1,415.62	1.225E-03	Pulse	0.30	3
Sr			1	0.010	ug/l	108.39	730.69	6.324E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-9.43	1,799.44	6.211E-04	Pulse	0.50	3
Ca			1	-2.006	ug/l	-7.75	71.33	4.961E-04	Pulse	0.50	3
Ti			1	-0.127	ug/l	-58.00	19.33	1.345E-04	Pulse	0.50	3
Na			1	-3.489	ug/l	-4.88	8,904.66	6.193E-02	Pulse	1.00	3
Mg			1	-0.019	ug/l	-929.27	3,294.28	2.291E-02	Pulse	1.00	3
K			1	5.549	ug/l	4.26	22,459.39	1.562E-01	Pulse	1.00	3
V			1	0.082	ug/l	3.64	1,595.40	1.109E-02	Pulse	0.50	3
Mn			1	-0.033	ug/l	-25.69	417.34	3.874E-03	Pulse	0.50	3
Fe			1	-2.205	ug/l	-1.56	12,807.58	1.189E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-71.83	919.36	8.535E-03	Pulse	0.50	3
Ni			1	-0.630	ug/l	-2.67	846.69	7.860E-03	Pulse	0.50	3
Cu			1	-0.086	ug/l	-17.08	4,597.90	4.268E-02	Pulse	0.50	3
Zn			1	-0.055	ug/l	-23.91	503.68	3.109E-03	Pulse	1.00	3
Cd			1	-0.003	ug/l	-526.55	152.00	9.388E-04	Pulse	0.50	3
Al			1	-2.680	ug/l	-2.00	221.67	1.541E-03	Pulse	1.00	3
Se			1	0.102	ug/l	52.94	33.11	2.044E-04	Pulse	3.00	3
Sb			1	-0.019	ug/l	-58.71	831.69	5.136E-03	Pulse	1.00	3
Se			1	0.076	ug/l	118.32	17.33	1.071E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,897,692.08	1.18	86.2	Pulse	0.50	3
1	Sc		143,797.73	0.58	92.2	Pulse	0.30	3

Quantitation Report

1	Ge		107,735.15	0.73	90.7	Pulse	0.30	3
1	In		1,155,782.66	0.98	89.7	Pulse	0.30	3
1	Tb		3,760,656.58	1.36	89.7	Pulse	0.50	3
1	Lu		2,843,723.42	1.54	88.1	Pulse	0.50	3
1	Ge		162,000.61	0.90	91.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		948.92	6.98	93.7	Pulse	0.30	3

Quantitation Report

File Name 158SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 20:35
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.056	ug/l	19.32	1,495.40	1.396E-02	Pulse	0.50	3
As			1	0.022	ug/l	53.49	107.33	1.001E-03	Pulse	1.00	3
Mo			1	0.000	ug/l	40616.68	427.34	2.642E-03	Pulse	0.50	3
Pb			1	-0.068	ug/l	-2.93	4,018.48	1.395E-03	Pulse	1.00	3
Be			1	-0.117	ug/l	-52.65	2.67	1.871E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-1.99	58.67	3.628E-04	Pulse	0.50	3
Ba			1	-0.015	ug/l	-148.91	266.67	2.326E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-48.21	3,061.61	1.063E-03	Pulse	0.50	3
Sn			1	0.043	ug/l	63.24	1,394.50	1.218E-03	Pulse	0.30	3
Sr			1	0.009	ug/l	43.93	722.69	6.308E-04	Pulse	0.50	3
[Pb]			1	-0.076	ug/l	-1.55	1,781.43	6.185E-04	Pulse	0.50	3
Ca			1	-1.864	ug/l	-24.72	74.00	5.163E-04	Pulse	0.50	3
Ti			1	-0.151	ug/l	-34.69	16.00	1.115E-04	Pulse	0.50	3
Na			1	-3.887	ug/l	-3.84	8,574.18	5.990E-02	Pulse	1.00	3
Mg			1	0.315	ug/l	66.67	3,407.96	2.380E-02	Pulse	1.00	3
K			1	5.383	ug/l	19.47	22,292.88	1.558E-01	Pulse	1.00	3
V			1	0.056	ug/l	7.29	1,472.06	1.028E-02	Pulse	0.50	3
Mn			1	-0.043	ug/l	-31.86	381.34	3.560E-03	Pulse	0.50	3
Fe			1	-2.268	ug/l	-2.32	12,425.99	1.160E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-19.94	910.69	8.497E-03	Pulse	0.50	3
Ni			1	-0.665	ug/l	-7.66	758.02	7.078E-03	Pulse	0.50	3
Cu			1	-0.084	ug/l	-21.38	4,586.56	4.280E-02	Pulse	0.50	3
Zn			1	-0.062	ug/l	-19.87	494.34	3.057E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-1396.41	156.00	9.646E-04	Pulse	0.50	3
Al			1	-2.666	ug/l	-2.54	223.00	1.557E-03	Pulse	1.00	3
Se			1	0.179	ug/l	49.07	37.89	2.341E-04	Pulse	3.00	3
Sb			1	-0.019	ug/l	-32.92	824.69	5.100E-03	Pulse	1.00	3
Se			1	0.134	ug/l	93.49	19.11	1.180E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,880,289.00	1.68	85.7	Pulse	0.50	3
1	Sc		143,144.03	1.51	91.8	Pulse	0.30	3

Quantitation Report

1	Ge		107,163.09	0.61	90.2	Pulse	0.30	3
1	In		1,145,855.13	1.41	89.0	Pulse	0.30	3
1	Tb		3,726,703.00	1.06	88.9	Pulse	0.50	3
1	Lu		2,824,564.50	1.50	87.5	Pulse	0.50	3
1	Ge		161,731.67	0.96	91.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		918.91	1.47	90.8	Pulse	0.30	3

Quantitation Report

File Name	159SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:39
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.062	ug/l	19.09	1,556.74	1.425E-02	Pulse	0.50	3
As			1	0.012	ug/l	26.04	101.33	9.274E-04	Pulse	1.00	3
Mo			1	0.007	ug/l	136.70	459.34	2.802E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-2.63	4,020.14	1.380E-03	Pulse	1.00	3
Be			1	-0.099	ug/l	-61.44	3.33	2.298E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-6.57	76.67	4.678E-04	Pulse	0.50	3
Ba			1	-0.010	ug/l	-41.51	282.00	2.419E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-61.51	3,194.98	1.097E-03	Pulse	0.50	3
Sn			1	0.040	ug/l	50.27	1,405.63	1.205E-03	Pulse	0.30	3
Sr			1	0.016	ug/l	98.45	767.35	6.584E-04	Pulse	0.50	3
[Pb]			1	-0.079	ug/l	-17.62	1,768.77	6.068E-04	Pulse	0.50	3
Ca			1	-1.914	ug/l	-44.21	74.00	5.091E-04	Pulse	0.50	3
Ti			1	-0.192	ug/l	-12.06	10.67	7.343E-05	Pulse	0.50	3
Na			1	-3.734	ug/l	-3.85	8,827.28	6.068E-02	Pulse	1.00	3
Mg			1	0.628	ug/l	25.60	3,584.99	2.464E-02	Pulse	1.00	3
K			1	6.019	ug/l	5.47	22,899.23	1.574E-01	Pulse	1.00	3
V			1	0.065	ug/l	19.18	1,536.73	1.056E-02	Pulse	0.50	3
Mn			1	-0.039	ug/l	-26.39	402.67	3.687E-03	Pulse	0.50	3
Fe			1	-2.259	ug/l	-0.67	12,716.18	1.164E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-39.09	980.03	8.974E-03	Pulse	0.50	3
Ni			1	-0.648	ug/l	-0.61	814.02	7.451E-03	Pulse	0.50	3
Cu			1	-0.069	ug/l	-15.18	4,769.94	4.367E-02	Pulse	0.50	3
Zn			1	-0.046	ug/l	-26.75	521.34	3.177E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-128.38	141.33	8.609E-04	Pulse	0.50	3
Al			1	-2.690	ug/l	-4.82	222.67	1.531E-03	Pulse	1.00	3
Se			1	0.185	ug/l	69.59	38.67	2.362E-04	Pulse	3.00	3
Sb			1	-0.019	ug/l	-26.19	838.02	5.111E-03	Pulse	1.00	3
Se			1	0.012	ug/l	637.61	15.56	9.495E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,913,584.42	1.22	86.7	Pulse	0.50	3
1	Sc		145,491.25	0.84	93.3	Pulse	0.30	3

Quantitation Report

1	Ge		109,238.14	2.11	91.9	Pulse	0.30	3
1	In		1,166,129.71	1.25	90.5	Pulse	0.30	3
1	Tb		3,766,913.92	1.41	89.8	Pulse	0.50	3
1	Lu		2,862,693.25	1.40	88.7	Pulse	0.50	3
1	Ge		164,032.65	1.44	92.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		947.81	4.45	93.6	Pulse	0.30	3

Quantitation Report

File Name 160CCVA.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 20:43
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.461	ug/l	1.35	279,398.54	2.494E+00	Pulse	0.50	3
As			1	47.478	ug/l	1.88	37,091.13	3.311E-01	Pulse	1.00	3
Mo			1	47.324	ug/l	0.70	186,071.30	1.105E+00	Pulse	0.50	3
Pb			1	47.210	ug/l	0.99	1,163,922.91	3.996E-01	Pulse	1.00	3
Be			1	48.455	ug/l	0.95	1,688.40	1.130E-02	Pulse	2.00	3
Ag			1	48.050	ug/l	1.05	632,351.11	3.754E+00	Pulse	0.50	3
Ba			1	47.807	ug/l	0.87	97,783.21	8.336E-02	Pulse	0.50	3
Tl			1	48.363	ug/l	0.84	1,677,234.12	5.758E-01	Pulse	0.50	3
Sn			1	47.368	ug/l	1.54	215,805.98	1.840E-01	Pulse	0.30	3
Sr			1	48.486	ug/l	0.34	228,754.20	1.950E-01	Pulse	0.50	3
[Pb]			1	47.504	ug/l	1.36	551,813.94	1.894E-01	Pulse	0.50	3
Ca			1	4793.493	ug/l	0.43	102,481.90	6.856E-01	Pulse	0.50	3
Ti			1	46.748	ug/l	3.79	6,562.45	4.390E-02	Pulse	0.50	3
Na			1	4690.081	ug/l	0.98	3,594,240.50	2.405E+01	Pulse	1.00	3
Mg			1	4664.396	ug/l	1.23	1,869,176.62	1.251E+01	Pulse	1.00	3
K			1	4780.496	ug/l	0.96	1,854,275.54	1.241E+01	Pulse	1.00	3
V			1	47.297	ug/l	1.78	222,501.45	1.489E+00	Pulse	0.50	3
Mn			1	47.765	ug/l	1.32	171,440.44	1.530E+00	Pulse	0.50	3
Fe			1	5087.174	ug/l	1.35	26,433,335.33	2.360E+02	Analog	0.50	3
Co			1	47.603	ug/l	1.14	451,277.49	4.028E+00	Pulse	0.50	3
Ni			1	47.050	ug/l	1.50	119,746.53	1.069E+00	Pulse	0.50	3
Cu			1	48.096	ug/l	1.38	329,407.89	2.941E+00	Pulse	0.50	3
Zn			1	47.154	ug/l	1.03	60,627.39	3.599E-01	Pulse	1.00	3
Cd			1	46.518	ug/l	1.70	100,284.75	5.953E-01	Pulse	0.50	3
Al			1	4565.765	ug/l	1.52	758,583.13	5.075E+00	Pulse	1.00	3
Se			1	47.781	ug/l	1.66	3,126.70	1.856E-02	Pulse	3.00	3
Sb			1	46.632	ug/l	1.00	298,368.45	1.771E+00	Pulse	1.00	3
Se			1	46.656	ug/l	0.67	1,499.95	8.904E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,912,835.08	0.95	86.7	Pulse	0.50	3
1	Sc		149,476.00	1.26	95.8	Pulse	0.30	3
1	Ge		112,030.63	0.73	94.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,173,010.44	0.47	91.1	Pulse	0.30	3
1	Tb		3,872,587.75	0.40	92.4	Pulse	0.50	3
1	Lu		2,940,548.42	0.91	91.1	Pulse	0.50	3
1	Ge		168,463.78	0.18	94.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,062.25	8.03	104.9	Pulse	0.30	3

Quantitation Report

File Name	161_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:47
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.996	ug/l	1.93	564,125.56	5.138E+00	Pulse	0.50	3
As			1	98.106	ug/l	1.67	75,021.52	6.833E-01	Pulse	1.00	3
Mo			1	98.348	ug/l	0.27	378,457.48	2.293E+00	Pulse	0.50	3
Pb			1	97.723	ug/l	1.12	2,359,586.00	8.250E-01	Pulse	1.00	3
Be			1	99.370	ug/l	0.43	3,355.11	2.312E-02	Pulse	2.00	3
Ag			1	98.802	ug/l	0.20	1,273,919.25	7.717E+00	Pulse	0.50	3
Ba			1	98.605	ug/l	0.69	198,298.02	1.717E-01	Pulse	0.50	3
Tl			1	99.553	ug/l	0.82	3,386,559.25	1.184E+00	Pulse	0.50	3
Sn			1	98.252	ug/l	0.72	439,516.19	3.805E-01	Pulse	0.30	3
Sr			1	100.461	ug/l	0.76	466,043.31	4.034E-01	Pulse	0.50	3
[Pb]			1	97.776	ug/l	0.81	1,112,399.87	3.889E-01	Pulse	0.50	3
Ca			1	9873.634	ug/l	1.37	204,844.04	1.411E+00	Pulse	0.50	3
Ti			1	98.999	ug/l	2.08	13,451.31	9.268E-02	Pulse	0.50	3
Na			1	10284.683	ug/l	0.87	7,639,646.50	5.264E+01	Analog	1.00	3
Mg			1	9698.188	ug/l	1.32	3,770,230.33	2.598E+01	Pulse	1.00	3
K			1	9884.569	ug/l	0.81	3,701,048.17	2.550E+01	Pulse	1.00	3
V			1	97.876	ug/l	1.52	445,807.43	3.072E+00	Pulse	0.50	3
Mn			1	98.202	ug/l	2.19	344,876.05	3.141E+00	Pulse	0.50	3
Fe			1	10526.204	ug/l	1.90	53,580,088.00	4.880E+02	Analog	0.50	3
Co			1	98.207	ug/l	2.35	911,345.52	8.301E+00	Pulse	0.50	3
Ni			1	97.351	ug/l	2.34	240,250.75	2.188E+00	Pulse	0.50	3
Cu			1	98.192	ug/l	2.30	653,654.71	5.953E+00	Pulse	0.50	3
Zn			1	97.062	ug/l	0.95	121,678.15	7.370E-01	Pulse	1.00	3
Cd			1	96.774	ug/l	0.34	204,260.66	1.237E+00	Pulse	0.50	3
Al			1	9614.014	ug/l	1.75	1,550,366.38	1.068E+01	Pulse	1.00	3
Se			1	97.658	ug/l	1.07	6,233.57	3.776E-02	Pulse	3.00	3
Sb			1	96.567	ug/l	0.16	604,422.81	3.661E+00	Pulse	1.00	3
Se			1	97.442	ug/l	1.87	3,053.36	1.849E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,859,996.08	0.54	85.1	Pulse	0.50	3
1	Sc		145,139.61	0.52	93.1	Pulse	0.30	3
1	Ge		109,805.82	0.89	92.4	Pulse	0.30	3
1	In		1,155,177.14	0.53	89.7	Pulse	0.30	3
1	Tb		3,824,291.83	0.59	91.2	Pulse	0.50	3
1	Lu		2,915,457.50	0.53	90.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		165,080.02	0.83	92.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		927.81	7.34	91.7	Pulse	0.30	3

Quantitation Report

File Name 162_CCB.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 20:51
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.019	ug/l	-118.70	1,094.70	1.000E-02	Pulse	0.50	3
As			1	0.003	ug/l	302.19	95.33	8.703E-04	Pulse	1.00	3
Mo			1	0.120	ug/l	19.90	894.69	5.431E-03	Pulse	0.50	3
Pb			1	-0.030	ug/l	-17.35	4,962.06	1.714E-03	Pulse	1.00	3
Be			1	-0.016	ug/l	-133.76	6.17	4.218E-05	Pulse	2.00	3
Ag			1	0.001	ug/l	596.84	238.00	1.451E-03	Pulse	0.50	3
Ba			1	0.031	ug/l	50.17	363.34	3.125E-04	Pulse	0.50	3
Tl			1	0.021	ug/l	37.35	4,019.16	1.389E-03	Pulse	0.50	3
Sn			1	0.150	ug/l	33.62	1,895.66	1.630E-03	Pulse	0.30	3
Sr			1	0.016	ug/l	76.52	765.35	6.588E-04	Pulse	0.50	3
[Pb]			1	-0.027	ug/l	-48.35	2,345.50	8.104E-04	Pulse	0.50	3
Ca			1	0.497	ug/l	339.39	124.67	8.536E-04	Pulse	0.50	3
Ti			1	-0.163	ug/l	-13.38	14.67	1.003E-04	Pulse	0.50	3
Na			1	-0.416	ug/l	-134.86	11,344.54	7.763E-02	Pulse	1.00	3
Mg			1	0.013	ug/l	2636.57	3,360.62	2.300E-02	Pulse	1.00	3
K			1	5.391	ug/l	13.29	22,765.41	1.558E-01	Pulse	1.00	3
V			1	-0.034	ug/l	-47.14	1,087.37	7.442E-03	Pulse	0.50	3
Mn			1	-0.015	ug/l	-73.45	488.01	4.458E-03	Pulse	0.50	3
Fe			1	-0.963	ug/l	-69.08	19,308.46	1.765E-01	Pulse	0.50	3
Co			1	-0.001	ug/l	-773.83	1,024.03	9.354E-03	Pulse	0.50	3
Ni			1	-0.649	ug/l	-0.83	814.02	7.432E-03	Pulse	0.50	3
Cu			1	-0.142	ug/l	-6.12	4,307.83	3.933E-02	Pulse	0.50	3
Zn			1	-0.014	ug/l	-210.77	562.68	3.420E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	154.17	178.00	1.083E-03	Pulse	0.50	3
Al			1	-1.404	ug/l	-44.50	432.34	2.959E-03	Pulse	1.00	3
Se			1	0.257	ug/l	28.21	43.44	2.642E-04	Pulse	3.00	3
Sb			1	0.033	ug/l	26.28	1,166.70	7.089E-03	Pulse	1.00	3
Se			1	0.193	ug/l	46.89	21.22	1.291E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,894,951.33	1.17	86.2	Pulse	0.50	3
1	Sc		146,134.74	0.46	93.7	Pulse	0.30	3

Quantitation Report

1	Ge		109,523.88	0.87	92.2	Pulse	0.30	3
1	In		1,162,139.29	0.91	90.2	Pulse	0.30	3
1	Tb		3,755,158.67	1.00	89.6	Pulse	0.50	3
1	Lu		2,857,727.50	1.23	88.5	Pulse	0.50	3
1	Ge		164,604.68	1.93	92.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		901.14	6.58	89.0	Pulse	0.30	3

Quantitation Report

File Name	163SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:54
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.056	ug/l	10.91	1,516.06	1.394E-02	Pulse	0.50	3
As			1	0.013	ug/l	122.66	101.67	9.341E-04	Pulse	1.00	3
Mo			1	0.048	ug/l	56.71	610.68	3.754E-03	Pulse	0.50	3
Pb			1	-0.063	ug/l	-6.74	4,134.50	1.437E-03	Pulse	1.00	3
Be			1	-0.073	ug/l	-122.01	4.17	2.893E-05	Pulse	2.00	3
Ag			1	-0.007	ug/l	-43.41	134.67	8.298E-04	Pulse	0.50	3
Ba			1	-0.026	ug/l	-74.76	244.67	2.128E-04	Pulse	0.50	3
Tl			1	0.009	ug/l	18.80	3,596.40	1.250E-03	Pulse	0.50	3
Sn			1	0.126	ug/l	17.73	1,773.43	1.539E-03	Pulse	0.30	3
Sr			1	0.014	ug/l	20.32	748.69	6.503E-04	Pulse	0.50	3
[Pb]			1	-0.064	ug/l	-9.98	1,911.45	6.646E-04	Pulse	0.50	3
Ca			1	-1.522	ug/l	-56.23	81.33	5.652E-04	Pulse	0.50	3
Ti			1	-0.177	ug/l	-20.67	12.67	8.785E-05	Pulse	0.50	3
Na			1	-3.174	ug/l	-6.01	9,137.09	6.354E-02	Pulse	1.00	3
Mg			1	-0.113	ug/l	-130.94	3,258.60	2.266E-02	Pulse	1.00	3
K			1	6.438	ug/l	6.97	22,790.10	1.585E-01	Pulse	1.00	3
V			1	0.083	ug/l	33.47	1,598.07	1.112E-02	Pulse	0.50	3
Mn			1	-0.044	ug/l	-22.71	385.34	3.540E-03	Pulse	0.50	3
Fe			1	-1.647	ug/l	-3.41	15,749.74	1.448E-01	Pulse	0.50	3
Co			1	-0.009	ug/l	-45.70	946.03	8.694E-03	Pulse	0.50	3
Ni			1	-0.656	ug/l	-0.71	792.02	7.279E-03	Pulse	0.50	3
Cu			1	-0.063	ug/l	-36.29	4,795.28	4.408E-02	Pulse	0.50	3
Zn			1	-0.006	ug/l	-270.67	565.01	3.477E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	979.70	163.33	1.004E-03	Pulse	0.50	3
Al			1	-2.283	ug/l	-6.45	285.33	1.983E-03	Pulse	1.00	3
Se			1	0.129	ug/l	46.26	34.89	2.146E-04	Pulse	3.00	3
Sb			1	0.001	ug/l	630.62	954.70	5.874E-03	Pulse	1.00	3
Se			1	-0.020	ug/l	-528.23	14.44	8.880E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,877,337.25	1.62	85.6	Pulse	0.50	3
1	Sc		143,821.12	1.00	92.2	Pulse	0.30	3

Quantitation Report

1	Ge		108,795.53	1.05	91.6	Pulse	0.30	3
1	In		1,151,408.53	1.53	89.4	Pulse	0.30	3
1	Tb		3,726,355.58	1.51	88.9	Pulse	0.50	3
1	Lu		2,826,451.25	1.47	87.6	Pulse	0.50	3
1	Ge		162,521.81	0.99	91.4	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		955.59	3.51	94.4	Pulse	0.30	3

Quantitation Report

File Name	164SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 20:58
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.067	ug/l	17.96	1,574.07	1.449E-02	Pulse	0.50	3
As			1	0.012	ug/l	122.97	101.00	9.301E-04	Pulse	1.00	3
Mo			1	0.028	ug/l	60.02	538.01	3.304E-03	Pulse	0.50	3
Pb			1	-0.065	ug/l	-5.53	4,096.83	1.423E-03	Pulse	1.00	3
Be			1	-0.099	ug/l	-7.85	3.33	2.289E-05	Pulse	2.00	3
Ag			1	-0.007	ug/l	-32.95	135.33	8.291E-04	Pulse	0.50	3
Ba			1	0.004	ug/l	387.77	306.00	2.651E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	1025.93	3,294.33	1.145E-03	Pulse	0.50	3
Sn			1	0.073	ug/l	11.22	1,537.86	1.333E-03	Pulse	0.30	3
Sr			1	0.024	ug/l	49.14	794.69	6.893E-04	Pulse	0.50	3
[Pb]			1	-0.065	ug/l	-19.45	1,906.78	6.626E-04	Pulse	0.50	3
Ca			1	-1.944	ug/l	-69.17	73.33	5.049E-04	Pulse	0.50	3
Ti			1	-0.192	ug/l	-23.59	10.67	7.336E-05	Pulse	0.50	3
Na			1	-3.281	ug/l	-14.21	9,167.76	6.299E-02	Pulse	1.00	3
Mg			1	0.474	ug/l	76.34	3,526.65	2.423E-02	Pulse	1.00	3
K			1	5.647	ug/l	7.44	22,774.43	1.564E-01	Pulse	1.00	3
V			1	0.069	ug/l	15.41	1,553.40	1.067E-02	Pulse	0.50	3
Mn			1	-0.037	ug/l	-12.45	408.68	3.762E-03	Pulse	0.50	3
Fe			1	-1.762	ug/l	-6.82	15,145.28	1.394E-01	Pulse	0.50	3
Co			1	-0.002	ug/l	-194.31	1,006.70	9.268E-03	Pulse	0.50	3
Ni			1	-0.685	ug/l	-1.93	720.68	6.634E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-36.82	4,775.28	4.396E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-17.75	551.68	3.385E-03	Pulse	1.00	3
Cd			1	-0.007	ug/l	-129.65	144.00	8.837E-04	Pulse	0.50	3
Al			1	-2.476	ug/l	-3.17	257.33	1.768E-03	Pulse	1.00	3
Se			1	0.176	ug/l	40.63	38.00	2.330E-04	Pulse	3.00	3
Sb			1	-0.014	ug/l	-91.31	866.36	5.312E-03	Pulse	1.00	3
Se			1	0.030	ug/l	238.38	16.00	9.826E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,879,325.17	1.50	85.7	Pulse	0.50	3
1	Sc		145,576.22	0.93	93.3	Pulse	0.30	3

Quantitation Report

1	Ge		108,634.68	0.52	91.4	Pulse	0.30	3
1	In		1,153,720.96	1.65	89.6	Pulse	0.30	3
1	Tb		3,734,185.00	1.80	89.1	Pulse	0.50	3
1	Lu		2,835,127.83	1.64	87.8	Pulse	0.50	3
1	Ge		162,985.81	1.13	91.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		973.36	4.71	96.2	Pulse	0.30	3

Quantitation Report

File Name	165SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:02
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.074	ug/l	6.26	1,592.74	1.489E-02	Pulse	0.50	3
As			1	0.000	ug/l	2670.21	91.00	8.501E-04	Pulse	1.00	3
Mo			1	0.011	ug/l	56.08	468.01	2.909E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-0.69	4,016.81	1.398E-03	Pulse	1.00	3
Be			1	-0.058	ug/l	-101.46	4.67	3.244E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-7.43	62.00	3.852E-04	Pulse	0.50	3
Ba			1	-0.015	ug/l	-87.33	266.00	2.332E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-44.92	3,118.30	1.085E-03	Pulse	0.50	3
Sn			1	0.046	ug/l	47.41	1,405.62	1.231E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	110.37	753.35	6.597E-04	Pulse	0.50	3
[Pb]			1	-0.075	ug/l	-8.85	1,780.77	6.197E-04	Pulse	0.50	3
Ca			1	-3.105	ug/l	-6.06	48.67	3.390E-04	Pulse	0.50	3
Ti			1	-0.191	ug/l	-9.35	10.67	7.444E-05	Pulse	0.50	3
Na			1	-3.851	ug/l	-9.69	8,621.19	6.008E-02	Pulse	1.00	3
Mg			1	-0.295	ug/l	-11.33	3,181.59	2.217E-02	Pulse	1.00	3
K			1	5.284	ug/l	12.34	22,313.24	1.555E-01	Pulse	1.00	3
V			1	0.077	ug/l	11.85	1,567.40	1.092E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-16.46	396.68	3.708E-03	Pulse	0.50	3
Fe			1	-2.274	ug/l	-1.52	12,379.29	1.157E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-56.05	948.03	8.862E-03	Pulse	0.50	3
Ni			1	-0.718	ug/l	-2.27	631.34	5.899E-03	Pulse	0.50	3
Cu			1	-0.074	ug/l	-14.10	4,640.57	4.337E-02	Pulse	0.50	3
Zn			1	-0.054	ug/l	-59.70	501.68	3.118E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-109.27	139.33	8.663E-04	Pulse	0.50	3
Al			1	-2.817	ug/l	-3.16	199.33	1.389E-03	Pulse	1.00	3
Se			1	0.126	ug/l	56.76	34.33	2.135E-04	Pulse	3.00	3
Sb			1	-0.014	ug/l	-68.90	851.35	5.292E-03	Pulse	1.00	3
Se			1	0.087	ug/l	72.74	17.56	1.092E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,872,824.92	1.35	85.5	Pulse	0.50	3
1	Sc		143,494.47	0.92	92.0	Pulse	0.30	3

Quantitation Report

1	Ge		106,998.79	0.81	90.0	Pulse	0.30	3
1	In		1,141,313.22	1.47	88.6	Pulse	0.30	3
1	Tb		3,732,175.50	1.37	89.0	Pulse	0.50	3
1	Lu		2,818,495.67	1.58	87.3	Pulse	0.50	3
1	Ge		160,864.62	0.51	90.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,008.92	9.58	99.7	Pulse	0.30	3

Quantitation Report

File Name	166SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:06
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.055	ug/l	20.79	1,502.73	1.391E-02	Pulse	0.50	3
As			1	0.025	ug/l	16.40	110.33	1.021E-03	Pulse	1.00	3
Mo			1	0.015	ug/l	25.73	482.68	2.993E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-4.00	3,903.79	1.360E-03	Pulse	1.00	3
Be			1	-0.093	ug/l	-17.04	3.50	2.436E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-8.35	81.33	5.038E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	477.29	303.33	2.647E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-42.02	3,133.63	1.091E-03	Pulse	0.50	3
Sn			1	0.068	ug/l	33.70	1,505.63	1.312E-03	Pulse	0.30	3
Sr			1	0.016	ug/l	28.73	754.69	6.581E-04	Pulse	0.50	3
[Pb]			1	-0.065	ug/l	-11.24	1,901.45	6.627E-04	Pulse	0.50	3
Ca			1	-1.744	ug/l	-77.50	76.67	5.334E-04	Pulse	0.50	3
Ti			1	-0.162	ug/l	-10.94	14.67	1.020E-04	Pulse	0.50	3
Na			1	-4.014	ug/l	-6.50	8,518.81	5.925E-02	Pulse	1.00	3
Mg			1	-0.425	ug/l	-61.73	3,138.25	2.182E-02	Pulse	1.00	3
K			1	5.539	ug/l	19.95	22,456.72	1.562E-01	Pulse	1.00	3
V			1	0.061	ug/l	28.01	1,498.06	1.041E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-36.16	424.68	3.930E-03	Pulse	0.50	3
Fe			1	-2.341	ug/l	-2.79	12,167.16	1.126E-01	Pulse	0.50	3
Co			1	-0.014	ug/l	-25.36	896.69	8.300E-03	Pulse	0.50	3
Ni			1	-0.722	ug/l	-0.98	629.34	5.825E-03	Pulse	0.50	3
Cu			1	-0.084	ug/l	-18.55	4,624.57	4.280E-02	Pulse	0.50	3
Zn			1	-0.020	ug/l	-198.21	543.68	3.374E-03	Pulse	1.00	3
Cd			1	-0.004	ug/l	-76.72	149.33	9.262E-04	Pulse	0.50	3
Al			1	-2.715	ug/l	-7.79	216.33	1.503E-03	Pulse	1.00	3
Se			1	0.119	ug/l	98.87	34.00	2.108E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-36.49	833.69	5.172E-03	Pulse	1.00	3
Se			1	0.075	ug/l	234.48	17.22	1.068E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,870,518.75	1.77	85.4	Pulse	0.50	3
1	Sc		143,807.94	0.91	92.2	Pulse	0.30	3

Quantitation Report

1	Ge		108,044.77	0.49	90.9	Pulse	0.30	3
1	In		1,146,869.68	1.38	89.0	Pulse	0.30	3
1	Tb		3,729,282.00	1.89	88.9	Pulse	0.50	3
1	Lu		2,816,852.92	1.79	87.3	Pulse	0.50	3
1	Ge		161,249.94	1.35	90.7	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,028.93	6.17	101.6	Pulse	0.30	3

Quantitation Report

File Name	167SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:10
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.072	ug/l	16.56	1,597.41	1.477E-02	Pulse	0.50	3
As			1	0.001	ug/l	2738.63	92.00	8.510E-04	Pulse	1.00	3
Mo			1	0.021	ug/l	53.93	510.01	3.121E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.56	3,974.80	1.388E-03	Pulse	1.00	3
Be			1	-0.094	ug/l	-27.89	3.50	2.419E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-5.85	69.33	4.243E-04	Pulse	0.50	3
Ba			1	0.004	ug/l	368.33	305.33	2.654E-04	Pulse	0.50	3
Tl			1	-0.001	ug/l	-258.39	3,218.98	1.123E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	43.05	1,403.39	1.220E-03	Pulse	0.30	3
Sr			1	0.007	ug/l	38.93	713.35	6.205E-04	Pulse	0.50	3
[Pb]			1	-0.071	ug/l	-6.38	1,820.11	6.355E-04	Pulse	0.50	3
Ca			1	-2.995	ug/l	-30.08	51.33	3.547E-04	Pulse	0.50	3
Ti			1	-0.083	ug/l	-115.17	25.33	1.752E-04	Pulse	0.50	3
Na			1	-4.189	ug/l	-2.01	8,447.45	5.835E-02	Pulse	1.00	3
Mg			1	-0.732	ug/l	-53.20	3,040.24	2.100E-02	Pulse	1.00	3
K			1	6.314	ug/l	7.86	22,895.57	1.582E-01	Pulse	1.00	3
V			1	0.060	ug/l	12.30	1,503.40	1.038E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-7.52	390.01	3.606E-03	Pulse	0.50	3
Fe			1	-2.359	ug/l	-1.20	12,087.78	1.117E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-8.73	970.03	8.968E-03	Pulse	0.50	3
Ni			1	-0.758	ug/l	-1.86	543.34	5.024E-03	Pulse	0.50	3
Cu			1	-0.086	ug/l	-7.03	4,612.57	4.264E-02	Pulse	0.50	3
Zn			1	-0.038	ug/l	-66.30	529.01	3.238E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-164.72	141.33	8.650E-04	Pulse	0.50	3
Al			1	-2.884	ug/l	-3.87	190.33	1.315E-03	Pulse	1.00	3
Se			1	0.194	ug/l	56.12	39.11	2.398E-04	Pulse	3.00	3
Sb			1	-0.022	ug/l	-26.64	820.35	5.021E-03	Pulse	1.00	3
Se			1	0.060	ug/l	69.03	17.00	1.040E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,864,624.25	0.91	85.3	Pulse	0.50	3
1	Sc		144,771.14	0.32	92.8	Pulse	0.30	3

Quantitation Report

1	Ge		108,167.42	0.82	91.0	Pulse	0.30	3
1	In		1,149,589.92	1.24	89.3	Pulse	0.30	3
1	Tb		3,729,450.25	1.93	88.9	Pulse	0.50	3
1	Lu		2,824,234.83	1.28	87.5	Pulse	0.50	3
1	Ge		163,325.22	1.16	91.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		963.36	9.48	95.2	Pulse	0.30	3

Quantitation Report

File Name	168SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:13
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.066	ug/l	15.30	1,549.40	1.444E-02	Pulse	0.50	3
As			1	0.020	ug/l	113.39	105.67	9.859E-04	Pulse	1.00	3
Mo			1	0.006	ug/l	69.81	448.01	2.776E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-5.54	3,942.46	1.381E-03	Pulse	1.00	3
Be			1	-0.103	ug/l	-58.72	3.17	2.197E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-14.95	74.67	4.629E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-262.10	278.67	2.435E-04	Pulse	0.50	3
Tl			1	-0.004	ug/l	-35.10	3,102.96	1.087E-03	Pulse	0.50	3
Sn			1	0.056	ug/l	36.14	1,450.07	1.267E-03	Pulse	0.30	3
Sr			1	0.023	ug/l	70.32	784.69	6.857E-04	Pulse	0.50	3
[Pb]			1	-0.076	ug/l	-15.04	1,764.77	6.180E-04	Pulse	0.50	3
Ca			1	-2.758	ug/l	-24.91	56.00	3.886E-04	Pulse	0.50	3
Ti			1	-0.167	ug/l	-24.03	14.00	9.728E-05	Pulse	0.50	3
Na			1	-4.067	ug/l	-6.36	8,500.81	5.898E-02	Pulse	1.00	3
Mg			1	-1.025	ug/l	-15.38	2,914.55	2.022E-02	Pulse	1.00	3
K			1	6.262	ug/l	6.00	22,778.42	1.580E-01	Pulse	1.00	3
V			1	0.064	ug/l	35.76	1,518.07	1.053E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-20.85	398.67	3.714E-03	Pulse	0.50	3
Fe			1	-2.428	ug/l	-3.85	11,648.85	1.085E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-139.38	952.02	8.870E-03	Pulse	0.50	3
Ni			1	-0.755	ug/l	-0.47	545.34	5.081E-03	Pulse	0.50	3
Cu			1	-0.064	ug/l	-19.17	4,719.27	4.397E-02	Pulse	0.50	3
Zn			1	-0.023	ug/l	-133.46	540.68	3.351E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	3346.99	158.00	9.802E-04	Pulse	0.50	3
Al			1	-2.515	ug/l	-2.09	248.67	1.725E-03	Pulse	1.00	3
Se			1	0.177	ug/l	26.98	37.67	2.333E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-41.94	846.35	5.246E-03	Pulse	1.00	3
Se			1	0.100	ug/l	128.43	18.00	1.116E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,854,311.33	1.04	85.0	Pulse	0.50	3
1	Sc		144,156.87	0.85	92.4	Pulse	0.30	3

Quantitation Report

1	Ge		107,321.68	1.23	90.3	Pulse	0.30	3
1	In		1,144,866.00	0.74	88.9	Pulse	0.30	3
1	Tb		3,733,175.33	0.92	89.0	Pulse	0.50	3
1	Lu		2,810,943.50	1.45	87.1	Pulse	0.50	3
1	Ge		161,396.66	1.52	90.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,026.70	2.54	101.4	Pulse	0.30	3

Quantitation Report

File Name	169SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:17
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.073	ug/l	19.64	1,572.07	1.484E-02	Pulse	0.50	3
As			1	0.026	ug/l	35.26	108.67	1.025E-03	Pulse	1.00	3
Mo			1	0.013	ug/l	91.08	467.34	2.943E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-1.21	3,948.46	1.384E-03	Pulse	1.00	3
Be			1	-0.066	ug/l	-68.26	4.33	3.055E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-8.63	72.00	4.533E-04	Pulse	0.50	3
Ba			1	-0.011	ug/l	-12.57	272.67	2.392E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-71.89	3,090.29	1.084E-03	Pulse	0.50	3
Sn			1	0.109	ug/l	91.28	1,680.30	1.472E-03	Pulse	0.30	3
Sr			1	0.024	ug/l	77.77	786.02	6.904E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-15.93	1,824.11	6.398E-04	Pulse	0.50	3
Ca			1	-2.644	ug/l	-20.86	57.33	4.049E-04	Pulse	0.50	3
Ti			1	-0.145	ug/l	-32.29	16.67	1.173E-04	Pulse	0.50	3
Na			1	-3.996	ug/l	-6.14	8,405.44	5.934E-02	Pulse	1.00	3
Mg			1	-1.042	ug/l	-16.42	2,857.21	2.017E-02	Pulse	1.00	3
K			1	6.208	ug/l	14.53	22,364.28	1.579E-01	Pulse	1.00	3
V			1	0.094	ug/l	11.81	1,623.41	1.146E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-10.04	380.01	3.584E-03	Pulse	0.50	3
Fe			1	-2.441	ug/l	-3.60	11,439.39	1.079E-01	Pulse	0.50	3
Co			1	-0.002	ug/l	-284.17	982.03	9.262E-03	Pulse	0.50	3
Ni			1	-0.770	ug/l	-1.49	502.68	4.744E-03	Pulse	0.50	3
Cu			1	-0.062	ug/l	-23.88	4,673.25	4.409E-02	Pulse	0.50	3
Zn			1	-0.041	ug/l	-59.63	511.01	3.219E-03	Pulse	1.00	3
Cd			1	-0.002	ug/l	-125.53	151.33	9.533E-04	Pulse	0.50	3
Al			1	-2.622	ug/l	-5.33	227.33	1.606E-03	Pulse	1.00	3
Se			1	0.211	ug/l	40.34	39.11	2.465E-04	Pulse	3.00	3
Sb			1	-0.015	ug/l	-30.65	836.69	5.272E-03	Pulse	1.00	3
Se			1	-0.024	ug/l	-332.18	14.00	8.817E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,852,227.42	1.49	84.9	Pulse	0.50	3
1	Sc		141,675.93	1.62	90.8	Pulse	0.30	3

Quantitation Report

1	Ge		105,984.34	1.20	89.2	Pulse	0.30	3
1	In		1,139,791.62	1.58	88.5	Pulse	0.30	3
1	Tb		3,691,430.92	1.22	88.0	Pulse	0.50	3
1	Lu		2,799,733.92	1.29	86.8	Pulse	0.50	3
1	Ge		158,735.66	0.92	89.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		993.36	6.93	98.1	Pulse	0.30	3

Quantitation Report

File Name 170SMPL.d
File Path D:\2023\xa032023m1.b
Method File
Method Path
Acq Time 3/20/2023 21:21
Sample Name Rinse
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 3/20/2023 11:06
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.065	ug/l	9.77	1,543.40	1.443E-02	Pulse	0.50	3
As			1	0.009	ug/l	112.92	97.00	9.075E-04	Pulse	1.00	3
Mo			1	0.012	ug/l	45.21	469.34	2.923E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.82	3,949.46	1.386E-03	Pulse	1.00	3
Be			1	-0.118	ug/l	-14.77	2.67	1.856E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-8.04	90.67	5.651E-04	Pulse	0.50	3
Ba			1	-0.015	ug/l	-138.86	265.33	2.324E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-30.41	3,004.28	1.055E-03	Pulse	0.50	3
Sn			1	0.068	ug/l	19.20	1,496.74	1.313E-03	Pulse	0.30	3
Sr			1	0.010	ug/l	116.17	722.02	6.331E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-8.67	1,801.44	6.322E-04	Pulse	0.50	3
Ca			1	-2.347	ug/l	-58.21	64.00	4.473E-04	Pulse	0.50	3
Ti			1	-0.171	ug/l	-26.67	13.33	9.291E-05	Pulse	0.50	3
Na			1	-4.134	ug/l	-4.72	8,426.78	5.863E-02	Pulse	1.00	3
Mg			1	-1.221	ug/l	-22.02	2,829.21	1.969E-02	Pulse	1.00	3
K			1	5.564	ug/l	7.28	22,451.71	1.562E-01	Pulse	1.00	3
V			1	0.091	ug/l	21.84	1,634.07	1.138E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-21.47	385.34	3.602E-03	Pulse	0.50	3
Fe			1	-2.413	ug/l	-0.52	11,685.54	1.093E-01	Pulse	0.50	3
Co			1	-0.006	ug/l	-59.32	956.70	8.942E-03	Pulse	0.50	3
Ni			1	-0.733	ug/l	-2.39	596.01	5.573E-03	Pulse	0.50	3
Cu			1	-0.053	ug/l	-41.82	4,774.61	4.465E-02	Pulse	0.50	3
Zn			1	-0.048	ug/l	-40.76	507.34	3.161E-03	Pulse	1.00	3
Cd			1	-0.014	ug/l	-26.75	128.67	8.017E-04	Pulse	0.50	3
Al			1	-2.812	ug/l	-4.98	200.33	1.394E-03	Pulse	1.00	3
Se			1	0.181	ug/l	7.45	37.67	2.347E-04	Pulse	3.00	3
Sb			1	-0.023	ug/l	-4.96	799.35	4.979E-03	Pulse	1.00	3
Se			1	0.103	ug/l	87.92	18.00	1.122E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,848,597.42	1.52	84.8	Pulse	0.50	3
1	Sc		143,722.59	1.58	92.2	Pulse	0.30	3

Quantitation Report

1	Ge		106,959.78	1.42	90.0	Pulse	0.30	3
1	In		1,140,380.48	1.28	88.5	Pulse	0.30	3
1	Tb		3,681,956.33	1.74	87.8	Pulse	0.50	3
1	Lu		2,795,283.25	1.21	86.6	Pulse	0.50	3
1	Ge		160,523.14	1.42	90.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		996.70	6.58	98.5	Pulse	0.30	3

Quantitation Report

File Name	171SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:25
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.066	ug/l	11.21	1,567.40	1.447E-02	Pulse	0.50	3
As			1	-0.005	ug/l	-312.14	88.00	8.132E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	-40432.84	429.34	2.642E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-3.63	3,921.79	1.369E-03	Pulse	1.00	3
Be			1	-0.037	ug/l	-98.52	5.33	3.739E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-10.74	60.67	3.748E-04	Pulse	0.50	3
Ba			1	-0.026	ug/l	-56.68	246.00	2.142E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-88.16	3,088.29	1.078E-03	Pulse	0.50	3
Sn			1	0.046	ug/l	38.63	1,411.17	1.230E-03	Pulse	0.30	3
Sr			1	0.001	ug/l	1099.35	688.02	5.990E-04	Pulse	0.50	3
[Pb]			1	-0.085	ug/l	-3.18	1,670.09	5.828E-04	Pulse	0.50	3
Ca			1	-1.971	ug/l	-3.61	71.33	5.010E-04	Pulse	0.50	3
Ti			1	-0.175	ug/l	-39.40	12.67	8.943E-05	Pulse	0.50	3
Na			1	-4.187	ug/l	-3.12	8,310.40	5.836E-02	Pulse	1.00	3
Mg			1	-0.716	ug/l	-6.37	2,996.90	2.104E-02	Pulse	1.00	3
K			1	6.565	ug/l	13.66	22,610.23	1.588E-01	Pulse	1.00	3
V			1	0.080	ug/l	25.62	1,568.07	1.101E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-30.19	401.34	3.709E-03	Pulse	0.50	3
Fe			1	-2.370	ug/l	-7.21	12,045.68	1.113E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-52.12	928.02	8.572E-03	Pulse	0.50	3
Ni			1	-0.740	ug/l	-0.79	586.68	5.415E-03	Pulse	0.50	3
Cu			1	-0.063	ug/l	-58.09	4,772.60	4.405E-02	Pulse	0.50	3
Zn			1	-0.036	ug/l	-75.71	528.01	3.252E-03	Pulse	1.00	3
Cd			1	-0.008	ug/l	-181.94	141.33	8.718E-04	Pulse	0.50	3
Al			1	-1.980	ug/l	-44.50	329.35	2.319E-03	Pulse	1.00	3
Se			1	0.142	ug/l	81.68	35.67	2.197E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-27.20	827.69	5.091E-03	Pulse	1.00	3
Se			1	0.088	ug/l	255.53	17.78	1.094E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,865,449.67	0.96	85.3	Pulse	0.50	3
1	Sc		142,399.92	1.11	91.3	Pulse	0.30	3

Quantitation Report

1	Ge		108,319.62	1.42	91.2	Pulse	0.30	3
1	In		1,148,078.91	0.92	89.1	Pulse	0.30	3
1	Tb		3,733,899.00	1.20	89.0	Pulse	0.50	3
1	Lu		2,820,210.67	1.07	87.4	Pulse	0.50	3
1	Ge		162,516.47	2.20	91.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,088.93	2.04	107.6	Pulse	0.30	3

Quantitation Report

File Name	172SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:28
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.062	ug/l	38.68	1,514.06	1.422E-02	Pulse	0.50	3
As			1	0.012	ug/l	138.00	99.33	9.333E-04	Pulse	1.00	3
Mo			1	0.002	ug/l	604.10	424.68	2.679E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-4.50	3,961.46	1.401E-03	Pulse	1.00	3
Be			1	-0.132	ug/l	-24.18	2.17	1.529E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-7.94	72.67	4.586E-04	Pulse	0.50	3
Ba			1	-0.026	ug/l	-29.01	242.67	2.141E-04	Pulse	0.50	3
Tl			1	-0.007	ug/l	-32.48	2,978.27	1.053E-03	Pulse	0.50	3
Sn			1	0.056	ug/l	48.70	1,436.73	1.268E-03	Pulse	0.30	3
Sr			1	0.005	ug/l	169.53	693.35	6.119E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-4.66	1,810.10	6.401E-04	Pulse	0.50	3
Ca			1	-2.554	ug/l	-11.58	59.33	4.177E-04	Pulse	0.50	3
Ti			1	-0.196	ug/l	-7.48	10.00	7.037E-05	Pulse	0.50	3
Na			1	-4.214	ug/l	-1.28	8,267.05	5.823E-02	Pulse	1.00	3
Mg			1	-0.719	ug/l	-32.52	2,986.56	2.104E-02	Pulse	1.00	3
K			1	6.952	ug/l	2.03	22,686.66	1.598E-01	Pulse	1.00	3
V			1	0.083	ug/l	16.11	1,578.74	1.112E-02	Pulse	0.50	3
Mn			1	-0.030	ug/l	-23.10	424.68	3.986E-03	Pulse	0.50	3
Fe			1	-2.391	ug/l	-3.94	11,742.92	1.103E-01	Pulse	0.50	3
Co			1	-0.004	ug/l	-185.14	967.36	9.085E-03	Pulse	0.50	3
Ni			1	-0.729	ug/l	-2.07	603.34	5.665E-03	Pulse	0.50	3
Cu			1	-0.066	ug/l	-35.59	4,676.58	4.389E-02	Pulse	0.50	3
Zn			1	-0.007	ug/l	-799.11	551.34	3.471E-03	Pulse	1.00	3
Cd			1	-0.012	ug/l	-87.64	131.33	8.270E-04	Pulse	0.50	3
Al			1	-2.649	ug/l	-1.93	223.67	1.576E-03	Pulse	1.00	3
Se			1	0.126	ug/l	42.48	33.89	2.137E-04	Pulse	3.00	3
Sb			1	-0.023	ug/l	-30.75	788.69	4.973E-03	Pulse	1.00	3
Se			1	0.054	ug/l	101.74	16.33	1.028E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,828,343.92	1.71	84.2	Pulse	0.50	3
1	Sc		141,980.22	0.78	91.0	Pulse	0.30	3

Quantitation Report

1	Ge		106,538.60	1.22	89.7	Pulse	0.30	3
1	In		1,133,387.28	0.74	88.0	Pulse	0.30	3
1	Tb		3,681,779.42	1.52	87.8	Pulse	0.50	3
1	Lu		2,779,088.75	1.63	86.1	Pulse	0.50	3
1	Ge		158,628.13	2.24	89.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		957.81	14.36	94.6	Pulse	0.30	3

Quantitation Report

File Name	173CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:32
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.902	ug/l	0.61	277,865.30	2.517E+00	Pulse	0.50	3
As			1	47.616	ug/l	0.72	36,656.95	3.321E-01	Pulse	1.00	3
Mo			1	47.687	ug/l	0.23	183,715.08	1.113E+00	Pulse	0.50	3
Pb			1	47.435	ug/l	0.50	1,150,753.21	4.015E-01	Pulse	1.00	3
Be			1	49.245	ug/l	0.84	1,680.74	1.148E-02	Pulse	2.00	3
Ag			1	48.334	ug/l	0.84	623,292.52	3.776E+00	Pulse	0.50	3
Ba			1	47.967	ug/l	0.28	96,537.26	8.364E-02	Pulse	0.50	3
Tl			1	48.455	ug/l	0.44	1,653,595.79	5.769E-01	Pulse	0.50	3
Sn			1	47.379	ug/l	0.78	212,389.80	1.840E-01	Pulse	0.30	3
Sr			1	48.675	ug/l	1.12	225,976.90	1.958E-01	Pulse	0.50	3
[Pb]			1	47.891	ug/l	0.69	547,407.29	1.910E-01	Pulse	0.50	3
Ca			1	4831.046	ug/l	1.04	101,169.71	6.910E-01	Pulse	0.50	3
Ti			1	47.629	ug/l	1.25	6,547.78	4.472E-02	Pulse	0.50	3
Na			1	4722.057	ug/l	0.85	3,544,766.17	2.421E+01	Pulse	1.00	3
Mg			1	4690.324	ug/l	1.02	1,841,162.33	1.258E+01	Pulse	1.00	3
K			1	4793.279	ug/l	1.06	1,821,197.75	1.244E+01	Pulse	1.00	3
V			1	47.611	ug/l	1.04	219,408.06	1.499E+00	Pulse	0.50	3
Mn			1	47.828	ug/l	0.56	169,159.92	1.532E+00	Pulse	0.50	3
Fe			1	5140.020	ug/l	0.78	26,317,628.67	2.384E+02	Analog	0.50	3
Co			1	47.760	ug/l	0.41	446,155.00	4.042E+00	Pulse	0.50	3
Ni			1	47.235	ug/l	0.99	118,445.73	1.073E+00	Pulse	0.50	3
Cu			1	48.297	ug/l	0.37	325,941.04	2.953E+00	Pulse	0.50	3
Zn			1	47.777	ug/l	0.11	60,181.34	3.646E-01	Pulse	1.00	3
Cd			1	47.198	ug/l	0.14	99,694.90	6.040E-01	Pulse	0.50	3
Al			1	4603.804	ug/l	1.09	749,287.38	5.118E+00	Pulse	1.00	3
Se			1	48.056	ug/l	0.92	3,081.14	1.867E-02	Pulse	3.00	3
Sb			1	46.834	ug/l	0.43	293,608.43	1.779E+00	Pulse	1.00	3
Se			1	47.452	ug/l	2.31	1,494.39	9.054E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,866,256.08	1.10	85.3	Pulse	0.50	3
1	Sc		146,416.70	0.66	93.9	Pulse	0.30	3
1	Ge		110,394.47	1.13	92.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,154,242.28	0.55	89.6	Pulse	0.30	3
1	Tb		3,795,097.25	0.87	90.5	Pulse	0.50	3
1	Lu		2,892,000.92	1.00	89.6	Pulse	0.50	3
1	Ge		165,067.49	0.71	92.8	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		990.03	10.47	97.8	Pulse	0.30	3

Quantitation Report

File Name	174_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:36
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.388	ug/l	1.27	557,589.90	5.106E+00	Pulse	0.50	3
As			1	98.176	ug/l	1.29	74,667.11	6.838E-01	Pulse	1.00	3
Mo			1	98.686	ug/l	1.28	373,895.25	2.300E+00	Pulse	0.50	3
Pb			1	97.898	ug/l	0.57	2,322,199.92	8.265E-01	Pulse	1.00	3
Be			1	100.128	ug/l	0.26	3,352.95	2.329E-02	Pulse	2.00	3
Ag			1	98.756	ug/l	0.34	1,253,670.17	7.713E+00	Pulse	0.50	3
Ba			1	98.808	ug/l	0.73	196,296.16	1.720E-01	Pulse	0.50	3
Tl			1	99.710	ug/l	0.54	3,332,232.25	1.186E+00	Pulse	0.50	3
Sn			1	98.337	ug/l	0.66	434,541.02	3.808E-01	Pulse	0.30	3
Sr			1	100.756	ug/l	0.58	461,727.50	4.046E-01	Pulse	0.50	3
[Pb]			1	98.089	ug/l	0.63	1,096,328.17	3.902E-01	Pulse	0.50	3
Ca			1	9925.964	ug/l	1.14	204,245.83	1.419E+00	Pulse	0.50	3
Ti			1	101.395	ug/l	3.14	13,662.13	9.491E-02	Pulse	0.50	3
Na			1	10314.522	ug/l	0.55	7,599,116.17	5.279E+01	Analog	1.00	3
Mg			1	9756.968	ug/l	1.40	3,762,010.50	2.613E+01	Pulse	1.00	3
K			1	9919.195	ug/l	0.87	3,683,538.33	2.559E+01	Pulse	1.00	3
V			1	97.821	ug/l	1.48	441,911.80	3.070E+00	Pulse	0.50	3
Mn			1	98.510	ug/l	1.26	344,077.64	3.151E+00	Pulse	0.50	3
Fe			1	10551.646	ug/l	0.91	53,418,040.00	4.892E+02	Analog	0.50	3
Co			1	98.234	ug/l	1.40	906,671.48	8.303E+00	Pulse	0.50	3
Ni			1	96.867	ug/l	1.30	237,776.69	2.177E+00	Pulse	0.50	3
Cu			1	97.585	ug/l	1.32	646,123.46	5.917E+00	Pulse	0.50	3
Zn			1	97.318	ug/l	0.69	120,109.95	7.390E-01	Pulse	1.00	3
Cd			1	97.323	ug/l	1.14	202,253.46	1.244E+00	Pulse	0.50	3
Al			1	9694.054	ug/l	1.89	1,550,470.79	1.077E+01	Pulse	1.00	3
Se			1	98.957	ug/l	0.78	6,218.79	3.826E-02	Pulse	3.00	3
Sb			1	97.071	ug/l	0.67	598,201.61	3.680E+00	Pulse	1.00	3
Se			1	98.132	ug/l	1.20	3,027.24	1.863E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,809,698.50	0.73	83.6	Pulse	0.50	3
1	Sc		143,950.68	0.30	92.3	Pulse	0.30	3
1	Ge		109,198.99	0.21	91.9	Pulse	0.30	3
1	In		1,141,149.71	1.03	88.6	Pulse	0.30	3
1	Tb		3,775,913.42	0.57	90.0	Pulse	0.50	3
1	Lu		2,879,964.50	0.73	89.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		162,531.83	0.53	91.4	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		944.47	6.08	93.3	Pulse	0.30	3

Quantitation Report

File Name	175_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:40
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.012	ug/l	-163.16	1,132.04	1.038E-02	Pulse	0.50	3
As			1	0.011	ug/l	225.00	101.00	9.251E-04	Pulse	1.00	3
Mo			1	0.135	ug/l	16.89	944.69	5.780E-03	Pulse	0.50	3
Pb			1	-0.025	ug/l	-44.76	5,031.08	1.757E-03	Pulse	1.00	3
Be			1	-0.025	ug/l	-265.86	5.83	4.006E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	194.05	273.34	1.677E-03	Pulse	0.50	3
Ba			1	0.002	ug/l	267.87	302.67	2.616E-04	Pulse	0.50	3
Tl			1	0.025	ug/l	27.11	4,108.51	1.435E-03	Pulse	0.50	3
Sn			1	0.159	ug/l	22.54	1,927.89	1.666E-03	Pulse	0.30	3
Sr			1	0.032	ug/l	46.69	834.02	7.211E-04	Pulse	0.50	3
[Pb]			1	-0.022	ug/l	-10.48	2,379.51	8.308E-04	Pulse	0.50	3
Ca			1	1.587	ug/l	150.30	147.33	1.009E-03	Pulse	0.50	3
Ti			1	-0.090	ug/l	-41.75	24.67	1.693E-04	Pulse	0.50	3
Na			1	-0.742	ug/l	-112.14	11,069.06	7.596E-02	Pulse	1.00	3
Mg			1	-1.073	ug/l	-54.12	2,926.88	2.009E-02	Pulse	1.00	3
K			1	6.933	ug/l	15.16	23,281.01	1.597E-01	Pulse	1.00	3
V			1	-0.025	ug/l	-49.71	1,126.04	7.727E-03	Pulse	0.50	3
Mn			1	-0.017	ug/l	-38.93	478.68	4.386E-03	Pulse	0.50	3
Fe			1	-0.995	ug/l	-66.24	19,073.51	1.750E-01	Pulse	0.50	3
Co			1	-0.005	ug/l	-237.01	984.03	9.025E-03	Pulse	0.50	3
Ni			1	-0.722	ug/l	-0.71	634.68	5.816E-03	Pulse	0.50	3
Cu			1	-0.138	ug/l	-17.76	4,314.50	3.954E-02	Pulse	0.50	3
Zn			1	0.007	ug/l	543.42	584.68	3.579E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	93.24	196.67	1.204E-03	Pulse	0.50	3
Al			1	-1.270	ug/l	-51.58	452.34	3.107E-03	Pulse	1.00	3
Se			1	0.260	ug/l	34.60	43.34	2.652E-04	Pulse	3.00	3
Sb			1	0.034	ug/l	14.17	1,161.04	7.108E-03	Pulse	1.00	3
Se			1	0.107	ug/l	30.22	18.44	1.129E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,864,225.50	0.52	85.2	Pulse	0.50	3
1	Sc		145,753.07	0.76	93.5	Pulse	0.30	3

Quantitation Report

1	Ge		109,127.37	1.10	91.8	Pulse	0.30	3
1	In		1,157,071.38	0.72	89.8	Pulse	0.30	3
1	Tb		3,724,341.58	0.42	88.8	Pulse	0.50	3
1	Lu		2,823,209.67	0.51	87.5	Pulse	0.50	3
1	Ge		163,352.05	0.93	91.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		995.58	6.71	98.4	Pulse	0.30	3

Quantitation Report

File Name	176SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:44
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.068	ug/l	13.20	1,556.73	1.455E-02	Pulse	0.50	3
As			1	0.026	ug/l	33.25	109.67	1.025E-03	Pulse	1.00	3
Mo			1	0.048	ug/l	38.55	603.35	3.757E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-10.07	3,978.14	1.402E-03	Pulse	1.00	3
Be			1	-0.047	ug/l	-97.01	5.00	3.510E-05	Pulse	2.00	3
Ag			1	-0.009	ug/l	-19.89	110.00	6.873E-04	Pulse	0.50	3
Ba			1	-0.009	ug/l	-309.90	276.67	2.438E-04	Pulse	0.50	3
Tl			1	0.009	ug/l	36.00	3,539.71	1.246E-03	Pulse	0.50	3
Sn			1	0.109	ug/l	33.59	1,671.20	1.471E-03	Pulse	0.30	3
Sr			1	0.004	ug/l	249.37	693.35	6.110E-04	Pulse	0.50	3
[Pb]			1	-0.058	ug/l	-10.00	1,950.12	6.869E-04	Pulse	0.50	3
Ca			1	-2.044	ug/l	-39.73	70.00	4.906E-04	Pulse	0.50	3
Ti			1	-0.166	ug/l	-32.54	14.00	9.823E-05	Pulse	0.50	3
Na			1	-3.451	ug/l	-9.85	8,852.63	6.212E-02	Pulse	1.00	3
Mg			1	-1.639	ug/l	-4.87	2,646.51	1.857E-02	Pulse	1.00	3
K			1	6.212	ug/l	8.26	22,496.77	1.579E-01	Pulse	1.00	3
V			1	0.072	ug/l	40.80	1,535.40	1.078E-02	Pulse	0.50	3
Mn			1	-0.042	ug/l	-58.66	384.01	3.582E-03	Pulse	0.50	3
Fe			1	-1.903	ug/l	-1.09	14,215.89	1.329E-01	Pulse	0.50	3
Co			1	-0.005	ug/l	-93.98	964.03	9.009E-03	Pulse	0.50	3
Ni			1	-0.719	ug/l	-3.80	630.68	5.892E-03	Pulse	0.50	3
Cu			1	-0.057	ug/l	-56.01	4,748.60	4.440E-02	Pulse	0.50	3
Zn			1	-0.006	ug/l	-451.01	558.34	3.479E-03	Pulse	1.00	3
Cd			1	-0.001	ug/l	-1967.98	154.67	9.655E-04	Pulse	0.50	3
Al			1	-2.522	ug/l	-5.70	244.67	1.717E-03	Pulse	1.00	3
Se			1	0.256	ug/l	30.01	42.22	2.635E-04	Pulse	3.00	3
Sb			1	-0.012	ug/l	-45.47	861.69	5.374E-03	Pulse	1.00	3
Se			1	0.125	ug/l	24.90	18.67	1.163E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,839,734.42	2.26	84.5	Pulse	0.50	3
1	Sc		142,488.37	0.89	91.4	Pulse	0.30	3

Quantitation Report

1	Ge		106,996.73	1.33	90.0	Pulse	0.30	3
1	In		1,135,214.64	0.95	88.1	Pulse	0.30	3
1	Tb		3,690,601.33	1.79	88.0	Pulse	0.50	3
1	Lu		2,798,670.92	2.07	86.7	Pulse	0.50	3
1	Ge		160,400.95	1.71	90.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,022.25	4.73	101.0	Pulse	0.30	3

Quantitation Report

File Name	177SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:47
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.060	ug/l	9.37	1,520.73	1.417E-02	Pulse	0.50	3
As			1	0.014	ug/l	125.64	101.33	9.429E-04	Pulse	1.00	3
Mo			1	0.019	ug/l	36.20	499.34	3.091E-03	Pulse	0.50	3
Pb			1	-0.064	ug/l	-13.63	4,116.17	1.432E-03	Pulse	1.00	3
Be			1	-0.042	ug/l	-166.49	5.17	3.619E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-8.39	94.67	5.863E-04	Pulse	0.50	3
Ba			1	-0.017	ug/l	-125.64	262.67	2.299E-04	Pulse	0.50	3
Tl			1	0.002	ug/l	170.83	3,347.67	1.165E-03	Pulse	0.50	3
Sn			1	0.099	ug/l	17.16	1,638.97	1.433E-03	Pulse	0.30	3
Sr			1	0.015	ug/l	72.91	745.35	6.515E-04	Pulse	0.50	3
[Pb]			1	-0.068	ug/l	-0.77	1,860.78	6.474E-04	Pulse	0.50	3
Ca			1	-2.314	ug/l	-39.58	64.67	4.520E-04	Pulse	0.50	3
Ti			1	-0.121	ug/l	-42.84	20.00	1.399E-04	Pulse	0.50	3
Na			1	-3.638	ug/l	-3.19	8,743.24	6.117E-02	Pulse	1.00	3
Mg			1	-1.320	ug/l	-7.50	2,777.19	1.943E-02	Pulse	1.00	3
K			1	5.657	ug/l	14.69	22,364.62	1.565E-01	Pulse	1.00	3
V			1	0.099	ug/l	10.19	1,659.41	1.161E-02	Pulse	0.50	3
Mn			1	-0.030	ug/l	-15.03	426.01	3.968E-03	Pulse	0.50	3
Fe			1	-2.204	ug/l	-3.08	12,770.22	1.189E-01	Pulse	0.50	3
Co			1	-0.008	ug/l	-41.66	942.03	8.773E-03	Pulse	0.50	3
Ni			1	-0.724	ug/l	-1.91	618.68	5.764E-03	Pulse	0.50	3
Cu			1	-0.049	ug/l	-40.98	4,821.95	4.492E-02	Pulse	0.50	3
Zn			1	0.001	ug/l	1603.60	570.68	3.535E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	305.31	162.67	1.007E-03	Pulse	0.50	3
Al			1	-2.647	ug/l	-6.12	225.67	1.578E-03	Pulse	1.00	3
Se			1	0.116	ug/l	34.68	33.89	2.098E-04	Pulse	3.00	3
Sb			1	-0.005	ug/l	-55.61	911.36	5.645E-03	Pulse	1.00	3
Se			1	0.016	ug/l	179.48	15.44	9.567E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,874,253.50	1.27	85.5	Pulse	0.50	3
1	Sc		142,942.67	0.47	91.7	Pulse	0.30	3

Quantitation Report

1	Ge		107,355.29	1.32	90.3	Pulse	0.30	3
1	In		1,143,794.02	0.98	88.8	Pulse	0.30	3
1	Tb		3,722,853.00	1.64	88.8	Pulse	0.50	3
1	Lu		2,810,310.92	1.60	87.1	Pulse	0.50	3
1	Ge		161,461.84	1.51	90.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		977.81	6.89	96.6	Pulse	0.30	3

Quantitation Report

File Name	178SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:51
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.054	ug/l	19.32	1,474.06	1.385E-02	Pulse	0.50	3
As			1	0.018	ug/l	64.53	103.67	9.750E-04	Pulse	1.00	3
Mo			1	0.024	ug/l	127.31	510.01	3.189E-03	Pulse	0.50	3
Pb			1	-0.069	ug/l	-3.55	3,921.12	1.385E-03	Pulse	1.00	3
Be			1	-0.122	ug/l	-21.43	2.50	1.765E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-5.89	82.00	5.133E-04	Pulse	0.50	3
Ba			1	-0.006	ug/l	-345.25	280.67	2.485E-04	Pulse	0.50	3
Tl			1	-0.001	ug/l	-257.76	3,180.31	1.123E-03	Pulse	0.50	3
Sn			1	0.056	ug/l	12.02	1,433.40	1.269E-03	Pulse	0.30	3
Sr			1	0.001	ug/l	1033.81	676.02	5.987E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-3.64	1,815.44	6.412E-04	Pulse	0.50	3
Ca			1	-2.278	ug/l	-3.92	64.67	4.572E-04	Pulse	0.50	3
Ti			1	-0.190	ug/l	-9.05	10.67	7.535E-05	Pulse	0.50	3
Na			1	-3.975	ug/l	-5.30	8,409.44	5.944E-02	Pulse	1.00	3
Mg			1	-1.067	ug/l	-37.19	2,844.87	2.011E-02	Pulse	1.00	3
K			1	6.463	ug/l	15.05	22,427.01	1.585E-01	Pulse	1.00	3
V			1	0.090	ug/l	14.33	1,602.74	1.132E-02	Pulse	0.50	3
Mn			1	-0.049	ug/l	-23.45	359.34	3.375E-03	Pulse	0.50	3
Fe			1	-2.325	ug/l	-1.02	12,060.43	1.133E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-60.16	947.36	8.906E-03	Pulse	0.50	3
Ni			1	-0.736	ug/l	-2.35	585.34	5.504E-03	Pulse	0.50	3
Cu			1	-0.057	ug/l	-15.80	4,727.26	4.443E-02	Pulse	0.50	3
Zn			1	-0.015	ug/l	-182.57	545.34	3.413E-03	Pulse	1.00	3
Cd			1	-0.009	ug/l	-219.22	137.33	8.591E-04	Pulse	0.50	3
Al			1	-2.695	ug/l	-2.38	215.67	1.525E-03	Pulse	1.00	3
Se			1	0.169	ug/l	71.72	36.78	2.299E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-53.86	813.02	5.086E-03	Pulse	1.00	3
Se			1	0.117	ug/l	43.78	18.33	1.148E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,831,790.33	1.03	84.3	Pulse	0.50	3
1	Sc		141,489.00	1.72	90.7	Pulse	0.30	3

Quantitation Report

1	Ge		106,403.33	1.23	89.5	Pulse	0.30	3
1	In		1,129,405.83	1.49	87.7	Pulse	0.30	3
1	Tb		3,690,154.25	1.27	88.0	Pulse	0.50	3
1	Lu		2,780,285.92	1.51	86.1	Pulse	0.50	3
1	Ge		159,784.66	0.86	89.9	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,004.48	13.83	99.2	Pulse	0.30	3

Quantitation Report

File Name	179SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:55
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.079	ug/l	20.65	1,605.40	1.513E-02	Pulse	0.50	3
As			1	0.005	ug/l	143.53	93.33	8.794E-04	Pulse	1.00	3
Mo			1	0.015	ug/l	97.78	476.68	2.999E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-6.20	3,971.47	1.401E-03	Pulse	1.00	3
Be			1	-0.112	ug/l	-46.91	2.83	1.989E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-15.54	83.33	5.241E-04	Pulse	0.50	3
Ba			1	0.009	ug/l	399.60	310.67	2.738E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	478.23	3,241.66	1.143E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	21.38	1,434.51	1.262E-03	Pulse	0.30	3
Sr			1	0.010	ug/l	88.25	718.02	6.320E-04	Pulse	0.50	3
[Pb]			1	-0.079	ug/l	-0.67	1,718.76	6.063E-04	Pulse	0.50	3
Ca			1	-2.258	ug/l	-25.81	65.33	4.600E-04	Pulse	0.50	3
Ti			1	-0.231	ug/l	-10.03	5.33	3.753E-05	Pulse	0.50	3
Na			1	-4.240	ug/l	-1.90	8,257.70	5.809E-02	Pulse	1.00	3
Mg			1	-1.026	ug/l	-23.08	2,873.21	2.022E-02	Pulse	1.00	3
K			1	6.287	ug/l	5.77	22,469.40	1.581E-01	Pulse	1.00	3
V			1	0.094	ug/l	14.35	1,628.07	1.145E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-9.68	416.01	3.919E-03	Pulse	0.50	3
Fe			1	-2.176	ug/l	-1.06	12,764.87	1.203E-01	Pulse	0.50	3
Co			1	-0.002	ug/l	-473.48	983.36	9.268E-03	Pulse	0.50	3
Ni			1	-0.749	ug/l	-2.93	554.68	5.224E-03	Pulse	0.50	3
Cu			1	-0.071	ug/l	-18.76	4,624.57	4.357E-02	Pulse	0.50	3
Zn			1	-0.019	ug/l	-147.29	537.01	3.379E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-26.99	145.33	9.145E-04	Pulse	0.50	3
Al			1	-2.520	ug/l	-5.58	244.33	1.719E-03	Pulse	1.00	3
Se			1	0.111	ug/l	68.29	33.00	2.076E-04	Pulse	3.00	3
Sb			1	-0.012	ug/l	-19.81	854.69	5.378E-03	Pulse	1.00	3
Se			1	0.142	ug/l	56.83	19.00	1.196E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,834,982.25	1.64	84.4	Pulse	0.50	3
1	Sc		142,142.48	0.78	91.1	Pulse	0.30	3

Quantitation Report

1	Ge		106,149.62	0.61	89.3	Pulse	0.30	3
1	In		1,136,265.06	1.23	88.2	Pulse	0.30	3
1	Tb		3,676,777.83	1.19	87.7	Pulse	0.50	3
1	Lu		2,778,984.75	1.53	86.1	Pulse	0.50	3
1	Ge		158,927.50	0.29	89.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,015.59	4.61	100.3	Pulse	0.30	3

Quantitation Report

File Name	180SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 21:59
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.054	ug/l	8.25	1,452.06	1.381E-02	Pulse	0.50	3
As			1	-0.007	ug/l	-33.89	84.00	7.989E-04	Pulse	1.00	3
Mo			1	0.011	ug/l	55.28	460.68	2.903E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-5.40	3,910.12	1.381E-03	Pulse	1.00	3
Be			1	-0.050	ug/l	-35.65	4.83	3.429E-05	Pulse	2.00	3
Ag			1	-0.012	ug/l	-14.69	66.67	4.197E-04	Pulse	0.50	3
Ba			1	-0.013	ug/l	-162.58	267.33	2.370E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-59.46	3,044.28	1.075E-03	Pulse	0.50	3
Sn			1	0.060	ug/l	56.34	1,450.07	1.284E-03	Pulse	0.30	3
Sr			1	0.001	ug/l	1814.63	672.68	5.961E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-15.75	1,791.43	6.330E-04	Pulse	0.50	3
Ca			1	-2.664	ug/l	-25.05	56.67	4.020E-04	Pulse	0.50	3
Ti			1	-0.165	ug/l	-8.85	14.00	9.925E-05	Pulse	0.50	3
Na			1	-4.392	ug/l	-6.33	8,079.30	5.731E-02	Pulse	1.00	3
Mg			1	-1.468	ug/l	-5.56	2,683.52	1.903E-02	Pulse	1.00	3
K			1	5.899	ug/l	20.83	22,144.37	1.571E-01	Pulse	1.00	3
V			1	0.090	ug/l	24.54	1,598.08	1.133E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-21.36	392.01	3.728E-03	Pulse	0.50	3
Fe			1	-2.400	ug/l	-0.68	11,550.12	1.099E-01	Pulse	0.50	3
Co			1	-0.011	ug/l	-42.98	898.03	8.543E-03	Pulse	0.50	3
Ni			1	-0.747	ug/l	-3.68	552.01	5.249E-03	Pulse	0.50	3
Cu			1	-0.071	ug/l	-34.90	4,582.56	4.359E-02	Pulse	0.50	3
Zn			1	0.008	ug/l	223.74	569.68	3.589E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-216.64	145.33	9.156E-04	Pulse	0.50	3
Al			1	-2.672	ug/l	-3.50	218.67	1.550E-03	Pulse	1.00	3
Se			1	0.166	ug/l	36.51	36.33	2.288E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-11.03	808.35	5.093E-03	Pulse	1.00	3
Se			1	0.028	ug/l	565.69	15.56	9.794E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,831,222.33	0.90	84.3	Pulse	0.50	3
1	Sc		140,986.50	0.87	90.4	Pulse	0.30	3

Quantitation Report

1	Ge		105,133.00	1.15	88.5	Pulse	0.30	3
1	In		1,128,594.33	0.96	87.6	Pulse	0.30	3
1	Tb		3,675,004.83	0.78	87.6	Pulse	0.50	3
1	Lu		2,780,333.92	1.17	86.1	Pulse	0.50	3
1	Ge		158,729.30	0.62	89.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,022.25	4.24	101.0	Pulse	0.30	3

Quantitation Report

File Name	181SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:03
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.072	ug/l	17.17	1,548.07	1.475E-02	Pulse	0.50	3
As			1	0.002	ug/l	1362.04	90.33	8.605E-04	Pulse	1.00	3
Mo			1	0.017	ug/l	108.85	481.34	3.046E-03	Pulse	0.50	3
Pb			1	-0.071	ug/l	-5.98	3,844.11	1.366E-03	Pulse	1.00	3
Be			1	-0.106	ug/l	-43.95	3.00	2.145E-05	Pulse	2.00	3
Ag			1	-0.010	ug/l	-13.28	95.33	6.030E-04	Pulse	0.50	3
Ba			1	-0.012	ug/l	-148.52	268.00	2.385E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-98.63	3,110.29	1.105E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	22.52	1,420.06	1.266E-03	Pulse	0.30	3
Sr			1	0.015	ug/l	75.92	734.69	6.544E-04	Pulse	0.50	3
[Pb]			1	-0.070	ug/l	-13.04	1,807.44	6.426E-04	Pulse	0.50	3
Ca			1	-1.812	ug/l	-69.39	73.33	5.238E-04	Pulse	0.50	3
Ti			1	-0.220	ug/l	-21.16	6.67	4.751E-05	Pulse	0.50	3
Na			1	-4.315	ug/l	-2.44	8,081.97	5.771E-02	Pulse	1.00	3
Mg			1	-1.329	ug/l	-13.47	2,717.86	1.941E-02	Pulse	1.00	3
K			1	6.106	ug/l	5.93	22,073.96	1.576E-01	Pulse	1.00	3
V			1	0.087	ug/l	8.96	1,576.07	1.125E-02	Pulse	0.50	3
Mn			1	-0.038	ug/l	-20.92	390.67	3.722E-03	Pulse	0.50	3
Fe			1	-2.400	ug/l	-4.96	11,533.06	1.099E-01	Pulse	0.50	3
Co			1	-0.012	ug/l	-43.09	884.02	8.420E-03	Pulse	0.50	3
Ni			1	-0.754	ug/l	-3.14	535.34	5.102E-03	Pulse	0.50	3
Cu			1	-0.072	ug/l	-44.54	4,570.56	4.353E-02	Pulse	0.50	3
Zn			1	-0.013	ug/l	-121.28	541.68	3.430E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-138.95	144.67	9.163E-04	Pulse	0.50	3
Al			1	-2.584	ug/l	-9.55	231.00	1.649E-03	Pulse	1.00	3
Se			1	0.127	ug/l	54.14	33.78	2.138E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-34.21	815.02	5.160E-03	Pulse	1.00	3
Se			1	-0.011	ug/l	-760.06	14.34	9.066E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,813,572.50	0.95	83.7	Pulse	0.50	3
1	Sc		140,049.66	0.42	89.8	Pulse	0.30	3

Quantitation Report

1	Ge		104,973.30	0.82	88.3	Pulse	0.30	3
1	In		1,122,328.85	1.33	87.1	Pulse	0.30	3
1	Tb		3,667,957.67	1.42	87.5	Pulse	0.50	3
1	Lu		2,772,025.92	1.28	85.9	Pulse	0.50	3
1	Ge		157,955.89	0.86	88.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,000.03	7.22	98.8	Pulse	0.30	3

Quantitation Report

File Name	182SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:06
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.063	ug/l	9.46	1,516.07	1.430E-02	Pulse	0.50	3
As			1	0.009	ug/l	173.18	96.33	9.081E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	79.72	470.68	2.969E-03	Pulse	0.50	3
Pb			1	-0.070	ug/l	-4.71	3,920.79	1.381E-03	Pulse	1.00	3
Be			1	-0.036	ug/l	-90.41	5.33	3.769E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-8.67	62.67	3.955E-04	Pulse	0.50	3
Ba			1	-0.014	ug/l	-84.28	264.67	2.351E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-16.65	3,078.29	1.084E-03	Pulse	0.50	3
Sn			1	0.044	ug/l	15.32	1,376.73	1.223E-03	Pulse	0.30	3
Sr			1	0.021	ug/l	36.65	763.35	6.781E-04	Pulse	0.50	3
[Pb]			1	-0.060	ug/l	-12.10	1,932.78	6.805E-04	Pulse	0.50	3
Ca			1	-2.015	ug/l	-20.58	70.00	4.947E-04	Pulse	0.50	3
Ti			1	-0.180	ug/l	-14.95	12.00	8.492E-05	Pulse	0.50	3
Na			1	-4.218	ug/l	-1.26	8,239.37	5.820E-02	Pulse	1.00	3
Mg			1	-1.123	ug/l	-12.27	2,824.87	1.995E-02	Pulse	1.00	3
K			1	4.952	ug/l	15.88	21,893.09	1.547E-01	Pulse	1.00	3
V			1	0.080	ug/l	9.72	1,559.40	1.102E-02	Pulse	0.50	3
Mn			1	-0.050	ug/l	-18.71	353.33	3.333E-03	Pulse	0.50	3
Fe			1	-2.453	ug/l	-1.60	11,389.36	1.074E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-26.61	910.03	8.583E-03	Pulse	0.50	3
Ni			1	-0.742	ug/l	-3.88	569.34	5.373E-03	Pulse	0.50	3
Cu			1	-0.077	ug/l	-27.00	4,579.89	4.320E-02	Pulse	0.50	3
Zn			1	-0.027	ug/l	-153.77	526.68	3.322E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	134.92	169.33	1.069E-03	Pulse	0.50	3
Al			1	-2.705	ug/l	-2.34	214.33	1.514E-03	Pulse	1.00	3
Se			1	0.245	ug/l	8.14	41.11	2.593E-04	Pulse	3.00	3
Sb			1	-0.019	ug/l	-25.31	809.69	5.108E-03	Pulse	1.00	3
Se			1	0.044	ug/l	202.37	16.00	1.010E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,839,959.50	1.03	84.5	Pulse	0.50	3
1	Sc		141,570.56	0.99	90.8	Pulse	0.30	3

Quantitation Report

1	Ge		106,024.69	0.69	89.2	Pulse	0.30	3
1	In		1,126,083.19	1.12	87.4	Pulse	0.30	3
1	Tb		3,680,112.83	1.63	87.8	Pulse	0.50	3
1	Lu		2,780,419.33	1.15	86.2	Pulse	0.50	3
1	Ge		158,524.02	0.48	89.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		951.14	1.93	94.0	Pulse	0.30	3

Quantitation Report

File Name	183SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:10
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.059	ug/l	20.36	1,472.73	1.411E-02	Pulse	0.50	3
As			1	0.000	ug/l	-10263.17	88.33	8.465E-04	Pulse	1.00	3
Mo			1	0.006	ug/l	68.71	436.68	2.782E-03	Pulse	0.50	3
Pb			1	-0.068	ug/l	-3.54	3,917.12	1.393E-03	Pulse	1.00	3
Be			1	-0.068	ug/l	-132.50	4.17	3.006E-05	Pulse	2.00	3
Ag			1	-0.013	ug/l	-11.96	62.67	3.996E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	706.04	294.67	2.646E-04	Pulse	0.50	3
Tl			1	-0.006	ug/l	-57.73	3,004.27	1.068E-03	Pulse	0.50	3
Sn			1	0.049	ug/l	22.08	1,382.28	1.242E-03	Pulse	0.30	3
Sr			1	0.005	ug/l	168.31	684.68	6.152E-04	Pulse	0.50	3
[Pb]			1	-0.079	ug/l	-1.41	1,704.76	6.063E-04	Pulse	0.50	3
Ca			1	-2.547	ug/l	-24.70	58.00	4.187E-04	Pulse	0.50	3
Ti			1	-0.126	ug/l	-39.53	18.67	1.348E-04	Pulse	0.50	3
Na			1	-4.224	ug/l	-4.96	8,056.29	5.817E-02	Pulse	1.00	3
Mg			1	-0.923	ug/l	-17.68	2,837.87	2.049E-02	Pulse	1.00	3
K			1	6.151	ug/l	4.86	21,845.05	1.577E-01	Pulse	1.00	3
V			1	0.081	ug/l	10.37	1,532.07	1.106E-02	Pulse	0.50	3
Mn			1	-0.050	ug/l	-25.56	347.34	3.330E-03	Pulse	0.50	3
Fe			1	-2.452	ug/l	-0.70	11,212.59	1.074E-01	Pulse	0.50	3
Co			1	-0.010	ug/l	-63.77	902.69	8.651E-03	Pulse	0.50	3
Ni			1	-0.738	ug/l	-1.07	568.68	5.449E-03	Pulse	0.50	3
Cu			1	-0.057	ug/l	-39.18	4,637.90	4.443E-02	Pulse	0.50	3
Zn			1	-0.001	ug/l	-242.96	551.68	3.515E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-50.73	142.67	9.088E-04	Pulse	0.50	3
Al			1	-2.622	ug/l	-8.16	222.33	1.606E-03	Pulse	1.00	3
Se			1	0.178	ug/l	8.57	36.66	2.336E-04	Pulse	3.00	3
Sb			1	-0.018	ug/l	-36.59	807.02	5.140E-03	Pulse	1.00	3
Se			1	0.139	ug/l	47.94	18.66	1.189E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,811,756.17	1.13	83.7	Pulse	0.50	3
1	Sc		138,493.23	0.22	88.8	Pulse	0.30	3

Quantitation Report

1	Ge		104,375.70	0.95	87.8	Pulse	0.30	3
1	In		1,113,282.31	0.71	86.4	Pulse	0.30	3
1	Tb		3,642,329.75	1.02	86.9	Pulse	0.50	3
1	Lu		2,752,613.17	1.25	85.3	Pulse	0.50	3
1	Ge		156,964.60	0.64	88.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		970.03	11.08	95.8	Pulse	0.30	3

Quantitation Report

File Name	184SMPL.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:14
Sample Name	Rinse
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.067	ug/l	28.15	1,507.40	1.453E-02	Pulse	0.50	3
As			1	0.010	ug/l	109.84	95.33	9.190E-04	Pulse	1.00	3
Mo			1	0.003	ug/l	157.01	424.01	2.723E-03	Pulse	0.50	3
Pb			1	-0.067	ug/l	-1.36	3,926.12	1.400E-03	Pulse	1.00	3
Be			1	-0.104	ug/l	-14.56	3.00	2.172E-05	Pulse	2.00	3
Ag			1	-0.011	ug/l	-7.67	85.33	5.483E-04	Pulse	0.50	3
Ba			1	-0.016	ug/l	-43.32	256.67	2.309E-04	Pulse	0.50	3
Tl			1	-0.005	ug/l	-61.68	3,028.28	1.080E-03	Pulse	0.50	3
Sn			1	0.038	ug/l	49.56	1,333.39	1.200E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	81.26	695.35	6.259E-04	Pulse	0.50	3
[Pb]			1	-0.079	ug/l	-4.79	1,699.43	6.060E-04	Pulse	0.50	3
Ca			1	-2.372	ug/l	-24.25	61.33	4.438E-04	Pulse	0.50	3
Ti			1	-0.147	ug/l	-31.89	16.00	1.160E-04	Pulse	0.50	3
Na			1	-4.168	ug/l	-1.30	8,071.96	5.846E-02	Pulse	1.00	3
Mg			1	-1.086	ug/l	-18.12	2,769.53	2.006E-02	Pulse	1.00	3
K			1	6.679	ug/l	8.97	21,965.50	1.591E-01	Pulse	1.00	3
V			1	0.078	ug/l	21.68	1,514.73	1.097E-02	Pulse	0.50	3
Mn			1	-0.034	ug/l	-20.95	400.67	3.860E-03	Pulse	0.50	3
Fe			1	-2.430	ug/l	-0.32	11,262.63	1.085E-01	Pulse	0.50	3
Co			1	-0.007	ug/l	-28.40	917.36	8.836E-03	Pulse	0.50	3
Ni			1	-0.756	ug/l	-3.32	524.68	5.057E-03	Pulse	0.50	3
Cu			1	-0.075	ug/l	-8.23	4,500.55	4.336E-02	Pulse	0.50	3
Zn			1	0.007	ug/l	187.91	556.68	3.576E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	217.20	168.67	1.084E-03	Pulse	0.50	3
Al			1	-2.704	ug/l	-9.57	209.33	1.515E-03	Pulse	1.00	3
Se			1	0.162	ug/l	31.97	35.45	2.276E-04	Pulse	3.00	3
Sb			1	-0.020	ug/l	-18.48	792.69	5.092E-03	Pulse	1.00	3
Se			1	0.069	ug/l	137.51	16.44	1.057E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,804,129.92	0.92	83.5	Pulse	0.50	3
1	Sc		138,077.04	0.85	88.5	Pulse	0.30	3

Quantitation Report

1	Ge		103,813.76	1.67	87.4	Pulse	0.30	3
1	In		1,111,164.57	1.15	86.3	Pulse	0.30	3
1	Tb		3,648,584.00	1.26	87.0	Pulse	0.50	3
1	Lu		2,764,186.67	1.16	85.6	Pulse	0.50	3
1	Ge		155,689.81	0.71	87.6	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		931.14	7.36	92.0	Pulse	0.30	3

Quantitation Report

File Name	185CCVA.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:18
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.051	ug/l	0.93	275,186.67	2.525E+00	Pulse	0.50	3
As			1	47.839	ug/l	0.84	36,362.72	3.336E-01	Pulse	1.00	3
Mo			1	47.974	ug/l	0.65	182,364.75	1.120E+00	Pulse	0.50	3
Pb			1	47.622	ug/l	0.23	1,147,234.29	4.030E-01	Pulse	1.00	3
Be			1	50.263	ug/l	0.99	1,679.57	1.172E-02	Pulse	2.00	3
Ag			1	48.914	ug/l	1.07	622,357.12	3.821E+00	Pulse	0.50	3
Ba			1	48.394	ug/l	1.00	95,762.67	8.438E-02	Pulse	0.50	3
Tl			1	48.553	ug/l	0.49	1,645,477.50	5.781E-01	Pulse	0.50	3
Sn			1	47.434	ug/l	0.80	209,076.40	1.842E-01	Pulse	0.30	3
Sr			1	48.901	ug/l	0.34	223,203.02	1.967E-01	Pulse	0.50	3
[Pb]			1	48.040	ug/l	0.57	545,269.15	1.916E-01	Pulse	0.50	3
Ca			1	4814.476	ug/l	0.66	98,715.37	6.886E-01	Pulse	0.50	3
Ti			1	48.356	ug/l	1.74	6,507.76	4.540E-02	Pulse	0.50	3
Na			1	4767.020	ug/l	0.66	3,503,652.75	2.444E+01	Pulse	1.00	3
Mg			1	4752.059	ug/l	0.78	1,826,397.29	1.274E+01	Pulse	1.00	3
K			1	4833.961	ug/l	0.96	1,798,120.46	1.254E+01	Pulse	1.00	3
V			1	48.135	ug/l	0.88	217,174.96	1.515E+00	Pulse	0.50	3
Mn			1	48.169	ug/l	0.70	168,199.74	1.543E+00	Pulse	0.50	3
Fe			1	5176.513	ug/l	0.72	26,168,239.33	2.401E+02	Analog	0.50	3
Co			1	47.862	ug/l	1.31	441,436.92	4.050E+00	Pulse	0.50	3
Ni			1	46.872	ug/l	1.29	116,064.17	1.065E+00	Pulse	0.50	3
Cu			1	48.117	ug/l	1.36	320,621.67	2.942E+00	Pulse	0.50	3
Zn			1	47.693	ug/l	2.48	59,276.24	3.640E-01	Pulse	1.00	3
Cd			1	47.512	ug/l	1.73	99,021.46	6.080E-01	Pulse	0.50	3
Al			1	4640.896	ug/l	1.10	739,556.11	5.159E+00	Pulse	1.00	3
Se			1	48.212	ug/l	2.07	3,050.02	1.873E-02	Pulse	3.00	3
Sb			1	47.081	ug/l	1.36	291,229.62	1.788E+00	Pulse	1.00	3
Se			1	48.537	ug/l	2.82	1,508.06	9.259E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,846,404.00	1.00	84.7	Pulse	0.50	3
1	Sc		143,356.70	0.80	91.9	Pulse	0.30	3
1	Ge		108,991.01	0.51	91.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,134,842.52	0.90	88.1	Pulse	0.30	3
1	Tb		3,754,445.67	0.91	89.5	Pulse	0.50	3
1	Lu		2,844,636.50	1.05	88.1	Pulse	0.50	3
1	Ge		162,874.53	0.42	91.6	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		977.81	1.88	96.6	Pulse	0.30	3

Quantitation Report

File Name	186_CCV.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:22
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.847	ug/l	1.12	565,402.19	5.235E+00	Pulse	0.50	3
As			1	100.235	ug/l	0.21	75,396.55	6.981E-01	Pulse	1.00	3
Mo			1	100.735	ug/l	2.09	377,509.44	2.348E+00	Pulse	0.50	3
Pb			1	99.213	ug/l	1.30	2,330,857.67	8.376E-01	Pulse	1.00	3
Be			1	102.623	ug/l	2.73	3,448.46	2.387E-02	Pulse	2.00	3
Ag			1	100.541	ug/l	2.07	1,262,479.04	7.853E+00	Pulse	0.50	3
Ba			1	99.072	ug/l	0.82	194,223.32	1.725E-01	Pulse	0.50	3
Tl			1	101.190	ug/l	1.33	3,349,404.33	1.204E+00	Pulse	0.50	3
Sn			1	99.221	ug/l	1.41	432,677.20	3.842E-01	Pulse	0.30	3
Sr			1	101.721	ug/l	0.84	460,003.81	4.085E-01	Pulse	0.50	3
[Pb]			1	99.543	ug/l	1.37	1,101,924.16	3.960E-01	Pulse	0.50	3
Ca			1	9904.370	ug/l	1.67	204,542.76	1.416E+00	Pulse	0.50	3
Ti			1	99.664	ug/l	1.16	13,478.66	9.330E-02	Pulse	0.50	3
Na			1	10302.321	ug/l	1.15	7,617,697.83	5.273E+01	Analog	1.00	3
Mg			1	9604.787	ug/l	1.50	3,716,844.17	2.573E+01	Pulse	1.00	3
K			1	9796.894	ug/l	0.99	3,651,630.33	2.528E+01	Pulse	1.00	3
V			1	99.444	ug/l	1.53	450,863.96	3.121E+00	Pulse	0.50	3
Mn			1	99.669	ug/l	0.81	344,321.19	3.188E+00	Pulse	0.50	3
Fe			1	10688.886	ug/l	0.51	53,521,512.00	4.955E+02	Analog	0.50	3
Co			1	98.663	ug/l	0.51	900,675.84	8.339E+00	Pulse	0.50	3
Ni			1	97.388	ug/l	0.47	236,428.32	2.189E+00	Pulse	0.50	3
Cu			1	98.009	ug/l	0.37	641,816.21	5.942E+00	Pulse	0.50	3
Zn			1	98.744	ug/l	1.85	120,540.09	7.498E-01	Pulse	1.00	3
Cd			1	98.761	ug/l	1.90	203,011.38	1.263E+00	Pulse	0.50	3
Al			1	9484.868	ug/l	1.42	1,522,570.87	1.054E+01	Pulse	1.00	3
Se			1	99.383	ug/l	2.72	6,177.56	3.843E-02	Pulse	3.00	3
Sb			1	98.382	ug/l	1.73	599,697.13	3.730E+00	Pulse	1.00	3
Se			1	99.813	ug/l	0.88	3,045.58	1.894E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,782,956.33	0.16	82.8	Pulse	0.50	3
1	Sc		144,480.61	0.88	92.6	Pulse	0.30	3
1	Ge		108,004.23	0.58	90.9	Pulse	0.30	3
1	In		1,126,109.40	0.44	87.4	Pulse	0.30	3
1	Tb		3,738,163.25	0.48	89.1	Pulse	0.50	3
1	Lu		2,854,412.50	0.74	88.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		160,782.93	0.54	90.4	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		970.03	9.16	95.8	Pulse	0.30	3

Quantitation Report

File Name	187_CCB.d
File Path	D:\2023\xa032023m1.b
Method File	
Method Path	
Acq Time	3/20/2023 22:25
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	3/20/2023 11:06
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.019	ug/l	-45.26	1,075.37	1.003E-02	Pulse	0.50	3
As			1	0.013	ug/l	25.76	100.33	9.360E-04	Pulse	1.00	3
Mo			1	0.129	ug/l	23.21	910.69	5.654E-03	Pulse	0.50	3
Pb			1	-0.026	ug/l	-23.67	4,930.72	1.747E-03	Pulse	1.00	3
Be			1	-0.027	ug/l	-320.36	5.67	3.962E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	452.18	245.34	1.527E-03	Pulse	0.50	3
Ba			1	0.022	ug/l	75.25	336.00	2.966E-04	Pulse	0.50	3
Tl			1	0.023	ug/l	16.09	4,000.48	1.417E-03	Pulse	0.50	3
Sn			1	0.229	ug/l	29.78	2,191.46	1.935E-03	Pulse	0.30	3
Sr			1	0.020	ug/l	15.97	763.35	6.742E-04	Pulse	0.50	3
[Pb]			1	-0.033	ug/l	-5.70	2,218.82	7.859E-04	Pulse	0.50	3
Ca			1	-0.346	ug/l	-249.63	104.67	7.332E-04	Pulse	0.50	3
Ti			1	-0.176	ug/l	-32.49	12.67	8.880E-05	Pulse	0.50	3
Na			1	-0.545	ug/l	-143.77	10,995.02	7.697E-02	Pulse	1.00	3
Mg			1	-1.407	ug/l	-33.41	2,741.53	1.919E-02	Pulse	1.00	3
K			1	6.218	ug/l	14.69	22,558.84	1.579E-01	Pulse	1.00	3
V			1	-0.023	ug/l	-23.92	1,116.04	7.812E-03	Pulse	0.50	3
Mn			1	-0.005	ug/l	-147.97	510.68	4.763E-03	Pulse	0.50	3
Fe			1	-1.016	ug/l	-60.99	18,649.81	1.740E-01	Pulse	0.50	3
Co			1	0.002	ug/l	306.65	1,032.70	9.631E-03	Pulse	0.50	3
Ni			1	-0.675	ug/l	-4.37	735.35	6.863E-03	Pulse	0.50	3
Cu			1	-0.164	ug/l	-9.48	4,074.45	3.801E-02	Pulse	0.50	3
Zn			1	0.008	ug/l	285.26	577.34	3.586E-03	Pulse	1.00	3
Cd			1	0.022	ug/l	113.00	202.00	1.256E-03	Pulse	0.50	3
Al			1	-1.221	ug/l	-59.50	451.34	3.162E-03	Pulse	1.00	3
Se			1	0.183	ug/l	22.40	37.89	2.353E-04	Pulse	3.00	3
Sb			1	0.030	ug/l	23.66	1,121.37	6.965E-03	Pulse	1.00	3
Se			1	0.018	ug/l	364.50	15.44	9.599E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,823,203.17	0.98	84.0	Pulse	0.50	3
1	Sc		142,873.14	0.75	91.6	Pulse	0.30	3

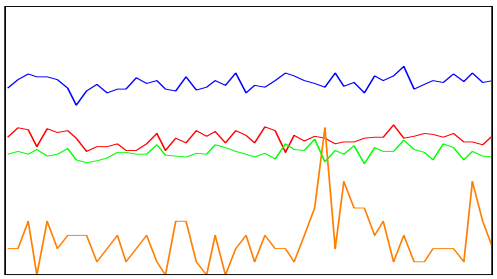
Quantitation Report

1	Ge		107,193.37	0.82	90.2	Pulse	0.30	3
1	In		1,132,284.61	1.05	87.9	Pulse	0.30	3
1	Tb		3,668,608.00	0.90	87.5	Pulse	0.50	3
1	Lu		2,781,481.58	1.08	86.2	Pulse	0.50	3
1	Ge		160,994.26	0.81	90.5	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		937.80	4.73	92.6	Pulse	0.30	3

Tune Report

Batch Folder	D:\2023\xa032023m1.b
Acq. Date-Time	3/20/2023 10:20
Report Comment	032023
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1023	10228.28	5000.00	
89	2000	916	9156.01	5000.00	
205	5000	3598	35983.52	5000.00	
78	20	3			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

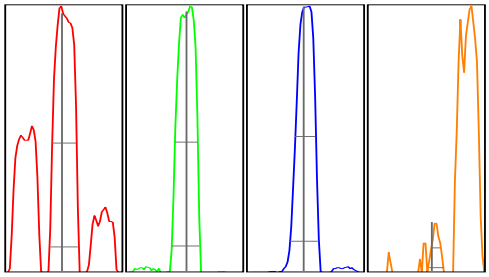
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	5.01	5.00	[F]
89	4.56	5.00	
205	3.63	5.00	
78	75.42		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.00	2	
89	0.30	2	
205	0.10	2	
78	0.00	5	

Ratio	156/140	0.640	%
Ratio	70/140	1.680	%

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1038.82	59.00	58.9 - 59.1		0.62	0.751	0.900	
89	940.78	89.05	88.9 - 89.1		0.57	0.723	0.900	
205	3663.55	205.00	204.9 - 205.1		0.51	0.733	0.900	
78	3.75	78.15	-		0.26	0.374		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	9.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

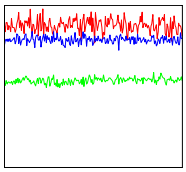
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-120.0 V	Cell Exit	-70 V
Omega Bias	-80 V	Deflect	3.0 V
Omega Lens	8.8 V	Plate Bias	-60 V

Cell Parameters

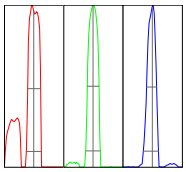
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



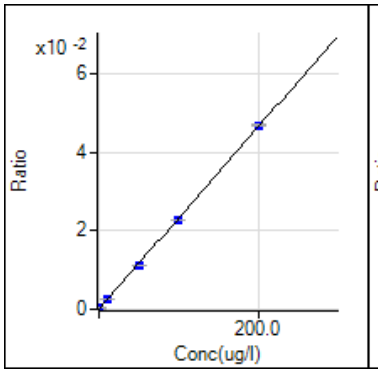
Sensitivity			
Mass	7	89	205
Range	1000	5000	5000
Count	876.36	2677.93	3934.94
RSD%	4.6	3.2	2.7
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.47%	
Doubly Charged	70/140	6.60%	

Background			
Mass	7	89	205
Count	0.00	0.50	2.45

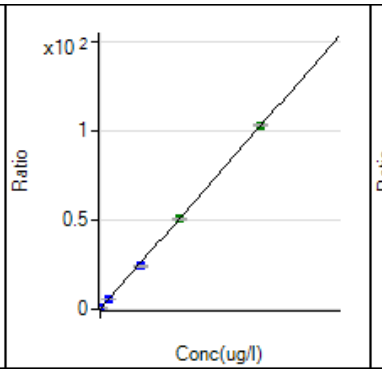


Resolution/Axis			
Mass	7	89	205
Height	858	2770	3914
Axis	7.00	89.00	205.00
W-50%	0.65	0.58	0.50
W-10%	0.75	0.73	0.75
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

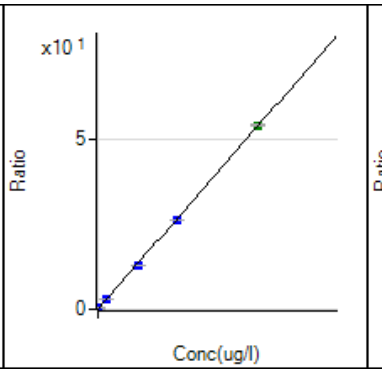
Calibration for D:\2023\xa032023m1.b\070_CCV.d



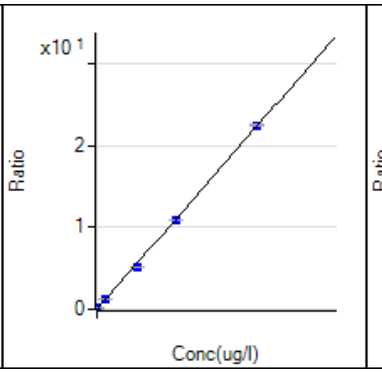
9 Be [2] / ISTD: 45 Sc
y = 2.322E-4 x + 4.595E-5
R 0.9998
DL 0.1335
BEC 0.1979



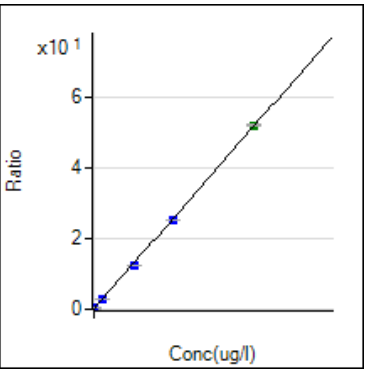
23 Na [2] / ISTD: 45 Sc
y = 5.110E-3 x + 7.976E-2
R 0.9998
DL 0.8794
BEC 15.61



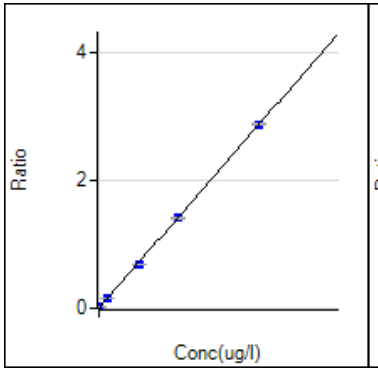
24 Mg [2] / ISTD: 45 Sc
y = 2.676E-3 x + 2.296E-2
R 0.9998
DL 0.5739
BEC 8.58



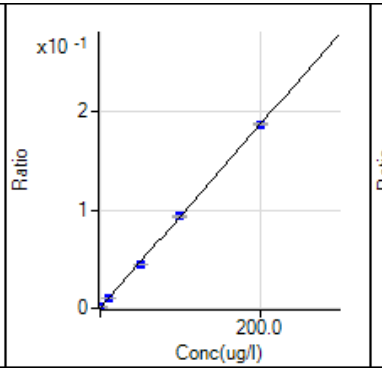
27 Al [2] / ISTD: 45 Sc
y = 1.111E-3 x + 4.518E-3
R 0.9997
DL 0.2015
BEC 4.068



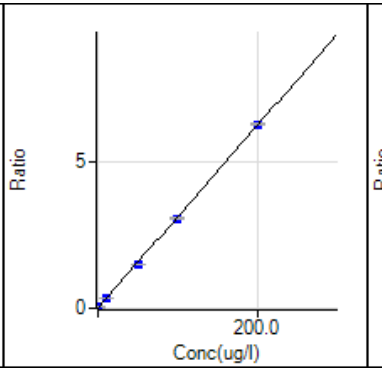
39 K [2] / ISTD: 45 Sc
y = 2.565E-3 x + 1.420E-1
R 0.9998
DL 0.2903
BEC 55.33



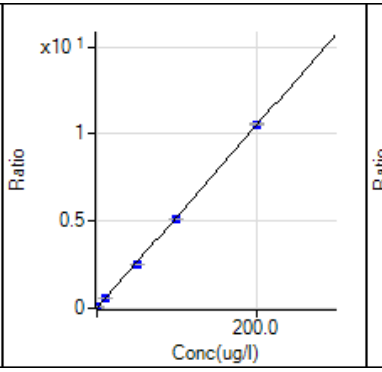
44 Ca [2] / ISTD: 45 Sc
y = 1.429E-4 x + 7.826E-4
R 0.9999
DL 3.328
BEC 5.478



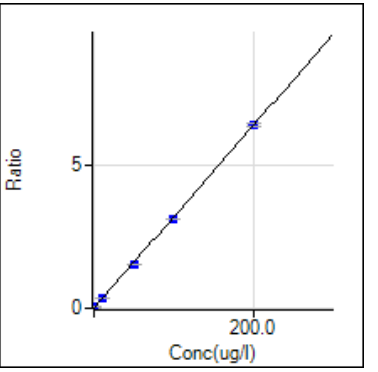
47 Ti [2] / ISTD: 45 Sc
y = 9.336E-4 x + 2.529E-4
R 0.9999
DL 1.088
BEC 0.2709



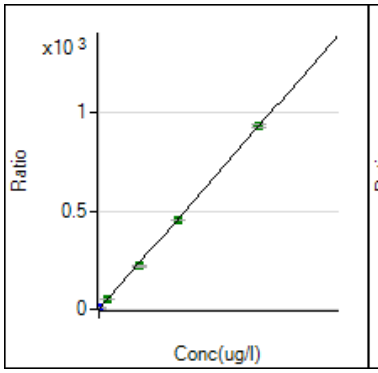
51 V [2] / ISTD: 45 Sc
y = 3.130E-2 x + 8.516E-3
R 0.9998
DL 0.01971
BEC 0.2721



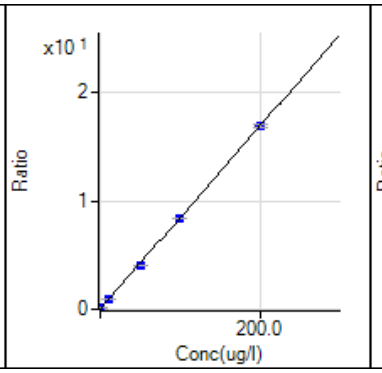
52 Cr [2] / ISTD: 72 Ge
y = 5.232E-2 x + 1.100E-2
R 0.9998
DL 0.0192
BEC 0.2103



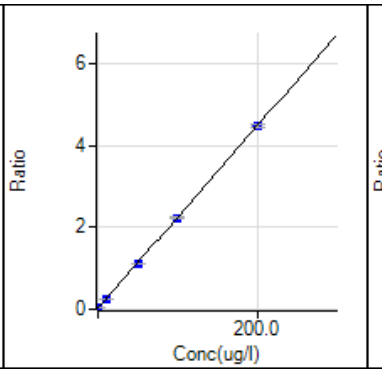
55 Mn [2] / ISTD: 72 Ge
y = 3.194E-2 x + 4.938E-3
R 0.9998
DL 0.02131
BEC 0.1546



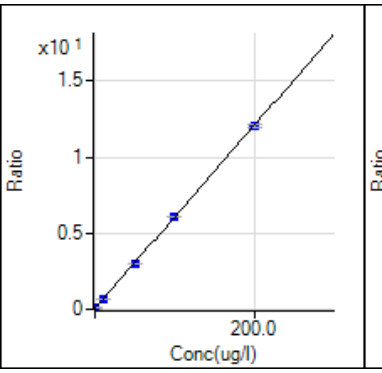
56 Fe [2] / ISTD: 72 Ge
y = 4.634E-2 x + 2.211E-1
R 0.9998
DL 0.1069
BEC 4.771



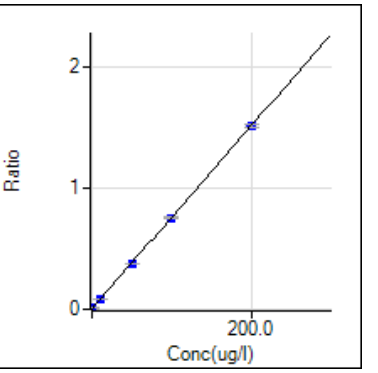
59 Co [2] / ISTD: 72 Ge
y = 8.443E-2 x + 9.458E-3
R 0.9999
DL 0.02097
BEC 0.112



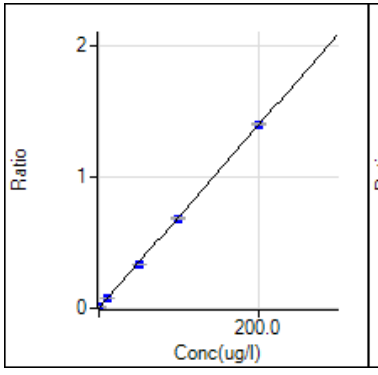
60 Ni [2] / ISTD: 72 Ge
y = 2.225E-2 x + 2.188E-2
R 0.9999
DL 0.08479
BEC 0.9833



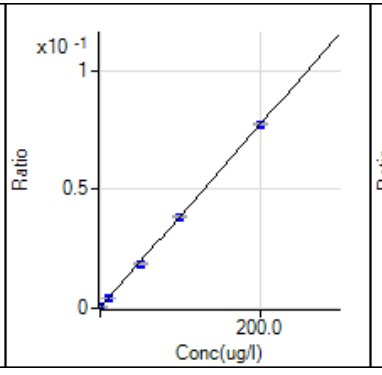
63 Cu [2] / ISTD: 72 Ge
y = 6.014E-2 x + 4.784E-2
R 1.0000
DL 0.07278
BEC 0.7955



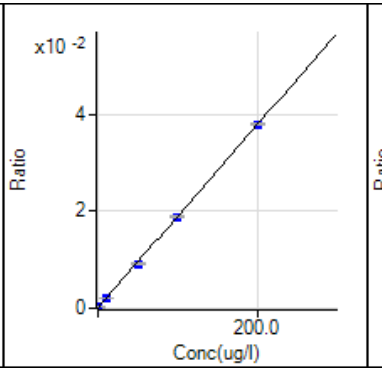
66 Zn [2] / ISTD: 74 Ge
y = 7.557E-3 x + 3.525E-3
R 1.0000
DL 0.0594
BEC 0.4665



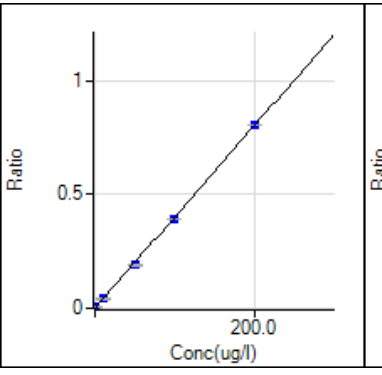
75 As [2] / ISTD: 72 Ge
y = 6.956E-3 x + 8.469E-4
R 0.9998
DL 0.03534
BEC 0.1218



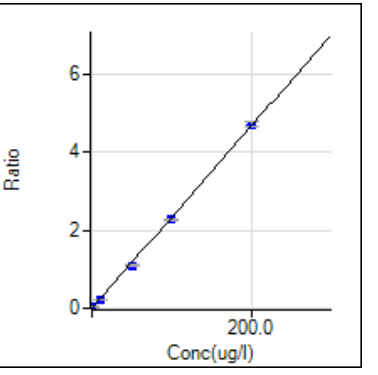
78 Se [2] / ISTD: 74 Ge
y = 3.850E-4 x + 1.650E-4
R 0.9999
DL 0.2804
BEC 0.4287



82 Se [2] / ISTD: 74 Ge
y = 1.889E-4 x + 9.267E-5
R 0.9999
DL 0.4349
BEC 0.4907

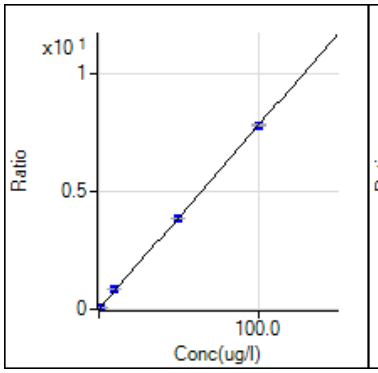


88 Sr [2] / ISTD: 115 In
y = 4.010E-3 x + 5.931E-4
R 0.9998
DL 0.0218
BEC 0.1479

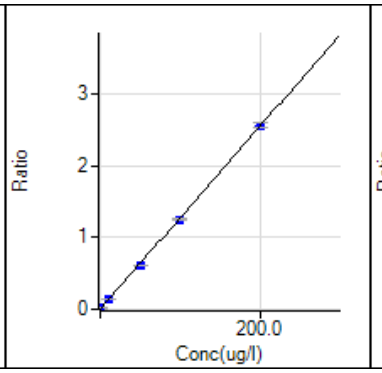


95 Mo [2] / ISTD: 74 Ge
y = 2.328E-2 x + 2.642E-3
R 0.9997
DL 0.04935
BEC 0.1135

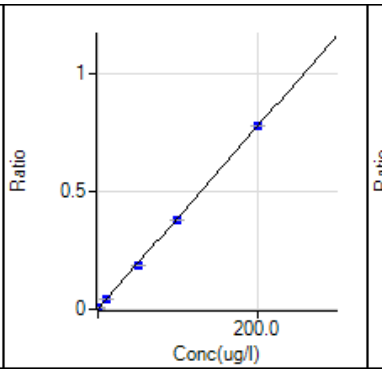
Calibration for D:\2023\xa032023m1.b\070_CCV.d



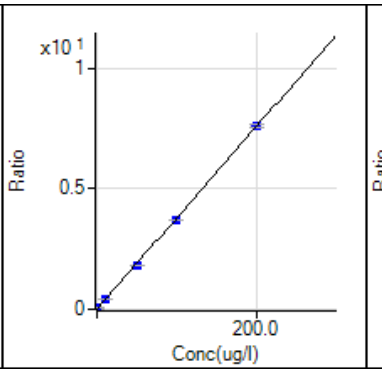
107 Ag [2] / ISTD: 74 Ge
y = 7.809E-2 x + 1.379E-3
R 0.9999
DL 0.008508
BEC 0.01766



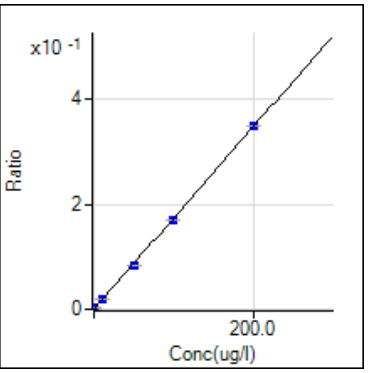
111 Cd [2] / ISTD: 74 Ge
y = 1.278E-2 x + 9.749E-4
R 0.9999
DL 0.0041
BEC 0.07631



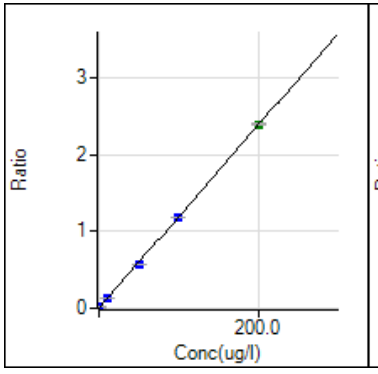
118 Sn [2] / ISTD: 115 In
y = 3.862E-3 x + 1.052E-3
R 0.9998
DL 0.0453
BEC 0.2723



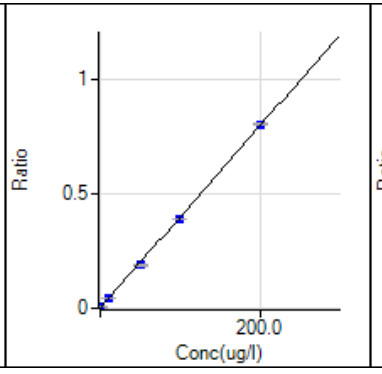
121 Sb [2] / ISTD: 74 Ge
y = 3.785E-2 x + 5.838E-3
R 0.9998
DL 0.007489
BEC 0.1542



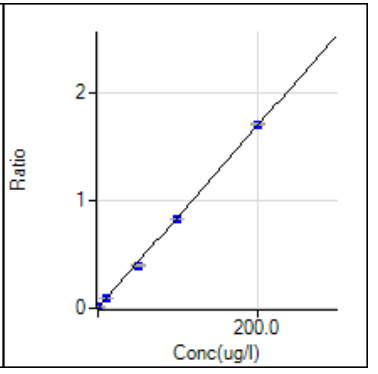
137 Ba [2] / ISTD: 115 In
y = 1.738E-3 x + 2.589E-4
R 0.9998
DL 0.05377
BEC 0.1489



205 Tl [2] / ISTD: 209 Bi
y = 1.188E-2 x + 1.139E-3
R 0.9999
DL 0.006977
BEC 0.09587



206 [Pb] [2] / ISTD: 209 Bi
y = 3.968E-3 x + 9.188E-4
R 0.9998
DL 0.01013
BEC 0.2315



208 Pb [2] / ISTD: 209 Bi
y = 8.422E-3 x + 1.967E-3
R 0.9998
DL 0.01126
BEC 0.2335

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/24/2023 10:38:32 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**-.0013**	**-.0004**	**.0009**	**.0017**	**.0010**	**.0036**	**-.0009**	**-.0006**
Stddev	.0002	.0012	.0001	.0001	.0019	.0005	.0007	.0002	.0000
%RSD	81.10	90.00	24.74	7.533	112.0	49.44	20.86	23.57	8.168
#1	-.0005	-.0024	-.0003	.0009	.0028	.0014	.0036	-.0009	-.0006
#2	-.0001	-.0013	-.0004	.0008	-.0005	.0010	.0043	-.0007	-.0006
#3	-.0002	-.0001	-.0004	.0009	.0026	.0005	.0028	-.0011	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0054**	**.0006**	**.0049**	**-.0035**	**-.0005**	**.0002**	**.0004**	**.0034**
Stddev	.0000	.0003	.0002	.0014	.0021	.0001	.0001	.0002	.0010
%RSD	1.478	4.989	34.01	28.87	59.50	11.44	32.10	53.14	29.06
#1	.0002	.0058	.0004	.0058	-.0014	-.0004	.0003	.0006	.0046
#2	.0002	.0054	.0008	.0032	-.0055	-.0005	.0003	.0006	.0030
#3	.0002	.0052	.0006	.0055	-.0034	-.0005	.0001	.0002	.0027

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0007**	**-.0019**	**.0003**	**-.0004**	**.0040**	**.0001**	**.0006**	**.0009**	**-.0008**
Stddev	.0002	.0004	.0000	.0003	.0001	.0002	.0007	.0002	.0001
%RSD	21.52	20.01	13.18	75.77	3.410	203.8	121.4	17.31	19.66
#1	-.0007	-.0023	.0003	-.0001	.0039	-.0001	.0007	.0008	-.0009
#2	-.0006	-.0016	.0003	-.0004	.0040	.0002	.0013	.0011	-.0006
#3	-.0009	-.0018	.0003	-.0007	.0042	.0001	-.0002	.0009	-.0008

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0002**
Stddev	.0001	.0002
%RSD	21.91	132.1
#1	-.0003	.0003
#2	-.0002	.0002
#3	-.0003	-.0001

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 3/24/2023 10:38:32 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2335.0**	**4804.9**	**43219.**	**7548.0**
Stddev	.8	2.9	226.	55.5
%RSD	.03557	.05947	.52328	.73503
#1	2336.0	4802.9	43162.	7607.9
#2	2334.7	4803.7	43468.	7498.3
#3	2334.4	4808.2	43026.	7537.9

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/24/2023 10:44:11 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0061**	**.0274**	**.0009**	**.0019**	**2.794**	**.0619**	**.3638**	**.0264**	**.1515**
Stddev	.0001	.0003	.0000	.0005	.006	.0002	.0013	.0001	.0003
%RSD	1.064	1.271	3.342	25.72	.2038	.2463	.3458	.2743	.2261
#1	.0061	.0270	.0009	.0017	2.790	.0619	.3624	.0264	.1515
#2	.0061	.0274	.0009	.0025	2.792	.0621	.3646	.0265	.1512
#3	.0062	.0277	.0009	.0016	2.800	.0618	.3645	.0264	.1519

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0053**	**.0298**	**.0442**	**.9662**	**.0187**	**.1353**	**.0501**	**.0454**	**3.541**
Stddev	.0001	.0000	.0001	.0051	.0017	.0005	.0002	.0000	.011
%RSD	1.718	.0750	.2612	.5271	9.295	.3734	.3367	.0584	.3074
#1	.0054	.0298	.0443	.9663	.0192	.1356	.0501	.0454	3.541
#2	.0053	.0298	.0442	.9610	.0168	.1348	.0502	.0455	3.531
#3	.0052	.0298	.0441	.9712	.0201	.1357	.0499	.0454	3.552

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0758**	**.0033**	**.0016**	**.0007**	**.0146**	**.1700**	**.0225**	**.0014**	**.0505**
Stddev	.0002	.0002	.0001	.0002	.0000	.0009	.0002	.0003	.0002
%RSD	.3070	5.331	5.663	26.35	.2346	.5262	.8563	18.73	.3164
#1	.0759	.0035	.0016	.0009	.0146	.1691	.0227	.0017	.0505
#2	.0760	.0032	.0015	.0005	.0146	.1701	.0223	.0015	.0503
#3	.0755	.0033	.0017	.0009	.0146	.1709	.0226	.0012	.0506

Elem	Zn2062
Units	Cts/S
Avg	**.0485**
Stddev	.0002
%RSD	.4037
#1	.0487
#2	.0485
#3	.0483

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/24/2023 10:44:11 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2223.0**	**4700.5**	**41824.**	**7449.9**
Stddev	3.6	5.8	73.	24.5
%RSD	.16074	.12377	.17533	.32949
#1	2223.5	4702.6	41744.	7465.3
#2	2226.3	4704.9	41888.	7462.8
#3	2219.2	4693.9	41839.	7421.6

Zoom In Zoom Out

Sample Name: STDC Acquired: 3/24/2023 10:48:19 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0217**	**.7119**	**.0293**	**.0826**	**3.458**	**3.025**	**1.868**	**1.344**	**.7605**
Stddev	.0001	.0014	.0003	.0003	.004	.005	.004	.001	.0011
%RSD	.5913	.1961	.8761	.3587	.1174	.1782	.1936	.0798	.1476
#1	.0216	.7108	.0294	.0829	3.454	3.031	1.867	1.345	.7609
#2	.0217	.7115	.0294	.0826	3.462	3.020	1.866	1.344	.7614
#3	.0219	.7135	.0290	.0823	3.457	3.023	1.872	1.343	.7593

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1304**	**.2471**	**.7538**	**.5034**	**.5992**	**.1396**	**.8203**	**.2243**	**1.980**
Stddev	.0004	.0009	.0015	.0026	.0021	.0003	.0033	.0002	.003
%RSD	.2944	.3580	.1953	.5225	.3519	.2086	.4070	.1015	.1459
#1	.1302	.2480	.7521	.5065	.6014	.1393	.8240	.2245	1.981
#2	.1308	.2463	.7549	.5018	.5972	.1395	.8177	.2245	1.982
#3	.1301	.2468	.7543	.5020	.5991	.1399	.8190	.2241	1.977

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4750**	**.2574**	**.0587**	**.0225**	**.1038**	**.0729**	**4.224**	**.5241**	**.0528**
Stddev	.0001	.0005	.0003	.0005	.0003	.0004	.012	.0019	.0002
%RSD	.0307	.1901	.5301	2.092	.2875	.5521	.2753	.3590	.4724
#1	.4752	.2578	.0583	.0220	.1036	.0730	4.213	.5262	.0527
#2	.4750	.2575	.0588	.0227	.1041	.0733	4.236	.5229	.0530
#3	.4750	.2569	.0589	.0229	.1037	.0725	4.224	.5230	.0526

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2493**	**.5959**
Stddev	.0005	.0001
%RSD	.1819	.0121
#1	.2498	.5960
#2	.2493	.5960
#3	.2489	.5959

Zoom In Zoom Out

Sample Name: STDC Acquired: 3/24/2023 10:48:19 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2247.1**	**4759.4**	**42604.**	**7546.4**
Stddev	2.0	12.0	168.	22.0
%RSD	.08967	.25111	.39458	.29140
#1	2248.1	4763.2	42431.	7523.3
#2	2244.8	4746.0	42767.	7567.0
#3	2248.5	4768.9	42615.	7548.8

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/24/2023 10:52:16 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0437**	**1.475**	**.0606**	**.1718**	**7.104**	**6.157**	**3.798**	**2.728**	**1.537**
Stddev	.0004	.005	.0000	.0012	.007	.027	.013	.002	.001
%RSD	.8727	.3110	.0811	.7244	.1034	.4417	.3527	.0730	.0886
#1	.0433	1.474	.0606	.1718	7.102	6.130	3.791	2.727	1.538
#2	.0439	1.471	.0606	.1705	7.099	6.185	3.813	2.726	1.535
#3	.0440	1.480	.0607	.1730	7.113	6.155	3.789	2.730	1.538

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2642**	**.4971**	**1.552**	**1.033**	**1.246**	**.2830**	**1.659**	**.4587**	**4.091**
Stddev	.0021	.0016	.002	.004	.003	.0029	.012	.0005	.008
%RSD	.7950	.3169	.1086	.3407	.2541	1.040	.7043	.1024	.1937
#1	.2618	.4955	1.551	1.029	1.248	.2814	1.647	.4593	4.085
#2	.2658	.4970	1.554	1.036	1.247	.2864	1.662	.4584	4.100
#3	.2650	.4987	1.552	1.034	1.242	.2812	1.670	.4584	4.089

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9589**	**.5305**	**.1191**	**.0457**	**.2081**	**.1478**	**8.733**	**1.065**	**.1087**
Stddev	.0011	.0010	.0002	.0002	.0004	.0004	.017	.005	.0002
%RSD	.1177	.1911	.1696	.5282	.1731	.2624	.1945	.4940	.1605
#1	.9599	.5316	.1194	.0459	.2085	.1482	8.721	1.059	.1089
#2	.9591	.5299	.1191	.0454	.2081	.1474	8.724	1.067	.1085
#3	.9576	.5298	.1190	.0458	.2077	.1479	8.752	1.069	.1088

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.5081**	**1.206**
Stddev	.0030	.001
%RSD	.5856	.0965
#1	.5048	1.205
#2	.5090	1.206
#3	.5105	1.207

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/24/2023 10:52:16 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2170.5**	**4686.5**	**41909.**	**7507.2**
Stddev	1.3	9.4	243.	28.3
%RSD	.06211	.20076	.57980	.37694
#1	2170.2	4677.0	42121.	7522.8
#2	2169.2	4686.7	41961.	7474.6
#3	2171.9	4695.8	41644.	7524.4

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/24/2023 10:55:59 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0827**	**2.862**	**.1249**	**.3518**	**14.38**	**12.60**	**7.355**	**5.557**	**3.109**
Stddev	.0002	.005	.0003	.0008	.01	.03	.024	.008	.007
%RSD	.2703	.1822	.2013	.2300	.0604	.2336	.3192	.1385	.2404
#1	.0827	2.860	.1251	.3527	14.37	12.58	7.338	5.566	3.118
#2	.0825	2.868	.1246	.3512	14.39	12.63	7.381	5.552	3.104
#3	.0829	2.858	.1249	.3515	14.38	12.58	7.344	5.553	3.105

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5392**	**1.011**	**2.967**	**2.036**	**2.571**	**.5546**	**3.368**	**.9288**	**8.048**
Stddev	.0016	.001	.005	.003	.006	.0018	.015	.0030	.009
%RSD	.2968	.1262	.1654	.1311	.2269	.3158	.4443	.3228	.1081
#1	.5410	1.013	2.969	2.034	2.578	.5548	3.385	.9322	8.041
#2	.5385	1.010	2.970	2.039	2.569	.5561	3.357	.9277	8.058
#3	.5380	1.011	2.961	2.034	2.567	.5527	3.361	.9265	8.045

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.941**	**1.103**	**.2443**	**.0945**	**.3955**	**.3011**	**17.63**	**2.157**	**.2244**
Stddev	.001	.002	.0007	.0004	.0011	.0007	.03	.009	.0004
%RSD	.0490	.2179	.2877	.4466	.2881	.2415	.1914	.4218	.1816
#1	1.942	1.103	.2449	.0949	.3968	.3020	17.60	2.168	.2242
#2	1.940	1.106	.2445	.0945	.3948	.3007	17.66	2.151	.2248
#3	1.942	1.101	.2435	.0940	.3949	.3007	17.64	2.153	.2241

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.052**	**2.463**
Stddev	.002	.001
%RSD	.1501	.0270
#1	1.054	2.463
#2	1.051	2.464
#3	1.051	2.464

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/24/2023 10:55:59 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2084.9**	**4620.5**	**41256.**	**7494.5**
Stddev	2.2	14.8	215.	33.6
%RSD	.10780	.31947	.52149	.44802
#1	2082.8	4603.5	41021.	7511.7
#2	2084.5	4628.1	41304.	7455.8
#3	2087.3	4629.9	41443.	7516.0

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/24/2023 10:59:52 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1681**	**5.882**	**.2548**	**.7198**	**28.87**	**25.11**	**14.61**	**11.11**	**6.220**
Stddev	.0002	.006	.0005	.0022	.02	.10	.04	.02	.014
%RSD	.0935	.1016	.1872	.3036	.0750	.3872	.2850	.1623	.2189
#1	.1680	5.875	.2552	.7180	28.85	25.19	14.64	11.13	6.227
#2	.1681	5.883	.2549	.7192	28.87	25.14	14.63	11.11	6.229
#3	.1683	5.887	.2543	.7222	28.89	25.00	14.56	11.10	6.204

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.085**	**2.051**	**5.947**	**4.145**	**5.269**	**1.117**	**6.756**	**1.866**	**16.35**
Stddev	.004	.003	.012	.004	.013	.007	.004	.004	.02
%RSD	.3218	.1312	.1936	.1011	.2482	.6099	.0646	.2332	.0921
#1	1.086	2.053	5.956	4.145	5.259	1.120	6.757	1.868	16.33
#2	1.081	2.052	5.952	4.149	5.284	1.122	6.751	1.869	16.36
#3	1.087	2.048	5.934	4.141	5.264	1.109	6.760	1.861	16.36

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.865**	**2.258**	**.4973**	**.1913**	**.7998**	**.6019**	**35.22**	**4.352**	**.4549**
Stddev	.002	.005	.0011	.0004	.0020	.0020	.12	.002	.0006
%RSD	.0492	.2074	.2293	.1986	.2473	.3268	.3442	.0547	.1225
#1	3.867	2.261	.4976	.1916	.8016	.6034	35.35	4.353	.4550
#2	3.864	2.253	.4983	.1915	.8000	.6025	35.12	4.349	.4543
#3	3.864	2.261	.4961	.1909	.7977	.5997	35.18	4.353	.4554

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.122**	**4.921**
Stddev	.003	.006
%RSD	.1357	.1145
#1	2.122	4.923
#2	2.118	4.915
#3	2.124	4.926

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/24/2023 10:59:52 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1975.0**	**4514.6**	**40322.**	**7467.7**
Stddev	2.3	6.5	73.	37.0
%RSD	.11707	.14311	.18050	.49589
#1	1974.2	4510.5	40240.	7433.4
#2	1977.7	4511.2	40348.	7462.7
#3	1973.3	4522.1	40378.	7507.0

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/24/2023 11:03:46 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3479**	**11.90**	**.5222**	**1.478**	**56.83**	**49.10**	**28.75**	**22.10**	**12.42**
Stddev	.0007	.06	.0003	.012	.70	.54	.04	.04	.02
%RSD	.1951	.5319	.0584	.8087	1.240	1.105	.1560	.1719	.1494
#1	.3485	11.90	.5224	1.466	56.05	49.46	28.73	22.14	12.44
#2	.3472	11.97	.5218	1.490	57.42	49.36	28.81	22.07	12.41
#3	.3481	11.85	.5222	1.478	57.00	48.48	28.72	22.08	12.41

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.159**	**4.143**	**11.76**	**8.388**	**10.86**	**2.231**	**13.21**	**3.746**	**32.95**
Stddev	.005	.013	.04	.033	.04	.003	.05	.005	.17
%RSD	.2201	.3155	.3185	.3967	.3799	.1486	.4038	.1415	.5054
#1	2.159	4.152	11.78	8.360	10.82	2.235	13.27	3.752	32.88
#2	2.154	4.150	11.78	8.425	10.90	2.230	13.18	3.744	33.14
#3	2.164	4.128	11.71	8.379	10.85	2.228	13.17	3.742	32.84

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.713**	**4.638**	**1.017**	**.3896**	**1.521**	**1.185**	**68.07**	**8.523**	**.9248**
Stddev	.008	.006	.001	.0004	.001	.002	.93	.022	.0012
%RSD	.1031	.1314	.0508	.1140	.0901	.1564	1.366	.2619	.1266
#1	7.723	4.635	1.016	.3897	1.522	1.186	69.12	8.530	.9240
#2	7.710	4.634	1.016	.3899	1.522	1.182	67.74	8.542	.9242
#3	7.708	4.645	1.017	.3890	1.520	1.185	67.35	8.499	.9261

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**4.090**	**9.816**
Stddev	.009	.017
%RSD	.2290	.1774
#1	4.100	9.836
#2	4.084	9.808
#3	4.084	9.804

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/24/2023 11:03:46 Type: Cal
Method: 60102007_COMBO_102422(v281) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1817.5**	**4312.5**	**39101.**	**7399.4**
Stddev	3.9	8.8	15.	35.5
%RSD	.21234	.20456	.03726	.48013
#1	1821.6	4312.2	39084.	7358.5
#2	1813.9	4303.8	39107.	7417.2
#3	1817.1	4321.4	39111.	7422.5

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/24/2023 11:12:35 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**.1985**	**.0098**	F **.0067**	**.1932**	**.0049**	**.9812**	**.0049**	**.0488**
Stddev	.0002	.0054	.0010	.0004	.0003	.0001	.0029	.0000	.0002
%RSD	2.387	2.718	9.900	6.503	.1313	1.233	.2923	.4717	.3428
#1	.0091	.2046	.0108	.0071	.1934	.0049	.9807	.0049	.0487
#2	.0087	.1942	.0099	.0069	.1929	.0050	.9843	.0050	.0487
#3	.0092	.1967	.0088	.0062	.1933	.0049	.9786	.0049	.0490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				-20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**.0238**	**.2932**	**9.166**	**.0072**	**4.766**	**.0150**	**.0486**	**8.581**
Stddev	.0001	.0001	.0020	.020	.0005	.043	.0001	.0001	.009
%RSD	.8583	.4077	.6728	.2188	7.257	.9057	.7530	.1301	.1024
#1	.0094	.0238	.2910	9.144	.0067	4.730	.0150	.0485	8.576
#2	.0095	.0238	.2937	9.172	.0077	4.814	.0150	.0486	8.575
#3	.0093	.0237	.2949	9.183	.0073	4.754	.0148	.0487	8.591
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0395**	**.0046**	**.0059**	**.0111**	**.0270**	**.0491**	**.0097**	**.0100**	**.0093**
Stddev	.0001	.0004	.0006	.0004	.0002	.0003	.0000	.0000	.0006
%RSD	.1366	8.062	9.667	3.261	.7651	.5558	.4561	.4202	6.489
#1	.0394	.0041	.0052	.0110	.0267	.0494	.0097	.0100	.0087
#2	.0395	.0048	.0060	.0107	.0271	.0490	.0097	.0100	.0093
#3	.0395	.0047	.0063	.0114	.0270	.0490	.0098	.0100	.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/24/2023 11:12:35 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0486**	**.0202**
Stddev	.0001	.0000
%RSD	.2718	.1581
#1	.0487	.0201
#2	.0486	.0202
#3	.0484	.0202
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2233.2**	**4728.1**	**42048.**	**7570.6**
Stddev	2.3	11.1	165.	23.2
%RSD	.10471	.23560	.39247	.30691
#1	2234.9	4738.6	41906.	7545.5
#2	2234.1	4729.2	42009.	7574.9
#3	2230.5	4716.4	42229.	7591.4

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/24/2023 11:20:12 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5151**	**82.03**	**4.147**	**4.192**	**4.148**	**4.119**	**81.53**	**4.088**	**4.119**
Stddev	.0021	.10	.004	.007	.029	.018	.14	.005	.005
%RSD	.4016	.1246	.1083	.1658	.7110	.4347	.1748	.1171	.1238
#1	.5132	81.93	4.145	4.199	4.118	4.139	81.61	4.094	4.125
#2	.5149	82.13	4.144	4.185	4.148	4.104	81.61	4.086	4.115
#3	.5173	82.05	4.152	4.191	4.177	4.113	81.36	4.085	4.118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.010**	**4.121**	**80.19**	F **84.15**	F **4.253**	**82.80**	**4.012**	**4.139**	**83.89**
Stddev	.017	.012	.07	.20	.015	.50	.010	.009	.05
%RSD	.4137	.2887	.0906	.2396	.3420	.5980	.2419	.2216	.0605
#1	3.995	4.119	80.23	84.35	4.268	83.36	4.022	4.148	83.83
#2	4.028	4.110	80.10	84.15	4.251	82.62	4.010	4.129	83.94
#3	4.008	4.133	80.22	83.95	4.239	82.42	4.003	4.140	83.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				80.00	4.000				
Range				5.000%	5.000%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.059**	**4.136**	**4.176**	**4.169**	**4.006**	**4.099**	**4.112**	**4.066**	**4.084**
Stddev	.002	.012	.012	.009	.007	.004	.066	.011	.002
%RSD	.0359	.2930	.2776	.2066	.1783	.1026	1.609	.2811	.0594
#1	4.060	4.149	4.176	4.173	4.009	4.104	4.187	4.067	4.087
#2	4.058	4.135	4.165	4.159	3.998	4.096	4.091	4.076	4.084
#3	4.059	4.124	4.188	4.174	4.012	4.097	4.059	4.054	4.083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/24/2023 11:20:12 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**4.006**	**4.023**
Stddev	.010	.006
%RSD	.2570	.1592
#1	3.994	4.027
#2	4.008	4.027
#3	4.015	4.016
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1814.2**	**4269.0**	**39260.**	**7314.8**
Stddev	3.1	5.4	99.	7.9
%RSD	.17257	.12692	.25294	.10842
#1	1811.1	4264.9	39353.	7319.8
#2	1814.2	4275.1	39156.	7319.0
#3	1817.3	4266.9	39272.	7305.7

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/24/2023 11:28:17 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2392**	**40.81**	**2.065**	**2.098**	**2.011**	**2.072**	**39.19**	**2.075**	**2.067**
Stddev	.0007	.10	.005	.006	.003	.005	.12	.003	.004
%RSD	.2783	.2559	.2227	.3001	.1436	.2298	.2935	.1279	.1809
#1	.2393	40.80	2.059	2.098	2.014	2.078	39.24	2.072	2.063
#2	.2385	40.92	2.067	2.105	2.011	2.069	39.26	2.077	2.069
#3	.2399	40.72	2.068	2.092	2.008	2.069	39.05	2.075	2.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.087**	**2.079**	**39.98**	**40.31**	F **4.046**	**41.88**	**2.083**	**2.033**	**38.00**
Stddev	.008	.005	.13	.07	.015	.10	.008	.005	.05
%RSD	.3930	.2408	.3215	.1852	.3746	.2414	.3685	.2551	.1383
#1	2.085	2.085	39.89	40.38	4.057	41.99	2.091	2.028	38.05
#2	2.079	2.075	40.13	40.23	4.029	41.80	2.076	2.033	37.95
#3	2.095	2.078	39.92	40.33	4.052	41.84	2.080	2.038	38.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					2.000				
Range					10.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.071**	**2.072**	**2.084**	**2.088**	**.4526**	**1.980**	**2.094**	**2.108**	**2.129**
Stddev	.002	.004	.008	.005	.0008	.004	.007	.006	.004
%RSD	.0726	.1969	.3824	.2421	.1725	.2002	.3516	.2923	.2135
#1	2.069	2.072	2.076	2.083	.4518	1.975	2.099	2.114	2.128
#2	2.072	2.077	2.085	2.093	.4526	1.983	2.085	2.102	2.134
#3	2.072	2.069	2.092	2.089	.4534	1.982	2.097	2.106	2.126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/24/2023 11:28:17 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.093**	**2.058**
Stddev	.004	.005
%RSD	.1732	.2434
#1	2.095	2.056
#2	2.089	2.064
#3	2.095	2.054
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1973.5**	**4505.9**	**40566.**	**7588.8**
Stddev	1.7	8.1	126.	10.4
%RSD	.08694	.18003	.31067	.13688
#1	1972.6	4513.4	40499.	7579.9
#2	1972.4	4506.8	40712.	7600.2
#3	1975.5	4497.3	40489.	7586.4

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/24/2023 11:34:03 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0063**	**.0006**	F **.0032**	**-.0001**	**.0001**	**.0021**	**.0001**	**.0000**
Stddev	.0001	.0052	.0004	.0007	.0001	.0000	.0015	.0000	.000
%RSD	66.85	82.15	63.10	22.76	171.2	42.19	74.62	38.91	1382000.
#1	.0001	.0019	.0005	.0039	-.0001	.0000	.0034	.0001	.0001
#2	.0003	.0050	.0003	.0024	-.0001	.0001	.0025	.0001	.0000
#3	.0002	.0121	.0010	.0032	.0000	.0001	.0004	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0001**	**.0013**	**.0159**	**.0010**	**.0012**	**.0001**	**.0002**	**.0137**
Stddev	.0002	.0001	.0014	.0096	.0007	.0147	.0000	.0001	.0010
%RSD	94.24	131.6	108.4	60.84	71.03	1194.	20.02	59.02	7.561
#1	.0000	.0001	.0003	.0270	.0017	-.0127	.0001	.0002	.0132
#2	-.0003	.0001	.0007	.0111	.0009	.0166	.0001	.0003	.0129
#3	-.0002	.0000	.0030	.0095	.0003	-.0002	.0000	.0001	.0148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0012**	F **.0021**	**.0002**	**-.0003**	**.0000**	**.0002**	F **.0022**
Stddev	.0001	.001	.0005	.0019	.0001	.0003	.0000	.0001	.0006
%RSD	1826.	12930.	37.99	88.30	63.89	117.5	56.93	39.30	26.18
#1	-.0001	.0004	.0007	.0000	.0002	.0001	.0001	.0001	.0018
#2	.0000	-.0005	.0014	.0032	.0000	-.0005	.0000	.0003	.0029
#3	.0001	.0002	.0016	.0032	.0002	-.0005	.0001	.0001	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit				.0020					.0020
Low Limit				-.0020					-.0020

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/24/2023 11:34:03 Type: QC
Method: 60102007_COMBO_102422(v281) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0000**
Stddev	.000	.0001
%RSD	307.2	237.1
#1	-.0002	.0000
#2	-.0001	.0000
#3	.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2333.3**	**4809.0**	**43023.**	**7663.8**
Stddev	3.6	4.2	116.	16.7
%RSD	.15588	.08790	.27068	.21738
#1	2334.1	4811.2	43033.	7652.9
#2	2336.5	4811.7	42902.	7683.0
#3	2329.3	4804.1	43134.	7655.6

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/24/2023 11:38:29 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**523.5**	**.0000**	**-.0008**	**-.0001**	**.0000**	**463.9**	**.0000**	**-.0001**
Stddev	.0000	3.4	.0028	.0061	.0002	.000	.7	.000	.0002
%RSD	17.31	.6446	6913.	743.2	210.3	118.4	.1554	1147.	138.5
#1	-.0003	519.6	-.0020	-.0044	.0000	.0000	463.1	.0003	-.0001
#2	-.0002	525.5	-.0011	.0062	-.0003	.0000	464.3	.0001	.0000
#3	-.0003	525.4	.0032	-.0042	.0000	.0000	464.4	-.0005	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**-.0019**	F **468.2**	**.0126**	**.0003**	**529.6**	**-.0006**	**.0001**	**.2942**
Stddev	.0002	.0000	4.4	.0274	.0006	2.6	.0000	.0002	.0051
%RSD	25.12	2.022	.9483	218.2	184.6	.4939	3.087	189.8	1.736
#1	-.0006	-.0019	464.0	-.0183	.0008	527.1	-.0006	-.0001	.2976
#2	-.0007	-.0020	467.6	.0218	-.0004	532.3	-.0006	.0002	.2967
#3	-.0009	-.0019	472.9	.0342	.0006	529.3	-.0006	.0002	.2883
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit			240.0						
Low Limit			160.0						

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0010**	**.0000**	**.0060**	**.0000**	**.0003**	**-.0004**	**.0000**
Stddev	.0005	.0008	.0003	.0063	.0007	.0008	.0001	.0001	.004
%RSD	379.5	843.5	35.21	144800.	12.40	2576.	18.79	15.85	40560.
#1	-.0003	.0005	.0013	.0065	.0063	-.0001	.0003	-.0005	-.0007
#2	.0001	.0003	.0008	-.0060	.0066	-.0007	.0003	-.0004	.0047
#3	.0006	-.0011	.0007	-.0004	.0052	.0009	.0002	-.0003	-.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/24/2023 11:38:29 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0003**
Stddev	.0001	.0000
%RSD	1185.	14.05
#1	-.0001	.0003
#2	.0000	.0004
#3	.0002	.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1722.7**	**3996.7**	**35875.**	**7168.8**
Stddev	1.4	3.6	105.	15.0
%RSD	.08243	.09119	.29297	.20977
#1	1721.4	3999.8	35777.	7182.2
#2	1724.2	3997.7	35986.	7171.6
#3	1722.3	3992.7	35862.	7152.6

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/24/2023 11:56:30 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.116**	**513.8**	**.9372**	**.9256**	**.5069**	**.5256**	**461.1**	**.9569**	**.4710**
Stddev	.000	7.3	.0028	.0162	.0006	.0033	.9	.0014	.0005
%RSD	.0136	1.428	.2996	1.746	.1102	.6282	.2012	.1508	.1119
#1	1.116	506.7	.9405	.9098	.5067	.5268	461.3	.9581	.4716
#2	1.116	521.4	.9357	.9248	.5075	.5281	462.0	.9574	.4707
#3	1.116	513.2	.9355	.9421	.5064	.5218	460.1	.9553	.4706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4992**	**.5409**	**181.5**	**.0373**	**1.063**	**571.4**	**.5063**	**.8732**	**.3035**
Stddev	.0028	.0028	.5	.0088	.005	3.5	.0014	.0016	.0030
%RSD	.5536	.5148	.2555	23.62	.4464	.6094	.2827	.1835	.9896
#1	.4962	.5440	181.2	.0453	1.067	571.6	.5072	.8728	.3041
#2	.4998	.5401	182.0	.0386	1.065	574.7	.5070	.8719	.3002
#3	.5016	.5386	181.3	.0279	1.058	567.8	.5047	.8750	.3061
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8996**	**1.004**	**.9633**	**.8958**	**.1623**	**.8565**	**.9474**	**1.016**	**.8863**
Stddev	.0006	.004	.0049	.0040	.0006	.0021	.0017	.004	.0034
%RSD	.0696	.4415	.5128	.4514	.3632	.2423	.1758	.3683	.3812
#1	.9003	1.008	.9680	.9005	.1620	.8588	.9486	1.019	.8897
#2	.8993	1.006	.9582	.8930	.1629	.8547	.9481	1.015	.8830
#3	.8991	.9994	.9638	.8940	.1618	.8561	.9455	1.012	.8863
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/24/2023 11:56:30 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5145**	**.9065**
Stddev	.0004	.0036
%RSD	.0814	.3923
#1	.5143	.9097
#2	.5150	.9070
#3	.5142	.9027
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1653.4**	**4080.6**	**36243.**	**7078.3**
Stddev	3.4	17.9	6.	30.1
%RSD	.20294	.43833	.01632	.42594
#1	1656.3	4096.4	36243.	7068.9
#2	1654.2	4084.1	36249.	7054.0
#3	1649.7	4061.2	36237.	7112.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 12:05:17 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2465**	**38.93**	**1.995**	**1.987**	**2.047**	**2.130**	**40.56**	**2.033**	**2.030**
Stddev	.0007	.05	.005	.016	.002	.007	.07	.001	.001
%RSD	.2941	.1275	.2352	.7991	.0966	.3101	.1849	.0397	.0231
#1	.2471	38.97	1.991	1.969	2.045	2.132	40.63	2.034	2.030
#2	.2467	38.88	1.993	2.000	2.046	2.135	40.57	2.034	2.030
#3	.2457	38.95	2.000	1.990	2.049	2.122	40.48	2.032	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**1.969**	**39.36**	**41.48**	**2.100**	**42.26**	**2.007**	**2.019**	**40.89**
Stddev	.008	.005	.04	.03	.001	.20	.005	.003	.04
%RSD	.3896	.2730	.1133	.0826	.0306	.4696	.2319	.1288	.1075
#1	2.053	1.967	39.40	41.51	2.101	42.43	2.009	2.016	40.94
#2	2.063	1.965	39.36	41.44	2.100	42.31	2.010	2.021	40.87
#3	2.047	1.975	39.31	41.47	2.100	42.04	2.002	2.019	40.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.002**	**2.011**	**2.018**	**2.082**	**2.047**	**1.998**	**2.023**	**2.005**
Stddev	.001	.003	.003	.006	.003	.000	.017	.004	.003
%RSD	.0505	.1638	.1219	.2841	.1334	.0186	.8700	.2067	.1582
#1	2.015	2.003	2.008	2.015	2.079	2.047	1.987	2.026	2.001
#2	2.013	1.999	2.011	2.015	2.084	2.047	1.989	2.024	2.007
#3	2.015	2.005	2.013	2.025	2.084	2.048	2.018	2.018	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 12:05:17 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.043**	**1.987**
Stddev	.003	.002
%RSD	.1620	.1114
#1	2.044	1.990
#2	2.046	1.985
#3	2.039	1.987
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1964.3**	**4477.3**	**40488.**	**7363.2**
Stddev	2.7	7.8	109.	29.0
%RSD	.13792	.17386	.26929	.39415
#1	1967.3	4484.0	40549.	7330.7
#2	1962.0	4468.8	40553.	7386.5
#3	1963.7	4479.0	40362.	7372.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 12:18:45 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0069**	**-.0001**	F **.0016**	**.0000**	**.0000**	**.0038**	**.0001**	**.0000**
Stddev	.0002	.0051	.0005	.0011	.000	.000	.0009	.0000	.000
%RSD	50.12	74.42	679.9	67.22	314.4	161.6	24.48	34.36	314.4
#1	.0005	.0128	-.0007	.0016	.0000	.0000	.0031	.0001	.0000
#2	.0002	.0036	.0001	.0026	.0000	-.0001	.0034	.0001	.0000
#3	.0004	.0043	.0003	.0005	-.0001	.0000	.0048	.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0004**	**.0015**	**.0058**	**-.0004**	**.0116**	**.0000**	**-.0001**	**.0028**
Stddev	.0000	.0000	.0012	.0119	.0001	.0077	.0000	.0001	.0042
%RSD	24.54	11.24	78.02	207.5	27.39	65.97	58.78	143.3	149.7
#1	-.0002	-.0004	.0018	.0191	-.0004	.0065	.0000	-.0002	.0014
#2	-.0001	-.0004	.0002	-.0040	-.0003	.0079	.0000	.0001	.0075
#3	-.0002	-.0004	.0025	.0022	-.0005	.0204	.0001	-.0002	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0003**	**.0010**	**.0017**	**.0004**	**-.0002**	**.0000**	**.0001**	**.0009**
Stddev	.0001	.0004	.0009	.0017	.0004	.0001	.000	.0001	.0004
%RSD	374.0	109.9	88.23	101.0	110.4	49.19	167.1	149.7	47.29
#1	.0000	-.0001	.0004	.0001	-.0001	-.0001	.0000	.0002	.0011
#2	-.0001	-.0007	.0021	.0015	.0008	-.0003	.0000	.0000	.0004
#3	.0002	-.0001	.0007	.0035	.0005	-.0002	.0000	.0000	.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 12:18:45 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0001**
Stddev	.000	.0000
%RSD	375.5	5.834
#1	.0001	.0001
#2	-.0001	.0001
#3	-.0001	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2308.5**	**4735.8**	**43074.**	**7506.7**
Stddev	3.3	12.8	50.	34.2
%RSD	.14097	.27080	.11495	.45549
#1	2310.6	4729.2	43104.	7516.4
#2	2304.7	4727.6	43017.	7468.7
#3	2310.1	4750.6	43101.	7535.0

Zoom In Zoom Out

Sample Name: MP41991-MB1 Acquired: 3/24/2023 12:24:27 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0147**	**-.0006**	**.0009**	**-.0001**	**.0000**	**.0155**	**.0000**	**-.0001**
Stddev	.0000	.0013	.0013	.0022	.0001	.000	.0008	.000	.0001
%RSD	20.24	8.693	209.0	228.0	70.62	4.376	4.920	48.37	162.5
#1	.0002	.0159	-.0016	.0013	-.0001	.0000	.0163	.0000	-.0001
#2	.0002	.0134	.0008	.0029	.0000	.0000	.0151	.0000	.0000
#3	.0003	.0147	-.0010	-.0014	-.0001	.0000	.0149	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0008**	**.0120**	**.0069**	**.0000**	**.0113**	**.0001**	**-.0002**	**.0082**
Stddev	.0002	.0001	.0005	.0039	.0013	.0049	.0000	.0003	.0034
%RSD	105.8	7.494	4.497	56.53	3560.	43.52	34.22	157.9	42.11
#1	.0004	-.0008	.0117	.0040	.0005	.0070	.0000	.0001	.0054
#2	.0001	-.0007	.0117	.0054	.0010	.0166	.0000	-.0003	.0071
#3	.0001	-.0008	.0126	.0113	-.0014	.0102	.0001	-.0004	.0120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0015**	**.0021**	**.0032**	**.0000**	**.0000**	**.0000**	**.0001**
Stddev	.0000	.0002	.0001	.0009	.0001	.0006	.000	.000	.0007
%RSD	135.4	118.6	3.684	42.66	2.673	2374.	168.3	387.6	1310.
#1	.0000	-.0001	.0014	.0022	.0033	-.0003	.0000	-.0001	.0009
#2	.0001	-.0003	.0015	.0012	.0032	-.0003	.0000	.0000	-.0002
#3	.0000	.0000	.0014	.0029	.0031	.0007	.0000	.0000	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP41991-MB1 Acquired: 3/24/2023 12:24:27 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0007**
Stddev	.000	.0000
%RSD	278.4	3.354
#1	.0000	.0007
#2	-.0002	.0006
#3	.0000	.0007
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2275.0**	**4693.8**	**43030.**	**7386.2**
Stddev	1.9	11.0	218.	46.8
%RSD	.08268	.23354	.50550	.63388
#1	2273.0	4682.9	42870.	7342.3
#2	2276.8	4704.8	42942.	7380.8
#3	2275.3	4693.7	43278.	7435.5

Zoom In Zoom Out

Sample Name: MP41991-B1 Acquired: 3/24/2023 12:29:42 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0510**	**25.84**	**1.946**	F **-.0070**	**2.092**	**.0541**	**25.65**	**.0501**
Stddev	.0002	.03	.004	.0022	.005	.0003	.11	.0001
%RSD	.3871	.1001	.2321	30.56	.2250	.5047	.4471	.1445
#1	.0510	25.85	1.951	-.0061	2.097	.0545	25.77	.0501
#2	.0511	25.86	1.942	-.0055	2.090	.0540	25.54	.0501
#3	.0507	25.82	1.944	-.0095	2.089	.0540	25.64	.0500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5139**	**.2133**	**.2476**	**25.29**	**25.56**	F **.0002**	**26.38**	**.5096**
Stddev	.0010	.0009	.0009	.06	.08	.0001	.09	.0009
%RSD	.2013	.4165	.3437	.2452	.3177	49.86	.3431	.1857
#1	.5148	.2144	.2467	25.29	25.64	.0003	26.48	.5106
#2	.5141	.2127	.2478	25.22	25.56	.0001	26.31	.5087
#3	.5128	.2129	.2484	25.35	25.48	.0003	26.35	.5096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0500		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5115**	**23.67**	**.5106**	**.4913**	**.4954**	**1.986**	**.6888**	**.5118**
Stddev	.0009	.08	.0003	.0015	.0009	.006	.0004	.0010
%RSD	.1816	.3360	.0648	.3007	.1758	.2871	.0653	.1875
#1	.5123	23.75	.5110	.4899	.4952	1.992	.6887	.5124
#2	.5117	23.67	.5107	.4929	.4964	1.982	.6893	.5107
#3	.5105	23.59	.5103	.4910	.4947	1.982	.6884	.5123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: MP41991-B1 Acquired: 3/24/2023 12:29:42 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5297**	**.5223**	**1.969**	**.5103**	**.4929**
Stddev	.0016	.0006	.004	.0006	.0004
%RSD	.2990	.1230	.2100	.1120	.0895
#1	.5316	.5225	1.970	.5106	.4934
#2	.5287	.5216	1.972	.5097	.4927
#3	.5290	.5229	1.964	.5107	.4925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2041.0**	**4540.8**	**40962.**	**7324.6**
Stddev	1.7	6.6	148.	29.4
%RSD	.08412	.14494	.36229	.40114
#1	2043.0	4534.5	40909.	7293.4
#2	2040.3	4547.6	40848.	7351.8
#3	2039.8	4540.1	41130.	7328.5

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/24/2023 12:34:35 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.2406**	**.0020**	**.0177**	**.0201**	**.0000**	**247.5**	**.0000**	**.0050**
Stddev	.0001	.0048	.0004	.0011	.0001	.0000	1.2	.0000	.0000
%RSD	5.704	1.979	19.21	6.362	.5554	14.69	.5009	54.81	.8271
#1	.0014	.2361	.0024	.0164	.0200	.0000	248.0	.0001	.0050
#2	.0012	.2400	.0018	.0183	.0202	.0000	248.3	.0001	.0050
#3	.0014	.2456	.0017	.0184	.0201	.0000	246.0	.0000	.0051

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0234**	**-.0024**	**19.94**	**6.398**	**.0119**	**35.56**	**.4041**	**.0007**	F **443.6**
Stddev	.0001	.0002	.02	.031	.0004	.09	.0005	.0000	3.3
%RSD	.2650	6.701	.1096	.4784	3.683	.2560	.1217	.7458	.7499
#1	.0235	-.0025	19.92	6.363	.0114	35.67	.4037	.0007	446.3
#2	.0234	-.0022	19.96	6.409	.0122	35.49	.4039	.0007	439.9
#3	.0234	-.0025	19.95	6.421	.0121	35.53	.4047	.0007	444.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0493**	**-.0044**	**.0000**	**.0032**	**1.299**	**.0004**	**.3797**	**-.0003**	**-.0030**
Stddev	.0000	.0003	.000	.0009	.004	.0004	.0015	.0001	.0015
%RSD	.0832	7.705	9542.	28.66	.3491	121.9	.3990	28.18	48.53
#1	.0493	-.0048	.0001	.0025	1.304	.0007	.3785	-.0003	-.0013
#2	.0493	-.0041	.0001	.0042	1.298	-.0001	.3814	-.0002	-.0038
#3	.0494	-.0043	-.0002	.0028	1.295	.0006	.3791	-.0003	-.0040

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5248**	**.0840**
Stddev	.0009	.0002
%RSD	.1748	.2429
#1	.5237	.0839
#2	.5253	.0842
#3	.5252	.0839

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/24/2023 12:34:35 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1641.3**	**7490.0**	**67736.**	**13756.**
Stddev	3.9	23.5	95.	22.
%RSD	.23688	.31354	.13999	.16192
#1	1637.7	7463.5	67816.	13749.
#2	1645.4	7498.3	67761.	13738.
#3	1640.8	7508.3	67631.	13781.

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/24/2023 12:39:55 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.2378**	**.0024**	**.0175**	**.0202**	**.0000**	**249.2**	**.0000**	**.0050**
Stddev	.0002	.0019	.0001	.0002	.0001	.0000	1.0	.0000	.0000
%RSD	14.14	.8108	5.453	.9629	.3559	31.46	.3862	10.42	.0590
#1	.0014	.2400	.0024	.0175	.0202	.0000	248.2	.0000	.0050
#2	.0011	.2370	.0025	.0173	.0202	.0000	250.0	.0000	.0050
#3	.0015	.2364	.0023	.0176	.0203	.0000	249.5	.0000	.0050

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0233**	**-.0024**	**20.15**	**6.452**	**.0084**	**35.62**	**.4082**	**.0006**	F **443.4**
Stddev	.0001	.0002	.02	.029	.0002	.21	.0006	.0001	2.3
%RSD	.5390	7.829	.1195	.4537	2.950	.5910	.1435	14.48	.5119
#1	.0234	-.0025	20.14	6.427	.0086	35.60	.4085	.0005	441.6
#2	.0231	-.0022	20.18	6.446	.0081	35.83	.4076	.0007	445.9
#3	.0233	-.0024	20.13	6.484	.0085	35.41	.4087	.0007	442.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0496**	**-.0042**	**.0006**	**.0018**	**1.308**	**.0004**	**.3845**	**-.0004**	**-.0009**
Stddev	.0001	.0006	.0006	.0009	.002	.0001	.0006	.0000	.0018
%RSD	.1013	15.11	92.58	51.52	.1732	19.60	.1447	10.37	206.5
#1	.0496	-.0039	.0005	.0020	1.308	.0004	.3845	-.0003	.0008
#2	.0496	-.0049	.0001	.0027	1.306	.0003	.3839	-.0004	-.0006
#3	.0496	-.0037	.0012	.0008	1.310	.0004	.3850	-.0004	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5292**	**.0842**
Stddev	.0002	.0000
%RSD	.0377	.0429
#1	.5291	.0842
#2	.5290	.0842
#3	.5294	.0842

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/24/2023 12:39:55 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1636.0**	**7468.6**	**67611.**	**13774.**
Stddev	4.1	14.5	100.	64.
%RSD	.24910	.19422	.14726	.46606
#1	1636.6	7481.3	67695.	13838.
#2	1639.8	7471.8	67637.	13710.
#3	1631.7	7452.8	67501.	13772.

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/24/2023 12:45:15 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.4192**	**-.0008**	**.0272**	**.0306**	**-.0001**	**413.3**	**-.0003**	**.0081**
Stddev	.0003	.0353	.0004	.0071	.0007	.0001	2.1	.0001	.0001
%RSD	14.21	8.430	46.35	25.95	2.190	79.78	.5032	39.17	.9759
#1	.0019	.4115	-.0007	.0227	.0301	-.0002	415.6	-.0003	.0081
#2	.0026	.4578	-.0005	.0235	.0313	-.0002	412.7	-.0002	.0080
#3	.0024	.3884	-.0013	.0353	.0302	.0000	411.6	-.0004	.0080

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0386**	**-.0004**	**32.82**	**8.842**	**.0104**	**54.67**	**.6609**	**.0004**	F **722.7**
Stddev	.0010	.0001	.03	.006	.0044	.34	.0030	.0005	4.6
%RSD	2.673	28.74	.0847	.0658	42.62	.6267	.4503	103.9	.6433
#1	.0375	-.0003	32.85	8.838	.0144	55.05	.6639	.0006	717.7
#2	.0388	-.0005	32.80	8.849	.0110	54.60	.6608	.0008	723.5
#3	.0395	-.0005	32.81	8.840	.0057	54.37	.6580	-.0001	726.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0814**	**-.0058**	**.0013**	**.0107**	**1.965**	**-.0017**	**.5939**	**.0076**	**.0016**
Stddev	.0007	.0002	.0053	.0043	.006	.0023	.0010	.0004	.0041
%RSD	.8058	4.279	404.1	40.53	.3254	137.6	.1693	5.596	257.7
#1	.0812	-.0059	.0070	.0111	1.960	-.0010	.5927	.0072	-.0026
#2	.0810	-.0060	.0001	.0062	1.972	-.0043	.5946	.0080	.0017
#3	.0822	-.0055	-.0032	.0148	1.962	.0002	.5943	.0075	.0057

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.8354**	**.1386**
Stddev	.0022	.0001
%RSD	.2648	.1022
#1	.8379	.1384
#2	.8345	.1387
#3	.8338	.1386

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/24/2023 12:45:15 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1955.6**	**5139.8**	**46184.**	**8920.7**
Stddev	2.8	23.0	70.	21.0
%RSD	.14085	.44764	.15243	.23580
#1	1958.8	5163.3	46103.	8896.8
#2	1954.0	5117.3	46231.	8929.3
#3	1954.0	5138.9	46219.	8936.2

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/24/2023 12:50:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0291**	**1.513**	**.0555**	**.0183**	**.1479**	**.0245**	**244.5**	**.0236**	**.0288**
Stddev	.0001	.005	.0005	.0011	.0004	.0001	1.3	.0000	.0000
%RSD	.3370	.3152	.8815	5.988	.2776	.4514	.5291	.0666	.0702
#1	.0290	1.509	.0550	.0189	.1482	.0244	244.6	.0236	.0288
#2	.0291	1.511	.0560	.0190	.1474	.0244	243.2	.0236	.0288
#3	.0292	1.518	.0555	.0171	.1479	.0246	245.8	.0236	.0288

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0468**	**.0508**	**21.62**	**11.95**	**.0070**	**35.87**	**.4299**	**.0487**	F **439.8**
Stddev	.0001	.0002	.06	.02	.0002	.14	.0014	.0003	1.6
%RSD	.1387	.4530	.2698	.1778	3.334	.3963	.3319	.6889	.3554
#1	.0468	.0508	21.60	11.97	.0071	35.71	.4306	.0490	438.8
#2	.0468	.0505	21.58	11.95	.0067	35.89	.4308	.0488	439.0
#3	.0467	.0510	21.69	11.93	.0072	36.00	.4282	.0483	441.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0964**	**.0401**	**.0543**	**.0591**	**1.304**	**.0239**	**.4126**	**.0500**	**.0851**
Stddev	.0002	.0003	.0006	.0021	.001	.0005	.0010	.0002	.0011
%RSD	.1605	.8269	1.023	3.590	.0873	2.057	.2472	.4108	1.312
#1	.0962	.0405	.0546	.0577	1.304	.0237	.4133	.0502	.0852
#2	.0963	.0401	.0537	.0615	1.305	.0245	.4114	.0498	.0861
#3	.0965	.0398	.0547	.0581	1.303	.0236	.4131	.0500	.0839

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5479**	**.1998**
Stddev	.0013	.0004
%RSD	.2354	.2161
#1	.5481	.1996
#2	.5490	.1994
#3	.5465	.2003

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/24/2023 12:50:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1631.8**	**7351.8**	**66818.**	**13835.**
Stddev	1.7	11.7	147.	67.
%RSD	.10453	.15912	.22074	.48538
#1	1630.3	7341.6	66661.	13897.
#2	1631.4	7349.2	66953.	13845.
#3	1633.7	7364.5	66839.	13763.

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/24/2023 12:55:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0309**	**14.61**	**1.124**	**.0148**	**1.113**	**.0271**	**250.5**	**.0247**	**.2577**
Stddev	.0001	.04	.002	.0010	.004	.0001	1.3	.0000	.0001
%RSD	.2058	.2540	.1428	7.077	.3212	.2215	.5185	.1702	.0223
#1	.0309	14.57	1.125	.0140	1.109	.0271	251.9	.0248	.2576
#2	.0310	14.64	1.125	.0160	1.115	.0272	249.4	.0248	.2577
#3	.0310	14.61	1.122	.0145	1.115	.0271	250.2	.0247	.2576

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1256**	**.1349**	**32.19**	**22.03**	**.0062**	**47.59**	**.6420**	**.2706**	F **441.8**
Stddev	.0003	.0003	.08	.02	.0006	.29	.0010	.0003	1.8
%RSD	.2421	.2478	.2382	.0861	10.27	.6175	.1526	.1162	.4066
#1	.1253	.1352	32.11	22.01	.0055	47.73	.6410	.2702	441.7
#2	.1256	.1346	32.23	22.05	.0067	47.80	.6430	.2709	440.0
#3	.1259	.1349	32.24	22.02	.0064	47.26	.6420	.2706	443.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2958**	**.4651**	**.2793**	**1.227**	**1.662**	**.2565**	**.6571**	**.2751**	**1.792**
Stddev	.0002	.0022	.0003	.003	.004	.0007	.0027	.0003	.006
%RSD	.0726	.4627	.0901	.2373	.2120	.2753	.4184	.0964	.3395
#1	.2961	.4664	.2790	1.226	1.658	.2561	.6539	.2751	1.797
#2	.2957	.4627	.2795	1.231	1.664	.2562	.6588	.2748	1.785
#3	.2957	.4664	.2794	1.225	1.664	.2574	.6585	.2753	1.794

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.7595**	**.3220**
Stddev	.0004	.0010
%RSD	.0461	.3195
#1	.7591	.3230
#2	.7598	.3220
#3	.7595	.3209

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/24/2023 12:55:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1612.7**	**7199.0**	**65774.**	**13243.**
Stddev	3.9	8.2	48.	34.
%RSD	.23890	.11344	.07304	.25419
#1	1609.6	7191.3	65732.	13239.
#2	1617.0	7198.3	65765.	13211.
#3	1611.5	7207.6	65827.	13278.

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/24/2023 13:00:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0311**	**14.53**	**1.135**	**.0147**	**1.122**	**.0274**	**254.4**	**.0250**	**.2601**
Stddev	.0003	.02	.001	.0011	.003	.0001	1.8	.0001	.0003
%RSD	.8512	.1317	.1044	7.674	.2645	.1984	.7270	.2418	.1219
#1	.0308	14.51	1.134	.0155	1.121	.0274	254.7	.0249	.2598
#2	.0311	14.53	1.135	.0152	1.120	.0274	252.4	.0250	.2603
#3	.0313	14.54	1.136	.0134	1.125	.0275	256.0	.0250	.2603

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1270**	**.1356**	**32.36**	**22.17**	**.0056**	**48.50**	**.6460**	**.2684**	F **443.5**
Stddev	.0003	.0003	.05	.03	.0002	.28	.0011	.0006	2.4
%RSD	.2522	.2317	.1540	.1411	3.919	.5778	.1777	.2308	.5436
#1	.1267	.1352	32.41	22.16	.0053	48.80	.6460	.2677	445.6
#2	.1273	.1358	32.34	22.15	.0057	48.25	.6449	.2685	444.1
#3	.1270	.1357	32.32	22.21	.0057	48.44	.6472	.2689	440.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2983**	**.4767**	**.2831**	**1.242**	**1.688**	**.2543**	**.6596**	**.2715**	**1.835**
Stddev	.0003	.0009	.0013	.005	.003	.0006	.0018	.0005	.002
%RSD	.1015	.1853	.4427	.3785	.1766	.2468	.2756	.1785	.1244
#1	.2979	.4776	.2819	1.237	1.685	.2537	.6603	.2718	1.836
#2	.2985	.4759	.2829	1.243	1.690	.2544	.6576	.2709	1.832
#3	.2983	.4765	.2844	1.247	1.690	.2550	.6610	.2717	1.836

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.7670**	**.3233**
Stddev	.0007	.0007
%RSD	.0928	.2114
#1	.7663	.3232
#2	.7677	.3240
#3	.7671	.3227

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/24/2023 13:00:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1607.5**	**7296.1**	**67059.**	**13422.**
Stddev	5.4	13.5	154.	80.
%RSD	.33358	.18501	.22953	.59531
#1	1604.8	7302.7	67228.	13339.
#2	1613.7	7305.0	66926.	13499.
#3	1604.0	7280.6	67022.	13428.

Zoom In Zoom Out

Sample Name: FC3338-1 Acquired: 3/24/2023 13:06:05 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.3038**	**.0006**	**.0326**	**.0462**	**.0000**	**176.3**	**.0000**	**.0007**
Stddev	.0001	.0015	.0009	.0017	.0003	.000	.6	.000	.0001
%RSD	45.91	.4972	157.7	5.186	.6393	18320.	.3219	16.39	8.323
#1	.0003	.3033	.0000	.0307	.0460	.0000	176.9	.0000	.0007
#2	.0002	.3055	.0017	.0340	.0465	.0000	176.0	.0000	.0006
#3	.0001	.3027	.0001	.0330	.0460	.0000	175.9	.0000	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074**	**-.0004**	**2.487**	**24.43**	**.0013**	**6.626**	**.2395**	**.0007**	**36.61**
Stddev	.0001	.0001	.008	.07	.0005	.016	.0008	.0002	.02
%RSD	1.670	34.27	.3241	.2739	40.90	.2476	.3483	23.38	.0456
#1	.0073	-.0004	2.479	24.46	.0007	6.645	.2404	.0009	36.60
#2	.0076	-.0006	2.486	24.49	.0016	6.620	.2390	.0006	36.63
#3	.0074	-.0003	2.495	24.36	.0017	6.614	.2389	.0008	36.60

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**-.0023**	**.0020**	**.0014**	**2.708**	**.0001**	**.4621**	**.0081**	**.0008**
Stddev	.0001	.0005	.0004	.0014	.007	.0002	.0017	.0003	.0007
%RSD	1.574	21.97	21.99	96.88	.2506	185.3	.3637	3.679	85.35
#1	.0062	-.0022	.0017	.0014	2.716	.0003	.4611	.0084	.0015
#2	.0060	-.0029	.0018	.0001	2.706	.0002	.4640	.0080	.0002
#3	.0062	-.0019	.0025	.0028	2.703	-.0001	.4611	.0078	.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0576**	**.0015**
Stddev	.0002	.0001
%RSD	.4203	6.414
#1	.0576	.0015
#2	.0578	.0015
#3	.0573	.0014

Zoom In Zoom Out

Sample Name: FC3338-1 Acquired: 3/24/2023 13:06:05 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1948.7**	**4285.3**	**39537.**	**7414.0**
Stddev	3.1	15.7	58.	38.0
%RSD	.15770	.36604	.14624	.51275
#1	1945.3	4267.6	39540.	7415.7
#2	1949.7	4297.4	39593.	7375.2
#3	1951.2	4290.8	39478.	7451.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 13:17:03 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2486**	**39.38**	**2.032**	**2.086**	**2.109**	**2.164**	**40.14**	**2.049**	**2.058**
Stddev	.0002	.26	.005	.011	.010	.009	.22	.006	.006
%RSD	.0987	.6478	.2261	.5340	.4755	.4348	.5447	.2877	.3002
#1	.2485	39.08	2.037	2.075	2.097	2.156	39.93	2.056	2.065
#2	.2489	39.52	2.028	2.097	2.113	2.163	40.12	2.049	2.056
#3	.2484	39.53	2.030	2.085	2.116	2.174	40.37	2.044	2.053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.007**	**39.11**	**42.59**	**2.191**	**41.59**	**1.998**	**2.055**	**42.00**
Stddev	.005	.002	.18	.12	.007	.17	.002	.004	.21
%RSD	.2670	.1045	.4726	.2818	.3377	.4142	.1018	.2089	.5080
#1	2.037	2.007	38.93	42.45	2.184	41.53	2.001	2.060	41.76
#2	2.031	2.009	39.11	42.65	2.191	41.45	1.996	2.055	42.07
#3	2.042	2.005	39.30	42.67	2.199	41.78	1.998	2.051	42.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.040**	**2.005**	**2.074**	**2.067**	**2.146**	**2.065**	**2.076**	**2.046**	**2.024**
Stddev	.004	.005	.003	.010	.002	.011	.010	.002	.007
%RSD	.1901	.2616	.1395	.5042	.0943	.5129	.4697	.1036	.3585
#1	2.044	2.009	2.078	2.073	2.148	2.077	2.069	2.047	2.018
#2	2.039	2.008	2.072	2.074	2.147	2.061	2.071	2.046	2.032
#3	2.036	1.999	2.073	2.055	2.144	2.057	2.087	2.043	2.021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 13:17:03 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.042**	**1.967**
Stddev	.003	.007
%RSD	.1520	.3331
#1	2.043	1.973
#2	2.039	1.967
#3	2.045	1.960
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1923.2**	**4355.8**	**40298.**	**7470.0**
Stddev	2.9	4.5	44.	30.3
%RSD	.15201	.10335	.10837	.40583
#1	1922.1	4351.7	40253.	7473.8
#2	1920.9	4355.0	40300.	7498.3
#3	1926.5	4360.6	40340.	7438.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 13:22:05 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0137**	**.0002**	F **.0023**	**.0002**	**.0002**	**.0074**	**.0001**	**.0001**
Stddev	.0001	.0034	.0005	.0002	.0000	.0000	.0007	.0000	.0000
%RSD	47.66	24.68	208.2	10.91	20.26	19.94	9.186	38.29	47.09
#1	.0001	.0121	.0001	.0024	.0002	.0002	.0076	.0002	.0001
#2	.0003	.0176	-.0002	.0020	.0002	.0002	.0067	.0001	.0001
#3	.0004	.0115	.0008	.0024	.0002	.0002	.0080	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0037**	**.0219**	**-.0010**	**.0090**	**.0002**	**.0002**	**.0540**
Stddev	.0003	.0001	.0016	.0017	.0008	.0042	.0000	.0002	.0063
%RSD	567.8	84.98	43.97	7.889	79.11	46.22	11.36	130.5	11.63
#1	-.0002	-.0001	.0041	.0238	-.0013	.0138	.0002	-.0001	.0612
#2	.0001	-.0002	.0051	.0205	-.0001	.0073	.0002	.0003	.0498
#3	.0003	.0000	.0019	.0213	-.0016	.0060	.0002	.0002	.0511
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0006**	**.0019**	**.0008**	**.0003**	**.0001**	**.0002**	**.0016**
Stddev	.0001	.0006	.0007	.0019	.0003	.0003	.0000	.0001	.0008
%RSD	89.08	305.4	114.2	99.67	31.69	80.55	15.85	65.66	49.23
#1	.0002	-.0001	.0013	.0017	.0008	.0006	.0001	.0002	.0015
#2	.0000	.0009	.0004	.0038	.0011	.0003	.0001	.0004	.0024
#3	.0001	-.0002	.0000	.0001	.0006	.0001	.0001	.0001	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 13:22:05 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0002**	**.0002**
Stddev	.0001	.0000
%RSD	50.01	25.91
#1	.0001	.0001
#2	.0002	.0002
#3	.0002	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2272.5**	**4646.2**	**42910.**	**7625.3**
Stddev	1.9	10.0	42.	6.3
%RSD	.08286	.21598	.09825	.08296
#1	2271.7	4637.7	42959.	7630.5
#2	2274.6	4657.3	42883.	7627.2
#3	2271.1	4643.6	42889.	7618.3

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/24/2023 13:32:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**16.88**	**.0002**	**.0198**	**.0190**	**.0006**	**81.67**	**-.0012**	**.0052**
Stddev	.0002	.02	.0006	.0015	.0000	.0000	.23	.0000	.0001
%RSD	74.21	.1439	276.7	7.465	.0365	1.961	.2834	1.239	1.056
#1	.0006	16.86	.0002	.0191	.0190	.0006	81.92	-.0012	.0052
#2	.0003	16.90	.0009	.0215	.0190	.0006	81.46	-.0012	.0053
#3	.0001	16.89	-.0004	.0189	.0190	.0006	81.63	-.0012	.0052

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2256**	**-.0003**	**54.94**	**4.400**	**.0066**	**4.814**	**1.449**	**.0000**	F **217.9**
Stddev	.0005	.0002	.10	.021	.0008	.040	.002	.000	2.2
%RSD	.2169	72.35	.1868	.4757	12.67	.8375	.1378	1411.	.9997
#1	.2260	-.0001	54.94	4.387	.0068	4.857	1.448	.0001	215.6
#2	.2251	-.0006	54.83	4.424	.0058	4.807	1.447	.0001	219.9
#3	.2256	-.0002	55.04	4.388	.0074	4.777	1.451	-.0002	218.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1227**	**-.0020**	**.0008**	**.0035**	**6.015**	**.0004**	**.1510**	**.0029**	**.0008**
Stddev	.0004	.0006	.0005	.0030	.013	.0002	.0002	.0001	.0018
%RSD	.3199	29.60	57.34	86.37	.2075	49.32	.1018	4.485	207.6
#1	.1231	-.0027	.0014	.0067	6.028	.0005	.1509	.0029	-.0010
#2	.1225	-.0018	.0008	.0027	6.014	.0002	.1511	.0030	.0011
#3	.1224	-.0016	.0004	.0009	6.003	.0005	.1509	.0028	.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0292**	**.0114**
Stddev	.0001	.0001
%RSD	.2695	.7085
#1	.0292	.0115
#2	.0293	.0113
#3	.0291	.0114

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/24/2023 13:32:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1890.6**	**4466.1**	**40713.**	**7926.1**
Stddev	6.8	9.7	51.	32.8
%RSD	.35811	.21720	.12426	.41402
#1	1888.4	4470.3	40660.	7889.9
#2	1885.2	4455.0	40760.	7934.7
#3	1898.2	4473.0	40719.	7953.8

Zoom In Zoom Out

Sample Name: FC3338-3 Acquired: 3/24/2023 13:37:42 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**15.29**	**.0009**	**.0193**	**.0180**	**.0006**	**73.49**	**-.0011**	**.0045**
Stddev	.0001	.12	.0005	.0011	.0002	.0000	.21	.0000	.0000
%RSD	19.31	.7526	50.64	5.884	1.127	6.886	.2864	4.298	.5691
#1	.0003	15.16	.0014	.0205	.0178	.0006	73.47	-.0011	.0045
#2	.0002	15.35	.0008	.0182	.0182	.0005	73.30	-.0011	.0045
#3	.0003	15.36	.0005	.0193	.0181	.0006	73.72	-.0010	.0045

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1895**	**-.0006**	**47.40**	**4.097**	**.0051**	**4.281**	**1.288**	**-.0001**	F **190.1**
Stddev	.0008	.0002	.10	.013	.0007	.009	.005	.0001	2.5
%RSD	.4128	34.81	.2042	.3180	13.49	.1983	.3938	78.07	1.338
#1	.1903	-.0004	47.30	4.083	.0054	4.290	1.284	-.0002	188.0
#2	.1888	-.0007	47.41	4.102	.0044	4.273	1.294	-.0002	189.3
#3	.1894	-.0007	47.50	4.107	.0057	4.281	1.286	.0000	192.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1038**	**-.0013**	**.0015**	**.0021**	**5.320**	**.0004**	**.1364**	**.0027**	**.0013**
Stddev	.0001	.0006	.0009	.0016	.012	.0006	.0009	.0001	.0006
%RSD	.1311	49.05	58.89	75.70	.2306	128.5	.6702	2.319	45.70
#1	.1038	-.0019	.0007	.0036	5.334	.0010	.1354	.0027	.0020
#2	.1038	-.0006	.0014	.0005	5.312	.0004	.1372	.0028	.0009
#3	.1036	-.0013	.0025	.0021	5.314	-.0001	.1366	.0027	.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0268**	**.0103**
Stddev	.0003	.0000
%RSD	.9377	.2419
#1	.0265	.0103
#2	.0270	.0103
#3	.0269	.0103

Zoom In Zoom Out

Sample Name: FC3338-3 Acquired: 3/24/2023 13:37:42 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1916.1**	**4472.4**	**40836.**	**7943.4**
Stddev	3.0	15.6	45.	24.5
%RSD	.15479	.34958	.11047	.30823
#1	1914.2	4466.0	40857.	7936.0
#2	1919.5	4490.2	40784.	7970.8
#3	1914.5	4461.0	40867.	7923.5

Zoom In Zoom Out

Sample Name: FC3338-4 Acquired: 3/24/2023 13:42:57 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0843**	**.0006**	**.0252**	**.0729**	**.0000**	**70.84**	**.0000**	**.0006**
Stddev	.0002	.0029	.0007	.0015	.0004	.000	.22	.000	.0001
%RSD	32.53	3.448	127.1	6.038	.5414	30.09	.3161	165.4	9.195
#1	.0004	.0873	.0000	.0267	.0727	-.0001	71.09	.0000	.0006
#2	.0007	.0815	.0014	.0254	.0726	.0000	70.69	.0000	.0006
#3	.0007	.0840	.0004	.0236	.0733	.0000	70.72	.0000	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067**	**-.0002**	**1.855**	**4.477**	**.0014**	**3.101**	**.0511**	**.0002**	**5.949**
Stddev	.0001	.0001	.008	.028	.0008	.002	.0002	.0002	.032
%RSD	.8891	49.43	.4494	.6257	56.20	.0567	.3478	106.8	.5427
#1	.0068	-.0003	1.856	4.477	.0022	3.102	.0512	.0002	5.952
#2	.0067	-.0001	1.847	4.448	.0014	3.102	.0511	.0000	5.915
#3	.0068	-.0002	1.863	4.504	.0006	3.099	.0509	.0004	5.979

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0007**	**.0016**	**.0032**	**.9433**	**.0001**	**.1930**	**.0020**	**-.0002**
Stddev	.0001	.0004	.0004	.0005	.0010	.0004	.0010	.0001	.0002
%RSD	2.298	52.22	26.17	14.51	.1047	278.3	.5057	4.675	127.6
#1	.0025	-.0007	.0018	.0027	.9441	.0004	.1930	.0021	-.0003
#2	.0026	-.0003	.0020	.0034	.9422	-.0003	.1920	.0019	.0001
#3	.0027	-.0010	.0011	.0036	.9437	.0002	.1939	.0019	-.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1355**	**.0053**
Stddev	.0002	.0000
%RSD	.1499	.6069
#1	.1356	.0054
#2	.1356	.0053
#3	.1352	.0053

Zoom In Zoom Out

Sample Name: FC3338-4 Acquired: 3/24/2023 13:42:57 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2084.3**	**5050.9**	**47407.**	**8790.8**
Stddev	5.7	10.9	57.	14.5
%RSD	.27335	.21667	.11931	.16500
#1	2077.8	5039.5	47364.	8775.1
#2	2086.7	5061.4	47471.	8793.6
#3	2088.4	5051.6	47386.	8803.7

Zoom In Zoom Out

Sample Name: FC3338-5 Acquired: 3/24/2023 13:48:06 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.1980**	**.0000**	**.0337**	**.0366**	**.0000**	**261.1**	**-.0002**	**.0009**
Stddev	.0003	.0029	.001	.0022	.0001	.000	1.0	.0000	.0001
%RSD	431.6	1.475	1722.	6.507	.1413	43.39	.3974	21.69	15.31
#1	.0005	.1950	-.0006	.0338	.0366	.0000	261.8	-.0002	.0008
#2	-.0001	.1981	-.0002	.0358	.0367	.0000	261.5	-.0001	.0010
#3	-.0001	.2009	.0007	.0314	.0366	.0000	259.9	-.0002	.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0009**	**9.958**	**16.82**	**.0022**	**10.99**	**.3818**	**.0011**	F **217.9**
Stddev	.0000	.0000	.020	.02	.0005	.05	.0009	.0001	.7
%RSD	1.130	2.908	.2043	.0898	21.31	.4144	.2308	13.05	.3194
#1	.0035	-.0008	9.945	16.83	.0027	11.01	.3826	.0011	217.1
#2	.0036	-.0009	9.981	16.82	.0022	11.02	.3820	.0010	218.2
#3	.0035	-.0009	9.946	16.80	.0018	10.94	.3809	.0012	218.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**-.0037**	**.0027**	**.0006**	**2.498**	**.0002**	**.3761**	**.0037**	**-.0029**
Stddev	.0001	.0006	.0004	.0010	.004	.0004	.0010	.0004	.0009
%RSD	1.941	16.84	16.27	156.8	.1430	153.8	.2609	10.15	31.68
#1	.0057	-.0042	.0032	-.0005	2.495	.0004	.3749	.0035	-.0022
#2	.0056	-.0039	.0027	.0015	2.496	-.0002	.3767	.0035	-.0040
#3	.0058	-.0030	.0023	.0009	2.502	.0005	.3765	.0042	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0208**	**.0120**
Stddev	.0001	.0000
%RSD	.7055	.2410
#1	.0208	.0121
#2	.0210	.0120
#3	.0207	.0120

Zoom In Zoom Out

Sample Name: FC3338-5 Acquired: 3/24/2023 13:48:06 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1834.8**	**4134.7**	**38245.**	**7308.5**
Stddev	3.2	6.6	155.	21.5
%RSD	.17319	.15992	.40448	.29368
#1	1832.0	4136.5	38090.	7312.7
#2	1838.3	4140.3	38400.	7285.2
#3	1834.2	4127.4	38245.	7327.5

Zoom In Zoom Out

Sample Name: FC3338-8 Acquired: 3/24/2023 13:53:32 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**211.4**	**.0009**	**.0063**	**.0023**	**.0079**	**145.5**	**-.0003**	**.0247**
Stddev	.0000	1.3	.0002	.0009	.0000	.0000	.5	.0000	.0001
%RSD	2.784	.6120	25.32	13.81	1.649	.2660	.3766	3.602	.2132
#1	.0015	210.1	.0011	.0062	.0023	.0079	144.9	-.0003	.0247
#2	.0015	212.7	.0007	.0072	.0023	.0079	145.7	-.0003	.0247
#3	.0014	211.6	.0008	.0054	.0024	.0079	146.0	-.0003	.0246

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.041**	**-.0041**	**41.95**	**18.43**	**.0166**	**38.91**	F **5.227**	**.0003**	*****
Stddev	.005	.0001	.06	.02	.0001	.09	.006	.0000	-----
%RSD	.5303	1.721	.1383	.1316	.5440	.2371	.1204	13.74	-----
#1	1.043	-.0042	41.97	18.46	.0165	38.91	5.228	.0003	-----
#2	1.035	-.0040	41.88	18.43	.0167	39.00	5.233	.0003	-----
#3	1.046	-.0041	41.98	18.41	.0165	38.81	5.220	.0003	-----

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0920**	**.0937**	**-.0006**	**.0019**	**3.729**	**-.0002**	**.4104**	**-.0006**	**.0081**
Stddev	.0002	.0011	.0004	.0007	.004	.0004	.0003	.0000	.0012
%RSD	.2549	1.196	71.03	37.62	.1096	167.7	.0673	6.225	14.74
#1	.0923	.0924	-.0008	.0013	3.733	.0001	.4102	-.0007	.0067
#2	.0919	.0944	-.0007	.0016	3.730	-.0001	.4107	-.0007	.0088
#3	.0919	.0943	-.0001	.0027	3.725	-.0006	.4103	-.0006	.0086

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3190**	**-.0005**
Stddev	.0008	.0001
%RSD	.2469	14.74
#1	.3194	-.0004
#2	.3180	-.0005
#3	.3194	-.0004

Zoom In Zoom Out

Sample Name: FC3338-8 Acquired: 3/24/2023 13:53:32 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1343.5**	**10475.**	**93420.**	**19642.**
Stddev	2.0	19.	60.	56.
%RSD	.15146	.17707	.06401	.28475
#1	1344.4	10471.	93353.	19702.
#2	1341.2	10459.	93468.	19634.
#3	1344.9	10495.	93439.	19591.

Zoom In Zoom Out

Sample Name: FC3327-3 Acquired: 3/24/2023 13:59:01 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0689**	**.0049**	**.2255**	**.0160**	**.0000**	**131.1**	**.0000**	**-.0001**
Stddev	.0002	.0035	.0008	.0021	.0001	.000	1.4	.000	.0000
%RSD	75.67	5.011	16.41	.9140	.5805	47.21	1.045	964.9	51.08
#1	.0003	.0706	.0046	.2272	.0161	.0000	130.8	.0000	-.0001
#2	.0003	.0649	.0042	.2232	.0159	.0000	132.7	.0000	.0000
#3	.0000	.0712	.0057	.2261	.0161	.0000	130.0	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0009**	**.1467**	**1.335**	**.0017**	**2.967**	**.0064**	**.0056**	**6.809**
Stddev	.0001	.0000	.0016	.004	.0005	.035	.0000	.0001	.016
%RSD	32.05	4.353	1.124	.2726	32.10	1.175	.5671	1.687	.2329
#1	.0004	-.0008	.1485	1.337	.0021	2.955	.0064	.0057	6.824
#2	.0002	-.0009	.1453	1.336	.0011	3.006	.0064	.0055	6.792
#3	.0004	-.0008	.1463	1.330	.0019	2.940	.0064	.0056	6.809

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0021**	**.0013**	**.0016**	**2.697**	**.0003**	**2.379**	**.0016**	**-.0018**
Stddev	.000	.0001	.0004	.0015	.005	.0003	.049	.0001	.0003
%RSD	319.5	4.962	34.63	96.64	.1838	113.8	2.038	5.829	18.43
#1	.0000	-.0021	.0008	.0025	2.695	.0006	2.349	.0016	-.0021
#2	.0001	-.0023	.0015	.0023	2.703	-.0001	2.435	.0016	-.0017
#3	-.0002	-.0021	.0016	-.0002	2.694	.0004	2.354	.0015	-.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0026**	**.0137**
Stddev	.0001	.0001
%RSD	3.342	.5673
#1	.0025	.0138
#2	.0027	.0136
#3	.0026	.0137

Zoom In Zoom Out

Sample Name: FC3327-3 Acquired: 3/24/2023 13:59:01 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2043.7**	**4348.7**	**40529.**	**7564.2**
Stddev	.9	2.2	33.	53.2
%RSD	.04218	.05118	.08034	.70364
#1	2043.0	4350.3	40511.	7621.2
#2	2043.4	4349.5	40509.	7515.8
#3	2044.7	4346.1	40567.	7555.5

Zoom In Zoom Out

Sample Name: FC3327-4 Acquired: 3/24/2023 14:04:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0808**	**.0058**	**.0407**	**.0127**	**.0000**	**82.37**	**.0000**	**-.0001**
Stddev	.0002	.0034	.0009	.0018	.0003	.000	2.11	.0000	.0001
%RSD	45.14	4.149	16.36	4.373	2.402	213.0	2.568	3964.	60.21
#1	.0006	.0791	.0052	.0411	.0126	-.0001	81.25	.0000	-.0001
#2	.0002	.0787	.0053	.0387	.0125	.0000	81.05	.0000	-.0001
#3	.0003	.0847	.0069	.0422	.0131	.0000	84.81	.0000	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0012**	**.1442**	**2.930**	**.0009**	**2.977**	**.0092**	**.0034**	**3.581**
Stddev	.0002	.0001	.0049	.056	.0012	.086	.0000	.0001	.103
%RSD	41.71	7.008	3.425	1.912	130.2	2.876	.1866	2.500	2.878
#1	.0006	-.0011	.1415	2.895	-.0002	2.939	.0092	.0034	3.509
#2	.0006	-.0013	.1411	2.901	.0022	2.918	.0092	.0033	3.536
#3	.0002	-.0012	.1499	2.995	.0007	3.076	.0092	.0035	3.699

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0015**	**.0013**	**.0010**	**6.581**	**.0014**	**1.061**	**.0022**	**.0003**
Stddev	.000	.0003	.0010	.0011	.013	.0003	.027	.0001	.0011
%RSD	120.5	20.65	82.57	106.3	.1915	21.61	2.545	5.650	358.1
#1	-.0001	-.0017	.0011	.0000	6.590	.0011	1.044	.0021	.0009
#2	.0000	-.0017	.0024	.0021	6.566	.0017	1.046	.0023	-.0010
#3	.0000	-.0012	.0003	.0010	6.585	.0012	1.092	.0024	.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0074**
Stddev	.0001	.0000
%RSD	32.04	.6164
#1	.0003	.0074
#2	.0002	.0074
#3	.0003	.0073

Zoom In Zoom Out

Sample Name: FC3327-4 Acquired: 3/24/2023 14:04:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2087.4**	**4443.7**	**41318.**	**7386.4**
Stddev	6.7	18.8	186.	182.7
%RSD	.31984	.42221	.44987	2.4730
#1	2088.1	4441.4	41356.	7462.1
#2	2093.6	4463.5	41482.	7519.1
#3	2080.3	4426.2	41116.	7178.1

Zoom In Zoom Out

Sample Name: FC3327-5 Acquired: 3/24/2023 14:09:43 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.1610**	**.0030**	**.0458**	**.0180**	**.0000**	**105.1**	**.0000**	**.0001**
Stddev	.0001	.0133	.0004	.0006	.0002	.000	.6	.000	.0001
%RSD	30.79	8.240	13.86	1.411	.9177	2.981	.6101	190.4	50.57
#1	.0002	.1723	.0033	.0453	.0182	.0000	105.2	.0000	.0000
#2	.0005	.1464	.0025	.0465	.0179	.0000	104.4	.0000	.0002
#3	.0004	.1644	.0030	.0455	.0179	.0000	105.7	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0006**	**.6799**	**5.330**	**.0007**	**5.630**	**.0097**	**.0027**	**26.07**
Stddev	.0001	.0002	.0050	.024	.0009	.069	.0001	.0001	.10
%RSD	8.146	32.92	.7289	.4471	123.2	1.222	.7658	3.796	.3725
#1	.0009	-.0007	.6765	5.348	-.0003	5.624	.0098	.0029	26.13
#2	.0010	-.0007	.6777	5.303	.0011	5.564	.0096	.0027	25.96
#3	.0010	-.0004	.6856	5.339	.0014	5.701	.0097	.0027	26.13

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0019**	**.0014**	**-.0004**	**2.317**	**.0005**	**1.394**	**.0049**	**-.0012**
Stddev	.0002	.0008	.0013	.0025	.003	.0002	.003	.0000	.0016
%RSD	41.84	40.88	92.91	717.3	.1301	47.57	.2233	.9932	137.0
#1	.0006	-.0027	-.0001	-.0028	2.316	.0002	1.398	.0048	-.0010
#2	.0002	-.0019	.0024	.0022	2.315	.0007	1.392	.0049	.0004
#3	.0005	-.0011	.0019	-.0004	2.321	.0005	1.393	.0049	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0006**	**.0159**
Stddev	.0001	.0001
%RSD	10.63	.3375
#1	.0007	.0159
#2	.0006	.0158
#3	.0006	.0159

Zoom In Zoom Out

Sample Name: FC3327-5 Acquired: 3/24/2023 14:09:43 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2013.2**	**4399.2**	**40366.**	**7599.9**
Stddev	3.3	12.1	47.	44.9
%RSD	.16350	.27519	.11555	.59084
#1	2014.8	4401.1	40357.	7587.0
#2	2015.4	4410.2	40417.	7649.8
#3	2009.4	4386.3	40325.	7562.8

Zoom In Zoom Out

Sample Name: FC3327-6 Acquired: 3/24/2023 14:14:54 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**1.288**	**.0001**	**.0273**	**.1422**	**.0000**	**223.6**	**.0000**	**.0000**
Stddev	.0001	.009	.0002	.0009	.0003	.000	2.2	.0000	.0001
%RSD	62.51	.7302	230.9	3.389	.2193	98.11	.9961	30.08	189.7
#1	.0004	1.294	.0001	.0268	.1425	.0000	225.9	.0000	.0000
#2	.0001	1.293	.0002	.0267	.1419	-.0001	223.4	.0000	.0001
#3	.0001	1.277	-.0001	.0284	.1424	.0000	221.4	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0201**	**.0010**	**.0150**	**15.21**	**.0310**	**.9401**	**.0005**	**.0609**	**27.88**
Stddev	.0001	.0001	.0010	.03	.0003	.0030	.0000	.0000	.04
%RSD	.3190	11.14	6.764	.2178	1.082	.3144	5.024	.0205	.1382
#1	.0201	.0011	.0161	15.25	.0306	.9428	.0006	.0609	27.88
#2	.0201	.0009	.0141	15.20	.0312	.9370	.0005	.0609	27.84
#3	.0202	.0009	.0149	15.19	.0312	.9404	.0006	.0609	27.92

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0034**	**.0017**	**-.0018**	**3.284**	**.0004**	**3.381**	**.0010**	**-.0004**
Stddev	.0000	.0002	.0002	.0007	.008	.0005	.018	.0001	.0006
%RSD	13.65	4.647	11.89	40.63	.2463	130.1	.5302	8.858	155.8
#1	.0003	-.0036	.0019	-.0026	3.292	.0010	3.371	.0011	-.0003
#2	.0004	-.0034	.0015	-.0011	3.285	.0000	3.371	.0009	.0002
#3	.0003	-.0034	.0016	-.0018	3.276	.0002	3.402	.0011	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0041**	**.0124**
Stddev	.0002	.0000
%RSD	4.065	.3054
#1	.0043	.0124
#2	.0040	.0124
#3	.0041	.0124

Zoom In Zoom Out

Sample Name: FC3327-6 Acquired: 3/24/2023 14:14:54 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1941.9**	**4314.4**	**39256.**	**7481.3**
Stddev	1.6	7.0	34.	21.4
%RSD	.07995	.16323	.08737	.28548
#1	1943.7	4306.8	39218.	7458.2
#2	1941.4	4315.9	39265.	7485.7
#3	1940.7	4320.6	39285.	7500.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 14:20:22 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2461**	**38.22**	**1.995**	**2.007**	**2.023**	**2.034**	**38.30**	**1.986**	**1.981**
Stddev	.0004	.09	.002	.011	.008	.007	.03	.001	.001
%RSD	.1527	.2288	.1158	.5519	.3876	.3554	.0723	.0620	.0438
#1	.2465	38.12	1.994	1.998	2.017	2.028	38.28	1.987	1.981
#2	.2458	38.27	1.994	2.003	2.032	2.042	38.30	1.985	1.982
#3	.2458	38.28	1.998	2.019	2.020	2.032	38.33	1.986	1.982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.062**	**1.984**	**38.42**	**40.71**	**2.090**	**39.65**	**1.966**	**1.979**	**40.09**
Stddev	.004	.003	.08	.26	.017	.18	.001	.002	.28
%RSD	.1740	.1327	.2163	.6351	.8064	.4606	.0420	.0827	.6867
#1	2.065	1.986	38.35	40.47	2.075	39.44	1.965	1.978	39.86
#2	2.062	1.983	38.39	40.98	2.108	39.71	1.966	1.978	40.40
#3	2.058	1.981	38.51	40.69	2.086	39.79	1.966	1.981	40.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**1.997**	**2.029**	**2.008**	**2.089**	**1.980**	**1.974**	**1.992**	**2.029**
Stddev	.002	.002	.004	.005	.003	.001	.027	.002	.003
%RSD	.0795	.1031	.1702	.2289	.1265	.0551	1.373	.0940	.1376
#1	2.003	1.999	2.025	2.013	2.086	1.980	1.943	1.991	2.028
#2	2.003	1.995	2.032	2.005	2.091	1.979	1.994	1.994	2.026
#3	2.006	1.996	2.029	2.006	2.090	1.980	1.986	1.991	2.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 14:20:22 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.019**	**1.938**
Stddev	.003	.003
%RSD	.1699	.1384
#1	2.017	1.941
#2	2.023	1.935
#3	2.017	1.938
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1929.8**	**4463.4**	**40712.**	**7708.8**
Stddev	5.3	12.9	135.	24.9
%RSD	.27614	.28918	.33043	.32281
#1	1935.9	4478.3	40558.	7734.7
#2	1927.5	4456.9	40809.	7685.1
#3	1926.1	4455.1	40768.	7706.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 14:25:22 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0086**	**.0004**	F **.0010**	**.0002**	**.0002**	**.0070**	**.0001**	**.0001**
Stddev	.0001	.0031	.0007	.0008	.0001	.0000	.0008	.0000	.0001
%RSD	28.02	36.60	183.3	79.53	78.09	7.132	10.78	33.29	72.72
#1	.0003	.0079	.0002	.0007	.0001	.0002	.0063	.0001	.0000
#2	.0004	.0120	.0012	.0019	.0001	.0002	.0069	.0002	.0001
#3	.0003	.0058	-.0002	.0004	.0003	.0002	.0078	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0040**	**.0029**	**-.0004**	**.0117**	**.0002**	**.0003**	**.0519**
Stddev	.0002	.000	.0013	.0065	.0003	.0079	.0000	.0000	.0056
%RSD	611.6	290.6	32.66	226.3	95.80	67.26	2.429	16.33	10.81
#1	.0001	-.0002	.0036	.0094	-.0003	.0063	.0002	.0002	.0579
#2	.0003	-.0001	.0055	.0028	-.0007	.0081	.0002	.0003	.0510
#3	-.0002	.0001	.0030	-.0036	.0000	.0207	.0002	.0002	.0468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0003**	**.0012**	F **.0022**	**.0003**	**-.0002**	**.0002**	**.0001**	**.0009**
Stddev	.0001	.0003	.0002	.0004	.0003	.0003	.0000	.0000	.0005
%RSD	67.71	96.90	15.60	18.86	91.68	199.0	5.069	26.05	56.43
#1	.0003	-.0003	.0012	.0018	.0007	-.0005	.0002	.0002	.0015
#2	.0001	.0000	.0010	.0023	.0001	.0001	.0002	.0002	.0005
#3	.0002	-.0006	.0014	.0026	.0002	-.0001	.0002	.0001	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 14:25:22 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0002**
Stddev	.0001	.0001
%RSD	74.80	29.71
#1	.0002	.0002
#2	.0000	.0002
#3	.0001	.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2283.6**	**4766.5**	**43396.**	**7893.3**
Stddev	3.3	4.9	234.	26.1
%RSD	.14576	.10292	.53876	.33123
#1	2279.9	4764.9	43299.	7884.3
#2	2286.4	4772.0	43226.	7922.8
#3	2284.5	4762.6	43663.	7872.9

Zoom In Zoom Out

Sample Name: MP41992-MB1 Acquired: 3/24/2023 14:30:36 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0086**	**-.0006**	**.0016**	**.0000**	**.0000**	**.0192**	**.0000**	**.0000**
Stddev	.0001	.0048	.0008	.0004	.000	.000	.0002	.000	.000
%RSD	55.50	55.50	120.9	24.99	2065.	53.79	.8166	112.0	165.3
#1	.0001	.0137	.0000	.0012	.0000	.0000	.0192	.0000	-.0001
#2	.0003	.0077	-.0004	.0020	.0000	.0000	.0190	.0000	-.0001
#3	.0002	.0043	-.0015	.0017	.0000	.0000	.0193	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0006**	**.0026**	**-.0077**	**-.0004**	**.0045**	**.0001**	**.0001**	**.0446**
Stddev	.0002	.0001	.0002	.0113	.0010	.0034	.0000	.0001	.0013
%RSD	81.61	9.696	8.067	147.0	251.0	75.29	10.18	90.94	2.874
#1	.0004	-.0006	.0029	-.0048	-.0004	.0082	.0001	.0001	.0457
#2	.0000	-.0005	.0026	-.0202	-.0014	.0038	.0001	.0000	.0432
#3	.0004	-.0006	.0025	.0019	.0006	.0015	.0001	.0001	.0448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	F **.0032**	**.0014**	**.0003**	**.0028**	**-.0003**	**.0000**	**.0000**	**-.0002**
Stddev	.0001	.0004	.0008	.0013	.0001	.0004	.000	.000	.0004
%RSD	215.7	12.88	58.87	388.4	2.183	166.5	195.1	99.86	204.8
#1	-.0001	.0030	.0020	.0018	.0028	-.0007	.0000	.0000	.0001
#2	.0001	.0037	.0017	.0002	.0027	-.0003	.0000	.0000	-.0007
#3	.0001	.0030	.0005	-.0009	.0028	.0002	-.0001	.0000	-.0001
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0025							
Low Limit		-.0025							

Zoom In Zoom Out

Sample Name: MP41992-MB1 Acquired: 3/24/2023 14:30:36 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0008**
Stddev	.0000	.0000
%RSD	39.84	4.244
#1	-.0001	.0008
#2	-.0001	.0008
#3	-.0001	.0008
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2273.5**	**4722.4**	**43524.**	**7896.4**
Stddev	3.1	11.4	218.	55.9
%RSD	.13579	.24114	.50042	.70839
#1	2272.9	4733.1	43512.	7863.3
#2	2276.9	4723.6	43748.	7865.0
#3	2270.8	4710.4	43313.	7961.0

Zoom In Zoom Out

Sample Name: MP41992-B1 Acquired: 3/24/2023 14:35:51 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0518**	**26.09**	**1.967**	F **-.0060**	**2.089**	**.0521**	**24.88**	**.0495**
Stddev	.0001	.13	.004	.0007	.008	.0001	.10	.0000
%RSD	.2352	.4857	.2229	10.99	.4040	.1913	.4090	.0397
#1	.0517	26.13	1.971	-.0067	2.097	.0522	24.89	.0495
#2	.0519	25.95	1.962	-.0056	2.080	.0520	24.77	.0495
#3	.0518	26.19	1.968	-.0056	2.089	.0521	24.97	.0495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5082**	**.2114**	**.2545**	**25.20**	**25.60**	F **-.0003**	**25.18**	**.5048**
Stddev	.0007	.0004	.0004	.08	.06	.0010	.09	.0027
%RSD	.1399	.1893	.1573	.3351	.2396	401.0	.3514	.5356
#1	.5085	.2112	.2541	25.17	25.67	.0004	25.15	.5042
#2	.5074	.2118	.2549	25.13	25.55	.0003	25.10	.5078
#3	.5087	.2111	.2544	25.29	25.60	-.0014	25.27	.5025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0500		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5103**	**23.83**	**.5113**	**.4922**	**.5038**	**2.009**	**.6967**	**.5053**
Stddev	.0003	.08	.0002	.0007	.0009	.002	.0005	.0006
%RSD	.0626	.3389	.0388	.1507	.1704	.0784	.0664	.1256
#1	.5103	23.89	.5113	.4923	.5028	2.011	.6972	.5060
#2	.5100	23.74	.5111	.4914	.5042	2.008	.6966	.5047
#3	.5107	23.87	.5115	.4928	.5044	2.008	.6963	.5053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: MP41992-B1 Acquired: 3/24/2023 14:35:51 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5260**	**.5220**	**1.980**	**.5072**	**.4908**
Stddev	.0030	.0019	.006	.0020	.0005
%RSD	.5740	.3606	.2969	.3944	.0996
#1	.5288	.5215	1.985	.5066	.4908
#2	.5228	.5241	1.974	.5094	.4903
#3	.5264	.5204	1.982	.5055	.4912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2031.1**	**4531.6**	**41063.**	**7661.9**
Stddev	6.9	8.0	123.	40.3
%RSD	.34137	.17761	.29994	.52648
#1	2023.5	4522.9	41017.	7696.2
#2	2037.0	4538.8	40969.	7671.9
#3	2033.0	4533.0	41202.	7617.4

Zoom In Zoom Out

Sample Name: FC3611-1 Acquired: 3/24/2023 14:40:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1227**	**.0026**	**.0484**	**.0231**	**.0000**	**28.11**	**.0000**	**.0000**
Stddev	.0001	.0011	.0005	.0012	.0000	.000	.06	.0000	.0001
%RSD	32.75	.8881	18.90	2.390	.1966	138.0	.2211	930.6	1947.
#1	.0002	.1220	.0032	.0495	.0232	.0000	28.17	.0000	-.0001
#2	.0001	.1239	.0023	.0485	.0231	.0000	28.10	.0000	.0001
#3	.0002	.1221	.0023	.0472	.0231	.0000	28.05	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0070**	**.1680**	**4.720**	**.0015**	**4.216**	**.0183**	**.0040**	**40.98**
Stddev	.0002	.0002	.0016	.004	.0005	.017	.0001	.0001	.07
%RSD	30.10	2.854	.9267	.0816	31.91	.4106	.5992	2.839	.1787
#1	.0008	.0072	.1662	4.721	.0009	4.226	.0185	.0039	40.90
#2	.0004	.0068	.1684	4.716	.0018	4.227	.0183	.0041	40.98
#3	.0008	.0070	.1692	4.724	.0017	4.196	.0183	.0040	41.05

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0002**	**.0014**	**.0021**	**1.620**	**.0001**	**.2479**	**.0047**	**-.0018**
Stddev	.0001	.0005	.0014	.0012	.003	.0004	.0005	.0001	.0012
%RSD	14.98	330.6	101.4	57.14	.1535	501.8	.1923	1.521	63.73
#1	.0005	.0002	.0026	.0033	1.622	-.0004	.2475	.0048	-.0023
#2	.0004	-.0008	.0016	.0009	1.621	.0005	.2484	.0047	-.0027
#3	.0006	.0000	-.0001	.0022	1.617	.0002	.2478	.0047	-.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0021**	**.0068**
Stddev	.0001	.0001
%RSD	4.581	.8533
#1	.0021	.0068
#2	.0020	.0068
#3	.0022	.0067

Zoom In Zoom Out

Sample Name: FC3611-1 Acquired: 3/24/2023 14:40:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2093.9**	**4537.7**	**41147.**	**7689.6**
Stddev	2.2	4.9	72.	16.8
%RSD	.10612	.10795	.17599	.21881
#1	2091.3	4536.5	41230.	7671.7
#2	2095.2	4533.6	41120.	7692.1
#3	2095.2	4543.1	41093.	7705.1

Zoom In Zoom Out

Sample Name: MP41992-D1 Acquired: 3/24/2023 14:45:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1224**	**.0027**	**.0491**	**.0237**	**.0000**	**28.89**	**.0000**	**.0000**
Stddev	.0003	.0078	.0008	.0006	.0001	.000	.08	.0000	.000
%RSD	126.3	6.389	29.09	1.137	.5614	140.4	.2671	2054.	367.2
#1	.0002	.1139	.0020	.0487	.0236	.0000	28.97	.0000	.0000
#2	.0005	.1239	.0025	.0488	.0236	.0000	28.82	.0000	.0000
#3	-.0001	.1293	.0036	.0497	.0238	.0000	28.87	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0071**	**.1725**	**4.845**	**.0009**	**4.354**	**.0188**	**.0041**	**42.13**
Stddev	.0001	.0002	.0029	.005	.0002	.050	.0000	.0000	.13
%RSD	16.48	2.379	1.688	.1017	23.70	1.152	.0397	.9226	.3182
#1	.0007	.0070	.1716	4.850	.0006	4.408	.0188	.0041	42.11
#2	.0009	.0071	.1757	4.840	.0010	4.344	.0188	.0041	42.01
#3	.0010	.0073	.1701	4.844	.0010	4.309	.0188	.0041	42.28

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0012**	**.0014**	**.0007**	**1.669**	**.0000**	**.2540**	**.0048**	**-.0010**
Stddev	.0001	.0003	.0008	.0009	.005	.000	.0008	.0001	.0022
%RSD	10.67	22.74	60.71	128.8	.2877	6963.	.3141	2.652	225.3
#1	.0005	.0010	.0008	-.0002	1.672	-.0001	.2539	.0048	-.0035
#2	.0006	.0015	.0023	.0015	1.672	.0003	.2533	.0047	.0005
#3	.0005	.0011	.0010	.0008	1.663	-.0003	.2549	.0049	.0000

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0020**	**.0068**
Stddev	.0001	.0001
%RSD	4.953	1.410
#1	.0020	.0069
#2	.0021	.0068
#3	.0019	.0067

Zoom In Zoom Out

Sample Name: MP41992-D1 Acquired: 3/24/2023 14:45:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2086.9**	**4531.8**	**41122.**	**7687.2**
Stddev	2.9	15.6	151.	52.3
%RSD	.14036	.34365	.36841	.68085
#1	2089.8	4529.4	41085.	7626.8
#2	2083.9	4517.5	40992.	7719.3
#3	2087.1	4548.4	41288.	7715.5

Zoom In Zoom Out

Sample Name: MP41992-SD1 Acquired: 3/24/2023 14:51:09 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.1513**	**.0010**	**.0423**	**.0218**	**-.0003**	**27.85**	**.0001**	**.0000**
Stddev	.0006	.0157	.0030	.0084	.0004	.0001	.09	.0002	.001
%RSD	29.32	10.37	287.3	19.94	1.969	16.36	.3320	294.6	2001.
#1	.0015	.1350	.0044	.0379	.0222	-.0003	27.91	.0000	-.0009
#2	.0017	.1663	-.0001	.0370	.0213	-.0004	27.90	-.0001	.0005
#3	.0025	.1525	-.0012	.0521	.0217	-.0003	27.75	.0002	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0080**	**.1608**	**4.420**	**.0028**	**4.206**	**.0177**	**.0030**	**39.29**
Stddev	.0010	.0014	.0050	.053	.0022	.049	.0001	.0005	.04
%RSD	1636.	17.29	3.119	1.204	81.16	1.161	.6972	15.38	.0976
#1	-.0003	.0074	.1589	4.420	.0004	4.259	.0178	.0025	39.31
#2	-.0009	.0070	.1664	4.367	.0031	4.197	.0176	.0034	39.24
#3	.0011	.0096	.1569	4.474	.0048	4.163	.0178	.0032	39.31

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0008**	**.0001**	**.0038**	**1.561**	**-.0014**	**.2417**	**.0062**	**.0031**
Stddev	.0006	.0010	.0010	.0016	.003	.0009	.0003	.0003	.0026
%RSD	273.1	123.0	1409.	42.06	.1759	62.37	.1366	5.390	83.84
#1	.0002	-.0019	.0006	.0025	1.560	-.0012	.2413	.0065	.0025
#2	.0008	.0000	.0007	.0056	1.558	-.0007	.2419	.0058	.0059
#3	-.0004	-.0006	-.0011	.0032	1.564	-.0024	.2418	.0063	.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0017**	**.0066**
Stddev	.0004	.0002
%RSD	22.45	3.062
#1	.0021	.0065
#2	.0017	.0065
#3	.0013	.0068

Zoom In Zoom Out

Sample Name: MP41992-SD1 Acquired: 3/24/2023 14:51:09 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2234.7**	**4686.9**	**42689.**	**7796.4**
Stddev	5.6	8.4	59.	34.6
%RSD	.25050	.17903	.13900	.44387
#1	2239.9	4695.6	42750.	7774.1
#2	2235.5	4686.3	42687.	7778.8
#3	2228.8	4678.9	42631.	7836.2

Zoom In Zoom Out

Sample Name: MP41992-PS1 Acquired: 3/24/2023 14:56:21 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0471**	**2.312**	**.0961**	**.0480**	**.2607**	**.0488**	**31.99**	**.0469**	**.0474**
Stddev	.0003	.002	.0005	.0004	.0011	.0003	.16	.0001	.0001
%RSD	.6705	.0726	.5156	.8066	.4088	.5693	.5109	.1338	.2633
#1	.0473	2.313	.0958	.0484	.2618	.0491	32.17	.0469	.0473
#2	.0468	2.310	.0967	.0476	.2605	.0488	31.98	.0470	.0475
#3	.0473	2.312	.0958	.0480	.2597	.0486	31.84	.0469	.0473

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0498**	**.1006**	**2.845**	**14.04**	**.0017**	**8.848**	**.0652**	**.0957**	**49.40**
Stddev	.0003	.0002	.015	.08	.0008	.092	.0005	.0003	.08
%RSD	.5786	.2020	.5370	.5435	48.43	1.044	.7014	.3109	.1672
#1	.0498	.1008	2.859	14.12	.0015	8.946	.0650	.0953	49.49
#2	.0495	.1005	2.829	14.02	.0009	8.835	.0648	.0957	49.36
#3	.0501	.1004	2.848	13.97	.0025	8.763	.0657	.0959	49.34

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0958**	**.0446**	**.0985**	**.0954**	**1.642**	**.0475**	**.2917**	**.0992**	**.0904**
Stddev	.0003	.0002	.0004	.0018	.003	.0003	.0008	.0004	.0016
%RSD	.2921	.5155	.3600	1.903	.2065	.5862	.2749	.4350	1.820
#1	.0961	.0448	.0981	.0941	1.642	.0475	.2926	.0992	.0923
#2	.0958	.0443	.0988	.0946	1.638	.0472	.2916	.0988	.0895
#3	.0955	.0447	.0986	.0975	1.644	.0477	.2910	.0996	.0894

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0496**	**.2329**
Stddev	.0003	.0006
%RSD	.5917	.2683
#1	.0498	.2323
#2	.0493	.2335
#3	.0497	.2329

Zoom In Zoom Out

Sample Name: MP41992-PS1 Acquired: 3/24/2023 14:56:21 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2045.0**	**4491.4**	**40992.**	**7660.2**
Stddev	4.3	8.7	131.	80.8
%RSD	.21113	.19368	.32076	1.0542
#1	2043.8	4499.6	40922.	7567.0
#2	2041.3	4492.3	41144.	7703.1
#3	2049.8	4482.2	40911.	7710.4

Zoom In Zoom Out

Sample Name: MP41992-S1 Acquired: 3/24/2023 15:01:21 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0522**	**26.15**	**2.001**	**.0449**	**2.086**	**.0513**	**52.68**	**.0492**	**.5039**
Stddev	.0001	.06	.001	.0012	.002	.0001	.24	.0000	.0009
%RSD	.2835	.2296	.0273	2.573	.0843	.1460	.4562	.0877	.1872
#1	.0524	26.12	2.001	.0435	2.084	.0512	52.44	.0492	.5030
#2	.0521	26.22	2.001	.0454	2.088	.0513	52.92	.0492	.5038
#3	.0522	26.11	2.000	.0457	2.087	.0512	52.69	.0492	.5048

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2080**	**.2603**	**24.95**	**30.75**	**.0013**	**28.74**	**.5168**	**.5123**	**66.18**
Stddev	.0006	.0002	.07	.03	.0006	.12	.0014	.0009	.07
%RSD	.2854	.0583	.2666	.0875	42.88	.4047	.2682	.1680	.1098
#1	.2079	.2604	24.88	30.72	.0013	28.60	.5182	.5114	66.11
#2	.2075	.2604	25.01	30.75	.0007	28.80	.5154	.5126	66.19
#3	.2087	.2601	24.96	30.77	.0018	28.81	.5168	.5130	66.25

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5041**	**.4930**	**.5109**	**2.038**	**2.409**	**.5018**	**.7766**	**.5215**	**1.980**
Stddev	.0004	.0007	.0013	.004	.005	.0004	.0006	.0007	.002
%RSD	.0696	.1427	.2485	.1828	.2180	.0788	.0733	.1406	.1130
#1	.5037	.4922	.5108	2.033	2.404	.5019	.7760	.5223	1.978
#2	.5044	.4933	.5097	2.040	2.409	.5014	.7767	.5211	1.982
#3	.5041	.4935	.5123	2.040	2.414	.5022	.7771	.5210	1.981

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5050**	**.4904**
Stddev	.0016	.0003
%RSD	.3106	.0664
#1	.5058	.4906
#2	.5032	.4907
#3	.5060	.4901

Zoom In Zoom Out

Sample Name: MP41992-S1 Acquired: 3/24/2023 15:01:21 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1964.9**	**4463.7**	**40553.**	**7711.3**
Stddev	2.2	10.3	38.	32.1
%RSD	.11272	.23061	.09425	.41581
#1	1967.2	4472.9	40582.	7747.9
#2	1964.7	4465.7	40509.	7687.9
#3	1962.8	4452.6	40567.	7698.3

Zoom In Zoom Out

Sample Name: MP41992-S2 Acquired: 3/24/2023 15:06:16 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0525**	**26.36**	**2.005**	**.0454**	**2.129**	**.0527**	**54.73**	**.0495**	**.5084**
Stddev	.0003	.06	.001	.0018	.005	.0001	.10	.0001	.0012
%RSD	.5563	.2225	.0718	4.031	.2447	.1476	.1826	.2707	.2438
#1	.0527	26.29	2.005	.0458	2.125	.0527	54.62	.0496	.5085
#2	.0522	26.40	2.003	.0434	2.127	.0527	54.82	.0494	.5071
#3	.0525	26.39	2.006	.0469	2.134	.0528	54.76	.0496	.5096

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2108**	**.2634**	**25.17**	**31.55**	**.0015**	**29.63**	**.5233**	**.5191**	**68.90**
Stddev	.0008	.0014	.05	.12	.0003	.11	.0014	.0020	.12
%RSD	.3960	.5417	.2086	.3766	17.72	.3702	.2690	.3786	.1782
#1	.2115	.2617	25.11	31.59	.0013	29.55	.5240	.5200	68.83
#2	.2099	.2640	25.21	31.42	.0018	29.58	.5217	.5169	68.83
#3	.2111	.2644	25.19	31.65	.0013	29.75	.5243	.5204	69.04

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5069**	**.4960**	**.5121**	**2.046**	**2.482**	**.5063**	**.8042**	**.5309**	**1.980**
Stddev	.0006	.0015	.0024	.005	.006	.0015	.0017	.0011	.006
%RSD	.1164	.2927	.4773	.2512	.2513	.2991	.2063	.2066	.3077
#1	.5071	.4974	.5137	2.050	2.482	.5070	.8023	.5308	1.986
#2	.5062	.4962	.5092	2.041	2.475	.5045	.8048	.5299	1.979
#3	.5073	.4945	.5132	2.048	2.488	.5073	.8055	.5320	1.974

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5107**	**.4921**
Stddev	.0003	.0006
%RSD	.0521	.1300
#1	.5106	.4929
#2	.5110	.4918
#3	.5105	.4917

Zoom In Zoom Out

Sample Name: MP41992-S2 Acquired: 3/24/2023 15:06:16 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1956.8**	**4444.1**	**40379.**	**7600.8**
Stddev	3.3	10.0	88.	14.6
%RSD	.16919	.22424	.21809	.19227
#1	1960.6	4449.4	40411.	7617.4
#2	1954.7	4450.3	40447.	7595.2
#3	1955.2	4432.6	40280.	7589.9

Zoom In Zoom Out

Sample Name: FC3611-2 Acquired: 3/24/2023 15:11:10 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1294**	**.0027**	**.0494**	**.0233**	**.0000**	**27.76**	**.0000**	**.0000**
Stddev	.0002	.0027	.0012	.0008	.0001	.000	.07	.0000	.000
%RSD	137.7	2.086	44.21	1.667	.5837	57.35	.2651	138.6	371.4
#1	-.0001	.1307	.0026	.0502	.0232	.0000	27.81	.0000	.0000
#2	.0002	.1312	.0039	.0493	.0235	.0000	27.68	.0001	.0000
#3	.0004	.1263	.0015	.0486	.0232	.0000	27.80	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0065**	**.1901**	**4.682**	**.0006**	**4.320**	**.0220**	**.0043**	**33.00**
Stddev	.0002	.0002	.0020	.015	.0006	.050	.0001	.0001	.05
%RSD	26.65	2.974	1.031	.3152	108.0	1.162	.2447	2.145	.1416
#1	.0011	.0062	.1923	4.674	.0007	4.315	.0220	.0043	33.04
#2	.0006	.0066	.1884	4.673	.0012	4.273	.0221	.0042	32.95
#3	.0009	.0066	.1897	4.699	-.0001	4.373	.0220	.0043	33.02

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0017**	**.0016**	**.0014**	**1.521**	**.0003**	**.2391**	**.0046**	**.0010**
Stddev	.0001	.0006	.0004	.0013	.002	.0003	.0006	.0002	.0007
%RSD	28.64	37.72	24.37	96.40	.0976	100.5	.2443	4.061	67.52
#1	.0004	.0021	.0012	.0011	1.519	.0000	.2396	.0046	.0002
#2	.0006	.0010	.0019	.0028	1.522	.0006	.2392	.0048	.0016
#3	.0004	.0019	.0017	.0002	1.521	.0002	.2385	.0045	.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0022**	**.0079**
Stddev	.0000	.0001
%RSD	.7542	.7459
#1	.0022	.0078
#2	.0022	.0079
#3	.0022	.0080

Zoom In Zoom Out

Sample Name: FC3611-2 Acquired: 3/24/2023 15:11:10 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2101.3**	**4542.2**	**41382.**	**7665.8**
Stddev	1.0	11.7	83.	13.4
%RSD	.04708	.25665	.19955	.17522
#1	2102.3	4555.6	41300.	7666.8
#2	2100.3	4534.2	41381.	7678.8
#3	2101.3	4536.8	41465.	7651.9

Zoom In Zoom Out

Sample Name: FC3333-1 Acquired: 3/24/2023 15:16:22 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0105**	**.0124**	**.0932**	**.0201**	**.0000**	**37.53**	**.0000**	**.0097**
Stddev	.0002	.0035	.0008	.0012	.0001	.000	.03	.0000	.0001
%RSD	192.7	32.87	6.267	1.275	.5933	147.2	.0713	416.9	.9060
#1	.0000	.0141	.0124	.0918	.0200	.0000	37.56	.0000	.0098
#2	.0003	.0102	.0116	.0940	.0202	.0000	37.53	.0000	.0097
#3	.0000	.0072	.0132	.0938	.0201	-.0001	37.50	.0000	.0097

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0462**	**.3543**	**7.299**	**.0013**	**4.984**	**.4674**	**.0003**	**21.92**
Stddev	.0001	.0002	.0029	.028	.0001	.024	.0011	.0001	.11
%RSD	22.26	.4162	.8321	.3771	10.76	.4838	.2263	35.98	.4940
#1	.0006	.0461	.3569	7.277	.0015	5.012	.4662	.0002	21.79
#2	.0005	.0464	.3549	7.330	.0013	4.969	.4678	.0003	21.97
#3	.0004	.0460	.3511	7.290	.0012	4.972	.4682	.0005	21.99

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0588**	**.0051**	**.0015**	**.0026**	**6.434**	**.0009**	**.2928**	**.0016**	**-.0012**
Stddev	.0003	.0007	.0002	.0020	.012	.0001	.0005	.0001	.0007
%RSD	.4291	12.95	16.02	76.36	.1879	10.64	.1609	3.825	60.72
#1	.0589	.0057	.0017	.0004	6.429	.0009	.2924	.0016	-.0015
#2	.0585	.0052	.0017	.0033	6.425	.0008	.2929	.0016	-.0004
#3	.0590	.0044	.0013	.0043	6.447	.0010	.2933	.0017	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0888**
Stddev	.000	.0004
%RSD	5168.	.4887
#1	.0001	.0884
#2	-.0001	.0888
#3	.0001	.0892

Zoom In Zoom Out

Sample Name: FC3333-1 Acquired: 3/24/2023 15:16:22 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2099.6**	**4499.5**	**40954.**	**7615.0**
Stddev	7.0	15.9	26.	9.8
%RSD	.33333	.35444	.06440	.12931
#1	2107.5	4509.7	40928.	7617.2
#2	2097.0	4507.7	40953.	7623.6
#3	2094.2	4481.1	40980.	7604.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 15:21:28 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2458**	**38.50**	**2.000**	**2.011**	**2.045**	**2.076**	**38.97**	**2.007**	**2.010**
Stddev	.0003	.06	.001	.011	.004	.015	.20	.001	.001
%RSD	.1049	.1430	.0347	.5676	.1827	.7006	.5114	.0276	.0495
#1	.2459	38.56	2.000	2.004	2.041	2.065	38.88	2.006	2.011
#2	.2460	38.45	1.999	2.005	2.045	2.092	39.20	2.006	2.010
#3	.2455	38.50	2.000	2.025	2.048	2.070	38.84	2.007	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.038**	**1.987**	**38.54**	**41.28**	**2.115**	**40.36**	**1.969**	**2.007**	**40.67**
Stddev	.005	.006	.02	.13	.009	.38	.005	.003	.09
%RSD	.2599	.2836	.0608	.3147	.4321	.9380	.2798	.1326	.2095
#1	2.044	1.990	38.56	41.19	2.104	40.13	1.974	2.010	40.57
#2	2.036	1.980	38.56	41.43	2.122	40.79	1.969	2.005	40.71
#3	2.034	1.990	38.52	41.23	2.118	40.15	1.963	2.006	40.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.011**	**1.989**	**2.036**	**2.024**	**2.107**	**2.012**	**2.029**	**2.005**	**2.009**
Stddev	.002	.005	.002	.003	.002	.004	.015	.002	.003
%RSD	.0771	.2489	.0744	.1311	.1023	.2077	.7527	.1066	.1593
#1	2.009	1.984	2.037	2.025	2.106	2.014	2.026	2.007	2.006
#2	2.012	1.991	2.034	2.025	2.106	2.014	2.046	2.005	2.008
#3	2.011	1.993	2.036	2.021	2.109	2.007	2.016	2.003	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 15:21:28 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.019**	**1.942**
Stddev	.004	.004
%RSD	.1958	.1959
#1	2.023	1.938
#2	2.017	1.946
#3	2.016	1.941
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1941.1**	**4439.6**	**40685.**	**7589.9**
Stddev	1.0	5.8	50.	53.8
%RSD	.05322	.13009	.12322	.70916
#1	1940.5	4432.9	40708.	7617.1
#2	1942.3	4442.8	40628.	7528.0
#3	1940.5	4443.0	40720.	7624.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 15:37:38 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0065**	**.0004**	**.0009**	**.0000**	**.0001**	**.0040**	**.0001**	**.0000**
Stddev	.0002	.0053	.0003	.0014	.0001	.0000	.0016	.0000	.0000
%RSD	121.3	82.48	79.18	167.1	250.1	14.88	39.36	37.70	60.47
#1	.0003	.0022	.0005	.0024	.0000	.0001	.0042	.0001	.0001
#2	-.0001	.0048	.0007	.0005	.0000	.0001	.0056	.0001	.0001
#3	.0003	.0125	.0000	-.0003	.0001	.0001	.0024	.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0026**	**.0092**	**.0000**	**.0051**	**.0001**	**.0001**	**.0119**
Stddev	.000	.0001	.0008	.0188	.0006	.0076	.0000	.0001	.0057
%RSD	424.7	56.66	29.02	204.3	1711.	149.6	52.80	97.23	47.87
#1	.0001	-.0002	.0035	.0076	.0006	-.0035	.0001	.0002	.0064
#2	-.0002	-.0001	.0024	.0288	-.0006	.0077	.0000	.0000	.0178
#3	.0000	-.0003	.0020	-.0087	.0001	.0110	.0001	.0001	.0114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0010**	F **.0024**	**.0001**	**-.0004**	**.0001**	**.0001**	**.0009**
Stddev	.0001	.0005	.0005	.0014	.0001	.0003	.0000	.0000	.0012
%RSD	1601.	194.4	55.18	58.85	114.7	98.11	85.38	37.67	140.5
#1	-.0001	-.0003	.0004	.0025	.0001	-.0008	.0001	.0001	.0022
#2	.0000	.0005	.0014	.0037	.0000	-.0001	.0000	.0000	-.0002
#3	.0001	.0006	.0012	.0009	.0003	-.0002	.0000	.0001	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 15:37:38 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0002**
Stddev	.0001	.0000
%RSD	66.28	14.66
#1	-.0001	.0002
#2	.0000	.0002
#3	-.0001	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2301.8**	**4761.3**	**43270.**	**7782.9**
Stddev	7.5	24.5	92.	36.2
%RSD	.32490	.51382	.21329	.46548
#1	2307.0	4775.3	43188.	7773.1
#2	2305.1	4775.6	43253.	7823.1
#3	2293.2	4733.1	43370.	7752.7

Zoom In Zoom Out

Sample Name: FC3333-2A Acquired: 3/24/2023 15:42:53 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0131**	**1.531**	**.1103**	**.0523**	**.0000**	**45.74**	**-.0012**	**.0161**
Stddev	.0002	.0055	.002	.0026	.0001	.000	.13	.0001	.0000
%RSD	65.22	41.72	.1485	2.371	.2243	381.7	.2806	4.223	.1828
#1	.0001	.0151	1.533	.1126	.0524	.0000	45.62	-.0011	.0161
#2	.0004	.0069	1.531	.1109	.0523	.0000	45.72	-.0012	.0160
#3	.0006	.0173	1.529	.1075	.0522	.0000	45.87	-.0012	.0161

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0006**	**62.47**	**8.357**	**-.0001**	**6.200**	**2.126**	**.0008**	**11.91**
Stddev	.0004	.0001	.19	.039	.0001	.018	.003	.0001	.03
%RSD	45.39	8.086	.3073	.4637	59.60	.2981	.1585	17.42	.2455
#1	.0006	-.0006	62.28	8.399	-.0001	6.208	2.127	.0006	11.93
#2	.0006	-.0007	62.46	8.350	-.0001	6.179	2.123	.0008	11.91
#3	.0012	-.0007	62.67	8.322	.0000	6.214	2.129	.0009	11.88

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0018**	**.0009**	**.0036**	**7.570**	**.0006**	**.3794**	**.0017**	**.0021**
Stddev	.0001	.0002	.0010	.0009	.011	.0003	.0008	.0001	.0017
%RSD	2.350	8.502	114.1	24.73	.1404	48.34	.2193	2.880	82.60
#1	.0038	-.0017	.0018	.0038	7.558	.0007	.3797	.0017	.0001
#2	.0039	-.0020	.0010	.0044	7.579	.0008	.3801	.0018	.0034
#3	.0037	-.0018	-.0002	.0026	7.572	.0003	.3785	.0017	.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0011**	**.0020**
Stddev	.0000	.0001
%RSD	1.430	3.135
#1	.0011	.0020
#2	.0011	.0019
#3	.0011	.0019

Zoom In Zoom Out

Sample Name: FC3333-2A Acquired: 3/24/2023 15:42:53 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2094.7**	**4505.6**	**41248.**	**7684.7**
Stddev	3.1	4.9	72.	31.3
%RSD	.14822	.10783	.17347	.40701
#1	2097.6	4511.2	41182.	7681.0
#2	2095.1	4503.1	41238.	7717.7
#3	2091.4	4502.5	41324.	7655.5

Zoom In Zoom Out

Sample Name: FC3333-3A Acquired: 3/24/2023 15:48:00 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0095**	**2.980**	**.0272**	**.0146**	**.0000**	**24.06**	**-.0008**	**.0131**
Stddev	.0001	.0073	.007	.0004	.0000	.000	.04	.0000	.0001
%RSD	27.10	76.59	.2330	1.584	.1787	58.75	.1478	3.442	.5763
#1	.0003	.0028	2.987	.0272	.0146	.0000	24.07	-.0008	.0130
#2	.0002	.0084	2.978	.0276	.0146	.0000	24.01	-.0008	.0131
#3	.0004	.0172	2.974	.0268	.0146	.0000	24.08	-.0008	.0131

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0009**	**37.43**	**3.344**	**-.0002**	**2.769**	**2.469**	**.0017**	**5.172**
Stddev	.0001	.0001	.07	.021	.0006	.010	.006	.0001	.014
%RSD	6.791	8.279	.1964	.6278	286.5	.3625	.2513	5.310	.2731
#1	.0008	-.0009	37.36	3.364	.0005	2.758	2.472	.0017	5.175
#2	.0007	-.0008	37.43	3.345	-.0007	2.777	2.474	.0016	5.184
#3	.0009	-.0010	37.51	3.322	-.0005	2.772	2.462	.0018	5.156

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**-.0010**	**.0018**	**.0021**	**6.084**	**.0003**	**.1713**	**.0014**	**.0009**
Stddev	.0001	.0002	.0001	.0019	.005	.0004	.0003	.0001	.0016
%RSD	1.595	18.88	4.354	91.00	.0854	141.4	.1704	4.768	176.4
#1	.0045	-.0012	.0019	.0029	6.088	.0002	.1714	.0014	.0012
#2	.0044	-.0008	.0017	-.0001	6.078	-.0001	.1715	.0013	.0024
#3	.0043	-.0010	.0018	.0035	6.085	.0008	.1710	.0014	-.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0007**	**-.0011**
Stddev	.0000	.0000
%RSD	5.989	4.467
#1	.0008	-.0011
#2	.0007	-.0011
#3	.0008	-.0011

Zoom In Zoom Out

Sample Name: FC3333-3A Acquired: 3/24/2023 15:48:00 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2158.8**	**4574.7**	**41805.**	**7677.0**
Stddev	1.8	5.5	65.	39.2
%RSD	.08136	.12028	.15594	.51070
#1	2157.5	4574.7	41730.	7660.4
#2	2160.8	4580.3	41848.	7721.7
#3	2158.0	4569.3	41836.	7648.7

Zoom In Zoom Out

Sample Name: FC3554-1 Acquired: 3/24/2023 15:53:16 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.4960**	**-.0003**	**.0038**	**.0967**	**.0002**	**10.08**	**.0001**	**.0012**
Stddev	.0001	.0026	.0005	.0005	.0001	.0000	.02	.0000	.0001
%RSD	65.20	.5204	201.4	12.74	.0914	11.43	.1562	24.52	7.103
#1	.0001	.4986	.0002	.0035	.0967	.0002	10.09	.0000	.0012
#2	.0003	.4958	-.0008	.0043	.0968	.0002	10.08	.0001	.0011
#3	.0002	.4935	-.0001	.0035	.0966	.0002	10.06	.0001	.0012

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0004**	**.3438**	**1.290**	**.0041**	**1.472**	**.0405**	**.0001**	**6.233**
Stddev	.0001	.0001	.0048	.021	.0004	.025	.0001	.0002	.014
%RSD	19.41	32.64	1.389	1.628	8.665	1.710	.1683	226.9	.2197
#1	.0007	-.0004	.3485	1.287	.0044	1.484	.0406	.0002	6.218
#2	.0006	-.0003	.3439	1.312	.0037	1.490	.0404	.0002	6.235
#3	.0009	-.0005	.3389	1.271	.0041	1.443	.0405	-.0001	6.246

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**-.0013**	**.0009**	**.0005**	**11.24**	**.0005**	**.0756**	**.0120**	**.0000**
Stddev	.0001	.0002	.0007	.0013	.01	.0003	.0001	.0008	.001
%RSD	5.582	17.48	81.02	282.1	.0891	60.28	.0669	6.760	15270.
#1	.0020	-.0012	.0012	-.0008	11.25	.0003	.0756	.0111	.0004
#2	.0018	-.0011	.0001	.0019	11.23	.0008	.0757	.0125	-.0006
#3	.0019	-.0015	.0015	.0003	11.24	.0003	.0756	.0125	.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0006**	**.0049**
Stddev	.0001	.0001
%RSD	25.73	1.441
#1	.0004	.0049
#2	.0006	.0048
#3	.0007	.0049

Zoom In Zoom Out

Sample Name: FC3554-1 Acquired: 3/24/2023 15:53:16 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2206.6**	**4665.0**	**42580.**	**7792.7**
Stddev	5.6	4.2	69.	24.4
%RSD	.25301	.08977	.16295	.31353
#1	2200.3	4660.3	42561.	7808.6
#2	2208.5	4668.4	42657.	7764.5
#3	2211.0	4666.3	42522.	7804.9

Zoom In Zoom Out

Sample Name: FC3554-2 Acquired: 3/24/2023 15:58:27 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	1.609	.0003	.0095	.2055	.0006	38.47	.0001	.0026
Stddev	.0002	.005	.0006	.0003	.0005	.0000	.11	.0000	.0000
%RSD	383.4	.3414	224.5	3.292	.2232	2.796	.2918	18.14	1.838
#1	.0001	1.605	.0000	.0098	.2052	.0006	38.35	.0001	.0026
#2	.0002	1.616	-.0002	.0092	.2054	.0005	38.57	.0001	.0026
#3	-.0002	1.608	.0009	.0096	.2061	.0006	38.48	.0001	.0027

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008	-.0002	.0969	3.249	.0039	8.120	.0664	.0001	9.224
Stddev	.0001	.0002	.0026	.007	.0007	.048	.0001	.0001	.021
%RSD	6.846	115.8	2.652	.2247	18.09	.5862	.2034	99.90	.2270
#1	.0008	-.0001	.0992	3.240	.0047	8.149	.0664	.0000	9.203
#2	.0009	.0000	.0974	3.253	.0035	8.146	.0665	.0002	9.244
#3	.0008	-.0003	.0942	3.252	.0035	8.065	.0662	.0000	9.226

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035	.0002	.0010	.0015	5.365	.0005	.1750	.0041	-.0009
Stddev	.0001	.0001	.0011	.0004	.006	.0002	.0009	.0001	.0016
%RSD	3.059	77.47	117.1	26.52	.1156	37.89	.5412	1.280	188.4
#1	.0036	.0002	.0023	.0015	5.365	.0005	.1744	.0041	-.0024
#2	.0034	.0000	.0004	.0011	5.371	.0003	.1745	.0042	.0009
#3	.0036	.0003	.0002	.0018	5.358	.0007	.1761	.0041	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.0002	.0056
Stddev	.0001	.0001
%RSD	48.34	.9070
#1	.0003	.0056
#2	.0002	.0055
#3	.0001	.0056

Zoom In Zoom Out

Sample Name: FC3554-2 Acquired: 3/24/2023 15:58:27 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2121.1	4629.0	42494.	7812.5
Stddev	3.7	6.8	125.	39.0
%RSD	.17265	.14630	.29525	.49918
#1	2124.9	4633.3	42349.	7853.3
#2	2117.6	4621.2	42565.	7775.6
#3	2120.7	4632.5	42568.	7808.4

Zoom In Zoom Out

Sample Name: FC3554-3 Acquired: 3/24/2023 16:03:37 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	2.655	.0010	.0115	.1627	.0006	38.09	.0001	.0019
Stddev	.0003	.008	.0008	.0009	.0006	.0000	.14	.0000	.0000
%RSD	251.2	.3163	87.62	7.979	.3389	2.842	.3765	9.797	1.421
#1	.0005	2.649	.0019	.0111	.1632	.0006	38.15	.0001	.0019
#2	-.0001	2.651	.0002	.0125	.1621	.0006	37.92	.0002	.0020
#3	.0000	2.664	.0008	.0108	.1627	.0006	38.19	.0001	.0019

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015	-.0003	.4809	3.871	.0038	9.115	.0667	.0000	11.65
Stddev	.0000	.0001	.0016	.029	.0004	.021	.0002	.0003	.04
%RSD	1.724	32.12	.3412	.7453	10.71	.2267	.3702	565.7	.3622
#1	.0015	-.0005	.4807	3.903	.0035	9.094	.0666	.0003	11.69
#2	.0016	-.0003	.4793	3.847	.0043	9.116	.0670	.0000	11.61
#3	.0015	-.0003	.4826	3.864	.0037	9.135	.0665	-.0002	11.64

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.0008	.0013	.0025	6.141	.0002	.1578	.0268	-.0008
Stddev	.0001	.0003	.0007	.0020	.014	.0003	.0006	.0020	.0018
%RSD	2.291	40.15	53.02	79.89	.2192	208.5	.3654	7.449	240.8
#1	.0028	.0011	.0015	.0024	6.132	.0005	.1585	.0269	-.0007
#2	.0029	.0004	.0006	.0005	6.133	.0002	.1575	.0248	.0010
#3	.0028	.0010	.0019	.0044	6.156	-.0002	.1576	.0288	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.0010	.0034
Stddev	.0000	.0000
%RSD	1.437	1.166
#1	.0010	.0034
#2	.0010	.0033
#3	.0010	.0034

Zoom In Zoom Out

Sample Name: FC3554-3 Acquired: 3/24/2023 16:03:37 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2120.3	4615.7	42205.	7793.2
Stddev	2.7	13.7	52.	20.4
%RSD	.12826	.29589	.12272	.26228
#1	2122.9	4630.9	42161.	7777.1
#2	2117.5	4611.6	42192.	7816.2
#3	2120.7	4604.5	42262.	7786.4

Zoom In Zoom Out

Sample Name: FC3584-1 Acquired: 3/24/2023 16:08:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**1.557**	**.0014**	**.0248**	**.0377**	**.0001**	**18.22**	**-.0001**	**.0020**
Stddev	.0002	.003	.0007	.0014	.0002	.0000	.04	.0000	.0001
%RSD	114.4	.1973	52.97	5.806	.4216	9.966	.2154	35.53	4.090
#1	.0002	1.560	.0021	.0235	.0378	.0001	18.25	-.0001	.0020
#2	.0004	1.554	.0006	.0245	.0375	.0001	18.23	.0000	.0019
#3	.0000	1.556	.0014	.0264	.0377	.0002	18.18	-.0001	.0020

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0005**	**8.316**	**.0853**	**.0025**	**4.561**	**.0047**	**.0017**	**21.39**
Stddev	.0001	.0000	.017	.0010	.0005	.021	.0000	.0002	.05
%RSD	3.615	.9542	.2072	1.183	18.75	.4658	.6985	10.11	.2563
#1	.0036	-.0005	8.297	.0864	.0025	4.540	.0047	.0015	21.40
#2	.0034	-.0005	8.320	.0851	.0021	4.583	.0047	.0019	21.33
#3	.0037	-.0005	8.331	.0844	.0030	4.560	.0046	.0016	21.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0004**	**.0011**	**.0028**	**4.619**	**.0002**	**.1555**	**.0117**	**-.0005**
Stddev	.0001	.0006	.0002	.0010	.011	.0001	.0003	.0005	.0009
%RSD	3.194	154.0	19.79	36.66	.2331	52.43	.2059	3.950	192.8
#1	.0037	-.0008	.0010	.0019	4.607	.0002	.1559	.0113	-.0015
#2	.0035	-.0006	.0009	.0025	4.627	.0002	.1552	.0117	-.0002
#3	.0035	.0003	.0013	.0039	4.623	.0001	.1554	.0122	.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0073**	**.0217**
Stddev	.0000	.0001
%RSD	.1988	.4148
#1	.0073	.0217
#2	.0073	.0218
#3	.0073	.0217

Zoom In Zoom Out

Sample Name: FC3584-1 Acquired: 3/24/2023 16:08:46 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2136.7**	**4599.8**	**42238.**	**7781.8**
Stddev	1.3	4.5	122.	15.7
%RSD	.06008	.09867	.28988	.20162
#1	2135.4	4604.6	42377.	7782.3
#2	2136.7	4599.2	42148.	7797.3
#3	2138.0	4595.6	42189.	7765.9

Zoom In Zoom Out

Sample Name: FC3521-1 Acquired: 3/24/2023 16:13:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0736**	**.0012**	**F .5321**	**.0046**	**.0000**	**4.470**	**.0000**	**.0003**
Stddev	.0003	.0087	.0013	.0037	.0001	.0000	.006	.000	.0000
%RSD	90.33	11.80	107.8	.6967	1.233	212.4	.1384	214.6	9.069
#1	.0005	.0681	.0008	.5305	.0045	.0000	4.466	.0000	.0003
#2	.0000	.0836	.0027	.5295	.0046	.0000	4.477	.0000	.0003
#3	.0005	.0691	.0002	.5363	.0046	.0000	4.467	.0000	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0649**	**.1561**	**F 562.9**	**.0393**	**5.809**	**.0971**	**.0097**	*****
Stddev	.0002	.0003	.0014	6.4	.0032	.041	.0004	.0001	-----
%RSD	2.795	.5177	.8959	1.144	8.098	.7057	.4578	1.231	-----
#1	.0062	.0650	.1565	569.4	.0423	5.812	.0973	.0098	-----
#2	.0065	.0652	.1546	562.9	.0397	5.848	.0973	.0096	-----
#3	.0063	.0645	.1573	556.5	.0359	5.766	.0966	.0098	-----

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0068**	**-.0014**	**.0031**	**.0028**	**8.855**	**.0031**	**.0138**	**.0014**	**-.0083**
Stddev	.0001	.0005	.0008	.0008	.024	.0003	.0001	.0001	.0018
%RSD	1.158	34.34	27.58	26.65	.2667	10.15	.4485	6.862	21.39
#1	.0069	-.0019	.0021	.0029	8.859	.0033	.0138	.0013	-.0077
#2	.0069	-.0011	.0037	.0036	8.877	.0032	.0138	.0013	-.0069
#3	.0067	-.0011	.0034	.0021	8.830	.0027	.0139	.0015	-.0103

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0007**	**.2959**
Stddev	.0001	.0005
%RSD	11.02	.1734
#1	.0006	.2959
#2	.0008	.2954
#3	.0006	.2964

Zoom In Zoom Out

Sample Name: FC3521-1 Acquired: 3/24/2023 16:13:56 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1248.5**	**3182.6**	**27789.**	**6532.7**
Stddev	1.6	10.7	111.	20.6
%RSD	.12497	.33678	.39909	.31565
#1	1246.7	3175.7	27665.	6509.6
#2	1249.3	3177.2	27822.	6539.1
#3	1249.4	3195.0	27879.	6549.3

Zoom In Zoom Out

Sample Name: MP41994-MB1 Acquired: 3/24/2023 16:19:20 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0120**	**-.0004**	**-.0001**	**.0004**	**.0000**	**.0547**	**.0000**	**-.0001**
Stddev	.0000	.0064	.0002	.0007	.0001	.000	.0012	.000	.0000
%RSD	21.28	53.73	56.06	510.7	17.22	144.6	2.225	4.545	26.69
#1	.0002	.0085	-.0004	.0001	.0003	-.0001	.0551	.0000	-.0001
#2	.0002	.0194	-.0007	.0004	.0004	.0000	.0556	.0000	-.0001
#3	.0001	.0081	-.0002	-.0010	.0004	.0000	.0533	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0006**	**.0194**	**.3721**	**.0011**	**.0063**	**.0027**	**.0001**	**1.227**
Stddev	.0003	.0001	.0006	.0400	.0002	.0039	.0000	.0002	.048
%RSD	32.63	17.78	3.030	10.76	15.26	62.42	.8570	252.4	3.927
#1	.0010	-.0007	.0190	.4124	.0010	.0105	.0027	.0001	1.277
#2	.0008	-.0005	.0201	.3716	.0013	.0058	.0027	.0003	1.224
#3	.0005	-.0007	.0191	.3323	.0011	.0027	.0027	-.0001	1.181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0011**	**.0014**	**.0014**	**.0069**	**.0223**	**.0002**	**.0003**	**-.0004**
Stddev	.0002	.0005	.0005	.0005	.0003	.0003	.0000	.0001	.0008
%RSD	209.5	43.46	37.00	34.69	3.650	1.473	1.899	26.51	215.1
#1	.0001	.0016	.0019	.0009	.0071	.0223	.0002	.0002	-.0001
#2	-.0001	.0010	.0012	.0018	.0066	.0226	.0002	.0003	-.0012
#3	.0003	.0007	.0010	.0014	.0070	.0220	.0002	.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP41994-MB1 Acquired: 3/24/2023 16:19:20 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0045**
Stddev	.000	.0000
%RSD	745.9	.9063
#1	.0000	.0045
#2	-.0002	.0045
#3	.0001	.0046
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2275.6**	**4668.6**	**43555.**	**7809.5**
Stddev	2.4	9.0	169.	18.3
%RSD	.10389	.19360	.38801	.23464
#1	2273.0	4658.8	43360.	7828.4
#2	2276.1	4670.3	43666.	7791.8
#3	2277.7	4676.7	43637.	7808.3

Zoom In Zoom Out

Sample Name: MP41994-B1 Acquired: 3/24/2023 16:24:36 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0508**	**26.46**	**1.961**	F **-.0058**	**2.133**	**.0533**	**25.15**	**.0498**
Stddev	.0004	.17	.002	.0010	.015	.0004	.20	.0001
%RSD	.6893	.6298	.0801	18.04	.7074	.7877	.7847	.1180
#1	.0509	26.56	1.960	-.0046	2.141	.0537	25.34	.0497
#2	.0504	26.27	1.962	-.0064	2.116	.0529	24.95	.0497
#3	.0511	26.55	1.963	-.0064	2.143	.0534	25.15	.0498
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5155**	**.2111**	**.2554**	**25.34**	**26.14**	F **.0005**	**25.33**	**.5051**
Stddev	.0004	.0004	.0005	.22	.17	.0006	.25	.0012
%RSD	.0785	.1883	.1911	.8773	.6670	130.6	1.003	.2403
#1	.5154	.2107	.2559	25.50	26.29	.0004	25.60	.5042
#2	.5151	.2114	.2550	25.08	25.95	-.0001	25.11	.5065
#3	.5159	.2113	.2552	25.43	26.17	.0012	25.27	.5046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0500		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5306**	**24.53**	**.5124**	**.4818**	**.5077**	**2.017**	**.7003**	**.5385**
Stddev	.0005	.15	.0005	.0007	.0014	.003	.0017	.0003
%RSD	.0958	.6190	.0880	.1360	.2813	.1469	.2479	.0476
#1	.5300	24.65	.5128	.4814	.5076	2.016	.7022	.5382
#2	.5309	24.36	.5119	.4814	.5064	2.016	.6998	.5385
#3	.5309	24.57	.5126	.4825	.5092	2.021	.6989	.5387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: MP41994-B1 Acquired: 3/24/2023 16:24:36 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5477**	**.5364**	**1.942**	**.5097**	**.4826**
Stddev	.0043	.0008	.004	.0006	.0010
%RSD	.7848	.1478	.1811	.1175	.2090
#1	.5486	.5359	1.942	.5093	.4815
#2	.5430	.5373	1.939	.5104	.4834
#3	.5514	.5360	1.946	.5094	.4829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2018.5**	**4447.8**	**40975.**	**7590.5**
Stddev	6.6	11.2	62.	55.3
%RSD	.32810	.25194	.15207	.72812
#1	2011.5	4437.3	40913.	7531.1
#2	2024.6	4459.6	41038.	7640.5
#3	2019.5	4446.6	40973.	7599.8

Zoom In Zoom Out

Sample Name: FC3523-2 Acquired: 3/24/2023 16:29:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**275.4**	**.0291**	F **-.0102**	**.3085**	**.0011**	**53.21**	**-.0015**
Stddev	.0001	.8	.0008	.0007	.0007	.0000	.38	.0001
%RSD	45.00	.3032	2.868	7.231	.2343	.9377	.7083	4.322
#1	.0005	274.5	.0299	-.0099	.3077	.0011	52.77	-.0015
#2	.0002	276.1	.0282	-.0097	.3091	.0011	53.41	-.0016
#3	.0003	275.4	.0291	-.0111	.3086	.0011	53.44	-.0015

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078**	**.3413**	**.0087**	**132.6**	**2.188**	**.0924**	**3.598**	**.0742**
Stddev	.0001	.0002	.0003	.6	.017	.0005	.037	.0001
%RSD	1.478	.0705	2.917	.4280	.7654	.5553	1.021	.1219
#1	.0079	.3416	.0086	131.9	2.174	.0926	3.556	.0743
#2	.0077	.3411	.0090	132.7	2.184	.0928	3.613	.0741
#3	.0077	.3412	.0086	133.0	2.207	.0918	3.625	.0741

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0139**	**1.221**	**.0650**	**.2540**	**.0013**	**.0092**	**13.10**	**.0271**
Stddev	.0002	.014	.0001	.0002	.0020	.0026	.03	.0005
%RSD	1.293	1.150	.1908	.0888	154.4	28.15	.2456	1.825
#1	.0138	1.210	.0652	.2542	-.0002	.0122	13.13	.0277
#2	.0141	1.237	.0650	.2538	.0035	.0079	13.07	.0271
#3	.0138	1.216	.0649	.2542	.0005	.0076	13.08	.0267

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.3075**	**1.088**	**.0004**	**.5079**	**.0826**
Stddev	.0014	.001	.0021	.0007	.0001
%RSD	.4603	.0623	482.4	.1412	.1371
#1	.3059	1.088	.0005	.5086	.0825
#2	.3081	1.089	.0025	.5079	.0827
#3	.3085	1.088	-.0017	.5072	.0827

Zoom In Zoom Out

Sample Name: FC3523-2 Acquired: 3/24/2023 16:29:30 Type: Unk
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1944.3**	**4817.5**	**42970.**	**8268.2**
Stddev	4.4	14.3	147.	42.3
%RSD	.22786	.29622	.34127	.51204
#1	1940.3	4801.2	42871.	8312.6
#2	1949.1	4827.8	42899.	8228.3
#3	1943.6	4823.4	43138.	8263.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 16:34:39 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2481**	**38.86**	**2.018**	**2.069**	**2.073**	**2.093**	**39.06**	**2.028**	**2.035**
Stddev	.0011	.09	.001	.022	.008	.007	.18	.001	.001
%RSD	.4632	.2286	.0607	1.063	.3911	.3371	.4587	.0490	.0420
#1	.2489	38.76	2.020	2.044	2.064	2.091	39.07	2.029	2.035
#2	.2468	38.89	2.018	2.086	2.075	2.088	38.87	2.027	2.035
#3	.2485	38.92	2.017	2.077	2.080	2.102	39.23	2.028	2.036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.010**	**38.64**	**41.81**	**2.154**	**40.37**	**1.986**	**2.035**	**41.24**
Stddev	.010	.007	.09	.12	.006	.19	.003	.001	.11
%RSD	.4997	.3405	.2334	.2767	.2688	.4653	.1612	.0551	.2673
#1	2.046	2.017	38.59	41.73	2.147	40.48	1.984	2.034	41.15
#2	2.050	2.007	38.59	41.75	2.156	40.15	1.985	2.035	41.20
#3	2.065	2.005	38.74	41.94	2.158	40.47	1.990	2.036	41.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.031**	**1.999**	**2.060**	**2.053**	**2.138**	**2.037**	**2.038**	**2.025**	**2.019**
Stddev	.001	.001	.002	.002	.002	.003	.034	.003	.006
%RSD	.0533	.0625	.1012	.0891	.0956	.1347	1.663	.1449	.2796
#1	2.032	2.001	2.059	2.052	2.136	2.036	2.038	2.025	2.024
#2	2.030	1.999	2.058	2.055	2.139	2.034	2.005	2.022	2.020
#3	2.031	1.998	2.062	2.053	2.140	2.040	2.072	2.028	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/24/2023 16:34:39 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.039**	**1.949**
Stddev	.001	.006
%RSD	.0695	.3329
#1	2.039	1.957
#2	2.037	1.945
#3	2.040	1.946
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1926.8**	**4384.0**	**40359.**	**7637.3**
Stddev	2.2	11.7	100.	38.8
%RSD	.11290	.26612	.24660	.50849
#1	1929.1	4397.4	40441.	7608.2
#2	1924.9	4378.1	40387.	7681.4
#3	1926.3	4376.4	40248.	7622.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 16:39:40 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0066**	**.0007**	**.0006**	**.0001**	**.0001**	**.0048**	**.0001**	**.0001**
Stddev	.0002	.0042	.0007	.0007	.0000	.0000	.0021	.0000	.0001
%RSD	56.06	63.82	104.9	114.9	30.76	13.91	42.56	18.21	115.9
#1	.0003	.0112	.0011	.0005	.0001	.0001	.0072	.0001	.0001
#2	.0001	.0031	-.0001	.0000	.0001	.0001	.0038	.0001	.0001
#3	.0004	.0054	.0012	.0013	.0001	.0001	.0035	.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0040**	**.0305**	**-.0001**	**.0012**	**.0001**	**.0002**	**.1020**
Stddev	.0001	.0002	.0013	.0119	.0005	.0129	.0000	.0001	.0047
%RSD	1112.	108.6	32.81	39.17	404.6	1066.	34.72	68.02	4.650
#1	.0000	.0000	.0052	.0419	-.0007	.0148	.0002	.0002	.1059
#2	-.0001	.0004	.0026	.0314	-.0001	-.0109	.0001	.0003	.0968
#3	.0001	.0002	.0043	.0181	.0004	-.0003	.0001	.0000	.1035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0013**	F **.0041**	**.0014**	**-.0001**	**.0001**	**.0002**	**.0011**
Stddev	.0001	.0003	.0001	.0006	.0001	.0001	.0000	.0000	.0003
%RSD	291.2	98.65	8.172	15.42	6.417	56.76	22.92	17.76	24.98
#1	-.0001	.0002	.0014	.0045	.0014	-.0002	.0001	.0002	.0010
#2	.0001	.0001	.0012	.0045	.0015	-.0001	.0001	.0001	.0014
#3	.0000	.0006	.0012	.0034	.0014	-.0001	.0001	.0002	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/24/2023 16:39:40 Type: QC
Method: 60102007_COMBO_102422(v282) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0001**
Stddev	.0001	.0001
%RSD	110.2	68.80
#1	.0003	.0000
#2	.0001	.0001
#3	.0000	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2281.6**	**4686.3**	**43128.**	**7785.6**
Stddev	3.8	17.8	48.	13.0
%RSD	.16728	.38074	.11192	.16689
#1	2282.9	4691.1	43097.	7799.8
#2	2284.5	4701.3	43184.	7782.9
#3	2277.2	4666.6	43103.	7774.2

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000009	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000039	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.001672	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000032	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000089	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000120	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000006	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000013	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	0.000010	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000026	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	-0.000008	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	-0.000002	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000020	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	0.000033	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000182	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000001	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.002735	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000079	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000005	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000001	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000006	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000026	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	-0.000011	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000010	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000276	0.721075	0.000000	1.000000
Al 396.152 { 85}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.001289	0.147066	0.000000	1.000000
As 189.042 {478}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000356	0.128310	0.000000	1.000000
B 249.773 {135}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000873	0.349251	0.000000	1.000000
Ba 455.403 { 74}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.001541	14.259771	0.000000	1.000000
Be 313.042 {108}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000959	12.387297	0.000000	1.000000
Ca 317.933 {106}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.003577	0.363650	0.000000	1.000000
Cd 226.502 {449}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000888	5.514535	0.000000	1.000000
Co 228.616 {447}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000590	3.099285	0.000000	1.000000
Cr 267.716 {126}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000203	0.539007	0.000000	1.000000
Cu 324.754 {104}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.005444	1.022450	0.000000	1.000000
Fe 259.940 {130}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000599	0.148218	0.000000	1.000000
In 230.606 {446}*	3/24/2023 11:56:06	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.004807	0.103291	0.000000	1.000000
Li 670.784 { 50}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.003461	2.651637	0.000000	1.000000
Mg 279.079 {121}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000473	0.027893	0.000000	1.000000
Mn 257.610 {131}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000224	3.330531	0.000000	1.000000
Mo 202.030 {467}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000427	0.931723	0.000000	1.000000
Na 589.592 { 57}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.003145	0.405736	0.000000	1.000000
Ni 231.604 {445}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000732	1.928874	0.000000	1.000000
Pb 220.353 {453}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.001895	1.132474	0.000000	1.000000
Sb 206.833 {463}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000309	0.250396	0.000000	1.000000
Se 196.090 {472}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000389	0.096366	0.000000	1.000000
Si 212.412 {459}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.004021	0.388183	0.000000	1.000000
Sn 189.989 {477}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000075	0.297726	0.000000	1.000000
Sr 407.771 { 83}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000613	17.269716	0.000000	1.000000
Ti 334.941 {101}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000946	2.144399	0.000000	1.000000
Tl 190.856 {477}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000754	0.227508	0.000000	1.000000
V 292.402 {115}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	-0.000280	1.049032	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	3/24/2023 11:56:06	3/24/2023 11:07:54	Linear	1/Conc	0.000150	2.451907	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999766	0.000055	0.000264	0.000880	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999904	0.000425	0.007664	0.025547	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999700	0.000033	0.001021	0.003402	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999297	0.000134	0.001382	0.004607	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999953	0.006525	0.000117	0.000389	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999927	0.001101	0.000041	0.000137	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999884	0.002588	0.001777	0.005923	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999978	0.000272	0.000043	0.000145	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999990	0.000330	0.000088	0.000293	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999961	0.000050	0.000236	0.000788	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999848	0.000293	0.000206	0.000686	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999905	0.000521	0.001764	0.005880	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999766	0.002395	0.020806	0.069355	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999552	0.000785	0.000905	0.003018	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999979	0.000191	0.013909	0.046364	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999942	0.000457	0.000035	0.000115	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999957	0.000203	0.000152	0.000507	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999426	0.014759	0.005264	0.017546	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999993	0.000154	0.000144	0.000481	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999582	0.000242	0.000517	0.001725	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999732	0.000043	0.000914	0.003048	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999828	0.000019	0.002019	0.006731	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.999682	0.000527	0.000434	0.001446	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999959	0.000063	0.000448	0.001494	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999855	0.003061	0.000057	0.000189	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999949	0.000226	0.000090	0.000299	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999821	0.000045	0.001230	0.004100	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999832	0.000443	0.000175	0.000583	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999976	0.000253	0.000070	0.000233	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/27/2023 9:34:31 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0056**	**.0240**	**.0020**	**.0024**	**2.631**	**.0475**	**.4083**	**.0287**	**.1404**
Stddev	.0004	.0003	.0002	.0002	.014	.0010	.0026	.0002	.0008
%RSD	7.894	1.429	10.38	9.828	.5348	2.185	.6454	.7808	.5918
#1	.0059	.0236	.0018	.0026	2.619	.0475	.4112	.0285	.1396
#2	.0059	.0243	.0020	.0021	2.646	.0465	.4060	.0289	.1403
#3	.0051	.0241	.0022	.0025	2.627	.0486	.4076	.0286	.1412

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0069**	**.0291**	**.0754**	**1.215**	**.0019**	**.1971**	**.0498**	**.0642**	**3.531**
Stddev	.0002	.0006	.0008	.003	.0031	.0008	.0002	.0002	.006
%RSD	3.140	2.036	.9998	.2595	160.7	.4162	.3340	.3144	.1583
#1	.0068	.0298	.0761	1.215	.0023	.1965	.0500	.0639	3.530
#2	.0071	.0287	.0754	1.218	.0047	.1980	.0497	.0643	3.538
#3	.0067	.0290	.0746	1.212	-.0013	.1967	.0499	.0643	3.527

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0722**	**.0099**	**.0014**	**.0020**	**.0228**	**.1994**	**.0222**	**.0057**	**.0371**
Stddev	.0003	.0010	.0004	.0003	.0001	.0015	.0002	.0006	.0002
%RSD	.3659	9.727	31.14	15.60	.5116	.7500	1.110	10.97	.5501
#1	.0720	.0107	.0013	.0019	.0227	.2010	.0220	.0058	.0373
#2	.0721	.0088	.0019	.0018	.0229	.1982	.0221	.0050	.0370
#3	.0725	.0101	.0011	.0024	.0229	.1989	.0224	.0063	.0370

Elem	Zn2062
Units	Cts/S
Avg	**.0662**
Stddev	.0003
%RSD	.4101
#1	.0659
#2	.0664
#3	.0661

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 3/27/2023 9:34:31 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1074.0**	**2724.3**	**25547.**	**4135.1**
Stddev	3.1	7.3	130.	11.4
%RSD	.29073	.26882	.50698	.27465
#1	1071.3	2715.9	25417.	4130.7
#2	1073.3	2727.3	25676.	4126.6
#3	1077.4	2729.6	25547.	4148.0

◀ Zoom In ▶ Zoom Out

Sample Name: STDC Acquired: 3/27/2023 9:38:47 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0226**	**.6669**	**.0526**	**.0928**	**3.381**	**2.369**	**2.171**	**1.486**	**.7216**
Stddev	.0001	.0009	.0004	.0009	.011	.004	.005	.002	.0013
%RSD	.3102	.1383	.7905	1.021	.3301	.1582	.2500	.1170	.1850
#1	.0226	.6660	.0528	.0926	3.375	2.371	2.171	1.485	.7214
#2	.0227	.6669	.0529	.0938	3.394	2.371	2.176	1.488	.7231
#3	.0226	.6679	.0521	.0920	3.373	2.364	2.165	1.485	.7205

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1761**	**.2319**	**1.348**	**.6486**	**.5804**	**.2105**	**.8337**	**.3193**	**2.045**
Stddev	.0003	.0003	.004	.0003	.0064	.0014	.0025	.0002	.006
%RSD	.1923	.1104	.2811	.0432	1.097	.6420	.3011	.0592	.2803
#1	.1764	.2316	1.345	.6486	.5759	.2112	.8366	.3193	2.039
#2	.1758	.2320	1.352	.6483	.5877	.2113	.8328	.3191	2.050
#3	.1760	.2320	1.346	.6489	.5777	.2089	.8318	.3195	2.046

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4629**	**.3791**	**.0695**	**.0393**	**.1165**	**.1157**	**5.104**	**.5414**	**.1521**
Stddev	.0009	.0016	.0005	.0002	.0003	.0002	.009	.0017	.0015
%RSD	.1876	.4312	.6845	.5132	.2225	.1388	.1725	.3152	.9666
#1	.4633	.3792	.0690	.0391	.1163	.1157	5.110	.5429	.1533
#2	.4619	.3808	.0694	.0392	.1168	.1156	5.109	.5395	.1526
#3	.4635	.3775	.0700	.0395	.1165	.1159	5.094	.5416	.1504

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.1906**	**.8260**
Stddev	.0001	.0017
%RSD	.0663	.2102
#1	.1905	.8256
#2	.1906	.8279
#3	.1907	.8245

◀ Zoom In ▶ Zoom Out

Sample Name: STDC Acquired: 3/27/2023 9:38:47 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1064.6**	**2716.8**	**25526.**	**4128.1**
Stddev	2.4	7.1	108.	43.8
%RSD	.22169	.25976	.42277	1.0618
#1	1067.3	2724.9	25459.	4092.1
#2	1063.6	2712.6	25650.	4176.9
#3	1062.9	2712.8	25468.	4115.2

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/27/2023 9:45:43 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0460**	**1.360**	**.1068**	**.1888**	**6.850**	**4.723**	**4.338**	**2.989**	**1.440**
Stddev	.0004	.005	.0002	.0016	.029	.017	.014	.005	.001
%RSD	.8265	.3620	.1721	.8579	.4226	.3626	.3251	.1669	.0884
#1	.0457	1.359	.1066	.1907	6.830	4.709	4.330	2.995	1.441
#2	.0464	1.356	.1070	.1879	6.837	4.718	4.329	2.988	1.439
#3	.0458	1.366	.1068	.1879	6.883	4.742	4.354	2.985	1.441

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3548**	**.4587**	**2.712**	**1.311**	**1.159**	**.4233**	**1.678**	**.6446**	**4.147**
Stddev	.0010	.0016	.007	.008	.006	.0022	.005	.0012	.027
%RSD	.2685	.3480	.2559	.6296	.5363	.5266	.2870	.1900	.6597
#1	.3541	.4580	2.708	1.306	1.158	.4226	1.676	.6459	4.123
#2	.3559	.4605	2.708	1.306	1.153	.4214	1.675	.6436	4.142
#3	.3543	.4576	2.720	1.320	1.166	.4258	1.684	.6441	4.177

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9274**	**.7743**	**.1380**	**.0791**	**.2292**	**.2301**	**10.21**	**1.092**	**.3047**
Stddev	.0016	.0009	.0002	.0004	.0010	.0007	.03	.004	.0017
%RSD	.1762	.1206	.1374	.4537	.4446	.2917	.3052	.3242	.5719
#1	.9292	.7737	.1379	.0787	.2303	.2309	10.19	1.093	.3065
#2	.9260	.7753	.1380	.0791	.2286	.2297	10.20	1.095	.3031
#3	.9271	.7738	.1382	.0794	.2286	.2297	10.25	1.088	.3043

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.3858**	**1.655**
Stddev	.0009	.004
%RSD	.2247	.2399
#1	.3849	1.660
#2	.3866	1.654
#3	.3860	1.653

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/27/2023 9:45:43 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1028.0**	**2696.8**	**25279.**	**4172.7**
Stddev	3.6	6.9	145.	44.8
%RSD	.35251	.25506	.57394	1.0744
#1	1023.9	2688.9	25428.	4203.4
#2	1030.1	2699.8	25269.	4193.4
#3	1030.1	2701.6	25138.	4121.2

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/27/2023 9:49:10 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0846**	**2.614**	**.2179**	**.3898**	**13.76**	**9.429**	**8.265**	**6.011**	**2.870**
Stddev	.0002	.004	.0001	.0042	.02	.034	.013	.007	.004
%RSD	.2939	.1566	.0682	1.065	.1246	.3564	.1584	.1243	.1219
#1	.0847	2.619	.2179	.3904	13.78	9.394	8.257	6.018	2.874
#2	.0843	2.611	.2178	.3937	13.74	9.432	8.258	6.003	2.867
#3	.0847	2.613	.2181	.3854	13.76	9.461	8.280	6.013	2.870

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7112**	**.9141**	**5.130**	**2.524**	**2.303**	**.8059**	**3.341**	**1.292**	**7.996**
Stddev	.0002	.0012	.010	.003	.003	.0030	.009	.003	.013
%RSD	.0342	.1263	.1955	.1156	.1365	.3722	.2691	.1941	.1572
#1	.7115	.9135	5.127	2.527	2.304	.8025	3.349	1.293	8.010
#2	.7112	.9154	5.123	2.521	2.299	.8077	3.342	1.289	7.993
#3	.7110	.9134	5.142	2.522	2.306	.8075	3.331	1.294	7.986

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.845**	**1.580**	**.2791**	**.1600**	**.4002**	**.4627**	**20.28**	**2.187**	**.6211**
Stddev	.003	.003	.0011	.0001	.0017	.0016	.07	.003	.0009
%RSD	.1745	.2155	.3919	.0381	.4341	.3355	.3358	.1286	.1480
#1	1.846	1.579	.2789	.1600	.4012	.4631	20.20	2.185	.6205
#2	1.842	1.584	.2782	.1601	.3982	.4611	20.32	2.187	.6206
#3	1.848	1.577	.2803	.1600	.4012	.4641	20.32	2.190	.6221

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.7823**	**3.328**
Stddev	.0007	.004
%RSD	.0857	.1104
#1	.7816	3.329
#2	.7824	3.324
#3	.7830	3.332

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/27/2023 9:49:10 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**982.05**	**2644.9**	**24775.**	**4161.0**
Stddev	1.92	3.1	50.	13.9
%RSD	.19588	.11628	.20250	.33391
#1	983.93	2647.6	24717.	4164.8
#2	980.09	2645.5	24803.	4172.7
#3	982.13	2641.5	24805.	4145.7

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/27/2023 9:52:44 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1753**	**5.391**	**.4548**	**.8049**	**28.36**	**19.51**	**16.89**	**12.36**	**5.875**
Stddev	.0004	.014	.0006	.0048	.06	.01	.02	.02	.011
%RSD	.2127	.2503	.1354	.5992	.1974	.0684	.1208	.1549	.1889
#1	.1749	5.406	.4544	.8040	28.42	19.52	16.92	12.35	5.867
#2	.1756	5.382	.4544	.8005	28.31	19.53	16.89	12.38	5.887
#3	.1754	5.384	.4555	.8101	28.35	19.50	16.88	12.34	5.870

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.459**	**1.876**	**10.47**	**5.159**	**4.704**	**1.647**	**6.891**	**2.673**	**16.42**
Stddev	.002	.006	.01	.009	.008	.004	.020	.002	.04
%RSD	.1128	.3263	.1432	.1651	.1791	.2167	.2858	.0737	.2329
#1	1.458	1.869	10.48	5.164	4.712	1.643	6.913	2.671	16.37
#2	1.460	1.878	10.47	5.149	4.695	1.647	6.885	2.675	16.43
#3	1.461	1.880	10.45	5.163	4.705	1.650	6.875	2.674	16.45

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.772**	**3.307**	**.5795**	**.3309**	**.7925**	**.9451**	**41.81**	**4.520**	**1.278**
Stddev	.004	.011	.0011	.0010	.0004	.0010	.05	.009	.003
%RSD	.0920	.3179	.1959	.3002	.0503	.1087	.1263	.2016	.2197
#1	3.771	3.316	.5797	.3318	.7922	.9458	41.87	4.510	1.281
#2	3.776	3.311	.5783	.3311	.7929	.9457	41.79	4.527	1.276
#3	3.769	3.295	.5806	.3299	.7923	.9440	41.77	4.523	1.276

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.628**	**6.843**
Stddev	.005	.012
%RSD	.2795	.1743
#1	1.625	6.838
#2	1.626	6.857
#3	1.633	6.835

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/27/2023 9:52:44 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**918.38**	**2560.0**	**24096.**	**4132.0**
Stddev	2.16	2.9	95.	9.2
%RSD	.23505	.11230	.39607	.22178
#1	916.04	2562.6	24206.	4134.9
#2	920.29	2560.5	24037.	4121.8
#3	918.80	2556.9	24046.	4139.5

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/27/2023 9:56:28 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3678**	**10.97**	**.9353**	**1.679**	**56.50**	**38.93**	**33.30**	**24.86**	**11.84**
Stddev	.0081	.02	.0016	.022	.31	.21	.09	.03	.02
%RSD	2.209	.1640	.1700	1.336	.5547	.5324	.2748	.1095	.1822
#1	.3596	10.95	.9369	1.653	56.51	39.05	33.30	24.89	11.85
#2	.3680	10.97	.9354	1.690	56.19	39.06	33.39	24.85	11.85
#3	.3759	10.98	.9337	1.693	56.82	38.70	33.20	24.83	11.81

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.900**	**3.795**	**20.65**	**10.28**	**9.402**	**3.254**	**13.41**	**5.428**	**32.68**
Stddev	.069	.093	.05	.01	.030	.009	.08	.013	.02
%RSD	2.366	2.458	.2419	.1015	.3145	.2733	.5697	.2397	.0463
#1	2.827	3.701	20.63	10.28	9.407	3.256	13.33	5.443	32.67
#2	2.909	3.796	20.71	10.29	9.429	3.261	13.42	5.419	32.70
#3	2.963	3.887	20.61	10.27	9.370	3.244	13.48	5.422	32.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.622**	**6.838**	**1.193**	**.6701**	**1.681**	**1.895**	**83.08**	**8.998**	**2.590**
Stddev	.007	.042	.003	.0007	.001	.004	1.72	.218	.011
%RSD	.0907	.6065	.2087	.0973	.0566	.1985	2.065	2.425	.4338
#1	7.630	6.839	1.195	.6707	1.682	1.899	85.01	8.774	2.595
#2	7.616	6.879	1.190	.6694	1.680	1.892	82.49	9.010	2.598
#3	7.622	6.796	1.194	.6702	1.681	1.895	81.73	9.210	2.577

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**3.242**	**13.80**
Stddev	.076	.03
%RSD	2.341	.1935
#1	3.163	13.82
#2	3.249	13.80
#3	3.314	13.77

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/27/2023 9:56:28 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**833.10**	**2425.3**	**23362.**	**4111.0**
Stddev	3.79	3.8	445.	39.9
%RSD	.45479	.15485	1.9054	.96997
#1	831.94	2421.1	23823.	4065.6
#2	830.02	2428.3	23329.	4127.1
#3	837.33	2426.4	22935.	4140.4

Zoom In Zoom Out

Sample Name: STDA Acquired: 3/27/2023 10:06:20 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0006**	**-.0002**	**.0029**	**.0122**	**.0007**	**-.0002**	**-.0010**	**-.0004**
Stddev	.0002	.0011	.0001	.0010	.0011	.0003	.0004	.0002	.0006
%RSD	17.42	171.8	60.39	33.13	9.191	46.53	273.6	24.81	155.8
#1	-.0013	.0014	-.0002	.0039	.0121	.0010	-.0006	-.0012	-.0010
#2	-.0009	-.0006	-.0001	.0028	.0112	.0004	.0000	-.0008	.0000
#3	-.0013	.0011	-.0003	.0020	.0134	.0007	.0002	-.0009	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0062**	**.0004**	**-.0023**	**.0016**	**-.0005**	**.0002**	**.0009**	**-.0297**
Stddev	.0001	.0001	.0002	.0001	.0021	.0004	.0001	.0002	.0034
%RSD	89.18	1.115	68.74	3.305	135.4	82.40	29.67	19.87	11.46
#1	.0000	.0063	.0003	-.0023	-.0003	-.0001	.0002	.0010	-.0294
#2	.0002	.0061	.0001	-.0024	.0039	-.0004	.0001	.0007	-.0265
#3	.0000	.0062	.0006	-.0022	.0011	-.0009	.0003	.0010	-.0333

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**.0017**	**.0002**	**.0005**	**.0048**	**.0002**	**-.0006**	**.0009**	**-.0005**
Stddev	.0006	.0003	.0004	.0001	.0003	.0001	.0014	.0002	.0008
%RSD	62.19	15.05	213.8	22.99	6.384	50.99	255.6	21.74	150.6
#1	-.0011	.0020	.0004	.0007	.0051	.0001	.0009	.0007	.0001
#2	-.0016	.0016	-.0002	.0004	.0045	.0001	-.0019	.0011	-.0003
#3	-.0003	.0015	.0004	.0006	.0049	.0003	-.0006	.0009	-.0014

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0002**	**.0002**
Stddev	.0003	.0001
%RSD	139.3	44.84
#1	-.0001	.0001
#2	-.0006	.0003
#3	.0000	.0002

Zoom In Zoom Out

Sample Name: STDA Acquired: 3/27/2023 10:06:20 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.5**	**2782.3**	**26269.**	**4265.8**
Stddev	2.4	5.1	204.	6.5
%RSD	.21395	.18176	.77578	.15336
#1	1137.4	2778.6	26501.	4272.1
#2	1133.8	2780.2	26185.	4259.0
#3	1138.4	2788.1	26120.	4266.1

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:12:57 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089**	**.1839**	**.0089**	F **-.0007**	**.1914**	**.0046**	**.9676**	**.0048**
Stddev	.0003	.0039	.0007	.0007	.0004	.0001	.0039	.0000
%RSD	3.305	2.118	8.164	112.9	.1927	2.900	.4037	.3990
#1	.0092	.1844	.0095	.0002	.1914	.0045	.9706	.0048
#2	.0087	.1797	.0092	-.0010	.1917	.0047	.9690	.0048
#3	.0087	.1875	.0081	-.0012	.1910	.0044	.9632	.0049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0483**	**.0095**	**.0249**	**.2898**	**9.628**	F **.0000**	**4.713**	**.0148**
Stddev	.0001	.0002	.0003	.0010	.041	.0021	.029	.0001
%RSD	.2811	2.136	1.320	.3323	.4217	31810.	.6072	.4681
#1	.0482	.0094	.0248	.2894	9.675	.0006	4.691	.0148
#2	.0485	.0093	.0246	.2891	9.606	-.0024	4.703	.0147
#3	.0483	.0097	.0253	.2909	9.603	.0018	4.745	.0148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0090		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Si2124	Sn1899	Sr4077
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0468**	**8.717**	**.0377**	**.0049**	**.0050**	**.0228**	**.0460**	**.0093**
Stddev	.0002	.009	.0001	.0004	.0004	.0006	.0001	.0001
%RSD	.4082	.0987	.3937	8.575	8.568	2.496	.2361	1.085
#1	.0468	8.712	.0378	.0045	.0050	.0225	.0460	.0093
#2	.0467	8.727	.0378	.0051	.0045	.0226	.0461	.0094
#3	.0471	8.712	.0376	.0053	.0054	.0235	.0459	.0093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:12:57 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm
Avg	**.0094**	**.0088**	**.0471**	**.0192**
Stddev	.0001	.0009	.0004	.0000
%RSD	.5998	9.864	.8063	.2515
#1	.0094	.0085	.0472	.0192
#2	.0093	.0080	.0466	.0192
#3	.0094	.0097	.0474	.0193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1069.0**	**2788.2**	**25891.**	**4301.3**
Stddev	4.9	9.6	46.	31.5
%RSD	.46094	.34326	.17832	.73192
#1	1072.6	2798.9	25930.	4297.4
#2	1071.1	2785.1	25904.	4334.5
#3	1063.4	2780.6	25840.	4271.9

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:29:36 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Se1960
Units	ppm
Avg	**.0101**
Stddev	.0015
%RSD	14.86
#1	.0098
#2	.0116
#3	.0087
Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243
Units	Cts/S
Avg	**2760.8**
Stddev	11.2
%RSD	.40488
#1	2772.5
#2	2759.7
#3	2750.3

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/27/2023 10:36:43 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5028**	**81.69**	**4.036**	**4.078**	**4.097**	**3.914**	**79.78**	**3.995**	**3.994**
Stddev	.0012	.27	.006	.031	.025	.021	.37	.004	.007
%RSD	.2399	.3263	.1511	.7609	.6036	.5313	.4671	.0981	.1759
#1	.5038	81.88	4.037	4.056	4.073	3.933	80.10	3.992	3.987
#2	.5031	81.38	4.029	4.066	4.097	3.892	79.37	3.994	3.993
#3	.5015	81.80	4.041	4.114	4.122	3.918	79.88	4.000	4.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.964**	**3.903**	**80.05**	**80.23**	**4.010**	**77.08**	**4.068**	**3.965**	**77.96**
Stddev	.002	.004	.42	.33	.018	.32	.011	.006	.35
%RSD	.0559	.1062	.5294	.4074	.4435	.4199	.2596	.1601	.4479
#1	3.965	3.898	80.40	80.48	4.022	77.44	4.065	3.959	78.33
#2	3.965	3.903	79.58	79.86	3.989	76.80	4.059	3.963	77.64
#3	3.961	3.907	80.18	80.34	4.018	77.02	4.080	3.972	77.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.831**	F **4.281**	**3.811**	**4.012**	**3.839**	F **3.762**	**3.925**	**3.876**	**4.033**
Stddev	.006	.015	.006	.006	.005	.004	.107	.002	.012
%RSD	.1605	.3591	.1631	.1394	.1253	.0956	2.719	.0603	.2893
#1	3.828	4.264	3.806	4.005	3.834	3.759	4.048	3.879	4.020
#2	3.826	4.288	3.809	4.015	3.839	3.760	3.875	3.874	4.037
#3	3.838	4.292	3.818	4.015	3.843	3.766	3.853	3.875	4.042
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value		4.000				4.000			
Range		5.000%				-5.000%			

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/27/2023 10:36:43 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**3.935**	**3.956**
Stddev	.003	.003
%RSD	.0750	.0864
#1	3.932	3.954
#2	3.937	3.955
#3	3.935	3.960
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**827.82**	**2526.7**	**23730.**	**4184.5**
Stddev	3.52	4.2	41.	17.8
%RSD	.42463	.16431	.17193	.42499
#1	831.79	2531.5	23707.	4164.7
#2	825.10	2524.1	23777.	4189.6
#3	826.58	2524.6	23705.	4199.1

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/27/2023 10:43:38 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2564**	**41.68**	**2.025**	**2.144**	**2.096**	**1.993**	**41.35**	**2.049**	**2.047**
Stddev	.0013	.02	.005	.026	.002	.003	.10	.005	.005
%RSD	.5179	.0427	.2659	1.199	.0747	.1581	.2447	.2571	.2594
#1	.2565	41.70	2.020	2.118	2.095	1.996	41.45	2.043	2.043
#2	.2576	41.66	2.027	2.145	2.098	1.992	41.35	2.051	2.046
#3	.2550	41.68	2.030	2.169	2.095	1.990	41.25	2.053	2.053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.001**	**41.45**	**41.52**	**2.062**	**40.15**	**2.106**	**2.022**	**40.54**
Stddev	.010	.009	.10	.09	.005	.04	.006	.009	.06
%RSD	.5038	.4564	.2510	.2265	.2339	.1025	.3009	.4351	.1474
#1	2.050	1.996	41.49	41.58	2.068	40.11	2.107	2.012	40.58
#2	2.063	2.012	41.52	41.56	2.060	40.19	2.112	2.026	40.57
#3	2.043	1.996	41.33	41.41	2.059	40.16	2.100	2.029	40.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**2.093**	**1.947**	**2.028**	**2.526**	**1.969**	**2.039**	**2.032**	**2.017**
Stddev	.007	.008	.011	.014	.012	.008	.003	.008	.011
%RSD	.3687	.3844	.5628	.6715	.4616	.4165	.1526	.4027	.5332
#1	1.975	2.098	1.936	2.015	2.513	1.960	2.040	2.027	2.011
#2	1.987	2.084	1.947	2.026	2.530	1.973	2.042	2.042	2.011
#3	1.989	2.097	1.958	2.042	2.535	1.975	2.036	2.028	2.030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/27/2023 10:43:38 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.053**	**2.026**
Stddev	.012	.005
%RSD	.5806	.2254
#1	2.049	2.021
#2	2.066	2.027
#3	2.044	2.030
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**910.46**	**2619.4**	**24424.**	**4245.3**
Stddev	3.24	7.9	121.	32.6
%RSD	.35637	.30051	.49594	.76838
#1	909.56	2627.9	24498.	4212.3
#2	914.06	2618.2	24284.	4246.0
#3	907.77	2612.3	24489.	4277.5

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/27/2023 10:48:59 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0170**	**-.0004**	F **.0011**	**.0002**	**.0000**	**.0044**	**.0000**	**.0001**
Stddev	.0003	.0141	.0004	.0017	.0001	.0000	.0006	.0000	.0000
%RSD	169.6	82.85	102.0	145.3	67.60	61.05	13.30	170.1	47.04
#1	-.0001	-.0313	-.0001	.0023	.0000	.0000	.0041	.0000	.0002
#2	-.0005	-.0167	-.0008	.0019	.0003	.0000	.0050	.0000	.0001
#3	.0001	-.0031	-.0002	-.0008	.0002	.0000	.0039	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0002**	**.0016**	**.0218**	F **.0011**	**.0058**	**.0000**	**.0003**	**.0018**
Stddev	.0001	.0001	.0016	.0242	.0012	.0095	.0000	.0001	.0007
%RSD	19.88	28.29	98.46	111.0	104.7	163.2	102.9	28.24	37.16
#1	.0004	-.0003	.0000	.0369	.0014	-.0051	.0001	.0003	.0024
#2	.0006	-.0002	.0016	.0345	.0022	.0126	.0000	.0003	.0011
#3	.0004	-.0002	.0033	-.0061	-.0002	.0100	.0001	.0002	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0010				
Low Limit					-.0010				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**-.0005**	**-.0001**	**-.0004**	**-.0001**	**.0001**	**-.0001**	**.0011**
Stddev	.0001	.0005	.0003	.0013	.0003	.0004	.0001	.0001	.0012
%RSD	41.21	202.4	72.06	1505.	65.33	558.5	123.6	88.43	114.6
#1	.0002	-.0004	-.0006	-.0005	-.0003	-.0005	.0000	-.0001	-.0001
#2	.0001	.0005	-.0001	-.0012	-.0007	.0000	.0001	-.0003	.0009
#3	.0001	.0006	-.0007	.0014	-.0003	.0003	.0001	.0000	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/27/2023 10:48:59 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0000**
Stddev	.0002	.0001
%RSD	244.2	153.5
#1	-.0002	.0000
#2	-.0001	.0001
#3	.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1126.4**	**2782.7**	**26107.**	**4246.4**
Stddev	1.4	4.0	77.	17.8
%RSD	.12035	.14318	.29495	.41822
#1	1127.9	2787.2	26190.	4235.7
#2	1125.7	2780.8	26091.	4236.6
#3	1125.5	2779.9	26039.	4266.9

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/27/2023 10:53:43 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**527.7**	**-.0008**	F **-.0113**	**.0000**	**.0000**	**455.5**	**.0009**
Stddev	.0005	3.7	.0010	.0073	.000	.0001	7.5	.0004
%RSD	330.0	.7043	126.1	64.59	443.5	4935.	1.637	39.35
#1	-.0005	523.6	-.0004	-.0044	.0000	.0001	447.0	.0013
#2	.0004	530.9	-.0019	-.0189	.0000	.0000	461.1	.0006
#3	-.0004	528.6	-.0001	-.0105	.0000	.0000	458.5	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0006**	**-.0008**	F **495.3**	**.0472**	F **.0031**	**500.8**	**-.0002**
Stddev	.0002	.0004	.0007	5.5	.0149	.0003	.4	.0001
%RSD	62.76	69.91	83.40	1.106	31.66	9.388	.0710	52.41
#1	-.0002	.0002	-.0015	489.9	.0362	.0035	500.5	-.0002
#2	-.0002	.0010	-.0002	500.9	.0412	.0029	500.8	-.0001
#3	-.0005	.0005	-.0008	495.1	.0642	.0030	501.2	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Fail	Chk Pass	Chk Pass
High Limit				240.0		.0010		
Low Limit				160.0		-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.2513**	**.0010**	**-.0001**	**.0013**	**.0000**	**.0098**	**.0005**
Stddev	.0001	.0052	.0004	.0009	.0019	.003	.0005	.0003
%RSD	26.89	2.062	37.35	1130.	141.0	5937.	5.221	58.73
#1	.0004	.2560	.0008	.0010	.0035	-.0024	.0104	.0008
#2	.0006	.2523	.0014	-.0007	.0001	-.0004	.0094	.0003
#3	.0007	.2457	.0008	-.0005	.0005	.0027	.0096	.0003
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/27/2023 10:53:43 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0015**	**.0008**	**.0009**	**.0019**
Stddev	.0001	.0001	.0007	.0003	.0001
%RSD	22.16	8.416	94.38	36.87	3.710
#1	-.0002	.0013	.0002	.0006	.0020
#2	-.0003	.0016	.0005	.0009	.0019
#3	-.0002	.0015	.0016	.0013	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**861.73**	**2314.0**	**21564.**	**4022.7**
Stddev	1.79	7.3	125.	18.9
%RSD	.20811	.31414	.58179	.46885
#1	860.29	2308.3	21639.	4041.3
#2	863.74	2311.4	21634.	4003.6
#3	861.17	2322.2	21419.	4023.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/27/2023 11:03:21 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.045**	**537.7**	**.9120**	**.9434**	**.5102**	**.4773**	**462.4**	**.9531**	**.4669**
Stddev	.003	3.3	.0028	.0029	.0019	.0018	5.4	.0023	.0007
%RSD	.2502	.6050	.3080	.3048	.3666	.3776	1.174	.2389	.1519
#1	1.048	538.5	.9150	.9401	.5116	.4778	467.9	.9557	.4676
#2	1.043	540.6	.9094	.9451	.5081	.4753	462.2	.9522	.4662
#3	1.043	534.2	.9115	.9450	.5109	.4787	457.1	.9514	.4670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4872**	**.5237**	**187.2**	**.0235**	**1.016**	**502.1**	**.5181**	**.8582**	**.2614**
Stddev	.0019	.0006	.2	.0261	.003	1.5	.0023	.0023	.0147
%RSD	.3989	.1210	.1036	111.0	.2685	.3062	.4518	.2733	5.637
#1	.4891	.5238	187.4	.0307	1.018	503.5	.5208	.8608	.2699
#2	.4872	.5230	187.0	.0451	1.013	500.5	.5167	.8563	.2444
#3	.4852	.5243	187.2	-.0054	1.017	502.5	.5168	.8574	.2700
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8709**	**.9698**	**.8639**	**.8585**	**.0444**	**.8167**	**.9198**	**.9752**	**.8077**
Stddev	.0024	.0031	.0022	.0052	.0010	.0034	.0042	.0035	.0035
%RSD	.2800	.3231	.2556	.6019	2.305	.4220	.4602	.3577	.4337
#1	.8737	.9706	.8664	.8613	.0445	.8183	.9220	.9790	.8040
#2	.8694	.9663	.8623	.8617	.0434	.8189	.9149	.9747	.8110
#3	.8696	.9725	.8630	.8525	.0454	.8127	.9225	.9721	.8080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/27/2023 11:03:21 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5070**	**.9146**
Stddev	.0014	.0016
%RSD	.2819	.1781
#1	.5084	.9163
#2	.5069	.9131
#3	.5056	.9144
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**802.09**	**2366.1**	**21680.**	**4050.2**
Stddev	3.64	4.4	139.	8.7
%RSD	.45358	.18667	.64158	.21411
#1	805.41	2367.2	21520.	4042.2
#2	802.64	2369.8	21746.	4059.5
#3	798.20	2361.2	21774.	4049.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 11:10:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2440**	**40.18**	**1.982**	**1.982**	**2.040**	**2.023**	**40.46**	**2.001**	**2.004**
Stddev	.0007	.04	.004	.015	.001	.004	.01	.003	.004
%RSD	.3047	.1039	.2040	.7740	.0327	.2049	.0355	.1263	.1835
#1	.2439	40.20	1.978	1.999	2.040	2.022	40.46	1.999	2.000
#2	.2447	40.20	1.983	1.979	2.041	2.027	40.47	2.000	2.005
#3	.2432	40.13	1.986	1.969	2.040	2.019	40.44	2.004	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.983**	**40.33**	**40.72**	**2.052**	**39.92**	**2.048**	**2.001**	**40.52**
Stddev	.004	.005	.05	.03	.003	.11	.002	.005	.07
%RSD	.1780	.2717	.1250	.0829	.1574	.2665	.1163	.2276	.1834
#1	2.011	1.983	40.34	40.68	2.056	39.80	2.046	1.998	40.46
#2	2.018	1.988	40.37	40.74	2.052	40.00	2.050	2.000	40.60
#3	2.014	1.978	40.27	40.73	2.049	39.96	2.049	2.006	40.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**1.987**	**1.964**	**1.968**	**1.894**	**1.980**	**2.039**	**2.014**	**1.958**
Stddev	.006	.002	.011	.010	.006	.003	.004	.006	.002
%RSD	.3198	.0748	.5398	.4864	.3214	.1593	.1822	.3182	.1156
#1	1.981	1.987	1.952	1.964	1.890	1.979	2.040	2.012	1.956
#2	1.984	1.988	1.967	1.961	1.891	1.978	2.043	2.021	1.961
#3	1.993	1.985	1.972	1.979	1.901	1.984	2.035	2.009	1.958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 11:10:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.015**	**1.986**
Stddev	.003	.003
%RSD	.1444	.1253
#1	2.013	1.984
#2	2.019	1.986
#3	2.014	1.989
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.67**	**2533.1**	**23914.**	**4088.6**
Stddev	1.94	1.1	102.	32.3
%RSD	.21425	.04352	.42467	.79086
#1	904.54	2533.7	23972.	4121.3
#2	904.56	2533.8	23796.	4087.7
#3	907.91	2531.8	23973.	4056.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 11:16:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0098**	**-.0003**	F **-.0012**	**.0002**	**-.0001**	**.0028**	**.0001**
Stddev	.000	.0120	.0002	.0034	.0002	.0001	.0031	.0000
%RSD	1130.	121.5	58.93	283.8	104.7	133.1	109.7	32.20
#1	.0000	-.0160	-.0004	.0003	.0001	.0000	.0059	.0000
#2	.0000	-.0175	-.0001	.0012	.0001	-.0001	-.0002	.0001
#3	.0000	.0039	-.0002	-.0050	.0004	-.0001	.0026	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0006**	**.0020**	**.0418**	F **.0015**	**.0033**	**.0000**
Stddev	.0000	.0002	.0002	.0007	.0140	.0003	.0181	.000
%RSD	52.29	151.1	25.26	36.32	33.41	19.69	543.4	146.7
#1	.0001	.0003	.0005	.0025	.0352	.0019	.0174	.0000
#2	.0000	-.0001	.0006	.0022	.0579	.0013	.0097	.0000
#3	.0001	.0002	.0008	.0011	.0325	.0014	-.0171	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0098**	**-.0001**	**.0002**	**-.0001**	**-.0004**	**.0002**	**.0000**
Stddev	.000	.0085	.0002	.0004	.0010	.0023	.0003	.0004
%RSD	371.7	87.19	393.3	237.2	1188.	594.2	209.6	877.0
#1	.0000	.0054	.0001	.0006	.0006	.0002	.0001	.0000
#2	.0000	.0043	.0000	.0002	.0004	-.0029	-.0001	-.0003
#3	.0000	.0196	-.0003	-.0003	-.0013	.0016	.0005	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 11:16:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	TI1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0013**	**-.0001**	**.0022**
Stddev	.0000	.0000	.0003	.0003	.0001
%RSD	185.7	43.03	23.45	600.4	3.399
#1	.0000	-.0001	.0013	.0000	.0023
#2	.0000	-.0001	.0015	.0002	.0021
#3	.0001	-.0001	.0009	-.0004	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1114.3**	**2761.2**	**25785.**	**4209.7**
Stddev	5.3	11.9	25.	40.4
%RSD	.47625	.43174	.09835	.96077
#1	1114.2	2762.0	25756.	4190.5
#2	1119.7	2772.7	25804.	4182.5
#3	1109.1	2748.9	25794.	4256.2

Zoom In Zoom Out

Sample Name: MP41997-MB1 Acquired: 3/27/2023 11:22:05 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0142**	**.0000**	**-.0048**	**.0003**	**.0000**	**.0250**	**-.0001**	**-.0001**
Stddev	.0003	.0035	.001	.0016	.0002	.000	.0024	.0001	.0001
%RSD	113.7	24.66	2021.	33.25	67.50	72.49	9.656	64.93	101.6
#1	.0000	-.0177	.0005	-.0031	.0001	.0000	.0225	-.0001	-.0001
#2	.0007	-.0143	.0001	-.0062	.0005	.0000	.0253	.0000	-.0002
#3	.0002	-.0107	-.0007	-.0050	.0003	.0000	.0273	-.0002	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0004**	**.0127**	**.0378**	**-.0011**	**.0048**	**.0002**	**.0001**	**.0095**
Stddev	.0000	.0003	.0003	.0202	.0006	.0102	.0000	.0002	.0057
%RSD	2.717	65.39	2.578	53.42	55.02	211.2	16.08	272.7	59.70
#1	.0011	-.0001	.0131	.0162	-.0016	.0127	.0002	.0002	.0151
#2	.0011	-.0005	.0126	.0561	-.0012	-.0067	.0002	.0002	.0037
#3	.0011	-.0006	.0125	.0412	-.0004	.0085	.0001	-.0002	.0097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	TI1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0007**	**-.0001**	**.0017**	**.0031**	**.0225**	**.0000**	**.0001**	**-.0007**
Stddev	.0001	.0007	.0005	.0016	.0002	.0003	.000	.0000	.0002
%RSD	44.04	99.00	401.8	92.66	4.966	1.405	1033.	41.50	23.77
#1	-.0002	.0013	-.0005	.0025	.0032	.0222	-.0001	.0001	-.0009
#2	-.0002	.0008	-.0003	.0028	.0029	.0228	.0000	.0001	-.0007
#3	-.0001	.0000	.0005	-.0001	.0031	.0225	.0001	.0001	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP41997-MB1 Acquired: 3/27/2023 11:22:05 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0005**	**.0009**
Stddev	.0001	.0001
%RSD	26.30	7.894
#1	.0006	.0008
#2	.0004	.0009
#3	.0004	.0010
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1063.5**	**2713.0**	**25515.**	**4049.9**
Stddev	11.6	25.0	964.	70.6
%RSD	1.0909	.92020	3.7775	1.7421
#1	1076.4	2741.3	24409.	4060.6
#2	1060.0	2703.7	25957.	4114.5
#3	1054.0	2694.0	26178.	3974.6

Zoom In Zoom Out

Sample Name: MP41997-B1 Acquired: 3/27/2023 11:26:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0509**	**27.00**	**1.899**	F **-.0033**	**2.091**	**.0500**	**25.49**	**.0501**
Stddev	.0003	.05	.011	.0024	.007	.0002	.09	.0004
%RSD	.6098	.2025	.5511	74.43	.3459	.3682	.3374	.8461
#1	.0512	27.06	1.888	-.0060	2.099	.0502	25.58	.0497
#2	.0507	26.95	1.909	-.0013	2.085	.0501	25.49	.0505
#3	.0508	26.99	1.899	-.0025	2.089	.0498	25.41	.0502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5110**	**.2066**	**.2473**	**26.14**	**25.32**	F **.0016**	**24.32**	**.5262**
Stddev	.0035	.0006	.0002	.10	.08	.0010	.16	.0029
%RSD	.6906	.2987	.0758	.3955	.3209	60.31	.6770	.5440
#1	.5075	.2070	.2475	26.25	25.41	.0018	24.50	.5292
#2	.5145	.2068	.2474	26.11	25.25	.0006	24.29	.5261
#3	.5111	.2059	.2471	26.05	25.29	.0025	24.18	.5234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0500		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4912**	**22.87**	**.4944**	**.4946**	**.4557**	**1.883**	**.2095**	**.4976**
Stddev	.0035	.09	.0033	.0019	.0026	.009	.0010	.0033
%RSD	.7125	.3940	.6695	.3853	.5815	.4991	.4942	.6599
#1	.4873	22.97	.4907	.4924	.4530	1.873	.2084	.4938
#2	.4941	22.83	.4971	.4954	.4583	1.888	.2099	.4995
#3	.4921	22.81	.4955	.4959	.4557	1.889	.2103	.4994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: MP41997-B1 Acquired: 3/27/2023 11:26:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5067**	**.4909**	**1.874**	**.5009**	**.4938**
Stddev	.0012	.0009	.008	.0006	.0030
%RSD	.2378	.1760	.4208	.1245	.6172
#1	.5081	.4919	1.866	.5010	.4907
#2	.5063	.4906	1.882	.5015	.4967
#3	.5058	.4902	1.876	.5002	.4939
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**930.21**	**2568.9**	**24037.**	**3989.3**
Stddev	5.28	17.9	98.	18.4
%RSD	.56777	.69508	.40672	.46075
#1	935.89	2588.4	24022.	3977.3
#2	925.44	2553.3	23947.	4010.4
#3	929.30	2564.9	24141.	3980.1

Zoom In Zoom Out

Sample Name: FC3570-19 Acquired: 3/27/2023 11:31:32 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0156**	**25.57**	**.3419**	**.1754**	**.3989**	**.0004**	**100.3**	**.0046**	**.0306**
Stddev	.0002	.14	.0017	.0018	.0003	.0000	.1	.0000	.0002
%RSD	1.388	.5295	.4988	1.037	.0823	8.298	.1059	.4086	.5251
#1	.0157	25.67	.3414	.1774	.3993	.0003	100.3	.0046	.0306
#2	.0154	25.62	.3438	.1748	.3990	.0003	100.3	.0046	.0308
#3	.0158	25.42	.3404	.1738	.3986	.0004	100.1	.0046	.0305

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **7.812**	**.5196**	**75.03**	**5.162**	**.0145**	**8.467**	**.6871**	**.1220**	**7.778**
Stddev	.008	.0019	.11	.003	.0008	.033	.0020	.0001	.024
%RSD	.1010	.3619	.1409	.0515	5.709	.3919	.2894	.0531	.3043
#1	7.809	.5215	75.11	5.164	.0155	8.505	.6854	.1219	7.804
#2	7.807	.5177	75.08	5.159	.0141	8.451	.6892	.1221	7.757
#3	7.821	.5197	74.91	5.162	.0140	8.445	.6866	.1220	7.774

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.879**	**.0923**	**.1572**	**.0175**	**12.42**	**.1960**	**.2590**	**.4557**	**-.0028**
Stddev	.008	.0003	.0020	.0026	.06	.0012	.0002	.0015	.0016
%RSD	.4211	.3321	1.269	15.05	.4599	.5879	.0611	.3295	57.99
#1	1.873	.0922	.1564	.0151	12.37	.1947	.2592	.4561	-.0014
#2	1.876	.0921	.1558	.0172	12.41	.1966	.2591	.4541	-.0025
#3	1.888	.0926	.1595	.0203	12.48	.1968	.2589	.4570	-.0046

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0643**	F **208.2**
Stddev	.0005	1.9
%RSD	.7357	.9220
#1	.0643	209.6
#2	.0637	206.0
#3	.0647	209.0

Zoom In Zoom Out

Sample Name: FC3570-19 Acquired: 3/27/2023 11:31:32 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**963.92**	**2510.2**	**24810.**	**4324.4**
Stddev	3.22	8.5	126.	19.9
%RSD	.33389	.34043	.50877	.45980
#1	960.21	2515.1	24948.	4301.5
#2	965.85	2515.3	24700.	4337.6
#3	965.72	2500.4	24783.	4334.0

Zoom In Zoom Out

Sample Name: MP41997-D1 Acquired: 3/27/2023 11:36:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0179**	**23.29**	**.4152**	**.1876**	**.4065**	**.0004**	**117.5**	**.0124**	**.0324**
Stddev	.0002	.01	.0002	.0020	.0003	.0001	.0	.0001	.0001
%RSD	.9492	.0604	.0546	1.089	.0676	14.37	.0392	.5180	.3909
#1	.0181	23.30	.4150	.1853	.4062	.0004	117.5	.0124	.0323
#2	.0179	23.30	.4152	.1890	.4066	.0005	117.5	.0125	.0325
#3	.0178	23.28	.4155	.1885	.4068	.0004	117.5	.0123	.0324

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **5.924**	**.6054**	**70.31**	**4.306**	**.0184**	**8.659**	**.6481**	**.0925**	**6.621**
Stddev	.021	.0009	.10	.043	.0014	.039	.0027	.0001	.017
%RSD	.3478	.1552	.1440	1.000	7.482	.4458	.4173	.0848	.2612
#1	5.900	.6060	70.20	4.355	.0193	8.633	.6452	.0925	6.622
#2	5.935	.6043	70.40	4.289	.0169	8.703	.6486	.0925	6.638
#3	5.936	.6059	70.32	4.274	.0192	8.640	.6505	.0926	6.603

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.590**	**.1039**	**.1562**	**.0160**	**13.09**	**.2439**	**.3040**	**.4992**	**-.0010**
Stddev	.003	.0002	.0018	.0016	.01	.0013	.0003	.0019	.0013
%RSD	.1887	.1739	1.157	9.882	.1051	.5172	.0963	.3791	129.2
#1	1.587	.1040	.1581	.0149	13.09	.2432	.3037	.4973	.0005
#2	1.593	.1037	.1546	.0153	13.11	.2453	.3041	.4994	-.0017
#3	1.590	.1041	.1557	.0178	13.08	.2431	.3042	.5010	-.0020

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0615**	F **212.7**
Stddev	.0002	1.6
%RSD	.3798	.7657
#1	.0612	211.5
#2	.0615	214.5
#3	.0617	212.0

Zoom In Zoom Out

Sample Name: MP41997-D1 Acquired: 3/27/2023 11:36:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**954.29**	**2478.3**	**24490.**	**4248.1**
Stddev	1.01	2.4	146.	19.1
%RSD	.10613	.09846	.59802	.45020
#1	953.57	2478.0	24658.	4229.5
#2	955.45	2476.0	24418.	4247.2
#3	953.87	2480.9	24393.	4267.7

Zoom In Zoom Out

Sample Name: MP41997-SD1 Acquired: 3/27/2023 11:41:05 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0163**	**25.45**	**.3271**	**.1359**	**.3924**	**.0004**	**99.52**	**.0045**	**.0307**
Stddev	.0026	.13	.0028	.0064	.0016	.0004	.21	.0001	.0003
%RSD	15.76	.5140	.8527	4.675	.4082	88.93	.2077	3.195	.9722
#1	.0187	25.45	.3269	.1286	.3941	.0001	99.54	.0046	.0310
#2	.0168	25.58	.3245	.1400	.3922	.0008	99.71	.0043	.0308
#3	.0136	25.32	.3300	.1391	.3909	.0004	99.30	.0045	.0304

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.862**	**.5290**	**74.86**	**5.162**	**.0189**	**8.756**	**.6868**	**.1177**	**7.876**
Stddev	.015	.0006	.19	.059	.0067	.086	.0023	.0012	.022
%RSD	.1876	.1211	.2483	1.146	35.28	.9879	.3339	1.033	.2767
#1	7.845	.5290	74.93	5.225	.0255	8.756	.6844	.1176	7.872
#2	7.869	.5284	75.00	5.108	.0193	8.842	.6869	.1189	7.899
#3	7.871	.5297	74.65	5.155	.0121	8.669	.6890	.1165	7.856

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.885**	**.0927**	**.1478**	**.0175**	**12.38**	**.2016**	**.2552**	**.4590**	**-.0009**
Stddev	.004	.0031	.0020	.0127	.03	.0014	.0007	.0004	.0013
%RSD	.2173	3.362	1.326	72.89	.2549	.6762	.2806	.0918	157.5
#1	1.889	.0963	.1457	.0130	12.41	.2018	.2560	.4587	.0007
#2	1.884	.0909	.1481	.0318	12.37	.2028	.2548	.4587	-.0014
#3	1.881	.0909	.1495	.0076	12.35	.2001	.2548	.4595	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0626**	F **526.7**
Stddev	.0005	.3
%RSD	.7200	.0577
#1	.0631	526.9
#2	.0622	526.7
#3	.0625	526.3

Zoom In Zoom Out

Sample Name: MP41997-SD1 Acquired: 3/27/2023 11:41:05 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1065.8**	**2722.9**	**25950.**	**4359.0**
Stddev	4.9	5.6	63.	33.6
%RSD	.45543	.20412	.24418	.77051
#1	1071.3	2727.5	26020.	4393.3
#2	1063.7	2716.7	25931.	4326.1
#3	1062.3	2724.3	25898.	4357.5

Zoom In Zoom Out

Sample Name: MP41997-PS1 Acquired: 3/27/2023 11:45:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0607**	**27.85**	**.4330**	**.1714**	**.6328**	**.0454**	**102.5**	**.0517**	**.0775**
Stddev	.0002	.06	.0024	.0026	.0009	.0001	.3	.0002	.0004
%RSD	.3896	.2329	.5646	1.545	.1485	.2348	.3161	.3384	.5765
#1	.0605	27.91	.4357	.1728	.6339	.0455	102.9	.0519	.0780
#2	.0607	27.78	.4325	.1731	.6322	.0455	102.3	.0516	.0771
#3	.0610	27.86	.4309	.1683	.6322	.0453	102.4	.0517	.0772

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **7.744**	**.5995**	**76.30**	**14.39**	**.0137**	**12.54**	**.7254**	**.2098**	**15.93**
Stddev	.017	.0011	.30	.03	.0007	.05	.0010	.0008	.03
%RSD	.2170	.1915	.3932	.1863	5.288	.3719	.1375	.3827	.1881
#1	7.725	.5994	76.64	14.42	.0138	12.59	.7260	.2106	15.95
#2	7.750	.5984	76.12	14.37	.0144	12.51	.7242	.2098	15.90
#3	7.757	.6007	76.13	14.37	.0130	12.52	.7259	.2090	15.95

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.882**	**.1373**	**.2389**	**.1108**	**11.90**	**.2289**	**.2958**	**.5361**	**.0796**
Stddev	.007	.0006	.0017	.0013	.05	.0014	.0012	.0001	.0013
%RSD	.3555	.4603	.7223	1.162	.4051	.6165	.3929	.0224	1.665
#1	1.889	.1380	.2405	.1095	11.95	.2304	.2971	.5359	.0811
#2	1.882	.1368	.2371	.1108	11.90	.2288	.2953	.5362	.0787
#3	1.875	.1372	.2391	.1121	11.85	.2276	.2949	.5361	.0789

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1091**	F **205.1**
Stddev	.0005	1.6
%RSD	.4140	.7635
#1	.1094	206.9
#2	.1086	204.1
#3	.1093	204.2

Zoom In Zoom Out

Sample Name: MP41997-PS1 Acquired: 3/27/2023 11:45:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**944.50**	**2558.5**	**24743.**	**4383.5**
Stddev	3.45	7.8	77.	29.9
%RSD	.36545	.30309	.31014	.68123
#1	940.57	2551.4	24728.	4359.6
#2	945.86	2557.3	24675.	4417.0
#3	947.06	2566.8	24826.	4374.1

Zoom In Zoom Out

Sample Name: MP41997-S1 Acquired: 3/27/2023 11:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0572**	**33.88**	**2.016**	**.0292**	**2.270**	**.0489**	**59.26**	**.0517**	**.5096**
Stddev	.0007	.07	.013	.0034	.002	.0001	.13	.0002	.0033
%RSD	1.249	.2179	.6498	11.65	.0694	.2755	.2216	.3445	.6516
#1	.0568	33.80	2.031	.0330	2.270	.0490	59.24	.0519	.5132
#2	.0568	33.94	2.008	.0283	2.268	.0488	59.15	.0518	.5091
#3	.0580	33.91	2.009	.0264	2.271	.0490	59.40	.0515	.5066

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6020**	**.4032**	**41.55**	**27.65**	**.0072**	**28.24**	**.7300**	**.4899**	**25.96**
Stddev	.0010	.0006	.08	.07	.0017	.08	.0019	.0030	.04
%RSD	.1706	.1585	.2033	.2357	23.65	.2688	.2599	.6113	.1489
#1	.6009	.4026	41.53	27.66	.0091	28.17	.7278	.4931	25.92
#2	.6023	.4031	41.47	27.58	.0064	28.22	.7314	.4895	25.95
#3	.6029	.4039	41.64	27.71	.0059	28.32	.7307	.4872	26.00

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5596**	**.5279**	**.4942**	**2.002**	**7.008**	**.5352**	**.6389**	**.6450**	**1.835**
Stddev	.0029	.0020	.0036	.009	.044	.0043	.0007	.0019	.010
%RSD	.5099	.3861	.7274	.4729	.6348	.8095	.1171	.3007	.5501
#1	.5625	.5299	.4983	2.012	7.052	.5399	.6397	.6472	1.841
#2	.5597	.5279	.4925	2.000	7.007	.5343	.6383	.6434	1.841
#3	.5568	.5258	.4918	1.993	6.963	.5314	.6385	.6444	1.823

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5115**	F **186.6**
Stddev	.0012	.3
%RSD	.2354	.1598
#1	.5102	186.7
#2	.5115	186.2
#3	.5126	186.7

Zoom In Zoom Out

Sample Name: MP41997-S1 Acquired: 3/27/2023 11:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**935.58**	**2659.4**	**24733.**	**4290.2**
Stddev	3.94	14.4	116.	19.3
%RSD	.42099	.54058	.46748	.44978
#1	931.61	2643.8	24864.	4308.3
#2	935.63	2662.5	24693.	4292.6
#3	939.49	2672.0	24643.	4269.9

Zoom In Zoom Out

Sample Name: FC3570-1 Acquired: 3/27/2023 11:55:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0098**	**10.73**	**.0336**	**.0479**	F **4.450**	**.0004**	**42.22**	**.0746**	**.1047**
Stddev	.0005	.03	.0011	.0013	.095	.0001	.18	.0002	.0002
%RSD	5.397	.3084	3.376	2.651	2.124	21.70	.4221	.3274	.2354
#1	.0102	10.73	.0349	.0494	4.350	.0003	42.25	.0743	.1044
#2	.0100	10.76	.0327	.0469	4.460	.0005	42.39	.0748	.1048
#3	.0092	10.69	.0332	.0475	4.538	.0003	42.03	.0747	.1048

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2141**	**.3078**	**22.28**	**2.702**	**.0098**	**6.775**	**.2507**	**.3547**	**3.009**
Stddev	.0012	.0023	.14	.033	.0014	.025	.0008	.0009	.017
%RSD	.5546	.7498	.6188	1.222	14.58	.3718	.3198	.2658	.5590
#1	.2134	.3053	22.32	2.716	.0107	6.802	.2503	.3536	3.004
#2	.2154	.3099	22.39	2.726	.0105	6.752	.2516	.3551	3.028
#3	.2133	.3083	22.13	2.664	.0081	6.771	.2502	.3554	2.995

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1250**	**.8807**	**.0253**	**.0201**	**7.402**	**.1228**	**.1926**	**.2998**	**-.0038**
Stddev	.0010	.0031	.0008	.0019	.053	.0013	.0006	.0065	.0015
%RSD	.8170	.3506	3.276	9.303	.7146	1.078	.2944	2.172	39.03
#1	.1239	.8804	.0244	.0186	7.353	.1213	.1924	.2951	-.0034
#2	.1251	.8839	.0260	.0196	7.396	.1234	.1932	.3073	-.0026
#3	.1260	.8778	.0254	.0222	7.458	.1236	.1921	.2971	-.0055

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0191**	F **183.5**
Stddev	.0000	.6
%RSD	.1678	.3398
#1	.0190	182.9
#2	.0191	183.3
#3	.0190	184.2

Zoom In Zoom Out

Sample Name: FC3570-1 Acquired: 3/27/2023 11:55:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1000.7**	**2643.2**	**25410.**	**4318.1**
Stddev	3.2	21.2	82.	34.9
%RSD	.32410	.80164	.32199	.80716
#1	1004.5	2666.6	25424.	4351.5
#2	999.02	2637.6	25323.	4282.0
#3	998.73	2625.3	25485.	4321.0

Zoom In Zoom Out

Sample Name: FC3570-2 Acquired: 3/27/2023 12:00:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078**	**9.437**	**.0125**	**.0364**	**2.640**	**.0003**	**38.08**	**.0833**	**.1088**
Stddev	.0002	.029	.0004	.0014	.007	.0001	.07	.0002	.0004
%RSD	2.542	.3017	3.198	3.796	.2634	18.09	.1839	.2752	.3994
#1	.0078	9.406	.0122	.0379	2.633	.0003	38.02	.0831	.1084
#2	.0076	9.462	.0130	.0352	2.646	.0002	38.08	.0833	.1088
#3	.0080	9.442	.0124	.0362	2.643	.0003	38.16	.0836	.1093

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1480**	**.1793**	**17.49**	**2.179**	**.0112**	**7.160**	**.1859**	**.2492**	**3.313**
Stddev	.0008	.0017	.03	.023	.0003	.021	.0009	.0008	.015
%RSD	.5740	.9620	.1615	1.047	3.094	.2998	.4651	.3396	.4444
#1	.1478	.1794	17.46	2.205	.0116	7.160	.1861	.2485	3.305
#2	.1489	.1810	17.49	2.160	.0109	7.138	.1867	.2489	3.304
#3	.1472	.1776	17.51	2.174	.0111	7.181	.1850	.2501	3.330

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0972**	**.3650**	**.0255**	**.0132**	**7.247**	**.0804**	**.1988**	**.2823**	**-.0039**
Stddev	.0003	.0007	.0012	.0022	.044	.0006	.0004	.0029	.0013
%RSD	.3016	.1802	4.903	16.64	.6108	.7706	.2145	1.041	33.24
#1	.0969	.3644	.0268	.0152	7.204	.0797	.1983	.2816	-.0047
#2	.0972	.3650	.0253	.0109	7.246	.0804	.1989	.2855	-.0046
#3	.0975	.3657	.0243	.0134	7.292	.0810	.1991	.2798	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0130**	F **166.0**
Stddev	.0002	.5
%RSD	1.446	.3207
#1	.0129	166.6
#2	.0132	165.9
#3	.0129	165.6

Zoom In Zoom Out

Sample Name: FC3570-2 Acquired: 3/27/2023 12:00:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1001.0**	**2525.1**	**24415.**	**4134.0**
Stddev	2.3	1.4	46.	15.7
%RSD	.22683	.05515	.18875	.37945
#1	998.42	2524.8	24367.	4128.6
#2	1002.7	2526.6	24418.	4151.7
#3	1001.8	2523.9	24459.	4121.7

Zoom In Zoom Out

Sample Name: FC3570-3 Acquired: 3/27/2023 12:05:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0061**	**6.173**	**.0103**	**.0279**	**1.956**	**.0002**	**24.49**	**.0620**	**.0502**
Stddev	.0001	.016	.0010	.0003	.005	.0000	.10	.0003	.0001
%RSD	1.669	.2548	9.872	1.207	.2725	23.96	.4079	.4507	.2575
#1	.0062	6.157	.0095	.0275	1.951	.0001	24.46	.0619	.0503
#2	.0061	6.174	.0099	.0278	1.956	.0001	24.42	.0623	.0503
#3	.0061	6.188	.0114	.0282	1.962	.0002	24.61	.0618	.0501

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1326**	**.1336**	**10.13**	**1.611**	**.0069**	**4.991**	**.1208**	**.1283**	**2.921**
Stddev	.0080	.0084	.03	.014	.0012	.013	.0072	.0003	.010
%RSD	6.069	6.259	.3159	.8507	18.14	.2547	5.923	.2316	.3547
#1	.1283	.1284	10.09	1.626	.0082	4.978	.1165	.1280	2.915
#2	.1276	.1292	10.14	1.599	.0058	4.990	.1168	.1286	2.915
#3	.1419	.1433	10.15	1.608	.0065	5.004	.1291	.1283	2.933

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0658**	**.4500**	**.0194**	**.0138**	**5.588**	**.0603**	**.1660**	**.1781**	**-.0040**
Stddev	.0002	.0024	.0015	.0022	.018	.0007	.0005	.0100	.0003
%RSD	.3361	.5267	7.670	16.23	.3169	1.152	.2795	5.591	6.503
#1	.0656	.4476	.0202	.0123	5.576	.0595	.1659	.1723	-.0037
#2	.0657	.4524	.0177	.0128	5.608	.0605	.1656	.1724	-.0042
#3	.0660	.4499	.0203	.0164	5.580	.0608	.1665	.1896	-.0040

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0092**	F **149.5**
Stddev	.0006	1.2
%RSD	6.510	.8286
#1	.0086	148.3
#2	.0091	150.8
#3	.0098	149.6

Zoom In Zoom Out

Sample Name: FC3570-3 Acquired: 3/27/2023 12:05:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1044.6**	**2564.2**	**24271.**	**4205.4**
Stddev	5.5	12.1	1305.	25.9
%RSD	.52527	.47170	5.3768	.61601
#1	1048.6	2570.8	25034.	4206.4
#2	1038.3	2550.2	25014.	4230.8
#3	1046.8	2571.6	22764.	4179.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 12:10:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2491**	**40.12**	**2.004**	**1.980**	**2.048**	**2.077**	**40.36**	**2.008**	**2.016**
Stddev	.0008	.08	.006	.026	.005	.006	.08	.004	.004
%RSD	.3336	.2106	.3023	1.297	.2641	.2765	.1860	.1850	.1722
#1	.2500	40.09	2.005	1.954	2.043	2.082	40.43	2.006	2.013
#2	.2491	40.22	1.998	1.980	2.054	2.071	40.37	2.006	2.016
#3	.2484	40.07	2.010	2.006	2.046	2.077	40.28	2.012	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.044**	**2.073**	**39.81**	**41.18**	**2.070**	**41.10**	**2.009**	**2.041**	**42.24**
Stddev	.004	.008	.04	.12	.004	.08	.007	.006	.07
%RSD	.2148	.4043	.0972	.2964	.2147	.1972	.3464	.2797	.1659
#1	2.039	2.069	39.80	41.11	2.075	41.07	2.012	2.038	42.32
#2	2.046	2.083	39.85	41.33	2.067	41.19	2.001	2.038	42.20
#3	2.047	2.068	39.78	41.12	2.068	41.03	2.013	2.048	42.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.075**	**1.911**	**2.103**	**1.984**	**2.003**	**2.102**	**2.079**	**2.095**	**1.968**
Stddev	.008	.007	.012	.009	.008	.009	.002	.006	.005
%RSD	.4072	.3647	.5887	.4726	.4180	.4521	.1139	.2924	.2685
#1	2.069	1.912	2.093	1.977	1.997	2.097	2.082	2.089	1.974
#2	2.072	1.918	2.100	1.980	2.000	2.097	2.077	2.101	1.966
#3	2.085	1.904	2.117	1.994	2.013	2.113	2.078	2.096	1.965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 12:10:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.075**	**2.029**
Stddev	.006	.002
%RSD	.2689	.0899
#1	2.069	2.027
#2	2.080	2.030
#3	2.075	2.031
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**922.01**	**2471.9**	**23886.**	**4048.3**
Stddev	2.96	13.9	96.	31.9
%RSD	.32153	.56185	.39991	.78901
#1	925.09	2485.0	23990.	4013.6
#2	919.17	2473.2	23802.	4055.0
#3	921.78	2457.3	23865.	4076.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 12:14:33 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0156**	**.0002**	F **-.0019**	**.0004**	**.0000**	**.0020**	**.0000**
Stddev	.0005	.0058	.0005	.0015	.0001	.000	.0031	.000
%RSD	2306.	37.07	246.1	75.70	20.10	60.51	151.8	321.3
#1	.0002	-.0185	-.0004	-.0019	.0005	.0000	.0038	.0000
#2	-.0005	-.0193	.0004	-.0005	.0004	.0000	.0038	.0000
#3	.0004	-.0089	.0006	-.0034	.0003	.0000	-.0015	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0007**	**.0017**	**.0689**	**.0007**	**.0138**	**.0000**
Stddev	.0001	.0001	.0003	.0002	.0328	.0009	.0142	.0000
%RSD	979.9	48.12	37.82	12.63	47.59	120.3	103.1	59.60
#1	.0001	.0003	.0005	.0019	.0861	-.0001	.0295	.0001
#2	.0000	.0002	.0010	.0015	.0894	.0007	.0019	.0000
#3	.0000	.0001	.0007	.0017	.0311	.0017	.0100	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0098**	**.0000**	**-.0004**	**.0019**	**-.0004**	**.0023**	**-.0001**
Stddev	.0001	.0023	.000	.0000	.0012	.0027	.0012	.0003
%RSD	46.59	23.41	471.5	2.798	64.33	652.4	54.29	354.6
#1	.0002	-.0121	.0002	-.0004	.0007	.0015	.0032	-.0001
#2	.0003	-.0098	.0000	-.0004	.0031	-.0035	.0027	-.0003
#3	.0001	-.0075	-.0003	-.0004	.0018	.0008	.0009	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 12:14:33 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0004**	**.0001**	F **.0062**
Stddev	.000	.000	.0002	.0001	.0002
%RSD	93.66	759.7	49.05	91.69	2.962
#1	-.0001	.0001	.0002	.0002	.0062
#2	.0000	.0000	.0006	.0002	.0060
#3	.0000	-.0001	.0004	.0000	.0064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit					.0050
Low Limit					-.0050

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1138.6**	**2624.1**	**25540.**	**4088.9**
Stddev	14.2	31.8	290.	24.4
%RSD	1.2439	1.2102	1.1354	.59733
#1	1128.1	2599.3	25606.	4101.3
#2	1154.7	2659.9	25222.	4060.8
#3	1133.1	2613.1	25791.	4104.7

Zoom In Zoom Out

Sample Name: FC3570-4 Acquired: 3/27/2023 12:19:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0072**	**10.90**	**.0147**	**.1170**	**1.142**	**.0005**	**85.46**	**.2244**	**.3131**
Stddev	.0005	.06	.0017	.0028	.007	.0001	.38	.0003	.0002
%RSD	6.563	.5352	11.45	2.404	.5947	13.08	.4498	.1432	.0615
#1	.0071	10.84	.0151	.1140	1.135	.0006	85.06	.2241	.3129
#2	.0077	10.95	.0163	.1195	1.148	.0006	85.82	.2247	.3132
#3	.0067	10.92	.0129	.1176	1.143	.0005	85.51	.2245	.3133

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1650**	**.4661**	**81.90**	**5.667**	**.0087**	**8.576**	**1.117**	**.0154**	**61.41**
Stddev	.0011	.0013	.46	.032	.0007	.073	.001	.0003	.26
%RSD	.6885	.2766	.5625	.5600	7.679	.8461	.1022	2.066	.4153
#1	.1639	.4650	81.38	5.663	.0093	8.600	1.116	.0157	61.41
#2	.1662	.4675	82.27	5.700	.0080	8.633	1.117	.0151	61.66
#3	.1648	.4657	82.05	5.637	.0087	8.494	1.118	.0153	61.15

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3751**	**1.758**	**.0132**	**.0206**	**8.841**	**.1150**	**.3383**	**.2466**	**-.0031**
Stddev	.0009	.009	.0009	.0011	.023	.0006	.0012	.0008	.0015
%RSD	.2345	.5186	7.042	5.115	.2629	.5539	.3511	.3427	47.55
#1	.3757	1.749	.0125	.0219	8.862	.1149	.3370	.2473	-.0037
#2	.3756	1.760	.0143	.0201	8.846	.1156	.3393	.2469	-.0014
#3	.3741	1.767	.0129	.0200	8.816	.1143	.3387	.2457	-.0042

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0209**	F **211.4**
Stddev	.0004	1.5
%RSD	1.878	.7079
#1	.0204	213.0
#2	.0211	210.9
#3	.0211	210.1

Zoom In Zoom Out

Sample Name: FC3570-4 Acquired: 3/27/2023 12:19:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**939.49**	**2514.9**	**24155.**	**4204.4**
Stddev	2.97	6.1	43.	28.3
%RSD	.31561	.24254	.17836	.67265
#1	942.87	2515.1	24197.	4190.7
#2	937.33	2508.7	24111.	4185.7
#3	938.27	2520.9	24157.	4237.0

Zoom In Zoom Out

Sample Name: FC3570-5 Acquired: 3/27/2023 12:24:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**1.580**	**.0041**	**.0175**	**1.225**	**.0001**	**20.87**	**.0070**	**.0334**
Stddev	.0004	.014	.0004	.0018	.004	.0001	.08	.0001	.0003
%RSD	23.14	.9078	10.01	10.10	.3390	110.9	.3800	1.165	.7848
#1	.0020	1.577	.0046	.0156	1.228	.0000	20.95	.0071	.0336
#2	.0013	1.595	.0038	.0190	1.226	.0000	20.79	.0069	.0334
#3	.0021	1.567	.0039	.0181	1.220	.0001	20.86	.0070	.0331

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0157**	**.1109**	**2.602**	**1.154**	**.0011**	**3.638**	**.1765**	**.0027**	**3.317**
Stddev	.0000	.0007	.008	.025	.0001	.034	.0002	.0001	.018
%RSD	.1398	.6749	.3003	2.204	9.232	.9197	.1367	3.453	.5430
#1	.0157	.1118	2.609	1.176	.0010	3.672	.1763	.0027	3.325
#2	.0157	.1105	2.604	1.159	.0012	3.605	.1766	.0028	3.329
#3	.0157	.1104	2.594	1.126	.0010	3.639	.1767	.0027	3.296

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0196**	**.3703**	**.0074**	**.0078**	**3.046**	**.0371**	**.1642**	**.0530**	**-.0038**
Stddev	.0002	.0025	.0011	.0016	.017	.0007	.0007	.0006	.0007
%RSD	.9170	.6858	14.99	20.26	.5490	1.939	.4038	1.114	17.90
#1	.0194	.3729	.0084	.0060	3.064	.0379	.1645	.0525	-.0036
#2	.0197	.3678	.0062	.0090	3.031	.0365	.1634	.0536	-.0033
#3	.0197	.3704	.0077	.0085	3.044	.0369	.1646	.0528	-.0046

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0041**	F **6.354**
Stddev	.0002	.035
%RSD	5.933	.5518
#1	.0039	6.393
#2	.0041	6.325
#3	.0043	6.346

Zoom In Zoom Out

Sample Name: FC3570-5 Acquired: 3/27/2023 12:24:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1056.7**	**2644.8**	**25395.**	**4157.1**
Stddev	8.1	15.4	59.	21.0
%RSD	.76509	.58392	.23219	.50619
#1	1051.8	2635.0	25390.	4132.8
#2	1066.0	2662.6	25339.	4169.0
#3	1052.3	2636.9	25456.	4169.5

Zoom In Zoom Out

Sample Name: FC3570-6 Acquired: 3/27/2023 12:29:03 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0110**	**4.003**	**.0055**	**.0523**	**.1448**	**.0002**	**22.96**	**.0124**	**.0315**
Stddev	.0003	.017	.0001	.0023	.0003	.0001	.04	.0000	.0004
%RSD	3.089	.4186	2.228	4.309	.2185	45.51	.1935	.3564	1.149
#1	.0111	3.984	.0056	.0549	.1444	.0003	22.97	.0125	.0317
#2	.0113	4.012	.0055	.0507	.1448	.0003	22.92	.0124	.0317
#3	.0107	4.014	.0054	.0514	.1451	.0001	23.00	.0124	.0311

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0993**	**.4392**	**9.980**	**2.244**	**.0032**	**4.358**	**.1275**	**.0077**	**3.339**
Stddev	.0004	.0013	.012	.013	.0007	.010	.0005	.0002	.025
%RSD	.4082	.2904	.1193	.5593	22.28	.2291	.3682	2.915	.7532
#1	.0994	.4381	9.970	2.231	.0038	4.369	.1272	.0079	3.320
#2	.0996	.4406	9.978	2.245	.0024	4.349	.1281	.0075	3.329
#3	.0988	.4388	9.994	2.256	.0033	4.358	.1274	.0077	3.368

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1129**	**.1326**	**.0177**	**.0119**	**4.915**	**.0453**	**.1219**	**.1804**	**-.0030**
Stddev	.0006	.0006	.0017	.0010	.014	.0001	.0004	.0006	.0002
%RSD	.5085	.4269	9.715	8.033	.2858	.1579	.2901	.3550	6.728
#1	.1131	.1328	.0169	.0111	4.923	.0453	.1218	.1797	-.0028
#2	.1134	.1330	.0196	.0117	4.924	.0453	.1216	.1810	-.0032
#3	.1123	.1319	.0165	.0129	4.899	.0454	.1223	.1805	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0086**	F **35.05**
Stddev	.0002	.23
%RSD	2.308	.6563
#1	.0088	35.29
#2	.0084	35.03
#3	.0087	34.83

Zoom In Zoom Out

Sample Name: FC3570-6 Acquired: 3/27/2023 12:29:03 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1045.6**	**2647.5**	**25418.**	**4194.5**
Stddev	7.3	11.3	61.	43.7
%RSD	.69938	.42852	.23836	1.0427
#1	1042.0	2640.5	25389.	4199.3
#2	1040.8	2641.4	25378.	4235.6
#3	1054.0	2660.6	25488.	4148.5

Zoom In Zoom Out

Sample Name: FC3570-7 Acquired: 3/27/2023 12:33:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.8977**	**.0034**	**.0066**	**.0500**	**.0000**	**14.34**	**.0068**	**.0009**
Stddev	.0003	.0068	.0012	.0021	.0001	.0000	.03	.0000	.0001
%RSD	49.84	.7530	35.40	32.56	.1466	57.93	.2019	.3318	10.65
#1	.0004	.8899	.0032	.0051	.0500	.0000	14.31	.0068	.0008
#2	.0006	.9018	.0047	.0090	.0501	.0000	14.35	.0068	.0009
#3	.0010	.9014	.0023	.0056	.0500	.0000	14.37	.0068	.0009

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0449**	**.0678**	**1.645**	**.9394**	**.0003**	**2.899**	**.0335**	**.0011**	**2.866**
Stddev	.0004	.0005	.006	.0182	.0002	.021	.0001	.0001	.011
%RSD	.9433	.6724	.3873	1.935	66.25	.7309	.1734	7.718	.3914
#1	.0444	.0674	1.639	.9595	.0004	2.910	.0335	.0010	2.856
#2	.0452	.0683	1.645	.9343	.0001	2.875	.0335	.0011	2.863
#3	.0451	.0677	1.652	.9242	.0003	2.913	.0336	.0011	2.878

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.0115**	**.0139**	**.0064**	**1.977**	**.0267**	**.1295**	**.0248**	**-.0046**
Stddev	.0003	.0005	.0003	.0002	.005	.0005	.0005	.0004	.0018
%RSD	2.663	4.222	2.370	3.057	.2622	1.891	.4082	1.426	40.02
#1	.0097	.0119	.0135	.0063	1.979	.0272	.1289	.0244	-.0040
#2	.0101	.0109	.0139	.0062	1.982	.0262	.1297	.0248	-.0066
#3	.0102	.0115	.0142	.0066	1.971	.0268	.1299	.0251	-.0031

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0018**	F **25.33**
Stddev	.0002	.02
%RSD	9.306	.0627
#1	.0017	25.34
#2	.0017	25.34
#3	.0020	25.31

Zoom In Zoom Out

Sample Name: FC3570-7 Acquired: 3/27/2023 12:33:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1065.3**	**2650.2**	**25581.**	**4179.9**
Stddev	1.5	2.3	117.	13.9
%RSD	.14357	.08589	.45868	.33147
#1	1065.0	2649.2	25702.	4189.7
#2	1064.0	2648.5	25468.	4185.9
#3	1067.0	2652.8	25572.	4164.0

Zoom In Zoom Out

Sample Name: FC3570-8 Acquired: 3/27/2023 12:38:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**1.495**	**.0048**	**.0097**	**.8008**	**.0000**	**40.64**	**.0086**	**.0571**
Stddev	.0002	.004	.0012	.0012	.0004	.0000	.06	.0001	.0005
%RSD	12.98	.2502	24.85	12.24	.0463	164.5	.1595	.9642	.9275
#1	.0014	1.494	.0036	.0098	.8006	.0000	40.59	.0087	.0576
#2	.0016	1.498	.0048	.0085	.8012	.0001	40.62	.0085	.0565
#3	.0012	1.491	.0060	.0108	.8006	.0000	40.72	.0086	.0572

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0188**	**.0574**	**2.663**	**1.085**	**.0025**	**4.185**	**.5048**	**.0742**	**3.852**
Stddev	.0003	.0002	.007	.012	.0004	.033	.0018	.0006	.006
%RSD	1.461	.4053	.2517	1.072	17.00	.7894	.3631	.8128	.1499
#1	.0191	.0574	2.665	1.075	.0021	4.151	.5030	.0744	3.846
#2	.0187	.0572	2.669	1.098	.0029	4.188	.5047	.0735	3.854
#3	.0186	.0577	2.656	1.082	.0025	4.217	.5067	.0746	3.857

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0539**	**1.804**	**.0679**	**.0078**	**3.232**	**.0418**	**.1838**	**.0684**	**-.0033**
Stddev	.0006	.023	.0013	.0016	.033	.0006	.0004	.0004	.0011
%RSD	1.150	1.281	1.965	20.22	1.018	1.469	.2141	.6570	34.99
#1	.0544	1.827	.0667	.0094	3.259	.0425	.1836	.0679	-.0019
#2	.0532	1.781	.0693	.0063	3.195	.0413	.1836	.0686	-.0039
#3	.0540	1.803	.0677	.0076	3.241	.0416	.1843	.0687	-.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0071**	F **16.72**
Stddev	.0004	.18
%RSD	6.310	1.084
#1	.0076	16.89
#2	.0070	16.53
#3	.0067	16.74

Zoom In Zoom Out

Sample Name: FC3570-8 Acquired: 3/27/2023 12:38:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.9**	**2585.6**	**24908.**	**4108.8**
Stddev	10.3	20.6	73.	28.3
%RSD	.99724	.79695	.29470	.68851
#1	1023.9	2570.5	24929.	4138.9
#2	1044.1	2609.0	24968.	4104.7
#3	1030.7	2577.2	24826.	4082.7

Zoom In Zoom Out

Sample Name: FC3570-9 Acquired: 3/27/2023 12:43:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**1.085**	**.0139**	**.0270**	**.0466**	**.0000**	**18.63**	**.0020**	**.0032**
Stddev	.0002	.020	.0006	.0016	.0004	.000	.04	.0000	.0001
%RSD	5.669	1.808	4.085	5.911	.8949	88.44	.2089	1.961	4.678
#1	.0038	1.100	.0144	.0277	.0461	.0000	18.61	.0020	.0030
#2	.0036	1.063	.0133	.0282	.0467	-.0001	18.62	.0020	.0031
#3	.0034	1.093	.0140	.0252	.0470	.0000	18.68	.0021	.0033

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0582**	**.0779**	**7.820**	**1.356**	**.0013**	**3.278**	**.0746**	**.0029**	**3.382**
Stddev	.0005	.0005	.017	.022	.0029	.035	.0002	.0002	.020
%RSD	.8162	.5846	.2135	1.589	217.3	1.079	.3071	7.513	.6006
#1	.0579	.0777	7.815	1.374	.0005	3.258	.0744	.0029	3.376
#2	.0588	.0775	7.806	1.332	.0045	3.257	.0747	.0027	3.365
#3	.0580	.0784	7.839	1.362	-.0010	3.318	.0748	.0031	3.405

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0188**	**.0270**	**.0185**	**.0079**	**2.522**	**.0298**	**.1689**	**.0374**	**-.0032**
Stddev	.0000	.0009	.0016	.0023	.004	.0004	.0010	.0003	.0002
%RSD	.2315	3.476	8.649	29.74	.1579	1.350	.5910	.8131	7.638
#1	.0188	.0264	.0178	.0101	2.522	.0299	.1678	.0376	-.0035
#2	.0188	.0281	.0174	.0054	2.518	.0302	.1695	.0375	-.0031
#3	.0189	.0266	.0204	.0081	2.526	.0294	.1695	.0370	-.0031

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0042**	F **17.69**
Stddev	.0001	.04
%RSD	3.072	.2367
#1	.0043	17.72
#2	.0042	17.70
#3	.0040	17.64

Zoom In Zoom Out

Sample Name: FC3570-9 Acquired: 3/27/2023 12:43:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1053.2**	**2554.7**	**24756.**	**4049.7**
Stddev	3.5	5.8	103.	21.1
%RSD	.33377	.22868	.41573	.52066
#1	1050.4	2556.4	24696.	4062.4
#2	1052.1	2548.2	24875.	4061.3
#3	1057.1	2559.5	24697.	4025.4

Zoom In Zoom Out

Sample Name: FC3570-10 Acquired: 3/27/2023 12:48:10 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.6260**	**.0037**	**.0003**	**.0255**	**.0000**	**13.74**	**.0007**	**.0008**
Stddev	.0004	.0131	.0007	.0020	.0002	.000	.04	.0000	.0001
%RSD	16.81	2.087	17.80	708.3	.8700	99.73	.2712	3.639	10.68
#1	.0023	.6376	.0031	.0024	.0252	-.0001	13.72	.0007	.0008
#2	.0021	.6119	.0037	-.0015	.0257	.0000	13.78	.0007	.0007
#3	.0029	.6287	.0044	.0000	.0255	.0000	13.72	.0007	.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0206**	**.0241**	**1.074**	**.8687**	**.0006**	**3.099**	**.0222**	**.0006**	**3.074**
Stddev	.0002	.0002	.004	.0289	.0007	.013	.0001	.0002	.004
%RSD	.7864	.7097	.3401	3.330	126.6	.4339	.4910	28.80	.1322
#1	.0207	.0239	1.071	.8591	.0011	3.100	.0223	.0007	3.073
#2	.0205	.0241	1.078	.9013	-.0002	3.112	.0222	.0005	3.079
#3	.0205	.0243	1.073	.8459	.0008	3.085	.0221	.0005	3.071

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0051**	**.0065**	**.0057**	**1.871**	**.0295**	**.1496**	**.0176**	**-.0037**
Stddev	.0001	.0001	.0012	.0016	.002	.0003	.0002	.0002	.0013
%RSD	1.754	2.781	18.83	27.49	.0949	.9068	.1629	.9957	34.83
#1	.0058	.0052	.0062	.0046	1.872	.0294	.1494	.0177	-.0049
#2	.0059	.0049	.0078	.0049	1.869	.0293	.1499	.0178	-.0024
#3	.0057	.0051	.0054	.0074	1.872	.0298	.1495	.0174	-.0037

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0016**	F **10.70**
Stddev	.0002	.03
%RSD	11.19	.2614
#1	.0014	10.73
#2	.0016	10.70
#3	.0017	10.68

Zoom In Zoom Out

Sample Name: FC3570-10 Acquired: 3/27/2023 12:48:10 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1060.8**	**2534.3**	**24741.**	**4077.3**
Stddev	6.7	9.1	38.	30.5
%RSD	.62759	.35859	.15432	.74730
#1	1055.6	2528.5	24784.	4063.9
#2	1058.4	2529.7	24715.	4055.8
#3	1068.3	2544.8	24723.	4112.2

Zoom In Zoom Out

Sample Name: FC3570-11 Acquired: 3/27/2023 12:52:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0474**	**19.43**	**.0181**	F **.5544**	F **28.42**	**.0007**	**156.0**	**.1280**	**.1393**
Stddev	.0001	.06	.0005	.0014	.30	.0001	.3	.0001	.0003
%RSD	.1954	.2966	2.551	.2578	1.043	15.32	.1683	.0777	.2069
#1	.0474	19.48	.0177	.5561	28.55	.0007	156.3	.1281	.1394
#2	.0474	19.37	.0186	.5535	28.08	.0006	155.8	.1279	.1389
#3	.0475	19.43	.0182	.5538	28.62	.0008	156.0	.1281	.1395

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1953**	**2.837**	**28.69**	**6.062**	**.0277**	**11.96**	**.4901**	**.0185**	**7.583**
Stddev	.0006	.007	.02	.023	.0009	.06	.0003	.0002	.023
%RSD	.3226	.2327	.0793	.3758	3.304	.4656	.0602	1.073	.3087
#1	.1958	2.830	28.71	6.064	.0287	11.98	.4904	.0183	7.606
#2	.1946	2.843	28.67	6.038	.0276	11.90	.4900	.0187	7.559
#3	.1955	2.837	28.69	6.084	.0268	12.00	.4898	.0185	7.582

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2739**	**.9268**	**.0527**	**.0165**	**9.870**	**.2161**	**.6088**	**.9009**	**-.0021**
Stddev	.0006	.0011	.0016	.0028	.031	.0011	.0012	.0011	.0006
%RSD	.2338	.1185	2.976	16.87	.3142	.5021	.1985	.1212	29.36
#1	.2745	.9279	.0509	.0138	9.906	.2171	.6096	.8996	-.0014
#2	.2740	.9269	.0538	.0193	9.854	.2162	.6075	.9015	-.0023
#3	.2732	.9257	.0533	.0165	9.850	.2149	.6095	.9015	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0364**	F **162.8**
Stddev	.0005	.3
%RSD	1.452	.1761
#1	.0358	163.0
#2	.0368	162.9
#3	.0367	162.5

Zoom In Zoom Out

Sample Name: FC3570-11 Acquired: 3/27/2023 12:52:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**941.86**	**2499.7**	**24208.**	**4229.2**
Stddev	1.21	3.3	93.	16.5
%RSD	.12899	.13151	.38407	.38988
#1	941.18	2498.6	24126.	4222.4
#2	941.14	2497.1	24309.	4248.0
#3	943.27	2503.4	24190.	4217.2

Zoom In Zoom Out

Sample Name: MP42004-B1 Acquired: 3/27/2023 12:58:04 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0521**	**26.75**	**1.938**	F **-.0077**	**2.076**	**.0535**	**25.80**	**.0496**
Stddev	.0006	.04	.004	.0018	.005	.0005	.08	.0001
%RSD	1.122	.1541	.1850	24.10	.2231	.9353	.3209	.1778
#1	.0515	26.80	1.937	-.0064	2.082	.0541	25.90	.0497
#2	.0527	26.73	1.942	-.0098	2.075	.0532	25.77	.0495
#3	.0522	26.72	1.936	-.0068	2.073	.0532	25.74	.0496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0500				
Range				-20.00%				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5087**	**.2083**	**.2651**	**25.93**	**25.95**	F **.0019**	**26.03**	**.5086**
Stddev	.0003	.0008	.0007	.07	.05	.0003	.08	.0007
%RSD	.0663	.3692	.2669	.2881	.1909	17.19	.3249	.1365
#1	.5091	.2092	.2643	26.01	26.00	.0016	26.12	.5092
#2	.5087	.2079	.2656	25.93	25.92	.0022	25.96	.5087
#3	.5084	.2079	.2654	25.86	25.92	.0020	26.00	.5079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
Value						.0500		
Range						-20.00%		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4978**	**24.91**	**.5255**	**.4674**	**.5127**	**1.916**	**.3415**	**.5241**
Stddev	.0012	.07	.0006	.0026	.0027	.004	.0008	.0011
%RSD	.2442	.3003	.1107	.5465	.5186	.2121	.2384	.2017
#1	.4992	24.99	.5262	.4699	.5117	1.917	.3423	.5248
#2	.4972	24.85	.5251	.4648	.5107	1.911	.3416	.5247
#3	.4970	24.89	.5252	.4673	.5157	1.919	.3407	.5229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value								
Range								

Zoom In Zoom Out

Sample Name: MP42004-B1 Acquired: 3/27/2023 12:58:04 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5341**	**.5204**	**1.907**	**.5165**	**.5098**
Stddev	.0023	.0011	.007	.0007	.0014
%RSD	.4279	.2161	.3877	.1443	.2722
#1	.5367	.5193	1.913	.5171	.5112
#2	.5324	.5204	1.899	.5157	.5097
#3	.5332	.5215	1.911	.5166	.5084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**972.21**	**2512.9**	**24025.**	**4036.8**
Stddev	1.88	1.4	62.	15.9
%RSD	.19368	.05376	.25728	.39507
#1	970.48	2511.9	24087.	4049.6
#2	974.21	2512.3	23963.	4018.9
#3	971.93	2514.4	24026.	4041.8

Zoom In Zoom Out

Sample Name: FC3570-12 Acquired: 3/27/2023 13:02:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0127**	**15.28**	**.0118**	**.1096**	**.9104**	**.0005**	**83.20**	**.0766**	**.1959**
Stddev	.0003	.06	.0006	.0025	.0036	.0001	.23	.0001	.0005
%RSD	2.648	.3938	5.441	2.310	.3985	10.27	.2720	.1819	.2703
#1	.0131	15.31	.0125	.1087	.9134	.0005	83.24	.0767	.1964
#2	.0124	15.32	.0114	.1124	.9113	.0005	83.39	.0766	.1953
#3	.0126	15.21	.0113	.1076	.9064	.0006	82.95	.0764	.1960

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0890**	**.4058**	**16.46**	**5.216**	**.0137**	**8.330**	**.3132**	**.0097**	**5.668**
Stddev	.0002	.0007	.03	.043	.0015	.026	.0009	.0002	.025
%RSD	.2671	.1725	.1600	.8224	10.70	.3185	.2887	2.056	.4320
#1	.0892	.4055	16.49	5.240	.0151	8.360	.3122	.0096	5.662
#2	.0888	.4066	16.47	5.242	.0139	8.310	.3138	.0099	5.695
#3	.0889	.4053	16.44	5.167	.0122	8.320	.3137	.0095	5.648

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1150**	**2.169**	**.1969**	**.0189**	**9.603**	**.1184**	**.2479**	**.5373**	**-.0035**
Stddev	.0006	.004	.0037	.0007	.015	.0004	.0013	.0017	.0016
%RSD	.5347	.1665	1.894	3.517	.1592	.3407	.5351	.3211	46.66
#1	.1157	2.169	.1989	.0187	9.620	.1189	.2482	.5355	-.0019
#2	.1145	2.173	.1992	.0183	9.593	.1181	.2491	.5375	-.0052
#3	.1149	2.165	.1926	.0196	9.594	.1182	.2465	.5389	-.0034

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0250**	F **34.19**
Stddev	.0003	.29
%RSD	1.207	.8535
#1	.0251	34.47
#2	.0253	34.21
#3	.0247	33.89

Zoom In Zoom Out

Sample Name: FC3570-12 Acquired: 3/27/2023 13:02:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**992.21**	**2528.2**	**24424.**	**4123.4**
Stddev	1.47	8.1	142.	33.0
%RSD	.14781	.32030	.58186	.80082
#1	990.72	2519.7	24483.	4146.4
#2	992.26	2535.9	24527.	4138.3
#3	993.66	2529.1	24262.	4085.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 13:07:28 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**39.74**	**2.017**	**1.960**	**2.051**	**2.125**	**40.67**	**2.019**	**2.021**
Stddev	.0004	.12	.018	.031	.002	.007	.08	.016	.015
%RSD	.1720	.3124	.9003	1.575	.1163	.3399	.1996	.7992	.7431
#1	.2506	39.88	2.014	1.951	2.052	2.120	40.71	2.010	2.013
#2	.2503	39.71	2.000	1.935	2.052	2.133	40.73	2.008	2.011
#3	.2512	39.63	2.036	1.995	2.048	2.122	40.58	2.037	2.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.046**	**2.069**	**39.90**	**41.29**	**2.099**	**41.34**	**2.033**	**2.046**	**42.40**
Stddev	.003	.003	.06	.08	.005	.10	.006	.016	.14
%RSD	.1556	.1187	.1476	.1932	.2290	.2374	.2762	.7834	.3216
#1	2.043	2.068	39.97	41.32	2.094	41.28	2.036	2.039	42.39
#2	2.049	2.072	39.89	41.35	2.104	41.45	2.026	2.035	42.55
#3	2.047	2.068	39.85	41.20	2.099	41.28	2.036	2.064	42.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.085**	**1.909**	**2.114**	**1.993**	**2.011**	**2.115**	**2.122**	**2.102**	**1.967**
Stddev	.018	.014	.021	.018	.018	.020	.004	.003	.018
%RSD	.8559	.7129	.9961	.8852	.8819	.9508	.1805	.1555	.9383
#1	2.077	1.900	2.108	1.992	2.008	2.113	2.120	2.098	1.959
#2	2.072	1.902	2.097	1.976	1.995	2.097	2.126	2.104	1.953
#3	2.105	1.924	2.138	2.012	2.030	2.137	2.119	2.103	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 13:07:28 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.061**	**2.031**
Stddev	.006	.016
%RSD	.3070	.7971
#1	2.056	2.023
#2	2.068	2.020
#3	2.059	2.050
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**926.81**	**2473.8**	**23761.**	**4032.8**
Stddev	7.40	22.4	79.	35.2
%RSD	.79813	.90575	.33123	.87406
#1	931.83	2485.6	23840.	4017.6
#2	930.29	2487.9	23762.	4007.7
#3	918.32	2448.0	23682.	4073.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 13:12:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0198**	**.0004**	F **-.0014**	**.0003**	**.0000**	**.0033**	**.0000**
Stddev	.0002	.0092	.0007	.0007	.0001	.0001	.0022	.0001
%RSD	152.0	46.33	208.0	51.35	27.93	785.1	66.38	301.7
#1	.0002	-.0105	.0011	-.0023	.0003	.0001	.0054	-.0001
#2	.0001	-.0288	.0003	-.0009	.0004	.0000	.0036	.0001
#3	-.0001	-.0201	-.0004	-.0011	.0002	-.0001	.0010	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0007**	**.0002**	**.0429**	F **.0016**	**-.0022**	**.0000**
Stddev	.0000	.0002	.0003	.0010	.0266	.0021	.0239	.0000
%RSD	33.72	161.5	36.68	549.8	62.10	129.8	1108.	118.7
#1	.0001	.0001	.0005	.0008	.0223	.0036	-.0007	.0000
#2	.0001	.0003	.0010	-.0010	.0729	.0019	-.0267	.0000
#3	.0001	-.0001	.0007	.0007	.0334	-.0006	.0209	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0071**	**-.0001**	**.0005**	**.0019**	**.0009**	**.0020**	**.0000**
Stddev	.0001	.0115	.0001	.0005	.0012	.0015	.0004	.000
%RSD	26.58	161.2	92.69	104.7	65.33	176.9	21.77	621.2
#1	.0003	-.0178	.0000	.0012	.0026	-.0007	.0025	.0001
#2	.0002	.0050	-.0001	.0002	.0025	.0010	.0018	.0001
#3	.0002	-.0085	-.0001	.0003	.0005	.0023	.0017	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 13:12:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0005**	**.0001**	**.0034**
Stddev	.0000	.0001	.0014	.0002	.0000
%RSD	593.0	77.68	258.3	139.4	.8609
#1	.0000	-.0001	.0011	-.0001	.0035
#2	.0001	.0000	.0015	.0003	.0035
#3	.0000	-.0002	-.0010	.0002	.0034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1129.2**	**2649.6**	**25548.**	**4073.2**
Stddev	2.2	3.5	122.	30.7
%RSD	.19257	.13139	.47865	.75444
#1	1126.8	2647.6	25660.	4062.5
#2	1131.0	2647.6	25417.	4107.9
#3	1129.8	2653.6	25568.	4049.3

Zoom In Zoom Out

Sample Name: FC3570-13 Acquired: 3/27/2023 13:16:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0281**	**8.257**	**.0119**	**.0522**	**.4258**	**.0004**	**49.90**	**.0498**	**.1114**
Stddev	.0004	.042	.0018	.0009	.0016	.0000	.08	.0001	.0001
%RSD	1.525	.5073	15.22	1.682	.3751	9.892	.1509	.2754	.1018
#1	.0284	8.246	.0118	.0518	.4262	.0004	49.82	.0496	.1112
#2	.0276	8.303	.0137	.0532	.4272	.0004	49.96	.0499	.1115
#3	.0283	8.222	.0101	.0516	.4241	.0003	49.94	.0498	.1114

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0701**	**.2607**	**10.90**	**3.318**	**.0108**	**6.202**	**.1851**	**.0089**	**3.797**
Stddev	.0005	.0003	.00	.024	.0018	.018	.0005	.0001	.008
%RSD	.6565	.1026	.0365	.7112	17.18	.2903	.2712	1.651	.2159
#1	.0696	.2606	10.90	3.300	.0086	6.208	.1852	.0088	3.791
#2	.0705	.2610	10.90	3.344	.0116	6.182	.1855	.0091	3.806
#3	.0702	.2605	10.89	3.309	.0120	6.216	.1845	.0088	3.794

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0716**	**1.715**	**.0770**	**.0176**	**9.566**	**.0917**	**.2375**	**.2730**	**-.0040**
Stddev	.0002	.005	.0013	.0020	.018	.0003	.0012	.0041	.0016
%RSD	.3475	.3079	1.713	11.39	.1836	.3751	.5080	1.510	39.77
#1	.0713	1.709	.0770	.0165	9.546	.0915	.2372	.2765	-.0057
#2	.0717	1.719	.0783	.0200	9.579	.0915	.2364	.2684	-.0035
#3	.0716	1.717	.0757	.0165	9.574	.0921	.2388	.2740	-.0027

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0158**	F **22.79**
Stddev	.0002	.05
%RSD	.9511	.2277
#1	.0156	22.73
#2	.0157	22.83
#3	.0159	22.81

Zoom In Zoom Out

Sample Name: FC3570-13 Acquired: 3/27/2023 13:16:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1016.5**	**2592.4**	**24829.**	**4139.8**
Stddev	1.8	2.8	51.	10.8
%RSD	.17792	.10905	.20452	.26061
#1	1018.5	2595.3	24812.	4141.2
#2	1015.2	2589.7	24789.	4149.8
#3	1015.7	2592.1	24886.	4128.4

Zoom In Zoom Out

Sample Name: FC3570-14 Acquired: 3/27/2023 13:21:36 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0397**	**42.78**	**.0383**	**.0986**	F **5.091**	**.0018**	**175.3**
Stddev	.0004	.06	.0003	.0022	.098	.0001	3.2
%RSD	.9002	.1510	.6919	2.248	1.919	7.776	1.850
#1	.0400	42.83	.0380	.1010	5.204	.0017	177.2
#2	.0397	42.71	.0383	.0979	5.029	.0017	177.1
#3	.0393	42.81	.0385	.0968	5.040	.0020	171.5

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.135**	**.4568**	F **6.278**	F **4.249**	**118.5**	**26.38**	**.0403**
Stddev	.001	.0006	.009	.010	.0	.03	.0009
%RSD	.0726	.1376	.1466	.2284	.0392	.1147	2.311
#1	1.136	.4574	6.286	4.260	118.6	26.37	.0413
#2	1.135	.4562	6.268	4.243	118.5	26.36	.0394
#3	1.134	.4569	6.279	4.243	118.6	26.42	.0403

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.77**	**3.028**	**.8005**	**24.87**	F **10.000**	F **26.61**	**.2722**
Stddev	.02	.031	.0004	.07	.0096	.13	.0012
%RSD	.0717	1.019	.0540	.2938	.0958	.4812	.4234
#1	22.79	3.043	.8009	24.87	9.990	26.76	.2724
#2	22.76	2.992	.8006	24.79	10.01	26.56	.2732
#3	22.78	3.047	.8001	24.94	10.000	26.51	.2709

Elem	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
IS Ref	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0744**	**13.28**	**.6771**	**.5130**	**.9246**	**-.0029**	**.1095**
Stddev	.0013	.02	.0009	.0013	.0017	.0012	.0001
%RSD	1.743	.1479	.1279	.2607	.1866	42.74	.1334
#1	.0733	13.27	.6766	.5143	.9264	-.0039	.1095
#2	.0758	13.30	.6781	.5116	.9230	-.0033	.1097
#3	.0740	13.28	.6766	.5131	.9244	-.0015	.1094

Zoom In Zoom Out

Sample Name: FC3570-14 Acquired: 3/27/2023 13:21:36 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
IS Ref	(Y_2243)
Units	ppm
Avg	F **20.08**
Stddev	.02
%RSD	.0993
#1	20.10
#2	20.06
#3	20.09

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**913.20**	**2604.4**	**25787.**	**4473.0**
Stddev	3.95	1.2	190.	30.1
%RSD	.43209	.04510	.73659	.67279
#1	908.71	2603.5	25719.	4491.6
#2	914.82	2605.7	26002.	4438.3
#3	916.08	2604.1	25641.	4489.2

Zoom In Zoom Out

Sample Name: FC3570-15 Acquired: 3/27/2023 13:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**3.503**	**.0028**	**.0046**	**.0783**	**.0001**	**14.27**	**.0013**	**.0431**
Stddev	.0000	.113	.0006	.0015	.0025	.0001	.44	.0001	.0001
%RSD	2.037	3.233	22.10	32.62	3.222	57.92	3.055	6.737	.2140
#1	.0016	3.404	.0035	.0029	.0762	.0001	13.88	.0012	.0431
#2	.0015	3.627	.0023	.0052	.0811	.0002	14.74	.0013	.0430
#3	.0016	3.480	.0026	.0057	.0777	.0002	14.19	.0014	.0432

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4135**	**.0535**	**8.562**	**1.661**	**.0042**	**3.583**	**.1342**	**.0109**	**3.018**
Stddev	.0023	.0004	.261	.072	.0005	.091	.0005	.0001	.087
%RSD	.5546	.7460	3.051	4.316	12.59	2.533	.3919	1.257	2.881
#1	.4123	.0535	8.335	1.616	.0043	3.482	.1337	.0108	2.939
#2	.4161	.0540	8.847	1.743	.0046	3.659	.1341	.0111	3.111
#3	.4121	.0532	8.503	1.623	.0036	3.607	.1347	.0109	3.002

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0974**	**.0336**	**-.0029**	**.0075**	**4.459**	**.0599**	**.0960**	**.1512**	**.0038**
Stddev	.0003	.0003	.0005	.0006	.003	.0002	.0030	.0021	.0006
%RSD	.3330	.8285	16.18	7.558	.0684	.3694	3.090	1.378	15.56
#1	.0971	.0336	-.0029	.0081	4.458	.0599	.0933	.1507	.0032
#2	.0978	.0333	-.0034	.0074	4.463	.0602	.0992	.1534	.0043
#3	.0974	.0338	-.0025	.0069	4.457	.0597	.0955	.1494	.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0087**	F **199.6**
Stddev	.0002	1.1
%RSD	1.777	.5634
#1	.0085	200.3
#2	.0088	200.2
#3	.0087	198.3

Zoom In Zoom Out

Sample Name: FC3570-15 Acquired: 3/27/2023 13:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1027.1**	**2530.2**	**24668.**	**4030.5**
Stddev	2.9	2.0	104.	85.3
%RSD	.28018	.08027	.42124	2.1174
#1	1024.1	2528.4	24732.	4106.4
#2	1027.4	2532.4	24548.	3938.1
#3	1029.9	2529.8	24723.	4046.9

Zoom In Zoom Out

Sample Name: FC3570-16 Acquired: 3/27/2023 13:31:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074**	**14.54**	**.0260**	**.2443**	**.5007**	**.0004**	**91.80**	**.0115**	**.0406**
Stddev	.0007	.05	.0004	.0084	.0015	.0001	.40	.0000	.0002
%RSD	9.183	.3377	1.659	3.419	.2914	13.18	.4316	.1703	.4060
#1	.0070	14.50	.0261	.2366	.4996	.0005	91.58	.0115	.0406
#2	.0081	14.59	.0256	.2431	.5024	.0004	92.25	.0115	.0405
#3	.0069	14.51	.0264	.2532	.5003	.0004	91.56	.0116	.0408

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.713**	**1.062**	**75.51**	**4.983**	**.0080**	**9.399**	**.8830**	**.0389**	**4.294**
Stddev	.003	.003	.29	.015	.0014	.073	.0023	.0001	.013
%RSD	.1630	.2325	.3779	.2922	17.59	.7810	.2634	.3350	.3124
#1	1.714	1.059	75.32	4.999	.0074	9.391	.8856	.0389	4.282
#2	1.715	1.063	75.84	4.980	.0097	9.477	.8812	.0388	4.309
#3	1.710	1.064	75.38	4.971	.0070	9.331	.8821	.0390	4.292

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8709**	**.2384**	**.0987**	**.0280**	**6.494**	**.1626**	**.2115**	**.4683**	**-.0034**
Stddev	.0033	.0013	.0012	.0008	.023	.0004	.0009	.0009	.0015
%RSD	.3799	.5547	1.266	2.708	.3611	.2580	.4242	.1876	44.76
#1	.8671	.2399	.0972	.0279	6.468	.1621	.2114	.4674	-.0018
#2	.8728	.2375	.0994	.0272	6.498	.1629	.2125	.4692	-.0048
#3	.8728	.2378	.0994	.0287	6.514	.1628	.2107	.4683	-.0036

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0342**	F **200.0**
Stddev	.0002	.6
%RSD	.7104	.2902
#1	.0339	200.6
#2	.0344	199.8
#3	.0342	199.5

Zoom In Zoom Out

Sample Name: FC3570-16 Acquired: 3/27/2023 13:31:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**979.96**	**2540.6**	**24577.**	**4161.6**
Stddev	2.43	7.7	57.	49.8
%RSD	.24782	.30189	.23101	1.1975
#1	977.92	2549.3	24533.	4156.2
#2	979.31	2534.7	24556.	4114.6
#3	982.65	2537.9	24641.	4213.9

Zoom In Zoom Out

Sample Name: FC3570-17 Acquired: 3/27/2023 13:36:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0477**	**81.40**	**-.0310**	**.2615**	**9.843**	**.0031**	**348.7**	**.2373**	**1.847**
Stddev	.0013	.76	.0024	.0074	.093	.0004	4.0	.0007	.003
%RSD	2.798	.9359	7.645	2.824	.9465	12.52	1.141	.2937	.1648
#1	.0462	80.62	-.0318	.2695	9.745	.0032	344.4	.2365	1.845
#2	.0487	82.15	-.0283	.2550	9.931	.0034	352.2	.2379	1.845
#3	.0482	81.42	-.0329	.2599	9.854	.0027	349.6	.2374	1.851

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **53.41**	**9.141**	**330.1**	**35.66**	**.0607**	**43.77**	**8.066**	**6.185**	**44.48**
Stddev	.15	.013	3.6	.45	.0097	.59	.022	.009	.58
%RSD	.2804	.1410	1.087	1.262	16.04	1.347	.2674	.1401	1.304
#1	53.26	9.128	326.3	35.15	.0626	43.09	8.069	6.176	43.84
#2	53.43	9.154	333.4	36.01	.0501	44.13	8.043	6.187	44.98
#3	53.55	9.140	330.7	35.82	.0693	44.08	8.086	6.193	44.61

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **50.35**	F **32.76**	**.8753**	**.1957**	**19.44**	F **69.40**	**.9932**	**1.723**	**-.0203**
Stddev	.09	.17	.0087	.0080	.03	.04	.0136	.002	.0021
%RSD	.1780	.5107	.9895	4.078	.1785	.0637	1.370	.1007	10.51
#1	50.24	32.86	.8839	.1990	19.42	69.36	.9790	1.724	-.0218
#2	50.40	32.57	.8666	.1865	19.48	69.44	1.006	1.721	-.0179
#3	50.40	32.86	.8754	.2014	19.42	69.39	.9944	1.724	-.0213

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3431**	F **41.82**
Stddev	.0024	.02
%RSD	.7018	.0564
#1	.3410	41.83
#2	.3426	41.79
#3	.3457	41.84

Zoom In Zoom Out

Sample Name: FC3570-17 Acquired: 3/27/2023 13:36:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**983.68**	**2475.9**	**25208.**	**4234.4**
Stddev	3.55	3.4	27.	64.5
%RSD	.36084	.13577	.10699	1.5243
#1	981.93	2479.3	25230.	4300.2
#2	987.77	2472.6	25216.	4171.1
#3	981.35	2475.9	25178.	4232.0

Zoom In Zoom Out

Sample Name: FC3570-18 Acquired: 3/27/2023 13:41:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0910**	**79.95**	**.0739**	**.2476**	F **19.91**	**.0031**	**283.0**	**.2701**	**.8450**
Stddev	.0008	.28	.0008	.0019	.32	.0000	4.0	.0009	.0043
%RSD	.9342	.3489	1.096	.7475	1.615	1.279	1.423	.3310	.5065
#1	.0900	79.91	.0748	.2490	20.13	.0030	287.0	.2693	.8414
#2	.0916	80.25	.0732	.2483	19.54	.0031	278.9	.2700	.8439
#3	.0914	79.69	.0737	.2455	20.05	.0031	283.2	.2711	.8498

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **6.413**	F **5.846**	**114.7**	**37.13**	**.0636**	**31.78**	**2.845**	**.6999**	**34.89**
Stddev	.028	.021	.2	.09	.0014	.06	.032	.0031	.04
%RSD	.4364	.3648	.1673	.2360	2.160	.1981	1.111	.4441	.1117
#1	6.424	5.867	114.6	37.14	.0644	31.78	2.831	.6968	34.89
#2	6.434	5.846	114.9	37.21	.0643	31.84	2.881	.6999	34.93
#3	6.381	5.824	114.6	37.03	.0620	31.71	2.823	.7030	34.85

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **5.066**	F **9.547**	**.3615**	**.1153**	**12.28**	**1.541**	**1.000**	**1.994**	**-.0053**
Stddev	.024	.029	.0022	.0009	.06	.009	.001	.008	.0020
%RSD	.4653	.3047	.6094	.7909	.5188	.5816	.1341	.4063	37.08
#1	5.048	9.515	.3604	.1159	12.25	1.537	1.000	2.002	-.0073
#2	5.058	9.573	.3601	.1158	12.24	1.536	1.002	1.995	-.0033
#3	5.093	9.552	.3641	.1143	12.36	1.552	.9991	1.986	-.0054

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1774**	F **28.29**
Stddev	.0009	.15
%RSD	.5066	.5134
#1	.1784	28.41
#2	.1768	28.13
#3	.1769	28.34

Zoom In Zoom Out

Sample Name: FC3570-18 Acquired: 3/27/2023 13:41:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**877.41**	**2595.1**	**25388.**	**4547.5**
Stddev	1.14	11.0	170.	6.3
%RSD	.13048	.42356	.66909	.13774
#1	878.22	2599.3	25378.	4553.4
#2	877.91	2603.3	25223.	4548.2
#3	876.10	2582.6	25562.	4541.0

Zoom In Zoom Out

Sample Name: FC3570-20 Acquired: 3/27/2023 13:46:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0042**	**3.139**	**.0304**	**-.0926**	**.1611**	**.0002**	**20.08**	**.0249**	**.0124**
Stddev	.0020	.100	.0142	.0340	.0026	.0001	.11	.0008	.0010
%RSD	48.34	3.178	46.64	36.76	1.614	56.07	.5305	3.086	8.185
#1	.0039	3.253	.0149	-.1314	.1640	.0003	20.05	.0241	.0115
#2	.0064	3.069	.0335	-.0679	.1601	.0001	20.19	.0251	.0123
#3	.0024	3.094	.0427	-.0785	.1591	.0001	19.98	.0256	.0135

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6981**	**.1542**	**1778.**	**1.324**	**-.0370**	**2.264**	**4.000**	**.0126**	**2.048**
Stddev	.0067	.0024	1.	.208	.0049	.149	.008	.0009	.091
%RSD	.9582	1.586	.0318	15.68	13.13	6.595	.1991	7.218	4.456
#1	.7045	.1544	1777.	1.174	-.0426	2.138	4.009	.0136	1.956
#2	.6986	.1517	1778.	1.561	-.0346	2.429	3.994	.0119	2.139
#3	.6912	.1566	1778.	1.238	-.0339	2.224	3.997	.0124	2.048

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8687**	**-.0056**	**.1995**	**.0002**	**3.428**	**.0995**	**.0910**	**.1770**	**-.0030**
Stddev	.0014	.0024	.0214	.0136	.009	.0054	.0011	.0137	.0106
%RSD	.1642	42.93	10.73	6340.	.2766	5.434	1.182	7.753	353.9
#1	.8692	-.0082	.2061	-.0097	3.434	.0934	.0921	.1711	-.0048
#2	.8671	-.0033	.2168	-.0054	3.433	.1037	.0900	.1927	.0084
#3	.8699	-.0054	.1756	.0157	3.417	.1015	.0909	.1673	-.0126

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0038**	F **169.1**
Stddev	.0008	.1
%RSD	21.16	.0545
#1	.0031	169.1
#2	.0047	169.0
#3	.0037	169.1

Zoom In Zoom Out

Sample Name: FC3570-20 Acquired: 3/27/2023 13:46:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1105.5**	**2661.1**	**25460.**	**4123.0**
Stddev	2.1	1.5	45.	4.1
%RSD	.19049	.05765	.17806	.09850
#1	1107.7	2661.9	25413.	4127.6
#2	1105.3	2662.0	25504.	4121.7
#3	1103.6	2659.3	25462.	4119.8

Zoom In Zoom Out

Sample Name: MP41997-MB2A Acquired: 3/27/2023 13:50:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0583**	**.0021**	**-.0043**	**.0064**	**.0000**	F **3.698**	**.0000**	**.0001**
Stddev	.0005	.0042	.0010	.0014	.0001	.000	.013	.0000	.0000
%RSD	1466.	7.128	44.96	32.65	1.402	1099.	.3401	131.3	43.55
#1	-.0002	.0619	.0010	-.0028	.0064	-.0001	3.694	.0000	.0001
#2	.0006	.0537	.0026	-.0044	.0063	-.0001	3.689	.0000	.0002
#3	-.0003	.0592	.0028	-.0056	.0064	.0001	3.713	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.5000		
Low Limit							-.5000		

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0014**	**.1152**	**.3797**	**.0008**	**1.147**	F **.0082**	**-.0003**	**.9547**
Stddev	.0001	.0002	.0008	.0258	.0012	.030	.0001	.0001	.0043
%RSD	5.424	17.92	.6978	6.798	147.6	2.641	1.401	24.66	.4543
#1	.0017	.0013	.1159	.3500	.0000	1.178	.0080	-.0003	.9597
#2	.0017	.0016	.1153	.3967	.0022	1.117	.0083	-.0002	.9516
#3	.0016	.0011	.1143	.3925	.0002	1.145	.0082	-.0003	.9528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0075		
Low Limit							-.0075		

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0005**	**.0002**	**.0037**	**.1456**	**.0236**	F **.0218**	**.0024**	**-.0011**
Stddev	.0001	.0005	.0015	.0015	.0002	.0001	.0001	.0001	.0009
%RSD	11.47	110.6	588.4	42.10	.1713	.3238	.5493	5.240	78.16
#1	.0006	-.0001	.0015	.0020	.1455	.0235	.0217	.0022	-.0004
#2	.0007	.0009	.0007	.0050	.1459	.0236	.0217	.0024	-.0020
#3	.0007	.0006	-.0014	.0040	.1455	.0236	.0219	.0024	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit							.0050		
Low Limit							-.0050		

Zoom In Zoom Out

Sample Name: MP41997-MB2A Acquired: 3/27/2023 13:50:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0003**	F **.0111**
Stddev	.0001	.0001
%RSD	27.91	.9653
#1	.0002	.0112
#2	.0004	.0111
#3	.0003	.0110
Check ?	Chk Pass	Chk Fail
High Limit		.0100
Low Limit		-.0100

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1121.6**	**2685.6**	**26025.**	**4186.0**
Stddev	3.4	2.9	233.	2.2
%RSD	.30603	.10626	.89435	.05274
#1	1125.0	2683.5	26201.	4188.4
#2	1121.8	2684.3	25761.	4184.1
#3	1118.1	2688.8	26115.	4185.4

Zoom In Zoom Out

Sample Name: MP42004-MB1 Acquired: 3/27/2023 13:55:51 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0156**	**.0001**	F **-.0075**	**.0003**	**.0000**	**.0103**	**.0000**
Stddev	.0003	.0099	.0006	.0007	.0003	.000	.0015	.000
%RSD	359.6	63.68	923.3	9.214	84.33	333.9	14.44	51.57
#1	.0003	-.0126	-.0007	-.0074	.0001	.0000	.0098	-.0001
#2	-.0003	-.0266	.0004	-.0069	.0006	.0000	.0120	.0000
#3	.0002	-.0075	.0004	-.0083	.0002	.0000	.0092	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0005**	**.0005**	**.0025**	**.0130**	**-.0004**	**.0042**	**.0001**
Stddev	.0000	.0002	.0002	.0005	.0185	.0013	.0159	.0001
%RSD	27.63	48.89	39.53	18.36	142.0	304.3	375.7	65.78
#1	-.0001	.0002	.0007	.0022	.0254	.0000	-.0123	.0000
#2	-.0002	.0006	.0003	.0024	-.0082	-.0019	.0195	.0001
#3	-.0002	.0006	.0006	.0031	.0219	.0006	.0056	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0060**	**-.0002**	**.0007**	**.0009**	**-.0013**	**.0051**	**-.0001**
Stddev	.0001	.0012	.0002	.0008	.0014	.0006	.0004	.0001
%RSD	45.96	20.63	97.67	114.0	163.4	41.55	6.969	101.7
#1	-.0002	-.0067	.0000	.0012	.0002	-.0007	.0048	-.0001
#2	-.0001	-.0046	-.0003	.0012	.0000	-.0016	.0049	.0000
#3	-.0001	-.0068	-.0001	-.0002	.0025	-.0017	.0054	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP42004-MB1 Acquired: 3/27/2023 13:55:51 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0001**	**-.0001**	**.0019**
Stddev	.000	.000	.0006	.0003	.0000
%RSD	93.14	659.1	692.2	603.6	2.228
#1	.0000	-.0001	.0001	-.0001	.0019
#2	.0000	-.0001	.0007	.0003	.0018
#3	-.0001	.0001	-.0006	-.0003	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1123.2**	**2691.2**	**25751.**	**4126.6**
Stddev	3.7	6.5	61.	30.2
%RSD	.33290	.24287	.23841	.73157
#1	1118.9	2683.7	25748.	4101.3
#2	1125.5	2695.7	25691.	4118.6
#3	1125.1	2694.2	25813.	4160.0

Zoom In Zoom Out

Sample Name: FC3490-1 Acquired: 3/27/2023 14:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.8767**	**.0002**	**.0054**	**.1045**	**.0000**	**199.0**	**-.0001**	**.0002**
Stddev	.0005	.0096	.0007	.0023	.0002	.000	1.8	.0000	.0001
%RSD	556.7	1.100	374.0	42.22	.1550	2409.	.9133	21.26	41.09
#1	.0004	.8661	.0009	.0045	.1047	.0000	196.9	-.0001	.0003
#2	-.0001	.8850	-.0003	.0080	.1044	.0000	199.8	-.0001	.0001
#3	-.0006	.8789	-.0001	.0037	.1044	.0000	200.3	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0005**	**.8179**	**13.76**	**.0452**	**1.325**	**.1717**	**.0049**	**23.33**
Stddev	.0001	.0003	.0014	.08	.0020	.004	.0001	.0002	.07
%RSD	6.179	66.45	.1715	.5686	4.330	.2658	.0438	3.742	.2998
#1	.0009	.0006	.8163	13.70	.0472	1.324	.1717	.0051	23.31
#2	.0010	.0007	.8182	13.73	.0451	1.329	.1717	.0047	23.41
#3	.0010	.0001	.8190	13.85	.0433	1.323	.1716	.0048	23.28

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**-.0021**	**.0017**	**-.0019**	**4.029**	**.0004**	**.1363**	**.0025**	**.0004**
Stddev	.0001	.0010	.0015	.0014	.003	.0003	.0005	.0001	.0009
%RSD	3.143	48.31	85.26	72.49	.0847	86.86	.3353	4.845	222.4
#1	.0038	-.0018	.0033	-.0007	4.031	.0003	.1368	.0026	-.0002
#2	.0036	-.0031	.0013	-.0034	4.025	.0001	.1362	.0024	.0000
#3	.0038	-.0012	.0005	-.0016	4.031	.0007	.1359	.0026	.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0089**
Stddev	.0003	.0000
%RSD	485.9	.5467
#1	-.0001	.0089
#2	-.0002	.0090
#3	.0005	.0089

Zoom In Zoom Out

Sample Name: FC3490-1 Acquired: 3/27/2023 14:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**943.90**	**2491.2**	**23729.**	**4054.5**
Stddev	2.42	3.6	156.	39.8
%RSD	.25618	.14532	.65799	.98129
#1	941.24	2492.7	23854.	4079.4
#2	944.51	2493.9	23554.	4075.4
#3	945.96	2487.1	23779.	4008.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 14:05:46 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2495**	**39.43**	**2.025**	**1.893**	**2.041**	**2.129**	**41.16**	**2.027**	**2.022**
Stddev	.0007	.07	.005	.011	.005	.002	.03	.001	.002
%RSD	.2917	.1765	.2282	.5562	.2557	.1081	.0609	.0494	.0750
#1	.2490	39.47	2.027	1.895	2.045	2.130	41.16	2.028	2.021
#2	.2503	39.35	2.020	1.881	2.035	2.127	41.13	2.026	2.023
#3	.2492	39.47	2.028	1.902	2.043	2.131	41.18	2.028	2.024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.032**	**2.016**	**40.14**	**41.14**	**2.106**	**40.79**	**2.082**	**2.041**	**41.44**
Stddev	.005	.006	.03	.09	.006	.12	.007	.003	.15
%RSD	.2306	.2778	.0643	.2141	.2812	.2971	.3408	.1406	.3711
#1	2.028	2.012	40.17	41.22	2.108	40.73	2.075	2.040	41.54
#2	2.037	2.022	40.12	41.05	2.100	40.70	2.089	2.039	41.26
#3	2.031	2.014	40.12	41.14	2.111	40.93	2.081	2.044	41.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.046**	**1.962**	**2.060**	**2.007**	**1.971**	**2.070**	**2.120**	**2.058**	**2.010**
Stddev	.005	.004	.011	.009	.005	.006	.002	.006	.002
%RSD	.2350	.2157	.5154	.4303	.2312	.2834	.1056	.3130	.1195
#1	2.045	1.966	2.057	1.997	1.969	2.071	2.121	2.055	2.007
#2	2.042	1.962	2.051	2.011	1.968	2.064	2.117	2.065	2.010
#3	2.052	1.958	2.072	2.013	1.977	2.076	2.121	2.052	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 14:05:46 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.022**	**2.036**
Stddev	.002	.001
%RSD	.1197	.0246
#1	2.020	2.036
#2	2.025	2.035
#3	2.021	2.035
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**918.23**	**2507.2**	**23877.**	**3977.3**
Stddev	1.86	1.1	85.	14.4
%RSD	.20241	.04224	.35562	.36330
#1	916.45	2506.6	23947.	3977.7
#2	918.06	2508.5	23782.	3962.7
#3	920.16	2506.7	23902.	3991.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 14:10:18 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0236**	**-.0002**	F **-.0038**	**.0003**	**.0000**	**.0021**	**.0000**
Stddev	.0003	.0080	.0006	.0019	.0000	.000	.0019	.000
%RSD	55.98	33.82	299.8	50.13	13.84	403.0	92.99	35.54
#1	.0002	-.0231	-.0008	-.0030	.0003	-.0001	.0017	.0000
#2	.0007	-.0158	.0004	-.0059	.0003	.0000	.0004	.0000
#3	.0007	-.0317	-.0001	-.0024	.0002	.0000	.0042	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0006**	**.0009**	**.0746**	**-.0005**	**.0012**	**.0000**
Stddev	.0000	.0003	.0002	.0015	.0122	.0005	.0125	.0000
%RSD	51.58	1329.	27.48	170.3	16.30	114.9	1032.	111.8
#1	.0001	-.0003	.0006	.0003	.0798	-.0010	.0061	.0000
#2	.0000	.0003	.0007	.0026	.0607	.0001	-.0130	.0001
#3	.0001	.0001	.0004	-.0002	.0833	-.0006	.0105	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0089**	**.0000**	**.0004**	F **.0023**	F **-.0025**	**.0028**	**-.0001**
Stddev	.0001	.0093	.000	.0007	.0008	.0029	.0005	.0002
%RSD	52.26	104.4	17060.	176.9	35.95	116.0	17.60	251.7
#1	.0001	-.0004	.0000	.0007	.0030	-.0015	.0029	-.0003
#2	.0003	-.0189	-.0001	-.0004	.0014	-.0057	.0033	.0000
#3	.0002	-.0074	.0001	.0010	.0025	-.0002	.0023	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass
High Limit					.0020	.0020		
Low Limit					-.0020	-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 14:10:18 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0005**	**.0002**	**.0028**
Stddev	.0000	.0002	.0008	.0001	.0001
%RSD	153.4	145.4	162.9	75.02	3.563
#1	.0000	.0000	-.0001	.0004	.0028
#2	.0001	.0000	.0001	.0001	.0026
#3	.0000	-.0003	.0014	.0002	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1134.3**	**2694.7**	**25667.**	**4073.9**
Stddev	1.7	7.7	199.	40.6
%RSD	.15097	.28447	.77556	.99653
#1	1135.5	2700.0	25634.	4082.4
#2	1135.1	2698.1	25487.	4109.7
#3	1132.3	2685.9	25881.	4029.8

Zoom In Zoom Out

Sample Name: MP42004-D1 Acquired: 3/27/2023 14:15:13 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.8800**	**-.0005**	**.0069**	**.1057**	**.0000**	**201.8**	**-.0001**	**.0003**
Stddev	.0000	.0139	.0008	.0014	.0005	.000	2.2	.0001	.0001
%RSD	60.47	1.578	177.2	20.42	.4306	265.7	1.070	58.97	28.87
#1	.0000	.8640	.0004	.0086	.1055	.0000	202.5	-.0001	.0002
#2	-.0001	.8869	-.0005	.0062	.1062	.0000	203.6	.0000	.0004
#3	-.0001	.8890	-.0012	.0060	.1053	-.0001	199.4	-.0001	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0003**	**.8342**	**13.88**	**.0471**	**1.333**	**.1748**	**.0050**	**23.47**
Stddev	.0002	.0001	.0049	.11	.0026	.011	.0003	.0001	.03
%RSD	28.46	55.04	.5882	.8079	5.614	.8167	.1669	2.456	.1348
#1	.0008	.0004	.8388	13.91	.0501	1.330	.1749	.0050	23.49
#2	.0005	.0001	.8347	13.98	.0451	1.324	.1745	.0052	23.48
#3	.0009	.0002	.8290	13.76	.0462	1.345	.1750	.0049	23.43

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0002**	**.0015**	**-.0026**	**4.098**	**.0003**	**.1384**	**.0022**	**-.0002**
Stddev	.0001	.0009	.0017	.0011	.008	.0002	.0006	.0001	.0006
%RSD	2.814	396.8	110.9	41.84	.1916	66.94	.4490	3.784	311.0
#1	.0039	-.0012	.0020	-.0034	4.105	.0004	.1389	.0022	.0005
#2	.0037	.0002	.0029	-.0029	4.099	.0001	.1386	.0022	-.0006
#3	.0038	.0004	-.0004	-.0014	4.089	.0004	.1377	.0023	-.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0089**
Stddev	.0002	.0001
%RSD	85.02	.7650
#1	.0003	.0088
#2	.0003	.0089
#3	.0000	.0088

Zoom In Zoom Out

Sample Name: MP42004-D1 Acquired: 3/27/2023 14:15:13 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**944.19**	**2493.1**	**23721.**	**4069.0**
Stddev	1.60	2.9	56.	31.8
%RSD	.16960	.11437	.23671	.78195
#1	945.73	2495.5	23783.	4056.9
#2	944.31	2490.0	23674.	4044.9
#3	942.54	2493.7	23706.	4105.1

Zoom In Zoom Out

Sample Name: MP42004-SD1 Acquired: 3/27/2023 14:20:14 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.7496**	**.0000**	**-.0080**	**.0967**	**-.0001**	**189.8**	**.0000**	**.0001**
Stddev	.0015	.0292	.003	.0035	.0005	.0002	.5	.0002	.0002
%RSD	473.6	3.894	14320.	44.10	.5545	116.9	.2403	613.3	266.4
#1	-.0017	.7831	-.0026	-.0042	.0969	.0000	189.4	-.0002	.0000
#2	.0012	.7354	.0003	-.0086	.0972	-.0001	189.6	.0002	.0003
#3	-.0004	.7302	.0023	-.0112	.0962	-.0003	190.3	.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0012**	**.7675**	**13.00**	**.0461**	**1.257**	**.1639**	**.0031**	**21.70**
Stddev	.0009	.0009	.0096	.11	.0025	.063	.0004	.0009	.06
%RSD	110.2	79.04	1.257	.8178	5.455	4.979	.2407	29.95	.2540
#1	.0018	.0017	.7662	13.05	.0465	1.187	.1635	.0037	21.67
#2	.0001	.0001	.7586	12.88	.0434	1.275	.1640	.0020	21.76
#3	.0005	.0017	.7777	13.07	.0483	1.308	.1643	.0035	21.66

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**-.0020**	**.0055**	**-.0016**	**3.793**	**-.0002**	**.1279**	**.0079**	**.0007**
Stddev	.0012	.0069	.0065	.0072	.005	.0007	.0008	.0006	.0027
%RSD	35.53	341.1	118.1	447.1	.1350	350.2	.6422	8.058	370.5
#1	.0024	-.0091	.0110	-.0006	3.791	-.0005	.1269	.0085	-.0021
#2	.0029	.0046	-.0016	.0050	3.799	-.0007	.1285	.0081	.0010
#3	.0046	-.0015	.0071	-.0093	3.789	.0006	.1281	.0072	.0033

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0094**
Stddev	.0009	.0002
%RSD	236.9	2.344
#1	.0014	.0097
#2	-.0003	.0093
#3	.0001	.0093

Zoom In Zoom Out

Sample Name: MP42004-SD1 Acquired: 3/27/2023 14:20:14 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1059.9**	**2642.1**	**25089.**	**4086.1**
Stddev	4.5	7.9	107.	32.7
%RSD	.42462	.29935	.42614	.79973
#1	1064.3	2650.3	25074.	4121.8
#2	1060.2	2641.6	25203.	4078.8
#3	1055.3	2634.5	24991.	4057.7

Zoom In Zoom Out

Sample Name: MP42004-PS1 Acquired: 3/27/2023 14:25:06 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0479**	**3.175**	**.0959**	**.0069**	**.3393**	**.0501**	**201.6**	**.0470**	**.0473**
Stddev	.0005	.024	.0004	.0004	.0009	.0002	1.3	.0001	.0002
%RSD	1.060	.7591	.4599	5.458	.2569	.4237	.6629	.2582	.4288
#1	.0474	3.201	.0961	.0069	.3402	.0503	200.6	.0471	.0471
#2	.0483	3.153	.0954	.0065	.3394	.0500	203.1	.0469	.0475
#3	.0480	3.170	.0962	.0073	.3384	.0499	201.1	.0470	.0474

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0487**	**.0964**	**3.608**	**22.91**	**.0444**	**6.091**	**.2177**	**.0974**	**31.53**
Stddev	.0000	.0005	.006	.09	.0011	.040	.0005	.0004	.09
%RSD	.0984	.5014	.1573	.3876	2.430	.6513	.2345	.4477	.2833
#1	.0487	.0964	3.609	23.01	.0456	6.107	.2182	.0976	31.62
#2	.0487	.0959	3.614	22.88	.0437	6.121	.2175	.0969	31.52
#3	.0488	.0969	3.602	22.84	.0439	6.046	.2173	.0977	31.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0987**	**.0427**	**.0973**	**.0877**	**4.004**	**.0481**	**.1826**	**.0992**	**.0890**
Stddev	.0002	.0007	.0014	.0008	.004	.0004	.0007	.0002	.0011
%RSD	.2130	1.600	1.435	.9198	.0944	.8028	.4079	.2439	1.277
#1	.0987	.0432	.0973	.0872	4.005	.0483	.1834	.0995	.0890
#2	.0989	.0430	.0958	.0874	3.999	.0476	.1826	.0990	.0901
#3	.0985	.0419	.0986	.0887	4.007	.0483	.1819	.0993	.0878

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0473**	**.2408**
Stddev	.0002	.0004
%RSD	.5059	.1757
#1	.0474	.2411
#2	.0475	.2403
#3	.0471	.2410

Zoom In Zoom Out

Sample Name: MP42004-PS1 Acquired: 3/27/2023 14:25:06 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**934.08**	**2497.3**	**23654.**	**4048.9**
Stddev	4.12	.9	102.	23.8
%RSD	.44115	.03464	.42985	.58823
#1	930.98	2498.3	23550.	4056.4
#2	932.51	2496.5	23753.	4022.2
#3	938.76	2497.2	23658.	4068.1

Zoom In Zoom Out

Sample Name: MP42004-S1 Acquired: 3/27/2023 14:29:56 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0537**	**27.77**	**2.013**	**.0017**	**2.191**	**.0547**	**218.1**	**.0496**	**.5028**
Stddev	.0007	.04	.004	.0007	.005	.0004	4.0	.0001	.0004
%RSD	1.326	.1493	.2081	43.92	.2155	.6837	1.838	.1471	.0800
#1	.0540	27.73	2.017	.0023	2.186	.0543	220.4	.0495	.5024
#2	.0543	27.76	2.008	.0019	2.195	.0550	220.4	.0496	.5028
#3	.0529	27.82	2.013	.0009	2.193	.0550	213.5	.0496	.5032

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2071**	**.2607**	**26.94**	**39.57**	**.0451**	**26.41**	**.6893**	**.5123**	**47.06**
Stddev	.0006	.0001	.06	.08	.0008	.07	.0011	.0001	.21
%RSD	.3048	.0479	.2308	.1977	1.792	.2710	.1572	.0280	.4509
#1	.2075	.2606	26.89	39.48	.0460	26.34	.6893	.5122	46.81
#2	.2075	.2608	26.92	39.61	.0449	26.42	.6904	.5122	47.19
#3	.2064	.2607	27.01	39.61	.0444	26.48	.6882	.5124	47.17

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5101**	**.4834**	**.5084**	**1.989**	**4.301**	**.5106**	**.6790**	**.5249**	**1.937**
Stddev	.0006	.0023	.0011	.002	.005	.0005	.0020	.0005	.001
%RSD	.1217	.4781	.2144	.1009	.1072	.1032	.2951	.0879	.0418
#1	.5108	.4858	.5083	1.991	4.301	.5112	.6767	.5245	1.937
#2	.5098	.4812	.5096	1.987	4.296	.5103	.6804	.5254	1.938
#3	.5097	.4832	.5074	1.989	4.305	.5103	.6798	.5248	1.937

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5101**	**.5054**
Stddev	.0003	.0005
%RSD	.0555	.0917
#1	.5099	.5058
#2	.5101	.5049
#3	.5104	.5054

Zoom In Zoom Out

Sample Name: MP42004-S1 Acquired: 3/27/2023 14:29:56 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**901.07**	**2483.7**	**23501.**	**4025.0**
Stddev	1.95	.5	123.	18.7
%RSD	.21585	.01893	.52527	.46463
#1	899.03	2483.9	23422.	4018.9
#2	902.90	2484.0	23439.	4046.0
#3	901.28	2483.1	23643.	4010.1

Zoom In Zoom Out

Sample Name: MP42004-S2 Acquired: 3/27/2023 14:34:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0524**	**27.12**	**1.968**	**.0013**	**2.136**	**.0534**	**220.7**	**.0484**	**.4915**
Stddev	.0008	.06	.002	.0043	.001	.0002	.1	.0002	.0007
%RSD	1.434	.2299	.1019	327.8	.0516	.4119	.0616	.3375	.1486
#1	.0526	27.09	1.967	.0038	2.134	.0536	220.8	.0483	.4907
#2	.0530	27.07	1.966	.0037	2.136	.0535	220.5	.0486	.4921
#3	.0515	27.19	1.970	-.0036	2.137	.0532	220.7	.0484	.4918

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2021**	**.2528**	**26.44**	**38.86**	**.0447**	**25.91**	**.6831**	**.5043**	**46.37**
Stddev	.0001	.0003	.03	.05	.0011	.08	.0021	.0012	.13
%RSD	.0361	.1233	.1147	.1178	2.526	.3235	.3085	.2313	.2846
#1	.2021	.2528	26.48	38.91	.0456	25.99	.6813	.5039	46.53
#2	.2022	.2526	26.42	38.83	.0435	25.93	.6826	.5057	46.31
#3	.2021	.2532	26.44	38.84	.0450	25.82	.6854	.5035	46.29

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4979**	**.4702**	**.4945**	**1.938**	**4.284**	**.5015**	**.6722**	**.5150**	**1.893**
Stddev	.0011	.0019	.0021	.000	.006	.0016	.0016	.0003	.010
%RSD	.2123	.3936	.4187	.0113	.1353	.3158	.2406	.0509	.5308
#1	.4978	.4692	.4934	1.938	4.280	.4999	.6740	.5146	1.882
#2	.4989	.4724	.4933	1.938	4.291	.5031	.6708	.5151	1.899
#3	.4968	.4691	.4969	1.937	4.281	.5016	.6720	.5151	1.899

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4957**	**.4931**
Stddev	.0015	.0008
%RSD	.3105	.1604
#1	.4965	.4929
#2	.4939	.4939
#3	.4966	.4923

Zoom In Zoom Out

Sample Name: MP42004-S2 Acquired: 3/27/2023 14:34:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**902.12**	**2489.7**	**23426.**	**4056.7**
Stddev	3.11	4.7	77.	17.5
%RSD	.34435	.18777	.32828	.43217
#1	905.00	2495.0	23464.	4040.1
#2	898.83	2486.6	23476.	4075.0
#3	902.54	2487.3	23337.	4054.9

Zoom In Zoom Out

Sample Name: FC3490-2 Acquired: 3/27/2023 14:39:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0235**	**-.0001**	**-.0027**	**.0578**	**.0001**	**13.17**	**-.0003**	**-.0002**
Stddev	.0003	.0077	.0011	.0011	.0003	.0000	.01	.0001	.0001
%RSD	47.02	32.88	1749.	39.77	.5266	73.32	.1084	20.80	32.86
#1	.0004	.0235	-.0014	-.0019	.0581	.0000	13.16	-.0003	-.0003
#2	.0009	.0313	.0007	-.0022	.0578	.0001	13.19	-.0003	-.0002
#3	.0005	.0158	.0005	-.0039	.0575	.0001	13.17	-.0004	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0001**	**40.09**	**3.669**	**-.0014**	**7.803**	F **4.024**	**-.0007**	**35.43**
Stddev	.0003	.0003	.03	.014	.0012	.011	.033	.0001	.08
%RSD	18.73	240.6	.0825	.3760	84.88	.1378	.8290	12.67	.2174
#1	.0011	-.0001	40.08	3.678	-.0006	7.791	3.987	-.0008	35.36
#2	.0016	-.0004	40.12	3.675	-.0028	7.811	4.050	-.0007	35.51
#3	.0014	.0001	40.06	3.653	-.0009	7.807	4.037	-.0006	35.42

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0003**	**.0007**	**.0015**	**10.15**	**.0002**	**.0889**	**.0017**	**.0052**
Stddev	.0001	.0001	.0007	.0016	.03	.0006	.0004	.0001	.0011
%RSD	16.93	56.55	114.0	107.9	.3034	293.8	.4509	5.642	21.03
#1	-.0008	-.0003	.0014	.0028	10.18	-.0004	.0884	.0017	.0057
#2	-.0010	-.0004	.0006	-.0003	10.13	.0001	.0891	.0016	.0060
#3	-.0007	-.0001	-.0001	.0021	10.13	.0008	.0891	.0018	.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0084**	**.0057**
Stddev	.0001	.0001
%RSD	.9681	1.414
#1	-.0085	.0058
#2	-.0084	.0057
#3	-.0084	.0058

Zoom In Zoom Out

Sample Name: FC3490-2 Acquired: 3/27/2023 14:39:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1014.9**	**2615.4**	**24697.**	**4078.7**
Stddev	2.3	5.5	47.	15.3
%RSD	.22604	.21163	.19090	.37532
#1	1014.0	2610.4	24692.	4061.2
#2	1017.5	2621.3	24652.	4089.5
#3	1013.2	2614.5	24746.	4085.6

Zoom In Zoom Out

Sample Name: FC3490-3 Acquired: 3/27/2023 14:44:24 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0077**	**.0046**	**-.0042**	**.1310**	**.0000**	**15.49**	**-.0003**	**.0070**
Stddev	.0002	.0096	.0004	.0029	.0007	.0000	.05	.0000	.0001
%RSD	60.19	125.3	9.012	69.94	.5016	140.8	.2916	8.836	1.993
#1	.0003	.0001	.0051	-.0072	.1309	.0000	15.49	-.0003	.0070
#2	.0003	.0045	.0042	-.0014	.1317	.0001	15.53	-.0004	.0071
#3	.0007	.0185	.0046	-.0039	.1304	.0000	15.44	-.0003	.0068

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0001**	**42.64**	**3.688**	**-.0010**	**7.831**	F **4.779**	**-.0002**	**27.24**
Stddev	.0001	.0001	.10	.010	.0008	.029	.036	.0000	.17
%RSD	6.002	133.4	.2425	.2715	84.32	.3743	.7593	16.46	.6323
#1	.0016	.0002	42.67	3.699	-.0002	7.838	4.791	-.0002	27.09
#2	.0018	.0000	42.71	3.683	-.0010	7.856	4.808	-.0001	27.43
#3	.0016	.0001	42.52	3.681	-.0018	7.799	4.738	-.0002	27.21

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**-.0007**	**.0015**	**.0021**	**9.953**	**.0003**	**.1103**	**.0015**	**.0061**
Stddev	.0000	.0010	.0011	.0005	.023	.0003	.0006	.0001	.0005
%RSD	5.736	137.7	74.64	26.32	.2317	98.21	.5291	5.237	8.025
#1	-.0008	-.0006	.0025	.0016	9.937	.0004	.1100	.0014	.0067
#2	-.0007	-.0018	.0003	.0027	9.943	.0000	.1110	.0015	.0060
#3	-.0008	.0002	.0018	.0019	9.979	.0006	.1099	.0015	.0057

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0107**	**.0039**
Stddev	.0002	.0001
%RSD	2.111	2.360
#1	-.0104	.0040
#2	-.0109	.0038
#3	-.0107	.0039

Zoom In Zoom Out

Sample Name: FC3490-3 Acquired: 3/27/2023 14:44:24 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1020.9**	**2629.2**	**24738.**	**4052.3**
Stddev	1.8	5.9	135.	19.9
%RSD	.17653	.22440	.54673	.49167
#1	1022.6	2635.1	24655.	4051.6
#2	1019.0	2629.3	24665.	4072.6
#3	1021.0	2623.3	24894.	4032.8

Zoom In Zoom Out

Sample Name: FC3490-4 Acquired: 3/27/2023 14:49:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0913**	**.0011**	**.0020**	**.0999**	**.0001**	**18.66**	**-.0003**	**.0001**
Stddev	.0006	.0083	.0007	.0023	.0001	.0001	.02	.0000	.0000
%RSD	283.4	9.109	59.33	118.6	.1095	84.88	.0919	4.391	20.58
#1	-.0003	.0821	.0013	.0010	.0998	.0000	18.68	-.0003	.0001
#2	.0000	.0982	.0004	.0046	.0999	.0001	18.65	-.0003	.0001
#3	.0008	.0937	.0017	.0003	.1000	.0000	18.64	-.0003	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**-.0001**	**24.10**	**6.676**	**-.0014**	**7.220**	**3.250**	**-.0003**	**33.74**
Stddev	.0001	.0001	.03	.016	.0006	.047	.029	.0002	.11
%RSD	9.370	102.3	.1359	.2362	45.23	.6516	.8927	45.95	.3213
#1	.0017	-.0001	24.12	6.686	-.0011	7.229	3.233	-.0002	33.62
#2	.0015	-.0002	24.06	6.658	-.0021	7.169	3.234	-.0003	33.75
#3	.0014	.0000	24.10	6.685	-.0010	7.262	3.284	-.0005	33.84

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0008**	**.0006**	**9.191**	**.0009**	**.0940**	**.0043**	**.0042**
Stddev	.0002	.0003	.0012	.0030	.009	.0003	.0002	.0001	.0016
%RSD	234.4	209.4	158.6	512.0	.1011	32.64	.2379	1.677	37.64
#1	-.0002	.0004	-.0002	.0037	9.183	.0012	.0938	.0044	.0058
#2	-.0002	-.0001	.0004	-.0023	9.187	.0006	.0942	.0043	.0041
#3	.0001	.0001	.0021	.0003	9.201	.0010	.0938	.0042	.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0055**	**.0688**
Stddev	.0001	.0001
%RSD	1.274	.1380
#1	-.0055	.0688
#2	-.0054	.0688
#3	-.0056	.0690

Zoom In Zoom Out

Sample Name: FC3490-4 Acquired: 3/27/2023 14:49:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1013.2**	**2592.2**	**24517.**	**4030.7**
Stddev	1.7	5.3	70.	9.5
%RSD	.16899	.20480	.28363	.23627
#1	1013.1	2593.4	24553.	4026.9
#2	1014.9	2596.8	24560.	4041.5
#3	1011.5	2586.4	24436.	4023.7

Zoom In Zoom Out

Sample Name: FC3490-5 Acquired: 3/27/2023 14:54:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1509**	**.0000**	**-.0010**	**.1069**	**.0000**	**25.37**	**.0000**	**.0173**
Stddev	.0002	.0094	.0003	.0021	.0005	.0000	.04	.000	.0001
%RSD	117.3	6.213	2166.	208.2	.4907	1395.	.1401	229.4	.4556
#1	.0000	.1562	.0003	-.0029	.1075	.0000	25.35	-.0001	.0173
#2	.0001	.1401	-.0003	.0012	.1066	.0000	25.41	.0000	.0172
#3	.0004	.1564	.0000	-.0013	.1066	.0000	25.35	.0000	.0173

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0027**	**1.218**	**1.765**	**.0042**	**17.10**	**1.686**	**.0012**	**44.23**
Stddev	.0002	.0003	.007	.011	.0019	.01	.004	.0001	.11
%RSD	20.25	9.341	.5957	.6033	44.52	.0522	.2572	12.14	.2556
#1	.0010	.0030	1.221	1.764	.0062	17.11	1.682	.0012	44.31
#2	.0009	.0025	1.223	1.755	.0041	17.09	1.691	.0011	44.27
#3	.0013	.0028	1.209	1.776	.0024	17.09	1.686	.0014	44.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023**	**.0008**	**.0012**	**.0029**	**9.234**	**.0006**	**.2689**	**.0064**	**.0032**
Stddev	.0003	.0004	.0008	.0008	.008	.0001	.0008	.0003	.0018
%RSD	14.12	47.76	63.09	28.70	.0888	15.58	.3081	3.891	56.17
#1	.0027	.0011	.0019	.0029	9.225	.0006	.2687	.0063	.0051
#2	.0021	.0004	.0013	.0038	9.238	.0005	.2699	.0067	.0016
#3	.0022	.0010	.0004	.0021	9.240	.0006	.2682	.0063	.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0018**	**.5657**
Stddev	.0003	.0017
%RSD	15.06	.2954
#1	.0021	.5655
#2	.0018	.5674
#3	.0016	.5641

Zoom In Zoom Out

Sample Name: FC3490-5 Acquired: 3/27/2023 14:54:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**994.74**	**2568.4**	**24283.**	**4022.8**
Stddev	3.50	5.1	101.	18.9
%RSD	.35216	.19675	.41563	.47016
#1	991.60	2563.8	24392.	4020.4
#2	994.10	2567.5	24192.	4042.8
#3	998.52	2573.8	24266.	4005.2

Zoom In Zoom Out

Sample Name: FC3490-6 Acquired: 3/27/2023 14:59:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0241**	**.0009**	**-.0036**	**.0577**	**-.0001**	**13.31**	**-.0004**	**-.0002**
Stddev	.0003	.0137	.0006	.0000	.0002	.0000	.01	.0000	.0001
%RSD	488.7	57.02	64.52	1.134	.3031	30.83	.1106	7.810	32.59
#1	.0003	.0400	.0003	-.0036	.0577	-.0001	13.30	-.0003	-.0002
#2	.0003	.0163	.0015	-.0035	.0575	-.0001	13.32	-.0004	-.0003
#3	-.0003	.0160	.0010	-.0036	.0579	-.0001	13.32	-.0004	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**.0000**	**40.05**	**3.682**	**.0001**	**7.834**	F **4.032**	**-.0008**	**35.80**
Stddev	.0001	.000	.02	.022	.0009	.023	.047	.0000	.02
%RSD	5.100	714.7	.0451	.5992	1069.	.2961	1.153	6.294	.0607
#1	.0015	-.0002	40.04	3.657	.0006	7.813	4.068	-.0007	35.80
#2	.0014	-.0003	40.03	3.693	.0006	7.859	4.049	-.0008	35.83
#3	.0015	.0003	40.06	3.697	-.0009	7.832	3.980	-.0007	35.78

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0017**	**.0017**	**.0018**	**10.18**	**.0001**	**.0903**	**.0017**	**.0048**
Stddev	.0002	.0004	.0011	.0020	.02	.0003	.0002	.0001	.0009
%RSD	35.83	25.18	66.58	110.7	.2179	192.3	.2649	5.885	17.72
#1	-.0008	.0015	.0020	.0000	10.21	-.0001	.0904	.0018	.0056
#2	-.0007	.0021	.0005	.0014	10.17	.0004	.0905	.0018	.0050
#3	-.0004	.0014	.0027	.0041	10.17	.0002	.0900	.0016	.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0086**	**.0045**
Stddev	.0001	.0000
%RSD	1.365	.6099
#1	-.0086	.0046
#2	-.0085	.0045
#3	-.0087	.0046

Zoom In Zoom Out

Sample Name: FC3490-6 Acquired: 3/27/2023 14:59:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1010.8**	**2591.6**	**24563.**	**4002.9**
Stddev	.6	4.0	124.	14.6
%RSD	.05559	.15510	.50476	.36595
#1	1011.3	2588.2	24470.	4011.7
#2	1010.2	2596.0	24514.	3986.0
#3	1010.8	2590.5	24704.	4011.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 15:04:11 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2526**	**39.08**	**2.035**	**1.890**	**2.047**	**2.184**	**41.54**	**2.035**	**2.032**
Stddev	.0008	.28	.002	.016	.006	.005	.15	.002	.001
%RSD	.3113	.7293	.1084	.8261	.3059	.2398	.3650	.0788	.0657
#1	.2533	39.36	2.034	1.893	2.052	2.183	41.62	2.036	2.032
#2	.2517	38.79	2.033	1.904	2.040	2.179	41.36	2.035	2.031
#3	.2526	39.09	2.037	1.873	2.048	2.189	41.63	2.033	2.034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.046**	**2.027**	**40.32**	**41.24**	**2.130**	**41.10**	**2.115**	**2.045**	**41.68**
Stddev	.001	.004	.18	.18	.010	.25	.005	.001	.15
%RSD	.0393	.2000	.4546	.4267	.4528	.5983	.2206	.0707	.3536
#1	2.046	2.026	40.41	41.41	2.132	41.32	2.115	2.046	41.83
#2	2.045	2.024	40.11	41.06	2.119	40.84	2.119	2.044	41.54
#3	2.046	2.032	40.44	41.26	2.138	41.14	2.110	2.044	41.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.051**	**1.970**	**2.067**	**2.014**	**1.981**	**2.078**	**2.165**	**2.082**	**2.019**
Stddev	.003	.005	.005	.005	.003	.005	.006	.001	.006
%RSD	.1269	.2776	.2447	.2351	.1377	.2452	.2641	.0286	.3209
#1	2.053	1.974	2.068	2.011	1.983	2.084	2.160	2.082	2.025
#2	2.048	1.972	2.062	2.020	1.978	2.074	2.163	2.081	2.020
#3	2.052	1.964	2.072	2.012	1.982	2.076	2.171	2.082	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 15:04:11 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.028**	**2.047**
Stddev	.005	.002
%RSD	.2579	.1188
#1	2.025	2.050
#2	2.024	2.045
#3	2.034	2.046
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**915.60**	**2504.0**	**23702.**	**3987.5**
Stddev	2.67	2.1	66.	46.4
%RSD	.29141	.08428	.27922	1.1631
#1	914.20	2504.0	23652.	3978.3
#2	913.92	2501.8	23678.	4037.8
#3	918.68	2506.0	23777.	3946.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 15:08:44 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0158**	**.0000**	F **-.0024**	**.0001**	**.0000**	**.0032**	**.0000**
Stddev	.0005	.0023	.001	.0013	.0001	.000	.0010	.0000
%RSD	208.3	14.62	2817.	53.17	113.2	1855.	30.80	71.20
#1	-.0006	-.0133	.0012	-.0011	.0000	.0000	.0043	.0000
#2	.0003	-.0163	-.0008	-.0025	.0001	.0000	.0028	.0000
#3	-.0004	-.0179	-.0005	-.0037	.0002	.0000	.0024	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0005**	**.0015**	**.0319**	F **-.0013**	**-.0095**	**.0000**
Stddev	.000	.0001	.0002	.0009	.0093	.0005	.0130	.0000
%RSD	1163.	172.2	38.87	59.16	29.24	38.00	136.7	34.62
#1	.0000	.0002	.0006	.0010	.0313	-.0007	.0033	.0000
#2	.0000	.0000	.0005	.0025	.0414	-.0017	-.0091	.0000
#3	.0000	.0000	.0003	.0009	.0228	-.0016	-.0226	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0040**	**-.0002**	**.0009**	F **.0021**	**-.0004**	**.0024**	**.0000**
Stddev	.0003	.0055	.0001	.0003	.0009	.0017	.0002	.000
%RSD	190.5	139.3	73.66	36.41	41.24	469.7	6.822	645.6
#1	.0004	-.0076	.0000	.0007	.0011	.0003	.0023	.0003
#2	-.0002	-.0067	-.0002	.0008	.0027	-.0023	.0026	-.0002
#3	.0003	.0024	-.0003	.0013	.0026	.0009	.0023	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass
High Limit					.0020			
Low Limit					-.0020			

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 15:08:44 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0001**	**.0003**	**.0025**
Stddev	.0000	.0002	.0001	.0002	.0000
%RSD	13.16	242.9	49.07	65.42	1.827
#1	.0001	.0001	.0001	.0002	.0024
#2	.0001	-.0001	.0002	.0005	.0025
#3	.0001	-.0002	.0001	.0001	.0025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.8**	**2715.4**	**25594.**	**4071.5**
Stddev	4.0	2.4	124.	17.9
%RSD	.35205	.08922	.48273	.44040
#1	1141.4	2717.1	25679.	4082.8
#2	1133.7	2712.6	25650.	4080.9
#3	1135.4	2716.5	25452.	4050.8

Zoom In Zoom Out

Sample Name: FC3364-1 Acquired: 3/27/2023 15:13:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0022**	**-.0004**	**.0067**	**.0141**	**.0000**	**55.58**	**.0000**	**-.0001**
Stddev	.0005	.0109	.0004	.0022	.0002	.0001	.07	.000	.0000
%RSD	277.2	486.9	92.79	32.85	1.517	473.1	.1308	119.3	72.29
#1	.0000	-.0060	-.0009	.0044	.0139	.0000	55.63	-.0001	.0000
#2	-.0002	-.0019	-.0003	.0087	.0143	-.0001	55.50	.0000	-.0001
#3	.0007	.0146	-.0001	.0069	.0141	.0001	55.62	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0000**	**.0194**	**.7504**	**.0018**	**10.39**	**.0005**	**.0002**	**5.820**
Stddev	.0002	.000	.0037	.0148	.0014	.03	.0000	.0002	.012
%RSD	28.56	495.5	19.01	1.977	77.80	.2908	5.016	77.73	.2087
#1	.0009	.0000	.0229	.7377	.0007	10.42	.0006	.0004	5.826
#2	.0005	.0001	.0197	.7468	.0034	10.36	.0005	.0002	5.828
#3	.0006	-.0002	.0155	.7667	.0014	10.39	.0005	.0000	5.806

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0004**	**.0012**	**2.913**	**.0003**	**.0675**	**.0018**	**-.0004**
Stddev	.0001	.0005	.0007	.0014	.003	.0003	.0001	.0000	.0002
%RSD	100.3	397.0	181.9	114.4	.0934	78.74	.1878	1.756	57.52
#1	.0000	-.0005	.0003	.0004	2.916	.0006	.0677	.0018	-.0001
#2	-.0003	-.0004	.0012	.0028	2.910	.0001	.0674	.0019	-.0005
#3	-.0001	.0005	-.0003	.0004	2.914	.0004	.0675	.0018	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0012**
Stddev	.0002	.0001
%RSD	71.85	7.077
#1	.0002	.0012
#2	.0006	.0012
#3	.0002	.0011

Zoom In Zoom Out

Sample Name: FC3364-1 Acquired: 3/27/2023 15:13:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1017.9**	**2630.5**	**24750.**	**4038.9**
Stddev	4.0	6.3	85.	16.6
%RSD	.39335	.23839	.34277	.41025
#1	1013.5	2624.3	24733.	4020.6
#2	1021.2	2636.9	24842.	4043.5
#3	1019.0	2630.3	24675.	4052.7

Zoom In Zoom Out

Sample Name: FC3662-1F Acquired: 3/27/2023 15:18:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0063**	**-.0005**	**.0014**	**.0343**	**.0000**	**6.067**	**.0000**	**.0086**
Stddev	.0006	.0075	.0013	.0022	.0006	.000	.060	.000	.0001
%RSD	202.9	118.8	293.9	158.4	1.606	67.60	.9920	84.57	.5936
#1	.0006	-.0020	-.0005	-.0008	.0337	.0000	5.998	.0000	.0087
#2	.0006	.0085	-.0018	.0035	.0347	.0000	6.111	.0000	.0086
#3	-.0004	.0124	.0009	.0014	.0345	.0000	6.091	-.0001	.0086

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0001**	**1.702**	**2.810**	**.0012**	**3.589**	**2.016**	**-.0001**	**6.756**
Stddev	.0004	.0002	.015	.017	.0031	.043	.001	.0003	.081
%RSD	45.78	181.2	.9062	.5898	251.0	1.199	.0675	184.7	1.199
#1	.0006	.0001	1.686	2.795	-.0012	3.549	2.018	.0001	6.666
#2	.0012	-.0004	1.716	2.828	.0048	3.634	2.015	-.0002	6.823
#3	.0005	-.0001	1.706	2.807	.0002	3.584	2.015	-.0004	6.781

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0004**	**.0006**	**.0015**	**5.071**	**.0535**	**.0567**	**.0007**	**.0022**
Stddev	.0001	.0002	.0009	.0020	.008	.0004	.0007	.0002	.0004
%RSD	2222.	36.11	146.8	138.0	.1562	.7017	1.243	29.43	16.51
#1	-.0001	.0006	.0017	-.0009	5.080	.0539	.0559	.0009	.0018
#2	-.0001	.0003	.0001	.0025	5.069	.0536	.0571	.0005	.0024
#3	.0002	.0004	.0001	.0028	5.065	.0531	.0571	.0007	.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0040**	**.0180**
Stddev	.0005	.0000
%RSD	12.69	.0997
#1	-.0034	.0180
#2	-.0044	.0180
#3	-.0043	.0180

Zoom In Zoom Out

Sample Name: FC3662-1F Acquired: 3/27/2023 15:18:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1066.9**	**2713.9**	**25401.**	**4155.1**
Stddev	3.0	1.3	49.	43.6
%RSD	.28152	.04802	.19098	1.0497
#1	1067.6	2712.5	25349.	4205.2
#2	1063.7	2714.0	25410.	4133.5
#3	1069.6	2715.1	25445.	4126.4

Zoom In Zoom Out

Sample Name: FC3662-2F Acquired: 3/27/2023 15:23:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0049**	**-.0004**	**.0195**	**.0528**	**.0002**	**3.540**	**-.0001**	**-.0001**
Stddev	.0000	.0102	.0006	.0015	.0005	.0000	.006	.0000	.0001
%RSD	6.079	208.1	158.5	7.794	.9404	2.511	.1667	66.73	203.5
#1	.0001	.0000	.0000	.0195	.0530	.0002	3.546	.0000	.0001
#2	.0001	.0166	-.0011	.0179	.0531	.0002	3.535	-.0001	-.0002
#3	.0001	-.0019	.0000	.0210	.0522	.0002	3.538	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0005**	**.0066**	**2.841**	**.0113**	**1.365**	**.0359**	**-.0002**	**10.45**
Stddev	.0003	.0003	.0019	.008	.0010	.012	.0001	.0003	.03
%RSD	55.86	51.31	29.50	.2878	9.284	.9030	.2281	151.0	.2607
#1	.0007	.0005	.0067	2.850	.0113	1.379	.0358	-.0001	10.47
#2	.0008	.0002	.0046	2.833	.0103	1.357	.0359	.0000	10.45
#3	.0002	.0007	.0084	2.841	.0124	1.359	.0360	-.0005	10.42

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0004**	**.0010**	**.0000**	**11.87**	**.0005**	**.0461**	**.0001**	**-.0009**
Stddev	.0001	.0004	.0010	.001	.03	.0004	.0001	.0002	.0007
%RSD	49.82	100.4	99.02	1225.	.2608	71.84	.2524	160.0	86.20
#1	-.0003	.0003	.0008	-.0003	11.87	.0005	.0462	.0000	-.0009
#2	-.0001	.0001	.0020	.0005	11.90	.0002	.0460	.0003	-.0001
#3	-.0002	.0009	.0001	-.0003	11.84	.0010	.0460	.0000	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.0177**
Stddev	.0003	.0001
%RSD	62.62	.5288
#1	.0002	.0177
#2	.0005	.0178
#3	.0008	.0177

Zoom In Zoom Out

Sample Name: FC3662-2F Acquired: 3/27/2023 15:23:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1063.4**	**2700.6**	**25496.**	**4108.5**
Stddev	1.8	7.8	117.	35.1
%RSD	.16849	.28815	.45725	.85375
#1	1063.6	2707.8	25565.	4124.1
#2	1065.1	2692.4	25361.	4133.1
#3	1061.5	2701.7	25561.	4068.4

Zoom In Zoom Out

Sample Name: FC3647-1 Acquired: 3/27/2023 15:28:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.4660**	**.0003**	**.2829**	**.0134**	**.0000**	**154.4**	**.0001**	**.0013**
Stddev	.0000	.0016	.0009	.0031	.0003	.000	.5	.0000	.0002
%RSD	7.623	.3449	342.9	1.085	2.288	788.7	.3357	19.45	13.14
#1	.0002	.4648	-.0004	.2794	.0132	-.0001	153.9	.0001	.0015
#2	.0003	.4678	-.0002	.2838	.0138	.0000	154.6	.0001	.0013
#3	.0002	.4654	.0013	.2854	.0134	.0001	154.9	.0001	.0012

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.3456**	**.1243**	F **123.8**	**.0183**	**13.60**	**1.875**	**.0113**	**11.80**
Stddev	.0002	.0008	.0021	.4	.0010	.08	.007	.0002	.08
%RSD	19.16	.2279	1.701	.2923	5.521	.6114	.3507	1.692	.7109
#1	.0012	.3462	.1219	123.4	.0179	13.51	1.880	.0111	11.70
#2	.0014	.3459	.1257	123.8	.0175	13.61	1.877	.0115	11.85
#3	.0009	.3447	.1254	124.1	.0195	13.67	1.868	.0113	11.85

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0202**	**-.0009**	**.0035**	**-.0001**	**2.152**	**.0000**	**.5553**	**.0027**	**.0031**
Stddev	.0001	.0007	.0012	.0017	.008	.0003	.0033	.0001	.0017
%RSD	.4579	75.88	33.26	1947.	.3605	3443.	.5865	2.573	54.96
#1	.0203	-.0017	.0035	-.0009	2.155	.0000	.5515	.0027	.0022
#2	.0202	-.0004	.0023	-.0012	2.158	-.0003	.5572	.0026	.0019
#3	.0201	-.0006	.0047	.0019	2.143	.0003	.5571	.0027	.0050

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0019**	**.1298**
Stddev	.0002	.0008
%RSD	11.96	.5827
#1	-.0019	.1300
#2	-.0020	.1303
#3	-.0016	.1289

Zoom In Zoom Out

Sample Name: FC3647-1 Acquired: 3/27/2023 15:28:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**922.16**	**2511.0**	**23678.**	**4072.8**
Stddev	3.13	4.2	182.	18.0
%RSD	.33974	.16732	.76731	.44120
#1	924.41	2509.9	23527.	4052.1
#2	918.58	2507.5	23627.	4081.3
#3	923.49	2515.7	23880.	4084.9

Zoom In Zoom Out

Sample Name: FC3655-3 Acquired: 3/27/2023 15:33:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0161**	**.0014**	F **.5461**	**.0238**	**.0000**	**156.8**	**-.0001**	**.0002**
Stddev	.0004	.0117	.0003	.0056	.0001	.000	.8	.0001	.0001
%RSD	235.8	72.91	22.20	1.021	.4131	61.20	.4797	58.97	62.61
#1	.0000	-.0085	.0016	.5396	.0238	.0000	157.5	.0000	.0001
#2	.0001	-.0296	.0011	.5493	.0239	-.0001	157.0	-.0001	.0003
#3	-.0006	-.0101	.0016	.5493	.0237	.0000	156.0	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0100**	**.0517**	**4.742**	**.0658**	**71.08**	**.0070**	**.2255**	F **144.7**
Stddev	.0002	.0003	.0003	.036	.0003	.48	.0000	.0012	4.0
%RSD	51.20	2.642	.5528	.7543	.5075	.6773	.5711	.5269	2.763
#1	.0006	.0099	.0515	4.772	.0655	71.54	.0070	.2245	148.7
#2	.0002	.0098	.0515	4.752	.0661	71.11	.0070	.2252	140.7
#3	.0004	.0103	.0520	4.703	.0659	70.58	.0070	.2269	144.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**-.0002**	**.0011**	**.0004**	**9.498**	**.0000**	**2.554**	**.0021**	**-.0015**
Stddev	.0001	.0009	.0015	.0009	.057	.0003	.009	.0001	.0014
%RSD	2.084	523.9	137.6	233.6	.6038	1314.	.3556	6.325	92.20
#1	.0035	-.0006	.0027	.0013	9.434	-.0001	2.564	.0022	-.0020
#2	.0034	.0008	.0008	.0003	9.519	-.0002	2.552	.0020	.0001
#3	.0033	-.0008	-.0002	-.0005	9.543	.0003	2.546	.0021	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0052**	**.0153**
Stddev	.0004	.0001
%RSD	6.740	.5298
#1	.0054	.0153
#2	.0048	.0152
#3	.0054	.0154

Zoom In Zoom Out

Sample Name: FC3655-3 Acquired: 3/27/2023 15:33:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**880.64**	**2417.6**	**22832.**	**3996.7**
Stddev	4.51	10.5	95.	43.7
%RSD	.51225	.43267	.41495	1.0928
#1	885.71	2429.5	22756.	3948.6
#2	877.09	2409.9	22800.	4007.5
#3	879.11	2413.4	22938.	4033.9

Zoom In Zoom Out

Sample Name: FC3662-1 Acquired: 3/27/2023 15:38:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0016**	**-.0006**	**.0010**	**.0369**	**.0001**	**6.286**	**-.0001**	**.0091**
Stddev	.0004	.0175	.0006	.0016	.0001	.0000	.008	.0001	.0001
%RSD	91.88	1081.	101.9	151.1	.3437	44.37	.1279	42.83	1.262
#1	.0005	-.0153	-.0006	.0023	.0368	.0001	6.293	-.0001	.0091
#2	.0007	.0196	-.0013	-.0007	.0370	.0001	6.278	-.0002	.0091
#3	.0000	.0005	.0000	.0015	.0369	.0001	6.289	-.0001	.0089

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0000**	**6.334**	**3.001**	**-.0001**	**3.768**	**2.067**	**-.0002**	**7.093**
Stddev	.0003	.000	.013	.031	.0010	.028	.010	.0002	.016
%RSD	43.83	2434.	.2089	1.041	776.0	.7472	.4656	74.85	.2248
#1	.0006	.0000	6.324	2.980	-.0011	3.747	2.057	-.0001	7.101
#2	.0010	.0001	6.330	2.986	.0009	3.758	2.076	-.0004	7.075
#3	.0004	-.0001	6.349	3.037	-.0001	3.800	2.067	-.0002	7.104

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**-.0002**	**-.0004**	**5.486**	**.0600**	**.0592**	**.0006**	**.0026**
Stddev	.0002	.0004	.0004	.0016	.008	.0004	.0002	.0002	.0003
%RSD	326.5	133.6	262.8	378.3	.1451	.6230	.3549	35.86	11.60
#1	.0000	.0004	-.0002	.0000	5.494	.0601	.0594	.0004	.0024
#2	-.0001	.0006	-.0006	-.0022	5.479	.0596	.0590	.0008	.0024
#3	.0002	-.0001	.0003	.0010	5.484	.0603	.0593	.0006	.0029

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0044**	**.0168**
Stddev	.0003	.0001
%RSD	7.269	.6128
#1	-.0040	.0168
#2	-.0046	.0167
#3	-.0045	.0169

Zoom In Zoom Out

Sample Name: FC3662-1 Acquired: 3/27/2023 15:38:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1069.4**	**2695.2**	**25365.**	**4144.5**
Stddev	3.3	7.9	205.	55.3
%RSD	.30674	.29246	.80985	1.3353
#1	1066.7	2690.4	25487.	4126.5
#2	1073.1	2704.3	25128.	4206.6
#3	1068.5	2690.9	25480.	4100.4

Zoom In Zoom Out

Sample Name: FC3662-2 Acquired: 3/27/2023 15:43:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0089**	**-.0003**	**.0195**	**.0531**	**.0003**	**3.524**	**.0000**	**-.0001**
Stddev	.0005	.0135	.0009	.0014	.0002	.0001	.012	.000	.0000
%RSD	128.2	152.0	340.3	7.077	.3892	18.12	.3368	172.1	19.84
#1	.0004	-.0083	-.0003	.0187	.0532	.0003	3.528	.0000	-.0001
#2	.0008	-.0227	-.0011	.0211	.0528	.0003	3.510	.0000	-.0001
#3	-.0001	.0043	.0006	.0187	.0532	.0004	3.533	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0005**	**.0033**	**2.897**	**.0114**	**1.371**	**.0357**	**-.0003**	**10.49**
Stddev	.0002	.0001	.0012	.020	.0003	.026	.0000	.0002	.03
%RSD	26.65	30.53	36.12	.6765	2.635	1.867	.0966	76.31	.2708
#1	.0008	.0006	.0040	2.875	.0117	1.362	.0357	-.0005	10.52
#2	.0005	.0004	.0039	2.913	.0113	1.352	.0357	-.0003	10.47
#3	.0006	.0004	.0019	2.902	.0112	1.400	.0357	-.0001	10.48

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0011**	**.0004**	**-.0003**	**12.06**	**.0005**	**.0459**	**.0002**	**-.0001**
Stddev	.0002	.0003	.0005	.0024	.01	.0005	.0002	.0001	.0005
%RSD	101.0	23.11	140.0	845.7	.0885	114.0	.4171	32.77	819.8
#1	-.0005	.0011	.0004	.0023	12.06	.0004	.0457	.0002	.0000
#2	-.0001	.0009	.0008	-.0024	12.07	.0011	.0459	.0001	.0004
#3	-.0001	.0014	-.0002	-.0007	12.05	.0000	.0461	.0001	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0182**
Stddev	.0002	.0001
%RSD	48.76	.2980
#1	.0006	.0182
#2	.0005	.0182
#3	.0002	.0183

Zoom In Zoom Out

Sample Name: FC3662-2 Acquired: 3/27/2023 15:43:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1067.3**	**2680.4**	**25380.**	**4096.4**
Stddev	3.8	8.7	49.	9.9
%RSD	.35246	.32427	.19171	.24181
#1	1070.5	2687.3	25428.	4102.6
#2	1063.2	2670.6	25382.	4101.6
#3	1068.2	2683.3	25330.	4085.0

Zoom In Zoom Out

Sample Name: FC3664-1 Acquired: 3/27/2023 15:47:53 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**.1864**	**.0000**	F **8.199**	**.0362**	**.0000**	**61.52**	**-.0002**	**.0136**
Stddev	.0003	.0107	.002	.122	.0005	.000	.27	.0000	.0001
%RSD	12.68	5.766	4165.	1.492	1.482	181.6	.4337	9.830	.7528
#1	.0023	.1806	.0014	8.300	.0365	.0000	61.22	-.0002	.0137
#2	.0029	.1798	-.0016	8.236	.0366	.0000	61.74	-.0002	.0136
#3	.0029	.1988	.0002	8.063	.0356	-.0001	61.59	-.0002	.0135

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0271**	**.0011**	**10.14**	F **711.7**	**.0112**	**20.10**	**.1169**	**.0144**	F **156.0**
Stddev	.0003	.0003	.05	4.6	.0010	.05	.0000	.0001	.5
%RSD	1.016	27.93	.4493	.6411	8.821	.2529	.0335	.7785	.3500
#1	.0273	.0012	10.09	709.1	.0101	20.10	.1169	.0143	156.5
#2	.0268	.0014	10.18	709.0	.0121	20.15	.1169	.0144	155.9
#3	.0271	.0008	10.15	717.0	.0115	20.05	.1170	.0145	155.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**.0025**	**.0016**	**.0022**	**24.48**	**.0003**	**.4295**	**.0022**	**-.0018**
Stddev	.0002	.0004	.0003	.0025	.09	.0005	.0024	.0001	.0015
%RSD	2.913	14.66	19.23	112.6	.3582	161.9	.5584	2.842	85.60
#1	.0074	.0027	.0017	.0014	24.51	.0005	.4273	.0022	-.0027
#2	.0078	.0021	.0019	.0002	24.38	.0007	.4293	.0023	-.0026
#3	.0077	.0028	.0013	.0051	24.55	-.0003	.4321	.0021	.0000

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0078**	**.0142**
Stddev	.0001	.0000
%RSD	1.432	.1107
#1	.0078	.0142
#2	.0077	.0142
#3	.0080	.0142

Zoom In Zoom Out

Sample Name: FC3664-1 Acquired: 3/27/2023 15:47:53 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.93**	**2376.9**	**22028.**	**4104.9**
Stddev	2.26	5.8	31.	53.1
%RSD	.27074	.24220	.14080	1.2935
#1	834.37	2372.7	22034.	4160.2
#2	838.52	2383.4	22055.	4100.4
#3	834.88	2374.4	21994.	4054.3

Zoom In Zoom Out

Sample Name: FC3664-3 Acquired: 3/27/2023 15:53:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0104**	**.0564**	**.0007**	F **.8022**	**.0198**	**.0000**	**64.55**	**-.0002**	**.0805**
Stddev	.0003	.0069	.0008	.0091	.0002	.0001	.27	.0000	.0002
%RSD	3.125	12.18	111.3	1.140	1.191	271.8	.4107	5.532	.2943
#1	.0108	.0634	-.0002	.8033	.0197	.0001	64.81	-.0003	.0805
#2	.0101	.0496	.0011	.8107	.0200	.0000	64.28	-.0002	.0804
#3	.0103	.0562	.0012	.7925	.0196	-.0001	64.57	-.0002	.0808

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1131**	**.0036**	**.2731**	F **1013.**	**.0128**	**16.24**	**.0281**	**.0285**	**71.05**
Stddev	.0003	.0003	.0032	14.	.0012	.09	.0001	.0002	.35
%RSD	.2780	7.470	1.166	1.377	9.426	.5791	.3695	.7993	.4859
#1	.1134	.0033	.2767	1029.	.0139	16.33	.0279	.0287	71.33
#2	.1131	.0038	.2706	1006.	.0131	16.14	.0281	.0283	70.67
#3	.1127	.0038	.2719	1005.	.0115	16.24	.0281	.0285	71.16

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0256**	**.0009**	**.0019**	**.0018**	**32.73**	**.0005**	**.4560**	**.0040**	**-.0026**
Stddev	.0002	.0003	.0005	.0018	.08	.0004	.0029	.0001	.0008
%RSD	.7932	33.18	25.78	101.6	.2486	70.97	.6348	2.076	29.99
#1	.0258	.0008	.0024	.0005	32.68	.0004	.4591	.0039	-.0034
#2	.0256	.0007	.0014	.0038	32.69	.0002	.4534	.0040	-.0019
#3	.0254	.0012	.0019	.0010	32.83	.0009	.4553	.0041	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0050**	**.0106**
Stddev	.0003	.0001
%RSD	5.348	.6546
#1	.0050	.0107
#2	.0047	.0107
#3	.0052	.0106

Zoom In Zoom Out

Sample Name: FC3664-3 Acquired: 3/27/2023 15:53:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**795.77**	**2313.9**	**21223.**	**4058.7**
Stddev	2.16	4.1	33.	29.2
%RSD	.27109	.17646	.15554	.72016
#1	794.55	2312.0	21186.	4052.6
#2	798.27	2318.6	21231.	4090.5
#3	794.50	2311.1	21251.	4033.0

Zoom In Zoom Out

Sample Name: FC3489-1 Acquired: 3/27/2023 15:57:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.2656**	**.0221**	**.0191**	**.0156**	**.0001**	**22.32**	**-.0001**	**.0004**
Stddev	.0003	.0096	.0004	.0020	.0001	.0001	.05	.0000	.0002
%RSD	59.58	3.625	1.992	10.41	.5864	145.7	.2402	30.50	42.30
#1	.0003	.2608	.0226	.0202	.0155	.0003	22.33	-.0001	.0004
#2	.0009	.2767	.0218	.0168	.0157	.0000	22.37	-.0002	.0002
#3	.0003	.2592	.0220	.0203	.0156	.0000	22.27	-.0001	.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**.0018**	**12.51**	**5.991**	**.0015**	**2.563**	F **5.189**	**.0041**	**56.08**
Stddev	.0003	.0000	.03	.055	.0024	.018	.027	.0001	.26
%RSD	12.74	2.360	.2206	.9183	157.9	.7110	.5141	1.826	.4575
#1	.0023	.0017	12.50	6.019	.0028	2.581	5.188	.0042	56.21
#2	.0026	.0018	12.54	6.026	-.0012	2.564	5.163	.0040	56.26
#3	.0030	.0018	12.49	5.927	.0030	2.545	5.216	.0041	55.79

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0028**	**.0005**	**.0012**	**4.901**	**.0004**	**.1606**	**.0034**	**.0056**
Stddev	.0001	.0002	.0016	.0006	.010	.0001	.0005	.0002	.0011
%RSD	3.602	7.399	312.1	54.17	.1974	23.87	.2819	4.608	20.12
#1	.0019	.0028	.0003	.0008	4.910	.0006	.1604	.0036	.0061
#2	.0017	.0026	-.0010	.0008	4.902	.0004	.1611	.0034	.0043
#3	.0018	.0030	.0022	.0019	4.891	.0004	.1603	.0033	.0064

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0125**	**.0056**
Stddev	.0003	.0000
%RSD	2.601	.7856
#1	-.0128	.0055
#2	-.0123	.0056
#3	-.0123	.0056

Zoom In Zoom Out

Sample Name: FC3489-1 Acquired: 3/27/2023 15:57:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**994.64**	**2628.4**	**24710.**	**4215.8**
Stddev	3.08	5.7	188.	38.0
%RSD	.30949	.21759	.76003	.90244
#1	996.66	2625.6	24856.	4192.8
#2	991.10	2624.6	24776.	4194.8
#3	996.17	2635.0	24498.	4259.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 16:02:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**39.44**	**2.039**	**1.924**	**2.067**	**2.118**	**41.22**	**2.032**	**2.025**
Stddev	.0008	.26	.001	.017	.013	.007	.21	.002	.002
%RSD	.3082	.6612	.0358	.8996	.6128	.3367	.5037	.1144	.1078
#1	.2498	39.54	2.040	1.908	2.065	2.111	41.21	2.031	2.022
#2	.2511	39.14	2.038	1.942	2.056	2.117	41.02	2.030	2.026
#3	.2511	39.63	2.039	1.923	2.081	2.126	41.43	2.034	2.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.032**	**2.012**	**40.08**	**41.62**	**2.119**	**39.88**	**2.113**	**2.045**	**40.98**
Stddev	.009	.003	.21	.32	.007	.27	.010	.004	.22
%RSD	.4449	.1464	.5224	.7691	.3312	.6758	.4584	.1995	.5436
#1	2.029	2.012	40.03	41.71	2.119	39.99	2.108	2.041	40.97
#2	2.024	2.009	39.90	41.26	2.112	39.57	2.107	2.046	40.76
#3	2.042	2.015	40.31	41.88	2.126	40.08	2.125	2.049	41.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**1.985**	**2.049**	**2.030**	**1.961**	**2.036**	**2.132**	**2.055**	**2.044**
Stddev	.004	.003	.005	.010	.006	.005	.009	.006	.005
%RSD	.1836	.1241	.2681	.4833	.2957	.2401	.4229	.2710	.2361
#1	2.022	1.987	2.045	2.019	1.959	2.033	2.125	2.052	2.049
#2	2.023	1.985	2.048	2.033	1.956	2.032	2.130	2.051	2.040
#3	2.029	1.983	2.056	2.038	1.967	2.041	2.142	2.061	2.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 16:02:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.013**	**2.025**
Stddev	.005	.002
%RSD	.2458	.1120
#1	2.011	2.023
#2	2.009	2.026
#3	2.018	2.027
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**920.42**	**2539.4**	**24026.**	**4114.5**
Stddev	.50	7.3	168.	56.6
%RSD	.05483	.28613	.70024	1.3751
#1	921.01	2547.3	24116.	4089.9
#2	920.14	2537.6	24129.	4179.2
#3	920.12	2533.1	23831.	4074.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 16:07:32 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0085**	**.0000**	F **.0015**	**.0002**	**.0000**	**.0023**	**.0000**	**.0001**
Stddev	.0003	.0060	.0005	.0033	.0001	.0001	.0017	.0000	.0001
%RSD	605.6	69.80	54360.	219.7	65.55	633.3	72.84	44.31	77.50
#1	.0002	-.0077	-.0002	.0029	.0001	.0000	.0004	.0001	.0001
#2	.0003	-.0030	.0006	.0038	.0003	.0001	.0033	.0000	.0002
#3	-.0003	-.0149	-.0004	-.0023	.0002	.0000	.0034	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0013**	**.3115**	**.0005**	**.0036**	**.0000**	**.0002**	**.0124**
Stddev	.0002	.0001	.0005	.0243	.0012	.0127	.0000	.0001	.0050
%RSD	149.7	16.99	40.22	7.793	234.1	351.6	116.4	60.59	39.96
#1	.0001	.0006	.0018	.2994	.0017	.0044	.0000	.0003	.0099
#2	-.0001	.0004	.0008	.3394	-.0007	.0159	.0000	.0001	.0182
#3	.0002	.0006	.0013	.2955	.0006	-.0095	.0000	.0001	.0092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0001**	**.0018**	**-.0004**	**.0024**	**-.0001**	**.0000**	**-.0001**	**.0005**
Stddev	.0001	.0007	.0013	.0003	.0008	.0003	.0000	.0001	.0009
%RSD	39.86	866.4	70.30	74.72	31.86	350.5	224.9	237.6	201.9
#1	-.0002	.0006	.0031	-.0004	.0015	.0000	.0001	-.0002	.0000
#2	-.0001	-.0009	.0006	-.0001	.0027	.0001	.0000	.0001	.0015
#3	-.0003	.0000	.0017	-.0007	.0029	-.0004	.0000	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 16:07:32 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0002**	**.0025**
Stddev	.0001	.0001
%RSD	44.37	2.956
#1	.0002	.0024
#2	.0002	.0026
#3	.0001	.0025
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1133.7**	**2705.5**	**26040.**	**4111.9**
Stddev	5.1	6.3	33.	32.3
%RSD	.44824	.23195	.12815	.78473
#1	1139.6	2712.6	26009.	4149.0
#2	1130.9	2700.6	26076.	4096.3
#3	1130.7	2703.3	26036.	4090.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 17:15:13 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2430**	**40.31**	**2.022**	**2.028**	**2.025**	**1.983**	**40.09**	**2.038**	**2.036**
Stddev	.0009	.13	.048	.032	.003	.014	.11	.052	.051
%RSD	.3758	.3279	2.384	1.554	.1543	.7275	.2841	2.578	2.528
#1	.2426	40.16	2.078	2.048	2.022	1.984	40.13	2.098	2.096
#2	.2440	40.36	1.991	1.991	2.027	1.997	40.18	2.003	2.002
#3	.2423	40.41	1.999	2.043	2.027	1.968	39.96	2.012	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.019**	**2.004**	**40.03**	**40.55**	**2.010**	**40.05**	**2.019**	**2.037**	**40.57**
Stddev	.003	.005	.05	.13	.009	.17	.007	.051	.10
%RSD	.1526	.2333	.1164	.3098	.4653	.4201	.3592	2.529	.2521
#1	2.022	2.007	40.07	40.55	2.010	40.18	2.014	2.096	40.58
#2	2.019	1.999	40.04	40.67	2.019	40.11	2.027	2.002	40.66
#3	2.016	2.005	39.98	40.42	2.000	39.86	2.016	2.013	40.46
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.039**	**2.021**	**2.028**	**2.020**	**1.963**	**2.047**	**1.987**	**2.023**	**2.021**
Stddev	.052	.045	.054	.059	.054	.055	.009	.002	.049
%RSD	2.548	2.220	2.683	2.908	2.756	2.691	.4309	.1026	2.402
#1	2.099	2.073	2.090	2.087	2.025	2.111	1.988	2.026	2.076
#2	2.005	1.991	1.993	1.983	1.928	2.010	1.995	2.022	1.985
#3	2.012	1.999	1.999	1.988	1.936	2.021	1.978	2.022	2.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 17:15:13 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.041**	**2.035**
Stddev	.008	.051
%RSD	.3868	2.500
#1	2.049	2.094
#2	2.034	2.003
#3	2.039	2.009
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.32**	**2465.1**	**23800.**	**4037.8**
Stddev	15.42	46.6	84.	58.2
%RSD	1.7031	1.8911	.35350	1.4413
#1	887.84	2412.1	23790.	3980.1
#2	917.00	2499.6	23721.	4036.8
#3	911.12	2483.7	23888.	4096.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 17:22:37 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0099**	**.0007**	F **.0031**	**-.0001**	**.0001**	**.0008**	**.0000**
Stddev	.0001	.0032	.0008	.0028	.0001	.0001	.0018	.000
%RSD	16.78	32.41	113.4	88.61	94.39	174.6	219.7	421.8
#1	.0004	.0093	-.0002	.0056	-.0001	.0001	-.0011	.0000
#2	.0003	.0070	.0011	.0001	.0000	.0000	.0011	.0000
#3	.0003	.0134	.0013	.0037	-.0002	.0001	.0024	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0001**	**-.0002**	**-.0270**	F **-.0019**	**-.0267**	**-.0002**
Stddev	.0001	.0001	.0003	.0015	.0200	.0007	.0041	.0000
%RSD	477.6	118.5	282.5	1026.	74.09	35.38	15.34	17.29
#1	.0000	-.0001	-.0001	.0006	-.0198	-.0018	-.0268	-.0001
#2	.0000	-.0002	.0004	-.0019	-.0496	-.0026	-.0226	-.0002
#3	.0001	.0000	-.0001	.0009	-.0116	-.0013	-.0307	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0092**	**.0001**	**-.0003**	**.0013**	**.0006**	**.0000**	**.0005**
Stddev	.0001	.0029	.0002	.0005	.0007	.0003	.001	.0002
%RSD	17.53	31.50	121.2	207.5	51.64	48.70	2651.	35.20
#1	.0003	.0112	.0000	-.0006	.0007	.0009	.0006	.0004
#2	.0003	.0104	.0001	-.0005	.0021	.0005	-.0008	.0007
#3	.0004	.0059	.0003	.0004	.0013	.0004	.0001	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 17:22:37 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0000**	**.0000**	**.0000**
Stddev	.0000	.0000	.001	.000	.0000
%RSD	128.7	1.296	7301.	7487.	140.6
#1	.0000	.0002	.0014	-.0005	.0000
#2	.0000	.0002	-.0010	.0000	.0000
#3	.0001	.0002	-.0004	.0004	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1135.1**	**2662.2**	**25643.**	**4112.6**
Stddev	1.7	9.3	79.	14.3
%RSD	.14742	.34944	.30720	.34695
#1	1134.5	2670.1	25730.	4098.4
#2	1137.0	2664.4	25620.	4126.9
#3	1133.8	2652.0	25578.	4112.5

Zoom In Zoom Out

Sample Name: FC3489-2 Acquired: 3/27/2023 17:27:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0427**	**.0148**	**.0192**	**.0326**	**.0000**	**23.32**	**-.0002**	**-.0002**
Stddev	.0005	.0035	.0007	.0004	.0003	.0001	.09	.0001	.0001
%RSD	149.5	8.132	4.419	2.114	.9684	147.0	.3743	36.44	45.30
#1	.0002	.0467	.0154	.0193	.0330	.0001	23.38	-.0001	-.0002
#2	.0009	.0407	.0141	.0187	.0325	.0001	23.36	-.0001	-.0001
#3	-.0001	.0407	.0148	.0195	.0324	.0000	23.22	-.0002	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0009**	**13.28**	**3.410**	**-.0011**	**3.558**	F **4.450**	**.0031**	**38.04**
Stddev	.0002	.0000	.05	.037	.0017	.012	.029	.0001	.18
%RSD	11.78	4.671	.3498	1.085	163.5	.3401	.6498	3.508	.4661
#1	.0016	.0008	13.30	3.428	-.0022	3.561	4.483	.0030	38.10
#2	.0012	.0009	13.31	3.434	-.0019	3.545	4.442	.0031	38.17
#3	.0014	.0009	13.22	3.367	.0009	3.568	4.427	.0032	37.84

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0006**	**.0009**	**.0028**	**4.313**	**.0007**	**.1429**	**.0021**	**.0049**
Stddev	.0001	.0007	.0005	.0007	.024	.0002	.0006	.0000	.0003
%RSD	33.32	114.4	58.61	26.64	.5478	24.10	.4398	2.244	7.173
#1	.0001	-.0001	.0003	.0036	4.310	.0009	.1428	.0022	.0046
#2	.0002	.0007	.0013	.0022	4.291	.0007	.1435	.0021	.0047
#3	.0003	.0012	.0009	.0024	4.338	.0006	.1422	.0021	.0053

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0121**	**.0025**
Stddev	.0002	.0000
%RSD	1.372	.0940
#1	-.0119	.0025
#2	-.0123	.0025
#3	-.0121	.0025

Zoom In Zoom Out

Sample Name: FC3489-2 Acquired: 3/27/2023 17:27:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**997.82**	**2567.5**	**24372.**	**4068.9**
Stddev	3.50	11.5	116.	30.5
%RSD	.35119	.44658	.47786	.74860
#1	996.36	2566.0	24255.	4034.6
#2	1001.8	2579.6	24372.	4092.9
#3	995.27	2556.8	24488.	4079.1

Zoom In Zoom Out

Sample Name: FC3489-3 Acquired: 3/27/2023 17:32:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0381**	**.0143**	**.0209**	**.0340**	**.0001**	**23.16**	**-.0002**	**-.0002**
Stddev	.0002	.0107	.0019	.0009	.0002	.0001	.05	.0001	.0001
%RSD	21.81	28.01	13.00	4.166	.5005	133.8	.2144	29.63	60.11
#1	.0007	.0277	.0126	.0206	.0341	.0002	23.16	-.0002	-.0004
#2	.0009	.0490	.0163	.0202	.0340	.0000	23.22	-.0002	-.0001
#3	.0006	.0375	.0140	.0219	.0338	.0001	23.12	-.0001	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0008**	**13.01**	**3.405**	**-.0009**	**3.591**	F **4.364**	**.0030**	**38.06**
Stddev	.0004	.0000	.03	.024	.0019	.002	.047	.0001	.05
%RSD	30.55	6.613	.2608	.7103	220.0	.0497	1.071	1.855	.1416
#1	.0008	.0007	13.04	3.387	-.0013	3.589	4.406	.0031	38.01
#2	.0015	.0008	13.01	3.395	-.0025	3.590	4.314	.0030	38.11
#3	.0016	.0008	12.97	3.432	.0012	3.593	4.372	.0030	38.05

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0012**	**.0004**	**.0035**	**4.236**	**.0005**	**.1444**	**.0021**	**.0047**
Stddev	.0002	.0001	.0009	.0004	.009	.0002	.0002	.0003	.0006
%RSD	51.45	12.06	212.3	12.09	.2073	41.42	.1550	13.65	12.86
#1	.0004	.0013	.0004	.0034	4.237	.0003	.1442	.0018	.0044
#2	.0007	.0013	-.0004	.0031	4.244	.0008	.1442	.0023	.0044
#3	.0003	.0010	.0013	.0040	4.227	.0005	.1446	.0023	.0054

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0124**	**.0023**
Stddev	.0006	.0001
%RSD	4.533	2.251
#1	-.0129	.0024
#2	-.0118	.0023
#3	-.0126	.0023

Zoom In Zoom Out

Sample Name: FC3489-3 Acquired: 3/27/2023 17:32:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1004.1**	**2587.3**	**24546.**	**4016.4**
Stddev	1.3	4.0	97.	9.3
%RSD	.13272	.15487	.39344	.23059
#1	1002.6	2585.3	24464.	4008.5
#2	1005.1	2584.6	24652.	4014.1
#3	1004.5	2591.9	24522.	4026.6

Zoom In Zoom Out

Sample Name: FC3696-3 Acquired: 3/27/2023 17:37:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0913**	**-.0006**	**.0352**	**.0037**	**.0001**	**20.43**	**-.0001**	**-.0002**
Stddev	.0004	.0154	.0006	.0018	.0001	.0000	.08	.0000	.0001
%RSD	776.0	16.83	86.44	5.091	2.057	47.96	.4069	34.35	29.42
#1	-.0004	.0897	.0000	.0364	.0037	.0000	20.39	-.0001	-.0002
#2	.0003	.1074	-.0011	.0332	.0038	.0001	20.38	-.0001	-.0002
#3	.0002	.0768	-.0009	.0362	.0036	.0001	20.53	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0001**	**1.442**	**1.529**	**-.0019**	**5.030**	**.0130**	**.0004**	**4.426**
Stddev	.0003	.0002	.005	.015	.0013	.028	.0001	.0002	.013
%RSD	12.97	124.0	.3357	.9453	68.09	.5505	1.089	41.60	.2848
#1	.0028	.0000	1.438	1.540	-.0009	4.998	.0132	.0005	4.418
#2	.0022	.0001	1.447	1.536	-.0014	5.044	.0131	.0005	4.420
#3	.0028	.0003	1.441	1.513	-.0034	5.048	.0129	.0002	4.441

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0003**	**.0016**	**3.351**	**.0007**	**.1704**	**.0020**	**-.0006**
Stddev	.0000	.0004	.0006	.0006	.004	.0002	.0011	.0002	.0005
%RSD	11.80	372.6	196.0	35.30	.1200	28.96	.6496	8.096	81.21
#1	.0003	.0005	-.0003	.0022	3.346	.0006	.1701	.0021	-.0004
#2	.0002	.0002	.0010	.0017	3.354	.0009	.1694	.0018	-.0003
#3	.0002	-.0003	.0003	.0010	3.352	.0005	.1716	.0021	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0014**	**.0012**
Stddev	.0001	.0000
%RSD	7.817	.6804
#1	.0013	.0012
#2	.0015	.0012
#3	.0015	.0012

Zoom In Zoom Out

Sample Name: FC3696-3 Acquired: 3/27/2023 17:37:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1057.8**	**2661.1**	**25368.**	**4085.6**
Stddev	2.9	5.7	31.	5.9
%RSD	.27302	.21528	.12127	.14460
#1	1060.8	2667.1	25364.	4091.6
#2	1057.4	2655.6	25401.	4085.4
#3	1055.1	2660.6	25340.	4079.7

Zoom In Zoom Out

Sample Name: FC3696-4 Acquired: 3/27/2023 17:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.1450**	**.0008**	**.0268**	**.0051**	**.0000**	**20.60**	**-.0001**	**.0001**
Stddev	.0001	.0084	.0002	.0026	.0001	.0001	.07	.0001	.0001
%RSD	8.514	5.765	30.95	9.558	1.446	346.2	.3607	75.33	94.80
#1	.0007	.1397	.0011	.0282	.0052	.0001	20.60	-.0001	.0001
#2	.0006	.1406	.0007	.0238	.0050	.0000	20.68	.0000	.0002
#3	.0006	.1546	.0006	.0283	.0051	.0000	20.53	-.0002	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**.0001**	**2.524**	**1.063**	**-.0021**	**9.022**	**.0264**	**.0002**	**7.961**
Stddev	.0002	.0001	.004	.028	.0015	.063	.0001	.0001	.036
%RSD	6.898	261.6	.1523	2.625	71.28	.6971	.2676	30.11	.4563
#1	.0027	.0000	2.520	1.095	-.0033	9.062	.0263	.0002	7.980
#2	.0027	.0002	2.528	1.048	-.0004	9.055	.0264	.0002	7.983
#3	.0030	.0000	2.524	1.046	-.0025	8.950	.0265	.0001	7.919

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0009**	**.0002**	**.0044**	**3.859**	**.0006**	**.1257**	**.0032**	**-.0001**
Stddev	.0000	.0008	.0008	.0014	.009	.0002	.0007	.0002	.0001
%RSD	8.943	86.74	435.3	31.67	.2204	35.16	.5222	7.057	146.1
#1	.0005	-.0011	-.0003	.0055	3.867	.0005	.1255	.0033	-.0001
#2	.0005	-.0017	.0011	.0049	3.850	.0009	.1264	.0034	.0001
#3	.0004	-.0001	-.0002	.0028	3.859	.0005	.1251	.0030	-.0001

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0012**	**.0014**
Stddev	.0003	.0001
%RSD	21.25	4.286
#1	.0009	.0014
#2	.0015	.0014
#3	.0013	.0013

Zoom In Zoom Out

Sample Name: FC3696-4 Acquired: 3/27/2023 17:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1044.3**	**2643.3**	**25141.**	**4108.7**
Stddev	2.1	2.1	97.	17.1
%RSD	.20128	.07831	.38437	.41682
#1	1046.7	2644.8	25169.	4127.5
#2	1043.4	2644.1	25220.	4094.0
#3	1042.8	2640.9	25033.	4104.6

Zoom In Zoom Out

Sample Name: FC3335-5 Acquired: 3/27/2023 17:47:11 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**1.479**	**3.905**	**F 154.4**	**.0913**	**-.0029**	**234.3**
Stddev	.0138	.225	.029	.8	.0026	.0010	.7
%RSD	291.4	15.24	.7423	.5301	2.866	34.08	.2827
#1	.0197	1.634	3.895	153.5	.0938	-.0039	234.9
#2	.0019	1.220	3.883	155.1	.0917	-.0029	234.5
#3	-.0074	1.581	3.938	154.6	.0886	-.0019	233.6

Elem	Cd2265	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707
IS Ref	(Y_2243)	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**.1730**	**.7254**	**.0864**	**4.356**	**F 14390.**	**F 29.39**
Stddev	.0001	.0015	.0074	.0026	.069	302.	.01
%RSD	8.037	.8492	1.014	3.037	1.590	2.099	.0411
#1	-.0017	.1723	.7188	.0847	4.424	14740.	29.40
#2	-.0019	.1719	.7333	.0850	4.358	14240.	29.37
#3	-.0020	.1747	.7241	.0894	4.285	14200.	29.38

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	Pb2203	Sb2068
IS Ref	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4260**	**.1118**	**49.34**	**F 18720.**	**7.131**	**.0363**	**.3093**
Stddev	.3483	.0003	.23	246.	.021	.0207	.0082
%RSD	81.76	.2573	.4563	1.314	.2940	56.89	2.662
#1	.7818	.1115	49.13	18980.	7.111	.0145	.3174
#2	.0857	.1121	49.32	18680.	7.128	.0556	.3010
#3	.4105	.1116	49.58	18490.	7.153	.0388	.3095

Elem	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
IS Ref	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7365**	**69.94**	**.0324**	**7.759**	**.0248**	**-.1541**	**.6584**
Stddev	.0743	.43	.0058	.006	.0039	.0346	.0035
%RSD	10.09	.6103	17.84	.0743	15.68	22.42	.5321
#1	.6536	69.47	.0386	7.755	.0213	-.1166	.6613
#2	.7586	70.03	.0314	7.765	.0241	-.1846	.6595
#3	.7972	70.31	.0271	7.756	.0290	-.1611	.6545

Zoom In Zoom Out

Sample Name: FC3335-5 Acquired: 3/27/2023 17:47:11 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
IS Ref	(Y_2243)
Units	ppm
Avg	**.0524**
Stddev	.0004
%RSD	.6710
#1	.0520
#2	.0525
#3	.0527

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**679.90**	**2091.6**	**18921.**	**3996.6**
Stddev	.39	7.5	52.	9.2
%RSD	.05777	.35900	.27485	.23122
#1	680.26	2100.1	18981.	3986.9
#2	679.94	2088.3	18886.	3997.5
#3	679.48	2086.2	18896.	4005.3

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/27/2023 17:52:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**.4343**	**.0050**	**.0705**	**.0291**	**-.0002**	**427.6**	**-.0001**	**.0078**
Stddev	.0021	.0262	.0042	.0061	.0013	.0003	1.9	.0003	.0003
%RSD	28.70	6.031	83.90	8.640	4.484	145.1	.4550	330.2	3.814
#1	.0096	.4644	.0007	.0757	.0284	-.0005	429.0	.0003	.0081
#2	.0068	.4219	.0053	.0719	.0284	-.0001	425.4	-.0002	.0076
#3	.0055	.4166	.0090	.0638	.0306	.0000	428.5	-.0004	.0076

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0387**	**.0002**	**34.02**	**12.54**	**.0053**	**56.87**	**.6833**	**.0033**	F **701.1**
Stddev	.0009	.0010	.21	.21	.0030	.23	.0021	.0009	11.3
%RSD	2.379	420.9	.6241	1.702	55.73	.3965	.3071	26.14	1.606
#1	.0398	-.0008	34.19	12.76	.0041	56.78	.6840	.0042	697.9
#2	.0381	.0010	33.78	12.53	.0031	56.69	.6809	.0024	691.7
#3	.0383	.0005	34.08	12.34	.0087	57.12	.6849	.0034	713.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0840**	**-.0032**	**.0024**	**.0046**	**2.112**	**.0019**	**.5984**	**.0109**	**.0007**
Stddev	.0008	.0021	.0014	.0046	.003	.0014	.0017	.0003	.0020
%RSD	.8946	65.23	60.52	100.8	.1523	70.27	.2813	3.017	282.8
#1	.0847	-.0042	.0013	.0068	2.113	.0035	.5990	.0107	.0025
#2	.0841	-.0008	.0040	-.0007	2.114	.0008	.5965	.0108	-.0015
#3	.0832	-.0047	.0018	.0077	2.108	.0015	.5997	.0113	.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.8520**	**.1452**
Stddev	.0011	.0005
%RSD	.1274	.3595
#1	.8510	.1450
#2	.8519	.1448
#3	.8531	.1458

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/27/2023 17:52:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**924.63**	**2979.1**	**28019.**	**4975.6**
Stddev	1.42	6.2	143.	48.6
%RSD	.15361	.20806	.50987	.97580
#1	923.20	2984.3	28121.	4967.1
#2	924.64	2972.3	28079.	5027.9
#3	926.04	2980.8	27856.	4932.0

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/27/2023 17:57:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**.3783**	**.0066**	**.0486**	**.0294**	**-.0002**	**434.0**	**-.0001**	**.0083**
Stddev	.0009	.0349	.0021	.0045	.0007	.0001	.2	.0003	.0001
%RSD	11.43	9.212	32.33	9.192	2.216	42.02	.0415	262.7	.9813
#1	.0070	.4186	.0051	.0439	.0294	-.0001	434.2	-.0002	.0084
#2	.0086	.3590	.0090	.0528	.0287	-.0002	433.9	.0002	.0084
#3	.0086	.3574	.0056	.0491	.0300	-.0003	433.9	-.0003	.0082

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0395**	**.0017**	**34.44**	**10.06**	**.0029**	**58.05**	**.6913**	**.0015**	F **724.4**
Stddev	.0013	.0008	.03	.04	.0005	.19	.0018	.0014	9.1
%RSD	3.212	46.36	.0869	.4222	16.62	.3246	.2575	98.88	1.261
#1	.0409	.0014	34.47	10.09	.0025	58.20	.6903	.0027	728.6
#2	.0384	.0025	34.41	10.08	.0034	57.84	.6933	-.0001	730.6
#3	.0391	.0010	34.44	10.01	.0028	58.10	.6902	.0018	713.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0856**	**-.0047**	**.0022**	**-.0056**	**2.082**	**.0009**	**.6093**	**.0098**	**-.0031**
Stddev	.0006	.0038	.0018	.0071	.003	.0008	.0014	.0008	.0030
%RSD	.7275	80.16	82.88	126.7	.1507	93.46	.2370	8.514	95.78
#1	.0858	-.0090	.0017	-.0138	2.084	.0010	.6101	.0089	-.0060
#2	.0849	-.0032	.0007	-.0024	2.079	.0016	.6102	.0106	-.0033
#3	.0860	-.0019	.0042	-.0007	2.084	.0000	.6076	.0098	.0000

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.8666**	**.1464**
Stddev	.0046	.0004
%RSD	.5325	.2626
#1	.8695	.1466
#2	.8690	.1460
#3	.8613	.1467

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/27/2023 17:57:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**925.50**	**3002.6**	**28014.**	**4973.6**
Stddev	2.78	5.7	181.	27.0
%RSD	.30008	.19092	.64457	.54262
#1	926.77	3001.3	28097.	4998.5
#2	927.41	3008.8	27807.	4945.0
#3	922.31	2997.6	28138.	4977.4

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/27/2023 18:02:17 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0510**	**22.90**	**1.680**	**.0441**	**1.686**	**.0407**	**427.2**	**.0412**	**.4276**
Stddev	.0007	.08	.002	.0102	.004	.0006	1.2	.0001	.0009
%RSD	1.300	.3646	.1256	23.13	.2542	1.429	.2723	.2157	.2006
#1	.0506	22.81	1.680	.0539	1.681	.0402	425.9	.0413	.4267
#2	.0507	22.97	1.682	.0448	1.687	.0414	428.0	.0413	.4280
#3	.0518	22.92	1.678	.0335	1.689	.0405	427.7	.0411	.4283

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2061**	**.2100**	**54.22**	**30.27**	**-.0014**	**74.39**	**1.073**	**.4289**	F **693.9**
Stddev	.0019	.0014	.11	.13	.0031	.46	.003	.0003	10.8
%RSD	.9249	.6502	.2105	.4156	226.7	.6223	.2414	.0784	1.551
#1	.2079	.2108	54.10	30.13	-.0049	73.88	1.076	.4291	683.1
#2	.2041	.2084	54.25	30.37	.0010	74.52	1.073	.4291	693.8
#3	.2061	.2107	54.32	30.31	-.0002	74.78	1.071	.4285	704.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4928**	**.4797**	**.4117**	**1.712**	**2.547**	**.4258**	**.9993**	**.4473**	**1.899**
Stddev	.0024	.0013	.0084	.004	.001	.0024	.0025	.0013	.003
%RSD	.4797	.2652	2.048	.2634	.0410	.5649	.2467	.2947	.1767
#1	.4948	.4784	.4194	1.715	2.548	.4261	.9966	.4488	1.903
#2	.4934	.4810	.4027	1.713	2.547	.4280	.9996	.4464	1.898
#3	.4902	.4796	.4130	1.707	2.546	.4232	1.002	.4467	1.896

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**1.222**	**.5527**
Stddev	.002	.0001
%RSD	.1385	.0178
#1	1.221	.5528
#2	1.223	.5527
#3	1.224	.5526

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/27/2023 18:02:17 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**919.05**	**2976.0**	**27892.**	**4882.4**
Stddev	1.63	1.7	150.	9.7
%RSD	.17768	.05620	.53759	.19914
#1	918.05	2974.1	27757.	4892.3
#2	918.17	2976.5	27865.	4872.9
#3	920.94	2977.2	28053.	4881.9

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/27/2023 18:07:09 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0528**	**23.62**	**1.739**	**.0350**	**1.755**	**.0421**	**445.2**	**.0425**	**.4417**
Stddev	.0010	.11	.003	.0101	.004	.0003	.9	.0002	.0002
%RSD	1.981	.4683	.1712	28.75	.2029	.8116	.1948	.5532	.0523
#1	.0538	23.70	1.736	.0340	1.759	.0421	445.6	.0428	.4415
#2	.0517	23.49	1.739	.0255	1.752	.0418	444.2	.0424	.4416
#3	.0530	23.66	1.742	.0455	1.754	.0425	445.8	.0424	.4419

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2120**	**.2153**	**56.06**	**31.03**	**.0036**	**77.03**	**1.112**	**.4376**	F **729.6**
Stddev	.0012	.0006	.12	.08	.0034	.28	.003	.0014	4.5
%RSD	.5798	.2638	.2208	.2525	95.13	.3609	.2316	.3276	.6140
#1	.2108	.2158	56.21	30.95	.0070	76.91	1.109	.4361	729.1
#2	.2132	.2154	55.99	31.11	.0038	76.84	1.114	.4380	725.4
#3	.2120	.2147	55.99	31.02	.0001	77.35	1.112	.4389	734.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5103**	**.4959**	**.4132**	**1.758**	**2.640**	**.4331**	**1.028**	**.4548**	**1.974**
Stddev	.0012	.0027	.0042	.006	.009	.0022	.003	.0012	.002
%RSD	.2364	.5471	1.022	.3702	.3495	.5013	.2622	.2706	.1211
#1	.5094	.4987	.4083	1.753	2.631	.4306	1.026	.4562	1.976
#2	.5099	.4932	.4150	1.755	2.649	.4343	1.027	.4540	1.975
#3	.5117	.4959	.4162	1.765	2.639	.4344	1.031	.4542	1.971

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**1.280**	**.5702**
Stddev	.002	.0006
%RSD	.1903	.1091
#1	1.282	.5709
#2	1.281	.5696
#3	1.277	.5701

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/27/2023 18:07:09 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**913.86**	**2993.9**	**28169.**	**4930.1**
Stddev	1.33	6.9	198.	22.1
%RSD	.14510	.23098	.70162	.44907
#1	912.34	2999.4	28391.	4945.4
#2	914.54	2986.1	28102.	4940.2
#3	914.72	2996.2	28012.	4904.7

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/27/2023 18:12:02 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0477**	**2.496**	**.0831**	**.0390**	**.2352**	**.0388**	**455.7**	**.0408**	**.0493**
Stddev	.0010	.080	.0008	.0134	.0006	.0004	1.2	.0003	.0001
%RSD	2.036	3.196	1.018	34.33	.2346	.9116	.2552	.6656	.1559
#1	.0468	2.445	.0825	.0247	.2346	.0392	457.0	.0411	.0494
#2	.0476	2.588	.0841	.0409	.2353	.0385	454.7	.0407	.0493
#3	.0488	2.456	.0827	.0513	.2357	.0386	455.5	.0406	.0492

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0825**	**.0810**	**38.55**	**17.65**	**.0066**	**64.16**	**.7577**	**.0793**	F **763.0**
Stddev	.0009	.0012	.08	.09	.0082	.26	.0036	.0005	10.6
%RSD	1.071	1.431	.2159	.5121	122.8	.3975	.4790	.6475	1.394
#1	.0822	.0807	38.59	17.75	-.0004	64.45	.7582	.0799	768.6
#2	.0818	.0823	38.45	17.59	.0048	63.96	.7539	.0793	769.6
#3	.0835	.0800	38.61	17.62	.0156	64.08	.7611	.0789	750.7

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1721**	**.0449**	**.0769**	**.0874**	**2.206**	**.0421**	**.6688**	**.0921**	**.0894**
Stddev	.0003	.0050	.0051	.0017	.007	.0015	.0020	.0010	.0063
%RSD	.1709	11.23	6.607	1.939	.3307	3.506	.2947	1.115	7.015
#1	.1719	.0392	.0732	.0860	2.205	.0429	.6706	.0933	.0961
#2	.1720	.0466	.0748	.0868	2.213	.0403	.6691	.0917	.0883
#3	.1725	.0489	.0827	.0893	2.199	.0429	.6667	.0914	.0837

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.9696**	**.3580**
Stddev	.0055	.0015
%RSD	.5682	.4088
#1	.9656	.3592
#2	.9759	.3564
#3	.9674	.3586

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/27/2023 18:12:02 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.38**	**3013.9**	**28340.**	**5038.7**
Stddev	2.99	3.1	57.	33.8
%RSD	.33064	.10270	.20097	.67165
#1	903.69	3010.4	28405.	5002.0
#2	908.83	3016.3	28316.	5068.7
#3	903.61	3014.9	28299.	5045.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 18:16:56 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2424**	**40.43**	**1.986**	**1.956**	**2.033**	**1.960**	**40.05**	**2.008**	**2.012**
Stddev	.0003	.06	.001	.015	.004	.006	.10	.000	.002
%RSD	.1043	.1434	.0686	.7536	.1961	.3327	.2389	.0204	.1026
#1	.2424	40.49	1.984	1.959	2.036	1.967	40.15	2.008	2.010
#2	.2426	40.37	1.986	1.939	2.028	1.957	40.04	2.008	2.013
#3	.2421	40.44	1.987	1.968	2.034	1.955	39.95	2.007	2.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.999**	**1.979**	**39.92**	**40.69**	**2.020**	**39.22**	**2.045**	**1.996**	**40.07**
Stddev	.002	.006	.06	.07	.007	.11	.003	.002	.16
%RSD	.0797	.3211	.1400	.1646	.3600	.2870	.1431	.1003	.3952
#1	1.998	1.973	39.98	40.76	2.028	39.35	2.044	1.996	40.26
#2	2.000	1.985	39.87	40.63	2.015	39.16	2.048	1.998	39.97
#3	1.997	1.979	39.90	40.67	2.017	39.15	2.043	1.994	40.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**2.027**	**1.935**	**1.998**	**1.893**	**1.962**	**1.976**	**1.983**	**1.985**
Stddev	.001	.002	.004	.005	.001	.003	.003	.005	.007
%RSD	.0462	.1022	.1865	.2499	.0723	.1396	.1585	.2302	.3323
#1	1.968	2.030	1.932	1.996	1.892	1.963	1.979	1.982	1.992
#2	1.967	2.025	1.934	2.003	1.892	1.959	1.973	1.987	1.979
#3	1.967	2.027	1.939	1.994	1.894	1.965	1.974	1.978	1.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 18:16:56 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.009**	**1.991**
Stddev	.003	.002
%RSD	.1337	.0973
#1	2.006	1.990
#2	2.009	1.990
#3	2.011	1.994
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**916.72**	**2542.1**	**24057.**	**4047.2**
Stddev	1.96	1.7	74.	21.1
%RSD	.21386	.06517	.30661	.52107
#1	914.82	2540.8	24038.	4046.3
#2	918.73	2544.0	23994.	4026.6
#3	916.62	2541.6	24138.	4068.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 18:21:30 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0039**	**.0001**	F **.0029**	**-.0001**	**.0001**	**.0022**	**.0000**
Stddev	.0004	.0019	.0011	.0004	.0000	.0000	.0025	.0000
%RSD	80.91	48.77	1292.	15.42	13.81	62.84	112.6	79.37
#1	.0008	.0043	.0006	.0024	-.0001	.0001	.0019	.0000
#2	.0006	.0056	-.0011	.0030	-.0001	.0001	.0048	.0001
#3	.0001	.0018	.0008	.0032	-.0001	.0000	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0004**	**.0011**	**.0025**	F **-.0033**	**-.0053**	**-.0001**
Stddev	.0001	.0002	.0000	.0016	.0259	.0008	.0067	.0000
%RSD	106.1	1103.	4.657	143.4	1042.	24.90	127.5	20.36
#1	.0000	.0001	.0004	.0024	-.0199	-.0037	-.0050	-.0001
#2	-.0001	.0002	.0004	-.0007	-.0036	-.0024	.0013	-.0001
#3	-.0001	-.0002	.0003	.0017	.0309	-.0038	-.0122	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0539**	**.0002**	**.0002**	**.0015**	F **.0024**	**-.0002**	**.0004**
Stddev	.0002	.0029	.0001	.0002	.0005	.0003	.0001	.0003
%RSD	32.59	5.406	56.51	90.51	34.07	11.06	53.92	79.03
#1	.0006	.0572	.0004	.0000	.0010	.0021	-.0002	.0006
#2	.0003	.0517	.0003	.0002	.0021	.0026	-.0004	.0000
#3	.0005	.0529	.0001	.0004	.0015	.0026	-.0001	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 18:21:30 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0004**	**.0001**	**.0000**
Stddev	.0000	.0001	.0012	.0001	.000
%RSD	65.81	116.6	261.8	52.93	189.6
#1	.0001	.0001	.0014	.0001	-.0001
#2	.0001	.0000	-.0009	.0002	.0000
#3	.0000	.0002	.0008	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.8**	**2726.2**	**25872.**	**4097.0**
Stddev	3.9	2.0	89.	32.8
%RSD	.34245	.07507	.34312	.80011
#1	1140.8	2726.7	25829.	4075.2
#2	1136.7	2728.0	25974.	4134.7
#3	1133.0	2724.0	25813.	4081.1

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/27/2023 18:26:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106**	**.3412**	**-.0164**	**.0641**	**.0301**	**.0018**	**482.2**	**.0000**	**.0100**
Stddev	.0052	.1912	.0054	.0178	.0070	.0014	1.6	.002	.0022
%RSD	49.02	56.03	32.77	27.72	23.35	80.08	.3342	5661.	22.19
#1	.0061	.4932	-.0105	.0442	.0290	.0033	484.0	-.0007	.0075
#2	.0094	.1266	-.0210	.0695	.0237	.0015	481.5	-.0013	.0115
#3	.0163	.4039	-.0178	.0785	.0376	.0005	481.0	.0019	.0111

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0383**	**.0082**	**38.06**	**9.204**	**-.0311**	**63.38**	**.7745**	**.0005**	**812.5**
Stddev	.0041	.0083	.08	.591	.0404	.09	.0016	.0052	1.7
%RSD	10.60	101.1	.2165	6.418	129.7	.1442	.2081	967.7	.2150
#1	.0366	.0077	38.15	9.055	.0149	63.49	.7756	.0063	814.4
#2	.0429	.0167	38.04	8.701	-.0476	63.32	.7727	-.0010	811.0
#3	.0353	.0002	37.98	9.854	-.0607	63.34	.7754	-.0037	812.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1018**	**-.0089**	**.0173**	**.0455**	**2.213**	**.0093**	**.6681**	**.0319**	**.0029**
Stddev	.0025	.0075	.0068	.0327	.012	.0045	.0014	.0023	.0243
%RSD	2.503	85.05	39.31	71.86	.5307	48.69	.2059	7.346	846.5
#1	.1039	-.0114	.0151	.0514	2.204	.0041	.6666	.0343	.0276
#2	.1024	-.0004	.0119	.0749	2.209	.0124	.6691	.0319	-.0209
#3	.0990	-.0148	.0250	.0103	2.226	.0114	.6687	.0296	.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.9005**	**.1566**
Stddev	.0149	.0014
%RSD	1.657	.9158
#1	.9091	.1573
#2	.9091	.1575
#3	.8833	.1549

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/27/2023 18:26:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.1**	**2765.1**	**25874.**	**4234.7**
Stddev	2.2	8.3	66.	20.5
%RSD	.21582	.29883	.25430	.48388
#1	1030.3	2770.9	25799.	4219.6
#2	1034.6	2768.9	25899.	4258.0
#3	1031.4	2755.7	25923.	4226.4

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/27/2023 19:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**16.53**	**.0053**	**.0157**	**.0171**	**.0007**	**85.68**	**-.0005**	**.0046**
Stddev	.0022	.03	.0053	.0067	.0006	.0004	.11	.0002	.0006
%RSD	124.7	.1671	100.4	42.83	3.576	55.66	.1235	35.30	11.94
#1	.0042	16.54	.0009	.0229	.0177	.0004	85.80	-.0004	.0049
#2	.0010	16.49	.0038	.0096	.0168	.0006	85.64	-.0007	.0040
#3	.0000	16.55	.0112	.0147	.0166	.0012	85.60	-.0003	.0050

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2276**	**.0024**	**57.98**	**3.913**	**-.0030**	**5.018**	**1.537**	**-.0009**	**214.0**
Stddev	.0021	.0007	.06	.133	.0088	.095	.004	.0003	.5
%RSD	.9259	28.77	.1002	3.388	292.1	1.892	.2712	34.12	.2234
#1	.2275	.0032	57.98	3.796	.0071	4.914	1.533	-.0009	214.0
#2	.2298	.0018	57.92	4.057	-.0090	5.100	1.541	-.0006	214.4
#3	.2256	.0023	58.03	3.886	-.0071	5.040	1.536	-.0012	213.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1265**	**.0026**	**.0008**	**.0026**	**5.984**	**.0026**	**.1483**	**.0073**	**.0046**
Stddev	.0004	.0011	.0013	.0024	.016	.0011	.0003	.0007	.0046
%RSD	.3053	43.39	161.7	91.13	.2702	42.76	.2019	9.579	100.5
#1	.1265	.0038	.0009	.0002	5.984	.0027	.1480	.0065	.0098
#2	.1261	.0021	-.0006	.0027	5.967	.0014	.1485	.0075	.0009
#3	.1269	.0017	.0021	.0049	6.000	.0036	.1485	.0078	.0032

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0244**	**.0129**
Stddev	.0004	.0002
%RSD	1.806	1.449
#1	.0249	.0130
#2	.0240	.0130
#3	.0244	.0127

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/27/2023 19:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1017.1**	**2673.5**	**24970.**	**4086.5**
Stddev	4.3	6.8	63.	10.2
%RSD	.41954	.25548	.25136	.25023
#1	1022.0	2680.5	25013.	4075.4
#2	1014.1	2673.0	24999.	4095.6
#3	1015.3	2666.9	24898.	4088.3

Zoom In Zoom Out

Sample Name: FC3338-3 Acquired: 3/27/2023 19:05:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**15.26**	**-.0005**	**.0272**	**.0166**	**.0007**	**77.37**	**-.0006**	**.0038**
Stddev	.0010	.13	.0010	.0042	.0012	.0003	.14	.0003	.0007
%RSD	54.50	.8259	190.6	15.51	7.322	46.71	.1835	59.82	17.85
#1	.0017	15.40	.0006	.0244	.0152	.0003	77.51	-.0004	.0031
#2	.0030	15.22	-.0008	.0320	.0174	.0009	77.38	-.0004	.0037
#3	.0010	15.16	-.0012	.0250	.0172	.0008	77.23	-.0010	.0045

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1959**	**.0035**	**49.94**	**3.582**	**-.0052**	**4.521**	**1.360**	**-.0004**	**192.3**
Stddev	.0008	.0013	.04	.084	.0032	.173	.002	.0005	.6
%RSD	.3987	37.04	.0750	2.342	61.73	3.829	.1235	117.8	.3323
#1	.1957	.0036	49.96	3.576	-.0033	4.720	1.359	-.0006	192.6
#2	.1952	.0047	49.96	3.668	-.0089	4.407	1.359	.0001	192.8
#3	.1967	.0021	49.89	3.501	-.0034	4.436	1.362	-.0008	191.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1079**	**.0017**	**-.0007**	**.0099**	**5.319**	**.0024**	**.1346**	**.0068**	**.0039**
Stddev	.0012	.0011	.0077	.0115	.083	.0018	.0002	.0002	.0024
%RSD	1.068	66.29	1123.	115.1	1.552	73.24	.1579	3.487	61.05
#1	.1089	.0011	.0015	.0218	5.350	.0017	.1347	.0066	.0033
#2	.1080	.0010	.0057	.0091	5.381	.0011	.1347	.0069	.0065
#3	.1066	.0030	-.0093	-.0011	5.225	.0044	.1343	.0071	.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0224**	**.0101**
Stddev	.0023	.0001
%RSD	10.43	1.445
#1	.0246	.0101
#2	.0199	.0103
#3	.0226	.0100

Zoom In Zoom Out

Sample Name: FC3338-3 Acquired: 3/27/2023 19:05:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.4**	**2691.2**	**25046.**	**4094.3**
Stddev	13.7	37.8	77.	45.2
%RSD	1.3239	1.4031	.30590	1.1037
#1	1028.6	2678.1	25123.	4063.7
#2	1021.1	2661.7	24969.	4146.2
#3	1047.6	2733.8	25045.	4073.1

Zoom In Zoom Out

Sample Name: FC3338-5 Acquired: 3/27/2023 19:10:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.1162**	**.0016**	**.0342**	**.0328**	**-.0002**	**259.9**	**-.0005**	**.0006**
Stddev	.0019	.0689	.0033	.0070	.0011	.0003	1.5	.0001	.0002
%RSD	53.04	59.30	208.7	20.58	3.473	222.4	.5813	14.15	33.27
#1	.0026	.1841	-.0022	.0412	.0336	-.0002	260.7	-.0005	.0006
#2	.0058	.0463	.0031	.0344	.0334	.0002	260.9	-.0005	.0004
#3	.0023	.1184	.0039	.0271	.0315	-.0004	258.2	-.0006	.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**.0024**	**10.16**	**14.20**	**-.0025**	**10.51**	**.3880**	**.0003**	**204.9**
Stddev	.0003	.0005	.06	.17	.0050	.25	.0002	.0010	1.0
%RSD	9.431	21.09	.6245	1.206	204.7	2.412	.0397	334.9	.4668
#1	.0036	.0027	10.20	14.23	-.0082	10.79	.3878	.0000	205.5
#2	.0034	.0018	10.19	14.01	.0007	10.44	.3881	.0014	205.4
#3	.0041	.0028	10.08	14.35	.0002	10.30	.3880	-.0005	203.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069**	**-.0014**	**.0022**	**.0034**	**2.355**	**.0010**	**.3467**	**.0114**	**.0039**
Stddev	.0003	.0041	.0054	.0078	.009	.0009	.0016	.0002	.0029
%RSD	3.654	291.9	243.3	226.0	.3893	98.08	.4556	1.916	74.64
#1	.0066	-.0034	.0084	.0124	2.364	.0005	.3463	.0112	.0012
#2	.0071	.0033	-.0011	-.0017	2.357	.0003	.3484	.0114	.0036
#3	.0069	-.0041	-.0007	-.0004	2.346	.0020	.3454	.0116	.0069

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0199**	**.0120**
Stddev	.0002	.0002
%RSD	1.052	1.360
#1	.0202	.0121
#2	.0197	.0121
#3	.0199	.0118

Zoom In Zoom Out

Sample Name: FC3338-5 Acquired: 3/27/2023 19:10:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1001.8**	**2592.1**	**24441.**	**4090.3**
Stddev	3.6	9.8	154.	45.9
%RSD	.36336	.37770	.62971	1.1212
#1	998.83	2580.9	24264.	4051.5
#2	1005.9	2596.7	24539.	4078.5
#3	1000.8	2598.7	24521.	4140.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 19:15:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2436**	**40.24**	**1.999**	**1.928**	**2.025**	**1.974**	**40.05**	**2.019**	**2.021**
Stddev	.0012	.18	.003	.023	.004	.003	.07	.001	.001
%RSD	.4962	.4580	.1547	1.211	.2057	.1738	.1711	.0610	.0483
#1	.2448	40.06	1.997	1.906	2.020	1.978	40.03	2.019	2.022
#2	.2437	40.43	2.003	1.925	2.027	1.974	40.13	2.017	2.020
#3	.2424	40.22	1.999	1.953	2.026	1.971	40.00	2.020	2.022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013**	**1.987**	**39.75**	**40.54**	**2.024**	**39.32**	**2.056**	**2.003**	**40.24**
Stddev	.004	.006	.05	.11	.001	.20	.002	.003	.05
%RSD	.1755	.3006	.1306	.2651	.0551	.5198	.1043	.1240	.1289
#1	2.014	1.994	39.74	40.51	2.025	39.34	2.054	2.006	40.28
#2	2.015	1.987	39.80	40.66	2.024	39.52	2.056	2.001	40.26
#3	2.008	1.982	39.70	40.45	2.023	39.11	2.058	2.003	40.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.986**	**2.022**	**1.961**	**2.017**	**1.907**	**1.983**	**1.985**	**2.002**	**2.001**
Stddev	.004	.005	.005	.006	.005	.004	.002	.004	.005
%RSD	.2115	.2391	.2729	.3232	.2575	.2199	.1219	.2192	.2359
#1	1.989	2.020	1.967	2.014	1.911	1.987	1.988	2.006	2.000
#2	1.982	2.028	1.957	2.024	1.902	1.979	1.985	2.001	1.996
#3	1.988	2.019	1.961	2.012	1.909	1.983	1.983	1.998	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 19:15:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.017**	**2.007**
Stddev	.004	.001
%RSD	.2153	.0678
#1	2.022	2.008
#2	2.016	2.005
#3	2.013	2.007
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**919.54**	**2536.2**	**23837.**	**4027.3**
Stddev	.83	3.1	68.	46.1
%RSD	.08975	.12066	.28690	1.1442
#1	920.35	2535.6	23808.	3988.8
#2	918.70	2539.5	23789.	4014.8
#3	919.58	2533.5	23915.	4078.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 19:19:54 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0056**	**.0004**	**.0008**	**.0001**	**.0001**	**.0017**	**.0000**	**-.0001**
Stddev	.0002	.0150	.0002	.0008	.0002	.0001	.0029	.000	.0001
%RSD	66.43	266.6	59.48	95.61	379.3	122.9	173.6	690.0	136.8
#1	.0003	.0226	.0006	.0002	-.0002	.0002	.0031	-.0001	-.0001
#2	.0006	-.0002	.0004	.0016	.0001	.0001	-.0017	.0000	-.0002
#3	.0001	-.0056	.0001	.0005	.0003	.0000	.0036	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**-.0005**	**-.0252**	**.0000**	**-.0119**	**-.0002**	**.0004**	**.0263**
Stddev	.0002	.0000	.0008	.0150	.0019	.0171	.0000	.0001	.0035
%RSD	84.35	17.76	164.2	59.44	4074.	143.4	12.54	31.31	13.23
#1	.0004	.0002	-.0012	-.0095	.0003	-.0107	-.0002	.0005	.0301
#2	.0003	.0003	.0003	-.0393	.0018	-.0296	-.0002	.0005	.0254
#3	.0000	.0002	-.0005	-.0269	-.0020	.0046	-.0001	.0003	.0234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0001**	**.0009**	**.0014**	**-.0009**	**.0007**	**.0000**	**.0002**	**.0008**
Stddev	.0002	.0005	.0006	.0013	.0007	.0001	.0001	.0001	.0012
%RSD	71.49	414.0	71.64	88.18	83.32	19.85	173.1	36.39	153.1
#1	.0003	-.0005	.0002	.0015	-.0001	.0005	.0000	.0002	-.0004
#2	.0001	-.0002	.0013	.0001	-.0010	.0008	.0000	.0001	.0020
#3	.0005	.0004	.0012	.0026	-.0016	.0007	.0001	.0002	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 19:19:54 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0000**
Stddev	.0002	.000
%RSD	1844.	128.1
#1	-.0001	.0000
#2	.0002	-.0001
#3	.0000	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1132.7**	**2711.3**	**25757.**	**4048.3**
Stddev	3.7	8.3	42.	17.1
%RSD	.32988	.30659	.16333	.42194
#1	1135.1	2714.6	25763.	4056.5
#2	1134.7	2717.5	25795.	4059.8
#3	1128.4	2701.9	25712.	4028.7

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Zoom In ▶
Zoom Out

Sample Name: STDB Acquired: 3/27/2023 9:34:31 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0056**	**.0240**	**.0020**	**.0024**	**2.631**	**.0475**	**.4083**	**.0287**	**.1404**
Stddev	.0004	.0003	.0002	.0002	.014	.0010	.0026	.0002	.0008
%RSD	7.894	1.429	10.38	9.828	.5348	2.185	.6454	.7808	.5918
#1	.0059	.0236	.0018	.0026	2.619	.0475	.4112	.0285	.1396
#2	.0059	.0243	.0020	.0021	2.646	.0465	.4060	.0289	.1403
#3	.0051	.0241	.0022	.0025	2.627	.0486	.4076	.0286	.1412

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0069**	**.0291**	**.0754**	**1.215**	**.0019**	**.1971**	**.0498**	**.0642**	**3.531**
Stddev	.0002	.0006	.0008	.003	.0031	.0008	.0002	.0002	.006
%RSD	3.140	2.036	.9998	.2595	160.7	.4162	.3340	.3144	.1583
#1	.0068	.0298	.0761	1.215	.0023	.1965	.0500	.0639	3.530
#2	.0071	.0287	.0754	1.218	.0047	.1980	.0497	.0643	3.538
#3	.0067	.0290	.0746	1.212	-.0013	.1967	.0499	.0643	3.527

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0722**	**.0099**	**.0014**	**.0020**	**.0228**	**.1994**	**.0222**	**.0057**	**.0371**
Stddev	.0003	.0010	.0004	.0003	.0001	.0015	.0002	.0006	.0002
%RSD	.3659	9.727	31.14	15.60	.5116	.7500	1.110	10.97	.5501
#1	.0720	.0107	.0013	.0019	.0227	.2010	.0220	.0058	.0373
#2	.0721	.0088	.0019	.0018	.0229	.1982	.0221	.0050	.0370
#3	.0725	.0101	.0011	.0024	.0229	.1989	.0224	.0063	.0370

Elem	Zn2062
Units	Cts/S
Avg	**.0662**
Stddev	.0003
%RSD	.4101
#1	.0659
#2	.0664
#3	.0661

◀ Zoom In ▶
Zoom Out

Sample Name: STDB Acquired: 3/27/2023 9:34:31 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1074.0**	**2724.3**	**25547.**	**4135.1**
Stddev	3.1	7.3	130.	11.4
%RSD	.29073	.26882	.50698	.27465
#1	1071.3	2715.9	25417.	4130.7
#2	1073.3	2727.3	25676.	4126.6
#3	1077.4	2729.6	25547.	4148.0

◀ Zoom In ▶
Zoom Out

Sample Name: STDC Acquired: 3/27/2023 9:38:47 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0226**	**.6669**	**.0526**	**.0928**	**3.381**	**2.369**	**2.171**	**1.486**	**.7216**
Stddev	.0001	.0009	.0004	.0009	.011	.004	.005	.002	.0013
%RSD	.3102	.1383	.7905	1.021	.3301	.1582	.2500	.1170	.1850
#1	.0226	.6660	.0528	.0926	3.375	2.371	2.171	1.485	.7214
#2	.0227	.6669	.0529	.0938	3.394	2.371	2.176	1.488	.7231
#3	.0226	.6679	.0521	.0920	3.373	2.364	2.165	1.485	.7205

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1761**	**.2319**	**1.348**	**.6486**	**.5804**	**.2105**	**.8337**	**.3193**	**2.045**
Stddev	.0003	.0003	.004	.0003	.0064	.0014	.0025	.0002	.006
%RSD	.1923	.1104	.2811	.0432	1.097	.6420	.3011	.0592	.2803
#1	.1764	.2316	1.345	.6486	.5759	.2112	.8366	.3193	2.039
#2	.1758	.2320	1.352	.6483	.5877	.2113	.8328	.3191	2.050
#3	.1760	.2320	1.346	.6489	.5777	.2089	.8318	.3195	2.046

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4629**	**.3791**	**.0695**	**.0393**	**.1165**	**.1157**	**5.104**	**.5414**	**.1521**
Stddev	.0009	.0016	.0005	.0002	.0003	.0002	.009	.0017	.0015
%RSD	.1876	.4312	.6845	.5132	.2225	.1388	.1725	.3152	.9666
#1	.4633	.3792	.0690	.0391	.1163	.1157	5.110	.5429	.1533
#2	.4619	.3808	.0694	.0392	.1168	.1156	5.109	.5395	.1526
#3	.4635	.3775	.0700	.0395	.1165	.1159	5.094	.5416	.1504

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.1906**	**.8260**
Stddev	.0001	.0017
%RSD	.0663	.2102
#1	.1905	.8256
#2	.1906	.8279
#3	.1907	.8245

◀ Zoom In ▶
Zoom Out

Sample Name: STDC Acquired: 3/27/2023 9:38:47 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1064.6**	**2716.8**	**25526.**	**4128.1**
Stddev	2.4	7.1	108.	43.8
%RSD	.22169	.25976	.42277	1.0618
#1	1067.3	2724.9	25459.	4092.1
#2	1063.6	2712.6	25650.	4176.9
#3	1062.9	2712.8	25468.	4115.2

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/27/2023 9:45:43 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0460**	**1.360**	**.1068**	**.1888**	**6.850**	**4.723**	**4.338**	**2.989**	**1.440**
Stddev	.0004	.005	.0002	.0016	.029	.017	.014	.005	.001
%RSD	.8265	.3620	.1721	.8579	.4226	.3626	.3251	.1669	.0884
#1	.0457	1.359	.1066	.1907	6.830	4.709	4.330	2.995	1.441
#2	.0464	1.356	.1070	.1879	6.837	4.718	4.329	2.988	1.439
#3	.0458	1.366	.1068	.1879	6.883	4.742	4.354	2.985	1.441

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3548**	**.4587**	**2.712**	**1.311**	**1.159**	**.4233**	**1.678**	**.6446**	**4.147**
Stddev	.0010	.0016	.007	.008	.006	.0022	.005	.0012	.027
%RSD	.2685	.3480	.2559	.6296	.5363	.5266	.2870	.1900	.6597
#1	.3541	.4580	2.708	1.306	1.158	.4226	1.676	.6459	4.123
#2	.3559	.4605	2.708	1.306	1.153	.4214	1.675	.6436	4.142
#3	.3543	.4576	2.720	1.320	1.166	.4258	1.684	.6441	4.177

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9274**	**.7743**	**.1380**	**.0791**	**.2292**	**.2301**	**10.21**	**1.092**	**.3047**
Stddev	.0016	.0009	.0002	.0004	.0010	.0007	.03	.004	.0017
%RSD	.1762	.1206	.1374	.4537	.4446	.2917	.3052	.3242	.5719
#1	.9292	.7737	.1379	.0787	.2303	.2309	10.19	1.093	.3065
#2	.9260	.7753	.1380	.0791	.2286	.2297	10.20	1.095	.3031
#3	.9271	.7738	.1382	.0794	.2286	.2297	10.25	1.088	.3043

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.3858**	**1.655**
Stddev	.0009	.004
%RSD	.2247	.2399
#1	.3849	1.660
#2	.3866	1.654
#3	.3860	1.653

Zoom In Zoom Out

Sample Name: STDD Acquired: 3/27/2023 9:45:43 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1028.0**	**2696.8**	**25279.**	**4172.7**
Stddev	3.6	6.9	145.	44.8
%RSD	.35251	.25506	.57394	1.0744
#1	1023.9	2688.9	25428.	4203.4
#2	1030.1	2699.8	25269.	4193.4
#3	1030.1	2701.6	25138.	4121.2

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/27/2023 9:49:10 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0846**	**2.614**	**.2179**	**.3898**	**13.76**	**9.429**	**8.265**	**6.011**	**2.870**
Stddev	.0002	.004	.0001	.0042	.02	.034	.013	.007	.004
%RSD	.2939	.1566	.0682	1.065	.1246	.3564	.1584	.1243	.1219
#1	.0847	2.619	.2179	.3904	13.78	9.394	8.257	6.018	2.874
#2	.0843	2.611	.2178	.3937	13.74	9.432	8.258	6.003	2.867
#3	.0847	2.613	.2181	.3854	13.76	9.461	8.280	6.013	2.870

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7112**	**.9141**	**5.130**	**2.524**	**2.303**	**.8059**	**3.341**	**1.292**	**7.996**
Stddev	.0002	.0012	.010	.003	.003	.0030	.009	.003	.013
%RSD	.0342	.1263	.1955	.1156	.1365	.3722	.2691	.1941	.1572
#1	.7115	.9135	5.127	2.527	2.304	.8025	3.349	1.293	8.010
#2	.7112	.9154	5.123	2.521	2.299	.8077	3.342	1.289	7.993
#3	.7110	.9134	5.142	2.522	2.306	.8075	3.331	1.294	7.986

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.845**	**1.580**	**.2791**	**.1600**	**.4002**	**.4627**	**20.28**	**2.187**	**.6211**
Stddev	.003	.003	.0011	.0001	.0017	.0016	.07	.003	.0009
%RSD	.1745	.2155	.3919	.0381	.4341	.3355	.3358	.1286	.1480
#1	1.846	1.579	.2789	.1600	.4012	.4631	20.20	2.185	.6205
#2	1.842	1.584	.2782	.1601	.3982	.4611	20.32	2.187	.6206
#3	1.848	1.577	.2803	.1600	.4012	.4641	20.32	2.190	.6221

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.7823**	**3.328**
Stddev	.0007	.004
%RSD	.0857	.1104
#1	.7816	3.329
#2	.7824	3.324
#3	.7830	3.332

Zoom In Zoom Out

Sample Name: STDE Acquired: 3/27/2023 9:49:10 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**982.05**	**2644.9**	**24775.**	**4161.0**
Stddev	1.92	3.1	50.	13.9
%RSD	.19588	.11628	.20250	.33391
#1	983.93	2647.6	24717.	4164.8
#2	980.09	2645.5	24803.	4172.7
#3	982.13	2641.5	24805.	4145.7

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/27/2023 9:52:44 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1753**	**5.391**	**.4548**	**.8049**	**28.36**	**19.51**	**16.89**	**12.36**	**5.875**
Stddev	.0004	.014	.0006	.0048	.06	.01	.02	.02	.011
%RSD	.2127	.2503	.1354	.5992	.1974	.0684	.1208	.1549	.1889
#1	.1749	5.406	.4544	.8040	28.42	19.52	16.92	12.35	5.867
#2	.1756	5.382	.4544	.8005	28.31	19.53	16.89	12.38	5.887
#3	.1754	5.384	.4555	.8101	28.35	19.50	16.88	12.34	5.870

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.459**	**1.876**	**10.47**	**5.159**	**4.704**	**1.647**	**6.891**	**2.673**	**16.42**
Stddev	.002	.006	.01	.009	.008	.004	.020	.002	.04
%RSD	.1128	.3263	.1432	.1651	.1791	.2167	.2858	.0737	.2329
#1	1.458	1.869	10.48	5.164	4.712	1.643	6.913	2.671	16.37
#2	1.460	1.878	10.47	5.149	4.695	1.647	6.885	2.675	16.43
#3	1.461	1.880	10.45	5.163	4.705	1.650	6.875	2.674	16.45

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.772**	**3.307**	**.5795**	**.3309**	**.7925**	**.9451**	**41.81**	**4.520**	**1.278**
Stddev	.004	.011	.0011	.0010	.0004	.0010	.05	.009	.003
%RSD	.0920	.3179	.1959	.3002	.0503	.1087	.1263	.2016	.2197
#1	3.771	3.316	.5797	.3318	.7922	.9458	41.87	4.510	1.281
#2	3.776	3.311	.5783	.3311	.7929	.9457	41.79	4.527	1.276
#3	3.769	3.295	.5806	.3299	.7923	.9440	41.77	4.523	1.276

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.628**	**6.843**
Stddev	.005	.012
%RSD	.2795	.1743
#1	1.625	6.838
#2	1.626	6.857
#3	1.633	6.835

Zoom In Zoom Out

Sample Name: STDF Acquired: 3/27/2023 9:52:44 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**918.38**	**2560.0**	**24096.**	**4132.0**
Stddev	2.16	2.9	95.	9.2
%RSD	.23505	.11230	.39607	.22178
#1	916.04	2562.6	24206.	4134.9
#2	920.29	2560.5	24037.	4121.8
#3	918.80	2556.9	24046.	4139.5

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/27/2023 9:56:28 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3678**	**10.97**	**.9353**	**1.679**	**56.50**	**38.93**	**33.30**	**24.86**	**11.84**
Stddev	.0081	.02	.0016	.022	.31	.21	.09	.03	.02
%RSD	2.209	.1640	.1700	1.336	.5547	.5324	.2748	.1095	.1822
#1	.3596	10.95	.9369	1.653	56.51	39.05	33.30	24.89	11.85
#2	.3680	10.97	.9354	1.690	56.19	39.06	33.39	24.85	11.85
#3	.3759	10.98	.9337	1.693	56.82	38.70	33.20	24.83	11.81

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.900**	**3.795**	**20.65**	**10.28**	**9.402**	**3.254**	**13.41**	**5.428**	**32.68**
Stddev	.069	.093	.05	.01	.030	.009	.08	.013	.02
%RSD	2.366	2.458	.2419	.1015	.3145	.2733	.5697	.2397	.0463
#1	2.827	3.701	20.63	10.28	9.407	3.256	13.33	5.443	32.67
#2	2.909	3.796	20.71	10.29	9.429	3.261	13.42	5.419	32.70
#3	2.963	3.887	20.61	10.27	9.370	3.244	13.48	5.422	32.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.622**	**6.838**	**1.193**	**.6701**	**1.681**	**1.895**	**83.08**	**8.998**	**2.590**
Stddev	.007	.042	.003	.0007	.001	.004	1.72	.218	.011
%RSD	.0907	.6065	.2087	.0973	.0566	.1985	2.065	2.425	.4338
#1	7.630	6.839	1.195	.6707	1.682	1.899	85.01	8.774	2.595
#2	7.616	6.879	1.190	.6694	1.680	1.892	82.49	9.010	2.598
#3	7.622	6.796	1.194	.6702	1.681	1.895	81.73	9.210	2.577

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**3.242**	**13.80**
Stddev	.076	.03
%RSD	2.341	.1935
#1	3.163	13.82
#2	3.249	13.80
#3	3.314	13.77

Zoom In Zoom Out

Sample Name: STDG Acquired: 3/27/2023 9:56:28 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**833.10**	**2425.3**	**23362.**	**4111.0**
Stddev	3.79	3.8	445.	39.9
%RSD	.45479	.15485	1.9054	.96997
#1	831.94	2421.1	23823.	4065.6
#2	830.02	2428.3	23329.	4127.1
#3	837.33	2426.4	22935.	4140.4

Zoom In Zoom Out

Sample Name: STDA Acquired: 3/27/2023 10:06:20 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0006**	**-.0002**	**.0029**	**.0122**	**.0007**	**-.0002**	**-.0010**	**-.0004**
Stddev	.0002	.0011	.0001	.0010	.0011	.0003	.0004	.0002	.0006
%RSD	17.42	171.8	60.39	33.13	9.191	46.53	273.6	24.81	155.8
#1	-.0013	.0014	-.0002	.0039	.0121	.0010	-.0006	-.0012	-.0010
#2	-.0009	-.0006	-.0001	.0028	.0112	.0004	.0000	-.0008	.0000
#3	-.0013	.0011	-.0003	.0020	.0134	.0007	.0002	-.0009	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0062**	**.0004**	**-.0023**	**.0016**	**-.0005**	**.0002**	**.0009**	**-.0297**
Stddev	.0001	.0001	.0002	.0001	.0021	.0004	.0001	.0002	.0034
%RSD	89.18	1.115	68.74	3.305	135.4	82.40	29.67	19.87	11.46
#1	.0000	.0063	.0003	-.0023	-.0003	-.0001	.0002	.0010	-.0294
#2	.0002	.0061	.0001	-.0024	.0039	-.0004	.0001	.0007	-.0265
#3	.0000	.0062	.0006	-.0022	.0011	-.0009	.0003	.0010	-.0333

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**.0017**	**.0002**	**.0005**	**.0048**	**.0002**	**-.0006**	**.0009**	**-.0005**
Stddev	.0006	.0003	.0004	.0001	.0003	.0001	.0014	.0002	.0008
%RSD	62.19	15.05	213.8	22.99	6.384	50.99	255.6	21.74	150.6
#1	-.0011	.0020	.0004	.0007	.0051	.0001	.0009	.0007	.0001
#2	-.0016	.0016	-.0002	.0004	.0045	.0001	-.0019	.0011	-.0003
#3	-.0003	.0015	.0004	.0006	.0049	.0003	-.0006	.0009	-.0014

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0002**	**.0002**
Stddev	.0003	.0001
%RSD	139.3	44.84
#1	-.0001	.0001
#2	-.0006	.0003
#3	.0000	.0002

Zoom In Zoom Out

Sample Name: STDA Acquired: 3/27/2023 10:06:20 Type: Cal
Method: 60102007_COMBO_10242022(v151) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.5**	**2782.3**	**26269.**	**4265.8**
Stddev	2.4	5.1	204.	6.5
%RSD	.21395	.18176	.77578	.15336
#1	1137.4	2778.6	26501.	4272.1
#2	1133.8	2780.2	26185.	4259.0
#3	1138.4	2788.1	26120.	4266.1

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:12:57 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0055**	**.0257**	**.0019**	**.0027**	**2.694**	**.0450**	**.4053**	**.0289**	**.1412**
Stddev	.0002	.0005	.0002	.0003	.005	.0013	.0016	.0001	.0004
%RSD	4.151	2.049	8.886	10.95	.1916	2.833	.4038	.4119	.2820
#1	.0057	.0258	.0020	.0030	2.694	.0447	.4066	.0288	.1408
#2	.0053	.0252	.0019	.0026	2.699	.0463	.4059	.0288	.1416
#3	.0053	.0262	.0017	.0025	2.688	.0438	.4035	.0290	.1412

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0069**	**.0295**	**.0757**	**1.232**	**.0015**	**.1922**	**.0501**	**.0635**	**3.510**
Stddev	.0001	.0003	.0003	.005	.0050	.0012	.0002	.0003	.004
%RSD	2.110	1.044	.3308	.4225	325.5	.6087	.4662	.4024	.0996
#1	.0068	.0294	.0756	1.238	.0029	.1913	.0503	.0634	3.508
#2	.0068	.0292	.0755	1.229	-.0040	.1918	.0498	.0633	3.514
#3	.0071	.0298	.0760	1.229	.0057	.1935	.0502	.0638	3.508

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0703**	**.0099**	**.0015**	**.0018**	**.0142**	**.0218**	**.1927**	**.0219**	**.0051**
Stddev	.0003	.0007	.0001	.0001	.0002	.0001	.0021	.0001	.0005
%RSD	.3982	7.121	8.415	6.614	1.653	.2342	1.087	.5758	10.70
#1	.0705	.0091	.0015	.0019	.0141	.0218	.1917	.0220	.0050
#2	.0705	.0101	.0013	.0018	.0141	.0219	.1951	.0218	.0047
#3	.0700	.0104	.0016	.0017	.0145	.0218	.1912	.0219	.0057

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0377**	**.0658**
Stddev	.0003	.0002
%RSD	.8155	.2455
#1	.0378	.0656
#2	.0373	.0658
#3	.0379	.0660

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:12:57 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1069.0**	**2788.2**	**25891.**	**4301.3**
Stddev	4.9	9.6	46.	31.5
%RSD	.46094	.34326	.17832	.73192
#1	1072.6	2798.9	25930.	4297.4
#2	1071.1	2785.1	25904.	4334.5
#3	1063.4	2780.6	25840.	4271.9

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:29:36 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0056**	**.0249**	**.0020**	**.0013**	**2.694**	**.0478**	**.4072**	**.0302**	**.1422**
Stddev	.0002	.0015	.0001	.0007	.018	.0010	.0020	.0002	.0006
%RSD	3.320	6.227	4.268	51.13	.6589	2.036	.4902	.7227	.4307
#1	.0057	.0265	.0020	.0016	2.708	.0469	.4095	.0304	.1416
#2	.0054	.0248	.0020	.0018	2.674	.0488	.4062	.0302	.1421
#3	.0056	.0234	.0019	.0005	2.700	.0476	.4059	.0299	.1429

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0074**	**.0285**	**.0768**	**1.227**	**.0020**	**.1922**	**.0515**	**.0644**	**3.475**
Stddev	.0001	.0003	.0012	.007	.0003	.0012	.0000	.0002	.029
%RSD	1.022	1.173	1.526	.6082	13.37	.6467	.0819	.2683	.8225
#1	.0074	.0282	.0759	1.234	.0023	.1936	.0514	.0645	3.505
#2	.0074	.0285	.0781	1.219	.0017	.1917	.0515	.0644	3.448
#3	.0073	.0289	.0763	1.227	.0021	.1912	.0515	.0642	3.473

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0715**	**.0121**	**.0023**	**.0022**	**.0070**	**.0234**	**.2067**	**.0232**	**.0058**
Stddev	.0005	.0010	.0002	.0002	.0002	.0002	.0026	.0003	.0004
%RSD	.7128	8.432	9.300	11.15	2.832	.6814	1.264	1.394	6.288
#1	.0709	.0110	.0021	.0022	.0072	.0232	.2091	.0235	.0061
#2	.0716	.0130	.0025	.0025	.0068	.0235	.2039	.0233	.0054
#3	.0719	.0123	.0024	.0020	.0071	.0235	.2070	.0228	.0060

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0374**	**.0669**
Stddev	.0004	.0002
%RSD	.9994	.3557
#1	.0372	.0672
#2	.0378	.0667
#3	.0371	.0668

Zoom In Zoom Out

Sample Name: CRIA Acquired: 3/27/2023 10:29:36 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1056.4**	**2760.8**	**25640.**	**4230.3**
Stddev	.9	11.2	64.	46.2
%RSD	.08484	.40488	.25010	1.0932
#1	1057.0	2772.5	25709.	4190.9
#2	1055.4	2759.7	25629.	4218.9
#3	1056.8	2750.3	25582.	4281.2

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/27/2023 10:36:43 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3633**	**11.06**	**.9206**	**1.653**	**57.43**	**37.86**	**33.43**	**24.59**	**11.72**
Stddev	.0009	.04	.0014	.012	.35	.20	.16	.02	.02
%RSD	.2576	.3256	.1512	.7501	.6031	.5311	.4671	.0980	.1754
#1	.3641	11.09	.9209	1.644	57.08	38.05	33.57	24.57	11.70
#2	.3636	11.02	.9191	1.648	57.42	37.65	33.26	24.59	11.71
#3	.3623	11.08	.9218	1.667	57.78	37.90	33.47	24.62	11.74

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.864**	**3.654**	**20.81**	**10.28**	**9.376**	**3.150**	**13.73**	**5.295**	**31.63**
Stddev	.002	.004	.11	.04	.042	.013	.04	.009	.14
%RSD	.0559	.1066	.5294	.4075	.4435	.4199	.2596	.1601	.4484
#1	2.865	3.650	20.90	10.32	9.404	3.165	13.72	5.288	31.78
#2	2.865	3.654	20.69	10.23	9.329	3.139	13.70	5.294	31.50
#3	2.862	3.658	20.85	10.30	9.397	3.148	13.77	5.305	31.61

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.231**	**7.111**	**1.111**	**.6613**	**1.587**	**1.771**	**81.28**	**8.670**	**2.574**
Stddev	.012	.025	.002	.0009	.002	.002	2.21	.005	.007
%RSD	.1605	.3570	.1610	.1396	.1249	.0956	2.718	.0603	.2892
#1	7.226	7.082	1.110	.6602	1.585	1.769	83.82	8.676	2.566
#2	7.223	7.122	1.111	.6619	1.587	1.770	80.24	8.666	2.577
#3	7.245	7.129	1.113	.6618	1.589	1.772	79.78	8.668	2.580

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**3.161**	**13.50**
Stddev	.002	.01
%RSD	.0754	.0866
#1	3.158	13.49
#2	3.163	13.50
#3	3.161	13.51

Zoom In Zoom Out

Sample Name: HSTD Acquired: 3/27/2023 10:36:43 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**827.82**	**2526.7**	**23730.**	**4184.5**
Stddev	3.52	4.2	41.	17.8
%RSD	.42463	.16431	.17193	.42499
#1	831.79	2531.5	23707.	4164.7
#2	825.10	2524.1	23777.	4189.6
#3	826.58	2524.6	23705.	4199.1

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/27/2023 10:43:38 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1844**	**5.645**	**.4619**	**.8701**	**29.38**	**19.28**	**17.33**	**12.61**	**6.007**
Stddev	.0010	.002	.0012	.0102	.02	.03	.04	.03	.016
%RSD	.5254	.0419	.2664	1.177	.0746	.1581	.2447	.2567	.2585
#1	.1845	5.647	.4606	.8596	29.37	19.31	17.37	12.57	5.993
#2	.1853	5.642	.4622	.8706	29.41	19.27	17.33	12.62	6.004
#3	.1834	5.645	.4630	.8801	29.37	19.25	17.29	12.63	6.024

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.483**	**1.877**	**10.78**	**5.320**	**4.823**	**1.641**	**7.106**	**2.702**	**16.43**
Stddev	.007	.009	.03	.012	.011	.002	.021	.012	.02
%RSD	.5038	.4558	.2510	.2266	.2338	.1026	.3009	.4350	.1476
#1	1.481	1.872	10.79	5.328	4.836	1.639	7.108	2.688	16.45
#2	1.491	1.886	10.80	5.325	4.817	1.642	7.127	2.707	16.44
#3	1.477	1.872	10.75	5.306	4.816	1.641	7.084	2.710	16.40

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.744**	**3.478**	**.5678**	**.3345**	**1.046**	**.9269**	**42.23**	**4.546**	**1.287**
Stddev	.014	.013	.0032	.0022	.005	.0039	.06	.018	.007
%RSD	.3693	.3834	.5560	.6706	.4594	.4164	.1526	.4027	.5329
#1	3.728	3.486	.5646	.3324	1.041	.9225	42.23	4.535	1.283
#2	3.751	3.462	.5679	.3343	1.048	.9285	42.29	4.567	1.284
#3	3.754	3.485	.5709	.3369	1.050	.9296	42.16	4.536	1.295

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.650**	**6.914**
Stddev	.010	.016
%RSD	.5859	.2259
#1	1.646	6.898
#2	1.660	6.916
#3	1.642	6.929

Zoom In Zoom Out

Sample Name: ICV Acquired: 3/27/2023 10:43:38 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**910.46**	**2619.4**	**24424.**	**4245.3**
Stddev	3.24	7.9	121.	32.6
%RSD	.35637	.30051	.49594	.76838
#1	909.56	2627.9	24498.	4212.3
#2	914.06	2618.2	24284.	4246.0
#3	907.77	2612.3	24489.	4277.5

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/27/2023 10:48:59 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**-.0017**	**-.0002**	**.0034**	**.0146**	**.0010**	**.0017**	**-.0008**	**-.0001**
Stddev	.0002	.0019	.0001	.0007	.0019	.0002	.0002	.0003	.0001
%RSD	17.22	114.4	33.18	19.81	12.95	16.34	14.42	36.86	161.8
#1	-.0013	-.0036	-.0002	.0038	.0125	.0011	.0016	-.0011	.0001
#2	-.0015	-.0016	-.0003	.0037	.0162	.0009	.0020	-.0007	-.0001
#3	-.0011	.0002	-.0002	.0026	.0152	.0009	.0015	-.0006	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0060**	**.0008**	**.0005**	**.0042**	**-.0002**	**.0003**	**.0013**	**-.0291**
Stddev	.0001	.0001	.0004	.0031	.0027	.0004	.0001	.0001	.0003
%RSD	15.79	.8790	53.70	672.8	65.57	163.4	42.71	8.007	.9296
#1	.0004	.0060	.0004	.0024	.0047	-.0007	.0004	.0014	-.0289
#2	.0005	.0060	.0008	.0021	.0066	.0000	.0002	.0013	-.0294
#3	.0004	.0060	.0012	-.0031	.0012	-.0001	.0005	.0012	-.0291

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**.0022**	**.0000**	**.0005**	**.0046**	**.0001**	**.0005**	**.0006**	**.0001**
Stddev	.0001	.0009	.0001	.0002	.0001	.0002	.0013	.0003	.0008
%RSD	12.70	41.84	284.7	41.12	2.395	143.2	262.5	43.94	552.7
#1	-.0007	.0011	.0000	.0005	.0047	-.0001	-.0009	.0007	-.0006
#2	-.0009	.0026	.0001	.0004	.0045	.0002	.0017	.0003	.0000
#3	-.0008	.0027	.0000	.0008	.0047	.0003	.0007	.0008	.0010

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0004**
Stddev	.0001	.0002
%RSD	45.43	63.41
#1	-.0004	.0001
#2	-.0003	.0004
#3	-.0002	.0005

Zoom In Zoom Out

Sample Name: ICB Acquired: 3/27/2023 10:48:59 Type: QC
Method: 60102007_COMBO_10242022(v151) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1126.4**	**2782.7**	**26107.**	**4246.4**
Stddev	1.4	4.0	77.	17.8
%RSD	.12035	.14318	.29495	.41822
#1	1127.9	2787.2	26190.	4235.7
#2	1125.7	2780.8	26091.	4236.6
#3	1125.5	2779.9	26039.	4266.9

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/27/2023 10:53:43 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0423**	**71.32**	**-.0013**	**.1363**	**.2126**	**.0007**	**190.9**	**.1562**	**.0033**
Stddev	.0002	.50	.0002	.0014	.0006	.0007	3.1	.0006	.0005
%RSD	.3699	.7043	18.02	1.022	.2775	90.07	1.637	.3882	16.03
#1	-.0421	70.77	-.0012	.1375	.2120	.0015	187.3	.1568	.0035
#2	-.0423	71.75	-.0015	.1348	.2126	.0005	193.2	.1556	.0037
#3	-.0424	71.44	-.0011	.1365	.2131	.0002	192.1	.1560	.0027

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0028**	**-.0459**	**128.8**	**.0037**	**.0239**	**20.47**	**.0048**	**-.0007**	**.0722**
Stddev	.0003	.0001	1.4	.0019	.0004	.01	.0004	.0002	.0021
%RSD	9.376	.1548	1.106	51.47	1.684	.0710	7.600	25.93	2.915
#1	-.0030	-.0460	127.4	.0023	.0243	20.46	.0048	-.0009	.0741
#2	-.0025	-.0459	130.2	.0030	.0236	20.47	.0051	-.0006	.0726
#3	-.0028	-.0459	128.7	.0059	.0236	20.49	.0044	-.0005	.0699

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0294**	**.1924**	**.0039**	**.0001**	**.0088**	**.0014**	**.1566**	**-.0048**	**-.0101**
Stddev	.0004	.0005	.0005	.0004	.0002	.0001	.0012	.0001	.0005
%RSD	1.380	.2386	13.09	319.6	2.385	9.274	.7942	2.745	4.625
#1	-.0295	.1925	.0045	-.0003	.0091	.0016	.1554	-.0050	-.0104
#2	-.0289	.1928	.0036	.0001	.0087	.0013	.1566	-.0047	-.0104
#3	-.0297	.1919	.0037	.0006	.0088	.0013	.1579	-.0048	-.0096

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0031**	**.0201**
Stddev	.0003	.0001
%RSD	9.402	.7208
#1	.0028	.0203
#2	.0032	.0201
#3	.0034	.0200

Zoom In Zoom Out

Sample Name: ICSA Acquired: 3/27/2023 10:53:43 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**861.73**	**2314.0**	**21564.**	**4022.7**
Stddev	1.79	7.3	125.	18.9
%RSD	.20811	.31414	.58179	.46885
#1	860.29	2308.3	21639.	4041.3
#2	863.74	2311.4	21634.	4003.6
#3	861.17	2322.2	21419.	4023.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/27/2023 11:03:21 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7889**	**72.68**	**.2077**	**.4315**	**7.487**	**4.616**	**193.8**	**5.913**	**1.373**
Stddev	.0020	.44	.0006	.0011	.026	.017	2.3	.014	.002
%RSD	.2538	.6050	.3084	.2555	.3488	.3775	1.174	.2373	.1519
#1	.7912	72.79	.2084	.4302	7.508	4.621	196.1	5.929	1.375
#2	.7875	73.06	.2071	.4321	7.458	4.597	193.7	5.907	1.371
#3	.7879	72.20	.2076	.4322	7.495	4.630	191.5	5.903	1.373

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3522**	**.4794**	**48.66**	**.0007**	**2.372**	**20.53**	**1.750**	**1.144**	**.0763**
Stddev	.0014	.0006	.05	.0033	.006	.06	.008	.003	.0060
%RSD	.4024	.1195	.1036	490.8	.2704	.3062	.4514	.2726	7.842
#1	.3536	.4795	48.71	.0016	2.377	20.58	1.760	1.147	.0797
#2	.3522	.4788	48.61	.0035	2.365	20.46	1.746	1.141	.0694
#3	.3508	.4799	48.67	-.0030	2.374	20.54	1.746	1.143	.0798

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.635**	**1.770**	**.2524**	**.1422**	**.0231**	**.3848**	**19.21**	**2.173**	**.5104**
Stddev	.005	.004	.0006	.0009	.0004	.0016	.09	.008	.0022
%RSD	.2812	.2513	.2556	.6020	1.826	.4214	.4528	.3541	.4371
#1	1.640	1.772	.2532	.1427	.0232	.3856	19.25	2.182	.5081
#2	1.632	1.765	.2519	.1428	.0227	.3859	19.11	2.172	.5125
#3	1.633	1.773	.2522	.1413	.0235	.3830	19.26	2.166	.5107

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4055**	**3.148**
Stddev	.0011	.006
%RSD	.2824	.1770
#1	.4066	3.154
#2	.4054	3.143
#3	.4044	3.147

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 3/27/2023 11:03:21 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**802.09**	**2366.1**	**21680.**	**4050.2**
Stddev	3.64	4.4	139.	8.7
%RSD	.45358	.18667	.64158	.21411
#1	805.41	2367.2	21520.	4042.2
#2	802.64	2369.8	21746.	4059.5
#3	798.20	2361.2	21774.	4049.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 11:10:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1751**	**5.441**	**.4521**	**.8052**	**28.60**	**19.57**	**16.95**	**12.32**	**5.880**
Stddev	.0006	.006	.0009	.0061	.01	.04	.01	.02	.011
%RSD	.3203	.1033	.2042	.7614	.0327	.2048	.0355	.1260	.1829
#1	.1751	5.445	.4511	.8119	28.60	19.56	16.95	12.31	5.869
#2	.1757	5.444	.4523	.8038	28.61	19.61	16.96	12.31	5.881
#3	.1745	5.435	.4529	.7999	28.59	19.53	16.95	12.34	5.891

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.456**	**1.859**	**10.49**	**5.217**	**4.800**	**1.631**	**6.911**	**2.673**	**16.43**
Stddev	.003	.005	.01	.004	.008	.004	.008	.006	.03
%RSD	.1780	.2711	.1250	.0830	.1574	.2666	.1163	.2276	.1837
#1	1.454	1.859	10.49	5.212	4.808	1.626	6.902	2.668	16.40
#2	1.459	1.865	10.50	5.221	4.800	1.635	6.918	2.671	16.46
#3	1.455	1.854	10.47	5.218	4.793	1.633	6.913	2.680	16.42

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.749**	**3.301**	**.5725**	**.3247**	**.7855**	**.9321**	**42.23**	**4.505**	**1.250**
Stddev	.012	.003	.0031	.0016	.0025	.0015	.08	.014	.001
%RSD	.3201	.0756	.5392	.4858	.3194	.1593	.1822	.3182	.1156
#1	3.739	3.302	.5690	.3240	.7838	.9313	42.24	4.500	1.248
#2	3.745	3.302	.5735	.3235	.7843	.9312	42.30	4.521	1.251
#3	3.762	3.298	.5749	.3265	.7884	.9338	42.15	4.494	1.250

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.619**	**6.779**
Stddev	.002	.009
%RSD	.1460	.1255
#1	1.618	6.772
#2	1.622	6.776
#3	1.618	6.788

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 11:10:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.67**	**2533.1**	**23914.**	**4088.6**
Stddev	1.94	1.1	102.	32.3
%RSD	.21425	.04352	.42467	.79086
#1	904.54	2533.7	23972.	4121.3
#2	904.56	2533.8	23796.	4087.7
#3	907.91	2531.8	23973.	4056.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 11:16:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**-.0007**	**-.0002**	**.0024**	**.0146**	**.0001**	**.0010**	**-.0006**	**-.0002**
Stddev	.0000	.0016	.0000	.0013	.0029	.0008	.0013	.0001	.0001
%RSD	2.890	231.8	15.53	55.55	19.75	680.1	124.8	18.69	38.12
#1	-.0012	-.0015	-.0003	.0030	.0126	.0010	.0023	-.0007	-.0002
#2	-.0011	-.0017	-.0002	.0034	.0133	-.0004	-.0002	-.0006	-.0003
#3	-.0012	.0012	-.0002	.0009	.0179	-.0003	.0010	-.0005	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0068**	**.0009**	**.0030**	**.0051**	**-.0003**	**.0002**	**.0009**	**-.0259**
Stddev	.0002	.0002	.0002	.0018	.0007	.0007	.0000	.0000	.0035
%RSD	81.59	2.252	21.36	59.06	13.66	216.8	28.69	5.032	13.35
#1	.0003	.0067	.0010	.0022	.0059	.0002	.0001	.0009	-.0276
#2	.0000	.0068	.0009	.0051	.0046	-.0001	.0002	.0009	-.0281
#3	.0002	.0070	.0007	.0018	.0048	-.0012	.0002	.0009	-.0219

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0020**	**.0001**	**.0005**	**.0049**	**.0002**	**-.0002**	**.0007**	**.0003**
Stddev	.0004	.0007	.0003	.0004	.0001	.0002	.0008	.0001	.0002
%RSD	34.34	33.92	206.5	78.14	2.932	100.9	491.9	13.81	73.27
#1	-.0008	.0026	.0004	.0006	.0048	.0002	-.0005	.0006	.0003
#2	-.0010	.0021	.0003	.0001	.0048	.0000	-.0007	.0007	.0004
#3	-.0016	.0013	-.0002	.0008	.0050	.0004	.0007	.0008	.0001

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0077**
Stddev	.0002	.0003
%RSD	84.90	3.289
#1	-.0003	.0080
#2	.0000	.0075
#3	-.0005	.0078

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 11:16:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1114.3**	**2761.2**	**25785.**	**4209.7**
Stddev	5.3	11.9	25.	40.4
%RSD	.47625	.43174	.09835	.96077
#1	1114.2	2762.0	25756.	4190.5
#2	1119.7	2772.7	25804.	4182.5
#3	1109.1	2748.9	25794.	4256.2

Zoom In Zoom Out

Sample Name: MP41997-MB1 Acquired: 3/27/2023 11:22:05 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**-.0013**	**-.0002**	**.0010**	**.0159**	**.0005**	**.0103**	**-.0016**	**-.0007**
Stddev	.0003	.0005	.0001	.0006	.0027	.0001	.0010	.0004	.0003
%RSD	27.68	36.67	75.94	63.23	17.16	29.52	9.788	26.19	46.63
#1	-.0012	-.0018	-.0001	.0017	.0129	.0004	.0093	-.0015	-.0006
#2	-.0007	-.0013	-.0001	.0004	.0182	.0007	.0105	-.0012	-.0011
#3	-.0010	-.0008	-.0003	.0009	.0166	.0004	.0113	-.0021	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0009**	**.0058**	**.0037**	**.0025**	**-.0009**	**-.0003**	**.0008**	**.0010**	**-.0260**
Stddev	.0000	.0002	.0001	.0026	.0014	.0004	.0001	.0003	.0023
%RSD	2.450	4.116	2.327	102.8	151.0	149.7	12.04	29.69	8.878
#1	.0009	.0061	.0038	-.0003	-.0021	.0000	.0008	.0012	-.0237
#2	.0009	.0058	.0036	.0049	-.0012	-.0008	.0009	.0012	-.0283
#3	.0009	.0056	.0036	.0029	.0006	-.0001	.0007	.0007	-.0259

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0029**	**.0001**	**.0008**	**.0061**	**.0108**	**-.0007**	**.0011**	**-.0010**
Stddev	.0001	.0012	.0002	.0003	.0001	.0001	.0013	.0001	.0001
%RSD	8.417	40.02	191.0	31.47	1.036	1.383	189.3	7.792	11.05
#1	-.0013	.0039	.0000	.0010	.0061	.0106	-.0021	.0010	-.0011
#2	-.0013	.0031	.0000	.0010	.0060	.0109	-.0005	.0012	-.0010
#3	-.0011	.0016	.0002	.0005	.0061	.0108	.0005	.0011	-.0009

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0001**	**.0033**
Stddev	.0001	.0002
%RSD	72.52	7.358
#1	.0003	.0031
#2	.0001	.0034
#3	.0001	.0035

Zoom In Zoom Out

Sample Name: MP41997-MB1 Acquired: 3/27/2023 11:22:05 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1063.5**	**2713.0**	**25515.**	**4049.9**
Stddev	11.6	25.0	964.	70.6
%RSD	1.0909	.92020	3.7775	1.7421
#1	1076.4	2741.3	24409.	4060.6
#2	1060.0	2703.7	25957.	4114.5
#3	1054.0	2694.0	26178.	3974.6

Zoom In Zoom Out

Sample Name: MP41997-B1 Acquired: 3/27/2023 11:26:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0338**	**3.652**	**.4332**	**.0089**	**29.31**	**.4862**	**10.68**	**.3155**	**1.499**
Stddev	.0002	.007	.0024	.0009	.10	.0018	.04	.0026	.010
%RSD	.6886	.2018	.5514	10.61	.3458	.3666	.3374	.8182	.6889
#1	.0340	3.660	.4307	.0078	29.42	.4876	10.72	.3127	1.489
#2	.0336	3.645	.4355	.0096	29.23	.4868	10.68	.3178	1.509
#3	.0337	3.651	.4333	.0091	29.27	.4842	10.65	.3158	1.499

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1492**	**.2349**	**6.796**	**3.243**	**.0063**	**.9937**	**1.776**	**.6568**	**9.257**
Stddev	.0004	.0002	.027	.010	.0023	.0067	.010	.0047	.037
%RSD	.2984	.0707	.3955	.3212	37.06	.6773	.5439	.7117	.3952
#1	.1496	.2351	6.826	3.254	.0067	1.001	1.786	.6516	9.299
#2	.1494	.2350	6.788	3.234	.0038	.9923	1.775	.6607	9.241
#3	.1487	.2348	6.774	3.240	.0084	.9878	1.766	.6580	9.231

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9322**	**.8292**	**.1321**	**.3109**	**.0912**	**.2344**	**10.50**	**1.099**	**1.193**
Stddev	.0063	.0031	.0008	.0015	.0004	.0015	.03	.002	.005
%RSD	.6719	.3764	.5762	.4982	.4681	.6592	.2378	.1758	.4218
#1	.9252	.8256	.1313	.3091	.0907	.2326	10.53	1.101	1.187
#2	.9372	.8305	.1329	.3117	.0913	.2353	10.49	1.098	1.197
#3	.9343	.8314	.1321	.3118	.0915	.2352	10.48	1.097	1.194

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4032**	**1.692**
Stddev	.0005	.010
%RSD	.1242	.6169
#1	.4033	1.682
#2	.4037	1.702
#3	.4027	1.693

Zoom In Zoom Out

Sample Name: MP41997-B1 Acquired: 3/27/2023 11:26:59 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**930.21**	**2568.9**	**24037.**	**3989.3**
Stddev	5.28	17.9	98.	18.4
%RSD	.56777	.69508	.40672	.46075
#1	935.89	2588.4	24022.	3977.3
#2	925.44	2553.3	23947.	4010.4
#3	929.30	2564.9	24141.	3980.1

Sample Name: FC3570-19 Acquired: 3/27/2023 11:31:32 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0044**	**3.457**	**.0766**	**.0938**	**5.603**	**.0033**	**42.02**	**.0512**	**.0926**
Stddev	.0002	.018	.0004	.0007	.005	.0003	.04	.0001	.0005
%RSD	3.883	.5293	.5095	.7995	.0827	8.723	.1059	.1736	.5000
#1	.0044	3.471	.0765	.0946	5.607	.0031	42.05	.0511	.0926
#2	.0042	3.464	.0770	.0936	5.603	.0031	42.04	.0512	.0930
#3	.0045	3.436	.0762	.0931	5.598	.0036	41.97	.0512	.0921

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.647**	**.4851**	**19.51**	**.6593**	**.0402**	**.3456**	**2.319**	**.1635**	**3.129**
Stddev	.006	.0018	.03	.0003	.0019	.0014	.007	.0001	.010
%RSD	.1010	.3630	.1409	.0517	4.826	.3924	.2893	.0529	.3072
#1	5.644	.4868	19.53	.6596	.0424	.3472	2.313	.1635	3.139
#2	5.643	.4833	19.52	.6590	.0393	.3450	2.326	.1636	3.120
#3	5.653	.4851	19.48	.6594	.0389	.3447	2.317	.1635	3.127

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.541**	**.1676**	**.0716**	**.0030**	**5.126**	**.0926**	**5.374**	**1.018**	**-.0022**
Stddev	.015	.0005	.0006	.0004	.024	.0005	.003	.003	.0010
%RSD	.4219	.2771	.8443	14.48	.4595	.5857	.0617	.3300	47.68
#1	3.529	.1674	.0714	.0026	5.106	.0919	5.377	1.019	-.0013
#2	3.535	.1673	.0712	.0030	5.119	.0928	5.375	1.015	-.0019
#3	3.558	.1681	.0723	.0035	5.152	.0929	5.370	1.021	-.0033

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0283**	**710.5**
Stddev	.0004	6.6
%RSD	1.293	.9220
#1	.0284	715.3
#2	.0279	703.0
#3	.0286	713.1

Sample Name: FC3570-19 Acquired: 3/27/2023 11:31:32 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**963.92**	**2510.2**	**24810.**	**4324.4**
Stddev	3.22	8.5	126.	19.9
%RSD	.33389	.34043	.50877	.45980
#1	960.21	2515.1	24948.	4301.5
#2	965.85	2515.3	24700.	4337.6
#3	965.72	2500.4	24783.	4334.0

Sample Name: MP41997-D1 Acquired: 3/27/2023 11:36:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0066**	**3.149**	**.0936**	**.0973**	**5.714**	**.0040**	**49.24**	**.0977**	**.0981**
Stddev	.0001	.002	.0000	.0008	.004	.0006	.02	.0004	.0004
%RSD	2.080	.0603	.0528	.8655	.0667	15.47	.0392	.4139	.3836
#1	.0067	3.151	.0935	.0964	5.710	.0033	49.26	.0978	.0978
#2	.0066	3.150	.0936	.0979	5.714	.0046	49.22	.0981	.0986
#3	.0065	3.147	.0936	.0977	5.717	.0040	49.23	.0973	.0981

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.282**	**.5660**	**18.28**	**.5497**	**.0493**	**.3535**	**2.187**	**.1241**	**2.659**
Stddev	.015	.0009	.03	.0055	.0032	.0016	.009	.0001	.007
%RSD	.3479	.1573	.1440	1.005	6.535	.4464	.4172	.0845	.2641
#1	4.265	.5666	18.25	.5560	.0512	.3524	2.178	.1241	2.659
#2	4.290	.5650	18.30	.5475	.0456	.3553	2.189	.1241	2.665
#3	4.291	.5665	18.28	.5456	.0511	.3527	2.196	.1242	2.651

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.996**	**.1872**	**.0649**	**.0029**	**5.403**	**.1151**	**6.305**	**1.115**	**-.0014**
Stddev	.006	.0003	.0005	.0003	.006	.0006	.006	.004	.0009
%RSD	.1889	.1563	.7159	9.038	.1050	.5159	.0960	.3796	62.86
#1	2.990	.1873	.0654	.0027	5.400	.1148	6.298	1.111	-.0004
#2	3.001	.1869	.0645	.0028	5.409	.1157	6.307	1.116	-.0018
#3	2.996	.1875	.0648	.0032	5.399	.1147	6.310	1.119	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0319**	**725.8**
Stddev	.0001	5.6
%RSD	.4188	.7658
#1	.0318	721.6
#2	.0319	732.1
#3	.0320	723.6

Sample Name: MP41997-D1 Acquired: 3/27/2023 11:36:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**954.29**	**2478.3**	**24490.**	**4248.1**
Stddev	1.01	2.4	146.	19.1
%RSD	.10613	.09846	.59802	.45020
#1	953.57	2478.0	24658.	4229.5
#2	955.45	2476.0	24418.	4247.2
#3	953.87	2480.9	24393.	4267.7

Zoom In Zoom Out

Sample Name: MP41997-SD1 Acquired: 3/27/2023 11:41:05 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.6888**	**.0145**	**.0179**	**1.112**	**.0014**	**8.341**	**.0093**	**.0183**
Stddev	.0004	.0035	.0001	.0005	.004	.0008	.017	.0002	.0002
%RSD	678.4	.5137	.8779	2.818	.4036	54.90	.2077	1.863	.9542
#1	.0004	.6888	.0145	.0173	1.116	.0006	8.342	.0095	.0184
#2	.0001	.6923	.0144	.0182	1.111	.0022	8.357	.0091	.0183
#3	-.0004	.6852	.0146	.0181	1.107	.0013	8.323	.0093	.0181

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.137**	**.1037**	**3.893**	**.1300**	**.0114**	**.0711**	**.4638**	**.0323**	**.6097**
Stddev	.002	.0001	.010	.0015	.0031	.0007	.0015	.0003	.0018
%RSD	.1877	.1194	.2483	1.167	27.53	.9945	.3336	1.005	.2903
#1	1.134	.1037	3.896	.1316	.0144	.0711	.4622	.0323	.6094
#2	1.138	.1036	3.900	.1286	.0115	.0718	.4639	.0326	.6116
#3	1.138	.1039	3.882	.1298	.0082	.0704	.4653	.0320	.6081

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7097**	**.0350**	**.0139**	**.0010**	**1.026**	**.0192**	**1.058**	**.2058**	**-.0006**
Stddev	.0015	.0010	.0001	.0004	.003	.0001	.003	.0002	.0002
%RSD	.2177	2.957	.8907	40.49	.2537	.6694	.2802	.0920	27.52
#1	.7113	.0362	.0138	.0009	1.028	.0192	1.062	.2057	-.0004
#2	.7094	.0344	.0140	.0015	1.025	.0193	1.057	.2057	-.0007
#3	.7083	.0344	.0140	.0007	1.023	.0190	1.057	.2061	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0052**	**359.5**
Stddev	.0001	.2
%RSD	1.589	.0577
#1	.0053	359.6
#2	.0051	359.5
#3	.0052	359.2

Zoom In Zoom Out

Sample Name: MP41997-SD1 Acquired: 3/27/2023 11:41:05 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1065.8**	**2722.9**	**25950.**	**4359.0**
Stddev	4.9	5.6	63.	33.6
%RSD	.45543	.20412	.24418	.77051
#1	1071.3	2727.5	26020.	4393.3
#2	1063.7	2716.7	25931.	4326.1
#3	1062.3	2724.3	25898.	4357.5

Zoom In Zoom Out

Sample Name: MP41997-PS1 Acquired: 3/27/2023 11:45:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0390**	**3.766**	**.0974**	**.0925**	**8.879**	**.4392**	**42.97**	**.3413**	**.2300**
Stddev	.0002	.009	.0006	.0011	.013	.0010	.14	.0012	.0013
%RSD	.5250	.2329	.5751	1.184	.1480	.2348	.3161	.3421	.5687
#1	.0388	3.774	.0980	.0932	8.895	.4401	43.12	.3426	.2315
#2	.0390	3.757	.0972	.0932	8.872	.4395	42.87	.3404	.2291
#3	.0392	3.767	.0969	.0913	8.871	.4381	42.92	.3410	.2294

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.597**	**.5598**	**19.84**	**1.842**	**.0383**	**.5121**	**2.448**	**.2808**	**6.439**
Stddev	.012	.0011	.08	.003	.0017	.0019	.003	.0011	.012
%RSD	.2171	.1926	.3932	.1866	4.428	.3723	.1376	.3817	.1890
#1	5.584	.5597	19.93	1.846	.0384	.5143	2.450	.2819	6.447
#2	5.602	.5588	19.79	1.840	.0400	.5110	2.444	.2807	6.425
#3	5.607	.5610	19.79	1.840	.0366	.5111	2.450	.2797	6.445

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.547**	**.2427**	**.0950**	**.0184**	**4.910**	**.1080**	**6.136**	**1.198**	**.0503**
Stddev	.013	.0011	.0005	.0002	.020	.0007	.024	.000	.0008
%RSD	.3557	.4543	.4914	1.151	.4047	.6152	.3926	.0229	1.661
#1	3.560	.2439	.0954	.0182	4.930	.1087	6.163	1.198	.0513
#2	3.548	.2417	.0945	.0184	4.909	.1080	6.126	1.198	.0498
#3	3.535	.2425	.0952	.0186	4.890	.1074	6.118	1.198	.0499

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0643**	**699.8**
Stddev	.0004	5.3
%RSD	.6070	.7635
#1	.0647	706.0
#2	.0639	696.5
#3	.0645	696.9

Zoom In Zoom Out

Sample Name: MP41997-PS1 Acquired: 3/27/2023 11:45:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**944.50**	**2558.5**	**24743.**	**4383.5**
Stddev	3.45	7.8	77.	29.9
%RSD	.36545	.30309	.31014	.68123
#1	940.57	2551.4	24728.	4359.6
#2	945.86	2557.3	24675.	4417.0
#3	947.06	2566.8	24826.	4374.1

Zoom In Zoom Out

Sample Name: MP41997-S1 Acquired: 3/27/2023 11:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0373**	**4.582**	**.4598**	**.0261**	**31.82**	**.4750**	**24.83**	**.3304**	**1.496**
Stddev	.0005	.010	.0030	.0013	.02	.0013	.06	.0011	.010
%RSD	1.450	.2174	.6503	5.164	.0693	.2733	.2216	.3247	.6505
#1	.0370	4.571	.4632	.0276	31.83	.4759	24.82	.3311	1.507
#2	.0370	4.590	.4579	.0257	31.80	.4736	24.79	.3309	1.494
#3	.0380	4.586	.4582	.0250	31.84	.4757	24.89	.3291	1.487

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4350**	**.3794**	**10.80**	**3.543**	**.0202**	**1.154**	**2.464**	**.6549**	**10.51**
Stddev	.0007	.0006	.02	.008	.0040	.003	.006	.0040	.02
%RSD	.1707	.1567	.2033	.2359	19.62	.2689	.2598	.6107	.1493
#1	.4342	.3788	10.80	3.544	.0247	1.151	2.456	.6592	10.50
#2	.4352	.3793	10.78	3.534	.0185	1.153	2.468	.6544	10.51
#3	.4356	.3800	10.83	3.550	.0173	1.157	2.466	.6513	10.53

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.054**	**.8886**	**.1446**	**.3303**	**2.894**	**.2521**	**13.24**	**1.443**	**1.168**
Stddev	.005	.0033	.0010	.0016	.018	.0020	.02	.004	.006
%RSD	.5121	.3767	.7131	.4722	.6338	.8086	.1168	.3008	.5509
#1	1.060	.8919	.1458	.3320	2.912	.2543	13.25	1.447	1.172
#2	1.054	.8887	.1441	.3300	2.894	.2517	13.23	1.439	1.171
#3	1.049	.8852	.1440	.3290	2.875	.2503	13.23	1.441	1.160

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.4108**	**636.7**
Stddev	.0010	1.0
%RSD	.2435	.1598
#1	.4097	637.3
#2	.4108	635.5
#3	.4117	637.2

Zoom In Zoom Out

Sample Name: MP41997-S1 Acquired: 3/27/2023 11:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**935.58**	**2659.4**	**24733.**	**4290.2**
Stddev	3.94	14.4	116.	19.3
%RSD	.42099	.54058	.46748	.44978
#1	931.61	2643.8	24864.	4308.3
#2	935.63	2662.5	24693.	4292.6
#3	939.49	2672.0	24643.	4269.9

Zoom In Zoom Out

Sample Name: FC3570-1 Acquired: 3/27/2023 11:55:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0045**	**1.453**	**.0075**	**.0282**	**62.34**	**.0037**	**17.69**	**.4649**	**.3073**
Stddev	.0004	.004	.0003	.0005	1.32	.0008	.07	.0015	.0007
%RSD	8.904	.3077	3.471	1.810	2.123	21.31	.4221	.3233	.2416
#1	.0048	1.453	.0077	.0288	60.95	.0033	17.71	.4632	.3064
#2	.0046	1.457	.0073	.0279	62.49	.0047	17.76	.4661	.3077
#3	.0040	1.448	.0074	.0280	63.58	.0033	17.61	.4654	.3077

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1547**	**.2923**	**5.793**	**.3440**	**.0258**	**.2765**	**.8463**	**.4745**	**1.192**
Stddev	.0009	.0022	.036	.0042	.0033	.0010	.0027	.0013	.007
%RSD	.5543	.7393	.6187	1.230	12.95	.3725	.3198	.2654	.5730
#1	.1542	.2900	5.804	.3459	.0279	.2776	.8450	.4731	1.190
#2	.1557	.2942	5.822	.3471	.0276	.2755	.8494	.4750	1.200
#3	.1541	.2928	5.753	.3392	.0220	.2763	.8445	.4754	1.186

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2342**	**1.466**	**.0078**	**.0039**	**3.056**	**.0580**	**3.991**	**.6708**	**-.0033**
Stddev	.0019	.005	.0002	.0003	.022	.0006	.012	.0146	.0009
%RSD	.8265	.3505	3.088	7.988	.7135	1.074	.2945	2.171	28.34
#1	.2322	1.465	.0075	.0036	3.036	.0573	3.988	.6603	-.0030
#2	.2343	1.471	.0080	.0038	3.054	.0583	4.004	.6874	-.0026
#3	.2360	1.461	.0078	.0042	3.079	.0584	3.981	.6646	-.0044

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0120**	**626.2**
Stddev	.0000	2.1
%RSD	.1741	.3398
#1	.0120	624.3
#2	.0120	625.7
#3	.0120	628.5

Zoom In Zoom Out

Sample Name: FC3570-1 Acquired: 3/27/2023 11:55:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1000.7**	**2643.2**	**25410.**	**4318.1**
Stddev	3.2	21.2	82.	34.9
%RSD	.32410	.80164	.32199	.80716
#1	1004.5	2666.6	25424.	4351.5
#2	999.02	2637.6	25323.	4282.0
#3	998.73	2625.3	25485.	4321.0

Zoom In Zoom Out

Sample Name: FC3570-2 Acquired: 3/27/2023 12:00:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0034**	**1.277**	**.0027**	**.0223**	**37.00**	**.0027**	**15.96**	**.5170**	**.3197**
Stddev	.0002	.004	.0001	.0005	.10	.0005	.03	.0014	.0013
%RSD	4.543	.3013	3.434	2.449	.2633	18.32	.1839	.2741	.3953
#1	.0033	1.273	.0026	.0229	36.89	.0024	15.93	.5158	.3185
#2	.0032	1.281	.0028	.0218	37.08	.0024	15.96	.5166	.3196
#3	.0035	1.278	.0026	.0222	37.03	.0033	15.99	.5186	.3210

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1069**	**.1724**	**4.547**	**.2771**	**.0289**	**.2922**	**.6277**	**.3335**	**1.315**
Stddev	.0006	.0016	.007	.0029	.0008	.0009	.0029	.0011	.006
%RSD	.5742	.9383	.1615	1.056	2.806	.3003	.4647	.3387	.4545
#1	.1068	.1725	4.539	.2803	.0298	.2922	.6281	.3326	1.312
#2	.1076	.1740	4.548	.2746	.0282	.2913	.6304	.3332	1.312
#3	.1064	.1707	4.553	.2763	.0286	.2930	.6246	.3348	1.322

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1818**	**.6109**	**.0078**	**.0027**	**2.993**	**.0380**	**4.119**	**.6316**	**-.0032**
Stddev	.0006	.0011	.0004	.0004	.018	.0003	.009	.0066	.0008
%RSD	.3046	.1797	4.700	13.27	.6098	.7666	.2145	1.041	25.54
#1	.1812	.6098	.0082	.0031	2.975	.0377	4.109	.6300	-.0038
#2	.1817	.6108	.0078	.0023	2.992	.0380	4.122	.6388	-.0037
#3	.1823	.6120	.0075	.0028	3.011	.0383	4.126	.6259	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0081**	**566.6**
Stddev	.0002	1.8
%RSD	1.892	.3207
#1	.0080	568.6
#2	.0082	566.2
#3	.0080	565.0

Zoom In Zoom Out

Sample Name: FC3570-2 Acquired: 3/27/2023 12:00:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1001.0**	**2525.1**	**24415.**	**4134.0**
Stddev	2.3	1.4	46.	15.7
%RSD	.22683	.05515	.18875	.37945
#1	998.42	2524.8	24367.	4128.6
#2	1002.7	2526.6	24418.	4151.7
#3	1001.8	2523.9	24459.	4121.7

Zoom In Zoom Out

Sample Name: FC3570-3 Acquired: 3/27/2023 12:05:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0027**	**.8356**	**.0021**	**.0168**	**27.42**	**.0018**	**10.26**	**.3835**	**.1476**
Stddev	.0001	.0021	.0002	.0001	.07	.0003	.04	.0017	.0003
%RSD	3.122	.2545	10.71	.8441	.2724	19.08	.4079	.4479	.2148
#1	.0028	.8334	.0020	.0167	27.34	.0016	10.25	.3827	.1476
#2	.0026	.8357	.0021	.0168	27.41	.0016	10.23	.3855	.1478
#3	.0026	.8377	.0024	.0170	27.49	.0022	10.31	.3824	.1472

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0959**	**.1304**	**2.634**	**.2042**	**.0182**	**.2035**	**.4079**	**.1721**	**1.156**
Stddev	.0058	.0078	.008	.0018	.0029	.0005	.0241	.0004	.004
%RSD	6.068	6.011	.3159	.8604	15.95	.2553	5.919	.2306	.3638
#1	.0928	.1255	2.624	.2061	.0215	.2030	.3935	.1717	1.154
#2	.0923	.1262	2.638	.2027	.0158	.2035	.3944	.1725	1.154
#3	.1026	.1394	2.640	.2037	.0174	.2041	.4357	.1722	1.161

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1227**	**.7500**	**.0061**	**.0028**	**2.309**	**.0285**	**3.439**	**.3987**	**-.0032**
Stddev	.0004	.0039	.0005	.0004	.007	.0003	.010	.0223	.0002
%RSD	.3387	.5240	7.407	13.09	.3162	1.144	.2796	5.585	5.127
#1	.1224	.7462	.0063	.0026	2.304	.0282	3.436	.3857	-.0031
#2	.1226	.7540	.0056	.0027	2.317	.0287	3.430	.3860	-.0034
#3	.1232	.7499	.0064	.0033	2.305	.0288	3.449	.4244	-.0033

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0059**	**510.3**
Stddev	.0005	4.2
%RSD	7.879	.8286
#1	.0055	506.1
#2	.0059	514.5
#3	.0064	510.4

Zoom In Zoom Out

Sample Name: FC3570-3 Acquired: 3/27/2023 12:05:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1044.6**	**2564.2**	**24271.**	**4205.4**
Stddev	5.5	12.1	1305.	25.9
%RSD	.52527	.47170	5.3768	.61601
#1	1048.6	2570.8	25034.	4206.4
#2	1038.3	2550.2	25014.	4230.8
#3	1046.8	2571.6	22764.	4179.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 12:10:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1789**	**5.435**	**.4571**	**.8042**	**28.71**	**20.09**	**16.91**	**12.36**	**5.916**
Stddev	.0007	.011	.0014	.0102	.08	.06	.03	.02	.010
%RSD	.3674	.2098	.3026	1.274	.2639	.2763	.1860	.1847	.1721
#1	.1796	5.429	.4572	.7939	28.65	20.14	16.94	12.35	5.905
#2	.1788	5.448	.4557	.8042	28.80	20.03	16.92	12.35	5.917
#3	.1783	5.427	.4585	.8144	28.69	20.09	16.88	12.39	5.925

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.477**	**1.944**	**10.35**	**5.277**	**4.841**	**1.679**	**6.778**	**2.727**	**17.12**
Stddev	.003	.008	.01	.016	.010	.003	.024	.008	.03
%RSD	.2148	.4038	.0972	.2965	.2146	.1972	.3464	.2797	.1661
#1	1.474	1.940	10.35	5.267	4.853	1.678	6.790	2.723	17.15
#2	1.479	1.953	10.36	5.295	4.834	1.683	6.751	2.722	17.11
#3	1.479	1.939	10.34	5.269	4.837	1.677	6.793	2.736	17.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.917**	**3.176**	**.6129**	**.3273**	**.8307**	**.9895**	**43.05**	**4.687**	**1.256**
Stddev	.016	.012	.0036	.0015	.0035	.0045	.05	.014	.003
%RSD	.4074	.3650	.5859	.4719	.4156	.4520	.1138	.2924	.2671
#1	3.905	3.178	.6099	.3261	.8282	.9868	43.10	4.673	1.260
#2	3.911	3.187	.6120	.3267	.8293	.9871	43.01	4.700	1.255
#3	3.935	3.164	.6169	.3290	.8347	.9947	43.02	4.689	1.254

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.667**	**6.925**
Stddev	.004	.006
%RSD	.2721	.0897
#1	1.663	6.918
#2	1.672	6.926
#3	1.667	6.930

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 12:10:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**922.01**	**2471.9**	**23886.**	**4048.3**
Stddev	2.96	13.9	96.	31.9
%RSD	.32153	.56185	.39991	.78901
#1	925.09	2485.0	23990.	4013.6
#2	919.17	2473.2	23802.	4055.0
#3	921.78	2457.3	23865.	4076.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 12:14:33 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**-.0015**	**-.0001**	**.0021**	**.0173**	**.0005**	**.0007**	**-.0010**	**-.0004**
Stddev	.0004	.0008	.0001	.0006	.0011	.0002	.0013	.0002	.0002
%RSD	31.38	53.02	103.0	27.21	6.348	32.88	182.0	16.59	42.63
#1	-.0010	-.0019	-.0003	.0021	.0182	.0005	.0015	-.0008	-.0002
#2	-.0016	-.0020	-.0001	.0027	.0177	.0006	.0014	-.0011	-.0005
#3	-.0009	-.0006	.0000	.0016	.0161	.0003	-.0008	-.0011	-.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0069**	**.0008**	**.0065**	**.0033**	**.0001**	**.0003**	**.0012**	**-.0338**
Stddev	.0001	.0003	.0001	.0042	.0021	.0006	.0001	.0001	.0009
%RSD	28.35	3.815	6.980	64.65	63.02	679.2	23.81	10.77	2.752
#1	.0003	.0066	.0009	.0087	.0013	.0007	.0004	.0012	-.0348
#2	.0002	.0072	.0007	.0091	.0031	-.0004	.0003	.0013	-.0338
#3	.0002	.0069	.0008	.0017	.0054	-.0001	.0003	.0011	-.0329

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0011**	**.0007**	**.0005**	**.0057**	**.0001**	**-.0011**	**.0009**	**-.0003**
Stddev	.0004	.0000	.0004	.0004	.0005	.0001	.0005	.0002	.0001
%RSD	37.68	1.580	49.16	93.67	8.817	89.55	46.39	19.81	41.44
#1	-.0007	.0011	.0004	.0008	.0061	.0001	-.0017	.0011	-.0004
#2	-.0010	.0011	.0011	.0000	.0059	.0000	-.0006	.0008	-.0002
#3	-.0016	.0011	.0007	.0007	.0052	.0003	-.0011	.0007	-.0003

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0214**
Stddev	.0001	.0006
%RSD	71.66	2.939
#1	-.0001	.0212
#2	-.0001	.0208
#3	-.0003	.0221

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 12:14:33 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1138.6**	**2624.1**	**25540.**	**4088.9**
Stddev	14.2	31.8	290.	24.4
%RSD	1.2439	1.2102	1.1354	.59733
#1	1128.1	2599.3	25606.	4101.3
#2	1154.7	2659.9	25222.	4060.8
#3	1133.1	2613.1	25791.	4104.7

Sample Name: FC3570-4 Acquired: 3/27/2023 12:19:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0025**	**1.474**	**.0030**	**.0724**	**16.00**	**.0053**	**35.81**	**1.405**	**.9197**
Stddev	.0003	.008	.0004	.0013	.10	.0007	.16	.002	.0006
%RSD	13.93	.5348	12.81	1.727	.5941	12.68	.4498	.1509	.0613
#1	-.0025	1.465	.0031	.0710	15.90	.0055	35.64	1.403	.9191
#2	-.0021	1.481	.0033	.0735	16.09	.0059	35.96	1.407	.9198
#3	-.0028	1.477	.0026	.0727	16.01	.0046	35.83	1.406	.9203

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1186**	**.4340**	**21.29**	**.7241**	**.0271**	**.3501**	**3.769**	**.0213**	**24.91**
Stddev	.0008	.0012	.12	.0041	.0015	.0030	.004	.0004	.10
%RSD	.6890	.2686	.5624	.5618	5.638	.8472	.1023	1.996	.4158
#1	.1179	.4331	21.16	.7236	.0286	.3511	3.765	.0217	24.91
#2	.1195	.4353	21.39	.7284	.0256	.3524	3.770	.0209	25.01
#3	.1185	.4336	21.33	.7203	.0271	.3467	3.772	.0212	24.80

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7018**	**2.927**	**.0046**	**.0039**	**3.650**	**.0544**	**7.011**	**.5509**	**-.0034**
Stddev	.0017	.015	.0003	.0002	.010	.0003	.025	.0019	.0009
%RSD	.2384	.5177	5.960	4.483	.2625	.5509	.3513	.3436	27.69
#1	.7029	2.911	.0044	.0041	3.658	.0544	6.983	.5523	-.0037
#2	.7025	2.930	.0049	.0038	3.652	.0547	7.031	.5516	-.0023
#3	.6998	2.941	.0046	.0038	3.639	.0541	7.018	.5487	-.0041

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0163**	**721.3**
Stddev	.0003	5.1
%RSD	1.965	.7079
#1	.0159	727.0
#2	.0165	719.8
#3	.0165	717.1

Sample Name: FC3570-4 Acquired: 3/27/2023 12:19:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**939.49**	**2514.9**	**24155.**	**4204.4**
Stddev	2.97	6.1	43.	28.3
%RSD	.31561	.24254	.17836	.67265
#1	942.87	2515.1	24197.	4190.7
#2	937.33	2508.7	24111.	4185.7
#3	938.27	2520.9	24157.	4237.0

Sample Name: FC3570-5 Acquired: 3/27/2023 12:24:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.2141**	**.0008**	**.0106**	**17.17**	**.0012**	**8.745**	**.0428**	**.0979**
Stddev	.000	.0019	.0001	.0007	.06	.0007	.033	.0005	.0008
%RSD	3579.	.9053	12.31	6.649	.3387	56.65	.3800	1.171	.7845
#1	.0001	.2138	.0009	.0098	17.22	.0008	8.780	.0434	.0985
#2	-.0004	.2162	.0007	.0112	17.19	.0008	8.714	.0424	.0980
#3	.0002	.2124	.0007	.0108	17.11	.0020	8.741	.0428	.0970

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0114**	**.1099**	**.6770**	**.1455**	**.0043**	**.1483**	**.5958**	**.0045**	**1.317**
Stddev	.0000	.0007	.0020	.0033	.0002	.0014	.0008	.0001	.007
%RSD	.1388	.6380	.3002	2.240	5.305	.9227	.1366	2.810	.5553
#1	.0114	.1107	.6788	.1484	.0042	.1496	.5949	.0044	1.320
#2	.0114	.1095	.6773	.1462	.0046	.1469	.5961	.0046	1.322
#3	.0115	.1094	.6748	.1420	.0042	.1483	.5965	.0044	1.308

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0359**	**.6165**	**.0023**	**.0019**	**1.261**	**.0176**	**3.399**	**.1190**	**-.0030**
Stddev	.0003	.0042	.0003	.0003	.007	.0003	.014	.0013	.0004
%RSD	.9486	.6826	14.03	14.05	.5469	1.920	.4037	1.111	14.57
#1	.0355	.6207	.0026	.0016	1.268	.0180	3.406	.1179	-.0028
#2	.0360	.6123	.0019	.0020	1.254	.0174	3.383	.1204	-.0026
#3	.0361	.6166	.0024	.0020	1.260	.0176	3.408	.1187	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0030**	**21.69**
Stddev	.0002	.12
%RSD	6.598	.5518
#1	.0028	21.82
#2	.0030	21.58
#3	.0032	21.66

Sample Name: FC3570-5 Acquired: 3/27/2023 12:24:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1056.7**	**2644.8**	**25395.**	**4157.1**
Stddev	8.1	15.4	59.	21.0
%RSD	.76509	.58392	.23219	.50619
#1	1051.8	2635.0	25390.	4132.8
#2	1066.0	2662.6	25339.	4169.0
#3	1052.3	2636.9	25456.	4169.5

Sample Name: FC3570-6 Acquired: 3/27/2023 12:29:03 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0065**	**.5417**	**.0011**	**.0266**	**2.043**	**.0027**	**9.622**	**.0788**	**.0933**
Stddev	.0003	.0023	.0000	.0009	.004	.0011	.019	.0003	.0011
%RSD	4.078	.4178	2.653	3.381	.2170	41.11	.1935	.3423	1.138
#1	.0066	.5391	.0011	.0276	2.038	.0032	9.624	.0791	.0939
#2	.0067	.5429	.0011	.0259	2.044	.0034	9.603	.0786	.0939
#3	.0062	.5432	.0010	.0262	2.047	.0014	9.640	.0786	.0920

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0718**	**.4167**	**2.595**	**.2853**	**.0097**	**.1777**	**.4306**	**.0111**	**1.326**
Stddev	.0003	.0012	.003	.0016	.0017	.0004	.0016	.0003	.010
%RSD	.4081	.2868	.1193	.5639	17.17	.2297	.3679	2.693	.7701
#1	.0719	.4157	2.593	.2836	.0112	.1781	.4294	.0114	1.318
#2	.0720	.4181	2.595	.2854	.0079	.1773	.4324	.0108	1.322
#3	.0715	.4164	2.599	.2868	.0099	.1777	.4301	.0111	1.338

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2115**	**.2243**	**.0056**	**.0025**	**2.031**	**.0215**	**2.525**	**.4040**	**-.0026**
Stddev	.0011	.0009	.0005	.0002	.006	.0000	.007	.0014	.0001
%RSD	.5126	.4170	8.994	6.273	.2851	.1566	.2900	.3547	4.916
#1	.2119	.2247	.0054	.0024	2.034	.0215	2.523	.4024	-.0025
#2	.2124	.2251	.0062	.0025	2.035	.0215	2.518	.4053	-.0028
#3	.2103	.2233	.0052	.0027	2.024	.0216	2.533	.4041	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0065**	**119.6**
Stddev	.0002	.8
%RSD	2.487	.6563
#1	.0066	120.4
#2	.0063	119.6
#3	.0066	118.9

Sample Name: FC3570-6 Acquired: 3/27/2023 12:29:03 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1045.6**	**2647.5**	**25418.**	**4194.5**
Stddev	7.3	11.3	61.	43.7
%RSD	.69938	.42852	.23836	1.0427
#1	1042.0	2640.5	25389.	4199.3
#2	1040.8	2641.4	25378.	4235.6
#3	1054.0	2660.6	25488.	4148.5

Sample Name: FC3570-7 Acquired: 3/27/2023 12:33:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**.1220**	**.0008**	**.0060**	**.7163**	**.0009**	**6.010**	**.0415**	**.0023**
Stddev	.0002	.0009	.0003	.0009	.0010	.0001	.012	.0001	.0003
%RSD	30.40	.7494	45.94	14.31	.1431	14.88	.2019	.3305	11.73
#1	-.0010	.1209	.0006	.0054	.7157	.0008	5.997	.0416	.0020
#2	-.0009	.1225	.0009	.0070	.7175	.0008	6.012	.0416	.0025
#3	-.0005	.1225	.0003	.0056	.7157	.0010	6.021	.0413	.0023

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0326**	**.0696**	**.4281**	**.1181**	**.0023**	**.1180**	**.1134**	**.0023**	**1.134**
Stddev	.0003	.0004	.0017	.0023	.0004	.0009	.0002	.0001	.005
%RSD	.9406	.6136	.3870	1.973	17.01	.7338	.1731	4.781	.4017
#1	.0322	.0692	.4264	.1207	.0026	.1185	.1133	.0022	1.130
#2	.0328	.0700	.4280	.1174	.0019	.1170	.1133	.0024	1.133
#3	.0327	.0695	.4298	.1161	.0025	.1186	.1136	.0023	1.139

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0177**	**.0215**	**.0043**	**.0016**	**.8199**	**.0127**	**2.682**	**.0560**	**-.0035**
Stddev	.0005	.0008	.0001	.0000	.0021	.0002	.011	.0008	.0012
%RSD	2.830	3.710	2.265	1.997	.2607	1.865	.4083	1.410	33.47
#1	.0171	.0223	.0042	.0016	.8206	.0130	2.670	.0551	-.0031
#2	.0180	.0207	.0043	.0016	.8217	.0125	2.686	.0561	-.0048
#3	.0180	.0216	.0044	.0016	.8176	.0128	2.690	.0567	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0011**	**86.44**
Stddev	.0001	.05
%RSD	12.55	.0627
#1	.0010	86.46
#2	.0010	86.47
#3	.0012	86.38

Sample Name: FC3570-7 Acquired: 3/27/2023 12:33:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1065.3**	**2650.2**	**25581.**	**4179.9**
Stddev	1.5	2.3	117.	13.9
%RSD	.14357	.08589	.45868	.33147
#1	1065.0	2649.2	25702.	4189.7
#2	1064.0	2648.5	25468.	4185.9
#3	1067.0	2652.8	25572.	4164.0

Sample Name: FC3570-8 Acquired: 3/27/2023 12:38:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**.2030**	**.0009**	**.0075**	**11.24**	**.0007**	**17.03**	**.0529**	**.1672**
Stddev	.0001	.0005	.0003	.0005	.01	.0003	.03	.0005	.0015
%RSD	41.55	.2474	29.42	6.282	.0462	41.64	.1595	.9650	.9261
#1	-.0003	.2030	.0007	.0075	11.23	.0007	17.01	.0534	.1686
#2	-.0002	.2035	.0009	.0070	11.24	.0011	17.02	.0524	.1656
#3	-.0005	.2025	.0012	.0079	11.23	.0004	17.06	.0528	.1675

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0137**	**.0597**	**.6929**	**.1368**	**.0078**	**.1706**	**1.703**	**.0998**	**1.534**
Stddev	.0002	.0002	.0017	.0015	.0010	.0014	.006	.0008	.002
%RSD	1.447	.3664	.2516	1.090	12.65	.7916	.3631	.8064	.1529
#1	.0140	.0597	.6934	.1355	.0068	.1692	1.697	.1002	1.532
#2	.0137	.0596	.6943	.1384	.0088	.1707	1.703	.0989	1.535
#3	.0136	.0600	.6909	.1364	.0078	.1719	1.710	.1004	1.536

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1007**	**2.991**	**.0199**	**.0019**	**1.337**	**.0198**	**3.807**	**.1531**	**-.0025**
Stddev	.0012	.038	.0004	.0003	.014	.0003	.008	.0010	.0007
%RSD	1.164	1.279	1.966	13.70	1.015	1.456	.2141	.6560	28.63
#1	.1017	3.030	.0195	.0022	1.348	.0202	3.802	.1519	-.0017
#2	.0994	2.953	.0203	.0017	1.322	.0196	3.803	.1536	-.0029
#3	.1008	2.990	.0198	.0019	1.341	.0198	3.816	.1538	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0048**	**57.06**
Stddev	.0004	.62
%RSD	7.609	1.084
#1	.0052	57.65
#2	.0048	56.42
#3	.0045	57.13

Sample Name: FC3570-8 Acquired: 3/27/2023 12:38:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.9**	**2585.6**	**24908.**	**4108.8**
Stddev	10.3	20.6	73.	28.3
%RSD	.99724	.79695	.29470	.68851
#1	1023.9	2570.5	24929.	4138.9
#2	1044.1	2609.0	24968.	4104.7
#3	1030.7	2577.2	24826.	4082.7

Sample Name: FC3570-9 Acquired: 3/27/2023 12:43:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0010**	**.1473**	**.0030**	**.0159**	**.6665**	**.0002**	**7.808**	**.0140**	**.0092**
Stddev	.0002	.0027	.0001	.0006	.0058	.0003	.016	.0002	.0004
%RSD	16.48	1.801	4.352	3.991	.8772	150.6	.2089	1.780	4.695
#1	.0011	.1493	.0031	.0161	.6602	.0006	7.797	.0138	.0088
#2	.0009	.1443	.0028	.0163	.6676	-.0001	7.801	.0139	.0091
#3	.0008	.1483	.0030	.0151	.6717	.0002	7.827	.0143	.0097

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0421**	**.0783**	**2.034**	**.1715**	**.0052**	**.1335**	**.2521**	**.0047**	**1.343**
Stddev	.0003	.0004	.004	.0028	.0067	.0014	.0008	.0003	.008
%RSD	.8157	.5426	.2135	1.611	128.5	1.083	.3068	6.134	.6139
#1	.0419	.0782	2.032	.1738	.0032	.1327	.2513	.0047	1.341
#2	.0425	.0780	2.030	.1685	.0126	.1326	.2522	.0044	1.337
#3	.0420	.0788	2.038	.1723	-.0003	.1352	.2528	.0050	1.353

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0340**	**.0481**	**.0057**	**.0018**	**1.044**	**.0142**	**3.497**	**.0841**	**-.0027**
Stddev	.0001	.0016	.0005	.0004	.002	.0002	.021	.0007	.0002
%RSD	.2398	3.224	8.155	20.91	.1572	1.332	.5909	.8090	5.747
#1	.0339	.0471	.0055	.0022	1.044	.0143	3.474	.0847	-.0029
#2	.0340	.0499	.0054	.0014	1.043	.0144	3.510	.0844	-.0026
#3	.0341	.0473	.0063	.0019	1.046	.0140	3.509	.0834	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0030**	**60.37**
Stddev	.0001	.14
%RSD	3.533	.2367
#1	.0031	60.48
#2	.0030	60.42
#3	.0029	60.21

Sample Name: FC3570-9 Acquired: 3/27/2023 12:43:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1053.2**	**2554.7**	**24756.**	**4049.7**
Stddev	3.5	5.8	103.	21.1
%RSD	.33377	.22868	.41573	.52066
#1	1050.4	2556.4	24696.	4062.4
#2	1052.1	2548.2	24875.	4061.3
#3	1057.1	2559.5	24697.	4025.4

Zoom In Zoom Out

Sample Name: FC3570-10 Acquired: 3/27/2023 12:48:10 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0006**	**.0852**	**.0007**	**.0033**	**.3724**	**.0003**	**5.757**	**.0037**	**.0019**
Stddev	.0003	.0018	.0002	.0008	.0031	.0003	.016	.0002	.0002
%RSD	53.08	2.072	22.35	24.33	.8344	105.3	.2712	4.273	12.10
#1	.0005	.0868	.0005	.0042	.3690	.0000	5.748	.0035	.0022
#2	.0003	.0833	.0007	.0026	.3751	.0003	5.775	.0038	.0017
#3	.0009	.0856	.0008	.0032	.3730	.0007	5.747	.0038	.0020

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0150**	**.0287**	**.2796**	**.1090**	**.0030**	**.1262**	**.0751**	**.0016**	**1.218**
Stddev	.0001	.0002	.0009	.0037	.0017	.0005	.0004	.0002	.002
%RSD	.7814	.5584	.3397	3.401	56.10	.4356	.4895	13.33	.1355
#1	.0151	.0285	.2788	.1078	.0044	.1262	.0754	.0019	1.218
#2	.0149	.0286	.2807	.1132	.0011	.1267	.0752	.0015	1.220
#3	.0149	.0289	.2795	.1061	.0037	.1256	.0747	.0015	1.217

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0099**	**.0108**	**.0021**	**.0015**	**.7760**	**.0141**	**3.097**	**.0400**	**-.0029**
Stddev	.0002	.0002	.0004	.0003	.0007	.0001	.005	.0004	.0008
%RSD	1.944	2.183	17.30	17.19	.0943	.8956	.1628	.9790	28.13
#1	.0098	.0110	.0020	.0013	.7764	.0140	3.093	.0402	-.0037
#2	.0101	.0106	.0024	.0014	.7751	.0140	3.103	.0404	-.0021
#3	.0098	.0109	.0017	.0018	.7764	.0142	3.096	.0396	-.0029

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0010**	**36.53**
Stddev	.0001	.10
%RSD	15.00	.2613
#1	.0008	36.63
#2	.0010	36.52
#3	.0011	36.43

Zoom In Zoom Out

Sample Name: FC3570-10 Acquired: 3/27/2023 12:48:10 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1060.8**	**2534.3**	**24741.**	**4077.3**
Stddev	6.7	9.1	38.	30.5
%RSD	.62759	.35859	.15432	.74730
#1	1055.6	2528.5	24784.	4063.9
#2	1058.4	2529.7	24715.	4055.8
#3	1068.3	2544.8	24723.	4112.2

Zoom In Zoom Out

Sample Name: FC3570-11 Acquired: 3/27/2023 12:52:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0330**	**2.626**	**.0039**	**.2322**	**398.1**	**.0052**	**65.38**	**.7957**	**.4138**
Stddev	.0001	.008	.0001	.0006	4.1	.0010	.11	.0006	.0008
%RSD	.2141	.2964	2.720	.2482	1.043	20.00	.1683	.0773	.2036
#1	.0329	2.634	.0038	.2328	400.0	.0048	65.49	.7958	.4142
#2	.0330	2.618	.0040	.2318	393.3	.0044	65.27	.7951	.4128
#3	.0331	2.627	.0039	.2319	400.9	.0064	65.38	.7963	.4144

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1412**	**2.662**	**7.460**	**.7747**	**.0689**	**.4884**	**1.654**	**.0251**	**3.049**
Stddev	.0005	.006	.006	.0029	.0021	.0023	.001	.0003	.009
%RSD	.3227	.2325	.0793	.3769	3.108	.4660	.0602	1.063	.3117
#1	.1416	2.656	7.466	.7750	.0711	.4893	1.655	.0248	3.059
#2	.1407	2.668	7.454	.7717	.0687	.4858	1.654	.0254	3.040
#3	.1414	2.662	7.460	.7775	.0668	.4901	1.653	.0251	3.049

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5143**	**1.550**	**.0158**	**.0034**	**4.074**	**.1019**	**12.62**	**2.013**	**-.0032**
Stddev	.0012	.002	.0005	.0005	.013	.0005	.03	.002	.0004
%RSD	.2351	.1179	2.891	13.61	.3138	.5010	.1985	.1216	12.02
#1	.5154	1.552	.0153	.0029	4.089	.1024	12.63	2.010	-.0028
#2	.5145	1.551	.0161	.0038	4.067	.1020	12.59	2.015	-.0033
#3	.5130	1.549	.0160	.0034	4.066	.1014	12.63	2.014	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0289**	**555.6**
Stddev	.0004	1.0
%RSD	1.490	.1761
#1	.0284	556.3
#2	.0292	556.1
#3	.0291	554.5

Zoom In Zoom Out

Sample Name: FC3570-11 Acquired: 3/27/2023 12:52:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**941.86**	**2499.7**	**24208.**	**4229.2**
Stddev	1.21	3.3	93.	16.5
%RSD	.12899	.13151	.38407	.38988
#1	941.18	2498.6	24126.	4222.4
#2	941.14	2497.1	24309.	4248.0
#3	943.27	2503.4	24190.	4217.2

Sample Name: MP42004-B1 Acquired: 3/27/2023 12:58:04 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0346**	**3.619**	**.4422**	**.0071**	**29.10**	**.5199**	**10.81**	**.3123**	**1.493**
Stddev	.0005	.006	.0008	.0007	.06	.0048	.03	.0006	.001
%RSD	1.325	.1541	.1851	10.52	.2230	.9322	.3209	.1797	.0655
#1	.0342	3.625	.4418	.0076	29.18	.5255	10.85	.3130	1.494
#2	.0351	3.617	.4431	.0062	29.08	.5173	10.80	.3119	1.492
#3	.0347	3.615	.4416	.0074	29.05	.5170	10.79	.3120	1.492

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1505**	**.2516**	**6.743**	**3.324**	**.0069**	**1.063**	**1.716**	**.6656**	**10.08**
Stddev	.0006	.0007	.019	.006	.0008	.004	.002	.0016	.03
%RSD	.3691	.2662	.2881	.1911	11.24	.3250	.1365	.2439	.3012
#1	.1511	.2508	6.763	3.331	.0061	1.067	1.719	.6675	10.12
#2	.1502	.2520	6.742	3.320	.0076	1.061	1.717	.6648	10.06
#3	.1502	.2519	6.724	3.320	.0071	1.062	1.714	.6645	10.08

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9909**	**.7840**	**.1486**	**.3161**	**.1456**	**.2469**	**11.06**	**1.165**	**1.214**
Stddev	.0011	.0042	.0008	.0007	.0003	.0005	.05	.003	.005
%RSD	.1108	.5408	.5228	.2117	.2305	.2015	.4277	.2162	.3877
#1	.9921	.7883	.1483	.3163	.1459	.2472	11.12	1.162	1.217
#2	.9901	.7798	.1481	.3154	.1456	.2471	11.03	1.165	1.209
#3	.9904	.7840	.1495	.3167	.1453	.2463	11.05	1.167	1.216

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4159**	**1.747**
Stddev	.0006	.005
%RSD	.1439	.2710
#1	.4164	1.752
#2	.4152	1.747
#3	.4160	1.742

Sample Name: MP42004-B1 Acquired: 3/27/2023 12:58:04 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**972.21**	**2512.9**	**24025.**	**4036.8**
Stddev	1.88	1.4	62.	15.9
%RSD	.19368	.05376	.25728	.39507
#1	970.48	2511.9	24087.	4049.6
#2	974.21	2512.3	23963.	4018.9
#3	971.93	2514.4	24026.	4041.8

Sample Name: FC3570-12 Acquired: 3/27/2023 13:02:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0072**	**2.066**	**.0025**	**.0512**	**12.78**	**.0043**	**34.86**	**.4753**	**.5774**
Stddev	.0003	.008	.0001	.0010	.05	.0005	.09	.0009	.0015
%RSD	3.607	.3937	5.905	1.977	.3980	11.65	.2720	.1816	.2681
#1	.0075	2.070	.0026	.0508	12.82	.0038	34.88	.4761	.5788
#2	.0070	2.072	.0024	.0524	12.80	.0043	34.95	.4753	.5757
#3	.0071	2.057	.0024	.0504	12.73	.0048	34.76	.4744	.5778

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0644**	**.3847**	**4.281**	**.6664**	**.0349**	**.3400**	**1.057**	**.0135**	**2.272**
Stddev	.0002	.0007	.007	.0055	.0034	.0011	.003	.0003	.010
%RSD	.2665	.1705	.1600	.8253	9.828	.3190	.2886	1.959	.4377
#1	.0646	.3844	4.288	.6694	.0382	.3412	1.054	.0135	2.269
#2	.0642	.3855	4.282	.6697	.0353	.3392	1.059	.0138	2.283
#3	.0643	.3843	4.274	.6600	.0314	.3396	1.059	.0133	2.263

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2151**	**3.602**	**.0577**	**.0037**	**3.964**	**.0559**	**5.141**	**1.201**	**-.0028**
Stddev	.0012	.006	.0011	.0001	.006	.0002	.028	.004	.0010
%RSD	.5394	.1666	1.884	2.939	.1590	.3395	.5348	.3216	37.96
#1	.2163	3.602	.0583	.0037	3.971	.0561	5.147	1.197	-.0017
#2	.2140	3.609	.0583	.0036	3.960	.0558	5.165	1.202	-.0038
#3	.2148	3.597	.0564	.0038	3.960	.0558	5.111	1.205	-.0027

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0199**	**116.7**
Stddev	.0002	1.0
%RSD	1.228	.8535
#1	.0200	117.6
#2	.0201	116.7
#3	.0197	115.6

Sample Name: FC3570-12 Acquired: 3/27/2023 13:02:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**992.21**	**2528.2**	**24424.**	**4123.4**
Stddev	1.47	8.1	142.	33.0
%RSD	.14781	.32030	.58186	.80082
#1	990.72	2519.7	24483.	4146.4
#2	992.26	2535.9	24527.	4138.3
#3	993.66	2529.1	24262.	4085.6

Sample Name: CCV Acquired: 3/27/2023 13:07:28 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1801**	**5.383**	**.4599**	**.7964**	**28.75**	**20.56**	**17.04**	**12.43**	**5.929**
Stddev	.0004	.017	.0041	.0123	.03	.07	.03	.10	.044
%RSD	.1952	.3107	.9013	1.546	.1164	.3399	.1996	.7983	.7415
#1	.1800	5.401	.4593	.7929	28.77	20.50	17.06	12.37	5.905
#2	.1798	5.378	.4561	.7862	28.76	20.64	17.07	12.36	5.902
#3	.1805	5.369	.4644	.8101	28.71	20.53	17.00	12.54	5.980

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.479**	**1.941**	**10.38**	**5.290**	**4.909**	**1.689**	**6.859**	**2.733**	**17.19**
Stddev	.002	.002	.02	.010	.011	.004	.019	.021	.06
%RSD	.1556	.1187	.1476	.1933	.2289	.2375	.2761	.7832	.3222
#1	1.476	1.939	10.39	5.294	4.898	1.687	6.869	2.724	17.18
#2	1.481	1.943	10.37	5.298	4.921	1.694	6.837	2.718	17.25
#3	1.479	1.939	10.36	5.279	4.910	1.687	6.871	2.758	17.14

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.935**	**3.171**	**.6161**	**.3288**	**.8339**	**.9957**	**43.94**	**4.701**	**1.255**
Stddev	.034	.022	.0061	.0029	.0073	.0095	.08	.007	.012
%RSD	.8569	.7078	.9857	.8840	.8768	.9505	.1805	.1555	.9388
#1	3.920	3.156	.6142	.3286	.8325	.9945	43.91	4.693	1.250
#2	3.911	3.160	.6113	.3261	.8275	.9869	44.03	4.707	1.247
#3	3.973	3.197	.6229	.3319	.8419	1.006	43.88	4.704	1.269

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.656**	**6.931**
Stddev	.005	.055
%RSD	.3139	.7980
#1	1.652	6.904
#2	1.662	6.894
#3	1.654	6.994

Sample Name: CCV Acquired: 3/27/2023 13:07:28 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**926.81**	**2473.8**	**23761.**	**4032.8**
Stddev	7.40	22.4	79.	35.2
%RSD	.79813	.90575	.33123	.87406
#1	931.83	2485.6	23840.	4017.6
#2	930.29	2487.9	23762.	4007.7
#3	918.32	2448.0	23682.	4073.1

Sample Name: CCB Acquired: 3/27/2023 13:12:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**-.0020**	**-.0001**	**.0023**	**.0159**	**.0008**	**.0013**	**-.0008**	**-.0001**
Stddev	.0001	.0012	.0002	.0003	.0011	.0008	.0009	.0006	.0001
%RSD	11.02	60.75	196.2	12.60	7.057	96.84	73.83	79.99	118.5
#1	-.0010	-.0008	.0001	.0020	.0158	.0017	.0021	-.0015	.0000
#2	-.0011	-.0033	-.0001	.0025	.0170	.0006	.0014	-.0004	.0000
#3	-.0012	-.0021	-.0003	.0025	.0148	.0002	.0003	-.0004	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0069**	**.0004**	**.0032**	**.0054**	**-.0006**	**.0003**	**.0013**	**-.0327**
Stddev	.0001	.0002	.0003	.0034	.0050	.0010	.0001	.0001	.0047
%RSD	76.72	3.556	63.87	107.8	92.11	172.5	24.55	7.426	14.22
#1	.0002	.0066	.0006	.0005	.0099	-.0005	.0003	.0014	-.0371
#2	.0003	.0071	.0001	.0070	.0061	-.0016	.0002	.0012	-.0278
#3	.0000	.0068	.0005	.0019	.0001	.0004	.0003	.0012	-.0333

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0026**	**.0007**	**.0007**	**.0056**	**.0002**	**-.0004**	**.0007**	**-.0002**
Stddev	.0001	.0009	.0004	.0002	.0002	.0001	.0008	.0002	.0009
%RSD	11.04	35.27	49.73	36.15	3.219	50.08	192.1	25.71	436.7
#1	-.0010	.0036	.0009	.0004	.0058	.0002	-.0011	.0007	.0002
#2	-.0013	.0020	.0009	.0007	.0056	.0002	.0005	.0008	.0004
#3	-.0012	.0021	.0003	.0009	.0055	.0001	-.0007	.0005	-.0012

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0120**
Stddev	.0002	.0001
%RSD	104.5	.8563
#1	-.0003	.0120
#2	.0000	.0121
#3	-.0001	.0119

Sample Name: CCB Acquired: 3/27/2023 13:12:00 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1129.2**	**2649.6**	**25548.**	**4073.2**
Stddev	2.2	3.5	122.	30.7
%RSD	.19257	.13139	.47865	.75444
#1	1126.8	2647.6	25660.	4062.5
#2	1131.0	2647.6	25417.	4107.9
#3	1129.8	2653.6	25568.	4049.3

Zoom In Zoom Out

Sample Name: FC3570-13 Acquired: 3/27/2023 13:16:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0196**	**1.117**	**.0025**	**.0268**	**5.987**	**.0036**	**20.91**	**.3087**	**.3278**
Stddev	.0003	.006	.0004	.0004	.022	.0004	.03	.0008	.0003
%RSD	1.692	.5071	16.43	1.310	.3738	9.780	.1509	.2720	.0940
#1	.0198	1.115	.0025	.0266	5.993	.0039	20.88	.3078	.3275
#2	.0192	1.123	.0029	.0272	6.007	.0038	20.94	.3095	.3281
#3	.0198	1.112	.0021	.0265	5.963	.0032	20.93	.3087	.3279

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0508**	**.2493**	**2.834**	**.4230**	**.0275**	**.2530**	**.6247**	**.0126**	**1.512**
Stddev	.0003	.0003	.001	.0030	.0043	.0007	.0017	.0002	.003
%RSD	.6561	.1009	.0365	.7151	15.68	.2908	.2711	1.553	.2202
#1	.0504	.2492	2.835	.4207	.0226	.2533	.6252	.0125	1.509
#2	.0511	.2496	2.834	.4264	.0296	.2522	.6261	.0128	1.516
#3	.0508	.2492	2.833	.4218	.0304	.2536	.6228	.0125	1.511

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1334**	**2.848**	**.0227**	**.0035**	**3.949**	**.0434**	**4.920**	**.6105**	**-.0031**
Stddev	.0005	.009	.0004	.0003	.007	.0002	.025	.0092	.0010
%RSD	.3526	.3074	1.700	9.506	.1834	.3734	.5074	1.510	32.76
#1	.1329	2.838	.0227	.0033	3.940	.0433	4.914	.6183	-.0042
#2	.1338	2.855	.0231	.0039	3.954	.0433	4.898	.6003	-.0027
#3	.1336	2.850	.0223	.0033	3.952	.0435	4.947	.6129	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0124**	**77.77**
Stddev	.0001	.18
%RSD	.9822	.2277
#1	.0123	77.57
#2	.0124	77.90
#3	.0125	77.85

Zoom In Zoom Out

Sample Name: FC3570-13 Acquired: 3/27/2023 13:16:54 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1016.5**	**2592.4**	**24829.**	**4139.8**
Stddev	1.8	2.8	51.	10.8
%RSD	.17792	.10905	.20452	.26061
#1	1018.5	2595.3	24812.	4141.2
#2	1015.2	2589.7	24789.	4149.8
#3	1015.7	2592.1	24886.	4128.4

Zoom In Zoom Out

Sample Name: FC3570-14 Acquired: 3/27/2023 13:21:36 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0192**	**5.787**	**.0075**	**.0752**	**71.33**	**.0162**	**73.46**	**7.016**	**1.343**
Stddev	.0003	.009	.0001	.0009	1.37	.0014	1.36	.005	.002
%RSD	1.437	.1509	.8169	1.180	1.919	8.358	1.850	.0722	.1380
#1	.0195	5.793	.0074	.0762	72.91	.0154	74.27	7.021	1.345
#2	.0192	5.777	.0075	.0750	70.46	.0154	74.21	7.016	1.341
#3	.0189	5.790	.0075	.0745	70.62	.0178	71.89	7.011	1.343

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.537**	**3.976**	**30.82**	**3.379**	**.1032**	**.9304**	**10.22**	**1.069**	**10.07**
Stddev	.007	.009	.01	.004	.0022	.0007	.10	.001	.03
%RSD	.1467	.2287	.0392	.1148	2.112	.0717	1.019	.0529	.2947
#1	4.543	3.986	30.82	3.378	.1054	.9310	10.27	1.070	10.07
#2	4.530	3.970	30.80	3.377	.1010	.9297	10.10	1.070	10.04
#3	4.538	3.971	30.82	3.384	.1032	.9305	10.28	1.069	10.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**18.87**	**44.11**	**.0965**	**.0125**	**5.481**	**.3190**	**10.64**	**2.066**	**-.0026**
Stddev	.02	.21	.0003	.0002	.008	.0004	.03	.004	.0008
%RSD	.0958	.4810	.3338	1.705	.1477	.1277	.2603	.1864	30.20
#1	18.85	44.35	.0966	.0123	5.474	.3188	10.67	2.070	-.0032
#2	18.89	44.03	.0968	.0128	5.490	.3195	10.61	2.062	-.0028
#3	18.87	43.94	.0962	.0125	5.480	.3188	10.64	2.065	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0641**	**68.51**
Stddev	.0001	.07
%RSD	.2270	.0993
#1	.0641	68.57
#2	.0643	68.43
#3	.0640	68.52

Zoom In Zoom Out

Sample Name: FC3570-14 Acquired: 3/27/2023 13:21:36 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**913.20**	**2604.4**	**25787.**	**4473.0**
Stddev	3.95	1.2	190.	30.1
%RSD	.43209	.04510	.73659	.67279
#1	908.71	2603.5	25719.	4491.6
#2	914.82	2605.7	26002.	4438.3
#3	916.08	2604.1	25641.	4489.2

Zoom In Zoom Out

Sample Name: FC3570-15 Acquired: 3/27/2023 13:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0007**	**.4742**	**.0004**	**.0071**	**1.111**	**.0017**	**5.979**	**.0097**	**.1269**
Stddev	.0000	.0153	.0001	.0006	.035	.0008	.183	.0005	.0003
%RSD	6.636	3.229	35.86	9.066	3.187	46.38	3.055	5.657	.2012
#1	-.0007	.4608	.0006	.0064	1.080	.0008	5.816	.0092	.1270
#2	-.0007	.4909	.0003	.0074	1.150	.0024	6.176	.0097	.1267
#3	-.0007	.4710	.0004	.0075	1.102	.0019	5.944	.0103	.1272

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2989**	**.0554**	**2.226**	**.2105**	**.0118**	**.1460**	**.4530**	**.0154**	**1.195**
Stddev	.0017	.0004	.068	.0092	.0012	.0037	.0018	.0002	.035
%RSD	.5540	.6377	3.050	4.364	10.45	2.541	.3918	1.177	2.953
#1	.2980	.0554	2.167	.2048	.0121	.1419	.4514	.0153	1.164
#2	.3008	.0558	2.301	.2211	.0129	.1491	.4527	.0156	1.233
#3	.2979	.0551	2.211	.2057	.0105	.1470	.4549	.0154	1.189

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1824**	**.0594**	**.0006**	**.0018**	**1.843**	**.0284**	**1.989**	**.3387**	**.0018**
Stddev	.0006	.0004	.0001	.0001	.001	.0001	.061	.0047	.0004
%RSD	.3269	.6944	23.08	5.291	.0682	.3683	3.091	1.374	20.10
#1	.1818	.0595	.0006	.0019	1.843	.0284	1.933	.3377	.0014
#2	.1830	.0590	.0004	.0017	1.845	.0285	2.055	.3438	.0022
#3	.1823	.0598	.0007	.0017	1.842	.0283	1.977	.3347	.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0056**	**681.0**
Stddev	.0001	3.8
%RSD	2.183	.5634
#1	.0054	683.4
#2	.0057	683.1
#3	.0056	676.6

Zoom In Zoom Out

Sample Name: FC3570-15 Acquired: 3/27/2023 13:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1027.1**	**2530.2**	**24668.**	**4030.5**
Stddev	2.9	2.0	104.	85.3
%RSD	.28018	.08027	.42124	2.1174
#1	1024.1	2528.4	24732.	4106.4
#2	1027.4	2532.4	24548.	3938.1
#3	1029.9	2529.8	24723.	4046.9

Zoom In Zoom Out

Sample Name: FC3570-16 Acquired: 3/27/2023 13:31:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0019**	**1.965**	**.0054**	**.1214**	**7.023**	**.0039**	**38.47**	**.0942**	**.1223**
Stddev	.0005	.007	.0001	.0033	.020	.0006	.17	.0001	.0005
%RSD	26.63	.3375	1.853	2.744	.2911	14.52	.4316	.1169	.3909
#1	-.0021	1.961	.0054	.1183	7.006	.0046	38.38	.0940	.1223
#2	-.0013	1.973	.0053	.1210	7.046	.0037	38.66	.0942	.1218
#3	-.0022	1.962	.0055	.1249	7.016	.0035	38.37	.0943	.1228

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.238**	**.9934**	**19.63**	**.6365**	**.0252**	**.3837**	**2.980**	**.0526**	**1.714**
Stddev	.002	.0023	.07	.0019	.0033	.0030	.008	.0002	.005
%RSD	.1630	.2313	.3778	.2932	13.18	.7819	.2632	.3322	.3179
#1	1.239	.9907	19.58	.6385	.0238	.3834	2.989	.0526	1.709
#2	1.239	.9945	19.72	.6361	.0290	.3869	2.974	.0525	1.720
#3	1.235	.9949	19.60	.6348	.0229	.3809	2.977	.0528	1.713

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.638**	**.4096**	**.0345**	**.0050**	**2.682**	**.0769**	**4.388**	**1.047**	**-.0039**
Stddev	.006	.0022	.0004	.0001	.010	.0002	.019	.002	.0010
%RSD	.3806	.5264	1.042	2.482	.3604	.2574	.4241	.1871	25.18
#1	1.631	.4121	.0341	.0050	2.671	.0766	4.386	1.045	-.0029
#2	1.642	.4082	.0347	.0049	2.684	.0770	4.407	1.049	-.0048
#3	1.642	.4086	.0347	.0052	2.690	.0769	4.370	1.047	-.0040

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0225**	**682.4**
Stddev	.0002	2.0
%RSD	.8971	.2902
#1	.0222	684.6
#2	.0226	681.9
#3	.0225	680.7

Zoom In Zoom Out

Sample Name: FC3570-16 Acquired: 3/27/2023 13:31:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**979.96**	**2540.6**	**24577.**	**4161.6**
Stddev	2.43	7.7	57.	49.8
%RSD	.24782	.30189	.23101	1.1975
#1	977.92	2549.3	24533.	4156.2
#2	979.31	2534.7	24556.	4114.6
#3	982.65	2537.9	24641.	4213.9

Zoom In Zoom Out

Sample Name: FC3570-17 Acquired: 3/27/2023 13:36:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**2.208**	**-.0032**	**.0421**	**27.58**	**.0062**	**29.23**	**.3119**	**1.081**
Stddev	.0001	.021	.0001	.0004	.26	.0007	.33	.0011	.002
%RSD	33.96	.9330	3.390	.9257	.9461	12.17	1.141	.3474	.1649
#1	.0003	2.187	-.0032	.0426	27.31	.0063	28.86	.3107	1.080
#2	.0005	2.228	-.0031	.0418	27.83	.0068	29.52	.3129	1.080
#3	.0005	2.208	-.0033	.0420	27.61	.0053	29.30	.3120	1.083

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7.722**	**1.712**	**17.17**	**.9119**	**.0340**	**.3573**	**5.444**	**1.653**	**3.582**
Stddev	.022	.002	.19	.0115	.0045	.0048	.015	.002	.047
%RSD	.2804	.1367	1.087	1.266	13.31	1.349	.2673	.1400	1.315
#1	7.699	1.710	16.97	.8989	.0348	.3518	5.445	1.650	3.531
#2	7.724	1.715	17.34	.9209	.0291	.3603	5.428	1.653	3.623
#3	7.742	1.712	17.19	.9160	.0380	.3599	5.457	1.655	3.593

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**19.00**	**10.86**	**.0488**	**.0065**	**1.608**	**6.531**	**4.120**	**.7703**	**-.0013**
Stddev	.03	.06	.0005	.0003	.003	.004	.056	.0008	.0003
%RSD	.1778	.5095	.9753	4.084	.1779	.0638	1.369	.1020	19.83
#1	18.97	10.89	.0493	.0066	1.606	6.528	4.061	.7706	-.0015
#2	19.02	10.80	.0483	.0062	1.611	6.536	4.173	.7694	-.0010
#3	19.02	10.89	.0489	.0066	1.606	6.531	4.125	.7709	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0144**	**28.50**
Stddev	.0003	.02
%RSD	2.058	.0565
#1	.0142	28.50
#2	.0143	28.48
#3	.0147	28.51

Zoom In Zoom Out

Sample Name: FC3570-17 Acquired: 3/27/2023 13:36:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**983.68**	**2475.9**	**25208.**	**4234.4**
Stddev	3.55	3.4	27.	64.5
%RSD	.36084	.13577	.10699	1.5243
#1	981.93	2479.3	25230.	4300.2
#2	987.77	2472.6	25216.	4171.1
#3	981.35	2475.9	25178.	4232.0

Zoom In Zoom Out

Sample Name: FC3570-18 Acquired: 3/27/2023 13:41:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0589**	**10.81**	**.0156**	**.1336**	**278.9**	**.0260**	**118.6**	**1.697**	**2.488**
Stddev	.0007	.04	.0002	.0008	4.5	.0004	1.7	.005	.013
%RSD	1.108	.3487	1.186	.5704	1.615	1.536	1.423	.3232	.5017
#1	.0582	10.80	.0158	.1342	282.1	.0257	120.3	1.691	2.477
#2	.0593	10.85	.0154	.1340	273.7	.0260	116.9	1.696	2.485
#3	.0592	10.78	.0155	.1328	280.9	.0265	118.7	1.702	2.502

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.635**	**5.473**	**29.82**	**4.757**	**.1575**	**1.298**	**9.601**	**.9346**	**14.14**
Stddev	.020	.020	.05	.011	.0032	.003	.107	.0042	.02
%RSD	.4364	.3652	.1673	.2361	2.040	.1981	1.111	.4450	.1119
#1	4.643	5.492	29.79	4.759	.1595	1.298	9.554	.9304	14.14
#2	4.650	5.473	29.88	4.767	.1591	1.301	9.723	.9346	14.15
#3	4.612	5.452	29.79	4.745	.1537	1.296	9.526	.9387	14.12

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9.557**	**15.85**	**.1222**	**.0194**	**5.069**	**.7258**	**20.74**	**4.456**	**-.0039**
Stddev	.044	.05	.0005	.0001	.026	.0042	.03	.018	.0013
%RSD	.4657	.3036	.4243	.7717	.5183	.5812	.1334	.4060	32.67
#1	9.522	15.80	.1219	.0195	5.055	.7235	20.74	4.474	-.0051
#2	9.542	15.90	.1219	.0195	5.052	.7232	20.77	4.457	-.0026
#3	9.607	15.86	.1228	.0192	5.099	.7306	20.72	4.438	-.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.1201**	**96.53**
Stddev	.0007	.50
%RSD	.6110	.5136
#1	.1209	96.92
#2	.1196	95.97
#3	.1197	96.69

Zoom In Zoom Out

Sample Name: FC3570-18 Acquired: 3/27/2023 13:41:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**877.41**	**2595.1**	**25388.**	**4547.5**
Stddev	1.14	11.0	170.	6.3
%RSD	.13048	.42356	.66909	.13774
#1	878.22	2599.3	25378.	4553.4
#2	877.91	2603.3	25223.	4548.2
#3	876.10	2582.6	25562.	4541.0

Zoom In Zoom Out

Sample Name: FC3570-20 Acquired: 3/27/2023 13:46:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0156**	**.0431**	**.0001**	**.0487**	**.1669**	**.0008**	**.8411**	**.0711**	**.0050**
Stddev	.0002	.0013	.0003	.0014	.0037	.0001	.0045	.0005	.0003
%RSD	1.007	3.132	224.0	2.823	2.196	12.43	.5306	.6889	5.942
#1	-.0156	.0446	-.0002	.0471	.1710	.0010	.8402	.0706	.0047
#2	-.0154	.0421	.0002	.0497	.1655	.0008	.8460	.0712	.0050
#3	-.0157	.0425	.0004	.0493	.1641	.0008	.8372	.0716	.0053

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0487**	**.0011**	**46.22**	**.0146**	**.0034**	**.0088**	**1.352**	**.0030**	**.0533**
Stddev	.0005	.0002	.01	.0027	.0011	.0006	.003	.0001	.0037
%RSD	.9949	20.93	.0318	18.18	33.51	6.954	.1987	4.051	6.952
#1	.0491	.0011	46.21	.0127	.0021	.0083	1.355	.0031	.0496
#2	.0487	.0009	46.23	.0177	.0040	.0095	1.349	.0029	.0570
#3	.0481	.0013	46.23	.0135	.0041	.0086	1.351	.0030	.0533

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1509**	**.0175**	**.0071**	**.0002**	**.1461**	**.0052**	**.1881**	**.0405**	**-.0043**
Stddev	.0003	.0004	.0006	.0002	.0004	.0003	.0022	.0031	.0007
%RSD	.1794	2.312	8.764	129.5	.2675	4.885	1.186	7.590	15.86
#1	.1510	.0171	.0073	.0000	.1464	.0049	.1904	.0391	-.0044
#2	.1506	.0179	.0076	.0001	.1464	.0054	.1859	.0440	-.0035
#3	.1512	.0175	.0064	.0004	.1457	.0053	.1879	.0383	-.0049

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0007**	**57.69**
Stddev	.0001	.03
%RSD	9.962	.0545
#1	.0006	57.70
#2	.0008	57.66
#3	.0007	57.72

Zoom In Zoom Out

Sample Name: FC3570-20 Acquired: 3/27/2023 13:46:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1105.5**	**2661.1**	**25460.**	**4123.0**
Stddev	2.1	1.5	45.	4.1
%RSD	.19049	.05765	.17806	.09850
#1	1107.7	2661.9	25413.	4127.6
#2	1105.3	2662.0	25504.	4121.7
#3	1103.6	2659.3	25462.	4119.8

Zoom In Zoom Out

Sample Name: MP41997-MB2A Acquired: 3/27/2023 13:50:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0085**	**.0003**	**.0012**	**.1021**	**.0006**	**1.550**	**-.0009**	**.0000**
Stddev	.0004	.0006	.0002	.0006	.0013	.0008	.005	.0000	.000
%RSD	35.22	6.596	68.71	46.43	1.234	127.8	.3401	1.525	298.8
#1	-.0014	.0090	.0001	.0018	.1031	.0002	1.548	-.0009	-.0002
#2	-.0007	.0079	.0004	.0012	.1007	.0002	1.546	-.0009	.0001
#3	-.0014	.0086	.0005	.0007	.1026	.0016	1.556	-.0009	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0013**	**.0075**	**.0303**	**.0463**	**.0035**	**.0464**	**.0277**	**.0006**	**.3578**
Stddev	.0001	.0002	.0002	.0033	.0028	.0012	.0004	.0001	.0018
%RSD	5.042	3.047	.6896	7.140	80.40	2.668	1.390	15.15	.4922
#1	.0014	.0075	.0305	.0425	.0016	.0477	.0273	.0005	.3598
#2	.0013	.0077	.0303	.0485	.0067	.0452	.0281	.0007	.3566
#3	.0012	.0072	.0301	.0480	.0021	.0463	.0278	.0005	.3570

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0026**	**.0002**	**.0012**	**.0648**	**.0113**	**.4504**	**.0061**	**-.0012**
Stddev	.0001	.0009	.0004	.0003	.0001	.0000	.0025	.0003	.0005
%RSD	79.93	32.73	225.5	21.97	.1586	.3188	.5498	4.534	43.89
#1	.0000	.0016	.0005	.0009	.0648	.0112	.4484	.0058	-.0008
#2	.0003	.0033	.0003	.0014	.0650	.0113	.4495	.0062	-.0018
#3	.0002	.0029	-.0003	.0012	.0648	.0113	.4531	.0063	-.0011

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0000**	**.0381**
Stddev	.000	.0004
%RSD	2208.	.9487
#1	-.0001	.0385
#2	.0001	.0380
#3	.0000	.0378

Zoom In Zoom Out

Sample Name: MP41997-MB2A Acquired: 3/27/2023 13:50:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1121.6**	**2685.6**	**26025.**	**4186.0**
Stddev	3.4	2.9	233.	2.2
%RSD	.30603	.10626	.89435	.05274
#1	1125.0	2683.5	26201.	4188.4
#2	1121.8	2684.3	25761.	4184.1
#3	1118.1	2688.8	26115.	4185.4

Sample Name: MP42004-MB1 Acquired: 3/27/2023 13:55:51 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**-.0015**	**-.0002**	**-.0001**	**.0160**	**.0006**	**.0042**	**-.0012**	**-.0009**
Stddev	.0002	.0013	.0001	.0003	.0035	.0002	.0006	.0001	.0001
%RSD	22.42	90.99	94.56	243.7	21.92	34.66	14.93	10.76	15.18
#1	-.0009	-.0011	-.0003	-.0001	.0130	.0006	.0040	-.0013	-.0007
#2	-.0014	-.0030	-.0001	.0001	.0199	.0004	.0049	-.0012	-.0010
#3	-.0010	-.0004	-.0001	-.0004	.0151	.0009	.0037	-.0011	-.0009

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0067**	**.0010**	**-.0007**	**.0005**	**-.0003**	**.0005**	**.0008**	**-.0323**
Stddev	.0002	.0002	.0001	.0024	.0031	.0007	.0002	.0001	.0005
%RSD	39.19	2.957	11.90	359.3	570.5	214.2	37.43	9.893	1.566
#1	.0002	.0069	.0009	.0009	.0016	-.0010	.0003	.0007	-.0326
#2	.0005	.0065	.0010	-.0034	-.0030	.0003	.0005	.0008	-.0317
#3	.0006	.0068	.0012	.0005	.0029	-.0002	.0007	.0008	-.0326

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0029**	**.0004**	**.0003**	**.0069**	**.0001**	**-.0014**	**.0008**	**-.0005**
Stddev	.0003	.0014	.0004	.0001	.0001	.0000	.0008	.0003	.0004
%RSD	22.40	46.62	97.54	27.97	2.106	20.85	56.21	35.69	85.42
#1	-.0010	.0037	.0002	.0004	.0068	.0001	-.0011	.0007	-.0004
#2	-.0016	.0036	.0002	.0003	.0068	.0002	-.0009	.0007	-.0001
#3	-.0013	.0013	.0009	.0003	.0071	.0001	-.0024	.0012	-.0009

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0067**
Stddev	.0003	.0001
%RSD	91.31	2.161
#1	-.0004	.0067
#2	.0000	.0065
#3	-.0005	.0068

Sample Name: MP42004-MB1 Acquired: 3/27/2023 13:55:51 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1123.2**	**2691.2**	**25751.**	**4126.6**
Stddev	3.7	6.5	61.	30.2
%RSD	.33290	.24287	.23841	.73157
#1	1118.9	2683.7	25748.	4101.3
#2	1125.5	2695.7	25691.	4118.6
#3	1125.1	2694.2	25813.	4160.0

Sample Name: FC3490-1 Acquired: 3/27/2023 14:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.1192**	**-.0001**	**.0053**	**1.520**	**.0007**	**83.40**	**-.0014**	**.0003**
Stddev	.0004	.0013	.0002	.0009	.002	.0004	.76	.0001	.0003
%RSD	29.85	1.093	119.1	17.31	.1224	60.36	.9133	8.569	102.6
#1	-.0009	.1177	.0000	.0049	1.522	.0012	82.53	-.0015	.0005
#2	-.0013	.1203	-.0002	.0063	1.519	.0004	83.71	-.0014	.0000
#3	-.0017	.1195	-.0002	.0046	1.519	.0005	83.95	-.0013	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0011**	**.0068**	**.2130**	**1.762**	**.1091**	**.0537**	**.5793**	**.0067**	**9.445**
Stddev	.0000	.0003	.0004	.010	.0046	.0001	.0003	.0002	.028
%RSD	4.237	4.181	.1712	.5693	4.180	.2682	.0438	3.736	.3008
#1	.0010	.0069	.2126	1.754	.1137	.0536	.5795	.0069	9.435
#2	.0011	.0070	.2131	1.758	.1089	.0539	.5795	.0064	9.477
#3	.0011	.0065	.2133	1.773	.1046	.0536	.5791	.0066	9.423

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0060**	**.0028**	**.0007**	**.0004**	**1.666**	**.0003**	**2.833**	**.0026**	**-.0002**
Stddev	.0002	.0016	.0004	.0002	.001	.0002	.009	.0003	.0006
%RSD	3.704	57.64	60.71	51.54	.0845	43.76	.3302	11.25	376.5
#1	.0061	.0032	.0012	.0006	1.667	.0003	2.843	.0028	-.0006
#2	.0057	.0010	.0006	.0002	1.664	.0002	2.831	.0023	-.0004
#3	.0060	.0043	.0003	.0005	1.667	.0005	2.825	.0027	.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0330**
Stddev	.0003	.0002
%RSD	103.0	.4809
#1	-.0004	.0330
#2	-.0005	.0331
#3	.0000	.0328

Sample Name: FC3490-1 Acquired: 3/27/2023 14:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**943.90**	**2491.2**	**23729.**	**4054.5**
Stddev	2.42	3.6	156.	39.8
%RSD	.25618	.14532	.65799	.98129
#1	941.24	2492.7	23854.	4079.4
#2	944.51	2493.9	23554.	4075.4
#3	945.96	2487.1	23779.	4008.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 14:05:46 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1793**	**5.341**	**.4619**	**.7695**	**28.61**	**20.60**	**17.25**	**12.48**	**5.934**
Stddev	.0006	.009	.0011	.0042	.07	.02	.01	.01	.004
%RSD	.3084	.1763	.2286	.5462	.2555	.1080	.0609	.0493	.0748
#1	.1790	5.346	.4624	.7704	28.67	20.61	17.25	12.48	5.929
#2	.1800	5.330	.4607	.7649	28.53	20.57	17.24	12.47	5.935
#3	.1791	5.347	.4626	.7732	28.64	20.61	17.26	12.48	5.938

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.469**	**1.891**	**10.44**	**5.271**	**4.926**	**1.667**	**7.024**	**2.727**	**16.80**
Stddev	.003	.005	.01	.011	.014	.005	.024	.004	.06
%RSD	.2306	.2776	.0643	.2142	.2810	.2972	.3407	.1405	.3718
#1	1.466	1.887	10.44	5.282	4.930	1.664	7.002	2.725	16.84
#2	1.472	1.897	10.43	5.259	4.910	1.663	7.050	2.724	16.72
#3	1.468	1.888	10.43	5.272	4.937	1.672	7.021	2.731	16.82

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.863**	**3.260**	**.6003**	**.3311**	**.8176**	**.9745**	**43.89**	**4.603**	**1.282**
Stddev	.009	.007	.0031	.0014	.0019	.0028	.05	.014	.002
%RSD	.2351	.2153	.5116	.4297	.2299	.2833	.1056	.3130	.1197
#1	3.861	3.267	.5995	.3294	.8166	.9748	43.91	4.598	1.281
#2	3.855	3.260	.5978	.3317	.8163	.9716	43.84	4.619	1.282
#3	3.873	3.253	.6037	.3320	.8197	.9771	43.93	4.591	1.284

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.624**	**6.947**
Stddev	.002	.002
%RSD	.1212	.0250
#1	1.623	6.949
#2	1.627	6.945
#3	1.623	6.946

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 14:05:46 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**918.23**	**2507.2**	**23877.**	**3977.3**
Stddev	1.86	1.1	85.	14.4
%RSD	.20241	.04224	.35562	.36330
#1	916.45	2506.6	23947.	3977.7
#2	918.06	2508.5	23782.	3962.7
#3	920.16	2506.7	23902.	3991.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 14:10:18 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**-.0026**	**-.0002**	**.0014**	**.0158**	**.0005**	**.0007**	**-.0010**	**-.0003**
Stddev	.0002	.0011	.0001	.0008	.0005	.0007	.0008	.0000	.0001
%RSD	27.62	42.24	60.68	54.03	3.433	126.9	111.1	2.425	27.47
#1	-.0010	-.0025	-.0003	.0017	.0160	-.0002	.0006	-.0010	-.0002
#2	-.0007	-.0015	-.0001	.0005	.0162	.0010	.0000	-.0010	-.0003
#3	-.0007	-.0037	-.0002	.0020	.0151	.0009	.0016	-.0011	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0067**	**.0006**	**.0072**	**.0004**	**-.0004**	**.0003**	**.0012**	**-.0335**
Stddev	.0002	.0001	.0004	.0016	.0013	.0005	.0001	.0001	.0038
%RSD	201.5	2.108	66.75	21.54	287.3	119.1	44.47	12.30	11.32
#1	-.0001	.0067	.0004	.0079	-.0007	-.0002	.0002	.0011	-.0300
#2	.0003	.0068	.0010	.0055	.0018	-.0010	.0005	.0014	-.0375
#3	.0002	.0066	.0003	.0084	.0002	.0000	.0003	.0012	-.0329

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**.0024**	**.0008**	**.0001**	**.0060**	**.0001**	**-.0002**	**.0007**	**-.0002**
Stddev	.0002	.0012	.0002	.0005	.0002	.0001	.0006	.0003	.0005
%RSD	23.87	50.35	28.72	335.6	3.424	77.24	369.2	53.46	210.5
#1	-.0010	.0028	.0011	.0003	.0060	.0000	-.0006	.0009	-.0006
#2	-.0013	.0010	.0006	-.0004	.0062	.0002	.0005	.0008	-.0005
#3	-.0008	.0033	.0009	.0005	.0058	.0002	-.0004	.0003	.0003

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0096**
Stddev	.0001	.0003
%RSD	134.9	3.474
#1	.0000	.0098
#2	-.0002	.0092
#3	-.0001	.0098

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 14:10:18 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1134.3**	**2694.7**	**25667.**	**4073.9**
Stddev	1.7	7.7	199.	40.6
%RSD	.15097	.28447	.77556	.99653
#1	1135.5	2700.0	25634.	4082.4
#2	1135.1	2698.1	25487.	4109.7
#3	1132.3	2685.9	25881.	4029.8

Zoom In Zoom Out

Sample Name: MP42004-D1 Acquired: 3/27/2023 14:15:13 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.1196**	**-.0003**	**.0059**	**1.537**	**.0004**	**84.57**	**-.0014**	**.0004**
Stddev	.0000	.0019	.0002	.0006	.007	.0008	.91	.0003	.0002
%RSD	2.860	1.569	67.62	9.617	.4399	188.3	1.070	23.01	53.47
#1	-.0013	.1174	-.0001	.0066	1.535	.0006	84.84	-.0017	.0002
#2	-.0013	.1205	-.0003	.0056	1.545	.0011	85.31	-.0010	.0007
#3	-.0013	.1208	-.0005	.0055	1.532	-.0004	83.56	-.0014	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0009**	**.0066**	**.2172**	**1.777**	**.1136**	**.0540**	**.5900**	**.0069**	**9.499**
Stddev	.0001	.0001	.0013	.014	.0062	.0004	.0010	.0002	.013
%RSD	16.17	2.014	.5873	.8089	5.445	.8239	.1668	2.296	.1353
#1	.0010	.0067	.2184	1.780	.1206	.0539	.5903	.0068	9.507
#2	.0008	.0065	.2174	1.789	.1089	.0536	.5888	.0071	9.505
#3	.0010	.0065	.2159	1.761	.1114	.0545	.5907	.0068	9.484

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0061**	**.0059**	**.0006**	**.0003**	**1.694**	**.0003**	**2.877**	**.0019**	**-.0005**
Stddev	.0002	.0015	.0005	.0002	.003	.0001	.013	.0002	.0004
%RSD	3.301	24.66	76.17	51.73	.1911	30.39	.4508	12.28	73.76
#1	.0063	.0043	.0008	.0002	1.697	.0004	2.888	.0018	-.0001
#2	.0059	.0066	.0010	.0003	1.695	.0002	2.880	.0017	-.0008
#3	.0062	.0069	.0001	.0005	1.691	.0004	2.863	.0021	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0002**	**.0328**
Stddev	.0002	.0003
%RSD	96.19	.7835
#1	-.0001	.0328
#2	-.0001	.0330
#3	-.0003	.0325

Zoom In Zoom Out

Sample Name: MP42004-D1 Acquired: 3/27/2023 14:15:13 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**944.19**	**2493.1**	**23721.**	**4069.0**
Stddev	1.60	2.9	56.	31.8
%RSD	.16960	.11437	.23671	.78195
#1	945.73	2495.5	23783.	4056.9
#2	944.31	2490.0	23674.	4044.9
#3	942.54	2493.7	23706.	4105.1

Zoom In Zoom Out

Sample Name: MP42004-SD1 Acquired: 3/27/2023 14:20:14 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0209**	**-.0002**	**.0023**	**.2914**	**.0004**	**15.90**	**-.0009**	**-.0003**
Stddev	.0002	.0008	.0001	.0003	.0015	.0003	.04	.0002	.0001
%RSD	18.61	3.779	66.60	12.23	.5100	77.46	.2403	25.63	36.71
#1	-.0015	.0218	-.0003	.0026	.2917	.0006	15.87	-.0012	-.0004
#2	-.0010	.0205	-.0002	.0023	.2927	.0006	15.89	-.0007	-.0002
#3	-.0013	.0204	-.0001	.0020	.2898	.0000	15.95	-.0008	-.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**.0064**	**.0403**	**.3309**	**.0234**	**.0098**	**.1108**	**.0016**	**1.732**
Stddev	.0001	.0002	.0005	.0027	.0012	.0005	.0003	.0002	.004
%RSD	49.57	2.677	1.246	.8235	5.011	5.222	.2402	15.36	.2584
#1	.0004	.0065	.0402	.3323	.0236	.0092	.1105	.0018	1.730
#2	.0002	.0062	.0398	.3278	.0222	.0099	.1108	.0013	1.737
#3	.0002	.0066	.0408	.3327	.0245	.0102	.1111	.0017	1.730

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0019**	**.0005**	**.0005**	**.3175**	**.0002**	**.5311**	**.0037**	**-.0004**
Stddev	.0004	.0023	.0004	.0002	.0004	.0001	.0034	.0003	.0003
%RSD	200.2	119.6	76.25	44.49	.1329	42.46	.6404	7.804	82.17
#1	-.0001	-.0005	.0008	.0006	.3173	.0001	.5272	.0039	-.0008
#2	.0001	.0041	.0001	.0008	.3180	.0001	.5337	.0038	-.0004
#3	.0007	.0021	.0006	.0003	.3172	.0002	.5322	.0034	-.0001

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0002**	**.0071**
Stddev	.0001	.0001
%RSD	71.28	2.086
#1	.0000	.0073
#2	-.0003	.0070
#3	-.0002	.0070

Zoom In Zoom Out

Sample Name: MP42004-SD1 Acquired: 3/27/2023 14:20:14 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1059.9**	**2642.1**	**25089.**	**4086.1**
Stddev	4.5	7.9	107.	32.7
%RSD	.42462	.29935	.42614	.79973
#1	1064.3	2650.3	25074.	4121.8
#2	1060.2	2641.6	25203.	4078.8
#3	1055.3	2634.5	24991.	4057.7

Zoom In Zoom Out

Sample Name: MP42004-PS1 Acquired: 3/27/23 14:25:06 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0354**	**.4302**	**.0217**	**.0067**	**4.811**	**.4847**	**84.49**	**.2890**	**.1387**
Stddev	.0004	.0033	.0001	.0001	.012	.0021	.56	.0007	.0006
%RSD	1.110	.7574	.4638	2.235	.2532	.4232	.6629	.2580	.4286
#1	.0349	.4337	.0218	.0066	4.822	.4870	84.06	.2896	.1380
#2	.0357	.4273	.0216	.0065	4.812	.4839	85.13	.2882	.1391
#3	.0355	.4296	.0218	.0068	4.798	.4832	84.29	.2892	.1389

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0356**	**.0964**	**.9385**	**2.935**	**.1073**	**.2485**	**.7346**	**.1302**	**12.77**
Stddev	.0000	.0005	.0015	.011	.0025	.0016	.0017	.0006	.04
%RSD	.0935	.4696	.1572	.3879	2.342	.6525	.2345	.4507	.2840
#1	.0356	.0964	.9386	2.947	.1102	.2492	.7366	.1305	12.81
#2	.0356	.0960	.9399	2.930	.1056	.2497	.7340	.1296	12.77
#3	.0356	.0969	.9370	2.926	.1061	.2467	.7333	.1307	12.74

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1852**	**.0776**	**.0285**	**.0152**	**1.655**	**.0228**	**3.793**	**.2189**	**.0562**
Stddev	.0004	.0011	.0004	.0001	.002	.0002	.015	.0006	.0007
%RSD	.2139	1.468	1.422	.8723	.0941	.7964	.4062	.2594	1.286
#1	.1852	.0784	.0285	.0151	1.656	.0229	3.809	.2194	.0563
#2	.1857	.0781	.0281	.0152	1.654	.0226	3.792	.2183	.0569
#3	.1849	.0763	.0289	.0154	1.657	.0229	3.778	.2190	.0555

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0374**	**.8245**
Stddev	.0002	.0014
%RSD	.5295	.1735
#1	.0374	.8256
#2	.0375	.8229
#3	.0372	.8251

Zoom In Zoom Out

Sample Name: MP42004-PS1 Acquired: 3/27/23 14:25:06 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**934.08**	**2497.3**	**23654.**	**4048.9**
Stddev	4.12	.9	102.	23.8
%RSD	.44115	.03464	.42985	.58823
#1	930.98	2498.3	23550.	4056.4
#2	932.51	2496.5	23753.	4022.2
#3	938.76	2497.2	23658.	4068.1

Zoom In Zoom Out

Sample Name: MP42004-S1 Acquired: 3/27/23 14:29:56 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0358**	**3.757**	**.4591**	**.0111**	**30.76**	**.5317**	**91.39**	**.3123**	**1.475**
Stddev	.0006	.006	.0010	.0003	.07	.0036	1.68	.0005	.001
%RSD	1.552	.1491	.2082	2.518	.2142	.6808	1.838	.1468	.0800
#1	.0360	3.752	.4601	.0113	30.68	.5275	92.35	.3117	1.474
#2	.0363	3.756	.4582	.0111	30.81	.5337	92.37	.3126	1.475
#3	.0352	3.763	.4592	.0108	30.78	.5338	89.45	.3124	1.476

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1499**	**.2476**	**7.004**	**5.070**	**.1097**	**1.079**	**2.326**	**.6842**	**19.08**
Stddev	.0005	.0001	.016	.010	.0019	.003	.004	.0002	.09
%RSD	.3088	.0476	.2308	.1978	1.748	.2711	.1571	.0301	.4516
#1	.1502	.2475	6.991	5.058	.1118	1.076	2.326	.6841	18.98
#2	.1502	.2477	6.998	5.075	.1092	1.079	2.330	.6841	19.13
#3	.1494	.2476	7.022	5.076	.1080	1.082	2.323	.6845	19.12

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9618**	**.8150**	**.1475**	**.3285**	**1.778**	**.2405**	**14.07**	**1.171**	**1.233**
Stddev	.0012	.0038	.0003	.0003	.002	.0002	.04	.001	.001
%RSD	.1221	.4699	.2170	.1007	.1069	.1031	.2941	.0874	.0418
#1	.9632	.8190	.1474	.3289	1.778	.2408	14.03	1.170	1.233
#2	.9612	.8114	.1478	.3282	1.776	.2403	14.11	1.172	1.234
#3	.9610	.8146	.1472	.3285	1.780	.2404	14.09	1.171	1.233

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.4106**	**1.734**
Stddev	.0002	.002
%RSD	.0564	.0917
#1	.4103	1.736
#2	.4106	1.733
#3	.4108	1.735

Zoom In Zoom Out

Sample Name: MP42004-S1 Acquired: 3/27/23 14:29:56 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**901.07**	**2483.7**	**23501.**	**4025.0**
Stddev	1.95	.5	123.	18.7
%RSD	.21585	.01893	.52527	.46463
#1	899.03	2483.9	23422.	4018.9
#2	902.90	2484.0	23439.	4046.0
#3	901.28	2483.1	23643.	4010.1

Zoom In Zoom Out

Sample Name: MP42004-S2 Acquired: 3/27/2023 14:34:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0349**	**3.669**	**.4489**	**.0108**	**29.98**	**.5189**	**92.47**	**.3049**	**1.442**
Stddev	.0006	.008	.0005	.0017	.02	.0021	.06	.0010	.002
%RSD	1.679	.2295	.1019	15.77	.0514	.4098	.0616	.3265	.1484
#1	.0351	3.665	.4488	.0118	29.96	.5207	92.53	.3040	1.440
#2	.0354	3.662	.4485	.0117	29.98	.5193	92.42	.3060	1.444
#3	.0343	3.678	.4494	.0088	29.99	.5166	92.47	.3048	1.443

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1463**	**.2403**	**6.876**	**4.979**	**.1087**	**1.059**	**2.305**	**.6736**	**18.80**
Stddev	.0001	.0003	.008	.006	.0026	.003	.007	.0016	.05
%RSD	.0361	.1213	.1147	.1178	2.430	.3236	.3084	.2313	.2851
#1	.1463	.2402	6.884	4.986	.1109	1.062	2.299	.6730	18.86
#2	.1464	.2401	6.869	4.975	.1058	1.059	2.304	.6754	18.77
#3	.1463	.2406	6.875	4.976	.1095	1.055	2.313	.6724	18.77

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9387**	**.7931**	**.1434**	**.3200**	**1.771**	**.2362**	**13.94**	**1.148**	**1.205**
Stddev	.0020	.0030	.0006	.0000	.002	.0007	.03	.001	.006
%RSD	.2129	.3842	.4213	.0112	.1349	.3154	.2403	.0513	.5309
#1	.9386	.7914	.1431	.3200	1.769	.2355	13.97	1.148	1.198
#2	.9407	.7966	.1431	.3200	1.774	.2370	13.90	1.149	1.209
#3	.9368	.7912	.1441	.3200	1.770	.2363	13.93	1.149	1.209

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.3989**	**1.692**
Stddev	.0013	.003
%RSD	.3165	.1588
#1	.3996	1.692
#2	.3974	1.695
#3	.3996	1.690

Zoom In Zoom Out

Sample Name: MP42004-S2 Acquired: 3/27/2023 14:34:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**902.12**	**2489.7**	**23426.**	**4056.7**
Stddev	3.11	4.7	77.	17.5
%RSD	.34435	.18777	.32828	.43217
#1	905.00	2495.0	23464.	4040.1
#2	898.83	2486.6	23476.	4075.0
#3	902.54	2487.3	23337.	4054.9

Zoom In Zoom Out

Sample Name: FC3490-2 Acquired: 3/27/2023 14:39:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0040**	**.0038**	**-.0003**	**.0130**	**.8102**	**.0012**	**5.519**	**.0098**	**-.0007**
Stddev	.0002	.0010	.0003	.0004	.0043	.0004	.006	.0004	.0002
%RSD	5.510	27.44	96.64	3.358	.5256	33.54	.1084	4.364	32.52
#1	-.0041	.0038	-.0006	.0133	.8144	.0007	5.514	.0101	-.0009
#2	-.0037	.0049	-.0001	.0132	.8103	.0015	5.526	.0100	-.0007
#3	-.0041	.0028	-.0001	.0125	.8059	.0014	5.518	.0093	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0007**	**.0017**	**10.42**	**.4680**	**.0006**	**.3185**	**13.58**	**.0000**	**14.36**
Stddev	.0002	.0002	.01	.0018	.0028	.0004	.11	.0001	.03
%RSD	27.53	14.20	.0825	.3778	482.7	.1380	.8290	282.7	.2179
#1	.0005	.0018	10.42	.4692	.0025	.3180	13.45	-.0001	14.33
#2	.0009	.0015	10.43	.4688	-.0027	.3188	13.66	.0000	14.39
#3	.0007	.0019	10.42	.4660	.0019	.3187	13.62	.0002	14.35

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0053**	**.0060**	**.0004**	**.0009**	**4.189**	**.0003**	**1.840**	**.0044**	**.0020**
Stddev	.0003	.0002	.0002	.0003	.013	.0003	.008	.0002	.0007
%RSD	5.080	4.023	51.03	28.45	.3030	79.82	.4509	4.845	35.38
#1	-.0052	.0060	.0007	.0011	4.203	.0001	1.830	.0044	.0023
#2	-.0056	.0058	.0004	.0006	4.181	.0003	1.844	.0043	.0025
#3	-.0051	.0063	.0002	.0010	4.182	.0006	1.845	.0047	.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0080**	**.0185**
Stddev	.0001	.0003
%RSD	.7381	1.494
#1	-.0081	.0186
#2	-.0080	.0182
#3	-.0079	.0188

Zoom In Zoom Out

Sample Name: FC3490-2 Acquired: 3/27/2023 14:39:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1014.9**	**2615.4**	**24697.**	**4078.7**
Stddev	2.3	5.5	47.	15.3
%RSD	.22604	.21163	.19090	.37532
#1	1014.0	2610.4	24692.	4061.2
#2	1017.5	2621.3	24652.	4089.5
#3	1013.2	2614.5	24746.	4085.6

Zoom In Zoom Out

Sample Name: FC3490-3 Acquired: 3/27/2023 14:44:24 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0043**	**.0017**	**.0008**	**.0131**	**1.835**	**.0009**	**6.490**	**.0106**	**.0205**
Stddev	.0002	.0013	.0001	.0012	.009	.0004	.019	.0002	.0004
%RSD	4.399	77.86	11.92	8.867	.5003	41.81	.2916	1.657	1.996
#1	-.0045	.0006	.0009	.0119	1.834	.0005	6.490	.0108	.0206
#2	-.0045	.0012	.0007	.0142	1.844	.0012	6.509	.0104	.0209
#3	-.0041	.0031	.0008	.0132	1.826	.0011	6.471	.0106	.0201

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0009**	**.0016**	**11.09**	**.4704**	**.0018**	**.3196**	**16.13**	**.0007**	**11.03**
Stddev	.0001	.0001	.03	.0013	.0020	.0012	.12	.0000	.07
%RSD	8.362	5.073	.2425	.2728	110.6	.3749	.7593	4.655	.6340
#1	.0008	.0017	11.10	.4719	.0037	.3199	16.17	.0007	10.97
#2	.0009	.0015	11.11	.4698	.0018	.3207	16.22	.0008	11.11
#3	.0008	.0016	11.06	.4695	-.0002	.3183	15.99	.0007	11.02

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0053**	**.0055**	**.0007**	**.0011**	**4.108**	**.0004**	**2.283**	**.0039**	**.0025**
Stddev	.0001	.0017	.0003	.0001	.009	.0002	.012	.0002	.0003
%RSD	1.512	30.74	49.38	8.449	.2314	37.76	.5291	4.444	12.34
#1	-.0054	.0057	.0010	.0010	4.101	.0005	2.277	.0037	.0029
#2	-.0053	.0037	.0003	.0012	4.104	.0002	2.297	.0040	.0024
#3	-.0054	.0071	.0007	.0010	4.119	.0006	2.275	.0039	.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0100**	**.0122**
Stddev	.0002	.0003
%RSD	1.841	2.597
#1	-.0098	.0125
#2	-.0102	.0119
#3	-.0100	.0123

Zoom In Zoom Out

Sample Name: FC3490-3 Acquired: 3/27/2023 14:44:24 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1020.9**	**2629.2**	**24738.**	**4052.3**
Stddev	1.8	5.9	135.	19.9
%RSD	.17653	.22440	.54673	.49167
#1	1022.6	2635.1	24655.	4051.6
#2	1019.0	2629.3	24665.	4072.6
#3	1021.0	2623.3	24894.	4032.8

Zoom In Zoom Out

Sample Name: FC3490-4 Acquired: 3/27/2023 14:49:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0030**	**.0130**	**.0000**	**.0104**	**1.407**	**.0013**	**7.818**	**.0047**	**.0001**
Stddev	.0004	.0011	.0002	.0009	.002	.0006	.007	.0001	.0001
%RSD	14.61	8.663	417.0	8.900	.1094	42.59	.0919	1.991	45.86
#1	-.0034	.0117	.0001	.0100	1.405	.0010	7.826	.0048	.0002
#2	-.0031	.0139	-.0001	.0114	1.407	.0020	7.815	.0046	.0001
#3	-.0025	.0133	.0002	.0097	1.408	.0010	7.812	.0048	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0010**	**.0035**	**6.265**	**.8535**	**-.0002**	**.2947**	**10.97**	**.0005**	**13.67**
Stddev	.0001	.0001	.009	.0020	.0015	.0019	.10	.0002	.04
%RSD	10.72	2.564	.1359	.2368	612.0	.6527	.8927	44.15	.3220
#1	.0011	.0035	6.273	.8548	.0006	.2950	10.91	.0006	13.62
#2	.0009	.0034	6.256	.8512	-.0020	.2926	10.91	.0005	13.67
#3	.0009	.0036	6.267	.8546	.0007	.2964	11.08	.0002	13.71

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0028**	**.0053**	**.0004**	**.0008**	**3.794**	**.0007**	**1.946**	**.0102**	**.0016**
Stddev	.0003	.0004	.0003	.0005	.004	.0001	.005	.0002	.0010
%RSD	12.46	8.387	86.80	63.03	.1010	21.78	.2379	1.588	61.09
#1	-.0030	.0057	.0001	.0013	3.791	.0008	1.943	.0103	.0027
#2	-.0030	.0048	.0003	.0003	3.792	.0005	1.951	.0102	.0016
#3	-.0024	.0052	.0008	.0007	3.798	.0007	1.943	.0100	.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0055**	**.2345**
Stddev	.0001	.0003
%RSD	1.155	.1391
#1	-.0055	.2343
#2	-.0054	.2344
#3	-.0055	.2349

Zoom In Zoom Out

Sample Name: FC3490-4 Acquired: 3/27/2023 14:49:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1013.2**	**2592.2**	**24517.**	**4030.7**
Stddev	1.7	5.3	70.	9.5
%RSD	.16899	.20480	.28363	.23627
#1	1013.1	2593.4	24553.	4026.9
#2	1014.9	2596.8	24560.	4041.5
#3	1011.5	2586.4	24436.	4023.7

Sample Name: FC3490-5 Acquired: 3/27/2023 14:54:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0210**	**-.0002**	**.0028**	**1.518**	**.0007**	**10.63**	**-.0008**	**.0503**
Stddev	.0001	.0013	.0001	.0008	.007	.0003	.01	.0004	.0002
%RSD	12.28	6.027	42.48	29.40	.4838	47.93	.1401	52.43	.4560
#1	-.0013	.0218	-.0001	.0021	1.527	.0011	10.62	-.0011	.0505
#2	-.0012	.0196	-.0002	.0037	1.513	.0007	10.65	-.0003	.0500
#3	-.0010	.0218	-.0002	.0027	1.514	.0004	10.62	-.0009	.0502

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0009**	**.0087**	**.3170**	**.2239**	**.0115**	**.6984**	**5.690**	**.0024**	**17.93**
Stddev	.0002	.0002	.0019	.0014	.0044	.0004	.015	.0002	.05
%RSD	17.64	2.767	.5950	.6095	38.26	.0523	.2572	8.031	.2561
#1	.0008	.0089	.3178	.2238	.0160	.6988	5.675	.0024	17.96
#2	.0007	.0085	.3183	.2226	.0112	.6982	5.704	.0023	17.95
#3	.0010	.0087	.3148	.2253	.0072	.6982	5.689	.0027	17.88

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0033**	**.0045**	**.0005**	**.0011**	**3.812**	**.0004**	**5.568**	**.0148**	**.0015**
Stddev	.0006	.0007	.0002	.0001	.003	.0000	.017	.0006	.0011
%RSD	18.78	14.94	48.09	12.05	.0887	9.451	.3081	3.784	75.99
#1	.0040	.0050	.0007	.0011	3.808	.0005	5.564	.0145	.0027
#2	.0029	.0037	.0005	.0013	3.813	.0004	5.587	.0155	.0005
#3	.0031	.0047	.0002	.0010	3.814	.0005	5.554	.0145	.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0008**	**1.931**
Stddev	.0002	.006
%RSD	29.40	.2953
#1	.0010	1.930
#2	.0007	1.937
#3	.0006	1.926

Sample Name: FC3490-5 Acquired: 3/27/2023 14:54:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**994.74**	**2568.4**	**24283.**	**4022.8**
Stddev	3.50	5.1	101.	18.9
%RSD	.35216	.19675	.41563	.47016
#1	991.60	2563.8	24392.	4020.4
#2	994.10	2567.5	24192.	4042.8
#3	998.52	2573.8	24266.	4005.2

Sample Name: FC3490-6 Acquired: 3/27/2023 14:59:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0044**	**.0039**	**.0000**	**.0126**	**.8087**	**-.0001**	**5.579**	**.0095**	**-.0006**
Stddev	.0003	.0019	.000	.0000	.0024	.0002	.006	.0002	.0002
%RSD	5.760	47.80	367.0	.1040	.3016	169.6	.1106	1.884	32.16
#1	-.0042	.0060	-.0002	.0126	.8092	-.0004	5.572	.0097	-.0005
#2	-.0043	.0028	.0001	.0126	.8060	.0001	5.582	.0094	-.0009
#3	-.0047	.0028	.0000	.0126	.8108	-.0002	5.584	.0094	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0007**	**.0018**	**10.41**	**.4697**	**.0041**	**.3198**	**13.61**	**.0000**	**14.51**
Stddev	.0001	.0003	.00	.0028	.0020	.0009	.16	.000	.01
%RSD	7.292	15.63	.0451	.6021	48.40	.2965	1.152	130.9	.0608
#1	.0008	.0017	10.41	.4664	.0053	.3189	13.73	.0000	14.51
#2	.0007	.0016	10.41	.4710	.0053	.3208	13.66	-.0001	14.52
#3	.0008	.0021	10.42	.4716	.0018	.3196	13.43	.0000	14.50

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0049**	**.0092**	**.0007**	**.0010**	**4.203**	**.0003**	**1.870**	**.0045**	**.0017**
Stddev	.0004	.0007	.0003	.0003	.009	.0001	.005	.0002	.0005
%RSD	8.715	7.456	45.30	33.45	.2176	41.99	.2650	5.066	31.34
#1	-.0052	.0089	.0008	.0007	4.213	.0002	1.872	.0046	.0022
#2	-.0051	.0100	.0004	.0009	4.198	.0005	1.873	.0046	.0018
#3	-.0044	.0087	.0010	.0014	4.196	.0003	1.864	.0042	.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0082**	**.0145**
Stddev	.0001	.0001
%RSD	1.073	.6402
#1	-.0082	.0145
#2	-.0081	.0144
#3	-.0082	.0146

Sample Name: FC3490-6 Acquired: 3/27/2023 14:59:12 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1010.8**	**2591.6**	**24563.**	**4002.9**
Stddev	.6	4.0	124.	14.6
%RSD	.05559	.15510	.50476	.36595
#1	1011.3	2588.2	24470.	4011.7
#2	1010.2	2596.0	24514.	3986.0
#3	1010.8	2590.5	24704.	4011.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 15:04:11 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1817**	**5.294**	**.4641**	**.7684**	**28.69**	**21.12**	**17.41**	**12.52**	**5.963**
Stddev	.0006	.039	.0005	.0062	.09	.05	.06	.01	.004
%RSD	.3258	.7278	.1084	.8055	.3060	.2398	.3650	.0787	.0657
#1	.1823	5.331	.4640	.7697	28.77	21.12	17.44	12.53	5.962
#2	.1811	5.254	.4636	.7739	28.60	21.08	17.33	12.52	5.960
#3	.1817	5.295	.4646	.7617	28.72	21.18	17.44	12.51	5.967

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.478**	**1.901**	**10.48**	**5.284**	**4.981**	**1.680**	**7.135**	**2.731**	**16.90**
Stddev	.001	.004	.05	.023	.022	.010	.016	.002	.06
%RSD	.0392	.1991	.4546	.4269	.4527	.5985	.2205	.0707	.3542
#1	1.479	1.900	10.51	5.305	4.985	1.689	7.137	2.733	16.96
#2	1.478	1.898	10.43	5.261	4.956	1.669	7.149	2.730	16.84
#3	1.479	1.906	10.52	5.287	5.001	1.681	7.118	2.730	16.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.872**	**3.273**	**.6026**	**.3323**	**.8214**	**.9780**	**44.82**	**4.657**	**1.289**
Stddev	.005	.009	.0015	.0008	.0011	.0024	.12	.001	.004
%RSD	.1266	.2766	.2446	.2348	.1369	.2451	.2640	.0285	.3199
#1	3.876	3.280	.6028	.3318	.8224	.9807	44.73	4.657	1.292
#2	3.866	3.276	.6010	.3332	.8202	.9762	44.78	4.655	1.289
#3	3.873	3.262	.6039	.3319	.8217	.9770	44.95	4.658	1.284

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.629**	**6.987**
Stddev	.004	.008
%RSD	.2617	.1189
#1	1.627	6.996
#2	1.626	6.980
#3	1.634	6.984

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 15:04:11 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**915.60**	**2504.0**	**23702.**	**3987.5**
Stddev	2.67	2.1	66.	46.4
%RSD	.29141	.08428	.27922	1.1631
#1	914.20	2504.0	23652.	3978.3
#2	913.92	2501.8	23678.	4037.8
#3	918.68	2506.0	23777.	3946.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 15:08:44 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**-.0015**	**-.0002**	**.0019**	**.0130**	**.0007**	**.0012**	**-.0008**	**-.0004**
Stddev	.0004	.0003	.0002	.0005	.0013	.0001	.0004	.0001	.0001
%RSD	26.20	20.81	140.1	26.89	9.768	15.89	34.42	11.60	31.85
#1	-.0016	-.0012	.0001	.0024	.0119	.0008	.0017	-.0009	-.0003
#2	-.0010	-.0016	-.0004	.0019	.0127	.0007	.0010	-.0007	-.0004
#3	-.0015	-.0018	-.0003	.0014	.0144	.0006	.0009	-.0008	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0066**	**.0007**	**.0018**	**-.0015**	**-.0009**	**.0003**	**.0011**	**-.0315**
Stddev	.0001	.0002	.0002	.0012	.0012	.0005	.0000	.0004	.0022
%RSD	57.91	2.514	30.74	68.05	76.59	61.24	13.64	36.02	7.138
#1	.0002	.0067	.0006	.0017	-.0002	-.0003	.0003	.0015	-.0329
#2	.0001	.0067	.0010	.0030	-.0023	-.0008	.0003	.0007	-.0326
#3	.0001	.0064	.0006	.0006	-.0021	-.0014	.0004	.0013	-.0289

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0032**	**.0008**	**.0005**	**.0058**	**.0002**	**.0011**	**.0007**	**-.0005**
Stddev	.0002	.0005	.0003	.0003	.0001	.0001	.0002	.0004	.0000
%RSD	16.79	17.02	32.51	56.44	1.151	83.66	19.75	54.96	8.803
#1	-.0011	.0028	.0005	.0006	.0057	.0003	.0011	.0012	-.0004
#2	-.0014	.0030	.0010	.0002	.0059	.0001	.0009	.0007	-.0004
#3	-.0015	.0038	.0009	.0007	.0057	.0001	.0014	.0004	-.0005

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0000**	**.0086**
Stddev	.000	.0001
%RSD	533.2	1.744
#1	-.0001	.0084
#2	.0001	.0086
#3	-.0002	.0087

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 15:08:44 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.8**	**2715.4**	**25594.**	**4071.5**
Stddev	4.0	2.4	124.	17.9
%RSD	.35205	.08922	.48273	.44040
#1	1141.4	2717.1	25679.	4082.8
#2	1133.7	2712.6	25650.	4080.9
#3	1135.4	2716.5	25452.	4050.8

Zoom In Zoom Out

Sample Name: FC3364-1 Acquired: 3/27/2023 15:13:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0009**	**-.0003**	**.0056**	**.2242**	**.0008**	**23.29**	**-.0012**	**-.0005**
Stddev	.0004	.0015	.0001	.0009	.0030	.0007	.03	.0002	.0001
%RSD	33.49	157.5	34.00	15.69	1.329	77.80	.1309	19.76	22.51
#1	-.0012	-.0002	-.0004	.0046	.2210	.0010	23.31	-.0014	-.0005
#2	-.0013	.0004	-.0002	.0064	.2269	.0001	23.26	-.0009	-.0007
#3	-.0007	.0026	-.0002	.0056	.2247	.0014	23.31	-.0012	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0007**	**.0063**	**.0054**	**.0939**	**.0062**	**.4242**	**.0020**	**.0010**	**2.333**
Stddev	.0001	.0002	.0010	.0019	.0033	.0012	.0001	.0002	.005
%RSD	21.25	2.603	17.76	2.026	53.59	.2911	4.489	21.71	.2114
#1	.0008	.0063	.0063	.0922	.0035	.4255	.0021	.0012	2.336
#2	.0005	.0064	.0055	.0934	.0099	.4230	.0019	.0010	2.337
#3	.0006	.0061	.0044	.0960	.0052	.4242	.0019	.0008	2.328

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0028**	**.0003**	**.0008**	**1.206**	**.0003**	**1.400**	**.0039**	**-.0008**
Stddev	.0002	.0009	.0002	.0002	.001	.0001	.003	.0001	.0001
%RSD	18.66	30.54	73.43	28.50	.0930	36.85	.1877	1.881	19.15
#1	-.0011	.0023	.0003	.0007	1.207	.0004	1.403	.0038	-.0006
#2	-.0015	.0024	.0005	.0011	1.205	.0002	1.398	.0039	-.0008
#3	-.0012	.0038	.0001	.0007	1.206	.0003	1.400	.0039	-.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0000**	**.0048**
Stddev	.0002	.0003
%RSD	992.5	5.779
#1	-.0001	.0049
#2	.0002	.0050
#3	-.0001	.0045

Zoom In Zoom Out

Sample Name: FC3364-1 Acquired: 3/27/2023 15:13:40 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1017.9**	**2630.5**	**24750.**	**4038.9**
Stddev	4.0	6.3	85.	16.6
%RSD	.39335	.23839	.34277	.41025
#1	1013.5	2624.3	24733.	4020.6
#2	1021.2	2636.9	24842.	4043.5
#3	1019.0	2630.3	24675.	4052.7

Zoom In Zoom Out

Sample Name: FC3662-1F Acquired: 3/27/2023 15:18:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0015**	**-.0003**	**.0039**	**.4935**	**.0006**	**2.542**	**-.0006**	**.0249**
Stddev	.0004	.0010	.0003	.0009	.0077	.0001	.025	.0002	.0001
%RSD	40.45	68.03	110.9	22.12	1.566	8.800	.9920	28.17	.6015
#1	-.0008	.0004	-.0003	.0030	.4847	.0005	2.513	-.0006	.0250
#2	-.0008	.0018	-.0006	.0048	.4992	.0006	2.561	-.0004	.0249
#3	-.0016	.0023	.0000	.0039	.4966	.0006	2.552	-.0008	.0247

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0006**	**.0059**	**.4430**	**.3579**	**.0046**	**.1462**	**6.802**	**.0007**	**2.714**
Stddev	.0003	.0002	.0040	.0021	.0073	.0018	.005	.0003	.033
%RSD	40.10	3.816	.9054	.5937	159.5	1.203	.0675	47.33	1.212
#1	.0005	.0061	.4386	.3559	-.0012	.1446	6.808	.0011	2.677
#2	.0009	.0057	.4465	.3601	.0128	.1481	6.800	.0007	2.741
#3	.0004	.0059	.4439	.3575	.0021	.1460	6.799	.0004	2.723

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0031**	**.0001**	**.0009**	**2.095**	**.0254**	**1.174**	**.0023**	**.0009**
Stddev	.0003	.0003	.0003	.0003	.003	.0002	.015	.0005	.0002
%RSD	23.36	8.462	177.8	37.29	.1559	.6968	1.244	19.82	26.93
#1	-.0013	.0034	.0005	.0005	2.099	.0255	1.157	.0028	.0006
#2	-.0013	.0029	.0000	.0011	2.094	.0254	1.183	.0019	.0010
#3	-.0008	.0030	.0000	.0011	2.093	.0252	1.181	.0023	.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0041**	**.0615**
Stddev	.0004	.0001
%RSD	10.18	.0908
#1	-.0036	.0615
#2	-.0043	.0616
#3	-.0043	.0615

Zoom In Zoom Out

Sample Name: FC3662-1F Acquired: 3/27/2023 15:18:34 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1066.9**	**2713.9**	**25401.**	**4155.1**
Stddev	3.0	1.3	49.	43.6
%RSD	.28152	.04802	.19098	1.0497
#1	1067.6	2712.5	25349.	4205.2
#2	1063.7	2714.0	25410.	4133.5
#3	1069.6	2715.1	25445.	4126.4

Sample Name: FC3662-2F Acquired: 3/27/2023 15:23:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0013**	**-.0003**	**.0107**	**.7523**	**.0029**	**1.483**	**-.0013**	**-.0006**
Stddev	.0000	.0014	.0001	.0006	.0070	.0001	.003	.0003	.0003
%RSD	.3263	106.6	54.82	5.684	.9247	1.835	.1668	18.75	60.29
#1	-.0011	.0006	-.0002	.0107	.7554	.0029	1.486	-.0011	-.0002
#2	-.0011	.0029	-.0004	.0101	.7571	.0029	1.481	-.0014	-.0009
#3	-.0011	.0004	-.0002	.0113	.7443	.0028	1.483	-.0015	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0005**	**.0067**	**.0021**	**.3619**	**.0280**	**.0553**	**.1213**	**.0006**	**4.212**
Stddev	.0002	.0002	.0005	.0010	.0025	.0005	.0003	.0004	.011
%RSD	45.86	3.619	24.40	.2897	8.763	.9108	.2277	59.40	.2626
#1	.0006	.0067	.0021	.3630	.0279	.0559	.1210	.0008	4.221
#2	.0007	.0064	.0015	.3609	.0256	.0550	.1214	.0010	4.215
#3	.0002	.0069	.0025	.3618	.0305	.0551	.1215	.0002	4.199

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0033**	**.0005**	**.0005**	**4.898**	**.0004**	**.9532**	**.0011**	**-.0011**
Stddev	.0002	.0007	.0003	.0001	.013	.0002	.0024	.0004	.0005
%RSD	13.42	20.74	62.34	14.49	.2606	43.09	.2524	40.00	43.27
#1	-.0016	.0031	.0004	.0005	4.899	.0004	.9559	.0008	-.0011
#2	-.0012	.0028	.0007	.0006	4.910	.0003	.9514	.0016	-.0006
#3	-.0013	.0041	.0002	.0005	4.884	.0006	.9522	.0009	-.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0001**	**.0608**
Stddev	.0003	.0003
%RSD	175.4	.5228
#1	-.0001	.0605
#2	.0001	.0611
#3	.0004	.0607

Sample Name: FC3662-2F Acquired: 3/27/2023 15:23:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1063.4**	**2700.6**	**25496.**	**4108.5**
Stddev	1.8	7.8	117.	35.1
%RSD	.16849	.28815	.45725	.85375
#1	1063.6	2707.8	25565.	4124.1
#2	1065.1	2692.4	25361.	4133.1
#3	1061.5	2701.7	25561.	4068.4

Sample Name: FC3647-1 Acquired: 3/27/2023 15:28:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**.0637**	**-.0001**	**.1158**	**.2376**	**.0006**	**64.71**	**-.0003**	**.0035**
Stddev	.0000	.0002	.0002	.0012	.0044	.0009	.22	.0001	.0005
%RSD	1.536	.3426	196.3	1.058	1.840	160.8	.3357	39.81	14.68
#1	-.0010	.0635	-.0002	.1145	.2337	-.0004	64.48	-.0003	.0041
#2	-.0010	.0639	-.0002	.1162	.2423	.0007	64.77	-.0005	.0035
#3	-.0010	.0636	.0001	.1168	.2369	.0014	64.90	-.0002	.0030

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0012**	**.3303**	**.0327**	**15.86**	**.0456**	**.5553**	**6.327**	**.0154**	**4.762**
Stddev	.0002	.0007	.0005	.05	.0024	.0034	.022	.0003	.034
%RSD	13.83	.2233	1.682	.2923	5.186	.6120	.3507	1.644	.7154
#1	.0012	.3309	.0320	15.82	.0447	.5517	6.344	.0152	4.723
#2	.0013	.3306	.0330	15.87	.0438	.5556	6.334	.0157	4.783
#3	.0010	.3295	.0329	15.91	.0483	.5585	6.302	.0155	4.781

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0371**	**.0039**	**.0011**	**.0008**	**.8919**	**.0002**	**11.50**	**.0038**	**.0015**
Stddev	.0002	.0011	.0003	.0003	.0032	.0001	.07	.0002	.0011
%RSD	.4693	29.47	29.94	35.17	.3586	79.56	.5863	4.140	71.34
#1	.0373	.0026	.0011	.0006	.8931	.0002	11.43	.0039	.0010
#2	.0371	.0047	.0008	.0006	.8944	.0000	11.54	.0036	.0008
#3	.0370	.0044	.0015	.0011	.8883	.0003	11.54	.0039	.0027

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0024**	**.4448**
Stddev	.0002	.0026
%RSD	7.750	.5784
#1	-.0024	.4457
#2	-.0025	.4468
#3	-.0022	.4419

Sample Name: FC3647-1 Acquired: 3/27/2023 15:28:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**922.16**	**2511.0**	**23678.**	**4072.8**
Stddev	3.13	4.2	182.	18.0
%RSD	.33974	.16732	.76731	.44120
#1	924.41	2509.9	23527.	4052.1
#2	918.58	2507.5	23627.	4081.3
#3	923.49	2515.7	23880.	4084.9

Zoom In Zoom Out

Sample Name: FC3655-3 Acquired: 3/27/2023 15:33:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**-.0003**	**.0002**	**.2209**	**.3964**	**.0004**	**65.72**	**-.0017**	**-.0007**
Stddev	.0003	.0016	.0001	.0022	.0015	.0002	.32	.0004	.0003
%RSD	22.99	512.2	40.33	1.008	.3816	60.70	.4797	23.09	44.68
#1	-.0012	.0007	.0002	.2183	.3963	.0004	65.99	-.0013	-.0010
#2	-.0011	-.0021	.0001	.2222	.3980	.0001	65.81	-.0019	-.0004
#3	-.0017	.0005	.0002	.2221	.3950	.0006	65.37	-.0020	-.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0006**	**.0159**	**.0138**	**.6056**	**.1559**	**2.905**	**.0238**	**.3015**	**58.74**
Stddev	.0002	.0002	.0001	.0046	.0008	.020	.0001	.0016	1.62
%RSD	24.65	1.541	.5385	.7572	.5018	.6775	.5662	.5273	2.765
#1	.0008	.0158	.0137	.6094	.1550	2.924	.0240	.3002	60.34
#2	.0005	.0158	.0137	.6068	.1565	2.906	.0237	.3011	57.09
#3	.0006	.0162	.0139	.6005	.1561	2.885	.0238	.3033	58.79

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0058**	**.0047**	**.0003**	**.0007**	**3.921**	**.0002**	**52.88**	**.0025**	**-.0015**
Stddev	.0001	.0014	.0004	.0001	.024	.0001	.19	.0003	.0009
%RSD	2.266	30.73	141.4	19.21	.6031	72.95	.3556	11.91	59.82
#1	.0059	.0040	.0008	.0009	3.894	.0001	53.08	.0027	-.0018
#2	.0057	.0063	.0002	.0007	3.929	.0001	52.83	.0021	-.0005
#3	.0057	.0037	-.0001	.0006	3.939	.0003	52.71	.0025	-.0022

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0022**	**.0542**
Stddev	.0003	.0003
%RSD	12.66	.4970
#1	.0024	.0541
#2	.0019	.0540
#3	.0024	.0545

Zoom In Zoom Out

Sample Name: FC3655-3 Acquired: 3/27/2023 15:33:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**880.64**	**2417.6**	**22832.**	**3996.7**
Stddev	4.51	10.5	95.	43.7
%RSD	.51225	.43267	.41495	1.0928
#1	885.71	2429.5	22756.	3948.6
#2	877.09	2409.9	22800.	4007.5
#3	879.11	2413.4	22938.	4033.9

Zoom In Zoom Out

Sample Name: FC3662-1 Acquired: 3/27/2023 15:38:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0009**	**-.0003**	**.0051**	**.5288**	**.0015**	**2.634**	**.0002**	**.0262**
Stddev	.0003	.0024	.0001	.0006	.0018	.0004	.003	.0004	.0003
%RSD	20.47	277.7	45.30	12.34	.3371	24.59	.1279	150.6	1.277
#1	-.0013	-.0014	-.0003	.0056	.5269	.0019	2.637	.0003	.0264
#2	-.0011	.0033	-.0005	.0044	.5305	.0014	2.631	-.0001	.0264
#3	-.0017	.0007	-.0002	.0053	.5289	.0012	2.635	.0006	.0258

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0005**	**.0055**	**1.647**	**.3824**	**.0016**	**.1536**	**6.973**	**.0006**	**2.850**
Stddev	.0002	.0001	.003	.0040	.0024	.0012	.033	.0002	.006
%RSD	41.28	1.199	.2089	1.047	145.4	.7495	.4656	32.77	.2271
#1	.0004	.0055	1.645	.3796	-.0007	.1527	6.940	.0008	2.853
#2	.0007	.0056	1.646	.3805	.0040	.1531	7.005	.0004	2.843
#3	.0003	.0055	1.651	.3870	.0016	.1549	6.975	.0007	2.855

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0033**	**-.0001**	**.0006**	**2.266**	**.0284**	**1.226**	**.0020**	**.0010**
Stddev	.0003	.0006	.0001	.0003	.003	.0002	.004	.0005	.0002
%RSD	21.80	18.70	167.3	46.15	.1447	.6191	.3546	22.35	19.07
#1	-.0015	.0035	-.0001	.0006	2.270	.0285	1.230	.0016	.0009
#2	-.0016	.0038	-.0002	.0003	2.264	.0282	1.221	.0025	.0009
#3	-.0010	.0026	.0001	.0008	2.266	.0286	1.227	.0020	.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0043**	**.0575**
Stddev	.0003	.0004
%RSD	6.001	.6171
#1	-.0040	.0574
#2	-.0045	.0572
#3	-.0045	.0579

Zoom In Zoom Out

Sample Name: FC3662-1 Acquired: 3/27/2023 15:38:07 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1069.4**	**2695.2**	**25365.**	**4144.5**
Stddev	3.3	7.9	205.	55.3
%RSD	.30674	.29246	.80985	1.3353
#1	1066.7	2690.4	25487.	4126.5
#2	1073.1	2704.3	25128.	4206.6
#3	1068.5	2690.9	25480.	4100.4

Zoom In Zoom Out

Sample Name: FC3662-2 Acquired: 3/27/2023 15:43:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**-.0006**	**-.0002**	**.0107**	**.7563**	**.0040**	**1.477**	**-.0012**	**-.0007**
Stddev	.0004	.0018	.0002	.0006	.0029	.0006	.005	.0004	.0001
%RSD	41.03	320.6	88.30	5.159	.3840	14.91	.3368	32.91	8.965
#1	-.0008	-.0005	-.0002	.0104	.7581	.0040	1.478	-.0009	-.0006
#2	-.0006	-.0024	-.0004	.0113	.7529	.0034	1.471	-.0010	-.0007
#3	-.0013	.0012	.0000	.0104	.7578	.0046	1.480	-.0016	-.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0006**	**.0067**	**.0012**	**.3690**	**.0282**	**.0556**	**.1206**	**.0005**	**4.230**
Stddev	.0001	.0001	.0003	.0025	.0007	.0010	.0001	.0003	.012
%RSD	22.27	2.059	25.48	.6808	2.489	1.883	.0964	66.33	.2728
#1	.0007	.0068	.0014	.3662	.0290	.0552	.1205	.0002	4.243
#2	.0005	.0066	.0014	.3711	.0279	.0548	.1207	.0004	4.222
#3	.0005	.0066	.0009	.3696	.0277	.0568	.1205	.0008	4.225

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0045**	**.0003**	**.0005**	**4.977**	**.0004**	**.9501**	**.0012**	**-.0006**
Stddev	.0004	.0004	.0001	.0004	.004	.0003	.0040	.0001	.0003
%RSD	30.00	9.697	53.03	78.39	.0884	64.95	.4174	9.789	57.19
#1	-.0019	.0045	.0003	.0009	4.978	.0003	.9459	.0013	-.0005
#2	-.0013	.0041	.0004	.0001	4.981	.0007	.9507	.0011	-.0003
#3	-.0011	.0050	.0001	.0004	4.972	.0002	.9537	.0011	-.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0001**	**.0623**
Stddev	.0002	.0002
%RSD	196.4	.3031
#1	.0002	.0623
#2	.0001	.0622
#3	-.0001	.0626

Zoom In Zoom Out

Sample Name: FC3662-2 Acquired: 3/27/2023 15:43:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1067.3**	**2680.4**	**25380.**	**4096.4**
Stddev	3.8	8.7	49.	9.9
%RSD	.35246	.32427	.19171	.24181
#1	1070.5	2687.3	25428.	4102.6
#2	1063.2	2670.6	25382.	4101.6
#3	1068.2	2683.3	25330.	4085.0

Zoom In Zoom Out

Sample Name: FC3664-1 Acquired: 3/27/2023 15:47:53 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0259**	**-.0002**	**3.278**	**.5338**	**.0004**	**25.78**	**.0009**	**.0396**
Stddev	.0003	.0015	.0003	.049	.0075	.0006	.11	.0001	.0003
%RSD	2135.	5.610	170.6	1.489	1.409	146.9	.4337	15.90	.7596
#1	-.0003	.0251	.0001	3.318	.5370	.0005	25.66	.0008	.0399
#2	.0002	.0250	-.0006	3.293	.5391	.0010	25.87	.0008	.0396
#3	.0002	.0276	-.0002	3.224	.5252	-.0002	25.81	.0010	.0393

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0197**	**.0063**	**2.637**	**91.23**	**.0287**	**.8212**	**.3948**	**.0200**	**63.30**
Stddev	.0002	.0003	.012	.58	.0023	.0021	.0001	.0001	.22
%RSD	1.013	4.705	.4492	.6411	8.090	.2530	.0335	.7488	.3502
#1	.0198	.0063	2.624	90.90	.0261	.8212	.3948	.0199	63.52
#2	.0194	.0065	2.646	90.88	.0306	.8233	.3947	.0199	63.29
#3	.0197	.0059	2.640	91.91	.0294	.8192	.3950	.0201	63.08

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0127**	**.0099**	**.0008**	**.0010**	**10.10**	**.0003**	**8.895**	**.0046**	**-.0018**
Stddev	.0004	.0006	.0001	.0004	.04	.0002	.050	.0001	.0010
%RSD	3.276	6.222	11.60	43.23	.3581	70.13	.5583	2.988	53.39
#1	.0122	.0101	.0008	.0008	10.11	.0004	8.849	.0045	-.0024
#2	.0130	.0092	.0009	.0006	10.06	.0005	8.889	.0047	-.0024
#3	.0129	.0103	.0007	.0014	10.12	.0001	8.947	.0045	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0060**	**.0489**
Stddev	.0001	.0001
%RSD	1.514	.1107
#1	.0059	.0489
#2	.0059	.0489
#3	.0061	.0490

Zoom In Zoom Out

Sample Name: FC3664-1 Acquired: 3/27/2023 15:47:53 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.93**	**2376.9**	**22028.**	**4104.9**
Stddev	2.26	5.8	31.	53.1
%RSD	.27074	.24220	.14080	1.2935
#1	834.37	2372.7	22034.	4160.2
#2	838.52	2383.4	22055.	4100.4
#3	834.88	2374.4	21994.	4054.3

Zoom In Zoom Out

Sample Name: FC3664-3 Acquired: 3/27/2023 15:53:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0068**	**.0084**	**.0000**	**.3231**	**.3069**	**.0011**	**27.05**	**-.0024**	**.2356**
Stddev	.0003	.0009	.000	.0037	.0032	.0009	.11	.0001	.0007
%RSD	3.677	11.05	634.8	1.130	1.053	85.25	.4107	3.416	.2949
#1	.0071	.0094	-.0002	.3236	.3055	.0019	27.16	-.0025	.2354
#2	.0066	.0075	.0001	.3265	.3105	.0011	26.94	-.0023	.2351
#3	.0067	.0084	.0001	.3193	.3045	.0001	27.06	-.0024	.2364

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0819**	**.0097**	**.0714**	**129.9**	**.0319**	**.6634**	**.0949**	**.0387**	**28.82**
Stddev	.0002	.0003	.0008	1.8	.0028	.0038	.0003	.0003	.14
%RSD	.2775	2.637	1.160	1.377	8.854	.5795	.3686	.7827	.4864
#1	.0821	.0094	.0723	131.9	.0343	.6672	.0945	.0390	28.93
#2	.0819	.0098	.0707	128.9	.0326	.6595	.0949	.0384	28.66
#3	.0817	.0098	.0710	128.8	.0288	.6635	.0952	.0388	28.86

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0473**	**.0068**	**.0011**	**.0009**	**13.50**	**.0004**	**9.442**	**.0086**	**-.0019**
Stddev	.0004	.0005	.0001	.0003	.03	.0002	.060	.0002	.0005
%RSD	.8088	7.358	13.21	33.13	.2485	40.96	.6348	2.213	25.48
#1	.0477	.0066	.0012	.0007	13.48	.0004	9.507	.0084	-.0025
#2	.0473	.0064	.0009	.0012	13.48	.0003	9.390	.0086	-.0015
#3	.0469	.0073	.0011	.0008	13.54	.0006	9.429	.0087	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0032**	**.0367**
Stddev	.0002	.0002
%RSD	6.677	.6388
#1	.0032	.0369
#2	.0030	.0368
#3	.0034	.0365

Zoom In Zoom Out

Sample Name: FC3664-3 Acquired: 3/27/2023 15:53:00 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**795.77**	**2313.9**	**21223.**	**4058.7**
Stddev	2.16	4.1	33.	29.2
%RSD	.27109	.17646	.15554	.72016
#1	794.55	2312.0	21186.	4052.6
#2	798.27	2318.6	21231.	4090.5
#3	794.50	2311.1	21251.	4033.0

Zoom In Zoom Out

Sample Name: FC3489-1 Acquired: 3/27/2023 15:57:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0017**	**.0365**	**.0049**	**.0140**	**.2311**	**.0015**	**9.354**	**.0023**	**.0009**
Stddev	.0002	.0013	.0001	.0008	.0013	.0013	.022	.0002	.0005
%RSD	13.66	3.559	2.073	5.611	.5547	86.47	.2402	9.661	54.61
#1	-.0019	.0359	.0050	.0144	.2301	.0031	9.357	.0022	.0009
#2	-.0015	.0380	.0048	.0131	.2325	.0006	9.375	.0021	.0004
#3	-.0019	.0357	.0048	.0145	.2306	.0009	9.331	.0025	.0014

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0019**	**.0065**	**3.253**	**.7656**	**.0060**	**.1043**	**17.51**	**.0063**	**22.74**
Stddev	.0002	.0000	.007	.0071	.0056	.0007	.09	.0001	.10
%RSD	12.83	.5931	.2205	.9211	93.14	.7143	.5140	1.578	.4581
#1	.0017	.0065	3.250	.7692	.0090	.1050	17.50	.0065	22.79
#2	.0019	.0066	3.261	.7702	-.0004	.1043	17.42	.0063	22.81
#3	.0022	.0066	3.248	.7575	.0095	.1035	17.60	.0063	22.62

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0016**	**.0084**	**.0002**	**.0010**	**2.025**	**.0004**	**3.325**	**.0081**	**.0028**
Stddev	.0001	.0003	.0005	.0001	.004	.0000	.009	.0004	.0007
%RSD	8.015	4.022	238.2	10.56	.1969	12.21	.2820	4.346	25.73
#1	.0017	.0084	.0001	.0010	2.029	.0005	3.322	.0085	.0031
#2	.0014	.0080	-.0002	.0010	2.026	.0004	3.336	.0081	.0020
#3	.0016	.0087	.0007	.0011	2.021	.0004	3.319	.0078	.0033

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0118**	**.0191**
Stddev	.0003	.0001
%RSD	2.238	.7708
#1	-.0121	.0190
#2	-.0116	.0193
#3	-.0116	.0191

Zoom In Zoom Out

Sample Name: FC3489-1 Acquired: 3/27/2023 15:57:59 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**994.64**	**2628.4**	**24710.**	**4215.8**
Stddev	3.08	5.7	188.	38.0
%RSD	.30949	.21759	.76003	.90244
#1	996.66	2625.6	24856.	4192.8
#2	991.10	2624.6	24776.	4194.8
#3	996.17	2635.0	24498.	4259.7

Sample Name: CCV Acquired: 3/27/2023 16:02:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1803**	**5.342**	**.4651**	**.7820**	**28.98**	**20.49**	**17.27**	**12.51**	**5.940**
Stddev	.0006	.035	.0002	.0069	.18	.07	.09	.01	.006
%RSD	.3254	.6597	.0356	.8806	.6125	.3367	.5037	.1148	.1078
#1	.1796	5.356	.4652	.7754	28.94	20.42	17.27	12.50	5.933
#2	.1806	5.302	.4649	.7891	28.82	20.47	17.19	12.49	5.943
#3	.1806	5.369	.4651	.7815	29.17	20.56	17.36	12.52	5.945

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.468**	**1.887**	**10.42**	**5.333**	**4.957**	**1.630**	**7.131**	**2.732**	**16.61**
Stddev	.006	.003	.05	.041	.016	.011	.033	.005	.09
%RSD	.4449	.1451	.5224	.7695	.3311	.6760	.4583	.1994	.5446
#1	1.466	1.887	10.41	5.345	4.957	1.634	7.114	2.726	16.60
#2	1.463	1.884	10.37	5.287	4.940	1.617	7.111	2.733	16.52
#3	1.476	1.890	10.48	5.366	4.973	1.638	7.169	2.736	16.70

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.822**	**3.298**	**.5974**	**.3349**	**.8131**	**.9582**	**44.16**	**4.596**	**1.304**
Stddev	.007	.004	.0016	.0016	.0024	.0023	.19	.013	.003
%RSD	.1833	.1235	.2702	.4826	.2940	.2401	.4229	.2710	.2350
#1	3.816	3.302	.5962	.3331	.8124	.9571	44.00	4.590	1.308
#2	3.819	3.297	.5968	.3355	.8112	.9566	44.11	4.587	1.302
#3	3.830	3.294	.5992	.3362	.8158	.9608	44.36	4.610	1.304

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.617**	**6.911**
Stddev	.004	.008
%RSD	.2464	.1116
#1	1.615	6.903
#2	1.613	6.913
#3	1.621	6.918

Sample Name: CCV Acquired: 3/27/2023 16:02:58 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**920.42**	**2539.4**	**24026.**	**4114.5**
Stddev	.50	7.3	168.	56.6
%RSD	.05483	.28613	.70024	1.3751
#1	921.01	2547.3	24116.	4089.9
#2	920.14	2537.6	24129.	4179.2
#3	920.12	2533.1	23831.	4074.4

Sample Name: CCB Acquired: 3/27/2023 16:07:32 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**-.0005**	**-.0002**	**.0035**	**.0146**	**.0008**	**.0008**	**-.0007**	**-.0001**
Stddev	.0003	.0008	.0001	.0013	.0018	.0006	.0007	.0001	.0002
%RSD	23.47	154.9	72.31	37.45	12.41	78.28	85.16	17.92	210.4
#1	-.0011	-.0004	-.0002	.0041	.0132	.0002	.0000	-.0005	-.0001
#2	-.0009	.0002	.0000	.0044	.0167	.0015	.0012	-.0007	.0001
#3	-.0014	-.0014	-.0003	.0020	.0140	.0007	.0013	-.0008	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0067**	**.0007**	**.0376**	**.0028**	**-.0003**	**.0003**	**.0011**	**-.0248**
Stddev	.0001	.0001	.0001	.0031	.0028	.0005	.0001	.0001	.0020
%RSD	68.43	1.304	19.64	8.276	102.1	157.0	27.71	10.93	8.138
#1	.0002	.0068	.0008	.0361	.0055	-.0003	.0004	.0013	-.0258
#2	.0000	.0066	.0006	.0412	-.0002	.0002	.0002	.0011	-.0225
#3	.0003	.0068	.0007	.0356	.0030	-.0009	.0002	.0010	-.0261

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0016**	**.0007**	**.0005**	**.0058**	**.0001**	**-.0002**	**.0008**	**-.0003**
Stddev	.0001	.0012	.0004	.0000	.0003	.0001	.0008	.0003	.0006
%RSD	10.69	78.52	53.06	10.30	5.385	92.24	327.9	40.59	233.1
#1	-.0014	.0027	.0011	.0005	.0054	.0002	.0006	.0004	-.0006
#2	-.0012	.0003	.0003	.0005	.0059	.0002	-.0008	.0010	.0004
#3	-.0015	.0018	.0007	.0004	.0060	.0000	-.0006	.0008	-.0006

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0086**
Stddev	.0001	.0003
%RSD	52.06	2.912
#1	-.0001	.0084
#2	-.0001	.0089
#3	-.0002	.0086

Sample Name: CCB Acquired: 3/27/2023 16:07:32 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1133.7**	**2705.5**	**26040.**	**4111.9**
Stddev	5.1	6.3	33.	32.3
%RSD	.44824	.23195	.12815	.78473
#1	1139.6	2712.6	26009.	4149.0
#2	1130.9	2700.6	26076.	4096.3
#3	1130.7	2703.3	26036.	4090.5

Sample Name: CCV Acquired: 3/27/2023 17:15:13 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1803**	**5.308**	**.4718**	**.7866**	**29.00**	**21.12**	**17.42**	**12.67**	**6.019**
Stddev	.0008	.017	.0113	.0120	.04	.15	.05	.33	.152
%RSD	.4188	.3224	2.387	1.532	.1542	.7272	.2841	2.576	2.523
#1	.1799	5.289	.4847	.7946	28.95	21.13	17.44	13.05	6.194
#2	.1812	5.314	.4643	.7728	29.02	21.27	17.46	12.46	5.918
#3	.1798	5.321	.4662	.7925	29.02	20.96	17.37	12.51	5.946

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.474**	**1.895**	**10.41**	**5.339**	**5.024**	**1.661**	**7.088**	**2.774**	**16.93**
Stddev	.002	.004	.01	.017	.023	.007	.025	.070	.04
%RSD	.1523	.2328	.1164	.3090	.4648	.4201	.3592	2.528	.2526
#1	1.476	1.899	10.42	5.339	5.025	1.666	7.070	2.855	16.93
#2	1.473	1.890	10.42	5.355	5.046	1.664	7.117	2.727	16.97
#3	1.471	1.897	10.40	5.322	4.999	1.653	7.077	2.741	16.88

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.938**	**3.292**	**.6169**	**.3371**	**.8412**	**.9922**	**45.06**	**4.654**	**1.307**
Stddev	.101	.073	.0164	.0098	.0230	.0267	.19	.005	.031
%RSD	2.551	2.207	2.652	2.907	2.739	2.691	.4308	.1026	2.406
#1	4.054	3.376	.6357	.3484	.8677	1.023	45.09	4.659	1.342
#2	3.874	3.244	.6065	.3310	.8261	.9742	45.24	4.652	1.284
#3	3.887	3.257	.6084	.3318	.8297	.9796	44.86	4.651	1.294

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.626**	**7.028**
Stddev	.006	.176
%RSD	.3682	2.502
#1	1.633	7.231
#2	1.621	6.916
#3	1.625	6.938

Sample Name: CCV Acquired: 3/27/2023 17:15:13 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.32**	**2465.1**	**23800.**	**4037.8**
Stddev	15.42	46.6	84.	58.2
%RSD	1.7031	1.8911	.35350	1.4413
#1	887.84	2412.1	23790.	3980.1
#2	917.00	2499.6	23721.	4036.8
#3	911.12	2483.7	23888.	4096.5

Sample Name: CCB Acquired: 3/27/2023 17:22:37 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**-.0001**	**-.0001**	**.0018**	**.0146**	**.0008**	**.0007**	**-.0010**	**-.0002**
Stddev	.0000	.0004	.0002	.0011	.0012	.0009	.0008	.0003	.0002
%RSD	5.017	318.8	271.7	58.22	8.224	120.2	112.9	26.75	119.1
#1	-.0009	-.0002	-.0003	.0028	.0141	.0016	-.0001	-.0012	-.0003
#2	-.0009	-.0005	.0000	.0007	.0159	-.0002	.0008	-.0011	-.0003
#3	-.0010	.0003	.0001	.0021	.0137	.0010	.0014	-.0007	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0058**	**.0009**	**.0099**	**-.0003**	**-.0011**	**.0002**	**.0010**	**-.0322**
Stddev	.0001	.0002	.0004	.0026	.0017	.0002	.0001	.0001	.0012
%RSD	72.89	4.227	44.30	26.49	537.0	16.16	47.11	6.984	3.743
#1	.0001	.0057	.0011	.0108	-.0001	-.0011	.0003	.0010	-.0314
#2	.0000	.0061	.0004	.0069	-.0021	-.0009	.0001	.0010	-.0317
#3	.0002	.0057	.0012	.0119	.0013	-.0012	.0002	.0011	-.0336

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0023**	**.0008**	**.0003**	**.0051**	**.0002**	**-.0002**	**.0008**	**-.0007**
Stddev	.0003	.0009	.0002	.0000	.0003	.0001	.0010	.0000	.0008
%RSD	24.67	37.69	27.64	13.85	6.145	48.89	410.8	.7692	114.8
#1	-.0017	.0017	.0006	.0004	.0054	.0001	.0000	.0008	.0002
#2	-.0014	.0020	.0010	.0003	.0048	.0003	-.0013	.0007	-.0013
#3	-.0010	.0033	.0007	.0003	.0051	.0001	.0006	.0008	-.0010

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0010**
Stddev	.0004	.0001
%RSD	248.1	10.87
#1	-.0005	.0010
#2	-.0001	.0010
#3	.0002	.0009

Sample Name: CCB Acquired: 3/27/2023 17:22:37 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1135.1**	**2662.2**	**25643.**	**4112.6**
Stddev	1.7	9.3	79.	14.3
%RSD	.14742	.34944	.30720	.34695
#1	1134.5	2670.1	25730.	4098.4
#2	1137.0	2664.4	25620.	4126.9
#3	1133.8	2652.0	25578.	4112.5

Sample Name: FC3489-2 Acquired: 3/27/2023 17:27:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0020**	**.0042**	**.0032**	**.0115**	**.4831**	**.0006**	**10.13**	**.0023**	**-.0007**
Stddev	.0004	.0005	.0002	.0001	.0045	.0006	.04	.0004	.0003
%RSD	19.29	10.87	4.792	1.272	.9363	107.7	.3742	17.01	40.15
#1	-.0021	.0047	.0033	.0116	.4881	.0010	10.16	.0025	-.0007
#2	-.0016	.0039	.0030	.0113	.4819	.0009	10.15	.0026	-.0004
#3	-.0024	.0039	.0032	.0116	.4793	-.0001	10.09	.0019	-.0010

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0011**	**.0051**	**3.454**	**.4612**	**.0028**	**.1476**	**15.62**	**.0048**	**15.87**
Stddev	.0001	.0000	.012	.0049	.0043	.0005	.10	.0001	.07
%RSD	11.00	.7614	.3497	1.053	154.8	.3400	.6497	3.110	.4672
#1	.0012	.0051	3.460	.4637	-.0001	.1477	15.74	.0046	15.89
#2	.0010	.0051	3.463	.4644	.0008	.1471	15.59	.0047	15.92
#3	.0011	.0051	3.441	.4556	.0078	.1480	15.54	.0049	15.78

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0021**	**.0057**	**.0005**	**.0009**	**1.842**	**.0003**	**3.239**	**.0047**	**.0022**
Stddev	.0001	.0011	.0002	.0001	.010	.0001	.014	.0001	.0002
%RSD	6.324	18.97	29.61	13.23	.5462	26.92	.4398	2.312	10.30
#1	-.0023	.0045	.0004	.0011	1.841	.0004	3.239	.0048	.0020
#2	-.0021	.0058	.0007	.0009	1.832	.0003	3.253	.0046	.0021
#3	-.0020	.0067	.0005	.0009	1.852	.0002	3.225	.0046	.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0111**	**.0094**
Stddev	.0001	.0000
%RSD	1.159	.0771
#1	-.0109	.0094
#2	-.0112	.0094
#3	-.0111	.0094

Sample Name: FC3489-2 Acquired: 3/27/2023 17:27:22 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**997.82**	**2567.5**	**24372.**	**4068.9**
Stddev	3.50	11.5	116.	30.5
%RSD	.35119	.44658	.47786	.74860
#1	996.36	2566.0	24255.	4034.6
#2	1001.8	2579.6	24372.	4092.9
#3	995.27	2556.8	24488.	4079.1

Sample Name: FC3489-3 Acquired: 3/27/2023 17:32:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0017**	**.0036**	**.0031**	**.0121**	**.5023**	**.0010**	**10.07**	**.0021**	**-.0008**
Stddev	.0001	.0014	.0004	.0003	.0024	.0012	.02	.0003	.0004
%RSD	7.305	39.08	14.14	2.700	.4817	113.6	.2144	16.37	54.06
#1	-.0017	.0022	.0027	.0120	.5047	.0023	10.06	.0021	-.0012
#2	-.0015	.0050	.0035	.0118	.5023	.0000	10.09	.0017	-.0004
#3	-.0018	.0035	.0030	.0124	.4999	.0007	10.05	.0024	-.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0010**	**.0050**	**3.384**	**.4606**	**.0033**	**.1490**	**15.32**	**.0047**	**15.88**
Stddev	.0003	.0001	.009	.0032	.0047	.0001	.16	.0001	.02
%RSD	28.27	1.003	.2607	.6896	143.2	.0497	1.071	1.637	.1420
#1	.0007	.0050	3.393	.4582	.0022	.1489	15.47	.0047	15.86
#2	.0011	.0051	3.384	.4594	-.0008	.1489	15.14	.0047	15.90
#3	.0012	.0051	3.375	.4642	.0084	.1490	15.35	.0046	15.87

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0016**	**.0066**	**.0004**	**.0011**	**1.809**	**.0002**	**3.273**	**.0047**	**.0021**
Stddev	.0005	.0002	.0003	.0001	.004	.0001	.005	.0007	.0004
%RSD	28.47	3.598	68.18	6.793	.2067	48.41	.1549	14.14	18.64
#1	-.0017	.0067	.0004	.0010	1.809	.0001	3.270	.0039	.0019
#2	-.0011	.0068	.0001	.0010	1.812	.0003	3.269	.0050	.0019
#3	-.0020	.0064	.0006	.0011	1.805	.0002	3.279	.0051	.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**-.0113**	**.0089**
Stddev	.0005	.0002
%RSD	4.129	2.009
#1	-.0117	.0091
#2	-.0108	.0088
#3	-.0115	.0087

Sample Name: FC3489-3 Acquired: 3/27/2023 17:32:23 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1004.1**	**2587.3**	**24546.**	**4016.4**
Stddev	1.3	4.0	97.	9.3
%RSD	.13272	.15487	.39344	.23059
#1	1002.6	2585.3	24464.	4008.5
#2	1005.1	2584.6	24652.	4014.1
#3	1004.5	2591.9	24522.	4026.6

Zoom In Zoom Out

Sample Name: FC3696-3 Acquired: 3/27/2023 17:37:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0106**	**-.0004**	**.0145**	**.0740**	**.0009**	**8.880**	**-.0011**	**-.0008**
Stddev	.0003	.0020	.0001	.0007	.0011	.0003	.036	.0002	.0002
%RSD	22.94	19.11	33.06	4.727	1.458	34.38	.4069	19.91	22.56
#1	-.0016	.0104	-.0002	.0149	.0737	.0005	8.861	-.0014	-.0008
#2	-.0011	.0127	-.0005	.0137	.0752	.0011	8.857	-.0010	-.0009
#3	-.0012	.0087	-.0005	.0148	.0731	.0009	8.922	-.0011	-.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0021**	**.0057**	**.3761**	**.2143**	**-.0002**	**.2086**	**.0466**	**.0011**	**1.815**
Stddev	.0002	.0002	.0013	.0019	.0033	.0011	.0005	.0002	.005
%RSD	11.75	2.771	.3348	.8860	1731.	.5503	1.069	20.75	.2904
#1	.0023	.0056	.3749	.2156	.0023	.2073	.0470	.0012	1.811
#2	.0018	.0057	.3774	.2151	.0010	.2092	.0467	.0012	1.812
#3	.0022	.0059	.3759	.2121	-.0039	.2094	.0461	.0008	1.821

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0037**	**.0005**	**.0005**	**1.432**	**.0003**	**3.862**	**.0045**	**-.0011**
Stddev	.0001	.0007	.0002	.0001	.002	.0001	.025	.0004	.0003
%RSD	4.572	19.12	41.26	18.24	.1196	35.76	.6496	8.281	29.92
#1	-.0012	.0044	.0003	.0006	1.430	.0002	3.856	.0047	-.0009
#2	-.0013	.0038	.0007	.0005	1.433	.0004	3.841	.0040	-.0009
#3	-.0013	.0030	.0005	.0004	1.433	.0002	3.890	.0046	-.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0010**	**.0052**
Stddev	.0001	.0000
%RSD	9.054	.5263
#1	.0009	.0052
#2	.0011	.0051
#3	.0011	.0052

Zoom In Zoom Out

Sample Name: FC3696-3 Acquired: 3/27/2023 17:37:25 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1057.8**	**2661.1**	**25368.**	**4085.6**
Stddev	2.9	5.7	31.	5.9
%RSD	.27302	.21528	.12127	.14460
#1	1060.8	2667.1	25364.	4091.6
#2	1057.4	2655.6	25401.	4085.4
#3	1055.1	2660.6	25340.	4079.7

Zoom In Zoom Out

Sample Name: FC3696-4 Acquired: 3/27/2023 17:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**.0176**	**-.0001**	**.0115**	**.0946**	**.0005**	**8.952**	**-.0007**	**.0001**
Stddev	.0000	.0011	.0001	.0010	.0010	.0010	.032	.0004	.0003
%RSD	4.704	6.233	94.23	8.474	1.104	192.4	.3607	61.29	207.4
#1	-.0009	.0169	.0000	.0121	.0956	.0017	8.951	-.0007	.0001
#2	-.0009	.0171	-.0001	.0104	.0935	-.0002	8.986	-.0003	.0004
#3	-.0010	.0189	-.0001	.0121	.0948	.0001	8.921	-.0012	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0022**	**.0056**	**.6575**	**.1531**	**-.0005**	**.3742**	**.0935**	**.0008**	**3.292**
Stddev	.0001	.0001	.0010	.0037	.0037	.0026	.0002	.0001	.015
%RSD	6.314	2.332	.1520	2.394	716.3	.6970	.2652	9.638	.4613
#1	.0021	.0055	.6565	.1573	-.0035	.3759	.0933	.0007	3.301
#2	.0021	.0057	.6585	.1511	.0036	.3756	.0936	.0009	3.302
#3	.0024	.0055	.6576	.1508	-.0016	.3712	.0938	.0007	3.275

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**.0022**	**.0004**	**.0010**	**1.648**	**.0002**	**2.849**	**.0074**	**-.0008**
Stddev	.0001	.0013	.0002	.0002	.004	.0001	.015	.0005	.0001
%RSD	9.388	59.86	55.71	23.49	.2197	43.76	.5222	7.147	9.104
#1	-.0008	.0020	.0003	.0012	1.652	.0002	2.846	.0075	-.0008
#2	-.0009	.0010	.0007	.0011	1.645	.0004	2.865	.0078	-.0007
#3	-.0009	.0036	.0003	.0007	1.648	.0002	2.836	.0068	-.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0008**	**.0058**
Stddev	.0002	.0002
%RSD	24.74	3.554
#1	.0006	.0060
#2	.0010	.0059
#3	.0009	.0056

Zoom In Zoom Out

Sample Name: FC3696-4 Acquired: 3/27/2023 17:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1044.3**	**2643.3**	**25141.**	**4108.7**
Stddev	2.1	2.1	97.	17.1
%RSD	.20128	.07831	.38437	.41682
#1	1046.7	2644.8	25169.	4127.5
#2	1043.4	2644.1	25220.	4094.0
#3	1042.8	2640.9	25033.	4104.6

Zoom In Zoom Out

Sample Name: FC3335-5 Acquired: 3/27/2023 17:47:11 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0214**	**.0456**	**2.952**	**.0837**	**-.0011**	**5.092**	**-.0014**	**.0165**
Stddev	.0006	.0015	.0003	.016	.0019	.0005	.014	.0000	.0002
%RSD	46.37	6.933	.7443	.5299	2.244	48.12	.2827	3.243	1.123
#1	-.0006	.0223	.0455	2.935	.0855	-.0016	5.104	-.0014	.0164
#2	-.0013	.0197	.0453	2.965	.0840	-.0011	5.096	-.0015	.0163
#3	-.0017	.0221	.0460	2.956	.0818	-.0006	5.076	-.0015	.0167

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0267**	**.0102**	**.0576**	**94.52**	**3.673**	**.0009**	**.0204**	**3.361**	**391.3**
Stddev	.0003	.0001	.0009	1.98	.002	.0007	.0001	.015	5.1
%RSD	1.006	1.232	1.564	2.098	.0410	76.85	.2471	.4562	1.314
#1	.0264	.0102	.0585	96.81	3.675	.0017	.0204	3.346	396.8
#2	.0270	.0102	.0576	93.52	3.672	.0002	.0205	3.359	390.4
#3	.0266	.0104	.0567	93.24	3.673	.0009	.0204	3.377	386.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.6919**	**-.0026**	**.0032**	**.0064**	**1.494**	**.0007**	**8.794**	**.0029**	**-.0056**
Stddev	.0020	.0017	.0001	.0006	.009	.0001	.006	.0004	.0011
%RSD	.2958	64.17	3.994	9.631	.6082	19.41	.0743	15.34	19.82
#1	.6900	-.0043	.0033	.0057	1.484	.0009	8.789	.0025	-.0044
#2	.6917	-.0010	.0031	.0066	1.496	.0007	8.801	.0028	-.0066
#3	.6941	-.0024	.0032	.0069	1.502	.0006	8.791	.0034	-.0058

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0073**	**.0107**
Stddev	.0002	.0001
%RSD	3.098	.5845
#1	.0075	.0106
#2	.0074	.0107
#3	.0071	.0107

Zoom In Zoom Out

Sample Name: FC3335-5 Acquired: 3/27/2023 17:47:11 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**679.90**	**2091.6**	**18921.**	**3996.6**
Stddev	.39	7.5	52.	9.2
%RSD	.05777	.35900	.27485	.23122
#1	680.26	2100.1	18981.	3986.9
#2	679.94	2088.3	18886.	3997.5
#3	679.48	2086.2	18896.	4005.3

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/27/2023 17:52:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0014**	**.0100**	**.0000**	**.0078**	**.1186**	**.0010**	**37.17**	**.0011**	**.0045**
Stddev	.0003	.0007	.000	.0005	.0038	.0006	.17	.0004	.0002
%RSD	23.85	6.903	808.9	5.957	3.185	63.04	.4550	37.27	3.914
#1	-.0010	.0108	-.0002	.0082	.1165	.0003	37.28	.0015	.0047
#2	-.0015	.0097	.0000	.0079	.1163	.0011	36.97	.0010	.0044
#3	-.0017	.0095	.0002	.0073	.1229	.0014	37.24	.0008	.0043

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0059**	**.0051**	**1.771**	**.3429**	**.0082**	**.4717**	**.4805**	**.0012**	**58.59**
Stddev	.0001	.0002	.011	.0056	.0015	.0019	.0015	.0002	.94
%RSD	2.284	3.590	.6238	1.635	18.08	.3965	.3067	19.61	1.607
#1	.0060	.0049	1.780	.3487	.0076	.4710	.4811	.0014	58.33
#2	.0058	.0053	1.758	.3425	.0071	.4703	.4789	.0010	57.80
#3	.0058	.0052	1.774	.3375	.0099	.4738	.4816	.0012	59.63

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0304**	**.0041**	**.0005**	**.0005**	**.1850**	**.0001**	**2.717**	**.0036**	**-.0007**
Stddev	.0003	.0007	.0001	.0002	.0003	.0001	.008	.0002	.0003
%RSD	.9553	16.57	16.09	32.58	.1481	95.54	.2817	4.181	38.90
#1	.0306	.0038	.0005	.0005	.1851	.0003	2.720	.0035	-.0005
#2	.0304	.0048	.0006	.0003	.1852	.0000	2.709	.0036	-.0010
#3	.0301	.0036	.0005	.0006	.1847	.0001	2.723	.0038	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.1374**	**.1019**
Stddev	.0002	.0004
%RSD	.1281	.3579
#1	.1373	.1018
#2	.1374	.1016
#3	.1376	.1023

Zoom In Zoom Out

Sample Name: FC3338-7 Acquired: 3/27/2023 17:52:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**924.63**	**2979.1**	**28019.**	**4975.6**
Stddev	1.42	6.2	143.	48.6
%RSD	.15361	.20806	.50987	.97580
#1	923.20	2984.3	28121.	4967.1
#2	924.64	2972.3	28079.	5027.9
#3	926.04	2980.8	27856.	4932.0

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/27/2023 17:57:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0013**	**.0085**	**.0001**	**.0062**	**.1196**	**.0009**	**37.72**	**.0011**	**.0048**
Stddev	.0002	.0009	.0001	.0003	.0019	.0002	.02	.0003	.0000
%RSD	11.49	10.78	196.7	5.501	1.562	22.66	.0415	31.54	1.018
#1	-.0015	.0096	.0000	.0058	.1195	.0011	37.74	.0010	.0048
#2	-.0012	.0080	.0002	.0065	.1178	.0009	37.71	.0015	.0048
#3	-.0012	.0080	.0000	.0062	.1215	.0007	37.71	.0008	.0047

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0060**	**.0054**	**1.793**	**.2777**	**.0070**	**.4815**	**.4862**	**.0007**	**60.54**
Stddev	.0002	.0001	.002	.0011	.0002	.0016	.0012	.0004	.76
%RSD	3.083	2.698	.0868	.4018	3.455	.3245	.2570	57.12	1.261
#1	.0062	.0053	1.794	.2783	.0068	.4828	.4855	.0010	60.89
#2	.0058	.0056	1.791	.2783	.0073	.4798	.4876	.0003	61.06
#3	.0060	.0053	1.793	.2764	.0069	.4820	.4854	.0008	59.66

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0310**	**.0036**	**.0005**	**.0001**	**.1825**	**.0000**	**2.767**	**.0030**	**-.0012**
Stddev	.0002	.0012	.0001	.0002	.0003	.0001	.006	.0004	.0004
%RSD	.7772	33.95	20.99	174.5	.1465	227.3	.2367	12.66	32.96
#1	.0311	.0022	.0005	-.0001	.1826	.0000	2.771	.0026	-.0016
#2	.0307	.0041	.0004	.0002	.1822	.0001	2.771	.0034	-.0012
#3	.0312	.0045	.0007	.0003	.1826	.0000	2.759	.0030	-.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.1398**	**.1028**
Stddev	.0007	.0003
%RSD	.5332	.2564
#1	.1402	.1029
#2	.1402	.1025
#3	.1389	.1030

Zoom In Zoom Out

Sample Name: MP41991-D1 Acquired: 3/27/2023 17:57:18 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**925.50**	**3002.6**	**28014.**	**4973.6**
Stddev	2.78	5.7	181.	27.0
%RSD	.30008	.19092	.64457	.54262
#1	926.77	3001.3	28097.	4998.5
#2	927.41	3008.8	27807.	4945.0
#3	922.31	2997.6	28138.	4977.4

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/27/2023 18:02:17 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0049**	**.6011**	**.0782**	**.0069**	**4.857**	**.0883**	**37.13**	**.0537**	**.2527**
Stddev	.0001	.0022	.0001	.0008	.012	.0012	.10	.0001	.0005
%RSD	2.112	.3652	.1261	11.23	.2537	1.405	.2723	.1970	.2000
#1	.0048	.5987	.0782	.0076	4.844	.0873	37.01	.0538	.2521
#2	.0048	.6030	.0783	.0069	4.862	.0896	37.20	.0538	.2529
#3	.0050	.6016	.0781	.0061	4.867	.0879	37.17	.0536	.2531

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0303**	**.0443**	**2.822**	**.8085**	**.0049**	**.6170**	**.7543**	**.1171**	**57.99**
Stddev	.0003	.0003	.006	.0033	.0015	.0038	.0018	.0001	.90
%RSD	.9179	.5838	.2104	.4087	31.29	.6222	.2411	.0785	1.552
#1	.0306	.0445	2.816	.8048	.0032	.6128	.7563	.1172	57.09
#2	.0300	.0440	2.824	.8112	.0061	.6181	.7539	.1172	57.98
#3	.0303	.0444	2.827	.8095	.0055	.6203	.7527	.1170	58.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1884**	**.1621**	**.0253**	**.0574**	**.2220**	**.0412**	**4.536**	**.2044**	**.2442**
Stddev	.0009	.0004	.0005	.0002	.0001	.0002	.011	.0006	.0004
%RSD	.4858	.2608	2.037	.2617	.0401	.5654	.2467	.2991	.1772
#1	.1892	.1617	.0257	.0575	.2221	.0413	4.524	.2051	.2447
#2	.1886	.1625	.0247	.0575	.2220	.0414	4.538	.2039	.2441
#3	.1874	.1621	.0254	.0573	.2220	.0410	4.546	.2041	.2438

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.1965**	**.3845**
Stddev	.0003	.0001
%RSD	.1398	.0166
#1	.1962	.3846
#2	.1966	.3845
#3	.1968	.3845

Zoom In Zoom Out

Sample Name: MP41991-S1 Acquired: 3/27/2023 18:02:17 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**919.05**	**2976.0**	**27892.**	**4882.4**
Stddev	1.63	1.7	150.	9.7
%RSD	.17768	.05620	.53759	.19914
#1	918.05	2974.1	27757.	4892.3
#2	918.17	2976.5	27865.	4872.9
#3	920.94	2977.2	28053.	4881.9

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/27/2023 18:07:09 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0051**	**.6199**	**.0809**	**.0063**	**5.056**	**.0914**	**38.70**	**.0554**	**.2610**
Stddev	.0002	.0029	.0001	.0008	.010	.0007	.08	.0003	.0001
%RSD	3.250	.4689	.1718	12.22	.2019	.7938	.1948	.5413	.0515
#1	.0053	.6220	.0808	.0062	5.067	.0913	38.73	.0558	.2609
#2	.0049	.6166	.0809	.0056	5.047	.0908	38.61	.0552	.2609
#3	.0051	.6211	.0811	.0071	5.054	.0922	38.75	.0552	.2611

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0312**	**.0453**	**2.918**	**.8285**	**.0075**	**.6390**	**.7815**	**.1195**	**60.98**
Stddev	.0002	.0001	.006	.0021	.0017	.0023	.0018	.0004	.37
%RSD	.5759	.2322	.2208	.2484	22.99	.3609	.2313	.3269	.6144
#1	.0310	.0454	2.925	.8265	.0092	.6379	.7795	.1191	60.94
#2	.0313	.0453	2.914	.8306	.0076	.6374	.7830	.1196	60.62
#3	.0312	.0452	2.914	.8282	.0057	.6416	.7819	.1198	61.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1951**	**.1675**	**.0254**	**.0590**	**.2299**	**.0419**	**4.665**	**.2077**	**.2539**
Stddev	.0005	.0009	.0003	.0002	.0008	.0002	.012	.0006	.0003
%RSD	.2396	.5322	1.010	.3684	.3417	.5017	.2620	.2718	.1213
#1	.1948	.1684	.0251	.0588	.2292	.0417	4.656	.2084	.2541
#2	.1950	.1666	.0255	.0589	.2307	.0421	4.660	.2074	.2541
#3	.1957	.1675	.0255	.0592	.2299	.0421	4.679	.2074	.2535

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.2058**	**.3967**
Stddev	.0004	.0004
%RSD	.1921	.1087
#1	.2061	.3971
#2	.2060	.3963
#3	.2054	.3967

Zoom In Zoom Out

Sample Name: MP41991-S2 Acquired: 3/27/2023 18:07:09 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**913.86**	**2993.9**	**28169.**	**4930.1**
Stddev	1.33	6.9	198.	22.1
%RSD	.14510	.23098	.70162	.44907
#1	912.34	2999.4	28391.	4945.4
#2	914.54	2986.1	28102.	4940.2
#3	914.72	2996.2	28012.	4904.7

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/27/2023 18:12:02 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0049**	**.0643**	**.0036**	**.0057**	**.7093**	**.0840**	**39.61**	**.0522**	**.0291**
Stddev	.0002	.0021	.0000	.0010	.0015	.0007	.10	.0003	.0000
%RSD	3.184	3.263	1.092	18.07	.2155	.8880	.2552	.6476	.1589
#1	.0047	.0629	.0036	.0046	.7076	.0848	39.72	.0526	.0291
#2	.0048	.0667	.0037	.0058	.7096	.0834	39.52	.0521	.0291
#3	.0050	.0632	.0036	.0066	.7107	.0837	39.59	.0519	.0290

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0123**	**.0203**	**2.007**	**.4771**	**.0089**	**.5322**	**.5328**	**.0219**	**63.77**
Stddev	.0001	.0002	.004	.0024	.0041	.0021	.0025	.0001	.89
%RSD	1.049	1.087	.2158	.4976	45.61	.3974	.4782	.6365	1.394
#1	.0122	.0203	2.009	.4798	.0054	.5346	.5331	.0220	64.24
#2	.0122	.0205	2.002	.4754	.0080	.5306	.5301	.0219	64.32
#3	.0124	.0201	2.010	.4761	.0134	.5315	.5352	.0218	62.74

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0644**	**.0199**	**.0051**	**.0032**	**.1930**	**.0040**	**3.037**	**.0408**	**.0108**
Stddev	.0001	.0016	.0003	.0001	.0006	.0001	.009	.0005	.0008
%RSD	.1744	8.191	6.101	1.741	.3220	3.549	.2945	1.147	7.515
#1	.0643	.0181	.0048	.0032	.1929	.0041	3.045	.0414	.0116
#2	.0644	.0205	.0049	.0032	.1936	.0039	3.038	.0406	.0106
#3	.0645	.0212	.0054	.0033	.1924	.0041	3.027	.0405	.0100

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.1563**	**.2490**
Stddev	.0009	.0010
%RSD	.5697	.4060
#1	.1556	.2497
#2	.1573	.2478
#3	.1559	.2493

Zoom In Zoom Out

Sample Name: MP41991-PS1 Acquired: 3/27/2023 18:12:02 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**905.38**	**3013.9**	**28340.**	**5038.7**
Stddev	2.99	3.1	57.	33.8
%RSD	.33064	.10270	.20097	.67165
#1	903.69	3010.4	28405.	5002.0
#2	908.83	3016.3	28316.	5068.7
#3	903.61	3014.9	28299.	5045.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 18:16:56 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1800**	**5.324**	**.4632**	**.7591**	**29.10**	**20.87**	**17.40**	**12.48**	**5.947**
Stddev	.0002	.008	.0003	.0056	.06	.07	.04	.00	.006
%RSD	.1167	.1430	.0687	.7434	.1959	.3325	.2389	.0204	.1025
#1	.1800	5.331	.4629	.7605	29.14	20.95	17.45	12.48	5.940
#2	.1802	5.316	.4634	.7529	29.04	20.85	17.40	12.49	5.951
#3	.1798	5.325	.4635	.7639	29.13	20.82	17.36	12.48	5.951

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.458**	**1.872**	**10.39**	**5.357**	**5.050**	**1.627**	**7.179**	**2.719**	**16.72**
Stddev	.001	.006	.01	.009	.018	.005	.010	.003	.07
%RSD	.0797	.3212	.1400	.1641	.3596	.2870	.1431	.1002	.3960
#1	1.458	1.866	10.40	5.367	5.070	1.632	7.176	2.719	16.80
#2	1.460	1.878	10.37	5.350	5.037	1.624	7.191	2.721	16.68
#3	1.457	1.872	10.38	5.354	5.041	1.624	7.171	2.716	16.69

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.800**	**3.302**	**.5890**	**.3334**	**.8112**	**.9512**	**44.80**	**4.561**	**1.284**
Stddev	.002	.003	.0011	.0008	.0006	.0013	.07	.011	.004
%RSD	.0461	.1024	.1854	.2498	.0718	.1396	.1585	.2302	.3309
#1	3.802	3.306	.5882	.3331	.8108	.9515	44.88	4.560	1.288
#2	3.799	3.299	.5886	.3343	.8109	.9497	44.74	4.572	1.280
#3	3.799	3.302	.5902	.3327	.8119	.9523	44.77	4.551	1.283

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.601**	**6.877**
Stddev	.002	.007
%RSD	.1360	.0974
#1	1.598	6.873
#2	1.601	6.873
#3	1.603	6.885

Zoom In Zoom Out

Sample Name: CCV Acquired: 3/27/2023 18:16:56 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**916.72**	**2542.1**	**24057.**	**4047.2**
Stddev	1.96	1.7	74.	21.1
%RSD	.21386	.06517	.30661	.52107
#1	914.82	2540.8	24038.	4046.3
#2	918.73	2544.0	23994.	4026.6
#3	916.62	2541.6	24138.	4068.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 18:21:30 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**-.0009**	**-.0002**	**.0017**	**.0140**	**.0011**	**.0013**	**-.0008**	**-.0004**
Stddev	.0003	.0003	.0002	.0002	.0003	.0005	.0011	.0001	.0002
%RSD	39.36	27.35	112.4	9.820	1.824	48.44	83.75	18.55	49.14
#1	-.0005	-.0009	-.0001	.0015	.0137	.0012	.0012	-.0009	-.0002
#2	-.0007	-.0007	-.0005	.0018	.0141	.0015	.0024	-.0006	-.0005
#3	-.0012	-.0012	-.0001	.0019	.0141	.0005	.0003	-.0008	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0061**	**.0012**	**.0138**	**-.0038**	**-.0002**	**.0003**	**.0012**	**-.0135**
Stddev	.0001	.0000	.0004	.0034	.0021	.0003	.0001	.0002	.0012
%RSD	75.00	.2606	34.28	24.73	53.79	171.7	35.56	16.58	9.021
#1	.0002	.0061	.0016	.0108	-.0049	-.0002	.0004	.0014	-.0121
#2	.0003	.0061	.0008	.0130	-.0014	.0001	.0003	.0010	-.0144
#3	.0000	.0061	.0014	.0175	-.0051	-.0004	.0002	.0012	-.0140

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0011**	**.0031**	**.0008**	**.0006**	**.0050**	**.0001**	**.0000**	**.0005**	**-.0004**
Stddev	.0003	.0003	.0002	.0000	.0001	.0002	.0007	.0003	.0008
%RSD	24.17	9.928	19.58	6.970	1.061	117.2	3807.	48.72	186.8
#1	-.0009	.0027	.0007	.0006	.0050	.0002	.0002	.0006	.0002
#2	-.0011	.0031	.0010	.0007	.0050	.0000	.0006	.0002	-.0012
#3	-.0014	.0034	.0008	.0007	.0050	.0002	-.0007	.0007	-.0002

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.0000**	**.0008**
Stddev	.000	.0002
%RSD	113.3	26.69
#1	.0000	.0007
#2	.0000	.0010
#3	-.0001	.0006

Zoom In Zoom Out

Sample Name: CCB Acquired: 3/27/2023 18:21:30 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1136.8**	**2726.2**	**25872.**	**4097.0**
Stddev	3.9	2.0	89.	32.8
%RSD	.34245	.07507	.34312	.80011
#1	1140.8	2726.7	25829.	4075.2
#2	1136.7	2728.0	25974.	4134.7
#3	1133.0	2724.0	25813.	4081.1

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/27/2023 18:26:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0004**	**-.0004**	**.0020**	**.0374**	**.0012**	**8.382**	**-.0005**	**.0010**
Stddev	.0002	.0010	.0001	.0003	.0040	.0006	.028	.0004	.0003
%RSD	14.57	279.5	12.62	13.45	10.75	49.20	.3342	89.76	26.24
#1	-.0013	.0012	-.0003	.0017	.0368	.0019	8.414	-.0006	.0007
#2	-.0012	-.0008	-.0004	.0021	.0338	.0011	8.369	-.0008	.0012
#3	-.0010	.0007	-.0004	.0022	.0417	.0007	8.362	.0000	.0011

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0013**	**.0059**	**.3970**	**.0618**	**.0016**	**.1052**	**.1096**	**.0006**	**13.55**
Stddev	.0001	.0003	.0009	.0031	.0040	.0002	.0002	.0003	.03
%RSD	9.028	5.292	.2159	5.022	256.2	.1441	.2066	50.07	.2156
#1	.0013	.0059	.3979	.0610	.0062	.1054	.1097	.0009	13.58
#2	.0014	.0062	.3968	.0592	-.0001	.1051	.1093	.0005	13.53
#3	.0012	.0056	.3962	.0652	-.0014	.1051	.1097	.0003	13.54

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0061**	**.0027**	**.0006**	**.0006**	**.0428**	**.0001**	**.6061**	**.0029**	**-.0006**
Stddev	.0002	.0005	.0001	.0002	.0002	.0001	.0012	.0002	.0006
%RSD	3.207	18.04	14.38	38.86	.4673	73.39	.2049	7.530	98.81
#1	.0063	.0025	.0005	.0006	.0427	.0000	.6047	.0031	.0000
#2	.0062	.0032	.0005	.0008	.0427	.0002	.6070	.0028	-.0012
#3	.0059	.0023	.0007	.0003	.0430	.0002	.6066	.0026	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0289**	**.0227**
Stddev	.0005	.0002
%RSD	1.660	.8725
#1	.0292	.0228
#2	.0292	.0228
#3	.0284	.0225

Zoom In Zoom Out

Sample Name: MP41991-SD1 Acquired: 3/27/2023 18:26:26 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.1**	**2765.1**	**25874.**	**4234.7**
Stddev	2.2	8.3	66.	20.5
%RSD	.21582	.29883	.25430	.48388
#1	1030.3	2770.9	25799.	4219.6
#2	1034.6	2768.9	25899.	4258.0
#3	1031.4	2755.7	25923.	4226.4

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/27/2023 19:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0019**	**.4330**	**.0000**	**.0049**	**.0652**	**.0018**	**7.447**	**.0021**	**.0026**
Stddev	.0003	.0007	.000	.0005	.0017	.0008	.009	.0002	.0003
%RSD	17.93	.1676	1044.	10.49	2.679	47.21	.1235	10.02	12.34
#1	-.0015	.4333	-.0002	.0055	.0672	.0012	7.457	.0022	.0028
#2	-.0021	.4322	-.0001	.0044	.0646	.0015	7.443	.0019	.0023
#3	-.0022	.4335	.0003	.0048	.0638	.0028	7.440	.0023	.0029

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0333**	**.0049**	**3.017**	**.1162**	**.0037**	**.0417**	**1.080**	**.0003**	**17.86**
Stddev	.0003	.0001	.003	.0035	.0044	.0008	.003	.0001	.04
%RSD	.9238	2.648	.1001	2.996	117.2	1.889	.2709	26.64	.2239
#1	.0333	.0051	3.018	.1131	.0088	.0408	1.077	.0003	17.86
#2	.0336	.0048	3.014	.1200	.0007	.0424	1.083	.0004	17.89
#3	.0330	.0049	3.020	.1155	.0017	.0419	1.079	.0002	17.81

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0465**	**.0059**	**.0006**	**.0003**	**.5148**	**.0002**	**.6734**	**.0033**	**-.0003**
Stddev	.0001	.0004	.0001	.0001	.0014	.0001	.0014	.0003	.0006
%RSD	.3191	6.158	12.94	23.73	.2675	50.88	.2013	9.720	198.0
#1	.0465	.0063	.0006	.0003	.5148	.0002	.6719	.0029	.0004
#2	.0463	.0057	.0005	.0003	.5134	.0001	.6743	.0034	-.0008
#3	.0466	.0056	.0007	.0004	.5161	.0003	.6741	.0035	-.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0037**	**.0096**
Stddev	.0001	.0001
%RSD	1.982	1.297
#1	.0037	.0096
#2	.0036	.0096
#3	.0037	.0094

Zoom In Zoom Out

Sample Name: FC3338-2 Acquired: 3/27/2023 19:00:47 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1017.1**	**2673.5**	**24970.**	**4086.5**
Stddev	4.3	6.8	63.	10.2
%RSD	.41954	.25548	.25136	.25023
#1	1022.0	2680.5	25013.	4075.4
#2	1014.1	2673.0	24999.	4095.6
#3	1015.3	2666.9	24898.	4088.3

Sample Name: FC3338-3 Acquired: 3/27/2023 19:05:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0018**	**.3998**	**-.0003**	**.0054**	**.0641**	**.0018**	**6.725**	**.0015**	**.0021**
Stddev	.0002	.0033	.0000	.0003	.0035	.0007	.012	.0004	.0004
%RSD	9.134	.8288	15.43	6.018	5.397	39.41	.1835	28.39	18.74
#1	-.0018	.4035	-.0002	.0052	.0601	.0010	6.737	.0018	.0017
#2	-.0016	.3987	-.0003	.0057	.0664	.0023	6.726	.0017	.0021
#3	-.0019	.3972	-.0003	.0052	.0658	.0020	6.712	.0010	.0025

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0287**	**.0053**	**2.599**	**.1075**	**.0025**	**.0376**	**.9555**	**.0004**	**16.05**
Stddev	.0001	.0002	.002	.0022	.0016	.0014	.0012	.0001	.05
%RSD	.3973	4.586	.0750	2.049	62.77	3.823	.1234	32.01	.3330
#1	.0287	.0053	2.600	.1074	.0035	.0392	.9549	.0004	16.07
#2	.0286	.0056	2.600	.1098	.0007	.0366	.9547	.0006	16.09
#3	.0288	.0051	2.597	.1054	.0034	.0368	.9568	.0003	15.98

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0394**	**.0053**	**.0005**	**.0006**	**.4581**	**.0002**	**.6110**	**.0031**	**-.0004**
Stddev	.0004	.0004	.0005	.0004	.0070	.0002	.0010	.0001	.0003
%RSD	1.129	6.654	94.64	66.11	1.535	89.89	.1588	3.516	84.02
#1	.0398	.0051	.0006	.0010	.4608	.0001	.6116	.0030	-.0004
#2	.0395	.0051	.0009	.0006	.4634	.0001	.6114	.0031	.0000
#3	.0389	.0057	.0000	.0002	.4501	.0004	.6098	.0032	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0033**	**.0077**
Stddev	.0004	.0001
%RSD	11.30	1.323
#1	.0037	.0076
#2	.0029	.0078
#3	.0034	.0076

Sample Name: FC3338-3 Acquired: 3/27/2023 19:05:37 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1032.4**	**2691.2**	**25046.**	**4094.3**
Stddev	13.7	37.8	77.	45.2
%RSD	1.3239	1.4031	.30590	1.1037
#1	1028.6	2678.1	25123.	4063.7
#2	1021.1	2661.7	24969.	4146.2
#3	1047.6	2733.8	25045.	4073.1

Sample Name: FC3338-5 Acquired: 3/27/2023 19:10:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**.0016**	**-.0002**	**.0038**	**.1213**	**-.0001**	**22.59**	**-.0010**	**.0002**
Stddev	.0003	.0018	.0002	.0005	.0033	.0007	.13	.0001	.0001
%RSD	36.74	111.7	90.15	14.31	2.749	1242.	.5813	9.975	65.49
#1	-.0010	.0034	-.0003	.0043	.1235	-.0002	22.66	-.0010	.0002
#2	-.0005	-.0002	-.0001	.0038	.1229	.0007	22.67	-.0009	.0001
#3	-.0010	.0017	-.0001	.0032	.1175	-.0007	22.44	-.0011	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0008**	**.0060**	**.5294**	**.3863**	**.0038**	**.0872**	**.2732**	**.0005**	**17.10**
Stddev	.0001	.0001	.0033	.0045	.0025	.0021	.0001	.0003	.08
%RSD	6.481	1.612	.6234	1.164	65.54	2.411	.0396	55.18	.4678
#1	.0008	.0061	.5315	.3871	.0009	.0896	.2731	.0004	17.15
#2	.0007	.0059	.5311	.3815	.0054	.0866	.2733	.0008	17.14
#3	.0008	.0061	.5256	.3903	.0052	.0855	.2732	.0003	17.01

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0009**	**.0035**	**.0005**	**.0004**	**.2057**	**.0000**	**1.574**	**.0045**	**-.0002**
Stddev	.0001	.0013	.0003	.0003	.0008	.0001	.007	.0001	.0004
%RSD	10.79	37.71	64.27	63.74	.3797	276.6	.4557	2.359	194.1
#1	.0008	.0029	.0009	.0007	.2064	.0000	1.572	.0044	-.0005
#2	.0010	.0051	.0003	.0002	.2058	.0000	1.582	.0045	-.0002
#3	.0009	.0026	.0003	.0003	.2049	.0001	1.568	.0046	.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	Cts/S	Cts/S
Avg	**.0031**	**.0097**
Stddev	.0000	.0001
%RSD	1.140	1.180
#1	.0031	.0098
#2	.0030	.0098
#3	.0031	.0096

Sample Name: FC3338-5 Acquired: 3/27/2023 19:10:28 Type: Unk
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1001.8**	**2592.1**	**24441.**	**4090.3**
Stddev	3.6	9.8	154.	45.9
%RSD	.36336	.37770	.62971	1.1212
#1	998.83	2580.9	24264.	4051.5
#2	1005.9	2596.7	24539.	4078.5
#3	1000.8	2598.7	24521.	4140.9

Sample Name: CCV Acquired: 3/27/2023 19:15:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1809**	**5.298**	**.4664**	**.7485**	**28.98**	**21.03**	**17.41**	**12.55**	**5.975**
Stddev	.0009	.024	.0007	.0089	.06	.04	.03	.01	.003
%RSD	.5227	.4570	.1547	1.192	.2057	.1738	.1711	.0608	.0480
#1	.1819	5.275	.4658	.7401	28.92	21.06	17.40	12.55	5.975
#2	.1810	5.323	.4672	.7474	29.02	21.02	17.44	12.54	5.972
#3	.1800	5.296	.4662	.7579	29.01	20.99	17.38	12.56	5.977

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.469**	**1.880**	**10.34**	**5.338**	**5.059**	**1.631**	**7.218**	**2.728**	**16.79**
Stddev	.003	.006	.01	.014	.003	.009	.007	.003	.02
%RSD	.1756	.3004	.1305	.2645	.0550	.5198	.1043	.1241	.1292
#1	1.470	1.886	10.34	5.334	5.062	1.632	7.211	2.732	16.81
#2	1.470	1.879	10.36	5.354	5.059	1.639	7.217	2.725	16.80
#3	1.466	1.875	10.33	5.326	5.056	1.622	7.226	2.728	16.76

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.837**	**3.294**	**.5970**	**.3366**	**.8174**	**.9611**	**45.01**	**4.604**	**1.293**
Stddev	.008	.008	.0016	.0011	.0021	.0021	.05	.010	.003
%RSD	.2117	.2398	.2705	.3230	.2559	.2198	.1218	.2192	.2355
#1	3.843	3.290	.5987	.3362	.8191	.9632	45.08	4.615	1.293
#2	3.828	3.303	.5955	.3378	.8151	.9590	45.00	4.603	1.291
#3	3.840	3.289	.5967	.3358	.8182	.9611	44.97	4.595	1.297

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.607**	**6.930**
Stddev	.004	.005
%RSD	.2169	.0675
#1	1.611	6.934
#2	1.607	6.925
#3	1.604	6.931

Sample Name: CCV Acquired: 3/27/2023 19:15:20 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**919.54**	**2536.2**	**23837.**	**4027.3**
Stddev	.83	3.1	68.	46.1
%RSD	.08975	.12066	.28690	1.1442
#1	920.35	2535.6	23808.	3988.8
#2	918.70	2539.5	23789.	4014.8
#3	919.58	2533.5	23915.	4078.4

Sample Name: CCB Acquired: 3/27/2023 19:19:54 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**-.0007**	**-.0002**	**.0009**	**.0166**	**.0012**	**.0011**	**-.0010**	**-.0005**
Stddev	.0002	.0020	.0001	.0003	.0030	.0011	.0013	.0004	.0004
%RSD	17.70	283.6	35.18	31.01	17.82	97.45	119.4	41.05	76.71
#1	-.0010	.0015	-.0001	.0007	.0135	.0024	.0017	-.0015	-.0006
#2	-.0008	-.0015	-.0001	.0012	.0168	.0010	-.0004	-.0008	-.0007
#3	-.0011	-.0022	-.0002	.0008	.0194	.0001	.0019	-.0007	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0004**	**.0059**	**.0008**	**.0101**	**.0046**	**-.0004**	**.0002**	**.0012**	**-.0251**
Stddev	.0001	.0000	.0002	.0020	.0048	.0007	.0001	.0002	.0015
%RSD	41.62	.6023	24.52	19.43	106.0	161.9	30.53	14.93	5.794
#1	.0005	.0059	.0006	.0122	.0053	-.0004	.0002	.0013	-.0235
#2	.0004	.0060	.0010	.0083	.0090	-.0012	.0002	.0013	-.0255
#3	.0002	.0059	.0008	.0099	-.0006	.0002	.0003	.0010	-.0263

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0010**	**.0026**	**.0006**	**.0005**	**.0047**	**.0003**	**.0001**	**.0007**	**-.0002**
Stddev	.0004	.0007	.0002	.0002	.0003	.0001	.0019	.0001	.0008
%RSD	41.69	28.39	30.98	43.88	6.597	24.57	1750.	20.62	472.8
#1	-.0011	.0019	.0004	.0005	.0051	.0002	-.0005	.0009	-.0010
#2	-.0014	.0025	.0008	.0003	.0047	.0003	-.0014	.0006	.0006
#3	-.0006	.0033	.0007	.0007	.0044	.0003	.0022	.0007	-.0002

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0001**	**.0008**
Stddev	.0001	.0001
%RSD	99.76	17.75
#1	-.0002	.0009
#2	.0000	.0006
#3	-.0002	.0009

Sample Name: CCB Acquired: 3/27/2023 19:19:54 Type: QC
Method: 60102007_COMBO_10242022(v152) Mode: SIR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1132.7**	**2711.3**	**25757.**	**4048.3**
Stddev	3.7	8.3	42.	17.1
%RSD	.32988	.30659	.16333	.42194
#1	1135.1	2714.6	25763.	4056.5
#2	1134.7	2717.5	25795.	4059.8
#3	1128.4	2701.9	25712.	4028.7

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000107	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000009	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000697	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000029	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000625	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000052	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000015	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	-0.000117	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000025	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	0.000003	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000002	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000036	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No
Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
			Fe	0.000056	0.000000	No
			Mo	-0.002189	0.000000	No
			Cu	0.000467	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.000036	0.000000	No
			Si	0.000043	0.000000	No
			Ca	0.000012	0.000000	No
			Cr	-0.000260	0.000000	No
			Mg	0.000002	0.000000	No
Sb 206.833 {463}	☒	11	Fe	0.000019	0.000000	No
			Cr	0.011486	0.000000	No
			Mo	-0.002538	0.000000	No
			V	-0.000441	0.000000	No
			Sn	-0.008695	0.000000	No
			Ti	0.000278	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000818	0.000000	No
			Al	0.000005	0.000000	No
			Mn	-0.000133	0.000000	No
			Mg	-0.000002	0.000000	No
Se 196.090 {472}	☒	12	Fe	-0.000014	0.000000	No
			Ca	0.000006	0.000000	No
			Mn	0.000331	0.000000	No
			Mo	0.000111	0.000000	No
			Al	0.000001	0.000000	No
			V	0.000000	0.000000	No
			Zn	0.000000	0.000000	No
			Sr	-0.000111	0.000000	No
			As	0.000125	0.000000	No
			Cd	-0.000250	0.000000	No
			Mg	0.000002	0.000000	No
			Cr	-0.000326	0.000000	No
Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000004	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000003	0.000000	No
			Al	0.000012	0.000000	No
Ti 334.941 {101}	☒	1	Ca	-0.000009	0.000000	No
Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
			Fe	-0.000031	0.000000	No
			Al	0.000000	0.000000	No
			Ba	-0.000051	0.000000	No
			Ti	-0.000648	0.000000	No
			Sb	0.000167	0.000000	No
			Ca	0.000001	0.000000	No
			Cr	0.000340	0.000000	No
			Mg	-0.000002	0.000000	No
			V	0.000015	0.000000	No
V 292.402 {115}	☒	5	Fe	0.000007	0.000000	No
			Cr	-0.003634	0.000000	No
			Mo	-0.009536	0.000000	No
			Ti	0.000303	0.000000	No
			Mn	-0.000333	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
			Al	0.000014	0.000000	No
			Ca	0.000003	0.000000	No
			Fe	-0.000010	0.000000	No
			As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.001174	0.773313	0.000000	1.000000
Al 396.152 { 85}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000633	0.135155	0.000000	1.000000
As 189.042 {478}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000169	0.228232	0.000000	1.000000
B 249.773 {135}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.002894	0.399108	0.000000	1.000000
Ba 455.403 { 74}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.011853	14.005991	0.000000	1.000000
Be 313.042 {108}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000707	9.669592	0.000000	1.000000
Ca 317.933 {106}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000141	0.419057	0.000000	1.000000
Cd 226.502 {449}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000960	6.148807	0.000000	1.000000
Co 228.616 {447}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000389	2.931004	0.000000	1.000000
Cr 267.716 {126}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000087	0.722867	0.000000	1.000000
Cu 324.754 {104}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.006201	0.937329	0.000000	1.000000
Fe 259.940 {130}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000357	0.259996	0.000000	1.000000
In 230.606 {446}*	3/27/2023 11:02:44	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.002329	0.128190	0.000000	1.000000
Li 670.784 { 50}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.001562	2.337392	0.000000	1.000000
Mg 279.079 {121}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000477	0.040876	0.000000	1.000000
Mn 257.610 {131}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000203	3.373850	0.000000	1.000000
Mo 202.030 {467}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000918	1.335485	0.000000	1.000000
Na 589.592 { 57}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.029852	0.406056	0.000000	1.000000
Ni 231.604 {445}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.001018	1.887734	0.000000	1.000000
Pb 220.353 {453}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.001713	1.656400	0.000000	1.000000
Sb 206.833 {463}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000169	0.291534	0.000000	1.000000
Se 196.090 {472}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000547	0.164740	0.000000	1.000000
Si 212.412 {459}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.004807	0.412261	0.000000	1.000000
Sn 189.989 {477}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000171	0.470567	0.000000	1.000000
Sr 407.771 { 83}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000565	20.700899	0.000000	1.000000
Ti 334.941 {101}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000891	2.236937	0.000000	1.000000
Tl 190.856 {477}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000542	0.636346	0.000000	1.000000
V 292.402 {115}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	-0.000252	0.814159	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	3/27/2023 11:02:44	3/27/2023 10:09:49	Linear	1/Conc	0.000211	3.412665	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999505	0.000084	0.000470	0.001566	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999862	0.000469	0.012276	0.040920	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999495	0.000076	0.001023	0.003411	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.998375	0.000228	0.002237	0.007455	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999850	0.011440	0.000183	0.000609	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999914	0.000937	0.000085	0.000283	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999905	0.002696	0.002498	0.008327	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999894	0.000659	0.000061	0.000204	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999932	0.000798	0.000138	0.000461	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999945	0.000079	0.000299	0.000995	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999850	0.000267	0.000319	0.001064	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999887	0.000998	0.002066	0.006885	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999882	0.002116	0.026645	0.088817	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999410	0.000794	0.001502	0.005005	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999899	0.000613	0.016811	0.056038	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999921	0.000540	0.000055	0.000184	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999779	0.000656	0.000180	0.000602	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999470	0.014191	0.008494	0.028312	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999930	0.000467	0.000214	0.000713	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999331	0.000448	0.000620	0.002067	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999603	0.000060	0.001331	0.004437	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999729	0.000040	0.002137	0.007123	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.999200	0.000888	0.000662	0.002208	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999942	0.000119	0.000406	0.001355	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999949	0.002185	0.000076	0.000253	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999907	0.000317	0.000145	0.000482	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999808	0.000130	0.000907	0.003022	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999808	0.000368	0.000320	0.001067	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999883	0.000770	0.000078	0.000261	OK.	1.000000	0.000000	1	0

SGS Orlando

Date:	03/16/23
Time	14:00

[24hr]

Analysts Name:	Adam K
MP Batch ID:	41959
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22I2062003	ACC1321	0.05	MU45274
Conc. HCl (B)	21440078	ACC1346	0.2	KU15244
NA	NA	MET7346	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	95	**Corr. Factor**	-2	**Corrected Observed Temp. C**	93
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2210117

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	1	Matrix Spike(MS)	50	50	Y	
	1	Matrix Spike Dup(MSD)	50	50	Y	
	1	Duplicate(DUP)	50	50	Y	
1(QC) C	1	FC3062-3	50	50	Y	
2	1	FC3062-4	50	50	Y	
3	1	FC2883-48	50	50	Y	
4	5	FC3083-1	50	50	Y	
5	1	FC3178-2F	50	50	Y	
6	1	FC3178-4F	50	50	Y	
7	1	FC3178-5F	50	50	Y	
8	2	FC3333-1B	50	50	Y	
9	1	FC3333-2	50	50	Y	
10	1	FC3333-3	50	50	Y	
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

SGS Orlando

Date:	03/23/23
[24hr] Time	15:00

Analysts Name:	Adam K
MP Batch ID:	41991
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22I2062003	ACC1376	0.5	KU15244
Conc. HCl (B)	22490078	ACC1346	0.25	KU15244
NA	NA	MET7347	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	Therm ID	6130	Temp. C	95	Corr. Factor	-2	Corrected Observed Temp. C	93
pH Paper Lot Number	230320			Filter Lot Number		306067223		Digestion Tube Lot Number	2210117

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	12	Matrix Spike(MS)	50	50	Y	
	12	Matrix Spike Dup(MSD)	50	50	Y	
	12	Duplicate(DUP)	50	50	Y	
1(QC) C	12	FC3338-7	50	50	Y	
2	4	FC3338-1	50	50	Y	
3	6	FC3338-2	50	50	Y	
4	6	FC3338-3	50	50	Y	
5	6	FC3338-4	50	50	Y	
6	6	FC3338-5	50	50	Y	
7	6	FC3338-8	50	50	Y	
8	8	FC3327-3	50	50	Y	
9	8	FC3327-4	50	50	Y	
10	8	FC3327-5	50	50	Y	
11	8	FC3327-6	50	50	Y	
12	2	FC3333-1	50	50	Y	
13	1	FC3333-2A	50	50	Y	
14	1	FC3333-3A	50	50	Y	
15	11	FC3554-1	50	50	Y	
16	11	FC3554-2	50	50	Y	
17	11	FC3554-3	50	50	Y	
18	2	FC3584-1	50	50	Y	
19	20	FC3521-1	50	50	Y	
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP38546/GN93690	2.0	0.0	mg/l	50	48.7	97.4	90-110%
Nitrogen, Nitrate	GP38546/GN93690	0.10	0.0	mg/l	2.5	2.41	96.4	90-110%
Nitrogen, Nitrite	GP38546/GN93690	0.10	0.0	mg/l	2.5	2.44	97.6	90-110%
Sulfate	GP38546/GN93690	2.0	0.0	mg/l	50	48.1	96.2	90-110%

Associated Samples:
Batch GP38546: FC3333-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP38546/GN93690	FC3397-1	mg/l	3.1	50	52.9	99.6	90-110%
Nitrogen, Nitrate	GP38546/GN93690	FC3397-1	mg/l	0.43	2.5	2.9	98.8	90-110%
Nitrogen, Nitrite	GP38546/GN93690	FC3397-1	mg/l	0.040 U	2.5	3.0	120.0N(a)	90-110%
Sulfate	GP38546/GN93690	FC3397-1	mg/l	7.5	50	56.0	97.0	90-110%

Associated Samples:
Batch GP38546: FC3333-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP38546/GN93690	FC3397-1	mg/l	3.1	50	52.9	0.0	15%
Nitrogen, Nitrate	GP38546/GN93690	FC3397-1	mg/l	0.43	2.5	2.9	0.0	15%
Nitrogen, Nitrite	GP38546/GN93690	FC3397-1	mg/l	0.040 U	2.5	3.0	0.0	15%
Sulfate	GP38546/GN93690	FC3397-1	mg/l	7.5	50	56.0	0.0	15%

Associated Samples:
Batch GP38546: FC3333-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023031401.CSV Date Analyzed: 03/03/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN93690
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:40	GN93690-STD1	1		STDA
13:00	GN93690-STD2	1		STDB
13:21	GN93690-STD3	1		STDC
13:41	GN93690-STD4	1		STDD
14:02	GN93690-STD5	1		STDE
14:22	GN93690-STD6	1		STDF
14:43	GN93690-STD7	1		STDG
15:03	GN93690-STD8	1		STDH
15:24	GN93690-STD9	1		STDI
15:45	GN93690-STD10	1		STDJ
16:05	GN93690-STD11	1		STDK
16:55	GN93690-ICB1	1		
17:16	GN93690-CRI1	1		
17:38	GN93690-CCV1	1		
18:00	GN93690-CCB1	1		
18:43	GN93690-ICV1	1		
10:58	GN93690-CCV2	1		
11:25	GP38546-MB1	1		
12:22	GP38546-B1	1		
12:48	FC3397-1	1		(sample used for QC only; not part of login FC3333)
13:10	GP38546-S1	1		
13:32	GP38546-S2	1		
13:54	ZZZZZZ	10		
14:16	ZZZZZZ	1		
14:38	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:22	GN93690-CCV3	1		
15:44	GN93690-CCB2	1		
16:07	ZZZZZZ	50		
16:28	ZZZZZZ	100		
16:50	ZZZZZZ	100		
17:12	ZZZZZZ	100		
17:34	ZZZZZZ	100		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023031401.CSV Date Analyzed: 03/03/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN93690
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:55	ZZZZZZ	100		
18:17	ZZZZZZ	1		
18:39	FC3338-7	50		(sample used for QC only; not part of login FC3333)
19:01	GP38546-S3	50		
19:23	GP38546-S4	50		
19:45	GN93690-CCV4	1		
20:07	GN93690-CCB3	1		
20:29	ZZZZZZ	1		
20:51	FC3333-1	1		
21:13	GP38547-MB1F	1		
21:35	GP38547-B1F	1		
21:57	LA88599-4	5		(sample used for QC only; not part of login FC3333)
22:19	GP38547-S1	5		
22:41	GP38547-S2	5		
23:03	ZZZZZZ	5		
23:25	ZZZZZZ	5		
23:48	ZZZZZZ	5		
00:10	GN93690-CCV5	1		
00:32	GN93690-CCB4	1		
00:54	ZZZZZZ	5		
01:16	ZZZZZZ	5		
02:00	ZZZZZZ	5		
02:44	ZZZZZZ	5		
04:34	GN93690-CCV6	1		
04:56	GN93690-CCB5	1		
05:41	ZZZZZZ	5		
06:03	ZZZZZZ	5		
06:25	ZZZZZZ	5		
06:47	ZZZZZZ	5		
07:09	ZZZZZZ	5		
07:31	ZZZZZZ	5		
07:53	ZZZZZZ	5		
08:15	ZZZZZZ	25		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023031401.CSV Date Analyzed: 03/03/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN93690
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:43	ZZZZZZ	25		
09:05	GN93690-CCV7	1		
09:27	GN93690-CCB6	1		
09:49	LA88599-14	25		(sample used for QC only; not part of login FC3333)
10:11	GP38547-S3	25		
10:33	GP38547-S4	25		
10:55	ZZZZZZ	25		
11:17	ZZZZZZ	25		
11:38	GN93690-CCV8	1		
12:01	GN93690-CCB7	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC3333
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023031401.CSV Date Analyzed: 03/03/23 Methods: EPA 300/SW846 9056A
Run ID: GN93690 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN93690-ICB1	Chloride	0.80 U	2.0	0.80			
GN93690-ICB1	Sulfate	0.60 U	2.0	0.60			
GN93690-CRI1	Chloride	1.14	2.0	0.80	1	114.0	50-150
GN93690-CRI1	Sulfate	1.09	2.0	0.60	1	109.0	50-150
GN93690-CCV1	Chloride	49.5	2.0	0.80	50	99.0	90-110
GN93690-CCV1	Sulfate	50.5	2.0	0.60	50	101.0	90-110
GN93690-CCB1	Chloride	0.80 U	2.0	0.80			
GN93690-CCB1	Sulfate	0.60 U	2.0	0.60			
GN93690-ICV1	Chloride	50.5	2.0	0.80	50	101.0	90-110
GN93690-ICV1	Sulfate	51.8	2.0	0.60	50	103.6	90-110
GN93690-CCV2	Chloride	49.7	2.0	0.80	50	99.4	90-110
GN93690-CCV2	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN93690-CCV3	Chloride	50.0	2.0	0.80	50	100.0	90-110
GN93690-CCV3	Sulfate	49.4	2.0	0.60	50	98.8	90-110
GN93690-CCB2	Chloride	0.80 U	2.0	0.80			
GN93690-CCB2	Sulfate	0.60 U	2.0	0.60			
GN93690-CCV4	Chloride	50.2	2.0	0.80	50	100.4	90-110
GN93690-CCV4	Sulfate	49.7	2.0	0.60	50	99.4	90-110
GN93690-CCB3	Chloride	0.80 U	2.0	0.80			
GN93690-CCB3	Sulfate	0.60 U	2.0	0.60			
GN93690-CCV5	Chloride	50.3	2.0	0.80	50	100.6	90-110
GN93690-CCV5	Sulfate	49.7	2.0	0.60	50	99.4	90-110
GN93690-CCB4	Chloride	0.80 U	2.0	0.80			
GN93690-CCB4	Sulfate	0.60 U	2.0	0.60			
GN93690-CCV6	Chloride	50.3	2.0	0.80	50	100.6	90-110
GN93690-CCV6	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN93690-CCB5	Chloride	0.80 U	2.0	0.80			
GN93690-CCB5	Sulfate	0.60 U	2.0	0.60			
GN93690-CCV7	Chloride	50.2	2.0	0.80	50	100.4	90-110
GN93690-CCV7	Sulfate	50.0	2.0	0.60	50	100.0	90-110
GN93690-CCB6	Chloride	0.80 U	2.0	0.80			
GN93690-CCB6	Sulfate	0.60 U	2.0	0.60			
GN93690-CCV8	Chloride	50.7	2.0	0.80	50	101.4	90-110
GN93690-CCV8	Sulfate	50.9	2.0	0.60	50	101.8	90-110
GN93690-CCB7	Chloride	0.80 U	2.0	0.80			
GN93690-CCB7	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
1°NO2	NO2	WC2023	Absolute	11-29-24	1000	2.5	25	100	3-8-23	JL	ICO14471	3-9-23
1°NO3	NO3	WC1899	↓	11-3-24	↓	↓	↓	↓	↓	↓	72	↓
2°NO2	NO2	WC1975	↓	5-18-24	↓	↓	↓	↓	↓	↓	73	↓
2°NO3	NO3	WC2036	Ricca	12-1-23	↓	↓	↓	↓	↓	↓	74	↓
CW	NO2/NO3	IC014471/2	Ref	3-9-23	100	5	200	2.5	↓	↓	IC014475	↓
↓	SO4	WC2012	Ricca	11-1-23	1000	10	↓	50	↓	↓	↓	↓
↓	Cl	WC1982	fisher	8-1-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	WC1970	LGC	6-30-23	↓	0.5	↓	2.5	↓	↓	↓	↓
↓	Br	↓ 68	Spex	↓	↓	2	↓	10	↓	↓	↓	↓
B1	NO2/NO3	IC014473/4	Ref	3-9-23	100	2.5	100	2.5	↓	↓	IC014474	↓
↓	SO4	GN345516	↓	4-1-23	1000	5	↓	50	↓	↓	↓	↓
↓	Cl	↓ 7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	WC1995	Spex	9-30-23	↓	0.25	↓	2.5	↓	↓	↓	↓
↓	Br	GN341534	Rep	3-28-23	↓	1	↓	10	↓	↓	↓	↓
1°NO2	NO2	WC2032	Absolute	11-29-24	1000	2.5	25	100	3-10-23	CW	IC014477	3-11-23
1°NO3	NO3	WC1899	↓	11-3-24	↓	↓	↓	↓	↓	↓	78	↓
2°NO2	NO2	WC1975	↓	5-18-24	↓	↓	↓	↓	↓	↓	79	↓
2°NO3	NO3	WC2036	Ricca	12-1-23	↓	↓	↓	↓	↓	↓	80	↓
CW	NO2/NO3	IC014477/8	Ref	3-11-23	100	5	200	2.5	↓	↓	IC014481	↓
↓	SO4	WC1982	Ricca	11-1-23	1000	10	↓	50	↓	↓	↓	↓
↓	Cl	WC2012	fisher	8-1-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	WC1970	LGC	6-30-23	↓	0.5	↓	2.5	↓	↓	↓	↓
↓	Br	↓ 68	Spex	↓	↓	2	↓	10	↓	↓	↓	↓
B1	NO2/NO3	IC014479/80	Ref	3-11-23	100	2.5	100	2.5	↓	↓	IC014482	↓
↓	SO4	GN345516	↓	4-1-23	1000	5	↓	50	↓	↓	↓	↓
↓	Cl	↓ 7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	WC1995	Spex	9-30-23	↓	0.25	↓	2.5	↓	↓	↓	↓
↓	Br	GN341534	Rep	3-28-23	↓	1	↓	10	↓	↓	↓	↓
1°NO2	NO2	WC2039	Absolute	11-29-24	1000	2.5	25	100	3-14-23	JL	IC014483	3-15-23
1°NO3	NO3	↓ 3	↓	11-3-25	↓	↓	↓	↓	↓	↓	4	↓
2°NO2	NO2	WC2031	Ricca	12-1-23	↓	↓	↓	↓	↓	↓	5	↓
2°NO3	NO3	↓ 6	↓	6-30-23	↓	↓	↓	↓	↓	↓	6	↓

JL 3/14/23

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
CW	NO_2/NO_3	IC0144B3/4	Ref	3-15-23	100	5	200	2.5	3-14-23	JO	IC0144187	3-15-23
↓	SO_4	WC1982	Ricca	11-1-23	1000	10	↓	50	↓	↓	↓	↓
	Cl	WC2012	fisher	8-1-24	↓	↓		↓				
	F	WC1970	Lab	12-30-23		0.5		2.5				
	Br	↓ 68	Spex	↓	↓	2	↓	10			↓	
B1	NO_2/NO_3	IC0144185/6	Ref	3-15-23	100	2.5	100	2.5			IC0144188	
	SO_4	GN3245146	↓	4-1-23	1000	5	↓	50			↓	
	Cl	↓ 7		↓		↓		↓				
	F	WC1995	Spex	9-30-23		0.25		2.5				
↓	Br	GN345346	Ref	3-28-23	↓	1	↓	10	↓	↓	↓	↓

IC Soil Prep

Method: SW846 9056A

Analyst: JR

GP 38547

Date (mm/dd/yy): 3/14/23

Time (24:00): 14:34

	Sample ID	Bottle #	Weight g	Final Vol ml
MB	MBIF	-	5.02	50
SB	BIF	-	5.06	
MS1	LA88599-4	1	5.12	
MSD1	-4		5.09	
QC1	-4		5.06	
2	-5		5.06	
3	-6		5.13	
4	-7		5.13	
5	-8		5.07	
6	-9		5.08	
7	-10		5.04	
8	-11		5.04	
9	-12		5.16	
10	-13		5.00	
MS2	-14		5.24	
MSD2	-14		5.06	
QC2	-14		5.24	
12	-15		5.12	
13	-16		5.07	
14	-17		5.15	
15	-18		5.18	
16	-19		5.07	
17	-20		5.14	
18	-21		5.03	
19	-22		5.06	
20	-23		5.07	

Balance ID Nav11

REAGENTS

Spike Lot # 1C0144B8

Cup Lot # 2210117

SRM Lot # 30683839

Vial Lot # 706370-F23197

Syringe Lot # (1)

Filter Lot # ↓

Comments: ①Samples filtered through 0.2µm filter on the instrument.

Analyst's Signature: Jaclyn Rios Date: 3/14/23

Reveiwer's Signature: _____ Date: _____

IC Instrument Log

Method: ~~EPA300.0~~ / ~~SW846 9056A~~ (circle one)

Date:	3/14/23 @ 10:31
Analyst:	JR
Instrument:	#4
Inst. File Name:	I2023031401.CSV

Prep Batches:	395416
Analytical Batch:	93290
Calibration Date:	3-3-23
Pump pressure:	3.89 MPa

Vial lot#	20370-F 23497
Cap lot#	—
Syringe lot#	—
Filter lot#	—

Standards	
ICAL:	
ICV:	
CCV:	ic014487
QC:	↓ 8

Sample#	Bot#	Matrix	Scon	DF	Filter (y/n)	Ions Needed F	Cl	NO2	Br	NO3	SO4	Results OK or Dilution Needed (1) F	Cl	NO2	Br	NO3	SO4	Comments
Rinse	-	AQ	-	1	N													(1) All unless marked
CCV	-		-															
MB1	-		-															
B1	-		-															
B1 (2)	-		-															(2) Reprepped
FC3397-1	7		1	(3)														(3) Dilutions made from historical results.
-151	1																	
-152																		
-2	3		10															
-3	2		1															
-4	3																	
-5	2																	
CCV	-		-	1														
CCB	-		-															
FC3397-1	2		(3)	50														
-2	1			100														
-3																		
-4																		
-5																		
-6																		
FC3338-1	5		1123	1														
-7	14		5.5	50														
-753																		
-754																		
CCV	-		-	1														
CCB	-		-															
FC3250-7	10		762															
FC3333-1	1		314															
MBIF		SO			N											ET		

IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Date:	3/14/23 (1 out.)
Analyst:	
Instrument:	
Inst. File Name:	

Prep Batchs:	
Analytical Batch:	
Calibration Date:	
Pump pressure:	

Vial lot#	
Cap lot#	
Syringe lot#	
Filter lot#	

Standards	
ICAL:	
ICV:	
CCV:	
QC:	

Sample#	Bot#	Matrix	Scon	DF	Filter (y/n)	Ions Needed F	Cl	NO2	Br	NO3	SO4	Results OK or Dilution Needed F	Cl	NO2	Br	NO3	SO4	Comments
BLE	~	SO	N/A	1	N		—							FT				
LA88599-4	1	1		5	1		1											
-4S1	1																	
-4S7																		
-5																		
-6																		
-7																		
CW	-	AQ		1							—							
CW3	-										—							
LA88599-8	1	SO		5														
-9																		
-10												(1) en						(1) Re-run at 25x dilutions after the run.
-11																		
-12												(1) en						
-13																		
-14												(1) en						
-14S3																		
-14S4																		
-15																		
CW	-	AQ		1														
CW3	-																	
LA88599-16	1	SO		5								(1) en						
-17	1			1														
-18																		
-19																		
-20																		
-21																		
-22																		

3/14/23 QR

IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Date:	3/14/23 (Cont.)
Analyst:	
Instrument:	
Inst. File Name:	

Prep Batchs:	
Analytical Batch:	
Calibration Date:	
Pump pressure:	

Vial lot#	
Cap lot#	
Syringe lot#	
Filter lot#	

Standards	
ICAL:	
ICV:	
CCV:	
QC:	

Sample#	Bot#	Matrix	Scon	DF	Filter (y/n)	Ions Needed F	Cl	NO2	Br	NO3	SO4	Results OK or Dilution Needed F	Cl	NO2	Br	NO3	SO4	Comments
LA88599-23	1	SO	-	5	N													
CW	-	AQ	-	1	↓		↓											
CCV	-	↓	-	↓	↓		↓											
(1) LA88599-10	1	SO	N/A	25	↓		↓											(1) Run before CW/CCV
-12	↓	↓	↓	↓	↓		↓											
-14																		
-1453																		
-1454																		
-15																		
-16																		
CW	-	AQ	-	1	↓		↓											
CCV	-	↓	-	↓	↓		↓											

SR 3/15/23

MagIC Net

2023-03-04 9:31:10

Sample data

Ident	STDK	
Sample type	Standard 10	
Determination start	2023-03-03 16:05:40 UTC-5	
Method	SGS In-Vial Anions191003A	
Operator	JR	

Anions

Data source	Conductivity detector 1 (930 Compact IC Flex 1)	
Channel	Conductivity	
Recording time	17.5	min
Integration	Automatically	
Column type	Metrosep A Supp 5 - 150/4.0	
Eluent composition	not defined	
Flow	0.700	mL/min
Maximum flow monitored	yes	
Pressure	7.65	MPa
Maximum pressure monitored	yes	
Temperature	30.0	°C

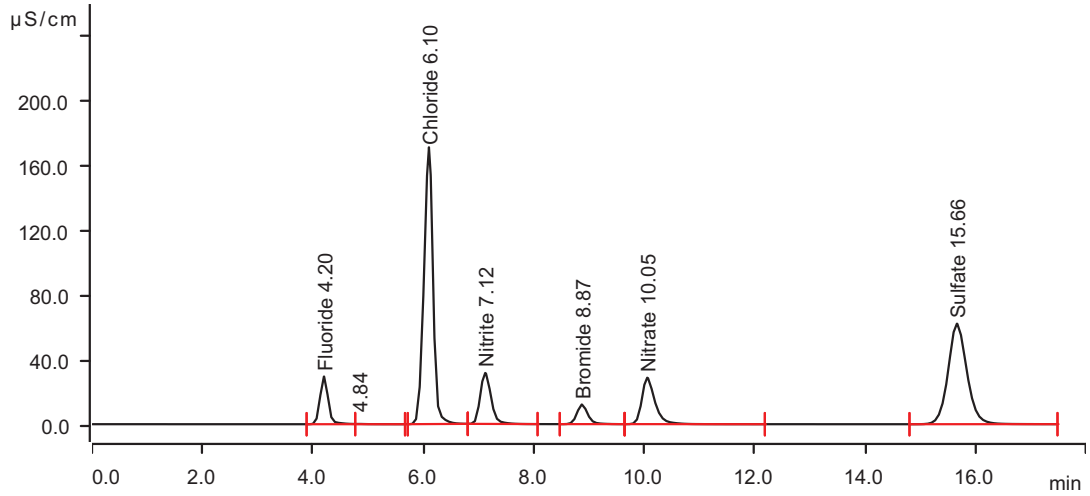
Pressure

Data source	Pump (930 Compact IC Flex 1)	
Channel	System pressure	
Recording time	17.5	min
Integration	Automatically	
Flow	-----	mL/min
Maximum flow monitored	no	
Pressure	-----	MPa
Maximum pressure monitored	no	
Temperature	-----	°C

MagIC Net

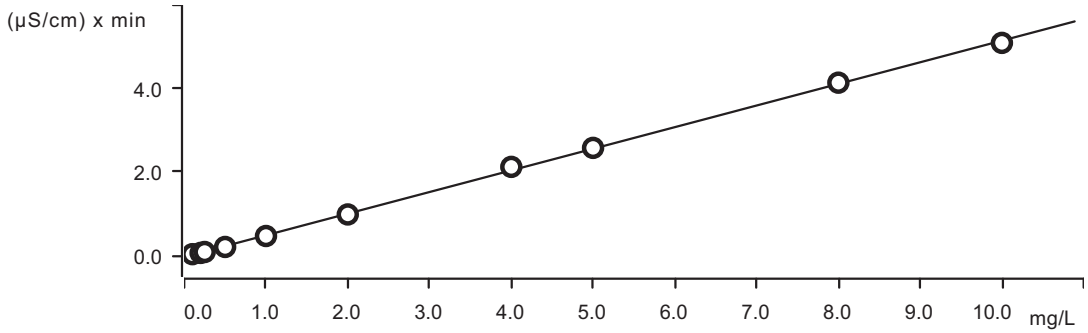
2023-03-04 9:31:10

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration mg/L	Component name
1	4.203	5.0936	29.441	9.897	Fluoride
2	4.838	0.0425	0.157	invalid	
3	6.102	32.5385	170.878	100.532	Chloride
4	7.120	7.1385	31.471	9.975	Nitrite
5	8.872	2.7859	12.126	20.850	Bromide
6	10.053	7.8618	28.666	10.266	Nitrate
7	15.660	24.5003	62.045	100.292	Sulfate

Fluoride (Anions)



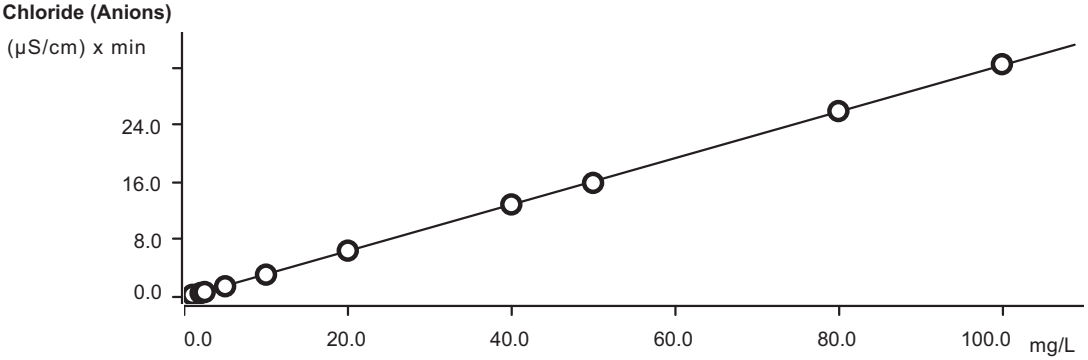
Function: . . . . . *A = - 0.0315614 + 0.0258928× Q*

Relative standard deviation . . . . . *2.534196 %*

Correlation coefficient *0.999791*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0334	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.0636	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.0853	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2065	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.4684	STDF	2023-03-03 14:22:52 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	0.9847	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.1240	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	2.5792	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	4.1407	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	5.0936	STDK	2023-03-03 16:05:40 UTC-5

Chloride (Anions)



MagIC Net

2023-03-04 9:31:10

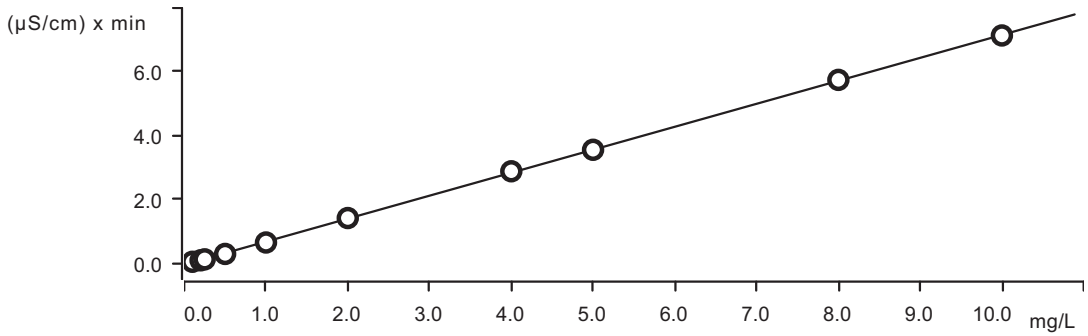
Function: . . . . . A = - 0.124664 + 0.0162452× Q

Relative standard deviation . . . . . 1.108584 %

Correlation coefficient 0.999960

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	1.000	20.0	1.0	1.0	0.2449	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	2.000	20.0	1.0	1.0	0.4993	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	2.500	20.0	1.0	1.0	0.6352	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	5.000	20.0	1.0	1.0	1.4440	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	10.000	20.0	1.0	1.0	3.0708	STDF	2023-03-03 14:22:52 UTC-5
Standard 6	1	20.000	20.0	1.0	1.0	6.4319	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	40.000	20.0	1.0	1.0	12.9006	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	50.000	20.0	1.0	1.0	15.9184	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	80.000	20.0	1.0	1.0	25.9740	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	100.000	20.0	1.0	1.0	32.5385	STDK	2023-03-03 16:05:40 UTC-5

Nitrite (Anions)



Function: . . . . . A = - 0.0372557 + 0.0359695× Q

Relative standard deviation . . . . . 1.210867 %

Correlation coefficient 0.999952

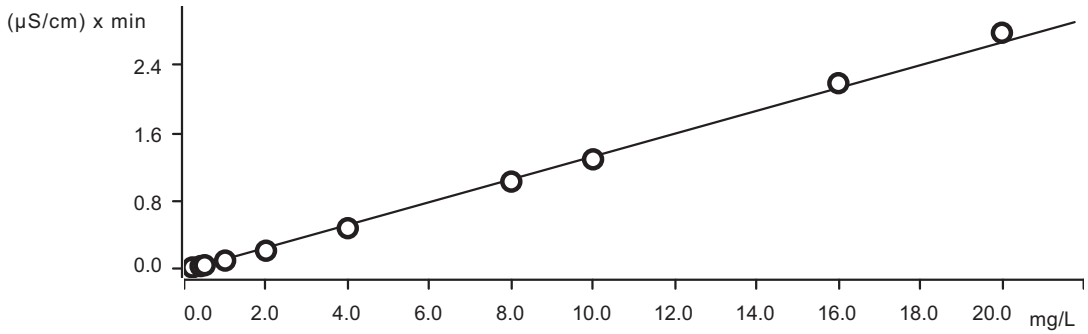
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0511	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.0966	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.1274	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2963	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.6549	STDF	2023-03-03 14:22:52 UTC-5

MagIC Net

2023-03-04 9:31:10

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.4206	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.8855	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	3.5585	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	5.7479	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	7.1385	STDK	2023-03-03 16:05:40 UTC-5

Bromide (Anions)



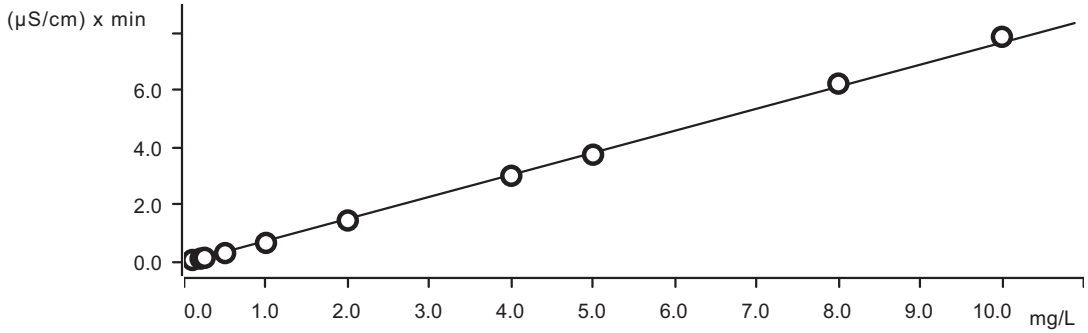
Function: . . . . . *A = - 0.0182246 + 6.72434E-3× Q*

Relative standard deviation . . . . . *6.300949 %*

Correlation coefficient *0.998797*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	0.200	20.0	1.0	1.0	0.0184	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	0.400	20.0	1.0	1.0	0.0344	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	0.500	20.0	1.0	1.0	0.0446	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	1.000	20.0	1.0	1.0	0.0994	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	2.000	20.0	1.0	1.0	0.2159	STDF	2023-03-03 14:22:52 UTC-5
Standard 6	1	4.000	20.0	1.0	1.0	0.4812	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	8.000	20.0	1.0	1.0	1.0306	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	10.000	20.0	1.0	1.0	1.2931	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	16.000	20.0	1.0	1.0	2.1909	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	20.000	20.0	1.0	1.0	2.7859	STDK	2023-03-03 16:05:40 UTC-5

Nitrate (Anions)



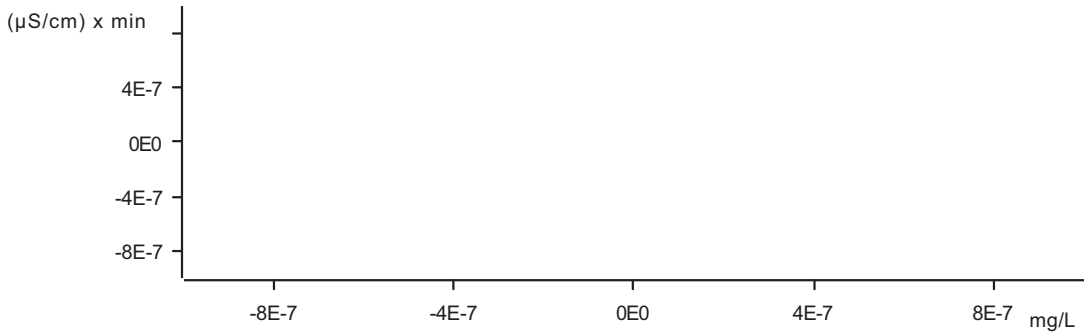
Function: . . . . . *A = - 0.0499946 + 0.0385351× Q*

Relative standard deviation . . . . . *4.011992 %*

Correlation coefficient *0.999500*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0513	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.0983	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.1267	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2920	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.6483	STDF	2023-03-03 14:22:52 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	1.4334	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.9978	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	3.7358	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	6.2243	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	7.8618	STDK	2023-03-03 16:05:40 UTC-5

Phosphate (Anions)



MagIC Net

2023-03-04 9:31:10

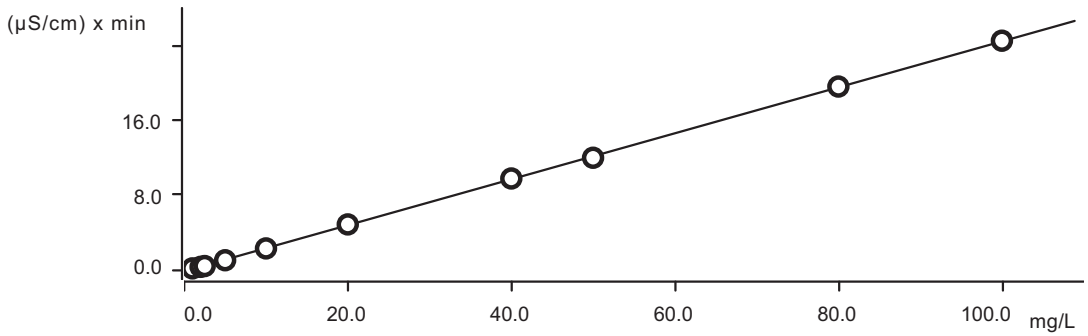
Function: . . . . . .

Relative standard deviation . . . . . *invalid %*

Correlation coefficient . . . . . *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-03-03 14:22:52 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-03-03 16:05:40 UTC-5

Sulfate (Anions)



Function: . . . . . *A = - 0.123310 + 0.0122759× Q*

Relative standard deviation . . . . . *1.190582 %*

Correlation coefficient *0.999954*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-03-03 12:40:06 UTC-5
Standard 1	1	1.000	20.0	1.0	1.0	0.1732	STDB	2023-03-03 13:00:38 UTC-5
Standard 2	1	2.000	20.0	1.0	1.0	0.3368	STDC	2023-03-03 13:21:12 UTC-5
Standard 3	1	2.500	20.0	1.0	1.0	0.4248	STDD	2023-03-03 13:41:44 UTC-5
Standard 4	1	5.000	20.0	1.0	1.0	1.0442	STDE	2023-03-03 14:02:17 UTC-5
Standard 5	1	10.000	20.0	1.0	1.0	2.3073	STDF	2023-03-03 14:22:52 UTC-5

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.8727	STDG	2023-03-03 14:43:25 UTC-5
Standard 7	1	40.000	20.0	1.0	1.0	9.7801	STDH	2023-03-03 15:03:57 UTC-5
Standard 8	1	50.000	20.0	1.0	1.0	11.9940	STDI	2023-03-03 15:24:29 UTC-5
Standard 9	1	80.000	20.0	1.0	1.0	19.6036	STDJ	2023-03-03 15:45:02 UTC-5
Standard 10	1	100.000	20.0	1.0	1.0	24.5003	STDK	2023-03-03 16:05:40 UTC-5

MagIC Net

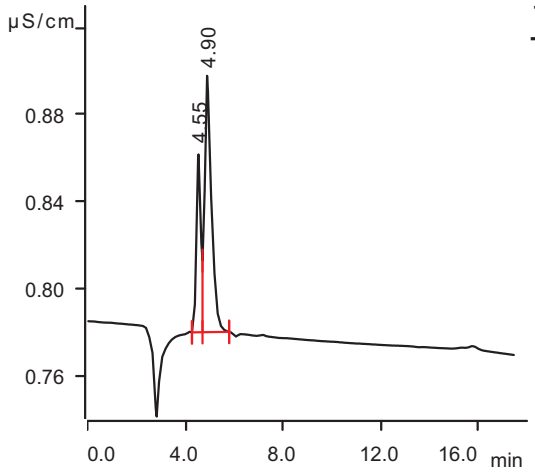
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDA
Sample type . . . . . Standard 100
Determination start 2023-03-03 12:40:06
Dilution factor 1.00

Anions

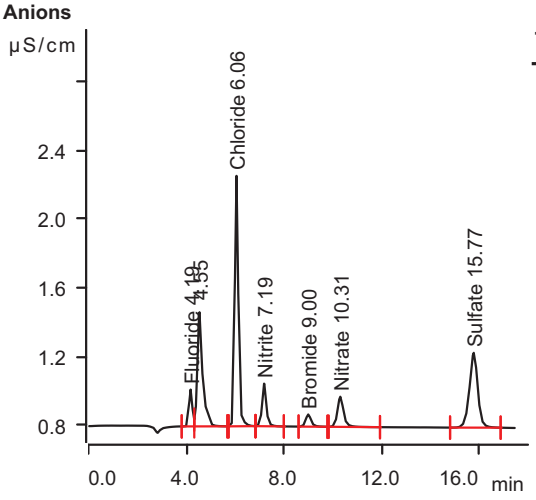


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)

Sample data

Ident . . . . . STDB
Sample type . . . . . Standard 1
Determination start 2023-03-03 13:00:38
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0334	0.125	0.125
6.06	Chloride	0.2449	1.137	1.137
7.19	Nitrite	0.0511	0.123	0.123
9.00	Bromide	0.0184	0.272	0.272
10.31	Nitrate	0.0513	0.131	0.131
15.77	Sulfate	0.1732	1.208	1.208

MagIC Net

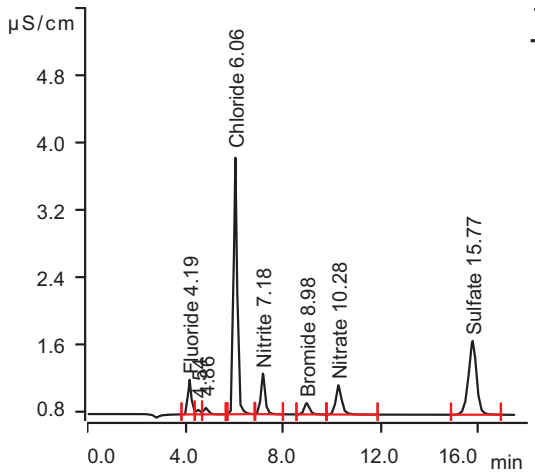
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDC
Sample type . . . . . Standard 2
Determination start 2023-03-03 13:21:12
Dilution factor 1.00

Anions

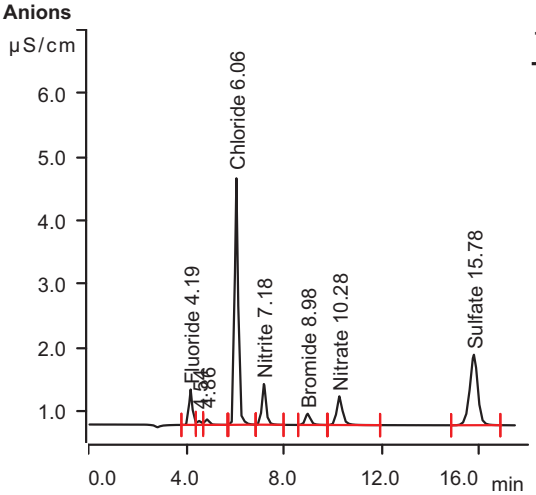


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0636	0.184	0.184
6.06	Chloride	0.4993	1.921	1.921
7.18	Nitrite	0.0966	0.186	0.186
8.98	Bromide	0.0344	0.391	0.391
10.28	Nitrate	0.0983	0.192	0.192
15.77	Sulfate	0.3368	1.874	1.874

Sample data

Ident . . . . . STDD
Sample type . . . . . Standard 3
Determination start 2023-03-03 13:41:44
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0853	0.226	0.226
6.06	Chloride	0.6352	2.339	2.339
7.18	Nitrite	0.1274	0.229	0.229
8.98	Bromide	0.0446	0.467	0.467
10.28	Nitrate	0.1267	0.229	0.229
15.78	Sulfate	0.4248	2.233	2.233

MagIC Net

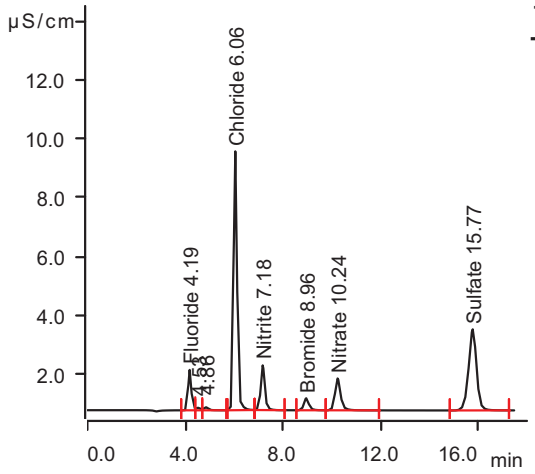
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDE
Sample type . . . . . Standard 4
Determination start 2023-03-03 14:02:17
Dilution factor 1.00

Anions

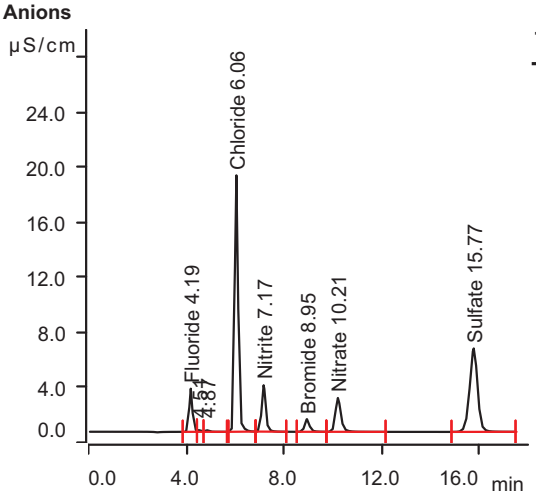


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2065	0.460	0.460
6.06	Chloride	1.4440	4.828	4.828
7.18	Nitrite	0.2963	0.464	0.464
8.96	Bromide	0.0994	0.875	0.875
10.24	Nitrate	0.2920	0.444	0.444
15.77	Sulfate	1.0442	4.755	4.755

Sample data

Ident . . . . . STDF
Sample type . . . . . Standard 5
Determination start 2023-03-03 14:22:52
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.4684	0.965	0.965
6.06	Chloride	3.0708	9.835	9.835
7.17	Nitrite	0.6549	0.962	0.962
8.95	Bromide	0.2159	1.741	1.741
10.21	Nitrate	0.6483	0.906	0.906
15.77	Sulfate	2.3073	9.900	9.900

MagIC Net

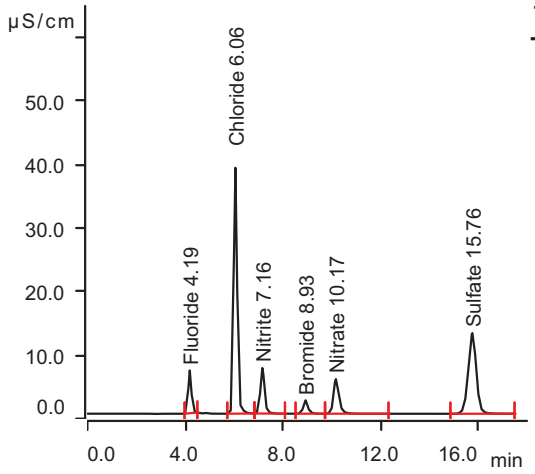
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDG
Sample type . . . . . Standard 6
Determination start 2023-03-03 14:43:25
Dilution factor 1.00

Anions

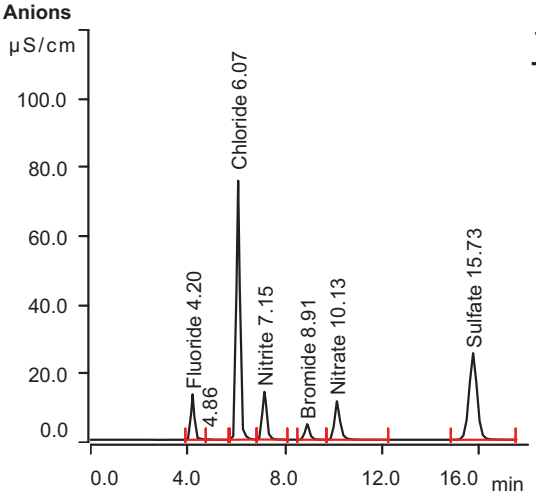


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.9847	1.962	1.962
6.06	Chloride	6.4319	20.180	20.180
7.16	Nitrite	1.4206	2.026	2.026
8.93	Bromide	0.4812	3.713	3.713
10.17	Nitrate	1.4334	1.925	1.925
15.76	Sulfate	4.8727	20.349	20.349

Sample data

Ident . . . . . STDH
Sample type . . . . . Standard 7
Determination start 2023-03-03 15:03:57
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	2.1240	4.162	4.162
6.07	Chloride	12.9006	40.089	40.089
7.15	Nitrite	2.8855	4.063	4.063
8.91	Bromide	1.0306	7.799	7.799
10.13	Nitrate	2.9978	3.955	3.955
15.73	Sulfate	9.7801	40.337	40.337

MagIC Net

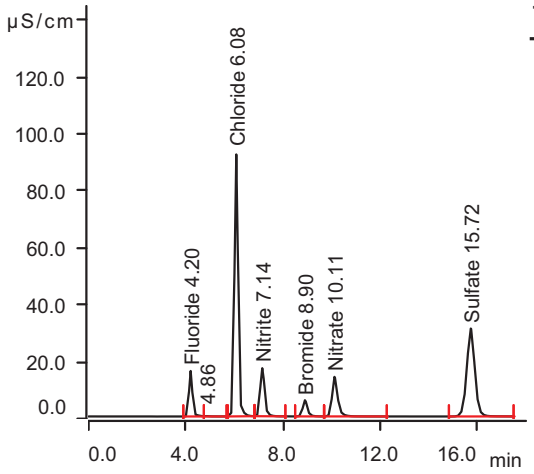
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDI
Sample type . . . . . Standard 8
Determination start 2023-03-03 15:24:29
Dilution factor 1.00

Anions

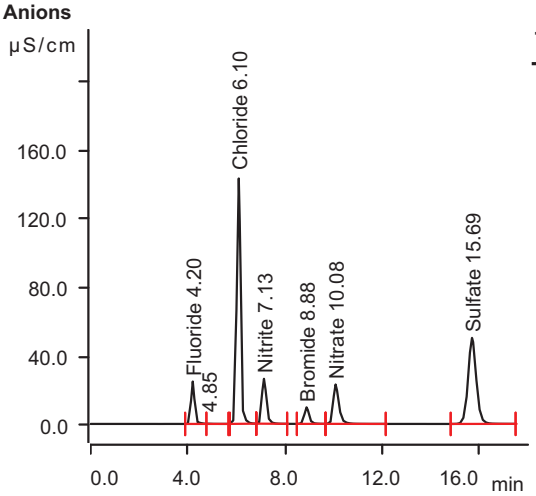


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	2.5792	5.042	5.042
6.08	Chloride	15.9184	49.378	49.378
7.14	Nitrite	3.5585	4.998	4.998
8.90	Bromide	1.2931	9.751	9.751
10.11	Nitrate	3.7358	4.912	4.912
15.72	Sulfate	11.9940	49.354	49.354

Sample data

Ident . . . . . STDJ
Sample type . . . . . Standard 9
Determination start 2023-03-03 15:45:02
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	4.1407	8.057	8.057
6.10	Chloride	25.9740	80.327	80.327
7.13	Nitrite	5.7479	8.042	8.042
8.88	Bromide	2.1909	16.427	16.427
10.08	Nitrate	6.2243	8.141	8.141
15.69	Sulfate	19.6036	80.348	80.348

MagIC Net

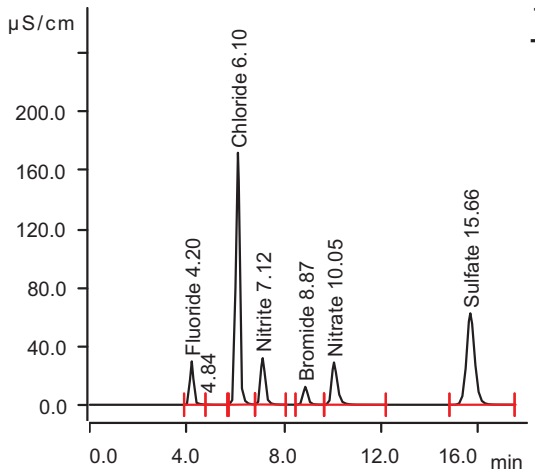
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDK
Sample type . . . . . Standard 10
Determination start 2023-03-03 16:05:40
Dilution factor 1.00

Anions

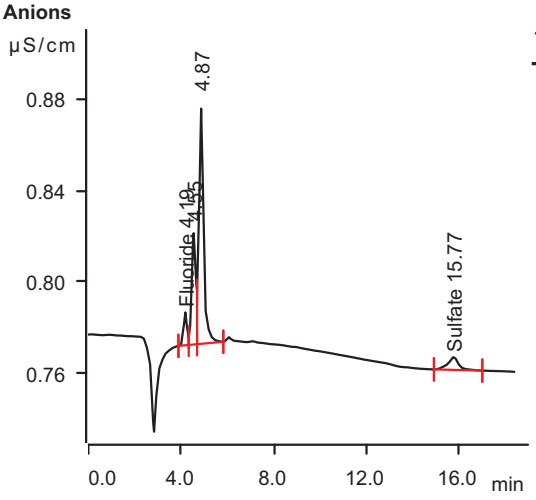


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	5.0936	9.897	9.897
6.10	Chloride	32.5385	100.532	100.532
7.12	Nitrite	7.1385	9.975	9.975
8.87	Bromide	2.7859	20.850	20.850
10.05	Nitrate	7.8618	10.266	10.266
15.66	Sulfate	24.5003	100.292	100.292

Sample data

Ident . . . . . ICB
Sample type . . . . . Sample
Determination start 2023-03-03 16:55:19
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0023	0.065	0.065
15.77	Sulfate	0.0030	0.515	0.515

MagIC Net

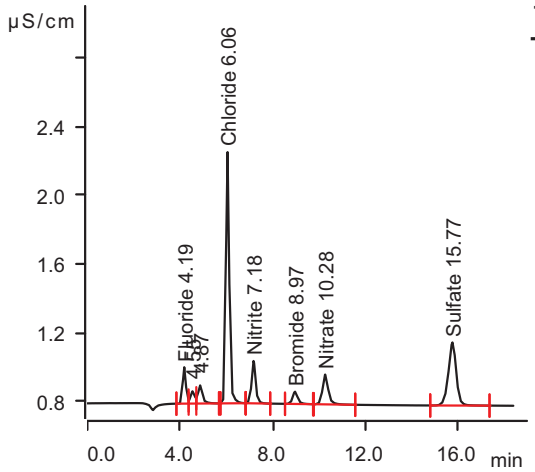
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . CRI
Sample type . . . . . Sample
Determination start 2023-03-03 17:16:50
Dilution factor 1.00

Anions

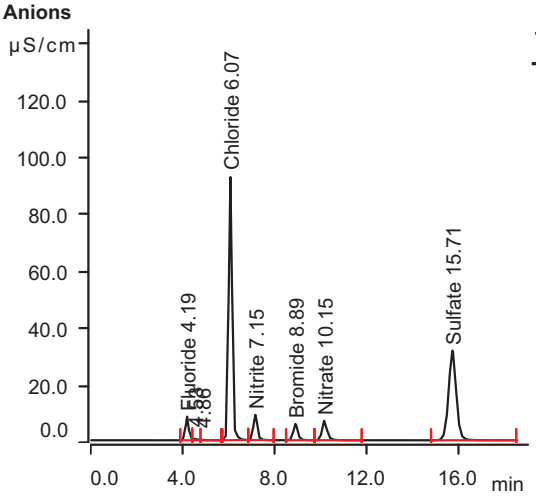


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0331	0.125	0.125
6.06	Chloride	0.2446	1.137	1.137
7.18	Nitrite	0.0503	0.122	0.122
8.97	Bromide	0.0185	0.273	0.273
10.28	Nitrate	0.0504	0.130	0.130
15.77	Sulfate	0.1448	1.092	1.092

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-03 17:38:24
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.2750	2.523	2.523
6.07	Chloride	15.9521	49.481	49.481
7.15	Nitrite	1.7765	2.521	2.521
8.89	Bromide	1.3009	9.809	9.809
10.15	Nitrate	1.7883	2.385	2.385
15.71	Sulfate	12.2833	50.532	50.532

MagIC Net

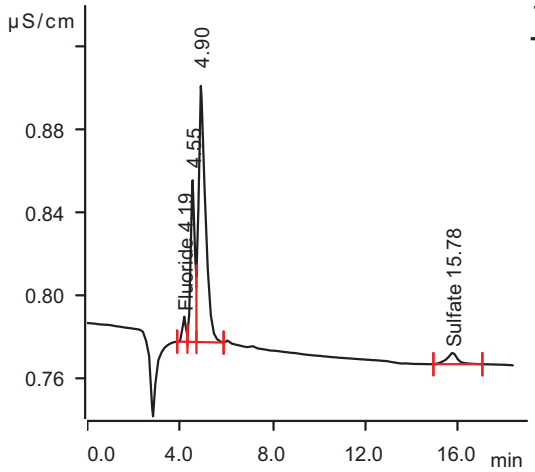
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-03 18:00:06
Dilution factor 1.00

Anions

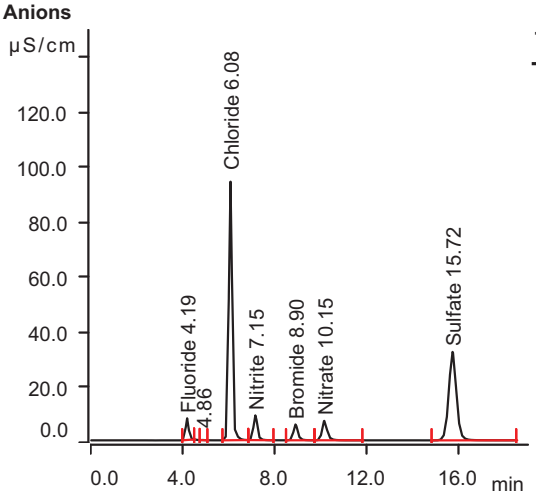


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0019	0.065	0.065
15.78	Sulfate	0.0030	0.514	0.514

Sample data

Ident ICV
Sample type . . . . . Sample
Determination start 2023-03-03 18:43:19
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1777	2.335	2.335
6.08	Chloride	16.2672	50.451	50.451
7.15	Nitrite	1.8029	2.558	2.558
8.90	Bromide	1.3083	9.864	9.864
10.15	Nitrate	1.8637	2.483	2.483
15.72	Sulfate	12.6030	51.834	51.834

MagIC Net

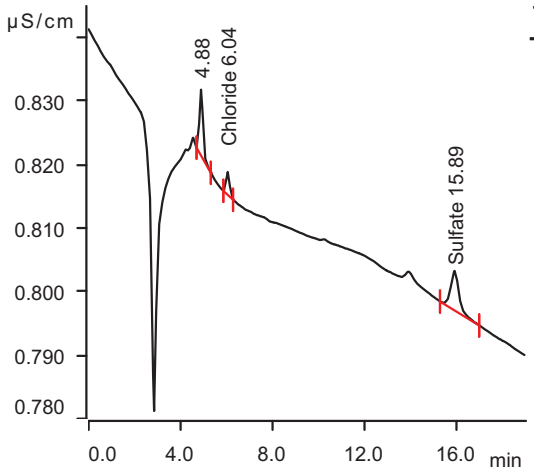
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . Rinse
Sample type . . . . . Sample
Determination start 2023-03-14 10:31:48
Dilution factor 1.00

Anions

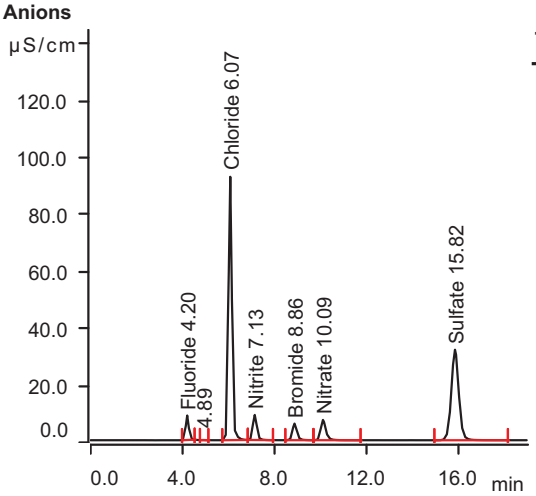


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
6.04	Chloride	0.0006	0.386	0.386
15.89	Sulfate	0.0026	0.513	0.513

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-14 10:58:36
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.3066	2.584	2.584
6.07	Chloride	16.0312	49.725	49.725
7.13	Nitrite	1.7445	2.477	2.477
8.86	Bromide	1.3134	9.901	9.901
10.09	Nitrate	1.8446	2.458	2.458
15.82	Sulfate	12.0378	49.532	49.532

MagIC Net

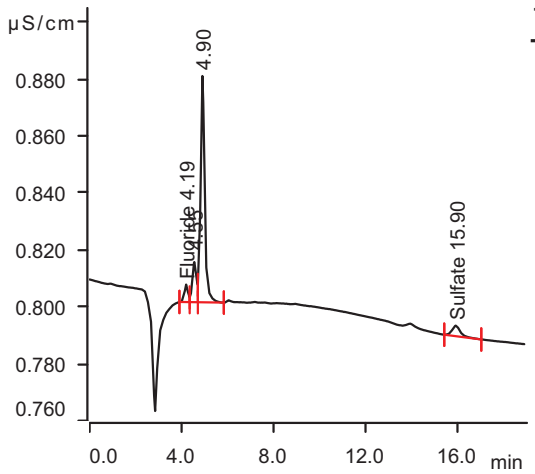
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-03-14 11:25:22
Dilution factor 1.00

Anions

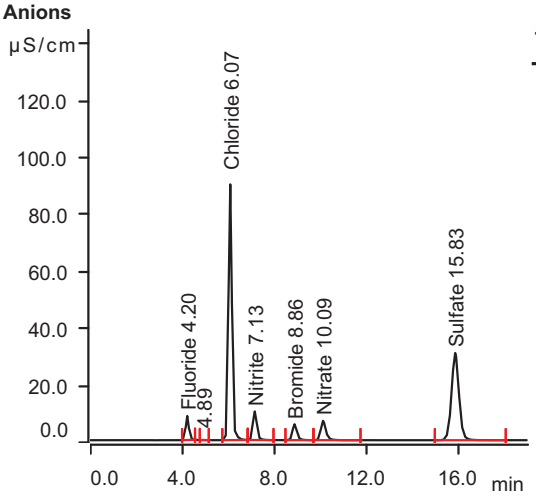


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0011	0.063	0.063
15.90	Sulfate	0.0016	0.509	0.509

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-03-14 11:47:26
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.2787	2.530	2.530
6.07	Chloride	15.4282	47.869	47.869
7.13	Nitrite	1.9995	2.831	2.831
8.86	Bromide	1.2496	9.427	9.427
10.09	Nitrate	1.7505	2.336	2.336
15.83	Sulfate	11.5868	47.695	47.695

MagIC Net

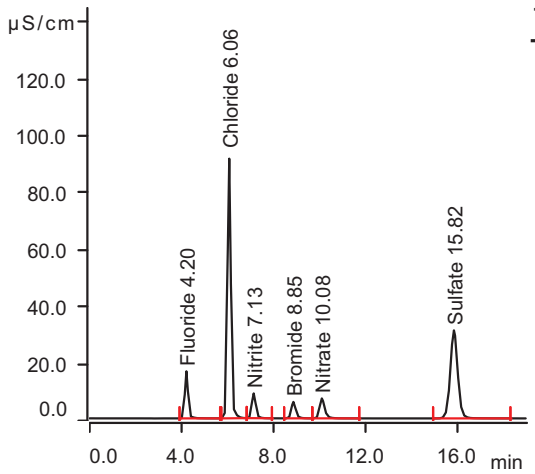
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-03-14 12:22:38
Dilution factor 1.00

Anions

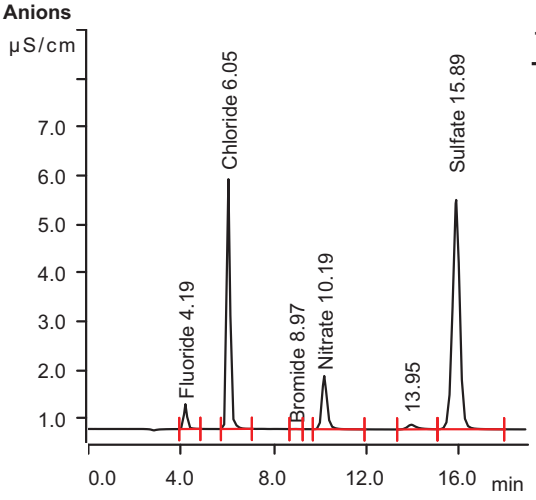


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	2.6807	5.238	5.238
6.06	Chloride	15.6849	48.659	48.659
7.13	Nitrite	1.7144	2.435	2.435
8.85	Bromide	1.2928	9.748	9.748
10.08	Nitrate	1.8039	2.406	2.406
15.82	Sulfate	11.6760	48.059	48.059

Sample data

Ident FC3397-1
Sample type . . . . . Sample
Determination start 2023-03-14 12:48:36
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0827	0.221	0.221
6.05	Chloride	0.8823	3.099	3.099
8.97	Bromide	0.0006	0.140	0.140
10.19	Nitrate	0.2828	0.432	0.432
15.89	Sulfate	1.7126	7.478	7.478

MagIC Net

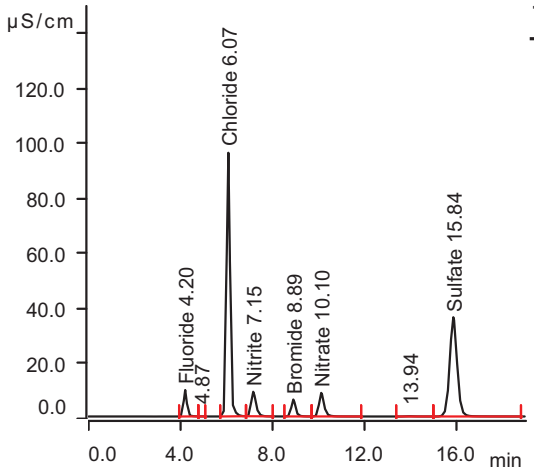
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3397-1S1
Sample type . . . . . Sample
Determination start 2023-03-14 13:10:38
Dilution factor 1.00

Anions

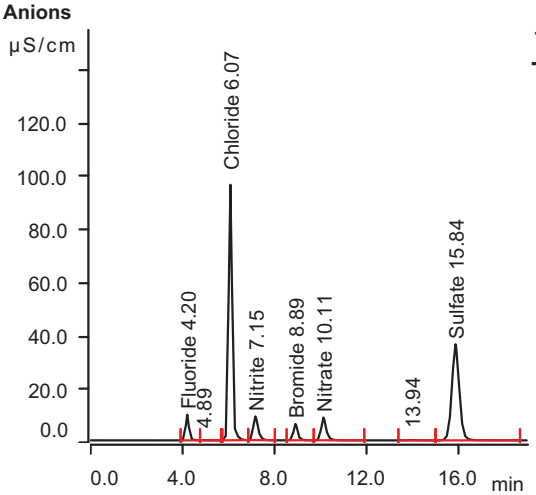


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.5322	3.020	3.020
6.07	Chloride	17.0636	52.903	52.903
7.15	Nitrite	2.1462	3.035	3.035
8.89	Bromide	1.3299	10.025	10.025
10.10	Nitrate	2.1816	2.896	2.896
15.84	Sulfate	13.6159	55.960	55.960

Sample data

Ident FC3397-1S2
Sample type . . . . . Sample
Determination start 2023-03-14 13:32:41
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.5498	3.054	3.054
6.07	Chloride	17.0756	52.940	52.940
7.15	Nitrite	2.1458	3.035	3.035
8.89	Bromide	1.3291	10.018	10.018
10.11	Nitrate	2.1808	2.894	2.894
15.84	Sulfate	13.6222	55.986	55.986

MagIC Net

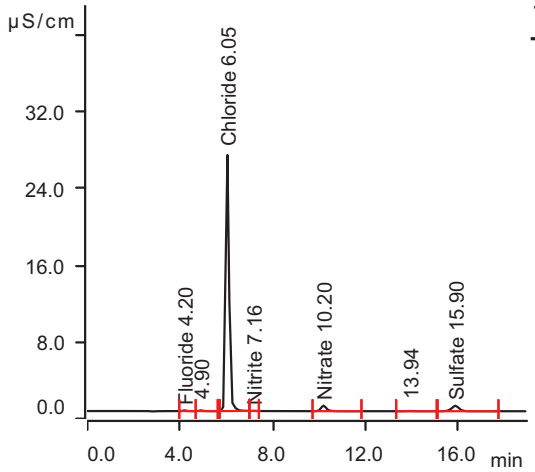
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3397-2
Sample type . . . . . Sample
Determination start 2023-03-14 13:54:43
Dilution factor 10.00

Anions

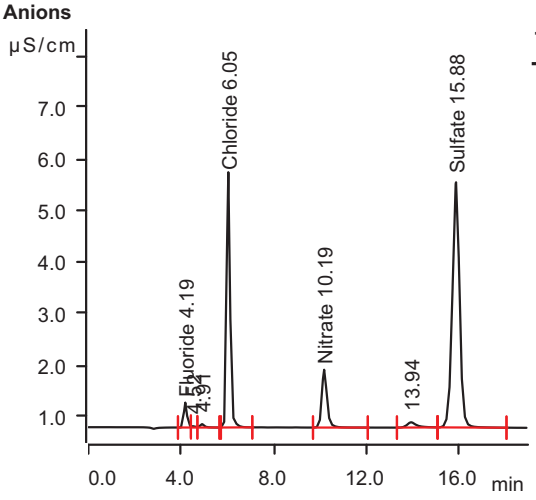


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0133	0.087	0.866
6.05	Chloride	4.4237	13.999	139.990
7.16	Nitrite	0.0021	0.055	0.546
10.20	Nitrate	0.1544	0.265	2.652
15.90	Sulfate	0.2126	1.368	13.681

Sample data

Ident FC3397-3
Sample type . . . . . Sample
Determination start 2023-03-14 14:16:36
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0766	0.209	0.209
6.05	Chloride	0.8507	3.002	3.002
10.19	Nitrate	0.2901	0.441	0.441
15.88	Sulfate	1.7281	7.541	7.541

MagIC Net

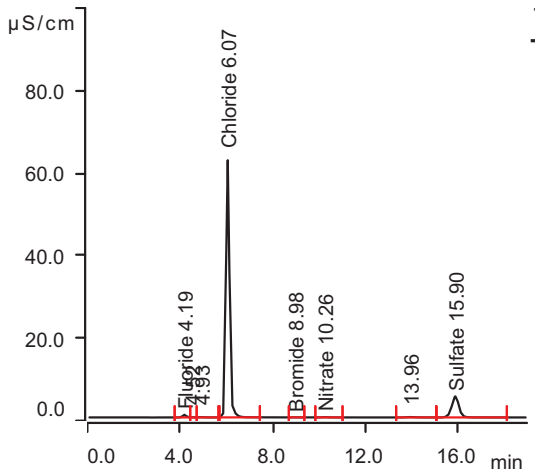
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3397-4
Sample type . . . . . Sample
Determination start 2023-03-14 14:38:42
Dilution factor 1.00

Anions

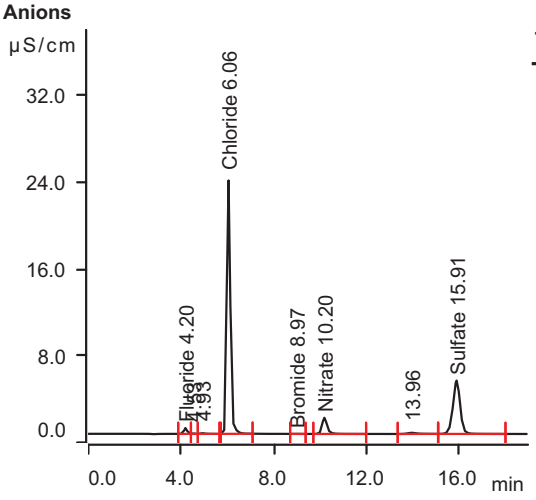


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.1032	0.260	0.260
6.07	Chloride	11.0346	34.346	34.346
8.98	Bromide	0.0015	0.146	0.146
10.26	Nitrate	0.0169	0.087	0.087
15.90	Sulfate	1.8568	8.065	8.065

Sample data

Ident FC3397-5
Sample type . . . . . Sample
Determination start 2023-03-14 15:00:45
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0852	0.226	0.226
6.06	Chloride	4.0500	12.849	12.849
8.97	Bromide	0.0008	0.142	0.142
10.20	Nitrate	0.3800	0.558	0.558
15.91	Sulfate	1.7844	7.770	7.770

MagIC Net

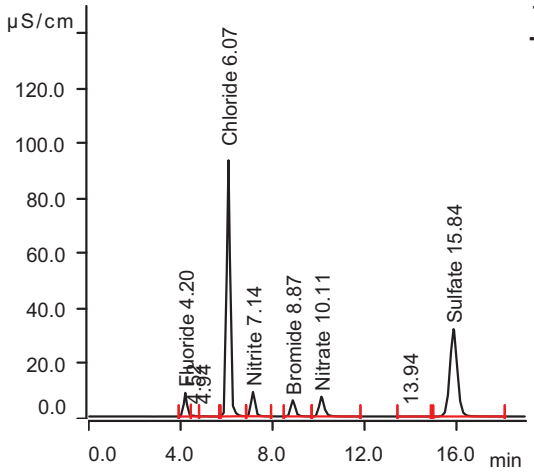
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-14 15:22:47
Dilution factor 1.00

Anions

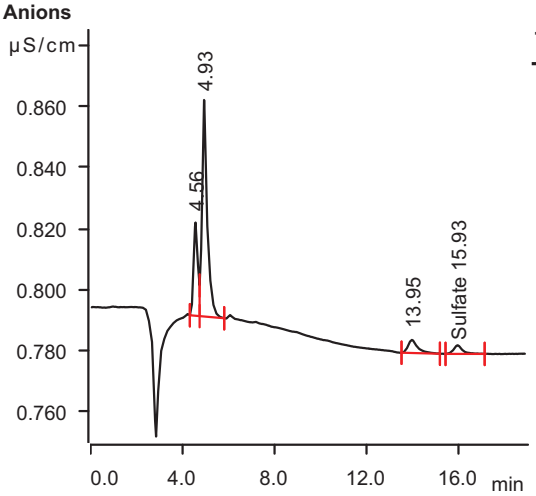


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.3224	2.615	2.615
6.07	Chloride	16.1274	50.021	50.021
7.14	Nitrite	1.7546	2.491	2.491
8.87	Bromide	1.3238	9.979	9.979
10.11	Nitrate	1.8629	2.482	2.482
15.84	Sulfate	12.0094	49.417	49.417

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-14 15:44:57
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.93	Sulfate	0.0013	0.507	0.507

MagIC Net

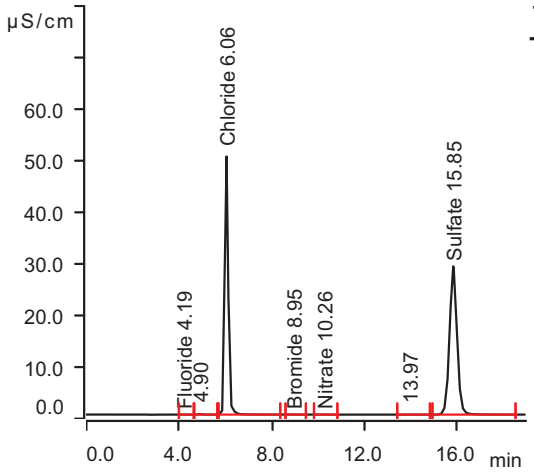
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3399-1
Sample type . . . . . Sample
Determination start 2023-03-14 16:07:00
Dilution factor 50.00

Anions

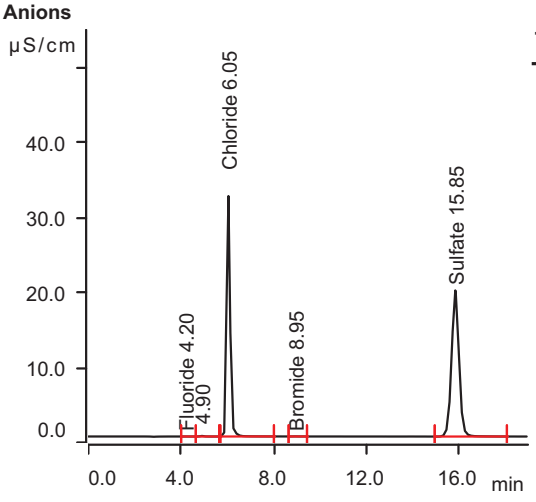


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0019	0.065	3.234
6.06	Chloride	8.4026	26.245	1312.269
8.95	Bromide	0.0051	0.173	8.672
10.26	Nitrate	0.0038	0.070	3.489
15.85	Sulfate	10.8275	44.603	2230.143

Sample data

Ident FC3399-2
Sample type . . . . . Sample
Determination start 2023-03-14 16:28:48
Dilution factor 100.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0007	0.062	6.239
6.05	Chloride	5.3812	16.946	1694.612
8.95	Bromide	0.0022	0.152	15.199
15.85	Sulfate	7.2835	30.168	3016.817

MagIC Net

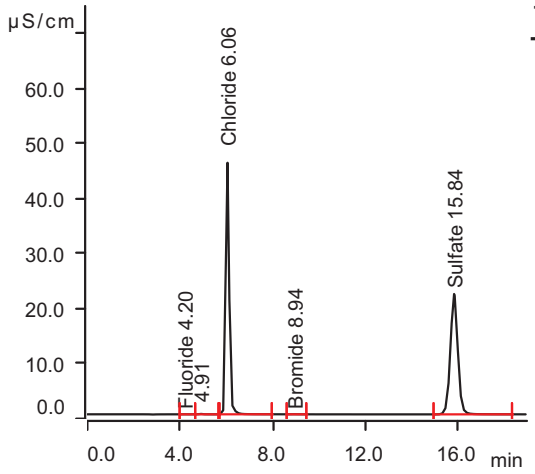
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3399-3
Sample type . . . . . Sample
Determination start 2023-03-14 16:50:35
Dilution factor 100.00

Anions

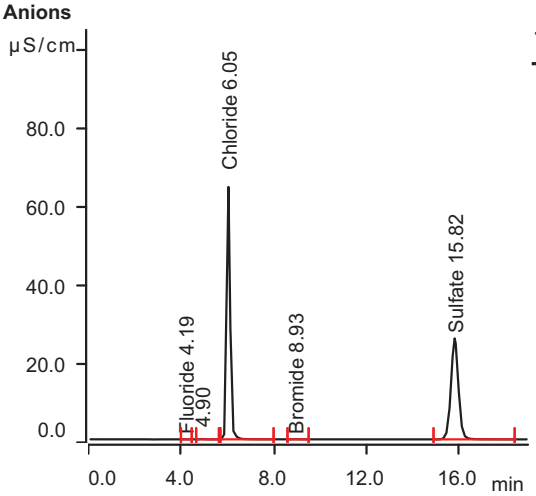


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0012	0.063	6.331
6.06	Chloride	7.6944	24.066	2406.560
8.94	Bromide	0.0033	0.160	15.983
15.84	Sulfate	8.2011	33.905	3390.532

Sample data

Ident FC3399-4
Sample type . . . . . Sample
Determination start 2023-03-14 17:12:24
Dilution factor 100.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0008	0.062	6.248
6.05	Chloride	10.8623	33.816	3381.612
8.93	Bromide	0.0082	0.196	19.641
15.82	Sulfate	9.6446	39.785	3978.507

MagIC Net

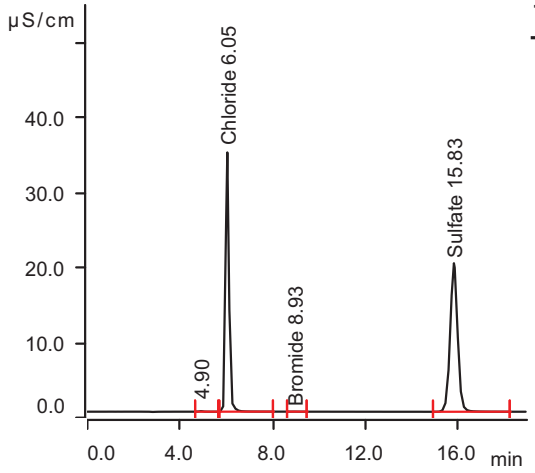
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3399-5
Sample type . . . . . Sample
Determination start 2023-03-14 17:34:11
Dilution factor 100.00

Anions

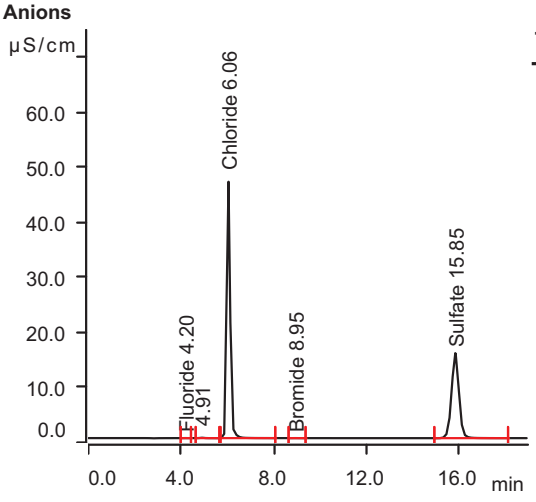


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
6.05	Chloride	5.8005	18.237	1823.673
8.93	Bromide	0.0022	0.152	15.204
15.83	Sulfate	7.4003	30.644	3064.396

Sample data

Ident FC3399-6
Sample type . . . . . Sample
Determination start 2023-03-14 17:55:59
Dilution factor 100.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0018	0.064	6.434
6.06	Chloride	7.8459	24.532	2453.210
8.95	Bromide	0.0018	0.149	14.881
15.85	Sulfate	5.7566	23.949	2394.899

MagIC Net

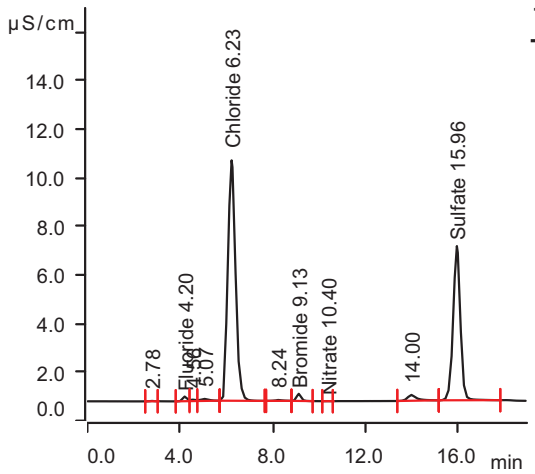
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3338-1
Sample type . . . . . Sample
Determination start 2023-03-14 18:17:45
Dilution factor 1.00

Anions

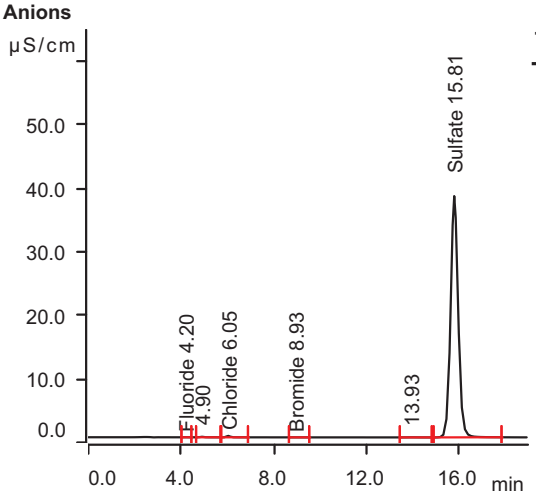


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0399	0.138	0.138
6.23	Chloride	3.8141	12.123	12.123
9.13	Bromide	0.0637	0.609	0.609
10.40	Nitrate	0.0006	0.066	0.066
15.96	Sulfate	2.2934	9.843	9.843

Sample data

Ident FC3338-7
Sample type . . . . . Sample
Determination start 2023-03-14 18:39:51
Dilution factor 50.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0016	0.064	3.202
6.05	Chloride	0.0406	0.509	25.426
8.93	Bromide	0.0007	0.140	7.023
15.81	Sulfate	14.4154	59.216	2960.822

MagIC Net

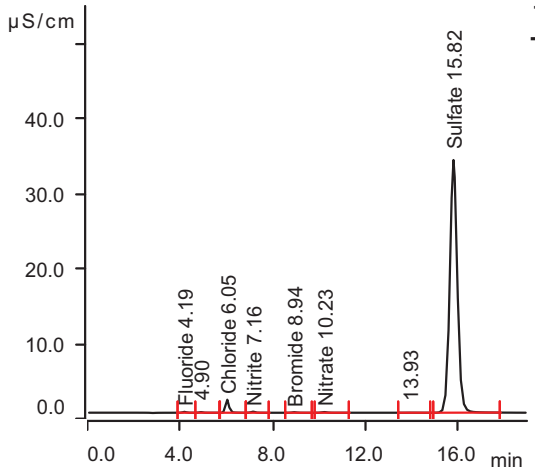
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3338-7S3
Sample type . . . . . Sample
Determination start 2023-03-14 19:01:39
Dilution factor 50.00

Anions

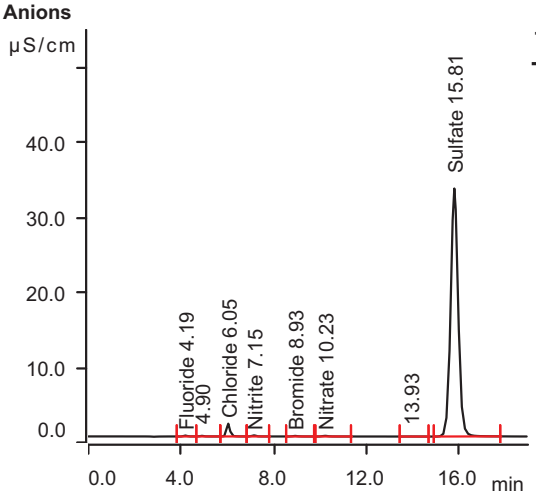


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0206	0.101	5.036
6.05	Chloride	0.2901	1.276	63.824
7.16	Nitrite	0.0296	0.093	4.646
8.94	Bromide	0.0191	0.278	13.885
10.23	Nitrate	0.0251	0.097	4.871
15.82	Sulfate	12.7260	52.336	2616.781

Sample data

Ident FC3338-7S4
Sample type . . . . . Sample
Determination start 2023-03-14 19:23:27
Dilution factor 50.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0208	0.101	5.056
6.05	Chloride	0.2837	1.257	62.845
7.15	Nitrite	0.0290	0.092	4.606
8.93	Bromide	0.0189	0.276	13.796
10.23	Nitrate	0.0248	0.097	4.855
15.81	Sulfate	12.4693	51.290	2564.492

MagIC Net

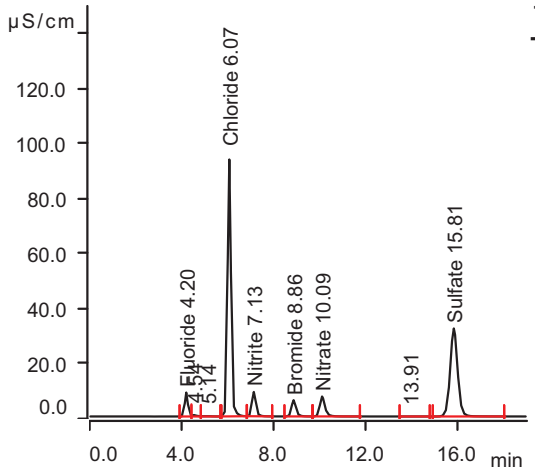
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-14 19:45:15
Dilution factor 1.00

Anions

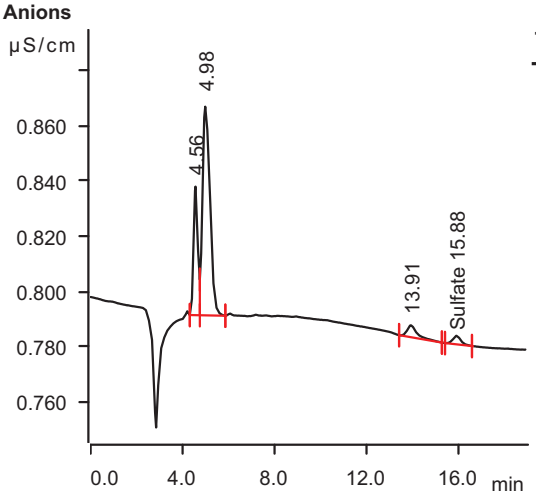


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.3392	2.647	2.647
6.07	Chloride	16.1800	50.183	50.183
7.13	Nitrite	1.7551	2.491	2.491
8.86	Bromide	1.3308	10.031	10.031
10.09	Nitrate	1.8754	2.498	2.498
15.81	Sulfate	12.0886	49.739	49.739

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-14 20:07:24
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.88	Sulfate	0.0013	0.507	0.507

MagIC Net

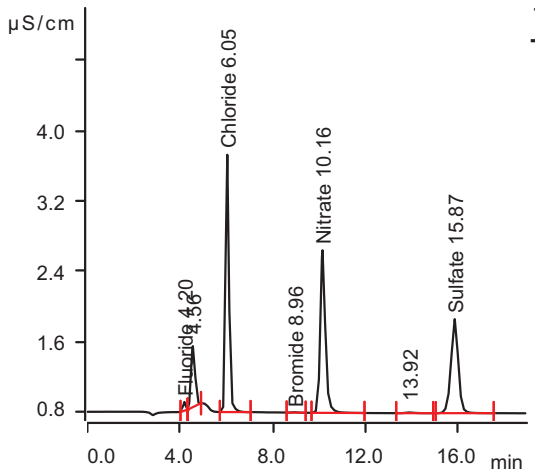
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident FC3250-7
Sample type . . . . . Sample
Determination start 2023-03-14 20:29:27
Dilution factor 1.00

Anions

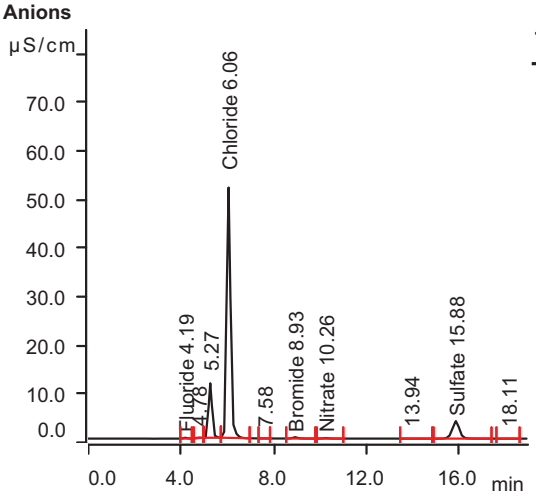


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0136	0.087	0.087
6.05	Chloride	0.4865	1.881	1.881
8.96	Bromide	0.0013	0.145	0.145
10.16	Nitrate	0.4745	0.680	0.680
15.87	Sulfate	0.3948	2.110	2.110

Sample data

Ident FC3333-1
Sample type . . . . . Sample
Determination start 2023-03-14 20:51:38
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0278	0.115	0.115
6.06	Chloride	9.5931	29.909	29.909
8.93	Bromide	0.0693	0.650	0.650
10.26	Nitrate	0.0241	0.096	0.096
15.88	Sulfate	1.3005	5.799	5.799

MagIC Net

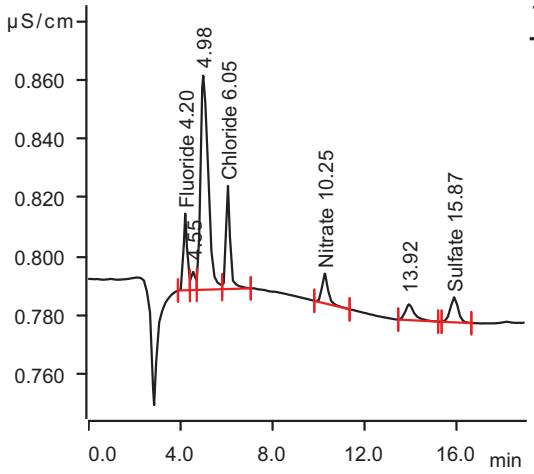
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident MB1F
Sample type . . . . . Sample
Determination start 2023-03-14 21:13:43
Dilution factor 1.00

Anions

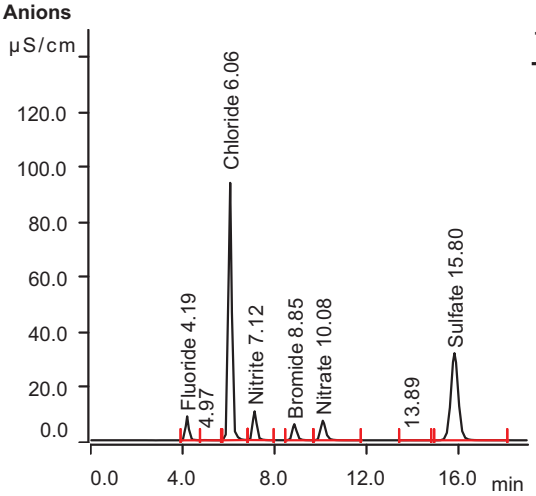


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0044	0.069	0.069
6.05	Chloride	0.0071	0.405	0.405
10.25	Nitrate	0.0031	0.069	0.069
15.87	Sulfate	0.0034	0.516	0.516

Sample data

Ident B1F
Sample type . . . . . Sample
Determination start 2023-03-14 21:35:45
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.3588	2.685	2.685
6.06	Chloride	16.0625	49.821	49.821
7.12	Nitrite	2.0827	2.947	2.947
8.85	Bromide	1.3039	9.831	9.831
10.08	Nitrate	1.8264	2.435	2.435
15.80	Sulfate	11.9322	49.102	49.102

MagIC Net

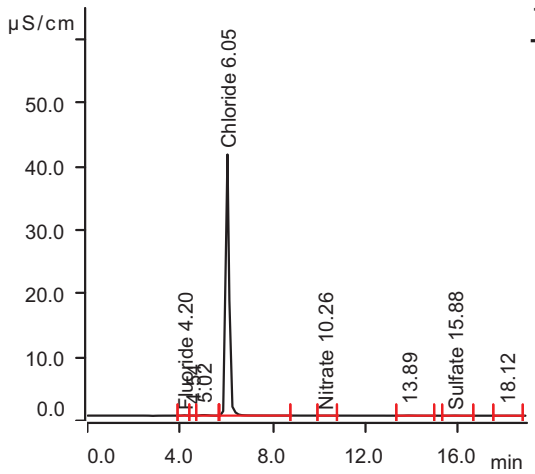
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-4
Sample type . . . . . Sample
Determination start 2023-03-14 21:57:48
Dilution factor 5.00

Anions

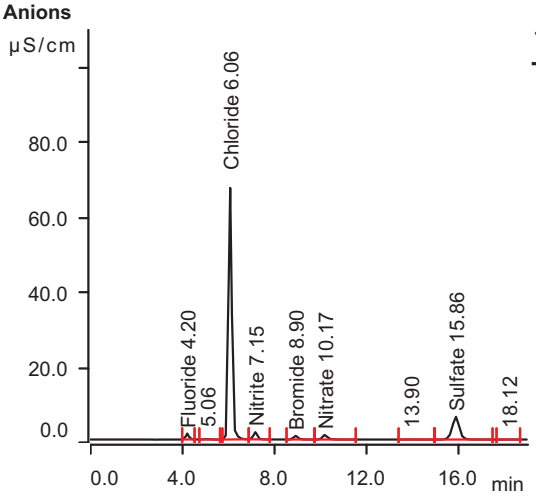


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0091	0.078	0.392
6.05	Chloride	6.9285	21.708	108.542
10.26	Nitrate	0.0008	0.066	0.329
15.88	Sulfate	0.0076	0.533	2.665

Sample data

Ident LA88599-4S1
Sample type . . . . . Sample
Determination start 2023-03-14 22:19:50
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.2333	0.511	2.557
6.06	Chloride	11.3517	35.322	176.611
7.15	Nitrite	0.3676	0.563	2.814
8.90	Bromide	0.2216	1.783	8.916
10.17	Nitrate	0.3106	0.468	2.339
15.86	Sulfate	2.2108	9.507	47.534

MagIC Net

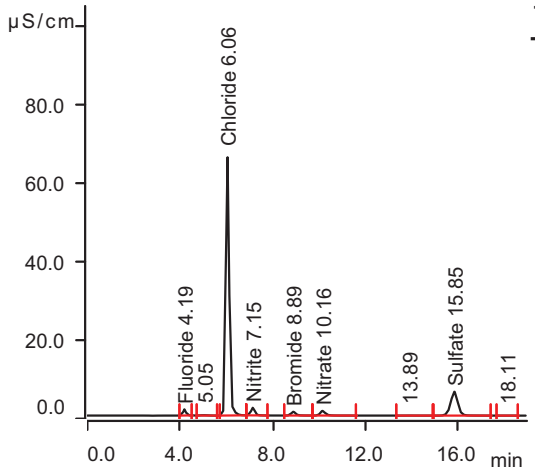
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-4S2
Sample type . . . . . Sample
Determination start 2023-03-14 22:41:54
Dilution factor 5.00

Anions

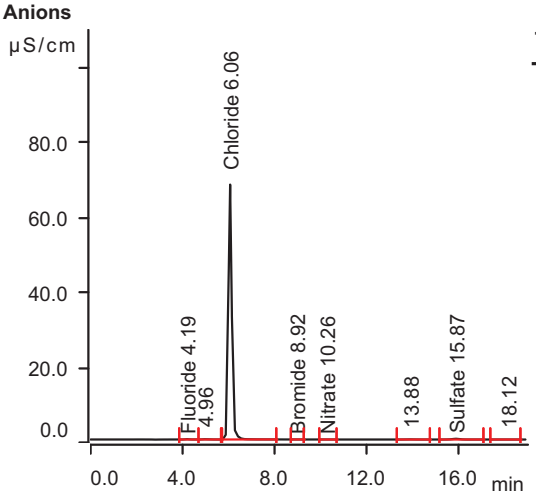


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2296	0.504	2.522
6.06	Chloride	11.0648	34.439	172.196
7.15	Nitrite	0.3691	0.565	2.825
8.89	Bromide	0.2222	1.788	8.938
10.16	Nitrate	0.3115	0.469	2.345
15.85	Sulfate	2.2246	9.563	47.815

Sample data

Ident LA88599-5
Sample type . . . . . Sample
Determination start 2023-03-14 23:03:57
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0165	0.093	0.464
6.06	Chloride	11.5985	36.082	180.409
8.92	Bromide	0.0006	0.140	0.700
10.26	Nitrate	0.0011	0.066	0.331
15.87	Sulfate	0.0771	0.816	4.081

MagIC Net

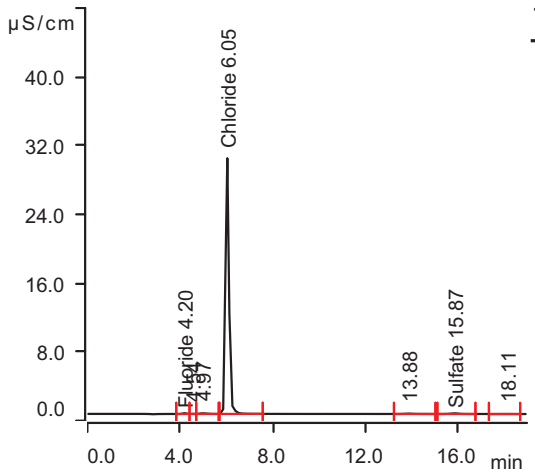
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-6
Sample type . . . . . Sample
Determination start 2023-03-14 23:25:58
Dilution factor 5.00

Anions

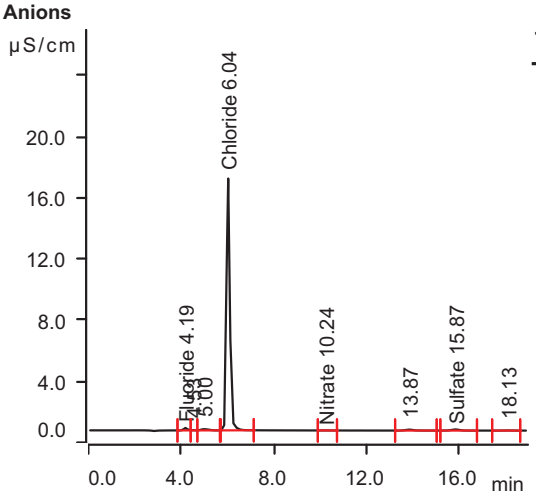


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0158	0.091	0.457
6.05	Chloride	4.9463	15.607	78.037
15.87	Sulfate	0.0286	0.619	3.094

Sample data

Ident LA88599-7
Sample type . . . . . Sample
Determination start 2023-03-14 23:48:01
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0267	0.112	0.562
6.04	Chloride	2.7055	8.711	43.555
10.24	Nitrate	0.0010	0.066	0.331
15.87	Sulfate	0.0294	0.622	3.109

MagIC Net

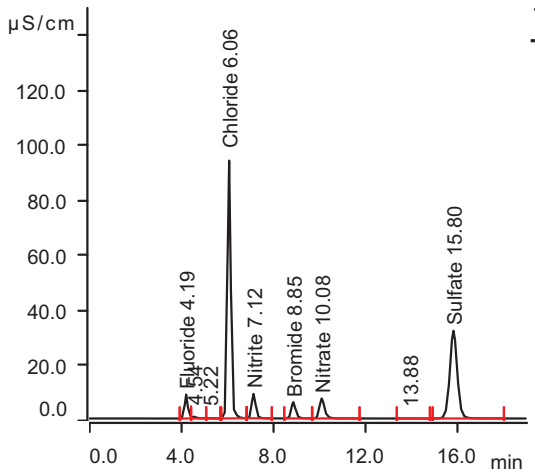
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-15 00:10:03
Dilution factor 1.00

Anions

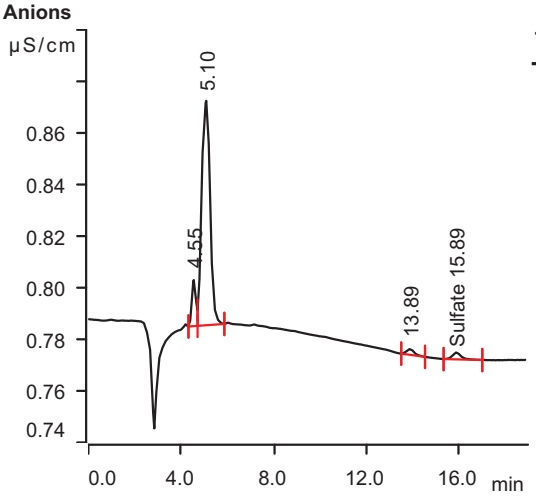


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.3293	2.628	2.628
6.06	Chloride	16.2027	50.253	50.253
7.12	Nitrite	1.7503	2.485	2.485
8.85	Bromide	1.3315	10.036	10.036
10.08	Nitrate	1.8815	2.506	2.506
15.80	Sulfate	12.0773	49.693	49.693

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-15 00:32:14
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.89	Sulfate	0.0012	0.507	0.507

MagIC Net

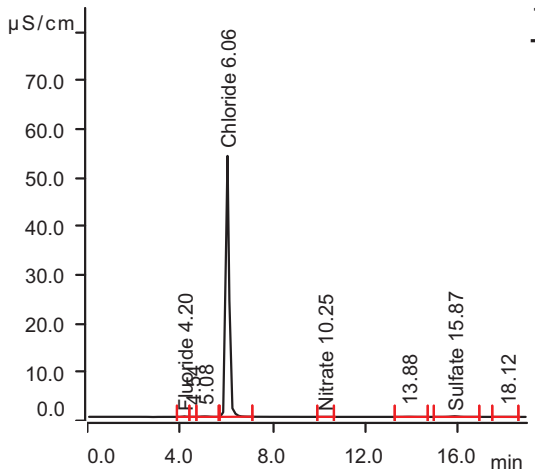
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-8
Sample type . . . . . Sample
Determination start 2023-03-15 00:54:16
Dilution factor 5.00

Anions

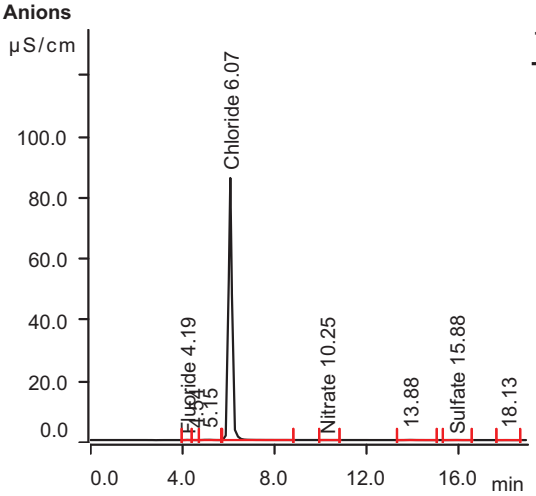


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0146	0.089	0.446
6.06	Chloride	9.0009	28.087	140.434
10.25	Nitrate	0.0008	0.066	0.329
15.87	Sulfate	0.0493	0.703	3.515

Sample data

Ident LA88599-9
Sample type . . . . . Sample
Determination start 2023-03-15 01:16:24
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0093	0.079	0.394
6.07	Chloride	14.8435	46.070	230.348
10.25	Nitrate	0.0012	0.066	0.332
15.88	Sulfate	0.0086	0.537	2.686

MagIC Net

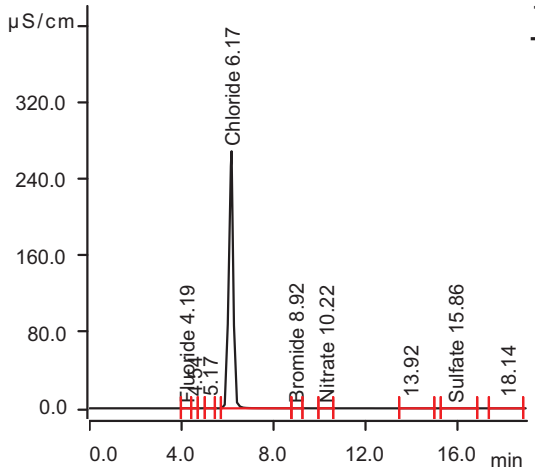
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-10
Sample type . . . . . Sample
Determination start 2023-03-15 01:38:27
Dilution factor 5.00

Anions

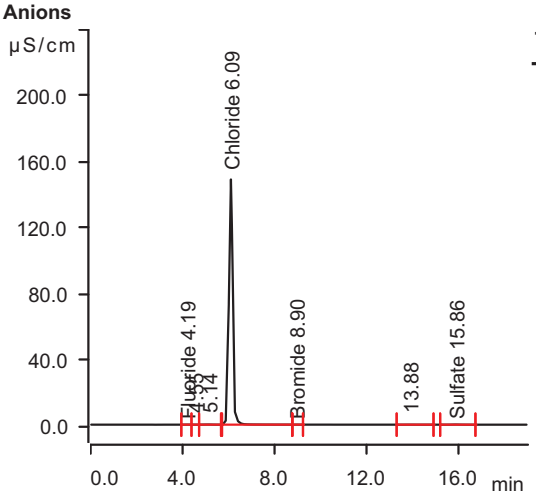


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0188	0.097	0.486
6.17	Chloride	60.6034	186.910	934.552
8.92	Bromide	0.0014	0.146	0.731
10.22	Nitrate	0.0011	0.066	0.331
15.86	Sulfate	0.0053	0.524	2.619

Sample data

Ident LA88599-11
Sample type . . . . . Sample
Determination start 2023-03-15 02:00:30
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0085	0.077	0.387
6.09	Chloride	27.4149	84.762	423.809
8.90	Bromide	0.0006	0.140	0.701
15.86	Sulfate	0.0326	0.635	3.175

MagIC Net

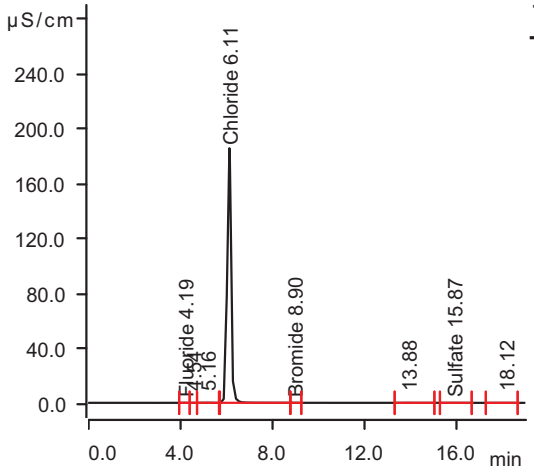
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-12
Sample type . . . . . Sample
Determination start 2023-03-15 02:22:32
Dilution factor 5.00

Anions

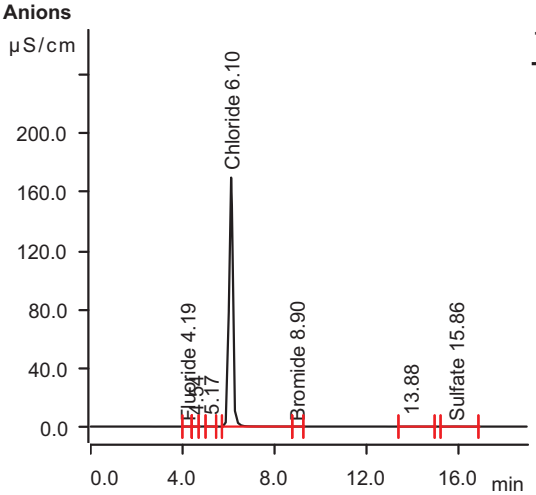


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0119	0.084	0.419
6.11	Chloride	36.3755	112.341	561.705
8.90	Bromide	0.0008	0.142	0.709
15.87	Sulfate	0.0171	0.572	2.860

Sample data

Ident LA88599-13
Sample type . . . . . Sample
Determination start 2023-03-15 02:44:35
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0086	0.078	0.388
6.10	Chloride	32.1964	99.479	497.393
8.90	Bromide	0.0007	0.141	0.705
15.86	Sulfate	0.0189	0.579	2.895

MagIC Net

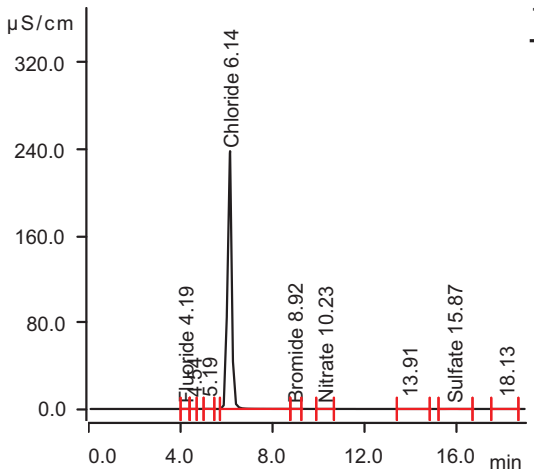
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-14
Sample type . . . . . Sample
Determination start 2023-03-15 03:06:39
Dilution factor 5.00

Anions

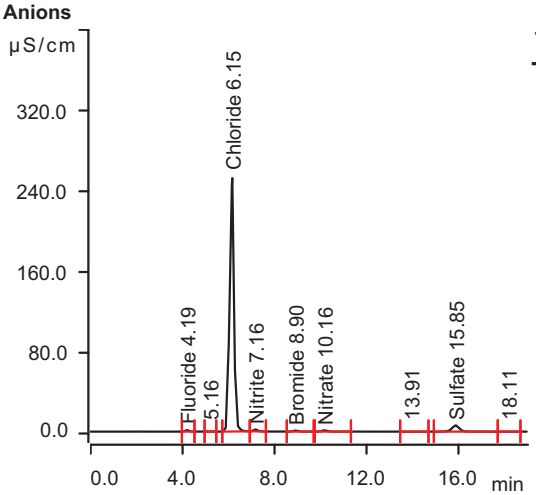


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0084	0.077	0.386
6.14	Chloride	50.6266	156.204	781.018
8.92	Bromide	0.0013	0.146	0.728
10.23	Nitrate	0.0019	0.067	0.337
15.87	Sulfate	0.0207	0.586	2.932

Sample data

Ident LA88599-14S3
Sample type . . . . . Sample
Determination start 2023-03-15 03:28:42
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2394	0.523	2.616
6.15	Chloride	55.2263	170.361	851.803
7.16	Nitrite	0.3742	0.572	2.860
8.90	Bromide	0.2308	1.852	9.260
10.16	Nitrate	0.3243	0.486	2.428
15.85	Sulfate	2.3019	9.878	49.389

MagIC Net

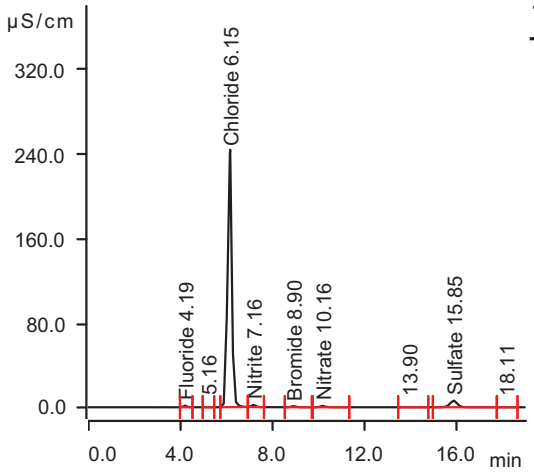
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-14S4
Sample type . . . . . Sample
Determination start 2023-03-15 03:50:47
Dilution factor 5.00

Anions

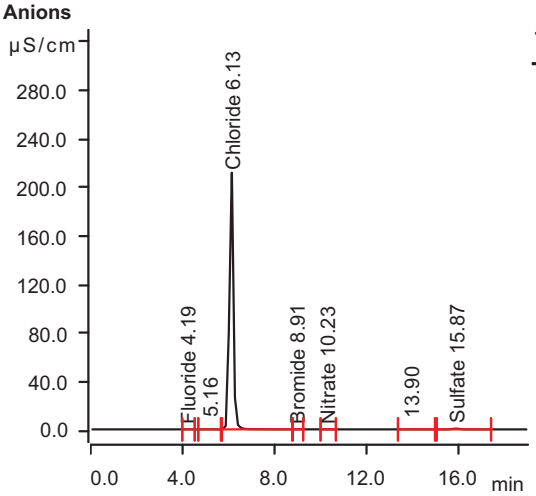


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2443	0.533	2.664
6.15	Chloride	52.3373	161.469	807.345
7.16	Nitrite	0.3767	0.575	2.877
8.90	Bromide	0.2317	1.858	9.292
10.16	Nitrate	0.3172	0.476	2.382
15.85	Sulfate	2.3229	9.963	49.816

Sample data

Ident LA88599-15
Sample type . . . . . Sample
Determination start 2023-03-15 04:12:50
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0146	0.089	0.446
6.13	Chloride	43.0838	132.988	664.940
8.91	Bromide	0.0009	0.142	0.711
10.23	Nitrate	0.0009	0.066	0.330
15.87	Sulfate	0.2373	1.469	7.343

MagIC Net

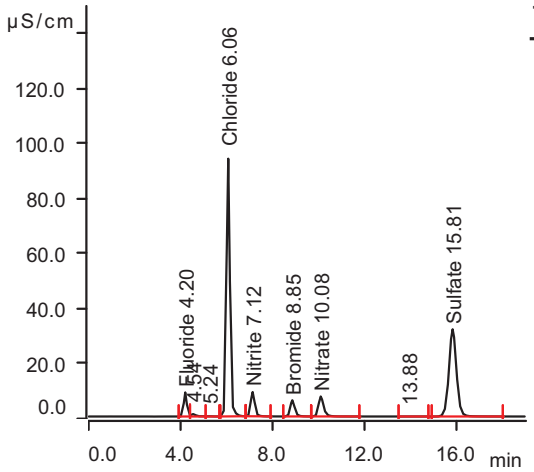
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-15 04:34:52
Dilution factor 1.00

Anions

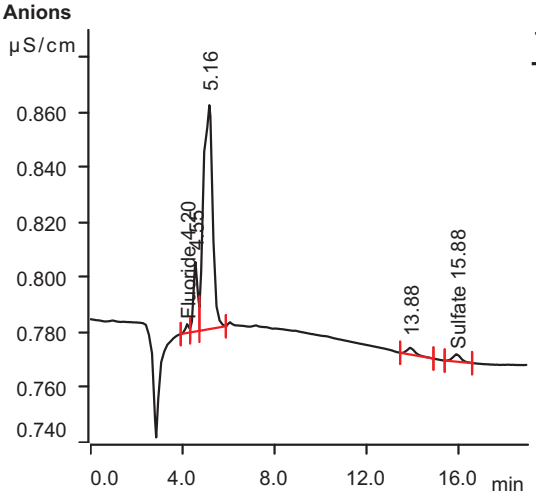


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.3346	2.638	2.638
6.06	Chloride	16.2334	50.347	50.347
7.12	Nitrite	1.7474	2.481	2.481
8.85	Bromide	1.3340	10.055	10.055
10.08	Nitrate	1.8889	2.516	2.516
15.81	Sulfate	12.1093	49.824	49.824

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-15 04:56:57
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0005	0.062	0.062
15.88	Sulfate	0.0011	0.507	0.507

MagIC Net

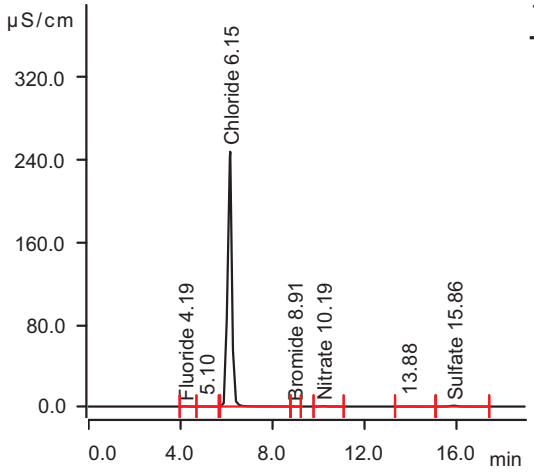
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-16
Sample type . . . . . Sample
Determination start 2023-03-15 05:19:00
Dilution factor 5.00

Anions

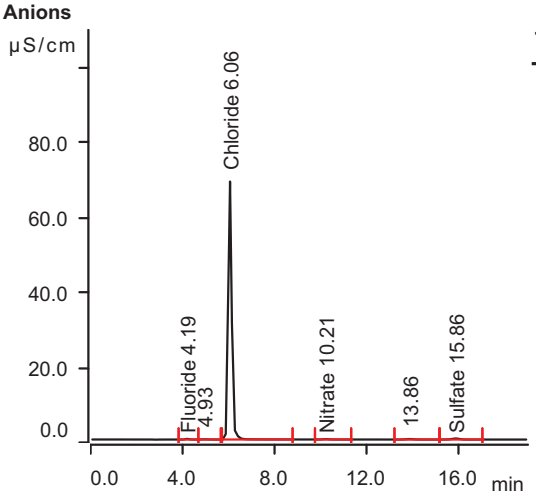


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0330	0.125	0.624
6.15	Chloride	53.5676	165.256	826.278
8.91	Bromide	0.0012	0.144	0.721
10.19	Nitrate	0.0854	0.176	0.878
15.86	Sulfate	0.3246	1.824	9.121

Sample data

Ident LA88599-17
Sample type . . . . . Sample
Determination start 2023-03-15 05:41:09
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0307	0.120	0.601
6.06	Chloride	11.7512	36.552	182.760
10.21	Nitrate	0.0293	0.103	0.514
15.86	Sulfate	0.1075	0.940	4.700

MagIC Net

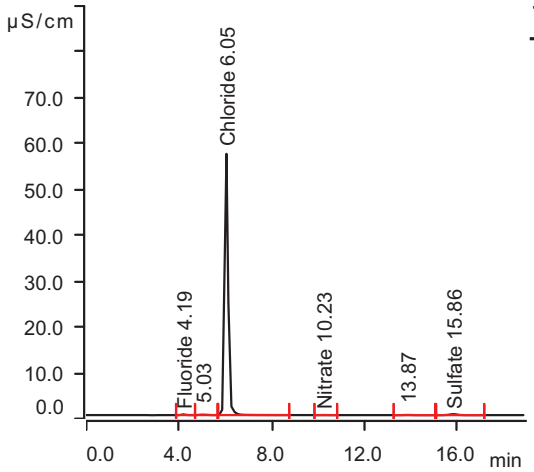
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-18
Sample type . . . . . Sample
Determination start 2023-03-15 06:03:11
Dilution factor 5.00

Anions

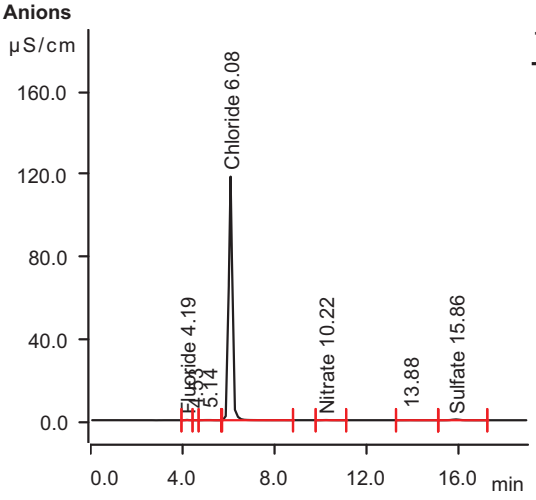


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0279	0.115	0.574
6.05	Chloride	9.6284	30.018	150.091
10.23	Nitrate	0.0040	0.070	0.351
15.86	Sulfate	0.0845	0.846	4.231

Sample data

Ident LA88599-19
Sample type . . . . . Sample
Determination start 2023-03-15 06:25:14
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0225	0.104	0.522
6.08	Chloride	20.9376	64.826	324.131
10.22	Nitrate	0.0238	0.096	0.479
15.86	Sulfate	0.1485	1.107	5.535

MagIC Net

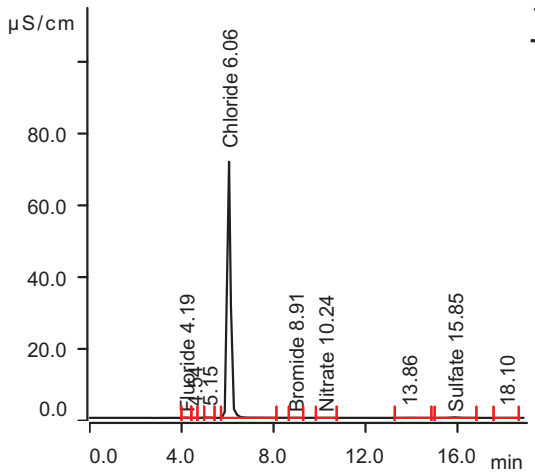
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-20
Sample type . . . . . Sample
Determination start 2023-03-15 06:47:16
Dilution factor 5.00

Anions

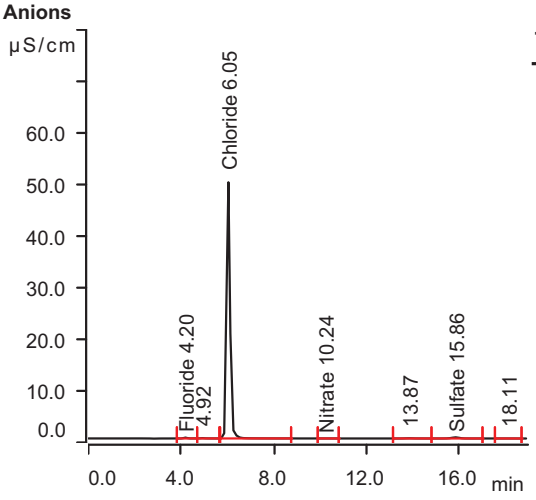


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0150	0.090	0.449
6.06	Chloride	12.2040	37.945	189.727
8.91	Bromide	0.0006	0.140	0.700
10.24	Nitrate	0.0015	0.067	0.334
15.85	Sulfate	0.0620	0.755	3.773

Sample data

Ident LA88599-21
Sample type . . . . . Sample
Determination start 2023-03-15 07:09:24
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0291	0.117	0.586
6.05	Chloride	8.3332	26.032	130.159
10.24	Nitrate	0.0013	0.067	0.333
15.86	Sulfate	0.0882	0.861	4.307

MagIC Net

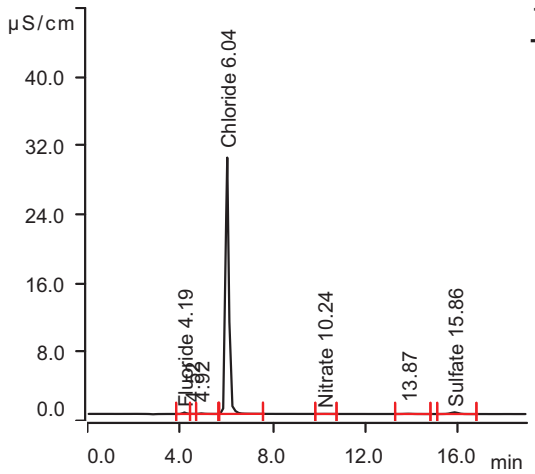
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-22
Sample type . . . . . Sample
Determination start 2023-03-15 07:31:27
Dilution factor 5.00

Anions

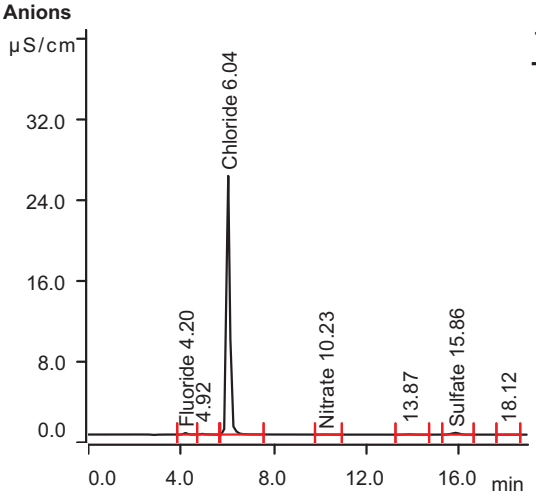


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0277	0.114	0.572
6.04	Chloride	4.9341	15.570	77.850
10.24	Nitrate	0.0015	0.067	0.334
15.86	Sulfate	0.0747	0.806	4.032

Sample data

Ident LA88599-23
Sample type . . . . . Sample
Determination start 2023-03-15 07:53:29
Dilution factor 5.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0281	0.115	0.576
6.04	Chloride	4.2759	13.544	67.721
10.23	Nitrate	0.0030	0.069	0.344
15.86	Sulfate	0.0664	0.773	3.864

MagIC Net

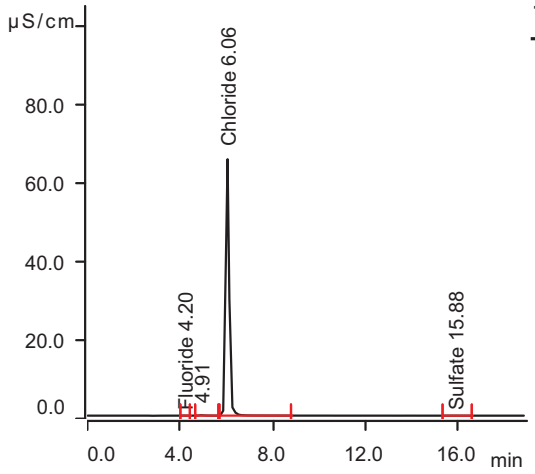
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-10
Sample type . . . . . Sample
Determination start 2023-03-15 08:15:32
Dilution factor 25.00

Anions

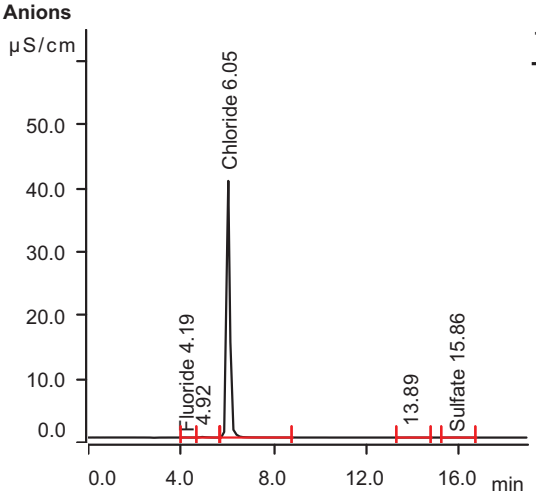


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0025	0.066	1.644
6.06	Chloride	11.0204	34.303	857.566
15.88	Sulfate	0.0017	0.509	12.732

Sample data

Ident LA88599-12
Sample type . . . . . Sample
Determination start 2023-03-15 08:43:52
Dilution factor 25.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0029	0.067	1.666
6.05	Chloride	6.7314	21.102	527.541
15.86	Sulfate	0.0042	0.519	12.986

MagIC Net

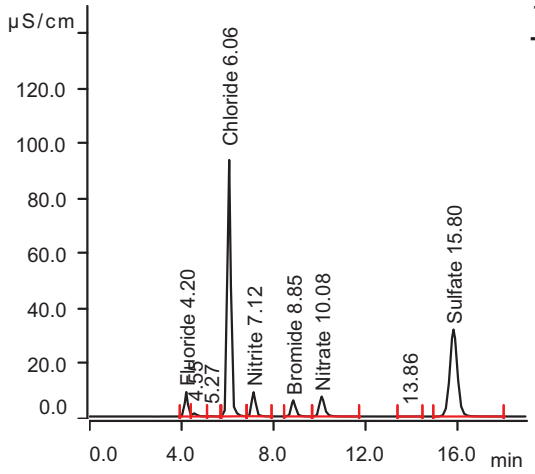
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-15 09:05:41
Dilution factor 1.00

Anions

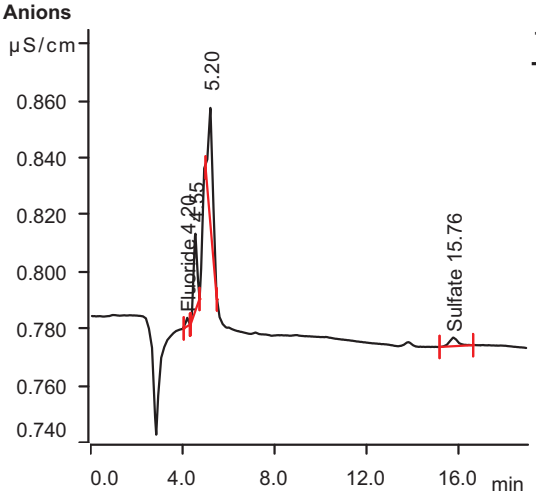


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	1.3558	2.679	2.679
6.06	Chloride	16.1984	50.240	50.240
7.12	Nitrite	1.7369	2.466	2.466
8.85	Bromide	1.3300	10.025	10.025
10.08	Nitrate	1.8877	2.514	2.514
15.80	Sulfate	12.1472	49.978	49.978

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-15 09:27:52
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.20	Fluoride	0.0004	0.062	0.062
15.76	Sulfate	0.0013	0.508	0.508

MagIC Net

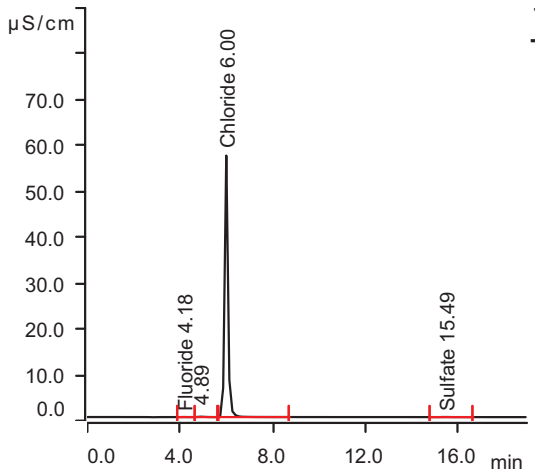
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-14
Sample type . . . . . Sample
Determination start 2023-03-15 09:49:54
Dilution factor 25.00

Anions

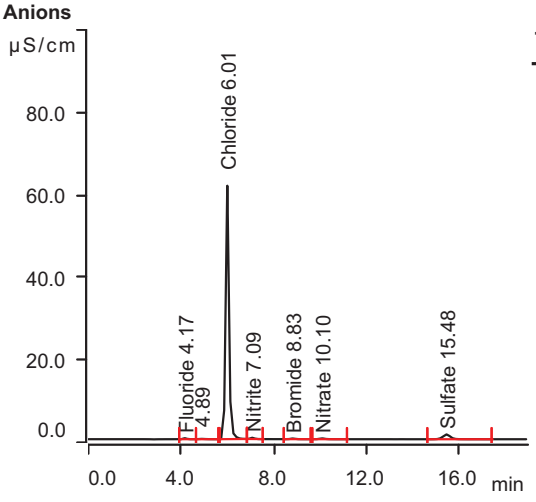


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0025	0.066	1.647
6.00	Chloride	9.5573	29.799	744.984
15.49	Sulfate	0.0082	0.536	13.394

Sample data

Ident LA88599-14S3
Sample type . . . . . Sample
Determination start 2023-03-15 10:11:41
Dilution factor 25.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.0412	0.140	3.511
6.01	Chloride	10.3545	32.253	806.326
7.09	Nitrite	0.0573	0.131	3.287
8.83	Bromide	0.0381	0.419	10.474
10.10	Nitrate	0.0520	0.132	3.309
15.48	Sulfate	0.4398	2.294	57.339

MagIC Net

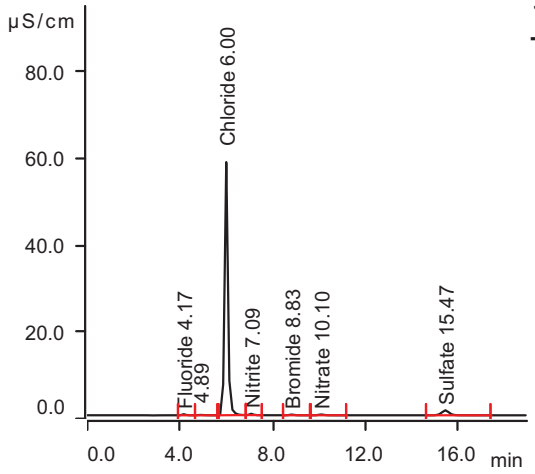
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-14S4
Sample type . . . . . Sample
Determination start 2023-03-15 10:33:29
Dilution factor 25.00

Anions

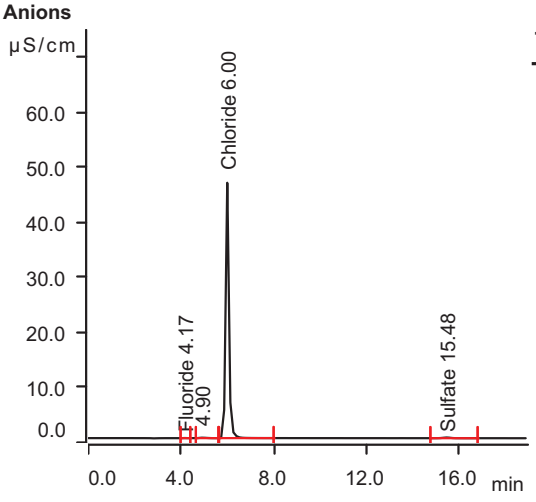


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.0425	0.143	3.575
6.00	Chloride	9.7672	30.445	761.133
7.09	Nitrite	0.0573	0.131	3.287
8.83	Bromide	0.0380	0.418	10.450
10.10	Nitrate	0.0504	0.130	3.257
15.47	Sulfate	0.4380	2.286	57.154

Sample data

Ident LA88599-15
Sample type . . . . . Sample
Determination start 2023-03-15 10:55:17
Dilution factor 25.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.0036	0.068	1.695
6.00	Chloride	7.7569	24.258	606.450
15.48	Sulfate	0.0499	0.706	17.641

MagIC Net

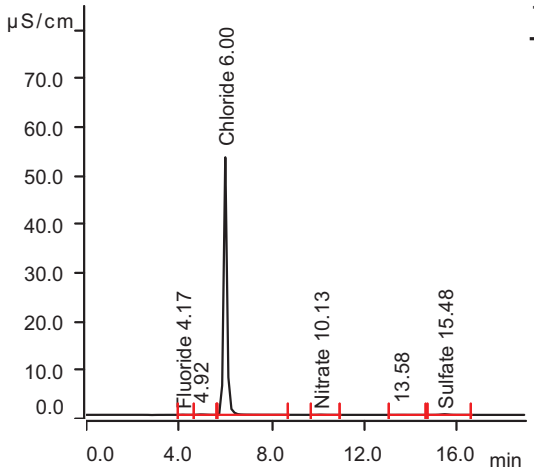
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident LA88599-16
Sample type . . . . . Sample
Determination start 2023-03-15 11:17:03
Dilution factor 25.00

Anions

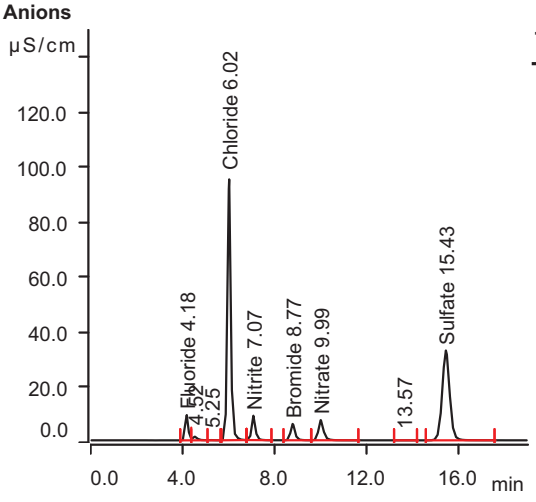


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.0060	0.073	1.815
6.00	Chloride	8.9640	27.973	699.335
10.13	Nitrate	0.0128	0.082	2.038
15.48	Sulfate	0.0536	0.721	18.016

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-03-15 11:38:50
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.4001	2.765	2.765
6.02	Chloride	16.3351	50.660	50.660
7.07	Nitrite	1.7437	2.476	2.476
8.77	Bromide	1.3392	10.093	10.093
9.99	Nitrate	1.9028	2.534	2.534
15.43	Sulfate	12.3635	50.859	50.859

MagIC Net

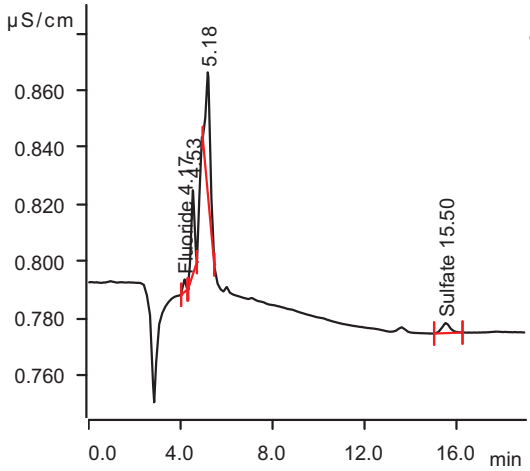
Summary Report

2023-03-15 12:25:40
MagIC Net 3.2 - 123

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-03-15 12:01:00
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.0006	0.062	0.062
15.50	Sulfate	0.0015	0.508	0.508

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS

WW

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

Page 1 of ~~2~~ 1 (TF) E

FED-EX Tracking #	Bottle Order Control # TF-021023-141
SGS Quote #	SGS Job # FC3333

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: evita.martinez@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): JR Phone:

Project Information

Project Name: Shepley's Hill (SHL); Devens, MA
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)
Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	NO2, NO32, NO3O, 353.2	LAB USE ONLY
1A	EFFLUENT		3/10/23	9:30:00 AM	JR	AQ	2				1	1				X	

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 3/24/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [ ]
- [x] FL

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ direct sub

Volume shipped directly from MA SC TF 3/10/23

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 [signature]	3/10/23 16:45	1 [signature]	2 [signature]	3/10/23 18:35	2 [signature]
3 [signature]	3/10/23 21:20	3 [signature]	4		4
5		5			

Custody Seal # ☐ Intact ☐ Not intact Preserved where applicable ☐ Therm. ID: 40 On Ice ☒ Cooler Temp. 2.8° C-IP

Initial Assessment BH

Label Verification

10.1 10

FC3333: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FC3333 **Client:** SOVEREIGN CONSULTING **Project:** AC001.J02 SHEPLEY'S HILL (SHL), DEVE

Date / Time Received: 3/10/2023 10:30:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (2.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

10.1 10

FC3333: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FC3333
Account: SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA
Collected: 03/10/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits found for methods in this job.

* Sample used for QC is not from job FC3333

General Chemistry

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate + Nitrite	GP45587/GN39213	0.10	0.0	mg/l	2	1.88	94.0	90-110%
Nitrogen, Nitrite	GN39166			mg/l	0.04	0.039	97.5	90-110%
Nitrogen, Nitrite	GN39166	0.010	0.0	mg/l	0.04	0.039	97.5	90-110%
Nitrogen, Nitrite	GN39166	0.010	0.0	mg/l				

Associated Samples:
Batch GN39166: FC3333-1A
Batch GP45587: FC3333-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrate + Nitrite	GP45587/GN39213	JD61861-2	mg/l	0.017	0.0	0.0	0-20%

Associated Samples:
Batch GP45587: FC3333-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP45587/GN39213	JD61861-2	mg/l	0.017	1	0.92	92.0	90-110%
Nitrogen, Nitrite	GN39166	JD61737-2	mg/l	0.0	0.04	0.042	105.0	22-140%

Associated Samples:
Batch GN39166: FC3333-1A
Batch GP45587: FC3333-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrite	GN39166	JD61737-2	mg/l	0.0	0.04	0.042	0.0	20%

Associated Samples:
Batch GN39166: FC3333-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D031423W1.NO32 Date Analyzed: 03/14/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN39213
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:39	GN39213-STD1	1		STDA
17:41	GN39213-STD2	1		STDB
17:42	GN39213-STD3	1		STDC
17:43	GN39213-STD4	1		STDD
17:44	GN39213-STD5	1		STDE
17:45	GN39213-STD6	1		STDF
17:46	GN39213-STD7	1		STDG
17:47	GN39213-STD8	1		STDH
17:50	GN39213-ICV1	1		
17:51	GN39213-ICB1	1		
17:52	GN39213-CCV1	1		
17:53	GN39213-CCB1	1		
17:54	GP45585-MB1	1		
17:55	GP45585-B1	1		
17:56	GP45585-S1	1		
17:57	GP45585-S2	1		
17:59	GP45585-D1	1		
18:00	JD61562-6	1		(sample used for QC only; not part of login FC3333)
18:01	JD61737-1	1		(sample used for QC only; not part of login FC3333)
18:02	ZZZZZZ	1		
18:03	ZZZZZZ	1		
18:04	ZZZZZZ	1		
18:05	GN39213-CCV2	1		
18:06	GN39213-CCB2	1		
18:08	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:11	ZZZZZZ	1		
18:12	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:16	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D031423W1.NO32 Date Analyzed: 03/14/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN39213
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:18	ZZZZZZ	1		
18:19	GN39213-CCV3	1		
18:20	GN39213-CCB3	1		
18:21	ZZZZZZ	1		
18:22	ZZZZZZ	1		
18:23	ZZZZZZ	1		
18:24	ZZZZZZ	1		
18:25	ZZZZZZ	1		
18:27	GP45586-MB1	1		
18:28	GP45586-B1	1		
18:29	GP45586-S1	1		
18:30	GP45586-S2	1		
18:31	GP45586-D1	1		
18:32	GN39213-CCV4	1		
18:33	GN39213-CCB4	1		
18:34	JD61737-2	1		(sample used for QC only; not part of login FC3333)
18:35	JD61737-3	1		(sample used for QC only; not part of login FC3333)
18:37	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:39	ZZZZZZ	1		
18:40	ZZZZZZ	1		
18:41	ZZZZZZ	1		
18:42	ZZZZZZ	1		
18:43	ZZZZZZ	1		
18:44	ZZZZZZ	1		
18:46	GN39213-CCV5	1		
18:47	GN39213-CCB5	1		
18:48	ZZZZZZ	1		
18:49	ZZZZZZ	1		
18:50	ZZZZZZ	1		
18:51	ZZZZZZ	1		
18:52	ZZZZZZ	1		
18:53	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D031423W1.NO32 Date Analyzed: 03/14/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN39213
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:54	ZZZZZZ	1		
18:56	ZZZZZZ	1		
18:57	ZZZZZZ	1		
18:58	ZZZZZZ	1		
18:59	GN39213-CCV6	1		
19:00	GN39213-CCB6	1		
19:01	GP45587-MB1	1		
19:02	GP45587-B1	1		
19:03	GP45587-S1	1		
19:05	GP45587-S2	1		
19:06	GP45587-D1	1		
19:07	JD61861-2	1		(sample used for QC only; not part of login FC3333)
19:08	JD61722-4	1		(sample used for QC only; not part of login FC3333)
19:09	FC3333-1A	1		
19:10	ZZZZZZ	1		
19:11	ZZZZZZ	1		
19:12	GN39213-CCV7	1		
19:14	GN39213-CCB7	1		
19:15	ZZZZZZ	1		
19:16	ZZZZZZ	1		
19:17	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:19	ZZZZZZ	1		
19:20	ZZZZZZ	1		
19:23	ZZZZZZ	1		
19:25	ZZZZZZ	7		
19:26	ZZZZZZ	9		
19:27	GN39213-CCV8	1		
19:28	GN39213-CCB8	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC3333
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D031423W1.NO32 Date Analyzed: 03/14/23 Methods: EPA 353.2/LACHAT
Run ID: GN39213 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN39213-ICV1	Nitrogen, Nitrate + Nitrite	2.07	0.10	0.090	2	103.5	90-110
GN39213-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV1	Nitrogen, Nitrate + Nitrite	2.52	0.10	0.090	2.5	100.8	90-110
GN39213-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV2	Nitrogen, Nitrate + Nitrite	2.52	0.10	0.090	2.5	100.8	90-110
GN39213-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV3	Nitrogen, Nitrate + Nitrite	2.44	0.10	0.090	2.5	97.6	90-110
GN39213-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV4	Nitrogen, Nitrate + Nitrite	2.40	0.10	0.090	2.5	96.0	90-110
GN39213-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV5	Nitrogen, Nitrate + Nitrite	2.37	0.10	0.090	2.5	94.8	90-110
GN39213-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV6	Nitrogen, Nitrate + Nitrite	2.34	0.10	0.090	2.5	93.6	90-110
GN39213-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV7	Nitrogen, Nitrate + Nitrite	2.33	0.10	0.090	2.5	93.2	90-110
GN39213-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN39213-CCV8	Nitrogen, Nitrate + Nitrite	2.34	0.10	0.090	2.5	93.6	90-110
GN39213-CCB8	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

(SGS Dayton, NJ)

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN39166
GP Batch ID:
Date: 3/11/2023
Instrument ID: L Pipet II GLASS PIPETTE CLASS A

Original Calibration Information — Calibration Date: 1/14/2023

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.033	0.085	0.170	0.257	0.345	0.694	
Actual Value:	#DIV/0!	0.010	0.025	0.050	0.075	0.100	0.200	
% RE:	#DIV/0!	-0.83	-0.20	0.97	0.59	0.12	-0.17	

Continuing Calibration Check Standards Data: 3/11/2023

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.032	0.669
Recovery:	0.0%	97.9%	96.6%
Actual Value:		0.010	0.193

Correlation Coeff. = 0.99998
Slope = 0.28782
Intercept = 0.00058

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	8:48	50	50	1	0.327	NA	0.095	0.095	NA	mg/l	NA	
	CCV	9:30	50	50	1	0.323	NA	0.094	0.094	NA	mg/l	NA	
	CCB	9:30	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
	GN39166-MB1	9:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	
	GN39166-B1	9:30	50	50	1	0.132	0.000	0.039	0.039	0.010	mg/l	1	
	GN39166-S1	9:30	50	50	1	0.145	0.000	0.042	0.042	0.010	mg/l	1	
	GN39166-MSD1	9:30	50	50	1	0.144	0.000	0.042	0.042	0.010	mg/l	1	
11	JD61737-2	9:30	50	50	1	0.005	0.000	0.002	0.002	0.010	mg/l	1	Y
5	JD61737-1	9:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61737-3	9:30	50	50	1	0.002	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61737-4	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61737-5	9:30	50	50	10	0.244	0.000	0.071	0.708	0.100	mg/l	1	Y
5	JD61737-6	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
	CCVA	9:30	50	50	1	0.661	NA	0.191	0.191	NA	mg/l	NA	
	CCB	9:30	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
5	JD61737-7	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61737-8	9:30	50	50	5	0.206	0.000	0.060	0.299	0.050	mg/l	1	Y
4	JD61722-1	9:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
4	JD61722-2	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61722-3	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61722-4	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61730-1	9:30	50	50	1	0.004	0.000	0.002	0.002	0.010	mg/l	1	Y
5	JD61730-2	9:30	50	50	1	0.006	0.000	0.002	0.002	0.010	mg/l	1	Y
5	JD61730-3	9:30	50	50	1	0.011	0.000	0.004	0.004	0.010	mg/l	1	Y
8	JD61731-1	9:30	50	50	1	0.022	0.000	0.007	0.007	0.010	mg/l	1	Y
	CCV	9:30	50	50	1	0.330	NA	0.096	0.096	NA	mg/l	NA	
	CCB	9:30	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
5	JD61738-1	9:30	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61738-2	9:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
5	JD61738-3	9:30	50	50	1	0.515	0.000	0.149	0.149	0.010	mg/l	1	Y
5	JD61738-4	9:30	50	50	1	0.086	0.000	0.025	0.025	0.010	mg/l	1	Y
	GN39166-MB2	9:30	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	
	GN39166-B2	9:30	50	50	1	0.135	0.000	0.039	0.039	0.010	mg/l	1	
	GN39166-S2	9:30	50	50	1	0.153	0.000	0.045	0.045	0.010	mg/l	1	
	GN39166-MSD2	9:30	50	50	1	0.154	0.000	0.045	0.045	0.010	mg/l	1	
5	JD61738-5	9:30	50	50	1	0.023	0.000	0.007	0.007	0.010	mg/l	1	Y
2	FC3333-1	13:28	50	50	1	0.003	0.000	0.001	0.001	0.010	mg/l	1	Y
	CCVA	13:28	50	50	1	0.665	NA	0.192	0.192	NA	mg/l	NA	
	CCB	13:28	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	

12.1 12

Analyst: _____ Date: _____ QC Reviewer: _____ Date: 3/19/13

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN39166
GP Batch ID:
Date: 3/11/2023
Instrument ID: L
Pipet II GLASS PIPETTE CLASS A

7	JD61747-1	13:28	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
7	JD61747-2	13:28	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
7	JD61747-3	13:28	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
		13:28	50	50	1								
		13:28	50	50	1								
		13:28	50	50	1								
		13:28	50	50	1								
		13:28	50	50	1								
		13:28	50	50	1								
		13:28	50	50	1								
	CCV	13:28	50	50	1	0.328	NA	0.095	0.095	NA	mg/l	NA	
	CCB	13:28	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCVA		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCV		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	

3/13/23

Analyst: _____ Date: _____ QC Reviewer: _____ Date: _____

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l
mg/kg

Analyst: MARCINA
GNBatch ID: GN39166
GPBatch ID:
Date: 3/11/23

Preparation Batch QC Summary Units = mg/L

Method Blank ID: GN39166-MB1 Date: 3/11/23 Result: <DL DL: <DL:
Spike Blank ID: -B1 Date: ↓ Result: 0.039 Spike: 0.04 %Rec.: 97.5%
MS ID: -S1 Samp. Result: 0.002 MS Result: 0.042 Spike: 0.04 %Rec:
MSDUP ID: -D1 Samp. Result: 0.002 MSDUP Result: 0.042 Spike: 0.04 %Rec: 100%
MSDUP ID: MSDUP Result: MS Result: %RPD:

Method Blank ID: GN39166-MB2 Date: 3/11/23 Result: <DL DL: <DL:
Spike Blank ID: -B2 Date: ↓ Result: 0.039 Spike: 0.04 %Rec.: 97.5%
MS ID: -S2 Samp. Result: 0.007 MS Result: 0.045 Spike: 0.04 %Rec: 95%
MSDUP ID: -D2 Samp. Result: 0.007 MSDUP Result: 0.045 Spike: 0.04 %Rec: 95%
MSDUP ID: MSDUP Result: MS Result: %RPD:

Analysis Batch QC Summary Units =
ICV (Ext): 3/11/23 Result: 0.095 TV: 0.1 %Rec: 95%

CCV : Result: 0.094 TV: 0.1 %Rec.: 94%
CCVA : Result: 0.191 TV: 0.2 %Rec.: 95.5%
CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: 0.192 TV: 0.2 %Rec.: 96%
CCV : Result: 0.095 TV: 0.1 %Rec.: 95%
CCVA : Result: TV: 0.2 %Rec.:

CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:

Reagent Reference Numbers:

QC------BS/MS/MSD------2 ML OF 1 PPM NO2 STD -- 50 ML DI/H2O/SAMPLE ---- TV 0.04 MG/L
MS/MSD SAMPLE NO --- QC1 = JD61738-2
QC2 = JD61738-5

Analyst: Date:

Comments:

Form: GN032-01
Rev. Date:9/4/09]

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT #261221M XP: 12/14/2023
External Check (ICV)	ERA LOT #120421M XP: 4/7/2023
Spiking Solution Source STD	ERA LOT #261221M XP: 12/14/2023
NO2 Color Reagent	GNE2-73415-NO2 XP 3/22/2023
NH4OH	FISHER 193136 XP 2/20/2027

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:3/11/2023

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: _____

GN or GP Number: _____

Standard	Manufacturer/Lot Number	Concentration	Expiration Date
1000 mg/l Nitrite Standard	ERA LOT# 261221M	1000 PPM	12/14/2023
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 120421M	1000 PPM	4/7/2023

Standard Description	Lot or Tracking #	Initial Volume	Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
10 PPM NO2 STANDARD	GN-3/11/2023	1.0 ml	1000 mg/l Nitrite Standard	A	DI water	100 ml	10 mg/l	3/11/2023	MK	3/11/2023
1 PPM NO2 STANDARD	GN-3/11/2023	10.0 ml	10 PPM NO2 STANDARD	A	DI water	100 ml	1 mg/L	3/11/2023	MK	3/11/2023
10 PPM NO2 EXTERNAL	GN-3/11/2023	1.0 ml	Nitrite Standard (ICV)	A	DI water	100 ml	10 mg/l	3/11/2023	MK	3/11/2023
1 PPM NO2 EXTERNAL	GN-3/11/2023	10.0 ml	10 PPM NO2 EXTERNAL	A	DI water	100 ml	1 mg/l	3/11/2023	MK	3/11/2023

Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
0.2 mg/L (high)	GN-3/11/2023	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	3/11/2023	MK	3/11/2023
0.1 mg/L		10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L			
0.075 mg/L		7.5 ml	1.0 mg/L	A	DI water	100 ml	0.075 mg/L			
0.05 mg/L		5.0 ml	1.0 mg/L	A	DI water	100 ml	0.05 mg/L			
0.025 mg/L		2.5 ml	1.0 mg/L	A	DI water	100 ml	0.025 mg/L			
0.01 mg/L (low)	GN-3/11/2023	1.0 ml	1.0 mg/L	A	DI water	100 ml	0.01 mg/L	3/11/2023	MK	3/11/2023
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	3/11/2023	MK	3/11/2023
CCV	GN-3/11/2023	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	3/11/2023	MK	3/11/2023
CCVA	GN-3/11/2023	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	3/11/2023	MK	3/11/2023
ICV	GN-3/11/2023	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	3/11/2023	MK	3/11/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: D031423W1.NO32
Analyst: JD

Date Analyzed: 03/14/23
Run ID: GN39213

Methods: EPA 353.2/LACHAT

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JD Date 3/15/23

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 3/15/23

12.2 12

Author: Chemistry

Date : 3/15/2023

Original Run Filename: OM_3-14-2023_05-39-06PM.OMN Created: 3/14/2023 5:39:06 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_3-14-2023_05-39-06PM.OMN Last Modified: 3/14/2023 8:28:18 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

d031423w1. NO32
GN39213

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	
STDA	1	1	5.00	3/14/2023@5:39:58 PM		
STDB	1	2	4.00	3/14/2023@5:41:06 PM		
STDC	1	3	2.50	3/14/2023@5:42:14 PM		
STDD	1	4	1.00	3/14/2023@5:43:22 PM		
STDE	1	5	0.500	3/14/2023@5:44:29 PM		
STDF	1	6	0.200	3/14/2023@5:45:37 PM		
STDG	1	7	0.100	3/14/2023@5:46:44 PM		
STDH	1	8	0.00	3/14/2023@5:47:51 PM		
EFFCHK	1	9	2.12	3/14/2023@5:48:58 PM		106%
	Known Conc:		2.00			
ICV	1	10	2.07	3/14/2023@5:50:05 PM		103.5%
	Known Conc:		2.00			
ICB	1	11	0.0128	3/14/2023@5:51:12 PM		
	Known Conc:		0.00			
CCV	1	S9	2.52	3/14/2023@5:52:19 PM		100.8%
	Known Conc:		2.50			
CCB	1	S10	0.0110	3/14/2023@5:53:26 PM		
	Known Conc:		0.00			
GP45585-MB1	1	12	0.0186	3/14/2023@5:54:33 PM		
GP45585-B1	1	13	2.02	3/14/2023@5:55:39 PM		101%
GP45585-S1	1	14	0.978	3/14/2023@5:56:46 PM		
GP45585-S2	1	15	1.01	3/14/2023@5:57:52 PM		
GP45585-D1	1	16	0.0217	3/14/2023@5:59:00 PM		
JD61562-6	1	17	0.0360	3/14/2023@6:00:08 PM		
JD61737-1	1	18	0.0204	3/14/2023@6:01:16 PM		
JD61562-1	1	19	0.101	3/14/2023@6:02:23 PM		
JD61562-2	1	20	2.01	3/14/2023@6:03:31 PM		
JD61562-3	1	21	0.186	3/14/2023@6:04:38 PM		
CCV	1	S9	2.52	3/14/2023@6:05:45 PM		100.8%
	Known Conc:		2.50			
CCB	1	S10	0.0193	3/14/2023@6:06:52 PM		
	Known Conc:		0.00			
JD61562-4	1	22	0.891	3/14/2023@6:08:00 PM		
JD61562-5	1	23	1.35	3/14/2023@6:09:07 PM		
JD61562-7	1	24	2.73	3/14/2023@6:10:14 PM		
JD61562-8	1	25	2.72	3/14/2023@6:11:21 PM		
JD61562-9	1	26	0.0164	3/14/2023@6:12:27 PM		
JD61562-11	1	27	0.267	3/14/2023@6:13:34 PM		
JD61561-1	1	28	0.475	3/14/2023@6:14:40 PM		
JD61561-2	1	29	0.150	3/14/2023@6:15:47 PM		
JD61648-1	1	30	0.0200	3/14/2023@6:16:53 PM		
JD61648-2	1	31	0.0433	3/14/2023@6:18:01 PM		
CCV	1	S9	2.44	3/14/2023@6:19:08 PM		97.6%
	Known Conc:		2.50			
CCB	1	S10	0.0183	3/14/2023@6:20:16 PM		
	Known Conc:		0.00			
JD61654-1	1	32	7.30	3/14/2023@6:21:23 PM		out of range
JD61730-1	1	33	0.122	3/14/2023@6:22:31 PM		
JD61730-2	1	34	1.48	3/14/2023@6:23:39 PM		
JD61730-3	1	35	1.87	3/14/2023@6:24:46 PM		
JD61731-1	1	36	2.12	3/14/2023@6:25:54 PM		
GP45586-MB1	1	37	0.0148	3/14/2023@6:27:01 PM		
GP45586-B1	1	38	1.96	3/14/2023@6:28:08 PM		98%
GP45586-S1	1	39	0.853	3/14/2023@6:29:15 PM		
GP45586-S2	1	40	0.937	3/14/2023@6:30:22 PM		
GP45586-D1	1	41	0.0266	3/14/2023@6:31:29 PM		
CCV	1	S9	2.40	3/14/2023@6:32:36 PM		96%
	Known Conc:		2.50			
CCB	1	S10	0.0204	3/14/2023@6:33:43 PM		
	Known Conc:		0.00			

- 1 -

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Author: Chemistry

Date : 3/15/2023

JD61737-2	1	42	0.0288	3/14/2023@6:34:50 PM	
JD61737-3	1	43	0.0320	3/14/2023@6:35:56 PM	
JD61737-4	1	44	0.0171	3/14/2023@6:37:03 PM	
JD61737-5	1	45	12.2	3/14/2023@6:38:09 PM	— out of range
JD61737-6	1	46	0.0426	3/14/2023@6:39:17 PM	
JD61737-7	1	47	0.0243	3/14/2023@6:40:25 PM	
JD61737-8	1	48	1.39	3/14/2023@6:41:33 PM	
JD61738-1	1	49	0.0161	3/14/2023@6:42:40 PM	
JD61738-2	1	50	0.0117	3/14/2023@6:43:48 PM	
JD61738-3	1	51	2.43	3/14/2023@6:44:55 PM	
CCV	1	S9	2.37	3/14/2023@6:46:02 PM	— 94.8%
	Known Conc:		2.50		
CCB	1	S10	0.0110	3/14/2023@6:47:10 PM	
	Known Conc:		0.00		
	Calibration:		Table/Fig. : 1		
JD61738-4	1	52	0.252	3/14/2023@6:48:17 PM	
JD61738-5	1	53	2.50	3/14/2023@6:49:24 PM	
JD61687-1	1	54	0.0183	3/14/2023@6:50:31 PM	
JD61687-2	1	55	0.0446	3/14/2023@6:51:38 PM	
JD61687-3	1	56	0.0395	3/14/2023@6:52:45 PM	
JD61687-4	1	57	0.0188	3/14/2023@6:53:51 PM	
JD61687-5	1	58	0.372	3/14/2023@6:54:58 PM	
JD61722-1	1	59	1.74	3/14/2023@6:56:05 PM	
JD61722-2	1	60	2.90	3/14/2023@6:57:11 PM	
JD61722-3	1	61	0.0174	3/14/2023@6:58:19 PM	
CCV	1	S9	2.34	3/14/2023@6:59:26 PM	— 93.6%
	Known Conc:		2.50		
CCB	1	S10	0.0173	3/14/2023@7:00:34 PM	
	Known Conc:		0.00		
GP45587-MB1	1	62	0.0245	3/14/2023@7:01:41 PM	
GP45587-B1	1	63	1.88	3/14/2023@7:02:49 PM	— 94%
GP45587-S1	1	64	0.919	3/14/2023@7:03:57 PM	
GP45587-S2	1	65	1.53	3/14/2023@7:05:04 PM	
GP45587-D1	1	66	0.0158	3/14/2023@7:06:11 PM	
JD61861-2	1	67	0.0168	3/14/2023@7:07:19 PM	
JD61722-4	1	68	0.474	3/14/2023@7:08:26 PM	
FC3333-1A	1	69	0.144	3/14/2023@7:09:33 PM	
JD61747-1	1	70	0.0151	3/14/2023@7:10:40 PM	
JD61747-2	1	71	0.0225	3/14/2023@7:11:46 PM	
CCV	1	S9	2.33	3/14/2023@7:12:54 PM	— 93.2%
	Known Conc:		2.50		
CCB	1	S10	0.0186	3/14/2023@7:14:01 PM	
	Known Conc:		0.00		
JD61747-3	1	72	0.0393	3/14/2023@7:15:08 PM	
LA88454-1	1	73	0.271	3/14/2023@7:16:14 PM	
LA88507-1	1	74	0.0489	3/14/2023@7:17:21 PM	
LA88507-2	1	75	0.0665	3/14/2023@7:18:27 PM	
LA88507-3	1	76	0.0493	3/14/2023@7:19:35 PM	
JD61861-1	1	77	0.0829	3/14/2023@7:20:43 PM	
JD61861-3	1	78	0.0240	3/14/2023@7:23:57 PM	
JD61654-1	1	79	0.789	3/14/2023@7:25:05 PM	7.00 — 5mL sample, 30mL DI H2O
JD61737-5	1	80	4.34	3/14/2023@7:26:12 PM	9.00 — 5mL sample, 40mL DI H2O
CCV	1	S9	2.34	3/14/2023@7:27:20 PM	— 93.6%
	Known Conc:		2.50		
CCB	1	S10	0.0202	3/14/2023@7:28:27 PM	
	Known Conc:		0.00		

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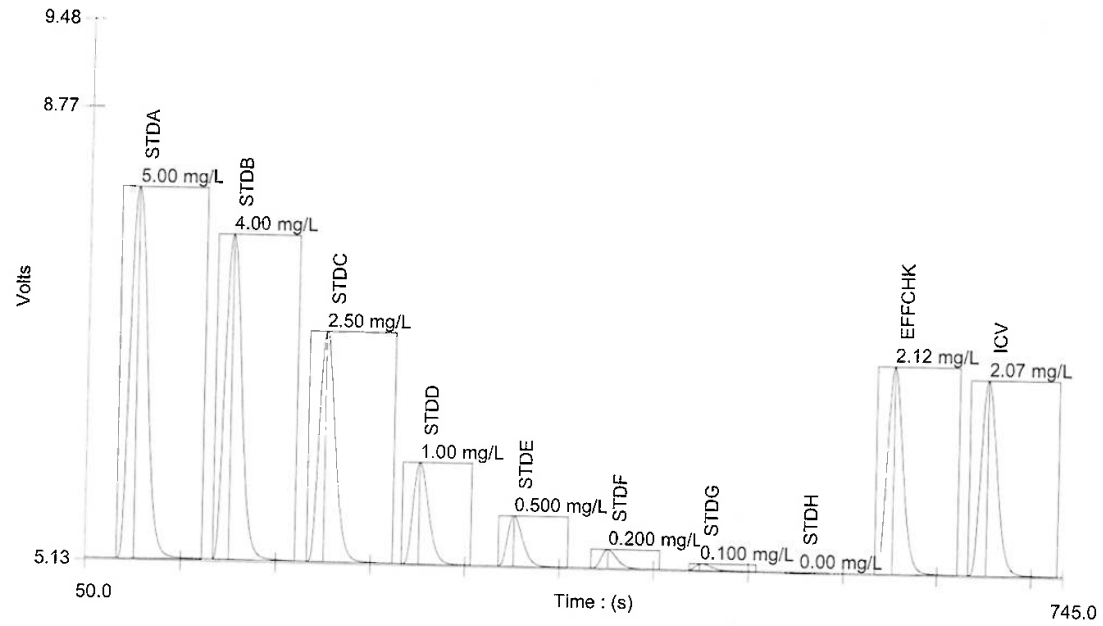
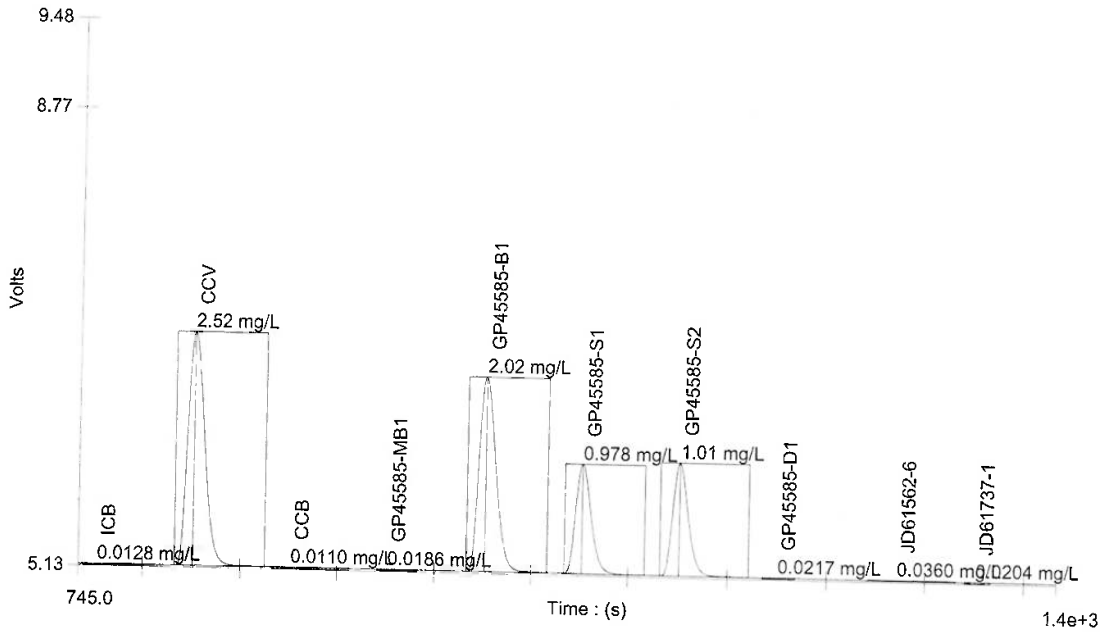
Author: Chemistry

Date : 3/15/2023

Channel 1 - Set: 1 / 10



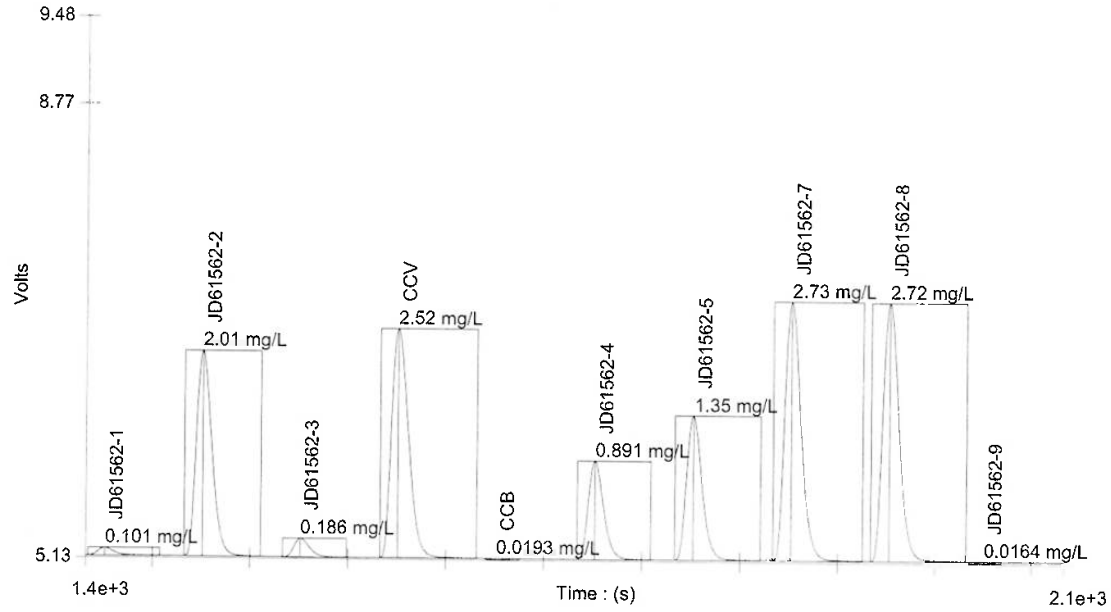
Channel 1 - Set: 2 / 10



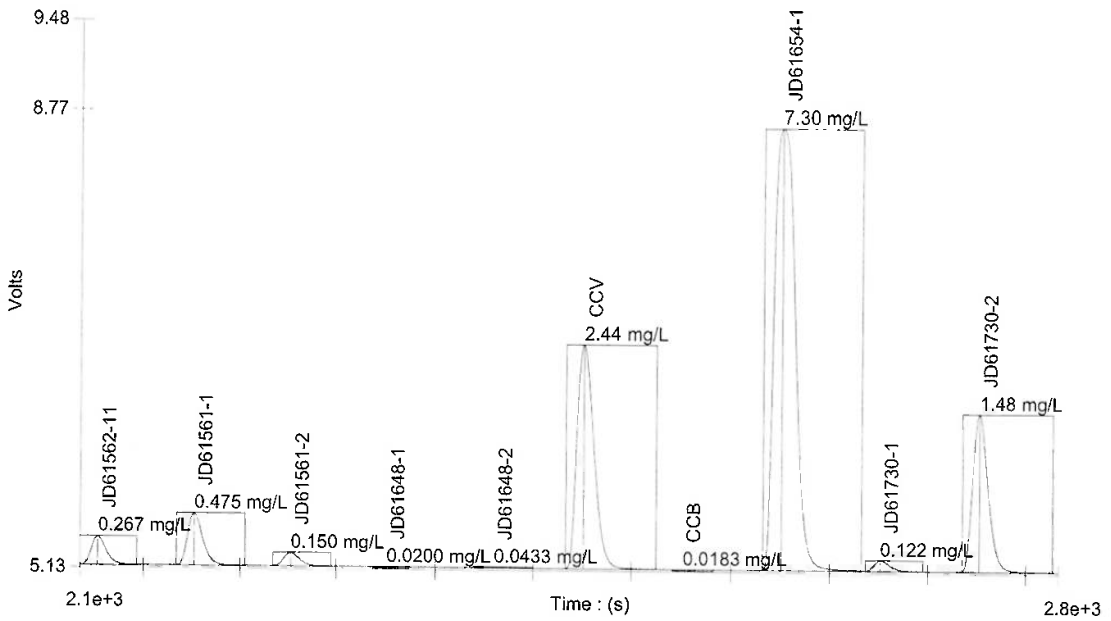
Author: Chemistry

Date : 3/15/2023

Channel 1 - Set: 3 / 10



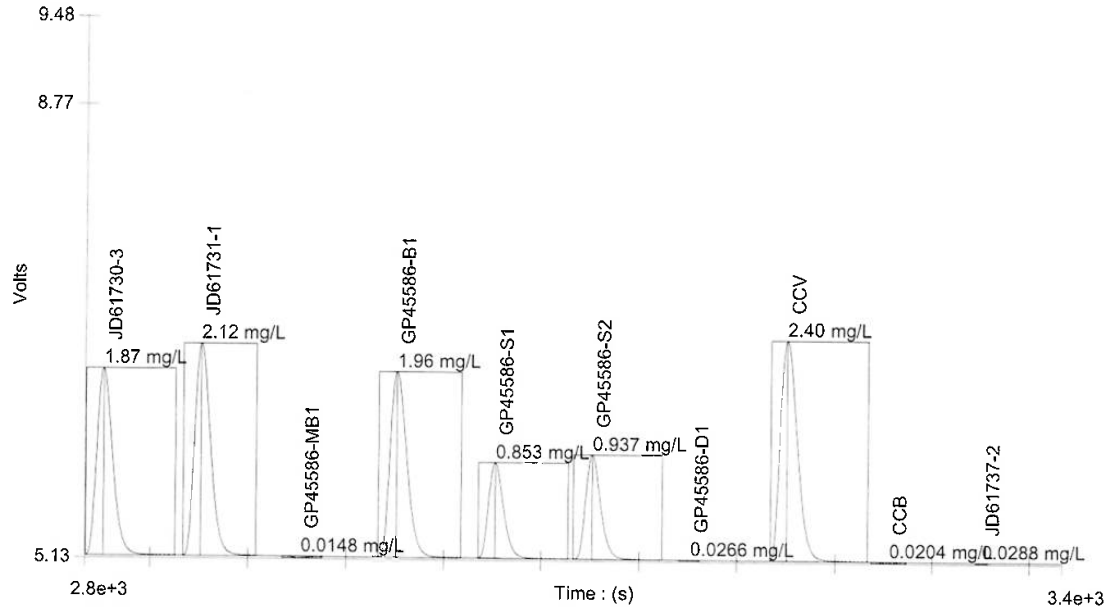
Channel 1 - Set: 4 / 10



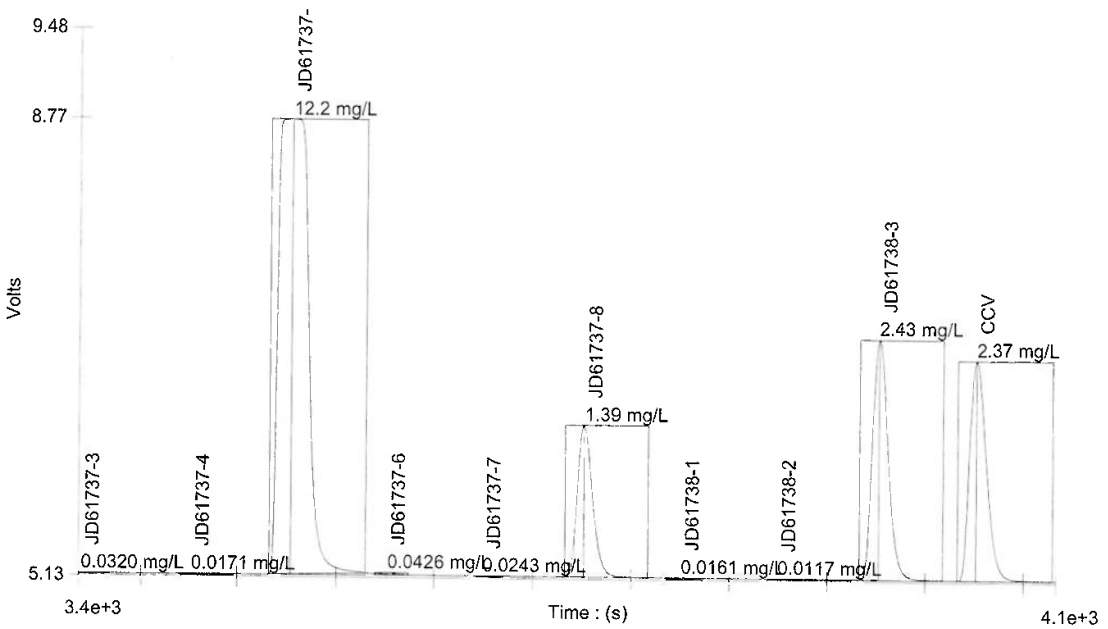
Author: Chemistry

Date : 3/15/2023

Channel 1 - Set: 5 / 10



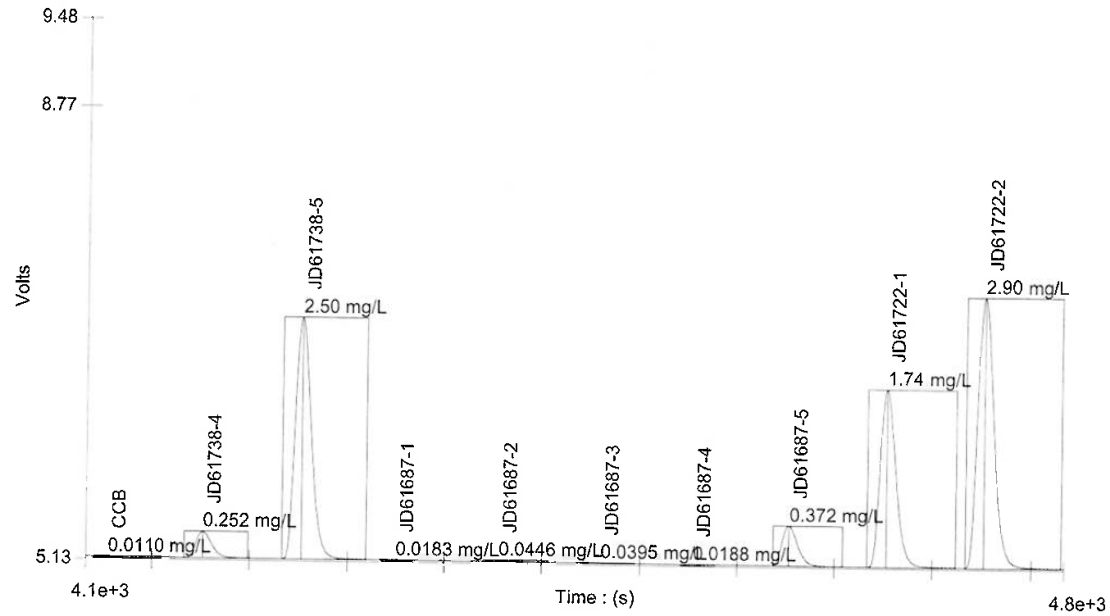
Channel 1 - Set: 6 / 10



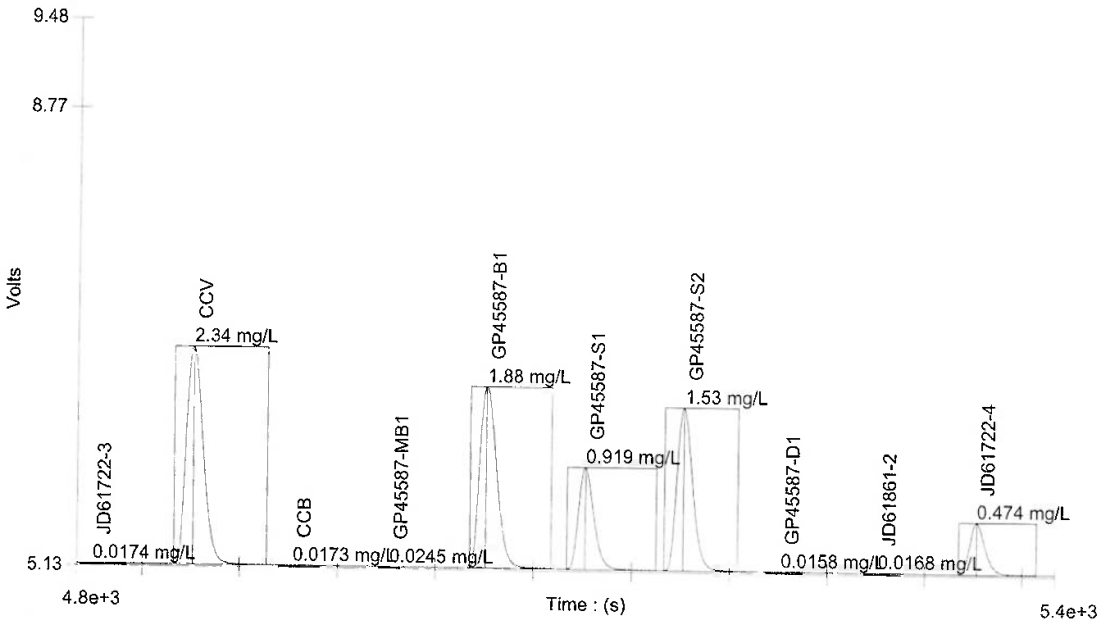
Author: Chemistry

Date : 3/15/2023

Channel 1 - Set: 7 / 10



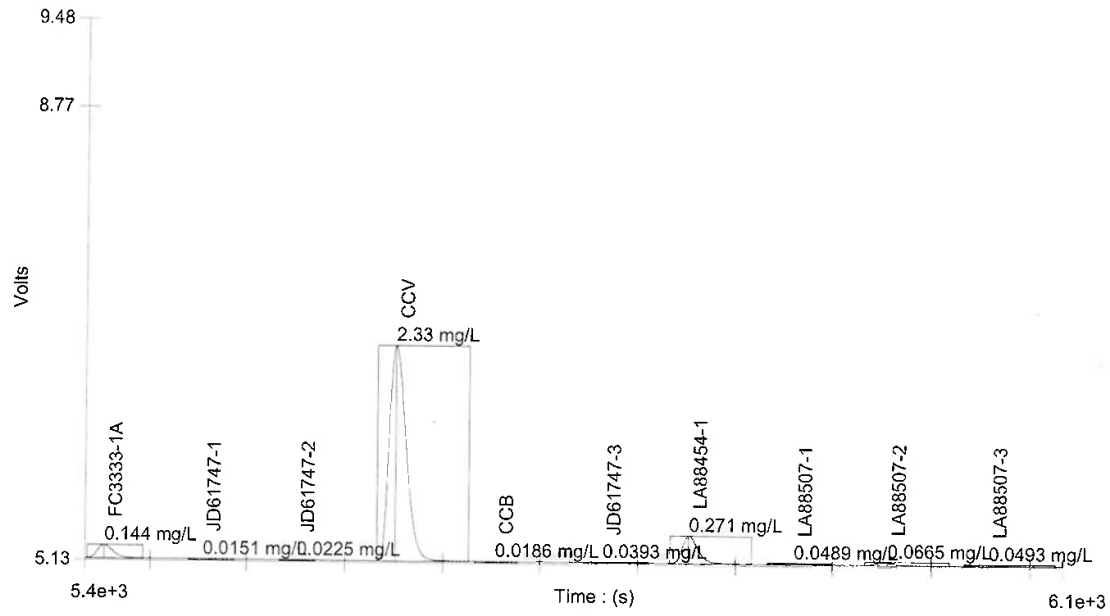
Channel 1 - Set: 8 / 10



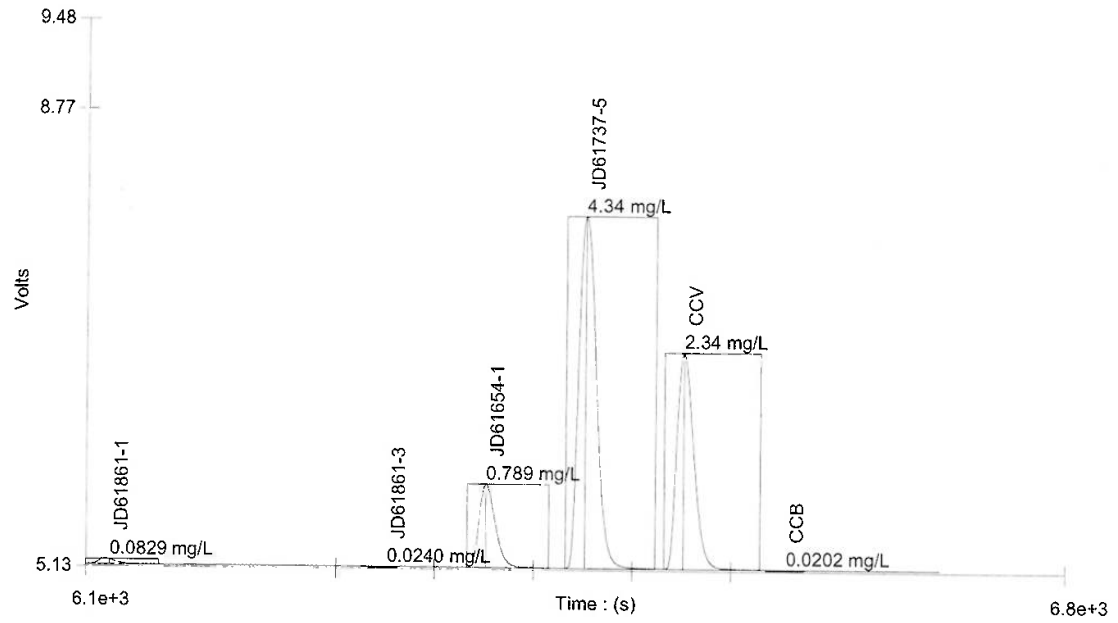
Author: Chemistry

Date : 3/15/2023

Channel 1 - Set: 9 / 10



Channel 1 - Set: 10 / 10



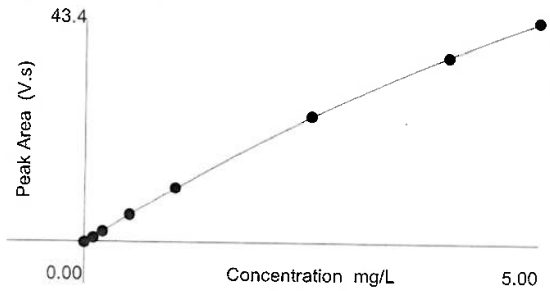
Author: Chemistry

Date : 3/15/2023

Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	43.4	2.99	0.0	-0.2	4.99	3/14/2023	5:39:58 PM
2	4.00	1	36.3	2.62	0.0	0.5	4.01	3/14/2023	5:41:06 PM
3	2.50	1	24.6	1.86	0.0	-0.2	2.51	3/14/2023	5:42:14 PM
4	1.00	1	10.5	0.818	0.0	-0.9	0.985	3/14/2023	5:43:22 PM
5	0.500	1	5.26	0.404	0.0	-0.4	0.487	3/14/2023	5:44:29 PM
6	0.200	1	2.00	0.153	0.0	0.4	0.200	3/14/2023	5:45:37 PM
7	0.100	1	0.775	0.0537	0.0	14.9	0.0959	3/14/2023	5:46:44 PM
8	0.00	1	-0.142	-0.0117			0.0195	3/14/2023	5:47:51 PM

Figure : 1 (NO32)



Area = - 0.488 * Conc^2 + 11.1 * Conc - 0.198
Conc = 7.29e-4 * Area^2 + 0.0828 * Area + 0.0313
Correlation Coefficient (r) = 0.99998

Weighting : None

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Nitrate Stock Solution	GNE12-72667-NO32	6/10/2023
Ammonium Chloride Buffer Solution	GNE11-72430-NO3	5/23/2023
Sulfanilamide Color Reagent	GNE3-73551-NO32	4/2/2023
1:1 NH4OH	GNE11-72312-NO3	6/15/2023
Carrier Solution	GNE1-73258-NO32	8/2/2023
1000 ppm Nitrite Solution	GNE12-2665-NO32	6/10/2023
Nitrate External Stock Solution	GNE12-72666-NO32	6/10/2023

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

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SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO32

GN/GP number: GN39213

Analyst: JD

Date: 3/14/2023

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 intermediate	GNE12-72667-NO32	1000	10	48	Carrier	100 ml	100	3/15/2023	NO32-100-021523
100 ppm NO2 Intermediate	GNE12-72665-NO32	1000	10	48	Carrier	100 ml	100	3/15/2023	NO2-100-021523
100 ppm NO3 External	GNE12-72666-NO32	1000	10	48	Carrier	100 ml	100	3/15/2023	NO32E-100-021523

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-021523	100 mg/l	5.0	48	Carrier	100 ml	5.0	3/15/2023	STDA-030323
4.0 mg/l NO3	NO32-100-021523	100 mg/l	4.0	48	Carrier	100 ml	4.0	3/15/2023	STDB-030323
2.5 mg/l NO3	NO32-100-021523	100 mg/l	2.5	48	Carrier	100 ml	2.5	3/15/2023	STDC-030323
1.0 mg/l NO3	NO32-100-021523	100 mg/l	1.0	48	Carrier	100 ml	1.0	3/15/2023	STDD-030323
0.5 mg/l NO3	NO32-100-021523	100 mg/l	0.5	48	Carrier	100 ml	0.5	3/15/2023	STDE-030323
0.2 mg/l NO3	NO32-100-021523	100 mg/l	0.2	48	Carrier	100 ml	0.2	3/15/2023	STDF-030323
0.1 mg/l NO3	NO32-100-021523	100 mg/l	0.1	48	Carrier	100 ml	0.1	3/15/2023	STDG-030323
Effcheck 2.0	NO2-100-021523	100 mg/l	2.0	48	Carrier	100 ml	2.0	3/14/2023	EFFcheck-030323
ICV	NO32E-100-021523	100 mg/l	2.0	48	Carrier	100 ml	2.0	3/14/2023	ICV-030323

*If Class A glass pipettes are used, enter an A.

Form: GN205-03
Rev. Date:03/22/2022

SGS Dayton

Analyst: JD

Prep Date: 03/14/2023

Batch ID: GP45585

Pipette ID: 52 and 57

pH paper lot#: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		Y	
GP45585-MB1				Y	
GP45585-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP45585-S1	.05ML OF 100PPM	50MLS	JD61562-6	Y	
GP45585-S2	0.5ML OF 100PPM	50MLS	JD61737-1	Y	
GP45585-D1				Y	
JD61562-6				Y	
JD61737-1				Y	
JD61562-1				Y	
JD61562-2				Y	
JD61562-3				Y	
JD61562-4				Y	
JD61562-5				Y	
JD61562-7				Y	
JD61562-8				Y	
JD61562-9				Y	
JD61562-11				Y	
JD61561-1				Y	
JD61561-2				Y	
JD61648-1				Y	
JD61648-2				Y	
JD61654-1				Y	
JD61730-1				Y	
JD61730-2				Y	
JD61730-3				Y	
JD61731-1				Y	

Form GN319-04 Aqueous

Rev date: 03/02/2023

Reviewer: _____

Date: _____

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SGS Dayton

Analyst:____JD_____

Prep Date: __03/14/2023_

Batch ID: ____GP45586_

Pipette ID: 52 and 57

pH paper lot#: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		Y	
GP45586-MB1				Y	
GP45586-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP45586-S1	.05ML OF 100PPM	50MLS	JD61737-2	Y	
GP45586-S2	0.5ML OF 100PPM	50MLS	JD61737-3	Y	
GP45586-D1				Y	
JD61737-2				Y	
JD61737-3				Y	
JD61737-4				Y	
JD61737-5				Y	
JD61737-6				Y	
JD61737-7				Y	
JD61737-8				Y	
JD61738-1				Y	
JD61738-2				Y	
JD61738-3				Y	
JD61738-4				Y	
JD61738-5				Y	
JD61687-1				Y	
JD61687-2				Y	
JD61687-3				Y	
JD61687-4				Y	
JD61687-5				Y	
JD61722-1				Y	
JD61722-2				Y	
JD61722-3				Y	

Form GN319-04 Aqueous

Rev date: 03/02/2023

Reviewer: _____

Date: _____

SGS Dayton

Analyst: ___JD_____

Prep Date: __03/14/2023_

Batch ID: ____GP45587_

Pipette ID: 52 and 57

pH paper lot#: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A			
GP45587-MB1				Y	
GP45587-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP45587-S1	.05ML OF 100PPM	50MLS	JD61861-2	Y	
GP45587-S2	0.5ML OF 100PPM	50MLS	JD61722-4	Y	
GP45587-D1				Y	
JD61861-2				Y	
JD61722-4				Y	
FC3333-1A				Y	
JD61747-1				Y	
JD61747-2				Y	
JD61747-3				Y	
LA88454-1				Y	
LA88507-1				Y	
LA88507-2				Y	
LA88507-3				Y	
JD61861-1				Y	
JD61861-3				Y	
JD61654-1				Y	
JD61737-5				Y	
				Y	
				Y	
				Y	
				Y	
				Y	
				Y	

Form GN319-04 Aqueous

Rev date: 03/02/2023

Reviewer: _____

Date: _____ 8/15/23

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC5089

Sampling Date: 04/07/23

Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: 327

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC5089

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FC5089-1	04/07/23	11:00	JR	04/08/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC5089

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 4/25/2023 11:51:57 AM

On 04/08/2023, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 3.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5089 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP42110

Sample(s) FC5031-24DUP, FC5031-24MS, FC5031-24MSD, FC5031-24SDL were used as the QC samples for metals.

RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP42110-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC5089
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 04/07/23

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC5089-1	**EFFLUENT**					
Arsenic		5.7	2.0	1.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC5089-1	**Date Sampled:**	04/07/23
Matrix:	AQ - Water	**Date Received:**	04/08/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.7	2.0	1.0	0.21	ug/l	2	04/15/23	04/21/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19368
(2) Prep QC Batch: MP42110

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS

SGS North Americ. .nc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

FC5089

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information
Company Name: Sovereign Consulting Inc.	Project Name: Shepley's Hill (SHL), Devens, MA
Address: 9 Payson Road, Suite 150	Street:
City: Foxborough State: MA Zip: 02035	City: Devens State: MA
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com	Project # AC001.J02
Phone #: 508-339-3200	Fax #
Sampler(s) Name(s) (Printed) Sampler 1: Sovereign Staff	Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
1	Effluent	4/7/23	11:00	JWR	aq	1					x					X	

INITIAL ASSESSMENT

LABEL VERIFICATION

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
x 5 Day- Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center
Northborough, MA
4/7

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature]	4-7-23 1230	2 [signature]	3 [signature]	4/7/23	4 [signature]
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7	4/8/23	8 [signature]

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.4° IRF1 CS# 19233 9%

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

5.1

5

FC5089: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC5089 **Client:** SOVEREIGN CONSULTING INC **Project:** SHEPLEY'S HILL

Date / Time Received: 4/8/2023 9:30:00 AM **Delivery Method:** FX **Airbill #'s:** 930443729098

Therm ID: IR 1; **Therm CF:** -0.1; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.4);

Cooler Temps (Corrected) °C: Cooler 1: (3.3);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 25BDH07 Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 4/8/2023 9:30:00 AM Reviewer: _____ Date: _____

FC5089: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FC5089
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 04/07/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP42110	SW846 6020B						
MP42110-B1	7440-38-2	Arsenic	BSP	REC	99	%	84-116
MP42110-S1*	7440-38-2	Arsenic	MS	REC	102.3	%	84-116
MP42110-S2*	7440-38-2	Arsenic	MSD	REC	103.8	%	84-116
MP42110-S2*	7440-38-2	Arsenic	MSD	RPD	1.5	%	20
MP42110-D1*	7440-38-2	Arsenic	DUP	RPD	5.9	%	20

* Sample used for QC is not from job FC5089

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:55	MA19368-STD1	1		STDA
09:59	MA19368-STD2	1		STDB
10:03	MA19368-STD3	1		STDC
10:07	MA19368-STD4	1		STDD
10:11	MA19368-STD5	1		STDE
10:15	MA19368-STD6	1		STDF
10:19	MA19368-STD7	1		STDG
10:23	MA19368-HSTD1	1		
10:26	MA19368-HSTD2	1		
10:30	MA19368-ICV1	1		
10:34	MA19368-ICB1	1		
10:38	MA19368-CRIA1	1		
10:42	MA19368-ICSA1	1		
10:45	MA19368-ICSAB1	1		
10:49	MA19368-CCV1	1		
10:53	MA19368-CCV2	1		
10:57	MA19368-CCB1	1		
11:01	MP42097-MB1	2		
11:04	MP42097-B1	2		
11:08	FC3879-20	2		(sample used for QC only; not part of login FC5089)
11:12	MP42097-D1	2		
11:16	MP42097-SD1	10		
11:19	MP42097-S1	2		
11:23	MP42097-S2	2		
11:27	MP42097-PS1	2		
11:31	ZZZZZZ	2		
11:35	ZZZZZZ	2		
11:38	MA19368-CCV3	1		
11:42	MA19368-CCV4	1		
11:46	MA19368-CCB2	1		
11:50	ZZZZZZ	2		
11:53	ZZZZZZ	2		
11:57	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:01	ZZZZZZ	2		
12:05	ZZZZZZ	2		
12:09	ZZZZZZ	2		
12:12	ZZZZZZ	2		
12:16	ZZZZZZ	2		
12:20	ZZZZZZ	2		
12:24	ZZZZZZ	2		
12:36	MA19368-CCV5	1		
12:40	MA19368-CCV6	1		
12:44	MA19368-CCB3	1		
12:47	ZZZZZZ	2		
12:51	ZZZZZZ	2		
12:55	ZZZZZZ	2		
12:59	ZZZZZZ	2		
13:02	ZZZZZZ	2		
13:06	ZZZZZZ	2		
13:10	ZZZZZZ	2		
13:14	MP42108-MB1	2		
13:18	MP42108-B1	2		
13:21	FC3879-20F	2		(sample used for QC only; not part of login FC5089)
13:25	MA19368-CCV7	1		
13:29	MA19368-CCV8	1		
13:33	MA19368-CCB4	1		
13:37	MP42108-D1	2		
13:40	MP42108-SD1	10		
13:44	MP42108-S1	2		
13:48	MP42108-S2	2		
13:52	MP42108-PS1	2		
13:55	ZZZZZZ	2		
13:59	ZZZZZZ	2		
14:03	ZZZZZZ	2		
14:07	ZZZZZZ	2		
14:11	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:14	MA19368-CCV9	1		
14:18	MA19368-CCV10	1		
14:22	MA19368-CCB5	1		
14:26	ZZZZZZ	2		
14:30	ZZZZZZ	2		
14:33	ZZZZZZ	2		
14:37	ZZZZZZ	2		
14:41	ZZZZZZ	2		
14:45	ZZZZZZ	2		
14:48	ZZZZZZ	2		
14:52	ZZZZZZ	2		
14:56	ZZZZZZ	2		
15:00	ZZZZZZ	2		
15:04	MA19368-CCV11	1		
15:07	MA19368-CCV12	1		
15:11	MA19368-CCB6	1		
15:44	MA19368-ICV2	1		
15:48	MA19368-CCV13	1		
15:52	MA19368-CCV14	1		
15:56	MA19368-CCB7	1		
16:00	ZZZZZZ	2		
16:03	ZZZZZZ	2		
16:07	ZZZZZZ	2		
16:11	ZZZZZZ	2		
16:15	MP42112-MB1	5		
16:18	MP42112-B1	5		
16:22	FC5031-25	5		(sample used for QC only; not part of login FC5089)
16:26	MP42112-D1	5		
16:30	MP42112-SD1	25		
16:34	MP42112-S1	5		
16:37	MA19368-CCV15	1		
16:41	MA19368-CCV16	1		
16:45	MA19368-CCB8	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:49	MP42112-S2	5		
16:53	MP42112-PS1	5		
16:56	ZZZZZZ	5		
17:00	ZZZZZZ	5		
17:04	ZZZZZZ	5		
17:08	ZZZZZZ	10		
17:11	MP42110-MB1	2		
17:15	MP42110-B1	2		
17:19	FC5031-24	2		(sample used for QC only; not part of login FC5089)
17:23	MP42110-D1	2		
17:27	MA19368-CCV17	1		
17:30	MA19368-CCV18	1		
17:34	MA19368-CCB9	1		
17:38	MP42110-SD1	10		
17:42	MP42110-S1	2		
17:46	MP42110-S2	2		
17:49	MP42110-PS1	2		
17:53	ZZZZZZ	2		
17:57	ZZZZZZ	2		
18:01	ZZZZZZ	2		
18:04	ZZZZZZ	2		
18:08	ZZZZZZ	2		
18:12	FC5089-1	2		
---------->	Last reportable sample/prep for job FC5089			
18:16	MA19368-CCV19	1		
18:20	MA19368-CCV20	1		
18:23	MA19368-CCB10	1		
---------->	Last reportable CCB for job FC5089			
18:27	ZZZZZZ	2		
18:31	ZZZZZZ	2		
18:35	ZZZZZZ	2		
18:38	ZZZZZZ	2		
18:42	ZZZZZZ	2		
18:46	ZZZZZZ	2		
18:50	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:05	MA19368-CCV21	1		
19:09	MA19368-CCV22	1		
19:12	MA19368-CCB11	1		
19:54	MA19368-CCV23	1		
19:58	MA19368-CCV24	1		
20:02	MA19368-CCB12	1		
20:36	ZZZZZZ	2		
20:43	MA19368-CCV25	1		
20:47	MA19368-CCV26	1		
20:51	MA19368-CCB13	1		
21:06	MP42129-MB1	2		
21:10	MP42129-B1	2		
21:14	FC5225-3	2		(sample used for QC only; not part of login FC5089)
21:17	MP42129-D1	2		
21:21	MP42129-SD1	10		
21:25	MP42129-S1	2		
21:29	MP42129-S2	2		
21:33	MA19368-CCV27	1		
21:36	MA19368-CCV28	1		
21:40	MA19368-CCB14	1		
21:44	MP42129-PS1	2		
21:48	ZZZZZZ	2		
21:52	ZZZZZZ	2		
21:55	ZZZZZZ	2		
21:59	ZZZZZZ	2		
22:03	ZZZZZZ	2		
22:07	ZZZZZZ	2		
22:10	ZZZZZZ	2		
22:14	ZZZZZZ	2		
22:18	ZZZZZZ	2		
22:22	MA19368-CCV29	1		
22:26	MA19368-CCV30	1		
22:29	MA19368-CCB15	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:33	ZZZZZZ	2		
22:37	ZZZZZZ	2		
22:41	ZZZZZZ	2		
22:45	ZZZZZZ	2		
22:48	ZZZZZZ	2		
22:52	ZZZZZZ	2		
22:56	ZZZZZZ	2		
23:00	ZZZZZZ	2		
23:03	ZZZZZZ	2		
23:07	ZZZZZZ	2		
23:11	MA19368-CCV31	1		
23:15	MA19368-CCV32	1		
23:19	MA19368-CCB16	1		
23:22	ZZZZZZ	2		
23:26	ZZZZZZ	2		
23:30	ZZZZZZ	2		
23:34	ZZZZZZ	2		
23:38	MA19368-CCV33	1		
23:41	MA19368-CCV34	1		
23:45	MA19368-CCB17	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As	
10:23	MA19368-HSTD1	1		
10:26	MA19368-HSTD2	1	X	
10:30	MA19368-ICV1	1	X	
10:34	MA19368-ICB1	1	X	
10:38	MA19368-CRIA1	1	X	
10:42	MA19368-ICSA1	1	X	
10:45	MA19368-ICSAB1	1	X	
10:49	MA19368-CCV1	1		
10:53	MA19368-CCV2	1	X	
10:57	MA19368-CCB1	1	X	
11:01	MP42097-MB1	2		
11:04	MP42097-B1	2		
11:08	FC3879-20	2		(a)
11:12	MP42097-D1	2		
11:16	MP42097-SD1	10		
11:19	MP42097-S1	2		
11:23	MP42097-S2	2		
11:27	MP42097-PS1	2		
11:31	ZZZZZZ	2		
11:35	ZZZZZZ	2		
11:38	MA19368-CCV3	1		
11:42	MA19368-CCV4	1	X	
11:46	MA19368-CCB2	1	X	
11:50	ZZZZZZ	2		
11:53	ZZZZZZ	2		
11:57	ZZZZZZ	2		
12:01	ZZZZZZ	2		
12:05	ZZZZZZ	2		
12:09	ZZZZZZ	2		
12:12	ZZZZZZ	2		
12:16	ZZZZZZ	2		
12:20	ZZZZZZ	2		
12:24	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:36	MA19368-CCV5	1		
12:40	MA19368-CCV6	1	X	
12:44	MA19368-CCB3	1	X	
12:47	ZZZZZZ	2		
12:51	ZZZZZZ	2		
12:55	ZZZZZZ	2		
12:59	ZZZZZZ	2		
13:02	ZZZZZZ	2		
13:06	ZZZZZZ	2		
13:10	ZZZZZZ	2		
13:14	MP42108-MB1	2		
13:18	MP42108-B1	2		
13:21	FC3879-20F	2		(a)
13:25	MA19368-CCV7	1		
13:29	MA19368-CCV8	1	X	
13:33	MA19368-CCB4	1	X	
13:37	MP42108-D1	2		
13:40	MP42108-SD1	10		
13:44	MP42108-S1	2		
13:48	MP42108-S2	2		
13:52	MP42108-PS1	2		
13:55	ZZZZZZ	2		
13:59	ZZZZZZ	2		
14:03	ZZZZZZ	2		
14:07	ZZZZZZ	2		
14:11	ZZZZZZ	2		
14:14	MA19368-CCV9	1		
14:18	MA19368-CCV10	1	X	
14:22	MA19368-CCB5	1	X	
14:26	ZZZZZZ	2		
14:30	ZZZZZZ	2		
14:33	ZZZZZZ	2		
14:37	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:41	ZZZZZZ	2		
14:45	ZZZZZZ	2		
14:48	ZZZZZZ	2		
14:52	ZZZZZZ	2		
14:56	ZZZZZZ	2		
15:00	ZZZZZZ	2		
15:04	MA19368-CCV11	1		
15:07	MA19368-CCV12	1	X	
15:11	MA19368-CCB6	1	X	
15:44	MA19368-ICV2	1	X	
15:48	MA19368-CCV13	1		
15:52	MA19368-CCV14	1	X	
15:56	MA19368-CCB7	1	X	
16:00	ZZZZZZ	2		
16:03	ZZZZZZ	2		
16:07	ZZZZZZ	2		
16:11	ZZZZZZ	2		
16:15	MP42112-MB1	5	X	
16:18	MP42112-B1	5	X	
16:22	FC5031-25	5	X	(a)
16:26	MP42112-D1	5	X	
16:30	MP42112-SD1	25	X	
16:34	MP42112-S1	5	X	
16:37	MA19368-CCV15	1		
16:41	MA19368-CCV16	1	X	
16:45	MA19368-CCB8	1	X	
16:49	MP42112-S2	5	X	
16:53	MP42112-PS1	5		
16:56	ZZZZZZ	5		
17:00	ZZZZZZ	5		
17:04	ZZZZZZ	5		
17:08	ZZZZZZ	10		
17:11	MP42110-MB1	2	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As	
17:15	MP42110-B1	2	X	
17:19	FC5031-24	2	X	(a)
17:23	MP42110-D1	2	X	
17:27	MA19368-CCV17	1		
17:30	MA19368-CCV18	1	X	
17:34	MA19368-CCB9	1	X	
17:38	MP42110-SD1	10	X	
17:42	MP42110-S1	2	X	
17:46	MP42110-S2	2	X	
17:49	MP42110-PS1	2		
17:53	ZZZZZZ	2		
17:57	ZZZZZZ	2		
18:01	ZZZZZZ	2		
18:04	ZZZZZZ	2		
18:08	ZZZZZZ	2		
18:12	FC5089-1	2	X	
18:16	MA19368-CCV19	1		
18:20	MA19368-CCV20	1	X	
18:23	MA19368-CCB10	1	X	
18:27	ZZZZZZ	2		
18:31	ZZZZZZ	2		
18:35	ZZZZZZ	2		
18:38	ZZZZZZ	2		
18:42	ZZZZZZ	2		
18:46	ZZZZZZ	2		
18:50	ZZZZZZ	2		
19:05	MA19368-CCV21	1		
19:09	MA19368-CCV22	1	X	
19:12	MA19368-CCB11	1	X	
19:54	MA19368-CCV23	1		
19:58	MA19368-CCV24	1	X	
20:02	MA19368-CCB12	1	X	
20:36	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As	
20:43	MA19368-CCV25	1		
20:47	MA19368-CCV26	1	X	
20:51	MA19368-CCB13	1	X	
21:06	MP42129-MB1	2	X	
21:10	MP42129-B1	2	X	
21:14	FC5225-3	2	X	(a)
21:17	MP42129-D1	2	X	
21:21	MP42129-SD1	10	X	
21:25	MP42129-S1	2	X	
21:29	MP42129-S2	2	X	
21:33	MA19368-CCV27	1		
21:36	MA19368-CCV28	1	X	
21:40	MA19368-CCB14	1	X	
21:44	MP42129-PS1	2		
21:48	ZZZZZZ	2		
21:52	ZZZZZZ	2		
21:55	ZZZZZZ	2		
21:59	ZZZZZZ	2		
22:03	ZZZZZZ	2		
22:07	ZZZZZZ	2		
22:10	ZZZZZZ	2		
22:14	ZZZZZZ	2		
22:18	ZZZZZZ	2		
22:22	MA19368-CCV29	1		
22:26	MA19368-CCV30	1	X	
22:29	MA19368-CCB15	1	X	
22:33	ZZZZZZ	2		
22:37	ZZZZZZ	2		
22:41	ZZZZZZ	2		
22:45	ZZZZZZ	2		
22:48	ZZZZZZ	2		
22:52	ZZZZZZ	2		
22:56	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Element: Dilution	As
23:00	ZZZZZZ	2	
23:03	ZZZZZZ	2	
23:07	ZZZZZZ	2	
23:11	MA19368-CCV31	1	
23:15	MA19368-CCV32	1	X
23:19	MA19368-CCB16	1	X
23:22	ZZZZZZ	2	
23:26	ZZZZZZ	2	
23:30	ZZZZZZ	2	
23:34	ZZZZZZ	2	
23:38	MA19368-CCV33	1	
23:41	MA19368-CCV34	1	X
23:45	MA19368-CCB17	1	X

(a) Sample used for QC only; not part of login FC5089.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
09:55	MA19368-STD1	100	100	100	100	100	100	100
09:59	MA19368-STD2	96.5	101.3	101.4	101.1	100.2	101.1	100
10:03	MA19368-STD3	98	102.1	100.9	101.2	100.7	101.1	99.9
10:07	MA19368-STD4	96.9	101.1	100.9	101.4	100.3	101.1	100.1
10:11	MA19368-STD5	95.1	101.5	101	100.9	99.1	100.7	97.5
10:15	MA19368-STD6	90.8	99.6	100.1	99.2	96.6	99.1	94.9
10:19	MA19368-STD7	87.4	96.8	96.2	95.6	92.7	95.9	90.6
10:23	MA19368-HSTD1	93.8	95.9	96.8	95.9	93.4	95.9	92.2
10:26	MA19368-HSTD2	83.2	95.2	94.9	93.7	90.9	94.1	88.3
10:30	MA19368-ICV1	93.7	89.4	89.9	89.4	86.7	92.4	88
10:34	MA19368-ICB1	94.5	96.3	95.2	96	93.9	94.8	93.7
10:38	MA19368-CRIA1	97.8	97.2	96.5	95.8	94.1	95	93.4
10:42	MA19368-ICSA1	75.9	92	94.2	89.1	84.2	89.6	80.5
10:45	MA19368-ICSAB1	78.2	95.4	97.3	91.8	86.9	91.3	82
10:49	MA19368-CCV1	88.2	101.5	102.1	101.7	98.3	100.6	97.1
10:53	MA19368-CCV2	90.1	101	102	101.3	97.6	100.1	94.2
10:57	MA19368-CCB1	89.3	102.4	102.3	102.2	99	98.7	96.1
11:01	MP42097-MB1	87.5	100	98.3	98.7	95.1	97.4	94.7
11:04	MP42097-B1	87.8	97.5	98.3	97.4	94.3	97.8	90.9
11:08	FC3879-20	84.6	94.7	94.4	94.4	92.7	95.9	92.3
11:12	MP42097-D1	92.3	93.9	93.8	94	91.8	95.1	91.6
11:16	MP42097-SD1	91.9	97.5	97.4	97.3	95.3	96.3	94.5
11:19	MP42097-S1	83	90.1	91.3	90.4	87.4	92.4	86.9
11:23	MP42097-S2	84	90.7	90.7	90.3	87.9	92.8	86.9
11:27	MP42097-PS1	No results reported for the elements associated with this internal standard.						
11:31	ZZZZZZ	87.5	91.3	91.6	91	89.2	93	89.9
11:35	ZZZZZZ	88.2	92	91	91	89	92.6	88.6
11:38	MA19368-CCV3	98.2	99.2	97.9	97.5	93.7	95.8	91.4
11:42	MA19368-CCV4	93.4	96.6	95.4	95.3	91	93.5	88.7
11:46	MA19368-CCB2	100.4	95.4	92.7	94.2	91.1	91.6	89.4
11:50	ZZZZZZ	84.2	90.7	88.5	89.2	86.9	90.1	87.4
11:53	ZZZZZZ	92.2	92.2	91.6	91.3	88.9	92.1	88
11:57	ZZZZZZ	79.2	91.5	88.8	88.9	85.5	90.3	84.9

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
12:01	ZZZZZZ	85.9	91.6	89.3	89.7	85.2	90.1	85.1
12:05	ZZZZZZ	86.4	90.3	90	89.6	87.2	90.6	87.2
12:09	ZZZZZZ	89.4	91.4	89	89.1	86.2	90.1	86.5
12:12	ZZZZZZ	87.5	89.8	87	88.1	85.7	89.4	85.8
12:16	ZZZZZZ	88.6	88.4	86.8	87.5	85.7	89.5	86.5
12:20	ZZZZZZ	88.1	88.5	86.2	86.6	83.6	88.6	85
12:24	ZZZZZZ	84.4	89.6	86.6	87.4	84.7	89	85.8
12:36	MA19368-CCV5	93.7	93.7	91.1	91.2	88.1	90.2	86.8
12:40	MA19368-CCV6	94.4	91.7	90.5	90.1	87.1	90.1	85.1
12:44	MA19368-CCB3	99.5	91.5	89.5	89.8	87.2	88.6	86.9
12:47	ZZZZZZ	84.4	86.9	84.1	84.4	82.2	86.6	82.9
12:51	ZZZZZZ	89.1	87	86.8	86.1	84.4	88.1	85.8
12:55	ZZZZZZ	82.6	87.4	85	85.5	82.7	87.2	82.7
12:59	ZZZZZZ	81.6	85.9	86.1	86	84	88	84.2
13:02	ZZZZZZ	86.6	86.7	86	86	83.8	87.9	85.2
13:06	ZZZZZZ	87.5	86	84.9	85.2	82.8	87.1	84.4
13:10	ZZZZZZ	83.6	86	84.1	84.9	82.3	86.7	84.2
13:14	MP42108-MB1	90.1	87.1	85.5	85.4	83.5	87.4	84.9
13:18	MP42108-B1	85.7	84.8	84.5	84.3	82.2	87.7	81.7
13:21	FC3879-20F	88.1	85.8	85.1	85.5	82.7	86.5	84
13:25	MA19368-CCV7	94.9	95	92.1	92.7	88.2	90.6	86.8
13:29	MA19368-CCV8	91.7	91.5	90.4	90.6	86.5	89	83.7
13:33	MA19368-CCB4	96.8	91.9	90.2	89.7	86.5	87.2	85.1
13:37	MP42108-D1	87.3	85.6	83.6	84.6	81.7	85.4	82.8
13:40	MP42108-SD1	96.3	90.3	87.6	88.9	85.9	87.5	85.9
13:44	MP42108-S1	76.6	81.1	81.7	82	77.7	84.1	76.8
13:48	MP42108-S2	89.2	86.5	85.4	85.9	82.3	87.4	80.8
13:52	MP42108-PS1	No results reported for the elements associated with this internal standard.						
13:55	ZZZZZZ	87.3	87.1	85.6	85.7	82.2	86.3	82.6
13:59	ZZZZZZ	89.2	87.9	85.6	85.5	82.8	86.1	82.2
14:03	ZZZZZZ	91.5	86.9	85.2	85.1	82.8	85.6	82.1
14:07	ZZZZZZ	89.6	87.3	85.5	85.3	82.6	85.4	81.4
14:11	ZZZZZZ	83.8	86.8	83.7	83.8	79.8	84.6	79.2

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:14	MA19368-CCV9	92	94.9	91.7	91.6	86.9	88.8	84
14:18	MA19368-CCV10	95.3	92.5	89.6	89.9	85.1	87.2	81.2
14:22	MA19368-CCB5	100.5	91.9	89	88.8	84.8	84.8	82.4
14:26	ZZZZZZ	87.1	86.5	83	82.2	78.4	82.3	77.6
14:30	ZZZZZZ	90	85.5	83.7	83.6	80.5	84.2	80
14:33	ZZZZZZ	89.5	86.6	83.4	84	80.4	84.2	80.3
14:37	ZZZZZZ	87.9	86.2	82.9	83.5	79.7	83.2	79.5
14:41	ZZZZZZ	90.6	85.1	82.9	83	79.9	83.6	80.1
14:45	ZZZZZZ	87.3	84.5	81.9	81.8	78.6	82.3	78.6
14:48	ZZZZZZ	83.5	84.6	81.8	82.2	78.3	82.3	78.6
14:52	ZZZZZZ	86	83.9	81.9	81.6	78.1	82.4	77.8
14:56	ZZZZZZ	87.8	83.8	81.9	82.4	79.5	82.9	79.8
15:00	ZZZZZZ	82.4	84.7	81.3	81.6	77.2	81.7	76.7
15:04	MA19368-CCV11	94.3	91.3	87.7	88.1	83	85.4	81.2
15:07	MA19368-CCV12	92.9	88.1	85.7	86.1	80.9	83.7	78.6
15:11	MA19368-CCB6	100.6	88	84.9	85	81.6	82.2	79.4
15:44	MA19368-ICV2	81.1	90.4	92.2	93.1	90.8	97.1	93.4
15:48	MA19368-CCV13	97.4	102.7	103	102.8	100.8	102	100.1
15:52	MA19368-CCV14	92.3	102.6	101.9	102.9	100.4	101.8	97.9
15:56	MA19368-CCB7	96.3	101.4	100.5	101.1	100.1	99.6	98.9
16:00	ZZZZZZ	84	95.4	96	95.9	96.1	98.5	96.4
16:03	ZZZZZZ	91.7	95.7	95.4	95.7	97	99.1	97.8
16:07	ZZZZZZ	83.3	93.6	95.1	95.3	95.6	98.3	97.7
16:11	ZZZZZZ	85.8	94.6	94.3	94.9	95.5	98.7	97.5
16:15	MP42112-MB1	92.8	97.4	98.3	98.2	98	99.5	100.4
16:18	MP42112-B1	85	95.8	96	96.8	95.4	99.6	95.7
16:22	FC5031-25	87.8	96.6	97.1	96.7	96.2	99.2	99.9
16:26	MP42112-D1	89.1	98.2	97	97.2	96.6	99.5	100.3
16:30	MP42112-SD1	97.3	99.2	100.1	99.6	99.7	100.1	100.3
16:34	MP42112-S1	82.8	96.6	96.3	96.8	95.2	99.7	95.3
16:37	MA19368-CCV15	95.8	102.8	103.6	103.6	101.8	102.4	100.1
16:41	MA19368-CCV16	88.2	101.7	101.7	101.5	100	101.1	97.7
16:45	MA19368-CCB8	98.2	100.2	99.5	99.8	99.5	98.6	98.2

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:49	MP42112-S2	84.6	96.1	96.6	96.3	94.7	98.7	94.6
16:53	MP42112-PS1	No results reported for the elements associated with this internal standard.						
16:56	ZZZZZZ	91.7	97.1	95.9	95.7	95.4	98.3	98.4
17:00	ZZZZZZ	87.3	96.3	95.6	95.4	95.5	98	98.1
17:04	ZZZZZZ	95	96.5	96.7	96.2	96.3	98.6	99.5
17:08	ZZZZZZ	86.7	131.4 !	107.3	98.2	95.4	100.2	93.3
17:11	MP42110-MB1	89.2	94.6	94.3	95.1	95.1	97.5	97.4
17:15	MP42110-B1	86.4	96.3	97.1	96.8	95.4	98.9	94.4
17:19	FC5031-24	88.2	95.6	96.6	97.1	95.6	98.9	96.8
17:23	MP42110-D1	89.8	93.7	94.4	95.5	93.9	96.5	95.6
17:27	MA19368-CCV17	94.9	105.1	104	104.1	101.5	102.3	99.2
17:30	MA19368-CCV18	89.2	102.5	102.6	101.6	99.1	100	96.2
17:34	MA19368-CCB9	92.2	99.9	99.6	99.6	99.1	97.8	97.2
17:38	MP42110-SD1	92.1	97.7	98.5	98.9	98	97.9	97.6
17:42	MP42110-S1	84.1	94.4	95.2	94.8	92.8	97	92.1
17:46	MP42110-S2	89.9	93.8	95.2	94.2	92.6	96.5	91.5
17:49	MP42110-PS1	No results reported for the elements associated with this internal standard.						
17:53	ZZZZZZ	86.7	94.5	94.5	95	94.1	96.8	94.5
17:57	ZZZZZZ	88.5	94.7	95.4	94.9	94.4	96.7	94.7
18:01	ZZZZZZ	86.7	94.5	95.7	95.6	94.6	96.7	94.5
18:04	ZZZZZZ	88.2	95	94.1	94.4	93.2	95.7	94.5
18:08	ZZZZZZ	83.6	94.8	93.9	94.6	93.6	95.6	94.6
18:12	FC5089-1	81.8	94.7	94.1	93.2	92.4	95.5	92.4
18:16	MA19368-CCV19	96.7	100.7	100.5	100.2	98	98.6	96
18:20	MA19368-CCV20	91.9	99.8	99.3	98.9	96.1	97.2	93.3
18:23	MA19368-CCB10	92.8	96.9	96.5	96.2	95.6	94.6	94.3
18:27	ZZZZZZ	82.8	90.3	89.8	90.6	88	91.9	88.2
18:31	ZZZZZZ	87.7	91.1	91.2	92	91.9	93.9	92.7
18:35	ZZZZZZ	85.5	91.5	91	92	89.8	93.1	91
18:38	ZZZZZZ	80.7	93.5	92.5	91.4	90.5	94.4	93.2
18:42	ZZZZZZ	85	90.4	90.9	91	90.8	94	93.2
18:46	ZZZZZZ	97.5	94.5	96.2	96.9	95.3	97.3	95.9
18:50	ZZZZZZ	80.9	89.8	90.1	89.2	87.6	91.9	88.7

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
19:05	MA19368-CCV21	91.8	100	98.7	98.6	96.6	97.3	94.9
19:09	MA19368-CCV22	93.9	97.2	97.9	96.9	94.4	96	92
19:12	MA19368-CCB11	88.8	95.4	94.7	94.7	93.9	93.6	92.6
19:54	MA19368-CCV23	96.6	103.3	102.7	102	99.2	100.2	96.9
19:58	MA19368-CCV24	93.7	100.8	100.3	99.7	97.6	98.1	94
20:02	MA19368-CCB12	99.6	99.6	98.6	98.5	97.4	96.1	94.9
20:36	ZZZZZZ	No results reported for the elements associated with this internal standard.						
20:43	MA19368-CCV25	94.5	100.5	99.5	99.9	98.1	98.8	95.6
20:47	MA19368-CCV26	85.3	98.2	98.5	98.6	96.2	96.9	93.5
20:51	MA19368-CCB13	99.6	97.6	96.1	96.8	96.1	94.8	94.3
21:06	MP42129-MB1	85	92.9	92.4	92.4	92.4	94.2	92.4
21:10	MP42129-B1	79	91.3	91.1	91.6	90.5	94.7	89.7
21:14	FC5225-3	80.3	92.7	92.4	92.7	90.1	93.8	90.5
21:17	MP42129-D1	78.3	93.4	93.2	92.7	90.2	94.2	90.9
21:21	MP42129-SD1	94.2	97.6	97.4	97.9	96.4	96.6	95.3
21:25	MP42129-S1	75.3	90.6	92.3	91.8	89.6	93.6	88.3
21:29	MP42129-S2	81.5	92.2	93.3	93.4	90.9	95.4	89.1
21:33	MA19368-CCV27	93.2	104.6	103.1	103.3	100.1	100.1	96.3
21:36	MA19368-CCV28	89.8	101.4	100.8	100.2	97.6	97.7	92.4
21:40	MA19368-CCB14	94.3	99.1	98.3	98.1	96.7	94.9	93.5
21:44	MP42129-PS1	No results reported for the elements associated with this internal standard.						
21:48	ZZZZZZ	87	94.5	93.8	93	90.2	93.7	90.2
21:52	ZZZZZZ	80.6	93.6	92.6	92	90.7	93.5	89.6
21:55	ZZZZZZ	76.2	92.2	91	91.4	90	93	89.8
21:59	ZZZZZZ	85.5	93.1	92.5	92	89.8	93.3	89.6
22:03	ZZZZZZ	86.4	92.5	91.6	90.8	89.5	92.4	89.7
22:07	ZZZZZZ	82.4	91.3	90.6	91.6	88.6	92.2	89.4
22:10	ZZZZZZ	87.7	91.2	89.9	90	88.9	92	89.8
22:14	ZZZZZZ	84.6	90.4	89.5	90.9	90.2	92.6	91.4
22:18	ZZZZZZ	69.4 !	92.9	87.4	87.5	83.8	86.3	77.2
22:22	MA19368-CCV29	96.1	102.6	101.4	101.8	98	98.3	94.7
22:26	MA19368-CCV30	89.9	98.6	98	97.2	96.1	96.6	91.7
22:29	MA19368-CCB15	91.7	97.5	97.2	96.7	95.7	94.5	92.8

INTERNAL STANDARD SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19368
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
22:33	ZZZZZZ	76.2	92.2	88.2	87.9	85	87.8	79.1
22:37	ZZZZZZ	82.9	93.6	91.9	92.8	89.6	92.9	87
22:41	ZZZZZZ	79.8	91.4	89.8	91	89	92.3	85.6
22:45	ZZZZZZ	77.8	93.1	90.4	91.1	88.9	92	85.7
22:48	ZZZZZZ	80.8	92.5	92.1	92.4	90.6	94.2	89.3
22:52	ZZZZZZ	66.8 !	96.5	87.5	87.3	82.2	81.3	69.7 !
22:56	ZZZZZZ	82.1	93.5	91	92.1	89.7	92.3	85.7
23:00	ZZZZZZ	83.4	95.8	93.2	93.8	91.9	94.6	88.8
23:03	ZZZZZZ	74.4	93.2	87.3	87.7	84.4	86.5	76.6
23:07	ZZZZZZ	83.2	95.2	94.5	94.7	92.5	95	89.9
23:11	MA19368-CCV31	87.8	102.9	100.2	101.2	98.4	97.8	94.1
23:15	MA19368-CCV32	82.8	97	97.1	97.1	95.7	95.9	90.4
23:19	MA19368-CCB16	95.6	97.8	96.8	95.9	95.1	93.6	91.7
23:22	ZZZZZZ	75.1	91.8	89	88.6	88.3	90	83.9
23:26	ZZZZZZ	61.9 !	95.3	85.6	85.1	79.4	78.4	66.4 !
23:30	ZZZZZZ	65.4 !	98.1	87.5	87	81.1	79.9	67.3 !
23:34	ZZZZZZ	65.8 !	94.2	87.7	88.8	84.4	85.5	75.6
23:38	MA19368-CCV33	85.8	102.7	100.9	101.2	98.4	97	92.4
23:41	MA19368-CCV34	89.2	97.8	97.3	96.8	95.3	95.1	89
23:45	MA19368-CCB17	90.5	98.4	96.7	96.8	95.5	93.1	90.8

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19368 Units: ug/l

Time: / Sample ID:			10:34 ICB1		10:57 CCB1		11:46 CCB2		12:44 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0115	<1.0	0.0287	<1.0	0.0262	<1.0	0.0273	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19368 Units: ug/l

Time: / Sample ID:			13:33 CCB4		14:22 CCB5		15:11 CCB6		15:56 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0130	<1.0	0.0270	<1.0	0.0356	<1.0	0.0328	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19368 Units: ug/l

Time: / Sample ID:			16:45 CCB8		17:34 CCB9		18:23 CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr					
Antimony	1.0	.1	anr					
Arsenic	1.0	.1	0.0239	<1.0	0.0295	<1.0	0.0266	<1.0
Barium	1.0	.1	anr					
Beryllium	1.0	.1	anr					
Cadmium	1.0	.1	anr					
Calcium	100	7.2	anr					
Chromium	1.0	.1	anr					
Cobalt	1.0	.1	anr					
Copper	1.0	.1	anr					
Iron	100	7.9	anr					
Lead	1.0	.1	anr					
Magnesium	100	5.2	anr					
Manganese	1.0	.1	anr					
Molybdenum	1.0	.1	anr					
Nickel	1.0	.1	anr					
Potassium	100	6.6	anr					
Selenium	1.0	.11	anr					
Silver	1.0	.1	anr					
Sodium	100	4.8	anr					
Strontium	1.0	.1						
Thallium	1.0	.1	anr					
Tin	1.0	.1						
Titanium	1.0	.3						
Vanadium	1.0	.1	anr					
Zinc	2.0	.29	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		10:30			10:49			10:53	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	96.6	96.6				100	97.6	97.6
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		11:38			11:42			12:36	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.0	98.0			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		12:40			13:25			13:29	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.8	98.8				100	99.2	99.2
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		14:14			14:18			15:04	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	101	101.0			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		15:07			15:44			15:48	
Sample ID:	CCV	CCV12		ICV	ICV2		CCV	CCV13	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	99.6	99.6	100	96.9	96.9			
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		15:52			16:37			16:41	
Sample ID:	CCV	CCV14		CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.3	98.3				100	97.3	97.3
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		17:27			17:30			18:16	
Sample ID:	CCV	CCV17		CCV	CCV18		CCV	CCV19	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.4	97.4			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		18:20	
Sample ID:	CCV	CCV20	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	100	97.0	97.0
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver			
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19368 Units: ug/l

Time:		10:23			10:26	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	194	97.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19368 Units: ug/l

Time:			10:38	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	1.01	101.0
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0	anr	
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0		
Thallium	1.0	1.0	anr	
Tin	1.0	1.0		
Titanium	1.0	1.0		
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA042123M1.CSV Date Analyzed: 04/21/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19368 Units: ug/l

Time:			10:42		10:45	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	98300	98.3	96700	96.7
Antimony			0.0634		0.0663	
Arsenic		20	0.0763		19.0	95.0
Barium			0.498		0.543	
Beryllium			0.0613		0.00821	
Cadmium		20	0.790		19.6	98.0
Calcium	100000	100000	95200	95.2	94900	94.9
Chromium		20	2.03*(a)		21.0	105.0
Cobalt		20	0.0904		18.8	94.0
Copper		20	-0.133		18.0	90.0
Iron	100000	100000	98000	98.0	98800	98.8
Lead			0.0171		0.0291	
Magnesium	100000	100000	99400	99.4	97700	97.7
Manganese		20	0.340		19.1	95.5
Molybdenum	2000	2000	2070	103.5	2110	105.5
Nickel		20	0.388		18.8	94.0
Potassium	100000	100000	101000	101.0	101000	101.0
Selenium			0.101		0.131	
Silver		20	0.0170		18.5	92.5
Sodium	100000	100000	100000	100.0	99500	99.5
Strontium			0.871		0.938	
Thallium			0.00628		0.000300	
Tin			0.0919		0.0891	
Titanium	2000	2000	2050	102.5	2040	102.0
Vanadium			0.0425		0.0450	
Zinc		20	1.08		20.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42110
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/15/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.088	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP42110: FC5089-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42110
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/15/23 04/15/23

Metal	FC5031-24 Original	DUP	RPD	QC Limits	FC5031-24 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	0.33	0.35	5.9	0-20	0.33	205	200	102.3	80-120
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium	anr								
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP42110: FC5089-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42110 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/15/23

Metal	FC5031-24 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	0.33	208	200	103.8	1.5	20
Barium	anr					
Beryllium						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	anr					
Lead	anr					
Magnesium						
Manganese	anr					
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium	anr					
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP42110: FC5089-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42110
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 04/15/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	198	200	99.0	80-120
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42110: FC5089-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5089
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42110 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/15/23

Metal	FC5031-24 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.326	0.00	100.0(a)	0-10
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42110: FC5089-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Instrument Detection Limits

Job Number: FC5089
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19368

Instrument Linear Ranges

Job Number: FC5089
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19368

Metals Analysis

Raw Data

Quantitation Report

File Name 001CALB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 9:47
Sample Name Blank
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	16.636	ug/l	106.67	178,460.62	9.595E-01	Pulse	0.50	3
As			1	0.086	ug/l	128.95	319.34	1.458E-03	Pulse	1.00	3
Mo			1	1.483	ug/l	105.16	10,191.81	3.569E-02	Pulse	0.50	3
Pb			1	0.372	ug/l	87.98	20,840.89	4.724E-03	Pulse	1.00	3
Be			1	-0.001	ug/l	-1826.08	5.67	1.420E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	95.06	537.35	1.838E-03	Pulse	0.50	3
Ba			1	0.710	ug/l	91.97	3,009.67	1.465E-03	Pulse	0.50	3
Tl			1	0.068	ug/l	100.31	9,165.40	1.672E-03	Pulse	0.50	3
Sn			1	2.965	ug/l	101.82	24,073.32	1.215E-02	Pulse	0.30	3
Sr			1	0.483	ug/l	86.25	6,200.02	2.885E-03	Pulse	0.50	3
[Pb]			1	0.377	ug/l	94.16	9,711.14	1.942E-03	Pulse	0.50	3
Ca			1	581.695	ug/l	90.50	26,364.86	8.798E-02	Pulse	0.50	3
Ti			1	1.378	ug/l	88.91	455.35	1.472E-03	Pulse	0.50	3
Na			1	42.007	ug/l	106.93	81,069.07	2.661E-01	Pulse	1.00	3
Mg			1	73.855	ug/l	89.23	63,492.33	2.118E-01	Pulse	1.00	3
K			1	3.888	ug/l	1029.56	47,239.48	1.494E-01	Pulse	1.00	3
V			1	0.124	ug/l	176.09	3,329.68	1.003E-02	Pulse	0.50	3
Mn			1	1.090	ug/l	90.59	8,599.29	4.440E-02	Pulse	0.50	3
Fe			1	354.862	ug/l	88.27	3,319,882.03	1.780E+01	Mix	0.50	3
Co			1	0.102	ug/l	103.32	4,026.48	1.814E-02	Pulse	0.50	3
Ni			1	2.155	ug/l	92.33	9,830.34	5.174E-02	Pulse	0.50	3
Cu			1	5.030	ug/l	100.99	66,381.68	3.504E-01	Pulse	0.50	3
Zn			1	80.310	ug/l	88.94	170,918.98	6.161E-01	Pulse	1.00	3
Cd			1	0.018	ug/l	184.13	415.34	1.185E-03	Pulse	0.50	3
Al			1	229.745	ug/l	86.00	87,515.35	2.896E-01	Pulse	1.00	3
Se			1	0.059	ug/l	417.75	80.67	2.402E-04	Pulse	3.00	3
Sb			1	0.265	ug/l	96.10	4,539.65	1.438E-02	Pulse	1.00	3
Se			1	0.555	ug/l	61.22	89.66	2.221E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,346,152.00	48.76	100.0	Mix	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		417,305.55	50.41	100.0	Pulse	0.30	3
1	Ge		266,768.89	53.19	100.0	Pulse	0.30	3
1	In		2,737,689.06	52.55	100.0	Pulse	0.30	3
1	Tb		7,877,702.17	54.65	100.0	Mix	0.50	3
1	Lu		6,349,040.83	55.15	100.0	Mix	0.50	3
1	Ge		395,944.18	53.03	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		3,339.33	68.34	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 9:51
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.002	ug/l	-478.18	1,992.11	1.118E-02	Pulse	0.50	3
As			1	0.009	ug/l	51.16	158.00	8.864E-04	Pulse	1.00	3
Mo			1	0.016	ug/l	25.50	764.69	2.884E-03	Pulse	0.50	3
Pb			1	0.004	ug/l	63.59	6,093.09	1.644E-03	Pulse	1.00	3
Be			1	0.024	ug/l	176.16	5.67	2.035E-05	Pulse	2.00	3
Ag			1	0.001	ug/l	58.51	74.67	2.816E-04	Pulse	0.50	3
Ba			1	-0.012	ug/l	-12.12	413.34	2.273E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-27.89	4,062.49	9.873E-04	Pulse	0.50	3
Sn			1	0.015	ug/l	105.28	1,951.22	1.073E-03	Pulse	0.30	3
Sr			1	-0.004	ug/l	-268.69	1,240.05	6.819E-04	Pulse	0.50	3
[Pb]			1	-0.003	ug/l	-315.15	2,699.56	6.562E-04	Pulse	0.50	3
Ca			1	-0.952	ug/l	-28.69	194.67	6.983E-04	Pulse	0.50	3
Ti			1	-0.069	ug/l	-33.70	20.67	7.426E-05	Pulse	0.50	3
Na			1	-0.356	ug/l	-9.83	9,474.24	3.398E-02	Pulse	1.00	3
Mg			1	-0.054	ug/l	-127.01	653.68	2.345E-03	Pulse	1.00	3
K			1	-0.416	ug/l	-225.22	38,298.93	1.374E-01	Pulse	1.00	3
V			1	-0.014	ug/l	-28.03	1,658.74	5.949E-03	Pulse	0.50	3
Mn			1	-0.005	ug/l	-167.18	822.02	4.612E-03	Pulse	0.50	3
Fe			1	0.157	ug/l	7.58	16,134.71	9.051E-02	Pulse	0.50	3
Co			1	0.006	ug/l	56.11	1,758.75	9.866E-03	Pulse	0.50	3
Ni			1	0.017	ug/l	50.58	646.68	3.628E-03	Pulse	0.50	3
Cu			1	0.038	ug/l	8.98	10,029.30	5.626E-02	Pulse	0.50	3
Zn			1	-0.060	ug/l	-13.45	814.02	3.070E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-176.32	240.00	9.050E-04	Pulse	0.50	3
Al			1	1.140	ug/l	31.28	1,155.03	4.145E-03	Pulse	1.00	3
Se			1	0.002	ug/l	2817.04	57.00	2.150E-04	Pulse	3.00	3
Sb			1	0.002	ug/l	615.38	1,369.39	5.165E-03	Pulse	1.00	3
Se			1	-0.055	ug/l	-119.13	24.78	9.346E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,707,298.25	0.93	100.0	Pulse	0.50	3
1	Sc		278,853.02	0.99	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		178,266.43	0.61	100.0	Pulse	0.30	3
1	In		1,818,296.87	0.46	100.0	Pulse	0.30	3
1	Tb		5,134,707.33	0.38	100.0	Pulse	0.50	3
1	Lu		4,114,463.08	0.92	100.0	Pulse	0.50	3
1	Ge		265,132.54	0.33	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		2,039.01	6.72	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 9:55
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	2,010.78	1.131E-02	Pulse	0.50	3
As			1	0.000	ug/l	---	145.33	8.176E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	664.68	2.517E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	5,988.72	1.607E-03	Pulse	1.00	3
Be			1	0.000	ug/l	---	4.00	1.434E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	---	60.67	2.297E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	453.34	2.479E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	---	4,192.53	1.013E-03	Pulse	0.50	3
Sn			1	0.000	ug/l	---	1,860.10	1.017E-03	Pulse	0.30	3
Sr			1	0.000	ug/l	---	1,276.71	6.981E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	2,760.23	6.666E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	234.00	8.408E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	39.33	1.412E-04	Pulse	0.50	3
Na			1	0.000	ug/l	---	10,002.83	3.592E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	695.34	2.497E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	38,576.12	1.385E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,768.75	6.352E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	854.69	4.807E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	14,694.23	8.265E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	1,661.41	9.346E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	---	576.68	3.245E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	9,604.41	5.402E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	932.35	3.531E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	257.33	9.744E-04	Pulse	0.50	3
Al			1	0.000	ug/l	---	757.68	2.721E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	56.56	2.141E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	1,345.05	5.093E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	27.78	1.052E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,728,174.58	1.42	100.0	Pulse	0.50	3
1	Sc		278,471.66	0.82	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		177,785.73	0.43	100.0	Pulse	0.30	3
1	In		1,828,743.40	0.16	100.0	Pulse	0.30	3
1	Tb		5,126,951.17	0.77	100.0	Pulse	0.50	3
1	Lu		4,140,746.75	0.75	100.0	Pulse	0.50	3
1	Ge		264,081.58	0.26	100.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		2,060.12	2.66	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 9:59
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.527	ug/l	3.02	7,454.78	4.136E-02	Pulse	0.50	3
As			1	0.525	ug/l	3.73	851.69	4.726E-03	Pulse	1.00	3
Mo			1	0.502	ug/l	3.41	3,665.04	1.373E-02	Pulse	0.50	3
Pb			1	0.512	ug/l	0.96	21,992.09	5.899E-03	Pulse	1.00	3
Be			1	0.591	ug/l	6.47	45.00	1.596E-04	Pulse	2.00	3
Ag			1	0.553	ug/l	1.06	10,098.09	3.783E-02	Pulse	0.50	3
Ba			1	0.509	ug/l	5.77	2,050.12	1.119E-03	Pulse	0.50	3
Tl			1	0.571	ug/l	1.66	27,273.69	6.581E-03	Pulse	0.50	3
Sn			1	0.523	ug/l	3.87	5,463.07	2.981E-03	Pulse	0.30	3
Sr			1	0.500	ug/l	3.16	5,422.79	2.960E-03	Pulse	0.50	3
[Pb]			1	0.535	ug/l	1.47	10,259.10	2.475E-03	Pulse	0.50	3
Ca			1	52.861	ug/l	2.12	2,470.16	8.760E-03	Pulse	0.50	3
Ti			1	0.527	ug/l	21.04	183.33	6.499E-04	Pulse	0.50	3
Na			1	54.069	ug/l	2.09	93,680.69	3.322E-01	Pulse	1.00	3
Mg			1	53.779	ug/l	1.31	43,679.02	1.549E-01	Pulse	1.00	3
K			1	51.706	ug/l	1.22	79,988.68	2.836E-01	Pulse	1.00	3
V			1	0.497	ug/l	0.99	5,944.93	2.108E-02	Pulse	0.50	3
Mn			1	0.524	ug/l	5.65	4,297.82	2.385E-02	Pulse	0.50	3
Fe			1	53.403	ug/l	0.61	495,257.11	2.748E+00	Pulse	0.50	3
Co			1	0.542	ug/l	2.60	10,127.33	5.620E-02	Pulse	0.50	3
Ni			1	0.541	ug/l	2.42	2,778.87	1.542E-02	Pulse	0.50	3
Cu			1	0.493	ug/l	6.54	14,970.49	8.308E-02	Pulse	0.50	3
Zn			1	0.447	ug/l	6.55	1,852.42	6.941E-03	Pulse	1.00	3
Cd			1	0.555	ug/l	1.76	1,974.78	7.399E-03	Pulse	0.50	3
Al			1	52.278	ug/l	0.29	19,173.51	6.799E-02	Pulse	1.00	3
Se			1	0.523	ug/l	1.84	118.89	4.454E-04	Pulse	3.00	3
Sb			1	0.521	ug/l	3.17	6,234.73	2.336E-02	Pulse	1.00	3
Se			1	0.447	ug/l	39.67	53.22	1.993E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,728,109.33	1.24	100.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		282,006.01	0.38	101.3	Pulse	0.30	3
1	Ge		180,210.41	0.63	101.4	Pulse	0.30	3
1	In		1,832,117.56	0.74	100.2	Pulse	0.30	3
1	Tb		5,181,812.33	0.73	101.1	Pulse	0.50	3
1	Lu		4,144,178.50	0.52	100.1	Pulse	0.50	3
1	Ge		266,932.56	0.98	101.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,987.89	2.16	96.5	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:03
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.060	ug/l	2.94	12,865.61	7.173E-02	Pulse	0.50	3
As			1	1.042	ug/l	3.60	1,537.73	8.574E-03	Pulse	1.00	3
Mo			1	1.024	ug/l	2.57	6,795.92	2.542E-02	Pulse	0.50	3
Pb			1	1.018	ug/l	0.33	37,786.52	1.015E-02	Pulse	1.00	3
Be			1	1.246	ug/l	6.21	91.17	3.207E-04	Pulse	2.00	3
Ag			1	1.080	ug/l	0.40	19,697.77	7.368E-02	Pulse	0.50	3
Ba			1	0.983	ug/l	2.35	3,555.03	1.932E-03	Pulse	0.50	3
Tl			1	1.114	ug/l	0.96	49,446.31	1.187E-02	Pulse	0.50	3
Sn			1	1.009	ug/l	3.80	8,844.39	4.804E-03	Pulse	0.30	3
Sr			1	1.028	ug/l	2.60	9,846.58	5.350E-03	Pulse	0.50	3
[Pb]			1	1.068	ug/l	0.05	17,809.28	4.276E-03	Pulse	0.50	3
Ca			1	105.543	ug/l	0.82	4,733.25	1.665E-02	Pulse	0.50	3
Ti			1	0.816	ug/l	5.71	264.00	9.288E-04	Pulse	0.50	3
Na			1	105.099	ug/l	0.39	173,907.93	6.118E-01	Pulse	1.00	3
Mg			1	106.096	ug/l	0.96	86,166.28	3.031E-01	Pulse	1.00	3
K			1	102.697	ug/l	0.96	121,303.84	4.268E-01	Pulse	1.00	3
V			1	1.006	ug/l	3.23	10,280.06	3.616E-02	Pulse	0.50	3
Mn			1	1.029	ug/l	2.06	7,564.83	4.218E-02	Pulse	0.50	3
Fe			1	106.761	ug/l	0.79	970,464.60	5.412E+00	Pulse	0.50	3
Co			1	1.092	ug/l	2.25	18,600.27	1.037E-01	Pulse	0.50	3
Ni			1	1.097	ug/l	2.53	5,009.99	2.794E-02	Pulse	0.50	3
Cu			1	1.000	ug/l	2.06	20,253.27	1.129E-01	Pulse	0.50	3
Zn			1	0.959	ug/l	4.26	2,899.56	1.085E-02	Pulse	1.00	3
Cd			1	1.046	ug/l	5.30	3,493.68	1.307E-02	Pulse	0.50	3
Al			1	103.041	ug/l	0.52	37,340.72	1.314E-01	Pulse	1.00	3
Se			1	1.054	ug/l	5.42	181.78	6.800E-04	Pulse	3.00	3
Sb			1	1.034	ug/l	0.49	11,049.65	4.133E-02	Pulse	1.00	3
Se			1	1.218	ug/l	9.08	96.78	3.620E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,723,580.75	0.81	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		284,248.67	0.45	102.1	Pulse	0.30	3
1	Ge		179,335.31	0.90	100.9	Pulse	0.30	3
1	In		1,840,789.79	1.15	100.7	Pulse	0.30	3
1	Tb		5,185,114.83	0.24	101.1	Pulse	0.50	3
1	Lu		4,165,349.00	0.70	100.6	Pulse	0.50	3
1	Ge		267,333.97	0.06	101.2	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		2,017.89	0.78	98.0	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:07
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.751	ug/l	0.36	101,721.94	5.670E-01	Pulse	0.50	3
As			1	9.665	ug/l	1.50	13,049.12	7.274E-02	Pulse	1.00	3
Mo			1	9.437	ug/l	0.58	57,154.49	2.135E-01	Pulse	0.50	3
Pb			1	9.622	ug/l	0.32	307,212.44	8.232E-02	Pulse	1.00	3
Be			1	10.001	ug/l	2.15	696.68	2.474E-03	Pulse	2.00	3
Ag			1	10.143	ug/l	0.67	184,747.82	6.902E-01	Pulse	0.50	3
Ba			1	9.497	ug/l	0.19	30,282.58	1.651E-02	Pulse	0.50	3
Tl			1	10.375	ug/l	0.24	426,832.94	1.022E-01	Pulse	0.50	3
Sn			1	9.457	ug/l	1.41	66,973.52	3.652E-02	Pulse	0.30	3
Sr			1	9.517	ug/l	0.33	80,277.97	4.377E-02	Pulse	0.50	3
[Pb]			1	10.121	ug/l	0.73	145,630.98	3.486E-02	Pulse	0.50	3
Ca			1	970.517	ug/l	0.76	41,180.32	1.462E-01	Pulse	0.50	3
Ti			1	9.671	ug/l	2.84	2,669.52	9.478E-03	Pulse	0.50	3
Na			1	985.490	ug/l	0.84	1,530,850.17	5.436E+00	Pulse	1.00	3
Mg			1	987.474	ug/l	0.63	788,735.35	2.801E+00	Pulse	1.00	3
K			1	973.552	ug/l	0.56	808,497.44	2.871E+00	Pulse	1.00	3
V			1	9.601	ug/l	0.69	81,906.66	2.908E-01	Pulse	0.50	3
Mn			1	9.733	ug/l	0.95	64,288.21	3.584E-01	Pulse	0.50	3
Fe			1	967.602	ug/l	0.43	8,679,088.00	4.838E+01	Analog	0.50	3
Co			1	10.025	ug/l	0.53	157,079.09	8.756E-01	Pulse	0.50	3
Ni			1	10.066	ug/l	0.55	41,222.36	2.298E-01	Pulse	0.50	3
Cu			1	9.925	ug/l	0.39	114,598.41	6.388E-01	Pulse	0.50	3
Zn			1	10.429	ug/l	1.55	22,235.45	8.307E-02	Pulse	1.00	3
Cd			1	9.909	ug/l	1.92	30,935.77	1.156E-01	Pulse	0.50	3
Al			1	982.859	ug/l	0.71	346,334.98	1.230E+00	Pulse	1.00	3
Se			1	9.547	ug/l	0.88	1,186.70	4.434E-03	Pulse	3.00	3
Sb			1	9.734	ug/l	0.32	92,691.63	3.463E-01	Pulse	1.00	3
Se			1	9.875	ug/l	2.84	585.45	2.187E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,731,738.92	0.66	100.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		281,624.53	0.63	101.1	Pulse	0.30	3
1	Ge		179,391.59	0.41	100.9	Pulse	0.30	3
1	In		1,833,870.62	0.21	100.3	Pulse	0.30	3
1	Tb		5,181,020.50	0.45	101.1	Pulse	0.50	3
1	Lu		4,177,521.58	0.49	100.9	Pulse	0.50	3
1	Ge		267,656.88	0.25	101.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,995.67	2.27	96.9	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:11
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.329	ug/l	0.67	506,816.07	2.823E+00	Pulse	0.50	3
As			1	49.090	ug/l	0.53	65,736.87	3.661E-01	Pulse	1.00	3
Mo			1	48.648	ug/l	1.06	290,620.87	1.090E+00	Pulse	0.50	3
Pb			1	49.468	ug/l	0.45	1,514,863.91	4.166E-01	Pulse	1.00	3
Be			1	49.718	ug/l	1.67	3,460.79	1.224E-02	Pulse	2.00	3
Ag			1	50.877	ug/l	1.09	922,565.04	3.461E+00	Pulse	0.50	3
Ba			1	48.907	ug/l	0.38	152,258.30	8.400E-02	Pulse	0.50	3
Tl			1	52.776	ug/l	0.58	2,145,062.50	5.156E-01	Pulse	0.50	3
Sn			1	48.277	ug/l	0.43	330,332.86	1.823E-01	Pulse	0.30	3
Sr			1	48.601	ug/l	0.94	399,945.44	2.207E-01	Pulse	0.50	3
[Pb]			1	50.768	ug/l	0.52	716,323.56	1.722E-01	Pulse	0.50	3
Ca			1	4902.518	ug/l	0.67	207,879.89	7.353E-01	Pulse	0.50	3
Ti			1	50.602	ug/l	1.79	13,852.25	4.899E-02	Pulse	0.50	3
Na			1	4925.704	ug/l	0.54	7,641,280.17	2.703E+01	Analog	1.00	3
Mg			1	4947.086	ug/l	0.68	3,964,234.17	1.402E+01	Pulse	1.00	3
K			1	4871.446	ug/l	0.60	3,904,739.33	1.381E+01	Pulse	1.00	3
V			1	49.042	ug/l	0.26	412,662.17	1.460E+00	Pulse	0.50	3
Mn			1	49.265	ug/l	0.42	322,194.06	1.794E+00	Pulse	0.50	3
Fe			1	4878.160	ug/l	0.12	43,733,944.00	2.436E+02	Analog	0.50	3
Co			1	50.409	ug/l	0.39	783,751.13	4.365E+00	Pulse	0.50	3
Ni			1	50.307	ug/l	0.36	203,873.72	1.135E+00	Pulse	0.50	3
Cu			1	50.691	ug/l	0.16	545,978.77	3.041E+00	Pulse	0.50	3
Zn			1	50.026	ug/l	0.35	102,636.74	3.851E-01	Pulse	1.00	3
Cd			1	49.858	ug/l	0.74	153,956.33	5.776E-01	Pulse	0.50	3
Al			1	4919.114	ug/l	0.37	1,737,146.46	6.144E+00	Pulse	1.00	3
Se			1	49.169	ug/l	0.70	5,849.01	2.194E-02	Pulse	3.00	3
Sb			1	49.376	ug/l	0.81	462,669.33	1.736E+00	Pulse	1.00	3
Se			1	49.367	ug/l	0.13	2,802.54	1.051E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,636,543.33	0.35	97.5	Pulse	0.50	3
1	Sc		282,735.02	0.33	101.5	Pulse	0.30	3
1	Ge		179,546.84	0.34	101.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,812,475.14	0.81	99.1	Pulse	0.30	3
1	Tb		5,163,381.17	0.34	100.7	Pulse	0.50	3
1	Lu		4,160,230.75	0.35	100.5	Pulse	0.50	3
1	Ge		266,536.00	0.30	100.9	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,960.11	6.67	95.1	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:15
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.305	ug/l	1.06	989,063.48	5.557E+00	Pulse	0.50	3
As			1	96.643	ug/l	1.17	128,148.56	7.200E-01	Pulse	1.00	3
Mo			1	97.035	ug/l	0.69	569,089.71	2.172E+00	Pulse	0.50	3
Pb			1	98.060	ug/l	0.66	2,916,686.33	8.242E-01	Pulse	1.00	3
Be			1	98.989	ug/l	1.66	6,757.46	2.436E-02	Pulse	2.00	3
Ag			1	99.546	ug/l	0.85	1,774,132.96	6.772E+00	Pulse	0.50	3
Ba			1	97.083	ug/l	0.27	294,173.86	1.665E-01	Pulse	0.50	3
Tl			1	102.854	ug/l	0.59	4,123,802.75	1.004E+00	Pulse	0.50	3
Sn			1	96.905	ug/l	0.11	644,526.47	3.648E-01	Pulse	0.30	3
Sr			1	96.629	ug/l	0.25	773,903.60	4.380E-01	Pulse	0.50	3
[Pb]			1	99.140	ug/l	0.61	1,378,586.83	3.356E-01	Pulse	0.50	3
Ca			1	9786.825	ug/l	0.54	407,022.01	1.467E+00	Pulse	0.50	3
Ti			1	97.567	ug/l	1.27	26,171.44	9.433E-02	Pulse	0.50	3
Na			1	9813.232	ug/l	0.92	14,929,159.67	5.381E+01	Analog	1.00	3
Mg			1	9868.269	ug/l	1.04	7,759,244.50	2.797E+01	Analog	1.00	3
K			1	9738.539	ug/l	0.37	7,622,080.00	2.747E+01	Analog	1.00	3
V			1	97.611	ug/l	1.17	804,239.87	2.899E+00	Pulse	0.50	3
Mn			1	96.974	ug/l	0.98	627,869.06	3.528E+00	Pulse	0.50	3
Fe			1	9711.915	ug/l	1.30	86,294,760.00	4.849E+02	Analog	0.50	3
Co			1	98.049	ug/l	1.14	1,509,613.71	8.482E+00	Pulse	0.50	3
Ni			1	97.829	ug/l	0.66	392,468.36	2.205E+00	Pulse	0.50	3
Cu			1	97.532	ug/l	0.50	1,032,468.06	5.801E+00	Pulse	0.50	3
Zn			1	98.590	ug/l	0.78	197,910.91	7.555E-01	Pulse	1.00	3
Cd			1	98.724	ug/l	0.71	299,373.27	1.143E+00	Pulse	0.50	3
Al			1	9832.758	ug/l	0.78	3,406,760.58	1.228E+01	Pulse	1.00	3
Se			1	98.590	ug/l	0.57	11,471.10	4.379E-02	Pulse	3.00	3
Sb			1	97.837	ug/l	0.67	899,750.17	3.435E+00	Pulse	1.00	3
Se			1	97.651	ug/l	1.35	5,421.88	2.070E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,538,865.50	0.11	94.9	Pulse	0.50	3
1	Sc		277,468.86	1.10	99.6	Pulse	0.30	3
1	Ge		177,993.40	1.08	100.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,766,700.27	0.43	96.6	Pulse	0.30	3
1	Tb		5,079,343.67	0.48	99.1	Pulse	0.50	3
1	Lu		4,107,700.58	0.16	99.2	Pulse	0.50	3
1	Ge		261,969.05	0.45	99.2	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,870.10	2.32	90.8	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:19
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	201.527	ug/l	0.27	1,966,209.58	1.150E+01	Pulse	0.50	3
As			1	201.922	ug/l	0.09	257,119.44	1.503E+00	Pulse	1.00	3
Mo			1	201.849	ug/l	0.58	1,139,741.71	4.516E+00	Pulse	0.50	3
Pb			1	201.122	ug/l	0.37	5,701,634.17	1.689E+00	Pulse	1.00	3
Be			1	200.575	ug/l	0.30	13,301.84	4.934E-02	Pulse	2.00	3
Ag			1	117.330	ug/l	0.66	2,014,431.16	7.982E+00	Pulse	0.50	3
Ba			1	201.757	ug/l	0.41	586,056.02	3.458E-01	Pulse	0.50	3
Tl			1	197.860	ug/l	0.38	7,700,722.00	1.930E+00	Analog	0.50	3
Sn			1	202.005	ug/l	0.45	1,287,102.17	7.594E-01	Pulse	0.30	3
Sr			1	202.059	ug/l	0.44	1,551,242.13	9.152E-01	Pulse	0.50	3
[Pb]			1	200.232	ug/l	0.76	2,701,399.67	6.771E-01	Pulse	0.50	3
Ca			1	20132.397	ug/l	0.50	813,326.79	3.017E+00	Pulse	0.50	3
Ti			1	201.083	ug/l	0.70	52,375.63	1.943E-01	Pulse	0.50	3
Na			1	20112.648	ug/l	0.50	29,722,159.33	1.102E+02	Analog	1.00	3
Mg			1	20079.680	ug/l	0.80	15,340,817.67	5.690E+01	Analog	1.00	3
K			1	20164.174	ug/l	0.52	15,294,832.00	5.673E+01	Analog	1.00	3
V			1	201.454	ug/l	1.04	1,611,031.96	5.976E+00	Pulse	0.50	3
Mn			1	201.710	ug/l	0.27	1,253,995.04	7.333E+00	Pulse	0.50	3
Fe			1	20176.080	ug/l	0.24	172,244,869.33	1.007E+03	Analog	0.50	3
Co			1	200.872	ug/l	0.20	2,970,008.75	1.737E+01	Pulse	0.50	3
Ni			1	201.005	ug/l	0.23	774,228.81	4.527E+00	Pulse	0.50	3
Cu			1	201.065	ug/l	0.63	2,035,306.75	1.190E+01	Pulse	0.50	3
Zn			1	200.677	ug/l	0.64	387,150.40	1.534E+00	Pulse	1.00	3
Cd			1	200.678	ug/l	1.05	585,976.13	2.322E+00	Pulse	0.50	3
Al			1	20104.679	ug/l	0.81	6,767,656.33	2.510E+01	Analog	1.00	3
Se			1	200.935	ug/l	0.93	22,464.94	8.902E-02	Pulse	3.00	3
Sb			1	201.250	ug/l	0.88	1,781,547.67	7.060E+00	Pulse	1.00	3
Se			1	201.338	ug/l	0.61	10,740.58	4.256E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,376,375.42	0.77	90.6	Pulse	0.50	3
1	Sc		269,611.19	1.04	96.8	Pulse	0.30	3
1	Ge		171,016.63	0.27	96.2	Pulse	0.30	3
1	In		1,694,913.89	0.34	92.7	Pulse	0.30	3
1	Tb		4,915,895.67	0.64	95.9	Pulse	0.50	3
1	Lu		3,989,411.67	0.25	96.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		252,373.93	0.95	95.6	Pulse	0.30	3
1	Te		7.33	103.25	1100.0	Pulse	0.50	3
1	Li		1,801.20	3.60	87.4	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:23
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.127	ug/l	1.07	974,224.19	5.661E+00	Pulse	0.50	3
As			1	98.297	ug/l	1.24	126,030.39	7.323E-01	Pulse	1.00	3
Mo			1	99.477	ug/l	1.95	564,067.85	2.227E+00	Pulse	0.50	3
Pb			1	99.594	ug/l	1.21	2,877,410.58	8.371E-01	Pulse	1.00	3
Be			1	101.228	ug/l	1.68	6,651.25	2.491E-02	Pulse	2.00	3
Ag			1	101.850	ug/l	1.62	1,755,061.96	6.929E+00	Pulse	0.50	3
Ba			1	99.077	ug/l	0.95	290,303.61	1.699E-01	Pulse	0.50	3
Tl			1	104.693	ug/l	1.08	4,057,623.83	1.022E+00	Pulse	0.50	3
Sn			1	99.713	ug/l	1.67	641,284.17	3.754E-01	Pulse	0.30	3
Sr			1	99.629	ug/l	0.55	771,553.48	4.516E-01	Pulse	0.50	3
[Pb]			1	101.328	ug/l	0.96	1,362,034.04	3.430E-01	Pulse	0.50	3
Ca			1	9982.717	ug/l	1.53	399,578.73	1.496E+00	Pulse	0.50	3
Ti			1	100.555	ug/l	0.45	25,962.53	9.722E-02	Pulse	0.50	3
Na			1	10169.235	ug/l	0.61	14,890,623.00	5.576E+01	Analog	1.00	3
Mg			1	10138.981	ug/l	1.07	7,673,303.67	2.873E+01	Analog	1.00	3
K			1	10022.010	ug/l	0.44	7,548,677.83	2.827E+01	Analog	1.00	3
V			1	99.910	ug/l	2.02	792,272.19	2.967E+00	Pulse	0.50	3
Mn			1	98.497	ug/l	1.43	616,619.73	3.583E+00	Pulse	0.50	3
Fe			1	9988.850	ug/l	0.87	85,820,125.33	4.987E+02	Analog	0.50	3
Co			1	99.925	ug/l	0.95	1,487,557.50	8.644E+00	Pulse	0.50	3
Ni			1	99.786	ug/l	1.14	387,053.77	2.249E+00	Pulse	0.50	3
Cu			1	99.498	ug/l	1.18	1,018,222.64	5.917E+00	Pulse	0.50	3
Zn			1	100.831	ug/l	1.41	195,680.71	7.726E-01	Pulse	1.00	3
Cd			1	100.164	ug/l	1.77	293,676.57	1.159E+00	Pulse	0.50	3
Al			1	10028.093	ug/l	1.39	3,344,105.17	1.252E+01	Pulse	1.00	3
Se			1	99.479	ug/l	1.81	11,190.60	4.418E-02	Pulse	3.00	3
Sb			1	99.871	ug/l	1.64	887,990.71	3.506E+00	Pulse	1.00	3
Se			1	100.439	ug/l	2.68	5,390.65	2.128E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,437,497.67	0.28	92.2	Pulse	0.50	3
1	Sc		267,060.37	0.58	95.9	Pulse	0.30	3
1	Ge		172,095.28	0.63	96.8	Pulse	0.30	3
1	In		1,708,359.48	0.44	93.4	Pulse	0.30	3
1	Tb		4,918,769.50	0.59	95.9	Pulse	0.50	3
1	Lu		3,970,854.92	0.49	95.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		253,299.23	0.58	95.9	Pulse	0.30	3
1	Te		7.33	103.25	1100.0	Pulse	0.50	3
1	Li		1,932.32	2.51	93.8	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:26
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	193.858	ug/l	1.64	1,866,202.96	1.106E+01	Pulse	0.50	3
As			1	193.817	ug/l	1.56	243,509.06	1.443E+00	Pulse	1.00	3
Mo			1	196.524	ug/l	0.62	1,088,379.37	4.397E+00	Pulse	0.50	3
Pb			1	195.661	ug/l	0.72	5,409,726.33	1.643E+00	Pulse	1.00	3
Be			1	195.548	ug/l	0.96	12,756.16	4.810E-02	Pulse	2.00	3
Ag			1	111.281	ug/l	0.51	1,873,887.67	7.571E+00	Pulse	0.50	3
Ba			1	194.038	ug/l	0.92	552,812.94	3.326E-01	Pulse	0.50	3
Tl			1	195.098	ug/l	0.40	7,431,383.83	1.903E+00	Analog	0.50	3
Sn			1	194.868	ug/l	1.28	1,217,808.67	7.326E-01	Pulse	0.30	3
Sr			1	195.637	ug/l	1.02	1,473,086.21	8.862E-01	Pulse	0.50	3
[Pb]			1	193.863	ug/l	0.96	2,559,871.75	6.556E-01	Pulse	0.50	3
Ca			1	19487.603	ug/l	0.16	774,428.15	2.920E+00	Pulse	0.50	3
Ti			1	194.689	ug/l	0.33	49,881.82	1.881E-01	Pulse	0.50	3
Na			1	19641.208	ug/l	0.36	28,551,430.67	1.077E+02	Analog	1.00	3
Mg			1	19557.541	ug/l	0.57	14,698,072.33	5.542E+01	Analog	1.00	3
K			1	19648.673	ug/l	0.15	14,661,319.33	5.528E+01	Analog	1.00	3
V			1	194.713	ug/l	0.61	1,531,799.67	5.776E+00	Pulse	0.50	3
Mn			1	193.247	ug/l	1.25	1,185,402.04	7.025E+00	Pulse	0.50	3
Fe			1	19653.995	ug/l	1.24	165,555,120.00	9.811E+02	Analog	0.50	3
Co			1	192.579	ug/l	1.50	2,809,483.17	1.665E+01	Pulse	0.50	3
Ni			1	193.672	ug/l	1.40	736,048.23	4.362E+00	Pulse	0.50	3
Cu			1	192.340	ug/l	1.32	1,921,416.92	1.139E+01	Pulse	0.50	3
Zn			1	194.845	ug/l	1.20	368,709.42	1.490E+00	Pulse	1.00	3
Cd			1	194.532	ug/l	1.17	557,146.52	2.251E+00	Pulse	0.50	3
Al			1	19607.954	ug/l	0.75	6,492,818.50	2.448E+01	Analog	1.00	3
Se			1	194.500	ug/l	0.81	21,330.08	8.618E-02	Pulse	3.00	3
Sb			1	194.951	ug/l	1.02	1,692,721.83	6.839E+00	Pulse	1.00	3
Se			1	193.725	ug/l	1.21	10,136.69	4.095E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,292,706.00	0.50	88.3	Pulse	0.50	3
1	Sc		265,200.04	0.72	95.2	Pulse	0.30	3
1	Ge		168,748.33	1.03	94.9	Pulse	0.30	3
1	In		1,662,311.63	0.18	90.9	Pulse	0.30	3
1	Tb		4,826,677.33	0.46	94.1	Pulse	0.50	3
1	Lu		3,904,378.67	0.48	94.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		247,516.48	0.21	93.7	Pulse	0.30	3
1	Te		4.00	86.60	600.0	Pulse	0.50	3
1	Li		1,713.42	3.20	83.2	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:30
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.124	ug/l	0.25	914,162.87	5.718E+00	Pulse	0.50	3
As			1	96.568	ug/l	0.66	115,021.06	7.195E-01	Pulse	1.00	3
Mo			1	102.183	ug/l	0.77	539,904.92	2.288E+00	Pulse	0.50	3
Pb			1	98.368	ug/l	0.94	2,712,258.08	8.268E-01	Pulse	1.00	3
Be			1	103.152	ug/l	0.91	6,321.32	2.538E-02	Pulse	2.00	3
Ag			1	51.378	ug/l	0.94	825,019.21	3.495E+00	Pulse	0.50	3
Ba			1	97.923	ug/l	1.01	266,369.32	1.679E-01	Pulse	0.50	3
Tl			1	103.625	ug/l	0.43	3,815,973.17	1.011E+00	Pulse	0.50	3
Sn			1	100.223	ug/l	0.83	598,443.27	3.773E-01	Pulse	0.30	3
Sr			1	100.184	ug/l	1.59	720,198.90	4.541E-01	Pulse	0.50	3
[Pb]			1	100.822	ug/l	0.76	1,287,572.63	3.413E-01	Pulse	0.50	3
Ca			1	9244.532	ug/l	0.66	345,143.91	1.386E+00	Pulse	0.50	3
Ti			1	101.528	ug/l	1.67	24,447.90	9.816E-02	Pulse	0.50	3
Na			1	10000.607	ug/l	0.80	13,657,762.00	5.483E+01	Analog	1.00	3
Mg			1	10217.905	ug/l	0.86	7,212,371.50	2.896E+01	Analog	1.00	3
K			1	9796.526	ug/l	1.26	6,882,425.50	2.763E+01	Analog	1.00	3
V			1	99.880	ug/l	0.16	738,787.63	2.966E+00	Pulse	0.50	3
Mn			1	97.980	ug/l	0.36	569,841.54	3.564E+00	Pulse	0.50	3
Fe			1	9879.601	ug/l	0.61	78,854,842.67	4.932E+02	Analog	0.50	3
Co			1	99.852	ug/l	0.17	1,380,988.54	8.638E+00	Pulse	0.50	3
Ni			1	99.104	ug/l	0.37	357,129.31	2.234E+00	Pulse	0.50	3
Cu			1	100.565	ug/l	0.42	955,989.54	5.980E+00	Pulse	0.50	3
Zn			1	100.341	ug/l	0.03	181,450.22	7.688E-01	Pulse	1.00	3
Cd			1	99.697	ug/l	1.28	272,395.70	1.154E+00	Pulse	0.50	3
Al			1	9603.976	ug/l	0.86	2,987,131.08	1.199E+01	Pulse	1.00	3
Se			1	95.226	ug/l	1.26	9,982.38	4.230E-02	Pulse	3.00	3
Sb			1	97.443	ug/l	0.84	807,385.15	3.421E+00	Pulse	1.00	3
Se			1	95.762	ug/l	2.55	4,789.60	2.030E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,280,262.50	1.50	88.0	Pulse	0.50	3
1	Sc		249,085.92	1.17	89.4	Pulse	0.30	3
1	Ge		159,883.45	1.53	89.9	Pulse	0.30	3
1	In		1,586,242.44	2.30	86.7	Pulse	0.30	3
1	Tb		4,736,644.33	2.92	92.4	Pulse	0.50	3
1	Lu		3,773,098.67	2.69	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		236,008.38	1.26	89.4	Pulse	0.30	3
1	Te		2.67	114.56	400.0	Pulse	0.50	3
1	Li		1,930.11	7.37	93.7	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:34
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.008	ug/l	57.71	1,994.77	1.178E-02	Pulse	0.50	3
As			1	0.011	ug/l	124.16	153.00	9.031E-04	Pulse	1.00	3
Mo			1	0.082	ug/l	32.16	1,103.37	4.351E-03	Pulse	0.50	3
Pb			1	-0.008	ug/l	-79.32	5,379.18	1.540E-03	Pulse	1.00	3
Be			1	0.048	ug/l	26.75	7.00	2.609E-05	Pulse	2.00	3
Ag			1	0.011	ug/l	12.43	247.33	9.760E-04	Pulse	0.50	3
Ba			1	0.009	ug/l	91.41	451.34	2.628E-04	Pulse	0.50	3
Tl			1	0.047	ug/l	12.64	5,696.29	1.475E-03	Pulse	0.50	3
Sn			1	0.073	ug/l	13.66	2,217.93	1.292E-03	Pulse	0.30	3
Sr			1	0.008	ug/l	198.35	1,260.05	7.344E-04	Pulse	0.50	3
[Pb]			1	-0.003	ug/l	-93.77	2,531.53	6.558E-04	Pulse	0.50	3
Ca			1	-0.058	ug/l	-822.83	223.33	8.321E-04	Pulse	0.50	3
Ti			1	-0.043	ug/l	-104.49	26.67	9.954E-05	Pulse	0.50	3
Na			1	2.596	ug/l	30.81	13,451.20	5.015E-02	Pulse	1.00	3
Mg			1	1.476	ug/l	42.93	1,791.42	6.680E-03	Pulse	1.00	3
K			1	0.021	ug/l	2695.26	37,171.47	1.386E-01	Pulse	1.00	3
V			1	-0.019	ug/l	-87.03	1,553.40	5.792E-03	Pulse	0.50	3
Mn			1	0.007	ug/l	82.32	858.02	5.069E-03	Pulse	0.50	3
Fe			1	1.655	ug/l	37.93	27,945.86	1.653E-01	Pulse	0.50	3
Co			1	0.019	ug/l	75.22	1,854.10	1.096E-02	Pulse	0.50	3
Ni			1	0.014	ug/l	54.26	604.01	3.569E-03	Pulse	0.50	3
Cu			1	-0.064	ug/l	-30.88	8,507.23	5.025E-02	Pulse	0.50	3
Zn			1	-0.072	ug/l	-24.18	756.02	2.983E-03	Pulse	1.00	3
Cd			1	0.006	ug/l	265.02	264.67	1.045E-03	Pulse	0.50	3
Al			1	0.470	ug/l	150.19	887.02	3.308E-03	Pulse	1.00	3
Se			1	0.037	ug/l	79.01	58.45	2.306E-04	Pulse	3.00	3
Sb			1	0.048	ug/l	19.32	1,718.42	6.778E-03	Pulse	1.00	3
Se			1	0.019	ug/l	159.57	27.67	1.091E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,493,008.67	1.31	93.7	Pulse	0.50	3
1	Sc		268,231.92	1.13	96.3	Pulse	0.30	3

Quantitation Report

1	Ge		169,310.86	0.98	95.2	Pulse	0.30	3
1	In		1,716,748.19	0.98	93.9	Pulse	0.30	3
1	Tb		4,862,379.33	1.03	94.8	Pulse	0.50	3
1	Lu		3,860,709.83	0.88	93.2	Pulse	0.50	3
1	Ge		253,481.29	0.47	96.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,946.77	4.89	94.5	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:38
Sample Name CRIA
Sample Type CRIA
Comment =std 2
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.053	ug/l	2.11	12,241.19	7.134E-02	Pulse	0.50	3
As			1	1.012	ug/l	3.36	1,432.06	8.346E-03	Pulse	1.00	3
Mo			1	1.087	ug/l	0.88	6,784.58	2.681E-02	Pulse	0.50	3
Pb			1	1.025	ug/l	0.73	35,541.44	1.020E-02	Pulse	1.00	3
Be			1	1.287	ug/l	11.44	89.50	3.307E-04	Pulse	2.00	3
Ag			1	1.097	ug/l	1.99	18,949.03	7.488E-02	Pulse	0.50	3
Ba			1	0.989	ug/l	2.36	3,342.32	1.941E-03	Pulse	0.50	3
Tl			1	1.140	ug/l	1.14	47,024.86	1.212E-02	Pulse	0.50	3
Sn			1	1.064	ug/l	0.66	8,627.62	5.012E-03	Pulse	0.30	3
Sr			1	1.020	ug/l	3.01	9,146.91	5.313E-03	Pulse	0.50	3
[Pb]			1	1.061	ug/l	1.04	16,485.29	4.250E-03	Pulse	0.50	3
Ca			1	106.890	ug/l	3.18	4,560.54	1.685E-02	Pulse	0.50	3
Ti			1	0.941	ug/l	13.36	284.00	1.049E-03	Pulse	0.50	3
Na			1	108.520	ug/l	0.37	170,628.82	6.306E-01	Pulse	1.00	3
Mg			1	106.812	ug/l	1.05	82,578.00	3.052E-01	Pulse	1.00	3
K			1	104.231	ug/l	0.34	116,643.65	4.311E-01	Pulse	1.00	3
V			1	0.992	ug/l	3.03	9,675.09	3.575E-02	Pulse	0.50	3
Mn			1	1.062	ug/l	1.93	7,445.44	4.339E-02	Pulse	0.50	3
Fe			1	106.500	ug/l	1.82	926,359.63	5.399E+00	Pulse	0.50	3
Co			1	1.088	ug/l	0.52	17,734.13	1.034E-01	Pulse	0.50	3
Ni			1	1.080	ug/l	5.48	4,728.59	2.756E-02	Pulse	0.50	3
Cu			1	0.931	ug/l	2.82	18,680.38	1.089E-01	Pulse	0.50	3
Zn			1	1.331	ug/l	4.32	3,461.98	1.368E-02	Pulse	1.00	3
Cd			1	1.069	ug/l	4.29	3,376.32	1.334E-02	Pulse	0.50	3
Al			1	107.165	ug/l	2.34	36,940.01	1.365E-01	Pulse	1.00	3
Se			1	1.114	ug/l	4.64	178.78	7.066E-04	Pulse	3.00	3
Sb			1	1.054	ug/l	3.29	10,632.75	4.202E-02	Pulse	1.00	3
Se			1	1.150	ug/l	9.17	88.00	3.477E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,482,954.08	1.11	93.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		270,595.71	0.08	97.2	Pulse	0.30	3
1	Ge		171,585.48	0.25	96.5	Pulse	0.30	3
1	In		1,721,400.21	0.92	94.1	Pulse	0.30	3
1	Tb		4,871,862.83	0.92	95.0	Pulse	0.50	3
1	Lu		3,878,942.00	0.87	93.7	Pulse	0.50	3
1	Ge		253,032.94	0.68	95.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,015.67	5.57	97.8	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:42
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.030	ug/l	1.78	21,284.30	1.270E-01	Pulse	0.50	3
As			1	0.076	ug/l	22.48	232.00	1.385E-03	Pulse	1.00	3
Mo			1	2071.299	ug/l	0.13	10,896,458.00	4.632E+01	Analog	0.50	3
Pb			1	0.017	ug/l	27.02	5,256.15	1.751E-03	Pulse	1.00	3
Be			1	0.061	ug/l	71.70	7.50	2.941E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	14.48	326.67	1.386E-03	Pulse	0.50	3
Ba			1	0.498	ug/l	3.96	1,694.75	1.101E-03	Pulse	0.50	3
Tl			1	0.006	ug/l	19.10	3,929.13	1.074E-03	Pulse	0.50	3
Sn			1	0.092	ug/l	21.41	2,097.91	1.362E-03	Pulse	0.30	3
Sr			1	0.871	ug/l	1.55	7,144.71	4.642E-03	Pulse	0.50	3
[Pb]			1	0.005	ug/l	122.37	2,502.86	6.840E-04	Pulse	0.50	3
Ca			1	95178.567	ug/l	1.39	3,650,664.33	1.426E+01	Pulse	0.50	3
Ti			1	2049.725	ug/l	0.62	506,714.13	1.979E+00	Pulse	0.50	3
Na			1	100472.913	ug/l	1.90	140,951,712.00	5.506E+02	Analog	1.00	3
Mg			1	99399.477	ug/l	1.19	72,117,797.33	2.817E+02	Analog	1.00	3
K			1	100976.376	ug/l	1.89	72,588,320.00	2.835E+02	Analog	1.00	3
V			1	0.042	ug/l	37.80	1,947.44	7.611E-03	Pulse	0.50	3
Mn			1	0.340	ug/l	2.93	2,872.22	1.715E-02	Pulse	0.50	3
Fe			1	97994.226	ug/l	0.52	819,469,589.33	4.892E+03	Analog	0.50	3
Co			1	0.090	ug/l	15.02	2,876.22	1.716E-02	Pulse	0.50	3
Ni			1	0.388	ug/l	3.59	2,006.78	1.198E-02	Pulse	0.50	3
Cu			1	-0.133	ug/l	-14.99	7,738.91	4.621E-02	Pulse	0.50	3
Zn			1	1.080	ug/l	2.44	2,767.21	1.176E-02	Pulse	1.00	3
Cd			1	0.790	ug/l	2.00	2,378.16	1.011E-02	Pulse	0.50	3
Al			1	98251.514	ug/l	1.47	31,405,648.67	1.227E+02	Analog	1.00	3
Se			1	0.101	ug/l	63.67	61.00	2.589E-04	Pulse	3.00	3
Sb			1	0.063	ug/l	2.53	1,721.08	7.316E-03	Pulse	1.00	3
Se			1	0.063	ug/l	44.59	27.89	1.185E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,001,062.75	2.47	80.5	Pulse	0.50	3
1	Sc		256,080.71	2.36	92.0	Pulse	0.30	3
1	Ge		167,535.44	2.14	94.2	Pulse	0.30	3
1	In		1,539,243.48	1.60	84.2	Pulse	0.30	3
1	Tb		4,595,961.67	2.37	89.6	Pulse	0.50	3
1	Lu		3,658,691.33	1.75	88.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		235,239.82	2.15	89.1	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,564.51	8.33	75.9	Pulse	0.30	3

Quantitation Report

File Name 016ICSB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:45
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.978	ug/l	1.75	208,726.84	1.207E+00	Pulse	0.50	3
As			1	19.026	ug/l	0.18	24,623.47	1.424E-01	Pulse	1.00	3
Mo			1	2114.782	ug/l	0.77	11,470,852.67	4.729E+01	Analog	0.50	3
Pb			1	0.029	ug/l	12.38	5,659.27	1.851E-03	Pulse	1.00	3
Be			1	0.008	ug/l	305.82	4.33	1.636E-05	Pulse	2.00	3
Ag			1	18.497	ug/l	0.24	305,256.45	1.259E+00	Pulse	0.50	3
Ba			1	0.543	ug/l	4.88	1,872.10	1.177E-03	Pulse	0.50	3
Tl			1	0.000	ug/l	432.66	3,825.11	1.015E-03	Pulse	0.50	3
Sn			1	0.089	ug/l	29.95	2,146.81	1.352E-03	Pulse	0.30	3
Sr			1	0.938	ug/l	0.86	7,855.66	4.943E-03	Pulse	0.50	3
[Pb]			1	0.005	ug/l	65.82	2,580.21	6.849E-04	Pulse	0.50	3
Ca			1	94922.523	ug/l	0.59	3,776,381.75	1.422E+01	Pulse	0.50	3
Ti			1	2044.527	ug/l	0.30	524,178.76	1.974E+00	Pulse	0.50	3
Na			1	99475.728	ug/l	1.59	144,735,002.67	5.451E+02	Analog	1.00	3
Mg			1	97724.555	ug/l	1.17	73,532,848.00	2.769E+02	Analog	1.00	3
K			1	100873.617	ug/l	1.82	75,204,520.00	2.832E+02	Analog	1.00	3
V			1	0.045	ug/l	6.24	2,040.78	7.686E-03	Pulse	0.50	3
Mn			1	19.092	ug/l	0.69	120,751.69	6.984E-01	Pulse	0.50	3
Fe			1	98837.671	ug/l	1.14	853,015,808.00	4.934E+03	Analog	0.50	3
Co			1	18.800	ug/l	1.13	282,524.11	1.634E+00	Pulse	0.50	3
Ni			1	18.777	ug/l	0.63	73,640.47	4.259E-01	Pulse	0.50	3
Cu			1	17.973	ug/l	0.17	192,458.17	1.113E+00	Pulse	0.50	3
Zn			1	20.009	ug/l	0.58	37,867.36	1.561E-01	Pulse	1.00	3
Cd			1	19.589	ug/l	0.91	55,187.83	2.275E-01	Pulse	0.50	3
Al			1	96658.444	ug/l	1.14	32,044,981.33	1.207E+02	Analog	1.00	3
Se			1	0.131	ug/l	16.42	66.00	2.721E-04	Pulse	3.00	3
Sb			1	0.066	ug/l	17.82	1,800.09	7.418E-03	Pulse	1.00	3
Se			1	0.098	ug/l	168.02	30.55	1.257E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,056,633.67	1.02	82.0	Pulse	0.50	3
1	Sc		265,561.20	1.79	95.4	Pulse	0.30	3
1	Ge		172,916.45	1.87	97.3	Pulse	0.30	3
1	In		1,589,256.71	2.34	86.9	Pulse	0.30	3
1	Tb		4,681,770.83	1.44	91.3	Pulse	0.50	3
1	Lu		3,766,076.83	2.31	91.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		242,535.23	1.51	91.8	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,610.07	12.02	78.2	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:49
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.837	ug/l	0.94	517,493.39	2.852E+00	Pulse	0.50	3
As			1	49.498	ug/l	0.36	66,991.26	3.692E-01	Pulse	1.00	3
Mo			1	51.018	ug/l	0.28	307,022.51	1.143E+00	Pulse	0.50	3
Pb			1	49.500	ug/l	1.12	1,508,675.08	4.168E-01	Pulse	1.00	3
Be			1	46.576	ug/l	1.27	3,240.59	1.147E-02	Pulse	2.00	3
Ag			1	51.918	ug/l	0.60	948,426.27	3.532E+00	Pulse	0.50	3
Ba			1	48.482	ug/l	1.22	149,636.83	8.328E-02	Pulse	0.50	3
Tl			1	53.566	ug/l	1.13	2,132,341.17	5.233E-01	Pulse	0.50	3
Sn			1	49.119	ug/l	0.89	333,169.97	1.854E-01	Pulse	0.30	3
Sr			1	48.616	ug/l	0.85	396,636.57	2.207E-01	Pulse	0.50	3
[Pb]			1	51.728	ug/l	0.83	714,804.11	1.754E-01	Pulse	0.50	3
Ca			1	4851.955	ug/l	0.62	205,629.15	7.277E-01	Pulse	0.50	3
Ti			1	48.874	ug/l	1.95	13,372.58	4.732E-02	Pulse	0.50	3
Na			1	4942.013	ug/l	0.51	7,662,488.67	2.712E+01	Analog	1.00	3
Mg			1	4734.062	ug/l	0.92	3,791,625.75	1.342E+01	Pulse	1.00	3
K			1	4769.016	ug/l	0.67	3,821,442.50	1.352E+01	Pulse	1.00	3
V			1	49.776	ug/l	1.04	418,594.71	1.481E+00	Pulse	0.50	3
Mn			1	48.616	ug/l	1.30	321,370.62	1.771E+00	Pulse	0.50	3
Fe			1	5029.533	ug/l	0.67	45,572,073.33	2.511E+02	Analog	0.50	3
Co			1	50.342	ug/l	0.85	791,086.69	4.359E+00	Pulse	0.50	3
Ni			1	50.662	ug/l	0.78	207,502.68	1.143E+00	Pulse	0.50	3
Cu			1	50.596	ug/l	0.92	550,792.86	3.035E+00	Pulse	0.50	3
Zn			1	50.299	ug/l	0.18	103,959.09	3.872E-01	Pulse	1.00	3
Cd			1	50.170	ug/l	0.25	156,071.50	5.812E-01	Pulse	0.50	3
Al			1	4589.016	ug/l	1.33	1,619,806.83	5.732E+00	Pulse	1.00	3
Se			1	48.499	ug/l	0.53	5,813.33	2.165E-02	Pulse	3.00	3
Sb			1	48.850	ug/l	0.39	461,166.29	1.717E+00	Pulse	1.00	3
Se			1	48.697	ug/l	0.29	2,785.43	1.037E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,619,409.92	0.25	97.1	Pulse	0.50	3
1	Sc		282,579.47	0.47	101.5	Pulse	0.30	3
1	Ge		181,460.47	0.65	102.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,796,795.34	0.68	98.3	Pulse	0.30	3
1	Tb		5,157,265.17	0.33	100.6	Pulse	0.50	3
1	Lu		4,074,584.50	0.35	98.4	Pulse	0.50	3
1	Ge		268,518.68	1.18	101.7	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,817.87	3.56	88.2	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 10:53
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.512	ug/l	0.72	1,030,905.34	5.683E+00	Pulse	0.50	3
As			1	97.564	ug/l	0.07	131,855.55	7.269E-01	Pulse	1.00	3
Mo			1	99.057	ug/l	0.98	593,061.77	2.218E+00	Pulse	0.50	3
Pb			1	98.665	ug/l	0.65	2,911,128.58	8.293E-01	Pulse	1.00	3
Be			1	96.678	ug/l	2.36	6,692.27	2.379E-02	Pulse	2.00	3
Ag			1	101.776	ug/l	0.94	1,851,718.08	6.924E+00	Pulse	0.50	3
Ba			1	97.394	ug/l	0.66	298,299.98	1.670E-01	Pulse	0.50	3
Tl			1	104.148	ug/l	0.77	4,121,534.42	1.017E+00	Pulse	0.50	3
Sn			1	96.951	ug/l	0.53	651,782.61	3.650E-01	Pulse	0.30	3
Sr			1	96.467	ug/l	0.47	780,937.17	4.373E-01	Pulse	0.50	3
[Pb]			1	100.730	ug/l	1.28	1,382,521.33	3.410E-01	Pulse	0.50	3
Ca			1	9692.125	ug/l	1.70	408,722.37	1.453E+00	Pulse	0.50	3
Ti			1	97.239	ug/l	1.48	26,451.82	9.401E-02	Pulse	0.50	3
Na			1	9950.596	ug/l	1.46	15,350,487.33	5.456E+01	Analog	1.00	3
Mg			1	9842.072	ug/l	1.63	7,847,335.83	2.789E+01	Analog	1.00	3
K			1	9960.457	ug/l	0.93	7,904,424.17	2.809E+01	Analog	1.00	3
V			1	99.215	ug/l	1.87	828,901.44	2.946E+00	Pulse	0.50	3
Mn			1	97.734	ug/l	0.47	644,944.04	3.555E+00	Pulse	0.50	3
Fe			1	10148.679	ug/l	0.53	91,909,904.00	5.067E+02	Analog	0.50	3
Co			1	100.102	ug/l	0.74	1,570,819.54	8.659E+00	Pulse	0.50	3
Ni			1	99.457	ug/l	0.50	406,650.52	2.242E+00	Pulse	0.50	3
Cu			1	99.198	ug/l	0.75	1,070,098.42	5.899E+00	Pulse	0.50	3
Zn			1	99.158	ug/l	1.24	203,196.98	7.598E-01	Pulse	1.00	3
Cd			1	99.329	ug/l	1.29	307,488.16	1.150E+00	Pulse	0.50	3
Al			1	9336.179	ug/l	1.83	3,280,085.67	1.166E+01	Pulse	1.00	3
Se			1	97.237	ug/l	0.97	11,550.48	4.319E-02	Pulse	3.00	3
Sb			1	97.478	ug/l	1.22	915,149.27	3.422E+00	Pulse	1.00	3
Se			1	96.695	ug/l	1.08	5,481.01	2.049E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,510,519.33	0.26	94.2	Pulse	0.50	3
1	Sc		281,384.36	1.39	101.0	Pulse	0.30	3
1	Ge		181,402.02	0.26	102.0	Pulse	0.30	3
1	In		1,785,753.54	0.35	97.6	Pulse	0.30	3
1	Tb		5,132,457.17	0.41	100.1	Pulse	0.50	3
1	Lu		4,054,512.08	0.17	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		267,436.66	0.44	101.3	Pulse	0.30	3
1	Te		6.67	45.83	1000.0	Pulse	0.50	3
1	Li		1,855.65	12.31	90.1	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 10:57
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	-5340.84	2,052.78	1.129E-02	Pulse	0.50	3
As			1	0.029	ug/l	74.86	187.33	1.031E-03	Pulse	1.00	3
Mo			1	0.261	ug/l	29.73	2,258.15	8.362E-03	Pulse	0.50	3
Pb			1	-0.010	ug/l	-38.60	5,471.88	1.527E-03	Pulse	1.00	3
Be			1	0.082	ug/l	34.33	9.83	3.441E-05	Pulse	2.00	3
Ag			1	0.018	ug/l	30.32	388.67	1.442E-03	Pulse	0.50	3
Ba			1	0.009	ug/l	244.12	477.34	2.639E-04	Pulse	0.50	3
Tl			1	0.029	ug/l	46.16	5,190.80	1.298E-03	Pulse	0.50	3
Sn			1	0.178	ug/l	22.94	3,054.72	1.686E-03	Pulse	0.30	3
Sr			1	0.006	ug/l	252.51	1,314.05	7.259E-04	Pulse	0.50	3
[Pb]			1	-0.012	ug/l	-118.82	2,511.53	6.277E-04	Pulse	0.50	3
Ca			1	1.792	ug/l	96.04	316.00	1.109E-03	Pulse	0.50	3
Ti			1	0.045	ug/l	180.49	52.67	1.846E-04	Pulse	0.50	3
Na			1	8.582	ug/l	13.61	23,646.94	8.295E-02	Pulse	1.00	3
Mg			1	3.221	ug/l	25.51	3,310.62	1.163E-02	Pulse	1.00	3
K			1	2.461	ug/l	68.77	41,475.30	1.454E-01	Pulse	1.00	3
V			1	-0.032	ug/l	-42.93	1,540.73	5.404E-03	Pulse	0.50	3
Mn			1	-0.002	ug/l	-416.95	859.36	4.728E-03	Pulse	0.50	3
Fe			1	3.851	ug/l	14.21	49,944.90	2.749E-01	Pulse	0.50	3
Co			1	0.008	ug/l	175.13	1,818.76	1.001E-02	Pulse	0.50	3
Ni			1	0.014	ug/l	89.38	646.68	3.558E-03	Pulse	0.50	3
Cu			1	-0.068	ug/l	-17.42	9,091.49	5.000E-02	Pulse	0.50	3
Zn			1	-0.075	ug/l	-19.35	798.69	2.960E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	18.14	300.00	1.112E-03	Pulse	0.50	3
Al			1	5.359	ug/l	11.24	2,683.18	9.412E-03	Pulse	1.00	3
Se			1	0.050	ug/l	78.53	63.67	2.360E-04	Pulse	3.00	3
Sb			1	0.042	ug/l	11.28	1,769.75	6.559E-03	Pulse	1.00	3
Se			1	0.115	ug/l	80.88	34.89	1.294E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,583,531.67	1.24	96.1	Pulse	0.50	3
1	Sc		285,260.92	1.29	102.4	Pulse	0.30	3

Quantitation Report

1	Ge		181,831.65	1.14	102.3	Pulse	0.30	3
1	In		1,810,646.94	1.14	99.0	Pulse	0.30	3
1	Tb		5,061,329.50	0.84	98.7	Pulse	0.50	3
1	Lu		4,002,590.08	0.88	96.7	Pulse	0.50	3
1	Ge		269,811.06	0.62	102.2	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,840.09	4.87	89.3	Pulse	0.30	3

Quantitation Report

File Name 020_MB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:01
Sample Name MP42097-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.260	ug/l	15.73	3,271.62	1.872E-02	Pulse	0.50	3
As			1	0.121	ug/l	45.53	222.00	1.270E-03	Pulse	1.00	3
Mo			1	0.635	ug/l	14.43	2,506.18	9.611E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	68.19	5,849.67	1.657E-03	Pulse	1.00	3
Be			1	0.117	ug/l	44.68	8.00	2.876E-05	Pulse	2.00	3
Ag			1	0.027	ug/l	29.36	297.34	1.141E-03	Pulse	0.50	3
Ba			1	0.032	ug/l	131.54	478.68	2.753E-04	Pulse	0.50	3
Tl			1	0.049	ug/l	33.76	4,900.05	1.252E-03	Pulse	0.50	3
Sn			1	0.568	ug/l	23.44	3,629.27	2.083E-03	Pulse	0.30	3
Sr			1	0.048	ug/l	44.83	1,404.06	8.074E-04	Pulse	0.50	3
[Pb]			1	0.009	ug/l	90.02	2,666.89	6.813E-04	Pulse	0.50	3
Ca			1	20.730	ug/l	0.74	666.68	2.394E-03	Pulse	0.50	3
Ti			1	0.412	ug/l	39.63	94.67	3.403E-04	Pulse	0.50	3
Na			1	26.216	ug/l	9.82	29,991.43	1.078E-01	Pulse	1.00	3
Mg			1	13.062	ug/l	13.44	5,851.21	2.100E-02	Pulse	1.00	3
K			1	9.459	ug/l	57.46	42,252.95	1.518E-01	Pulse	1.00	3
V			1	0.565	ug/l	6.85	4,101.78	1.473E-02	Pulse	0.50	3
Mn			1	0.071	ug/l	9.33	1,066.03	6.101E-03	Pulse	0.50	3
Fe			1	21.996	ug/l	6.78	110,372.86	6.316E-01	Pulse	0.50	3
Co			1	0.034	ug/l	38.91	1,890.77	1.082E-02	Pulse	0.50	3
Ni			1	0.161	ug/l	25.20	883.36	5.055E-03	Pulse	0.50	3
Cu			1	0.260	ug/l	9.70	10,777.70	6.169E-02	Pulse	0.50	3
Zn			1	0.637	ug/l	5.83	1,552.40	5.958E-03	Pulse	1.00	3
Cd			1	0.006	ug/l	166.32	262.67	1.008E-03	Pulse	0.50	3
Al			1	11.886	ug/l	12.18	2,826.88	1.014E-02	Pulse	1.00	3
Se			1	0.080	ug/l	69.33	60.44	2.319E-04	Pulse	3.00	3
Sb			1	0.056	ug/l	21.09	1,580.74	6.066E-03	Pulse	1.00	3
Se			1	0.266	ug/l	119.27	34.78	1.332E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,532,002.08	1.99	94.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		278,557.49	2.65	100.0	Pulse	0.30	3
1	Ge		174,712.32	0.88	98.3	Pulse	0.30	3
1	In		1,739,593.58	2.01	95.1	Pulse	0.30	3
1	Tb		4,994,516.33	2.24	97.4	Pulse	0.50	3
1	Lu		3,914,881.58	2.38	94.5	Pulse	0.50	3
1	Ge		260,543.85	1.12	98.7	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,802.31	6.64	87.5	Pulse	0.30	3

Quantitation Report

File Name 021_BSP.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:04
Sample Name MP42097-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	208.743	ug/l	0.63	1,041,529.71	5.960E+00	Pulse	0.50	3
As			1	204.971	ug/l	0.24	133,425.03	7.635E-01	Pulse	1.00	3
Mo			1	211.294	ug/l	0.51	608,424.40	2.365E+00	Pulse	0.50	3
Pb			1	208.164	ug/l	0.51	2,964,789.50	8.747E-01	Pulse	1.00	3
Be			1	199.714	ug/l	1.03	6,671.59	2.457E-02	Pulse	2.00	3
Ag			1	105.812	ug/l	0.41	925,993.41	3.599E+00	Pulse	0.50	3
Ba			1	201.035	ug/l	0.43	297,248.42	1.724E-01	Pulse	0.50	3
Tl			1	208.567	ug/l	0.86	4,005,619.33	1.018E+00	Pulse	0.50	3
Sn			1	209.406	ug/l	0.63	679,486.24	3.941E-01	Pulse	0.30	3
Sr			1	206.730	ug/l	1.50	807,755.33	4.685E-01	Pulse	0.50	3
[Pb]			1	202.770	ug/l	0.82	1,350,600.46	3.432E-01	Pulse	0.50	3
Ca			1	20043.008	ug/l	0.53	407,893.76	1.502E+00	Pulse	0.50	3
Ti			1	209.155	ug/l	1.37	27,451.20	1.011E-01	Pulse	0.50	3
Na			1	20758.365	ug/l	1.07	15,452,760.33	5.691E+01	Analog	1.00	3
Mg			1	20446.083	ug/l	1.02	7,866,863.50	2.897E+01	Analog	1.00	3
K			1	20574.416	ug/l	1.40	7,877,144.50	2.901E+01	Analog	1.00	3
V			1	206.107	ug/l	0.26	830,968.58	3.060E+00	Pulse	0.50	3
Mn			1	203.295	ug/l	0.82	646,162.23	3.697E+00	Pulse	0.50	3
Fe			1	21393.885	ug/l	0.54	93,324,648.00	5.340E+02	Analog	0.50	3
Co			1	209.055	ug/l	1.03	1,580,132.16	9.042E+00	Pulse	0.50	3
Ni			1	204.352	ug/l	0.13	402,444.76	2.303E+00	Pulse	0.50	3
Cu			1	204.800	ug/l	0.78	1,063,869.05	6.088E+00	Pulse	0.50	3
Zn			1	196.719	ug/l	0.53	193,900.84	7.537E-01	Pulse	1.00	3
Cd			1	196.691	ug/l	0.44	292,880.47	1.138E+00	Pulse	0.50	3
Al			1	19454.558	ug/l	0.83	3,298,391.33	1.215E+01	Pulse	1.00	3
Se			1	191.805	ug/l	1.11	10,958.47	4.260E-02	Pulse	3.00	3
Sb			1	204.077	ug/l	0.41	921,496.37	3.582E+00	Pulse	1.00	3
Se			1	190.691	ug/l	1.21	5,198.82	2.021E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,389,369.08	1.33	90.9	Pulse	0.50	3
1	Sc		271,561.05	1.44	97.5	Pulse	0.30	3
1	Ge		174,756.04	0.56	98.3	Pulse	0.30	3
1	In		1,724,292.05	1.78	94.3	Pulse	0.30	3
1	Tb		5,013,590.83	2.30	97.8	Pulse	0.50	3
1	Lu		3,935,906.83	2.57	95.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		257,264.92	1.08	97.4	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,807.87	10.69	87.8	Pulse	0.30	3

Quantitation Report

File Name	022SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:08
Sample Name	FC3879-20
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.046	ug/l	0.64	6,903.24	4.113E-02	Pulse	0.50	3
As			1	3.646	ug/l	3.03	2,414.16	1.438E-02	Pulse	1.00	3
Mo			1	1.641	ug/l	3.44	5,201.40	2.087E-02	Pulse	0.50	3
Pb			1	0.327	ug/l	4.01	10,251.75	2.979E-03	Pulse	1.00	3
Be			1	0.161	ug/l	78.04	9.00	3.410E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	28.46	220.00	8.838E-04	Pulse	0.50	3
Ba			1	20.888	ug/l	1.60	30,734.05	1.813E-02	Pulse	0.50	3
Tl			1	0.099	ug/l	2.15	5,780.33	1.497E-03	Pulse	0.50	3
Sn			1	0.403	ug/l	4.20	3,005.82	1.774E-03	Pulse	0.30	3
Sr			1	255.625	ug/l	1.27	981,287.40	5.792E-01	Pulse	0.50	3
[Pb]			1	0.319	ug/l	5.32	4,655.98	1.205E-03	Pulse	0.50	3
Ca			1	61660.939	ug/l	0.12	1,217,615.37	4.619E+00	Pulse	0.50	3
Ti			1	2.877	ug/l	28.64	404.01	1.530E-03	Pulse	0.50	3
Na			1	2656.958	ug/l	1.21	1,928,102.75	7.315E+00	Pulse	1.00	3
Mg			1	1041.284	ug/l	0.45	389,538.54	1.478E+00	Pulse	1.00	3
K			1	495.825	ug/l	1.25	219,902.18	8.343E-01	Pulse	1.00	3
V			1	3.837	ug/l	1.65	16,655.78	6.319E-02	Pulse	0.50	3
Mn			1	2.866	ug/l	3.99	9,541.69	5.687E-02	Pulse	0.50	3
Fe			1	158.572	ug/l	0.82	678,050.96	4.040E+00	Pulse	0.50	3
Co			1	0.175	ug/l	4.13	2,840.22	1.692E-02	Pulse	0.50	3
Ni			1	1.668	ug/l	3.30	3,695.70	2.202E-02	Pulse	0.50	3
Cu			1	12.944	ug/l	0.83	73,069.34	4.354E-01	Pulse	0.50	3
Zn			1	4.630	ug/l	1.85	5,280.40	2.119E-02	Pulse	1.00	3
Cd			1	0.066	ug/l	32.26	338.67	1.359E-03	Pulse	0.50	3
Al			1	367.097	ug/l	0.45	61,118.92	2.319E-01	Pulse	1.00	3
Se			1	0.533	ug/l	31.97	82.67	3.319E-04	Pulse	3.00	3
Sb			1	0.483	ug/l	2.08	3,379.32	1.356E-02	Pulse	1.00	3
Se			1	0.787	ug/l	9.90	46.89	1.881E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,441,360.58	1.22	92.3	Pulse	0.50	3
1	Sc		263,591.53	1.13	94.7	Pulse	0.30	3
1	Ge		167,832.84	1.31	94.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,694,547.68	2.11	92.7	Pulse	0.30	3
1	Tb		4,916,455.17	2.54	95.9	Pulse	0.50	3
1	Lu		3,862,334.83	2.13	93.3	Pulse	0.50	3
1	Ge		249,191.40	1.05	94.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,743.42	4.60	84.6	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:12
Sample Name	MP42097-D1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.054	ug/l	4.13	6,896.57	4.134E-02	Pulse	0.50	3
As			1	3.639	ug/l	3.94	2,394.82	1.436E-02	Pulse	1.00	3
Mo			1	1.585	ug/l	1.90	5,026.02	2.024E-02	Pulse	0.50	3
Pb			1	0.366	ug/l	2.45	10,742.71	3.144E-03	Pulse	1.00	3
Be			1	0.204	ug/l	30.92	10.33	3.948E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	33.74	155.33	6.237E-04	Pulse	0.50	3
Ba			1	21.173	ug/l	1.69	30,828.15	1.838E-02	Pulse	0.50	3
Tl			1	0.027	ug/l	16.59	4,369.90	1.142E-03	Pulse	0.50	3
Sn			1	0.295	ug/l	16.90	2,637.98	1.571E-03	Pulse	0.30	3
Sr			1	258.333	ug/l	1.08	981,919.77	5.853E-01	Pulse	0.50	3
[Pb]			1	0.395	ug/l	3.95	5,106.11	1.334E-03	Pulse	0.50	3
Ca			1	62119.999	ug/l	0.57	1,217,485.63	4.654E+00	Pulse	0.50	3
Ti			1	2.211	ug/l	5.99	316.00	1.208E-03	Pulse	0.50	3
Na			1	2690.971	ug/l	1.01	1,938,040.42	7.409E+00	Pulse	1.00	3
Mg			1	1057.104	ug/l	1.29	392,475.04	1.500E+00	Pulse	1.00	3
K			1	499.727	ug/l	0.93	219,687.85	8.398E-01	Pulse	1.00	3
V			1	3.945	ug/l	1.23	16,952.70	6.480E-02	Pulse	0.50	3
Mn			1	2.767	ug/l	2.94	9,187.52	5.507E-02	Pulse	0.50	3
Fe			1	157.953	ug/l	1.21	671,377.58	4.025E+00	Pulse	0.50	3
Co			1	0.172	ug/l	1.64	2,798.21	1.677E-02	Pulse	0.50	3
Ni			1	1.768	ug/l	4.11	3,860.39	2.315E-02	Pulse	0.50	3
Cu			1	10.590	ug/l	1.35	61,051.94	3.660E-01	Pulse	0.50	3
Zn			1	3.750	ug/l	1.77	4,427.84	1.783E-02	Pulse	1.00	3
Cd			1	0.081	ug/l	4.54	358.00	1.442E-03	Pulse	0.50	3
Al			1	371.826	ug/l	1.25	61,432.22	2.348E-01	Pulse	1.00	3
Se			1	0.409	ug/l	19.33	75.67	3.046E-04	Pulse	3.00	3
Sb			1	0.454	ug/l	7.34	3,238.96	1.304E-02	Pulse	1.00	3
Se			1	0.923	ug/l	17.06	50.22	2.025E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,416,597.92	2.20	91.6	Pulse	0.50	3
1	Sc		261,612.07	1.18	93.9	Pulse	0.30	3
1	Ge		166,806.95	0.98	93.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,677,900.00	2.55	91.8	Pulse	0.30	3
1	Tb		4,876,091.33	2.13	95.1	Pulse	0.50	3
1	Lu		3,826,318.50	2.39	92.4	Pulse	0.50	3
1	Ge		248,295.29	2.10	94.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,902.32	10.60	92.3	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:16
Sample Name MP42097-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.365	ug/l	24.80	2,318.14	1.339E-02	Pulse	0.50	3
As			1	3.965	ug/l	4.87	652.68	3.769E-03	Pulse	1.00	3
Mo			1	1.707	ug/l	1.92	1,628.08	6.335E-03	Pulse	0.50	3
Pb			1	0.083	ug/l	58.35	5,904.36	1.676E-03	Pulse	1.00	3
Be			1	0.141	ug/l	262.16	4.83	1.781E-05	Pulse	2.00	3
Ag			1	0.022	ug/l	79.17	97.33	3.791E-04	Pulse	0.50	3
Ba			1	20.101	ug/l	2.28	6,427.82	3.690E-03	Pulse	0.50	3
Tl			1	0.026	ug/l	105.88	4,039.16	1.038E-03	Pulse	0.50	3
Sn			1	0.132	ug/l	79.50	1,857.88	1.067E-03	Pulse	0.30	3
Sr			1	254.294	ug/l	0.33	201,709.74	1.158E-01	Pulse	0.50	3
[Pb]			1	0.120	ug/l	26.76	2,750.90	7.072E-04	Pulse	0.50	3
Ca			1	61373.860	ug/l	0.42	249,810.11	9.202E-01	Pulse	0.50	3
Ti			1	3.290	ug/l	33.08	124.67	4.588E-04	Pulse	0.50	3
Na			1	2669.895	ug/l	0.48	406,895.16	1.499E+00	Pulse	1.00	3
Mg			1	1055.929	ug/l	1.00	81,905.67	3.017E-01	Pulse	1.00	3
K			1	487.817	ug/l	0.19	74,769.79	2.754E-01	Pulse	1.00	3
V			1	3.778	ug/l	1.59	4,763.26	1.755E-02	Pulse	0.50	3
Mn			1	2.654	ug/l	4.88	2,501.50	1.445E-02	Pulse	0.50	3
Fe			1	147.584	ug/l	0.91	141,874.57	8.193E-01	Pulse	0.50	3
Co			1	0.135	ug/l	36.57	1,820.09	1.051E-02	Pulse	0.50	3
Ni			1	1.835	ug/l	5.24	1,276.71	7.375E-03	Pulse	0.50	3
Cu			1	8.882	ug/l	1.95	18,416.79	1.064E-01	Pulse	0.50	3
Zn			1	2.613	ug/l	7.12	1,419.72	5.524E-03	Pulse	1.00	3
Cd			1	-0.084	ug/l	-53.47	225.33	8.767E-04	Pulse	0.50	3
Al			1	366.323	ug/l	1.09	13,153.67	4.846E-02	Pulse	1.00	3
Se			1	-0.150	ug/l	-56.52	53.33	2.075E-04	Pulse	3.00	3
Sb			1	0.409	ug/l	15.26	1,678.08	6.528E-03	Pulse	1.00	3
Se			1	1.142	ug/l	31.21	33.22	1.292E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,522,899.58	1.12	94.5	Pulse	0.50	3
1	Sc		271,455.14	0.72	97.5	Pulse	0.30	3
1	Ge		173,152.37	0.90	97.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,741,967.47	1.00	95.3	Pulse	0.30	3
1	Tb		4,936,631.00	1.09	96.3	Pulse	0.50	3
1	Lu		3,889,607.25	1.20	93.9	Pulse	0.50	3
1	Ge		257,019.73	0.86	97.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,893.44	5.05	91.9	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:19
Sample Name MP42097-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	212.089	ug/l	0.38	982,615.02	6.055E+00	Pulse	0.50	3
As			1	211.566	ug/l	0.45	127,876.21	7.880E-01	Pulse	1.00	3
Mo			1	216.623	ug/l	0.57	579,065.06	2.425E+00	Pulse	0.50	3
Pb			1	209.860	ug/l	0.59	2,856,370.50	8.818E-01	Pulse	1.00	3
Be			1	210.932	ug/l	0.69	6,510.21	2.595E-02	Pulse	2.00	3
Ag			1	105.663	ug/l	0.54	858,431.71	3.594E+00	Pulse	0.50	3
Ba			1	227.707	ug/l	1.14	312,006.35	1.952E-01	Pulse	0.50	3
Tl			1	209.539	ug/l	0.24	3,855,503.08	1.023E+00	Pulse	0.50	3
Sn			1	211.785	ug/l	0.85	636,977.18	3.986E-01	Pulse	0.30	3
Sr			1	475.585	ug/l	1.10	1,721,098.87	1.077E+00	Pulse	0.50	3
[Pb]			1	203.862	ug/l	0.47	1,300,878.00	3.450E-01	Pulse	0.50	3
Ca			1	83179.481	ug/l	0.36	1,563,346.75	6.231E+00	Pulse	0.50	3
Ti			1	209.250	ug/l	1.13	25,379.09	1.011E-01	Pulse	0.50	3
Na			1	24471.249	ug/l	0.72	16,829,804.67	6.708E+01	Analog	1.00	3
Mg			1	22331.733	ug/l	0.74	7,939,006.67	3.164E+01	Analog	1.00	3
K			1	21603.396	ug/l	0.96	7,640,481.00	3.045E+01	Analog	1.00	3
V			1	213.562	ug/l	0.43	795,474.38	3.170E+00	Pulse	0.50	3
Mn			1	208.143	ug/l	0.10	614,309.37	3.786E+00	Pulse	0.50	3
Fe			1	22125.034	ug/l	0.15	89,620,813.33	5.523E+02	Analog	0.50	3
Co			1	210.071	ug/l	0.05	1,474,374.21	9.086E+00	Pulse	0.50	3
Ni			1	205.686	ug/l	0.33	376,141.25	2.318E+00	Pulse	0.50	3
Cu			1	212.649	ug/l	0.10	1,025,406.77	6.319E+00	Pulse	0.50	3
Zn			1	201.073	ug/l	0.40	183,977.20	7.703E-01	Pulse	1.00	3
Cd			1	199.329	ug/l	0.50	275,538.08	1.154E+00	Pulse	0.50	3
Al			1	20440.973	ug/l	0.77	3,202,111.58	1.276E+01	Pulse	1.00	3
Se			1	191.754	ug/l	2.00	10,172.04	4.259E-02	Pulse	3.00	3
Sb			1	207.253	ug/l	0.22	868,748.25	3.638E+00	Pulse	1.00	3
Se			1	193.383	ug/l	0.31	4,894.41	2.049E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,239,484.08	2.21	86.9	Pulse	0.50	3
1	Sc		250,898.35	1.12	90.1	Pulse	0.30	3
1	Ge		162,277.71	1.46	91.3	Pulse	0.30	3
1	In		1,598,336.81	2.06	87.4	Pulse	0.30	3
1	Tb		4,739,841.33	1.84	92.4	Pulse	0.50	3
1	Lu		3,770,379.17	1.78	91.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		238,826.96	0.81	90.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,710.08	4.61	83.0	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:23
Sample Name MP42097-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.383	ug/l	1.39	981,947.29	6.092E+00	Pulse	0.50	3
As			1	212.084	ug/l	0.84	127,326.53	7.900E-01	Pulse	1.00	3
Mo			1	218.371	ug/l	0.87	582,880.19	2.444E+00	Pulse	0.50	3
Pb			1	211.265	ug/l	0.53	2,876,594.50	8.877E-01	Pulse	1.00	3
Be			1	211.357	ug/l	2.80	6,567.40	2.600E-02	Pulse	2.00	3
Ag			1	106.215	ug/l	0.51	861,754.12	3.613E+00	Pulse	0.50	3
Ba			1	224.287	ug/l	0.61	309,031.50	1.923E-01	Pulse	0.50	3
Tl			1	209.782	ug/l	0.75	3,857,919.00	1.024E+00	Pulse	0.50	3
Sn			1	212.141	ug/l	0.33	641,585.23	3.992E-01	Pulse	0.30	3
Sr			1	462.887	ug/l	0.35	1,684,591.25	1.048E+00	Pulse	0.50	3
[Pb]			1	204.920	ug/l	0.94	1,306,915.75	3.468E-01	Pulse	0.50	3
Ca			1	80952.537	ug/l	0.46	1,532,086.71	6.064E+00	Pulse	0.50	3
Ti			1	212.566	ug/l	0.14	25,958.50	1.027E-01	Pulse	0.50	3
Na			1	24213.042	ug/l	1.09	16,767,744.00	6.637E+01	Analog	1.00	3
Mg			1	22003.871	ug/l	0.96	7,876,687.50	3.118E+01	Analog	1.00	3
K			1	21289.962	ug/l	1.63	7,581,982.50	3.001E+01	Analog	1.00	3
V			1	212.234	ug/l	0.13	796,049.73	3.151E+00	Pulse	0.50	3
Mn			1	209.065	ug/l	1.51	612,872.90	3.802E+00	Pulse	0.50	3
Fe			1	22247.075	ug/l	1.19	89,508,074.67	5.553E+02	Analog	0.50	3
Co			1	211.231	ug/l	1.87	1,472,529.33	9.136E+00	Pulse	0.50	3
Ni			1	206.828	ug/l	1.91	375,686.80	2.331E+00	Pulse	0.50	3
Cu			1	213.965	ug/l	1.57	1,024,742.23	6.358E+00	Pulse	0.50	3
Zn			1	200.894	ug/l	0.68	183,552.47	7.696E-01	Pulse	1.00	3
Cd			1	199.652	ug/l	0.86	275,577.59	1.156E+00	Pulse	0.50	3
Al			1	20146.211	ug/l	0.85	3,177,754.67	1.258E+01	Pulse	1.00	3
Se			1	192.376	ug/l	1.93	10,187.71	4.273E-02	Pulse	3.00	3
Sb			1	207.980	ug/l	0.78	870,532.08	3.650E+00	Pulse	1.00	3
Se			1	192.227	ug/l	1.73	4,857.84	2.037E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,240,709.58	2.09	86.9	Pulse	0.50	3
1	Sc		252,650.24	1.51	90.7	Pulse	0.30	3
1	Ge		161,181.94	0.42	90.7	Pulse	0.30	3
1	In		1,607,103.13	1.81	87.9	Pulse	0.30	3
1	Tb		4,759,371.00	2.24	92.8	Pulse	0.50	3
1	Lu		3,768,764.25	2.46	91.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		238,509.03	2.07	90.3	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,730.08	2.52	84.0	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:27
Sample Name	MP42097-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	24.219	ug/l	0.51	113,298.50	7.015E-01	Pulse	0.50	3
As			1	27.450	ug/l	1.17	16,631.22	1.030E-01	Pulse	1.00	3
Mo			1	24.874	ug/l	1.94	68,141.64	2.806E-01	Pulse	0.50	3
Pb			1	23.041	ug/l	0.86	326,676.21	9.825E-02	Pulse	1.00	3
Be			1	23.286	ug/l	5.80	735.01	2.877E-03	Pulse	2.00	3
Ag			1	7.128	ug/l	5.11	58,944.57	2.427E-01	Pulse	0.50	3
Ba			1	44.145	ug/l	1.02	62,267.15	3.805E-02	Pulse	0.50	3
Tl			1	24.125	ug/l	0.64	446,811.04	1.186E-01	Pulse	0.50	3
Sn			1	22.201	ug/l	2.29	69,855.32	4.269E-02	Pulse	0.30	3
Sr			1	291.353	ug/l	0.83	1,080,056.42	6.600E-01	Pulse	0.50	3
[Pb]			1	22.898	ug/l	1.23	148,203.07	3.935E-02	Pulse	0.50	3
Ca			1	66598.142	ug/l	1.06	1,274,922.54	4.989E+00	Pulse	0.50	3
Ti			1	25.343	ug/l	2.52	3,162.27	1.237E-02	Pulse	0.50	3
Na			1	5049.294	ug/l	0.43	3,544,075.25	1.387E+01	Pulse	1.00	3
Mg			1	3353.648	ug/l	0.75	1,214,855.25	4.754E+00	Pulse	1.00	3
K			1	2695.771	ug/l	0.59	1,002,010.37	3.921E+00	Pulse	1.00	3
V			1	27.180	ug/l	0.83	104,529.69	4.090E-01	Pulse	0.50	3
Mn			1	25.720	ug/l	0.97	76,237.83	4.720E-01	Pulse	0.50	3
Fe			1	2508.265	ug/l	0.30	10,124,787.33	6.268E+01	Analog	0.50	3
Co			1	23.538	ug/l	1.09	165,784.23	1.026E+00	Pulse	0.50	3
Ni			1	24.915	ug/l	0.65	45,813.30	2.836E-01	Pulse	0.50	3
Cu			1	34.125	ug/l	0.90	171,124.58	1.059E+00	Pulse	0.50	3
Zn			1	27.510	ug/l	1.10	26,329.58	1.084E-01	Pulse	1.00	3
Cd			1	22.317	ug/l	0.47	31,570.83	1.300E-01	Pulse	0.50	3
Al			1	2518.062	ug/l	0.78	402,369.68	1.575E+00	Pulse	1.00	3
Se			1	21.170	ug/l	2.30	1,187.93	4.892E-03	Pulse	3.00	3
Sb			1	21.610	ug/l	1.15	93,201.62	3.838E-01	Pulse	1.00	3
Se			1	22.007	ug/l	6.18	588.79	2.425E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,324,704.67	1.72	89.2	Pulse	0.50	3
1	Sc		255,527.15	1.39	91.8	Pulse	0.30	3
1	Ge		161,520.12	1.31	90.9	Pulse	0.30	3
1	In		1,636,329.90	1.55	89.5	Pulse	0.30	3
1	Tb		4,794,197.83	2.41	93.5	Pulse	0.50	3
1	Lu		3,766,000.08	2.34	90.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		242,785.37	1.38	91.9	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,753.42	2.68	85.1	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:31
Sample Name FC3879-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.799	ug/l	3.08	5,548.81	3.407E-02	Pulse	0.50	3
As			1	0.974	ug/l	4.06	723.68	4.443E-03	Pulse	1.00	3
Mo			1	1.476	ug/l	4.72	4,572.57	1.902E-02	Pulse	0.50	3
Pb			1	0.069	ug/l	9.10	6,354.85	1.897E-03	Pulse	1.00	3
Be			1	0.075	ug/l	111.51	6.00	2.355E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	49.39	118.67	4.942E-04	Pulse	0.50	3
Ba			1	18.303	ug/l	1.59	25,966.61	1.592E-02	Pulse	0.50	3
Tl			1	0.033	ug/l	15.07	4,390.57	1.174E-03	Pulse	0.50	3
Sn			1	0.222	ug/l	9.00	2,336.83	1.433E-03	Pulse	0.30	3
Sr			1	250.568	ug/l	0.92	925,757.96	5.677E-01	Pulse	0.50	3
[Pb]			1	0.056	ug/l	32.14	2,848.91	7.620E-04	Pulse	0.50	3
Ca			1	53943.758	ug/l	0.30	1,027,185.77	4.041E+00	Pulse	0.50	3
Ti			1	0.370	ug/l	23.83	81.33	3.198E-04	Pulse	0.50	3
Na			1	3793.364	ug/l	0.52	2,650,659.83	1.043E+01	Pulse	1.00	3
Mg			1	1673.914	ug/l	0.24	603,459.58	2.374E+00	Pulse	1.00	3
K			1	3853.794	ug/l	0.59	1,409,730.96	5.547E+00	Pulse	1.00	3
V			1	15.239	ug/l	0.75	59,004.63	2.321E-01	Pulse	0.50	3
Mn			1	29.472	ug/l	1.59	87,972.87	5.401E-01	Pulse	0.50	3
Fe			1	162.406	ug/l	0.49	673,653.19	4.136E+00	Pulse	0.50	3
Co			1	0.166	ug/l	7.64	2,692.87	1.653E-02	Pulse	0.50	3
Ni			1	0.798	ug/l	8.51	1,991.44	1.223E-02	Pulse	0.50	3
Cu			1	-0.420	ug/l	-3.89	6,785.21	4.166E-02	Pulse	0.50	3
Zn			1	1.879	ug/l	0.77	2,569.84	1.070E-02	Pulse	1.00	3
Cd			1	0.006	ug/l	461.87	242.67	1.009E-03	Pulse	0.50	3
Al			1	23.153	ug/l	2.55	4,365.48	1.717E-02	Pulse	1.00	3
Se			1	0.194	ug/l	62.50	61.78	2.571E-04	Pulse	3.00	3
Sb			1	0.491	ug/l	3.84	3,291.97	1.370E-02	Pulse	1.00	3
Se			1	0.450	ug/l	2.53	36.67	1.526E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,350,191.67	1.68	89.9	Pulse	0.50	3
1	Sc		254,172.01	0.87	91.3	Pulse	0.30	3
1	Ge		162,881.78	1.28	91.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,630,788.72	1.98	89.2	Pulse	0.30	3
1	Tb		4,768,792.33	2.45	93.0	Pulse	0.50	3
1	Lu		3,740,928.58	2.72	90.3	Pulse	0.50	3
1	Ge		240,286.86	1.15	91.0	Pulse	0.30	3
1	Te		3.33	34.64	500.0	Pulse	0.50	3
1	Li		1,803.42	4.62	87.5	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:35
Sample Name	FC3879-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.330	ug/l	1.59	3,350.30	2.072E-02	Pulse	0.50	3
As			1	1.009	ug/l	3.63	739.35	4.571E-03	Pulse	1.00	3
Mo			1	2.049	ug/l	2.66	6,112.35	2.543E-02	Pulse	0.50	3
Pb			1	-0.023	ug/l	-12.61	4,985.40	1.510E-03	Pulse	1.00	3
Be			1	0.195	ug/l	26.38	9.83	3.833E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	72.55	84.67	3.520E-04	Pulse	0.50	3
Ba			1	5.348	ug/l	1.19	7,854.39	4.827E-03	Pulse	0.50	3
Tl			1	0.013	ug/l	9.99	3,993.81	1.077E-03	Pulse	0.50	3
Sn			1	0.180	ug/l	29.84	2,207.92	1.355E-03	Pulse	0.30	3
Sr			1	163.625	ug/l	0.55	603,700.90	3.710E-01	Pulse	0.50	3
[Pb]			1	-0.020	ug/l	-116.74	2,345.50	6.328E-04	Pulse	0.50	3
Ca			1	61458.878	ug/l	0.72	1,179,062.62	4.604E+00	Pulse	0.50	3
Ti			1	0.248	ug/l	72.43	66.67	2.608E-04	Pulse	0.50	3
Na			1	2179.889	ug/l	0.85	1,538,608.12	6.008E+00	Pulse	1.00	3
Mg			1	1360.072	ug/l	0.49	494,134.76	1.930E+00	Pulse	1.00	3
K			1	2259.368	ug/l	0.93	847,377.79	3.309E+00	Pulse	1.00	3
V			1	2.825	ug/l	1.45	12,345.93	4.821E-02	Pulse	0.50	3
Mn			1	0.423	ug/l	9.35	2,021.45	1.249E-02	Pulse	0.50	3
Fe			1	4.891	ug/l	3.54	33,110.83	2.047E-01	Pulse	0.50	3
Co			1	0.030	ug/l	32.66	1,721.42	1.065E-02	Pulse	0.50	3
Ni			1	0.157	ug/l	14.88	811.35	5.015E-03	Pulse	0.50	3
Cu			1	-0.373	ug/l	-6.96	6,958.61	4.303E-02	Pulse	0.50	3
Zn			1	0.914	ug/l	17.96	1,687.08	7.016E-03	Pulse	1.00	3
Cd			1	-0.018	ug/l	-113.02	209.33	8.720E-04	Pulse	0.50	3
Al			1	4.093	ug/l	5.28	1,351.71	5.276E-03	Pulse	1.00	3
Se			1	0.024	ug/l	459.49	52.67	2.194E-04	Pulse	3.00	3
Sb			1	0.421	ug/l	6.64	2,996.91	1.247E-02	Pulse	1.00	3
Se			1	0.387	ug/l	29.87	35.11	1.460E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,302,283.17	1.75	88.6	Pulse	0.50	3
1	Sc		256,106.61	2.06	92.0	Pulse	0.30	3
1	Ge		161,699.08	1.67	91.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,627,299.80	2.31	89.0	Pulse	0.30	3
1	Tb		4,745,820.50	2.77	92.6	Pulse	0.50	3
1	Lu		3,709,837.58	3.08	89.6	Pulse	0.50	3
1	Ge		240,314.76	1.50	91.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,816.76	3.09	88.2	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:38
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.492	ug/l	1.73	502,983.34	2.889E+00	Pulse	0.50	3
As			1	49.390	ug/l	0.78	64,129.83	3.684E-01	Pulse	1.00	3
Mo			1	49.827	ug/l	0.37	287,428.70	1.117E+00	Pulse	0.50	3
Pb			1	49.762	ug/l	0.81	1,427,716.87	4.190E-01	Pulse	1.00	3
Be			1	50.994	ug/l	1.33	3,466.29	1.255E-02	Pulse	2.00	3
Ag			1	51.430	ug/l	0.39	900,549.75	3.499E+00	Pulse	0.50	3
Ba			1	48.903	ug/l	0.40	143,939.39	8.400E-02	Pulse	0.50	3
Tl			1	53.100	ug/l	0.65	2,018,629.12	5.188E-01	Pulse	0.50	3
Sn			1	49.007	ug/l	0.79	317,020.18	1.850E-01	Pulse	0.30	3
Sr			1	49.070	ug/l	0.53	381,779.17	2.228E-01	Pulse	0.50	3
[Pb]			1	51.259	ug/l	0.58	676,475.69	1.738E-01	Pulse	0.50	3
Ca			1	4897.734	ug/l	0.50	202,823.21	7.345E-01	Pulse	0.50	3
Ti			1	49.616	ug/l	2.32	13,265.18	4.804E-02	Pulse	0.50	3
Na			1	5162.470	ug/l	0.19	7,820,856.50	2.832E+01	Analog	1.00	3
Mg			1	4851.372	ug/l	0.80	3,796,651.58	1.375E+01	Pulse	1.00	3
K			1	4826.658	ug/l	0.27	3,778,703.42	1.369E+01	Pulse	1.00	3
V			1	49.811	ug/l	1.14	409,308.84	1.482E+00	Pulse	0.50	3
Mn			1	49.506	ug/l	0.79	313,926.58	1.803E+00	Pulse	0.50	3
Fe			1	5203.526	ug/l	1.05	45,233,672.00	2.598E+02	Analog	0.50	3
Co			1	50.348	ug/l	1.32	759,046.88	4.360E+00	Pulse	0.50	3
Ni			1	50.113	ug/l	0.87	196,920.66	1.131E+00	Pulse	0.50	3
Cu			1	50.043	ug/l	0.71	522,740.12	3.003E+00	Pulse	0.50	3
Zn			1	50.423	ug/l	0.75	99,888.44	3.881E-01	Pulse	1.00	3
Cd			1	50.050	ug/l	0.53	149,233.81	5.798E-01	Pulse	0.50	3
Al			1	4713.781	ug/l	1.51	1,625,752.92	5.888E+00	Pulse	1.00	3
Se			1	48.679	ug/l	0.90	5,592.60	2.173E-02	Pulse	3.00	3
Sb			1	48.905	ug/l	0.60	442,534.01	1.719E+00	Pulse	1.00	3
Se			1	47.511	ug/l	0.78	2,605.40	1.012E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,407,256.75	1.13	91.4	Pulse	0.50	3
1	Sc		276,121.33	0.45	99.2	Pulse	0.30	3
1	Ge		174,092.00	0.66	97.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,713,586.63	0.49	93.7	Pulse	0.30	3
1	Tb		4,910,467.67	0.76	95.8	Pulse	0.50	3
1	Lu		3,891,167.00	1.16	94.0	Pulse	0.50	3
1	Ge		257,375.62	0.86	97.5	Pulse	0.30	3
1	Te		2.00	173.21	300.0	Pulse	0.50	3
1	Li		2,023.45	2.56	98.2	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:42
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.095	ug/l	1.26	978,871.96	5.773E+00	Pulse	0.50	3
As			1	97.951	ug/l	0.91	123,732.93	7.297E-01	Pulse	1.00	3
Mo			1	99.577	ug/l	1.71	560,931.33	2.229E+00	Pulse	0.50	3
Pb			1	98.876	ug/l	0.30	2,746,886.17	8.310E-01	Pulse	1.00	3
Be			1	102.314	ug/l	1.31	6,770.63	2.517E-02	Pulse	2.00	3
Ag			1	100.778	ug/l	1.10	1,725,187.04	6.856E+00	Pulse	0.50	3
Ba			1	98.323	ug/l	0.28	280,514.82	1.686E-01	Pulse	0.50	3
Tl			1	103.862	ug/l	1.19	3,880,981.75	1.014E+00	Pulse	0.50	3
Sn			1	97.379	ug/l	0.78	609,826.35	3.666E-01	Pulse	0.30	3
Sr			1	97.520	ug/l	1.10	735,383.86	4.421E-01	Pulse	0.50	3
[Pb]			1	100.179	ug/l	0.96	1,298,279.25	3.391E-01	Pulse	0.50	3
Ca			1	9682.827	ug/l	1.16	390,348.85	1.451E+00	Pulse	0.50	3
Ti			1	95.778	ug/l	1.08	24,906.48	9.260E-02	Pulse	0.50	3
Na			1	10300.650	ug/l	0.72	15,190,341.67	5.648E+01	Analog	1.00	3
Mg			1	10117.684	ug/l	0.99	7,711,783.67	2.867E+01	Analog	1.00	3
K			1	10076.310	ug/l	0.40	7,643,434.83	2.842E+01	Analog	1.00	3
V			1	99.332	ug/l	1.65	793,328.35	2.950E+00	Pulse	0.50	3
Mn			1	99.785	ug/l	1.08	615,465.04	3.630E+00	Pulse	0.50	3
Fe			1	10553.999	ug/l	0.80	89,338,256.00	5.269E+02	Analog	0.50	3
Co			1	101.304	ug/l	1.55	1,485,859.79	8.763E+00	Pulse	0.50	3
Ni			1	100.492	ug/l	0.82	384,042.38	2.265E+00	Pulse	0.50	3
Cu			1	98.908	ug/l	1.02	997,310.81	5.882E+00	Pulse	0.50	3
Zn			1	99.080	ug/l	1.57	191,035.78	7.592E-01	Pulse	1.00	3
Cd			1	98.170	ug/l	1.62	285,947.04	1.136E+00	Pulse	0.50	3
Al			1	9389.465	ug/l	1.54	3,153,495.67	1.173E+01	Pulse	1.00	3
Se			1	97.462	ug/l	1.62	10,892.54	4.329E-02	Pulse	3.00	3
Sb			1	97.291	ug/l	1.37	859,409.00	3.415E+00	Pulse	1.00	3
Se			1	96.233	ug/l	1.00	5,132.36	2.040E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,305,371.50	0.79	88.7	Pulse	0.50	3
1	Sc		268,961.59	0.46	96.6	Pulse	0.30	3
1	Ge		169,553.92	0.34	95.4	Pulse	0.30	3
1	In		1,663,422.02	0.70	91.0	Pulse	0.30	3
1	Tb		4,795,744.67	0.91	93.5	Pulse	0.50	3
1	Lu		3,828,330.92	0.15	92.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		251,626.96	0.15	95.3	Pulse	0.30	3
1	Te		2.00	173.21	300.0	Pulse	0.50	3
1	Li		1,924.55	3.85	93.4	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:46
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.002	ug/l	520.02	1,879.43	1.140E-02	Pulse	0.50	3
As			1	0.026	ug/l	56.10	167.00	1.013E-03	Pulse	1.00	3
Mo			1	0.158	ug/l	23.83	1,504.07	6.046E-03	Pulse	0.50	3
Pb			1	-0.011	ug/l	-29.05	5,057.42	1.518E-03	Pulse	1.00	3
Be			1	0.087	ug/l	69.04	9.50	3.580E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	36.82	306.00	1.231E-03	Pulse	0.50	3
Ba			1	0.013	ug/l	109.43	451.34	2.709E-04	Pulse	0.50	3
Tl			1	0.024	ug/l	38.82	4,615.97	1.251E-03	Pulse	0.50	3
Sn			1	0.190	ug/l	24.66	2,884.70	1.731E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	65.00	1,290.05	7.744E-04	Pulse	0.50	3
[Pb]			1	-0.013	ug/l	-44.76	2,301.50	6.236E-04	Pulse	0.50	3
Ca			1	-0.233	ug/l	-295.96	214.00	8.060E-04	Pulse	0.50	3
Ti			1	-0.053	ug/l	-15.83	24.00	9.039E-05	Pulse	0.50	3
Na			1	3.431	ug/l	20.84	14,531.61	5.472E-02	Pulse	1.00	3
Mg			1	1.053	ug/l	39.29	1,454.39	5.480E-03	Pulse	1.00	3
K			1	2.125	ug/l	43.20	38,377.40	1.445E-01	Pulse	1.00	3
V			1	-0.027	ug/l	-5.99	1,471.39	5.539E-03	Pulse	0.50	3
Mn			1	-0.013	ug/l	-76.94	715.35	4.341E-03	Pulse	0.50	3
Fe			1	1.659	ug/l	21.28	27,245.88	1.655E-01	Pulse	0.50	3
Co			1	0.014	ug/l	61.44	1,737.42	1.055E-02	Pulse	0.50	3
Ni			1	0.013	ug/l	27.17	583.34	3.539E-03	Pulse	0.50	3
Cu			1	-0.065	ug/l	-29.05	8,269.79	5.018E-02	Pulse	0.50	3
Zn			1	-0.093	ug/l	-17.52	701.68	2.821E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	77.86	285.33	1.147E-03	Pulse	0.50	3
Al			1	3.643	ug/l	18.26	1,930.43	7.270E-03	Pulse	1.00	3
Se			1	0.051	ug/l	98.38	58.89	2.368E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	18.59	1,671.74	6.723E-03	Pulse	1.00	3
Se			1	0.043	ug/l	240.20	28.44	1.143E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,332,253.58	0.68	89.4	Pulse	0.50	3
1	Sc		265,614.25	0.62	95.4	Pulse	0.30	3

Quantitation Report

1	Ge		164,807.56	1.20	92.7	Pulse	0.30	3
1	In		1,666,121.22	0.78	91.1	Pulse	0.30	3
1	Tb		4,698,436.50	0.81	91.6	Pulse	0.50	3
1	Lu		3,691,651.25	1.30	89.2	Pulse	0.50	3
1	Ge		248,712.64	0.65	94.2	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,069.01	4.82	100.4	Pulse	0.30	3

Quantitation Report

File Name	033SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 11:50
Sample Name	FC3879-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.283	ug/l	8.47	3,044.91	1.936E-02	Pulse	0.50	3
As			1	0.419	ug/l	18.06	374.34	2.376E-03	Pulse	1.00	3
Mo			1	1.430	ug/l	2.23	4,359.19	1.851E-02	Pulse	0.50	3
Pb			1	0.015	ug/l	36.51	5,445.21	1.672E-03	Pulse	1.00	3
Be			1	0.135	ug/l	31.81	7.83	3.094E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	5.69	246.00	1.045E-03	Pulse	0.50	3
Ba			1	14.465	ug/l	1.30	20,075.80	1.263E-02	Pulse	0.50	3
Tl			1	0.038	ug/l	36.46	4,353.23	1.197E-03	Pulse	0.50	3
Sn			1	0.467	ug/l	4.69	3,011.38	1.894E-03	Pulse	0.30	3
Sr			1	349.767	ug/l	0.44	1,259,098.34	7.922E-01	Pulse	0.50	3
[Pb]			1	0.007	ug/l	116.10	2,472.85	6.792E-04	Pulse	0.50	3
Ca			1	60767.575	ug/l	0.58	1,149,485.08	4.552E+00	Pulse	0.50	3
Ti			1	0.213	ug/l	94.71	61.33	2.442E-04	Pulse	0.50	3
Na			1	2212.261	ug/l	1.35	1,539,289.17	6.097E+00	Pulse	1.00	3
Mg			1	1440.098	ug/l	0.60	515,838.22	2.043E+00	Pulse	1.00	3
K			1	2364.363	ug/l	1.03	872,678.69	3.456E+00	Pulse	1.00	3
V			1	2.504	ug/l	3.03	10,973.10	4.345E-02	Pulse	0.50	3
Mn			1	4.434	ug/l	2.20	13,427.33	8.535E-02	Pulse	0.50	3
Fe			1	28.211	ug/l	1.07	123,731.90	7.867E-01	Pulse	0.50	3
Co			1	0.046	ug/l	27.32	1,780.75	1.132E-02	Pulse	0.50	3
Ni			1	1.010	ug/l	0.48	2,298.15	1.461E-02	Pulse	0.50	3
Cu			1	0.222	ug/l	15.01	9,525.03	6.057E-02	Pulse	0.50	3
Zn			1	6.908	ug/l	1.65	7,034.30	2.987E-02	Pulse	1.00	3
Cd			1	0.023	ug/l	66.56	260.00	1.106E-03	Pulse	0.50	3
Al			1	4.734	ug/l	12.87	1,431.72	5.676E-03	Pulse	1.00	3
Se			1	0.871	ug/l	12.72	95.78	4.065E-04	Pulse	3.00	3
Sb			1	0.374	ug/l	5.10	2,744.21	1.165E-02	Pulse	1.00	3
Se			1	1.078	ug/l	12.95	51.55	2.188E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,256,666.75	2.12	87.4	Pulse	0.50	3
1	Sc		252,523.51	2.64	90.7	Pulse	0.30	3
1	Ge		157,283.07	2.05	88.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,589,248.93	2.74	86.9	Pulse	0.30	3
1	Tb		4,620,113.33	2.96	90.1	Pulse	0.50	3
1	Lu		3,641,712.50	3.09	87.9	Pulse	0.50	3
1	Ge		235,436.08	2.14	89.2	Pulse	0.30	3
1	Te		2.67	114.56	400.0	Pulse	0.50	3
1	Li		1,734.53	6.85	84.2	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:53
Sample Name FC3879-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.453	ug/l	1.91	3,946.42	2.422E-02	Pulse	0.50	3
As			1	0.393	ug/l	10.30	371.33	2.279E-03	Pulse	1.00	3
Mo			1	3.991	ug/l	1.84	11,369.47	4.714E-02	Pulse	0.50	3
Pb			1	0.014	ug/l	9.88	5,470.88	1.668E-03	Pulse	1.00	3
Be			1	0.148	ug/l	46.45	8.33	3.252E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	9.51	136.00	5.636E-04	Pulse	0.50	3
Ba			1	13.464	ug/l	0.59	19,156.14	1.178E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	18.22	3,905.79	1.053E-03	Pulse	0.50	3
Sn			1	0.301	ug/l	3.55	2,572.42	1.581E-03	Pulse	0.30	3
Sr			1	301.660	ug/l	0.84	1,111,359.17	6.834E-01	Pulse	0.50	3
[Pb]			1	0.011	ug/l	224.67	2,541.53	6.855E-04	Pulse	0.50	3
Ca			1	67902.634	ug/l	0.68	1,305,612.96	5.087E+00	Pulse	0.50	3
Ti			1	0.122	ug/l	10.72	51.33	1.999E-04	Pulse	0.50	3
Na			1	3066.528	ug/l	0.75	2,165,578.75	8.438E+00	Pulse	1.00	3
Mg			1	1670.036	ug/l	0.84	607,956.98	2.369E+00	Pulse	1.00	3
K			1	2010.846	ug/l	0.98	759,782.23	2.960E+00	Pulse	1.00	3
V			1	4.092	ug/l	0.08	17,192.27	6.698E-02	Pulse	0.50	3
Mn			1	3.511	ug/l	2.90	11,170.57	6.858E-02	Pulse	0.50	3
Fe			1	15.574	ug/l	1.70	76,802.26	4.713E-01	Pulse	0.50	3
Co			1	0.033	ug/l	15.94	1,757.42	1.078E-02	Pulse	0.50	3
Ni			1	0.272	ug/l	19.85	1,027.37	6.301E-03	Pulse	0.50	3
Cu			1	1.468	ug/l	3.03	15,843.85	9.726E-02	Pulse	0.50	3
Zn			1	2.236	ug/l	1.58	2,907.56	1.206E-02	Pulse	1.00	3
Cd			1	0.012	ug/l	189.51	252.00	1.046E-03	Pulse	0.50	3
Al			1	7.236	ug/l	5.35	1,858.76	7.238E-03	Pulse	1.00	3
Se			1	0.188	ug/l	60.01	61.55	2.556E-04	Pulse	3.00	3
Sb			1	0.427	ug/l	1.75	3,033.26	1.258E-02	Pulse	1.00	3
Se			1	0.485	ug/l	14.58	37.67	1.563E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,280,213.83	2.06	88.0	Pulse	0.50	3
1	Sc		256,686.16	2.06	92.2	Pulse	0.30	3
1	Ge		162,936.70	2.24	91.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,626,369.80	2.41	88.9	Pulse	0.30	3
1	Tb		4,724,334.17	2.63	92.1	Pulse	0.50	3
1	Lu		3,709,825.83	1.99	89.6	Pulse	0.50	3
1	Ge		241,133.22	2.16	91.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,898.99	1.32	92.2	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 11:57
Sample Name FC3879-5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.040	ug/l	0.93	6,461.09	4.095E-02	Pulse	0.50	3
As			1	2.023	ug/l	2.11	1,316.72	8.344E-03	Pulse	1.00	3
Mo			1	0.484	ug/l	7.01	1,862.10	7.930E-03	Pulse	0.50	3
Pb			1	-0.018	ug/l	-59.91	4,844.36	1.531E-03	Pulse	1.00	3
Be			1	0.176	ug/l	17.14	9.17	3.602E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	12.40	97.33	4.145E-04	Pulse	0.50	3
Ba			1	168.255	ug/l	0.39	225,540.25	1.443E-01	Pulse	0.50	3
Tl			1	-0.009	ug/l	-44.57	3,538.37	9.673E-04	Pulse	0.50	3
Sn			1	0.217	ug/l	19.81	2,224.59	1.424E-03	Pulse	0.30	3
Sr			1	750.951	ug/l	0.73	2,656,704.75	1.700E+00	Pulse	0.50	3
[Pb]			1	-0.030	ug/l	-53.01	2,250.82	6.155E-04	Pulse	0.50	3
Ca			1	115285.131	ug/l	1.01	2,200,280.67	8.636E+00	Pulse	0.50	3
Ti			1	0.423	ug/l	32.85	88.00	3.453E-04	Pulse	0.50	3
Na			1	11109.859	ug/l	1.58	7,763,736.67	3.047E+01	Analog	1.00	3
Mg			1	6383.856	ug/l	1.23	2,305,091.92	9.048E+00	Pulse	1.00	3
K			1	8352.804	ug/l	1.29	3,021,605.58	1.186E+01	Pulse	1.00	3
V			1	2.145	ug/l	4.98	9,709.78	3.812E-02	Pulse	0.50	3
Mn			1	43.806	ug/l	1.87	126,326.76	8.005E-01	Pulse	0.50	3
Fe			1	16775.199	ug/l	0.59	66,081,000.00	4.188E+02	Analog	0.50	3
Co			1	0.750	ug/l	1.03	6,590.47	4.176E-02	Pulse	0.50	3
Ni			1	0.838	ug/l	0.50	2,000.78	1.268E-02	Pulse	0.50	3
Cu			1	-0.579	ug/l	-6.05	5,833.56	3.697E-02	Pulse	0.50	3
Zn			1	0.649	ug/l	6.58	1,409.72	6.004E-03	Pulse	1.00	3
Cd			1	-0.010	ug/l	-121.28	215.33	9.173E-04	Pulse	0.50	3
Al			1	22.887	ug/l	1.27	4,333.48	1.701E-02	Pulse	1.00	3
Se			1	0.720	ug/l	13.85	87.56	3.732E-04	Pulse	3.00	3
Sb			1	0.014	ug/l	63.99	1,254.38	5.343E-03	Pulse	1.00	3
Se			1	1.658	ug/l	26.75	65.67	2.800E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,165,838.42	2.89	84.9	Pulse	0.50	3
1	Sc		254,819.33	2.14	91.5	Pulse	0.30	3
1	Ge		157,801.79	0.79	88.8	Pulse	0.30	3
1	In		1,562,816.01	2.29	85.5	Pulse	0.30	3
1	Tb		4,627,511.83	2.61	90.3	Pulse	0.50	3
1	Lu		3,657,822.67	2.21	88.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		234,735.57	1.14	88.9	Pulse	0.30	3
1	Te		2.67	114.56	400.0	Pulse	0.50	3
1	Li		1,631.19	4.70	79.2	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:01
Sample Name FC3879-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.479	ug/l	3.12	3,963.08	2.496E-02	Pulse	0.50	3
As			1	6.409	ug/l	3.70	3,916.74	2.466E-02	Pulse	1.00	3
Mo			1	1.950	ug/l	3.35	5,761.57	2.432E-02	Pulse	0.50	3
Pb			1	0.007	ug/l	96.69	5,196.79	1.638E-03	Pulse	1.00	3
Be			1	0.228	ug/l	36.46	10.83	4.238E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	33.30	102.00	4.301E-04	Pulse	0.50	3
Ba			1	16.082	ug/l	1.15	21,846.52	1.402E-02	Pulse	0.50	3
Tl			1	-0.001	ug/l	-955.19	3,667.74	1.008E-03	Pulse	0.50	3
Sn			1	0.177	ug/l	14.27	2,103.47	1.349E-03	Pulse	0.30	3
Sr			1	268.371	ug/l	0.67	947,459.25	6.080E-01	Pulse	0.50	3
[Pb]			1	-0.008	ug/l	-282.21	2,376.84	6.532E-04	Pulse	0.50	3
Ca			1	58288.072	ug/l	0.97	1,114,023.83	4.367E+00	Pulse	0.50	3
Ti			1	1.521	ug/l	3.82	223.33	8.756E-04	Pulse	0.50	3
Na			1	85523.641	ug/l	1.16	59,785,673.33	2.344E+02	Analog	1.00	3
Mg			1	1636.898	ug/l	0.89	592,324.17	2.322E+00	Pulse	1.00	3
K			1	5215.330	ug/l	1.12	1,902,420.00	7.457E+00	Pulse	1.00	3
V			1	8.466	ug/l	1.64	33,619.53	1.318E-01	Pulse	0.50	3
Mn			1	31.709	ug/l	0.44	92,209.53	5.808E-01	Pulse	0.50	3
Fe			1	129.527	ug/l	0.48	526,392.06	3.315E+00	Pulse	0.50	3
Co			1	0.055	ug/l	18.24	1,859.43	1.171E-02	Pulse	0.50	3
Ni			1	0.504	ug/l	2.33	1,415.39	8.915E-03	Pulse	0.50	3
Cu			1	-0.423	ug/l	-3.41	6,598.48	4.156E-02	Pulse	0.50	3
Zn			1	1.514	ug/l	7.45	2,204.46	9.303E-03	Pulse	1.00	3
Cd			1	-0.011	ug/l	-229.45	216.00	9.108E-04	Pulse	0.50	3
Al			1	2.042	ug/l	12.65	1,019.36	3.996E-03	Pulse	1.00	3
Se			1	0.332	ug/l	21.90	68.11	2.875E-04	Pulse	3.00	3
Sb			1	0.158	ug/l	4.37	1,864.10	7.871E-03	Pulse	1.00	3
Se			1	0.611	ug/l	38.22	40.11	1.696E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,171,098.58	2.64	85.1	Pulse	0.50	3
1	Sc		255,144.09	1.70	91.6	Pulse	0.30	3
1	Ge		158,771.85	1.03	89.3	Pulse	0.30	3
1	In		1,558,376.08	2.16	85.2	Pulse	0.30	3
1	Tb		4,621,025.83	2.41	90.1	Pulse	0.50	3
1	Lu		3,636,098.83	2.10	87.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		236,846.42	1.62	89.7	Pulse	0.30	3
1	Te		3.33	34.64	500.0	Pulse	0.50	3
1	Li		1,768.97	3.39	85.9	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:05
Sample Name FC3879-7
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.273	ug/l	6.54	3,052.92	1.908E-02	Pulse	0.50	3
As			1	0.481	ug/l	5.44	417.34	2.609E-03	Pulse	1.00	3
Mo			1	0.926	ug/l	2.53	3,042.26	1.287E-02	Pulse	0.50	3
Pb			1	0.020	ug/l	8.75	5,493.55	1.691E-03	Pulse	1.00	3
Be			1	0.114	ug/l	75.00	7.17	2.835E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	5.62	124.67	5.271E-04	Pulse	0.50	3
Ba			1	36.538	ug/l	1.46	50,310.86	3.154E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	56.59	3,839.11	1.049E-03	Pulse	0.50	3
Sn			1	0.181	ug/l	10.94	2,165.69	1.357E-03	Pulse	0.30	3
Sr			1	291.958	ug/l	0.63	1,055,102.04	6.614E-01	Pulse	0.50	3
[Pb]			1	0.010	ug/l	203.83	2,498.86	6.834E-04	Pulse	0.50	3
Ca			1	88712.317	ug/l	1.19	1,671,661.29	6.646E+00	Pulse	0.50	3
Ti			1	0.086	ug/l	75.60	46.00	1.829E-04	Pulse	0.50	3
Na			1	2334.330	ug/l	1.32	1,617,784.75	6.431E+00	Pulse	1.00	3
Mg			1	2613.178	ug/l	1.12	931,990.77	3.705E+00	Pulse	1.00	3
K			1	1965.910	ug/l	1.48	728,777.81	2.897E+00	Pulse	1.00	3
V			1	6.477	ug/l	2.38	25,732.94	1.023E-01	Pulse	0.50	3
Mn			1	0.055	ug/l	33.93	929.36	5.814E-03	Pulse	0.50	3
Fe			1	4.903	ug/l	1.77	32,794.27	2.050E-01	Pulse	0.50	3
Co			1	0.005	ug/l	165.05	1,529.40	9.561E-03	Pulse	0.50	3
Ni			1	1.649	ug/l	3.56	3,486.33	2.180E-02	Pulse	0.50	3
Cu			1	-0.043	ug/l	-121.88	8,435.87	5.275E-02	Pulse	0.50	3
Zn			1	3.274	ug/l	2.44	3,787.38	1.602E-02	Pulse	1.00	3
Cd			1	-0.037	ug/l	-22.75	179.33	7.585E-04	Pulse	0.50	3
Al			1	3.136	ug/l	1.71	1,177.04	4.679E-03	Pulse	1.00	3
Se			1	0.542	ug/l	10.62	79.00	3.340E-04	Pulse	3.00	3
Sb			1	0.176	ug/l	9.02	1,934.11	8.177E-03	Pulse	1.00	3
Se			1	0.932	ug/l	5.08	48.11	2.034E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,249,620.42	1.41	87.2	Pulse	0.50	3
1	Sc		251,585.42	2.01	90.3	Pulse	0.30	3
1	Ge		159,938.23	1.27	90.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,595,345.42	1.71	87.2	Pulse	0.30	3
1	Tb		4,646,451.50	1.97	90.6	Pulse	0.50	3
1	Lu		3,659,316.25	2.35	88.4	Pulse	0.50	3
1	Ge		236,495.64	1.91	89.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,778.98	6.09	86.4	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:09
Sample Name FC3879-8
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.320	ug/l	1.43	3,228.94	2.042E-02	Pulse	0.50	3
As			1	0.425	ug/l	16.57	379.67	2.399E-03	Pulse	1.00	3
Mo			1	1.215	ug/l	1.38	3,790.39	1.610E-02	Pulse	0.50	3
Pb			1	0.263	ug/l	2.10	8,736.90	2.708E-03	Pulse	1.00	3
Be			1	0.075	ug/l	20.56	6.00	2.357E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	12.14	98.00	4.164E-04	Pulse	0.50	3
Ba			1	27.748	ug/l	0.43	37,830.06	2.401E-02	Pulse	0.50	3
Tl			1	-0.004	ug/l	-179.12	3,603.73	9.909E-04	Pulse	0.50	3
Sn			1	0.195	ug/l	22.93	2,180.14	1.383E-03	Pulse	0.30	3
Sr			1	257.406	ug/l	0.55	918,896.00	5.832E-01	Pulse	0.50	3
[Pb]			1	0.263	ug/l	2.34	4,036.49	1.110E-03	Pulse	0.50	3
Ca			1	54790.199	ug/l	0.32	1,044,696.19	4.105E+00	Pulse	0.50	3
Ti			1	0.531	ug/l	30.56	101.33	3.975E-04	Pulse	0.50	3
Na			1	10911.972	ug/l	0.80	7,617,572.83	2.993E+01	Analog	1.00	3
Mg			1	2097.593	ug/l	0.52	757,010.63	2.975E+00	Pulse	1.00	3
K			1	3419.014	ug/l	0.99	1,256,268.42	4.936E+00	Pulse	1.00	3
V			1	1.249	ug/l	1.76	6,325.71	2.485E-02	Pulse	0.50	3
Mn			1	12.431	ug/l	1.18	36,465.42	2.306E-01	Pulse	0.50	3
Fe			1	116.678	ug/l	0.36	473,569.16	2.995E+00	Pulse	0.50	3
Co			1	0.051	ug/l	18.98	1,829.43	1.156E-02	Pulse	0.50	3
Ni			1	0.372	ug/l	7.14	1,174.71	7.426E-03	Pulse	0.50	3
Cu			1	-0.476	ug/l	-9.66	6,325.06	4.000E-02	Pulse	0.50	3
Zn			1	2.617	ug/l	1.83	3,179.60	1.351E-02	Pulse	1.00	3
Cd			1	-0.026	ug/l	-87.89	194.00	8.247E-04	Pulse	0.50	3
Al			1	8.984	ug/l	4.28	2,120.45	8.329E-03	Pulse	1.00	3
Se			1	-0.025	ug/l	-282.12	49.11	2.086E-04	Pulse	3.00	3
Sb			1	0.037	ug/l	25.39	1,351.72	5.743E-03	Pulse	1.00	3
Se			1	0.346	ug/l	22.20	33.33	1.416E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,226,334.17	2.30	86.5	Pulse	0.50	3
1	Sc		254,511.80	1.37	91.4	Pulse	0.30	3
1	Ge		158,141.17	1.40	89.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,575,627.72	1.48	86.2	Pulse	0.30	3
1	Tb		4,621,921.33	2.23	90.1	Pulse	0.50	3
1	Lu		3,635,763.08	2.21	87.8	Pulse	0.50	3
1	Ge		235,350.91	0.69	89.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,841.21	5.56	89.4	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:12
Sample Name	FC3879-9
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.224	ug/l	6.71	2,733.54	1.768E-02	Pulse	0.50	3
As			1	0.411	ug/l	6.04	363.00	2.346E-03	Pulse	1.00	3
Mo			1	1.248	ug/l	3.90	3,832.40	1.647E-02	Pulse	0.50	3
Pb			1	-0.021	ug/l	-39.72	4,856.36	1.519E-03	Pulse	1.00	3
Be			1	0.102	ug/l	126.73	6.67	2.687E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	28.95	91.33	3.929E-04	Pulse	0.50	3
Ba			1	31.013	ug/l	0.96	42,014.60	2.680E-02	Pulse	0.50	3
Tl			1	-0.009	ug/l	-50.37	3,487.03	9.669E-04	Pulse	0.50	3
Sn			1	0.181	ug/l	25.19	2,129.04	1.357E-03	Pulse	0.30	3
Sr			1	274.512	ug/l	0.56	974,937.59	6.219E-01	Pulse	0.50	3
[Pb]			1	-0.029	ug/l	-62.06	2,227.49	6.170E-04	Pulse	0.50	3
Ca			1	58501.718	ug/l	1.00	1,096,284.50	4.383E+00	Pulse	0.50	3
Ti			1	0.662	ug/l	7.22	115.33	4.607E-04	Pulse	0.50	3
Na			1	14292.595	ug/l	1.68	9,803,073.67	3.919E+01	Analog	1.00	3
Mg			1	2221.673	ug/l	1.19	787,990.02	3.150E+00	Pulse	1.00	3
K			1	3859.254	ug/l	1.46	1,389,236.33	5.554E+00	Pulse	1.00	3
V			1	1.318	ug/l	0.88	6,473.09	2.588E-02	Pulse	0.50	3
Mn			1	13.514	ug/l	0.41	38,702.36	2.503E-01	Pulse	0.50	3
Fe			1	123.973	ug/l	0.57	491,217.14	3.177E+00	Pulse	0.50	3
Co			1	0.035	ug/l	21.96	1,678.08	1.085E-02	Pulse	0.50	3
Ni			1	0.196	ug/l	20.23	842.69	5.448E-03	Pulse	0.50	3
Cu			1	-0.588	ug/l	-2.97	5,675.51	3.671E-02	Pulse	0.50	3
Zn			1	2.554	ug/l	1.42	3,086.58	1.327E-02	Pulse	1.00	3
Cd			1	-0.040	ug/l	-60.44	172.67	7.428E-04	Pulse	0.50	3
Al			1	8.697	ug/l	1.88	2,038.77	8.150E-03	Pulse	1.00	3
Se			1	-0.023	ug/l	-441.02	48.67	2.091E-04	Pulse	3.00	3
Sb			1	0.021	ug/l	35.58	1,272.04	5.468E-03	Pulse	1.00	3
Se			1	0.190	ug/l	139.81	29.11	1.252E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,198,908.75	2.43	85.8	Pulse	0.50	3
1	Sc		250,172.05	2.09	89.8	Pulse	0.30	3
1	Ge		154,637.57	1.79	87.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,567,680.25	2.19	85.7	Pulse	0.30	3
1	Tb		4,583,914.67	2.53	89.4	Pulse	0.50	3
1	Lu		3,607,651.92	2.45	87.1	Pulse	0.50	3
1	Ge		232,611.77	0.89	88.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,802.32	1.78	87.5	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:16
Sample Name	FC3879-10
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.237	ug/l	0.34	2,787.55	1.806E-02	Pulse	0.50	3
As			1	2.327	ug/l	2.71	1,462.73	9.478E-03	Pulse	1.00	3
Mo			1	2.570	ug/l	1.04	7,220.74	3.125E-02	Pulse	0.50	3
Pb			1	0.019	ug/l	51.33	5,438.21	1.686E-03	Pulse	1.00	3
Be			1	0.070	ug/l	78.44	5.67	2.295E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	33.44	82.67	3.573E-04	Pulse	0.50	3
Ba			1	23.471	ug/l	1.87	31,887.32	2.035E-02	Pulse	0.50	3
Tl			1	-0.013	ug/l	-25.27	3,433.02	9.496E-04	Pulse	0.50	3
Sn			1	0.142	ug/l	26.47	2,011.24	1.283E-03	Pulse	0.30	3
Sr			1	251.044	ug/l	0.50	891,494.56	5.688E-01	Pulse	0.50	3
[Pb]			1	0.018	ug/l	68.38	2,520.20	6.973E-04	Pulse	0.50	3
Ca			1	80870.259	ug/l	0.62	1,491,010.04	6.058E+00	Pulse	0.50	3
Ti			1	0.128	ug/l	57.08	50.00	2.030E-04	Pulse	0.50	3
Na			1	4723.076	ug/l	0.65	3,193,583.42	1.298E+01	Pulse	1.00	3
Mg			1	2322.165	ug/l	0.17	810,422.69	3.293E+00	Pulse	1.00	3
K			1	1258.263	ug/l	0.98	468,645.49	1.904E+00	Pulse	1.00	3
V			1	1.133	ug/l	1.79	5,694.85	2.314E-02	Pulse	0.50	3
Mn			1	15.820	ug/l	1.69	45,099.34	2.922E-01	Pulse	0.50	3
Fe			1	341.018	ug/l	1.47	1,326,572.79	8.594E+00	Pulse	0.50	3
Co			1	0.335	ug/l	7.51	3,677.03	2.382E-02	Pulse	0.50	3
Ni			1	1.209	ug/l	0.13	2,601.52	1.685E-02	Pulse	0.50	3
Cu			1	-0.367	ug/l	-5.42	6,671.17	4.322E-02	Pulse	0.50	3
Zn			1	0.588	ug/l	15.01	1,334.38	5.773E-03	Pulse	1.00	3
Cd			1	-0.014	ug/l	-120.85	206.00	8.924E-04	Pulse	0.50	3
Al			1	0.970	ug/l	12.57	819.02	3.327E-03	Pulse	1.00	3
Se			1	-0.085	ug/l	-162.86	45.11	1.953E-04	Pulse	3.00	3
Sb			1	0.179	ug/l	6.63	1,901.43	8.229E-03	Pulse	1.00	3
Se			1	0.595	ug/l	12.79	38.78	1.679E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,223,613.25	2.08	86.5	Pulse	0.50	3
1	Sc		246,130.95	1.75	88.4	Pulse	0.30	3
1	Ge		154,366.92	1.42	86.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,567,266.61	1.81	85.7	Pulse	0.30	3
1	Tb		4,590,686.67	2.21	89.5	Pulse	0.50	3
1	Lu		3,615,669.92	2.33	87.3	Pulse	0.50	3
1	Ge		231,105.70	1.51	87.5	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,825.65	3.55	88.6	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:20
Sample Name FC3879-11
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.219	ug/l	6.12	2,689.53	1.755E-02	Pulse	0.50	3
As			1	0.297	ug/l	12.31	294.67	1.923E-03	Pulse	1.00	3
Mo			1	0.588	ug/l	7.28	2,080.12	9.088E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	15.68	5,252.48	1.658E-03	Pulse	1.00	3
Be			1	0.131	ug/l	63.18	7.50	3.048E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	28.63	85.33	3.734E-04	Pulse	0.50	3
Ba			1	22.237	ug/l	0.70	29,482.60	1.929E-02	Pulse	0.50	3
Tl			1	-0.008	ug/l	-142.60	3,467.03	9.721E-04	Pulse	0.50	3
Sn			1	0.152	ug/l	32.67	1,992.34	1.302E-03	Pulse	0.30	3
Sr			1	289.093	ug/l	0.05	1,000,987.42	6.549E-01	Pulse	0.50	3
[Pb]			1	0.002	ug/l	324.46	2,387.51	6.694E-04	Pulse	0.50	3
Ca			1	62875.604	ug/l	1.25	1,160,211.37	4.710E+00	Pulse	0.50	3
Ti			1	0.711	ug/l	6.49	119.33	4.844E-04	Pulse	0.50	3
Na			1	26699.754	ug/l	1.49	18,026,339.33	7.319E+01	Analog	1.00	3
Mg			1	1557.416	ug/l	1.12	544,147.79	2.209E+00	Pulse	1.00	3
K			1	4957.345	ug/l	1.70	1,747,523.42	7.095E+00	Pulse	1.00	3
V			1	1.062	ug/l	1.99	5,442.77	2.209E-02	Pulse	0.50	3
Mn			1	17.773	ug/l	1.63	50,215.21	3.276E-01	Pulse	0.50	3
Fe			1	314.506	ug/l	0.45	1,215,662.63	7.932E+00	Pulse	0.50	3
Co			1	0.002	ug/l	632.73	1,446.06	9.432E-03	Pulse	0.50	3
Ni			1	0.041	ug/l	34.61	567.34	3.702E-03	Pulse	0.50	3
Cu			1	-0.508	ug/l	-5.15	5,984.28	3.905E-02	Pulse	0.50	3
Zn			1	1.198	ug/l	3.74	1,853.09	8.098E-03	Pulse	1.00	3
Cd			1	-0.008	ug/l	-312.08	212.67	9.300E-04	Pulse	0.50	3
Al			1	3.946	ug/l	7.37	1,277.71	5.185E-03	Pulse	1.00	3
Se			1	0.012	ug/l	400.03	49.55	2.167E-04	Pulse	3.00	3
Sb			1	0.013	ug/l	170.31	1,219.71	5.327E-03	Pulse	1.00	3
Se			1	0.425	ug/l	51.37	34.33	1.500E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,168,784.58	2.38	85.0	Pulse	0.50	3
1	Sc		246,347.85	1.82	88.5	Pulse	0.30	3
1	Ge		153,260.74	1.19	86.2	Pulse	0.30	3
1	In		1,528,406.64	1.86	83.6	Pulse	0.30	3
1	Tb		4,541,918.67	2.94	88.6	Pulse	0.50	3
1	Lu		3,567,106.25	2.65	86.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		228,790.74	1.53	86.6	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,814.54	2.12	88.1	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:24
Sample Name FC3879-12
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.319	ug/l	6.75	3,141.60	2.039E-02	Pulse	0.50	3
As			1	2.794	ug/l	5.52	1,726.75	1.121E-02	Pulse	1.00	3
Mo			1	2.796	ug/l	1.11	7,796.98	3.378E-02	Pulse	0.50	3
Pb			1	-0.023	ug/l	-20.53	4,837.69	1.512E-03	Pulse	1.00	3
Be			1	0.121	ug/l	146.34	7.33	2.927E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	54.65	78.00	3.378E-04	Pulse	0.50	3
Ba			1	16.434	ug/l	1.36	22,176.94	1.432E-02	Pulse	0.50	3
Tl			1	-0.003	ug/l	-73.60	3,578.38	9.989E-04	Pulse	0.50	3
Sn			1	0.123	ug/l	39.80	1,933.45	1.248E-03	Pulse	0.30	3
Sr			1	274.529	ug/l	0.41	963,102.42	6.220E-01	Pulse	0.50	3
[Pb]			1	-0.022	ug/l	-68.40	2,252.16	6.290E-04	Pulse	0.50	3
Ca			1	72487.333	ug/l	0.69	1,354,589.42	5.430E+00	Pulse	0.50	3
Ti			1	0.150	ug/l	102.33	53.33	2.139E-04	Pulse	0.50	3
Na			1	9144.627	ug/l	0.30	6,258,423.17	2.509E+01	Analog	1.00	3
Mg			1	1657.956	ug/l	0.31	586,591.60	2.352E+00	Pulse	1.00	3
K			1	1738.674	ug/l	0.29	643,154.38	2.578E+00	Pulse	1.00	3
V			1	5.431	ug/l	0.71	21,656.01	8.682E-02	Pulse	0.50	3
Mn			1	4.722	ug/l	3.15	13,953.02	9.057E-02	Pulse	0.50	3
Fe			1	9.014	ug/l	2.75	47,386.18	3.076E-01	Pulse	0.50	3
Co			1	0.005	ug/l	169.48	1,474.73	9.575E-03	Pulse	0.50	3
Ni			1	0.229	ug/l	14.46	897.36	5.825E-03	Pulse	0.50	3
Cu			1	-0.458	ug/l	-8.49	6,240.35	4.052E-02	Pulse	0.50	3
Zn			1	1.112	ug/l	1.53	1,794.09	7.772E-03	Pulse	1.00	3
Cd			1	-0.025	ug/l	-30.98	191.33	8.285E-04	Pulse	0.50	3
Al			1	3.967	ug/l	4.28	1,296.38	5.197E-03	Pulse	1.00	3
Se			1	-0.030	ug/l	-328.64	47.89	2.074E-04	Pulse	3.00	3
Sb			1	0.245	ug/l	5.16	2,166.47	9.386E-03	Pulse	1.00	3
Se			1	0.433	ug/l	68.87	34.89	1.508E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,200,381.33	2.21	85.8	Pulse	0.50	3
1	Sc		249,441.53	0.98	89.6	Pulse	0.30	3
1	Ge		154,042.73	0.80	86.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,548,417.61	1.50	84.7	Pulse	0.30	3
1	Tb		4,562,000.83	2.18	89.0	Pulse	0.50	3
1	Lu		3,581,980.75	1.62	86.5	Pulse	0.50	3
1	Ge		230,823.78	1.80	87.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,738.97	2.22	84.4	Pulse	0.30	3

Quantitation Report

File Name	043CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:36
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.171	ug/l	2.04	473,998.22	2.928E+00	Pulse	0.50	3
As			1	49.656	ug/l	1.41	59,958.73	3.703E-01	Pulse	1.00	3
Mo			1	49.900	ug/l	0.81	269,484.82	1.118E+00	Pulse	0.50	3
Pb			1	49.832	ug/l	0.60	1,358,340.96	4.196E-01	Pulse	1.00	3
Be			1	53.838	ug/l	1.02	3,458.80	1.325E-02	Pulse	2.00	3
Ag			1	51.487	ug/l	0.42	844,028.15	3.503E+00	Pulse	0.50	3
Ba			1	48.880	ug/l	0.90	135,261.34	8.396E-02	Pulse	0.50	3
Tl			1	53.478	ug/l	0.93	1,913,415.12	5.225E-01	Pulse	0.50	3
Sn			1	49.333	ug/l	1.60	300,024.49	1.862E-01	Pulse	0.30	3
Sr			1	49.103	ug/l	0.88	359,170.19	2.229E-01	Pulse	0.50	3
[Pb]			1	51.586	ug/l	0.88	640,719.67	1.750E-01	Pulse	0.50	3
Ca			1	4900.028	ug/l	1.31	191,790.92	7.349E-01	Pulse	0.50	3
Ti			1	49.159	ug/l	2.80	12,423.30	4.760E-02	Pulse	0.50	3
Na			1	5273.295	ug/l	0.84	7,549,783.00	2.893E+01	Analog	1.00	3
Mg			1	4906.976	ug/l	0.28	3,629,420.83	1.391E+01	Pulse	1.00	3
K			1	4827.592	ug/l	0.33	3,572,040.08	1.369E+01	Pulse	1.00	3
V			1	49.601	ug/l	0.76	385,226.77	1.476E+00	Pulse	0.50	3
Mn			1	50.155	ug/l	1.40	295,761.48	1.827E+00	Pulse	0.50	3
Fe			1	5324.946	ug/l	0.90	43,045,812.00	2.659E+02	Analog	0.50	3
Co			1	50.704	ug/l	2.14	710,854.37	4.391E+00	Pulse	0.50	3
Ni			1	50.122	ug/l	2.21	183,160.11	1.131E+00	Pulse	0.50	3
Cu			1	50.256	ug/l	1.68	488,157.84	3.015E+00	Pulse	0.50	3
Zn			1	50.483	ug/l	1.08	93,630.80	3.886E-01	Pulse	1.00	3
Cd			1	49.882	ug/l	1.47	139,256.91	5.779E-01	Pulse	0.50	3
Al			1	4759.393	ug/l	0.67	1,551,418.79	5.945E+00	Pulse	1.00	3
Se			1	48.925	ug/l	1.09	5,261.72	2.184E-02	Pulse	3.00	3
Sb			1	49.226	ug/l	1.10	417,018.21	1.731E+00	Pulse	1.00	3
Se			1	48.714	ug/l	1.79	2,500.39	1.038E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,236,807.33	1.71	86.8	Pulse	0.50	3
1	Sc		260,966.10	0.73	93.7	Pulse	0.30	3
1	Ge		161,897.42	0.24	91.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,610,965.98	0.88	88.1	Pulse	0.30	3
1	Tb		4,622,628.17	0.92	90.2	Pulse	0.50	3
1	Lu		3,662,039.25	1.19	88.4	Pulse	0.50	3
1	Ge		240,949.44	1.09	91.2	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,931.21	7.21	93.7	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:40
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.002	ug/l	0.81	927,766.25	5.768E+00	Pulse	0.50	3
As			1	98.764	ug/l	0.37	118,347.57	7.358E-01	Pulse	1.00	3
Mo			1	100.206	ug/l	2.18	533,829.17	2.243E+00	Pulse	0.50	3
Pb			1	99.334	ug/l	1.06	2,648,085.50	8.349E-01	Pulse	1.00	3
Be			1	107.450	ug/l	1.75	6,752.45	2.644E-02	Pulse	2.00	3
Ag			1	101.758	ug/l	1.61	1,647,483.21	6.923E+00	Pulse	0.50	3
Ba			1	98.145	ug/l	0.77	268,091.47	1.683E-01	Pulse	0.50	3
Tl			1	104.331	ug/l	0.74	3,749,171.58	1.018E+00	Pulse	0.50	3
Sn			1	97.508	ug/l	0.83	584,675.64	3.671E-01	Pulse	0.30	3
Sr			1	97.785	ug/l	0.58	706,018.52	4.433E-01	Pulse	0.50	3
[Pb]			1	101.161	ug/l	0.94	1,260,807.00	3.424E-01	Pulse	0.50	3
Ca			1	9691.836	ug/l	0.54	371,051.81	1.453E+00	Pulse	0.50	3
Ti			1	98.049	ug/l	2.39	24,212.96	9.480E-02	Pulse	0.50	3
Na			1	10508.947	ug/l	0.67	14,717,355.33	5.762E+01	Analog	1.00	3
Mg			1	10333.730	ug/l	1.16	7,480,090.00	2.929E+01	Analog	1.00	3
K			1	10169.110	ug/l	0.12	7,325,197.50	2.868E+01	Analog	1.00	3
V			1	99.651	ug/l	1.15	755,834.17	2.959E+00	Pulse	0.50	3
Mn			1	100.657	ug/l	0.24	588,940.69	3.661E+00	Pulse	0.50	3
Fe			1	10671.959	ug/l	0.16	85,695,922.67	5.328E+02	Analog	0.50	3
Co			1	101.323	ug/l	0.13	1,409,779.71	8.765E+00	Pulse	0.50	3
Ni			1	100.131	ug/l	0.37	363,009.85	2.257E+00	Pulse	0.50	3
Cu			1	98.716	ug/l	0.25	944,267.83	5.871E+00	Pulse	0.50	3
Zn			1	99.596	ug/l	1.36	181,614.05	7.631E-01	Pulse	1.00	3
Cd			1	100.306	ug/l	1.91	276,313.20	1.161E+00	Pulse	0.50	3
Al			1	9514.090	ug/l	1.47	3,034,586.58	1.188E+01	Pulse	1.00	3
Se			1	98.675	ug/l	1.37	10,428.95	4.382E-02	Pulse	3.00	3
Sb			1	99.153	ug/l	1.62	828,320.94	3.481E+00	Pulse	1.00	3
Se			1	97.654	ug/l	0.26	4,925.53	2.070E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,171,753.42	0.48	85.1	Pulse	0.50	3
1	Sc		255,419.42	0.10	91.7	Pulse	0.30	3
1	Ge		160,845.47	1.02	90.5	Pulse	0.30	3
1	In		1,592,694.38	0.81	87.1	Pulse	0.30	3
1	Tb		4,621,361.17	0.62	90.1	Pulse	0.50	3
1	Lu		3,681,722.75	0.69	88.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		237,993.75	1.27	90.1	Pulse	0.30	3
1	Te		3.33	91.65	500.0	Pulse	0.50	3
1	Li		1,944.55	4.80	94.4	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:44
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.022	ug/l	59.22	1,994.11	1.254E-02	Pulse	0.50	3
As			1	0.027	ug/l	21.42	162.33	1.020E-03	Pulse	1.00	3
Mo			1	0.157	ug/l	29.25	1,429.39	6.026E-03	Pulse	0.50	3
Pb			1	0.002	ug/l	323.04	5,269.48	1.627E-03	Pulse	1.00	3
Be			1	0.091	ug/l	87.61	9.33	3.673E-05	Pulse	2.00	3
Ag			1	0.028	ug/l	47.05	498.01	2.104E-03	Pulse	0.50	3
Ba			1	0.037	ug/l	33.45	495.34	3.109E-04	Pulse	0.50	3
Tl			1	0.039	ug/l	27.50	5,000.09	1.398E-03	Pulse	0.50	3
Sn			1	0.182	ug/l	20.94	2,711.33	1.700E-03	Pulse	0.30	3
Sr			1	0.032	ug/l	69.37	1,343.39	8.432E-04	Pulse	0.50	3
[Pb]			1	-0.002	ug/l	-284.09	2,358.84	6.591E-04	Pulse	0.50	3
Ca			1	1.607	ug/l	72.92	275.33	1.082E-03	Pulse	0.50	3
Ti			1	0.003	ug/l	890.34	36.67	1.439E-04	Pulse	0.50	3
Na			1	4.750	ug/l	24.63	15,776.92	6.196E-02	Pulse	1.00	3
Mg			1	2.701	ug/l	41.08	2,582.85	1.015E-02	Pulse	1.00	3
K			1	4.520	ug/l	19.26	38,519.68	1.512E-01	Pulse	1.00	3
V			1	-0.005	ug/l	-293.99	1,579.40	6.201E-03	Pulse	0.50	3
Mn			1	0.010	ug/l	198.61	822.02	5.170E-03	Pulse	0.50	3
Fe			1	3.339	ug/l	28.43	39,641.96	2.493E-01	Pulse	0.50	3
Co			1	0.028	ug/l	47.82	1,872.76	1.178E-02	Pulse	0.50	3
Ni			1	0.017	ug/l	52.50	576.68	3.627E-03	Pulse	0.50	3
Cu			1	-0.078	ug/l	-43.79	7,865.62	4.945E-02	Pulse	0.50	3
Zn			1	-0.073	ug/l	-13.88	705.34	2.975E-03	Pulse	1.00	3
Cd			1	0.023	ug/l	83.75	292.67	1.235E-03	Pulse	0.50	3
Al			1	5.560	ug/l	22.20	2,459.83	9.662E-03	Pulse	1.00	3
Se			1	0.038	ug/l	43.75	54.78	2.310E-04	Pulse	3.00	3
Sb			1	0.047	ug/l	11.37	1,597.07	6.737E-03	Pulse	1.00	3
Se			1	0.042	ug/l	133.38	27.00	1.139E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,240,205.75	0.91	86.9	Pulse	0.50	3
1	Sc		254,756.16	0.74	91.5	Pulse	0.30	3

Quantitation Report

1	Ge		159,041.77	0.90	89.5	Pulse	0.30	3
1	In		1,593,992.06	0.89	87.2	Pulse	0.30	3
1	Tb		4,543,798.50	0.96	88.6	Pulse	0.50	3
1	Lu		3,579,444.67	1.07	86.4	Pulse	0.50	3
1	Ge		237,065.92	0.59	89.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,050.12	3.05	99.5	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:47
Sample Name FC3879-13
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.158	ug/l	19.58	2,362.82	1.581E-02	Pulse	0.50	3
As			1	0.355	ug/l	7.98	320.00	2.139E-03	Pulse	1.00	3
Mo			1	0.783	ug/l	5.45	2,512.84	1.128E-02	Pulse	0.50	3
Pb			1	-0.016	ug/l	-51.37	4,767.00	1.542E-03	Pulse	1.00	3
Be			1	0.147	ug/l	45.79	7.83	3.236E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	1.57	128.00	5.744E-04	Pulse	0.50	3
Ba			1	26.804	ug/l	0.51	34,858.78	2.320E-02	Pulse	0.50	3
Tl			1	0.009	ug/l	58.63	3,685.08	1.056E-03	Pulse	0.50	3
Sn			1	0.487	ug/l	16.88	2,904.69	1.931E-03	Pulse	0.30	3
Sr			1	304.879	ug/l	0.61	1,037,687.67	6.907E-01	Pulse	0.50	3
[Pb]			1	-0.038	ug/l	-14.12	2,100.14	6.021E-04	Pulse	0.50	3
Ca			1	55916.699	ug/l	0.51	1,014,025.31	4.189E+00	Pulse	0.50	3
Ti			1	0.761	ug/l	25.87	123.33	5.085E-04	Pulse	0.50	3
Na			1	42850.555	ug/l	1.10	28,424,914.00	1.174E+02	Analog	1.00	3
Mg			1	1597.798	ug/l	0.67	548,588.50	2.266E+00	Pulse	1.00	3
K			1	7645.818	ug/l	1.00	2,630,538.50	1.087E+01	Pulse	1.00	3
V			1	1.394	ug/l	1.31	6,537.11	2.701E-02	Pulse	0.50	3
Mn			1	19.553	ug/l	0.17	53,814.04	3.600E-01	Pulse	0.50	3
Fe			1	282.611	ug/l	0.43	1,066,773.83	7.136E+00	Pulse	0.50	3
Co			1	0.011	ug/l	82.44	1,469.39	9.832E-03	Pulse	0.50	3
Ni			1	0.128	ug/l	29.77	700.68	4.684E-03	Pulse	0.50	3
Cu			1	-0.458	ug/l	-12.80	6,057.63	4.054E-02	Pulse	0.50	3
Zn			1	1.184	ug/l	5.84	1,792.42	8.045E-03	Pulse	1.00	3
Cd			1	0.008	ug/l	291.00	227.33	1.021E-03	Pulse	0.50	3
Al			1	5.060	ug/l	3.95	1,423.72	5.880E-03	Pulse	1.00	3
Se			1	0.045	ug/l	326.39	50.00	2.240E-04	Pulse	3.00	3
Sb			1	0.055	ug/l	18.56	1,351.39	6.063E-03	Pulse	1.00	3
Se			1	0.647	ug/l	22.55	38.67	1.733E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,091,571.25	2.25	82.9	Pulse	0.50	3
1	Sc		242,072.73	1.63	86.9	Pulse	0.30	3
1	Ge		149,495.00	1.56	84.1	Pulse	0.30	3
1	In		1,502,591.92	2.05	82.2	Pulse	0.30	3
1	Tb		4,441,195.33	2.86	86.6	Pulse	0.50	3
1	Lu		3,488,954.92	2.62	84.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		222,847.88	1.67	84.4	Pulse	0.30	3
1	Te		2.67	114.56	400.0	Pulse	0.50	3
1	Li		1,738.97	6.27	84.4	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 12:51
Sample Name	FC3879-14
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.336	ug/l	9.59	3,224.28	2.087E-02	Pulse	0.50	3
As			1	1.033	ug/l	5.42	719.68	4.662E-03	Pulse	1.00	3
Mo			1	1.413	ug/l	1.77	4,163.81	1.831E-02	Pulse	0.50	3
Pb			1	-0.023	ug/l	-37.84	4,823.02	1.509E-03	Pulse	1.00	3
Be			1	0.084	ug/l	84.91	6.00	2.473E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	17.05	113.33	4.982E-04	Pulse	0.50	3
Ba			1	11.155	ug/l	0.88	15,129.67	9.800E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	24.83	3,755.10	1.063E-03	Pulse	0.50	3
Sn			1	0.258	ug/l	20.54	2,320.16	1.501E-03	Pulse	0.30	3
Sr			1	123.442	ug/l	0.56	432,391.24	2.801E-01	Pulse	0.50	3
[Pb]			1	-0.026	ug/l	-68.16	2,202.82	6.229E-04	Pulse	0.50	3
Ca			1	28140.210	ug/l	0.62	510,887.88	2.109E+00	Pulse	0.50	3
Ti			1	0.407	ug/l	35.57	82.00	3.379E-04	Pulse	0.50	3
Na			1	1669.748	ug/l	0.30	1,117,124.96	4.611E+00	Pulse	1.00	3
Mg			1	653.957	ug/l	0.50	225,115.96	9.291E-01	Pulse	1.00	3
K			1	1720.243	ug/l	0.49	618,451.81	2.553E+00	Pulse	1.00	3
V			1	4.640	ug/l	0.13	18,194.48	7.509E-02	Pulse	0.50	3
Mn			1	0.100	ug/l	16.97	1,022.03	6.620E-03	Pulse	0.50	3
Fe			1	5.736	ug/l	0.56	34,863.22	2.258E-01	Pulse	0.50	3
Co			1	0.032	ug/l	19.12	1,657.41	1.074E-02	Pulse	0.50	3
Ni			1	0.281	ug/l	7.58	988.70	6.402E-03	Pulse	0.50	3
Cu			1	3.535	ug/l	1.66	24,417.41	1.582E-01	Pulse	0.50	3
Zn			1	1.341	ug/l	4.46	1,966.10	8.646E-03	Pulse	1.00	3
Cd			1	-0.014	ug/l	-132.32	203.33	8.930E-04	Pulse	0.50	3
Al			1	5.130	ug/l	11.85	1,435.72	5.924E-03	Pulse	1.00	3
Se			1	0.221	ug/l	60.10	59.89	2.631E-04	Pulse	3.00	3
Sb			1	0.168	ug/l	1.46	1,827.09	8.034E-03	Pulse	1.00	3
Se			1	0.612	ug/l	27.24	38.56	1.697E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,198,154.67	2.42	85.8	Pulse	0.50	3
1	Sc		242,294.86	1.16	87.0	Pulse	0.30	3
1	Ge		154,388.86	1.63	86.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,544,078.97	1.95	84.4	Pulse	0.30	3
1	Tb		4,517,269.00	2.63	88.1	Pulse	0.50	3
1	Lu		3,533,764.17	2.95	85.3	Pulse	0.50	3
1	Ge		227,440.36	1.57	86.1	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,835.65	6.66	89.1	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:55
Sample Name FC3879-15
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.563	ug/l	4.13	4,133.12	2.737E-02	Pulse	0.50	3
As			1	0.458	ug/l	0.71	381.00	2.522E-03	Pulse	1.00	3
Mo			1	1.811	ug/l	2.93	5,140.05	2.276E-02	Pulse	0.50	3
Pb			1	0.005	ug/l	135.45	5,024.08	1.629E-03	Pulse	1.00	3
Be			1	0.029	ug/l	357.92	4.33	1.786E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	26.49	106.00	4.687E-04	Pulse	0.50	3
Ba			1	27.507	ug/l	1.34	35,986.34	2.380E-02	Pulse	0.50	3
Tl			1	-0.008	ug/l	-63.02	3,422.35	9.716E-04	Pulse	0.50	3
Sn			1	0.185	ug/l	26.36	2,065.68	1.365E-03	Pulse	0.30	3
Sr			1	356.351	ug/l	0.56	1,220,350.83	8.071E-01	Pulse	0.50	3
[Pb]			1	-0.018	ug/l	-69.68	2,238.16	6.354E-04	Pulse	0.50	3
Ca			1	76772.982	ug/l	0.72	1,399,933.54	5.751E+00	Pulse	0.50	3
Ti			1	0.901	ug/l	29.39	140.00	5.760E-04	Pulse	0.50	3
Na			1	31930.960	ug/l	0.79	21,302,865.33	8.752E+01	Analog	1.00	3
Mg			1	2182.767	ug/l	0.57	753,423.52	3.095E+00	Pulse	1.00	3
K			1	4178.135	ug/l	1.01	1,460,827.91	6.002E+00	Pulse	1.00	3
V			1	1.428	ug/l	2.89	6,697.83	2.751E-02	Pulse	0.50	3
Mn			1	82.783	ug/l	0.88	227,853.62	1.508E+00	Pulse	0.50	3
Fe			1	4950.094	ug/l	1.02	18,672,211.33	1.236E+02	Analog	0.50	3
Co			1	0.060	ug/l	15.12	1,804.09	1.194E-02	Pulse	0.50	3
Ni			1	0.147	ug/l	8.23	739.35	4.896E-03	Pulse	0.50	3
Cu			1	-0.603	ug/l	-2.60	5,478.79	3.627E-02	Pulse	0.50	3
Zn			1	0.999	ug/l	11.44	1,657.74	7.340E-03	Pulse	1.00	3
Cd			1	-0.016	ug/l	-173.86	199.33	8.825E-04	Pulse	0.50	3
Al			1	9.606	ug/l	18.43	2,123.52	8.718E-03	Pulse	1.00	3
Se			1	0.111	ug/l	41.46	53.89	2.387E-04	Pulse	3.00	3
Sb			1	0.022	ug/l	104.07	1,238.71	5.482E-03	Pulse	1.00	3
Se			1	0.639	ug/l	43.09	38.89	1.726E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,083,667.42	1.90	82.7	Pulse	0.50	3
1	Sc		243,422.92	1.29	87.4	Pulse	0.30	3
1	Ge		151,050.35	1.51	85.0	Pulse	0.30	3
1	In		1,512,003.90	1.92	82.7	Pulse	0.30	3
1	Tb		4,471,680.17	2.39	87.2	Pulse	0.50	3
1	Lu		3,523,918.75	2.21	85.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		225,809.75	1.87	85.5	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,702.30	4.78	82.6	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 12:59
Sample Name FC3879-16
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.271	ug/l	3.13	2,914.23	1.903E-02	Pulse	0.50	3
As			1	0.993	ug/l	6.11	691.35	4.513E-03	Pulse	1.00	3
Mo			1	1.169	ug/l	5.97	3,542.34	1.558E-02	Pulse	0.50	3
Pb			1	-0.016	ug/l	-8.20	4,831.36	1.539E-03	Pulse	1.00	3
Be			1	0.155	ug/l	43.04	8.00	3.342E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	17.22	86.00	3.786E-04	Pulse	0.50	3
Ba			1	35.713	ug/l	1.32	47,322.20	3.083E-02	Pulse	0.50	3
Tl			1	-0.014	ug/l	-20.85	3,335.67	9.433E-04	Pulse	0.50	3
Sn			1	0.154	ug/l	35.78	2,007.90	1.306E-03	Pulse	0.30	3
Sr			1	440.274	ug/l	1.01	1,530,546.25	9.971E-01	Pulse	0.50	3
[Pb]			1	-0.021	ug/l	-43.45	2,234.15	6.319E-04	Pulse	0.50	3
Ca			1	96749.328	ug/l	0.36	1,733,523.13	7.248E+00	Pulse	0.50	3
Ti			1	0.637	ug/l	45.83	107.33	4.485E-04	Pulse	0.50	3
Na			1	5416.795	ug/l	0.73	3,558,373.58	1.488E+01	Pulse	1.00	3
Mg			1	1835.756	ug/l	1.12	622,744.85	2.604E+00	Pulse	1.00	3
K			1	3877.753	ug/l	0.41	1,334,701.37	5.580E+00	Pulse	1.00	3
V			1	0.938	ug/l	3.39	4,842.62	2.024E-02	Pulse	0.50	3
Mn			1	94.694	ug/l	0.34	264,146.20	1.725E+00	Pulse	0.50	3
Fe			1	2069.293	ug/l	0.20	7,921,579.00	5.173E+01	Analog	0.50	3
Co			1	0.096	ug/l	25.33	2,070.12	1.351E-02	Pulse	0.50	3
Ni			1	0.179	ug/l	26.81	805.35	5.255E-03	Pulse	0.50	3
Cu			1	-0.417	ug/l	-10.13	6,394.41	4.175E-02	Pulse	0.50	3
Zn			1	55.264	ug/l	0.67	48,694.82	2.143E-01	Pulse	1.00	3
Cd			1	-0.023	ug/l	-16.23	190.67	8.390E-04	Pulse	0.50	3
Al			1	6.349	ug/l	4.39	1,598.73	6.685E-03	Pulse	1.00	3
Se			1	-0.034	ug/l	-437.32	47.00	2.067E-04	Pulse	3.00	3
Sb			1	0.022	ug/l	68.41	1,243.71	5.472E-03	Pulse	1.00	3
Se			1	0.139	ug/l	102.44	27.22	1.198E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,139,110.08	2.32	84.2	Pulse	0.50	3
1	Sc		239,184.15	0.59	85.9	Pulse	0.30	3
1	Ge		153,138.75	1.47	86.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,535,342.68	2.68	84.0	Pulse	0.30	3
1	Tb		4,512,027.50	3.05	88.0	Pulse	0.50	3
1	Lu		3,537,417.75	3.13	85.4	Pulse	0.50	3
1	Ge		227,242.20	0.91	86.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,681.19	4.55	81.6	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 13:02
Sample Name FC3879-17
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.700	ug/l	2.40	9,138.83	5.976E-02	Pulse	0.50	3
As			1	3.811	ug/l	0.50	2,293.47	1.500E-02	Pulse	1.00	3
Mo			1	2.952	ug/l	2.13	8,070.42	3.553E-02	Pulse	0.50	3
Pb			1	0.417	ug/l	3.54	10,663.33	3.356E-03	Pulse	1.00	3
Be			1	0.109	ug/l	89.17	6.67	2.776E-05	Pulse	2.00	3
Ag			1	0.011	ug/l	31.72	138.67	6.094E-04	Pulse	0.50	3
Ba			1	16.171	ug/l	0.42	21,605.56	1.409E-02	Pulse	0.50	3
Tl			1	-0.003	ug/l	-141.00	3,521.04	9.965E-04	Pulse	0.50	3
Sn			1	0.168	ug/l	31.28	2,044.57	1.333E-03	Pulse	0.30	3
Sr			1	198.781	ug/l	0.40	690,581.83	4.505E-01	Pulse	0.50	3
[Pb]			1	0.423	ug/l	5.81	4,880.71	1.382E-03	Pulse	0.50	3
Ca			1	40276.264	ug/l	1.10	728,428.83	3.018E+00	Pulse	0.50	3
Ti			1	1.752	ug/l	28.22	238.67	9.871E-04	Pulse	0.50	3
Na			1	3557.741	ug/l	1.37	2,361,567.92	9.783E+00	Pulse	1.00	3
Mg			1	848.895	ug/l	1.08	290,943.37	1.205E+00	Pulse	1.00	3
K			1	1963.303	ug/l	1.56	698,466.96	2.894E+00	Pulse	1.00	3
V			1	9.072	ug/l	1.49	33,980.16	1.408E-01	Pulse	0.50	3
Mn			1	2.301	ug/l	1.83	7,127.99	4.660E-02	Pulse	0.50	3
Fe			1	106.697	ug/l	0.57	419,842.96	2.746E+00	Pulse	0.50	3
Co			1	0.087	ug/l	17.55	2,002.11	1.310E-02	Pulse	0.50	3
Ni			1	0.685	ug/l	5.55	1,674.08	1.095E-02	Pulse	0.50	3
Cu			1	1.780	ug/l	0.45	16,282.20	1.065E-01	Pulse	0.50	3
Zn			1	6.674	ug/l	1.95	6,584.46	2.898E-02	Pulse	1.00	3
Cd			1	-0.023	ug/l	-79.14	191.33	8.433E-04	Pulse	0.50	3
Al			1	214.820	ug/l	0.78	33,028.86	1.368E-01	Pulse	1.00	3
Se			1	0.297	ug/l	28.16	63.56	2.797E-04	Pulse	3.00	3
Sb			1	0.802	ug/l	1.24	4,350.19	1.915E-02	Pulse	1.00	3
Se			1	0.588	ug/l	33.64	38.00	1.671E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,177,407.58	2.08	85.2	Pulse	0.50	3
1	Sc		241,425.36	1.85	86.7	Pulse	0.30	3
1	Ge		152,924.78	1.61	86.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,532,833.69	1.79	83.8	Pulse	0.30	3
1	Tb		4,508,433.00	2.54	87.9	Pulse	0.50	3
1	Lu		3,533,430.58	2.49	85.3	Pulse	0.50	3
1	Ge		227,169.41	1.54	86.0	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,784.53	4.64	86.6	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:06
Sample Name	FC3879-18
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.046	ug/l	2.11	10,504.18	6.961E-02	Pulse	0.50	3
As			1	4.703	ug/l	2.85	2,762.87	1.832E-02	Pulse	1.00	3
Mo			1	1.909	ug/l	2.12	5,367.45	2.386E-02	Pulse	0.50	3
Pb			1	0.226	ug/l	2.50	8,042.56	2.555E-03	Pulse	1.00	3
Be			1	0.172	ug/l	17.42	8.50	3.544E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	48.32	91.33	4.067E-04	Pulse	0.50	3
Ba			1	15.783	ug/l	0.16	20,827.97	1.376E-02	Pulse	0.50	3
Tl			1	-0.004	ug/l	-131.15	3,478.37	9.936E-04	Pulse	0.50	3
Sn			1	0.155	ug/l	15.50	1,979.01	1.308E-03	Pulse	0.30	3
Sr			1	238.455	ug/l	0.24	817,725.96	5.403E-01	Pulse	0.50	3
[Pb]			1	0.223	ug/l	8.53	3,650.40	1.043E-03	Pulse	0.50	3
Ca			1	63695.590	ug/l	0.69	1,143,295.17	4.772E+00	Pulse	0.50	3
Ti			1	0.501	ug/l	36.23	92.00	3.831E-04	Pulse	0.50	3
Na			1	1710.521	ug/l	1.07	1,131,418.46	4.722E+00	Pulse	1.00	3
Mg			1	1507.860	ug/l	0.57	512,486.80	2.139E+00	Pulse	1.00	3
K			1	1017.162	ug/l	1.46	375,161.80	1.566E+00	Pulse	1.00	3
V			1	23.715	ug/l	0.50	85,709.46	3.577E-01	Pulse	0.50	3
Mn			1	3.628	ug/l	1.28	10,669.62	7.071E-02	Pulse	0.50	3
Fe			1	56.739	ug/l	0.75	226,131.33	1.499E+00	Pulse	0.50	3
Co			1	0.079	ug/l	30.00	1,922.77	1.274E-02	Pulse	0.50	3
Ni			1	0.324	ug/l	11.14	1,039.37	6.886E-03	Pulse	0.50	3
Cu			1	2.796	ug/l	3.11	20,581.63	1.364E-01	Pulse	0.50	3
Zn			1	5.067	ug/l	2.73	5,140.36	2.285E-02	Pulse	1.00	3
Cd			1	0.040	ug/l	40.46	270.67	1.203E-03	Pulse	0.50	3
Al			1	86.298	ug/l	2.59	13,556.61	5.659E-02	Pulse	1.00	3
Se			1	0.493	ug/l	26.97	72.67	3.232E-04	Pulse	3.00	3
Sb			1	1.385	ug/l	1.54	6,609.19	2.938E-02	Pulse	1.00	3
Se			1	0.839	ug/l	2.56	43.55	1.936E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,146,796.33	1.89	84.4	Pulse	0.50	3
1	Sc		239,612.95	1.57	86.0	Pulse	0.30	3
1	Ge		150,873.41	1.10	84.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,513,357.65	1.48	82.8	Pulse	0.30	3
1	Tb		4,463,804.00	2.24	87.1	Pulse	0.50	3
1	Lu		3,499,770.67	2.05	84.5	Pulse	0.50	3
1	Ge		224,963.00	1.33	85.2	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,803.42	7.13	87.5	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:10
Sample Name	FC3879-19
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.062	ug/l	1.07	10,472.84	7.006E-02	Pulse	0.50	3
As			1	4.898	ug/l	2.48	2,845.55	1.904E-02	Pulse	1.00	3
Mo			1	1.895	ug/l	4.21	5,317.43	2.370E-02	Pulse	0.50	3
Pb			1	0.177	ug/l	5.95	7,379.93	2.351E-03	Pulse	1.00	3
Be			1	0.030	ug/l	156.22	4.33	1.804E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	4.77	88.00	3.925E-04	Pulse	0.50	3
Ba			1	15.924	ug/l	2.35	20,898.73	1.388E-02	Pulse	0.50	3
Tl			1	-0.009	ug/l	-59.50	3,384.35	9.690E-04	Pulse	0.50	3
Sn			1	0.082	ug/l	20.03	1,763.43	1.171E-03	Pulse	0.30	3
Sr			1	238.163	ug/l	1.42	812,418.96	5.397E-01	Pulse	0.50	3
[Pb]			1	0.201	ug/l	9.29	3,511.71	1.006E-03	Pulse	0.50	3
Ca			1	63665.896	ug/l	0.88	1,142,729.29	4.770E+00	Pulse	0.50	3
Ti			1	0.554	ug/l	18.08	98.00	4.089E-04	Pulse	0.50	3
Na			1	1729.646	ug/l	1.49	1,143,901.34	4.775E+00	Pulse	1.00	3
Mg			1	1494.544	ug/l	1.29	507,919.61	2.120E+00	Pulse	1.00	3
K			1	1044.202	ug/l	1.34	384,249.48	1.604E+00	Pulse	1.00	3
V			1	23.631	ug/l	0.40	85,409.43	3.565E-01	Pulse	0.50	3
Mn			1	3.574	ug/l	1.44	10,422.81	6.973E-02	Pulse	0.50	3
Fe			1	52.145	ug/l	1.13	206,892.20	1.384E+00	Pulse	0.50	3
Co			1	0.081	ug/l	21.17	1,918.10	1.283E-02	Pulse	0.50	3
Ni			1	0.293	ug/l	19.80	976.69	6.539E-03	Pulse	0.50	3
Cu			1	1.054	ug/l	2.42	12,717.54	8.508E-02	Pulse	0.50	3
Zn			1	1.893	ug/l	3.11	2,410.15	1.075E-02	Pulse	1.00	3
Cd			1	0.043	ug/l	4.83	274.00	1.222E-03	Pulse	0.50	3
Al			1	82.330	ug/l	1.39	12,964.88	5.411E-02	Pulse	1.00	3
Se			1	0.463	ug/l	13.99	71.00	3.165E-04	Pulse	3.00	3
Sb			1	1.391	ug/l	2.30	6,610.53	2.947E-02	Pulse	1.00	3
Se			1	0.962	ug/l	13.21	46.33	2.065E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,137,991.08	1.79	84.2	Pulse	0.50	3
1	Sc		239,612.23	1.73	86.0	Pulse	0.30	3
1	Ge		149,468.92	1.14	84.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,505,757.44	2.59	82.3	Pulse	0.30	3
1	Tb		4,444,975.50	2.08	86.7	Pulse	0.50	3
1	Lu		3,491,666.67	2.41	84.3	Pulse	0.50	3
1	Ge		224,252.50	1.97	84.9	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,722.31	2.09	83.6	Pulse	0.30	3

Quantitation Report

File Name	053_MB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:14
Sample Name	MP42108-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.106	ug/l	31.37	2,177.46	1.432E-02	Pulse	0.50	3
As			1	0.096	ug/l	33.70	179.00	1.177E-03	Pulse	1.00	3
Mo			1	0.030	ug/l	54.26	644.01	2.855E-03	Pulse	0.50	3
Pb			1	-0.043	ug/l	-14.17	4,522.27	1.428E-03	Pulse	1.00	3
Be			1	0.106	ug/l	92.08	6.67	2.732E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	67.32	94.67	4.183E-04	Pulse	0.50	3
Ba			1	0.002	ug/l	1519.42	380.67	2.497E-04	Pulse	0.50	3
Tl			1	-0.011	ug/l	-32.93	3,345.00	9.569E-04	Pulse	0.50	3
Sn			1	0.051	ug/l	5.33	1,697.87	1.112E-03	Pulse	0.30	3
Sr			1	0.068	ug/l	24.90	1,300.05	8.513E-04	Pulse	0.50	3
[Pb]			1	-0.043	ug/l	-11.59	2,074.80	5.932E-04	Pulse	0.50	3
Ca			1	10.915	ug/l	42.53	401.34	1.658E-03	Pulse	0.50	3
Ti			1	0.048	ug/l	110.34	40.00	1.645E-04	Pulse	0.50	3
Na			1	5.443	ug/l	3.05	12,336.13	5.084E-02	Pulse	1.00	3
Mg			1	-0.494	ug/l	-19.92	435.67	1.797E-03	Pulse	1.00	3
K			1	10.003	ug/l	13.44	37,012.49	1.526E-01	Pulse	1.00	3
V			1	0.763	ug/l	6.31	4,283.15	1.766E-02	Pulse	0.50	3
Mn			1	-0.032	ug/l	-22.53	642.01	4.223E-03	Pulse	0.50	3
Fe			1	1.338	ug/l	9.25	17,628.02	1.160E-01	Pulse	0.50	3
Co			1	0.001	ug/l	2764.68	1,422.72	9.372E-03	Pulse	0.50	3
Ni			1	0.003	ug/l	601.14	498.01	3.280E-03	Pulse	0.50	3
Cu			1	-0.103	ug/l	-33.70	7,747.57	5.099E-02	Pulse	0.50	3
Zn			1	0.497	ug/l	16.08	1,222.37	5.426E-03	Pulse	1.00	3
Cd			1	-0.023	ug/l	-222.35	190.00	8.436E-04	Pulse	0.50	3
Al			1	-1.709	ug/l	-4.30	401.33	1.654E-03	Pulse	1.00	3
Se			1	-0.125	ug/l	-42.38	42.00	1.864E-04	Pulse	3.00	3
Sb			1	-0.004	ug/l	-1.61	1,131.04	5.017E-03	Pulse	1.00	3
Se			1	0.227	ug/l	86.14	29.11	1.291E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,166,539.50	2.09	84.9	Pulse	0.50	3
1	Sc		242,634.98	1.99	87.1	Pulse	0.30	3
1	Ge		151,977.54	2.38	85.5	Pulse	0.30	3
1	In		1,526,377.75	2.30	83.5	Pulse	0.30	3
1	Tb		4,480,789.17	3.09	87.4	Pulse	0.50	3
1	Lu		3,496,826.75	2.59	84.4	Pulse	0.50	3
1	Ge		225,448.04	1.90	85.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,855.66	12.97	90.1	Pulse	0.30	3

Quantitation Report

File Name	054_BSP.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:18
Sample Name	MP42108-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	209.990	ug/l	0.73	900,925.89	5.995E+00	Pulse	0.50	3
As			1	205.524	ug/l	1.05	115,041.48	7.655E-01	Pulse	1.00	3
Mo			1	213.850	ug/l	0.47	532,763.41	2.394E+00	Pulse	0.50	3
Pb			1	207.986	ug/l	0.15	2,660,370.17	8.740E-01	Pulse	1.00	3
Be			1	221.937	ug/l	1.25	6,450.69	2.730E-02	Pulse	2.00	3
Ag			1	109.229	ug/l	0.41	827,065.21	3.716E+00	Pulse	0.50	3
Ba			1	200.791	ug/l	0.81	258,818.85	1.722E-01	Pulse	0.50	3
Tl			1	206.155	ug/l	1.03	3,573,803.17	1.006E+00	Pulse	0.50	3
Sn			1	208.595	ug/l	0.23	590,159.11	3.926E-01	Pulse	0.30	3
Sr			1	204.117	ug/l	0.72	695,398.56	4.626E-01	Pulse	0.50	3
[Pb]			1	201.447	ug/l	0.20	1,211,271.58	3.410E-01	Pulse	0.50	3
Ca			1	19748.588	ug/l	0.57	349,663.17	1.480E+00	Pulse	0.50	3
Ti			1	204.370	ug/l	0.67	23,341.23	9.879E-02	Pulse	0.50	3
Na			1	22144.941	ug/l	0.95	14,342,260.67	6.071E+01	Analog	1.00	3
Mg			1	21321.351	ug/l	0.68	7,137,563.67	3.021E+01	Analog	1.00	3
K			1	20667.835	ug/l	1.30	6,884,366.33	2.914E+01	Analog	1.00	3
V			1	205.607	ug/l	0.27	721,216.71	3.053E+00	Pulse	0.50	3
Mn			1	205.222	ug/l	0.29	560,874.33	3.732E+00	Pulse	0.50	3
Fe			1	22336.696	ug/l	0.46	83,781,184.00	5.576E+02	Analog	0.50	3
Co			1	209.010	ug/l	0.48	1,358,407.71	9.040E+00	Pulse	0.50	3
Ni			1	203.282	ug/l	0.72	344,250.94	2.291E+00	Pulse	0.50	3
Cu			1	203.155	ug/l	0.28	907,497.07	6.039E+00	Pulse	0.50	3
Zn			1	196.192	ug/l	0.63	167,304.22	7.517E-01	Pulse	1.00	3
Cd			1	200.103	ug/l	0.63	257,777.93	1.158E+00	Pulse	0.50	3
Al			1	19225.090	ug/l	0.37	2,835,986.17	1.200E+01	Pulse	1.00	3
Se			1	190.096	ug/l	1.84	9,395.97	4.222E-02	Pulse	3.00	3
Sb			1	207.709	ug/l	0.39	811,445.44	3.646E+00	Pulse	1.00	3
Se			1	190.608	ug/l	0.84	4,495.98	2.020E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,044,105.25	1.76	81.7	Pulse	0.50	3
1	Sc		236,261.12	1.14	84.8	Pulse	0.30	3
1	Ge		150,269.60	1.19	84.5	Pulse	0.30	3
1	In		1,503,312.02	2.04	82.2	Pulse	0.30	3
1	Tb		4,494,769.17	2.97	87.7	Pulse	0.50	3
1	Lu		3,552,578.08	2.44	85.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		222,580.29	1.58	84.3	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,764.53	3.38	85.7	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:21
Sample Name	FC3879-20F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.357	ug/l	5.58	3,252.28	2.149E-02	Pulse	0.50	3
As			1	3.709	ug/l	2.49	2,211.46	1.462E-02	Pulse	1.00	3
Mo			1	1.678	ug/l	4.91	4,806.63	2.128E-02	Pulse	0.50	3
Pb			1	-0.025	ug/l	-19.02	4,697.98	1.501E-03	Pulse	1.00	3
Be			1	0.144	ug/l	26.65	7.67	3.202E-05	Pulse	2.00	3
Ag			1	0.013	ug/l	16.46	152.67	6.767E-04	Pulse	0.50	3
Ba			1	20.132	ug/l	0.60	26,453.98	1.749E-02	Pulse	0.50	3
Tl			1	0.067	ug/l	19.76	4,649.31	1.338E-03	Pulse	0.50	3
Sn			1	0.251	ug/l	16.25	2,251.27	1.489E-03	Pulse	0.30	3
Sr			1	253.101	ug/l	0.54	867,585.15	5.735E-01	Pulse	0.50	3
[Pb]			1	-0.037	ug/l	-59.50	2,098.14	6.040E-04	Pulse	0.50	3
Ca			1	60404.880	ug/l	1.18	1,081,466.04	4.525E+00	Pulse	0.50	3
Ti			1	0.116	ug/l	113.62	47.33	1.973E-04	Pulse	0.50	3
Na			1	2929.241	ug/l	0.78	1,926,613.87	8.061E+00	Pulse	1.00	3
Mg			1	1030.618	ug/l	0.38	349,602.41	1.463E+00	Pulse	1.00	3
K			1	445.702	ug/l	0.88	182,586.68	7.640E-01	Pulse	1.00	3
V			1	3.751	ug/l	2.21	14,798.29	6.193E-02	Pulse	0.50	3
Mn			1	0.142	ug/l	14.94	1,118.03	7.390E-03	Pulse	0.50	3
Fe			1	4.997	ug/l	8.60	31,346.60	2.074E-01	Pulse	0.50	3
Co			1	0.061	ug/l	18.34	1,810.09	1.196E-02	Pulse	0.50	3
Ni			1	0.876	ug/l	3.34	1,980.78	1.310E-02	Pulse	0.50	3
Cu			1	6.337	ug/l	2.83	36,413.56	2.407E-01	Pulse	0.50	3
Zn			1	1.493	ug/l	17.85	2,084.78	9.225E-03	Pulse	1.00	3
Cd			1	0.077	ug/l	12.55	320.67	1.420E-03	Pulse	0.50	3
Al			1	5.831	ug/l	11.39	1,519.40	6.361E-03	Pulse	1.00	3
Se			1	0.523	ug/l	43.63	74.34	3.298E-04	Pulse	3.00	3
Sb			1	0.506	ug/l	0.54	3,151.61	1.395E-02	Pulse	1.00	3
Se			1	0.765	ug/l	35.11	41.89	1.858E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,129,853.42	2.01	84.0	Pulse	0.50	3
1	Sc		239,013.82	1.76	85.8	Pulse	0.30	3
1	Ge		151,260.87	1.72	85.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,512,902.51	2.02	82.7	Pulse	0.30	3
1	Tb		4,433,856.17	2.66	86.5	Pulse	0.50	3
1	Lu		3,477,808.17	2.73	84.0	Pulse	0.50	3
1	Ge		225,865.82	2.03	85.5	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,814.53	5.97	88.1	Pulse	0.30	3

Quantitation Report

File Name	056CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:25
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.177	ug/l	1.38	479,180.71	2.928E+00	Pulse	0.50	3
As			1	50.038	ug/l	1.70	61,070.91	3.732E-01	Pulse	1.00	3
Mo			1	49.865	ug/l	0.77	273,671.80	1.118E+00	Pulse	0.50	3
Pb			1	50.128	ug/l	0.66	1,365,952.71	4.221E-01	Pulse	1.00	3
Be			1	53.742	ug/l	1.89	3,500.14	1.323E-02	Pulse	2.00	3
Ag			1	51.262	ug/l	0.51	854,027.96	3.488E+00	Pulse	0.50	3
Ba			1	49.635	ug/l	1.18	137,554.52	8.525E-02	Pulse	0.50	3
Tl			1	53.571	ug/l	0.37	1,927,703.88	5.234E-01	Pulse	0.50	3
Sn			1	49.719	ug/l	1.55	302,803.68	1.877E-01	Pulse	0.30	3
Sr			1	49.908	ug/l	0.35	365,570.79	2.266E-01	Pulse	0.50	3
[Pb]			1	51.480	ug/l	0.45	643,064.19	1.746E-01	Pulse	0.50	3
Ca			1	4913.477	ug/l	1.47	194,976.06	7.369E-01	Pulse	0.50	3
Ti			1	49.644	ug/l	1.34	12,717.49	4.807E-02	Pulse	0.50	3
Na			1	5334.773	ug/l	0.73	7,743,914.17	2.927E+01	Analog	1.00	3
Mg			1	4900.638	ug/l	1.45	3,674,971.00	1.389E+01	Pulse	1.00	3
K			1	4839.138	ug/l	0.88	3,630,136.17	1.372E+01	Pulse	1.00	3
V			1	49.582	ug/l	1.04	390,416.96	1.476E+00	Pulse	0.50	3
Mn			1	49.970	ug/l	1.17	297,865.25	1.820E+00	Pulse	0.50	3
Fe			1	5378.638	ug/l	1.52	43,949,005.33	2.686E+02	Analog	0.50	3
Co			1	50.706	ug/l	1.89	718,541.11	4.391E+00	Pulse	0.50	3
Ni			1	50.239	ug/l	1.91	185,568.80	1.134E+00	Pulse	0.50	3
Cu			1	49.955	ug/l	1.60	490,522.62	2.997E+00	Pulse	0.50	3
Zn			1	50.136	ug/l	1.32	94,502.26	3.859E-01	Pulse	1.00	3
Cd			1	49.919	ug/l	0.64	141,619.95	5.783E-01	Pulse	0.50	3
Al			1	4743.576	ug/l	2.11	1,567,643.45	5.925E+00	Pulse	1.00	3
Se			1	48.614	ug/l	1.68	5,313.74	2.170E-02	Pulse	3.00	3
Sb			1	48.946	ug/l	1.09	421,390.53	1.721E+00	Pulse	1.00	3
Se			1	48.705	ug/l	0.90	2,540.51	1.038E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,235,969.75	0.96	86.8	Pulse	0.50	3
1	Sc		264,593.46	0.83	95.0	Pulse	0.30	3
1	Ge		163,654.32	0.97	92.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,613,379.41	0.86	88.2	Pulse	0.30	3
1	Tb		4,647,013.83	0.96	90.6	Pulse	0.50	3
1	Lu		3,683,167.58	0.98	88.9	Pulse	0.50	3
1	Ge		244,871.16	0.56	92.7	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,954.55	3.90	94.9	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:29
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.345	ug/l	1.75	939,545.27	5.844E+00	Pulse	0.50	3
As			1	99.220	ug/l	1.48	118,835.82	7.392E-01	Pulse	1.00	3
Mo			1	100.425	ug/l	1.71	537,834.69	2.248E+00	Pulse	0.50	3
Pb			1	100.269	ug/l	0.37	2,628,559.67	8.427E-01	Pulse	1.00	3
Be			1	109.224	ug/l	1.97	6,847.15	2.687E-02	Pulse	2.00	3
Ag			1	100.925	ug/l	0.72	1,642,572.50	6.866E+00	Pulse	0.50	3
Ba			1	99.099	ug/l	0.42	268,731.02	1.700E-01	Pulse	0.50	3
Tl			1	104.762	ug/l	0.85	3,712,228.92	1.023E+00	Pulse	0.50	3
Sn			1	98.257	ug/l	1.00	584,850.31	3.699E-01	Pulse	0.30	3
Sr			1	99.089	ug/l	1.15	710,207.42	4.492E-01	Pulse	0.50	3
[Pb]			1	101.209	ug/l	1.08	1,243,818.46	3.426E-01	Pulse	0.50	3
Ca			1	9761.635	ug/l	1.36	372,807.28	1.463E+00	Pulse	0.50	3
Ti			1	96.542	ug/l	1.41	23,782.43	9.334E-02	Pulse	0.50	3
Na			1	10803.283	ug/l	0.30	15,092,029.67	5.923E+01	Analog	1.00	3
Mg			1	10540.614	ug/l	0.59	7,611,080.50	2.987E+01	Analog	1.00	3
K			1	10354.081	ug/l	0.50	7,439,386.67	2.920E+01	Analog	1.00	3
V			1	101.014	ug/l	1.02	764,275.46	3.000E+00	Pulse	0.50	3
Mn			1	101.142	ug/l	1.92	591,456.63	3.679E+00	Pulse	0.50	3
Fe			1	10915.701	ug/l	1.36	87,607,653.33	5.449E+02	Analog	0.50	3
Co			1	102.011	ug/l	1.58	1,418,591.54	8.824E+00	Pulse	0.50	3
Ni			1	100.623	ug/l	1.39	364,600.09	2.268E+00	Pulse	0.50	3
Cu			1	98.979	ug/l	1.72	946,248.40	5.886E+00	Pulse	0.50	3
Zn			1	98.981	ug/l	0.86	181,441.64	7.585E-01	Pulse	1.00	3
Cd			1	99.716	ug/l	1.23	276,135.77	1.154E+00	Pulse	0.50	3
Al			1	9549.011	ug/l	0.82	3,038,258.50	1.192E+01	Pulse	1.00	3
Se			1	97.687	ug/l	0.38	10,379.37	4.339E-02	Pulse	3.00	3
Sb			1	98.300	ug/l	1.01	825,525.35	3.451E+00	Pulse	1.00	3
Se			1	97.314	ug/l	1.58	4,933.98	2.062E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,119,071.67	1.16	83.7	Pulse	0.50	3
1	Sc		254,789.95	0.23	91.5	Pulse	0.30	3
1	Ge		160,771.61	0.61	90.4	Pulse	0.30	3
1	In		1,581,101.08	0.82	86.5	Pulse	0.30	3
1	Tb		4,563,501.83	0.59	89.0	Pulse	0.50	3
1	Lu		3,630,405.67	0.79	87.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		239,221.22	0.29	90.6	Pulse	0.30	3
1	Te		2.67	43.30	400.0	Pulse	0.50	3
1	Li		1,890.10	2.12	91.7	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:33
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	3074.34	1,816.76	1.134E-02	Pulse	0.50	3
As			1	0.013	ug/l	188.57	146.33	9.143E-04	Pulse	1.00	3
Mo			1	0.144	ug/l	23.67	1,361.39	5.744E-03	Pulse	0.50	3
Pb			1	-0.011	ug/l	-103.25	4,805.68	1.515E-03	Pulse	1.00	3
Be			1	0.087	ug/l	19.16	9.17	3.582E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	26.81	328.00	1.388E-03	Pulse	0.50	3
Ba			1	0.019	ug/l	135.08	443.34	2.806E-04	Pulse	0.50	3
Tl			1	0.029	ug/l	27.33	4,554.62	1.292E-03	Pulse	0.50	3
Sn			1	0.199	ug/l	22.06	2,791.34	1.764E-03	Pulse	0.30	3
Sr			1	0.015	ug/l	75.22	1,208.04	7.642E-04	Pulse	0.50	3
[Pb]			1	-0.011	ug/l	-130.03	2,218.15	6.291E-04	Pulse	0.50	3
Ca			1	-0.171	ug/l	-380.38	208.67	8.153E-04	Pulse	0.50	3
Ti			1	-0.028	ug/l	-17.56	29.33	1.146E-04	Pulse	0.50	3
Na			1	3.428	ug/l	22.19	14,002.90	5.471E-02	Pulse	1.00	3
Mg			1	0.950	ug/l	64.36	1,327.72	5.188E-03	Pulse	1.00	3
K			1	4.109	ug/l	14.57	38,411.14	1.501E-01	Pulse	1.00	3
V			1	-0.017	ug/l	-59.09	1,496.06	5.845E-03	Pulse	0.50	3
Mn			1	-0.020	ug/l	-15.80	655.34	4.085E-03	Pulse	0.50	3
Fe			1	1.581	ug/l	32.81	25,871.58	1.616E-01	Pulse	0.50	3
Co			1	0.008	ug/l	46.12	1,610.74	1.005E-02	Pulse	0.50	3
Ni			1	0.011	ug/l	250.07	558.68	3.489E-03	Pulse	0.50	3
Cu			1	-0.109	ug/l	-15.43	7,636.19	4.763E-02	Pulse	0.50	3
Zn			1	-0.063	ug/l	-30.57	722.68	3.052E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	3754.62	231.33	9.782E-04	Pulse	0.50	3
Al			1	3.863	ug/l	14.57	1,931.10	7.545E-03	Pulse	1.00	3
Se			1	0.102	ug/l	73.11	61.45	2.593E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	2.32	1,563.40	6.603E-03	Pulse	1.00	3
Se			1	0.029	ug/l	89.22	26.33	1.112E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,173,364.58	1.32	85.1	Pulse	0.50	3
1	Sc		255,972.41	0.15	91.9	Pulse	0.30	3

Quantitation Report

1	Ge		160,371.65	1.48	90.2	Pulse	0.30	3
1	In		1,581,207.34	1.02	86.5	Pulse	0.30	3
1	Tb		4,468,800.83	0.84	87.2	Pulse	0.50	3
1	Lu		3,528,405.50	1.36	85.2	Pulse	0.50	3
1	Ge		236,765.80	1.19	89.7	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,994.55	4.44	96.8	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 13:37
Sample Name MP42108-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.352	ug/l	5.56	3,171.60	2.134E-02	Pulse	0.50	3
As			1	3.826	ug/l	3.65	2,237.14	1.505E-02	Pulse	1.00	3
Mo			1	1.746	ug/l	2.69	4,924.66	2.204E-02	Pulse	0.50	3
Pb			1	-0.019	ug/l	-53.45	4,708.32	1.526E-03	Pulse	1.00	3
Be			1	0.173	ug/l	17.01	8.50	3.562E-05	Pulse	2.00	3
Ag			1	0.027	ug/l	7.14	256.67	1.149E-03	Pulse	0.50	3
Ba			1	20.345	ug/l	0.81	26,393.20	1.767E-02	Pulse	0.50	3
Tl			1	0.041	ug/l	20.29	4,169.19	1.211E-03	Pulse	0.50	3
Sn			1	0.484	ug/l	9.27	2,876.91	1.926E-03	Pulse	0.30	3
Sr			1	259.679	ug/l	0.36	878,830.46	5.884E-01	Pulse	0.50	3
[Pb]			1	-0.026	ug/l	-65.23	2,145.47	6.229E-04	Pulse	0.50	3
Ca			1	61131.820	ug/l	0.43	1,091,491.33	4.580E+00	Pulse	0.50	3
Ti			1	0.217	ug/l	28.60	58.67	2.458E-04	Pulse	0.50	3
Na			1	2968.936	ug/l	0.58	1,947,173.13	8.170E+00	Pulse	1.00	3
Mg			1	1047.982	ug/l	0.25	354,489.22	1.487E+00	Pulse	1.00	3
K			1	453.123	ug/l	1.53	184,545.13	7.744E-01	Pulse	1.00	3
V			1	3.846	ug/l	2.22	15,093.85	6.333E-02	Pulse	0.50	3
Mn			1	0.154	ug/l	3.35	1,130.04	7.605E-03	Pulse	0.50	3
Fe			1	7.183	ug/l	6.14	38,909.64	2.619E-01	Pulse	0.50	3
Co			1	0.066	ug/l	12.29	1,814.76	1.221E-02	Pulse	0.50	3
Ni			1	0.878	ug/l	12.94	1,950.77	1.312E-02	Pulse	0.50	3
Cu			1	6.478	ug/l	1.63	36,381.51	2.449E-01	Pulse	0.50	3
Zn			1	1.258	ug/l	9.80	1,859.76	8.326E-03	Pulse	1.00	3
Cd			1	0.027	ug/l	158.46	252.67	1.131E-03	Pulse	0.50	3
Al			1	2.892	ug/l	24.54	1,077.70	4.527E-03	Pulse	1.00	3
Se			1	0.529	ug/l	25.71	73.89	3.310E-04	Pulse	3.00	3
Sb			1	0.499	ug/l	2.98	3,093.93	1.385E-02	Pulse	1.00	3
Se			1	0.999	ug/l	23.76	47.11	2.105E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,087,173.83	1.97	82.8	Pulse	0.50	3
1	Sc		238,342.51	1.70	85.6	Pulse	0.30	3
1	Ge		148,586.47	0.90	83.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,493,759.94	2.23	81.7	Pulse	0.30	3
1	Tb		4,380,660.00	2.70	85.4	Pulse	0.50	3
1	Lu		3,445,279.83	2.55	83.2	Pulse	0.50	3
1	Ge		223,464.62	2.01	84.6	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,798.98	2.00	87.3	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:40
Sample Name	MP42108-SD1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.317	ug/l	-26.30	1,481.39	9.505E-03	Pulse	0.50	3
As			1	3.743	ug/l	6.86	561.34	3.603E-03	Pulse	1.00	3
Mo			1	1.755	ug/l	7.08	1,512.73	6.442E-03	Pulse	0.50	3
Pb			1	-0.306	ug/l	-11.73	4,322.55	1.350E-03	Pulse	1.00	3
Be			1	0.414	ug/l	23.73	6.17	2.452E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	20.75	80.67	3.437E-04	Pulse	0.50	3
Ba			1	20.285	ug/l	2.69	5,846.96	3.722E-03	Pulse	0.50	3
Tl			1	-0.006	ug/l	-178.78	3,552.38	1.006E-03	Pulse	0.50	3
Sn			1	0.275	ug/l	44.90	1,760.10	1.120E-03	Pulse	0.30	3
Sr			1	257.122	ug/l	1.20	183,911.75	1.171E-01	Pulse	0.50	3
[Pb]			1	-0.394	ug/l	-10.60	1,883.45	5.335E-04	Pulse	0.50	3
Ca			1	61029.502	ug/l	0.71	230,215.99	9.151E-01	Pulse	0.50	3
Ti			1	0.567	ug/l	45.16	49.33	1.960E-04	Pulse	0.50	3
Na			1	2956.634	ug/l	0.67	416,613.29	1.656E+00	Pulse	1.00	3
Mg			1	1047.046	ug/l	0.53	75,271.47	2.992E-01	Pulse	1.00	3
K			1	468.531	ug/l	1.63	67,931.67	2.700E-01	Pulse	1.00	3
V			1	3.621	ug/l	6.48	4,297.82	1.708E-02	Pulse	0.50	3
Mn			1	-0.143	ug/l	-36.61	668.01	4.289E-03	Pulse	0.50	3
Fe			1	-5.563	ug/l	-5.49	8,549.24	5.489E-02	Pulse	0.50	3
Co			1	0.005	ug/l	785.50	1,462.73	9.391E-03	Pulse	0.50	3
Ni			1	0.774	ug/l	16.15	776.69	4.987E-03	Pulse	0.50	3
Cu			1	4.662	ug/l	7.33	12,695.54	8.149E-02	Pulse	0.50	3
Zn			1	-0.447	ug/l	-31.50	749.02	3.190E-03	Pulse	1.00	3
Cd			1	-0.057	ug/l	-29.92	213.33	9.086E-04	Pulse	0.50	3
Al			1	-6.556	ug/l	-15.05	478.68	1.903E-03	Pulse	1.00	3
Se			1	0.200	ug/l	180.28	52.33	2.230E-04	Pulse	3.00	3
Sb			1	0.377	ug/l	5.26	1,505.73	6.414E-03	Pulse	1.00	3
Se			1	0.672	ug/l	230.02	28.00	1.193E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,201,412.25	0.83	85.9	Pulse	0.50	3
1	Sc		251,578.38	0.54	90.3	Pulse	0.30	3
1	Ge		155,797.83	1.25	87.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,570,959.00	1.01	85.9	Pulse	0.30	3
1	Tb		4,486,917.00	1.23	87.5	Pulse	0.50	3
1	Lu		3,529,946.50	0.93	85.2	Pulse	0.50	3
1	Ge		234,780.76	0.69	88.9	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,983.44	5.97	96.3	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 13:44
Sample Name MP42108-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	416.694	ug/l	0.80	1,725,452.50	1.189E+01	Pulse	0.50	3
As			1	413.130	ug/l	0.55	223,288.09	1.538E+00	Pulse	1.00	3
Mo			1	429.048	ug/l	0.65	1,038,768.31	4.800E+00	Pulse	0.50	3
Pb			1	411.907	ug/l	0.42	4,953,691.33	1.729E+00	Pulse	1.00	3
Be			1	446.724	ug/l	1.66	12,398.77	5.494E-02	Pulse	2.00	3
Ag			1	205.726	ug/l	0.14	1,514,719.46	6.998E+00	Pulse	0.50	3
Ba			1	435.884	ug/l	0.33	530,965.64	3.735E-01	Pulse	0.50	3
Tl			1	435.889	ug/l	1.27	7,226,010.83	2.126E+00	Analog	0.50	3
Sn			1	415.695	ug/l	0.66	1,110,666.80	7.813E-01	Pulse	0.30	3
Sr			1	913.737	ug/l	0.92	2,940,308.08	2.069E+00	Pulse	0.50	3
[Pb]			1	390.904	ug/l	1.06	2,246,637.42	6.610E-01	Pulse	0.50	3
Ca			1	158415.328	ug/l	0.62	2,678,416.25	1.187E+01	Pulse	0.50	3
Ti			1	410.668	ug/l	1.50	44,770.28	1.984E-01	Pulse	0.50	3
Na			1	50795.667	ug/l	0.85	31,419,654.00	1.392E+02	Analog	1.00	3
Mg			1	44218.930	ug/l	1.22	14,140,747.33	6.265E+01	Analog	1.00	3
K			1	42986.672	ug/l	1.54	13,645,260.00	6.046E+01	Analog	1.00	3
V			1	417.560	ug/l	0.19	1,397,946.45	6.193E+00	Pulse	0.50	3
Mn			1	403.614	ug/l	0.71	1,064,984.81	7.336E+00	Pulse	0.50	3
Fe			1	44627.980	ug/l	0.75	161,705,888.00	1.114E+03	Analog	0.50	3
Co			1	396.546	ug/l	0.74	2,488,908.00	1.714E+01	Pulse	0.50	3
Ni			1	388.075	ug/l	0.91	634,501.98	4.370E+00	Pulse	0.50	3
Cu			1	399.311	ug/l	0.59	1,715,877.46	1.182E+01	Pulse	0.50	3
Zn			1	371.020	ug/l	0.84	306,969.20	1.418E+00	Pulse	1.00	3
Cd			1	379.762	ug/l	0.88	475,488.66	2.197E+00	Pulse	0.50	3
Al			1	40178.201	ug/l	1.50	5,660,925.17	2.508E+01	Analog	1.00	3
Se			1	366.881	ug/l	1.15	17,590.96	8.129E-02	Pulse	3.00	3
Sb			1	396.028	ug/l	0.94	1,503,220.00	6.946E+00	Pulse	1.00	3
Se			1	364.260	ug/l	0.92	8,333.93	3.851E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,864,807.92	2.49	76.8	Pulse	0.50	3
1	Sc		225,733.54	2.23	81.1	Pulse	0.30	3
1	Ge		145,187.63	2.50	81.7	Pulse	0.30	3
1	In		1,421,688.90	2.71	77.7	Pulse	0.30	3
1	Tb		4,309,220.67	3.30	84.1	Pulse	0.50	3
1	Lu		3,399,388.83	2.58	82.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		216,450.86	2.88	82.0	Pulse	0.30	3
1	Te		5.33	21.65	800.0	Pulse	0.50	3
1	Li		1,577.85	6.48	76.6	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 13:48
Sample Name MP42108-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	212.056	ug/l	0.62	919,471.75	6.054E+00	Pulse	0.50	3
As			1	210.956	ug/l	0.98	119,327.17	7.858E-01	Pulse	1.00	3
Mo			1	213.972	ug/l	0.85	543,252.73	2.395E+00	Pulse	0.50	3
Pb			1	207.852	ug/l	0.56	2,632,453.08	8.734E-01	Pulse	1.00	3
Be			1	222.308	ug/l	1.29	6,589.24	2.735E-02	Pulse	2.00	3
Ag			1	104.519	ug/l	0.74	806,481.50	3.555E+00	Pulse	0.50	3
Ba			1	221.007	ug/l	0.22	285,136.92	1.895E-01	Pulse	0.50	3
Tl			1	206.734	ug/l	0.55	3,550,222.92	1.009E+00	Pulse	0.50	3
Sn			1	210.154	ug/l	0.54	595,151.23	3.955E-01	Pulse	0.30	3
Sr			1	463.762	ug/l	0.12	1,580,290.67	1.050E+00	Pulse	0.50	3
[Pb]			1	200.816	ug/l	0.32	1,196,140.96	3.399E-01	Pulse	0.50	3
Ca			1	78491.177	ug/l	0.10	1,416,745.96	5.880E+00	Pulse	0.50	3
Ti			1	206.461	ug/l	0.41	24,044.76	9.980E-02	Pulse	0.50	3
Na			1	25307.414	ug/l	0.71	16,713,798.00	6.937E+01	Analog	1.00	3
Mg			1	22433.428	ug/l	0.64	7,658,536.17	3.179E+01	Analog	1.00	3
K			1	21329.469	ug/l	0.74	7,244,673.00	3.007E+01	Analog	1.00	3
V			1	208.677	ug/l	0.19	746,467.75	3.098E+00	Pulse	0.50	3
Mn			1	206.422	ug/l	0.68	570,152.98	3.754E+00	Pulse	0.50	3
Fe			1	22677.917	ug/l	1.07	85,964,853.33	5.661E+02	Analog	0.50	3
Co			1	208.861	ug/l	0.78	1,371,870.87	9.033E+00	Pulse	0.50	3
Ni			1	204.174	ug/l	0.61	349,439.44	2.301E+00	Pulse	0.50	3
Cu			1	205.902	ug/l	0.53	929,466.31	6.120E+00	Pulse	0.50	3
Zn			1	194.454	ug/l	0.71	169,009.05	7.451E-01	Pulse	1.00	3
Cd			1	195.505	ug/l	0.68	256,683.47	1.132E+00	Pulse	0.50	3
Al			1	19126.442	ug/l	0.25	2,877,348.42	1.194E+01	Pulse	1.00	3
Se			1	188.897	ug/l	1.21	9,516.59	4.196E-02	Pulse	3.00	3
Sb			1	203.744	ug/l	0.73	811,151.00	3.576E+00	Pulse	1.00	3
Se			1	189.992	ug/l	1.41	4,567.88	2.014E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,014,064.92	2.01	80.8	Pulse	0.50	3
1	Sc		240,941.75	1.34	86.5	Pulse	0.30	3
1	Ge		151,878.79	1.86	85.4	Pulse	0.30	3
1	In		1,504,748.83	1.36	82.3	Pulse	0.30	3
1	Tb		4,482,194.50	1.38	87.4	Pulse	0.50	3
1	Lu		3,519,061.75	1.87	85.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		226,829.75	1.03	85.9	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,836.76	9.29	89.2	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:52
Sample Name	MP42108-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	23.331	ug/l	0.64	102,873.13	6.762E-01	Pulse	0.50	3
As			1	27.409	ug/l	0.89	15,641.05	1.028E-01	Pulse	1.00	3
Mo			1	24.878	ug/l	1.22	63,712.19	2.807E-01	Pulse	0.50	3
Pb			1	22.468	ug/l	0.45	295,628.78	9.584E-02	Pulse	1.00	3
Be			1	25.061	ug/l	3.25	750.85	3.096E-03	Pulse	2.00	3
Ag			1	5.533	ug/l	1.35	42,774.38	1.884E-01	Pulse	0.50	3
Ba			1	42.343	ug/l	0.30	55,460.49	3.651E-02	Pulse	0.50	3
Tl			1	23.541	ug/l	0.10	405,771.93	1.158E-01	Pulse	0.50	3
Sn			1	22.093	ug/l	0.72	64,548.33	4.249E-02	Pulse	0.30	3
Sr			1	280.575	ug/l	0.84	965,623.46	6.356E-01	Pulse	0.50	3
[Pb]			1	22.236	ug/l	0.98	133,960.46	3.823E-02	Pulse	0.50	3
Ca			1	62829.258	ug/l	0.63	1,142,071.08	4.707E+00	Pulse	0.50	3
Ti			1	22.582	ug/l	3.45	2,678.86	1.104E-02	Pulse	0.50	3
Na			1	5251.006	ug/l	1.10	3,499,230.17	1.442E+01	Pulse	1.00	3
Mg			1	3316.571	ug/l	0.74	1,140,781.04	4.702E+00	Pulse	1.00	3
K			1	2619.014	ug/l	1.47	925,266.19	3.814E+00	Pulse	1.00	3
V			1	26.492	ug/l	0.82	96,773.47	3.988E-01	Pulse	0.50	3
Mn			1	22.848	ug/l	1.04	63,873.59	4.198E-01	Pulse	0.50	3
Fe			1	2421.281	ug/l	0.43	9,206,425.00	6.051E+01	Analog	0.50	3
Co			1	23.463	ug/l	0.58	155,649.67	1.023E+00	Pulse	0.50	3
Ni			1	23.909	ug/l	0.69	41,428.79	2.723E-01	Pulse	0.50	3
Cu			1	29.424	ug/l	0.87	140,106.99	9.209E-01	Pulse	0.50	3
Zn			1	24.606	ug/l	1.37	22,101.64	9.737E-02	Pulse	1.00	3
Cd			1	22.252	ug/l	1.93	29,434.01	1.297E-01	Pulse	0.50	3
Al			1	2128.495	ug/l	1.15	323,027.51	1.331E+00	Pulse	1.00	3
Se			1	21.641	ug/l	0.97	1,134.03	4.996E-03	Pulse	3.00	3
Sb			1	21.428	ug/l	1.39	86,405.40	3.807E-01	Pulse	1.00	3
Se			1	21.906	ug/l	3.98	548.12	2.415E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,084,358.42	2.14	82.7	Pulse	0.50	3
1	Sc		242,660.35	2.15	87.1	Pulse	0.30	3
1	Ge		152,136.52	0.95	85.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,519,208.55	1.66	83.1	Pulse	0.30	3
1	Tb		4,452,461.33	2.32	86.8	Pulse	0.50	3
1	Lu		3,504,658.25	2.43	84.6	Pulse	0.50	3
1	Ge		226,983.68	1.07	86.0	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,831.21	5.89	88.9	Pulse	0.30	3

Quantitation Report

File Name	064SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:55
Sample Name	FC3879-1F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.152	ug/l	2.80	6,720.51	4.414E-02	Pulse	0.50	3
As			1	1.082	ug/l	9.35	737.02	4.843E-03	Pulse	1.00	3
Mo			1	1.656	ug/l	4.85	4,760.62	2.103E-02	Pulse	0.50	3
Pb			1	0.070	ug/l	11.30	5,856.34	1.901E-03	Pulse	1.00	3
Be			1	0.095	ug/l	97.40	6.33	2.604E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	20.51	143.33	6.341E-04	Pulse	0.50	3
Ba			1	19.714	ug/l	0.89	25,744.28	1.713E-02	Pulse	0.50	3
Tl			1	0.032	ug/l	12.63	4,047.16	1.168E-03	Pulse	0.50	3
Sn			1	0.207	ug/l	18.79	2,112.35	1.405E-03	Pulse	0.30	3
Sr			1	257.442	ug/l	0.41	876,571.96	5.833E-01	Pulse	0.50	3
[Pb]			1	0.055	ug/l	23.73	2,628.88	7.589E-04	Pulse	0.50	3
Ca			1	55604.864	ug/l	0.64	1,010,295.67	4.166E+00	Pulse	0.50	3
Ti			1	0.517	ug/l	39.08	94.67	3.906E-04	Pulse	0.50	3
Na			1	4172.958	ug/l	0.88	2,781,435.17	1.147E+01	Pulse	1.00	3
Mg			1	1875.116	ug/l	0.94	644,924.04	2.659E+00	Pulse	1.00	3
K			1	4174.721	ug/l	1.11	1,454,326.46	5.997E+00	Pulse	1.00	3
V			1	22.822	ug/l	1.69	83,547.59	3.445E-01	Pulse	0.50	3
Mn			1	33.974	ug/l	1.62	94,660.02	6.219E-01	Pulse	0.50	3
Fe			1	220.916	ug/l	1.21	851,878.33	5.596E+00	Pulse	0.50	3
Co			1	0.200	ug/l	2.68	2,737.53	1.799E-02	Pulse	0.50	3
Ni			1	1.161	ug/l	6.43	2,483.50	1.631E-02	Pulse	0.50	3
Cu			1	-0.477	ug/l	-4.96	6,086.31	3.998E-02	Pulse	0.50	3
Zn			1	2.822	ug/l	1.63	3,234.94	1.429E-02	Pulse	1.00	3
Cd			1	0.007	ug/l	398.88	230.00	1.016E-03	Pulse	0.50	3
Al			1	38.959	ug/l	4.44	6,556.43	2.704E-02	Pulse	1.00	3
Se			1	0.129	ug/l	60.80	54.89	2.426E-04	Pulse	3.00	3
Sb			1	0.570	ug/l	3.01	3,412.32	1.508E-02	Pulse	1.00	3
Se			1	0.731	ug/l	16.47	41.22	1.822E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,081,237.08	2.27	82.6	Pulse	0.50	3
1	Sc		242,530.54	1.21	87.1	Pulse	0.30	3
1	Ge		152,225.19	1.45	85.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,502,829.70	1.65	82.2	Pulse	0.30	3
1	Tb		4,426,692.33	2.03	86.3	Pulse	0.50	3
1	Lu		3,465,298.75	2.17	83.7	Pulse	0.50	3
1	Ge		226,330.78	1.42	85.7	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,798.98	3.66	87.3	Pulse	0.30	3

Quantitation Report

File Name	065SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 13:59
Sample Name	FC3879-2F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.264	ug/l	4.03	2,866.22	1.885E-02	Pulse	0.50	3
As			1	1.107	ug/l	5.13	751.35	4.938E-03	Pulse	1.00	3
Mo			1	1.956	ug/l	3.45	5,506.82	2.439E-02	Pulse	0.50	3
Pb			1	-0.010	ug/l	-84.92	4,798.01	1.565E-03	Pulse	1.00	3
Be			1	0.123	ug/l	74.31	7.17	2.945E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	49.15	126.67	5.589E-04	Pulse	0.50	3
Ba			1	5.097	ug/l	3.12	6,984.03	4.613E-03	Pulse	0.50	3
Tl			1	0.006	ug/l	17.81	3,582.39	1.040E-03	Pulse	0.50	3
Sn			1	0.175	ug/l	5.96	2,036.79	1.345E-03	Pulse	0.30	3
Sr			1	163.642	ug/l	0.78	561,745.89	3.710E-01	Pulse	0.50	3
[Pb]			1	-0.007	ug/l	-183.76	2,255.49	6.548E-04	Pulse	0.50	3
Ca			1	60615.156	ug/l	0.87	1,110,903.46	4.541E+00	Pulse	0.50	3
Ti			1	0.091	ug/l	18.01	45.33	1.854E-04	Pulse	0.50	3
Na			1	2182.614	ug/l	0.95	1,471,661.62	6.016E+00	Pulse	1.00	3
Mg			1	1368.077	ug/l	1.03	474,794.89	1.941E+00	Pulse	1.00	3
K			1	2229.795	ug/l	1.43	799,314.23	3.268E+00	Pulse	1.00	3
V			1	2.759	ug/l	0.41	11,553.44	4.722E-02	Pulse	0.50	3
Mn			1	0.345	ug/l	9.92	1,684.08	1.108E-02	Pulse	0.50	3
Fe			1	2.515	ug/l	5.05	22,124.61	1.454E-01	Pulse	0.50	3
Co			1	0.012	ug/l	91.27	1,500.06	9.862E-03	Pulse	0.50	3
Ni			1	0.176	ug/l	7.80	796.02	5.230E-03	Pulse	0.50	3
Cu			1	-0.477	ug/l	-2.94	6,080.31	3.998E-02	Pulse	0.50	3
Zn			1	0.839	ug/l	7.67	1,518.73	6.731E-03	Pulse	1.00	3
Cd			1	-0.010	ug/l	-186.19	206.00	9.142E-04	Pulse	0.50	3
Al			1	4.875	ug/l	6.42	1,409.72	5.764E-03	Pulse	1.00	3
Se			1	0.144	ug/l	31.40	55.56	2.460E-04	Pulse	3.00	3
Sb			1	0.412	ug/l	3.51	2,779.55	1.232E-02	Pulse	1.00	3
Se			1	0.408	ug/l	4.49	33.44	1.482E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,064,032.92	2.01	82.2	Pulse	0.50	3
1	Sc		244,665.51	2.18	87.9	Pulse	0.30	3
1	Ge		152,115.48	2.55	85.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,514,032.06	2.07	82.8	Pulse	0.30	3
1	Tb		4,416,613.00	2.23	86.1	Pulse	0.50	3
1	Lu		3,443,355.08	2.16	83.2	Pulse	0.50	3
1	Ge		225,681.98	2.20	85.5	Pulse	0.30	3
1	Te		2.67	173.21	400.0	Pulse	0.50	3
1	Li		1,836.76	8.37	89.2	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:03
Sample Name	FC3879-3F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.361	ug/l	7.34	3,273.62	2.160E-02	Pulse	0.50	3
As			1	0.412	ug/l	5.28	356.00	2.349E-03	Pulse	1.00	3
Mo			1	1.284	ug/l	1.44	3,793.06	1.687E-02	Pulse	0.50	3
Pb			1	-0.021	ug/l	-29.10	4,646.98	1.517E-03	Pulse	1.00	3
Be			1	0.068	ug/l	43.30	5.50	2.273E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	41.67	85.33	3.800E-04	Pulse	0.50	3
Ba			1	14.932	ug/l	3.22	19,739.41	1.303E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	127.32	3,525.04	1.024E-03	Pulse	0.50	3
Sn			1	0.149	ug/l	24.52	1,966.79	1.298E-03	Pulse	0.30	3
Sr			1	352.156	ug/l	1.14	1,207,821.29	7.976E-01	Pulse	0.50	3
[Pb]			1	-0.010	ug/l	-65.86	2,236.15	6.498E-04	Pulse	0.50	3
Ca			1	61049.026	ug/l	0.69	1,107,113.75	4.574E+00	Pulse	0.50	3
Ti			1	0.118	ug/l	83.65	48.00	1.980E-04	Pulse	0.50	3
Na			1	2244.287	ug/l	1.07	1,497,097.21	6.185E+00	Pulse	1.00	3
Mg			1	1496.509	ug/l	0.83	513,868.65	2.123E+00	Pulse	1.00	3
K			1	2512.743	ug/l	1.01	887,067.00	3.665E+00	Pulse	1.00	3
V			1	2.488	ug/l	3.26	10,459.50	4.321E-02	Pulse	0.50	3
Mn			1	5.776	ug/l	1.36	16,625.11	1.097E-01	Pulse	0.50	3
Fe			1	29.054	ug/l	0.54	122,411.06	8.078E-01	Pulse	0.50	3
Co			1	0.034	ug/l	30.06	1,638.74	1.082E-02	Pulse	0.50	3
Ni			1	1.090	ug/l	2.25	2,350.15	1.551E-02	Pulse	0.50	3
Cu			1	0.094	ug/l	52.65	8,607.94	5.680E-02	Pulse	0.50	3
Zn			1	6.934	ug/l	2.26	6,740.52	2.997E-02	Pulse	1.00	3
Cd			1	-0.016	ug/l	-258.06	198.00	8.792E-04	Pulse	0.50	3
Al			1	3.007	ug/l	11.29	1,112.70	4.598E-03	Pulse	1.00	3
Se			1	0.693	ug/l	12.89	82.56	3.672E-04	Pulse	3.00	3
Sb			1	0.323	ug/l	9.32	2,416.83	1.075E-02	Pulse	1.00	3
Se			1	1.181	ug/l	20.22	51.66	2.297E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,062,544.33	2.38	82.1	Pulse	0.50	3
1	Sc		242,084.71	1.58	86.9	Pulse	0.30	3
1	Ge		151,541.87	1.38	85.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,514,490.77	2.28	82.8	Pulse	0.30	3
1	Tb		4,387,652.00	2.60	85.6	Pulse	0.50	3
1	Lu		3,442,184.92	2.20	83.1	Pulse	0.50	3
1	Ge		224,843.39	1.54	85.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,885.66	5.48	91.5	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:07
Sample Name FC3879-4F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.178	ug/l	18.55	2,490.83	1.638E-02	Pulse	0.50	3
As			1	0.447	ug/l	15.88	377.34	2.481E-03	Pulse	1.00	3
Mo			1	3.800	ug/l	3.00	10,137.43	4.501E-02	Pulse	0.50	3
Pb			1	0.021	ug/l	18.71	5,142.78	1.694E-03	Pulse	1.00	3
Be			1	0.140	ug/l	22.13	7.67	3.159E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	35.53	96.67	4.292E-04	Pulse	0.50	3
Ba			1	14.274	ug/l	1.41	18,828.46	1.247E-02	Pulse	0.50	3
Tl			1	-0.007	ug/l	-98.46	3,363.68	9.786E-04	Pulse	0.50	3
Sn			1	0.193	ug/l	36.67	2,084.58	1.380E-03	Pulse	0.30	3
Sr			1	297.472	ug/l	0.42	1,017,350.25	6.739E-01	Pulse	0.50	3
[Pb]			1	0.020	ug/l	52.95	2,404.85	6.998E-04	Pulse	0.50	3
Ca			1	66469.236	ug/l	0.94	1,210,412.92	4.980E+00	Pulse	0.50	3
Ti			1	0.183	ug/l	69.34	56.00	2.295E-04	Pulse	0.50	3
Na			1	3161.715	ug/l	0.87	2,114,391.37	8.698E+00	Pulse	1.00	3
Mg			1	1693.728	ug/l	0.70	583,966.71	2.402E+00	Pulse	1.00	3
K			1	2087.628	ug/l	1.41	745,745.31	3.068E+00	Pulse	1.00	3
V			1	4.168	ug/l	2.05	16,553.04	6.810E-02	Pulse	0.50	3
Mn			1	3.434	ug/l	2.57	10,207.39	6.719E-02	Pulse	0.50	3
Fe			1	12.575	ug/l	1.12	60,246.25	3.965E-01	Pulse	0.50	3
Co			1	0.028	ug/l	8.10	1,602.07	1.054E-02	Pulse	0.50	3
Ni			1	0.272	ug/l	5.04	957.36	6.300E-03	Pulse	0.50	3
Cu			1	-0.156	ug/l	-19.83	7,508.81	4.943E-02	Pulse	0.50	3
Zn			1	1.336	ug/l	1.84	1,942.77	8.626E-03	Pulse	1.00	3
Cd			1	-0.017	ug/l	-218.76	196.67	8.760E-04	Pulse	0.50	3
Al			1	6.027	ug/l	4.37	1,576.73	6.484E-03	Pulse	1.00	3
Se			1	0.101	ug/l	84.79	53.22	2.364E-04	Pulse	3.00	3
Sb			1	0.405	ug/l	2.78	2,743.54	1.218E-02	Pulse	1.00	3
Se			1	0.367	ug/l	50.67	32.45	1.438E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,036,214.92	2.21	81.4	Pulse	0.50	3
1	Sc		243,108.65	2.06	87.3	Pulse	0.30	3
1	Ge		151,962.74	2.16	85.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,509,645.19	1.61	82.6	Pulse	0.30	3
1	Tb		4,379,849.00	2.33	85.4	Pulse	0.50	3
1	Lu		3,435,811.83	1.96	83.0	Pulse	0.50	3
1	Ge		225,183.13	1.82	85.3	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,846.76	1.10	89.6	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:11
Sample Name	FC3879-5F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.973	ug/l	3.72	5,807.55	3.903E-02	Pulse	0.50	3
As			1	2.007	ug/l	2.46	1,232.37	8.285E-03	Pulse	1.00	3
Mo			1	0.479	ug/l	10.49	1,743.42	7.873E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	96.16	4,898.04	1.657E-03	Pulse	1.00	3
Be			1	0.202	ug/l	31.27	9.50	3.923E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	34.96	90.67	4.100E-04	Pulse	0.50	3
Ba			1	164.453	ug/l	1.05	205,891.60	1.411E-01	Pulse	0.50	3
Tl			1	0.036	ug/l	25.72	4,048.49	1.189E-03	Pulse	0.50	3
Sn			1	0.163	ug/l	21.78	1,931.22	1.323E-03	Pulse	0.30	3
Sr			1	727.111	ug/l	0.72	2,402,704.00	1.646E+00	Pulse	0.50	3
[Pb]			1	-0.011	ug/l	-49.10	2,207.48	6.484E-04	Pulse	0.50	3
Ca			1	110794.834	ug/l	0.72	2,006,540.54	8.300E+00	Pulse	0.50	3
Ti			1	0.632	ug/l	35.38	108.00	4.465E-04	Pulse	0.50	3
Na			1	11198.298	ug/l	0.47	7,426,337.33	3.072E+01	Analog	1.00	3
Mg			1	6281.978	ug/l	0.80	2,152,487.42	8.903E+00	Pulse	1.00	3
K			1	8213.889	ug/l	0.70	2,820,195.58	1.167E+01	Pulse	1.00	3
V			1	2.149	ug/l	1.80	9,233.54	3.819E-02	Pulse	0.50	3
Mn			1	42.835	ug/l	0.17	116,476.06	7.829E-01	Pulse	0.50	3
Fe			1	17175.599	ug/l	0.95	63,785,360.00	4.287E+02	Analog	0.50	3
Co			1	0.786	ug/l	4.65	6,439.76	4.329E-02	Pulse	0.50	3
Ni			1	0.868	ug/l	7.42	1,936.10	1.302E-02	Pulse	0.50	3
Cu			1	-0.607	ug/l	-2.52	5,376.76	3.613E-02	Pulse	0.50	3
Zn			1	12.173	ug/l	0.56	11,058.17	4.995E-02	Pulse	1.00	3
Cd			1	-0.037	ug/l	-62.59	168.00	7.599E-04	Pulse	0.50	3
Al			1	23.572	ug/l	2.15	4,215.79	1.744E-02	Pulse	1.00	3
Se			1	0.697	ug/l	27.87	81.44	3.682E-04	Pulse	3.00	3
Sb			1	0.021	ug/l	37.74	1,207.71	5.455E-03	Pulse	1.00	3
Se			1	1.878	ug/l	1.12	67.11	3.031E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,954,570.33	1.94	79.2	Pulse	0.50	3
1	Sc		241,777.59	1.25	86.8	Pulse	0.30	3
1	Ge		148,782.57	1.48	83.7	Pulse	0.30	3
1	In		1,459,691.96	1.91	79.8	Pulse	0.30	3
1	Tb		4,335,359.00	2.70	84.6	Pulse	0.50	3
1	Lu		3,403,840.42	2.40	82.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		221,366.53	1.29	83.8	Pulse	0.30	3
1	Te		4.00	50.00	600.0	Pulse	0.50	3
1	Li		1,725.64	3.96	83.8	Pulse	0.30	3

Quantitation Report

File Name	069CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:14
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.476	ug/l	1.29	480,132.27	2.945E+00	Pulse	0.50	3
As			1	49.946	ug/l	0.61	60,728.49	3.725E-01	Pulse	1.00	3
Mo			1	49.882	ug/l	1.66	270,521.14	1.118E+00	Pulse	0.50	3
Pb			1	50.369	ug/l	0.72	1,328,433.83	4.241E-01	Pulse	1.00	3
Be			1	54.718	ug/l	1.43	3,560.65	1.347E-02	Pulse	2.00	3
Ag			1	51.000	ug/l	1.00	839,618.31	3.470E+00	Pulse	0.50	3
Ba			1	49.756	ug/l	0.97	135,781.26	8.546E-02	Pulse	0.50	3
Tl			1	53.621	ug/l	1.06	1,873,414.37	5.239E-01	Pulse	0.50	3
Sn			1	49.557	ug/l	0.45	297,196.08	1.871E-01	Pulse	0.30	3
Sr			1	50.477	ug/l	0.15	364,082.27	2.292E-01	Pulse	0.50	3
[Pb]			1	51.572	ug/l	1.05	625,470.60	1.749E-01	Pulse	0.50	3
Ca			1	4973.378	ug/l	0.67	197,163.74	7.459E-01	Pulse	0.50	3
Ti			1	48.811	ug/l	1.98	12,494.01	4.726E-02	Pulse	0.50	3
Na			1	5458.487	ug/l	0.36	7,915,790.17	2.995E+01	Analog	1.00	3
Mg			1	4939.508	ug/l	0.67	3,700,730.17	1.400E+01	Pulse	1.00	3
K			1	4887.219	ug/l	0.33	3,662,404.92	1.385E+01	Pulse	1.00	3
V			1	49.752	ug/l	0.54	391,379.38	1.481E+00	Pulse	0.50	3
Mn			1	50.543	ug/l	1.16	300,107.72	1.841E+00	Pulse	0.50	3
Fe			1	5456.240	ug/l	0.58	44,414,206.67	2.724E+02	Analog	0.50	3
Co			1	50.843	ug/l	0.84	717,765.44	4.403E+00	Pulse	0.50	3
Ni			1	50.119	ug/l	1.12	184,427.55	1.131E+00	Pulse	0.50	3
Cu			1	49.961	ug/l	1.09	488,728.46	2.998E+00	Pulse	0.50	3
Zn			1	50.663	ug/l	1.91	94,355.87	3.899E-01	Pulse	1.00	3
Cd			1	49.843	ug/l	1.27	139,731.50	5.774E-01	Pulse	0.50	3
Al			1	4789.966	ug/l	0.93	1,581,541.21	5.983E+00	Pulse	1.00	3
Se			1	48.808	ug/l	3.99	5,271.39	2.179E-02	Pulse	3.00	3
Sb			1	48.928	ug/l	1.42	416,251.14	1.720E+00	Pulse	1.00	3
Se			1	49.354	ug/l	2.73	2,543.39	1.051E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,132,076.00	0.48	84.0	Pulse	0.50	3
1	Sc		264,337.57	0.47	94.9	Pulse	0.30	3
1	Ge		163,025.81	0.87	91.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,588,757.33	1.01	86.9	Pulse	0.30	3
1	Tb		4,554,460.00	0.85	88.8	Pulse	0.50	3
1	Lu		3,576,199.00	0.57	86.4	Pulse	0.50	3
1	Ge		241,990.09	0.86	91.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,894.54	7.39	92.0	Pulse	0.30	3

Quantitation Report

File Name 070_CCV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:18
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	103.591	ug/l	1.70	941,777.98	5.915E+00	Pulse	0.50	3
As			1	100.514	ug/l	0.77	119,220.30	7.488E-01	Pulse	1.00	3
Mo			1	100.127	ug/l	0.69	532,382.71	2.242E+00	Pulse	0.50	3
Pb			1	100.169	ug/l	0.93	2,547,202.67	8.419E-01	Pulse	1.00	3
Be			1	110.950	ug/l	0.79	7,035.22	2.730E-02	Pulse	2.00	3
Ag			1	100.204	ug/l	0.22	1,619,044.08	6.817E+00	Pulse	0.50	3
Ba			1	99.297	ug/l	0.25	264,927.53	1.703E-01	Pulse	0.50	3
Tl			1	104.149	ug/l	0.26	3,594,406.33	1.017E+00	Pulse	0.50	3
Sn			1	98.898	ug/l	0.92	579,180.22	3.723E-01	Pulse	0.30	3
Sr			1	100.638	ug/l	0.71	709,668.69	4.562E-01	Pulse	0.50	3
[Pb]			1	100.798	ug/l	1.14	1,206,528.17	3.412E-01	Pulse	0.50	3
Ca			1	9773.049	ug/l	1.13	377,527.73	1.465E+00	Pulse	0.50	3
Ti			1	99.154	ug/l	0.95	24,706.23	9.586E-02	Pulse	0.50	3
Na			1	11022.842	ug/l	0.63	15,575,554.00	6.044E+01	Analog	1.00	3
Mg			1	10676.878	ug/l	0.72	7,798,051.67	3.026E+01	Analog	1.00	3
K			1	10419.990	ug/l	0.16	7,572,675.00	2.938E+01	Analog	1.00	3
V			1	100.695	ug/l	1.13	770,618.21	2.990E+00	Pulse	0.50	3
Mn			1	102.384	ug/l	1.32	592,932.23	3.724E+00	Pulse	0.50	3
Fe			1	11175.682	ug/l	1.12	88,828,013.33	5.579E+02	Analog	0.50	3
Co			1	102.615	ug/l	1.49	1,413,205.46	8.876E+00	Pulse	0.50	3
Ni			1	100.781	ug/l	1.12	361,644.47	2.271E+00	Pulse	0.50	3
Cu			1	99.297	ug/l	1.16	940,104.10	5.905E+00	Pulse	0.50	3
Zn			1	98.792	ug/l	0.37	179,791.57	7.570E-01	Pulse	1.00	3
Cd			1	98.600	ug/l	0.72	271,084.89	1.141E+00	Pulse	0.50	3
Al			1	9507.592	ug/l	1.50	3,059,830.75	1.187E+01	Pulse	1.00	3
Se			1	98.339	ug/l	0.70	10,373.37	4.368E-02	Pulse	3.00	3
Sb			1	97.927	ug/l	0.12	816,447.42	3.438E+00	Pulse	1.00	3
Se			1	99.442	ug/l	1.63	5,004.77	2.107E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,025,507.50	0.93	81.2	Pulse	0.50	3
1	Sc		257,720.75	0.26	92.5	Pulse	0.30	3
1	Ge		159,213.07	0.25	89.6	Pulse	0.30	3
1	In		1,555,634.59	0.48	85.1	Pulse	0.30	3
1	Tb		4,469,644.67	0.49	87.2	Pulse	0.50	3
1	Lu		3,535,889.83	0.43	85.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		237,496.94	0.93	89.9	Pulse	0.30	3
1	Te		3.33	124.90	500.0	Pulse	0.50	3
1	Li		1,962.32	1.23	95.3	Pulse	0.30	3

Quantitation Report

File Name	071_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:22
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.009	ug/l	133.59	1,870.76	1.183E-02	Pulse	0.50	3
As			1	0.027	ug/l	49.75	161.00	1.019E-03	Pulse	1.00	3
Mo			1	0.145	ug/l	14.33	1,352.05	5.762E-03	Pulse	0.50	3
Pb			1	-0.005	ug/l	-315.24	4,811.02	1.568E-03	Pulse	1.00	3
Be			1	0.061	ug/l	22.98	7.50	2.931E-05	Pulse	2.00	3
Ag			1	0.022	ug/l	68.06	398.67	1.705E-03	Pulse	0.50	3
Ba			1	0.017	ug/l	70.81	429.34	2.769E-04	Pulse	0.50	3
Tl			1	0.026	ug/l	67.98	4,367.25	1.264E-03	Pulse	0.50	3
Sn			1	0.207	ug/l	15.44	2,785.79	1.795E-03	Pulse	0.30	3
Sr			1	0.019	ug/l	87.44	1,218.71	7.860E-04	Pulse	0.50	3
[Pb]			1	-0.005	ug/l	-216.40	2,243.49	6.492E-04	Pulse	0.50	3
Ca			1	0.703	ug/l	190.68	242.00	9.461E-04	Pulse	0.50	3
Ti			1	-0.033	ug/l	-131.75	28.00	1.095E-04	Pulse	0.50	3
Na			1	3.890	ug/l	45.44	14,639.45	5.724E-02	Pulse	1.00	3
Mg			1	1.565	ug/l	98.57	1,770.11	6.932E-03	Pulse	1.00	3
K			1	4.870	ug/l	22.22	38,943.53	1.522E-01	Pulse	1.00	3
V			1	-0.015	ug/l	-59.67	1,513.40	5.914E-03	Pulse	0.50	3
Mn			1	-0.010	ug/l	-156.03	700.68	4.430E-03	Pulse	0.50	3
Fe			1	2.389	ug/l	58.09	31,823.14	2.019E-01	Pulse	0.50	3
Co			1	0.018	ug/l	92.10	1,718.08	1.088E-02	Pulse	0.50	3
Ni			1	-0.004	ug/l	-525.21	499.34	3.161E-03	Pulse	0.50	3
Cu			1	-0.090	ug/l	-34.01	7,708.22	4.874E-02	Pulse	0.50	3
Zn			1	-0.042	ug/l	-26.10	753.35	3.212E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	118.78	259.33	1.106E-03	Pulse	0.50	3
Al			1	4.589	ug/l	27.49	2,161.12	8.450E-03	Pulse	1.00	3
Se			1	0.130	ug/l	71.25	63.78	2.718E-04	Pulse	3.00	3
Sb			1	0.044	ug/l	13.96	1,554.74	6.629E-03	Pulse	1.00	3
Se			1	0.153	ug/l	43.73	32.22	1.374E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,070,724.17	1.29	82.4	Pulse	0.50	3
1	Sc		255,892.59	0.54	91.9	Pulse	0.30	3

Quantitation Report

1	Ge		158,193.73	1.58	89.0	Pulse	0.30	3
1	In		1,551,574.28	1.14	84.8	Pulse	0.30	3
1	Tb		4,346,785.17	0.65	84.8	Pulse	0.50	3
1	Lu		3,456,691.58	0.82	83.5	Pulse	0.50	3
1	Ge		234,560.30	0.83	88.8	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		2,070.12	2.48	100.5	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:26
Sample Name	FC3879-6F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.263	ug/l	2.64	2,773.54	1.879E-02	Pulse	0.50	3
As			1	6.452	ug/l	2.55	3,664.36	2.482E-02	Pulse	1.00	3
Mo			1	2.076	ug/l	4.36	5,586.19	2.573E-02	Pulse	0.50	3
Pb			1	-0.032	ug/l	-19.20	4,262.54	1.474E-03	Pulse	1.00	3
Be			1	0.058	ug/l	66.03	5.17	2.144E-05	Pulse	2.00	3
Ag			1	0.013	ug/l	15.62	146.00	6.719E-04	Pulse	0.50	3
Ba			1	15.834	ug/l	1.70	19,794.83	1.381E-02	Pulse	0.50	3
Tl			1	0.009	ug/l	83.22	3,503.04	1.055E-03	Pulse	0.50	3
Sn			1	0.487	ug/l	11.83	2,771.34	1.931E-03	Pulse	0.30	3
Sr			1	264.824	ug/l	0.79	860,296.29	6.000E-01	Pulse	0.50	3
[Pb]			1	-0.049	ug/l	-15.03	1,938.78	5.835E-04	Pulse	0.50	3
Ca			1	57407.386	ug/l	0.43	1,035,707.25	4.301E+00	Pulse	0.50	3
Ti			1	1.120	ug/l	11.73	164.00	6.818E-04	Pulse	0.50	3
Na			1	91928.323	ug/l	1.13	60,656,097.33	2.519E+02	Analog	1.00	3
Mg			1	1656.065	ug/l	0.67	565,644.23	2.349E+00	Pulse	1.00	3
K			1	5151.405	ug/l	1.06	1,774,072.58	7.367E+00	Pulse	1.00	3
V			1	8.372	ug/l	2.09	31,403.21	1.304E-01	Pulse	0.50	3
Mn			1	18.758	ug/l	0.51	50,995.19	3.455E-01	Pulse	0.50	3
Fe			1	129.483	ug/l	0.58	489,144.26	3.314E+00	Pulse	0.50	3
Co			1	0.043	ug/l	9.22	1,653.41	1.120E-02	Pulse	0.50	3
Ni			1	0.401	ug/l	5.26	1,145.37	7.763E-03	Pulse	0.50	3
Cu			1	-0.526	ug/l	-0.89	5,686.85	3.853E-02	Pulse	0.50	3
Zn			1	0.914	ug/l	5.44	1,523.40	7.015E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	34452.35	211.33	9.748E-04	Pulse	0.50	3
Al			1	1.533	ug/l	17.53	885.35	3.678E-03	Pulse	1.00	3
Se			1	0.527	ug/l	12.23	71.78	3.305E-04	Pulse	3.00	3
Sb			1	0.230	ug/l	3.26	1,982.77	9.132E-03	Pulse	1.00	3
Se			1	0.891	ug/l	52.42	43.33	1.991E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,430.67	2.70	77.6	Pulse	0.50	3
1	Sc		240,831.15	2.00	86.5	Pulse	0.30	3
1	Ge		147,581.13	1.24	83.0	Pulse	0.30	3
1	In		1,433,984.04	2.49	78.4	Pulse	0.30	3
1	Tb		4,221,128.08	2.38	82.3	Pulse	0.50	3
1	Lu		3,322,962.17	2.52	80.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		217,089.13	2.04	82.2	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,793.43	9.61	87.1	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:30
Sample Name FC3879-7F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.236	ug/l	9.49	2,682.86	1.803E-02	Pulse	0.50	3
As			1	0.461	ug/l	7.65	376.67	2.532E-03	Pulse	1.00	3
Mo			1	0.967	ug/l	3.68	2,942.24	1.333E-02	Pulse	0.50	3
Pb			1	-0.040	ug/l	-5.26	4,289.88	1.439E-03	Pulse	1.00	3
Be			1	0.066	ug/l	176.21	5.33	2.243E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	26.21	91.33	4.134E-04	Pulse	0.50	3
Ba			1	36.431	ug/l	0.70	46,298.94	3.144E-02	Pulse	0.50	3
Tl			1	0.004	ug/l	92.79	3,479.03	1.033E-03	Pulse	0.50	3
Sn			1	0.234	ug/l	17.10	2,145.69	1.456E-03	Pulse	0.30	3
Sr			1	290.095	ug/l	0.43	967,700.86	6.572E-01	Pulse	0.50	3
[Pb]			1	-0.043	ug/l	-29.67	2,001.46	5.945E-04	Pulse	0.50	3
Ca			1	86832.544	ug/l	0.91	1,548,959.58	6.505E+00	Pulse	0.50	3
Ti			1	0.131	ug/l	41.02	48.67	2.044E-04	Pulse	0.50	3
Na			1	2357.947	ug/l	1.34	1,546,820.33	6.496E+00	Pulse	1.00	3
Mg			1	2628.741	ug/l	0.99	887,501.96	3.727E+00	Pulse	1.00	3
K			1	1937.756	ug/l	1.31	680,481.52	2.858E+00	Pulse	1.00	3
V			1	6.477	ug/l	1.48	24,362.52	1.023E-01	Pulse	0.50	3
Mn			1	0.031	ug/l	70.56	798.02	5.368E-03	Pulse	0.50	3
Fe			1	2.565	ug/l	1.28	21,818.91	1.467E-01	Pulse	0.50	3
Co			1	0.005	ug/l	143.93	1,421.39	9.558E-03	Pulse	0.50	3
Ni			1	1.600	ug/l	5.49	3,162.93	2.125E-02	Pulse	0.50	3
Cu			1	-0.048	ug/l	-45.67	7,824.94	5.259E-02	Pulse	0.50	3
Zn			1	3.302	ug/l	2.01	3,557.67	1.612E-02	Pulse	1.00	3
Cd			1	-0.003	ug/l	-1062.81	212.00	9.591E-04	Pulse	0.50	3
Al			1	2.616	ug/l	13.00	1,036.70	4.354E-03	Pulse	1.00	3
Se			1	0.603	ug/l	30.31	76.66	3.474E-04	Pulse	3.00	3
Sb			1	0.177	ug/l	8.57	1,810.09	8.203E-03	Pulse	1.00	3
Se			1	1.027	ug/l	8.48	47.11	2.134E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,981,480.17	2.25	80.0	Pulse	0.50	3
1	Sc		238,156.53	2.12	85.5	Pulse	0.30	3
1	Ge		148,780.81	2.10	83.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,472,505.71	2.00	80.5	Pulse	0.30	3
1	Tb		4,318,318.83	2.42	84.2	Pulse	0.50	3
1	Lu		3,367,930.33	2.12	81.3	Pulse	0.50	3
1	Ge		220,646.33	1.83	83.6	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,853.43	4.97	90.0	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:33
Sample Name FC3879-8F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.023	ug/l	11.14	5,998.28	4.046E-02	Pulse	0.50	3
As			1	0.503	ug/l	6.63	399.01	2.691E-03	Pulse	1.00	3
Mo			1	1.320	ug/l	1.63	3,833.74	1.728E-02	Pulse	0.50	3
Pb			1	-0.025	ug/l	-14.37	4,490.26	1.501E-03	Pulse	1.00	3
Be			1	0.057	ug/l	137.38	5.17	2.135E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	25.15	104.00	4.685E-04	Pulse	0.50	3
Ba			1	29.493	ug/l	1.58	37,498.71	2.550E-02	Pulse	0.50	3
Tl			1	-0.010	ug/l	-30.91	3,254.32	9.619E-04	Pulse	0.50	3
Sn			1	0.205	ug/l	12.62	2,061.24	1.401E-03	Pulse	0.30	3
Sr			1	255.824	ug/l	0.81	852,311.98	5.796E-01	Pulse	0.50	3
[Pb]			1	-0.045	ug/l	-25.10	1,998.13	5.906E-04	Pulse	0.50	3
Ca			1	54491.416	ug/l	1.31	984,464.63	4.082E+00	Pulse	0.50	3
Ti			1	0.544	ug/l	33.68	97.33	4.040E-04	Pulse	0.50	3
Na			1	10869.783	ug/l	1.45	7,190,251.00	2.982E+01	Analog	1.00	3
Mg			1	2102.234	ug/l	0.55	718,937.96	2.981E+00	Pulse	1.00	3
K			1	3406.191	ug/l	1.51	1,186,069.25	4.918E+00	Pulse	1.00	3
V			1	1.247	ug/l	0.77	5,988.26	2.483E-02	Pulse	0.50	3
Mn			1	12.481	ug/l	0.62	34,333.56	2.315E-01	Pulse	0.50	3
Fe			1	130.509	ug/l	0.47	495,302.88	3.340E+00	Pulse	0.50	3
Co			1	0.035	ug/l	29.02	1,608.07	1.085E-02	Pulse	0.50	3
Ni			1	0.259	ug/l	6.75	912.69	6.155E-03	Pulse	0.50	3
Cu			1	-0.493	ug/l	-5.59	5,856.24	3.949E-02	Pulse	0.50	3
Zn			1	2.216	ug/l	1.06	2,658.19	1.198E-02	Pulse	1.00	3
Cd			1	-0.024	ug/l	-32.61	185.33	8.349E-04	Pulse	0.50	3
Al			1	8.762	ug/l	5.79	1,975.77	8.191E-03	Pulse	1.00	3
Se			1	0.029	ug/l	298.22	48.89	2.205E-04	Pulse	3.00	3
Sb			1	0.026	ug/l	63.03	1,231.38	5.547E-03	Pulse	1.00	3
Se			1	0.351	ug/l	63.96	31.55	1.422E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,992,075.25	2.54	80.3	Pulse	0.50	3
1	Sc		241,178.09	1.28	86.6	Pulse	0.30	3
1	Ge		148,301.30	0.99	83.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,470,576.47	2.02	80.4	Pulse	0.30	3
1	Tb		4,319,157.58	2.53	84.2	Pulse	0.50	3
1	Lu		3,382,834.92	2.45	81.7	Pulse	0.50	3
1	Ge		221,889.38	1.26	84.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,844.54	5.31	89.5	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:37
Sample Name FC3879-9F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.172	ug/l	5.40	2,390.82	1.622E-02	Pulse	0.50	3
As			1	0.398	ug/l	12.73	338.67	2.298E-03	Pulse	1.00	3
Mo			1	1.155	ug/l	2.42	3,402.32	1.543E-02	Pulse	0.50	3
Pb			1	-0.026	ug/l	-48.52	4,430.58	1.496E-03	Pulse	1.00	3
Be			1	0.166	ug/l	44.85	8.33	3.470E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	22.12	82.67	3.749E-04	Pulse	0.50	3
Ba			1	27.131	ug/l	0.61	34,207.57	2.348E-02	Pulse	0.50	3
Tl			1	-0.017	ug/l	-27.77	3,108.96	9.279E-04	Pulse	0.50	3
Sn			1	0.163	ug/l	14.13	1,926.78	1.322E-03	Pulse	0.30	3
Sr			1	262.799	ug/l	0.74	867,363.04	5.954E-01	Pulse	0.50	3
[Pb]			1	-0.043	ug/l	-25.41	1,989.46	5.938E-04	Pulse	0.50	3
Ca			1	55556.271	ug/l	1.41	998,670.31	4.162E+00	Pulse	0.50	3
Ti			1	0.523	ug/l	33.18	94.67	3.937E-04	Pulse	0.50	3
Na			1	12637.800	ug/l	1.93	8,316,017.83	3.466E+01	Analog	1.00	3
Mg			1	2115.757	ug/l	1.05	719,922.88	3.000E+00	Pulse	1.00	3
K			1	3498.651	ug/l	1.33	1,211,290.75	5.048E+00	Pulse	1.00	3
V			1	1.242	ug/l	5.40	5,937.59	2.475E-02	Pulse	0.50	3
Mn			1	12.396	ug/l	1.68	33,878.09	2.300E-01	Pulse	0.50	3
Fe			1	116.192	ug/l	0.66	439,420.30	2.983E+00	Pulse	0.50	3
Co			1	0.018	ug/l	39.33	1,489.40	1.011E-02	Pulse	0.50	3
Ni			1	0.242	ug/l	16.23	879.36	5.972E-03	Pulse	0.50	3
Cu			1	-0.640	ug/l	-1.09	5,183.38	3.518E-02	Pulse	0.50	3
Zn			1	1.500	ug/l	6.82	2,040.45	9.249E-03	Pulse	1.00	3
Cd			1	-0.023	ug/l	-52.07	186.00	8.441E-04	Pulse	0.50	3
Al			1	8.108	ug/l	2.37	1,867.42	7.783E-03	Pulse	1.00	3
Se			1	-0.023	ug/l	-222.58	46.11	2.090E-04	Pulse	3.00	3
Sb			1	0.022	ug/l	6.96	1,209.04	5.483E-03	Pulse	1.00	3
Se			1	0.470	ug/l	38.19	34.11	1.547E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,962,613.25	2.32	79.5	Pulse	0.50	3
1	Sc		239,986.35	1.95	86.2	Pulse	0.30	3
1	Ge		147,335.27	1.41	82.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,456,834.11	1.77	79.7	Pulse	0.30	3
1	Tb		4,265,574.33	1.85	83.2	Pulse	0.50	3
1	Lu		3,350,619.42	2.85	80.9	Pulse	0.50	3
1	Ge		220,515.10	1.66	83.5	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,811.20	0.70	87.9	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:41
Sample Name FC3879-10F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.121	ug/l	10.55	2,174.80	1.475E-02	Pulse	0.50	3
As			1	2.204	ug/l	4.77	1,329.72	9.017E-03	Pulse	1.00	3
Mo			1	2.398	ug/l	3.28	6,429.79	2.933E-02	Pulse	0.50	3
Pb			1	-0.034	ug/l	-25.87	4,372.57	1.465E-03	Pulse	1.00	3
Be			1	0.066	ug/l	13.19	5.33	2.251E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	51.10	100.67	4.605E-04	Pulse	0.50	3
Ba			1	22.218	ug/l	0.20	28,161.86	1.927E-02	Pulse	0.50	3
Tl			1	-0.007	ug/l	-44.17	3,280.32	9.764E-04	Pulse	0.50	3
Sn			1	0.161	ug/l	13.55	1,927.89	1.319E-03	Pulse	0.30	3
Sr			1	245.529	ug/l	0.51	812,974.85	5.563E-01	Pulse	0.50	3
[Pb]			1	-0.032	ug/l	-70.17	2,058.80	6.130E-04	Pulse	0.50	3
Ca			1	77162.037	ug/l	0.71	1,369,131.04	5.780E+00	Pulse	0.50	3
Ti			1	0.121	ug/l	84.82	47.33	1.996E-04	Pulse	0.50	3
Na			1	4632.809	ug/l	0.65	3,014,899.42	1.273E+01	Pulse	1.00	3
Mg			1	2269.772	ug/l	0.89	762,319.25	3.218E+00	Pulse	1.00	3
K			1	1217.854	ug/l	0.65	437,590.20	1.848E+00	Pulse	1.00	3
V			1	1.078	ug/l	5.46	5,287.40	2.232E-02	Pulse	0.50	3
Mn			1	15.262	ug/l	1.19	41,582.94	2.820E-01	Pulse	0.50	3
Fe			1	325.038	ug/l	0.61	1,208,422.71	8.195E+00	Pulse	0.50	3
Co			1	0.326	ug/l	4.88	3,454.32	2.343E-02	Pulse	0.50	3
Ni			1	0.977	ug/l	1.93	2,100.12	1.424E-02	Pulse	0.50	3
Cu			1	-0.456	ug/l	-7.83	5,983.61	4.059E-02	Pulse	0.50	3
Zn			1	0.364	ug/l	19.51	1,078.36	4.920E-03	Pulse	1.00	3
Cd			1	-0.010	ug/l	-185.64	201.33	9.178E-04	Pulse	0.50	3
Al			1	0.035	ug/l	287.59	649.68	2.743E-03	Pulse	1.00	3
Se			1	-0.013	ug/l	-651.97	46.33	2.112E-04	Pulse	3.00	3
Sb			1	0.175	ug/l	5.00	1,790.09	8.162E-03	Pulse	1.00	3
Se			1	0.375	ug/l	41.55	31.78	1.447E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,984,926.17	2.10	80.1	Pulse	0.50	3
1	Sc		236,849.37	0.71	85.1	Pulse	0.30	3
1	Ge		147,459.47	1.85	82.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,461,222.89	1.40	79.9	Pulse	0.30	3
1	Tb		4,287,747.92	2.50	83.6	Pulse	0.50	3
1	Lu		3,359,262.25	2.59	81.1	Pulse	0.50	3
1	Ge		219,295.57	1.90	83.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,866.77	2.48	90.6	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:45
Sample Name FC3879-11F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.188	ug/l	25.08	2,426.83	1.666E-02	Pulse	0.50	3
As			1	0.349	ug/l	9.91	308.00	2.117E-03	Pulse	1.00	3
Mo			1	0.559	ug/l	5.42	1,894.10	8.765E-03	Pulse	0.50	3
Pb			1	-0.020	ug/l	-22.19	4,465.58	1.525E-03	Pulse	1.00	3
Be			1	0.108	ug/l	68.99	6.50	2.759E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	31.96	71.33	3.298E-04	Pulse	0.50	3
Ba			1	21.298	ug/l	1.54	26,577.48	1.849E-02	Pulse	0.50	3
Tl			1	-0.014	ug/l	-49.37	3,136.97	9.436E-04	Pulse	0.50	3
Sn			1	0.127	ug/l	16.39	1,805.66	1.256E-03	Pulse	0.30	3
Sr			1	286.596	ug/l	0.42	933,367.06	6.493E-01	Pulse	0.50	3
[Pb]			1	-0.052	ug/l	-21.23	1,923.45	5.780E-04	Pulse	0.50	3
Ca			1	61267.672	ug/l	0.10	1,080,551.12	4.590E+00	Pulse	0.50	3
Ti			1	0.634	ug/l	2.42	105.33	4.475E-04	Pulse	0.50	3
Na			1	27529.090	ug/l	0.51	17,764,089.33	7.546E+01	Analog	1.00	3
Mg			1	1522.798	ug/l	0.22	508,530.62	2.160E+00	Pulse	1.00	3
K			1	4825.341	ug/l	0.30	1,626,697.13	6.910E+00	Pulse	1.00	3
V			1	1.005	ug/l	1.30	4,999.32	2.123E-02	Pulse	0.50	3
Mn			1	17.691	ug/l	0.44	47,476.34	3.261E-01	Pulse	0.50	3
Fe			1	307.111	ug/l	0.95	1,127,830.08	7.747E+00	Pulse	0.50	3
Co			1	-0.002	ug/l	-131.40	1,350.05	9.274E-03	Pulse	0.50	3
Ni			1	0.020	ug/l	106.03	505.34	3.471E-03	Pulse	0.50	3
Cu			1	-0.657	ug/l	-1.59	5,045.34	3.466E-02	Pulse	0.50	3
Zn			1	0.421	ug/l	10.47	1,110.37	5.138E-03	Pulse	1.00	3
Cd			1	-0.033	ug/l	-68.83	169.33	7.851E-04	Pulse	0.50	3
Al			1	4.723	ug/l	1.92	1,334.72	5.670E-03	Pulse	1.00	3
Se			1	0.100	ug/l	60.74	51.00	2.361E-04	Pulse	3.00	3
Sb			1	0.020	ug/l	13.30	1,176.37	5.446E-03	Pulse	1.00	3
Se			1	0.510	ug/l	11.12	34.33	1.589E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,929,322.17	1.75	78.6	Pulse	0.50	3
1	Sc		235,417.98	0.80	84.5	Pulse	0.30	3
1	Ge		145,563.71	1.23	81.9	Pulse	0.30	3
1	In		1,437,590.43	1.30	78.6	Pulse	0.30	3
1	Tb		4,219,393.42	2.26	82.3	Pulse	0.50	3
1	Lu		3,326,191.67	2.18	80.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		216,040.16	1.81	81.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,797.87	9.28	87.3	Pulse	0.30	3

Quantitation Report

File Name	078SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 14:48
Sample Name	FC3879-12F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.335	ug/l	10.69	3,034.24	2.086E-02	Pulse	0.50	3
As			1	2.837	ug/l	5.57	1,654.07	1.137E-02	Pulse	1.00	3
Mo			1	2.724	ug/l	1.02	7,158.72	3.298E-02	Pulse	0.50	3
Pb			1	-0.015	ug/l	-23.42	4,530.61	1.546E-03	Pulse	1.00	3
Be			1	0.073	ug/l	82.96	5.50	2.331E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	37.26	101.33	4.666E-04	Pulse	0.50	3
Ba			1	16.916	ug/l	0.24	21,105.61	1.473E-02	Pulse	0.50	3
Tl			1	-0.004	ug/l	-90.69	3,268.99	9.916E-04	Pulse	0.50	3
Sn			1	0.147	ug/l	12.51	1,851.22	1.293E-03	Pulse	0.30	3
Sr			1	281.924	ug/l	0.97	915,014.35	6.387E-01	Pulse	0.50	3
[Pb]			1	-0.033	ug/l	-38.16	2,011.46	6.102E-04	Pulse	0.50	3
Ca			1	74700.962	ug/l	0.99	1,318,881.96	5.596E+00	Pulse	0.50	3
Ti			1	0.181	ug/l	47.18	54.00	2.288E-04	Pulse	0.50	3
Na			1	9585.735	ug/l	1.90	6,197,057.83	2.630E+01	Analog	1.00	3
Mg			1	1710.520	ug/l	0.99	571,764.98	2.426E+00	Pulse	1.00	3
K			1	1783.557	ug/l	1.33	622,482.50	2.641E+00	Pulse	1.00	3
V			1	5.549	ug/l	3.25	20,879.84	8.856E-02	Pulse	0.50	3
Mn			1	4.789	ug/l	0.61	13,349.94	9.179E-02	Pulse	0.50	3
Fe			1	10.375	ug/l	1.58	49,680.53	3.416E-01	Pulse	0.50	3
Co			1	0.000	ug/l	-3239.23	1,357.39	9.332E-03	Pulse	0.50	3
Ni			1	0.182	ug/l	10.29	770.02	5.295E-03	Pulse	0.50	3
Cu			1	-0.474	ug/l	-10.35	5,826.23	4.007E-02	Pulse	0.50	3
Zn			1	0.718	ug/l	5.80	1,360.72	6.268E-03	Pulse	1.00	3
Cd			1	-0.023	ug/l	-44.58	182.67	8.419E-04	Pulse	0.50	3
Al			1	3.190	ug/l	7.29	1,110.36	4.713E-03	Pulse	1.00	3
Se			1	-0.068	ug/l	-49.97	43.22	1.992E-04	Pulse	3.00	3
Sb			1	0.244	ug/l	3.77	2,033.12	9.365E-03	Pulse	1.00	3
Se			1	0.318	ug/l	47.69	30.11	1.387E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,930,869.50	2.05	78.6	Pulse	0.50	3
1	Sc		235,710.66	2.33	84.6	Pulse	0.30	3
1	Ge		145,427.21	1.14	81.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,432,548.55	1.42	78.3	Pulse	0.30	3
1	Tb		4,220,093.58	2.18	82.3	Pulse	0.50	3
1	Lu		3,296,055.83	2.20	79.6	Pulse	0.50	3
1	Ge		217,074.04	1.44	82.2	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,720.08	5.90	83.5	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:52
Sample Name FC3879-13F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.114	ug/l	13.57	2,119.46	1.456E-02	Pulse	0.50	3
As			1	0.402	ug/l	12.08	337.00	2.315E-03	Pulse	1.00	3
Mo			1	0.700	ug/l	11.96	2,230.81	1.034E-02	Pulse	0.50	3
Pb			1	-0.040	ug/l	-7.70	4,173.51	1.438E-03	Pulse	1.00	3
Be			1	0.098	ug/l	20.41	6.17	2.639E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	21.50	80.67	3.740E-04	Pulse	0.50	3
Ba			1	26.296	ug/l	0.71	32,515.09	2.277E-02	Pulse	0.50	3
Tl			1	-0.017	ug/l	-29.51	3,066.28	9.277E-04	Pulse	0.50	3
Sn			1	0.171	ug/l	41.64	1,911.22	1.338E-03	Pulse	0.30	3
Sr			1	301.892	ug/l	0.83	976,763.71	6.839E-01	Pulse	0.50	3
[Pb]			1	-0.042	ug/l	-50.34	1,966.12	5.952E-04	Pulse	0.50	3
Ca			1	54523.623	ug/l	1.25	954,375.23	4.085E+00	Pulse	0.50	3
Ti			1	0.641	ug/l	22.64	105.33	4.506E-04	Pulse	0.50	3
Na			1	43005.796	ug/l	0.54	27,537,235.33	1.179E+02	Analog	1.00	3
Mg			1	1565.075	ug/l	0.90	518,688.95	2.220E+00	Pulse	1.00	3
K			1	7446.067	ug/l	0.64	2,473,707.50	1.059E+01	Pulse	1.00	3
V			1	1.655	ug/l	1.50	7,212.02	3.087E-02	Pulse	0.50	3
Mn			1	17.842	ug/l	0.66	47,881.96	3.289E-01	Pulse	0.50	3
Fe			1	271.215	ug/l	1.35	997,465.14	6.852E+00	Pulse	0.50	3
Co			1	0.004	ug/l	413.50	1,386.06	9.526E-03	Pulse	0.50	3
Ni			1	0.209	ug/l	18.26	814.69	5.593E-03	Pulse	0.50	3
Cu			1	1.101	ug/l	1.06	12,586.78	8.647E-02	Pulse	0.50	3
Zn			1	1.845	ug/l	5.07	2,277.14	1.057E-02	Pulse	1.00	3
Cd			1	-0.045	ug/l	-34.01	154.00	7.141E-04	Pulse	0.50	3
Al			1	3.951	ug/l	7.96	1,212.04	5.188E-03	Pulse	1.00	3
Se			1	-0.034	ug/l	-214.49	44.55	2.067E-04	Pulse	3.00	3
Sb			1	0.004	ug/l	135.10	1,113.37	5.166E-03	Pulse	1.00	3
Se			1	0.566	ug/l	26.27	35.56	1.648E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,901,325.00	1.98	77.8	Pulse	0.50	3
1	Sc		233,641.12	0.51	83.9	Pulse	0.30	3
1	Ge		145,574.91	1.25	81.9	Pulse	0.30	3
1	In		1,428,393.94	2.09	78.1	Pulse	0.30	3
1	Tb		4,225,731.42	2.44	82.4	Pulse	0.50	3
1	Lu		3,306,651.58	2.69	79.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		215,533.23	1.23	81.6	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,771.20	6.69	86.0	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 14:56
Sample Name FC3879-14F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.672	ug/l	7.52	4,438.52	3.046E-02	Pulse	0.50	3
As			1	1.119	ug/l	5.03	725.68	4.982E-03	Pulse	1.00	3
Mo			1	1.310	ug/l	4.55	3,739.72	1.717E-02	Pulse	0.50	3
Pb			1	0.149	ug/l	8.64	6,642.97	2.234E-03	Pulse	1.00	3
Be			1	0.139	ug/l	57.99	7.33	3.140E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	38.05	84.67	3.891E-04	Pulse	0.50	3
Ba			1	10.822	ug/l	0.74	13,836.63	9.514E-03	Pulse	0.50	3
Tl			1	-0.004	ug/l	-144.00	3,289.00	9.911E-04	Pulse	0.50	3
Sn			1	0.114	ug/l	22.09	1,790.10	1.231E-03	Pulse	0.30	3
Sr			1	118.459	ug/l	0.33	390,880.34	2.688E-01	Pulse	0.50	3
[Pb]			1	0.155	ug/l	10.25	3,077.62	9.277E-04	Pulse	0.50	3
Ca			1	27055.526	ug/l	0.62	473,053.03	2.027E+00	Pulse	0.50	3
Ti			1	0.501	ug/l	28.90	89.33	3.830E-04	Pulse	0.50	3
Na			1	1660.401	ug/l	0.48	1,069,825.50	4.585E+00	Pulse	1.00	3
Mg			1	638.644	ug/l	0.49	211,720.48	9.074E-01	Pulse	1.00	3
K			1	1673.228	ug/l	0.89	580,163.04	2.487E+00	Pulse	1.00	3
V			1	4.703	ug/l	2.92	17,742.07	7.603E-02	Pulse	0.50	3
Mn			1	1.591	ug/l	2.67	4,909.97	3.370E-02	Pulse	0.50	3
Fe			1	29.095	ug/l	1.88	117,829.57	8.088E-01	Pulse	0.50	3
Co			1	0.042	ug/l	14.71	1,624.07	1.115E-02	Pulse	0.50	3
Ni			1	0.288	ug/l	5.88	944.03	6.481E-03	Pulse	0.50	3
Cu			1	3.492	ug/l	2.30	22,857.51	1.569E-01	Pulse	0.50	3
Zn			1	1.566	ug/l	4.85	2,069.78	9.503E-03	Pulse	1.00	3
Cd			1	-0.027	ug/l	-47.45	178.67	8.212E-04	Pulse	0.50	3
Al			1	36.283	ug/l	0.56	5,919.55	2.537E-02	Pulse	1.00	3
Se			1	0.198	ug/l	30.60	56.11	2.579E-04	Pulse	3.00	3
Sb			1	0.163	ug/l	1.14	1,730.42	7.948E-03	Pulse	1.00	3
Se			1	0.663	ug/l	18.90	38.11	1.751E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,973,852.83	2.51	79.8	Pulse	0.50	3
1	Sc		233,340.61	1.77	83.8	Pulse	0.30	3
1	Ge		145,666.50	1.44	81.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,454,322.55	1.90	79.5	Pulse	0.30	3
1	Tb		4,249,219.75	3.15	82.9	Pulse	0.50	3
1	Lu		3,316,743.25	2.64	80.1	Pulse	0.50	3
1	Ge		217,718.27	1.94	82.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,807.87	5.82	87.8	Pulse	0.30	3

Quantitation Report

File Name 081SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:00
Sample Name FC3879-15F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.483	ug/l	8.14	3,623.68	2.507E-02	Pulse	0.50	3
As			1	0.427	ug/l	3.25	347.67	2.406E-03	Pulse	1.00	3
Mo			1	1.456	ug/l	0.60	4,048.45	1.880E-02	Pulse	0.50	3
Pb			1	-0.035	ug/l	-11.51	4,178.51	1.461E-03	Pulse	1.00	3
Be			1	0.073	ug/l	59.76	5.50	2.328E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	76.25	71.33	3.308E-04	Pulse	0.50	3
Ba			1	24.959	ug/l	1.14	30,531.66	2.162E-02	Pulse	0.50	3
Tl			1	-0.015	ug/l	-16.08	3,088.96	9.399E-04	Pulse	0.50	3
Sn			1	0.145	ug/l	41.12	1,821.21	1.288E-03	Pulse	0.30	3
Sr			1	328.303	ug/l	0.77	1,050,197.88	7.437E-01	Pulse	0.50	3
[Pb]			1	-0.041	ug/l	-30.34	1,961.46	5.965E-04	Pulse	0.50	3
Ca			1	69556.441	ug/l	0.70	1,228,260.63	5.211E+00	Pulse	0.50	3
Ti			1	0.744	ug/l	10.73	118.00	5.002E-04	Pulse	0.50	3
Na			1	29697.769	ug/l	1.28	19,186,458.00	8.140E+01	Analog	1.00	3
Mg			1	1977.174	ug/l	0.99	660,912.23	2.804E+00	Pulse	1.00	3
K			1	3814.469	ug/l	1.54	1,294,298.46	5.491E+00	Pulse	1.00	3
V			1	1.379	ug/l	3.65	6,313.04	2.679E-02	Pulse	0.50	3
Mn			1	75.045	ug/l	0.63	197,664.13	1.368E+00	Pulse	0.50	3
Fe			1	4667.298	ug/l	1.22	16,841,372.00	1.166E+02	Analog	0.50	3
Co			1	0.047	ug/l	25.89	1,645.41	1.139E-02	Pulse	0.50	3
Ni			1	0.137	ug/l	26.08	691.35	4.788E-03	Pulse	0.50	3
Cu			1	-0.564	ug/l	-3.27	5,405.44	3.741E-02	Pulse	0.50	3
Zn			1	0.614	ug/l	2.01	1,264.38	5.870E-03	Pulse	1.00	3
Cd			1	-0.041	ug/l	-21.61	159.33	7.394E-04	Pulse	0.50	3
Al			1	6.630	ug/l	3.47	1,617.07	6.860E-03	Pulse	1.00	3
Se			1	0.056	ug/l	104.07	48.78	2.265E-04	Pulse	3.00	3
Sb			1	-0.016	ug/l	-5.39	1,037.03	4.815E-03	Pulse	1.00	3
Se			1	0.655	ug/l	21.06	37.56	1.743E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,858,948.42	2.18	76.7	Pulse	0.50	3
1	Sc		235,733.73	1.58	84.7	Pulse	0.30	3
1	Ge		144,494.52	1.55	81.3	Pulse	0.30	3
1	In		1,412,334.42	2.32	77.2	Pulse	0.30	3
1	Tb		4,187,108.42	2.45	81.7	Pulse	0.50	3
1	Lu		3,285,919.58	2.74	79.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		215,377.01	1.30	81.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,696.74	8.12	82.4	Pulse	0.30	3

Quantitation Report

File Name	082CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:04
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.434	ug/l	1.86	459,006.65	2.943E+00	Pulse	0.50	3
As			1	50.005	ug/l	1.85	58,168.56	3.729E-01	Pulse	1.00	3
Mo			1	49.815	ug/l	0.76	259,849.44	1.116E+00	Pulse	0.50	3
Pb			1	50.396	ug/l	0.81	1,285,038.08	4.244E-01	Pulse	1.00	3
Be			1	55.335	ug/l	2.04	3,463.63	1.362E-02	Pulse	2.00	3
Ag			1	50.754	ug/l	0.13	803,637.04	3.453E+00	Pulse	0.50	3
Ba			1	49.724	ug/l	0.88	129,610.30	8.541E-02	Pulse	0.50	3
Tl			1	53.396	ug/l	0.40	1,803,009.17	5.217E-01	Pulse	0.50	3
Sn			1	50.044	ug/l	1.05	286,666.72	1.889E-01	Pulse	0.30	3
Sr			1	50.893	ug/l	0.92	350,628.42	2.310E-01	Pulse	0.50	3
[Pb]			1	51.544	ug/l	0.96	604,197.77	1.748E-01	Pulse	0.50	3
Ca			1	4947.296	ug/l	2.08	188,648.46	7.420E-01	Pulse	0.50	3
Ti			1	49.676	ug/l	2.46	12,229.17	4.810E-02	Pulse	0.50	3
Na			1	5516.954	ug/l	0.77	7,695,664.00	3.027E+01	Analog	1.00	3
Mg			1	4959.483	ug/l	1.68	3,573,947.08	1.406E+01	Pulse	1.00	3
K			1	4884.648	ug/l	1.06	3,520,965.33	1.385E+01	Pulse	1.00	3
V			1	49.401	ug/l	2.20	373,806.56	1.470E+00	Pulse	0.50	3
Mn			1	50.356	ug/l	1.39	286,080.81	1.834E+00	Pulse	0.50	3
Fe			1	5518.848	ug/l	0.72	42,980,777.33	2.756E+02	Analog	0.50	3
Co			1	50.869	ug/l	0.88	687,076.48	4.405E+00	Pulse	0.50	3
Ni			1	50.438	ug/l	0.60	177,567.28	1.138E+00	Pulse	0.50	3
Cu			1	50.212	ug/l	0.87	469,911.76	3.013E+00	Pulse	0.50	3
Zn			1	50.395	ug/l	0.76	90,277.53	3.879E-01	Pulse	1.00	3
Cd			1	49.839	ug/l	1.11	134,387.43	5.774E-01	Pulse	0.50	3
Al			1	4787.145	ug/l	2.19	1,520,281.83	5.979E+00	Pulse	1.00	3
Se			1	48.720	ug/l	2.30	5,060.67	2.175E-02	Pulse	3.00	3
Sb			1	49.068	ug/l	0.86	401,501.52	1.725E+00	Pulse	1.00	3
Se			1	49.361	ug/l	0.98	2,446.94	1.051E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,028,213.67	0.32	81.2	Pulse	0.50	3
1	Sc		254,269.90	0.43	91.3	Pulse	0.30	3
1	Ge		155,977.62	0.74	87.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,517,551.99	0.54	83.0	Pulse	0.30	3
1	Tb		4,377,824.67	0.49	85.4	Pulse	0.50	3
1	Lu		3,456,239.42	0.65	83.5	Pulse	0.50	3
1	Ge		232,734.08	0.68	88.1	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,942.33	7.14	94.3	Pulse	0.30	3

Quantitation Report

File Name 083_CCV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:07
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	103.301	ug/l	0.77	898,541.17	5.899E+00	Pulse	0.50	3
As			1	99.613	ug/l	0.28	113,037.76	7.421E-01	Pulse	1.00	3
Mo			1	100.210	ug/l	0.48	509,809.38	2.243E+00	Pulse	0.50	3
Pb			1	100.015	ug/l	0.67	2,463,709.00	8.406E-01	Pulse	1.00	3
Be			1	112.009	ug/l	1.64	6,760.46	2.756E-02	Pulse	2.00	3
Ag			1	99.861	ug/l	0.34	1,543,882.87	6.794E+00	Pulse	0.50	3
Ba			1	99.703	ug/l	0.66	253,134.55	1.710E-01	Pulse	0.50	3
Tl			1	105.211	ug/l	0.44	3,492,949.08	1.027E+00	Pulse	0.50	3
Sn			1	99.442	ug/l	1.02	554,155.88	3.743E-01	Pulse	0.30	3
Sr			1	100.664	ug/l	1.09	675,497.98	4.563E-01	Pulse	0.50	3
[Pb]			1	100.878	ug/l	0.92	1,161,591.67	3.415E-01	Pulse	0.50	3
Ca			1	9809.838	ug/l	0.24	360,750.82	1.470E+00	Pulse	0.50	3
Ti			1	99.825	ug/l	2.03	23,678.32	9.651E-02	Pulse	0.50	3
Na			1	11211.618	ug/l	0.62	15,080,732.67	6.147E+01	Analog	1.00	3
Mg			1	10837.283	ug/l	0.29	7,534,968.50	3.071E+01	Analog	1.00	3
K			1	10489.885	ug/l	0.61	7,256,779.83	2.958E+01	Analog	1.00	3
V			1	100.649	ug/l	0.78	733,295.38	2.989E+00	Pulse	0.50	3
Mn			1	101.850	ug/l	0.59	564,317.10	3.705E+00	Pulse	0.50	3
Fe			1	11174.577	ug/l	0.59	84,974,552.00	5.579E+02	Analog	0.50	3
Co			1	101.940	ug/l	0.76	1,343,226.29	8.818E+00	Pulse	0.50	3
Ni			1	100.618	ug/l	0.77	345,444.26	2.268E+00	Pulse	0.50	3
Cu			1	98.528	ug/l	0.98	892,557.73	5.859E+00	Pulse	0.50	3
Zn			1	99.049	ug/l	1.49	172,477.61	7.590E-01	Pulse	1.00	3
Cd			1	98.763	ug/l	1.15	259,810.53	1.143E+00	Pulse	0.50	3
Al			1	9539.095	ug/l	0.61	2,922,613.50	1.191E+01	Pulse	1.00	3
Se			1	96.853	ug/l	1.60	9,775.83	4.302E-02	Pulse	3.00	3
Sb			1	97.957	ug/l	1.06	781,469.02	3.439E+00	Pulse	1.00	3
Se			1	97.270	ug/l	1.32	4,684.69	2.062E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,930,880.75	1.10	78.6	Pulse	0.50	3
1	Sc		245,340.88	0.90	88.1	Pulse	0.30	3
1	Ge		152,321.00	1.22	85.7	Pulse	0.30	3
1	In		1,480,318.69	0.26	80.9	Pulse	0.30	3
1	Tb		4,292,214.83	0.79	83.7	Pulse	0.50	3
1	Lu		3,401,490.75	0.84	82.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		227,247.83	0.66	86.1	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,913.44	6.98	92.9	Pulse	0.30	3

Quantitation Report

File Name	084_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:11
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.007	ug/l	51.18	1,762.75	1.168E-02	Pulse	0.50	3
As			1	0.036	ug/l	16.81	163.33	1.082E-03	Pulse	1.00	3
Mo			1	0.137	ug/l	22.34	1,252.04	5.571E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	1407.65	4,768.00	1.611E-03	Pulse	1.00	3
Be			1	0.099	ug/l	15.77	9.50	3.875E-05	Pulse	2.00	3
Ag			1	0.016	ug/l	31.15	296.00	1.320E-03	Pulse	0.50	3
Ba			1	0.022	ug/l	39.45	426.68	2.860E-04	Pulse	0.50	3
Tl			1	0.020	ug/l	48.42	3,999.15	1.209E-03	Pulse	0.50	3
Sn			1	0.194	ug/l	25.26	2,604.65	1.744E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	35.61	1,154.04	7.735E-04	Pulse	0.50	3
[Pb]			1	-0.003	ug/l	-83.77	2,168.81	6.550E-04	Pulse	0.50	3
Ca			1	1.526	ug/l	48.24	262.00	1.069E-03	Pulse	0.50	3
Ti			1	-0.048	ug/l	-45.82	23.33	9.530E-05	Pulse	0.50	3
Na			1	4.374	ug/l	18.52	14,673.04	5.989E-02	Pulse	1.00	3
Mg			1	0.857	ug/l	59.42	1,205.37	4.925E-03	Pulse	1.00	3
K			1	5.270	ug/l	11.96	37,569.56	1.533E-01	Pulse	1.00	3
V			1	-0.020	ug/l	-55.46	1,411.39	5.761E-03	Pulse	0.50	3
Mn			1	-0.009	ug/l	-143.09	676.01	4.481E-03	Pulse	0.50	3
Fe			1	1.697	ug/l	24.51	25,232.52	1.674E-01	Pulse	0.50	3
Co			1	0.012	ug/l	18.06	1,564.07	1.037E-02	Pulse	0.50	3
Ni			1	-0.012	ug/l	-49.51	447.34	2.964E-03	Pulse	0.50	3
Cu			1	-0.086	ug/l	-21.86	7,388.77	4.898E-02	Pulse	0.50	3
Zn			1	-0.015	ug/l	-113.64	767.35	3.416E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	83.36	244.67	1.090E-03	Pulse	0.50	3
Al			1	2.667	ug/l	16.05	1,482.39	6.051E-03	Pulse	1.00	3
Se			1	0.121	ug/l	78.31	60.00	2.674E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	5.66	1,485.39	6.615E-03	Pulse	1.00	3
Se			1	0.067	ug/l	102.69	26.78	1.193E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,960,813.42	1.27	79.4	Pulse	0.50	3
1	Sc		245,051.78	0.67	88.0	Pulse	0.30	3

Quantitation Report

1	Ge		150,865.29	0.95	84.9	Pulse	0.30	3
1	In		1,492,262.20	1.08	81.6	Pulse	0.30	3
1	Tb		4,213,788.75	1.01	82.2	Pulse	0.50	3
1	Lu		3,311,472.67	1.40	80.0	Pulse	0.50	3
1	Ge		224,577.35	0.88	85.0	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		2,073.45	4.48	100.6	Pulse	0.30	3

Quantitation Report

File Name 085CALB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:16
Sample Name CALSTD-1
Sample Type CalBlk
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	1,625.40	1.078E-02	Pulse	0.50	3
As			1	0.000	ug/l	---	130.33	8.642E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	786.02	3.507E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	5,188.79	1.752E-03	Pulse	1.00	3
Be			1	0.000	ug/l	---	7.00	2.857E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	---	94.67	4.226E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	431.34	2.901E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	---	3,208.98	9.686E-04	Pulse	0.50	3
Sn			1	0.000	ug/l	---	1,972.35	1.326E-03	Pulse	0.30	3
Sr			1	0.000	ug/l	---	1,148.04	7.717E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	2,399.51	7.244E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	260.67	1.062E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	---	23.33	9.520E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	12,251.74	4.989E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	463.68	1.888E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	36,975.12	1.506E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,347.38	5.486E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	681.35	4.520E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	13,912.34	9.227E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	1,344.05	8.913E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	---	442.01	2.931E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	7,124.67	4.725E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	893.02	3.986E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	195.33	8.725E-04	Pulse	0.50	3
Al			1	0.000	ug/l	---	336.00	1.369E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	48.11	2.147E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	1,126.37	5.028E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	26.67	1.190E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,962,944.92	1.34	100.0	Pulse	0.50	3
1	Sc		245,583.74	1.03	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		150,793.86	0.74	100.0	Pulse	0.30	3
1	In		1,487,237.20	1.12	100.0	Pulse	0.30	3
1	Tb		4,204,663.00	1.19	100.0	Pulse	0.50	3
1	Lu		3,312,712.08	1.10	100.0	Pulse	0.50	3
1	Ge		223,998.50	0.64	100.0	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		2,097.90	4.47	100.0	Pulse	0.30	3

Quantitation Report

File Name 086CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:20
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.523	ug/l	4.46	6,395.06	4.208E-02	Pulse	0.50	3
As			1	0.523	ug/l	3.10	739.68	4.867E-03	Pulse	1.00	3
Mo			1	0.506	ug/l	5.81	3,389.65	1.508E-02	Pulse	0.50	3
Pb			1	0.481	ug/l	0.99	17,374.13	5.894E-03	Pulse	1.00	3
Be			1	0.477	ug/l	19.97	41.00	1.663E-04	Pulse	2.00	3
Ag			1	0.544	ug/l	0.39	8,410.59	3.742E-02	Pulse	0.50	3
Ba			1	0.490	ug/l	5.79	1,714.09	1.150E-03	Pulse	0.50	3
Tl			1	0.581	ug/l	1.19	22,112.93	6.652E-03	Pulse	0.50	3
Sn			1	0.467	ug/l	4.14	4,656.16	3.122E-03	Pulse	0.30	3
Sr			1	0.514	ug/l	4.63	4,781.96	3.207E-03	Pulse	0.50	3
[Pb]			1	0.502	ug/l	0.63	8,164.64	2.456E-03	Pulse	0.50	3
Ca			1	51.084	ug/l	1.59	2,151.46	8.717E-03	Pulse	0.50	3
Ti			1	0.505	ug/l	3.80	148.67	6.024E-04	Pulse	0.50	3
Na			1	52.802	ug/l	0.47	87,666.54	3.552E-01	Pulse	1.00	3
Mg			1	55.794	ug/l	0.42	39,739.90	1.610E-01	Pulse	1.00	3
K			1	55.601	ug/l	0.28	74,382.70	3.014E-01	Pulse	1.00	3
V			1	0.507	ug/l	2.23	5,175.37	2.097E-02	Pulse	0.50	3
Mn			1	0.505	ug/l	5.11	3,577.68	2.354E-02	Pulse	0.50	3
Fe			1	55.259	ug/l	0.93	434,070.95	2.856E+00	Pulse	0.50	3
Co			1	0.567	ug/l	2.58	8,962.76	5.898E-02	Pulse	0.50	3
Ni			1	0.553	ug/l	4.87	2,343.48	1.542E-02	Pulse	0.50	3
Cu			1	0.519	ug/l	7.53	11,800.97	7.766E-02	Pulse	0.50	3
Zn			1	0.406	ug/l	14.26	1,593.07	7.087E-03	Pulse	1.00	3
Cd			1	0.538	ug/l	9.41	1,587.41	7.065E-03	Pulse	0.50	3
Al			1	54.545	ug/l	2.59	16,633.91	6.741E-02	Pulse	1.00	3
Se			1	0.557	ug/l	6.80	103.11	4.588E-04	Pulse	3.00	3
Sb			1	0.516	ug/l	2.56	5,172.73	2.301E-02	Pulse	1.00	3
Se			1	0.538	ug/l	20.99	52.33	2.327E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,947,600.17	1.15	99.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		246,790.16	1.02	100.5	Pulse	0.30	3
1	Ge		151,960.54	0.32	100.8	Pulse	0.30	3
1	In		1,491,216.22	0.72	100.3	Pulse	0.30	3
1	Tb		4,196,309.08	0.80	99.8	Pulse	0.50	3
1	Lu		3,324,140.33	1.14	100.3	Pulse	0.50	3
1	Ge		224,782.21	0.79	100.3	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		2,107.90	3.26	100.5	Pulse	0.30	3

Quantitation Report

File Name 087CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:24
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.026	ug/l	1.93	10,943.76	7.225E-02	Pulse	0.50	3
As			1	1.022	ug/l	2.23	1,316.05	8.689E-03	Pulse	1.00	3
Mo			1	0.994	ug/l	3.10	5,918.28	2.627E-02	Pulse	0.50	3
Pb			1	0.987	ug/l	0.59	30,567.19	1.026E-02	Pulse	1.00	3
Be			1	1.061	ug/l	6.82	82.67	3.348E-04	Pulse	2.00	3
Ag			1	1.098	ug/l	1.74	16,925.06	7.512E-02	Pulse	0.50	3
Ba			1	0.998	ug/l	3.99	3,056.94	2.043E-03	Pulse	0.50	3
Tl			1	1.142	ug/l	0.55	40,292.52	1.215E-02	Pulse	0.50	3
Sn			1	0.954	ug/l	5.34	7,472.66	4.993E-03	Pulse	0.30	3
Sr			1	1.025	ug/l	1.54	8,419.23	5.627E-03	Pulse	0.50	3
[Pb]			1	1.057	ug/l	1.70	14,496.82	4.370E-03	Pulse	0.50	3
Ca			1	102.366	ug/l	2.88	4,050.43	1.640E-02	Pulse	0.50	3
Ti			1	0.954	ug/l	8.37	260.00	1.053E-03	Pulse	0.50	3
Na			1	105.035	ug/l	0.21	162,327.24	6.573E-01	Pulse	1.00	3
Mg			1	110.113	ug/l	0.54	78,028.88	3.160E-01	Pulse	1.00	3
K			1	109.079	ug/l	0.61	110,261.40	4.465E-01	Pulse	1.00	3
V			1	1.000	ug/l	1.57	8,904.05	3.605E-02	Pulse	0.50	3
Mn			1	1.052	ug/l	0.30	6,687.17	4.415E-02	Pulse	0.50	3
Fe			1	109.705	ug/l	0.16	845,198.44	5.580E+00	Pulse	0.50	3
Co			1	1.104	ug/l	0.87	16,111.38	1.064E-01	Pulse	0.50	3
Ni			1	1.073	ug/l	4.51	4,113.78	2.716E-02	Pulse	0.50	3
Cu			1	1.120	ug/l	1.38	17,090.91	1.128E-01	Pulse	0.50	3
Zn			1	0.998	ug/l	3.69	2,614.52	1.161E-02	Pulse	1.00	3
Cd			1	1.076	ug/l	2.64	2,984.92	1.325E-02	Pulse	0.50	3
Al			1	108.855	ug/l	0.12	32,888.62	1.332E-01	Pulse	1.00	3
Se			1	1.089	ug/l	18.52	155.78	6.919E-04	Pulse	3.00	3
Sb			1	1.042	ug/l	2.72	9,319.03	4.135E-02	Pulse	1.00	3
Se			1	0.916	ug/l	4.80	70.45	3.127E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,979,176.42	1.39	100.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		246,966.31	0.72	100.6	Pulse	0.30	3
1	Ge		151,472.57	0.85	100.5	Pulse	0.30	3
1	In		1,496,359.35	1.01	100.6	Pulse	0.30	3
1	Tb		4,223,017.83	1.31	100.4	Pulse	0.50	3
1	Lu		3,316,896.33	1.31	100.1	Pulse	0.50	3
1	Ge		225,312.16	1.40	100.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,135.68	2.54	101.8	Pulse	0.30	3

Quantitation Report

File Name 088CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:28
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.704	ug/l	0.58	90,334.96	5.920E-01	Pulse	0.50	3
As			1	9.546	ug/l	1.40	11,283.66	7.393E-02	Pulse	1.00	3
Mo			1	9.506	ug/l	1.28	50,174.73	2.211E-01	Pulse	0.50	3
Pb			1	9.585	ug/l	0.53	251,996.23	8.438E-02	Pulse	1.00	3
Be			1	9.581	ug/l	0.40	688.01	2.795E-03	Pulse	2.00	3
Ag			1	10.105	ug/l	1.69	156,149.72	6.880E-01	Pulse	0.50	3
Ba			1	9.490	ug/l	1.35	25,441.17	1.695E-02	Pulse	0.50	3
Tl			1	10.498	ug/l	0.33	349,954.70	1.037E-01	Pulse	0.50	3
Sn			1	9.523	ug/l	1.31	56,922.04	3.792E-02	Pulse	0.30	3
Sr			1	9.559	ug/l	0.99	69,103.61	4.604E-02	Pulse	0.50	3
[Pb]			1	10.015	ug/l	0.73	118,999.40	3.527E-02	Pulse	0.50	3
Ca			1	988.502	ug/l	2.51	36,733.59	1.492E-01	Pulse	0.50	3
Ti			1	9.534	ug/l	5.74	2,380.15	9.671E-03	Pulse	0.50	3
Na			1	994.552	ug/l	0.74	1,428,148.55	5.801E+00	Pulse	1.00	3
Mg			1	1026.536	ug/l	0.55	721,279.92	2.930E+00	Pulse	1.00	3
K			1	1029.522	ug/l	0.34	724,637.96	2.943E+00	Pulse	1.00	3
V			1	9.509	ug/l	0.63	72,879.17	2.960E-01	Pulse	0.50	3
Mn			1	9.728	ug/l	0.86	56,627.32	3.711E-01	Pulse	0.50	3
Fe			1	978.955	ug/l	0.59	7,486,959.67	4.906E+01	Analog	0.50	3
Co			1	10.082	ug/l	0.53	137,214.05	8.991E-01	Pulse	0.50	3
Ni			1	10.186	ug/l	0.81	35,563.87	2.330E-01	Pulse	0.50	3
Cu			1	10.197	ug/l	0.86	98,320.29	6.442E-01	Pulse	0.50	3
Zn			1	10.658	ug/l	0.52	19,366.37	8.532E-02	Pulse	1.00	3
Cd			1	9.975	ug/l	1.55	26,243.90	1.156E-01	Pulse	0.50	3
Al			1	1032.836	ug/l	0.46	308,208.20	1.252E+00	Pulse	1.00	3
Se			1	9.659	ug/l	4.49	1,009.14	4.446E-03	Pulse	3.00	3
Sb			1	9.687	ug/l	1.26	77,784.76	3.427E-01	Pulse	1.00	3
Se			1	9.679	ug/l	6.68	491.34	2.165E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,986,386.67	1.37	100.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		246,193.15	0.89	100.2	Pulse	0.30	3
1	Ge		152,609.01	0.84	101.2	Pulse	0.30	3
1	In		1,501,066.64	0.81	100.9	Pulse	0.30	3
1	Tb		4,250,758.17	0.94	101.1	Pulse	0.50	3
1	Lu		3,373,360.00	1.00	101.8	Pulse	0.50	3
1	Ge		226,981.01	0.86	101.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,084.56	4.72	99.4	Pulse	0.30	3

Quantitation Report

File Name	089CALS.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:32
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.951	ug/l	0.76	450,686.98	2.943E+00	Pulse	0.50	3
As			1	48.832	ug/l	0.25	57,380.86	3.746E-01	Pulse	1.00	3
Mo			1	49.267	ug/l	1.18	256,230.56	1.131E+00	Pulse	0.50	3
Pb			1	49.431	ug/l	0.40	1,259,767.67	4.279E-01	Pulse	1.00	3
Be			1	48.618	ug/l	0.78	3,496.47	1.406E-02	Pulse	2.00	3
Ag			1	51.069	ug/l	1.36	787,305.37	3.475E+00	Pulse	0.50	3
Ba			1	48.967	ug/l	0.95	128,423.18	8.625E-02	Pulse	0.50	3
Tl			1	53.558	ug/l	0.18	1,770,066.50	5.253E-01	Pulse	0.50	3
Sn			1	48.683	ug/l	0.51	280,564.15	1.884E-01	Pulse	0.30	3
Sr			1	48.628	ug/l	0.70	344,028.67	2.310E-01	Pulse	0.50	3
[Pb]			1	50.968	ug/l	0.42	594,961.33	1.765E-01	Pulse	0.50	3
Ca			1	5036.729	ug/l	0.22	187,915.21	7.558E-01	Pulse	0.50	3
Ti			1	48.357	ug/l	2.90	12,097.09	4.866E-02	Pulse	0.50	3
Na			1	4867.961	ug/l	0.85	7,010,904.17	2.820E+01	Analog	1.00	3
Mg			1	5022.387	ug/l	0.36	3,561,889.00	1.433E+01	Pulse	1.00	3
K			1	5133.864	ug/l	0.16	3,499,905.17	1.408E+01	Pulse	1.00	3
V			1	48.389	ug/l	0.48	368,952.19	1.484E+00	Pulse	0.50	3
Mn			1	49.118	ug/l	0.90	284,153.99	1.855E+00	Pulse	0.50	3
Fe			1	4879.144	ug/l	0.41	37,395,768.00	2.442E+02	Analog	0.50	3
Co			1	50.182	ug/l	0.60	679,990.27	4.440E+00	Pulse	0.50	3
Ni			1	50.865	ug/l	0.93	176,431.09	1.152E+00	Pulse	0.50	3
Cu			1	51.289	ug/l	0.62	467,123.09	3.050E+00	Pulse	0.50	3
Zn			1	51.199	ug/l	0.41	89,420.42	3.947E-01	Pulse	1.00	3
Cd			1	50.483	ug/l	1.05	131,765.27	5.816E-01	Pulse	0.50	3
Al			1	5058.713	ug/l	0.21	1,523,132.33	6.126E+00	Pulse	1.00	3
Se			1	49.936	ug/l	0.49	5,004.43	2.209E-02	Pulse	3.00	3
Sb			1	49.867	ug/l	1.06	394,917.42	1.743E+00	Pulse	1.00	3
Se			1	48.907	ug/l	0.69	2,369.59	1.046E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,944,042.33	0.64	99.4	Pulse	0.50	3
1	Sc		248,616.13	0.40	101.2	Pulse	0.30	3
1	Ge		153,164.37	0.40	101.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,489,128.07	0.98	100.1	Pulse	0.30	3
1	Tb		4,254,770.00	0.64	101.2	Pulse	0.50	3
1	Lu		3,369,908.17	0.45	101.7	Pulse	0.50	3
1	Ge		226,551.81	0.57	101.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,989.00	2.19	94.8	Pulse	0.30	3

Quantitation Report

File Name 090CALS.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 15:36
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.779	ug/l	0.47	892,100.54	5.927E+00	Pulse	0.50	3
As			1	97.468	ug/l	0.18	112,423.64	7.469E-01	Pulse	1.00	3
Mo			1	97.340	ug/l	0.25	501,118.03	2.231E+00	Pulse	0.50	3
Pb			1	98.230	ug/l	0.20	2,445,040.92	8.486E-01	Pulse	1.00	3
Be			1	97.020	ug/l	1.36	6,864.16	2.804E-02	Pulse	2.00	3
Ag			1	99.454	ug/l	0.44	1,519,933.75	6.767E+00	Pulse	0.50	3
Ba			1	98.358	ug/l	0.42	252,046.74	1.729E-01	Pulse	0.50	3
Tl			1	104.885	ug/l	0.48	3,443,279.42	1.028E+00	Pulse	0.50	3
Sn			1	97.624	ug/l	0.42	548,677.43	3.765E-01	Pulse	0.30	3
Sr			1	97.139	ug/l	0.91	671,499.37	4.607E-01	Pulse	0.50	3
[Pb]			1	99.593	ug/l	0.46	1,153,518.16	3.443E-01	Pulse	0.50	3
Ca			1	9825.897	ug/l	0.93	360,765.82	1.474E+00	Pulse	0.50	3
Ti			1	94.799	ug/l	0.88	23,333.20	9.530E-02	Pulse	0.50	3
Na			1	9734.369	ug/l	0.25	13,794,165.00	5.634E+01	Analog	1.00	3
Mg			1	9780.417	ug/l	0.33	6,830,269.67	2.790E+01	Analog	1.00	3
K			1	9666.976	ug/l	0.53	6,457,303.33	2.637E+01	Analog	1.00	3
V			1	96.852	ug/l	0.28	725,874.19	2.965E+00	Pulse	0.50	3
Mn			1	98.202	ug/l	0.50	557,623.56	3.705E+00	Pulse	0.50	3
Fe			1	9764.995	ug/l	0.88	73,533,714.67	4.886E+02	Analog	0.50	3
Co			1	99.796	ug/l	0.77	1,327,580.21	8.820E+00	Pulse	0.50	3
Ni			1	99.570	ug/l	0.67	338,981.37	2.252E+00	Pulse	0.50	3
Cu			1	99.583	ug/l	0.45	884,618.90	5.877E+00	Pulse	0.50	3
Zn			1	98.748	ug/l	0.05	170,145.66	7.576E-01	Pulse	1.00	3
Cd			1	98.981	ug/l	0.51	255,935.51	1.140E+00	Pulse	0.50	3
Al			1	9830.922	ug/l	0.27	2,914,622.33	1.190E+01	Pulse	1.00	3
Se			1	98.607	ug/l	0.72	9,749.48	4.341E-02	Pulse	3.00	3
Sb			1	98.263	ug/l	0.33	770,374.85	3.430E+00	Pulse	1.00	3
Se			1	97.526	ug/l	2.11	4,658.01	2.074E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,881,342.00	1.10	97.2	Pulse	0.50	3
1	Sc		244,830.90	0.39	99.7	Pulse	0.30	3
1	Ge		150,519.36	0.77	99.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,457,386.19	0.57	98.0	Pulse	0.30	3
1	Tb		4,209,200.00	0.91	100.1	Pulse	0.50	3
1	Lu		3,350,430.75	1.12	101.1	Pulse	0.50	3
1	Ge		224,593.11	0.53	100.3	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,943.44	2.53	92.6	Pulse	0.30	3

Quantitation Report

File Name	091CALS.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:40
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.887	ug/l	0.50	1,794,665.67	1.204E+01	Pulse	0.50	3
As			1	201.580	ug/l	0.37	230,073.59	1.544E+00	Pulse	1.00	3
Mo			1	201.538	ug/l	0.31	1,024,408.04	4.616E+00	Pulse	0.50	3
Pb			1	201.048	ug/l	0.62	4,860,263.50	1.735E+00	Pulse	1.00	3
Be			1	201.856	ug/l	0.57	13,949.27	5.830E-02	Pulse	2.00	3
Ag			1	132.601	ug/l	0.15	2,002,452.79	9.023E+00	Pulse	0.50	3
Ba			1	201.105	ug/l	0.29	508,727.56	3.533E-01	Pulse	0.50	3
Tl			1	196.642	ug/l	0.51	6,370,953.50	1.926E+00	Analog	0.50	3
Sn			1	201.541	ug/l	0.31	1,117,075.58	7.758E-01	Pulse	0.30	3
Sr			1	201.795	ug/l	0.43	1,376,947.29	9.563E-01	Pulse	0.50	3
[Pb]			1	199.961	ug/l	0.32	2,284,404.08	6.905E-01	Pulse	0.50	3
Ca			1	20078.429	ug/l	1.12	720,119.56	3.010E+00	Pulse	0.50	3
Ti			1	203.035	ug/l	0.81	48,809.13	2.040E-01	Pulse	0.50	3
Na			1	20166.066	ug/l	0.74	27,912,665.33	1.167E+02	Analog	1.00	3
Mg			1	20102.803	ug/l	0.88	13,718,657.00	5.734E+01	Analog	1.00	3
K			1	20131.510	ug/l	1.31	13,101,590.00	5.476E+01	Analog	1.00	3
V			1	202.001	ug/l	0.76	1,478,025.42	6.178E+00	Pulse	0.50	3
Mn			1	201.133	ug/l	0.74	1,130,123.83	7.583E+00	Pulse	0.50	3
Fe			1	20148.707	ug/l	0.15	150,215,114.67	1.008E+03	Analog	0.50	3
Co			1	200.051	ug/l	0.71	2,633,682.50	1.767E+01	Pulse	0.50	3
Ni			1	199.989	ug/l	0.41	673,690.25	4.521E+00	Pulse	0.50	3
Cu			1	199.876	ug/l	0.43	1,750,883.04	1.175E+01	Pulse	0.50	3
Zn			1	200.294	ug/l	0.09	340,118.17	1.533E+00	Pulse	1.00	3
Cd			1	200.390	ug/l	0.40	511,805.99	2.306E+00	Pulse	0.50	3
Al			1	20068.163	ug/l	0.83	5,813,777.17	2.430E+01	Analog	1.00	3
Se			1	200.729	ug/l	0.76	19,561.43	8.815E-02	Pulse	3.00	3
Sb			1	200.917	ug/l	0.28	1,555,384.50	7.008E+00	Pulse	1.00	3
Se			1	201.527	ug/l	1.86	9,481.24	4.273E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,801,251.58	0.78	94.5	Pulse	0.50	3
1	Sc		239,265.92	1.13	97.4	Pulse	0.30	3
1	Ge		149,027.78	0.47	98.8	Pulse	0.30	3
1	In		1,439,890.78	0.95	96.8	Pulse	0.30	3
1	Tb		4,177,402.08	1.30	99.4	Pulse	0.50	3
1	Lu		3,308,124.83	1.06	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		221,933.82	1.13	99.1	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,754.53	2.05	83.6	Pulse	0.30	3

Quantitation Report

File Name	092_ICV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:44
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.975	ug/l	0.44	825,595.21	5.939E+00	Pulse	0.50	3
As			1	96.894	ug/l	0.28	103,223.20	7.425E-01	Pulse	1.00	3
Mo			1	101.429	ug/l	1.19	485,004.24	2.325E+00	Pulse	0.50	3
Pb			1	98.618	ug/l	0.62	2,356,672.25	8.519E-01	Pulse	1.00	3
Be			1	99.627	ug/l	0.15	6,388.34	2.879E-02	Pulse	2.00	3
Ag			1	51.086	ug/l	0.70	725,176.75	3.476E+00	Pulse	0.50	3
Ba			1	98.463	ug/l	0.60	233,712.11	1.731E-01	Pulse	0.50	3
Tl			1	105.636	ug/l	0.27	3,295,780.17	1.035E+00	Pulse	0.50	3
Sn			1	100.395	ug/l	0.31	522,517.77	3.871E-01	Pulse	0.30	3
Sr			1	99.620	ug/l	0.43	637,731.56	4.725E-01	Pulse	0.50	3
[Pb]			1	101.417	ug/l	0.26	1,116,320.58	3.506E-01	Pulse	0.50	3
Ca			1	9292.399	ug/l	0.30	309,229.23	1.394E+00	Pulse	0.50	3
Ti			1	100.874	ug/l	0.99	22,501.60	1.014E-01	Pulse	0.50	3
Na			1	9841.657	ug/l	0.43	12,639,015.00	5.696E+01	Analog	1.00	3
Mg			1	9970.594	ug/l	0.49	6,310,461.67	2.844E+01	Analog	1.00	3
K			1	9579.428	ug/l	0.78	5,799,255.50	2.614E+01	Analog	1.00	3
V			1	99.178	ug/l	0.23	673,663.73	3.036E+00	Pulse	0.50	3
Mn			1	97.704	ug/l	0.48	512,367.73	3.686E+00	Pulse	0.50	3
Fe			1	9633.455	ug/l	0.89	66,991,477.33	4.820E+02	Analog	0.50	3
Co			1	100.003	ug/l	0.55	1,228,661.59	8.838E+00	Pulse	0.50	3
Ni			1	100.259	ug/l	0.65	315,238.52	2.268E+00	Pulse	0.50	3
Cu			1	101.153	ug/l	0.35	829,839.44	5.969E+00	Pulse	0.50	3
Zn			1	100.182	ug/l	0.31	160,316.69	7.685E-01	Pulse	1.00	3
Cd			1	99.513	ug/l	0.72	238,971.96	1.146E+00	Pulse	0.50	3
Al			1	9469.251	ug/l	0.69	2,544,264.75	1.147E+01	Pulse	1.00	3
Se			1	95.118	ug/l	1.02	8,735.44	4.188E-02	Pulse	3.00	3
Sb			1	97.561	ug/l	0.61	710,436.88	3.406E+00	Pulse	1.00	3
Se			1	94.594	ug/l	0.26	4,196.91	2.012E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,766,020.75	2.25	93.4	Pulse	0.50	3
1	Sc		221,895.53	1.75	90.4	Pulse	0.30	3
1	Ge		139,017.15	2.85	92.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,349,820.71	2.34	90.8	Pulse	0.30	3
1	Tb		4,083,546.42	3.14	97.1	Pulse	0.50	3
1	Lu		3,184,307.58	2.81	96.1	Pulse	0.50	3
1	Ge		208,600.38	2.24	93.1	Pulse	0.30	3
1	Te		1.33	86.60	100.0	Pulse	0.50	3
1	Li		1,701.20	6.15	81.1	Pulse	0.30	3

Quantitation Report

File Name	093CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:48
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.896	ug/l	1.17	456,733.47	2.939E+00	Pulse	0.50	3
As			1	48.862	ug/l	1.00	58,250.54	3.749E-01	Pulse	1.00	3
Mo			1	48.982	ug/l	1.29	258,927.83	1.125E+00	Pulse	0.50	3
Pb			1	49.297	ug/l	1.15	1,265,379.29	4.267E-01	Pulse	1.00	3
Be			1	48.506	ug/l	1.28	3,537.64	1.403E-02	Pulse	2.00	3
Ag			1	50.891	ug/l	1.02	797,413.06	3.463E+00	Pulse	0.50	3
Ba			1	49.022	ug/l	1.32	129,503.08	8.634E-02	Pulse	0.50	3
Tl			1	53.495	ug/l	0.58	1,775,470.92	5.246E-01	Pulse	0.50	3
Sn			1	48.858	ug/l	0.94	283,593.77	1.891E-01	Pulse	0.30	3
Sr			1	48.759	ug/l	1.15	347,454.45	2.317E-01	Pulse	0.50	3
[Pb]			1	51.089	ug/l	0.75	598,892.33	1.770E-01	Pulse	0.50	3
Ca			1	5013.876	ug/l	1.30	189,705.11	7.524E-01	Pulse	0.50	3
Ti			1	48.424	ug/l	1.74	12,285.87	4.873E-02	Pulse	0.50	3
Na			1	4914.370	ug/l	0.69	7,177,644.67	2.847E+01	Analog	1.00	3
Mg			1	5011.876	ug/l	1.07	3,604,623.75	1.430E+01	Pulse	1.00	3
K			1	5151.541	ug/l	0.72	3,561,392.33	1.413E+01	Pulse	1.00	3
V			1	48.477	ug/l	1.16	374,834.13	1.487E+00	Pulse	0.50	3
Mn			1	48.768	ug/l	1.52	286,238.31	1.842E+00	Pulse	0.50	3
Fe			1	4900.180	ug/l	1.10	38,102,912.00	2.452E+02	Analog	0.50	3
Co			1	50.005	ug/l	1.39	687,453.96	4.424E+00	Pulse	0.50	3
Ni			1	50.837	ug/l	1.54	178,902.09	1.151E+00	Pulse	0.50	3
Cu			1	51.089	ug/l	1.31	472,094.98	3.038E+00	Pulse	0.50	3
Zn			1	51.168	ug/l	1.34	90,831.40	3.945E-01	Pulse	1.00	3
Cd			1	49.959	ug/l	0.73	132,535.46	5.756E-01	Pulse	0.50	3
Al			1	5054.232	ug/l	1.71	1,543,269.37	6.121E+00	Pulse	1.00	3
Se			1	49.192	ug/l	1.43	5,011.32	2.176E-02	Pulse	3.00	3
Sb			1	49.439	ug/l	1.27	397,956.31	1.728E+00	Pulse	1.00	3
Se			1	49.741	ug/l	1.83	2,448.82	1.064E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,965,098.33	0.69	100.1	Pulse	0.50	3
1	Sc		252,123.63	0.19	102.7	Pulse	0.30	3
1	Ge		155,388.67	0.51	103.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,499,839.73	0.46	100.8	Pulse	0.30	3
1	Tb		4,289,225.67	0.83	102.0	Pulse	0.50	3
1	Lu		3,384,077.08	0.86	102.2	Pulse	0.50	3
1	Ge		230,256.42	0.39	102.8	Pulse	0.30	3
1	Te		2.67	86.60	200.0	Pulse	0.50	3
1	Li		2,042.34	3.59	97.4	Pulse	0.30	3

Quantitation Report

File Name	094_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:52
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.759	ug/l	1.24	910,355.86	5.926E+00	Pulse	0.50	3
As			1	98.344	ug/l	1.00	115,769.54	7.536E-01	Pulse	1.00	3
Mo			1	96.938	ug/l	0.95	512,142.53	2.222E+00	Pulse	0.50	3
Pb			1	97.851	ug/l	0.85	2,452,682.58	8.453E-01	Pulse	1.00	3
Be			1	95.134	ug/l	1.24	6,925.35	2.749E-02	Pulse	2.00	3
Ag			1	98.927	ug/l	0.65	1,551,543.75	6.732E+00	Pulse	0.50	3
Ba			1	97.724	ug/l	0.31	256,469.25	1.718E-01	Pulse	0.50	3
Tl			1	104.107	ug/l	1.40	3,457,757.42	1.020E+00	Pulse	0.50	3
Sn			1	96.794	ug/l	1.02	557,177.56	3.733E-01	Pulse	0.30	3
Sr			1	96.643	ug/l	0.19	684,185.25	4.584E-01	Pulse	0.50	3
[Pb]			1	98.915	ug/l	1.80	1,159,105.88	3.420E-01	Pulse	0.50	3
Ca			1	9826.369	ug/l	0.46	371,193.95	1.474E+00	Pulse	0.50	3
Ti			1	94.893	ug/l	1.54	24,030.73	9.540E-02	Pulse	0.50	3
Na			1	9739.417	ug/l	0.07	14,199,435.67	5.637E+01	Analog	1.00	3
Mg			1	9781.994	ug/l	0.54	7,028,512.17	2.790E+01	Analog	1.00	3
K			1	9814.135	ug/l	0.44	6,744,170.17	2.677E+01	Analog	1.00	3
V			1	96.862	ug/l	0.88	746,901.42	2.965E+00	Pulse	0.50	3
Mn			1	98.589	ug/l	0.52	571,379.75	3.719E+00	Pulse	0.50	3
Fe			1	9906.570	ug/l	0.46	76,140,789.33	4.956E+02	Analog	0.50	3
Co			1	100.090	ug/l	0.58	1,359,014.37	8.846E+00	Pulse	0.50	3
Ni			1	100.359	ug/l	0.47	348,713.05	2.270E+00	Pulse	0.50	3
Cu			1	100.089	ug/l	1.11	907,439.23	5.907E+00	Pulse	0.50	3
Zn			1	98.895	ug/l	0.50	174,868.04	7.587E-01	Pulse	1.00	3
Cd			1	98.032	ug/l	0.46	260,129.27	1.129E+00	Pulse	0.50	3
Al			1	9775.676	ug/l	1.12	2,981,894.83	1.184E+01	Pulse	1.00	3
Se			1	98.855	ug/l	0.40	10,030.07	4.352E-02	Pulse	3.00	3
Sb			1	97.866	ug/l	0.92	787,391.71	3.416E+00	Pulse	1.00	3
Se			1	97.405	ug/l	1.23	4,773.71	2.071E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,901,394.33	1.23	97.9	Pulse	0.50	3
1	Sc		251,893.15	0.21	102.6	Pulse	0.30	3
1	Ge		153,626.28	1.21	101.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,492,557.09	1.06	100.4	Pulse	0.30	3
1	Tb		4,280,421.33	0.79	101.8	Pulse	0.50	3
1	Lu		3,389,730.92	0.80	102.3	Pulse	0.50	3
1	Ge		230,484.99	1.06	102.9	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,936.77	5.25	92.3	Pulse	0.30	3

Quantitation Report

File Name	095_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 15:56
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.023	ug/l	38.87	1,840.09	1.214E-02	Pulse	0.50	3
As			1	0.033	ug/l	51.59	169.00	1.116E-03	Pulse	1.00	3
Mo			1	0.120	ug/l	38.86	1,418.73	6.261E-03	Pulse	0.50	3
Pb			1	-0.009	ug/l	-82.82	4,910.04	1.675E-03	Pulse	1.00	3
Be			1	0.059	ug/l	78.76	11.33	4.558E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	37.34	364.00	1.609E-03	Pulse	0.50	3
Ba			1	-0.004	ug/l	-509.28	421.34	2.831E-04	Pulse	0.50	3
Tl			1	0.034	ug/l	16.18	4,312.56	1.305E-03	Pulse	0.50	3
Sn			1	0.139	ug/l	46.20	2,774.67	1.862E-03	Pulse	0.30	3
Sr			1	-0.003	ug/l	-371.25	1,124.70	7.555E-04	Pulse	0.50	3
[Pb]			1	-0.008	ug/l	-51.43	2,307.50	6.980E-04	Pulse	0.50	3
Ca			1	-0.715	ug/l	-233.43	237.33	9.551E-04	Pulse	0.50	3
Ti			1	-0.009	ug/l	-369.17	21.33	8.593E-05	Pulse	0.50	3
Na			1	1.716	ug/l	52.00	14,888.21	5.981E-02	Pulse	1.00	3
Mg			1	1.167	ug/l	56.22	1,295.38	5.217E-03	Pulse	1.00	3
K			1	1.585	ug/l	66.91	38,570.78	1.549E-01	Pulse	1.00	3
V			1	-0.007	ug/l	-29.57	1,310.72	5.262E-03	Pulse	0.50	3
Mn			1	0.004	ug/l	80.93	706.68	4.661E-03	Pulse	0.50	3
Fe			1	1.608	ug/l	26.21	26,171.12	1.727E-01	Pulse	0.50	3
Co			1	0.021	ug/l	60.48	1,627.41	1.074E-02	Pulse	0.50	3
Ni			1	0.010	ug/l	147.62	479.34	3.161E-03	Pulse	0.50	3
Cu			1	0.025	ug/l	80.82	7,384.10	4.871E-02	Pulse	0.50	3
Zn			1	-0.052	ug/l	-8.79	812.69	3.589E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	129.65	235.33	1.040E-03	Pulse	0.50	3
Al			1	3.754	ug/l	14.28	1,471.73	5.914E-03	Pulse	1.00	3
Se			1	0.138	ug/l	10.92	62.34	2.753E-04	Pulse	3.00	3
Sb			1	0.057	ug/l	6.47	1,587.07	7.008E-03	Pulse	1.00	3
Se			1	0.071	ug/l	112.91	30.33	1.340E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,931,769.25	1.33	98.9	Pulse	0.50	3
1	Sc		249,103.95	1.44	101.4	Pulse	0.30	3

Quantitation Report

1	Ge		151,593.77	1.32	100.5	Pulse	0.30	3
1	In		1,489,152.86	0.84	100.1	Pulse	0.30	3
1	Tb		4,186,558.33	0.91	99.6	Pulse	0.50	3
1	Lu		3,306,206.58	0.88	99.8	Pulse	0.50	3
1	Ge		226,440.55	0.99	101.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,020.11	8.86	96.3	Pulse	0.30	3

Quantitation Report

File Name 096SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:00
Sample Name FC3879-16F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.306	ug/l	10.30	2,888.22	1.995E-02	Pulse	0.50	3
As			1	0.867	ug/l	3.28	605.34	4.181E-03	Pulse	1.00	3
Mo			1	1.053	ug/l	4.68	3,343.64	1.555E-02	Pulse	0.50	3
Pb			1	-0.014	ug/l	-74.87	4,833.69	1.692E-03	Pulse	1.00	3
Be			1	0.025	ug/l	230.69	7.50	3.213E-05	Pulse	2.00	3
Ag			1	0.027	ug/l	16.29	288.67	1.345E-03	Pulse	0.50	3
Ba			1	32.003	ug/l	0.42	40,573.28	2.838E-02	Pulse	0.50	3
Tl			1	0.048	ug/l	28.09	3,919.13	1.203E-03	Pulse	0.50	3
Sn			1	0.437	ug/l	20.36	3,101.39	2.167E-03	Pulse	0.30	3
Sr			1	412.533	ug/l	0.58	1,397,350.41	9.775E-01	Pulse	0.50	3
[Pb]			1	-0.038	ug/l	-29.30	2,146.81	6.586E-04	Pulse	0.50	3
Ca			1	92543.207	ug/l	0.60	1,624,994.50	6.935E+00	Pulse	0.50	3
Ti			1	0.502	ug/l	5.33	81.33	3.470E-04	Pulse	0.50	3
Na			1	4954.044	ug/l	0.76	3,367,724.50	1.437E+01	Pulse	1.00	3
Mg			1	1743.738	ug/l	0.67	583,107.75	2.489E+00	Pulse	1.00	3
K			1	3818.170	ug/l	0.94	1,248,627.13	5.329E+00	Pulse	1.00	3
V			1	0.853	ug/l	7.18	4,341.83	1.852E-02	Pulse	0.50	3
Mn			1	86.963	ug/l	0.58	237,796.03	1.643E+00	Pulse	0.50	3
Fe			1	1707.490	ug/l	0.18	6,194,061.17	4.280E+01	Analog	0.50	3
Co			1	0.080	ug/l	18.79	1,802.75	1.246E-02	Pulse	0.50	3
Ni			1	0.290	ug/l	16.18	898.69	6.208E-03	Pulse	0.50	3
Cu			1	-0.293	ug/l	-7.96	5,598.16	3.869E-02	Pulse	0.50	3
Zn			1	1.463	ug/l	2.57	2,057.11	9.571E-03	Pulse	1.00	3
Cd			1	0.050	ug/l	11.47	250.00	1.163E-03	Pulse	0.50	3
Al			1	9.741	ug/l	4.75	1,702.07	7.266E-03	Pulse	1.00	3
Se			1	0.268	ug/l	62.44	58.89	2.735E-04	Pulse	3.00	3
Sb			1	0.090	ug/l	17.98	1,419.39	6.601E-03	Pulse	1.00	3
Se			1	0.335	ug/l	28.56	33.22	1.545E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,857,378.83	2.13	96.4	Pulse	0.50	3
1	Sc		234,315.12	2.27	95.4	Pulse	0.30	3
1	Ge		144,730.83	2.01	96.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,429,630.67	2.59	96.1	Pulse	0.30	3
1	Tb		4,140,432.08	3.10	98.5	Pulse	0.50	3
1	Lu		3,260,443.25	2.94	98.4	Pulse	0.50	3
1	Ge		214,899.07	2.08	95.9	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		1,762.31	11.12	84.0	Pulse	0.30	3

Quantitation Report

File Name	097SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:03
Sample Name	FC3879-17F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.883	ug/l	1.39	13,972.35	9.713E-02	Pulse	0.50	3
As			1	3.734	ug/l	2.39	2,180.13	1.515E-02	Pulse	1.00	3
Mo			1	2.585	ug/l	1.18	7,092.70	3.308E-02	Pulse	0.50	3
Pb			1	-0.044	ug/l	-0.78	4,530.94	1.563E-03	Pulse	1.00	3
Be			1	-0.021	ug/l	-128.10	6.00	2.555E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	64.99	154.67	7.206E-04	Pulse	0.50	3
Ba			1	14.431	ug/l	0.33	18,691.66	1.296E-02	Pulse	0.50	3
Tl			1	0.014	ug/l	27.62	3,395.02	1.038E-03	Pulse	0.50	3
Sn			1	0.155	ug/l	14.97	2,344.61	1.625E-03	Pulse	0.30	3
Sr			1	187.035	ug/l	0.70	639,861.58	4.436E-01	Pulse	0.50	3
[Pb]			1	-0.058	ug/l	-31.51	2,044.80	6.250E-04	Pulse	0.50	3
Ca			1	40281.499	ug/l	0.62	709,669.90	3.019E+00	Pulse	0.50	3
Ti			1	0.212	ug/l	58.59	47.33	2.018E-04	Pulse	0.50	3
Na			1	2983.601	ug/l	0.58	2,039,301.58	8.677E+00	Pulse	1.00	3
Mg			1	907.912	ug/l	0.71	304,764.54	1.297E+00	Pulse	1.00	3
K			1	1833.862	ug/l	0.48	620,003.69	2.638E+00	Pulse	1.00	3
V			1	9.414	ug/l	1.49	35,096.82	1.493E-01	Pulse	0.50	3
Mn			1	0.325	ug/l	3.14	1,531.40	1.065E-02	Pulse	0.50	3
Fe			1	5.283	ug/l	4.57	32,284.12	2.244E-01	Pulse	0.50	3
Co			1	0.064	ug/l	5.39	1,689.41	1.174E-02	Pulse	0.50	3
Ni			1	0.680	ug/l	9.45	1,524.73	1.061E-02	Pulse	0.50	3
Cu			1	0.755	ug/l	9.55	9,978.60	6.935E-02	Pulse	0.50	3
Zn			1	0.660	ug/l	5.20	1,394.38	6.505E-03	Pulse	1.00	3
Cd			1	0.014	ug/l	21.43	204.00	9.517E-04	Pulse	0.50	3
Al			1	70.401	ug/l	0.51	10,339.01	4.399E-02	Pulse	1.00	3
Se			1	0.303	ug/l	12.99	60.22	2.810E-04	Pulse	3.00	3
Sb			1	0.828	ug/l	3.66	4,172.48	1.946E-02	Pulse	1.00	3
Se			1	0.713	ug/l	30.79	41.67	1.944E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,899,119.17	2.73	97.8	Pulse	0.50	3
1	Sc		235,034.68	1.17	95.7	Pulse	0.30	3
1	Ge		143,835.41	1.76	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,442,608.80	2.36	97.0	Pulse	0.30	3
1	Tb		4,166,683.17	3.00	99.1	Pulse	0.50	3
1	Lu		3,270,774.42	2.61	98.7	Pulse	0.50	3
1	Ge		214,368.47	1.62	95.7	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,924.55	8.54	91.7	Pulse	0.30	3

Quantitation Report

File Name	098SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:07
Sample Name	FC3879-18F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.431	ug/l	2.78	7,694.87	5.363E-02	Pulse	0.50	3
As			1	4.341	ug/l	3.02	2,506.84	1.748E-02	Pulse	1.00	3
Mo			1	1.653	ug/l	3.07	4,787.96	2.242E-02	Pulse	0.50	3
Pb			1	-0.020	ug/l	-45.28	4,826.02	1.667E-03	Pulse	1.00	3
Be			1	-0.033	ug/l	-239.58	5.50	2.384E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	28.95	140.67	6.593E-04	Pulse	0.50	3
Ba			1	14.834	ug/l	0.08	18,918.56	1.331E-02	Pulse	0.50	3
Tl			1	0.003	ug/l	231.62	3,196.98	9.854E-04	Pulse	0.50	3
Sn			1	0.094	ug/l	20.43	2,141.25	1.506E-03	Pulse	0.30	3
Sr			1	231.162	ug/l	0.66	778,990.65	5.481E-01	Pulse	0.50	3
[Pb]			1	-0.016	ug/l	-88.09	2,260.16	6.972E-04	Pulse	0.50	3
Ca			1	64520.192	ug/l	0.45	1,112,037.88	4.835E+00	Pulse	0.50	3
Ti			1	0.307	ug/l	32.52	57.33	2.496E-04	Pulse	0.50	3
Na			1	1669.868	ug/l	0.82	1,121,827.29	4.878E+00	Pulse	1.00	3
Mg			1	1510.404	ug/l	0.54	495,809.66	2.156E+00	Pulse	1.00	3
K			1	1099.173	ug/l	1.00	377,487.25	1.641E+00	Pulse	1.00	3
V			1	22.514	ug/l	0.23	80,364.32	3.494E-01	Pulse	0.50	3
Mn			1	4.117	ug/l	2.83	11,772.92	8.208E-02	Pulse	0.50	3
Fe			1	51.088	ug/l	9.79	196,395.95	1.370E+00	Pulse	0.50	3
Co			1	0.109	ug/l	12.51	1,967.44	1.372E-02	Pulse	0.50	3
Ni			1	0.314	ug/l	16.37	928.69	6.480E-03	Pulse	0.50	3
Cu			1	0.451	ug/l	10.73	8,672.63	6.045E-02	Pulse	0.50	3
Zn			1	0.870	ug/l	9.05	1,560.07	7.308E-03	Pulse	1.00	3
Cd			1	-0.010	ug/l	-139.53	174.00	8.144E-04	Pulse	0.50	3
Al			1	52.414	ug/l	7.81	7,608.79	3.310E-02	Pulse	1.00	3
Se			1	0.602	ug/l	28.02	74.00	3.465E-04	Pulse	3.00	3
Sb			1	1.395	ug/l	0.37	6,264.41	2.934E-02	Pulse	1.00	3
Se			1	0.612	ug/l	4.94	39.22	1.837E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,895,767.33	1.71	97.7	Pulse	0.50	3
1	Sc		229,982.98	1.03	93.6	Pulse	0.30	3
1	Ge		143,442.67	1.43	95.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,421,381.26	1.59	95.6	Pulse	0.30	3
1	Tb		4,131,924.00	2.01	98.3	Pulse	0.50	3
1	Lu		3,242,832.08	2.25	97.9	Pulse	0.50	3
1	Ge		213,506.37	1.10	95.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,746.75	6.87	83.3	Pulse	0.30	3

Quantitation Report

File Name	099SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:11
Sample Name	FC3879-19F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.470	ug/l	0.63	7,790.25	5.481E-02	Pulse	0.50	3
As			1	4.651	ug/l	1.61	2,653.19	1.866E-02	Pulse	1.00	3
Mo			1	1.713	ug/l	3.92	4,915.32	2.311E-02	Pulse	0.50	3
Pb			1	-0.074	ug/l	-4.18	4,138.51	1.432E-03	Pulse	1.00	3
Be			1	-0.019	ug/l	-278.05	6.00	2.582E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	104.68	106.00	4.980E-04	Pulse	0.50	3
Ba			1	15.220	ug/l	0.79	19,393.72	1.365E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	70.43	3,274.99	1.009E-03	Pulse	0.50	3
Sn			1	-0.002	ug/l	-2974.53	1,880.10	1.323E-03	Pulse	0.30	3
Sr			1	236.523	ug/l	0.56	796,903.04	5.608E-01	Pulse	0.50	3
[Pb]			1	-0.082	ug/l	-5.83	1,889.44	5.824E-04	Pulse	0.50	3
Ca			1	65692.900	ug/l	0.43	1,143,368.38	4.923E+00	Pulse	0.50	3
Ti			1	0.325	ug/l	23.86	60.00	2.585E-04	Pulse	0.50	3
Na			1	1704.308	ug/l	0.81	1,155,939.13	4.978E+00	Pulse	1.00	3
Mg			1	1506.795	ug/l	0.34	499,480.67	2.151E+00	Pulse	1.00	3
K			1	1140.593	ug/l	1.02	394,228.19	1.698E+00	Pulse	1.00	3
V			1	22.231	ug/l	0.71	80,157.42	3.451E-01	Pulse	0.50	3
Mn			1	4.819	ug/l	1.03	13,550.08	9.531E-02	Pulse	0.50	3
Fe			1	33.732	ug/l	1.29	133,042.88	9.359E-01	Pulse	0.50	3
Co			1	0.102	ug/l	21.24	1,903.44	1.339E-02	Pulse	0.50	3
Ni			1	1.090	ug/l	2.34	2,166.13	1.524E-02	Pulse	0.50	3
Cu			1	1.669	ug/l	2.64	13,661.52	9.610E-02	Pulse	0.50	3
Zn			1	0.543	ug/l	2.28	1,288.38	6.059E-03	Pulse	1.00	3
Cd			1	-0.007	ug/l	-294.93	177.33	8.348E-04	Pulse	0.50	3
Al			1	31.957	ug/l	0.44	4,811.25	2.072E-02	Pulse	1.00	3
Se			1	0.628	ug/l	13.93	74.89	3.522E-04	Pulse	3.00	3
Sb			1	1.386	ug/l	2.73	6,205.05	2.919E-02	Pulse	1.00	3
Se			1	0.690	ug/l	34.28	40.78	1.919E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,889,867.58	2.01	97.5	Pulse	0.50	3
1	Sc		232,240.79	1.48	94.6	Pulse	0.30	3
1	Ge		142,148.15	1.48	94.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,421,044.08	1.37	95.5	Pulse	0.30	3
1	Tb		4,149,737.00	2.81	98.7	Pulse	0.50	3
1	Lu		3,244,612.92	2.40	97.9	Pulse	0.50	3
1	Ge		212,616.62	1.09	94.9	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,798.98	10.61	85.8	Pulse	0.30	3

Quantitation Report

File Name	100_MB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:15
Sample Name	MP42112-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.339	ug/l	20.85	2,197.47	1.484E-02	Pulse	0.50	3
As			1	0.135	ug/l	31.51	158.67	1.072E-03	Pulse	1.00	3
Mo			1	-0.094	ug/l	-3.78	676.68	3.076E-03	Pulse	0.50	3
Pb			1	0.122	ug/l	16.02	5,838.67	1.962E-03	Pulse	1.00	3
Be			1	-0.061	ug/l	-370.40	6.00	2.507E-05	Pulse	2.00	3
Ag			1	0.002	ug/l	793.20	97.33	4.436E-04	Pulse	0.50	3
Ba			1	-0.110	ug/l	-51.87	366.67	2.516E-04	Pulse	0.50	3
Tl			1	0.002	ug/l	201.65	3,214.31	9.724E-04	Pulse	0.50	3
Sn			1	26.467	ug/l	0.59	31,588.22	2.167E-02	Pulse	0.30	3
Sr			1	0.094	ug/l	31.99	1,254.71	8.605E-04	Pulse	0.50	3
[Pb]			1	0.163	ug/l	18.95	2,766.23	8.368E-04	Pulse	0.50	3
Ca			1	39.324	ug/l	2.40	536.01	2.241E-03	Pulse	0.50	3
Ti			1	1.316	ug/l	3.89	86.00	3.596E-04	Pulse	0.50	3
Na			1	1.728	ug/l	19.25	12,412.51	5.189E-02	Pulse	1.00	3
Mg			1	3.294	ug/l	2.23	901.02	3.767E-03	Pulse	1.00	3
K			1	33.778	ug/l	4.23	40,401.43	1.689E-01	Pulse	1.00	3
V			1	1.482	ug/l	1.44	3,478.32	1.454E-02	Pulse	0.50	3
Mn			1	0.347	ug/l	9.99	1,056.70	7.134E-03	Pulse	0.50	3
Fe			1	13.834	ug/l	1.28	34,173.95	2.307E-01	Pulse	0.50	3
Co			1	0.027	ug/l	76.75	1,390.72	9.390E-03	Pulse	0.50	3
Ni			1	0.438	ug/l	29.63	726.68	4.911E-03	Pulse	0.50	3
Cu			1	-0.179	ug/l	-51.26	6,688.51	4.515E-02	Pulse	0.50	3
Zn			1	3.178	ug/l	1.28	1,943.77	8.837E-03	Pulse	1.00	3
Cd			1	-0.013	ug/l	-678.81	185.33	8.417E-04	Pulse	0.50	3
Al			1	7.537	ug/l	7.22	764.02	3.194E-03	Pulse	1.00	3
Se			1	0.020	ug/l	1450.74	47.67	2.165E-04	Pulse	3.00	3
Sb			1	-0.008	ug/l	-287.35	1,093.03	4.969E-03	Pulse	1.00	3
Se			1	0.225	ug/l	186.52	28.22	1.285E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,974,886.42	1.61	100.4	Pulse	0.50	3
1	Sc		239,210.36	0.57	97.4	Pulse	0.30	3
1	Ge		148,167.20	2.09	98.3	Pulse	0.30	3
1	In		1,457,756.33	1.66	98.0	Pulse	0.30	3
1	Tb		4,184,566.17	2.00	99.5	Pulse	0.50	3
1	Lu		3,305,235.25	1.95	99.8	Pulse	0.50	3
1	Ge		219,962.98	1.90	98.2	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,947.88	8.54	92.8	Pulse	0.30	3

Quantitation Report

File Name 101_BSP.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:18
Sample Name MP42112-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	504.081	ug/l	0.72	875,334.67	6.049E+00	Pulse	0.50	3
As			1	509.589	ug/l	1.02	113,013.93	7.810E-01	Pulse	1.00	3
Mo			1	511.382	ug/l	0.16	508,417.80	2.344E+00	Pulse	0.50	3
Pb			1	505.951	ug/l	0.45	2,478,873.00	8.741E-01	Pulse	1.00	3
Be			1	491.478	ug/l	1.77	6,680.10	2.841E-02	Pulse	2.00	3
Ag			1	263.222	ug/l	0.69	776,915.73	3.582E+00	Pulse	0.50	3
Ba			1	498.933	ug/l	0.79	249,020.73	1.755E-01	Pulse	0.50	3
Tl			1	511.225	ug/l	0.68	3,311,293.67	1.002E+00	Pulse	0.50	3
Sn			1	539.649	ug/l	0.08	590,560.88	4.161E-01	Pulse	0.30	3
Sr			1	503.067	ug/l	0.69	677,271.21	4.772E-01	Pulse	0.50	3
[Pb]			1	492.094	ug/l	0.53	1,124,576.96	3.402E-01	Pulse	0.50	3
Ca			1	49555.208	ug/l	0.70	349,552.07	1.486E+00	Pulse	0.50	3
Ti			1	490.472	ug/l	1.15	23,194.39	9.861E-02	Pulse	0.50	3
Na			1	49962.636	ug/l	1.20	13,600,947.67	5.783E+01	Analog	1.00	3
Mg			1	49664.810	ug/l	1.09	6,663,204.00	2.833E+01	Analog	1.00	3
K			1	49070.848	ug/l	1.73	6,296,092.33	2.677E+01	Analog	1.00	3
V			1	490.766	ug/l	0.52	706,639.37	3.005E+00	Pulse	0.50	3
Mn			1	494.992	ug/l	0.53	540,422.23	3.735E+00	Pulse	0.50	3
Fe			1	50676.923	ug/l	1.14	73,370,058.67	5.071E+02	Analog	0.50	3
Co			1	510.802	ug/l	0.31	1,306,574.75	9.029E+00	Pulse	0.50	3
Ni			1	505.623	ug/l	0.16	330,977.09	2.287E+00	Pulse	0.50	3
Cu			1	507.669	ug/l	0.36	866,976.75	5.991E+00	Pulse	0.50	3
Zn			1	489.127	ug/l	0.63	162,767.29	7.505E-01	Pulse	1.00	3
Cd			1	487.762	ug/l	0.43	243,585.19	1.123E+00	Pulse	0.50	3
Al			1	49049.651	ug/l	0.69	2,793,803.08	1.188E+01	Pulse	1.00	3
Se			1	478.054	ug/l	2.01	9,128.07	4.210E-02	Pulse	3.00	3
Sb			1	510.135	ug/l	0.53	772,338.96	3.561E+00	Pulse	1.00	3
Se			1	471.163	ug/l	0.30	4,346.72	2.004E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,835,839.00	1.81	95.7	Pulse	0.50	3
1	Sc		235,202.31	1.74	95.8	Pulse	0.30	3
1	Ge		144,706.49	1.45	96.0	Pulse	0.30	3
1	In		1,419,344.94	1.75	95.4	Pulse	0.30	3
1	Tb		4,188,542.00	2.12	99.6	Pulse	0.50	3
1	Lu		3,305,485.00	2.26	99.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		216,886.34	2.00	96.8	Pulse	0.30	3
1	Te		2.67	114.56	200.0	Pulse	0.50	3
1	Li		1,783.42	4.81	85.0	Pulse	0.30	3

Quantitation Report

File Name 102SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:22
Sample Name FC5031-25
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	12.478	ug/l	1.13	23,463.45	1.602E-01	Pulse	0.50	3
As			1	0.918	ug/l	14.09	332.33	2.269E-03	Pulse	1.00	3
Mo			1	0.824	ug/l	14.28	1,577.40	7.279E-03	Pulse	0.50	3
Pb			1	19.128	ug/l	0.38	102,792.42	3.473E-02	Pulse	1.00	3
Be			1	0.259	ug/l	113.37	10.33	4.354E-05	Pulse	2.00	3
Ag			1	0.150	ug/l	13.90	532.68	2.460E-03	Pulse	0.50	3
Ba			1	16.885	ug/l	1.74	8,892.88	6.218E-03	Pulse	0.50	3
Tl			1	0.171	ug/l	25.45	4,245.87	1.303E-03	Pulse	0.50	3
Sn			1	24.862	ug/l	0.08	29,229.93	2.043E-02	Pulse	0.30	3
Sr			1	8.429	ug/l	3.42	12,518.17	8.755E-03	Pulse	0.50	3
[Pb]			1	20.368	ug/l	0.18	48,191.53	1.478E-02	Pulse	0.50	3
Ca			1	395.151	ug/l	2.79	3,062.91	1.291E-02	Pulse	0.50	3
Ti			1	1300.503	ug/l	1.23	62,020.96	2.613E-01	Pulse	0.50	3
Na			1	38.902	ug/l	5.92	22,516.60	9.489E-02	Pulse	1.00	3
Mg			1	91.648	ug/l	3.32	12,854.46	5.417E-02	Pulse	1.00	3
K			1	85.826	ug/l	1.63	46,783.74	1.971E-01	Pulse	1.00	3
V			1	11.456	ug/l	1.01	17,916.91	7.550E-02	Pulse	0.50	3
Mn			1	35.154	ug/l	0.85	39,452.53	2.694E-01	Pulse	0.50	3
Fe			1	5892.345	ug/l	0.89	8,644,689.33	5.904E+01	Analog	0.50	3
Co			1	0.343	ug/l	0.61	2,192.13	1.497E-02	Pulse	0.50	3
Ni			1	1.120	ug/l	5.94	1,170.71	7.992E-03	Pulse	0.50	3
Cu			1	3.219	ug/l	6.51	12,437.36	8.494E-02	Pulse	0.50	3
Zn			1	10.666	ug/l	3.36	4,390.84	2.027E-02	Pulse	1.00	3
Cd			1	0.157	ug/l	57.87	267.33	1.235E-03	Pulse	0.50	3
Al			1	2701.832	ug/l	0.65	155,605.14	6.556E-01	Pulse	1.00	3
Se			1	1.693	ug/l	8.45	78.67	3.630E-04	Pulse	3.00	3
Sb			1	0.252	ug/l	5.33	1,469.39	6.782E-03	Pulse	1.00	3
Se			1	2.135	ug/l	7.98	45.33	2.093E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,959,666.08	1.96	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		237,326.48	0.56	96.6	Pulse	0.30	3
1	Ge		146,429.07	1.51	97.1	Pulse	0.30	3
1	In		1,430,424.25	2.01	96.2	Pulse	0.30	3
1	Tb		4,170,085.58	2.23	99.2	Pulse	0.50	3
1	Lu		3,261,123.17	2.07	98.4	Pulse	0.50	3
1	Ge		216,665.04	0.87	96.7	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,841.21	5.29	87.8	Pulse	0.30	3

Quantitation Report

File Name 103SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:26
Sample Name MP42112-D1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	12.059	ug/l	0.97	22,709.89	1.552E-01	Pulse	0.50	3
As			1	1.074	ug/l	11.62	367.00	2.508E-03	Pulse	1.00	3
Mo			1	0.551	ug/l	0.73	1,312.72	6.030E-03	Pulse	0.50	3
Pb			1	19.866	ug/l	0.17	106,987.97	3.600E-02	Pulse	1.00	3
Be			1	0.152	ug/l	131.27	9.00	3.732E-05	Pulse	2.00	3
Ag			1	0.159	ug/l	7.89	562.68	2.584E-03	Pulse	0.50	3
Ba			1	18.802	ug/l	4.62	9,901.39	6.891E-03	Pulse	0.50	3
Tl			1	0.043	ug/l	24.82	3,440.36	1.052E-03	Pulse	0.50	3
Sn			1	24.489	ug/l	2.13	28,955.02	2.015E-02	Pulse	0.30	3
Sr			1	13.154	ug/l	0.46	19,010.25	1.323E-02	Pulse	0.50	3
[Pb]			1	21.361	ug/l	1.34	50,554.31	1.546E-02	Pulse	0.50	3
Ca			1	433.613	ug/l	3.11	3,390.30	1.406E-02	Pulse	0.50	3
Ti			1	1098.426	ug/l	1.36	53,238.02	2.207E-01	Pulse	0.50	3
Na			1	29.605	ug/l	2.21	20,291.56	8.413E-02	Pulse	1.00	3
Mg			1	96.672	ug/l	1.10	13,757.05	5.703E-02	Pulse	1.00	3
K			1	79.316	ug/l	4.22	46,690.19	1.936E-01	Pulse	1.00	3
V			1	10.712	ug/l	1.95	17,114.20	7.095E-02	Pulse	0.50	3
Mn			1	30.266	ug/l	1.24	34,025.01	2.326E-01	Pulse	0.50	3
Fe			1	6952.455	ug/l	0.61	10,188,297.33	6.965E+01	Analog	0.50	3
Co			1	0.296	ug/l	7.46	2,069.45	1.414E-02	Pulse	0.50	3
Ni			1	1.084	ug/l	4.83	1,145.37	7.827E-03	Pulse	0.50	3
Cu			1	3.275	ug/l	3.88	12,520.75	8.560E-02	Pulse	0.50	3
Zn			1	11.284	ug/l	2.81	4,617.91	2.121E-02	Pulse	1.00	3
Cd			1	0.045	ug/l	133.95	212.67	9.760E-04	Pulse	0.50	3
Al			1	3006.706	ug/l	0.85	175,943.51	7.295E-01	Pulse	1.00	3
Se			1	1.759	ug/l	15.17	80.33	3.689E-04	Pulse	3.00	3
Sb			1	0.145	ug/l	43.70	1,315.05	6.039E-03	Pulse	1.00	3
Se			1	3.067	ug/l	16.75	54.11	2.487E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,971,581.75	2.01	100.3	Pulse	0.50	3
1	Sc		241,187.84	1.24	98.2	Pulse	0.30	3
1	Ge		146,292.53	1.70	97.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,437,024.59	1.40	96.6	Pulse	0.30	3
1	Tb		4,182,579.83	1.75	99.5	Pulse	0.50	3
1	Lu		3,269,127.58	1.83	98.7	Pulse	0.50	3
1	Ge		217,702.84	1.01	97.2	Pulse	0.30	3
1	Te		1.33	86.60	100.0	Pulse	0.50	3
1	Li		1,868.99	6.64	89.1	Pulse	0.30	3

Quantitation Report

File Name 104SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:30
Sample Name MP42112-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.055	ug/l	1.57	5,626.16	3.726E-02	Pulse	0.50	3
As			1	0.762	ug/l	26.75	165.67	1.097E-03	Pulse	1.00	3
Mo			1	0.161	ug/l	277.37	815.36	3.654E-03	Pulse	0.50	3
Pb			1	18.553	ug/l	0.65	24,222.76	8.149E-03	Pulse	1.00	3
Be			1	0.674	ug/l	151.93	8.83	3.635E-05	Pulse	2.00	3
Ag			1	0.100	ug/l	39.39	155.33	6.954E-04	Pulse	0.50	3
Ba			1	16.555	ug/l	3.90	2,152.14	1.453E-03	Pulse	0.50	3
Tl			1	0.051	ug/l	187.67	3,270.32	9.887E-04	Pulse	0.50	3
Sn			1	21.676	ug/l	5.25	6,901.32	4.658E-03	Pulse	0.30	3
Sr			1	8.421	ug/l	4.13	3,508.34	2.367E-03	Pulse	0.50	3
[Pb]			1	19.841	ug/l	1.33	11,449.85	3.462E-03	Pulse	0.50	3
Ca			1	353.928	ug/l	11.29	775.35	3.184E-03	Pulse	0.50	3
Ti			1	1323.281	ug/l	1.06	12,976.33	5.326E-02	Pulse	0.50	3
Na			1	-5.761	ug/l	-155.42	11,827.49	4.856E-02	Pulse	1.00	3
Mg			1	84.295	ug/l	3.47	2,803.20	1.151E-02	Pulse	1.00	3
K			1	83.318	ug/l	1.36	38,888.41	1.596E-01	Pulse	1.00	3
V			1	11.873	ug/l	2.16	4,873.29	2.000E-02	Pulse	0.50	3
Mn			1	35.486	ug/l	1.51	8,757.33	5.800E-02	Pulse	0.50	3
Fe			1	6066.001	ug/l	0.92	1,846,414.42	1.223E+01	Pulse	0.50	3
Co			1	0.318	ug/l	17.27	1,514.73	1.003E-02	Pulse	0.50	3
Ni			1	1.043	ug/l	16.08	584.68	3.873E-03	Pulse	0.50	3
Cu			1	1.686	ug/l	49.79	7,731.57	5.120E-02	Pulse	0.50	3
Zn			1	5.998	ug/l	5.76	1,298.05	5.817E-03	Pulse	1.00	3
Cd			1	0.123	ug/l	251.12	207.33	9.292E-04	Pulse	0.50	3
Al			1	2779.234	ug/l	0.29	33,131.03	1.360E-01	Pulse	1.00	3
Se			1	1.839	ug/l	17.63	55.11	2.470E-04	Pulse	3.00	3
Sb			1	0.081	ug/l	121.31	1,147.04	5.140E-03	Pulse	1.00	3
Se			1	0.537	ug/l	163.41	27.56	1.236E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,972,274.83	1.40	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,653.04	1.36	99.2	Pulse	0.30	3
1	Ge		150,973.84	0.88	100.1	Pulse	0.30	3
1	In		1,482,065.12	1.61	99.7	Pulse	0.30	3
1	Tb		4,207,484.67	1.41	100.1	Pulse	0.50	3
1	Lu		3,306,935.92	1.97	99.8	Pulse	0.50	3
1	Ge		223,121.20	1.13	99.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,041.23	7.20	97.3	Pulse	0.30	3

Quantitation Report

File Name 105SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:34
Sample Name MP42112-S1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	496.832	ug/l	1.22	865,615.39	5.962E+00	Pulse	0.50	3
As			1	456.477	ug/l	0.49	101,577.35	6.997E-01	Pulse	1.00	3
Mo			1	478.319	ug/l	1.00	475,497.66	2.193E+00	Pulse	0.50	3
Pb			1	510.263	ug/l	0.59	2,488,878.08	8.815E-01	Pulse	1.00	3
Be			1	473.789	ug/l	1.13	6,497.71	2.738E-02	Pulse	2.00	3
Ag			1	254.338	ug/l	0.16	750,575.02	3.462E+00	Pulse	0.50	3
Ba			1	501.509	ug/l	0.04	249,795.57	1.764E-01	Pulse	0.50	3
Tl			1	498.411	ug/l	0.37	3,225,845.25	9.768E-01	Pulse	0.50	3
Sn			1	522.924	ug/l	0.24	571,113.62	4.032E-01	Pulse	0.30	3
Sr			1	501.459	ug/l	0.60	673,691.02	4.757E-01	Pulse	0.50	3
[Pb]			1	495.367	ug/l	0.27	1,131,150.34	3.425E-01	Pulse	0.50	3
Ca			1	48003.195	ug/l	0.23	341,659.49	1.440E+00	Pulse	0.50	3
Ti			1	783.926	ug/l	1.17	37,387.53	1.576E-01	Pulse	0.50	3
Na			1	48144.248	ug/l	0.77	13,224,382.00	5.573E+01	Analog	1.00	3
Mg			1	48057.951	ug/l	0.50	6,505,754.83	2.742E+01	Analog	1.00	3
K			1	47269.466	ug/l	1.47	6,120,858.00	2.580E+01	Analog	1.00	3
V			1	479.700	ug/l	0.54	696,977.46	2.937E+00	Pulse	0.50	3
Mn			1	493.272	ug/l	1.03	540,333.21	3.722E+00	Pulse	0.50	3
Fe			1	53766.387	ug/l	0.29	78,104,930.67	5.380E+02	Analog	0.50	3
Co			1	494.969	ug/l	1.31	1,270,260.50	8.749E+00	Pulse	0.50	3
Ni			1	490.865	ug/l	1.02	322,394.38	2.221E+00	Pulse	0.50	3
Cu			1	493.549	ug/l	1.04	845,861.85	5.826E+00	Pulse	0.50	3
Zn			1	480.554	ug/l	0.59	159,910.04	7.374E-01	Pulse	1.00	3
Cd			1	474.793	ug/l	0.61	237,066.18	1.093E+00	Pulse	0.50	3
Al			1	50892.355	ug/l	0.51	2,924,767.00	1.233E+01	Pulse	1.00	3
Se			1	445.758	ug/l	1.28	8,513.67	3.927E-02	Pulse	3.00	3
Sb			1	467.201	ug/l	0.72	707,321.08	3.262E+00	Pulse	1.00	3
Se			1	442.963	ug/l	0.58	4,086.99	1.885E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,823,127.17	1.95	95.3	Pulse	0.50	3
1	Sc		237,304.63	1.43	96.6	Pulse	0.30	3
1	Ge		145,180.58	1.17	96.3	Pulse	0.30	3
1	In		1,416,424.14	2.19	95.2	Pulse	0.30	3
1	Tb		4,191,438.33	2.23	99.7	Pulse	0.50	3
1	Lu		3,302,739.08	2.17	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		216,830.96	1.41	96.8	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		1,737.86	4.82	82.8	Pulse	0.30	3

Quantitation Report

File Name	106CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:37
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.924	ug/l	1.33	459,412.53	2.941E+00	Pulse	0.50	3
As			1	48.584	ug/l	2.08	58,224.08	3.727E-01	Pulse	1.00	3
Mo			1	48.797	ug/l	0.55	260,000.44	1.120E+00	Pulse	0.50	3
Pb			1	49.260	ug/l	0.90	1,264,994.42	4.264E-01	Pulse	1.00	3
Be			1	47.821	ug/l	0.84	3,493.64	1.383E-02	Pulse	2.00	3
Ag			1	50.680	ug/l	0.49	800,444.85	3.449E+00	Pulse	0.50	3
Ba			1	48.834	ug/l	1.46	130,270.92	8.601E-02	Pulse	0.50	3
Tl			1	53.326	ug/l	0.97	1,781,876.62	5.230E-01	Pulse	0.50	3
Sn			1	49.037	ug/l	1.53	287,410.83	1.898E-01	Pulse	0.30	3
Sr			1	48.787	ug/l	1.66	351,055.84	2.318E-01	Pulse	0.50	3
[Pb]			1	50.398	ug/l	1.30	594,824.46	1.746E-01	Pulse	0.50	3
Ca			1	5014.132	ug/l	0.82	190,025.68	7.525E-01	Pulse	0.50	3
Ti			1	47.781	ug/l	1.40	12,142.45	4.808E-02	Pulse	0.50	3
Na			1	4915.323	ug/l	0.26	7,190,689.33	2.847E+01	Analog	1.00	3
Mg			1	4986.948	ug/l	0.75	3,592,561.50	1.423E+01	Pulse	1.00	3
K			1	5151.036	ug/l	0.46	3,566,828.33	1.412E+01	Pulse	1.00	3
V			1	48.870	ug/l	0.51	378,481.27	1.499E+00	Pulse	0.50	3
Mn			1	48.867	ug/l	1.71	288,328.98	1.846E+00	Pulse	0.50	3
Fe			1	4896.439	ug/l	1.11	38,275,470.67	2.450E+02	Analog	0.50	3
Co			1	49.676	ug/l	1.53	686,546.50	4.395E+00	Pulse	0.50	3
Ni			1	50.116	ug/l	2.51	177,301.04	1.135E+00	Pulse	0.50	3
Cu			1	50.380	ug/l	1.66	468,110.34	2.997E+00	Pulse	0.50	3
Zn			1	50.745	ug/l	0.38	90,804.64	3.912E-01	Pulse	1.00	3
Cd			1	50.022	ug/l	0.45	133,760.22	5.763E-01	Pulse	0.50	3
Al			1	5021.846	ug/l	1.45	1,535,894.37	6.082E+00	Pulse	1.00	3
Se			1	49.370	ug/l	1.22	5,069.12	2.184E-02	Pulse	3.00	3
Sb			1	49.441	ug/l	0.14	401,130.58	1.728E+00	Pulse	1.00	3
Se			1	49.678	ug/l	1.57	2,465.05	1.062E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,966,474.33	0.57	100.1	Pulse	0.50	3
1	Sc		252,534.36	0.29	102.8	Pulse	0.30	3
1	Ge		156,215.23	0.64	103.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,514,587.89	0.18	101.8	Pulse	0.30	3
1	Tb		4,305,764.17	0.70	102.4	Pulse	0.50	3
1	Lu		3,407,051.92	0.81	102.8	Pulse	0.50	3
1	Ge		232,087.92	1.12	103.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,010.12	3.90	95.8	Pulse	0.30	3

Quantitation Report

File Name 107_CCV.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:41
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.236	ug/l	1.26	904,077.79	5.894E+00	Pulse	0.50	3
As			1	97.309	ug/l	0.43	114,374.81	7.457E-01	Pulse	1.00	3
Mo			1	97.699	ug/l	0.79	509,267.33	2.239E+00	Pulse	0.50	3
Pb			1	97.563	ug/l	0.40	2,440,816.33	8.428E-01	Pulse	1.00	3
Be			1	95.810	ug/l	1.47	6,917.01	2.769E-02	Pulse	2.00	3
Ag			1	99.284	ug/l	0.19	1,536,301.29	6.756E+00	Pulse	0.50	3
Ba			1	97.241	ug/l	0.78	254,371.53	1.710E-01	Pulse	0.50	3
Tl			1	103.525	ug/l	0.06	3,434,621.08	1.014E+00	Pulse	0.50	3
Sn			1	96.552	ug/l	0.95	553,949.67	3.724E-01	Pulse	0.30	3
Sr			1	96.676	ug/l	0.35	682,158.77	4.585E-01	Pulse	0.50	3
[Pb]			1	98.580	ug/l	0.92	1,153,975.54	3.408E-01	Pulse	0.50	3
Ca			1	9770.216	ug/l	0.98	366,037.18	1.465E+00	Pulse	0.50	3
Ti			1	93.501	ug/l	0.09	23,483.40	9.400E-02	Pulse	0.50	3
Na			1	9762.010	ug/l	0.59	14,115,325.67	5.650E+01	Analog	1.00	3
Mg			1	9810.259	ug/l	0.85	6,990,805.33	2.798E+01	Analog	1.00	3
K			1	9827.813	ug/l	0.34	6,698,015.33	2.681E+01	Analog	1.00	3
V			1	96.580	ug/l	1.64	738,597.61	2.957E+00	Pulse	0.50	3
Mn			1	98.198	ug/l	0.78	568,213.27	3.705E+00	Pulse	0.50	3
Fe			1	9915.169	ug/l	0.63	76,086,978.67	4.961E+02	Analog	0.50	3
Co			1	99.334	ug/l	1.01	1,346,604.58	8.779E+00	Pulse	0.50	3
Ni			1	99.563	ug/l	1.03	345,413.67	2.252E+00	Pulse	0.50	3
Cu			1	98.839	ug/l	1.13	894,764.90	5.834E+00	Pulse	0.50	3
Zn			1	99.121	ug/l	0.74	172,926.62	7.604E-01	Pulse	1.00	3
Cd			1	98.633	ug/l	1.20	258,234.48	1.136E+00	Pulse	0.50	3
Al			1	9772.212	ug/l	1.56	2,956,276.92	1.183E+01	Pulse	1.00	3
Se			1	99.338	ug/l	0.91	9,944.36	4.373E-02	Pulse	3.00	3
Sb			1	98.566	ug/l	0.70	782,431.79	3.441E+00	Pulse	1.00	3
Se			1	98.330	ug/l	1.06	4,754.37	2.091E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,895,912.50	1.29	97.7	Pulse	0.50	3
1	Sc		249,821.80	0.05	101.7	Pulse	0.30	3
1	Ge		153,378.26	0.95	101.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,487,637.41	0.68	100.0	Pulse	0.30	3
1	Tb		4,252,792.67	0.51	101.1	Pulse	0.50	3
1	Lu		3,385,901.75	0.88	102.2	Pulse	0.50	3
1	Ge		227,400.26	0.92	101.5	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		1,851.21	2.62	88.2	Pulse	0.30	3

Quantitation Report

File Name 108_CCB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:45
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.018	ug/l	31.68	1,782.09	1.188E-02	Pulse	0.50	3
As			1	0.024	ug/l	65.41	157.00	1.047E-03	Pulse	1.00	3
Mo			1	0.111	ug/l	18.58	1,354.05	6.057E-03	Pulse	0.50	3
Pb			1	-0.011	ug/l	-65.85	4,808.35	1.652E-03	Pulse	1.00	3
Be			1	-0.010	ug/l	-224.33	6.33	2.575E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	26.38	324.00	1.451E-03	Pulse	0.50	3
Ba			1	-0.002	ug/l	-602.58	425.34	2.874E-04	Pulse	0.50	3
Tl			1	0.028	ug/l	32.02	4,073.17	1.246E-03	Pulse	0.50	3
Sn			1	0.097	ug/l	19.54	2,513.52	1.698E-03	Pulse	0.30	3
Sr			1	0.000	ug/l	-339.44	1,140.04	7.701E-04	Pulse	0.50	3
[Pb]			1	-0.023	ug/l	-19.42	2,110.14	6.455E-04	Pulse	0.50	3
Ca			1	-0.838	ug/l	-141.23	230.67	9.367E-04	Pulse	0.50	3
Ti			1	0.016	ug/l	329.32	27.33	1.110E-04	Pulse	0.50	3
Na			1	1.089	ug/l	56.84	13,829.11	5.619E-02	Pulse	1.00	3
Mg			1	1.104	ug/l	35.79	1,239.04	5.036E-03	Pulse	1.00	3
K			1	1.673	ug/l	34.71	38,179.38	1.551E-01	Pulse	1.00	3
V			1	0.006	ug/l	24.44	1,396.06	5.671E-03	Pulse	0.50	3
Mn			1	-0.007	ug/l	-136.19	638.68	4.258E-03	Pulse	0.50	3
Fe			1	1.561	ug/l	20.82	25,550.92	1.703E-01	Pulse	0.50	3
Co			1	0.017	ug/l	27.95	1,555.40	1.037E-02	Pulse	0.50	3
Ni			1	0.008	ug/l	265.89	465.34	3.102E-03	Pulse	0.50	3
Cu			1	0.019	ug/l	129.36	7,254.05	4.837E-02	Pulse	0.50	3
Zn			1	-0.070	ug/l	-27.91	770.69	3.449E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	6.32	235.33	1.053E-03	Pulse	0.50	3
Al			1	3.802	ug/l	16.79	1,469.72	5.973E-03	Pulse	1.00	3
Se			1	0.152	ug/l	25.36	62.89	2.814E-04	Pulse	3.00	3
Sb			1	0.049	ug/l	20.48	1,506.73	6.741E-03	Pulse	1.00	3
Se			1	0.042	ug/l	123.77	28.56	1.278E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,910,533.83	0.89	98.2	Pulse	0.50	3
1	Sc		246,159.28	0.48	100.2	Pulse	0.30	3

Quantitation Report

1	Ge		149,968.18	0.43	99.5	Pulse	0.30	3
1	In		1,480,388.03	0.49	99.5	Pulse	0.30	3
1	Tb		4,146,491.25	0.66	98.6	Pulse	0.50	3
1	Lu		3,269,079.75	0.87	98.7	Pulse	0.50	3
1	Ge		223,449.98	0.88	99.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,060.12	3.25	98.2	Pulse	0.30	3

Quantitation Report

File Name	109SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:49
Sample Name	MP42112-S2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	495.203	ug/l	0.89	865,848.67	5.943E+00	Pulse	0.50	3
As			1	458.588	ug/l	0.67	102,419.46	7.029E-01	Pulse	1.00	3
Mo			1	483.997	ug/l	1.39	478,528.49	2.219E+00	Pulse	0.50	3
Pb			1	514.529	ug/l	0.50	2,491,575.50	8.889E-01	Pulse	1.00	3
Be			1	483.774	ug/l	0.35	6,598.40	2.796E-02	Pulse	2.00	3
Ag			1	255.905	ug/l	0.55	751,139.81	3.483E+00	Pulse	0.50	3
Ba			1	511.795	ug/l	0.33	253,569.94	1.800E-01	Pulse	0.50	3
Tl			1	501.991	ug/l	1.17	3,218,458.83	9.838E-01	Pulse	0.50	3
Sn			1	525.996	ug/l	0.73	571,431.71	4.056E-01	Pulse	0.30	3
Sr			1	530.393	ug/l	0.10	708,795.58	5.031E-01	Pulse	0.50	3
[Pb]			1	500.660	ug/l	0.24	1,132,486.71	3.462E-01	Pulse	0.50	3
Ca			1	48918.732	ug/l	0.76	346,226.30	1.467E+00	Pulse	0.50	3
Ti			1	805.521	ug/l	0.76	38,203.86	1.619E-01	Pulse	0.50	3
Na			1	48775.645	ug/l	0.87	13,323,339.67	5.646E+01	Analog	1.00	3
Mg			1	48693.885	ug/l	1.09	6,554,924.33	2.778E+01	Analog	1.00	3
K			1	48176.859	ug/l	1.70	6,202,886.50	2.629E+01	Analog	1.00	3
V			1	486.100	ug/l	0.43	702,299.40	2.976E+00	Pulse	0.50	3
Mn			1	493.962	ug/l	0.94	543,034.37	3.727E+00	Pulse	0.50	3
Fe			1	53962.180	ug/l	1.10	78,670,512.00	5.399E+02	Analog	0.50	3
Co			1	492.319	ug/l	0.52	1,268,111.00	8.703E+00	Pulse	0.50	3
Ni			1	489.601	ug/l	1.01	322,735.66	2.215E+00	Pulse	0.50	3
Cu			1	493.405	ug/l	0.81	848,724.31	5.824E+00	Pulse	0.50	3
Zn			1	484.170	ug/l	0.69	160,229.66	7.430E-01	Pulse	1.00	3
Cd			1	477.990	ug/l	0.59	237,371.22	1.101E+00	Pulse	0.50	3
Al			1	51572.731	ug/l	0.64	2,947,440.33	1.249E+01	Pulse	1.00	3
Se			1	452.246	ug/l	0.46	8,590.71	3.984E-02	Pulse	3.00	3
Sb			1	467.957	ug/l	0.54	704,627.56	3.267E+00	Pulse	1.00	3
Se			1	446.698	ug/l	1.01	4,099.11	1.901E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,802,966.92	2.02	94.6	Pulse	0.50	3
1	Sc		235,993.58	1.71	96.1	Pulse	0.30	3
1	Ge		145,724.00	2.31	96.6	Pulse	0.30	3
1	In		1,408,944.70	1.71	94.7	Pulse	0.30	3
1	Tb		4,151,222.50	2.14	98.7	Pulse	0.50	3
1	Lu		3,271,544.08	2.17	98.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		215,659.35	1.50	96.3	Pulse	0.30	3
1	Te		3.33	91.65	250.0	Pulse	0.50	3
1	Li		1,775.65	9.04	84.6	Pulse	0.30	3

Quantitation Report

File Name 110SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 16:53
Sample Name MP42112-PS1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	67.461	ug/l	0.46	119,571.40	8.189E-01	Pulse	0.50	3
As			1	57.818	ug/l	1.20	13,051.79	8.937E-02	Pulse	1.00	3
Mo			1	55.663	ug/l	1.53	56,288.71	2.583E-01	Pulse	0.50	3
Pb			1	74.071	ug/l	0.95	372,985.40	1.295E-01	Pulse	1.00	3
Be			1	54.191	ug/l	5.13	752.01	3.157E-03	Pulse	2.00	3
Ag			1	14.705	ug/l	1.11	43,701.89	2.005E-01	Pulse	0.50	3
Ba			1	71.530	ug/l	0.91	36,228.78	2.540E-02	Pulse	0.50	3
Tl			1	58.198	ug/l	0.50	374,730.17	1.149E-01	Pulse	0.50	3
Sn			1	78.340	ug/l	1.02	87,761.52	6.154E-02	Pulse	0.30	3
Sr			1	63.782	ug/l	0.63	87,242.82	6.118E-02	Pulse	0.50	3
[Pb]			1	75.048	ug/l	0.56	171,230.11	5.250E-02	Pulse	0.50	3
Ca			1	5892.816	ug/l	1.61	42,316.67	1.777E-01	Pulse	0.50	3
Ti			1	1381.021	ug/l	1.88	66,106.16	2.775E-01	Pulse	0.50	3
Na			1	5468.743	ug/l	0.53	1,518,424.42	6.375E+00	Pulse	1.00	3
Mg			1	5716.315	ug/l	0.61	777,168.50	3.263E+00	Pulse	1.00	3
K			1	5636.952	ug/l	0.77	764,307.64	3.209E+00	Pulse	1.00	3
V			1	65.524	ug/l	1.26	96,689.07	4.059E-01	Pulse	0.50	3
Mn			1	90.546	ug/l	0.48	100,301.35	6.869E-01	Pulse	0.50	3
Fe			1	11378.704	ug/l	0.12	16,636,053.67	1.139E+02	Analog	0.50	3
Co			1	56.869	ug/l	0.36	147,943.45	1.013E+00	Pulse	0.50	3
Ni			1	59.560	ug/l	0.36	39,720.60	2.720E-01	Pulse	0.50	3
Cu			1	61.432	ug/l	1.36	111,943.92	7.665E-01	Pulse	0.50	3
Zn			1	68.745	ug/l	2.05	23,735.58	1.089E-01	Pulse	1.00	3
Cd			1	55.076	ug/l	0.54	27,804.18	1.276E-01	Pulse	0.50	3
Al			1	8153.779	ug/l	0.27	470,646.41	1.976E+00	Pulse	1.00	3
Se			1	55.183	ug/l	3.26	1,100.25	5.049E-03	Pulse	3.00	3
Sb			1	51.933	ug/l	1.28	79,992.99	3.671E-01	Pulse	1.00	3
Se			1	55.542	ug/l	3.47	537.67	2.468E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,880,789.42	1.88	97.2	Pulse	0.50	3
1	Sc		238,193.03	1.11	97.0	Pulse	0.30	3
1	Ge		146,021.65	1.37	96.8	Pulse	0.30	3
1	In		1,426,056.85	1.75	95.9	Pulse	0.30	3
1	Tb		4,157,259.17	2.23	98.9	Pulse	0.50	3
1	Lu		3,261,115.42	2.46	98.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		217,911.73	0.85	97.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		2,064.56	6.41	98.4	Pulse	0.30	3

Quantitation Report

File Name	111SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 16:56
Sample Name	FC5031-28
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	18.468	ug/l	0.62	33,548.10	2.320E-01	Pulse	0.50	3
As			1	3.295	ug/l	6.76	855.02	5.908E-03	Pulse	1.00	3
Mo			1	1.663	ug/l	2.13	2,384.16	1.112E-02	Pulse	0.50	3
Pb			1	39.009	ug/l	0.28	201,275.82	6.901E-02	Pulse	1.00	3
Be			1	0.902	ug/l	58.46	19.17	8.062E-05	Pulse	2.00	3
Ag			1	0.567	ug/l	3.13	1,746.09	8.145E-03	Pulse	0.50	3
Ba			1	81.209	ug/l	0.73	40,838.55	2.880E-02	Pulse	0.50	3
Tl			1	0.131	ug/l	14.68	3,960.48	1.225E-03	Pulse	0.50	3
Sn			1	24.240	ug/l	2.42	28,291.78	1.996E-02	Pulse	0.30	3
Sr			1	49.726	ug/l	0.60	67,869.84	4.786E-02	Pulse	0.50	3
[Pb]			1	41.574	ug/l	0.85	95,155.16	2.941E-02	Pulse	0.50	3
Ca			1	6422.902	ug/l	1.00	46,138.67	1.936E-01	Pulse	0.50	3
Ti			1	546.752	ug/l	1.35	26,200.84	1.099E-01	Pulse	0.50	3
Na			1	97.612	ug/l	0.64	38,801.68	1.628E-01	Pulse	1.00	3
Mg			1	529.750	ug/l	0.54	72,484.61	3.041E-01	Pulse	1.00	3
K			1	306.267	ug/l	0.43	75,498.20	3.167E-01	Pulse	1.00	3
V			1	27.451	ug/l	0.31	41,294.22	1.732E-01	Pulse	0.50	3
Mn			1	171.885	ug/l	0.77	187,959.26	1.300E+00	Pulse	0.50	3
Fe			1	25796.983	ug/l	1.32	37,329,234.67	2.582E+02	Analog	0.50	3
Co			1	5.303	ug/l	2.04	14,827.01	1.026E-01	Pulse	0.50	3
Ni			1	5.506	ug/l	5.04	4,021.10	2.780E-02	Pulse	0.50	3
Cu			1	24.113	ug/l	0.69	47,663.20	3.296E-01	Pulse	0.50	3
Zn			1	102.475	ug/l	0.61	34,392.89	1.604E-01	Pulse	1.00	3
Cd			1	0.473	ug/l	6.29	420.68	1.962E-03	Pulse	0.50	3
Al			1	14264.812	ug/l	0.34	823,749.40	3.456E+00	Pulse	1.00	3
Se			1	3.223	ug/l	13.96	106.56	4.971E-04	Pulse	3.00	3
Sb			1	0.446	ug/l	1.92	1,745.09	8.138E-03	Pulse	1.00	3
Se			1	5.490	ug/l	19.50	75.22	3.512E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,916,548.83	1.56	98.4	Pulse	0.50	3
1	Sc		238,367.01	1.13	97.1	Pulse	0.30	3
1	Ge		144,613.38	1.96	95.9	Pulse	0.30	3
1	In		1,418,091.85	2.39	95.4	Pulse	0.30	3
1	Tb		4,132,449.08	1.77	98.3	Pulse	0.50	3
1	Lu		3,235,647.08	2.06	97.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		214,426.04	1.16	95.7	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,924.54	0.98	91.7	Pulse	0.30	3

Quantitation Report

File Name	112SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:00
Sample Name	FC5031-29
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	13.944	ug/l	1.39	25,632.17	1.778E-01	Pulse	0.50	3
As			1	1.221	ug/l	6.58	394.00	2.734E-03	Pulse	1.00	3
Mo			1	1.058	ug/l	2.52	1,784.09	8.352E-03	Pulse	0.50	3
Pb			1	26.247	ug/l	0.87	136,614.77	4.701E-02	Pulse	1.00	3
Be			1	0.640	ug/l	51.94	15.50	6.549E-05	Pulse	2.00	3
Ag			1	0.395	ug/l	5.86	1,238.04	5.796E-03	Pulse	0.50	3
Ba			1	39.046	ug/l	2.07	19,873.57	1.400E-02	Pulse	0.50	3
Tl			1	0.061	ug/l	17.33	3,511.04	1.088E-03	Pulse	0.50	3
Sn			1	24.465	ug/l	0.97	28,578.87	2.013E-02	Pulse	0.30	3
Sr			1	26.148	ug/l	0.55	36,259.36	2.553E-02	Pulse	0.50	3
[Pb]			1	27.942	ug/l	1.32	64,569.17	2.000E-02	Pulse	0.50	3
Ca			1	8736.695	ug/l	0.77	62,173.12	2.629E-01	Pulse	0.50	3
Ti			1	1077.314	ug/l	1.20	51,195.88	2.165E-01	Pulse	0.50	3
Na			1	130.430	ug/l	1.90	47,467.19	2.007E-01	Pulse	1.00	3
Mg			1	261.943	ug/l	0.97	35,780.15	1.513E-01	Pulse	1.00	3
K			1	175.746	ug/l	2.82	58,147.35	2.459E-01	Pulse	1.00	3
V			1	17.387	ug/l	1.26	26,425.20	1.117E-01	Pulse	0.50	3
Mn			1	77.462	ug/l	0.70	84,799.58	5.883E-01	Pulse	0.50	3
Fe			1	7702.872	ug/l	0.97	11,121,947.00	7.715E+01	Analog	0.50	3
Co			1	2.412	ug/l	5.65	7,424.78	5.150E-02	Pulse	0.50	3
Ni			1	2.709	ug/l	2.96	2,186.80	1.517E-02	Pulse	0.50	3
Cu			1	11.445	ug/l	3.14	26,130.98	1.813E-01	Pulse	0.50	3
Zn			1	45.035	ug/l	0.76	15,533.91	7.272E-02	Pulse	1.00	3
Cd			1	0.248	ug/l	13.56	308.00	1.442E-03	Pulse	0.50	3
Al			1	7330.060	ug/l	0.96	420,080.51	1.776E+00	Pulse	1.00	3
Se			1	1.835	ug/l	8.05	80.22	3.755E-04	Pulse	3.00	3
Sb			1	0.279	ug/l	16.85	1,490.06	6.974E-03	Pulse	1.00	3
Se			1	3.792	ug/l	1.33	59.67	2.794E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,906,116.67	1.70	98.1	Pulse	0.50	3
1	Sc		236,472.66	1.37	96.3	Pulse	0.30	3
1	Ge		144,146.39	0.74	95.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,419,909.39	2.52	95.5	Pulse	0.30	3
1	Tb		4,122,656.58	1.53	98.0	Pulse	0.50	3
1	Lu		3,227,461.08	2.39	97.4	Pulse	0.50	3
1	Ge		213,590.60	1.32	95.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,831.20	3.79	87.3	Pulse	0.30	3

Quantitation Report

File Name 113SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:04
Sample Name FC5031-31
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.550	ug/l	3.87	9,513.67	6.528E-02	Pulse	0.50	3
As			1	0.505	ug/l	4.61	238.67	1.637E-03	Pulse	1.00	3
Mo			1	0.149	ug/l	59.51	903.36	4.188E-03	Pulse	0.50	3
Pb			1	7.156	ug/l	0.34	41,545.53	1.409E-02	Pulse	1.00	3
Be			1	0.075	ug/l	333.92	7.83	3.292E-05	Pulse	2.00	3
Ag			1	0.085	ug/l	18.53	340.00	1.576E-03	Pulse	0.50	3
Ba			1	12.461	ug/l	1.76	6,676.58	4.665E-03	Pulse	0.50	3
Tl			1	0.015	ug/l	123.06	3,235.65	9.984E-04	Pulse	0.50	3
Sn			1	23.822	ug/l	0.53	28,108.17	1.963E-02	Pulse	0.30	3
Sr			1	7.216	ug/l	2.69	10,887.83	7.605E-03	Pulse	0.50	3
[Pb]			1	7.825	ug/l	0.93	19,840.84	6.123E-03	Pulse	0.50	3
Ca			1	423.958	ug/l	1.82	3,264.28	1.377E-02	Pulse	0.50	3
Ti			1	409.572	ug/l	1.43	19,525.08	8.236E-02	Pulse	0.50	3
Na			1	30.578	ug/l	3.46	20,208.16	8.526E-02	Pulse	1.00	3
Mg			1	73.477	ug/l	1.03	10,382.69	4.380E-02	Pulse	1.00	3
K			1	83.026	ug/l	6.46	46,363.73	1.956E-01	Pulse	1.00	3
V			1	5.092	ug/l	2.79	8,677.95	3.661E-02	Pulse	0.50	3
Mn			1	15.386	ug/l	0.77	17,563.96	1.205E-01	Pulse	0.50	3
Fe			1	2575.394	ug/l	1.02	3,769,369.58	2.586E+01	Pulse	0.50	3
Co			1	0.322	ug/l	0.99	2,127.46	1.459E-02	Pulse	0.50	3
Ni			1	0.953	ug/l	4.13	1,055.36	7.237E-03	Pulse	0.50	3
Cu			1	2.525	ug/l	5.97	11,195.27	7.682E-02	Pulse	0.50	3
Zn			1	10.820	ug/l	1.26	4,418.18	2.050E-02	Pulse	1.00	3
Cd			1	0.083	ug/l	52.88	229.33	1.064E-03	Pulse	0.50	3
Al			1	2332.150	ug/l	1.17	134,198.30	5.661E-01	Pulse	1.00	3
Se			1	0.667	ug/l	25.16	58.89	2.731E-04	Pulse	3.00	3
Sb			1	0.063	ug/l	60.45	1,179.04	5.470E-03	Pulse	1.00	3
Se			1	0.195	ug/l	104.33	27.44	1.273E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,948,493.92	2.14	99.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		237,053.34	1.46	96.5	Pulse	0.30	3
1	Ge		145,784.41	2.29	96.7	Pulse	0.30	3
1	In		1,431,575.05	2.14	96.3	Pulse	0.30	3
1	Tb		4,144,257.42	1.77	98.6	Pulse	0.50	3
1	Lu		3,240,170.00	2.00	97.8	Pulse	0.50	3
1	Ge		215,539.65	1.38	96.2	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		1,992.33	3.71	95.0	Pulse	0.30	3

Quantitation Report

File Name 114SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:08
Sample Name FC5016-12
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	388.191	ug/l	1.28	377,784.87	2.336E+00	Pulse	0.50	3
As			1	32.274	ug/l	3.17	4,134.45	2.557E-02	Pulse	1.00	3
Mo			1	5.638	ug/l	2.39	3,609.69	1.641E-02	Pulse	0.50	3
Pb			1	151.502	ug/l	0.59	365,875.27	1.324E-01	Pulse	1.00	3
Be			1	18.045	ug/l	1.66	177.33	5.495E-04	Pulse	2.00	3
Ag			1	0.287	ug/l	3.14	522.68	2.377E-03	Pulse	0.50	3
Ba			1	3929.729	ug/l	0.40	979,493.58	6.901E-01	Pulse	0.50	3
Tl			1	3.398	ug/l	3.34	14,084.46	4.295E-03	Pulse	0.50	3
Sn			1	48.278	ug/l	0.74	28,213.82	1.988E-02	Pulse	0.30	3
Sr			1	607.758	ug/l	0.61	409,535.83	2.886E-01	Pulse	0.50	3
[Pb]			1	151.962	ug/l	1.00	174,262.65	5.315E-02	Pulse	0.50	3
Ca			1	76365.245	ug/l	0.08	369,604.39	1.145E+00	Pulse	0.50	3
Ti			1	25849.556	ug/l	0.42	837,755.25	2.596E+00	Pulse	0.50	3
Na			1	1755.019	ug/l	0.47	343,565.63	1.065E+00	Pulse	1.00	3
Mg			1	93025.935	ug/l	0.17	8,562,093.00	2.654E+01	Analog	1.00	3
K			1	45618.211	ug/l	0.24	4,041,641.83	1.253E+01	Pulse	1.00	3
V			1	2165.205	ug/l	0.45	2,136,578.08	6.621E+00	Pulse	0.50	3
Mn			1	8314.847	ug/l	0.29	5,067,894.50	3.133E+01	Analog	0.50	3
Fe			1	952784.271	ug/l	0.85	770,851,029.33	4.766E+03	Analog	0.50	3
Co			1	370.809	ug/l	1.45	530,963.41	3.283E+00	Pulse	0.50	3
Ni			1	300.705	ug/l	1.10	110,335.78	6.822E-01	Pulse	0.50	3
Cu			1	523.272	ug/l	1.35	503,103.85	3.111E+00	Pulse	0.50	3
Zn			1	1349.651	ug/l	0.46	227,414.49	1.034E+00	Pulse	1.00	3
Cd			1	0.926	ug/l	12.63	426.01	1.938E-03	Pulse	0.50	3
Al			1	542934.268	ug/l	0.08	21,212,298.00	6.574E+01	Analog	1.00	3
Se			1	37.639	ug/l	2.64	409.89	1.864E-03	Pulse	3.00	3
Sb			1	0.869	ug/l	15.07	1,772.42	8.057E-03	Pulse	1.00	3
Se			1	110.615	ug/l	3.07	540.67	2.458E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,764,053.92	1.75	93.3	Pulse	0.50	3
1	Sc		322,672.06	1.11	131.4	Pulse	0.30	3
1	Ge		161,731.90	0.86	107.3	Pulse	0.30	3
1	In		1,419,320.36	1.73	95.4	Pulse	0.30	3
1	Tb		4,211,500.00	2.14	100.2	Pulse	0.50	3
1	Lu		3,279,031.17	2.23	99.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		219,935.88	1.31	98.2	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		1,817.87	4.40	86.7	Pulse	0.30	3

Quantitation Report

File Name 115_MB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:11
Sample Name MP42110-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.094	ug/l	22.42	1,933.44	1.360E-02	Pulse	0.50	3
As			1	0.088	ug/l	15.11	170.67	1.200E-03	Pulse	1.00	3
Mo			1	-0.050	ug/l	-54.66	625.35	2.932E-03	Pulse	0.50	3
Pb			1	-0.045	ug/l	-22.03	4,498.26	1.559E-03	Pulse	1.00	3
Be			1	0.046	ug/l	49.31	8.17	3.516E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	351.46	92.00	4.316E-04	Pulse	0.50	3
Ba			1	0.031	ug/l	91.52	448.01	3.170E-04	Pulse	0.50	3
Tl			1	0.001	ug/l	419.86	3,130.97	9.741E-04	Pulse	0.50	3
Sn			1	0.005	ug/l	441.12	1,892.33	1.337E-03	Pulse	0.30	3
Sr			1	0.022	ug/l	29.77	1,167.37	8.247E-04	Pulse	0.50	3
[Pb]			1	-0.045	ug/l	-24.45	2,078.13	6.461E-04	Pulse	0.50	3
Ca			1	6.469	ug/l	53.75	358.67	1.547E-03	Pulse	0.50	3
Ti			1	1.414	ug/l	27.17	186.67	8.055E-04	Pulse	0.50	3
Na			1	1.723	ug/l	18.33	12,746.05	5.488E-02	Pulse	1.00	3
Mg			1	2.827	ug/l	34.35	1,371.38	5.920E-03	Pulse	1.00	3
K			1	5.426	ug/l	36.27	36,675.20	1.579E-01	Pulse	1.00	3
V			1	0.604	ug/l	7.98	3,416.31	1.472E-02	Pulse	0.50	3
Mn			1	0.258	ug/l	36.20	1,331.38	9.379E-03	Pulse	0.50	3
Fe			1	32.815	ug/l	30.49	129,469.40	9.130E-01	Pulse	0.50	3
Co			1	0.019	ug/l	38.77	1,386.72	9.753E-03	Pulse	0.50	3
Ni			1	0.114	ug/l	18.84	599.34	4.214E-03	Pulse	0.50	3
Cu			1	0.133	ug/l	16.24	7,276.05	5.116E-02	Pulse	0.50	3
Zn			1	0.716	ug/l	11.89	1,430.39	6.718E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	2876.24	186.67	8.774E-04	Pulse	0.50	3
Al			1	16.671	ug/l	39.11	2,651.86	1.146E-02	Pulse	1.00	3
Se			1	0.054	ug/l	225.02	48.22	2.265E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	3017.42	1,071.70	5.031E-03	Pulse	1.00	3
Se			1	0.219	ug/l	108.79	30.22	1.422E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,886,322.75	2.28	97.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		232,277.71	1.76	94.6	Pulse	0.30	3
1	Ge		142,240.28	1.86	94.3	Pulse	0.30	3
1	In		1,415,091.92	2.44	95.1	Pulse	0.30	3
1	Tb		4,100,850.50	2.64	97.5	Pulse	0.50	3
1	Lu		3,214,836.83	2.95	97.0	Pulse	0.50	3
1	Ge		213,052.07	2.13	95.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,872.32	3.04	89.2	Pulse	0.30	3

Quantitation Report

File Name	116_BSP.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:15
Sample Name	MP42110-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	195.337	ug/l	0.43	857,626.52	5.860E+00	Pulse	0.50	3
As			1	197.507	ug/l	0.47	110,744.82	7.567E-01	Pulse	1.00	3
Mo			1	200.692	ug/l	0.25	498,568.85	2.300E+00	Pulse	0.50	3
Pb			1	199.107	ug/l	0.59	2,404,563.67	8.600E-01	Pulse	1.00	3
Be			1	187.394	ug/l	0.82	6,403.34	2.708E-02	Pulse	2.00	3
Ag			1	99.275	ug/l	0.41	732,169.50	3.378E+00	Pulse	0.50	3
Ba			1	194.661	ug/l	0.81	242,882.20	1.711E-01	Pulse	0.50	3
Tl			1	200.492	ug/l	0.80	3,215,694.83	9.823E-01	Pulse	0.50	3
Sn			1	200.769	ug/l	1.00	549,327.44	3.871E-01	Pulse	0.30	3
Sr			1	196.644	ug/l	0.82	661,852.25	4.663E-01	Pulse	0.50	3
[Pb]			1	192.100	ug/l	0.71	1,087,113.71	3.321E-01	Pulse	0.50	3
Ca			1	19452.863	ug/l	1.25	344,892.63	1.459E+00	Pulse	0.50	3
Ti			1	193.114	ug/l	0.66	22,953.43	9.707E-02	Pulse	0.50	3
Na			1	19526.205	ug/l	1.59	13,360,286.33	5.651E+01	Analog	1.00	3
Mg			1	19458.786	ug/l	1.16	6,561,999.00	2.775E+01	Analog	1.00	3
K			1	19354.278	ug/l	1.79	6,242,206.67	2.640E+01	Analog	1.00	3
V			1	191.998	ug/l	1.05	694,871.93	2.939E+00	Pulse	0.50	3
Mn			1	192.818	ug/l	0.83	532,267.01	3.637E+00	Pulse	0.50	3
Fe			1	19853.092	ug/l	1.05	72,673,498.67	4.966E+02	Analog	0.50	3
Co			1	198.000	ug/l	0.87	1,280,422.33	8.750E+00	Pulse	0.50	3
Ni			1	197.227	ug/l	0.82	326,408.12	2.231E+00	Pulse	0.50	3
Cu			1	197.635	ug/l	0.53	853,522.06	5.832E+00	Pulse	0.50	3
Zn			1	189.731	ug/l	0.11	157,793.96	7.279E-01	Pulse	1.00	3
Cd			1	189.438	ug/l	0.16	236,386.18	1.091E+00	Pulse	0.50	3
Al			1	19041.071	ug/l	0.89	2,726,066.00	1.153E+01	Pulse	1.00	3
Se			1	185.180	ug/l	0.95	8,838.26	4.077E-02	Pulse	3.00	3
Sb			1	199.069	ug/l	0.28	753,147.50	3.474E+00	Pulse	1.00	3
Se			1	183.322	ug/l	0.71	4,226.47	1.950E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,795,970.17	2.07	94.4	Pulse	0.50	3
1	Sc		236,485.68	2.18	96.3	Pulse	0.30	3
1	Ge		146,351.96	2.04	97.1	Pulse	0.30	3
1	In		1,419,340.12	2.19	95.4	Pulse	0.30	3
1	Tb		4,158,507.25	2.26	98.9	Pulse	0.50	3
1	Lu		3,274,152.25	2.77	98.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		216,765.12	1.62	96.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,812.31	1.22	86.4	Pulse	0.30	3

Quantitation Report

File Name 117SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:19
Sample Name FC5031-24
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.448	ug/l	3.21	3,525.00	2.420E-02	Pulse	0.50	3
As			1	0.326	ug/l	0.49	307.33	2.110E-03	Pulse	1.00	3
Mo			1	0.165	ug/l	21.05	1,174.04	5.396E-03	Pulse	0.50	3
Pb			1	0.143	ug/l	4.84	6,791.35	2.367E-03	Pulse	1.00	3
Be			1	0.107	ug/l	52.83	10.33	4.396E-05	Pulse	2.00	3
Ag			1	0.011	ug/l	40.88	170.00	7.814E-04	Pulse	0.50	3
Ba			1	23.711	ug/l	0.78	30,000.12	2.110E-02	Pulse	0.50	3
Tl			1	0.064	ug/l	5.72	4,170.52	1.280E-03	Pulse	0.50	3
Sn			1	0.199	ug/l	18.45	2,430.18	1.709E-03	Pulse	0.30	3
Sr			1	61.696	ug/l	0.44	208,764.83	1.468E-01	Pulse	0.50	3
[Pb]			1	0.138	ug/l	8.04	3,139.63	9.629E-04	Pulse	0.50	3
Ca			1	16352.045	ug/l	0.12	287,876.86	1.226E+00	Pulse	0.50	3
Ti			1	0.759	ug/l	30.01	112.00	4.764E-04	Pulse	0.50	3
Na			1	5622.619	ug/l	0.57	3,828,041.17	1.631E+01	Pulse	1.00	3
Mg			1	1921.521	ug/l	0.21	643,752.37	2.742E+00	Pulse	1.00	3
K			1	483.389	ug/l	0.77	189,256.32	8.062E-01	Pulse	1.00	3
V			1	0.947	ug/l	0.86	4,685.91	1.996E-02	Pulse	0.50	3
Mn			1	27.990	ug/l	1.01	77,461.30	5.318E-01	Pulse	0.50	3
Fe			1	4191.866	ug/l	1.26	15,282,181.33	1.049E+02	Analog	0.50	3
Co			1	0.093	ug/l	23.57	1,895.43	1.301E-02	Pulse	0.50	3
Ni			1	0.283	ug/l	13.82	893.36	6.129E-03	Pulse	0.50	3
Cu			1	0.779	ug/l	9.49	10,202.05	7.005E-02	Pulse	0.50	3
Zn			1	1.490	ug/l	1.63	2,102.79	9.671E-03	Pulse	1.00	3
Cd			1	0.032	ug/l	39.95	229.33	1.056E-03	Pulse	0.50	3
Al			1	60.110	ug/l	0.60	8,863.98	3.776E-02	Pulse	1.00	3
Se			1	0.142	ug/l	97.24	53.44	2.459E-04	Pulse	3.00	3
Sb			1	0.102	ug/l	8.90	1,479.06	6.801E-03	Pulse	1.00	3
Se			1	0.658	ug/l	31.35	41.00	1.886E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,869,176.33	2.44	96.8	Pulse	0.50	3
1	Sc		234,752.73	1.16	95.6	Pulse	0.30	3
1	Ge		145,654.52	1.75	96.6	Pulse	0.30	3
1	In		1,421,747.76	1.67	95.6	Pulse	0.30	3
1	Tb		4,157,147.25	2.60	98.9	Pulse	0.50	3
1	Lu		3,259,530.00	2.28	98.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		217,397.34	2.13	97.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,851.21	4.05	88.2	Pulse	0.30	3

Quantitation Report

File Name 118SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:23
Sample Name MP42110-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.506	ug/l	2.72	3,691.69	2.593E-02	Pulse	0.50	3
As			1	0.354	ug/l	9.57	315.67	2.218E-03	Pulse	1.00	3
Mo			1	0.096	ug/l	35.25	988.03	4.607E-03	Pulse	0.50	3
Pb			1	0.073	ug/l	11.48	5,858.01	2.068E-03	Pulse	1.00	3
Be			1	-0.008	ug/l	-1152.07	6.33	2.741E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	23.29	141.33	6.595E-04	Pulse	0.50	3
Ba			1	24.142	ug/l	3.04	29,961.43	2.148E-02	Pulse	0.50	3
Tl			1	0.018	ug/l	33.14	3,367.68	1.055E-03	Pulse	0.50	3
Sn			1	0.070	ug/l	8.70	2,040.13	1.462E-03	Pulse	0.30	3
Sr			1	63.224	ug/l	3.25	209,858.99	1.505E-01	Pulse	0.50	3
[Pb]			1	0.078	ug/l	7.09	2,740.90	8.581E-04	Pulse	0.50	3
Ca			1	16716.261	ug/l	2.96	288,103.73	1.254E+00	Pulse	0.50	3
Ti			1	0.922	ug/l	50.20	128.67	5.582E-04	Pulse	0.50	3
Na			1	5771.647	ug/l	2.85	3,846,871.58	1.674E+01	Pulse	1.00	3
Mg			1	1977.237	ug/l	2.52	648,554.10	2.822E+00	Pulse	1.00	3
K			1	496.235	ug/l	4.14	189,272.80	8.237E-01	Pulse	1.00	3
V			1	0.945	ug/l	4.65	4,579.88	1.993E-02	Pulse	0.50	3
Mn			1	28.812	ug/l	2.79	77,845.51	5.473E-01	Pulse	0.50	3
Fe			1	4307.105	ug/l	3.43	15,330,998.67	1.078E+02	Analog	0.50	3
Co			1	0.093	ug/l	8.82	1,850.76	1.300E-02	Pulse	0.50	3
Ni			1	0.266	ug/l	23.44	843.36	5.938E-03	Pulse	0.50	3
Cu			1	0.463	ug/l	7.89	8,649.29	6.080E-02	Pulse	0.50	3
Zn			1	1.928	ug/l	8.17	2,423.16	1.134E-02	Pulse	1.00	3
Cd			1	0.005	ug/l	441.80	192.67	8.997E-04	Pulse	0.50	3
Al			1	60.718	ug/l	2.98	8,763.27	3.813E-02	Pulse	1.00	3
Se			1	0.186	ug/l	54.16	54.56	2.555E-04	Pulse	3.00	3
Sb			1	0.054	ug/l	31.91	1,275.38	5.967E-03	Pulse	1.00	3
Se			1	0.651	ug/l	29.76	40.11	1.878E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,833,001.92	4.54	95.6	Pulse	0.50	3
1	Sc		229,994.77	3.82	93.7	Pulse	0.30	3
1	Ge		142,320.47	3.86	94.4	Pulse	0.30	3
1	In		1,396,168.63	4.61	93.9	Pulse	0.30	3
1	Tb		4,055,677.67	5.66	96.5	Mix	0.50	3
1	Lu		3,193,002.67	5.10	96.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		213,972.17	4.65	95.5	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,883.43	10.38	89.8	Pulse	0.30	3

Quantitation Report

File Name	119CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:27
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.093	ug/l	1.08	462,984.77	2.951E+00	Pulse	0.50	3
As			1	48.711	ug/l	0.37	58,627.99	3.737E-01	Pulse	1.00	3
Mo			1	48.841	ug/l	0.95	261,552.07	1.121E+00	Pulse	0.50	3
Pb			1	49.233	ug/l	0.18	1,252,136.21	4.262E-01	Pulse	1.00	3
Be			1	46.930	ug/l	2.05	3,504.81	1.358E-02	Pulse	2.00	3
Ag			1	50.521	ug/l	0.52	801,913.50	3.438E+00	Pulse	0.50	3
Ba			1	48.962	ug/l	1.10	130,230.86	8.624E-02	Pulse	0.50	3
Tl			1	53.303	ug/l	0.51	1,771,766.58	5.228E-01	Pulse	0.50	3
Sn			1	48.614	ug/l	0.75	284,115.16	1.881E-01	Pulse	0.30	3
Sr			1	49.123	ug/l	0.64	352,423.79	2.334E-01	Pulse	0.50	3
[Pb]			1	50.527	ug/l	0.44	593,231.37	1.750E-01	Pulse	0.50	3
Ca			1	4971.235	ug/l	0.43	192,572.46	7.460E-01	Pulse	0.50	3
Ti			1	47.114	ug/l	2.12	12,237.18	4.741E-02	Pulse	0.50	3
Na			1	4873.696	ug/l	0.70	7,287,608.50	2.823E+01	Analog	1.00	3
Mg			1	4913.481	ug/l	0.47	3,618,120.33	1.402E+01	Pulse	1.00	3
K			1	5099.849	ug/l	0.73	3,609,974.67	1.399E+01	Pulse	1.00	3
V			1	48.076	ug/l	1.37	380,614.84	1.474E+00	Pulse	0.50	3
Mn			1	48.671	ug/l	0.43	288,415.98	1.838E+00	Pulse	0.50	3
Fe			1	4957.137	ug/l	0.30	38,914,828.00	2.481E+02	Analog	0.50	3
Co			1	50.199	ug/l	0.67	696,754.93	4.441E+00	Pulse	0.50	3
Ni			1	50.824	ug/l	1.19	180,577.28	1.151E+00	Pulse	0.50	3
Cu			1	51.228	ug/l	0.20	477,902.43	3.046E+00	Pulse	0.50	3
Zn			1	50.943	ug/l	0.53	91,612.49	3.928E-01	Pulse	1.00	3
Cd			1	49.206	ug/l	0.06	132,234.24	5.669E-01	Pulse	0.50	3
Al			1	4971.814	ug/l	0.64	1,554,315.29	6.021E+00	Pulse	1.00	3
Se			1	49.166	ug/l	0.20	5,073.56	2.175E-02	Pulse	3.00	3
Sb			1	49.097	ug/l	0.88	400,355.53	1.716E+00	Pulse	1.00	3
Se			1	49.851	ug/l	0.29	2,486.16	1.066E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,938,003.33	1.28	99.2	Pulse	0.50	3
1	Sc		258,131.86	1.11	105.1	Pulse	0.30	3
1	Ge		156,877.66	1.09	104.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,510,048.79	1.13	101.5	Pulse	0.30	3
1	Tb		4,299,953.00	1.24	102.3	Pulse	0.50	3
1	Lu		3,389,379.83	1.30	102.3	Pulse	0.50	3
1	Ge		233,247.19	1.11	104.1	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,991.22	2.60	94.9	Pulse	0.30	3

Quantitation Report

File Name	120_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:30
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.597	ug/l	1.33	905,942.04	5.856E+00	Pulse	0.50	3
As			1	97.397	ug/l	0.41	115,458.74	7.464E-01	Pulse	1.00	3
Mo			1	97.653	ug/l	0.95	509,668.96	2.238E+00	Pulse	0.50	3
Pb			1	97.882	ug/l	0.85	2,411,520.58	8.456E-01	Pulse	1.00	3
Be			1	95.789	ug/l	0.38	6,970.20	2.768E-02	Pulse	2.00	3
Ag			1	98.899	ug/l	0.62	1,532,256.12	6.730E+00	Pulse	0.50	3
Ba			1	98.162	ug/l	0.26	254,303.18	1.726E-01	Pulse	0.50	3
Tl			1	104.266	ug/l	0.77	3,406,518.08	1.022E+00	Pulse	0.50	3
Sn			1	97.202	ug/l	1.34	552,331.33	3.748E-01	Pulse	0.30	3
Sr			1	98.164	ug/l	0.26	685,992.42	4.656E-01	Pulse	0.50	3
[Pb]			1	99.125	ug/l	0.97	1,142,638.08	3.427E-01	Pulse	0.50	3
Ca			1	9890.129	ug/l	0.87	373,464.70	1.483E+00	Pulse	0.50	3
Ti			1	93.534	ug/l	2.79	23,678.99	9.403E-02	Pulse	0.50	3
Na			1	9779.148	ug/l	0.50	14,251,959.33	5.660E+01	Analog	1.00	3
Mg			1	9854.270	ug/l	0.62	7,077,799.50	2.811E+01	Analog	1.00	3
K			1	9935.405	ug/l	0.30	6,824,511.33	2.710E+01	Analog	1.00	3
V			1	96.596	ug/l	1.03	744,580.54	2.957E+00	Pulse	0.50	3
Mn			1	97.594	ug/l	0.99	569,575.10	3.682E+00	Pulse	0.50	3
Fe			1	9880.408	ug/l	0.57	76,469,813.33	4.943E+02	Analog	0.50	3
Co			1	99.200	ug/l	0.89	1,356,333.34	8.768E+00	Pulse	0.50	3
Ni			1	99.449	ug/l	1.20	347,986.54	2.249E+00	Pulse	0.50	3
Cu			1	99.016	ug/l	0.74	904,040.67	5.844E+00	Pulse	0.50	3
Zn			1	99.715	ug/l	1.11	174,169.60	7.650E-01	Pulse	1.00	3
Cd			1	98.303	ug/l	1.42	257,694.19	1.132E+00	Pulse	0.50	3
Al			1	9718.452	ug/l	1.30	2,963,344.92	1.177E+01	Pulse	1.00	3
Se			1	99.472	ug/l	0.55	9,969.60	4.379E-02	Pulse	3.00	3
Sb			1	98.262	ug/l	0.77	780,986.58	3.430E+00	Pulse	1.00	3
Se			1	99.057	ug/l	1.33	4,795.72	2.106E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,851,771.83	0.80	96.2	Pulse	0.50	3
1	Sc		251,799.56	0.37	102.5	Pulse	0.30	3
1	Ge		154,691.96	0.72	102.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,473,341.16	1.05	99.1	Pulse	0.30	3
1	Tb		4,203,673.42	0.76	100.0	Pulse	0.50	3
1	Lu		3,334,300.83	0.76	100.7	Pulse	0.50	3
1	Ge		227,680.68	0.94	101.6	Pulse	0.30	3
1	Te		3.33	124.90	250.0	Pulse	0.50	3
1	Li		1,872.32	7.60	89.2	Pulse	0.30	3

Quantitation Report

File Name 121_CCB.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:34
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.001	ug/l	-1134.47	1,612.74	1.074E-02	Pulse	0.50	3
As			1	0.030	ug/l	28.31	163.67	1.090E-03	Pulse	1.00	3
Mo			1	0.096	ug/l	18.45	1,273.38	5.707E-03	Pulse	0.50	3
Pb			1	-0.010	ug/l	-71.73	4,786.01	1.662E-03	Pulse	1.00	3
Be			1	0.040	ug/l	113.52	9.83	4.008E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	32.46	326.67	1.466E-03	Pulse	0.50	3
Ba			1	-0.016	ug/l	-52.86	385.34	2.614E-04	Pulse	0.50	3
Tl			1	0.027	ug/l	31.05	4,007.15	1.236E-03	Pulse	0.50	3
Sn			1	0.117	ug/l	29.68	2,617.98	1.775E-03	Pulse	0.30	3
Sr			1	0.013	ug/l	39.03	1,230.04	8.343E-04	Pulse	0.50	3
[Pb]			1	-0.015	ug/l	-28.14	2,179.48	6.723E-04	Pulse	0.50	3
Ca			1	-0.270	ug/l	-134.92	250.67	1.022E-03	Pulse	0.50	3
Ti			1	0.065	ug/l	38.01	39.33	1.603E-04	Pulse	0.50	3
Na			1	1.329	ug/l	33.94	14,125.38	5.758E-02	Pulse	1.00	3
Mg			1	1.468	ug/l	45.44	1,490.06	6.074E-03	Pulse	1.00	3
K			1	2.455	ug/l	28.51	38,569.80	1.572E-01	Pulse	1.00	3
V			1	0.002	ug/l	689.25	1,358.72	5.539E-03	Pulse	0.50	3
Mn			1	0.001	ug/l	921.01	685.35	4.564E-03	Pulse	0.50	3
Fe			1	1.958	ug/l	24.06	28,545.79	1.902E-01	Pulse	0.50	3
Co			1	0.012	ug/l	75.38	1,500.73	9.999E-03	Pulse	0.50	3
Ni			1	0.003	ug/l	235.02	451.34	3.007E-03	Pulse	0.50	3
Cu			1	0.004	ug/l	401.76	7,127.33	4.747E-02	Pulse	0.50	3
Zn			1	-0.073	ug/l	-40.67	765.68	3.433E-03	Pulse	1.00	3
Cd			1	0.019	ug/l	63.02	243.33	1.091E-03	Pulse	0.50	3
Al			1	4.129	ug/l	11.48	1,562.39	6.369E-03	Pulse	1.00	3
Se			1	0.100	ug/l	31.51	57.67	2.585E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	24.44	1,477.73	6.625E-03	Pulse	1.00	3
Se			1	0.024	ug/l	550.25	27.67	1.242E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,879,994.92	1.12	97.2	Pulse	0.50	3
1	Sc		245,312.53	0.12	99.9	Pulse	0.30	3

Quantitation Report

1	Ge		150,135.38	0.65	99.6	Pulse	0.30	3
1	In		1,474,235.18	0.74	99.1	Pulse	0.30	3
1	Tb		4,113,355.92	0.74	97.8	Pulse	0.50	3
1	Lu		3,242,194.67	0.60	97.9	Pulse	0.50	3
1	Ge		223,111.89	0.86	99.6	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,934.55	4.57	92.2	Pulse	0.30	3

Quantitation Report

File Name 122SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:38
Sample Name MP42110-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.097	ug/l	-56.15	1,514.73	1.020E-02	Pulse	0.50	3
As			1	0.414	ug/l	63.82	175.67	1.181E-03	Pulse	1.00	3
Mo			1	0.114	ug/l	157.24	835.35	3.768E-03	Pulse	0.50	3
Pb			1	-0.166	ug/l	-4.67	4,651.31	1.608E-03	Pulse	1.00	3
Be			1	-0.001	ug/l	-22967.96	6.83	2.853E-05	Pulse	2.00	3
Ag			1	0.056	ug/l	52.00	177.33	8.016E-04	Pulse	0.50	3
Ba			1	23.061	ug/l	1.19	6,324.45	4.338E-03	Pulse	0.50	3
Tl			1	0.111	ug/l	24.90	3,488.37	1.077E-03	Pulse	0.50	3
Sn			1	0.022	ug/l	1040.51	1,946.78	1.335E-03	Pulse	0.30	3
Sr			1	61.196	ug/l	1.04	43,362.89	2.975E-02	Pulse	0.50	3
[Pb]			1	-0.199	ug/l	-27.27	2,122.14	6.557E-04	Pulse	0.50	3
Ca			1	16274.470	ug/l	0.84	58,754.70	2.449E-01	Pulse	0.50	3
Ti			1	1.325	ug/l	44.53	54.67	2.283E-04	Pulse	0.50	3
Na			1	5632.897	ug/l	0.57	793,258.29	3.307E+00	Pulse	1.00	3
Mg			1	1924.459	ug/l	0.56	132,113.64	5.508E-01	Pulse	1.00	3
K			1	503.048	ug/l	1.03	68,845.48	2.870E-01	Pulse	1.00	3
V			1	0.948	ug/l	7.94	2,010.11	8.382E-03	Pulse	0.50	3
Mn			1	27.499	ug/l	1.56	16,063.31	1.081E-01	Pulse	0.50	3
Fe			1	4192.733	ug/l	1.24	3,128,746.17	2.107E+01	Pulse	0.50	3
Co			1	0.170	ug/l	21.74	1,546.73	1.042E-02	Pulse	0.50	3
Ni			1	0.348	ug/l	34.63	552.01	3.716E-03	Pulse	0.50	3
Cu			1	0.523	ug/l	5.67	7,472.80	5.031E-02	Pulse	0.50	3
Zn			1	-0.198	ug/l	-84.43	849.69	3.836E-03	Pulse	1.00	3
Cd			1	0.062	ug/l	199.19	209.33	9.442E-04	Pulse	0.50	3
Al			1	60.190	ug/l	3.11	2,076.11	8.657E-03	Pulse	1.00	3
Se			1	0.605	ug/l	46.92	53.45	2.412E-04	Pulse	3.00	3
Sb			1	0.162	ug/l	53.98	1,239.71	5.594E-03	Pulse	1.00	3
Se			1	0.036	ug/l	2749.76	26.56	1.198E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,892,345.17	1.24	97.6	Pulse	0.50	3
1	Sc		239,858.47	0.98	97.7	Pulse	0.30	3
1	Ge		148,525.12	1.78	98.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,457,723.34	1.27	98.0	Pulse	0.30	3
1	Tb		4,116,417.08	1.73	97.9	Pulse	0.50	3
1	Lu		3,237,426.92	1.93	97.7	Pulse	0.50	3
1	Ge		221,519.52	1.30	98.9	Pulse	0.30	3
1	Te		2.67	86.60	200.0	Pulse	0.50	3
1	Li		1,932.32	7.44	92.1	Pulse	0.30	3

Quantitation Report

File Name	123SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:42
Sample Name	MP42110-S1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	203.558	ug/l	1.04	876,407.46	6.107E+00	Pulse	0.50	3
As			1	205.006	ug/l	0.93	112,725.21	7.854E-01	Pulse	1.00	3
Mo			1	209.385	ug/l	1.36	509,387.22	2.400E+00	Pulse	0.50	3
Pb			1	206.744	ug/l	0.75	2,437,984.83	8.929E-01	Pulse	1.00	3
Be			1	200.551	ug/l	1.55	6,714.11	2.898E-02	Pulse	2.00	3
Ag			1	102.246	ug/l	1.65	738,565.96	3.479E+00	Pulse	0.50	3
Ba			1	226.114	ug/l	0.55	274,303.53	1.987E-01	Pulse	0.50	3
Tl			1	207.385	ug/l	0.85	3,261,728.58	1.016E+00	Pulse	0.50	3
Sn			1	209.291	ug/l	0.64	556,832.94	4.035E-01	Pulse	0.30	3
Sr			1	268.145	ug/l	0.73	877,249.27	6.356E-01	Pulse	0.50	3
[Pb]			1	199.132	ug/l	0.38	1,104,933.63	3.442E-01	Pulse	0.50	3
Ca			1	36508.249	ug/l	1.20	634,031.75	2.737E+00	Pulse	0.50	3
Ti			1	203.890	ug/l	1.23	23,745.04	1.025E-01	Pulse	0.50	3
Na			1	26154.023	ug/l	0.99	17,532,560.00	7.567E+01	Analog	1.00	3
Mg			1	22505.501	ug/l	0.77	7,436,941.83	3.210E+01	Analog	1.00	3
K			1	20998.774	ug/l	1.35	6,633,776.67	2.863E+01	Analog	1.00	3
V			1	200.026	ug/l	1.13	709,327.15	3.061E+00	Pulse	0.50	3
Mn			1	226.543	ug/l	0.58	613,170.82	4.273E+00	Pulse	0.50	3
Fe			1	24879.569	ug/l	0.72	89,314,941.33	6.224E+02	Analog	0.50	3
Co			1	204.716	ug/l	0.67	1,298,324.46	9.046E+00	Pulse	0.50	3
Ni			1	204.194	ug/l	1.28	331,401.39	2.309E+00	Pulse	0.50	3
Cu			1	204.052	ug/l	0.46	863,986.90	6.020E+00	Pulse	0.50	3
Zn			1	198.192	ug/l	0.97	161,393.83	7.602E-01	Pulse	1.00	3
Cd			1	195.669	ug/l	1.51	239,117.72	1.126E+00	Pulse	0.50	3
Al			1	20211.167	ug/l	0.79	2,835,382.83	1.224E+01	Pulse	1.00	3
Se			1	191.104	ug/l	1.14	8,931.53	4.207E-02	Pulse	3.00	3
Sb			1	206.254	ug/l	1.50	764,170.88	3.600E+00	Pulse	1.00	3
Se			1	191.270	ug/l	0.86	4,317.60	2.034E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,730,327.42	2.10	92.1	Pulse	0.50	3
1	Sc		231,712.01	1.42	94.4	Pulse	0.30	3
1	Ge		143,518.34	1.46	95.2	Pulse	0.30	3
1	In		1,380,192.38	1.65	92.8	Pulse	0.30	3
1	Tb		4,077,339.92	2.00	97.0	Pulse	0.50	3
1	Lu		3,210,053.50	1.95	96.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		212,292.16	0.93	94.8	Pulse	0.30	3
1	Te		2.67	43.30	200.0	Pulse	0.50	3
1	Li		1,764.53	2.95	84.1	Pulse	0.30	3

Quantitation Report

File Name	124SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:46
Sample Name	MP42110-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	207.838	ug/l	0.83	894,879.58	6.235E+00	Pulse	0.50	3
As			1	208.471	ug/l	0.77	114,639.50	7.987E-01	Pulse	1.00	3
Mo			1	215.660	ug/l	1.39	521,709.58	2.471E+00	Pulse	0.50	3
Pb			1	211.177	ug/l	0.21	2,473,680.50	9.120E-01	Pulse	1.00	3
Be			1	205.118	ug/l	0.83	6,825.31	2.964E-02	Pulse	2.00	3
Ag			1	103.806	ug/l	0.55	745,583.79	3.532E+00	Pulse	0.50	3
Ba			1	228.567	ug/l	0.21	276,797.53	2.009E-01	Pulse	0.50	3
Tl			1	211.844	ug/l	0.27	3,315,291.75	1.038E+00	Pulse	0.50	3
Sn			1	212.746	ug/l	0.62	565,045.99	4.101E-01	Pulse	0.30	3
Sr			1	270.582	ug/l	0.08	883,692.00	6.414E-01	Pulse	0.50	3
[Pb]			1	202.704	ug/l	0.31	1,119,224.17	3.504E-01	Pulse	0.50	3
Ca			1	36511.836	ug/l	1.10	630,230.35	2.737E+00	Pulse	0.50	3
Ti			1	207.120	ug/l	1.80	23,970.66	1.041E-01	Pulse	0.50	3
Na			1	26292.796	ug/l	0.98	17,518,098.67	7.607E+01	Analog	1.00	3
Mg			1	22503.157	ug/l	0.78	7,390,843.00	3.209E+01	Analog	1.00	3
K			1	20922.794	ug/l	1.61	6,569,434.83	2.853E+01	Analog	1.00	3
V			1	205.533	ug/l	0.51	724,394.98	3.146E+00	Pulse	0.50	3
Mn			1	231.102	ug/l	0.62	625,572.40	4.358E+00	Pulse	0.50	3
Fe			1	24890.888	ug/l	0.29	89,366,184.00	6.226E+02	Analog	0.50	3
Co			1	209.458	ug/l	0.97	1,328,499.25	9.256E+00	Pulse	0.50	3
Ni			1	206.697	ug/l	1.21	335,503.57	2.338E+00	Pulse	0.50	3
Cu			1	207.288	ug/l	1.40	877,692.17	6.115E+00	Pulse	0.50	3
Zn			1	201.587	ug/l	1.10	163,219.22	7.732E-01	Pulse	1.00	3
Cd			1	200.458	ug/l	1.10	243,584.84	1.154E+00	Pulse	0.50	3
Al			1	20181.383	ug/l	0.91	2,813,920.00	1.222E+01	Pulse	1.00	3
Se			1	196.830	ug/l	0.32	9,145.85	4.333E-02	Pulse	3.00	3
Sb			1	210.204	ug/l	0.72	774,404.31	3.668E+00	Pulse	1.00	3
Se			1	196.235	ug/l	0.76	4,403.84	2.086E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,712,233.67	1.90	91.5	Pulse	0.50	3
1	Sc		230,304.78	1.64	93.8	Pulse	0.30	3
1	Ge		143,527.55	0.90	95.2	Pulse	0.30	3
1	In		1,377,766.37	1.50	92.6	Pulse	0.30	3
1	Tb		4,059,590.50	2.21	96.5	Pulse	0.50	3
1	Lu		3,194,515.33	2.38	96.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		211,090.19	1.14	94.2	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		1,885.66	2.13	89.9	Pulse	0.30	3

Quantitation Report

File Name	125SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:49
Sample Name	MP42110-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.749	ug/l	0.31	94,126.10	6.621E-01	Pulse	0.50	3
As			1	22.204	ug/l	0.69	12,204.23	8.584E-02	Pulse	1.00	3
Mo			1	21.878	ug/l	1.74	53,422.93	2.539E-01	Pulse	0.50	3
Pb			1	21.518	ug/l	0.46	259,809.94	9.450E-02	Pulse	1.00	3
Be			1	20.365	ug/l	1.62	686.51	2.968E-03	Pulse	2.00	3
Ag			1	10.372	ug/l	5.20	74,416.09	3.533E-01	Pulse	0.50	3
Ba			1	44.659	ug/l	0.41	54,195.34	3.949E-02	Pulse	0.50	3
Tl			1	22.625	ug/l	0.48	351,355.60	1.117E-01	Pulse	0.50	3
Sn			1	20.938	ug/l	0.46	57,034.84	4.156E-02	Pulse	0.30	3
Sr			1	83.459	ug/l	0.21	272,268.50	1.984E-01	Pulse	0.50	3
[Pb]			1	21.321	ug/l	0.74	117,944.85	3.750E-02	Pulse	0.50	3
Ca			1	18381.842	ug/l	0.63	318,846.25	1.378E+00	Pulse	0.50	3
Ti			1	20.832	ug/l	1.63	2,442.16	1.056E-02	Pulse	0.50	3
Na			1	7695.523	ug/l	1.09	5,158,105.33	2.230E+01	Analog	1.00	3
Mg			1	4011.993	ug/l	0.78	1,323,890.83	5.723E+00	Pulse	1.00	3
K			1	2617.499	ug/l	0.65	856,059.00	3.701E+00	Pulse	1.00	3
V			1	22.090	ug/l	1.00	79,330.17	3.430E-01	Pulse	0.50	3
Mn			1	48.942	ug/l	0.44	131,726.83	9.266E-01	Pulse	0.50	3
Fe			1	6298.140	ug/l	0.60	22,405,899.33	1.576E+02	Analog	0.50	3
Co			1	21.964	ug/l	0.30	139,116.54	9.785E-01	Pulse	0.50	3
Ni			1	22.291	ug/l	0.48	36,210.40	2.547E-01	Pulse	0.50	3
Cu			1	23.347	ug/l	0.25	103,875.84	7.307E-01	Pulse	0.50	3
Zn			1	24.447	ug/l	0.82	20,475.18	9.727E-02	Pulse	1.00	3
Cd			1	21.200	ug/l	0.11	25,851.38	1.228E-01	Pulse	0.50	3
Al			1	2158.111	ug/l	1.05	302,548.25	1.308E+00	Pulse	1.00	3
Se			1	20.723	ug/l	3.77	1,000.25	4.754E-03	Pulse	3.00	3
Sb			1	20.183	ug/l	0.56	75,091.79	3.568E-01	Pulse	1.00	3
Se			1	21.080	ug/l	3.63	493.90	2.347E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,749,084.83	2.18	92.8	Pulse	0.50	3
1	Sc		231,322.66	1.48	94.2	Pulse	0.30	3
1	Ge		142,165.30	1.59	94.3	Pulse	0.30	3
1	In		1,372,531.51	2.07	92.3	Pulse	0.30	3
1	Tb		4,018,640.92	2.53	95.6	Pulse	0.50	3
1	Lu		3,145,517.42	2.66	95.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		210,487.14	2.40	94.0	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		1,673.41	13.55	79.8	Pulse	0.30	3

Quantitation Report

File Name	126SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 17:53
Sample Name	FC5031-26
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.318	ug/l	5.32	2,895.56	2.032E-02	Pulse	0.50	3
As			1	0.339	ug/l	5.58	308.00	2.162E-03	Pulse	1.00	3
Mo			1	0.180	ug/l	5.35	1,184.04	5.562E-03	Pulse	0.50	3
Pb			1	0.106	ug/l	7.41	6,185.46	2.209E-03	Pulse	1.00	3
Be			1	0.031	ug/l	193.53	7.67	3.299E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	33.40	176.67	8.295E-04	Pulse	0.50	3
Ba			1	23.060	ug/l	1.19	28,732.10	2.053E-02	Pulse	0.50	3
Tl			1	0.025	ug/l	21.93	3,483.03	1.092E-03	Pulse	0.50	3
Sn			1	0.055	ug/l	27.95	2,005.68	1.433E-03	Pulse	0.30	3
Sr			1	68.373	ug/l	0.36	227,669.45	1.627E-01	Pulse	0.50	3
[Pb]			1	0.109	ug/l	3.73	2,908.26	9.121E-04	Pulse	0.50	3
Ca			1	15987.292	ug/l	0.65	278,189.91	1.199E+00	Pulse	0.50	3
Ti			1	0.661	ug/l	27.12	99.33	4.273E-04	Pulse	0.50	3
Na			1	6069.246	ug/l	1.19	4,083,031.92	1.760E+01	Pulse	1.00	3
Mg			1	2163.949	ug/l	0.50	716,504.23	3.088E+00	Pulse	1.00	3
K			1	579.375	ug/l	1.27	217,261.69	9.364E-01	Pulse	1.00	3
V			1	0.936	ug/l	4.92	4,590.55	1.979E-02	Pulse	0.50	3
Mn			1	10.649	ug/l	1.85	29,229.24	2.051E-01	Pulse	0.50	3
Fe			1	544.723	ug/l	0.64	1,954,447.75	1.372E+01	Pulse	0.50	3
Co			1	0.112	ug/l	7.34	1,975.44	1.386E-02	Pulse	0.50	3
Ni			1	0.308	ug/l	5.62	914.02	6.413E-03	Pulse	0.50	3
Cu			1	0.528	ug/l	2.08	8,934.09	6.270E-02	Pulse	0.50	3
Zn			1	2.968	ug/l	3.14	3,258.95	1.531E-02	Pulse	1.00	3
Cd			1	0.015	ug/l	67.43	204.00	9.588E-04	Pulse	0.50	3
Al			1	45.435	ug/l	1.60	6,701.14	2.888E-02	Pulse	1.00	3
Se			1	0.095	ug/l	101.29	50.11	2.356E-04	Pulse	3.00	3
Sb			1	0.112	ug/l	3.83	1,487.06	6.986E-03	Pulse	1.00	3
Se			1	0.571	ug/l	40.94	38.11	1.793E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,799,538.67	2.26	94.5	Pulse	0.50	3
1	Sc		232,044.96	1.97	94.5	Pulse	0.30	3
1	Ge		142,485.10	1.46	94.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,399,755.67	2.17	94.1	Pulse	0.30	3
1	Tb		4,070,561.83	2.60	96.8	Pulse	0.50	3
1	Lu		3,188,478.75	2.39	96.2	Pulse	0.50	3
1	Ge		212,852.82	1.80	95.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,818.98	8.61	86.7	Pulse	0.30	3

Quantitation Report

File Name 127SMPL.d
File Path D:\2023\xa042123m1.b
Method File
Method Path
Acq Time 4/21/2023 17:57
Sample Name FC5031-27
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 4/24/2023 8:13
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.370	ug/l	11.21	3,148.93	2.186E-02	Pulse	0.50	3
As			1	0.316	ug/l	12.27	298.00	2.072E-03	Pulse	1.00	3
Mo			1	0.170	ug/l	23.58	1,160.04	5.454E-03	Pulse	0.50	3
Pb			1	0.028	ug/l	55.97	5,256.48	1.874E-03	Pulse	1.00	3
Be			1	0.086	ug/l	79.16	9.50	4.094E-05	Pulse	2.00	3
Ag			1	0.004	ug/l	7.18	117.33	5.518E-04	Pulse	0.50	3
Ba			1	21.988	ug/l	0.99	27,501.53	1.959E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	116.76	3,176.31	9.983E-04	Pulse	0.50	3
Sn			1	0.013	ug/l	109.46	1,896.78	1.351E-03	Pulse	0.30	3
Sr			1	65.629	ug/l	0.58	219,204.66	1.562E-01	Pulse	0.50	3
[Pb]			1	0.016	ug/l	43.97	2,389.51	7.513E-04	Pulse	0.50	3
Ca			1	15545.552	ug/l	0.40	271,044.63	1.166E+00	Pulse	0.50	3
Ti			1	0.418	ug/l	83.92	71.33	3.051E-04	Pulse	0.50	3
Na			1	5843.041	ug/l	0.62	3,939,236.50	1.694E+01	Pulse	1.00	3
Mg			1	2095.939	ug/l	0.28	695,370.75	2.991E+00	Pulse	1.00	3
K			1	560.245	ug/l	1.05	211,665.89	9.105E-01	Pulse	1.00	3
V			1	0.917	ug/l	6.35	4,534.54	1.950E-02	Pulse	0.50	3
Mn			1	10.142	ug/l	1.53	28,141.65	1.956E-01	Pulse	0.50	3
Fe			1	521.440	ug/l	0.38	1,889,966.21	1.313E+01	Pulse	0.50	3
Co			1	0.091	ug/l	14.91	1,860.76	1.292E-02	Pulse	0.50	3
Ni			1	0.382	ug/l	14.13	1,043.36	7.242E-03	Pulse	0.50	3
Cu			1	0.209	ug/l	22.68	7,680.89	5.338E-02	Pulse	0.50	3
Zn			1	1.484	ug/l	2.93	2,051.78	9.650E-03	Pulse	1.00	3
Cd			1	-0.005	ug/l	-61.54	179.33	8.436E-04	Pulse	0.50	3
Al			1	40.333	ug/l	3.58	5,997.27	2.579E-02	Pulse	1.00	3
Se			1	-0.057	ug/l	-295.26	43.11	2.023E-04	Pulse	3.00	3
Sb			1	0.069	ug/l	10.72	1,324.05	6.226E-03	Pulse	1.00	3
Se			1	0.643	ug/l	18.47	39.78	1.869E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,804,547.83	1.67	94.7	Pulse	0.50	3
1	Sc		232,493.20	1.54	94.7	Pulse	0.30	3
1	Ge		143,900.33	2.16	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,403,858.38	2.04	94.4	Pulse	0.30	3
1	Tb		4,064,056.50	2.55	96.7	Pulse	0.50	3
1	Lu		3,181,070.58	2.39	96.0	Pulse	0.50	3
1	Ge		212,628.06	1.90	94.9	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,855.65	4.41	88.5	Pulse	0.30	3

Quantitation Report

File Name	128SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:01
Sample Name	FC5031-30
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.802	ug/l	12.02	5,028.00	3.480E-02	Pulse	0.50	3
As			1	0.311	ug/l	10.51	296.67	2.056E-03	Pulse	1.00	3
Mo			1	0.160	ug/l	3.15	1,143.37	5.341E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	17.74	5,268.15	1.881E-03	Pulse	1.00	3
Be			1	0.025	ug/l	409.11	7.50	3.216E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	55.53	124.00	5.786E-04	Pulse	0.50	3
Ba			1	22.661	ug/l	1.25	28,396.89	2.018E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	93.22	3,172.31	9.958E-04	Pulse	0.50	3
Sn			1	0.016	ug/l	178.32	1,911.22	1.358E-03	Pulse	0.30	3
Sr			1	68.231	ug/l	1.28	228,429.68	1.623E-01	Pulse	0.50	3
[Pb]			1	0.019	ug/l	84.11	2,412.18	7.572E-04	Pulse	0.50	3
Ca			1	16285.218	ug/l	0.66	283,480.56	1.221E+00	Pulse	0.50	3
Ti			1	0.468	ug/l	21.96	76.67	3.303E-04	Pulse	0.50	3
Na			1	6100.404	ug/l	0.51	4,105,696.75	1.769E+01	Pulse	1.00	3
Mg			1	2174.871	ug/l	0.64	720,406.04	3.104E+00	Pulse	1.00	3
K			1	585.446	ug/l	0.78	219,255.25	9.447E-01	Pulse	1.00	3
V			1	0.968	ug/l	2.56	4,707.25	2.028E-02	Pulse	0.50	3
Mn			1	10.687	ug/l	0.95	29,718.01	2.059E-01	Pulse	0.50	3
Fe			1	625.823	ug/l	0.33	2,273,018.33	1.574E+01	Pulse	0.50	3
Co			1	0.086	ug/l	1.41	1,836.10	1.272E-02	Pulse	0.50	3
Ni			1	0.399	ug/l	6.19	1,074.03	7.442E-03	Pulse	0.50	3
Cu			1	0.349	ug/l	9.42	8,295.81	5.747E-02	Pulse	0.50	3
Zn			1	1.495	ug/l	5.48	2,074.78	9.690E-03	Pulse	1.00	3
Cd			1	-0.008	ug/l	-300.70	176.67	8.245E-04	Pulse	0.50	3
Al			1	49.031	ug/l	4.14	7,209.65	3.105E-02	Pulse	1.00	3
Se			1	0.178	ug/l	72.55	54.34	2.537E-04	Pulse	3.00	3
Sb			1	0.057	ug/l	38.90	1,287.71	6.013E-03	Pulse	1.00	3
Se			1	0.322	ug/l	41.01	32.78	1.530E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,801,001.67	2.42	94.5	Pulse	0.50	3
1	Sc		232,112.82	1.56	94.5	Pulse	0.30	3
1	Ge		144,362.64	1.59	95.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,407,177.83	1.62	94.6	Pulse	0.30	3
1	Tb		4,065,105.67	2.25	96.7	Pulse	0.50	3
1	Lu		3,186,525.83	3.09	96.2	Pulse	0.50	3
1	Ge		214,056.31	1.35	95.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,818.98	4.27	86.7	Pulse	0.30	3

Quantitation Report

File Name	129SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:04
Sample Name	FC5031-32
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.177	ug/l	15.80	2,284.14	1.609E-02	Pulse	0.50	3
As			1	0.119	ug/l	27.31	187.33	1.320E-03	Pulse	1.00	3
Mo			1	-0.075	ug/l	-0.56	560.01	2.650E-03	Pulse	0.50	3
Pb			1	-0.072	ug/l	-8.75	4,033.48	1.441E-03	Pulse	1.00	3
Be			1	0.020	ug/l	205.62	7.33	3.139E-05	Pulse	2.00	3
Ag			1	-0.001	ug/l	-371.15	83.33	3.954E-04	Pulse	0.50	3
Ba			1	-0.018	ug/l	-132.83	380.01	2.745E-04	Pulse	0.50	3
Tl			1	0.002	ug/l	72.39	3,058.28	9.767E-04	Pulse	0.50	3
Sn			1	-0.008	ug/l	-130.47	1,815.66	1.310E-03	Pulse	0.30	3
Sr			1	0.018	ug/l	73.71	1,128.70	8.140E-04	Pulse	0.50	3
[Pb]			1	-0.072	ug/l	-22.95	1,880.11	6.002E-04	Pulse	0.50	3
Ca			1	11.906	ug/l	8.88	456.01	1.954E-03	Pulse	0.50	3
Ti			1	0.078	ug/l	40.48	31.33	1.341E-04	Pulse	0.50	3
Na			1	7.068	ug/l	3.41	16,409.03	7.033E-02	Pulse	1.00	3
Mg			1	0.684	ug/l	7.09	668.01	2.863E-03	Pulse	1.00	3
K			1	4.216	ug/l	93.48	36,448.11	1.563E-01	Pulse	1.00	3
V			1	0.645	ug/l	7.37	3,578.34	1.534E-02	Pulse	0.50	3
Mn			1	0.013	ug/l	91.80	677.35	4.774E-03	Pulse	0.50	3
Fe			1	2.353	ug/l	4.59	21,447.17	1.511E-01	Pulse	0.50	3
Co			1	0.012	ug/l	186.39	1,338.05	9.431E-03	Pulse	0.50	3
Ni			1	0.073	ug/l	48.78	533.34	3.760E-03	Pulse	0.50	3
Cu			1	-0.394	ug/l	-12.15	5,066.68	3.571E-02	Pulse	0.50	3
Zn			1	0.192	ug/l	40.58	998.03	4.718E-03	Pulse	1.00	3
Cd			1	-0.027	ug/l	-87.79	151.33	7.173E-04	Pulse	0.50	3
Al			1	1.605	ug/l	14.96	545.68	2.341E-03	Pulse	1.00	3
Se			1	-0.185	ug/l	-65.47	36.78	1.742E-04	Pulse	3.00	3
Sb			1	-0.012	ug/l	-145.13	1,021.03	4.827E-03	Pulse	1.00	3
Se			1	0.138	ug/l	105.28	28.22	1.336E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,799,237.50	1.95	94.5	Pulse	0.50	3
1	Sc		233,347.09	2.49	95.0	Pulse	0.30	3
1	Ge		141,913.31	1.22	94.1	Pulse	0.30	3
1	In		1,385,884.25	2.21	93.2	Pulse	0.30	3
1	Tb		4,023,354.08	2.50	95.7	Pulse	0.50	3
1	Lu		3,131,071.92	2.16	94.5	Pulse	0.50	3
1	Ge		211,367.82	1.95	94.4	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,851.21	3.61	88.2	Pulse	0.30	3

Quantitation Report

File Name	130SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:08
Sample Name	FC5031-33
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.159	ug/l	4.47	2,199.46	1.554E-02	Pulse	0.50	3
As			1	0.090	ug/l	39.77	170.67	1.207E-03	Pulse	1.00	3
Mo			1	-0.055	ug/l	-70.55	610.68	2.880E-03	Pulse	0.50	3
Pb			1	-0.079	ug/l	-0.42	3,960.46	1.412E-03	Pulse	1.00	3
Be			1	0.035	ug/l	152.04	7.83	3.359E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	470.33	92.00	4.341E-04	Pulse	0.50	3
Ba			1	-0.006	ug/l	-326.67	396.68	2.853E-04	Pulse	0.50	3
Tl			1	-0.002	ug/l	-94.35	2,986.94	9.572E-04	Pulse	0.50	3
Sn			1	-0.031	ug/l	-124.44	1,763.43	1.266E-03	Pulse	0.30	3
Sr			1	0.007	ug/l	459.33	1,099.37	7.892E-04	Pulse	0.50	3
[Pb]			1	-0.084	ug/l	-10.20	1,806.10	5.789E-04	Pulse	0.50	3
Ca			1	7.364	ug/l	19.84	375.34	1.614E-03	Pulse	0.50	3
Ti			1	0.157	ug/l	55.15	40.67	1.740E-04	Pulse	0.50	3
Na			1	11.189	ug/l	2.38	19,142.45	8.224E-02	Pulse	1.00	3
Mg			1	0.408	ug/l	8.06	575.01	2.469E-03	Pulse	1.00	3
K			1	7.937	ug/l	25.53	37,542.16	1.613E-01	Pulse	1.00	3
V			1	0.676	ug/l	5.95	3,679.70	1.582E-02	Pulse	0.50	3
Mn			1	0.007	ug/l	191.05	658.68	4.656E-03	Pulse	0.50	3
Fe			1	0.434	ug/l	32.46	14,599.51	1.031E-01	Pulse	0.50	3
Co			1	0.012	ug/l	46.80	1,339.39	9.462E-03	Pulse	0.50	3
Ni			1	0.100	ug/l	29.38	574.68	4.062E-03	Pulse	0.50	3
Cu			1	-0.283	ug/l	-15.98	5,516.14	3.898E-02	Pulse	0.50	3
Zn			1	0.265	ug/l	11.92	1,058.70	4.999E-03	Pulse	1.00	3
Cd			1	-0.018	ug/l	-18.22	162.67	7.681E-04	Pulse	0.50	3
Al			1	1.503	ug/l	30.64	530.68	2.279E-03	Pulse	1.00	3
Se			1	-0.012	ug/l	-938.08	45.00	2.122E-04	Pulse	3.00	3
Sb			1	0.004	ug/l	421.00	1,080.04	5.095E-03	Pulse	1.00	3
Se			1	0.523	ug/l	34.76	36.89	1.743E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,803,933.42	2.07	94.6	Pulse	0.50	3
1	Sc		232,769.62	2.66	94.8	Pulse	0.30	3
1	Ge		141,539.76	1.30	93.9	Pulse	0.30	3
1	In		1,391,663.31	2.51	93.6	Pulse	0.30	3
1	Tb		4,020,784.08	2.52	95.6	Pulse	0.50	3
1	Lu		3,119,940.50	2.63	94.2	Pulse	0.50	3
1	Ge		211,834.92	1.81	94.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,754.53	1.77	83.6	Pulse	0.30	3

Quantitation Report

File Name	131SMPL.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:12
Sample Name	FC5089-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.089	ug/l	22.17	1,907.43	1.345E-02	Pulse	0.50	3
As			1	5.743	ug/l	5.30	3,240.61	2.284E-02	Pulse	1.00	3
Mo			1	0.113	ug/l	9.27	1,002.03	4.797E-03	Pulse	0.50	3
Pb			1	1.887	ug/l	0.30	27,070.67	9.887E-03	Pulse	1.00	3
Be			1	0.016	ug/l	238.65	7.17	3.080E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	2383.19	88.67	4.243E-04	Pulse	0.50	3
Ba			1	18.681	ug/l	1.54	22,920.47	1.669E-02	Pulse	0.50	3
Tl			1	-0.009	ug/l	-39.08	2,900.25	9.269E-04	Pulse	0.50	3
Sn			1	0.027	ug/l	280.34	1,894.55	1.378E-03	Pulse	0.30	3
Sr			1	284.113	ug/l	0.33	925,154.17	6.734E-01	Pulse	0.50	3
[Pb]			1	1.969	ug/l	1.34	12,897.54	4.121E-03	Pulse	0.50	3
Ca			1	37399.240	ug/l	0.16	652,128.64	2.803E+00	Pulse	0.50	3
Ti			1	0.250	ug/l	42.57	51.33	2.205E-04	Pulse	0.50	3
Na			1	22246.106	ug/l	0.90	14,973,932.33	6.437E+01	Analog	1.00	3
Mg			1	5036.770	ug/l	0.29	1,671,421.42	7.185E+00	Pulse	1.00	3
K			1	7121.623	ug/l	0.98	2,281,984.92	9.810E+00	Pulse	1.00	3
V			1	0.652	ug/l	5.79	3,595.68	1.545E-02	Pulse	0.50	3
Mn			1	445.032	ug/l	1.21	1,189,926.71	8.389E+00	Pulse	0.50	3
Fe			1	146.136	ug/l	1.15	531,533.52	3.747E+00	Pulse	0.50	3
Co			1	9.794	ug/l	0.40	62,593.80	4.413E-01	Pulse	0.50	3
Ni			1	31.651	ug/l	0.70	51,123.82	3.604E-01	Pulse	0.50	3
Cu			1	15.834	ug/l	1.04	72,446.98	5.107E-01	Pulse	0.50	3
Zn			1	50.544	ug/l	1.00	41,110.59	1.968E-01	Pulse	1.00	3
Cd			1	-0.013	ug/l	-130.90	166.67	7.977E-04	Pulse	0.50	3
Al			1	3.219	ug/l	5.07	771.69	3.318E-03	Pulse	1.00	3
Se			1	-0.086	ug/l	-107.36	40.89	1.959E-04	Pulse	3.00	3
Sb			1	0.046	ug/l	6.77	1,215.71	5.821E-03	Pulse	1.00	3
Se			1	0.489	ug/l	46.37	35.67	1.707E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,737,948.00	2.07	92.4	Pulse	0.50	3
1	Sc		232,626.66	1.06	94.7	Pulse	0.30	3
1	Ge		141,841.76	0.66	94.1	Pulse	0.30	3
1	In		1,373,832.69	1.59	92.4	Pulse	0.30	3
1	Tb		4,017,190.75	2.16	95.5	Pulse	0.50	3
1	Lu		3,129,956.50	2.45	94.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		208,844.54	0.91	93.2	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		1,716.75	10.56	81.8	Pulse	0.30	3

Quantitation Report

File Name	132CCVA.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:16
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.233	ug/l	0.25	448,637.01	2.959E+00	Pulse	0.50	3
As			1	48.783	ug/l	0.40	56,733.66	3.743E-01	Pulse	1.00	3
Mo			1	49.017	ug/l	1.78	252,563.50	1.125E+00	Pulse	0.50	3
Pb			1	49.390	ug/l	0.23	1,216,510.50	4.275E-01	Pulse	1.00	3
Be			1	48.533	ug/l	1.97	3,473.47	1.404E-02	Pulse	2.00	3
Ag			1	50.583	ug/l	1.27	772,547.69	3.442E+00	Pulse	0.50	3
Ba			1	49.033	ug/l	0.80	125,819.22	8.636E-02	Pulse	0.50	3
Tl			1	53.550	ug/l	0.21	1,719,839.62	5.252E-01	Pulse	0.50	3
Sn			1	49.016	ug/l	0.81	276,360.10	1.897E-01	Pulse	0.30	3
Sr			1	48.882	ug/l	1.19	338,357.41	2.322E-01	Pulse	0.50	3
[Pb]			1	50.757	ug/l	0.63	575,792.27	1.758E-01	Pulse	0.50	3
Ca			1	5007.512	ug/l	1.14	185,924.67	7.515E-01	Pulse	0.50	3
Ti			1	47.839	ug/l	2.22	11,910.32	4.814E-02	Pulse	0.50	3
Na			1	4972.732	ug/l	0.34	7,127,111.00	2.881E+01	Analog	1.00	3
Mg			1	5003.862	ug/l	1.44	3,531,648.50	1.427E+01	Pulse	1.00	3
K			1	5138.190	ug/l	0.69	3,485,918.33	1.409E+01	Pulse	1.00	3
V			1	48.352	ug/l	1.32	366,891.68	1.483E+00	Pulse	0.50	3
Mn			1	48.893	ug/l	0.46	279,961.92	1.847E+00	Pulse	0.50	3
Fe			1	4996.902	ug/l	0.50	37,904,152.00	2.500E+02	Analog	0.50	3
Co			1	50.256	ug/l	0.58	674,034.71	4.446E+00	Pulse	0.50	3
Ni			1	50.891	ug/l	0.23	174,717.55	1.153E+00	Pulse	0.50	3
Cu			1	51.300	ug/l	0.81	462,456.81	3.050E+00	Pulse	0.50	3
Zn			1	51.196	ug/l	1.94	88,581.43	3.947E-01	Pulse	1.00	3
Cd			1	49.597	ug/l	2.61	128,241.06	5.714E-01	Pulse	0.50	3
Al			1	5050.580	ug/l	1.57	1,513,347.83	6.117E+00	Pulse	1.00	3
Se			1	49.029	ug/l	1.72	4,868.62	2.169E-02	Pulse	3.00	3
Sb			1	49.204	ug/l	1.90	386,046.61	1.720E+00	Pulse	1.00	3
Se			1	49.553	ug/l	2.25	2,378.15	1.060E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,845,319.17	1.04	96.0	Pulse	0.50	3
1	Sc		247,417.22	0.33	100.7	Pulse	0.30	3
1	Ge		151,593.17	0.94	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,456,904.80	0.69	98.0	Pulse	0.30	3
1	Tb		4,147,596.83	0.61	98.6	Pulse	0.50	3
1	Lu		3,274,782.00	0.54	98.9	Pulse	0.50	3
1	Ge		224,447.46	0.69	100.2	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		2,029.01	6.31	96.7	Pulse	0.30	3

Quantitation Report

File Name	133_CCV.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:20
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.648	ug/l	1.11	877,627.59	5.859E+00	Pulse	0.50	3
As			1	97.008	ug/l	1.05	111,352.23	7.434E-01	Pulse	1.00	3
Mo			1	97.513	ug/l	0.72	495,004.96	2.235E+00	Pulse	0.50	3
Pb			1	98.207	ug/l	0.66	2,345,151.75	8.484E-01	Pulse	1.00	3
Be			1	97.076	ug/l	0.17	6,874.00	2.805E-02	Pulse	2.00	3
Ag			1	98.771	ug/l	1.10	1,488,417.50	6.721E+00	Pulse	0.50	3
Ba			1	97.480	ug/l	1.02	244,890.96	1.714E-01	Pulse	0.50	3
Tl			1	103.917	ug/l	0.71	3,291,451.42	1.018E+00	Pulse	0.50	3
Sn			1	97.023	ug/l	0.76	534,600.27	3.742E-01	Pulse	0.30	3
Sr			1	96.881	ug/l	1.24	656,540.33	4.595E-01	Pulse	0.50	3
[Pb]			1	99.275	ug/l	0.30	1,109,390.50	3.432E-01	Pulse	0.50	3
Ca			1	9794.946	ug/l	0.48	359,922.39	1.469E+00	Pulse	0.50	3
Ti			1	94.512	ug/l	2.54	23,283.82	9.502E-02	Pulse	0.50	3
Na			1	9824.986	ug/l	0.82	13,933,314.00	5.687E+01	Analog	1.00	3
Mg			1	9885.558	ug/l	0.22	6,909,342.17	2.820E+01	Analog	1.00	3
K			1	9934.571	ug/l	0.71	6,640,313.83	2.710E+01	Analog	1.00	3
V			1	96.514	ug/l	0.54	723,944.63	2.954E+00	Pulse	0.50	3
Mn			1	96.859	ug/l	1.34	547,356.39	3.654E+00	Pulse	0.50	3
Fe			1	9954.488	ug/l	0.82	74,599,400.00	4.980E+02	Analog	0.50	3
Co			1	99.074	ug/l	1.00	1,311,625.62	8.757E+00	Pulse	0.50	3
Ni			1	98.939	ug/l	0.92	335,209.92	2.238E+00	Pulse	0.50	3
Cu			1	99.209	ug/l	1.16	877,055.96	5.855E+00	Pulse	0.50	3
Zn			1	99.461	ug/l	1.19	168,978.12	7.630E-01	Pulse	1.00	3
Cd			1	97.950	ug/l	0.98	249,734.57	1.128E+00	Pulse	0.50	3
Al			1	9701.788	ug/l	0.74	2,878,825.83	1.175E+01	Pulse	1.00	3
Se			1	98.561	ug/l	1.04	9,609.19	4.339E-02	Pulse	3.00	3
Sb			1	97.874	ug/l	1.16	756,625.73	3.417E+00	Pulse	1.00	3
Se			1	98.723	ug/l	0.74	4,648.79	2.099E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,764,155.92	0.75	93.3	Pulse	0.50	3
1	Sc		245,033.37	0.92	99.8	Pulse	0.30	3
1	Ge		149,786.04	0.39	99.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,428,728.24	0.92	96.1	Pulse	0.30	3
1	Tb		4,085,937.17	0.80	97.2	Pulse	0.50	3
1	Lu		3,232,477.17	0.95	97.6	Pulse	0.50	3
1	Ge		221,458.58	0.38	98.9	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		1,927.88	1.27	91.9	Pulse	0.30	3

Quantitation Report

File Name	134_CCB.d
File Path	D:\2023\xa042123m1.b
Method File	
Method Path	
Acq Time	4/21/2023 18:23
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	4/24/2023 8:13
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.024	ug/l	63.90	1,779.42	1.223E-02	Pulse	0.50	3
As			1	0.027	ug/l	86.26	155.33	1.068E-03	Pulse	1.00	3
Mo			1	0.100	ug/l	16.14	1,248.05	5.790E-03	Pulse	0.50	3
Pb			1	-0.008	ug/l	-192.44	4,698.98	1.684E-03	Pulse	1.00	3
Be			1	0.005	ug/l	1082.28	7.17	3.006E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	58.95	369.34	1.718E-03	Pulse	0.50	3
Ba			1	0.001	ug/l	1423.99	415.34	2.921E-04	Pulse	0.50	3
Tl			1	0.031	ug/l	40.26	3,975.15	1.273E-03	Pulse	0.50	3
Sn			1	0.137	ug/l	12.52	2,633.53	1.852E-03	Pulse	0.30	3
Sr			1	0.003	ug/l	472.09	1,120.04	7.883E-04	Pulse	0.50	3
[Pb]			1	-0.015	ug/l	-14.08	2,100.80	6.718E-04	Pulse	0.50	3
Ca			1	-0.603	ug/l	-255.75	231.33	9.719E-04	Pulse	0.50	3
Ti			1	0.022	ug/l	114.01	28.00	1.177E-04	Pulse	0.50	3
Na			1	1.849	ug/l	53.18	14,422.88	6.059E-02	Pulse	1.00	3
Mg			1	1.820	ug/l	68.99	1,685.09	7.079E-03	Pulse	1.00	3
K			1	2.528	ug/l	26.04	37,475.72	1.574E-01	Pulse	1.00	3
V			1	0.008	ug/l	261.32	1,363.39	5.728E-03	Pulse	0.50	3
Mn			1	0.006	ug/l	129.76	692.01	4.756E-03	Pulse	0.50	3
Fe			1	2.431	ug/l	59.02	31,072.22	2.139E-01	Pulse	0.50	3
Co			1	0.019	ug/l	81.52	1,536.06	1.056E-02	Pulse	0.50	3
Ni			1	0.020	ug/l	159.53	491.34	3.379E-03	Pulse	0.50	3
Cu			1	0.020	ug/l	46.77	7,049.30	4.843E-02	Pulse	0.50	3
Zn			1	-0.066	ug/l	-18.25	749.69	3.479E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	120.88	212.67	9.877E-04	Pulse	0.50	3
Al			1	4.595	ug/l	24.41	1,650.07	6.933E-03	Pulse	1.00	3
Se			1	0.066	ug/l	167.26	52.55	2.437E-04	Pulse	3.00	3
Sb			1	0.053	ug/l	8.80	1,481.73	6.877E-03	Pulse	1.00	3
Se			1	0.044	ug/l	88.76	27.67	1.283E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,793,182.67	1.46	94.3	Pulse	0.50	3
1	Sc		238,058.88	0.44	96.9	Pulse	0.30	3

Quantitation Report

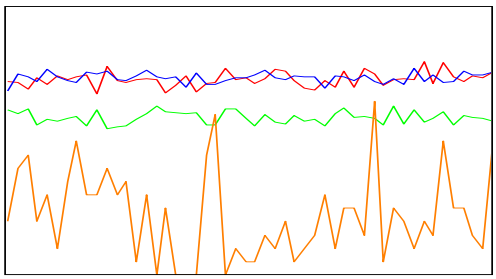
1	Ge		145,571.62	1.07	96.5	Pulse	0.30	3
1	In		1,421,935.74	1.40	95.6	Pulse	0.30	3
1	Tb		3,979,564.17	1.30	94.6	Pulse	0.50	3
1	Lu		3,127,134.50	1.75	94.4	Pulse	0.50	3
1	Ge		215,496.80	0.87	96.2	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,946.77	3.04	92.8	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Tune Report

Batch Folder	D:\2023\xa042123m1.b
Acq. Date-Time	4/21/2023 9:37
Report Comment	042123
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1465	14654.30	5000.00	
89	2000	1179	11785.66	5000.00	
205	5000	3690	36902.43	5000.00	
78	20	4			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

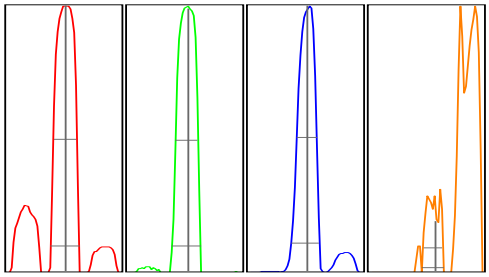
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.66	5.00	
89	3.97	5.00	
205	2.52	5.00	
78	73.77		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.00	2	
89	0.00	2	
205	0.20	2	
78	0.00	5	

Ratio	156/140	0.548 %	
Ratio	70/140	1.312 %	

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1426.58	59.05	58.9 - 59.1		0.60	0.720	0.900	
89	1191.93	89.10	88.9 - 89.1		0.57	0.724	0.900	
205	3829.17	205.05	204.9 - 205.1		0.49	0.723	0.900	
78	3.75	78.25	-		0.50	0.540		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	9.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

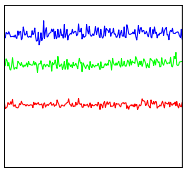
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-145.0 V	Cell Exit	-70 V
Omega Bias	-85 V	Deflect	2.2 V
Omega Lens	10.1 V	Plate Bias	-60 V

Cell Parameters

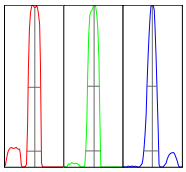
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



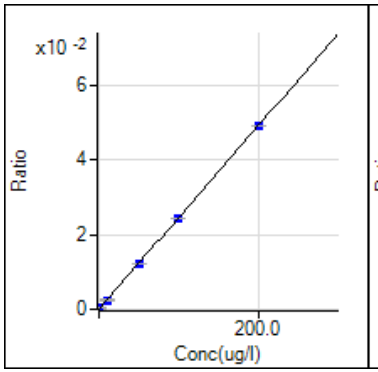
Sensitivity			
Mass	7	89	205
Range	5000	5000	5000
Count	1935.07	3186.41	4131.65
RSD%	3.3	3.1	2.9
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.10%	
Doubly Charged	70/140	1.70%	

Background			
Mass	7	89	205
Count	0.20	0.65	3.05

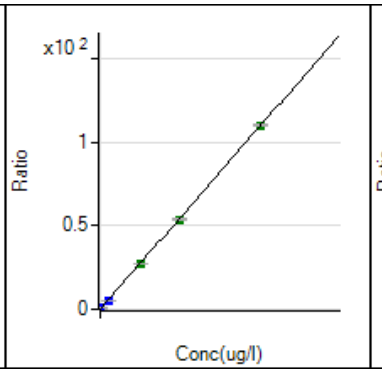


Resolution/Axis			
Mass	7	89	205
Height	1882	3180	4153
Axis	7.05	89.05	205.00
W-50%	0.63	0.59	0.49
W-10%	0.73	0.74	0.74
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

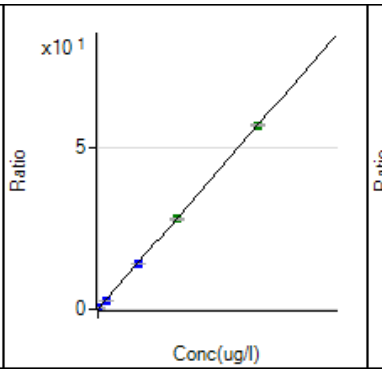
Calibration for D:\2023\xa042123m1.b\024SMPL.d



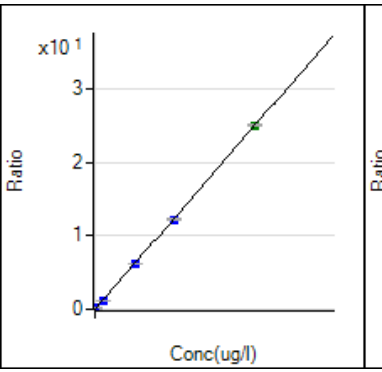
9 Be [2] / ISTD: 45 Sc
y = 2.459E-4 x + 1.434E-5
R 1.0000
DL 0.09473
BEC 0.05833



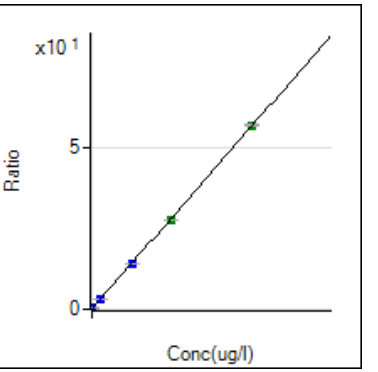
23 Na [2] / ISTD: 45 Sc
y = 5.480E-3 x + 3.592E-2
R 0.9999
DL 0.4425
BEC 6.556



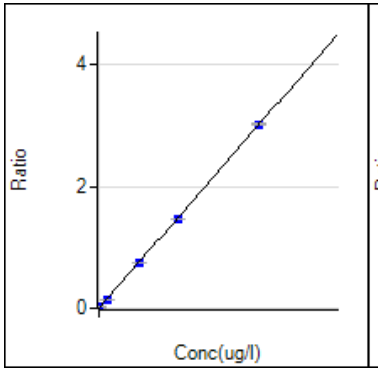
24 Mg [2] / ISTD: 45 Sc
y = 2.834E-3 x + 2.497E-3
R 1.0000
DL 0.04208
BEC 0.8811



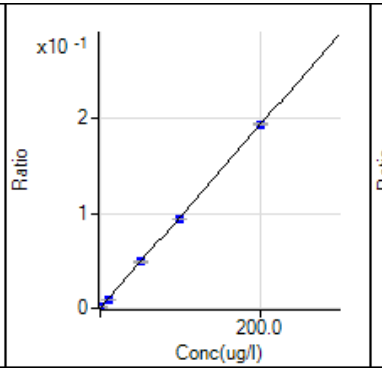
27 Al [2] / ISTD: 45 Sc
y = 1.248E-3 x + 2.721E-3
R 0.9999
DL 0.2689
BEC 2.18



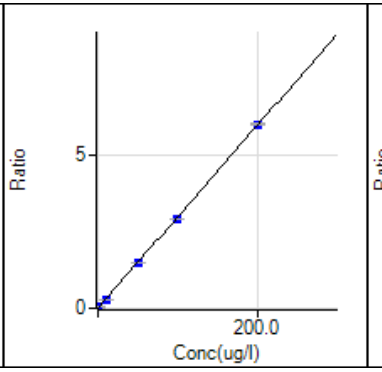
39 K [2] / ISTD: 45 Sc
y = 2.807E-3 x + 1.385E-1
R 0.9999
DL 0.978
BEC 49.36



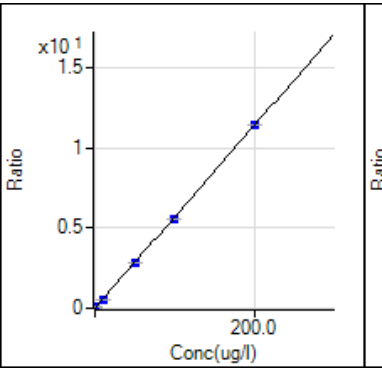
44 Ca [2] / ISTD: 45 Sc
y = 1.498E-4 x + 8.408E-4
R 0.9999
DL 2.015
BEC 5.613



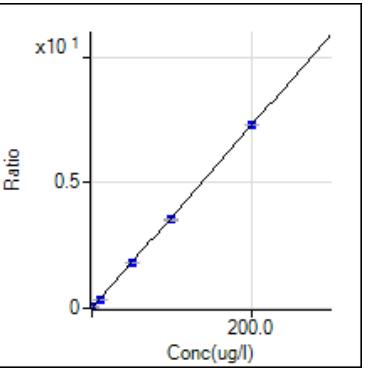
47 Ti [2] / ISTD: 45 Sc
y = 9.654E-4 x + 1.412E-4
R 0.9999
DL 0.06781
BEC 0.1463



51 V [2] / ISTD: 45 Sc
y = 2.963E-2 x + 6.352E-3
R 0.9999
DL 0.0411
BEC 0.2144

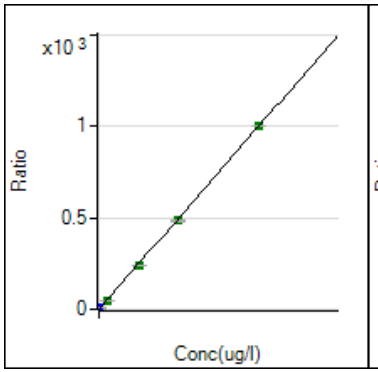


52 Cr [2] / ISTD: 72 Ge
y = 5.699E-2 x + 1.131E-2
R 0.9999
DL 0.03248
BEC 0.1984

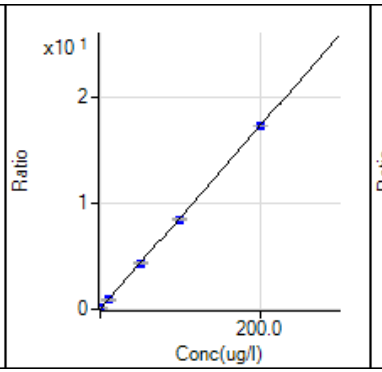


55 Mn [2] / ISTD: 72 Ge
y = 3.633E-2 x + 4.807E-3
R 0.9998
DL 0.04088
BEC 0.1323

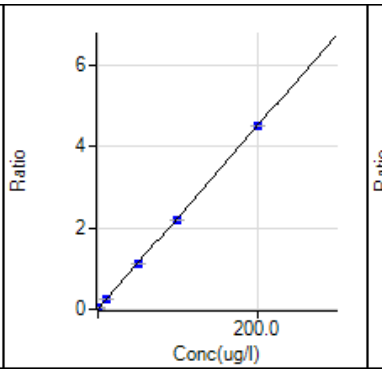
Calibration for D:\2023\xa042123m1.b\024SMPL.d



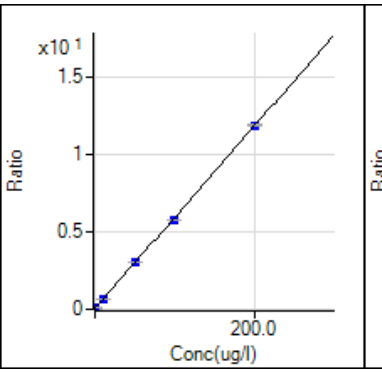
56 Fe [2] / ISTD: 72 Ge
y = 4.992E-2 x + 8.265E-2
R 0.9998
DL 0.1304
BEC 1.656



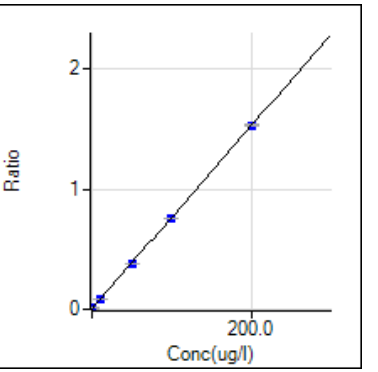
59 Co [2] / ISTD: 72 Ge
y = 8.641E-2 x + 9.346E-3
R 0.9999
DL 0.01245
BEC 0.1082



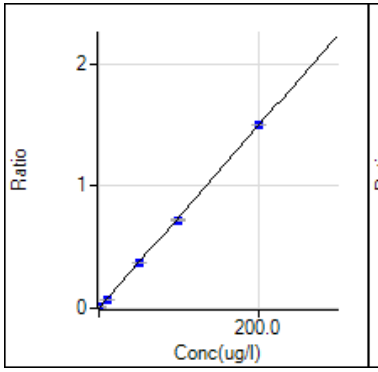
60 Ni [2] / ISTD: 72 Ge
y = 2.251E-2 x + 3.245E-3
R 0.9999
DL 0.04445
BEC 0.1442



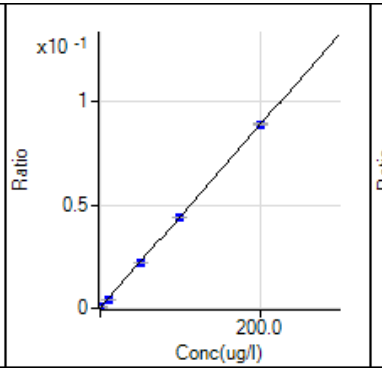
63 Cu [2] / ISTD: 72 Ge
y = 5.892E-2 x + 5.402E-2
R 0.9999
DL 0.02341
BEC 0.9169



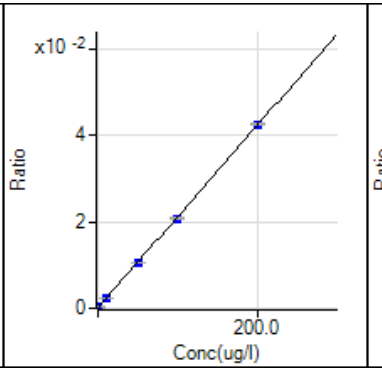
66 Zn [2] / ISTD: 74 Ge
y = 7.627E-3 x + 3.531E-3
R 1.0000
DL 0.02519
BEC 0.4629



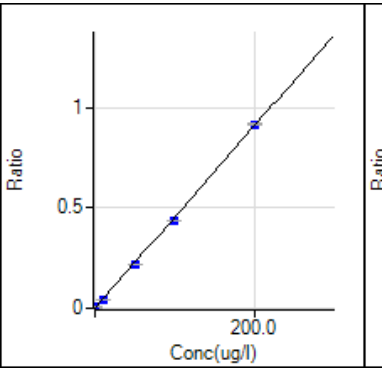
75 As [2] / ISTD: 72 Ge
y = 7.442E-3 x + 8.176E-4
R 0.9998
DL 0.0261
BEC 0.1099



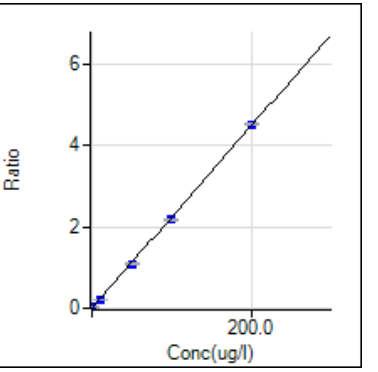
78 Se [2] / ISTD: 74 Ge
y = 4.420E-4 x + 2.141E-4
R 1.0000
DL 0.128
BEC 0.4845



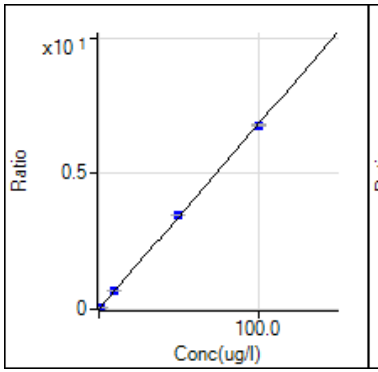
82 Se [2] / ISTD: 74 Ge
y = 2.109E-4 x + 1.052E-4
R 0.9999
DL 0.2125
BEC 0.4987



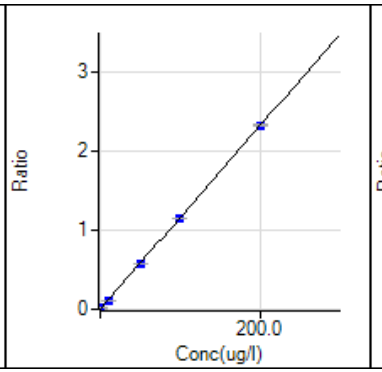
88 Sr [2] / ISTD: 115 In
y = 4.526E-3 x + 6.981E-4
R 0.9998
DL 0.02521
BEC 0.1543



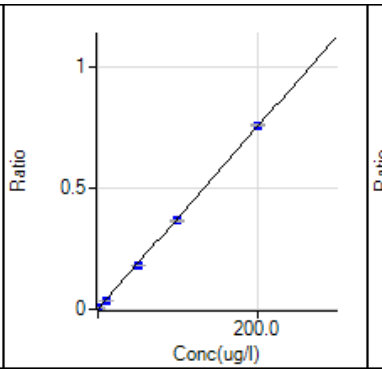
95 Mo [2] / ISTD: 74 Ge
y = 2.236E-2 x + 2.517E-3
R 0.9998
DL 0.01991
BEC 0.1125



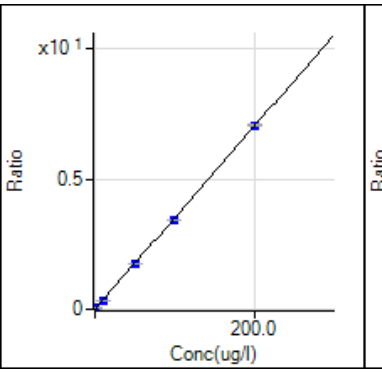
107 Ag [2] / ISTD: 74 Ge
y = 6.803E-2 x + 2.297E-4
R 0.9999
DL 0.00103
BEC 0.003377



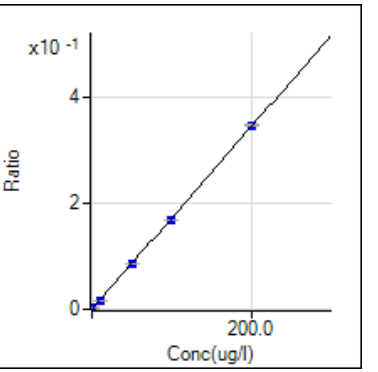
111 Cd [2] / ISTD: 74 Ge
y = 1.157E-2 x + 9.744E-4
R 1.0000
DL 0.01051
BEC 0.08425



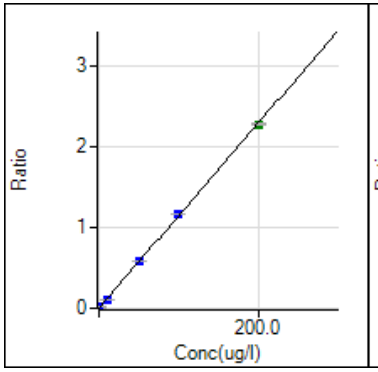
118 Sn [2] / ISTD: 115 In
y = 3.754E-3 x + 1.017E-3
R 0.9998
DL 0.03989
BEC 0.2709



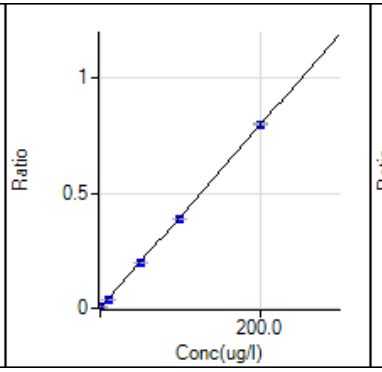
121 Sb [2] / ISTD: 74 Ge
y = 3.505E-2 x + 5.093E-3
R 0.9999
DL 0.009157
BEC 0.1453



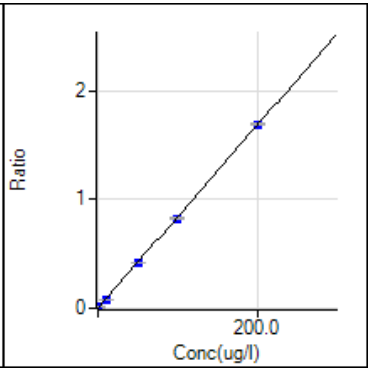
137 Ba [2] / ISTD: 115 In
y = 1.713E-3 x + 2.479E-4
R 0.9998
DL 0.05159
BEC 0.1448



205 Tl [2] / ISTD: 209 Bi
y = 1.146E-2 x + 1.125E-3
R 0.9999
DL 0.01122
BEC 0.09811



206 [Pb] [2] / ISTD: 209 Bi
y = 3.972E-3 x + 7.405E-4
R 0.9999
DL 0.01983
BEC 0.1864



208 Pb [2] / ISTD: 209 Bi
y = 8.388E-3 x + 1.607E-3
R 0.9999
DL 0.02687
BEC 0.1916

SGS Orlando

Date:	04/15/23
Time	15:30

[24hr]

Analysts Name:	Adam K
MP Batch ID:	42110
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22520028	ACC1382	0.05	MU45274
Conc. HCl (B)	22410207	ACC1346	0.2	KU15244
NA	NA	MET7384	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	96	**Corr. Factor**	-2	**Corrected Observed Temp. C**	94
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2210117

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	1	Matrix Spike(MS)	50	50	Y	
	1	Matrix Spike Dup(MSD)	50	50	Y	
	1	Duplicate(DUP)	50	50	Y	
1(QC) C	1	FC5031-24	50	50	Y	
2	1	FC5031-26	50	50	Y	
3	1	FC5031-27	50	50	Y	
4	1	FC5031-30	50	50	Y	
5	1	FC5031-32	50	50	Y	
6	1	FC5031-33	50	50	Y	
7	1	FC5089-1	50	50	Y	
8	17	FC5192-1	50	50	Y	
9	16	FC5192-3	50	50	Y	
10	4	FC5090-1	50	50	Y	
11	4	FC5090-2	50	50	Y	
12	4	FC5090-3	50	50	Y	
13	4	FC5090-4	50	50	Y	
14	7	FC5225-1	50	50	Y	
15	7	FC5225-2	50	50	Y	
16	9	FC3879-21	50	50	Y	
17	8	FC3879-21F	50	50	Y	
18	16	FC5192-1F	50	50	Y	
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]			50	50		

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J02

SGS Job Number: FC5877

Sampling Date: 05/05/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **237**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Please share your ideas about how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC5877

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC5877-1	05/05/23	09:25	JR	05/06/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC5877

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 5/19/2023 1:10:47 PM

On 05/06/2023, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5877 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP42229

Sample(s) FC5925-1DUP, FC5925-1MS, FC5925-1MSD, FC5925-1SDL were used as the QC samples for metals.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC5877
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 05/05/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC5877-1	**EFFLUENT**					
Arsenic		25.9	2.0	1.0	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC5877-1	**Date Sampled:**	05/05/23
Matrix:	AQ - Water	**Date Received:**	05/06/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	25.9	2.0	1.0	0.21	ug/l	2	05/13/23	05/18/23	DM	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19425
(2) Prep QC Batch: MP42229

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

FC5877

SGS - ORLANDO JOB # : PAGE 1 OF 1

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed): Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNA	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
(1)	Effluent	5/5/23	9:25	JWR	aq	1					x					X	

INITIAL ASSESSMENT

LABEL VERIFICATION SP

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
x 5 Day- Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center Northborough, MA 5/5

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		5-5-23 1312	Thelma Tracy	3 Thelma Tracy	5/5/23 1700	4 Fed
5	Relinquished by/Affiliation Fed Ex	Date Time:	Received By/Affiliation 6 0930 05/06/23	Relinquished By/Affiliation 7	Date Time:	Received By/Affiliation 8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 4.0 IR#1 CSF 19262

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

FC5877: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC5877 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL

Date / Time Received: 5/6/2023 9:30:00 AM **Delivery Method:** FED EX **Airbill #'s:** 6455 9821 4198

Therm ID: IR 1; **Therm CF:** -0.1; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.1);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 25BDH07 Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP Date: 5/6/2023 9:30:00 AM Reviewer: _____ Date: _____

QC Evaluation: DOD QSM5.x Limits

Job Number: FC5877
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 05/05/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP42229	SW846 6020B						
MP42229-B1	7440-38-2	Arsenic	BSP	REC	115	%	84-116
MP42229-S1*	7440-38-2	Arsenic	MS	REC	110.3	%	84-116
MP42229-S2*	7440-38-2	Arsenic	MSD	REC	111.8	%	84-116
MP42229-S2*	7440-38-2	Arsenic	MSD	RPD	1.3	%	20
MP42229-D1*	7440-38-2	Arsenic	DUP	RPD	8.7	%	20

* Sample used for QC is not from job FC5877

Metals Analysis

6

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:56	MA19425-STD1	1		STDA
09:00	MA19425-STD2	1		STDB
09:04	MA19425-STD3	1		STDC
09:08	MA19425-STD4	1		STDD
09:12	MA19425-STD5	1		STDE
09:16	MA19425-STD6	1		STDF
09:20	MA19425-STD7	1		STDG
09:23	MA19425-HSTD1	1		
09:26	MA19425-HSTD2	1		
09:29	MA19425-ICV1	1		
09:33	MA19425-ICB1	1		
09:37	MA19425-CRIA1	1		
09:41	MA19425-ICSA1	1		
09:44	MA19425-ICSAB1	1		
09:48	MA19425-CCV1	1		
09:52	MA19425-CCV2	1		
09:56	MA19425-CCB1	1		
09:59	MP42246-MB1	5		
10:04	MP42246-B1	5		
10:08	FC5904-1A	10		(sample used for QC only; not part of login FC5877)
10:13	MP42246-D1	10		
10:17	MP42246-SD1	50		
10:21	MP42246-S1	10		
10:24	MP42246-S2	10		
10:28	MP42246-PS1	10		
10:32	ZZZZZZ	10		
10:36	MP42244-MB1	2		
10:40	MA19425-CCV3	1		
10:44	MA19425-CCV4	1		
10:47	MA19425-CCB2	1		
10:51	MP42244-B1	2		
10:55	FC5918-1F	2		(sample used for QC only; not part of login FC5877)
10:59	MP42244-D1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:02	MP42244-SD1	10		
11:06	MP42244-S1	2		
11:10	MP42244-S2	2		
11:14	MP42244-PS1	2		
11:18	ZZZZZZ	2		
11:21	ZZZZZZ	2		
11:25	ZZZZZZ	2		
11:29	MA19425-CCV5	1		
11:33	MA19425-CCV6	1		
11:37	MA19425-CCB3	1		
11:40	ZZZZZZ	2		
11:44	ZZZZZZ	2		
11:48	ZZZZZZ	2		
11:52	ZZZZZZ	2		
11:55	ZZZZZZ	2		
11:59	ZZZZZZ	2		
12:03	ZZZZZZ	2		
12:07	ZZZZZZ	2		
12:10	ZZZZZZ	2		
12:14	ZZZZZZ	2		
12:18	MA19425-CCV7	1		
12:22	MA19425-CCV8	1		
12:26	MA19425-CCB4	1		
12:30	ZZZZZZ	2		
12:33	ZZZZZZ	2		
12:37	ZZZZZZ	2		
12:41	ZZZZZZ	2		
12:45	ZZZZZZ	2		
12:48	MP42229-MB1	2		
12:52	MP42229-B1	2		
12:56	FC5925-1	2		(sample used for QC only; not part of login FC5877)
13:00	MP42229-D1	2		
13:04	MP42229-SD1	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:07	MA19425-CCV9	1		
13:11	MA19425-CCV10	1		
13:15	MA19425-CCB5	1		
13:19	MP42229-S1	2		
13:23	MP42229-S2	2		
13:26	MP42229-PS1	2		
13:30	ZZZZZZ	2		
13:34	ZZZZZZ	2		
13:38	ZZZZZZ	2		
13:42	ZZZZZZ	2		
13:45	ZZZZZZ	2		
13:49	ZZZZZZ	2		
13:53	ZZZZZZ	2		
13:57	MA19425-CCV11	1		
14:00	MA19425-CCV12	1		
14:04	MA19425-CCB6	1		
14:08	ZZZZZZ	2		
14:12	ZZZZZZ	2		
14:16	ZZZZZZ	2		
14:19	ZZZZZZ	2		
14:23	ZZZZZZ	2		
14:27	ZZZZZZ	2		
14:31	ZZZZZZ	2		
14:34	ZZZZZZ	2		
14:38	ZZZZZZ	2		
14:42	FC5877-1	2		
---------->	Last reportable sample/prep for job FC5877			
14:46	MA19425-CCV13	1		
14:50	MA19425-CCV14	1		
14:53	MA19425-CCB7	1		
---------->	Last reportable CCB for job FC5877			
14:57	MP42255-MB1	2		
15:01	MP42255-B1	2		
15:05	MP42255-B2	2		
15:09	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:12	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:24	MP42253-MB1	5		
15:27	MP42253-B1	5		
15:31	MP42253-B2	5		
15:35	MA19425-CCV15	1		
15:39	MA19425-CCV16	1		
15:43	MA19425-CCB8	1		
15:47	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:02	MA19425-CCV17	1		
16:05	MA19425-CCV18	1		
16:09	MA19425-CCB9	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Element: Dilution	As	
09:23	MA19425-HSTD1	1		
09:26	MA19425-HSTD2	1	X	
09:29	MA19425-ICV1	1	X	
09:33	MA19425-ICB1	1	X	
09:37	MA19425-CRIA1	1	X	
09:41	MA19425-ICSA1	1	X	
09:44	MA19425-ICSAB1	1	X	
09:48	MA19425-CCV1	1		
09:52	MA19425-CCV2	1	X	
09:56	MA19425-CCB1	1	X	
09:59	MP42246-MB1	5	X	
10:04	MP42246-B1	5	X	
10:08	FC5904-1A	10	X	(a)
10:13	MP42246-D1	10	X	
10:17	MP42246-SD1	50	X	
10:21	MP42246-S1	10	X	
10:24	MP42246-S2	10	X	
10:28	MP42246-PS1	10		
10:32	ZZZZZZ	10		
10:36	MP42244-MB1	2	X	
10:40	MA19425-CCV3	1		
10:44	MA19425-CCV4	1	X	
10:47	MA19425-CCB2	1	X	
10:51	MP42244-B1	2	X	
10:55	FC5918-1F	2		(a)
10:59	MP42244-D1	2	X	
11:02	MP42244-SD1	10	X	
11:06	MP42244-S1	2	X	
11:10	MP42244-S2	2	X	
11:14	MP42244-PS1	2		
11:18	ZZZZZZ	2		
11:21	ZZZZZZ	2		
11:25	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:29	MA19425-CCV5	1		
11:33	MA19425-CCV6	1	X	
11:37	MA19425-CCB3	1	X	
11:40	ZZZZZZ	2		
11:44	ZZZZZZ	2		
11:48	ZZZZZZ	2		
11:52	ZZZZZZ	2		
11:55	ZZZZZZ	2		
11:59	ZZZZZZ	2		
12:03	ZZZZZZ	2		
12:07	ZZZZZZ	2		
12:10	ZZZZZZ	2		
12:14	ZZZZZZ	2		
12:18	MA19425-CCV7	1		
12:22	MA19425-CCV8	1	X	
12:26	MA19425-CCB4	1	X	
12:30	ZZZZZZ	2		
12:33	ZZZZZZ	2		
12:37	ZZZZZZ	2		
12:41	ZZZZZZ	2		
12:45	ZZZZZZ	2		
12:48	MP42229-MB1	2	X	
12:52	MP42229-B1	2	X	
12:56	FC5925-1	2		(a)
13:00	MP42229-D1	2	X	
13:04	MP42229-SD1	10	X	
13:07	MA19425-CCV9	1		
13:11	MA19425-CCV10	1	X	
13:15	MA19425-CCB5	1	X	
13:19	MP42229-S1	2	X	
13:23	MP42229-S2	2	X	
13:26	MP42229-PS1	2		
13:30	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Element: Dilution	As
13:34	ZZZZZZ	2	
13:38	ZZZZZZ	2	
13:42	ZZZZZZ	2	
13:45	ZZZZZZ	2	
13:49	ZZZZZZ	2	
13:53	ZZZZZZ	2	
13:57	MA19425-CCV11	1	
14:00	MA19425-CCV12	1	X
14:04	MA19425-CCB6	1	X
14:08	ZZZZZZ	2	
14:12	ZZZZZZ	2	
14:16	ZZZZZZ	2	
14:19	ZZZZZZ	2	
14:23	ZZZZZZ	2	
14:27	ZZZZZZ	2	
14:31	ZZZZZZ	2	
14:34	ZZZZZZ	2	
14:38	ZZZZZZ	2	
14:42	FC5877-1	2	X
14:46	MA19425-CCV13	1	
14:50	MA19425-CCV14	1	X
14:53	MA19425-CCB7	1	X
14:57	MP42255-MB1	2	X
15:01	MP42255-B1	2	X
15:05	MP42255-B2	2	X
15:09	ZZZZZZ	1	
15:12	ZZZZZZ	1	
15:16	ZZZZZZ	1	
15:20	ZZZZZZ	1	
15:24	MP42253-MB1	5	X
15:27	MP42253-B1	5	X
15:31	MP42253-B2	5	X
15:35	MA19425-CCV15	1	
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Dilution	Element: As
15:39	MA19425-CCV16	1	X
15:43	MA19425-CCB8	1	X
15:47	ZZZZZZ	1	
15:50	ZZZZZZ	1	
15:54	ZZZZZZ	1	
15:58	ZZZZZZ	1	
16:02	MA19425-CCV17	1	
16:05	MA19425-CCV18	1	X
16:09	MA19425-CCB9	1	X

(a) Sample used for QC only; not part of login FC5877.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
08:56	MA19425-STD1	100	100	100	100	100	100	100
09:00	MA19425-STD2	109	99.8	100	100.1	99.9	99.7	99.2
09:04	MA19425-STD3	108.8	100.3	99.8	99.8	99.6	99.9	100.3
09:08	MA19425-STD4	110.4	100.8	100.6	101	100.9	101.3	101
09:12	MA19425-STD5	102.3	100.9	100.1	100	99	100.7	98.9
09:16	MA19425-STD6	96.6	99.4	98.7	98.8	97.9	100.2	96.2
09:20	MA19425-STD7	97.1	99.1	99.1	98.5	95.7	98.4	93
09:23	MA19425-HSTD1	105.7	99.9	99.3	99	97	99.1	94.8
09:26	MA19425-HSTD2	91.4	99.7	99.4	98.6	95.5	98	92.5
09:29	MA19425-ICV1	99.7	88.6	89.1	89	87.3	92.9	89.8
09:33	MA19425-ICB1	110	102.7	103.3	102	101	100.6	99.2
09:37	MA19425-CRIA1	109.6	105	104	104.1	102.1	101.7	99.8
09:41	MA19425-ICSA1	88.4	97.4	99.7	93.4	89.5	93.7	84.4
09:44	MA19425-ICSAB1	87.3	96.1	99.4	93.6	89.4	93.5	83.7
09:48	MA19425-CCV1	96.6	99.8	101	100.7	99.3	100.9	97.4
09:52	MA19425-CCV2	92.7	99.7	101.6	100.4	98.2	100.2	94.9
09:56	MA19425-CCB1	101.3	100.9	101.8	101.8	100.9	99.9	98.1
09:59	MP42246-MB1	90.2	96.7	97.5	97.1	96	98	97.1
10:04	MP42246-B1	95.5	95.4	96	95.9	94.2	97.9	91.9
10:08	FC5904-1A	97.1	111.4	103.7	101	97.9	100.3	95.3
10:13	MP42246-D1	98.1	113.2	104.5	101.8	98.6	100.9	95
10:17	MP42246-SD1	101.7	108.2	106.9	106.4	103.4	103	99.4
10:21	MP42246-S1	93.4	110.6	105	100.8	96.8	99.1	92
10:24	MP42246-S2	93.8	114.6	104.2	100.2	95.6	98.6	91
10:28	MP42246-PS1	98	111.3	104.1	100.2	97.2	99.5	93.9
10:32	ZZZZZZ	100.4	105.8	103.1	100.8	96.6	99	93.7
10:36	MP42244-MB1	99	100.2	99.4	99.8	96.9	97.4	94.3
10:40	MA19425-CCV3	100.4	109.1	107.1	107.7	102.5	102.3	97.1
10:44	MA19425-CCV4	112.4	107.4	106.6	105.7	100.5	100.7	93.8
10:47	MA19425-CCB2	108.1	109.6	107.9	107.1	103.3	100.7	96.6
10:51	MP42244-B1	91.6	98.6	97.7	97.6	94.2	96.4	89.2
10:55	FC5918-1F	102.8	99.9	98.8	98.8	96.3	97.3	94.7
10:59	MP42244-D1	104.5	100.4	100	99.3	96.6	97.2	94.7

INTERNAL STANDARD SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:02	MP42244-SD1	103	105.9	105.4	104.8	101.6	100.1	97.9
11:06	MP42244-S1	95.8	96.1	96	96.3	92.1	95.7	87.8
11:10	MP42244-S2	96.3	95.7	95.4	95.9	91.8	95	88.2
11:14	MP42244-PS1	94.4	98.4	96.8	97.5	94.7	96.6	92.4
11:18	ZZZZZZ	93.8	100.3	98.5	98.3	93.5	95.6	88.7
11:21	ZZZZZZ	100.3	101.1	99.3	100.3	96.3	97.5	93.1
11:25	ZZZZZZ	97.4	98.5	97.2	98	93	95	88.1
11:29	MA19425-CCV5	106.1	107.1	105.5	105.1	98.9	102.5	93.8
11:33	MA19425-CCV6	100.8	105.2	105.5	104.7	99	99.2	92.6
11:37	MA19425-CCB3	112.3	107.4	106.1	105.3	100.6	99	95.1
11:40	ZZZZZZ	109.7	99.5	98.1	98.1	94.3	95.5	91.4
11:44	ZZZZZZ	109.5	97.4	96.3	96.9	93.4	94.6	91.9
11:48	ZZZZZZ	96.8	96.7	95.8	95.5	93	94.3	91.3
11:52	ZZZZZZ	93.4	94.8	93.7	93.9	90.5	93.3	87.2
11:55	ZZZZZZ	96.6	96.4	95	95.4	91.7	93.8	90.3
11:59	ZZZZZZ	100.8	95.9	95	94.7	90.7	93.5	87.6
12:03	ZZZZZZ	96.7	96.7	95.5	95.3	91.6	93.8	88.5
12:07	ZZZZZZ	109	96.3	95.4	95.4	91.2	93.4	88.5
12:10	ZZZZZZ	104.4	96.8	95.2	95.6	92	93.8	89.4
12:14	ZZZZZZ	100.1	95.8	95.2	94.8	90.7	93.5	88.9
12:18	MA19425-CCV7	112.6	106.1	103.4	104.3	98.2	98.7	93.2
12:22	MA19425-CCV8	100.8	103.8	103.1	102.5	95.9	97.1	90.5
12:26	MA19425-CCB4	115.3	104.1	101.8	101.9	97.8	96.2	92.4
12:30	ZZZZZZ	101.9	95.2	94.1	93.6	90.6	92.5	90.2
12:33	ZZZZZZ	100.2	95.6	94.1	94.5	91.6	93.4	90.3
12:37	ZZZZZZ	96.8	95.7	95.1	95	92.1	93.6	90.3
12:41	ZZZZZZ	98	96.6	94.4	94.9	91.5	93.6	89.9
12:45	ZZZZZZ	100.8	96.5	94.6	95.1	91.4	93.7	89.7
12:48	MP42229-MB1	104.4	95.7	93.7	94.4	91.1	93	89.5
12:52	MP42229-B1	99	92.8	92.1	92	87.6	92	84.9
12:56	FC5925-1	90.6	93.5	92	92.2	89	92.1	89
13:00	MP42229-D1	95.5	94.3	92.6	92.7	89.4	92.6	88.9
13:04	MP42229-SD1	103.2	99.2	97.9	97.6	93.7	94.8	91.5

INTERNAL STANDARD SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
13:07	MA19425-CCV9	113.1	104.9	102.7	102.4	96.1	97.1	91.5
13:11	MA19425-CCV10	107.1	103.6	101.3	100.8	95	95.6	88.6
13:15	MA19425-CCB5	110.4	103.1	101.1	101.3	96.3	95	91.1
13:19	MP42229-S1	100.4	93.2	91.5	91.3	86.8	90.3	83.3
13:23	MP42229-S2	96.1	92.5	91	91.2	86.5	90.4	83.4
13:26	MP42229-PS1	No results reported for the elements associated with this internal standard.						
13:30	ZZZZZZ	93.3	91.9	90	89.8	86.4	89.7	85
13:34	ZZZZZZ	94.3	92.3	91.1	90.7	86	89.5	84.1
13:38	ZZZZZZ	87.9	90.4	89.2	90.1	84.8	89.1	82.9
13:42	ZZZZZZ	94.2	92.4	90.8	90.8	87.1	90.1	84.5
13:45	ZZZZZZ	105.9	95.4	92.7	92.6	88.2	91.7	87.8
13:49	ZZZZZZ	101.3	94.5	91.3	91.8	87	90.2	85
13:53	ZZZZZZ	96.2	92.2	90.1	89.6	85.8	89.6	83.8
13:57	MA19425-CCV11	103.1	103.1	100.4	101	94.2	95.2	89.6
14:00	MA19425-CCV12	101.3	101.1	99.3	98.5	92.4	93.5	86.8
14:04	MA19425-CCB6	102.7	100.7	98.1	97.3	93.3	92.1	88.2
14:08	ZZZZZZ	97.8	93.4	91	90.8	85.2	88.5	82.5
14:12	ZZZZZZ	89	93.6	92.1	90.6	86.6	89.5	82.2
14:16	ZZZZZZ	96.5	92.2	90.5	90.1	86.9	90.2	86.4
14:19	ZZZZZZ	96.5	92.5	89.6	89.4	85.9	89.4	83.8
14:23	ZZZZZZ	96	91.4	89.8	90.1	86.4	90.1	85.6
14:27	ZZZZZZ	96.1	91.5	88.7	89.4	86.3	89.5	85.6
14:31	ZZZZZZ	94.7	90.5	88.5	88.7	85.9	89	84
14:34	ZZZZZZ	100.3	89.9	88.5	88.4	85.4	88.9	84.6
14:38	ZZZZZZ	89.7	90.7	88.1	87.9	85.6	88.8	84.8
14:42	FC5877-1	96.1	89	87.4	87.6	84	87.4	81.7
14:46	MA19425-CCV13	103.5	98.1	96	95.4	90.4	92	86.4
14:50	MA19425-CCV14	104.5	96.8	94.3	94.7	88.8	90.5	84.2
14:53	MA19425-CCB7	98.1	97	94.2	94.3	89.9	89.5	86
14:57	MP42255-MB1	93.4	89.2	87.5	87.7	84.6	86.8	83.2
15:01	MP42255-B1	96.1	87.8	86.6	86.7	82	86.5	79.6
15:05	MP42255-B2	94.3	89	87.6	87.4	83	87.3	80
15:09	ZZZZZZ	99.5	90.2	87.7	87.9	84.6	87.5	82.7

INTERNAL STANDARD SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
Analyst: DM Run ID: MA19425
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
15:12	ZZZZZZ	93.4	90.1	88.4	88.6	85	88	83.3
15:16	ZZZZZZ	93.4	90.3	88.4	88.5	85.6	87.8	83
15:20	ZZZZZZ	97.2	90.4	88.5	87.9	85.4	87.7	82.7
15:24	MP42253-MB1	105	93.8	91.4	91.4	87.7	89.2	86
15:27	MP42253-B1	98.3	92.2	90.2	90.6	85	88.1	81
15:31	MP42253-B2	100.1	92	90.6	90	85.2	88.2	80.6
15:35	MA19425-CCV15	107	99.2	96.3	96.5	90.2	90.7	85.6
15:39	MA19425-CCV16	103.7	98.5	96.7	95.9	89.3	90.1	83.2
15:43	MA19425-CCB8	106.4	98.3	95	94.9	90.3	89.3	85.1
15:47	ZZZZZZ	95.8	90.9	88.3	87.8	85.1	86.1	82.2
15:50	ZZZZZZ	99.8	91.3	89.4	88.8	84.9	86.9	82.2
15:54	ZZZZZZ	103.3	91.3	89.7	89.3	85.3	87	82.7
15:58	ZZZZZZ	96.1	91.9	89.7	89.8	85.8	87.4	82.7
16:02	MA19425-CCV17	107.5	100.8	97.6	97.7	90.9	91.2	85.4
16:05	MA19425-CCV18	102.9	99.7	96.6	95.5	89.2	90	83.3
16:09	MA19425-CCB9	102.1	98.8	95.1	94.9	90.3	88.8	84.7

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19425 Units: ug/l

Time: / Sample ID:			09:33 ICB1		09:56 CCB1		10:47 CCB2		11:37 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0318	<1.0	0.0172	<1.0	0.0337	<1.0	0.0330	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19425 Units: ug/l

Time: / Sample ID:			12:26 CCB4		13:15 CCB5		14:04 CCB6		14:53 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0331	<1.0	0.0324	<1.0	0.00924	<1.0	0.0154	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	1.0	.3								
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		09:29			09:48			09:52	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	99.1	99.1				100	96.4	96.4
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		10:40			10:44			11:29	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.9	98.9			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		11:33			12:18			12:22	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.2	98.2				100	98.2	98.2
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		13:07			13:11			13:57	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.7	98.7			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		14:00			14:46			14:50	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.4	98.4				100	98.7	98.7
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19425 Units: ug/l

Time:		09:23			09:26	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	197	98.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19425 Units: ug/l

Time:			09:37	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	0.941	94.1
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0		
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0		
Thallium	1.0	1.0	anr	
Tin	1.0	1.0		
Titanium	1.0	1.0		
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA051823M1.CSV Date Analyzed: 05/18/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19425 Units: ug/l

Time:			09:41		09:44	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	97300	97.3	95600	95.6
Antimony			0.0606		0.0525	
Arsenic		20	0.0721		18.7	93.5
Barium			0.523		0.500	
Beryllium			0.00368		0.0108	
Cadmium		20	0.911		19.6	98.0
Calcium	100000	100000	95800	95.8	94700	94.7
Chromium		20	2.01*(a)		21.1	105.5
Cobalt		20	0.109		18.6	93.0
Copper		20	-0.0772		17.9	89.5
Iron	100000	100000	95500	95.5	94200	94.2
Lead			0.0183		0.0157	
Magnesium	100000	100000	98100	98.1	96600	96.6
Manganese		20	0.218		18.9	94.5
Molybdenum	2000	2000	2070	103.5	2050	102.5
Nickel		20	0.395		18.6	93.0
Potassium	100000	100000	99100	99.1	98200	98.2
Selenium			0.127		0.119	
Silver		20	0.0138		18.2	91.0
Sodium	100000	100000	98000	98.0	96400	96.4
Strontium			0.855		0.839	
Thallium			0.0130		0.00703	
Tin			0.0826		0.0581	
Titanium	2000	2000	2070	103.5	2040	102.0
Vanadium			0.0657		0.0636	
Zinc		20	0.0794		18.8	94.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42229
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/13/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.17	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP42229: FC5877-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42229
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			05/13/23					05/13/23	
Metal	FC5925-1 Original	DUP	RPD	QC Limits	FC5925-1 Original	MS	Spikelot MPICPMS1 % Rec		QC Limits
Aluminum	anr								
Antimony									
Arsenic	2.4	2.2	8.7	0-20	2.4	223	200	110.3	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	anr								
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP42229: FC5877-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42229 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/13/23

Metal	FC5925-1 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	2.4	226	200	111.8	1.3	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	anr					
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP42229: FC5877-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42229
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/13/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic	230	200	115.0	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP42229: FC5877-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5877
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42229
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 05/13/23

Metal	FC5925-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic	2.40	2.39	0.2	0-10
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	anr			
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP42229: FC5877-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC5877
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19425

Instrument Linear Ranges

Job Number: FC5877
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19425

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 8:47
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.031	ug/l	-5.89	507.34	5.560E-04	Pulse	0.50	3
As			1	-0.013	ug/l	-20.31	39.00	6.487E-05	Pulse	1.00	3
Mo			1	-0.013	ug/l	-3.74	94.67	1.055E-04	Pulse	0.50	3
Pb			1	-0.007	ug/l	-57.00	3,521.05	1.917E-04	Pulse	1.00	3
Be			1	-0.012	ug/l	-48.17	0.83	9.142E-07	Pulse	2.00	3
Ag			1	0.000	ug/l	-135.89	169.33	9.213E-06	Pulse	0.50	3
Ba			1	-0.005	ug/l	-37.31	32.00	5.055E-06	Pulse	0.50	3
Tl			1	-0.001	ug/l	-51.08	688.02	3.745E-05	Pulse	0.50	3
Sn			1	0.006	ug/l	127.36	666.69	1.052E-04	Pulse	0.30	3
Sr			1	-0.010	ug/l	-21.37	647.35	1.022E-04	Pulse	0.50	3
[Pb]			1	-0.007	ug/l	-37.60	1,635.42	1.176E-04	Pulse	0.50	3
Ca			1	-3.636	ug/l	-0.68	157.33	1.725E-04	Pulse	0.50	3
Ti			1	0.033	ug/l	130.29	32.67	3.578E-05	Pulse	0.50	3
Na			1	-28.924	ug/l	-0.92	49,684.97	5.446E-02	Pulse	1.00	3
Mg			1	-2.148	ug/l	-3.54	2,340.17	2.565E-03	Pulse	1.00	3
K			1	-56.045	ug/l	-0.22	19,535.01	2.141E-02	Pulse	1.00	3
V			1	-0.129	ug/l	-0.89	158.67	1.738E-04	Pulse	0.50	3
Mn			1	-0.035	ug/l	-3.74	378.01	6.284E-04	Pulse	0.50	3
Fe			1	-0.494	ug/l	-8.49	10,819.39	1.799E-02	Pulse	0.50	3
Co			1	-0.008	ug/l	-1.57	289.33	4.810E-04	Pulse	0.50	3
Ni			1	-0.079	ug/l	-3.13	272.67	4.533E-04	Pulse	0.50	3
Cu			1	-0.286	ug/l	-2.52	4,082.46	6.787E-03	Pulse	0.50	3
Zn			1	3.786	ug/l	37.00	30,882.20	3.442E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	-149.40	2.67	2.954E-06	Pulse	0.50	3
Al			1	1.361	ug/l	46.12	2,537.91	2.780E-03	Pulse	1.00	3
Se			1	-0.285	ug/l	-5.66	49.89	5.556E-05	Pulse	3.00	3
Sb			1	-0.006	ug/l	-7.92	124.00	2.061E-04	Pulse	1.00	3
Se			1	0.319	ug/l	21.07	146.00	1.628E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		13,904,003.67	0.24	100.0	Analog	0.50	3
1	Sc		912,199.82	0.50	100.0	Pulse	0.30	3
1	Ge		601,568.73	0.29	100.0	Pulse	0.30	3
1	In		6,335,765.16	0.36	100.0	Pulse	0.30	3
1	Tb		18,372,476.67	0.34	100.0	Analog	0.50	3
1	Lu		15,513,799.00	0.62	100.0	Analog	0.50	3
1	Ge		897,210.52	0.84	100.0	Pulse	0.30	3
1	Te		2.00	100.00	100.0	Pulse	0.50	3
1	Li		6,552.22	4.45	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 8:52
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.012	ug/l	39.77	530.68	2.096E-03	Pulse	0.50	3
As			1	0.006	ug/l	114.34	34.00	2.000E-04	Pulse	1.00	3
Mo			1	0.024	ug/l	74.97	224.67	8.881E-04	Pulse	0.50	3
Pb			1	0.005	ug/l	90.51	1,376.06	2.617E-04	Pulse	1.00	3
Be			1	0.000	ug/l	8578.75	0.83	3.295E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	-221.91	54.00	1.027E-05	Pulse	0.50	3
Ba			1	-0.001	ug/l	-306.81	23.33	1.259E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	43.61	294.00	5.591E-05	Pulse	0.50	3
Sn			1	0.013	ug/l	47.88	238.89	1.289E-04	Pulse	0.30	3
Sr			1	-0.002	ug/l	-85.95	257.33	1.389E-04	Pulse	0.50	3
[Pb]			1	0.006	ug/l	2.98	685.35	1.670E-04	Pulse	0.50	3
Ca			1	1.169	ug/l	98.72	230.00	9.089E-04	Pulse	0.50	3
Ti			1	0.011	ug/l	198.55	4.00	1.577E-05	Pulse	0.50	3
Na			1	10.403	ug/l	22.55	66,245.16	2.616E-01	Pulse	1.00	3
Mg			1	-0.044	ug/l	-111.62	2,136.12	8.434E-03	Pulse	1.00	3
K			1	0.373	ug/l	80.60	46,957.51	1.854E-01	Pulse	1.00	3
V			1	-0.012	ug/l	-30.59	900.69	3.556E-03	Pulse	0.50	3
Mn			1	-0.005	ug/l	-164.98	287.33	1.690E-03	Pulse	0.50	3
Fe			1	0.379	ug/l	128.41	10,196.37	5.992E-02	Pulse	0.50	3
Co			1	0.001	ug/l	213.46	200.00	1.176E-03	Pulse	0.50	3
Ni			1	0.018	ug/l	58.59	420.68	2.474E-03	Pulse	0.50	3
Cu			1	0.017	ug/l	196.08	3,987.09	2.344E-02	Pulse	0.50	3
Zn			1	0.421	ug/l	29.24	2,523.17	9.991E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	504.84	2.00	7.930E-06	Pulse	0.50	3
Al			1	0.256	ug/l	33.18	344.00	1.358E-03	Pulse	1.00	3
Se			1	-0.027	ug/l	-116.25	43.67	1.729E-04	Pulse	3.00	3
Sb			1	0.003	ug/l	86.17	113.33	6.666E-04	Pulse	1.00	3
Se			1	0.062	ug/l	118.82	27.00	1.070E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,103,268.25	0.45	100.0	Pulse	0.50	3
1	Sc		253,257.68	0.64	100.0	Pulse	0.30	3
1	Ge		170,066.20	0.23	100.0	Pulse	0.30	3
1	In		1,853,086.25	0.15	100.0	Pulse	0.30	3
1	Tb		5,259,292.17	0.37	100.0	Pulse	0.50	3
1	Lu		4,419,231.17	0.85	100.0	Pulse	0.50	3
1	Ge		252,544.23	0.66	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		1,403.39	5.35	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 8:56
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	421.34	1.659E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	27.00	1.588E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	95.33	3.745E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,227.05	2.321E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.83	3.281E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	56.00	1.057E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	26.00	1.392E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	233.33	4.411E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	153.34	8.206E-05	Pulse	0.30	3
Sr			1	0.000	ug/l	---	275.33	1.474E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	591.34	1.441E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	185.33	7.297E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	1.33	5.249E-06	Pulse	0.50	3
Na			1	0.000	ug/l	---	52,522.43	2.068E-01	Pulse	1.00	3
Mg			1	0.000	ug/l	---	2,173.12	8.556E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	46,812.48	1.843E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	992.03	3.906E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	317.33	1.867E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	7,093.99	4.172E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	192.67	1.134E-03	Pulse	0.50	3
Ni			1	0.000	ug/l	---	356.00	2.093E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	3,827.06	2.251E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,761.08	6.935E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	1.33	5.209E-06	Pulse	0.50	3
Al			1	0.000	ug/l	---	261.33	1.029E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	47.00	1.851E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	89.33	5.257E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	23.78	9.362E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,103,370.50	0.56	100.0	Pulse	0.50	3
1	Sc		253,963.54	0.53	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		170,027.17	0.60	100.0	Pulse	0.30	3
1	In		1,868,162.70	0.28	100.0	Pulse	0.30	3
1	Tb		5,286,755.67	1.08	100.0	Pulse	0.50	3
1	Lu		4,426,368.33	0.39	100.0	Pulse	0.50	3
1	Ge		253,958.53	0.74	100.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,354.50	3.25	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:00
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.526	ug/l	1.53	5,138.03	2.026E-02	Pulse	0.50	3
As			1	0.493	ug/l	2.49	635.68	3.738E-03	Pulse	1.00	3
Mo			1	0.490	ug/l	1.88	2,732.21	1.075E-02	Pulse	0.50	3
Pb			1	0.512	ug/l	0.85	17,811.26	3.379E-03	Pulse	1.00	3
Be			1	0.471	ug/l	13.56	25.00	9.860E-05	Pulse	2.00	3
Ag			1	0.524	ug/l	1.49	9,124.26	1.731E-03	Pulse	0.50	3
Ba			1	0.466	ug/l	0.56	1,522.74	8.160E-04	Pulse	0.50	3
Tl			1	0.521	ug/l	1.40	23,857.26	4.525E-03	Pulse	0.50	3
Sn			1	0.503	ug/l	2.10	3,563.70	1.910E-03	Pulse	0.30	3
Sr			1	0.501	ug/l	2.59	4,345.85	2.329E-03	Pulse	0.50	3
[Pb]			1	0.484	ug/l	4.17	8,366.74	2.055E-03	Pulse	0.50	3
Ca			1	48.936	ug/l	0.80	2,086.79	8.230E-03	Pulse	0.50	3
Ti			1	0.516	ug/l	18.52	124.00	4.891E-04	Pulse	0.50	3
Na			1	44.116	ug/l	1.20	111,350.87	4.392E-01	Pulse	1.00	3
Mg			1	51.171	ug/l	1.04	38,360.89	1.513E-01	Pulse	1.00	3
K			1	49.630	ug/l	0.73	83,316.00	3.286E-01	Pulse	1.00	3
V			1	0.499	ug/l	5.83	4,641.90	1.831E-02	Pulse	0.50	3
Mn			1	0.489	ug/l	2.00	3,240.95	1.906E-02	Pulse	0.50	3
Fe			1	49.954	ug/l	0.14	415,155.19	2.441E+00	Pulse	0.50	3
Co			1	0.509	ug/l	3.07	7,138.68	4.198E-02	Pulse	0.50	3
Ni			1	0.524	ug/l	1.13	2,214.14	1.302E-02	Pulse	0.50	3
Cu			1	0.520	ug/l	4.69	8,699.33	5.116E-02	Pulse	0.50	3
Zn			1	0.172	ug/l	40.17	2,080.12	8.184E-03	Pulse	1.00	3
Cd			1	0.521	ug/l	8.94	1,567.41	6.167E-03	Pulse	0.50	3
Al			1	49.731	ug/l	0.89	16,476.78	6.498E-02	Pulse	1.00	3
Se			1	0.446	ug/l	21.46	98.56	3.877E-04	Pulse	3.00	3
Sb			1	0.494	ug/l	3.17	4,701.61	2.765E-02	Pulse	1.00	3
Se			1	0.499	ug/l	5.22	51.33	2.019E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,071,502.50	0.52	99.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		253,550.21	0.26	99.8	Pulse	0.30	3
1	Ge		170,049.45	0.25	100.0	Pulse	0.30	3
1	In		1,866,032.49	0.53	99.9	Pulse	0.30	3
1	Tb		5,271,814.33	0.15	99.7	Pulse	0.50	3
1	Lu		4,433,016.50	0.17	100.2	Pulse	0.50	3
1	Ge		254,218.32	0.42	100.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,476.73	3.34	109.0	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:04
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.970	ug/l	1.16	9,158.85	3.596E-02	Pulse	0.50	3
As			1	0.972	ug/l	3.28	1,223.37	7.210E-03	Pulse	1.00	3
Mo			1	0.953	ug/l	3.92	5,209.41	2.056E-02	Pulse	0.50	3
Pb			1	1.010	ug/l	1.01	34,046.05	6.444E-03	Pulse	1.00	3
Be			1	0.996	ug/l	2.18	52.17	2.048E-04	Pulse	2.00	3
Ag			1	1.020	ug/l	1.75	17,760.51	3.361E-03	Pulse	0.50	3
Ba			1	0.968	ug/l	4.71	3,129.62	1.681E-03	Pulse	0.50	3
Tl			1	1.030	ug/l	1.08	47,060.32	8.907E-03	Pulse	0.50	3
Sn			1	1.000	ug/l	2.13	6,923.58	3.719E-03	Pulse	0.30	3
Sr			1	0.982	ug/l	1.08	8,227.82	4.420E-03	Pulse	0.50	3
[Pb]			1	0.943	ug/l	1.52	15,897.41	3.863E-03	Pulse	0.50	3
Ca			1	94.265	ug/l	2.13	3,865.73	1.518E-02	Pulse	0.50	3
Ti			1	0.899	ug/l	5.08	216.00	8.481E-04	Pulse	0.50	3
Na			1	89.539	ug/l	0.79	172,788.22	6.784E-01	Pulse	1.00	3
Mg			1	99.370	ug/l	0.70	72,778.26	2.857E-01	Pulse	1.00	3
K			1	97.716	ug/l	0.69	119,293.28	4.684E-01	Pulse	1.00	3
V			1	0.973	ug/l	2.84	8,146.39	3.199E-02	Pulse	0.50	3
Mn			1	0.993	ug/l	2.29	6,242.35	3.680E-02	Pulse	0.50	3
Fe			1	98.924	ug/l	0.46	813,293.33	4.794E+00	Pulse	0.50	3
Co			1	1.023	ug/l	1.56	14,111.17	8.318E-02	Pulse	0.50	3
Ni			1	0.992	ug/l	3.75	3,866.40	2.279E-02	Pulse	0.50	3
Cu			1	1.093	ug/l	1.91	14,030.45	8.270E-02	Pulse	0.50	3
Zn			1	0.440	ug/l	10.03	2,566.18	1.013E-02	Pulse	1.00	3
Cd			1	0.987	ug/l	2.44	2,960.25	1.168E-02	Pulse	0.50	3
Al			1	98.574	ug/l	1.04	32,549.39	1.278E-01	Pulse	1.00	3
Se			1	0.959	ug/l	11.65	157.34	6.207E-04	Pulse	3.00	3
Sb			1	0.981	ug/l	1.47	9,223.99	5.437E-02	Pulse	1.00	3
Se			1	1.142	ug/l	3.58	86.56	3.416E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,115,290.67	0.23	100.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		254,693.19	0.15	100.3	Pulse	0.30	3
1	Ge		169,657.19	0.38	99.8	Pulse	0.30	3
1	In		1,861,597.36	0.42	99.6	Pulse	0.30	3
1	Tb		5,283,601.00	0.08	99.9	Pulse	0.50	3
1	Lu		4,447,766.17	0.20	100.5	Pulse	0.50	3
1	Ge		253,389.83	0.76	99.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,473.40	4.79	108.8	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:08
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.151	ug/l	1.35	92,239.11	3.605E-01	Pulse	0.50	3
As			1	10.258	ug/l	1.11	12,759.25	7.459E-02	Pulse	1.00	3
Mo			1	10.033	ug/l	0.63	54,592.90	2.128E-01	Pulse	0.50	3
Pb			1	10.465	ug/l	0.34	345,772.38	6.459E-02	Pulse	1.00	3
Be			1	10.062	ug/l	1.92	521.68	2.039E-03	Pulse	2.00	3
Ag			1	10.577	ug/l	0.92	185,993.27	3.475E-02	Pulse	0.50	3
Ba			1	9.961	ug/l	0.66	32,370.20	1.717E-02	Pulse	0.50	3
Tl			1	10.675	ug/l	0.06	491,735.51	9.186E-02	Pulse	0.50	3
Sn			1	9.991	ug/l	0.78	68,651.75	3.641E-02	Pulse	0.30	3
Sr			1	9.865	ug/l	0.41	81,216.03	4.308E-02	Pulse	0.50	3
[Pb]			1	10.022	ug/l	0.75	164,398.74	3.968E-02	Pulse	0.50	3
Ca			1	1023.806	ug/l	0.04	40,343.24	1.576E-01	Pulse	0.50	3
Ti			1	10.217	ug/l	1.41	2,452.16	9.582E-03	Pulse	0.50	3
Na			1	1020.352	ug/l	0.92	1,428,142.96	5.581E+00	Pulse	1.00	3
Mg			1	1043.401	ug/l	0.77	746,976.81	2.919E+00	Pulse	1.00	3
K			1	1033.083	ug/l	0.59	815,642.63	3.187E+00	Pulse	1.00	3
V			1	10.103	ug/l	0.71	75,574.65	2.953E-01	Pulse	0.50	3
Mn			1	10.283	ug/l	1.20	62,163.40	3.634E-01	Pulse	0.50	3
Fe			1	1019.375	ug/l	0.65	8,383,973.17	4.901E+01	Analog	0.50	3
Co			1	10.551	ug/l	0.38	144,944.55	8.473E-01	Pulse	0.50	3
Ni			1	10.500	ug/l	0.84	37,835.49	2.212E-01	Pulse	0.50	3
Cu			1	10.761	ug/l	0.53	105,188.08	6.149E-01	Pulse	0.50	3
Zn			1	10.007	ug/l	0.59	20,414.78	7.959E-02	Pulse	1.00	3
Cd			1	10.457	ug/l	2.42	31,724.46	1.237E-01	Pulse	0.50	3
Al			1	1004.161	ug/l	0.88	330,713.68	1.292E+00	Pulse	1.00	3
Se			1	10.472	ug/l	0.58	1,268.04	4.944E-03	Pulse	3.00	3
Sb			1	10.373	ug/l	1.13	97,482.56	5.699E-01	Pulse	1.00	3
Se			1	10.679	ug/l	2.89	618.90	2.413E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,143,458.00	0.66	101.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		255,905.18	1.06	100.8	Pulse	0.30	3
1	Ge		171,071.53	0.83	100.6	Pulse	0.30	3
1	In		1,885,348.67	0.48	100.9	Pulse	0.30	3
1	Tb		5,353,212.67	0.55	101.3	Pulse	0.50	3
1	Lu		4,483,498.83	0.48	101.3	Pulse	0.50	3
1	Ge		256,500.69	0.48	101.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,495.62	4.17	110.4	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:12
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.495	ug/l	0.81	448,543.50	1.751E+00	Pulse	0.50	3
As			1	49.838	ug/l	0.31	61,540.06	3.618E-01	Pulse	1.00	3
Mo			1	49.135	ug/l	0.89	264,341.42	1.041E+00	Pulse	0.50	3
Pb			1	50.855	ug/l	0.56	1,666,806.96	3.130E-01	Pulse	1.00	3
Be			1	49.898	ug/l	0.37	2,585.84	1.010E-02	Pulse	2.00	3
Ag			1	51.072	ug/l	0.46	893,225.96	1.677E-01	Pulse	0.50	3
Ba			1	49.153	ug/l	0.98	156,547.79	8.467E-02	Pulse	0.50	3
Tl			1	51.837	ug/l	0.24	2,374,699.17	4.459E-01	Pulse	0.50	3
Sn			1	49.575	ug/l	0.27	333,481.99	1.804E-01	Pulse	0.30	3
Sr			1	49.194	ug/l	0.50	396,105.93	2.142E-01	Pulse	0.50	3
[Pb]			1	49.240	ug/l	0.49	789,179.44	1.944E-01	Pulse	0.50	3
Ca			1	4946.421	ug/l	0.50	194,369.23	7.589E-01	Pulse	0.50	3
Ti			1	50.449	ug/l	1.03	12,113.10	4.729E-02	Pulse	0.50	3
Na			1	4961.844	ug/l	0.77	6,746,622.17	2.634E+01	Analog	1.00	3
Mg			1	4958.984	ug/l	0.49	3,545,197.75	1.384E+01	Pulse	1.00	3
K			1	4940.688	ug/l	0.47	3,725,740.00	1.455E+01	Pulse	1.00	3
V			1	49.226	ug/l	0.90	364,669.63	1.424E+00	Pulse	0.50	3
Mn			1	49.824	ug/l	0.38	298,317.86	1.754E+00	Pulse	0.50	3
Fe			1	4933.631	ug/l	0.69	40,324,396.00	2.370E+02	Analog	0.50	3
Co			1	50.562	ug/l	0.53	689,983.31	4.056E+00	Pulse	0.50	3
Ni			1	50.639	ug/l	0.76	180,101.17	1.059E+00	Pulse	0.50	3
Cu			1	51.219	ug/l	0.32	483,501.52	2.842E+00	Pulse	0.50	3
Zn			1	50.843	ug/l	0.54	95,514.45	3.761E-01	Pulse	1.00	3
Cd			1	50.808	ug/l	0.67	152,621.47	6.009E-01	Pulse	0.50	3
Al			1	4931.699	ug/l	0.63	1,624,687.67	6.343E+00	Pulse	1.00	3
Se			1	50.095	ug/l	0.49	5,828.33	2.295E-02	Pulse	3.00	3
Sb			1	50.240	ug/l	0.54	469,182.00	2.758E+00	Pulse	1.00	3
Se			1	50.878	ug/l	2.66	2,829.43	1.114E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,059,807.33	0.04	98.9	Pulse	0.50	3
1	Sc		256,132.41	0.68	100.9	Pulse	0.30	3
1	Ge		170,118.20	0.51	100.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,848,950.34	0.42	99.0	Pulse	0.30	3
1	Tb		5,325,651.67	0.39	100.7	Pulse	0.50	3
1	Lu		4,481,714.50	0.16	101.3	Pulse	0.50	3
1	Ge		253,979.08	0.60	100.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,385.61	4.20	102.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:16
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.234	ug/l	0.04	877,035.15	3.474E+00	Pulse	0.50	3
As			1	98.691	ug/l	0.12	120,234.59	7.162E-01	Pulse	1.00	3
Mo			1	97.916	ug/l	0.52	520,188.88	2.074E+00	Pulse	0.50	3
Pb			1	99.125	ug/l	0.44	3,229,322.33	6.098E-01	Pulse	1.00	3
Be			1	100.411	ug/l	0.55	5,127.98	2.031E-02	Pulse	2.00	3
Ag			1	99.406	ug/l	0.68	1,728,645.79	3.264E-01	Pulse	0.50	3
Ba			1	97.090	ug/l	0.37	305,813.65	1.672E-01	Pulse	0.50	3
Tl			1	100.790	ug/l	0.48	4,590,844.00	8.669E-01	Pulse	0.50	3
Sn			1	100.633	ug/l	0.38	669,351.21	3.660E-01	Pulse	0.30	3
Sr			1	99.570	ug/l	0.49	792,650.08	4.335E-01	Pulse	0.50	3
[Pb]			1	98.257	ug/l	0.14	1,530,470.67	3.878E-01	Pulse	0.50	3
Ca			1	9780.619	ug/l	0.15	378,615.28	1.500E+00	Pulse	0.50	3
Ti			1	99.796	ug/l	1.24	23,614.90	9.354E-02	Pulse	0.50	3
Na			1	9856.956	ug/l	0.42	13,158,247.00	5.212E+01	Analog	1.00	3
Mg			1	9892.864	ug/l	0.62	6,968,450.67	2.760E+01	Analog	1.00	3
K			1	9756.317	ug/l	0.44	7,205,912.50	2.855E+01	Analog	1.00	3
V			1	97.877	ug/l	0.23	713,690.81	2.827E+00	Pulse	0.50	3
Mn			1	99.029	ug/l	0.56	584,806.50	3.484E+00	Pulse	0.50	3
Fe			1	9856.564	ug/l	0.31	79,493,901.33	4.735E+02	Analog	0.50	3
Co			1	100.235	ug/l	0.35	1,349,630.50	8.039E+00	Pulse	0.50	3
Ni			1	99.767	ug/l	0.47	349,816.48	2.084E+00	Pulse	0.50	3
Cu			1	99.892	ug/l	0.23	926,940.54	5.522E+00	Pulse	0.50	3
Zn			1	99.788	ug/l	0.48	183,473.13	7.314E-01	Pulse	1.00	3
Cd			1	99.942	ug/l	0.30	296,508.99	1.182E+00	Pulse	0.50	3
Al			1	9742.217	ug/l	0.35	3,163,035.83	1.253E+01	Pulse	1.00	3
Se			1	98.695	ug/l	1.09	11,295.89	4.503E-02	Pulse	3.00	3
Sb			1	99.336	ug/l	0.33	915,370.11	5.453E+00	Pulse	1.00	3
Se			1	99.031	ug/l	0.31	5,417.66	2.160E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,947,026.17	0.39	96.2	Pulse	0.50	3
1	Sc		252,443.18	0.47	99.4	Pulse	0.30	3
1	Ge		167,876.64	0.45	98.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,828,665.83	0.17	97.9	Pulse	0.30	3
1	Tb		5,295,465.67	0.26	100.2	Pulse	0.50	3
1	Lu		4,454,334.67	0.15	100.6	Pulse	0.50	3
1	Ge		250,841.55	0.09	98.8	Pulse	0.30	3
1	Te		8.00	25.00	1200.0	Pulse	0.50	3
1	Li		1,308.94	3.58	96.6	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:20
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	201.002	ug/l	0.61	1,787,903.13	7.107E+00	Pulse	0.50	3
As			1	200.682	ug/l	0.21	245,346.23	1.456E+00	Pulse	1.00	3
Mo			1	201.257	ug/l	1.09	1,066,302.25	4.262E+00	Pulse	0.50	3
Pb			1	200.200	ug/l	0.17	6,406,777.83	1.231E+00	Pulse	1.00	3
Be			1	199.817	ug/l	1.46	10,168.04	4.042E-02	Pulse	2.00	3
Ag			1	143.160	ug/l	7.24	2,446,298.67	4.701E-01	Pulse	0.50	3
Ba			1	201.669	ug/l	0.86	621,182.71	3.474E-01	Pulse	0.50	3
Tl			1	199.112	ug/l	0.18	8,910,365.33	1.713E+00	Analog	0.50	3
Sn			1	199.790	ug/l	0.15	1,299,451.83	7.266E-01	Pulse	0.30	3
Sr			1	200.423	ug/l	0.22	1,560,081.75	8.724E-01	Pulse	0.50	3
[Pb]			1	201.061	ug/l	0.09	3,028,919.83	7.933E-01	Pulse	0.50	3
Ca			1	20121.926	ug/l	0.72	776,047.43	3.085E+00	Pulse	0.50	3
Ti			1	199.979	ug/l	1.57	47,153.11	1.874E-01	Pulse	0.50	3
Na			1	20080.110	ug/l	0.79	26,658,772.00	1.060E+02	Analog	1.00	3
Mg			1	20061.652	ug/l	0.70	14,080,357.67	5.597E+01	Analog	1.00	3
K			1	20135.028	ug/l	0.65	14,770,906.33	5.871E+01	Analog	1.00	3
V			1	201.250	ug/l	0.74	1,461,337.33	5.809E+00	Pulse	0.50	3
Mn			1	200.515	ug/l	0.78	1,188,083.29	7.052E+00	Pulse	0.50	3
Fe			1	20087.347	ug/l	1.07	162,580,602.67	9.650E+02	Analog	0.50	3
Co			1	199.714	ug/l	0.94	2,698,558.67	1.602E+01	Pulse	0.50	3
Ni			1	199.931	ug/l	0.65	703,202.00	4.174E+00	Pulse	0.50	3
Cu			1	199.711	ug/l	0.58	1,856,113.67	1.102E+01	Pulse	0.50	3
Zn			1	199.898	ug/l	0.78	364,842.53	1.458E+00	Pulse	1.00	3
Cd			1	199.804	ug/l	0.89	591,235.13	2.363E+00	Pulse	0.50	3
Al			1	20145.767	ug/l	0.78	6,517,886.00	2.591E+01	Analog	1.00	3
Se			1	200.606	ug/l	1.55	22,851.73	9.134E-02	Pulse	3.00	3
Sb			1	200.253	ug/l	0.73	1,851,873.00	1.099E+01	Pulse	1.00	3
Se			1	200.231	ug/l	1.20	10,901.34	4.357E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,818,128.50	0.44	93.0	Pulse	0.50	3
1	Sc		251,576.19	0.65	99.1	Pulse	0.30	3
1	Ge		168,486.01	0.67	99.1	Pulse	0.30	3
1	In		1,788,354.65	0.14	95.7	Pulse	0.30	3
1	Tb		5,202,766.83	0.43	98.4	Pulse	0.50	3
1	Lu		4,385,563.00	0.41	99.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,199.89	0.84	98.5	Pulse	0.30	3
1	Te		7.33	31.49	1100.0	Pulse	0.50	3
1	Li		1,315.61	6.25	97.1	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:23
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.479	ug/l	1.07	892,781.00	3.518E+00	Pulse	0.50	3
As			1	98.903	ug/l	1.08	121,195.78	7.177E-01	Pulse	1.00	3
Mo			1	99.439	ug/l	0.89	529,729.98	2.106E+00	Pulse	0.50	3
Pb			1	100.127	ug/l	0.44	3,226,654.83	6.160E-01	Pulse	1.00	3
Be			1	99.164	ug/l	1.01	5,090.64	2.006E-02	Pulse	2.00	3
Ag			1	101.752	ug/l	0.38	1,750,317.38	3.341E-01	Pulse	0.50	3
Ba			1	99.897	ug/l	1.00	311,646.72	1.721E-01	Pulse	0.50	3
Tl			1	102.704	ug/l	0.38	4,627,484.50	8.834E-01	Pulse	0.50	3
Sn			1	99.996	ug/l	0.79	658,761.31	3.637E-01	Pulse	0.30	3
Sr			1	99.515	ug/l	0.52	784,649.52	4.332E-01	Pulse	0.50	3
[Pb]			1	100.097	ug/l	0.46	1,536,633.54	3.950E-01	Pulse	0.50	3
Ca			1	9850.562	ug/l	0.52	383,316.31	1.511E+00	Pulse	0.50	3
Ti			1	98.892	ug/l	2.22	23,522.13	9.269E-02	Pulse	0.50	3
Na			1	9984.063	ug/l	0.65	13,397,016.00	5.279E+01	Analog	1.00	3
Mg			1	10001.003	ug/l	0.97	7,081,497.67	2.791E+01	Analog	1.00	3
K			1	9928.223	ug/l	0.64	7,370,435.50	2.904E+01	Analog	1.00	3
V			1	99.167	ug/l	0.44	726,860.44	2.864E+00	Pulse	0.50	3
Mn			1	100.274	ug/l	1.09	595,629.88	3.527E+00	Pulse	0.50	3
Fe			1	10034.008	ug/l	0.94	81,399,317.33	4.821E+02	Analog	0.50	3
Co			1	101.194	ug/l	0.93	1,370,509.16	8.116E+00	Pulse	0.50	3
Ni			1	100.922	ug/l	1.30	355,925.40	2.108E+00	Pulse	0.50	3
Cu			1	100.530	ug/l	1.18	938,303.18	5.557E+00	Pulse	0.50	3
Zn			1	100.268	ug/l	0.67	184,852.26	7.349E-01	Pulse	1.00	3
Cd			1	100.588	ug/l	0.66	299,243.56	1.190E+00	Pulse	0.50	3
Al			1	9849.873	ug/l	1.08	3,214,698.33	1.267E+01	Pulse	1.00	3
Se			1	99.789	ug/l	1.18	11,451.98	4.553E-02	Pulse	3.00	3
Sb			1	99.881	ug/l	0.72	925,771.61	5.483E+00	Pulse	1.00	3
Se			1	100.118	ug/l	1.57	5,491.91	2.183E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,890,072.58	0.40	94.8	Pulse	0.50	3
1	Sc		253,763.23	0.19	99.9	Pulse	0.30	3
1	Ge		168,862.35	0.71	99.3	Pulse	0.30	3
1	In		1,811,222.43	0.37	97.0	Pulse	0.30	3
1	Tb		5,238,153.17	0.16	99.1	Pulse	0.50	3
1	Lu		4,395,265.17	0.30	99.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		251,531.17	0.17	99.0	Pulse	0.30	3
1	Te		6.67	86.60	1000.0	Pulse	0.50	3
1	Li		1,432.28	10.73	105.7	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:26
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	196.658	ug/l	0.48	1,760,307.87	6.953E+00	Pulse	0.50	3
As			1	196.643	ug/l	0.31	241,211.57	1.427E+00	Pulse	1.00	3
Mo			1	197.353	ug/l	1.13	1,046,625.86	4.179E+00	Pulse	0.50	3
Pb			1	196.634	ug/l	0.24	6,266,864.83	1.209E+00	Pulse	1.00	3
Be			1	193.513	ug/l	0.78	9,909.75	3.914E-02	Pulse	2.00	3
Ag			1	138.905	ug/l	1.98	2,363,572.25	4.562E-01	Pulse	0.50	3
Ba			1	197.829	ug/l	0.14	608,220.10	3.407E-01	Pulse	0.50	3
Tl			1	197.133	ug/l	0.27	8,785,545.00	1.696E+00	Analog	0.50	3
Sn			1	198.558	ug/l	0.68	1,289,027.90	7.221E-01	Pulse	0.30	3
Sr			1	199.049	ug/l	0.24	1,546,491.37	8.664E-01	Pulse	0.50	3
[Pb]			1	197.413	ug/l	0.60	2,956,417.08	7.789E-01	Pulse	0.50	3
Ca			1	19678.103	ug/l	0.51	763,712.04	3.017E+00	Pulse	0.50	3
Ti			1	196.845	ug/l	0.36	46,708.69	1.845E-01	Pulse	0.50	3
Na			1	19698.985	ug/l	0.54	26,318,518.00	1.040E+02	Analog	1.00	3
Mg			1	19711.236	ug/l	0.03	13,921,784.00	5.499E+01	Analog	1.00	3
K			1	19854.987	ug/l	0.58	14,657,746.00	5.790E+01	Analog	1.00	3
V			1	196.459	ug/l	0.32	1,435,570.58	5.671E+00	Pulse	0.50	3
Mn			1	196.455	ug/l	0.39	1,167,942.75	6.909E+00	Pulse	0.50	3
Fe			1	19820.958	ug/l	0.62	160,969,872.00	9.522E+02	Analog	0.50	3
Co			1	196.055	ug/l	0.48	2,658,098.17	1.572E+01	Pulse	0.50	3
Ni			1	195.322	ug/l	0.44	689,317.92	4.078E+00	Pulse	0.50	3
Cu			1	195.724	ug/l	0.56	1,825,261.62	1.080E+01	Pulse	0.50	3
Zn			1	195.893	ug/l	1.05	357,904.53	1.429E+00	Pulse	1.00	3
Cd			1	195.672	ug/l	1.41	579,554.75	2.314E+00	Pulse	0.50	3
Al			1	19797.865	ug/l	0.10	6,445,808.83	2.546E+01	Analog	1.00	3
Se			1	196.837	ug/l	0.47	22,445.69	8.963E-02	Pulse	3.00	3
Sb			1	195.915	ug/l	0.19	1,817,874.87	1.075E+01	Pulse	1.00	3
Se			1	197.358	ug/l	0.55	10,756.03	4.295E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,795,551.50	0.30	92.5	Pulse	0.50	3
1	Sc		253,156.83	0.47	99.7	Pulse	0.30	3
1	Ge		169,048.69	0.52	99.4	Pulse	0.30	3
1	In		1,785,015.21	0.21	95.5	Pulse	0.30	3
1	Tb		5,181,399.33	0.29	98.0	Pulse	0.50	3
1	Lu		4,361,962.67	0.64	98.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,435.58	0.53	98.6	Pulse	0.30	3
1	Te		5.33	21.65	800.0	Pulse	0.50	3
1	Li		1,237.82	4.84	91.4	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:29
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.665	ug/l	0.43	809,468.88	3.595E+00	Pulse	0.50	3
As			1	99.128	ug/l	1.72	108,933.62	7.194E-01	Pulse	1.00	3
Mo			1	103.440	ug/l	0.90	495,459.20	2.191E+00	Pulse	0.50	3
Pb			1	99.973	ug/l	0.08	3,021,203.25	6.150E-01	Pulse	1.00	3
Be			1	103.103	ug/l	1.17	4,695.88	2.086E-02	Pulse	2.00	3
Ag			1	54.200	ug/l	1.33	874,197.38	1.780E-01	Pulse	0.50	3
Ba			1	100.015	ug/l	0.55	281,078.96	1.723E-01	Pulse	0.50	3
Tl			1	101.490	ug/l	0.57	4,287,906.00	8.730E-01	Pulse	0.50	3
Sn			1	103.724	ug/l	0.22	615,606.83	3.773E-01	Pulse	0.30	3
Sr			1	103.115	ug/l	0.25	732,429.04	4.489E-01	Pulse	0.50	3
[Pb]			1	98.041	ug/l	0.79	1,426,317.54	3.869E-01	Pulse	0.50	3
Ca			1	9327.994	ug/l	0.21	322,038.79	1.430E+00	Pulse	0.50	3
Ti			1	104.412	ug/l	1.87	22,035.07	9.787E-02	Pulse	0.50	3
Na			1	9967.823	ug/l	0.33	11,866,365.67	5.271E+01	Analog	1.00	3
Mg			1	10306.676	ug/l	0.50	6,474,671.67	2.876E+01	Analog	1.00	3
K			1	9845.302	ug/l	0.23	6,484,609.17	2.880E+01	Analog	1.00	3
V			1	101.553	ug/l	0.37	660,360.87	2.933E+00	Pulse	0.50	3
Mn			1	99.521	ug/l	0.74	530,189.69	3.501E+00	Pulse	0.50	3
Fe			1	9989.164	ug/l	0.76	72,679,912.00	4.799E+02	Analog	0.50	3
Co			1	102.438	ug/l	1.05	1,244,323.50	8.216E+00	Pulse	0.50	3
Ni			1	101.107	ug/l	1.16	319,805.51	2.112E+00	Pulse	0.50	3
Cu			1	102.550	ug/l	0.96	858,371.69	5.668E+00	Pulse	0.50	3
Zn			1	98.816	ug/l	0.33	163,809.84	7.244E-01	Pulse	1.00	3
Cd			1	101.036	ug/l	0.57	270,249.61	1.195E+00	Pulse	0.50	3
Al			1	9587.227	ug/l	0.14	2,776,004.00	1.233E+01	Pulse	1.00	3
Se			1	96.844	ug/l	1.39	9,992.61	4.419E-02	Pulse	3.00	3
Sb			1	99.681	ug/l	0.92	828,640.77	5.472E+00	Pulse	1.00	3
Se			1	97.164	ug/l	0.37	4,792.49	2.119E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,686,455.25	0.69	89.8	Pulse	0.50	3
1	Sc		225,132.93	0.55	88.6	Pulse	0.30	3
1	Ge		151,455.36	1.69	89.1	Pulse	0.30	3
1	In		1,631,686.84	1.29	87.3	Pulse	0.30	3
1	Tb		4,912,138.33	1.84	92.9	Pulse	0.50	3
1	Lu		4,096,043.42	1.48	92.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		226,144.97	1.10	89.0	Pulse	0.30	3
1	Te		7.33	83.32	1100.0	Pulse	0.50	3
1	Li		1,350.05	8.40	99.7	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:33
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.012	ug/l	55.59	540.01	2.071E-03	Pulse	0.50	3
As			1	0.032	ug/l	32.51	68.33	3.897E-04	Pulse	1.00	3
Mo			1	0.082	ug/l	29.15	546.01	2.106E-03	Pulse	0.50	3
Pb			1	0.011	ug/l	32.37	1,594.74	2.999E-04	Pulse	1.00	3
Be			1	0.022	ug/l	114.75	2.00	7.636E-06	Pulse	2.00	3
Ag			1	0.014	ug/l	15.41	295.33	5.556E-05	Pulse	0.50	3
Ba			1	0.014	ug/l	42.39	72.00	3.818E-05	Pulse	0.50	3
Tl			1	0.045	ug/l	7.32	2,297.50	4.321E-04	Pulse	0.50	3
Sn			1	0.084	ug/l	19.16	733.35	3.885E-04	Pulse	0.30	3
Sr			1	0.016	ug/l	27.02	406.68	2.155E-04	Pulse	0.50	3
[Pb]			1	0.008	ug/l	93.61	711.35	1.749E-04	Pulse	0.50	3
Ca			1	-0.452	ug/l	-254.40	172.00	6.604E-04	Pulse	0.50	3
Ti			1	0.047	ug/l	118.96	12.67	4.898E-05	Pulse	0.50	3
Na			1	-7.134	ug/l	-23.79	44,139.72	1.692E-01	Pulse	1.00	3
Mg			1	1.090	ug/l	31.12	3,023.57	1.160E-02	Pulse	1.00	3
K			1	-0.885	ug/l	-89.08	47,422.60	1.818E-01	Pulse	1.00	3
V			1	0.014	ug/l	6.65	1,123.37	4.305E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	3485.15	328.67	1.874E-03	Pulse	0.50	3
Fe			1	2.204	ug/l	10.93	25,902.01	1.476E-01	Pulse	0.50	3
Co			1	0.022	ug/l	20.31	504.68	2.876E-03	Pulse	0.50	3
Ni			1	-0.009	ug/l	-29.01	335.33	1.910E-03	Pulse	0.50	3
Cu			1	-0.039	ug/l	-40.25	3,575.01	2.036E-02	Pulse	0.50	3
Zn			1	-0.742	ug/l	-1.37	401.34	1.549E-03	Pulse	1.00	3
Cd			1	0.028	ug/l	28.61	87.33	3.372E-04	Pulse	0.50	3
Al			1	1.584	ug/l	16.07	799.35	3.066E-03	Pulse	1.00	3
Se			1	0.051	ug/l	114.06	54.00	2.084E-04	Pulse	3.00	3
Sb			1	0.049	ug/l	6.10	567.01	3.228E-03	Pulse	1.00	3
Se			1	0.187	ug/l	37.04	34.78	1.342E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,068,559.17	0.60	99.2	Pulse	0.50	3
1	Sc		260,930.53	1.25	102.7	Pulse	0.30	3

Quantitation Report

1	Ge		175,583.43	1.04	103.3	Pulse	0.30	3
1	In		1,887,189.79	0.40	101.0	Pulse	0.30	3
1	Tb		5,318,471.00	0.58	100.6	Pulse	0.50	3
1	Lu		4,404,193.50	0.08	99.5	Pulse	0.50	3
1	Ge		259,123.83	0.34	102.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,490.07	5.37	110.0	Pulse	0.30	3

Quantitation Report

File Name	014LCCV.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:37
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.954	ug/l	0.77	9,432.30	3.538E-02	Pulse	0.50	3
As			1	0.941	ug/l	4.97	1,235.38	6.984E-03	Pulse	1.00	3
Mo			1	0.989	ug/l	0.72	5,632.86	2.132E-02	Pulse	0.50	3
Pb			1	0.989	ug/l	0.73	33,957.87	6.316E-03	Pulse	1.00	3
Be			1	1.196	ug/l	8.69	65.33	2.451E-04	Pulse	2.00	3
Ag			1	1.041	ug/l	0.46	18,437.17	3.429E-03	Pulse	0.50	3
Ba			1	0.995	ug/l	4.43	3,295.65	1.728E-03	Pulse	0.50	3
Tl			1	1.023	ug/l	0.78	47,526.32	8.839E-03	Pulse	0.50	3
Sn			1	1.017	ug/l	4.05	7,208.11	3.780E-03	Pulse	0.30	3
Sr			1	0.995	ug/l	1.53	8,541.95	4.479E-03	Pulse	0.50	3
[Pb]			1	0.966	ug/l	1.81	16,188.35	3.954E-03	Pulse	0.50	3
Ca			1	95.430	ug/l	3.05	4,093.77	1.536E-02	Pulse	0.50	3
Ti			1	0.885	ug/l	15.09	222.67	8.350E-04	Pulse	0.50	3
Na			1	85.976	ug/l	0.48	175,862.50	6.596E-01	Pulse	1.00	3
Mg			1	97.285	ug/l	0.79	74,629.38	2.799E-01	Pulse	1.00	3
K			1	95.910	ug/l	0.41	123,471.10	4.631E-01	Pulse	1.00	3
V			1	0.962	ug/l	1.54	8,439.85	3.166E-02	Pulse	0.50	3
Mn			1	0.946	ug/l	3.29	6,211.01	3.511E-02	Pulse	0.50	3
Fe			1	98.267	ug/l	0.60	842,362.33	4.762E+00	Pulse	0.50	3
Co			1	1.011	ug/l	3.16	14,539.47	8.220E-02	Pulse	0.50	3
Ni			1	1.035	ug/l	5.00	4,187.80	2.368E-02	Pulse	0.50	3
Cu			1	0.922	ug/l	2.25	12,959.05	7.327E-02	Pulse	0.50	3
Zn			1	0.193	ug/l	2.10	2,202.13	8.333E-03	Pulse	1.00	3
Cd			1	0.990	ug/l	3.83	3,094.27	1.171E-02	Pulse	0.50	3
Al			1	95.712	ug/l	1.65	33,089.28	1.241E-01	Pulse	1.00	3
Se			1	0.990	ug/l	10.80	167.78	6.349E-04	Pulse	3.00	3
Sb			1	0.982	ug/l	2.32	9,630.86	5.444E-02	Pulse	1.00	3
Se			1	1.170	ug/l	11.64	91.89	3.477E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,094,268.00	0.62	99.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		266,601.66	0.32	105.0	Pulse	0.30	3
1	Ge		176,882.69	0.61	104.0	Pulse	0.30	3
1	In		1,907,103.88	0.29	102.1	Pulse	0.30	3
1	Tb		5,376,766.67	0.48	101.7	Pulse	0.50	3
1	Lu		4,452,865.00	0.84	100.6	Pulse	0.50	3
1	Ge		264,262.68	0.27	104.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,484.51	3.44	109.6	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:41
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.009	ug/l	1.49	17,976.96	7.266E-02	Pulse	0.50	3
As			1	0.072	ug/l	8.03	115.67	6.822E-04	Pulse	1.00	3
Mo			1	2069.118	ug/l	0.53	10,396,466.67	4.381E+01	Analog	0.50	3
Pb			1	0.018	ug/l	10.63	1,706.75	3.447E-04	Pulse	1.00	3
Be			1	0.004	ug/l	936.73	1.00	4.026E-06	Pulse	2.00	3
Ag			1	0.014	ug/l	8.26	276.67	5.587E-05	Pulse	0.50	3
Ba			1	0.523	ug/l	1.67	1,528.74	9.139E-04	Pulse	0.50	3
Tl			1	0.013	ug/l	2.41	772.69	1.561E-04	Pulse	0.50	3
Sn			1	0.083	ug/l	12.52	640.01	3.824E-04	Pulse	0.30	3
Sr			1	0.855	ug/l	2.30	6,474.46	3.870E-03	Pulse	0.50	3
[Pb]			1	0.020	ug/l	27.76	766.02	2.211E-04	Pulse	0.50	3
Ca			1	95807.904	ug/l	0.18	3,633,173.33	1.469E+01	Pulse	0.50	3
Ti			1	2070.662	ug/l	0.73	480,142.62	1.941E+00	Pulse	0.50	3
Na			1	97983.577	ug/l	0.45	127,731,866.67	5.163E+02	Analog	1.00	3
Mg			1	98123.317	ug/l	0.39	67,718,632.00	2.737E+02	Analog	1.00	3
K			1	99063.705	ug/l	0.50	71,288,829.33	2.882E+02	Analog	1.00	3
V			1	0.066	ug/l	16.74	1,434.72	5.801E-03	Pulse	0.50	3
Mn			1	0.218	ug/l	6.39	1,614.08	9.519E-03	Pulse	0.50	3
Fe			1	95492.000	ug/l	0.49	777,828,288.00	4.587E+03	Analog	0.50	3
Co			1	0.109	ug/l	5.53	1,672.08	9.860E-03	Pulse	0.50	3
Ni			1	0.395	ug/l	9.02	1,750.75	1.033E-02	Pulse	0.50	3
Cu			1	-0.077	ug/l	-26.72	3,095.59	1.826E-02	Pulse	0.50	3
Zn			1	0.079	ug/l	39.57	1,782.09	7.511E-03	Pulse	1.00	3
Cd			1	0.911	ug/l	3.72	2,557.52	1.078E-02	Pulse	0.50	3
Al			1	97293.396	ug/l	0.27	30,955,364.00	1.251E+02	Analog	1.00	3
Se			1	0.127	ug/l	15.82	57.67	2.430E-04	Pulse	3.00	3
Sb			1	0.061	ug/l	3.63	653.01	3.851E-03	Pulse	1.00	3
Se			1	0.190	ug/l	7.32	32.00	1.349E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,464,783.92	0.86	84.4	Pulse	0.50	3
1	Sc		247,402.13	0.74	97.4	Pulse	0.30	3
1	Ge		169,564.03	0.52	99.7	Pulse	0.30	3
1	In		1,672,781.22	0.64	89.5	Pulse	0.30	3
1	Tb		4,951,453.17	0.64	93.7	Pulse	0.50	3
1	Lu		4,169,842.50	0.67	94.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		237,285.09	0.45	93.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,196.71	3.49	88.4	Pulse	0.30	3

Quantitation Report

File Name 016ICSB.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 9:44
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.078	ug/l	0.70	182,226.07	7.467E-01	Pulse	0.50	3
As			1	18.749	ug/l	1.02	23,009.46	1.362E-01	Pulse	1.00	3
Mo			1	2054.711	ug/l	0.40	10,337,719.00	4.351E+01	Analog	0.50	3
Pb			1	0.016	ug/l	10.17	1,625.41	3.288E-04	Pulse	1.00	3
Be			1	0.011	ug/l	55.60	1.33	5.469E-06	Pulse	2.00	3
Ag			1	18.189	ug/l	0.25	295,376.03	5.974E-02	Pulse	0.50	3
Ba			1	0.500	ug/l	7.48	1,462.73	8.755E-04	Pulse	0.50	3
Tl			1	0.007	ug/l	26.90	516.68	1.046E-04	Pulse	0.50	3
Sn			1	0.058	ug/l	11.97	490.01	2.934E-04	Pulse	0.30	3
Sr			1	0.839	ug/l	0.91	6,345.75	3.799E-03	Pulse	0.50	3
[Pb]			1	0.023	ug/l	30.74	813.36	2.367E-04	Pulse	0.50	3
Ca			1	94681.091	ug/l	0.73	3,541,467.08	1.451E+01	Pulse	0.50	3
Ti			1	2043.554	ug/l	0.86	467,422.16	1.915E+00	Pulse	0.50	3
Na			1	96429.807	ug/l	0.82	123,991,981.33	5.081E+02	Analog	1.00	3
Mg			1	96597.650	ug/l	0.55	65,757,530.67	2.695E+02	Analog	1.00	3
K			1	98240.418	ug/l	0.82	69,732,637.33	2.858E+02	Analog	1.00	3
V			1	0.064	ug/l	17.32	1,401.39	5.742E-03	Pulse	0.50	3
Mn			1	18.851	ug/l	0.44	112,290.18	6.646E-01	Pulse	0.50	3
Fe			1	94175.614	ug/l	0.50	764,337,066.67	4.524E+03	Analog	0.50	3
Co			1	18.620	ug/l	0.59	252,471.74	1.494E+00	Pulse	0.50	3
Ni			1	18.551	ug/l	0.86	65,752.99	3.892E-01	Pulse	0.50	3
Cu			1	17.853	ug/l	1.39	169,849.24	1.005E+00	Pulse	0.50	3
Zn			1	18.841	ug/l	1.01	34,148.44	1.437E-01	Pulse	1.00	3
Cd			1	19.555	ug/l	1.08	54,953.75	2.313E-01	Pulse	0.50	3
Al			1	95566.947	ug/l	0.51	29,991,936.00	1.229E+02	Analog	1.00	3
Se			1	0.119	ug/l	76.20	56.89	2.393E-04	Pulse	3.00	3
Sb			1	0.052	ug/l	7.24	575.34	3.405E-03	Pulse	1.00	3
Se			1	0.135	ug/l	67.30	29.22	1.230E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,436,162.33	1.20	83.7	Pulse	0.50	3
1	Sc		244,035.67	0.78	96.1	Pulse	0.30	3
1	Ge		168,950.96	0.85	99.4	Pulse	0.30	3
1	In		1,670,571.18	0.40	89.4	Pulse	0.30	3
1	Tb		4,944,337.17	0.62	93.5	Pulse	0.50	3
1	Lu		4,151,471.50	0.57	93.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		237,597.15	0.55	93.6	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,182.26	9.74	87.3	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:48
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.867	ug/l	1.15	456,030.29	1.800E+00	Pulse	0.50	3
As			1	49.985	ug/l	1.20	62,316.23	3.628E-01	Pulse	1.00	3
Mo			1	51.534	ug/l	0.66	279,265.97	1.092E+00	Pulse	0.50	3
Pb			1	51.029	ug/l	1.07	1,674,643.33	3.140E-01	Pulse	1.00	3
Be			1	48.502	ug/l	2.36	2,486.49	9.814E-03	Pulse	2.00	3
Ag			1	52.409	ug/l	1.34	917,772.48	1.721E-01	Pulse	0.50	3
Ba			1	50.045	ug/l	0.48	159,877.23	8.621E-02	Pulse	0.50	3
Tl			1	52.301	ug/l	0.93	2,399,009.67	4.499E-01	Pulse	0.50	3
Sn			1	50.000	ug/l	0.47	337,358.98	1.819E-01	Pulse	0.30	3
Sr			1	49.332	ug/l	0.29	398,421.89	2.148E-01	Pulse	0.50	3
[Pb]			1	50.192	ug/l	0.22	791,760.98	1.981E-01	Pulse	0.50	3
Ca			1	4973.529	ug/l	0.75	193,336.18	7.630E-01	Pulse	0.50	3
Ti			1	50.093	ug/l	3.07	11,898.31	4.696E-02	Pulse	0.50	3
Na			1	5013.541	ug/l	0.23	6,743,324.67	2.661E+01	Analog	1.00	3
Mg			1	4922.407	ug/l	0.52	3,481,326.67	1.374E+01	Pulse	1.00	3
K			1	4980.574	ug/l	0.09	3,715,129.42	1.466E+01	Pulse	1.00	3
V			1	50.450	ug/l	0.38	369,707.85	1.459E+00	Pulse	0.50	3
Mn			1	49.844	ug/l	1.36	301,313.14	1.754E+00	Pulse	0.50	3
Fe			1	5064.613	ug/l	1.10	41,794,124.00	2.433E+02	Analog	0.50	3
Co			1	50.935	ug/l	1.17	701,767.35	4.086E+00	Pulse	0.50	3
Ni			1	51.109	ug/l	1.26	183,522.66	1.069E+00	Pulse	0.50	3
Cu			1	51.378	ug/l	1.10	489,660.35	2.851E+00	Pulse	0.50	3
Zn			1	50.449	ug/l	0.62	95,475.89	3.732E-01	Pulse	1.00	3
Cd			1	51.360	ug/l	0.52	155,402.39	6.075E-01	Pulse	0.50	3
Al			1	4809.234	ug/l	0.65	1,567,373.04	6.186E+00	Pulse	1.00	3
Se			1	49.643	ug/l	1.78	5,817.88	2.274E-02	Pulse	3.00	3
Sb			1	50.542	ug/l	0.97	476,553.94	2.775E+00	Pulse	1.00	3
Se			1	50.583	ug/l	2.79	2,834.21	1.108E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,995,850.75	0.32	97.4	Pulse	0.50	3
1	Sc		253,378.49	0.21	99.8	Pulse	0.30	3
1	Ge		171,757.88	0.22	101.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,854,546.87	0.29	99.3	Pulse	0.30	3
1	Tb		5,332,586.83	0.47	100.9	Pulse	0.50	3
1	Lu		4,450,294.00	0.27	100.5	Pulse	0.50	3
1	Ge		255,827.59	0.57	100.7	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,308.94	4.15	96.6	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:52
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.323	ug/l	0.51	888,980.91	3.513E+00	Pulse	0.50	3
As			1	96.442	ug/l	1.31	120,932.04	6.999E-01	Pulse	1.00	3
Mo			1	98.714	ug/l	0.62	533,162.54	2.091E+00	Pulse	0.50	3
Pb			1	98.377	ug/l	0.94	3,206,648.67	6.052E-01	Pulse	1.00	3
Be			1	94.459	ug/l	0.31	4,836.08	1.911E-02	Pulse	2.00	3
Ag			1	100.899	ug/l	0.21	1,755,563.87	3.313E-01	Pulse	0.50	3
Ba			1	98.504	ug/l	0.90	311,384.86	1.697E-01	Pulse	0.50	3
Tl			1	100.414	ug/l	0.26	4,576,224.83	8.637E-01	Pulse	0.50	3
Sn			1	100.824	ug/l	0.92	673,035.82	3.667E-01	Pulse	0.30	3
Sr			1	100.053	ug/l	0.15	799,389.14	4.356E-01	Pulse	0.50	3
[Pb]			1	98.815	ug/l	0.41	1,518,393.33	3.900E-01	Pulse	0.50	3
Ca			1	9828.945	ug/l	0.31	381,441.67	1.507E+00	Pulse	0.50	3
Ti			1	101.651	ug/l	0.95	24,113.50	9.528E-02	Pulse	0.50	3
Na			1	9802.578	ug/l	0.46	13,118,968.33	5.184E+01	Analog	1.00	3
Mg			1	9861.060	ug/l	0.54	6,963,631.00	2.752E+01	Analog	1.00	3
K			1	9976.287	ug/l	0.15	7,385,908.83	2.918E+01	Analog	1.00	3
V			1	98.684	ug/l	0.57	721,376.54	2.850E+00	Pulse	0.50	3
Mn			1	96.371	ug/l	1.07	585,790.08	3.390E+00	Pulse	0.50	3
Fe			1	9865.712	ug/l	0.70	81,899,109.33	4.740E+02	Analog	0.50	3
Co			1	98.490	ug/l	0.71	1,364,991.13	7.900E+00	Pulse	0.50	3
Ni			1	98.366	ug/l	1.12	355,002.38	2.055E+00	Pulse	0.50	3
Cu			1	98.422	ug/l	1.28	940,079.59	5.441E+00	Pulse	0.50	3
Zn			1	98.495	ug/l	0.19	184,134.55	7.220E-01	Pulse	1.00	3
Cd			1	99.461	ug/l	0.29	299,998.24	1.176E+00	Pulse	0.50	3
Al			1	9546.645	ug/l	0.58	3,107,354.42	1.228E+01	Pulse	1.00	3
Se			1	97.475	ug/l	0.42	11,342.69	4.448E-02	Pulse	3.00	3
Sb			1	97.556	ug/l	0.88	925,304.65	5.355E+00	Pulse	1.00	3
Se			1	98.141	ug/l	1.06	5,458.67	2.140E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,893,841.17	0.72	94.9	Pulse	0.50	3
1	Sc		253,076.87	0.03	99.7	Pulse	0.30	3
1	Ge		172,802.99	1.12	101.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,835,300.14	0.54	98.2	Pulse	0.30	3
1	Tb		5,298,329.67	0.47	100.2	Pulse	0.50	3
1	Lu		4,423,449.50	0.51	99.9	Pulse	0.50	3
1	Ge		255,020.10	0.34	100.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,255.60	2.79	92.7	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:56
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.007	ug/l	-47.48	359.34	1.402E-03	Pulse	0.50	3
As			1	0.017	ug/l	47.20	49.00	2.834E-04	Pulse	1.00	3
Mo			1	0.221	ug/l	33.21	1,305.39	5.052E-03	Pulse	0.50	3
Pb			1	-0.010	ug/l	-31.46	909.36	1.723E-04	Pulse	1.00	3
Be			1	0.038	ug/l	52.71	2.83	1.106E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	45.99	158.00	2.997E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	932.10	27.33	1.450E-05	Pulse	0.50	3
Tl			1	0.019	ug/l	20.64	1,099.38	2.084E-04	Pulse	0.50	3
Sn			1	0.162	ug/l	12.91	1,266.72	6.717E-04	Pulse	0.30	3
Sr			1	-0.005	ug/l	-14.66	236.00	1.252E-04	Pulse	0.50	3
[Pb]			1	-0.009	ug/l	-14.33	442.01	1.098E-04	Pulse	0.50	3
Ca			1	-1.383	ug/l	-16.40	132.67	5.177E-04	Pulse	0.50	3
Ti			1	0.044	ug/l	104.24	12.00	4.666E-05	Pulse	0.50	3
Na			1	-14.297	ug/l	-3.37	33,708.55	1.315E-01	Pulse	1.00	3
Mg			1	-0.696	ug/l	-32.95	1,695.74	6.614E-03	Pulse	1.00	3
K			1	-1.868	ug/l	-3.35	45,855.25	1.789E-01	Pulse	1.00	3
V			1	-0.012	ug/l	-62.06	913.36	3.564E-03	Pulse	0.50	3
Mn			1	-0.032	ug/l	-8.69	128.00	7.400E-04	Pulse	0.50	3
Fe			1	1.337	ug/l	8.40	18,330.66	1.059E-01	Pulse	0.50	3
Co			1	0.004	ug/l	157.06	248.00	1.435E-03	Pulse	0.50	3
Ni			1	-0.030	ug/l	-5.69	255.33	1.475E-03	Pulse	0.50	3
Cu			1	-0.125	ug/l	-14.84	2,708.20	1.565E-02	Pulse	0.50	3
Zn			1	-0.858	ug/l	-1.16	183.00	7.075E-04	Pulse	1.00	3
Cd			1	0.017	ug/l	24.62	53.33	2.061E-04	Pulse	0.50	3
Al			1	0.093	ug/l	294.19	294.67	1.148E-03	Pulse	1.00	3
Se			1	0.076	ug/l	9.48	56.78	2.196E-04	Pulse	3.00	3
Sb			1	0.035	ug/l	20.86	422.00	2.436E-03	Pulse	1.00	3
Se			1	0.140	ug/l	50.04	32.11	1.241E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,027,041.08	0.35	98.1	Pulse	0.50	3
1	Sc		256,316.75	0.67	100.9	Pulse	0.30	3
1	Ge		173,080.80	0.74	101.8	Pulse	0.30	3
1	In		1,885,575.97	0.34	100.9	Pulse	0.30	3
1	Tb		5,279,686.83	0.85	99.9	Pulse	0.50	3
1	Lu		4,393,624.00	0.38	99.3	Pulse	0.50	3
1	Ge		258,578.42	0.76	101.8	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,372.28	3.02	101.3	Pulse	0.30	3

Quantitation Report

File Name	020_MB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 9:59
Sample Name	MP42246-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.492	ug/l	8.32	1,261.38	5.136E-03	Pulse	0.50	3
As			1	0.313	ug/l	18.09	101.67	6.134E-04	Pulse	1.00	3
Mo			1	0.789	ug/l	27.92	916.70	3.715E-03	Pulse	0.50	3
Pb			1	0.215	ug/l	5.95	2,568.20	4.959E-04	Pulse	1.00	3
Be			1	0.071	ug/l	259.33	1.50	6.137E-06	Pulse	2.00	3
Ag			1	0.043	ug/l	22.83	202.00	3.901E-05	Pulse	0.50	3
Ba			1	0.150	ug/l	14.72	117.33	6.541E-05	Pulse	0.50	3
Tl			1	0.090	ug/l	13.40	1,026.70	1.983E-04	Pulse	0.50	3
Sn			1	28.771	ug/l	2.25	37,674.21	2.101E-02	Pulse	0.30	3
Sr			1	0.169	ug/l	18.57	528.68	2.948E-04	Pulse	0.50	3
[Pb]			1	0.210	ug/l	4.95	1,235.38	3.102E-04	Pulse	0.50	3
Ca			1	37.552	ug/l	9.31	462.01	1.881E-03	Pulse	0.50	3
Ti			1	0.624	ug/l	24.58	30.00	1.223E-04	Pulse	0.50	3
Na			1	-23.127	ug/l	-12.60	44,801.77	1.824E-01	Pulse	1.00	3
Mg			1	0.892	ug/l	65.16	2,223.13	9.053E-03	Pulse	1.00	3
K			1	35.624	ug/l	19.37	50,350.47	2.050E-01	Pulse	1.00	3
V			1	1.960	ug/l	3.00	3,736.37	1.521E-02	Pulse	0.50	3
Mn			1	0.453	ug/l	13.84	837.36	5.053E-03	Pulse	0.50	3
Fe			1	18.843	ug/l	4.43	36,911.68	2.228E-01	Pulse	0.50	3
Co			1	0.040	ug/l	24.42	295.33	1.782E-03	Pulse	0.50	3
Ni			1	0.181	ug/l	39.70	472.01	2.849E-03	Pulse	0.50	3
Cu			1	2.693	ug/l	8.08	8,640.62	5.216E-02	Pulse	0.50	3
Zn			1	0.697	ug/l	12.20	1,960.44	7.947E-03	Pulse	1.00	3
Cd			1	0.104	ug/l	31.39	62.00	2.513E-04	Pulse	0.50	3
Al			1	5.301	ug/l	9.53	587.34	2.392E-03	Pulse	1.00	3
Se			1	0.376	ug/l	83.54	54.11	2.193E-04	Pulse	3.00	3
Sb			1	0.106	ug/l	19.18	279.33	1.686E-03	Pulse	1.00	3
Se			1	0.789	ug/l	20.95	31.56	1.279E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,983,572.83	1.18	97.1	Pulse	0.50	3
1	Sc		245,581.77	0.69	96.7	Pulse	0.30	3
1	Ge		165,695.11	0.61	97.5	Pulse	0.30	3
1	In		1,793,142.22	0.85	96.0	Pulse	0.30	3
1	Tb		5,180,620.33	1.80	98.0	Pulse	0.50	3
1	Lu		4,291,521.50	0.62	97.0	Pulse	0.50	3
1	Ge		246,667.64	0.68	97.1	Pulse	0.30	3
1	Te		2.67	173.21	400.0	Pulse	0.50	3
1	Li		1,221.16	7.07	90.2	Pulse	0.30	3

Quantitation Report

File Name 021_BSP.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:04
Sample Name MP42246-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	519.331	ug/l	0.96	890,219.12	3.673E+00	Pulse	0.50	3
As			1	521.161	ug/l	0.11	123,481.46	7.564E-01	Pulse	1.00	3
Mo			1	534.631	ug/l	1.11	551,544.15	2.265E+00	Pulse	0.50	3
Pb			1	511.767	ug/l	0.38	3,257,573.42	6.297E-01	Pulse	1.00	3
Be			1	501.729	ug/l	1.05	4,919.60	2.030E-02	Pulse	2.00	3
Ag			1	260.441	ug/l	0.50	884,929.44	1.711E-01	Pulse	0.50	3
Ba			1	511.533	ug/l	0.25	310,070.07	1.762E-01	Pulse	0.50	3
Tl			1	498.063	ug/l	0.95	4,432,694.17	8.568E-01	Pulse	0.50	3
Sn			1	562.804	ug/l	0.42	720,366.44	4.094E-01	Pulse	0.30	3
Sr			1	528.131	ug/l	0.58	809,060.96	4.598E-01	Pulse	0.50	3
[Pb]			1	496.184	ug/l	0.44	1,476,248.79	3.916E-01	Pulse	0.50	3
Ca			1	49412.120	ug/l	0.82	367,258.31	1.515E+00	Pulse	0.50	3
Ti			1	525.250	ug/l	0.60	23,863.87	9.847E-02	Pulse	0.50	3
Na			1	50003.621	ug/l	0.80	12,815,779.67	5.288E+01	Analog	1.00	3
Mg			1	50479.252	ug/l	0.74	6,827,192.00	2.817E+01	Analog	1.00	3
K			1	50232.772	ug/l	0.94	7,122,338.00	2.939E+01	Analog	1.00	3
V			1	512.131	ug/l	0.92	716,951.92	2.958E+00	Pulse	0.50	3
Mn			1	508.219	ug/l	0.34	583,696.33	3.576E+00	Pulse	0.50	3
Fe			1	51056.015	ug/l	0.29	80,082,965.33	4.906E+02	Analog	0.50	3
Co			1	524.572	ug/l	0.18	1,373,693.21	8.415E+00	Pulse	0.50	3
Ni			1	515.995	ug/l	0.60	351,855.87	2.155E+00	Pulse	0.50	3
Cu			1	529.873	ug/l	0.37	956,044.29	5.856E+00	Pulse	0.50	3
Zn			1	501.866	ug/l	0.93	179,176.98	7.357E-01	Pulse	1.00	3
Cd			1	502.957	ug/l	1.25	289,767.45	1.190E+00	Pulse	0.50	3
Al			1	47942.279	ug/l	0.72	2,988,673.50	1.233E+01	Pulse	1.00	3
Se			1	480.412	ug/l	0.79	10,678.64	4.385E-02	Pulse	3.00	3
Sb			1	532.347	ug/l	0.10	954,056.81	5.844E+00	Pulse	1.00	3
Se			1	489.694	ug/l	0.23	5,202.71	2.136E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,769,519.25	0.83	91.9	Pulse	0.50	3
1	Sc		242,359.44	0.82	95.4	Pulse	0.30	3
1	Ge		163,247.73	0.67	96.0	Pulse	0.30	3
1	In		1,759,563.12	0.84	94.2	Pulse	0.30	3
1	Tb		5,173,378.00	0.94	97.9	Pulse	0.50	3
1	Lu		4,281,782.17	1.04	96.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,561.11	0.63	95.9	Pulse	0.30	3
1	Te		2.00	173.21	300.0	Pulse	0.50	3
1	Li		1,293.38	4.90	95.5	Pulse	0.30	3

Quantitation Report

File Name 022SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:08
Sample Name FC5904-1A
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	262.146	ug/l	1.14	262,523.49	9.283E-01	Pulse	0.50	3
As			1	10.346	ug/l	3.10	1,351.72	7.666E-03	Pulse	1.00	3
Mo			1	2.481	ug/l	12.18	1,444.73	5.628E-03	Pulse	0.50	3
Pb			1	34.373	ug/l	1.21	113,332.71	2.137E-02	Pulse	1.00	3
Be			1	5.026	ug/l	14.82	29.67	1.049E-04	Pulse	2.00	3
Ag			1	0.139	ug/l	10.97	297.33	5.608E-05	Pulse	0.50	3
Ba			1	1381.125	ug/l	0.29	435,181.02	2.379E-01	Pulse	0.50	3
Tl			1	1.229	ug/l	4.36	5,840.35	1.101E-03	Pulse	0.50	3
Sn			1	31.245	ug/l	1.83	20,934.18	1.144E-02	Pulse	0.30	3
Sr			1	236.804	ug/l	0.26	188,795.14	1.032E-01	Pulse	0.50	3
[Pb]			1	33.781	ug/l	0.90	52,686.09	1.347E-02	Pulse	0.50	3
Ca			1	25230.712	ug/l	1.17	109,565.59	3.874E-01	Pulse	0.50	3
Ti			1	13139.638	ug/l	0.44	348,276.53	1.232E+00	Pulse	0.50	3
Na			1	2016.093	ug/l	0.21	358,778.12	1.269E+00	Pulse	1.00	3
Mg			1	53159.274	ug/l	0.56	4,195,857.67	1.484E+01	Pulse	1.00	3
K			1	22526.497	ug/l	0.16	1,903,917.08	6.733E+00	Pulse	1.00	3
V			1	902.548	ug/l	1.03	737,322.92	2.607E+00	Pulse	0.50	3
Mn			1	5829.566	ug/l	0.88	3,614,519.92	2.050E+01	Pulse	0.50	3
Fe			1	373876.752	ug/l	0.96	316,711,381.33	1.796E+03	Analog	0.50	3
Co			1	164.990	ug/l	0.95	233,515.41	1.324E+00	Pulse	0.50	3
Ni			1	120.026	ug/l	1.87	44,531.02	2.525E-01	Pulse	0.50	3
Cu			1	520.823	ug/l	0.80	509,551.16	2.890E+00	Pulse	0.50	3
Zn			1	546.639	ug/l	1.11	103,625.38	4.038E-01	Pulse	1.00	3
Cd			1	0.389	ug/l	14.80	119.33	4.653E-04	Pulse	0.50	3
Al			1	320594.579	ug/l	0.89	11,659,641.00	4.123E+01	Analog	1.00	3
Se			1	6.464	ug/l	4.44	122.89	4.788E-04	Pulse	3.00	3
Sb			1	0.462	ug/l	4.57	539.68	3.061E-03	Pulse	1.00	3
Se			1	17.108	ug/l	11.73	119.34	4.651E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,911,373.42	1.19	95.3	Pulse	0.50	3
1	Sc		282,792.61	0.43	111.4	Pulse	0.30	3
1	Ge		176,333.61	0.23	103.7	Pulse	0.30	3
1	In		1,829,370.00	0.92	97.9	Pulse	0.30	3
1	Tb		5,303,019.67	0.37	100.3	Pulse	0.50	3
1	Lu		4,392,954.50	1.16	99.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		256,607.64	0.69	101.0	Pulse	0.30	3
1	Te		4.67	107.85	700.0	Pulse	0.50	3
1	Li		1,315.61	8.09	97.1	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:13
Sample Name MP42246-D1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	268.743	ug/l	0.72	273,492.87	9.517E-01	Pulse	0.50	3
As			1	10.947	ug/l	3.06	1,439.72	8.101E-03	Pulse	1.00	3
Mo			1	2.026	ug/l	11.79	1,206.05	4.665E-03	Pulse	0.50	3
Pb			1	32.759	ug/l	0.50	108,729.36	2.038E-02	Pulse	1.00	3
Be			1	5.057	ug/l	11.62	30.33	1.056E-04	Pulse	2.00	3
Ag			1	0.115	ug/l	21.84	258.00	4.833E-05	Pulse	0.50	3
Ba			1	1350.952	ug/l	1.20	428,609.88	2.327E-01	Pulse	0.50	3
Tl			1	0.880	ug/l	6.92	4,276.55	8.014E-04	Pulse	0.50	3
Sn			1	31.738	ug/l	3.57	21,412.56	1.162E-02	Pulse	0.30	3
Sr			1	235.260	ug/l	1.43	188,851.78	1.025E-01	Pulse	0.50	3
[Pb]			1	32.955	ug/l	1.32	51,214.93	1.314E-02	Pulse	0.50	3
Ca			1	24659.837	ug/l	0.60	108,830.87	3.787E-01	Pulse	0.50	3
Ti			1	13058.656	ug/l	0.86	351,753.75	1.224E+00	Pulse	0.50	3
Na			1	1905.604	ug/l	0.52	347,885.26	1.211E+00	Pulse	1.00	3
Mg			1	51800.170	ug/l	0.55	4,155,075.58	1.446E+01	Pulse	1.00	3
K			1	21556.366	ug/l	0.49	1,853,812.96	6.451E+00	Pulse	1.00	3
V			1	930.916	ug/l	0.67	772,816.81	2.689E+00	Pulse	0.50	3
Mn			1	5768.941	ug/l	0.73	3,605,038.83	2.028E+01	Pulse	0.50	3
Fe			1	387934.897	ug/l	1.20	331,197,269.33	1.864E+03	Analog	0.50	3
Co			1	157.567	ug/l	1.12	224,769.10	1.265E+00	Pulse	0.50	3
Ni			1	122.008	ug/l	0.89	45,616.14	2.567E-01	Pulse	0.50	3
Cu			1	531.969	ug/l	1.12	524,457.20	2.951E+00	Pulse	0.50	3
Zn			1	537.019	ug/l	0.91	102,579.70	3.968E-01	Pulse	1.00	3
Cd			1	0.174	ug/l	31.36	54.67	2.115E-04	Pulse	0.50	3
Al			1	328768.800	ug/l	0.71	12,151,189.33	4.228E+01	Analog	1.00	3
Se			1	6.701	ug/l	4.16	126.55	4.896E-04	Pulse	3.00	3
Sb			1	0.275	ug/l	16.93	361.34	2.034E-03	Pulse	1.00	3
Se			1	14.971	ug/l	4.71	108.22	4.187E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,896,216.67	0.70	95.0	Pulse	0.50	3
1	Sc		287,390.04	0.36	113.2	Pulse	0.30	3
1	Ge		177,724.87	0.40	104.5	Pulse	0.30	3
1	In		1,841,984.30	0.63	98.6	Pulse	0.30	3
1	Tb		5,335,612.33	0.52	100.9	Pulse	0.50	3
1	Lu		4,414,012.67	0.86	99.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		258,492.79	0.54	101.8	Pulse	0.30	3
1	Te		4.00	0.00	600.0	Pulse	0.50	3
1	Li		1,328.39	0.70	98.1	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:17
Sample Name MP42246-SD1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	292.491	ug/l	0.81	57,290.39	2.084E-01	Pulse	0.50	3
As			1	11.225	ug/l	7.14	325.00	1.788E-03	Pulse	1.00	3
Mo			1	2.943	ug/l	25.96	438.01	1.621E-03	Pulse	0.50	3
Pb			1	35.933	ug/l	2.00	25,321.02	4.652E-03	Pulse	1.00	3
Be			1	6.382	ug/l	59.87	8.00	2.910E-05	Pulse	2.00	3
Ag			1	0.525	ug/l	11.22	245.33	4.506E-05	Pulse	0.50	3
Ba			1	1399.205	ug/l	1.33	93,162.64	4.821E-02	Pulse	0.50	3
Tl			1	2.256	ug/l	7.95	2,351.51	4.321E-04	Pulse	0.50	3
Sn			1	32.689	ug/l	2.65	4,752.87	2.460E-03	Pulse	0.30	3
Sr			1	241.462	ug/l	0.83	40,894.80	2.116E-02	Pulse	0.50	3
[Pb]			1	35.373	ug/l	3.04	11,976.89	2.935E-03	Pulse	0.50	3
Ca			1	28402.225	ug/l	0.22	24,128.82	8.779E-02	Pulse	0.50	3
Ti			1	14587.495	ug/l	0.77	75,155.15	2.735E-01	Pulse	0.50	3
Na			1	1825.223	ug/l	2.25	109,676.45	3.991E-01	Pulse	1.00	3
Mg			1	59592.650	ug/l	0.13	916,090.91	3.333E+00	Pulse	1.00	3
K			1	25347.811	ug/l	0.96	455,664.46	1.658E+00	Pulse	1.00	3
V			1	1001.582	ug/l	0.28	159,876.74	5.817E-01	Pulse	0.50	3
Mn			1	6102.240	ug/l	0.44	780,621.71	4.293E+00	Pulse	0.50	3
Fe			1	391017.388	ug/l	0.43	68,321,434.67	3.757E+02	Analog	0.50	3
Co			1	175.506	ug/l	1.14	51,393.81	2.826E-01	Pulse	0.50	3
Ni			1	128.247	ug/l	2.09	10,111.99	5.561E-02	Pulse	0.50	3
Cu			1	575.508	ug/l	0.45	119,316.78	6.561E-01	Pulse	0.50	3
Zn			1	570.710	ug/l	1.54	24,259.89	8.981E-02	Pulse	1.00	3
Cd			1	2.993	ug/l	4.75	192.67	7.132E-04	Pulse	0.50	3
Al			1	348147.606	ug/l	0.32	2,461,346.42	8.956E+00	Pulse	1.00	3
Se			1	7.786	ug/l	39.15	69.11	2.559E-04	Pulse	3.00	3
Sb			1	0.334	ug/l	22.79	162.33	8.925E-04	Pulse	1.00	3
Se			1	19.444	ug/l	25.61	48.11	1.781E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,080,197.58	0.88	99.4	Pulse	0.50	3
1	Sc		274,835.95	0.64	108.2	Pulse	0.30	3
1	Ge		181,841.70	0.49	106.9	Pulse	0.30	3
1	In		1,932,320.27	0.37	103.4	Pulse	0.30	3
1	Tb		5,443,038.83	0.55	103.0	Pulse	0.50	3
1	Lu		4,499,619.00	0.59	101.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		270,138.19	0.27	106.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,377.83	5.61	101.7	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:21
Sample Name MP42246-S1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	732.964	ug/l	0.24	728,010.83	2.593E+00	Pulse	0.50	3
As			1	523.527	ug/l	0.52	67,825.79	3.800E-01	Pulse	1.00	3
Mo			1	497.745	ug/l	1.56	269,874.40	1.054E+00	Pulse	0.50	3
Pb			1	551.304	ug/l	0.42	1,778,222.33	3.393E-01	Pulse	1.00	3
Be			1	476.410	ug/l	0.62	2,706.68	9.639E-03	Pulse	2.00	3
Ag			1	273.635	ug/l	0.60	471,013.83	8.987E-02	Pulse	0.50	3
Ba			1	2170.474	ug/l	1.15	676,279.63	3.738E-01	Pulse	0.50	3
Tl			1	506.388	ug/l	0.50	2,283,084.00	4.356E-01	Pulse	0.50	3
Sn			1	580.468	ug/l	0.78	382,007.60	2.112E-01	Pulse	0.30	3
Sr			1	807.451	ug/l	0.32	635,930.73	3.515E-01	Pulse	0.50	3
[Pb]			1	544.217	ug/l	0.79	810,628.63	2.148E-01	Pulse	0.50	3
Ca			1	74832.648	ug/l	0.53	322,266.81	1.148E+00	Pulse	0.50	3
Ti			1	13399.842	ug/l	0.07	352,668.74	1.256E+00	Pulse	0.50	3
Na			1	49104.308	ug/l	0.62	7,320,419.17	2.607E+01	Analog	1.00	3
Mg			1	103647.160	ug/l	0.57	8,120,791.50	2.892E+01	Analog	1.00	3
K			1	72120.669	ug/l	0.85	5,938,499.83	2.115E+01	Analog	1.00	3
V			1	1354.217	ug/l	0.59	1,097,940.75	3.910E+00	Pulse	0.50	3
Mn			1	14149.926	ug/l	0.96	8,879,846.00	4.975E+01	Analog	0.50	3
Fe			1	418545.331	ug/l	0.92	358,872,234.67	2.011E+03	Analog	0.50	3
Co			1	870.057	ug/l	0.64	1,245,579.96	6.979E+00	Pulse	0.50	3
Ni			1	648.128	ug/l	0.85	241,752.86	1.354E+00	Pulse	0.50	3
Cu			1	1012.789	ug/l	1.23	999,151.75	5.598E+00	Pulse	0.50	3
Zn			1	1066.726	ug/l	0.90	200,010.47	7.814E-01	Pulse	1.00	3
Cd			1	505.152	ug/l	1.41	152,923.35	5.975E-01	Pulse	0.50	3
Al			1	362940.139	ug/l	0.35	13,106,470.00	4.668E+01	Analog	1.00	3
Se			1	497.349	ug/l	1.34	5,832.11	2.278E-02	Pulse	3.00	3
Sb			1	219.923	ug/l	1.09	215,537.21	1.208E+00	Pulse	1.00	3
Se			1	502.015	ug/l	1.83	2,814.10	1.099E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,773,482.67	1.08	92.0	Pulse	0.50	3
1	Sc		280,798.56	0.46	110.6	Pulse	0.30	3
1	Ge		178,491.74	0.76	105.0	Pulse	0.30	3
1	In		1,808,995.83	0.20	96.8	Pulse	0.30	3
1	Tb		5,241,194.17	0.68	99.1	Pulse	0.50	3
1	Lu		4,335,664.67	0.65	98.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,966.62	0.66	100.8	Pulse	0.30	3
1	Te		5.33	114.56	800.0	Pulse	0.50	3
1	Li		1,265.60	1.85	93.4	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:24
Sample Name MP42246-S2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1417.013	ug/l	1.39	1,457,940.88	5.011E+00	Pulse	0.50	3
As			1	500.823	ug/l	0.22	64,424.12	3.635E-01	Pulse	1.00	3
Mo			1	469.309	ug/l	1.04	252,964.84	9.942E-01	Pulse	0.50	3
Pb			1	538.441	ug/l	0.34	1,727,968.17	3.314E-01	Pulse	1.00	3
Be			1	445.569	ug/l	0.74	2,623.34	9.016E-03	Pulse	2.00	3
Ag			1	267.208	ug/l	0.47	457,630.42	8.776E-02	Pulse	0.50	3
Ba			1	1979.663	ug/l	0.27	609,216.69	3.410E-01	Pulse	0.50	3
Tl			1	489.220	ug/l	0.51	2,194,527.17	4.208E-01	Pulse	0.50	3
Sn			1	567.608	ug/l	0.32	368,940.88	2.065E-01	Pulse	0.30	3
Sr			1	813.659	ug/l	0.22	632,900.19	3.542E-01	Pulse	0.50	3
[Pb]			1	535.467	ug/l	0.13	789,146.71	2.114E-01	Pulse	0.50	3
Ca			1	72424.506	ug/l	1.26	323,199.16	1.111E+00	Pulse	0.50	3
Ti			1	14669.403	ug/l	0.92	400,065.84	1.375E+00	Pulse	0.50	3
Na			1	46308.062	ug/l	1.07	7,157,090.00	2.460E+01	Analog	1.00	3
Mg			1	101751.945	ug/l	1.25	8,261,061.83	2.839E+01	Analog	1.00	3
K			1	65935.544	ug/l	0.60	5,630,700.33	1.935E+01	Analog	1.00	3
V			1	1652.759	ug/l	1.30	1,388,251.29	4.771E+00	Pulse	0.50	3
Mn			1	8237.055	ug/l	0.62	5,132,653.00	2.896E+01	Pulse	0.50	3
Fe			1	540741.607	ug/l	0.63	460,349,834.67	2.598E+03	Analog	0.50	3
Co			1	738.735	ug/l	0.29	1,050,088.52	5.925E+00	Pulse	0.50	3
Ni			1	673.326	ug/l	0.67	249,349.81	1.407E+00	Pulse	0.50	3
Cu			1	1126.819	ug/l	0.76	1,103,305.54	6.226E+00	Pulse	0.50	3
Zn			1	1074.356	ug/l	0.84	200,242.43	7.870E-01	Pulse	1.00	3
Cd			1	490.751	ug/l	1.06	147,694.71	5.804E-01	Pulse	0.50	3
Al			1	436011.978	ug/l	1.04	16,315,551.33	5.607E+01	Analog	1.00	3
Se			1	480.640	ug/l	0.51	5,604.49	2.203E-02	Pulse	3.00	3
Sb			1	195.684	ug/l	1.45	190,431.77	1.075E+00	Pulse	1.00	3
Se			1	486.311	ug/l	0.84	2,710.97	1.065E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,733,336.33	1.19	91.0	Pulse	0.50	3
1	Sc		290,984.22	0.91	114.6	Pulse	0.30	3
1	Ge		177,218.87	0.24	104.2	Pulse	0.30	3
1	In		1,786,667.22	0.95	95.6	Pulse	0.30	3
1	Tb		5,214,678.50	0.91	98.6	Pulse	0.50	3
1	Lu		4,310,158.67	1.22	97.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		254,458.30	0.44	100.2	Pulse	0.30	3
1	Te		10.00	34.64	1500.0	Pulse	0.50	3
1	Li		1,271.16	9.67	93.8	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 10:28
Sample Name	MP42246-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	274.356	ug/l	1.35	274,577.58	9.715E-01	Pulse	0.50	3
As			1	21.491	ug/l	3.00	2,788.21	1.575E-02	Pulse	1.00	3
Mo			1	12.794	ug/l	1.67	6,988.66	2.747E-02	Pulse	0.50	3
Pb			1	43.972	ug/l	0.38	143,480.06	2.727E-02	Pulse	1.00	3
Be			1	14.911	ug/l	7.77	86.17	3.049E-04	Pulse	2.00	3
Ag			1	2.752	ug/l	3.06	4,809.30	9.142E-04	Pulse	0.50	3
Ba			1	1385.116	ug/l	0.72	433,011.11	2.386E-01	Pulse	0.50	3
Tl			1	11.619	ug/l	0.43	52,804.22	1.004E-02	Pulse	0.50	3
Sn			1	42.091	ug/l	1.55	27,930.14	1.539E-02	Pulse	0.30	3
Sr			1	248.658	ug/l	0.44	196,671.07	1.084E-01	Pulse	0.50	3
[Pb]			1	43.508	ug/l	0.58	66,721.33	1.731E-02	Pulse	0.50	3
Ca			1	25893.108	ug/l	1.01	112,375.38	3.976E-01	Pulse	0.50	3
Ti			1	13130.632	ug/l	0.52	347,856.58	1.231E+00	Pulse	0.50	3
Na			1	2937.259	ug/l	0.31	495,740.23	1.754E+00	Pulse	1.00	3
Mg			1	54365.273	ug/l	0.61	4,288,729.50	1.517E+01	Pulse	1.00	3
K			1	23395.643	ug/l	0.15	1,974,378.79	6.985E+00	Pulse	1.00	3
V			1	915.252	ug/l	0.95	747,279.50	2.644E+00	Pulse	0.50	3
Mn			1	5838.245	ug/l	0.17	3,634,086.67	2.053E+01	Pulse	0.50	3
Fe			1	378574.870	ug/l	0.17	321,946,474.67	1.819E+03	Analog	0.50	3
Co			1	176.922	ug/l	0.37	251,372.64	1.420E+00	Pulse	0.50	3
Ni			1	128.759	ug/l	0.50	47,931.06	2.708E-01	Pulse	0.50	3
Cu			1	528.054	ug/l	0.62	518,604.63	2.929E+00	Pulse	0.50	3
Zn			1	560.691	ug/l	0.20	105,335.43	4.140E-01	Pulse	1.00	3
Cd			1	11.062	ug/l	1.89	3,330.31	1.309E-02	Pulse	0.50	3
Al			1	324307.567	ug/l	0.84	11,788,325.67	4.171E+01	Analog	1.00	3
Se			1	17.088	ug/l	5.09	244.67	9.616E-04	Pulse	3.00	3
Sb			1	10.086	ug/l	0.38	9,893.00	5.588E-02	Pulse	1.00	3
Se			1	27.025	ug/l	1.89	173.11	6.805E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,855,045.00	0.36	93.9	Pulse	0.50	3
1	Sc		282,650.22	0.64	111.3	Pulse	0.30	3
1	Ge		177,027.36	0.61	104.1	Pulse	0.30	3
1	In		1,814,980.48	0.17	97.2	Pulse	0.30	3
1	Tb		5,260,736.83	0.50	99.5	Pulse	0.50	3
1	Lu		4,342,935.33	0.94	98.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		254,424.05	0.78	100.2	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,327.83	3.64	98.0	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:32
Sample Name FC5904-2A
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	160.008	ug/l	1.09	152,356.67	5.673E-01	Pulse	0.50	3
As			1	7.270	ug/l	4.63	952.36	5.433E-03	Pulse	1.00	3
Mo			1	1.141	ug/l	7.87	714.68	2.791E-03	Pulse	0.50	3
Pb			1	26.410	ug/l	1.10	86,181.55	1.647E-02	Pulse	1.00	3
Be			1	3.612	ug/l	26.54	20.50	7.634E-05	Pulse	2.00	3
Ag			1	0.103	ug/l	12.74	232.67	4.447E-05	Pulse	0.50	3
Ba			1	1375.632	ug/l	0.58	427,727.16	2.369E-01	Pulse	0.50	3
Tl			1	0.973	ug/l	0.79	4,610.63	8.813E-04	Pulse	0.50	3
Sn			1	29.621	ug/l	1.26	19,593.82	1.085E-02	Pulse	0.30	3
Sr			1	214.239	ug/l	0.27	168,570.05	9.338E-02	Pulse	0.50	3
[Pb]			1	25.680	ug/l	1.05	39,510.78	1.027E-02	Pulse	0.50	3
Ca			1	19267.167	ug/l	1.00	79,507.77	2.960E-01	Pulse	0.50	3
Ti			1	11905.831	ug/l	0.45	299,708.34	1.116E+00	Pulse	0.50	3
Na			1	1730.311	ug/l	0.39	300,316.23	1.118E+00	Pulse	1.00	3
Mg			1	55641.119	ug/l	0.58	4,170,835.83	1.553E+01	Pulse	1.00	3
K			1	32390.386	ug/l	0.15	2,578,303.75	9.600E+00	Pulse	1.00	3
V			1	509.998	ug/l	0.84	396,140.65	1.475E+00	Pulse	0.50	3
Mn			1	3655.483	ug/l	0.53	2,253,036.00	1.285E+01	Pulse	0.50	3
Fe			1	281558.306	ug/l	0.28	237,078,880.00	1.353E+03	Analog	0.50	3
Co			1	93.504	ug/l	0.20	131,632.15	7.510E-01	Pulse	0.50	3
Ni			1	80.174	ug/l	0.41	29,688.71	1.694E-01	Pulse	0.50	3
Cu			1	356.179	ug/l	0.86	347,626.92	1.983E+00	Pulse	0.50	3
Zn			1	620.353	ug/l	0.68	117,098.04	4.573E-01	Pulse	1.00	3
Cd			1	0.220	ug/l	34.95	68.00	2.658E-04	Pulse	0.50	3
Al			1	260666.648	ug/l	0.82	9,003,515.00	3.352E+01	Analog	1.00	3
Se			1	5.893	ug/l	22.09	116.00	4.529E-04	Pulse	3.00	3
Sb			1	0.165	ug/l	13.21	251.00	1.432E-03	Pulse	1.00	3
Se			1	14.274	ug/l	6.37	103.33	4.036E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,845,609.08	0.85	93.7	Pulse	0.50	3
1	Sc		268,575.60	0.19	105.8	Pulse	0.30	3
1	Ge		175,278.18	0.13	103.1	Pulse	0.30	3
1	In		1,805,204.37	0.55	96.6	Pulse	0.30	3
1	Tb		5,231,343.67	0.59	99.0	Pulse	0.50	3
1	Lu		4,296,406.67	0.84	97.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		256,048.98	0.39	100.8	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,360.06	8.62	100.4	Pulse	0.30	3

Quantitation Report

File Name 029_MB.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:36
Sample Name MP42244-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.104	ug/l	11.04	889.36	3.496E-03	Pulse	0.50	3
As			1	0.111	ug/l	17.48	95.00	5.626E-04	Pulse	1.00	3
Mo			1	0.026	ug/l	95.96	164.00	6.461E-04	Pulse	0.50	3
Pb			1	0.082	ug/l	4.00	2,487.19	4.832E-04	Pulse	1.00	3
Be			1	0.078	ug/l	15.27	2.83	1.114E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	14.16	120.00	2.331E-05	Pulse	0.50	3
Ba			1	0.107	ug/l	19.01	191.33	1.057E-04	Pulse	0.50	3
Tl			1	0.009	ug/l	13.72	420.68	8.172E-05	Pulse	0.50	3
Sn			1	0.200	ug/l	7.10	807.80	4.460E-04	Pulse	0.30	3
Sr			1	0.041	ug/l	28.06	430.01	2.376E-04	Pulse	0.50	3
[Pb]			1	0.078	ug/l	11.71	1,152.71	2.980E-04	Pulse	0.50	3
Ca			1	13.211	ug/l	6.03	443.34	1.742E-03	Pulse	0.50	3
Ti			1	1.325	ug/l	23.82	159.33	6.261E-04	Pulse	0.50	3
Na			1	-24.869	ug/l	-4.09	35,959.75	1.413E-01	Pulse	1.00	3
Mg			1	2.263	ug/l	64.71	2,981.23	1.171E-02	Pulse	1.00	3
K			1	9.604	ug/l	41.22	50,458.76	1.983E-01	Pulse	1.00	3
V			1	0.911	ug/l	2.26	4,338.50	1.705E-02	Pulse	0.50	3
Mn			1	0.403	ug/l	33.30	1,512.07	8.955E-03	Pulse	0.50	3
Fe			1	26.798	ug/l	28.88	115,756.31	6.854E-01	Pulse	0.50	3
Co			1	0.011	ug/l	24.93	265.33	1.570E-03	Pulse	0.50	3
Ni			1	-0.006	ug/l	-379.99	342.00	2.026E-03	Pulse	0.50	3
Cu			1	1.447	ug/l	2.61	10,534.24	6.233E-02	Pulse	0.50	3
Zn			1	0.590	ug/l	5.43	2,300.14	9.075E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	40.13	24.00	9.460E-05	Pulse	0.50	3
Al			1	20.091	ug/l	33.73	3,550.68	1.395E-02	Pulse	1.00	3
Se			1	-0.016	ug/l	-225.20	46.00	1.815E-04	Pulse	3.00	3
Sb			1	0.010	ug/l	22.34	133.67	7.908E-04	Pulse	1.00	3
Se			1	0.320	ug/l	33.22	32.56	1.284E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,869,951.50	1.37	94.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		254,478.57	0.64	100.2	Pulse	0.30	3
1	Ge		169,000.39	1.23	99.4	Pulse	0.30	3
1	In		1,810,828.68	0.87	96.9	Pulse	0.30	3
1	Tb		5,148,538.17	1.17	97.4	Pulse	0.50	3
1	Lu		4,218,012.17	1.31	95.3	Pulse	0.50	3
1	Ge		253,435.37	0.56	99.8	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,341.17	6.36	99.0	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 10:40
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.977	ug/l	1.45	499,808.23	1.804E+00	Pulse	0.50	3
As			1	51.338	ug/l	0.49	67,871.70	3.726E-01	Pulse	1.00	3
Mo			1	50.361	ug/l	0.43	291,908.06	1.067E+00	Pulse	0.50	3
Pb			1	50.424	ug/l	0.52	1,678,736.79	3.103E-01	Pulse	1.00	3
Be			1	50.541	ug/l	2.18	2,833.70	1.023E-02	Pulse	2.00	3
Ag			1	54.301	ug/l	0.43	964,672.94	1.783E-01	Pulse	0.50	3
Ba			1	50.124	ug/l	0.97	165,378.85	8.634E-02	Pulse	0.50	3
Tl			1	51.287	ug/l	0.34	2,386,527.42	4.412E-01	Pulse	0.50	3
Sn			1	50.122	ug/l	0.51	349,273.07	1.824E-01	Pulse	0.30	3
Sr			1	50.904	ug/l	0.67	424,588.77	2.217E-01	Pulse	0.50	3
[Pb]			1	50.447	ug/l	0.85	793,760.52	1.992E-01	Pulse	0.50	3
Ca			1	4997.244	ug/l	0.82	212,444.83	7.667E-01	Pulse	0.50	3
Ti			1	50.793	ug/l	2.15	13,193.81	4.761E-02	Pulse	0.50	3
Na			1	5115.962	ug/l	0.69	7,524,213.17	2.715E+01	Analog	1.00	3
Mg			1	4890.673	ug/l	0.94	3,782,754.83	1.365E+01	Pulse	1.00	3
K			1	5001.304	ug/l	0.62	4,079,707.83	1.472E+01	Pulse	1.00	3
V			1	50.962	ug/l	1.41	408,421.06	1.474E+00	Pulse	0.50	3
Mn			1	50.864	ug/l	0.66	326,045.41	1.790E+00	Pulse	0.50	3
Fe			1	5279.131	ug/l	0.60	46,196,992.00	2.536E+02	Analog	0.50	3
Co			1	52.425	ug/l	0.85	765,928.27	4.205E+00	Pulse	0.50	3
Ni			1	52.414	ug/l	0.55	199,572.90	1.096E+00	Pulse	0.50	3
Cu			1	52.605	ug/l	0.78	531,557.38	2.918E+00	Pulse	0.50	3
Zn			1	50.541	ug/l	0.99	102,306.95	3.739E-01	Pulse	1.00	3
Cd			1	50.203	ug/l	0.14	162,472.59	5.938E-01	Pulse	0.50	3
Al			1	4728.705	ug/l	1.31	1,685,426.00	6.082E+00	Pulse	1.00	3
Se			1	50.274	ug/l	2.27	6,301.93	2.303E-02	Pulse	3.00	3
Sb			1	49.580	ug/l	0.78	495,708.07	2.722E+00	Pulse	1.00	3
Se			1	50.433	ug/l	0.65	3,022.24	1.104E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,985,667.00	0.21	97.1	Pulse	0.50	3
1	Sc		277,104.27	0.06	109.1	Pulse	0.30	3
1	Ge		182,140.17	1.47	107.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,915,382.57	0.32	102.5	Pulse	0.30	3
1	Tb		5,409,577.67	0.20	102.3	Pulse	0.50	3
1	Lu		4,454,001.33	0.74	100.6	Pulse	0.50	3
1	Ge		273,627.44	0.60	107.7	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,360.06	5.65	100.4	Pulse	0.30	3

Quantitation Report

File Name 031_CCV.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 10:44
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.530	ug/l	1.17	959,892.08	3.520E+00	Pulse	0.50	3
As			1	98.917	ug/l	0.67	130,141.52	7.178E-01	Pulse	1.00	3
Mo			1	99.052	ug/l	0.86	563,258.34	2.098E+00	Pulse	0.50	3
Pb			1	97.060	ug/l	0.95	3,179,568.33	5.971E-01	Pulse	1.00	3
Be			1	98.642	ug/l	1.91	5,441.56	1.996E-02	Pulse	2.00	3
Ag			1	104.351	ug/l	0.12	1,824,709.25	3.427E-01	Pulse	0.50	3
Ba			1	98.561	ug/l	0.75	318,819.79	1.698E-01	Pulse	0.50	3
Tl			1	99.074	ug/l	0.29	4,537,766.83	8.522E-01	Pulse	0.50	3
Sn			1	100.571	ug/l	1.03	686,982.98	3.658E-01	Pulse	0.30	3
Sr			1	102.050	ug/l	0.98	834,292.08	4.443E-01	Pulse	0.50	3
[Pb]			1	99.361	ug/l	0.86	1,509,844.54	3.921E-01	Pulse	0.50	3
Ca			1	9688.070	ug/l	1.52	405,119.28	1.486E+00	Pulse	0.50	3
Ti			1	100.525	ug/l	1.32	25,696.17	9.423E-02	Pulse	0.50	3
Na			1	10032.376	ug/l	0.62	14,466,412.00	5.305E+01	Analog	1.00	3
Mg			1	9908.698	ug/l	1.01	7,539,747.33	2.765E+01	Analog	1.00	3
K			1	10013.786	ug/l	0.50	7,988,462.67	2.929E+01	Analog	1.00	3
V			1	99.529	ug/l	1.41	783,937.42	2.875E+00	Pulse	0.50	3
Mn			1	98.792	ug/l	0.33	630,054.42	3.475E+00	Pulse	0.50	3
Fe			1	10276.049	ug/l	0.98	89,501,677.33	4.937E+02	Analog	0.50	3
Co			1	101.014	ug/l	0.50	1,468,846.75	8.102E+00	Pulse	0.50	3
Ni			1	100.741	ug/l	0.90	381,466.90	2.104E+00	Pulse	0.50	3
Cu			1	100.019	ug/l	0.89	1,002,305.35	5.529E+00	Pulse	0.50	3
Zn			1	98.502	ug/l	0.86	193,877.85	7.221E-01	Pulse	1.00	3
Cd			1	97.418	ug/l	1.09	309,357.51	1.152E+00	Pulse	0.50	3
Al			1	9292.180	ug/l	1.12	3,259,007.25	1.195E+01	Pulse	1.00	3
Se			1	98.049	ug/l	1.09	12,011.99	4.474E-02	Pulse	3.00	3
Sb			1	95.748	ug/l	0.83	952,833.57	5.256E+00	Pulse	1.00	3
Se			1	97.486	ug/l	1.73	5,708.74	2.126E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,850,626.50	0.32	93.8	Pulse	0.50	3
1	Sc		272,711.21	0.73	107.4	Pulse	0.30	3
1	Ge		181,296.69	0.36	106.6	Pulse	0.30	3
1	In		1,878,012.08	0.41	100.5	Pulse	0.30	3
1	Tb		5,324,816.83	0.13	100.7	Pulse	0.50	3
1	Lu		4,418,535.50	0.09	99.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		268,501.29	0.46	105.7	Pulse	0.30	3
1	Te		6.67	69.28	1000.0	Pulse	0.50	3
1	Li		1,522.29	7.95	112.4	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 10:47
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.008	ug/l	81.82	538.01	1.932E-03	Pulse	0.50	3
As			1	0.034	ug/l	31.31	74.00	4.032E-04	Pulse	1.00	3
Mo			1	0.159	ug/l	22.46	1,017.36	3.741E-03	Pulse	0.50	3
Pb			1	0.008	ug/l	84.04	1,494.40	2.806E-04	Pulse	1.00	3
Be			1	0.043	ug/l	31.34	3.33	1.197E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	21.54	470.68	8.839E-05	Pulse	0.50	3
Ba			1	0.016	ug/l	50.78	80.67	4.181E-05	Pulse	0.50	3
Tl			1	0.032	ug/l	14.67	1,702.76	3.198E-04	Pulse	0.50	3
Sn			1	0.185	ug/l	22.93	1,460.63	7.561E-04	Pulse	0.30	3
Sr			1	0.012	ug/l	52.09	382.67	1.982E-04	Pulse	0.50	3
[Pb]			1	0.007	ug/l	46.71	686.02	1.731E-04	Pulse	0.50	3
Ca			1	0.099	ug/l	919.35	207.33	7.448E-04	Pulse	0.50	3
Ti			1	0.035	ug/l	54.35	10.67	3.827E-05	Pulse	0.50	3
Na			1	-18.906	ug/l	-3.91	29,856.15	1.072E-01	Pulse	1.00	3
Mg			1	0.641	ug/l	77.82	2,879.88	1.034E-02	Pulse	1.00	3
K			1	0.039	ug/l	627.31	51,359.07	1.844E-01	Pulse	1.00	3
V			1	0.011	ug/l	112.67	1,178.04	4.231E-03	Pulse	0.50	3
Mn			1	-0.012	ug/l	-70.71	264.00	1.438E-03	Pulse	0.50	3
Fe			1	2.940	ug/l	14.91	33,575.88	1.830E-01	Pulse	0.50	3
Co			1	0.023	ug/l	22.54	542.01	2.953E-03	Pulse	0.50	3
Ni			1	-0.010	ug/l	-41.31	346.67	1.889E-03	Pulse	0.50	3
Cu			1	-0.118	ug/l	-10.99	2,936.23	1.600E-02	Pulse	0.50	3
Zn			1	-0.828	ug/l	-3.47	251.00	9.220E-04	Pulse	1.00	3
Cd			1	0.032	ug/l	28.63	104.00	3.822E-04	Pulse	0.50	3
Al			1	1.679	ug/l	32.66	887.35	3.188E-03	Pulse	1.00	3
Se			1	0.105	ug/l	50.68	63.33	2.328E-04	Pulse	3.00	3
Sb			1	0.053	ug/l	8.33	633.01	3.449E-03	Pulse	1.00	3
Se			1	0.182	ug/l	10.32	36.22	1.331E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,963,479.17	0.47	96.6	Pulse	0.50	3
1	Sc		278,452.23	0.30	109.6	Pulse	0.30	3
1	Ge		183,522.23	0.10	107.9	Pulse	0.30	3
1	In		1,930,700.89	0.55	103.3	Pulse	0.30	3
1	Tb		5,324,427.00	0.61	100.7	Pulse	0.50	3
1	Lu		4,367,818.00	0.39	98.7	Pulse	0.50	3
1	Ge		272,081.86	0.42	107.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,464.51	2.72	108.1	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:02
Sample Name MP42244-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.233	ug/l	31.04	667.35	2.482E-03	Pulse	0.50	3
As			1	0.299	ug/l	15.43	67.33	3.756E-04	Pulse	1.00	3
Mo			1	0.048	ug/l	118.64	126.67	4.758E-04	Pulse	0.50	3
Pb			1	0.222	ug/l	9.11	1,950.45	3.685E-04	Pulse	1.00	3
Be			1	0.635	ug/l	22.55	4.33	1.612E-05	Pulse	2.00	3
Ag			1	0.031	ug/l	5.56	110.00	2.079E-05	Pulse	0.50	3
Ba			1	33.678	ug/l	1.86	11,036.72	5.814E-03	Pulse	0.50	3
Tl			1	0.035	ug/l	10.82	394.68	7.459E-05	Pulse	0.50	3
Sn			1	0.594	ug/l	7.08	565.57	2.979E-04	Pulse	0.30	3
Sr			1	6.573	ug/l	2.10	5,708.89	3.008E-03	Pulse	0.50	3
[Pb]			1	0.210	ug/l	12.22	911.36	2.269E-04	Pulse	0.50	3
Ca			1	351.949	ug/l	8.44	1,646.75	6.124E-03	Pulse	0.50	3
Ti			1	0.711	ug/l	12.35	19.33	7.188E-05	Pulse	0.50	3
Na			1	3790.134	ug/l	0.61	592,332.29	2.203E+00	Pulse	1.00	3
Mg			1	215.169	ug/l	0.99	18,438.46	6.858E-02	Pulse	1.00	3
K			1	1000.632	ug/l	0.66	127,766.38	4.752E-01	Pulse	1.00	3
V			1	2.053	ug/l	16.15	2,643.52	9.829E-03	Pulse	0.50	3
Mn			1	7.283	ug/l	2.09	4,923.98	2.747E-02	Pulse	0.50	3
Fe			1	19.084	ug/l	12.78	23,909.45	1.334E-01	Pulse	0.50	3
Co			1	2.030	ug/l	4.19	3,120.93	1.741E-02	Pulse	0.50	3
Ni			1	2.733	ug/l	6.83	1,397.39	7.796E-03	Pulse	0.50	3
Cu			1	4.515	ug/l	3.68	8,489.22	4.736E-02	Pulse	0.50	3
Zn			1	16.027	ug/l	2.55	4,942.31	1.857E-02	Pulse	1.00	3
Cd			1	0.040	ug/l	46.71	14.00	5.248E-05	Pulse	0.50	3
Al			1	18.344	ug/l	7.12	911.02	3.388E-03	Pulse	1.00	3
Se			1	0.032	ug/l	437.47	49.67	1.866E-04	Pulse	3.00	3
Sb			1	0.024	ug/l	46.83	118.00	6.583E-04	Pulse	1.00	3
Se			1	1.492	ug/l	34.54	33.55	1.260E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,016,134.00	0.65	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		268,866.58	0.51	105.9	Pulse	0.30	3
1	Ge		179,242.98	0.12	105.4	Pulse	0.30	3
1	In		1,898,038.88	0.70	101.6	Pulse	0.30	3
1	Tb		5,292,552.33	1.13	100.1	Pulse	0.50	3
1	Lu		4,313,549.00	0.89	97.5	Pulse	0.50	3
1	Ge		266,134.56	0.87	104.8	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,395.61	3.84	103.0	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:06
Sample Name	MP42244-S1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	241.374	ug/l	0.78	1,041,863.94	4.268E+00	Pulse	0.50	3
As			1	238.392	ug/l	0.16	141,182.01	8.650E-01	Pulse	1.00	3
Mo			1	246.302	ug/l	0.51	637,700.17	2.608E+00	Pulse	0.50	3
Pb			1	229.660	ug/l	1.39	3,575,491.33	7.064E-01	Pulse	1.00	3
Be			1	239.102	ug/l	0.62	5,904.19	2.418E-02	Pulse	2.00	3
Ag			1	110.787	ug/l	0.44	920,751.19	1.819E-01	Pulse	0.50	3
Ba			1	269.523	ug/l	1.12	399,147.08	2.321E-01	Pulse	0.50	3
Tl			1	222.818	ug/l	1.20	4,850,312.33	9.583E-01	Pulse	0.50	3
Sn			1	248.049	ug/l	0.45	775,731.68	4.511E-01	Pulse	0.30	3
Sr			1	251.125	ug/l	0.30	939,921.92	5.466E-01	Pulse	0.50	3
[Pb]			1	228.881	ug/l	0.54	1,626,606.71	4.516E-01	Pulse	0.50	3
Ca			1	22211.436	ug/l	0.39	415,719.61	1.703E+00	Pulse	0.50	3
Ti			1	241.951	ug/l	1.37	27,680.19	1.134E-01	Pulse	0.50	3
Na			1	27098.557	ug/l	0.41	17,472,288.00	7.157E+01	Analog	1.00	3
Mg			1	23006.555	ug/l	0.53	7,835,452.67	3.210E+01	Analog	1.00	3
K			1	23325.304	ug/l	0.39	8,321,577.17	3.409E+01	Analog	1.00	3
V			1	239.025	ug/l	0.34	842,518.90	3.451E+00	Pulse	0.50	3
Mn			1	241.157	ug/l	0.61	692,268.56	4.241E+00	Pulse	0.50	3
Fe			1	23737.052	ug/l	0.24	93,065,104.00	5.702E+02	Analog	0.50	3
Co			1	246.169	ug/l	0.33	1,611,289.25	9.872E+00	Pulse	0.50	3
Ni			1	242.162	ug/l	0.45	412,704.57	2.529E+00	Pulse	0.50	3
Cu			1	238.494	ug/l	0.42	1,075,145.92	6.587E+00	Pulse	0.50	3
Zn			1	240.811	ug/l	0.56	215,436.05	8.811E-01	Pulse	1.00	3
Cd			1	224.161	ug/l	0.82	324,117.04	1.326E+00	Pulse	0.50	3
Al			1	20700.761	ug/l	0.12	3,249,793.33	1.331E+01	Pulse	1.00	3
Se			1	214.133	ug/l	0.67	11,940.95	4.884E-02	Pulse	3.00	3
Sb			1	238.136	ug/l	0.88	1,066,727.96	6.536E+00	Pulse	1.00	3
Se			1	215.606	ug/l	0.67	5,746.65	2.350E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,601,827.42	0.63	87.8	Pulse	0.50	3
1	Sc		244,126.60	0.88	96.1	Pulse	0.30	3
1	Ge		163,221.81	0.62	96.0	Pulse	0.30	3
1	In		1,719,680.14	0.61	92.1	Pulse	0.30	3
1	Tb		5,061,581.50	0.58	95.7	Pulse	0.50	3
1	Lu		4,143,457.50	0.36	93.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		244,506.22	0.38	96.3	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,297.83	3.85	95.8	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:10
Sample Name	MP42244-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	221.261	ug/l	1.47	950,430.69	3.912E+00	Pulse	0.50	3
As			1	221.951	ug/l	0.72	130,676.83	8.053E-01	Pulse	1.00	3
Mo			1	226.319	ug/l	0.89	583,809.77	2.397E+00	Pulse	0.50	3
Pb			1	213.389	ug/l	0.72	3,297,565.92	6.564E-01	Pulse	1.00	3
Be			1	223.011	ug/l	1.04	5,479.91	2.256E-02	Pulse	2.00	3
Ag			1	104.311	ug/l	1.06	860,429.17	1.713E-01	Pulse	0.50	3
Ba			1	248.392	ug/l	0.32	366,850.58	2.139E-01	Pulse	0.50	3
Tl			1	207.481	ug/l	0.62	4,482,903.50	8.923E-01	Pulse	0.50	3
Sn			1	227.494	ug/l	0.01	709,492.75	4.137E-01	Pulse	0.30	3
Sr			1	230.979	ug/l	0.25	862,144.92	5.027E-01	Pulse	0.50	3
[Pb]			1	209.746	ug/l	0.76	1,497,558.92	4.139E-01	Pulse	0.50	3
Ca			1	20550.270	ug/l	1.11	382,760.98	1.576E+00	Pulse	0.50	3
Ti			1	226.720	ug/l	0.19	25,813.00	1.063E-01	Pulse	0.50	3
Na			1	25345.550	ug/l	0.44	16,265,571.00	6.696E+01	Analog	1.00	3
Mg			1	21407.210	ug/l	0.71	7,255,383.33	2.987E+01	Analog	1.00	3
K			1	21672.861	ug/l	0.19	7,697,258.17	3.168E+01	Analog	1.00	3
V			1	220.348	ug/l	1.00	772,963.52	3.182E+00	Pulse	0.50	3
Mn			1	222.432	ug/l	0.22	634,790.69	3.912E+00	Pulse	0.50	3
Fe			1	22002.775	ug/l	0.56	85,761,456.00	5.285E+02	Analog	0.50	3
Co			1	227.141	ug/l	0.32	1,478,051.46	9.109E+00	Pulse	0.50	3
Ni			1	224.608	ug/l	0.33	380,571.90	2.345E+00	Pulse	0.50	3
Cu			1	221.415	ug/l	0.79	992,577.90	6.117E+00	Pulse	0.50	3
Zn			1	224.346	ug/l	0.58	200,080.46	8.213E-01	Pulse	1.00	3
Cd			1	207.803	ug/l	0.65	299,358.33	1.229E+00	Pulse	0.50	3
Al			1	19202.148	ug/l	0.64	2,999,772.58	1.235E+01	Pulse	1.00	3
Se			1	198.306	ug/l	0.64	11,020.28	4.524E-02	Pulse	3.00	3
Sb			1	220.564	ug/l	0.77	982,267.75	6.053E+00	Pulse	1.00	3
Se			1	200.808	ug/l	0.83	5,333.74	2.190E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,618,583.25	0.79	88.2	Pulse	0.50	3
1	Sc		242,932.55	0.23	95.7	Pulse	0.30	3
1	Ge		162,264.01	0.32	95.4	Pulse	0.30	3
1	In		1,714,892.29	0.56	91.8	Pulse	0.30	3
1	Tb		5,023,891.67	1.33	95.0	Pulse	0.50	3
1	Lu		4,120,938.17	1.33	93.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		243,596.83	0.41	95.9	Pulse	0.30	3
1	Te		6.00	88.19	900.0	Pulse	0.50	3
1	Li		1,304.49	4.64	96.3	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:14
Sample Name MP42244-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.152	ug/l	1.64	98,212.62	3.932E-01	Pulse	0.50	3
As			1	23.172	ug/l	0.53	13,865.69	8.422E-02	Pulse	1.00	3
Mo			1	22.380	ug/l	0.28	58,757.47	2.373E-01	Pulse	0.50	3
Pb			1	21.791	ug/l	0.38	343,252.12	6.724E-02	Pulse	1.00	3
Be			1	21.583	ug/l	6.36	545.84	2.186E-03	Pulse	2.00	3
Ag			1	5.596	ug/l	1.08	46,965.79	9.199E-03	Pulse	0.50	3
Ba			1	54.560	ug/l	0.59	83,190.43	4.700E-02	Pulse	0.50	3
Tl			1	21.268	ug/l	0.32	467,169.93	9.151E-02	Pulse	0.50	3
Sn			1	21.984	ug/l	1.20	70,896.05	4.005E-02	Pulse	0.30	3
Sr			1	29.055	ug/l	0.59	112,170.99	6.337E-02	Pulse	0.50	3
[Pb]			1	20.873	ug/l	1.23	156,632.96	4.132E-02	Pulse	0.50	3
Ca			1	2466.066	ug/l	2.28	47,382.19	1.897E-01	Pulse	0.50	3
Ti			1	22.617	ug/l	2.93	2,648.86	1.060E-02	Pulse	0.50	3
Na			1	6022.018	ug/l	1.18	4,012,888.08	1.607E+01	Pulse	1.00	3
Mg			1	2377.234	ug/l	1.35	830,298.04	3.324E+00	Pulse	1.00	3
K			1	3092.572	ug/l	1.08	1,168,753.38	4.679E+00	Pulse	1.00	3
V			1	23.117	ug/l	0.75	84,254.48	3.373E-01	Pulse	0.50	3
Mn			1	28.928	ug/l	0.68	84,028.81	5.104E-01	Pulse	0.50	3
Fe			1	2274.998	ug/l	0.82	9,002,815.67	5.468E+01	Analog	0.50	3
Co			1	25.189	ug/l	0.96	166,476.14	1.011E+00	Pulse	0.50	3
Ni			1	25.978	ug/l	1.59	44,965.28	2.731E-01	Pulse	0.50	3
Cu			1	24.357	ug/l	0.41	114,079.59	6.929E-01	Pulse	0.50	3
Zn			1	40.554	ug/l	0.39	38,165.62	1.542E-01	Pulse	1.00	3
Cd			1	21.511	ug/l	0.76	31,496.06	1.272E-01	Pulse	0.50	3
Al			1	2010.325	ug/l	1.51	323,130.56	1.294E+00	Pulse	1.00	3
Se			1	20.667	ug/l	3.63	1,208.15	4.881E-03	Pulse	3.00	3
Sb			1	20.252	ug/l	0.86	91,588.56	5.563E-01	Pulse	1.00	3
Se			1	21.146	ug/l	3.12	591.68	2.390E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,790,900.33	0.84	92.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		249,788.65	0.98	98.4	Pulse	0.30	3
1	Ge		164,633.56	0.89	96.8	Pulse	0.30	3
1	In		1,770,015.90	1.43	94.7	Pulse	0.30	3
1	Tb		5,105,339.17	1.78	96.6	Pulse	0.50	3
1	Lu		4,162,092.92	1.67	94.0	Pulse	0.50	3
1	Ge		247,579.85	1.05	97.5	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,278.94	6.04	94.4	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:18
Sample Name	FC5941-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.348	ug/l	1.05	10,992.45	4.317E-02	Pulse	0.50	3
As			1	0.261	ug/l	1.21	185.00	1.105E-03	Pulse	1.00	3
Mo			1	0.396	ug/l	4.39	1,141.37	4.572E-03	Pulse	0.50	3
Pb			1	0.267	ug/l	1.14	5,316.17	1.052E-03	Pulse	1.00	3
Be			1	0.058	ug/l	37.83	2.33	9.157E-06	Pulse	2.00	3
Ag			1	0.014	ug/l	23.91	173.33	3.426E-05	Pulse	0.50	3
Ba			1	8.282	ug/l	2.17	12,485.67	7.146E-03	Pulse	0.50	3
Tl			1	0.025	ug/l	4.46	760.02	1.504E-04	Pulse	0.50	3
Sn			1	0.329	ug/l	6.68	1,188.94	6.807E-04	Pulse	0.30	3
Sr			1	175.661	ug/l	0.33	668,078.52	3.824E-01	Pulse	0.50	3
[Pb]			1	0.270	ug/l	5.21	2,465.52	6.774E-04	Pulse	0.50	3
Ca			1	21911.826	ug/l	0.87	427,789.22	1.680E+00	Pulse	0.50	3
Ti			1	0.341	ug/l	49.89	42.00	1.650E-04	Pulse	0.50	3
Na			1	49567.721	ug/l	0.63	33,293,192.67	1.307E+02	Analog	1.00	3
Mg			1	21618.112	ug/l	0.81	7,680,094.17	3.016E+01	Analog	1.00	3
K			1	2787.455	ug/l	0.55	1,078,604.58	4.236E+00	Pulse	1.00	3
V			1	17.456	ug/l	2.23	65,107.30	2.557E-01	Pulse	0.50	3
Mn			1	4.994	ug/l	0.47	15,007.81	8.965E-02	Pulse	0.50	3
Fe			1	25.008	ug/l	0.82	107,537.69	6.424E-01	Pulse	0.50	3
Co			1	0.045	ug/l	14.01	488.68	2.920E-03	Pulse	0.50	3
Ni			1	0.123	ug/l	11.28	564.68	3.375E-03	Pulse	0.50	3
Cu			1	2.947	ug/l	0.65	17,347.82	1.036E-01	Pulse	0.50	3
Zn			1	11.778	ug/l	0.59	12,401.32	4.969E-02	Pulse	1.00	3
Cd			1	0.029	ug/l	25.29	44.67	1.794E-04	Pulse	0.50	3
Al			1	4.208	ug/l	5.03	951.03	3.734E-03	Pulse	1.00	3
Se			1	0.195	ug/l	61.59	57.22	2.295E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	19.98	425.01	2.535E-03	Pulse	1.00	3
Se			1	1.563	ug/l	17.74	65.78	2.633E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,640,731.25	1.15	88.7	Pulse	0.50	3
1	Sc		254,640.34	0.55	100.3	Pulse	0.30	3
1	Ge		167,393.13	1.77	98.5	Pulse	0.30	3
1	In		1,747,170.77	0.89	93.5	Pulse	0.30	3
1	Tb		5,054,266.83	1.58	95.6	Pulse	0.50	3
1	Lu		4,146,755.58	1.40	93.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		249,551.25	1.49	98.3	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,270.05	7.83	93.8	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:21
Sample Name FC5941-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.560	ug/l	3.86	2,968.24	1.156E-02	Pulse	0.50	3
As			1	0.189	ug/l	33.22	142.67	8.458E-04	Pulse	1.00	3
Mo			1	0.017	ug/l	121.90	142.00	5.571E-04	Pulse	0.50	3
Pb			1	0.009	ug/l	12.96	1,335.06	2.591E-04	Pulse	1.00	3
Be			1	0.083	ug/l	105.34	3.00	1.167E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	68.34	97.33	1.884E-05	Pulse	0.50	3
Ba			1	3.295	ug/l	1.78	5,129.41	2.852E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	25.75	450.01	8.728E-05	Pulse	0.50	3
Sn			1	0.277	ug/l	6.05	1,053.37	5.855E-04	Pulse	0.30	3
Sr			1	0.182	ug/l	2.66	978.03	5.438E-04	Pulse	0.50	3
[Pb]			1	0.012	ug/l	58.45	638.68	1.672E-04	Pulse	0.50	3
Ca			1	18.287	ug/l	22.05	546.68	2.131E-03	Pulse	0.50	3
Ti			1	0.172	ug/l	17.37	22.00	8.574E-05	Pulse	0.50	3
Na			1	36.237	ug/l	7.41	77,595.42	3.022E-01	Pulse	1.00	3
Mg			1	8.513	ug/l	6.36	5,244.36	2.043E-02	Pulse	1.00	3
K			1	6.793	ug/l	25.39	49,862.94	1.942E-01	Pulse	1.00	3
V			1	1.676	ug/l	6.05	7,208.03	2.808E-02	Pulse	0.50	3
Mn			1	-0.002	ug/l	-362.01	310.67	1.840E-03	Pulse	0.50	3
Fe			1	3.364	ug/l	3.86	20,689.69	1.225E-01	Pulse	0.50	3
Co			1	0.134	ug/l	1.70	1,100.71	6.519E-03	Pulse	0.50	3
Ni			1	1.172	ug/l	5.92	2,418.16	1.432E-02	Pulse	0.50	3
Cu			1	1.916	ug/l	2.07	12,706.21	7.525E-02	Pulse	0.50	3
Zn			1	0.251	ug/l	45.74	1,998.44	7.847E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	7.31	28.00	1.099E-04	Pulse	0.50	3
Al			1	0.999	ug/l	26.59	429.01	1.671E-03	Pulse	1.00	3
Se			1	0.003	ug/l	5349.36	47.33	1.858E-04	Pulse	3.00	3
Sb			1	0.144	ug/l	6.09	756.35	4.479E-03	Pulse	1.00	3
Se			1	0.532	ug/l	35.58	38.56	1.513E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,820,311.17	1.16	93.1	Pulse	0.50	3
1	Sc		256,782.47	1.21	101.1	Pulse	0.30	3
1	Ge		168,860.03	0.65	99.3	Pulse	0.30	3
1	In		1,798,827.15	1.01	96.3	Pulse	0.30	3
1	Tb		5,152,785.00	1.58	97.5	Pulse	0.50	3
1	Lu		4,190,345.75	1.88	94.7	Pulse	0.50	3
1	Ge		254,711.68	0.41	100.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,358.94	3.52	100.3	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:25
Sample Name FC5941-1F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.299	ug/l	1.40	10,583.57	4.230E-02	Pulse	0.50	3
As			1	0.258	ug/l	12.24	181.33	1.096E-03	Pulse	1.00	3
Mo			1	0.365	ug/l	8.46	1,054.70	4.238E-03	Pulse	0.50	3
Pb			1	0.024	ug/l	29.33	1,530.07	3.047E-04	Pulse	1.00	3
Be			1	-0.013	ug/l	-156.85	0.50	2.005E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	4.53	116.00	2.309E-05	Pulse	0.50	3
Ba			1	8.086	ug/l	1.29	12,122.08	6.977E-03	Pulse	0.50	3
Tl			1	0.006	ug/l	3.19	356.01	7.085E-05	Pulse	0.50	3
Sn			1	0.101	ug/l	8.05	463.34	2.666E-04	Pulse	0.30	3
Sr			1	183.455	ug/l	0.73	693,722.54	3.993E-01	Pulse	0.50	3
[Pb]			1	0.026	ug/l	12.89	710.02	1.964E-04	Pulse	0.50	3
Ca			1	21621.356	ug/l	0.50	414,705.81	1.658E+00	Pulse	0.50	3
Ti			1	0.234	ug/l	59.12	28.67	1.147E-04	Pulse	0.50	3
Na			1	49318.958	ug/l	0.80	32,544,324.67	1.301E+02	Analog	1.00	3
Mg			1	21481.729	ug/l	0.59	7,497,613.17	2.997E+01	Analog	1.00	3
K			1	2760.253	ug/l	1.09	1,049,743.31	4.196E+00	Pulse	1.00	3
V			1	17.295	ug/l	0.38	63,381.72	2.533E-01	Pulse	0.50	3
Mn			1	4.564	ug/l	3.39	13,570.11	8.210E-02	Pulse	0.50	3
Fe			1	7.598	ug/l	3.10	37,069.93	2.242E-01	Pulse	0.50	3
Co			1	0.028	ug/l	22.66	371.34	2.245E-03	Pulse	0.50	3
Ni			1	0.203	ug/l	13.64	696.68	4.216E-03	Pulse	0.50	3
Cu			1	0.949	ug/l	3.09	8,041.04	4.864E-02	Pulse	0.50	3
Zn			1	9.377	ug/l	2.71	10,196.37	4.098E-02	Pulse	1.00	3
Cd			1	0.019	ug/l	48.26	28.67	1.151E-04	Pulse	0.50	3
Al			1	2.448	ug/l	8.66	651.34	2.603E-03	Pulse	1.00	3
Se			1	0.256	ug/l	26.04	60.56	2.433E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	49.80	215.00	1.298E-03	Pulse	1.00	3
Se			1	1.765	ug/l	7.82	71.00	2.853E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,615,281.75	1.26	88.1	Pulse	0.50	3
1	Sc		250,178.17	0.84	98.5	Pulse	0.30	3
1	Ge		165,320.83	0.97	97.2	Pulse	0.30	3
1	In		1,737,300.07	1.35	93.0	Pulse	0.30	3
1	Tb		5,024,889.00	1.21	95.0	Pulse	0.50	3
1	Lu		4,101,856.08	1.53	92.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		248,846.83	0.38	98.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,318.94	5.13	97.4	Pulse	0.30	3

Quantitation Report

File Name	043CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:29
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.673	ug/l	3.21	496,989.94	1.828E+00	Pulse	0.50	3
As			1	51.189	ug/l	3.61	66,636.00	3.716E-01	Pulse	1.00	3
Mo			1	50.956	ug/l	2.97	287,907.89	1.079E+00	Pulse	0.50	3
Pb			1	49.751	ug/l	2.31	1,658,178.63	3.062E-01	Pulse	1.00	3
Be			1	52.495	ug/l	2.10	2,887.54	1.062E-02	Pulse	2.00	3
Ag			1	53.651	ug/l	2.42	954,140.71	1.762E-01	Pulse	0.50	3
Ba			1	51.040	ug/l	2.83	162,445.10	8.792E-02	Pulse	0.50	3
Tl			1	50.729	ug/l	2.47	2,363,102.42	4.364E-01	Pulse	0.50	3
Sn			1	51.327	ug/l	2.35	345,033.52	1.867E-01	Pulse	0.30	3
Sr			1	51.893	ug/l	3.24	417,485.76	2.260E-01	Pulse	0.50	3
[Pb]			1	51.830	ug/l	3.03	787,324.73	2.046E-01	Pulse	0.50	3
Ca			1	5072.710	ug/l	2.38	211,568.74	7.782E-01	Pulse	0.50	3
Ti			1	51.409	ug/l	4.22	13,100.40	4.819E-02	Pulse	0.50	3
Na			1	5260.378	ug/l	1.83	7,588,981.00	2.791E+01	Analog	1.00	3
Mg			1	4962.444	ug/l	1.92	3,765,741.50	1.385E+01	Pulse	1.00	3
K			1	5050.191	ug/l	2.31	4,041,153.58	1.486E+01	Pulse	1.00	3
V			1	51.493	ug/l	2.19	404,861.54	1.489E+00	Pulse	0.50	3
Mn			1	50.953	ug/l	2.98	321,650.37	1.793E+00	Pulse	0.50	3
Fe			1	5362.394	ug/l	3.42	46,206,922.67	2.576E+02	Analog	0.50	3
Co			1	52.593	ug/l	3.48	756,632.27	4.219E+00	Pulse	0.50	3
Ni			1	52.751	ug/l	3.63	197,774.80	1.103E+00	Pulse	0.50	3
Cu			1	52.644	ug/l	3.61	523,785.37	2.921E+00	Pulse	0.50	3
Zn			1	51.229	ug/l	2.70	101,064.48	3.789E-01	Pulse	1.00	3
Cd			1	50.626	ug/l	3.65	159,699.63	5.988E-01	Pulse	0.50	3
Al			1	4769.554	ug/l	2.51	1,667,772.54	6.135E+00	Pulse	1.00	3
Se			1	49.703	ug/l	4.02	6,072.85	2.277E-02	Pulse	3.00	3
Sb			1	49.643	ug/l	3.24	488,777.05	2.725E+00	Pulse	1.00	3
Se			1	50.921	ug/l	3.73	2,974.57	1.115E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,850,012.33	2.56	93.8	Pulse	0.50	3
1	Sc		271,925.76	1.60	107.1	Pulse	0.30	3
1	Ge		179,450.45	2.53	105.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,848,408.12	2.38	98.9	Pulse	0.30	3
1	Tb		5,417,697.00	2.72	102.5	Mix	0.50	3
1	Lu		4,300,098.33	2.81	97.1	Pulse	0.50	3
1	Ge		266,842.80	2.12	105.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,436.73	4.48	106.1	Pulse	0.30	3

Quantitation Report

File Name 044_CCV.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:33
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.576	ug/l	1.48	950,152.77	3.557E+00	Pulse	0.50	3
As			1	98.250	ug/l	0.56	127,886.11	7.130E-01	Pulse	1.00	3
Mo			1	98.743	ug/l	0.83	556,276.62	2.091E+00	Pulse	0.50	3
Pb			1	97.175	ug/l	0.74	3,134,247.58	5.978E-01	Pulse	1.00	3
Be			1	100.291	ug/l	1.53	5,419.73	2.029E-02	Pulse	2.00	3
Ag			1	104.555	ug/l	0.41	1,800,078.71	3.434E-01	Pulse	0.50	3
Ba			1	97.791	ug/l	0.72	311,429.88	1.684E-01	Pulse	0.50	3
Tl			1	98.787	ug/l	0.23	4,454,771.17	8.497E-01	Pulse	0.50	3
Sn			1	100.286	ug/l	0.98	674,420.81	3.648E-01	Pulse	0.30	3
Sr			1	101.660	ug/l	0.88	818,241.90	4.426E-01	Pulse	0.50	3
[Pb]			1	99.012	ug/l	0.60	1,484,573.46	3.907E-01	Pulse	0.50	3
Ca			1	9689.744	ug/l	0.74	396,915.05	1.486E+00	Pulse	0.50	3
Ti			1	102.039	ug/l	0.80	25,549.31	9.565E-02	Pulse	0.50	3
Na			1	10284.709	ug/l	0.34	14,525,616.33	5.438E+01	Analog	1.00	3
Mg			1	10109.469	ug/l	0.56	7,535,273.67	2.821E+01	Analog	1.00	3
K			1	10095.749	ug/l	0.20	7,888,740.50	2.953E+01	Analog	1.00	3
V			1	100.540	ug/l	0.98	775,718.00	2.904E+00	Pulse	0.50	3
Mn			1	97.882	ug/l	0.43	617,610.17	3.443E+00	Pulse	0.50	3
Fe			1	10336.839	ug/l	0.84	89,073,629.33	4.966E+02	Analog	0.50	3
Co			1	100.940	ug/l	0.87	1,452,121.75	8.096E+00	Pulse	0.50	3
Ni			1	100.202	ug/l	0.78	375,380.95	2.093E+00	Pulse	0.50	3
Cu			1	99.670	ug/l	0.88	988,191.37	5.509E+00	Pulse	0.50	3
Zn			1	98.031	ug/l	0.97	191,166.44	7.187E-01	Pulse	1.00	3
Cd			1	97.153	ug/l	0.64	305,650.07	1.149E+00	Pulse	0.50	3
Al			1	9296.789	ug/l	0.86	3,193,991.00	1.196E+01	Pulse	1.00	3
Se			1	95.655	ug/l	1.08	11,611.19	4.365E-02	Pulse	3.00	3
Sb			1	95.224	ug/l	0.47	937,538.46	5.227E+00	Pulse	1.00	3
Se			1	97.157	ug/l	0.63	5,637.17	2.119E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,799,451.58	0.15	92.6	Pulse	0.50	3
1	Sc		267,127.58	0.26	105.2	Pulse	0.30	3
1	Ge		179,365.56	0.60	105.5	Pulse	0.30	3
1	In		1,848,931.80	0.36	99.0	Pulse	0.30	3
1	Tb		5,242,645.83	0.10	99.2	Pulse	0.50	3
1	Lu		4,327,768.17	0.38	97.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		266,008.40	0.88	104.7	Pulse	0.30	3
1	Te		6.00	120.19	900.0	Pulse	0.50	3
1	Li		1,365.61	2.83	100.8	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:37
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.004	ug/l	-145.32	410.67	1.506E-03	Pulse	0.50	3
As			1	0.033	ug/l	69.69	71.67	3.984E-04	Pulse	1.00	3
Mo			1	0.145	ug/l	27.55	920.03	3.439E-03	Pulse	0.50	3
Pb			1	-0.001	ug/l	-1327.86	1,181.71	2.261E-04	Pulse	1.00	3
Be			1	0.062	ug/l	85.26	4.33	1.589E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	74.43	310.00	5.938E-05	Pulse	0.50	3
Ba			1	0.007	ug/l	162.22	48.67	2.597E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	53.03	1,260.06	2.412E-04	Pulse	0.50	3
Sn			1	0.184	ug/l	24.86	1,415.63	7.527E-04	Pulse	0.30	3
Sr			1	0.010	ug/l	90.48	360.67	1.920E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	-2120.83	554.68	1.422E-04	Pulse	0.50	3
Ca			1	-0.995	ug/l	-116.87	157.33	5.773E-04	Pulse	0.50	3
Ti			1	0.057	ug/l	82.39	16.00	5.873E-05	Pulse	0.50	3
Na			1	-21.267	ug/l	-7.10	25,844.34	9.479E-02	Pulse	1.00	3
Mg			1	-0.278	ug/l	-411.76	2,120.46	7.781E-03	Pulse	1.00	3
K			1	-0.226	ug/l	-595.95	50,081.12	1.837E-01	Pulse	1.00	3
V			1	0.034	ug/l	3.23	1,332.72	4.888E-03	Pulse	0.50	3
Mn			1	-0.016	ug/l	-57.47	234.00	1.299E-03	Pulse	0.50	3
Fe			1	1.969	ug/l	57.81	24,538.63	1.363E-01	Pulse	0.50	3
Co			1	0.011	ug/l	116.21	365.34	2.030E-03	Pulse	0.50	3
Ni			1	-0.026	ug/l	-30.91	281.33	1.560E-03	Pulse	0.50	3
Cu			1	-0.129	ug/l	-5.50	2,781.54	1.542E-02	Pulse	0.50	3
Zn			1	-0.851	ug/l	-1.76	201.33	7.529E-04	Pulse	1.00	3
Cd			1	0.027	ug/l	23.17	85.33	3.191E-04	Pulse	0.50	3
Al			1	0.995	ug/l	123.16	628.68	2.308E-03	Pulse	1.00	3
Se			1	0.106	ug/l	52.66	62.44	2.335E-04	Pulse	3.00	3
Sb			1	0.044	ug/l	14.58	525.68	2.917E-03	Pulse	1.00	3
Se			1	0.150	ug/l	35.74	33.78	1.263E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,901,955.00	0.47	95.1	Pulse	0.50	3
1	Sc		272,671.49	0.24	107.4	Pulse	0.30	3
1	Ge		180,355.91	1.00	106.1	Pulse	0.30	3
1	In		1,879,624.30	0.77	100.6	Pulse	0.30	3
1	Tb		5,231,757.00	0.55	99.0	Pulse	0.50	3
1	Lu		4,284,428.83	0.21	96.8	Pulse	0.50	3
1	Ge		267,444.30	0.15	105.3	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,521.18	3.95	112.3	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:40
Sample Name FC5941-3F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.474	ug/l	3.96	2,535.51	1.003E-02	Pulse	0.50	3
As			1	0.165	ug/l	5.31	126.33	7.578E-04	Pulse	1.00	3
Mo			1	0.131	ug/l	48.09	438.01	1.756E-03	Pulse	0.50	3
Pb			1	0.032	ug/l	13.05	1,671.42	3.310E-04	Pulse	1.00	3
Be			1	0.033	ug/l	150.27	1.67	6.612E-06	Pulse	2.00	3
Ag			1	0.009	ug/l	30.51	124.67	2.465E-05	Pulse	0.50	3
Ba			1	3.049	ug/l	4.97	4,651.95	2.640E-03	Pulse	0.50	3
Tl			1	0.023	ug/l	29.76	719.35	1.427E-04	Pulse	0.50	3
Sn			1	0.439	ug/l	15.50	1,553.41	8.806E-04	Pulse	0.30	3
Sr			1	5.944	ug/l	1.25	23,046.06	1.308E-02	Pulse	0.50	3
[Pb]			1	0.026	ug/l	39.63	732.02	1.953E-04	Pulse	0.50	3
Ca			1	294.439	ug/l	3.92	5,888.24	2.329E-02	Pulse	0.50	3
Ti			1	0.095	ug/l	83.03	12.67	4.994E-05	Pulse	0.50	3
Na			1	606.959	ug/l	0.85	456,386.37	1.805E+00	Pulse	1.00	3
Mg			1	260.197	ug/l	1.09	93,908.43	3.715E-01	Pulse	1.00	3
K			1	46.143	ug/l	3.69	63,555.60	2.514E-01	Pulse	1.00	3
V			1	1.501	ug/l	2.92	6,458.42	2.555E-02	Pulse	0.50	3
Mn			1	0.457	ug/l	6.49	1,650.08	9.895E-03	Pulse	0.50	3
Fe			1	147.316	ug/l	0.41	596,980.08	3.580E+00	Pulse	0.50	3
Co			1	0.110	ug/l	8.98	926.69	5.558E-03	Pulse	0.50	3
Ni			1	1.109	ug/l	6.54	2,278.81	1.366E-02	Pulse	0.50	3
Cu			1	1.938	ug/l	1.40	12,650.17	7.586E-02	Pulse	0.50	3
Zn			1	2.597	ug/l	4.44	4,076.11	1.636E-02	Pulse	1.00	3
Cd			1	0.018	ug/l	57.21	27.33	1.099E-04	Pulse	0.50	3
Al			1	1.202	ug/l	19.78	455.34	1.802E-03	Pulse	1.00	3
Se			1	0.013	ug/l	1084.97	46.89	1.881E-04	Pulse	3.00	3
Sb			1	0.162	ug/l	10.36	829.35	4.974E-03	Pulse	1.00	3
Se			1	0.560	ug/l	12.70	38.44	1.544E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,751,237.75	1.13	91.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		252,819.68	0.84	99.5	Pulse	0.30	3
1	Ge		166,748.48	0.65	98.1	Pulse	0.30	3
1	In		1,762,062.01	1.56	94.3	Pulse	0.30	3
1	Tb		5,050,689.67	1.38	95.5	Pulse	0.50	3
1	Lu		4,105,072.00	1.34	92.7	Pulse	0.50	3
1	Ge		249,084.08	0.54	98.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,485.62	7.75	109.7	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:44
Sample Name FC5919-1FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.433	ug/l	3.45	2,302.82	9.307E-03	Pulse	0.50	3
As			1	0.360	ug/l	8.31	240.00	1.466E-03	Pulse	1.00	3
Mo			1	0.053	ug/l	53.34	230.67	9.383E-04	Pulse	0.50	3
Pb			1	0.170	ug/l	5.43	3,770.42	7.540E-04	Pulse	1.00	3
Be			1	0.088	ug/l	61.24	3.00	1.215E-05	Pulse	2.00	3
Ag			1	0.011	ug/l	28.89	140.00	2.796E-05	Pulse	0.50	3
Ba			1	5.667	ug/l	1.89	8,534.04	4.894E-03	Pulse	0.50	3
Tl			1	0.014	ug/l	4.70	526.68	1.053E-04	Pulse	0.50	3
Sn			1	0.212	ug/l	11.48	815.58	4.676E-04	Pulse	0.30	3
Sr			1	34.980	ug/l	0.61	132,993.46	7.626E-02	Pulse	0.50	3
[Pb]			1	0.158	ug/l	1.39	1,718.09	4.554E-04	Pulse	0.50	3
Ca			1	3092.512	ug/l	0.20	58,821.59	2.377E-01	Pulse	0.50	3
Ti			1	0.299	ug/l	39.69	36.00	1.453E-04	Pulse	0.50	3
Na			1	1511.164	ug/l	1.10	1,035,853.38	4.187E+00	Pulse	1.00	3
Mg			1	313.976	ug/l	0.55	110,471.02	4.465E-01	Pulse	1.00	3
K			1	674.748	ug/l	0.89	288,266.47	1.165E+00	Pulse	1.00	3
V			1	1.382	ug/l	6.82	5,898.91	2.384E-02	Pulse	0.50	3
Mn			1	2.805	ug/l	1.25	8,376.49	5.118E-02	Pulse	0.50	3
Fe			1	7.090	ug/l	0.99	34,700.25	2.120E-01	Pulse	0.50	3
Co			1	0.044	ug/l	20.31	472.01	2.885E-03	Pulse	0.50	3
Ni			1	4.773	ug/l	1.02	8,493.23	5.189E-02	Pulse	0.50	3
Cu			1	2.041	ug/l	5.06	12,873.64	7.868E-02	Pulse	0.50	3
Zn			1	8.431	ug/l	2.77	9,237.55	3.754E-02	Pulse	1.00	3
Cd			1	0.028	ug/l	29.03	42.67	1.733E-04	Pulse	0.50	3
Al			1	7.544	ug/l	4.67	1,454.72	5.880E-03	Pulse	1.00	3
Se			1	0.067	ug/l	34.84	49.33	2.005E-04	Pulse	3.00	3
Sb			1	0.048	ug/l	31.29	303.00	1.850E-03	Pulse	1.00	3
Se			1	0.476	ug/l	46.64	35.78	1.453E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,772,802.00	0.94	91.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		247,437.78	0.78	97.4	Pulse	0.30	3
1	Ge		163,667.86	1.03	96.3	Pulse	0.30	3
1	In		1,743,973.33	0.73	93.4	Pulse	0.30	3
1	Tb		5,001,863.33	1.09	94.6	Pulse	0.50	3
1	Lu		4,076,329.67	0.93	92.1	Pulse	0.50	3
1	Ge		246,071.17	0.86	96.9	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,483.40	9.45	109.5	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:48
Sample Name FC5919-2FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.393	ug/l	2.97	2,113.46	8.609E-03	Pulse	0.50	3
As			1	0.541	ug/l	12.15	345.67	2.122E-03	Pulse	1.00	3
Mo			1	0.029	ug/l	41.81	166.67	6.866E-04	Pulse	0.50	3
Pb			1	0.018	ug/l	15.75	1,425.39	2.861E-04	Pulse	1.00	3
Be			1	0.001	ug/l	3692.33	0.83	3.396E-06	Pulse	2.00	3
Ag			1	0.007	ug/l	10.00	107.33	2.153E-05	Pulse	0.50	3
Ba			1	7.292	ug/l	3.50	10,936.65	6.294E-03	Pulse	0.50	3
Tl			1	0.005	ug/l	42.31	317.34	6.367E-05	Pulse	0.50	3
Sn			1	0.157	ug/l	24.38	641.13	3.683E-04	Pulse	0.30	3
Sr			1	25.546	ug/l	0.27	96,877.81	5.573E-02	Pulse	0.50	3
[Pb]			1	0.015	ug/l	24.46	653.35	1.744E-04	Pulse	0.50	3
Ca			1	4228.916	ug/l	0.96	79,742.69	3.248E-01	Pulse	0.50	3
Ti			1	0.365	ug/l	54.65	43.33	1.762E-04	Pulse	0.50	3
Na			1	1877.321	ug/l	0.27	1,264,570.42	5.151E+00	Pulse	1.00	3
Mg			1	430.422	ug/l	0.21	149,487.16	6.089E-01	Pulse	1.00	3
K			1	616.405	ug/l	0.74	265,207.85	1.080E+00	Pulse	1.00	3
V			1	1.667	ug/l	6.92	6,861.22	2.794E-02	Pulse	0.50	3
Mn			1	2.195	ug/l	1.84	6,590.47	4.046E-02	Pulse	0.50	3
Fe			1	7.690	ug/l	3.31	36,883.57	2.264E-01	Pulse	0.50	3
Co			1	0.025	ug/l	15.39	347.34	2.132E-03	Pulse	0.50	3
Ni			1	0.550	ug/l	5.09	1,276.05	7.835E-03	Pulse	0.50	3
Cu			1	0.862	ug/l	4.85	7,531.49	4.624E-02	Pulse	0.50	3
Zn			1	3.464	ug/l	3.85	4,732.59	1.951E-02	Pulse	1.00	3
Cd			1	0.025	ug/l	32.98	37.33	1.536E-04	Pulse	0.50	3
Al			1	18.557	ug/l	3.77	3,182.26	1.296E-02	Pulse	1.00	3
Se			1	0.092	ug/l	69.65	50.00	2.060E-04	Pulse	3.00	3
Sb			1	0.061	ug/l	13.55	358.34	2.198E-03	Pulse	1.00	3
Se			1	0.647	ug/l	23.72	39.78	1.638E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,746,445.17	1.08	91.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		245,509.25	0.43	96.7	Pulse	0.30	3
1	Ge		162,887.96	1.26	95.8	Pulse	0.30	3
1	In		1,738,240.14	1.46	93.0	Pulse	0.30	3
1	Tb		4,984,210.50	1.80	94.3	Pulse	0.50	3
1	Lu		4,060,299.25	1.74	91.7	Pulse	0.50	3
1	Ge		242,619.21	1.22	95.5	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,311.16	3.03	96.8	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 11:52
Sample Name FC5789-15FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.284	ug/l	10.20	1,606.07	6.671E-03	Pulse	0.50	3
As			1	0.692	ug/l	4.11	425.34	2.669E-03	Pulse	1.00	3
Mo			1	0.763	ug/l	4.71	2,015.45	8.450E-03	Pulse	0.50	3
Pb			1	0.070	ug/l	7.29	2,207.15	4.473E-04	Pulse	1.00	3
Be			1	0.009	ug/l	408.75	1.00	4.173E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	58.84	75.33	1.525E-05	Pulse	0.50	3
Ba			1	28.007	ug/l	0.62	40,818.50	2.413E-02	Pulse	0.50	3
Tl			1	0.001	ug/l	158.42	234.00	4.739E-05	Pulse	0.50	3
Sn			1	0.185	ug/l	38.15	708.94	4.186E-04	Pulse	0.30	3
Sr			1	113.853	ug/l	0.70	419,275.32	2.479E-01	Pulse	0.50	3
[Pb]			1	0.075	ug/l	10.53	1,045.37	2.924E-04	Pulse	0.50	3
Ca			1	20014.328	ug/l	0.61	369,303.00	1.535E+00	Pulse	0.50	3
Ti			1	0.219	ug/l	42.55	26.00	1.080E-04	Pulse	0.50	3
Na			1	23265.774	ug/l	1.11	14,795,007.67	6.148E+01	Analog	1.00	3
Mg			1	7003.475	ug/l	0.78	2,352,827.75	9.777E+00	Pulse	1.00	3
K			1	3025.426	ug/l	1.13	1,102,593.04	4.582E+00	Pulse	1.00	3
V			1	2.241	ug/l	6.87	8,716.63	3.623E-02	Pulse	0.50	3
Mn			1	33.667	ug/l	0.39	94,606.26	5.937E-01	Pulse	0.50	3
Fe			1	67.266	ug/l	0.46	264,091.31	1.657E+00	Pulse	0.50	3
Co			1	0.157	ug/l	4.46	1,183.37	7.427E-03	Pulse	0.50	3
Ni			1	1.494	ug/l	6.25	2,818.22	1.768E-02	Pulse	0.50	3
Cu			1	2.095	ug/l	2.22	12,774.24	8.017E-02	Pulse	0.50	3
Zn			1	-0.138	ug/l	-63.63	1,534.73	6.434E-03	Pulse	1.00	3
Cd			1	0.006	ug/l	46.37	10.00	4.200E-05	Pulse	0.50	3
Al			1	5.865	ug/l	5.18	1,155.03	4.800E-03	Pulse	1.00	3
Se			1	0.198	ug/l	48.05	54.89	2.300E-04	Pulse	3.00	3
Sb			1	0.146	ug/l	3.20	724.35	4.545E-03	Pulse	1.00	3
Se			1	0.875	ug/l	30.10	45.00	1.886E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,576,220.67	1.19	87.2	Pulse	0.50	3
1	Sc		240,666.98	0.73	94.8	Pulse	0.30	3
1	Ge		159,344.97	0.68	93.7	Pulse	0.30	3
1	In		1,691,490.52	0.94	90.5	Pulse	0.30	3
1	Tb		4,934,717.00	0.99	93.3	Pulse	0.50	3
1	Lu		4,023,926.75	0.83	90.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		238,510.74	0.67	93.9	Pulse	0.30	3
1	Te		2.67	86.60	400.0	Pulse	0.50	3
1	Li		1,264.49	4.51	93.4	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:55
Sample Name	FC5789-17FA
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.209	ug/l	15.73	1,308.72	5.344E-03	Pulse	0.50	3
As			1	0.156	ug/l	7.42	117.00	7.246E-04	Pulse	1.00	3
Mo			1	-0.005	ug/l	-199.21	79.33	3.267E-04	Pulse	0.50	3
Pb			1	0.024	ug/l	25.74	1,514.40	3.056E-04	Pulse	1.00	3
Be			1	0.015	ug/l	158.88	1.17	4.770E-06	Pulse	2.00	3
Ag			1	0.007	ug/l	29.96	108.67	2.192E-05	Pulse	0.50	3
Ba			1	0.076	ug/l	17.15	136.00	7.945E-05	Pulse	0.50	3
Tl			1	-0.002	ug/l	-81.79	171.33	3.456E-05	Pulse	0.50	3
Sn			1	0.158	ug/l	8.41	634.46	3.701E-04	Pulse	0.30	3
Sr			1	0.126	ug/l	25.33	722.68	4.221E-04	Pulse	0.50	3
[Pb]			1	0.032	ug/l	41.88	766.69	2.067E-04	Pulse	0.50	3
Ca			1	31.371	ug/l	7.86	766.69	3.134E-03	Pulse	0.50	3
Ti			1	0.158	ug/l	33.08	19.33	7.915E-05	Pulse	0.50	3
Na			1	-10.464	ug/l	-8.90	43,862.71	1.792E-01	Pulse	1.00	3
Mg			1	2.893	ug/l	15.05	3,080.58	1.259E-02	Pulse	1.00	3
K			1	12.499	ug/l	14.85	49,551.44	2.025E-01	Pulse	1.00	3
V			1	1.400	ug/l	2.85	5,898.91	2.410E-02	Pulse	0.50	3
Mn			1	0.145	ug/l	14.35	712.68	4.414E-03	Pulse	0.50	3
Fe			1	10.272	ug/l	0.91	46,577.57	2.884E-01	Pulse	0.50	3
Co			1	0.019	ug/l	4.78	308.00	1.907E-03	Pulse	0.50	3
Ni			1	0.100	ug/l	10.33	506.01	3.134E-03	Pulse	0.50	3
Cu			1	1.050	ug/l	4.32	8,301.14	5.140E-02	Pulse	0.50	3
Zn			1	-0.277	ug/l	-29.43	1,436.72	5.929E-03	Pulse	1.00	3
Cd			1	0.006	ug/l	41.15	10.00	4.139E-05	Pulse	0.50	3
Al			1	0.490	ug/l	28.82	329.00	1.344E-03	Pulse	1.00	3
Se			1	0.017	ug/l	356.02	45.78	1.890E-04	Pulse	3.00	3
Sb			1	0.014	ug/l	46.43	145.00	8.978E-04	Pulse	1.00	3
Se			1	0.389	ug/l	44.57	32.89	1.359E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,706,805.58	1.05	90.3	Pulse	0.50	3
1	Sc		244,723.18	0.97	96.4	Pulse	0.30	3
1	Ge		161,480.81	0.51	95.0	Pulse	0.30	3
1	In		1,713,505.87	1.02	91.7	Pulse	0.30	3
1	Tb		4,957,668.00	2.32	93.8	Pulse	0.50	3
1	Lu		4,030,618.17	1.29	91.1	Pulse	0.50	3
1	Ge		242,271.65	1.25	95.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,308.94	4.73	96.6	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 11:59
Sample Name	FC5789-18FA
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.235	ug/l	6.84	1,414.72	5.811E-03	Pulse	0.50	3
As			1	0.671	ug/l	10.41	419.01	2.594E-03	Pulse	1.00	3
Mo			1	0.713	ug/l	2.43	1,906.10	7.922E-03	Pulse	0.50	3
Pb			1	0.093	ug/l	7.78	2,552.53	5.166E-04	Pulse	1.00	3
Be			1	0.089	ug/l	117.81	3.00	1.231E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	21.99	108.00	2.186E-05	Pulse	0.50	3
Ba			1	27.863	ug/l	1.36	40,690.18	2.401E-02	Pulse	0.50	3
Tl			1	-0.001	ug/l	-47.36	199.33	4.034E-05	Pulse	0.50	3
Sn			1	0.191	ug/l	22.90	728.91	4.297E-04	Pulse	0.30	3
Sr			1	107.085	ug/l	0.30	395,128.64	2.332E-01	Pulse	0.50	3
[Pb]			1	0.097	ug/l	3.64	1,206.72	3.357E-04	Pulse	0.50	3
Ca			1	18668.328	ug/l	0.79	348,534.40	1.431E+00	Pulse	0.50	3
Ti			1	0.439	ug/l	24.42	51.33	2.108E-04	Pulse	0.50	3
Na			1	22516.244	ug/l	0.63	14,489,000.00	5.950E+01	Analog	1.00	3
Mg			1	6631.234	ug/l	0.85	2,254,123.08	9.257E+00	Pulse	1.00	3
K			1	2895.344	ug/l	1.02	1,069,558.75	4.393E+00	Pulse	1.00	3
V			1	1.976	ug/l	3.03	7,888.95	3.240E-02	Pulse	0.50	3
Mn			1	39.349	ug/l	0.96	112,023.25	6.936E-01	Pulse	0.50	3
Fe			1	80.259	ug/l	0.99	318,089.36	1.969E+00	Pulse	0.50	3
Co			1	0.270	ug/l	8.49	1,931.44	1.196E-02	Pulse	0.50	3
Ni			1	1.500	ug/l	5.17	2,864.89	1.774E-02	Pulse	0.50	3
Cu			1	1.526	ug/l	1.71	10,419.51	6.451E-02	Pulse	0.50	3
Zn			1	-0.037	ug/l	-68.49	1,636.07	6.800E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	28.94	20.00	8.327E-05	Pulse	0.50	3
Al			1	8.210	ug/l	8.06	1,535.73	6.308E-03	Pulse	1.00	3
Se			1	0.200	ug/l	64.22	55.44	2.306E-04	Pulse	3.00	3
Sb			1	0.133	ug/l	5.03	674.01	4.173E-03	Pulse	1.00	3
Se			1	0.856	ug/l	22.24	44.89	1.865E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,594,907.25	1.06	87.6	Pulse	0.50	3
1	Sc		243,499.56	0.46	95.9	Pulse	0.30	3
1	Ge		161,511.98	0.08	95.0	Pulse	0.30	3
1	In		1,694,706.67	0.91	90.7	Pulse	0.30	3
1	Tb		4,941,424.50	1.17	93.5	Pulse	0.50	3
1	Lu		4,010,116.58	1.57	90.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		240,570.31	1.00	94.7	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,365.61	9.56	100.8	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:03
Sample Name FC5789-19FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.262	ug/l	10.92	1,542.73	6.285E-03	Pulse	0.50	3
As			1	1.115	ug/l	4.21	682.68	4.203E-03	Pulse	1.00	3
Mo			1	1.432	ug/l	3.00	3,760.39	1.554E-02	Pulse	0.50	3
Pb			1	0.051	ug/l	7.45	1,923.45	3.879E-04	Pulse	1.00	3
Be			1	0.035	ug/l	32.99	1.67	6.786E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	132.77	64.67	1.302E-05	Pulse	0.50	3
Ba			1	20.413	ug/l	0.23	30,108.96	1.759E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	23.80	352.01	7.092E-05	Pulse	0.50	3
Sn			1	0.091	ug/l	4.03	424.45	2.481E-04	Pulse	0.30	3
Sr			1	66.650	ug/l	0.62	248,437.66	1.452E-01	Pulse	0.50	3
[Pb]			1	0.056	ug/l	12.15	922.03	2.539E-04	Pulse	0.50	3
Ca			1	12029.777	ug/l	0.17	226,524.31	9.226E-01	Pulse	0.50	3
Ti			1	0.278	ug/l	15.21	33.33	1.357E-04	Pulse	0.50	3
Na			1	13179.287	ug/l	0.48	8,572,178.33	3.492E+01	Analog	1.00	3
Mg			1	4206.947	ug/l	0.11	1,442,712.46	5.876E+00	Pulse	1.00	3
K			1	2589.635	ug/l	0.54	969,356.27	3.948E+00	Pulse	1.00	3
V			1	2.104	ug/l	3.21	8,407.83	3.425E-02	Pulse	0.50	3
Mn			1	59.446	ug/l	0.29	170,032.73	1.047E+00	Pulse	0.50	3
Fe			1	135.384	ug/l	0.85	534,908.71	3.293E+00	Pulse	0.50	3
Co			1	0.465	ug/l	1.41	3,213.61	1.979E-02	Pulse	0.50	3
Ni			1	1.798	ug/l	1.97	3,386.98	2.085E-02	Pulse	0.50	3
Cu			1	1.751	ug/l	5.44	11,481.45	7.070E-02	Pulse	0.50	3
Zn			1	-0.095	ug/l	-96.83	1,595.07	6.590E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	98.45	12.00	4.951E-05	Pulse	0.50	3
Al			1	4.570	ug/l	3.88	974.03	3.968E-03	Pulse	1.00	3
Se			1	0.388	ug/l	24.51	66.11	2.732E-04	Pulse	3.00	3
Sb			1	0.151	ug/l	4.76	756.35	4.656E-03	Pulse	1.00	3
Se			1	0.770	ug/l	15.87	42.89	1.772E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,632,700.92	1.31	88.5	Pulse	0.50	3
1	Sc		245,519.72	0.59	96.7	Pulse	0.30	3
1	Ge		162,415.12	0.55	95.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,711,426.50	1.56	91.6	Pulse	0.30	3
1	Tb		4,959,457.17	1.44	93.8	Pulse	0.50	3
1	Lu		4,026,428.25	1.72	91.0	Pulse	0.50	3
1	Ge		242,059.85	0.48	95.3	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,310.05	4.58	96.7	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:07
Sample Name FC5789-20FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.287	ug/l	2.68	1,644.74	6.727E-03	Pulse	0.50	3
As			1	1.123	ug/l	1.60	687.01	4.234E-03	Pulse	1.00	3
Mo			1	1.523	ug/l	2.16	3,997.78	1.650E-02	Pulse	0.50	3
Pb			1	0.149	ug/l	4.65	3,404.68	6.894E-04	Pulse	1.00	3
Be			1	0.082	ug/l	99.55	2.83	1.161E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	28.76	90.00	1.820E-05	Pulse	0.50	3
Ba			1	21.161	ug/l	0.12	31,074.61	1.824E-02	Pulse	0.50	3
Tl			1	0.009	ug/l	23.28	400.68	8.106E-05	Pulse	0.50	3
Sn			1	0.119	ug/l	9.06	508.90	2.987E-04	Pulse	0.30	3
Sr			1	68.036	ug/l	0.36	252,502.92	1.482E-01	Pulse	0.50	3
[Pb]			1	0.157	ug/l	6.79	1,648.75	4.542E-04	Pulse	0.50	3
Ca			1	12265.041	ug/l	0.90	229,968.99	9.407E-01	Pulse	0.50	3
Ti			1	0.309	ug/l	26.08	36.67	1.500E-04	Pulse	0.50	3
Na			1	13623.472	ug/l	0.73	8,821,839.00	3.608E+01	Analog	1.00	3
Mg			1	4338.403	ug/l	0.82	1,481,398.25	6.060E+00	Pulse	1.00	3
K			1	2688.591	ug/l	0.62	1,000,415.52	4.092E+00	Pulse	1.00	3
V			1	2.191	ug/l	2.54	8,678.62	3.550E-02	Pulse	0.50	3
Mn			1	68.688	ug/l	0.87	196,221.40	1.209E+00	Pulse	0.50	3
Fe			1	156.262	ug/l	1.33	615,748.73	3.795E+00	Pulse	0.50	3
Co			1	0.542	ug/l	2.70	3,709.71	2.287E-02	Pulse	0.50	3
Ni			1	1.850	ug/l	1.52	3,470.99	2.139E-02	Pulse	0.50	3
Cu			1	1.661	ug/l	3.56	11,067.86	6.821E-02	Pulse	0.50	3
Zn			1	0.239	ug/l	38.40	1,891.77	7.803E-03	Pulse	1.00	3
Cd			1	0.004	ug/l	112.67	6.67	2.740E-05	Pulse	0.50	3
Al			1	4.755	ug/l	6.74	999.03	4.086E-03	Pulse	1.00	3
Se			1	0.357	ug/l	23.21	64.56	2.663E-04	Pulse	3.00	3
Sb			1	0.164	ug/l	1.54	816.69	5.033E-03	Pulse	1.00	3
Se			1	0.940	ug/l	16.58	47.44	1.956E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,629,736.33	0.57	88.5	Pulse	0.50	3
1	Sc		244,480.13	0.43	96.3	Pulse	0.30	3
1	Ge		162,262.80	1.25	95.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,703,951.42	1.31	91.2	Pulse	0.30	3
1	Tb		4,940,077.17	1.63	93.4	Pulse	0.50	3
1	Lu		4,041,529.25	1.46	91.3	Pulse	0.50	3
1	Ge		242,371.45	0.96	95.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,476.73	5.55	109.0	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:10
Sample Name FC5789-21FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.397	ug/l	11.00	2,133.46	8.678E-03	Pulse	0.50	3
As			1	0.541	ug/l	2.50	343.00	2.120E-03	Pulse	1.00	3
Mo			1	0.289	ug/l	7.66	834.02	3.434E-03	Pulse	0.50	3
Pb			1	0.112	ug/l	4.65	2,853.58	5.755E-04	Pulse	1.00	3
Be			1	0.028	ug/l	125.10	1.50	6.114E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	25.70	98.00	1.979E-05	Pulse	0.50	3
Ba			1	27.647	ug/l	0.98	40,958.80	2.382E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	36.64	261.33	5.274E-05	Pulse	0.50	3
Sn			1	0.122	ug/l	16.67	524.46	3.047E-04	Pulse	0.30	3
Sr			1	43.715	ug/l	0.72	163,805.01	9.527E-02	Pulse	0.50	3
[Pb]			1	0.109	ug/l	11.46	1,318.72	3.593E-04	Pulse	0.50	3
Ca			1	8040.698	ug/l	1.71	151,616.74	6.169E-01	Pulse	0.50	3
Ti			1	0.348	ug/l	37.50	41.33	1.683E-04	Pulse	0.50	3
Na			1	8099.728	ug/l	1.17	5,293,390.17	2.154E+01	Analog	1.00	3
Mg			1	2846.719	ug/l	0.98	977,941.60	3.979E+00	Pulse	1.00	3
K			1	2201.191	ug/l	1.42	831,593.52	3.384E+00	Pulse	1.00	3
V			1	1.909	ug/l	1.49	7,729.56	3.145E-02	Pulse	0.50	3
Mn			1	90.787	ug/l	0.30	258,572.06	1.598E+00	Pulse	0.50	3
Fe			1	240.920	ug/l	0.37	943,175.50	5.828E+00	Pulse	0.50	3
Co			1	0.579	ug/l	4.29	3,939.08	2.435E-02	Pulse	0.50	3
Ni			1	1.831	ug/l	2.49	3,429.66	2.120E-02	Pulse	0.50	3
Cu			1	4.822	ug/l	1.17	25,121.65	1.552E-01	Pulse	0.50	3
Zn			1	6.846	ug/l	0.89	7,719.55	3.179E-02	Pulse	1.00	3
Cd			1	0.011	ug/l	6.89	17.33	7.136E-05	Pulse	0.50	3
Al			1	11.192	ug/l	1.98	2,021.44	8.225E-03	Pulse	1.00	3
Se			1	0.103	ug/l	119.84	50.67	2.086E-04	Pulse	3.00	3
Sb			1	0.149	ug/l	4.29	746.35	4.611E-03	Pulse	1.00	3
Se			1	0.651	ug/l	20.73	39.89	1.643E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,669,445.92	0.47	89.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		245,797.46	1.35	96.8	Pulse	0.30	3
1	Ge		161,830.36	1.32	95.2	Pulse	0.30	3
1	In		1,719,534.79	1.43	92.0	Pulse	0.30	3
1	Tb		4,957,313.50	1.12	93.8	Pulse	0.50	3
1	Lu		4,042,339.42	1.07	91.3	Pulse	0.50	3
1	Ge		242,856.49	0.32	95.6	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,414.51	12.25	104.4	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:14
Sample Name FC5789-22FA
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.439	ug/l	4.83	2,293.48	9.427E-03	Pulse	0.50	3
As			1	0.524	ug/l	5.53	333.33	2.059E-03	Pulse	1.00	3
Mo			1	0.322	ug/l	2.05	910.69	3.783E-03	Pulse	0.50	3
Pb			1	0.099	ug/l	4.91	2,649.54	5.359E-04	Pulse	1.00	3
Be			1	0.015	ug/l	75.40	1.17	4.790E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	102.54	76.67	1.556E-05	Pulse	0.50	3
Ba			1	28.013	ug/l	1.39	40,924.07	2.414E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	47.09	262.00	5.298E-05	Pulse	0.50	3
Sn			1	0.310	ug/l	5.37	1,095.60	6.460E-04	Pulse	0.30	3
Sr			1	44.526	ug/l	0.35	164,503.54	9.703E-02	Pulse	0.50	3
[Pb]			1	0.097	ug/l	9.20	1,224.72	3.360E-04	Pulse	0.50	3
Ca			1	8107.188	ug/l	0.36	151,303.54	6.220E-01	Pulse	0.50	3
Ti			1	0.281	ug/l	40.36	33.33	1.372E-04	Pulse	0.50	3
Na			1	8433.153	ug/l	0.37	5,452,280.33	2.242E+01	Analog	1.00	3
Mg			1	2911.263	ug/l	0.37	989,719.21	4.069E+00	Pulse	1.00	3
K			1	2215.928	ug/l	0.75	828,209.19	3.405E+00	Pulse	1.00	3
V			1	1.996	ug/l	1.86	7,952.30	3.269E-02	Pulse	0.50	3
Mn			1	72.602	ug/l	0.60	206,994.19	1.278E+00	Pulse	0.50	3
Fe			1	188.059	ug/l	0.48	738,276.65	4.559E+00	Pulse	0.50	3
Co			1	0.632	ug/l	2.89	4,291.15	2.649E-02	Pulse	0.50	3
Ni			1	1.748	ug/l	1.00	3,292.96	2.033E-02	Pulse	0.50	3
Cu			1	7.251	ug/l	0.99	35,964.03	2.221E-01	Pulse	0.50	3
Zn			1	21.689	ug/l	1.67	20,624.35	8.567E-02	Pulse	1.00	3
Cd			1	0.044	ug/l	23.46	64.00	2.660E-04	Pulse	0.50	3
Al			1	10.752	ug/l	2.54	1,931.76	7.942E-03	Pulse	1.00	3
Se			1	0.151	ug/l	148.13	52.78	2.195E-04	Pulse	3.00	3
Sb			1	0.140	ug/l	0.47	706.68	4.364E-03	Pulse	1.00	3
Se			1	0.451	ug/l	5.44	34.33	1.426E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,646,201.92	1.21	88.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,238.74	0.98	95.8	Pulse	0.30	3
1	Ge		161,945.67	1.15	95.2	Pulse	0.30	3
1	In		1,695,333.75	1.25	90.7	Pulse	0.30	3
1	Tb		4,942,768.50	1.84	93.5	Pulse	0.50	3
1	Lu		4,019,250.75	1.53	90.8	Pulse	0.50	3
1	Ge		240,735.03	0.88	94.8	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,355.61	5.34	100.1	Pulse	0.30	3

Quantitation Report

File Name	056CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:18
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.869	ug/l	1.26	484,807.07	1.800E+00	Pulse	0.50	3
As			1	51.022	ug/l	0.99	65,126.49	3.703E-01	Pulse	1.00	3
Mo			1	50.410	ug/l	0.32	282,841.53	1.068E+00	Pulse	0.50	3
Pb			1	50.627	ug/l	0.54	1,625,763.92	3.116E-01	Pulse	1.00	3
Be			1	52.173	ug/l	1.24	2,843.37	1.056E-02	Pulse	2.00	3
Ag			1	54.345	ug/l	0.26	931,244.62	1.785E-01	Pulse	0.50	3
Ba			1	50.130	ug/l	0.87	158,349.26	8.635E-02	Pulse	0.50	3
Tl			1	51.522	ug/l	0.35	2,312,498.75	4.432E-01	Pulse	0.50	3
Sn			1	50.421	ug/l	0.98	336,383.27	1.834E-01	Pulse	0.30	3
Sr			1	50.713	ug/l	0.77	404,965.22	2.208E-01	Pulse	0.50	3
[Pb]			1	51.065	ug/l	1.25	770,716.88	2.016E-01	Pulse	0.50	3
Ca			1	4981.221	ug/l	1.27	205,844.72	7.642E-01	Pulse	0.50	3
Ti			1	49.974	ug/l	1.20	12,618.11	4.685E-02	Pulse	0.50	3
Na			1	5239.569	ug/l	0.60	7,489,349.67	2.780E+01	Analog	1.00	3
Mg			1	4944.799	ug/l	0.90	3,717,710.50	1.380E+01	Pulse	1.00	3
K			1	4973.400	ug/l	0.55	3,943,870.08	1.464E+01	Pulse	1.00	3
V			1	50.726	ug/l	1.26	395,173.34	1.467E+00	Pulse	0.50	3
Mn			1	50.531	ug/l	0.12	312,774.38	1.778E+00	Pulse	0.50	3
Fe			1	5388.117	ug/l	0.71	45,525,020.00	2.589E+02	Analog	0.50	3
Co			1	52.418	ug/l	0.33	739,466.94	4.205E+00	Pulse	0.50	3
Ni			1	52.665	ug/l	0.33	193,628.13	1.101E+00	Pulse	0.50	3
Cu			1	52.596	ug/l	0.30	513,161.11	2.918E+00	Pulse	0.50	3
Zn			1	50.816	ug/l	1.15	99,557.35	3.759E-01	Pulse	1.00	3
Cd			1	49.889	ug/l	1.11	156,296.49	5.901E-01	Pulse	0.50	3
Al			1	4715.008	ug/l	1.43	1,633,572.50	6.065E+00	Pulse	1.00	3
Se			1	49.007	ug/l	1.50	5,947.48	2.245E-02	Pulse	3.00	3
Sb			1	49.469	ug/l	0.53	477,589.25	2.716E+00	Pulse	1.00	3
Se			1	49.547	ug/l	0.77	2,874.55	1.085E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,823,171.25	0.37	93.2	Pulse	0.50	3
1	Sc		269,363.22	0.25	106.1	Pulse	0.30	3
1	Ge		175,866.93	1.22	103.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,833,738.40	0.21	98.2	Pulse	0.30	3
1	Tb		5,217,870.17	0.76	98.7	Pulse	0.50	3
1	Lu		4,256,633.17	0.48	96.2	Pulse	0.50	3
1	Ge		264,878.83	0.62	104.3	Pulse	0.30	3
1	Te		4.00	50.00	600.0	Pulse	0.50	3
1	Li		1,525.62	3.97	112.6	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:22
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.027	ug/l	1.38	932,095.65	3.538E+00	Pulse	0.50	3
As			1	98.179	ug/l	0.77	124,934.82	7.125E-01	Pulse	1.00	3
Mo			1	99.075	ug/l	0.53	546,356.58	2.098E+00	Pulse	0.50	3
Pb			1	96.872	ug/l	1.06	3,058,321.42	5.960E-01	Pulse	1.00	3
Be			1	102.691	ug/l	0.35	5,473.91	2.077E-02	Pulse	2.00	3
Ag			1	104.094	ug/l	0.28	1,754,183.17	3.418E-01	Pulse	0.50	3
Ba			1	97.979	ug/l	0.50	302,322.08	1.688E-01	Pulse	0.50	3
Tl			1	98.849	ug/l	0.59	4,363,172.83	8.503E-01	Pulse	0.50	3
Sn			1	100.652	ug/l	0.57	655,832.22	3.661E-01	Pulse	0.30	3
Sr			1	102.153	ug/l	0.13	796,617.54	4.447E-01	Pulse	0.50	3
[Pb]			1	98.929	ug/l	0.76	1,450,051.71	3.904E-01	Pulse	0.50	3
Ca			1	9648.589	ug/l	1.03	389,851.87	1.480E+00	Pulse	0.50	3
Ti			1	101.344	ug/l	1.40	25,029.32	9.499E-02	Pulse	0.50	3
Na			1	10353.935	ug/l	0.82	14,424,030.67	5.474E+01	Analog	1.00	3
Mg			1	10160.753	ug/l	1.30	7,470,317.67	2.835E+01	Analog	1.00	3
K			1	10072.678	ug/l	0.59	7,763,780.50	2.946E+01	Analog	1.00	3
V			1	100.073	ug/l	1.09	761,606.59	2.890E+00	Pulse	0.50	3
Mn			1	98.188	ug/l	0.73	605,685.09	3.454E+00	Pulse	0.50	3
Fe			1	10434.462	ug/l	0.15	87,903,336.00	5.013E+02	Analog	0.50	3
Co			1	100.995	ug/l	0.22	1,420,432.54	8.100E+00	Pulse	0.50	3
Ni			1	100.308	ug/l	0.64	367,374.40	2.095E+00	Pulse	0.50	3
Cu			1	99.438	ug/l	0.82	963,832.37	5.497E+00	Pulse	0.50	3
Zn			1	97.750	ug/l	1.08	186,596.10	7.166E-01	Pulse	1.00	3
Cd			1	96.600	ug/l	1.09	297,488.16	1.143E+00	Pulse	0.50	3
Al			1	9230.607	ug/l	1.22	3,128,081.00	1.187E+01	Pulse	1.00	3
Se			1	95.839	ug/l	0.43	11,387.38	4.373E-02	Pulse	3.00	3
Sb			1	94.835	ug/l	0.59	912,844.85	5.206E+00	Pulse	1.00	3
Se			1	95.573	ug/l	2.10	5,428.10	2.085E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,714,155.67	0.49	90.5	Pulse	0.50	3
1	Sc		263,500.81	0.64	103.8	Pulse	0.30	3
1	Ge		175,354.11	0.56	103.1	Pulse	0.30	3
1	In		1,791,361.32	0.56	95.9	Pulse	0.30	3
1	Tb		5,131,620.67	0.50	97.1	Pulse	0.50	3
1	Lu		4,202,240.83	0.28	94.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		260,377.46	0.17	102.5	Pulse	0.30	3
1	Te		10.00	72.11	1500.0	Pulse	0.50	3
1	Li		1,365.61	6.20	100.8	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:26
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	153.47	470.68	1.781E-03	Pulse	0.50	3
As			1	0.033	ug/l	26.46	69.00	3.987E-04	Pulse	1.00	3
Mo			1	0.136	ug/l	21.83	844.69	3.264E-03	Pulse	0.50	3
Pb			1	0.007	ug/l	77.44	1,384.39	2.723E-04	Pulse	1.00	3
Be			1	0.040	ug/l	61.70	3.00	1.134E-05	Pulse	2.00	3
Ag			1	0.025	ug/l	25.67	478.68	9.417E-05	Pulse	0.50	3
Ba			1	0.018	ug/l	32.99	82.67	4.531E-05	Pulse	0.50	3
Tl			1	0.031	ug/l	17.92	1,566.75	3.082E-04	Pulse	0.50	3
Sn			1	0.199	ug/l	27.12	1,476.74	8.071E-04	Pulse	0.30	3
Sr			1	0.015	ug/l	1.55	384.68	2.105E-04	Pulse	0.50	3
[Pb]			1	0.006	ug/l	117.04	642.01	1.694E-04	Pulse	0.50	3
Ca			1	-0.533	ug/l	-106.96	171.33	6.481E-04	Pulse	0.50	3
Ti			1	0.054	ug/l	52.82	14.67	5.550E-05	Pulse	0.50	3
Na			1	-22.526	ug/l	-3.81	23,300.18	8.816E-02	Pulse	1.00	3
Mg			1	0.441	ug/l	120.08	2,585.84	9.786E-03	Pulse	1.00	3
K			1	0.453	ug/l	60.80	49,069.89	1.856E-01	Pulse	1.00	3
V			1	0.015	ug/l	63.38	1,148.70	4.347E-03	Pulse	0.50	3
Mn			1	-0.011	ug/l	-73.37	257.33	1.487E-03	Pulse	0.50	3
Fe			1	2.854	ug/l	13.77	30,949.47	1.788E-01	Pulse	0.50	3
Co			1	0.022	ug/l	21.09	496.01	2.866E-03	Pulse	0.50	3
Ni			1	-0.034	ug/l	-24.67	238.00	1.375E-03	Pulse	0.50	3
Cu			1	-0.111	ug/l	-8.84	2,836.89	1.639E-02	Pulse	0.50	3
Zn			1	-0.843	ug/l	-2.43	211.00	8.162E-04	Pulse	1.00	3
Cd			1	0.030	ug/l	25.54	92.67	3.578E-04	Pulse	0.50	3
Al			1	1.740	ug/l	29.72	863.02	3.266E-03	Pulse	1.00	3
Se			1	0.077	ug/l	86.32	56.89	2.200E-04	Pulse	3.00	3
Sb			1	0.054	ug/l	3.69	600.68	3.471E-03	Pulse	1.00	3
Se			1	0.190	ug/l	35.53	34.89	1.348E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,792,628.25	0.83	92.4	Pulse	0.50	3
1	Sc		264,319.48	0.37	104.1	Pulse	0.30	3
1	Ge		173,052.89	0.30	101.8	Pulse	0.30	3
1	In		1,827,077.29	0.96	97.8	Pulse	0.30	3
1	Tb		5,085,680.17	0.47	96.2	Pulse	0.50	3
1	Lu		4,150,158.42	1.08	93.8	Pulse	0.50	3
1	Ge		258,721.81	0.68	101.9	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,561.18	6.30	115.3	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:30
Sample Name FC5943-1F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.090	ug/l	5.15	784.69	3.245E-03	Pulse	0.50	3
As			1	0.169	ug/l	24.62	123.67	7.723E-04	Pulse	1.00	3
Mo			1	0.106	ug/l	29.68	355.34	1.493E-03	Pulse	0.50	3
Pb			1	0.028	ug/l	22.76	1,558.07	3.189E-04	Pulse	1.00	3
Be			1	0.417	ug/l	14.89	11.00	4.550E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	39.51	131.33	2.694E-05	Pulse	0.50	3
Ba			1	26.478	ug/l	0.75	38,633.07	2.282E-02	Pulse	0.50	3
Tl			1	0.042	ug/l	16.33	1,101.37	2.256E-04	Pulse	0.50	3
Sn			1	0.477	ug/l	16.06	1,610.09	9.496E-04	Pulse	0.30	3
Sr			1	5.560	ug/l	0.60	20,736.05	1.225E-02	Pulse	0.50	3
[Pb]			1	0.027	ug/l	17.57	732.02	1.977E-04	Pulse	0.50	3
Ca			1	371.667	ug/l	1.96	7,063.29	2.921E-02	Pulse	0.50	3
Ti			1	0.200	ug/l	22.65	24.00	9.919E-05	Pulse	0.50	3
Na			1	3995.664	ug/l	0.56	2,594,365.42	1.073E+01	Pulse	1.00	3
Mg			1	220.851	ug/l	0.32	76,550.25	3.166E-01	Pulse	1.00	3
K			1	1150.191	ug/l	0.67	448,793.92	1.856E+00	Pulse	1.00	3
V			1	1.211	ug/l	10.21	5,168.70	2.137E-02	Pulse	0.50	3
Mn			1	6.838	ug/l	0.18	19,523.13	1.221E-01	Pulse	0.50	3
Fe			1	2.863	ug/l	3.15	17,669.39	1.105E-01	Pulse	0.50	3
Co			1	1.725	ug/l	2.31	11,241.94	7.029E-02	Pulse	0.50	3
Ni			1	2.749	ug/l	2.07	4,921.31	3.077E-02	Pulse	0.50	3
Cu			1	2.357	ug/l	0.82	13,973.75	8.738E-02	Pulse	0.50	3
Zn			1	6.429	ug/l	0.84	7,197.02	3.027E-02	Pulse	1.00	3
Cd			1	0.032	ug/l	27.65	46.67	1.965E-04	Pulse	0.50	3
Al			1	13.597	ug/l	4.18	2,362.48	9.772E-03	Pulse	1.00	3
Se			1	0.053	ug/l	165.63	46.89	1.972E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	20.94	274.67	1.717E-03	Pulse	1.00	3
Se			1	0.661	ug/l	30.57	39.33	1.653E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,702,731.92	1.51	90.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		241,802.56	0.96	95.2	Pulse	0.30	3
1	Ge		159,926.99	0.98	94.1	Pulse	0.30	3
1	In		1,693,194.41	1.43	90.6	Pulse	0.30	3
1	Tb		4,890,215.00	2.05	92.5	Pulse	0.50	3
1	Lu		3,968,462.58	1.68	89.7	Pulse	0.50	3
1	Ge		237,741.92	0.98	93.6	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,380.06	4.02	101.9	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:33
Sample Name FC5943-3F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.133	ug/l	18.25	974.69	4.014E-03	Pulse	0.50	3
As			1	0.187	ug/l	11.68	133.67	8.359E-04	Pulse	1.00	3
Mo			1	0.030	ug/l	103.53	166.67	6.935E-04	Pulse	0.50	3
Pb			1	0.033	ug/l	4.89	1,647.08	3.335E-04	Pulse	1.00	3
Be			1	0.341	ug/l	46.65	9.17	3.777E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	28.78	98.00	1.983E-05	Pulse	0.50	3
Ba			1	26.518	ug/l	0.62	39,116.10	2.285E-02	Pulse	0.50	3
Tl			1	0.021	ug/l	6.18	664.68	1.346E-04	Pulse	0.50	3
Sn			1	0.556	ug/l	13.50	1,872.33	1.092E-03	Pulse	0.30	3
Sr			1	8.957	ug/l	1.27	33,614.52	1.964E-02	Pulse	0.50	3
[Pb]			1	0.035	ug/l	21.38	792.69	2.138E-04	Pulse	0.50	3
Ca			1	876.982	ug/l	1.39	16,499.61	6.794E-02	Pulse	0.50	3
Ti			1	0.381	ug/l	14.32	44.67	1.840E-04	Pulse	0.50	3
Na			1	3982.922	ug/l	0.24	2,597,634.00	1.070E+01	Pulse	1.00	3
Mg			1	236.684	ug/l	0.71	82,248.96	3.387E-01	Pulse	1.00	3
K			1	1136.620	ug/l	0.47	445,975.40	1.836E+00	Pulse	1.00	3
V			1	1.565	ug/l	4.75	6,430.41	2.648E-02	Pulse	0.50	3
Mn			1	20.487	ug/l	1.40	57,904.40	3.620E-01	Pulse	0.50	3
Fe			1	2.950	ug/l	2.89	18,007.01	1.126E-01	Pulse	0.50	3
Co			1	2.147	ug/l	0.78	13,950.37	8.721E-02	Pulse	0.50	3
Ni			1	2.411	ug/l	3.81	4,357.84	2.724E-02	Pulse	0.50	3
Cu			1	2.264	ug/l	3.53	13,570.81	8.484E-02	Pulse	0.50	3
Zn			1	18.588	ug/l	1.46	17,860.92	7.441E-02	Pulse	1.00	3
Cd			1	0.034	ug/l	17.32	49.33	2.056E-04	Pulse	0.50	3
Al			1	12.999	ug/l	2.11	2,279.80	9.387E-03	Pulse	1.00	3
Se			1	-0.081	ug/l	-65.09	40.00	1.666E-04	Pulse	3.00	3
Sb			1	0.028	ug/l	31.85	207.00	1.293E-03	Pulse	1.00	3
Se			1	0.519	ug/l	12.81	36.00	1.500E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,704,998.67	1.58	90.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		242,860.91	0.24	95.6	Pulse	0.30	3
1	Ge		159,952.63	0.46	94.1	Pulse	0.30	3
1	In		1,711,991.63	1.80	91.6	Pulse	0.30	3
1	Tb		4,938,982.67	1.69	93.4	Pulse	0.50	3
1	Lu		4,021,791.50	1.36	90.9	Pulse	0.50	3
1	Ge		240,031.64	0.70	94.5	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,357.83	11.72	100.2	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:37
Sample Name FC5943-4F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.173	ug/l	14.46	1,145.37	4.713E-03	Pulse	0.50	3
As			1	0.210	ug/l	13.22	148.67	9.196E-04	Pulse	1.00	3
Mo			1	0.020	ug/l	68.45	140.67	5.827E-04	Pulse	0.50	3
Pb			1	0.039	ug/l	3.15	1,737.09	3.512E-04	Pulse	1.00	3
Be			1	0.327	ug/l	19.94	8.83	3.634E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	28.22	96.00	1.938E-05	Pulse	0.50	3
Ba			1	32.722	ug/l	1.04	48,479.97	2.819E-02	Pulse	0.50	3
Tl			1	0.022	ug/l	11.61	682.68	1.380E-04	Pulse	0.50	3
Sn			1	0.431	ug/l	7.39	1,488.96	8.656E-04	Pulse	0.30	3
Sr			1	11.739	ug/l	2.21	44,170.07	2.569E-02	Pulse	0.50	3
[Pb]			1	0.033	ug/l	9.35	778.02	2.101E-04	Pulse	0.50	3
Ca			1	992.737	ug/l	1.06	18,667.56	7.681E-02	Pulse	0.50	3
Ti			1	0.223	ug/l	101.16	26.67	1.098E-04	Pulse	0.50	3
Na			1	5463.631	ug/l	0.49	3,547,325.58	1.460E+01	Pulse	1.00	3
Mg			1	422.153	ug/l	0.49	145,182.25	5.974E-01	Pulse	1.00	3
K			1	1643.933	ug/l	0.94	625,516.98	2.574E+00	Pulse	1.00	3
V			1	1.571	ug/l	1.48	6,457.75	2.657E-02	Pulse	0.50	3
Mn			1	99.173	ug/l	0.40	282,072.90	1.745E+00	Pulse	0.50	3
Fe			1	5.234	ug/l	0.47	27,060.17	1.674E-01	Pulse	0.50	3
Co			1	7.943	ug/l	1.15	51,655.15	3.196E-01	Pulse	0.50	3
Ni			1	2.849	ug/l	0.99	5,141.37	3.181E-02	Pulse	0.50	3
Cu			1	2.137	ug/l	2.14	13,145.84	8.134E-02	Pulse	0.50	3
Zn			1	18.626	ug/l	0.61	17,978.71	7.455E-02	Pulse	1.00	3
Cd			1	0.042	ug/l	13.37	61.33	2.542E-04	Pulse	0.50	3
Al			1	17.460	ug/l	3.30	2,978.89	1.226E-02	Pulse	1.00	3
Se			1	-0.008	ug/l	-909.99	44.22	1.833E-04	Pulse	3.00	3
Sb			1	0.011	ug/l	29.14	132.33	8.192E-04	Pulse	1.00	3
Se			1	0.478	ug/l	34.30	35.11	1.455E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,703,565.50	1.35	90.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,046.97	0.62	95.7	Pulse	0.30	3
1	Ge		161,621.87	0.70	95.1	Pulse	0.30	3
1	In		1,719,724.27	1.38	92.1	Pulse	0.30	3
1	Tb		4,947,039.33	1.79	93.6	Pulse	0.50	3
1	Lu		4,012,598.00	0.86	90.7	Pulse	0.50	3
1	Ge		241,154.25	0.64	95.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,311.16	1.80	96.8	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:41
Sample Name	FC6071-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.146	ug/l	4.03	1,040.70	4.242E-03	Pulse	0.50	3
As			1	0.180	ug/l	6.95	130.33	8.121E-04	Pulse	1.00	3
Mo			1	0.003	ug/l	426.87	98.00	4.060E-04	Pulse	0.50	3
Pb			1	0.014	ug/l	35.80	1,366.72	2.763E-04	Pulse	1.00	3
Be			1	0.062	ug/l	19.22	2.33	9.514E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	29.70	78.67	1.592E-05	Pulse	0.50	3
Ba			1	0.049	ug/l	4.74	95.33	5.577E-05	Pulse	0.50	3
Tl			1	-0.003	ug/l	-41.55	150.67	3.040E-05	Pulse	0.50	3
Sn			1	0.145	ug/l	1.02	590.01	3.451E-04	Pulse	0.30	3
Sr			1	0.045	ug/l	12.90	418.68	2.449E-04	Pulse	0.50	3
[Pb]			1	0.010	ug/l	29.53	604.01	1.638E-04	Pulse	0.50	3
Ca			1	9.372	ug/l	25.22	355.34	1.448E-03	Pulse	0.50	3
Ti			1	0.151	ug/l	17.52	18.67	7.610E-05	Pulse	0.50	3
Na			1	-30.637	ug/l	-1.68	30,937.76	1.261E-01	Pulse	1.00	3
Mg			1	-2.277	ug/l	-3.77	1,319.71	5.380E-03	Pulse	1.00	3
K			1	6.595	ug/l	16.59	47,567.61	1.939E-01	Pulse	1.00	3
V			1	1.556	ug/l	0.37	6,464.43	2.635E-02	Pulse	0.50	3
Mn			1	0.235	ug/l	5.67	961.36	5.991E-03	Pulse	0.50	3
Fe			1	2.077	ug/l	3.84	14,699.59	9.162E-02	Pulse	0.50	3
Co			1	0.010	ug/l	3.16	246.00	1.533E-03	Pulse	0.50	3
Ni			1	0.033	ug/l	52.80	390.68	2.434E-03	Pulse	0.50	3
Cu			1	1.114	ug/l	3.66	8,529.24	5.317E-02	Pulse	0.50	3
Zn			1	-0.496	ug/l	-0.77	1,237.04	5.133E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	50.84	8.00	3.316E-05	Pulse	0.50	3
Al			1	0.216	ug/l	71.50	286.33	1.168E-03	Pulse	1.00	3
Se			1	-0.130	ug/l	-139.93	37.44	1.556E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	62.06	111.67	6.956E-04	Pulse	1.00	3
Se			1	0.500	ug/l	38.24	35.67	1.479E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,687,187.33	1.25	89.9	Pulse	0.50	3
1	Sc		245,304.74	0.63	96.6	Pulse	0.30	3
1	Ge		160,432.79	0.82	94.4	Pulse	0.30	3
1	In		1,709,847.99	1.12	91.5	Pulse	0.30	3
1	Tb		4,947,735.00	1.93	93.6	Pulse	0.50	3
1	Lu		4,000,509.58	1.26	90.4	Pulse	0.50	3
1	Ge		241,009.87	0.75	94.9	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,327.83	6.93	98.0	Pulse	0.30	3

Quantitation Report

File Name	063SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:45
Sample Name	FC6071-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.123	ug/l	27.72	940.69	3.838E-03	Pulse	0.50	3
As			1	0.142	ug/l	10.96	108.67	6.755E-04	Pulse	1.00	3
Mo			1	-0.003	ug/l	-377.84	82.00	3.389E-04	Pulse	0.50	3
Pb			1	0.096	ug/l	2.42	2,602.87	5.257E-04	Pulse	1.00	3
Be			1	-0.019	ug/l	-121.40	0.33	1.352E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	13.79	74.00	1.494E-05	Pulse	0.50	3
Ba			1	0.018	ug/l	44.64	50.67	2.966E-05	Pulse	0.50	3
Tl			1	-0.004	ug/l	-34.88	135.33	2.731E-05	Pulse	0.50	3
Sn			1	0.094	ug/l	6.25	431.12	2.525E-04	Pulse	0.30	3
Sr			1	0.040	ug/l	25.05	400.01	2.342E-04	Pulse	0.50	3
[Pb]			1	0.097	ug/l	6.05	1,232.05	3.346E-04	Pulse	0.50	3
Ca			1	6.851	ug/l	23.92	307.33	1.255E-03	Pulse	0.50	3
Ti			1	0.140	ug/l	39.97	17.33	7.075E-05	Pulse	0.50	3
Na			1	-0.002	ug/l	-18019.31	50,660.28	2.068E-01	Pulse	1.00	3
Mg			1	-2.637	ug/l	-7.06	1,195.04	4.877E-03	Pulse	1.00	3
K			1	6.395	ug/l	28.13	47,430.96	1.936E-01	Pulse	1.00	3
V			1	1.503	ug/l	4.05	6,266.36	2.558E-02	Pulse	0.50	3
Mn			1	0.089	ug/l	28.48	550.01	3.423E-03	Pulse	0.50	3
Fe			1	1.207	ug/l	24.09	11,362.33	7.071E-02	Pulse	0.50	3
Co			1	0.008	ug/l	75.42	231.33	1.439E-03	Pulse	0.50	3
Ni			1	0.048	ug/l	36.82	416.68	2.592E-03	Pulse	0.50	3
Cu			1	0.781	ug/l	4.49	7,073.33	4.399E-02	Pulse	0.50	3
Zn			1	-0.418	ug/l	-9.67	1,307.71	5.416E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	82.98	11.33	4.703E-05	Pulse	0.50	3
Al			1	0.371	ug/l	133.21	310.67	1.267E-03	Pulse	1.00	3
Se			1	-0.049	ug/l	-89.64	42.00	1.740E-04	Pulse	3.00	3
Sb			1	0.007	ug/l	49.52	117.00	7.280E-04	Pulse	1.00	3
Se			1	0.444	ug/l	51.01	34.22	1.418E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,682,005.42	1.01	89.7	Pulse	0.50	3
1	Sc		244,976.82	0.67	96.5	Pulse	0.30	3

Quantitation Report

1	Ge		160,795.30	0.94	94.6	Pulse	0.30	3
1	In		1,707,647.19	0.43	91.4	Pulse	0.30	3
1	Tb		4,951,153.50	0.86	93.7	Pulse	0.50	3
1	Lu		4,005,297.08	0.72	90.5	Pulse	0.50	3
1	Ge		241,464.73	0.77	95.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,365.61	9.46	100.8	Pulse	0.30	3

Quantitation Report

File Name	064_MB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 12:48
Sample Name	MP42229-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.099	ug/l	11.92	826.69	3.402E-03	Pulse	0.50	3
As			1	0.171	ug/l	23.47	124.00	7.791E-04	Pulse	1.00	3
Mo			1	-0.010	ug/l	-54.09	64.00	2.669E-04	Pulse	0.50	3
Pb			1	0.011	ug/l	36.27	1,311.05	2.667E-04	Pulse	1.00	3
Be			1	-0.005	ug/l	-218.05	0.67	2.741E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	27.11	94.67	1.923E-05	Pulse	0.50	3
Ba			1	0.029	ug/l	13.51	66.00	3.880E-05	Pulse	0.50	3
Tl			1	-0.003	ug/l	-35.90	152.67	3.101E-05	Pulse	0.50	3
Sn			1	0.120	ug/l	16.14	512.24	3.009E-04	Pulse	0.30	3
Sr			1	0.036	ug/l	8.67	384.68	2.260E-04	Pulse	0.50	3
[Pb]			1	0.016	ug/l	46.29	642.68	1.750E-04	Pulse	0.50	3
Ca			1	19.118	ug/l	4.98	533.34	2.195E-03	Pulse	0.50	3
Ti			1	0.152	ug/l	32.64	18.67	7.671E-05	Pulse	0.50	3
Na			1	-37.011	ug/l	-0.47	26,567.86	1.093E-01	Pulse	1.00	3
Mg			1	-2.378	ug/l	-6.10	1,273.04	5.240E-03	Pulse	1.00	3
K			1	3.985	ug/l	56.69	46,194.04	1.901E-01	Pulse	1.00	3
V			1	1.512	ug/l	0.62	6,249.02	2.572E-02	Pulse	0.50	3
Mn			1	0.111	ug/l	15.76	608.01	3.816E-03	Pulse	0.50	3
Fe			1	1.863	ug/l	2.66	13,784.91	8.648E-02	Pulse	0.50	3
Co			1	0.008	ug/l	55.55	234.67	1.473E-03	Pulse	0.50	3
Ni			1	-0.062	ug/l	-18.90	230.67	1.448E-03	Pulse	0.50	3
Cu			1	0.994	ug/l	5.49	7,946.99	4.987E-02	Pulse	0.50	3
Zn			1	0.863	ug/l	0.57	2,414.83	1.007E-02	Pulse	1.00	3
Cd			1	0.003	ug/l	84.79	6.00	2.508E-05	Pulse	0.50	3
Al			1	1.406	ug/l	3.10	469.68	1.933E-03	Pulse	1.00	3
Se			1	-0.048	ug/l	-286.57	41.78	1.743E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	78.86	110.33	6.916E-04	Pulse	1.00	3
Se			1	0.607	ug/l	59.02	38.22	1.595E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,673,928.00	1.04	89.5	Pulse	0.50	3
1	Sc		242,989.60	0.69	95.7	Pulse	0.30	3
1	Ge		159,386.72	1.52	93.7	Pulse	0.30	3
1	In		1,701,902.36	0.83	91.1	Pulse	0.30	3
1	Tb		4,915,954.17	1.53	93.0	Pulse	0.50	3
1	Lu		4,003,520.00	1.71	90.4	Pulse	0.50	3
1	Ge		239,836.94	0.64	94.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,414.50	1.21	104.4	Pulse	0.30	3

Quantitation Report

File Name 065_BSP.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:52
Sample Name MP42229-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	230.067	ug/l	0.70	958,896.73	4.068E+00	Pulse	0.50	3
As			1	230.077	ug/l	0.27	130,743.00	8.348E-01	Pulse	1.00	3
Mo			1	238.651	ug/l	1.09	590,477.44	2.527E+00	Pulse	0.50	3
Pb			1	222.920	ug/l	0.58	3,335,997.92	6.857E-01	Pulse	1.00	3
Be			1	235.623	ug/l	0.61	5,617.61	2.383E-02	Pulse	2.00	3
Ag			1	106.158	ug/l	0.38	848,055.02	1.743E-01	Pulse	0.50	3
Ba			1	224.002	ug/l	0.85	315,663.11	1.929E-01	Pulse	0.50	3
Tl			1	216.581	ug/l	0.75	4,531,802.67	9.315E-01	Pulse	0.50	3
Sn			1	238.358	ug/l	1.22	709,262.59	4.335E-01	Pulse	0.30	3
Sr			1	233.850	ug/l	0.64	832,829.08	5.090E-01	Pulse	0.50	3
[Pb]			1	220.096	ug/l	0.22	1,512,992.54	4.343E-01	Pulse	0.50	3
Ca			1	20530.201	ug/l	0.66	371,024.56	1.574E+00	Pulse	0.50	3
Ti			1	235.830	ug/l	1.01	26,051.94	1.105E-01	Pulse	0.50	3
Na			1	22034.858	ug/l	0.74	13,726,940.00	5.824E+01	Analog	1.00	3
Mg			1	21721.594	ug/l	0.31	7,143,244.50	3.030E+01	Analog	1.00	3
K			1	21054.522	ug/l	1.09	7,256,467.33	3.079E+01	Analog	1.00	3
V			1	228.930	ug/l	0.88	779,170.50	3.306E+00	Pulse	0.50	3
Mn			1	224.336	ug/l	0.63	617,922.06	3.946E+00	Pulse	0.50	3
Fe			1	22771.234	ug/l	0.87	85,663,842.67	5.470E+02	Analog	0.50	3
Co			1	234.619	ug/l	0.98	1,473,512.29	9.409E+00	Pulse	0.50	3
Ni			1	229.499	ug/l	0.76	375,306.90	2.396E+00	Pulse	0.50	3
Cu			1	230.068	ug/l	0.98	995,296.44	6.355E+00	Pulse	0.50	3
Zn			1	215.811	ug/l	0.86	184,670.69	7.904E-01	Pulse	1.00	3
Cd			1	216.563	ug/l	0.92	299,238.55	1.281E+00	Pulse	0.50	3
Al			1	19250.583	ug/l	0.51	2,917,986.92	1.238E+01	Pulse	1.00	3
Se			1	203.158	ug/l	0.27	10,828.06	4.634E-02	Pulse	3.00	3
Sb			1	228.022	ug/l	1.20	980,090.86	6.258E+00	Pulse	1.00	3
Se			1	205.295	ug/l	0.43	5,229.94	2.238E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,483,973.75	1.01	84.9	Pulse	0.50	3
1	Sc		235,718.48	0.75	92.8	Pulse	0.30	3
1	Ge		156,614.20	0.28	92.1	Pulse	0.30	3
1	In		1,636,315.25	1.10	87.6	Pulse	0.30	3
1	Tb		4,865,055.17	0.84	92.0	Pulse	0.50	3
1	Lu		3,959,677.67	1.28	89.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		233,652.34	0.27	92.0	Pulse	0.30	3
1	Te		4.67	49.49	700.0	Pulse	0.50	3
1	Li		1,341.16	12.43	99.0	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 12:56
Sample Name FC5925-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	3.186	ug/l	1.30	13,772.89	5.797E-02	Pulse	0.50	3
As			1	2.395	ug/l	3.84	1,384.72	8.848E-03	Pulse	1.00	3
Mo			1	0.387	ug/l	5.24	1,046.70	4.470E-03	Pulse	0.50	3
Pb			1	0.258	ug/l	5.55	4,986.06	1.024E-03	Pulse	1.00	3
Be			1	0.266	ug/l	40.48	7.17	3.018E-05	Pulse	2.00	3
Ag			1	0.031	ug/l	9.34	297.33	6.108E-05	Pulse	0.50	3
Ba			1	19.258	ug/l	2.04	27,590.31	1.660E-02	Pulse	0.50	3
Tl			1	0.355	ug/l	5.75	7,642.40	1.570E-03	Pulse	0.50	3
Sn			1	0.627	ug/l	5.66	2,031.23	1.222E-03	Pulse	0.30	3
Sr			1	33.479	ug/l	1.95	121,338.34	7.300E-02	Pulse	0.50	3
[Pb]			1	0.263	ug/l	2.76	2,420.85	6.632E-04	Pulse	0.50	3
Ca			1	2134.193	ug/l	1.31	39,029.27	1.643E-01	Pulse	0.50	3
Ti			1	1.282	ug/l	35.88	144.00	6.060E-04	Pulse	0.50	3
Na			1	4352.780	ug/l	1.09	2,772,500.42	1.167E+01	Pulse	1.00	3
Mg			1	2950.873	ug/l	1.30	979,811.48	4.124E+00	Pulse	1.00	3
K			1	1346.255	ug/l	0.78	508,658.59	2.141E+00	Pulse	1.00	3
V			1	33.305	ug/l	1.51	115,044.02	4.842E-01	Pulse	0.50	3
Mn			1	1.003	ug/l	6.70	3,051.58	1.950E-02	Pulse	0.50	3
Fe			1	428.037	ug/l	1.16	1,615,551.21	1.032E+01	Pulse	0.50	3
Co			1	0.525	ug/l	1.70	3,472.99	2.219E-02	Pulse	0.50	3
Ni			1	0.964	ug/l	4.82	1,902.10	1.215E-02	Pulse	0.50	3
Cu			1	1.250	ug/l	3.81	8,908.08	5.692E-02	Pulse	0.50	3
Zn			1	14.435	ug/l	0.19	13,894.67	5.934E-02	Pulse	1.00	3
Cd			1	0.162	ug/l	11.70	226.00	9.651E-04	Pulse	0.50	3
Al			1	1073.689	ug/l	1.47	164,264.15	6.914E-01	Pulse	1.00	3
Se			1	0.428	ug/l	3.92	66.11	2.823E-04	Pulse	3.00	3
Sb			1	0.227	ug/l	3.38	1,057.70	6.758E-03	Pulse	1.00	3
Se			1	1.003	ug/l	47.93	47.44	2.025E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,650,466.25	0.99	89.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		237,573.99	0.26	93.5	Pulse	0.30	3
1	Ge		156,503.54	0.16	92.0	Pulse	0.30	3
1	In		1,662,312.40	0.78	89.0	Pulse	0.30	3
1	Tb		4,870,178.17	1.08	92.1	Pulse	0.50	3
1	Lu		3,964,833.33	1.06	89.6	Pulse	0.50	3
1	Ge		234,169.38	0.39	92.2	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,227.82	8.41	90.6	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:00
Sample Name MP42229-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.748	ug/l	1.22	12,029.07	5.022E-02	Pulse	0.50	3
As			1	2.180	ug/l	6.65	1,269.05	8.068E-03	Pulse	1.00	3
Mo			1	0.234	ug/l	8.42	672.68	2.857E-03	Pulse	0.50	3
Pb			1	0.156	ug/l	3.49	3,488.03	7.129E-04	Pulse	1.00	3
Be			1	0.168	ug/l	50.48	4.83	2.022E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	53.02	128.67	2.632E-05	Pulse	0.50	3
Ba			1	17.052	ug/l	1.07	24,546.62	1.470E-02	Pulse	0.50	3
Tl			1	0.230	ug/l	0.46	5,060.09	1.034E-03	Pulse	0.50	3
Sn			1	0.393	ug/l	14.14	1,330.06	7.957E-04	Pulse	0.30	3
Sr			1	29.566	ug/l	0.53	107,688.51	6.448E-02	Pulse	0.50	3
[Pb]			1	0.156	ug/l	6.69	1,646.08	4.515E-04	Pulse	0.50	3
Ca			1	1862.132	ug/l	2.00	34,349.31	1.434E-01	Pulse	0.50	3
Ti			1	0.719	ug/l	19.24	82.00	3.422E-04	Pulse	0.50	3
Na			1	3818.278	ug/l	0.80	2,457,601.75	1.026E+01	Pulse	1.00	3
Mg			1	2588.865	ug/l	0.08	866,801.29	3.619E+00	Pulse	1.00	3
K			1	1180.056	ug/l	0.73	454,885.44	1.899E+00	Pulse	1.00	3
V			1	29.432	ug/l	0.44	102,594.72	4.284E-01	Pulse	0.50	3
Mn			1	0.554	ug/l	8.04	1,827.43	1.161E-02	Pulse	0.50	3
Fe			1	371.651	ug/l	0.16	1,411,479.50	8.968E+00	Pulse	0.50	3
Co			1	0.383	ug/l	1.62	2,596.85	1.650E-02	Pulse	0.50	3
Ni			1	0.798	ug/l	10.25	1,638.75	1.042E-02	Pulse	0.50	3
Cu			1	1.192	ug/l	2.49	8,706.66	5.533E-02	Pulse	0.50	3
Zn			1	11.547	ug/l	1.53	11,498.44	4.885E-02	Pulse	1.00	3
Cd			1	0.086	ug/l	9.55	121.33	5.153E-04	Pulse	0.50	3
Al			1	943.454	ug/l	0.27	145,531.27	6.077E-01	Pulse	1.00	3
Se			1	0.225	ug/l	85.08	55.56	2.363E-04	Pulse	3.00	3
Sb			1	0.123	ug/l	5.34	614.68	3.905E-03	Pulse	1.00	3
Se			1	0.899	ug/l	13.80	45.00	1.912E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,647,359.42	1.51	88.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		239,489.14	1.04	94.3	Pulse	0.30	3
1	Ge		157,384.89	1.26	92.6	Pulse	0.30	3
1	In		1,670,117.64	1.06	89.4	Pulse	0.30	3
1	Tb		4,893,835.33	1.35	92.6	Pulse	0.50	3
1	Lu		3,984,759.67	1.63	90.0	Pulse	0.50	3
1	Ge		235,388.52	1.00	92.7	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,293.38	7.02	95.5	Pulse	0.30	3

Quantitation Report

File Name 068SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:04
Sample Name MP42229-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.713	ug/l	8.14	2,834.22	1.125E-02	Pulse	0.50	3
As			1	2.391	ug/l	6.94	315.33	1.894E-03	Pulse	1.00	3
Mo			1	0.186	ug/l	18.75	190.67	7.688E-04	Pulse	0.50	3
Pb			1	0.102	ug/l	13.41	1,476.40	2.946E-04	Pulse	1.00	3
Be			1	0.001	ug/l	23257.84	0.83	3.299E-06	Pulse	2.00	3
Ag			1	0.018	ug/l	39.65	83.33	1.663E-05	Pulse	0.50	3
Ba			1	17.197	ug/l	4.36	5,208.11	2.976E-03	Pulse	0.50	3
Tl			1	0.211	ug/l	0.37	1,132.71	2.260E-04	Pulse	0.50	3
Sn			1	0.464	ug/l	5.08	438.90	2.508E-04	Pulse	0.30	3
Sr			1	31.256	ug/l	1.42	24,061.31	1.375E-02	Pulse	0.50	3
[Pb]			1	0.068	ug/l	93.61	641.35	1.708E-04	Pulse	0.50	3
Ca			1	2028.771	ug/l	2.00	8,019.66	3.182E-02	Pulse	0.50	3
Ti			1	1.129	ug/l	12.52	28.00	1.111E-04	Pulse	0.50	3
Na			1	3879.229	ug/l	1.37	566,981.06	2.250E+00	Pulse	1.00	3
Mg			1	2751.214	ug/l	1.80	195,538.97	7.760E-01	Pulse	1.00	3
K			1	1243.671	ug/l	1.55	137,550.10	5.459E-01	Pulse	1.00	3
V			1	32.195	ug/l	0.96	24,387.92	9.677E-02	Pulse	0.50	3
Mn			1	0.498	ug/l	10.26	602.01	3.616E-03	Pulse	0.50	3
Fe			1	388.141	ug/l	1.58	317,382.58	1.906E+00	Pulse	0.50	3
Co			1	0.359	ug/l	12.95	668.68	4.016E-03	Pulse	0.50	3
Ni			1	0.520	ug/l	19.54	529.34	3.179E-03	Pulse	0.50	3
Cu			1	4.823	ug/l	3.41	8,167.76	4.906E-02	Pulse	0.50	3
Zn			1	12.089	ug/l	1.43	3,894.40	1.571E-02	Pulse	1.00	3
Cd			1	0.141	ug/l	10.98	42.67	1.722E-04	Pulse	0.50	3
Al			1	1007.351	ug/l	2.58	32,901.98	1.306E-01	Pulse	1.00	3
Se			1	0.155	ug/l	270.67	47.67	1.922E-04	Pulse	3.00	3
Sb			1	0.088	ug/l	8.28	168.00	1.009E-03	Pulse	1.00	3
Se			1	1.573	ug/l	69.48	31.67	1.278E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,756,479.25	0.87	91.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		252,001.72	0.66	99.2	Pulse	0.30	3
1	Ge		166,498.45	0.25	97.9	Pulse	0.30	3
1	In		1,750,028.82	0.42	93.7	Pulse	0.30	3
1	Tb		5,011,703.67	0.49	94.8	Pulse	0.50	3
1	Lu		4,075,939.75	0.81	92.1	Pulse	0.50	3
1	Ge		247,875.39	0.94	97.6	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,397.84	9.55	103.2	Pulse	0.30	3

Quantitation Report

File Name	069CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:07
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.592	ug/l	1.20	477,100.67	1.790E+00	Pulse	0.50	3
As			1	50.394	ug/l	0.94	63,892.08	3.658E-01	Pulse	1.00	3
Mo			1	50.357	ug/l	0.37	277,326.07	1.067E+00	Pulse	0.50	3
Pb			1	50.436	ug/l	0.60	1,593,094.37	3.104E-01	Pulse	1.00	3
Be			1	52.326	ug/l	0.13	2,821.70	1.059E-02	Pulse	2.00	3
Ag			1	54.048	ug/l	0.41	910,918.33	1.775E-01	Pulse	0.50	3
Ba			1	50.238	ug/l	1.50	155,424.96	8.654E-02	Pulse	0.50	3
Tl			1	51.342	ug/l	0.14	2,266,571.50	4.416E-01	Pulse	0.50	3
Sn			1	50.708	ug/l	1.29	331,329.03	1.845E-01	Pulse	0.30	3
Sr			1	50.892	ug/l	0.78	398,028.07	2.216E-01	Pulse	0.50	3
[Pb]			1	50.759	ug/l	0.99	752,354.92	2.004E-01	Pulse	0.50	3
Ca			1	4958.174	ug/l	0.37	202,739.35	7.607E-01	Pulse	0.50	3
Ti			1	49.616	ug/l	0.83	12,395.94	4.651E-02	Pulse	0.50	3
Na			1	5260.402	ug/l	0.51	7,439,771.67	2.791E+01	Analog	1.00	3
Mg			1	4920.964	ug/l	0.76	3,660,894.92	1.374E+01	Pulse	1.00	3
K			1	4957.647	ug/l	0.34	3,890,157.25	1.460E+01	Pulse	1.00	3
V			1	50.502	ug/l	1.17	389,295.37	1.461E+00	Pulse	0.50	3
Mn			1	50.076	ug/l	0.36	307,850.95	1.762E+00	Pulse	0.50	3
Fe			1	5359.150	ug/l	0.58	44,974,736.00	2.575E+02	Analog	0.50	3
Co			1	51.848	ug/l	1.01	726,478.12	4.159E+00	Pulse	0.50	3
Ni			1	52.103	ug/l	0.58	190,255.90	1.089E+00	Pulse	0.50	3
Cu			1	52.080	ug/l	0.52	504,710.86	2.890E+00	Pulse	0.50	3
Zn			1	50.763	ug/l	0.75	97,619.25	3.755E-01	Pulse	1.00	3
Cd			1	49.820	ug/l	0.67	153,197.21	5.893E-01	Pulse	0.50	3
Al			1	4714.135	ug/l	1.15	1,616,110.08	6.064E+00	Pulse	1.00	3
Se			1	48.810	ug/l	0.57	5,814.44	2.236E-02	Pulse	3.00	3
Sb			1	48.973	ug/l	0.30	469,589.81	2.688E+00	Pulse	1.00	3
Se			1	50.153	ug/l	1.86	2,855.77	1.098E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,754,579.50	0.23	91.5	Pulse	0.50	3
1	Sc		266,526.12	0.18	104.9	Pulse	0.30	3
1	Ge		174,666.22	0.58	102.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,795,981.60	0.14	96.1	Pulse	0.30	3
1	Tb		5,132,163.50	0.77	97.1	Pulse	0.50	3
1	Lu		4,180,722.33	0.79	94.5	Pulse	0.50	3
1	Ge		259,982.27	0.85	102.4	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,532.29	10.87	113.1	Pulse	0.30	3

Quantitation Report

File Name 070_CCV.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:11
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.036	ug/l	1.02	921,795.46	3.503E+00	Pulse	0.50	3
As			1	98.714	ug/l	0.99	123,401.64	7.164E-01	Pulse	1.00	3
Mo			1	98.954	ug/l	1.04	536,236.75	2.096E+00	Pulse	0.50	3
Pb			1	96.896	ug/l	0.72	3,011,799.50	5.961E-01	Pulse	1.00	3
Be			1	101.923	ug/l	0.94	5,426.23	2.062E-02	Pulse	2.00	3
Ag			1	104.605	ug/l	0.45	1,735,534.75	3.435E-01	Pulse	0.50	3
Ba			1	97.367	ug/l	0.68	297,746.94	1.677E-01	Pulse	0.50	3
Tl			1	98.736	ug/l	0.64	4,290,871.83	8.493E-01	Pulse	0.50	3
Sn			1	100.546	ug/l	0.56	649,282.42	3.657E-01	Pulse	0.30	3
Sr			1	101.721	ug/l	0.47	786,170.69	4.428E-01	Pulse	0.50	3
[Pb]			1	99.427	ug/l	0.36	1,426,745.00	3.924E-01	Pulse	0.50	3
Ca			1	9624.251	ug/l	0.10	388,402.26	1.476E+00	Pulse	0.50	3
Ti			1	101.018	ug/l	0.59	24,919.83	9.469E-02	Pulse	0.50	3
Na			1	10329.730	ug/l	0.44	14,372,848.33	5.461E+01	Analog	1.00	3
Mg			1	10145.737	ug/l	0.43	7,450,365.33	2.831E+01	Analog	1.00	3
K			1	10036.983	ug/l	0.55	7,726,864.00	2.936E+01	Analog	1.00	3
V			1	99.230	ug/l	0.53	754,300.77	2.866E+00	Pulse	0.50	3
Mn			1	98.762	ug/l	1.01	598,471.14	3.474E+00	Pulse	0.50	3
Fe			1	10558.726	ug/l	1.21	87,379,696.00	5.073E+02	Analog	0.50	3
Co			1	101.572	ug/l	1.26	1,403,335.71	8.147E+00	Pulse	0.50	3
Ni			1	100.861	ug/l	1.00	362,887.35	2.107E+00	Pulse	0.50	3
Cu			1	100.224	ug/l	1.38	954,283.36	5.540E+00	Pulse	0.50	3
Zn			1	98.565	ug/l	1.74	184,876.08	7.225E-01	Pulse	1.00	3
Cd			1	96.588	ug/l	1.03	292,299.14	1.142E+00	Pulse	0.50	3
Al			1	9155.449	ug/l	0.62	3,098,918.33	1.178E+01	Pulse	1.00	3
Se			1	96.875	ug/l	0.70	11,310.67	4.421E-02	Pulse	3.00	3
Sb			1	95.238	ug/l	1.30	900,518.54	5.228E+00	Pulse	1.00	3
Se			1	96.363	ug/l	1.78	5,377.98	2.102E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,636,179.67	0.73	88.6	Pulse	0.50	3
1	Sc		263,173.28	0.49	103.6	Pulse	0.30	3
1	Ge		172,263.83	0.52	101.3	Pulse	0.30	3
1	In		1,775,344.44	0.36	95.0	Pulse	0.30	3
1	Tb		5,052,253.17	0.33	95.6	Pulse	0.50	3
1	Lu		4,132,809.25	0.59	93.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		255,869.05	0.09	100.8	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,450.06	3.19	107.1	Pulse	0.30	3

Quantitation Report

File Name	071_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:15
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.005	ug/l	309.95	476.67	1.822E-03	Pulse	0.50	3
As			1	0.032	ug/l	18.96	67.67	3.940E-04	Pulse	1.00	3
Mo			1	0.153	ug/l	24.90	931.36	3.620E-03	Pulse	0.50	3
Pb			1	0.006	ug/l	141.13	1,353.73	2.697E-04	Pulse	1.00	3
Be			1	0.034	ug/l	104.91	2.67	1.021E-05	Pulse	2.00	3
Ag			1	0.027	ug/l	31.81	493.34	9.830E-05	Pulse	0.50	3
Ba			1	0.020	ug/l	61.31	87.33	4.862E-05	Pulse	0.50	3
Tl			1	0.032	ug/l	27.90	1,623.42	3.235E-04	Pulse	0.50	3
Sn			1	0.194	ug/l	20.58	1,415.62	7.859E-04	Pulse	0.30	3
Sr			1	0.022	ug/l	55.59	433.34	2.410E-04	Pulse	0.50	3
[Pb]			1	0.009	ug/l	142.94	666.68	1.785E-04	Pulse	0.50	3
Ca			1	0.024	ug/l	1896.68	192.00	7.335E-04	Pulse	0.50	3
Ti			1	0.052	ug/l	73.21	14.00	5.362E-05	Pulse	0.50	3
Na			1	-24.041	ug/l	-4.74	20,989.67	8.018E-02	Pulse	1.00	3
Mg			1	0.510	ug/l	190.09	2,610.19	9.979E-03	Pulse	1.00	3
K			1	1.598	ug/l	78.96	49,482.98	1.890E-01	Pulse	1.00	3
V			1	0.030	ug/l	52.85	1,252.05	4.783E-03	Pulse	0.50	3
Mn			1	-0.012	ug/l	-61.17	250.67	1.460E-03	Pulse	0.50	3
Fe			1	2.959	ug/l	29.87	31,567.22	1.839E-01	Pulse	0.50	3
Co			1	0.019	ug/l	67.42	457.34	2.665E-03	Pulse	0.50	3
Ni			1	-0.028	ug/l	-59.02	260.00	1.514E-03	Pulse	0.50	3
Cu			1	-0.119	ug/l	-15.56	2,737.54	1.594E-02	Pulse	0.50	3
Zn			1	-0.845	ug/l	-0.72	205.67	7.998E-04	Pulse	1.00	3
Cd			1	0.030	ug/l	28.59	94.00	3.656E-04	Pulse	0.50	3
Al			1	2.051	ug/l	45.74	958.69	3.666E-03	Pulse	1.00	3
Se			1	0.049	ug/l	84.66	53.33	2.074E-04	Pulse	3.00	3
Sb			1	0.051	ug/l	6.16	569.68	3.316E-03	Pulse	1.00	3
Se			1	0.144	ug/l	10.42	32.11	1.249E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,739,284.75	0.95	91.1	Pulse	0.50	3
1	Sc		261,871.34	0.67	103.1	Pulse	0.30	3
1	Ge		171,813.64	0.54	101.1	Pulse	0.30	3
1	In		1,799,785.55	0.70	96.3	Pulse	0.30	3
1	Tb		5,020,899.00	0.25	95.0	Pulse	0.50	3
1	Lu		4,089,956.50	0.22	92.4	Pulse	0.50	3
1	Ge		257,170.57	0.27	101.3	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,495.62	4.81	110.4	Pulse	0.30	3

Quantitation Report

File Name 072SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:19
Sample Name MP42229-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	221.746	ug/l	0.92	927,748.25	3.921E+00	Pulse	0.50	3
As			1	223.452	ug/l	0.67	126,172.69	8.108E-01	Pulse	1.00	3
Mo			1	229.950	ug/l	0.37	564,401.79	2.435E+00	Pulse	0.50	3
Pb			1	214.347	ug/l	0.34	3,148,547.83	6.593E-01	Pulse	1.00	3
Be			1	228.397	ug/l	0.78	5,466.07	2.310E-02	Pulse	2.00	3
Ag			1	103.299	ug/l	1.46	809,857.46	1.696E-01	Pulse	0.50	3
Ba			1	234.669	ug/l	0.72	327,606.34	2.021E-01	Pulse	0.50	3
Tl			1	209.057	ug/l	0.72	4,293,190.17	8.991E-01	Pulse	0.50	3
Sn			1	229.841	ug/l	0.61	677,549.63	4.180E-01	Pulse	0.30	3
Sr			1	258.511	ug/l	0.87	911,986.96	5.626E-01	Pulse	0.50	3
[Pb]			1	211.767	ug/l	0.50	1,428,035.96	4.178E-01	Pulse	0.50	3
Ca			1	21745.394	ug/l	0.12	394,472.89	1.667E+00	Pulse	0.50	3
Ti			1	223.006	ug/l	0.75	24,729.59	1.045E-01	Pulse	0.50	3
Na			1	25581.313	ug/l	0.44	15,988,995.00	6.758E+01	Analog	1.00	3
Mg			1	23940.743	ug/l	0.27	7,902,629.83	3.340E+01	Analog	1.00	3
K			1	21805.734	ug/l	0.67	7,542,512.50	3.188E+01	Analog	1.00	3
V			1	246.813	ug/l	0.13	843,163.48	3.564E+00	Pulse	0.50	3
Mn			1	216.064	ug/l	0.59	591,371.75	3.800E+00	Pulse	0.50	3
Fe			1	22669.375	ug/l	0.45	84,739,976.00	5.445E+02	Analog	0.50	3
Co			1	224.547	ug/l	0.42	1,401,367.71	9.005E+00	Pulse	0.50	3
Ni			1	219.761	ug/l	0.10	357,119.68	2.295E+00	Pulse	0.50	3
Cu			1	220.638	ug/l	0.10	948,605.14	6.096E+00	Pulse	0.50	3
Zn			1	219.664	ug/l	0.67	186,436.01	8.043E-01	Pulse	1.00	3
Cd			1	207.769	ug/l	1.29	284,790.12	1.229E+00	Pulse	0.50	3
Al			1	19675.108	ug/l	0.15	2,993,676.17	1.265E+01	Pulse	1.00	3
Se			1	198.086	ug/l	1.31	10,474.53	4.519E-02	Pulse	3.00	3
Sb			1	219.772	ug/l	0.50	938,678.90	6.032E+00	Pulse	1.00	3
Se			1	200.500	ug/l	1.57	5,067.45	2.186E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,417,566.17	1.09	83.3	Pulse	0.50	3
1	Sc		236,608.74	0.32	93.2	Pulse	0.30	3
1	Ge		155,620.77	0.52	91.5	Pulse	0.30	3
1	In		1,620,946.60	0.82	86.8	Pulse	0.30	3
1	Tb		4,775,329.67	1.67	90.3	Pulse	0.50	3
1	Lu		3,903,731.67	1.16	88.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		231,786.77	0.17	91.3	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,360.05	11.98	100.4	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:23
Sample Name	MP42229-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	223.797	ug/l	0.78	929,690.65	3.957E+00	Pulse	0.50	3
As			1	225.953	ug/l	0.69	126,812.75	8.199E-01	Pulse	1.00	3
Mo			1	230.729	ug/l	0.20	565,807.10	2.443E+00	Pulse	0.50	3
Pb			1	215.498	ug/l	1.23	3,167,109.83	6.629E-01	Pulse	1.00	3
Be			1	229.688	ug/l	0.70	5,458.07	2.323E-02	Pulse	2.00	3
Ag			1	102.509	ug/l	0.80	804,221.04	1.683E-01	Pulse	0.50	3
Ba			1	234.422	ug/l	0.50	326,375.70	2.019E-01	Pulse	0.50	3
Tl			1	210.529	ug/l	0.95	4,326,093.17	9.054E-01	Pulse	0.50	3
Sn			1	230.442	ug/l	0.54	677,494.21	4.191E-01	Pulse	0.30	3
Sr			1	256.478	ug/l	0.55	902,416.87	5.582E-01	Pulse	0.50	3
[Pb]			1	213.139	ug/l	0.46	1,438,763.71	4.205E-01	Pulse	0.50	3
Ca			1	21557.589	ug/l	0.28	388,301.09	1.653E+00	Pulse	0.50	3
Ti			1	227.428	ug/l	1.75	25,041.32	1.066E-01	Pulse	0.50	3
Na			1	25203.330	ug/l	0.41	15,642,130.33	6.658E+01	Analog	1.00	3
Mg			1	23668.204	ug/l	0.28	7,757,451.50	3.302E+01	Analog	1.00	3
K			1	21519.252	ug/l	0.57	7,391,388.17	3.146E+01	Analog	1.00	3
V			1	247.216	ug/l	0.44	838,564.94	3.569E+00	Pulse	0.50	3
Mn			1	218.381	ug/l	0.40	594,108.60	3.841E+00	Pulse	0.50	3
Fe			1	22531.267	ug/l	0.46	83,714,442.67	5.412E+02	Analog	0.50	3
Co			1	227.216	ug/l	0.58	1,409,435.08	9.112E+00	Pulse	0.50	3
Ni			1	223.091	ug/l	0.42	360,330.26	2.330E+00	Pulse	0.50	3
Cu			1	222.623	ug/l	0.76	951,326.33	6.150E+00	Pulse	0.50	3
Zn			1	220.599	ug/l	0.29	187,056.64	8.077E-01	Pulse	1.00	3
Cd			1	209.739	ug/l	0.28	287,236.37	1.240E+00	Pulse	0.50	3
Al			1	19431.157	ug/l	0.34	2,935,634.58	1.250E+01	Pulse	1.00	3
Se			1	200.282	ug/l	1.07	10,580.37	4.569E-02	Pulse	3.00	3
Sb			1	222.381	ug/l	0.40	944,062.65	6.103E+00	Pulse	1.00	3
Se			1	201.096	ug/l	0.35	5,077.90	2.193E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,421,209.33	0.78	83.4	Pulse	0.50	3
1	Sc		234,934.81	0.08	92.5	Pulse	0.30	3
1	Ge		154,678.59	0.50	91.0	Pulse	0.30	3
1	In		1,616,648.58	1.00	86.5	Pulse	0.30	3
1	Tb		4,777,834.67	0.40	90.4	Pulse	0.50	3
1	Lu		3,914,755.50	1.17	88.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		231,576.93	0.55	91.2	Pulse	0.30	3
1	Te		2.67	114.56	400.0	Pulse	0.50	3
1	Li		1,301.16	6.39	96.1	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:26
Sample Name	MP42229-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	26.009	ug/l	0.96	108,746.03	4.614E-01	Pulse	0.50	3
As			1	26.242	ug/l	1.89	14,832.07	9.536E-02	Pulse	1.00	3
Mo			1	23.660	ug/l	0.89	58,243.12	2.509E-01	Pulse	0.50	3
Pb			1	23.105	ug/l	0.52	343,531.47	7.128E-02	Pulse	1.00	3
Be			1	24.222	ug/l	0.46	578.18	2.453E-03	Pulse	2.00	3
Ag			1	5.930	ug/l	1.43	46,977.15	9.748E-03	Pulse	0.50	3
Ba			1	41.102	ug/l	0.38	58,059.86	3.541E-02	Pulse	0.50	3
Tl			1	22.905	ug/l	0.65	474,949.22	9.855E-02	Pulse	0.50	3
Sn			1	23.048	ug/l	1.08	68,850.39	4.199E-02	Pulse	0.30	3
Sr			1	56.722	ug/l	0.96	202,605.33	1.236E-01	Pulse	0.50	3
[Pb]			1	22.322	ug/l	0.40	156,036.85	4.417E-02	Pulse	0.50	3
Ca			1	4284.617	ug/l	0.31	77,568.71	3.291E-01	Pulse	0.50	3
Ti			1	24.140	ug/l	4.03	2,667.52	1.132E-02	Pulse	0.50	3
Na			1	6470.583	ug/l	0.56	4,065,380.83	1.725E+01	Pulse	1.00	3
Mg			1	5129.099	ug/l	0.54	1,688,245.54	7.162E+00	Pulse	1.00	3
K			1	3485.658	ug/l	0.45	1,237,622.54	5.251E+00	Pulse	1.00	3
V			1	55.653	ug/l	0.90	190,114.43	8.066E-01	Pulse	0.50	3
Mn			1	23.865	ug/l	1.02	65,547.08	4.214E-01	Pulse	0.50	3
Fe			1	2865.568	ug/l	0.54	10,712,631.00	6.887E+01	Analog	0.50	3
Co			1	24.649	ug/l	0.61	153,923.47	9.895E-01	Pulse	0.50	3
Ni			1	24.933	ug/l	1.26	40,788.80	2.622E-01	Pulse	0.50	3
Cu			1	26.597	ug/l	0.41	117,380.32	7.546E-01	Pulse	0.50	3
Zn			1	37.975	ug/l	0.79	33,614.50	1.448E-01	Pulse	1.00	3
Cd			1	22.733	ug/l	1.18	31,211.63	1.344E-01	Pulse	0.50	3
Al			1	3137.286	ug/l	0.49	475,749.15	2.018E+00	Pulse	1.00	3
Se			1	21.059	ug/l	5.03	1,153.81	4.970E-03	Pulse	3.00	3
Sb			1	21.539	ug/l	0.15	92,028.38	5.916E-01	Pulse	1.00	3
Se			1	21.641	ug/l	2.74	567.23	2.443E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,532,315.42	0.78	86.1	Pulse	0.50	3
1	Sc		235,714.38	0.51	92.8	Pulse	0.30	3
1	Ge		155,553.25	0.68	91.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,639,725.39	1.08	87.8	Pulse	0.30	3
1	Tb		4,819,646.33	1.26	91.2	Pulse	0.50	3
1	Lu		3,916,977.50	1.54	88.5	Pulse	0.50	3
1	Ge		232,161.62	0.11	91.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,313.38	5.10	97.0	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:30
Sample Name	FC5925-2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	7.378	ug/l	0.27	30,805.61	1.321E-01	Pulse	0.50	3
As			1	1.827	ug/l	5.50	1,038.70	6.785E-03	Pulse	1.00	3
Mo			1	0.339	ug/l	10.68	904.02	3.962E-03	Pulse	0.50	3
Pb			1	0.653	ug/l	1.39	10,633.31	2.241E-03	Pulse	1.00	3
Be			1	0.123	ug/l	65.79	3.67	1.576E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	16.32	123.33	2.601E-05	Pulse	0.50	3
Ba			1	17.894	ug/l	0.81	24,889.75	1.542E-02	Pulse	0.50	3
Tl			1	0.023	ug/l	5.74	678.02	1.429E-04	Pulse	0.50	3
Sn			1	0.492	ug/l	3.72	1,575.64	9.764E-04	Pulse	0.30	3
Sr			1	98.141	ug/l	0.38	344,828.29	2.137E-01	Pulse	0.50	3
[Pb]			1	0.648	ug/l	4.30	4,964.07	1.423E-03	Pulse	0.50	3
Ca			1	20625.858	ug/l	0.41	368,882.94	1.581E+00	Pulse	0.50	3
Ti			1	2.226	ug/l	40.17	244.68	1.049E-03	Pulse	0.50	3
Na			1	7611.104	ug/l	0.64	4,723,748.83	2.025E+01	Analog	1.00	3
Mg			1	4160.647	ug/l	0.30	1,355,637.75	5.812E+00	Pulse	1.00	3
K			1	1531.233	ug/l	0.68	562,135.42	2.410E+00	Pulse	1.00	3
V			1	14.514	ug/l	0.51	49,740.38	2.132E-01	Pulse	0.50	3
Mn			1	5.735	ug/l	1.95	15,719.72	1.027E-01	Pulse	0.50	3
Fe			1	2268.983	ug/l	0.39	8,349,235.67	5.454E+01	Analog	0.50	3
Co			1	0.481	ug/l	3.50	3,126.93	2.043E-02	Pulse	0.50	3
Ni			1	1.781	ug/l	0.23	3,164.27	2.067E-02	Pulse	0.50	3
Cu			1	1.767	ug/l	2.25	10,889.76	7.113E-02	Pulse	0.50	3
Zn			1	13.549	ug/l	1.51	12,802.93	5.612E-02	Pulse	1.00	3
Cd			1	0.034	ug/l	45.34	46.67	2.048E-04	Pulse	0.50	3
Al			1	511.405	ug/l	1.42	76,942.21	3.299E-01	Pulse	1.00	3
Se			1	0.452	ug/l	28.85	65.67	2.879E-04	Pulse	3.00	3
Sb			1	0.143	ug/l	12.39	681.68	4.452E-03	Pulse	1.00	3
Se			1	1.574	ug/l	18.83	60.33	2.645E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,488,893.83	0.80	85.0	Pulse	0.50	3
1	Sc		233,268.57	0.85	91.9	Pulse	0.30	3
1	Ge		153,084.98	0.42	90.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,613,675.08	1.01	86.4	Pulse	0.30	3
1	Tb		4,744,185.33	0.93	89.7	Pulse	0.50	3
1	Lu		3,870,586.17	1.16	87.4	Pulse	0.50	3
1	Ge		228,144.75	0.37	89.8	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,263.38	5.48	93.3	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:34
Sample Name FC5925-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.135	ug/l	4.44	9,232.88	3.939E-02	Pulse	0.50	3
As			1	2.241	ug/l	4.77	1,283.38	8.288E-03	Pulse	1.00	3
Mo			1	1.293	ug/l	5.30	3,236.96	1.406E-02	Pulse	0.50	3
Pb			1	0.584	ug/l	1.26	9,585.03	2.026E-03	Pulse	1.00	3
Be			1	0.164	ug/l	77.90	4.67	1.990E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	22.11	123.33	2.610E-05	Pulse	0.50	3
Ba			1	30.020	ug/l	0.56	41,548.13	2.587E-02	Pulse	0.50	3
Tl			1	0.196	ug/l	2.07	4,189.19	8.858E-04	Pulse	0.50	3
Sn			1	0.393	ug/l	7.09	1,278.94	7.958E-04	Pulse	0.30	3
Sr			1	75.096	ug/l	1.42	262,689.23	1.635E-01	Pulse	0.50	3
[Pb]			1	0.573	ug/l	2.65	4,401.92	1.275E-03	Pulse	0.50	3
Ca			1	7105.669	ug/l	0.08	127,775.61	5.453E-01	Pulse	0.50	3
Ti			1	3.450	ug/l	15.55	380.01	1.622E-03	Pulse	0.50	3
Na			1	38126.466	ug/l	0.54	23,577,007.33	1.006E+02	Analog	1.00	3
Mg			1	4963.834	ug/l	0.27	1,624,348.83	6.932E+00	Pulse	1.00	3
K			1	2161.277	ug/l	0.45	779,292.17	3.326E+00	Pulse	1.00	3
V			1	13.461	ug/l	0.76	46,408.26	1.980E-01	Pulse	0.50	3
Mn			1	3.291	ug/l	3.84	9,250.89	5.972E-02	Pulse	0.50	3
Fe			1	2111.849	ug/l	1.42	7,863,765.33	5.077E+01	Analog	0.50	3
Co			1	0.923	ug/l	2.02	5,907.59	3.813E-02	Pulse	0.50	3
Ni			1	0.707	ug/l	5.12	1,466.06	9.466E-03	Pulse	0.50	3
Cu			1	0.984	ug/l	3.91	7,680.21	4.959E-02	Pulse	0.50	3
Zn			1	12.769	ug/l	0.13	12,268.24	5.329E-02	Pulse	1.00	3
Cd			1	0.028	ug/l	26.77	40.00	1.735E-04	Pulse	0.50	3
Al			1	637.346	ug/l	0.14	96,276.19	4.109E-01	Pulse	1.00	3
Se			1	0.424	ug/l	25.53	64.78	2.814E-04	Pulse	3.00	3
Sb			1	0.135	ug/l	3.29	657.35	4.242E-03	Pulse	1.00	3
Se			1	1.239	ug/l	19.42	52.56	2.281E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,452,907.25	1.30	84.1	Pulse	0.50	3
1	Sc		234,332.65	0.70	92.3	Pulse	0.30	3
1	Ge		154,913.82	1.28	91.1	Pulse	0.30	3
1	In		1,606,340.63	1.37	86.0	Pulse	0.30	3
1	Tb		4,729,949.67	1.89	89.5	Pulse	0.50	3
1	Lu		3,848,298.08	1.57	86.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		230,222.79	0.93	90.7	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,276.72	7.21	94.3	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:38
Sample Name FC5925-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.319	ug/l	1.90	9,791.15	4.266E-02	Pulse	0.50	3
As			1	4.648	ug/l	5.02	2,582.85	1.702E-02	Pulse	1.00	3
Mo			1	2.164	ug/l	2.59	5,326.10	2.329E-02	Pulse	0.50	3
Pb			1	0.649	ug/l	2.83	10,486.89	2.227E-03	Pulse	1.00	3
Be			1	0.075	ug/l	114.24	2.50	1.090E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	19.48	115.33	2.450E-05	Pulse	0.50	3
Ba			1	158.780	ug/l	0.26	216,646.92	1.367E-01	Pulse	0.50	3
Tl			1	0.361	ug/l	2.81	7,524.34	1.597E-03	Pulse	0.50	3
Sn			1	0.470	ug/l	7.70	1,484.52	9.367E-04	Pulse	0.30	3
Sr			1	197.273	ug/l	0.72	680,269.75	4.294E-01	Pulse	0.50	3
[Pb]			1	0.654	ug/l	5.06	4,876.71	1.434E-03	Pulse	0.50	3
Ca			1	23458.298	ug/l	0.18	412,817.53	1.798E+00	Pulse	0.50	3
Ti			1	1.940	ug/l	26.60	210.00	9.143E-04	Pulse	0.50	3
Na			1	30638.849	ug/l	0.49	18,568,566.00	8.090E+01	Analog	1.00	3
Mg			1	9276.443	ug/l	0.18	2,971,804.17	1.295E+01	Pulse	1.00	3
K			1	59449.262	ug/l	0.74	19,875,600.00	8.659E+01	Analog	1.00	3
V			1	40.850	ug/l	0.59	136,132.15	5.931E-01	Pulse	0.50	3
Mn			1	3.627	ug/l	0.65	9,957.92	6.563E-02	Pulse	0.50	3
Fe			1	1558.680	ug/l	0.75	5,686,526.17	3.748E+01	Analog	0.50	3
Co			1	3.710	ug/l	1.28	22,740.69	1.499E-01	Pulse	0.50	3
Ni			1	2.059	ug/l	3.53	3,576.34	2.357E-02	Pulse	0.50	3
Cu			1	2.152	ug/l	3.14	12,401.34	8.174E-02	Pulse	0.50	3
Zn			1	15.528	ug/l	0.50	14,481.09	6.330E-02	Pulse	1.00	3
Cd			1	0.295	ug/l	1.65	400.01	1.749E-03	Pulse	0.50	3
Al			1	573.816	ug/l	0.46	84,929.30	3.700E-01	Pulse	1.00	3
Se			1	0.825	ug/l	6.96	85.22	3.725E-04	Pulse	3.00	3
Sb			1	1.533	ug/l	0.60	6,463.81	4.260E-02	Pulse	1.00	3
Se			1	1.960	ug/l	4.74	70.11	3.065E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,401,028.67	2.11	82.9	Pulse	0.50	3
1	Sc		229,540.32	0.55	90.4	Pulse	0.30	3
1	Ge		151,725.35	0.64	89.2	Pulse	0.30	3
1	In		1,584,293.03	1.41	84.8	Pulse	0.30	3
1	Tb		4,710,950.00	1.85	89.1	Pulse	0.50	3
1	Lu		3,836,401.50	1.78	86.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		228,743.30	1.25	90.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,190.04	7.61	87.9	Pulse	0.30	3

Quantitation Report

File Name 078SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:42
Sample Name FC5925-5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.041	ug/l	1.22	4,707.92	2.006E-02	Pulse	0.50	3
As			1	2.110	ug/l	1.81	1,206.37	7.812E-03	Pulse	1.00	3
Mo			1	0.907	ug/l	2.46	2,299.48	9.977E-03	Pulse	0.50	3
Pb			1	0.035	ug/l	20.84	1,615.75	3.392E-04	Pulse	1.00	3
Be			1	0.045	ug/l	151.34	1.83	7.832E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	69.89	93.33	1.958E-05	Pulse	0.50	3
Ba			1	24.150	ug/l	1.54	33,860.25	2.081E-02	Pulse	0.50	3
Tl			1	0.069	ug/l	3.88	1,613.42	3.387E-04	Pulse	0.50	3
Sn			1	0.413	ug/l	2.83	1,356.72	8.339E-04	Pulse	0.30	3
Sr			1	200.059	ug/l	0.44	708,479.29	4.355E-01	Pulse	0.50	3
[Pb]			1	0.034	ug/l	8.71	732.02	2.111E-04	Pulse	0.50	3
Ca			1	37097.970	ug/l	0.95	667,375.08	2.844E+00	Pulse	0.50	3
Ti			1	0.570	ug/l	96.90	64.00	2.725E-04	Pulse	0.50	3
Na			1	8049.810	ug/l	1.07	5,023,525.00	2.141E+01	Analog	1.00	3
Mg			1	3558.344	ug/l	0.76	1,166,722.63	4.972E+00	Pulse	1.00	3
K			1	1089.413	ug/l	0.91	414,846.75	1.768E+00	Pulse	1.00	3
V			1	7.548	ug/l	1.51	26,467.93	1.128E-01	Pulse	0.50	3
Mn			1	0.704	ug/l	3.97	2,198.13	1.424E-02	Pulse	0.50	3
Fe			1	444.926	ug/l	0.51	1,656,609.71	1.073E+01	Pulse	0.50	3
Co			1	0.156	ug/l	6.81	1,142.04	7.396E-03	Pulse	0.50	3
Ni			1	0.132	ug/l	12.98	536.68	3.474E-03	Pulse	0.50	3
Cu			1	1.347	ug/l	4.08	9,198.88	5.958E-02	Pulse	0.50	3
Zn			1	13.168	ug/l	0.98	12,616.13	5.474E-02	Pulse	1.00	3
Cd			1	0.008	ug/l	38.01	12.00	5.216E-05	Pulse	0.50	3
Al			1	86.558	ug/l	0.47	13,303.11	5.669E-02	Pulse	1.00	3
Se			1	0.113	ug/l	75.65	48.56	2.107E-04	Pulse	3.00	3
Sb			1	0.057	ug/l	9.41	322.33	2.086E-03	Pulse	1.00	3
Se			1	0.887	ug/l	7.81	43.78	1.899E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,466,362.83	1.25	84.5	Pulse	0.50	3
1	Sc		234,683.84	1.10	92.4	Pulse	0.30	3
1	Ge		154,407.59	1.25	90.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,626,938.02	0.95	87.1	Pulse	0.30	3
1	Tb		4,761,834.33	1.61	90.1	Pulse	0.50	3
1	Lu		3,857,196.75	1.87	87.1	Pulse	0.50	3
1	Ge		230,495.15	0.98	90.8	Pulse	0.30	3
1	Te		2.00	173.21	300.0	Pulse	0.50	3
1	Li		1,275.60	5.36	94.2	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:45
Sample Name FC5925-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	3.555	ug/l	0.66	15,627.61	6.449E-02	Pulse	0.50	3
As			1	1.796	ug/l	5.51	1,052.36	6.675E-03	Pulse	1.00	3
Mo			1	0.471	ug/l	1.80	1,260.05	5.359E-03	Pulse	0.50	3
Pb			1	0.264	ug/l	2.62	5,059.42	1.044E-03	Pulse	1.00	3
Be			1	0.090	ug/l	44.95	3.00	1.237E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	77.90	104.67	2.148E-05	Pulse	0.50	3
Ba			1	27.558	ug/l	0.84	39,108.08	2.375E-02	Pulse	0.50	3
Tl			1	0.298	ug/l	4.11	6,433.89	1.326E-03	Pulse	0.50	3
Sn			1	0.384	ug/l	4.39	1,285.61	7.806E-04	Pulse	0.30	3
Sr			1	27.255	ug/l	0.47	97,918.43	5.945E-02	Pulse	0.50	3
[Pb]			1	0.272	ug/l	4.03	2,452.85	6.812E-04	Pulse	0.50	3
Ca			1	6468.193	ug/l	0.67	120,287.88	4.964E-01	Pulse	0.50	3
Ti			1	1.006	ug/l	45.13	115.33	4.767E-04	Pulse	0.50	3
Na			1	4525.978	ug/l	0.35	2,938,323.08	1.213E+01	Pulse	1.00	3
Mg			1	580.743	ug/l	0.49	198,347.37	8.185E-01	Pulse	1.00	3
K			1	8221.305	ug/l	0.34	2,940,125.58	1.213E+01	Pulse	1.00	3
V			1	15.414	ug/l	0.59	54,817.24	2.262E-01	Pulse	0.50	3
Mn			1	0.338	ug/l	2.95	1,231.38	7.809E-03	Pulse	0.50	3
Fe			1	499.676	ug/l	0.83	1,899,088.29	1.204E+01	Pulse	0.50	3
Co			1	0.337	ug/l	9.04	2,308.81	1.464E-02	Pulse	0.50	3
Ni			1	0.721	ug/l	2.20	1,516.73	9.618E-03	Pulse	0.50	3
Cu			1	2.172	ug/l	2.72	12,977.05	8.230E-02	Pulse	0.50	3
Zn			1	13.455	ug/l	2.06	13,117.47	5.578E-02	Pulse	1.00	3
Cd			1	0.038	ug/l	9.40	54.00	2.296E-04	Pulse	0.50	3
Al			1	627.240	ug/l	0.67	97,982.12	4.044E-01	Pulse	1.00	3
Se			1	0.631	ug/l	21.59	77.22	3.285E-04	Pulse	3.00	3
Sb			1	0.307	ug/l	3.03	1,410.72	8.947E-03	Pulse	1.00	3
Se			1	1.566	ug/l	4.98	62.00	2.637E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,600,711.50	1.57	87.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		242,315.30	0.49	95.4	Pulse	0.30	3
1	Ge		157,686.97	0.52	92.7	Pulse	0.30	3
1	In		1,646,991.53	1.02	88.2	Pulse	0.30	3
1	Tb		4,849,605.50	1.82	91.7	Pulse	0.50	3
1	Lu		3,954,606.00	1.40	89.3	Pulse	0.50	3
1	Ge		235,150.63	0.66	92.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,434.50	11.61	105.9	Pulse	0.30	3

Quantitation Report

File Name 080SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 13:49
Sample Name FC5925-7
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.480	ug/l	1.85	19,399.67	8.085E-02	Pulse	0.50	3
As			1	5.969	ug/l	1.89	3,386.97	2.181E-02	Pulse	1.00	3
Mo			1	0.434	ug/l	7.19	1,158.70	4.972E-03	Pulse	0.50	3
Pb			1	0.261	ug/l	2.21	4,937.05	1.036E-03	Pulse	1.00	3
Be			1	0.126	ug/l	57.54	3.83	1.598E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	35.74	104.00	2.179E-05	Pulse	0.50	3
Ba			1	15.567	ug/l	1.77	21,816.48	1.342E-02	Pulse	0.50	3
Tl			1	0.283	ug/l	1.62	6,011.08	1.261E-03	Pulse	0.50	3
Sn			1	0.462	ug/l	2.01	1,497.85	9.214E-04	Pulse	0.30	3
Sr			1	22.193	ug/l	0.45	78,742.39	4.844E-02	Pulse	0.50	3
[Pb]			1	0.277	ug/l	3.05	2,405.51	6.898E-04	Pulse	0.50	3
Ca			1	4717.246	ug/l	0.49	86,923.56	3.622E-01	Pulse	0.50	3
Ti			1	1.531	ug/l	8.23	173.33	7.226E-04	Pulse	0.50	3
Na			1	17630.684	ug/l	0.66	11,190,986.00	4.664E+01	Analog	1.00	3
Mg			1	486.611	ug/l	0.32	164,915.98	6.873E-01	Pulse	1.00	3
K			1	11311.511	ug/l	0.58	3,989,250.25	1.663E+01	Pulse	1.00	3
V			1	25.489	ug/l	0.69	89,149.29	3.715E-01	Pulse	0.50	3
Mn			1	1.294	ug/l	0.91	3,821.72	2.462E-02	Pulse	0.50	3
Fe			1	1723.438	ug/l	0.95	6,433,308.67	4.144E+01	Analog	0.50	3
Co			1	0.897	ug/l	4.72	5,762.88	3.712E-02	Pulse	0.50	3
Ni			1	0.734	ug/l	2.22	1,514.07	9.752E-03	Pulse	0.50	3
Cu			1	2.520	ug/l	0.87	14,263.30	9.187E-02	Pulse	0.50	3
Zn			1	11.676	ug/l	2.64	11,496.43	4.932E-02	Pulse	1.00	3
Cd			1	0.032	ug/l	18.06	44.67	1.915E-04	Pulse	0.50	3
Al			1	907.481	ug/l	0.42	140,271.00	5.846E-01	Pulse	1.00	3
Se			1	1.226	ug/l	14.05	108.00	4.636E-04	Pulse	3.00	3
Sb			1	0.197	ug/l	4.07	921.02	5.933E-03	Pulse	1.00	3
Se			1	2.028	ug/l	8.97	73.11	3.138E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,486,610.67	1.53	85.0	Pulse	0.50	3
1	Sc		239,960.53	0.73	94.5	Pulse	0.30	3
1	Ge		155,254.32	0.53	91.3	Pulse	0.30	3
1	In		1,625,664.07	0.67	87.0	Pulse	0.30	3
1	Tb		4,766,453.67	1.17	90.2	Pulse	0.50	3
1	Lu		3,872,186.92	1.48	87.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		233,075.69	0.84	91.8	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,372.28	7.05	101.3	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:53
Sample Name	FC5925-8
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.326	ug/l	0.94	10,012.60	4.277E-02	Pulse	0.50	3
As			1	0.410	ug/l	15.96	251.67	1.645E-03	Pulse	1.00	3
Mo			1	0.192	ug/l	6.18	547.34	2.405E-03	Pulse	0.50	3
Pb			1	0.663	ug/l	0.78	10,759.73	2.270E-03	Pulse	1.00	3
Be			1	0.192	ug/l	72.83	5.33	2.274E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	38.21	76.67	1.619E-05	Pulse	0.50	3
Ba			1	46.983	ug/l	0.69	64,866.15	4.047E-02	Pulse	0.50	3
Tl			1	0.376	ug/l	3.23	7,876.50	1.662E-03	Pulse	0.50	3
Sn			1	0.355	ug/l	5.36	1,165.60	7.273E-04	Pulse	0.30	3
Sr			1	308.937	ug/l	0.24	1,077,551.50	6.724E-01	Pulse	0.50	3
[Pb]			1	0.669	ug/l	0.24	5,031.43	1.463E-03	Pulse	0.50	3
Ca			1	63419.304	ug/l	0.38	1,138,018.25	4.861E+00	Pulse	0.50	3
Ti			1	1.040	ug/l	24.24	115.33	4.929E-04	Pulse	0.50	3
Na			1	14611.825	ug/l	0.74	9,057,313.67	3.869E+01	Analog	1.00	3
Mg			1	6696.941	ug/l	0.91	2,188,746.25	9.349E+00	Pulse	1.00	3
K			1	19227.149	ug/l	0.56	6,585,597.67	2.813E+01	Analog	1.00	3
V			1	12.237	ug/l	1.78	42,235.53	1.804E-01	Pulse	0.50	3
Mn			1	1.408	ug/l	6.93	4,076.44	2.662E-02	Pulse	0.50	3
Fe			1	133.723	ug/l	0.67	498,485.25	3.254E+00	Pulse	0.50	3
Co			1	0.570	ug/l	0.86	3,675.03	2.399E-02	Pulse	0.50	3
Ni			1	0.734	ug/l	1.35	1,494.06	9.752E-03	Pulse	0.50	3
Cu			1	2.389	ug/l	1.93	13,522.75	8.825E-02	Pulse	0.50	3
Zn			1	12.630	ug/l	1.03	12,007.41	5.278E-02	Pulse	1.00	3
Cd			1	0.114	ug/l	10.79	154.00	6.766E-04	Pulse	0.50	3
Al			1	1402.047	ug/l	0.81	211,307.46	9.026E-01	Pulse	1.00	3
Se			1	0.974	ug/l	14.37	92.44	4.063E-04	Pulse	3.00	3
Sb			1	0.334	ug/l	4.58	1,486.40	9.699E-03	Pulse	1.00	3
Se			1	1.663	ug/l	9.11	62.34	2.741E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,439,590.08	1.51	83.8	Pulse	0.50	3
1	Sc		234,120.05	1.02	92.2	Pulse	0.30	3
1	Ge		153,210.70	1.35	90.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,602,603.72	1.44	85.8	Pulse	0.30	3
1	Tb		4,739,007.67	2.35	89.6	Pulse	0.50	3
1	Lu		3,856,036.67	1.94	87.1	Pulse	0.50	3
1	Ge		227,469.72	1.15	89.6	Pulse	0.30	3
1	Te		4.00	173.21	600.0	Pulse	0.50	3
1	Li		1,303.38	0.26	96.2	Pulse	0.30	3

Quantitation Report

File Name	082CCVA.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 13:57
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.803	ug/l	1.60	470,584.93	1.798E+00	Pulse	0.50	3
As			1	50.855	ug/l	1.44	62,998.11	3.691E-01	Pulse	1.00	3
Mo			1	50.404	ug/l	0.80	273,847.04	1.068E+00	Pulse	0.50	3
Pb			1	50.317	ug/l	0.59	1,558,317.67	3.097E-01	Pulse	1.00	3
Be			1	54.058	ug/l	3.20	2,863.20	1.094E-02	Pulse	2.00	3
Ag			1	54.407	ug/l	0.38	899,113.04	1.787E-01	Pulse	0.50	3
Ba			1	50.276	ug/l	0.78	152,436.03	8.660E-02	Pulse	0.50	3
Tl			1	51.387	ug/l	0.27	2,224,345.50	4.420E-01	Pulse	0.50	3
Sn			1	50.649	ug/l	1.16	324,345.71	1.843E-01	Pulse	0.30	3
Sr			1	50.874	ug/l	0.82	389,950.40	2.215E-01	Pulse	0.50	3
[Pb]			1	50.856	ug/l	0.40	738,317.60	2.008E-01	Pulse	0.50	3
Ca			1	4972.787	ug/l	1.61	199,728.38	7.629E-01	Pulse	0.50	3
Ti			1	50.039	ug/l	2.38	12,279.20	4.691E-02	Pulse	0.50	3
Na			1	5310.601	ug/l	1.08	7,377,164.33	2.818E+01	Analog	1.00	3
Mg			1	4957.333	ug/l	1.34	3,622,521.75	1.384E+01	Pulse	1.00	3
K			1	4988.340	ug/l	0.85	3,844,634.92	1.468E+01	Pulse	1.00	3
V			1	50.561	ug/l	1.17	382,841.54	1.462E+00	Pulse	0.50	3
Mn			1	50.500	ug/l	0.62	303,332.23	1.777E+00	Pulse	0.50	3
Fe			1	5436.549	ug/l	0.74	44,577,489.33	2.612E+02	Analog	0.50	3
Co			1	52.361	ug/l	0.57	716,820.23	4.200E+00	Pulse	0.50	3
Ni			1	52.508	ug/l	0.81	187,337.88	1.098E+00	Pulse	0.50	3
Cu			1	52.678	ug/l	1.16	498,758.10	2.922E+00	Pulse	0.50	3
Zn			1	50.780	ug/l	0.55	96,337.50	3.756E-01	Pulse	1.00	3
Cd			1	49.395	ug/l	1.46	149,843.23	5.842E-01	Pulse	0.50	3
Al			1	4745.780	ug/l	1.73	1,598,084.66	6.104E+00	Pulse	1.00	3
Se			1	48.641	ug/l	1.05	5,716.41	2.229E-02	Pulse	3.00	3
Sb			1	49.156	ug/l	0.93	460,539.39	2.699E+00	Pulse	1.00	3
Se			1	49.284	ug/l	0.49	2,768.87	1.080E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,677,509.33	0.75	89.6	Pulse	0.50	3
1	Sc		261,822.33	1.00	103.1	Pulse	0.30	3
1	Ge		170,662.66	0.15	100.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,760,173.96	0.46	94.2	Pulse	0.30	3
1	Tb		5,032,207.17	0.69	95.2	Pulse	0.50	3
1	Lu		4,111,612.00	0.51	92.9	Pulse	0.50	3
1	Ge		256,482.87	0.12	101.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,396.73	7.26	103.1	Pulse	0.30	3

Quantitation Report

File Name	083_CCV.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:00
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.993	ug/l	1.47	899,277.83	3.501E+00	Pulse	0.50	3
As			1	98.356	ug/l	0.73	120,528.57	7.138E-01	Pulse	1.00	3
Mo			1	99.546	ug/l	1.48	527,259.19	2.108E+00	Pulse	0.50	3
Pb			1	96.902	ug/l	1.27	2,947,875.67	5.962E-01	Pulse	1.00	3
Be			1	103.634	ug/l	1.70	5,385.72	2.096E-02	Pulse	2.00	3
Ag			1	104.479	ug/l	0.49	1,696,531.00	3.431E-01	Pulse	0.50	3
Ba			1	98.361	ug/l	0.62	292,505.23	1.694E-01	Pulse	0.50	3
Tl			1	98.851	ug/l	0.69	4,204,349.83	8.503E-01	Pulse	0.50	3
Sn			1	101.030	ug/l	0.28	634,454.59	3.675E-01	Pulse	0.30	3
Sr			1	102.277	ug/l	0.64	768,713.90	4.452E-01	Pulse	0.50	3
[Pb]			1	99.428	ug/l	0.71	1,397,328.62	3.924E-01	Pulse	0.50	3
Ca			1	9648.744	ug/l	1.00	380,058.83	1.480E+00	Pulse	0.50	3
Ti			1	99.800	ug/l	2.74	24,028.04	9.355E-02	Pulse	0.50	3
Na			1	10406.324	ug/l	0.50	14,132,543.33	5.502E+01	Analog	1.00	3
Mg			1	10229.661	ug/l	0.97	7,332,030.83	2.854E+01	Analog	1.00	3
K			1	10159.927	ug/l	0.39	7,633,791.50	2.972E+01	Analog	1.00	3
V			1	99.180	ug/l	0.94	735,859.94	2.865E+00	Pulse	0.50	3
Mn			1	98.288	ug/l	1.06	583,843.17	3.458E+00	Pulse	0.50	3
Fe			1	10593.673	ug/l	0.50	85,939,525.33	5.089E+02	Analog	0.50	3
Co			1	100.746	ug/l	0.55	1,364,459.42	8.080E+00	Pulse	0.50	3
Ni			1	100.380	ug/l	0.55	354,026.26	2.097E+00	Pulse	0.50	3
Cu			1	99.897	ug/l	0.92	932,426.02	5.522E+00	Pulse	0.50	3
Zn			1	98.579	ug/l	1.78	180,721.40	7.226E-01	Pulse	1.00	3
Cd			1	96.355	ug/l	2.29	284,991.96	1.140E+00	Pulse	0.50	3
Al			1	9165.405	ug/l	1.34	3,027,915.08	1.179E+01	Pulse	1.00	3
Se			1	95.217	ug/l	1.38	10,866.75	4.345E-02	Pulse	3.00	3
Sb			1	95.055	ug/l	1.04	881,062.12	5.218E+00	Pulse	1.00	3
Se			1	96.418	ug/l	0.95	5,259.62	2.103E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,561,196.75	0.23	86.8	Pulse	0.50	3
1	Sc		256,875.73	0.56	101.1	Pulse	0.30	3
1	Ge		168,860.03	0.08	99.3	Pulse	0.30	3
1	In		1,726,495.18	0.40	92.4	Pulse	0.30	3
1	Tb		4,944,720.33	0.17	93.5	Pulse	0.50	3
1	Lu		4,045,224.00	0.16	91.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		250,111.71	1.08	98.5	Pulse	0.30	3
1	Te		3.33	91.65	500.0	Pulse	0.50	3
1	Li		1,372.27	2.90	101.3	Pulse	0.30	3

Quantitation Report

File Name	084_CCB.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:04
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.014	ug/l	-33.17	300.00	1.174E-03	Pulse	0.50	3
As			1	0.009	ug/l	19.85	37.67	2.259E-04	Pulse	1.00	3
Mo			1	0.140	ug/l	27.09	828.02	3.347E-03	Pulse	0.50	3
Pb			1	-0.009	ug/l	-29.91	869.69	1.786E-04	Pulse	1.00	3
Be			1	0.045	ug/l	49.99	3.17	1.239E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	25.36	208.00	4.273E-05	Pulse	0.50	3
Ba			1	0.003	ug/l	154.28	33.33	1.911E-05	Pulse	0.50	3
Tl			1	0.017	ug/l	28.17	940.03	1.932E-04	Pulse	0.50	3
Sn			1	0.188	ug/l	34.48	1,333.39	7.645E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	1495.09	259.33	1.489E-04	Pulse	0.50	3
[Pb]			1	-0.004	ug/l	-138.92	466.01	1.289E-04	Pulse	0.50	3
Ca			1	-1.850	ug/l	-50.30	114.00	4.462E-04	Pulse	0.50	3
Ti			1	0.036	ug/l	80.27	10.00	3.915E-05	Pulse	0.50	3
Na			1	-26.069	ug/l	-2.72	17,766.19	6.950E-02	Pulse	1.00	3
Mg			1	-1.408	ug/l	-22.79	1,182.71	4.628E-03	Pulse	1.00	3
K			1	-0.669	ug/l	-59.83	46,632.07	1.824E-01	Pulse	1.00	3
V			1	0.002	ug/l	569.91	1,016.70	3.976E-03	Pulse	0.50	3
Mn			1	-0.029	ug/l	-20.12	144.00	8.640E-04	Pulse	0.50	3
Fe			1	1.065	ug/l	20.05	15,484.92	9.286E-02	Pulse	0.50	3
Co			1	0.002	ug/l	160.29	222.00	1.332E-03	Pulse	0.50	3
Ni			1	-0.050	ug/l	-13.09	174.00	1.043E-03	Pulse	0.50	3
Cu			1	-0.135	ug/l	-8.60	2,510.84	1.505E-02	Pulse	0.50	3
Zn			1	-0.857	ug/l	-1.42	176.00	7.120E-04	Pulse	1.00	3
Cd			1	0.013	ug/l	0.86	38.00	1.538E-04	Pulse	0.50	3
Al			1	0.160	ug/l	209.80	315.34	1.234E-03	Pulse	1.00	3
Se			1	0.062	ug/l	26.55	52.78	2.135E-04	Pulse	3.00	3
Sb			1	0.037	ug/l	9.22	427.01	2.560E-03	Pulse	1.00	3
Se			1	0.219	ug/l	18.01	34.89	1.411E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,617,853.67	0.92	88.2	Pulse	0.50	3
1	Sc		255,680.55	0.47	100.7	Pulse	0.30	3
1	Ge		166,800.18	0.49	98.1	Pulse	0.30	3
1	In		1,742,683.86	0.42	93.3	Pulse	0.30	3
1	Tb		4,871,737.00	0.72	92.1	Pulse	0.50	3
1	Lu		3,972,465.33	0.27	89.7	Pulse	0.50	3
1	Ge		247,161.93	0.83	97.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,391.17	2.17	102.7	Pulse	0.30	3

Quantitation Report

File Name 085SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:08
Sample Name FC5925-9
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.348	ug/l	3.03	10,233.39	4.316E-02	Pulse	0.50	3
As			1	0.813	ug/l	3.90	481.34	3.109E-03	Pulse	1.00	3
Mo			1	1.089	ug/l	3.09	2,744.21	1.190E-02	Pulse	0.50	3
Pb			1	0.230	ug/l	2.72	4,400.57	9.404E-04	Pulse	1.00	3
Be			1	0.142	ug/l	62.17	4.17	1.762E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	23.59	202.00	4.323E-05	Pulse	0.50	3
Ba			1	31.456	ug/l	0.96	43,121.17	2.710E-02	Pulse	0.50	3
Tl			1	0.289	ug/l	2.45	6,015.75	1.286E-03	Pulse	0.50	3
Sn			1	0.667	ug/l	7.09	2,061.24	1.295E-03	Pulse	0.30	3
Sr			1	110.840	ug/l	0.11	383,961.86	2.413E-01	Pulse	0.50	3
[Pb]			1	0.235	ug/l	8.69	2,058.80	6.085E-04	Pulse	0.50	3
Ca			1	15569.601	ug/l	1.04	283,055.76	1.194E+00	Pulse	0.50	3
Ti			1	1.141	ug/l	28.26	128.00	5.401E-04	Pulse	0.50	3
Na			1	70136.036	ug/l	0.39	43,837,988.00	1.849E+02	Analog	1.00	3
Mg			1	3797.995	ug/l	0.73	1,257,892.75	5.306E+00	Pulse	1.00	3
K			1	3478.864	ug/l	0.50	1,242,437.00	5.241E+00	Pulse	1.00	3
V			1	27.403	ug/l	1.03	94,624.96	3.991E-01	Pulse	0.50	3
Mn			1	4.024	ug/l	2.65	11,233.27	7.261E-02	Pulse	0.50	3
Fe			1	938.291	ug/l	0.38	3,493,726.33	2.258E+01	Pulse	0.50	3
Co			1	0.277	ug/l	8.05	1,892.77	1.224E-02	Pulse	0.50	3
Ni			1	0.633	ug/l	1.30	1,346.05	8.698E-03	Pulse	0.50	3
Cu			1	0.917	ug/l	5.47	7,384.77	4.774E-02	Pulse	0.50	3
Zn			1	14.611	ug/l	0.59	13,826.96	5.998E-02	Pulse	1.00	3
Cd			1	0.083	ug/l	7.61	114.00	4.941E-04	Pulse	0.50	3
Al			1	486.134	ug/l	1.63	74,353.45	3.136E-01	Pulse	1.00	3
Se			1	0.943	ug/l	6.58	92.11	3.994E-04	Pulse	3.00	3
Sb			1	0.690	ug/l	1.78	3,012.58	1.946E-02	Pulse	1.00	3
Se			1	2.038	ug/l	7.86	72.55	3.149E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,384,768.83	1.71	82.5	Pulse	0.50	3
1	Sc		237,076.60	1.05	93.4	Pulse	0.30	3
1	Ge		154,739.32	2.17	91.0	Pulse	0.30	3
1	In		1,591,057.99	1.64	85.2	Pulse	0.30	3
1	Tb		4,680,601.17	2.18	88.5	Pulse	0.50	3
1	Lu		3,800,985.58	2.06	85.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		230,529.92	1.83	90.8	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,324.49	3.25	97.8	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:12
Sample Name FC5925-10
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.965	ug/l	2.19	8,653.95	3.639E-02	Pulse	0.50	3
As			1	0.422	ug/l	13.59	264.33	1.691E-03	Pulse	1.00	3
Mo			1	7.049	ug/l	2.24	17,255.29	7.501E-02	Pulse	0.50	3
Pb			1	0.038	ug/l	13.25	1,646.09	3.479E-04	Pulse	1.00	3
Be			1	0.121	ug/l	95.67	3.67	1.549E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	11.22	122.00	2.576E-05	Pulse	0.50	3
Ba			1	61.959	ug/l	1.20	86,314.37	5.337E-02	Pulse	0.50	3
Tl			1	0.479	ug/l	3.37	9,960.92	2.104E-03	Pulse	0.50	3
Sn			1	0.866	ug/l	13.20	2,683.55	1.657E-03	Pulse	0.30	3
Sr			1	336.468	ug/l	1.34	1,184,244.29	7.323E-01	Pulse	0.50	3
[Pb]			1	0.042	ug/l	10.74	764.02	2.265E-04	Pulse	0.50	3
Ca			1	70885.425	ug/l	0.99	1,291,951.66	5.433E+00	Pulse	0.50	3
Ti			1	0.479	ug/l	10.26	54.67	2.297E-04	Pulse	0.50	3
Na			1	48565.237	ug/l	1.10	30,462,504.00	1.281E+02	Analog	1.00	3
Mg			1	5771.122	ug/l	0.98	1,916,055.25	8.058E+00	Pulse	1.00	3
K			1	13288.089	ug/l	0.83	4,636,374.83	1.950E+01	Pulse	1.00	3
V			1	25.857	ug/l	0.68	89,603.41	3.768E-01	Pulse	0.50	3
Mn			1	16.170	ug/l	1.66	44,798.76	2.861E-01	Pulse	0.50	3
Fe			1	545.333	ug/l	1.59	2,057,348.21	1.314E+01	Pulse	0.50	3
Co			1	0.414	ug/l	2.71	2,775.54	1.773E-02	Pulse	0.50	3
Ni			1	0.687	ug/l	4.26	1,448.73	9.256E-03	Pulse	0.50	3
Cu			1	1.670	ug/l	4.67	10,721.67	6.848E-02	Pulse	0.50	3
Zn			1	13.125	ug/l	1.08	12,555.09	5.458E-02	Pulse	1.00	3
Cd			1	0.246	ug/l	4.06	335.33	1.458E-03	Pulse	0.50	3
Al			1	115.760	ug/l	1.41	17,943.39	7.546E-02	Pulse	1.00	3
Se			1	0.788	ug/l	19.82	83.78	3.642E-04	Pulse	3.00	3
Sb			1	1.668	ug/l	1.98	7,250.10	4.630E-02	Pulse	1.00	3
Se			1	1.620	ug/l	11.27	62.00	2.695E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,373,015.17	2.01	82.2	Pulse	0.50	3
1	Sc		237,789.06	1.25	93.6	Pulse	0.30	3
1	Ge		156,574.35	1.74	92.1	Pulse	0.30	3
1	In		1,617,030.39	1.85	86.6	Pulse	0.30	3
1	Tb		4,732,358.83	2.32	89.5	Pulse	0.50	3
1	Lu		3,857,381.08	2.39	87.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		230,027.44	0.48	90.6	Pulse	0.30	3
1	Te		2.67	86.60	400.0	Pulse	0.50	3
1	Li		1,205.59	3.05	89.0	Pulse	0.30	3

Quantitation Report

File Name 087SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:16
Sample Name FC5679-13F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.280	ug/l	3.06	5,684.86	2.428E-02	Pulse	0.50	3
As			1	0.607	ug/l	11.66	363.34	2.361E-03	Pulse	1.00	3
Mo			1	0.019	ug/l	95.59	132.67	5.802E-04	Pulse	0.50	3
Pb			1	0.074	ug/l	6.89	2,197.48	4.608E-04	Pulse	1.00	3
Be			1	0.214	ug/l	20.75	5.83	2.491E-05	Pulse	2.00	3
Ag			1	0.005	ug/l	21.61	93.33	1.960E-05	Pulse	0.50	3
Ba			1	106.381	ug/l	0.58	148,802.69	9.162E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	271.08	215.33	4.516E-05	Pulse	0.50	3
Sn			1	0.176	ug/l	2.27	653.35	4.023E-04	Pulse	0.30	3
Sr			1	13.994	ug/l	1.30	49,686.35	3.060E-02	Pulse	0.50	3
[Pb]			1	0.071	ug/l	6.51	1,010.04	2.849E-04	Pulse	0.50	3
Ca			1	8703.732	ug/l	0.26	156,368.03	6.677E-01	Pulse	0.50	3
Ti			1	0.439	ug/l	27.31	49.33	2.108E-04	Pulse	0.50	3
Na			1	4573.692	ug/l	0.50	2,869,048.17	1.225E+01	Pulse	1.00	3
Mg			1	484.427	ug/l	1.05	160,221.54	6.842E-01	Pulse	1.00	3
K			1	243.141	ug/l	0.38	125,921.37	5.377E-01	Pulse	1.00	3
V			1	2.260	ug/l	2.89	8,547.90	3.650E-02	Pulse	0.50	3
Mn			1	6.981	ug/l	2.02	19,172.79	1.246E-01	Pulse	0.50	3
Fe			1	987.672	ug/l	1.01	3,657,128.08	2.376E+01	Pulse	0.50	3
Co			1	0.572	ug/l	1.27	3,706.37	2.408E-02	Pulse	0.50	3
Ni			1	0.695	ug/l	10.31	1,437.39	9.341E-03	Pulse	0.50	3
Cu			1	0.534	ug/l	3.85	5,724.20	3.720E-02	Pulse	0.50	3
Zn			1	2.830	ug/l	5.87	3,935.41	1.721E-02	Pulse	1.00	3
Cd			1	0.005	ug/l	29.83	8.00	3.501E-05	Pulse	0.50	3
Al			1	1214.274	ug/l	0.67	183,083.38	7.818E-01	Pulse	1.00	3
Se			1	0.331	ug/l	47.15	59.56	2.603E-04	Pulse	3.00	3
Sb			1	0.120	ug/l	12.56	587.01	3.815E-03	Pulse	1.00	3
Se			1	0.973	ug/l	18.54	45.56	1.993E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,546,165.67	1.23	86.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		234,175.26	0.28	92.2	Pulse	0.30	3
1	Ge		153,890.29	0.13	90.5	Pulse	0.30	3
1	In		1,624,032.57	0.99	86.9	Pulse	0.30	3
1	Tb		4,768,153.83	1.76	90.2	Pulse	0.50	3
1	Lu		3,868,419.42	1.23	87.4	Pulse	0.50	3
1	Ge		228,700.59	0.67	90.1	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,306.72	5.70	96.5	Pulse	0.30	3

Quantitation Report

File Name	088SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:19
Sample Name	FC5824-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.730	ug/l	3.35	11,731.55	4.991E-02	Pulse	0.50	3
As			1	0.595	ug/l	11.24	352.67	2.316E-03	Pulse	1.00	3
Mo			1	0.038	ug/l	37.90	176.67	7.775E-04	Pulse	0.50	3
Pb			1	0.052	ug/l	6.43	1,853.44	3.923E-04	Pulse	1.00	3
Be			1	0.024	ug/l	223.52	1.33	5.690E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	48.72	98.00	2.072E-05	Pulse	0.50	3
Ba			1	25.833	ug/l	0.79	35,739.14	2.226E-02	Pulse	0.50	3
Tl			1	0.001	ug/l	77.04	224.00	4.740E-05	Pulse	0.50	3
Sn			1	0.193	ug/l	11.17	696.69	4.337E-04	Pulse	0.30	3
Sr			1	300.940	ug/l	0.22	1,051,575.94	6.550E-01	Pulse	0.50	3
[Pb]			1	0.062	ug/l	11.25	918.03	2.671E-04	Pulse	0.50	3
Ca			1	52468.057	ug/l	0.34	945,169.56	4.022E+00	Pulse	0.50	3
Ti			1	0.660	ug/l	35.49	74.00	3.147E-04	Pulse	0.50	3
Na			1	7248.344	ug/l	0.37	4,534,907.50	1.930E+01	Analog	1.00	3
Mg			1	813.298	ug/l	0.41	268,611.03	1.143E+00	Pulse	1.00	3
K			1	2139.398	ug/l	0.49	774,118.04	3.294E+00	Pulse	1.00	3
V			1	8.126	ug/l	1.79	28,464.06	1.211E-01	Pulse	0.50	3
Mn			1	7.604	ug/l	1.33	20,654.31	1.355E-01	Pulse	0.50	3
Fe			1	297.731	ug/l	0.48	1,096,071.46	7.193E+00	Pulse	0.50	3
Co			1	0.079	ug/l	7.85	656.68	4.309E-03	Pulse	0.50	3
Ni			1	0.484	ug/l	12.04	1,088.03	7.144E-03	Pulse	0.50	3
Cu			1	0.769	ug/l	3.65	6,654.50	4.367E-02	Pulse	0.50	3
Zn			1	0.174	ug/l	40.30	1,719.08	7.568E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	55.87	5.33	2.349E-05	Pulse	0.50	3
Al			1	421.800	ug/l	0.40	63,986.49	2.723E-01	Pulse	1.00	3
Se			1	0.572	ug/l	20.28	71.56	3.151E-04	Pulse	3.00	3
Sb			1	0.047	ug/l	3.95	275.67	1.809E-03	Pulse	1.00	3
Se			1	1.305	ug/l	10.98	53.44	2.353E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,437,843.83	1.11	83.8	Pulse	0.50	3
1	Sc		235,023.33	0.53	92.5	Pulse	0.30	3
1	Ge		152,379.55	0.98	89.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,605,537.89	1.14	85.9	Pulse	0.30	3
1	Tb		4,724,059.67	0.93	89.4	Pulse	0.50	3
1	Lu		3,822,943.08	1.47	86.4	Pulse	0.50	3
1	Ge		227,144.29	0.27	89.4	Pulse	0.30	3
1	Te		1.33	173.21	200.0	Pulse	0.50	3
1	Li		1,306.72	3.32	96.5	Pulse	0.30	3

Quantitation Report

File Name	089SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:23
Sample Name	FC5824-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.994	ug/l	1.31	4,460.53	1.922E-02	Pulse	0.50	3
As			1	0.230	ug/l	13.23	151.67	9.927E-04	Pulse	1.00	3
Mo			1	0.014	ug/l	73.99	120.67	5.278E-04	Pulse	0.50	3
Pb			1	0.038	ug/l	4.54	1,655.75	3.474E-04	Pulse	1.00	3
Be			1	0.088	ug/l	14.09	2.83	1.221E-05	Pulse	2.00	3
Ag			1	0.003	ug/l	27.31	74.00	1.552E-05	Pulse	0.50	3
Ba			1	51.700	ug/l	0.43	71,871.79	4.454E-02	Pulse	0.50	3
Tl			1	0.009	ug/l	17.40	384.67	8.066E-05	Pulse	0.50	3
Sn			1	0.129	ug/l	23.45	510.01	3.158E-04	Pulse	0.30	3
Sr			1	22.921	ug/l	0.92	80,726.66	5.002E-02	Pulse	0.50	3
[Pb]			1	0.042	ug/l	21.20	798.69	2.272E-04	Pulse	0.50	3
Ca			1	1959.272	ug/l	1.96	35,011.75	1.509E-01	Pulse	0.50	3
Ti			1	0.589	ug/l	20.94	65.33	2.814E-04	Pulse	0.50	3
Na			1	6516.074	ug/l	0.60	4,029,988.58	1.737E+01	Pulse	1.00	3
Mg			1	1971.567	ug/l	0.63	640,074.19	2.758E+00	Pulse	1.00	3
K			1	1490.304	ug/l	0.51	545,401.73	2.350E+00	Pulse	1.00	3
V			1	2.362	ug/l	2.88	8,811.35	3.797E-02	Pulse	0.50	3
Mn			1	3.490	ug/l	3.67	9,657.09	6.323E-02	Pulse	0.50	3
Fe			1	1327.318	ug/l	0.90	4,875,403.67	3.192E+01	Pulse	0.50	3
Co			1	0.093	ug/l	4.93	741.35	4.854E-03	Pulse	0.50	3
Ni			1	0.187	ug/l	6.90	618.01	4.047E-03	Pulse	0.50	3
Cu			1	0.548	ug/l	2.86	5,740.20	3.759E-02	Pulse	0.50	3
Zn			1	0.211	ug/l	24.97	1,761.42	7.700E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	45.30	11.33	4.950E-05	Pulse	0.50	3
Al			1	540.996	ug/l	0.97	80,961.58	3.489E-01	Pulse	1.00	3
Se			1	0.006	ug/l	1074.95	42.67	1.865E-04	Pulse	3.00	3
Sb			1	0.012	ug/l	80.09	130.33	8.528E-04	Pulse	1.00	3
Se			1	0.810	ug/l	33.40	41.56	1.816E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,513,823.33	1.72	85.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		232,044.44	0.38	91.4	Pulse	0.30	3
1	Ge		152,721.93	0.53	89.8	Pulse	0.30	3
1	In		1,613,748.20	1.06	86.4	Pulse	0.30	3
1	Tb		4,765,369.67	1.38	90.1	Pulse	0.50	3
1	Lu		3,862,766.83	0.90	87.3	Pulse	0.50	3
1	Ge		228,746.65	0.34	90.1	Pulse	0.30	3
1	Te		1.33	86.60	200.0	Pulse	0.50	3
1	Li		1,300.05	4.95	96.0	Pulse	0.30	3

Quantitation Report

File Name	090SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:27
Sample Name	FC5824-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	3.934	ug/l	2.03	16,547.70	7.120E-02	Pulse	0.50	3
As			1	0.695	ug/l	5.64	404.01	2.680E-03	Pulse	1.00	3
Mo			1	0.079	ug/l	21.53	275.33	1.213E-03	Pulse	0.50	3
Pb			1	0.182	ug/l	5.11	3,740.42	7.902E-04	Pulse	1.00	3
Be			1	0.060	ug/l	20.29	2.17	9.321E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	67.70	86.67	1.829E-05	Pulse	0.50	3
Ba			1	23.789	ug/l	2.02	33,051.38	2.050E-02	Pulse	0.50	3
Tl			1	0.011	ug/l	5.71	442.01	9.338E-05	Pulse	0.50	3
Sn			1	0.149	ug/l	17.75	568.90	3.529E-04	Pulse	0.30	3
Sr			1	7.994	ug/l	2.04	28,277.14	1.754E-02	Pulse	0.50	3
[Pb]			1	0.180	ug/l	4.31	1,754.10	4.992E-04	Pulse	0.50	3
Ca			1	8876.623	ug/l	0.26	158,277.80	6.810E-01	Pulse	0.50	3
Ti			1	0.834	ug/l	11.97	92.00	3.960E-04	Pulse	0.50	3
Na			1	3690.254	ug/l	0.67	2,306,819.25	9.925E+00	Pulse	1.00	3
Mg			1	118.373	ug/l	1.17	40,361.78	1.737E-01	Pulse	1.00	3
K			1	11486.966	ug/l	0.36	3,923,265.75	1.688E+01	Pulse	1.00	3
V			1	10.159	ug/l	0.87	34,961.93	1.504E-01	Pulse	0.50	3
Mn			1	0.626	ug/l	2.15	1,940.77	1.287E-02	Pulse	0.50	3
Fe			1	45.309	ug/l	1.14	170,372.88	1.130E+00	Pulse	0.50	3
Co			1	0.118	ug/l	4.47	884.69	5.866E-03	Pulse	0.50	3
Ni			1	0.353	ug/l	8.19	870.69	5.778E-03	Pulse	0.50	3
Cu			1	1.147	ug/l	7.03	8,150.42	5.408E-02	Pulse	0.50	3
Zn			1	2.005	ug/l	3.77	3,225.28	1.421E-02	Pulse	1.00	3
Cd			1	0.033	ug/l	26.84	46.00	2.026E-04	Pulse	0.50	3
Al			1	1662.443	ug/l	0.23	248,692.58	1.070E+00	Pulse	1.00	3
Se			1	1.010	ug/l	18.10	94.11	4.147E-04	Pulse	3.00	3
Sb			1	0.137	ug/l	2.85	645.34	4.280E-03	Pulse	1.00	3
Se			1	1.807	ug/l	8.21	65.78	2.898E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,512,873.58	1.94	85.6	Pulse	0.50	3
1	Sc		232,422.39	0.49	91.5	Pulse	0.30	3
1	Ge		150,794.09	2.16	88.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,612,033.93	1.14	86.3	Pulse	0.30	3
1	Tb		4,732,411.83	1.45	89.5	Pulse	0.50	3
1	Lu		3,849,804.42	2.14	87.0	Pulse	0.50	3
1	Ge		226,943.03	0.48	89.4	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,302.27	3.59	96.1	Pulse	0.30	3

Quantitation Report

File Name 091SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:31
Sample Name FC5824-1F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.568	ug/l	0.67	10,814.36	4.705E-02	Pulse	0.50	3
As			1	0.606	ug/l	6.72	355.00	2.359E-03	Pulse	1.00	3
Mo			1	0.020	ug/l	73.16	132.67	5.881E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	-206.40	1,085.04	2.306E-04	Pulse	1.00	3
Be			1	0.025	ug/l	198.66	1.33	5.817E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	111.41	70.67	1.504E-05	Pulse	0.50	3
Ba			1	25.124	ug/l	1.49	34,745.92	2.165E-02	Pulse	0.50	3
Tl			1	-0.002	ug/l	-65.85	162.67	3.454E-05	Pulse	0.50	3
Sn			1	0.126	ug/l	26.86	498.90	3.107E-04	Pulse	0.30	3
Sr			1	294.828	ug/l	1.11	1,029,815.88	6.417E-01	Pulse	0.50	3
[Pb]			1	-0.001	ug/l	-1043.25	491.34	1.426E-04	Pulse	0.50	3
Ca			1	51713.823	ug/l	0.84	911,085.31	3.964E+00	Pulse	0.50	3
Ti			1	0.478	ug/l	15.53	52.67	2.291E-04	Pulse	0.50	3
Na			1	6901.595	ug/l	0.25	4,225,163.00	1.838E+01	Pulse	1.00	3
Mg			1	823.763	ug/l	0.55	266,050.82	1.157E+00	Pulse	1.00	3
K			1	2177.788	ug/l	0.61	769,896.35	3.350E+00	Pulse	1.00	3
V			1	8.039	ug/l	0.43	27,548.75	1.199E-01	Pulse	0.50	3
Mn			1	7.946	ug/l	1.33	21,306.35	1.416E-01	Pulse	0.50	3
Fe			1	287.212	ug/l	1.11	1,044,601.50	6.940E+00	Pulse	0.50	3
Co			1	0.286	ug/l	4.46	1,895.44	1.259E-02	Pulse	0.50	3
Ni			1	0.328	ug/l	10.27	829.35	5.511E-03	Pulse	0.50	3
Cu			1	0.418	ug/l	5.06	5,120.03	3.402E-02	Pulse	0.50	3
Zn			1	-0.705	ug/l	-8.38	985.36	4.375E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	50.49	7.33	3.265E-05	Pulse	0.50	3
Al			1	357.078	ug/l	0.77	53,011.93	2.306E-01	Pulse	1.00	3
Se			1	0.528	ug/l	17.42	68.66	3.050E-04	Pulse	3.00	3
Sb			1	0.113	ug/l	4.25	546.34	3.630E-03	Pulse	1.00	3
Se			1	1.375	ug/l	19.43	54.67	2.429E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,447,180.58	1.32	84.0	Pulse	0.50	3
1	Sc		229,848.60	0.68	90.5	Pulse	0.30	3
1	Ge		150,505.93	0.70	88.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,604,860.63	0.36	85.9	Pulse	0.30	3
1	Tb		4,705,436.17	1.12	89.0	Pulse	0.50	3
1	Lu		3,833,847.17	1.08	86.6	Pulse	0.50	3
1	Ge		225,210.71	0.99	88.7	Pulse	0.30	3
1	Te		4.00	50.00	600.0	Pulse	0.50	3
1	Li		1,283.38	2.38	94.7	Pulse	0.30	3

Quantitation Report

File Name	092SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:34
Sample Name	FC5824-3F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.665	ug/l	3.65	3,062.25	1.341E-02	Pulse	0.50	3
As			1	0.214	ug/l	2.92	140.67	9.351E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	-1176.63	83.33	3.710E-04	Pulse	0.50	3
Pb			1	0.027	ug/l	14.75	1,487.40	3.164E-04	Pulse	1.00	3
Be			1	0.083	ug/l	54.55	2.67	1.168E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	30.36	92.67	1.970E-05	Pulse	0.50	3
Ba			1	53.429	ug/l	0.71	73,444.55	4.602E-02	Pulse	0.50	3
Tl			1	0.007	ug/l	40.04	344.67	7.323E-05	Pulse	0.50	3
Sn			1	0.129	ug/l	22.51	506.68	3.173E-04	Pulse	0.30	3
Sr			1	23.047	ug/l	0.50	80,260.01	5.029E-02	Pulse	0.50	3
[Pb]			1	0.029	ug/l	34.22	698.02	2.010E-04	Pulse	0.50	3
Ca			1	2064.122	ug/l	1.26	36,274.69	1.589E-01	Pulse	0.50	3
Ti			1	0.244	ug/l	26.64	27.33	1.197E-04	Pulse	0.50	3
Na			1	6536.590	ug/l	1.05	3,976,710.75	1.742E+01	Pulse	1.00	3
Mg			1	1955.967	ug/l	0.61	624,701.13	2.737E+00	Pulse	1.00	3
K			1	1643.517	ug/l	0.91	587,365.06	2.573E+00	Pulse	1.00	3
V			1	2.143	ug/l	3.13	7,946.97	3.482E-02	Pulse	0.50	3
Mn			1	3.569	ug/l	0.98	9,719.11	6.461E-02	Pulse	0.50	3
Fe			1	1210.760	ug/l	1.20	4,380,678.00	2.912E+01	Pulse	0.50	3
Co			1	0.113	ug/l	5.86	853.35	5.674E-03	Pulse	0.50	3
Ni			1	-0.003	ug/l	-255.58	310.00	2.061E-03	Pulse	0.50	3
Cu			1	0.650	ug/l	7.81	6,076.31	4.039E-02	Pulse	0.50	3
Zn			1	0.203	ug/l	19.38	1,722.41	7.672E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	68.63	7.33	3.278E-05	Pulse	0.50	3
Al			1	500.866	ug/l	0.39	73,754.56	3.231E-01	Pulse	1.00	3
Se			1	-0.003	ug/l	-3646.37	41.44	1.845E-04	Pulse	3.00	3
Sb			1	0.079	ug/l	6.26	406.68	2.704E-03	Pulse	1.00	3
Se			1	0.870	ug/l	15.43	42.22	1.880E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,471,767.08	1.58	84.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		228,281.90	0.86	89.9	Pulse	0.30	3
1	Ge		150,425.30	0.43	88.5	Pulse	0.30	3
1	In		1,595,739.87	1.04	85.4	Pulse	0.30	3
1	Tb		4,702,086.67	1.50	88.9	Pulse	0.50	3
1	Lu		3,830,941.00	1.00	86.5	Pulse	0.50	3
1	Ge		224,499.36	0.91	88.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,358.94	1.16	100.3	Pulse	0.30	3

Quantitation Report

File Name	093SMPL.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:38
Sample Name	FC5824-4F
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	3.750	ug/l	2.81	15,644.97	6.793E-02	Pulse	0.50	3
As			1	0.629	ug/l	2.19	365.67	2.441E-03	Pulse	1.00	3
Mo			1	0.043	ug/l	30.03	185.33	8.296E-04	Pulse	0.50	3
Pb			1	0.027	ug/l	16.95	1,476.40	3.146E-04	Pulse	1.00	3
Be			1	0.046	ug/l	96.53	1.83	7.953E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	70.58	86.67	1.844E-05	Pulse	0.50	3
Ba			1	23.529	ug/l	1.26	32,425.61	2.028E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	14.28	371.34	7.913E-05	Pulse	0.50	3
Sn			1	0.110	ug/l	10.26	452.23	2.826E-04	Pulse	0.30	3
Sr			1	7.906	ug/l	1.34	27,746.34	1.735E-02	Pulse	0.50	3
[Pb]			1	0.035	ug/l	14.89	743.35	2.138E-04	Pulse	0.50	3
Ca			1	8949.155	ug/l	0.95	158,097.70	6.866E-01	Pulse	0.50	3
Ti			1	0.650	ug/l	12.59	71.33	3.100E-04	Pulse	0.50	3
Na			1	3601.068	ug/l	1.00	2,231,442.50	9.690E+00	Pulse	1.00	3
Mg			1	117.907	ug/l	1.75	39,836.74	1.730E-01	Pulse	1.00	3
K			1	11441.211	ug/l	1.04	3,871,711.33	1.681E+01	Pulse	1.00	3
V			1	10.026	ug/l	1.18	34,196.52	1.485E-01	Pulse	0.50	3
Mn			1	1.424	ug/l	1.38	4,029.09	2.689E-02	Pulse	0.50	3
Fe			1	33.189	ug/l	0.90	125,694.20	8.389E-01	Pulse	0.50	3
Co			1	0.464	ug/l	5.72	2,960.24	1.976E-02	Pulse	0.50	3
Ni			1	0.299	ug/l	1.26	781.35	5.215E-03	Pulse	0.50	3
Cu			1	0.544	ug/l	3.27	5,617.50	3.749E-02	Pulse	0.50	3
Zn			1	0.276	ug/l	29.02	1,771.75	7.937E-03	Pulse	1.00	3
Cd			1	0.015	ug/l	12.49	20.67	9.262E-05	Pulse	0.50	3
Al			1	1536.886	ug/l	0.86	227,807.78	9.893E-01	Pulse	1.00	3
Se			1	0.810	ug/l	5.55	82.45	3.692E-04	Pulse	3.00	3
Sb			1	0.190	ug/l	1.41	859.69	5.738E-03	Pulse	1.00	3
Se			1	1.567	ug/l	6.63	58.89	2.637E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,478,106.25	1.51	84.8	Pulse	0.50	3
1	Sc		230,287.77	1.04	90.7	Pulse	0.30	3
1	Ge		149,828.34	0.66	88.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,599,308.31	1.76	85.6	Pulse	0.30	3
1	Tb		4,695,465.33	1.38	88.8	Pulse	0.50	3
1	Lu		3,808,339.67	1.35	86.0	Pulse	0.50	3
1	Ge		223,261.14	0.88	87.9	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,215.60	9.72	89.7	Pulse	0.30	3

Quantitation Report

File Name 094SMPL.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:42
Sample Name FC5877-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.490	ug/l	8.30	2,330.82	1.031E-02	Pulse	0.50	3
As			1	25.927	ug/l	0.41	13,993.78	9.422E-02	Pulse	1.00	3
Mo			1	0.194	ug/l	9.65	540.01	2.428E-03	Pulse	0.50	3
Pb			1	1.241	ug/l	0.94	18,707.20	4.049E-03	Pulse	1.00	3
Be			1	0.019	ug/l	245.94	1.17	5.153E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	39.47	86.67	1.872E-05	Pulse	0.50	3
Ba			1	17.763	ug/l	2.69	24,034.61	1.531E-02	Pulse	0.50	3
Tl			1	-0.005	ug/l	-11.03	102.00	2.206E-05	Pulse	0.50	3
Sn			1	0.225	ug/l	8.26	770.02	4.907E-04	Pulse	0.30	3
Sr			1	305.373	ug/l	0.17	1,043,176.19	6.646E-01	Pulse	0.50	3
[Pb]			1	1.282	ug/l	0.91	8,955.03	2.672E-03	Pulse	0.50	3
Ca			1	38764.656	ug/l	0.33	671,739.96	2.971E+00	Pulse	0.50	3
Ti			1	0.247	ug/l	23.82	27.33	1.210E-04	Pulse	0.50	3
Na			1	27325.942	ug/l	0.27	16,315,214.33	7.217E+01	Analog	1.00	3
Mg			1	5177.834	ug/l	0.46	1,634,511.58	7.230E+00	Pulse	1.00	3
K			1	6957.360	ug/l	0.37	2,327,671.42	1.030E+01	Pulse	1.00	3
V			1	1.153	ug/l	1.43	4,641.90	2.053E-02	Pulse	0.50	3
Mn			1	46.631	ug/l	0.77	122,032.85	8.216E-01	Pulse	0.50	3
Fe			1	703.746	ug/l	0.54	2,516,812.42	1.694E+01	Pulse	0.50	3
Co			1	0.933	ug/l	4.06	5,723.54	3.853E-02	Pulse	0.50	3
Ni			1	14.830	ug/l	0.43	23,291.32	1.568E-01	Pulse	0.50	3
Cu			1	12.448	ug/l	1.95	54,233.72	3.651E-01	Pulse	0.50	3
Zn			1	22.973	ug/l	0.35	20,090.44	9.033E-02	Pulse	1.00	3
Cd			1	0.009	ug/l	18.58	13.33	5.993E-05	Pulse	0.50	3
Al			1	1.563	ug/l	8.65	459.68	2.034E-03	Pulse	1.00	3
Se			1	-0.026	ug/l	-689.21	39.89	1.793E-04	Pulse	3.00	3
Sb			1	0.056	ug/l	8.30	305.67	2.058E-03	Pulse	1.00	3
Se			1	0.513	ug/l	24.05	33.22	1.493E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,351,517.75	1.16	81.7	Pulse	0.50	3
1	Sc		226,065.71	0.49	89.0	Pulse	0.30	3
1	Ge		148,528.29	0.19	87.4	Pulse	0.30	3
1	In		1,569,579.28	0.82	84.0	Pulse	0.30	3
1	Tb		4,620,535.00	1.84	87.4	Pulse	0.50	3
1	Lu		3,763,934.67	1.44	85.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		222,404.09	0.57	87.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		1,301.16	8.38	96.1	Pulse	0.30	3

Quantitation Report

File Name 095CCVA.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:46
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment =std 4
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.390	ug/l	0.83	444,221.08	1.783E+00	Pulse	0.50	3
As			1	50.641	ug/l	1.40	60,022.26	3.676E-01	Pulse	1.00	3
Mo			1	51.063	ug/l	0.70	262,187.37	1.082E+00	Pulse	0.50	3
Pb			1	50.570	ug/l	0.40	1,513,924.42	3.112E-01	Pulse	1.00	3
Be			1	54.047	ug/l	0.18	2,724.52	1.094E-02	Pulse	2.00	3
Ag			1	53.830	ug/l	0.38	859,922.58	1.768E-01	Pulse	0.50	3
Ba			1	50.283	ug/l	1.19	146,316.56	8.662E-02	Pulse	0.50	3
Tl			1	51.392	ug/l	0.41	2,150,435.08	4.421E-01	Pulse	0.50	3
Sn			1	50.594	ug/l	1.48	310,933.26	1.841E-01	Pulse	0.30	3
Sr			1	50.997	ug/l	1.32	375,140.98	2.221E-01	Pulse	0.50	3
[Pb]			1	51.304	ug/l	0.80	717,875.79	2.025E-01	Pulse	0.50	3
Ca			1	4937.921	ug/l	0.70	188,745.38	7.576E-01	Pulse	0.50	3
Ti			1	49.022	ug/l	1.01	11,449.37	4.595E-02	Pulse	0.50	3
Na			1	5359.893	ug/l	0.57	7,085,200.33	2.844E+01	Analog	1.00	3
Mg			1	4976.936	ug/l	0.75	3,461,091.00	1.389E+01	Pulse	1.00	3
K			1	4977.291	ug/l	0.49	3,650,740.08	1.465E+01	Pulse	1.00	3
V			1	50.499	ug/l	0.92	363,901.61	1.461E+00	Pulse	0.50	3
Mn			1	50.348	ug/l	1.51	289,355.92	1.772E+00	Pulse	0.50	3
Fe			1	5453.613	ug/l	1.08	42,786,173.33	2.620E+02	Analog	0.50	3
Co			1	52.084	ug/l	1.57	682,233.13	4.178E+00	Pulse	0.50	3
Ni			1	51.814	ug/l	1.50	176,882.14	1.083E+00	Pulse	0.50	3
Cu			1	52.286	ug/l	1.15	473,696.48	2.901E+00	Pulse	0.50	3
Zn			1	51.124	ug/l	0.92	91,654.26	3.781E-01	Pulse	1.00	3
Cd			1	50.427	ug/l	1.86	144,575.34	5.964E-01	Pulse	0.50	3
Al			1	4746.672	ug/l	1.35	1,521,154.92	6.105E+00	Pulse	1.00	3
Se			1	48.824	ug/l	0.94	5,422.77	2.237E-02	Pulse	3.00	3
Sb			1	49.457	ug/l	1.38	443,334.76	2.715E+00	Pulse	1.00	3
Se			1	50.268	ug/l	0.89	2,668.63	1.101E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,544,445.08	0.53	86.4	Pulse	0.50	3
1	Sc		249,152.71	0.73	98.1	Pulse	0.30	3
1	Ge		163,303.62	1.24	96.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,689,247.05	0.20	90.4	Pulse	0.30	3
1	Tb		4,864,376.83	0.44	92.0	Pulse	0.50	3
1	Lu		3,984,943.50	0.65	90.0	Pulse	0.50	3
1	Ge		242,397.25	0.40	95.4	Pulse	0.30	3
1	Te		2.00	100.00	300.0	Pulse	0.50	3
1	Li		1,402.28	4.87	103.5	Pulse	0.30	3

Quantitation Report

File Name	096_CCV.d
File Path	D:\2023\xa051823m1.b
Method File	
Method Path	
Acq Time	5/18/2023 14:50
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	5/18/2023 13:19
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.762	ug/l	1.37	858,650.50	3.493E+00	Pulse	0.50	3
As			1	98.711	ug/l	0.96	114,840.23	7.163E-01	Pulse	1.00	3
Mo			1	99.484	ug/l	0.39	506,539.05	2.107E+00	Pulse	0.50	3
Pb			1	97.194	ug/l	1.00	2,861,649.17	5.980E-01	Pulse	1.00	3
Be			1	104.157	ug/l	3.41	5,179.16	2.107E-02	Pulse	2.00	3
Ag			1	103.760	ug/l	0.57	1,630,686.62	3.407E-01	Pulse	0.50	3
Ba			1	98.286	ug/l	0.98	280,976.65	1.693E-01	Pulse	0.50	3
Tl			1	98.579	ug/l	0.56	4,057,951.08	8.479E-01	Pulse	0.50	3
Sn			1	101.410	ug/l	1.12	612,190.82	3.689E-01	Pulse	0.30	3
Sr			1	101.586	ug/l	1.14	733,976.85	4.422E-01	Pulse	0.50	3
[Pb]			1	99.307	ug/l	0.37	1,353,666.25	3.919E-01	Pulse	0.50	3
Ca			1	9651.582	ug/l	1.22	363,844.10	1.480E+00	Pulse	0.50	3
Ti			1	99.717	ug/l	1.11	22,978.16	9.347E-02	Pulse	0.50	3
Na			1	10485.338	ug/l	1.16	13,627,576.33	5.543E+01	Analog	1.00	3
Mg			1	10326.083	ug/l	1.24	7,083,204.33	2.881E+01	Analog	1.00	3
K			1	10183.473	ug/l	0.61	7,322,860.33	2.979E+01	Analog	1.00	3
V			1	98.989	ug/l	1.01	702,902.38	2.859E+00	Pulse	0.50	3
Mn			1	99.006	ug/l	0.17	558,341.04	3.483E+00	Pulse	0.50	3
Fe			1	10739.023	ug/l	0.52	82,708,264.00	5.159E+02	Analog	0.50	3
Co			1	101.316	ug/l	0.74	1,302,692.63	8.126E+00	Pulse	0.50	3
Ni			1	101.631	ug/l	0.59	340,298.10	2.123E+00	Pulse	0.50	3
Cu			1	100.433	ug/l	0.44	889,963.44	5.551E+00	Pulse	0.50	3
Zn			1	98.204	ug/l	0.95	173,076.25	7.199E-01	Pulse	1.00	3
Cd			1	96.789	ug/l	0.89	275,217.28	1.145E+00	Pulse	0.50	3
Al			1	9194.171	ug/l	1.53	2,906,944.75	1.182E+01	Pulse	1.00	3
Se			1	95.635	ug/l	0.27	10,491.88	4.364E-02	Pulse	3.00	3
Sb			1	96.548	ug/l	0.82	849,595.65	5.300E+00	Pulse	1.00	3
Se			1	95.932	ug/l	1.70	5,030.44	2.093E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,454,127.33	0.78	84.2	Pulse	0.50	3
1	Sc		245,852.13	0.94	96.8	Pulse	0.30	3
1	Ge		160,313.52	0.62	94.3	Pulse	0.30	3
1	In		1,659,711.74	0.27	88.8	Pulse	0.30	3
1	Tb		4,785,689.50	0.18	90.5	Pulse	0.50	3
1	Lu		3,921,514.17	0.46	88.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		240,408.21	0.39	94.7	Pulse	0.30	3
1	Te		4.67	107.85	700.0	Pulse	0.50	3
1	Li		1,415.62	1.60	104.5	Pulse	0.30	3

Quantitation Report

File Name 097_CCB.d
File Path D:\2023\xa051823m1.b
Method File
Method Path
Acq Time 5/18/2023 14:53
Sample Name CCB
Sample Type CCB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 5/18/2023 13:19
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.016	ug/l	-26.77	269.33	1.094E-03	Pulse	0.50	3
As			1	0.015	ug/l	46.36	43.33	2.709E-04	Pulse	1.00	3
Mo			1	0.142	ug/l	22.24	808.69	3.374E-03	Pulse	0.50	3
Pb			1	-0.009	ug/l	-46.06	839.36	1.774E-04	Pulse	1.00	3
Be			1	0.041	ug/l	135.84	2.83	1.150E-05	Pulse	2.00	3
Ag			1	0.009	ug/l	35.27	182.67	3.864E-05	Pulse	0.50	3
Ba			1	0.003	ug/l	88.85	30.67	1.825E-05	Pulse	0.50	3
Tl			1	0.017	ug/l	28.61	902.03	1.907E-04	Pulse	0.50	3
Sn			1	0.182	ug/l	30.87	1,251.16	7.444E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	-2193.79	245.33	1.460E-04	Pulse	0.50	3
[Pb]			1	-0.008	ug/l	-38.39	402.01	1.141E-04	Pulse	0.50	3
Ca			1	-2.058	ug/l	-30.04	102.00	4.143E-04	Pulse	0.50	3
Ti			1	0.018	ug/l	76.06	5.33	2.168E-05	Pulse	0.50	3
Na			1	-26.796	ug/l	-2.29	16,174.19	6.567E-02	Pulse	1.00	3
Mg			1	-1.462	ug/l	-22.69	1,102.70	4.477E-03	Pulse	1.00	3
K			1	0.398	ug/l	151.64	45,688.53	1.855E-01	Pulse	1.00	3
V			1	-0.005	ug/l	-237.40	927.36	3.766E-03	Pulse	0.50	3
Mn			1	-0.031	ug/l	-8.69	123.33	7.708E-04	Pulse	0.50	3
Fe			1	1.143	ug/l	16.81	15,475.56	9.665E-02	Pulse	0.50	3
Co			1	0.000	ug/l	-1577.73	176.67	1.103E-03	Pulse	0.50	3
Ni			1	-0.054	ug/l	-19.70	154.00	9.615E-04	Pulse	0.50	3
Cu			1	-0.130	ug/l	-5.69	2,457.50	1.535E-02	Pulse	0.50	3
Zn			1	-0.848	ug/l	-2.09	186.67	7.797E-04	Pulse	1.00	3
Cd			1	0.014	ug/l	38.69	41.33	1.728E-04	Pulse	0.50	3
Al			1	0.305	ug/l	122.96	349.67	1.421E-03	Pulse	1.00	3
Se			1	0.025	ug/l	197.34	47.00	1.963E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	8.05	417.34	2.607E-03	Pulse	1.00	3
Se			1	0.178	ug/l	38.70	31.67	1.322E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

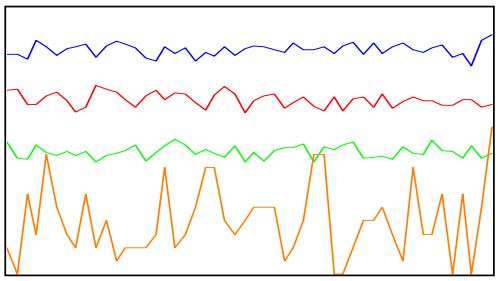
Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,527,342.17	1.16	86.0	Pulse	0.50	3
1	Sc		246,326.66	0.71	97.0	Pulse	0.30	3
1	Ge		160,085.74	0.61	94.2	Pulse	0.30	3
1	In		1,680,269.03	0.18	89.9	Pulse	0.30	3
1	Tb		4,733,954.83	0.75	89.5	Pulse	0.50	3
1	Lu		3,862,483.42	0.57	87.3	Pulse	0.50	3
1	Ge		239,519.46	0.57	94.3	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		1,328.94	6.59	98.1	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Tune Report

Batch Folder	D:\2023\xa051823m1.b
Acq. Date-Time	5/18/2023 8:39
Report Comment	0518
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	2000	1306	13059.17	5000.00	
89	2000	916	9159.81	5000.00	
205	5000	4204	42040.58	5000.00	
78	20	4			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

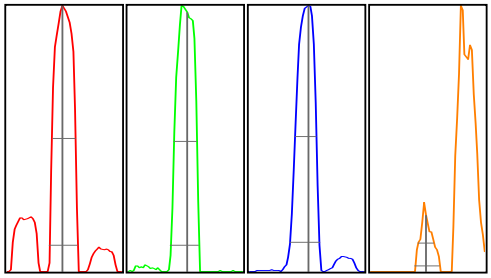
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	4.02	5.00	
89	4.95	5.00	
205	2.77	5.00	
78	68.63		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.00	2	
89	0.00	2	
205	0.40	2	
78	0.00	5	

Ratio	156/140	0.638	%
Ratio	70/140	2.062	%

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	1364.53	59.00	58.9 - 59.1		0.60	0.719	0.900	
89	919.26	89.05	88.9 - 89.1		0.58	0.721	0.900	
205	4214.60	205.05	204.9 - 205.1		0.54	0.744	0.900	
78	5.75	78.00	-		0.38	0.618		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	9.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

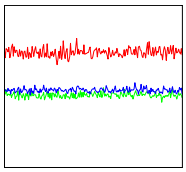
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-36 V
Extract 2	-170.0 V	Cell Exit	-70 V
Omega Bias	-100 V	Deflect	2.6 V
Omega Lens	11.0 V	Plate Bias	-65 V

Cell Parameters

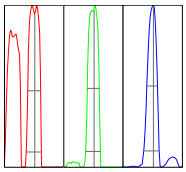
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



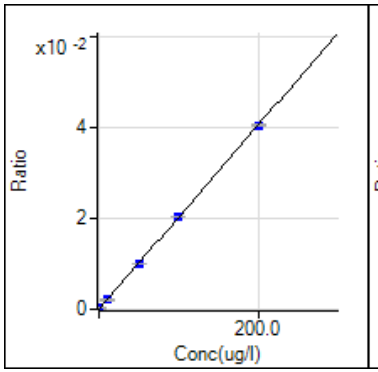
Sensitivity			
Mass	7	89	205
Range	2000	5000	1.0E4
Count	1419.07	2229.40	4759.11
RSD%	3.8	3.4	2.8
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.42%	
Doubly Charged	70/140	9.36%	

Background			
Mass	7	89	205
Count	0.15	0.30	3.05

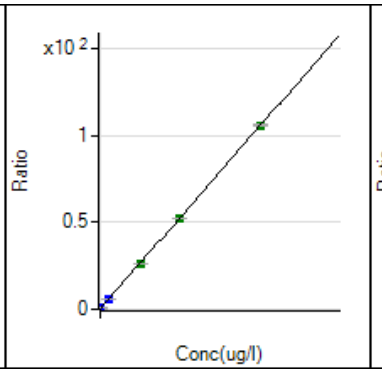


Resolution/Axis			
Mass	7	89	205
Height	1330	2200	4759
Axis	7.05	89.05	205.05
W-50%	0.65	0.59	0.53
W-10%	0.76	0.74	0.77
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

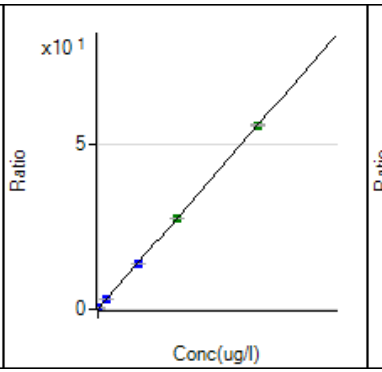
Calibration for D:\2023\xa051823m1.b\001CALB.d



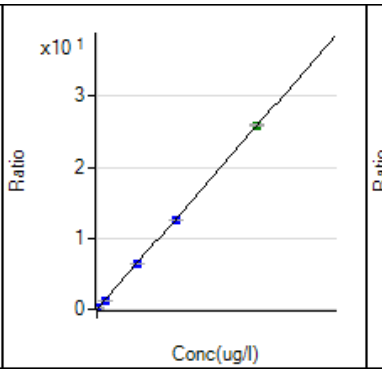
9 Be [2] / ISTD: 45 Sc
y = 2.023E-4 x + 3.281E-6
R 1.0000
DL 0.01685
BEC 0.01622



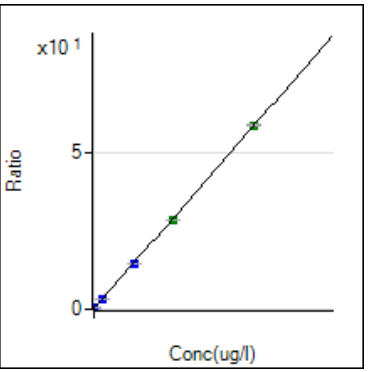
23 Na [2] / ISTD: 45 Sc
y = 5.267E-3 x + 2.068E-1
R 1.0000
DL 3.622
BEC 39.26



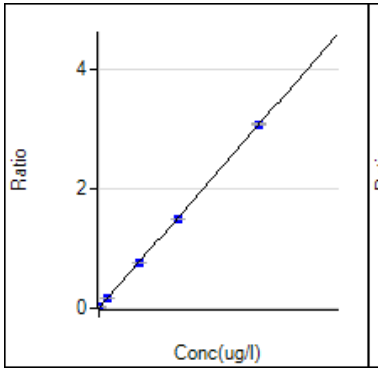
24 Mg [2] / ISTD: 45 Sc
y = 2.789E-3 x + 8.556E-3
R 1.0000
DL 0.3
BEC 3.067



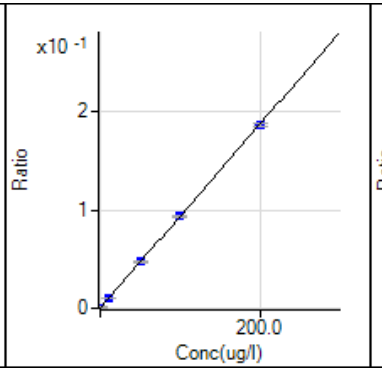
27 Al [2] / ISTD: 45 Sc
y = 1.286E-3 x + 1.029E-3
R 0.9999
DL 0.2497
BEC 0.8



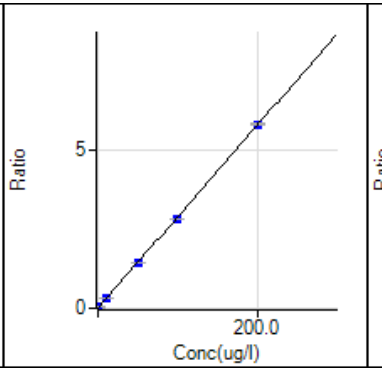
39 K [2] / ISTD: 45 Sc
y = 2.907E-3 x + 1.843E-1
R 0.9999
DL 1.923
BEC 63.41



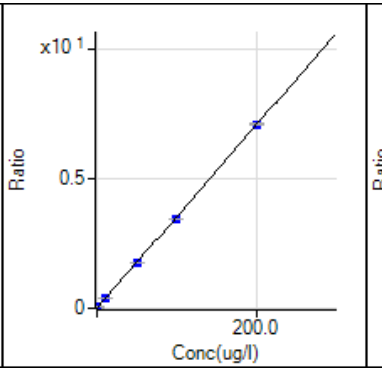
44 Ca [2] / ISTD: 45 Sc
y = 1.533E-4 x + 7.297E-4
R 0.9999
DL 0.6238
BEC 4.761



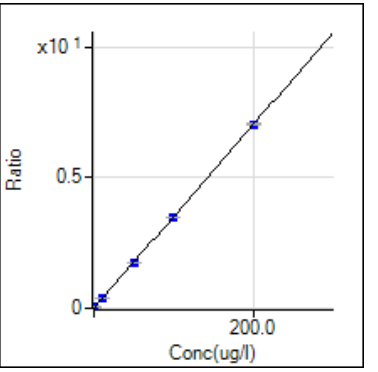
47 Ti [2] / ISTD: 45 Sc
y = 9.373E-4 x + 5.249E-6
R 1.0000
DL 0.01455
BEC 0.005601



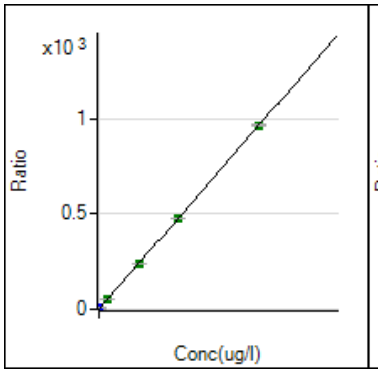
51 V [2] / ISTD: 45 Sc
y = 2.884E-2 x + 3.906E-3
R 0.9999
DL 0.005433
BEC 0.1354



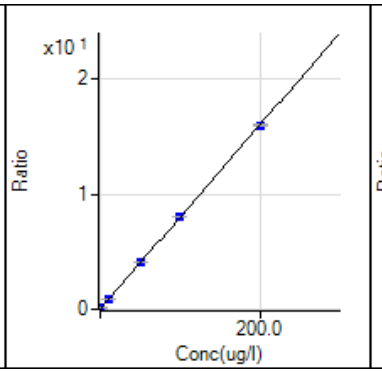
52 Cr [2] / ISTD: 45 Sc
y = 3.535E-2 x + 1.659E-3
R 0.9999
DL 0.01613
BEC 0.04693



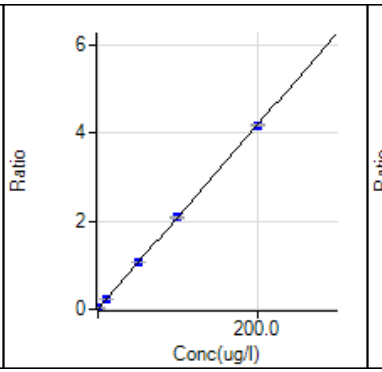
55 Mn [2] / ISTD: 72 Ge
y = 3.516E-2 x + 1.867E-3
R 1.0000
DL 0.006182
BEC 0.05309



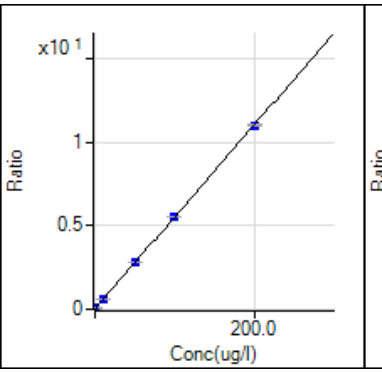
56 Fe [2] / ISTD: 72 Ge
y = 4.804E-2 x + 4.172E-2
R 1.0000
DL 0.04534
BEC 0.8685



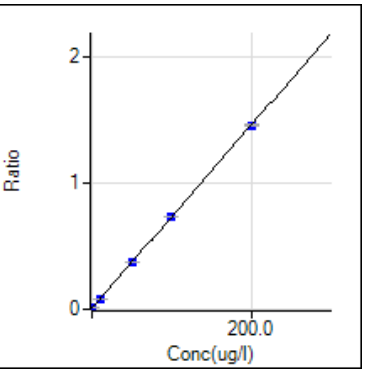
59 Co [2] / ISTD: 72 Ge
y = 8.019E-2 x + 1.134E-3
R 1.0000
DL 0.008688
BEC 0.01414



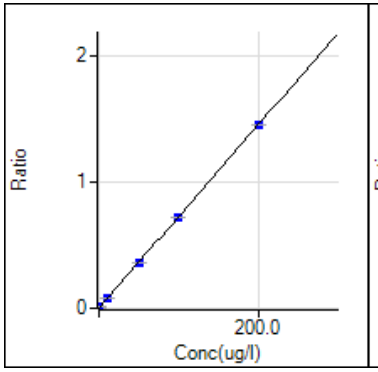
60 Ni [2] / ISTD: 72 Ge
y = 2.087E-2 x + 2.093E-3
R 1.0000
DL 0.01603
BEC 0.1003



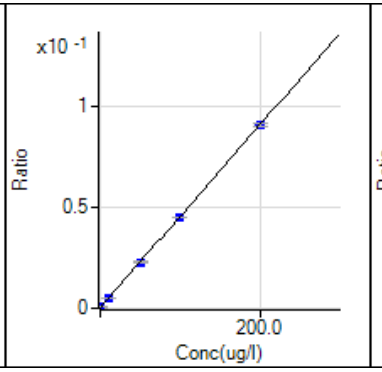
63 Cu [2] / ISTD: 72 Ge
y = 5.505E-2 x + 2.251E-2
R 1.0000
DL 0.037
BEC 0.4089



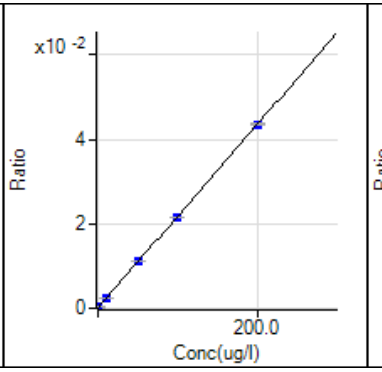
66 Zn [2] / ISTD: 74 Ge
y = 7.260E-3 x + 6.935E-3
R 1.0000
DL 0.03021
BEC 0.9552



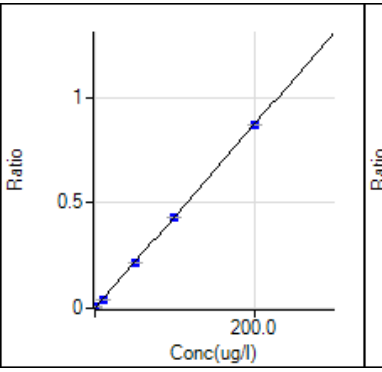
75 As [2] / ISTD: 72 Ge
y = 7.255E-3 x + 1.588E-4
R 1.0000
DL 0.007424
BEC 0.02189



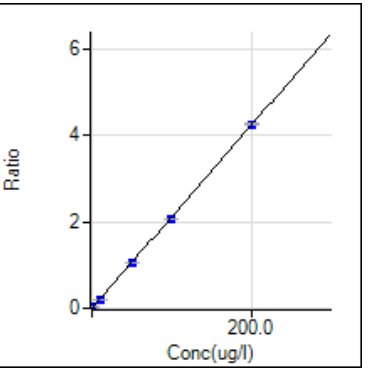
78 Se [2] / ISTD: 74 Ge
y = 4.544E-4 x + 1.851E-4
R 1.0000
DL 0.1249
BEC 0.4074



82 Se [2] / ISTD: 74 Ge
y = 2.171E-4 x + 9.362E-5
R 1.0000
DL 0.2087
BEC 0.4311

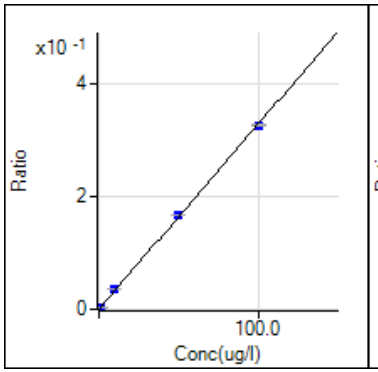


88 Sr [2] / ISTD: 115 In
y = 4.352E-3 x + 1.474E-4
R 1.0000
DL 0.001317
BEC 0.03387

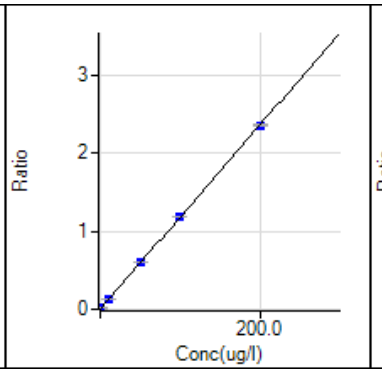


95 Mo [2] / ISTD: 74 Ge
y = 2.118E-2 x + 3.745E-4
R 0.9999
DL 0.02474
BEC 0.01769

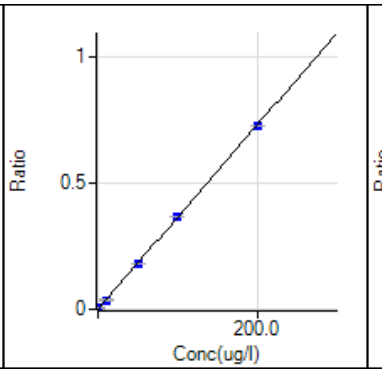
Calibration for D:\2023\xa051823m1.b\001CALB.d



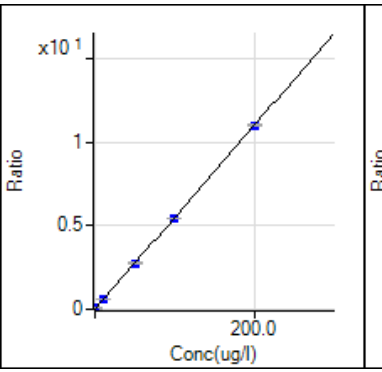
107 Ag [2] / ISTD: 159 Tb
y = 3.284E-3 x + 1.057E-5
R 0.9999
DL 0.003929
BEC 0.003218



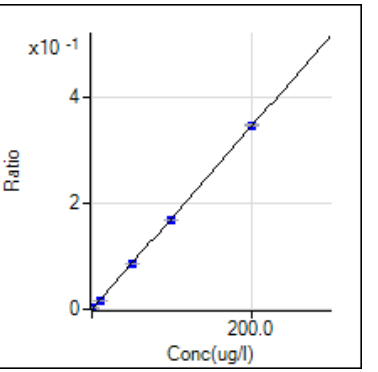
111 Cd [2] / ISTD: 74 Ge
y = 1.183E-2 x + 5.209E-6
R 1.0000
DL 0.002289
BEC 0.0004404



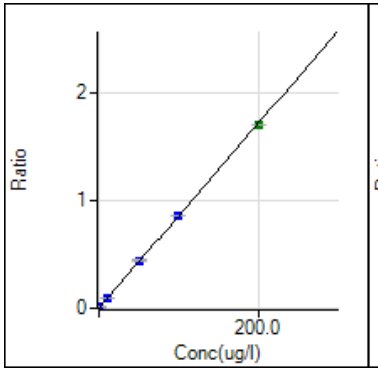
118 Sn [2] / ISTD: 115 In
y = 3.637E-3 x + 8.206E-5
R 1.0000
DL 0.01018
BEC 0.02257



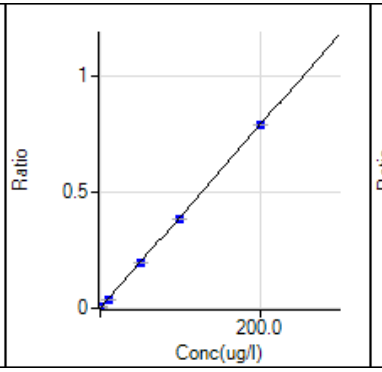
121 Sb [2] / ISTD: 72 Ge
y = 5.489E-2 x + 5.257E-4
R 1.0000
DL 0.005345
BEC 0.009578



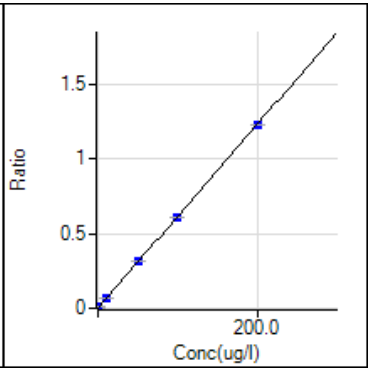
137 Ba [2] / ISTD: 115 In
y = 1.722E-3 x + 1.392E-5
R 0.9998
DL 0.003209
BEC 0.00808



205 Tl [2] / ISTD: 159 Tb
y = 8.601E-3 x + 4.411E-5
R 0.9999
DL 0.00142
BEC 0.005128



206 [Pb] [2] / ISTD: 209 Bi
y = 3.945E-3 x + 1.441E-4
R 0.9999
DL 0.008626
BEC 0.03654



208 Pb [2] / ISTD: 159 Tb
y = 6.150E-3 x + 2.321E-4
R 1.0000
DL 0.00185
BEC 0.03774

SGS Orlando

Date:	05/13/23
[24hr] **Time**	16:00

Analysts Name:	Adam K
MP Batch ID:	42229
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	22520028	ACC1382	0.05	MU45274
Conc. HCl (B)	22410207	ACC1386	0.2	KU15244
NA	NA	MET7395	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**		**Corr. Factor**	-2	**Corrected Observed Temp. C**	-2
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	1	Matrix Spike(MS)	50	50	Y	
	1	Matrix Spike Dup(MSD)	50	50	Y	
	1	Duplicate(DUP)	50	50	Y	
1(QC) C	1	FC5925-1	50	50	Y	
2	1	FC5925-2	50	50	Y	
3	1	FC5925-3	50	50	Y	
4	1	FC5925-4	50	50	Y	
5	1	FC5925-5	50	50	Y	
6	1	FC5925-6	50	50	Y	
7	1	FC5925-7	50	50	Y	
8	1	FC5925-8	50	50	Y	
9	1	FC5925-9	50	50	Y	
10	1	FC5925-10	50	50	Y	
11	5	FC5679-13F	50	50	Y	
12	8	FC5824-1	50	50	Y	
13	4	FC5824-3	50	50	Y	
14	6	FC5824-4	50	50	Y	
15	9	FC5824-1F	50	50	Y	
16	5	FC5824-3F	50	50	Y	
17	7	FC5824-4F	50	50	Y	
18	1	FC5877-1	50	50	Y	
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC6782

Sampling Date: 06/09/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **482**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC6782

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC6782-1	06/09/23	09:00	JR	06/10/23	AQ	Water	EFFLUENT
FC6782-1A	06/09/23	09:00	JR	06/09/23	AQ	Water	EFFLUENT
FC6782-1B	06/09/23	09:00	JR	06/10/23	AQ	Water	EFFLUENT
FC6782-2	06/09/23	09:30	JR	06/10/23	AQ	Water	INFLUENT EW-01
FC6782-2A	06/09/23	09:30	JR	06/10/23	AQ	Water	INFLUENT EW-01
FC6782-3	06/09/23	09:45	JR	06/10/23	AQ	Water	INFLUENT EW-04
FC6782-3A	06/09/23	09:45	JR	06/10/23	AQ	Water	INFLUENT EW-04

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC6782

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 6/23/2023 1:31:55 PM

Between 06/09/2023 and 06/10/2023, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC6782 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP42420

Sample(s) FC6740-10FDUP, FC6740-10FMS, FC6740-10FMSD, FC6740-10FPS, FC6740-10FSDL were used as the QC samples for metals.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP42379

Sample(s) FC6562-3FDUP, FC6562-3FMS, FC6562-3FMSD, FC6562-3FSDL were used as the QC samples for metals.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP38843

Sample(s) FC6782-1BMS, FC6782-1BMSD were used as the QC samples for Chloride, Sulfate.

Matrix: AQ **Batch ID:** R60006

FC6782-1A for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** N:GP47406

FC6782-1A for Nitrogen, Nitrate + Nitrite: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** N:R204259

FC6782-1A for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** N:GN42432

FC6782-1A for Nitrogen, Nitrite: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FC6782
Site:	SCMAW: Shepley's Hill (SHL); Devens, MA	**Report Date**	6/14/2023 8:51:49 AM

On 06/09/2023, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 0.5 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of FC6782 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP47406

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FC6782-1ADUP, FC6782-1AMS were used as the QC samples for the Nitrogen, Nitrate + Nitrite analysis.
- The matrix spike (MS) recovery(s) of Nitrogen, Nitrate + Nitrite are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R204259

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- FC6782-1A for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN42432

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD67315-1MS, JD67315-1MSD were used as the QC samples for the Nitrogen, Nitrite analysis.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: FC6782
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 06/09/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC6782-1	**EFFLUENT**					
Arsenic		10	2.0	1.0	ug/l	SW846 6020B
FC6782-1A	**EFFLUENT**					
Nitrogen, Nitrate [a]		0.12	0.11	0.10	mg/l	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]		0.12	0.10	0.095	mg/l	EPA 353.2/LACHAT
Nitrogen, Nitrate + Nitrite [c]		0.12	0.12	0.11	mg/l	EPA 300/SW846 9056A
FC6782-1B	**EFFLUENT**					
Barium		18.1 J	200	5.0	ug/l	SW846 6010D
Magnesium		4930 J	5000	100	ug/l	SW846 6010D
Manganese		71.1	15	2.0	ug/l	SW846 6010D
Chloride		30.5	2.0	1.0	mg/l	EPA 300/SW846 9056A
Sulfate		6.0	2.0	1.0	mg/l	EPA 300/SW846 9056A
FC6782-2	**INFLUENT EW-01**					
Arsenic		1480	2.0	1.0	ug/l	SW846 6020B
FC6782-2A	**INFLUENT EW-01**					
Iron		62500	300	50	ug/l	SW846 6010D
Manganese		2080	15	2.0	ug/l	SW846 6010D
FC6782-3	**INFLUENT EW-04**					
Arsenic		3140	25	13	ug/l	SW846 6020B
FC6782-3A	**INFLUENT EW-04**					
Iron		37500	300	50	ug/l	SW846 6010D
Manganese		2360	15	2.0	ug/l	SW846 6010D

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.
(c) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC6782-1	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	10	2.0	1.0	0.21	ug/l	2	06/13/23	06/14/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19485
(2) Prep QC Batch: MP42379

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC6782-1A	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/09/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	0.12	0.11	0.10	0.093	mg/l	1	06/13/23 16:48	ANJ	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]	0.12	0.10	0.095	0.090	mg/l	1	06/13/23 16:48	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrate + Nitrite [c]	0.12	0.12	0.11	0.096	mg/l	1	06/13/23 16:48	ANJ	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	0.0050 U	0.010	0.0050	0.0030	mg/l	1	06/10/23 09:45	ANJ	SM4500NO2 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.
(c) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC6782-1B	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	18.1 J	200	5.0	1.0	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]
Magnesium	4930 J	5000	100	35	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	71.1	15	2.0	1.0	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19506
(2) Prep QC Batch: MP42420

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC6782-1B	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	30.5	2.0	1.0	0.80	mg/l	1	06/13/23 12:27	JB	EPA 300/SW846 9056A
Sulfate	6.0	2.0	1.0	0.60	mg/l	1	06/13/23 12:27	JB	EPA 300/SW846 9056A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-01		
Lab Sample ID:	FC6782-2	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1480	2.0	1.0	0.21	ug/l	2	06/13/23	06/14/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19485
(2) Prep QC Batch: MP42379

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-01
Lab Sample ID: FC6782-2A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 06/09/23
Date Received: 06/10/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	62500	300	50	17	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2080	15	2.0	1.0	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19506
(2) Prep QC Batch: MP42420

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-04		
Lab Sample ID:	FC6782-3	**Date Sampled:**	06/09/23
Matrix:	AQ - Water	**Date Received:**	06/10/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3140	25	13	2.7	ug/l	25	06/13/23	06/16/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19494
(2) Prep QC Batch: MP42379

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-04
Lab Sample ID: FC6782-3A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 06/09/23
Date Received: 06/10/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	37500	300	50	17	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2360	15	2.0	1.0	ug/l	1	06/21/23	06/22/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19506
(2) Prep QC Batch: MP42420

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

FC6782

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information	Project Information
Company Name: Sovereign Consulting Inc.	Project Name: Shepley's Hill (SHL), Devens, MA
Address: 9 Payson Road, Suite 150	Street:
City: Foxborough State: MA Zip: 02035	City: Devens State: MA
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com	Project # AC001.J02
Phone #: 508-339-3200	Fax #
Sampler(s) Name(s) (Printed) Sampler 1: Sovereign Staff	Client Purchase Order #

Analytical Information

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2 *	Sulfate - 300.0	Total Fe & Mn - 6010C	LAB USE ONLY
1	Effluent	6/9/23	9:00	JWR	w	4		x			x	x				X	X	X	X	X		
2	Influent EW-01	6/9/23	9:30	JWR	w	1					x					X					X	
3	Influent EW-04	6/9/23	9:45	JWR	w	1					x					X					X	

INITIAL ASSESSMENT SP

LABEL VERIFICATION ZB

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples
* Nitrate direct sub to ALNJ from MASC
SGS Service Center Northborough, MA 6/9 to
(1) 250ml - H2SO4, (1) 250ml - ND → NJ volume

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature]	6-9-23 1235	2 Thelma Haley (SC)	3 Thelma Haley	6/9/23 16:00	4 Fed Ex
5 Fed Ex		6 [signature] 06/10/23 0915	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.6 / FR#1 CS. 02860 http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

5.1 5

FC6782: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC6782 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL (SHL)

Date / Time Received: 6/10/2023 9:15:00 AM **Delivery Method:** FED EX **Airbill #'s:** 6455 9821 4761

Therm ID: IR 1; **Therm CF:** -0.1; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 _____ Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP Date: 6/10/2023 9:15:00 AM Reviewer: _____ Date: _____

FC6782: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FC6782
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 06/09/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP42379	SW846 6020B						
MP42379-B1	7440-38-2	Arsenic	BSP	REC	106	%	84-116
MP42379-S1*	7440-38-2	Arsenic	MS	REC	107.7	%	84-116
MP42379-S2*	7440-38-2	Arsenic	MSD	REC	105.7	%	84-116
MP42379-S2*	7440-38-2	Arsenic	MSD	RPD	1.8	%	20
MP42379-D1*	7440-38-2	Arsenic	DUP	RPD	2.2	%	20
MP42420	SW846 6010D						
MP42420-B1	7440-39-3	Barium	BSP	REC	99.5	%	88-113
MP42420-B1	7439-89-6	Iron	BSP	REC	97.4	%	87-115
MP42420-B1	7439-95-4	Magnesium	BSP	REC	99.1	%	85-113
MP42420-B1	7439-96-5	Manganese	BSP	REC	103	%	90-114
MP42420-S1*	7440-39-3	Barium	MS	REC	103.7	%	88-113
MP42420-S1*	7439-89-6	Iron	MS	REC	100.6	%	87-115
MP42420-S1*	7439-95-4	Magnesium	MS	REC	103.3	%	85-113
MP42420-S1*	7439-96-5	Manganese	MS	REC	99.5	%	90-114
MP42420-S2*	7440-39-3	Barium	MSD	REC	101.2	%	88-113
MP42420-S2*	7440-39-3	Barium	MSD	RPD	2.2	%	20
MP42420-S2*	7439-89-6	Iron	MSD	REC	98.4	%	87-115
MP42420-S2*	7439-89-6	Iron	MSD	RPD	2.2	%	20
MP42420-S2*	7439-95-4	Magnesium	MSD	REC	100.4	%	85-113
MP42420-S2*	7439-95-4	Magnesium	MSD	RPD	1.5	%	20
MP42420-S2*	7439-96-5	Manganese	MSD	REC	96	%	90-114
MP42420-S2*	7439-96-5	Manganese	MSD	RPD	.9	%	20
MP42420-D1*	7440-39-3	Barium	DUP	RPD	.8	%	20
MP42420-D1*	7439-89-6	Iron	DUP	RPD	.6	%	20
MP42420-D1*	7439-95-4	Magnesium	DUP	RPD	.8	%	20
MP42420-D1*	7439-96-5	Manganese	DUP	RPD	.5	%	20
GP38843	EPA 300/SW846 9056A						
GP38843-B1	16887-00-6	Chloride	BSP	REC	97	%	87-111
GP38843-B1	14808-79-8	Sulfate	BSP	REC	99.6	%	87-112
GP38843-S1	16887-00-6	Chloride	MS	REC	90.6	%	87-111
GP38843-S1	14808-79-8	Sulfate	MS	REC	101.6	%	87-112
GP38843-S2	16887-00-6	Chloride	MSD	RPD	0	%	15
GP38843-S2	16887-00-6	Chloride	MSD	REC	90.6	%	87-111
GP38843-S2	14808-79-8	Sulfate	MSD	RPD	0	%	15
GP38843-S2	14808-79-8	Sulfate	MSD	REC	101.6	%	87-112

* Sample used for QC is not from job FC6782

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:55	MA19485-STD1	1		STDA
11:59	MA19485-STD2	1		STDB
12:03	MA19485-STD3	1		STDC
12:07	MA19485-STD4	1		STDD
12:11	MA19485-STD5	1		STDE
12:15	MA19485-STD6	1		STDF
12:19	MA19485-STD7	1		STDG
12:23	MA19485-HSTD1	1		
12:26	MA19485-HSTD2	1		
12:34	MA19485-ICB1	1		
12:42	MA19485-ICSA1	1		
12:45	MA19485-ICSAB1	1		
12:49	MA19485-CCV1	1		
12:53	MA19485-CCV2	1		
12:57	MA19485-CCB1	1		
13:01	MA19485-ICV1	1		
13:05	MA19485-CRIA1	1		
13:08	MP42379-MB1	2		
13:12	MP42379-B1	2		
13:16	FC6562-3F	2		(sample used for QC only; not part of login FC6782)
13:20	MP42379-D1	2		
13:24	MP42379-SD1	10		
13:27	MP42379-S1	2		
13:31	MP42379-S2	2		
13:35	MP42379-PS1	2		
13:39	ZZZZZZ	2		
13:43	MA19485-CCV3	1		
13:47	MA19485-CCV4	1		
13:50	MA19485-CCB2	1		
13:54	ZZZZZZ	2		
13:58	ZZZZZZ	2		
14:02	ZZZZZZ	2		
14:06	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:09	ZZZZZZ	2		
14:13	ZZZZZZ	2		
14:17	ZZZZZZ	2		
14:21	FC6782-1	2		
14:24	FC6782-2	2		
14:28	FC6782-3	2		
14:32	MA19485-CCV5	1		
14:36	MA19485-CCV6	1		
14:40	MA19485-CCB3	1		
14:43	MP42382-MB1	5		
14:47	MP42382-B1	5		
14:51	FC6760-45	5		(sample used for QC only; not part of login FC6782)
14:55	MP42382-D1	5		
14:59	MP42382-SD1	25		
15:03	MP42382-S1	5		
15:06	MP42382-S2	5		
15:10	MP42382-PS1	5		
15:22	MA19485-CCV7	1		
15:25	MA19485-CCV8	1		
15:29	MA19485-CCB4	1		
15:37	ZZZZZZ	5		
15:41	ZZZZZZ	5		
15:44	ZZZZZZ	5		
15:48	ZZZZZZ	5		
15:52	ZZZZZZ	5		
15:56	ZZZZZZ	5		
16:00	ZZZZZZ	5		
16:04	ZZZZZZ	5		
16:07	ZZZZZZ	5		
16:11	MA19485-CCV9	1		
16:15	MA19485-CCV10	1		
16:19	MA19485-CCB5	1		
16:23	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:26	ZZZZZZ	5		
16:30	ZZZZZZ	5		
16:34	ZZZZZZ	5		
16:38	ZZZZZZ	5		
16:42	ZZZZZZ	5		
16:45	ZZZZZZ	5		
16:49	ZZZZZZ	5		
16:53	ZZZZZZ	5		
16:57	ZZZZZZ	5		
17:01	MA19485-CCV11	1		
17:05	MA19485-CCV12	1		
17:08	MA19485-CCB6	1		
17:12	FC6562-3F	20		(sample used for QC only; not part of login FC6782)
17:16	MP42379-D1	20		
17:20	MP42379-S1	20		
17:24	MP42379-S2	20		
---------->	Last reportable sample/prep for job FC6782			
17:27	MP42379-PS1	20		
17:31	ZZZZZZ	5		
17:35	FC6760-45	20		(sample used for QC only; not part of login FC6782)
17:39	MP42382-D1	20		
17:43	MP42382-S1	20		
17:46	MP42382-S2	20		
17:50	MA19485-CCV13	1		
17:54	MA19485-CCV14	1		
17:58	MA19485-CCB7	1		
---------->	Last reportable CCB for job FC6782			
18:02	MP42382-PS1	20		
18:05	MA19485-CCV15	1		
18:09	MA19485-CCV16	1		
18:13	MA19485-CCB8	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:23	MA19485-HSTD1	1		
12:26	MA19485-HSTD2	1	X	
12:34	MA19485-ICB1	1	X	
12:42	MA19485-ICSA1	1	X	
12:45	MA19485-ICSAB1	1	X	
12:49	MA19485-CCV1	1		
12:53	MA19485-CCV2	1	X	
12:57	MA19485-CCB1	1	X	
13:01	MA19485-ICV1	1	X	
13:05	MA19485-CRIA1	1	X	
13:08	MP42379-MB1	2	X	
13:12	MP42379-B1	2	X	
13:16	FC6562-3F	2	X	(a)
13:20	MP42379-D1	2	X	
13:24	MP42379-SD1	10	X	
13:27	MP42379-S1	2	X	
13:31	MP42379-S2	2	X	
13:35	MP42379-PS1	2		
13:39	ZZZZZZ	2		
13:43	MA19485-CCV3	1		
13:47	MA19485-CCV4	1	X	
13:50	MA19485-CCB2	1	X	
13:54	ZZZZZZ	2		
13:58	ZZZZZZ	2		
14:02	ZZZZZZ	2		
14:06	ZZZZZZ	2		
14:09	ZZZZZZ	2		
14:13	ZZZZZZ	2		
14:17	ZZZZZZ	2		
14:21	FC6782-1	2	X	
14:24	FC6782-2	2	X	
14:28	FC6782-3	2		
14:32	MA19485-CCV5	1		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:36	MA19485-CCV6	1	X	
14:40	MA19485-CCB3	1	X	
14:43	MP42382-MB1	5	X	
14:47	MP42382-B1	5	X	
14:51	FC6760-45	5		(a)
14:55	MP42382-D1	5		
14:59	MP42382-SD1	25	X	
15:03	MP42382-S1	5		
15:06	MP42382-S2	5		
15:10	MP42382-PS1	5		
15:22	MA19485-CCV7	1		
15:25	MA19485-CCV8	1	X	
15:29	MA19485-CCB4	1	X	
15:37	ZZZZZZ	5		
15:41	ZZZZZZ	5		
15:44	ZZZZZZ	5		
15:48	ZZZZZZ	5		
15:52	ZZZZZZ	5		
15:56	ZZZZZZ	5		
16:00	ZZZZZZ	5		
16:04	ZZZZZZ	5		
16:07	ZZZZZZ	5		
16:11	MA19485-CCV9	1		
16:15	MA19485-CCV10	1	X	
16:19	MA19485-CCB5	1	X	
16:23	ZZZZZZ	5		
16:26	ZZZZZZ	5		
16:30	ZZZZZZ	5		
16:34	ZZZZZZ	5		
16:38	ZZZZZZ	5		
16:42	ZZZZZZ	5		
16:45	ZZZZZZ	5		
16:49	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Element: Dilution	As	
16:53	ZZZZZZ	5		
16:57	ZZZZZZ	5		
17:01	MA19485-CCV11	1		
17:05	MA19485-CCV12	1	X	
17:08	MA19485-CCB6	1	X	
17:12	FC6562-3F	20		(a)
17:16	MP42379-D1	20		
17:20	MP42379-S1	20		
17:24	MP42379-S2	20		
17:27	MP42379-PS1	20		
17:31	ZZZZZZ	5		
17:35	FC6760-45	20	X	(a)
17:39	MP42382-D1	20	X	
17:43	MP42382-S1	20	X	
17:46	MP42382-S2	20	X	
17:50	MA19485-CCV13	1		
17:54	MA19485-CCV14	1	X	
17:58	MA19485-CCB7	1	X	
18:02	MP42382-PS1	20	X	
18:05	MA19485-CCV15	1		
18:09	MA19485-CCV16	1	X	
18:13	MA19485-CCB8	1	X	

(a) Sample used for QC only; not part of login FC6782.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:55	MA19485-STD1	100	100	100	100	100	100	100
11:59	MA19485-STD2	102	101.5	100.4	101.3	100.7	100.9	102.8
12:03	MA19485-STD3	96.4	101.7	100.7	101.5	100.6	100.8	104.3
12:07	MA19485-STD4	98.1	104.7	102.7	103.7	101.9	101.2	104.1
12:11	MA19485-STD5	101.5	105.1	102.9	103	100.4	100.5	101.9
12:15	MA19485-STD6	98.5	103.9	101.6	102	98.5	99.9	99
12:19	MA19485-STD7	93.8	101	99.9	99.2	95.4	97.7	95.8
12:23	MA19485-HSTD1	98.9	102.9	100.4	100.9	97.5	99.4	98.2
12:26	MA19485-HSTD2	94.7	101.1	99.5	99.1	95.7	97.5	95
12:34	MA19485-ICB1	99.7	99.7	98.5	98.9	97.1	99.9	95.4
12:42	MA19485-ICSA1	82.1	97.8	96.8	92.6	87.2	92.1	83.6
12:45	MA19485-ICSAB1	79.3	100.3	99	94.2	89	93.3	84.7
12:49	MA19485-CCV1	92.5	104.6	103.6	103.7	100.2	103.1	101.9
12:53	MA19485-CCV2	93.5	106.9	105.4	105.5	100.4	102.5	99.6
12:57	MA19485-CCB1	98.8	109.5	107.5	108.2	104.6	105.6	104.2
13:01	MA19485-ICV1	102.2	104.8	99.6	100.7	94.5	97.5	93
13:05	MA19485-CRIA1	104	111.2	109.4	109.6	105.6	106.4	104.9
13:08	MP42379-MB1	97.2	112.3	107	107.2	102	103.4	100.6
13:12	MP42379-B1	97.3	111.2	107.5	106.9	100.2	101.7	96
13:16	FC6562-3F	96.6	107.1	103.4	103.7	94.4	98.6	89.4
13:20	MP42379-D1	96.2	108.1	103.9	103.8	95.2	99.3	90.1
13:24	MP42379-SD1	100.4	112	108.5	109.2	102.6	104.3	100.7
13:27	MP42379-S1	95.9	106	103.2	102.6	93.9	97.6	89.6
13:31	MP42379-S2	96	105.8	102	101.9	93.5	97.1	89.1
13:35	MP42379-PS1	No results reported for the elements associated with this internal standard.						
13:39	ZZZZZZ	93.7	104.1	100.7	101	95	100.6	96
13:43	MA19485-CCV3	101.4	108.8	106.4	106	100.4	103.7	100.7
13:47	MA19485-CCV4	100.2	107	104.7	105.7	98.6	102.6	98.3
13:50	MA19485-CCB2	103.3	105.9	104.6	104.6	100.7	104.8	102.4
13:54	ZZZZZZ	96	102.6	99.2	99.8	94.4	99.5	95.2
13:58	ZZZZZZ	92.5	100.9	98.4	99.4	94.2	98.9	95.7
14:02	ZZZZZZ	96.3	102.3	99	99.2	94.9	101	97.8
14:06	ZZZZZZ	94.8	101.3	98.6	98.1	92.7	99.5	94.8

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:09	ZZZZZZ	96.1	101.4	97.9	98.7	94.5	99.9	97.5
14:13	ZZZZZZ	92.6	99.9	96.5	97.6	92.7	98.7	94.8
14:17	ZZZZZZ	96.5	100.5	96.8	97.2	93.4	99.8	97
14:21	FC6782-1	93.2	99.8	97.7	98.4	92.8	98.7	94.2
14:24	FC6782-2	92.6	98.9	98.3	96.9	90.8	98.6	93.4
14:28	FC6782-3	96.5	99.8	97.9	98.2	92.8	99.3	96.4
14:32	MA19485-CCV5	97.9	103.3	101.5	102.3	96.5	102.2	99.5
14:36	MA19485-CCV6	92.5	101.6	99.8	100.8	95	101.2	97.3
14:40	MA19485-CCB3	99	101.7	100.6	101.3	97.3	102.9	100.7
14:43	MP42382-MB1	97.7	100.8	97.7	98.3	94	100.9	98.3
14:47	MP42382-B1	91.9	99	95.3	96.7	90.8	98.2	92.7
14:51	FC6760-45	83.4	128.9	107.6	94	85.5	99	83.8
14:55	MP42382-D1	81.9	125.9	104.4	91.7	84.4	98.2	83.1
14:59	MP42382-SD1	89.9	103.5	99.1	96.7	92.3	100.6	95.7
15:03	MP42382-S1	76.7	123.3	103.8	91.7	84	97.2	82.6
15:06	MP42382-S2	73.9	130	106.2	90.4	82.7	96.9	80.7
15:10	MP42382-PS1	75.9	122.6	103.3	91.5	84.1	97.8	82.7
15:22	MA19485-CCV7	92.7	106.5	104.2	105	98.4	103.3	98.4
15:25	MA19485-CCV8	91.2	104.5	103	103.3	96.3	102.2	96.3
15:29	MA19485-CCB4	99.8	106.6	105.4	105.8	100	104.4	98.9
15:37	ZZZZZZ	72.7	115.3	96.1	86.8	79.9	92	76.5
15:41	ZZZZZZ	74.6	121.2	94.8	85.5	79	92	77.2
15:44	ZZZZZZ	82.6	104.8	91.4	86.7	81	94.3	84.4
15:48	ZZZZZZ	76.1	106.1	89.2	84.3	79.1	93.4	82.5
15:52	ZZZZZZ	81.9	104.3	89.7	84.3	79.2	93.2	82.6
15:56	ZZZZZZ	79.4	100.4	87.6	83.8	79.2	92.8	83.5
16:00	ZZZZZZ	83.3	110.3	93.4	88	83.8	96	88.7
16:04	ZZZZZZ	82.5	125.2	98	90.5	83.9	98.3	87.7
16:07	ZZZZZZ	84.4	127.6	100	90.2	83.8	98.8	87.2
16:11	MA19485-CCV9	89.1	96.4	96.5	96.9	92	100.2	95.4
16:15	MA19485-CCV10	85.2	96.2	96.4	97	91	99.2	93.4
16:19	MA19485-CCB5	97.1	100.3	99.9	100.9	95.1	102.5	97.4
16:23	ZZZZZZ	78.9	174 !	109	91	83.1	99.5	84.5

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:26	ZZZZZZ	74.6	195.4 !	113.7	90.6	82.3	98.5	83
16:30	ZZZZZZ	71.1	107.8	82.6	78.1	75	89.6	80.9
16:34	ZZZZZZ	73.7	122	85.8	82.3	78.2	92	84
16:38	ZZZZZZ	77.5	121	86.4	82.8	78	90.5	82.3
16:42	ZZZZZZ	71.6	119.4	95.6	84.9	80	97.3	85.2
16:45	ZZZZZZ	71.1	110	91.9	83.5	79	96.7	84.5
16:49	ZZZZZZ	69.5 !	111.1	90.2	81.5	77.6	96.6	82.4
16:53	ZZZZZZ	67.4 !	117.2	89.8	78	74	95.2	78.1
16:57	ZZZZZZ	70.9	111.5	89.2	80.1	76.3	94.1	82.7
17:01	MA19485-CCV11	74.7	82.6	85.1	86	83.7	94.9	91.2
17:05	MA19485-CCV12	74.9	82.9	85.8	86.2	82.7	94.7	88.9
17:08	MA19485-CCB6	84.6	86.4	88.8	89.4	86.9	98.1	92
17:12	FC6562-3F	79.7	84	84.8	85.8	83.5	94.3	88.8
17:16	MP42379-D1	79.9	84.5	85.2	86.1	83.6	94.3	89.3
17:20	MP42379-S1	82.7	85.7	86.2	87.3	84.5	95.4	90
17:24	MP42379-S2	82	85.8	86.5	87.1	84.7	95.4	89.7
17:27	MP42379-PS1	No results reported for the elements associated with this internal standard.						
17:31	ZZZZZZ	78.6	84.8	85.3	85.9	83	94.7	89.8
17:35	FC6760-45	75.2	86.8	84.3	83.1	80.1	93.3	86.8
17:39	MP42382-D1	74.2	84.6	83.2	81.1	78.9	92.9	86.5
17:43	MP42382-S1	70.6	85.1	83.7	81.2	79	92.9	86.2
17:46	MP42382-S2	72.4	85.7	82.9	80.7	78.3	92.3	85.7
17:50	MA19485-CCV13	74.1	80.8	83.9	84.1	81.8	95	89.9
17:54	MA19485-CCV14	75.2	81.6	84.5	85.1	81.9	94.5	88.8
17:58	MA19485-CCB7	86.3	84.4	86.4	87.4	85.6	97.8	91.8
18:02	MP42382-PS1	72.9	85.7	83.5	81.5	79.5	93.9	86.9
18:05	MA19485-CCV15	72.5	81.1	83.9	84.1	82	94.5	89.6
18:09	MA19485-CCV16	77.4	81.2	83.6	84	80.8	93.6	87.6
18:13	MA19485-CCB8	79.9	83.2	85.5	86.3	84.1	96.4	91.1

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19485
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
Istd#7	Terbium		70-130 %	70-130 %				
Istd#7	Bismuth		70-130 %	70-130 %				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19485 Units: ug/l

Time: / Sample ID:			12:34 ICB1		12:57 CCB1		13:50 CCB2		14:40 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0422	<1.0	0.0359	<1.0	0.0266	<1.0	0.0470	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1	anr							
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3	anr							
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19485 Units: ug/l

Time: / Sample ID:			15:29 CCB4		16:19 CCB5		17:08 CCB6		17:58 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0867	<1.0	0.0320	<1.0	0.0263	<1.0	0.0290	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	1.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1	anr							
Nickel	1.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1	anr							
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	1.0	.3	anr							
Vanadium	1.0	.1	anr							
Zinc	2.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		12:49			12:53			13:01	
Sample ID:	CCV	CCV1		CCV	CCV2		ICV	ICV1	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.6	97.6	100	99.1	99.1
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		13:43			13:47			14:32	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.0	98.0			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		14:36			15:22			15:25	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	98.3	98.3				100	98.5	98.5
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		16:11			16:15			17:01	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	98.5	98.5			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		17:05			17:50			17:54	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	97.2	97.2				100	97.2	97.2
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium	anr								
Thallium	anr								
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19485 Units: ug/l

Time:		12:23			12:26	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	197	98.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19485 Units: ug/l

Time:			13:05	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100	anr	
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	1.05	105.0
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0	anr	
Cadmium	1.0	1.0	anr	
Calcium	100	100	anr	
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0	anr	
Copper	1.0	1.0	anr	
Iron	100	100	anr	
Lead	1.0	1.0	anr	
Magnesium	100	100	anr	
Manganese	1.0	1.0	anr	
Molybdenum	1.0	1.0	anr	
Nickel	1.0	1.0	anr	
Potassium	100	100	anr	
Selenium	1.0	1.0	anr	
Silver	1.0	1.0	anr	
Sodium	100	100	anr	
Strontium	1.0	1.0	anr	
Thallium	1.0	1.0	anr	
Tin	1.0	1.0	anr	
Titanium	1.0	1.0	anr	
Vanadium	1.0	1.0	anr	
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061423M1.CSV Date Analyzed: 06/14/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19485 Units: ug/l

Time:			12:42		12:45	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	100000	100.0	98500	98.5
Antimony			0.0919		0.0833	
Arsenic		20	0.0939		19.7	98.5
Barium			0.587		0.559	
Beryllium			0.00906		0.00583	
Cadmium		20	0.767		20.2	101.0
Calcium	100000	100000	96300	96.3	95400	95.4
Chromium		20	2.14*(a)		21.7	108.5
Cobalt		20	0.115		20.0	100.0
Copper		20	-0.0216		19.3	96.5
Iron	100000	100000	99700	99.7	99000	99.0
Lead			0.138		0.0838	
Magnesium	100000	100000	101000	101.0	99300	99.3
Manganese		20	0.447		20.1	100.5
Molybdenum	2000	2000	2070	103.5	2070	103.5
Nickel		20	0.594		19.4	97.0
Potassium	100000	100000	103000	103.0	102000	102.0
Selenium			0.176		0.131	
Silver		20	0.0236		18.1	90.5
Sodium	100000	100000	101000	101.0	100000	100.0
Strontium			0.937		0.911	
Thallium			0.0117		0.00800	
Tin			0.120		0.0958	
Titanium	2000	2000	2050	102.5	2030	101.5
Vanadium			0.125		0.131	
Zinc		20	2.67*(a)		21.0	105.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:56	MA19494-STD1	1		STDA
12:00	MA19494-STD2	1		STDB
12:04	MA19494-STD3	1		STDC
12:08	MA19494-STD4	1		STDD
12:12	MA19494-STD5	1		STDE
12:16	MA19494-STD6	1		STDF
12:20	MA19494-STD7	1		STDG
12:23	MA19494-HSTD1	1		
12:27	MA19494-HSTD2	1		
12:31	MA19494-ICV1	1		
12:35	MA19494-ICB1	1		
12:39	MA19494-CRIA1	1		
12:43	MA19494-ICSA1	1		
12:46	MA19494-ICSAB1	1		
12:50	MA19494-CCV1	1		
12:54	MA19494-CCV2	1		
12:58	MA19494-CCB1	1		
13:13	FC6782-3	25		
---------->	Last reportable sample/prep for job FC6782			
13:17	MA19494-ICV2	1		
13:21	MP42393-MB1	5		
13:25	MP42393-B1	5		
13:28	FC6831-7	10		(sample used for QC only; not part of login FC6782)
13:32	MP42393-D1	10		
13:36	MP42393-SD1	50		
13:40	MP42393-S1	10		
13:44	MA19494-CCV3	1		
13:47	MA19494-CCV4	1		
13:51	MA19494-CCB2	1		
---------->	Last reportable CCB for job FC6782			
13:55	MP42393-S2	10		
13:59	MP42393-PS1	10		
14:03	ZZZZZZ	10		
14:06	ZZZZZZ	10		
14:10	ZZZZZZ	10		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:14	ZZZZZZ	10		
14:18	ZZZZZZ	10		
14:22	ZZZZZZ	10		
14:26	ZZZZZZ	10		
14:29	ZZZZZZ	10		
14:33	MA19494-CCV5	1		
14:37	MA19494-CCV6	1		
14:41	MA19494-CCB3	1		
14:45	ZZZZZZ	10		
14:48	ZZZZZZ	10		
14:52	ZZZZZZ	10		
14:56	ZZZZZZ	10		
15:00	ZZZZZZ	10		
15:04	ZZZZZZ	10		
15:07	ZZZZZZ	10		
15:11	ZZZZZZ	5		
15:15	ZZZZZZ	5		
15:23	MA19494-CCV7	1		
15:27	MA19494-CCV8	1		
15:30	MA19494-CCB4	1		
15:38	MP42383-MB1	5		
15:42	MP42383-B1	5		
15:46	FC6760-66	5		(sample used for QC only; not part of login FC6782)
15:49	MP42383-D1	5		
15:53	MP42383-SD1	25		
15:57	MP42383-S1	5		
16:01	MP42383-S2	5		
16:08	MP42383-PS1	5		
16:12	MA19494-CCV9	1		
16:16	MA19494-CCV10	1		
16:20	MA19494-CCB5	1		
16:27	ZZZZZZ	5		
16:31	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:35	ZZZZZZ	5		
16:39	ZZZZZZ	5		
16:43	ZZZZZZ	5		
16:46	ZZZZZZ	5		
16:50	ZZZZZZ	5		
16:54	ZZZZZZ	5		
16:58	ZZZZZZ	5		
17:02	MA19494-CCV11	1		
17:06	MA19494-CCV12	1		
17:09	MA19494-CCB6	1		
17:13	ZZZZZZ	5		
17:17	ZZZZZZ	5		
17:21	ZZZZZZ	5		
17:25	ZZZZZZ	5		
17:28	ZZZZZZ	5		
17:32	ZZZZZZ	5		
17:36	ZZZZZZ	5		
17:40	ZZZZZZ	5		
17:44	ZZZZZZ	5		
17:47	ZZZZZZ	5		
17:51	MA19494-CCV13	1		
17:55	MA19494-CCV14	1		
17:59	MA19494-CCB7	1		
18:03	MA19494-CCV15	1		
18:06	MA19494-CCV16	1		
18:10	MA19494-CCB8	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:23	MA19494-HSTD1	1		
12:27	MA19494-HSTD2	1	X	
12:31	MA19494-ICV1	1	X	
12:35	MA19494-ICB1	1	X	
12:39	MA19494-CRIA1	1	X	
12:43	MA19494-ICSA1	1	X	
12:46	MA19494-ICSAB1	1	X	
12:50	MA19494-CCV1	1		
12:54	MA19494-CCV2	1	X	
12:58	MA19494-CCB1	1	X	
13:13	FC6782-3	25	X	
13:17	MA19494-ICV2	1		
13:21	MP42393-MB1	5	X	
13:25	MP42393-B1	5	X	
13:28	FC6831-7	10	X	(a)
13:32	MP42393-D1	10	X	
13:36	MP42393-SD1	50	X	
13:40	MP42393-S1	10	X	
13:44	MA19494-CCV3	1		
13:47	MA19494-CCV4	1	X	
13:51	MA19494-CCB2	1	X	
13:55	MP42393-S2	10	X	
13:59	MP42393-PS1	10		
14:03	ZZZZZZ	10		
14:06	ZZZZZZ	10		
14:10	ZZZZZZ	10		
14:14	ZZZZZZ	10		
14:18	ZZZZZZ	10		
14:22	ZZZZZZ	10		
14:26	ZZZZZZ	10		
14:29	ZZZZZZ	10		
14:33	MA19494-CCV5	1		
14:37	MA19494-CCV6	1	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Element: Dilution	As	
14:41	MA19494-CCB3	1	X	
14:45	ZZZZZZ	10		
14:48	ZZZZZZ	10		
14:52	ZZZZZZ	10		
14:56	ZZZZZZ	10		
15:00	ZZZZZZ	10		
15:04	ZZZZZZ	10		
15:07	ZZZZZZ	10		
15:11	ZZZZZZ	5		
15:15	ZZZZZZ	5		
15:23	MA19494-CCV7	1		
15:27	MA19494-CCV8	1	X	
15:30	MA19494-CCB4	1	X	
15:38	MP42383-MB1	5	X	
15:42	MP42383-B1	5	X	
15:46	FC6760-66	5	X	(a)
15:49	MP42383-D1	5	X	
15:53	MP42383-SD1	25	X	
15:57	MP42383-S1	5	X	
16:01	MP42383-S2	5	X	
16:08	MP42383-PS1	5		
16:12	MA19494-CCV9	1		
16:16	MA19494-CCV10	1	X	
16:20	MA19494-CCB5	1	X	
16:27	ZZZZZZ	5		
16:31	ZZZZZZ	5		
16:35	ZZZZZZ	5		
16:39	ZZZZZZ	5		
16:43	ZZZZZZ	5		
16:46	ZZZZZZ	5		
16:50	ZZZZZZ	5		
16:54	ZZZZZZ	5		
16:58	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Element: Dilution	As
17:02	MA19494-CCV11	1	
17:06	MA19494-CCV12	1	X
17:09	MA19494-CCB6	1	X
17:13	ZZZZZZ	5	
17:17	ZZZZZZ	5	
17:21	ZZZZZZ	5	
17:25	ZZZZZZ	5	
17:28	ZZZZZZ	5	
17:32	ZZZZZZ	5	
17:36	ZZZZZZ	5	
17:40	ZZZZZZ	5	
17:44	ZZZZZZ	5	
17:47	ZZZZZZ	5	
17:51	MA19494-CCV13	1	
17:55	MA19494-CCV14	1	X
17:59	MA19494-CCB7	1	X
18:03	MA19494-CCV15	1	
18:06	MA19494-CCV16	1	X
18:10	MA19494-CCB8	1	X

(a) Sample used for QC only; not part of login FC6782.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:56	MA19494-STD1	100	100	100	100	100	100	100
12:00	MA19494-STD2	99.3	102.2	101.5	102.3	101.8	100.6	101
12:04	MA19494-STD3	101.2	102.4	102.1	103.2	102	101.2	100.8
12:08	MA19494-STD4	103.1	104	103.8	103.8	103.2	100.9	101.3
12:12	MA19494-STD5	100.5	103.9	103.9	103.9	101.8	100.6	99.9
12:16	MA19494-STD6	97.8	102	101.9	102.3	99.9	99.4	97.1
12:20	MA19494-STD7	88	94.2	95.8	95.8	94.6	96.1	93.2
12:23	MA19494-HSTD1	92.2	93.9	96.3	96.5	94.5	97.5	95.6
12:27	MA19494-HSTD2	90.6	91.6	94.2	93.7	91.9	95.4	92.9
12:31	MA19494-ICV1	94.9	86.2	86.9	86.9	86.4	91.3	89
12:35	MA19494-ICB1	96.3	93.6	94.7	94.8	94.9	99	97.3
12:39	MA19494-CRIA1	96	93.9	95.3	96.1	95.6	98.7	97.5
12:43	MA19494-ICSA1	79	84.1	87	82.8	82	86.2	80.2
12:46	MA19494-ICSAB1	74	80.9	84.5	80.7	80.1	85.7	80.4
12:50	MA19494-CCV1	84.5	86.9	90.5	90.8	91.6	97.4	97.7
12:54	MA19494-CCV2	81.9	88	91.5	91.6	90.7	96.5	95
12:58	MA19494-CCB1	88.2	88.4	91.4	91.4	92.5	97.9	97.5
13:13	FC6782-3	91.1	87.6	89.6	90.2	90.5	96.7	96.7
13:17	MA19494-ICV2	94.4	88.7	91	90.3	89.8	95.8	92.9
13:21	MP42393-MB1	89.4	86.9	88.7	88.9	89.3	95.9	94.9
13:25	MP42393-B1	88.3	86.9	88.3	88.1	87.8	94.5	90.6
13:28	FC6831-7	93.1	93.6	92.8	89.8	88.8	96.5	92.7
13:32	MP42393-D1	91.9	97.7	96.7	92.2	89.9	97.1	92.4
13:36	MP42393-SD1	100.2	96	96.8	96.6	95.4	100.9	98.7
13:40	MP42393-S1	93.2	97.5	96	92	88.9	96.8	90.8
13:44	MA19494-CCV3	91.6	93.8	95.3	95.4	93.6	99.5	95.5
13:47	MA19494-CCV4	94	91.3	92.7	92.9	91.2	97.2	93.6
13:51	MA19494-CCB2	88	90.2	91.1	91	91.3	98.1	95.2
13:55	MP42393-S2	92.9	94.9	93.6	89.9	87	95.3	89.9
13:59	MP42393-PS1	91.3	96	95.5	91.7	89.1	97.4	92.4
14:03	ZZZZZZ	89.7	99.1	95.8	92	89.1	96.1	89.7
14:06	ZZZZZZ	89.2	96.4	92.2	88.3	86.1	94.8	89.4
14:10	ZZZZZZ	92.1	101.1	96.8	92.9	90.5	98.3	92.7

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:14	ZZZZZZ	90.9	99	96.6	93	89.9	97.6	91.9
14:18	ZZZZZZ	90.9	93.6	92.9	89	85.1	94.1	87.3
14:22	ZZZZZZ	89.4	95.6	94.4	90.6	87.6	95.7	91.1
14:26	ZZZZZZ	90.9	94.2	93.8	90	86.9	95.4	90
14:29	ZZZZZZ	87.5	88.9	88.6	86.7	84.5	93.3	86.7
14:33	MA19494-CCV5	90.4	88.1	89.9	89.7	88.6	96.6	91.3
14:37	MA19494-CCV6	85.3	87.3	88.8	88.7	86.8	94.6	89.3
14:41	MA19494-CCB3	91.2	85	87	87.1	86.8	95.7	91.1
14:45	ZZZZZZ	84.8	89.3	88	85.1	82.9	92.5	85.9
14:48	ZZZZZZ	89.9	94.7	93.6	90.5	87.1	96.2	89.3
14:52	ZZZZZZ	88.4	97.2	94.1	90.5	87.4	96.4	89.7
14:56	ZZZZZZ	92.9	96.6	93.1	89.7	86.8	96.5	89.3
15:00	ZZZZZZ	90.1	97.2	93.3	89.7	86.5	96.4	88.7
15:04	ZZZZZZ	91.6	94.5	93.2	89.6	86.9	96.2	89
15:07	ZZZZZZ	93.2	96.1	93.9	90.1	86	95.8	86.8
15:11	ZZZZZZ	81.3	110.7	92.5	84.7	81	94.3	82.7
15:15	ZZZZZZ	81	110.3	91	82.9	79.9	94.2	82.2
15:23	MA19494-CCV7	88.4	90.1	90.9	90.8	88.7	97	90.4
15:27	MA19494-CCV8	90.9	88.4	89.4	89.6	87.3	96	88.6
15:30	MA19494-CCB4	96.7	88.5	90	90.2	88.7	97.7	91
15:38	MP42383-MB1	90.1	87.2	87.7	88	85.7	95.3	89.4
15:42	MP42383-B1	89.6	84.8	85.6	85.3	83.7	93	85
15:46	FC6760-66	80.4	109.3	90.4	81.9	78.7	94	82
15:49	MP42383-D1	82.3	108.6	88.9	80.7	78.2	93.9	81.5
15:53	MP42383-SD1	89.2	89.6	87.4	85.2	83.7	94.9	88
15:57	MP42383-S1	77.6	114.6	88	77	75.3	90.9	77
16:01	MP42383-S2	73	113.3	88.9	76	74	87.8	77.1
16:08	MP42383-PS1	83.1	104.2	87.3	79.1	77.7	93.7	81.7
16:12	MA19494-CCV9	87.3	82.1	84.7	84.8	84.4	95.2	88.2
16:16	MA19494-CCV10	88.3	82.8	85.1	85.1	83.6	94.7	87.2
16:20	MA19494-CCB5	90	84.7	86.5	86.3	85.9	96.9	89.1
16:27	ZZZZZZ	77.7	114.6	91.8	79	76.3	95	78.9
16:31	ZZZZZZ	74.2	103.9	84.4	76.1	74.3	93.7	77

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19494
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:35	ZZZZZZ	74.4	112.9	89.9	78.2	75.3	95.9	79.6
16:39	ZZZZZZ	73.4	104.2	85.8	76.5	74.8	95.1	79.9
16:43	ZZZZZZ	71.4	101.7	83.2	74	73.1	94.6	78.3
16:46	ZZZZZZ	70.5	102.9	86.3	74.6	73.4	95.5	79.4
16:50	ZZZZZZ	70	99.4	82.9	73.1	72.4	92.9	78.6
16:54	ZZZZZZ	69.9 !a	96.5	79.6	70.1	69.1 !a	92	75.1
16:58	ZZZZZZ	69.1 !a	89.8	77.8	70	70	90.6	76.5
17:02	MA19494-CCV11	81.3	76.6	80.2	80.3	80.7	94.4	86.8
17:06	MA19494-CCV12	78.3	77.3	80.4	80.3	80.4	93.6	85.4
17:09	MA19494-CCB6	83.1	78.8	81.2	81.6	82.7	95.5	87.5
17:13	ZZZZZZ	71.8	88.7	76.3	70.1	70.2	84.3	74.6
17:17	ZZZZZZ	68.7 !a	90.1	74.8	68 !a	68.2 !a	82.7	73.5
17:21	ZZZZZZ	70.7	76	72.3	67 !a	67.9 !a	77.7	74.1
17:25	ZZZZZZ	72.4	93.4	78.6	70.8	70.3	89.3	77.2
17:28	ZZZZZZ	69.8 !a	87.8	74.6	67 !a	67.4 !a	78.4	73.9
17:32	ZZZZZZ	75.4	96.5	77.9	69.3 !a	68.9 !a	88.4	75.6
17:36	ZZZZZZ	67.5 !a	88.4	73.7	65.3 !a	65.1 !a	79.8	72.5
17:40	ZZZZZZ	63.4 !a	94.5	75.5	63.9 !a	63.1 !a	82.5	71.3
17:44	ZZZZZZ	70.1	90.5	73.8	65.4 !a	65.9 !a	76.2	72.7
17:47	ZZZZZZ	68.8 !a	87.9	71.6	63.4 !a	64 !a	78.2	72.3
17:51	MA19494-CCV13	73.3	65.9 !	69.7 !	70.3	72.6	79.4	81.3
17:55	MA19494-CCV14	73.7	67.1 !	71.2	71.1	72.5	79.9	80
17:59	MA19494-CCB7	79.6	69.9 !	73.4	73.7	75.7	91.5	83.2
18:03	MA19494-CCV15	79.5	73.7	77	77.2	77.8	92.6	83.6
18:06	MA19494-CCV16	81.7	73.9	76.7	77.1	77.3	92	82.6
18:10	MA19494-CCB8	82.7	74.1	77.1	77.1	79.2	93.9	84.7

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19494 Units: ug/l

Time: / Sample ID:			12:35 ICB1		12:58 CCB1		13:51 CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	100	4.4						
Antimony	1.0	.1	anr					
Arsenic	1.0	.1	0.0298	<1.0	0.0185	<1.0	0.0207	<1.0
Barium	1.0	.1	anr					
Beryllium	1.0	.1						
Cadmium	1.0	.1						
Calcium	100	7.2						
Chromium	1.0	.1	anr					
Cobalt	1.0	.1						
Copper	1.0	.1	anr					
Iron	100	7.9						
Lead	1.0	.1	anr					
Magnesium	100	5.2						
Manganese	1.0	.1						
Molybdenum	1.0	.1						
Nickel	1.0	.1						
Potassium	100	6.6						
Selenium	1.0	.11						
Silver	1.0	.1						
Sodium	100	4.8						
Strontium	1.0	.1						
Thallium	1.0	.1						
Tin	1.0	.1						
Titanium	1.0	.3						
Vanadium	1.0	.1						
Zinc	2.0	.29	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19494 Units: ug/l

Time:		12:31			12:50			12:54	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	102	102.0				100	99.6	99.6
Barium	anr								
Beryllium									
Cadmium									
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19494 Units: ug/l

Time:		13:17			13:44			13:47	
Sample ID:	ICV	ICV2		CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic							100	101	101.0
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19494 Units: ug/l

Time:		12:23			12:27	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	198	99.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19494 Units: ug/l

Time:			12:39	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	100	100		
Antimony	1.0	1.0	anr	
Arsenic	1.0	1.0	1.03	103.0
Barium	1.0	1.0	anr	
Beryllium	1.0	1.0		
Cadmium	1.0	1.0		
Calcium	100	100		
Chromium	1.0	1.0	anr	
Cobalt	1.0	1.0		
Copper	1.0	1.0	anr	
Iron	100	100		
Lead	1.0	1.0	anr	
Magnesium	100	100		
Manganese	1.0	1.0		
Molybdenum	1.0	1.0		
Nickel	1.0	1.0		
Potassium	100	100		
Selenium	1.0	1.0		
Silver	1.0	1.0		
Sodium	100	100		
Strontium	1.0	1.0		
Thallium	1.0	1.0		
Tin	1.0	1.0		
Titanium	1.0	1.0		
Vanadium	1.0	1.0		
Zinc	1.0	1.0	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA061623M1.CSV Date Analyzed: 06/16/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19494 Units: ug/l

Time:			12:43		12:46	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	100000HH	100.0	99700H	99.7
Antimony			0.0800		0.0734	
Arsenic		20	0.0798		19.4	97.0
Barium			0.513		0.514	
Beryllium			0.000370		-0.000280	
Cadmium		20	0.808		20.7	103.5
Calcium	100000	100000	94800H	94.8	94800H	94.8
Chromium		20	2.08*(a)		21.2	106.0
Cobalt		20	0.118		19.9	99.5
Copper		20	-1.24		17.2	86.0
Iron	100000	100000	98800H	98.8	98300H	98.3
Lead			0.0724		0.0713	
Magnesium	100000	100000	101000HH	101.0	101000HH	101.0
Manganese		20	0.265		19.6	98.0
Molybdenum	2000	2000	2060HH	103.0	2090HH	104.5
Nickel		20	0.396		19.1	95.5
Potassium	100000	100000	101000HH	101.0	100000HH	100.0
Selenium			0.0870		0.0501	
Silver		20	0.0197		19.1	95.5
Sodium	100000	100000	101000HH	101.0	100000HH	100.0
Strontium			0.849		0.862	
Thallium			0.0142		0.00807	
Tin			0.0788		0.0669	
Titanium	2000	2000	2050HH	102.5	2050HH	102.5
Vanadium			0.0758		0.0762	
Zinc		20	0.931		20.3	101.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:16	MA19506-STD1	1		STDA
09:20	MA19506-STD2	1		STDB
09:24	MA19506-STD3	1		STDC
09:28	MA19506-STD4	1		STDD
09:32	MA19506-STD5	1		STDE
09:36	MA19506-STD6	1		STDF
09:46	MA19506-STD7	1		STDG
09:52	MA19506-CRIA1	1		
10:01	MA19506-HSTD1	1		
10:07	MA19506-ICV1	1		
10:17	MA19506-ICB1	1		
10:21	MA19506-ICSA1	1		
10:31	MA19506-ICSAB1	1		
10:38	MA19506-CCV1	1		
10:45	MA19506-CCB1	1		
11:00	MP42420-MB1	1		
11:06	MP42420-B1	1		
11:10	FC6740-10F	1		(sample used for QC only; not part of login FC6782)
11:15	MP42420-D1	1		
11:21	MP42420-SD1	5		
11:26	MP42420-PS1	1		
11:31	MP42420-S1	1		
11:36	MP42420-S2	1		
11:41	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:51	MA19506-CCV2	1		
11:55	MA19506-CCB2	1		
12:00	ZZZZZZ	1		
12:16	ZZZZZZ	1		
12:20	FC6782-1B	1		
12:26	FC6782-2A	1		
12:31	FC6782-3A	1		
12:36	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:41	ZZZZZZ	1		
12:46	ZZZZZZ	1		
12:51	MA19506-CCV3	1		
12:55	MA19506-CCB3	1		
13:05	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:15	MP42418-MB1	1		
13:21	MP42418-B1	1		
13:25	FC6978-1	1		(sample used for QC only; not part of login FC6782)
13:30	MP42418-D1	1		
13:36	MA19506-CCV4	1		
13:45	MA19506-CCB4	1		
14:39	MA19506-CCV5	1		
14:46	MA19506-CCB5	1		
14:50	MP42418-SD1	5		
14:55	MP42418-S1	1		
15:00	MP42418-S2	1		
15:05	MP42418-MB2	1		
15:10	MA19506-CCV6	1		
15:15	MA19506-CCB6	1		
15:20	MP42418-B2	1		
15:25	MP42417-MB1	1		
15:30	MP42417-B1	1		
15:35	FC6447-2R	1		(sample used for QC only; not part of login FC6782)
15:40	MP42417-D1	1		
15:45	MP42417-SD1	5		
15:50	MP42417-PS1	1		
15:55	MP42417-S1	1		
16:00	MP42417-S2	1		
16:05	ZZZZZZ	1		
16:10	MA19506-CCV7	1		
16:15	MA19506-CCB7	1		
16:20	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:25	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:35	ZZZZZZ	1		
16:40	ZZZZZZ	1		
16:45	ZZZZZZ	1		
16:50	ZZZZZZ	5		
16:55	ZZZZZZ	1		
17:00	ZZZZZZ	1		
17:05	ZZZZZZ	1		
17:10	MA19506-CCV8	1		
17:15	MA19506-CCB8	1		
17:20	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:35	ZZZZZZ	5		
17:40	ZZZZZZ	5		
17:45	ZZZZZZ	5		
17:50	ZZZZZZ	5		
17:55	FC6740-10F	5		(sample used for QC only; not part of login FC6782)
18:00	MP42420-D1	5		
18:05	MP42420-S1	5		
18:10	MA19506-CCV9	1		
18:15	MA19506-CCB9	1		
18:20	MP42420-S2	5		
18:25	MP42420-PS1	5		
18:30	MP42420-SD1	25		
---------->	Last reportable sample/prep for job FC6782			
18:35	MA19506-CCV10	1		
18:40	MA19506-CCB10	1		
---------->	Last reportable CCB for job FC6782			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
09:52	MA19506-CRIA1	1	X	X	X	X	
10:01	MA19506-HSTD1	1	X	X	X	X	
10:07	MA19506-ICV1	1	X	X	X	X	
10:17	MA19506-ICB1	1	X	X	X	X	
10:21	MA19506-ICSA1	1	X	X	X	X	
10:31	MA19506-ICSAB1	1	X	X	X	X	
10:38	MA19506-CCV1	1	X	X	X	X	
10:45	MA19506-CCB1	1	X	X	X	X	
11:00	MP42420-MB1	1	X	X	X	X	
11:06	MP42420-B1	1	X	X	X	X	
11:10	FC6740-10F	1	X		X		(a)
11:15	MP42420-D1	1	X	X	X	X	
11:21	MP42420-SD1	5	X	X	X	X	
11:26	MP42420-PS1	1	X	X	X	X	
11:31	MP42420-S1	1	X	X	X	X	
11:36	MP42420-S2	1	X	X	X	X	
11:41	ZZZZZZ	1					
11:46	ZZZZZZ	1					
11:51	MA19506-CCV2	1	X	X	X	X	
11:55	MA19506-CCB2	1	X	X	X	X	
12:00	ZZZZZZ	1					
12:16	ZZZZZZ	1					
12:20	FC6782-1B	1	X		X	X	
12:26	FC6782-2A	1		X		X	
12:31	FC6782-3A	1		X		X	
12:36	ZZZZZZ	1					
12:41	ZZZZZZ	1					
12:46	ZZZZZZ	1					
12:51	MA19506-CCV3	1	X	X	X	X	
12:55	MA19506-CCB3	1	X	X	X	X	
13:05	ZZZZZZ	1					
13:10	ZZZZZZ	1					
13:15	MP42418-MB1	1	X				
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
13:21	MP42418-B1	1	X				
13:25	FC6978-1	1	X				(a)
13:30	MP42418-D1	1	X				
13:36	MA19506-CCV4	1	X	X	X	X	
13:45	MA19506-CCB4	1	X	X	X	X	
14:39	MA19506-CCV5	1	X	X	X	X	
14:46	MA19506-CCB5	1	X	X	X	X	
14:50	MP42418-SD1	5	X				
14:55	MP42418-S1	1	X				
15:00	MP42418-S2	1	X				
15:05	MP42418-MB2	1	X				
15:10	MA19506-CCV6	1	X	X	X	X	
15:15	MA19506-CCB6	1	X	X	X	X	
15:20	MP42418-B2	1	X				
15:25	MP42417-MB1	1	X	X	X	X	
15:30	MP42417-B1	1	X	X	X	X	
15:35	FC6447-2R	1					(a)
15:40	MP42417-D1	1	X	X	X	X	
15:45	MP42417-SD1	5	X	X	X	X	
15:50	MP42417-PS1	1	X	X	X	X	
15:55	MP42417-S1	1	X	X	X	X	
16:00	MP42417-S2	1	X	X	X	X	
16:05	ZZZZZZ	1					
16:10	MA19506-CCV7	1	X	X	X	X	
16:15	MA19506-CCB7	1	X	X	X	X	
16:20	ZZZZZZ	1					
16:25	ZZZZZZ	1					
16:30	ZZZZZZ	1					
16:35	ZZZZZZ	1					
16:40	ZZZZZZ	1					
16:45	ZZZZZZ	1					
16:50	ZZZZZZ	5					
16:55	ZZZZZZ	1					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
17:00	ZZZZZZ	1					
17:05	ZZZZZZ	1					
17:10	MA19506-CCV8	1	X	X	X	X	
17:15	MA19506-CCB8	1	X	X	X	X	
17:20	ZZZZZZ	1					
17:25	ZZZZZZ	1					
17:35	ZZZZZZ	5					
17:40	ZZZZZZ	5					
17:45	ZZZZZZ	5					
17:50	ZZZZZZ	5					
17:55	FC6740-10F	5					(a)
18:00	MP42420-D1	5					
18:05	MP42420-S1	5					
18:10	MA19506-CCV9	1	X	X	X	X	
18:15	MA19506-CCB9	1	X	X	X	X	
18:20	MP42420-S2	5					
18:25	MP42420-PS1	5					
18:30	MP42420-SD1	25					
18:35	MA19506-CCV10	1	X	X	X	X	
18:40	MA19506-CCB10	1	X	X	X	X	

(a) Sample used for QC only; not part of login FC6782.

Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:16	MA19506-STD1	1913	23275	5492	815
09:20	MA19506-STD2	1859	22269	5399	756
09:24	MA19506-STD3	1890	22678	5469	765
09:28	MA19506-STD4	1862	22434	5464	742
09:32	MA19506-STD5	1829	22049	5415	714
09:36	MA19506-STD6	1778	21582	5389	677
09:46	MA19506-STD7	1699	20992	5367	635
09:52	MA19506-CRIA1	1847	22432	5442	764
10:01	MA19506-HSTD1	1662	20914	5347	625
10:07	MA19506-ICV1	1762	21477	5406	677
10:17	MA19506-ICB1	1872 R	22770 R	5415 R	800 R
10:21	MA19506-ICSA1	1546	18945	5179	596
10:31	MA19506-ICSAB1	1579	19008	5189	568
10:38	MA19506-CCV1	1758	21504	5372	672
10:45	MA19506-CCB1	1861	22686	5431	798
11:00	MP42420-MB1	1866	23163	5529	796
11:06	MP42420-B1	1756	21506	5542	679
11:10	FC6740-10F	1676	20422	5378	632
11:15	MP42420-D1	1654	20178	5322	626
11:21	MP42420-SD1	1783	21705	5437	716
11:26	MP42420-PS1	1675	20367	5360	629
11:31	MP42420-S1	1635	19872	5258	596
11:36	MP42420-S2	1656	20170	5361	604
11:41	ZZZZZZ	1883	23337	5670	777
11:46	ZZZZZZ	1781	22042	5536	725
11:51	MA19506-CCV2	1716	21299	5370	656
11:55	MA19506-CCB2	1852	22658	5455	790
12:00	ZZZZZZ	1808	22335	5632	715
12:16	ZZZZZZ	1852	22792	5768	697
12:20	FC6782-1B	1755	21760	5512	715
12:26	FC6782-2A	1746	21802	5524	712
12:31	FC6782-3A	1771	22114	5573	736
12:36	ZZZZZZ	1621	19879	5338	617

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:41	ZZZZZZ	1880	23445	5821	758
12:46	ZZZZZZ	1740	21415	5525	698
12:51	MA19506-CCV3	1740	21273	5446	656
12:55	MA19506-CCB3	1829	22579	5507	777
13:05	ZZZZZZ	1798	22103	5642	712
13:10	ZZZZZZ	1810	22437	5479	748
13:15	MP42418-MB1	1824	22786	5608	778
13:21	MP42418-B1	1718	21158	5485	661
13:25	FC6978-1	1692	20883	5486	665
13:30	MP42418-D1	1656	20343	5443	644
13:36	MA19506-CCV4	1719	21267	5470	655
13:45	MA19506-CCB4	1811	22577	5549	771
14:39	MA19506-CCV5	1714	21134	5480	654
14:46	MA19506-CCB5	1814	22406	5503	768
14:50	MP42418-SD1	1776	21682	5490	724
14:55	MP42418-S1	1663	20508	5485	610
15:00	MP42418-S2	1650	19959	5491	602
15:05	MP42418-MB2	1787	22388	5461	763
15:10	MA19506-CCV6	1724	21280	5454	659
15:15	MA19506-CCB6	1822	22514	5482	780
15:20	MP42418-B2	1696	21105	5502	662
15:25	MP42417-MB1	1806	22701	5591	783
15:30	MP42417-B1	1708	21231	5418	664
15:35	FC6447-2R	1959	24316	6471	639
15:40	MP42417-D1	2032	24851	6542	659
15:45	MP42417-SD1	1868	23051	5759	733
15:50	MP42417-PS1	1975	24191	6414	640
15:55	MP42417-S1	2223	26983	7253	626
16:00	MP42417-S2	2055	25168	6792	609
16:05	ZZZZZZ	1920	23640	6012	731
16:10	MA19506-CCV7	1754	21764	5554	673
16:15	MA19506-CCB7	1838	22710	5549	790
16:20	ZZZZZZ	1905	23290	5927	727

INTERNAL STANDARD SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19506
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:25	ZZZZZZ	1899	22648	5943	735
16:30	ZZZZZZ	1858	22685	5897	721
16:35	ZZZZZZ	1794	22174	5745	721
16:40	ZZZZZZ	1832	22803	5851	738
16:45	ZZZZZZ	1883	23664	5893	775
16:50	ZZZZZZ	1851	22854	5794	749
16:55	ZZZZZZ	1882	23781	5911	765
17:00	ZZZZZZ	1796	22438	5769	688
17:05	ZZZZZZ	1878	24594	5833	775
17:10	MA19506-CCV8	1757	21776	5697	678
17:15	MA19506-CCB8	1879	23304	5666	809
17:20	ZZZZZZ	1931	24172	5957	771
17:25	ZZZZZZ	1999	24938	6309	732
17:35	ZZZZZZ	3899 !a	47859 !a	12525 !a	680
17:40	ZZZZZZ	2722 !a	33671 !a	8674 !a	693
17:45	ZZZZZZ	2036	25059	6306	759
17:50	ZZZZZZ	1944	23880	5995	765
17:55	FC6740-10F	1800	22061	5649	726
18:00	MP42420-D1	1800	22135	5653	726
18:05	MP42420-S1	1792	22138	5677	711
18:10	MA19506-CCV9	1756	21854	5556	682
18:15	MA19506-CCB9	1867	23150	5601	812
18:20	MP42420-S2	1777	21842	5612	704
18:25	MP42420-PS1	1805	22163	5631	726
18:30	MP42420-SD1	1849	22950	5697	784
18:35	MA19506-CCV10	1747	21826	5596	678
18:40	MA19506-CCB10	1869	23252	5597	815

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19506 Units: ug/l

Time: / Sample ID:			10:17 ICB1		10:45 CCB1		11:55 CCB2		12:55 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.00	<200	-0.100	<200	0.00	<200	0.100	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	-0.800	<300	0.200	<300	0.400	<300	0.400	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	-9.80	<5000	-1.30	<5000	-3.10	<5000	-7.00	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15	0.100	<15
Molybdenum	50	.3								
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19506 Units: ug/l

Time: / Sample ID:			13:45 CCB4		14:46 CCB5		15:15 CCB6		16:15 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.100	<200	0.00	<200	0.100	<200	0.00	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	-1.00	<300	3.40	<300	4.80	<300	4.50	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	-9.50	<5000	-2.80	<5000	7.30	<5000	13.0	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15	0.100	<15
Molybdenum	50	.3								
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19506 Units: ug/l

Time: / Sample ID:			17:15 CCB8		18:15 CCB9		18:40 CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	14	anr					
Antimony	20	1	anr					
Arsenic	10	1.3	anr					
Barium	200	.5	0.00	<200	-0.100	<200	0.00	<200
Beryllium	5.0	.1	anr					
Boron	100	5						
Cadmium	4.0	.1	anr					
Calcium	5000	50	anr					
Chromium	10	.5	anr					
Cobalt	50	.2	anr					
Copper	25	1	anr					
Iron	300	15	3.70	<300	2.80	<300	3.20	<300
Lead	20	1	anr					
Lithium	20	.5						
Magnesium	5000	35	11.0	<5000	15.7	<5000	14.4	<5000
Manganese	15	.25	0.100	<15	0.00	<15	0.100	<15
Molybdenum	50	.3						
Nickel	40	.4	anr					
Potassium	10000	100	anr					
Selenium	20	2	anr					
Silver	10	.5	anr					
Sodium	10000	250	anr					
Strontium	10	.25						
Thallium	10	1	anr					
Tin	50	.5						
Titanium	10	.5						
Vanadium	50	.5	anr					
Zinc	20	3	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19506 Units: ug/l

Time:		10:07			10:38			11:51	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	1980	99.0	2000	2070	103.5	2000	2110	105.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39700	99.3	40000	41300	103.3	40000	41800	104.5
Lead	anr								
Lithium									
Magnesium	40000	41500	103.8	40000	40800	102.0	40000	41400	103.5
Manganese	2000	2010	100.5	2000	2060	103.0	2000	2110	105.5
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19506 Units: ug/l

Time:		12:51			13:36			14:39	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2110	105.5	2000	2120	106.0	2000	2020	101.0
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	41600	104.0	40000	41600	104.0	40000	40200	100.5
Lead	anr								
Lithium									
Magnesium	40000	41600	104.0	40000	41300	103.3	40000	40100	100.3
Manganese	2000	2120	106.0	2000	2120	106.0	2000	2020	101.0
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19506 Units: ug/l

Time:		15:10			16:10			17:10	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2010	100.5	2000	2000	100.0	2000	1990	99.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40000	100.0	40000	39500	98.8	40000	39100	97.8
Lead	anr								
Lithium									
Magnesium	40000	40000	100.0	40000	39400	98.5	40000	38500	96.3
Manganese	2000	1990	99.5	2000	1940	97.0	2000	1960	98.0
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19506 Units: ug/l

Time:		18:10			18:35	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	2000	1980	99.0	2000	1990	99.5
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	40000	39100	97.8	40000	39200	98.0
Lead	anr					
Lithium						
Magnesium	40000	38400	96.0	40000	38500	96.3
Manganese	2000	1930	96.5	2000	1940	97.0
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19506 Units: ug/l

Time:		10:01	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	4000	3990	99.8
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	78700	98.4
Lead	anr		
Lithium			
Magnesium	80000	78700	98.4
Manganese	4000	3940	98.5
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19506 Units: ug/l

Time:			09:52	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200	anr	
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	199	99.5
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	anr	
Calcium	2000	1000	anr	
Chromium	20	10	anr	
Cobalt	100	50	anr	
Copper	50	25	anr	
Iron	600	300	307	102.3
Lead	10	5.0	anr	
Lithium	18	9.0		
Magnesium	10000	5000	5020	100.4
Manganese	30	15	15.7	104.7
Molybdenum	100	50		
Nickel	80	40	anr	
Potassium	20000	10000	anr	
Selenium	20	10	anr	
Silver	20	10	anr	
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50		
Titanium	20	10		
Vanadium	100	50	anr	
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB062223M1.ICP Date Analyzed: 06/22/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19506 Units: ug/l

Time:			10:21		10:31	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	520000	104.0	507000	101.4
Antimony		1000	0.600		1030	103.0
Arsenic		1000	0.00		1020	102.0
Barium		500	-0.100		489	97.8
Beryllium		500	0.00		493	98.6
Boron		1000	-0.400		1030	103.0
Cadmium		1000	-0.300		939	93.9
Calcium	500000	500000	455000	91.0	453000	90.6
Chromium		500	-0.600		475	95.0
Cobalt		500	-0.100		462	92.4
Copper		500	0.00		542	108.4
Iron	500000	200000	482000	96.4	183000	91.5
Lead		1000	0.00		943	94.3
Lithium		1000	0.00		551	55.1
Magnesium	500000	500000	532000	106.4	536000	107.2
Manganese		500	0.900		506	101.2
Molybdenum		1000	-0.700		949	94.9
Nickel		1000	0.700		883	88.3
Potassium			-27.7		7.20	
Selenium		1000	0.400		967	96.7
Silver		1000	0.400		992	99.2
Sodium			275		253	
Strontium		1000	0.700		1020	102.0
Thallium		1000	0.00		924	92.4
Tin		1000	-0.200		884	88.4
Titanium		1000	0.00		493	49.3*
Vanadium		500	0.300		495	99.0
Zinc		1000	0.500		909	90.9

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42379
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 06/13/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.14	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	2.0	.2	.2		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	19		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	2.0	.2	.2		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	24		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	2.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	4.0	.58	1.7		

Associated samples MP42379: FC6782-1, FC6782-2, FC6782-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42379
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 06/13/23 06/13/23

Metal	FC6562-3F Original	DUP	RPD	QC Limits	FC6562-3F Original	MS	Spikelot MPICPMS1 % Rec	QC Limits
Aluminum	anr							
Antimony	anr							
Arsenic	5.7	4.7	2.2	0-20	5.7	220	200 107.7	80-120
Barium	anr							
Beryllium	anr							
Cadmium	anr							
Calcium	anr							
Chromium	anr							
Cobalt	anr							
Copper	anr							
Iron	anr							
Lead	anr							
Magnesium	anr							
Manganese								
Molybdenum	anr							
Nickel	anr							
Potassium								
Selenium	anr							
Silver	anr							
Sodium	anr							
Strontium	anr							
Thallium	anr							
Tin	anr							
Titanium	anr							
Vanadium	anr							
Zinc	anr							

Associated samples MP42379: FC6782-1, FC6782-2, FC6782-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42379 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 06/13/23

Metal	FC6562-3F Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	5.7	216	200	105.7	1.8	20
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	anr					
Lead	anr					
Magnesium	anr					
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium	anr					
Thallium	anr					
Tin	anr					
Titanium	anr					
Vanadium	anr					
Zinc	anr					

Associated samples MP42379: FC6782-1, FC6782-2, FC6782-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42379
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 06/13/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	212	200	106.0	80-120
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium	anr			
Zinc	anr			

Associated samples MP42379: FC6782-1, FC6782-2, FC6782-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42379
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 06/13/23

Metal	FC6562-3F Original	SDL 2:10	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	5.70	4.72	3.7	0-10
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium	anr			
Thallium	anr			
Tin	anr			
Titanium	anr			
Vanadium	anr			
Zinc	anr			

Associated samples MP42379: FC6782-1, FC6782-2, FC6782-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 06/21/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1	0.10	<200
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2		
Calcium	1000	50	50		
Chromium	10	.5	1		
Cobalt	50	.2	.2		
Copper	25	1	1		
Iron	300	15	17	3.6	<300
Lead	5.0	1	1.1		
Lithium	10	.5	1.3		
Magnesium	5000	35	35	10.3	<5000
Manganese	15	.25	1	0.0	<15
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9		
Silver	10	.5	.7		
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4		

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date:			06/21/23					06/21/23	
Metal	FC6740-10F Original	DUP	RPD	QC Limits	FC6740-10F Original	MS	Spikelot MPFLICP5 % Rec		QC Limits
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	23.6	23.8	0.8	0-20	23.6	231	200	103.7	80-120
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper	anr								
Iron	532	529	0.6	0-20	532	46800	46000	100.6	80-120
Lead	anr								
Lithium									
Magnesium	38500	38200	0.8	0-20	38500	85000	45000	103.3	80-120
Manganese	554	557	0.5	0-20	554	753	200	99.5	80-120
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 06/21/23

Metal	FC6740-10F Original	MSD	Spikelot MPFLICP5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	23.6	226	200	101.2	2.2	20
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper	anr					
Iron	532	45800	46000	98.4	2.2	20
Lead	anr					
Lithium						
Magnesium	38500	83700	45000	100.4	1.5	20
Manganese	554	746	200	96.0	0.9	20
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 06/21/23

Metal	BSP Result	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	199	200	99.5	80-120
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	44800	46000	97.4	80-120
Lead	anr			
Lithium				
Magnesium	44600	45000	99.1	80-120
Manganese	206	200	103.0	80-120
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 06/21/23

Metal	FC6740-10F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	23.6	23.0	2.5	0-10
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	532	523	1.7	0-10
Lead	anr			
Lithium				
Magnesium	38500	38600	0.2	0-10
Manganese	554	566	2.2	0-10
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP42420
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 06/21/23

Metal	Sample ml	Final ml	FC6740-10F Raw	FC6740-10F Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	9.8	10	23.6	23.128	270.5	0.2	12.5	250	98.9	80-120
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	531.9	521.262	3517	0.2	150	3000	99.9	80-120
Lead										
Lithium										
Magnesium	9.8	10	38490	37720.2	42540	0.2	250	5000	96.4	80-120
Manganese	9.8	10	554.2	543.116	590.1	0.2	2.5	50	94.0	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP42420: FC6782-1B, FC6782-2A, FC6782-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC6782
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19485,MA19494

Instrument Detection Limits

Job Number: FC6782
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19506

Instrument Linear Ranges

Job Number: FC6782
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19485,MA19494

Instrument Linear Ranges

Job Number: FC6782
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19506

Metals Analysis

Raw Data

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 11:47
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.005	ug/l	60.85	972.70	3.004E-03	Pulse	0.50	3
As			1	0.006	ug/l	37.34	39.33	1.213E-04	Pulse	1.00	3
Mo			1	0.028	ug/l	18.49	452.01	9.400E-04	Pulse	0.50	3
Pb			1	0.004	ug/l	49.88	1,506.07	3.040E-04	Pulse	1.00	3
Be			1	0.010	ug/l	171.16	3.50	6.195E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	56.38	211.33	4.397E-04	Pulse	0.50	3
Ba			1	0.003	ug/l	34.66	72.00	2.525E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	15.32	994.70	2.004E-04	Pulse	0.50	3
Sn			1	0.014	ug/l	29.58	545.57	1.915E-04	Pulse	0.30	3
Sr			1	-0.002	ug/l	-210.24	556.68	1.954E-04	Pulse	0.50	3
[Pb]			1	0.004	ug/l	69.29	738.02	1.488E-04	Pulse	0.50	3
Ca			1	-0.296	ug/l	-189.07	496.68	8.827E-04	Pulse	0.50	3
Ti			1	0.001	ug/l	857.74	6.00	1.068E-05	Pulse	0.50	3
Na			1	0.432	ug/l	26.24	42,892.98	7.627E-02	Pulse	1.00	3
Mg			1	0.136	ug/l	6.59	1,056.03	1.878E-03	Pulse	1.00	3
K			1	0.212	ug/l	90.07	82,597.84	1.469E-01	Pulse	1.00	3
V			1	-0.001	ug/l	-139.51	239.33	4.253E-04	Pulse	0.50	3
Mn			1	0.004	ug/l	40.56	632.01	1.951E-03	Pulse	0.50	3
Fe			1	0.264	ug/l	30.66	22,272.17	6.879E-02	Pulse	0.50	3
Co			1	0.003	ug/l	29.88	403.34	1.245E-03	Pulse	0.50	3
Ni			1	0.007	ug/l	40.33	471.34	1.455E-03	Pulse	0.50	3
Cu			1	0.009	ug/l	366.84	23,968.87	4.986E-02	Pulse	0.50	3
Zn			1	0.013	ug/l	29.51	738.69	1.536E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	67.13	17.33	3.605E-05	Pulse	0.50	3
Al			1	0.327	ug/l	23.06	640.68	1.139E-03	Pulse	1.00	3
Se			1	0.018	ug/l	21.07	57.11	1.188E-04	Pulse	3.00	3
Sb			1	0.005	ug/l	25.84	156.00	3.245E-04	Pulse	1.00	3
Se			1	-0.018	ug/l	-302.67	52.00	1.082E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,957,407.33	1.69	100.0	Pulse	0.50	3
1	Sc		562,381.35	0.84	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		323,955.79	1.25	100.0	Pulse	0.30	3
1	In		2,850,034.75	0.97	100.0	Pulse	0.30	3
1	Tb		7,484,740.83	1.05	100.0	Analog	0.50	3
1	Lu		5,455,265.67	0.33	100.0	Pulse	0.50	3
1	Ge		480,755.40	0.24	100.0	Pulse	0.30	3
1	Te		0.67	173.21	100.0	Pulse	0.50	3
1	Li		4,700.58	3.99	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 11:51
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	180.09	927.36	2.870E-03	Pulse	0.50	3
As			1	0.006	ug/l	68.76	38.67	1.196E-04	Pulse	1.00	3
Mo			1	0.005	ug/l	159.31	210.67	4.419E-04	Pulse	0.50	3
Pb			1	0.003	ug/l	56.97	1,469.06	3.010E-04	Pulse	1.00	3
Be			1	0.005	ug/l	106.48	2.50	4.459E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	262.69	172.67	3.620E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	-846.69	58.67	2.050E-05	Pulse	0.50	3
Tl			1	0.002	ug/l	7.00	311.33	6.380E-05	Pulse	0.50	3
Sn			1	0.004	ug/l	99.78	442.23	1.545E-04	Pulse	0.30	3
Sr			1	0.002	ug/l	51.92	608.01	2.125E-04	Pulse	0.50	3
[Pb]			1	0.001	ug/l	644.20	668.68	1.375E-04	Pulse	0.50	3
Ca			1	0.026	ug/l	1248.78	522.68	9.314E-04	Pulse	0.50	3
Ti			1	0.008	ug/l	1.72	10.00	1.782E-05	Pulse	0.50	3
Na			1	0.179	ug/l	93.22	41,896.21	7.465E-02	Pulse	1.00	3
Mg			1	-0.017	ug/l	-285.52	780.68	1.392E-03	Pulse	1.00	3
K			1	0.011	ug/l	1815.80	82,099.73	1.463E-01	Pulse	1.00	3
V			1	0.001	ug/l	727.41	266.67	4.746E-04	Pulse	0.50	3
Mn			1	0.000	ug/l	484.59	584.01	1.807E-03	Pulse	0.50	3
Fe			1	0.131	ug/l	28.09	19,908.23	6.160E-02	Pulse	0.50	3
Co			1	0.002	ug/l	77.35	371.34	1.149E-03	Pulse	0.50	3
Ni			1	0.003	ug/l	77.81	436.01	1.349E-03	Pulse	0.50	3
Cu			1	0.001	ug/l	2480.53	23,621.80	4.949E-02	Pulse	0.50	3
Zn			1	0.017	ug/l	34.15	749.02	1.569E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	66.53	16.67	3.495E-05	Pulse	0.50	3
Al			1	0.172	ug/l	26.82	526.01	9.375E-04	Pulse	1.00	3
Se			1	0.010	ug/l	107.32	55.11	1.155E-04	Pulse	3.00	3
Sb			1	0.002	ug/l	68.91	122.67	2.572E-04	Pulse	1.00	3
Se			1	0.023	ug/l	274.70	55.78	1.169E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,884,621.50	4.72	100.0	Pulse	0.50	3
1	Sc		561,255.78	0.79	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		323,199.65	0.45	100.0	Pulse	0.30	3
1	In		2,861,304.05	0.40	100.0	Pulse	0.30	3
1	Tb		7,486,653.83	1.13	100.0	Analog	0.50	3
1	Lu		5,479,796.33	0.43	100.0	Pulse	0.50	3
1	Ge		477,252.05	0.51	100.0	Pulse	0.30	3
1	Te		1.33	86.60	100.0	Pulse	0.50	3
1	Li		4,666.11	3.16	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 11:55
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	873.35	2.697E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	24.33	7.510E-05	Pulse	1.00	3
Mo			1	0.000	ug/l	---	162.67	3.424E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,329.05	2.723E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.67	2.994E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	159.33	3.354E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	58.67	2.059E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	178.67	3.684E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	392.23	1.376E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	580.68	2.037E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	657.35	1.342E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	516.01	9.275E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	5.33	9.576E-06	Pulse	0.50	3
Na			1	0.000	ug/l	---	40,891.50	7.350E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	804.35	1.446E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	81,358.07	1.462E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	255.33	4.589E-04	Pulse	0.50	3
Mn			1	0.000	ug/l	---	579.34	1.788E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	17,643.37	5.448E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	312.67	9.655E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	413.34	1.275E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	23,489.59	4.944E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	678.34	1.428E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	6.00	1.263E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	397.34	7.142E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	52.67	1.109E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	89.67	1.887E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	53.22	1.120E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,886,534.83	5.14	100.0	Pulse	0.50	3
1	Sc		556,325.95	0.45	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		323,916.92	1.02	100.0	Pulse	0.30	3
1	In		2,849,962.25	0.15	100.0	Pulse	0.30	3
1	Tb		7,441,096.00	0.45	100.0	Analog	0.50	3
1	Lu		5,493,963.00	0.62	100.0	Pulse	0.50	3
1	Ge		475,103.56	0.10	100.0	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,673.90	1.89	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 11:59
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.523	ug/l	2.60	12,020.40	3.694E-02	Pulse	0.50	3
As			1	0.514	ug/l	3.94	1,306.72	4.016E-03	Pulse	1.00	3
Mo			1	0.410	ug/l	0.11	4,455.21	9.256E-03	Pulse	0.50	3
Pb			1	0.535	ug/l	2.43	23,952.05	4.769E-03	Pulse	1.00	3
Be			1	0.536	ug/l	6.62	95.67	1.694E-04	Pulse	2.00	3
Ag			1	0.526	ug/l	0.78	17,998.73	3.739E-02	Pulse	0.50	3
Ba			1	0.518	ug/l	2.76	2,458.18	8.565E-04	Pulse	0.50	3
Tl			1	0.539	ug/l	2.86	32,857.41	6.543E-03	Pulse	0.50	3
Sn			1	0.364	ug/l	5.75	4,395.00	1.531E-03	Pulse	0.30	3
Sr			1	0.506	ug/l	1.89	7,745.61	2.699E-03	Pulse	0.50	3
[Pb]			1	0.511	ug/l	1.71	11,281.09	2.246E-03	Pulse	0.50	3
Ca			1	53.016	ug/l	1.97	5,050.67	8.941E-03	Pulse	0.50	3
Ti			1	0.537	ug/l	3.08	312.00	5.523E-04	Pulse	0.50	3
Na			1	52.507	ug/l	1.10	231,381.22	4.096E-01	Pulse	1.00	3
Mg			1	53.402	ug/l	0.54	96,638.99	1.711E-01	Pulse	1.00	3
K			1	53.243	ug/l	1.76	171,737.88	3.040E-01	Pulse	1.00	3
V			1	0.514	ug/l	2.57	9,028.78	1.598E-02	Pulse	0.50	3
Mn			1	0.548	ug/l	0.15	7,506.14	2.307E-02	Pulse	0.50	3
Fe			1	46.901	ug/l	2.59	846,111.04	2.601E+00	Pulse	0.50	3
Co			1	0.555	ug/l	2.27	17,953.00	5.517E-02	Pulse	0.50	3
Ni			1	0.525	ug/l	2.27	4,911.97	1.510E-02	Pulse	0.50	3
Cu			1	0.650	ug/l	2.60	38,610.42	8.022E-02	Pulse	0.50	3
Zn			1	0.776	ug/l	0.28	3,827.39	7.952E-03	Pulse	1.00	3
Cd			1	0.538	ug/l	2.65	2,818.89	5.856E-03	Pulse	0.50	3
Al			1	53.454	ug/l	0.39	39,600.05	7.010E-02	Pulse	1.00	3
Se			1	0.571	ug/l	2.14	177.89	3.696E-04	Pulse	3.00	3
Sb			1	0.521	ug/l	1.57	7,402.49	1.538E-02	Pulse	1.00	3
Se			1	0.490	ug/l	22.64	104.67	2.175E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,023,851.33	2.49	102.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		564,898.05	0.29	101.5	Pulse	0.30	3
1	Ge		325,365.56	0.38	100.4	Pulse	0.30	3
1	In		2,869,864.26	0.10	100.7	Pulse	0.30	3
1	Tb		7,511,167.33	0.37	100.9	Analog	0.50	3
1	Lu		5,542,978.00	0.68	100.9	Pulse	0.50	3
1	Ge		481,335.74	0.15	101.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,769.48	0.15	102.0	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:03
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.042	ug/l	0.37	23,134.40	7.096E-02	Pulse	0.50	3
As			1	1.073	ug/l	2.48	2,707.53	8.305E-03	Pulse	1.00	3
Mo			1	0.923	ug/l	1.87	9,830.60	2.039E-02	Pulse	0.50	3
Pb			1	1.039	ug/l	1.23	45,903.61	9.006E-03	Pulse	1.00	3
Be			1	1.056	ug/l	3.72	187.17	3.307E-04	Pulse	2.00	3
Ag			1	1.036	ug/l	0.76	35,334.80	7.328E-02	Pulse	0.50	3
Ba			1	0.969	ug/l	1.45	4,541.26	1.584E-03	Pulse	0.50	3
Tl			1	1.043	ug/l	0.19	64,354.24	1.262E-02	Pulse	0.50	3
Sn			1	0.869	ug/l	5.67	9,941.64	3.467E-03	Pulse	0.30	3
Sr			1	0.979	ug/l	1.33	14,422.19	5.029E-03	Pulse	0.50	3
[Pb]			1	1.014	ug/l	1.21	22,025.51	4.321E-03	Pulse	0.50	3
Ca			1	104.765	ug/l	1.51	9,487.64	1.676E-02	Pulse	0.50	3
Ti			1	0.994	ug/l	9.44	574.01	1.014E-03	Pulse	0.50	3
Na			1	102.984	ug/l	0.67	414,717.84	7.327E-01	Pulse	1.00	3
Mg			1	105.776	ug/l	1.05	190,986.08	3.374E-01	Pulse	1.00	3
K			1	106.210	ug/l	0.58	260,921.81	4.610E-01	Pulse	1.00	3
V			1	1.025	ug/l	0.35	17,778.78	3.141E-02	Pulse	0.50	3
Mn			1	1.059	ug/l	1.07	13,994.40	4.293E-02	Pulse	0.50	3
Fe			1	103.504	ug/l	0.27	1,849,727.21	5.674E+00	Pulse	0.50	3
Co			1	1.079	ug/l	0.78	34,646.22	1.063E-01	Pulse	0.50	3
Ni			1	1.082	ug/l	1.35	9,707.13	2.978E-02	Pulse	0.50	3
Cu			1	1.345	ug/l	1.97	54,547.28	1.131E-01	Pulse	0.50	3
Zn			1	1.130	ug/l	2.53	5,266.73	1.092E-02	Pulse	1.00	3
Cd			1	1.081	ug/l	1.55	5,664.22	1.175E-02	Pulse	0.50	3
Al			1	106.731	ug/l	0.87	78,819.43	1.393E-01	Pulse	1.00	3
Se			1	1.052	ug/l	1.56	283.11	5.872E-04	Pulse	3.00	3
Sb			1	1.036	ug/l	0.57	14,642.82	3.037E-02	Pulse	1.00	3
Se			1	1.072	ug/l	12.73	165.22	3.428E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,097,746.67	1.31	104.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		566,032.05	1.14	101.7	Pulse	0.30	3
1	Ge		326,031.05	0.79	100.7	Pulse	0.30	3
1	In		2,867,820.58	0.50	100.6	Pulse	0.30	3
1	Tb		7,498,171.83	0.38	100.8	Analog	0.50	3
1	Lu		5,522,775.00	1.06	100.5	Pulse	0.50	3
1	Ge		482,182.40	0.65	101.5	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,504.97	6.63	96.4	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:07
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.102	ug/l	0.77	221,102.76	6.644E-01	Pulse	0.50	3
As			1	9.916	ug/l	0.81	25,340.07	7.614E-02	Pulse	1.00	3
Mo			1	9.597	ug/l	0.16	102,894.58	2.089E-01	Pulse	0.50	3
Pb			1	10.050	ug/l	0.59	430,855.53	8.472E-02	Pulse	1.00	3
Be			1	9.779	ug/l	3.22	1,770.41	3.039E-03	Pulse	2.00	3
Ag			1	9.924	ug/l	0.43	344,498.80	6.993E-01	Pulse	0.50	3
Ba			1	9.687	ug/l	0.60	45,411.98	1.564E-02	Pulse	0.50	3
Tl			1	10.151	ug/l	1.07	623,463.23	1.226E-01	Pulse	0.50	3
Sn			1	9.707	ug/l	0.06	108,309.99	3.731E-02	Pulse	0.30	3
Sr			1	9.598	ug/l	0.75	137,940.39	4.752E-02	Pulse	0.50	3
[Pb]			1	9.703	ug/l	0.81	204,487.10	4.021E-02	Pulse	0.50	3
Ca			1	991.384	ug/l	1.39	87,844.32	1.508E-01	Pulse	0.50	3
Ti			1	9.787	ug/l	4.30	5,765.54	9.896E-03	Pulse	0.50	3
Na			1	996.751	ug/l	0.25	3,760,198.42	6.454E+00	Pulse	1.00	3
Mg			1	1013.148	ug/l	0.59	1,875,892.21	3.220E+00	Pulse	1.00	3
K			1	1021.149	ug/l	0.52	1,848,295.17	3.172E+00	Pulse	1.00	3
V			1	9.859	ug/l	0.41	173,784.73	2.983E-01	Pulse	0.50	3
Mn			1	10.179	ug/l	0.25	132,213.46	3.973E-01	Pulse	0.50	3
Fe			1	1009.855	ug/l	0.17	18,263,278.67	5.488E+01	Analog	0.50	3
Co			1	10.430	ug/l	0.99	339,200.03	1.019E+00	Pulse	0.50	3
Ni			1	10.471	ug/l	2.05	92,189.88	2.770E-01	Pulse	0.50	3
Cu			1	12.720	ug/l	0.79	321,047.31	6.517E-01	Pulse	0.50	3
Zn			1	10.805	ug/l	0.57	45,425.88	9.221E-02	Pulse	1.00	3
Cd			1	10.118	ug/l	1.68	54,124.75	1.099E-01	Pulse	0.50	3
Al			1	1024.599	ug/l	0.45	775,325.61	1.331E+00	Pulse	1.00	3
Se			1	10.199	ug/l	3.15	2,329.70	4.730E-03	Pulse	3.00	3
Sb			1	9.893	ug/l	0.18	142,077.91	2.884E-01	Pulse	1.00	3
Se			1	10.081	ug/l	2.34	1,124.25	2.282E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,085,637.00	0.45	104.1	Pulse	0.50	3
1	Sc		582,641.07	0.10	104.7	Pulse	0.30	3
1	Ge		332,799.05	0.54	102.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,902,987.31	0.92	101.9	Pulse	0.30	3
1	Tb		7,530,225.00	0.38	101.2	Analog	0.50	3
1	Lu		5,555,976.67	0.77	101.1	Pulse	0.50	3
1	Ge		492,642.90	0.61	103.7	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,583.87	2.33	98.1	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:11
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	51.216	ug/l	0.59	1,119,130.83	3.357E+00	Pulse	0.50	3
As			1	51.008	ug/l	0.35	130,453.35	3.913E-01	Pulse	1.00	3
Mo			1	50.144	ug/l	0.85	533,294.73	1.090E+00	Pulse	0.50	3
Pb			1	51.887	ug/l	0.31	2,171,206.50	4.362E-01	Pulse	1.00	3
Be			1	50.576	ug/l	0.89	9,183.40	1.570E-02	Pulse	2.00	3
Ag			1	50.716	ug/l	0.76	1,748,018.96	3.572E+00	Pulse	0.50	3
Ba			1	50.321	ug/l	0.90	232,183.80	8.118E-02	Pulse	0.50	3
Tl			1	52.582	ug/l	0.53	3,159,785.92	6.349E-01	Pulse	0.50	3
Sn			1	49.770	ug/l	0.42	545,513.62	1.907E-01	Pulse	0.30	3
Sr			1	49.981	ug/l	0.62	705,253.92	2.466E-01	Pulse	0.50	3
[Pb]			1	50.226	ug/l	0.17	1,033,049.15	2.076E-01	Pulse	0.50	3
Ca			1	5046.525	ug/l	0.96	446,647.32	7.637E-01	Pulse	0.50	3
Ti			1	49.408	ug/l	0.70	29,197.04	4.992E-02	Pulse	0.50	3
Na			1	5062.274	ug/l	0.82	18,994,672.00	3.248E+01	Analog	1.00	3
Mg			1	5098.979	ug/l	1.13	9,473,469.00	1.620E+01	Analog	1.00	3
K			1	5085.976	ug/l	0.57	8,900,457.33	1.522E+01	Analog	1.00	3
V			1	50.388	ug/l	0.73	890,500.25	1.523E+00	Pulse	0.50	3
Mn			1	51.578	ug/l	0.80	668,576.79	2.006E+00	Pulse	0.50	3
Fe			1	5129.069	ug/l	0.95	92,836,520.00	2.785E+02	Analog	0.50	3
Co			1	52.824	ug/l	0.51	1,719,507.17	5.158E+00	Pulse	0.50	3
Ni			1	52.564	ug/l	0.46	461,877.69	1.386E+00	Pulse	0.50	3
Cu			1	54.210	ug/l	0.51	1,280,179.71	2.616E+00	Pulse	0.50	3
Zn			1	52.289	ug/l	0.65	215,678.83	4.408E-01	Pulse	1.00	3
Cd			1	51.266	ug/l	0.85	272,367.94	5.566E-01	Pulse	0.50	3
Al			1	5157.353	ug/l	0.97	3,915,800.50	6.695E+00	Pulse	1.00	3
Se			1	51.661	ug/l	0.87	11,502.23	2.351E-02	Pulse	3.00	3
Sb			1	50.961	ug/l	0.86	726,564.46	1.485E+00	Pulse	1.00	3
Se			1	51.296	ug/l	0.67	5,458.34	1.115E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,976,962.17	0.80	101.9	Pulse	0.50	3
1	Sc		584,882.41	0.66	105.1	Pulse	0.30	3
1	Ge		333,353.93	0.70	102.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,860,182.18	0.25	100.4	Pulse	0.30	3
1	Tb		7,481,234.50	0.27	100.5	Analog	0.50	3
1	Lu		5,559,934.67	0.36	101.2	Pulse	0.50	3
1	Ge		489,330.88	0.16	103.0	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,746.14	5.51	101.5	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:15
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.498	ug/l	0.47	2,209,837.00	6.716E+00	Pulse	0.50	3
As			1	101.891	ug/l	0.37	257,192.92	7.816E-01	Pulse	1.00	3
Mo			1	100.542	ug/l	0.78	1,059,158.96	2.185E+00	Pulse	0.50	3
Pb			1	104.211	ug/l	0.38	4,235,852.50	8.759E-01	Pulse	1.00	3
Be			1	101.523	ug/l	0.94	18,213.29	3.152E-02	Pulse	2.00	3
Ag			1	99.649	ug/l	0.48	3,402,503.83	7.019E+00	Pulse	0.50	3
Ba			1	100.590	ug/l	0.75	455,490.60	1.623E-01	Pulse	0.50	3
Tl			1	105.851	ug/l	0.75	6,180,605.33	1.278E+00	Pulse	0.50	3
Sn			1	100.558	ug/l	0.05	1,081,456.76	3.852E-01	Pulse	0.30	3
Sr			1	100.288	ug/l	0.11	1,388,373.00	4.946E-01	Pulse	0.50	3
[Pb]			1	101.508	ug/l	0.54	2,028,053.08	4.194E-01	Pulse	0.50	3
Ca			1	10096.157	ug/l	0.13	882,426.67	1.527E+00	Pulse	0.50	3
Ti			1	100.053	ug/l	0.55	58,415.24	1.011E-01	Pulse	0.50	3
Na			1	10082.013	ug/l	0.55	37,337,993.33	6.461E+01	Analog	1.00	3
Mg			1	10159.851	ug/l	0.31	18,651,302.00	3.227E+01	Analog	1.00	3
K			1	10128.442	ug/l	0.58	17,430,013.33	3.016E+01	Analog	1.00	3
V			1	100.495	ug/l	0.43	1,754,638.25	3.036E+00	Pulse	0.50	3
Mn			1	102.308	ug/l	0.74	1,308,471.58	3.977E+00	Pulse	0.50	3
Fe			1	10222.762	ug/l	0.78	182,625,546.67	5.550E+02	Analog	0.50	3
Co			1	103.713	ug/l	0.51	3,332,122.75	1.013E+01	Pulse	0.50	3
Ni			1	103.547	ug/l	0.49	897,672.48	2.728E+00	Pulse	0.50	3
Cu			1	103.481	ug/l	0.61	2,399,214.42	4.949E+00	Pulse	0.50	3
Zn			1	102.710	ug/l	0.38	419,047.21	8.644E-01	Pulse	1.00	3
Cd			1	102.003	ug/l	0.64	536,900.46	1.107E+00	Pulse	0.50	3
Al			1	10054.477	ug/l	0.33	7,542,968.00	1.305E+01	Analog	1.00	3
Se			1	102.334	ug/l	1.31	22,519.89	4.645E-02	Pulse	3.00	3
Sb			1	101.033	ug/l	0.14	1,426,987.66	2.944E+00	Pulse	1.00	3
Se			1	102.275	ug/l	0.54	10,728.12	2.213E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,836,100.33	0.67	99.0	Pulse	0.50	3
1	Sc		577,917.74	0.44	103.9	Pulse	0.30	3
1	Ge		329,042.43	0.37	101.6	Pulse	0.30	3
1	In		2,807,352.25	0.49	98.5	Pulse	0.30	3
1	Tb		7,433,429.50	0.22	99.9	Analog	0.50	3
1	Lu		5,526,454.00	0.07	100.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		484,786.32	0.56	102.0	Pulse	0.30	3
1	Te		6.00	57.74	450.0	Pulse	0.50	3
1	Li		4,603.88	2.97	98.5	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:19
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.442	ug/l	0.13	4,208,378.50	1.300E+01	Pulse	0.50	3
As			1	198.806	ug/l	0.63	493,685.56	1.525E+00	Pulse	1.00	3
Mo			1	199.714	ug/l	0.19	2,045,177.67	4.340E+00	Pulse	0.50	3
Pb			1	197.420	ug/l	0.40	7,770,358.83	1.659E+00	Analog	1.00	3
Be			1	199.105	ug/l	0.83	34,732.85	6.181E-02	Pulse	2.00	3
Ag			1	142.928	ug/l	0.45	4,744,318.17	1.007E+01	Pulse	0.50	3
Ba			1	199.640	ug/l	0.81	875,709.90	3.220E-01	Pulse	0.50	3
Tl			1	196.421	ug/l	0.53	11,107,221.33	2.372E+00	Analog	0.50	3
Sn			1	199.794	ug/l	0.62	2,081,177.42	7.652E-01	Pulse	0.30	3
Sr			1	199.881	ug/l	1.11	2,680,062.83	9.855E-01	Pulse	0.50	3
[Pb]			1	199.204	ug/l	0.61	3,853,891.83	8.228E-01	Pulse	0.50	3
Ca			1	19940.689	ug/l	0.33	1,694,245.88	3.015E+00	Pulse	0.50	3
Ti			1	200.132	ug/l	0.23	113,616.75	2.022E-01	Pulse	0.50	3
Na			1	19943.566	ug/l	0.41	71,781,226.67	1.277E+02	Analog	1.00	3
Mg			1	19894.635	ug/l	0.30	35,513,597.33	6.320E+01	Analog	1.00	3
K			1	19913.188	ug/l	0.50	33,243,693.33	5.916E+01	Analog	1.00	3
V			1	199.662	ug/l	0.56	3,389,654.42	6.032E+00	Pulse	0.50	3
Mn			1	198.442	ug/l	0.55	2,496,391.33	7.712E+00	Pulse	0.50	3
Fe			1	19855.849	ug/l	0.13	348,966,112.00	1.078E+03	Analog	0.50	3
Co			1	197.415	ug/l	0.49	6,239,666.33	1.928E+01	Analog	0.50	3
Ni			1	197.562	ug/l	0.18	1,684,635.58	5.204E+00	Pulse	0.50	3
Cu			1	197.069	ug/l	0.41	4,420,757.83	9.380E+00	Pulse	0.50	3
Zn			1	198.031	ug/l	0.46	784,825.04	1.665E+00	Pulse	1.00	3
Cd			1	198.676	ug/l	0.80	1,016,585.42	2.157E+00	Pulse	0.50	3
Al			1	19932.151	ug/l	0.39	14,540,253.33	2.587E+01	Analog	1.00	3
Se			1	198.407	ug/l	0.28	42,397.03	8.996E-02	Pulse	3.00	3
Sb			1	199.248	ug/l	0.42	2,735,683.67	5.805E+00	Pulse	1.00	3
Se			1	198.534	ug/l	0.13	20,194.90	4.285E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,683,600.33	0.22	95.8	Pulse	0.50	3
1	Sc		561,964.68	0.06	101.0	Pulse	0.30	3
1	Ge		323,717.57	0.09	99.9	Pulse	0.30	3
1	In		2,719,681.84	0.53	95.4	Pulse	0.30	3
1	Tb		7,269,421.83	0.25	97.7	Analog	0.50	3
1	Lu		5,431,046.33	0.88	98.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		471,279.81	0.09	99.2	Pulse	0.30	3
1	Te		10.67	47.19	800.0	Pulse	0.50	3
1	Li		4,383.83	4.74	93.8	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:23
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.283	ug/l	0.86	2,115,470.75	6.506E+00	Pulse	0.50	3
As			1	98.812	ug/l	0.75	246,496.96	7.580E-01	Pulse	1.00	3
Mo			1	98.009	ug/l	1.15	1,020,790.77	2.130E+00	Pulse	0.50	3
Pb			1	101.379	ug/l	0.59	4,090,363.58	8.521E-01	Pulse	1.00	3
Be			1	98.091	ug/l	0.78	17,431.78	3.045E-02	Pulse	2.00	3
Ag			1	96.581	ug/l	1.45	3,260,338.50	6.803E+00	Pulse	0.50	3
Ba			1	97.794	ug/l	0.65	438,481.05	1.577E-01	Pulse	0.50	3
Tl			1	103.075	ug/l	0.18	5,974,127.33	1.245E+00	Pulse	0.50	3
Sn			1	97.623	ug/l	0.94	1,039,610.79	3.740E-01	Pulse	0.30	3
Sr			1	96.860	ug/l	0.69	1,327,775.67	4.777E-01	Pulse	0.50	3
[Pb]			1	98.213	ug/l	0.90	1,947,785.63	4.058E-01	Pulse	0.50	3
Ca			1	9756.463	ug/l	0.82	844,678.77	1.476E+00	Pulse	0.50	3
Ti			1	96.080	ug/l	1.93	55,564.41	9.707E-02	Pulse	0.50	3
Na			1	9831.009	ug/l	1.12	36,064,201.33	6.300E+01	Analog	1.00	3
Mg			1	9855.269	ug/l	1.16	17,920,769.33	3.131E+01	Analog	1.00	3
K			1	9804.391	ug/l	0.27	16,715,879.00	2.920E+01	Analog	1.00	3
V			1	97.718	ug/l	1.32	1,689,989.29	2.952E+00	Pulse	0.50	3
Mn			1	99.205	ug/l	1.09	1,253,921.83	3.856E+00	Pulse	0.50	3
Fe			1	9954.648	ug/l	0.84	175,752,458.67	5.405E+02	Analog	0.50	3
Co			1	100.739	ug/l	1.06	3,198,604.17	9.836E+00	Pulse	0.50	3
Ni			1	99.694	ug/l	1.51	854,148.35	2.627E+00	Pulse	0.50	3
Cu			1	100.426	ug/l	1.44	2,302,691.50	4.804E+00	Pulse	0.50	3
Zn			1	99.723	ug/l	1.45	402,263.92	8.393E-01	Pulse	1.00	3
Cd			1	98.888	ug/l	1.45	514,579.29	1.074E+00	Pulse	0.50	3
Al			1	9716.818	ug/l	1.24	7,220,584.33	1.261E+01	Analog	1.00	3
Se			1	99.195	ug/l	0.79	21,583.49	4.503E-02	Pulse	3.00	3
Sb			1	98.609	ug/l	1.43	1,376,918.92	2.873E+00	Pulse	1.00	3
Se			1	99.295	ug/l	1.33	10,298.67	2.149E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,800,360.67	0.30	98.2	Pulse	0.50	3
1	Sc		572,465.66	0.87	102.9	Pulse	0.30	3
1	Ge		325,184.47	0.23	100.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,779,851.28	0.84	97.5	Pulse	0.30	3
1	Tb		7,394,241.00	0.56	99.4	Analog	0.50	3
1	Lu		5,472,216.00	0.22	99.6	Pulse	0.50	3
1	Ge		479,298.02	0.46	100.9	Pulse	0.30	3
1	Te		6.00	33.33	450.0	Pulse	0.50	3
1	Li		4,621.66	4.05	98.9	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:26
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	196.387	ug/l	0.38	4,146,885.33	1.287E+01	Pulse	0.50	3
As			1	196.860	ug/l	0.08	486,744.64	1.510E+00	Pulse	1.00	3
Mo			1	197.192	ug/l	1.51	2,016,674.13	4.285E+00	Pulse	0.50	3
Pb			1	196.126	ug/l	0.29	7,649,429.83	1.648E+00	Analog	1.00	3
Be			1	196.321	ug/l	1.15	34,264.40	6.094E-02	Pulse	2.00	3
Ag			1	139.679	ug/l	0.88	4,630,488.50	9.838E+00	Pulse	0.50	3
Ba			1	196.719	ug/l	0.17	865,590.75	3.173E-01	Pulse	0.50	3
Tl			1	195.879	ug/l	0.84	10,975,970.00	2.365E+00	Analog	0.50	3
Sn			1	195.225	ug/l	1.00	2,039,961.94	7.477E-01	Pulse	0.30	3
Sr			1	193.894	ug/l	0.37	2,607,985.92	9.560E-01	Pulse	0.50	3
[Pb]			1	197.224	ug/l	0.69	3,780,997.67	8.147E-01	Pulse	0.50	3
Ca			1	19560.388	ug/l	0.38	1,662,794.79	2.957E+00	Pulse	0.50	3
Ti			1	194.450	ug/l	1.03	110,446.91	1.964E-01	Pulse	0.50	3
Na			1	19683.566	ug/l	0.41	70,881,850.67	1.261E+02	Analog	1.00	3
Mg			1	19589.048	ug/l	0.61	34,985,930.67	6.222E+01	Analog	1.00	3
K			1	19621.934	ug/l	0.37	32,775,866.00	5.829E+01	Analog	1.00	3
V			1	196.495	ug/l	1.00	3,337,560.58	5.936E+00	Pulse	0.50	3
Mn			1	195.877	ug/l	0.11	2,453,519.92	7.612E+00	Pulse	0.50	3
Fe			1	19701.457	ug/l	0.40	344,754,144.00	1.070E+03	Analog	0.50	3
Co			1	196.088	ug/l	0.57	6,170,843.83	1.915E+01	Analog	0.50	3
Ni			1	196.593	ug/l	0.35	1,669,152.79	5.179E+00	Pulse	0.50	3
Cu			1	194.651	ug/l	1.11	4,361,123.67	9.266E+00	Pulse	0.50	3
Zn			1	196.068	ug/l	1.23	776,035.31	1.649E+00	Pulse	1.00	3
Cd			1	194.785	ug/l	1.45	995,357.88	2.115E+00	Pulse	0.50	3
Al			1	19563.781	ug/l	0.85	14,278,792.67	2.540E+01	Analog	1.00	3
Se			1	195.960	ug/l	0.90	41,820.00	8.885E-02	Pulse	3.00	3
Sb			1	196.958	ug/l	1.12	2,700,686.50	5.738E+00	Pulse	1.00	3
Se			1	196.375	ug/l	1.16	19,949.75	4.239E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,641,112.00	0.46	95.0	Pulse	0.50	3
1	Sc		562,253.69	0.38	101.1	Pulse	0.30	3
1	Ge		322,321.85	0.81	99.5	Pulse	0.30	3
1	In		2,728,107.25	0.33	95.7	Pulse	0.30	3
1	Tb		7,252,860.67	0.28	97.5	Analog	0.50	3
1	Lu		5,412,427.83	0.31	98.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		470,680.57	0.62	99.1	Pulse	0.30	3
1	Te		13.33	45.83	1000.0	Pulse	0.50	3
1	Li		4,428.28	4.78	94.7	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:30
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.444	ug/l	0.40	2,128,598.17	6.713E+00	Pulse	0.50	3
As			1	99.647	ug/l	0.15	242,402.33	7.644E-01	Pulse	1.00	3
Mo			1	101.802	ug/l	1.22	1,031,655.98	2.212E+00	Pulse	0.50	3
Pb			1	101.935	ug/l	0.81	3,869,054.08	8.568E-01	Pulse	1.00	3
Be			1	101.328	ug/l	0.93	18,028.47	3.146E-02	Pulse	2.00	3
Ag			1	48.655	ug/l	0.62	1,598,270.62	3.427E+00	Pulse	0.50	3
Ba			1	97.970	ug/l	0.41	419,703.94	1.580E-01	Pulse	0.50	3
Tl			1	103.419	ug/l	0.39	5,638,784.33	1.249E+00	Pulse	0.50	3
Sn			1	100.732	ug/l	0.38	1,024,888.22	3.859E-01	Pulse	0.30	3
Sr			1	101.798	ug/l	0.73	1,333,231.12	5.020E-01	Pulse	0.50	3
[Pb]			1	98.931	ug/l	0.73	1,845,691.88	4.087E-01	Pulse	0.50	3
Ca			1	9364.312	ug/l	0.20	811,755.00	1.416E+00	Pulse	0.50	3
Ti			1	98.498	ug/l	0.97	57,031.91	9.951E-02	Pulse	0.50	3
Na			1	9954.085	ug/l	0.40	36,560,804.00	6.379E+01	Analog	1.00	3
Mg			1	10265.977	ug/l	0.35	18,690,709.33	3.261E+01	Analog	1.00	3
K			1	9956.353	ug/l	0.61	16,993,867.33	2.965E+01	Analog	1.00	3
V			1	98.603	ug/l	0.23	1,707,487.25	2.979E+00	Pulse	0.50	3
Mn			1	101.982	ug/l	0.33	1,256,979.92	3.964E+00	Pulse	0.50	3
Fe			1	10108.689	ug/l	0.38	174,041,605.33	5.488E+02	Analog	0.50	3
Co			1	103.822	ug/l	0.13	3,214,588.58	1.014E+01	Pulse	0.50	3
Ni			1	101.756	ug/l	0.74	850,177.12	2.681E+00	Pulse	0.50	3
Cu			1	115.601	ug/l	0.67	2,575,608.67	5.523E+00	Pulse	0.50	3
Zn			1	99.265	ug/l	0.62	389,616.44	8.355E-01	Pulse	1.00	3
Cd			1	97.382	ug/l	0.68	493,068.65	1.057E+00	Pulse	0.50	3
Al			1	9678.949	ug/l	0.55	7,201,267.33	1.256E+01	Analog	1.00	3
Se			1	96.468	ug/l	0.70	20,424.55	4.380E-02	Pulse	3.00	3
Sb			1	96.218	ug/l	0.68	1,307,287.92	2.803E+00	Pulse	1.00	3
Se			1	96.045	ug/l	1.27	9,694.46	2.079E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,515,752.00	0.89	92.4	Pulse	0.50	3
1	Sc		573,160.57	1.10	103.0	Pulse	0.30	3
1	Ge		317,101.39	0.91	97.9	Pulse	0.30	3
1	In		2,656,007.81	1.12	93.2	Pulse	0.30	3
1	Tb		7,173,025.67	1.46	96.4	Analog	0.50	3
1	Lu		5,202,260.83	1.59	94.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		466,349.12	0.86	98.2	Pulse	0.30	3
1	Te		8.67	74.18	650.0	Pulse	0.50	3
1	Li		4,859.50	5.33	104.0	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:34
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.025	ug/l	47.90	1,385.39	4.356E-03	Pulse	0.50	3
As			1	0.042	ug/l	55.89	126.33	3.986E-04	Pulse	1.00	3
Mo			1	0.109	ug/l	20.86	1,278.72	2.713E-03	Pulse	0.50	3
Pb			1	0.042	ug/l	49.59	2,879.59	6.292E-04	Pulse	1.00	3
Be			1	0.043	ug/l	78.94	9.00	1.631E-05	Pulse	2.00	3
Ag			1	0.015	ug/l	27.14	658.68	1.406E-03	Pulse	0.50	3
Ba			1	0.023	ug/l	65.82	160.00	5.813E-05	Pulse	0.50	3
Tl			1	0.050	ug/l	27.45	2,946.27	6.429E-04	Pulse	0.50	3
Sn			1	0.054	ug/l	6.79	955.59	3.456E-04	Pulse	0.30	3
Sr			1	0.026	ug/l	26.99	915.36	3.314E-04	Pulse	0.50	3
[Pb]			1	0.039	ug/l	53.10	1,344.06	2.938E-04	Pulse	0.50	3
Ca			1	2.316	ug/l	66.96	707.35	1.278E-03	Pulse	0.50	3
Ti			1	0.032	ug/l	56.50	23.33	4.206E-05	Pulse	0.50	3
Na			1	3.536	ug/l	38.34	53,278.70	9.614E-02	Pulse	1.00	3
Mg			1	2.402	ug/l	41.89	5,021.04	9.075E-03	Pulse	1.00	3
K			1	2.119	ug/l	95.41	84,553.44	1.525E-01	Pulse	1.00	3
V			1	0.028	ug/l	48.42	718.68	1.299E-03	Pulse	0.50	3
Mn			1	0.024	ug/l	48.57	868.02	2.727E-03	Pulse	0.50	3
Fe			1	2.543	ug/l	33.01	61,200.23	1.925E-01	Pulse	0.50	3
Co			1	0.031	ug/l	35.30	1,263.38	3.978E-03	Pulse	0.50	3
Ni			1	0.040	ug/l	40.42	742.02	2.333E-03	Pulse	0.50	3
Cu			1	-0.171	ug/l	-54.29	19,387.13	4.133E-02	Pulse	0.50	3
Zn			1	0.045	ug/l	43.92	845.69	1.802E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	29.38	166.00	3.542E-04	Pulse	0.50	3
Al			1	2.753	ug/l	35.75	2,373.49	4.288E-03	Pulse	1.00	3
Se			1	0.102	ug/l	52.32	73.56	1.569E-04	Pulse	3.00	3
Sb			1	0.054	ug/l	7.78	824.35	1.757E-03	Pulse	1.00	3
Se			1	0.048	ug/l	162.90	57.44	1.223E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,662,971.67	10.06	95.4	Pulse	0.50	3
1	Sc		554,530.95	1.33	99.7	Pulse	0.30	3

Quantitation Report

1	Ge		319,046.50	2.61	98.5	Pulse	0.30	3
1	In		2,766,344.06	2.22	97.1	Pulse	0.30	3
1	Tb		7,434,343.33	1.87	99.9	Analog	0.50	3
1	Lu		5,296,603.17	3.40	96.4	Mix	0.50	3
1	Ge		469,856.32	2.68	98.9	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		4,658.34	3.12	99.7	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:38
Sample Name CRIA
Sample Type CRIA
Comment =std 2
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.034	ug/l	3.00	22,882.10	7.040E-02	Pulse	0.50	3
As			1	1.015	ug/l	2.42	2,555.17	7.861E-03	Pulse	1.00	3
Mo			1	1.032	ug/l	3.17	10,924.54	2.276E-02	Pulse	0.50	3
Pb			1	1.027	ug/l	1.10	44,296.39	8.898E-03	Pulse	1.00	3
Be			1	0.941	ug/l	6.24	169.50	2.951E-04	Pulse	2.00	3
Ag			1	1.014	ug/l	0.73	34,425.78	7.172E-02	Pulse	0.50	3
Ba			1	0.997	ug/l	3.76	4,608.60	1.629E-03	Pulse	0.50	3
Tl			1	1.021	ug/l	0.32	61,531.35	1.236E-02	Pulse	0.50	3
Sn			1	1.019	ug/l	2.85	11,431.40	4.040E-03	Pulse	0.30	3
Sr			1	0.953	ug/l	1.93	13,869.12	4.902E-03	Pulse	0.50	3
[Pb]			1	1.006	ug/l	0.61	21,359.33	4.290E-03	Pulse	0.50	3
Ca			1	99.736	ug/l	1.41	9,191.51	1.600E-02	Pulse	0.50	3
Ti			1	0.958	ug/l	12.23	561.34	9.771E-04	Pulse	0.50	3
Na			1	104.037	ug/l	0.68	424,697.35	7.394E-01	Pulse	1.00	3
Mg			1	102.678	ug/l	1.58	188,150.20	3.276E-01	Pulse	1.00	3
K			1	104.268	ug/l	0.75	261,460.58	4.552E-01	Pulse	1.00	3
V			1	1.023	ug/l	2.02	18,008.33	3.136E-02	Pulse	0.50	3
Mn			1	1.025	ug/l	2.10	13,522.05	4.160E-02	Pulse	0.50	3
Fe			1	104.838	ug/l	1.09	1,867,684.50	5.746E+00	Pulse	0.50	3
Co			1	1.065	ug/l	0.96	34,097.91	1.049E-01	Pulse	0.50	3
Ni			1	1.075	ug/l	2.99	9,618.41	2.959E-02	Pulse	0.50	3
Cu			1	2.598	ug/l	0.29	82,771.38	1.724E-01	Pulse	0.50	3
Zn			1	1.691	ug/l	1.58	7,505.14	1.563E-02	Pulse	1.00	3
Cd			1	1.008	ug/l	4.86	5,262.10	1.096E-02	Pulse	0.50	3
Al			1	102.147	ug/l	1.06	76,566.13	1.333E-01	Pulse	1.00	3
Se			1	0.994	ug/l	2.32	269.22	5.608E-04	Pulse	3.00	3
Sb			1	1.026	ug/l	0.74	14,438.33	3.008E-02	Pulse	1.00	3
Se			1	0.889	ug/l	20.64	145.55	3.033E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,978,291.33	0.55	101.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		574,362.27	0.72	103.2	Pulse	0.30	3
1	Ge		325,037.49	0.44	100.3	Pulse	0.30	3
1	In		2,829,292.46	0.35	99.3	Pulse	0.30	3
1	Tb		7,552,352.17	0.29	101.5	Analog	0.50	3
1	Lu		5,396,266.50	0.57	98.2	Pulse	0.50	3
1	Ge		480,008.77	0.79	101.0	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,856.16	4.98	103.9	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:42
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.138	ug/l	0.54	44,728.44	1.427E-01	Pulse	0.50	3
As			1	0.094	ug/l	6.06	249.33	7.952E-04	Pulse	1.00	3
Mo			1	2071.793	ug/l	0.70	19,808,290.67	4.502E+01	Analog	0.50	3
Pb			1	0.138	ug/l	6.80	5,870.02	1.436E-03	Pulse	1.00	3
Be			1	0.009	ug/l	93.16	3.17	5.807E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	18.38	880.03	1.998E-03	Pulse	0.50	3
Ba			1	0.587	ug/l	1.81	2,402.17	9.670E-04	Pulse	0.50	3
Tl			1	0.012	ug/l	9.50	728.69	1.782E-04	Pulse	0.50	3
Sn			1	0.120	ug/l	9.04	1,485.63	5.979E-04	Pulse	0.30	3
Sr			1	0.937	ug/l	1.57	11,984.50	4.825E-03	Pulse	0.50	3
[Pb]			1	0.135	ug/l	5.57	2,829.58	6.921E-04	Pulse	0.50	3
Ca			1	96255.523	ug/l	1.14	7,915,701.33	1.455E+01	Analog	0.50	3
Ti			1	2048.593	ug/l	1.39	1,125,935.29	2.069E+00	Pulse	0.50	3
Na			1	101251.608	ug/l	1.09	352,642,197.33	6.482E+02	Analog	1.00	3
Mg			1	100734.107	ug/l	1.51	174,079,749.33	3.200E+02	Analog	1.00	3
K			1	102551.113	ug/l	1.03	165,413,317.33	3.040E+02	Analog	1.00	3
V			1	0.125	ug/l	3.57	2,309.48	4.244E-03	Pulse	0.50	3
Mn			1	0.447	ug/l	0.84	5,998.94	1.914E-02	Pulse	0.50	3
Fe			1	99698.875	ug/l	0.57	1,696,250,581.33	5.413E+03	Analog	0.50	3
Co			1	0.115	ug/l	2.64	3,832.39	1.223E-02	Pulse	0.50	3
Ni			1	0.594	ug/l	2.36	5,300.07	1.691E-02	Pulse	0.50	3
Cu			1	-0.022	ug/l	-417.03	21,291.82	4.842E-02	Pulse	0.50	3
Zn			1	2.673	ug/l	1.54	10,511.87	2.389E-02	Pulse	1.00	3
Cd			1	0.767	ug/l	0.61	3,667.71	8.335E-03	Pulse	0.50	3
Al			1	100101.917	ug/l	1.61	70,691,053.33	1.299E+02	Analog	1.00	3
Se			1	0.176	ug/l	14.17	83.89	1.907E-04	Pulse	3.00	3
Sb			1	0.092	ug/l	11.94	1,261.38	2.865E-03	Pulse	1.00	3
Se			1	0.015	ug/l	112.19	50.67	1.152E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,086,953.83	1.14	83.6	Pulse	0.50	3
1	Sc		544,095.84	1.36	97.8	Pulse	0.30	3
1	Ge		313,403.24	1.30	96.8	Pulse	0.30	3
1	In		2,483,991.78	0.69	87.2	Pulse	0.30	3
1	Tb		6,851,614.83	0.46	92.1	Analog	0.50	3
1	Lu		5,023,039.83	0.78	91.4	Pulse	0.50	3
1	Ge		440,013.74	1.07	92.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		3.33	173.21	250.0	Pulse	0.50	3
1	Li		3,839.28	3.17	82.1	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:45
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.684	ug/l	0.70	456,222.17	1.423E+00	Pulse	0.50	3
As			1	19.700	ug/l	0.96	48,471.11	1.512E-01	Pulse	1.00	3
Mo			1	2069.426	ug/l	0.63	20,125,137.33	4.496E+01	Analog	0.50	3
Pb			1	0.084	ug/l	1.59	4,041.15	9.762E-04	Pulse	1.00	3
Be			1	0.006	ug/l	229.88	2.67	4.804E-06	Pulse	2.00	3
Ag			1	18.103	ug/l	0.10	570,844.02	1.275E+00	Pulse	0.50	3
Ba			1	0.559	ug/l	3.57	2,340.83	9.224E-04	Pulse	0.50	3
Tl			1	0.008	ug/l	11.04	552.68	1.334E-04	Pulse	0.50	3
Sn			1	0.096	ug/l	10.39	1,280.05	5.043E-04	Pulse	0.30	3
Sr			1	0.911	ug/l	1.13	11,905.13	4.692E-03	Pulse	0.50	3
[Pb]			1	0.076	ug/l	2.89	1,846.77	4.460E-04	Pulse	0.50	3
Ca			1	95402.330	ug/l	0.24	8,043,376.00	1.442E+01	Analog	0.50	3
Ti			1	2026.410	ug/l	0.49	1,141,794.12	2.047E+00	Pulse	0.50	3
Na			1	100028.219	ug/l	0.16	357,169,013.33	6.404E+02	Analog	1.00	3
Mg			1	99281.230	ug/l	0.21	175,901,429.33	3.154E+02	Analog	1.00	3
K			1	101774.969	ug/l	1.18	168,286,288.00	3.017E+02	Analog	1.00	3
V			1	0.131	ug/l	2.54	2,458.83	4.409E-03	Pulse	0.50	3
Mn			1	20.146	ug/l	0.20	251,530.42	7.845E-01	Pulse	0.50	3
Fe			1	99022.143	ug/l	0.43	1,723,578,026.67	5.376E+03	Analog	0.50	3
Co			1	20.007	ug/l	0.26	626,609.88	1.954E+00	Pulse	0.50	3
Ni			1	19.409	ug/l	0.83	164,289.27	5.124E-01	Pulse	0.50	3
Cu			1	19.319	ug/l	0.35	431,575.17	9.642E-01	Pulse	0.50	3
Zn			1	20.979	ug/l	0.24	79,537.62	1.777E-01	Pulse	1.00	3
Cd			1	20.166	ug/l	0.45	98,008.27	2.190E-01	Pulse	0.50	3
Al			1	98518.501	ug/l	0.08	71,329,296.00	1.279E+02	Analog	1.00	3
Se			1	0.131	ug/l	17.81	76.11	1.700E-04	Pulse	3.00	3
Sb			1	0.083	ug/l	8.01	1,171.71	2.617E-03	Pulse	1.00	3
Se			1	0.097	ug/l	11.68	59.44	1.328E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,139,807.25	1.50	84.7	Pulse	0.50	3
1	Sc		557,766.50	1.26	100.3	Pulse	0.30	3
1	Ge		320,632.49	1.85	99.0	Pulse	0.30	3
1	In		2,536,999.48	1.16	89.0	Pulse	0.30	3
1	Tb		6,940,751.00	0.50	93.3	Analog	0.50	3
1	Lu		5,041,190.67	1.15	91.8	Pulse	0.50	3
1	Ge		447,602.43	0.98	94.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		4.00	86.60	300.0	Pulse	0.50	3
1	Li		3,704.81	4.46	79.3	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:49
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.098	ug/l	1.30	1,080,544.04	3.219E+00	Pulse	0.50	3
As			1	49.174	ug/l	1.01	126,659.95	3.773E-01	Pulse	1.00	3
Mo			1	49.751	ug/l	1.87	532,772.91	1.081E+00	Pulse	0.50	3
Pb			1	49.771	ug/l	0.35	2,083,061.71	4.185E-01	Pulse	1.00	3
Be			1	47.729	ug/l	1.32	8,626.33	1.482E-02	Pulse	2.00	3
Ag			1	49.087	ug/l	0.85	1,703,547.46	3.458E+00	Pulse	0.50	3
Ba			1	48.498	ug/l	0.86	223,444.71	7.824E-02	Pulse	0.50	3
Tl			1	50.976	ug/l	0.48	3,063,862.33	6.155E-01	Pulse	0.50	3
Sn			1	48.395	ug/l	0.48	529,678.69	1.855E-01	Pulse	0.30	3
Sr			1	47.630	ug/l	0.59	671,117.60	2.350E-01	Pulse	0.50	3
[Pb]			1	48.257	ug/l	0.79	992,756.33	1.994E-01	Pulse	0.50	3
Ca			1	4846.903	ug/l	1.23	427,009.84	7.335E-01	Pulse	0.50	3
Ti			1	48.153	ug/l	0.98	28,322.44	4.865E-02	Pulse	0.50	3
Na			1	4887.402	ug/l	0.60	18,254,399.33	3.136E+01	Analog	1.00	3
Mg			1	4871.421	ug/l	0.87	9,008,660.67	1.548E+01	Analog	1.00	3
K			1	4904.027	ug/l	0.47	8,544,891.00	1.468E+01	Analog	1.00	3
V			1	48.723	ug/l	1.26	857,074.87	1.472E+00	Pulse	0.50	3
Mn			1	48.853	ug/l	0.83	637,768.52	1.900E+00	Pulse	0.50	3
Fe			1	4958.627	ug/l	0.75	90,389,930.67	2.693E+02	Analog	0.50	3
Co			1	50.819	ug/l	1.18	1,666,013.29	4.962E+00	Pulse	0.50	3
Ni			1	50.538	ug/l	1.40	447,246.22	1.332E+00	Pulse	0.50	3
Cu			1	50.534	ug/l	1.20	1,203,257.75	2.442E+00	Pulse	0.50	3
Zn			1	49.900	ug/l	1.09	207,277.06	4.207E-01	Pulse	1.00	3
Cd			1	49.214	ug/l	1.64	263,268.00	5.343E-01	Pulse	0.50	3
Al			1	4835.388	ug/l	1.49	3,654,328.75	6.277E+00	Pulse	1.00	3
Se			1	49.044	ug/l	1.99	10,997.83	2.232E-02	Pulse	3.00	3
Sb			1	48.774	ug/l	1.04	700,181.35	1.421E+00	Pulse	1.00	3
Se			1	49.043	ug/l	1.14	5,256.84	1.067E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,977,741.67	0.96	101.9	Pulse	0.50	3
1	Sc		582,122.58	0.44	104.6	Pulse	0.30	3
1	Ge		335,708.27	0.98	103.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,855,939.26	0.37	100.2	Pulse	0.30	3
1	Tb		7,670,521.50	0.48	103.1	Analog	0.50	3
1	Lu		5,548,120.17	1.14	101.0	Pulse	0.50	3
1	Ge		492,702.47	0.62	103.7	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		4,321.60	2.97	92.5	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 12:53
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.159	ug/l	0.72	2,173,663.25	6.366E+00	Pulse	0.50	3
As			1	97.578	ug/l	0.38	255,583.85	7.486E-01	Pulse	1.00	3
Mo			1	96.137	ug/l	0.17	1,046,929.46	2.089E+00	Pulse	0.50	3
Pb			1	100.086	ug/l	0.81	4,095,119.67	8.412E-01	Pulse	1.00	3
Be			1	93.614	ug/l	1.94	17,283.99	2.906E-02	Pulse	2.00	3
Ag			1	95.008	ug/l	0.15	3,353,425.67	6.692E+00	Pulse	0.50	3
Ba			1	96.733	ug/l	0.44	446,422.48	1.560E-01	Pulse	0.50	3
Tl			1	101.860	ug/l	1.02	5,986,727.67	1.230E+00	Pulse	0.50	3
Sn			1	96.511	ug/l	0.17	1,057,829.54	3.697E-01	Pulse	0.30	3
Sr			1	95.532	ug/l	0.66	1,347,900.37	4.711E-01	Pulse	0.50	3
[Pb]			1	97.359	ug/l	0.90	1,958,025.96	4.022E-01	Pulse	0.50	3
Ca			1	9570.504	ug/l	0.81	860,944.15	1.447E+00	Pulse	0.50	3
Ti			1	94.303	ug/l	1.84	56,666.85	9.527E-02	Pulse	0.50	3
Na			1	9622.468	ug/l	1.13	36,678,504.00	6.167E+01	Analog	1.00	3
Mg			1	9609.587	ug/l	1.62	18,155,450.00	3.053E+01	Analog	1.00	3
K			1	9687.233	ug/l	0.60	17,162,106.00	2.885E+01	Analog	1.00	3
V			1	97.070	ug/l	1.49	1,744,275.12	2.933E+00	Pulse	0.50	3
Mn			1	97.067	ug/l	0.58	1,288,226.21	3.773E+00	Pulse	0.50	3
Fe			1	9760.169	ug/l	0.36	180,931,509.33	5.299E+02	Analog	0.50	3
Co			1	99.308	ug/l	0.41	3,310,787.58	9.697E+00	Pulse	0.50	3
Ni			1	98.535	ug/l	0.79	886,416.71	2.596E+00	Pulse	0.50	3
Cu			1	97.861	ug/l	0.29	2,346,763.83	4.683E+00	Pulse	0.50	3
Zn			1	97.291	ug/l	0.66	410,360.39	8.189E-01	Pulse	1.00	3
Cd			1	96.170	ug/l	0.36	523,244.63	1.044E+00	Pulse	0.50	3
Al			1	9438.321	ug/l	1.44	7,287,268.50	1.225E+01	Analog	1.00	3
Se			1	96.418	ug/l	0.55	21,936.10	4.377E-02	Pulse	3.00	3
Sb			1	95.972	ug/l	0.44	1,401,199.54	2.796E+00	Pulse	1.00	3
Se			1	96.523	ug/l	0.39	10,468.87	2.089E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,867,929.17	0.66	99.6	Pulse	0.50	3
1	Sc		594,831.40	1.12	106.9	Pulse	0.30	3
1	Ge		341,436.92	0.49	105.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,861,139.26	0.31	100.4	Pulse	0.30	3
1	Tb		7,627,166.50	0.42	102.5	Analog	0.50	3
1	Lu		5,551,331.17	0.44	101.0	Pulse	0.50	3
1	Ge		501,122.64	0.59	105.5	Pulse	0.30	3
1	Te		5.33	21.65	400.0	Pulse	0.50	3
1	Li		4,370.50	3.23	93.5	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 12:57
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.013	ug/l	54.10	1,226.71	3.524E-03	Pulse	0.50	3
As			1	0.036	ug/l	27.84	122.00	3.505E-04	Pulse	1.00	3
Mo			1	0.255	ug/l	26.21	3,025.60	5.886E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	23.92	2,655.54	5.222E-04	Pulse	1.00	3
Be			1	0.056	ug/l	20.05	12.50	2.052E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	17.30	1,010.03	1.965E-03	Pulse	0.50	3
Ba			1	0.025	ug/l	31.91	180.00	6.038E-05	Pulse	0.50	3
Tl			1	0.022	ug/l	25.12	1,544.08	3.041E-04	Pulse	0.50	3
Sn			1	0.169	ug/l	19.45	2,339.07	7.848E-04	Pulse	0.30	3
Sr			1	0.032	ug/l	26.93	1,082.04	3.628E-04	Pulse	0.50	3
[Pb]			1	0.026	ug/l	25.52	1,221.38	2.401E-04	Pulse	0.50	3
Ca			1	2.421	ug/l	28.44	788.02	1.293E-03	Pulse	0.50	3
Ti			1	0.043	ug/l	88.76	32.67	5.338E-05	Pulse	0.50	3
Na			1	5.567	ug/l	11.09	66,475.63	1.091E-01	Pulse	1.00	3
Mg			1	2.873	ug/l	19.64	6,445.07	1.057E-02	Pulse	1.00	3
K			1	2.287	ug/l	26.27	93,189.23	1.530E-01	Pulse	1.00	3
V			1	0.030	ug/l	16.48	838.02	1.375E-03	Pulse	0.50	3
Mn			1	0.016	ug/l	16.35	837.35	2.404E-03	Pulse	0.50	3
Fe			1	3.195	ug/l	14.67	79,371.47	2.279E-01	Pulse	0.50	3
Co			1	0.023	ug/l	27.18	1,102.70	3.167E-03	Pulse	0.50	3
Ni			1	0.008	ug/l	66.47	520.68	1.496E-03	Pulse	0.50	3
Cu			1	-0.321	ug/l	-4.95	17,612.71	3.426E-02	Pulse	0.50	3
Zn			1	0.030	ug/l	34.10	864.35	1.681E-03	Pulse	1.00	3
Cd			1	0.023	ug/l	17.19	136.00	2.646E-04	Pulse	0.50	3
Al			1	2.647	ug/l	20.89	2,530.17	4.150E-03	Pulse	1.00	3
Se			1	0.100	ug/l	15.08	80.33	1.563E-04	Pulse	3.00	3
Sb			1	0.057	ug/l	5.99	956.03	1.860E-03	Pulse	1.00	3
Se			1	-0.005	ug/l	-660.87	57.00	1.109E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,093,867.17	2.24	104.2	Pulse	0.50	3
1	Sc		608,977.42	1.14	109.5	Pulse	0.30	3

Quantitation Report

1	Ge		348,209.93	0.68	107.5	Pulse	0.30	3
1	In		2,982,059.81	0.66	104.6	Pulse	0.30	3
1	Tb		7,860,049.67	0.79	105.6	Analog	0.50	3
1	Lu		5,590,953.17	0.43	101.8	Pulse	0.50	3
1	Ge		514,055.99	0.05	108.2	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,618.34	3.84	98.8	Pulse	0.30	3

Quantitation Report

File Name 020_ICV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:01
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.632	ug/l	0.84	2,148,267.67	6.659E+00	Pulse	0.50	3
As			1	99.090	ug/l	0.44	245,224.19	7.602E-01	Pulse	1.00	3
Mo			1	99.922	ug/l	1.28	1,038,941.92	2.171E+00	Pulse	0.50	3
Pb			1	100.785	ug/l	0.99	3,847,795.08	8.471E-01	Pulse	1.00	3
Be			1	99.003	ug/l	2.16	17,912.70	3.073E-02	Pulse	2.00	3
Ag			1	47.693	ug/l	1.12	1,607,356.38	3.359E+00	Pulse	0.50	3
Ba			1	97.231	ug/l	1.43	422,246.54	1.568E-01	Pulse	0.50	3
Tl			1	101.267	ug/l	0.56	5,553,759.83	1.223E+00	Pulse	0.50	3
Sn			1	97.896	ug/l	0.21	1,009,790.65	3.750E-01	Pulse	0.30	3
Sr			1	100.553	ug/l	1.04	1,335,069.25	4.959E-01	Pulse	0.50	3
[Pb]			1	97.523	ug/l	0.42	1,830,079.25	4.029E-01	Pulse	0.50	3
Ca			1	9184.231	ug/l	0.75	809,628.00	1.389E+00	Pulse	0.50	3
Ti			1	97.632	ug/l	1.57	57,488.51	9.863E-02	Pulse	0.50	3
Na			1	9749.868	ug/l	0.45	36,418,505.33	6.248E+01	Analog	1.00	3
Mg			1	10052.137	ug/l	0.50	18,611,452.67	3.193E+01	Analog	1.00	3
K			1	9804.889	ug/l	0.51	17,020,529.33	2.920E+01	Analog	1.00	3
V			1	97.903	ug/l	1.22	1,723,990.42	2.958E+00	Pulse	0.50	3
Mn			1	100.501	ug/l	0.82	1,260,185.00	3.906E+00	Pulse	0.50	3
Fe			1	10001.019	ug/l	0.60	175,165,909.33	5.430E+02	Analog	0.50	3
Co			1	102.669	ug/l	0.79	3,233,943.17	1.002E+01	Pulse	0.50	3
Ni			1	100.918	ug/l	0.98	857,746.44	2.659E+00	Pulse	0.50	3
Cu			1	109.999	ug/l	0.66	2,515,649.42	5.258E+00	Pulse	0.50	3
Zn			1	96.713	ug/l	0.74	389,479.60	8.140E-01	Pulse	1.00	3
Cd			1	95.265	ug/l	0.62	494,886.44	1.034E+00	Pulse	0.50	3
Al			1	9493.416	ug/l	0.78	7,182,953.33	1.232E+01	Analog	1.00	3
Se			1	94.529	ug/l	0.75	20,535.78	4.292E-02	Pulse	3.00	3
Sb			1	93.691	ug/l	0.70	1,306,047.25	2.730E+00	Pulse	1.00	3
Se			1	93.818	ug/l	0.42	9,717.03	2.031E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,542,204.00	0.58	93.0	Pulse	0.50	3
1	Sc		582,866.31	0.48	104.8	Pulse	0.30	3
1	Ge		322,595.58	0.31	99.6	Pulse	0.30	3
1	In		2,692,616.77	1.22	94.5	Pulse	0.30	3
1	Tb		7,257,937.83	0.76	97.5	Analog	0.50	3
1	Lu		5,229,030.83	1.06	95.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		478,469.03	0.26	100.7	Pulse	0.30	3
1	Te		3.33	91.65	250.0	Pulse	0.50	3
1	Li		4,777.25	7.31	102.2	Pulse	0.30	3

Quantitation Report

File Name 021LCCV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:05
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.053	ug/l	0.73	25,389.83	7.166E-02	Pulse	0.50	3
As			1	1.050	ug/l	1.04	2,881.22	8.132E-03	Pulse	1.00	3
Mo			1	1.026	ug/l	2.33	11,783.72	2.264E-02	Pulse	0.50	3
Pb			1	1.079	ug/l	2.39	47,846.90	9.337E-03	Pulse	1.00	3
Be			1	1.072	ug/l	0.97	207.67	3.358E-04	Pulse	2.00	3
Ag			1	1.040	ug/l	1.15	38,300.70	7.358E-02	Pulse	0.50	3
Ba			1	1.052	ug/l	0.94	5,165.42	1.717E-03	Pulse	0.50	3
Tl			1	1.101	ug/l	1.96	68,336.32	1.334E-02	Pulse	0.50	3
Sn			1	0.891	ug/l	4.51	10,674.26	3.549E-03	Pulse	0.30	3
Sr			1	1.024	ug/l	0.98	15,794.65	5.250E-03	Pulse	0.50	3
[Pb]			1	1.058	ug/l	1.33	23,089.58	4.505E-03	Pulse	0.50	3
Ca			1	104.635	ug/l	1.06	10,354.09	1.674E-02	Pulse	0.50	3
Ti			1	0.971	ug/l	3.71	612.68	9.907E-04	Pulse	0.50	3
Na			1	108.349	ug/l	1.11	474,364.47	7.670E-01	Pulse	1.00	3
Mg			1	107.672	ug/l	0.14	212,404.97	3.435E-01	Pulse	1.00	3
K			1	107.645	ug/l	0.20	287,714.62	4.652E-01	Pulse	1.00	3
V			1	1.045	ug/l	1.61	19,807.39	3.203E-02	Pulse	0.50	3
Mn			1	1.049	ug/l	1.32	15,072.53	4.254E-02	Pulse	0.50	3
Fe			1	104.012	ug/l	1.28	2,019,956.67	5.701E+00	Pulse	0.50	3
Co			1	1.095	ug/l	1.11	38,232.25	1.079E-01	Pulse	0.50	3
Ni			1	1.105	ug/l	1.70	10,758.36	3.036E-02	Pulse	0.50	3
Cu			1	0.902	ug/l	2.43	47,975.34	9.216E-02	Pulse	0.50	3
Zn			1	1.248	ug/l	3.80	6,200.67	1.191E-02	Pulse	1.00	3
Cd			1	1.076	ug/l	1.51	6,087.68	1.169E-02	Pulse	0.50	3
Al			1	105.994	ug/l	0.82	85,529.76	1.383E-01	Pulse	1.00	3
Se			1	1.143	ug/l	5.33	327.11	6.284E-04	Pulse	3.00	3
Sb			1	1.052	ug/l	1.00	16,057.01	3.085E-02	Pulse	1.00	3
Se			1	1.006	ug/l	7.77	171.11	3.287E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,126,120.17	2.47	104.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		618,429.40	0.08	111.2	Pulse	0.30	3
1	Ge		354,308.51	0.26	109.4	Pulse	0.30	3
1	In		3,008,400.50	0.78	105.6	Pulse	0.30	3
1	Tb		7,916,505.00	0.69	106.4	Analog	0.50	3
1	Lu		5,613,836.00	0.21	102.2	Pulse	0.50	3
1	Ge		520,548.64	0.46	109.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,861.72	1.64	104.0	Pulse	0.30	3

Quantitation Report

File Name 022_MB.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:08
Sample Name MP42379-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.202	ug/l	9.51	3,221.61	9.297E-03	Pulse	0.50	3
As			1	0.139	ug/l	17.26	211.00	6.093E-04	Pulse	1.00	3
Mo			1	0.174	ug/l	17.87	1,138.71	2.234E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	30.41	2,538.53	5.170E-04	Pulse	1.00	3
Be			1	0.014	ug/l	199.70	3.17	5.116E-06	Pulse	2.00	3
Ag			1	0.014	ug/l	27.75	419.34	8.236E-04	Pulse	0.50	3
Ba			1	0.047	ug/l	7.25	170.67	5.875E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	57.13	862.03	1.760E-04	Pulse	0.50	3
Sn			1	0.564	ug/l	4.30	3,541.48	1.218E-03	Pulse	0.30	3
Sr			1	0.058	ug/l	11.68	1,006.70	3.466E-04	Pulse	0.50	3
[Pb]			1	0.057	ug/l	21.15	1,238.05	2.520E-04	Pulse	0.50	3
Ca			1	16.037	ug/l	10.94	1,335.38	2.139E-03	Pulse	0.50	3
Ti			1	0.240	ug/l	38.85	82.00	1.307E-04	Pulse	0.50	3
Na			1	15.342	ug/l	12.49	76,524.04	1.226E-01	Pulse	1.00	3
Mg			1	2.270	ug/l	61.38	3,136.62	5.051E-03	Pulse	1.00	3
K			1	11.484	ug/l	30.79	101,922.85	1.633E-01	Pulse	1.00	3
V			1	0.681	ug/l	3.63	6,709.84	1.074E-02	Pulse	0.50	3
Mn			1	0.111	ug/l	10.15	1,367.39	3.946E-03	Pulse	0.50	3
Fe			1	7.429	ug/l	16.33	88,711.14	2.561E-01	Pulse	0.50	3
Co			1	0.075	ug/l	17.16	1,603.41	4.630E-03	Pulse	0.50	3
Ni			1	0.146	ug/l	2.77	1,106.70	3.192E-03	Pulse	0.50	3
Cu			1	8.369	ug/l	1.05	126,140.52	2.476E-01	Pulse	0.50	3
Zn			1	1.035	ug/l	6.05	2,942.56	5.776E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	79.35	38.67	7.603E-05	Pulse	0.50	3
Al			1	3.877	ug/l	32.54	2,010.78	3.230E-03	Pulse	1.00	3
Se			1	0.188	ug/l	21.04	78.11	1.533E-04	Pulse	3.00	3
Sb			1	0.118	ug/l	6.45	969.36	1.902E-03	Pulse	1.00	3
Se			1	0.130	ug/l	29.73	64.22	1.260E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,915,790.67	1.24	100.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		624,566.29	1.98	112.3	Pulse	0.30	3
1	Ge		346,694.07	1.31	107.0	Pulse	0.30	3
1	In		2,905,792.04	1.78	102.0	Pulse	0.30	3
1	Tb		7,691,689.17	1.13	103.4	Analog	0.50	3
1	Lu		5,390,848.33	1.19	98.1	Pulse	0.50	3
1	Ge		509,509.48	0.60	107.2	Pulse	0.30	3
1	Te		5.33	43.30	400.0	Pulse	0.50	3
1	Li		4,542.75	3.83	97.2	Pulse	0.30	3

Quantitation Report

File Name	023_BSP.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:12
Sample Name	MP42379-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	211.778	ug/l	0.90	2,415,579.33	6.938E+00	Pulse	0.50	3
As			1	211.785	ug/l	0.41	282,819.71	8.123E-01	Pulse	1.00	3
Mo			1	212.080	ug/l	0.26	1,170,490.54	2.304E+00	Pulse	0.50	3
Pb			1	216.487	ug/l	0.86	4,268,387.17	9.098E-01	Pulse	1.00	3
Be			1	202.150	ug/l	0.68	19,417.07	3.138E-02	Pulse	2.00	3
Ag			1	94.479	ug/l	0.46	1,690,155.17	3.327E+00	Pulse	0.50	3
Ba			1	205.312	ug/l	0.77	473,059.00	1.656E-01	Pulse	0.50	3
Tl			1	211.675	ug/l	1.01	5,995,542.83	1.278E+00	Pulse	0.50	3
Sn			1	209.379	ug/l	0.31	1,145,744.71	4.010E-01	Pulse	0.30	3
Sr			1	212.118	ug/l	0.56	1,494,130.00	5.230E-01	Pulse	0.50	3
[Pb]			1	202.066	ug/l	0.66	1,958,293.54	4.174E-01	Pulse	0.50	3
Ca			1	19135.455	ug/l	0.39	895,495.21	1.447E+00	Pulse	0.50	3
Ti			1	206.345	ug/l	1.32	64,502.32	1.042E-01	Pulse	0.50	3
Na			1	19423.096	ug/l	0.68	38,514,129.33	6.224E+01	Analog	1.00	3
Mg			1	19411.392	ug/l	0.19	19,079,770.00	3.083E+01	Analog	1.00	3
K			1	19351.113	ug/l	0.74	17,833,593.33	2.882E+01	Analog	1.00	3
V			1	205.402	ug/l	0.66	1,920,151.34	3.103E+00	Pulse	0.50	3
Mn			1	210.509	ug/l	0.74	1,424,355.75	4.091E+00	Pulse	0.50	3
Fe			1	19819.099	ug/l	0.75	187,317,760.00	5.380E+02	Analog	0.50	3
Co			1	215.036	ug/l	0.64	3,655,018.42	1.050E+01	Pulse	0.50	3
Ni			1	209.980	ug/l	1.14	963,071.81	2.766E+00	Pulse	0.50	3
Cu			1	218.162	ug/l	0.62	2,648,693.75	5.214E+00	Pulse	0.50	3
Zn			1	201.834	ug/l	0.53	431,433.87	8.493E-01	Pulse	1.00	3
Cd			1	194.105	ug/l	0.14	535,257.29	1.054E+00	Pulse	0.50	3
Al			1	18793.444	ug/l	0.32	7,548,773.67	1.220E+01	Analog	1.00	3
Se			1	192.532	ug/l	0.32	22,200.63	4.371E-02	Pulse	3.00	3
Sb			1	206.783	ug/l	0.56	1,530,121.38	3.012E+00	Pulse	1.00	3
Se			1	192.060	ug/l	1.23	10,557.14	2.078E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,691,629.50	0.68	96.0	Pulse	0.50	3
1	Sc		618,847.79	0.75	111.2	Pulse	0.30	3
1	Ge		348,149.64	0.43	107.5	Pulse	0.30	3
1	In		2,856,958.29	1.21	100.2	Pulse	0.30	3
1	Tb		7,569,067.17	0.55	101.7	Analog	0.50	3
1	Lu		5,469,618.83	1.67	99.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		507,959.58	0.82	106.9	Pulse	0.30	3
1	Te		6.00	66.67	450.0	Pulse	0.50	3
1	Li		4,547.20	2.93	97.3	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:16
Sample Name FC6562-3F
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.612	ug/l	2.92	7,614.18	2.274E-02	Pulse	0.50	3
As			1	4.552	ug/l	1.09	5,870.58	1.753E-02	Pulse	1.00	3
Mo			1	0.756	ug/l	4.48	4,213.16	8.552E-03	Pulse	0.50	3
Pb			1	0.099	ug/l	4.75	3,014.27	6.898E-04	Pulse	1.00	3
Be			1	0.071	ug/l	20.97	8.33	1.401E-05	Pulse	2.00	3
Ag			1	0.021	ug/l	14.40	529.34	1.074E-03	Pulse	0.50	3
Ba			1	713.700	ug/l	0.54	1,547,855.63	5.755E-01	Pulse	0.50	3
Tl			1	0.059	ug/l	8.17	1,725.43	3.950E-04	Pulse	0.50	3
Sn			1	0.708	ug/l	4.20	4,014.90	1.493E-03	Pulse	0.30	3
Sr			1	1995.148	ug/l	1.03	13,224,350.00	4.918E+00	Analog	0.50	3
[Pb]			1	0.088	ug/l	13.56	1,378.73	3.157E-04	Pulse	0.50	3
Ca			1	159503.084	ug/l	0.89	7,180,539.33	1.205E+01	Analog	0.50	3
Ti			1	0.611	ug/l	9.90	189.33	3.180E-04	Pulse	0.50	3
Na			1	71598.282	ug/l	1.13	136,534,133.33	2.292E+02	Analog	1.00	3
Mg			1	36633.057	ug/l	0.82	34,656,802.67	5.818E+01	Analog	1.00	3
K			1	22136.794	ug/l	1.24	19,623,478.00	3.295E+01	Analog	1.00	3
V			1	2.168	ug/l	0.46	19,778.02	3.320E-02	Pulse	0.50	3
Mn			1	509.684	ug/l	0.29	3,315,559.50	9.903E+00	Pulse	0.50	3
Fe			1	10598.202	ug/l	0.22	96,331,384.00	2.877E+02	Analog	0.50	3
Co			1	0.072	ug/l	13.51	1,491.40	4.459E-03	Pulse	0.50	3
Ni			1	0.582	ug/l	5.63	2,992.24	8.936E-03	Pulse	0.50	3
Cu			1	11.196	ug/l	2.48	154,912.40	3.145E-01	Pulse	0.50	3
Zn			1	1.543	ug/l	1.29	3,896.07	7.911E-03	Pulse	1.00	3
Cd			1	0.029	ug/l	19.38	83.33	1.694E-04	Pulse	0.50	3
Al			1	8.223	ug/l	8.40	3,602.34	6.051E-03	Pulse	1.00	3
Se			1	0.245	ug/l	20.59	81.89	1.664E-04	Pulse	3.00	3
Sb			1	0.377	ug/l	4.08	2,797.22	5.678E-03	Pulse	1.00	3
Se			1	1.256	ug/l	17.27	121.89	2.473E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,370,888.67	1.55	89.4	Pulse	0.50	3
1	Sc		595,709.82	1.73	107.1	Pulse	0.30	3
1	Ge		334,797.25	1.50	103.4	Pulse	0.30	3
1	In		2,689,556.70	1.76	94.4	Pulse	0.30	3
1	Tb		7,334,736.83	1.15	98.6	Analog	0.50	3
1	Lu		5,192,185.00	2.35	94.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		492,485.08	1.49	103.7	Pulse	0.30	3
1	Te		18.00	38.49	1350.0	Pulse	0.50	3
1	Li		4,512.75	1.71	96.6	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:20
Sample Name MP42379-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.645	ug/l	3.64	8,021.01	2.383E-02	Pulse	0.50	3
As			1	4.702	ug/l	2.84	6,095.31	1.811E-02	Pulse	1.00	3
Mo			1	0.635	ug/l	8.70	3,570.36	7.240E-03	Pulse	0.50	3
Pb			1	0.051	ug/l	5.29	2,146.47	4.876E-04	Pulse	1.00	3
Be			1	0.072	ug/l	14.52	8.50	1.413E-05	Pulse	2.00	3
Ag			1	0.013	ug/l	17.33	386.01	7.829E-04	Pulse	0.50	3
Ba			1	724.873	ug/l	0.78	1,585,253.62	5.846E-01	Pulse	0.50	3
Tl			1	0.015	ug/l	10.76	570.01	1.295E-04	Pulse	0.50	3
Sn			1	0.479	ug/l	7.34	2,860.24	1.055E-03	Pulse	0.30	3
Sr			1	2027.364	ug/l	0.89	13,550,659.33	4.997E+00	Analog	0.50	3
[Pb]			1	0.053	ug/l	3.52	1,075.37	2.443E-04	Pulse	0.50	3
Ca			1	162460.943	ug/l	0.55	7,386,303.00	1.228E+01	Analog	0.50	3
Ti			1	0.584	ug/l	16.98	183.33	3.048E-04	Pulse	0.50	3
Na			1	73096.688	ug/l	0.56	140,777,648.00	2.340E+02	Analog	1.00	3
Mg			1	37296.022	ug/l	0.62	35,634,145.33	5.924E+01	Analog	1.00	3
K			1	22526.293	ug/l	0.04	20,166,118.00	3.352E+01	Analog	1.00	3
V			1	2.173	ug/l	0.97	20,022.95	3.329E-02	Pulse	0.50	3
Mn			1	516.943	ug/l	0.64	3,380,100.33	1.004E+01	Pulse	0.50	3
Fe			1	10852.570	ug/l	0.49	99,155,357.33	2.946E+02	Analog	0.50	3
Co			1	0.057	ug/l	7.53	1,261.38	3.748E-03	Pulse	0.50	3
Ni			1	0.489	ug/l	3.65	2,597.52	7.719E-03	Pulse	0.50	3
Cu			1	11.099	ug/l	1.40	153,921.60	3.122E-01	Pulse	0.50	3
Zn			1	1.315	ug/l	3.94	3,427.31	6.952E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	38.01	32.67	6.627E-05	Pulse	0.50	3
Al			1	5.231	ug/l	3.26	2,471.82	4.109E-03	Pulse	1.00	3
Se			1	0.095	ug/l	53.59	65.22	1.323E-04	Pulse	3.00	3
Sb			1	0.313	ug/l	3.62	2,339.16	4.744E-03	Pulse	1.00	3
Se			1	1.127	ug/l	6.28	115.00	2.333E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,401,527.00	1.89	90.1	Pulse	0.50	3
1	Sc		601,559.35	0.33	108.1	Pulse	0.30	3
1	Ge		336,535.51	0.96	103.9	Pulse	0.30	3
1	In		2,711,914.61	0.78	95.2	Pulse	0.30	3
1	Tb		7,385,540.83	0.25	99.3	Analog	0.50	3
1	Lu		5,195,337.00	0.98	94.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		493,007.04	0.59	103.8	Pulse	0.30	3
1	Te		5.33	57.28	400.0	Pulse	0.50	3
1	Li		4,496.08	1.72	96.2	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:24
Sample Name MP42379-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.588	ug/l	2.15	2,302.14	6.548E-03	Pulse	0.50	3
As			1	4.720	ug/l	1.52	1,299.38	3.696E-03	Pulse	1.00	3
Mo			1	0.657	ug/l	19.87	918.03	1.769E-03	Pulse	0.50	3
Pb			1	0.092	ug/l	9.38	1,721.09	3.497E-04	Pulse	1.00	3
Be			1	0.119	ug/l	12.47	4.17	6.689E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	20.46	262.00	5.050E-04	Pulse	0.50	3
Ba			1	696.731	ug/l	0.48	328,504.17	1.124E-01	Pulse	0.50	3
Tl			1	0.022	ug/l	41.41	310.00	6.306E-05	Pulse	0.50	3
Sn			1	0.320	ug/l	9.85	760.02	2.600E-04	Pulse	0.30	3
Sr			1	1945.137	ug/l	0.29	2,803,087.08	9.590E-01	Pulse	0.50	3
[Pb]			1	0.103	ug/l	20.76	870.03	1.767E-04	Pulse	0.50	3
Ca			1	158272.890	ug/l	0.15	1,490,640.63	2.393E+00	Pulse	0.50	3
Ti			1	1.028	ug/l	9.09	70.67	1.135E-04	Pulse	0.50	3
Na			1	71356.949	ug/l	0.39	28,496,150.00	4.575E+01	Analog	1.00	3
Mg			1	36846.145	ug/l	0.73	7,291,002.50	1.171E+01	Analog	1.00	3
K			1	21929.928	ug/l	0.44	4,138,945.25	6.645E+00	Pulse	1.00	3
V			1	2.638	ug/l	3.43	5,249.39	8.428E-03	Pulse	0.50	3
Mn			1	510.506	ug/l	0.83	697,890.04	1.985E+00	Pulse	0.50	3
Fe			1	10565.341	ug/l	0.54	20,183,342.00	5.741E+01	Analog	0.50	3
Co			1	0.047	ug/l	21.94	501.34	1.426E-03	Pulse	0.50	3
Ni			1	0.469	ug/l	17.01	882.02	2.510E-03	Pulse	0.50	3
Cu			1	13.762	ug/l	0.81	59,467.73	1.146E-01	Pulse	0.50	3
Zn			1	1.768	ug/l	4.34	1,511.73	2.913E-03	Pulse	1.00	3
Cd			1	0.048	ug/l	47.92	33.33	6.430E-05	Pulse	0.50	3
Al			1	11.559	ug/l	3.53	1,379.38	2.215E-03	Pulse	1.00	3
Se			1	0.635	ug/l	26.11	72.45	1.396E-04	Pulse	3.00	3
Sb			1	0.405	ug/l	11.78	710.01	1.368E-03	Pulse	1.00	3
Se			1	0.418	ug/l	182.47	62.78	1.210E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,921,925.33	1.18	100.7	Pulse	0.50	3
1	Sc		622,880.31	0.21	112.0	Pulse	0.30	3
1	Ge		351,559.05	0.73	108.5	Pulse	0.30	3
1	In		2,922,911.14	0.64	102.6	Pulse	0.30	3
1	Tb		7,762,350.33	0.51	104.3	Analog	0.50	3
1	Lu		5,505,311.83	0.58	100.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		518,915.41	0.36	109.2	Pulse	0.30	3
1	Te		3.33	34.64	250.0	Pulse	0.50	3
1	Li		4,690.58	5.32	100.4	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:27
Sample Name MP42379-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	215.970	ug/l	1.94	2,364,807.33	7.075E+00	Pulse	0.50	3
As			1	219.565	ug/l	0.68	281,482.09	8.422E-01	Pulse	1.00	3
Mo			1	218.466	ug/l	0.78	1,157,493.71	2.374E+00	Pulse	0.50	3
Pb			1	224.977	ug/l	0.20	4,137,335.25	9.454E-01	Pulse	1.00	3
Be			1	206.013	ug/l	1.86	18,860.88	3.198E-02	Pulse	2.00	3
Ag			1	93.353	ug/l	1.58	1,603,283.21	3.288E+00	Pulse	0.50	3
Ba			1	924.986	ug/l	0.55	1,995,194.17	7.459E-01	Pulse	0.50	3
Tl			1	220.148	ug/l	0.57	5,816,226.00	1.329E+00	Pulse	0.50	3
Sn			1	220.265	ug/l	0.63	1,128,610.02	4.219E-01	Pulse	0.30	3
Sr			1	2180.792	ug/l	1.38	14,375,723.67	5.375E+00	Analog	0.50	3
[Pb]			1	209.728	ug/l	0.19	1,895,827.75	4.332E-01	Pulse	0.50	3
Ca			1	177549.616	ug/l	0.91	7,916,386.50	1.342E+01	Analog	0.50	3
Ti			1	212.905	ug/l	1.06	63,440.81	1.075E-01	Pulse	0.50	3
Na			1	91748.614	ug/l	1.59	173,250,976.00	2.937E+02	Analog	1.00	3
Mg			1	56739.450	ug/l	0.94	53,160,028.00	9.012E+01	Analog	1.00	3
K			1	42000.236	ug/l	0.93	36,796,929.33	6.238E+01	Analog	1.00	3
V			1	214.399	ug/l	0.28	1,910,700.17	3.239E+00	Pulse	0.50	3
Mn			1	712.513	ug/l	1.63	4,626,757.00	1.384E+01	Pulse	0.50	3
Fe			1	30845.949	ug/l	1.03	279,865,237.33	8.373E+02	Analog	0.50	3
Co			1	216.002	ug/l	1.35	3,524,579.33	1.055E+01	Pulse	0.50	3
Ni			1	208.862	ug/l	1.48	919,612.83	2.751E+00	Pulse	0.50	3
Cu			1	215.576	ug/l	0.86	2,512,832.75	5.153E+00	Pulse	0.50	3
Zn			1	200.615	ug/l	0.63	411,673.95	8.442E-01	Pulse	1.00	3
Cd			1	194.852	ug/l	1.06	515,825.29	1.058E+00	Pulse	0.50	3
Al			1	19664.167	ug/l	0.69	7,529,555.83	1.276E+01	Analog	1.00	3
Se			1	193.999	ug/l	0.76	21,474.69	4.404E-02	Pulse	3.00	3
Sb			1	211.980	ug/l	0.88	1,505,787.00	3.088E+00	Pulse	1.00	3
Se			1	193.546	ug/l	1.20	10,213.07	2.094E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,376,127.17	1.26	89.6	Pulse	0.50	3
1	Sc		589,976.07	1.96	106.0	Pulse	0.30	3
1	Ge		334,231.14	0.16	103.2	Pulse	0.30	3
1	In		2,675,010.38	2.15	93.9	Pulse	0.30	3
1	Tb		7,263,296.33	0.73	97.6	Analog	0.50	3
1	Lu		5,223,319.33	1.04	95.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		487,623.09	0.72	102.6	Pulse	0.30	3
1	Te		15.33	15.06	1150.0	Pulse	0.50	3
1	Li		4,483.85	3.38	95.9	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:31
Sample Name MP42379-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	211.266	ug/l	0.95	2,287,616.17	6.921E+00	Pulse	0.50	3
As			1	216.003	ug/l	0.65	273,838.97	8.285E-01	Pulse	1.00	3
Mo			1	214.229	ug/l	0.32	1,127,104.42	2.328E+00	Pulse	0.50	3
Pb			1	220.522	ug/l	0.86	4,034,243.00	9.267E-01	Pulse	1.00	3
Be			1	201.432	ug/l	0.36	18,398.30	3.127E-02	Pulse	2.00	3
Ag			1	91.238	ug/l	0.71	1,555,866.25	3.213E+00	Pulse	0.50	3
Ba			1	889.737	ug/l	0.49	1,912,232.92	7.175E-01	Pulse	0.50	3
Tl			1	215.633	ug/l	1.38	5,666,999.17	1.302E+00	Pulse	0.50	3
Sn			1	213.749	ug/l	0.04	1,091,190.65	4.094E-01	Pulse	0.30	3
Sr			1	2102.471	ug/l	1.52	13,808,470.00	5.182E+00	Analog	0.50	3
[Pb]			1	204.951	ug/l	0.53	1,842,957.83	4.234E-01	Pulse	0.50	3
Ca			1	170649.255	ug/l	0.63	7,589,305.17	1.290E+01	Analog	0.50	3
Ti			1	207.449	ug/l	1.61	61,663.85	1.048E-01	Pulse	0.50	3
Na			1	88428.904	ug/l	0.76	166,579,418.67	2.831E+02	Analog	1.00	3
Mg			1	54636.949	ug/l	0.65	51,062,782.67	8.678E+01	Analog	1.00	3
K			1	40593.439	ug/l	0.83	35,477,869.33	6.029E+01	Analog	1.00	3
V			1	208.778	ug/l	0.70	1,855,845.46	3.154E+00	Pulse	0.50	3
Mn			1	691.120	ug/l	1.13	4,437,809.17	1.343E+01	Pulse	0.50	3
Fe			1	30003.449	ug/l	1.46	269,183,333.33	8.145E+02	Analog	0.50	3
Co			1	211.896	ug/l	0.86	3,419,027.50	1.034E+01	Pulse	0.50	3
Ni			1	204.503	ug/l	1.05	890,401.23	2.694E+00	Pulse	0.50	3
Cu			1	209.663	ug/l	0.95	2,427,238.17	5.013E+00	Pulse	0.50	3
Zn			1	197.235	ug/l	1.01	401,879.59	8.300E-01	Pulse	1.00	3
Cd			1	191.683	ug/l	0.39	503,879.83	1.041E+00	Pulse	0.50	3
Al			1	19168.217	ug/l	0.38	7,321,239.50	1.244E+01	Analog	1.00	3
Se			1	189.604	ug/l	1.14	20,840.11	4.304E-02	Pulse	3.00	3
Sb			1	207.469	ug/l	0.78	1,463,393.58	3.022E+00	Pulse	1.00	3
Se			1	190.591	ug/l	0.48	9,987.61	2.063E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,353,149.00	0.49	89.1	Pulse	0.50	3
1	Sc		588,460.81	1.09	105.8	Pulse	0.30	3
1	Ge		330,512.20	0.70	102.0	Pulse	0.30	3
1	In		2,665,264.96	2.17	93.5	Pulse	0.30	3
1	Tb		7,222,584.33	1.23	97.1	Analog	0.50	3
1	Lu		5,217,794.83	1.88	95.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		484,237.97	1.89	101.9	Pulse	0.30	3
1	Te		14.67	41.66	1100.0	Pulse	0.50	3
1	Li		4,487.19	3.67	96.0	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:35
Sample Name	MP42379-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.761	ug/l	1.17	232,728.60	7.153E-01	Pulse	0.50	3
As			1	26.406	ug/l	1.48	32,970.97	1.014E-01	Pulse	1.00	3
Mo			1	21.918	ug/l	0.45	114,180.03	2.385E-01	Pulse	0.50	3
Pb			1	21.839	ug/l	0.32	402,820.37	9.202E-02	Pulse	1.00	3
Be			1	20.340	ug/l	1.81	1,838.42	3.160E-03	Pulse	2.00	3
Ag			1	10.610	ug/l	9.20	179,137.06	3.740E-01	Pulse	0.50	3
Ba			1	740.424	ug/l	0.98	1,576,236.25	5.971E-01	Pulse	0.50	3
Tl			1	21.642	ug/l	0.38	572,067.02	1.307E-01	Pulse	0.50	3
Sn			1	20.844	ug/l	1.86	105,725.10	4.005E-02	Pulse	0.30	3
Sr			1	2029.899	ug/l	1.74	13,205,016.33	5.003E+00	Analog	0.50	3
[Pb]			1	20.384	ug/l	0.22	184,850.45	4.223E-02	Pulse	0.50	3
Ca			1	162524.042	ug/l	0.44	7,145,448.17	1.228E+01	Analog	0.50	3
Ti			1	21.204	ug/l	4.23	6,233.67	1.072E-02	Pulse	0.50	3
Na			1	75052.120	ug/l	0.91	139,769,562.67	2.403E+02	Analog	1.00	3
Mg			1	39356.090	ug/l	0.38	36,362,213.33	6.251E+01	Analog	1.00	3
K			1	24304.308	ug/l	1.18	21,032,306.00	3.616E+01	Analog	1.00	3
V			1	23.357	ug/l	0.31	205,485.35	3.532E-01	Pulse	0.50	3
Mn			1	536.596	ug/l	0.45	3,391,900.00	1.043E+01	Pulse	0.50	3
Fe			1	12917.474	ug/l	0.44	114,093,496.00	3.507E+02	Analog	0.50	3
Co			1	21.508	ug/l	0.85	341,900.74	1.051E+00	Pulse	0.50	3
Ni			1	21.334	ug/l	2.04	91,796.68	2.822E-01	Pulse	0.50	3
Cu			1	28.586	ug/l	0.96	347,729.70	7.262E-01	Pulse	0.50	3
Zn			1	22.615	ug/l	0.22	46,177.67	9.644E-02	Pulse	1.00	3
Cd			1	19.435	ug/l	0.68	50,528.65	1.055E-01	Pulse	0.50	3
Al			1	2037.149	ug/l	0.91	769,540.63	1.323E+00	Pulse	1.00	3
Se			1	19.374	ug/l	3.10	2,153.34	4.498E-03	Pulse	3.00	3
Sb			1	19.243	ug/l	0.65	134,314.00	2.805E-01	Pulse	1.00	3
Se			1	20.498	ug/l	4.16	1,109.81	2.318E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,377,695.67	1.84	89.6	Pulse	0.50	3
1	Sc		581,740.77	1.22	104.6	Pulse	0.30	3
1	Ge		325,352.75	1.35	100.4	Pulse	0.30	3
1	In		2,639,974.62	2.11	92.6	Pulse	0.30	3
1	Tb		7,280,372.50	1.25	97.8	Analog	0.50	3
1	Lu		5,168,101.33	2.47	94.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		478,831.39	1.27	100.8	Pulse	0.30	3
1	Te		13.33	22.91	1000.0	Pulse	0.50	3
1	Li		4,699.46	3.47	100.5	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:39
Sample Name	FC6580-6R
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.511	ug/l	0.45	17,020.78	5.217E-02	Pulse	0.50	3
As			1	0.275	ug/l	4.67	368.67	1.130E-03	Pulse	1.00	3
Mo			1	0.438	ug/l	7.11	2,450.17	5.105E-03	Pulse	0.50	3
Pb			1	0.069	ug/l	3.07	2,646.21	5.641E-04	Pulse	1.00	3
Be			1	0.059	ug/l	52.34	7.00	1.208E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	15.93	396.01	8.256E-04	Pulse	0.50	3
Ba			1	39.675	ug/l	1.19	86,650.71	3.201E-02	Pulse	0.50	3
Tl			1	0.022	ug/l	4.51	792.02	1.688E-04	Pulse	0.50	3
Sn			1	0.965	ug/l	3.22	5,373.04	1.984E-03	Pulse	0.30	3
Sr			1	330.261	ug/l	0.20	2,203,812.50	8.142E-01	Pulse	0.50	3
[Pb]			1	0.064	ug/l	5.08	1,246.05	2.656E-04	Pulse	0.50	3
Ca			1	32801.557	ug/l	0.33	1,436,753.63	2.480E+00	Pulse	0.50	3
Ti			1	1.622	ug/l	7.84	480.01	8.287E-04	Pulse	0.50	3
Na			1	12882.419	ug/l	0.25	23,930,985.33	4.130E+01	Analog	1.00	3
Mg			1	14477.784	ug/l	0.32	13,323,355.00	2.300E+01	Analog	1.00	3
K			1	1003.885	ug/l	0.26	946,520.58	1.634E+00	Pulse	1.00	3
V			1	2.922	ug/l	1.54	25,837.78	4.459E-02	Pulse	0.50	3
Mn			1	107.004	ug/l	0.58	678,787.69	2.080E+00	Pulse	0.50	3
Fe			1	211.167	ug/l	0.79	1,888,038.04	5.786E+00	Pulse	0.50	3
Co			1	2.049	ug/l	1.95	32,961.34	1.010E-01	Pulse	0.50	3
Ni			1	11.033	ug/l	0.44	47,814.84	1.466E-01	Pulse	0.50	3
Cu			1	7.458	ug/l	1.95	108,422.74	2.260E-01	Pulse	0.50	3
Zn			1	1.536	ug/l	2.38	3,781.71	7.882E-03	Pulse	1.00	3
Cd			1	0.017	ug/l	17.41	51.33	1.070E-04	Pulse	0.50	3
Al			1	158.658	ug/l	0.69	60,078.43	1.037E-01	Pulse	1.00	3
Se			1	0.230	ug/l	25.68	78.11	1.629E-04	Pulse	3.00	3
Sb			1	0.135	ug/l	9.97	1,033.37	2.153E-03	Pulse	1.00	3
Se			1	0.430	ug/l	36.03	76.00	1.584E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,691,906.33	1.03	96.0	Pulse	0.50	3
1	Sc		579,388.28	1.04	104.1	Pulse	0.30	3
1	Ge		326,271.63	1.27	100.7	Pulse	0.30	3
1	In		2,706,764.82	1.47	95.0	Pulse	0.30	3
1	Tb		7,482,278.83	0.56	100.6	Analog	0.50	3
1	Lu		5,246,456.50	1.54	95.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		479,759.72	0.92	101.0	Pulse	0.30	3
1	Te		3.33	91.65	250.0	Pulse	0.50	3
1	Li		4,381.61	4.81	93.7	Pulse	0.30	3

Quantitation Report

File Name	031CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:43
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.466	ug/l	0.86	1,117,047.08	3.243E+00	Pulse	0.50	3
As			1	48.849	ug/l	1.59	129,107.35	3.748E-01	Pulse	1.00	3
Mo			1	48.249	ug/l	1.53	528,280.68	1.049E+00	Pulse	0.50	3
Pb			1	50.317	ug/l	2.10	2,082,690.08	4.230E-01	Pulse	1.00	3
Be			1	48.673	ug/l	0.96	9,145.05	1.511E-02	Pulse	2.00	3
Ag			1	48.577	ug/l	1.24	1,723,712.46	3.422E+00	Pulse	0.50	3
Ba			1	48.417	ug/l	1.63	223,392.81	7.811E-02	Pulse	0.50	3
Tl			1	51.285	ug/l	0.81	3,048,482.08	6.192E-01	Pulse	0.50	3
Sn			1	48.423	ug/l	0.67	530,755.85	1.856E-01	Pulse	0.30	3
Sr			1	48.259	ug/l	0.80	680,950.44	2.381E-01	Pulse	0.50	3
[Pb]			1	48.629	ug/l	1.87	989,399.79	2.010E-01	Pulse	0.50	3
Ca			1	4860.244	ug/l	1.29	445,111.82	7.355E-01	Pulse	0.50	3
Ti			1	47.584	ug/l	0.97	29,094.90	4.808E-02	Pulse	0.50	3
Na			1	4989.685	ug/l	0.71	19,372,874.00	3.201E+01	Analog	1.00	3
Mg			1	4967.254	ug/l	0.90	9,549,213.33	1.578E+01	Analog	1.00	3
K			1	4943.506	ug/l	0.37	8,953,852.33	1.480E+01	Analog	1.00	3
V			1	48.669	ug/l	0.88	889,965.25	1.471E+00	Pulse	0.50	3
Mn			1	49.298	ug/l	1.11	660,425.23	1.917E+00	Pulse	0.50	3
Fe			1	5016.613	ug/l	1.12	93,839,168.00	2.724E+02	Analog	0.50	3
Co			1	50.998	ug/l	1.06	1,715,578.33	4.980E+00	Pulse	0.50	3
Ni			1	50.390	ug/l	1.38	457,586.83	1.328E+00	Pulse	0.50	3
Cu			1	50.601	ug/l	1.84	1,231,835.25	2.445E+00	Pulse	0.50	3
Zn			1	49.736	ug/l	1.23	211,233.63	4.193E-01	Pulse	1.00	3
Cd			1	48.502	ug/l	1.61	265,280.40	5.266E-01	Pulse	0.50	3
Al			1	4892.490	ug/l	1.28	3,843,657.58	6.351E+00	Pulse	1.00	3
Se			1	48.649	ug/l	1.24	11,154.47	2.214E-02	Pulse	3.00	3
Sb			1	48.013	ug/l	1.71	704,718.82	1.399E+00	Pulse	1.00	3
Se			1	48.712	ug/l	0.91	5,339.20	1.060E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,923,048.17	0.07	100.7	Pulse	0.50	3
1	Sc		605,170.50	0.25	108.8	Pulse	0.30	3
1	Ge		344,492.56	0.05	106.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,860,086.69	0.44	100.4	Pulse	0.30	3
1	Tb		7,718,543.33	0.22	103.7	Analog	0.50	3
1	Lu		5,494,630.83	0.60	100.0	Pulse	0.50	3
1	Ge		503,779.49	0.44	106.0	Pulse	0.30	3
1	Te		2.67	86.60	200.0	Pulse	0.50	3
1	Li		4,737.24	1.11	101.4	Pulse	0.30	3

Quantitation Report

File Name	032_CCV.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:47
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.872	ug/l	1.27	2,197,962.50	6.479E+00	Pulse	0.50	3
As			1	98.034	ug/l	0.63	255,153.04	7.521E-01	Pulse	1.00	3
Mo			1	95.944	ug/l	0.68	1,047,132.71	2.085E+00	Pulse	0.50	3
Pb			1	100.776	ug/l	1.06	4,067,572.58	8.470E-01	Pulse	1.00	3
Be			1	97.702	ug/l	1.20	18,060.33	3.033E-02	Pulse	2.00	3
Ag			1	94.232	ug/l	0.45	3,333,395.00	6.637E+00	Pulse	0.50	3
Ba			1	97.521	ug/l	0.09	442,209.48	1.573E-01	Pulse	0.50	3
Tl			1	102.849	ug/l	1.37	5,963,307.00	1.242E+00	Pulse	0.50	3
Sn			1	97.269	ug/l	0.69	1,047,556.87	3.726E-01	Pulse	0.30	3
Sr			1	96.980	ug/l	0.41	1,344,459.04	4.782E-01	Pulse	0.50	3
[Pb]			1	97.626	ug/l	1.46	1,936,870.17	4.033E-01	Pulse	0.50	3
Ca			1	9672.271	ug/l	0.68	871,060.11	1.463E+00	Pulse	0.50	3
Ti			1	96.013	ug/l	0.58	57,759.36	9.700E-02	Pulse	0.50	3
Na			1	9959.147	ug/l	0.17	38,003,614.67	6.382E+01	Analog	1.00	3
Mg			1	9943.336	ug/l	0.64	18,807,956.67	3.159E+01	Analog	1.00	3
K			1	9867.063	ug/l	0.48	17,498,100.67	2.939E+01	Analog	1.00	3
V			1	97.690	ug/l	0.64	1,757,463.54	2.951E+00	Pulse	0.50	3
Mn			1	98.729	ug/l	0.52	1,301,977.33	3.838E+00	Pulse	0.50	3
Fe			1	9974.229	ug/l	0.69	183,726,901.33	5.415E+02	Analog	0.50	3
Co			1	100.506	ug/l	0.92	3,329,425.08	9.814E+00	Pulse	0.50	3
Ni			1	99.513	ug/l	0.85	889,537.77	2.622E+00	Pulse	0.50	3
Cu			1	97.318	ug/l	0.34	2,339,047.83	4.657E+00	Pulse	0.50	3
Zn			1	97.752	ug/l	0.19	413,208.80	8.227E-01	Pulse	1.00	3
Cd			1	95.563	ug/l	0.82	521,102.29	1.038E+00	Pulse	0.50	3
Al			1	9735.969	ug/l	1.05	7,525,745.67	1.264E+01	Analog	1.00	3
Se			1	95.272	ug/l	0.45	21,723.86	4.326E-02	Pulse	3.00	3
Sb			1	95.327	ug/l	0.44	1,394,827.00	2.777E+00	Pulse	1.00	3
Se			1	95.815	ug/l	0.28	10,415.29	2.074E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,802,224.67	0.34	98.3	Pulse	0.50	3
1	Sc		595,460.01	0.22	107.0	Pulse	0.30	3
1	Ge		339,270.59	0.25	104.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,811,224.61	0.57	98.6	Pulse	0.30	3
1	Tb		7,633,428.83	0.27	102.6	Analog	0.50	3
1	Lu		5,471,513.83	0.63	99.6	Pulse	0.50	3
1	Ge		502,225.55	0.65	105.7	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		4,682.79	3.52	100.2	Pulse	0.30	3

Quantitation Report

File Name	033_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 13:50
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.009	ug/l	34.92	1,104.70	3.259E-03	Pulse	0.50	3
As			1	0.027	ug/l	9.88	94.67	2.793E-04	Pulse	1.00	3
Mo			1	0.135	ug/l	22.12	1,628.08	3.279E-03	Pulse	0.50	3
Pb			1	0.025	ug/l	18.82	2,421.51	4.845E-04	Pulse	1.00	3
Be			1	0.023	ug/l	76.65	6.00	1.017E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	14.62	853.36	1.717E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	34.61	132.67	4.621E-05	Pulse	0.50	3
Tl			1	0.022	ug/l	15.42	1,488.74	2.981E-04	Pulse	0.50	3
Sn			1	0.151	ug/l	19.61	2,050.13	7.149E-04	Pulse	0.30	3
Sr			1	0.022	ug/l	27.07	890.69	3.104E-04	Pulse	0.50	3
[Pb]			1	0.020	ug/l	18.78	1,088.71	2.177E-04	Pulse	0.50	3
Ca			1	2.835	ug/l	10.04	798.69	1.356E-03	Pulse	0.50	3
Ti			1	0.036	ug/l	13.50	27.33	4.640E-05	Pulse	0.50	3
Na			1	4.475	ug/l	5.06	60,161.02	1.021E-01	Pulse	1.00	3
Mg			1	1.938	ug/l	10.57	4,479.18	7.602E-03	Pulse	1.00	3
K			1	1.806	ug/l	6.61	89,274.54	1.516E-01	Pulse	1.00	3
V			1	0.031	ug/l	10.00	818.69	1.390E-03	Pulse	0.50	3
Mn			1	0.016	ug/l	13.57	819.35	2.418E-03	Pulse	0.50	3
Fe			1	2.329	ug/l	7.50	61,311.80	1.809E-01	Pulse	0.50	3
Co			1	0.017	ug/l	16.39	898.02	2.650E-03	Pulse	0.50	3
Ni			1	-0.001	ug/l	-281.12	420.01	1.239E-03	Pulse	0.50	3
Cu			1	-0.393	ug/l	-3.71	15,325.45	3.084E-02	Pulse	0.50	3
Zn			1	0.037	ug/l	19.50	862.69	1.736E-03	Pulse	1.00	3
Cd			1	0.021	ug/l	18.95	119.33	2.400E-04	Pulse	0.50	3
Al			1	2.045	ug/l	13.23	1,985.45	3.369E-03	Pulse	1.00	3
Se			1	0.097	ug/l	34.58	76.89	1.548E-04	Pulse	3.00	3
Sb			1	0.053	ug/l	9.65	864.36	1.740E-03	Pulse	1.00	3
Se			1	0.043	ug/l	128.42	60.22	1.212E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,005,859.33	2.70	102.4	Pulse	0.50	3
1	Sc		588,902.01	0.92	105.9	Pulse	0.30	3

Quantitation Report

1	Ge		338,841.97	0.96	104.6	Pulse	0.30	3
1	In		2,869,286.76	0.46	100.7	Pulse	0.30	3
1	Tb		7,796,223.17	1.39	104.8	Analog	0.50	3
1	Lu		5,430,282.50	0.91	98.8	Pulse	0.50	3
1	Ge		496,869.82	0.61	104.6	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		4,827.27	2.08	103.3	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:54
Sample Name FC6580-7R
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.401	ug/l	2.44	5,088.69	1.584E-02	Pulse	0.50	3
As			1	0.464	ug/l	1.63	595.34	1.853E-03	Pulse	1.00	3
Mo			1	13.767	ug/l	2.56	71,045.80	1.499E-01	Pulse	0.50	3
Pb			1	0.111	ug/l	8.97	3,439.02	7.394E-04	Pulse	1.00	3
Be			1	0.039	ug/l	57.29	5.17	9.032E-06	Pulse	2.00	3
Ag			1	0.035	ug/l	23.29	745.35	1.574E-03	Pulse	0.50	3
Ba			1	40.092	ug/l	0.38	87,059.86	3.235E-02	Pulse	0.50	3
Tl			1	0.018	ug/l	21.18	673.35	1.449E-04	Pulse	0.50	3
Sn			1	1.128	ug/l	12.94	6,188.87	2.297E-03	Pulse	0.30	3
Sr			1	355.124	ug/l	0.63	2,355,908.17	8.755E-01	Pulse	0.50	3
[Pb]			1	0.098	ug/l	8.37	1,561.41	3.356E-04	Pulse	0.50	3
Ca			1	30328.373	ug/l	0.87	1,309,149.21	2.293E+00	Pulse	0.50	3
Ti			1	8.492	ug/l	4.50	2,453.51	4.299E-03	Pulse	0.50	3
Na			1	16052.809	ug/l	1.00	29,375,944.00	5.145E+01	Analog	1.00	3
Mg			1	14630.645	ug/l	0.42	13,268,512.67	2.324E+01	Analog	1.00	3
K			1	1827.622	ug/l	0.70	1,629,648.42	2.854E+00	Pulse	1.00	3
V			1	4.540	ug/l	1.18	39,419.08	6.903E-02	Pulse	0.50	3
Mn			1	528.055	ug/l	0.83	3,296,218.83	1.026E+01	Pulse	0.50	3
Fe			1	199.356	ug/l	1.11	1,755,979.67	5.466E+00	Pulse	0.50	3
Co			1	8.105	ug/l	0.14	127,435.75	3.966E-01	Pulse	0.50	3
Ni			1	19.665	ug/l	0.45	83,602.70	2.602E-01	Pulse	0.50	3
Cu			1	6.560	ug/l	1.01	97,036.64	2.047E-01	Pulse	0.50	3
Zn			1	1.624	ug/l	2.11	3,910.73	8.251E-03	Pulse	1.00	3
Cd			1	0.027	ug/l	12.08	76.67	1.618E-04	Pulse	0.50	3
Al			1	246.986	ug/l	1.24	91,938.97	1.610E-01	Pulse	1.00	3
Se			1	0.274	ug/l	17.41	82.00	1.730E-04	Pulse	3.00	3
Sb			1	0.178	ug/l	10.82	1,321.72	2.788E-03	Pulse	1.00	3
Se			1	0.163	ug/l	33.87	61.44	1.296E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,653,306.33	1.12	95.2	Pulse	0.50	3
1	Sc		570,996.64	1.34	102.6	Pulse	0.30	3
1	Ge		321,301.62	1.58	99.2	Pulse	0.30	3
1	In		2,691,241.63	1.56	94.4	Pulse	0.30	3
1	Tb		7,400,897.83	0.85	99.5	Analog	0.50	3
1	Lu		5,196,714.67	1.52	94.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		473,951.18	0.62	99.8	Pulse	0.30	3
1	Te		3.33	91.65	250.0	Pulse	0.50	3
1	Li		4,488.30	4.12	96.0	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 13:58
Sample Name FC6580-8R
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.564	ug/l	3.28	6,748.52	2.118E-02	Pulse	0.50	3
As			1	0.484	ug/l	11.37	615.68	1.931E-03	Pulse	1.00	3
Mo			1	10.555	ug/l	0.72	54,298.12	1.150E-01	Pulse	0.50	3
Pb			1	0.069	ug/l	3.94	2,626.20	5.616E-04	Pulse	1.00	3
Be			1	0.023	ug/l	175.72	3.67	6.526E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	7.87	291.33	6.172E-04	Pulse	0.50	3
Ba			1	26.559	ug/l	0.24	57,524.90	2.144E-02	Pulse	0.50	3
Tl			1	0.005	ug/l	30.37	300.67	6.430E-05	Pulse	0.50	3
Sn			1	0.758	ug/l	7.49	4,267.19	1.589E-03	Pulse	0.30	3
Sr			1	305.482	ug/l	0.81	2,020,720.58	7.531E-01	Pulse	0.50	3
[Pb]			1	0.065	ug/l	12.86	1,251.39	2.678E-04	Pulse	0.50	3
Ca			1	20587.405	ug/l	0.37	874,235.77	1.557E+00	Pulse	0.50	3
Ti			1	12.012	ug/l	3.39	3,411.67	6.077E-03	Pulse	0.50	3
Na			1	19863.486	ug/l	1.13	35,740,017.33	6.365E+01	Analog	1.00	3
Mg			1	8241.711	ug/l	0.68	7,351,399.17	1.309E+01	Analog	1.00	3
K			1	1728.281	ug/l	1.04	1,520,098.33	2.707E+00	Pulse	1.00	3
V			1	1.735	ug/l	1.57	14,969.76	2.666E-02	Pulse	0.50	3
Mn			1	620.180	ug/l	0.25	3,839,975.92	1.205E+01	Pulse	0.50	3
Fe			1	262.695	ug/l	0.40	2,289,799.33	7.185E+00	Pulse	0.50	3
Co			1	3.186	ug/l	0.71	49,872.51	1.565E-01	Pulse	0.50	3
Ni			1	7.239	ug/l	1.16	30,785.76	9.660E-02	Pulse	0.50	3
Cu			1	5.463	ug/l	1.64	84,394.67	1.788E-01	Pulse	0.50	3
Zn			1	1.835	ug/l	2.65	4,313.83	9.138E-03	Pulse	1.00	3
Cd			1	0.017	ug/l	10.13	50.67	1.074E-04	Pulse	0.50	3
Al			1	262.619	ug/l	1.45	96,116.74	1.712E-01	Pulse	1.00	3
Se			1	0.133	ug/l	58.76	66.55	1.409E-04	Pulse	3.00	3
Sb			1	0.118	ug/l	11.71	902.02	1.910E-03	Pulse	1.00	3
Se			1	0.049	ug/l	174.98	55.33	1.173E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,677,082.67	1.92	95.7	Pulse	0.50	3
1	Sc		561,586.71	1.24	100.9	Pulse	0.30	3
1	Ge		318,684.92	0.82	98.4	Pulse	0.30	3
1	In		2,683,369.20	1.66	94.2	Pulse	0.30	3
1	Tb		7,361,899.33	1.16	98.9	Analog	0.50	3
1	Lu		5,170,861.00	2.43	94.1	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		472,082.53	0.89	99.4	Pulse	0.30	3
1	Te		3.33	69.28	250.0	Pulse	0.50	3
1	Li		4,322.71	1.12	92.5	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:02
Sample Name	FC6712-12
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.226	ug/l	4.58	3,238.28	1.010E-02	Pulse	0.50	3
As			1	0.128	ug/l	9.76	181.33	5.657E-04	Pulse	1.00	3
Mo			1	0.036	ug/l	55.53	348.67	7.377E-04	Pulse	0.50	3
Pb			1	0.094	ug/l	2.99	3,193.30	6.685E-04	Pulse	1.00	3
Be			1	0.020	ug/l	53.93	3.50	6.135E-06	Pulse	2.00	3
Ag			1	0.007	ug/l	64.84	280.67	5.967E-04	Pulse	0.50	3
Ba			1	0.133	ug/l	3.58	344.67	1.275E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-3396.46	175.33	3.659E-05	Pulse	0.50	3
Sn			1	0.473	ug/l	15.78	2,824.69	1.043E-03	Pulse	0.30	3
Sr			1	0.177	ug/l	2.99	1,728.09	6.394E-04	Pulse	0.50	3
[Pb]			1	0.084	ug/l	4.37	1,467.40	3.070E-04	Pulse	0.50	3
Ca			1	40.281	ug/l	13.14	2,259.47	3.972E-03	Pulse	0.50	3
Ti			1	0.323	ug/l	26.04	98.67	1.729E-04	Pulse	0.50	3
Na			1	73.273	ug/l	3.06	175,330.77	3.080E-01	Pulse	1.00	3
Mg			1	5.945	ug/l	9.20	6,195.64	1.089E-02	Pulse	1.00	3
K			1	16.555	ug/l	9.79	97,214.70	1.708E-01	Pulse	1.00	3
V			1	0.792	ug/l	6.95	7,071.97	1.243E-02	Pulse	0.50	3
Mn			1	0.796	ug/l	3.35	5,532.80	1.726E-02	Pulse	0.50	3
Fe			1	20.155	ug/l	0.93	192,891.88	6.016E-01	Pulse	0.50	3
Co			1	0.058	ug/l	4.73	1,224.71	3.820E-03	Pulse	0.50	3
Ni			1	0.417	ug/l	8.30	2,168.80	6.761E-03	Pulse	0.50	3
Cu			1	7.599	ug/l	5.67	108,159.11	2.293E-01	Pulse	0.50	3
Zn			1	3.042	ug/l	0.78	6,697.17	1.421E-02	Pulse	1.00	3
Cd			1	0.002	ug/l	175.39	12.00	2.552E-05	Pulse	0.50	3
Al			1	6.348	ug/l	6.94	2,753.54	4.834E-03	Pulse	1.00	3
Se			1	0.060	ug/l	50.97	58.67	1.244E-04	Pulse	3.00	3
Sb			1	0.075	ug/l	14.16	602.34	1.276E-03	Pulse	1.00	3
Se			1	0.102	ug/l	77.47	58.00	1.230E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,778,042.83	1.90	97.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		569,336.11	1.33	102.3	Pulse	0.30	3
1	Ge		320,640.18	1.17	99.0	Pulse	0.30	3
1	In		2,703,255.72	1.55	94.9	Pulse	0.30	3
1	Tb		7,516,067.50	1.33	101.0	Analog	0.50	3
1	Lu		5,185,971.17	1.79	94.4	Pulse	0.50	3
1	Ge		471,440.16	1.29	99.2	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		4,501.63	3.19	96.3	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:06
Sample Name	FC6543-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.350	ug/l	0.64	4,519.88	1.416E-02	Pulse	0.50	3
As			1	13.048	ug/l	1.12	16,001.36	5.012E-02	Pulse	1.00	3
Mo			1	0.078	ug/l	5.19	553.34	1.187E-03	Pulse	0.50	3
Pb			1	0.094	ug/l	5.03	3,085.28	6.666E-04	Pulse	1.00	3
Be			1	0.038	ug/l	46.46	5.00	8.882E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	3.91	286.67	6.149E-04	Pulse	0.50	3
Ba			1	110.734	ug/l	0.63	236,059.35	8.932E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	147.68	182.00	3.927E-05	Pulse	0.50	3
Sn			1	0.405	ug/l	2.49	2,413.51	9.129E-04	Pulse	0.30	3
Sr			1	612.769	ug/l	0.48	3,992,169.08	1.510E+00	Pulse	0.50	3
[Pb]			1	0.084	ug/l	8.91	1,423.40	3.073E-04	Pulse	0.50	3
Ca			1	24030.210	ug/l	0.85	1,024,278.31	1.817E+00	Pulse	0.50	3
Ti			1	0.487	ug/l	50.31	144.00	2.554E-04	Pulse	0.50	3
Na			1	9539.186	ug/l	0.77	17,250,565.33	3.060E+01	Analog	1.00	3
Mg			1	10702.058	ug/l	0.45	9,582,038.67	1.700E+01	Analog	1.00	3
K			1	966.960	ug/l	0.27	890,062.79	1.579E+00	Pulse	1.00	3
V			1	1.003	ug/l	3.07	8,792.71	1.560E-02	Pulse	0.50	3
Mn			1	6985.851	ug/l	0.37	43,327,392.00	1.357E+02	Analog	0.50	3
Fe			1	41691.407	ug/l	0.47	361,335,200.00	1.132E+03	Analog	0.50	3
Co			1	17.073	ug/l	0.85	266,414.27	8.344E-01	Pulse	0.50	3
Ni			1	3.532	ug/l	2.10	15,256.03	4.778E-02	Pulse	0.50	3
Cu			1	6.490	ug/l	0.22	94,685.84	2.031E-01	Pulse	0.50	3
Zn			1	22.925	ug/l	0.51	45,567.60	9.773E-02	Pulse	1.00	3
Cd			1	0.013	ug/l	23.27	40.00	8.581E-05	Pulse	0.50	3
Al			1	11.921	ug/l	3.84	4,765.59	8.452E-03	Pulse	1.00	3
Se			1	0.390	ug/l	9.72	92.89	1.991E-04	Pulse	3.00	3
Sb			1	0.129	ug/l	7.56	962.69	2.065E-03	Pulse	1.00	3
Se			1	0.673	ug/l	28.08	86.00	1.845E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,630,307.83	1.84	94.8	Pulse	0.50	3
1	Sc		563,709.72	1.27	101.3	Pulse	0.30	3
1	Ge		319,268.15	0.98	98.6	Pulse	0.30	3
1	In		2,643,190.66	2.02	92.7	Pulse	0.30	3
1	Tb		7,401,132.17	1.69	99.5	Analog	0.50	3
1	Lu		5,145,575.67	2.42	93.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		466,219.63	1.68	98.1	Pulse	0.30	3
1	Te		6.00	33.33	450.0	Pulse	0.50	3
1	Li		4,432.74	5.85	94.8	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:09
Sample Name	FC6543-5
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.387	ug/l	3.82	4,875.33	1.538E-02	Pulse	0.50	3
As			1	0.245	ug/l	8.32	322.00	1.015E-03	Pulse	1.00	3
Mo			1	0.022	ug/l	36.20	274.67	5.852E-04	Pulse	0.50	3
Pb			1	0.071	ug/l	3.66	2,716.89	5.703E-04	Pulse	1.00	3
Be			1	0.028	ug/l	121.20	4.17	7.333E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	33.56	250.67	5.349E-04	Pulse	0.50	3
Ba			1	28.136	ug/l	0.23	61,153.32	2.271E-02	Pulse	0.50	3
Tl			1	0.001	ug/l	35.61	208.00	4.367E-05	Pulse	0.50	3
Sn			1	0.376	ug/l	8.26	2,309.05	8.571E-04	Pulse	0.30	3
Sr			1	43.157	ug/l	0.72	286,963.41	1.066E-01	Pulse	0.50	3
[Pb]			1	0.060	ug/l	6.33	1,231.38	2.586E-04	Pulse	0.50	3
Ca			1	4405.973	ug/l	0.69	188,281.64	3.339E-01	Pulse	0.50	3
Ti			1	2.405	ug/l	26.92	690.70	1.225E-03	Pulse	0.50	3
Na			1	2886.741	ug/l	1.12	5,250,797.67	9.313E+00	Analog	1.00	3
Mg			1	1410.324	ug/l	0.43	1,263,859.08	2.241E+00	Pulse	1.00	3
K			1	515.682	ug/l	0.75	513,301.91	9.103E-01	Pulse	1.00	3
V			1	0.767	ug/l	2.25	6,788.54	1.204E-02	Pulse	0.50	3
Mn			1	18.683	ug/l	2.88	115,585.44	3.647E-01	Pulse	0.50	3
Fe			1	106.134	ug/l	2.51	930,280.61	2.935E+00	Pulse	0.50	3
Co			1	0.199	ug/l	5.92	3,376.31	1.066E-02	Pulse	0.50	3
Ni			1	1.276	ug/l	1.90	5,728.20	1.807E-02	Pulse	0.50	3
Cu			1	5.845	ug/l	1.57	88,047.38	1.878E-01	Pulse	0.50	3
Zn			1	21.321	ug/l	0.07	42,663.30	9.100E-02	Pulse	1.00	3
Cd			1	0.026	ug/l	25.41	73.33	1.564E-04	Pulse	0.50	3
Al			1	105.541	ug/l	1.50	39,034.53	6.921E-02	Pulse	1.00	3
Se			1	0.129	ug/l	80.74	65.78	1.401E-04	Pulse	3.00	3
Sb			1	0.110	ug/l	10.70	841.35	1.794E-03	Pulse	1.00	3
Se			1	0.078	ug/l	73.01	56.45	1.204E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,762,930.33	1.67	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		563,908.64	1.71	101.4	Pulse	0.30	3
1	Ge		316,977.89	1.35	97.9	Pulse	0.30	3
1	In		2,692,947.18	1.85	94.5	Pulse	0.30	3
1	Tb		7,430,138.17	1.20	99.9	Analog	0.50	3
1	Lu		5,164,013.17	1.99	94.0	Pulse	0.50	3
1	Ge		468,833.77	1.10	98.7	Pulse	0.30	3
1	Te		2.00	173.21	150.0	Pulse	0.50	3
1	Li		4,493.85	2.85	96.1	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:13
Sample Name FC6543-6
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.321	ug/l	13.30	4,129.12	1.319E-02	Pulse	0.50	3
As			1	0.219	ug/l	2.60	285.67	9.136E-04	Pulse	1.00	3
Mo			1	0.726	ug/l	6.17	3,817.07	8.227E-03	Pulse	0.50	3
Pb			1	0.244	ug/l	6.58	6,015.07	1.298E-03	Pulse	1.00	3
Be			1	0.002	ug/l	454.30	1.83	3.291E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	23.94	292.00	6.292E-04	Pulse	0.50	3
Ba			1	18.658	ug/l	1.10	39,798.93	1.507E-02	Pulse	0.50	3
Tl			1	0.005	ug/l	11.42	300.67	6.493E-05	Pulse	0.50	3
Sn			1	0.536	ug/l	4.27	3,075.84	1.165E-03	Pulse	0.30	3
Sr			1	573.220	ug/l	0.65	3,731,935.50	1.413E+00	Pulse	0.50	3
[Pb]			1	0.236	ug/l	5.83	2,881.58	6.222E-04	Pulse	0.50	3
Ca			1	35251.052	ug/l	0.68	1,480,505.88	2.665E+00	Pulse	0.50	3
Ti			1	0.197	ug/l	37.80	60.67	1.089E-04	Pulse	0.50	3
Na			1	10006.571	ug/l	0.52	17,832,951.33	3.210E+01	Analog	1.00	3
Mg			1	8583.761	ug/l	0.46	7,574,692.17	1.363E+01	Analog	1.00	3
K			1	995.304	ug/l	1.31	900,484.21	1.621E+00	Pulse	1.00	3
V			1	1.586	ug/l	0.79	13,564.06	2.442E-02	Pulse	0.50	3
Mn			1	1.095	ug/l	10.51	7,206.03	2.307E-02	Pulse	0.50	3
Fe			1	7.701	ug/l	3.64	82,395.78	2.635E-01	Pulse	0.50	3
Co			1	0.034	ug/l	7.27	814.69	2.606E-03	Pulse	0.50	3
Ni			1	0.173	ug/l	11.31	1,110.70	3.555E-03	Pulse	0.50	3
Cu			1	7.280	ug/l	1.53	102,871.98	2.218E-01	Pulse	0.50	3
Zn			1	22.347	ug/l	0.70	44,205.77	9.531E-02	Pulse	1.00	3
Cd			1	0.002	ug/l	84.48	10.00	2.159E-05	Pulse	0.50	3
Al			1	20.812	ug/l	1.66	7,901.24	1.422E-02	Pulse	1.00	3
Se			1	0.110	ug/l	23.56	63.00	1.358E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	4.86	584.01	1.259E-03	Pulse	1.00	3
Se			1	0.104	ug/l	49.32	57.11	1.232E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,630,115.50	2.07	94.8	Pulse	0.50	3
1	Sc		555,570.41	1.08	99.9	Pulse	0.30	3
1	Ge		312,648.95	1.49	96.5	Pulse	0.30	3
1	In		2,641,304.62	1.51	92.7	Pulse	0.30	3
1	Tb		7,342,411.00	0.67	98.7	Analog	0.50	3
1	Lu		5,100,928.83	1.72	92.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		463,799.04	0.90	97.6	Pulse	0.30	3
1	Te		5.33	94.37	400.0	Pulse	0.50	3
1	Li		4,328.26	3.24	92.6	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:17
Sample Name	FC6808-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.088	ug/l	14.42	1,748.08	5.577E-03	Pulse	0.50	3
As			1	0.107	ug/l	13.75	151.67	4.837E-04	Pulse	1.00	3
Mo			1	0.001	ug/l	1983.03	162.00	3.500E-04	Pulse	0.50	3
Pb			1	0.066	ug/l	5.81	2,608.87	5.502E-04	Pulse	1.00	3
Be			1	0.025	ug/l	116.79	3.83	6.859E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	27.15	238.00	5.151E-04	Pulse	0.50	3
Ba			1	0.056	ug/l	25.69	175.33	6.586E-05	Pulse	0.50	3
Tl			1	-0.003	ug/l	-5.88	92.67	1.955E-05	Pulse	0.50	3
Sn			1	0.253	ug/l	8.21	1,656.75	6.229E-04	Pulse	0.30	3
Sr			1	0.221	ug/l	16.05	1,987.45	7.476E-04	Pulse	0.50	3
[Pb]			1	0.064	ug/l	1.92	1,262.72	2.663E-04	Pulse	0.50	3
Ca			1	35.532	ug/l	3.31	2,020.11	3.613E-03	Pulse	0.50	3
Ti			1	0.146	ug/l	66.06	46.67	8.343E-05	Pulse	0.50	3
Na			1	13.984	ug/l	4.41	66,123.97	1.183E-01	Pulse	1.00	3
Mg			1	3.570	ug/l	16.85	3,978.74	7.116E-03	Pulse	1.00	3
K			1	11.517	ug/l	6.37	91,314.05	1.633E-01	Pulse	1.00	3
V			1	0.665	ug/l	1.50	5,872.90	1.050E-02	Pulse	0.50	3
Mn			1	0.188	ug/l	7.07	1,703.41	5.433E-03	Pulse	0.50	3
Fe			1	8.623	ug/l	19.20	90,575.74	2.886E-01	Pulse	0.50	3
Co			1	-0.001	ug/l	-428.43	294.67	9.394E-04	Pulse	0.50	3
Ni			1	0.006	ug/l	171.85	422.68	1.349E-03	Pulse	0.50	3
Cu			1	6.017	ug/l	3.84	88,666.29	1.919E-01	Pulse	0.50	3
Zn			1	1.566	ug/l	2.98	3,698.69	8.006E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	146.59	8.67	1.875E-05	Pulse	0.50	3
Al			1	2.676	ug/l	5.73	1,370.72	2.451E-03	Pulse	1.00	3
Se			1	0.064	ug/l	103.57	57.89	1.253E-04	Pulse	3.00	3
Sb			1	0.059	ug/l	9.85	483.68	1.047E-03	Pulse	1.00	3
Se			1	0.085	ug/l	185.22	56.00	1.212E-04	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,740,954.50	1.11	97.0	Pulse	0.50	3
1	Sc		559,160.55	0.20	100.5	Pulse	0.30	3
1	Ge		313,587.30	1.01	96.8	Pulse	0.30	3
1	In		2,661,050.45	1.30	93.4	Pulse	0.30	3
1	Tb		7,427,301.67	0.77	99.8	Analog	0.50	3
1	Lu		5,149,756.00	1.80	93.7	Pulse	0.50	3
1	Ge		462,021.42	0.72	97.2	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,510.53	3.82	96.5	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:21
Sample Name FC6782-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.385	ug/l	1.28	4,839.28	1.529E-02	Pulse	0.50	3
As			1	9.976	ug/l	1.34	12,132.52	3.834E-02	Pulse	1.00	3
Mo			1	0.191	ug/l	1.83	1,129.37	2.415E-03	Pulse	0.50	3
Pb			1	1.560	ug/l	1.09	31,412.08	6.828E-03	Pulse	1.00	3
Be			1	0.002	ug/l	438.89	1.83	3.310E-06	Pulse	2.00	3
Ag			1	0.004	ug/l	8.52	225.33	4.819E-04	Pulse	0.50	3
Ba			1	17.708	ug/l	0.07	37,806.66	1.430E-02	Pulse	0.50	3
Tl			1	0.001	ug/l	90.24	184.67	4.013E-05	Pulse	0.50	3
Sn			1	0.309	ug/l	2.30	1,925.67	7.284E-04	Pulse	0.30	3
Sr			1	276.903	ug/l	0.54	1,804,733.58	6.827E-01	Pulse	0.50	3
[Pb]			1	1.524	ug/l	1.87	15,091.35	3.280E-03	Pulse	0.50	3
Ca			1	36616.094	ug/l	1.03	1,536,265.71	2.768E+00	Pulse	0.50	3
Ti			1	0.202	ug/l	35.35	62.00	1.114E-04	Pulse	0.50	3
Na			1	22415.599	ug/l	1.02	39,856,584.00	7.181E+01	Analog	1.00	3
Mg			1	5044.107	ug/l	1.14	4,446,850.17	8.013E+00	Pulse	1.00	3
K			1	6775.546	ug/l	1.32	5,652,639.67	1.019E+01	Analog	1.00	3
V			1	0.693	ug/l	0.92	6,066.30	1.093E-02	Pulse	0.50	3
Mn			1	68.082	ug/l	0.91	419,135.91	1.324E+00	Pulse	0.50	3
Fe			1	278.448	ug/l	1.03	2,409,308.67	7.613E+00	Pulse	0.50	3
Co			1	1.533	ug/l	1.14	23,992.84	7.581E-02	Pulse	0.50	3
Ni			1	16.627	ug/l	1.17	69,696.06	2.202E-01	Pulse	0.50	3
Cu			1	17.142	ug/l	1.25	212,877.96	4.553E-01	Pulse	0.50	3
Zn			1	25.169	ug/l	0.34	50,107.11	1.072E-01	Pulse	1.00	3
Cd			1	0.005	ug/l	79.45	18.67	3.999E-05	Pulse	0.50	3
Al			1	3.380	ug/l	6.23	1,614.07	2.908E-03	Pulse	1.00	3
Se			1	0.053	ug/l	38.36	57.44	1.229E-04	Pulse	3.00	3
Sb			1	0.111	ug/l	3.50	846.02	1.809E-03	Pulse	1.00	3
Se			1	0.023	ug/l	489.94	53.55	1.145E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,601,177.83	1.99	94.2	Pulse	0.50	3
1	Sc		555,054.94	1.73	99.8	Pulse	0.30	3
1	Ge		316,477.95	0.52	97.7	Pulse	0.30	3
1	In		2,643,757.39	1.16	92.8	Pulse	0.30	3
1	Tb		7,345,225.00	0.51	98.7	Analog	0.50	3
1	Lu		5,179,910.83	1.77	94.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		467,568.61	0.58	98.4	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		4,353.83	3.17	93.2	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:24
Sample Name FC6782-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.574	ug/l	2.79	6,841.89	2.148E-02	Pulse	0.50	3
As			1	1480.103	ug/l	0.32	1,807,799.50	5.677E+00	Pulse	1.00	3
Mo			1	1.269	ug/l	2.20	6,503.15	1.413E-02	Pulse	0.50	3
Pb			1	0.049	ug/l	3.12	2,181.14	4.777E-04	Pulse	1.00	3
Be			1	0.037	ug/l	70.56	4.83	8.795E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	21.76	240.67	5.225E-04	Pulse	0.50	3
Ba			1	48.381	ug/l	1.19	100,993.40	3.903E-02	Pulse	0.50	3
Tl			1	0.004	ug/l	28.92	274.67	6.013E-05	Pulse	0.50	3
Sn			1	0.266	ug/l	7.81	1,672.31	6.466E-04	Pulse	0.30	3
Sr			1	378.209	ug/l	0.65	2,412,414.33	9.324E-01	Pulse	0.50	3
[Pb]			1	0.048	ug/l	7.48	1,062.71	2.328E-04	Pulse	0.50	3
Ca			1	46475.515	ug/l	1.08	1,933,452.00	3.513E+00	Pulse	0.50	3
Ti			1	0.259	ug/l	19.49	77.33	1.404E-04	Pulse	0.50	3
Na			1	13394.598	ug/l	1.37	23,631,478.67	4.294E+01	Analog	1.00	3
Mg			1	6682.072	ug/l	1.07	5,841,119.17	1.061E+01	Analog	1.00	3
K			1	8213.330	ug/l	1.54	6,777,267.50	1.232E+01	Analog	1.00	3
V			1	0.984	ug/l	3.92	8,426.51	1.532E-02	Pulse	0.50	3
Mn			1	2111.541	ug/l	0.79	13,062,672.00	4.102E+01	Analog	0.50	3
Fe			1	66959.885	ug/l	0.72	578,812,544.00	1.818E+03	Analog	0.50	3
Co			1	17.145	ug/l	0.59	266,855.20	8.379E-01	Pulse	0.50	3
Ni			1	6.244	ug/l	0.52	26,588.91	8.349E-02	Pulse	0.50	3
Cu			1	6.139	ug/l	2.14	89,669.04	1.948E-01	Pulse	0.50	3
Zn			1	3.268	ug/l	2.18	6,976.27	1.516E-02	Pulse	1.00	3
Cd			1	0.004	ug/l	21.54	16.00	3.479E-05	Pulse	0.50	3
Al			1	12.776	ug/l	1.63	4,955.96	9.006E-03	Pulse	1.00	3
Se			1	0.095	ug/l	75.42	60.89	1.325E-04	Pulse	3.00	3
Sb			1	0.124	ug/l	4.94	919.69	1.998E-03	Pulse	1.00	3
Se			1	0.184	ug/l	68.44	60.67	1.318E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,565,754.83	1.17	93.4	Pulse	0.50	3
1	Sc		550,388.34	1.81	98.9	Pulse	0.30	3
1	Ge		318,464.96	1.37	98.3	Pulse	0.30	3
1	In		2,587,627.81	1.91	90.8	Pulse	0.30	3
1	Tb		7,333,350.83	1.67	98.6	Analog	0.50	3
1	Lu		5,099,568.67	1.77	92.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		460,368.40	1.79	96.9	Pulse	0.30	3
1	Te		1.33	86.60	100.0	Pulse	0.50	3
1	Li		4,326.04	4.83	92.6	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:28
Sample Name FC6782-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.288	ug/l	1.94	3,844.39	1.213E-02	Pulse	0.50	3
As			1	3005.838	ug/l	0.66	3,654,424.33	1.153E+01	Pulse	1.00	3
Mo			1	2.058	ug/l	0.37	10,587.68	2.270E-02	Pulse	0.50	3
Pb			1	0.123	ug/l	3.46	3,710.41	7.881E-04	Pulse	1.00	3
Be			1	0.015	ug/l	35.01	3.00	5.395E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	67.43	204.00	4.371E-04	Pulse	0.50	3
Ba			1	12.384	ug/l	0.95	26,471.97	1.001E-02	Pulse	0.50	3
Tl			1	0.004	ug/l	6.27	286.67	6.086E-05	Pulse	0.50	3
Sn			1	0.217	ug/l	2.92	1,463.40	5.531E-04	Pulse	0.30	3
Sr			1	158.659	ug/l	0.30	1,035,037.73	3.912E-01	Pulse	0.50	3
[Pb]			1	0.119	ug/l	8.37	1,792.10	3.807E-04	Pulse	0.50	3
Ca			1	22878.967	ug/l	0.66	960,846.19	1.730E+00	Pulse	0.50	3
Ti			1	0.183	ug/l	14.90	56.67	1.019E-04	Pulse	0.50	3
Na			1	5428.481	ug/l	0.87	9,690,288.00	1.745E+01	Analog	1.00	3
Mg			1	2720.482	ug/l	0.39	2,400,654.83	4.322E+00	Pulse	1.00	3
K			1	3224.689	ug/l	1.13	2,734,838.25	4.924E+00	Pulse	1.00	3
V			1	0.666	ug/l	3.46	5,843.56	1.052E-02	Pulse	0.50	3
Mn			1	2383.737	ug/l	0.82	14,678,524.67	4.631E+01	Analog	0.50	3
Fe			1	40115.026	ug/l	0.46	345,191,669.33	1.089E+03	Analog	0.50	3
Co			1	13.726	ug/l	0.79	212,714.72	6.710E-01	Pulse	0.50	3
Ni			1	5.822	ug/l	1.95	24,707.08	7.794E-02	Pulse	0.50	3
Cu			1	5.351	ug/l	1.66	82,127.61	1.761E-01	Pulse	0.50	3
Zn			1	2.396	ug/l	0.69	5,360.09	1.149E-02	Pulse	1.00	3
Cd			1	0.006	ug/l	28.29	20.67	4.433E-05	Pulse	0.50	3
Al			1	3.452	ug/l	4.97	1,641.40	2.955E-03	Pulse	1.00	3
Se			1	0.091	ug/l	17.81	61.33	1.315E-04	Pulse	3.00	3
Sb			1	0.193	ug/l	1.37	1,402.39	3.007E-03	Pulse	1.00	3
Se			1	0.145	ug/l	166.26	59.67	1.277E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,709,253.50	1.39	96.4	Pulse	0.50	3
1	Sc		555,447.48	1.53	99.8	Pulse	0.30	3
1	Ge		316,997.86	1.41	97.9	Pulse	0.30	3
1	In		2,645,608.64	1.65	92.8	Pulse	0.30	3
1	Tb		7,386,776.00	1.14	99.3	Analog	0.50	3
1	Lu		5,179,823.83	2.37	94.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		466,342.55	1.70	98.2	Pulse	0.30	3
1	Te		2.67	114.56	200.0	Pulse	0.50	3
1	Li		4,508.30	2.27	96.5	Pulse	0.30	3

Quantitation Report

File Name	044CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:32
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.517	ug/l	1.78	1,067,302.75	3.246E+00	Pulse	0.50	3
As			1	48.926	ug/l	1.34	123,427.54	3.754E-01	Pulse	1.00	3
Mo			1	48.007	ug/l	0.79	507,123.29	1.043E+00	Pulse	0.50	3
Pb			1	50.255	ug/l	0.60	2,053,737.50	4.225E-01	Pulse	1.00	3
Be			1	49.976	ug/l	1.61	8,911.95	1.552E-02	Pulse	2.00	3
Ag			1	48.531	ug/l	0.70	1,661,435.08	3.418E+00	Pulse	0.50	3
Ba			1	48.297	ug/l	0.86	214,290.92	7.791E-02	Pulse	0.50	3
Tl			1	51.250	ug/l	0.67	3,007,743.58	6.188E-01	Pulse	0.50	3
Sn			1	48.649	ug/l	0.81	512,758.54	1.864E-01	Pulse	0.30	3
Sr			1	47.753	ug/l	1.01	647,970.96	2.356E-01	Pulse	0.50	3
[Pb]			1	48.579	ug/l	0.84	975,840.23	2.008E-01	Pulse	0.50	3
Ca			1	4815.820	ug/l	1.12	418,624.47	7.288E-01	Pulse	0.50	3
Ti			1	47.054	ug/l	2.19	27,307.68	4.754E-02	Pulse	0.50	3
Na			1	5026.658	ug/l	0.72	18,523,881.33	3.225E+01	Analog	1.00	3
Mg			1	5018.881	ug/l	0.95	9,157,853.67	1.594E+01	Analog	1.00	3
K			1	4893.863	ug/l	0.24	8,414,175.33	1.465E+01	Analog	1.00	3
V			1	48.739	ug/l	1.56	845,930.33	1.473E+00	Pulse	0.50	3
Mn			1	49.212	ug/l	1.03	629,283.56	1.914E+00	Pulse	0.50	3
Fe			1	5038.030	ug/l	0.96	89,951,690.67	2.736E+02	Analog	0.50	3
Co			1	51.045	ug/l	1.44	1,639,007.00	4.985E+00	Pulse	0.50	3
Ni			1	50.776	ug/l	1.73	440,105.00	1.338E+00	Pulse	0.50	3
Cu			1	50.064	ug/l	0.74	1,176,126.16	2.420E+00	Pulse	0.50	3
Zn			1	49.695	ug/l	1.06	203,633.76	4.190E-01	Pulse	1.00	3
Cd			1	48.714	ug/l	0.67	257,066.36	5.289E-01	Pulse	0.50	3
Al			1	4896.039	ug/l	1.39	3,650,858.25	6.356E+00	Pulse	1.00	3
Se			1	48.101	ug/l	0.80	10,641.18	2.189E-02	Pulse	3.00	3
Sb			1	48.181	ug/l	0.69	682,300.42	1.404E+00	Pulse	1.00	3
Se			1	47.880	ug/l	0.20	5,064.01	1.042E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,860,537.50	0.47	99.5	Pulse	0.50	3
1	Sc		574,407.75	0.54	103.3	Pulse	0.30	3
1	Ge		328,822.31	0.22	101.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,750,436.42	1.23	96.5	Pulse	0.30	3
1	Tb		7,602,485.17	0.06	102.2	Analog	0.50	3
1	Lu		5,368,134.17	0.83	97.7	Pulse	0.50	3
1	Ge		486,016.72	0.70	102.3	Pulse	0.30	3
1	Te		2.67	114.56	200.0	Pulse	0.50	3
1	Li		4,573.88	1.78	97.9	Pulse	0.30	3

Quantitation Report

File Name	045_CCV.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:36
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.393	ug/l	1.62	2,105,446.62	6.513E+00	Pulse	0.50	3
As			1	98.265	ug/l	1.08	243,705.26	7.538E-01	Pulse	1.00	3
Mo			1	97.134	ug/l	1.65	1,010,403.10	2.111E+00	Pulse	0.50	3
Pb			1	100.121	ug/l	1.08	4,001,490.33	8.415E-01	Pulse	1.00	3
Be			1	98.933	ug/l	0.77	17,363.22	3.071E-02	Pulse	2.00	3
Ag			1	95.898	ug/l	1.59	3,233,096.17	6.754E+00	Pulse	0.50	3
Ba			1	96.663	ug/l	1.51	422,089.64	1.559E-01	Pulse	0.50	3
Tl			1	102.805	ug/l	1.01	5,902,265.67	1.241E+00	Pulse	0.50	3
Sn			1	97.599	ug/l	1.02	1,012,169.06	3.739E-01	Pulse	0.30	3
Sr			1	96.187	ug/l	0.61	1,284,081.84	4.743E-01	Pulse	0.50	3
[Pb]			1	97.186	ug/l	1.16	1,909,222.46	4.015E-01	Pulse	0.50	3
Ca			1	9679.067	ug/l	0.78	827,597.29	1.464E+00	Pulse	0.50	3
Ti			1	96.643	ug/l	0.06	55,199.37	9.764E-02	Pulse	0.50	3
Na			1	10069.051	ug/l	0.72	36,479,217.33	6.453E+01	Analog	1.00	3
Mg			1	10047.603	ug/l	0.93	18,044,206.67	3.192E+01	Analog	1.00	3
K			1	9809.096	ug/l	0.45	16,516,236.00	2.921E+01	Analog	1.00	3
V			1	98.071	ug/l	1.20	1,675,078.08	2.963E+00	Pulse	0.50	3
Mn			1	98.336	ug/l	1.45	1,235,719.42	3.822E+00	Pulse	0.50	3
Fe			1	10087.996	ug/l	1.67	177,064,122.67	5.477E+02	Analog	0.50	3
Co			1	101.129	ug/l	2.02	3,192,223.50	9.874E+00	Pulse	0.50	3
Ni			1	99.932	ug/l	1.26	851,216.56	2.633E+00	Pulse	0.50	3
Cu			1	98.525	ug/l	1.56	2,256,714.58	4.714E+00	Pulse	0.50	3
Zn			1	98.445	ug/l	0.96	396,614.05	8.286E-01	Pulse	1.00	3
Cd			1	97.059	ug/l	2.03	504,443.82	1.054E+00	Pulse	0.50	3
Al			1	9807.200	ug/l	0.99	7,197,441.33	1.273E+01	Analog	1.00	3
Se			1	95.461	ug/l	1.09	20,746.12	4.334E-02	Pulse	3.00	3
Sb			1	96.440	ug/l	1.27	1,344,945.17	2.810E+00	Pulse	1.00	3
Se			1	95.837	ug/l	1.73	9,929.14	2.074E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,754,955.67	0.45	97.3	Pulse	0.50	3
1	Sc		565,360.62	0.67	101.6	Pulse	0.30	3
1	Ge		323,306.61	0.97	99.8	Pulse	0.30	3
1	In		2,707,141.07	0.34	95.0	Pulse	0.30	3
1	Tb		7,531,970.00	0.37	101.2	Analog	0.50	3
1	Lu		5,359,342.17	1.31	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		478,693.54	1.05	100.8	Pulse	0.30	3
1	Te		6.00	33.33	450.0	Pulse	0.50	3
1	Li		4,321.59	0.09	92.5	Pulse	0.30	3

Quantitation Report

File Name	046_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:40
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.007	ug/l	-55.48	736.02	2.257E-03	Pulse	0.50	3
As			1	0.047	ug/l	20.00	142.00	4.354E-04	Pulse	1.00	3
Mo			1	0.123	ug/l	28.13	1,452.73	3.018E-03	Pulse	0.50	3
Pb			1	0.013	ug/l	13.97	1,863.77	3.787E-04	Pulse	1.00	3
Be			1	0.011	ug/l	172.10	3.67	6.455E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	17.89	514.01	1.068E-03	Pulse	0.50	3
Ba			1	0.005	ug/l	69.14	81.33	2.930E-05	Pulse	0.50	3
Tl			1	0.013	ug/l	13.01	963.37	1.961E-04	Pulse	0.50	3
Sn			1	0.161	ug/l	19.97	2,094.58	7.555E-04	Pulse	0.30	3
Sr			1	0.015	ug/l	7.17	769.35	2.773E-04	Pulse	0.50	3
[Pb]			1	0.010	ug/l	14.07	863.36	1.755E-04	Pulse	0.50	3
Ca			1	1.761	ug/l	57.15	675.68	1.194E-03	Pulse	0.50	3
Ti			1	0.022	ug/l	31.97	18.00	3.181E-05	Pulse	0.50	3
Na			1	2.519	ug/l	12.00	50,724.16	8.963E-02	Pulse	1.00	3
Mg			1	0.797	ug/l	23.85	2,252.80	3.979E-03	Pulse	1.00	3
K			1	-0.474	ug/l	-25.46	81,964.48	1.448E-01	Pulse	1.00	3
V			1	0.017	ug/l	37.35	546.68	9.653E-04	Pulse	0.50	3
Mn			1	0.035	ug/l	11.30	1,028.70	3.155E-03	Pulse	0.50	3
Fe			1	1.683	ug/l	3.30	47,548.74	1.459E-01	Pulse	0.50	3
Co			1	0.005	ug/l	22.94	484.68	1.486E-03	Pulse	0.50	3
Ni			1	-0.013	ug/l	-30.05	305.33	9.370E-04	Pulse	0.50	3
Cu			1	-0.449	ug/l	-7.53	13,562.80	2.818E-02	Pulse	0.50	3
Zn			1	0.026	ug/l	39.44	791.35	1.644E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	31.37	51.33	1.067E-04	Pulse	0.50	3
Al			1	0.993	ug/l	11.11	1,133.70	2.003E-03	Pulse	1.00	3
Se			1	0.065	ug/l	4.81	67.45	1.401E-04	Pulse	3.00	3
Sb			1	0.043	ug/l	17.38	699.02	1.452E-03	Pulse	1.00	3
Se			1	-0.013	ug/l	-93.10	52.56	1.092E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,922,582.00	2.60	100.7	Pulse	0.50	3
1	Sc		565,905.81	0.61	101.7	Pulse	0.30	3

Quantitation Report

1	Ge		325,975.20	0.83	100.6	Pulse	0.30	3
1	In		2,774,153.99	0.65	97.3	Pulse	0.30	3
1	Tb		7,657,774.33	1.02	102.9	Analog	0.50	3
1	Lu		5,327,923.83	0.43	97.0	Pulse	0.50	3
1	Ge		481,282.20	0.05	101.3	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,629.45	6.86	99.0	Pulse	0.30	3

Quantitation Report

File Name 047_MB.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:43
Sample Name MP42382-MB1
Sample Type MB
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.592	ug/l	0.38	3,309.63	1.045E-02	Pulse	0.50	3
As			1	0.455	ug/l	16.23	245.00	7.737E-04	Pulse	1.00	3
Mo			1	0.307	ug/l	22.92	784.02	1.675E-03	Pulse	0.50	3
Pb			1	0.394	ug/l	3.73	4,482.93	9.337E-04	Pulse	1.00	3
Be			1	0.014	ug/l	213.66	2.17	3.845E-06	Pulse	2.00	3
Ag			1	0.048	ug/l	33.90	471.34	1.011E-03	Pulse	0.50	3
Ba			1	0.208	ug/l	11.73	234.67	8.758E-05	Pulse	0.50	3
Tl			1	0.026	ug/l	51.99	477.34	9.978E-05	Pulse	0.50	3
Sn			1	30.765	ug/l	1.39	63,498.29	2.370E-02	Pulse	0.30	3
Sr			1	0.412	ug/l	12.85	1,632.75	6.099E-04	Pulse	0.50	3
[Pb]			1	0.383	ug/l	8.14	2,162.15	4.505E-04	Pulse	0.50	3
Ca			1	82.438	ug/l	10.96	1,916.10	3.420E-03	Pulse	0.50	3
Ti			1	0.752	ug/l	3.78	90.67	1.616E-04	Pulse	0.50	3
Na			1	36.605	ug/l	7.34	67,475.40	1.204E-01	Pulse	1.00	3
Mg			1	5.645	ug/l	23.87	2,815.54	5.032E-03	Pulse	1.00	3
K			1	45.288	ug/l	16.57	97,032.45	1.731E-01	Pulse	1.00	3
V			1	1.372	ug/l	1.21	4,907.30	8.749E-03	Pulse	0.50	3
Mn			1	1.142	ug/l	3.47	3,376.30	1.066E-02	Pulse	0.50	3
Fe			1	27.119	ug/l	3.81	110,455.20	3.489E-01	Pulse	0.50	3
Co			1	0.045	ug/l	43.12	586.01	1.853E-03	Pulse	0.50	3
Ni			1	0.292	ug/l	10.56	890.03	2.811E-03	Pulse	0.50	3
Cu			1	10.140	ug/l	0.11	67,955.56	1.455E-01	Pulse	0.50	3
Zn			1	5.264	ug/l	3.28	4,800.27	1.027E-02	Pulse	1.00	3
Cd			1	0.032	ug/l	21.92	38.00	8.138E-05	Pulse	0.50	3
Al			1	30.953	ug/l	4.51	4,904.28	8.750E-03	Pulse	1.00	3
Se			1	0.282	ug/l	36.41	63.67	1.364E-04	Pulse	3.00	3
Sb			1	0.199	ug/l	7.25	629.34	1.346E-03	Pulse	1.00	3
Se			1	0.172	ug/l	117.72	55.78	1.194E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,801,096.83	1.65	98.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		560,806.40	2.03	100.8	Pulse	0.30	3
1	Ge		316,618.75	0.87	97.7	Pulse	0.30	3
1	In		2,678,920.17	1.30	94.0	Pulse	0.30	3
1	Tb		7,509,266.00	0.48	100.9	Analog	0.50	3
1	Lu		5,171,791.67	1.25	94.1	Pulse	0.50	3
1	Ge		467,179.98	1.43	98.3	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,567.20	2.97	97.7	Pulse	0.30	3

Quantitation Report

File Name 048_BSP.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:47
Sample Name MP42382-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	556.483	ug/l	2.50	2,250,268.50	7.292E+00	Pulse	0.50	3
As			1	556.647	ug/l	2.55	263,541.27	8.540E-01	Pulse	1.00	3
Mo			1	551.692	ug/l	1.66	1,101,503.58	2.398E+00	Pulse	0.50	3
Pb			1	563.201	ug/l	1.99	4,291,283.25	9.467E-01	Pulse	1.00	3
Be			1	548.093	ug/l	3.21	18,738.11	3.403E-02	Pulse	2.00	3
Ag			1	255.113	ug/l	0.97	1,650,935.96	3.594E+00	Pulse	0.50	3
Ba			1	533.767	ug/l	1.12	445,762.23	1.722E-01	Pulse	0.50	3
Tl			1	539.681	ug/l	0.52	5,906,323.83	1.303E+00	Mix	0.50	3
Sn			1	579.815	ug/l	1.22	1,150,048.25	4.442E-01	Pulse	0.30	3
Sr			1	537.201	ug/l	1.10	1,371,583.04	5.298E-01	Pulse	0.50	3
[Pb]			1	524.740	ug/l	2.11	1,965,336.87	4.336E-01	Pulse	0.50	3
Ca			1	51504.065	ug/l	2.03	857,708.33	1.558E+00	Pulse	0.50	3
Ti			1	529.476	ug/l	2.19	58,905.41	1.070E-01	Pulse	0.50	3
Na			1	53720.096	ug/l	2.11	37,905,649.33	6.885E+01	Analog	1.00	3
Mg			1	53820.352	ug/l	2.16	18,825,484.00	3.419E+01	Analog	1.00	3
K			1	52032.839	ug/l	1.63	17,058,850.33	3.098E+01	Analog	1.00	3
V			1	532.863	ug/l	3.00	1,772,848.38	3.220E+00	Pulse	0.50	3
Mn			1	547.386	ug/l	2.82	1,313,071.75	4.255E+00	Pulse	0.50	3
Fe			1	55099.675	ug/l	2.75	184,626,490.67	5.983E+02	Analog	0.50	3
Co			1	566.086	ug/l	3.41	3,411,280.25	1.105E+01	Pulse	0.50	3
Ni			1	553.740	ug/l	2.90	900,381.21	2.918E+00	Pulse	0.50	3
Cu			1	550.041	ug/l	2.18	2,415,693.25	5.258E+00	Pulse	0.50	3
Zn			1	528.642	ug/l	2.18	408,787.22	8.898E-01	Pulse	1.00	3
Cd			1	517.354	ug/l	1.19	516,077.85	1.123E+00	Pulse	0.50	3
Al			1	51754.498	ug/l	2.18	7,398,195.50	1.344E+01	Analog	1.00	3
Se			1	495.506	ug/l	1.32	20,667.47	4.499E-02	Pulse	3.00	3
Sb			1	546.035	ug/l	1.45	1,461,652.42	3.182E+00	Pulse	1.00	3
Se			1	497.627	ug/l	1.75	9,894.46	2.154E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,532,153.50	1.26	92.7	Pulse	0.50	3
1	Sc		550,576.52	1.25	99.0	Pulse	0.30	3
1	Ge		308,567.73	0.23	95.3	Pulse	0.30	3
1	In		2,588,537.33	2.02	90.8	Pulse	0.30	3
1	Tb		7,306,346.83	0.84	98.2	Analog	0.50	3
1	Lu		5,147,765.50	1.73	93.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		459,332.97	1.60	96.7	Pulse	0.30	3
1	Te		2.67	86.60	200.0	Pulse	0.50	3
1	Li		4,297.15	1.42	91.9	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:51
Sample Name FC6760-45
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1651.545	ug/l	1.21	7,542,863.83	2.164E+01	Analog	0.50	3
As			1	1416.112	ug/l	0.83	757,371.59	2.173E+00	Pulse	1.00	3
Mo			1	185.224	ug/l	1.54	359,658.66	8.052E-01	Pulse	0.50	3
Pb			1	460.988	ug/l	0.96	3,174,806.08	7.749E-01	Pulse	1.00	3
Be			1	28.458	ug/l	3.12	1,269.04	1.770E-03	Pulse	2.00	3
Ag			1	1.722	ug/l	1.89	10,986.60	2.460E-02	Pulse	0.50	3
Ba			1	5383.773	ug/l	0.95	4,230,611.25	1.737E+00	Pulse	0.50	3
Tl			1	12.650	ug/l	0.56	125,272.96	3.058E-02	Pulse	0.50	3
Sn			1	52.648	ug/l	2.21	98,574.55	4.046E-02	Pulse	0.30	3
Sr			1	13656.063	ug/l	0.94	32,797,424.67	1.346E+01	Analog	0.50	3
[Pb]			1	462.067	ug/l	0.31	1,564,079.83	3.818E-01	Pulse	0.50	3
Ca			1	827660.956	ug/l	1.27	17,944,452.00	2.502E+01	Analog	0.50	3
Ti			1	2557.538	ug/l	0.69	370,640.15	5.167E-01	Pulse	0.50	3
Na			1	6734.455	ug/l	1.44	6,235,935.17	8.695E+00	Analog	1.00	3
Mg			1	27040.491	ug/l	1.51	12,321,220.33	1.718E+01	Analog	1.00	3
K			1	14688.608	ug/l	1.37	6,348,435.50	8.852E+00	Analog	1.00	3
V			1	2266.614	ug/l	1.21	9,821,838.00	1.369E+01	Analog	0.50	3
Mn			1	33167.074	ug/l	0.76	89,843,408.00	2.577E+02	Analog	0.50	3
Fe			1	658718.813	ug/l	0.62	2,493,286,656.00	7.152E+03	Analog	0.50	3
Co			1	2510.621	ug/l	0.46	17,090,073.33	4.902E+01	Analog	0.50	3
Ni			1	1274.258	ug/l	1.23	2,340,120.33	6.713E+00	Pulse	0.50	3
Cu			1	540.272	ug/l	1.46	2,307,288.00	5.166E+00	Pulse	0.50	3
Zn			1	731.534	ug/l	1.10	549,715.83	1.231E+00	Pulse	1.00	3
Cd			1	61.328	ug/l	1.92	59,485.14	1.332E-01	Pulse	0.50	3
Al			1	670779.941	ug/l	1.18	124,897,128.00	1.741E+02	Analog	1.00	3
Se			1	82.384	ug/l	1.79	3,382.08	7.573E-03	Pulse	3.00	3
Sb			1	26.790	ug/l	1.28	69,810.41	1.563E-01	Pulse	1.00	3
Se			1	278.157	ug/l	1.49	5,398.88	1.209E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,096,505.50	1.33	83.8	Pulse	0.50	3
1	Sc		717,290.56	1.59	128.9	Pulse	0.30	3
1	Ge		348,599.56	0.29	107.6	Pulse	0.30	3
1	In		2,436,180.74	0.82	85.5	Pulse	0.30	3
1	Tb		7,368,964.33	0.59	99.0	Analog	0.50	3
1	Lu		5,147,252.67	1.36	93.7	Pulse	0.50	3
1	Ge		446,690.76	1.42	94.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		68.00	28.36	5100.0	Pulse	0.50	3
1	Li		3,897.06	5.46	83.4	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 14:55
Sample Name	MP42382-D1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1694.362	ug/l	0.41	7,505,709.00	2.220E+01	Analog	0.50	3
As			1	1167.797	ug/l	0.40	605,799.04	1.792E+00	Pulse	1.00	3
Mo			1	134.224	ug/l	0.82	254,311.46	5.836E-01	Pulse	0.50	3
Pb			1	481.870	ug/l	0.28	3,288,890.25	8.100E-01	Pulse	1.00	3
Be			1	25.439	ug/l	1.19	1,108.36	1.582E-03	Pulse	2.00	3
Ag			1	1.735	ug/l	0.34	10,795.17	2.477E-02	Pulse	0.50	3
Ba			1	5593.646	ug/l	0.68	4,340,845.83	1.804E+00	Pulse	0.50	3
Tl			1	7.901	ug/l	0.31	77,612.21	1.912E-02	Pulse	0.50	3
Sn			1	53.923	ug/l	0.68	99,690.65	4.144E-02	Pulse	0.30	3
Sr			1	15252.463	ug/l	1.25	36,173,025.33	1.504E+01	Analog	0.50	3
[Pb]			1	482.569	ug/l	0.24	1,618,933.25	3.987E-01	Pulse	0.50	3
Ca			1	967825.433	ug/l	0.52	20,493,486.67	2.926E+01	Analog	0.50	3
Ti			1	2620.889	ug/l	0.62	370,912.32	5.295E-01	Pulse	0.50	3
Na			1	7757.526	ug/l	0.20	7,007,916.67	1.000E+01	Analog	1.00	3
Mg			1	28381.093	ug/l	0.04	12,630,485.67	1.803E+01	Analog	1.00	3
K			1	16163.252	ug/l	0.54	6,812,472.33	9.726E+00	Analog	1.00	3
V			1	2030.279	ug/l	0.65	8,592,261.00	1.227E+01	Analog	0.50	3
Mn			1	19307.325	ug/l	0.25	50,727,040.00	1.500E+02	Analog	0.50	3
Fe			1	532020.718	ug/l	0.13	1,953,175,210.67	5.777E+03	Analog	0.50	3
Co			1	2026.899	ug/l	0.35	13,382,627.00	3.958E+01	Analog	0.50	3
Ni			1	1062.615	ug/l	0.31	1,892,838.16	5.598E+00	Pulse	0.50	3
Cu			1	471.250	ug/l	0.89	1,966,174.67	4.512E+00	Pulse	0.50	3
Zn			1	692.328	ug/l	1.09	507,585.58	1.165E+00	Pulse	1.00	3
Cd			1	60.014	ug/l	1.24	56,792.62	1.303E-01	Pulse	0.50	3
Al			1	676032.134	ug/l	0.34	122,937,237.33	1.755E+02	Analog	1.00	3
Se			1	88.358	ug/l	1.02	3,535.44	8.114E-03	Pulse	3.00	3
Sb			1	26.253	ug/l	0.84	66,736.42	1.532E-01	Pulse	1.00	3
Se			1	295.977	ug/l	1.18	5,601.49	1.286E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,060,115.25	1.28	83.1	Pulse	0.50	3
1	Sc		700,464.52	0.37	125.9	Pulse	0.30	3
1	Ge		338,120.14	0.80	104.4	Pulse	0.30	3
1	In		2,405,770.25	0.79	84.4	Pulse	0.30	3
1	Tb		7,310,622.83	1.33	98.2	Analog	0.50	3
1	Lu		5,061,387.67	1.44	92.1	Pulse	0.50	3
1	Ge		435,758.12	0.69	91.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		64.67	23.42	4850.0	Pulse	0.50	3
1	Li		3,825.94	2.98	81.9	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 14:59
Sample Name MP42382-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1767.514	ug/l	0.80	1,487,794.08	4.633E+00	Pulse	0.50	3
As			1	1537.099	ug/l	0.55	151,460.14	4.717E-01	Pulse	1.00	3
Mo			1	180.511	ug/l	0.98	72,242.14	1.572E-01	Pulse	0.50	3
Pb			1	438.974	ug/l	0.57	691,444.50	1.478E-01	Pulse	1.00	3
Be			1	35.836	ug/l	3.16	257.83	4.479E-04	Pulse	2.00	3
Ag			1	1.748	ug/l	3.45	2,417.50	5.261E-03	Pulse	0.50	3
Ba			1	5121.257	ug/l	1.25	869,020.73	3.304E-01	Pulse	0.50	3
Tl			1	11.660	ug/l	0.93	26,517.82	5.668E-03	Pulse	0.50	3
Sn			1	50.036	ug/l	2.66	20,524.86	7.802E-03	Pulse	0.30	3
Sr			1	12490.447	ug/l	0.81	6,478,110.00	2.463E+00	Analog	0.50	3
[Pb]			1	436.282	ug/l	0.94	337,824.09	7.221E-02	Pulse	0.50	3
Ca			1	981323.649	ug/l	0.30	3,415,205.83	5.934E+00	Pulse	0.50	3
Ti			1	3018.473	ug/l	0.17	70,203.69	1.220E-01	Pulse	0.50	3
Na			1	7894.003	ug/l	0.54	1,205,571.75	2.095E+00	Pulse	1.00	3
Mg			1	32262.441	ug/l	0.33	2,360,138.83	4.101E+00	Pulse	1.00	3
K			1	17116.676	ug/l	0.53	1,251,895.79	2.175E+00	Pulse	1.00	3
V			1	2746.377	ug/l	0.20	1,910,229.54	3.319E+00	Pulse	0.50	3
Mn			1	35366.089	ug/l	0.45	17,648,232.67	5.496E+01	Analog	0.50	3
Fe			1	719626.204	ug/l	0.34	501,789,162.67	1.563E+03	Analog	0.50	3
Co			1	2762.091	ug/l	0.59	3,463,927.17	1.079E+01	Pulse	0.50	3
Ni			1	1442.654	ug/l	0.55	488,376.99	1.521E+00	Pulse	0.50	3
Cu			1	553.231	ug/l	0.87	504,152.52	1.097E+00	Pulse	0.50	3
Zn			1	760.687	ug/l	0.67	118,123.83	2.571E-01	Pulse	1.00	3
Cd			1	63.250	ug/l	2.17	12,627.65	2.748E-02	Pulse	0.50	3
Al			1	799434.930	ug/l	0.58	23,891,110.00	4.151E+01	Analog	1.00	3
Se			1	81.316	ug/l	2.66	727.68	1.584E-03	Pulse	3.00	3
Sb			1	26.386	ug/l	0.46	14,214.16	3.094E-02	Pulse	1.00	3
Se			1	266.753	ug/l	1.49	1,106.81	2.409E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,678,243.33	1.41	95.7	Pulse	0.50	3
1	Sc		575,551.54	0.85	103.5	Pulse	0.30	3
1	Ge		321,090.79	0.62	99.1	Pulse	0.30	3
1	In		2,630,254.96	1.08	92.3	Pulse	0.30	3
1	Tb		7,488,734.17	0.38	100.6	Analog	0.50	3
1	Lu		5,256,733.33	1.24	95.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		459,467.43	0.54	96.7	Pulse	0.30	3
1	Te		10.67	21.65	800.0	Pulse	0.50	3
1	Li		4,202.68	6.00	89.9	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:03
Sample Name	MP42382-S1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2087.235	ug/l	0.88	9,192,403.33	2.734E+01	Analog	0.50	3
As			1	1690.708	ug/l	0.22	871,990.58	2.594E+00	Pulse	1.00	3
Mo			1	613.963	ug/l	1.15	1,161,977.37	2.668E+00	Pulse	0.50	3
Pb			1	966.997	ug/l	0.96	6,558,806.67	1.625E+00	Analog	1.00	3
Be			1	374.863	ug/l	0.91	15,963.08	2.327E-02	Pulse	2.00	3
Ag			1	218.013	ug/l	1.46	1,337,456.54	3.071E+00	Pulse	0.50	3
Ba			1	5687.792	ug/l	0.70	4,393,844.50	1.835E+00	Pulse	0.50	3
Tl			1	514.794	ug/l	0.82	5,017,115.33	1.243E+00	Pulse	0.50	3
Sn			1	559.874	ug/l	0.36	1,027,326.94	4.289E-01	Pulse	0.30	3
Sr			1	14325.073	ug/l	0.99	33,821,088.67	1.412E+01	Analog	0.50	3
[Pb]			1	933.939	ug/l	0.62	3,113,778.75	7.716E-01	Pulse	0.50	3
Ca			1	779772.743	ug/l	0.58	16,167,390.00	2.357E+01	Analog	0.50	3
Ti			1	3072.017	ug/l	0.46	425,692.67	6.207E-01	Pulse	0.50	3
Na			1	43873.327	ug/l	0.49	38,572,770.67	5.624E+01	Analog	1.00	3
Mg			1	65910.441	ug/l	0.49	28,719,170.00	4.187E+01	Analog	1.00	3
K			1	51810.201	ug/l	0.99	21,160,066.67	3.085E+01	Analog	1.00	3
V			1	2506.082	ug/l	0.32	10,384,641.67	1.514E+01	Analog	0.50	3
Mn			1	14711.179	ug/l	0.61	38,428,401.33	1.143E+02	Analog	0.50	3
Fe			1	618461.747	ug/l	0.88	2,257,422,762.67	6.715E+03	Analog	0.50	3
Co			1	1557.167	ug/l	0.61	10,221,923.67	3.041E+01	Analog	0.50	3
Ni			1	1337.920	ug/l	0.43	2,369,412.67	7.048E+00	Pulse	0.50	3
Cu			1	930.670	ug/l	1.03	3,859,402.08	8.863E+00	Pulse	0.50	3
Zn			1	1082.038	ug/l	0.91	792,433.52	1.820E+00	Pulse	1.00	3
Cd			1	500.558	ug/l	1.62	473,330.47	1.087E+00	Pulse	0.50	3
Al			1	721355.907	ug/l	0.52	128,443,562.67	1.873E+02	Analog	1.00	3
Se			1	516.967	ug/l	0.59	20,438.67	4.693E-02	Pulse	3.00	3
Sb			1	353.986	ug/l	1.58	898,238.29	2.063E+00	Pulse	1.00	3
Se			1	697.790	ug/l	0.48	13,131.85	3.016E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,035,879.33	1.40	82.6	Pulse	0.50	3
1	Sc		685,867.47	0.60	123.3	Pulse	0.30	3
1	Ge		336,175.47	0.66	103.8	Pulse	0.30	3
1	In		2,395,091.29	1.77	84.0	Pulse	0.30	3
1	Tb		7,234,378.67	0.73	97.2	Analog	0.50	3
1	Lu		5,059,547.83	1.56	92.1	Pulse	0.50	3
1	Ge		435,477.39	0.28	91.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		54.00	9.80	4050.0	Pulse	0.50	3
1	Li		3,584.78	0.47	76.7	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:06
Sample Name MP42382-S2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2536.592	ug/l	0.41	11,430,681.00	3.323E+01	Analog	0.50	3
As			1	2331.858	ug/l	0.37	1,230,562.88	3.577E+00	Pulse	1.00	3
Mo			1	623.248	ug/l	0.96	1,163,478.92	2.709E+00	Pulse	0.50	3
Pb			1	1068.960	ug/l	0.48	7,084,638.33	1.797E+00	Analog	1.00	3
Be			1	361.989	ug/l	0.25	16,250.81	2.248E-02	Pulse	2.00	3
Ag			1	221.685	ug/l	1.45	1,341,472.09	3.123E+00	Pulse	0.50	3
Ba			1	6683.551	ug/l	0.25	5,084,201.67	2.156E+00	Pulse	0.50	3
Tl			1	529.474	ug/l	0.08	5,041,964.17	1.279E+00	Pulse	0.50	3
Sn			1	584.545	ug/l	1.13	1,056,164.26	4.478E-01	Pulse	0.30	3
Sr			1	17012.758	ug/l	1.04	39,552,478.67	1.677E+01	Analog	0.50	3
[Pb]			1	1029.250	ug/l	0.42	3,353,248.33	8.503E-01	Pulse	0.50	3
Ca			1	853372.519	ug/l	0.30	18,652,182.67	2.580E+01	Analog	0.50	3
Ti			1	3476.977	ug/l	0.45	507,926.77	7.025E-01	Pulse	0.50	3
Na			1	42309.178	ug/l	0.53	39,215,689.33	5.424E+01	Analog	1.00	3
Mg			1	68892.530	ug/l	0.41	31,646,370.67	4.377E+01	Analog	1.00	3
K			1	53390.592	ug/l	0.65	22,984,030.00	3.179E+01	Analog	1.00	3
V			1	3080.107	ug/l	0.20	13,454,861.33	1.861E+01	Analog	0.50	3
Mn			1	6384.203	ug/l	0.28	17,064,094.00	4.961E+01	Analog	0.50	3
Fe			1	814058.672	ug/l	0.21	3,040,276,906.67	8.839E+03	Analog	0.50	3
Co			1	1416.572	ug/l	0.27	9,514,767.33	2.766E+01	Analog	0.50	3
Ni			1	1503.988	ug/l	0.22	2,725,201.75	7.923E+00	Pulse	0.50	3
Cu			1	1097.208	ug/l	1.28	4,484,252.33	1.044E+01	Pulse	0.50	3
Zn			1	1217.181	ug/l	1.22	879,187.17	2.047E+00	Pulse	1.00	3
Cd			1	510.397	ug/l	0.87	476,062.63	1.108E+00	Pulse	0.50	3
Al			1	814712.133	ug/l	0.44	152,932,634.67	2.115E+02	Analog	1.00	3
Se			1	544.471	ug/l	1.02	21,229.86	4.942E-02	Pulse	3.00	3
Sb			1	354.488	ug/l	1.36	887,268.62	2.066E+00	Pulse	1.00	3
Se			1	767.635	ug/l	0.88	14,244.42	3.316E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,943,501.33	1.40	80.7	Pulse	0.50	3
1	Sc		723,032.87	0.79	130.0	Pulse	0.30	3
1	Ge		343,970.39	1.15	106.2	Pulse	0.30	3
1	In		2,358,295.81	1.03	82.7	Pulse	0.30	3
1	Tb		7,211,549.50	1.01	96.9	Analog	0.50	3
1	Lu		5,017,387.00	1.67	91.3	Pulse	0.50	3
1	Ge		429,531.75	0.30	90.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		59.33	10.84	4450.0	Pulse	0.50	3
1	Li		3,452.53	2.33	73.9	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:10
Sample Name	MP42382-PS1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1690.384	ug/l	0.27	7,409,080.33	2.215E+01	Analog	0.50	3
As			1	1453.872	ug/l	0.50	746,235.77	2.231E+00	Pulse	1.00	3
Mo			1	236.677	ug/l	0.63	447,499.13	1.029E+00	Pulse	0.50	3
Pb			1	505.565	ug/l	0.55	3,435,109.83	8.499E-01	Pulse	1.00	3
Be			1	65.072	ug/l	0.57	2,758.19	4.043E-03	Pulse	2.00	3
Ag			1	20.310	ug/l	4.78	124,613.13	2.864E-01	Pulse	0.50	3
Ba			1	5312.525	ug/l	0.52	4,107,131.33	1.714E+00	Pulse	0.50	3
Tl			1	66.643	ug/l	0.20	650,564.25	1.610E-01	Pulse	0.50	3
Sn			1	102.122	ug/l	0.64	187,785.96	7.835E-02	Pulse	0.30	3
Sr			1	13313.823	ug/l	0.91	31,455,832.67	1.313E+01	Analog	0.50	3
[Pb]			1	499.964	ug/l	0.54	1,669,755.13	4.131E-01	Pulse	0.50	3
Ca			1	818976.592	ug/l	0.49	16,891,399.00	2.476E+01	Analog	0.50	3
Ti			1	2552.724	ug/l	0.71	351,870.62	5.157E-01	Pulse	0.50	3
Na			1	10648.947	ug/l	0.77	9,351,120.33	1.371E+01	Analog	1.00	3
Mg			1	30406.277	ug/l	0.52	13,180,011.00	1.932E+01	Analog	1.00	3
K			1	18377.633	ug/l	0.79	7,530,756.83	1.104E+01	Analog	1.00	3
V			1	2313.750	ug/l	0.43	9,537,558.00	1.398E+01	Analog	0.50	3
Mn			1	32709.964	ug/l	0.41	85,033,645.33	2.542E+02	Analog	0.50	3
Fe			1	657721.945	ug/l	0.75	2,389,186,645.33	7.141E+03	Analog	0.50	3
Co			1	2566.057	ug/l	0.71	16,763,549.33	5.011E+01	Analog	0.50	3
Ni			1	1317.220	ug/l	0.36	2,321,507.67	6.939E+00	Pulse	0.50	3
Cu			1	577.418	ug/l	0.56	2,399,802.33	5.517E+00	Pulse	0.50	3
Zn			1	766.283	ug/l	0.45	560,696.87	1.289E+00	Pulse	1.00	3
Cd			1	110.026	ug/l	0.48	103,926.66	2.389E-01	Pulse	0.50	3
Al			1	654004.944	ug/l	0.37	115,841,149.33	1.698E+02	Analog	1.00	3
Se			1	128.784	ug/l	1.21	5,121.13	1.178E-02	Pulse	3.00	3
Sb			1	74.490	ug/l	0.26	188,859.54	4.342E-01	Pulse	1.00	3
Se			1	318.416	ug/l	0.75	6,012.06	1.382E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,041,806.50	1.38	82.7	Pulse	0.50	3
1	Sc		682,273.32	0.75	122.6	Pulse	0.30	3
1	Ge		334,555.92	0.72	103.3	Pulse	0.30	3
1	In		2,396,716.02	1.44	84.1	Pulse	0.30	3
1	Tb		7,280,328.50	1.09	97.8	Analog	0.50	3
1	Lu		5,019,869.17	1.38	91.4	Pulse	0.50	3
1	Ge		434,955.78	1.29	91.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		52.67	20.91	3950.0	Pulse	0.50	3
1	Li		3,549.22	2.41	75.9	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:14
Sample Name	1ppm As
Sample Type	Sample
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.079	ug/l	16.94	2,535.51	7.870E-03	Pulse	0.50	3
As			1	874.803	ug/l	1.00	2,163,267.08	6.710E+00	Pulse	1.00	3
Mo			1	0.041	ug/l	39.15	589.35	1.234E-03	Pulse	0.50	3
Pb			1	0.034	ug/l	9.18	2,709.22	5.550E-04	Pulse	1.00	3
Be			1	0.010	ug/l	123.45	3.33	6.025E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	39.23	250.00	5.255E-04	Pulse	0.50	3
Ba			1	0.165	ug/l	25.36	776.69	2.863E-04	Pulse	0.50	3
Tl			1	0.011	ug/l	10.33	837.36	1.715E-04	Pulse	0.50	3
Sn			1	0.022	ug/l	30.00	605.57	2.228E-04	Pulse	0.30	3
Sr			1	0.437	ug/l	21.33	6,394.46	2.356E-03	Pulse	0.50	3
[Pb]			1	0.033	ug/l	16.56	1,311.39	2.687E-04	Pulse	0.50	3
Ca			1	36.599	ug/l	21.78	3,565.01	6.459E-03	Pulse	0.50	3
Ti			1	0.214	ug/l	21.88	124.67	2.259E-04	Pulse	0.50	3
Na			1	5.161	ug/l	5.53	58,859.18	1.065E-01	Pulse	1.00	3
Mg			1	1.706	ug/l	19.31	3,789.70	6.865E-03	Pulse	1.00	3
K			1	0.772	ug/l	55.91	82,061.55	1.485E-01	Pulse	1.00	3
V			1	0.171	ug/l	10.29	3,110.26	5.632E-03	Pulse	0.50	3
Mn			1	1.078	ug/l	29.34	14,052.05	4.367E-02	Pulse	0.50	3
Fe			1	28.109	ug/l	20.25	508,814.80	1.580E+00	Pulse	0.50	3
Co			1	0.095	ug/l	20.08	3,297.63	1.024E-02	Pulse	0.50	3
Ni			1	0.045	ug/l	37.16	788.69	2.448E-03	Pulse	0.50	3
Cu			1	0.353	ug/l	9.58	31,498.29	6.614E-02	Pulse	0.50	3
Zn			1	0.336	ug/l	5.72	2,024.11	4.250E-03	Pulse	1.00	3
Cd			1	0.007	ug/l	18.14	43.33	9.111E-05	Pulse	0.50	3
Al			1	30.705	ug/l	21.10	22,389.22	4.057E-02	Pulse	1.00	3
Se			1	0.043	ug/l	45.13	62.11	1.304E-04	Pulse	3.00	3
Sb			1	0.016	ug/l	17.52	315.67	6.618E-04	Pulse	1.00	3
Se			1	-0.019	ug/l	-158.39	51.44	1.080E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,881,436.50	0.16	99.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		552,517.39	0.91	99.3	Pulse	0.30	3
1	Ge		322,371.61	1.07	99.5	Pulse	0.30	3
1	In		2,717,949.75	1.23	95.4	Pulse	0.30	3
1	Tb		7,600,488.00	0.32	102.1	Analog	0.50	3
1	Lu		5,202,053.00	0.90	94.7	Pulse	0.50	3
1	Ge		476,380.48	1.53	100.3	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		4,344.94	2.27	93.0	Pulse	0.30	3

Quantitation Report

File Name 056SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:18
Sample Name 2ppm Ba
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.028	ug/l	19.90	1,501.40	4.528E-03	Pulse	0.50	3
As			1	0.504	ug/l	12.51	1,306.72	3.944E-03	Pulse	1.00	3
Mo			1	0.009	ug/l	82.12	268.67	5.464E-04	Pulse	0.50	3
Pb			1	0.022	ug/l	10.33	2,230.48	4.585E-04	Pulse	1.00	3
Be			1	0.002	ug/l	182.45	2.00	3.466E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	25.67	217.33	4.431E-04	Pulse	0.50	3
Ba			1	1800.876	ug/l	0.28	8,094,593.00	2.904E+00	Analog	0.50	3
Tl			1	0.004	ug/l	13.77	442.68	9.098E-05	Pulse	0.50	3
Sn			1	0.010	ug/l	37.43	485.56	1.741E-04	Pulse	0.30	3
Sr			1	0.198	ug/l	8.95	3,291.63	1.182E-03	Pulse	0.50	3
[Pb]			1	0.019	ug/l	19.02	1,044.03	2.146E-04	Pulse	0.50	3
Ca			1	15.090	ug/l	12.43	1,850.76	3.208E-03	Pulse	0.50	3
Ti			1	0.098	ug/l	19.42	62.67	1.085E-04	Pulse	0.50	3
Na			1	3.771	ug/l	5.88	56,335.97	9.764E-02	Pulse	1.00	3
Mg			1	0.788	ug/l	4.78	2,278.47	3.949E-03	Pulse	1.00	3
K			1	-0.355	ug/l	-37.53	83,774.36	1.452E-01	Pulse	1.00	3
V			1	0.099	ug/l	6.55	1,996.11	3.460E-03	Pulse	0.50	3
Mn			1	0.323	ug/l	10.48	4,745.93	1.432E-02	Pulse	0.50	3
Fe			1	10.203	ug/l	6.26	201,666.73	6.084E-01	Pulse	0.50	3
Co			1	0.034	ug/l	10.30	1,414.06	4.266E-03	Pulse	0.50	3
Ni			1	0.010	ug/l	46.57	506.01	1.527E-03	Pulse	0.50	3
Cu			1	-0.262	ug/l	-4.51	18,171.24	3.704E-02	Pulse	0.50	3
Zn			1	0.997	ug/l	1.92	4,810.27	9.805E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	9.11	31.33	6.387E-05	Pulse	0.50	3
Al			1	11.215	ug/l	6.58	8,810.28	1.527E-02	Pulse	1.00	3
Se			1	0.013	ug/l	164.33	57.22	1.167E-04	Pulse	3.00	3
Sb			1	0.006	ug/l	41.17	184.33	3.752E-04	Pulse	1.00	3
Se			1	-0.081	ug/l	-76.39	46.44	9.460E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,865,992.33	0.64	99.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		577,006.68	0.56	103.7	Pulse	0.30	3
1	Ge		331,612.54	0.98	102.4	Pulse	0.30	3
1	In		2,786,996.07	0.91	97.8	Pulse	0.30	3
1	Tb		7,711,503.00	0.18	103.6	Analog	0.50	3
1	Lu		5,226,182.50	0.93	95.1	Pulse	0.50	3
1	Ge		490,597.91	1.16	103.3	Pulse	0.30	3
1	Te		2.67	86.60	200.0	Pulse	0.50	3
1	Li		4,357.16	2.43	93.2	Pulse	0.30	3

Quantitation Report

File Name	057CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:22
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.060	ug/l	0.77	1,108,064.21	3.282E+00	Pulse	0.50	3
As			1	49.759	ug/l	0.82	128,906.01	3.818E-01	Pulse	1.00	3
Mo			1	48.490	ug/l	0.32	525,648.40	1.054E+00	Pulse	0.50	3
Pb			1	50.358	ug/l	0.22	2,034,954.71	4.234E-01	Pulse	1.00	3
Be			1	48.149	ug/l	2.46	8,854.43	1.495E-02	Pulse	2.00	3
Ag			1	48.687	ug/l	0.76	1,710,424.17	3.429E+00	Pulse	0.50	3
Ba			1	48.349	ug/l	1.03	218,699.20	7.800E-02	Pulse	0.50	3
Tl			1	51.193	ug/l	0.51	2,970,780.75	6.181E-01	Pulse	0.50	3
Sn			1	48.545	ug/l	0.86	521,636.87	1.860E-01	Pulse	0.30	3
Sr			1	48.212	ug/l	1.18	666,928.81	2.379E-01	Pulse	0.50	3
[Pb]			1	48.547	ug/l	0.83	964,257.75	2.006E-01	Pulse	0.50	3
Ca			1	4828.468	ug/l	0.86	432,841.68	7.307E-01	Pulse	0.50	3
Ti			1	47.833	ug/l	0.91	28,627.54	4.833E-02	Pulse	0.50	3
Na			1	4956.909	ug/l	0.46	18,838,360.00	3.180E+01	Analog	1.00	3
Mg			1	4942.674	ug/l	1.36	9,300,654.00	1.570E+01	Analog	1.00	3
K			1	4941.462	ug/l	0.42	8,760,613.33	1.479E+01	Analog	1.00	3
V			1	49.391	ug/l	1.13	884,047.10	1.492E+00	Pulse	0.50	3
Mn			1	49.478	ug/l	0.50	649,708.02	1.924E+00	Pulse	0.50	3
Fe			1	5110.830	ug/l	0.41	93,705,618.67	2.775E+02	Analog	0.50	3
Co			1	51.497	ug/l	0.76	1,698,038.96	5.029E+00	Pulse	0.50	3
Ni			1	51.232	ug/l	0.88	456,005.93	1.350E+00	Pulse	0.50	3
Cu			1	50.177	ug/l	0.12	1,209,617.37	2.425E+00	Pulse	0.50	3
Zn			1	49.836	ug/l	0.67	209,556.79	4.202E-01	Pulse	1.00	3
Cd			1	48.410	ug/l	0.89	262,152.33	5.256E-01	Pulse	0.50	3
Al			1	4795.702	ug/l	1.37	3,687,830.67	6.226E+00	Pulse	1.00	3
Se			1	47.939	ug/l	0.63	10,883.31	2.182E-02	Pulse	3.00	3
Sb			1	47.734	ug/l	0.99	693,671.88	1.391E+00	Pulse	1.00	3
Se			1	47.923	ug/l	0.80	5,201.38	1.043E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,806,362.83	1.36	98.4	Pulse	0.50	3
1	Sc		592,358.33	0.54	106.5	Pulse	0.30	3
1	Ge		337,660.51	0.47	104.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,803,912.04	0.29	98.4	Pulse	0.30	3
1	Tb		7,689,116.00	0.51	103.3	Analog	0.50	3
1	Lu		5,346,915.33	0.74	97.3	Pulse	0.50	3
1	Ge		498,757.20	0.63	105.0	Pulse	0.30	3
1	Te		2.67	114.56	200.0	Pulse	0.50	3
1	Li		4,332.71	2.79	92.7	Pulse	0.30	3

Quantitation Report

File Name	058_CCV.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:25
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.848	ug/l	1.34	2,160,907.75	6.477E+00	Pulse	0.50	3
As			1	98.451	ug/l	1.05	251,978.51	7.553E-01	Pulse	1.00	3
Mo			1	97.481	ug/l	0.55	1,039,791.21	2.118E+00	Pulse	0.50	3
Pb			1	100.207	ug/l	0.70	3,964,074.50	8.422E-01	Pulse	1.00	3
Be			1	97.467	ug/l	0.64	17,595.92	3.026E-02	Pulse	2.00	3
Ag			1	95.598	ug/l	0.61	3,305,007.33	6.733E+00	Pulse	0.50	3
Ba			1	97.267	ug/l	1.32	430,618.03	1.569E-01	Pulse	0.50	3
Tl			1	102.098	ug/l	0.28	5,801,859.50	1.233E+00	Pulse	0.50	3
Sn			1	97.559	ug/l	1.12	1,025,780.27	3.737E-01	Pulse	0.30	3
Sr			1	96.745	ug/l	0.43	1,309,421.71	4.771E-01	Pulse	0.50	3
[Pb]			1	97.653	ug/l	1.25	1,898,812.50	4.034E-01	Pulse	0.50	3
Ca			1	9652.639	ug/l	0.93	848,981.60	1.460E+00	Pulse	0.50	3
Ti			1	96.252	ug/l	1.22	56,549.86	9.724E-02	Pulse	0.50	3
Na			1	9937.777	ug/l	0.36	37,036,238.67	6.369E+01	Analog	1.00	3
Mg			1	9916.916	ug/l	0.66	18,319,691.33	3.150E+01	Analog	1.00	3
K			1	9852.612	ug/l	0.14	17,064,532.00	2.934E+01	Analog	1.00	3
V			1	98.569	ug/l	0.69	1,731,846.37	2.978E+00	Pulse	0.50	3
Mn			1	96.823	ug/l	1.62	1,255,603.83	3.764E+00	Pulse	0.50	3
Fe			1	10037.722	ug/l	0.72	181,826,298.67	5.450E+02	Analog	0.50	3
Co			1	101.132	ug/l	1.24	3,294,487.42	9.875E+00	Pulse	0.50	3
Ni			1	100.389	ug/l	1.59	882,429.29	2.645E+00	Pulse	0.50	3
Cu			1	98.551	ug/l	0.87	2,314,653.83	4.716E+00	Pulse	0.50	3
Zn			1	98.026	ug/l	0.96	404,974.17	8.251E-01	Pulse	1.00	3
Cd			1	95.991	ug/l	1.42	511,550.74	1.042E+00	Pulse	0.50	3
Al			1	9656.326	ug/l	0.71	7,289,813.67	1.254E+01	Analog	1.00	3
Se			1	95.769	ug/l	0.53	21,341.88	4.348E-02	Pulse	3.00	3
Sb			1	95.696	ug/l	0.88	1,368,473.33	2.788E+00	Pulse	1.00	3
Se			1	95.686	ug/l	1.67	10,165.15	2.071E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,706,567.50	0.80	96.3	Pulse	0.50	3
1	Sc		581,549.49	0.31	104.5	Pulse	0.30	3
1	Ge		333,646.20	0.72	103.0	Pulse	0.30	3
1	In		2,744,659.27	0.43	96.3	Pulse	0.30	3
1	Tb		7,606,768.17	0.64	102.2	Analog	0.50	3
1	Lu		5,297,263.00	0.38	96.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		490,843.83	0.56	103.3	Pulse	0.30	3
1	Te		8.67	35.25	650.0	Pulse	0.50	3
1	Li		4,260.47	3.56	91.2	Pulse	0.30	3

Quantitation Report

File Name	059_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:29
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.001	ug/l	-49.84	894.02	2.619E-03	Pulse	0.50	3
As			1	0.087	ug/l	0.59	252.67	7.402E-04	Pulse	1.00	3
Mo			1	0.130	ug/l	22.52	1,594.74	3.173E-03	Pulse	0.50	3
Pb			1	0.014	ug/l	23.86	1,895.44	3.928E-04	Pulse	1.00	3
Be			1	0.022	ug/l	68.54	5.83	9.852E-06	Pulse	2.00	3
Ag			1	0.012	ug/l	14.82	581.34	1.156E-03	Pulse	0.50	3
Ba			1	0.030	ug/l	3.95	196.67	6.903E-05	Pulse	0.50	3
Tl			1	0.013	ug/l	13.76	946.70	1.962E-04	Pulse	0.50	3
Sn			1	0.155	ug/l	20.99	2,083.47	7.316E-04	Pulse	0.30	3
Sr			1	0.034	ug/l	12.61	1,064.03	3.734E-04	Pulse	0.50	3
[Pb]			1	0.014	ug/l	15.45	922.03	1.909E-04	Pulse	0.50	3
Ca			1	2.276	ug/l	36.44	754.02	1.272E-03	Pulse	0.50	3
Ti			1	0.022	ug/l	53.49	18.67	3.145E-05	Pulse	0.50	3
Na			1	3.731	ug/l	12.01	57,737.63	9.739E-02	Pulse	1.00	3
Mg			1	1.024	ug/l	22.03	2,785.20	4.700E-03	Pulse	1.00	3
K			1	0.919	ug/l	36.48	88,325.31	1.490E-01	Pulse	1.00	3
V			1	0.020	ug/l	7.36	634.01	1.069E-03	Pulse	0.50	3
Mn			1	0.037	ug/l	0.90	1,097.37	3.215E-03	Pulse	0.50	3
Fe			1	1.822	ug/l	8.50	52,361.18	1.534E-01	Pulse	0.50	3
Co			1	0.014	ug/l	9.31	787.35	2.306E-03	Pulse	0.50	3
Ni			1	-0.011	ug/l	-58.14	336.67	9.863E-04	Pulse	0.50	3
Cu			1	-0.585	ug/l	-2.17	10,937.12	2.176E-02	Pulse	0.50	3
Zn			1	0.023	ug/l	4.68	814.02	1.619E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	56.39	69.33	1.379E-04	Pulse	0.50	3
Al			1	1.375	ug/l	19.05	1,481.06	2.499E-03	Pulse	1.00	3
Se			1	0.095	ug/l	35.17	77.34	1.538E-04	Pulse	3.00	3
Sb			1	0.045	ug/l	5.91	753.35	1.499E-03	Pulse	1.00	3
Se			1	0.000	ug/l	62740.86	56.33	1.121E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,831,337.50	2.62	98.9	Pulse	0.50	3
1	Sc		592,932.83	0.48	106.6	Pulse	0.30	3

Quantitation Report

1	Ge		341,370.66	0.13	105.4	Pulse	0.30	3
1	In		2,848,873.50	0.40	100.0	Pulse	0.30	3
1	Tb		7,767,614.17	0.51	104.4	Analog	0.50	3
1	Lu		5,307,841.17	0.89	96.6	Pulse	0.50	3
1	Ge		502,715.27	0.15	105.8	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,666.11	2.05	99.8	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:33
Sample Name 2ppm Cr
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1954.673	ug/l	0.13	41,301,488.00	1.280E+02	Analog	0.50	3
As			1	0.142	ug/l	3.75	375.33	1.164E-03	Pulse	1.00	3
Mo			1	0.037	ug/l	41.80	542.68	1.146E-03	Pulse	0.50	3
Pb			1	0.015	ug/l	18.37	1,900.11	3.947E-04	Pulse	1.00	3
Be			1	0.014	ug/l	90.71	4.17	7.360E-06	Pulse	2.00	3
Ag			1	0.008	ug/l	19.83	441.34	9.289E-04	Pulse	0.50	3
Ba			1	0.022	ug/l	6.70	152.67	5.605E-05	Pulse	0.50	3
Tl			1	0.006	ug/l	14.13	530.68	1.102E-04	Pulse	0.50	3
Sn			1	0.100	ug/l	23.14	1,421.18	5.217E-04	Pulse	0.30	3
Sr			1	0.023	ug/l	15.86	866.69	3.182E-04	Pulse	0.50	3
[Pb]			1	0.010	ug/l	25.33	852.03	1.770E-04	Pulse	0.50	3
Ca			1	3.403	ug/l	28.09	814.69	1.442E-03	Pulse	0.50	3
Ti			1	0.082	ug/l	14.97	52.00	9.230E-05	Pulse	0.50	3
Na			1	4.575	ug/l	1.74	58,009.40	1.028E-01	Pulse	1.00	3
Mg			1	0.926	ug/l	11.48	2,477.49	4.386E-03	Pulse	1.00	3
K			1	2.683	ug/l	2.23	87,019.28	1.542E-01	Pulse	1.00	3
V			1	0.066	ug/l	8.50	1,391.39	2.463E-03	Pulse	0.50	3
Mn			1	0.095	ug/l	6.98	1,764.09	5.467E-03	Pulse	0.50	3
Fe			1	1.452	ug/l	3.71	42,996.78	1.333E-01	Pulse	0.50	3
Co			1	0.010	ug/l	6.76	626.01	1.941E-03	Pulse	0.50	3
Ni			1	-0.003	ug/l	-56.18	382.67	1.186E-03	Pulse	0.50	3
Cu			1	-0.134	ug/l	-20.70	20,464.17	4.312E-02	Pulse	0.50	3
Zn			1	0.095	ug/l	9.61	1,058.03	2.229E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	60.20	64.00	1.343E-04	Pulse	0.50	3
Al			1	1.196	ug/l	6.65	1,279.38	2.266E-03	Pulse	1.00	3
Se			1	0.086	ug/l	60.15	71.00	1.496E-04	Pulse	3.00	3
Sb			1	0.029	ug/l	20.21	495.68	1.045E-03	Pulse	1.00	3
Se			1	-0.050	ug/l	-126.31	48.11	1.013E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,814,437.50	0.38	98.5	Pulse	0.50	3
1	Sc		564,345.72	1.88	101.4	Pulse	0.30	3
1	Ge		322,593.36	1.10	99.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,724,200.52	0.29	95.6	Pulse	0.30	3
1	Tb		7,520,215.17	0.38	101.1	Analog	0.50	3
1	Lu		5,118,891.83	0.26	93.2	Pulse	0.50	3
1	Ge		474,699.72	1.03	99.9	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,460.52	1.10	95.4	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:37
Sample Name	FC6760-46
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1438.302	ug/l	1.77	5,862,986.50	1.884E+01	Analog	0.50	3
As			1	385.670	ug/l	1.69	184,113.37	5.917E-01	Pulse	1.00	3
Mo			1	89.331	ug/l	2.52	160,318.28	3.885E-01	Pulse	0.50	3
Pb			1	454.787	ug/l	1.78	2,859,891.50	7.645E-01	Pulse	1.00	3
Be			1	22.988	ug/l	2.29	917.52	1.430E-03	Pulse	2.00	3
Ag			1	2.320	ug/l	1.97	13,623.69	3.302E-02	Pulse	0.50	3
Ba			1	4651.977	ug/l	1.84	3,417,608.58	1.501E+00	Pulse	0.50	3
Tl			1	6.751	ug/l	1.17	61,115.05	1.634E-02	Pulse	0.50	3
Sn			1	49.429	ug/l	2.23	86,537.12	3.799E-02	Pulse	0.30	3
Sr			1	16152.448	ug/l	0.86	36,266,962.67	1.592E+01	Analog	0.50	3
[Pb]			1	458.298	ug/l	1.47	1,416,551.88	3.787E-01	Pulse	0.50	3
Ca			1	2057762.626	ug/l	1.17	39,902,030.67	6.221E+01	Analog	0.50	3
Ti			1	2910.728	ug/l	1.67	377,230.02	5.881E-01	Pulse	0.50	3
Na			1	17777.818	ug/l	1.42	14,645,638.00	2.283E+01	Analog	1.00	3
Mg			1	31378.679	ug/l	1.89	12,787,338.00	1.994E+01	Analog	1.00	3
K			1	17340.038	ug/l	1.03	6,685,790.00	1.042E+01	Analog	1.00	3
V			1	2433.393	ug/l	1.43	9,430,597.67	1.470E+01	Analog	0.50	3
Mn			1	30120.329	ug/l	1.46	72,820,421.33	2.340E+02	Analog	0.50	3
Fe			1	332735.354	ug/l	1.68	1,124,064,384.00	3.613E+03	Analog	0.50	3
Co			1	594.895	ug/l	1.85	3,614,497.00	1.162E+01	Pulse	0.50	3
Ni			1	636.034	ug/l	2.31	1,042,689.48	3.351E+00	Pulse	0.50	3
Cu			1	375.101	ug/l	1.96	1,486,031.88	3.602E+00	Pulse	0.50	3
Zn			1	595.341	ug/l	1.42	413,372.19	1.002E+00	Pulse	1.00	3
Cd			1	82.690	ug/l	2.28	74,089.97	1.796E-01	Pulse	0.50	3
Al			1	613872.967	ug/l	1.41	102,225,562.67	1.594E+02	Analog	1.00	3
Se			1	83.648	ug/l	1.43	3,171.71	7.687E-03	Pulse	3.00	3
Sb			1	21.615	ug/l	2.91	52,043.02	1.261E-01	Pulse	1.00	3
Se			1	261.838	ug/l	0.76	4,697.47	1.139E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,740,410.50	0.79	76.5	Pulse	0.50	3
1	Sc		641,471.81	1.07	115.3	Pulse	0.30	3
1	Ge		311,139.01	0.47	96.1	Pulse	0.30	3
1	In		2,277,395.12	0.65	79.9	Pulse	0.30	3
1	Tb		6,843,944.17	0.53	92.0	Analog	0.50	3
1	Lu		4,620,670.17	1.19	84.1	Pulse	0.50	3
1	Ge		412,598.15	0.63	86.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		56.00	28.35	4200.0	Pulse	0.50	3
1	Li		3,398.08	3.05	72.7	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 15:41
Sample Name	FC6760-47
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1643.665	ug/l	0.76	6,612,285.83	2.153E+01	Analog	0.50	3
As			1	876.879	ug/l	1.03	413,096.62	1.345E+00	Pulse	1.00	3
Mo			1	544.332	ug/l	0.78	961,371.69	2.366E+00	Pulse	0.50	3
Pb			1	441.916	ug/l	0.80	2,802,722.00	7.429E-01	Pulse	1.00	3
Be			1	23.306	ug/l	0.27	977.85	1.450E-03	Pulse	2.00	3
Ag			1	6.527	ug/l	1.12	37,497.75	9.227E-02	Pulse	0.50	3
Ba			1	5443.224	ug/l	0.53	3,954,307.17	1.756E+00	Pulse	0.50	3
Tl			1	10.643	ug/l	1.01	97,098.57	2.574E-02	Pulse	0.50	3
Sn			1	51.107	ug/l	0.61	88,472.60	3.928E-02	Pulse	0.30	3
Sr			1	16418.944	ug/l	0.86	36,454,822.67	1.619E+01	Analog	0.50	3
[Pb]			1	442.966	ug/l	1.10	1,380,926.09	3.660E-01	Pulse	0.50	3
Ca			1	1530867.602	ug/l	1.09	31,210,198.67	4.628E+01	Analog	0.50	3
Ti			1	6319.467	ug/l	0.23	861,130.25	1.277E+00	Pulse	0.50	3
Na			1	17415.288	ug/l	1.11	15,085,697.00	2.237E+01	Analog	1.00	3
Mg			1	32326.313	ug/l	1.33	13,850,957.00	2.054E+01	Analog	1.00	3
K			1	21650.543	ug/l	1.35	8,752,353.33	1.298E+01	Analog	1.00	3
V			1	2394.423	ug/l	0.28	9,757,033.67	1.447E+01	Analog	0.50	3
Mn			1	32655.447	ug/l	0.50	77,914,837.33	2.537E+02	Analog	0.50	3
Fe			1	482786.588	ug/l	0.54	1,609,577,770.67	5.242E+03	Analog	0.50	3
Co			1	250.701	ug/l	1.02	1,503,451.46	4.896E+00	Pulse	0.50	3
Ni			1	914.057	ug/l	1.10	1,478,679.42	4.816E+00	Pulse	0.50	3
Cu			1	258.172	ug/l	0.74	1,013,603.73	2.494E+00	Pulse	0.50	3
Zn			1	790.198	ug/l	0.56	540,186.81	1.329E+00	Pulse	1.00	3
Cd			1	111.087	ug/l	0.89	98,028.83	2.412E-01	Pulse	0.50	3
Al			1	610707.637	ug/l	0.64	106,931,101.33	1.585E+02	Analog	1.00	3
Se			1	65.915	ug/l	0.95	2,471.05	6.081E-03	Pulse	3.00	3
Sb			1	24.088	ug/l	1.04	57,109.55	1.405E-01	Pulse	1.00	3
Se			1	209.878	ug/l	0.18	3,717.48	9.148E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,772,563.75	0.86	77.2	Pulse	0.50	3
1	Sc		674,472.18	1.21	121.2	Pulse	0.30	3
1	Ge		307,058.12	0.39	94.8	Pulse	0.30	3
1	In		2,252,286.72	1.38	79.0	Pulse	0.30	3
1	Tb		6,847,937.17	0.73	92.0	Analog	0.50	3
1	Lu		4,639,702.83	0.74	84.5	Pulse	0.50	3
1	Ge		406,361.42	0.78	85.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		46.00	19.92	3450.0	Pulse	0.50	3
1	Li		3,486.98	4.29	74.6	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:44
Sample Name FC6760-48
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1410.299	ug/l	0.94	5,468,225.50	1.848E+01	Analog	0.50	3
As			1	254.483	ug/l	1.66	115,561.57	3.905E-01	Pulse	1.00	3
Mo			1	23.685	ug/l	3.29	42,518.62	1.033E-01	Pulse	0.50	3
Pb			1	183.180	ug/l	0.50	1,270,087.91	3.081E-01	Pulse	1.00	3
Be			1	18.753	ug/l	1.66	680.84	1.167E-03	Pulse	2.00	3
Ag			1	0.710	ug/l	1.71	4,253.84	1.033E-02	Pulse	0.50	3
Ba			1	273.866	ug/l	1.75	204,022.48	8.836E-02	Pulse	0.50	3
Tl			1	6.619	ug/l	0.42	66,041.30	1.602E-02	Pulse	0.50	3
Sn			1	35.966	ug/l	1.56	63,921.82	2.768E-02	Pulse	0.30	3
Sr			1	611.870	ug/l	0.62	1,393,270.12	6.034E-01	Pulse	0.50	3
[Pb]			1	179.101	ug/l	0.27	610,388.50	1.481E-01	Pulse	0.50	3
Ca			1	418055.472	ug/l	0.44	7,371,893.00	1.264E+01	Analog	0.50	3
Ti			1	299.424	ug/l	0.47	35,291.67	6.050E-02	Pulse	0.50	3
Na			1	4421.759	ug/l	0.09	3,344,796.92	5.734E+00	Pulse	1.00	3
Mg			1	88225.452	ug/l	0.30	32,693,988.00	5.605E+01	Analog	1.00	3
K			1	64546.634	ug/l	0.69	22,399,184.67	3.840E+01	Analog	1.00	3
V			1	372.850	ug/l	0.71	1,314,219.33	2.253E+00	Pulse	0.50	3
Mn			1	975.829	ug/l	1.27	2,244,608.33	7.584E+00	Pulse	0.50	3
Fe			1	176725.037	ug/l	1.22	567,891,520.00	1.919E+03	Analog	0.50	3
Co			1	32.133	ug/l	0.59	185,982.46	6.284E-01	Pulse	0.50	3
Ni			1	511.927	ug/l	1.00	798,362.02	2.698E+00	Pulse	0.50	3
Cu			1	116.186	ug/l	0.53	473,366.16	1.150E+00	Pulse	0.50	3
Zn			1	913.093	ug/l	1.34	632,344.06	1.536E+00	Pulse	1.00	3
Cd			1	31.446	ug/l	2.59	28,120.01	6.830E-02	Pulse	0.50	3
Al			1	394937.368	ug/l	0.53	59,807,065.33	1.025E+02	Analog	1.00	3
Se			1	44.716	ug/l	2.89	1,713.19	4.161E-03	Pulse	3.00	3
Sb			1	2.873	ug/l	2.53	6,969.66	1.693E-02	Pulse	1.00	3
Se			1	142.046	ug/l	2.14	2,564.18	6.228E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,122,175.33	1.27	84.4	Pulse	0.50	3
1	Sc		583,300.70	0.32	104.8	Pulse	0.30	3
1	Ge		295,955.77	0.64	91.4	Pulse	0.30	3
1	In		2,308,909.21	0.56	81.0	Pulse	0.30	3
1	Tb		7,019,118.50	0.27	94.3	Analog	0.50	3
1	Lu		4,798,744.50	1.05	87.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		411,734.53	0.10	86.7	Pulse	0.30	3
1	Te		23.33	66.58	1750.0	Pulse	0.50	3
1	Li		3,859.28	1.62	82.6	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:48
Sample Name FC6760-49
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1409.968	ug/l	1.00	5,338,559.33	1.847E+01	Analog	0.50	3
As			1	222.074	ug/l	0.86	98,481.90	3.408E-01	Pulse	1.00	3
Mo			1	21.278	ug/l	1.80	37,186.09	9.280E-02	Pulse	0.50	3
Pb			1	284.885	ug/l	0.45	1,930,372.54	4.790E-01	Pulse	1.00	3
Be			1	26.702	ug/l	2.64	980.69	1.661E-03	Pulse	2.00	3
Ag			1	0.565	ug/l	3.71	3,323.64	8.295E-03	Pulse	0.50	3
Ba			1	279.166	ug/l	0.70	203,159.30	9.007E-02	Pulse	0.50	3
Tl			1	8.758	ug/l	0.22	85,364.59	2.118E-02	Pulse	0.50	3
Sn			1	43.583	ug/l	0.26	75,602.25	3.352E-02	Pulse	0.30	3
Sr			1	807.773	ug/l	0.94	1,796,672.08	7.966E-01	Pulse	0.50	3
[Pb]			1	279.394	ug/l	0.48	930,510.60	2.309E-01	Pulse	0.50	3
Ca			1	438184.282	ug/l	0.55	7,822,761.50	1.325E+01	Analog	0.50	3
Ti			1	245.798	ug/l	1.42	29,331.25	4.967E-02	Pulse	0.50	3
Na			1	3840.736	ug/l	0.58	2,947,040.25	4.990E+00	Pulse	1.00	3
Mg			1	102542.044	ug/l	0.42	38,470,542.67	6.515E+01	Analog	1.00	3
K			1	77002.489	ug/l	0.76	27,037,076.00	4.578E+01	Analog	1.00	3
V			1	266.785	ug/l	0.25	952,095.54	1.612E+00	Pulse	0.50	3
Mn			1	1009.965	ug/l	0.37	2,268,633.92	7.850E+00	Pulse	0.50	3
Fe			1	215995.800	ug/l	1.06	677,789,120.00	2.345E+03	Analog	0.50	3
Co			1	31.611	ug/l	0.61	178,677.79	6.182E-01	Pulse	0.50	3
Ni			1	376.721	ug/l	0.37	573,820.92	1.985E+00	Pulse	0.50	3
Cu			1	284.687	ug/l	1.50	1,100,029.58	2.745E+00	Pulse	0.50	3
Zn			1	1082.613	ug/l	1.52	729,524.81	1.821E+00	Pulse	1.00	3
Cd			1	25.315	ug/l	2.21	22,030.44	5.498E-02	Pulse	0.50	3
Al			1	441409.195	ug/l	0.14	67,673,536.00	1.146E+02	Analog	1.00	3
Se			1	54.343	ug/l	0.69	2,016.77	5.033E-03	Pulse	3.00	3
Sb			1	2.253	ug/l	1.32	5,334.79	1.331E-02	Pulse	1.00	3
Se			1	174.062	ug/l	1.79	3,047.80	7.606E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,029,802.50	1.32	82.5	Pulse	0.50	3
1	Sc		590,536.94	0.18	106.1	Pulse	0.30	3
1	Ge		289,012.74	0.74	89.2	Pulse	0.30	3
1	In		2,255,657.20	0.86	79.1	Pulse	0.30	3
1	Tb		6,951,599.50	0.55	93.4	Analog	0.50	3
1	Lu		4,725,257.83	1.27	86.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		400,728.07	0.96	84.3	Pulse	0.30	3
1	Te		15.33	7.53	1150.0	Pulse	0.50	3
1	Li		3,555.89	2.90	76.1	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:52
Sample Name FC6760-50
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1406.557	ug/l	1.24	5,354,700.67	1.843E+01	Analog	0.50	3
As			1	228.479	ug/l	0.36	101,872.52	3.506E-01	Pulse	1.00	3
Mo			1	9.538	ug/l	2.78	16,739.48	4.179E-02	Pulse	0.50	3
Pb			1	195.783	ug/l	0.53	1,328,465.96	3.293E-01	Pulse	1.00	3
Be			1	24.207	ug/l	4.01	874.02	1.506E-03	Pulse	2.00	3
Ag			1	0.741	ug/l	2.81	4,314.52	1.077E-02	Pulse	0.50	3
Ba			1	274.388	ug/l	1.18	199,811.58	8.853E-02	Pulse	0.50	3
Tl			1	7.965	ug/l	0.58	77,745.86	1.927E-02	Pulse	0.50	3
Sn			1	40.728	ug/l	2.38	70,719.73	3.133E-02	Pulse	0.30	3
Sr			1	714.101	ug/l	0.27	1,589,370.87	7.042E-01	Pulse	0.50	3
[Pb]			1	190.392	ug/l	0.10	634,992.81	1.574E-01	Pulse	0.50	3
Ca			1	440292.194	ug/l	0.26	7,726,564.50	1.331E+01	Analog	0.50	3
Ti			1	286.771	ug/l	1.06	33,636.15	5.795E-02	Pulse	0.50	3
Na			1	4059.711	ug/l	0.41	3,059,601.33	5.271E+00	Pulse	1.00	3
Mg			1	101160.317	ug/l	0.47	37,306,861.33	6.427E+01	Analog	1.00	3
K			1	76693.401	ug/l	0.54	26,469,841.33	4.560E+01	Analog	1.00	3
V			1	196.471	ug/l	0.29	689,308.87	1.187E+00	Pulse	0.50	3
Mn			1	758.430	ug/l	0.78	1,712,948.66	5.895E+00	Pulse	0.50	3
Fe			1	196771.571	ug/l	0.87	620,814,506.67	2.137E+03	Analog	0.50	3
Co			1	30.203	ug/l	0.54	171,646.64	5.907E-01	Pulse	0.50	3
Ni			1	475.043	ug/l	1.06	727,399.54	2.503E+00	Pulse	0.50	3
Cu			1	114.421	ug/l	1.04	453,814.57	1.133E+00	Pulse	0.50	3
Zn			1	956.745	ug/l	1.13	644,553.67	1.609E+00	Pulse	1.00	3
Cd			1	26.349	ug/l	1.21	22,922.86	5.723E-02	Pulse	0.50	3
Al			1	425180.384	ug/l	0.55	64,076,576.00	1.104E+02	Analog	1.00	3
Se			1	51.604	ug/l	1.01	1,916.54	4.785E-03	Pulse	3.00	3
Sb			1	1.676	ug/l	5.48	3,987.77	9.956E-03	Pulse	1.00	3
Se			1	168.977	ug/l	2.64	2,959.01	7.387E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,034,367.83	1.48	82.6	Pulse	0.50	3
1	Sc		580,489.93	0.75	104.3	Pulse	0.30	3
1	Ge		290,573.25	0.38	89.7	Pulse	0.30	3
1	In		2,256,976.51	0.65	79.2	Pulse	0.30	3
1	Tb		6,934,387.33	0.69	93.2	Analog	0.50	3
1	Lu		4,720,514.00	1.21	85.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		400,551.75	0.07	84.3	Pulse	0.30	3
1	Te		24.67	53.99	1850.0	Pulse	0.50	3
1	Li		3,829.27	2.15	81.9	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 15:56
Sample Name FC6760-51
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1123.793	ug/l	0.68	4,179,678.58	1.472E+01	Pulse	0.50	3
As			1	174.920	ug/l	0.68	76,195.75	2.684E-01	Pulse	1.00	3
Mo			1	17.022	ug/l	1.43	29,592.60	7.431E-02	Pulse	0.50	3
Pb			1	197.961	ug/l	1.14	1,358,294.63	3.329E-01	Pulse	1.00	3
Be			1	20.685	ug/l	2.11	719.18	1.287E-03	Pulse	2.00	3
Ag			1	0.922	ug/l	3.33	5,306.77	1.333E-02	Pulse	0.50	3
Ba			1	345.324	ug/l	0.30	251,539.63	1.114E-01	Pulse	0.50	3
Tl			1	6.351	ug/l	0.97	62,705.43	1.537E-02	Pulse	0.50	3
Sn			1	39.106	ug/l	2.04	67,941.75	3.009E-02	Pulse	0.30	3
Sr			1	980.927	ug/l	0.44	2,183,830.33	9.673E-01	Pulse	0.50	3
[Pb]			1	193.452	ug/l	1.11	652,441.33	1.599E-01	Pulse	0.50	3
Ca			1	424745.195	ug/l	0.62	7,174,261.17	1.284E+01	Analog	0.50	3
Ti			1	319.217	ug/l	1.87	36,036.40	6.450E-02	Pulse	0.50	3
Na			1	3889.137	ug/l	0.58	2,822,880.67	5.052E+00	Pulse	1.00	3
Mg			1	81467.669	ug/l	0.40	28,918,521.33	5.176E+01	Analog	1.00	3
K			1	60148.708	ug/l	0.93	19,998,618.00	3.579E+01	Analog	1.00	3
V			1	240.310	ug/l	0.42	811,439.87	1.452E+00	Pulse	0.50	3
Mn			1	1418.185	ug/l	0.61	3,128,679.17	1.102E+01	Pulse	0.50	3
Fe			1	168109.464	ug/l	0.63	518,137,226.67	1.825E+03	Analog	0.50	3
Co			1	40.221	ug/l	1.33	223,219.65	7.863E-01	Pulse	0.50	3
Ni			1	387.605	ug/l	1.28	579,884.21	2.043E+00	Pulse	0.50	3
Cu			1	162.192	ug/l	1.18	631,350.79	1.585E+00	Pulse	0.50	3
Zn			1	804.808	ug/l	0.92	539,147.17	1.354E+00	Pulse	1.00	3
Cd			1	27.478	ug/l	2.09	23,763.25	5.968E-02	Pulse	0.50	3
Al			1	357497.752	ug/l	0.46	51,857,244.00	9.281E+01	Analog	1.00	3
Se			1	43.234	ug/l	1.54	1,603.51	4.027E-03	Pulse	3.00	3
Sb			1	1.652	ug/l	1.82	3,908.09	9.813E-03	Pulse	1.00	3
Se			1	139.168	ug/l	1.01	2,430.71	6.104E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,079,442.08	0.96	83.5	Pulse	0.50	3
1	Sc		558,739.04	1.06	100.4	Pulse	0.30	3
1	Ge		283,864.25	0.73	87.6	Pulse	0.30	3
1	In		2,257,802.20	1.08	79.2	Pulse	0.30	3
1	Tb		6,906,963.83	0.84	92.8	Analog	0.50	3
1	Lu		4,709,244.83	1.65	85.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		398,226.96	0.69	83.8	Pulse	0.30	3
1	Te		14.00	24.74	1050.0	Pulse	0.50	3
1	Li		3,710.36	3.13	79.4	Pulse	0.30	3

Quantitation Report

File Name 067SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 16:00
Sample Name FC6760-52
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	953.971	ug/l	2.16	3,780,317.58	1.250E+01	Pulse	0.50	3
As			1	74.433	ug/l	2.45	34,559.11	1.143E-01	Pulse	1.00	3
Mo			1	13.727	ug/l	0.60	25,090.76	5.999E-02	Pulse	0.50	3
Pb			1	406.455	ug/l	1.17	2,960,239.92	6.833E-01	Pulse	1.00	3
Be			1	16.836	ug/l	1.18	643.34	1.048E-03	Pulse	2.00	3
Ag			1	1.041	ug/l	1.36	6,269.08	1.499E-02	Pulse	0.50	3
Ba			1	2797.482	ug/l	1.00	2,154,495.67	9.024E-01	Pulse	0.50	3
Tl			1	2.552	ug/l	1.13	26,860.41	6.200E-03	Pulse	0.50	3
Sn			1	48.541	ug/l	1.49	89,112.37	3.731E-02	Pulse	0.30	3
Sr			1	7375.864	ug/l	0.73	17,362,137.33	7.272E+00	Analog	0.50	3
[Pb]			1	398.902	ug/l	1.24	1,428,054.67	3.296E-01	Pulse	0.50	3
Ca			1	107439.710	ug/l	0.62	1,994,408.75	3.249E+00	Pulse	0.50	3
Ti			1	1083.071	ug/l	0.96	134,339.51	2.188E-01	Pulse	0.50	3
Na			1	783.726	ug/l	0.25	661,016.40	1.077E+00	Pulse	1.00	3
Mg			1	13929.361	ug/l	0.44	5,433,257.83	8.851E+00	Analog	1.00	3
K			1	8976.470	ug/l	0.40	3,355,728.00	5.466E+00	Pulse	1.00	3
V			1	715.355	ug/l	1.03	2,653,607.92	4.322E+00	Pulse	0.50	3
Mn			1	815.428	ug/l	1.71	1,916,826.79	6.338E+00	Pulse	0.50	3
Fe			1	298442.158	ug/l	1.34	979,999,296.00	3.240E+03	Analog	0.50	3
Co			1	55.835	ug/l	1.80	330,026.98	1.091E+00	Pulse	0.50	3
Ni			1	195.436	ug/l	1.93	311,702.55	1.031E+00	Pulse	0.50	3
Cu			1	82.561	ug/l	1.39	347,685.50	8.313E-01	Pulse	0.50	3
Zn			1	420.918	ug/l	0.86	296,429.80	7.087E-01	Pulse	1.00	3
Cd			1	2.921	ug/l	3.43	2,658.87	6.356E-03	Pulse	0.50	3
Al			1	333462.659	ug/l	0.52	53,145,741.33	8.657E+01	Analog	1.00	3
Se			1	38.789	ug/l	1.63	1,515.84	3.624E-03	Pulse	3.00	3
Sb			1	5.705	ug/l	0.87	13,981.99	3.343E-02	Pulse	1.00	3
Se			1	117.315	ug/l	2.91	2,159.35	5.163E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,332,064.67	1.17	88.7	Pulse	0.50	3
1	Sc		613,858.92	1.82	110.3	Pulse	0.30	3
1	Ge		302,402.02	0.96	93.4	Pulse	0.30	3
1	In		2,387,626.02	2.33	83.8	Pulse	0.30	3
1	Tb		7,145,610.17	1.03	96.0	Analog	0.50	3
1	Lu		4,830,534.50	1.65	87.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		418,207.09	1.56	88.0	Pulse	0.30	3
1	Te		28.00	32.73	2100.0	Pulse	0.50	3
1	Li		3,891.51	2.29	83.3	Pulse	0.30	3

Quantitation Report

File Name	068SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:04
Sample Name	FC6760-53
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1369.848	ug/l	1.70	5,696,956.17	1.795E+01	Analog	0.50	3
As			1	99.239	ug/l	1.84	48,352.47	1.523E-01	Pulse	1.00	3
Mo			1	10.483	ug/l	2.94	19,726.39	4.590E-02	Pulse	0.50	3
Pb			1	427.115	ug/l	1.70	3,077,754.42	7.180E-01	Pulse	1.00	3
Be			1	22.741	ug/l	3.53	985.03	1.415E-03	Pulse	2.00	3
Ag			1	0.750	ug/l	5.45	4,687.28	1.090E-02	Pulse	0.50	3
Ba			1	4454.282	ug/l	2.29	3,437,202.17	1.437E+00	Pulse	0.50	3
Tl			1	3.488	ug/l	1.92	36,260.29	8.459E-03	Pulse	0.50	3
Sn			1	51.163	ug/l	1.87	94,068.07	3.932E-02	Pulse	0.30	3
Sr			1	12003.922	ug/l	1.63	28,310,948.67	1.183E+01	Analog	0.50	3
[Pb]			1	422.909	ug/l	1.35	1,497,879.29	3.495E-01	Pulse	0.50	3
Ca			1	62445.358	ug/l	0.97	1,315,269.83	1.889E+00	Pulse	0.50	3
Ti			1	1117.089	ug/l	0.84	157,181.33	2.257E-01	Pulse	0.50	3
Na			1	758.632	ug/l	1.72	727,586.31	1.045E+00	Pulse	1.00	3
Mg			1	17598.183	ug/l	0.88	7,786,949.17	1.118E+01	Analog	1.00	3
K			1	8887.572	ug/l	0.19	3,770,013.42	5.414E+00	Pulse	1.00	3
V			1	826.152	ug/l	0.80	3,476,306.67	4.992E+00	Pulse	0.50	3
Mn			1	337.302	ug/l	2.01	832,557.52	2.623E+00	Pulse	0.50	3
Fe			1	380287.873	ug/l	1.94	1,310,722,176.00	4.129E+03	Analog	0.50	3
Co			1	73.618	ug/l	1.60	456,621.30	1.438E+00	Pulse	0.50	3
Ni			1	267.744	ug/l	2.04	448,049.25	1.411E+00	Pulse	0.50	3
Cu			1	57.556	ug/l	1.73	255,472.49	5.945E-01	Pulse	0.50	3
Zn			1	238.051	ug/l	1.26	172,526.69	4.015E-01	Pulse	1.00	3
Cd			1	1.078	ug/l	2.62	1,011.37	2.353E-03	Pulse	0.50	3
Al			1	452282.940	ug/l	1.43	81,777,152.00	1.174E+02	Analog	1.00	3
Se			1	57.740	ug/l	2.80	2,295.03	5.340E-03	Pulse	3.00	3
Sb			1	4.607	ug/l	3.37	11,617.01	2.703E-02	Pulse	1.00	3
Se			1	178.319	ug/l	2.39	3,346.96	7.789E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,285,921.83	1.06	87.7	Pulse	0.50	3
1	Sc		696,378.62	1.13	125.2	Pulse	0.30	3
1	Ge		317,430.84	0.48	98.0	Pulse	0.30	3
1	In		2,392,209.84	0.81	83.9	Pulse	0.30	3
1	Tb		7,317,668.17	0.95	98.3	Analog	0.50	3
1	Lu		4,824,648.50	1.63	87.8	Pulse	0.50	3
1	Ge		429,748.56	1.31	90.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		36.67	16.66	2750.0	Pulse	0.50	3
1	Li		3,857.06	0.69	82.5	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:07
Sample Name	FC6760-54
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1521.343	ug/l	2.19	6,456,915.83	1.993E+01	Analog	0.50	3
As			1	106.980	ug/l	1.64	53,192.55	1.642E-01	Pulse	1.00	3
Mo			1	13.245	ug/l	3.01	24,812.40	5.790E-02	Pulse	0.50	3
Pb			1	515.240	ug/l	0.48	3,692,066.08	8.661E-01	Pulse	1.00	3
Be			1	23.057	ug/l	2.57	1,017.86	1.434E-03	Pulse	2.00	3
Ag			1	0.774	ug/l	3.87	4,815.31	1.124E-02	Pulse	0.50	3
Ba			1	5485.962	ug/l	1.16	4,225,892.17	1.770E+00	Pulse	0.50	3
Tl			1	3.675	ug/l	1.25	37,984.00	8.910E-03	Pulse	0.50	3
Sn			1	57.420	ug/l	1.44	105,349.54	4.412E-02	Pulse	0.30	3
Sr			1	15523.556	ug/l	0.77	36,545,668.00	1.530E+01	Analog	0.50	3
[Pb]			1	507.078	ug/l	1.07	1,786,145.96	4.190E-01	Pulse	0.50	3
Ca			1	83273.944	ug/l	0.71	1,787,102.21	2.518E+00	Pulse	0.50	3
Ti			1	1200.355	ug/l	1.27	172,120.68	2.425E-01	Pulse	0.50	3
Na			1	848.817	ug/l	0.79	823,308.94	1.160E+00	Pulse	1.00	3
Mg			1	18301.430	ug/l	1.04	8,252,124.17	1.163E+01	Analog	1.00	3
K			1	9789.591	ug/l	0.55	4,221,133.17	5.948E+00	Pulse	1.00	3
V			1	1011.720	ug/l	1.10	4,338,146.67	6.113E+00	Pulse	0.50	3
Mn			1	554.583	ug/l	2.33	1,396,617.62	4.311E+00	Pulse	0.50	3
Fe			1	431518.982	ug/l	1.88	1,517,842,858.67	4.685E+03	Analog	0.50	3
Co			1	72.599	ug/l	2.18	459,549.64	1.419E+00	Pulse	0.50	3
Ni			1	262.720	ug/l	2.45	448,678.14	1.385E+00	Pulse	0.50	3
Cu			1	65.897	ug/l	2.17	288,616.31	6.735E-01	Pulse	0.50	3
Zn			1	249.143	ug/l	1.99	180,032.19	4.201E-01	Pulse	1.00	3
Cd			1	1.507	ug/l	5.33	1,407.39	3.284E-03	Pulse	0.50	3
Al			1	490760.980	ug/l	0.79	90,417,018.67	1.274E+02	Analog	1.00	3
Se			1	70.886	ug/l	0.91	2,798.87	6.531E-03	Pulse	3.00	3
Sb			1	5.511	ug/l	3.19	13,841.55	3.230E-02	Pulse	1.00	3
Se			1	214.760	ug/l	2.54	4,010.54	9.358E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,262,608.33	1.61	87.2	Pulse	0.50	3
1	Sc		709,649.19	1.01	127.6	Pulse	0.30	3
1	Ge		323,962.78	0.28	100.0	Pulse	0.30	3
1	In		2,387,899.90	1.34	83.8	Pulse	0.30	3
1	Tb		7,355,478.50	1.42	98.8	Analog	0.50	3
1	Lu		4,817,229.67	1.89	87.7	Pulse	0.50	3
1	Ge		428,541.58	0.23	90.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		70.00	20.00	5250.0	Pulse	0.50	3
1	Li		3,943.74	4.59	84.4	Pulse	0.30	3

Quantitation Report

File Name	070CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:11
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.710	ug/l	0.84	1,018,541.36	3.259E+00	Pulse	0.50	3
As			1	49.192	ug/l	1.32	117,968.52	3.774E-01	Pulse	1.00	3
Mo			1	49.208	ug/l	0.41	492,318.93	1.070E+00	Pulse	0.50	3
Pb			1	50.510	ug/l	0.62	1,978,801.00	4.247E-01	Pulse	1.00	3
Be			1	49.317	ug/l	1.86	8,215.16	1.531E-02	Pulse	2.00	3
Ag			1	49.598	ug/l	1.21	1,608,205.13	3.494E+00	Pulse	0.50	3
Ba			1	48.720	ug/l	0.55	206,182.48	7.860E-02	Pulse	0.50	3
Tl			1	51.361	ug/l	0.56	2,889,674.50	6.201E-01	Pulse	0.50	3
Sn			1	48.749	ug/l	0.89	490,101.35	1.868E-01	Pulse	0.30	3
Sr			1	47.511	ug/l	0.91	614,918.73	2.344E-01	Pulse	0.50	3
[Pb]			1	48.863	ug/l	0.54	940,956.69	2.019E-01	Pulse	0.50	3
Ca			1	4821.043	ug/l	0.88	391,456.23	7.296E-01	Pulse	0.50	3
Ti			1	47.632	ug/l	1.08	25,821.66	4.813E-02	Pulse	0.50	3
Na			1	4985.943	ug/l	0.65	17,162,648.67	3.199E+01	Analog	1.00	3
Mg			1	4982.968	ug/l	0.66	8,493,062.33	1.583E+01	Analog	1.00	3
K			1	4890.501	ug/l	0.26	7,853,980.00	1.464E+01	Analog	1.00	3
V			1	49.980	ug/l	1.10	810,291.92	1.510E+00	Pulse	0.50	3
Mn			1	48.654	ug/l	0.28	591,394.79	1.892E+00	Pulse	0.50	3
Fe			1	5115.732	ug/l	0.33	86,822,565.33	2.778E+02	Analog	0.50	3
Co			1	51.467	ug/l	0.76	1,570,911.21	5.026E+00	Pulse	0.50	3
Ni			1	51.352	ug/l	0.71	423,098.59	1.354E+00	Pulse	0.50	3
Cu			1	50.185	ug/l	1.58	1,116,594.79	2.426E+00	Pulse	0.50	3
Zn			1	50.053	ug/l	1.64	194,252.20	4.220E-01	Pulse	1.00	3
Cd			1	49.375	ug/l	1.43	246,780.38	5.361E-01	Pulse	0.50	3
Al			1	4775.261	ug/l	1.28	3,326,163.83	6.199E+00	Pulse	1.00	3
Se			1	47.761	ug/l	1.63	10,007.62	2.174E-02	Pulse	3.00	3
Sb			1	48.894	ug/l	1.04	655,778.40	1.425E+00	Pulse	1.00	3
Se			1	47.730	ug/l	0.72	4,781.38	1.039E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,659,577.83	1.09	95.4	Pulse	0.50	3
1	Sc		536,530.12	0.74	96.4	Pulse	0.30	3
1	Ge		312,554.97	0.93	96.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,623,345.04	0.46	92.0	Pulse	0.30	3
1	Tb		7,455,847.50	0.33	100.2	Analog	0.50	3
1	Lu		5,100,526.17	0.49	92.8	Pulse	0.50	3
1	Ge		460,318.82	0.40	96.9	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,166.01	3.91	89.1	Pulse	0.30	3

Quantitation Report

File Name	071_CCV.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:15
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.316	ug/l	1.27	2,011,942.66	6.442E+00	Pulse	0.50	3
As			1	98.471	ug/l	1.36	235,919.40	7.554E-01	Pulse	1.00	3
Mo			1	98.139	ug/l	1.08	982,928.88	2.133E+00	Pulse	0.50	3
Pb			1	101.118	ug/l	0.53	3,879,234.50	8.499E-01	Pulse	1.00	3
Be			1	98.012	ug/l	0.29	16,278.33	3.043E-02	Pulse	2.00	3
Ag			1	96.613	ug/l	0.79	3,136,356.00	6.805E+00	Pulse	0.50	3
Ba			1	97.873	ug/l	0.29	409,431.89	1.579E-01	Pulse	0.50	3
Tl			1	102.893	ug/l	0.34	5,670,240.83	1.242E+00	Pulse	0.50	3
Sn			1	98.434	ug/l	0.82	977,989.61	3.771E-01	Pulse	0.30	3
Sr			1	95.675	ug/l	0.25	1,223,642.63	4.718E-01	Pulse	0.50	3
[Pb]			1	98.035	ug/l	0.59	1,848,653.21	4.050E-01	Pulse	0.50	3
Ca			1	9589.725	ug/l	0.89	775,934.10	1.450E+00	Pulse	0.50	3
Ti			1	96.098	ug/l	1.21	51,937.86	9.708E-02	Pulse	0.50	3
Na			1	9910.888	ug/l	0.50	33,979,854.67	6.351E+01	Analog	1.00	3
Mg			1	9917.069	ug/l	0.88	16,853,344.00	3.150E+01	Analog	1.00	3
K			1	9760.898	ug/l	0.43	15,553,669.00	2.907E+01	Analog	1.00	3
V			1	100.124	ug/l	1.37	1,618,266.62	3.025E+00	Pulse	0.50	3
Mn			1	96.201	ug/l	1.26	1,167,845.29	3.739E+00	Pulse	0.50	3
Fe			1	10116.753	ug/l	0.45	171,552,666.67	5.493E+02	Analog	0.50	3
Co			1	101.629	ug/l	0.97	3,099,165.83	9.923E+00	Pulse	0.50	3
Ni			1	100.729	ug/l	0.69	828,885.23	2.654E+00	Pulse	0.50	3
Cu			1	98.883	ug/l	0.80	2,180,681.25	4.731E+00	Pulse	0.50	3
Zn			1	98.132	ug/l	1.15	380,670.19	8.259E-01	Pulse	1.00	3
Cd			1	97.535	ug/l	1.93	488,047.33	1.059E+00	Pulse	0.50	3
Al			1	9604.021	ug/l	0.82	6,669,890.33	1.247E+01	Analog	1.00	3
Se			1	94.538	ug/l	1.06	19,782.99	4.292E-02	Pulse	3.00	3
Sb			1	97.421	ug/l	1.68	1,308,122.54	2.838E+00	Pulse	1.00	3
Se			1	94.411	ug/l	0.68	9,419.55	2.044E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,564,230.83	0.80	93.4	Pulse	0.50	3
1	Sc		535,016.84	1.02	96.2	Pulse	0.30	3
1	Ge		312,334.05	1.01	96.4	Pulse	0.30	3
1	In		2,593,492.40	0.26	91.0	Pulse	0.30	3
1	Tb		7,382,527.33	0.20	99.2	Analog	0.50	3
1	Lu		5,109,239.50	0.17	93.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		460,917.31	0.79	97.0	Pulse	0.30	3
1	Te		4.00	0.00	300.0	Pulse	0.50	3
1	Li		3,982.64	4.70	85.2	Pulse	0.30	3

Quantitation Report

File Name	072_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:19
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.009	ug/l	23.98	1,068.70	3.302E-03	Pulse	0.50	3
As			1	0.032	ug/l	6.80	103.67	3.203E-04	Pulse	1.00	3
Mo			1	0.140	ug/l	35.66	1,620.75	3.385E-03	Pulse	0.50	3
Pb			1	0.018	ug/l	25.48	2,006.46	4.222E-04	Pulse	1.00	3
Be			1	0.026	ug/l	23.32	6.17	1.106E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	15.36	635.35	1.326E-03	Pulse	0.50	3
Ba			1	0.036	ug/l	10.22	211.33	7.795E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	17.05	994.03	2.093E-04	Pulse	0.50	3
Sn			1	0.159	ug/l	26.90	2,022.35	7.461E-04	Pulse	0.30	3
Sr			1	0.090	ug/l	3.67	1,752.09	6.463E-04	Pulse	0.50	3
[Pb]			1	0.017	ug/l	19.13	978.70	2.058E-04	Pulse	0.50	3
Ca			1	2.504	ug/l	32.94	728.68	1.306E-03	Pulse	0.50	3
Ti			1	0.022	ug/l	26.91	18.00	3.225E-05	Pulse	0.50	3
Na			1	3.564	ug/l	6.90	53,728.56	9.632E-02	Pulse	1.00	3
Mg			1	1.518	ug/l	15.73	3,496.32	6.266E-03	Pulse	1.00	3
K			1	-1.236	ug/l	-28.11	79,531.57	1.426E-01	Pulse	1.00	3
V			1	0.032	ug/l	14.45	796.69	1.428E-03	Pulse	0.50	3
Mn			1	0.027	ug/l	32.83	914.69	2.826E-03	Pulse	0.50	3
Fe			1	4.102	ug/l	8.77	89,728.37	2.772E-01	Pulse	0.50	3
Co			1	0.010	ug/l	19.70	621.34	1.920E-03	Pulse	0.50	3
Ni			1	-0.016	ug/l	-14.03	276.67	8.548E-04	Pulse	0.50	3
Cu			1	-0.646	ug/l	-0.74	9,025.47	1.884E-02	Pulse	0.50	3
Zn			1	0.032	ug/l	61.63	815.02	1.701E-03	Pulse	1.00	3
Cd			1	0.012	ug/l	31.96	70.67	1.475E-04	Pulse	0.50	3
Al			1	4.684	ug/l	10.82	3,790.71	6.794E-03	Pulse	1.00	3
Se			1	0.110	ug/l	37.93	76.89	1.605E-04	Pulse	3.00	3
Sb			1	0.045	ug/l	8.18	719.35	1.502E-03	Pulse	1.00	3
Se			1	-0.009	ug/l	-361.43	52.78	1.101E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,759,879.33	2.72	97.4	Pulse	0.50	3
1	Sc		557,814.44	0.44	100.3	Pulse	0.30	3

Quantitation Report

1	Ge		323,737.25	0.43	99.9	Pulse	0.30	3
1	In		2,710,810.17	0.14	95.1	Pulse	0.30	3
1	Tb		7,629,222.17	1.06	102.5	Analog	0.50	3
1	Lu		5,142,991.17	0.44	93.6	Pulse	0.50	3
1	Ge		479,157.97	0.34	100.9	Pulse	0.30	3
1	Te		1.33	173.21	100.0	Pulse	0.50	3
1	Li		4,540.53	2.39	97.1	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:23
Sample Name	FC6760-55
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2319.851	ug/l	1.25	10,725,688.67	3.039E+01	Analog	0.50	3
As			1	251.525	ug/l	1.40	136,207.74	3.859E-01	Pulse	1.00	3
Mo			1	61.533	ug/l	0.82	115,785.12	2.677E-01	Pulse	0.50	3
Pb			1	745.394	ug/l	0.47	5,174,538.17	1.253E+00	Pulse	1.00	3
Be			1	22.133	ug/l	1.25	1,333.04	1.377E-03	Pulse	2.00	3
Ag			1	0.705	ug/l	3.99	4,438.55	1.027E-02	Pulse	0.50	3
Ba			1	7625.998	ug/l	0.76	5,823,783.17	2.460E+00	Analog	0.50	3
Tl			1	4.099	ug/l	0.28	41,030.95	9.935E-03	Pulse	0.50	3
Sn			1	69.425	ug/l	1.18	126,224.27	5.331E-02	Pulse	0.30	3
Sr			1	24388.288	ug/l	0.81	56,924,018.67	2.404E+01	Analog	0.50	3
[Pb]			1	737.330	ug/l	0.46	2,515,781.08	6.092E-01	Pulse	0.50	3
Ca			1	79950.575	ug/l	0.45	2,340,493.17	2.418E+00	Pulse	0.50	3
Ti			1	530.702	ug/l	0.69	103,804.96	1.072E-01	Pulse	0.50	3
Na			1	692.689	ug/l	0.72	929,527.48	9.603E-01	Pulse	1.00	3
Mg			1	13568.516	ug/l	0.25	8,345,643.67	8.621E+00	Analog	1.00	3
K			1	10542.177	ug/l	0.30	6,189,778.17	6.394E+00	Analog	1.00	3
V			1	2687.516	ug/l	0.77	15,718,578.00	1.624E+01	Analog	0.50	3
Mn			1	161.860	ug/l	1.41	444,469.89	1.260E+00	Pulse	0.50	3
Fe			1	895769.548	ug/l	1.24	3,432,310,698.67	9.726E+03	Analog	0.50	3
Co			1	53.107	ug/l	0.50	366,339.03	1.038E+00	Pulse	0.50	3
Ni			1	158.862	ug/l	1.75	295,776.77	8.380E-01	Pulse	0.50	3
Cu			1	74.247	ug/l	1.03	325,443.22	7.525E-01	Pulse	0.50	3
Zn			1	210.887	ug/l	0.54	153,868.82	3.558E-01	Pulse	1.00	3
Cd			1	1.215	ug/l	4.09	1,145.37	2.650E-03	Pulse	0.50	3
Al			1	440469.127	ug/l	0.17	110,696,082.67	1.144E+02	Analog	1.00	3
Se			1	106.852	ug/l	1.47	4,232.80	9.789E-03	Pulse	3.00	3
Sb			1	19.192	ug/l	1.10	48,430.81	1.120E-01	Pulse	1.00	3
Se			1	295.747	ug/l	1.14	5,554.03	1.285E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,130,000.92	1.95	84.5	Pulse	0.50	3
1	Sc		968,014.02	1.09	174.0	Pulse	0.30	3
1	Ge		352,946.50	2.02	109.0	Pulse	0.30	3
1	In		2,367,650.81	1.50	83.1	Pulse	0.30	3
1	Tb		7,406,514.17	1.26	99.5	Analog	0.50	3
1	Lu		4,727,400.83	1.74	86.0	Pulse	0.50	3
1	Ge		432,425.29	1.67	91.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		92.00	15.22	6900.0	Pulse	0.50	3
1	Li		3,688.13	5.92	78.9	Pulse	0.30	3

Quantitation Report

File Name	074SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:26
Sample Name	FC6760-56
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2446.150	ug/l	0.64	11,806,015.33	3.205E+01	Analog	0.50	3
As			1	257.557	ug/l	0.96	145,608.64	3.952E-01	Pulse	1.00	3
Mo			1	89.304	ug/l	1.59	167,155.04	3.884E-01	Pulse	0.50	3
Pb			1	793.986	ug/l	2.03	5,413,432.33	1.335E+00	Pulse	1.00	3
Be			1	21.162	ug/l	2.12	1,431.89	1.317E-03	Pulse	2.00	3
Ag			1	0.693	ug/l	3.59	4,344.53	1.010E-02	Pulse	0.50	3
Ba			1	8365.392	ug/l	1.08	6,328,329.83	2.698E+00	Analog	0.50	3
Tl			1	5.785	ug/l	2.82	56,821.28	1.401E-02	Pulse	0.50	3
Sn			1	76.423	ug/l	1.29	137,612.06	5.867E-02	Pulse	0.30	3
Sr			1	26752.366	ug/l	0.65	61,853,006.67	2.637E+01	Analog	0.50	3
[Pb]			1	787.031	ug/l	1.91	2,637,464.25	6.502E-01	Pulse	0.50	3
Ca			1	74635.214	ug/l	0.87	2,453,807.75	2.257E+00	Pulse	0.50	3
Ti			1	513.175	ug/l	0.36	112,718.81	1.037E-01	Pulse	0.50	3
Na			1	719.060	ug/l	0.60	1,080,472.13	9.940E-01	Pulse	1.00	3
Mg			1	17318.857	ug/l	0.54	11,961,375.67	1.100E+01	Analog	1.00	3
K			1	26036.074	ug/l	0.54	16,931,100.33	1.558E+01	Analog	1.00	3
V			1	2653.302	ug/l	0.94	17,427,291.33	1.603E+01	Analog	0.50	3
Mn			1	249.971	ug/l	0.85	716,253.60	1.944E+00	Pulse	0.50	3
Fe			1	1163287.862	ug/l	0.41	4,652,944,213.33	1.263E+04	Analog	0.50	3
Co			1	42.379	ug/l	1.62	305,279.55	8.285E-01	Pulse	0.50	3
Ni			1	115.035	ug/l	1.54	223,717.24	6.072E-01	Pulse	0.50	3
Cu			1	119.044	ug/l	2.54	506,452.69	1.177E+00	Pulse	0.50	3
Zn			1	264.350	ug/l	2.13	191,796.04	4.456E-01	Pulse	1.00	3
Cd			1	1.051	ug/l	5.88	987.37	2.295E-03	Pulse	0.50	3
Al			1	406465.450	ug/l	0.60	114,713,269.33	1.055E+02	Analog	1.00	3
Se			1	125.615	ug/l	2.10	4,944.64	1.149E-02	Pulse	3.00	3
Sb			1	30.934	ug/l	1.82	77,646.87	1.804E-01	Pulse	1.00	3
Se			1	317.003	ug/l	2.91	5,921.70	1.376E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,055,878.75	1.60	83.0	Pulse	0.50	3
1	Sc		1,087,024.09	2.66	195.4	Pulse	0.30	3
1	Ge		368,379.80	2.78	113.7	Pulse	0.30	3
1	In		2,345,068.58	2.43	82.3	Pulse	0.30	3
1	Tb		7,330,435.00	1.79	98.5	Analog	0.50	3
1	Lu		4,666,835.33	2.50	84.9	Pulse	0.50	3
1	Ge		430,294.35	2.44	90.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		121.33	24.74	9100.0	Pulse	0.50	3
1	Li		3,484.76	2.80	74.6	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 16:30
Sample Name FC6760-57
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1189.372	ug/l	1.43	4,171,149.92	1.558E+01	Pulse	0.50	3
As			1	61.303	ug/l	1.35	25,195.55	9.412E-02	Pulse	1.00	3
Mo			1	7.416	ug/l	1.83	12,087.25	3.257E-02	Pulse	0.50	3
Pb			1	244.875	ug/l	0.34	1,627,127.96	4.118E-01	Pulse	1.00	3
Be			1	57.518	ug/l	1.96	2,143.28	3.574E-03	Pulse	2.00	3
Ag			1	1.271	ug/l	2.10	6,767.25	1.823E-02	Pulse	0.50	3
Ba			1	2161.299	ug/l	0.99	1,489,878.92	6.972E-01	Pulse	0.50	3
Tl			1	7.462	ug/l	0.37	71,348.37	1.806E-02	Pulse	0.50	3
Sn			1	44.688	ug/l	1.80	73,441.51	3.436E-02	Pulse	0.30	3
Sr			1	3192.425	ug/l	1.30	6,725,796.00	3.147E+00	Analog	0.50	3
[Pb]			1	244.893	ug/l	0.55	799,872.46	2.024E-01	Pulse	0.50	3
Ca			1	70837.335	ug/l	0.72	1,284,845.00	2.142E+00	Pulse	0.50	3
Ti			1	1693.208	ug/l	0.78	205,186.69	3.421E-01	Pulse	0.50	3
Na			1	1032.477	ug/l	0.56	836,827.35	1.395E+00	Pulse	1.00	3
Mg			1	70984.291	ug/l	0.43	27,047,198.67	4.510E+01	Analog	1.00	3
K			1	55513.205	ug/l	0.64	19,820,272.67	3.305E+01	Analog	1.00	3
V			1	630.463	ug/l	0.85	2,284,788.50	3.809E+00	Pulse	0.50	3
Mn			1	983.392	ug/l	1.12	2,045,939.62	7.643E+00	Pulse	0.50	3
Fe			1	317981.697	ug/l	1.31	924,179,221.33	3.453E+03	Analog	0.50	3
Co			1	133.223	ug/l	1.32	696,596.21	2.602E+00	Pulse	0.50	3
Ni			1	439.265	ug/l	1.46	619,650.58	2.315E+00	Pulse	0.50	3
Cu			1	345.850	ug/l	0.94	1,233,856.33	3.325E+00	Pulse	0.50	3
Zn			1	852.661	ug/l	1.06	532,305.87	1.434E+00	Pulse	1.00	3
Cd			1	3.130	ug/l	4.85	2,526.85	6.808E-03	Pulse	0.50	3
Al			1	922225.995	ug/l	0.51	143,601,856.00	2.394E+02	Analog	1.00	3
Se			1	21.865	ug/l	3.35	776.13	2.091E-03	Pulse	3.00	3
Sb			1	1.562	ug/l	1.78	3,448.66	9.292E-03	Pulse	1.00	3
Se			1	90.787	ug/l	2.48	1,492.28	4.021E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,951,576.92	1.99	80.9	Pulse	0.50	3
1	Sc		599,770.83	0.79	107.8	Pulse	0.30	3
1	Ge		267,686.60	0.88	82.6	Pulse	0.30	3
1	In		2,136,955.05	1.06	75.0	Pulse	0.30	3
1	Tb		6,670,861.50	1.09	89.6	Analog	0.50	3
1	Lu		4,572,775.00	0.95	83.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		371,135.72	0.06	78.1	Pulse	0.30	3
1	Te		11.33	10.19	850.0	Pulse	0.50	3
1	Li		3,321.41	1.18	71.1	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:34
Sample Name	FC6760-58
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	372.845	ug/l	0.60	1,358,579.87	4.887E+00	Pulse	0.50	3
As			1	47.591	ug/l	0.10	20,317.76	7.309E-02	Pulse	1.00	3
Mo			1	8.165	ug/l	1.79	14,013.26	3.582E-02	Pulse	0.50	3
Pb			1	314.479	ug/l	1.24	2,169,977.92	5.287E-01	Pulse	1.00	3
Be			1	18.109	ug/l	3.86	765.35	1.127E-03	Pulse	2.00	3
Ag			1	0.792	ug/l	1.09	4,497.23	1.150E-02	Pulse	0.50	3
Ba			1	1435.714	ug/l	0.91	1,032,638.56	4.631E-01	Pulse	0.50	3
Tl			1	19.882	ug/l	1.20	197,182.95	4.805E-02	Pulse	0.50	3
Sn			1	45.701	ug/l	1.54	78,354.55	3.514E-02	Pulse	0.30	3
Sr			1	1667.118	ug/l	0.37	3,664,837.58	1.644E+00	Pulse	0.50	3
[Pb]			1	312.786	ug/l	1.56	1,060,842.42	2.585E-01	Pulse	0.50	3
Ca			1	74522.180	ug/l	0.58	1,529,874.21	2.254E+00	Pulse	0.50	3
Ti			1	670.365	ug/l	1.25	91,954.21	1.354E-01	Pulse	0.50	3
Na			1	1233.198	ug/l	0.69	1,121,564.50	1.652E+00	Pulse	1.00	3
Mg			1	73155.383	ug/l	0.60	31,549,276.00	4.648E+01	Analog	1.00	3
K			1	74675.168	ug/l	0.78	30,141,486.67	4.440E+01	Analog	1.00	3
V			1	271.750	ug/l	0.46	1,114,878.83	1.642E+00	Pulse	0.50	3
Mn			1	54299.121	ug/l	0.86	117,297,128.00	4.219E+02	Analog	0.50	3
Fe			1	297208.084	ug/l	0.33	897,093,376.00	3.227E+03	Analog	0.50	3
Co			1	1005.445	ug/l	2.31	5,459,810.17	1.963E+01	Mix	0.50	3
Ni			1	3601.390	ug/l	0.76	5,273,936.83	1.897E+01	Pulse	0.50	3
Cu			1	813.294	ug/l	1.05	3,032,239.33	7.751E+00	Pulse	0.50	3
Zn			1	1561.329	ug/l	0.84	1,026,937.85	2.625E+00	Pulse	1.00	3
Cd			1	82.079	ug/l	0.43	69,727.15	1.782E-01	Pulse	0.50	3
Al			1	382692.465	ug/l	0.60	67,448,462.67	9.935E+01	Analog	1.00	3
Se			1	17.476	ug/l	0.73	662.57	1.694E-03	Pulse	3.00	3
Sb			1	1.270	ug/l	0.91	2,968.25	7.588E-03	Pulse	1.00	3
Se			1	64.372	ug/l	1.11	1,127.93	2.884E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,103,667.08	1.61	84.0	Pulse	0.50	3
1	Sc		678,858.86	2.08	122.0	Pulse	0.30	3
1	Ge		278,000.76	1.93	85.8	Pulse	0.30	3
1	In		2,229,498.66	2.01	78.2	Pulse	0.30	3
1	Tb		6,845,922.33	1.81	92.0	Analog	0.50	3
1	Lu		4,750,077.83	2.13	86.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		391,174.33	1.55	82.3	Pulse	0.30	3
1	Te		4.00	100.00	300.0	Pulse	0.50	3
1	Li		3,445.87	3.53	73.7	Pulse	0.30	3

Quantitation Report

File Name	077SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:38
Sample Name	FC6760-59
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	513.707	ug/l	1.56	1,884,373.54	6.732E+00	Pulse	0.50	3
As			1	60.876	ug/l	2.27	26,160.84	9.347E-02	Pulse	1.00	3
Mo			1	15.514	ug/l	1.34	26,664.25	6.776E-02	Pulse	0.50	3
Pb			1	293.182	ug/l	2.27	1,983,572.63	4.930E-01	Pulse	1.00	3
Be			1	18.106	ug/l	0.28	758.68	1.127E-03	Pulse	2.00	3
Ag			1	0.740	ug/l	1.77	4,236.50	1.077E-02	Pulse	0.50	3
Ba			1	1548.187	ug/l	1.36	1,110,555.33	4.994E-01	Pulse	0.50	3
Tl			1	21.809	ug/l	1.56	212,046.29	5.270E-02	Pulse	0.50	3
Sn			1	48.580	ug/l	1.08	83,053.11	3.734E-02	Pulse	0.30	3
Sr			1	1717.315	ug/l	0.48	3,765,071.33	1.693E+00	Pulse	0.50	3
[Pb]			1	289.774	ug/l	1.06	963,599.04	2.395E-01	Pulse	0.50	3
Ca			1	75162.595	ug/l	0.76	1,530,053.96	2.273E+00	Pulse	0.50	3
Ti			1	1340.068	ug/l	0.27	182,259.60	2.707E-01	Pulse	0.50	3
Na			1	1303.045	ug/l	1.55	1,172,282.79	1.742E+00	Pulse	1.00	3
Mg			1	97170.608	ug/l	1.17	41,553,610.67	6.173E+01	Analog	1.00	3
K			1	85001.504	ug/l	1.40	34,007,562.67	5.052E+01	Analog	1.00	3
V			1	609.551	ug/l	1.03	2,479,256.33	3.683E+00	Pulse	0.50	3
Mn			1	68924.152	ug/l	1.25	149,908,576.00	5.356E+02	Analog	0.50	3
Fe			1	362654.652	ug/l	0.63	1,102,162,986.67	3.938E+03	Analog	0.50	3
Co			1	1333.637	ug/l	1.41	7,289,139.50	2.604E+01	Analog	0.50	3
Ni			1	5418.280	ug/l	0.92	7,988,076.17	2.854E+01	Analog	0.50	3
Cu			1	883.722	ug/l	0.41	3,312,289.42	8.418E+00	Pulse	0.50	3
Zn			1	1765.294	ug/l	0.63	1,167,824.34	2.968E+00	Pulse	1.00	3
Cd			1	96.840	ug/l	0.36	82,747.73	2.103E-01	Pulse	0.50	3
Al			1	503779.004	ug/l	0.90	88,037,336.00	1.308E+02	Analog	1.00	3
Se			1	16.515	ug/l	3.23	632.01	1.607E-03	Pulse	3.00	3
Sb			1	1.892	ug/l	0.50	4,411.20	1.121E-02	Pulse	1.00	3
Se			1	56.946	ug/l	2.64	1,009.03	2.564E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,023,370.42	0.84	82.3	Pulse	0.50	3
1	Sc		673,183.74	1.55	121.0	Pulse	0.30	3
1	Ge		279,906.02	0.68	86.4	Pulse	0.30	3
1	In		2,223,694.77	1.70	78.0	Pulse	0.30	3
1	Tb		6,735,696.83	1.64	90.5	Analog	0.50	3
1	Lu		4,685,752.33	2.33	85.3	Pulse	0.50	3
1	Ge		393,475.21	1.41	82.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		6.00	33.33	450.0	Pulse	0.50	3
1	Li		3,623.68	1.77	77.5	Pulse	0.30	3

Quantitation Report

File Name	078SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:42
Sample Name	FC6760-60
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2046.672	ug/l	0.94	8,304,817.17	2.681E+01	Analog	0.50	3
As			1	327.459	ug/l	0.24	155,614.11	5.024E-01	Pulse	1.00	3
Mo			1	9.648	ug/l	2.05	17,053.11	4.227E-02	Pulse	0.50	3
Pb			1	575.560	ug/l	0.99	4,026,502.75	9.675E-01	Pulse	1.00	3
Be			1	32.351	ug/l	4.81	1,335.54	2.011E-03	Pulse	2.00	3
Ag			1	0.754	ug/l	0.48	4,421.21	1.096E-02	Pulse	0.50	3
Ba			1	4558.095	ug/l	0.59	3,353,637.83	1.470E+00	Pulse	0.50	3
Tl			1	4.342	ug/l	0.83	43,785.16	1.052E-02	Pulse	0.50	3
Sn			1	57.461	ug/l	0.57	100,693.79	4.415E-02	Pulse	0.30	3
Sr			1	12210.209	ug/l	0.61	27,455,805.33	1.204E+01	Analog	0.50	3
[Pb]			1	566.226	ug/l	1.00	1,947,065.58	4.678E-01	Pulse	0.50	3
Ca			1	142314.215	ug/l	0.93	2,858,229.25	4.303E+00	Pulse	0.50	3
Ti			1	515.809	ug/l	1.22	69,232.28	1.042E-01	Pulse	0.50	3
Na			1	886.584	ug/l	0.93	802,735.83	1.209E+00	Pulse	1.00	3
Mg			1	34065.514	ug/l	1.21	14,376,538.33	2.164E+01	Analog	1.00	3
K			1	10708.785	ug/l	0.84	4,312,930.67	6.493E+00	Pulse	1.00	3
V			1	1143.400	ug/l	1.42	4,588,977.67	6.908E+00	Pulse	0.50	3
Mn			1	1270.333	ug/l	0.75	3,057,895.58	9.873E+00	Pulse	0.50	3
Fe			1	548667.624	ug/l	0.79	1,845,180,202.67	5.957E+03	Analog	0.50	3
Co			1	118.349	ug/l	0.87	716,083.15	2.312E+00	Pulse	0.50	3
Ni			1	305.324	ug/l	0.87	498,490.68	1.609E+00	Pulse	0.50	3
Cu			1	50.720	ug/l	2.38	213,718.66	5.297E-01	Pulse	0.50	3
Zn			1	438.191	ug/l	2.08	297,647.65	7.378E-01	Pulse	1.00	3
Cd			1	4.346	ug/l	3.64	3,812.41	9.449E-03	Pulse	0.50	3
Al			1	529399.150	ug/l	1.01	91,298,184.00	1.374E+02	Analog	1.00	3
Se			1	80.062	ug/l	3.57	2,970.34	7.362E-03	Pulse	3.00	3
Sb			1	5.522	ug/l	2.64	13,055.64	3.236E-02	Pulse	1.00	3
Se			1	259.271	ug/l	2.47	4,548.66	1.127E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,161,602.50	1.57	85.2	Pulse	0.50	3
1	Sc		664,271.78	1.35	119.4	Pulse	0.30	3
1	Ge		309,712.04	1.41	95.6	Pulse	0.30	3
1	In		2,280,826.78	1.65	80.0	Pulse	0.30	3
1	Tb		7,241,779.33	0.84	97.3	Analog	0.50	3
1	Lu		4,773,510.67	1.48	86.9	Pulse	0.50	3
1	Ge		403,419.75	0.39	84.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		86.00	29.69	6450.0	Pulse	0.50	3
1	Li		3,348.07	5.79	71.6	Pulse	0.30	3

Quantitation Report

File Name	079SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:45
Sample Name	FC6760-62
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1709.593	ug/l	0.78	6,666,160.67	2.240E+01	Analog	0.50	3
As			1	387.099	ug/l	0.65	176,776.10	5.939E-01	Pulse	1.00	3
Mo			1	11.127	ug/l	1.20	19,324.63	4.869E-02	Pulse	0.50	3
Pb			1	459.081	ug/l	0.37	3,186,642.92	7.717E-01	Pulse	1.00	3
Be			1	29.667	ug/l	2.64	1,128.53	1.845E-03	Pulse	2.00	3
Ag			1	0.914	ug/l	3.77	5,242.76	1.321E-02	Pulse	0.50	3
Ba			1	3122.086	ug/l	0.59	2,268,788.50	1.007E+00	Pulse	0.50	3
Tl			1	4.343	ug/l	0.30	43,451.58	1.052E-02	Pulse	0.50	3
Sn			1	51.763	ug/l	0.55	89,621.35	3.978E-02	Pulse	0.30	3
Sr			1	8819.884	ug/l	0.42	19,588,146.00	8.695E+00	Analog	0.50	3
[Pb]			1	453.635	ug/l	0.34	1,547,748.17	3.748E-01	Pulse	0.50	3
Ca			1	282936.971	ug/l	0.62	5,232,261.33	8.554E+00	Analog	0.50	3
Ti			1	217.706	ug/l	1.67	26,911.81	4.399E-02	Pulse	0.50	3
Na			1	1482.804	ug/l	0.36	1,206,101.79	1.972E+00	Pulse	1.00	3
Mg			1	50054.518	ug/l	0.31	19,451,998.00	3.180E+01	Analog	1.00	3
K			1	18816.164	ug/l	0.55	6,910,669.83	1.130E+01	Analog	1.00	3
V			1	746.596	ug/l	0.55	2,759,373.33	4.511E+00	Pulse	0.50	3
Mn			1	2103.474	ug/l	0.79	4,865,212.00	1.635E+01	Pulse	0.50	3
Fe			1	383258.096	ug/l	0.64	1,238,526,720.00	4.161E+03	Analog	0.50	3
Co			1	167.375	ug/l	0.24	973,015.13	3.269E+00	Pulse	0.50	3
Ni			1	324.233	ug/l	1.03	508,665.10	1.709E+00	Pulse	0.50	3
Cu			1	69.718	ug/l	0.82	281,622.10	7.096E-01	Pulse	0.50	3
Zn			1	473.994	ug/l	0.34	316,675.92	7.979E-01	Pulse	1.00	3
Cd			1	8.413	ug/l	1.88	7,255.45	1.828E-02	Pulse	0.50	3
Al			1	505461.399	ug/l	0.70	80,270,304.00	1.312E+02	Analog	1.00	3
Se			1	74.570	ug/l	2.75	2,724.42	6.865E-03	Pulse	3.00	3
Sb			1	4.053	ug/l	0.65	9,448.10	2.381E-02	Pulse	1.00	3
Se			1	271.774	ug/l	1.00	4,688.36	1.181E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,129,046.75	1.27	84.5	Pulse	0.50	3
1	Sc		611,681.56	0.67	110.0	Pulse	0.30	3
1	Ge		297,629.91	0.91	91.9	Pulse	0.30	3
1	In		2,252,765.32	1.07	79.0	Pulse	0.30	3
1	Tb		7,194,057.33	0.93	96.7	Analog	0.50	3
1	Lu		4,839,169.83	1.48	88.1	Pulse	0.50	3
1	Ge		396,873.13	1.20	83.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		39.33	15.53	2950.0	Pulse	0.50	3
1	Li		3,322.51	2.68	71.1	Pulse	0.30	3

Quantitation Report

File Name	080SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:49
Sample Name	FC6760-63
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1755.032	ug/l	0.57	6,714,909.67	2.299E+01	Analog	0.50	3
As			1	375.599	ug/l	0.88	168,303.54	5.763E-01	Pulse	1.00	3
Mo			1	16.103	ug/l	0.55	27,221.73	7.032E-02	Pulse	0.50	3
Pb			1	524.733	ug/l	1.70	3,551,310.75	8.821E-01	Pulse	1.00	3
Be			1	38.382	ug/l	2.53	1,475.06	2.386E-03	Pulse	2.00	3
Ag			1	0.915	ug/l	1.59	5,118.72	1.322E-02	Pulse	0.50	3
Ba			1	3555.267	ug/l	1.06	2,536,495.08	1.147E+00	Pulse	0.50	3
Tl			1	5.448	ug/l	0.94	53,112.60	1.319E-02	Pulse	0.50	3
Sn			1	52.959	ug/l	0.66	90,011.05	4.070E-02	Pulse	0.30	3
Sr			1	10522.520	ug/l	0.73	22,943,352.67	1.037E+01	Analog	0.50	3
[Pb]			1	517.123	ug/l	0.85	1,720,271.46	4.273E-01	Pulse	0.50	3
Ca			1	373820.474	ug/l	0.19	6,987,813.33	1.130E+01	Analog	0.50	3
Ti			1	412.973	ug/l	1.29	51,599.74	8.344E-02	Pulse	0.50	3
Na			1	1785.004	ug/l	0.27	1,458,426.09	2.359E+00	Pulse	1.00	3
Mg			1	49524.020	ug/l	0.66	19,454,756.67	3.146E+01	Analog	1.00	3
K			1	19179.278	ug/l	0.39	7,118,884.33	1.151E+01	Analog	1.00	3
V			1	927.147	ug/l	1.04	3,463,958.50	5.602E+00	Pulse	0.50	3
Mn			1	10495.289	ug/l	0.12	23,816,987.33	8.155E+01	Analog	0.50	3
Fe			1	404880.306	ug/l	0.42	1,283,848,320.00	4.396E+03	Analog	0.50	3
Co			1	762.309	ug/l	0.94	4,347,463.33	1.489E+01	Pulse	0.50	3
Ni			1	427.097	ug/l	1.02	657,322.25	2.251E+00	Pulse	0.50	3
Cu			1	80.174	ug/l	1.41	313,069.56	8.087E-01	Pulse	0.50	3
Zn			1	582.958	ug/l	0.79	379,793.24	9.810E-01	Pulse	1.00	3
Cd			1	30.661	ug/l	1.67	25,780.61	6.659E-02	Pulse	0.50	3
Al			1	574834.315	ug/l	0.44	92,278,074.67	1.492E+02	Analog	1.00	3
Se			1	83.589	ug/l	1.34	2,973.90	7.682E-03	Pulse	3.00	3
Sb			1	5.913	ug/l	1.39	13,410.90	3.464E-02	Pulse	1.00	3
Se			1	327.911	ug/l	0.93	5,508.91	1.423E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,025,963.75	1.07	82.4	Pulse	0.50	3
1	Sc		618,331.17	0.76	111.1	Pulse	0.30	3
1	Ge		292,036.36	0.85	90.2	Pulse	0.30	3
1	In		2,211,735.40	1.18	77.6	Pulse	0.30	3
1	Tb		7,190,020.33	0.65	96.6	Analog	0.50	3
1	Lu		4,865,341.83	1.61	88.6	Pulse	0.50	3
1	Ge		387,118.70	0.74	81.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		41.33	36.32	3100.0	Pulse	0.50	3
1	Li		3,249.17	2.42	69.5	Pulse	0.30	3

Quantitation Report

File Name	081SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:53
Sample Name	FC6760-64
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2355.581	ug/l	0.74	8,980,496.33	3.086E+01	Analog	0.50	3
As			1	502.972	ug/l	1.60	224,569.43	7.717E-01	Pulse	1.00	3
Mo			1	15.343	ug/l	1.34	24,848.44	6.702E-02	Pulse	0.50	3
Pb			1	712.612	ug/l	0.92	4,569,290.00	1.198E+00	Pulse	1.00	3
Be			1	53.288	ug/l	3.45	2,157.95	3.311E-03	Pulse	2.00	3
Ag			1	1.520	ug/l	2.35	8,061.11	2.174E-02	Pulse	0.50	3
Ba			1	5185.801	ug/l	0.80	3,529,389.00	1.673E+00	Pulse	0.50	3
Tl			1	7.811	ug/l	0.60	72,090.07	1.890E-02	Pulse	0.50	3
Sn			1	64.346	ug/l	1.54	104,274.51	4.942E-02	Pulse	0.30	3
Sr			1	14807.678	ug/l	0.57	30,801,923.33	1.460E+01	Analog	0.50	3
[Pb]			1	705.522	ug/l	0.32	2,223,509.58	5.829E-01	Pulse	0.50	3
Ca			1	605209.341	ug/l	0.88	11,924,947.67	1.830E+01	Analog	0.50	3
Ti			1	576.941	ug/l	1.23	75,984.42	1.166E-01	Pulse	0.50	3
Na			1	2508.884	ug/l	1.18	2,141,316.25	3.285E+00	Pulse	1.00	3
Mg			1	57238.246	ug/l	0.90	23,701,910.00	3.636E+01	Analog	1.00	3
K			1	19482.549	ug/l	1.59	7,620,896.50	1.169E+01	Analog	1.00	3
V			1	1244.716	ug/l	0.66	4,901,878.83	7.520E+00	Pulse	0.50	3
Mn			1	19958.619	ug/l	0.66	45,132,890.67	1.551E+02	Analog	0.50	3
Fe			1	504651.169	ug/l	1.08	1,594,583,424.00	5.479E+03	Analog	0.50	3
Co			1	1042.252	ug/l	0.45	5,922,857.17	2.035E+01	Analog	0.50	3
Ni			1	659.325	ug/l	1.28	1,010,951.08	3.474E+00	Pulse	0.50	3
Cu			1	97.696	ug/l	1.30	361,376.08	9.746E-01	Pulse	0.50	3
Zn			1	733.192	ug/l	1.03	457,378.82	1.233E+00	Pulse	1.00	3
Cd			1	48.267	ug/l	1.12	38,867.27	1.048E-01	Pulse	0.50	3
Al			1	766227.776	ug/l	1.09	129,656,293.33	1.989E+02	Analog	1.00	3
Se			1	111.254	ug/l	1.35	3,777.49	1.019E-02	Pulse	3.00	3
Sb			1	7.868	ug/l	2.13	17,066.92	4.603E-02	Pulse	1.00	3
Se			1	451.659	ug/l	1.50	7,252.05	1.956E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,814,548.17	1.01	78.1	Pulse	0.50	3
1	Sc		651,834.02	1.29	117.2	Pulse	0.30	3
1	Ge		291,017.66	0.61	89.8	Pulse	0.30	3
1	In		2,110,040.13	1.17	74.0	Pulse	0.30	3
1	Tb		7,083,481.67	0.80	95.2	Analog	0.50	3
1	Lu		4,917,217.67	1.52	89.5	Pulse	0.50	3
1	Ge		370,795.12	0.37	78.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		64.00	20.49	4800.0	Pulse	0.50	3
1	Li		3,152.49	2.09	67.4	Pulse	0.30	3

Quantitation Report

File Name	082SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 16:57
Sample Name	FC6760-65
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1735.451	ug/l	1.65	6,570,232.17	2.274E+01	Analog	0.50	3
As			1	230.017	ug/l	1.19	101,999.17	3.530E-01	Pulse	1.00	3
Mo			1	18.503	ug/l	2.53	30,711.76	8.075E-02	Pulse	0.50	3
Pb			1	534.159	ug/l	1.60	3,627,714.33	8.979E-01	Pulse	1.00	3
Be			1	28.086	ug/l	1.77	1,083.53	1.747E-03	Pulse	2.00	3
Ag			1	0.919	ug/l	1.94	5,050.71	1.328E-02	Pulse	0.50	3
Ba			1	5694.997	ug/l	1.17	3,994,465.58	1.837E+00	Pulse	0.50	3
Tl			1	4.313	ug/l	0.88	42,222.51	1.045E-02	Pulse	0.50	3
Sn			1	55.755	ug/l	1.77	93,155.51	4.284E-02	Pulse	0.30	3
Sr			1	14268.026	ug/l	0.43	30,586,582.00	1.407E+01	Analog	0.50	3
[Pb]			1	526.118	ug/l	1.66	1,756,288.96	4.347E-01	Pulse	0.50	3
Ca			1	96227.224	ug/l	0.65	1,805,143.83	2.910E+00	Pulse	0.50	3
Ti			1	829.245	ug/l	0.48	103,940.42	1.675E-01	Pulse	0.50	3
Na			1	1179.971	ug/l	0.38	982,733.08	1.584E+00	Pulse	1.00	3
Mg			1	29368.101	ug/l	0.55	11,575,248.00	1.866E+01	Analog	1.00	3
K			1	10652.822	ug/l	0.35	4,007,523.75	6.460E+00	Pulse	1.00	3
V			1	764.536	ug/l	0.86	2,865,752.92	4.619E+00	Pulse	0.50	3
Mn			1	990.522	ug/l	1.60	2,224,697.50	7.699E+00	Pulse	0.50	3
Fe			1	406292.228	ug/l	1.43	1,274,821,589.33	4.411E+03	Analog	0.50	3
Co			1	117.145	ug/l	1.88	661,286.92	2.288E+00	Pulse	0.50	3
Ni			1	364.778	ug/l	1.51	555,581.87	1.923E+00	Pulse	0.50	3
Cu			1	67.666	ug/l	2.01	262,527.25	6.902E-01	Pulse	0.50	3
Zn			1	361.827	ug/l	1.83	231,811.04	6.095E-01	Pulse	1.00	3
Cd			1	2.453	ug/l	5.39	2,030.12	5.338E-03	Pulse	0.50	3
Al			1	559267.163	ug/l	0.99	90,073,813.33	1.452E+02	Analog	1.00	3
Se			1	74.863	ug/l	1.92	2,621.40	6.891E-03	Pulse	3.00	3
Sb			1	4.683	ug/l	3.33	10,448.98	2.747E-02	Pulse	1.00	3
Se			1	240.254	ug/l	2.33	3,977.08	1.046E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,040,009.08	0.63	82.7	Pulse	0.50	3
1	Sc		620,372.44	0.13	111.5	Pulse	0.30	3
1	Ge		289,009.80	1.11	89.2	Pulse	0.30	3
1	In		2,174,423.87	0.49	76.3	Pulse	0.30	3
1	Tb		7,002,671.67	0.34	94.1	Analog	0.50	3
1	Lu		4,565,631.17	1.13	83.1	Pulse	0.50	3
1	Ge		380,396.02	0.85	80.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		42.00	4.76	3150.0	Pulse	0.50	3
1	Li		3,313.62	3.37	70.9	Pulse	0.30	3

Quantitation Report

File Name	083CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:01
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.246	ug/l	0.98	889,530.58	3.228E+00	Pulse	0.50	3
As			1	49.231	ug/l	0.10	104,069.96	3.777E-01	Pulse	1.00	3
Mo			1	50.547	ug/l	1.27	448,722.23	1.099E+00	Pulse	0.50	3
Pb			1	50.461	ug/l	0.59	1,891,686.04	4.243E-01	Pulse	1.00	3
Be			1	49.547	ug/l	0.83	7,064.89	1.538E-02	Pulse	2.00	3
Ag			1	51.234	ug/l	1.87	1,474,046.33	3.609E+00	Pulse	0.50	3
Ba			1	49.788	ug/l	0.82	191,661.67	8.032E-02	Pulse	0.50	3
Tl			1	51.574	ug/l	0.50	2,776,509.58	6.227E-01	Pulse	0.50	3
Sn			1	48.945	ug/l	1.03	447,596.07	1.876E-01	Pulse	0.30	3
Sr			1	46.863	ug/l	0.85	551,710.96	2.312E-01	Pulse	0.50	3
[Pb]			1	48.784	ug/l	0.09	898,898.81	2.016E-01	Pulse	0.50	3
Ca			1	4793.316	ug/l	1.07	333,194.38	7.254E-01	Pulse	0.50	3
Ti			1	47.821	ug/l	3.31	22,196.59	4.832E-02	Pulse	0.50	3
Na			1	4919.333	ug/l	0.36	14,496,856.33	3.156E+01	Analog	1.00	3
Mg			1	4948.883	ug/l	0.87	7,221,136.00	1.572E+01	Analog	1.00	3
K			1	4856.215	ug/l	0.25	6,676,901.33	1.454E+01	Analog	1.00	3
V			1	50.856	ug/l	1.72	705,870.91	1.537E+00	Pulse	0.50	3
Mn			1	48.229	ug/l	0.86	516,817.01	1.876E+00	Pulse	0.50	3
Fe			1	5100.087	ug/l	0.09	76,301,890.67	2.769E+02	Analog	0.50	3
Co			1	51.550	ug/l	0.82	1,387,074.87	5.034E+00	Pulse	0.50	3
Ni			1	51.330	ug/l	0.81	372,821.11	1.353E+00	Pulse	0.50	3
Cu			1	50.162	ug/l	1.56	990,301.02	2.425E+00	Pulse	0.50	3
Zn			1	49.273	ug/l	1.76	169,679.84	4.154E-01	Pulse	1.00	3
Cd			1	50.636	ug/l	1.39	224,553.19	5.498E-01	Pulse	0.50	3
Al			1	4734.734	ug/l	1.27	2,823,413.17	6.147E+00	Pulse	1.00	3
Se			1	47.227	ug/l	1.09	8,780.79	2.150E-02	Pulse	3.00	3
Sb			1	50.271	ug/l	1.33	598,263.08	1.465E+00	Pulse	1.00	3
Se			1	47.351	ug/l	0.87	4,209.13	1.031E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,458,562.00	1.45	91.2	Pulse	0.50	3
1	Sc		459,299.60	0.96	82.6	Pulse	0.30	3
1	Ge		275,526.41	1.46	85.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,386,124.00	1.44	83.7	Pulse	0.30	3
1	Tb		7,061,291.17	0.56	94.9	Analog	0.50	3
1	Lu		4,818,941.83	1.47	87.7	Pulse	0.50	3
1	Ge		408,426.85	0.71	86.0	Pulse	0.30	3
1	Te		3.33	91.65	250.0	Pulse	0.50	3
1	Li		3,490.32	3.47	74.7	Pulse	0.30	3

Quantitation Report

File Name	084_CCV.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:05
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.669	ug/l	0.38	1,760,515.50	6.334E+00	Pulse	0.50	3
As			1	97.191	ug/l	0.80	207,224.51	7.456E-01	Pulse	1.00	3
Mo			1	100.341	ug/l	1.05	893,292.31	2.181E+00	Pulse	0.50	3
Pb			1	101.237	ug/l	0.40	3,696,162.75	8.509E-01	Pulse	1.00	3
Be			1	96.889	ug/l	1.04	13,875.56	3.008E-02	Pulse	2.00	3
Ag			1	99.143	ug/l	0.94	2,860,770.83	6.983E+00	Pulse	0.50	3
Ba			1	99.921	ug/l	1.44	380,068.14	1.612E-01	Pulse	0.50	3
Tl			1	102.973	ug/l	0.63	5,400,565.17	1.243E+00	Pulse	0.50	3
Sn			1	98.673	ug/l	1.47	891,356.49	3.780E-01	Pulse	0.30	3
Sr			1	94.372	ug/l	1.00	1,097,473.34	4.654E-01	Pulse	0.50	3
[Pb]			1	98.217	ug/l	0.86	1,762,572.58	4.058E-01	Pulse	0.50	3
Ca			1	9532.482	ug/l	0.81	665,099.58	1.442E+00	Pulse	0.50	3
Ti			1	95.748	ug/l	0.91	44,624.56	9.673E-02	Pulse	0.50	3
Na			1	9746.767	ug/l	0.68	28,815,962.67	6.246E+01	Analog	1.00	3
Mg			1	9769.391	ug/l	0.99	14,316,087.00	3.103E+01	Analog	1.00	3
K			1	9669.168	ug/l	0.30	13,286,642.67	2.880E+01	Analog	1.00	3
V			1	101.281	ug/l	1.30	1,411,546.42	3.060E+00	Pulse	0.50	3
Mn			1	94.332	ug/l	0.19	1,019,144.54	3.667E+00	Pulse	0.50	3
Fe			1	9964.488	ug/l	0.38	150,367,562.67	5.410E+02	Analog	0.50	3
Co			1	100.266	ug/l	0.59	2,721,038.25	9.790E+00	Pulse	0.50	3
Ni			1	99.794	ug/l	0.64	730,787.73	2.629E+00	Pulse	0.50	3
Cu			1	97.795	ug/l	1.05	1,917,224.33	4.680E+00	Pulse	0.50	3
Zn			1	96.938	ug/l	0.76	334,258.11	8.159E-01	Pulse	1.00	3
Cd			1	99.412	ug/l	1.06	442,178.20	1.079E+00	Pulse	0.50	3
Al			1	9507.278	ug/l	1.51	5,693,122.67	1.234E+01	Analog	1.00	3
Se			1	92.896	ug/l	0.79	17,280.35	4.218E-02	Pulse	3.00	3
Sb			1	99.981	ug/l	1.34	1,193,300.92	2.913E+00	Pulse	1.00	3
Se			1	93.045	ug/l	0.95	8,252.01	2.014E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,343,859.50	0.66	88.9	Pulse	0.50	3
1	Sc		461,364.63	1.67	82.9	Pulse	0.30	3
1	Ge		277,939.69	0.61	85.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,358,287.34	0.92	82.7	Pulse	0.30	3
1	Tb		7,045,693.00	0.96	94.7	Analog	0.50	3
1	Lu		4,816,632.67	0.44	87.7	Pulse	0.50	3
1	Ge		409,693.01	0.87	86.2	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		3,499.21	2.61	74.9	Pulse	0.30	3

Quantitation Report

File Name	085_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:08
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.015	ug/l	17.55	1,053.36	3.663E-03	Pulse	0.50	3
As			1	0.026	ug/l	7.86	79.67	2.771E-04	Pulse	1.00	3
Mo			1	0.128	ug/l	29.37	1,323.39	3.114E-03	Pulse	0.50	3
Pb			1	0.025	ug/l	17.47	2,151.47	4.791E-04	Pulse	1.00	3
Be			1	0.017	ug/l	33.43	4.00	8.323E-06	Pulse	2.00	3
Ag			1	0.013	ug/l	28.36	537.34	1.266E-03	Pulse	0.50	3
Ba			1	0.046	ug/l	19.87	235.33	9.505E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	18.80	898.70	2.003E-04	Pulse	0.50	3
Sn			1	0.171	ug/l	18.83	1,961.23	7.922E-04	Pulse	0.30	3
Sr			1	0.104	ug/l	6.43	1,774.09	7.166E-04	Pulse	0.50	3
[Pb]			1	0.020	ug/l	26.84	977.37	2.177E-04	Pulse	0.50	3
Ca			1	3.584	ug/l	29.62	706.02	1.469E-03	Pulse	0.50	3
Ti			1	0.037	ug/l	25.42	22.67	4.717E-05	Pulse	0.50	3
Na			1	2.816	ug/l	6.85	43,973.96	9.153E-02	Pulse	1.00	3
Mg			1	1.915	ug/l	7.83	3,616.67	7.528E-03	Pulse	1.00	3
K			1	-1.570	ug/l	-29.04	68,024.67	1.416E-01	Pulse	1.00	3
V			1	0.041	ug/l	8.67	810.02	1.686E-03	Pulse	0.50	3
Mn			1	0.141	ug/l	6.44	2,093.45	7.278E-03	Pulse	0.50	3
Fe			1	5.454	ug/l	3.73	100,817.58	3.506E-01	Pulse	0.50	3
Co			1	0.013	ug/l	23.44	641.35	2.232E-03	Pulse	0.50	3
Ni			1	-0.006	ug/l	-11.71	319.33	1.111E-03	Pulse	0.50	3
Cu			1	-0.670	ug/l	-0.49	7,529.49	1.773E-02	Pulse	0.50	3
Zn			1	0.036	ug/l	19.94	735.35	1.732E-03	Pulse	1.00	3
Cd			1	0.013	ug/l	20.20	66.00	1.555E-04	Pulse	0.50	3
Al			1	7.650	ug/l	8.38	5,114.34	1.064E-02	Pulse	1.00	3
Se			1	0.060	ug/l	28.42	58.56	1.379E-04	Pulse	3.00	3
Sb			1	0.052	ug/l	13.86	718.35	1.691E-03	Pulse	1.00	3
Se			1	-0.062	ug/l	-123.86	41.89	9.862E-05	Pulse	3.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,495,527.33	2.09	92.0	Pulse	0.50	3
1	Sc		480,438.24	0.35	86.4	Pulse	0.30	3
1	Ge		287,568.54	1.00	88.8	Pulse	0.30	3
1	In		2,475,742.40	0.03	86.9	Pulse	0.30	3
1	Tb		7,300,265.83	0.54	98.1	Analog	0.50	3
1	Lu		4,846,630.67	0.76	88.2	Pulse	0.50	3
1	Ge		424,650.50	0.58	89.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		3,954.85	3.87	84.6	Pulse	0.30	3

Quantitation Report

File Name 086SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:12
Sample Name FC6562-3F
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.207	ug/l	3.56	1,826.09	6.650E-03	Pulse	0.50	3
As			1	5.700	ug/l	6.39	621.01	2.261E-03	Pulse	1.00	3
Mo			1	1.699	ug/l	15.68	892.69	2.189E-03	Pulse	0.50	3
Pb			1	0.554	ug/l	10.12	2,189.81	5.050E-04	Pulse	1.00	3
Be			1	0.451	ug/l	58.02	4.67	9.991E-06	Pulse	2.00	3
Ag			1	0.170	ug/l	13.89	380.68	9.345E-04	Pulse	0.50	3
Ba			1	696.957	ug/l	0.38	133,795.86	5.622E-02	Pulse	0.50	3
Tl			1	0.137	ug/l	28.00	518.01	1.195E-04	Pulse	0.50	3
Sn			1	4.368	ug/l	21.02	2,320.17	9.739E-04	Pulse	0.30	3
Sr			1	1848.427	ug/l	0.40	1,084,622.08	4.558E-01	Pulse	0.50	3
[Pb]			1	0.568	ug/l	9.22	1,090.71	2.515E-04	Pulse	0.50	3
Ca			1	153662.197	ug/l	0.30	543,189.25	1.162E+00	Pulse	0.50	3
Ti			1	2.179	ug/l	30.03	56.00	1.196E-04	Pulse	0.50	3
Na			1	69760.496	ug/l	0.73	10,468,904.00	2.240E+01	Analog	1.00	3
Mg			1	35418.419	ug/l	0.22	2,629,791.67	5.627E+00	Pulse	1.00	3
K			1	20922.308	ug/l	0.64	1,517,171.75	3.246E+00	Pulse	1.00	3
V			1	6.487	ug/l	3.35	4,794.60	1.026E-02	Pulse	0.50	3
Mn			1	489.851	ug/l	0.51	261,814.41	9.534E-01	Pulse	0.50	3
Fe			1	10808.319	ug/l	0.48	8,071,615.83	2.939E+01	Analog	0.50	3
Co			1	0.265	ug/l	10.77	620.01	2.258E-03	Pulse	0.50	3
Ni			1	0.787	ug/l	21.31	634.68	2.311E-03	Pulse	0.50	3
Cu			1	-8.951	ug/l	-2.89	11,509.45	2.825E-02	Pulse	0.50	3
Zn			1	3.471	ug/l	1.26	1,176.04	2.886E-03	Pulse	1.00	3
Cd			1	0.155	ug/l	29.74	39.33	9.670E-05	Pulse	0.50	3
Al			1	249.616	ug/l	14.14	7,905.94	1.692E-02	Pulse	1.00	3
Se			1	0.873	ug/l	47.47	53.22	1.306E-04	Pulse	3.00	3
Sb			1	1.096	ug/l	13.47	727.68	1.785E-03	Pulse	1.00	3
Se			1	0.922	ug/l	166.11	49.66	1.220E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,338,670.67	1.73	88.8	Pulse	0.50	3
1	Sc		467,375.15	0.99	84.0	Pulse	0.30	3
1	Ge		274,623.59	1.32	84.8	Pulse	0.30	3
1	In		2,379,687.48	1.04	83.5	Pulse	0.30	3
1	Tb		7,015,972.33	0.44	94.3	Analog	0.50	3
1	Lu		4,702,614.67	1.96	85.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		407,478.40	1.31	85.8	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		3,727.03	2.00	79.7	Pulse	0.30	3

Quantitation Report

File Name 087SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:16
Sample Name MP42379-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.840	ug/l	3.35	1,503.40	5.447E-03	Pulse	0.50	3
As			1	5.309	ug/l	8.34	582.68	2.111E-03	Pulse	1.00	3
Mo			1	0.869	ug/l	13.63	526.68	1.287E-03	Pulse	0.50	3
Pb			1	0.287	ug/l	14.44	1,715.42	3.930E-04	Pulse	1.00	3
Be			1	0.196	ug/l	165.34	2.83	6.036E-06	Pulse	2.00	3
Ag			1	0.075	ug/l	40.81	244.67	5.983E-04	Pulse	0.50	3
Ba			1	712.645	ug/l	0.60	136,996.03	5.749E-02	Pulse	0.50	3
Tl			1	-0.007	ug/l	-157.42	142.67	3.265E-05	Pulse	0.50	3
Sn			1	2.194	ug/l	23.46	1,330.06	5.577E-04	Pulse	0.30	3
Sr			1	1907.827	ug/l	0.11	1,120,992.33	4.704E-01	Pulse	0.50	3
[Pb]			1	0.338	ug/l	8.71	890.03	2.040E-04	Pulse	0.50	3
Ca			1	158159.291	ug/l	0.60	562,310.27	1.196E+00	Pulse	0.50	3
Ti			1	2.701	ug/l	13.67	68.67	1.460E-04	Pulse	0.50	3
Na			1	71985.675	ug/l	0.99	10,864,445.67	2.311E+01	Analog	1.00	3
Mg			1	36591.814	ug/l	0.65	2,732,613.17	5.813E+00	Pulse	1.00	3
K			1	21627.405	ug/l	1.32	1,575,050.29	3.351E+00	Pulse	1.00	3
V			1	6.539	ug/l	1.77	4,857.95	1.033E-02	Pulse	0.50	3
Mn			1	504.878	ug/l	1.88	271,188.28	9.826E-01	Pulse	0.50	3
Fe			1	11016.063	ug/l	0.76	8,267,913.33	2.996E+01	Analog	0.50	3
Co			1	0.051	ug/l	22.29	335.33	1.215E-03	Pulse	0.50	3
Ni			1	0.444	ug/l	11.05	513.34	1.860E-03	Pulse	0.50	3
Cu			1	-8.770	ug/l	-2.44	11,738.25	2.868E-02	Pulse	0.50	3
Zn			1	3.287	ug/l	8.17	1,149.70	2.809E-03	Pulse	1.00	3
Cd			1	0.055	ug/l	74.80	17.33	4.241E-05	Pulse	0.50	3
Al			1	60.528	ug/l	17.08	2,184.46	4.643E-03	Pulse	1.00	3
Se			1	0.512	ug/l	15.14	50.11	1.224E-04	Pulse	3.00	3
Sb			1	0.596	ug/l	17.00	432.67	1.057E-03	Pulse	1.00	3
Se			1	1.977	ug/l	77.65	54.55	1.333E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,363,010.83	1.22	89.3	Pulse	0.50	3
1	Sc		470,098.66	1.07	84.5	Pulse	0.30	3
1	Ge		275,992.28	0.37	85.2	Pulse	0.30	3
1	In		2,382,981.15	0.88	83.6	Pulse	0.30	3
1	Tb		7,013,875.50	0.52	94.3	Analog	0.50	3
1	Lu		4,717,767.00	1.33	85.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		409,270.83	0.74	86.1	Pulse	0.30	3
1	Te		2.00	100.00	150.0	Pulse	0.50	3
1	Li		3,735.92	3.15	79.9	Pulse	0.30	3

Quantitation Report

File Name 088SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:20
Sample Name MP42379-S1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	210.383	ug/l	1.79	193,129.26	6.917E-01	Pulse	0.50	3
As			1	220.179	ug/l	1.75	23,599.84	8.452E-02	Pulse	1.00	3
Mo			1	219.516	ug/l	1.33	99,103.09	2.388E-01	Pulse	0.50	3
Pb			1	215.939	ug/l	0.89	400,096.44	9.099E-02	Pulse	1.00	3
Be			1	208.204	ug/l	2.40	1,542.23	3.234E-03	Pulse	2.00	3
Ag			1	100.364	ug/l	0.20	146,797.29	3.538E-01	Pulse	0.50	3
Ba			1	908.673	ug/l	1.15	176,567.93	7.330E-02	Pulse	0.50	3
Tl			1	208.866	ug/l	0.19	554,565.69	1.261E-01	Pulse	0.50	3
Sn			1	214.002	ug/l	0.53	99,040.49	4.111E-02	Pulse	0.30	3
Sr			1	2050.611	ug/l	0.95	1,217,970.83	5.056E-01	Pulse	0.50	3
[Pb]			1	201.004	ug/l	1.14	183,107.15	4.164E-02	Pulse	0.50	3
Ca			1	172498.639	ug/l	0.40	622,084.16	1.305E+00	Pulse	0.50	3
Ti			1	208.586	ug/l	2.16	5,028.66	1.054E-02	Pulse	0.50	3
Na			1	88862.937	ug/l	0.46	13,597,258.67	2.851E+01	Analog	1.00	3
Mg			1	54294.847	ug/l	0.86	4,112,698.50	8.625E+00	Pulse	1.00	3
K			1	39865.822	ug/l	0.67	2,886,427.08	6.053E+00	Pulse	1.00	3
V			1	220.039	ug/l	0.36	158,702.22	3.328E-01	Pulse	0.50	3
Mn			1	695.216	ug/l	2.14	377,584.75	1.352E+00	Pulse	0.50	3
Fe			1	31336.065	ug/l	1.57	23,765,588.67	8.511E+01	Analog	0.50	3
Co			1	222.451	ug/l	1.33	303,483.90	1.087E+00	Pulse	0.50	3
Ni			1	217.158	ug/l	1.88	80,195.54	2.872E-01	Pulse	0.50	3
Cu			1	205.569	ug/l	1.08	222,466.44	5.361E-01	Pulse	0.50	3
Zn			1	206.550	ug/l	1.66	36,600.25	8.820E-02	Pulse	1.00	3
Cd			1	206.465	ug/l	0.12	46,513.49	1.121E-01	Pulse	0.50	3
Al			1	18900.631	ug/l	1.16	585,305.06	1.227E+00	Pulse	1.00	3
Se			1	189.257	ug/l	4.80	1,824.20	4.396E-03	Pulse	3.00	3
Sb			1	218.199	ug/l	0.89	131,967.71	3.180E-01	Pulse	1.00	3
Se			1	191.961	ug/l	2.17	903.80	2.178E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,396,969.17	0.83	90.0	Pulse	0.50	3
1	Sc		476,865.78	0.68	85.7	Pulse	0.30	3
1	Ge		279,241.98	0.74	86.2	Pulse	0.30	3
1	In		2,409,041.09	1.05	84.5	Pulse	0.30	3
1	Tb		7,095,633.17	0.15	95.4	Analog	0.50	3
1	Lu		4,801,131.33	0.92	87.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		414,950.14	0.59	87.3	Pulse	0.30	3
1	Te		2.67	114.56	200.0	Pulse	0.50	3
1	Li		3,863.72	4.89	82.7	Pulse	0.30	3

Quantitation Report

File Name 089SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:24
Sample Name MP42379-S2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.775	ug/l	0.62	196,949.72	7.028E-01	Pulse	0.50	3
As			1	219.451	ug/l	1.93	23,608.87	8.424E-02	Pulse	1.00	3
Mo			1	222.178	ug/l	0.85	100,074.77	2.417E-01	Pulse	0.50	3
Pb			1	217.519	ug/l	0.42	401,966.14	9.166E-02	Pulse	1.00	3
Be			1	207.781	ug/l	1.81	1,539.89	3.228E-03	Pulse	2.00	3
Ag			1	100.799	ug/l	0.81	147,101.61	3.553E-01	Pulse	0.50	3
Ba			1	897.203	ug/l	1.43	174,766.93	7.237E-02	Pulse	0.50	3
Tl			1	212.421	ug/l	0.66	562,538.85	1.283E-01	Pulse	0.50	3
Sn			1	217.690	ug/l	0.31	100,982.20	4.182E-02	Pulse	0.30	3
Sr			1	2034.782	ug/l	0.15	1,211,492.17	5.017E-01	Pulse	0.50	3
[Pb]			1	202.580	ug/l	0.69	184,053.06	4.197E-02	Pulse	0.50	3
Ca			1	170516.067	ug/l	0.29	615,190.65	1.290E+00	Pulse	0.50	3
Ti			1	208.737	ug/l	1.79	5,034.00	1.055E-02	Pulse	0.50	3
Na			1	88086.154	ug/l	0.18	13,484,182.00	2.827E+01	Analog	1.00	3
Mg			1	53972.846	ug/l	0.41	4,090,059.75	8.574E+00	Pulse	1.00	3
K			1	39683.405	ug/l	0.20	2,874,749.58	6.026E+00	Pulse	1.00	3
V			1	218.988	ug/l	0.33	158,008.76	3.312E-01	Pulse	0.50	3
Mn			1	693.266	ug/l	0.87	377,915.91	1.349E+00	Pulse	0.50	3
Fe			1	31093.882	ug/l	0.38	23,668,048.67	8.446E+01	Analog	0.50	3
Co			1	221.479	ug/l	0.73	303,264.72	1.082E+00	Pulse	0.50	3
Ni			1	218.014	ug/l	0.46	80,806.11	2.883E-01	Pulse	0.50	3
Cu			1	207.918	ug/l	0.51	224,260.19	5.417E-01	Pulse	0.50	3
Zn			1	209.175	ug/l	0.96	36,973.98	8.930E-02	Pulse	1.00	3
Cd			1	204.589	ug/l	0.81	45,987.64	1.111E-01	Pulse	0.50	3
Al			1	18959.012	ug/l	0.86	587,366.42	1.231E+00	Pulse	1.00	3
Se			1	193.277	ug/l	0.43	1,857.76	4.487E-03	Pulse	3.00	3
Sb			1	220.598	ug/l	0.48	133,113.99	3.215E-01	Pulse	1.00	3
Se			1	188.783	ug/l	2.15	887.69	2.144E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,385,519.67	0.98	89.7	Pulse	0.50	3
1	Sc		477,053.80	0.30	85.8	Pulse	0.30	3
1	Ge		280,240.81	0.48	86.5	Pulse	0.30	3
1	In		2,414,746.57	0.69	84.7	Pulse	0.30	3
1	Tb		7,095,915.83	0.41	95.4	Analog	0.50	3
1	Lu		4,796,929.00	1.06	87.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		414,010.97	0.67	87.1	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		3,832.61	1.12	82.0	Pulse	0.30	3

Quantitation Report

File Name	090SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:27
Sample Name	MP42379-PS1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.669	ug/l	0.63	10,572.90	3.764E-02	Pulse	0.50	3
As			1	15.425	ug/l	1.06	1,683.08	5.991E-03	Pulse	1.00	3
Mo			1	10.852	ug/l	7.15	5,048.03	1.213E-02	Pulse	0.50	3
Pb			1	10.658	ug/l	1.19	20,836.66	4.750E-03	Pulse	1.00	3
Be			1	8.763	ug/l	9.47	66.50	1.390E-04	Pulse	2.00	3
Ag			1	3.256	ug/l	2.57	4,910.00	1.180E-02	Pulse	0.50	3
Ba			1	716.862	ug/l	0.38	140,564.50	5.783E-02	Pulse	0.50	3
Tl			1	10.231	ug/l	2.27	27,255.06	6.213E-03	Pulse	0.50	3
Sn			1	10.768	ug/l	4.72	5,344.14	2.199E-03	Pulse	0.30	3
Sr			1	1890.017	ug/l	0.33	1,132,826.91	4.660E-01	Pulse	0.50	3
[Pb]			1	9.968	ug/l	2.52	9,616.74	2.193E-03	Pulse	0.50	3
Ca			1	157429.340	ug/l	0.37	569,437.23	1.191E+00	Pulse	0.50	3
Ti			1	9.197	ug/l	4.15	226.67	4.741E-04	Pulse	0.50	3
Na			1	71994.475	ug/l	0.81	11,054,613.67	2.312E+01	Analog	1.00	3
Mg			1	36935.373	ug/l	0.61	2,806,141.67	5.868E+00	Pulse	1.00	3
K			1	22313.432	ug/l	0.97	1,651,036.84	3.452E+00	Pulse	1.00	3
V			1	16.301	ug/l	1.36	11,995.71	2.508E-02	Pulse	0.50	3
Mn			1	510.242	ug/l	0.60	278,961.35	9.930E-01	Pulse	0.50	3
Fe			1	11909.799	ug/l	0.26	9,097,184.00	3.238E+01	Analog	0.50	3
Co			1	10.650	ug/l	1.99	14,877.06	5.295E-02	Pulse	0.50	3
Ni			1	10.954	ug/l	3.03	4,410.51	1.570E-02	Pulse	0.50	3
Cu			1	1.906	ug/l	23.71	22,447.71	5.395E-02	Pulse	0.50	3
Zn			1	13.868	ug/l	2.05	3,017.91	7.254E-03	Pulse	1.00	3
Cd			1	9.921	ug/l	5.94	2,246.14	5.398E-03	Pulse	0.50	3
Al			1	957.038	ug/l	0.86	30,050.85	6.283E-02	Pulse	1.00	3
Se			1	9.420	ug/l	13.62	134.89	3.242E-04	Pulse	3.00	3
Sb			1	10.109	ug/l	2.15	6,205.06	1.491E-02	Pulse	1.00	3
Se			1	9.121	ug/l	10.66	87.44	2.102E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,386,353.00	0.99	89.8	Pulse	0.50	3
1	Sc		478,266.79	1.22	86.0	Pulse	0.30	3
1	Ge		280,926.76	0.50	86.7	Pulse	0.30	3
1	In		2,430,815.18	1.46	85.3	Pulse	0.30	3
1	Tb		7,106,864.17	0.62	95.5	Analog	0.50	3
1	Lu		4,765,444.50	0.91	86.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		416,041.08	0.41	87.6	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		3,783.70	1.91	81.0	Pulse	0.30	3

Quantitation Report

File Name 091SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:31
Sample Name FC6543-4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.401	ug/l	5.00	2,198.13	7.951E-03	Pulse	0.50	3
As			1	13.363	ug/l	1.54	5,687.52	2.058E-02	Pulse	1.00	3
Mo			1	0.071	ug/l	39.93	266.67	6.527E-04	Pulse	0.50	3
Pb			1	0.134	ug/l	7.76	2,185.15	4.983E-04	Pulse	1.00	3
Be			1	0.049	ug/l	142.21	2.83	6.014E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	38.07	194.67	4.767E-04	Pulse	0.50	3
Ba			1	111.170	ug/l	0.70	84,911.65	3.588E-02	Pulse	0.50	3
Tl			1	0.000	ug/l	-3083.33	161.33	3.678E-05	Pulse	0.50	3
Sn			1	0.489	ug/l	2.89	1,212.27	5.122E-04	Pulse	0.30	3
Sr			1	591.395	ug/l	0.38	1,380,279.25	5.832E-01	Pulse	0.50	3
[Pb]			1	0.135	ug/l	8.46	1,078.04	2.458E-04	Pulse	0.50	3
Ca			1	23416.606	ug/l	0.53	334,504.64	7.088E-01	Pulse	0.50	3
Ti			1	0.568	ug/l	2.11	58.67	1.243E-04	Pulse	0.50	3
Na			1	9241.629	ug/l	0.31	5,618,185.83	1.190E+01	Analog	1.00	3
Mg			1	10101.900	ug/l	0.66	3,029,416.33	6.419E+00	Pulse	1.00	3
K			1	934.329	ug/l	0.82	330,346.51	7.000E-01	Pulse	1.00	3
V			1	1.928	ug/l	1.35	5,714.86	1.211E-02	Pulse	0.50	3
Mn			1	6913.612	ug/l	1.21	14,849,801.33	5.372E+01	Analog	0.50	3
Fe			1	41970.862	ug/l	0.74	125,984,458.67	4.558E+02	Analog	0.50	3
Co			1	17.191	ug/l	0.43	93,059.80	3.366E-01	Pulse	0.50	3
Ni			1	3.421	ug/l	3.06	5,333.42	1.929E-02	Pulse	0.50	3
Cu			1	-1.353	ug/l	-3.63	14,953.81	3.663E-02	Pulse	0.50	3
Zn			1	23.337	ug/l	1.15	16,593.46	4.064E-02	Pulse	1.00	3
Cd			1	0.019	ug/l	31.08	22.00	5.386E-05	Pulse	0.50	3
Al			1	17.474	ug/l	9.80	2,478.57	5.251E-03	Pulse	1.00	3
Se			1	0.342	ug/l	76.22	57.89	1.419E-04	Pulse	3.00	3
Sb			1	0.133	ug/l	8.11	393.00	9.624E-04	Pulse	1.00	3
Se			1	0.520	ug/l	23.53	54.89	1.344E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,386,726.33	1.96	89.8	Pulse	0.50	3
1	Sc		471,935.38	0.48	84.8	Pulse	0.30	3
1	Ge		276,436.24	1.06	85.3	Pulse	0.30	3
1	In		2,366,554.42	0.78	83.0	Pulse	0.30	3
1	Tb		7,043,892.33	0.81	94.7	Analog	0.50	3
1	Lu		4,720,809.50	1.74	85.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		408,280.61	0.56	85.9	Pulse	0.30	3
1	Te		0.67	173.21	50.0	Pulse	0.50	3
1	Li		3,673.69	4.09	78.6	Pulse	0.30	3

Quantitation Report

File Name	092SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:35
Sample Name	FC6760-4
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1720.800	ug/l	0.58	1,539,614.08	5.638E+00	Pulse	0.50	3
As			1	1509.136	ug/l	0.55	158,074.57	5.789E-01	Pulse	1.00	3
Mo			1	179.919	ug/l	0.98	77,320.87	1.958E-01	Pulse	0.50	3
Pb			1	433.049	ug/l	0.62	772,963.37	1.822E-01	Pulse	1.00	3
Be			1	32.345	ug/l	5.22	243.83	5.050E-04	Pulse	2.00	3
Ag			1	1.755	ug/l	2.86	2,572.85	6.514E-03	Pulse	0.50	3
Ba			1	5123.930	ug/l	0.14	942,998.96	4.132E-01	Pulse	0.50	3
Tl			1	11.509	ug/l	1.78	29,630.28	6.984E-03	Pulse	0.50	3
Sn			1	48.918	ug/l	1.16	21,689.52	9.504E-03	Pulse	0.30	3
Sr			1	12416.550	ug/l	1.37	6,984,161.33	3.060E+00	Analog	0.50	3
[Pb]			1	429.509	ug/l	0.51	376,833.42	8.883E-02	Pulse	0.50	3
Ca			1	945460.161	ug/l	0.17	3,448,978.92	7.146E+00	Pulse	0.50	3
Ti			1	2969.540	ug/l	0.96	72,390.82	1.500E-01	Pulse	0.50	3
Na			1	7548.521	ug/l	0.07	1,201,525.55	2.489E+00	Pulse	1.00	3
Mg			1	30908.825	ug/l	0.25	2,369,973.33	4.910E+00	Pulse	1.00	3
K			1	16314.306	ug/l	0.91	1,237,378.96	2.564E+00	Pulse	1.00	3
V			1	2719.175	ug/l	0.97	1,982,283.96	4.107E+00	Pulse	0.50	3
Mn			1	34760.082	ug/l	0.91	18,439,660.67	6.753E+01	Analog	0.50	3
Fe			1	711354.047	ug/l	0.57	527,295,616.00	1.931E+03	Analog	0.50	3
Co			1	2706.601	ug/l	0.99	3,608,224.58	1.321E+01	Pulse	0.50	3
Ni			1	1421.089	ug/l	0.93	511,316.54	1.872E+00	Pulse	0.50	3
Cu			1	523.540	ug/l	0.49	508,977.86	1.289E+00	Pulse	0.50	3
Zn			1	730.808	ug/l	0.44	121,804.73	3.084E-01	Pulse	1.00	3
Cd			1	63.970	ug/l	0.93	13,719.11	3.474E-02	Pulse	0.50	3
Al			1	771524.901	ug/l	0.17	24,168,887.33	5.008E+01	Analog	1.00	3
Se			1	75.534	ug/l	1.94	719.12	1.821E-03	Pulse	3.00	3
Sb			1	26.673	ug/l	0.29	15,417.79	3.904E-02	Pulse	1.00	3
Se			1	263.194	ug/l	4.36	1,162.70	2.945E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,242,324.00	0.20	86.8	Pulse	0.50	3
1	Sc		482,651.72	1.50	86.8	Pulse	0.30	3
1	Ge		273,076.14	0.60	84.3	Pulse	0.30	3
1	In		2,282,133.73	0.24	80.1	Pulse	0.30	3
1	Tb		6,942,671.33	0.83	93.3	Analog	0.50	3
1	Lu		4,724,846.33	0.50	86.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		394,910.34	0.91	83.1	Pulse	0.30	3
1	Te		13.33	52.68	1000.0	Pulse	0.50	3
1	Li		3,514.77	4.74	75.2	Pulse	0.30	3

Quantitation Report

File Name 093SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:39
Sample Name MP42382-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1799.749	ug/l	0.90	1,589,226.58	5.897E+00	Pulse	0.50	3
As			1	1279.988	ug/l	1.06	132,328.35	4.910E-01	Pulse	1.00	3
Mo			1	135.801	ug/l	1.55	56,957.28	1.479E-01	Pulse	0.50	3
Pb			1	474.036	ug/l	0.14	842,910.33	1.994E-01	Pulse	1.00	3
Be			1	33.474	ug/l	6.59	246.00	5.225E-04	Pulse	2.00	3
Ag			1	1.872	ug/l	4.05	2,668.20	6.927E-03	Pulse	0.50	3
Ba			1	5619.722	ug/l	0.57	1,019,269.83	4.532E-01	Pulse	0.50	3
Tl			1	7.665	ug/l	1.20	19,712.68	4.664E-03	Pulse	0.50	3
Sn			1	52.740	ug/l	1.75	23,018.92	1.024E-02	Pulse	0.30	3
Sr			1	14503.024	ug/l	0.84	8,039,218.00	3.575E+00	Analog	0.50	3
[Pb]			1	474.550	ug/l	0.30	414,755.55	9.813E-02	Pulse	0.50	3
Ca			1	1161801.782	ug/l	1.05	4,134,491.50	8.781E+00	Pulse	0.50	3
Ti			1	3149.062	ug/l	1.24	74,894.91	1.591E-01	Pulse	0.50	3
Na			1	9080.116	ug/l	0.66	1,402,948.50	2.980E+00	Pulse	1.00	3
Mg			1	33861.389	ug/l	0.72	2,532,878.92	5.379E+00	Pulse	1.00	3
K			1	18723.082	ug/l	0.44	1,375,085.00	2.920E+00	Pulse	1.00	3
V			1	2552.298	ug/l	1.01	1,815,314.38	3.855E+00	Pulse	0.50	3
Mn			1	20802.705	ug/l	0.53	10,891,951.67	4.041E+01	Analog	0.50	3
Fe			1	590005.330	ug/l	0.50	431,650,005.33	1.602E+03	Analog	0.50	3
Co			1	2244.927	ug/l	1.34	2,953,788.00	1.096E+01	Pulse	0.50	3
Ni			1	1218.336	ug/l	1.29	432,701.78	1.606E+00	Pulse	0.50	3
Cu			1	479.818	ug/l	1.71	456,574.48	1.185E+00	Pulse	0.50	3
Zn			1	725.448	ug/l	1.93	117,936.13	3.062E-01	Pulse	1.00	3
Cd			1	65.171	ug/l	2.17	13,631.70	3.539E-02	Pulse	0.50	3
Al			1	816418.916	ug/l	0.49	24,950,024.67	5.299E+01	Analog	1.00	3
Se			1	89.554	ug/l	1.24	823.80	2.139E-03	Pulse	3.00	3
Sb			1	27.775	ug/l	2.44	15,655.33	4.065E-02	Pulse	1.00	3
Se			1	296.362	ug/l	3.74	1,271.71	3.302E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,226,766.92	1.64	86.5	Pulse	0.50	3
1	Sc		470,856.39	0.28	84.6	Pulse	0.30	3
1	Ge		269,516.54	0.46	83.2	Pulse	0.30	3
1	In		2,249,049.49	0.89	78.9	Pulse	0.30	3
1	Tb		6,915,748.83	0.63	92.9	Analog	0.50	3
1	Lu		4,703,421.67	0.27	85.6	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		385,206.30	0.78	81.1	Pulse	0.30	3
1	Te		4.00	132.29	300.0	Pulse	0.50	3
1	Li		3,470.32	2.52	74.2	Pulse	0.30	3

Quantitation Report

File Name	094SMPL.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:43
Sample Name	MP42382-S1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2201.907	ug/l	0.45	1,955,288.33	7.214E+00	Pulse	0.50	3
As			1	1836.219	ug/l	0.89	190,913.60	7.043E-01	Pulse	1.00	3
Mo			1	622.707	ug/l	0.29	261,262.00	6.768E-01	Pulse	0.50	3
Pb			1	937.583	ug/l	0.47	1,660,241.21	3.942E-01	Pulse	1.00	3
Be			1	478.424	ug/l	1.92	3,516.31	7.428E-03	Pulse	2.00	3
Ag			1	236.406	ug/l	0.53	321,487.14	8.328E-01	Pulse	0.50	3
Ba			1	5605.166	ug/l	0.83	1,018,283.31	4.520E-01	Pulse	0.50	3
Tl			1	494.425	ug/l	1.18	1,257,376.50	2.985E-01	Pulse	0.50	3
Sn			1	544.994	ug/l	0.94	235,384.55	1.045E-01	Pulse	0.30	3
Sr			1	13501.654	ug/l	0.74	7,496,668.33	3.328E+00	Analog	0.50	3
[Pb]			1	898.167	ug/l	0.11	781,757.84	1.856E-01	Pulse	0.50	3
Ca			1	909384.509	ug/l	1.13	3,253,762.08	6.873E+00	Pulse	0.50	3
Ti			1	3622.980	ug/l	1.03	86,632.12	1.830E-01	Pulse	0.50	3
Na			1	51121.254	ug/l	0.68	7,780,046.50	1.643E+01	Analog	1.00	3
Mg			1	78393.543	ug/l	0.74	5,894,648.17	1.245E+01	Analog	1.00	3
K			1	58520.006	ug/l	0.61	4,173,876.42	8.817E+00	Pulse	1.00	3
V			1	3063.036	ug/l	1.23	2,190,289.00	4.627E+00	Pulse	0.50	3
Mn			1	15741.690	ug/l	0.44	8,289,096.33	3.058E+01	Analog	0.50	3
Fe			1	674449.593	ug/l	0.43	496,236,960.00	1.831E+03	Analog	0.50	3
Co			1	1702.101	ug/l	0.78	2,252,463.08	8.310E+00	Pulse	0.50	3
Ni			1	1513.677	ug/l	0.97	540,601.10	1.994E+00	Pulse	0.50	3
Cu			1	953.826	ug/l	0.44	890,733.12	2.308E+00	Pulse	0.50	3
Zn			1	1125.977	ug/l	0.59	183,143.93	4.745E-01	Pulse	1.00	3
Cd			1	534.828	ug/l	0.92	112,080.56	2.903E-01	Pulse	0.50	3
Al			1	845742.898	ug/l	1.18	25,985,302.00	5.489E+01	Analog	1.00	3
Se			1	513.563	ug/l	0.97	4,531.21	1.174E-02	Pulse	3.00	3
Sb			1	370.770	ug/l	0.61	208,548.09	5.403E-01	Pulse	1.00	3
Se			1	711.135	ug/l	0.37	2,997.90	7.766E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,211,946.42	0.81	86.2	Pulse	0.50	3
1	Sc		473,396.47	0.53	85.1	Pulse	0.30	3
1	Ge		271,047.71	0.68	83.7	Pulse	0.30	3
1	In		2,252,690.88	0.71	79.0	Pulse	0.30	3
1	Tb		6,911,755.50	0.30	92.9	Analog	0.50	3
1	Lu		4,697,588.17	0.59	85.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		386,000.86	0.81	81.2	Pulse	0.30	3
1	Te		12.00	88.19	900.0	Pulse	0.50	3
1	Li		3,300.30	5.68	70.6	Pulse	0.30	3

Quantitation Report

File Name 095SMPL.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:46
Sample Name MP42382-S2
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2788.070	ug/l	1.59	2,452,897.67	9.133E+00	Pulse	0.50	3
As			1	2647.128	ug/l	1.12	272,676.84	1.015E+00	Pulse	1.00	3
Mo			1	639.469	ug/l	1.20	266,545.60	6.950E-01	Pulse	0.50	3
Pb			1	1048.380	ug/l	1.73	1,845,633.67	4.407E-01	Pulse	1.00	3
Be			1	489.539	ug/l	0.97	3,625.16	7.601E-03	Pulse	2.00	3
Ag			1	244.548	ug/l	1.15	330,385.64	8.615E-01	Pulse	0.50	3
Ba			1	6686.375	ug/l	1.45	1,203,481.96	5.392E-01	Pulse	0.50	3
Tl			1	515.363	ug/l	1.54	1,303,043.45	3.111E-01	Pulse	0.50	3
Sn			1	576.474	ug/l	2.39	246,676.40	1.105E-01	Pulse	0.30	3
Sr			1	16259.093	ug/l	0.75	8,944,261.33	4.007E+00	Analog	0.50	3
[Pb]			1	1009.768	ug/l	1.77	873,790.33	2.087E-01	Pulse	0.50	3
Ca			1	1051558.825	ug/l	1.24	3,790,680.42	7.948E+00	Pulse	0.50	3
Ti			1	4340.696	ug/l	1.23	104,571.61	2.193E-01	Pulse	0.50	3
Na			1	52168.007	ug/l	1.11	7,998,346.00	1.677E+01	Analog	1.00	3
Mg			1	87012.442	ug/l	0.94	6,591,852.50	1.382E+01	Analog	1.00	3
K			1	63262.325	ug/l	1.26	4,540,381.50	9.520E+00	Pulse	1.00	3
V			1	3970.301	ug/l	1.73	2,860,293.75	5.997E+00	Pulse	0.50	3
Mn			1	6991.513	ug/l	0.91	3,647,932.08	1.358E+01	Pulse	0.50	3
Fe			1	926460.150	ug/l	0.87	675,386,752.00	2.515E+03	Analog	0.50	3
Co			1	1612.817	ug/l	0.86	2,114,652.54	7.874E+00	Pulse	0.50	3
Ni			1	1780.784	ug/l	1.15	630,083.52	2.346E+00	Pulse	0.50	3
Cu			1	1150.360	ug/l	1.35	1,063,360.77	2.773E+00	Pulse	0.50	3
Zn			1	1285.822	ug/l	1.51	207,705.30	5.416E-01	Pulse	1.00	3
Cd			1	557.087	ug/l	1.48	115,981.11	3.024E-01	Pulse	0.50	3
Al			1	1014700.416	ug/l	1.52	31,410,675.33	6.586E+01	Analog	1.00	3
Se			1	538.049	ug/l	0.78	4,714.36	1.229E-02	Pulse	3.00	3
Sb			1	376.450	ug/l	1.19	210,361.02	5.485E-01	Pulse	1.00	3
Se			1	775.792	ug/l	0.20	3,245.17	8.462E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,187,787.58	0.29	85.7	Pulse	0.50	3
1	Sc		476,953.45	0.22	85.7	Pulse	0.30	3
1	Ge		268,553.74	0.70	82.9	Pulse	0.30	3
1	In		2,231,934.70	0.63	78.3	Pulse	0.30	3
1	Tb		6,871,468.17	0.30	92.3	Analog	0.50	3
1	Lu		4,672,065.00	0.74	85.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		383,480.27	0.55	80.7	Pulse	0.30	3
1	Te		9.33	53.93	700.0	Pulse	0.50	3
1	Li		3,383.64	6.29	72.4	Pulse	0.30	3

Quantitation Report

File Name	096CCVA.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:50
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.871	ug/l	0.83	870,453.58	3.204E+00	Pulse	0.50	3
As			1	48.935	ug/l	0.82	102,010.92	3.754E-01	Pulse	1.00	3
Mo			1	50.701	ug/l	0.71	440,509.58	1.102E+00	Pulse	0.50	3
Pb			1	50.727	ug/l	1.34	1,874,391.42	4.265E-01	Pulse	1.00	3
Be			1	48.812	ug/l	0.48	6,813.64	1.515E-02	Pulse	2.00	3
Ag			1	51.392	ug/l	0.47	1,447,051.96	3.620E+00	Pulse	0.50	3
Ba			1	50.037	ug/l	0.61	188,229.48	8.072E-02	Pulse	0.50	3
Tl			1	51.629	ug/l	1.22	2,739,695.58	6.234E-01	Pulse	0.50	3
Sn			1	49.243	ug/l	0.09	440,045.08	1.887E-01	Pulse	0.30	3
Sr			1	46.607	ug/l	0.69	536,205.88	2.299E-01	Pulse	0.50	3
[Pb]			1	49.199	ug/l	1.57	893,594.48	2.033E-01	Pulse	0.50	3
Ca			1	4800.715	ug/l	0.74	326,661.94	7.265E-01	Pulse	0.50	3
Ti			1	48.447	ug/l	1.58	22,009.04	4.895E-02	Pulse	0.50	3
Na			1	4930.637	ug/l	0.28	14,223,279.67	3.163E+01	Analog	1.00	3
Mg			1	4938.434	ug/l	0.60	7,053,596.50	1.569E+01	Analog	1.00	3
K			1	4853.112	ug/l	0.17	6,531,796.17	1.453E+01	Analog	1.00	3
V			1	50.875	ug/l	1.45	691,203.67	1.537E+00	Pulse	0.50	3
Mn			1	47.655	ug/l	0.41	503,545.59	1.853E+00	Pulse	0.50	3
Fe			1	5091.960	ug/l	0.51	75,123,938.67	2.765E+02	Analog	0.50	3
Co			1	51.232	ug/l	0.76	1,359,321.38	5.003E+00	Pulse	0.50	3
Ni			1	50.993	ug/l	0.69	365,219.06	1.344E+00	Pulse	0.50	3
Cu			1	50.127	ug/l	0.75	968,559.02	2.423E+00	Pulse	0.50	3
Zn			1	49.799	ug/l	0.66	167,831.78	4.198E-01	Pulse	1.00	3
Cd			1	50.840	ug/l	1.07	220,663.34	5.520E-01	Pulse	0.50	3
Al			1	4699.534	ug/l	0.97	2,743,146.67	6.101E+00	Pulse	1.00	3
Se			1	47.070	ug/l	0.38	8,565.25	2.143E-02	Pulse	3.00	3
Sb			1	50.764	ug/l	0.73	591,266.83	1.479E+00	Pulse	1.00	3
Se			1	46.892	ug/l	1.34	4,080.21	1.021E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,394,730.83	0.38	89.9	Pulse	0.50	3
1	Sc		449,608.12	0.44	80.8	Pulse	0.30	3
1	Ge		271,702.27	0.53	83.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,331,838.52	0.88	81.8	Pulse	0.30	3
1	Tb		7,066,930.33	0.23	95.0	Analog	0.50	3
1	Lu		4,764,837.00	0.86	86.7	Pulse	0.50	3
1	Ge		399,737.56	0.87	84.1	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		3,464.76	3.03	74.1	Pulse	0.30	3

Quantitation Report

File Name 097_CCV.d
File Path D:\2023\xa061423m3.b
Method File
Method Path
Acq Time 6/14/2023 17:54
Sample Name CCV
Sample Type CCV
Comment =std 5
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/14/2023 13:18
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.832	ug/l	1.17	1,737,245.79	6.345E+00	Pulse	0.50	3
As			1	97.242	ug/l	0.82	204,246.96	7.460E-01	Pulse	1.00	3
Mo			1	100.868	ug/l	0.85	885,733.50	2.192E+00	Pulse	0.50	3
Pb			1	101.085	ug/l	1.03	3,685,892.83	8.496E-01	Pulse	1.00	3
Be			1	97.817	ug/l	0.38	13,777.66	3.037E-02	Pulse	2.00	3
Ag			1	100.125	ug/l	1.18	2,849,682.25	7.052E+00	Pulse	0.50	3
Ba			1	99.632	ug/l	1.15	375,277.11	1.607E-01	Pulse	0.50	3
Tl			1	102.533	ug/l	0.47	5,370,765.67	1.238E+00	Pulse	0.50	3
Sn			1	98.318	ug/l	1.11	879,527.62	3.766E-01	Pulse	0.30	3
Sr			1	94.302	ug/l	0.77	1,085,951.29	4.650E-01	Pulse	0.50	3
[Pb]			1	97.886	ug/l	0.65	1,754,414.79	4.044E-01	Pulse	0.50	3
Ca			1	9593.757	ug/l	1.02	658,348.00	1.451E+00	Pulse	0.50	3
Ti			1	96.491	ug/l	1.48	44,230.42	9.748E-02	Pulse	0.50	3
Na			1	9809.546	ug/l	0.41	28,523,089.33	6.286E+01	Analog	1.00	3
Mg			1	9828.677	ug/l	0.95	14,165,873.00	3.122E+01	Analog	1.00	3
K			1	9687.306	ug/l	0.61	13,091,199.67	2.885E+01	Analog	1.00	3
V			1	101.782	ug/l	0.97	1,395,192.83	3.075E+00	Pulse	0.50	3
Mn			1	94.686	ug/l	1.23	1,007,724.50	3.681E+00	Pulse	0.50	3
Fe			1	10068.216	ug/l	0.64	149,668,421.33	5.466E+02	Analog	0.50	3
Co			1	100.377	ug/l	0.88	2,683,492.58	9.801E+00	Pulse	0.50	3
Ni			1	100.009	ug/l	0.87	721,455.37	2.635E+00	Pulse	0.50	3
Cu			1	97.898	ug/l	0.73	1,893,023.46	4.685E+00	Pulse	0.50	3
Zn			1	97.096	ug/l	0.78	330,234.39	8.172E-01	Pulse	1.00	3
Cd			1	100.452	ug/l	0.81	440,711.29	1.091E+00	Pulse	0.50	3
Al			1	9523.557	ug/l	1.22	5,609,225.33	1.236E+01	Analog	1.00	3
Se			1	93.922	ug/l	0.39	17,231.63	4.264E-02	Pulse	3.00	3
Sb			1	100.667	ug/l	1.50	1,185,144.29	2.933E+00	Pulse	1.00	3
Se			1	94.717	ug/l	1.51	8,284.36	2.050E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,338,237.17	0.97	88.8	Pulse	0.50	3
1	Sc		453,730.28	0.82	81.6	Pulse	0.30	3
1	Ge		273,799.77	0.36	84.5	Pulse	0.30	3
1	In		2,335,090.81	0.49	81.9	Pulse	0.30	3
1	Tb		7,032,436.17	0.62	94.5	Analog	0.50	3
1	Lu		4,801,356.33	0.93	87.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		404,080.48	0.34	85.1	Pulse	0.30	3
1	Te		1.33	86.60	100.0	Pulse	0.50	3
1	Li		3,515.88	1.94	75.2	Pulse	0.30	3

Quantitation Report

File Name	098_CCB.d
File Path	D:\2023\xa061423m3.b
Method File	
Method Path	
Acq Time	6/14/2023 17:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/14/2023 13:18
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.009	ug/l	52.10	924.03	3.303E-03	Pulse	0.50	3
As			1	0.029	ug/l	11.61	83.33	2.977E-04	Pulse	1.00	3
Mo			1	0.139	ug/l	30.13	1,394.73	3.361E-03	Pulse	0.50	3
Pb			1	0.018	ug/l	33.62	1,895.44	4.236E-04	Pulse	1.00	3
Be			1	0.020	ug/l	54.66	4.33	9.225E-06	Pulse	2.00	3
Ag			1	0.017	ug/l	27.39	624.01	1.503E-03	Pulse	0.50	3
Ba			1	0.024	ug/l	5.33	143.33	5.873E-05	Pulse	0.50	3
Tl			1	0.016	ug/l	8.73	1,030.70	2.302E-04	Pulse	0.50	3
Sn			1	0.173	ug/l	11.70	1,952.34	8.001E-04	Pulse	0.30	3
Sr			1	0.061	ug/l	22.42	1,231.38	5.046E-04	Pulse	0.50	3
[Pb]			1	0.016	ug/l	21.89	889.36	1.986E-04	Pulse	0.50	3
Ca			1	3.419	ug/l	8.67	678.02	1.444E-03	Pulse	0.50	3
Ti			1	0.054	ug/l	59.13	30.00	6.391E-05	Pulse	0.50	3
Na			1	3.388	ug/l	8.13	44,684.89	9.519E-02	Pulse	1.00	3
Mg			1	1.721	ug/l	16.55	3,244.94	6.911E-03	Pulse	1.00	3
K			1	-2.321	ug/l	-19.12	65,422.31	1.394E-01	Pulse	1.00	3
V			1	0.041	ug/l	16.16	793.35	1.690E-03	Pulse	0.50	3
Mn			1	0.079	ug/l	10.86	1,362.72	4.870E-03	Pulse	0.50	3
Fe			1	4.046	ug/l	2.76	76,736.36	2.741E-01	Pulse	0.50	3
Co			1	0.016	ug/l	13.00	714.01	2.552E-03	Pulse	0.50	3
Ni			1	-0.011	ug/l	-56.08	279.33	9.984E-04	Pulse	0.50	3
Cu			1	-0.662	ug/l	-1.77	7,515.49	1.810E-02	Pulse	0.50	3
Zn			1	0.033	ug/l	44.12	706.35	1.701E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	34.95	76.67	1.846E-04	Pulse	0.50	3
Al			1	3.989	ug/l	1.92	2,765.86	5.892E-03	Pulse	1.00	3
Se			1	0.051	ug/l	76.97	55.56	1.338E-04	Pulse	3.00	3
Sb			1	0.053	ug/l	10.51	714.02	1.720E-03	Pulse	1.00	3
Se			1	0.022	ug/l	77.06	48.45	1.167E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,483,469.50	2.58	91.8	Pulse	0.50	3
1	Sc		469,435.09	0.26	84.4	Pulse	0.30	3

Quantitation Report

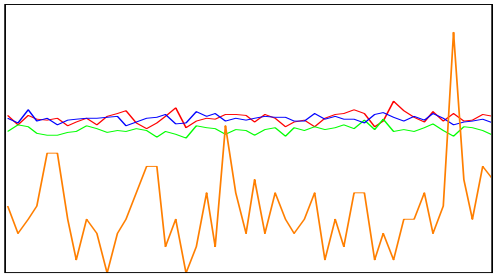
1	Ge		279,882.01	0.67	86.4	Pulse	0.30	3
1	In		2,440,389.49	0.22	85.6	Pulse	0.30	3
1	Tb		7,273,921.33	1.14	97.8	Analog	0.50	3
1	Lu		4,829,416.17	0.46	87.9	Pulse	0.50	3
1	Ge		415,111.55	0.52	87.4	Pulse	0.30	3
1	Te		0.00	---	0.0	Pulse	0.50	3
1	Li		4,032.65	3.62	86.3	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Tune Report

Batch Folder D:\2023\xa061423m1.b
Acq. Date-Time 6/14/2023 10:09
Report Comment 0523
Instrument Name G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	5000	2897	28972.70	5000.00	
89	5000	2677	26772.85	5000.00	
205	10000	5778	57775.79	5000.00	
78	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

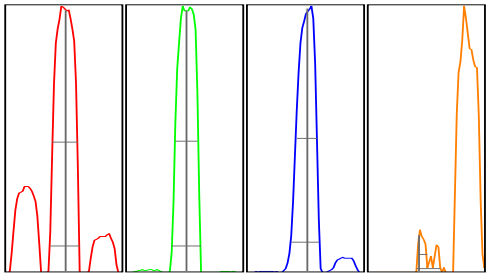
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.62	5.00	
89	2.81	5.00	
205	2.30	5.00	
78	66.07		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.30	2	
89	0.20	2	
205	0.30	2	
78	0.50	5	

Ratio 156/140 0.448 %
Ratio 70/140 1.494 %

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	2848.70	59.05	58.9 - 59.1		0.62	0.756	0.900	
89	2626.93	89.05	88.9 - 89.1		0.59	0.726	0.900	
205	5711.49	205.05	204.9 - 205.1		0.53	0.741	0.900	
78	7.75	77.85	-		0.24	0.605		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

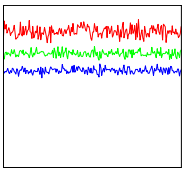
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-180.0 V	Cell Exit	-70 V
Omega Bias	-110 V	Deflect	2.2 V
Omega Lens	9.6 V	Plate Bias	-60 V

Cell Parameters

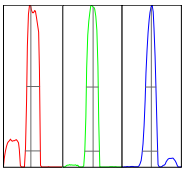
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



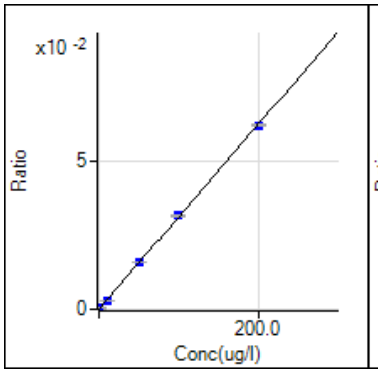
Sensitivity			
Mass	7	89	205
Range	2000	1.0E4	1.0E4
Count	1677.51	7027.03	5970.55
RSD%	3.5	2.5	2.7
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.00%	
Doubly Charged	70/140	1.40%	

Background			
Mass	7	89	205
Count	0.30	0.80	4.40

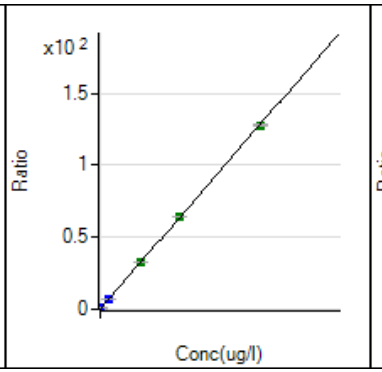


Resolution/Axis			
Mass	7	89	205
Height	1707	7063	6043
Axis	6.90	89.05	205.00
W-50%	0.65	0.59	0.51
W-10%	0.75	0.73	0.76
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

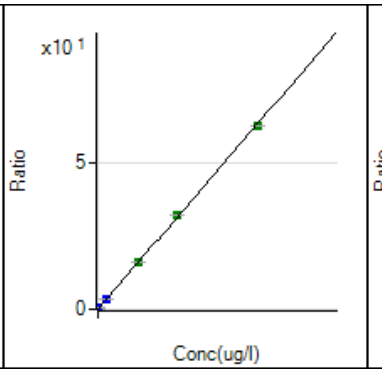
Calibration for D:\2023\xa061423m3.b\032_CCV.d



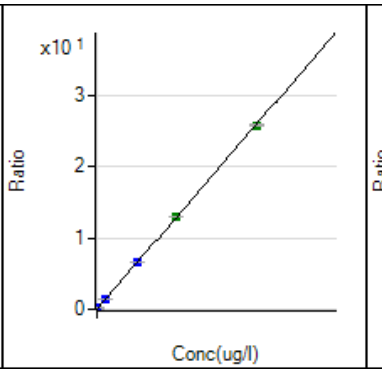
9 Be [2] / ISTD: 45 Sc
y = 3.104E-4 x + 2.994E-6
R 1.0000
DL 0.02001
BEC 0.009646



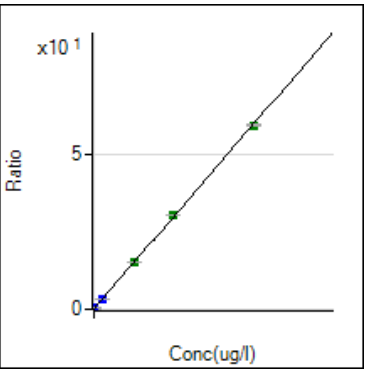
23 Na [2] / ISTD: 45 Sc
y = 6.401E-3 x + 7.350E-2
R 1.0000
DL 0.4219
BEC 11.48



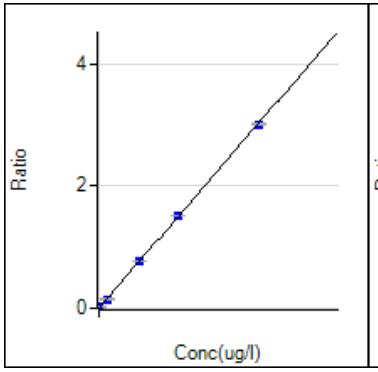
24 Mg [2] / ISTD: 45 Sc
y = 3.176E-3 x + 1.446E-3
R 0.9999
DL 0.03651
BEC 0.4552



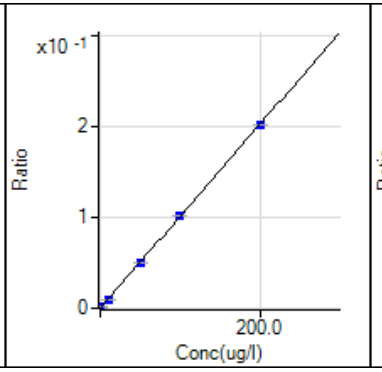
27 Al [2] / ISTD: 45 Sc
y = 1.298E-3 x + 7.142E-4
R 1.0000
DL 0.1267
BEC 0.5502



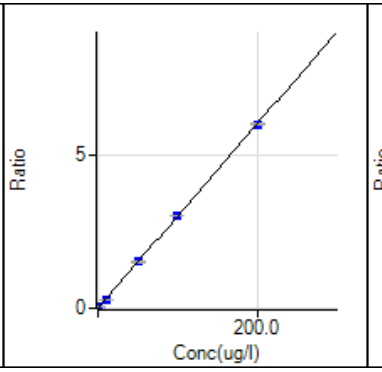
39 K [2] / ISTD: 45 Sc
y = 2.963E-3 x + 1.462E-1
R 1.0000
DL 0.7236
BEC 49.35



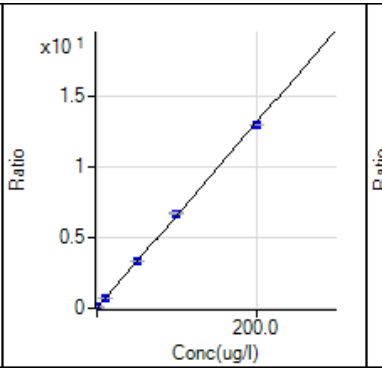
44 Ca [2] / ISTD: 45 Sc
y = 1.511E-4 x + 9.275E-4
R 1.0000
DL 0.2325
BEC 6.137



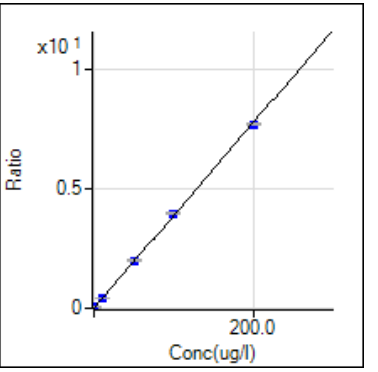
47 Ti [2] / ISTD: 45 Sc
y = 1.010E-3 x + 9.576E-6
R 1.0000
DL 0.02211
BEC 0.00948



51 V [2] / ISTD: 45 Sc
y = 3.021E-2 x + 4.589E-4
R 1.0000
DL 0.003123
BEC 0.01519

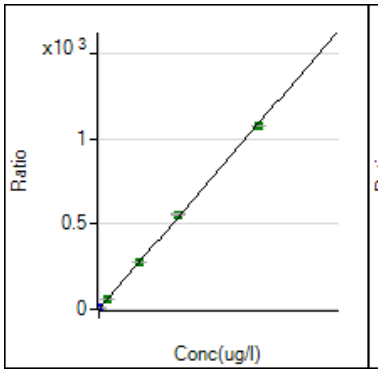


52 Cr [2] / ISTD: 72 Ge
y = 6.550E-2 x + 2.697E-3
R 0.9999
DL 0.004335
BEC 0.04118

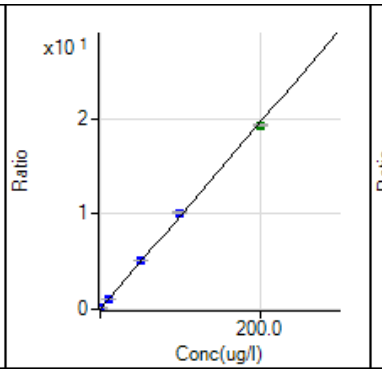


55 Mn [2] / ISTD: 72 Ge
y = 3.885E-2 x + 1.788E-3
R 0.9999
DL 0.01229
BEC 0.04601

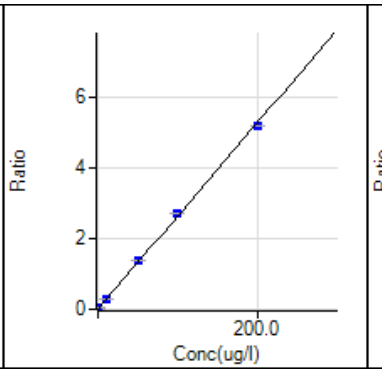
Calibration for D:\2023\xa061423m3.b\032_CCV.d



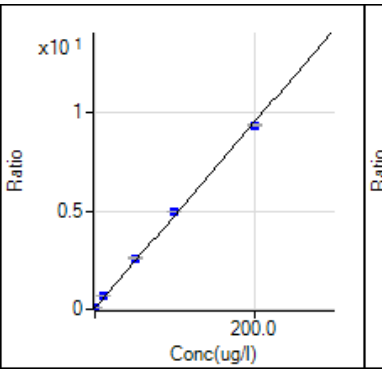
56 Fe [2] / ISTD: 72 Ge
y = 5.429E-2 x + 5.448E-2
R 0.9999
DL 0.07893
BEC 1.003



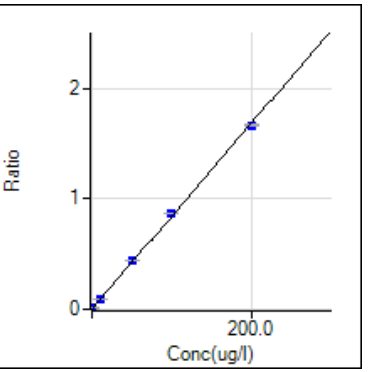
59 Co [2] / ISTD: 72 Ge
y = 9.763E-2 x + 9.655E-4
R 0.9996
DL 0.00226
BEC 0.009889



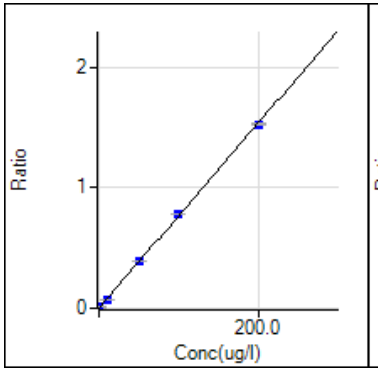
60 Ni [2] / ISTD: 72 Ge
y = 2.633E-2 x + 1.275E-3
R 0.9997
DL 0.02159
BEC 0.04842



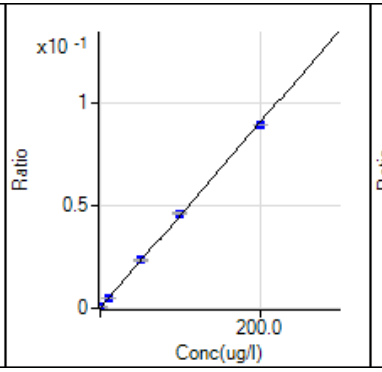
63 Cu [2] / ISTD: 74 Ge
y = 4.735E-2 x + 4.944E-2
R 0.9995
DL 0.03383
BEC 1.044



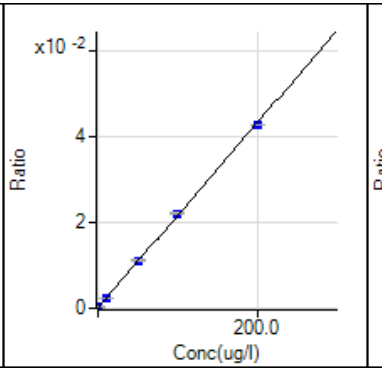
66 Zn [2] / ISTD: 74 Ge
y = 8.402E-3 x + 1.428E-3
R 0.9998
DL 0.01152
BEC 0.1699



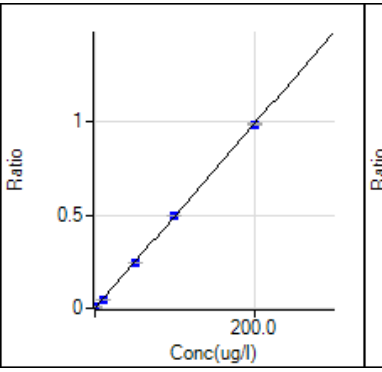
75 As [2] / ISTD: 72 Ge
y = 7.671E-3 x + 7.510E-5
R 0.9999
DL 0.005667
BEC 0.009791



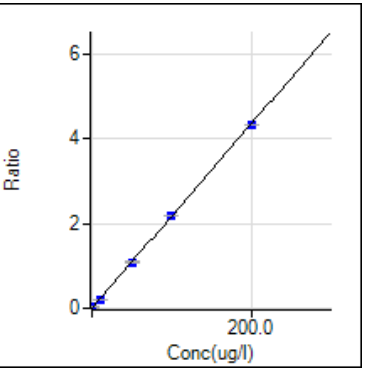
78 Se [2] / ISTD: 74 Ge
y = 4.529E-4 x + 1.109E-4
R 0.9999
DL 0.03308
BEC 0.2448



82 Se [2] / ISTD: 74 Ge
y = 2.153E-4 x + 1.120E-4
R 0.9999
DL 0.1238
BEC 0.5204

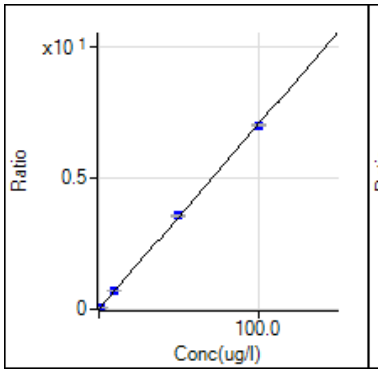


88 Sr [2] / ISTD: 115 In
y = 4.929E-3 x + 2.037E-4
R 1.0000
DL 0.008751
BEC 0.04133

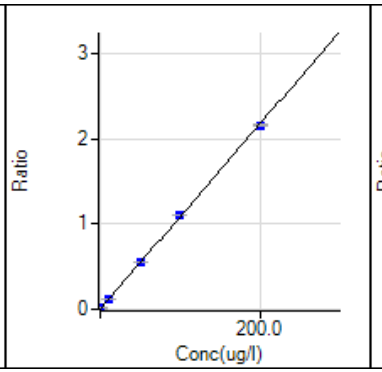


95 Mo [2] / ISTD: 74 Ge
y = 2.173E-2 x + 3.424E-4
R 1.0000
DL 0.01305
BEC 0.01576

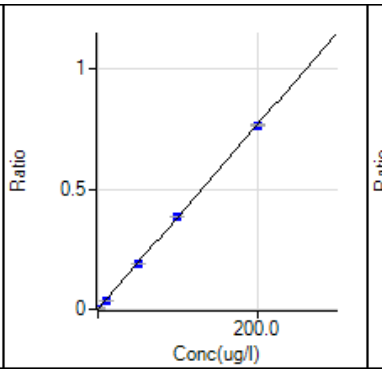
Calibration for D:\2023\xa061423m3.b\032_CCV.d



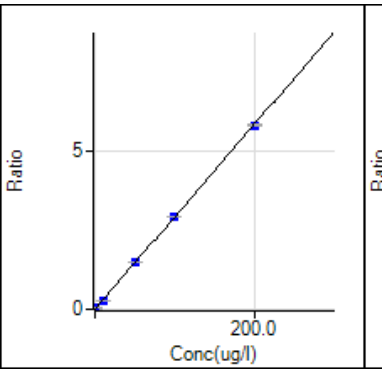
107 Ag [2] / ISTD: 74 Ge
y = 7.043E-2 x + 3.354E-4
R 1.0000
DL 0.004646
BEC 0.004761



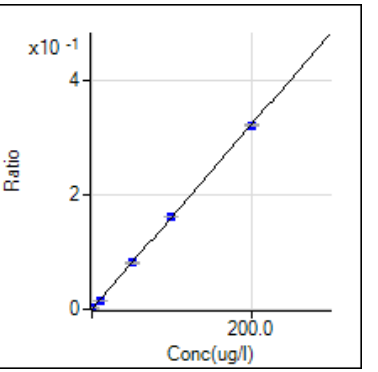
111 Cd [2] / ISTD: 74 Ge
y = 1.086E-2 x + 1.263E-5
R 0.9999
DL 0.001165
BEC 0.001163



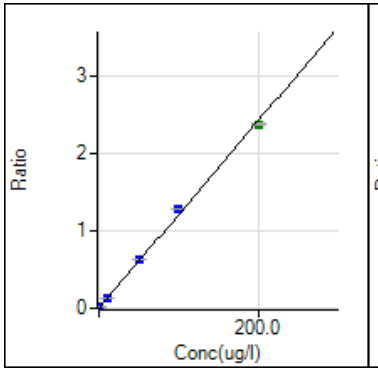
118 Sn [2] / ISTD: 115 In
y = 3.829E-3 x + 1.376E-4
R 1.0000
DL 0.02106
BEC 0.03594



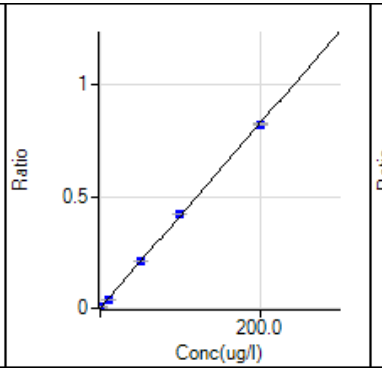
121 Sb [2] / ISTD: 74 Ge
y = 2.913E-2 x + 1.887E-4
R 1.0000
DL 0.00143
BEC 0.006479



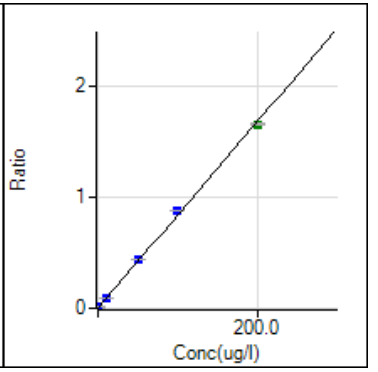
137 Ba [2] / ISTD: 115 In
y = 1.613E-3 x + 2.059E-5
R 1.0000
DL 0.006078
BEC 0.01277



205 Tl [2] / ISTD: 209 Bi
y = 1.207E-2 x + 3.684E-5
R 0.9993
DL 0.002144
BEC 0.003051



206 [Pb] [2] / ISTD: 209 Bi
y = 4.130E-3 x + 1.342E-4
R 1.0000
DL 0.00744
BEC 0.03249



208 Pb [2] / ISTD: 209 Bi
y = 8.402E-3 x + 2.723E-4
R 0.9996
DL 0.005319
BEC 0.03241

Quantitation Report

File Name	001CALB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 11:48
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	91.21	740.02	2.435E-03	Pulse	0.50	3
As			1	0.004	ug/l	144.18	51.33	1.687E-04	Pulse	1.00	3
Mo			1	0.084	ug/l	30.35	1,244.71	2.759E-03	Pulse	0.50	3
Pb			1	0.001	ug/l	77.73	979.03	2.326E-04	Pulse	1.00	3
Be			1	0.002	ug/l	569.91	2.83	5.129E-06	Pulse	2.00	3
Ag			1	0.001	ug/l	226.95	164.00	3.636E-04	Pulse	0.50	3
Ba			1	-0.003	ug/l	-103.74	39.33	1.554E-05	Pulse	0.50	3
Tl			1	0.001	ug/l	35.86	136.67	3.246E-05	Pulse	0.50	3
Sn			1	0.001	ug/l	1505.20	537.79	2.123E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	49.39	620.68	2.450E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	-305.59	458.68	1.090E-04	Pulse	0.50	3
Ca			1	1.249	ug/l	40.17	635.34	1.149E-03	Pulse	0.50	3
Ti			1	0.027	ug/l	119.77	32.67	5.900E-05	Pulse	0.50	3
Na			1	1.098	ug/l	16.22	51,105.41	9.240E-02	Pulse	1.00	3
Mg			1	0.332	ug/l	5.04	2,369.81	4.284E-03	Pulse	1.00	3
K			1	-1.092	ug/l	-21.84	81,409.55	1.472E-01	Pulse	1.00	3
V			1	0.002	ug/l	289.96	1,432.73	2.590E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	2697.55	463.34	1.524E-03	Pulse	0.50	3
Fe			1	0.407	ug/l	14.48	33,436.66	1.100E-01	Pulse	0.50	3
Co			1	0.001	ug/l	29.66	206.67	6.799E-04	Pulse	0.50	3
Ni			1	0.003	ug/l	303.15	456.68	1.504E-03	Pulse	0.50	3
Cu			1	-0.205	ug/l	-16.42	45,459.94	1.496E-01	Pulse	0.50	3
Zn			1	0.004	ug/l	322.60	562.68	1.248E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	375.58	10.00	2.219E-05	Pulse	0.50	3
Al			1	0.217	ug/l	34.04	834.69	1.509E-03	Pulse	1.00	3
Se			1	0.013	ug/l	329.61	68.00	1.508E-04	Pulse	3.00	3
Sb			1	0.003	ug/l	58.17	181.67	4.027E-04	Pulse	1.00	3
Se			1	0.050	ug/l	62.99	52.89	1.173E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,209,628.92	0.76	100.0	Pulse	0.50	3
1	Sc		553,114.91	0.31	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		303,880.94	0.78	100.0	Pulse	0.30	3
1	In		2,532,617.12	0.41	100.0	Pulse	0.30	3
1	Tb		6,470,241.33	0.34	100.0	Analog	0.50	3
1	Lu		4,647,900.67	0.54	100.0	Pulse	0.50	3
1	Ge		451,022.43	0.42	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,503.85	1.38	100.0	Pulse	0.30	3

Quantitation Report

File Name	002CALB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 11:52
Sample Name	Blank
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.003	ug/l	86.74	756.02	2.467E-03	Pulse	0.50	3
As			1	0.003	ug/l	41.08	50.33	1.642E-04	Pulse	1.00	3
Mo			1	0.026	ug/l	60.66	712.68	1.581E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	128.26	962.70	2.293E-04	Pulse	1.00	3
Be			1	-0.001	ug/l	-403.58	2.33	4.188E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	-46.25	138.00	3.062E-04	Pulse	0.50	3
Ba			1	-0.003	ug/l	-45.18	40.67	1.606E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	205.72	106.00	2.525E-05	Pulse	0.50	3
Sn			1	-0.005	ug/l	-160.81	483.34	1.906E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	139.37	618.01	2.440E-04	Pulse	0.50	3
[Pb]			1	-0.001	ug/l	-111.69	451.34	1.075E-04	Pulse	0.50	3
Ca			1	0.515	ug/l	16.54	581.34	1.044E-03	Pulse	0.50	3
Ti			1	0.001	ug/l	1647.17	19.33	3.468E-05	Pulse	0.50	3
Na			1	0.380	ug/l	31.28	49,052.66	8.812E-02	Pulse	1.00	3
Mg			1	0.167	ug/l	24.14	2,119.78	3.808E-03	Pulse	1.00	3
K			1	-0.679	ug/l	-78.53	82,560.95	1.483E-01	Pulse	1.00	3
V			1	0.001	ug/l	336.92	1,421.39	2.554E-03	Pulse	0.50	3
Mn			1	0.001	ug/l	211.44	473.34	1.544E-03	Pulse	0.50	3
Fe			1	0.345	ug/l	48.28	32,759.24	1.069E-01	Pulse	0.50	3
Co			1	0.001	ug/l	22.75	193.33	6.308E-04	Pulse	0.50	3
Ni			1	0.004	ug/l	6.76	471.34	1.538E-03	Pulse	0.50	3
Cu			1	-0.077	ug/l	-30.35	48,336.91	1.578E-01	Pulse	0.50	3
Zn			1	0.005	ug/l	319.19	567.01	1.258E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	995.23	8.67	1.930E-05	Pulse	0.50	3
Al			1	0.097	ug/l	42.84	760.68	1.366E-03	Pulse	1.00	3
Se			1	0.026	ug/l	78.36	70.55	1.566E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	-3364.37	146.67	3.252E-04	Pulse	1.00	3
Se			1	0.032	ug/l	294.43	51.22	1.137E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,199,403.83	0.45	100.0	Pulse	0.50	3
1	Sc		556,650.60	0.49	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		306,421.89	1.09	100.0	Pulse	0.30	3
1	In		2,534,002.68	0.67	100.0	Pulse	0.30	3
1	Tb		6,513,007.50	0.39	100.0	Analog	0.50	3
1	Lu		4,648,169.33	0.84	100.0	Pulse	0.50	3
1	Ge		450,580.47	0.85	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,520.53	6.21	100.0	Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 11:56
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	694.02	2.273E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	43.00	1.406E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	476.01	1.059E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	942.03	2.273E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	2.50	4.525E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	146.67	3.259E-04	Pulse	0.50	3
Ba			1	0.000	ug/l	---	50.00	1.991E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	95.33	2.302E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	526.68	2.099E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	565.34	2.253E-04	Pulse	0.50	3
[Pb]			1	0.000	ug/l	---	457.34	1.103E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	540.01	9.713E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	18.67	3.349E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	47,699.05	8.586E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	1,850.42	3.329E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	83,426.25	1.502E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,404.72	2.528E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	462.68	1.515E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	27,287.81	8.935E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	167.33	5.482E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	438.01	1.434E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	49,662.92	1.626E-01	Pulse	0.50	3
Zn			1	0.000	ug/l	---	548.34	1.219E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	8.00	1.793E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	696.01	1.252E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	65.44	1.454E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	147.33	3.272E-04	Pulse	1.00	3
Se			1	0.000	ug/l	---	48.22	1.072E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,142,057.83	1.24	100.0	Pulse	0.50	3
1	Sc		555,584.04	1.62	100.0	Pulse	0.30	3

Quantitation Report

1	Ge		305,380.77	1.01	100.0	Pulse	0.30	3
1	In		2,509,422.61	0.60	100.0	Pulse	0.30	3
1	Tb		6,449,383.83	2.16	100.0	Analog	0.50	3
1	Lu		4,599,730.33	1.24	100.0	Pulse	0.50	3
1	Ge		449,981.11	1.48	100.0	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,486.08	2.50	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 12:00
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.525	ug/l	1.60	10,945.77	3.532E-02	Pulse	0.50	3
As			1	0.519	ug/l	3.89	1,226.71	3.959E-03	Pulse	1.00	3
Mo			1	0.480	ug/l	2.33	4,937.33	1.073E-02	Pulse	0.50	3
Pb			1	0.521	ug/l	0.86	18,141.94	4.338E-03	Pulse	1.00	3
Be			1	0.530	ug/l	18.34	88.17	1.552E-04	Pulse	2.00	3
Ag			1	0.529	ug/l	1.92	15,135.54	3.289E-02	Pulse	0.50	3
Ba			1	0.488	ug/l	4.91	1,956.78	7.657E-04	Pulse	0.50	3
Tl			1	0.520	ug/l	1.51	25,134.43	6.011E-03	Pulse	0.50	3
Sn			1	0.486	ug/l	6.14	5,044.06	1.975E-03	Pulse	0.30	3
Sr			1	0.507	ug/l	3.31	6,741.90	2.639E-03	Pulse	0.50	3
[Pb]			1	0.499	ug/l	4.55	8,660.88	2.071E-03	Pulse	0.50	3
Ca			1	51.530	ug/l	0.69	4,708.58	8.290E-03	Pulse	0.50	3
Ti			1	0.536	ug/l	5.65	306.00	5.386E-04	Pulse	0.50	3
Na			1	51.404	ug/l	0.85	222,507.60	3.918E-01	Pulse	1.00	3
Mg			1	52.600	ug/l	0.48	87,714.01	1.544E-01	Pulse	1.00	3
K			1	52.065	ug/l	1.30	166,707.83	2.935E-01	Pulse	1.00	3
V			1	0.491	ug/l	1.39	9,380.27	1.652E-02	Pulse	0.50	3
Mn			1	0.519	ug/l	3.43	6,401.07	2.065E-02	Pulse	0.50	3
Fe			1	53.867	ug/l	0.29	876,412.98	2.828E+00	Pulse	0.50	3
Co			1	0.533	ug/l	1.28	15,324.75	4.945E-02	Pulse	0.50	3
Ni			1	0.525	ug/l	2.56	4,468.53	1.442E-02	Pulse	0.50	3
Cu			1	0.532	ug/l	1.63	60,894.83	1.965E-01	Pulse	0.50	3
Zn			1	0.543	ug/l	3.10	2,498.17	5.428E-03	Pulse	1.00	3
Cd			1	0.516	ug/l	6.30	2,306.82	5.014E-03	Pulse	0.50	3
Al			1	51.827	ug/l	0.45	35,552.17	6.260E-02	Pulse	1.00	3
Se			1	0.552	ug/l	11.97	174.33	3.787E-04	Pulse	3.00	3
Sb			1	0.496	ug/l	1.30	6,196.05	1.346E-02	Pulse	1.00	3
Se			1	0.588	ug/l	12.69	103.55	2.250E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,181,639.42	0.51	101.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		567,957.05	0.71	102.2	Pulse	0.30	3
1	Ge		309,891.33	0.87	101.5	Pulse	0.30	3
1	In		2,555,089.55	1.07	101.8	Pulse	0.30	3
1	Tb		6,490,835.50	0.34	100.6	Analog	0.50	3
1	Lu		4,667,829.00	0.73	101.5	Pulse	0.50	3
1	Ge		460,200.97	0.56	102.3	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,452.74	2.62	99.3	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 12:04
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.048	ug/l	1.81	21,287.62	6.825E-02	Pulse	0.50	3
As			1	1.031	ug/l	1.63	2,408.16	7.720E-03	Pulse	1.00	3
Mo			1	0.965	ug/l	2.61	9,514.44	2.049E-02	Pulse	0.50	3
Pb			1	1.059	ug/l	0.19	35,841.40	8.587E-03	Pulse	1.00	3
Be			1	1.030	ug/l	4.81	169.33	2.977E-04	Pulse	2.00	3
Ag			1	1.060	ug/l	0.24	30,467.61	6.561E-02	Pulse	0.50	3
Ba			1	0.989	ug/l	5.80	3,919.11	1.531E-03	Pulse	0.50	3
Tl			1	1.048	ug/l	1.21	50,487.44	1.210E-02	Pulse	0.50	3
Sn			1	0.962	ug/l	2.25	9,471.38	3.700E-03	Pulse	0.30	3
Sr			1	1.000	ug/l	1.00	12,765.68	4.987E-03	Pulse	0.50	3
[Pb]			1	1.022	ug/l	2.10	17,204.67	4.122E-03	Pulse	0.50	3
Ca			1	104.668	ug/l	1.29	9,012.09	1.584E-02	Pulse	0.50	3
Ti			1	1.049	ug/l	2.61	581.34	1.022E-03	Pulse	0.50	3
Na			1	105.361	ug/l	1.28	405,638.85	7.129E-01	Pulse	1.00	3
Mg			1	107.246	ug/l	0.98	177,197.54	3.114E-01	Pulse	1.00	3
K			1	108.243	ug/l	1.31	255,023.48	4.482E-01	Pulse	1.00	3
V			1	1.013	ug/l	1.44	17,869.53	3.141E-02	Pulse	0.50	3
Mn			1	1.051	ug/l	1.20	12,566.09	4.028E-02	Pulse	0.50	3
Fe			1	108.259	ug/l	1.03	1,744,826.84	5.594E+00	Pulse	0.50	3
Co			1	1.091	ug/l	1.94	31,371.38	1.006E-01	Pulse	0.50	3
Ni			1	1.074	ug/l	1.37	8,740.66	2.802E-02	Pulse	0.50	3
Cu			1	1.007	ug/l	2.97	70,740.71	2.268E-01	Pulse	0.50	3
Zn			1	1.100	ug/l	1.05	4,523.20	9.740E-03	Pulse	1.00	3
Cd			1	1.029	ug/l	0.42	4,638.59	9.989E-03	Pulse	0.50	3
Al			1	105.367	ug/l	1.34	71,675.44	1.260E-01	Pulse	1.00	3
Se			1	1.011	ug/l	2.11	265.89	5.725E-04	Pulse	3.00	3
Sb			1	1.013	ug/l	0.44	12,606.66	2.715E-02	Pulse	1.00	3
Se			1	1.004	ug/l	2.12	143.22	3.084E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,173,954.17	1.10	100.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		569,038.29	0.90	102.4	Pulse	0.30	3
1	Ge		311,942.75	0.54	102.1	Pulse	0.30	3
1	In		2,559,824.48	1.08	102.0	Pulse	0.30	3
1	Tb		6,527,455.67	0.80	101.2	Analog	0.50	3
1	Lu		4,642,405.50	1.30	100.9	Pulse	0.50	3
1	Ge		464,378.68	0.64	103.2	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		4,541.64	3.52	101.2	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 12:08
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.015	ug/l	0.63	200,622.00	6.326E-01	Pulse	0.50	3
As			1	9.892	ug/l	0.14	23,107.92	7.286E-02	Pulse	1.00	3
Mo			1	9.698	ug/l	0.69	91,626.08	1.963E-01	Pulse	0.50	3
Pb			1	10.120	ug/l	0.21	336,169.32	8.015E-02	Pulse	1.00	3
Be			1	9.911	ug/l	3.03	1,631.23	2.824E-03	Pulse	2.00	3
Ag			1	10.189	ug/l	1.04	293,283.06	6.282E-01	Pulse	0.50	3
Ba			1	9.771	ug/l	1.03	38,679.16	1.494E-02	Pulse	0.50	3
Tl			1	10.110	ug/l	0.24	488,688.39	1.165E-01	Pulse	0.50	3
Sn			1	9.571	ug/l	0.38	90,447.44	3.494E-02	Pulse	0.30	3
Sr			1	9.900	ug/l	0.56	122,548.39	4.734E-02	Pulse	0.50	3
[Pb]			1	9.779	ug/l	0.38	161,470.49	3.850E-02	Pulse	0.50	3
Ca			1	1000.542	ug/l	0.22	82,662.04	1.431E-01	Pulse	0.50	3
Ti			1	9.903	ug/l	3.27	5,407.43	9.359E-03	Pulse	0.50	3
Na			1	1009.748	ug/l	0.51	3,521,240.58	6.095E+00	Pulse	1.00	3
Mg			1	1029.739	ug/l	0.17	1,710,932.63	2.961E+00	Pulse	1.00	3
K			1	1037.111	ug/l	0.25	1,736,284.75	3.005E+00	Pulse	1.00	3
V			1	9.703	ug/l	0.86	161,241.18	2.791E-01	Pulse	0.50	3
Mn			1	10.216	ug/l	0.50	119,970.16	3.783E-01	Pulse	0.50	3
Fe			1	1002.861	ug/l	0.41	16,198,070.67	5.108E+01	Analog	0.50	3
Co			1	10.510	ug/l	0.32	305,781.93	9.642E-01	Pulse	0.50	3
Ni			1	10.271	ug/l	0.42	81,084.78	2.557E-01	Pulse	0.50	3
Cu			1	10.334	ug/l	0.43	260,275.07	8.207E-01	Pulse	0.50	3
Zn			1	11.136	ug/l	0.92	40,850.41	8.750E-02	Pulse	1.00	3
Cd			1	10.119	ug/l	0.05	45,784.34	9.807E-02	Pulse	0.50	3
Al			1	1027.262	ug/l	0.36	703,184.65	1.217E+00	Pulse	1.00	3
Se			1	10.276	ug/l	0.87	2,095.12	4.488E-03	Pulse	3.00	3
Sb			1	9.812	ug/l	0.95	121,488.95	2.602E-01	Pulse	1.00	3
Se			1	9.827	ug/l	0.52	969.36	2.076E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,194,341.25	1.20	101.3	Pulse	0.50	3
1	Sc		577,726.13	0.88	104.0	Pulse	0.30	3
1	Ge		317,135.30	0.89	103.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,588,875.73	1.30	103.2	Pulse	0.30	3
1	Tb		6,506,589.50	0.47	100.9	Analog	0.50	3
1	Lu		4,737,232.00	1.40	103.0	Pulse	0.50	3
1	Ge		466,869.65	1.02	103.8	Pulse	0.30	3
1	Te		2.00	173.21		Pulse	0.50	3
1	Li		4,624.99	2.80	103.1	Pulse	0.30	3

Quantitation Report

File Name	007CALS.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:12
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.886	ug/l	0.47	1,016,989.31	3.205E+00	Pulse	0.50	3
As			1	50.649	ug/l	0.34	118,200.98	3.725E-01	Pulse	1.00	3
Mo			1	49.958	ug/l	0.48	470,504.16	1.007E+00	Pulse	0.50	3
Pb			1	51.855	ug/l	0.67	1,694,854.41	4.097E-01	Pulse	1.00	3
Be			1	50.806	ug/l	0.46	8,348.72	1.446E-02	Pulse	2.00	3
Ag			1	51.092	ug/l	0.37	1,471,679.62	3.148E+00	Pulse	0.50	3
Ba			1	50.308	ug/l	0.45	196,306.42	7.685E-02	Pulse	0.50	3
Tl			1	51.898	ug/l	0.79	2,473,693.25	5.980E-01	Pulse	0.50	3
Sn			1	49.495	ug/l	1.00	459,275.89	1.798E-01	Pulse	0.30	3
Sr			1	50.504	ug/l	0.71	614,534.25	2.406E-01	Pulse	0.50	3
[Pb]			1	49.924	ug/l	0.80	811,090.77	1.961E-01	Pulse	0.50	3
Ca			1	5075.557	ug/l	1.05	416,859.87	7.219E-01	Pulse	0.50	3
Ti			1	50.251	ug/l	1.14	27,345.07	4.735E-02	Pulse	0.50	3
Na			1	5075.502	ug/l	0.31	17,493,120.00	3.029E+01	Analog	1.00	3
Mg			1	5088.151	ug/l	0.50	8,442,889.67	1.462E+01	Analog	1.00	3
K			1	5133.574	ug/l	0.65	8,248,258.00	1.428E+01	Analog	1.00	3
V			1	49.874	ug/l	0.67	822,387.33	1.424E+00	Pulse	0.50	3
Mn			1	51.219	ug/l	0.46	599,902.50	1.891E+00	Pulse	0.50	3
Fe			1	5081.230	ug/l	0.35	82,004,645.33	2.584E+02	Analog	0.50	3
Co			1	52.601	ug/l	0.50	1,530,691.63	4.824E+00	Pulse	0.50	3
Ni			1	51.699	ug/l	0.56	406,544.71	1.281E+00	Pulse	0.50	3
Cu			1	51.977	ug/l	0.48	1,101,978.25	3.473E+00	Pulse	0.50	3
Zn			1	51.381	ug/l	0.84	186,656.77	3.993E-01	Pulse	1.00	3
Cd			1	50.409	ug/l	0.38	228,321.42	4.885E-01	Pulse	0.50	3
Al			1	5126.161	ug/l	1.17	3,504,506.67	6.069E+00	Pulse	1.00	3
Se			1	51.695	ug/l	1.06	10,278.10	2.199E-02	Pulse	3.00	3
Sb			1	50.090	ug/l	0.71	620,301.90	1.327E+00	Pulse	1.00	3
Se			1	51.640	ug/l	0.46	4,886.85	1.045E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,136,415.50	0.63	99.9	Pulse	0.50	3
1	Sc		577,491.49	0.34	103.9	Pulse	0.30	3
1	Ge		317,320.11	0.72	103.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,554,415.87	0.77	101.8	Pulse	0.30	3
1	Tb		6,487,643.33	0.23	100.6	Analog	0.50	3
1	Lu		4,732,414.67	0.98	102.9	Pulse	0.50	3
1	Ge		467,435.23	0.25	103.9	Pulse	0.30	3
1	Te		6.00	33.33		Pulse	0.50	3
1	Li		4,508.31	4.21	100.5	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 12:16
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.767	ug/l	0.92	1,975,056.00	6.344E+00	Pulse	0.50	3
As			1	100.090	ug/l	1.07	229,107.88	7.360E-01	Pulse	1.00	3
Mo			1	98.927	ug/l	0.42	916,880.02	1.992E+00	Pulse	0.50	3
Pb			1	103.005	ug/l	0.30	3,270,986.92	8.137E-01	Pulse	1.00	3
Be			1	100.075	ug/l	0.71	16,129.55	2.847E-02	Pulse	2.00	3
Ag			1	99.434	ug/l	0.80	2,819,877.42	6.127E+00	Pulse	0.50	3
Ba			1	99.748	ug/l	0.50	382,103.08	1.524E-01	Pulse	0.50	3
Tl			1	103.163	ug/l	0.52	4,778,722.67	1.189E+00	Pulse	0.50	3
Sn			1	99.561	ug/l	1.09	906,533.68	3.615E-01	Pulse	0.30	3
Sr			1	100.613	ug/l	1.33	1,201,442.75	4.791E-01	Pulse	0.50	3
[Pb]			1	99.786	ug/l	0.63	1,575,075.17	3.918E-01	Pulse	0.50	3
Ca			1	9992.734	ug/l	0.60	804,580.27	1.420E+00	Pulse	0.50	3
Ti			1	99.378	ug/l	1.27	53,029.42	9.361E-02	Pulse	0.50	3
Na			1	10022.240	ug/l	0.22	33,838,978.67	5.973E+01	Analog	1.00	3
Mg			1	10016.223	ug/l	0.25	16,302,564.33	2.878E+01	Analog	1.00	3
K			1	10084.600	ug/l	0.36	15,813,283.67	2.791E+01	Analog	1.00	3
V			1	98.638	ug/l	0.45	1,594,146.96	2.814E+00	Pulse	0.50	3
Mn			1	101.293	ug/l	1.40	1,163,419.50	3.737E+00	Pulse	0.50	3
Fe			1	10038.396	ug/l	1.07	158,908,336.00	5.105E+02	Analog	0.50	3
Co			1	103.103	ug/l	1.27	2,943,204.25	9.455E+00	Pulse	0.50	3
Ni			1	101.064	ug/l	1.16	779,235.86	2.503E+00	Pulse	0.50	3
Cu			1	101.238	ug/l	1.15	2,057,638.62	6.610E+00	Pulse	0.50	3
Zn			1	100.260	ug/l	0.49	358,077.96	7.780E-01	Pulse	1.00	3
Cd			1	99.075	ug/l	1.59	441,819.03	9.600E-01	Pulse	0.50	3
Al			1	9938.297	ug/l	0.30	6,664,635.33	1.176E+01	Analog	1.00	3
Se			1	100.677	ug/l	0.31	19,645.51	4.269E-02	Pulse	3.00	3
Sb			1	98.796	ug/l	1.08	1,204,462.46	2.617E+00	Pulse	1.00	3
Se			1	101.178	ug/l	0.80	9,380.20	2.038E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,020,126.83	0.92	97.1	Pulse	0.50	3
1	Sc		566,514.18	0.76	102.0	Pulse	0.30	3
1	Ge		311,312.54	0.59	101.9	Pulse	0.30	3
1	In		2,508,140.25	0.97	99.9	Pulse	0.30	3
1	Tb		6,410,404.83	0.83	99.4	Analog	0.50	3
1	Lu		4,679,130.00	0.58	101.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		460,239.65	0.46	102.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		4,387.16	0.61	97.8	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:20
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	199.394	ug/l	0.02	3,673,662.92	1.255E+01	Pulse	0.50	3
As			1	199.798	ug/l	0.39	429,930.23	1.469E+00	Pulse	1.00	3
Mo			1	200.562	ug/l	0.22	1,741,163.17	4.038E+00	Pulse	0.50	3
Pb			1	198.027	ug/l	0.21	6,035,741.83	1.564E+00	Analog	1.00	3
Be			1	199.765	ug/l	0.76	29,749.51	5.683E-02	Pulse	2.00	3
Ag			1	191.373	ug/l	1.19	5,084,674.00	1.179E+01	Pulse	0.50	3
Ba			1	200.061	ug/l	0.87	725,294.56	3.055E-01	Pulse	0.50	3
Tl			1	197.938	ug/l	0.48	8,801,494.00	2.281E+00	Analog	0.50	3
Sn			1	200.368	ug/l	0.90	1,726,296.18	7.272E-01	Pulse	0.30	3
Sr			1	199.573	ug/l	0.34	2,255,210.58	9.500E-01	Pulse	0.50	3
[Pb]			1	200.137	ug/l	1.05	3,032,156.42	7.857E-01	Pulse	0.50	3
Ca			1	19984.689	ug/l	0.66	1,486,374.79	2.839E+00	Pulse	0.50	3
Ti			1	200.253	ug/l	0.85	98,726.34	1.886E-01	Pulse	0.50	3
Na			1	19969.487	ug/l	0.51	62,258,629.33	1.189E+02	Analog	1.00	3
Mg			1	19968.321	ug/l	0.72	30,030,468.00	5.737E+01	Analog	1.00	3
K			1	19922.405	ug/l	0.59	28,791,842.00	5.500E+01	Analog	1.00	3
V			1	200.727	ug/l	0.83	2,996,271.50	5.724E+00	Pulse	0.50	3
Mn			1	199.038	ug/l	0.51	2,148,856.58	7.342E+00	Pulse	0.50	3
Fe			1	19960.301	ug/l	0.55	297,036,160.00	1.015E+03	Analog	0.50	3
Co			1	197.772	ug/l	0.76	5,307,540.00	1.814E+01	Analog	0.50	3
Ni			1	199.029	ug/l	0.76	1,442,293.16	4.928E+00	Pulse	0.50	3
Cu			1	198.870	ug/l	1.06	3,753,998.75	1.283E+01	Pulse	0.50	3
Zn			1	199.467	ug/l	0.41	666,959.81	1.547E+00	Pulse	1.00	3
Cd			1	200.354	ug/l	1.03	837,115.17	1.941E+00	Pulse	0.50	3
Al			1	19997.917	ug/l	0.83	12,391,339.67	2.367E+01	Analog	1.00	3
Se			1	199.223	ug/l	0.36	36,362.12	8.432E-02	Pulse	3.00	3
Sb			1	200.589	ug/l	0.83	2,291,114.42	5.313E+00	Pulse	1.00	3
Se			1	199.009	ug/l	0.94	17,242.12	3.998E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,859,039.00	0.38	93.2	Pulse	0.50	3
1	Sc		523,510.43	1.62	94.2	Pulse	0.30	3
1	Ge		292,676.07	0.98	95.8	Pulse	0.30	3
1	In		2,373,880.60	0.74	94.6	Pulse	0.30	3
1	Tb		6,198,488.00	0.67	96.1	Analog	0.50	3
1	Lu		4,547,562.50	0.53	98.9	Pulse	0.50	3

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Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		431,221.95	0.76	95.8	Pulse	0.30	3
1	Te		6.00	57.74		Pulse	0.50	3
1	Li		3,949.29	3.43	88.0	Pulse	0.30	3

Quantitation Report

File Name	010HSAG.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:23
Sample Name	HSTD (Ag)
Sample Type	HSTD _Ag
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.626	ug/l	0.74	1,862,435.88	6.336E+00	Pulse	0.50	3
As			1	100.187	ug/l	0.50	216,565.56	7.367E-01	Pulse	1.00	3
Mo			1	100.504	ug/l	0.81	878,775.88	2.024E+00	Pulse	0.50	3
Pb			1	104.012	ug/l	0.75	3,253,203.08	8.216E-01	Pulse	1.00	3
Be			1	101.865	ug/l	0.87	15,121.44	2.898E-02	Pulse	2.00	3
Ag			1	102.467	ug/l	0.51	2,741,465.00	6.314E+00	Pulse	0.50	3
Ba			1	100.168	ug/l	0.83	362,860.68	1.530E-01	Pulse	0.50	3
Tl			1	104.032	ug/l	1.31	4,746,487.17	1.199E+00	Pulse	0.50	3
Sn			1	100.760	ug/l	0.77	867,692.88	3.658E-01	Pulse	0.30	3
Sr			1	99.702	ug/l	0.68	1,125,925.21	4.747E-01	Pulse	0.50	3
[Pb]			1	101.191	ug/l	0.87	1,573,206.21	3.973E-01	Pulse	0.50	3
Ca			1	10056.307	ug/l	0.50	745,720.67	1.429E+00	Pulse	0.50	3
Ti			1	99.044	ug/l	0.77	48,676.85	9.330E-02	Pulse	0.50	3
Na			1	10126.063	ug/l	0.85	31,485,732.67	6.035E+01	Analog	1.00	3
Mg			1	10145.224	ug/l	0.40	15,207,534.33	2.915E+01	Analog	1.00	3
K			1	10078.066	ug/l	1.24	14,553,619.00	2.790E+01	Analog	1.00	3
V			1	101.348	ug/l	0.47	1,508,491.42	2.891E+00	Pulse	0.50	3
Mn			1	100.851	ug/l	0.56	1,093,875.54	3.721E+00	Pulse	0.50	3
Fe			1	10084.355	ug/l	0.89	150,743,616.00	5.128E+02	Analog	0.50	3
Co			1	103.482	ug/l	0.57	2,789,588.33	9.489E+00	Pulse	0.50	3
Ni			1	101.283	ug/l	0.39	737,461.31	2.509E+00	Pulse	0.50	3
Cu			1	102.663	ug/l	0.45	1,969,842.67	6.701E+00	Pulse	0.50	3
Zn			1	101.962	ug/l	0.64	343,542.31	7.912E-01	Pulse	1.00	3
Cd			1	101.286	ug/l	0.50	426,131.67	9.814E-01	Pulse	0.50	3
Al			1	10001.691	ug/l	0.58	6,177,166.50	1.184E+01	Analog	1.00	3
Se			1	100.804	ug/l	0.20	18,556.43	4.274E-02	Pulse	3.00	3
Sb			1	100.855	ug/l	1.08	1,160,024.38	2.672E+00	Pulse	1.00	3
Se			1	100.343	ug/l	0.92	8,776.46	2.021E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,959,343.17	0.93	95.6	Pulse	0.50	3
1	Sc		521,745.64	0.67	93.9	Pulse	0.30	3
1	Ge		293,984.74	1.47	96.3	Pulse	0.30	3
1	In		2,371,894.98	1.39	94.5	Pulse	0.30	3
1	Tb		6,291,153.67	0.71	97.5	Analog	0.50	3
1	Lu		4,575,697.50	1.42	99.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		434,184.70	0.52	96.5	Pulse	0.30	3
1	Te		4.00	50.00		Pulse	0.50	3
1	Li		4,136.00	0.89	92.2	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:27
Sample Name	HSTD
Sample Type	HSTD
Comment	=std 6
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	197.821	ug/l	0.47	3,583,585.58	1.245E+01	Pulse	0.50	3
As			1	197.911	ug/l	0.24	418,742.85	1.455E+00	Pulse	1.00	3
Mo			1	201.519	ug/l	1.06	1,709,668.71	4.057E+00	Pulse	0.50	3
Pb			1	198.996	ug/l	0.28	6,047,057.50	1.572E+00	Analog	1.00	3
Be			1	201.692	ug/l	0.37	29,193.03	5.738E-02	Pulse	2.00	3
Ag			1	193.187	ug/l	1.01	5,016,336.33	1.190E+01	Pulse	0.50	3
Ba			1	202.267	ug/l	0.71	712,322.48	3.089E-01	Pulse	0.50	3
Tl			1	198.205	ug/l	0.35	8,786,912.33	2.284E+00	Analog	0.50	3
Sn			1	202.550	ug/l	0.20	1,695,181.70	7.352E-01	Pulse	0.30	3
Sr			1	200.133	ug/l	0.29	2,196,785.08	9.527E-01	Pulse	0.50	3
[Pb]			1	199.455	ug/l	0.78	3,012,759.50	7.830E-01	Pulse	0.50	3
Ca			1	19979.374	ug/l	0.43	1,444,230.17	2.839E+00	Pulse	0.50	3
Ti			1	200.383	ug/l	0.49	96,015.61	1.887E-01	Pulse	0.50	3
Na			1	20074.078	ug/l	0.36	60,824,317.33	1.196E+02	Analog	1.00	3
Mg			1	20132.410	ug/l	0.05	29,426,470.67	5.784E+01	Analog	1.00	3
K			1	19986.768	ug/l	0.30	28,071,740.00	5.517E+01	Analog	1.00	3
V			1	200.914	ug/l	0.33	2,914,829.17	5.729E+00	Pulse	0.50	3
Mn			1	199.162	ug/l	0.87	2,114,168.25	7.347E+00	Pulse	0.50	3
Fe			1	19936.256	ug/l	0.80	291,706,410.67	1.014E+03	Analog	0.50	3
Co			1	199.228	ug/l	0.44	5,257,184.00	1.827E+01	Analog	0.50	3
Ni			1	198.481	ug/l	0.67	1,414,261.42	4.915E+00	Pulse	0.50	3
Cu			1	198.250	ug/l	0.41	3,679,995.50	1.279E+01	Pulse	0.50	3
Zn			1	200.071	ug/l	0.82	653,764.06	1.551E+00	Pulse	1.00	3
Cd			1	200.560	ug/l	0.95	818,947.38	1.943E+00	Pulse	0.50	3
Al			1	20098.075	ug/l	0.02	12,103,560.33	2.379E+01	Analog	1.00	3
Se			1	199.009	ug/l	0.68	35,496.95	8.423E-02	Pulse	3.00	3
Sb			1	201.829	ug/l	1.00	2,252,910.17	5.346E+00	Pulse	1.00	3
Se			1	198.801	ug/l	0.51	16,832.20	3.994E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,847,457.58	0.38	92.9	Pulse	0.50	3
1	Sc		508,774.56	0.74	91.6	Pulse	0.30	3
1	Ge		287,775.60	0.81	94.2	Pulse	0.30	3
1	In		2,305,892.41	0.47	91.9	Pulse	0.30	3
1	Tb		6,155,195.33	0.95	95.4	Analog	0.50	3
1	Lu		4,505,297.33	1.22	97.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		421,415.12	0.25	93.7	Pulse	0.30	3
1	Te		6.67	17.32		Pulse	0.50	3
1	Li		4,063.76	3.71	90.6	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 12:31
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	104.298	ug/l	5.11	1,740,105.75	6.567E+00	Pulse	0.50	3
As			1	102.102	ug/l	4.38	198,975.19	7.508E-01	Pulse	1.00	3
Mo			1	106.836	ug/l	5.66	839,178.98	2.151E+00	Pulse	0.50	3
Pb			1	105.286	ug/l	6.32	3,057,317.08	8.317E-01	Pulse	1.00	3
Be			1	108.494	ug/l	4.93	14,763.02	3.087E-02	Pulse	2.00	3
Ag			1	52.875	ug/l	5.63	1,270,945.92	3.258E+00	Pulse	0.50	3
Ba			1	102.327	ug/l	6.91	337,815.34	1.563E-01	Pulse	0.50	3
Tl			1	103.923	ug/l	5.89	4,402,342.67	1.197E+00	Pulse	0.50	3
Sn			1	104.760	ug/l	7.01	821,976.25	3.803E-01	Pulse	0.30	3
Sr			1	104.021	ug/l	6.45	1,070,680.66	4.953E-01	Pulse	0.50	3
[Pb]			1	101.228	ug/l	6.37	1,460,956.21	3.975E-01	Pulse	0.50	3
Ca			1	9710.789	ug/l	5.57	659,993.67	1.380E+00	Pulse	0.50	3
Ti			1	104.596	ug/l	5.58	47,112.37	9.853E-02	Pulse	0.50	3
Na			1	10359.660	ug/l	5.15	29,526,103.33	6.174E+01	Analog	1.00	3
Mg			1	10725.926	ug/l	5.14	14,737,558.67	3.082E+01	Analog	1.00	3
K			1	10246.667	ug/l	5.21	13,562,446.00	2.836E+01	Analog	1.00	3
V			1	103.438	ug/l	5.13	1,411,233.12	2.951E+00	Pulse	0.50	3
Mn			1	103.888	ug/l	5.18	1,015,662.02	3.833E+00	Pulse	0.50	3
Fe			1	10337.082	ug/l	5.06	139,291,664.00	5.257E+02	Analog	0.50	3
Co			1	106.705	ug/l	4.73	2,593,141.83	9.785E+00	Pulse	0.50	3
Ni			1	103.763	ug/l	4.80	681,055.36	2.570E+00	Pulse	0.50	3
Cu			1	122.797	ug/l	4.27	2,115,774.92	7.983E+00	Pulse	0.50	3
Zn			1	103.574	ug/l	5.75	313,486.41	8.037E-01	Pulse	1.00	3
Cd			1	104.204	ug/l	5.84	393,824.06	1.010E+00	Pulse	0.50	3
Al			1	10118.955	ug/l	5.26	5,728,283.17	1.198E+01	Analog	1.00	3
Se			1	100.238	ug/l	5.75	16,576.51	4.250E-02	Pulse	3.00	3
Sb			1	102.505	ug/l	5.82	1,059,119.67	2.715E+00	Pulse	1.00	3
Se			1	99.612	ug/l	6.46	7,825.05	2.007E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,684,700.00	5.82	89.0	Pulse	0.50	3
1	Sc		479,031.56	4.84	86.2	Pulse	0.30	3
1	Ge		265,373.81	4.46	86.9	Pulse	0.30	3
1	In		2,167,750.40	6.49	86.4	Pulse	0.30	3
1	Tb		5,891,354.67	6.17	91.3	Analog	0.50	3
1	Lu		4,201,361.33	6.64	91.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		390,838.13	5.34	86.9	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		4,259.36	2.98	94.9	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:35
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.027	ug/l	16.02	1,150.04	3.977E-03	Pulse	0.50	3
As			1	0.030	ug/l	34.32	104.00	3.596E-04	Pulse	1.00	3
Mo			1	0.054	ug/l	49.79	918.69	2.152E-03	Pulse	0.50	3
Pb			1	0.031	ug/l	32.97	1,900.78	4.719E-04	Pulse	1.00	3
Be			1	0.031	ug/l	11.61	7.00	1.347E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	14.61	514.68	1.207E-03	Pulse	0.50	3
Ba			1	0.016	ug/l	10.24	106.67	4.480E-05	Pulse	0.50	3
Tl			1	0.034	ug/l	16.94	1,669.42	4.145E-04	Pulse	0.50	3
Sn			1	0.068	ug/l	19.09	1,088.92	4.573E-04	Pulse	0.30	3
Sr			1	0.018	ug/l	53.39	744.02	3.127E-04	Pulse	0.50	3
[Pb]			1	0.032	ug/l	25.18	957.37	2.377E-04	Pulse	0.50	3
Ca			1	0.981	ug/l	157.78	578.01	1.111E-03	Pulse	0.50	3
Ti			1	-0.002	ug/l	-1403.95	16.67	3.194E-05	Pulse	0.50	3
Na			1	1.685	ug/l	43.98	49,861.72	9.589E-02	Pulse	1.00	3
Mg			1	1.139	ug/l	61.59	3,433.99	6.601E-03	Pulse	1.00	3
K			1	-0.625	ug/l	-76.13	77,197.51	1.485E-01	Pulse	1.00	3
V			1	0.015	ug/l	42.50	1,540.07	2.962E-03	Pulse	0.50	3
Mn			1	0.021	ug/l	52.07	658.68	2.277E-03	Pulse	0.50	3
Fe			1	1.489	ug/l	46.26	47,745.22	1.651E-01	Pulse	0.50	3
Co			1	0.025	ug/l	24.15	816.02	2.821E-03	Pulse	0.50	3
Ni			1	0.037	ug/l	25.61	676.68	2.340E-03	Pulse	0.50	3
Cu			1	-0.268	ug/l	-6.71	42,095.08	1.456E-01	Pulse	0.50	3
Zn			1	0.025	ug/l	19.42	603.01	1.413E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	39.50	82.67	1.939E-04	Pulse	0.50	3
Al			1	1.191	ug/l	55.48	1,385.39	2.662E-03	Pulse	1.00	3
Se			1	0.054	ug/l	76.72	71.78	1.683E-04	Pulse	3.00	3
Sb			1	0.075	ug/l	11.52	988.36	2.316E-03	Pulse	1.00	3
Se			1	0.142	ug/l	29.21	57.89	1.357E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,029,742.67	0.46	97.3	Pulse	0.50	3
1	Sc		519,951.02	0.77	93.6	Pulse	0.30	3

Quantitation Report

1	Ge		289,176.65	0.23	94.7	Pulse	0.30	3
1	In		2,380,546.23	0.54	94.9	Pulse	0.30	3
1	Tb		6,381,737.67	0.70	99.0	Analog	0.50	3
1	Lu		4,455,024.00	0.94	96.9	Pulse	0.50	3
1	Ge		426,662.73	0.59	94.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,320.49	1.56	96.3	Pulse	0.30	3

Quantitation Report

File Name	014LCCV.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:39
Sample Name	CRIA
Sample Type	CRIA
Comment	=std 2
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.037	ug/l	2.06	19,664.59	6.755E-02	Pulse	0.50	3
As			1	1.034	ug/l	4.03	2,254.80	7.744E-03	Pulse	1.00	3
Mo			1	0.983	ug/l	2.80	9,010.18	2.084E-02	Pulse	0.50	3
Pb			1	1.048	ug/l	0.50	34,351.67	8.506E-03	Pulse	1.00	3
Be			1	0.993	ug/l	8.23	149.67	2.869E-04	Pulse	2.00	3
Ag			1	1.065	ug/l	1.78	28,507.83	6.595E-02	Pulse	0.50	3
Ba			1	1.001	ug/l	2.88	3,711.73	1.548E-03	Pulse	0.50	3
Tl			1	1.041	ug/l	1.03	48,542.47	1.202E-02	Pulse	0.50	3
Sn			1	1.009	ug/l	2.87	9,283.51	3.871E-03	Pulse	0.30	3
Sr			1	0.987	ug/l	1.69	11,809.05	4.924E-03	Pulse	0.50	3
[Pb]			1	1.012	ug/l	0.24	16,489.31	4.083E-03	Pulse	0.50	3
Ca			1	103.017	ug/l	0.79	8,143.72	1.560E-02	Pulse	0.50	3
Ti			1	0.989	ug/l	2.46	503.34	9.643E-04	Pulse	0.50	3
Na			1	105.242	ug/l	0.29	371,705.75	7.122E-01	Pulse	1.00	3
Mg			1	106.324	ug/l	1.12	161,160.68	3.088E-01	Pulse	1.00	3
K			1	103.332	ug/l	0.74	226,864.70	4.347E-01	Pulse	1.00	3
V			1	1.000	ug/l	2.14	16,195.40	3.103E-02	Pulse	0.50	3
Mn			1	1.051	ug/l	1.26	11,729.56	4.029E-02	Pulse	0.50	3
Fe			1	106.810	ug/l	1.68	1,607,094.12	5.520E+00	Pulse	0.50	3
Co			1	1.084	ug/l	0.56	29,109.16	9.998E-02	Pulse	0.50	3
Ni			1	1.106	ug/l	4.67	8,390.50	2.882E-02	Pulse	0.50	3
Cu			1	0.813	ug/l	1.98	62,422.26	2.144E-01	Pulse	0.50	3
Zn			1	1.137	ug/l	0.44	4,336.49	1.003E-02	Pulse	1.00	3
Cd			1	1.034	ug/l	2.68	4,338.52	1.003E-02	Pulse	0.50	3
Al			1	104.416	ug/l	1.62	65,162.71	1.248E-01	Pulse	1.00	3
Se			1	0.977	ug/l	3.17	241.33	5.583E-04	Pulse	3.00	3
Sb			1	1.028	ug/l	1.57	11,918.87	2.757E-02	Pulse	1.00	3
Se			1	1.040	ug/l	1.38	136.44	3.156E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,038,318.42	1.30	97.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		521,925.66	0.71	93.9	Pulse	0.30	3
1	Ge		291,140.77	0.55	95.3	Pulse	0.30	3
1	In		2,398,050.18	0.80	95.6	Pulse	0.30	3
1	Tb		6,367,796.83	0.16	98.7	Analog	0.50	3
1	Lu		4,460,459.00	0.45	97.0	Pulse	0.50	3
1	Ge		432,333.61	1.54	96.1	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,307.15	2.08	96.0	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:43
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.076	ug/l	1.01	35,320.54	1.329E-01	Pulse	0.50	3
As			1	0.080	ug/l	19.26	193.33	7.275E-04	Pulse	1.00	3
Mo			1	2063.327	ug/l	0.42	15,476,027.00	4.153E+01	Analog	0.50	3
Pb			1	0.072	ug/l	11.64	2,655.54	7.989E-04	Pulse	1.00	3
Be			1	0.000	ug/l	527.15	2.17	4.631E-06	Pulse	2.00	3
Ag			1	0.020	ug/l	27.23	573.35	1.540E-03	Pulse	0.50	3
Ba			1	0.513	ug/l	4.38	1,652.08	8.032E-04	Pulse	0.50	3
Tl			1	0.014	ug/l	1.21	619.34	1.865E-04	Pulse	0.50	3
Sn			1	0.079	ug/l	12.98	1,020.04	4.958E-04	Pulse	0.30	3
Sr			1	0.849	ug/l	1.80	8,773.40	4.265E-03	Pulse	0.50	3
[Pb]			1	0.070	ug/l	14.74	1,274.05	3.833E-04	Pulse	0.50	3
Ca			1	94816.155	ug/l	0.28	6,295,406.17	1.347E+01	Analog	0.50	3
Ti			1	2050.327	ug/l	0.78	902,450.79	1.931E+00	Pulse	0.50	3
Na			1	101052.878	ug/l	1.02	281,177,344.00	6.015E+02	Analog	1.00	3
Mg			1	100937.510	ug/l	0.69	135,545,717.33	2.900E+02	Analog	1.00	3
K			1	100975.020	ug/l	0.94	130,021,205.33	2.781E+02	Analog	1.00	3
V			1	0.076	ug/l	9.13	2,190.80	4.688E-03	Pulse	0.50	3
Mn			1	0.265	ug/l	6.62	2,998.91	1.129E-02	Pulse	0.50	3
Fe			1	98757.892	ug/l	0.10	1,334,075,648.00	5.021E+03	Analog	0.50	3
Co			1	0.118	ug/l	2.27	3,030.91	1.141E-02	Pulse	0.50	3
Ni			1	0.396	ug/l	4.17	2,986.91	1.124E-02	Pulse	0.50	3
Cu			1	-1.239	ug/l	-7.45	22,259.55	8.376E-02	Pulse	0.50	3
Zn			1	0.931	ug/l	4.46	3,141.93	8.433E-03	Pulse	1.00	3
Cd			1	0.808	ug/l	3.01	2,922.91	7.843E-03	Pulse	0.50	3
Al			1	100096.318	ug/l	0.44	55,380,604.00	1.185E+02	Analog	1.00	3
Se			1	0.087	ug/l	5.78	67.89	1.822E-04	Pulse	3.00	3
Sb			1	0.080	ug/l	7.19	911.03	2.445E-03	Pulse	1.00	3
Se			1	0.124	ug/l	95.79	49.22	1.321E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,321,261.67	1.43	80.2	Pulse	0.50	3
1	Sc		467,431.68	1.34	84.1	Pulse	0.30	3
1	Ge		265,687.60	0.56	87.0	Pulse	0.30	3
1	In		2,056,820.48	0.75	82.0	Pulse	0.30	3
1	Tb		5,561,303.50	1.54	86.2	Mix	0.50	3
1	Lu		4,099,363.08	1.20	89.1	Pulse	0.50	3
1	Ge		372,652.19	0.59	82.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		3,542.55	3.50	79.0	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:46
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	21.245	ug/l	0.20	345,524.72	1.339E+00	Pulse	0.50	3
As			1	19.437	ug/l	0.49	36,896.74	1.430E-01	Pulse	1.00	3
Mo			1	2086.731	ug/l	0.44	15,242,970.00	4.200E+01	Analog	0.50	3
Pb			1	0.071	ug/l	4.85	2,633.54	7.902E-04	Pulse	1.00	3
Be			1	0.000	ug/l	-4219.40	2.00	4.447E-06	Pulse	2.00	3
Ag			1	19.138	ug/l	1.01	428,089.57	1.180E+00	Pulse	0.50	3
Ba			1	0.514	ug/l	3.55	1,619.41	8.055E-04	Pulse	0.50	3
Tl			1	0.008	ug/l	7.89	386.67	1.160E-04	Pulse	0.50	3
Sn			1	0.067	ug/l	10.31	910.03	4.525E-04	Pulse	0.30	3
Sr			1	0.862	ug/l	2.16	8,697.36	4.326E-03	Pulse	0.50	3
[Pb]			1	0.074	ug/l	9.03	1,339.39	4.019E-04	Pulse	0.50	3
Ca			1	94805.574	ug/l	0.22	6,049,086.33	1.347E+01	Analog	0.50	3
Ti			1	2049.985	ug/l	0.88	867,108.00	1.930E+00	Pulse	0.50	3
Na			1	100484.880	ug/l	0.37	268,671,461.33	5.981E+02	Analog	1.00	3
Mg			1	100628.949	ug/l	0.26	129,855,189.33	2.891E+02	Analog	1.00	3
K			1	100294.773	ug/l	0.69	124,101,776.00	2.763E+02	Analog	1.00	3
V			1	0.076	ug/l	9.96	2,112.12	4.701E-03	Pulse	0.50	3
Mn			1	19.578	ug/l	0.55	186,657.50	7.236E-01	Pulse	0.50	3
Fe			1	98292.528	ug/l	0.72	1,289,142,912.00	4.998E+03	Analog	0.50	3
Co			1	19.904	ug/l	0.63	470,960.81	1.826E+00	Pulse	0.50	3
Ni			1	19.070	ug/l	0.56	122,148.11	4.735E-01	Pulse	0.50	3
Cu			1	17.212	ug/l	0.29	324,705.69	1.259E+00	Pulse	0.50	3
Zn			1	20.305	ug/l	0.44	57,538.37	1.585E-01	Pulse	1.00	3
Cd			1	20.720	ug/l	0.27	72,869.30	2.008E-01	Pulse	0.50	3
Al			1	99691.555	ug/l	0.22	53,004,392.00	1.180E+02	Analog	1.00	3
Se			1	0.050	ug/l	69.17	60.45	1.666E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	6.34	824.35	2.271E-03	Pulse	1.00	3
Se			1	0.094	ug/l	49.69	45.78	1.262E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,331,993.50	1.24	80.4	Pulse	0.50	3
1	Sc		449,200.49	0.59	80.9	Pulse	0.30	3
1	Ge		257,965.72	0.83	84.5	Pulse	0.30	3
1	In		2,010,539.30	1.03	80.1	Pulse	0.30	3
1	Tb		5,524,165.50	2.53	85.7	Mix	0.50	3
1	Lu		4,078,953.58	1.07	88.7	Pulse	0.50	3
1	Ge		362,922.88	0.42	80.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		3,318.07	2.57	74.0	Pulse	0.30	3

Quantitation Report

File Name	017CCVA.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:50
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.185	ug/l	1.38	873,819.75	3.161E+00	Pulse	0.50	3
As			1	49.957	ug/l	1.34	101,567.08	3.674E-01	Pulse	1.00	3
Mo			1	52.427	ug/l	1.39	431,669.61	1.056E+00	Pulse	0.50	3
Pb			1	51.693	ug/l	0.40	1,652,976.33	4.084E-01	Pulse	1.00	3
Be			1	50.650	ug/l	1.54	6,957.53	1.441E-02	Pulse	2.00	3
Ag			1	53.748	ug/l	1.24	1,353,527.00	3.312E+00	Pulse	0.50	3
Ba			1	50.211	ug/l	0.30	176,286.76	7.670E-02	Pulse	0.50	3
Tl			1	51.603	ug/l	0.31	2,406,251.75	5.946E-01	Pulse	0.50	3
Sn			1	50.361	ug/l	1.20	420,534.39	1.829E-01	Pulse	0.30	3
Sr			1	48.444	ug/l	1.10	530,488.45	2.308E-01	Pulse	0.50	3
[Pb]			1	49.709	ug/l	0.40	790,105.00	1.952E-01	Pulse	0.50	3
Ca			1	4976.533	ug/l	0.64	341,671.46	7.078E-01	Pulse	0.50	3
Ti			1	50.062	ug/l	0.77	22,770.59	4.717E-02	Pulse	0.50	3
Na			1	5056.713	ug/l	0.31	14,568,158.33	3.018E+01	Analog	1.00	3
Mg			1	5073.303	ug/l	0.73	7,036,907.33	1.458E+01	Analog	1.00	3
K			1	4977.837	ug/l	0.26	6,687,494.83	1.385E+01	Analog	1.00	3
V			1	50.512	ug/l	1.24	696,257.69	1.442E+00	Pulse	0.50	3
Mn			1	50.283	ug/l	1.15	513,076.60	1.856E+00	Pulse	0.50	3
Fe			1	5103.197	ug/l	0.59	71,747,768.00	2.595E+02	Analog	0.50	3
Co			1	52.763	ug/l	1.05	1,337,592.71	4.839E+00	Pulse	0.50	3
Ni			1	51.761	ug/l	0.82	354,590.21	1.283E+00	Pulse	0.50	3
Cu			1	51.739	ug/l	1.08	955,758.60	3.458E+00	Pulse	0.50	3
Zn			1	51.751	ug/l	1.19	164,360.75	4.022E-01	Pulse	1.00	3
Cd			1	52.419	ug/l	1.54	207,582.80	5.079E-01	Pulse	0.50	3
Al			1	5006.476	ug/l	1.48	2,861,280.08	5.927E+00	Pulse	1.00	3
Se			1	49.854	ug/l	1.05	8,667.97	2.121E-02	Pulse	3.00	3
Sb			1	51.800	ug/l	0.77	560,816.17	1.372E+00	Pulse	1.00	3
Se			1	50.008	ug/l	0.80	4,138.34	1.013E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,046,778.75	1.73	97.7	Pulse	0.50	3
1	Sc		482,698.50	1.28	86.9	Pulse	0.30	3
1	Ge		276,419.13	1.21	90.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,298,388.03	1.87	91.6	Pulse	0.30	3
1	Tb		6,284,500.67	0.70	97.4	Analog	0.50	3
1	Lu		4,499,548.33	1.42	97.8	Pulse	0.50	3
1	Ge		408,628.96	1.35	90.8	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		3,789.27	2.51	84.5	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:54
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.137	ug/l	0.65	1,760,794.92	6.305E+00	Pulse	0.50	3
As			1	99.596	ug/l	0.91	204,528.37	7.323E-01	Pulse	1.00	3
Mo			1	102.579	ug/l	0.83	851,591.06	2.066E+00	Pulse	0.50	3
Pb			1	104.323	ug/l	0.80	3,243,024.50	8.241E-01	Pulse	1.00	3
Be			1	101.643	ug/l	1.27	14,138.57	2.892E-02	Pulse	2.00	3
Ag			1	104.453	ug/l	0.51	2,653,505.50	6.436E+00	Pulse	0.50	3
Ba			1	101.228	ug/l	1.28	351,972.75	1.546E-01	Pulse	0.50	3
Tl			1	103.637	ug/l	0.41	4,699,366.33	1.194E+00	Pulse	0.50	3
Sn			1	100.908	ug/l	0.88	834,006.98	3.664E-01	Pulse	0.30	3
Sr			1	98.648	ug/l	0.95	1,069,287.13	4.697E-01	Pulse	0.50	3
[Pb]			1	100.900	ug/l	0.42	1,559,054.54	3.962E-01	Pulse	0.50	3
Ca			1	9986.134	ug/l	0.42	693,916.54	1.419E+00	Pulse	0.50	3
Ti			1	100.742	ug/l	0.18	46,396.71	9.490E-02	Pulse	0.50	3
Na			1	10127.731	ug/l	0.72	29,509,142.00	6.036E+01	Analog	1.00	3
Mg			1	10127.183	ug/l	0.75	14,224,963.00	2.910E+01	Analog	1.00	3
K			1	9954.249	ug/l	0.42	13,471,440.67	2.755E+01	Analog	1.00	3
V			1	101.549	ug/l	0.70	1,416,372.37	2.897E+00	Pulse	0.50	3
Mn			1	100.113	ug/l	0.60	1,031,591.90	3.694E+00	Pulse	0.50	3
Fe			1	10147.971	ug/l	0.68	144,118,618.67	5.160E+02	Analog	0.50	3
Co			1	103.897	ug/l	0.83	2,660,801.50	9.527E+00	Pulse	0.50	3
Ni			1	101.734	ug/l	0.69	703,722.35	2.520E+00	Pulse	0.50	3
Cu			1	102.175	ug/l	0.87	1,862,626.63	6.669E+00	Pulse	0.50	3
Zn			1	101.866	ug/l	0.89	325,894.72	7.905E-01	Pulse	1.00	3
Cd			1	102.909	ug/l	0.59	411,099.44	9.972E-01	Pulse	0.50	3
Al			1	9948.535	ug/l	0.77	5,757,491.67	1.178E+01	Analog	1.00	3
Se			1	98.879	ug/l	0.34	17,284.24	4.193E-02	Pulse	3.00	3
Sb			1	102.509	ug/l	0.61	1,119,505.87	2.715E+00	Pulse	1.00	3
Se			1	100.012	ug/l	0.47	8,305.81	2.015E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,935,177.50	0.97	95.0	Pulse	0.50	3
1	Sc		488,910.73	0.77	88.0	Pulse	0.30	3
1	Ge		279,276.92	0.50	91.5	Pulse	0.30	3
1	In		2,276,544.84	0.24	90.7	Pulse	0.30	3
1	Tb		6,222,199.83	0.79	96.5	Analog	0.50	3
1	Lu		4,478,622.67	0.25	97.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		412,262.31	0.50	91.6	Pulse	0.30	3
1	Te		5.33	114.56		Pulse	0.50	3
1	Li		3,674.80	4.23	81.9	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 12:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.020	ug/l	36.42	983.36	3.522E-03	Pulse	0.50	3
As			1	0.019	ug/l	19.66	77.33	2.769E-04	Pulse	1.00	3
Mo			1	0.226	ug/l	31.92	2,306.15	5.609E-03	Pulse	0.50	3
Pb			1	0.017	ug/l	18.31	1,457.40	3.609E-04	Pulse	1.00	3
Be			1	0.021	ug/l	42.26	5.17	1.052E-05	Pulse	2.00	3
Ag			1	0.012	ug/l	25.38	448.01	1.090E-03	Pulse	0.50	3
Ba			1	0.010	ug/l	79.24	81.33	3.509E-05	Pulse	0.50	3
Tl			1	0.012	ug/l	15.00	646.68	1.602E-04	Pulse	0.50	3
Sn			1	0.217	ug/l	25.03	2,319.05	9.977E-04	Pulse	0.30	3
Sr			1	0.008	ug/l	41.08	615.34	2.651E-04	Pulse	0.50	3
[Pb]			1	0.017	ug/l	39.83	720.02	1.784E-04	Pulse	0.50	3
Ca			1	2.399	ug/l	46.80	644.01	1.312E-03	Pulse	0.50	3
Ti			1	0.051	ug/l	72.04	40.00	8.141E-05	Pulse	0.50	3
Na			1	6.649	ug/l	11.41	61,583.01	1.254E-01	Pulse	1.00	3
Mg			1	2.241	ug/l	17.17	4,793.92	9.766E-03	Pulse	1.00	3
K			1	-0.720	ug/l	-58.56	72,774.47	1.482E-01	Pulse	1.00	3
V			1	0.004	ug/l	264.35	1,290.05	2.628E-03	Pulse	0.50	3
Mn			1	0.010	ug/l	66.47	528.01	1.891E-03	Pulse	0.50	3
Fe			1	2.753	ug/l	7.05	64,033.65	2.293E-01	Pulse	0.50	3
Co			1	0.012	ug/l	40.19	465.34	1.667E-03	Pulse	0.50	3
Ni			1	0.012	ug/l	21.36	484.01	1.733E-03	Pulse	0.50	3
Cu			1	-0.796	ug/l	-0.78	31,260.58	1.119E-01	Pulse	0.50	3
Zn			1	0.015	ug/l	59.55	547.34	1.332E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	46.82	46.00	1.119E-04	Pulse	0.50	3
Al			1	1.856	ug/l	23.86	1,692.74	3.449E-03	Pulse	1.00	3
Se			1	0.049	ug/l	162.29	68.33	1.661E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	18.14	931.69	2.266E-03	Pulse	1.00	3
Se			1	0.076	ug/l	127.09	50.33	1.224E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,039,295.92	0.81	97.5	Pulse	0.50	3
1	Sc		491,036.40	0.52	88.4	Pulse	0.30	3

Quantitation Report

1	Ge		279,266.48	0.38	91.4	Pulse	0.30	3
1	In		2,321,569.49	1.04	92.5	Pulse	0.30	3
1	Tb		6,311,666.17	0.46	97.9	Analog	0.50	3
1	Lu		4,382,519.83	0.97	95.3	Pulse	0.50	3
1	Ge		411,116.39	0.48	91.4	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		3,954.85	2.84	88.2	Pulse	0.30	3

Quantitation Report

File Name	020LCCV.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:02
Sample Name	CRIA
Sample Type	CRIA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name 021SMPL.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:06
Sample Name 1ppm Ba
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	13.14	903.36	3.148E-03	Pulse	0.50	3
As			1	0.009	ug/l	74.81	59.00	2.060E-04	Pulse	1.00	3
Mo			1	0.067	ug/l	35.08	1,022.70	2.401E-03	Pulse	0.50	3
Pb			1	0.012	ug/l	19.73	1,307.72	3.185E-04	Pulse	1.00	3
Be			1	-0.002	ug/l	-416.29	2.00	3.905E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	18.60	277.33	6.527E-04	Pulse	0.50	3
Ba			1	946.731	ug/l	0.98	3,439,628.42	1.446E+00	Pulse	0.50	3
Tl			1	0.004	ug/l	17.50	264.67	6.449E-05	Pulse	0.50	3
Sn			1	0.029	ug/l	58.65	746.69	3.134E-04	Pulse	0.30	3
Sr			1	0.023	ug/l	5.75	795.35	3.343E-04	Pulse	0.50	3
[Pb]			1	0.012	ug/l	26.87	646.02	1.573E-04	Pulse	0.50	3
Ca			1	4.870	ug/l	5.02	854.02	1.663E-03	Pulse	0.50	3
Ti			1	0.098	ug/l	30.68	64.67	1.258E-04	Pulse	0.50	3
Na			1	3.626	ug/l	11.20	55,162.40	1.074E-01	Pulse	1.00	3
Mg			1	2.942	ug/l	11.89	6,046.59	1.178E-02	Pulse	1.00	3
K			1	-1.687	ug/l	-28.79	74,736.78	1.455E-01	Pulse	1.00	3
V			1	-0.015	ug/l	-17.57	1,081.36	2.106E-03	Pulse	0.50	3
Mn			1	0.011	ug/l	42.11	551.34	1.923E-03	Pulse	0.50	3
Fe			1	3.313	ug/l	7.05	73,961.29	2.578E-01	Pulse	0.50	3
Co			1	0.006	ug/l	8.40	308.00	1.074E-03	Pulse	0.50	3
Ni			1	0.015	ug/l	20.83	521.34	1.817E-03	Pulse	0.50	3
Cu			1	-0.996	ug/l	-4.30	28,472.94	9.924E-02	Pulse	0.50	3
Zn			1	0.579	ug/l	3.98	2,426.16	5.708E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	41.03	22.00	5.169E-05	Pulse	0.50	3
Al			1	3.299	ug/l	6.50	2,647.18	5.157E-03	Pulse	1.00	3
Se			1	0.005	ug/l	691.24	62.78	1.475E-04	Pulse	3.00	3
Sb			1	0.012	ug/l	37.73	270.67	6.357E-04	Pulse	1.00	3
Se			1	-0.044	ug/l	-139.77	41.89	9.848E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,108,376.67	1.45	99.2	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		513,515.17	1.12	92.4	Pulse	0.30	3
1	Ge		286,981.14	1.25	94.0	Pulse	0.30	3
1	In		2,378,873.03	1.22	94.8	Pulse	0.30	3
1	Tb		6,463,559.17	0.30	100.2	Analog	0.50	3
1	Lu		4,490,210.33	1.93	97.6	Pulse	0.50	3
1	Ge		425,130.97	1.32	94.5	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,089.33	5.12	91.2	Pulse	0.30	3

Quantitation Report

File Name 022SMPL.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:09
Sample Name 1ppm Cr
Sample Type Sample
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1013.328	ug/l	0.49	17,488,598.67	6.378E+01	Analog	0.50	3
As			1	0.001	ug/l	101.26	41.33	1.507E-04	Pulse	1.00	3
Mo			1	0.002	ug/l	715.37	449.34	1.101E-03	Pulse	0.50	3
Pb			1	0.007	ug/l	10.16	1,142.04	2.818E-04	Pulse	1.00	3
Be			1	0.004	ug/l	97.01	2.83	5.758E-06	Pulse	2.00	3
Ag			1	0.003	ug/l	35.78	211.33	5.163E-04	Pulse	0.50	3
Ba			1	0.168	ug/l	1.99	635.34	2.764E-04	Pulse	0.50	3
Tl			1	0.001	ug/l	13.99	145.33	3.586E-05	Pulse	0.50	3
Sn			1	0.008	ug/l	119.33	552.24	2.404E-04	Pulse	0.30	3
Sr			1	0.004	ug/l	147.02	567.34	2.467E-04	Pulse	0.50	3
[Pb]			1	0.009	ug/l	22.59	588.01	1.451E-04	Pulse	0.50	3
Ca			1	2.059	ug/l	78.08	623.35	1.264E-03	Pulse	0.50	3
Ti			1	0.012	ug/l	30.09	22.00	4.465E-05	Pulse	0.50	3
Na			1	1.738	ug/l	5.76	47,369.32	9.621E-02	Pulse	1.00	3
Mg			1	0.118	ug/l	202.50	1,810.42	3.670E-03	Pulse	1.00	3
K			1	-2.250	ug/l	-17.73	70,898.80	1.440E-01	Pulse	1.00	3
V			1	-0.025	ug/l	-17.07	894.69	1.816E-03	Pulse	0.50	3
Mn			1	0.027	ug/l	4.32	690.68	2.519E-03	Pulse	0.50	3
Fe			1	0.233	ug/l	100.90	27,760.67	1.012E-01	Pulse	0.50	3
Co			1	0.003	ug/l	11.01	226.67	8.266E-04	Pulse	0.50	3
Ni			1	0.017	ug/l	36.88	507.34	1.851E-03	Pulse	0.50	3
Cu			1	-0.348	ug/l	-42.05	38,511.69	1.405E-01	Pulse	0.50	3
Zn			1	0.087	ug/l	6.34	775.69	1.897E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	11.44	17.33	4.238E-05	Pulse	0.50	3
Al			1	0.301	ug/l	51.60	792.68	1.608E-03	Pulse	1.00	3
Se			1	-0.032	ug/l	-84.99	53.89	1.317E-04	Pulse	3.00	3
Sb			1	0.004	ug/l	66.18	172.00	4.209E-04	Pulse	1.00	3
Se			1	-0.041	ug/l	-74.79	40.56	9.912E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,052,613.42	0.59	97.8	Pulse	0.50	3
1	Sc		492,344.27	1.61	88.6	Pulse	0.30	3
1	Ge		274,195.47	0.60	89.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,298,490.11	0.77	91.6	Pulse	0.30	3
1	Tb		6,303,195.17	1.34	97.7	Analog	0.50	3
1	Lu		4,339,087.33	0.75	94.3	Pulse	0.50	3
1	Ge		409,001.96	1.04	90.9	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		4,002.64	2.76	89.2	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:13
Sample Name FC6782-3
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	7.054	ug/l	16.93	5,475.46	2.003E-02	Pulse	0.50	3
As			1	3136.188	ug/l	1.03	252,334.35	9.224E-01	Pulse	1.00	3
Mo			1	1.514	ug/l	1.90	924.70	2.278E-03	Pulse	0.50	3
Pb			1	0.204	ug/l	4.95	1,169.37	2.919E-04	Pulse	1.00	3
Be			1	0.144	ug/l	188.02	3.00	6.167E-06	Pulse	2.00	3
Ag			1	0.019	ug/l	156.19	151.33	3.730E-04	Pulse	0.50	3
Ba			1	12.995	ug/l	3.62	1,847.44	8.137E-04	Pulse	0.50	3
Tl			1	0.009	ug/l	228.45	108.67	2.720E-05	Pulse	0.50	3
Sn			1	0.365	ug/l	122.70	596.68	2.628E-04	Pulse	0.30	3
Sr			1	158.352	ug/l	1.59	68,947.84	3.037E-02	Pulse	0.50	3
[Pb]			1	0.177	ug/l	19.29	553.34	1.382E-04	Pulse	0.50	3
Ca			1	23456.717	ug/l	1.43	65,311.93	1.342E-01	Pulse	0.50	3
Ti			1	0.893	ug/l	37.28	32.67	6.714E-05	Pulse	0.50	3
Na			1	5576.252	ug/l	0.82	687,635.31	1.413E+00	Pulse	1.00	3
Mg			1	2813.680	ug/l	1.54	158,928.16	3.266E-01	Pulse	1.00	3
K			1	3281.017	ug/l	1.41	248,869.75	5.115E-01	Pulse	1.00	3
V			1	0.151	ug/l	29.05	1,314.05	2.701E-03	Pulse	0.50	3
Mn			1	2448.807	ug/l	0.60	988,676.90	3.614E+00	Pulse	0.50	3
Fe			1	41048.089	ug/l	0.06	22,859,970.67	8.357E+01	Analog	0.50	3
Co			1	14.207	ug/l	1.12	14,404.70	5.266E-02	Pulse	0.50	3
Ni			1	6.913	ug/l	7.07	2,265.47	8.279E-03	Pulse	0.50	3
Cu			1	-5.990	ug/l	-16.13	40,313.25	1.474E-01	Pulse	0.50	3
Zn			1	20.245	ug/l	3.58	3,041.58	7.493E-03	Pulse	1.00	3
Cd			1	0.022	ug/l	244.59	10.67	2.629E-05	Pulse	0.50	3
Al			1	82.405	ug/l	2.91	2,507.49	5.154E-03	Pulse	1.00	3
Se			1	-0.006	ug/l	-14136.82	59.00	1.453E-04	Pulse	3.00	3
Sb			1	0.387	ug/l	29.61	299.67	7.375E-04	Pulse	1.00	3
Se			1	-1.789	ug/l	-115.27	37.67	9.290E-05	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,006,568.50	1.27	96.7	Pulse	0.50	3
1	Sc		486,545.19	0.06	87.6	Pulse	0.30	3
1	Ge		273,546.53	1.06	89.6	Pulse	0.30	3
1	In		2,270,275.26	0.05	90.5	Pulse	0.30	3
1	Tb		6,234,801.33	0.75	96.7	Analog	0.50	3
1	Lu		4,325,652.50	0.99	94.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		405,982.76	1.32	90.2	Pulse	0.30	3
1	Te		0.00	---		Pulse	0.50	3
1	Li		4,084.88	2.24	91.1	Pulse	0.30	3

Quantitation Report

File Name 024_ICV.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:17
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.460	ug/l	1.00	1,791,832.54	6.451E+00	Pulse	0.50	3
As			1	103.405	ug/l	0.82	211,191.74	7.603E-01	Pulse	1.00	3
Mo			1	105.772	ug/l	1.10	865,417.33	2.130E+00	Pulse	0.50	3
Pb			1	106.752	ug/l	0.42	3,246,093.83	8.433E-01	Pulse	1.00	3
Be			1	105.181	ug/l	0.72	14,744.00	2.992E-02	Pulse	2.00	3
Ag			1	48.861	ug/l	1.53	1,223,374.41	3.011E+00	Pulse	0.50	3
Ba			1	98.630	ug/l	0.57	339,490.70	1.506E-01	Pulse	0.50	3
Tl			1	106.565	ug/l	0.18	4,726,770.50	1.228E+00	Pulse	0.50	3
Sn			1	98.030	ug/l	0.95	802,097.22	3.559E-01	Pulse	0.30	3
Sr			1	104.131	ug/l	0.94	1,117,359.37	4.958E-01	Pulse	0.50	3
[Pb]			1	103.286	ug/l	0.33	1,561,148.17	4.055E-01	Pulse	0.50	3
Ca			1	9732.665	ug/l	0.79	681,574.52	1.383E+00	Pulse	0.50	3
Ti			1	105.134	ug/l	1.85	48,795.23	9.903E-02	Pulse	0.50	3
Na			1	10397.579	ug/l	0.33	30,530,347.33	6.196E+01	Analog	1.00	3
Mg			1	10942.725	ug/l	0.89	15,490,123.33	3.144E+01	Analog	1.00	3
K			1	10085.696	ug/l	0.16	13,754,421.00	2.792E+01	Analog	1.00	3
V			1	103.274	ug/l	1.00	1,451,603.21	2.946E+00	Pulse	0.50	3
Mn			1	102.058	ug/l	0.61	1,045,913.42	3.766E+00	Pulse	0.50	3
Fe			1	10315.486	ug/l	0.81	145,699,189.33	5.246E+02	Analog	0.50	3
Co			1	106.140	ug/l	1.45	2,703,485.67	9.733E+00	Pulse	0.50	3
Ni			1	103.340	ug/l	1.22	710,935.13	2.560E+00	Pulse	0.50	3
Cu			1	103.705	ug/l	1.58	1,879,589.50	6.767E+00	Pulse	0.50	3
Zn			1	105.889	ug/l	1.83	333,844.04	8.217E-01	Pulse	1.00	3
Cd			1	105.967	ug/l	1.26	417,195.09	1.027E+00	Pulse	0.50	3
Al			1	10260.845	ug/l	0.90	5,984,537.67	1.215E+01	Analog	1.00	3
Se			1	102.200	ug/l	1.76	17,604.87	4.333E-02	Pulse	3.00	3
Sb			1	105.660	ug/l	1.40	1,137,220.05	2.799E+00	Pulse	1.00	3
Se			1	103.370	ug/l	1.72	8,459.21	2.082E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,849,431.58	0.80	92.9	Pulse	0.50	3
1	Sc		492,700.69	0.35	88.7	Pulse	0.30	3
1	Ge		277,754.65	0.35	91.0	Pulse	0.30	3
1	In		2,253,594.22	0.57	89.8	Pulse	0.30	3
1	Tb		6,177,432.17	0.73	95.8	Analog	0.50	3
1	Lu		4,409,500.17	0.45	95.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		406,309.90	0.26	90.3	Pulse	0.30	3
1	Te		1.33	173.21		Pulse	0.50	3
1	Li		4,233.79	2.01	94.4	Pulse	0.30	3

Quantitation Report

File Name 025_MB.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:21
Sample Name MP42393-MB1
Sample Type MB
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.318	ug/l	8.46	5,105.36	1.886E-02	Pulse	0.50	3
As			1	0.452	ug/l	12.12	218.00	8.052E-04	Pulse	1.00	3
Mo			1	1.061	ug/l	19.46	2,135.47	5.330E-03	Pulse	0.50	3
Pb			1	0.364	ug/l	25.23	3,148.97	8.026E-04	Pulse	1.00	3
Be			1	0.177	ug/l	77.06	7.00	1.457E-05	Pulse	2.00	3
Ag			1	0.747	ug/l	1.25	3,814.41	9.533E-03	Pulse	0.50	3
Ba			1	0.272	ug/l	26.08	230.00	1.029E-04	Pulse	0.50	3
Tl			1	0.182	ug/l	49.32	1,736.11	4.433E-04	Pulse	0.50	3
Sn			1	31.715	ug/l	2.23	52,079.10	2.323E-02	Pulse	0.30	3
Sr			1	0.286	ug/l	28.11	1,112.71	4.973E-04	Pulse	0.50	3
[Pb]			1	0.332	ug/l	24.66	1,456.07	3.710E-04	Pulse	0.50	3
Ca			1	58.142	ug/l	17.80	1,265.38	2.623E-03	Pulse	0.50	3
Ti			1	1.032	ug/l	11.90	110.00	2.278E-04	Pulse	0.50	3
Na			1	45.753	ug/l	23.18	67,717.41	1.403E-01	Pulse	1.00	3
Mg			1	19.341	ug/l	48.35	6,953.66	1.444E-02	Pulse	1.00	3
K			1	41.403	ug/l	26.94	83,518.31	1.730E-01	Pulse	1.00	3
V			1	1.280	ug/l	8.38	4,743.26	9.822E-03	Pulse	0.50	3
Mn			1	0.600	ug/l	18.57	1,606.74	5.939E-03	Pulse	0.50	3
Fe			1	39.710	ug/l	21.73	133,363.08	4.931E-01	Pulse	0.50	3
Co			1	0.213	ug/l	38.61	1,202.05	4.451E-03	Pulse	0.50	3
Ni			1	0.681	ug/l	20.18	1,300.72	4.808E-03	Pulse	0.50	3
Cu			1	13.811	ug/l	1.84	91,710.40	3.386E-01	Pulse	0.50	3
Zn			1	2.209	ug/l	3.07	1,857.76	4.643E-03	Pulse	1.00	3
Cd			1	0.198	ug/l	43.54	160.67	4.026E-04	Pulse	0.50	3
Al			1	24.483	ug/l	36.46	3,395.98	7.048E-03	Pulse	1.00	3
Se			1	0.132	ug/l	81.50	62.67	1.566E-04	Pulse	3.00	3
Sb			1	0.347	ug/l	26.47	866.35	2.168E-03	Pulse	1.00	3
Se			1	0.302	ug/l	95.25	47.78	1.193E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,928,811.42	1.27	94.9	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		482,971.25	1.55	86.9	Pulse	0.30	3
1	Ge		270,911.94	1.51	88.7	Pulse	0.30	3
1	In		2,241,710.47	1.93	89.3	Pulse	0.30	3
1	Tb		6,185,292.00	0.99	95.9	Analog	0.50	3
1	Lu		4,284,322.50	1.55	93.1	Pulse	0.50	3
1	Ge		400,168.93	1.23	88.9	Pulse	0.30	3
1	Te		0.67	173.21		Pulse	0.50	3
1	Li		4,010.42	1.15	89.4	Pulse	0.30	3

Quantitation Report

File Name 026_BSP.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:25
Sample Name MP42393-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	524.190	ug/l	0.73	1,779,843.71	6.601E+00	Pulse	0.50	3
As			1	523.075	ug/l	0.35	207,419.54	7.692E-01	Pulse	1.00	3
Mo			1	541.901	ug/l	0.11	865,679.08	2.182E+00	Pulse	0.50	3
Pb			1	535.388	ug/l	1.06	3,173,012.08	8.458E-01	Pulse	1.00	3
Be			1	531.038	ug/l	0.14	14,591.39	3.022E-02	Pulse	2.00	3
Ag			1	259.811	ug/l	0.87	1,270,143.88	3.202E+00	Pulse	0.50	3
Ba			1	516.164	ug/l	1.03	347,228.01	1.577E-01	Pulse	0.50	3
Tl			1	515.962	ug/l	1.19	4,460,338.50	1.189E+00	Pulse	0.50	3
Sn			1	555.171	ug/l	0.66	887,702.22	4.031E-01	Pulse	0.30	3
Sr			1	515.136	ug/l	0.21	1,080,271.96	4.905E-01	Pulse	0.50	3
[Pb]			1	501.004	ug/l	0.60	1,475,952.17	3.934E-01	Pulse	0.50	3
Ca			1	50629.219	ug/l	0.87	694,982.11	1.439E+00	Pulse	0.50	3
Ti			1	517.168	ug/l	1.20	47,050.93	9.743E-02	Pulse	0.50	3
Na			1	51714.801	ug/l	0.29	29,765,712.67	6.164E+01	Analog	1.00	3
Mg			1	52248.794	ug/l	0.35	14,497,772.67	3.002E+01	Analog	1.00	3
K			1	50452.661	ug/l	0.18	13,486,990.33	2.793E+01	Analog	1.00	3
V			1	512.403	ug/l	0.87	1,411,789.33	2.924E+00	Pulse	0.50	3
Mn			1	519.378	ug/l	0.77	1,033,432.63	3.833E+00	Pulse	0.50	3
Fe			1	52203.392	ug/l	1.14	143,160,720.00	5.309E+02	Analog	0.50	3
Co			1	540.776	ug/l	0.65	2,674,286.17	9.918E+00	Pulse	0.50	3
Ni			1	522.747	ug/l	0.93	698,231.15	2.589E+00	Pulse	0.50	3
Cu			1	546.375	ug/l	0.95	1,920,330.37	7.122E+00	Pulse	0.50	3
Zn			1	517.205	ug/l	0.82	318,399.25	8.027E-01	Pulse	1.00	3
Cd			1	513.231	ug/l	0.59	394,532.04	9.946E-01	Pulse	0.50	3
Al			1	50527.197	ug/l	0.57	5,776,543.50	1.196E+01	Analog	1.00	3
Se			1	482.784	ug/l	0.65	16,241.10	4.094E-02	Pulse	3.00	3
Sb			1	542.208	ug/l	0.65	1,139,464.87	2.873E+00	Pulse	1.00	3
Se			1	487.306	ug/l	0.80	7,789.04	1.964E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,751,337.92	1.67	90.6	Pulse	0.50	3
1	Sc		482,892.53	0.54	86.9	Pulse	0.30	3
1	Ge		269,640.60	0.60	88.3	Pulse	0.30	3
1	In		2,202,158.94	1.20	87.8	Pulse	0.30	3
1	Tb		6,093,651.00	1.27	94.5	Analog	0.50	3
1	Lu		4,356,624.00	1.69	94.7	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		396,656.51	0.77	88.1	Pulse	0.30	3
1	Te		2.67	43.30		Pulse	0.50	3
1	Li		3,962.63	4.22	88.3	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:28
Sample Name	FC6831-7
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	279.856	ug/l	0.73	499,842.11	1.764E+00	Pulse	0.50	3
As			1	100.334	ug/l	0.35	20,945.12	7.390E-02	Pulse	1.00	3
Mo			1	14.687	ug/l	1.36	12,367.42	3.062E-02	Pulse	0.50	3
Pb			1	784.757	ug/l	0.74	2,381,619.33	6.200E-01	Pulse	1.00	3
Be			1	12.868	ug/l	1.43	192.67	3.706E-04	Pulse	2.00	3
Ag			1	10.519	ug/l	0.81	26,309.26	6.514E-02	Pulse	0.50	3
Ba			1	1539.481	ug/l	1.14	523,760.04	2.351E-01	Pulse	0.50	3
Tl			1	2.950	ug/l	2.87	13,143.75	3.422E-03	Pulse	0.50	3
Sn			1	93.971	ug/l	0.40	76,432.42	3.431E-02	Pulse	0.30	3
Sr			1	325.727	ug/l	1.31	345,826.82	1.552E-01	Pulse	0.50	3
[Pb]			1	760.145	ug/l	0.52	1,146,709.21	2.985E-01	Pulse	0.50	3
Ca			1	49578.031	ug/l	0.89	366,640.74	7.051E-01	Pulse	0.50	3
Ti			1	984.986	ug/l	2.04	48,238.38	9.278E-02	Pulse	0.50	3
Na			1	617.794	ug/l	0.46	235,808.34	4.535E-01	Pulse	1.00	3
Mg			1	85980.716	ug/l	0.73	12,844,514.67	2.470E+01	Analog	1.00	3
K			1	17851.739	ug/l	0.72	2,633,439.08	5.065E+00	Pulse	1.00	3
V			1	329.337	ug/l	1.30	489,417.63	9.412E-01	Pulse	0.50	3
Mn			1	14304.814	ug/l	0.67	14,951,253.67	5.276E+01	Analog	0.50	3
Fe			1	411484.055	ug/l	0.45	592,911,680.00	2.092E+03	Analog	0.50	3
Co			1	182.376	ug/l	0.80	474,090.00	1.673E+00	Pulse	0.50	3
Ni			1	387.510	ug/l	0.52	272,273.17	9.607E-01	Pulse	0.50	3
Cu			1	536.110	ug/l	0.31	1,013,684.19	3.577E+00	Pulse	0.50	3
Zn			1	1729.142	ug/l	0.67	541,596.92	1.341E+00	Pulse	1.00	3
Cd			1	17.231	ug/l	2.17	6,751.26	1.671E-02	Pulse	0.50	3
Al			1	259327.373	ug/l	0.81	15,960,531.67	3.070E+01	Analog	1.00	3
Se			1	33.038	ug/l	3.92	622.68	1.541E-03	Pulse	3.00	3
Sb			1	8.657	ug/l	1.32	9,393.40	2.326E-02	Pulse	1.00	3
Se			1	78.525	ug/l	3.15	678.68	1.681E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,841,506.50	1.30	92.7	Pulse	0.50	3
1	Sc		519,948.94	0.76	93.6	Pulse	0.30	3
1	Ge		283,402.83	1.72	92.8	Pulse	0.30	3
1	In		2,227,837.55	1.68	88.8	Pulse	0.30	3
1	Tb		6,225,262.83	0.79	96.5	Analog	0.50	3
1	Lu		4,343,473.83	1.68	94.4	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		403,863.50	1.29	89.8	Pulse	0.30	3
1	Te		22.67	48.60		Pulse	0.50	3
1	Li		4,176.01	3.75	93.1	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:32
Sample Name MP42393-D1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	316.342	ug/l	1.54	588,329.92	1.993E+00	Pulse	0.50	3
As			1	115.965	ug/l	2.11	25,204.57	8.539E-02	Pulse	1.00	3
Mo			1	15.595	ug/l	1.48	13,456.85	3.245E-02	Pulse	0.50	3
Pb			1	771.898	ug/l	0.96	2,333,953.17	6.098E-01	Pulse	1.00	3
Be			1	14.112	ug/l	3.81	220.50	4.060E-04	Pulse	2.00	3
Ag			1	9.291	ug/l	0.71	23,878.01	5.757E-02	Pulse	0.50	3
Ba			1	1668.120	ug/l	0.80	574,757.87	2.548E-01	Pulse	0.50	3
Tl			1	2.416	ug/l	1.23	10,742.06	2.807E-03	Pulse	0.50	3
Sn			1	46.154	ug/l	0.61	38,254.28	1.696E-02	Pulse	0.30	3
Sr			1	281.874	ug/l	0.50	303,138.92	1.344E-01	Pulse	0.50	3
[Pb]			1	751.846	ug/l	1.15	1,130,001.37	2.952E-01	Pulse	0.50	3
Ca			1	38838.902	ug/l	0.13	300,089.53	5.526E-01	Pulse	0.50	3
Ti			1	877.555	ug/l	1.15	44,894.68	8.267E-02	Pulse	0.50	3
Na			1	635.318	ug/l	0.28	251,946.63	4.640E-01	Pulse	1.00	3
Mg			1	105535.631	ug/l	0.27	16,465,472.00	3.032E+01	Analog	1.00	3
K			1	17052.336	ug/l	0.21	2,630,916.17	4.845E+00	Pulse	1.00	3
V			1	357.451	ug/l	0.75	554,667.96	1.021E+00	Pulse	0.50	3
Mn			1	22458.242	ug/l	1.18	24,447,719.33	8.283E+01	Analog	0.50	3
Fe			1	517174.509	ug/l	1.36	776,117,248.00	2.630E+03	Analog	0.50	3
Co			1	239.916	ug/l	1.75	649,470.86	2.200E+00	Pulse	0.50	3
Ni			1	475.975	ug/l	1.50	348,180.25	1.180E+00	Pulse	0.50	3
Cu			1	576.125	ug/l	1.78	1,130,907.92	3.832E+00	Pulse	0.50	3
Zn			1	1767.875	ug/l	0.75	568,604.02	1.371E+00	Pulse	1.00	3
Cd			1	20.438	ug/l	1.35	8,220.52	1.982E-02	Pulse	0.50	3
Al			1	284082.261	ug/l	0.74	18,260,723.33	3.363E+01	Analog	1.00	3
Se			1	35.568	ug/l	1.44	683.57	1.648E-03	Pulse	3.00	3
Sb			1	7.015	ug/l	1.79	7,842.35	1.891E-02	Pulse	1.00	3
Se			1	87.682	ug/l	2.39	773.24	1.864E-03	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,827,227.92	0.86	92.4	Pulse	0.50	3
1	Sc		543,040.34	0.84	97.7	Pulse	0.30	3
1	Ge		295,151.92	0.05	96.7	Pulse	0.30	3
1	In		2,255,891.64	1.13	89.9	Pulse	0.30	3
1	Tb		6,262,760.83	0.18	97.1	Analog	0.50	3
1	Lu		4,358,762.00	1.19	94.8	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		414,730.40	1.27	92.2	Pulse	0.30	3
1	Te		14.67	34.32		Pulse	0.50	3
1	Li		4,124.89	3.40	91.9	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path D:\2023\xa061623m3.b
Method File
Method Path
Acq Time 6/16/2023 13:36
Sample Name MP42393-SD1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 6/16/2023 12:53
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	290.992	ug/l	0.98	108,948.58	3.686E-01	Pulse	0.50	3
As			1	107.629	ug/l	1.89	4,719.59	1.597E-02	Pulse	1.00	3
Mo			1	12.240	ug/l	3.06	2,601.53	5.986E-03	Pulse	0.50	3
Pb			1	782.776	ug/l	1.11	506,219.91	1.239E-01	Pulse	1.00	3
Be			1	14.096	ug/l	12.26	45.17	8.472E-05	Pulse	2.00	3
Ag			1	10.463	ug/l	4.12	5,747.57	1.322E-02	Pulse	0.50	3
Ba			1	1528.631	ug/l	1.14	111,844.21	4.671E-02	Pulse	0.50	3
Tl			1	2.436	ug/l	4.70	2,388.18	5.845E-04	Pulse	0.50	3
Sn			1	87.978	ug/l	1.89	15,787.94	6.594E-03	Pulse	0.30	3
Sr			1	327.064	ug/l	0.15	75,085.09	3.136E-02	Pulse	0.50	3
[Pb]			1	762.261	ug/l	1.71	245,040.37	5.995E-02	Pulse	0.50	3
Ca			1	52317.505	ug/l	1.93	79,784.38	1.496E-01	Pulse	0.50	3
Ti			1	1022.037	ug/l	7.18	10,277.42	1.928E-02	Pulse	0.50	3
Na			1	596.898	ug/l	0.95	83,677.22	1.569E-01	Pulse	1.00	3
Mg			1	90189.004	ug/l	0.69	2,765,274.25	5.185E+00	Pulse	1.00	3
K			1	18749.755	ug/l	0.46	630,647.63	1.183E+00	Pulse	1.00	3
V			1	343.715	ug/l	1.51	105,850.98	1.985E-01	Pulse	0.50	3
Mn			1	14916.472	ug/l	1.00	3,252,890.08	1.100E+01	Pulse	0.50	3
Fe			1	426302.164	ug/l	0.39	128,160,504.00	4.336E+02	Analog	0.50	3
Co			1	188.682	ug/l	1.32	102,445.54	3.466E-01	Pulse	0.50	3
Ni			1	406.209	ug/l	0.24	59,867.45	2.025E-01	Pulse	0.50	3
Cu			1	523.357	ug/l	1.27	245,120.80	8.292E-01	Pulse	0.50	3
Zn			1	1775.659	ug/l	0.45	120,131.33	2.764E-01	Pulse	1.00	3
Cd			1	16.926	ug/l	5.97	1,433.39	3.298E-03	Pulse	0.50	3
Al			1	273904.782	ug/l	0.87	3,458,658.50	6.485E+00	Pulse	1.00	3
Se			1	29.919	ug/l	2.05	173.11	3.983E-04	Pulse	3.00	3
Sb			1	7.974	ug/l	4.15	1,978.78	4.552E-03	Pulse	1.00	3
Se			1	70.386	ug/l	5.96	169.22	3.893E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,086,954.75	1.08	98.7	Pulse	0.50	3
1	Sc		533,303.61	1.42	96.0	Pulse	0.30	3
1	Ge		295,582.63	0.94	96.8	Pulse	0.30	3
1	In		2,394,629.42	1.81	95.4	Pulse	0.30	3
1	Tb		6,507,622.17	0.76	100.9	Analog	0.50	3
1	Lu		4,506,746.33	2.37	98.0	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		434,650.45	1.30	96.6	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		4,493.85	4.46	100.2	Pulse	0.30	3

Quantitation Report

File Name	030SMPL.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:40
Sample Name	MP42393-S1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	830.134	ug/l	0.83	1,531,708.34	5.227E+00	Pulse	0.50	3
As			1	612.798	ug/l	0.93	132,056.30	4.507E-01	Pulse	1.00	3
Mo			1	526.417	ug/l	1.08	439,207.80	1.061E+00	Pulse	0.50	3
Pb			1	1363.196	ug/l	0.45	4,051,312.33	1.077E+00	Pulse	1.00	3
Be			1	503.336	ug/l	1.42	7,760.15	1.432E-02	Pulse	2.00	3
Ag			1	261.757	ug/l	1.18	668,043.63	1.613E+00	Pulse	0.50	3
Ba			1	2327.214	ug/l	1.14	793,134.87	3.554E-01	Pulse	0.50	3
Tl			1	511.847	ug/l	0.53	2,219,132.25	5.898E-01	Pulse	0.50	3
Sn			1	574.476	ug/l	1.35	465,623.21	2.087E-01	Pulse	0.30	3
Sr			1	870.451	ug/l	0.99	924,931.60	4.145E-01	Pulse	0.50	3
[Pb]			1	1300.467	ug/l	0.46	1,921,103.62	5.106E-01	Pulse	0.50	3
Ca			1	97174.996	ug/l	0.50	748,345.56	1.381E+00	Pulse	0.50	3
Ti			1	1356.101	ug/l	0.65	69,205.76	1.277E-01	Pulse	0.50	3
Na			1	48971.245	ug/l	0.60	15,837,302.67	2.923E+01	Analog	1.00	3
Mg			1	152502.487	ug/l	0.18	23,738,469.33	4.381E+01	Analog	1.00	3
K			1	67713.961	ug/l	0.99	10,181,628.00	1.879E+01	Analog	1.00	3
V			1	863.162	ug/l	1.01	1,334,431.62	2.463E+00	Pulse	0.50	3
Mn			1	19447.143	ug/l	0.74	21,017,719.33	7.173E+01	Analog	0.50	3
Fe			1	540532.805	ug/l	0.43	805,333,930.67	2.748E+03	Analog	0.50	3
Co			1	728.043	ug/l	1.16	1,956,411.13	6.676E+00	Pulse	0.50	3
Ni			1	951.173	ug/l	1.08	690,382.98	2.356E+00	Pulse	0.50	3
Cu			1	1086.213	ug/l	0.69	2,074,680.38	7.080E+00	Pulse	0.50	3
Zn			1	2450.397	ug/l	1.39	786,740.15	1.900E+00	Pulse	1.00	3
Cd			1	521.343	ug/l	2.09	209,191.58	5.052E-01	Pulse	0.50	3
Al			1	356755.347	ug/l	0.42	22,879,428.00	4.223E+01	Analog	1.00	3
Se			1	521.023	ug/l	0.83	9,177.09	2.216E-02	Pulse	3.00	3
Sb			1	249.817	ug/l	1.37	274,147.23	6.620E-01	Pulse	1.00	3
Se			1	567.958	ug/l	2.15	4,757.04	1.149E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,762,450.50	0.92	90.8	Pulse	0.50	3
1	Sc		541,818.00	0.48	97.5	Pulse	0.30	3
1	Ge		293,030.15	0.30	96.0	Pulse	0.30	3
1	In		2,231,519.70	0.14	88.9	Pulse	0.30	3
1	Tb		6,242,342.00	0.33	96.8	Analog	0.50	3
1	Lu		4,346,209.50	0.95	94.5	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		414,137.96	0.95	92.0	Pulse	0.30	3
1	Te		23.33	85.86		Pulse	0.50	3
1	Li		4,179.34	3.03	93.2	Pulse	0.30	3

Quantitation Report

File Name	031CCVA.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:44
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	=std 4
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.953	ug/l	1.88	933,596.23	3.209E+00	Pulse	0.50	3
As			1	49.834	ug/l	1.01	106,616.29	3.665E-01	Pulse	1.00	3
Mo			1	50.453	ug/l	0.78	436,531.56	1.017E+00	Pulse	0.50	3
Pb			1	51.957	ug/l	1.10	1,623,952.21	4.105E-01	Pulse	1.00	3
Be			1	51.885	ug/l	0.85	7,694.62	1.476E-02	Pulse	2.00	3
Ag			1	52.364	ug/l	0.72	1,385,747.88	3.227E+00	Pulse	0.50	3
Ba			1	50.054	ug/l	1.62	179,666.36	7.646E-02	Pulse	0.50	3
Tl			1	52.011	ug/l	0.89	2,370,672.17	5.993E-01	Pulse	0.50	3
Sn			1	49.904	ug/l	0.85	425,983.08	1.813E-01	Pulse	0.30	3
Sr			1	49.772	ug/l	1.09	557,111.48	2.371E-01	Pulse	0.50	3
[Pb]			1	50.321	ug/l	1.17	781,800.33	1.976E-01	Pulse	0.50	3
Ca			1	4992.531	ug/l	0.54	370,119.70	7.101E-01	Pulse	0.50	3
Ti			1	49.324	ug/l	0.66	24,225.00	4.648E-02	Pulse	0.50	3
Na			1	5157.491	ug/l	0.43	16,042,396.00	3.078E+01	Analog	1.00	3
Mg			1	5170.381	ug/l	0.23	7,743,368.00	1.486E+01	Analog	1.00	3
K			1	5070.914	ug/l	0.20	7,354,590.67	1.411E+01	Analog	1.00	3
V			1	50.272	ug/l	0.84	748,229.63	1.435E+00	Pulse	0.50	3
Mn			1	51.177	ug/l	1.29	549,527.88	1.889E+00	Pulse	0.50	3
Fe			1	5222.630	ug/l	1.08	77,269,386.67	2.656E+02	Analog	0.50	3
Co			1	52.759	ug/l	1.48	1,407,454.04	4.838E+00	Pulse	0.50	3
Ni			1	52.241	ug/l	0.92	376,591.17	1.295E+00	Pulse	0.50	3
Cu			1	52.188	ug/l	1.65	1,014,088.83	3.486E+00	Pulse	0.50	3
Zn			1	51.772	ug/l	0.79	172,781.67	4.023E-01	Pulse	1.00	3
Cd			1	51.397	ug/l	0.93	213,888.35	4.980E-01	Pulse	0.50	3
Al			1	5053.271	ug/l	1.05	3,118,436.08	5.982E+00	Pulse	1.00	3
Se			1	49.792	ug/l	0.85	9,097.05	2.118E-02	Pulse	3.00	3
Sb			1	50.424	ug/l	1.37	573,718.33	1.336E+00	Pulse	1.00	3
Se			1	49.664	ug/l	1.67	4,319.93	1.006E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,955,409.83	0.92	95.5	Pulse	0.50	3
1	Sc		521,219.11	1.40	93.8	Pulse	0.30	3
1	Ge		290,893.88	1.33	95.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,349,679.84	1.35	93.6	Pulse	0.30	3
1	Tb		6,418,555.67	0.75	99.5	Analog	0.50	3
1	Lu		4,491,812.17	1.38	97.7	Pulse	0.50	3
1	Ge		429,437.32	1.17	95.4	Pulse	0.30	3
1	Te		2.67	173.21		Pulse	0.50	3
1	Li		4,107.11	5.43	91.6	Pulse	0.30	3

Quantitation Report

File Name	032_CCV.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:47
Sample Name	CCV
Sample Type	CCV
Comment	=std 5
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.549	ug/l	0.56	1,810,378.63	6.394E+00	Pulse	0.50	3
As			1	100.660	ug/l	0.28	209,579.21	7.402E-01	Pulse	1.00	3
Mo			1	102.248	ug/l	1.01	861,079.50	2.059E+00	Pulse	0.50	3
Pb			1	103.775	ug/l	0.42	3,179,709.42	8.197E-01	Pulse	1.00	3
Be			1	103.870	ug/l	0.66	14,996.01	2.955E-02	Pulse	2.00	3
Ag			1	103.468	ug/l	0.86	2,666,269.50	6.376E+00	Pulse	0.50	3
Ba			1	101.153	ug/l	1.14	353,469.87	1.545E-01	Pulse	0.50	3
Tl			1	103.967	ug/l	0.69	4,646,860.17	1.198E+00	Pulse	0.50	3
Sn			1	100.948	ug/l	0.91	838,494.71	3.665E-01	Pulse	0.30	3
Sr			1	99.517	ug/l	0.60	1,084,090.83	4.738E-01	Pulse	0.50	3
[Pb]			1	100.655	ug/l	0.52	1,533,008.50	3.952E-01	Pulse	0.50	3
Ca			1	9962.837	ug/l	1.35	718,528.21	1.416E+00	Pulse	0.50	3
Ti			1	100.341	ug/l	0.68	47,964.47	9.452E-02	Pulse	0.50	3
Na			1	10322.337	ug/l	0.21	31,218,079.33	6.152E+01	Analog	1.00	3
Mg			1	10337.609	ug/l	0.77	15,071,345.00	2.970E+01	Analog	1.00	3
K			1	10132.249	ug/l	0.51	14,231,975.00	2.804E+01	Analog	1.00	3
V			1	100.767	ug/l	1.15	1,458,737.08	2.875E+00	Pulse	0.50	3
Mn			1	101.294	ug/l	0.39	1,058,240.92	3.737E+00	Pulse	0.50	3
Fe			1	10358.524	ug/l	0.23	149,147,770.67	5.267E+02	Analog	0.50	3
Co			1	104.793	ug/l	0.53	2,720,932.75	9.609E+00	Pulse	0.50	3
Ni			1	102.537	ug/l	0.84	719,102.77	2.540E+00	Pulse	0.50	3
Cu			1	103.171	ug/l	0.50	1,906,428.71	6.733E+00	Pulse	0.50	3
Zn			1	102.575	ug/l	1.05	332,870.99	7.960E-01	Pulse	1.00	3
Cd			1	102.560	ug/l	1.52	415,582.56	9.938E-01	Pulse	0.50	3
Al			1	10106.537	ug/l	0.61	6,070,906.83	1.196E+01	Analog	1.00	3
Se			1	100.006	ug/l	0.67	17,732.31	4.240E-02	Pulse	3.00	3
Sb			1	101.551	ug/l	1.54	1,124,939.04	2.690E+00	Pulse	1.00	3
Se			1	100.550	ug/l	1.73	8,470.22	2.026E-02	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,878,807.42	0.82	93.6	Pulse	0.50	3
1	Sc		507,466.70	0.81	91.3	Pulse	0.30	3
1	Ge		283,151.04	0.23	92.7	Pulse	0.30	3
1	In		2,287,929.63	0.67	91.2	Pulse	0.30	3
1	Tb		6,265,987.50	0.50	97.2	Analog	0.50	3
1	Lu		4,429,834.17	1.04	96.3	Pulse	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Ge		418,217.54	0.94	92.9	Pulse	0.30	3
1	Te		4.00	100.00		Pulse	0.50	3
1	Li		4,214.91	3.69	94.0	Pulse	0.30	3

Quantitation Report

File Name	033_CCB.d
File Path	D:\2023\xa061623m3.b
Method File	
Method Path	
Acq Time	6/16/2023 13:51
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	6/16/2023 12:53
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.026	ug/l	7.68	1,082.70	3.894E-03	Pulse	0.50	3
As			1	0.021	ug/l	40.46	81.33	2.928E-04	Pulse	1.00	3
Mo			1	0.092	ug/l	38.38	1,189.38	2.901E-03	Pulse	0.50	3
Pb			1	0.022	ug/l	12.56	1,589.74	4.033E-04	Pulse	1.00	3
Be			1	0.017	ug/l	93.89	4.67	9.318E-06	Pulse	2.00	3
Ag			1	0.011	ug/l	32.09	422.01	1.032E-03	Pulse	0.50	3
Ba			1	0.011	ug/l	42.11	82.67	3.610E-05	Pulse	0.50	3
Tl			1	0.016	ug/l	20.43	818.69	2.079E-04	Pulse	0.50	3
Sn			1	0.248	ug/l	24.88	2,545.75	1.110E-03	Pulse	0.30	3
Sr			1	0.017	ug/l	18.13	698.68	3.049E-04	Pulse	0.50	3
[Pb]			1	0.018	ug/l	33.72	705.35	1.790E-04	Pulse	0.50	3
Ca			1	0.631	ug/l	62.19	531.34	1.061E-03	Pulse	0.50	3
Ti			1	0.010	ug/l	197.41	21.33	4.258E-05	Pulse	0.50	3
Na			1	0.632	ug/l	25.51	44,891.29	8.962E-02	Pulse	1.00	3
Mg			1	0.650	ug/l	49.68	2,602.51	5.196E-03	Pulse	1.00	3
K			1	-2.674	ug/l	-10.97	71,542.39	1.428E-01	Pulse	1.00	3
V			1	0.013	ug/l	12.15	1,452.73	2.900E-03	Pulse	0.50	3
Mn			1	0.099	ug/l	5.91	1,433.39	5.155E-03	Pulse	0.50	3
Fe			1	2.813	ug/l	7.57	64,611.47	2.324E-01	Pulse	0.50	3
Co			1	0.014	ug/l	35.11	502.68	1.810E-03	Pulse	0.50	3
Ni			1	0.031	ug/l	19.55	614.68	2.210E-03	Pulse	0.50	3
Cu			1	-0.774	ug/l	-2.35	31,526.33	1.133E-01	Pulse	0.50	3
Zn			1	0.034	ug/l	51.48	606.68	1.482E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	54.92	52.00	1.272E-04	Pulse	0.50	3
Al			1	1.355	ug/l	29.04	1,430.39	2.856E-03	Pulse	1.00	3
Se			1	0.037	ug/l	37.77	66.00	1.612E-04	Pulse	3.00	3
Sb			1	0.067	ug/l	20.82	866.02	2.113E-03	Pulse	1.00	3
Se			1	0.054	ug/l	163.68	48.33	1.180E-04	Pulse	3.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,943,587.58	1.30	95.2	Pulse	0.50	3
1	Sc		500,893.37	0.25	90.2	Pulse	0.30	3

Quantitation Report

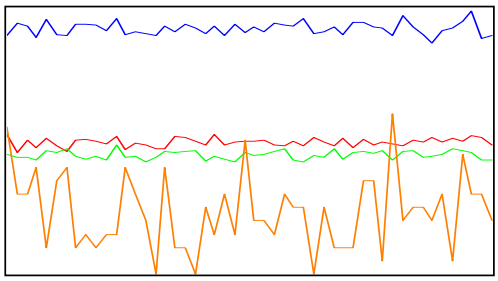
1	Ge		278,140.86	1.08	91.1	Pulse	0.30	3
1	In		2,292,215.32	0.73	91.3	Pulse	0.30	3
1	Tb		6,324,060.50	0.42	98.1	Analog	0.50	3
1	Lu		4,313,043.33	1.13	93.8	Pulse	0.50	3
1	Ge		409,465.89	0.82	91.0	Pulse	0.30	3
1	Te		2.00	100.00		Pulse	0.50	3
1	Li		3,947.07	2.72	88.0	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Tune Report

Batch Folder	D:\2023\xa061623m1.b
Acq. Date-Time	6/16/2023 9:36
Report Comment	0523
Instrument Name	G3281A JP12151709

[2]



Mass	Range	Count (Actual)	Response (Actual) [cps/ug/l]	Response (Required) [cps/ug/l]	Response (Flag)
59	5000	2470	24697.02	5000.00	
89	5000	2233	22327.92	5000.00	
205	5000	4598	45978.20	5000.00	
78	20	5			

Mass	Resp Ratio (Actual)	Resp Ratio (Required)	Resp Ratio (Flag)
59		-	
89		-	
205		-	
78		-	

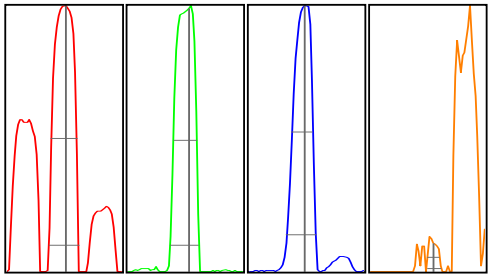
Mass	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
59	3.32	5.00	
89	3.56	5.00	
205	2.64	5.00	
78	60.17		

Mass	Background (Actual)	Background (Required)	Background (Flag)
59	0.10	2	
89	0.10	2	
205	0.50	2	
78	0.00	5	

Ratio	156/140	0.482	%
Ratio	70/140	1.820	%

Integration Time [sec] 0.1 **Sampling Period [sec]** 0.412

Tune Report



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	W-50%	W-10% (Actual)	W-10% (Required)	W-10% (Flag)
59	2509.46	59.05	58.9 - 59.1		0.63	0.759	0.900	
89	2221.65	89.10	88.9 - 89.1		0.59	0.742	0.900	
205	4589.31	205.00	204.9 - 205.1		0.52	0.736	0.900	
78	4.75	78.15	-		0.30	0.372		

Integration Time [sec] 0.1 **Acquisition Time [sec]** 29.92 **Y Axis** Linear

Tune Parameters
Plasma Paramters

RF Power	1550 W	Nebulizer Pump	0.10 rps
RF Matching	1.70 V	S/C Temp	2 ℃
Smpl Depth	8.0 mm	Gas Switch	Makeup Gas
Carrier Gas	1.09 L/min	Makeup/Dilution Gas	0.00 L/min
Option Gas	0.0 %		

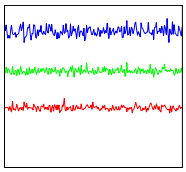
Lenses Parameters

Extract 1	0.0 V	Cell Entrance	-40 V
Extract 2	-175.0 V	Cell Exit	-70 V
Omega Bias	-105 V	Deflect	2.0 V
Omega Lens	9.1 V	Plate Bias	-60 V

Cell Parameters

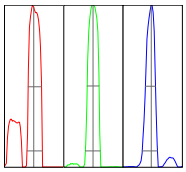
Use Gas	true	OctP Bias	-18.0 V
He Flow	4.3 mL/min	OctP RF	200 V
H2 Flow	0.0 mL/min	Energy Discrimination	3.0 V
3rd Gas Flow	0 %		

Performance



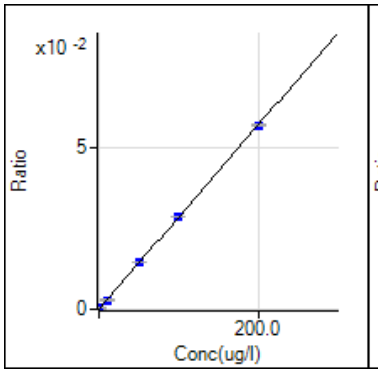
Sensitivity			
Mass	7	89	205
Range	5000	1.0E4	5000
Count	1835.23	5946.20	4195.38
RSD%	3.9	2.7	3.3
Integration Time	0.100 sec		
Sampling Period	0.311 sec		
Oxide	156/140	1.15%	
Doubly Charged	70/140	2.60%	

Background			
Mass	7	89	205
Count	0.20	0.90	3.80

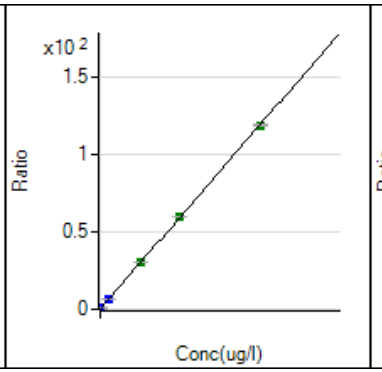


Resolution/Axis			
Mass	7	89	205
Height	1800	5944	4240
Axis	7.00	89.00	204.95
W-50%	0.67	0.59	0.51
W-10%	0.77	0.75	0.76
Integration Time	0.100 sec		
Acquisition Time	00:00:23		

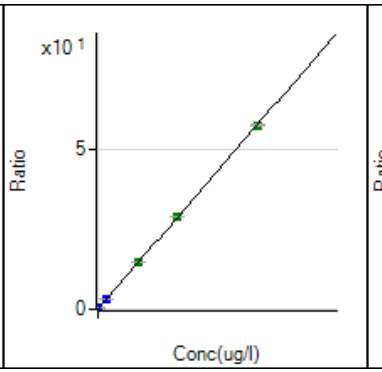
Calibration for D:\2023\xa061623m3.b\001CALB.d



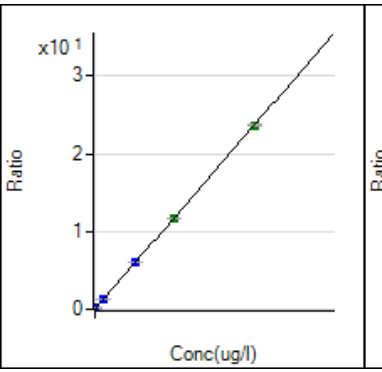
9 Be [2] / ISTD: 45 Sc
y = 2.845E-4 x + 4.525E-6
R 1.0000
DL 0.02609
BEC 0.01591



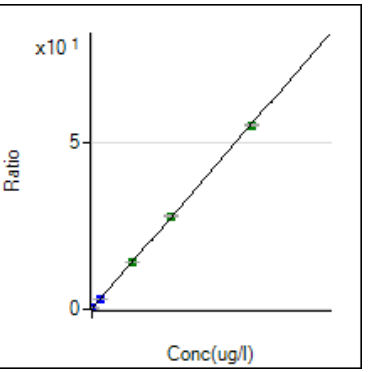
23 Na [2] / ISTD: 45 Sc
y = 5.951E-3 x + 8.586E-2
R 1.0000
DL 0.4999
BEC 14.43



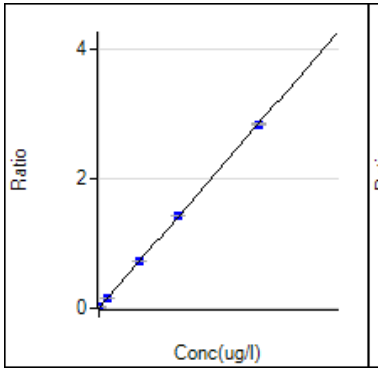
24 Mg [2] / ISTD: 45 Sc
y = 2.873E-3 x + 3.329E-3
R 1.0000
DL 0.1198
BEC 1.159



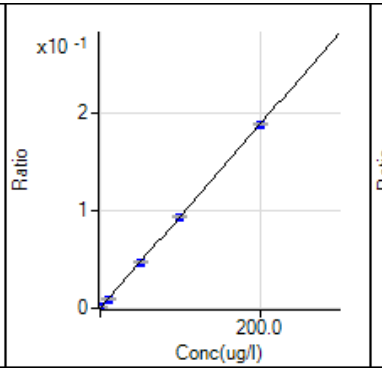
27 Al [2] / ISTD: 45 Sc
y = 1.184E-3 x + 1.252E-3
R 1.0000
DL 0.2755
BEC 1.058



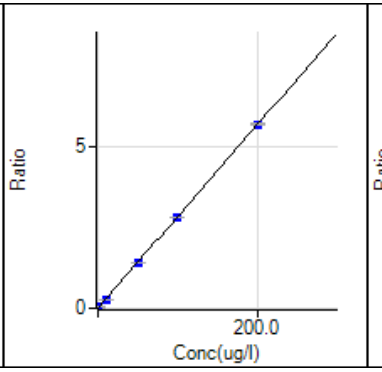
39 K [2] / ISTD: 45 Sc
y = 2.753E-3 x + 1.502E-1
R 1.0000
DL 3.345
BEC 54.56



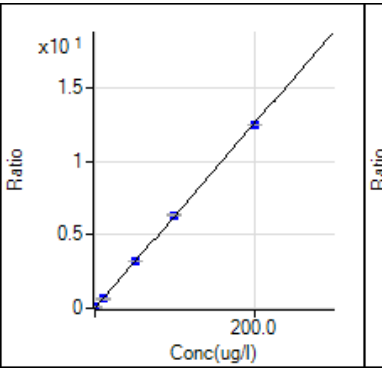
44 Ca [2] / ISTD: 45 Sc
y = 1.420E-4 x + 9.713E-4
R 1.0000
DL 1.415
BEC 6.839



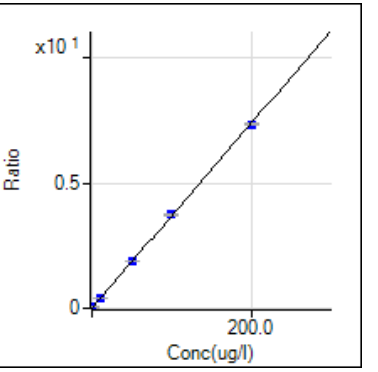
47 Ti [2] / ISTD: 45 Sc
y = 9.416E-4 x + 3.349E-5
R 1.0000
DL 0.03358
BEC 0.03556



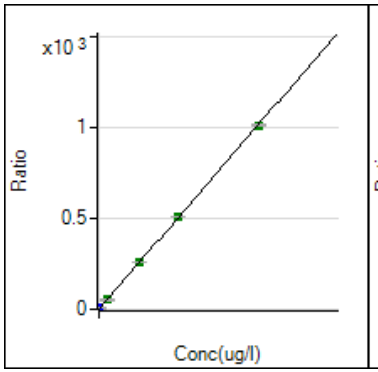
51 V [2] / ISTD: 45 Sc
y = 2.850E-2 x + 2.528E-3
R 1.0000
DL 0.004356
BEC 0.08869



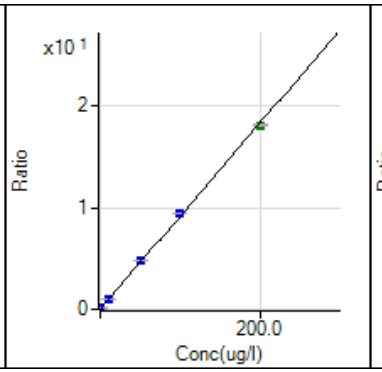
52 Cr [2] / ISTD: 72 Ge
y = 6.294E-2 x + 2.273E-3
R 1.0000
DL 0.007723
BEC 0.03611



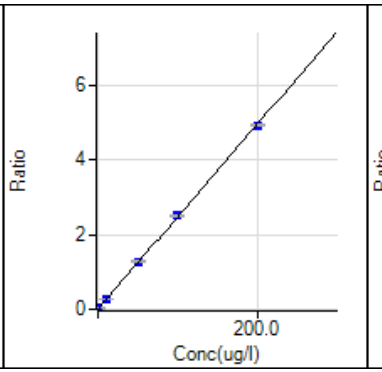
55 Mn [2] / ISTD: 72 Ge
y = 3.688E-2 x + 1.515E-3
R 0.9999
DL 0.0101
BEC 0.04108



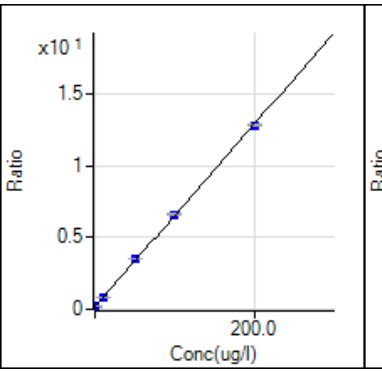
56 Fe [2] / ISTD: 72 Ge
y = 5.084E-2 x + 8.935E-2
R 1.0000
DL 0.07364
BEC 1.757



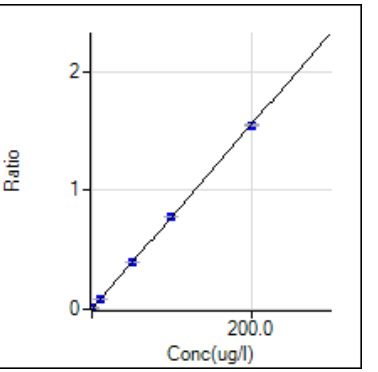
59 Co [2] / ISTD: 72 Ge
y = 9.169E-2 x + 5.482E-4
R 0.9997
DL 0.00158
BEC 0.005979



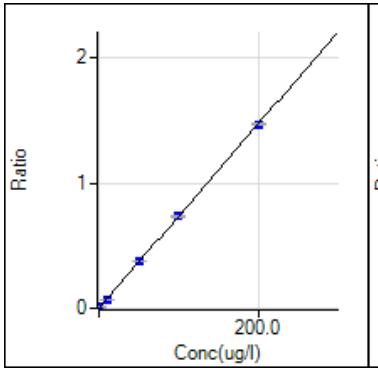
60 Ni [2] / ISTD: 72 Ge
y = 2.475E-2 x + 1.434E-3
R 0.9999
DL 0.01523
BEC 0.05794



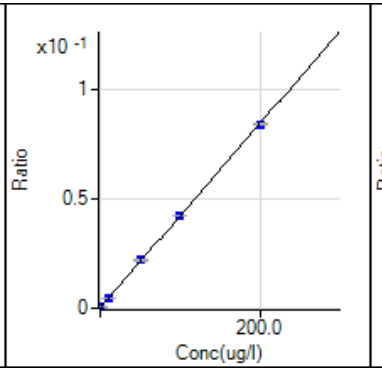
63 Cu [2] / ISTD: 72 Ge
y = 6.368E-2 x + 1.626E-1
R 0.9999
DL 0.1509
BEC 2.554



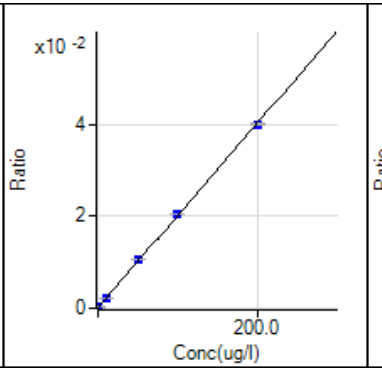
66 Zn [2] / ISTD: 74 Ge
y = 7.748E-3 x + 1.219E-3
R 1.0000
DL 0.01437
BEC 0.1573



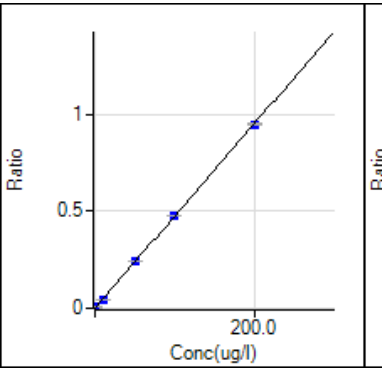
75 As [2] / ISTD: 72 Ge
y = 7.352E-3 x + 1.406E-4
R 1.0000
DL 0.01583
BEC 0.01912



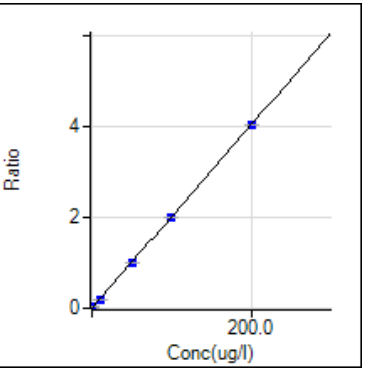
78 Se [2] / ISTD: 74 Ge
y = 4.225E-4 x + 1.454E-4
R 1.0000
DL 0.05087
BEC 0.3442



82 Se [2] / ISTD: 74 Ge
y = 2.004E-4 x + 1.072E-4
R 0.9999
DL 0.1437
BEC 0.5352

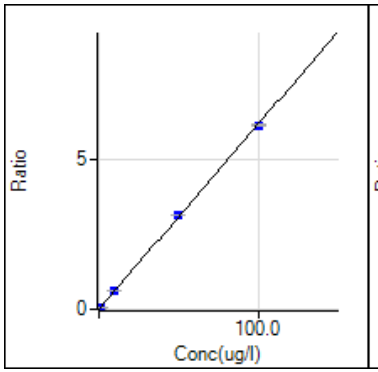


88 Sr [2] / ISTD: 115 In
y = 4.759E-3 x + 2.253E-4
R 1.0000
DL 0.004897
BEC 0.04734

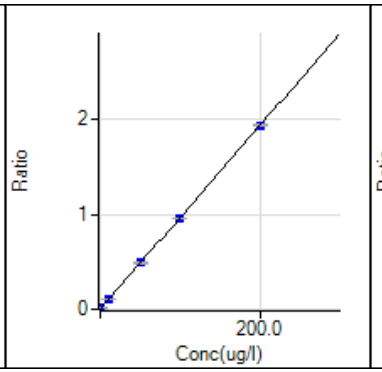


95 Mo [2] / ISTD: 74 Ge
y = 2.013E-2 x + 1.059E-3
R 1.0000
DL 0.04082
BEC 0.05262

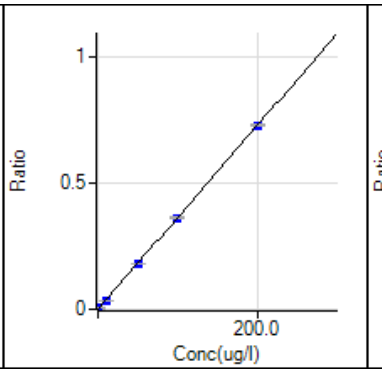
Calibration for D:\2023\xa061623m3.b\001CALB.d



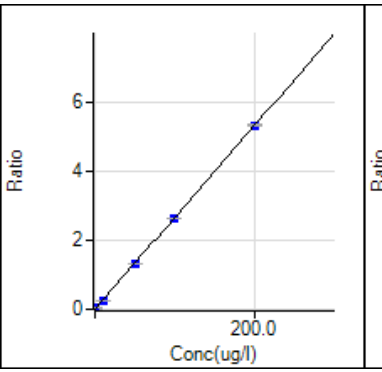
107 Ag [2] / ISTD: 74 Ge
y = 6.162E-2 x + 3.259E-4
R 0.9999
DL 0.001434
BEC 0.00529



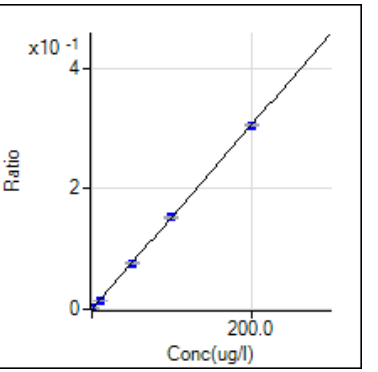
111 Cd [2] / ISTD: 74 Ge
y = 9.690E-3 x + 1.793E-5
R 1.0000
DL 0.004808
BEC 0.001851



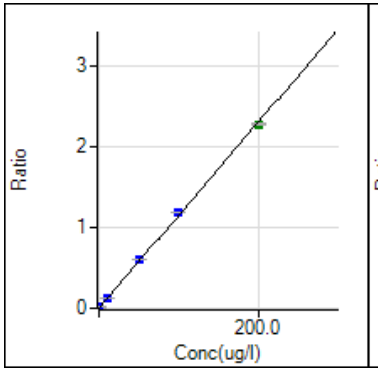
118 Sn [2] / ISTD: 115 In
y = 3.628E-3 x + 2.099E-4
R 1.0000
DL 0.01056
BEC 0.05786



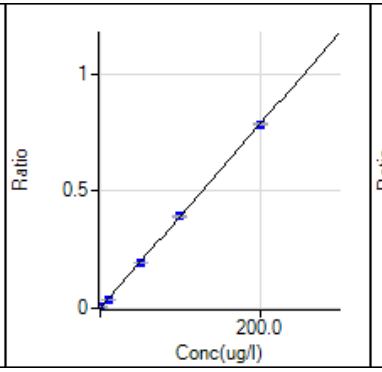
121 Sb [2] / ISTD: 74 Ge
y = 2.649E-2 x + 3.272E-4
R 1.0000
DL 0.002742
BEC 0.01235



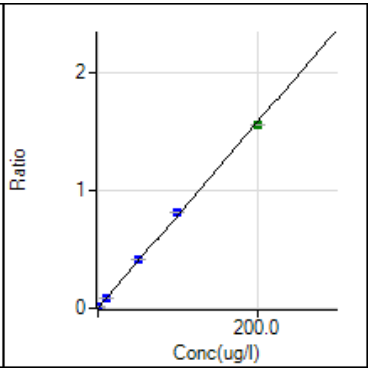
137 Ba [2] / ISTD: 115 In
y = 1.527E-3 x + 1.991E-5
R 1.0000
DL 0.006627
BEC 0.01304



205 Tl [2] / ISTD: 209 Bi
y = 1.152E-2 x + 2.302E-5
R 0.9998
DL 0.0001183
BEC 0.001998



206 [Pb] [2] / ISTD: 209 Bi
y = 3.925E-3 x + 1.103E-4
R 1.0000
DL 0.00829
BEC 0.02811



208 Pb [2] / ISTD: 209 Bi
y = 7.897E-3 x + 2.273E-4
R 0.9998
DL 0.00472
BEC 0.02879

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 6/22/2023 9:16:07 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**-.0001**	**-.0003**	**.0043**	**.0072**	**.0011**	**.0029**	**-.0011**	**-.0006**
Stddev	.0001	.0005	.0002	.0009	.0002	.0007	.0007	.0002	.0001
%RSD	17.28	426.9	44.09	21.44	3.116	65.09	22.68	16.48	16.48
#1	-.0007	-.0004	-.0002	.0034	.0072	.0019	.0022	-.0013	-.0007
#2	-.0008	.0004	-.0004	.0045	.0074	.0006	.0030	-.0010	-.0005
#3	-.0009	-.0004	-.0005	.0052	.0069	.0008	.0036	-.0009	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0062**	**.0010**	**.0003**	**-.0041**	**-.0002**	**.0002**	**.0011**	**-.0033**
Stddev	.0002	.0002	.0001	.0014	.0020	.0002	.0001	.0001	.0031
%RSD	138.9	3.860	9.549	454.9	48.42	113.4	31.16	12.66	94.65
#1	.0002	.0063	.0010	.0020	-.0064	-.0001	.0002	.0013	-.0069
#2	-.0001	.0065	.0010	-.0004	-.0026	-.0004	.0001	.0011	-.0012
#3	.0002	.0060	.0012	-.0006	-.0034	.0000	.0003	.0010	-.0019

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**.0016**	**.0009**	**.0007**	**.0030**	**.0002**	**-.0013**	**.0005**	**-.0013**
Stddev	.0002	.0010	.0003	.0004	.0002	.0001	.0005	.0001	.0002
%RSD	17.41	64.06	35.19	50.24	5.300	79.67	37.69	19.50	11.95
#1	-.0012	.0004	.0012	.0009	.0029	.0002	-.0018	.0006	-.0011
#2	-.0014	.0022	.0007	.0010	.0031	.0000	-.0009	.0006	-.0013
#3	-.0010	.0022	.0007	.0003	.0031	.0003	-.0011	.0004	-.0014

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0002**	**.0008**
Stddev	.0002	.0000
%RSD	130.4	4.682
#1	.0000	.0008
#2	-.0004	.0008
#3	-.0001	.0009

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 6/22/2023 9:16:07 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**815.47**	**1913.3**	**23275.**	**5491.7**
Stddev	6.57	23.3	56.	12.4
%RSD	.80566	1.2163	.24115	.22665
#1	808.21	1887.2	23251.	5506.1
#2	821.00	1931.7	23235.	5484.5
#3	817.20	1921.0	23339.	5484.5

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 6/22/2023 9:20:15 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0055**	**.0265**	**.0018**	**.0582**	**2.791**	**.0563**	**.3774**	**.0267**	**.1443**
Stddev	.0001	.0007	.0001	.0013	.003	.0003	.0010	.0004	.0001
%RSD	2.113	2.642	3.580	2.239	.1085	.5515	.2601	1.559	.0917
#1	.0055	.0261	.0018	.0590	2.789	.0561	.3784	.0268	.1444
#2	.0053	.0273	.0017	.0589	2.789	.0567	.3773	.0271	.1442
#3	.0055	.0260	.0017	.0567	2.794	.0562	.3764	.0263	.1444

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0054**	**.0273**	**.0805**	**1.203**	**.0217**	**.1537**	**.0475**	**.0736**	**3.671**
Stddev	.0001	.0000	.0006	.004	.0027	.0004	.0000	.0005	.004
%RSD	1.431	.1805	.7472	.3107	12.26	.2747	.0968	.7050	.1029
#1	.0053	.0273	.0806	1.199	.0247	.1539	.0476	.0740	3.667
#2	.0053	.0273	.0811	1.207	.0204	.1532	.0475	.0731	3.675
#3	.0054	.0273	.0799	1.204	.0199	.1540	.0475	.0739	3.670

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0613**	**.0091**	**.0023**	**.0023**	**.0234**	**.1937**	**.0202**	**.0049**	**.0300**
Stddev	.0005	.0006	.0004	.0004	.0003	.0017	.0003	.0006	.0003
%RSD	.7580	6.105	17.88	18.95	1.203	.8848	1.250	12.61	.8597
#1	.0615	.0090	.0027	.0025	.0231	.1918	.0202	.0042	.0300
#2	.0617	.0097	.0022	.0018	.0233	.1949	.0205	.0055	.0298
#3	.0608	.0086	.0019	.0027	.0237	.1945	.0200	.0050	.0303

Elem	Zn2062
Units	Cts/S
Avg	**.0532**
Stddev	.0004
%RSD	.6627
#1	.0534
#2	.0534
#3	.0528

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 6/22/2023 9:20:15 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**755.84**	**1859.2**	**22269.**	**5398.7**
Stddev	2.42	4.1	37.	34.6
%RSD	.32042	.22188	.16485	.64015
#1	757.95	1860.7	22230.	5392.0
#2	756.38	1862.4	22303.	5368.0
#3	753.20	1854.6	22273.	5436.2

Zoom In Zoom Out

Sample Name: STDC Acquired: 6/22/2023 9:24:24 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0188**	**.6281**	**.0559**	**.1988**	**3.508**	**2.775**	**1.873**	**1.379**	**.7282**
Stddev	.0001	.0039	.0001	.0011	.006	.014	.007	.001	.0006
%RSD	.3790	.6283	.2168	.5622	.1802	.4871	.3645	.0578	.0814
#1	.0188	.6259	.0558	.1984	3.502	2.785	1.873	1.379	.7287
#2	.0188	.6258	.0560	.2000	3.507	2.760	1.865	1.378	.7283
#3	.0187	.6327	.0559	.1978	3.515	2.781	1.879	1.380	.7275

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1333**	**.2103**	**1.343**	**.6001**	**.7558**	**.1540**	**.7848**	**.3612**	**1.997**
Stddev	.0005	.0013	.003	.0013	.0045	.0011	.0016	.0006	.007
%RSD	.3807	.6103	.1831	.2249	.6013	.7069	.2024	.1792	.3377
#1	.1336	.2098	1.342	.6012	.7583	.1527	.7863	.3608	1.991
#2	.1335	.2117	1.340	.6004	.7585	.1547	.7831	.3610	1.994
#3	.1327	.2093	1.345	.5986	.7506	.1545	.7849	.3620	2.004

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3873**	**.3406**	**.0848**	**.0434**	**.1298**	**.1209**	**4.839**	**.4941**	**.1575**
Stddev	.0008	.0002	.0006	.0005	.0005	.0004	.016	.0009	.0005
%RSD	.2060	.0563	.6594	1.091	.3852	.3080	.3200	.1773	.3462
#1	.3874	.3404	.0851	.0430	.1292	.1206	4.852	.4945	.1580
#2	.3864	.3405	.0842	.0433	.1301	.1213	4.822	.4947	.1569
#3	.3880	.3408	.0851	.0439	.1301	.1207	4.844	.4931	.1577

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.1497**	**.6538**
Stddev	.0005	.0012
%RSD	.3446	.1841
#1	.1495	.6546
#2	.1503	.6524
#3	.1493	.6544

Zoom In Zoom Out

Sample Name: STDC Acquired: 6/22/2023 9:24:24 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**764.79**	**1889.9**	**22678.**	**5469.1**
Stddev	1.10	.5	31.	44.3
%RSD	.14420	.02598	.13579	.80989
#1	764.44	1889.6	22645.	5480.9
#2	766.03	1890.4	22685.	5506.3
#3	763.91	1889.5	22706.	5420.1

Zoom In Zoom Out

Sample Name: STDD Acquired: 6/22/2023 9:28:57 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0378**	**1.246**	**.1123**	**.3963**	**6.967**	**5.479**	**3.716**	**2.721**	**1.435**
Stddev	.0003	.005	.0005	.0019	.014	.015	.006	.001	.001
%RSD	.7981	.4017	.4653	.4770	.1969	.2814	.1588	.0423	.0867
#1	.0377	1.251	.1128	.3983	6.982	5.462	3.718	2.720	1.435
#2	.0375	1.246	.1123	.3960	6.964	5.483	3.721	2.723	1.434
#3	.0381	1.241	.1118	.3946	6.955	5.492	3.710	2.721	1.436

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2653**	**.4128**	**2.655**	**1.210**	**1.523**	**.3006**	**1.536**	**.7232**	**3.935**
Stddev	.0007	.0013	.004	.002	.003	.0007	.002	.0006	.008
%RSD	.2561	.3242	.1536	.1455	.2136	.2192	.1210	.0867	.2058
#1	.2647	.4113	2.658	1.211	1.526	.3014	1.535	.7231	3.941
#2	.2660	.4132	2.655	1.211	1.524	.3005	1.538	.7226	3.937
#3	.2652	.4139	2.650	1.208	1.519	.3001	1.536	.7239	3.926

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7753**	**.6752**	**.1670**	**.0852**	**.2590**	**.2370**	**9.761**	**.9679**	**.3146**
Stddev	.0016	.0015	.0009	.0008	.0006	.0002	.022	.0016	.0016
%RSD	.2014	.2244	.5232	.8896	.2340	.0918	.2239	.1662	.5120
#1	.7751	.6752	.1680	.0859	.2591	.2370	9.737	.9697	.3134
#2	.7738	.6767	.1667	.0844	.2583	.2368	9.768	.9667	.3165
#3	.7769	.6737	.1664	.0855	.2595	.2373	9.779	.9672	.3141

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.3014**	**1.304**
Stddev	.0006	.000
%RSD	.1863	.0289
#1	.3008	1.304
#2	.3020	1.304
#3	.3015	1.304

Zoom In Zoom Out

Sample Name: STDD Acquired: 6/22/2023 9:28:57 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**742.48**	**1861.8**	**22434.**	**5464.0**
Stddev	.38	1.0	89.	6.8
%RSD	.05085	.05109	.39818	.12471
#1	742.91	1862.7	22537.	5457.9
#2	742.21	1861.8	22395.	5462.9
#3	742.31	1860.8	22371.	5471.3

Zoom In Zoom Out

Sample Name: STDE Acquired: 6/22/2023 9:32:36 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0795**	**2.524**	**.2294**	**.7799**	**14.34**	**11.20**	**7.497**	**5.534**	**2.896**
Stddev	.0006	.018	.0004	.0049	.01	.10	.033	.004	.001
%RSD	.7455	.7112	.1562	.6233	.0800	.9176	.4386	.0674	.0444
#1	.0788	2.509	.2292	.7771	14.33	11.24	7.510	5.533	2.895
#2	.0800	2.519	.2298	.7771	14.35	11.27	7.521	5.531	2.897
#3	.0797	2.544	.2292	.7855	14.33	11.08	7.459	5.538	2.897

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5414**	**.8394**	**5.328**	**2.486**	**3.137**	**.6106**	**3.114**	**1.479**	**8.104**
Stddev	.0011	.0037	.014	.002	.018	.0005	.003	.002	.022
%RSD	.2053	.4441	.2614	.0942	.5829	.0860	.1062	.1121	.2685
#1	.5402	.8368	5.328	2.484	3.147	.6107	3.111	1.477	8.085
#2	.5417	.8377	5.341	2.488	3.148	.6100	3.117	1.478	8.100
#3	.5424	.8437	5.313	2.485	3.116	.6111	3.113	1.480	8.128

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.567**	**1.389**	**.3328**	**.1751**	**.4204**	**.4637**	**19.95**	**1.926**	**.6455**
Stddev	.004	.003	.0003	.0009	.0016	.0014	.17	.001	.0018
%RSD	.2569	.2173	.0763	.5021	.3814	.3050	.8437	.0637	.2774
#1	1.563	1.389	.3326	.1745	.4190	.4648	20.03	1.925	.6470
#2	1.570	1.392	.3327	.1747	.4201	.4641	20.07	1.928	.6460
#3	1.569	1.386	.3331	.1761	.4221	.4621	19.76	1.926	.6435

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.6120**	**2.654**
Stddev	.0027	.003
%RSD	.4401	.1060
#1	.6090	2.653
#2	.6142	2.658
#3	.6128	2.653

Zoom In Zoom Out

Sample Name: STDE Acquired: 6/22/2023 9:32:36 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**713.89**	**1828.7**	**22049.**	**5415.3**
Stddev	.81	2.5	45.	22.6
%RSD	.11409	.13684	.20490	.41709
#1	713.72	1831.1	22093.	5404.0
#2	713.17	1829.0	22051.	5400.5
#3	714.77	1826.1	22003.	5441.3

Zoom In Zoom Out

Sample Name: STDF Acquired: 6/22/2023 9:36:24 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1590**	**5.085**	**.4615**	**1.574**	**28.55**	**22.25**	**14.78**	**10.93**	**5.702**
Stddev	.0005	.019	.0005	.009	.03	.09	.05	.01	.006
%RSD	.3400	.3711	.1063	.5414	.0875	.3936	.3062	.1100	.1123
#1	.1586	5.077	.4618	1.565	28.56	22.35	14.82	10.94	5.709
#2	.1589	5.072	.4609	1.575	28.52	22.21	14.73	10.92	5.702
#3	.1596	5.107	.4617	1.581	28.56	22.19	14.78	10.93	5.696

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.065**	**1.659**	**10.45**	**4.995**	**6.301**	**1.208**	**6.140**	**2.937**	**16.28**
Stddev	.003	.001	.03	.005	.009	.005	.007	.005	.02
%RSD	.2863	.0532	.2408	.0942	.1369	.4401	.1111	.1596	.1372
#1	1.068	1.660	10.47	4.999	6.304	1.212	6.145	2.942	16.30
#2	1.062	1.658	10.42	4.990	6.309	1.202	6.132	2.934	16.25
#3	1.065	1.658	10.46	4.995	6.292	1.209	6.141	2.934	16.28

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.076**	**2.777**	**.6649**	**.3464**	**.8400**	**.9129**	**39.67**	**3.820**	**1.268**
Stddev	.009	.003	.0006	.0009	.0022	.0003	.15	.001	.001
%RSD	.2862	.1127	.0937	.2600	.2584	.0367	.3800	.0251	.0664
#1	3.086	2.780	.6654	.3472	.8424	.9125	39.83	3.820	1.268
#2	3.069	2.776	.6651	.3454	.8382	.9130	39.64	3.821	1.267
#3	3.074	2.774	.6642	.3466	.8393	.9131	39.54	3.819	1.269

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.218**	**5.235**
Stddev	.003	.004
%RSD	.2569	.0845
#1	1.221	5.239
#2	1.215	5.231
#3	1.219	5.233

Zoom In Zoom Out

Sample Name: STDF Acquired: 6/22/2023 9:36:24 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**676.96**	**1777.6**	**21582.**	**5388.6**
Stddev	.69	3.9	22.	36.6
%RSD	.10127	.21798	.10328	.68006
#1	676.22	1773.3	21571.	5351.5
#2	677.07	1780.7	21568.	5424.7
#3	677.58	1778.9	21608.	5389.6

Zoom In Zoom Out

Sample Name: STDG Acquired: 6/22/2023 9:46:01 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3200**	**10.13**	**.9261**	**3.204**	**54.95**	**43.19**	**28.76**	**21.34**	**11.11**
Stddev	.0011	.02	.0041	.030	.34	.08	.08	.06	.03
%RSD	.3496	.2036	.4383	.9508	.6159	.1916	.2629	.2911	.3021
#1	.3196	10.11	.9237	3.181	55.34	43.27	28.81	21.31	11.10
#2	.3212	10.15	.9237	3.193	54.72	43.20	28.80	21.31	11.09
#3	.3191	10.13	.9307	3.239	54.78	43.10	28.67	21.42	11.15

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.073**	**3.310**	**20.21**	**10.03**	**12.59**	**2.355**	**11.87**	**5.778**	**32.17**
Stddev	.006	.014	.04	.01	.03	.007	.04	.017	.03
%RSD	.2770	.4180	.1998	.0824	.2133	.2859	.3064	.3013	.1000
#1	2.067	3.299	20.20	10.04	12.62	2.355	11.86	5.765	32.13
#2	2.078	3.325	20.25	10.03	12.57	2.362	11.91	5.771	32.18
#3	2.073	3.305	20.17	10.02	12.58	2.349	11.83	5.798	32.19

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.040**	**5.444**	**1.324**	**.6890**	**1.751**	**1.766**	**78.16**	**7.393**	**2.467**
Stddev	.015	.021	.007	.0020	.007	.007	.99	.026	.005
%RSD	.2437	.3765	.4999	.2861	.3755	.3736	1.271	.3509	.2070
#1	6.026	5.462	1.318	.6879	1.745	1.763	77.02	7.372	2.468
#2	6.040	5.422	1.323	.6879	1.750	1.762	78.81	7.422	2.461
#3	6.055	5.449	1.331	.6913	1.758	1.774	78.66	7.384	2.470

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.422**	**10.26**
Stddev	.008	.02
%RSD	.3224	.2143
#1	2.413	10.26
#2	2.425	10.24
#3	2.428	10.29

Zoom In Zoom Out

Sample Name: STDG Acquired: 6/22/2023 9:46:01 Type: Cal
Method: 60102007_COMBO_10242022(v231) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**635.20**	**1698.9**	**20992.**	**5366.6**
Stddev	2.36	5.9	36.	32.4
%RSD	.37122	.34669	.17139	.60434
#1	633.87	1703.6	21031.	5355.3
#2	637.93	1700.8	20983.	5341.2
#3	633.81	1692.3	20961.	5403.1

Zoom In Zoom Out

Sample Name: CRIA Acquired: 6/22/2023 9:52:10 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.2035**	**.0088**	F **.0764**	**.1994**	**.0050**	**1.032**	**.0052**	**.0516**
Stddev	.0004	.0061	.0011	.0009	.0001	.0000	.002	.0001	.0002
%RSD	3.573	3.008	12.77	1.230	.0343	.5977	.2368	.9715	.4806
#1	.0095	.2005	.0100	.0775	.1995	.0050	1.033	.0051	.0514
#2	.0100	.2106	.0077	.0758	.1995	.0050	1.034	.0052	.0514
#3	.0102	.1995	.0087	.0759	.1994	.0050	1.029	.0052	.0519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0261**	**.3073**	**9.790**	**.0103**	**5.022**	**.0157**	**.0517**	**9.037**
Stddev	.0002	.0001	.0003	.035	.0011	.012	.0000	.0002	.021
%RSD	2.323	.2629	.0994	.3532	10.74	.2452	.0715	.3663	.2314
#1	.0102	.0260	.3072	9.824	.0104	5.034	.0157	.0518	9.050
#2	.0099	.0260	.3076	9.790	.0091	5.022	.0157	.0519	9.050
#3	.0097	.0261	.3070	9.755	.0113	5.009	.0157	.0515	9.013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0424**	**.0048**	**.0057**	**.0085**	**.1600**	**.0519**	**.0103**	**.0104**	**.0102**
Stddev	.0002	.0004	.0008	.0006	.0005	.0004	.0000	.0001	.0006
%RSD	.5535	7.990	14.40	6.696	.2815	.7176	.1824	.7111	5.924
#1	.0426	.0044	.0059	.0091	.1604	.0519	.0103	.0103	.0107
#2	.0421	.0048	.0064	.0085	.1600	.0523	.0103	.0104	.0104
#3	.0425	.0052	.0048	.0079	.1595	.0516	.0103	.0105	.0095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 6/22/2023 9:52:10 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0504**	**.0207**
Stddev	.0003	.0001
%RSD	.6712	.6066
#1	.0502	.0206
#2	.0503	.0206
#3	.0508	.0208
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**764.14**	**1847.2**	**22432.**	**5442.3**
Stddev	4.39	4.5	101.	6.0
%RSD	.57469	.24551	.44984	.11105
#1	768.99	1851.5	22382.	5444.5
#2	762.98	1847.6	22548.	5435.5
#3	760.45	1842.4	22366.	5447.0

Zoom In Zoom Out

Sample Name: HSTD Acquired: 6/22/2023 10:01:09 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4995**	**79.83**	**4.124**	**4.114**	**3.987**	**3.968**	**79.10**	**4.036**	**4.027**
Stddev	.0014	.04	.102	.043	.054	.007	.20	.092	.094
%RSD	.2811	.0494	2.461	1.056	1.361	.1827	.2466	2.282	2.337
#1	.4993	79.79	4.241	4.154	4.046	3.975	79.27	4.142	4.136
#2	.5011	79.84	4.064	4.068	3.940	3.969	79.15	3.981	3.971
#3	.4983	79.86	4.067	4.120	3.973	3.961	78.89	3.985	3.974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.948**	**4.007**	**78.69**	**80.79**	**4.027**	**78.72**	**3.942**	**4.068**	**80.16**
Stddev	.008	.004	.11	.08	.006	.26	.009	.093	.02
%RSD	.1952	.1077	.1345	.0996	.1459	.3354	.2312	2.286	.0262
#1	3.947	4.011	78.70	80.84	4.026	78.90	3.939	4.175	80.14
#2	3.956	4.003	78.78	80.70	4.021	78.84	3.952	4.012	80.15
#3	3.941	4.007	78.57	80.83	4.033	78.41	3.935	4.015	80.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.044**	**4.035**	**4.082**	**4.094**	**4.107**	**3.992**	**4.005**	**3.935**	**4.009**
Stddev	.088	.100	.101	.102	.093	.090	.037	.005	.098
%RSD	2.174	2.482	2.474	2.485	2.258	2.258	.9150	.1364	2.446
#1	4.146	4.150	4.198	4.211	4.214	4.096	4.014	3.929	4.122
#2	3.991	3.978	4.020	4.029	4.051	3.940	4.036	3.940	3.959
#3	3.996	3.975	4.027	4.041	4.057	3.939	3.965	3.935	3.945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 6/22/2023 10:01:09 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**3.986**	**4.045**
Stddev	.007	.092
%RSD	.1700	2.288
#1	3.980	4.151
#2	3.993	3.993
#3	3.985	3.989
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**625.21**	**1661.9**	**20914.**	**5347.0**
Stddev	12.55	31.3	55.	51.5
%RSD	2.0077	1.8846	.26246	.96288
#1	610.79	1625.8	20932.	5298.2
#2	631.18	1680.2	20853.	5341.9
#3	633.67	1679.8	20958.	5400.8

Zoom In Zoom Out

Sample Name: ICV Acquired: 6/22/2023 10:07:53 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2463**	**39.92**	**1.985**	**2.055**	**1.976**	**1.999**	**39.17**	**1.992**	**1.984**
Stddev	.0016	.14	.006	.006	.005	.001	.04	.006	.005
%RSD	.6591	.3554	.3230	.2762	.2669	.0347	.0966	.2836	.2664
#1	.2478	39.85	1.992	2.057	1.973	1.999	39.22	1.998	1.989
#2	.2466	39.82	1.983	2.059	1.972	1.999	39.15	1.991	1.984
#3	.2446	40.08	1.980	2.049	1.982	2.000	39.15	1.987	1.979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**1.983**	**39.65**	**39.67**	F **3.988**	**41.51**	**2.009**	**1.971**	**37.55**
Stddev	.009	.001	.04	.05	.012	.07	.011	.005	.12
%RSD	.4551	.0669	.0946	.1319	.2918	.1622	.5411	.2552	.3167
#1	2.021	1.982	39.67	39.69	3.993	41.58	2.019	1.975	37.49
#2	2.019	1.983	39.61	39.61	3.975	41.52	2.010	1.972	37.46
#3	2.004	1.985	39.68	39.70	3.997	41.44	1.997	1.965	37.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					2.000				
Range					10.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.003**	**1.987**	**1.982**	**1.995**	**.6114**	**1.921**	**2.050**	**2.038**	**2.059**
Stddev	.009	.005	.003	.004	.0015	.007	.007	.005	.006
%RSD	.4385	.2461	.1689	.2027	.2472	.3515	.3614	.2511	.2814
#1	2.011	1.991	1.985	1.999	.6114	1.929	2.056	2.039	2.062
#2	2.004	1.987	1.980	1.994	.6129	1.917	2.042	2.042	2.062
#3	1.994	1.981	1.979	1.991	.6099	1.918	2.053	2.032	2.052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 6/22/2023 10:07:53 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.012**	**1.980**
Stddev	.006	.009
%RSD	.2906	.4419
#1	2.009	1.989
#2	2.019	1.979
#3	2.009	1.971
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**677.07**	**1761.6**	**21477.**	**5406.4**
Stddev	1.31	4.8	112.	2.5
%RSD	.19359	.27257	.52000	.04658
#1	676.11	1757.0	21379.	5404.2
#2	676.54	1761.3	21453.	5405.8
#3	678.56	1766.6	21599.	5409.1

Zoom In Zoom Out

Sample Name: ICB Acquired: 6/22/2023 10:17:26 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0056**	**-.0006**	**.0005**	**.0000**	**.0000**	**-.0003**	**.0000**	**-.0001**
Stddev	.0002	.0031	.0007	.0014	.0001	.000	.0014	.0001	.0001
%RSD	60.60	54.57	108.0	296.4	7158.	277.4	417.4	598.3	111.4
#1	.0004	-.0085	.0001	.0021	.0001	.0000	-.0013	.0000	-.0001
#2	.0002	-.0024	-.0012	-.0007	-.0001	.0000	-.0010	.0001	.0000
#3	.0001	-.0060	-.0008	.0001	.0001	.0000	.0013	-.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**-.0008**	**.0045**	**-.0004**	**-.0098**	**.0000**	**-.0002**	**.0012**
Stddev	.000	.0001	.0010	.0200	.0003	.0112	.000	.0001	.0043
%RSD	441.6	103.5	130.5	447.7	77.61	114.3	210.2	57.13	353.7
#1	-.0002	.0000	-.0020	-.0121	-.0008	.0028	.0000	-.0004	-.0032
#2	.0001	.0001	.0001	-.0012	-.0002	-.0187	.0000	-.0002	.0014
#3	.0000	.0002	-.0005	.0267	-.0003	-.0136	-.0001	-.0001	.0055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0004**	**.0006**	**-.0005**	**.0002**	**-.0004**	**.0000**	**-.0001**	**.0001**
Stddev	.0000	.0011	.0013	.0020	.0003	.0002	.000	.0000	.0003
%RSD	125.9	270.2	219.8	402.4	138.5	50.45	772.1	30.06	243.5
#1	.0001	.0014	.0020	.0007	-.0001	-.0003	.0000	-.0002	.0002
#2	.0000	.0005	-.0005	.0006	.0005	-.0006	-.0001	-.0001	.0004
#3	.0000	-.0007	.0002	-.0028	.0002	-.0003	.0000	-.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB Acquired: 6/22/2023 10:17:26 Type: QC
Method: 60102007_COMBO_10242022(v231) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**-.0001**
Stddev	.0003	.0000
%RSD	197.9	37.66
#1	.0002	-.0001
#2	-.0003	-.0001
#3	-.0004	-.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**800.16**	**1872.2**	**22770.**	**5414.9**
Stddev	2.18	3.5	67.	33.9
%RSD	.27184	.18956	.29242	.62635
#1	802.12	1875.9	22834.	5445.0
#2	800.54	1871.6	22773.	5421.6
#3	797.82	1868.9	22701.	5378.1

Zoom In Zoom Out

Sample Name: ICSA Acquired: 6/22/2023 10:21:24 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**519.9**	**.0000**	**-.0004**	**-.0001**	**.0000**	**454.5**	**-.0003**	**-.0001**
Stddev	.0026	1.1	.002	.0028	.0003	.000	4.1	.0009	.0002
%RSD	731.7	.2165	14800.	658.7	275.0	163.2	.8954	249.8	249.9
#1	-.0003	521.0	-.0017	.0000	-.0002	.0000	457.3	-.0001	-.0004
#2	-.0018	518.8	.0000	.0021	-.0004	.0000	456.3	.0004	.0000
#3	.0032	520.0	.0016	-.0034	.0003	-.0001	449.8	-.0013	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0000**	**F 482.2**	**-.0277**	**.0000**	**532.4**	**.0009**	**-.0007**	**.2752**
Stddev	.0003	.001	7.2	.0040	.0007	1.3	.0000	.0004	.0034
%RSD	40.87	3750.	1.502	14.32	4115.	.2380	5.462	53.78	1.217
#1	-.0005	-.0005	479.3	-.0314	.0007	533.4	.0009	-.0004	.2757
#2	-.0005	-.0006	476.9	-.0235	.0001	531.0	.0009	-.0006	.2716
#3	-.0009	.0010	490.5	-.0282	-.0008	532.8	.0009	-.0012	.2783
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit			240.0						
Low Limit			160.0						

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0000**	**.0006**	**.0004**	**.1757**	**-.0002**	**.0007**	**.0000**	**.0000**
Stddev	.0008	.003	.0028	.0021	.0012	.0004	.0000	.0002	.0019
%RSD	115.4	14170.	436.4	550.7	.6727	215.5	3.019	942.0	6464.
#1	.0003	.0015	-.0024	-.0019	.1759	-.0001	.0008	.0001	.0004
#2	.0002	.0016	.0010	.0011	.1744	.0001	.0008	.0002	-.0020
#3	.0017	-.0032	.0033	.0019	.1768	-.0006	.0007	-.0002	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 6/22/2023 10:21:24 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0003**	**.0005**
Stddev	.0001	.0002
%RSD	40.63	38.42
#1	.0003	.0004
#2	.0003	.0005
#3	.0005	.0008
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**596.16**	**1546.3**	**18945.**	**5179.0**
Stddev	1.71	8.1	9.	15.6
%RSD	.28627	.52533	.04897	.30125
#1	596.95	1552.1	18956.	5161.8
#2	597.33	1549.7	18942.	5192.3
#3	594.20	1537.0	18938.	5182.8

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/22/2023 10:31:21 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9922	506.9	1.016	1.033	.4885	.4928	453.2	.9393	.4617
Stddev	.0008	4.0	.004	.011	.0007	.0008	3.8	.0017	.0007
%RSD	.0822	.7830	.3697	1.020	.1526	.1578	.8318	.1782	.1584
#1	.9930	510.9	1.017	1.041	.4893	.4927	454.6	.9387	.4616
#2	.9914	507.0	1.012	1.021	.4884	.4921	456.1	.9380	.4610
#3	.9923	503.0	1.019	1.038	.4878	.4937	448.9	.9412	.4624
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4754	.5416	183.1	.0072	F .5512	535.9	.5059	.9486	.2532
Stddev	.0019	.0025	.1	.0161	.0005	.6	.0019	.0018	.0035
%RSD	.4049	.4670	.0339	224.8	.0948	.1145	.3695	.1940	1.375
#1	.4774	.5445	183.1	.0173	.5507	536.4	.5079	.9483	.2568
#2	.4752	.5398	183.2	.0156	.5518	536.2	.5042	.9469	.2498
#3	.4736	.5405	183.1	-.0114	.5510	535.2	.5058	.9505	.2528
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8832	.9431	1.025	.9669	.0961	.8836	1.022	.4925	.9240
Stddev	.0020	.0024	.003	.0033	.0018	.0034	.001	.0005	.0025
%RSD	.2317	.2578	.3311	.3414	1.923	.3898	.1252	.0998	.2711
#1	.8844	.9405	1.028	.9634	.0980	.8801	1.021	.4922	.9249
#2	.8808	.9434	1.021	.9671	.0959	.8836	1.021	.4931	.9212
#3	.8842	.9453	1.026	.9700	.0943	.8870	1.023	.4922	.9260
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 6/22/2023 10:31:21 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	.4954	.9088
Stddev	.0010	.0007
%RSD	.2066	.0778
#1	.4965	.9079
#2	.4950	.9093
#3	.4946	.9090
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	567.55	1578.8	19008.	5189.4
Stddev	.63	3.3	59.	18.2
%RSD	.11032	.20721	.30861	.35147
#1	566.91	1578.4	18942.	5210.3
#2	568.16	1582.2	19027.	5180.9
#3	567.56	1575.7	19054.	5176.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 10:38:49 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2552	40.20	2.039	2.004	2.072	2.083	41.15	2.046	2.044
Stddev	.0006	.04	.009	.018	.003	.015	.14	.004	.007
%RSD	.2385	.0933	.4602	.8755	.1409	.7360	.3378	.1776	.3380
#1	.2556	40.24	2.039	2.019	2.074	2.079	41.06	2.048	2.045
#2	.2545	40.17	2.030	1.985	2.073	2.100	41.31	2.042	2.036
#3	.2556	40.18	2.049	2.008	2.068	2.069	41.07	2.049	2.050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.036	2.020	41.25	40.60	2.045	40.76	2.062	2.047	40.98
Stddev	.003	.011	.13	.07	.005	.21	.007	.005	.06
%RSD	.1295	.5502	.3172	.1826	.2641	.5182	.3307	.2623	.1366
#1	2.036	2.021	41.22	40.59	2.049	40.66	2.064	2.049	40.97
#2	2.039	2.009	41.40	40.68	2.048	41.00	2.067	2.041	41.04
#3	2.033	2.031	41.14	40.54	2.039	40.62	2.054	2.052	40.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.038	2.038	2.031	2.040	1.944	2.052	2.078	2.043	2.053
Stddev	.007	.003	.011	.010	.008	.006	.008	.005	.002
%RSD	.3353	.1569	.5270	.5103	.3999	.3119	.3853	.2515	.0738
#1	2.040	2.041	2.032	2.042	1.943	2.053	2.076	2.049	2.052
#2	2.030	2.040	2.019	2.028	1.937	2.045	2.086	2.041	2.054
#3	2.044	2.035	2.041	2.049	1.952	2.057	2.070	2.040	2.054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 10:38:49 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	2.014	2.037
Stddev	.003	.003
%RSD	.1221	.1405
#1	2.012	2.038
#2	2.013	2.034
#3	2.017	2.039
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	672.45	1757.9	21504.	5371.6
Stddev	.65	3.8	53.	40.3
%RSD	.09713	.21401	.24581	.75090
#1	672.78	1759.1	21518.	5414.3
#2	671.70	1760.9	21445.	5334.1
#3	672.87	1753.7	21548.	5366.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 10:45:16 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0030**	**-.0005**	**-.0004**	**-.0001**	**.0000**	**.0025**	**.0000**	**.0000**
Stddev	.0003	.0058	.0010	.0006	.0000	.000	.0008	.000	.000
%RSD	1131.	191.6	201.6	136.4	31.62	193.7	33.11	110.6	4437.
#1	-.0002	.0028	.0002	.0002	-.0001	.0000	.0034	.0000	-.0001
#2	.0000	-.0032	-.0001	-.0008	-.0001	-.0001	.0024	.0000	.0001
#3	.0003	-.0087	-.0016	-.0007	-.0001	.0000	.0018	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0002**	**-.0013**	**.0001**	**-.0013**	**.0000**	**.0000**	**.0308**
Stddev	.0003	.0001	.0006	.0143	.0005	.0121	.0000	.000	.0066
%RSD	108.7	96.99	301.8	1087.	712.3	918.8	189.8	324.4	21.29
#1	-.0005	.0000	.0001	.0040	.0001	.0049	.0000	-.0002	.0367
#2	.0001	.0002	-.0003	-.0175	-.0005	-.0153	.0000	.0000	.0319
#3	-.0004	.0003	.0008	.0095	.0006	.0064	.0001	.0001	.0238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0010**	**-.0012**	**.0003**	**-.0004**	**.0000**	**-.0001**	**-.0005**
Stddev	.0001	.0004	.0001	.0011	.0002	.0002	.0000	.0001	.0011
%RSD	394.7	175.1	12.91	89.95	85.52	52.67	150.0	73.83	227.5
#1	-.0001	.0004	.0010	-.0025	.0000	-.0002	.0000	-.0002	-.0006
#2	.0002	-.0002	.0011	-.0007	.0003	-.0004	.0000	.0000	-.0015
#3	.0000	.0006	.0009	-.0005	.0005	-.0006	.0001	-.0001	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 10:45:16 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0004**	**-.0001**
Stddev	.0000	.0000
%RSD	5.171	71.02
#1	-.0005	-.0001
#2	-.0004	-.0001
#3	-.0004	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**797.51**	**1861.2**	**22686.**	**5430.6**
Stddev	1.62	5.1	82.	20.0
%RSD	.20264	.27243	.35925	.36773
#1	799.19	1866.7	22615.	5443.2
#2	797.38	1860.2	22775.	5441.1
#3	795.96	1856.8	22667.	5407.6

Zoom In Zoom Out

Sample Name: MP42420-MB1 Acquired: 6/22/2023 11:00:55 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0070**	**-.0016**	**-.0027**	**.0001**	**.0000**	**.0212**	**.0000**	**-.0002**
Stddev	.0007	.0072	.0002	.0006	.0001	.000	.0079	.000	.0000
%RSD	149.0	103.7	10.32	22.29	75.32	154.7	37.17	3769.	24.10
#1	.0009	-.0005	-.0018	-.0027	.0000	.0000	.0181	-.0001	-.0002
#2	-.0003	.0140	-.0015	-.0021	.0001	-.0001	.0301	.0000	-.0001
#3	.0008	.0074	-.0014	-.0033	.0002	-.0001	.0153	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0004**	**.0036**	**-.0003**	**-.0003**	**.0103**	**.0000**	**.0000**	**-.0075**
Stddev	.0001	.0001	.0047	.0158	.0005	.0159	.0001	.000	.0044
%RSD	114.2	26.57	131.7	4994.	212.4	154.1	118.8	425.7	58.73
#1	.0000	.0005	.0013	.0069	.0001	-.0037	.0001	-.0001	-.0043
#2	-.0001	.0003	.0089	.0106	-.0009	.0276	.0000	.0000	-.0057
#3	-.0002	.0004	.0004	-.0184	.0001	.0071	.0000	.0000	-.0126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0006**	**-.0008**	**.0017**	**.0002**	**.0001**	**-.0001**	**-.0015**
Stddev	.0002	.0005	.0013	.0012	.0002	.0005	.0001	.0001	.0009
%RSD	113.2	260.6	209.3	153.5	12.20	304.1	90.62	111.1	59.32
#1	-.0002	-.0001	.0013	.0005	.0017	-.0001	.0000	.0000	-.0020
#2	-.0003	-.0008	-.0009	-.0010	.0019	.0008	.0002	.0000	-.0021
#3	.0000	.0003	.0015	-.0018	.0015	-.0002	.0001	-.0001	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP42420-MB1 Acquired: 6/22/2023 11:00:55 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0004**
Stddev	.0002	.0001
%RSD	231.3	24.52
#1	-.0003	.0003
#2	-.0002	.0005
#3	.0001	.0005
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**795.76**	**1865.8**	**23163.**	**5529.4**
Stddev	1.01	.9	82.	16.7
%RSD	.12730	.04642	.35213	.30227
#1	795.09	1866.6	23128.	5514.8
#2	795.27	1865.8	23105.	5547.6
#3	796.93	1864.9	23256.	5525.7

Zoom In Zoom Out

Sample Name: MP42420-B1 Acquired: 6/22/2023 11:06:02 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1901**	**24.40**	**.1928**	**.4857**	**.1988**	**.2030**	**44.99**	**.1982**	**.2006**
Stddev	.0025	.32	.0008	.0019	.0031	.0028	.57	.0003	.0007
%RSD	1.303	1.302	.4353	.3841	1.538	1.356	1.269	.1627	.3258
#1	.1896	24.20	.1923	.4849	.1963	.2017	44.60	.1982	.2012
#2	.1879	24.23	.1922	.4843	.1978	.2012	44.73	.1984	.2006
#3	.1928	24.77	.1937	.4878	.2022	.2062	45.65	.1978	.1999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2015**	**.2047**	**44.76**	**44.45**	**.5083**	**44.57**	**.2063**	**.7033**	**42.15**
Stddev	.0047	.0038	.57	.56	.0078	.40	.0044	.0010	.53
%RSD	2.333	1.846	1.270	1.251	1.528	.8984	2.118	.1389	1.265
#1	.2014	.2038	44.36	44.02	.5034	44.31	.2061	.7043	41.77
#2	.1968	.2015	44.51	44.27	.5042	44.37	.2020	.7033	41.93
#3	.2062	.2089	45.41	45.08	.5172	45.03	.2108	.7023	42.76
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1988**	**.1978**	**.2030**	**.1979**	**.3238**	**.5002**	**.5036**	**.5312**	**.1951**
Stddev	.0004	.0002	.0019	.0006	.0010	.0011	.0085	.0122	.0004
%RSD	.1849	.0948	.9383	.3110	.3086	.2243	1.686	2.290	.1907
#1	.1984	.1977	.2052	.1985	.3233	.5008	.4979	.5304	.1948
#2	.1988	.1976	.2015	.1973	.3231	.4989	.4997	.5194	.1955
#3	.1991	.1980	.2025	.1978	.3249	.5008	.5134	.5437	.1951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP42420-B1 Acquired: 6/22/2023 11:06:02 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2010**	**.1970**
Stddev	.0043	.0006
%RSD	2.163	.2976
#1	.2010	.1977
#2	.1966	.1967
#3	.2053	.1966
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**679.30**	**1755.9**	**21506.**	**5542.3**
Stddev	.72	3.7	442.	47.1
%RSD	.10535	.20863	2.0558	.84918
#1	678.93	1751.7	21520.	5584.5
#2	680.13	1757.8	21942.	5550.8
#3	678.85	1758.2	21058.	5491.6

Zoom In Zoom Out

Sample Name: FC6740-10F Acquired: 6/22/2023 11:10:49 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0046**	**-.0002**	**.4071**	**.0236**	**.0000**	**101.6**	**-.0001**	**-.0001**
Stddev	.0002	.0084	.0005	.0039	.0001	.000	.1	.0000	.0001
%RSD	68.59	183.9	285.1	.9564	.5483	87.96	.0804	26.49	128.9
#1	.0001	.0129	.0004	.4037	.0235	.0000	101.7	-.0001	.0000
#2	.0004	-.0039	-.0003	.4113	.0237	.0000	101.6	-.0001	.0000
#3	.0002	.0046	-.0007	.4062	.0237	.0000	101.6	-.0001	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0011**	**.5319**	**24.07**	**.0182**	**38.49**	**.5542**	**.0043**	F **239.6**
Stddev	.0002	.0003	.0033	.02	.0004	.04	.0024	.0001	1.8
%RSD	91.18	24.88	.6191	.0953	2.372	.1019	.4337	2.538	.7497
#1	.0001	.0012	.5300	24.05	.0177	38.45	.5529	.0044	237.8
#2	.0001	.0008	.5299	24.09	.0184	38.48	.5569	.0042	241.3
#3	.0005	.0014	.5357	24.07	.0185	38.53	.5526	.0043	239.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**.0021**	**.0008**	**14.18**	**.0003**	**.7699**	**.0008**	**-.0018**
Stddev	.0005	.0006	.0003	.0008	.06	.0003	.0004	.0001	.0001
%RSD	210.4	534.9	13.34	97.07	.4138	91.29	.0487	15.33	3.926
#1	-.0002	-.0004	.0022	.0017	14.20	.0001	.7703	.0007	-.0018
#2	.0008	-.0005	.0023	.0005	14.11	.0007	.7698	.0008	-.0018
#3	.0001	.0006	.0018	.0002	14.23	.0002	.7695	.0009	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0003**	**.0010**
Stddev	.0001	.0000
%RSD	31.72	4.156
#1	-.0002	.0011
#2	-.0003	.0011
#3	-.0003	.0010

Zoom In Zoom Out

Sample Name: FC6740-10F Acquired: 6/22/2023 11:10:49 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**632.09**	**1676.4**	**20422.**	**5377.6**
Stddev	2.46	4.3	77.	34.5
%RSD	.38986	.25821	.37886	.64164
#1	634.42	1676.1	20483.	5351.1
#2	632.35	1680.9	20335.	5416.6
#3	629.51	1672.3	20447.	5365.1

Zoom In Zoom Out

Sample Name: MP42420-D1 Acquired: 6/22/2023 11:15:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0034**	**.0003**	**.4060**	**.0238**	**.0000**	**101.9**	**-.0001**	**.0000**
Stddev	.0003	.0033	.0009	.0037	.0002	.000	.2	.0000	.000
%RSD	140.0	95.41	358.8	.9215	.8411	511.6	.1932	22.53	156.4
#1	.0006	-.0004	-.0008	.4055	.0236	.0000	102.0	-.0001	-.0001
#2	.0000	-.0069	.0011	.4025	.0239	.0000	102.0	-.0001	-.0001
#3	.0001	-.0030	.0005	.4099	.0239	.0000	101.6	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0011**	**.5290**	**24.14**	**.0189**	**38.19**	**.5573**	**.0041**	F **237.0**
Stddev	.0001	.0003	.0017	.01	.0008	.16	.0003	.0002	1.4
%RSD	22.40	24.07	.3254	.0365	4.090	.4124	.0590	5.289	.6084
#1	.0004	.0008	.5280	24.14	.0183	38.34	.5570	.0038	237.7
#2	.0005	.0014	.5280	24.13	.0198	38.19	.5572	.0041	238.0
#3	.0004	.0011	.5309	24.15	.0187	38.03	.5576	.0042	235.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0010**	**.0024**	**.0011**	**14.29**	**.0004**	**.7750**	**.0007**	**-.0019**
Stddev	.0003	.0008	.0006	.0012	.05	.0002	.0021	.0001	.0014
%RSD	72.29	72.25	25.52	106.7	.3767	45.24	.2673	9.262	71.05
#1	.0004	-.0005	.0031	.0001	14.27	.0003	.7732	.0007	-.0011
#2	.0006	-.0019	.0021	.0008	14.25	.0003	.7745	.0007	-.0011
#3	.0001	-.0007	.0019	.0024	14.36	.0006	.7773	.0008	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0006**	**.0013**
Stddev	.0001	.0000
%RSD	19.41	.7365
#1	-.0005	.0013
#2	-.0007	.0013
#3	-.0006	.0013

Zoom In Zoom Out

Sample Name: MP42420-D1 Acquired: 6/22/2023 11:15:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**626.18**	**1653.7**	**20178.**	**5321.9**
Stddev	2.59	4.6	71.	37.2
%RSD	.41308	.27848	.35043	.69851
#1	628.52	1653.2	20260.	5304.8
#2	626.62	1658.5	20139.	5296.4
#3	623.40	1649.4	20135.	5364.6

Zoom In Zoom Out

Sample Name: MP42420-SD1 Acquired: 6/22/2023 11:21:07 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0008**	**-.0016**	**.3700**	**.0230**	**-.0002**	**103.1**	**-.0004**	**-.0003**
Stddev	.0009	.0166	.0056	.0032	.0008	.0001	.2	.0002	.0004
%RSD	299.2	2105.	346.1	.8573	3.280	55.33	.2052	61.76	112.4
#1	-.0014	.0046	-.0067	.3731	.0223	-.0001	102.9	-.0002	-.0007
#2	.0001	.0124	.0044	.3701	.0230	-.0001	103.2	-.0003	-.0003
#3	.0004	-.0194	-.0026	.3668	.0238	-.0003	103.3	-.0006	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0048**	**.5228**	**22.99**	**.0205**	**38.58**	**.5664**	**.0028**	**239.6**
Stddev	.0007	.0014	.0087	.10	.0006	.20	.0010	.0002	.3
%RSD	66.84	28.55	1.658	.4311	2.736	.5089	.1685	6.887	.1267
#1	-.0004	.0055	.5189	22.96	.0202	38.75	.5670	.0027	239.3
#2	-.0009	.0033	.5327	22.90	.0201	38.37	.5653	.0027	239.9
#3	-.0017	.0057	.5167	23.09	.0211	38.63	.5668	.0031	239.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0006**	**.0008**	**.0006**	**14.22**	**-.0005**	**.7730**	**.0015**	**-.0044**
Stddev	.0003	.0032	.0034	.0068	.03	.0024	.0018	.0005	.0029
%RSD	57.86	497.4	426.0	1229.	.2077	478.8	.2332	35.23	66.03
#1	.0005	-.0022	-.0030	.0053	14.22	.0015	.7715	.0012	-.0069
#2	.0007	.0041	.0019	.0036	14.19	.0001	.7725	.0011	-.0012
#3	.0002	.0000	.0035	-.0072	14.25	-.0031	.7750	.0020	-.0050

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0010**	**.0008**
Stddev	.0008	.0003
%RSD	75.44	38.27
#1	-.0008	.0009
#2	-.0004	.0005
#3	-.0018	.0010

Zoom In Zoom Out

Sample Name: MP42420-SD1 Acquired: 6/22/2023 11:21:07 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**716.11**	**1782.8**	**21705.**	**5436.8**
Stddev	3.54	2.5	74.	20.6
%RSD	.49453	.13859	.34078	.37911
#1	718.97	1783.1	21659.	5460.6
#2	717.21	1785.1	21791.	5424.7
#3	712.15	1780.2	21666.	5425.0

Zoom In Zoom Out

Sample Name: MP42420-PS1 Acquired: 6/22/2023 11:26:09 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0482**	**2.474**	**.1045**	F **.5023**	**.2705**	**.0504**	**104.3**	**.0477**	**.0483**
Stddev	.0004	.022	.0009	.0011	.0006	.0001	.2	.0001	.0002
%RSD	.8135	.8874	.8159	.2205	.2299	.2137	.1494	.3129	.4319
#1	.0484	2.452	.1049	.5021	.2705	.0505	104.2	.0477	.0484
#2	.0478	2.473	.1035	.5013	.2699	.0503	104.1	.0479	.0481
#3	.0485	2.496	.1050	.5035	.2711	.0504	104.4	.0476	.0485

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0493**	**.1014**	**3.517**	**33.65**	**.1229**	**42.54**	**.5901**	**.1022**	F **243.2**
Stddev	.0005	.0003	.007	.10	.0005	.26	.0028	.0003	2.0
%RSD	.9121	.2978	.2055	.2887	.4430	.6141	.4723	.2479	.8250
#1	.0495	.1014	3.524	33.71	.1234	42.38	.5906	.1021	241.8
#2	.0488	.1017	3.509	33.54	.1223	42.40	.5871	.1021	242.4
#3	.0497	.1011	3.517	33.71	.1231	42.84	.5926	.1025	245.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0961**	**.0468**	**.1055**	**.1003**	**13.97**	**.0486**	**.8090**	**.1047**	**.0931**
Stddev	.0003	.0007	.0023	.0027	.03	.0010	.0027	.0002	.0018
%RSD	.3251	1.510	2.138	2.722	.1820	2.091	.3375	.1886	1.986
#1	.0959	.0474	.1058	.0999	13.94	.0476	.8122	.1048	.0912
#2	.0960	.0470	.1031	.0978	13.98	.0496	.8076	.1044	.0934
#3	.0965	.0460	.1075	.1032	13.98	.0486	.8072	.1047	.0949

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0486**	**.2419**
Stddev	.0002	.0007
%RSD	.3278	.3094
#1	.0488	.2411
#2	.0486	.2421
#3	.0485	.2426

Zoom In Zoom Out

Sample Name: MP42420-PS1 Acquired: 6/22/2023 11:26:09 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**629.12**	**1674.5**	**20367.**	**5359.9**
Stddev	.72	.8	115.	32.0
%RSD	.11448	.04602	.56554	.59653
#1	629.56	1674.7	20399.	5391.5
#2	629.50	1673.7	20463.	5360.9
#3	628.29	1675.2	20239.	5327.5

Zoom In Zoom Out

Sample Name: MP42420-S1 Acquired: 6/22/2023 11:31:12 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1997**	**26.15**	**.2030**	F **.9311**	**.2307**	**.2079**	**148.6**	**.1951**	**.1963**
Stddev	.0005	.04	.0013	.0029	.0005	.0007	.9	.0003	.0006
%RSD	.2665	.1337	.6238	.3080	.2103	.3498	.5747	.1342	.3262
#1	.2002	26.11	.2025	.9303	.2304	.2081	148.9	.1954	.1969
#2	.1992	26.15	.2021	.9288	.2313	.2086	149.3	.1951	.1956
#3	.1996	26.18	.2045	.9343	.2305	.2071	147.7	.1949	.1964

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2004**	**.2108**	**46.80**	**73.67**	F **.5760**	**85.00**	**.7528**	**.7092**	F **284.4**
Stddev	.0012	.0006	.10	.26	.0020	.28	.0030	.0008	2.6
%RSD	.5740	.2656	.2222	.3516	.3459	.3304	.3976	.1140	.9252
#1	.2016	.2110	46.81	73.78	.5780	84.81	.7560	.7101	283.6
#2	.2002	.2112	46.90	73.86	.5760	85.32	.7501	.7086	287.3
#3	.1993	.2102	46.69	73.38	.5740	84.86	.7521	.7088	282.2

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1949**	**.2018**	**.2068**	**.2053**	**14.73**	**.4934**	**1.312**	**.5373**	**.1927**
Stddev	.0004	.0025	.0023	.0009	.02	.0011	.008	.0013	.0039
%RSD	.2074	1.241	1.094	.4161	.1607	.2153	.5771	.2384	2.013
#1	.1952	.2046	.2070	.2051	14.75	.4946	1.317	.5377	.1963
#2	.1945	.1998	.2044	.2046	14.73	.4926	1.317	.5383	.1933
#3	.1950	.2010	.2089	.2063	14.71	.4929	1.304	.5358	.1886

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2033**	**.1968**
Stddev	.0021	.0002
%RSD	1.032	.1092
#1	.2039	.1970
#2	.2050	.1966
#3	.2009	.1969

Zoom In Zoom Out

Sample Name: MP42420-S1 Acquired: 6/22/2023 11:31:12 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**596.06**	**1634.6**	**19872.**	**5258.2**
Stddev	2.01	1.5	54.	45.6
%RSD	.33665	.09060	.27018	.86771
#1	594.13	1633.0	19819.	5257.3
#2	595.92	1635.8	19926.	5213.1
#3	598.14	1635.2	19873.	5304.3

Zoom In Zoom Out

Sample Name: MP42420-S2 Acquired: 6/22/2023 11:36:08 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1953**	**25.54**	**.1999**	F **.9238**	**.2256**	**.2044**	**145.9**	**.1922**	**.1934**
Stddev	.0005	.06	.0019	.0051	.0007	.0014	.8	.0001	.0002
%RSD	.2554	.2164	.9477	.5538	.3315	.6999	.5350	.0668	.0880
#1	.1948	25.58	.2013	.9295	.2255	.2047	145.9	.1923	.1932
#2	.1953	25.57	.1977	.9224	.2263	.2057	146.6	.1921	.1935
#3	.1958	25.48	.2007	.9196	.2248	.2029	145.1	.1923	.1935

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1969**	**.2061**	**45.78**	**72.10**	F **.5654**	**83.69**	**.7458**	**.7027**	F **280.3**
Stddev	.0005	.0009	.16	.31	.0033	.26	.0014	.0016	4.8
%RSD	.2482	.4545	.3411	.4348	.5922	.3136	.1938	.2208	1.709
#1	.1970	.2065	45.78	72.13	.5655	83.72	.7467	.7035	280.2
#2	.1964	.2050	45.94	72.40	.5687	83.93	.7441	.7009	285.2
#3	.1974	.2068	45.62	71.77	.5620	83.41	.7465	.7036	275.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1908**	**.1991**	**.2073**	**.2040**	**14.56**	**.4897**	**1.284**	**.5328**	**.1894**
Stddev	.0004	.0028	.0003	.0020	.02	.0003	.008	.0013	.0005
%RSD	.1935	1.416	.1317	.9804	.1486	.0589	.5987	.2444	.2523
#1	.1907	.1971	.2074	.2058	14.57	.4897	1.284	.5334	.1900
#2	.1905	.2023	.2070	.2019	14.54	.4894	1.292	.5313	.1891
#3	.1912	.1979	.2075	.2043	14.58	.4899	1.277	.5337	.1892

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1992**	**.1929**
Stddev	.0005	.0003
%RSD	.2536	.1528
#1	.1998	.1931
#2	.1988	.1926
#3	.1992	.1930

Zoom In Zoom Out

Sample Name: MP42420-S2 Acquired: 6/22/2023 11:36:08 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**603.69**	**1655.5**	**20170.**	**5361.0**
Stddev	1.36	4.0	67.	33.2
%RSD	.22604	.24338	.33166	.61971
#1	603.37	1651.2	20206.	5351.2
#2	602.52	1659.1	20212.	5333.7
#3	605.19	1656.3	20093.	5398.0

Zoom In Zoom Out

Sample Name: FC6943-5 Acquired: 6/22/2023 11:41:04 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**2.474**	**-.0004**	**.0050**	**.0317**	**.0001**	**2.824**	**.0000**	**.0027**
Stddev	.0004	.008	.0008	.0011	.0000	.0000	.011	.000	.0001
%RSD	114.2	.3068	234.9	22.10	.0447	14.75	.3990	43.51	3.529
#1	.0008	2.468	.0003	.0039	.0317	.0001	2.817	.0000	.0026
#2	.0004	2.471	-.0013	.0061	.0317	.0001	2.837	-.0001	.0028
#3	-.0001	2.483	.0000	.0050	.0317	.0001	2.818	.0000	.0028

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**.0034**	**1.833**	**.3836**	**.0016**	**.3142**	**.0617**	**.0001**	**.2740**
Stddev	.0004	.0002	.008	.0067	.0008	.0120	.0002	.0002	.0077
%RSD	7.917	4.615	.4525	1.748	48.53	3.826	.4053	113.9	2.800
#1	.0050	.0034	1.831	.3879	.0007	.3020	.0614	.0000	.2816
#2	.0047	.0036	1.842	.3869	.0020	.3146	.0619	.0001	.2741
#3	.0042	.0033	1.826	.3758	.0021	.3261	.0617	.0003	.2662

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0029**	**.0015**	**.0006**	**4.061**	**.0006**	**.0076**	**.0376**	**-.0005**
Stddev	.0001	.0012	.0007	.0009	.018	.0002	.0001	.0003	.0013
%RSD	3.127	42.28	47.93	167.9	.4390	41.11	.8665	.7432	247.5
#1	.0037	.0015	.0021	.0003	4.080	.0008	.0076	.0379	-.0018
#2	.0034	.0038	.0007	.0016	4.059	.0004	.0076	.0377	.0008
#3	.0036	.0034	.0017	-.0002	4.045	.0004	.0075	.0373	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0101**	**.0082**
Stddev	.0003	.0001
%RSD	3.003	1.196
#1	.0102	.0082
#2	.0104	.0084
#3	.0098	.0082

Zoom In Zoom Out

Sample Name: FC6943-5 Acquired: 6/22/2023 11:41:04 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**776.78**	**1882.8**	**23337.**	**5669.8**
Stddev	.36	3.2	60.	36.6
%RSD	.04615	.17180	.25832	.64585
#1	777.14	1884.3	23386.	5679.8
#2	776.78	1885.1	23270.	5629.2
#3	776.42	1879.1	23355.	5700.3

Zoom In Zoom Out

Sample Name: FC7014-1 Acquired: 6/22/2023 11:46:03 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.3387**	**.0037**	**.0321**	**.0563**	**.0000**	**34.41**	**-.0005**	**.0009**
Stddev	.0003	.0087	.0004	.0006	.0003	.0001	.08	.0000	.0000
%RSD	22.14	2.563	10.42	1.791	.5811	312.0	.2268	10.66	5.581
#1	.0018	.3305	.0032	.0326	.0559	.0000	34.40	-.0004	.0009
#2	.0012	.3478	.0039	.0315	.0564	.0001	34.50	-.0005	.0009
#3	.0018	.3378	.0039	.0322	.0566	.0000	34.35	-.0005	.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0059**	**.0056**	**23.99**	**6.989**	**.0004**	**2.673**	**.3065**	**.0067**	**18.26**
Stddev	.0000	.0004	.03	.037	.0003	.017	.0002	.0001	.05
%RSD	.2649	6.683	.1150	.5365	63.59	.6320	.0715	1.596	.2931
#1	.0058	.0056	23.96	6.957	.0005	2.674	.3067	.0069	18.20
#2	.0059	.0053	24.02	7.030	.0007	2.689	.3065	.0067	18.29
#3	.0059	.0060	23.98	6.980	.0001	2.656	.3063	.0067	18.30

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**.0021**	**.0027**	**.0032**	**2.632**	**.0029**	**.0886**	**.0154**	**-.0011**
Stddev	.0005	.0005	.0011	.0008	.012	.0005	.0001	.0004	.0005
%RSD	14.36	23.22	40.85	25.98	.4369	16.72	.0592	2.502	40.61
#1	.0031	.0025	.0036	.0023	2.645	.0030	.0887	.0158	-.0016
#2	.0032	.0016	.0031	.0039	2.627	.0024	.0887	.0152	-.0010
#3	.0040	.0022	.0015	.0032	2.624	.0033	.0886	.0152	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0037**	**.0222**
Stddev	.0003	.0001
%RSD	8.404	.5453
#1	.0039	.0221
#2	.0033	.0224
#3	.0038	.0222

Zoom In Zoom Out

Sample Name: FC7014-1 Acquired: 6/22/2023 11:46:03 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**725.15**	**1781.2**	**22042.**	**5536.1**
Stddev	2.04	1.6	54.	48.8
%RSD	.28161	.08829	.24637	.88108
#1	726.51	1780.0	21979.	5522.8
#2	726.13	1783.0	22071.	5495.3
#3	722.80	1780.5	22075.	5590.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 11:51:04 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2585**	**40.80**	**2.106**	**2.084**	**2.111**	**2.127**	**41.60**	**2.105**	**2.109**
Stddev	.0001	.14	.048	.046	.001	.007	.06	.051	.050
%RSD	.0388	.3397	2.296	2.206	.0623	.3292	.1503	2.417	2.363
#1	.2584	40.72	2.086	2.062	2.111	2.126	41.58	2.084	2.089
#2	.2586	40.96	2.162	2.137	2.113	2.120	41.55	2.163	2.166
#3	.2586	40.73	2.072	2.053	2.110	2.134	41.67	2.069	2.073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.057**	**2.049**	**41.83**	**41.26**	**2.081**	**41.42**	**2.107**	**2.107**	**41.92**
Stddev	.004	.004	.08	.02	.005	.15	.005	.048	.09
%RSD	.1895	.1979	.1921	.0420	.2653	.3590	.2343	2.293	.2131
#1	2.061	2.046	41.74	41.24	2.086	41.25	2.109	2.084	41.83
#2	2.054	2.047	41.86	41.28	2.075	41.51	2.110	2.162	42.01
#3	2.055	2.054	41.89	41.27	2.082	41.51	2.101	2.074	41.92
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.083**	**2.098**	**2.112**	**2.125**	**1.997**	**2.120**	**2.100**	**2.089**	**2.109**
Stddev	.050	.045	.037	.050	.043	.050	.005	.000	.039
%RSD	2.407	2.126	1.764	2.362	2.169	2.366	.2232	.0065	1.861
#1	2.058	2.078	2.096	2.095	1.975	2.098	2.103	2.089	2.093
#2	2.140	2.149	2.155	2.183	2.047	2.177	2.095	2.089	2.154
#3	2.050	2.067	2.086	2.097	1.970	2.085	2.102	2.089	2.080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 11:51:04 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.028**	**2.081**
Stddev	.007	.054
%RSD	.3269	2.581
#1	2.034	2.060
#2	2.021	2.142
#3	2.029	2.042
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**656.06**	**1715.9**	**21299.**	**5369.9**
Stddev	11.68	35.3	23.	18.1
%RSD	1.7808	2.0545	.11005	.33647
#1	661.76	1734.1	21275.	5390.8
#2	642.63	1675.2	21300.	5360.0
#3	663.81	1738.3	21322.	5359.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 11:55:46 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0061**	**-.0006**	**.0007**	**.0000**	**.0001**	**.0027**	**.0000**	**.0000**
Stddev	.0002	.0102	.0013	.0007	.0001	.0001	.0008	.0001	.000
%RSD	489.9	167.8	215.5	109.6	170.4	83.19	30.06	393.8	364.3
#1	-.0001	-.0165	-.0020	.0013	.0001	.0001	.0029	.0000	-.0001
#2	.0003	.0038	.0006	-.0001	.0000	.0001	.0018	.0001	-.0001
#3	.0000	-.0055	-.0004	.0008	.0001	.0000	.0033	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0004**	**.0196**	**.0006**	**-.0031**	**.0001**	**.0001**	**.0460**
Stddev	.000	.0001	.0006	.0089	.0002	.0106	.0000	.0002	.0041
%RSD	446.1	58.47	155.0	45.46	31.16	339.2	22.55	102.1	9.008
#1	.0001	.0002	.0005	.0096	.0006	-.0125	.0001	.0003	.0415
#2	-.0001	.0004	.0010	.0266	.0005	-.0053	.0001	.0002	.0496
#3	-.0001	.0001	-.0003	.0227	.0009	.0084	.0001	.0000	.0468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0003**	**.0011**	**-.0010**	**.0004**	**.0001**	**.0001**	**-.0001**	**-.0004**
Stddev	.0001	.0005	.0018	.0012	.0002	.0005	.0000	.0001	.0010
%RSD	26.30	139.4	157.0	122.5	39.80	496.8	31.39	76.02	245.2
#1	.0003	.0002	.0024	-.0010	.0006	.0001	.0001	.0000	.0005
#2	.0003	-.0005	-.0009	-.0021	.0002	-.0004	.0001	-.0002	-.0004
#3	.0004	-.0007	.0019	.0002	.0004	.0006	.0001	-.0001	-.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 11:55:46 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0000**
Stddev	.0002	.000
%RSD	126.3	357.6
#1	-.0003	.0000
#2	-.0003	-.0001
#3	.0001	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**790.11**	**1851.9**	**22658.**	**5455.3**
Stddev	2.31	1.9	115.	45.8
%RSD	.29192	.10518	.50683	.83975
#1	787.75	1850.6	22790.	5437.1
#2	790.22	1850.9	22583.	5421.4
#3	792.36	1854.1	22600.	5507.4

Zoom In Zoom Out

Sample Name: FC7014-2 Acquired: 6/22/2023 12:00:52 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**11.69**	**.0002**	**.0280**	**.1122**	**.0001**	**42.03**	**-.0005**	**.0004**
Stddev	.0001	.04	.0006	.0017	.0002	.0000	.14	.0001	.0000
%RSD	10.14	.3436	259.7	5.968	.1361	23.73	.3375	19.31	4.909
#1	.0013	11.68	.0000	.0294	.1120	.0001	41.94	-.0004	.0004
#2	.0016	11.74	-.0002	.0286	.1123	.0001	41.96	-.0004	.0004
#3	.0015	11.66	.0010	.0262	.1122	.0001	42.19	-.0006	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0139**	**.0097**	**23.02**	**6.134**	**.0063**	**3.351**	**.1772**	**.0027**	**15.50**
Stddev	.0002	.0001	.05	.035	.0003	.028	.0007	.0002	.04
%RSD	1.277	1.216	.1957	.5660	5.111	.8444	.3811	5.980	.2261
#1	.0138	.0096	22.97	6.096	.0065	3.374	.1772	.0029	15.48
#2	.0141	.0095	23.04	6.164	.0065	3.358	.1779	.0026	15.54
#3	.0138	.0098	23.04	6.141	.0060	3.319	.1766	.0026	15.48

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063**	**.0147**	**.0024**	**-.0007**	**9.470**	**.0029**	**.1175**	**.1207**	**-.0008**
Stddev	.0001	.0005	.0005	.0020	.042	.0003	.0003	.0004	.0012
%RSD	2.052	3.376	21.24	270.2	.4390	10.62	.2234	.3136	155.0
#1	.0064	.0147	.0027	.0015	9.482	.0026	.1174	.1208	-.0011
#2	.0062	.0152	.0019	-.0023	9.424	.0029	.1174	.1203	.0005
#3	.0064	.0142	.0028	-.0015	9.505	.0032	.1178	.1210	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0175**	**.0357**
Stddev	.0003	.0001
%RSD	1.560	.2795
#1	.0177	.0356
#2	.0172	.0358
#3	.0175	.0358

Zoom In Zoom Out

Sample Name: FC7014-2 Acquired: 6/22/2023 12:00:52 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**714.54**	**1807.8**	**22335.**	**5632.3**
Stddev	.65	4.1	63.	33.7
%RSD	.09116	.22899	.28156	.59785
#1	713.86	1809.9	22375.	5667.6
#2	715.16	1810.4	22262.	5628.8
#3	714.61	1803.0	22367.	5600.6

Zoom In Zoom Out

Sample Name: FC7014-3 Acquired: 6/22/2023 12:16:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**49.88**	**.0045**	**.0234**	**.1058**	**.0005**	**29.89**	**-.0002**	**.0027**
Stddev	.0005	.11	.0022	.0023	.0002	.0000	.06	.0000	.0001
%RSD	79.45	.2189	49.58	9.632	.1738	4.764	.1909	20.95	3.079
#1	.0005	49.80	.0035	.0230	.1058	.0005	29.96	-.0002	.0026
#2	.0002	49.83	.0029	.0214	.1057	.0005	29.85	-.0001	.0028
#3	.0011	50.00	.0071	.0258	.1060	.0005	29.88	-.0002	.0026

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0464**	**.0066**	**6.484**	**7.285**	**.0178**	**1.766**	**.0391**	**.0024**	**11.74**
Stddev	.0005	.0002	.017	.021	.0003	.013	.0002	.0002	.05
%RSD	1.035	2.440	.2682	.2926	1.411	.7573	.5630	6.326	.3987
#1	.0468	.0068	6.502	7.285	.0180	1.754	.0393	.0023	11.68
#2	.0464	.0065	6.468	7.264	.0175	1.781	.0390	.0026	11.75
#3	.0459	.0066	6.483	7.307	.0179	1.764	.0389	.0023	11.77

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0192**	**.0337**	**.0015**	**.0018**	**26.67**	**.0023**	**.1468**	**.1571**	**-.0018**
Stddev	.0002	.0005	.0014	.0003	.07	.0002	.0006	.0004	.0015
%RSD	1.068	1.528	93.80	17.36	.2455	9.561	.4051	.2435	82.89
#1	.0194	.0331	-.0001	.0020	26.75	.0024	.1473	.1573	-.0031
#2	.0191	.0339	.0020	.0020	26.63	.0024	.1469	.1574	-.0020
#3	.0191	.0340	.0025	.0014	26.64	.0020	.1461	.1567	-.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0382**	**.0308**
Stddev	.0003	.0003
%RSD	.9014	1.031
#1	.0386	.0305
#2	.0380	.0311
#3	.0381	.0308

Zoom In Zoom Out

Sample Name: FC7014-3 Acquired: 6/22/2023 12:16:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**697.37**	**1852.2**	**22792.**	**5767.7**
Stddev	1.41	3.5	53.	25.1
%RSD	.20163	.18818	.23195	.43545
#1	695.78	1848.2	22740.	5742.7
#2	697.91	1854.5	22789.	5793.0
#3	698.44	1853.9	22846.	5767.3

Zoom In Zoom Out

Sample Name: FC6782-1B Acquired: 6/22/2023 12:20:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0013**	**.0094**	**.0894**	**.0181**	**.0000**	**38.35**	**-.0001**	**.0012**
Stddev	.0001	.0059	.0004	.0010	.0003	.000	.15	.0001	.0002
%RSD	79.07	446.8	3.847	1.102	1.591	160.4	.4000	64.86	12.93
#1	.0003	-.0082	.0093	.0896	.0181	.0000	38.36	-.0001	.0012
#2	.0001	.0024	.0091	.0903	.0179	-.0001	38.19	-.0001	.0014
#3	.0000	.0018	.0098	.0883	.0185	.0000	38.50	-.0002	.0011

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0119**	**.2831**	**6.732**	**.0018**	**4.934**	**.0711**	**.0001**	**20.66**
Stddev	.0001	.0003	.0014	.024	.0005	.038	.0003	.0002	.08
%RSD	121.1	2.105	.4772	.3568	27.32	.7669	.3678	277.9	.3915
#1	-.0001	.0122	.2817	6.744	.0013	4.956	.0713	.0003	20.75
#2	.0000	.0117	.2843	6.704	.0019	4.891	.0712	.0000	20.59
#3	-.0001	.0119	.2832	6.747	.0022	4.956	.0708	-.0001	20.63

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	**.0012**	**.0018**	**.0011**	**5.820**	**-.0003**	**.2927**	**.0006**	**-.0017**
Stddev	.0003	.0005	.0005	.0014	.021	.0005	.0006	.0001	.0010
%RSD	1.991	43.47	30.83	129.8	.3576	186.0	.2044	10.53	58.38
#1	.0165	.0006	.0016	-.0005	5.844	-.0006	.2931	.0007	-.0014
#2	.0164	.0012	.0024	.0017	5.805	.0003	.2929	.0006	-.0009
#3	.0159	.0016	.0013	.0021	5.811	-.0004	.2920	.0006	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0003**	**.0244**
Stddev	.0003	.0001
%RSD	93.46	.2298
#1	-.0005	.0245
#2	.0000	.0244
#3	-.0004	.0244

Zoom In Zoom Out

Sample Name: FC6782-1B Acquired: 6/22/2023 12:20:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**714.90**	**1755.0**	**21760.**	**5512.0**
Stddev	2.01	2.3	85.	54.7
%RSD	.28122	.13133	.38866	.99276
#1	716.90	1753.0	21664.	5507.0
#2	714.93	1754.4	21789.	5569.1
#3	712.88	1757.5	21826.	5460.0

Zoom In Zoom Out

Sample Name: FC6782-2A Acquired: 6/22/2023 12:26:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0045**	**1.435**	**.1130**	**.0489**	**.0000**	**45.32**	**-.0008**	**.0152**
Stddev	.0002	.0094	.006	.0011	.0003	.000	.12	.0001	.0001
%RSD	5.494	207.5	.3936	.9297	.5260	708.8	.2544	8.792	.5437
#1	.0039	.0004	1.428	.1134	.0492	.0000	45.22	-.0009	.0152
#2	.0042	.0152	1.439	.1139	.0488	.0000	45.45	-.0008	.0152
#3	.0038	-.0021	1.438	.1118	.0487	.0000	45.28	-.0008	.0153

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0011**	**62.48**	**7.680**	**.0007**	**5.943**	**2.081**	**.0003**	**11.42**
Stddev	.0001	.0002	.13	.050	.0004	.029	.007	.0001	.04
%RSD	19.44	14.03	.2074	.6447	52.57	.4880	.3324	48.50	.3898
#1	.0007	.0009	62.44	7.736	.0006	5.916	2.081	.0003	11.45
#2	.0006	.0012	62.62	7.659	.0004	5.974	2.088	.0004	11.45
#3	.0004	.0012	62.37	7.644	.0012	5.941	2.074	.0001	11.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0043**	**.0023**	**.0005**	**-.0005**	**6.757**	**-.0003**	**.3695**	**.0005**	**.0010**
Stddev	.0001	.0004	.0020	.0010	.018	.0004	.0006	.0001	.0005
%RSD	2.463	16.47	380.1	181.2	.2697	165.5	.1565	10.13	50.14
#1	.0044	.0024	.0006	.0003	6.757	.0001	.3689	.0006	.0014
#2	.0042	.0019	-.0015	-.0004	6.738	-.0001	.3700	.0005	.0004
#3	.0043	.0026	.0025	-.0016	6.775	-.0007	.3695	.0005	.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0023**	**.0016**
Stddev	.0001	.0001
%RSD	4.966	8.352
#1	-.0024	.0018
#2	-.0023	.0015
#3	-.0022	.0016

Zoom In Zoom Out

Sample Name: FC6782-2A Acquired: 6/22/2023 12:26:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**712.49**	**1746.0**	**21802.**	**5524.2**
Stddev	2.35	2.7	19.	19.0
%RSD	.32975	.15408	.08920	.34470
#1	714.72	1747.3	21796.	5543.3
#2	712.73	1747.8	21787.	5505.2
#3	710.04	1742.9	21824.	5524.2

Zoom In Zoom Out

Sample Name: FC6782-3A Acquired: 6/22/2023 12:31:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0046**	**2.907**	**.0244**	**.0130**	**.0000**	**22.72**	**-.0005**	**.0123**
Stddev	.0003	.0082	.011	.0016	.0001	.000	.07	.0001	.0000
%RSD	10.13	179.2	.3800	6.713	.6748	71.27	.3293	12.98	.3892
#1	.0028	-.0043	2.900	.0248	.0131	-.0001	22.77	-.0004	.0123
#2	.0027	.0062	2.902	.0226	.0129	.0000	22.76	-.0005	.0122
#3	.0023	.0118	2.920	.0258	.0131	.0000	22.64	-.0005	.0123

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0013**	**37.47**	**3.001**	**-.0002**	**2.469**	**2.358**	**.0013**	**4.632**
Stddev	.0002	.0000	.11	.009	.0003	.026	.010	.0000	.017
%RSD	56.73	.6337	.2853	.3021	165.2	1.036	.4119	1.383	.3590
#1	.0005	.0013	37.58	3.011	.0002	2.494	2.366	.0013	4.651
#2	.0005	.0013	37.47	2.994	-.0005	2.472	2.347	.0013	4.622
#3	.0001	.0013	37.37	2.997	-.0003	2.443	2.361	.0013	4.622

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0045**	**.0011**	**.0018**	**.0006**	**5.403**	**-.0002**	**.1589**	**.0004**	**.0010**
Stddev	.0002	.0006	.0006	.0011	.015	.0002	.0003	.0000	.0005
%RSD	4.582	58.35	36.15	177.5	.2712	62.74	.2127	3.332	54.62
#1	.0046	.0017	.0024	.0018	5.396	-.0001	.1586	.0003	.0009
#2	.0047	.0005	.0011	-.0001	5.393	-.0002	.1589	.0004	.0005
#3	.0043	.0010	.0018	.0001	5.420	-.0004	.1592	.0003	.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0031**	**-.0012**
Stddev	.0001	.0000
%RSD	4.001	2.949
#1	-.0032	-.0012
#2	-.0032	-.0011
#3	-.0030	-.0011

Zoom In Zoom Out

Sample Name: FC6782-3A Acquired: 6/22/2023 12:31:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**735.65**	**1770.7**	**22114.**	**5573.4**
Stddev	1.02	2.4	66.	43.8
%RSD	.13919	.13727	.29728	.78658
#1	735.94	1770.3	22083.	5534.2
#2	736.50	1773.4	22190.	5565.3
#3	734.51	1768.6	22070.	5620.7

Zoom In Zoom Out

Sample Name: FC6848-1 Acquired: 6/22/2023 12:36:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.2590**	**-.0006**	**.4626**	**.0252**	**.0000**	**151.6**	**-.0001**	**.0001**
Stddev	.0003	.0090	.0008	.0029	.0002	.000	.6	.0000	.0001
%RSD	297.9	3.484	125.9	.6191	.7043	107.0	.4167	31.00	157.6
#1	-.0002	.2522	-.0015	.4598	.0252	-.0001	152.2	-.0002	.0000
#2	.0004	.2692	.0000	.4624	.0253	.0000	151.9	-.0001	.0000
#3	.0002	.2555	-.0003	.4655	.0250	-.0001	150.9	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0400**	**.3114**	**19.58**	**.0357**	**34.42**	**.0463**	**.0057**	F **237.3**
Stddev	.0002	.0003	.0012	.06	.0001	.07	.0002	.0001	2.2
%RSD	25.12	.6954	.3975	.2820	.2000	.1898	.4281	1.668	.9127
#1	.0008	.0403	.3123	19.62	.0357	34.48	.0461	.0058	239.8
#2	.0005	.0397	.3120	19.60	.0358	34.41	.0463	.0056	236.1
#3	.0007	.0401	.3100	19.52	.0358	34.35	.0465	.0058	236.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0013**	**.0062**	**.0045**	**7.437**	**.0001**	**1.796**	**.0087**	**-.0029**
Stddev	.0003	.0008	.0006	.0019	.014	.0002	.009	.0002	.0010
%RSD	11.93	60.76	9.865	43.07	.1825	203.8	.4721	1.731	34.34
#1	.0028	-.0021	.0058	.0026	7.441	.0003	1.805	.0089	-.0040
#2	.0023	-.0014	.0060	.0065	7.447	.0001	1.795	.0087	-.0025
#3	.0028	-.0005	.0069	.0044	7.421	-.0001	1.789	.0086	-.0021

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0028**	**.0348**
Stddev	.0001	.0002
%RSD	3.760	.5507
#1	.0026	.0348
#2	.0028	.0346
#3	.0028	.0350

Zoom In Zoom Out

Sample Name: FC6848-1 Acquired: 6/22/2023 12:36:00 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**616.61**	**1620.5**	**19879.**	**5338.3**
Stddev	.17	1.1	53.	10.0
%RSD	.02716	.06707	.26481	.18661
#1	616.46	1620.2	19939.	5331.8
#2	616.56	1619.6	19842.	5333.3
#3	616.79	1621.7	19856.	5349.7

Zoom In Zoom Out

Sample Name: FC6974-1 Acquired: 6/22/2023 12:41:10 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**6.380**	**-.0006**	**.0132**	**.3127**	**.0007**	**1.423**	**-.0001**	**.0001**
Stddev	.0004	.043	.0002	.0005	.0011	.0000	.004	.0000	.0001
%RSD	99.35	.6700	34.35	3.587	.3564	2.227	.2810	40.54	109.0
#1	.0000	6.331	-.0005	.0134	.3118	.0007	1.424	.0000	.0000
#2	.0008	6.405	-.0006	.0126	.3139	.0007	1.427	-.0001	.0002
#3	.0005	6.405	-.0009	.0135	.3122	.0007	1.419	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0138**	**.0044**	**2.199**	**2.750**	**.0000**	**1.546**	**.0088**	**.0023**	**2.346**
Stddev	.0003	.0004	.007	.024	.000	.004	.0000	.0002	.005
%RSD	2.387	7.975	.3250	.8585	2734.	.2543	.1720	8.559	.2251
#1	.0140	.0041	2.195	2.735	-.0001	1.550	.0088	.0025	2.343
#2	.0139	.0044	2.208	2.777	-.0002	1.546	.0088	.0021	2.352
#3	.0134	.0048	2.196	2.738	.0003	1.542	.0088	.0022	2.343

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010**	**.0096**	**.0008**	**.0007**	**6.573**	**.0005**	**.1139**	**.0366**	**-.0021**
Stddev	.0001	.0009	.0007	.0005	.010	.0005	.0002	.0006	.0016
%RSD	8.228	9.788	83.79	71.12	.1556	114.3	.1516	1.608	74.43
#1	.0009	.0085	.0015	.0008	6.583	.0002	.1139	.0359	-.0016
#2	.0010	.0102	.0009	.0011	6.563	.0001	.1137	.0366	-.0008
#3	.0011	.0102	.0001	.0001	6.573	.0011	.1141	.0371	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0119**	**.0159**
Stddev	.0003	.0001
%RSD	2.429	.8446
#1	.0117	.0160
#2	.0123	.0160
#3	.0119	.0158

Zoom In Zoom Out

Sample Name: FC6974-1 Acquired: 6/22/2023 12:41:10 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**757.76**	**1880.1**	**23445.**	**5821.3**
Stddev	1.53	2.7	15.	40.2
%RSD	.20206	.14258	.06469	.68973
#1	759.08	1882.6	23461.	5786.5
#2	758.12	1880.6	23432.	5812.3
#3	756.08	1877.3	23442.	5865.3

Zoom In Zoom Out

Sample Name: FC7070-1 Acquired: 6/22/2023 12:46:11 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0176**	**.0002**	**.0290**	**.0124**	**.0000**	**79.53**	**-.0001**	**-.0001**
Stddev	.0003	.0079	.0007	.0019	.0000	.000	.33	.0001	.0002
%RSD	197.1	44.97	481.1	6.403	.1743	198.3	.4169	42.34	220.9
#1	-.0001	.0148	-.0001	.0280	.0124	.0000	79.21	-.0001	.0000
#2	.0000	.0114	-.0004	.0311	.0124	.0000	79.52	-.0002	.0000
#3	.0005	.0265	.0010	.0278	.0124	-.0001	79.88	-.0001	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0009**	**.1339**	**1.709**	**.0002**	**2.623**	**.0635**	**.0016**	**20.73**
Stddev	.0002	.0001	.0024	.015	.0007	.026	.0002	.0001	.07
%RSD	76.17	11.94	1.795	.8698	452.0	1.008	.3665	5.733	.3596
#1	.0004	.0009	.1339	1.694	.0009	2.593	.0635	.0017	20.71
#2	.0001	.0010	.1315	1.709	-.0004	2.641	.0638	.0017	20.67
#3	.0002	.0008	.1363	1.724	-.0001	2.637	.0633	.0015	20.81

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0009**	**.0018**	**-.0013**	**1.280**	**.0003**	**.1636**	**.0007**	**-.0013**
Stddev	.0002	.0002	.0003	.0014	.001	.0004	.0003	.0001	.0002
%RSD	93.23	25.55	16.46	104.4	.0568	132.8	.1948	14.00	15.64
#1	-.0001	-.0007	.0018	-.0024	1.280	-.0001	.1636	.0008	-.0014
#2	-.0003	-.0012	.0015	.0002	1.281	.0003	.1633	.0007	-.0013
#3	.0000	-.0009	.0021	-.0018	1.279	.0006	.1639	.0006	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0012**
Stddev	.0001	.0001
%RSD	10.18	4.398
#1	.0010	.0013
#2	.0008	.0012
#3	.0009	.0012

Zoom In Zoom Out

Sample Name: FC7070-1 Acquired: 6/22/2023 12:46:11 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**698.07**	**1739.5**	**21415.**	**5524.7**
Stddev	1.46	.8	60.	55.8
%RSD	.20870	.04519	.28053	1.0092
#1	699.37	1740.3	21390.	5586.9
#2	698.35	1739.5	21372.	5507.7
#3	696.50	1738.7	21484.	5479.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 12:51:13 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2505**	**40.45**	**2.055**	**2.070**	**2.112**	**2.171**	**40.87**	**2.054**	**2.068**
Stddev	.0005	.07	.002	.017	.005	.008	.11	.000	.001
%RSD	.1846	.1790	.1147	.8063	.2267	.3546	.2574	.0102	.0373
#1	.2503	40.37	2.054	2.055	2.108	2.174	40.87	2.054	2.068
#2	.2502	40.51	2.057	2.088	2.112	2.163	40.77	2.054	2.069
#3	.2510	40.48	2.053	2.069	2.117	2.177	40.98	2.054	2.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.964**	**41.63**	**40.70**	**2.083**	**41.57**	**2.117**	**2.046**	**42.58**
Stddev	.003	.007	.09	.04	.005	.14	.003	.003	.04
%RSD	.1736	.3505	.2260	.1098	.2573	.3264	.1224	.1551	.0989
#1	1.983	1.967	41.66	40.67	2.080	41.54	2.117	2.042	42.53
#2	1.981	1.956	41.52	40.69	2.080	41.45	2.120	2.049	42.58
#3	1.988	1.969	41.71	40.75	2.089	41.72	2.115	2.046	42.62
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.967**	**2.074**	**2.095**	**2.076**	**1.888**	**2.086**	**2.053**	**2.123**	**2.053**
Stddev	.003	.004	.008	.004	.004	.003	.002	.004	.006
%RSD	.1750	.2189	.3875	.1704	.2019	.1309	.1177	.1663	.2899
#1	1.963	2.069	2.086	2.073	1.883	2.084	2.053	2.123	2.046
#2	1.969	2.078	2.100	2.080	1.890	2.089	2.050	2.119	2.055
#3	1.969	2.075	2.100	2.075	1.890	2.087	2.054	2.126	2.057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 12:51:13 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.943**	**1.988**
Stddev	.004	.002
%RSD	.2208	.1050
#1	1.942	1.986
#2	1.938	1.990
#3	1.947	1.987
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**656.15**	**1739.7**	**21273.**	**5446.0**
Stddev	1.88	2.2	60.	18.2
%RSD	.28631	.12548	.28156	.33398
#1	658.07	1741.9	21329.	5429.7
#2	654.32	1737.5	21281.	5465.6
#3	656.05	1739.5	21210.	5442.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 12:55:56 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0024**	**-.0007**	**-.0005**	**.0001**	**.0001**	**.0028**	**.0000**
Stddev	.0002	.0091	.0005	.0014	.0001	.0000	.0012	.0001
%RSD	4687.	383.2	71.21	267.0	62.20	72.58	42.66	253.2
#1	.0000	.0053	-.0012	-.0014	.0000	.0001	.0019	.0001
#2	-.0002	.0096	-.0007	.0011	.0002	.0001	.0022	.0000
#3	.0002	-.0079	-.0002	-.0013	.0002	.0000	.0041	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0005**	**.0004**	**.0254**	**.0003**	**-.0070**	**.0001**
Stddev	.000	.0001	.0002	.0003	.0085	.0005	.0088	.0000
%RSD	2375.	421.0	34.52	82.58	33.52	193.6	125.9	46.24
#1	.0001	-.0001	.0005	.0004	.0268	.0003	.0018	.0002
#2	.0000	.0001	.0004	.0000	.0331	-.0002	-.0070	.0001
#3	-.0001	.0002	.0007	.0007	.0163	.0007	-.0158	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0389**	**.0002**	**.0000**	**.0013**	F **-.0026**	**.0001**	**-.0002**
Stddev	.0002	.0065	.0002	.001	.0007	.0006	.0010	.0004
%RSD	388.4	16.78	91.86	1909.	52.58	22.83	1761.	223.3
#1	.0000	.0410	.0000	.0006	.0020	-.0021	.0000	.0002
#2	.0002	.0442	.0004	.0004	.0012	-.0024	-.0009	-.0002
#3	-.0001	.0316	.0004	-.0011	.0007	-.0033	.0010	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 12:55:56 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**-.0001**	**-.0002**	**.0000**
Stddev	.0000	.0001	.0005	.0001	.000
%RSD	11.47	88.04	406.7	37.84	221.5
#1	.0001	.0000	-.0005	-.0002	.0000
#2	.0001	.0000	-.0003	-.0002	-.0001
#3	.0001	-.0001	.0005	-.0003	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**777.20**	**1828.7**	**22579.**	**5506.7**
Stddev	3.46	4.9	119.	47.5
%RSD	.44540	.26657	.52777	.86198
#1	780.80	1832.6	22694.	5540.3
#2	776.90	1830.3	22587.	5527.4
#3	773.90	1823.2	22456.	5452.4

Zoom In Zoom Out

Sample Name: FC6817-1 Acquired: 6/22/2023 13:05:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**1.981**	**.0005**	**-.0052**	**.0307**	**.0000**	**28.18**	**-.0002**	**.0001**
Stddev	.0003	.005	.0012	.0012	.0001	.0001	.17	.0000	.0001
%RSD	57.07	.2383	228.5	22.82	.2717	186.6	.6040	17.80	102.5
#1	.0010	1.980	.0018	-.0064	.0306	.0000	28.01	-.0002	.0002
#2	.0005	1.986	-.0006	-.0053	.0308	.0000	28.35	-.0002	.0001
#3	.0003	1.976	.0004	-.0040	.0307	.0001	28.19	-.0002	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**.0029**	**2.261**	**1.189**	**.0061**	**10.13**	**.0428**	**.0000**	**18.31**
Stddev	.0001	.0004	.006	.022	.0002	.05	.0002	.000	.05
%RSD	2.019	12.52	.2489	1.830	3.690	.4652	.5024	10360.	.2472
#1	.0058	.0033	2.254	1.186	.0062	10.08	.0425	.0002	18.27
#2	.0057	.0029	2.265	1.168	.0058	10.17	.0429	-.0004	18.36
#3	.0060	.0025	2.264	1.212	.0062	10.15	.0428	.0002	18.31

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0011**	**.0024**	**.0004**	**21.61**	**.0004**	**.1821**	**.1179**	**-.0012**
Stddev	.0000	.0005	.0004	.0016	.01	.0007	.0003	.0002	.0011
%RSD	1.828	45.79	15.23	381.0	.0571	151.9	.1596	.1459	92.10
#1	.0013	.0007	.0025	.0023	21.60	.0010	.1819	.1180	-.0016
#2	.0013	.0016	.0027	-.0009	21.60	-.0003	.1825	.1177	-.0021
#3	.0013	.0009	.0020	-.0001	21.62	.0007	.1821	.1180	.0001

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0067**	**.0066**
Stddev	.0002	.0002
%RSD	3.328	2.435
#1	.0069	.0064
#2	.0068	.0066
#3	.0065	.0068

Zoom In Zoom Out

Sample Name: FC6817-1 Acquired: 6/22/2023 13:05:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**712.01**	**1797.5**	**22103.**	**5642.4**
Stddev	1.74	2.8	99.	57.5
%RSD	.24464	.15501	.44732	1.0186
#1	713.07	1797.3	22217.	5695.8
#2	712.96	1800.4	22041.	5581.5
#3	710.00	1794.8	22051.	5649.8

Zoom In Zoom Out

Sample Name: FC6817-2 Acquired: 6/22/2023 13:10:57 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.6420**	**-.0013**	**.0036**	**.0180**	**.0000**	**17.00**	**.0333**	**.0015**
Stddev	.0003	.0371	.0007	.0007	.0009	.000	.71	.0002	.0001
%RSD	86.08	5.778	52.06	20.31	4.959	463.1	4.175	.5926	6.364
#1	.0007	.6208	-.0020	.0042	.0176	.0000	16.57	.0331	.0016
#2	.0000	.6849	-.0010	.0028	.0190	.0000	17.82	.0335	.0015
#3	.0005	.6204	-.0008	.0039	.0174	.0000	16.61	.0334	.0014

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0035**	**.7520**	**1.876**	**.0006**	**.9519**	**.0475**	**.0011**	**3.170**
Stddev	.0003	.0001	.0327	.098	.0000	.0595	.0002	.0001	.143
%RSD	28.42	2.349	4.352	5.208	5.791	6.254	.3835	12.36	4.507
#1	.0015	.0034	.7351	1.830	.0007	.9440	.0474	.0012	3.094
#2	.0010	.0036	.7897	1.988	.0006	1.015	.0477	.0013	3.335
#3	.0009	.0034	.7312	1.810	.0006	.8968	.0473	.0010	3.081

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0098**	**.0006**	**.0043**	**-.0002**	**2.344**	**.0004**	**.0680**	**.0318**	**-.0021**
Stddev	.0002	.0004	.0005	.0021	.005	.0004	.0028	.0003	.0010
%RSD	2.132	60.98	10.85	954.4	.2126	93.91	4.174	.8607	50.42
#1	.0096	.0002	.0042	.0006	2.339	.0001	.0662	.0319	-.0013
#2	.0100	.0008	.0047	-.0026	2.342	.0004	.0713	.0314	-.0017
#3	.0097	.0008	.0038	.0013	2.349	.0009	.0665	.0320	-.0032

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0020**	**.6169**
Stddev	.0002	.0010
%RSD	10.92	.1640
#1	.0021	.6164
#2	.0017	.6162
#3	.0022	.6181

Zoom In Zoom Out

Sample Name: FC6817-2 Acquired: 6/22/2023 13:10:57 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**748.34**	**1810.0**	**22437.**	**5479.0**
Stddev	1.34	5.2	31.	186.5
%RSD	.17889	.28867	.13757	3.4037
#1	749.18	1813.8	22413.	5584.7
#2	749.05	1812.0	22427.	5263.6
#3	746.80	1804.0	22472.	5588.6

Zoom In Zoom Out

Sample Name: MP42418-MB1 Acquired: 6/22/2023 13:15:56 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0004**	**-.0015**	**-.0041**	**.0000**	**.0000**	**.0086**	**.0000**	**-.0001**
Stddev	.0001	.0027	.0007	.0005	.0000	.000	.0024	.000	.0001
%RSD	34.64	649.2	46.37	11.33	109.6	130.3	28.35	156.4	73.89
#1	.0003	.0017	-.0023	-.0036	.0000	-.0001	.0078	.0000	-.0001
#2	.0002	.0023	-.0015	-.0045	.0000	.0000	.0067	.0000	.0000
#3	.0002	-.0027	-.0008	-.0040	.0000	-.0001	.0114	-.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0004**	**.0017**	**.0054**	**-.0011**	**.0008**	**.0001**	**.0000**	**.0087**
Stddev	.0002	.0001	.0007	.0191	.0005	.0114	.0000	.0002	.0031
%RSD	272.9	28.23	41.00	354.4	41.57	1399.	68.58	757.5	35.43
#1	-.0003	.0005	.0018	.0138	-.0006	-.0021	.0001	-.0002	.0055
#2	.0000	.0005	.0010	.0189	-.0011	-.0088	.0001	.0002	.0089
#3	.0000	.0003	.0024	-.0165	-.0016	.0133	.0000	.0000	.0117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0019**	**.0011**	**.0022**	**.0000**	**.0000**	**-.0001**	**-.0015**
Stddev	.0002	.0008	.0004	.0031	.0004	.001	.000	.0000	.0005
%RSD	140.2	680.5	20.03	282.6	20.55	1948.	157.4	54.74	34.93
#1	.0002	.0006	.0017	-.0023	.0023	-.0004	.0000	-.0001	-.0015
#2	-.0001	.0005	.0017	.0036	.0017	-.0002	.0000	.0000	-.0020
#3	.0003	-.0008	.0024	.0020	.0025	.0006	.0000	-.0001	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP42418-MB1 Acquired: 6/22/2023 13:15:56 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0003**
Stddev	.0002	.0001
%RSD	23380.	22.70
#1	.0001	.0002
#2	-.0002	.0003
#3	.0001	.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**778.33**	**1824.2**	**22786.**	**5608.3**
Stddev	2.44	4.3	83.	18.9
%RSD	.31310	.23687	.36414	.33700
#1	780.93	1827.6	22813.	5597.7
#2	777.97	1825.5	22693.	5597.0
#3	776.09	1819.3	22852.	5630.1

Zoom In Zoom Out

Sample Name: MP42418-B1 Acquired: 6/22/2023 13:21:02 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1874**	**24.60**	**.1935**	**.5002**	**.2048**	**.2139**	**45.53**	**.1979**	**.2022**
Stddev	.0010	.10	.0016	.0019	.0009	.0013	.16	.0002	.0006
%RSD	.5174	.4150	.8526	.3748	.4484	.5844	.3603	.0899	.3203
#1	.1864	24.50	.1917	.4986	.2042	.2146	45.36	.1978	.2015
#2	.1883	24.70	.1938	.4998	.2058	.2147	45.69	.1978	.2024
#3	.1874	24.58	.1949	.5023	.2044	.2125	45.54	.1981	.2027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1958**	**.1999**	**45.85**	**45.26**	**.5291**	**45.65**	**.2101**	**.7040**	**43.94**
Stddev	.0007	.0010	.09	.16	.0010	.10	.0007	.0014	.07
%RSD	.3629	.5164	.2064	.3527	.1939	.2268	.3551	.2021	.1535
#1	.1962	.2008	45.78	45.12	.5285	45.53	.2106	.7027	43.87
#2	.1962	.2002	45.96	45.43	.5303	45.70	.2092	.7040	44.01
#3	.1949	.1988	45.82	45.23	.5286	45.72	.2104	.7055	43.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1926**	**.1981**	**.2057**	**.2040**	**.3162**	**.5055**	**.5165**	**.5428**	**.1952**
Stddev	.0004	.0006	.0014	.0011	.0011	.0013	.0035	.0003	.0028
%RSD	.2190	.3230	.6668	.5545	.3399	.2604	.6799	.0630	1.416
#1	.1931	.1983	.2041	.2049	.3169	.5064	.5143	.5431	.1926
#2	.1923	.1986	.2063	.2044	.3149	.5062	.5206	.5427	.1948
#3	.1925	.1974	.2066	.2027	.3167	.5040	.5147	.5425	.1981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP42418-B1 Acquired: 6/22/2023 13:21:02 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1937**	**.1918**
Stddev	.0017	.0001
%RSD	.8527	.0710
#1	.1932	.1919
#2	.1955	.1917
#3	.1923	.1917
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**661.28**	**1718.2**	**21158.**	**5485.0**
Stddev	.52	1.6	43.	15.0
%RSD	.07894	.09466	.20548	.27368
#1	660.68	1717.6	21114.	5502.0
#2	661.55	1720.0	21159.	5479.5
#3	661.62	1717.0	21200.	5473.5

Zoom In Zoom Out

Sample Name: FC6978-1 Acquired: 6/22/2023 13:25:52 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0105**	**-.0003**	**.0256**	**.0116**	**.0000**	**116.3**	**-.0001**	**-.0001**
Stddev	.0002	.0104	.0007	.0003	.0001	.000	.3	.0000	.0001
%RSD	75.61	98.87	214.2	1.085	1.087	627.9	.2608	63.83	210.1
#1	.0001	.0051	-.0004	.0258	.0115	.0000	116.3	-.0001	.0000
#2	.0002	.0225	-.0011	.0256	.0115	.0001	116.0	.0000	-.0002
#3	.0005	.0039	.0004	.0253	.0117	-.0001	116.6	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0013**	**.0036**	**3.451**	**.0031**	**.0103**	**.0002**	**.0164**	**75.55**
Stddev	.0002	.0002	.0019	.028	.0005	.0124	.0000	.0001	.27
%RSD	59.01	17.72	53.52	.8030	17.53	119.6	24.66	.4368	.3619
#1	-.0002	.0011	.0019	3.437	.0036	-.0004	.0001	.0163	75.70
#2	-.0003	.0011	.0031	3.433	.0031	.0238	.0001	.0165	75.23
#3	-.0007	.0015	.0057	3.483	.0025	.0075	.0002	.0165	75.71

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0220**	**-.0009**	**.0014**	**.0013**	**.1100**	**.0003**	**.0742**	**.0008**	**-.0028**
Stddev	.0002	.0011	.0019	.0006	.0016	.0003	.0001	.0000	.0011
%RSD	1.020	132.0	131.7	48.48	1.449	87.35	.1170	4.901	39.02
#1	.0220	.0003	.0032	.0008	.1105	.0006	.0743	.0009	-.0016
#2	.0218	-.0020	-.0005	.0010	.1082	.0000	.0742	.0008	-.0038
#3	.0222	-.0009	.0016	.0020	.1113	.0004	.0741	.0008	-.0031

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0000**
Stddev	.0003	.0000
%RSD	27.94	472.8
#1	.0007	.0000
#2	.0012	.0000
#3	.0012	.0000

Zoom In Zoom Out

Sample Name: FC6978-1 Acquired: 6/22/2023 13:25:52 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**665.22**	**1692.2**	**20883.**	**5485.5**
Stddev	1.20	3.6	83.	38.5
%RSD	.18038	.21438	.39720	.70204
#1	665.82	1691.0	20885.	5475.1
#2	663.84	1696.3	20799.	5528.1
#3	666.01	1689.4	20965.	5453.2

Zoom In Zoom Out

Sample Name: MP42418-D1 Acquired: 6/22/2023 13:30:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0007**	**-.0006**	**.0383**	**.0165**	**.0000**	**166.6**	**-.0001**	**-.0001**
Stddev	.0002	.0025	.0012	.0015	.0001	.000	.4	.0001	.0001
%RSD	150.6	342.2	202.7	3.880	.7438	34.13	.2302	42.76	75.88
#1	.0000	.0014	-.0012	.0367	.0166	.0000	166.9	-.0001	-.0002
#2	.0003	.0028	.0008	.0386	.0164	.0000	166.8	-.0001	.0000
#3	.0000	-.0020	-.0014	.0396	.0166	-.0001	166.2	-.0002	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0016**	**.0019**	**5.006**	**.0047**	**.0279**	**.0001**	**.0234**	F **106.8**
Stddev	.0002	.0003	.0005	.014	.0009	.0060	.0000	.0000	.7
%RSD	69.92	16.98	28.14	.2714	19.87	21.48	30.17	.2092	.6303
#1	-.0006	.0013	.0024	5.021	.0038	.0307	.0001	.0234	107.5
#2	-.0002	.0019	.0021	4.995	.0046	.0211	.0001	.0234	106.2
#3	-.0002	.0016	.0013	5.001	.0057	.0321	.0001	.0235	106.7

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0315**	**-.0021**	**.0008**	**.0010**	**.1587**	**.0001**	**.1068**	**.0006**	**-.0033**
Stddev	.0003	.0007	.0001	.0010	.0038	.0004	.0002	.0000	.0010
%RSD	.8999	34.51	13.85	102.3	2.418	355.0	.2260	2.101	29.74
#1	.0314	-.0014	.0007	.0020	.1572	.0003	.1070	.0006	-.0021
#2	.0318	-.0028	.0009	.0000	.1630	.0004	.1069	.0006	-.0038
#3	.0313	-.0021	.0008	.0009	.1558	-.0003	.1065	.0006	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0012**	**.0001**
Stddev	.0004	.0001
%RSD	34.79	70.57
#1	.0015	.0000
#2	.0014	.0002
#3	.0007	.0001

Zoom In Zoom Out

Sample Name: MP42418-D1 Acquired: 6/22/2023 13:30:58 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**644.00**	**1656.2**	**20343.**	**5443.0**
Stddev	4.50	3.8	52.	15.3
%RSD	.69853	.22834	.25334	.28146
#1	641.99	1653.9	20340.	5437.4
#2	640.85	1654.2	20397.	5431.2
#3	649.15	1660.6	20294.	5460.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 13:36:39 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536**	**40.20**	**2.072**	**2.095**	**2.120**	**2.171**	**40.88**	**2.061**	**2.081**
Stddev	.0011	.17	.003	.014	.007	.016	.13	.002	.002
%RSD	.4210	.4147	.1295	.6783	.3268	.7304	.3245	.0907	.1141
#1	.2544	40.22	2.075	2.093	2.126	2.188	41.01	2.062	2.082
#2	.2524	40.02	2.072	2.082	2.113	2.166	40.88	2.061	2.083
#3	.2540	40.35	2.070	2.111	2.122	2.157	40.75	2.059	2.078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.992**	**1.988**	**41.58**	**40.91**	**2.100**	**41.26**	**2.124**	**2.065**	**42.57**
Stddev	.011	.004	.12	.10	.010	.14	.009	.003	.17
%RSD	.5656	.2271	.2799	.2377	.4716	.3321	.4054	.1299	.4093
#1	1.985	1.992	41.71	41.00	2.111	41.35	2.117	2.067	42.71
#2	1.986	1.989	41.51	40.81	2.095	41.10	2.121	2.067	42.37
#3	2.005	1.983	41.52	40.93	2.093	41.33	2.133	2.062	42.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**2.061**	**2.112**	**2.101**	**1.928**	**2.089**	**2.087**	**2.112**	**2.056**
Stddev	.005	.002	.004	.013	.005	.002	.010	.005	.005
%RSD	.2463	.0846	.2003	.6055	.2393	.0901	.4756	.2419	.2610
#1	2.002	2.062	2.115	2.105	1.932	2.091	2.094	2.110	2.051
#2	1.999	2.059	2.113	2.111	1.929	2.088	2.091	2.108	2.056
#3	1.993	2.063	2.107	2.086	1.923	2.087	2.075	2.118	2.062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 13:36:39 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.951**	**1.995**
Stddev	.009	.004
%RSD	.4477	.2153
#1	1.946	1.999
#2	1.946	1.995
#3	1.961	1.991
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**654.90**	**1719.0**	**21267.**	**5469.8**
Stddev	1.24	2.4	126.	27.9
%RSD	.18929	.14021	.59136	.50935
#1	655.78	1721.5	21362.	5468.7
#2	655.44	1716.7	21316.	5442.5
#3	653.49	1719.0	21125.	5498.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 13:45:03 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0068**	**-.0006**	F **-.0021**	**.0001**	**.0000**	**.0044**	**.0000**
Stddev	.0001	.0054	.0008	.0013	.0001	.000	.0024	.000
%RSD	25.83	79.44	129.4	62.20	71.04	76.06	53.85	210.1
#1	.0004	-.0048	.0003	-.0025	.0001	.0000	.0060	.0000
#2	.0005	-.0026	-.0010	-.0032	.0001	.0000	.0055	.0000
#3	.0006	-.0128	-.0012	-.0007	.0000	.0000	.0017	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0006**	**-.0010**	**.0263**	**-.0006**	**-.0095**	**.0000**
Stddev	.000	.0001	.0002	.0017	.0179	.0009	.0127	.0000
%RSD	279.4	51.67	26.02	163.6	68.09	163.5	133.2	1810.
#1	.0000	-.0002	.0008	-.0025	.0360	.0000	.0035	.0000
#2	.0000	-.0002	.0005	-.0015	.0056	-.0001	-.0103	.0000
#3	-.0002	-.0001	.0006	.0008	.0373	-.0016	-.0218	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0452**	**.0003**	**.0001**	**.0004**	**-.0011**	**-.0002**	**.0001**
Stddev	.000	.0073	.0002	.0005	.0008	.0007	.0007	.0005
%RSD	529.3	16.11	66.23	341.4	210.7	67.06	392.7	504.6
#1	.0001	.0528	.0005	.0007	-.0005	-.0003	-.0003	.0007
#2	-.0001	.0383	.0001	-.0001	.0010	-.0012	.0006	-.0001
#3	.0000	.0444	.0003	-.0002	.0005	-.0018	-.0008	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 13:45:03 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**-.0002**	**-.0001**	**-.0002**
Stddev	.0000	.0000	.0008	.0001	.0000
%RSD	211.8	24.93	440.2	95.10	24.65
#1	.0000	-.0001	.0006	-.0001	-.0001
#2	.0000	-.0001	-.0001	-.0001	-.0002
#3	.0000	-.0002	-.0010	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**771.22**	**1810.7**	**22577.**	**5548.7**
Stddev	16.16	36.9	14.	21.1
%RSD	2.0957	2.0360	.06228	.37945
#1	779.49	1830.3	22573.	5532.8
#2	752.60	1768.1	22566.	5540.8
#3	781.58	1833.5	22593.	5572.6

Zoom In Zoom Out

Sample Name: STDA Acquired: 6/22/2023 13:51:40 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0006**	**-.0003**	**-.0005**	**.0019**	**.0085**	**.0009**	**.0036**	**-.0013**	**-.0008**
Stddev	.0002	.0011	.0001	.0001	.0002	.0002	.0005	.0002	.0002
%RSD	32.07	331.8	13.50	7.499	2.825	20.88	13.83	14.16	23.62
#1	-.0005	.0009	-.0005	.0020	.0084	.0010	.0032	-.0015	-.0010
#2	-.0004	-.0006	-.0004	.0018	.0085	.0007	.0035	-.0013	-.0009
#3	-.0008	-.0013	-.0006	.0019	.0088	.0009	.0041	-.0011	-.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0066**	**.0001**	**.0027**	**-.0054**	**-.0005**	**.0002**	**.0010**	**.0040**
Stddev	.0001	.0003	.0001	.0012	.0035	.0003	.0000	.0001	.0036
%RSD	88.34	4.645	81.53	44.40	64.74	62.91	1.879	11.94	89.28
#1	.0002	.0070	.0001	.0017	-.0019	-.0006	.0002	.0010	-.0001
#2	.0000	.0065	.0000	.0024	-.0053	-.0008	.0002	.0009	.0061
#3	.0001	.0064	.0002	.0040	-.0088	-.0002	.0002	.0011	.0059

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0008**	**.0018**	**.0009**	**.0005**	**.0030**	**.0001**	**-.0013**	**.0003**	**-.0016**
Stddev	.0005	.0004	.0001	.0003	.0003	.0003	.0006	.0001	.0003
%RSD	67.92	22.81	7.689	54.71	8.481	189.0	42.22	41.50	15.56
#1	-.0004	.0017	.0009	.0004	.0028	.0000	-.0009	.0001	-.0015
#2	-.0005	.0015	.0008	.0003	.0033	.0000	-.0012	.0003	-.0015
#3	-.0014	.0023	.0009	.0008	.0028	.0005	-.0020	.0003	-.0019

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0006**
Stddev	.0001	.0001
%RSD	36.07	18.36
#1	-.0003	.0006
#2	-.0005	.0005
#3	-.0002	.0006

Zoom In Zoom Out

Sample Name: STDA Acquired: 6/22/2023 13:51:40 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**774.73**	**1819.5**	**22448.**	**5500.6**
Stddev	1.46	7.4	87.	16.2
%RSD	.18820	.40661	.38742	.29384
#1	776.41	1826.4	22511.	5496.8
#2	773.85	1820.5	22349.	5486.6
#3	773.92	1811.7	22484.	5518.3

Zoom In Zoom Out

Sample Name: STDB Acquired: 6/22/2023 13:59:24 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**-.0002**	**-.0001**	**.0005**	**.0041**	**.0002**	**.0040**	**-.0003**	**-.0002**
Stddev	.0001	.0000	.0000	.0002	.0006	.0001	.0002	.0001	.0001
%RSD	42.09	10.30	49.10	40.72	13.63	40.60	5.998	26.44	30.34
#1	-.0003	-.0002	-.0001	.0003	.0046	.0001	.0039	-.0003	-.0001
#2	-.0002	-.0001	-.0001	.0005	.0035	.0003	.0043	-.0002	-.0002
#3	-.0001	-.0002	.0000	.0007	.0043	.0002	.0039	-.0003	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0013**	**.0000**	**-.0001**	**-.0036**	**.0001**	**.0001**	**.0002**	**-.0087**
Stddev	.0000	.0000	.000	.0014	.0009	.0002	.0000	.0000	.0003
%RSD	343.4	.2985	1595.	1381.	24.59	255.4	36.66	19.92	3.416
#1	.0000	.0013	.0000	.0012	-.0029	-.0001	.0000	.0002	-.0084
#2	.0000	.0013	-.0002	-.0016	-.0033	.0001	.0001	.0002	-.0090
#3	.0000	.0013	.0001	.0001	-.0046	.0003	.0001	.0002	-.0088

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**.0008**	**.0004**	**.0001**	**.0000**	**-.0010**	**.0001**	**-.0005**	**.0000**
Stddev	.0000	.0002	.0000	.0001	.0000	.0002	.0001	.0002	.000
%RSD	9.607	30.85	4.490	54.01	142.6	21.38	60.77	32.72	28.86
#1	-.0002	.0005	.0004	.0001	.0000	-.0007	.0002	-.0006	.0000
#2	-.0002	.0009	.0004	.0002	.0001	-.0011	.0000	-.0006	.0000
#3	-.0003	.0009	.0003	.0001	.0000	-.0011	.0001	-.0003	.0000

Elem	Zn2062
Units	Cts/S
Avg	**.0001**
Stddev	.0000
%RSD	26.73
#1	.0001
#2	.0001
#3	.0001

Zoom In Zoom Out

Sample Name: STDB Acquired: 6/22/2023 13:59:24 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3511.2**	**8320.3**	**91206.**	**14604.**
Stddev	41.2	88.3	2531.	439.
%RSD	1.1731	1.0611	2.7750	3.0035
#1	3523.0	8370.5	90845.	14177.
#2	3465.4	8218.3	88874.	14581.
#3	3545.3	8372.0	93898.	15053.

Zoom In Zoom Out

Sample Name: STDB Acquired: 6/22/2023 14:04:09 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0056**	**.0255**	**.0017**	**.0639**	**2.906**	**.0593**	**.3835**	**.0270**	**.1474**
Stddev	.0002	.0008	.0001	.0015	.007	.0003	.0011	.0003	.0011
%RSD	3.596	3.210	4.749	2.344	.2310	.5767	.2905	1.126	.7710
#1	.0055	.0248	.0016	.0637	2.898	.0596	.3830	.0270	.1484
#2	.0056	.0254	.0017	.0656	2.910	.0590	.3826	.0273	.1477
#3	.0059	.0264	.0017	.0626	2.910	.0593	.3847	.0267	.1462

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0052**	**.0276**	**.0821**	**1.234**	**.0248**	**.1543**	**.0493**	**.0756**	**3.819**
Stddev	.0001	.0001	.0005	.006	.0006	.0006	.0002	.0003	.004
%RSD	2.054	.5040	.6089	.5146	2.341	.3746	.3081	.3907	.0964
#1	.0052	.0275	.0826	1.236	.0243	.1539	.0493	.0755	3.819
#2	.0052	.0276	.0821	1.227	.0254	.1542	.0492	.0760	3.816
#3	.0054	.0278	.0816	1.240	.0246	.1550	.0495	.0755	3.823

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0620**	**.0081**	**.0025**	**.0022**	**.0241**	**.2041**	**.0209**	**.0048**	**.0295**
Stddev	.0006	.0008	.0002	.0001	.0005	.0004	.0000	.0006	.0001
%RSD	.9233	10.33	7.923	3.498	2.065	.1834	.2290	12.66	.2007
#1	.0625	.0089	.0025	.0021	.0238	.2045	.0210	.0042	.0295
#2	.0620	.0072	.0024	.0022	.0247	.2038	.0209	.0054	.0295
#3	.0614	.0081	.0028	.0022	.0239	.2041	.0209	.0048	.0296

Elem	Zn2062
Units	Cts/S
Avg	**.0529**
Stddev	.0001
%RSD	.2120
#1	.0530
#2	.0530
#3	.0528

Zoom In Zoom Out

Sample Name: STDB Acquired: 6/22/2023 14:04:09 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**738.28**	**1795.2**	**21824.**	**5463.1**
Stddev	4.39	4.4	14.	23.9
%RSD	.59490	.24410	.06195	.43761
#1	738.10	1793.6	21840.	5464.2
#2	733.98	1791.9	21817.	5486.4
#3	742.76	1800.2	21816.	5438.7

Zoom In Zoom Out

Sample Name: STDC Acquired: 6/22/2023 14:08:42 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0190**	**.6313**	**.0581**	**.2131**	**3.695**	**2.976**	**1.925**	**1.399**	**.7449**
Stddev	.0001	.0026	.0002	.0017	.013	.007	.010	.003	.0038
%RSD	.3928	.4170	.2915	.7910	.3582	.2427	.5165	.2436	.5125
#1	.0189	.6316	.0582	.2146	3.696	2.977	1.932	1.403	.7483
#2	.0191	.6337	.0580	.2113	3.708	2.983	1.929	1.398	.7457
#3	.0190	.6285	.0579	.2134	3.681	2.969	1.914	1.397	.7408

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1320**	**.2125**	**1.398**	**.6280**	**.8017**	**.1560**	**.8133**	**.3709**	**2.092**
Stddev	.0009	.0011	.005	.0038	.0054	.0013	.0045	.0013	.012
%RSD	.6807	.5346	.3417	.6063	.6749	.8373	.5505	.3427	.5875
#1	.1326	.2138	1.399	.6299	.8061	.1560	.8144	.3722	2.097
#2	.1324	.2118	1.402	.6305	.8033	.1572	.8171	.3708	2.101
#3	.1309	.2120	1.393	.6236	.7956	.1546	.8084	.3696	2.078

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3906**	**.3400**	**.0893**	**.0453**	**.1328**	**.1238**	**5.197**	**.5069**	**.1603**
Stddev	.0001	.0022	.0006	.0002	.0002	.0007	.015	.0026	.0005
%RSD	.0321	.6510	.7095	.4098	.1523	.5785	.2855	.5076	.3333
#1	.3905	.3425	.0899	.0454	.1329	.1244	5.210	.5091	.1605
#2	.3907	.3383	.0892	.0451	.1329	.1240	5.201	.5075	.1597
#3	.3907	.3393	.0887	.0454	.1325	.1231	5.181	.5041	.1607

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.1474**	**.6455**
Stddev	.0005	.0018
%RSD	.3270	.2762
#1	.1477	.6467
#2	.1477	.6464
#3	.1469	.6435

Zoom In Zoom Out

Sample Name: STDC Acquired: 6/22/2023 14:08:42 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**732.27**	**1786.9**	**22001.**	**5440.7**
Stddev	1.41	2.2	71.	24.6
%RSD	.19253	.12583	.32457	.45144
#1	730.83	1784.7	22072.	5464.7
#2	732.35	1786.9	21929.	5415.6
#3	733.64	1789.2	22001.	5441.7

Zoom In Zoom Out

Sample Name: STDD Acquired: 6/22/2023 14:15:35 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0383**	**1.239**	**.1160**	**.4207**	**7.221**	**5.854**	**3.757**	**2.779**	**1.481**
Stddev	.0004	.007	.0005	.0005	.040	.007	.005	.001	.003
%RSD	1.024	.5760	.3940	.1192	.5492	.1213	.1436	.0441	.1690
#1	.0380	1.230	.1156	.4212	7.176	5.846	3.751	2.779	1.483
#2	.0388	1.242	.1165	.4202	7.237	5.858	3.759	2.780	1.478
#3	.0382	1.243	.1159	.4209	7.250	5.858	3.761	2.777	1.482

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2610**	**.4123**	**2.725**	**1.232**	**1.588**	**.3061**	**1.604**	**.7415**	**4.104**
Stddev	.0008	.0013	.006	.006	.009	.0007	.002	.0011	.022
%RSD	.3213	.3229	.2078	.4617	.5345	.2225	.1301	.1440	.5464
#1	.2620	.4119	2.719	1.226	1.581	.3053	1.602	.7424	4.078
#2	.2607	.4112	2.724	1.235	1.598	.3063	1.606	.7417	4.115
#3	.2604	.4138	2.730	1.236	1.587	.3066	1.604	.7403	4.119

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7727**	**.6857**	**.1758**	**.0895**	**.2619**	**.2454**	**10.13**	**1.006**	**.3207**
Stddev	.0008	.0020	.0003	.0007	.0007	.0005	.05	.001	.0016
%RSD	.1013	.2902	.1625	.7600	.2862	.2235	.4715	.0765	.4923
#1	.7736	.6857	.1760	.0901	.2628	.2454	10.07	1.006	.3215
#2	.7724	.6877	.1758	.0887	.2613	.2448	10.16	1.007	.3188
#3	.7722	.6837	.1755	.0897	.2617	.2459	10.15	1.005	.3216

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2944**	**1.291**
Stddev	.0014	.001
%RSD	.4742	.1023
#1	.2957	1.289
#2	.2929	1.292
#3	.2946	1.291

Zoom In Zoom Out

Sample Name: STDD Acquired: 6/22/2023 14:15:35 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**713.71**	**1781.1**	**21870.**	**5473.9**
Stddev	.51	4.0	14.	17.0
%RSD	.07193	.22248	.06234	.31104
#1	713.90	1780.2	21880.	5476.8
#2	714.10	1785.4	21875.	5489.4
#3	713.13	1777.7	21854.	5455.7

Zoom In Zoom Out

Sample Name: STDE Acquired: 6/22/2023 14:19:41 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0791**	**2.469**	**.2359**	**.8139**	**14.66**	**11.76**	**7.437**	**5.576**	**2.957**
Stddev	.0004	.008	.0011	.0050	.06	.07	.018	.013	.006
%RSD	.5448	.3260	.4633	.6119	.3948	.5829	.2393	.2389	.1953
#1	.0791	2.467	.2370	.8112	14.64	11.71	7.429	5.586	2.963
#2	.0786	2.478	.2348	.8196	14.73	11.84	7.458	5.581	2.955
#3	.0795	2.462	.2358	.8108	14.62	11.72	7.425	5.561	2.952

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5250**	**.8207**	**5.361**	**2.484**	**3.220**	**.6089**	**3.200**	**1.499**	**8.343**
Stddev	.0013	.0034	.021	.005	.011	.0027	.007	.002	.027
%RSD	.2418	.4136	.3970	.2046	.3304	.4387	.2227	.1424	.3252
#1	.5236	.8245	5.348	2.486	3.223	.6085	3.193	1.501	8.340
#2	.5255	.8179	5.385	2.488	3.228	.6118	3.201	1.499	8.372
#3	.5260	.8198	5.350	2.479	3.208	.6065	3.207	1.497	8.318

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.541**	**1.397**	**.3489**	**.1813**	**.4201**	**.4732**	**20.26**	**1.979**	**.6482**
Stddev	.004	.003	.0009	.0008	.0011	.0004	.02	.003	.0005
%RSD	.2560	.1992	.2617	.4477	.2554	.0800	.1202	.1530	.0747
#1	1.545	1.399	.3487	.1804	.4207	.4728	20.24	1.976	.6485
#2	1.541	1.393	.3482	.1819	.4207	.4733	20.28	1.981	.6476
#3	1.538	1.397	.3500	.1817	.4189	.4736	20.27	1.981	.6485

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.5873**	**2.587**
Stddev	.0016	.008
%RSD	.2735	.3008
#1	.5857	2.594
#2	.5889	2.589
#3	.5874	2.578

Zoom In Zoom Out

Sample Name: STDE Acquired: 6/22/2023 14:19:41 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**681.07**	**1743.0**	**21437.**	**5452.6**
Stddev	.94	3.8	33.	11.1
%RSD	.13757	.21524	.15519	.20345
#1	681.86	1739.6	21475.	5445.7
#2	681.32	1742.5	21412.	5446.7
#3	680.04	1747.0	21425.	5465.4

Zoom In Zoom Out

Sample Name: STDF Acquired: 6/22/2023 14:24:46 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1600**	**5.083**	**.4793**	**1.680**	**29.68**	**23.87**	**14.91**	**11.14**	**5.874**
Stddev	.0002	.006	.0010	.009	.02	.08	.03	.01	.006
%RSD	.1464	.1186	.2021	.5219	.0766	.3170	.2047	.1255	.1110
#1	.1601	5.089	.4787	1.673	29.69	23.85	14.92	11.15	5.879
#2	.1601	5.081	.4804	1.690	29.66	23.81	14.88	11.15	5.876
#3	.1597	5.078	.4787	1.677	29.70	23.96	14.94	11.12	5.866

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.044**	**1.643**	**10.73**	**5.084**	**6.603**	**1.231**	**6.432**	**3.002**	**17.09**
Stddev	.004	.004	.01	.004	.016	.001	.009	.004	.02
%RSD	.3995	.2526	.0642	.0785	.2370	.1008	.1361	.1291	.0977
#1	1.048	1.644	10.73	5.085	6.604	1.230	6.438	3.003	17.11
#2	1.040	1.638	10.72	5.080	6.587	1.230	6.436	3.006	17.09
#3	1.045	1.646	10.73	5.087	6.619	1.232	6.422	2.998	17.08

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.037**	**2.822**	**.7026**	**.3649**	**.8429**	**.9421**	**41.10**	**4.000**	**1.289**
Stddev	.007	.008	.0017	.0004	.0022	.0011	.10	.007	.008
%RSD	.2393	.2823	.2460	.1042	.2668	.1129	.2509	.1875	.6087
#1	3.030	2.831	.7035	.3653	.8418	.9431	41.06	3.992	1.295
#2	3.044	2.816	.7037	.3645	.8455	.9421	41.03	4.000	1.280
#3	3.036	2.818	.7006	.3648	.8414	.9409	41.22	4.007	1.292

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.181**	**5.155**
Stddev	.005	.007
%RSD	.4657	.1291
#1	1.186	5.160
#2	1.175	5.156
#3	1.182	5.147

Zoom In Zoom Out

Sample Name: STDF Acquired: 6/22/2023 14:24:46 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**647.30**	**1702.3**	**20958.**	**5421.5**
Stddev	.70	1.6	44.	17.2
%RSD	.10829	.09310	.20840	.31783
#1	646.71	1704.0	20953.	5404.1
#2	648.07	1701.0	20917.	5438.6
#3	647.10	1701.8	21004.	5421.7

Zoom In Zoom Out

Sample Name: STDG Acquired: 6/22/2023 14:29:34 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3225**	**10.31**	**.9670**	**3.432**	**58.63**	**47.20**	**29.41**	**22.07**	**11.66**
Stddev	.0009	.03	.0022	.018	.09	.13	.07	.04	.03
%RSD	.2808	.2857	.2303	.5130	.1560	.2745	.2263	.1787	.2537
#1	.3227	10.33	.9644	3.413	58.69	47.20	29.47	22.03	11.62
#2	.3232	10.28	.9684	3.447	58.52	47.34	29.34	22.10	11.68
#3	.3215	10.31	.9681	3.435	58.68	47.08	29.42	22.09	11.66

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.057**	**3.295**	**21.04**	**10.36**	**13.38**	**2.447**	**12.64**	**5.957**	**34.35**
Stddev	.007	.010	.03	.03	.04	.004	.02	.012	.08
%RSD	.3625	.3150	.1548	.3057	.2616	.1417	.1220	.2021	.2326
#1	2.061	3.294	21.08	10.39	13.41	2.451	12.65	5.944	34.43
#2	2.062	3.307	21.04	10.33	13.37	2.444	12.63	5.967	34.27
#3	2.048	3.286	21.01	10.35	13.34	2.446	12.62	5.960	34.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.006**	**5.649**	**1.417**	**.7298**	**1.750**	**1.852**	**81.62**	**7.845**	**2.526**
Stddev	.018	.004	.004	.0019	.004	.006	.61	.014	.007
%RSD	.2944	.0612	.2901	.2658	.2446	.3015	.7456	.1721	.2855
#1	5.986	5.646	1.412	.7287	1.745	1.845	81.76	7.860	2.528
#2	6.020	5.649	1.421	.7320	1.753	1.854	82.14	7.843	2.532
#3	6.012	5.653	1.417	.7287	1.751	1.855	80.95	7.833	2.518

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.364**	**10.23**
Stddev	.011	.02
%RSD	.4687	.1526
#1	2.369	10.21
#2	2.370	10.23
#3	2.351	10.24

Zoom In Zoom Out

Sample Name: STDG Acquired: 6/22/2023 14:29:34 Type: Cal
Method: 60102007_COMBO_10242022(v232) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**600.46**	**1613.2**	**20158.**	**5357.1**
Stddev	1.18	5.5	27.	18.9
%RSD	.19678	.34050	.13598	.35232
#1	601.76	1619.5	20127.	5339.4
#2	599.45	1609.5	20178.	5377.0
#3	600.16	1610.5	20169.	5354.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 14:39:19 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2508**	**39.87**	**1.994**	**1.974**	**2.015**	**2.016**	**40.06**	**2.008**	**2.000**
Stddev	.0004	.26	.014	.008	.007	.005	.31	.012	.013
%RSD	.1535	.6434	.6965	.4034	.3523	.2659	.7682	.5907	.6708
#1	.2512	40.09	1.985	1.969	2.023	2.022	40.37	2.002	1.993
#2	.2505	39.59	1.986	1.971	2.009	2.012	39.75	2.000	1.991
#3	.2506	39.92	2.010	1.984	2.014	2.014	40.06	2.021	2.015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.005**	**1.986**	**40.16**	**39.75**	**1.991**	**40.08**	**2.016**	**2.007**	**40.38**
Stddev	.010	.009	.21	.20	.002	.26	.010	.013	.09
%RSD	.5191	.4566	.5118	.5094	.0938	.6542	.5134	.6549	.2194
#1	1.994	1.989	40.37	39.94	1.993	40.35	2.007	2.002	40.48
#2	2.015	1.976	39.97	39.54	1.990	39.83	2.027	1.996	40.31
#3	2.005	1.994	40.13	39.78	1.990	40.05	2.013	2.022	40.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.997**	**2.003**	**1.992**	**1.999**	**1.910**	**2.008**	**1.990**	**2.015**	**2.009**
Stddev	.018	.006	.020	.010	.015	.013	.002	.005	.004
%RSD	.8960	.3097	1.019	.4955	.8054	.6424	.0880	.2702	.1917
#1	1.993	1.997	1.975	1.992	1.905	2.003	1.988	2.021	2.005
#2	1.981	2.003	1.985	1.995	1.898	1.998	1.990	2.010	2.009
#3	2.016	2.010	2.014	2.011	1.928	2.023	1.992	2.014	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 14:39:19 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.988**	**2.005**
Stddev	.001	.012
%RSD	.0557	.6146
#1	1.987	2.001
#2	1.987	1.995
#3	1.989	2.019
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**653.80**	**1714.4**	**21134.**	**5480.0**
Stddev	1.20	11.0	56.	50.2
%RSD	.18348	.64124	.26661	.91613
#1	654.64	1718.8	21194.	5427.7
#2	654.34	1722.6	21083.	5527.8
#3	652.43	1701.9	21124.	5484.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 14:46:34 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0018**	**.0006**	F **.0042**	**.0000**	**.0000**	**.0022**	**.0000**	**.0000**
Stddev	.0002	.0028	.0004	.0009	.000	.0000	.0007	.0001	.000
%RSD	111.0	160.3	77.65	21.34	123.6	55.38	33.39	136.3	48.80
#1	.0000	.0049	.0003	.0033	.0000	.0000	.0015	.0000	.0000
#2	-.0002	-.0005	.0011	.0050	.0000	.0000	.0023	.0001	.0000
#3	-.0003	.0009	.0003	.0043	-.0001	.0000	.0030	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0034**	**-.0074**	**-.0003**	**-.0028**	**.0000**	**.0001**	**.0149**
Stddev	.000	.0001	.0023	.0050	.0009	.0086	.000	.0002	.0059
%RSD	276.1	64.01	66.29	67.70	335.4	308.2	335.8	132.5	39.53
#1	.0000	.0000	.0011	-.0116	.0007	-.0120	.0000	.0002	.0216
#2	-.0002	.0001	.0035	-.0019	-.0005	.0049	.0000	.0002	.0106
#3	.0000	.0001	.0057	-.0086	-.0010	-.0013	.0000	-.0001	.0124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0006**	**.0009**	**.0003**	**-.0002**	**.0000**	**.0001**	**.0011**
Stddev	.0001	.0003	.0006	.0007	.0003	.0001	.0000	.0001	.0014
%RSD	96.65	9242.	98.99	74.30	90.81	61.00	234.4	81.27	125.2
#1	.0000	-.0003	.0013	.0017	.0002	-.0003	.0000	.0000	.0026
#2	-.0001	.0000	.0001	.0007	.0001	-.0004	.0001	.0001	.0001
#3	.0000	.0003	.0005	.0004	.0006	-.0001	.0000	.0001	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 14:46:34 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0000**
Stddev	.0003	.000
%RSD	250.7	253.0
#1	.0001	-.0001
#2	.0000	.0001
#3	-.0004	-.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**768.09**	**1814.1**	**22406.**	**5503.0**
Stddev	5.08	6.9	82.	22.2
%RSD	.66132	.37870	.36688	.40254
#1	773.77	1820.5	22501.	5518.7
#2	763.99	1806.8	22367.	5477.6
#3	766.53	1815.0	22352.	5512.7

Zoom In Zoom Out

Sample Name: MP42418-SD1 Acquired: 6/22/2023 14:50:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0025**	**-.0019**	**.0397**	**.0101**	**-.0001**	**117.7**	**-.0001**	**.0001**
Stddev	.0005	.0215	.0014	.0067	.0007	.0001	.6	.0002	.0004
%RSD	43.67	861.4	72.39	16.93	6.737	183.4	.5293	266.1	646.2
#1	-.0010	.0222	-.0005	.0413	.0101	.0001	117.3	-.0002	-.0003
#2	-.0009	-.0205	-.0019	.0454	.0108	-.0002	118.4	.0001	.0004
#3	-.0018	.0058	-.0032	.0323	.0095	-.0002	117.4	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0041**	**.0106**	**3.284**	**.0048**	**.0977**	**.0001**	**.0161**	**71.06**
Stddev	.0009	.0009	.0037	.088	.0018	.0495	.0001	.0009	.20
%RSD	72.93	21.58	34.45	2.680	37.35	50.67	115.5	5.586	.2750
#1	-.0021	.0036	.0065	3.371	.0049	.1535	.0002	.0151	70.91
#2	-.0014	.0036	.0133	3.195	.0065	.0805	.0002	.0168	71.28
#3	-.0003	.0051	.0121	3.285	.0029	.0591	.0000	.0164	70.99

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0227**	**-.0026**	**.0008**	**.0094**	**.1088**	**-.0010**	**.0725**	**.0028**	**.0051**
Stddev	.0003	.0032	.0013	.0056	.0036	.0013	.0001	.0006	.0028
%RSD	1.188	119.4	161.6	59.62	3.310	137.4	.1058	21.97	54.74
#1	.0224	-.0003	.0016	.0109	.1104	-.0022	.0724	.0034	.0074
#2	.0229	-.0062	.0016	.0032	.1114	.0005	.0725	.0026	.0060
#3	.0229	-.0014	-.0007	.0141	.1047	-.0012	.0725	.0022	.0020

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**-.0001**
Stddev	.0016	.0006
%RSD	171.4	506.1
#1	-.0009	-.0003
#2	.0015	-.0006
#3	.0022	.0005

Zoom In Zoom Out

Sample Name: MP42418-SD1 Acquired: 6/22/2023 14:50:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**723.71**	**1776.2**	**21682.**	**5490.0**
Stddev	2.12	1.9	27.	44.5
%RSD	.29335	.10878	.12525	.81134
#1	725.05	1777.8	21713.	5533.1
#2	724.82	1776.8	21663.	5444.2
#3	721.26	1774.0	21669.	5492.7

Zoom In Zoom Out

Sample Name: MP42418-S1 Acquired: 6/22/2023 14:55:34 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1860**	**25.06**	**.1912**	F **.5267**	**.2098**	**.1987**	**196.2**	**.1883**	**.1895**
Stddev	.0012	.12	.0007	.0051	.0006	.0013	.6	.0005	.0002
%RSD	.6282	.4760	.3470	.9591	.2856	.6313	.2860	.2758	.1252
#1	.1862	25.05	.1909	.5312	.2095	.1974	195.5	.1889	.1896
#2	.1847	24.95	.1906	.5212	.2095	.1998	196.6	.1881	.1897
#3	.1870	25.19	.1919	.5276	.2105	.1989	196.3	.1880	.1892

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1912**	**.1965**	**43.88**	**50.48**	F **.5258**	**44.05**	**.1950**	**.7024**	F **139.5**
Stddev	.0018	.0022	.06	.20	.0038	.12	.0015	.0013	1.0
%RSD	.9301	1.109	.1406	.3915	.7280	.2729	.7913	.1914	.7445
#1	.1925	.1969	43.82	50.28	.5214	44.11	.1963	.7038	139.8
#2	.1892	.1941	43.88	50.49	.5284	43.92	.1933	.7025	140.4
#3	.1918	.1984	43.94	50.68	.5276	44.14	.1956	.7011	138.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2154**	**.1919**	**.1981**	**.1995**	**.4670**	**.4761**	**.5827**	**.5202**	**.1851**
Stddev	.0013	.0014	.0008	.0005	.0011	.0005	.0019	.0049	.0016
%RSD	.5823	.7244	.4099	.2702	.2269	.0977	.3328	.9449	.8719
#1	.2168	.1934	.1990	.1989	.4662	.4766	.5807	.5236	.1851
#2	.2149	.1907	.1979	.2000	.4682	.4758	.5845	.5146	.1868
#3	.2144	.1915	.1974	.1997	.4666	.4758	.5827	.5225	.1836

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1967**	**.1879**
Stddev	.0019	.0001
%RSD	.9622	.0637
#1	.1982	.1881
#2	.1946	.1878
#3	.1974	.1879

Zoom In Zoom Out

Sample Name: MP42418-S1 Acquired: 6/22/2023 14:55:34 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**610.44**	**1663.3**	**20508.**	**5485.1**
Stddev	1.00	4.6	136.	1.9
%RSD	.16380	.27890	.66138	.03481
#1	609.45	1658.0	20394.	5486.8
#2	611.45	1665.7	20658.	5485.5
#3	610.43	1666.3	20471.	5483.0

Zoom In Zoom Out

Sample Name: MP42418-S2 Acquired: 6/22/2023 15:00:40 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1929**	**24.90**	**.1935**	F **.5301**	**.2095**	**.1964**	**202.1**	**.1888**	**.1896**
Stddev	.0079	.06	.0016	.0055	.0009	.0007	1.2	.0006	.0005
%RSD	4.101	.2239	.8506	1.034	.4169	.3814	.6177	.3351	.2586
#1	.1876	24.84	.1942	.5344	.2099	.1972	201.0	.1893	.1898
#2	.2020	24.92	.1947	.5239	.2086	.1957	203.4	.1891	.1900
#3	.1892	24.95	.1916	.5320	.2102	.1964	201.9	.1881	.1891

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1992**	**.2054**	**43.45**	**50.53**	F **.5226**	**43.48**	**.1994**	**.7033**	F **145.3**
Stddev	.0089	.0090	.06	.14	.0037	.14	.0085	.0015	2.7
%RSD	4.474	4.367	.1468	.2691	.7155	.3114	4.265	.2136	1.856
#1	.1948	.1997	43.37	50.44	.5239	43.33	.1945	.7036	143.3
#2	.2094	.2158	43.46	50.47	.5184	43.59	.2092	.7046	148.3
#3	.1933	.2008	43.50	50.69	.5255	43.51	.1944	.7017	144.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2183**	**.1944**	**.1980**	**.1990**	**.4756**	**.4752**	**.5824**	**.5305**	**.1859**
Stddev	.0005	.0003	.0006	.0003	.0012	.0005	.0024	.0233	.0032
%RSD	.2461	.1795	.3042	.1387	.2536	.1048	.4187	4.386	1.699
#1	.2184	.1947	.1986	.1993	.4767	.4751	.5818	.5151	.1847
#2	.2188	.1944	.1976	.1989	.4758	.4758	.5802	.5572	.1894
#3	.2177	.1940	.1976	.1987	.4743	.4748	.5850	.5191	.1834

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2052**	**.1890**
Stddev	.0086	.0005
%RSD	4.210	.2694
#1	.2003	.1890
#2	.2152	.1895
#3	.2001	.1884

Zoom In Zoom Out

Sample Name: MP42418-S2 Acquired: 6/22/2023 15:00:40 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**602.24**	**1649.8**	**19959.**	**5490.7**
Stddev	2.36	2.3	707.	45.3
%RSD	.39168	.14028	3.5439	.82539
#1	601.51	1647.7	20386.	5529.2
#2	600.33	1649.5	19143.	5440.8
#3	604.88	1652.3	20349.	5502.3

Zoom In Zoom Out

Sample Name: MP42418-MB2 Acquired: 6/22/2023 15:05:47 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0028**	**-.0004**	**.0012**	**.0000**	**.0000**	**.0098**	**.0000**	**-.0001**
Stddev	.000	.0145	.0010	.0005	.000	.000	.0018	.000	.0000
%RSD	871.1	518.1	242.0	41.89	716.0	33.34	18.73	64.79	29.25
#1	.0002	.0076	.0002	.0017	-.0001	.0000	.0078	-.0001	-.0001
#2	.0000	.0143	.0001	.0012	.0002	.0000	.0113	.0000	-.0001
#3	-.0003	-.0135	-.0015	.0007	-.0001	.0000	.0104	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0004**	**.0039**	**.0209**	**.0005**	**.0057**	**.0001**	**.0002**	**.0177**
Stddev	.0002	.0002	.0003	.0157	.0004	.0043	.0000	.0002	.0045
%RSD	83.28	42.82	7.456	75.12	69.91	75.57	32.49	67.92	25.30
#1	-.0004	.0002	.0042	.0037	.0005	.0107	.0001	.0001	.0223
#2	-.0003	.0005	.0038	.0345	.0008	.0031	.0001	.0004	.0134
#3	.0000	.0004	.0037	.0243	.0001	.0034	.0001	.0002	.0174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0003**	**.0010**	**.0020**	**.0018**	**.0003**	**.0000**	**.0001**	**-.0013**
Stddev	.0001	.0011	.0003	.0011	.0003	.0001	.0000	.0000	.0004
%RSD	45.87	312.0	32.32	52.55	13.73	36.70	303.0	11.35	33.64
#1	-.0004	-.0002	.0007	.0012	.0017	.0003	.0000	.0001	-.0008
#2	-.0002	.0007	.0013	.0032	.0021	.0002	.0000	.0001	-.0016
#3	-.0004	-.0014	.0009	.0016	.0017	.0005	.0000	.0001	-.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP42418-MB2 Acquired: 6/22/2023 15:05:47 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0003**
Stddev	.0003	.0000
%RSD	411.8	17.54
#1	-.0002	.0003
#2	.0003	.0002
#3	-.0003	.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**763.13**	**1786.5**	**22388.**	**5461.1**
Stddev	.68	1.5	76.	39.9
%RSD	.08929	.08455	.33832	.73150
#1	762.49	1785.7	22353.	5461.3
#2	763.04	1785.4	22475.	5421.0
#3	763.85	1788.2	22336.	5500.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 15:10:55 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2510**	**40.02**	**1.980**	**1.949**	**2.008**	**1.988**	**40.14**	**1.999**	**1.989**
Stddev	.0001	.06	.002	.009	.003	.008	.05	.003	.003
%RSD	.0374	.1552	.1220	.4363	.1576	.4062	.1182	.1696	.1628
#1	.2511	39.96	1.982	1.947	2.009	1.997	40.14	2.001	1.991
#2	.2510	40.03	1.977	1.942	2.004	1.988	40.19	1.995	1.986
#3	.2509	40.08	1.981	1.959	2.010	1.980	40.10	2.001	1.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.011**	**1.998**	**40.03**	**39.91**	**1.988**	**39.98**	**1.994**	**2.009**	**40.14**
Stddev	.007	.003	.05	.06	.009	.09	.007	.003	.04
%RSD	.3618	.1304	.1212	.1428	.4454	.2166	.3423	.1576	.0912
#1	2.019	1.997	39.99	39.95	1.998	39.96	1.998	2.012	40.18
#2	2.008	1.996	40.08	39.84	1.982	40.07	1.997	2.006	40.11
#3	2.005	2.001	40.03	39.94	1.984	39.90	1.986	2.009	40.14
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.016**	**1.993**	**1.970**	**1.975**	**1.924**	**1.994**	**2.000**	**1.993**	**2.009**
Stddev	.004	.007	.005	.011	.006	.003	.007	.002	.006
%RSD	.2108	.3332	.2739	.5501	.3285	.1549	.3353	.0889	.3027
#1	2.020	1.986	1.964	1.986	1.931	1.994	2.007	1.992	2.003
#2	2.012	1.994	1.971	1.965	1.921	1.990	1.999	1.995	2.015
#3	2.014	1.999	1.974	1.975	1.920	1.996	1.994	1.993	2.009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 15:10:55 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.001**	**2.012**
Stddev	.005	.004
%RSD	.2388	.1954
#1	2.007	2.014
#2	1.998	2.007
#3	1.999	2.014
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**658.68**	**1724.3**	**21280.**	**5453.6**
Stddev	1.81	2.3	89.	8.9
%RSD	.27504	.13408	.41657	.16377
#1	660.64	1724.3	21198.	5463.6
#2	658.33	1726.6	21268.	5446.4
#3	657.07	1722.0	21374.	5450.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 15:15:38 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0021**	**.0003**	F **.0015**	**.0001**	**.0000**	**.0022**	**.0000**	**.0002**
Stddev	.0004	.0033	.0001	.0011	.0001	.0000	.0006	.0000	.0001
%RSD	143.0	156.4	29.22	76.72	173.2	64.53	25.91	126.4	52.25
#1	.0001	-.0016	.0002	.0020	.0000	.0000	.0016	.0000	.0002
#2	-.0007	.0030	.0003	.0002	.0000	.0001	.0023	.0000	.0002
#3	-.0003	.0049	.0004	.0022	.0002	.0000	.0027	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0048**	**.0047**	**.0009**	**.0073**	**.0001**	**.0003**	**.0172**
Stddev	.0001	.0001	.0010	.0093	.0003	.0061	.0000	.0002	.0096
%RSD	248.6	879.6	20.75	197.3	38.80	83.20	16.23	66.46	55.59
#1	.0001	-.0001	.0040	-.0058	.0006	.0126	.0001	.0005	.0148
#2	-.0001	.0000	.0045	.0120	.0012	.0006	.0001	.0003	.0278
#3	.0001	.0001	.0060	.0079	.0007	.0087	.0001	.0001	.0091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0002**	**.0013**	**.0005**	**-.0002**	**.0001**	**.0000**	**.0010**
Stddev	.0001	.0010	.0004	.0017	.0001	.0001	.0000	.0001	.0014
%RSD	116.8	1022.	203.0	132.1	26.86	58.02	31.99	315.1	140.4
#1	-.0002	-.0008	.0002	.0028	.0003	-.0002	.0001	.0000	.0005
#2	.0000	-.0005	.0007	-.0006	.0006	-.0001	.0001	-.0001	.0025
#3	-.0002	.0011	-.0002	.0017	.0006	-.0003	.0002	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 15:15:38 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0002**	**.0001**
Stddev	.0002	.0001
%RSD	70.97	89.76
#1	.0004	.0000
#2	.0002	.0001
#3	.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**779.54**	**1821.8**	**22514.**	**5482.0**
Stddev	1.63	3.2	58.	52.4
%RSD	.20873	.17642	.25960	.95634
#1	780.43	1823.6	22446.	5540.6
#2	780.52	1823.7	22544.	5466.0
#3	777.66	1818.1	22551.	5439.4

Zoom In Zoom Out

Sample Name: MP42418-B2 Acquired: 6/22/2023 15:20:44 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1870**	**24.70**	**.1879**	**.4737**	**.1936**	**.1918**	**44.42**	**.1919**	**.1938**
Stddev	.0005	.10	.0006	.0042	.0002	.0002	.13	.0004	.0003
%RSD	.2642	.4231	.3002	.8929	.0821	.1094	.2960	.2148	.1528
#1	.1874	24.81	.1877	.4745	.1938	.1917	44.42	.1914	.1939
#2	.1871	24.69	.1874	.4691	.1936	.1921	44.55	.1921	.1935
#3	.1864	24.61	.1885	.4775	.1935	.1917	44.29	.1922	.1941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2016**	**.2050**	**43.87**	**44.29**	**.4965**	**43.48**	**.1948**	**.6884**	**41.29**
Stddev	.0012	.0007	.14	.12	.0013	.33	.0006	.0014	.13
%RSD	.5909	.3255	.3280	.2818	.2555	.7585	.3141	.2035	.3081
#1	.2030	.2057	43.98	44.41	.4955	43.84	.1951	.6871	41.39
#2	.2007	.2045	43.91	44.28	.4960	43.41	.1941	.6881	41.33
#3	.2013	.2048	43.71	44.16	.4979	43.19	.1952	.6899	41.14
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1977**	**.1889**	**.1920**	**.1959**	**.3230**	**.4812**	**.4930**	**.5049**	**.1873**
Stddev	.0008	.0013	.0012	.0022	.0009	.0009	.0019	.0001	.0010
%RSD	.3911	.6731	.6314	1.145	.2634	.1852	.3795	.0250	.5290
#1	.1975	.1875	.1925	.1980	.3238	.4803	.4910	.5048	.1862
#2	.1970	.1900	.1928	.1961	.3230	.4811	.4934	.5050	.1877
#3	.1985	.1893	.1906	.1936	.3221	.4821	.4947	.5048	.1881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP42418-B2 Acquired: 6/22/2023 15:20:44 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2020**	**.1949**
Stddev	.0002	.0007
%RSD	.1132	.3567
#1	.2022	.1941
#2	.2018	.1951
#3	.2019	.1954
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**662.45**	**1695.8**	**21105.**	**5501.7**
Stddev	2.02	.5	30.	48.0
%RSD	.30545	.02920	.14424	.87219
#1	664.64	1696.3	21074.	5475.7
#2	660.64	1695.3	21135.	5472.3
#3	662.08	1695.8	21106.	5557.0

Zoom In Zoom Out

Sample Name: MP42417-MB1 Acquired: 6/22/2023 15:25:34 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0112**	**-.0002**	**-.0004**	**.0000**	**.0000**	**.0215**	**.0000**	**-.0001**
Stddev	.0001	.0084	.0002	.0003	.000	.0000	.0008	.000	.0001
%RSD	92.92	75.48	116.9	93.73	92.00	214.8	3.755	65.18	61.80
#1	-.0002	.0018	-.0005	-.0007	.0000	.0000	.0206	-.0001	-.0002
#2	-.0001	.0181	.0000	-.0001	.0000	.0000	.0222	.0000	-.0001
#3	.0000	.0137	-.0001	-.0003	.0000	.0000	.0218	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0000**	**.0143**	**.0332**	**.0001**	**.0086**	**.0003**	**.0002**	**.0109**
Stddev	.0001	.0002	.0007	.0205	.0005	.0034	.0000	.0001	.0033
%RSD	28.24	19310.	4.749	61.87	458.0	39.57	2.130	51.86	30.24
#1	.0001	.0001	.0135	.0401	.0005	.0050	.0003	.0003	.0081
#2	.0002	-.0002	.0144	.0101	-.0004	.0091	.0003	.0002	.0146
#3	.0002	.0001	.0149	.0494	.0002	.0118	.0003	.0001	.0101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0002**	**.0014**	**.0022**	**.0046**	F **.0268**	**.0000**	**.0007**	**-.0008**
Stddev	.0002	.0007	.0007	.0019	.0007	.0004	.0001	.0000	.0008
%RSD	134.0	438.6	46.39	84.91	14.41	1.341	166.2	4.331	98.54
#1	.0001	.0006	.0022	.0022	.0043	.0272	.0000	.0007	-.0016
#2	-.0002	-.0008	.0011	.0040	.0054	.0265	.0001	.0008	-.0010
#3	-.0004	-.0003	.0010	.0003	.0042	.0268	.0000	.0008	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit						.0250			
Low Limit						-.0250			

Zoom In Zoom Out

Sample Name: MP42417-MB1 Acquired: 6/22/2023 15:25:34 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0016**
Stddev	.0004	.0001
%RSD	743.4	7.653
#1	.0003	.0017
#2	.0002	.0016
#3	-.0004	.0015
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**782.79**	**1806.1**	**22701.**	**5590.5**
Stddev	4.08	6.9	95.	43.6
%RSD	.52118	.38278	.41783	.78022
#1	778.10	1799.5	22786.	5541.4
#2	785.53	1813.3	22599.	5624.9
#3	784.75	1805.6	22719.	5605.1

Zoom In Zoom Out

Sample Name: MP42417-B1 Acquired: 6/22/2023 15:30:40 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1822**	**24.14**	**.1800**	**.4525**	**.1903**	**.1891**	**43.90**	**.1876**	**.1893**
Stddev	.0002	.08	.0007	.0031	.0004	.0015	.26	.0003	.0004
%RSD	.1320	.3454	.3634	.6830	.2315	.7985	.5949	.1373	.2251
#1	.1825	24.23	.1807	.4517	.1907	.1907	44.14	.1879	.1888
#2	.1822	24.06	.1797	.4499	.1898	.1886	43.94	.1874	.1897
#3	.1820	24.13	.1795	.4559	.1902	.1878	43.63	.1876	.1895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1954**	**.1998**	**43.11**	**43.38**	**.4939**	**42.81**	**.1907**	**.6793**	**40.30**
Stddev	.0013	.0017	.20	.17	.0023	.23	.0002	.0016	.17
%RSD	.6475	.8453	.4584	.3993	.4604	.5484	.1033	.2352	.4296
#1	.1944	.1988	43.34	43.56	.4959	43.08	.1905	.6774	40.49
#2	.1950	.1988	43.03	43.37	.4943	42.64	.1908	.6801	40.16
#3	.1969	.2017	42.97	43.21	.4914	42.70	.1909	.6802	40.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1934**	**.1851**	**.1874**	**.1856**	**.3194**	**.4992**	**.4934**	**.4990**	**.1834**
Stddev	.0003	.0003	.0013	.0005	.0017	.0004	.0022	.0003	.0012
%RSD	.1697	.1554	.6759	.2920	.5454	.0796	.4396	.0585	.6589
#1	.1932	.1853	.1859	.1850	.3174	.4996	.4957	.4994	.1848
#2	.1932	.1853	.1881	.1861	.3201	.4991	.4932	.4988	.1830
#3	.1938	.1848	.1881	.1857	.3206	.4988	.4913	.4990	.1825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP42417-B1 Acquired: 6/22/2023 15:30:40 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1981**	**.1919**
Stddev	.0007	.0002
%RSD	.3399	.1283
#1	.1975	.1919
#2	.1982	.1917
#3	.1988	.1922
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**664.33**	**1708.0**	**21231.**	**5417.8**
Stddev	1.42	1.5	49.	48.4
%RSD	.21385	.08570	.23201	.89243
#1	662.70	1706.7	21255.	5371.9
#2	665.05	1709.6	21264.	5413.2
#3	665.25	1707.8	21175.	5468.3

Zoom In Zoom Out

Sample Name: FC6447-2R Acquired: 6/22/2023 15:35:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**71.54**	**.0096**	**.0063**	**.2813**	**.0026**	**223.9**	**.0003**	**.0066**
Stddev	.0003	.06	.0013	.0013	.0005	.0000	1.3	.0001	.0000
%RSD	64.16	.0837	13.25	21.43	.1618	1.364	.5870	35.35	.1610
#1	.0004	71.59	.0081	.0060	.2812	.0026	225.3	.0002	.0066
#2	.0009	71.55	.0105	.0077	.2809	.0026	222.7	.0004	.0065
#3	.0003	71.48	.0101	.0051	.2818	.0026	223.8	.0003	.0066

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0933**	**.0251**	**14.06**	**1.402**	**.0346**	**4.096**	**.0722**	**.0037**	**.5520**
Stddev	.0003	.0002	.03	.011	.0002	.033	.0001	.0000	.0027
%RSD	.3233	.7467	.2067	.8130	.4905	.8142	.1921	.9778	.4835
#1	.0929	.0249	14.07	1.409	.0347	4.132	.0721	.0037	.5517
#2	.0935	.0251	14.08	1.409	.0344	4.090	.0723	.0036	.5495
#3	.0933	.0252	14.02	1.389	.0346	4.066	.0723	.0036	.5548

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0298**	**.0724**	**-.0012**	**.0078**	**5.524**	**.0227**	**.4534**	**.6320**	**-.0016**
Stddev	.0004	.0022	.0017	.0004	.087	.0008	.0006	.0018	.0018
%RSD	1.321	3.057	141.1	4.848	1.573	3.647	.1347	.2794	115.6
#1	.0297	.0707	-.0003	.0074	5.484	.0218	.4528	.6307	-.0036
#2	.0302	.0749	-.0032	.0081	5.623	.0231	.4535	.6340	-.0005
#3	.0294	.0717	-.0002	.0080	5.464	.0233	.4540	.6314	-.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0948**	**.0167**
Stddev	.0003	.0004
%RSD	.3011	2.283
#1	.0949	.0163
#2	.0951	.0171
#3	.0945	.0167

Zoom In Zoom Out

Sample Name: FC6447-2R Acquired: 6/22/2023 15:35:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**639.38**	**1959.4**	**24316.**	**6471.2**
Stddev	11.92	25.3	41.	25.4
%RSD	1.8651	1.2890	.16847	.39328
#1	647.64	1975.7	24359.	6468.6
#2	625.71	1930.3	24312.	6447.2
#3	644.80	1972.1	24277.	6497.9

Zoom In Zoom Out

Sample Name: MP42417-D1 Acquired: 6/22/2023 15:40:35 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**81.19**	**.0080**	**.0045**	**.3076**	**.0027**	**173.9**	**.0002**	**.0051**
Stddev	.0003	.34	.0002	.0004	.0010	.0000	3.1	.0001	.0000
%RSD	80.62	.4134	2.744	9.322	.3323	1.175	1.789	38.62	.3760
#1	.0000	81.22	.0082	.0041	.3074	.0026	171.6	.0002	.0051
#2	.0006	81.51	.0080	.0045	.3088	.0027	177.5	.0001	.0051
#3	.0005	80.84	.0077	.0049	.3067	.0027	172.7	.0003	.0051

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0968**	**.0230**	**10.21**	**.7316**	**.0342**	**3.006**	**.0481**	**.0036**	**.4592**
Stddev	.0005	.0001	.07	.0017	.0008	.036	.0002	.0001	.0008
%RSD	.5174	.5775	.6407	.2367	2.256	1.195	.5030	2.616	.1680
#1	.0972	.0229	10.17	.7320	.0345	2.976	.0483	.0036	.4598
#2	.0969	.0231	10.29	.7297	.0348	3.046	.0482	.0036	.4595
#3	.0963	.0229	10.17	.7331	.0333	2.995	.0478	.0035	.4584

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0340**	**.0727**	**-.0009**	**.0098**	**5.347**	**.0225**	**.4291**	**.6251**	**-.0008**
Stddev	.0000	.0003	.0008	.0011	.015	.0003	.0025	.0058	.0004
%RSD	.1136	.3731	81.40	10.80	.2855	1.347	.5843	.9281	47.09
#1	.0340	.0727	-.0013	.0105	5.334	.0228	.4281	.6204	-.0011
#2	.0340	.0724	-.0001	.0086	5.344	.0222	.4320	.6316	-.0004
#3	.0340	.0729	-.0015	.0102	5.364	.0225	.4273	.6233	-.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0957**	**.0118**
Stddev	.0004	.0001
%RSD	.4408	.7360
#1	.0957	.0118
#2	.0961	.0119
#3	.0953	.0118

Zoom In Zoom Out

Sample Name: MP42417-D1 Acquired: 6/22/2023 15:40:35 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**659.21**	**2031.8**	**24851.**	**6541.5**
Stddev	1.07	4.7	44.	58.0
%RSD	.16231	.23005	.17885	.88632
#1	660.28	2035.7	24829.	6581.5
#2	659.19	2033.1	24823.	6475.0
#3	658.15	2026.6	24903.	6568.0

Zoom In Zoom Out

Sample Name: MP42417-SD1 Acquired: 6/22/2023 15:45:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**78.37**	**.0086**	**.0055**	**.3212**	**.0029**	**268.2**	**.0002**	**.0086**
Stddev	.0003	.19	.0011	.0042	.0013	.0002	1.9	.0002	.0005
%RSD	26.64	.2477	13.36	75.58	.3964	6.198	.7244	87.33	5.911
#1	.0008	78.60	.0083	.0048	.3227	.0029	270.4	.0002	.0090
#2	.0013	78.27	.0099	.0100	.3208	.0031	267.7	.0001	.0088
#3	.0013	78.25	.0076	.0018	.3202	.0027	266.6	.0004	.0080

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1104**	**.0294**	**16.64**	**1.471**	**.0332**	**4.992**	**.0846**	**.0037**	**.5828**
Stddev	.0014	.0010	.12	.117	.0026	.111	.0002	.0003	.0237
%RSD	1.246	3.348	.7076	7.984	7.827	2.217	.2072	9.165	4.068
#1	.1111	.0285	16.76	1.567	.0303	5.115	.0848	.0039	.5727
#2	.1088	.0293	16.61	1.340	.0341	4.901	.0845	.0039	.6098
#3	.1113	.0305	16.53	1.505	.0353	4.959	.0845	.0033	.5658

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0348**	**.0690**	**-.0029**	**.0118**	**6.297**	**.0265**	**.5228**	**.7192**	**-.0005**
Stddev	.0003	.0026	.0079	.0012	.025	.0004	.0021	.0090	.0041
%RSD	.8131	3.796	268.2	10.08	.4043	1.606	.3960	1.245	798.3
#1	.0351	.0704	.0037	.0112	6.325	.0260	.5249	.7195	.0040
#2	.0349	.0660	-.0009	.0110	6.291	.0268	.5229	.7102	-.0018
#3	.0345	.0706	-.0117	.0131	6.275	.0267	.5208	.7281	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1094**	**.0204**
Stddev	.0029	.0005
%RSD	2.689	2.373
#1	.1086	.0210
#2	.1070	.0201
#3	.1127	.0201

Zoom In Zoom Out

Sample Name: MP42417-SD1 Acquired: 6/22/2023 15:45:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**732.77**	**1868.0**	**23051.**	**5759.4**
Stddev	2.29	2.3	43.	57.5
%RSD	.31237	.12412	.18647	.99909
#1	735.40	1870.3	23049.	5695.3
#2	731.66	1865.7	23008.	5776.5
#3	731.26	1867.9	23094.	5806.5

Zoom In Zoom Out

Sample Name: MP42417-PS1 Acquired: 6/22/2023 15:50:45 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0408**	**72.34**	**.0902**	**.0888**	**.4793**	**.0429**	**225.5**	**.0397**	**.0461**
Stddev	.0004	.19	.0004	.0014	.0004	.0002	1.1	.0002	.0003
%RSD	.9056	.2584	.4828	1.579	.0807	.5295	.4819	.6045	.6435
#1	.0406	72.46	.0903	.0904	.4796	.0429	224.9	.0394	.0459
#2	.0406	72.44	.0898	.0880	.4793	.0427	224.8	.0399	.0460
#3	.0412	72.13	.0906	.0880	.4788	.0431	226.7	.0397	.0464

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1327**	**.1112**	**16.21**	**9.646**	**.1183**	**8.184**	**.1112**	**.0841**	**8.166**
Stddev	.0006	.0003	.05	.026	.0000	.029	.0004	.0002	.006
%RSD	.4666	.2763	.3345	.2740	.0365	.3605	.3736	.2721	.0781
#1	.1329	.1108	16.26	9.670	.1182	8.217	.1110	.0838	8.172
#2	.1320	.1114	16.15	9.618	.1182	8.159	.1109	.0840	8.159
#3	.1332	.1113	16.21	9.649	.1183	8.177	.1116	.0843	8.167

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1094**	**.1162**	**.0819**	**.0893**	**5.454**	**.0617**	**.4823**	**.7097**	**.0909**
Stddev	.0006	.0008	.0003	.0006	.024	.0007	.0025	.0022	.0009
%RSD	.5388	.7074	.3392	.6659	.4316	1.096	.5261	.3049	1.029
#1	.1088	.1152	.0822	.0899	5.476	.0610	.4832	.7120	.0899
#2	.1100	.1164	.0819	.0887	5.456	.0623	.4794	.7077	.0911
#3	.1095	.1168	.0816	.0893	5.429	.0619	.4842	.7094	.0917

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1345**	**.2145**
Stddev	.0005	.0008
%RSD	.3873	.3731
#1	.1349	.2138
#2	.1347	.2144
#3	.1339	.2153

Zoom In Zoom Out

Sample Name: MP42417-PS1 Acquired: 6/22/2023 15:50:45 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**640.46**	**1975.2**	**24191.**	**6413.8**
Stddev	1.38	2.0	57.	50.2
%RSD	.21604	.10354	.23453	.78341
#1	642.05	1977.0	24220.	6394.2
#2	639.84	1975.5	24227.	6470.9
#3	639.50	1973.0	24125.	6376.3

Zoom In Zoom Out

Sample Name: MP42417-S1 Acquired: 6/22/2023 15:55:46 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1465**	**156.5**	**.1443**	**.3303**	**.5862**	**.1478**	**142.7**	**.1397**	**.1468**
Stddev	.0007	.1	.0016	.0024	.0004	.0002	.7	.0000	.0001
%RSD	.4456	.0539	1.084	.7410	.0659	.1163	.4559	.0136	.0786
#1	.1470	156.4	.1428	.3316	.5864	.1476	142.7	.1397	.1468
#2	.1466	156.6	.1459	.3275	.5863	.1480	142.1	.1397	.1466
#3	.1458	156.4	.1442	.3319	.5857	.1479	143.4	.1397	.1468

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3074**	**.1838**	**47.79**	**34.88**	**.4399**	**35.72**	**.1881**	**.4794**	**31.90**
Stddev	.0016	.0009	.06	.05	.0012	.14	.0009	.0007	.02
%RSD	.5053	.5054	.1331	.1364	.2828	.3931	.4909	.1535	.0480
#1	.3078	.1839	47.72	34.94	.4413	35.56	.1889	.4796	31.91
#2	.3056	.1847	47.85	34.87	.4388	35.80	.1871	.4786	31.91
#3	.3086	.1828	47.78	34.85	.4396	35.81	.1883	.4800	31.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1888**	**.3292**	**.0398**	**.1642**	**5.684**	**.3557**	**.8610**	**.8939**	**.1803**
Stddev	.0007	.0012	.0003	.0038	.008	.0002	.0019	.0080	.0014
%RSD	.3886	.3528	.8207	2.288	.1387	.0529	.2209	.8898	.7814
#1	.1896	.3301	.0395	.1605	5.688	.3556	.8630	.8960	.1816
#2	.1883	.3279	.0400	.1680	5.675	.3559	.8607	.8851	.1804
#3	.1884	.3297	.0401	.1639	5.690	.3556	.8593	.9007	.1788

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2999**	**.1463**
Stddev	.0015	.0005
%RSD	.4985	.3353
#1	.3014	.1468
#2	.2985	.1458
#3	.2997	.1463

Zoom In Zoom Out

Sample Name: MP42417-S1 Acquired: 6/22/2023 15:55:46 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**626.20**	**2223.0**	**26983.**	**7252.7**
Stddev	1.78	4.0	82.	21.7
%RSD	.28381	.18147	.30441	.29894
#1	625.27	2218.9	26903.	7265.3
#2	628.25	2227.0	27067.	7227.6
#3	625.07	2223.0	26979.	7265.1

Zoom In Zoom Out

Sample Name: MP42417-S2 Acquired: 6/22/2023 16:00:42 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1558**	**168.5**	**.1540**	**.3367**	**.6764**	**.1547**	**258.2**	**.1465**	**.1578**
Stddev	.0006	1.0	.0017	.0038	.0016	.0007	1.0	.0001	.0002
%RSD	.4121	.5783	1.112	1.142	.2345	.4483	.3875	.0516	.1179
#1	.1553	167.4	.1553	.3377	.6751	.1555	257.3	.1465	.1580
#2	.1565	169.2	.1548	.3399	.6782	.1546	258.0	.1464	.1576
#3	.1555	169.0	.1521	.3324	.6759	.1541	259.3	.1466	.1578

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2957**	**.2146**	**54.56**	**37.14**	**.4749**	**38.83**	**.2067**	**.5009**	**34.26**
Stddev	.0011	.0013	.14	.08	.0014	.20	.0006	.0005	.09
%RSD	.3738	.5958	.2527	.2203	.2910	.5103	.2718	.0974	.2703
#1	.2954	.2136	54.42	37.05	.4765	38.67	.2071	.5015	34.15
#2	.2948	.2160	54.69	37.16	.4741	39.05	.2060	.5007	34.31
#3	.2969	.2140	54.56	37.21	.4741	38.77	.2069	.5006	34.32

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2085**	**.3004**	**.0429**	**.1596**	**6.259**	**.3744**	**1.110**	**.6735**	**.1767**
Stddev	.0001	.0010	.0006	.0005	.022	.0015	.003	.0026	.0014
%RSD	.0577	.3229	1.346	.2904	.3448	.4060	.2892	.3787	.7798
#1	.2086	.3015	.0435	.1601	6.279	.3756	1.113	.6744	.1778
#2	.2084	.2997	.0425	.1592	6.262	.3727	1.106	.6706	.1771
#3	.2086	.3001	.0427	.1595	6.236	.3748	1.109	.6754	.1751

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2937**	**.1718**
Stddev	.0015	.0005
%RSD	.5079	.3130
#1	.2923	.1715
#2	.2934	.1715
#3	.2953	.1724

Zoom In Zoom Out

Sample Name: MP42417-S2 Acquired: 6/22/2023 16:00:42 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**608.79**	**2055.2**	**25168.**	**6791.9**
Stddev	1.19	.8	40.	8.5
%RSD	.19540	.03759	.16056	.12522
#1	608.39	2054.3	25176.	6790.1
#2	607.86	2055.8	25203.	6801.1
#3	610.13	2055.6	25124.	6784.4

Zoom In Zoom Out

Sample Name: FC6921-5 Acquired: 6/22/2023 16:05:39 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**86.16**	**.0168**	**-.0065**	**.0824**	**.0005**	**4.167**	**-.0009**	**.0008**
Stddev	.0003	.29	.0007	.0004	.0002	.0000	.005	.0001	.0002
%RSD	9.673	.3310	4.370	6.214	.2197	2.271	.1247	9.310	22.28
#1	.0040	85.90	.0160	-.0066	.0824	.0005	4.170	-.0009	.0009
#2	.0035	86.47	.0174	-.0069	.0826	.0005	4.169	-.0009	.0009
#3	.0033	86.11	.0169	-.0061	.0822	.0005	4.161	-.0008	.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1065**	**.0194**	**69.01**	**.5794**	**.0229**	**1.207**	**.1382**	**.0060**	**.1065**
Stddev	.0006	.0001	.22	.0135	.0005	.022	.0004	.0001	.0014
%RSD	.5240	.5472	.3195	2.326	2.257	1.787	.3119	2.339	1.301
#1	.1068	.0195	69.00	.5799	.0224	1.184	.1377	.0059	.1078
#2	.1068	.0193	69.24	.5657	.0228	1.227	.1384	.0059	.1066
#3	.1059	.0195	68.80	.5926	.0234	1.210	.1385	.0062	.1051

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	**.0464**	**-.0017**	**.0013**	**4.562**	**.0256**	**.1586**	**1.356**	**-.0002**
Stddev	.0002	.0001	.0001	.0010	.026	.0001	.0007	.002	.0013
%RSD	1.391	.1967	7.105	79.35	.5763	.2247	.4250	.1398	773.4
#1	.0163	.0465	-.0018	.0002	4.591	.0257	.1594	1.357	.0001
#2	.0160	.0463	-.0015	.0014	4.540	.0256	.1582	1.358	.0009
#3	.0164	.0463	-.0017	.0023	4.555	.0256	.1582	1.354	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1292**	**.0387**
Stddev	.0004	.0001
%RSD	.2970	.2293
#1	.1289	.0388
#2	.1296	.0386
#3	.1291	.0386

Zoom In Zoom Out

Sample Name: FC6921-5 Acquired: 6/22/2023 16:05:39 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**730.61**	**1920.2**	**23640.**	**6011.5**
Stddev	.77	5.4	98.	27.6
%RSD	.10512	.28010	.41460	.45884
#1	729.98	1917.1	23751.	6004.8
#2	731.46	1926.4	23567.	5987.8
#3	730.38	1917.0	23601.	6041.8

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 16:10:38 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2544**	**40.71**	**1.972**	**1.954**	**2.000**	**1.908**	**39.79**	**1.990**	**1.980**
Stddev	.0004	.07	.001	.017	.005	.004	.17	.004	.005
%RSD	.1460	.1608	.0572	.8898	.2390	.1961	.4315	.2022	.2589
#1	.2546	40.75	1.970	1.946	1.995	1.906	39.85	1.994	1.986
#2	.2540	40.63	1.972	1.974	2.001	1.907	39.59	1.986	1.977
#3	.2547	40.75	1.972	1.942	2.004	1.913	39.92	1.990	1.976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.043**	**2.056**	**39.48**	**40.08**	**1.966**	**39.35**	**1.939**	**2.014**	**39.79**
Stddev	.004	.005	.07	.13	.009	.12	.002	.003	.08
%RSD	.1851	.2524	.1786	.3145	.4534	.2942	.0769	.1693	.2051
#1	2.044	2.060	39.50	39.99	1.956	39.39	1.939	2.018	39.73
#2	2.047	2.058	39.41	40.02	1.970	39.22	1.940	2.011	39.77
#3	2.039	2.050	39.54	40.22	1.972	39.44	1.937	2.013	39.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.045**	**1.986**	**1.961**	**1.966**	**1.959**	**1.978**	**1.969**	**1.970**	**1.997**
Stddev	.002	.002	.009	.003	.003	.006	.005	.001	.010
%RSD	.0956	.1064	.4653	.1632	.1539	.2918	.2663	.0733	.4972
#1	2.047	1.988	1.969	1.970	1.962	1.984	1.965	1.969	2.007
#2	2.045	1.985	1.963	1.965	1.960	1.974	1.967	1.969	1.995
#3	2.043	1.984	1.951	1.963	1.956	1.976	1.975	1.971	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 16:10:38 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.066**	**2.024**
Stddev	.004	.003
%RSD	.1976	.1521
#1	2.069	2.026
#2	2.068	2.021
#3	2.061	2.026
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**672.82**	**1754.4**	**21764.**	**5553.7**
Stddev	1.31	2.9	41.	57.7
%RSD	.19520	.16446	.18813	1.0398
#1	671.58	1752.2	21766.	5530.4
#2	674.19	1757.7	21721.	5619.5
#3	672.70	1753.3	21803.	5511.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 16:15:21 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0064**	**.0007**	F **.0019**	**.0000**	**.0000**	**.0001**	**.0000**
Stddev	.0002	.0059	.0011	.0010	.000	.0000	.0017	.0000
%RSD	316.3	91.98	162.1	55.61	287.6	102.2	1925.	121.2
#1	.0000	.0014	-.0003	.0030	.0001	.0001	.0020	.0000
#2	.0001	.0049	.0005	.0018	-.0001	.0000	-.0003	.0001
#3	-.0003	.0128	.0018	.0009	-.0001	.0000	-.0014	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**-.0001**	**.0045**	**-.0152**	**.0006**	**.0130**	**.0001**
Stddev	.0001	.0003	.0003	.0013	.0066	.0004	.0007	.0000
%RSD	83.36	2030.	223.0	29.02	43.49	65.05	5.216	12.43
#1	.0002	.0000	-.0003	.0059	-.0105	.0010	.0130	.0001
#2	.0000	-.0003	-.0004	.0034	-.0123	.0006	.0137	.0001
#3	.0002	.0004	.0002	.0041	-.0227	.0002	.0123	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0073**	**-.0003**	F **-.0011**	**.0010**	**-.0003**	**.0013**	**.0001**
Stddev	.0001	.0028	.0001	.0002	.0005	.0016	.0002	.0004
%RSD	41.77	37.84	50.04	14.51	50.30	497.4	13.98	525.3
#1	.0002	.0061	-.0005	-.0012	.0016	-.0022	.0014	-.0002
#2	.0002	.0105	-.0003	-.0009	.0006	.0005	.0011	-.0001
#3	.0001	.0053	-.0002	-.0011	.0009	.0007	.0014	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 16:15:21 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0006**	**.0001**	**.0001**
Stddev	.0001	.0000	.0008	.0002	.0001
%RSD	74.41	2.895	133.8	283.9	112.6
#1	.0001	.0001	.0014	.0001	.0001
#2	.0001	.0001	-.0002	-.0001	.0000
#3	.0000	.0001	.0006	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**789.78**	**1837.9**	**22710.**	**5549.3**
Stddev	2.19	8.8	29.	77.1
%RSD	.27671	.47718	.12732	1.3890
#1	788.85	1833.9	22741.	5622.5
#2	788.21	1831.9	22706.	5468.9
#3	792.28	1848.0	22684.	5556.6

Zoom In Zoom Out

Sample Name: FC6921-6 Acquired: 6/22/2023 16:20:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**96.00**	**.0184**	**-.0055**	**.0802**	**.0008**	**4.292**	**-.0009**	**.0015**
Stddev	.0003	.31	.0014	.0003	.0002	.0000	.024	.0000	.0000
%RSD	6.902	.3211	7.360	5.631	.3046	3.710	.5479	1.587	2.681
#1	.0037	95.74	.0193	-.0052	.0799	.0008	4.265	-.0009	.0015
#2	.0036	96.35	.0191	-.0055	.0804	.0007	4.305	-.0009	.0016
#3	.0041	95.92	.0169	-.0058	.0804	.0008	4.306	-.0009	.0016

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1117**	**.0200**	**73.65**	**.7019**	**.0316**	**1.742**	**.1892**	**.0073**	**.1269**
Stddev	.0004	.0004	.24	.0105	.0003	.018	.0001	.0001	.0020
%RSD	.3180	1.800	.3269	1.493	.8271	1.051	.0745	2.016	1.571
#1	.1114	.0200	73.37	.7097	.0313	1.721	.1894	.0073	.1246
#2	.1115	.0203	73.79	.6900	.0317	1.754	.1892	.0072	.1281
#3	.1121	.0196	73.77	.7059	.0318	1.751	.1891	.0075	.1279

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0273**	**.0446**	**.0005**	**.0030**	**4.711**	**.0257**	**.1264**	**1.419**	**.0006**
Stddev	.0001	.0004	.0005	.0007	.025	.0003	.0003	.003	.0011
%RSD	.4925	.9287	113.0	23.29	.5379	1.187	.2300	.1752	171.3
#1	.0271	.0444	.0001	.0025	4.737	.0255	.1261	1.421	.0001
#2	.0274	.0444	.0011	.0038	4.710	.0255	.1264	1.419	-.0001
#3	.0273	.0451	.0002	.0028	4.687	.0260	.1267	1.416	.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1477**	**.0477**
Stddev	.0010	.0004
%RSD	.6900	.7603
#1	.1467	.0474
#2	.1488	.0476
#3	.1476	.0481

Zoom In Zoom Out

Sample Name: FC6921-6 Acquired: 6/22/2023 16:20:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**726.54**	**1904.8**	**23290.**	**5926.8**
Stddev	1.44	3.2	35.	38.6
%RSD	.19818	.16827	.15086	.65089
#1	725.21	1901.2	23330.	5962.7
#2	728.07	1907.4	23271.	5931.8
#3	726.34	1905.7	23268.	5886.0

Zoom In Zoom Out

Sample Name: FC6921-7 Acquired: 6/22/2023 16:25:25 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**61.12**	**.0101**	**-.0033**	**.0956**	**.0005**	**5.771**	**-.0004**	**.0005**
Stddev	.0012	.36	.0010	.0021	.0005	.0000	.021	.0000	.0003
%RSD	74.39	.5916	9.460	62.13	.5422	8.194	.3641	5.628	51.56
#1	.0021	61.53	.0109	-.0033	.0962	.0005	5.795	-.0004	.0007
#2	.0002	60.93	.0091	-.0012	.0953	.0006	5.765	-.0005	.0002
#3	.0023	60.88	.0103	-.0053	.0952	.0005	5.754	-.0004	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0765**	**.0359**	**45.46**	**.3660**	**.0186**	**1.068**	**.1971**	**.0045**	**.0802**
Stddev	.0071	.0031	.13	.0141	.0008	.003	.0169	.0002	.0014
%RSD	9.224	8.753	.2754	3.844	4.563	.2623	8.583	4.820	1.777
#1	.0726	.0342	45.60	.3644	.0191	1.070	.1881	.0045	.0814
#2	.0847	.0395	45.39	.3807	.0189	1.070	.2166	.0043	.0786
#3	.0722	.0339	45.38	.3527	.0176	1.065	.1866	.0048	.0807

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0142**	**.0371**	**-.0002**	**.0025**	**4.318**	**.0246**	**.1005**	**1.451**	**-.0005**
Stddev	.0003	.0007	.0002	.0015	.020	.0006	.0003	.126	.0005
%RSD	1.855	1.930	105.8	60.62	.4669	2.334	.3279	8.660	93.49
#1	.0144	.0379	-.0002	.0038	4.341	.0248	.1002	1.389	-.0004
#2	.0143	.0368	-.0003	.0009	4.309	.0240	.1005	1.596	-.0001
#3	.0139	.0365	.0000	.0028	4.304	.0251	.1009	1.368	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0941**	**.0448**
Stddev	.0077	.0000
%RSD	8.178	.0963
#1	.0899	.0448
#2	.1030	.0449
#3	.0894	.0448

Zoom In Zoom Out

Sample Name: FC6921-7 Acquired: 6/22/2023 16:25:25 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**734.52**	**1898.7**	**22648.**	**5943.4**
Stddev	4.40	4.1	1699.	45.8
%RSD	.59968	.21489	7.5019	.77098
#1	734.39	1898.1	23478.	5891.2
#2	738.99	1903.0	20694.	5977.0
#3	730.18	1894.9	23773.	5962.0

Zoom In Zoom Out

Sample Name: FC6921-8 Acquired: 6/22/2023 16:30:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107**	**157.6**	**.0460**	F **-.0175**	**.0701**	**.0005**	**3.276**	**-.0017**
Stddev	.0004	.7	.0013	.0014	.0001	.0001	.011	.0001
%RSD	3.866	.4592	2.767	7.842	.2124	11.99	.3366	6.381
#1	.0111	157.3	.0461	-.0162	.0701	.0006	3.275	-.0018
#2	.0105	158.4	.0448	-.0190	.0702	.0005	3.266	-.0017
#3	.0104	157.0	.0473	-.0173	.0700	.0005	3.288	-.0016

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.4866**	**.0113**	**195.5**	**.7470**	**.0132**	**.6642**	**.0801**
Stddev	.0002	.0014	.0002	.2	.0190	.0005	.0083	.0001
%RSD	56.99	.2806	1.821	.0896	2.549	4.048	1.257	.1212
#1	-.0006	.4865	.0111	195.3	.7655	.0134	.6737	.0802
#2	-.0002	.4853	.0112	195.6	.7275	.0126	.6580	.0800
#3	-.0002	.4880	.0115	195.4	.7479	.0137	.6610	.0801

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0236**	**.0746**	**.0197**	**.0481**	**-.0050**	**.0098**	**3.429**	**.0305**
Stddev	.0003	.0024	.0002	.0008	.0013	.0017	.010	.0002
%RSD	1.127	3.185	.8498	1.710	25.47	17.70	.2896	.6546
#1	.0233	.0721	.0199	.0476	-.0048	.0100	3.437	.0305
#2	.0236	.0749	.0196	.0490	-.0064	.0114	3.432	.0307
#3	.0238	.0768	.0198	.0476	-.0038	.0080	3.418	.0303

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1206**	**1.425**	**-.0006**	**.5523**	**.0198**
Stddev	.0004	.000	.0005	.0028	.0001
%RSD	.3157	.0170	83.72	.5007	.5580
#1	.1207	1.425	-.0011	.5519	.0197
#2	.1202	1.425	-.0001	.5497	.0197
#3	.1209	1.425	-.0005	.5552	.0199

Zoom In Zoom Out

Sample Name: FC6921-8 Acquired: 6/22/2023 16:30:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**721.18**	**1857.8**	**22685.**	**5897.1**
Stddev	2.34	1.4	53.	27.2
%RSD	.32380	.07544	.23575	.46063
#1	721.52	1858.8	22635.	5922.8
#2	723.33	1858.4	22741.	5899.9
#3	718.69	1856.2	22678.	5868.6

Zoom In Zoom Out

Sample Name: FC6921-9 Acquired: 6/22/2023 16:35:23 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**117.7**	**.0292**	**-.0079**	**.1032**	**.0004**	**5.650**	**-.0016**	**-.0012**
Stddev	.0002	.3	.0012	.0014	.0001	.0000	.008	.0001	.0000
%RSD	2.525	.2564	4.160	17.28	.0841	.4196	.1379	7.570	1.077
#1	.0094	118.1	.0286	-.0078	.1031	.0004	5.641	-.0015	-.0012
#2	.0089	117.5	.0284	-.0066	.1032	.0004	5.653	-.0015	-.0012
#3	.0091	117.5	.0306	-.0094	.1031	.0004	5.655	-.0017	-.0012

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4450**	**.0187**	**200.6**	**1.581**	**.0077**	**1.247**	**.0457**	**.0109**	**.1134**
Stddev	.0020	.0005	.4	.013	.0002	.009	.0002	.0002	.0055
%RSD	.4458	2.561	.1777	.8195	2.551	.7174	.3523	1.988	4.887
#1	.4432	.0189	200.3	1.596	.0080	1.250	.0455	.0111	.1169
#2	.4471	.0181	200.5	1.574	.0076	1.237	.0458	.0109	.1162
#3	.4447	.0189	201.0	1.573	.0077	1.253	.0456	.0107	.1070

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0130**	**.0762**	**-.0040**	**.0120**	**4.758**	**.0325**	**.1100**	**1.038**	**.0000**
Stddev	.0003	.0008	.0011	.0008	.048	.0011	.0003	.005	.002
%RSD	2.033	1.073	26.26	7.045	1.018	3.453	.2427	.4567	29150.
#1	.0129	.0772	-.0028	.0130	4.789	.0316	.1097	1.033	.0017
#2	.0129	.0759	-.0048	.0118	4.784	.0337	.1103	1.043	-.0022
#3	.0133	.0756	-.0044	.0113	4.703	.0321	.1100	1.038	.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3506**	**.0782**
Stddev	.0008	.0004
%RSD	.2346	.4628
#1	.3501	.0786
#2	.3516	.0783
#3	.3503	.0778

Zoom In Zoom Out

Sample Name: FC6921-9 Acquired: 6/22/2023 16:35:23 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**721.29**	**1794.1**	**22174.**	**5744.8**
Stddev	4.43	12.0	137.	58.7
%RSD	.61381	.66652	.61829	1.0217
#1	717.66	1785.7	22310.	5790.7
#2	720.00	1788.9	22036.	5765.1
#3	726.22	1807.8	22175.	5678.7

Zoom In Zoom Out

Sample Name: FC6921-10 Acquired: 6/22/2023 16:40:20 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0085**	**93.37**	**.0224**	F **-.0140**	**.0410**	**.0002**	**3.057**	**-.0015**
Stddev	.0008	.54	.0004	.0007	.0001	.0000	.008	.0001
%RSD	9.139	.5782	1.897	5.254	.3150	16.46	.2525	9.590
#1	.0077	93.79	.0227	-.0132	.0409	.0003	3.051	-.0014
#2	.0092	92.76	.0219	-.0145	.0412	.0003	3.066	-.0016
#3	.0086	93.56	.0225	-.0143	.0410	.0002	3.054	-.0015

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**.3524**	**.0052**	**206.0**	**.9666**	**.0002**	**.8233**	**.0246**
Stddev	.0001	.0014	.0001	2.1	.0091	.0011	.0043	.0001
%RSD	7.804	.3948	1.272	1.015	.9439	451.4	.5256	.5853
#1	-.0020	.3513	.0051	203.7	.9609	.0012	.8186	.0245
#2	-.0017	.3539	.0052	207.8	.9619	-.0009	.8271	.0248
#3	-.0020	.3519	.0052	206.6	.9772	.0004	.8242	.0245

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070**	**.0473**	**.0055**	**.0562**	**-.0038**	**.0099**	**4.799**	**.0292**
Stddev	.0003	.0006	.0003	.0008	.0017	.0008	.008	.0005
%RSD	4.445	1.193	6.217	1.415	45.46	8.278	.1686	1.564
#1	.0067	.0471	.0054	.0555	-.0043	.0090	4.795	.0287
#2	.0072	.0469	.0052	.0571	-.0019	.0100	4.808	.0297
#3	.0072	.0479	.0058	.0561	-.0053	.0106	4.793	.0293

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0433**	**1.130**	**-.0002**	**.4963**	**.0142**
Stddev	.0002	.002	.0006	.0014	.0002
%RSD	.4762	.1574	296.4	.2861	1.096
#1	.0435	1.132	-.0006	.4947	.0143
#2	.0434	1.128	-.0004	.4973	.0140
#3	.0431	1.131	.0004	.4968	.0142

Zoom In Zoom Out

Sample Name: FC6921-10 Acquired: 6/22/2023 16:40:20 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**737.67**	**1831.6**	**22803.**	**5850.9**
Stddev	1.30	1.9	55.	18.6
%RSD	.17659	.10181	.24313	.31798
#1	736.90	1833.6	22817.	5865.2
#2	739.17	1831.2	22742.	5829.9
#3	736.94	1829.9	22850.	5857.7

Zoom In Zoom Out

Sample Name: FC6921-11 Acquired: 6/22/2023 16:45:27 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**26.23**	**.0024**	**-.0010**	**.0351**	**.0004**	**1.766**	**-.0001**	**.0004**
Stddev	.0003	.01	.0014	.0011	.0001	.0000	.002	.0000	.0002
%RSD	43.91	.0317	57.21	115.2	.2796	6.576	.0850	17.44	39.87
#1	.0004	26.22	.0020	.0001	.0349	.0004	1.765	-.0001	.0005
#2	.0009	26.23	.0039	-.0010	.0351	.0004	1.768	-.0001	.0002
#3	.0011	26.24	.0013	-.0021	.0351	.0003	1.767	-.0001	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0287**	**.0256**	**14.98**	**.4909**	**.0130**	**.7947**	**.0683**	**.0013**	**.0426**
Stddev	.0004	.0002	.01	.0086	.0004	.0212	.0002	.0001	.0049
%RSD	1.458	.7492	.0981	1.751	2.895	2.663	.2893	10.03	11.55
#1	.0292	.0255	14.98	.5003	.0132	.7708	.0684	.0012	.0478
#2	.0285	.0256	14.97	.4835	.0126	.8020	.0681	.0013	.0420
#3	.0284	.0259	15.00	.4889	.0133	.8112	.0684	.0015	.0380

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.0143**	**.0006**	**.0019**	**3.947**	**.0231**	**.0544**	**.8667**	**-.0004**
Stddev	.0000	.0005	.0004	.0011	.029	.0000	.0002	.0082	.0020
%RSD	.3777	3.436	70.25	59.39	.7408	.1852	.3390	.9445	438.1
#1	.0101	.0148	.0002	.0031	3.980	.0232	.0542	.8699	-.0001
#2	.0101	.0138	.0006	.0015	3.933	.0232	.0544	.8729	.0013
#3	.0101	.0143	.0011	.0010	3.927	.0231	.0546	.8574	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0291**	**.0470**
Stddev	.0003	.0000
%RSD	1.021	.0783
#1	.0295	.0470
#2	.0290	.0470
#3	.0289	.0470

Zoom In Zoom Out

Sample Name: FC6921-11 Acquired: 6/22/2023 16:45:27 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**774.92**	**1882.6**	**23664.**	**5892.7**
Stddev	3.21	5.9	47.	23.2
%RSD	.41482	.31451	.19720	.39338
#1	774.01	1881.2	23717.	5913.7
#2	778.49	1889.1	23631.	5896.4
#3	772.26	1877.5	23643.	5867.8

Zoom In Zoom Out

Sample Name: FC6921-12 Acquired: 6/22/2023 16:50:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290**	**366.2**	**.0502**	F **-.0565**	**.2202**	**.0028**	**13.60**	**-.0067**
Stddev	.0022	.6	.0020	.0045	.0009	.0000	.05	.0004
%RSD	7.474	.1562	4.080	7.986	.3861	1.582	.3654	5.609
#1	.0304	366.7	.0504	-.0604	.2212	.0028	13.62	-.0071
#2	.0265	366.4	.0481	-.0516	.2199	.0029	13.63	-.0067
#3	.0302	365.6	.0522	-.0577	.2196	.0029	13.54	-.0063

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0037**	**1.217**	**.0216**	**625.1**	**7.312**	**.0104**	**4.406**	**.1145**
Stddev	.0004	.003	.0003	.8	.026	.0022	.071	.0005
%RSD	10.02	.2305	1.376	.1217	.3593	21.21	1.621	.4341
#1	-.0041	1.216	.0218	625.4	7.337	.0113	4.384	.1142
#2	-.0037	1.220	.0213	625.6	7.315	.0079	4.486	.1151
#3	-.0034	1.215	.0218	624.2	7.284	.0121	4.348	.1142

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0165**	**.2723**	**.0199**	**.1662**	**-.0110**	**.0357**	**5.807**	**.0630**
Stddev	.0014	.0390	.0025	.0064	.0076	.0077	.009	.0030
%RSD	8.563	14.31	12.46	3.880	69.19	21.60	.1500	4.766
#1	.0177	.2300	.0194	.1720	-.0060	.0398	5.805	.0600
#2	.0150	.3067	.0225	.1593	-.0072	.0268	5.816	.0631
#3	.0170	.2802	.0177	.1674	-.0198	.0405	5.799	.0660

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.2771**	**1.680**	**.0067**	**1.656**	**.0357**
Stddev	.0005	.006	.0048	.005	.0002
%RSD	.1742	.3628	71.06	.3090	.6544
#1	.2776	1.681	.0045	1.660	.0359
#2	.2766	1.685	.0034	1.659	.0358
#3	.2771	1.673	.0122	1.650	.0355

Zoom In Zoom Out

Sample Name: FC6921-12 Acquired: 6/22/2023 16:50:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**749.48**	**1850.9**	**22854.**	**5794.4**
Stddev	2.25	3.8	106.	10.4
%RSD	.30081	.20764	.46225	.18032
#1	748.26	1855.1	22930.	5802.4
#2	752.08	1850.2	22733.	5782.6
#3	748.09	1847.5	22899.	5798.2

Zoom In Zoom Out

Sample Name: FC6921-13 Acquired: 6/22/2023 16:55:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**21.25**	**.0035**	**-.0016**	**.0492**	**.0004**	**15.58**	**.0003**	**.0001**
Stddev	.0004	.07	.0001	.0004	.0001	.0000	.04	.0000	.0001
%RSD	73.41	.3530	2.015	26.42	.1539	5.045	.2385	19.46	97.46
#1	.0005	21.34	.0036	-.0021	.0493	.0004	15.54	.0002	.0000
#2	.0009	21.19	.0034	-.0013	.0492	.0004	15.61	.0003	.0000
#3	.0001	21.22	.0035	-.0015	.0492	.0004	15.59	.0002	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0384**	**.0905**	**9.908**	**.1983**	**.0060**	**.3538**	**.0650**	**.0015**	**.0330**
Stddev	.0004	.0002	.012	.0090	.0004	.0147	.0000	.0000	.0039
%RSD	1.133	.2715	.1186	4.515	7.227	4.148	.0663	3.063	11.93
#1	.0380	.0906	9.896	.1958	.0057	.3696	.0650	.0015	.0323
#2	.0384	.0902	9.910	.2082	.0058	.3514	.0649	.0016	.0294
#3	.0389	.0905	9.919	.1909	.0065	.3405	.0650	.0015	.0372

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**.0389**	**.0005**	**.0042**	**2.500**	**.0214**	**.0755**	**.8491**	**-.0015**
Stddev	.0002	.0009	.0007	.0006	.006	.0001	.0001	.0045	.0011
%RSD	2.924	2.342	142.5	13.48	.2583	.6339	.1372	.5322	70.39
#1	.0077	.0384	.0002	.0037	2.500	.0213	.0756	.8529	-.0007
#2	.0078	.0400	.0013	.0040	2.507	.0215	.0755	.8502	-.0011
#3	.0074	.0384	.0000	.0048	2.494	.0215	.0754	.8441	-.0027

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0319**	**.0500**
Stddev	.0005	.0002
%RSD	1.667	.3627
#1	.0314	.0502
#2	.0325	.0499
#3	.0317	.0500

Zoom In Zoom Out

Sample Name: FC6921-13 Acquired: 6/22/2023 16:55:28 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**764.50**	**1882.1**	**23781.**	**5910.8**
Stddev	1.60	2.4	35.	52.0
%RSD	.20964	.12616	.14678	.87932
#1	765.14	1884.3	23795.	5970.2
#2	762.68	1882.4	23741.	5873.4
#3	765.69	1879.6	23807.	5888.9

Zoom In Zoom Out

Sample Name: FC6921-14 Acquired: 6/22/2023 17:00:27 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**40.36**	**.0940**	**.0027**	**.0851**	**.0005**	**120.7**	**.0007**	**.0009**
Stddev	.0002	.17	.0007	.0003	.0003	.0000	.5	.0000	.0000
%RSD	13.96	.4278	.7051	9.734	.3684	8.572	.3924	4.197	1.486
#1	.0009	40.52	.0937	.0029	.0853	.0005	120.6	.0007	.0009
#2	.0012	40.18	.0948	.0028	.0853	.0006	121.1	.0007	.0009
#3	.0012	40.39	.0935	.0024	.0847	.0005	120.2	.0006	.0009

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1068**	**.1590**	**26.49**	**.3471**	**.0101**	**1.632**	**.3476**	**.0035**	**.1100**
Stddev	.0004	.0008	.08	.0115	.0008	.024	.0006	.0002	.0039
%RSD	.3612	.5253	.2843	3.316	8.262	1.477	.1682	4.692	3.518
#1	.1072	.1593	26.44	.3604	.0106	1.660	.3483	.0037	.1098
#2	.1065	.1596	26.58	.3411	.0106	1.621	.3473	.0035	.1140
#3	.1066	.1580	26.46	.3398	.0091	1.616	.3472	.0033	.1063

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0135**	**.0884**	**-.0005**	**.0053**	**3.518**	**.0247**	**.1988**	**.7727**	**-.0012**
Stddev	.0001	.0011	.0011	.0017	.018	.0003	.0013	.0017	.0007
%RSD	1.059	1.280	206.5	31.57	.5222	1.362	.6524	.2262	56.38
#1	.0136	.0887	.0002	.0049	3.526	.0251	.1979	.7714	-.0009
#2	.0135	.0893	-.0018	.0071	3.531	.0244	.2003	.7721	-.0007
#3	.0133	.0872	.0000	.0038	3.497	.0246	.1983	.7747	-.0020

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0682**	**.1914**
Stddev	.0003	.0005
%RSD	.4422	.2605
#1	.0679	.1917
#2	.0682	.1917
#3	.0685	.1908

Zoom In Zoom Out

Sample Name: FC6921-14 Acquired: 6/22/2023 17:00:27 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**688.09**	**1796.0**	**22438.**	**5768.9**
Stddev	2.27	7.9	86.	32.6
%RSD	.32921	.43893	.38542	.56429
#1	686.49	1791.8	22345.	5775.6
#2	687.10	1791.2	22454.	5733.5
#3	690.68	1805.1	22515.	5797.6

Zoom In Zoom Out

Sample Name: FC6921-15 Acquired: 6/22/2023 17:05:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**7.052**	**.0033**	**.0000**	**.0169**	**.0002**	**.6489**	**-.0001**	**-.0004**
Stddev	.0001	.044	.0008	.0004	.0001	.0000	.0014	.0001	.0001
%RSD	44.65	.6291	23.22	3074.	.8572	7.124	.2172	43.77	33.08
#1	-.0002	7.091	.0027	-.0001	.0168	.0002	.6479	-.0001	-.0004
#2	-.0001	7.004	.0030	-.0003	.0170	.0002	.6483	-.0002	-.0006
#3	-.0002	7.061	.0041	.0005	.0170	.0002	.6505	-.0001	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0147**	**.0269**	**2.886**	**.0579**	**.0015**	**.0849**	**.0521**	**.0013**	**-.0107**
Stddev	.0006	.0009	.003	.0155	.0002	.0105	.0010	.0001	.0023
%RSD	3.954	3.219	.0994	26.79	14.78	12.40	1.931	5.334	21.66
#1	.0142	.0263	2.889	.0627	.0013	.0895	.0513	.0013	-.0099
#2	.0147	.0265	2.883	.0406	.0017	.0728	.0518	.0012	-.0134
#3	.0153	.0279	2.885	.0704	.0017	.0923	.0533	.0013	-.0090

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0234**	**.0009**	**.0023**	**2.298**	**.0326**	**.0226**	**1.752**	**-.0004**
Stddev	.0002	.0012	.0011	.0001	.075	.0013	.0001	.035	.0002
%RSD	8.405	5.184	125.7	5.042	3.250	4.059	.5660	2.005	64.91
#1	.0023	.0225	.0014	.0023	2.262	.0319	.0225	1.719	-.0003
#2	.0026	.0230	.0016	.0025	2.248	.0318	.0227	1.749	-.0007
#3	.0028	.0248	-.0004	.0023	2.384	.0342	.0227	1.789	-.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0179**	**.0039**
Stddev	.0003	.0001
%RSD	1.850	3.823
#1	.0175	.0037
#2	.0179	.0040
#3	.0182	.0040

Zoom In Zoom Out

Sample Name: FC6921-15 Acquired: 6/22/2023 17:05:26 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**775.42**	**1878.0**	**24594.**	**5832.6**
Stddev	25.97	58.6	477.	25.9
%RSD	3.3495	3.1199	1.9403	.44409
#1	792.24	1911.6	25026.	5803.1
#2	788.52	1912.1	24675.	5843.1
#3	745.51	1810.4	24082.	5851.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 17:10:28 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2554**	**39.74**	**1.998**	**1.961**	**1.986**	**1.915**	**39.52**	**2.002**	**1.988**
Stddev	.0011	.32	.018	.010	.014	.018	.34	.015	.013
%RSD	.4294	.8141	.9037	.5237	.6951	.9477	.8673	.7612	.6387
#1	.2544	40.10	2.018	1.969	2.002	1.935	39.91	2.018	2.002
#2	.2552	39.48	1.990	1.965	1.978	1.909	39.37	1.998	1.983
#3	.2566	39.65	1.985	1.949	1.978	1.900	39.27	1.988	1.978
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.049**	**2.062**	**39.14**	**39.71**	**1.969**	**38.49**	**1.964**	**2.030**	**39.22**
Stddev	.012	.021	.34	.28	.010	.31	.005	.013	.29
%RSD	.5839	1.017	.8693	.6974	.5300	.8103	.2768	.6229	.7276
#1	2.036	2.039	39.53	40.02	1.981	38.85	1.958	2.044	39.55
#2	2.058	2.066	38.94	39.60	1.965	38.30	1.969	2.026	39.05
#3	2.055	2.080	38.94	39.50	1.961	38.32	1.965	2.020	39.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.063**	**1.981**	**1.980**	**1.999**	**1.991**	**1.986**	**2.001**	**1.965**	**2.012**
Stddev	.017	.011	.013	.011	.012	.015	.016	.012	.012
%RSD	.8237	.5681	.6324	.5592	.6210	.7307	.8062	.6286	.6129
#1	2.080	1.994	1.994	2.010	2.005	2.002	2.018	1.950	2.024
#2	2.062	1.973	1.970	2.001	1.986	1.978	1.999	1.972	2.013
#3	2.046	1.977	1.976	1.987	1.982	1.976	1.985	1.971	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 17:10:28 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.062**	**2.030**
Stddev	.018	.017
%RSD	.8754	.8505
#1	2.041	2.049
#2	2.073	2.026
#3	2.071	2.015
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**678.23**	**1756.6**	**21776.**	**5696.7**
Stddev	2.93	9.2	55.	55.9
%RSD	.43265	.52391	.25332	.98151
#1	674.88	1747.4	21840.	5632.2
#2	679.51	1756.6	21747.	5731.8
#3	680.31	1765.9	21743.	5726.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 17:15:11 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0008**	**-.0002**	**.0004**	**.0000**	**.0000**	**.0033**	**.0001**	**-.0001**
Stddev	.0003	.0008	.0006	.0004	.000	.0000	.0012	.0000	.0000
%RSD	245.3	110.1	266.0	115.6	66.54	153.5	35.35	40.86	43.57
#1	-.0004	-.0016	-.0001	.0008	.0000	.0001	.0021	.0001	-.0001
#2	.0002	-.0008	-.0008	.0002	.0000	.0000	.0044	.0000	-.0001
#3	-.0001	.0001	.0003	.0001	-.0001	.0000	.0032	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0037**	**-.0079**	**-.0010**	**.0110**	**.0001**	**.0002**	**-.0021**
Stddev	.0003	.0001	.0004	.0026	.0005	.0071	.0000	.0001	.0057
%RSD	312.4	79.55	11.91	33.38	52.32	64.77	22.10	52.40	275.6
#1	.0003	.0000	.0032	-.0061	-.0015	.0192	.0001	.0004	.0045
#2	-.0003	-.0002	.0039	-.0109	-.0005	.0075	.0001	.0002	-.0050
#3	-.0003	-.0002	.0040	-.0066	-.0009	.0063	.0001	.0002	-.0058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**.0005**	**-.0018**	**.0013**	**.0003**	**.0001**	**.0000**	**.0007**
Stddev	.0000	.0002	.0010	.0023	.0003	.0001	.0001	.0001	.0003
%RSD	37.82	226.4	190.2	130.6	22.08	42.00	70.07	219.4	49.29
#1	-.0002	-.0002	.0005	-.0016	.0011	.0002	.0001	.0001	.0004
#2	-.0001	.0002	.0014	-.0042	.0011	.0004	.0001	.0000	.0011
#3	-.0001	.0002	-.0005	.0004	.0016	.0003	.0000	.0000	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 17:15:11 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0002**	**.0000**
Stddev	.0003	.000
%RSD	124.1	295.9
#1	.0005	-.0001
#2	.0002	.0000
#3	.0000	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**809.09**	**1879.2**	**23304.**	**5666.0**
Stddev	.64	.4	137.	33.1
%RSD	.07948	.01871	.58744	.58408
#1	808.99	1879.0	23422.	5647.2
#2	809.78	1879.6	23154.	5704.2
#3	808.50	1879.0	23337.	5646.6

Zoom In Zoom Out

Sample Name: FC6921-16 Acquired: 6/22/2023 17:20:17 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**32.26**	**.0085**	**.0000**	**.0450**	**.0005**	**1.587**	**.0000**	**.0004**
Stddev	.0003	.07	.0005	.001	.0000	.0001	.006	.0000	.0001
%RSD	36.56	.2179	6.197	1821.	.0990	9.559	.4031	24.95	24.50
#1	.0010	32.24	.0082	-.0004	.0449	.0005	1.581	.0000	.0003
#2	.0010	32.34	.0091	.0010	.0449	.0006	1.594	.0000	.0004
#3	.0005	32.21	.0081	-.0007	.0450	.0006	1.586	.0000	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0432**	**.0750**	**15.48**	**.2322**	**.0091**	**.4297**	**.0946**	**.0025**	**.0088**
Stddev	.0003	.0004	.04	.0086	.0007	.0108	.0002	.0000	.0030
%RSD	.5969	.5362	.2798	3.705	7.868	2.521	.2177	1.604	33.76
#1	.0429	.0754	15.48	.2402	.0091	.4190	.0944	.0024	.0089
#2	.0434	.0746	15.52	.2332	.0083	.4407	.0946	.0025	.0058
#3	.0431	.0751	15.44	.2231	.0098	.4293	.0948	.0025	.0117

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**.0373**	**.0012**	**.0047**	**2.672**	**.0225**	**.0472**	**.7534**	**-.0006**
Stddev	.0001	.0004	.0006	.0005	.005	.0003	.0001	.0041	.0004
%RSD	1.424	.9772	53.42	11.14	.1716	1.313	.2991	.5501	60.39
#1	.0090	.0373	.0013	.0041	2.676	.0225	.0474	.7526	-.0002
#2	.0092	.0370	.0005	.0050	2.667	.0229	.0472	.7578	-.0006
#3	.0092	.0377	.0017	.0050	2.674	.0223	.0471	.7496	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0446**	**.0321**
Stddev	.0003	.0001
%RSD	.7521	.1615
#1	.0445	.0321
#2	.0449	.0322
#3	.0443	.0321

Zoom In Zoom Out

Sample Name: FC6921-16 Acquired: 6/22/2023 17:20:17 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**770.58**	**1930.5**	**24172.**	**5957.0**
Stddev	.80	2.0	37.	39.2
%RSD	.10407	.10389	.15511	.65810
#1	770.55	1932.7	24130.	5936.0
#2	769.79	1928.7	24201.	5932.7
#3	771.39	1930.2	24187.	6002.2

Zoom In Zoom Out

Sample Name: FC6929-1 Acquired: 6/22/2023 17:25:16 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**23.89**	**.0083**	**.0184**	**.1314**	**.0015**	**26.64**	**.0003**	**.0023**
Stddev	.0000	.02	.0002	.0011	.0003	.0000	.06	.0001	.0000
%RSD	6.010	.0644	2.629	6.166	.2141	.4308	.2179	26.44	.8521
#1	.0007	23.89	.0084	.0196	.1314	.0015	26.61	.0002	.0024
#2	.0007	23.88	.0081	.0174	.1317	.0015	26.60	.0003	.0023
#3	.0007	23.91	.0085	.0180	.1311	.0015	26.71	.0003	.0023

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0538**	**.0085**	**11.05**	**1.105**	**.0268**	**3.375**	**.2244**	**.0111**	**6.201**
Stddev	.0002	.0002	.04	.016	.0002	.025	.0008	.0001	.009
%RSD	.3706	2.296	.3305	1.451	.8994	.7549	.3746	.5744	.1364
#1	.0536	.0087	11.01	1.122	.0268	3.377	.2250	.0110	6.210
#2	.0540	.0084	11.07	1.100	.0266	3.348	.2248	.0111	6.195
#3	.0537	.0083	11.08	1.091	.0270	3.399	.2234	.0112	6.196

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0268**	**.0019**	**.0036**	**3.924**	**.0247**	**.2999**	**.2291**	**.0000**
Stddev	.0004	.0008	.0006	.0007	.018	.0003	.0004	.0009	.0010
%RSD	3.576	2.968	33.91	18.18	.4711	1.060	.1173	.3855	6715.
#1	.0095	.0274	.0012	.0032	3.933	.0247	.2998	.2289	-.0012
#2	.0102	.0269	.0019	.0032	3.935	.0249	.3002	.2284	.0007
#3	.0100	.0259	.0025	.0043	3.902	.0244	.2995	.2301	.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0596**	**.0381**
Stddev	.0004	.0002
%RSD	.6737	.4486
#1	.0598	.0381
#2	.0598	.0380
#3	.0591	.0383

Zoom In Zoom Out

Sample Name: FC6929-1 Acquired: 6/22/2023 17:25:16 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**732.27**	**1999.2**	**24938.**	**6309.1**
Stddev	2.75	2.8	74.	51.9
%RSD	.37544	.13890	.29492	.82237
#1	734.19	2001.2	24874.	6316.3
#2	729.12	2000.5	24922.	6357.1
#3	733.49	1996.1	25019.	6254.0

Zoom In Zoom Out

Sample Name: FC6929-2 Acquired: 6/22/2023 17:30:17 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0041**	**168.0**	**.0400**	**.0846**	**.6255**	**.0063**	**184.9**	**.0082**	**.0150**
Stddev	.0002	1.3	.0004	.0009	.0017	.0000	.8	.0000	.0001
%RSD	5.246	.7593	.9063	1.051	.2663	.3730	.4210	.2037	.4764
#1	.0038	169.4	.0395	.0845	.6246	.0063	185.0	.0082	.0150
#2	.0042	167.9	.0402	.0838	.6274	.0063	185.6	.0082	.0149
#3	.0042	166.8	.0401	.0856	.6244	.0062	184.1	.0082	.0150

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4671**	**.0512**	**72.07**	**9.877**	**.1810**	**24.75**	**.6946**	**.0430**	**9.511**
Stddev	.0019	.0002	.15	.020	.0006	.02	.0030	.0001	.026
%RSD	.4058	.3860	.2030	.2058	.3566	.0692	.4328	.2717	.2694
#1	.4688	.0514	72.02	9.884	.1809	24.73	.6978	.0428	9.504
#2	.4674	.0513	72.24	9.893	.1816	24.75	.6941	.0430	9.539
#3	.4650	.0510	71.96	9.854	.1803	24.76	.6918	.0431	9.489

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0921**	**.2252**	**-.0032**	**.0140**	**4.939**	**.0181**	**1.430**	**.5750**	**-.0033**
Stddev	.0004	.0003	.0009	.0018	.004	.0003	.014	.0010	.0007
%RSD	.3900	.1367	29.63	12.81	.0919	1.877	.9763	.1709	21.60
#1	.0919	.2249	-.0028	.0161	4.935	.0178	1.419	.5751	-.0034
#2	.0925	.2255	-.0043	.0131	4.937	.0180	1.446	.5760	-.0026
#3	.0919	.2252	-.0025	.0128	4.944	.0184	1.425	.5740	-.0040

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3807**	**.2147**
Stddev	.0019	.0006
%RSD	.5058	.2814
#1	.3824	.2141
#2	.3810	.2154
#3	.3786	.2147

Zoom In Zoom Out

Sample Name: FC6929-2 Acquired: 6/22/2023 17:30:17 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**622.91**	**3053.0**	**37731.**	**10246.**
Stddev	1.63	2.7	181.	25.
%RSD	.26115	.08782	.48084	.24690
#1	622.47	3055.7	37557.	10224.
#2	624.71	3050.3	37718.	10240.
#3	621.55	3053.0	37919.	10274.

Zoom In Zoom Out

Sample Name: FC6980-1 Acquired: 6/22/2023 17:35:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078**	**296.7**	**.0402**	**.0194**	**1.812**	**.0111**	**468.9**	**.0413**	**.0252**
Stddev	.0004	.6	.0031	.0017	.003	.0002	2.2	.0002	.0001
%RSD	5.184	.2180	7.629	8.613	.1795	1.608	.4664	.4575	.4330
#1	.0074	297.4	.0435	.0177	1.815	.0110	467.7	.0414	.0252
#2	.0078	296.1	.0375	.0196	1.811	.0113	467.5	.0412	.0253
#3	.0082	296.6	.0395	.0211	1.809	.0111	471.4	.0415	.0251

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.229**	**.0120**	**99.06**	**10.75**	**.1035**	**23.27**	**.6934**	**.0043**	**.9062**
Stddev	.004	.0004	.17	.06	.0009	.06	.0003	.0004	.0190
%RSD	.3298	2.996	.1689	.5495	.8252	.2472	.0437	8.588	2.096
#1	1.232	.0118	99.12	10.79	.1027	23.27	.6932	.0046	.9205
#2	1.224	.0119	99.20	10.77	.1044	23.21	.6938	.0039	.9136
#3	1.229	.0124	98.88	10.68	.1033	23.33	.6933	.0044	.8847

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1587**	**.2588**	**-.0158**	**-.0062**	**2.325**	**.0146**	**2.565**	**1.435**	**-.0134**
Stddev	.0007	.0023	.0045	.0052	.019	.0009	.012	.003	.0066
%RSD	.4333	.8721	28.60	83.60	.8075	6.216	.4808	.1821	49.43
#1	.1592	.2575	-.0106	-.0013	2.342	.0153	2.573	1.436	-.0158
#2	.1590	.2614	-.0185	-.0057	2.328	.0135	2.571	1.436	-.0185
#3	.1579	.2575	-.0183	-.0117	2.305	.0149	2.551	1.432	-.0059

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.9547**	**.3269**
Stddev	.0040	.0008
%RSD	.4223	.2362
#1	.9589	.3269
#2	.9509	.3277
#3	.9543	.3262

Zoom In Zoom Out

Sample Name: FC6980-1 Acquired: 6/22/2023 17:35:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**679.65**	**3898.7**	**47859.**	**12525.**
Stddev	1.96	4.9	82.	10.
%RSD	.28859	.12492	.17155	.08070
#1	681.38	3893.6	47947.	12533.
#2	680.05	3899.2	47846.	12513.
#3	677.52	3903.3	47784.	12528.

Zoom In Zoom Out

Sample Name: FC6980-2 Acquired: 6/22/2023 17:40:43 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**369.2**	**.0454**	**.0183**	**3.430**	**.0143**	**441.4**	**.0279**	**.0236**
Stddev	.0017	1.4	.0031	.0046	.009	.0002	.7	.0002	.0002
%RSD	21.39	.3817	6.856	24.99	.2560	1.273	.1560	.5671	.7244
#1	.0062	370.0	.0430	.0157	3.436	.0144	442.0	.0278	.0238
#2	.0096	370.1	.0489	.0157	3.434	.0144	440.7	.0281	.0234
#3	.0085	367.6	.0442	.0236	3.420	.0141	441.4	.0278	.0236

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.179**	**.0218**	**111.1**	**10.96**	**.1050**	**24.07**	**.5883**	**.0049**	**.6868**
Stddev	.002	.0014	.2	.10	.0018	.11	.0010	.0008	.0048
%RSD	.1890	6.480	.2044	.9220	1.681	.4377	.1777	17.25	.6952
#1	1.177	.0227	111.3	11.05	.1029	24.17	.5892	.0041	.6887
#2	1.182	.0226	111.1	10.85	.1059	24.08	.5872	.0057	.6814
#3	1.179	.0202	110.9	10.99	.1061	23.96	.5886	.0049	.6903

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1519**	**.2661**	**-.0124**	**-.0032**	**3.151**	**.0210**	**4.327**	**1.560**	**-.0035**
Stddev	.0009	.0058	.0057	.0076	.005	.0019	.006	.002	.0030
%RSD	.5621	2.169	46.30	237.4	.1711	9.127	.1409	.1546	87.55
#1	.1515	.2663	-.0064	.0002	3.155	.0197	4.330	1.562	-.0015
#2	.1512	.2602	-.0178	-.0118	3.153	.0232	4.331	1.558	-.0019
#3	.1528	.2717	-.0128	.0021	3.145	.0200	4.320	1.559	-.0070

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.8666**	**.3029**
Stddev	.0018	.0021
%RSD	.2026	.7023
#1	.8649	.3052
#2	.8684	.3025
#3	.8665	.3010

Zoom In Zoom Out

Sample Name: FC6980-2 Acquired: 6/22/2023 17:40:43 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**692.64**	**2722.3**	**33671.**	**8674.3**
Stddev	1.15	4.7	24.	35.1
%RSD	.16564	.17134	.07101	.40481
#1	692.51	2717.2	33652.	8654.8
#2	693.85	2723.7	33663.	8714.8
#3	691.57	2726.2	33698.	8653.3

Zoom In Zoom Out

Sample Name: FC6942-1 Acquired: 6/22/2023 17:45:43 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0052**	**153.1**	**.0825**	**.0001**	**.4257**	**.0079**	**28.90**	**-.0009**	**.0469**
Stddev	.0005	.5	.0058	.0062	.0004	.0002	.09	.0001	.0004
%RSD	8.901	.2941	6.978	10120.	.0975	2.721	.2992	17.06	.7813
#1	.0051	153.6	.0891	.0072	.4253	.0079	28.99	-.0008	.0473
#2	.0048	153.0	.0795	-.0039	.4258	.0076	28.87	-.0010	.0466
#3	.0057	152.7	.0788	-.0031	.4261	.0081	28.83	-.0008	.0467

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1992**	**.1717**	**181.5**	**12.56**	**.1538**	**25.81**	**2.627**	**.0098**	**.9431**
Stddev	.0007	.0007	.4	.08	.0026	.09	.006	.0007	.0165
%RSD	.3370	.4186	.2150	.6104	1.703	.3406	.2388	6.920	1.752
#1	.1991	.1709	181.9	12.57	.1544	25.91	2.621	.0105	.9244
#2	.1986	.1723	181.3	12.63	.1510	25.74	2.626	.0097	.9558
#3	.1999	.1718	181.2	12.48	.1561	25.78	2.633	.0092	.9491

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1115**	**.4390**	**-.0052**	**.0052**	**2.551**	**.0347**	**.1438**	**8.608**	**-.0030**
Stddev	.0008	.0018	.0029	.0154	.009	.0008	.0005	.004	.0015
%RSD	.7221	.4072	54.49	298.5	.3591	2.396	.3330	.0433	51.06
#1	.1107	.4373	-.0034	-.0115	2.561	.0342	.1440	8.613	-.0039
#2	.1115	.4409	-.0038	.0082	2.548	.0357	.1442	8.608	-.0012
#3	.1123	.4388	-.0085	.0188	2.543	.0344	.1433	8.605	-.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2703**	**.7128**
Stddev	.0013	.0016
%RSD	.4763	.2291
#1	.2715	.7146
#2	.2705	.7114
#3	.2690	.7126

Zoom In Zoom Out

Sample Name: FC6942-1 Acquired: 6/22/2023 17:45:43 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**759.22**	**2035.6**	**25059.**	**6305.9**
Stddev	1.01	2.7	45.	28.4
%RSD	.13347	.13022	.17991	.45060
#1	759.78	2032.6	25109.	6281.6
#2	759.82	2037.0	25023.	6337.1
#3	758.05	2037.3	25043.	6298.9

Zoom In Zoom Out

Sample Name: FC6942-2 Acquired: 6/22/2023 17:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075**	**153.4**	**.0558**	**-.0053**	**.3674**	**.0050**	**21.59**	**-.0013**	**.0383**
Stddev	.0019	.2	.0072	.0059	.0003	.0002	.06	.0003	.0004
%RSD	25.71	.1367	12.95	110.4	.0723	3.961	.2851	20.71	1.065
#1	.0058	153.6	.0475	-.0008	.3677	.0052	21.62	-.0013	.0382
#2	.0096	153.2	.0606	-.0120	.3672	.0048	21.52	-.0011	.0388
#3	.0072	153.3	.0593	-.0031	.3672	.0050	21.63	-.0016	.0380

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1572**	**.1501**	**183.0**	**9.185**	**.1097**	**21.12**	**1.972**	**.0058**	**.8287**
Stddev	.0016	.0007	.3	.044	.0033	.18	.002	.0005	.0057
%RSD	1.007	.4856	.1633	.4781	3.026	.8341	.1141	8.612	.6893
#1	.1569	.1509	183.2	9.174	.1071	21.25	1.974	.0062	.8341
#2	.1558	.1497	182.7	9.148	.1134	20.92	1.970	.0053	.8293
#3	.1589	.1497	183.3	9.233	.1086	21.20	1.971	.0060	.8228

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0942**	**.4438**	**-.0013**	**.0072**	**2.927**	**.0312**	**.1663**	**6.728**	**.0070**
Stddev	.0009	.0008	.0029	.0066	.015	.0016	.0009	.003	.0034
%RSD	.9196	.1866	223.1	91.80	.5003	5.273	.5230	.0495	48.83
#1	.0932	.4435	.0010	.0005	2.936	.0316	.1671	6.731	.0043
#2	.0946	.4448	-.0003	.0073	2.935	.0294	.1654	6.729	.0109
#3	.0949	.4432	-.0046	.0136	2.910	.0327	.1665	6.725	.0059

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3438**	**.5487**
Stddev	.0011	.0021
%RSD	.3180	.3837
#1	.3448	.5474
#2	.3427	.5476
#3	.3440	.5511

Zoom In Zoom Out

Sample Name: FC6942-2 Acquired: 6/22/2023 17:50:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**765.16**	**1944.4**	**23880.**	**5994.6**
Stddev	.76	2.3	51.	39.6
%RSD	.09961	.12042	.21518	.66054
#1	765.97	1945.4	23832.	6026.4
#2	765.07	1946.0	23934.	6007.3
#3	764.46	1941.7	23874.	5950.3

Zoom In Zoom Out

Sample Name: FC6740-10F Acquired: 6/22/2023 17:55:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0012**	**.0306**	**.0033**	**.3860**	**.0231**	**.0000**	**106.8**	**-.0003**	**.0000**
Stddev	.0022	.0032	.0017	.0021	.0005	.0003	.4	.0001	.0006
%RSD	180.6	10.49	52.88	.5424	2.043	606.6	.3396	48.70	1365.
#1	-.0007	.0332	.0034	.3854	.0236	-.0002	107.2	-.0001	-.0007
#2	.0007	.0315	.0015	.3884	.0227	.0001	106.4	-.0004	.0005
#3	-.0036	.0270	.0050	.3843	.0231	.0003	106.8	-.0003	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0018**	**.0017**	**.5522**	**23.80**	**.0212**	**38.97**	**.5697**	**.0036**	**245.0**
Stddev	.0012	.0016	.0082	.10	.0014	.23	.0022	.0005	.1
%RSD	64.83	96.93	1.483	.4225	6.527	.6018	.3859	15.18	.0309
#1	-.0025	.0034	.5580	23.88	.0228	38.70	.5720	.0040	244.9
#2	-.0005	.0003	.5428	23.69	.0206	39.07	.5694	.0037	245.0
#3	-.0026	.0013	.5556	23.83	.0202	39.14	.5676	.0030	245.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0007**	**.0020**	**.0001**	**15.33**	**-.0008**	**.7973**	**.0029**	**.0017**
Stddev	.0001	.0029	.0029	.0073	.03	.0003	.0029	.0000	.0037
%RSD	10.53	400.2	144.7	5274.	.1701	39.10	.3700	1.504	221.7
#1	-.0012	-.0024	.0038	.0001	15.36	-.0004	.8007	.0028	.0050
#2	-.0014	.0033	-.0013	-.0071	15.32	-.0010	.7959	.0029	-.0023
#3	-.0015	.0013	.0036	.0074	15.32	-.0009	.7953	.0029	.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0023**
Stddev	.0010	.0003
%RSD	312.6	13.34
#1	-.0008	.0021
#2	.0006	.0021
#3	.0011	.0026

Zoom In Zoom Out

Sample Name: FC6740-10F Acquired: 6/22/2023 17:55:44 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**725.96**	**1800.1**	**22061.**	**5648.6**
Stddev	1.05	.5	46.	30.9
%RSD	.14403	.03045	.21010	.54752
#1	725.25	1799.5	22011.	5622.0
#2	727.16	1800.5	22067.	5682.5
#3	725.47	1800.3	22104.	5641.2

Zoom In Zoom Out

Sample Name: MP42420-D1 Acquired: 6/22/2023 18:00:46 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0294**	**-.0001**	**.3651**	**.0222**	**-.0002**	**102.0**	**.0000**	**.0001**
Stddev	.0006	.0243	.0035	.0041	.0002	.0001	.2	.000	.0003
%RSD	101.6	82.66	3992.	1.117	.7777	42.31	.1858	456.3	239.2
#1	-.0004	.0439	-.0039	.3647	.0221	-.0001	101.8	-.0002	.0003
#2	-.0012	.0013	.0030	.3693	.0222	-.0003	101.9	.0002	-.0002
#3	-.0001	.0430	.0006	.3612	.0224	-.0002	102.2	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**.0013**	**.5276**	**22.82**	**.0158**	**37.40**	**.5426**	**.0036**	**234.0**
Stddev	.0010	.0016	.0080	.11	.0017	.16	.0013	.0003	.5
%RSD	141.5	122.3	1.526	.4926	10.81	.4235	.2339	8.524	.2240
#1	.0003	.0022	.5271	22.72	.0153	37.32	.5424	.0037	234.2
#2	-.0007	-.0005	.5197	22.94	.0144	37.30	.5440	.0038	233.4
#3	-.0017	.0022	.5358	22.79	.0177	37.58	.5415	.0032	234.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**-.0013**	**-.0002**	**-.0011**	**14.68**	**.0000**	**.7601**	**.0027**	**.0013**
Stddev	.0019	.0007	.0047	.0032	.03	.002	.0015	.0007	.0024
%RSD	189.5	55.83	2892.	281.6	.1990	5025.	.1955	27.04	190.1
#1	-.0029	-.0020	-.0053	.0006	14.68	.0007	.7584	.0032	.0036
#2	-.0010	-.0005	.0040	.0008	14.65	.0015	.7609	.0030	-.0012
#3	.0009	-.0014	.0008	-.0049	14.71	-.0023	.7610	.0019	.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0003**	**.0016**
Stddev	.0009	.0007
%RSD	339.1	44.41
#1	.0003	.0013
#2	.0002	.0024
#3	-.0013	.0011

Zoom In Zoom Out

Sample Name: MP42420-D1 Acquired: 6/22/2023 18:00:46 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**726.33**	**1800.0**	**22135.**	**5652.8**
Stddev	.66	3.4	56.	21.7
%RSD	.09091	.19010	.25137	.38306
#1	725.59	1799.6	22198.	5677.4
#2	726.56	1803.6	22116.	5644.6
#3	726.85	1796.7	22091.	5636.5

Zoom In Zoom Out

Sample Name: MP42420-S1 Acquired: 6/22/2023 18:05:50 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1860**	**23.94**	**.1818**	**.7964**	**.2074**	**.1819**	**139.1**	**.1890**	**.1897**
Stddev	.0003	.08	.0043	.0061	.0004	.0001	.5	.0008	.0012
%RSD	.1422	.3506	2.339	.7673	.2085	.0357	.3591	.4114	.6445
#1	.1863	24.00	.1781	.7895	.2079	.1819	139.0	.1883	.1900
#2	.1858	23.84	.1810	.8012	.2072	.1818	139.6	.1899	.1907
#3	.1860	23.98	.1865	.7985	.2072	.1820	138.6	.1889	.1883

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1973**	**.2040**	**43.41**	**64.94**	**.4884**	**77.02**	**.6934**	**.6744**	**260.2**
Stddev	.0007	.0015	.11	.15	.0026	.41	.0016	.0035	.1
%RSD	.3372	.7148	.2526	.2245	.5396	.5381	.2322	.5195	.0557
#1	.1980	.2038	43.52	64.90	.4888	77.15	.6917	.6717	260.4
#2	.1972	.2027	43.42	64.81	.4856	77.36	.6937	.6784	260.1
#3	.1967	.2056	43.30	65.10	.4909	76.56	.6949	.6733	260.2

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1980**	**.1831**	**.1906**	**.1869**	**14.40**	**.4759**	**1.196**	**.4926**	**.1934**
Stddev	.0024	.0036	.0019	.0036	.07	.0007	.002	.0009	.0055
%RSD	1.234	1.948	.9976	1.924	.4983	.1506	.1793	.1796	2.857
#1	.1952	.1851	.1920	.1907	14.36	.4767	1.194	.4918	.1974
#2	.1994	.1853	.1884	.1866	14.48	.4755	1.198	.4924	.1871
#3	.1994	.1790	.1914	.1835	14.36	.4755	1.197	.4935	.1956

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2009**	**.1969**
Stddev	.0017	.0015
%RSD	.8455	.7637
#1	.2027	.1965
#2	.1993	.1986
#3	.2007	.1956

Zoom In Zoom Out

Sample Name: MP42420-S1 Acquired: 6/22/2023 18:05:50 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**710.69**	**1791.8**	**22138.**	**5676.8**
Stddev	3.36	9.5	69.	47.4
%RSD	.47261	.53293	.30951	.83565
#1	711.67	1795.3	22198.	5660.3
#2	706.95	1781.0	22154.	5639.8
#3	713.46	1799.2	22063.	5730.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 18:10:47 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2558**	**39.91**	**1.986**	**1.908**	**1.980**	**1.891**	**39.74**	**1.991**	**1.977**
Stddev	.0004	.13	.004	.004	.004	.005	.02	.002	.002
%RSD	.1541	.3262	.2080	.1961	.1783	.2908	.0384	.0963	.0871
#1	.2556	39.91	1.981	1.908	1.977	1.887	39.73	1.993	1.975
#2	.2562	40.05	1.987	1.912	1.984	1.889	39.76	1.989	1.977
#3	.2555	39.79	1.989	1.904	1.980	1.897	39.75	1.990	1.979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.053**	**2.088**	**39.06**	**39.91**	**1.968**	**38.42**	**1.925**	**2.028**	**38.88**
Stddev	.011	.009	.04	.06	.005	.17	.006	.003	.08
%RSD	.5301	.4079	.1040	.1398	.2317	.4303	.2938	.1662	.1946
#1	2.043	2.094	39.03	39.87	1.963	38.50	1.922	2.026	38.82
#2	2.064	2.091	39.11	39.97	1.970	38.54	1.932	2.032	38.96
#3	2.051	2.078	39.05	39.88	1.971	38.23	1.922	2.025	38.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.082**	**1.957**	**1.956**	**1.981**	**2.009**	**1.960**	**2.013**	**1.931**	**1.998**
Stddev	.003	.012	.002	.007	.003	.003	.004	.005	.004
%RSD	.1541	.5987	.0832	.3661	.1445	.1506	.1966	.2591	.2135
#1	2.080	1.958	1.955	1.973	2.007	1.961	2.009	1.926	2.000
#2	2.086	1.945	1.958	1.985	2.012	1.957	2.012	1.936	1.993
#3	2.081	1.968	1.955	1.986	2.007	1.963	2.017	1.930	2.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 18:10:47 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.081**	**2.036**
Stddev	.011	.005
%RSD	.5166	.2580
#1	2.071	2.042
#2	2.092	2.032
#3	2.078	2.035
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**681.68**	**1756.2**	**21854.**	**5555.9**
Stddev	2.73	1.7	115.	18.2
%RSD	.40062	.09647	.52842	.32771
#1	681.92	1757.0	21939.	5560.1
#2	684.29	1754.3	21723.	5536.0
#3	678.84	1757.3	21901.	5571.7

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 18:15:31 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0031**	**-.0002**	F **.0011**	**-.0001**	**.0001**	**.0000**	**.0000**	**.0000**
Stddev	.0000	.0056	.0008	.0009	.0000	.0000	.001	.0000	.0000
%RSD	50.94	179.6	389.3	84.44	34.30	52.88	10200.	285.3	68.66
#1	.0000	-.0004	.0007	.0009	-.0002	.0000	-.0002	.0000	.0000
#2	.0001	-.0096	-.0006	.0020	-.0001	.0001	.0011	.0000	.0000
#3	.0001	.0006	-.0007	.0003	-.0001	.0001	-.0010	.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0006**	**.0028**	**-.0088**	**-.0001**	**.0157**	**.0000**	**.0002**	**-.0122**
Stddev	.0001	.0001	.0001	.0077	.0011	.0117	.0000	.0001	.0069
%RSD	148.7	23.48	3.929	87.24	1094.	74.72	32.26	45.24	56.72
#1	.0001	-.0006	.0027	-.0101	.0006	.0232	.0000	.0002	-.0086
#2	-.0002	-.0004	.0029	-.0158	-.0013	.0022	.0000	.0001	-.0078
#3	-.0001	-.0007	.0027	-.0006	.0005	.0218	.0000	.0001	-.0202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0001**	**.0013**	**.0005**	**.0011**	**.0005**	**.0001**	**.0001**	**-.0009**
Stddev	.0001	.0004	.0007	.0007	.0005	.0002	.0001	.0001	.0005
%RSD	32.11	761.0	52.53	140.2	42.36	48.33	75.85	200.2	52.48
#1	-.0002	-.0005	.0020	.0007	.0013	.0003	.0000	.0002	-.0006
#2	-.0002	.0001	.0007	.0011	.0006	.0007	.0000	-.0001	-.0014
#3	-.0004	.0002	.0011	-.0003	.0014	.0004	.0001	.0001	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 18:15:31 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0002**
Stddev	.000	.0001
%RSD	1978.	37.97
#1	.0001	-.0001
#2	-.0001	-.0002
#3	.0000	-.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**811.88**	**1867.3**	**23150.**	**5601.3**
Stddev	.43	1.1	55.	6.3
%RSD	.05294	.05763	.23905	.11287
#1	811.40	1868.5	23161.	5605.7
#2	812.00	1866.8	23199.	5594.0
#3	812.24	1866.5	23090.	5604.1

Zoom In Zoom Out

Sample Name: MP42420-S2 Acquired: 6/22/2023 18:20:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1941**	**25.30**	**.1970**	**.8400**	**.2169**	**.1887**	**146.7**	**.1967**	**.1992**
Stddev	.0009	.07	.0020	.0048	.0002	.0009	.4	.0008	.0000
%RSD	.4619	.2847	.9944	.5656	.0967	.4747	.2841	.3941	.0091
#1	.1952	25.38	.1951	.8454	.2170	.1878	146.2	.1963	.1992
#2	.1936	25.26	.1990	.8366	.2169	.1896	147.1	.1963	.1992
#3	.1936	25.25	.1970	.8379	.2166	.1887	146.7	.1976	.1992

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2060**	**.2112**	**45.42**	**68.31**	**.5186**	**80.36**	**.7318**	**.7099**	**273.0**
Stddev	.0016	.0017	.12	.11	.0021	.52	.0010	.0006	.0
%RSD	.7637	.7844	.2652	.1647	.3957	.6522	.1372	.0900	.0155
#1	.2059	.2093	45.31	68.43	.5162	79.86	.7313	.7094	273.0
#2	.2045	.2123	45.55	68.22	.5195	80.90	.7311	.7098	273.1
#3	.2076	.2121	45.39	68.27	.5200	80.32	.7330	.7106	273.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2088**	**.1889**	**.2031**	**.1980**	**15.24**	**.4963**	**1.268**	**.5152**	**.2025**
Stddev	.0004	.0007	.0083	.0015	.04	.0021	.005	.0023	.0092
%RSD	.2079	.3650	4.107	.7809	.2954	.4184	.3828	.4376	4.524
#1	.2088	.1883	.1936	.1963	15.19	.4968	1.263	.5131	.2130
#2	.2084	.1889	.2062	.1985	15.26	.4940	1.271	.5148	.1980
#3	.2092	.1896	.2094	.1993	15.27	.4981	1.271	.5176	.1964

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2122**	**.2063**
Stddev	.0032	.0006
%RSD	1.488	.2708
#1	.2086	.2060
#2	.2133	.2060
#3	.2147	.2070

Zoom In Zoom Out

Sample Name: MP42420-S2 Acquired: 6/22/2023 18:20:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**704.30**	**1777.1**	**21842.**	**5612.4**
Stddev	.40	3.6	56.	39.3
%RSD	.05634	.20118	.25454	.70007
#1	704.76	1780.9	21894.	5654.6
#2	704.04	1776.9	21848.	5576.9
#3	704.11	1773.7	21783.	5605.6

Zoom In Zoom Out

Sample Name: MP42420-PS1 Acquired: 6/22/2023 18:25:34 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0459**	**2.419**	**.0989**	**.4577**	**.2548**	**.0450**	**105.4**	**.0471**	**.0474**
Stddev	.0008	.025	.0032	.0135	.0002	.0006	.3	.0002	.0006
%RSD	1.650	1.035	3.257	2.950	.0613	1.235	.3019	.3194	1.201
#1	.0468	2.405	.0968	.4508	.2549	.0454	105.7	.0472	.0480
#2	.0455	2.404	.1026	.4733	.2548	.0444	105.2	.0469	.0474
#3	.0455	2.448	.0972	.4491	.2546	.0451	105.2	.0472	.0469

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0495**	**.1008**	**3.362**	**32.07**	**.1130**	**41.51**	**.5772**	**.0988**	**238.9**
Stddev	.0011	.0018	.010	.23	.0031	.14	.0035	.0010	.3
%RSD	2.124	1.786	.2926	.7058	2.760	.3348	.6096	.9873	.1220
#1	.0500	.0991	3.366	32.30	.1152	41.63	.5754	.0998	239.1
#2	.0483	.1027	3.351	32.05	.1144	41.53	.5750	.0979	239.1
#3	.0503	.1006	3.370	31.85	.1095	41.36	.5813	.0985	238.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0979**	**.0444**	**.1002**	**.0965**	**14.64**	**.0478**	**.8004**	**.0985**	**.0950**
Stddev	.0007	.0003	.0024	.0110	.02	.0013	.0023	.0009	.0011
%RSD	.6916	.6139	2.395	11.36	.1208	2.692	.2840	.8693	1.135
#1	.0971	.0444	.0997	.0900	14.65	.0469	.8030	.0981	.0952
#2	.0979	.0447	.0981	.0903	14.62	.0472	.7993	.0979	.0959
#3	.0985	.0442	.1028	.1091	14.65	.0493	.7990	.0995	.0938

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0499**	**.2460**
Stddev	.0020	.0012
%RSD	4.108	.4939
#1	.0523	.2465
#2	.0487	.2446
#3	.0487	.2468

Zoom In Zoom Out

Sample Name: MP42420-PS1 Acquired: 6/22/2023 18:25:34 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**726.15**	**1804.6**	**22163.**	**5631.4**
Stddev	2.21	3.2	94.	30.1
%RSD	.30435	.17696	.42545	.53490
#1	728.68	1801.2	22202.	5605.2
#2	725.20	1807.4	22231.	5664.3
#3	724.57	1805.3	22055.	5624.7

Zoom In Zoom Out

Sample Name: MP42420-SD1 Acquired: 6/22/2023 18:30:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**.0436**	**.0069**	**.3694**	**.0284**	**-.0005**	**102.7**	**-.0007**	**.0006**
Stddev	.0064	.0604	.0052	.0458	.0022	.0006	.2	.0005	.0031
%RSD	179.2	138.6	75.21	12.39	7.643	118.3	.1718	65.28	566.1
#1	-.0027	.0536	.0126	.3708	.0268	-.0006	102.8	-.0002	-.0028
#2	.0101	-.0212	.0057	.4144	.0275	.0001	102.9	-.0011	.0010
#3	.0033	.0983	.0025	.3229	.0308	-.0010	102.5	-.0007	.0034

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0129**	**.0164**	**1.169**	**21.58**	**.0234**	**37.16**	**.5468**	**.0026**	**225.3**
Stddev	.0043	.0025	.076	.56	.0066	.33	.0032	.0020	.9
%RSD	33.73	15.35	6.467	2.602	28.37	.8930	.5909	78.91	.3795
#1	.0085	.0190	1.107	22.09	.0274	36.84	.5482	.0024	224.7
#2	.0172	.0140	1.253	21.67	.0158	37.50	.5490	.0006	226.2
#3	.0129	.0160	1.148	20.98	.0271	37.14	.5431	.0046	224.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0023**	**.0113**	**.0520**	**14.75**	**.0151**	**.7596**	**.0076**	**-.0059**
Stddev	.0026	.0127	.0249	.0276	.01	.0030	.0011	.0010	.0288
%RSD	3226.	545.7	219.2	53.04	.0907	19.91	.1442	13.20	489.7
#1	.0028	.0169	.0319	.0225	14.74	.0154	.7586	.0065	.0268
#2	-.0010	-.0064	-.0163	.0563	14.76	.0180	.7595	.0084	-.0171
#3	-.0020	-.0035	.0184	.0772	14.74	.0120	.7607	.0079	-.0274

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0016**	**.0627**
Stddev	.0043	.0019
%RSD	258.0	3.092
#1	-.0032	.0621
#2	.0046	.0612
#3	.0035	.0649

Zoom In Zoom Out

Sample Name: MP42420-SD1 Acquired: 6/22/2023 18:30:37 Type: Unk
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**783.69**	**1849.4**	**22950.**	**5697.2**
Stddev	2.63	6.1	57.	1.8
%RSD	.33539	.32985	.25014	.03111
#1	785.11	1855.7	22994.	5696.1
#2	785.31	1849.0	22885.	5696.2
#3	780.66	1843.6	22972.	5699.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 18:35:40 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2567**	**40.15**	**2.007**	**1.949**	**1.990**	**1.896**	**39.84**	**2.012**	**1.996**
Stddev	.0006	.06	.012	.018	.002	.003	.07	.014	.015
%RSD	.2264	.1436	.5819	.9250	.0789	.1594	.1848	.6948	.7350
#1	.2573	40.19	1.994	1.928	1.988	1.896	39.84	1.997	1.981
#2	.2561	40.17	2.014	1.962	1.992	1.893	39.76	2.014	1.997
#3	.2568	40.08	2.013	1.956	1.990	1.899	39.91	2.025	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.063**	**2.089**	**39.18**	**40.06**	**1.976**	**38.47**	**1.937**	**2.050**	**39.03**
Stddev	.001	.004	.08	.02	.001	.28	.007	.017	.06
%RSD	.0539	.1754	.2058	.0613	.0495	.7272	.3495	.8436	.1593
#1	2.062	2.085	39.24	40.06	1.975	38.69	1.943	2.031	39.08
#2	2.064	2.090	39.09	40.03	1.975	38.15	1.938	2.053	39.05
#3	2.063	2.092	39.21	40.08	1.977	38.56	1.929	2.065	38.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.111**	**1.978**	**1.970**	**2.002**	**2.038**	**1.979**	**2.019**	**1.940**	**2.021**
Stddev	.019	.011	.013	.014	.016	.014	.004	.003	.015
%RSD	.8907	.5763	.6716	.6972	.7636	.7018	.2043	.1679	.7593
#1	2.090	1.969	1.959	1.987	2.020	1.963	2.015	1.942	2.009
#2	2.115	1.975	1.966	2.005	2.047	1.981	2.021	1.941	2.015
#3	2.127	1.991	1.984	2.015	2.048	1.991	2.023	1.936	2.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 6/22/2023 18:35:40 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.087**	**2.062**
Stddev	.003	.018
%RSD	.1379	.8541
#1	2.084	2.043
#2	2.088	2.065
#3	2.089	2.077
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**678.27**	**1747.3**	**21826.**	**5596.2**
Stddev	3.93	11.6	25.	28.5
%RSD	.57875	.66447	.11394	.50960
#1	681.86	1759.9	21852.	5579.9
#2	678.87	1745.2	21823.	5629.2
#3	674.08	1736.9	21803.	5579.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 18:40:24 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0003**	**.0000**	**.0004**	**.0000**	**.0001**	**.0010**	**.0001**	**.0000**
Stddev	.0002	.0038	.001	.0003	.000	.0000	.0006	.0001	.0001
%RSD	93.17	1370.	1161.	74.85	379.8	51.15	57.08	86.61	3883.
#1	-.0003	-.0013	-.0004	.0003	-.0001	.0000	.0014	.0001	.0001
#2	.0000	.0039	.0006	.0007	.0001	.0001	.0003	.0000	-.0001
#3	-.0002	-.0034	-.0004	.0001	-.0001	.0001	.0012	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0004**	**.0032**	**-.0149**	**.0007**	**.0144**	**.0001**	**.0004**	**-.0158**
Stddev	.0005	.0002	.0010	.0135	.0009	.0091	.0000	.0002	.0016
%RSD	1146.	48.71	30.27	90.30	118.5	63.10	18.07	45.62	10.12
#1	.0002	-.0002	.0042	.0006	.0003	.0186	.0001	.0006	-.0144
#2	-.0005	-.0006	.0023	-.0213	.0002	.0206	.0001	.0005	-.0154
#3	.0004	-.0003	.0030	-.0239	.0017	.0040	.0001	.0002	-.0175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**.0008**	**.0011**	**.0008**	**-.0001**	**.0001**	**.0000**	**-.0001**
Stddev	.0001	.000	.0000	.0001	.0004	.0004	.0000	.0002	.0005
%RSD	43.57	381.4	3.296	9.723	47.81	311.0	40.10	423.7	507.7
#1	-.0003	.0000	.0008	.0012	.0004	.0003	.0001	.0002	.0004
#2	-.0001	-.0002	.0008	.0010	.0012	-.0002	.0001	.0000	-.0006
#3	-.0003	.0001	.0008	.0012	.0008	-.0006	.0001	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 6/22/2023 18:40:24 Type: QC
Method: 60102007_COMBO_10242022(v232) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**-.0002**
Stddev	.0001	.0001
%RSD	52.90	87.67
#1	.0002	.0000
#2	.0001	-.0003
#3	.0001	-.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**815.38**	**1868.7**	**23252.**	**5596.6**
Stddev	.90	3.9	74.	25.0
%RSD	.10997	.20693	.31641	.44656
#1	814.36	1867.8	23187.	5595.7
#2	815.74	1872.9	23237.	5572.1
#3	816.05	1865.3	23332.	5622.1

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000333	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000019	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000670	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000031	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000625	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000100	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000007	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	-0.000098	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000024	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	0.000006	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000004	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000042	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No
Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.002189	0.000000	No
			Cu	0.000467	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Ti	0.000036	0.000000	No
			Si	0.000043	0.000000	No
			Ca	0.000012	0.000000	No
			Cr	-0.000260	0.000000	No
			Mg	0.000002	0.000000	No
Sb 206.833 {463}	☒	11	Fe	0.000004	0.000000	No
			Cr	0.011486	0.000000	No
			Mo	-0.002538	0.000000	No
			V	-0.000441	0.000000	No
			Sn	-0.008695	0.000000	No
			Ti	0.000278	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000818	0.000000	No
			Al	0.000005	0.000000	No
			Mn	-0.000133	0.000000	No
			Mg	-0.000002	0.000000	No
Se 196.090 {472}	☒	12	Fe	-0.000006	0.000000	No
			Ca	0.000006	0.000000	No
			Mn	0.000331	0.000000	No
			Mo	0.000111	0.000000	No
			Al	0.000001	0.000000	No
			V	0.000000	0.000000	No
			Zn	0.000000	0.000000	No
			Sr	-0.000111	0.000000	No
			As	0.000125	0.000000	No
			Cd	-0.000250	0.000000	No
			Mg	0.000002	0.000000	No
			Cr	-0.000326	0.000000	No
Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000010	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	0.000000	0.000000	No
			Al	0.000012	0.000000	No
Ti 334.941 {101}	☒	1	Ca	-0.000009	0.000000	No
Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
			Fe	-0.000061	0.000000	No
			Al	0.000000	0.000000	No
			Ba	-0.000051	0.000000	No
			Ti	-0.000648	0.000000	No
			Sb	0.000167	0.000000	No
			Ca	0.000001	0.000000	No
			Cr	0.000340	0.000000	No
			Mg	-0.000002	0.000000	No
			V	0.000015	0.000000	No
V 292.402 {115}	☒	5	Fe	0.000004	0.000000	No
			Cr	-0.003634	0.000000	No
			Mo	-0.009536	0.000000	No
			Ti	0.000303	0.000000	No
			Mn	-0.000333	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
			Al	0.000014	0.000000	No
			Ca	0.000003	0.000000	No
			Fe	-0.000010	0.000000	No
			As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	6/22/2023 10:30:57	6/22/2023 9:49:33	Curvilin	1/Conc	-0.000788	0.698588	0.027810	1.000000
Al 396.152 { 85}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.000114	0.126299	0.000000	1.000000
As 189.042 {478}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.000341	0.230663	0.000000	1.000000
B 249.773 {135}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.004352	0.782481	0.000000	1.000000
Ba 455.403 { 74}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.007249	13.962137	0.000000	1.000000
Be 313.042 {108}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.001094	10.949543	0.000000	1.000000
Ca 317.933 {106}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.002967	0.365261	0.000000	1.000000
Cd 226.502 {449}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.001067	5.397035	0.000000	1.000000
Co 228.616 {447}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.000579	2.820668	0.000000	1.000000
Cr 267.716 {126}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000116	0.526178	0.000000	1.000000
Cu 324.754 {104}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.006245	0.827853	0.000000	1.000000
Fe 259.940 {130}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.001056	0.257923	0.000000	1.000000
In 230.606 {446}*	6/22/2023 10:30:57	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000263	0.124366	0.000000	1.000000
Li 670.784 { 50}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.004129	3.137703	0.000000	1.000000
Mg 279.079 {121}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.000152	0.029893	0.000000	1.000000
Mn 257.610 {131}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000209	3.024448	0.000000	1.000000
Mo 202.030 {467}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.001139	1.454514	0.000000	1.000000
Na 589.592 { 57}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.003475	0.401040	0.000000	1.000000
Ni 231.604 {445}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.001181	1.529427	0.000000	1.000000
Pb 220.353 {453}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.001605	1.368027	0.000000	1.000000
Sb 206.833 {463}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000872	0.331716	0.000000	1.000000
Se 196.090 {472}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000739	0.172310	0.000000	1.000000
Si 212.412 {459}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.003071	0.436732	0.000000	1.000000
Sn 189.989 {477}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000190	0.451576	0.000000	1.000000
Sr 407.771 { 83}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.001294	19.657823	0.000000	1.000000
Ti 334.941 {101}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000514	1.884068	0.000000	1.000000
Tl 190.856 {477}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.001288	0.625204	0.000000	1.000000
V 292.402 {115}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	-0.000163	0.615007	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	6/22/2023 10:30:57	6/22/2023 9:49:33	Linear	1/Conc	0.000831	2.594520	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999937	0.000030	0.000393	0.001310	Warnin	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999987	0.000134	0.009182	0.030607	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999962	0.000021	0.001105	0.003682	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999494	0.000589	0.001425	0.004748	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999827	0.012230	0.000130	0.000432	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999881	0.001243	0.000054	0.000181	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999857	0.002885	0.001992	0.006641	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999896	0.000575	0.000068	0.000227	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999852	0.001135	0.000138	0.000461	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999865	0.000090	0.000302	0.001007	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999984	0.000076	0.000268	0.000893	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999747	0.001480	0.001471	0.004904	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999909	0.001800	0.020089	0.066965	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999952	0.000305	0.000818	0.002725	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999872	0.000506	0.015883	0.052943	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999789	0.000793	0.000047	0.000157	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999958	0.000313	0.000172	0.000574	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999741	0.009792	0.006332	0.021107	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999900	0.000451	0.000256	0.000854	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999942	0.000108	0.000748	0.002493	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999995	0.000008	0.001170	0.003900	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999971	0.000014	0.002153	0.007177	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.998279	0.001381	0.000633	0.002111	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999659	0.000275	0.000460	0.001534	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999961	0.001813	0.000057	0.000189	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999789	0.000403	0.000129	0.000429	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999846	0.000115	0.001083	0.003608	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999988	0.000068	0.000306	0.001022	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999923	0.000473	0.000104	0.000347	OK.	1.000000	0.000000	1	0

SGS Orlando

Date:	06/13/23
[24hr] **Time**	15:30

Analysts Name:	Adam K
MP Batch ID:	42379
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	23040044	ACC1382	0.05	MU45274
Conc. HCl (B)	22410207	ACC1386	0.2	KU15244
NA	NA	MET7395	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	96	**Corr. Factor**	-2	**Corrected Observed Temp. C**	94
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	4	Matrix Spike(MS)	50	50	Y	
	4	Matrix Spike Dup(MSD)	50	50	Y	
	4	Duplicate(DUP)	50	50	Y	
1(QC) C	4	FC6562-3F	50	50	Y	
2	7	FC6580-6R	50	50	Y	
3	7	FC6580-7R	50	50	Y	
4	7	FC6580-8R	50	50	Y	
5	7	FC6712-12	50	50	Y	
6	5	FC6543-4	50	50	Y	
7	5	FC6543-5	50	50	Y	
8	5	FC6543-6	50	50	Y	
9	2	FC6808-3	50	50	Y	
10	2	FC6782-1	50	50	Y	
11	1	FC6782-2	50	50	Y	
12	1	FC6782-3	50	50	Y	
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

SGS Orlando

Date:	06/21/23
[24hr] **Time**	12:15

Analysts Name:	Thomas F
MP Batch ID:	MP42420
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	23040044	ACC1393	1	KU15244
Conc. HCl (B)	22410207	ACC1386	0.25	KU15244
NA	NA	MET7404	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	95	**Corr. Factor**	-2	**Corrected Observed Temp. C**	93
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	40	Matrix Spike(MS)	50	50	Y	
	40	Matrix Spike Dup(MSD)	50	50	Y	
	40	Duplicate(DUP)	50	50	Y	
1(QC) C	40	FC6740-10F	50	50	Y	
2	11	FC6943-5	50	50	Y	
3	8	FC7014-1	50	50	Y	
4	8	FC7014-2	50	50	Y	
5	8	FC7014-3	50	50	Y	
6	2	FC6782-1B	50	50	Y	
7	1	FC6782-2A	50	50	Y	
8	1	FC6782-3A	50	50	Y	
9	1	FC6848-1	50	50	Y	
10	1	FC6974-1	50	50	Y	
11	8	FC7070-1	50	50	Y	
12	10	FC6817-1	50	50	Y	
13	10	FC6817-2	50	50	Y	
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

ICP_WaterPrep_Logbook
Rev. 07/09/2021
DM

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP38843/GN94435	0.50	0.0	mg/l	10	9.73	97.3	90-110%
Chloride	GP38843/GN94435	2.0	0.0	mg/l	50	48.5	97.0	90-110%
Fluoride	GP38843/GN94435	0.20	0.0	mg/l	2.5	2.49	99.6	90-110%
Nitrogen, Nitrate	GP38843/GN94435	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Nitrogen, Nitrite	GP38843/GN94435	0.10	0.0	mg/l	2.5	2.57	102.8	90-110%
Sulfate	GP38843/GN94435	2.0	0.0	mg/l	50	49.8	99.6	90-110%

Associated Samples:
Batch GP38843: FC6782-1B
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP38843/GN94435	FC6782-1B	mg/l	0.66	10	9.8	91.4	90-110%
Chloride	GP38843/GN94435	FC6782-1B	mg/l	30.5	50	75.8	90.6	90-110%
Fluoride	GP38843/GN94435	FC6782-1B	mg/l	0.099	2.5	2.5	96.0	90-110%
Nitrogen, Nitrate	GP38843/GN94435	FC6782-1B	mg/l	0.19	2.5	2.7	100.4	90-110%
Nitrogen, Nitrite	GP38843/GN94435	FC6782-1B	mg/l	0.040 U	2.5	0.89	35.6N(a)	90-110%
Sulfate	GP38843/GN94435	FC6782-1B	mg/l	6.0	50	56.8	101.6	90-110%

Associated Samples:
Batch GP38843: FC6782-1B
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP38843/GN94435	FC6782-1B	mg/l	0.66	10	9.8	0.0	15%
Chloride	GP38843/GN94435	FC6782-1B	mg/l	30.5	50	75.8	0.0	15%
Fluoride	GP38843/GN94435	FC6782-1B	mg/l	0.099	2.5	2.5	0.0	15%
Nitrogen, Nitrate	GP38843/GN94435	FC6782-1B	mg/l	0.19	2.5	2.7	0.0	15%
Nitrogen, Nitrite	GP38843/GN94435	FC6782-1B	mg/l	0.040 U	2.5	0.95	6.5	15%
Sulfate	GP38843/GN94435	FC6782-1B	mg/l	6.0	50	56.8	0.0	15%

Associated Samples:
Batch GP38843: FC6782-1B
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023061301.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN94435
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:10	GN94435-STD1	1		STDA
11:32	GN94435-STD2	1		STDB
11:54	GN94435-STD3	1		STDC
12:15	GN94435-STD4	1		STDD
12:37	GN94435-STD5	1		STDE
12:59	GN94435-STD6	1		STDF
13:21	GN94435-STD7	1		STDG
13:44	GN94435-STD8	1		STDH
14:06	GN94435-STD9	1		STDI
14:28	GN94435-STD10	1		STDJ
14:50	GN94435-STD11	1		STDK
15:12	GN94435-ICV1	1		
15:34	GN94435-ICB1	1		
15:56	GN94435-CRI1	1		
16:19	GN94435-CCV1	1		
16:42	GN94435-CCB1	1		
07:29	GN94435-CCV2	1		
07:56	GP38843-MB1	1		
08:18	GP38843-B1	1		
12:05	ZZZZZZ	1		
12:27	FC6782-1B	1		
12:49	GP38843-S1	1		
13:11	GP38843-S2	1		
13:33	ZZZZZZ	10		
13:55	ZZZZZZ	1		
14:17	FC6817-1	1		(sample used for QC only; not part of login FC6782)
14:39	GP38843-S3	1		
15:01	GN94435-CCV3	1		
15:23	GN94435-CCB2	1		
15:45	GP38843-S4	1		
16:07	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:52	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023061301.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN94435
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:14	ZZZZZZ	1		
17:36	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:20	ZZZZZZ	1		
18:42	GN94435-CCV4	1		
19:04	GN94435-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC6782
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023061301.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A
Run ID: GN94435 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94435-ICV1	Chloride	48.6	2.0	0.80	50	97.2	90-110
GN94435-ICV1	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN94435-ICB1	Chloride	0.80 U	2.0	0.80			
GN94435-ICB1	Sulfate	0.60 U	2.0	0.60			
GN94435-CRI1	Chloride	1.08	2.0	0.80	1	108.0	50-150
GN94435-CRI1	Sulfate	1.19	2.0	0.60	1	119.0	50-150
GN94435-CCV1	Chloride	49.4	2.0	0.80	50	98.8	90-110
GN94435-CCV1	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94435-CCB1	Chloride	0.80 U	2.0	0.80			
GN94435-CCB1	Sulfate	0.60 U	2.0	0.60			
GN94435-CCV2	Chloride	49.3	2.0	0.80	50	98.6	90-110
GN94435-CCV2	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94435-CCV3	Chloride	49.5	2.0	0.80	50	99.0	90-110
GN94435-CCV3	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94435-CCB2	Chloride	0.80 U	2.0	0.80			
GN94435-CCB2	Sulfate	0.60 U	2.0	0.60			
GN94435-CCV4	Chloride	49.7	2.0	0.80	50	99.4	90-110
GN94435-CCV4	Sulfate	49.9	2.0	0.60	50	99.8	90-110
GN94435-CCB3	Chloride	0.80 U	2.0	0.80			
GN94435-CCB3	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
BI	NO_2/NO_3	IC014716/7	Ref	6-9-23	100	2.5	100	2.5	6-8-23	JR	IC014719	6-9-23
	SO_4	GN35259		7-26-23	1000	5		50				
	Cl	60										
	F	WC1995	Spex	9-30-23		0.25		2.5				
	Br	GN35261	Ref	7-26-23		1		10				
*JR 6/8/23 1°NO_2	NO_2	WC2056	Ricca	9-1-23	1000	2.5	25	100	6-10-23	JR	IC014720	6-11-23
1°NO_3	NO_3	63		5-1-24							1	
2°NO_2	NO_2	32	Absolute	11-29-24							2	
2°NO_3	NO_3	33		11-3-25							3	
CW	NO_2/NO_3	IC014720/1	Ref	6-11-23	100	5	200	2.5			IC014724	
	SO_4	WC2035	Ricca	11-1-23	1000	10		50				
	Cl	45		12-1-24								
	F	74		6-1-24		0.5		2.5				
	Br	WC1968	Spex	6-30-23		2		10				
BI	NO_2/NO_3	IC014722/3	Ref	6-11-23	100	2.5	100	2.5			IC014725	
	SO_4	GN35259		7-26-23	1000	5		50				
	Cl	60										
	F	WC1995	Spex	9-30-23		0.25		2.5				
	Br	GN35261	Ref	7-26-23		1		10				
*JR 6/13/23 1°NO_2	NO_2	WC2056	Ricca	~~11-1~~ 9-1-23	1000	2.5	25	100	6-13-23	JR	IC014726	6-14-23
1°NO_3	NO_3	63		5-1-24							7	
2°NO_2	NO_2	32	Absolute	11-29-24							8	
2°NO_3	NO_3	33		11-3-25							9	
CW	NO_2/NO_3	IC014726/7	Ref	6-14-23	100	5	200	2.5			IC014730	
	SO_4	WC2035	Ricca	11-1-23	1000	10		50				
	Cl	45		12-1-24								
	F	74		6-1-24		0.5		2.5				
	Br	WC1968	Spex	6-30-23		2		10				
BI	NO_2/NO_3	IC014728/9	Ref	6-14-23	100	2.5	100	2.5			IC014731	
	SO_4	GN35259		7-26-23	1000	5		50				
	Cl	60										
	F	WC1995	Spex	9-30-23		0.25		2.5				
	Br	GN35261	Ref	7-26-23		1		10				

JR 6/13/23

IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Date: 6/13/23 @ 7:02	Prep Batchs: 38843	Vial lot# 728442 G-23535	Standards
Analyst: JR	Analytical Batch: 94435	Cap lot# —	ICAL: —
Instrument: #4	Calibration Date: 6/6/23	Syringe lot# —	ICV: —
Inst. File Name: 42023061301.cdv	Pump pressure: 9.11 MPa	Filter lot# —	CCV: 1014730
			QC: ↓

Sample#					Filter	Ions Needed						Results OK or Dilution Needed						Comments
Rinse	Bot#	Matrix	Scon	DF	(y/n)	F	Cl	NO2	Br	NO3	SO4	① F	Cl	NO2	Br	NO3	SO4	① OK unless marked
CW	-	AQ	-	1	N	—	—	—	—	—	—							
MBI	-		-			—	—	—	—	—	—							
BI	-		-			—	—	—	—	—	—							
FC6808-1	1		-			—	—	—	—	—	—							
FC6782-1B			307				—				—							
-1BS1						—	—	—	—	—	—							
-1BS2						—	—	—	—	—	—							
FC6800-1	7		1020	10			—				—							
-2			274	1			—				—							
FC6817-1	11		289	1						—	—							
-153						—	—	—	—	—	—							
CW	-		-			—	—	—	—	—	—							
CUB	-		-			—	—	—	—	—	—							
FC6817-154	11		289			—	—	—	—	—	—							
-2			98							—	—							
-3			111															
-4			405															
-5			474															
-6			196															
-7	10		277															
-9	11		120															
CW	-		-			—	—	—	—	—	—							
CUB	-		-			—	—	—	—	—	—							

JR 6/14/23

Rev 0116 LM

SGS Accutest - Orlando

MagIC Net

2023-06-07 8:35:30

Sample data

Ident	STDK	
Sample type	Standard 10	
Determination start	2023-06-06 14:50:16 UTC-4	
Method	SGS In-Vial Anions191003A	
Operator	JR	

Anions

Data source	Conductivity detector 1 (930 Compact IC Flex 1)	
Channel	Conductivity	
Recording time	19.0	min
Integration	Automatically	
Column type	Metrosep A Supp 5 - 150/4.0	
Eluent composition	not defined	
Flow	0.700	mL/min
Maximum flow monitored	yes	
Pressure	8.21	MPa
Maximum pressure monitored	yes	
Temperature	30.0	°C

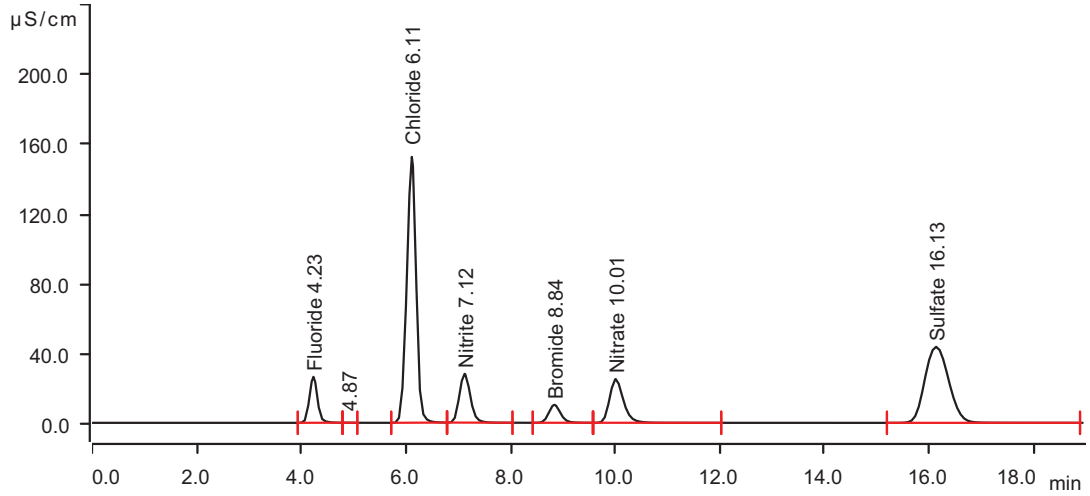
Pressure

Data source	Pump (930 Compact IC Flex 1)	
Channel	System pressure	
Recording time	17.5	min
Integration	Automatically	
Flow	-----	mL/min
Maximum flow monitored	no	
Pressure	-----	MPa
Maximum pressure monitored	no	
Temperature	-----	°C

MagIC Net

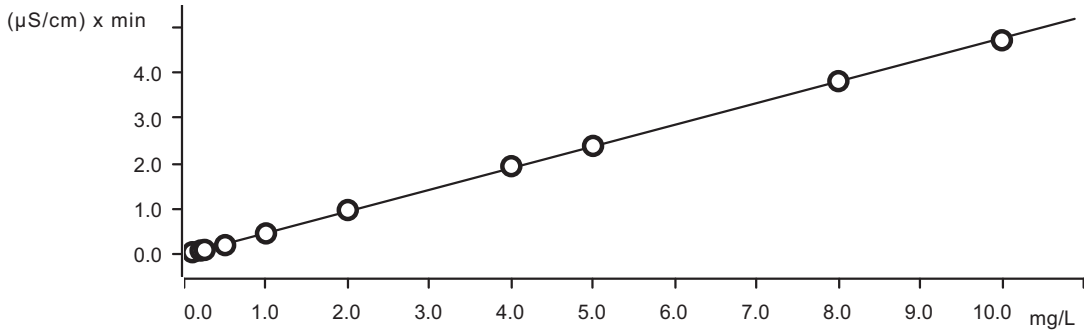
2023-06-07 8:35:30

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration mg/L	Component name
1	4.233	4.7211	26.266	9.901	Fluoride
2	4.868	0.0027	0.017	invalid	
3	6.113	31.4653	151.958	100.116	Chloride
4	7.122	6.8154	27.885	9.968	Nitrite
5	8.837	2.6832	10.267	20.760	Bromide
6	10.010	7.6401	24.961	10.221	Nitrate
7	16.133	22.8839	43.451	100.925	Sulfate

Fluoride (Anions)



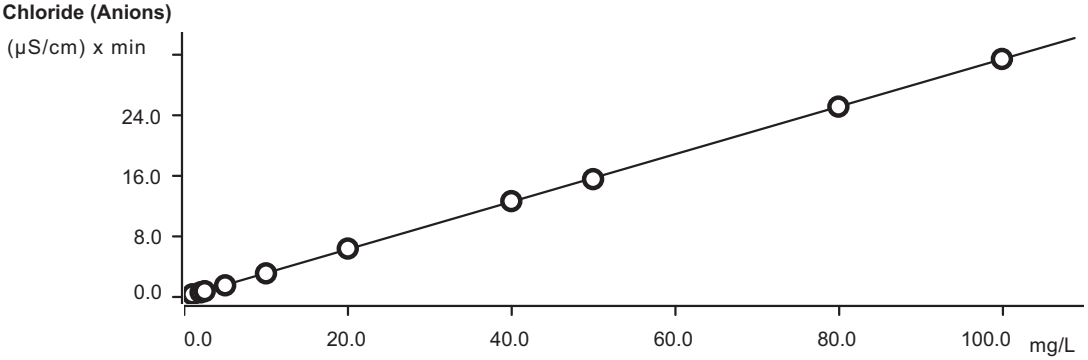
Function: . . . . . *A = - 0.0211997 + 0.0239476× Q*

Relative standard deviation . . . . . *1.906714 %*

Correlation coefficient *0.999880*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0362	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.0728	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.0864	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.1924	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.4513	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	0.9684	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	1.9379	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	2.3860	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	3.8173	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	4.7211	STDK	2023-06-06 14:50:16 UTC-4

Chloride (Anions)



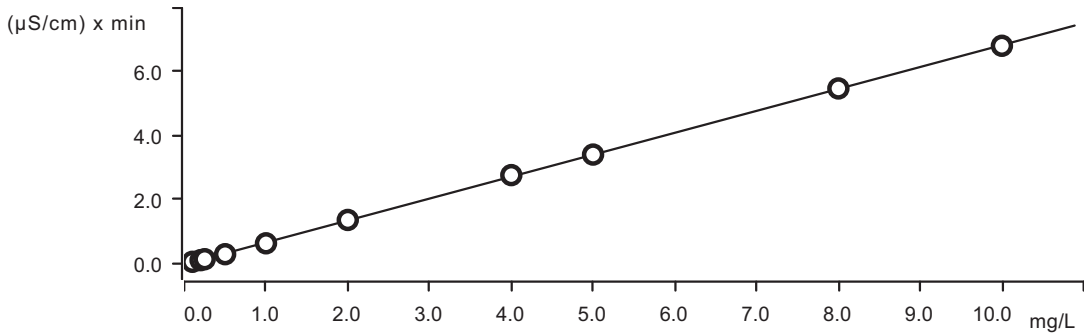
Function: . . . . . *A = - 0.0931798 + 0.0157609× Q*

Relative standard deviation . . . . . *0.798820 %*

Correlation coefficient *0.999979*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.2524	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.5119	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.6639	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.4385	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.0285	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	20.000	20.0	1.0	1.0	6.3172	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	12.6101	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	15.5240	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	25.1438	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	31.4653	STDK	2023-06-06 14:50:16 UTC-4

Nitrite (Anions)



Function: . . . . . *A = - 0.0301378 + 0.0343379× Q*

Relative standard deviation . . . . . *1.195968 %*

Correlation coefficient *0.999953*

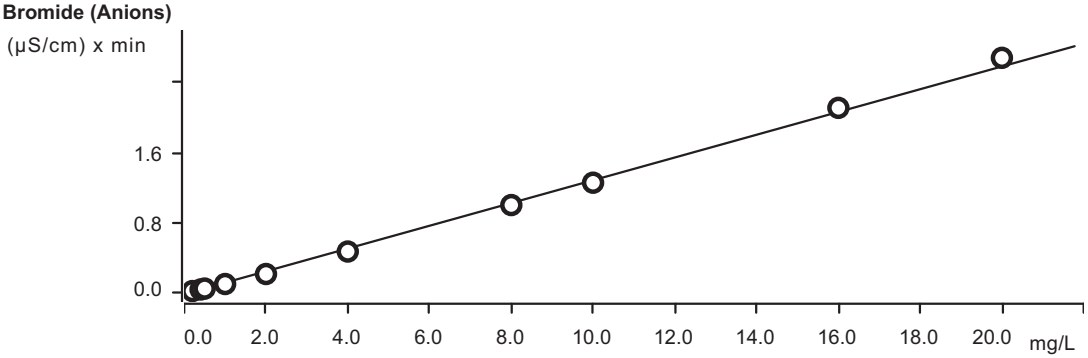
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0504	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1013	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1313	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2879	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6299	STDF	2023-06-06 12:59:49 UTC-4

MagIC Net

2023-06-07 8:35:30

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.3610	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.7654	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.4088	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	5.4796	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	6.8154	STDK	2023-06-06 14:50:16 UTC-4

Bromide (Anions)



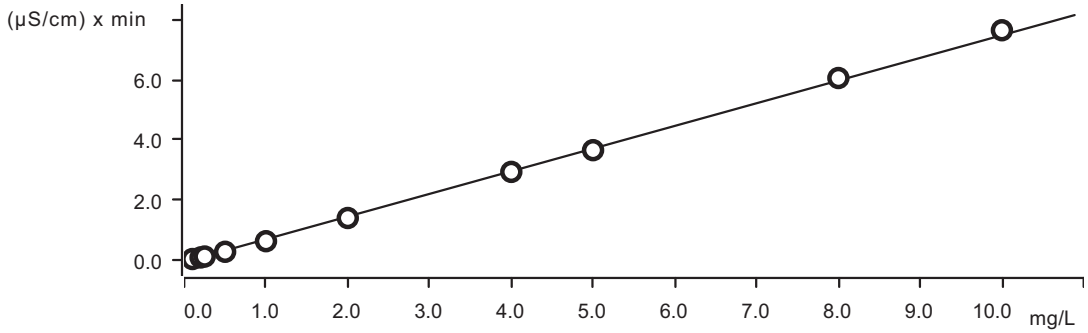
Function: . . . . . *A = - 0.0148861 + 6.49841E-3× Q*

Relative standard deviation . . . . . *5.588305 %*

Correlation coefficient *0.999041*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.200	20.0	1.0	1.0	0.0191	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.400	20.0	1.0	1.0	0.0370	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.500	20.0	1.0	1.0	0.0475	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	1.000	20.0	1.0	1.0	0.0996	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	2.000	20.0	1.0	1.0	0.2139	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	4.000	20.0	1.0	1.0	0.4706	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	8.000	20.0	1.0	1.0	1.0015	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	10.000	20.0	1.0	1.0	1.2568	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	16.000	20.0	1.0	1.0	2.1117	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	20.000	20.0	1.0	1.0	2.6832	STDK	2023-06-06 14:50:16 UTC-4

Nitrate (Anions)



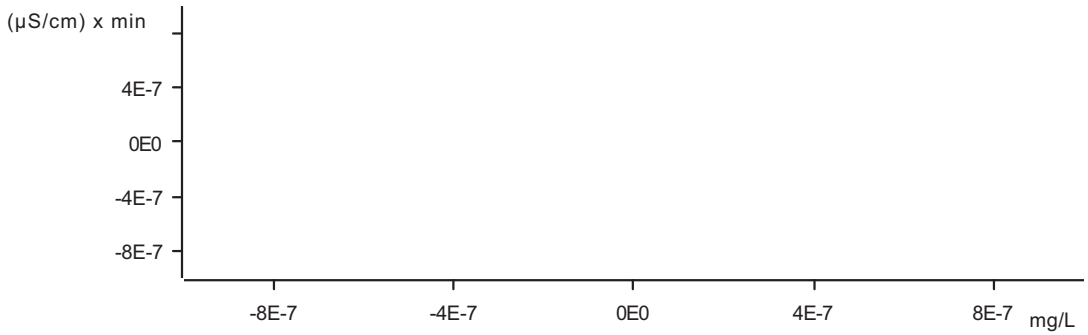
Function: . . . . . *A = - 0.0411561 + 0.0375757× Q*

Relative standard deviation . . . . . *3.335615 %*

Correlation coefficient *0.999650*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0535	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1057	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1369	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2940	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6446	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.4138	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.9429	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.6632	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	6.0558	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	7.6401	STDK	2023-06-06 14:50:16 UTC-4

Phosphate (Anions)



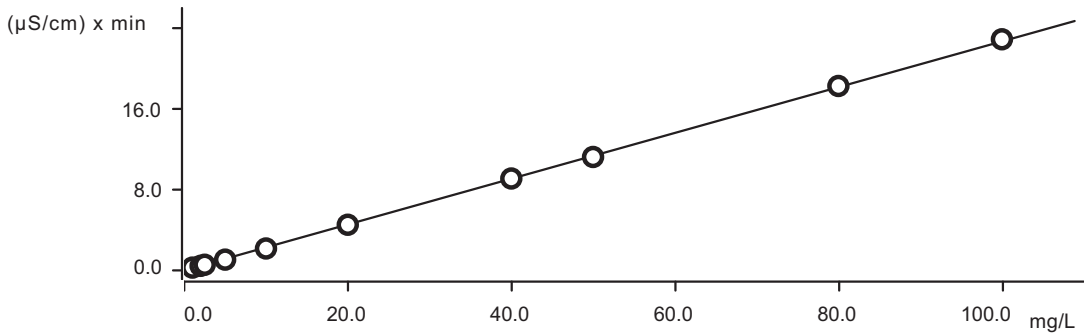
Function: . . . . . .

Relative standard deviation . . . . . *invalid %*

Correlation coefficient . . . . . *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-06-06 14:50:16 UTC-4

Sulfate (Anions)



Function: . . . . . *A = - 0.0942335 + 0.0113838× Q*

Relative standard deviation . . . . . *1.544949 %*

Correlation coefficient *0.999923*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.1710	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.3463	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.4552	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	0.9645	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	2.0732	STDF	2023-06-06 12:59:49 UTC-4

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.4336	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	9.0343	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	11.1759	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	18.2394	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	22.8839	STDK	2023-06-06 14:50:16 UTC-4

MagIC Net

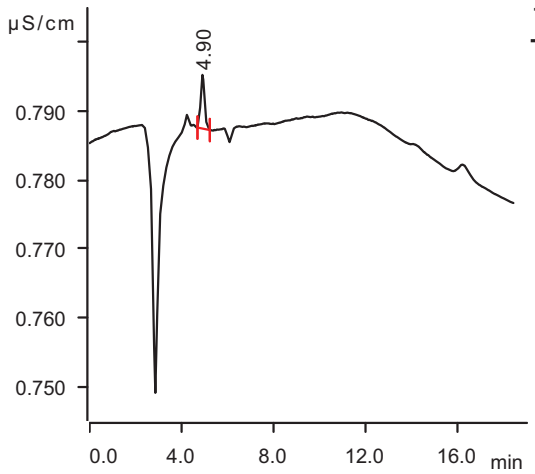
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDA
Sample type . . . . . Standard 100
Determination start 2023-06-06 11:10:48
Dilution factor 1.00

Anions

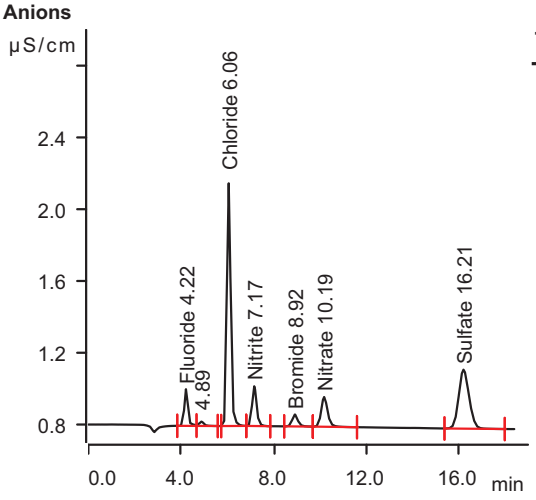


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)

Sample data

Ident . . . . . STDB
Sample type . . . . . Standard 1
Determination start 2023-06-06 11:32:19
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0362	0.120	0.120
6.06	Chloride	0.2524	1.096	1.096
7.17	Nitrite	0.0504	0.117	0.117
8.92	Bromide	0.0191	0.261	0.261
10.19	Nitrate	0.0535	0.126	0.126
16.21	Sulfate	0.1710	1.165	1.165

MagIC Net

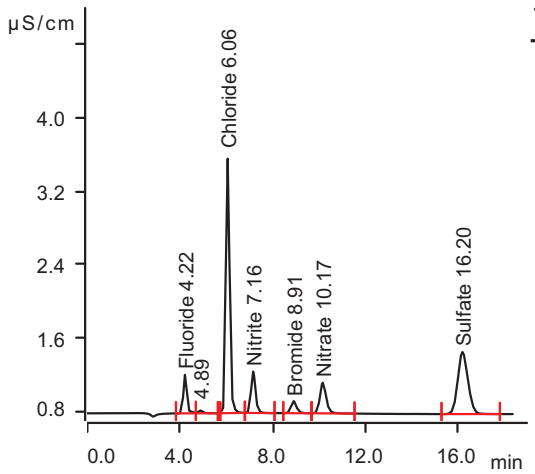
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDC
Sample type . . . . . Standard 2
Determination start 2023-06-06 11:54:00
Dilution factor 1.00

Anions

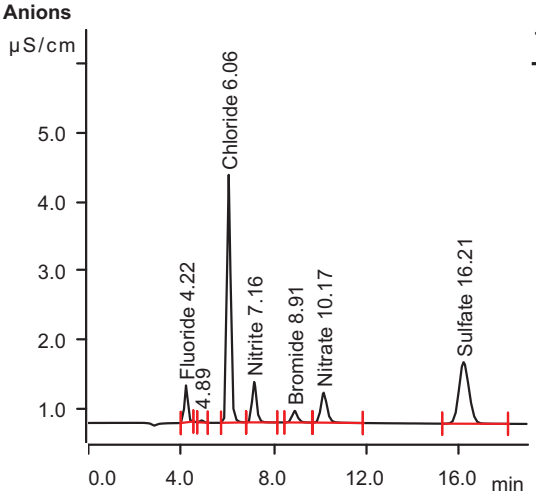


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0728	0.196	0.196
6.06	Chloride	0.5119	1.920	1.920
7.16	Nitrite	0.1013	0.191	0.191
8.91	Bromide	0.0370	0.399	0.399
10.17	Nitrate	0.1057	0.195	0.195
16.20	Sulfate	0.3463	1.935	1.935

Sample data

Ident . . . . . STDD
Sample type . . . . . Standard 3
Determination start 2023-06-06 12:15:39
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0864	0.225	0.225
6.06	Chloride	0.6639	2.402	2.402
7.16	Nitrite	0.1313	0.235	0.235
8.91	Bromide	0.0475	0.480	0.480
10.17	Nitrate	0.1369	0.237	0.237
16.21	Sulfate	0.4552	2.413	2.413

MagIC Net

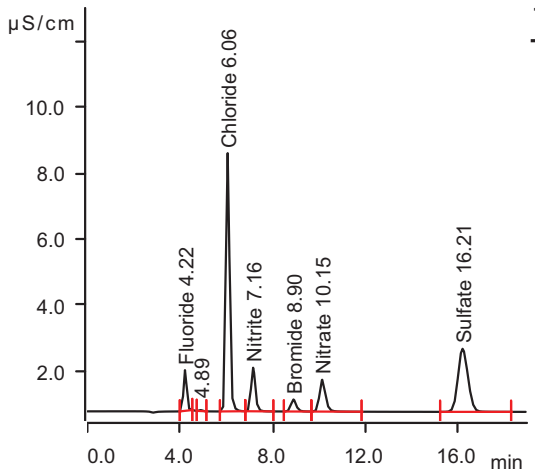
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDE
Sample type . . . . . Standard 4
Determination start 2023-06-06 12:37:44
Dilution factor 1.00

Anions

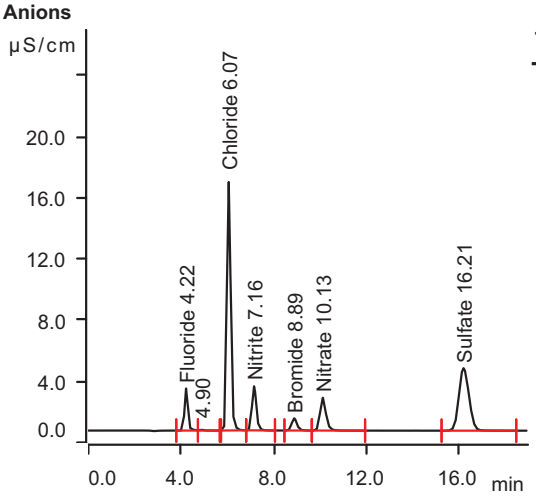


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.1924	0.446	0.446
6.06	Chloride	1.4385	4.859	4.859
7.16	Nitrite	0.2879	0.463	0.463
8.90	Bromide	0.0996	0.881	0.881
10.15	Nitrate	0.2940	0.446	0.446
16.21	Sulfate	0.9645	4.650	4.650

Sample data

Ident . . . . . STDF
Sample type . . . . . Standard 5
Determination start 2023-06-06 12:59:49
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.4513	0.987	0.987
6.07	Chloride	3.0285	9.903	9.903
7.16	Nitrite	0.6299	0.961	0.961
8.89	Bromide	0.2139	1.760	1.760
10.13	Nitrate	0.6446	0.912	0.912
16.21	Sulfate	2.0732	9.520	9.520

MagIC Net

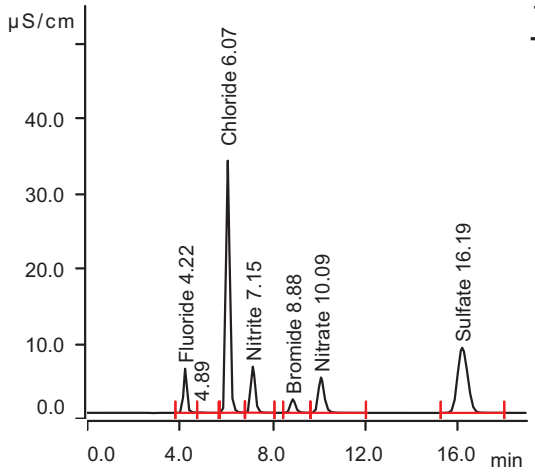
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDG
Sample type . . . . . Standard 6
Determination start 2023-06-06 13:21:55
Dilution factor 1.00

Anions

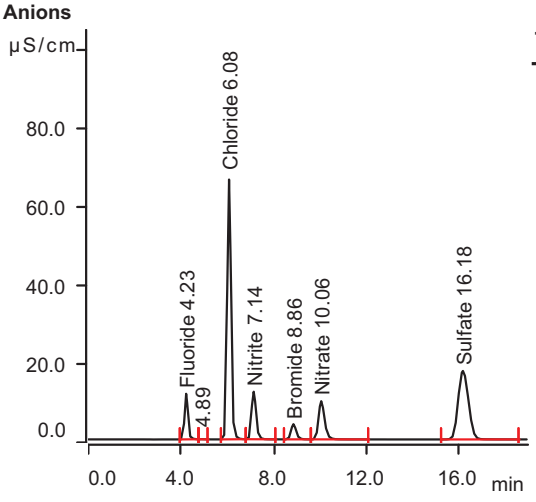


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.9684	2.066	2.066
6.07	Chloride	6.3172	20.336	20.336
7.15	Nitrite	1.3610	2.026	2.026
8.88	Bromide	0.4706	3.736	3.736
10.09	Nitrate	1.4138	1.936	1.936
16.19	Sulfate	4.4336	19.887	19.887

Sample data

Ident . . . . . STDH
Sample type . . . . . Standard 7
Determination start 2023-06-06 13:44:00
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	1.9379	4.090	4.090
6.08	Chloride	12.6101	40.300	40.300
7.14	Nitrite	2.7654	4.071	4.071
8.86	Bromide	1.0015	7.820	7.820
10.06	Nitrate	2.9429	3.971	3.971
16.18	Sulfate	9.0343	40.094	40.094

MagIC Net

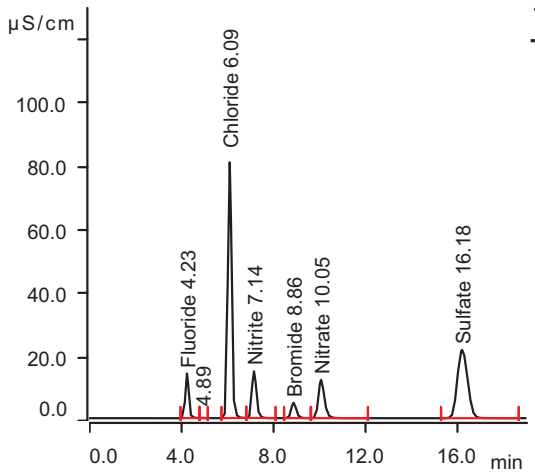
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDI
Sample type . . . . . Standard 8
Determination start 2023-06-06 14:06:05
Dilution factor 1.00

Anions

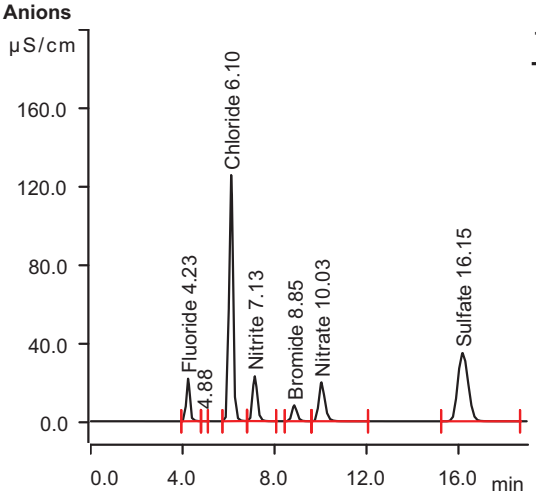


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	2.3860	5.026	5.026
6.09	Chloride	15.5240	49.544	49.544
7.14	Nitrite	3.4088	5.007	5.007
8.86	Bromide	1.2568	9.785	9.785
10.05	Nitrate	3.6632	4.929	4.929
16.18	Sulfate	11.1759	49.501	49.501

Sample data

Ident . . . . . STDJ
Sample type . . . . . Standard 9
Determination start 2023-06-06 14:28:12
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	3.8173	8.014	8.014
6.10	Chloride	25.1438	80.062	80.062
7.13	Nitrite	5.4796	8.023	8.023
8.85	Bromide	2.1117	16.362	16.362
10.03	Nitrate	6.0558	8.113	8.113
16.15	Sulfate	18.2394	80.525	80.525

MagIC Net

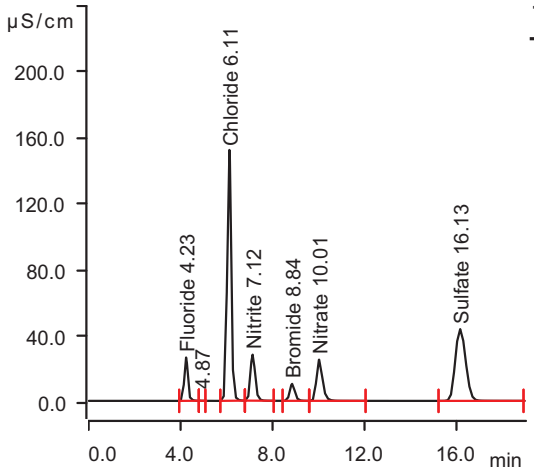
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . STDK
Sample type . . . . . Standard 10
Determination start 2023-06-06 14:50:16
Dilution factor 1.00

Anions

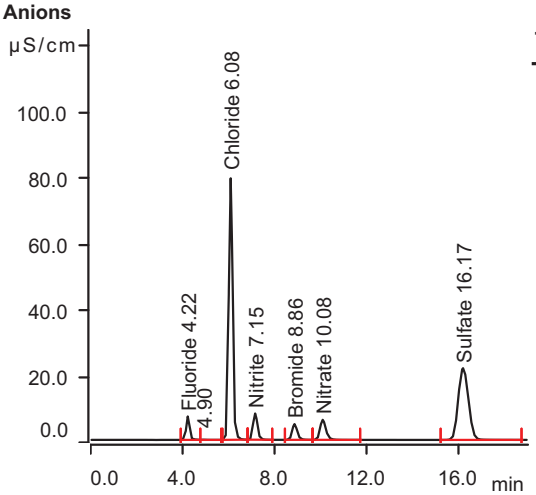


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	4.7211	9.901	9.901
6.11	Chloride	31.4653	100.116	100.116
7.12	Nitrite	6.8154	9.968	9.968
8.84	Bromide	2.6832	20.760	20.760
10.01	Nitrate	7.6401	10.221	10.221
16.13	Sulfate	22.8839	100.925	100.925

Sample data

Ident ICV
Sample type . . . . . Sample
Determination start 2023-06-06 15:12:21
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.1903	2.530	2.530
6.08	Chloride	15.2367	48.633	48.633
7.15	Nitrite	1.7705	2.622	2.622
8.86	Bromide	1.2346	9.614	9.614
10.08	Nitrate	1.8167	2.472	2.472
16.17	Sulfate	11.1676	49.464	49.464

MagIC Net

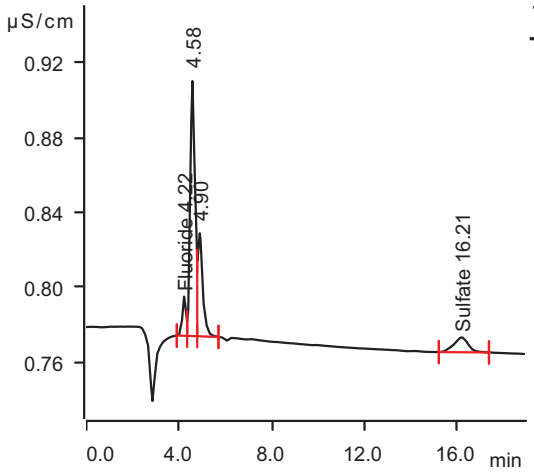
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . ICB
Sample type . . . . . Sample
Determination start 2023-06-06 15:34:24
Dilution factor 1.00

Anions

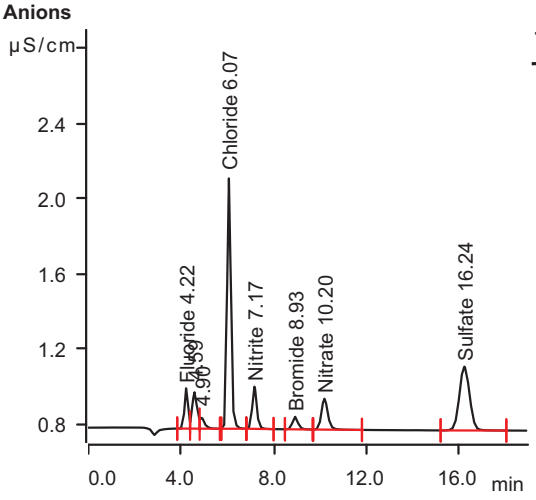


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0036	0.052	0.052
16.21	Sulfate	0.0057	0.439	0.439

Sample data

Ident . . . . . CRI
Sample type . . . . . Sample
Determination start 2023-06-06 15:56:31
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0360	0.119	0.119
6.07	Chloride	0.2485	1.084	1.084
7.17	Nitrite	0.0513	0.119	0.119
8.93	Bromide	0.0190	0.261	0.261
10.20	Nitrate	0.0531	0.125	0.125
16.24	Sulfate	0.1755	1.185	1.185

MagIC Net

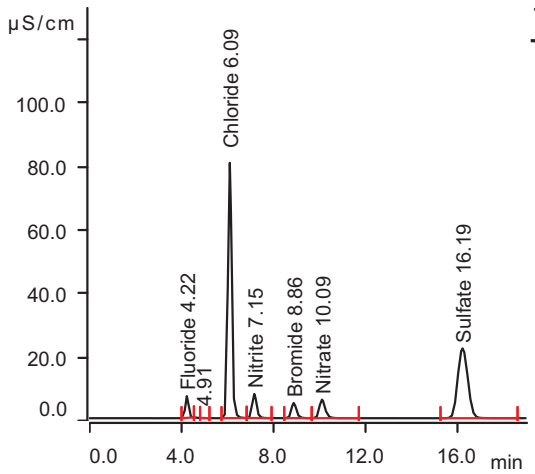
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-06-06 16:19:28
Dilution factor 1.00

Anions

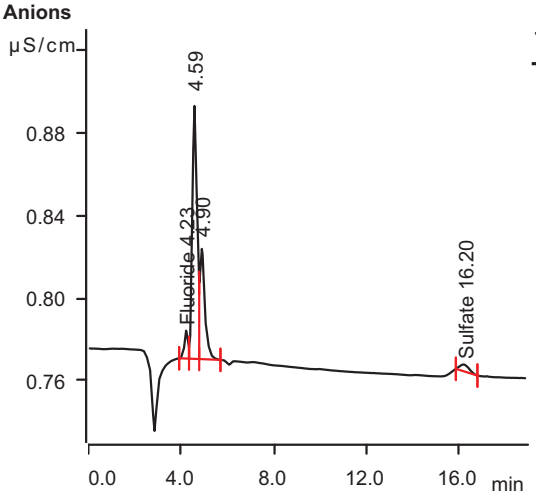


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.0859	2.311	2.311
6.09	Chloride	15.4850	49.420	49.420
7.15	Nitrite	1.6828	2.494	2.494
8.86	Bromide	1.2354	9.620	9.620
10.09	Nitrate	1.7444	2.376	2.376
16.19	Sulfate	11.2335	49.754	49.754

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-06-06 16:42:23
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	0.0023	0.049	0.049
16.20	Sulfate	0.0015	0.421	0.421

MagIC Net

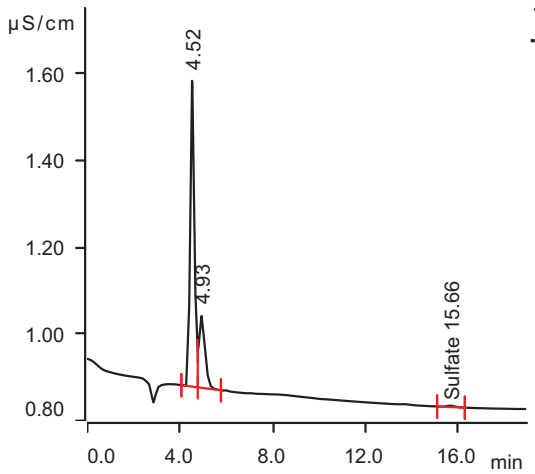
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident . . . . . Rinse
Sample type . . . . . Sample
Determination start 2023-06-13 07:02:31
Dilution factor 1.00

Anions

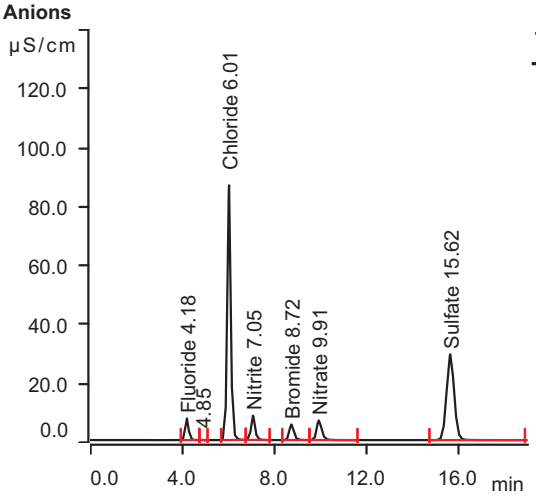


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.66	Sulfate	0.0013	0.420	0.420

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-06-13 07:29:16
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1763	2.500	2.500
6.01	Chloride	15.4614	49.345	49.345
7.05	Nitrite	1.6763	2.485	2.485
8.72	Bromide	1.2274	9.558	9.558
9.91	Nitrate	1.7519	2.442	2.442
15.62	Sulfate	11.2435	49.798	49.798

MagIC Net

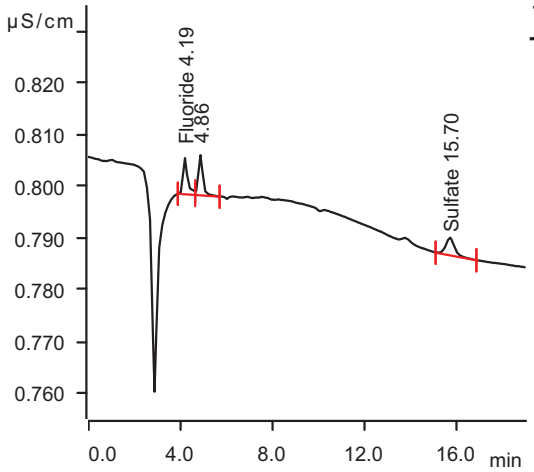
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-06-13 07:56:03
Dilution factor 1.00

Anions

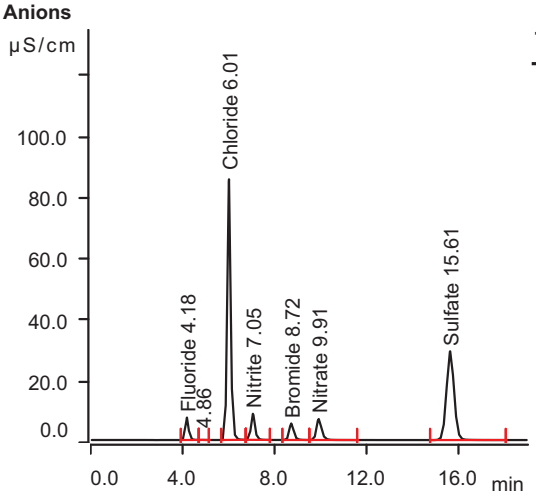


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0016	0.048	0.048
15.70	Sulfate	0.0016	0.421	0.421

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-06-13 08:18:08
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1733	2.494	2.494
6.01	Chloride	15.1954	48.502	48.502
7.05	Nitrite	1.7344	2.569	2.569
8.72	Bromide	1.2495	9.729	9.729
9.91	Nitrate	1.8115	2.519	2.519
15.61	Sulfate	11.2371	49.770	49.770

MagIC Net

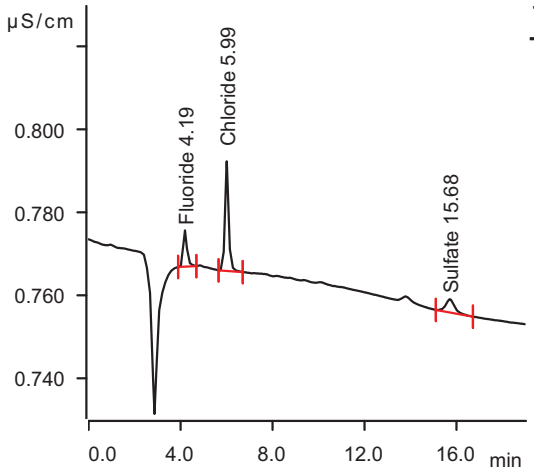
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6808-1
Sample type . . . . . Sample
Determination start 2023-06-13 12:05:26
Dilution factor 1.00

Anions

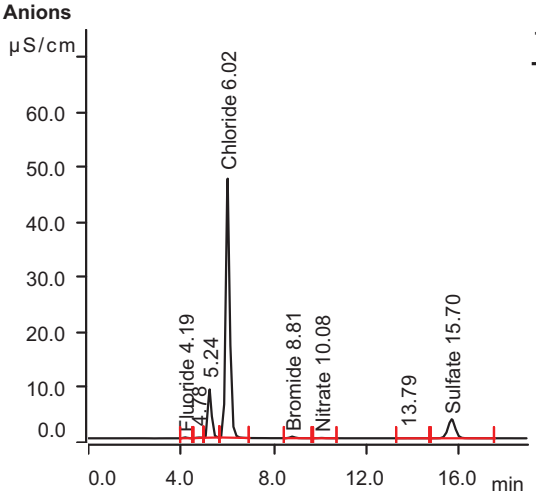


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0016	0.048	0.048
5.99	Chloride	0.0050	0.312	0.312
15.68	Sulfate	0.0015	0.420	0.420

Sample data

Ident FC6782-1B
Sample type . . . . . Sample
Determination start 2023-06-13 12:27:30
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0264	0.099	0.099
6.02	Chloride	9.5180	30.490	30.490
8.81	Bromide	0.0707	0.658	0.658
10.08	Nitrate	0.0140	0.191	0.191
15.70	Sulfate	1.2814	6.042	6.042

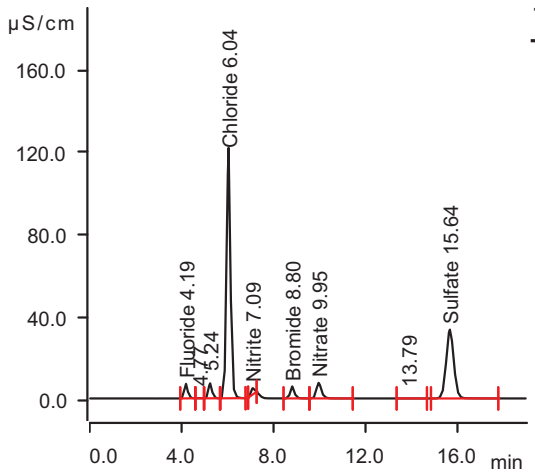
MagIC Net

Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

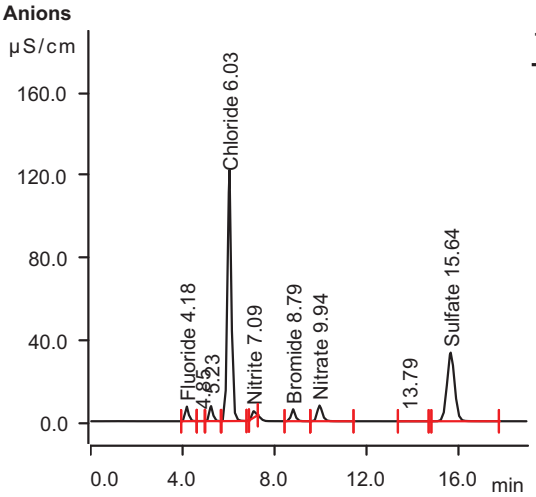
Ident FC6782-1BS1
Sample type . . . . . Sample
Determination start 2023-06-13 12:49:32
Dilution factor 1.00



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1574	2.461	2.461
6.04	Chloride	23.8031	75.808	75.808
7.09	Nitrite	0.5774	0.885	0.885
8.80	Bromide	1.2579	9.793	9.793
9.95	Nitrate	1.9301	2.673	2.673
15.64	Sulfate	12.8404	56.812	56.812

Sample data

Ident FC6782-1BS2
Sample type . . . . . Sample
Determination start 2023-06-13 13:11:34
Dilution factor 1.00



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1598	2.466	2.466
6.03	Chloride	23.7970	75.789	75.789
7.09	Nitrite	0.6219	0.949	0.949
8.79	Bromide	1.2572	9.788	9.788
9.94	Nitrate	1.9461	2.694	2.694
15.64	Sulfate	12.8290	56.761	56.761

MagIC Net

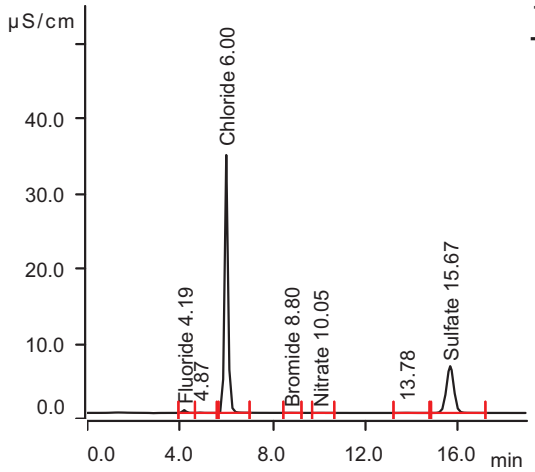
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6800-1
Sample type . . . . . Sample
Determination start 2023-06-13 13:33:37
Dilution factor 10.00

Anions

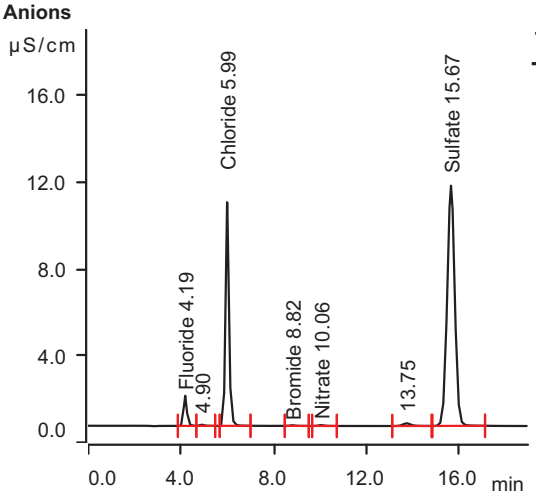


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0629	0.176	1.756
6.00	Chloride	5.9701	19.235	192.353
8.80	Bromide	0.0017	0.128	1.275
10.05	Nitrate	0.0015	0.175	1.751
15.67	Sulfate	2.3600	10.779	107.795

Sample data

Ident FC6800-2
Sample type . . . . . Sample
Determination start 2023-06-13 13:55:25
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2213	0.506	0.506
5.99	Chloride	1.8260	6.088	6.088
8.82	Bromide	0.0070	0.169	0.169
10.06	Nitrate	0.0108	0.187	0.187
15.67	Sulfate	4.2227	18.961	18.961

MagIC Net

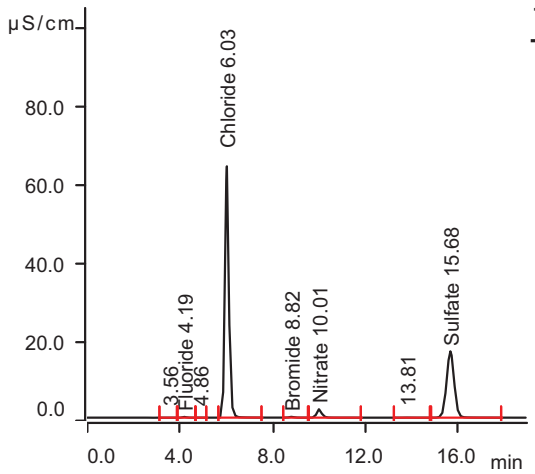
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6817-1
Sample type . . . . . Sample
Determination start 2023-06-13 14:17:29
Dilution factor 1.00

Anions

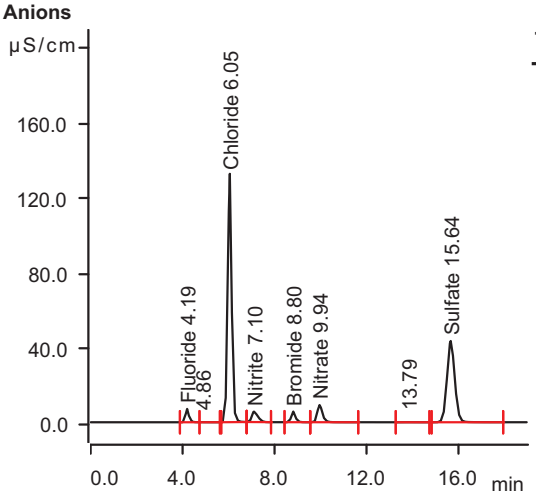


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0323	0.112	0.112
6.03	Chloride	12.5857	40.222	40.222
8.82	Bromide	0.0494	0.494	0.494
10.01	Nitrate	0.5493	0.885	0.885
15.68	Sulfate	6.4773	28.864	28.864

Sample data

Ident FC6817-1S3
Sample type . . . . . Sample
Determination start 2023-06-13 14:39:33
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1705	2.488	2.488
6.05	Chloride	26.0152	82.826	82.826
7.10	Nitrite	1.7120	2.537	2.537
8.80	Bromide	1.2384	9.643	9.643
9.94	Nitrate	2.3804	3.256	3.256
15.64	Sulfate	17.0012	75.087	75.087

MagIC Net

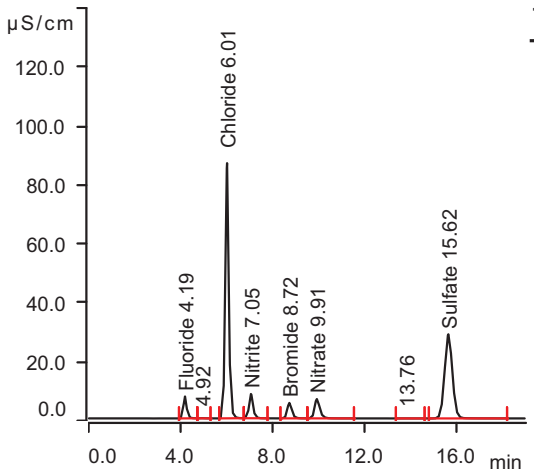
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-06-13 15:01:39
Dilution factor 1.00

Anions

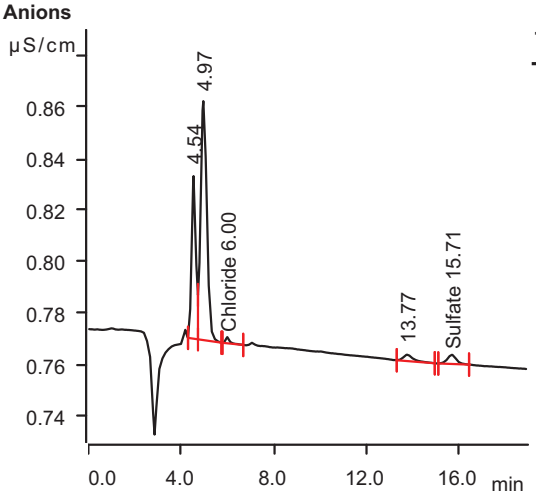


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1829	2.514	2.514
6.01	Chloride	15.5191	49.528	49.528
7.05	Nitrite	1.6800	2.490	2.490
8.72	Bromide	1.2275	9.559	9.559
9.91	Nitrate	1.7533	2.444	2.444
15.62	Sulfate	11.2484	49.819	49.819

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-06-13 15:23:48
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
6.00	Chloride	0.0005	0.297	0.297
15.71	Sulfate	0.0016	0.421	0.421

MagIC Net

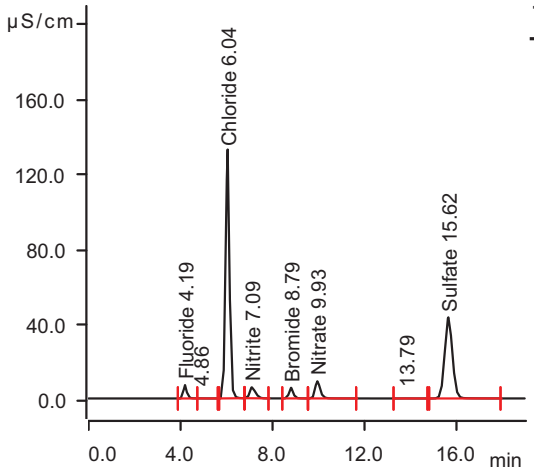
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6817-1S4
Sample type . . . . . Sample
Determination start 2023-06-13 15:45:51
Dilution factor 1.00

Anions

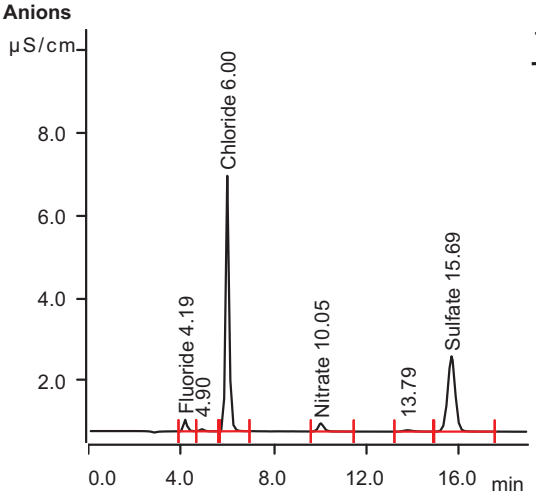


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1762	2.500	2.500
6.04	Chloride	26.0084	82.805	82.805
7.09	Nitrite	1.7176	2.545	2.545
8.79	Bromide	1.2376	9.637	9.637
9.93	Nitrate	2.3789	3.254	3.254
15.62	Sulfate	17.0021	75.091	75.091

Sample data

Ident FC6817-2
Sample type . . . . . Sample
Determination start 2023-06-13 16:07:59
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0486	0.146	0.146
6.00	Chloride	1.1110	3.820	3.820
10.05	Nitrate	0.0561	0.246	0.246
15.69	Sulfate	0.6941	3.463	3.463

MagIC Net

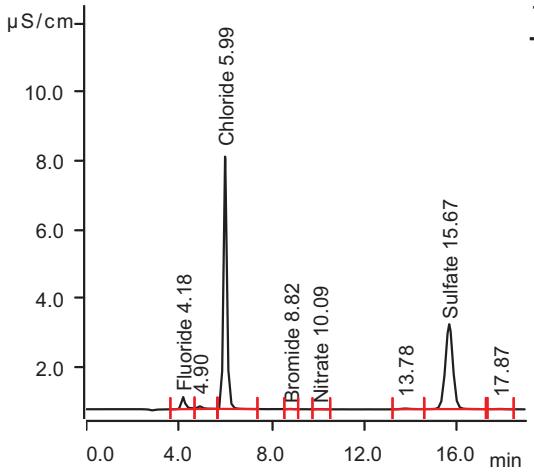
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6817-3
Sample type . . . . . Sample
Determination start 2023-06-13 16:30:01
Dilution factor 1.00

Anions

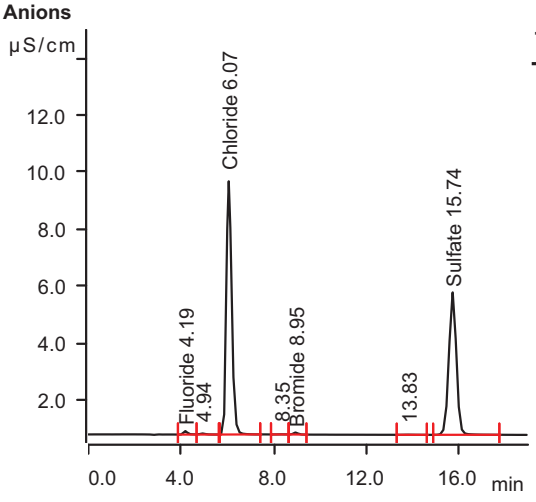


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0701	0.191	0.191
5.99	Chloride	1.2802	4.357	4.357
8.82	Bromide	0.0016	0.127	0.127
10.09	Nitrate	0.0014	0.175	0.175
15.67	Sulfate	0.9411	4.547	4.547

Sample data

Ident FC6817-4
Sample type . . . . . Sample
Determination start 2023-06-13 16:52:07
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0250	0.097	0.097
6.07	Chloride	2.3606	7.784	7.784
8.95	Bromide	0.0155	0.233	0.233
15.74	Sulfate	1.8855	8.695	8.695

MagIC Net

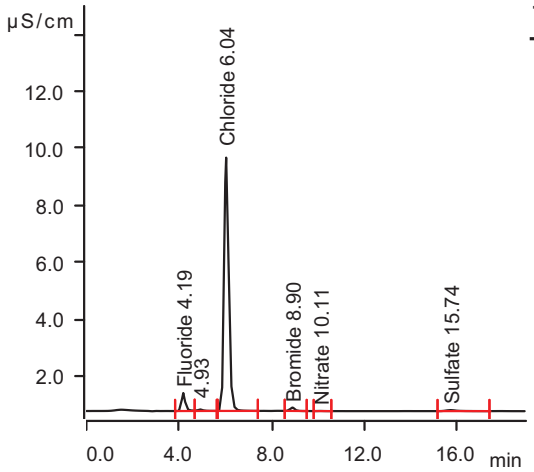
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6817-5
Sample type . . . . . Sample
Determination start 2023-06-13 17:14:09
Dilution factor 1.00

Anions

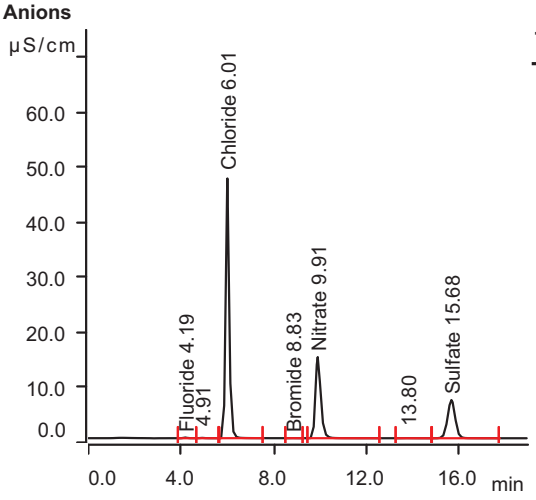


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.1131	0.280	0.280
6.04	Chloride	2.0559	6.818	6.818
8.90	Bromide	0.0275	0.326	0.326
10.11	Nitrate	0.0012	0.175	0.175
15.74	Sulfate	0.0196	0.500	0.500

Sample data

Ident FC6817-6
Sample type . . . . . Sample
Determination start 2023-06-13 17:36:11
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0227	0.092	0.092
6.01	Chloride	8.5391	27.385	27.385
8.83	Bromide	0.0030	0.138	0.138
9.91	Nitrate	3.9421	5.279	5.279
15.68	Sulfate	2.6639	12.114	12.114

MagIC Net

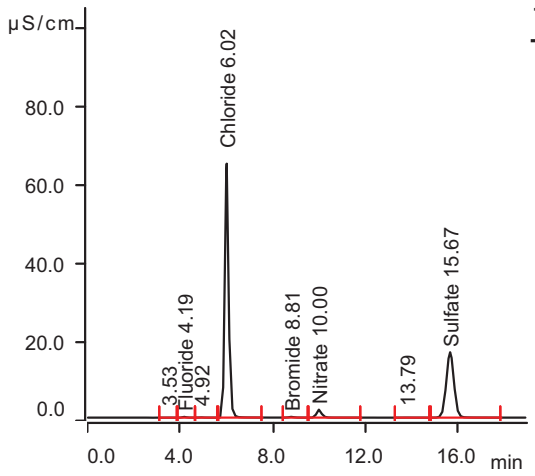
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident FC6817-7
Sample type . . . . . Sample
Determination start 2023-06-13 17:58:14
Dilution factor 1.00

Anions

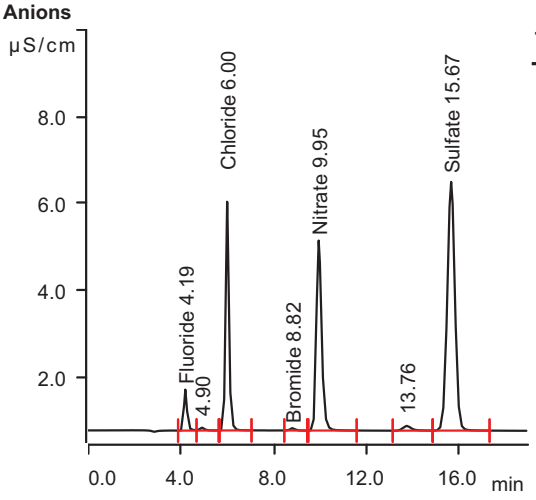


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0328	0.113	0.113
6.02	Chloride	12.4767	39.877	39.877
8.81	Bromide	0.0477	0.481	0.481
10.00	Nitrate	0.5321	0.862	0.862
15.67	Sulfate	6.4663	28.815	28.815

Sample data

Ident FC6817-9
Sample type . . . . . Sample
Determination start 2023-06-13 18:20:19
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.1514	0.360	0.360
6.00	Chloride	0.9176	3.207	3.207
8.82	Bromide	0.0132	0.216	0.216
9.95	Nitrate	1.1593	1.675	1.675
15.67	Sulfate	2.1983	10.069	10.069

MagIC Net

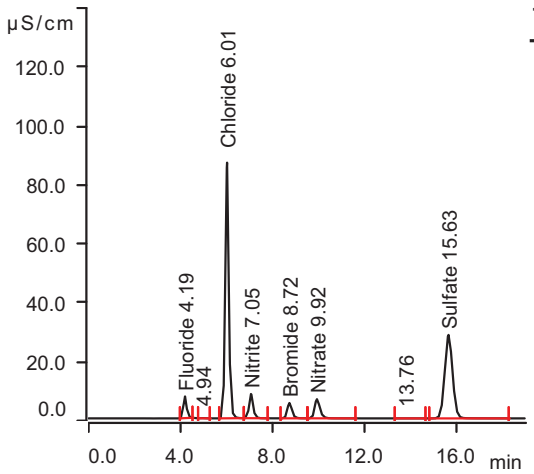
Summary Report

2023-06-14 12:19:15
MagIC Net 3.2 - 123

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-06-13 18:42:21
Dilution factor 1.00

Anions

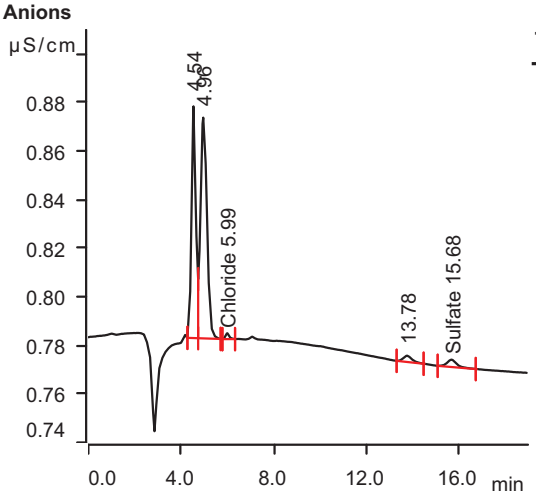


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	1.1334	2.411	2.411
6.01	Chloride	15.5694	49.688	49.688
7.05	Nitrite	1.6850	2.497	2.497
8.72	Bromide	1.2310	9.586	9.586
9.92	Nitrate	1.7583	2.451	2.451
15.63	Sulfate	11.2604	49.872	49.872

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-06-13 19:04:33
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
5.99	Chloride	0.0005	0.297	0.297
15.68	Sulfate	0.0015	0.420	0.420

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

WW

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SGS

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FC6782

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: evita.martinez@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): JR Phone:

Project Information

Project Name: Shepley's Hill (SHL); Devens, MA
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	NO2 ,NO32 ,NO3O by 353.2	LAB USE ONLY
1A	EFFLUENT		6/9/23	9:00:00 AM	JR	AQ	2				1	1				X	C59

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [X] other Due 6/23/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [ ] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [ ] EDD Format
- [ ] Other
- [X] FL

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

SGS-NJ direct ship from MA SC
TC
SGS Service Center
Northborough, MA 6/9
2B
http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: 1	Date Time: 6/9/23 1430	Received By: 1	Relinquished By: 2	Date Time: 6/9/23 1634	Received By: 2		
Relinquished by Sampler: 3	Date Time: 6-9-23 1635	Received By: 3	Relinquished By: 4	Date Time: 6/9/23 20:44	Received By: 4		
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact	Preserved where applicable	On Ice	Cooler Temp 0.7

Therm. ID:

10.1 10

FC6782: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

SGS Sample Receipt Summary

Job Number: FC6782 **Client:** **Project:**

Date / Time Received: 6/9/2023 8:44:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (0.7);

Cooler Temps (Corrected) °C: Cooler 1: (0.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

QC Evaluation: DOD QSM5.x Limits

Job Number: FC6782
Account: SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA
Collected: 06/09/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits found for methods in this job.

* Sample used for QC is not from job FC6782

General Chemistry

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate + Nitrite	GP47406/GN42521	0.10	0.0	mg/l	2	2.06	103.0	90-110%
Nitrogen, Nitrite	GN42432	0.010	0.0	mg/l	0.04	0.039	97.5	90-110%

Associated Samples:
Batch GN42432: FC6782-1A
Batch GP47406: FC6782-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrate + Nitrite	GP47406/GN42521	FC6782-1A	mg/l	0.12	0.12	0.0	0-20%

Associated Samples:
Batch GP47406: FC6782-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP47406/GN42521	FC6782-1A	mg/l	0.12	1	0.98	86.0N(a)	90-110%
Nitrogen, Nitrite	GN42432	JD67315-1	mg/l	0.0	0.04	0.039	97.5	22-140%

Associated Samples:
Batch GN42432: FC6782-1A
Batch GP47406: FC6782-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrite	GN42432	JD67315-1	mg/l	0.0	0.04	0.039	0.0	20%

Associated Samples:
Batch GN42432: FC6782-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D061323W1.NO32 Date Analyzed: 06/13/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN42521
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:29	GN42521-STD1	1		STDA
16:30	GN42521-STD2	1		STDB
16:31	GN42521-STD3	1		STDC
16:32	GN42521-STD4	1		STDD
16:33	GN42521-STD5	1		STDE
16:34	GN42521-STD6	1		STDF
16:35	GN42521-STD7	1		STDG
16:36	GN42521-STD8	1		STDH
16:39	GN42521-ICV1	1		
16:40	GN42521-ICB1	1		
16:41	GN42521-CCV1	1		
16:42	GN42521-CCB1	1		
16:43	GP47406-MB1	1		
16:44	GP47406-B1	1		
16:45	GP47406-S1	1		
16:46	GP47406-D1	1		
16:48	FC6782-1A	1		
16:49	ZZZZZZ	1		
16:50	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:54	GN42521-CCV2	1		
16:55	GN42521-CCB2	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC6782
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D061323W1.NO32 Date Analyzed: 06/13/23 Methods: EPA 353.2/LACHAT
Run ID: GN42521 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN42521-ICV1	Nitrogen, Nitrate + Nitrite	1.98	0.10	0.090	2	99.0	90-110
GN42521-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42521-CCV1	Nitrogen, Nitrate + Nitrite	2.54	0.10	0.090	2.5	101.6	90-110
GN42521-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN42521-CCV2	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN42521-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

(SGS Dayton, NJ)

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN42432
GP Batch ID:
Date: 6/10/2023
Instrument ID: Pipet II GLASS PIPETTE CLASS A

Original Calibration Information Calibration Date: 4/14/2023

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.032	0.085	0.172	0.257	0.344	0.697	
Actual Value:	#DIV/0!	0.010	0.025	0.050	0.074	0.099	0.201	
% RE:	#DIV/0!	1.07	-0.35	-0.06	0.80	0.66	-0.27	

Continuing Calibration Check Standards Data: 6/10/2023

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.031	0.686
Recovery:	0.0%	96.1%	98.7%
Actual Value:		0.010	0.197

Correlation Coeff. = 0.99997
Slope = 0.28668
Intercept = 0.00072

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	9:01	50	50	1	0.338	NA	0.098	0.098	NA	mg/l	NA	
	CCV	9:45	50	50	1	0.332	NA	0.096	0.096	NA	mg/l	NA	
	CCB	9:45	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
	GN42432-MB1	9:45	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	
	GN42432-B1	9:45	50	50	1	0.133	0.000	0.039	0.039	0.010	mg/l	1	
	GN42432-S1	9:45	50	50	1	0.135	0.000	0.039	0.039	0.010	mg/l	1	
	GN42432-MSD1	9:45	50	50	1	0.135	0.000	0.039	0.039	0.010	mg/l	1	
10	JD67315-1	9:45	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
10	JD67315-2	9:45	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
10	JD67315-3	9:45	50	50	1	0.000	0.000	0.001	0.001	0.010	mg/l	1	Y
10	JD67315-6	9:45	50	50	1	0.003	0.000	0.002	0.002	0.010	mg/l	1	Y
10	JD67315-7	9:45	50	50	1	0.009	0.000	0.003	0.003	0.010	mg/l	1	Y
10	JD67315-8	9:45	50	50	1	0.006	0.000	0.002	0.002	0.010	mg/l	1	Y
	CCVA	9:45	50	50	1	0.679	NA	0.195	0.195	NA	mg/l	NA	
	CCB	9:45	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
10	JD67315-9	9:45	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
1	JD67280-18	9:45	50	50	1	0.011	0.000	0.004	0.004	0.010	mg/l	1	Y
2	FC6782-1	9:45	50	50	1	0.002	0.000	0.001	0.001	0.010	mg/l	1	Y
		9:45	50	50	1								
		9:45	50	50	1								
		9:45	50	50	1								
		9:45	50	50	1								
		9:45	50	50	1								
		9:45	50	50	1								
		9:45	50	50	1								
	CCV	9:45	50	50	1	0.333	NA	0.096	0.096	NA	mg/l	NA	
	CCB	9:45	50	50	1	0.000	NA	0.001	0.001	NA	mg/l	NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCVA		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	

Calibrate

Analyst: _____ Date: _____ QC Reviewer: _____ Date: _____

12.1 12

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l ~~mg/kg~~

Analyst: MK
GNBatch ID: GN42431
GPBatch ID:
Date: 6/10/23

Preparation Batch QC Summary Units = mg/L

Method Blank ID: GN42432-MB1 Date: 6/10/23 Result: <DL DL: 0.01 <DL:
Spike Blank ID: -SB1 Date: Result: 0.039 Spike: 0.04 %Rec.: 97.5%
MS ID: -S1 Samp. Result: 0.001 MS Result: 0.039 Spike: 0.04 %Rec: 97.5%
MSDUP ID: -MSD1 Samp. Result: 0.001 MSDUP Result: 0.039 Spike: 0.04 %Rec:
MSDUP ID: MSDUP Result: MS Result: %RPD:

Method Blank ID: Date: Result: DL: <DL:
Spike Blank ID: Date: Result: Spike: 0.04 %Rec.:
MS ID: Samp. Result: MS Result: Spike: 0.04 %Rec:
MSDUP ID: Samp. Result: MSDUP Result: Spike: 0.04 %Rec:
MSDUP ID: MSDUP Result: MS Result: %RPD:

Analysis Batch QC Summary Units =
ICV (Ext): 6/10/23 Result: 0.048 TV: 0.1 %Rec: 98%

CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: 0.195 TV: 0.2 %Rec.: 97.5%
CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: TV: 0.2 %Rec.:
CCV : Result: TV: 0.1 %Rec.:
CCVA : Result: TV: 0.2 %Rec.:

CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:

Reagent Reference Numbers:
QC------BS/MS/MSD------2 ML OF 1 PPM NO2 STD -- 50 ML DI/H2O/SAMPLE ---- TV 0.04 MG/L
MS/MSD SAMPLE NO --- QC1 =
QC2 =

* SIGN SAMPLE FILTERED IN LAB

Analyst: Date:

Comments:

Form: GN032-01
Rev. Date:9/4/09]

12.1 12

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT #261221M XP: 12/14/2023
External Check (ICV)	ERA LOT #240722M XP: 8/26/2024
Spiking Solution Source STD	ERA LOT #261221M XP: 12/14/2023
NO2 Color Reagent	GNE6-71388-NO2 XP 7/8/2023
NH4OH	FISHER 193136 XP 2/20/2027

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:6/10/2023

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: _____

GN or GP Number: _____

Standard	Manufacturer/Lot Number	Concentration	Expiration Date
1000 mg/l Nitrite Standard	ERA LOT# 261221M	1000 PPM	12/14/2023
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 120421M	1000 PPM	8/6/2024

Standard Description	Lot or Tracking #	Initial Volume	Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
10 PPM NO2 STANDARD	GNE6-71403-NO2	1.0 ml	1000 mg/l Nitrite Standard	A	DI water	100 ml	10 mg/l	6/10/2023	MK	6/10/2023
1 PPM NO2 STANDARD	GNE7-71404-NO2	10.0 ml	10 PPM NO2 STANDARD	A	DI water	100 ml	1 mg/L	6/10/2023	MK	6/10/2023
10 PPM NO2 EXTERNAL	GNE6-71405-NO2	1.0 ml	Nitrite Standard (ICV)	A	DI water	100 ml	10 mg/l	6/10/2023	MK	6/10/2023
1 PPM NO2 EXTERNAL	GNE7-71406-NO2	10.0 ml	10 PPM NO2 EXTERNAL	A	DI water	100 ml	1 mg/l	6/10/2023	MK	6/10/2023

Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
0.2 mg/L (high)	GNE7-71404-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	6/10/2023	MK	6/10/2023
0.1 mg/L		10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L			
0.075 mg/L		7.5 ml	1.0 mg/L	A	DI water	100 ml	0.075 mg/L			
0.05 mg/L		5.0 ml	1.0 mg/L	A	DI water	100 ml	0.05 mg/L			
0.025 mg/L		2.5 ml	1.0 mg/L	A	DI water	100 ml	0.025 mg/L			
0.01 mg/L (low)	GNE7-71404-NO2	1.0 ml	1.0 mg/L	A	DI water	100 ml	0.01 mg/L	6/10/2023	MK	6/10/2023
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	6/10/2023	MK	6/10/2023
CCV	GNE7-71404-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	6/10/2023	MK	6/10/2023
CCVA	GNE7-71404-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	6/10/2023	MK	6/10/2023
ICV	GNE7-71406-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	6/10/2023	MK	6/10/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: D061323W1.NO32 Date Analyzed: 06/13/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN42521

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JD Date 6/13/23

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 6/14/23

12.2
12

Author: Chemistry

Date : 6/13/2023

Original Run Filename: OM_6-13-2023_04-28-11PM.OMN Created: 6/13/2023 4:28:11 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_6-13-2023_04-28-11PM.OMN Last Modified: 6/13/2023 5:43:00 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

GN42521
d061323w1.no32

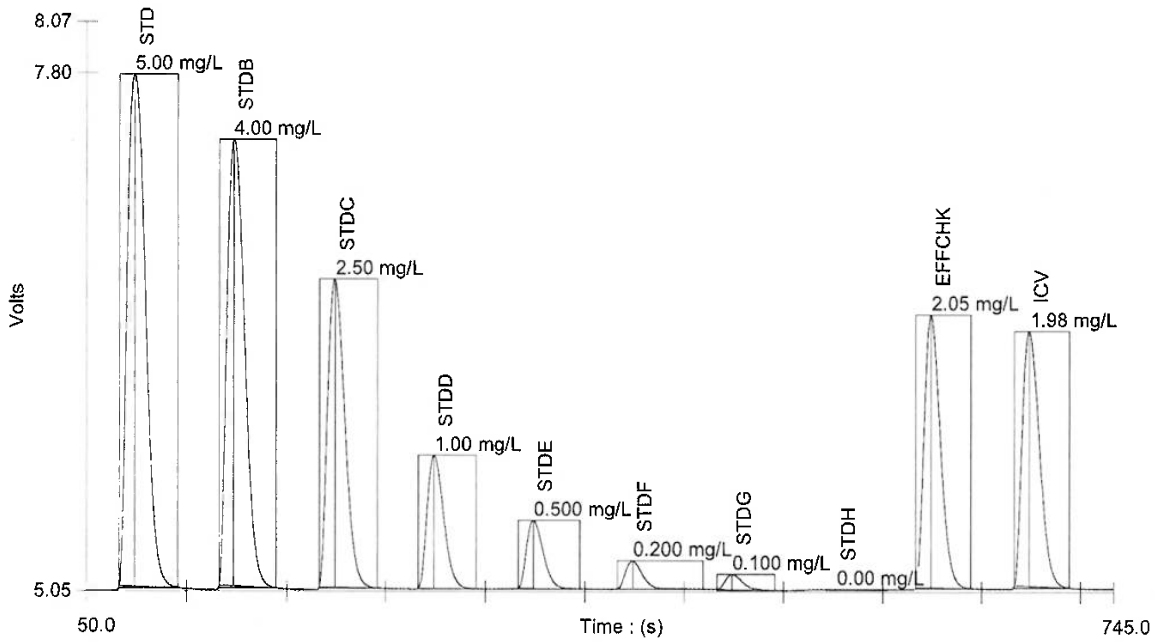
Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	
STDA	1	1	5.00	6/13/2023@4:29:04 PM		
STDB	1	2	4.00	6/13/2023@4:30:12 PM		
STDC	1	3	2.50	6/13/2023@4:31:20 PM		
STDD	1	4	1.00	6/13/2023@4:32:27 PM		
STDE	1	5	0.500	6/13/2023@4:33:35 PM		
STDF	1	6	0.200	6/13/2023@4:34:42 PM		
STDG	1	7	0.100	6/13/2023@4:35:49 PM		
STDH	1	8	0.00	6/13/2023@4:36:57 PM		
EFFCHK	1	9	2.05	6/13/2023@4:38:04 PM		102.5%
	Known Conc:		2.00			
	Calibration:		Table/Fig. : 1			
ICV	1	10	1.98	6/13/2023@4:39:11 PM		99%
	Known Conc:		2.00			
ICB	1	11	0.0129	6/13/2023@4:40:17 PM		
	Known Conc:		0.00			
CCV	1	12	2.54	6/13/2023@4:41:24 PM		101.6%
	Known Conc:		2.50			
CCB	1	13	0.0131	6/13/2023@4:42:31 PM		
	Known Conc:		0.00			
GP47406-MB1	1	14	5.37e-3	6/13/2023@4:43:37 PM		
GP47406-B1	1	15	2.06	6/13/2023@4:44:44 PM		103%
GP47406-S1	1	16	0.976	6/13/2023@4:45:52 PM		
GP47406-D1	1	17	0.123	6/13/2023@4:46:59 PM		
FC6782-1A	1	18	0.119	6/13/2023@4:48:08 PM		
FC6653-3	1	19	-8.12e-3	6/13/2023@4:49:15 PM		
JD67280-18	1	20	1.50	6/13/2023@4:50:22 PM		
LA91333-3	1	21	0.0489	6/13/2023@4:51:30 PM		
CCV	1	12	2.53	6/13/2023@4:54:42 PM		101.2%
	Known Conc:		2.50			
CCB	1	13	5.63e-3	6/13/2023@4:55:49 PM		
	Known Conc:		0.00			
CONF	1	1	4.93	6/13/2023@4:56:57 PM		

12.2 12

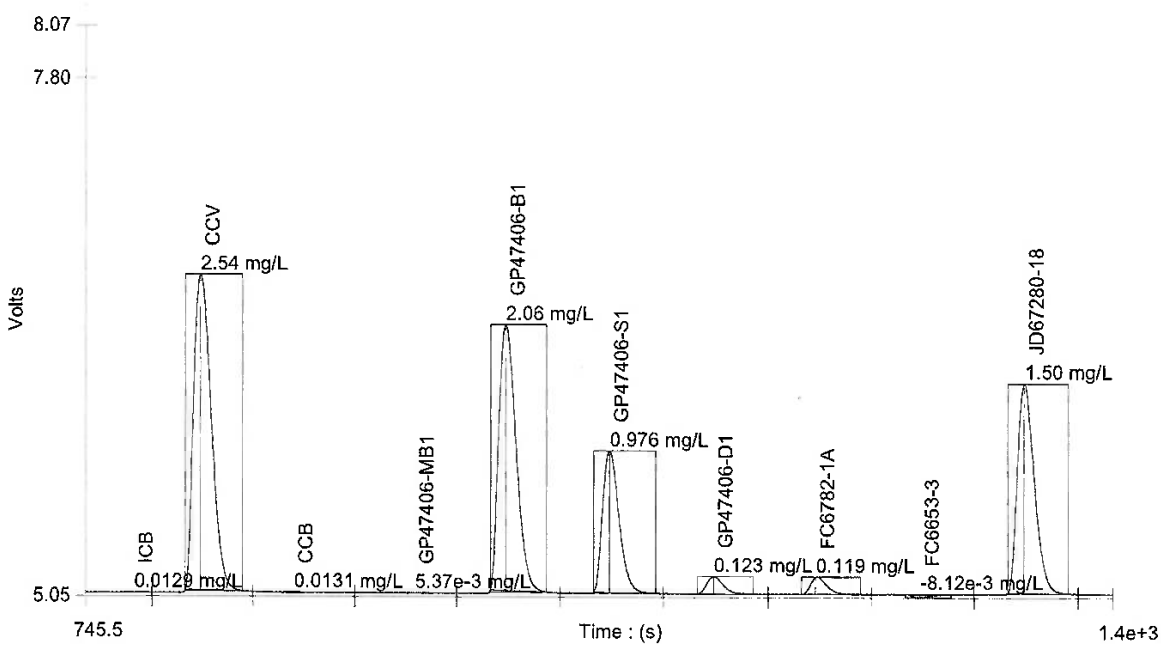
Author: Chemistry

Date : 6/13/2023

Channel 1 - Set: 1 / 3



Channel 1 - Set: 2 / 3



Author: Chemistry

Date : 6/13/2023

Channel 1 - Set: 3 / 3

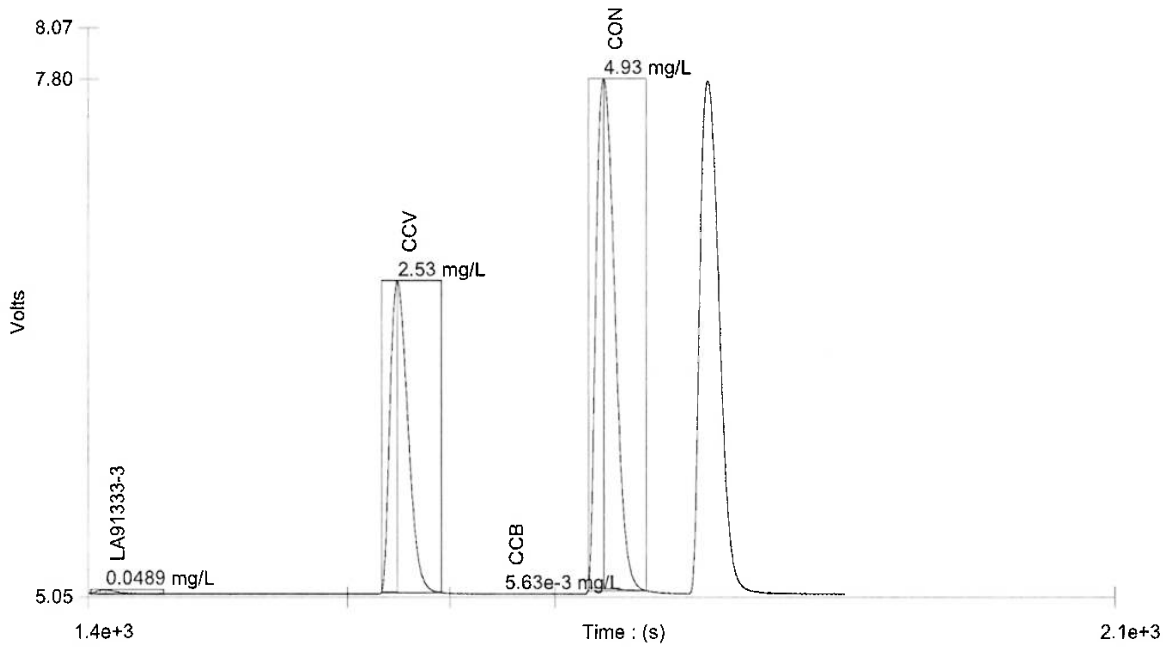


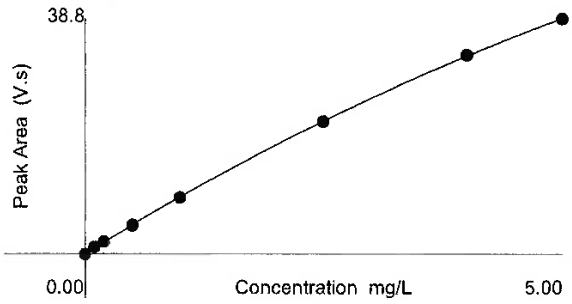
Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	38.8	2.71	0.0	0.2	4.97	6/13/2023	4:29:04 PM
2	4.00	1	32.8	2.36	0.0	-0.5	4.04	6/13/2023	4:30:12 PM
3	2.50	1	21.8	1.64	0.0	0.1	2.50	6/13/2023	4:31:20 PM
4	1.00	1	9.20	0.706	0.0	1.1	0.970	6/13/2023	4:32:27 PM
5	0.500	1	4.68	0.359	0.0	1.4	0.482	6/13/2023	4:33:35 PM
6	0.200	1	2.00	0.149	0.0	-4.1	0.209	6/13/2023	4:34:42 PM
7	0.100	1	1.09	0.0813	0.0	-13.3	0.118	6/13/2023	4:35:49 PM
8	0.00	1	-0.0793	-3.07e-3			4.46e-3	6/13/2023	4:36:57 PM

-3%.

-18%.

Figure : 1 (NO32)



Area = - 0.383 * Conc^2 + 9.70 * Conc - 5.51e-3
Conc = 7.99e-4 * Area^2 + 0.0967 * Area + 0.0121
Correlation Coefficient (r) = 0.99998

Weighting : None

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Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Ammonium Chloride Buffer Solution	GNE5-71268-NO32	11/24/2023
Sulfanilamide Color Reagent	GNE6-71371-NO32	7/6/2023
1:1 NH4OH	GNE11-72312-NO3	6/15/2023
Carrier Solution	GNE1-73258-NO32	8/2/2023
Nitrate Stock Solution	GNE6-71424-NO32	12/12/2023
1000 ppm Nitrite Solution	GNE6-71425-NO32	12/12/2023
Nitrate External Stock Solution	GNE6-71426-NO32	12/12/2023

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO32

GN/GP number: GN42521

Analyst: JD

Date: 6/13/2023

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 intermediate	GNE12-72667-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO32-100-052023
100 ppm NO2 Intermediate	GNE12-72665-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO2-100-052023
100 ppm NO3 External	GNE12-72666-NO32	1000	10	48	Carrier	100 ml	100	6/20/2023	NO32E-100-052023

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-052023	100 mg/l	5.0	48	Carrier	100 ml	5.0	6/19/2023	STDA-061223
2.5 mg/l NO3	NO32-100-052023	100 mg/l	2.5	48	Carrier	100 ml	2.5	6/19/2023	STDB-061223
1.0 mg/l NO3	NO32-100-052023	100 mg/l	1.0	48	Carrier	100 ml	1.0	6/19/2023	STDC-061223
0.5 mg/l NO3	NO32-100-052023	100 mg/l	0.5	48	Carrier	100 ml	0.5	6/19/2023	STDD-061223
0.2 mg/l NO3	NO32-100-052023	100 mg/l	0.2	48	Carrier	100 ml	0.2	6/19/2023	STDE-061223
0.1 mg/l NO3	NO32-100-052023	100 mg/l	0.1	48	Carrier	100 ml	0.1	6/19/2023	STDF-061223
Effcheck 2.0	NO2-100-052023	100 mg/l	2.0	48	Carrier	100 ml	2.0	6/13/2023	EFFcheck-061223
ICV	NO32E-100-052023	100 mg/l	2.0	48	Carrier	100 ml	2.0	6/19/2023	ICV-061223

*If Class A glass pipettes are used, enter an A.

Form: GN205-03
Rev. Date:03/22/2022

SGS Dayton Analyst:__JD_

Prep Date: 6/13/2023

Batch ID: GP47406

Pipette ID: 52 and 57

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
GP47406-MB1				Y	
GP47406-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP47406-S1	0.5ML OF 100PPM	50MLS	FC6782-1A	Y	
GP47406-D1				Y	
FC6782-1A				Y	
FC6653-3				Y	
JD67280-18				Y	
LA91333-3				Y	

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

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The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC7605

Sampling Date: 07/07/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **96**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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EHS.US.CustomerCare@sgs.com

Sections: 1 2 3

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Section 2: Subcontract Lab Data **4**
Section 3: Misc. Forms **94**
3.1: Chain of Custody 95

Sample Summary

Sovereign Consulting

Job No: FC7605

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC7605-1	07/07/23	10:00	JR	07/08/23	AQ	Water	EFFLUENT

Subcontract Lab Data

Report of Analysis

LELAP Certificate Number: 01955
A2LA Accredited (DoD ELAP-QSM 5.4) Certificate Number: 6429.01

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 07/27/2023

Report # 223072146

Project FC7605X

Samples Collected 7/7/23

Deliver To	***Additional Recipients***
Evita Martinez SGS North America Inc. 4405 Vineland Rd Suite C-15 Orlando, FL 32811 407.425.6700	NONE

A2LA ACCREDITED
CERT # 6429.01

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics **-** The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.



Authorized Signature
Pace Gulf Coast Report 223072146

Certifications

Certification	Certification Number
A2LA Accredited (DoD ELAP-QSM 5.4)	6429.01
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: SGS Accutest - Orlando **Report:** 223072146

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

This report was completed in accordance with DOD QSM 5.3 as specified in the contract.

No anomalies were found for the analyzed sample(s).

Sample Summary

Lab ID	Client ID	Matrix	Collect Date	Receive Date
22307214601	EFFLUENT	Water	7/07/23 10:00	7/21/23 09:20

Test Summary

EPA 6020B					
Lab ID	**Client ID**	**Matrix**	**Batch**	**Instru**	**RunDate**
22307214601	EFFLUENT	Water	769477	ICPMS2	7/24/23 17:40

Manual Integrations

Manual Integrations for LC and IC (if performed) are documented in the raw data.
No other manual integrations were performed by Pace Gulf Coast.

Q Flag Summary

NO Q FLAGS FOR THIS WORKORDER

Detect Summary

Results and Detection Limits are adjusted for dilution and moisture when applicable

EPA 6020B						
Lab ID	**Client ID**	**Parameter**	**Units**	**Result**	**Dil.**	**%Moist**
22307214601	EFFLUENT	Arsenic	ug/L	4.88	1	NA

Metals

Form I

Sample Results

I

INORGANIC ANALYSIS DATA SHEET

Report No:	223072146	Client Sample ID:	EFFLUENT
Collect Date:	07/07/23 Time: 1000	GCAL Sample ID:	22307214601
Matrix:	Water % Solids: NA	Instrument ID:	ICPMS2
Sample Amt:	50 mL	Lab File ID:	2230724A_MS2.b\1301SMPL.d
Prep Vol.:	50 (mL)	Dilution Factor:	1 Analyst: TDM
Prep Date:	07/24/23	Analysis Date:	07/24/23 Time: 1740
Prep Batch:	769436	Analytical Batch:	769477
Prep Method:	3010A	Analytical Method:	EPA 6020B

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Arsenic	4.88	ug/L		0.25	0.50	1.00

FORM I - IN

Sample Name	22307214601	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1301SMPL.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 5:40:20 PM	**Total Dilution**	1.0000
Sample Type	Sample	**Sample Pass/Fail**	Pass
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Name	Mass	ISTD	Mode	MeasValue	Final Conc	RSD	CPS	LDR	QC Flag
Li	7	6	No Gas	1.345	1.345	0.6	83385.97	500	
Be	9	6	No Gas	-0.02	-0.020	2.2	192.67	1000	
B	11	6	No Gas	98.328	98.328	1.4	189764.53	500	
Sr	88	72	No Gas	272.522	272.522	0.5	20205046.78	1000	
Zr	90	72	No Gas	0.005	0.005	2.6	1880.15	100	
Mo	95	115	No Gas	0.116	0.116	1.7	4499.64	1000	
Ag	107	115	No Gas	0.005	0.005	3.8	278.89	100	
Cd	111	115	No Gas	-0.018	-0.018	11.6	476.68	1000	
Sb	121	115	No Gas	3.044	3.044	1.4	113307.04	1000	
Ba	137	115	No Gas	14.758	14.758	0.3	189499.42	1000	
Tl	205	209	No Gas	-0.121	-0.121	13.3	2483.66	1000	
Pb	208	209	No Gas	1.268	1.268	1.2	124318.02	1000	
Na	23	45	He	23163.666	23163.666	0.9	15653598.94	100000	
Mg	24	45	He	5000.597	5000.597	1.3	1444686.85	100000	
Al	27	45	He	3.673	3.673	3.1	515.34	20000	
Si	29	45	He	-10232.626	-10232.626	2.6	56348.24	10000	
K	39	45	He	6810.827	6810.827	1.7	2688342.04	100000	
Ca	44	45	He	37183.277	37183.277	1.5	631396.64	500000	
Ti	47	45	He	0.078	0.078	34.4	23.67	1000	
V	51	72	He	0.082	0.082	4.6	1107.83	1000	
Cr	52	72	He	0.375	0.375	5.1	3941.68	1000	
Mn	55	72	He	6.331	6.331	2.6	19998.11	5000	
Fe	57	72	He	133.194	133.194	3.1	17500.88	100000	
Co	59	72	He	0.119	0.119	2.9	1661.22	1000	
Ni	60	72	He	16.838	16.838	1.2	53961.91	2000	
Cu	63	45	He	13.317	13.317	2.0	119882.72	1000	
Zn	66	72	He	30.258	30.258	0.8	42374.49	20000	
As	75	72	He	4.875	4.875	1.7	7336.85	1000	
Se	78	72	He	-0.236	-0.236	6.3	83.45	50	
Sn	120	115	He	-0.028	-0.028	9.2	946.71	1000	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6354303.45	6132749.07333333	103.61	
Ge	72	He	214447.41	194706.726666667	110.14	
In	115	He	2178512.58	2072569.52666667	105.11	
Lu	175	He	5083545.23	4837163.67666667	105.09	
Rh	103	He	5400065.62	5075027.71333333	106.4	
Sc	45	He	233489.99	209719.873333333	111.33	
Tb	159	He	7664207.18	7217928.22666667	106.18	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	984250.54	976725.24	100.77	
Bi	209	No Gas	10646851.51	9415604.23333333	113.08	
Ge	72	No Gas	1828422.71	1639549.58666667	111.52	
In	115	No Gas	12703069.08	10997055.3166667	115.51	
Lu	175	No Gas	16291826.84	13769018.1266667	118.32	
Rh	103	No Gas	11924873.69	10512158.1933333	113.44	
Sc	45	No Gas	6861430.42	5845931.02	117.37	
Tb	159	No Gas	16716116.42	14199586.8733333	117.72	

Metals

Form II

Calibration Verifications

II

INITIAL CALIBRATION VERIFICATION (ICV) STANDARD

Report No:	223072146	GCAL QC ID:	1600
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\010_ICV.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1204	Analytical Method:	EPA 6020B

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*Q*	*UNITS*
Arsenic	50.0	49.1	98		ug/L

CONTROL LIMITS 90-110%

FORM II - IN

Initial Calibration Verification (ICV) Report

Sample Name	1600	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	010_ICV.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:04:34 PM	**Total Dilution**	1.0000
Sample Type	ICV	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: 90-110%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	Rec	QC Flag
Li	7	6	No Gas	248.863	1.3	2190164.34	250	99.55	
Be	9	6	No Gas	50.326	0.1	154686.56	50	100.65	
B	11	6	No Gas	256.341	0.3	508592.06	250	102.54	
Sr	88	72	No Gas	48.955	0.8	3203818.28	50	97.91	
Zr	90	72	No Gas	45.516	0.7	1852481.80	50	91.03	
Mo	95	115	No Gas	47.844	1.3	567459.54	50	95.69	
Ag	107	115	No Gas	51.118	0.9	1601676.36	50	102.24	
Cd	111	115	No Gas	48.776	0.9	337632.58	50	97.55	
Sb	121	115	No Gas	51.425	0.8	1587890.84	50	102.85	
Ba	137	115	No Gas	49.395	1.0	541962.65	50	98.79	
Tl	205	209	No Gas	47.903	1.6	2954045.89	50	95.81	
Pb	208	209	No Gas	47.740	1.0	3991264.26	50	95.48	
Na	23	45	He	5139.929	2.2	2991680.89	5000	102.8	
Mg	24	45	He	5016.214	1.9	1238628.05	5000	100.32	
Al	27	45	He	1010.837	2.3	79020.91	1000	101.08	
Si	29	45	He	4051.607	0.7	85523.62	5000	81.03	> +/- 10%
K	39	45	He	4990.587	1.9	1695021.17	5000	99.81	
Ca	44	45	He	24987.505	1.7	362987.25	25000	99.95	
Ti	47	45	He	49.389	2.5	6235.99	50	98.78	
V	51	72	He	49.385	2.1	233108.45	50	98.77	
Cr	52	72	He	49.737	1.4	297818.21	50	99.47	
Mn	55	72	He	49.869	1.3	135194.87	50	99.74	
Fe	57	72	He	4995.214	0.9	562999.02	5000	99.9	
Co	59	72	He	50.633	1.3	514860.22	50	101.27	
Ni	60	72	He	101.201	1.1	279376.26	100	101.2	
Cu	63	45	He	53.148	1.3	406771.36	50	106.3	
Zn	66	72	He	1016.357	1.3	1210849.99	1000	101.64	
As	75	72	He	49.094	1.6	62064.63	50	98.19	
Se	78	72	He	24.460	2.7	1801.54	25	97.84	
Sn	120	115	He	49.238	2.1	349366.59	50	98.48	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	5825889.29	6132749.07333333	95	
Ge	72	He	186454.44	194706.726666667	95.76	
In	115	He	1959837.88	2072569.52666667	94.56	
Lu	175	He	4690731.39	4837163.67666667	96.97	
Rh	103	He	4780531.61	5075027.71333333	94.2	
Sc	45	He	199572.70	209719.873333333	95.16	
Tb	159	He	7008602.60	7217928.22666667	97.1	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1025848.63	976725.24	105.03	
Bi	209	No Gas	9337089.65	9415604.23333333	99.17	
Ge	72	No Gas	1613164.69	1639549.58666667	98.39	
In	115	No Gas	10866248.10	10997055.3166667	98.81	
Lu	175	No Gas	14081411.87	13769018.1266667	102.27	
Rh	103	No Gas	10209508.48	10512158.1933333	97.12	
Sc	45	No Gas	5816591.71	5845931.02	99.5	
Tb	159	No Gas	14489554.37	14199586.8733333	102.04	

II

LOW LEVEL CONTINUING CALIBRATION VERIFICATION (LLCCV) STANDARD

Report No:	223072146	GCAL QC ID:	1803
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1211CCV1.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1218	Analytical Method:	EPA 6020B

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*Q*	*UNITS*
Arsenic	1.00	0.900	90		ug/L

CONTROL LIMITS 80-120%

FORM II - IN

Low Level Continuing Calibration Verification(LLCCV) Report

Sample Name	1803	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1211CCV1.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:18:54 PM	**Total Dilution**	1.0000
Sample Type	LLCCV1	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: Initial 6020B DOD 80-120% / 70-130% 6020B and 200.8

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	Rec	QC Flag
Li	7	6	No Gas	5.397	1.0	122256.64	5	107.94	
Be	9	6	No Gas	1.038	1.6	3473.08	1	103.8	
B	11	6	No Gas	11.113	0.5	26477.13	10	111.13	
Sr	88	72	No Gas	1.012	1.4	68791.94	1	101.2	
Zr	90	72	No Gas	0.929	1.3	39762.51	1	92.9	
Mo	95	115	No Gas	0.820	1.5	12608.95	1	82	
Ag	107	115	No Gas	1.001	1.4	32592.77	1	100.1	
Cd	111	115	No Gas	0.970	0.4	7500.94	1	97	
Sb	121	115	No Gas	2.004	0.9	67298.44	2	100.2	
Ba	137	115	No Gas	0.972	1.5	11316.90	1	97.2	
Tl	205	209	No Gas	0.835	2.4	63337.49	1	83.5	
Pb	208	209	No Gas	0.982	1.0	88408.33	1	98.2	
Na	23	45	He	98.481	3.1	88419.11	100	98.48	
Mg	24	45	He	107.040	3.4	28227.40	100	107.04	
Al	27	45	He	20.520	2.0	1804.79	20	102.6	
Si	29	45	He	-3565.252	1.5	67436.78	200	-1782.63	> +/- 20%
K	39	45	He	96.399	1.9	76912.22	100	96.4	
Ca	44	45	He	500.898	1.6	8557.59	500	100.18	
Ti	47	45	He	0.946	1.6	133.33	1	94.6	
V	51	72	He	0.986	2.4	5364.36	1	98.6	
Cr	52	72	He	1.036	2.7	7570.90	1	103.6	
Mn	55	72	He	5.259	3.4	14884.32	5	105.18	
Fe	57	72	He	106.833	3.1	12582.41	100	106.83	
Co	59	72	He	1.046	4.4	11162.13	1	104.6	
Ni	60	72	He	2.028	0.9	6274.74	2	101.4	
Cu	63	45	He	1.105	1.9	9405.29	1	110.5	
Zn	66	72	He	21.101	2.2	26656.59	20	105.51	
As	75	72	He	0.899	1.8	1410.74	1	89.9	
Se	78	72	He	0.843	3.1	152.21	1	84.3	
Sn	120	115	He	0.926	3.9	7897.83	1	92.6	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6087708.87	6132749.07333333	99.27	
Ge	72	He	191585.20	194706.726666667	98.4	
In	115	He	2037686.89	2072569.52666667	98.32	
Lu	175	He	4802766.18	4837163.67666667	99.29	
Rh	103	He	5033824.94	5075027.71333333	99.19	
Sc	45	He	205261.09	209719.873333333	97.87	
Tb	159	He	7155150.73	7217928.22666667	99.13	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1033555.35	976725.24	105.82	
Bi	209	No Gas	9697556.52	9415604.23333333	102.99	
Ge	72	No Gas	1635737.71	1639549.58666667	99.77	
In	115	No Gas	11268763.62	10997055.3166667	102.47	
Lu	175	No Gas	14270234.37	13769018.1266667	103.64	
Rh	103	No Gas	10742281.24	10512158.1933333	102.19	
Sc	45	No Gas	5896100.60	5845931.02	100.86	
Tb	159	No Gas	14657888.53	14199586.8733333	103.23	

II

LINEAR DYNAMIC RANGE (LDR) STANDARD

Report No:	223072146	GCAL QC ID:	2500
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1214_QC1.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1229	Analytical Method:	EPA 6020B

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*Q*	*UNITS*
Arsenic	1000	969	97		ug/L

CONTROL LIMITS 90-110%

FORM II - IN

Linear Dynamic Range Check (LDR) Report

Sample Name	LDR	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1214_QC1.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:29:37 PM	**Total Dilution**	1.0000
Sample Type	QC1	**Sample Pass/Fail**	Pass
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: 90-110%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	Rec	QC Flag
Be	9	6	No Gas	1052.512	0.4	2849873.50	1000	105.25	
Sr	88	72	No Gas	960.021	1.5	62299412.41	1000	96	
Mo	95	115	No Gas	1005.875	0.6	11508294.82	1000	100.59	
Cd	111	115	No Gas	953.671	1.1	6385036.55	1000	95.37	
Sb	121	115	No Gas	967.592	1.0	28886933.30	1000	96.76	
Ba	137	115	No Gas	964.813	0.7	10249595.43	1000	96.48	
Tl	205	209	No Gas	964.925	0.9	55536980.84	1000	96.49	
Pb	208	209	No Gas	967.714	0.3	75688106.38	1000	96.77	
Na	23	45	He	96644.430	1.6	58048092.47	100000	96.64	
Mg	24	45	He	96270.100	1.6	24740957.97	100000	96.27	
Al	27	45	He	19351.740	1.7	1572739.08	20000	96.76	
K	39	45	He	98152.817	2.4	33892619.49	100000	98.15	
Ca	44	45	He	492826.760	1.7	7436432.18	500000	98.57	
Ti	47	45	He	980.050	1.7	128681.91	1000	98	
V	51	72	He	1005.945	1.7	4838050.36	1000	100.59	
Cr	52	72	He	988.722	1.8	6024078.93	1000	98.87	
Mn	55	72	He	4868.815	2.0	13457307.24	5000	97.38	
Fe	57	72	He	97347.454	2.1	11203610.25	100000	97.35	
Co	59	72	He	970.093	1.8	10071298.21	1000	97.01	
Ni	60	72	He	1924.836	1.4	5417763.26	2000	96.24	
Cu	63	45	He	928.441	1.5	7390044.43	1000	92.84	
Zn	66	72	He	18692.560	2.0	22732782.43	20000	93.46	
As	75	72	He	969.086	2.2	1246774.08	1000	96.91	
Sn	120	115	He	1004.305	1.9	6975132.08	1000	100.43	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	5626038.04	6132749.07333333	91.74	
Ge	72	He	190441.60	194706.726666667	97.81	
In	115	He	1923560.10	2072569.52666667	92.81	
Lu	175	He	4758894.20	4837163.67666667	98.38	
Rh	103	He	4674920.78	5075027.71333333	92.12	
Sc	45	He	207864.12	209719.873333333	99.12	
Tb	159	He	7098912.39	7217928.22666667	98.35	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	905121.37	976725.24	92.67	
Bi	209	No Gas	8741530.08	9415604.23333333	92.84	
Ge	72	No Gas	1600352.09	1639549.58666667	97.61	
In	115	No Gas	10525708.76	10997055.3166667	95.71	
Lu	175	No Gas	13934798.54	13769018.1266667	101.2	
Rh	103	No Gas	9813526.56	10512158.1933333	93.35	
Sc	45	No Gas	5846713.66	5845931.02	100.01	
Tb	159	No Gas	14195093.96	14199586.8733333	99.97	

II

CONTINUING CALIBRATION VERIFICATION (CCV) STANDARD

Report No:	223072146	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1297_CCV.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1725	Analytical Method:	EPA 6020B

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*Q*	*UNITS*
Arsenic	10.0	10.1	101		ug/L

CONTROL LIMITS 90-110%

FORM II - IN

Continuing Calibration Verification (CCV) Report

Sample Name	1800	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1297_CCV.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 5:25:58 PM	**Total Dilution**	1.0000
Sample Type	CCV	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: 90-110%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	Rec	QC Flag
Li	7	6	No Gas	52.554	1.5	533870.89	50	105.11	
Be	9	6	No Gas	10.347	0.7	32735.03	10	103.47	
B	11	6	No Gas	60.194	2.7	125586.73	50	120.39	> +/- 10%
Sr	88	72	No Gas	10.132	0.2	741664.16	10	101.32	
Zr	90	72	No Gas	9.993	0.9	455336.63	10	99.93	
Mo	95	115	No Gas	9.160	0.6	128865.68	10	91.6	
Ag	107	115	No Gas	9.732	1.2	355220.38	10	97.32	
Cd	111	115	No Gas	9.572	1.1	77667.34	10	95.72	
Sb	121	115	No Gas	19.492	0.6	703220.46	20	97.46	
Ba	137	115	No Gas	9.528	1.6	121985.01	10	95.28	
Tl	205	209	No Gas	9.336	0.1	664069.23	10	93.36	
Pb	208	209	No Gas	9.499	0.1	906672.31	10	94.99	
Na	23	45	He	1070.566	1.7	752274.44	1000	107.06	
Mg	24	45	He	1059.602	2.1	305537.03	1000	105.96	
Al	27	45	He	209.466	2.6	19204.95	200	104.73	
Si	29	45	He	-17583.693	5.6	33668.98	2000	-879.18	> +/- 10%
K	39	45	He	1041.291	2.0	451223.12	1000	104.13	
Ca	44	45	He	5130.070	2.4	87746.17	5000	102.6	
Ti	47	45	He	10.326	1.8	1526.75	10	103.26	
V	51	72	He	10.229	0.5	55882.80	10	102.29	
Cr	52	72	He	10.407	1.9	72536.78	10	104.07	
Mn	55	72	He	55.368	1.9	172087.57	50	110.74	> +/- 10%
Fe	57	72	He	1022.911	1.8	132388.89	1000	102.29	
Co	59	72	He	10.489	0.7	122504.62	10	104.89	
Ni	60	72	He	21.046	1.6	67096.48	20	105.23	
Cu	63	45	He	10.643	0.7	95473.47	10	106.43	
Zn	66	72	He	211.527	1.2	289705.56	200	105.76	
As	75	72	He	10.118	1.7	14885.24	10	101.18	
Se	78	72	He	9.997	2.3	904.42	10	99.97	
Sn	120	115	He	9.839	2.3	80053.02	10	98.39	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6533605.73	6132749.07333333	106.54	
Ge	72	He	213796.42	194706.726666667	109.8	
In	115	He	2220400.02	2072569.52666667	107.13	
Lu	175	He	5126126.59	4837163.67666667	105.97	
Rh	103	He	5528676.86	5075027.71333333	108.94	
Sc	45	He	232317.97	209719.873333333	110.78	
Tb	159	He	7735513.01	7217928.22666667	107.17	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1048949.06	976725.24	107.39	
Bi	209	No Gas	10626737.34	9415604.23333333	112.86	
Ge	72	No Gas	1801027.08	1639549.58666667	109.85	
In	115	No Gas	12655401.73	10997055.3166667	115.08	
Lu	175	No Gas	15920227.26	13769018.1266667	115.62	
Rh	103	No Gas	12047663.69	10512158.1933333	114.61	
Sc	45	No Gas	6808138.34	5845931.02	116.46	
Tb	159	No Gas	16372887.67	14199586.8733333	115.31	

II

CONTINUING CALIBRATION VERIFICATION (CCV) STANDARD

Report No:	223072146	GCAL QC ID:	1800
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1320_CCV.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1848	Analytical Method:	EPA 6020B

ANALYTE	*TRUE*	*FOUND*	*%RECOVERY*	*Q*	*UNITS*
Arsenic	10.0	10.2	102		ug/L

CONTROL LIMITS 90-110%

FORM II - IN

Continuing Calibration Verification (CCV) Report

Sample Name	1800	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1320_CCV.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 6:48:28 PM	**Total Dilution**	1.0000
Sample Type	CCV	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: 90-110%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	Rec	QC Flag
Li	7	6	No Gas	53.255	1.8	467866.50	50	106.51	
Be	9	6	No Gas	10.923	0.5	29929.30	10	109.23	
B	11	6	No Gas	67.073	0.8	120811.87	50	134.15	> +/- 10%
Sr	88	72	No Gas	10.164	0.8	744560.25	10	101.64	
Zr	90	72	No Gas	10.440	0.5	475897.10	10	104.4	
Mo	95	115	No Gas	9.468	1.4	131672.95	10	94.68	
Ag	107	115	No Gas	9.775	1.0	352959.68	10	97.75	
Cd	111	115	No Gas	9.615	0.7	77181.36	10	96.15	
Sb	121	115	No Gas	19.844	0.6	708214.05	20	99.22	
Ba	137	115	No Gas	9.617	0.8	121808.27	10	96.17	
Tl	205	209	No Gas	9.319	1.5	637558.57	10	93.19	
Pb	208	209	No Gas	9.500	1.1	872120.96	10	95	
Na	23	45	He	1060.163	2.4	762912.28	1000	106.02	
Mg	24	45	He	1032.702	1.9	304818.64	1000	103.27	
Al	27	45	He	204.230	3.7	19174.23	200	102.12	
Si	29	45	He	-16629.361	6.6	37411.16	2000	-831.47	> +/- 10%
K	39	45	He	1069.250	2.5	472922.55	1000	106.92	
Ca	44	45	He	5141.925	2.4	90020.79	5000	102.84	
Ti	47	45	He	10.269	2.7	1554.08	10	102.69	
V	51	72	He	10.212	1.7	57086.27	10	102.12	
Cr	52	72	He	10.325	1.8	73637.68	10	103.25	
Mn	55	72	He	52.451	2.2	166824.94	50	104.9	
Fe	57	72	He	1041.073	3.3	137899.05	1000	104.11	
Co	59	72	He	10.426	1.3	124594.25	10	104.26	
Ni	60	72	He	20.724	2.5	67616.83	20	103.62	
Cu	63	45	He	10.518	1.7	96596.27	10	105.18	
Zn	66	72	He	211.613	1.8	296550.87	200	105.81	
As	75	72	He	10.210	1.3	15364.41	10	102.1	
Se	78	72	He	9.996	1.1	925.26	10	99.96	
Sn	120	115	He	10.080	2.6	81934.85	10	100.8	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6415318.03	6132749.07333333	104.61	
Ge	72	He	218785.72	194706.726666667	112.37	
In	115	He	2218944.60	2072569.52666667	107.06	
Lu	175	He	5019930.14	4837163.67666667	103.78	
Rh	103	He	5511580.48	5075027.71333333	108.6	
Sc	45	He	237824.11	209719.873333333	113.4	
Tb	159	He	7632570.72	7217928.22666667	105.74	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	908970.65	976725.24	93.06	
Bi	209	No Gas	10221008.60	9415604.23333333	108.55	
Ge	72	No Gas	1802162.64	1639549.58666667	109.92	
In	115	No Gas	12520131.19	10997055.3166667	113.85	
Lu	175	No Gas	15518519.35	13769018.1266667	112.71	
Rh	103	No Gas	12019970.36	10512158.1933333	114.34	
Sc	45	No Gas	6751604.18	5845931.02	115.49	
Tb	159	No Gas	16002596.84	14199586.8733333	112.7	

Metals

Form III

Blanks

III
INITIAL CALIBRATION BLANK

Report No:	223072146	Blank ID:	1700
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\011_ICB.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1208	Analytical Method:	EPA 6020B

ANALYTE	RESULT	UNITS	Q	DL	LOD	LOQ
Arsenic	0.50	ug/L	U	0.25	0.50	1.00

FORM III - IN

Initial Calibration Blank (ICB) Report

Sample Name	1700	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	011_ICB.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:08:13 PM	**Total Dilution**	1.0000
Sample Type	ICB	**Sample Pass/Fail**	Pass
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Name	Mass	ISTD	Mode	Conc	RSD	CPS	Limit	QC Flag
Li	7	6	No Gas	0.013	2.1	73069.70	2.5	
Be	9	6	No Gas	-0.009	8.0	226.67	0.5	
B	11	6	No Gas	4.763	3.7	13336.28	5	
Sr	88	72	No Gas	0.000	7.4	1626.82	0.5	
Zr	90	72	No Gas	0.005	3.6	1669.01	0.5	
Mo	95	115	No Gas	0.039	6.7	2964.78	0.5	
Ag	107	115	No Gas	0.005	7.0	215.56	0.5	
Cd	111	115	No Gas	-0.015	16.1	435.57	0.5	
Sb	121	115	No Gas	0.084	1.6	5777.91	1	
Ba	137	115	No Gas	0.009	2.5	353.34	0.5	
Tl	205	209	No Gas	-0.085	7.0	4437.58	0.5	
Pb	208	209	No Gas	0.002	9.2	3256.94	0.5	
Na	23	45	He	-4.516	2.2	26881.40	50	
Mg	24	45	He	-1.640	7.1	633.37	50	
Al	27	45	He	0.032	8.9	158.00	10	
Si	29	45	He	-1231.853	1.5	72432.47	100	
K	39	45	He	-3.271	2.3	42237.51	50	
Ca	44	45	He	-13.405	12.2	880.04	250	
Ti	47	45	He	0.032	30.7	14.67	0.5	
V	51	72	He	0.006	7.2	610.02	0.5	
Cr	52	72	He	0.003	4.5	1212.29	0.5	
Mn	55	72	He	0.028	15.6	332.23	2.5	
Fe	57	72	He	1.220	23.5	346.69	50	
Co	59	72	He	-0.001	6.1	222.22	0.5	
Ni	60	72	He	-0.056	13.7	368.90	1	
Cu	63	45	He	0.019	2.2	854.48	0.5	
Zn	66	72	He	0.118	6.4	968.93	10	
As	75	72	He	-0.067	7.4	157.67	0.5	
Se	78	72	He	-0.063	1.7	85.16	0.5	
Sn	120	115	He	0.002	19.4	1084.65	0.5	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	5996516.79	6132749.07333333	97.78	
Ge	72	He	187583.92	194706.726666667	96.34	
In	115	He	1994015.61	2072569.52666667	96.21	
Lu	175	He	4722032.43	4837163.67666667	97.62	
Rh	103	He	4909346.61	5075027.71333333	96.74	
Sc	45	He	201657.08	209719.873333333	96.16	
Tb	159	He	7044304.69	7217928.22666667	97.59	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	991864.11	976725.24	101.55	
Bi	209	No Gas	9442735.69	9415604.23333333	100.29	
Ge	72	No Gas	1606556.46	1639549.58666667	97.99	
In	115	No Gas	10985736.63	10997055.3166667	99.9	
Lu	175	No Gas	13854537.71	13769018.1266667	100.62	
Rh	103	No Gas	10488356.80	10512158.1933333	99.77	
Sc	45	No Gas	5743339.22	5845931.02	98.25	
Tb	159	No Gas	14253785.21	14199586.8733333	100.38	

III
CONTINUING CALIBRATION BLANK

Report No:	223072146	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1298_CCB.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1729	Analytical Method:	EPA 6020B

ANALYTE	RESULT	UNITS	Q	DL	LOD	LOQ
Arsenic	0.50	ug/L	U	0.25	0.50	1.00

FORM III - IN

Continuing Calibration Blank (CCB) Report

Sample Name	1900	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1298_CCB.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 5:29:32 PM	**Total Dilution**	1.0000
Sample Type	CCB	**Sample Pass/Fail**	Pass
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Name	Mass	ISTD	Mode	Conc	RSD	CPS	Limit	QC Flag
Li	7	6	No Gas	-0.223	2.1	76214.99	2.5	
Be	9	6	No Gas	-0.034	2.6	161.33	0.5	
B	11	6	No Gas	0.483	1.1	5564.55	5	
Sr	88	72	No Gas	0.013	9.8	2827.05	0.5	
Zr	90	72	No Gas	-0.001	4.0	1573.44	0.5	
Mo	95	115	No Gas	-0.145	5.4	893.37	0.5	
Ag	107	115	No Gas	0.001	1.6	121.11	0.5	
Cd	111	115	No Gas	-0.029	6.0	388.90	0.5	
Sb	121	115	No Gas	-0.026	3.9	2702.51	1	
Ba	137	115	No Gas	0.034	4.6	731.14	0.5	
Tl	205	209	No Gas	-0.136	2.5	1450.13	0.5	
Pb	208	209	No Gas	-0.004	5.0	3136.94	0.5	
Na	23	45	He	-6.087	3.3	30157.53	50	
Mg	24	45	He	-1.650	7.0	733.38	50	
Al	27	45	He	0.139	4.8	193.33	10	
Si	29	45	He	-20383.525	8.0	25338.76	100	
K	39	45	He	-8.194	4.0	47138.71	50	
Ca	44	45	He	-14.738	8.5	1001.72	250	
Ti	47	45	He	-0.033	39.4	7.33	0.5	
V	51	72	He	-0.010	12.2	616.69	0.5	
Cr	52	72	He	0.014	0.3	1465.65	0.5	
Mn	55	72	He	0.016	7.7	343.34	2.5	
Fe	57	72	He	-0.250	31.1	206.68	50	
Co	59	72	He	-0.002	9.2	241.11	0.5	
Ni	60	72	He	-0.089	7.4	317.79	1	
Cu	63	45	He	0.001	3.6	828.92	0.5	
Zn	66	72	He	0.121	6.6	1114.50	10	
As	75	72	He	-0.114	2.7	112.33	0.5	
Se	78	72	He	-0.187	3.7	87.55	0.5	
Sn	120	115	He	-0.075	9.5	585.57	0.5	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6590824.07	6132749.07333333	107.47	
Ge	72	He	214945.14	194706.726666667	110.39	
In	115	He	2231129.47	2072569.52666667	107.65	
Lu	175	He	5151636.18	4837163.67666667	106.5	
Rh	103	He	5596294.22	5075027.71333333	110.27	
Sc	45	He	234127.83	209719.873333333	111.64	
Tb	159	He	7745319.88	7217928.22666667	107.31	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1062403.79	976725.24	108.77	
Bi	209	No Gas	10708778.59	9415604.23333333	113.73	
Ge	72	No Gas	1812685.90	1639549.58666667	110.56	
In	115	No Gas	12678378.44	10997055.3166667	115.29	
Lu	175	No Gas	15949673.51	13769018.1266667	115.84	
Rh	103	No Gas	12248066.73	10512158.1933333	116.51	
Sc	45	No Gas	6593940.71	5845931.02	112.8	
Tb	159	No Gas	16415711.84	14199586.8733333	115.61	

III
METHOD BLANK

Report No:	223072146	Blank ID:	MB2503173
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1299SMPL.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1733	Analytical Method:	EPA 6020B

ANALYTE	*RESULT*	*UNITS*	*Q*	*DL*	*LOD*	*LOQ*
Arsenic	0.50	ug/L	U	0.25	0.50	1.00

FORM III - IN

Method Blank (MB) Report

Sample Name	2503173	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1299SMPL.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 5:33:09 PM	**Total Dilution**	1.0000
Sample Type	MBWATER	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Name	Mass	ISTD	Mode	Conc	RSD	CPS	Limit	QC Flag
Li	7	6	No Gas	-0.060	1.1	75973.25	2.5	
Be	9	6	No Gas	-0.033	3.8	161.33	0.5	
B	11	6	No Gas	1.110	1.8	6691.72	5	
Sr	88	72	No Gas	0.026	7.8	3804.00	0.5	
Zr	90	72	No Gas	-0.001	9.9	1605.66	0.5	
Mo	95	115	No Gas	-0.165	3.0	622.25	0.5	
Ag	107	115	No Gas	0.002	14.6	150.00	0.5	
Cd	111	115	No Gas	-0.035	5.1	340.01	0.5	
Sb	121	115	No Gas	2.895	0.9	108246.90	1	> 1/2 LOQ
Ba	137	115	No Gas	0.067	4.3	1157.85	0.5	
Tl	205	209	No Gas	-0.141	12.3	1163.43	0.5	
Pb	208	209	No Gas	0.004	3.6	3997.06	0.5	
Na	23	45	He	10.830	2.4	41651.60	50	
Mg	24	45	He	3.941	11.6	2356.93	50	
Al	27	45	He	1.858	8.1	351.34	10	
Si	29	45	He	-20425.388	8.9	25248.65	100	
K	39	45	He	-10.164	1.3	46426.41	50	
Ca	44	45	He	1.465	10.7	1276.75	250	
Ti	47	45	He	0.016	15.7	14.67	0.5	
V	51	72	He	0.050	2.3	931.15	0.5	
Cr	52	72	He	0.144	1.8	2346.89	0.5	
Mn	55	72	He	0.358	1.5	1404.53	2.5	
Fe	57	72	He	3.137	24.9	643.50	50	
Co	59	72	He	0.001	12.6	282.23	0.5	
Ni	60	72	He	0.017	5.6	651.13	1	
Cu	63	45	He	0.060	4.8	1360.08	0.5	
Zn	66	72	He	3.629	3.4	5895.70	10	
As	75	72	He	-0.104	15.2	125.00	0.5	
Se	78	72	He	-0.170	9.9	88.47	0.5	
Sn	120	115	He	-0.040	7.3	864.48	0.5	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6573121.78	6132749.07333333	107.18	
Ge	72	He	213715.96	194706.726666667	109.76	
In	115	He	2219706.31	2072569.52666667	107.1	
Lu	175	He	5097347.95	4837163.67666667	105.38	
Rh	103	He	5595499.36	5075027.71333333	110.26	
Sc	45	He	234464.65	209719.873333333	111.8	
Tb	159	He	7674893.01	7217928.22666667	106.33	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1039769.51	976725.24	106.45	
Bi	209	No Gas	10840714.42	9415604.23333333	115.14	
Ge	72	No Gas	1827812.01	1639549.58666667	111.48	
In	115	No Gas	12737036.85	10997055.3166667	115.82	
Lu	175	No Gas	16142779.34	13769018.1266667	117.24	
Rh	103	No Gas	12311496.46	10512158.1933333	117.12	
Sc	45	No Gas	6741719.45	5845931.02	115.32	
Tb	159	No Gas	16604633.50	14199586.8733333	116.94	

III
CONTINUING CALIBRATION BLANK

Report No:	223072146	Blank ID:	1900
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\1321_CCB.d
Analyst:	TDM	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1852	Analytical Method:	EPA 6020B

ANALYTE	RESULT	UNITS	Q	DL	LOD	LOQ
Arsenic	0.50	ug/L	U	0.25	0.50	1.00

FORM III - IN

Continuing Calibration Blank (CCB) Report

Sample Name	1900	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1321_CCB.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 6:52:02 PM	**Total Dilution**	1.0000
Sample Type	CCB	**Sample Pass/Fail**	Pass
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Name	Mass	ISTD	Mode	Conc	RSD	CPS	Limit	QC Flag
Li	7	6	No Gas	0.534	1.7	69315.59	2.5	
Be	9	6	No Gas	-0.026	6.0	157.33	0.5	
B	11	6	No Gas	2.350	4.2	7832.25	5	
Sr	88	72	No Gas	0.007	6.6	2366.95	0.5	
Zr	90	72	No Gas	0.001	2.1	1660.11	0.5	
Mo	95	115	No Gas	-0.063	2.3	1990.16	0.5	
Ag	107	115	No Gas	0.002	12.9	155.56	0.5	
Cd	111	115	No Gas	-0.031	11.9	362.23	0.5	
Sb	121	115	No Gas	0.037	1.2	4897.58	1	
Ba	137	115	No Gas	0.011	5.3	425.57	0.5	
Tl	205	209	No Gas	-0.133	8.0	1560.15	0.5	
Pb	208	209	No Gas	-0.005	2.6	2883.56	0.5	
Na	23	45	He	-4.979	2.3	31764.25	50	
Mg	24	45	He	-1.896	3.9	680.04	50	
Al	27	45	He	-0.106	15.3	175.33	10	
Si	29	45	He	-18866.661	9.8	30809.08	100	
K	39	45	He	-1.272	2.7	51212.45	50	
Ca	44	45	He	-14.936	5.6	1025.05	250	
Ti	47	45	He	-0.002	28.5	12.33	0.5	
V	51	72	He	-0.010	9.8	626.69	0.5	
Cr	52	72	He	0.009	4.8	1463.42	0.5	
Mn	55	72	He	0.030	10.0	397.79	2.5	
Fe	57	72	He	0.972	20.1	373.35	50	
Co	59	72	He	0.000	5.2	280.01	0.5	
Ni	60	72	He	-0.072	3.8	380.01	1	
Cu	63	45	He	0.067	7.0	1460.09	0.5	
Zn	66	72	He	0.404	3.8	1534.54	10	
As	75	72	He	-0.110	7.5	119.67	0.5	
Se	78	72	He	-0.063	10.5	99.72	0.5	
Sn	120	115	He	-0.063	6.9	683.36	0.5	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6341114.07	6132749.07333333	103.4	
Ge	72	He	219467.09	194706.726666667	112.72	
In	115	He	2231840.48	2072569.52666667	107.68	
Lu	175	He	5018117.42	4837163.67666667	103.74	
Rh	103	He	5558073.95	5075027.71333333	109.52	
Sc	45	He	240692.77	209719.873333333	114.77	
Tb	159	He	7602979.26	7217928.22666667	105.33	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	888470.19	976725.24	90.96	
Bi	209	No Gas	10038935.06	9415604.23333333	106.62	
Ge	72	No Gas	1800181.94	1639549.58666667	109.8	
In	115	No Gas	12504826.90	10997055.3166667	113.71	
Lu	175	No Gas	15218492.27	13769018.1266667	110.53	
Rh	103	No Gas	12180278.13	10512158.1933333	115.87	
Sc	45	No Gas	6619856.96	5845931.02	113.24	
Tb	159	No Gas	15703881.44	14199586.8733333	110.59	

Metals

Form IV

Interference Checks

IV
ICPMS INTERFERENCE CHECKS

Report No:	223072146	ICSA \ AB ID:	2000 \ 2100
Instrument ID:	ICPMS2	Analytical Batch:	769477
Analyst:	TDM	Analytical Method:	EPA 6020B
Lab File ID ICSA1:	2230724A_MS2.b\1212ICSA.d	Lab File ID ICSAB1:	2230724A_MS2.b\1213ICSB.d
Lab File ID ICSA2:		Lab File ID ICSAB2:	

Concentration Units: ug/L

		Analyzed (A/AB):	07/24/23 1222	07/24/23 1226				
ANALYTE	***TRUE A***	***TRUE AB***	***ICSA1***	***ICSAB1***	***%R***	***ICSA2***	***ICSAB2***	***%R***
Aluminum	1000	1000	1010	999	100			
Antimony	0	0	-0.013	0.038				
Arsenic	0	10.0	-0.088	9.53	95			
Barium	0	0	0.0030	0.013				
Beryllium	0	0	-0.022	-0.022				
Boron	0	20.0	0.17	22.8	114			
Cadmium	0	10.0	-0.0090	10.7	107			
Calcium	3000	3000	2920	2990	100			
Chromium	0	20.0	0.039	19.5	98			
Cobalt	0	20.0	0.024	19.7	98			
Copper	0	20.0	0.0050	20.6	103			
Iron	2500	2500	2500	2510	100			
Lead	0	0	-0.0030	0.0020				
Lithium	0	20.0	-0.28	20.9	104			
Magnesium	1000	1000	1030	1030	103			
Manganese	0	20.0	0.021	20.2	101			
Molybdenum	20.0	20.0	18.2	18.2	91			
Nickel	0	20.0	-0.034	20.1	100			
Potassium	1000	1000	985	992	99			
Selenium	0	10.0	-0.18	9.39	94			
Silicon	0	1000	-4900	-4100	-414			
Silver	0	5.00	0.0040	4.95	99			
Sodium	2500	2500	2490	2480	99			
Strontium	0	10.0	0.018	9.53	95			
Thallium	0	0	-0.12	-0.12				
Tin	0	10.0	-0.024	9.33	93			
Titanium	20.0	20.0	19.5	19.6	98			
Vanadium	0	20.0	-0.010	19.1	96			
Zinc	0	20.0	0.35	21.0	105			
Zirconium	0	20.0	0.012	18.5	92			

FORM IV - IN

Interference Check Solution A (ICS-A) Report

Sample Name	2000	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1212ICSA.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:22:29 PM	**Total Dilution**	1.0000
Sample Type	ICSA	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Spiked Element Recovery: 80-120%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	QC Flag
Li	7	6	No Gas	-0.282	2.0	73883.63	2.5	
Be	9	6	No Gas	-0.022	5.1	195.33	0.5	
B	11	6	No Gas	0.174	8.4	4817.60	5	
Sr	88	72	No Gas	0.018	10.3	2930.41	0.5	
Zr	90	72	No Gas	0.012	5.8	2006.83	0.5	
Mo	95	115	No Gas	18.175	0.2	227244.13	20	
Ag	107	115	No Gas	0.004	14.0	194.45	0.5	
Cd	111	115	No Gas	-0.009	11.3	494.46	0.5	
Sb	121	115	No Gas	-0.013	7.6	2856.99	1	
Ba	137	115	No Gas	0.003	16.4	300.01	0.5	
Tl	205	209	No Gas	-0.121	5.6	2276.95	0.5	
Pb	208	209	No Gas	-0.003	5.8	2913.57	0.5	
Na	23	45	He	2487.862	1.6	1502569.25	2500	
Mg	24	45	He	1026.449	1.0	261141.90	1000	
Al	27	45	He	1006.074	1.0	80768.10	1000	
Si	29	45	He	-4879.135	1.3	63836.70	100	> LOD
K	39	45	He	985.248	1.9	379066.49	1000	
Ca	44	45	He	2918.986	2.4	44525.20	3000	
Ti	47	45	He	19.493	3.1	2534.56	20	
V	51	72	He	-0.010	16.3	551.13	0.5	
Cr	52	72	He	0.039	12.6	1480.09	0.5	
Mn	55	72	He	0.021	17.2	326.67	2.5	
Fe	57	72	He	2495.586	0.7	292443.07	2500	
Co	59	72	He	0.024	5.5	494.46	0.5	
Ni	60	72	He	-0.034	3.3	443.34	1	
Cu	63	45	He	0.005	8.5	758.92	0.5	
Zn	66	72	He	0.348	6.4	1285.63	10	
As	75	72	He	-0.088	9.2	134.33	0.5	
Se	78	72	He	-0.180	14.2	79.63	0.5	
Sn	120	115	He	-0.024	8.5	917.82	0.5	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6119474.49	6132749.07333333	99.78	
Ge	72	He	193845.25	194706.726666667	99.56	
In	115	He	2049800.98	2072569.52666667	98.9	
Lu	175	He	4819571.70	4837163.67666667	99.64	
Rh	103	He	4998211.47	5075027.71333333	98.49	
Sc	45	He	204988.41	209719.873333333	97.74	
Tb	159	He	7216580.10	7217928.22666667	99.98	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1037028.80	976725.24	106.17	
Bi	209	No Gas	9729391.31	9415604.23333333	103.33	
Ge	72	No Gas	1658220.66	1639549.58666667	101.14	
In	115	No Gas	11374421.75	10997055.3166667	103.43	
Lu	175	No Gas	14493597.28	13769018.1266667	105.26	
Rh	103	No Gas	10700529.30	10512158.1933333	101.79	
Sc	45	No Gas	5941256.98	5845931.02	101.63	
Tb	159	No Gas	14820034.78	14199586.8733333	104.37	

Interference Check Solution AB (ICS-AB) Report

Sample Name	2100	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1213ICSB.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 12:26:01 PM	**Total Dilution**	1.0000
Sample Type	ICSB	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Spiked Element Recovery: 80-120%

Name	Mass	ISTD	Mode	Conc	RSD	CPS	ExpValue	QC Flag
Li	7	6	No Gas	20.879	0.8	248867.35	20	
Be	9	6	No Gas	-0.022	4.9	191.33	0.5	
B	11	6	No Gas	22.760	0.9	48401.13	20	
Sr	88	72	No Gas	9.532	0.5	647895.51	10	
Zr	90	72	No Gas	18.535	1.5	782707.21	20	
Mo	95	115	No Gas	18.215	0.9	230326.64	20	
Ag	107	115	No Gas	4.949	0.1	164231.42	5	
Cd	111	115	No Gas	10.683	0.2	78720.86	10	
Sb	121	115	No Gas	0.038	3.8	4558.57	1	
Ba	137	115	No Gas	0.013	6.0	418.90	0.5	
Tl	205	209	No Gas	-0.122	2.1	2200.26	0.5	
Pb	208	209	No Gas	0.002	2.6	3346.97	0.5	
Na	23	45	He	2483.082	1.4	1516453.93	2500	
Mg	24	45	He	1034.286	1.7	266072.29	1000	
Al	27	45	He	999.264	1.1	81112.03	1000	
Si	29	45	He	-4135.397	1.4	66564.20	1000	> +/- 20%
K	39	45	He	992.167	2.0	385651.49	1000	
Ca	44	45	He	2989.192	2.5	46076.44	3000	
Ti	47	45	He	19.598	3.9	2576.23	20	
V	51	72	He	19.130	0.9	94457.66	20	
Cr	52	72	He	19.463	1.5	122207.50	20	
Mn	55	72	He	20.164	1.3	57130.01	20	
Fe	57	72	He	2513.042	1.9	295291.15	2500	
Co	59	72	He	19.732	1.7	209275.77	20	
Ni	60	72	He	20.134	1.3	58364.07	20	
Cu	63	45	He	20.567	1.8	163932.77	20	
Zn	66	72	He	20.957	1.9	26862.47	20	
As	75	72	He	9.533	1.8	12760.92	10	
Se	78	72	He	9.392	2.7	778.18	10	
Sn	120	115	He	9.334	2.0	70896.89	10	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6179156.16	6132749.07333333	100.76	
Ge	72	He	194342.00	194706.726666667	99.81	
In	115	He	2071176.29	2072569.52666667	99.93	
Lu	175	He	4896015.55	4837163.67666667	101.22	
Rh	103	He	5065255.49	5075027.71333333	99.81	
Sc	45	He	207259.37	209719.873333333	98.83	
Tb	159	He	7303002.18	7217928.22666667	101.18	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1009495.98	976725.24	103.36	
Bi	209	No Gas	9732540.69	9415604.23333333	103.37	
Ge	72	No Gas	1671892.26	1639549.58666667	101.97	
In	115	No Gas	11503223.79	10997055.3166667	104.6	
Lu	175	No Gas	14615222.28	13769018.1266667	106.15	
Rh	103	No Gas	10852403.18	10512158.1933333	103.24	
Sc	45	No Gas	6028067.12	5845931.02	103.12	
Tb	159	No Gas	14919816.86	14199586.8733333	105.07	

Metals

Form VII

Lab Control Spikes

VII
LABORATORY CONTROL SAMPLE

Report No:	223072146	GCAL ID:	2503174 (LCS)
Matrix:	Water	Instrument ID:	ICPMS2
Analyst:	TDM	Lab File ID:	2230724A_MS2.b\1300SMPL.d
Prep Date:	07/24/23 Time: 0945	Analysis Date:	07/24/23 Time: 1736
Prep Batch:	769436	Analytical Batch:	769477
Prep Method:	3010A	Analytical Method:	EPA 6020B

ANALYTE	*UNITS*	*TRUE*	*FOUND*	*% R*	*Q*	*LCL*	*UCL*
Arsenic	ug/L	50.0	47.6	95		84	116

FORM VII - IN

Laboratory Control Sample (LCS) Report

Sample Name	2503174	**Data Path Name**	C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
File Name	1300SMPL.d	**Comment**	ICPMS-2,TDM
Acq Time	7/24/2023 5:36:45 PM	**Total Dilution**	1.0000
Sample Type	LCS6020	**Sample Pass/Fail**	Fail
ISTD Ref FileName	004CALB.d	**ISTD Pass/Fail**	Pass

Units : ppb

QC Analyte Table

Recovery Limits: 80-120% 6020B / 85-115% 200.8

Name	Mass	ISTD	Mode	Conc	RSD	CPS	SpkAmt	Rec	QC Flag
Li	7	6	No Gas	246.141	2.4	2241197.52	250	98.46	
Be	9	6	No Gas	47.031	0.3	149551.10	50	94.06	
B	11	6	No Gas	248.020	2.1	509292.00	250	99.21	
Sr	88	72	No Gas	47.185	1.3	3528230.57	50	94.37	
Zr	90	72	No Gas	9.669	0.5	450920.88	10	96.69	
Mo	95	115	No Gas	45.334	1.5	629541.35	50	90.67	
Ag	107	115	No Gas	42.890	1.0	1573098.52	50	85.78	
Cd	111	115	No Gas	45.799	0.9	371136.73	50	91.6	
Sb	121	115	No Gas	95.688	1.3	3455409.17	100	95.69	
Ba	137	115	No Gas	45.962	1.5	590319.56	50	91.92	
Tl	205	209	No Gas	45.665	2.2	3207879.64	50	91.33	
Pb	208	209	No Gas	45.817	1.4	4362671.29	50	91.63	
Na	23	45	He	5069.274	1.4	3472004.12	5000	101.39	
Mg	24	45	He	4951.294	1.0	1438502.32	5000	99.03	
Al	27	45	He	965.583	1.7	88819.54	1000	96.56	
Si	29	45	He	-14401.264	3.9	43831.59	5000	-288.03	LCS6020 Main CR1 Failed
K	39	45	He	4887.821	2.3	1954534.50	5000	97.76	
Ca	44	45	He	24055.642	2.0	411244.86	25000	96.22	
Ti	47	45	He	47.469	2.8	7053.02	50	94.94	
V	51	72	He	48.805	1.9	265100.71	50	97.61	
Cr	52	72	He	49.288	1.3	339618.09	50	98.58	
Mn	55	72	He	50.036	1.7	156101.33	50	100.07	
Fe	57	72	He	4835.683	1.7	627233.21	5000	96.71	
Co	59	72	He	49.597	1.3	580325.69	50	99.19	
Ni	60	72	He	99.401	1.4	315783.19	100	99.4	
Cu	63	45	He	49.047	1.4	441788.11	50	98.09	
Zn	66	72	He	975.661	1.9	1337699.84	1000	97.57	
As	75	72	He	47.570	1.9	69213.80	50	95.14	
Se	78	72	He	9.047	1.1	831.10	10	90.47	
Sn	120	115	He	47.055	2.6	375988.74	50	94.11	

QC ISTD Table

Recovery Limits: 30 - 120% DOD 6020B / 70-130% 6020B / 60-125% 200.8

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
Bi	209	He	6417921.99	6132749.07333333	104.65	
Ge	72	He	214569.68	194706.726666667	110.2	
In	115	He	2206536.76	2072569.52666667	106.46	
Lu	175	He	5128945.03	4837163.67666667	106.03	
Rh	103	He	5477515.34	5075027.71333333	107.93	
Sc	45	He	234807.81	209719.873333333	111.96	
Tb	159	He	7744198.22	7217928.22666667	107.29	

Name	Mass	Mode	CPS	Ref CPS	Rec	Flag
(Li)	6	No Gas	1061331.59	976725.24	108.66	
Bi	209	No Gas	10633563.59	9415604.23333333	112.94	
Ge	72	No Gas	1843093.75	1639549.58666667	112.41	
In	115	No Gas	12719823.33	10997055.3166667	115.67	
Lu	175	No Gas	16187028.93	13769018.1266667	117.56	
Rh	103	No Gas	12067832.58	10512158.1933333	114.8	
Sc	45	No Gas	6928629.03	5845931.02	118.52	
Tb	159	No Gas	16678347.67	14199586.8733333	117.46	

Metals

Form VIII

Tunes

VIII
ICP-MS TUNE

Report No:	223072146	GCAL QC ID:	1150
Instrument ID:	ICPMS2	Lab File ID:	2230724A_MS2.b\QCTune\2230724A_MS2-QCTu
Analyst:	LWZ	Analytical Batch:	769477
Analysis Date:	07/24/23 Time: 1039	Analytical Method:	EPA 6020B

ELEMENT - MASS	AVG MEASURED MASS (amu)	PEAK WIDTH AT 5% PEAK HEIGHT (amu)	%RSD
Be-9	9.05	.7791	.8537
Mg-24	24.05	.7867	2.2203
Mg-25	25.05	.7855	2.8709
Mg-26	26	.7863	2.0228
Co-59	59	.7748	.5047
In-115	115.05	.7595	.4001
Pb-206	206.05	.7805	.4264
Pb-207	207	.7613	.3754
Pb-208	208	.7969	.3318

FORM VIII - IN

US EPA Tune Check Sample Report

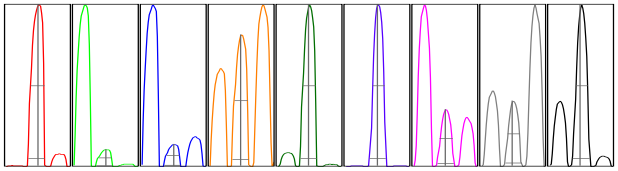
Batch Folder C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b
Report Comment
Instrument Name G8403A JP14170244

[No Gas]

Mass	Count (Mean)	RSD% (Actual)	RSD% (Required)	RSD% (Flag)
9	6741	0.85	5.00	
24	74669	2.22	5.00	
25	10145	2.87	5.00	
26	13549	2.02	5.00	
59	170048	0.50	5.00	
115	157722	0.40	5.00	
206	39090	0.43	5.00	
207	33557	0.38	5.00	
208	83192	0.33	5.00	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	6697	6661	6773	6786	6784
24	76829	75847	74159	73835	72673
25	10493	10420	9963	10008	9843
26	13806	13850	13507	13221	13362
59	170087	170327	169099	169425	171304
115	157604	157846	156818	158585	157755
206	39334	38868	39046	39084	39117
207	33740	33635	33479	33440	33494
208	83571	83249	83295	82895	82948

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width-X% (Flag)
9	1103	9.05	8.9 - 9.1		0.779	0.849	
24	12368	24.05	23.9 - 24.1		0.787	0.849	
25	1685	25.05	24.9 - 25.1		0.786	0.849	
26	2268	26.00	25.9 - 26.1		0.786	0.849	
59	29685	59.00	58.9 - 59.1		0.775	0.849	
115	29359	115.05	114.9 - 115.1		0.760	0.849	
206	7200	206.05	205.9 - 206.1		0.781	0.849	
207	6242	207.00	206.9 - 207.1		0.761	0.849	
208	15401	208.00	207.9 - 208.1		0.797	0.849	

X% = 5 **Integration Time [sec] =** 0.1 **Acquisition Time [sec] =** 235 **Y Axis =** Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1550	W	Carrier Gas	1.00	L/min	S/C Temp	2	℃
RF Matching	1.60	V	Option Gas	0.0	%	Gas Switch	Dilution Gas	
Smpl Depth	8.0	mm	Nebulizer Pump	0.10	rps	Makeup/Dilution Gas	0.20	L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	12.4	V	Deflect	14.6	V
Extract 2	-250.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-105	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	false		3rd Gas Flow	0	%	Energy Discrimination	4.0	V
He Flow	0.0	mL/min	OctP Bias	-8.0	V			
H2 Flow	0.0	mL/min	OctP RF	200	V			

Metals

Form XIII

Preparation Logs

XIII
PREPARATION LOG

Report No: 223072146

Prep Method: EPA 3010A Prep Batch: 769436

CLIENT SAMPLE ID	GCAL SAMPLE ID	PREP DATE	WEIGHT	UNITS	VOLUME	UNITS
38GW010-070523 MS	22307240303	07/24/23			50	mL
38GW010-070523 MSD	22307240304	07/24/23			50	mL
EFFLUENT	22307214601	07/24/23			50	mL
LCS2503174	2503174	07/24/23			50	mL
MB2503173	2503173	07/24/23			50	mL

FORM XIII - IN

Metals

Form XIV

Run Logs

XIV
ANALYSIS RUN LOG

Report No: 223072146 Analytical Batch: 769477 Start Date: 07/24/23

Instrument ID: ICPMS2 Analytical Method: EPA 6020B End Date: 07/24/23

CLIENT SAMPLE ID	GCAL SAMPLE ID	PF	D/F	TIME	Analyte Symbols																																	
					Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	Ti	V	Zn	Zr				
ITUNE	1150	*	1	1039			X																															
IICALB	1300	*	1	1141			X																															
IICAL2	1302	*	1	1145			X																															
IICAL4	1304	*	1	1149			X																															
IICAL5	1305	*	1	1157			X																															
IICAL6	1306	*	1	1200			X																															
ICV	1600	*	1	1204			X																															
ICB	1700	*	1	1208			X																															
LLCCV	1803	*	1	1218			X																															
ICSA	2000	*	1	1222			X																															
ICSAB	2100	*	1	1226			X																															
LDR	2500	*	1	1229			X																															
CCV	1800	*	1	1725			X																															
CCB	1900	*	1	1729			X																															
MB2503173	2503173	*	1	1733			X																															
LCS2503174	2503174	*	1	1736			X																															
EFFLUENT	22307214601	*	1	1740			X																															
CCV	1800	*	1	1848			X																															
CCB	1900	*	1	1852			X																															

FORM XIV - IN

Metals

Form XV

Internal Standards

XV (He)

ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	223072146	Start Date:	07/24/23
Instrument ID:	ICPMS2	End Date:	07/24/23
Analytical Method	EPA 6020B	Analytical Batch:	769477

			Internal Standards %RI For:													
CLIENT SAMPLE ID	***GCAL SAMPLE ID***	***TIME***	***ISTD1***	***Q***	***ISTD2***	***Q***	***ISTD3***	***Q***	***ISTD4***	***Q***	***ISTD5***	***Q***	***ISTD6***	***Q***	***ISTD7***	***Q***
MB2503173	2503173	1733	107		110		107		105		110		112		106	
LCS2503174	2503174	1736	105		110		106		106		108		112		107	
EFFLUENT	22307214601	1740	104		110		105		105		106		111		106	

ISTD 1: Bismuth (He)
ISTD 2: Germanium (He)
ISTD 3: Indium (He)
ISTD 4: Lutetium (He)
ISTD 5: Rhodium (He)
ISTD 6: Scandium (He)
ISTD 7: Terbium (He)

FORM XV - IN

XV (No Gas)
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Report No:	223072146	Start Date:	07/24/23
Instrument ID:	ICPMS2	End Date:	07/24/23
Analytical Method	EPA 6020B	Analytical Batch:	769477

			Internal Standards %RI For:															
CLIENT SAMPLE ID	GCAL SAMPLE ID	TIME	ISTD8	Q	ISTD9	Q	ISTD10	Q	ISTD11	Q	ISTD12	Q	ISTD13	Q	ISTD14	Q
MB2503173	2503173	1733	115		111		116		117		117		115		117	
LCS2503174	2503174	1736	113		112		116		118		115		119		117	
EFFLUENT	22307214601	1740	113		112		116		118		113		117		118	

ISTD 8: Bismuth (No Gas)
ISTD 9: Germanium (No Gas)
ISTD 10 Indium (No Gas)
ISTD 11 Lutetium (No Gas)
ISTD 12 Rhodium (No Gas)
ISTD 13 Scandium (No Gas)
ISTD 14 Terbium (No Gas)

FORM XV - IN

Metals

ICPMS ICAL

Sample					
Data File	Acq. Date-Time	Type	Level	Sample Name	Total Dil.
001SMPL.d	7/24/2023 11:31	Sample		Blank	1
002SMPL.d	7/24/2023 11:34	Sample		Blank	1
003SMPL.d	7/24/2023 11:38	Sample		Blank	1
004CALB.d	7/24/2023 11:41	CalBlk	1	1300	1
005CALS.d	7/24/2023 11:45	CalStd	3	1302	1
006CALS.d	7/24/2023 11:49	CalStd	5	1304	1
007CALS.d	7/24/2023 11:53	CalStd		5 PPB	1
008CALS.d	7/24/2023 11:57	CalStd	6	1305	1
009CALS.d	7/24/2023 12:00	CalStd	7	1306	1
010_ICV.d	7/24/2023 12:04	ICV		1600	1
011_ICB.d	7/24/2023 12:08	ICB		1700	1
0120.1.d	7/24/2023 12:11	LLCCV0.1		1804	1
1210.5.d	7/24/2023 12:15	LLCCV0.5		1804	1
1211CCV1.d	7/24/2023 12:18	LLCCV1		1803	1
1212ICSA.d	7/24/2023 12:22	ICSA		2000	1
1213ICSB.d	7/24/2023 12:26	ICSB		2100	1
1214_QC1.d	7/24/2023 12:29	QC1		LDR	1
1215SMPL.d	7/24/2023 12:33	Sample		2500	1
1216SMPL.d	7/24/2023 12:36	MBWATER		2502578	1
1217SMPL.d	7/24/2023 12:40	LCS6020		2502579	1
1218SMPL.d	7/24/2023 12:43	AllRef		22307198401	100
1219SMPL.d	7/24/2023 12:47	MS		2502580	100
1220SMPL.d	7/24/2023 12:50	MSD		2502581	100
1221SMPL.d	7/24/2023 12:54	PDS		2503370	100
1222SMPL.d	7/24/2023 12:58	Sample		2503371	500
1223SMPL.d	7/24/2023 13:01	Sample		22307183201	100
1224SMPL.d	7/24/2023 13:05	Sample		22307183202	100
1225SMPL.d	7/24/2023 13:08	Sample		22307183203	100
1226_CCV.d	7/24/2023 13:12	CCV		1800	1
1227_CCB.d	7/24/2023 13:15	CCB		1900	1
1228SMPL.d	7/24/2023 13:19	LCS6020		2501770	40
1229SMPL.d	7/24/2023 13:22	MBSOIL		2502471	40
1230SMPL.d	7/24/2023 13:26	LCS6020		2502472	40
1231SMPL.d	7/24/2023 13:30	AllRef		22307206201	40
1232SMPL.d	7/24/2023 13:33	Sample		BLANK	1
1233SMPL.d	7/24/2023 13:37	MSSOIL		2502473	40
1234SMPL.d	7/24/2023 13:40	Sample		BLANK	1
1235SMPL.d	7/24/2023 13:44	MSDSOIL		2502474	40
1236SMPL.d	7/24/2023 13:47	Sample		BLANK	1
1237SMPL.d	7/24/2023 13:51	PDS		2503375	40
1238SMPL.d	7/24/2023 13:55	Sample		BLANK	1
1239SMPL.d	7/24/2023 13:58	Sample		2503376	40
1240SMPL.d	7/24/2023 14:02	Sample		BLANK	1
1241_CCV.d	7/24/2023 14:05	CCV		1800	1
1242_CCB.d	7/24/2023 14:09	CCB		1900	1

1243SMPL.d	7/24/2023 14:12	MBWATER		2502118	1
1244SMPL.d	7/24/2023 14:16	LCS6020		2502119	1
1245SMPL.d	7/24/2023 14:19	AllRef		22307195701	200
1246SMPL.d	7/24/2023 14:23	Sample		BLANK	1
1247SMPL.d	7/24/2023 14:27	MS		2502120	200
1248SMPL.d	7/24/2023 14:30	Sample		BLANK	1
1249SMPL.d	7/24/2023 14:34	MSD		2502121	200
1250SMPL.d	7/24/2023 14:37	Sample		BLANK	1
1251SMPL.d	7/24/2023 14:41	PDS		2502811	200
1252SMPL.d	7/24/2023 14:45	Sample		BLANK	1
1253SMPL.d	7/24/2023 14:48	Sample		2502812	1000
1254SMPL.d	7/24/2023 14:52	Sample		BLANK	1
1255SMPL.d	7/24/2023 14:55	Sample		22307195702	200
1256SMPL.d	7/24/2023 14:59	Sample		BLANK	1
1257SMPL.d	7/24/2023 15:02	Sample		22307195703	200
1258SMPL.d	7/24/2023 15:06	Sample		BLANK	1
1259SMPL.d	7/24/2023 15:10	Sample		22307195704	200
1260SMPL.d	7/24/2023 15:13	Sample		BLANK	1
1261SMPL.d	7/24/2023 15:17	Sample		22307195705	200
1262SMPL.d	7/24/2023 15:20	Sample		BLANK	1
1263SMPL.d	7/24/2023 15:24	Sample		22307195706	200
1264SMPL.d	7/24/2023 15:28	Sample		BLANK	1
1265SMPL.d	7/24/2023 15:31	Sample		22307195707	200
1266SMPL.d	7/24/2023 15:35	Sample		BLANK	1
1267_CCV.d	7/24/2023 15:38	CCV		1800	1
1268_CCB.d	7/24/2023 15:42	CCB		1900	1
1269SMPL.d	7/24/2023 15:45	MBSOIL		2502796	40
1270SMPL.d	7/24/2023 15:49	LCS6020		2502797	40
1271SMPL.d	7/24/2023 15:52	AllRef		22307214701	400
1272SMPL.d	7/24/2023 15:56	MSSOIL		2502798	400
1273SMPL.d	7/24/2023 16:00	MSDSOIL		2502799	400
1274SMPL.d	7/24/2023 16:03	PDS		2503388	400
1275SMPL.d	7/24/2023 16:07	Sample		2503389	2000
1276SMPL.d	7/24/2023 16:10	Sample		22307214702	387.5969
1277SMPL.d	7/24/2023 16:14	Sample		22307214703	396.8254
1278SMPL.d	7/24/2023 16:18	Sample		22307214704	381.6794
1279SMPL.d	7/24/2023 16:21	Sample		22307214705	390.625
1280SMPL.d	7/24/2023 16:25	Sample		22307214706	396.8254
1281SMPL.d	7/24/2023 16:28	Sample		22307214707	393.7008
1282SMPL.d	7/24/2023 16:32	Sample		22307214708	390.625
1283SMPL.d	7/24/2023 16:35	Sample		22307214709	373.1343
1284SMPL.d	7/24/2023 16:39	Sample		22307214710	381.6794
1285_CCV.d	7/24/2023 16:43	CCV		1800	1
1286_CCB.d	7/24/2023 16:46	CCB		1900	1
1287SMPL.d	7/24/2023 16:50	Sample		22307214711	400
1288SMPL.d	7/24/2023 16:53	Sample		22307214712	393.7008
1289SMPL.d	7/24/2023 16:57	Sample		22307214713	381.6794

1290SMPL.d	7/24/2023 17:00	Sample		22307214714	375.9398
1291SMPL.d	7/24/2023 17:04	Sample		22307214715	400
1292SMPL.d	7/24/2023 17:08	Sample		22307214716	373.1343
1293SMPL.d	7/24/2023 17:11	Sample		22307214717	381.6794
1294SMPL.d	7/24/2023 17:15	Sample		22307214718	375.9398
1295SMPL.d	7/24/2023 17:18	Sample		22307214719	387.5969
1296SMPL.d	7/24/2023 17:22	Sample		22307214720	384.6154
1297_CCV.d	7/24/2023 17:25	CCV		1800	1
1298_CCB.d	7/24/2023 17:29	CCB		1900	1
1299SMPL.d	7/24/2023 17:33	MBWATER		2503173	1
1300SMPL.d	7/24/2023 17:36	LCS6020		2503174	1
1301SMPL.d	7/24/2023 17:40	Sample		22307214601	1
1302SMPL.d	7/24/2023 17:43	Sample		BLANK	1
1303SMPL.d	7/24/2023 17:47	MBSOIL		2502759	40
1304SMPL.d	7/24/2023 17:51	LCS6020		2502760	40
1305SMPL.d	7/24/2023 17:54	Sample		22307213601	375.9398
1306SMPL.d	7/24/2023 17:58	AllRef		22307214721	400
1307SMPL.d	7/24/2023 18:01	MSSOIL		2502801	400
1308SMPL.d	7/24/2023 18:05	MSDSOIL		2502802	400
1309SMPL.d	7/24/2023 18:09	PDS		2503390	400
1310SMPL.d	7/24/2023 18:12	Sample		2503391	2000
1311SMPL.d	7/24/2023 18:16	Sample		22307214722	393.7008
1312SMPL.d	7/24/2023 18:19	Sample		22307214723	375.9398
1313SMPL.d	7/24/2023 18:23	Sample		22307214724	400
1314SMPL.d	7/24/2023 18:26	Sample		22307240301	1
1315SMPL.d	7/24/2023 18:30	AllRef		22307240302	1
1316SMPL.d	7/24/2023 18:34	MS		22307240303	1
1317SMPL.d	7/24/2023 18:37	MSD		22307240304	1
1318SMPL.d	7/24/2023 18:41	PDS		2503424	1
1319SMPL.d	7/24/2023 18:44	Sample		2503425	5
1320_CCV.d	7/24/2023 18:48	CCV		1800	1
1321_CCB.d	7/24/2023 18:52	CCB		1900	1
1322SMPL.d	7/24/2023 18:55	Sample		22307240305	1
1323SMPL.d	7/24/2023 18:59	Sample		22307240306	1
1324SMPL.d	7/24/2023 19:02	Sample		22307240307	1
1325SMPL.d	7/24/2023 19:06	Sample		22307240308	1
1326SMPL.d	7/24/2023 19:10	Sample		22307240309	1
1327SMPL.d	7/24/2023 19:13	Sample		22307240310	1
1328SMPL.d	7/24/2023 19:17	Sample		22307240311	1
1329SMPL.d	7/24/2023 19:20	Sample		22307240312	1
1330SMPL.d	7/24/2023 19:24	Sample		22307240313	1
1331_CCV.d	7/24/2023 19:27	CCV		1800	1
1332_CCB.d	7/24/2023 19:31	CCB		1900	1
1333SMPL.d	7/24/2023 19:35	Sample		BLANK	1
1334SMPL.d	7/24/2023 19:38	Sample		BLANK	1
1335SMPL.d	7/24/2023 19:42	Sample		BLANK	1

Vial Number
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1102
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1501
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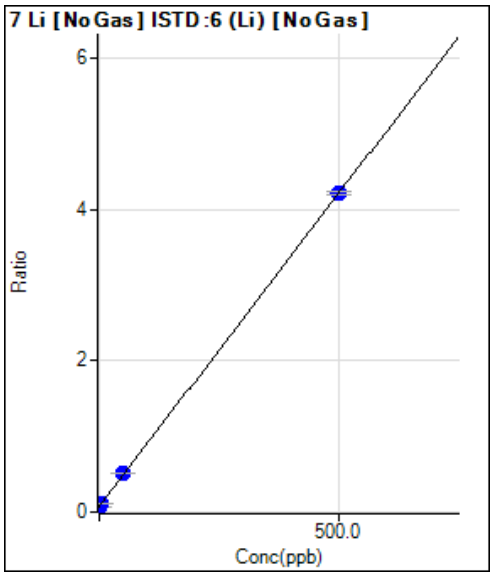
5
5

Tune Mode	Mass	Name	ISTD	R	a	b (blank)	DL	BEC	Units
No Gas	7	Li	6 (Li) [No Gas]	0.99997125	0.008284097	0.073587507	0.328172745	8.882984623	ppb
No Gas	9	Be	6 (Li) [No Gas]	0.999968969	0.002991361	0.000254595	0.001340947	0.085109982	ppb
No Gas	11	B	6 (Li) [No Gas]	0.999889804	0.00191731	0.004311144	0.08138397	2.248538223	ppb
He	23	Na	45 Sc [He]	0.99999637	0.002888005	0.146363491	2.173079365	50.67978396	ppb
He	24	Mg	45 Sc [He]	0.999997698	0.001236297	0.005172165	0.850849961	4.183594281	ppb
He	27	Al	45 Sc [He]	0.999996458	0.000390935	0.000771704	0.757357357	1.973995956	ppb
He	29	Si	45 Sc [He]	0.995642931	1.31E-05	0.375529453	3261.767301	28647.64304	ppb
He	39	K	45 Sc [He]	0.999997532	0.001658886	0.214880091	7.175260795	129.5327872	ppb
He	44	Ca	45 Sc [He]	0.999999249	7.26E-05	0.005344926	28.57229096	73.64159255	ppb
He	47	Ti	45 Sc [He]	0.999999269	0.000631598	5.23E-05	0.032487446	0.082865925	ppb
He	51	V	72 Ge [He]	0.999999932	0.025251554	0.003106061	0.018703396	0.123004755	ppb
He	52	Cr	72 Ge [He]	0.999999876	0.031986457	0.006378113	0.033207716	0.199400437	ppb
He	55	Mn	72 Ge [He]	0.999996858	0.014512786	0.001370677	0.030967106	0.094446186	ppb
He	57	Fe	72 Ge [He]	0.999999037	0.000604296	0.001112037	0.679168683	1.840218205	ppb
He	59	Co	72 Ge [He]	0.999998142	0.054513357	0.001251519	0.008898032	0.022958016	ppb
He	60	Ni	72 Ge [He]	0.999998376	0.014778918	0.002796479	0.061802375	0.189220802	ppb
He	63	Cu	45 Sc [He]	0.999990536	0.038288485	0.003520633	0.020867707	0.091950166	ppb
He	66	Zn	72 Ge [He]	0.999998236	0.00638544	0.004410861	0.197842548	0.690768506	ppb
He	75	As	72 Ge [He]	0.999999571	0.006753939	0.00128955	0.03538583	0.19093304	ppb
He	78	Se	72 Ge [He]	0.999993987	0.00037544	0.000477704	0.235983363	1.272383091	ppb
No Gas	88	Sr	72 Ge [No Gas]	0.999999987	0.040547324	0.001030867	0.001103039	0.025423804	ppb
No Gas	90	Zr	72 Ge [No Gas]	0.999999288	0.025209583	0.00090069	0.005554009	0.035728075	ppb
No Gas	95	Mo	115 In [No Gas]	0.999991386	0.001086732	0.00022779	0.036986488	0.209609891	ppb
No Gas	107	Ag	115 In [No Gas]	0.999999967	0.002883382	6.16E-06	0.001596165	0.002137843	ppb
No Gas	111	Cd	115 In [No Gas]	0.999999285	0.00063602	4.90E-05	0.013198468	0.077051568	ppb
No Gas	118	(Sn)	115 In [No Gas]	0.999998683	0.001898814	0.000286172	0.00693316	0.150710988	ppb
He	118	(Sn)	115 In [He]	0.999993658	0.002489825	0.00037031	0.031875095	0.148729374	ppb
He	120	Sn	115 In [He]	0.999994868	0.003610193	0.000533524	0.037403665	0.147782715	ppb
No Gas	121	Sb	115 In [No Gas]	0.999998456	0.002835999	0.000287593	0.007818431	0.10140797	ppb
No Gas	137	Ba	115 In [No Gas]	0.999996748	0.001009249	2.30E-05	0.010430307	0.022826669	ppb
He	156	[Se]	115 In [He]						ppb
No Gas	201	Hg							
No Gas	205	Tl	209 Bi [No Gas]	0.999994301	0.006583125	0.001032203	0.01845282	0.156795345	ppb
No Gas	206	(Pb)	209 Bi [No Gas]	0.99999999	0.002243107	8.03E-05	0.009713435	0.03581457	ppb
No Gas	207	(Pb)	209 Bi [No Gas]	0.999999924	0.001929235	7.75E-05	0.006950114	0.040195806	ppb
No Gas	208	Pb	209 Bi [No Gas]	0.999999768	0.008947185	0.000329602	0.002683175	0.036838635	ppb
No Gas	6	(Li)							ppb
No Gas	45	Sc							ppb
He	45	Sc							ppb
No Gas	72	Ge							ppb
He	72	Ge							ppb
No Gas	103	Rh							ppb
He	103	Rh							ppb
No Gas	115	In							ppb
He	115	In							ppb
No Gas	159	Tb							ppb
He	159	Tb							ppb
No Gas	175	Lu							ppb
He	175	Lu							ppb
No Gas	209	Bi							ppb
He	209	Bi							ppb

Batch Folder: C:\Agilent\ICPMH\1\DATA\2230724A_MS2.b\
Analysis File: 2230724A_MS2.batch.bin
DA Date-Time: 7/24/2023 5:09:46 PM
Calibration Title: EPA6020
Calibration Method: External Calibration
VIS Interpolation Fit:

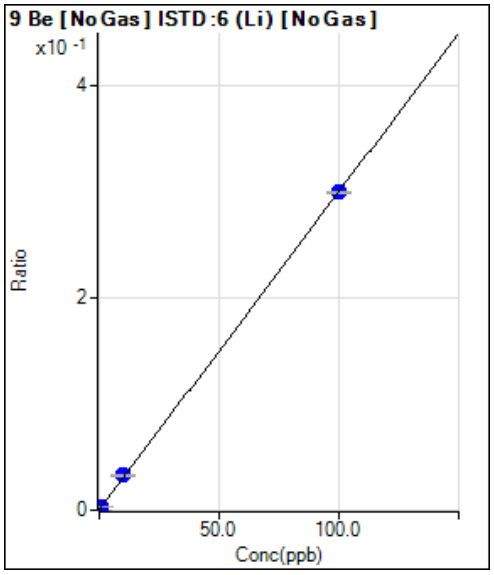
Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	1300	7/24/2023 11:41:43 AM
2			
3	005CALS.d	1302	7/24/2023 11:45:16 AM
4			
5	006CALS.d	1304	7/24/2023 11:49:41 AM
6	008CALS.d	1305	7/24/2023 11:57:08 AM
7	009CALS.d	1306	7/24/2023 12:00:51 PM
8			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	71873.69	0.0736	P	1.2
2	☐	0.000					
3	☐	0.500	0.267	75870.36	0.0758	P	3.6
4	☐	2.500					
5	☐	5.000	5.059	117036.24	0.1155	P	2.0
6	☐	50.000	53.646	517353.91	0.5180	P	0.4
7	☐	500.000	499.635	4420235.87	4.2126	P	1.0
8	☐						

y = 0.0083 * x + 0.0736
R = 1.0000
DL = 0.3282
BEC = 8.883

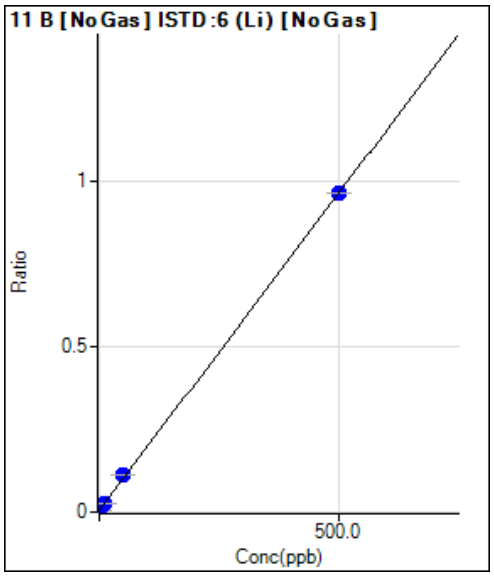
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	248.67	0.0003	P	0.5
2	☐	0.000					
3	☐	0.100	0.094	534.68	0.0005	P	14.0
4	☐	0.500					
5	☐	1.000	1.061	3474.42	0.0034	P	1.5
6	☐	10.000	10.784	32471.76	0.0325	P	0.3
7	☐	100.000	99.921	313900.28	0.2992	P	0.9
8	☐						

y = 0.0030 * x + 2.5459E-004
R = 1.0000
DL = 0.001341
BEC = 0.08511

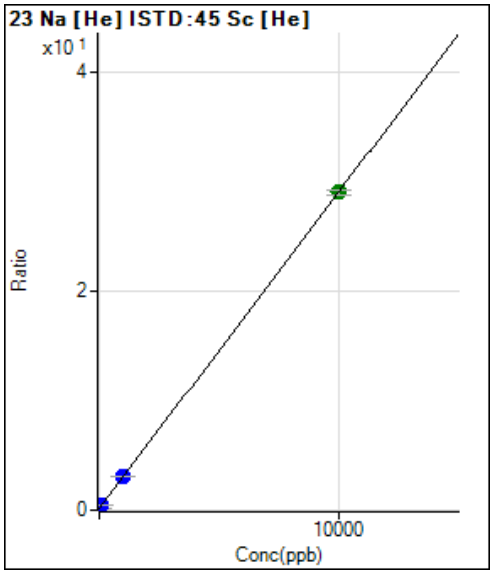
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	4210.73	0.0043	P	1.2
2	☐	0.000					
3	☐	1.000	0.682	5624.58	0.0056	P	4.3
4	☐	5.000					
5	☐	10.000	10.533	24834.22	0.0245	P	1.8
6	☐	50.000	57.254	113946.23	0.1141	P	0.8
7	☐	500.000	499.265	1008978.14	0.9616	P	0.1
8	☐						

y = 0.0019 * x + 0.0043
R = 0.9999
DL = 0.08138
BEC = 2.249

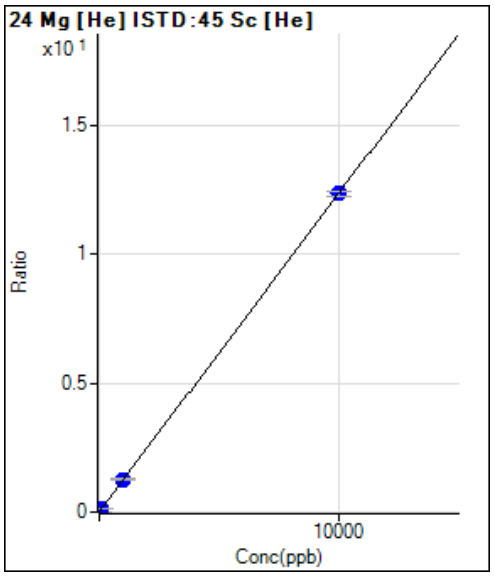
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	30695.40	0.1464	P	1.4
2	☐	0.000					
3	☐	10.000	8.734	36484.97	0.1716	P	4.2
4	☐	50.000					
5	☐	100.000	101.495	93013.51	0.4395	P	1.2
6	☐	1000.000	1026.342	630762.75	3.1104	P	2.0
7	☐	10000.000	9997.352	5874794.91	29.0188	A	1.6
8	☐						

y = 0.0029 * x + 0.1464
R = 1.0000
DL = 2.173
BEC = 50.68

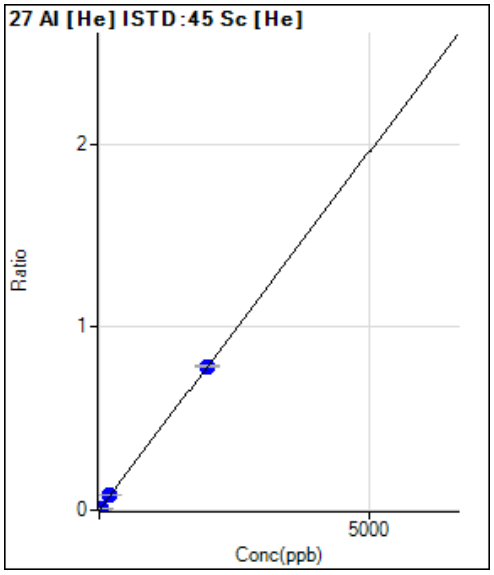
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	1083.41	0.0052	P	6.8
2		0.000					
3		10.000	7.053	2953.71	0.0139	P	8.6
4		50.000					
5		100.000	102.739	27976.74	0.1322	P	1.2
6		1000.000	1020.443	256876.29	1.2667	P	3.6
7		10000.000	9997.931	2503431.21	12.3656	P	1.4
8							

y = 0.0012 * x + 0.0052
R = 1.0000
DL = 0.8508
BEC = 4.184

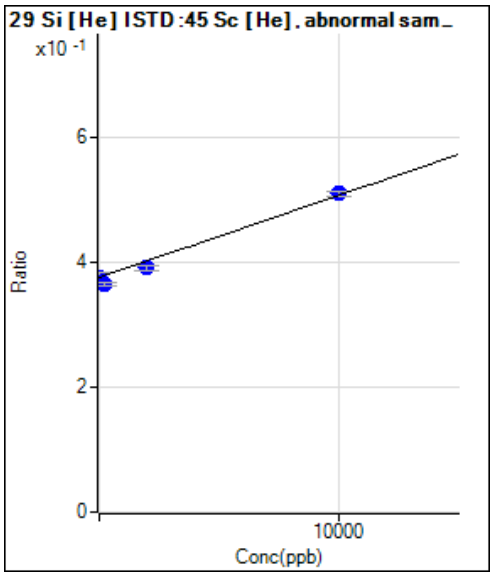
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	162.00	0.0008	P	12.8
2		0.000					
3		2.000	0.994	246.67	0.0012	P	9.8
4		10.000					
5		20.000	21.483	1940.14	0.0092	P	9.7
6		200.000	204.953	16402.98	0.0809	P	3.5
7		2000.000	1999.491	158410.82	0.7824	P	1.3
8							

y = 3.9093E-004 * x + 7.7170E-004
R = 1.0000
DL = 0.7574
BEC = 1.974

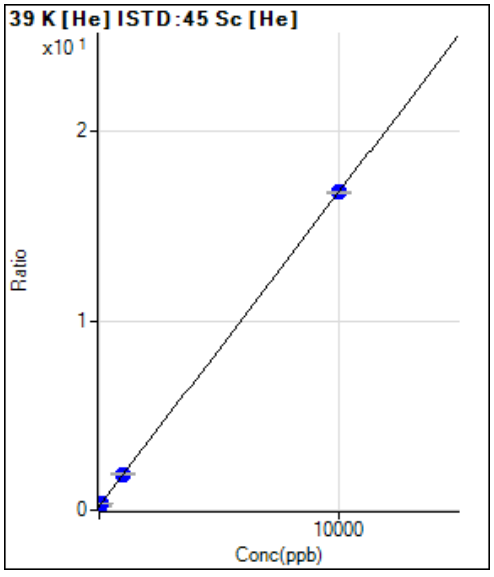
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	78707.80	0.3755	P	3.8
2	☐	0.000					
3	☐	20.000	-748.895	77769.53	0.3657	P	0.3
4	☐	100.000					
5	☐	200.000	-886.798	77020.44	0.3639	P	1.1
6	☐	2000.000	1147.763	79202.14	0.3906	P	1.9
7	☐	10000.000	10193.721	103078.25	0.5092	P	1.4
8	☐						

y = 1.3109E-005 * x + 0.3755
R = 0.9956
DL = 3262
BEC = 2.865E+04

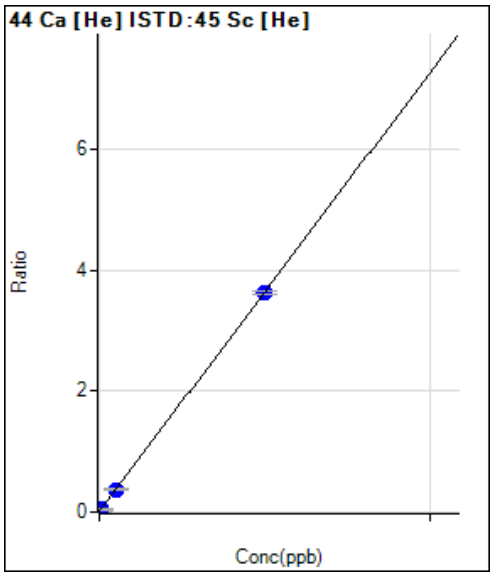
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	45052.54	0.2149	P	1.8
2	☐	0.000					
3	☐	10.000	6.647	48038.10	0.2259	P	1.7
4	☐	50.000					
5	☐	100.000	100.383	80735.39	0.3814	P	0.5
6	☐	1000.000	1020.615	386924.00	1.9080	P	1.4
7	☐	10000.000	9997.938	3401618.60	16.8003	P	0.4
8	☐						

y = 0.0017 * x + 0.2149
R = 1.0000
DL = 7.175
BEC = 129.5

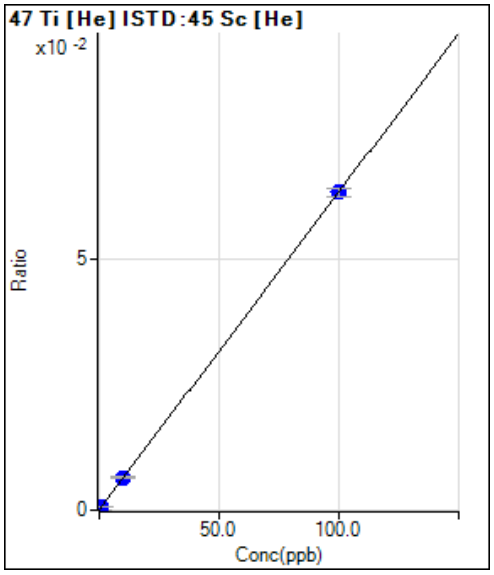
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1120.06	0.0053	P	12.9
2	☐	0.000					
3	☐	50.000	32.625	1640.12	0.0077	P	4.4
4	☐	250.000					
5	☐	500.000	506.102	8907.82	0.0421	P	4.3
6	☐	5000.000	5053.410	75462.61	0.3721	P	3.5
7	☐	50000.000	49994.615	735740.56	3.6340	P	1.4
8	☐						

y = 7.2580E-005 * x + 0.0053
R = 1.0000
DL = 28.57
BEC = 73.64

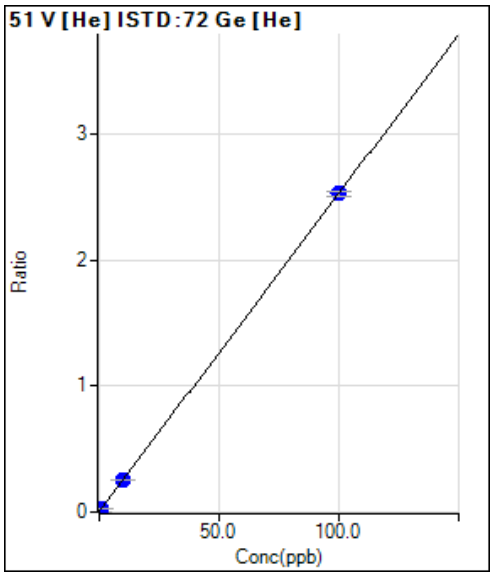
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11.00	0.0001	P	13.1
2	☐	0.000					
3	☐	0.100	0.081	22.00	0.0001	P	15.3
4	☐	0.500					
5	☐	1.000	1.004	145.33	0.0007	P	2.4
6	☐	10.000	10.112	1305.39	0.0064	P	6.8
7	☐	100.000	99.989	12794.50	0.0632	P	2.5
8	☐						

y = 6.3160E-004 * x + 5.2338E-005
R = 1.0000
DL = 0.03249
BEC = 0.08287

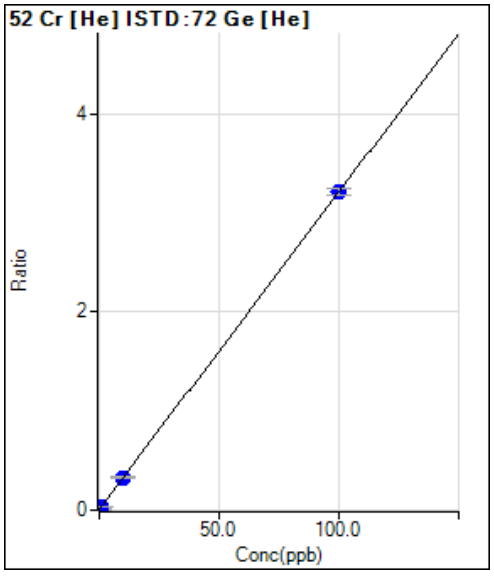
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	604.46	0.0031	P	5.1
2	☐	0.000					
3	☐	0.100	0.079	1007.83	0.0051	P	3.8
4	☐	0.500					
5	☐	1.000	0.991	5524.42	0.0281	P	1.5
6	☐	10.000	9.959	48322.09	0.2546	P	4.5
7	☐	100.000	100.004	475241.82	2.5284	P	1.8
8	☐						

y = 0.0253 * x + 0.0031
R = 1.0000
DL = 0.0187
BEC = 0.123

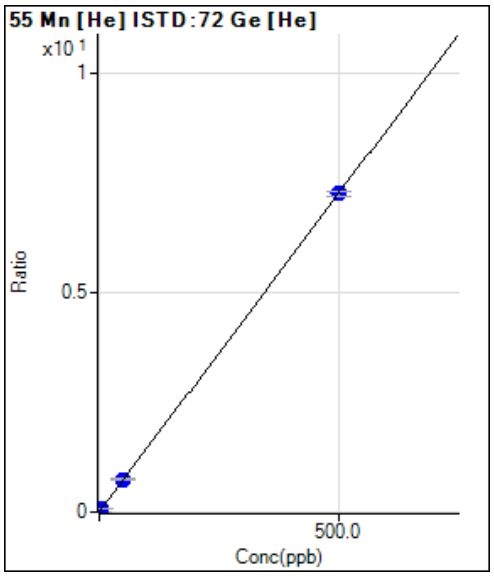
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1242.29	0.0064	P	5.6
2	☐	0.000					
3	☐	0.100	0.078	1754.57	0.0089	P	4.2
4	☐	0.500					
5	☐	1.000	1.003	7554.24	0.0385	P	1.9
6	☐	10.000	10.038	62146.66	0.3275	P	5.5
7	☐	100.000	99.996	602371.59	3.2049	P	2.1
8	☐						

y = 0.0320 * x + 0.0064
R = 1.0000
DL = 0.03321
BEC = 0.1994

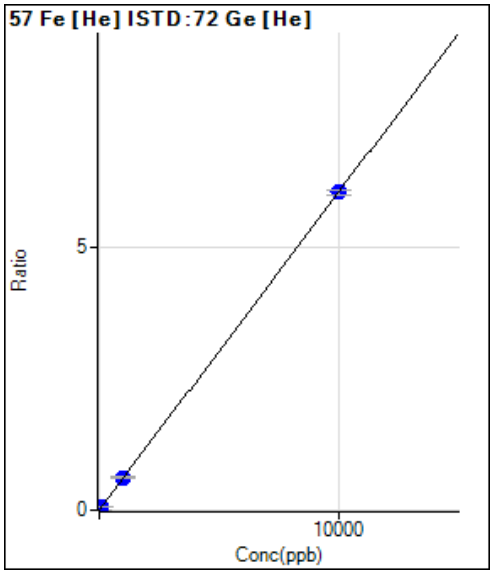
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	266.67	0.0014	P	10.9
2		0.000					
3		0.500	0.398	1412.31	0.0071	P	9.5
4		2.500					
5		5.000	5.219	15147.90	0.0771	P	1.7
6		50.000	51.233	141400.08	0.7449	P	3.6
7		500.000	499.875	1363869.08	7.2559	P	1.6
8							

y = 0.0145 * x + 0.0014
R = 1.0000
DL = 0.03097
BEC = 0.09445

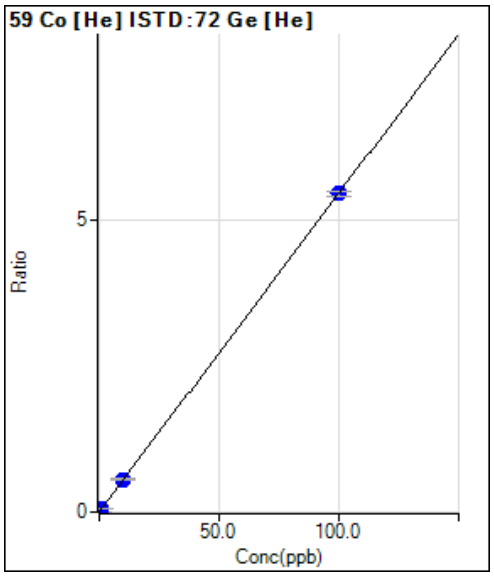
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	216.68	0.0011	P	12.3
2		0.000					
3		10.000	7.446	1110.08	0.0056	P	10.0
4		50.000					
5		100.000	104.298	12599.10	0.0641	P	3.1
6		1000.000	1012.929	116392.92	0.6132	P	4.2
7		10000.000	9998.667	1135900.32	6.0433	P	1.8
8							

y = 6.0430E-004 * x + 0.0011
R = 1.0000
DL = 0.6792
BEC = 1.84

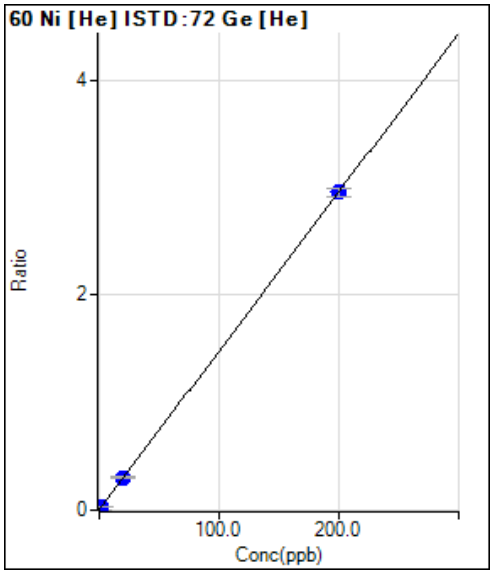
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	243.34	0.0013	P	12.9
2	☐	0.000					
3	☐	0.100	0.074	1040.05	0.0053	P	14.4
4	☐	0.500					
5	☐	1.000	1.030	11273.30	0.0574	P	3.9
6	☐	10.000	10.184	105615.83	0.5564	P	4.5
7	☐	100.000	99.981	1024667.46	5.4516	P	1.8
8	☐						

y = 0.0545 * x + 0.0013
R = 1.0000
DL = 0.008898
BEC = 0.02296

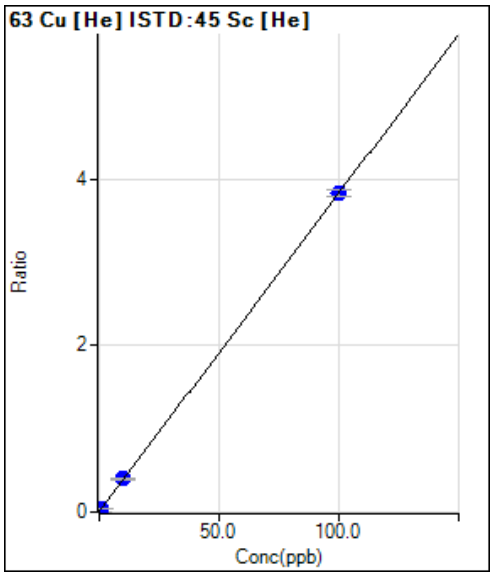
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	544.46	0.0028	P	10.9
2	☐	0.000					
3	☐	0.200	0.141	965.60	0.0049	P	4.2
4	☐	1.000					
5	☐	2.000	2.036	6459.26	0.0329	P	2.7
6	☐	20.000	20.338	57581.17	0.3034	P	4.1
7	☐	200.000	199.966	555952.08	2.9581	P	2.4
8	☐						

y = 0.0148 * x + 0.0028
R = 1.0000
DL = 0.0618
BEC = 0.1892

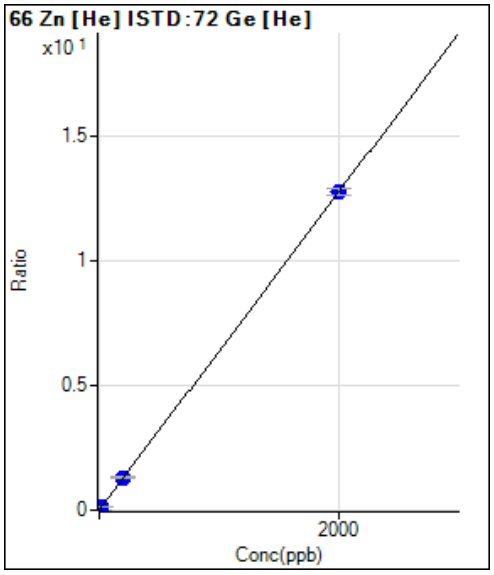
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	738.92	0.0035	P	7.6
2	☐	0.000					
3	☐	0.100	0.082	1418.97	0.0067	P	9.4
4	☐	0.500					
5	☐	1.000	1.048	9236.33	0.0436	P	2.5
6	☐	10.000	10.431	81699.52	0.4029	P	4.5
7	☐	100.000	99.956	775489.05	3.8307	P	2.0
8	☐						

y = 0.0383 * x + 0.0035
R = 1.0000
DL = 0.02087
BEC = 0.09195

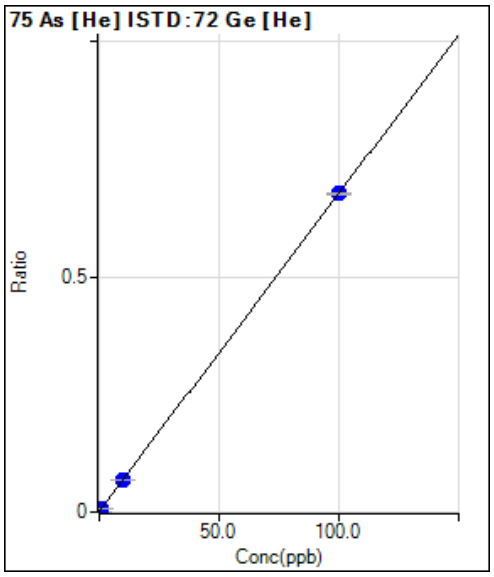
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	858.92	0.0044	P	9.5
2	☐	0.000					
3	☐	2.000	2.081	3500.46	0.0177	P	7.0
4	☐	10.000					
5	☐	20.000	20.997	27205.33	0.1385	P	1.5
6	☐	200.000	203.888	247950.42	1.3063	P	4.2
7	☐	2000.000	1999.601	2400751.09	12.7727	P	2.0
8	☐						

y = 0.0064 * x + 0.0044
R = 1.0000
DL = 0.1978
BEC = 0.6908

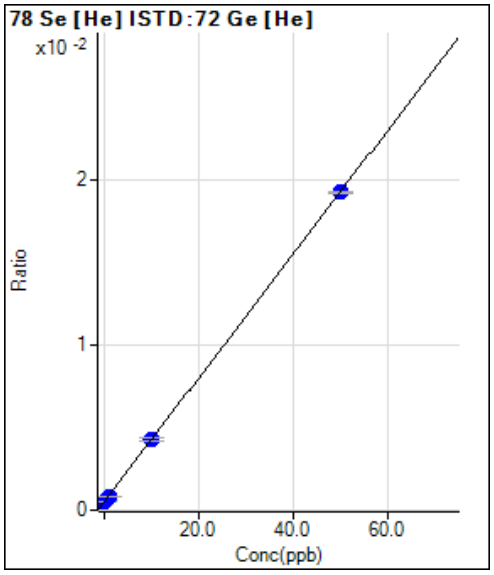
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	251.00	0.0013	P	6.2
2	☐	0.000					
3	☐	0.100	0.059	334.01	0.0017	P	9.1
4	☐	0.500					
5	☐	1.000	0.983	1558.42	0.0079	P	1.8
6	☐	10.000	9.898	12935.74	0.0681	P	2.5
7	☐	100.000	100.010	127215.55	0.6768	P	0.9
8	☐						

y = 0.0068 * x + 0.0013
R = 1.0000
DL = 0.03539
BEC = 0.1909

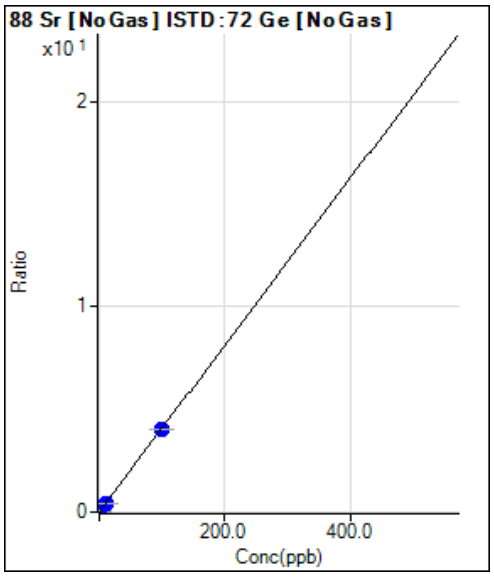
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	93.07	0.0005	P	6.2
2	☐	0.000					
3	☐	0.100	0.023	96.23	0.0005	P	2.4
4	☐	0.500					
5	☐	1.000	0.925	162.06	0.0008	P	4.4
6	☐	10.000	10.107	811.08	0.0043	P	3.4
7	☐	50.000	49.980	3617.21	0.0192	P	0.6
8	☐						

y = 3.7544E-004 * x + 4.7770E-004
R = 1.0000
DL = 0.236
BEC = 1.272

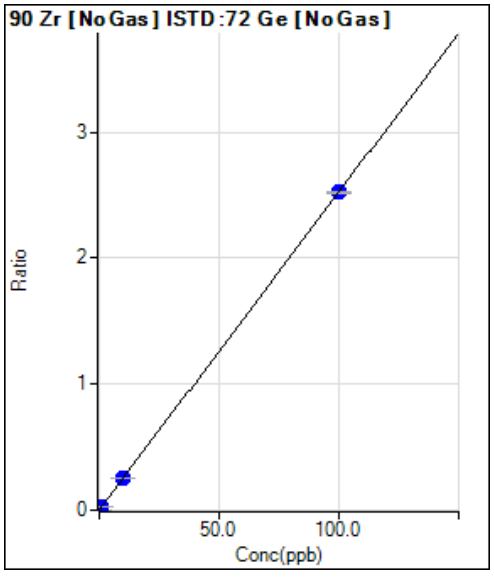
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1690.16	0.0010	P	1.4
2	☐	0.000					
3	☐	0.100	0.094	8015.85	0.0049	P	0.8
4	☐	0.500					
5	☐	1.000	1.006	68114.94	0.0418	P	1.7
6	☐	10.000	10.013	660024.18	0.4070	P	0.3
7	☐	100.000	99.999	6517522.82	4.0557	P	0.6
8	☐						

y = 0.0405 * x + 0.0010
R = 1.0000
DL = 0.001103
BEC = 0.02542

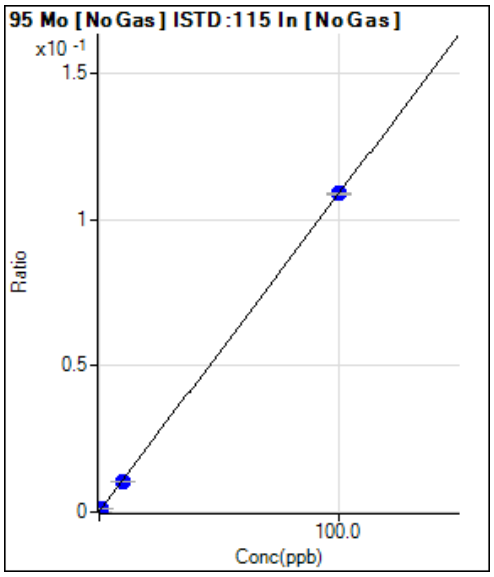
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1476.76	0.0009	P	5.2
2	☐	0.000					
3	☐	0.100	0.077	4685.25	0.0028	P	2.5
4	☐	0.500					
5	☐	1.000	0.880	37605.64	0.0231	P	1.6
6	☐	10.000	10.015	410860.79	0.2534	P	0.5
7	☐	100.000	100.000	4052651.23	2.5219	P	0.2
8	☐						

y = 0.0252 * x + 9.0069E-004
R = 1.0000
DL = 0.005554
BEC = 0.03573

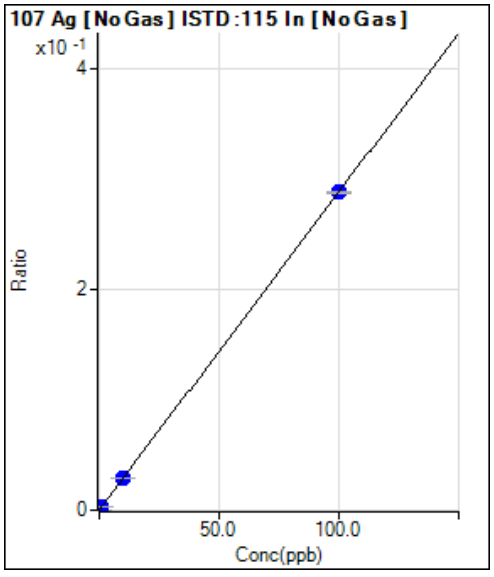
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2504.69	0.0002	P	5.9
2	☐	0.000					
3	☐	0.100	0.038	2979.23	0.0003	P	4.3
4	☐	0.500					
5	☐	1.000	0.864	12974.86	0.0012	P	0.2
6	☐	10.000	9.549	116105.53	0.0106	P	0.9
7	☐	100.000	100.047	1165311.76	0.1090	P	0.3
8	☐						

y = 0.0011 * x + 2.2779E-004
R = 1.0000
DL = 0.03699
BEC = 0.2096

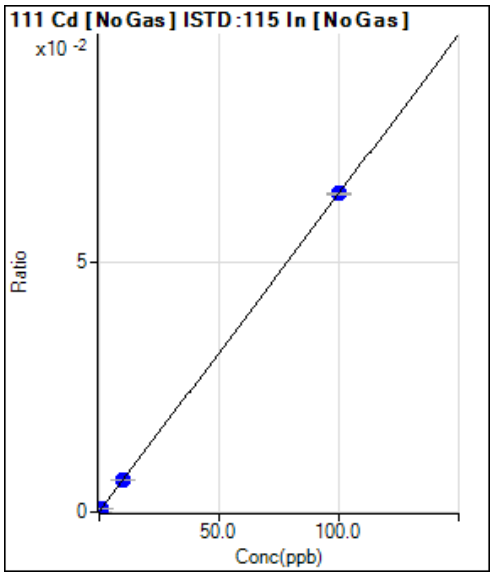
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	67.78	0.0000	P	24.9
2	☐	0.000					
3	☐	0.100	0.102	3338.20	0.0003	P	4.0
4	☐	0.500					
5	☐	1.000	1.012	32529.35	0.0029	P	1.7
6	☐	10.000	10.027	316619.33	0.0289	P	1.0
7	☐	100.000	99.997	3083915.64	0.2883	P	0.5
8	☐						

y = 0.0029 * x + 6.1642E-006
R = 1.0000
DL = 0.001596
BEC = 0.002138

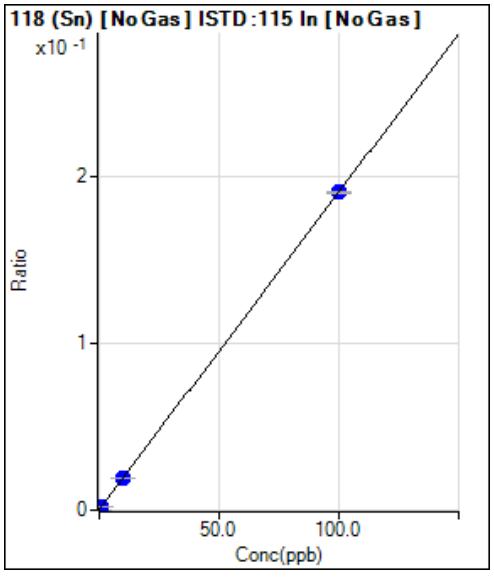
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	538.90	0.0000	P	5.7
2	☐	0.000					
3	☐	0.100	0.080	1104.50	0.0001	P	8.4
4	☐	0.500					
5	☐	1.000	0.983	7497.60	0.0007	P	3.4
6	☐	10.000	9.873	69286.66	0.0063	P	1.6
7	☐	100.000	100.013	680878.53	0.0637	P	0.4
8	☐						

y = 6.3602E-004 * x + 4.9006E-005
R = 1.0000
DL = 0.0132
BEC = 0.07705

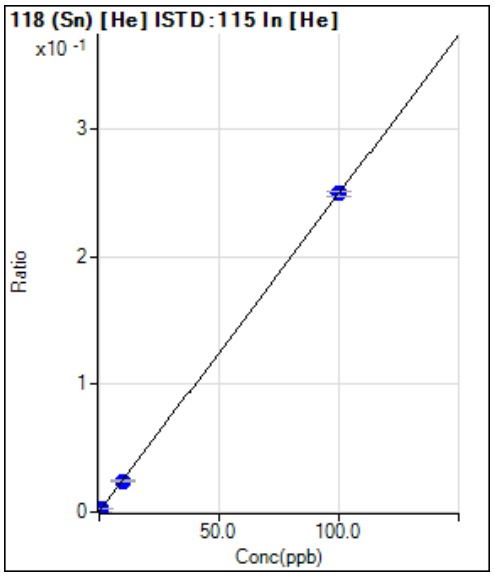
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3147.05	0.0003	P	1.5
2	☐	0.000					
3	☐	0.100	0.097	5207.69	0.0005	P	3.5
4	☐	0.500					
5	☐	1.000	0.976	23800.16	0.0021	P	1.8
6	☐	10.000	9.834	207580.65	0.0190	P	0.7
7	☐	100.000	100.017	2034314.99	0.1902	P	0.7
8	☐						

y = 0.0019 * x + 2.8617E-004
R = 1.0000
DL = 0.006933
BEC = 0.1507

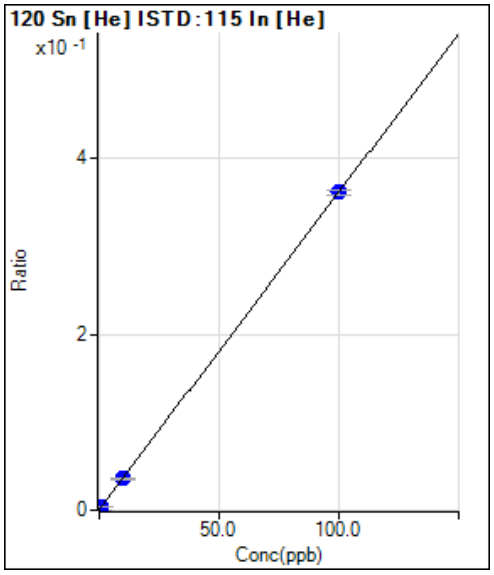
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	766.70	0.0004	P	7.1
2		0.000					
3		0.100	0.073	1171.18	0.0006	P	15.9
4		0.500					
5		1.000	1.034	6188.09	0.0029	P	2.2
6		10.000	9.656	49581.15	0.0244	P	4.4
7		100.000	100.034	488633.14	0.2494	P	1.7
8							

y = 0.0025 * x + 3.7031E-004
R = 1.0000
DL = 0.03188
BEC = 0.1487

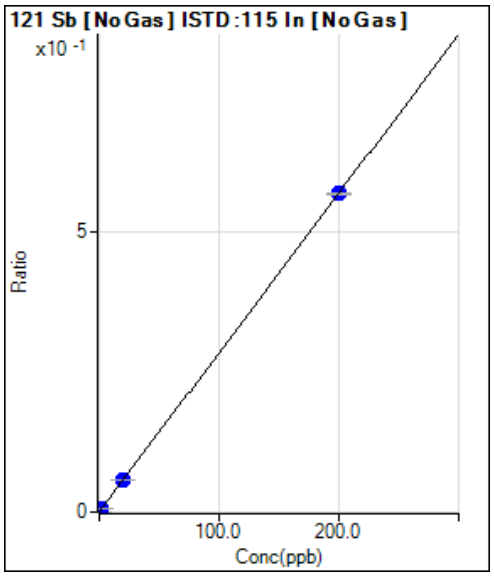
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	1104.50	0.0005	P	8.4
2		0.000					
3		0.100	0.076	1712.35	0.0008	P	4.5
4		0.500					
5		1.000	1.012	8801.72	0.0042	P	2.0
6		10.000	9.684	72093.21	0.0355	P	4.0
7		100.000	100.032	708501.78	0.3617	P	1.4
8							

y = 0.0036 * x + 5.3352E-004
R = 1.0000
DL = 0.0374
BEC = 0.1478

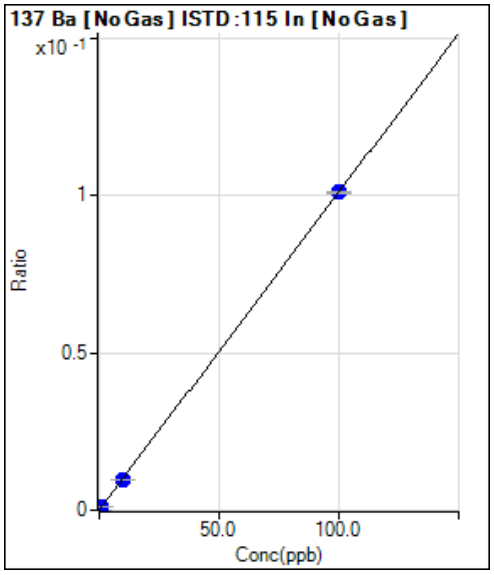
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3162.61	0.0003	P	2.6
2	☐	0.000					
3	☐	0.200	0.192	9223.09	0.0008	P	0.8
4	☐	1.000					
5	☐	2.000	2.040	67557.35	0.0061	P	0.9
6	☐	20.000	20.351	635050.65	0.0580	P	0.6
7	☐	200.000	199.964	6068544.06	0.5674	P	0.8
8	☐						

y = 0.0028 * x + 2.8759E-004
R = 1.0000
DL = 0.007818
BEC = 0.1014

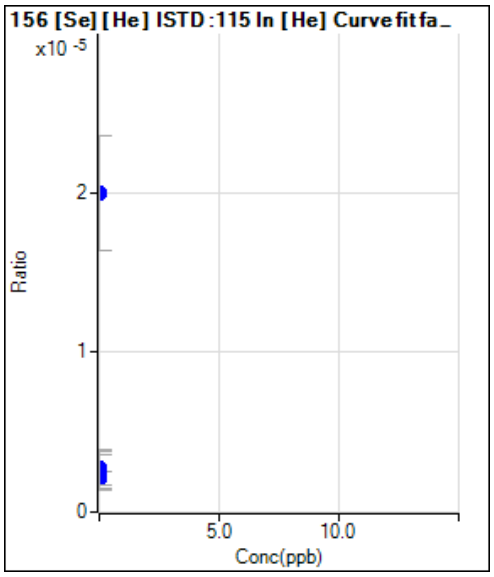
Weight: <None>
Min Conc: <None>



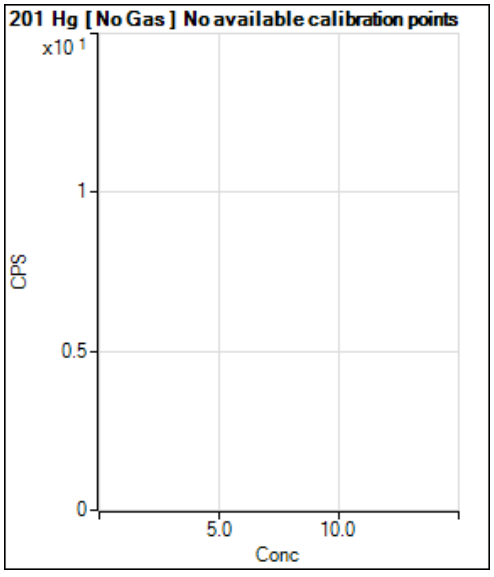
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	253.34	0.0000	P	15.2
2	☐	0.000					
3	☐	0.100	0.096	1327.86	0.0001	P	3.1
4	☐	0.500					
5	☐	1.000	0.989	11355.80	0.0010	P	3.1
6	☐	10.000	9.746	107939.88	0.0099	P	0.3
7	☐	100.000	100.026	1079975.48	0.1010	P	0.7
8	☐	1000.000					

y = 0.0010 * x + 2.3038E-005
R = 1.0000
DL = 0.01043
BEC = 0.02283

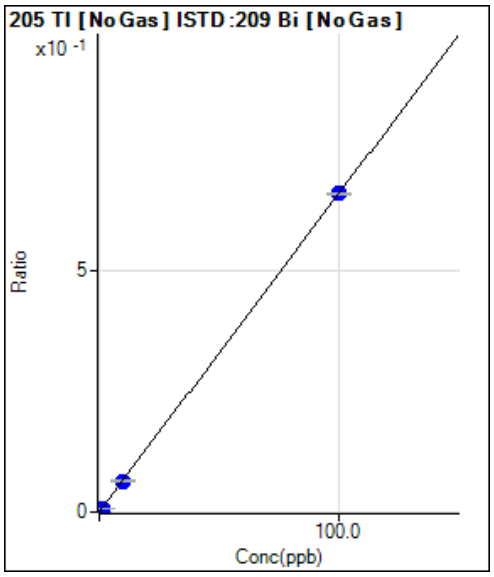
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000		4.44	0.0000	P	41.4
2	☐	0.000					
3	☐	0.000		5.55	0.0000	P	70.5
4	☐	0.000					
5	☐	0.000		5.56	0.0000	P	92.0
6	☐	0.000		5.56	0.0000	P	91.4
7	☐	0.000		38.89	0.0000	P	36.2
8	☐						



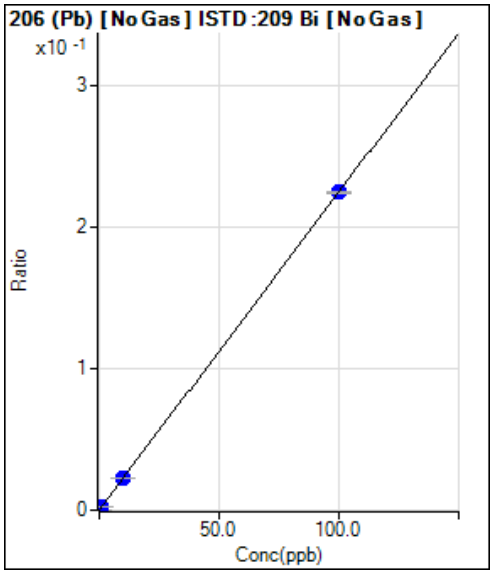
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			14.33		P	8.8
2	☐						
3	☐			17.17		P	32.0
4	☐						
5	☐			18.83		P	16.0
6	☐			30.17		P	10.7
7	☐			62.50		P	15.3
8	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	9717.22	0.0010	P	3.9
2		0.000					
3		0.100	0.053	13220.35	0.0014	P	1.7
4		0.500					
5		1.000	0.894	65736.14	0.0069	P	0.6
6		10.000	9.634	606069.22	0.0645	P	0.9
7		100.000	100.038	6055454.08	0.6596	P	0.5
8							

y = 0.0066 * x + 0.0010
R = 1.0000
DL = 0.01845
BEC = 0.1568

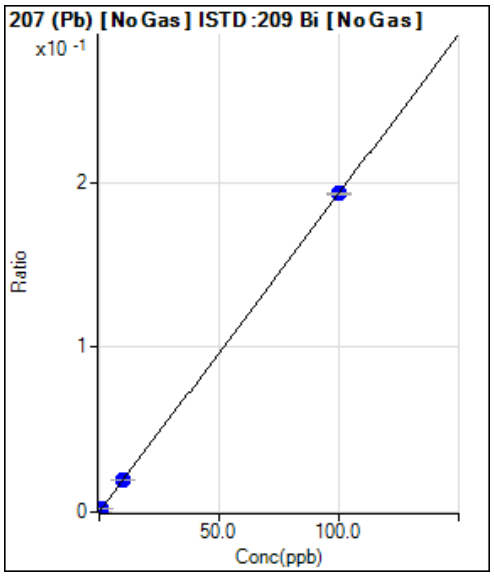
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	756.72	0.0001	P	9.0
2		0.000					
3		0.100	0.098	2870.43	0.0003	P	1.9
4		0.500					
5		1.000	0.999	22058.95	0.0023	P	2.4
6		10.000	9.986	211376.02	0.0225	P	0.2
7		100.000	100.001	2060154.34	0.2244	P	0.6
8							

y = 0.0022 * x + 8.0336E-005
R = 1.0000
DL = 0.009713
BEC = 0.03581

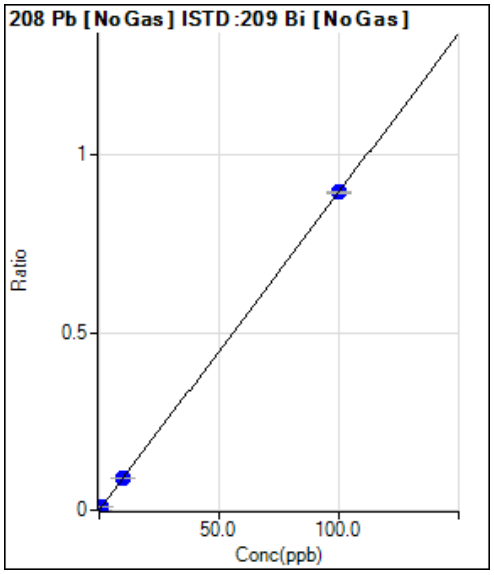
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	730.05	0.0001	P	5.8
2		0.000					
3		0.100	0.093	2463.65	0.0003	P	9.2
4		0.500					
5		1.000	0.985	18780.44	0.0020	P	2.5
6		10.000	9.957	181359.70	0.0193	P	0.6
7		100.000	100.004	1771942.32	0.1930	P	0.5
8							

y = 0.0019 * x + 7.7547E-005
R = 1.0000
DL = 0.00695
BEC = 0.0402

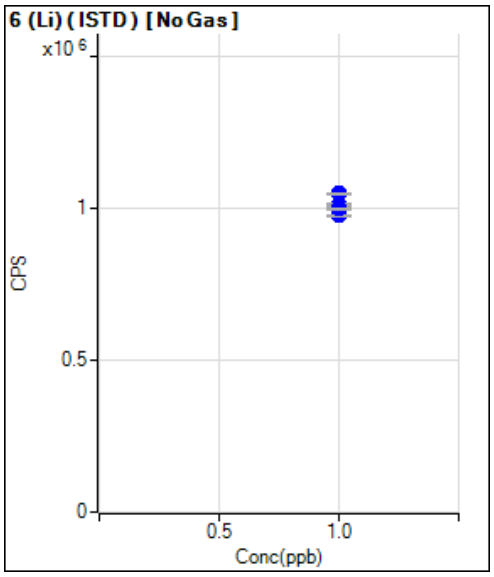
Weight: <None>
Min Conc: <None>



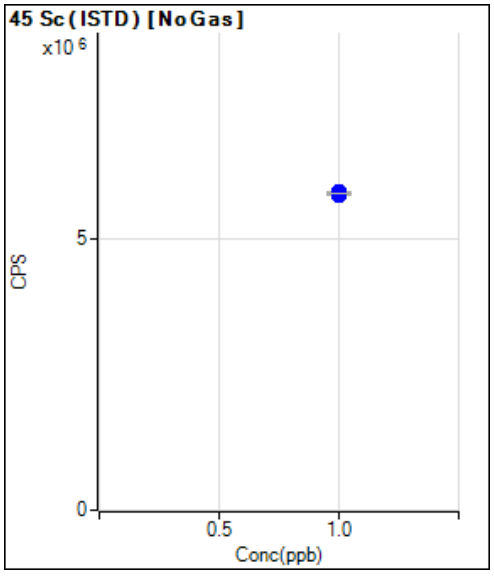
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	3103.61	0.0003	P	2.4
2		0.000					
3		0.100	0.093	11115.56	0.0012	P	3.7
4		0.500					
5		1.000	0.985	86826.32	0.0091	P	0.8
6		10.000	9.928	838321.15	0.0892	P	0.2
7		100.000	100.007	8217668.68	0.8951	P	0.4
8							

y = 0.0089 * x + 3.2960E-004
R = 1.0000
DL = 0.002683
BEC = 0.03684

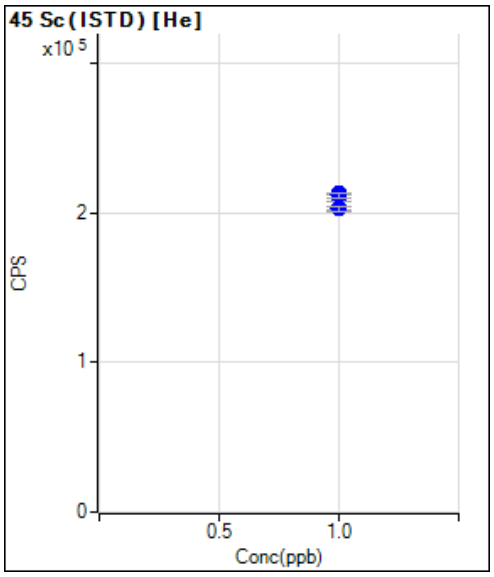
Weight: <None>
Min Conc: <None>



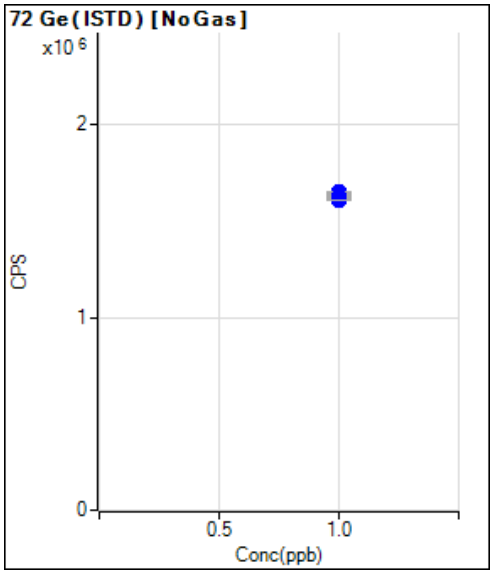
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		976725.24		P	0.5
2		1.000					
3		1.000		1001075.64		P	0.9
4		1.000					
5		1.000		1013422.15		P	0.5
6		1.000		998756.37		P	0.6
7		1.000		1049323.42		P	0.5
8		1.000					



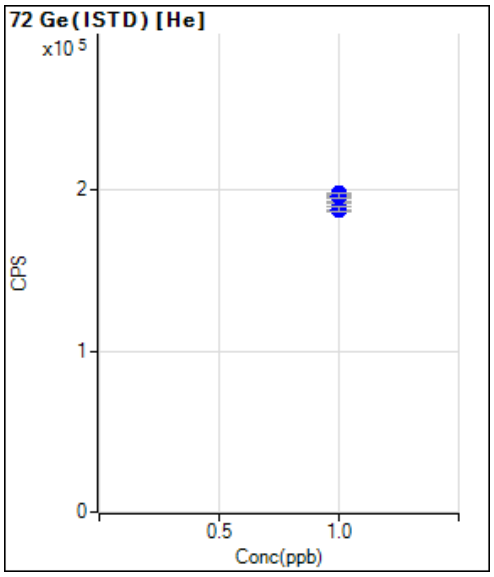
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		5845931.02		P	0.5
2		1.000					
3		1.000		5873274.77		P	0.3
4		1.000					
5		1.000		5874443.79		P	0.4
6		1.000		5822955.19		P	0.2
7		1.000		5865227.68		P	0.1
8		1.000					



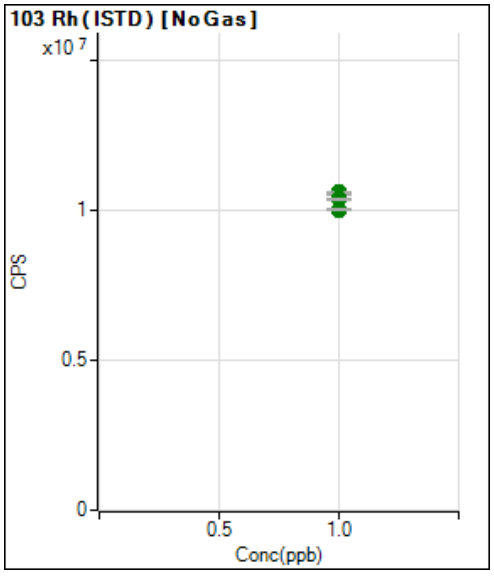
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		209719.87		P	2.7
2	☐	1.000					
3	☐	1.000		212651.11		P	0.6
4	☐	1.000					
5	☐	1.000		211669.10		P	1.5
6	☐	1.000		202814.56		P	1.2
7	☐	1.000		202477.84		P	1.6
8	☐	1.000					



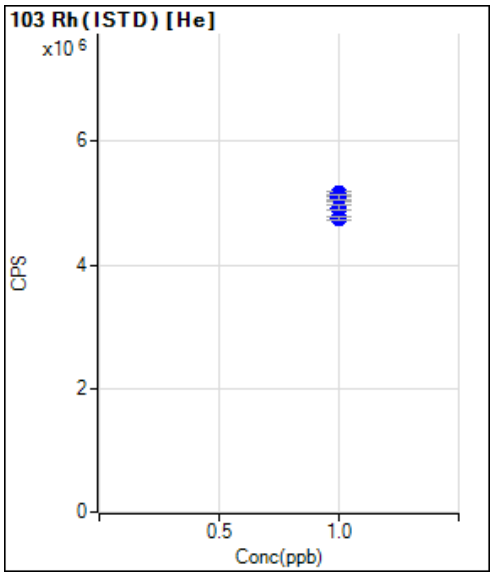
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1639549.59		P	0.6
2	☐	1.000					
3	☐	1.000		1649590.28		P	0.4
4	☐	1.000					
5	☐	1.000		1629498.44		P	0.9
6	☐	1.000		1621520.28		P	0.4
7	☐	1.000		1607011.15		P	0.3
8	☐	1.000					



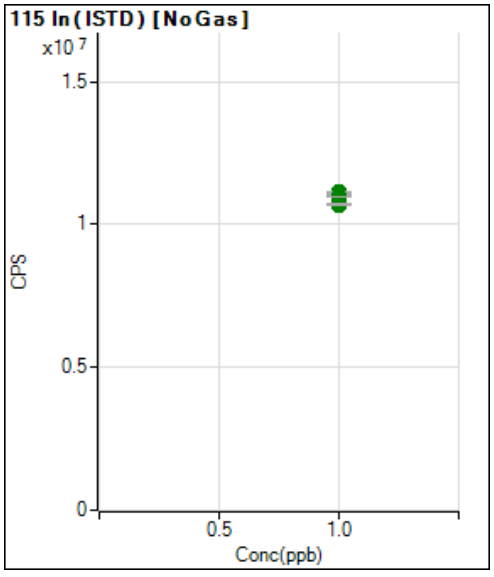
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		194706.73		P	1.6
2	☐	1.000					
3	☐	1.000		197878.64		P	0.8
4	☐	1.000					
5	☐	1.000		196477.12		P	1.7
6	☐	1.000		189890.10		P	1.9
7	☐	1.000		187995.92		P	1.8
8	☐	1.000					



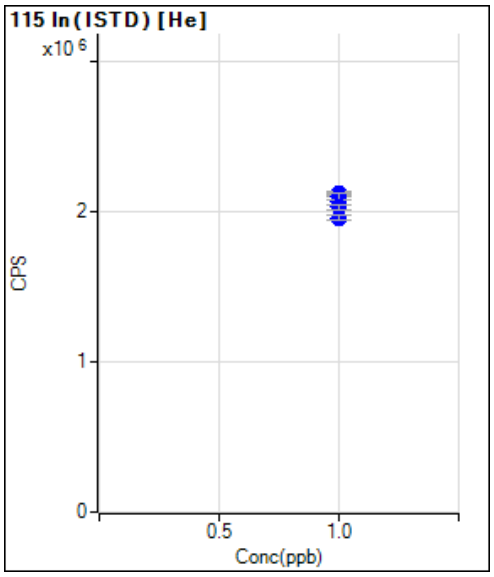
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10512158.19		A	0.2
2	☐	1.000					
3	☐	1.000		10586827.91		A	0.4
4	☐	1.000					
5	☐	1.000		10598023.19		A	0.3
6	☐	1.000		10367179.87		A	0.4
7	☐	1.000		10019718.21		A	0.5
8	☐	1.000					



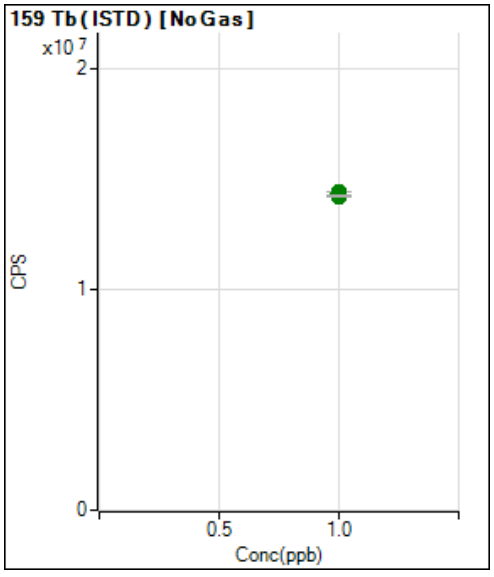
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5075027.71		P	1.9
2	☐	1.000					
3	☐	1.000		5154088.13		P	1.1
4	☐	1.000					
5	☐	1.000		5097050.91		P	1.6
6	☐	1.000		4930516.33		P	1.2
7	☐	1.000		4758206.06		P	1.4
8	☐	1.000					



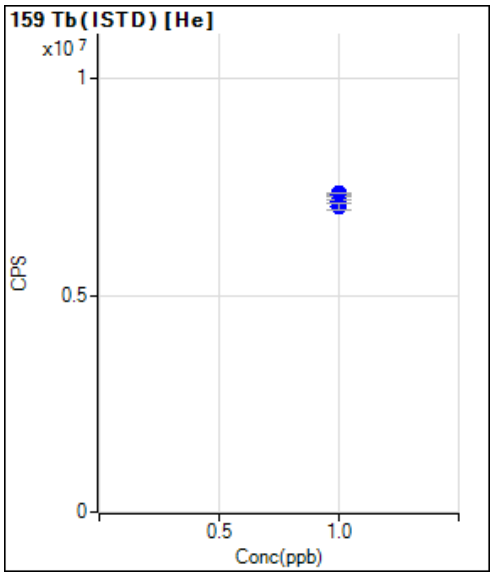
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		10997055.32		A	0.3
2	☐	1.000					
3	☐	1.000		11071651.80		A	0.4
4	☐	1.000					
5	☐	1.000		11122474.03		A	0.1
6	☐	1.000		10948525.22		A	0.2
7	☐	1.000		10695631.37		A	0.4
8	☐	1.000					



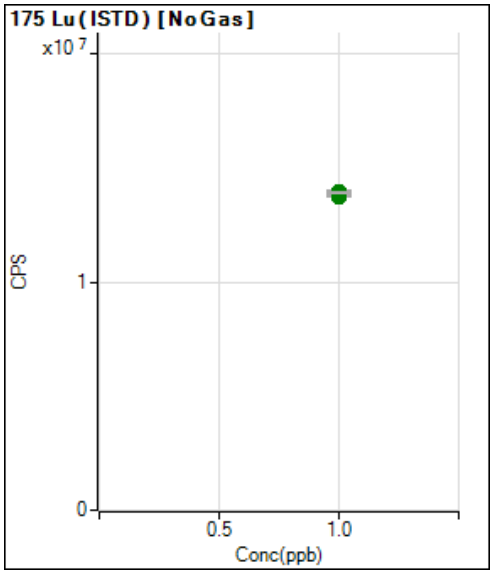
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		2072569.53		P	2.5
2	☐	1.000					
3	☐	1.000		2120247.64		P	1.2
4	☐	1.000					
5	☐	1.000		2102274.94		P	2.1
6	☐	1.000		2031735.72		P	1.6
7	☐	1.000		1959181.86		P	1.5
8	☐	1.000					



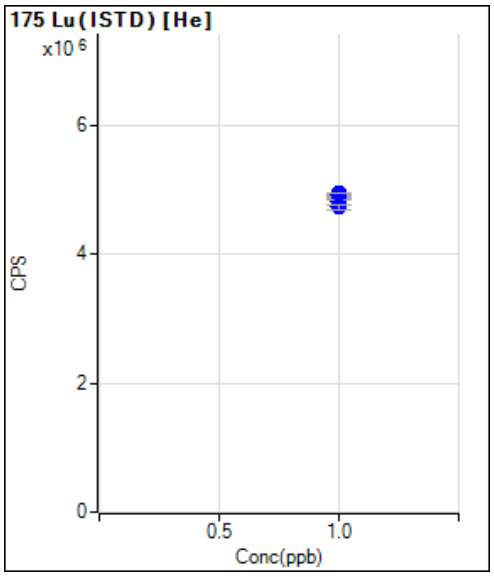
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14199586.87		A	0.4
2	☐	1.000					
3	☐	1.000		14344345.62		A	1.1
4	☐	1.000					
5	☐	1.000		14399660.62		A	0.1
6	☐	1.000		14244961.46		A	0.6
7	☐	1.000		14244864.37		A	0.5
8	☐	1.000					



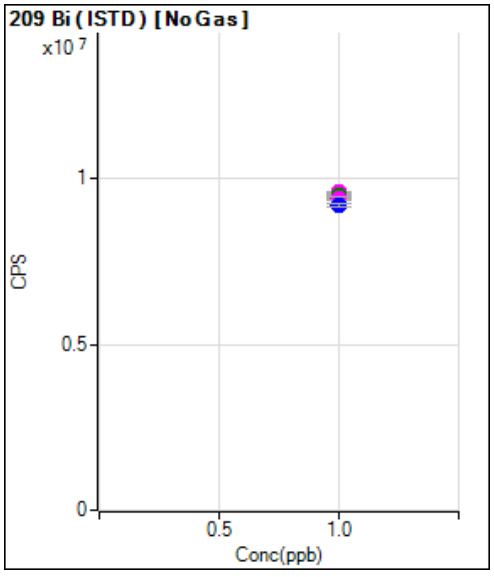
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		7217928.23		P	2.0
2		1.000					
3		1.000		7351620.10		P	0.6
4		1.000					
5		1.000		7317593.23		P	1.3
6		1.000		7158698.44		P	1.2
7		1.000		7064584.27		P	2.1
8		1.000					



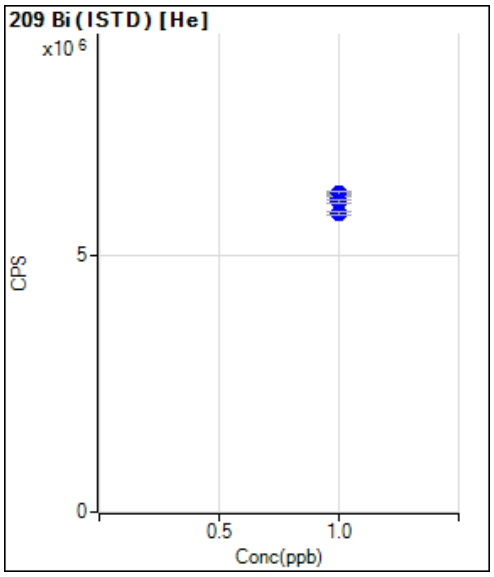
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		13769018.13		A	0.1
2		1.000					
3		1.000		13926448.96		A	1.4
4		1.000					
5		1.000		13948195.21		A	0.1
6		1.000		13919346.46		A	0.4
7		1.000		13929375.21		A	0.6
8		1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4837163.68		P	2.4
2	☐	1.000					
3	☐	1.000		4945068.99		P	0.5
4	☐	1.000					
5	☐	1.000		4919437.63		P	1.7
6	☐	1.000		4811109.09		P	1.4
7	☐	1.000		4735339.82		P	2.0
8	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		9415604.23		M	0.8
2	☐	1.000					
3	☐	1.000		9584800.27		M	0.7
4	☐	1.000					
5	☐	1.000		9498812.36		A	0.3
6	☐	1.000		9403124.03		M	0.8
7	☐	1.000		9180775.49		P	1.0
8	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6132749.07		P	1.3
2	☐	1.000					
3	☐	1.000		6208962.61		P	0.6
4	☐	1.000					
5	☐	1.000		6215835.32		P	1.4
6	☐	1.000		6054779.29		P	1.0
7	☐	1.000		5829216.16		P	1.5
8	☐	1.000					

Metals

Prep Sheets

Pace Analytical

3010A Metals Water Preparation

ANALYST/ TECH	JEL	START DATE/TIME	7/24/2023 09:45	END DATE/TIME	7/24/2023 13:45	BATCH	769436

#	CLIENT	TYPE	CLIENT ID	LAB ID	INITIAL VOL (mL)	FINAL VOL (mL)	COMMENT	STANDARDS\ REAGENTS
1	QC	MB	MB 2503173	2503173	50	50		GCAL - 8 - 250uL
2	QC	LCS	LCS 2503174	2503174	50	50		2132617
3	AL-O	SAMP	EFFLUENT	22307214601	50	50		Sb,Ag,Se SPIKE - 250uL
4	AL-O	SAMP	38GW004-070623	22307240301	50	50		360-8-2
5	AL-O	SAMP	38GW010-070523	22307240302	50	50		Li,B,Zr SPIKE - 250uL
6	AL-O	MS	38GW010-070523 MS	22307240303	50	50		360-8-3
7	AL-O	MSD	38GW010-070523 MSD	22307240304	50	50		Si SPIKE - 250uL
8	AL-O	SAMP	38GCW014-070523	22307240305	50	50		2131076
9	AL-O	SAMP	38GW015-070623	22307240306	50	50		1:1 HNO3
10	AL-O	SAMP	38GW017-070623	22307240307	50	50		226-42-16
11	AL-O	SAMP	38GW019-070623	22307240308	50	50		1:1 HCL
12	AL-O	SAMP	38GW020-070623	22307240309	50	50		226-43-2
13	AL-O	SAMP	38GW021-070623	22307240310	50	50		
14	AL-O	SAMP	38GW022-070623	22307240311	50	50		
15	AL-O	FD	DUP01-070523	22307240312	50	50		
16	AL-O	EQBK	EB01-070623	22307240313	50	50		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								Digestion Vessel Lot#
28								30000149
29								
30								

EQUIPMENT\CONDITIONS

DIGESTION BLOCK\THERMOMETER ID	TEMPERATURE	PIPETTE 1
B1	**94**	**117**
PIPETTE 2	PIPETTE 3	
115		

NOTES

TCLPs are reduced in volume due to sample matrix. Matrix-Water. 6020_W_EX

Client ID: AL-O - SGS Accutest - Orlando
SDG: 223072146
PM: RWe

CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

FED-EX Tracking #

SGS Quote #

SGS Job # FC7605X

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: Shepley's Hill (SHL); Devens, MA	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Company Name
City: Orlando State: FL Zip: 32811	City State	Street Address
Project Contact: evita.martinez@sgs.com E-mail	Project #	City State Zip
Phone #: 407-425-6700 Fax #	Client Purchase Order #	Attention:
Sampler(s) Name(s): JR Phone	Project Manager	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	~~ASMS~~ Arsenic (4020) MM 7/21/23	LAB USE ONLY
1X	EFFLUENT		7/7/23	10:00:00 AM	JR	AQ	1			x						X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 7/25/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [x] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [x] EDD Format
- [ ] Other
- [x] FL

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please send to Pace in LA
7979 Innovation Park Drive
Baton Rouge, LA 70820

DOD sample

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 07/20/23	1550	1	2 Fed Ex	7/21/23 920	2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐ Therm. ID:	On Ice ☐ Cooler Temp.

Client ID: AL-O - SGS Accutest - Orlando
SDG: 223072146
PM: RWe

Pace

Sample Receipt Checklist (SRC)

Client: SGS Cooler Inspected by/date: BMR / 7/27/23 Workorder #: Apply Label

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: 6134 6611 5934			
☑ Yes	☐ No		Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	If custody seals were present, were they intact and unbroken?
pH Strip ID: _____ Chemical Preservation Checked by: _____			
Original temperature upon receipt / Derived (Corrected) temperature upon receipt (°C): 2.4			
Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: T443 IR Gun Correction Factor: 0 °C			
Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None			
☐ Yes	☒ No	☐ NA	Was the line and profile number listed on the COC? If yes, line and profile # _____.
☒ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, was Project Manager notified via email? Email Notification Date and Time: _____
☐ Yes	☐ No	☒ NA	Is the commercial courier's packing slip attached to this form?
☒ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?
☒ Yes	☐ No		Is the sampler's signature included on the COC?
☒ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?
☒ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?
☒ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?
☒ Yes	☐ No		Were tests to be performed listed on the COC?
☒ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☒ Yes	☐ No		Was adequate sample volume available?
☒ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☒ Yes	☐ No		Were all samples containers accounted for? (No missing/excess)
☐ Yes	☐ No	☒ NA	Were VOA, 8015C, and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials? *If no, list affected sample(s) in comments below.*
☐ Yes	☐ No	☒ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*
☒ Yes	☐ No	☐ NA	Were all DRO/metals/nutrient samples received at a pH of < 2? *If no, list affected sample(s) in comments below and record preservation in logbook.*
☐ Yes	☐ No	☒ NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? *If no, list affected sample(s) in comments below and record preservation in logbook.*

Comments:

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 223072146	
Client **PM** RWe AL-O - SGS Accutest - Orlando	**Transport Method** FEDEX
Profile Number 299627	**Received By** Roberts, George S.
Line Item(s) 1 - Arsenic	**Receive Date(s)** 07/21/23

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☐	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☐	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☐	☐
All containers received in good condition and within hold time?	☐	☐
All sample labels and containers received match the chain of custody?	☐	☐
Preservative added to any containers?	☐	☐
If received, was headspace for VOC water containers < 6mm?	☐	☐
Samples collected in containers provided by Pace Gulf Coast?	☐	☐

COOLERS		
Airbill	**Thermometer ID:**	**Temp °C**

DISCREPANCIES
None

LAB PRESERVATIONS
None

NOTES	

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

SGS North Amer[illegible] Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF # FC7605

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Total Arsenic - 6020A
01	Effluent	7/7/23	10:00	JWR	aq	1					x					X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

LAB USE ONLY

INITIAL ASSESSMENT SP

LABEL VERIFICATION SP

7/7 SGS Service Center Northborough, MA

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
x 5 Day- Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		7-7-23 1210	2 Thelen Hoy (SC)	3 Thelen Hoy	7/7/23 1700	4 Fed Ex
5	Fed Ex		6 07/08/23 1030	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.0 / IR #1 cs# 02899

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

FC7605: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC7605 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL

Date / Time Received: 7/8/2023 10:30:00 AM **Delivery Method:** FED EX **Airbill #'s:** 6455 9821 5492

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.0);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 _____ Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP Date: 7/8/2023 10:30:00 AM Reviewer: _____ Date: _____

FC7605: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC8458



Sampling Date: 08/04/23

Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: 265

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC8458

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
FC8458-1	08/04/23	09:20	JR	08/05/23	AQ	Water	EFFLUENT

Subcontract Lab Data

Report of Analysis

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 20285718

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ICPMS

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Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

August 16, 2023

Evita Martinez
SGS North America Inc.
4405 Vineland Rd
Suite C-15
Orlando, FL 32811

RE: Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Dear Evita Martinez:

Enclosed are the analytical results for sample(s) received by the laboratory on August 10, 2023. The results relate only to the samples included in this report. Results reported herein conform to the DOD Quality Systems Manual Version 5.4 and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh

Ruth Welsh
ruth.welsh@pacelabs.com
(225) 678-1833
Project Manager

Enclosures

Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

CERTIFICATIONS

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

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Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

SAMPLE SUMMARY

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20285718001	**EFFLUENT**	Water	08/04/23 09:20	08/10/23 10:10

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Baton Rouge, LA 70809
(225) 678-1833

SAMPLE ANALYTE COUNT

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20285718001	**EFFLUENT**	EPA 6020B	TDM	1

PASI-BR = Pace Analytical Services - Baton Rouge

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Baton Rouge, LA 70809
(225) 678-1833

ANALYTICAL RESULTS

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Sample: EFFLUENT **Lab ID: 20285718001** Collected: 08/04/23 09:20 Received: 08/10/23 10:10 Matrix: Water

Parameters	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	CAS No.	Qual
BR 6020B Metals Water	Analytical Method: EPA 6020B Preparation Method: EPA 3010A Pace Analytical Services - Baton Rouge									
Arsenic	**17.8**	ug/L	0.25	1.0	1.0	1	08/15/23 06:20	08/15/23 14:45	7440-38-2	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

QUALITY CONTROL DATA

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

QC Batch: 294494
QC Batch Method: EPA 3010A
Analysis Method: EPA 6020B
Analysis Description: BR 6020B Metals Water
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20285718001

METHOD BLANK: 1411873 Matrix: Water
Associated Lab Samples: 20285718001

Parameter	Units	Blank Result	DL	LOD	LOQ	Analyzed	Qualifiers
Arsenic	ug/L	1.0U	0.25	1.0	1.0	08/15/23 14:38	

LABORATORY CONTROL SAMPLE: 1411874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	50	47.4	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1411875 1411876

Parameter	Units	20285743001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	2.3	50	50	53.5	52.7	102	101	84-116	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

QUALIFIERS

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

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Pace Analytical Services, LLC
7979 Innovation Park Road
Baton Rouge, LA 70809
(225) 678-1833

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FC8458X Shepley's Hill
Pace Project No.: 20285718

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20285718001	**EFFLUENT**	EPA 3010A	294494	EPA 6020B	294576

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CHAIN OF CUSTODY

SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa

WO#: 20285718

20285718

FED-EX Tracking #

SGS Quote #

Client / Reporting Information	Project Information	Billing Information (if different from Report to)
Company Name: SGS North America Inc.	Project Name: Shepley's Hill (SHL); Devens, MA	
Street Address: 4405 Vineland Rd, Suite C-15	Street	Company Name
City: Orlando State: FL Zip: 32811	City State	Street Address
Project Contact: evita.martinez@sgs.com E-mail	Project #	City State Zip
Phone #: 407-425-6700 Fax #	Client Purchase Order #	Attention:
Sampler(s) Name(s): JR Phone	Project Manager	

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB-Equipment Blank; RB- Rinse Blank; TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	ASMS	LAB USE ONLY
1X	EFFLUENT		8/4/23	9:20:00 AM	JR	AQ	1			x						X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Standard 10 Day (business)
- [ ] 5 Business Days RUSH
- [ ] 3 Business Days RUSH
- [ ] 2 Business Days RUSH
- [ ] 1 Business Day EMERGENCY
- [x] other Due 8/21/2023

Emergency & Rush T/A data available via Lablink Approval needed for RUSH/Emergency TAT

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] REDT1 (Level 3)
- [x] FULT1 (Level 4)
- [ ] Commercial "C"
- [ ] State Forms
- [x] EDD Format
- [ ] Other
- [ ]
- [x] FL

Commercial "A" = Results Onl
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Please send to Pace in LA
7979 Innovation Park Drive
Baton Rouge, LA 70820

DOD sample

http://www.sgs.com/en/terms-and-conditions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 08/04/23	1600	1	2 Fed Ex	8/10/23 1010	2
3		3	4		4
5		5	Custody Seal #	Intact / Not intact	Preserved where applicable / Therm. ID: / On Ice / Cooler Temp.

WO#: 20285718

PM: RW Due Date: 08/15/23

~~CLIENT: BR-SGS_ORLAN~~

2

Pace

Sample Condition Upon Reciept (SCUR)

Workorder #: _____

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: BRP / 8/16/23 10

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☑ Yes	☐ No		Were custody seals present on the cooler?	
☑ Yes	☐ No	☐ NA	If custody seals were present, were they intact and unbroken?	

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: E43 IR Gun Correction Factor: 0 °C

Cooler #1	Cooler Temp °C: ~~3.0 Exempt~~	(Actual/True)	Samples on ice ☑ Yes ☐ No
Cooler #2	Cooler Temp °C: 1.7	(Actual/True)	pH Strip Lot # 227822
Cooler #3	Cooler Temp °C: _____	(Actual/True)	Method of coolant: ☑ Wet ☐ Ice Packs ☐ Dry Ice ☐ None
Cooler #4	Cooler Temp °C: _____	(Actual/True)	

Tracking #: 6134 6612 4354

☑ Yes	☐ No	☐ NA	Is a temperature blank present?	
☑ Yes	☐ No	☐ NA	Was a chain of custody (COC) recieved?	
☐ Yes	☑ No	☐ NA	Was the line and profile number listed on the COC?	
☑ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email.	
☑ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?	
☐ Yes	☑ No	☐ NA	Is the sampler name and signature on the COC?	
☐ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?	
☑ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?	
☑ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?	
☑ Yes	☐ No		Were tests to be performed listed on the COC?	
☑ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
☑ Yes	☐ No		Was adequate sample volume available?	
☑ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?	
☑ Yes	☐ No		Were all samples containers accounted for? (No missing / excess)	
☐ Yes	☐ No	☑ NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?	
☐ Yes	☐ No	☑ NA	Trip blank present?	
☐ Yes	☐ No	☑ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*	
☑ Yes	☐ No	☑ NA	Were all metals/nutrient samples received at a pH of < 2?	If No, was preservative added? ☐ Yes ☐ No If added, record lots. Dispenser/pipette lot #: _____
☐ Yes	☐ No	☑ NA BRP	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	HNO_3 _____ H_2SO_4 _____ NaOH _____ Date: _____ Time: _____

Comments:

10 of 256

SAMPLE NO.

EFFLUENT

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Lab Sample ID: 20285718001 Percent Moisture:

CAS No.	Analyte	Conc.	Q	DL	LOD	LOQ	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	17.8		0.25	1.0	1.0	ug/L	1	08/15/2023 14:45

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Initial Calibration Verification Source: 179328

Continuing Calibration Verification Source: 186098

Concentration Units: ug/L Instrument ID: BRIM02

	Initial Calibration Verification				Continuing Calibration Verification						
	08/15/2023 11:09				08/15/2023 12:21			08/15/2023 14:31			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Arsenic	50	50.6	101.2	90-110	10.0	9.9	99.2	10.0	9.8	97.6	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 186098

Concentration Units: ug/L Instrument ID: BRIM02

	Continuing Calibration Verification			
	08/15/2023 15:53			Control Limit
Analyte	True	Found	%R	
Arsenic	10.0	9.9	99.3	90-110

FORM II INORGANIC-1
CRDL CHECK STANDARD

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

CRDL Check Standard Source: 179371 Analysis Date/Time: 08/15/2023 11:24

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	1.0	0.92	92.2	80-120

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract : FC8458X Shepley's Hill

Method Blank Matrix: Water Instrument ID: BRIM02

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	08/15/2023 11:13	C	08/15/2023 12:24	C	08/15/2023 14:34	C	08/15/2023 15:57	C	1411873	C
Arsenic	0.25	U	0.25	U	0.25	U	0.25	U	1.0	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract : FC8458X Shepley's Hill

Method Blank Matrix: _____ Instrument ID: BRIM02

Method Blank Concentration Units: _____

Analyte	Initial Calibration Blank		Continuing Calibration Blank					
		C		C		C		C
Arsenic								

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Instrument ID: BRIM02 Solution A Run Date: 08/15/2023 11:27

ICS Source: 161044,186072 Solution AB Run Date: 08/15/2023 11:31

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	1000	1000	1008.051	100.8	1004.184	100.4	80-120
Arsenic		10	-0.08		9.703	97	80-120
Calcium	3000	3000	2927.468	97.6	2964.61	98.8	80-120
Iron	2500	2500	2489.727	99.6	2468.854	98.8	80-120
Magnesium	1000	1000	1022.638	102.3	1019.468	101.9	80-120
Molybdenum	20	20	18.631	93.2	18.595	93	80-120
Potassium	1000	1000	1007.869	100.8	1009.326	100.9	80-120
Sodium	2500	2500	2536.523	101.5	2561.553	102.5	80-120
Titanium	20	20	19.399	97	19.536	97.7	80-120

SAMPLE NO.

1411875MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water Basis: Wet Parent Sample ID: 20285743001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	ug/L	84-116	53.5	2.3	50.0	102

SAMPLE NO.

1411876MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water Basis: Wet Parent Sample ID: 20285743001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	ug/L	84-116	52.7	2.3	50.0	101

SAMPLE NO.

1412242PDS

FORM V INORGANIC-1

POST-DIGESTION SPIKE SAMPLE RECOVERY

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water Parent Sample ID: 20285743001

Analyte	Units	Control Limit %R	DF	Spiked Sample Result (SSR)	DF	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	ug/L	80-120	2	51.0	2	1.2	50	99.6

SAMPLE NO.

1411876MSD

FORM VI INORGANIC-1
DUPLICATES

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Arsenic	20	53.5	52.7	1

SAMPLE NO.

1411874LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	ug/L	50.0	47.4	95	84	116

SAMPLE NO.

1412243SD

FORM VIII INORGANIC-1
SERIAL DILUTIONS

2

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Matrix: Water Parent Sample ID: 20285743001

Analyte	Units	Initial Sample Result	Serial Dilution Result	% Difference	Control Limit %D
Arsenic	ug/L	1.2	1.2U		10

* Indicates that the % Difference exceeds the control limit.
No difference is calculated if either result is a non-detect.

08/31/2023 10:53

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Preparation Method: None Instrument ID: BRIM02

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	1.0	0.25	08/01/2023

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Preparation Method: EPA 3010A Instrument ID: BRIM02

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Arsenic	1.0	0.25	10/01/2022

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract : FC8458X Shepley's Hill

Instrument ID: BRIM02 Effective Date:10/01/2022

Analyte	Concentration (ug/L)
Arsenic	1000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Preparation Method: EPA 3010A Batch: BRMP 1059

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1411873	1411873	08/15/2023	50	50
1411874	1411874	08/15/2023	50	50
1411875	1411875	08/15/2023	50	50
1411876	1411876	08/15/2023	50	50
20285718001	EFFLUENT	08/15/2023	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Instrument ID: BRIM02 Analysis Method: EPA 6020B

Start Date: 08/15/2023 10:47 End Date: 08/15/2023 15:57

Sample Name	Lab Sample ID	D/F	Date	Time	As
10885115CAL0	10885115CAL0	1	08/15/2023	10:47	X
10885116CAL1	10885116CAL1	1	08/15/2023	10:50	X
10885117CAL2	10885117CAL2	1	08/15/2023	10:55	X
10885118CAL3	10885118CAL3	1	08/15/2023	10:58	X
10885119CAL4	10885119CAL4	1	08/15/2023	11:02	X
10885120CAL5	10885120CAL5	1	08/15/2023	11:06	X
10885121ICV	10885121ICV	1	08/15/2023	11:09	X
10885122ICB	10885122ICB	1	08/15/2023	11:13	X
10885126CRDLA	10885126CRDLA	1	08/15/2023	11:24	X
10885127ICSA	10885127ICSA	1	08/15/2023	11:27	X
10885128ICSAB	10885128ICSAB	1	08/15/2023	11:31	X
10885129CCV	10885129CCV	1	08/15/2023	12:21	X
10885130CCB	10885130CCB	1	08/15/2023	12:24	X
10885213CCV	10885213CCV	1	08/15/2023	14:31	X
10885214CCB	10885214CCB	1	08/15/2023	14:34	X
1411873BLANK	1411873	1	08/15/2023	14:38	
1411874LCS	1411874	1	08/15/2023	14:42	
EFFLUENT	20285718001	1	08/15/2023	14:45	X
20285743001	20285743001	200	08/15/2023	14:52	
1411875MS	1411875	200	08/15/2023	14:56	
1411876MSD	1411876	200	08/15/2023	14:59	
1412242PDS	1412242	200	08/15/2023	15:03	
1412243SD	1412243	1000	08/15/2023	15:07	
20285743001	20285743001	2	08/15/2023	15:10	
1411875MS	1411875	2	08/15/2023	15:17	
1411876MSD	1411876	2	08/15/2023	15:24	
1412242PDS	1412242	2	08/15/2023	15:32	
1412243SD	1412243	10	08/15/2023	15:39	
10885215CCV	10885215CCV	1	08/15/2023	15:53	X
10885216CCB	10885216CCB	1	08/15/2023	15:57	X

FORM XV INORGANIC-1

INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Instrument ID: BRIM02 Start Date: 08/15/2023 10:47 End Date: 08/15/2023 15:57

Sample Name	Time	Bi-209	Bi-209-IS2	GE-72	Ge-72-IS2	In-115	In-115-IS2	Li-6
10885115CAL0	10:47	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10885116CAL1	10:50	97.4	100.3	99.8	100.4	98.0	100.9	97.6
10885117CAL2	10:55	97.7	100.2	99.3	100.2	98.3	101.0	98.5
10885118CAL3	10:58	97.4	99.6	98.8	99.6	98.3	100.7	99.0
10885119CAL4	11:02	96.1	96.9	99.0	99.0	96.5	98.6	102.4
10885120CAL5	11:06	96.1	96.2	100.2	99.5	97.2	97.5	108.4
10885121ICV	11:09	97.5	96.4	100.9	99.4	98.9	98.3	105.1
10885122ICB	11:13	99.3	97.4	100.0	99.2	99.8	98.4	101.3
10885126CRDLA	11:24	99.6	97.2	100.1	99.7	99.6	97.9	99.9
10885127ICSA	11:27	98.3	95.3	100.5	99.2	99.3	97.4	98.2
10885128ICSAB	11:31	97.6	95.6	100.0	99.3	99.1	97.8	96.0
10885129CCV	12:21	96.0	95.5	99.0	103.1	98.5	99.3	84.5
10885130CCB	12:24	96.1	94.8	99.0	103.2	98.8	99.1	83.6
10885213CCV	14:31	88.1	88.3	93.7	101.2	93.1	95.3	69.1
10885214CCB	14:34	88.1	87.4	92.4	99.7	92.2	94.7	66.7
1411873	14:38	85.7	84.4	90.7	99.3	90.7	92.2	58.5
1411874	14:42	84.6	83.2	90.4	98.9	89.3	90.7	60.4
EFFLUENT	14:45	84.3	83.1	90.2	98.5	89.6	90.2	57.1
20285743001	14:52	87.6	88.2	93.1	100.6	92.9	94.4	68.5
1411875	14:56	88.5	88.5	93.8	100.9	93.4	94.9	70.0
1411876	14:59	89.0	88.1	93.8	102.0	93.7	95.0	69.5
1412242	15:03	87.8	86.5	93.7	100.8	91.6	93.3	71.0
1412243	15:07	89.1	88.6	93.2	101.6	93.6	95.0	67.8
20285743001	15:10	78.7	80.6	90.4	98.1	86.7	89.8	65.3
1411875	15:17	79.7	79.5	91.1	96.4	86.9	87.8	65.2
1411876	15:24	80.1	79.3	91.6	96.5	87.4	86.6	66.3
1412242	15:32	83.4	82.5	94.2	98.8	90.0	89.5	72.0
1412243	15:39	89.9	86.4	96.9	100.7	94.9	92.4	70.8
10885215CCV	15:53	91.5	89.3	95.5	100.7	96.7	94.5	69.6
10885216CCB	15:57	90.2	87.6	93.9	99.6	94.2	93.4	67.6

Sample Name	Time	Lu-175	Lu-175-IS2	Rh-103	Rh-103-IS2	Sc-45-IS	Sc-45-IS2	Tb-159
10885115CAL0	10:47	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10885116CAL1	10:50	97.5	101.3	98.1	100.7	98.9	100.0	97.0
10885117CAL2	10:55	97.5	100.5	97.8	100.6	99.4	100.5	97.1
10885118CAL3	10:58	97.4	101.2	97.6	100.0	99.0	100.3	97.4
10885119CAL4	11:02	97.7	100.4	95.2	97.6	99.3	100.5	97.8
10885120CAL5	11:06	97.9	100.5	95.2	97.6	100.9	101.1	98.5
10885121ICV	11:09	99.8	98.5	97.6	98.6	101.8	100.8	99.1

FORM XV INORGANIC-2

INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Instrument ID: BRIM02 Start Date: 08/15/2023 10:47 End Date: 08/15/2023 15:57

Sample Name	Time	Lu-175	Lu-175-IS2	Rh-103	Rh-103-IS2	Sc-45-IS	Sc-45-IS2	Tb-159
10885122ICB	11:13	99.2	97.5	99.8	99.9	99.7	100.5	99.8
10885126CRDLA	11:24	99.5	96.7	100.1	99.8	100.3	100.9	99.5
10885127ICSA	11:27	98.3	96.2	98.1	97.9	100.2	100.0	99.0
10885128ICSAB	11:31	98.0	96.3	98.0	98.3	99.8	100.0	98.2
10885129CCV	12:21	97.4	97.0	98.7	100.2	100.1	105.5	98.5
10885130CCB	12:24	97.2	95.9	99.3	100.4	99.5	105.6	98.2
10885213CCV	14:31	91.7	90.7	92.5	95.4	94.7	106.3	92.2
10885214CCB	14:34	89.8	90.1	92.7	94.7	92.4	105.5	90.7
1411873	14:38	88.6	86.7	90.9	93.2		105.3	89.4
1411874	14:42	88.7	87.3	87.9	90.7		105.0	89.4
EFFLUENT	14:45	89.2	86.9	87.6	89.6		104.4	89.6
20285743001	14:52	91.7	90.1	93.0	95.2		105.7	91.9
1411875	14:56	90.9	90.2	93.3	95.9		106.8	91.5
1411876	14:59	91.9	90.3	93.7	95.6		107.2	92.5
1412242	15:03	92.3	90.5	91.4	93.5		107.4	92.9
1412243	15:07	91.7	90.4	93.3	95.6		105.9	92.5
20285743001	15:10	89.6	91.1	86.5	89.2		103.5	89.9
1411875	15:17	90.6	89.4	86.9	88.2		101.0	90.8
1411876	15:24	91.3	89.2	87.4	87.6		100.1	91.5
1412242	15:32	94.2	92.2	89.3	90.8		104.0	94.4
1412243	15:39	97.0	91.9	95.2	94.7		105.3	97.0
10885215CCV	15:53	95.0	91.6	96.0	95.9	95.9	105.2	96.0
10885216CCB	15:57	93.3	89.6	95.3	95.5	93.8	104.5	94.3

Sample Name	Time	Tb-159-IS2
10885115CAL0	10:47	100.0
10885116CAL1	10:50	101.1
10885117CAL2	10:55	100.2
10885118CAL3	10:58	100.7
10885119CAL4	11:02	100.4
10885120CAL5	11:06	100.3
10885121ICV	11:09	99.2
10885122ICB	11:13	98.2
10885126CRDLA	11:24	97.6
10885127ICSA	11:27	97.4
10885128ICSAB	11:31	97.1
10885129CCV	12:21	97.7
10885130CCB	12:24	96.4
10885213CCV	14:31	91.7

08/31/2023 10:53

FORM XV INORGANIC-3

INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

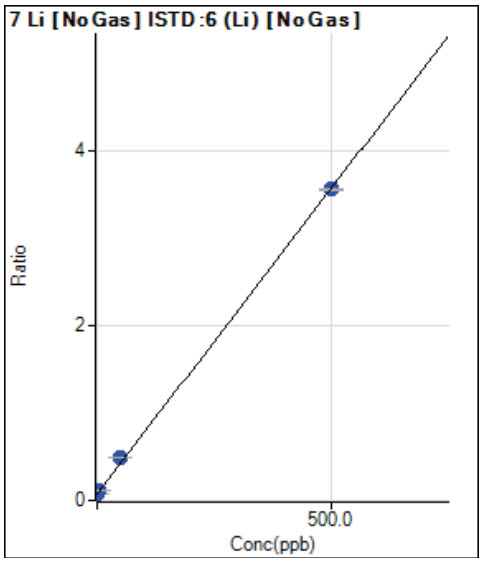
Lab Name: Pace Analytical - New Orleans SDG No. : 20285718 Contract: FC8458X Shepley's Hill

Instrument ID: BRIM02 Start Date: 08/15/2023 10:47 End Date: 08/15/2023 15:57

Sample Name	Time	Tb-159-IS2
10885214CCB	14:34	90.2
1411873	14:38	87.8
1411874	14:42	88.4
EFFLUENT	14:45	87.6
20285743001	14:52	90.6
1411875	14:56	90.7
1411876	14:59	90.8
1412242	15:03	90.9
1412243	15:07	91.2
20285743001	15:10	90.5
1411875	15:17	89.0
1411876	15:24	88.8
1412242	15:32	92.3
1412243	15:39	92.5
10885215CCV	15:53	92.1
10885216CCB	15:57	90.3

Batch Folder: C:\Agilent\ICPMH\1\DATA\2230815A_MS2.b\
Analysis File: 2230815A_MS2.batch.bin
DA Date-Time: 8/16/2023 8:34:39 AM
Calibration Title: EPA6020
Calibration Method: External Calibration
VIS Interpolation Fit:

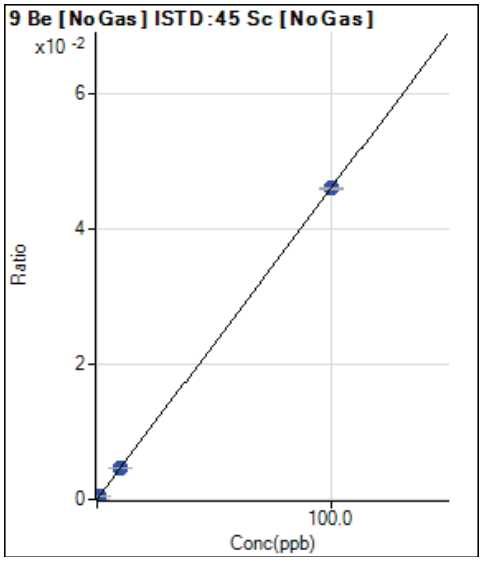
Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	CAL0	8/15/2023 10:47:19 AM
2			
3	005CALS.d	CAL1	8/15/2023 10:50:53 AM
4			
5	006CALS.d	CAL2	8/15/2023 10:55:08 AM
6	007CALS.d	CAL3	8/15/2023 10:58:52 AM
7	009CALS.d	CAL5	8/15/2023 11:06:20 AM
8			



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	72889.79	0.0723	P	1.5
2	☐	0.000					
3	☐	0.500	0.618	75381.87	0.0766	P	1.6
4	☐	2.500					
5	☐	5.000	6.072	114163.97	0.1148	P	2.9
6	☐	50.000	60.375	501623.81	0.4951	P	0.8
7	☐	500.000	498.952	4438431.60	3.5664	P	0.4
8	☐						

y = 0.0070 * x + 0.0723
R = 0.9998
DL = 0.4602
BEC = 10.33

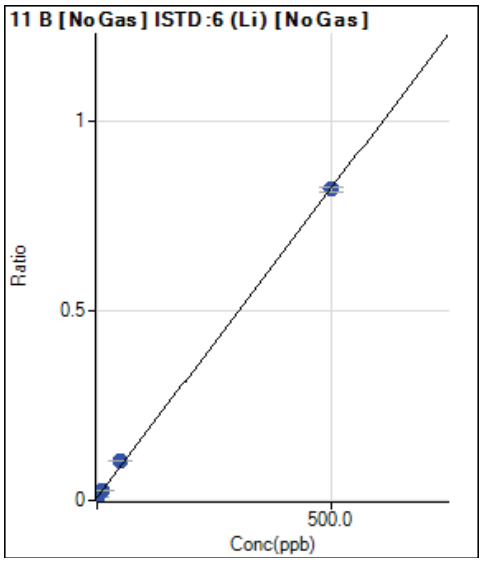
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	215.33	0.0000	P	13.9
2	☐	0.000					
3	☐	0.100	0.092	484.68	0.0001	P	5.2
4	☐	0.500					
5	☐	1.000	1.023	3261.03	0.0005	P	1.3
6	☐	10.000	10.211	30517.10	0.0047	P	0.1
7	☐	100.000	99.979	302349.24	0.0460	P	0.4
8	☐						

y = 4.5951E-004 * x + 3.3019E-005
R = 1.0000
DL = 0.02996
BEC = 0.07186

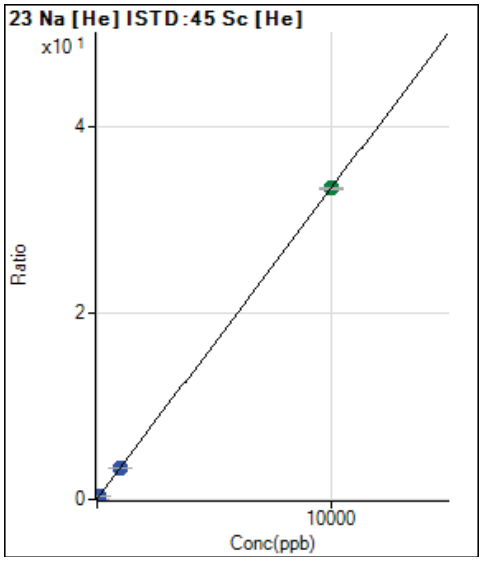
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6901.80	0.0068	P	6.8
2	☐	0.000					
3	☐	1.000	0.842	8082.43	0.0082	P	3.5
4	☐	5.000					
5	☐	10.000	11.884	26079.92	0.0262	P	0.6
6	☐	50.000	60.235	106446.17	0.1051	P	1.2
7	☐	500.000	498.939	1021010.35	0.8205	P	1.8
8	☐						

y = 0.0016 * x + 0.0068
R = 0.9998
DL = 0.8592
BEC = 4.197

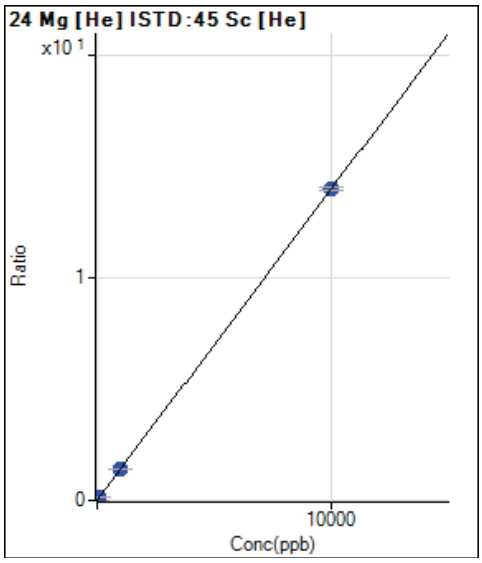
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	11541.52	0.0546	P	6.7
2	☐	0.000					
3	☐	10.000	8.108	17287.06	0.0817	P	3.1
4	☐	50.000					
5	☐	100.000	100.130	82821.57	0.3892	P	0.7
6	☐	1000.000	1009.084	727576.89	3.4263	P	0.8
7	☐	10000.000	9999.092	7162540.10	33.4651	A	0.3
8	☐						

y = 0.0033 * x + 0.0546
R = 1.0000
DL = 3.302
BEC = 16.34

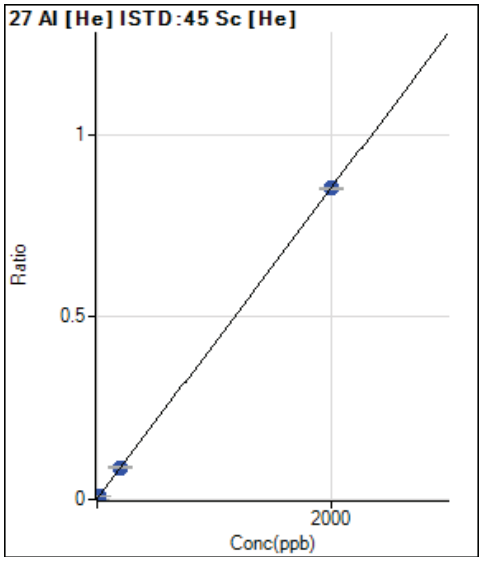
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	563.36	0.0027	P	12.4
2	☐	0.000					
3	☐	10.000	8.261	3007.06	0.0142	P	10.9
4	☐	50.000					
5	☐	100.000	102.811	31183.10	0.1465	P	1.5
6	☐	1000.000	1013.923	301684.77	1.4210	P	1.9
7	☐	10000.000	9998.581	2993719.33	13.9889	P	1.0
8	☐						

y = 0.0014 * x + 0.0027
R = 1.0000
DL = 0.7096
BEC = 1.907

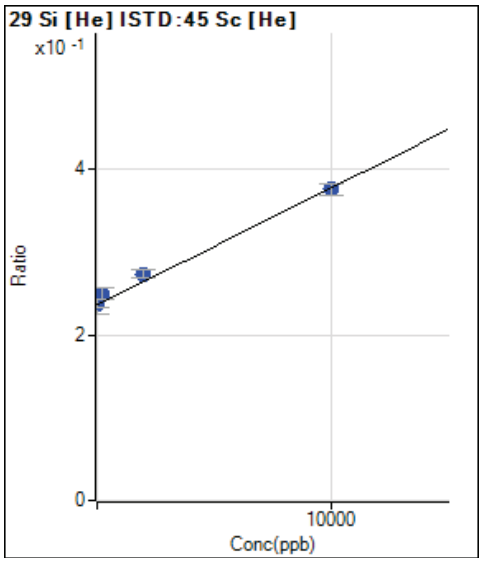
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	174.00	0.0008	P	9.9
2	☐	0.000					
3	☐	2.000	1.536	311.34	0.0015	P	18.6
4	☐	10.000					
5	☐	20.000	20.888	2068.82	0.0097	P	2.8
6	☐	200.000	204.031	18639.59	0.0878	P	2.6
7	☐	2000.000	1999.588	182592.52	0.8531	P	0.3
8	☐						

y = 4.2625E-004 * x + 8.2013E-004
R = 1.0000
DL = 0.5689
BEC = 1.924

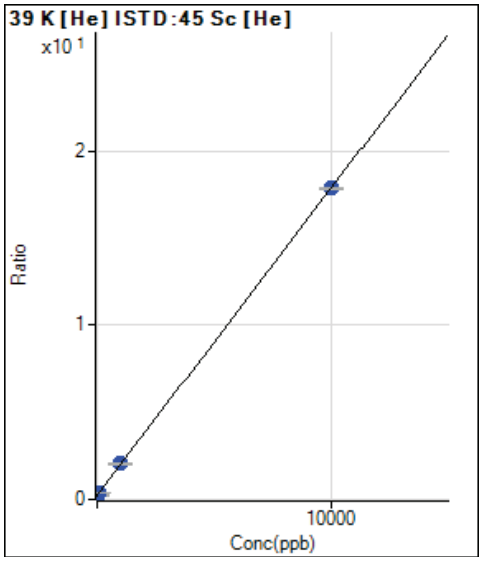
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	49942.88	0.2364	P	9.6
2	☐	0.000					
3	☐	20.000	226.586	50681.97	0.2396	P	5.6
4	☐	100.000					
5	☐	200.000	923.590	53052.21	0.2494	P	5.2
6	☐	2000.000	2596.462	57960.64	0.2731	P	3.7
7	☐	10000.000	9865.823	80377.77	0.3757	P	3.5
8	☐						

y = 1.4122E-005 * x + 0.2364
R = 0.9971
DL = 4806
BEC = 1.674E+04

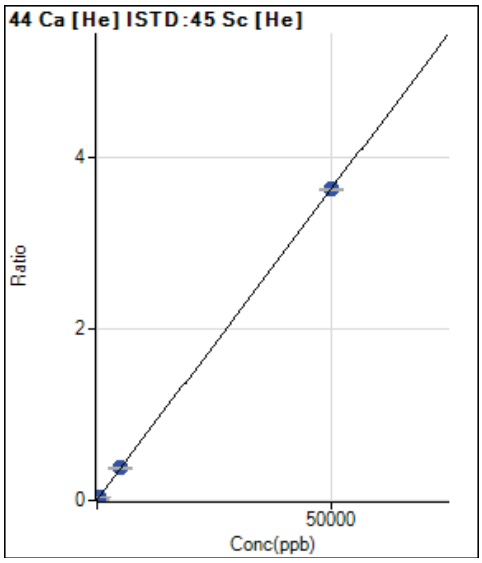
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	48135.28	0.2275	P	1.3
2	☐	0.000					
3	☐	10.000	10.641	52118.80	0.2462	P	1.6
4	☐	50.000					
5	☐	100.000	101.885	86641.39	0.4071	P	1.0
6	☐	1000.000	1026.049	432417.64	2.0365	P	0.8
7	☐	10000.000	9997.376	3821198.17	17.8536	P	0.4
8	☐						

y = 0.0018 * x + 0.2275
R = 1.0000
DL = 5.201
BEC = 129

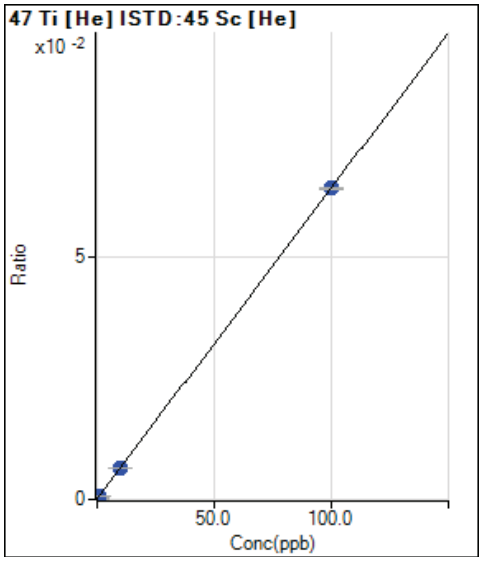
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1603.45	0.0076	P	6.0
2	☐	0.000					
3	☐	50.000	43.469	2265.21	0.0107	P	11.1
4	☐	250.000					
5	☐	500.000	503.540	9353.10	0.0440	P	4.3
6	☐	5000.000	5093.121	79769.41	0.3757	P	1.1
7	☐	50000.000	49990.659	774957.91	3.6207	P	0.6
8	☐						

y = 7.2276E-005 * x + 0.0076
R = 1.0000
DL = 18.89
BEC = 104.8

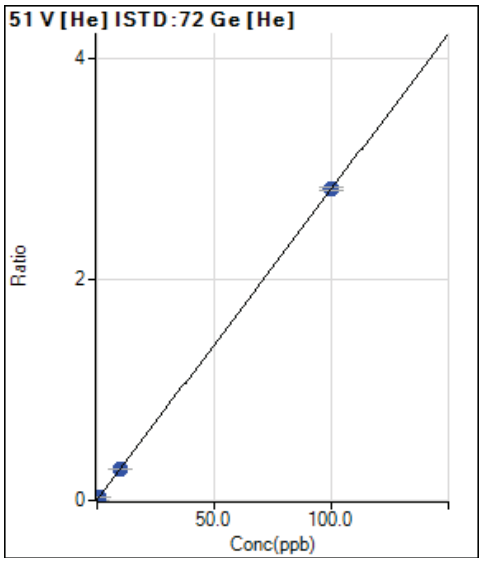
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	20.00	0.0001	P	21.7
2	☐	0.000					
3	☐	0.100	0.114	35.33	0.0002	P	6.3
4	☐	0.500					
5	☐	1.000	1.054	163.33	0.0008	P	7.0
6	☐	10.000	9.992	1376.73	0.0065	P	0.9
7	☐	100.000	100.000	13703.33	0.0640	P	0.4
8	☐						

y = 6.3937E-004 * x + 9.4006E-005
R = 1.0000
DL = 0.09577
BEC = 0.147

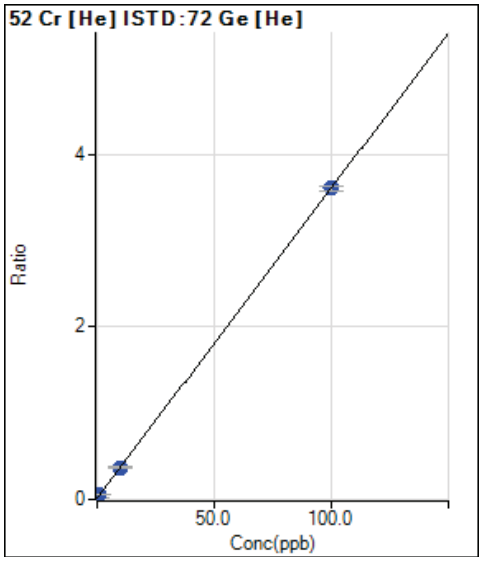
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	608.91	0.0035	P	5.2
2	☐	0.000					
3	☐	0.100	0.087	1042.27	0.0059	P	5.5
4	☐	0.500					
5	☐	1.000	0.965	5397.70	0.0306	P	0.1
6	☐	10.000	9.943	49598.43	0.2826	P	2.8
7	☐	100.000	100.006	492929.04	2.8110	P	0.9
8	☐						

y = 0.0281 * x + 0.0035
R = 1.0000
DL = 0.01935
BEC = 0.1231

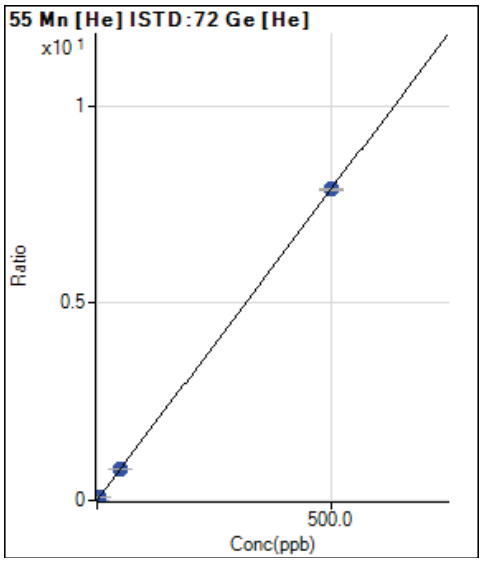
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2190.19	0.0124	P	1.5
2	☐	0.000					
3	☐	0.100	0.093	2791.41	0.0158	P	5.6
4	☐	0.500					
5	☐	1.000	1.022	8691.55	0.0492	P	0.5
6	☐	10.000	9.985	65220.89	0.3716	P	2.2
7	☐	100.000	100.001	632966.52	3.6098	P	1.3
8	☐						

y = 0.0360 * x + 0.0124
R = 1.0000
DL = 0.01552
BEC = 0.3451

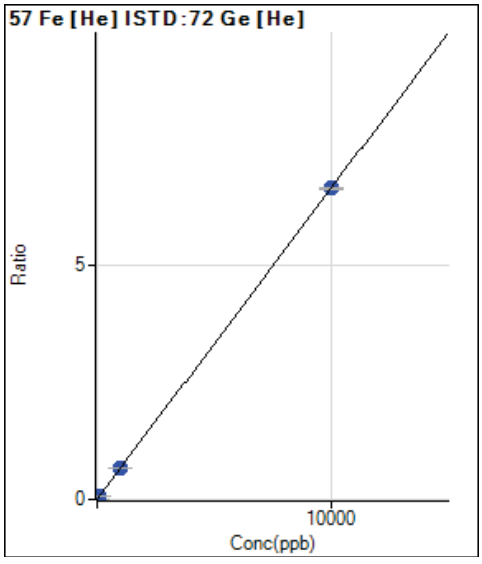
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	226.67	0.0013	P	20.0
2	☐	0.000					
3	☐	0.500	0.486	1581.22	0.0089	P	14.3
4	☐	2.500					
5	☐	5.000	5.182	14660.72	0.0830	P	1.5
6	☐	50.000	51.017	141466.93	0.8059	P	1.2
7	☐	500.000	499.897	1382764.04	7.8853	P	0.7
8	☐						

y = 0.0158 * x + 0.0013
R = 1.0000
DL = 0.04887
BEC = 0.08142

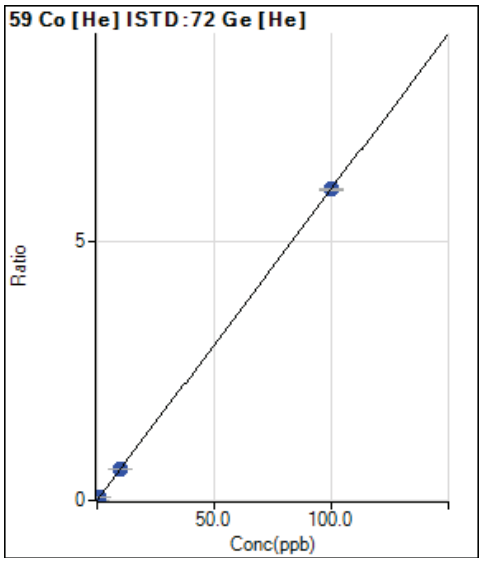
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	270.02	0.0015	P	32.3
2	☐	0.000					
3	☐	10.000	9.836	1423.46	0.0081	P	19.4
4	☐	50.000					
5	☐	100.000	101.839	12192.14	0.0691	P	4.2
6	☐	1000.000	1006.222	117356.44	0.6686	P	2.8
7	☐	10000.000	9999.360	1162886.73	6.6308	P	0.5
8	☐						

y = 6.6297E-004 * x + 0.0015
R = 1.0000
DL = 2.25
BEC = 2.323

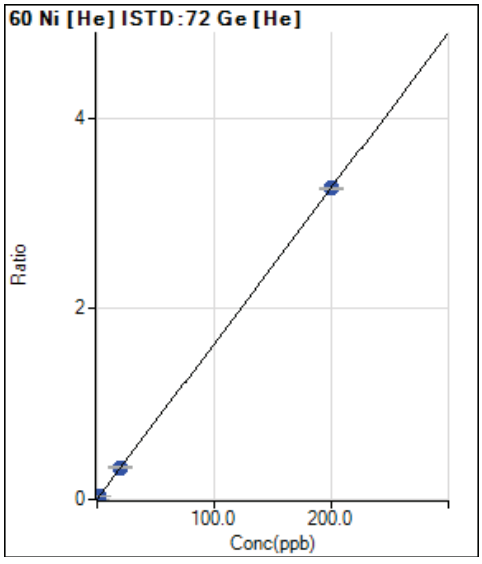
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	201.11	0.0011	P	19.6
2	☐	0.000					
3	☐	0.100	0.094	1195.62	0.0068	P	14.5
4	☐	0.500					
5	☐	1.000	1.033	11145.41	0.0631	P	0.7
6	☐	10.000	10.144	106973.14	0.6095	P	3.0
7	☐	100.000	99.985	1051715.24	5.9974	P	0.7
8	☐						

y = 0.0600 * x + 0.0011
R = 1.0000
DL = 0.01124
BEC = 0.01908

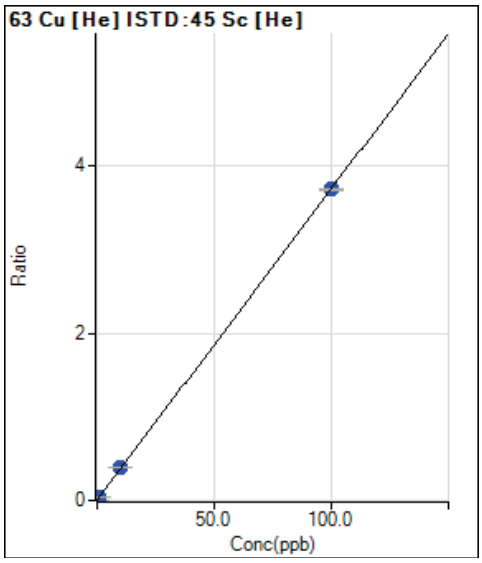
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	281.12	0.0016	P	16.7
2	☐	0.000					
3	☐	0.200	0.183	810.03	0.0046	P	4.4
4	☐	1.000					
5	☐	2.000	2.061	6215.83	0.0352	P	2.2
6	☐	20.000	20.517	58991.04	0.3361	P	1.9
7	☐	200.000	199.948	571913.64	3.2612	P	0.6
8	☐						

y = 0.0163 * x + 0.0016
R = 1.0000
DL = 0.04887
BEC = 0.09751

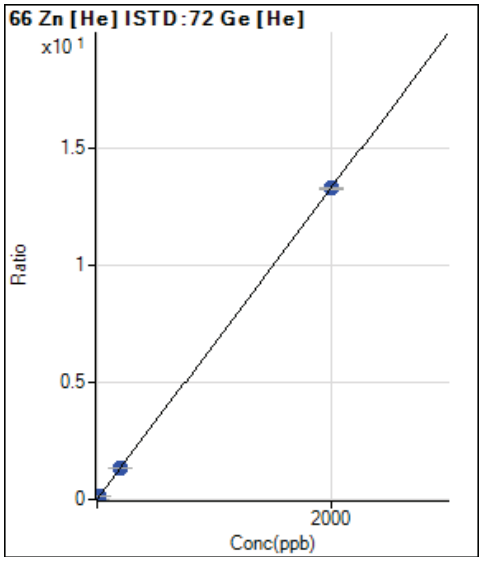
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	588.91	0.0028	P	4.1
2	☐	0.000					
3	☐	0.100	0.097	1347.86	0.0064	P	10.5
4	☐	0.500					
5	☐	1.000	1.049	8891.65	0.0418	P	5.4
6	☐	10.000	10.371	82502.26	0.3886	P	1.7
7	☐	100.000	99.962	796420.73	3.7213	P	0.3
8	☐						

y = 0.0372 * x + 0.0028
R = 1.0000
DL = 0.009277
BEC = 0.07481

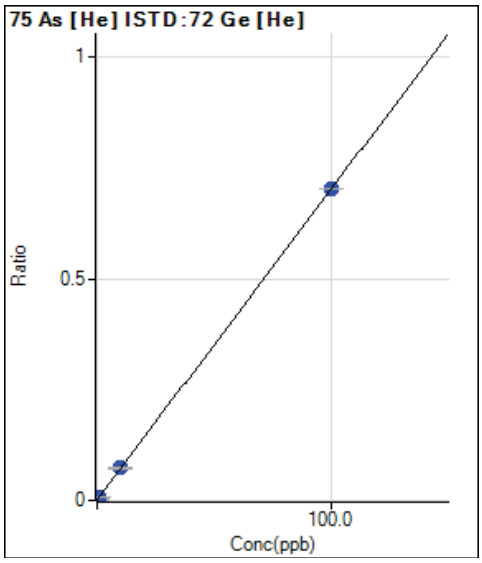
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	546.68	0.0031	P	8.5
2	☐	0.000					
3	☐	2.000	2.000	2899.22	0.0164	P	8.8
4	☐	10.000					
5	☐	20.000	20.746	24902.34	0.1410	P	1.8
6	☐	200.000	204.723	239344.93	1.3635	P	1.3
7	☐	2000.000	1999.520	2330540.32	13.2899	P	0.7
8	☐						

y = 0.0066 * x + 0.0031
R = 1.0000
DL = 0.1197
BEC = 0.4672

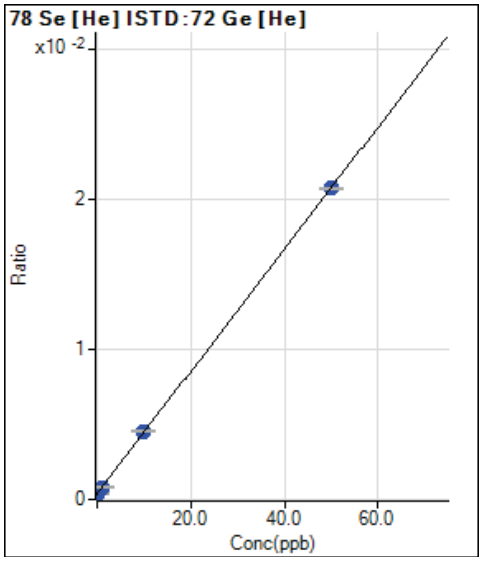
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	231.00	0.0013	P	4.4
2		0.000					
3		0.100	0.081	331.67	0.0019	P	10.7
4		0.500					
5		1.000	0.968	1428.74	0.0081	P	2.6
6		10.000	10.179	12741.89	0.0726	P	1.2
7		100.000	99.982	123014.74	0.7014	P	0.1
8							

y = 0.0070 * x + 0.0013
R = 1.0000
DL = 0.02444
BEC = 0.1871

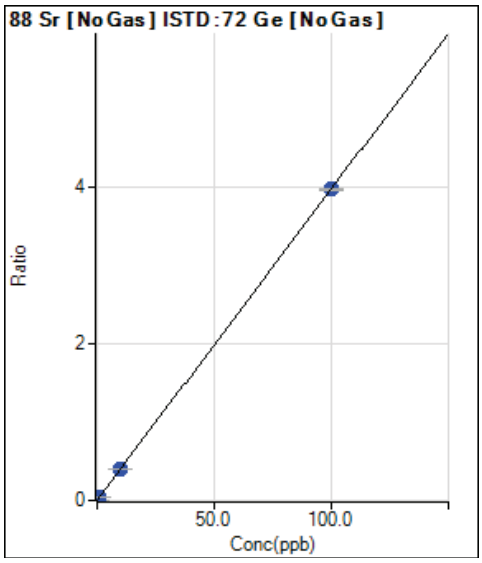
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		0.000	0.000	67.08	0.0004	P	5.9
2		0.000					
3		0.100	0.119	75.92	0.0004	P	6.7
4		0.500					
5		1.000	1.074	144.42	0.0008	P	3.3
6		10.000	10.176	795.02	0.0045	P	2.5
7		50.000	49.963	3638.29	0.0207	P	0.2
8							

y = 4.0758E-004 * x + 3.7999E-004
R = 1.0000
DL = 0.1654
BEC = 0.9323

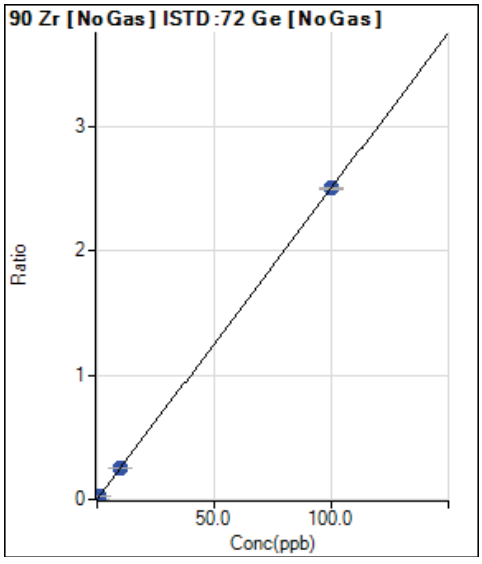
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1593.49	0.0009	P	7.0
2	☐	0.000					
3	☐	0.100	0.099	8362.77	0.0049	P	4.5
4	☐	0.500					
5	☐	1.000	0.988	68909.15	0.0402	P	2.3
6	☐	10.000	10.032	681720.85	0.3994	P	0.9
7	☐	100.000	99.997	6874648.65	3.9727	P	0.3
8	☐						

y = 0.0397 * x + 9.2194E-004
R = 1.0000
DL = 0.004906
BEC = 0.02321

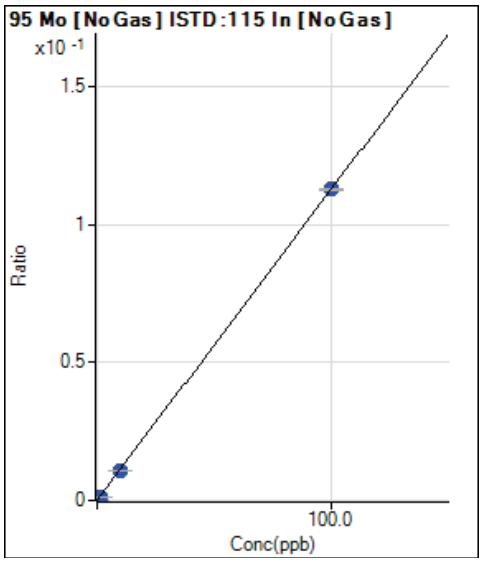
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1234.51	0.0007	P	4.6
2	☐	0.000					
3	☐	0.100	0.089	5058.73	0.0029	P	5.6
4	☐	0.500					
5	☐	1.000	0.950	42041.31	0.0245	P	0.5
6	☐	10.000	9.977	427913.72	0.2507	P	0.1
7	☐	100.000	100.003	4336934.97	2.5062	P	0.6
8	☐						

y = 0.0251 * x + 7.1488E-004
R = 1.0000
DL = 0.003931
BEC = 0.02853

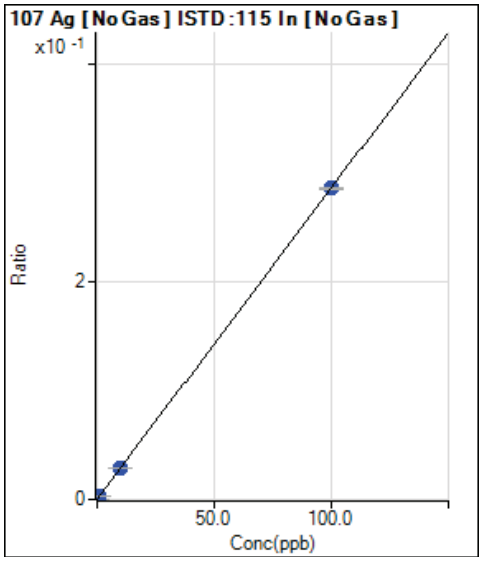
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2429.13	0.0002	P	4.7
2	☐	0.000					
3	☐	0.100	0.063	3193.72	0.0003	P	2.3
4	☐	0.500					
5	☐	1.000	0.889	13857.90	0.0012	P	1.6
6	☐	10.000	9.615	126355.24	0.0110	P	0.5
7	☐	100.000	100.040	1281145.23	0.1127	P	0.8
8	☐						

y = 0.0011 * x + 2.0830E-004
R = 1.0000
DL = 0.02618
BEC = 0.1853

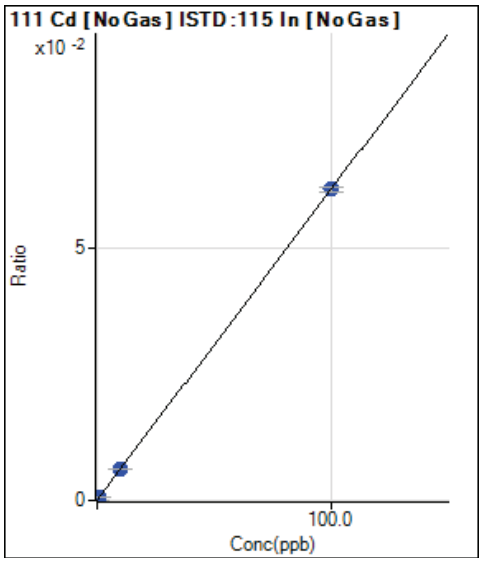
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	25.56	0.0000	P	18.5
2	☐	0.000					
3	☐	0.100	0.104	3421.56	0.0003	P	2.7
4	☐	0.500					
5	☐	1.000	1.009	33112.92	0.0029	P	0.4
6	☐	10.000	10.052	329601.99	0.0287	P	0.4
7	☐	100.000	99.995	3250543.14	0.2859	P	0.7
8	☐						

y = 0.0029 * x + 2.1861E-006
R = 1.0000
DL = 0.0004236
BEC = 0.0007646

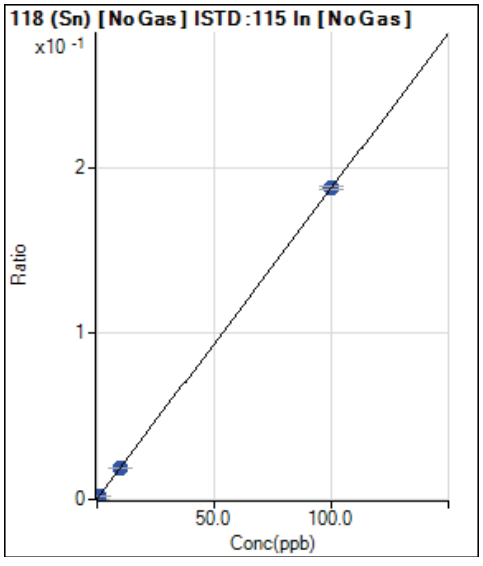
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	430.01	0.0000	P	6.9
2	☐	0.000					
3	☐	0.100	0.105	1157.84	0.0001	P	13.1
4	☐	0.500					
5	☐	1.000	1.020	7629.91	0.0007	P	2.1
6	☐	10.000	10.046	71392.69	0.0062	P	1.3
7	☐	100.000	99.995	700809.36	0.0616	P	1.3
8	☐						

y = 6.1600E-004 * x + 3.6831E-005
R = 1.0000
DL = 0.01241
BEC = 0.05979

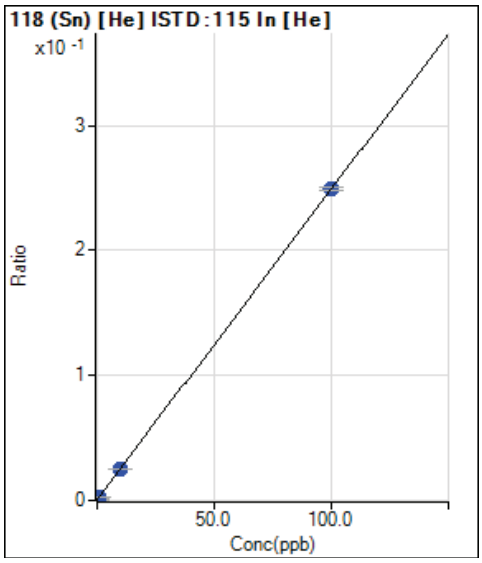
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3859.46	0.0003	P	1.9
2	☐	0.000					
3	☐	0.100	0.087	5644.52	0.0005	P	1.2
4	☐	0.500					
5	☐	1.000	0.968	24568.11	0.0021	P	0.8
6	☐	10.000	9.830	214711.28	0.0187	P	0.9
7	☐	100.000	100.017	2131421.30	0.1875	P	1.1
8	☐						

y = 0.0019 * x + 3.3081E-004
R = 1.0000
DL = 0.01005
BEC = 0.1768

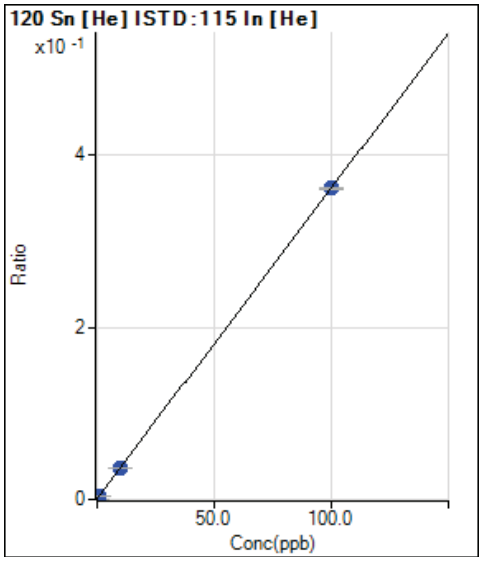
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	743.37	0.0004	P	9.7
2	☐	0.000					
3	☐	0.100	0.081	1086.72	0.0006	P	11.8
4	☐	0.500					
5	☐	1.000	0.984	4872.00	0.0029	P	6.7
6	☐	10.000	9.821	41823.93	0.0248	P	2.2
7	☐	100.000	100.018	407492.05	0.2489	P	0.9
8	☐						

y = 0.0025 * x + 4.4364E-004
R = 1.0000
DL = 0.05179
BEC = 0.1786

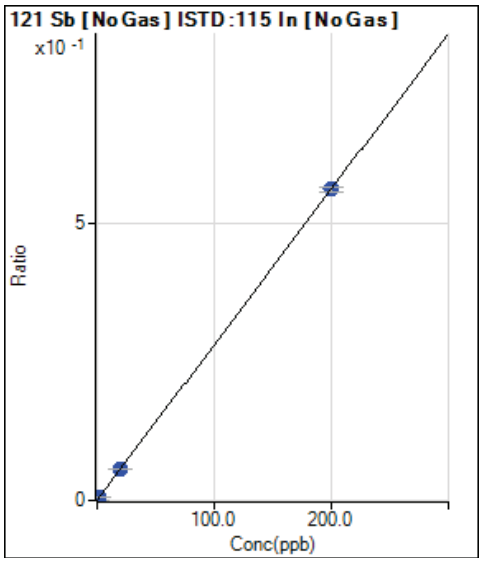
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1052.28	0.0006	P	3.2
2	☐	0.000					
3	☐	0.100	0.075	1517.88	0.0009	P	3.9
4	☐	0.500					
5	☐	1.000	0.950	6861.73	0.0041	P	4.1
6	☐	10.000	9.769	60437.68	0.0359	P	2.2
7	☐	100.000	100.024	592260.48	0.3617	P	0.3
8	☐						

y = 0.0036 * x + 6.2950E-004
R = 1.0000
DL = 0.01672
BEC = 0.1744

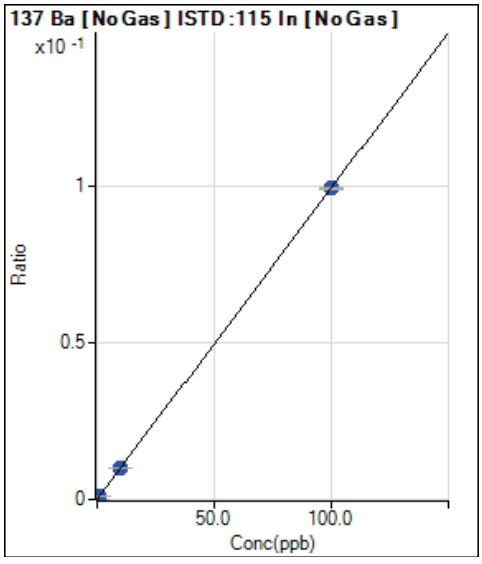
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	3961.73	0.0003	P	1.6
2	☐	0.000					
3	☐	0.200	0.199	10262.71	0.0009	P	0.9
4	☐	1.000					
5	☐	2.000	2.011	68623.48	0.0060	P	1.0
6	☐	20.000	19.874	643582.39	0.0561	P	1.0
7	☐	200.000	200.012	6386496.27	0.5617	P	1.2
8	☐						

y = 0.0028 * x + 3.3950E-004
R = 1.0000
DL = 0.00591
BEC = 0.121

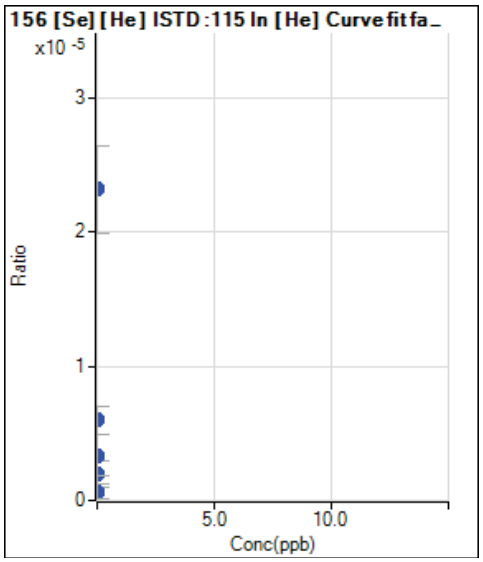
Weight: <None>
Min Conc: <None>



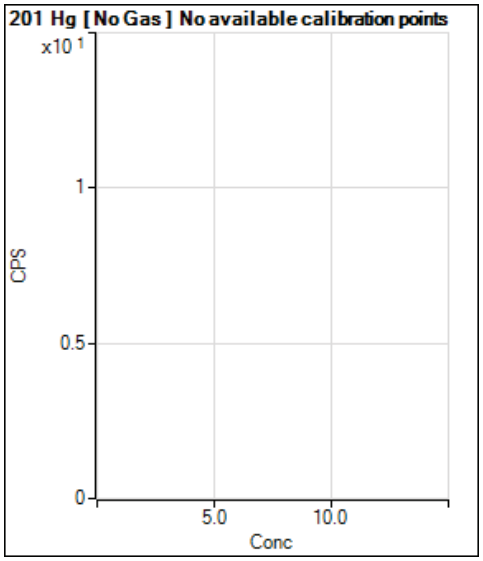
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	164.45	0.0000	P	16.7
2	☐	0.000					
3	☐	0.100	0.101	1307.86	0.0001	P	6.9
4	☐	0.500					
5	☐	1.000	0.997	11511.51	0.0010	P	3.0
6	☐	10.000	9.929	113202.24	0.0099	P	0.4
7	☐	100.000	100.007	1128990.34	0.0993	P	0.8
8	☐	1000.000					

y = 9.9275E-004 * x + 1.4114E-005
R = 1.0000
DL = 0.00713
BEC = 0.01422

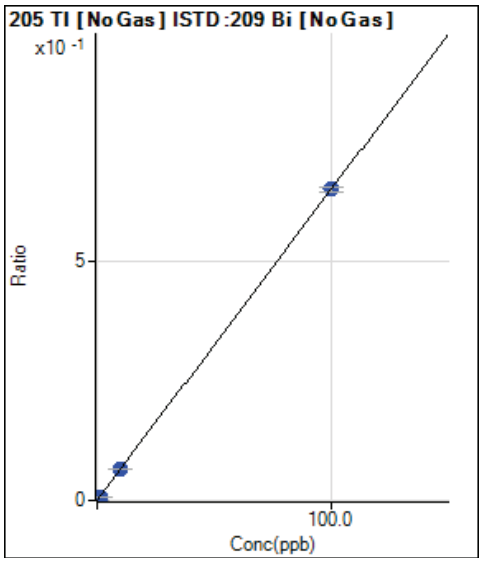
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000		3.33	0.0000	P	97.7
2	☐	0.000					
3	☐	0.000		5.56	0.0000	P	92.4
4	☐	0.000					
5	☐	0.000		1.11	0.0000	P	173.2
6	☐	0.000		10.00	0.0000	P	36.2
7	☐	0.000		37.78	0.0000	P	27.8
8	☐						



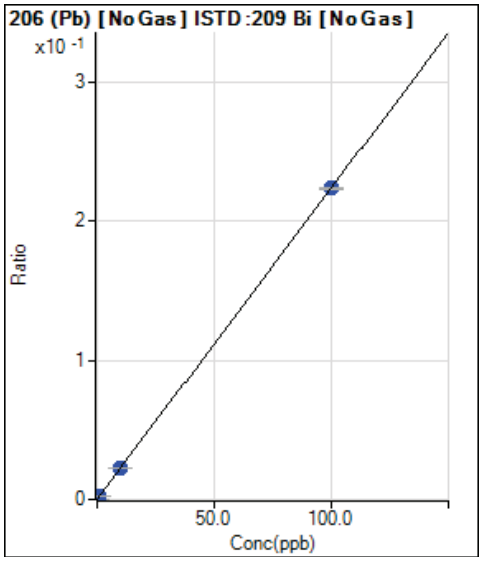
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐			15.67		P	9.2
2	☐						
3	☐			19.00		P	19.9
4	☐						
5	☐			18.17		P	6.9
6	☐			29.67		P	16.6
7	☐			24.67		P	3.1
8	☐						



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	6958.73	0.0007	P	1.3
2	☐	0.000					
3	☐	0.100	0.084	11859.01	0.0013	P	3.0
4	☐	0.500					
5	☐	1.000	0.943	63696.61	0.0068	P	1.0
6	☐	10.000	9.781	595217.08	0.0642	P	0.7
7	☐	100.000	100.022	5949330.12	0.6493	P	1.3
8	☐						

y = 0.0065 * x + 7.3033E-004
R = 1.0000
DL = 0.004461
BEC = 0.1126

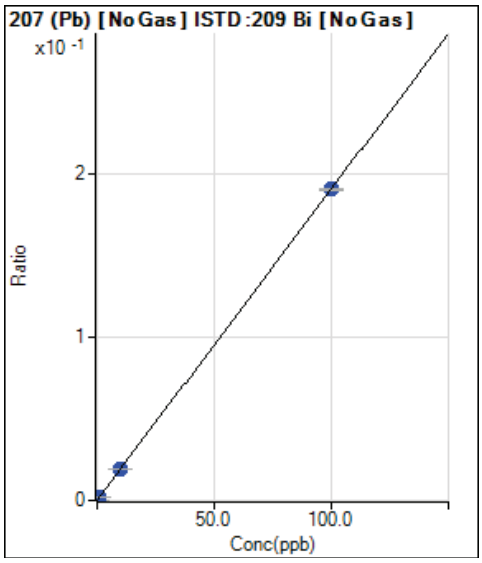
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	630.04	0.0001	P	9.5
2	☐	0.000					
3	☐	0.100	0.096	2607.03	0.0003	P	4.6
4	☐	0.500					
5	☐	1.000	0.986	21110.74	0.0023	P	0.8
6	☐	10.000	9.923	206261.33	0.0222	P	0.7
7	☐	100.000	100.008	2047506.38	0.2235	P	0.5
8	☐						

y = 0.0022 * x + 6.6043E-005
R = 1.0000
DL = 0.0084
BEC = 0.02956

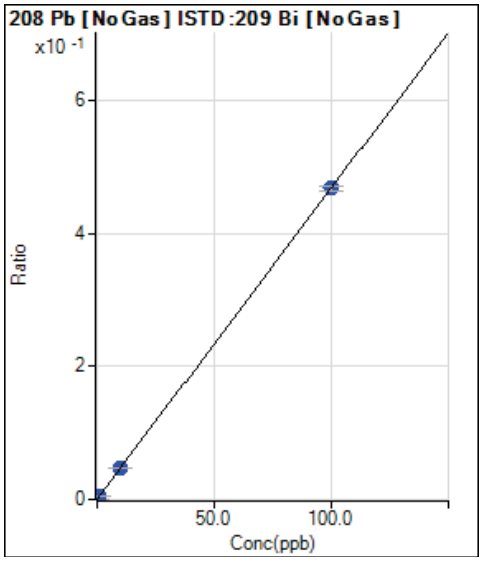
Weight: <None>
Min Conc: <None>



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	613.37	0.0001	P	17.7
2	☐	0.000					
3	☐	0.100	0.095	2270.28	0.0002	P	5.4
4	☐	0.500					
5	☐	1.000	0.981	17972.69	0.0019	P	0.8
6	☐	10.000	9.948	176255.49	0.0190	P	0.8
7	☐	100.000	100.005	1744414.66	0.1904	P	0.4
8	☐						

y = 0.0019 * x + 6.4276E-005
R = 1.0000
DL = 0.01789
BEC = 0.03377

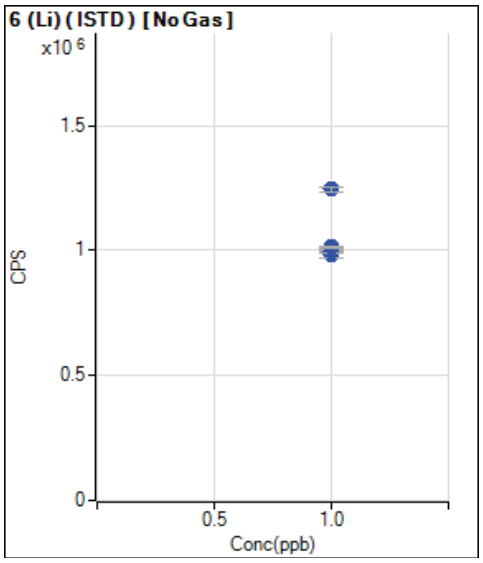
Weight: <None>
Min Conc: <None>



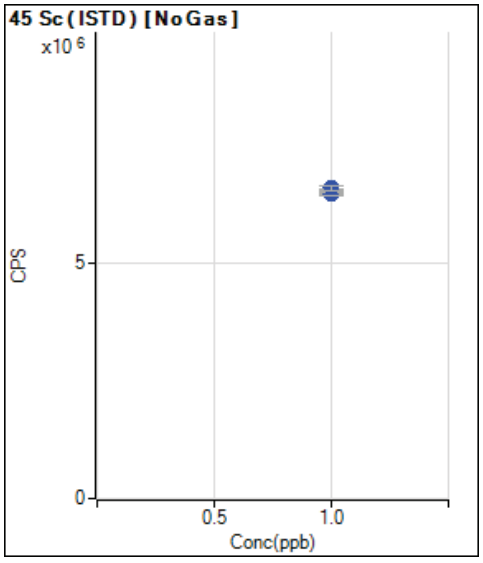
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	1296.77	0.0001	P	8.9
2	☐	0.000					
3	☐	0.100	0.102	5688.11	0.0006	P	2.9
4	☐	0.500					
5	☐	1.000	0.995	44572.24	0.0048	P	1.6
6	☐	10.000	9.910	431223.22	0.0465	P	0.7
7	☐	100.000	100.009	4286584.11	0.4678	P	1.3
8	☐						

y = 0.0047 * x + 1.3592E-004
R = 1.0000
DL = 0.007749
BEC = 0.02906

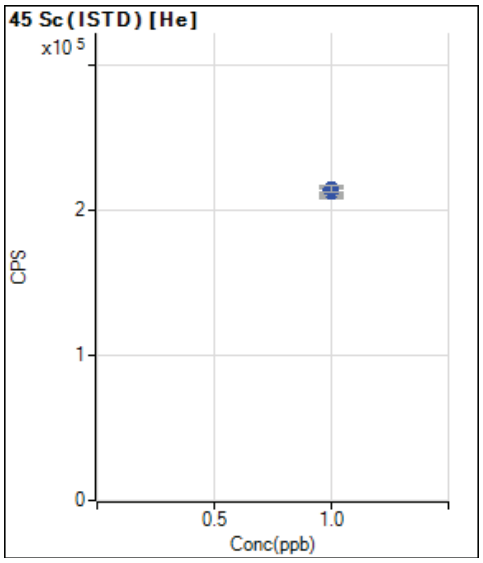
Weight: <None>
Min Conc: <None>



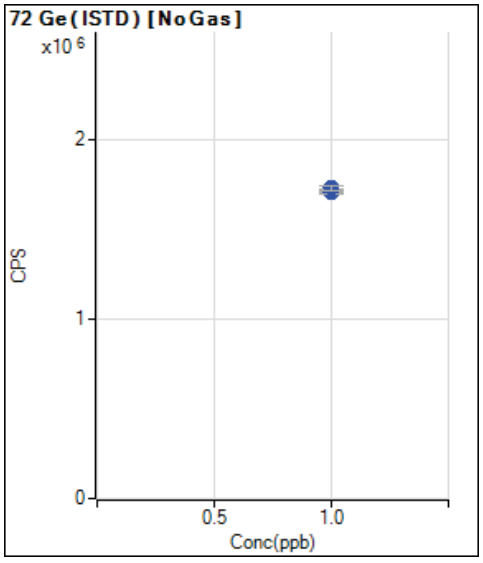
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1007843.19		P	1.3
2	☐	1.000					
3	☐	1.000		983716.11		P	2.3
4	☐	1.000					
5	☐	1.000		994448.14		P	1.5
6	☐	1.000		1013139.02		P	1.1
7	☐	1.000		1244581.41		P	1.5
8	☐	1.000					



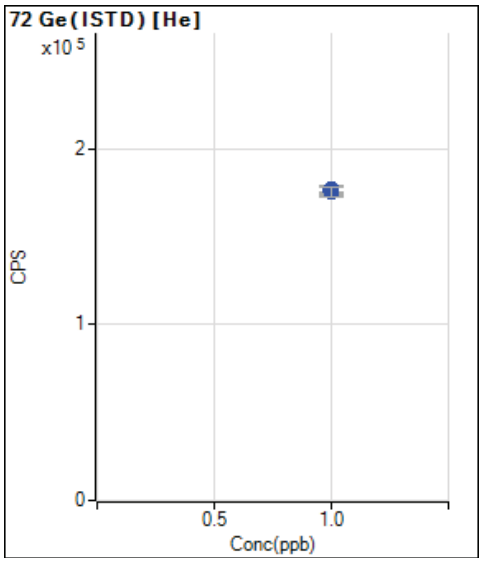
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		6521259.47		P	1.4
2	☐	1.000					
3	☐	1.000		6451904.19		P	0.7
4	☐	1.000					
5	☐	1.000		6481937.52		P	0.9
6	☐	1.000		6458439.88		P	1.2
7	☐	1.000		6576767.65		P	1.6
8	☐	1.000					



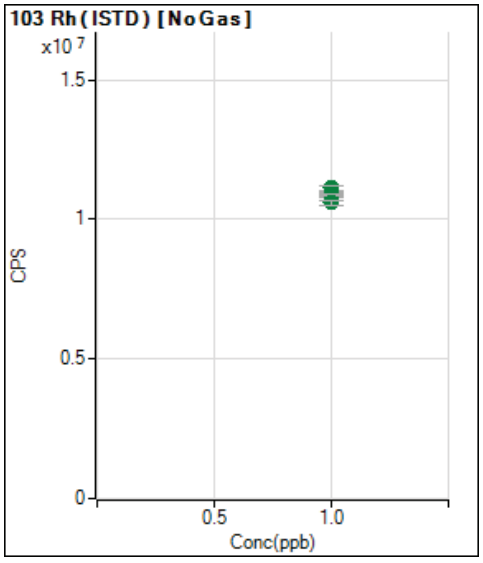
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		211690.36		P	3.5
2	☐	1.000					
3	☐	1.000		211720.28		P	2.5
4	☐	1.000					
5	☐	1.000		212836.70		P	2.2
6	☐	1.000		212359.26		P	2.0
7	☐	1.000		214022.91		P	2.0
8	☐	1.000					



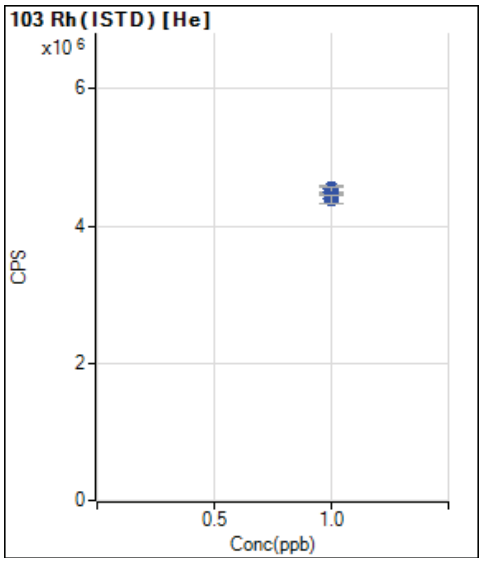
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1727247.40		P	1.5
2	☐	1.000					
3	☐	1.000		1723404.55		P	0.2
4	☐	1.000					
5	☐	1.000		1715135.21		P	0.7
6	☐	1.000		1706967.40		P	1.0
7	☐	1.000		1730427.39		P	1.4
8	☐	1.000					



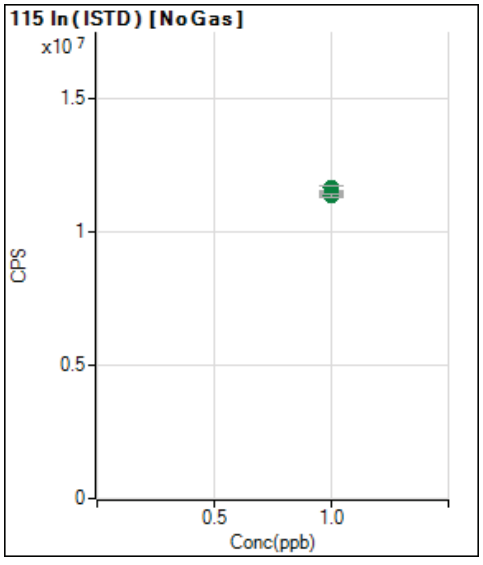
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		176347.38		P	2.8
2	☐	1.000					
3	☐	1.000		176995.50		P	1.8
4	☐	1.000					
5	☐	1.000		176656.96		P	2.1
6	☐	1.000		175575.57		P	2.5
7	☐	1.000		175383.26		P	2.7
8	☐	1.000					



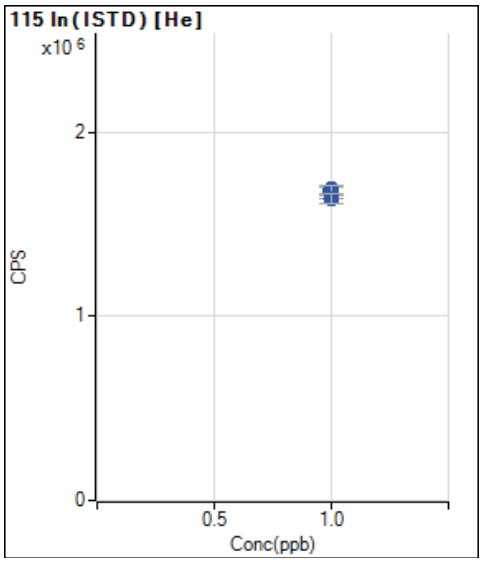
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11127905.11		A	1.4
2	☐	1.000					
3	☐	1.000		10915715.40		A	0.2
4	☐	1.000					
5	☐	1.000		10882885.68		A	1.7
6	☐	1.000		10860573.46		A	0.6
7	☐	1.000		10591230.97		A	1.6
8	☐	1.000					



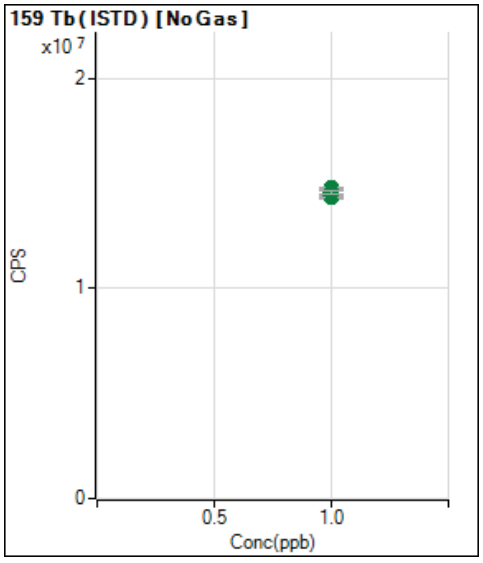
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		4503437.46		P	2.9
2	☐	1.000					
3	☐	1.000		4536073.01		P	1.6
4	☐	1.000					
5	☐	1.000		4532084.96		P	2.2
6	☐	1.000		4501992.74		P	2.7
7	☐	1.000		4395895.10		P	2.7
8	☐	1.000					



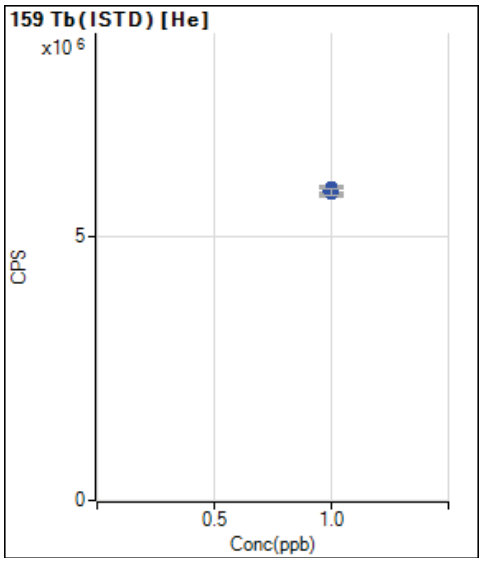
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		11667293.98		A	1.7
2	☐	1.000					
3	☐	1.000		11432814.82		A	0.7
4	☐	1.000					
5	☐	1.000		11470657.05		A	1.0
6	☐	1.000		11468119.82		A	0.8
7	☐	1.000		11369644.83		A	1.1
8	☐	1.000					



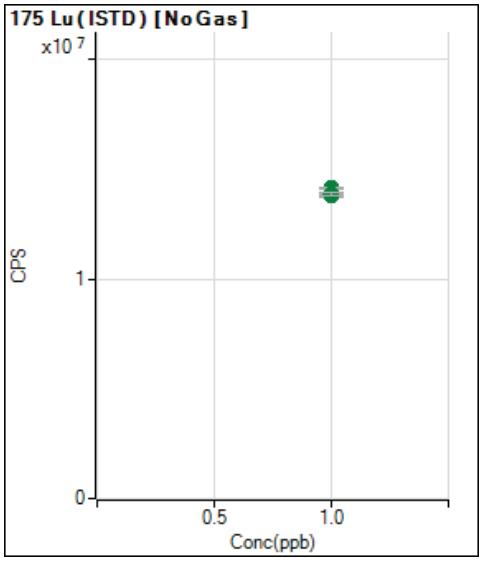
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		1672492.74		P	3.6
2	☐	1.000					
3	☐	1.000		1687676.88		P	2.2
4	☐	1.000					
5	☐	1.000		1689738.65		P	2.8
6	☐	1.000		1684265.10		P	3.1
7	☐	1.000		1637478.72		P	3.4
8	☐	1.000					



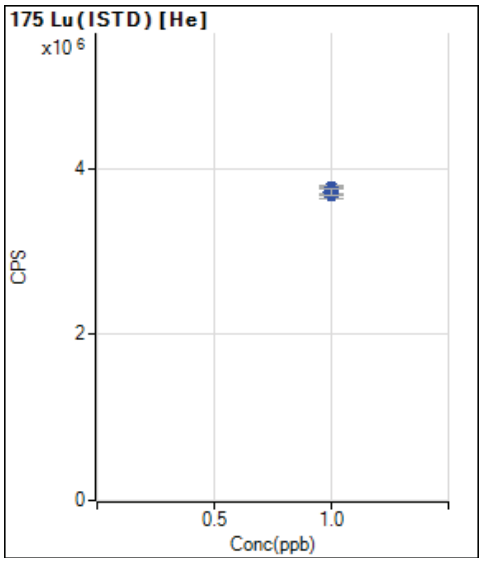
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14769610.61		A	0.9
2	☐	1.000					
3	☐	1.000		14326824.37		A	0.6
4	☐	1.000					
5	☐	1.000		14341039.37		A	1.3
6	☐	1.000		14388503.95		A	0.9
7	☐	1.000		14549752.28		A	1.3
8	☐	1.000					



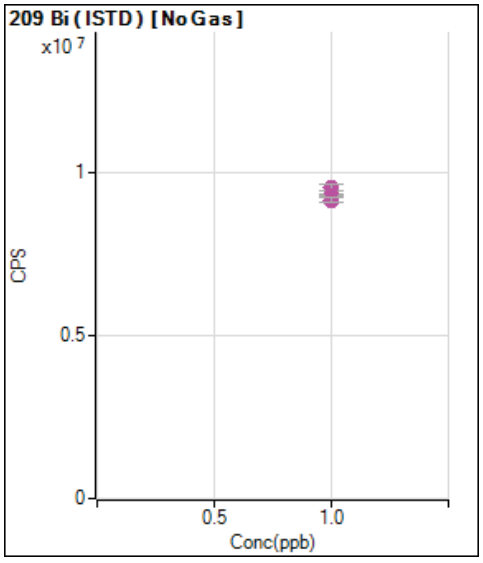
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5848979.71		P	3.0
2	☐	1.000					
3	☐	1.000		5913208.46		P	2.3
4	☐	1.000					
5	☐	1.000		5861190.95		P	3.2
6	☐	1.000		5889544.29		P	2.4
7	☐	1.000		5867610.54		P	2.3
8	☐	1.000					



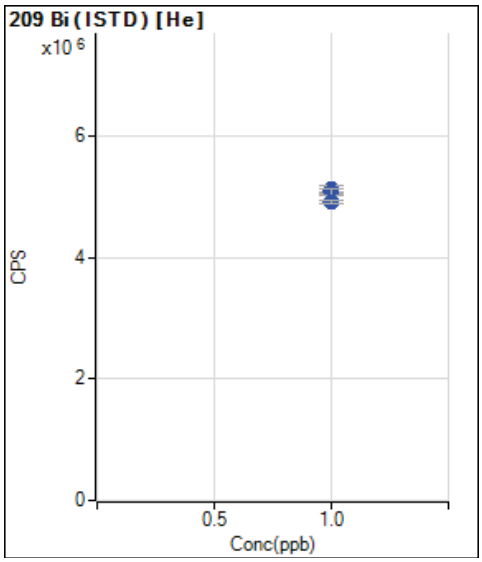
	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		14137126.87		A	0.8
2	☐	1.000					
3	☐	1.000		13782807.71		A	0.1
4	☐	1.000					
5	☐	1.000		13778021.46		A	1.3
6	☐	1.000		13775787.30		A	0.8
7	☐	1.000		13842288.54		A	1.1
8	☐	1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		3704283.70		P	3.3
2		1.000					
3		1.000		3751612.03		P	2.7
4		1.000					
5		1.000		3722769.74		P	2.9
6		1.000		3749673.69		P	2.9
7		1.000		3721117.86		P	2.3
8		1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1		1.000		9529536.53		M	2.0
2		1.000					
3		1.000		9284257.15		A	0.6
4		1.000					
5		1.000		9306297.57		A	0.9
6		1.000		9277532.99		M	0.8
7		1.000		9161954.66		M	1.2
8		1.000					



	Rjct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	1.000		5105979.30		P	2.8
2	☐	1.000					
3	☐	1.000		5118885.45		P	2.0
4	☐	1.000					
5	☐	1.000		5114367.42		P	2.5
6	☐	1.000		5085602.43		P	2.1
7	☐	1.000		4909994.72		P	1.4
8	☐	1.000					

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	001SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:36:40 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He		
Be	9	1	He		
B	11	1	He		
Na	23	2	H2		
Mg	24	2	H2		
Al	27	2	H2		
Si	29	2	H2		
K	39	2	H2		
Ca	44	2	H2		
Ti	47	2	H2		
V	51	2	H2		
Cr	52	2	H2		
Mn	55	2	H2		
Fe	57	2	H2		
Co	59	2	H2		
Ni	60	2	H2		
Cu	63	2	H2		
Zn	66	2	H2		
As	75	2	H2		
Se	78	2	H2		
Sr	88	1	He		
Zr	90	1	He		
Mo	95	1	He		
Ag	107	1	He		
Cd	111	1	He		
(Sn)	118	1	He		
(Sn)	118	2	H2		
Sn	120	2	H2		
Sb	121	1	He		
Ba	137	1	He		
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He		
(Pb)	206	1	He		
(Pb)	207	1	He		
Pb	208	1	He		

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	
Sc	45	1	He	
Sc	45	2	H2	
Ge	72	1	He	
Ge	72	2	H2	
Rh	103	1	He	
Rh	103	2	H2	
In	115	1	He	
In	115	2	H2	
Tb	159	1	He	
Tb	159	2	H2	
Lu	175	1	He	
Lu	175	2	H2	
Bi	209	1	He	
Bi	209	2	H2	

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	002SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:40:13 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He		
Be	9	1	He		
B	11	1	He		
Na	23	2	H2		
Mg	24	2	H2		
Al	27	2	H2		
Si	29	2	H2		
K	39	2	H2		
Ca	44	2	H2		
Ti	47	2	H2		
V	51	2	H2		
Cr	52	2	H2		
Mn	55	2	H2		
Fe	57	2	H2		
Co	59	2	H2		
Ni	60	2	H2		
Cu	63	2	H2		
Zn	66	2	H2		
As	75	2	H2		
Se	78	2	H2		
Sr	88	1	He		
Zr	90	1	He		
Mo	95	1	He		
Ag	107	1	He		
Cd	111	1	He		
(Sn)	118	1	He		
(Sn)	118	2	H2		
Sn	120	2	H2		
Sb	121	1	He		
Ba	137	1	He		
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He		
(Pb)	206	1	He		
(Pb)	207	1	He		
Pb	208	1	He		

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	
Sc	45	1	He	
Sc	45	2	H2	
Ge	72	1	He	
Ge	72	2	H2	
Rh	103	1	He	
Rh	103	2	H2	
In	115	1	He	
In	115	2	H2	
Tb	159	1	He	
Tb	159	2	H2	
Lu	175	1	He	
Lu	175	2	H2	
Bi	209	1	He	
Bi	209	2	H2	

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	003SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:43:46 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He		
Be	9	1	He		
B	11	1	He		
Na	23	2	H2		
Mg	24	2	H2		
Al	27	2	H2		
Si	29	2	H2		
K	39	2	H2		
Ca	44	2	H2		
Ti	47	2	H2		
V	51	2	H2		
Cr	52	2	H2		
Mn	55	2	H2		
Fe	57	2	H2		
Co	59	2	H2		
Ni	60	2	H2		
Cu	63	2	H2		
Zn	66	2	H2		
As	75	2	H2		
Se	78	2	H2		
Sr	88	1	He		
Zr	90	1	He		
Mo	95	1	He		
Ag	107	1	He		
Cd	111	1	He		
(Sn)	118	1	He		
(Sn)	118	2	H2		
Sn	120	2	H2		
Sb	121	1	He		
Ba	137	1	He		
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He		
(Pb)	206	1	He		
(Pb)	207	1	He		
Pb	208	1	He		

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	
Sc	45	1	He	
Sc	45	2	H2	
Ge	72	1	He	
Ge	72	2	H2	
Rh	103	1	He	
Rh	103	2	H2	
In	115	1	He	
In	115	2	H2	
Tb	159	1	He	
Tb	159	2	H2	
Lu	175	1	He	
Lu	175	2	H2	
Bi	209	1	He	
Bi	209	2	H2	

2

Sample Name	CAL0
Sample Type	CalBlk
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	004CALB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:47:19 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.000000	N/A
Be	9	1	He	0.000000	N/A
B	11	1	He	0.000000	N/A
Na	23	2	H2	0.000000	N/A
Mg	24	2	H2	0.000000	N/A
Al	27	2	H2	0.000000	N/A
Si	29	2	H2	0.000000	N/A
K	39	2	H2	0.000000	N/A
Ca	44	2	H2	0.000000	N/A
Ti	47	2	H2	0.000000	N/A
V	51	2	H2	0.000000	N/A
Cr	52	2	H2	0.000000	N/A
Mn	55	2	H2	0.000000	N/A
Fe	57	2	H2	0.000000	N/A
Co	59	2	H2	0.000000	N/A
Ni	60	2	H2	0.000000	N/A
Cu	63	2	H2	0.000000	N/A
Zn	66	2	H2	0.000000	N/A
As	75	2	H2	0.000000	N/A
Se	78	2	H2	0.000000	N/A
Sr	88	1	He	0.000000	N/A
Zr	90	1	He	0.000000	N/A
Mo	95	1	He	0.000000	N/A
Ag	107	1	He	0.000000	N/A
Cd	111	1	He	0.000000	N/A
(Sn)	118	1	He	0.000000	N/A
(Sn)	118	2	H2	0.000000	N/A
Sn	120	2	H2	0.000000	N/A
Sb	121	1	He	0.000000	N/A
Ba	137	1	He	0.000000	N/A
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.000000	N/A
(Pb)	206	1	He	0.000000	N/A
(Pb)	207	1	He	0.000000	N/A
Pb	208	1	He	0.000000	N/A

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	100
Sc	45	1	He	100
Sc	45	2	H2	100
Ge	72	1	He	100
Ge	72	2	H2	100
Rh	103	1	He	100
Rh	103	2	H2	100
In	115	1	He	100
In	115	2	H2	100
Tb	159	1	He	100
Tb	159	2	H2	100
Lu	175	1	He	100
Lu	175	2	H2	100
Bi	209	1	He	100
Bi	209	2	H2	100

2

Sample Name	CAL1
Sample Type	CalStd
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	005CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:50:53 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.542893	27.5
Be	9	1	He	0.091661	9.3
B	11	1	He	0.739915	20.7
Na	23	2	H2	8.108141	9.4
Mg	24	2	H2	8.261234	13.4
Al	27	2	H2	1.535881	41.9
Si	29	2	H2	226.586546	419.7
K	39	2	H2	10.641368	20.4
Ca	44	2	H2	43.469017	37.8
Ti	47	2	H2	0.114088	14.4
V	51	2	H2	0.086752	13.4
Cr	52	2	H2	0.093471	26.4
Mn	55	2	H2	0.485834	16.7
Fe	57	2	H2	9.835864	23.9
Co	59	2	H2	0.093718	17.4
Ni	60	2	H2	0.183338	6.8
Cu	63	2	H2	0.096537	18.6
Zn	66	2	H2	2.000463	10.9
As	75	2	H2	0.080819	35.5
Se	78	2	H2	0.119129	59.6
Sr	88	1	He	0.098952	5.5
Zr	90	1	He	0.088634	7.4
Mo	95	1	He	0.063029	8.9
Ag	107	1	He	0.103601	2.7
Cd	111	1	He	0.104205	20.7
(Sn)	118	1	He	0.086810	3.5
(Sn)	118	2	H2	0.080736	37.8
Sn	120	2	H2	0.074613	12.8
Sb	121	1	He	0.198288	1.4
Ba	137	1	He	0.100696	7.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.084336	7.1
(Pb)	206	1	He	0.096158	6.1
(Pb)	207	1	He	0.094681	7.3
Pb	208	1	He	0.101944	3.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	97.59131685
Sc	45	1	He	98.93647415
Sc	45	2	H2	100.0141354
Ge	72	1	He	99.77751594
Ge	72	2	H2	100.3675246
Rh	103	1	He	98.09317464
Rh	103	2	H2	100.7246809
In	115	1	He	97.99003126
In	115	2	H2	100.9075527
Tb	159	1	He	97.00204526
Tb	159	2	H2	101.0981188
Lu	175	1	He	97.49369748
Lu	175	2	H2	101.2776649
Bi	209	1	He	97.42611434
Bi	209	2	H2	100.2527653

2

Sample Name	CAL2
Sample Type	CalStd
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	006CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:55:08 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	5.342208	7.8
Be	9	1	He	1.022967	1.4
B	11	1	He	10.451699	0.9
Na	23	2	H2	100.130484	0.9
Mg	24	2	H2	102.811212	1.6
Al	27	2	H2	20.888005	3.0
Si	29	2	H2	923.590429	99.3
K	39	2	H2	101.884658	2.3
Ca	44	2	H2	503.540406	5.2
Ti	47	2	H2	1.054447	7.9
V	51	2	H2	0.965285	0.2
Cr	52	2	H2	1.022417	0.7
Mn	55	2	H2	5.181614	1.5
Fe	57	2	H2	101.838619	4.3
Co	59	2	H2	1.032857	0.7
Ni	60	2	H2	2.060891	2.3
Cu	63	2	H2	1.048840	5.8
Zn	66	2	H2	20.746478	1.8
As	75	2	H2	0.967679	3.1
Se	78	2	H2	1.074140	6.1
Sr	88	1	He	0.988433	2.4
Zr	90	1	He	0.949839	0.5
Mo	95	1	He	0.886612	1.9
Ag	107	1	He	1.006019	0.4
Cd	111	1	He	1.017103	2.2
(Sn)	118	1	He	0.965083	0.9
(Sn)	118	2	H2	0.979700	7.9
Sn	120	2	H2	0.946730	4.8
Sb	121	1	He	2.004891	1.0
Ba	137	1	He	0.993928	3.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.942865	1.1
(Pb)	206	1	He	0.985863	0.8
(Pb)	207	1	He	0.980935	0.8
Pb	208	1	He	0.995042	1.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	98.52384719
Sc	45	1	He	99.39701913
Sc	45	2	H2	100.5415189
Ge	72	1	He	99.29875766
Ge	72	2	H2	100.1755512
Rh	103	1	He	97.79815310
Rh	103	2	H2	100.6361251
In	115	1	He	98.31178235
In	115	2	H2	101.0272073
Tb	159	1	He	97.09829016
Tb	159	2	H2	100.2087756
Lu	175	1	He	97.45984161
Lu	175	2	H2	100.4990449
Bi	209	1	He	97.65739964
Bi	209	2	H2	100.1642804

2

Sample Name	CAL3
Sample Type	CalStd
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	007CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 10:58:52 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	53.841988	0.9
Be	9	1	He	10.211244	0.1
B	11	1	He	53.719383	1.3
Na	23	2	H2	1009.084155	0.8
Mg	24	2	H2	1013.923215	1.9
Al	27	2	H2	204.031271	2.7
Si	29	2	H2	2596.461879	27.7
K	39	2	H2	1026.049275	0.9
Ca	44	2	H2	5093.121187	1.1
Ti	47	2	H2	9.992498	0.9
V	51	2	H2	9.943335	2.9
Cr	52	2	H2	9.984693	2.3
Mn	55	2	H2	51.016849	1.2
Fe	57	2	H2	1006.222298	2.8
Co	59	2	H2	10.144137	3.0
Ni	60	2	H2	20.517301	1.9
Cu	63	2	H2	10.371076	1.7
Zn	66	2	H2	204.723402	1.3
As	75	2	H2	10.179027	1.2
Se	78	2	H2	10.176425	2.8
Sr	88	1	He	10.032421	0.9
Zr	90	1	He	9.977341	0.1
Mo	95	1	He	9.589272	0.5
Ag	107	1	He	10.025194	0.4
Cd	111	1	He	10.019198	1.3
(Sn)	118	1	He	9.803799	0.9
(Sn)	118	2	H2	9.785861	2.3
Sn	120	2	H2	9.733961	2.2
Sb	121	1	He	19.821234	1.0
Ba	137	1	He	9.902242	0.4
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.781468	0.7
(Pb)	206	1	He	9.922527	0.7
(Pb)	207	1	He	9.947788	0.8
Pb	208	1	He	9.909957	0.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	99.03412578
Sc	45	1	He	99.03669553
Sc	45	2	H2	100.3159835
Ge	72	1	He	98.82587752
Ge	72	2	H2	99.56233731
Rh	103	1	He	97.59764618
Rh	103	2	H2	99.96791961
In	115	1	He	98.26396024
In	115	2	H2	100.6645859
Tb	159	1	He	97.41965668
Tb	159	2	H2	100.6935325
Lu	175	1	He	97.44403809
Lu	175	2	H2	101.2253380
Bi	209	1	He	97.35555306
Bi	209	2	H2	99.60092134

2

Sample Name	CAL4
Sample Type	CalStd
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	008CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:02:37 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	267.013347	2.2
Be	9	1	He	52.416336	0.8
B	11	1	He	270.260012	0.9
Na	23	2	H2	5221.732340	0.6
Mg	24	2	H2	5127.765650	0.4
Al	27	2	H2	1032.912893	0.7
Si	29	2	H2	5264.894267	13.6
K	39	2	H2	5205.162837	0.7
Ca	44	2	H2	26043.70387	0.8
Ti	47	2	H2	51.686938	1.1
V	51	2	H2	51.565791	1.1
Cr	52	2	H2	52.089587	1.9
Mn	55	2	H2	259.808603	0.9
Fe	57	2	H2	5158.910122	1.1
Co	59	2	H2	51.865848	0.9
Ni	60	2	H2	103.986602	0.8
Cu	63	2	H2	52.278728	0.4
Zn	66	2	H2	1046.081781	0.8
As	75	2	H2	52.027238	0.3
Se	78	2	H2	26.318361	2.0
Sr	88	1	He	51.221487	0.7
Zr	90	1	He	51.437882	0.8
Mo	95	1	He	51.028131	0.5
Ag	107	1	He	51.968618	0.3
Cd	111	1	He	51.818151	0.3
(Sn)	118	1	He	51.562893	1.1
(Sn)	118	2	H2	51.120053	0.4
Sn	120	2	H2	50.788340	0.5
Sb	121	1	He	102.127179	1.7
Ba	137	1	He	51.727775	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	50.965741	0.2
(Pb)	206	1	He	50.897244	0.2
(Pb)	207	1	He	50.914376	0.4
Pb	208	1	He	51.495956	0.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	102.4099690
Sc	45	1	He	99.30838600
Sc	45	2	H2	100.4632930
Ge	72	1	He	98.97972288
Ge	72	2	H2	99.02798478
Rh	103	1	He	95.19755891
Rh	103	2	H2	97.61272181
In	115	1	He	96.45656563
In	115	2	H2	98.56774224
Tb	159	1	He	97.82810796
Tb	159	2	H2	100.3753218
Lu	175	1	He	97.67771651
Lu	175	2	H2	100.4232429
Bi	209	1	He	96.07646626
Bi	209	2	H2	96.92667105

2

Sample Name	CAL5
Sample Type	CalStd
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	009CALS.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:06:20 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	499.612336	0.5
Be	9	1	He	99.978654	0.4
B	11	1	He	499.619548	1.8
Na	23	2	H2	9999.092172	0.3
Mg	24	2	H2	9998.581305	1.0
Al	27	2	H2	1999.588457	0.3
Si	29	2	H2	9865.822642	9.3
K	39	2	H2	9997.375585	0.4
Ca	44	2	H2	49990.65900	0.6
Ti	47	2	H2	100.000192	0.4
V	51	2	H2	100.006027	0.9
Cr	52	2	H2	100.001313	1.3
Mn	55	2	H2	499.896513	0.7
Fe	57	2	H2	9999.359548	0.5
Co	59	2	H2	99.985264	0.7
Ni	60	2	H2	199.947678	0.6
Cu	63	2	H2	99.962407	0.3
Zn	66	2	H2	1999.520195	0.7
As	75	2	H2	99.982440	0.1
Se	78	2	H2	49.963194	0.2
Sr	88	1	He	99.996875	0.3
Zr	90	1	He	100.002779	0.6
Mo	95	1	He	100.042244	0.9
Ag	107	1	He	99.997417	0.7
Cd	111	1	He	99.997905	1.3
(Sn)	118	1	He	100.019982	1.1
(Sn)	118	2	H2	100.021636	0.9
Sn	120	2	H2	100.027162	0.3
Sb	121	1	He	200.017829	1.3
Ba	137	1	He	100.009836	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	100.022440	1.3
(Pb)	206	1	He	100.007892	0.5
(Pb)	207	1	He	100.005417	0.4
Pb	208	1	He	100.009052	1.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	108.3502361
Sc	45	1	He	100.8511881
Sc	45	2	H2	101.1018719
Ge	72	1	He	100.1841075
Ge	72	2	H2	99.45328550
Rh	103	1	He	95.17722211
Rh	103	2	H2	97.61199392
In	115	1	He	97.15707941
In	115	2	H2	97.51734097
Tb	159	1	He	98.51141417
Tb	159	2	H2	100.3185312
Lu	175	1	He	97.91443952
Lu	175	2	H2	100.4544513
Bi	209	1	He	96.14270988
Bi	209	2	H2	96.16166520

2

Sample Name	ICV
Sample Type	ICV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	010_ICV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:09:59 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	271.235068	1.7
Be	9	1	He	51.509146	0.1
B	11	1	He	268.216938	0.9
Na	23	2	H2	5322.429620	0.4
Mg	24	2	H2	5208.175048	0.8
Al	27	2	H2	1039.884658	0.8
Si	29	2	H2	3628.003230	32.8
K	39	2	H2	5161.074546	0.4
Ca	44	2	H2	25710.92186	0.2
Ti	47	2	H2	51.121951	1.1
V	51	2	H2	51.162040	1.6
Cr	52	2	H2	51.404984	0.7
Mn	55	2	H2	51.253812	0.4
Fe	57	2	H2	5159.576258	1.0
Co	59	2	H2	52.417094	0.7
Ni	60	2	H2	104.973909	0.4
Cu	63	2	H2	54.272478	1.2
Zn	66	2	H2	1040.882740	0.8
As	75	2	H2	50.592229	0.9
Se	78	2	H2	25.271358	0.7
Sr	88	1	He	50.711622	0.4
Zr	90	1	He	47.595456	0.5
Mo	95	1	He	50.613746	0.5
Ag	107	1	He	53.179654	1.2
Cd	111	1	He	51.156352	1.2
(Sn)	118	1	He	51.217110	0.9
(Sn)	118	2	H2	50.915175	1.2
Sn	120	2	H2	50.753438	0.8
Sb	121	1	He	53.064633	0.6
Ba	137	1	He	51.924105	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	50.906603	0.5
(Pb)	206	1	He	50.205426	0.9
(Pb)	207	1	He	50.638257	0.9
Pb	208	1	He	50.473305	0.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	105.1068934
Sc	45	1	He	101.8428464
Sc	45	2	H2	100.8348908
Ge	72	1	He	100.8918369
Ge	72	2	H2	99.44041318
Rh	103	1	He	97.57261149
Rh	103	2	H2	98.58043015
In	115	1	He	98.86955031
In	115	2	H2	98.30070301
Tb	159	1	He	99.12257054
Tb	159	2	H2	99.19514805
Lu	175	1	He	99.78557347
Lu	175	2	H2	98.48068638
Bi	209	1	He	97.47397214
Bi	209	2	H2	96.41416322

Sample Name	ICB
Sample Type	ICB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	011_ICB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:13:39 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.157598	21.7
Be	9	1	He	0.007108	33.7
B	11	1	He	1.814714	14.0
Na	23	2	H2	1.466375	2.7
Mg	24	2	H2	0.857490	51.6
Al	27	2	H2	0.134737	67.0
Si	29	2	H2	-2068.77043	
K	39	2	H2	-15.824823	
Ca	44	2	H2	-22.281138	
Ti	47	2	H2	0.019844	163.7
V	51	2	H2	-0.011069	
Cr	52	2	H2	0.014474	74.6
Mn	55	2	H2	0.005804	182.1
Fe	57	2	H2	1.439926	81.6
Co	59	2	H2	0.004674	40.1
Ni	60	2	H2	0.000480	2165.4
Cu	63	2	H2	0.011516	67.0
Zn	66	2	H2	0.138980	52.0
As	75	2	H2	-0.047697	
Se	78	2	H2	0.066868	163.5
Sr	88	1	He	0.011956	21.0
Zr	90	1	He	0.017145	24.1
Mo	95	1	He	0.038870	8.5
Ag	107	1	He	0.017289	36.5
Cd	111	1	He	0.008786	102.0
(Sn)	118	1	He	-0.025941	
(Sn)	118	2	H2	-0.046289	
Sn	120	2	H2	-0.038394	
Sb	121	1	He	0.095389	9.0
Ba	137	1	He	0.013069	26.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.023953	
(Pb)	206	1	He	0.018865	10.3
(Pb)	207	1	He	0.014385	18.8
Pb	208	1	He	0.016984	28.5

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	101.3324509
Sc	45	1	He	99.71215509
Sc	45	2	H2	100.5026146
Ge	72	1	He	99.97395296
Ge	72	2	H2	99.21646315
Rh	103	1	He	99.82357416
Rh	103	2	H2	99.94604736
In	115	1	He	99.80319071
In	115	2	H2	98.36036348
Tb	159	1	He	99.76026506
Tb	159	2	H2	98.18591221
Lu	175	1	He	99.23543224
Lu	175	2	H2	97.53182997
Bi	209	1	He	99.33806242
Bi	209	2	H2	97.35021859

Sample Name	CRDL
Sample Type	LLCCV0.1
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	0120.1.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:17:15 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.615732	4.5
Be	9	1	He	0.098556	11.6
B	11	1	He	1.608729	15.3
Na	23	2	H2	10.129182	3.2
Mg	24	2	H2	10.745069	3.3
Al	27	2	H2	1.757135	23.0
Si	29	2	H2	-769.249848	
K	39	2	H2	0.736310	211.3
Ca	44	2	H2	38.394232	25.8
Ti	47	2	H2	0.142572	24.0
V	51	2	H2	0.088020	19.9
Cr	52	2	H2	0.100750	16.0
Mn	55	2	H2	0.520799	5.0
Fe	57	2	H2	9.511277	11.2
Co	59	2	H2	0.104364	6.1
Ni	60	2	H2	0.210633	9.3
Cu	63	2	H2	0.113021	8.8
Zn	66	2	H2	2.367820	1.2
As	75	2	H2	0.020452	100.4
Se	78	2	H2	0.092237	16.8
Sr	88	1	He	0.095845	6.6
Zr	90	1	He	0.097221	1.2
Mo	95	1	He	0.043661	40.7
Ag	107	1	He	0.102931	6.1
Cd	111	1	He	0.087663	12.9
(Sn)	118	1	He	0.031744	18.3
(Sn)	118	2	H2	0.032981	27.3
Sn	120	2	H2	0.035274	36.8
Sb	121	1	He	0.236753	2.7
Ba	137	1	He	0.108053	3.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.029845	14.4
(Pb)	206	1	He	0.095409	6.0
(Pb)	207	1	He	0.092752	10.1
Pb	208	1	He	0.107712	0.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	100.1786024
Sc	45	1	He	100.4073790
Sc	45	2	H2	99.69330361
Ge	72	1	He	100.2002120
Ge	72	2	H2	98.93453665
Rh	103	1	He	99.68132417
Rh	103	2	H2	99.14295097
In	115	1	He	99.81568156
In	115	2	H2	97.41427851
Tb	159	1	He	99.13627549
Tb	159	2	H2	97.68624529
Lu	175	1	He	98.71185226
Lu	175	2	H2	97.01883434
Bi	209	1	He	99.72142968
Bi	209	2	H2	96.96898660

Sample Name	CRDLB
Sample Type	LLCCV0.5
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1210.5.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:20:48 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	2.803789	9.5
Be	9	1	He	0.485074	3.5
B	11	1	He	6.197453	3.1
Na	23	2	H2	52.166404	3.3
Mg	24	2	H2	52.614584	2.3
Al	27	2	H2	10.742321	9.8
Si	29	2	H2	135.889813	1329.5
K	39	2	H2	45.959222	2.0
Ca	44	2	H2	252.661938	5.0
Ti	47	2	H2	0.492010	6.2
V	51	2	H2	0.491580	5.2
Cr	52	2	H2	0.513231	2.2
Mn	55	2	H2	2.605320	1.1
Fe	57	2	H2	51.869513	2.0
Co	59	2	H2	0.515277	2.3
Ni	60	2	H2	1.018976	5.4
Cu	63	2	H2	0.542393	2.0
Zn	66	2	H2	10.679823	1.8
As	75	2	H2	0.424164	6.1
Se	78	2	H2	0.465182	8.0
Sr	88	1	He	0.498286	2.4
Zr	90	1	He	0.481089	1.0
Mo	95	1	He	0.418895	3.3
Ag	107	1	He	0.498368	2.1
Cd	111	1	He	0.498811	2.0
(Sn)	118	1	He	0.437288	2.2
(Sn)	118	2	H2	0.445890	8.4
Sn	120	2	H2	0.449637	2.5
Sb	121	1	He	1.015675	2.5
Ba	137	1	He	0.490619	3.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.416784	0.8
(Pb)	206	1	He	0.487969	2.0
(Pb)	207	1	He	0.502764	6.8
Pb	208	1	He	0.500441	3.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	98.56895349
Sc	45	1	He	100.1285538
Sc	45	2	H2	100.6672434
Ge	72	1	He	99.67216026
Ge	72	2	H2	99.19276372
Rh	103	1	He	99.63554338
Rh	103	2	H2	99.81038254
In	115	1	He	99.31781818
In	115	2	H2	97.67834411
Tb	159	1	He	98.81495129
Tb	159	2	H2	97.81422345
Lu	175	1	He	98.45321295
Lu	175	2	H2	97.55800741
Bi	209	1	He	99.11278259
Bi	209	2	H2	96.80287214

Sample Name	CRDLA
Sample Type	LLCCV1
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1211CCV1.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:24:21 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	5.480009	2.5
Be	9	1	He	1.009111	1.9
B	11	1	He	11.249042	2.9
Na	23	2	H2	105.050429	1.6
Mg	24	2	H2	104.646924	1.4
Al	27	2	H2	20.657658	6.2
Si	29	2	H2	357.511446	432.9
K	39	2	H2	98.978065	3.1
Ca	44	2	H2	500.610821	2.1
Ti	47	2	H2	1.020585	8.8
V	51	2	H2	1.007255	0.8
Cr	52	2	H2	1.014882	3.3
Mn	55	2	H2	5.189456	0.4
Fe	57	2	H2	102.448166	2.1
Co	59	2	H2	1.042703	1.1
Ni	60	2	H2	2.071849	0.6
Cu	63	2	H2	1.087235	0.1
Zn	66	2	H2	21.319493	2.1
As	75	2	H2	0.921926	0.6
Se	78	2	H2	0.908624	9.9
Sr	88	1	He	1.009041	0.8
Zr	90	1	He	0.975296	1.6
Mo	95	1	He	0.859267	1.8
Ag	107	1	He	1.017202	1.7
Cd	111	1	He	0.991670	1.6
(Sn)	118	1	He	0.918566	1.1
(Sn)	118	2	H2	0.934196	1.9
Sn	120	2	H2	0.916283	3.7
Sb	121	1	He	2.026750	1.8
Ba	137	1	He	0.992031	3.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.894830	1.5
(Pb)	206	1	He	0.989560	1.8
(Pb)	207	1	He	1.003119	1.4
Pb	208	1	He	1.008788	1.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	99.85120310
Sc	45	1	He	100.3283086
Sc	45	2	H2	100.8860378
Ge	72	1	He	100.0992525
Ge	72	2	H2	99.72622218
Rh	103	1	He	100.1138479
Rh	103	2	H2	99.81112583
In	115	1	He	99.59165625
In	115	2	H2	97.92905012
Tb	159	1	He	99.47422163
Tb	159	2	H2	97.59093664
Lu	175	1	He	99.48195508
Lu	175	2	H2	96.71900975
Bi	209	1	He	99.58749522
Bi	209	2	H2	97.23706080

Sample Name	ICSA
Sample Type	ICSA
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1212ICSA.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:27:57 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	-0.115416	
Be	9	1	He	-0.022790	
B	11	1	He	0.792526	20.2
Na	23	2	H2	2536.522688	1.1
Mg	24	2	H2	1022.637525	0.8
Al	27	2	H2	1008.050619	1.1
Si	29	2	H2	40.752573	3510.9
K	39	2	H2	1007.869186	1.9
Ca	44	2	H2	2927.467899	0.6
Ti	47	2	H2	19.398984	1.5
V	51	2	H2	-0.012259	
Cr	52	2	H2	0.009406	70.3
Mn	55	2	H2	0.052791	30.1
Fe	57	2	H2	2489.727131	0.4
Co	59	2	H2	0.025319	19.7
Ni	60	2	H2	0.010376	174.6
Cu	63	2	H2	0.014759	32.6
Zn	66	2	H2	0.380563	19.7
As	75	2	H2	-0.079824	
Se	78	2	H2	-0.061021	
Sr	88	1	He	0.020262	12.3
Zr	90	1	He	0.048773	7.4
Mo	95	1	He	18.630757	0.9
Ag	107	1	He	0.002715	40.8
Cd	111	1	He	0.007906	90.6
(Sn)	118	1	He	-0.049159	
(Sn)	118	2	H2	-0.044237	
Sn	120	2	H2	-0.043634	
Sb	121	1	He	-0.002018	
Ba	137	1	He	0.005848	26.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.077379	
(Pb)	206	1	He	0.001978	108.1
(Pb)	207	1	He	-0.001046	
Pb	208	1	He	0.006706	30.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	98.21130385
Sc	45	1	He	100.2418116
Sc	45	2	H2	100.0376398
Ge	72	1	He	100.5262585
Ge	72	2	H2	99.16764095
Rh	103	1	He	98.10766778
Rh	103	2	H2	97.92351218
In	115	1	He	99.33700611
In	115	2	H2	97.40216337
Tb	159	1	He	98.96816000
Tb	159	2	H2	97.40208604
Lu	175	1	He	98.34850047
Lu	175	2	H2	96.15114810
Bi	209	1	He	98.30874076
Bi	209	2	H2	95.29974677

2

Sample Name	ICSAB
Sample Type	ICSB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1213ICSB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:31:30 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	21.989152	1.5
Be	9	1	He	-0.017674	
B	11	1	He	22.664412	1.3
Na	23	2	H2	2561.553179	0.8
Mg	24	2	H2	1019.467508	0.1
Al	27	2	H2	1004.183658	0.8
Si	29	2	H2	1628.110782	90.1
K	39	2	H2	1009.326277	0.6
Ca	44	2	H2	2964.610387	0.9
Ti	47	2	H2	19.535603	1.2
V	51	2	H2	19.045557	0.7
Cr	52	2	H2	19.495016	1.1
Mn	55	2	H2	20.673388	1.0
Fe	57	2	H2	2468.853561	0.6
Co	59	2	H2	19.620056	0.9
Ni	60	2	H2	20.059962	0.9
Cu	63	2	H2	20.364339	0.6
Zn	66	2	H2	26.846540	1.5
As	75	2	H2	9.702932	2.3
Se	78	2	H2	9.301490	1.7
Sr	88	1	He	9.566569	0.7
Zr	90	1	He	19.031216	1.1
Mo	95	1	He	18.595017	1.3
Ag	107	1	He	5.037794	1.1
Cd	111	1	He	10.983271	1.3
(Sn)	118	1	He	9.419385	0.7
(Sn)	118	2	H2	9.447644	0.9
Sn	120	2	H2	9.398545	0.4
Sb	121	1	He	0.002549	61.9
Ba	137	1	He	0.015173	9.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.076006	
(Pb)	206	1	He	0.006840	5.8
(Pb)	207	1	He	0.006317	35.3
Pb	208	1	He	0.004928	62.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	95.96527659
Sc	45	1	He	99.79516564
Sc	45	2	H2	100.0476954
Ge	72	1	He	100.0242256
Ge	72	2	H2	99.28686964
Rh	103	1	He	98.02402421
Rh	103	2	H2	98.31149973
In	115	1	He	99.08136481
In	115	2	H2	97.79967824
Tb	159	1	He	98.24048340
Tb	159	2	H2	97.06674978
Lu	175	1	He	98.04395665
Lu	175	2	H2	96.25970485
Bi	209	1	He	97.64007414
Bi	209	2	H2	95.64753144

2

Sample Name	LDR
Sample Type	QC1
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1214_QC1.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:35:06 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.878329	33.7
Be	9	1	He	955.200066	1.2
B	11	1	He	1.642591	9.7
Na	23	2	H2	98733.14102	1.4
Mg	24	2	H2	96383.78734	0.5
Al	27	2	H2	19817.36370	0.5
Si	29	2	H2	526.755228	310.5
K	39	2	H2	99770.37948	0.4
Ca	44	2	H2	496463.0011	0.3
Ti	47	2	H2	976.039144	0.7
V	51	2	H2	1006.946904	0.6
Cr	52	2	H2	984.094020	0.4
Mn	55	2	H2	4861.241897	0.3
Fe	57	2	H2	96661.01935	0.4
Co	59	2	H2	961.282514	0.5
Ni	60	2	H2	1907.522939	0.6
Cu	63	2	H2	923.827433	0.8
Zn	66	2	H2	18692.27440	0.4
As	75	2	H2	985.718790	0.2
Se	78	2	H2	0.214673	18.8
Sr	88	1	He	966.460712	0.7
Zr	90	1	He	0.571436	27.6
Mo	95	1	He	1013.055236	0.2
Ag	107	1	He	0.043826	7.9
Cd	111	1	He	977.422079	0.8
(Sn)	118	1	He	989.642877	0.1
(Sn)	118	2	H2	1018.170100	0.3
Sn	120	2	H2	1015.817506	0.2
Sb	121	1	He	992.998214	0.4
Ba	137	1	He	983.351971	0.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	977.583811	1.0
(Pb)	206	1	He	980.749289	1.0
(Pb)	207	1	He	994.009604	1.6
Pb	208	1	He	991.710330	0.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	88.66158339
Sc	45	1	He	96.50746795
Sc	45	2	H2	98.90959133
Ge	72	1	He	94.21325784
Ge	72	2	H2	96.07887560
Rh	103	1	He	87.38920872
Rh	103	2	H2	89.55527214
In	115	1	He	88.96596260
In	115	2	H2	90.41627031
Tb	159	1	He	91.85726120
Tb	159	2	H2	94.18390379
Lu	175	1	He	92.38774498
Lu	175	2	H2	95.25644620
Bi	209	1	He	86.09179054
Bi	209	2	H2	87.69857070

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1215SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:38:39 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.533342	21.8
Be	9	1	He	0.278284	19.0
B	11	1	He	0.709364	28.6
Na	23	2	H2	14.996461	23.8
Mg	24	2	H2	7.735764	31.7
Al	27	2	H2	1.685589	34.6
Si	29	2	H2	-2735.19146	
K	39	2	H2	-1.701120	
Ca	44	2	H2	2.587192	586.2
Ti	47	2	H2	0.129783	24.3
V	51	2	H2	0.039385	87.7
Cr	52	2	H2	0.101161	26.1
Mn	55	2	H2	0.346358	39.3
Fe	57	2	H2	8.706521	26.1
Co	59	2	H2	0.074544	45.2
Ni	60	2	H2	0.134953	41.7
Cu	63	2	H2	0.101795	34.2
Zn	66	2	H2	1.890646	34.8
As	75	2	H2	0.235587	20.3
Se	78	2	H2	0.007542	764.8
Sr	88	1	He	0.209053	25.7
Zr	90	1	He	-0.004053	
Mo	95	1	He	1.206057	11.6
Ag	107	1	He	0.002540	32.6
Cd	111	1	He	0.259449	24.7
(Sn)	118	1	He	0.305620	16.6
(Sn)	118	2	H2	0.139274	23.5
Sn	120	2	H2	0.166164	25.1
Sb	121	1	He	2.002064	12.2
Ba	137	1	He	0.195234	27.3
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.209370	31.3
(Pb)	206	1	He	0.255034	21.7
(Pb)	207	1	He	0.253578	22.0
Pb	208	1	He	0.262797	20.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	103.2906328
Sc	45	1	He	98.34611876
Sc	45	2	H2	97.06243271
Ge	72	1	He	98.64133939
Ge	72	2	H2	96.58459147
Rh	103	1	He	98.32685393
Rh	103	2	H2	97.07220885
In	115	1	He	98.81207047
In	115	2	H2	96.03467566
Tb	159	1	He	98.27029971
Tb	159	2	H2	95.95850811
Lu	175	1	He	97.77103757
Lu	175	2	H2	95.94369117
Bi	209	1	He	97.35832073
Bi	209	2	H2	95.55255293

2

Sample Name	1411104_1050
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1216SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:42:13 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.467201	27.4
Be	9	1	He	0.024218	24.8
B	11	1	He	3.211285	5.9
Na	23	2	H2	27.782808	4.5
Mg	24	2	H2	1.797643	17.3
Al	27	2	H2	1.125907	46.5
Si	29	2	H2	-2771.26191	
K	39	2	H2	-8.789891	
Ca	44	2	H2	-16.740030	
Ti	47	2	H2	0.151610	129.8
V	51	2	H2	0.008247	119.1
Cr	52	2	H2	0.002643	578.5
Mn	55	2	H2	0.374280	5.0
Fe	57	2	H2	1.062115	17.4
Co	59	2	H2	0.002817	33.0
Ni	60	2	H2	0.039182	32.0
Cu	63	2	H2	0.057218	7.6
Zn	66	2	H2	3.781393	2.4
As	75	2	H2	0.040332	35.5
Se	78	2	H2	0.053269	127.5
Sr	88	1	He	0.011138	36.7
Zr	90	1	He	0.002092	161.6
Mo	95	1	He	0.249571	7.4
Ag	107	1	He	0.003897	27.9
Cd	111	1	He	0.025677	18.9
(Sn)	118	1	He	0.020530	23.2
(Sn)	118	2	H2	0.016460	145.4
Sn	120	2	H2	0.016398	73.4
Sb	121	1	He	0.748510	2.9
Ba	137	1	He	0.334462	5.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.047362	
(Pb)	206	1	He	0.030548	31.5
(Pb)	207	1	He	0.025473	13.6
Pb	208	1	He	0.026892	5.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	99.50757692
Sc	45	1	He	97.70458031
Sc	45	2	H2	96.24584536
Ge	72	1	He	98.01228764
Ge	72	2	H2	95.97766249
Rh	103	1	He	98.56223318
Rh	103	2	H2	97.28996221
In	115	1	He	98.07637427
In	115	2	H2	94.67198582
Tb	159	1	He	97.76490950
Tb	159	2	H2	95.36855126
Lu	175	1	He	97.62313799
Lu	175	2	H2	94.64399661
Bi	209	1	He	98.42260383
Bi	209	2	H2	94.83163755

Sample Name	1411105_1050
Sample Type	LCS6020
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1217SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:45:46 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	295.797543	1.2
Be	9	1	He	47.369619	1.0
B	11	1	He	300.186006	1.2
Na	23	2	H2	4997.363343	0.4
Mg	24	2	H2	4870.413599	1.2
Al	27	2	H2	965.137635	1.2
Si	29	2	H2	2627.742840	35.1
K	39	2	H2	4810.974656	0.9
Ca	44	2	H2	24004.82007	0.9
Ti	47	2	H2	46.483160	1.5
V	51	2	H2	48.243477	1.0
Cr	52	2	H2	48.571088	0.6
Mn	55	2	H2	48.860394	0.4
Fe	57	2	H2	4819.577106	0.5
Co	59	2	H2	48.850329	0.8
Ni	60	2	H2	98.711124	0.8
Cu	63	2	H2	49.113578	0.3
Zn	66	2	H2	970.073240	0.4
As	75	2	H2	47.929648	0.6
Se	78	2	H2	9.247876	1.5
Sr	88	1	He	48.208196	0.1
Zr	90	1	He	9.689880	0.3
Mo	95	1	He	47.911343	0.9
Ag	107	1	He	48.616147	1.2
Cd	111	1	He	47.895413	0.6
(Sn)	118	1	He	47.626218	1.3
(Sn)	118	2	H2	48.088096	1.3
Sn	120	2	H2	47.864213	0.8
Sb	121	1	He	97.946501	1.4
Ba	137	1	He	48.047111	2.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	47.032463	1.8
(Pb)	206	1	He	47.639184	0.8
(Pb)	207	1	He	47.823647	0.6
Pb	208	1	He	47.481237	1.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	102.3452574
Sc	45	1	He	99.83268819
Sc	45	2	H2	99.85062616
Ge	72	1	He	99.26862166
Ge	72	2	H2	98.35943122
Rh	103	1	He	96.89536263
Rh	103	2	H2	96.89062222
In	115	1	He	97.87239531
In	115	2	H2	95.68955542
Tb	159	1	He	98.59093274
Tb	159	2	H2	97.69314820
Lu	175	1	He	98.77022984
Lu	175	2	H2	96.11754106
Bi	209	1	He	96.93767244
Bi	209	2	H2	93.99374526

Sample Name	20285620001_1050x10
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1218SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:49:20 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.776908	30.8
Be	9	1	He	0.009868	158.9
B	11	1	He	2.285968	6.5
Na	23	2	H2	9720.586784	0.6
Mg	24	2	H2	113.606506	0.3
Al	27	2	H2	9.780976	2.6
Si	29	2	H2	-1676.13924	
K	39	2	H2	29.831729	9.0
Ca	44	2	H2	199.655846	13.5
Ti	47	2	H2	-0.012196	
V	51	2	H2	-0.022170	
Cr	52	2	H2	0.409767	5.0
Mn	55	2	H2	77.419921	0.8
Fe	57	2	H2	2380.719809	0.9
Co	59	2	H2	0.269095	2.3
Ni	60	2	H2	2.446566	0.7
Cu	63	2	H2	9.376357	0.7
Zn	66	2	H2	51.699056	0.8
As	75	2	H2	-0.030220	
Se	78	2	H2	-0.002846	
Sr	88	1	He	1.507438	0.6
Zr	90	1	He	0.007161	11.2
Mo	95	1	He	0.081127	16.1
Ag	107	1	He	0.016580	17.3
Cd	111	1	He	0.027860	17.7
(Sn)	118	1	He	-0.018432	
(Sn)	118	2	H2	-0.050426	
Sn	120	2	H2	-0.037535	
Sb	121	1	He	0.181305	2.8
Ba	137	1	He	0.902733	2.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.032328	
(Pb)	206	1	He	0.038181	19.6
(Pb)	207	1	He	0.028931	10.0
Pb	208	1	He	0.035265	15.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	96.28377243
Sc	45	1	He	100.4107569
Sc	45	2	H2	102.5757715
Ge	72	1	He	100.8166915
Ge	72	2	H2	101.3316425
Rh	103	1	He	99.07031021
Rh	103	2	H2	100.1219777
In	115	1	He	100.1573826
In	115	2	H2	99.70159179
Tb	159	1	He	99.38360767
Tb	159	2	H2	98.61124639
Lu	175	1	He	99.41245136
Lu	175	2	H2	97.79545493
Bi	209	1	He	97.87451408
Bi	209	2	H2	97.32248757

2

Sample Name	1411106_1050x10
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1219SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:52:53 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	31.489966	2.5
Be	9	1	He	4.395231	1.6
B	11	1	He	34.450855	1.2
Na	23	2	H2	10225.33107	0.8
Mg	24	2	H2	601.298330	1.4
Al	27	2	H2	107.283279	1.6
Si	29	2	H2	2052.369957	66.0
K	39	2	H2	534.813027	1.1
Ca	44	2	H2	2646.797387	0.9
Ti	47	2	H2	4.709411	3.3
V	51	2	H2	4.769480	1.3
Cr	52	2	H2	5.164319	1.9
Mn	55	2	H2	82.079496	1.0
Fe	57	2	H2	2836.423338	1.2
Co	59	2	H2	5.156718	0.6
Ni	60	2	H2	12.237659	1.0
Cu	63	2	H2	14.252478	0.3
Zn	66	2	H2	148.984874	0.8
As	75	2	H2	4.799764	0.7
Se	78	2	H2	0.983535	10.6
Sr	88	1	He	6.364223	0.2
Zr	90	1	He	0.973654	0.8
Mo	95	1	He	4.701260	1.0
Ag	107	1	He	4.728546	0.7
Cd	111	1	He	4.781312	1.1
(Sn)	118	1	He	4.634020	1.1
(Sn)	118	2	H2	4.702122	0.4
Sn	120	2	H2	4.681736	0.7
Sb	121	1	He	9.663167	0.7
Ba	137	1	He	5.389072	2.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.477515	2.1
(Pb)	206	1	He	4.727823	1.8
(Pb)	207	1	He	4.712568	2.4
Pb	208	1	He	4.666354	1.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	89.64361974
Sc	45	1	He	100.6696920
Sc	45	2	H2	104.6694175
Ge	72	1	He	101.1917360
Ge	72	2	H2	103.3546817
Rh	103	1	He	98.87635340
Rh	103	2	H2	100.1445223
In	115	1	He	100.5170016
In	115	2	H2	100.9842213
Tb	159	1	He	100.3268112
Tb	159	2	H2	99.75644965
Lu	175	1	He	99.19584379
Lu	175	2	H2	99.04591315
Bi	209	1	He	98.43457322
Bi	209	2	H2	97.32243052

2

Sample Name	1411107_1050x10
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1220SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 11:56:27 A
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	32.180966	1.8
Be	9	1	He	4.121490	0.3
B	11	1	He	35.418845	1.3
Na	23	2	H2	10135.88777	0.7
Mg	24	2	H2	592.304375	1.5
Al	27	2	H2	105.769512	2.7
Si	29	2	H2	4915.874558	47.8
K	39	2	H2	539.381528	0.5
Ca	44	2	H2	2672.604367	0.4
Ti	47	2	H2	4.491687	3.7
V	51	2	H2	4.765956	2.7
Cr	52	2	H2	5.071669	2.2
Mn	55	2	H2	80.224671	1.2
Fe	57	2	H2	2782.450031	0.9
Co	59	2	H2	5.020405	2.8
Ni	60	2	H2	12.044053	1.1
Cu	63	2	H2	13.887859	0.5
Zn	66	2	H2	146.524599	1.0
As	75	2	H2	4.705112	1.6
Se	78	2	H2	0.987092	14.0
Sr	88	1	He	6.239346	1.1
Zr	90	1	He	0.945903	2.4
Mo	95	1	He	4.578340	0.8
Ag	107	1	He	4.726249	0.7
Cd	111	1	He	4.661477	2.0
(Sn)	118	1	He	4.566120	0.1
(Sn)	118	2	H2	4.668231	1.3
Sn	120	2	H2	4.575424	1.4
Sb	121	1	He	9.593138	1.0
Ba	137	1	He	5.455350	1.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.568762	1.9
(Pb)	206	1	He	4.702487	1.4
(Pb)	207	1	He	4.695248	1.4
Pb	208	1	He	4.735141	1.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	81.09205499
Sc	45	1	He	99.73450292
Sc	45	2	H2	104.9703602
Ge	72	1	He	100.8774496
Ge	72	2	H2	103.6639766
Rh	103	1	He	97.92895789
Rh	103	2	H2	99.69940561
In	115	1	He	99.18205805
In	115	2	H2	100.0235940
Tb	159	1	He	98.54395847
Tb	159	2	H2	98.30241401
Lu	175	1	He	97.96698143
Lu	175	2	H2	97.70468435
Bi	209	1	He	96.19433226
Bi	209	2	H2	96.08269119

2

Sample Name	1411692_1050x10
Sample Type	PDS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1221SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:00:00 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	298.046903	0.4
Be	9	1	He	42.956583	0.2
B	11	1	He	333.214382	1.0
Na	23	2	H2	14619.05112	0.9
Mg	24	2	H2	4980.624463	0.8
Al	27	2	H2	1001.558896	0.3
Si	29	2	H2	5779.910218	42.4
K	39	2	H2	5164.369927	0.2
Ca	44	2	H2	24981.05192	0.6
Ti	47	2	H2	49.228791	0.8
V	51	2	H2	49.002988	0.3
Cr	52	2	H2	49.464784	0.4
Mn	55	2	H2	125.948666	0.6
Fe	57	2	H2	7192.458000	0.7
Co	59	2	H2	49.291088	0.4
Ni	60	2	H2	101.000925	0.4
Cu	63	2	H2	57.004034	0.5
Zn	66	2	H2	1026.566100	0.7
As	75	2	H2	49.024695	0.3
Se	78	2	H2	10.091847	2.2
Sr	88	1	He	50.488881	0.6
Zr	90	1	He	48.380376	0.7
Mo	95	1	He	48.943891	0.9
Ag	107	1	He	50.608169	1.3
Cd	111	1	He	48.665972	0.7
(Sn)	118	1	He	48.793401	1.1
(Sn)	118	2	H2	49.081475	0.7
Sn	120	2	H2	48.807258	0.7
Sb	121	1	He	95.360610	1.7
Ba	137	1	He	49.882027	1.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.214486	1.1
(Pb)	206	1	He	48.221336	0.4
(Pb)	207	1	He	48.431073	1.0
Pb	208	1	He	48.517013	0.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	81.33758132
Sc	45	1	He	99.26025491
Sc	45	2	H2	106.0396941
Ge	72	1	He	100.1006337
Ge	72	2	H2	103.6127122
Rh	103	1	He	96.09532690
Rh	103	2	H2	97.99268468
In	115	1	He	97.65770657
In	115	2	H2	98.63705305
Tb	159	1	He	97.66074573
Tb	159	2	H2	97.77429842
Lu	175	1	He	96.96913019
Lu	175	2	H2	97.37384567
Bi	209	1	He	95.11595701
Bi	209	2	H2	94.09430958

2

Sample Name	1411691_1050x50
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1222SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:03:34 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.634917	21.4
Be	9	1	He	-0.003691	
B	11	1	He	2.587608	1.2
Na	23	2	H2	1972.560434	1.5
Mg	24	2	H2	23.382696	4.4
Al	27	2	H2	3.107766	16.0
Si	29	2	H2	7228.721987	36.7
K	39	2	H2	12.782904	14.8
Ca	44	2	H2	35.458730	14.8
Ti	47	2	H2	-0.034110	
V	51	2	H2	-0.027024	
Cr	52	2	H2	0.109104	7.6
Mn	55	2	H2	15.459484	0.3
Fe	57	2	H2	466.988351	0.3
Co	59	2	H2	0.060377	7.3
Ni	60	2	H2	0.507176	4.0
Cu	63	2	H2	1.831995	2.8
Zn	66	2	H2	10.827002	1.6
As	75	2	H2	-0.059020	
Se	78	2	H2	0.100443	47.5
Sr	88	1	He	0.323803	5.4
Zr	90	1	He	0.057763	13.4
Mo	95	1	He	0.034498	30.1
Ag	107	1	He	0.017838	33.6
Cd	111	1	He	0.008985	72.2
(Sn)	118	1	He	-0.016078	
(Sn)	118	2	H2	-0.047020	
Sn	120	2	H2	-0.030022	
Sb	121	1	He	0.624423	9.1
Ba	137	1	He	0.184298	4.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.063889	
(Pb)	206	1	He	0.026472	18.5
(Pb)	207	1	He	0.016918	36.7
Pb	208	1	He	0.023014	12.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	79.89781861
Sc	45	1	He	98.25407790
Sc	45	2	H2	104.9168323
Ge	72	1	He	98.87109416
Ge	72	2	H2	103.1348278
Rh	103	1	He	98.28744352
Rh	103	2	H2	99.80228680
In	115	1	He	99.17024490
In	115	2	H2	99.60946099
Tb	159	1	He	97.88139587
Tb	159	2	H2	96.43885542
Lu	175	1	He	96.97208930
Lu	175	2	H2	95.69660948
Bi	209	1	He	97.53986598
Bi	209	2	H2	95.36816127

2

Sample Name	20285539001_1050x10
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1223SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:07:07 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.735239	33.8
Be	9	1	He	-0.016616	
B	11	1	He	10.138007	7.4
Na	23	2	H2	8977.255699	1.0
Mg	24	2	H2	6.509860	5.1
Al	27	2	H2	4.556529	15.3
Si	29	2	H2	8695.202097	33.3
K	39	2	H2	16.769616	3.5
Ca	44	2	H2	36.987666	8.9
Ti	47	2	H2	0.032699	61.3
V	51	2	H2	-0.017766	
Cr	52	2	H2	0.074472	9.1
Mn	55	2	H2	0.198359	16.8
Fe	57	2	H2	1.345510	46.0
Co	59	2	H2	0.010344	17.4
Ni	60	2	H2	0.037707	50.8
Cu	63	2	H2	0.193952	7.8
Zn	66	2	H2	1.648757	3.9
As	75	2	H2	-0.075069	
Se	78	2	H2	0.056805	109.0
Sr	88	1	He	0.077133	4.7
Zr	90	1	He	0.020584	3.8
Mo	95	1	He	-0.045237	
Ag	107	1	He	0.002992	16.0
Cd	111	1	He	-0.005121	
(Sn)	118	1	He	-0.035026	
(Sn)	118	2	H2	-0.043354	
Sn	120	2	H2	-0.044083	
Sb	121	1	He	0.195971	1.5
Ba	137	1	He	0.366015	1.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.086121	
(Pb)	206	1	He	0.020129	18.8
(Pb)	207	1	He	0.020594	51.0
Pb	208	1	He	0.017051	9.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	75.86950628
Sc	45	1	He	97.02541273
Sc	45	2	H2	105.7436138
Ge	72	1	He	97.33340168
Ge	72	2	H2	102.1506566
Rh	103	1	He	96.86679334
Rh	103	2	H2	98.18124738
In	115	1	He	97.29669299
In	115	2	H2	98.30053420
Tb	159	1	He	96.19078770
Tb	159	2	H2	96.24203335
Lu	175	1	He	95.49449949
Lu	175	2	H2	95.96231537
Bi	209	1	He	94.26243964
Bi	209	2	H2	94.34547753

Sample Name	20285406001_1050x10
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1224SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:10:42 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.346273	67.6
Be	9	1	He	-0.015057	
B	11	1	He	3.611705	11.8
Na	23	2	H2	9103.276174	1.3
Mg	24	2	H2	199.940176	1.7
Al	27	2	H2	1.271692	24.5
Si	29	2	H2	9651.388219	41.8
K	39	2	H2	45.334712	5.3
Ca	44	2	H2	25224.13153	0.3
Ti	47	2	H2	0.046487	55.7
V	51	2	H2	0.035214	15.1
Cr	52	2	H2	0.084258	26.7
Mn	55	2	H2	42.840000	0.7
Fe	57	2	H2	3.206602	21.5
Co	59	2	H2	0.076060	11.2
Ni	60	2	H2	0.202080	3.6
Cu	63	2	H2	0.110997	9.2
Zn	66	2	H2	2.599156	2.2
As	75	2	H2	-0.073561	
Se	78	2	H2	0.137870	16.3
Sr	88	1	He	85.910486	0.3
Zr	90	1	He	0.017725	3.6
Mo	95	1	He	-0.068863	
Ag	107	1	He	0.002071	20.2
Cd	111	1	He	0.028244	16.5
(Sn)	118	1	He	-0.066419	
(Sn)	118	2	H2	-0.069886	
Sn	120	2	H2	-0.065982	
Sb	121	1	He	0.121070	3.5
Ba	137	1	He	7.964365	0.4
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.086650	
(Pb)	206	1	He	0.107411	4.3
(Pb)	207	1	He	0.100898	7.5
Pb	208	1	He	0.097842	13.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	72.56198450
Sc	45	1	He	95.60351424
Sc	45	2	H2	105.5276899
Ge	72	1	He	95.64375105
Ge	72	2	H2	102.6064899
Rh	103	1	He	93.82729256
Rh	103	2	H2	97.94532574
In	115	1	He	95.07799494
In	115	2	H2	99.05137050
Tb	159	1	He	95.11344887
Tb	159	2	H2	96.84354851
Lu	175	1	He	94.45156008
Lu	175	2	H2	96.68069258
Bi	209	1	He	91.22849971
Bi	209	2	H2	93.82794501

2

Sample Name	F1_1050x100
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1225SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:14:16 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.415364	7.5
Be	9	1	He	-0.020097	
B	11	1	He	1.626731	6.7
Na	23	2	H2	8892.066496	1.0
Mg	24	2	H2	0.809168	99.1
Al	27	2	H2	0.761641	47.8
Si	29	2	H2	6145.324158	43.5
K	39	2	H2	4.155245	50.1
Ca	44	2	H2	21.462786	22.8
Ti	47	2	H2	-0.022334	
V	51	2	H2	-0.025797	
Cr	52	2	H2	0.074012	37.8
Mn	55	2	H2	0.069479	18.9
Fe	57	2	H2	0.213419	199.0
Co	59	2	H2	-0.002252	
Ni	60	2	H2	0.006413	250.2
Cu	63	2	H2	0.005585	81.4
Zn	66	2	H2	0.642988	5.5
As	75	2	H2	-0.084129	
Se	78	2	H2	0.071001	62.9
Sr	88	1	He	0.021939	21.4
Zr	90	1	He	0.008786	8.7
Mo	95	1	He	-0.085285	
Ag	107	1	He	0.003017	27.7
Cd	111	1	He	-0.004900	
(Sn)	118	1	He	-0.074777	
(Sn)	118	2	H2	-0.071789	
Sn	120	2	H2	-0.072956	
Sb	121	1	He	0.061421	6.5
Ba	137	1	He	0.026043	17.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.088722	
(Pb)	206	1	He	0.004540	110.7
(Pb)	207	1	He	0.001597	192.9
Pb	208	1	He	0.002673	57.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	78.55604798
Sc	45	1	He	97.14935996
Sc	45	2	H2	104.6784874
Ge	72	1	He	97.16131516
Ge	72	2	H2	102.3750244
Rh	103	1	He	96.70809072
Rh	103	2	H2	98.49103548
In	115	1	He	96.58320063
In	115	2	H2	98.37174816
Tb	159	1	He	95.41910182
Tb	159	2	H2	96.41169251
Lu	175	1	He	95.00278890
Lu	175	2	H2	96.24008783
Bi	209	1	He	93.59821751
Bi	209	2	H2	94.58776699

2

Sample Name	F2_1050x100
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1226SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:17:50 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.326213	50.0
Be	9	1	He	-0.025431	
B	11	1	He	1.534001	2.6
Na	23	2	H2	5.455923	7.3
Mg	24	2	H2	1.004729	25.9
Al	27	2	H2	0.565563	39.0
Si	29	2	H2	4943.980103	51.9
K	39	2	H2	2.067488	43.1
Ca	44	2	H2	10.737267	69.7
Ti	47	2	H2	-0.035074	
V	51	2	H2	-0.025233	
Cr	52	2	H2	0.048443	10.6
Mn	55	2	H2	0.077782	6.6
Fe	57	2	H2	0.167293	421.5
Co	59	2	H2	-0.000834	
Ni	60	2	H2	0.000756	1406.1
Cu	63	2	H2	0.010015	92.8
Zn	66	2	H2	0.593337	10.4
As	75	2	H2	-0.096398	
Se	78	2	H2	0.079167	19.9
Sr	88	1	He	0.001949	195.8
Zr	90	1	He	0.006956	13.8
Mo	95	1	He	-0.106029	
Ag	107	1	He	0.015677	7.9
Cd	111	1	He	-0.003569	
(Sn)	118	1	He	-0.078345	
(Sn)	118	2	H2	-0.075055	
Sn	120	2	H2	-0.070353	
Sb	121	1	He	0.041700	22.8
Ba	137	1	He	0.096399	2.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.089475	
(Pb)	206	1	He	0.007097	66.7
(Pb)	207	1	He	-0.004390	
Pb	208	1	He	0.000509	370.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	80.80459657
Sc	45	1	He	97.24975590
Sc	45	2	H2	103.6070435
Ge	72	1	He	97.33388608
Ge	72	2	H2	101.1773013
Rh	103	1	He	97.12723218
Rh	103	2	H2	99.17037447
In	115	1	He	97.04162326
In	115	2	H2	98.42207241
Tb	159	1	He	96.02959805
Tb	159	2	H2	95.78900562
Lu	175	1	He	95.90138612
Lu	175	2	H2	95.26877157
Bi	209	1	He	93.89191179
Bi	209	2	H2	94.24572109

2

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1227_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:21:23 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	54.600941	1.6
Be	9	1	He	9.032541	1.0
B	11	1	He	61.407099	1.6
Na	23	2	H2	1052.976029	0.5
Mg	24	2	H2	1025.872176	0.1
Al	27	2	H2	206.043119	2.2
Si	29	2	H2	4978.639853	51.3
K	39	2	H2	1054.045296	1.6
Ca	44	2	H2	5130.688997	0.7
Ti	47	2	H2	10.137024	2.3
V	51	2	H2	10.097617	0.9
Cr	52	2	H2	10.199496	0.4
Mn	55	2	H2	51.460478	1.0
Fe	57	2	H2	1006.511788	0.6
Co	59	2	H2	10.136522	0.5
Ni	60	2	H2	20.484761	0.2
Cu	63	2	H2	10.203198	0.7
Zn	66	2	H2	203.430698	0.8
As	75	2	H2	9.923838	0.1
Se	78	2	H2	10.123962	2.6
Sr	88	1	He	10.133011	0.7
Zr	90	1	He	10.400316	1.1
Mo	95	1	He	9.649993	0.7
Ag	107	1	He	10.004138	0.8
Cd	111	1	He	9.868136	0.4
(Sn)	118	1	He	9.708558	1.3
(Sn)	118	2	H2	9.996844	0.7
Sn	120	2	H2	9.728823	0.8
Sb	121	1	He	19.910864	0.9
Ba	137	1	He	9.903881	1.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.655887	0.8
(Pb)	206	1	He	9.949691	0.4
(Pb)	207	1	He	9.906093	0.3
Pb	208	1	He	9.850447	0.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	84.51341401
Sc	45	1	He	100.1180732
Sc	45	2	H2	105.5275923
Ge	72	1	He	98.98152420
Ge	72	2	H2	103.0664797
Rh	103	1	He	98.65939382
Rh	103	2	H2	100.2062838
In	115	1	He	98.51569255
In	115	2	H2	99.28300942
Tb	159	1	He	98.54989408
Tb	159	2	H2	97.74297883
Lu	175	1	He	97.36716307
Lu	175	2	H2	97.01815378
Bi	209	1	He	95.95255111
Bi	209	2	H2	95.50344181

2

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1228_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:24:56 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.030296	795.6
Be	9	1	He	-0.016783	
B	11	1	He	1.313296	26.1
Na	23	2	H2	2.390603	18.7
Mg	24	2	H2	0.614066	65.5
Al	27	2	H2	0.445316	38.6
Si	29	2	H2	3094.770316	84.6
K	39	2	H2	-5.829751	
Ca	44	2	H2	-0.118353	
Ti	47	2	H2	0.020519	226.0
V	51	2	H2	-0.027634	
Cr	52	2	H2	0.039685	19.6
Mn	55	2	H2	0.010072	73.8
Fe	57	2	H2	-0.134624	
Co	59	2	H2	-0.001488	
Ni	60	2	H2	-0.003577	
Cu	63	2	H2	0.001758	57.7
Zn	66	2	H2	0.036564	29.5
As	75	2	H2	-0.091076	
Se	78	2	H2	0.047561	51.8
Sr	88	1	He	0.000410	144.5
Zr	90	1	He	0.005153	24.2
Mo	95	1	He	-0.095276	
Ag	107	1	He	0.004202	32.6
Cd	111	1	He	-0.005651	
(Sn)	118	1	He	-0.078232	
(Sn)	118	2	H2	-0.089889	
Sn	120	2	H2	-0.092869	
Sb	121	1	He	0.046983	14.3
Ba	137	1	He	0.005440	69.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.078208	
(Pb)	206	1	He	0.005400	77.3
(Pb)	207	1	He	0.000333	2244.1
Pb	208	1	He	0.002250	223.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	83.60243330
Sc	45	1	He	99.50100170
Sc	45	2	H2	105.6115640
Ge	72	1	He	98.97993400
Ge	72	2	H2	103.1912997
Rh	103	1	He	99.28286894
Rh	103	2	H2	100.4064826
In	115	1	He	98.76792209
In	115	2	H2	99.06057977
Tb	159	1	He	98.18241091
Tb	159	2	H2	96.42798099
Lu	175	1	He	97.20132904
Lu	175	2	H2	95.89053757
Bi	209	1	He	96.08546023
Bi	209	2	H2	94.75488107

Sample Name	1411312_1049
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1229SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:28:30 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.289028	33.2
Be	9	1	He	-0.024959	
B	11	1	He	2.430446	9.3
Na	23	2	H2	47.252640	2.9
Mg	24	2	H2	2.930619	18.7
Al	27	2	H2	2.151841	14.4
Si	29	2	H2	7222.872406	39.3
K	39	2	H2	4.280349	22.1
Ca	44	2	H2	21.565587	24.9
Ti	47	2	H2	0.261373	13.4
V	51	2	H2	0.031616	21.5
Cr	52	2	H2	0.059905	8.6
Mn	55	2	H2	0.562324	5.6
Fe	57	2	H2	1.004769	42.6
Co	59	2	H2	0.002673	52.8
Ni	60	2	H2	0.042774	15.3
Cu	63	2	H2	0.061348	11.4
Zn	66	2	H2	5.299183	3.0
As	75	2	H2	-0.085381	
Se	78	2	H2	0.074658	58.7
Sr	88	1	He	0.012103	2.5
Zr	90	1	He	0.003873	75.4
Mo	95	1	He	-0.114731	
Ag	107	1	He	0.002384	33.3
Cd	111	1	He	-0.000575	
(Sn)	118	1	He	-0.077911	
(Sn)	118	2	H2	-0.077353	
Sn	120	2	H2	-0.064818	
Sb	121	1	He	0.155744	0.8
Ba	137	1	He	0.057293	7.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.086606	
(Pb)	206	1	He	0.009875	59.1
(Pb)	207	1	He	0.008089	48.1
Pb	208	1	He	0.012675	31.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	75.65771476
Sc	45	1	He	97.35206870
Sc	45	2	H2	105.0643434
Ge	72	1	He	97.55931914
Ge	72	2	H2	102.2416210
Rh	103	1	He	97.69864851
Rh	103	2	H2	99.06856654
In	115	1	He	97.48172233
In	115	2	H2	97.72319525
Tb	159	1	He	96.96937681
Tb	159	2	H2	95.05593976
Lu	175	1	He	96.85151140
Lu	175	2	H2	94.08750405
Bi	209	1	He	96.20573320
Bi	209	2	H2	93.14439798

2

Sample Name	1411313_1049
Sample Type	LCS6020
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1230SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:32:04 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	312.915466	1.1
Be	9	1	He	41.471892	0.6
B	11	1	He	375.909237	0.9
Na	23	2	H2	5170.107765	0.5
Mg	24	2	H2	4912.558538	0.7
Al	27	2	H2	992.853514	0.6
Si	29	2	H2	13351.95288	19.8
K	39	2	H2	5152.776054	0.7
Ca	44	2	H2	24488.87518	0.2
Ti	47	2	H2	48.034763	1.4
V	51	2	H2	49.157245	0.4
Cr	52	2	H2	49.460466	0.9
Mn	55	2	H2	51.862878	0.4
Fe	57	2	H2	4890.965651	1.0
Co	59	2	H2	48.869870	0.3
Ni	60	2	H2	98.110386	0.7
Cu	63	2	H2	47.658690	0.5
Zn	66	2	H2	986.289286	0.1
As	75	2	H2	48.507608	0.6
Se	78	2	H2	9.533785	3.2
Sr	88	1	He	49.178120	0.4
Zr	90	1	He	10.077807	0.9
Mo	95	1	He	48.441523	0.6
Ag	107	1	He	48.295468	1.1
Cd	111	1	He	48.563778	0.1
(Sn)	118	1	He	48.604690	0.2
(Sn)	118	2	H2	48.963014	0.1
Sn	120	2	H2	48.637968	0.6
Sb	121	1	He	98.766175	0.5
Ba	137	1	He	48.656619	0.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.092781	0.5
(Pb)	206	1	He	48.802665	0.2
(Pb)	207	1	He	49.099933	1.0
Pb	208	1	He	48.625154	1.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	74.82127589
Sc	45	1	He	98.10067573
Sc	45	2	H2	107.0223762
Ge	72	1	He	97.59029906
Ge	72	2	H2	102.5181000
Rh	103	1	He	94.91891006
Rh	103	2	H2	96.69939178
In	115	1	He	96.18995104
In	115	2	H2	96.31263779
Tb	159	1	He	96.24076927
Tb	159	2	H2	95.36740434
Lu	175	1	He	95.97853817
Lu	175	2	H2	94.09756834
Bi	209	1	He	93.15416608
Bi	209	2	H2	91.12193665

Sample Name	20285609001_1049x10
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1231SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:35:37 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.629558	44.2
Be	9	1	He	0.001551	495.8
B	11	1	He	6.227738	7.2
Na	23	2	H2	4599.469115	0.4
Mg	24	2	H2	91.155539	2.6
Al	27	2	H2	26.400064	2.9
Si	29	2	H2	7259.660131	43.8
K	39	2	H2	70.643774	7.0
Ca	44	2	H2	487.471958	1.6
Ti	47	2	H2	0.083251	18.7
V	51	2	H2	0.005283	118.3
Cr	52	2	H2	0.114715	8.1
Mn	55	2	H2	1.867116	3.8
Fe	57	2	H2	10.942546	3.9
Co	59	2	H2	0.051065	20.8
Ni	60	2	H2	0.201758	8.5
Cu	63	2	H2	35.891767	0.9
Zn	66	2	H2	506.321675	0.7
As	75	2	H2	-0.056120	
Se	78	2	H2	0.253615	35.3
Sr	88	1	He	8.409635	0.3
Zr	90	1	He	0.005867	20.2
Mo	95	1	He	-0.016448	
Ag	107	1	He	0.018158	21.7
Cd	111	1	He	0.755003	1.0
(Sn)	118	1	He	-0.045642	
(Sn)	118	2	H2	-0.066285	
Sn	120	2	H2	-0.054952	
Sb	121	1	He	0.059115	10.5
Ba	137	1	He	2.486068	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.057165	
(Pb)	206	1	He	59.463724	0.1
(Pb)	207	1	He	58.281277	0.5
Pb	208	1	He	58.331857	0.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	74.88651796
Sc	45	1	He	97.59178043
Sc	45	2	H2	107.0512249
Ge	72	1	He	98.45896617
Ge	72	2	H2	104.3026705
Rh	103	1	He	97.80359485
Rh	103	2	H2	100.0467944
In	115	1	He	98.11467593
In	115	2	H2	99.67631896
Tb	159	1	He	97.17248530
Tb	159	2	H2	95.68099173
Lu	175	1	He	96.82950964
Lu	175	2	H2	95.92166990
Bi	209	1	He	95.31253439
Bi	209	2	H2	94.49197851

2

Sample Name	1411314_1049x10
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1232SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:39:11 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	31.360733	0.8
Be	9	1	He	4.214420	0.1
B	11	1	He	41.133357	2.3
Na	23	2	H2	5144.572218	0.3
Mg	24	2	H2	573.362820	0.4
Al	27	2	H2	126.262467	0.8
Si	29	2	H2	7560.612584	38.9
K	39	2	H2	582.003283	1.1
Ca	44	2	H2	2937.411501	0.5
Ti	47	2	H2	4.740740	1.5
V	51	2	H2	4.783041	1.1
Cr	52	2	H2	4.929109	2.1
Mn	55	2	H2	6.866025	1.8
Fe	57	2	H2	482.463245	0.2
Co	59	2	H2	4.916542	2.3
Ni	60	2	H2	9.748838	1.7
Cu	63	2	H2	40.612295	0.5
Zn	66	2	H2	606.087961	0.7
As	75	2	H2	4.648748	0.6
Se	78	2	H2	1.110247	7.9
Sr	88	1	He	13.348716	0.9
Zr	90	1	He	0.954089	0.8
Mo	95	1	He	4.538455	0.5
Ag	107	1	He	4.781313	1.1
Cd	111	1	He	5.499872	1.1
(Sn)	118	1	He	4.611697	0.6
(Sn)	118	2	H2	4.627475	1.5
Sn	120	2	H2	4.677483	1.3
Sb	121	1	He	9.645739	0.7
Ba	137	1	He	7.164485	0.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.522896	0.4
(Pb)	206	1	He	64.658820	0.5
(Pb)	207	1	He	62.638975	0.8
Pb	208	1	He	62.670094	0.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	76.70895588
Sc	45	1	He	97.56235313
Sc	45	2	H2	106.3931065
Ge	72	1	He	97.85205967
Ge	72	2	H2	104.1164963
Rh	103	1	He	96.76954781
Rh	103	2	H2	99.15417085
In	115	1	He	97.51664409
In	115	2	H2	98.82015290
Tb	159	1	He	97.12726296
Tb	159	2	H2	95.99154094
Lu	175	1	He	96.26413960
Lu	175	2	H2	95.90786553
Bi	209	1	He	95.17703246
Bi	209	2	H2	94.16103286

2

Sample Name	1411315_1049x10
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1233SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:42:44 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	29.982956	2.9
Be	9	1	He	4.042393	0.5
B	11	1	He	40.366818	0.6
Na	23	2	H2	4964.467249	0.5
Mg	24	2	H2	563.162448	1.6
Al	27	2	H2	122.005162	2.3
Si	29	2	H2	7629.303039	42.5
K	39	2	H2	568.274498	1.0
Ca	44	2	H2	2830.940086	1.7
Ti	47	2	H2	4.606122	3.8
V	51	2	H2	4.653159	1.5
Cr	52	2	H2	4.816942	1.0
Mn	55	2	H2	6.553813	0.3
Fe	57	2	H2	468.765044	1.8
Co	59	2	H2	4.695135	1.0
Ni	60	2	H2	9.423016	0.7
Cu	63	2	H2	39.202264	1.2
Zn	66	2	H2	582.623288	0.4
As	75	2	H2	4.553490	0.4
Se	78	2	H2	1.021998	4.7
Sr	88	1	He	12.771106	0.4
Zr	90	1	He	0.916777	1.1
Mo	95	1	He	4.308966	1.0
Ag	107	1	He	4.552131	0.4
Cd	111	1	He	5.265365	0.7
(Sn)	118	1	He	4.388924	0.4
(Sn)	118	2	H2	4.432591	0.6
Sn	120	2	H2	4.449935	1.2
Sb	121	1	He	9.225875	0.8
Ba	137	1	He	6.853592	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.348482	1.0
(Pb)	206	1	He	62.057401	0.6
(Pb)	207	1	He	60.255095	1.0
Pb	208	1	He	60.162476	0.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	75.82686096
Sc	45	1	He	97.59541592
Sc	45	2	H2	105.2127677
Ge	72	1	He	97.79071042
Ge	72	2	H2	102.8530109
Rh	103	1	He	96.55793767
Rh	103	2	H2	98.56818640
In	115	1	He	97.37493788
In	115	2	H2	98.40966529
Tb	159	1	He	96.80263807
Tb	159	2	H2	95.58074633
Lu	175	1	He	95.77161261
Lu	175	2	H2	95.08613392
Bi	209	1	He	94.45847488
Bi	209	2	H2	93.41712156

Sample Name	1411690_1049x10
Sample Type	PDS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1234SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:46:18 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	298.979559	1.2
Be	9	1	He	43.677583	0.5
B	11	1	He	343.363250	0.6
Na	23	2	H2	9703.539760	0.9
Mg	24	2	H2	5084.263796	0.6
Al	27	2	H2	1043.865628	1.1
Si	29	2	H2	4966.522295	66.9
K	39	2	H2	5281.449018	0.9
Ca	44	2	H2	25705.40813	0.6
Ti	47	2	H2	49.200841	1.7
V	51	2	H2	49.503736	0.8
Cr	52	2	H2	49.728444	0.1
Mn	55	2	H2	51.939278	0.4
Fe	57	2	H2	4892.026800	0.2
Co	59	2	H2	49.359955	0.7
Ni	60	2	H2	99.149864	0.6
Cu	63	2	H2	82.424198	0.7
Zn	66	2	H2	1478.613482	0.4
As	75	2	H2	48.957062	0.4
Se	78	2	H2	10.357279	1.8
Sr	88	1	He	58.135898	0.3
Zr	90	1	He	48.967477	1.2
Mo	95	1	He	48.374190	1.1
Ag	107	1	He	50.622839	0.9
Cd	111	1	He	49.516505	1.0
(Sn)	118	1	He	48.680019	0.8
(Sn)	118	2	H2	48.826103	0.4
Sn	120	2	H2	48.759982	0.2
Sb	121	1	He	95.051505	1.2
Ba	137	1	He	51.502957	0.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.115602	1.1
(Pb)	206	1	He	107.823165	0.9
(Pb)	207	1	He	106.299198	1.3
Pb	208	1	He	106.878576	0.5

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	80.76993699
Sc	45	1	He	97.47457832
Sc	45	2	H2	105.7720563
Ge	72	1	He	96.99894603
Ge	72	2	H2	102.5948878
Rh	103	1	He	94.10978553
Rh	103	2	H2	96.71718989
In	115	1	He	95.53961465
In	115	2	H2	97.11827771
Tb	159	1	He	96.45667149
Tb	159	2	H2	95.92380115
Lu	175	1	He	95.90068763
Lu	175	2	H2	95.43450302
Bi	209	1	He	93.22550789
Bi	209	2	H2	92.34466970

2

Sample Name	1411689_1049x50
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1235SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:49:51 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.395627	24.7
Be	9	1	He	-0.010463	
B	11	1	He	3.459000	12.7
Na	23	2	H2	929.243876	1.0
Mg	24	2	H2	18.110371	4.5
Al	27	2	H2	6.072126	7.4
Si	29	2	H2	4055.705863	72.3
K	39	2	H2	14.938920	8.7
Ca	44	2	H2	104.739900	7.2
Ti	47	2	H2	0.039025	12.3
V	51	2	H2	-0.014876	
Cr	52	2	H2	0.118674	106.3
Mn	55	2	H2	0.440012	4.8
Fe	57	2	H2	2.578396	29.2
Co	59	2	H2	0.015126	18.8
Ni	60	2	H2	0.054159	29.2
Cu	63	2	H2	7.301833	0.5
Zn	66	2	H2	102.523865	0.9
As	75	2	H2	-0.087828	
Se	78	2	H2	0.073349	85.2
Sr	88	1	He	1.683658	0.8
Zr	90	1	He	0.062264	11.0
Mo	95	1	He	0.009094	206.1
Ag	107	1	He	0.016625	29.4
Cd	111	1	He	0.162073	12.7
(Sn)	118	1	He	-0.030743	
(Sn)	118	2	H2	-0.032122	
Sn	120	2	H2	-0.039569	
Sb	121	1	He	0.564383	11.2
Ba	137	1	He	0.503503	2.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.067989	
(Pb)	206	1	He	11.987078	0.8
(Pb)	207	1	He	11.695124	0.9
Pb	208	1	He	11.528947	0.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	79.79514065
Sc	45	1	He	97.24591380
Sc	45	2	H2	104.5490861
Ge	72	1	He	97.50451903
Ge	72	2	H2	101.7792552
Rh	103	1	He	97.62035683
Rh	103	2	H2	98.77214785
In	115	1	He	96.79845928
In	115	2	H2	97.95424782
Tb	159	1	He	96.05339972
Tb	159	2	H2	95.71348321
Lu	175	1	He	95.45536494
Lu	175	2	H2	94.87341848
Bi	209	1	He	94.50500348
Bi	209	2	H2	94.03979630

2

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1236_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:53:25 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	55.867397	1.4
Be	9	1	He	9.048205	0.9
B	11	1	He	62.768308	1.8
Na	23	2	H2	1068.958542	0.1
Mg	24	2	H2	1049.797828	0.6
Al	27	2	H2	209.076608	0.8
Si	29	2	H2	4689.216749	57.6
K	39	2	H2	1065.238249	0.3
Ca	44	2	H2	5119.960028	0.8
Ti	47	2	H2	10.103705	1.6
V	51	2	H2	10.127940	2.3
Cr	52	2	H2	10.284503	0.3
Mn	55	2	H2	52.103475	0.6
Fe	57	2	H2	1024.037217	1.6
Co	59	2	H2	10.180072	0.3
Ni	60	2	H2	20.351528	1.1
Cu	63	2	H2	10.222967	0.9
Zn	66	2	H2	203.661732	0.5
As	75	2	H2	9.952381	1.0
Se	78	2	H2	10.068860	2.1
Sr	88	1	He	10.186271	0.8
Zr	90	1	He	10.517517	0.8
Mo	95	1	He	9.649121	0.9
Ag	107	1	He	9.971257	1.0
Cd	111	1	He	9.941181	0.6
(Sn)	118	1	He	9.768788	0.6
(Sn)	118	2	H2	9.768671	1.1
Sn	120	2	H2	9.897497	1.1
Sb	121	1	He	20.026529	0.5
Ba	137	1	He	9.913649	0.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.725866	0.8
(Pb)	206	1	He	9.923055	0.4
(Pb)	207	1	He	9.921701	1.5
Pb	208	1	He	10.055945	1.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	82.28651221
Sc	45	1	He	99.34412378
Sc	45	2	H2	105.1873296
Ge	72	1	He	98.28422205
Ge	72	2	H2	102.7133472
Rh	103	1	He	97.59209703
Rh	103	2	H2	99.49042318
In	115	1	He	98.17015973
In	115	2	H2	98.74127248
Tb	159	1	He	97.42482495
Tb	159	2	H2	95.87122434
Lu	175	1	He	97.31352478
Lu	175	2	H2	95.08419922
Bi	209	1	He	94.73368718
Bi	209	2	H2	93.58473349

2

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1237_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 12:56:58 P
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.228510	79.6
Be	9	1	He	-0.013042	
B	11	1	He	1.447102	9.5
Na	23	2	H2	4.630570	16.4
Mg	24	2	H2	0.705614	41.1
Al	27	2	H2	0.570993	90.3
Si	29	2	H2	2256.066877	120.4
K	39	2	H2	-3.935597	
Ca	44	2	H2	4.417104	357.4
Ti	47	2	H2	0.087841	56.1
V	51	2	H2	-0.022300	
Cr	52	2	H2	0.047601	21.5
Mn	55	2	H2	0.131013	12.4
Fe	57	2	H2	0.110889	323.4
Co	59	2	H2	-0.000176	
Ni	60	2	H2	0.011275	78.4
Cu	63	2	H2	0.019629	22.8
Zn	66	2	H2	0.918478	6.8
As	75	2	H2	-0.101899	
Se	78	2	H2	0.038796	62.9
Sr	88	1	He	0.001044	38.7
Zr	90	1	He	0.008047	31.5
Mo	95	1	He	-0.081927	
Ag	107	1	He	0.005661	22.5
Cd	111	1	He	-0.004286	
(Sn)	118	1	He	-0.060417	
(Sn)	118	2	H2	-0.069011	
Sn	120	2	H2	-0.060216	
Sb	121	1	He	0.086440	6.4
Ba	137	1	He	0.004303	19.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.075881	
(Pb)	206	1	He	0.005798	88.1
(Pb)	207	1	He	0.009292	41.3
Pb	208	1	He	0.008025	47.5

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	81.75778061
Sc	45	1	He	98.41443593
Sc	45	2	H2	106.6100412
Ge	72	1	He	97.98371771
Ge	72	2	H2	103.1707418
Rh	103	1	He	98.53544617
Rh	103	2	H2	100.6324921
In	115	1	He	98.34431511
In	115	2	H2	99.06513089
Tb	159	1	He	97.86690102
Tb	159	2	H2	96.46056861
Lu	175	1	He	96.31191570
Lu	175	2	H2	95.50790633
Bi	209	1	He	95.51544737
Bi	209	2	H2	94.57006716

2

Sample Name	1411100_1051
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1238SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:00:32 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.227719	103.2
Be	9	1	He	-0.022466	
B	11	1	He	4.393482	5.4
Na	23	2	H2	13.597259	4.6
Mg	24	2	H2	1.993510	15.2
Al	27	2	H2	1.997650	7.4
Si	29	2	H2	4553.038178	61.9
K	39	2	H2	-2.411663	
Ca	44	2	H2	22.459890	25.2
Ti	47	2	H2	0.236396	20.5
V	51	2	H2	0.037449	11.2
Cr	52	2	H2	0.031358	45.1
Mn	55	2	H2	1.928751	3.9
Fe	57	2	H2	0.927501	16.2
Co	59	2	H2	0.003114	165.4
Ni	60	2	H2	0.266541	15.8
Cu	63	2	H2	0.041020	21.4
Zn	66	2	H2	6.193654	0.9
As	75	2	H2	-0.097229	
Se	78	2	H2	0.026656	151.8
Sr	88	1	He	0.014406	6.4
Zr	90	1	He	0.003067	54.7
Mo	95	1	He	-0.117981	
Ag	107	1	He	0.002267	5.9
Cd	111	1	He	-0.000484	
(Sn)	118	1	He	-0.082905	
(Sn)	118	2	H2	-0.079961	
Sn	120	2	H2	-0.068920	
Sb	121	1	He	0.178131	4.8
Ba	137	1	He	0.077709	6.4
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.088959	
(Pb)	206	1	He	0.009277	36.8
(Pb)	207	1	He	0.000168	1172.1
Pb	208	1	He	0.007559	36.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	76.01577986
Sc	45	1	He	97.71263515
Sc	45	2	H2	107.1767463
Ge	72	1	He	97.93164989
Ge	72	2	H2	103.5457951
Rh	103	1	He	98.17456165
Rh	103	2	H2	99.80030683
In	115	1	He	97.79047348
In	115	2	H2	97.84665775
Tb	159	1	He	97.94274371
Tb	159	2	H2	95.31366277
Lu	175	1	He	96.90021001
Lu	175	2	H2	93.94713998
Bi	209	1	He	96.37239048
Bi	209	2	H2	93.27661832

2

Sample Name	1411101_1051
Sample Type	LCS200.8
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1239SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:04:05 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	307.275232	2.6
Be	9	1	He	40.572462	0.6
B	11	1	He	374.046437	1.4
Na	23	2	H2	5164.613768	0.3
Mg	24	2	H2	4958.877678	0.4
Al	27	2	H2	1001.140769	0.9
Si	29	2	H2	11552.12357	28.3
K	39	2	H2	5131.405747	1.3
Ca	44	2	H2	24417.58322	0.6
Ti	47	2	H2	47.347968	1.0
V	51	2	H2	48.785346	0.7
Cr	52	2	H2	49.302577	0.9
Mn	55	2	H2	50.014443	0.9
Fe	57	2	H2	4853.725244	0.3
Co	59	2	H2	48.490606	0.6
Ni	60	2	H2	97.215063	0.6
Cu	63	2	H2	47.236015	1.2
Zn	66	2	H2	970.521863	0.4
As	75	2	H2	47.806445	0.6
Se	78	2	H2	9.434737	2.4
Sr	88	1	He	48.289372	1.1
Zr	90	1	He	9.893266	1.3
Mo	95	1	He	47.646738	1.0
Ag	107	1	He	48.394874	0.6
Cd	111	1	He	48.016519	1.2
(Sn)	118	1	He	47.792712	1.1
(Sn)	118	2	H2	48.558815	0.8
Sn	120	2	H2	48.293448	0.9
Sb	121	1	He	98.049228	1.1
Ba	137	1	He	48.248799	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	47.116536	1.3
(Pb)	206	1	He	47.873843	0.6
(Pb)	207	1	He	48.019913	0.6
Pb	208	1	He	47.940910	0.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	75.48530416
Sc	45	1	He	99.03928747
Sc	45	2	H2	107.6139352
Ge	72	1	He	98.36114058
Ge	72	2	H2	103.2120731
Rh	103	1	He	95.53420754
Rh	103	2	H2	97.36714710
In	115	1	He	96.84628108
In	115	2	H2	96.80733982
Tb	159	1	He	97.82176611
Tb	159	2	H2	95.23187135
Lu	175	1	He	97.52218337
Lu	175	2	H2	94.29887528
Bi	209	1	He	94.36633808
Bi	209	2	H2	90.62794470

2

Sample Name	20285581001_1051
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1240SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:07:39 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	19.492238	0.7
Be	9	1	He	-0.007607	
B	11	1	He	527.752213	1.1
Na	23	2	H2	96878.21361	0.7
Mg	24	2	H2	2944.844130	0.2
Al	27	2	H2	14.428731	3.6
Si	29	2	H2	23910.36983	13.9
K	39	2	H2	2203.667591	1.0
Ca	44	2	H2	6654.805936	0.1
Ti	47	2	H2	0.390073	9.6
V	51	2	H2	0.224952	4.1
Cr	52	2	H2	0.346588	4.7
Mn	55	2	H2	45.797206	0.4
Fe	57	2	H2	457.760357	0.9
Co	59	2	H2	0.159407	4.0
Ni	60	2	H2	1.343730	1.7
Cu	63	2	H2	44.441472	0.5
Zn	66	2	H2	15.970957	1.8
As	75	2	H2	0.059697	9.6
Se	78	2	H2	0.145571	43.5
Sr	88	1	He	51.138353	0.5
Zr	90	1	He	0.045620	1.6
Mo	95	1	He	2.038343	1.8
Ag	107	1	He	0.032526	9.2
Cd	111	1	He	0.022845	14.3
(Sn)	118	1	He	0.112838	4.2
(Sn)	118	2	H2	0.119963	1.7
Sn	120	2	H2	0.115514	3.2
Sb	121	1	He	0.233700	1.5
Ba	137	1	He	15.639210	0.5
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.048938	
(Pb)	206	1	He	0.610864	0.8
(Pb)	207	1	He	0.575070	2.6
Pb	208	1	He	0.578981	2.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.87725159
Sc	45	1	He	96.35158247
Sc	45	2	H2	105.9432356
Ge	72	1	He	97.00253420
Ge	72	2	H2	102.2167856
Rh	103	1	He	92.51919474
Rh	103	2	H2	94.43819936
In	115	1	He	94.66940032
In	115	2	H2	95.14916816
Tb	159	1	He	96.21293340
Tb	159	2	H2	94.43189929
Lu	175	1	He	96.08093996
Lu	175	2	H2	94.22870598
Bi	209	1	He	90.67823469
Bi	209	2	H2	89.03005710

2

Sample Name	1411102_1051
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1241SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:11:14 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	329.422248	1.2
Be	9	1	He	40.387618	0.8
B	11	1	He	896.653100	1.8
Na	23	2	H2	101128.8361	0.8
Mg	24	2	H2	7751.828273	0.6
Al	27	2	H2	1003.228167	0.4
Si	29	2	H2	30235.59516	11.0
K	39	2	H2	7239.898325	0.3
Ca	44	2	H2	31194.98493	0.5
Ti	47	2	H2	48.570298	1.8
V	51	2	H2	48.946133	1.1
Cr	52	2	H2	48.647204	1.6
Mn	55	2	H2	95.072241	1.4
Fe	57	2	H2	5249.788174	1.1
Co	59	2	H2	48.143574	0.7
Ni	60	2	H2	96.216016	1.3
Cu	63	2	H2	91.220874	1.0
Zn	66	2	H2	989.518068	0.7
As	75	2	H2	48.972286	0.6
Se	78	2	H2	9.543566	3.8
Sr	88	1	He	101.248463	0.5
Zr	90	1	He	9.506701	0.3
Mo	95	1	He	51.238088	0.6
Ag	107	1	He	47.926455	0.6
Cd	111	1	He	48.712459	0.9
(Sn)	118	1	He	48.741272	1.0
(Sn)	118	2	H2	49.177086	1.0
Sn	120	2	H2	49.169856	0.6
Sb	121	1	He	100.052155	0.9
Ba	137	1	He	64.493952	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	47.600036	0.6
(Pb)	206	1	He	49.441515	0.3
(Pb)	207	1	He	49.457153	0.1
Pb	208	1	He	49.361022	0.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	70.41621334
Sc	45	1	He	96.48936690
Sc	45	2	H2	105.6590863
Ge	72	1	He	95.53089885
Ge	72	2	H2	101.5258028
Rh	103	1	He	90.19898918
Rh	103	2	H2	92.59699789
In	115	1	He	92.50807138
In	115	2	H2	93.58887346
Tb	159	1	He	93.91964906
Tb	159	2	H2	92.85932804
Lu	175	1	He	93.36908825
Lu	175	2	H2	92.48784705
Bi	209	1	He	88.14507109
Bi	209	2	H2	86.66848355

2

Sample Name	1411103_1051
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1242SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:14:48 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	329.129996	0.9
Be	9	1	He	40.301506	0.8
B	11	1	He	911.096573	1.3
Na	23	2	H2	101689.5235	1.2
Mg	24	2	H2	7845.344742	0.1
Al	27	2	H2	1004.938753	0.5
Si	29	2	H2	31086.84923	11.7
K	39	2	H2	7281.427859	0.5
Ca	44	2	H2	31175.19749	0.5
Ti	47	2	H2	48.574076	1.0
V	51	2	H2	48.910947	0.7
Cr	52	2	H2	48.610789	0.4
Mn	55	2	H2	95.145562	0.4
Fe	57	2	H2	5268.185738	1.1
Co	59	2	H2	48.258946	0.4
Ni	60	2	H2	96.320026	0.2
Cu	63	2	H2	90.928326	0.2
Zn	66	2	H2	993.334341	0.5
As	75	2	H2	49.030274	1.0
Se	78	2	H2	9.627658	4.3
Sr	88	1	He	100.662095	0.7
Zr	90	1	He	9.434687	0.5
Mo	95	1	He	51.033149	1.3
Ag	107	1	He	47.640318	1.0
Cd	111	1	He	48.786536	1.0
(Sn)	118	1	He	48.801870	1.1
(Sn)	118	2	H2	48.904320	0.8
Sn	120	2	H2	48.956985	0.6
Sb	121	1	He	99.522163	1.1
Ba	137	1	He	66.414806	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.142263	0.3
(Pb)	206	1	He	49.443697	0.6
(Pb)	207	1	He	49.761244	1.3
Pb	208	1	He	49.582168	0.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.82262672
Sc	45	1	He	94.92324141
Sc	45	2	H2	104.2964939
Ge	72	1	He	94.97434762
Ge	72	2	H2	100.2178559
Rh	103	1	He	89.72391729
Rh	103	2	H2	91.66690289
In	115	1	He	92.03582399
In	115	2	H2	92.83857030
Tb	159	1	He	93.35852506
Tb	159	2	H2	91.89757558
Lu	175	1	He	92.85215155
Lu	175	2	H2	91.54909714
Bi	209	1	He	87.02945856
Bi	209	2	H2	86.50029022

2

Sample Name	20285633001_1051
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1243SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:18:22 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	63.980673	1.5
Be	9	1	He	-0.015985	
B	11	1	He	338.822918	1.0
Na	23	2	H2	246540.8412	0.1
Mg	24	2	H2	59635.56051	0.9
Al	27	2	H2	8.028105	4.8
Si	29	2	H2	32452.99566	9.0
K	39	2	H2	13132.16002	0.6
Ca	44	2	H2	318637.1160	0.6
Ti	47	2	H2	0.187313	37.8
V	51	2	H2	3.428653	2.6
Cr	52	2	H2	1.447216	3.6
Mn	55	2	H2	6.546011	3.9
Fe	57	2	H2	89.727026	4.2
Co	59	2	H2	0.106548	5.1
Ni	60	2	H2	1.332219	1.9
Cu	63	2	H2	9.680151	0.4
Zn	66	2	H2	13.580688	2.4
As	75	2	H2	7.748943	0.5
Se	78	2	H2	8.133827	4.0
Sr	88	1	He	2040.212825	0.8
Zr	90	1	He	0.027417	14.4
Mo	95	1	He	4.729817	0.9
Ag	107	1	He	0.044756	2.8
Cd	111	1	He	0.048503	19.7
(Sn)	118	1	He	0.049388	8.4
(Sn)	118	2	H2	0.036956	8.2
Sn	120	2	H2	0.052818	21.8
Sb	121	1	He	0.472332	0.9
Ba	137	1	He	46.277005	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.044523	
(Pb)	206	1	He	0.102318	18.5
(Pb)	207	1	He	0.099562	12.1
Pb	208	1	He	0.096295	2.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.63694577
Sc	45	1	He	91.56890271
Sc	45	2	H2	101.7900689
Ge	72	1	He	91.86586337
Ge	72	2	H2	96.42522420
Rh	103	1	He	85.58800624
Rh	103	2	H2	86.54944794
In	115	1	He	89.37889133
In	115	2	H2	89.12708385
Tb	159	1	He	91.27455006
Tb	159	2	H2	88.40595703
Lu	175	1	He	90.64475765
Lu	175	2	H2	88.35409977
Bi	209	1	He	82.48022550
Bi	209	2	H2	81.43193516

2

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1244_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:21:58 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	57.045918	1.1
Be	9	1	He	8.627251	2.2
B	11	1	He	71.584363	1.8
Na	23	2	H2	1123.027850	0.2
Mg	24	2	H2	1047.003596	0.2
Al	27	2	H2	209.658549	0.6
Si	29	2	H2	8109.933189	46.0
K	39	2	H2	1092.280564	1.2
Ca	44	2	H2	5208.856147	0.7
Ti	47	2	H2	10.253479	0.9
V	51	2	H2	10.193850	1.4
Cr	52	2	H2	10.226464	1.7
Mn	55	2	H2	51.800755	0.9
Fe	57	2	H2	1013.279031	1.5
Co	59	2	H2	10.133719	1.3
Ni	60	2	H2	20.120305	0.4
Cu	63	2	H2	10.080633	0.1
Zn	66	2	H2	203.612277	0.3
As	75	2	H2	10.070914	1.4
Se	78	2	H2	10.494148	0.4
Sr	88	1	He	10.641994	1.4
Zr	90	1	He	9.989970	0.4
Mo	95	1	He	9.642489	0.5
Ag	107	1	He	9.975787	0.6
Cd	111	1	He	9.966804	0.5
(Sn)	118	1	He	9.736684	1.2
(Sn)	118	2	H2	9.867092	1.1
Sn	120	2	H2	9.891103	1.3
Sb	121	1	He	19.877976	0.5
Ba	137	1	He	9.940632	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.840804	0.8
(Pb)	206	1	He	10.075096	2.0
(Pb)	207	1	He	10.162206	2.2
Pb	208	1	He	10.035355	1.5

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	70.67305214
Sc	45	1	He	94.47144985
Sc	45	2	H2	103.3301123
Ge	72	1	He	94.81044676
Ge	72	2	H2	100.0314757
Rh	103	1	He	94.23146911
Rh	103	2	H2	95.03254165
In	115	1	He	94.55688992
In	115	2	H2	94.39739333
Tb	159	1	He	94.35151556
Tb	159	2	H2	90.75525919
Lu	175	1	He	93.75600975
Lu	175	2	H2	90.48846707
Bi	209	1	He	90.05901737
Bi	209	2	H2	88.36765560

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1245_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:25:31 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.910282	28.5
Be	9	1	He	-0.022244	
B	11	1	He	4.474943	6.5
Na	23	2	H2	27.059764	2.7
Mg	24	2	H2	0.724662	28.5
Al	27	2	H2	0.491835	13.2
Si	29	2	H2	4742.131025	73.3
K	39	2	H2	7.982409	16.0
Ca	44	2	H2	19.222630	42.2
Ti	47	2	H2	0.023778	183.5
V	51	2	H2	0.048951	32.8
Cr	52	2	H2	0.059406	20.8
Mn	55	2	H2	0.032185	50.7
Fe	57	2	H2	0.871345	4.5
Co	59	2	H2	0.001672	166.0
Ni	60	2	H2	0.011171	57.8
Cu	63	2	H2	0.005332	38.2
Zn	66	2	H2	0.099050	45.9
As	75	2	H2	-0.103234	
Se	78	2	H2	0.117192	33.0
Sr	88	1	He	0.007368	34.7
Zr	90	1	He	0.002232	48.7
Mo	95	1	He	-0.083341	
Ag	107	1	He	0.009132	3.4
Cd	111	1	He	-0.001670	
(Sn)	118	1	He	-0.080698	
(Sn)	118	2	H2	-0.083888	
Sn	120	2	H2	-0.079706	
Sb	121	1	He	0.024791	6.6
Ba	137	1	He	0.006349	17.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.079923	
(Pb)	206	1	He	0.006173	124.3
(Pb)	207	1	He	0.000685	281.8
Pb	208	1	He	0.004993	26.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	71.97007192
Sc	45	1	He	93.34488454
Sc	45	2	H2	102.7810052
Ge	72	1	He	93.28790768
Ge	72	2	H2	99.09329905
Rh	103	1	He	93.97466477
Rh	103	2	H2	95.61491471
In	115	1	He	93.67866001
In	115	2	H2	94.06184211
Tb	159	1	He	93.36247461
Tb	159	2	H2	91.19400381
Lu	175	1	He	92.45082649
Lu	175	2	H2	89.96892218
Bi	209	1	He	90.10687951
Bi	209	2	H2	88.76186461

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1246SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:29:07 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.734098	11.2
Be	9	1	He	-0.027967	
B	11	1	He	5.848614	5.6
Na	23	2	H2	40.193985	3.5
Mg	24	2	H2	0.634415	28.3
Al	27	2	H2	9.871261	2.5
Si	29	2	H2	11108.22577	42.8
K	39	2	H2	17.186705	14.5
Ca	44	2	H2	45.125704	17.1
Ti	47	2	H2	0.632021	11.8
V	51	2	H2	0.500378	5.2
Cr	52	2	H2	0.170830	3.2
Mn	55	2	H2	0.510186	9.8
Fe	57	2	H2	7.057750	8.5
Co	59	2	H2	0.007472	24.6
Ni	60	2	H2	0.231056	4.0
Cu	63	2	H2	0.135745	3.3
Zn	66	2	H2	4.875110	3.5
As	75	2	H2	-0.010807	
Se	78	2	H2	0.250053	40.9
Sr	88	1	He	0.025390	1.3
Zr	90	1	He	0.037191	7.6
Mo	95	1	He	-0.092854	
Ag	107	1	He	0.010394	18.6
Cd	111	1	He	0.005146	127.6
(Sn)	118	1	He	2.887450	1.3
(Sn)	118	2	H2	2.915718	0.9
Sn	120	2	H2	2.962732	2.7
Sb	121	1	He	0.212755	2.8
Ba	137	1	He	0.026893	24.3
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.074085	
(Pb)	206	1	He	0.042708	3.3
(Pb)	207	1	He	0.038233	13.9
Pb	208	1	He	0.042610	15.1

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	54.78417046
Sc	45	1	He	85.61682542
Sc	45	2	H2	98.73928283
Ge	72	1	He	87.18720066
Ge	72	2	H2	91.72228495
Rh	103	1	He	87.06849095
Rh	103	2	H2	88.62338525
In	115	1	He	86.94372621
In	115	2	H2	85.49659584
Tb	159	1	He	86.06866079
Tb	159	2	H2	83.63913386
Lu	175	1	He	86.13661044
Lu	175	2	H2	81.64413755
Bi	209	1	He	82.77239165
Bi	209	2	H2	79.99414366

Sample Name	1411869_1057
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1247SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 1:59:21 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.250155	129.4
Be	9	1	He	-0.026116	
B	11	1	He	4.710854	14.8
Na	23	2	H2	32.222860	2.8
Mg	24	2	H2	3.882712	6.0
Al	27	2	H2	2.810512	5.0
Si	29	2	H2	46988.99428	66.0
K	39	2	H2	9.520235	17.8
Ca	44	2	H2	127.488717	45.9
Ti	47	2	H2	0.099601	102.9
V	51	2	H2	0.111221	6.7
Cr	52	2	H2	0.129144	14.9
Mn	55	2	H2	1.067606	4.3
Fe	57	2	H2	1.664199	17.0
Co	59	2	H2	0.002780	122.7
Ni	60	2	H2	0.055424	13.1
Cu	63	2	H2	0.050781	12.1
Zn	66	2	H2	16.925701	1.6
As	75	2	H2	-0.094480	
Se	78	2	H2	0.121630	46.6
Sr	88	1	He	0.025168	7.1
Zr	90	1	He	0.001779	145.6
Mo	95	1	He	-0.136080	
Ag	107	1	He	0.002732	35.1
Cd	111	1	He	-0.009568	
(Sn)	118	1	He	-0.088502	
(Sn)	118	2	H2	-0.082184	
Sn	120	2	H2	-0.083194	
Sb	121	1	He	0.113224	10.3
Ba	137	1	He	0.033804	8.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.093611	
(Pb)	206	1	He	0.004926	80.8
(Pb)	207	1	He	0.001224	403.9
Pb	208	1	He	0.010253	70.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	66.37099780
Sc	45	1	He	92.32851221
Sc	45	2	H2	104.8096128
Ge	72	1	He	92.41628944
Ge	72	2	H2	98.16803058
Rh	103	1	He	93.71636770
Rh	103	2	H2	92.97370391
In	115	1	He	93.25527662
In	115	2	H2	91.36326352
Tb	159	1	He	93.65429285
Tb	159	2	H2	88.31597519
Lu	175	1	He	92.61149386
Lu	175	2	H2	87.32270658
Bi	209	1	He	89.36728863
Bi	209	2	H2	86.50738360

2

Sample Name	1411870_1057
Sample Type	LCS200.8
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1248SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:02:55 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	305.368048	0.7
Be	9	1	He	38.729932	0.6
B	11	1	He	385.023640	2.1
Na	23	2	H2	5215.713799	1.1
Mg	24	2	H2	4934.573578	0.9
Al	27	2	H2	1004.267969	0.5
Si	29	2	H2	13703.98953	36.6
K	39	2	H2	5190.055278	0.8
Ca	44	2	H2	24555.97186	0.9
Ti	47	2	H2	46.797095	0.4
V	51	2	H2	49.225682	0.4
Cr	52	2	H2	49.323673	0.9
Mn	55	2	H2	50.430189	1.4
Fe	57	2	H2	4821.196423	0.3
Co	59	2	H2	48.723898	1.0
Ni	60	2	H2	96.741758	0.4
Cu	63	2	H2	46.309250	1.3
Zn	66	2	H2	967.223256	0.4
As	75	2	H2	47.599096	0.6
Se	78	2	H2	9.434078	1.9
Sr	88	1	He	49.189445	1.1
Zr	90	1	He	9.798291	1.2
Mo	95	1	He	47.214801	1.0
Ag	107	1	He	48.204199	0.4
Cd	111	1	He	47.967721	0.5
(Sn)	118	1	He	47.623548	0.7
(Sn)	118	2	H2	48.230253	0.4
Sn	120	2	H2	47.922478	0.6
Sb	121	1	He	96.958835	0.9
Ba	137	1	He	47.952522	0.4
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.067293	1.9
(Pb)	206	1	He	48.304392	1.3
(Pb)	207	1	He	48.538391	0.8
Pb	208	1	He	48.489856	1.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.50058792
Sc	45	1	He	94.85610836
Sc	45	2	H2	106.6469474
Ge	72	1	He	94.52128436
Ge	72	2	H2	99.79841492
Rh	103	1	He	92.23274520
Rh	103	2	H2	93.30007194
In	115	1	He	93.48918628
In	115	2	H2	92.25367352
Tb	159	1	He	94.47212921
Tb	159	2	H2	90.47958787
Lu	175	1	He	93.98879809
Lu	175	2	H2	89.10292030
Bi	209	1	He	90.04685564
Bi	209	2	H2	86.00384611

2

Sample Name	20285733001_1057
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1249SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:06:28 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	11.925163	0.9
Be	9	1	He	-0.009765	
B	11	1	He	31.961061	2.2
Na	23	2	H2	16125.04543	0.7
Mg	24	2	H2	10838.22729	0.6
Al	27	2	H2	23.417057	2.8
Si	29	2	H2	35899.33131	11.3
K	39	2	H2	4015.043878	0.7
Ca	44	2	H2	44203.16133	1.2
Ti	47	2	H2	0.118988	37.5
V	51	2	H2	0.336690	2.3
Cr	52	2	H2	0.440110	4.5
Mn	55	2	H2	0.879193	2.2
Fe	57	2	H2	12.831160	10.6
Co	59	2	H2	0.008893	24.0
Ni	60	2	H2	0.152424	11.9
Cu	63	2	H2	0.330824	1.9
Zn	66	2	H2	11.365515	1.3
As	75	2	H2	0.288119	9.5
Se	78	2	H2	0.165452	14.4
Sr	88	1	He	102.899917	0.8
Zr	90	1	He	0.019691	20.3
Mo	95	1	He	0.263314	3.2
Ag	107	1	He	0.016011	23.7
Cd	111	1	He	0.010706	50.5
(Sn)	118	1	He	0.076425	10.3
(Sn)	118	2	H2	0.057341	23.6
Sn	120	2	H2	0.078902	8.4
Sb	121	1	He	0.152036	5.3
Ba	137	1	He	131.439522	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.052453	
(Pb)	206	1	He	0.055720	9.5
(Pb)	207	1	He	0.051942	3.1
Pb	208	1	He	0.062543	8.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	62.02008634
Sc	45	1	He	94.09209235
Sc	45	2	H2	107.6217343
Ge	72	1	He	94.49793314
Ge	72	2	H2	101.5467879
Rh	103	1	He	91.21799149
Rh	103	2	H2	93.45588802
In	115	1	He	93.13097978
In	115	2	H2	93.57582737
Tb	159	1	He	93.69661511
Tb	159	2	H2	91.32881894
Lu	175	1	He	93.26160828
Lu	175	2	H2	90.08793422
Bi	209	1	He	90.28835039
Bi	209	2	H2	87.42594921

2

Sample Name	20285733002_1057
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1250SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:10:01 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	12.404768	1.6
Be	9	1	He	-0.028376	
B	11	1	He	54.735353	1.1
Na	23	2	H2	29896.73867	0.3
Mg	24	2	H2	11029.20122	0.1
Al	27	2	H2	179.276060	2.0
Si	29	2	H2	31567.30358	13.7
K	39	2	H2	1606.658827	0.4
Ca	44	2	H2	27668.84914	0.1
Ti	47	2	H2	0.055344	122.5
V	51	2	H2	1.162669	1.3
Cr	52	2	H2	0.566907	2.3
Mn	55	2	H2	2.707377	2.4
Fe	57	2	H2	11.193402	11.1
Co	59	2	H2	0.005712	97.0
Ni	60	2	H2	0.151649	3.7
Cu	63	2	H2	0.199451	5.8
Zn	66	2	H2	10.324661	2.0
As	75	2	H2	0.502583	3.9
Se	78	2	H2	0.146482	76.0
Sr	88	1	He	117.148721	1.1
Zr	90	1	He	0.029229	10.2
Mo	95	1	He	0.619034	1.7
Ag	107	1	He	0.004041	24.0
Cd	111	1	He	-0.002619	
(Sn)	118	1	He	0.035095	10.6
(Sn)	118	2	H2	0.056690	31.2
Sn	120	2	H2	0.057886	23.8
Sb	121	1	He	0.136459	7.0
Ba	137	1	He	58.304248	1.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.087159	
(Pb)	206	1	He	0.019190	16.4
(Pb)	207	1	He	0.019756	22.3
Pb	208	1	He	0.024686	4.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	60.20570844
Sc	45	1	He	93.15005382
Sc	45	2	H2	106.6387451
Ge	72	1	He	93.87416456
Ge	72	2	H2	100.5484931
Rh	103	1	He	89.88237029
Rh	103	2	H2	91.43730664
In	115	1	He	91.94484848
In	115	2	H2	91.40008268
Tb	159	1	He	93.14636084
Tb	159	2	H2	89.82714319
Lu	175	1	He	92.13931225
Lu	175	2	H2	89.37601916
Bi	209	1	He	89.33690506
Bi	209	2	H2	85.68947410

2

Sample Name	20285793001_1057x300
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1251SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:13:35 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.549426	13.2
Be	9	1	He	-0.024540	
B	11	1	He	3.360928	15.7
Na	23	2	H2	79610.86373	0.1
Mg	24	2	H2	60.276253	0.6
Al	27	2	H2	1.459847	13.9
Si	29	2	H2	6783.157854	67.3
K	39	2	H2	157.880021	1.5
Ca	44	2	H2	248.178972	3.4
Ti	47	2	H2	0.003803	922.1
V	51	2	H2	0.056367	16.2
Cr	52	2	H2	0.108758	12.8
Mn	55	2	H2	0.555324	5.5
Fe	57	2	H2	7.079208	7.5
Co	59	2	H2	6.001828	0.7
Ni	60	2	H2	0.082567	31.8
Cu	63	2	H2	0.038492	31.9
Zn	66	2	H2	3.137614	6.3
As	75	2	H2	-0.056574	
Se	78	2	H2	0.172567	29.7
Sr	88	1	He	1.509304	2.0
Zr	90	1	He	-0.000038	
Mo	95	1	He	-0.064947	
Ag	107	1	He	0.011851	17.2
Cd	111	1	He	0.001424	548.9
(Sn)	118	1	He	-0.093249	
(Sn)	118	2	H2	-0.099192	
Sn	120	2	H2	-0.093135	
Sb	121	1	He	-0.004644	
Ba	137	1	He	1.446200	2.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.081009	
(Pb)	206	1	He	0.009687	34.5
(Pb)	207	1	He	0.008804	22.1
Pb	208	1	He	0.007579	70.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	66.17098295
Sc	45	1	He	95.46704393
Sc	45	2	H2	108.1558934
Ge	72	1	He	95.18326210
Ge	72	2	H2	103.6675680
Rh	103	1	He	91.61232546
Rh	103	2	H2	94.42483927
In	115	1	He	92.72094338
In	115	2	H2	94.33513592
Tb	159	1	He	93.64145114
Tb	159	2	H2	92.33592120
Lu	175	1	He	93.05664852
Lu	175	2	H2	92.08536825
Bi	209	1	He	88.52147541
Bi	209	2	H2	87.70069449

2

Sample Name	1411871_1057x300
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1252SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:17:09 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.519795	16.7
Be	9	1	He	0.100477	12.1
B	11	1	He	4.261627	5.1
Na	23	2	H2	79664.67136	1.5
Mg	24	2	H2	74.352115	1.8
Al	27	2	H2	4.585485	2.2
Si	29	2	H2	6864.024298	68.2
K	39	2	H2	174.009797	1.4
Ca	44	2	H2	345.550132	2.0
Ti	47	2	H2	0.147564	54.6
V	51	2	H2	0.201850	3.9
Cr	52	2	H2	0.289507	3.5
Mn	55	2	H2	0.667217	4.9
Fe	57	2	H2	22.348102	4.2
Co	59	2	H2	6.318250	1.4
Ni	60	2	H2	0.360489	7.5
Cu	63	2	H2	0.172491	7.0
Zn	66	2	H2	6.600762	1.5
As	75	2	H2	0.107548	25.6
Se	78	2	H2	0.136725	93.5
Sr	88	1	He	1.666513	0.5
Zr	90	1	He	0.025520	14.5
Mo	95	1	He	0.085407	9.6
Ag	107	1	He	0.165777	0.3
Cd	111	1	He	0.167909	7.0
(Sn)	118	1	He	0.053628	18.2
(Sn)	118	2	H2	0.060939	27.2
Sn	120	2	H2	0.065476	4.1
Sb	121	1	He	0.312655	0.7
Ba	137	1	He	1.598864	0.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.057421	26.8
(Pb)	206	1	He	0.163824	4.0
(Pb)	207	1	He	0.158625	2.4
Pb	208	1	He	0.159438	1.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.95402369
Sc	45	1	He	96.78353298
Sc	45	2	H2	109.0518703
Ge	72	1	He	96.19672646
Ge	72	2	H2	103.1726433
Rh	103	1	He	92.52873781
Rh	103	2	H2	94.08376647
In	115	1	He	93.06508558
In	115	2	H2	94.89754595
Tb	159	1	He	94.06493612
Tb	159	2	H2	92.67065195
Lu	175	1	He	94.09794627
Lu	175	2	H2	92.11689148
Bi	209	1	He	88.27474686
Bi	209	2	H2	87.39190220

2

Sample Name	1411872_1057x300
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1253SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:20:43 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.662609	5.4
Be	9	1	He	0.100674	8.7
B	11	1	He	4.292798	8.0
Na	23	2	H2	81559.89910	0.6
Mg	24	2	H2	76.143304	1.3
Al	27	2	H2	4.410684	13.2
Si	29	2	H2	6183.301041	69.3
K	39	2	H2	174.377872	1.4
Ca	44	2	H2	353.280844	3.3
Ti	47	2	H2	0.183350	22.6
V	51	2	H2	0.195471	5.0
Cr	52	2	H2	0.277434	10.5
Mn	55	2	H2	0.728560	6.2
Fe	57	2	H2	23.931714	4.1
Co	59	2	H2	6.416429	0.7
Ni	60	2	H2	0.373962	5.9
Cu	63	2	H2	0.165778	4.7
Zn	66	2	H2	6.672086	2.7
As	75	2	H2	0.089732	38.4
Se	78	2	H2	0.135898	25.7
Sr	88	1	He	1.697660	1.7
Zr	90	1	He	0.026871	10.4
Mo	95	1	He	0.071640	13.6
Ag	107	1	He	0.158209	2.9
Cd	111	1	He	0.159487	4.4
(Sn)	118	1	He	0.060872	1.2
(Sn)	118	2	H2	0.071646	11.8
Sn	120	2	H2	0.066403	4.6
Sb	121	1	He	0.312780	2.8
Ba	137	1	He	1.614455	2.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.060631	9.9
(Pb)	206	1	He	0.161038	2.2
(Pb)	207	1	He	0.143436	3.3
Pb	208	1	He	0.159227	2.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.24088262
Sc	45	1	He	95.92934598
Sc	45	2	H2	108.2542887
Ge	72	1	He	94.36936480
Ge	72	2	H2	103.0538815
Rh	103	1	He	91.41197829
Rh	103	2	H2	93.74687567
In	115	1	He	91.95322728
In	115	2	H2	94.63693250
Tb	159	1	He	92.62111287
Tb	159	2	H2	92.46218254
Lu	175	1	He	91.88758444
Lu	175	2	H2	92.61592805
Bi	209	1	He	87.34882964
Bi	209	2	H2	87.33157868

Sample Name	20285793002_1057x300
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1254SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:24:16 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.495065	46.7
Be	9	1	He	-0.022109	
B	11	1	He	2.396508	15.0
Na	23	2	H2	75946.28049	0.6
Mg	24	2	H2	53.943684	0.7
Al	27	2	H2	1.598798	9.3
Si	29	2	H2	5636.700707	76.7
K	39	2	H2	129.837774	2.6
Ca	44	2	H2	260.184626	2.7
Ti	47	2	H2	0.020602	47.7
V	51	2	H2	0.040099	71.3
Cr	52	2	H2	0.120005	14.9
Mn	55	2	H2	1.228041	3.6
Fe	57	2	H2	7.196066	8.8
Co	59	2	H2	5.255250	1.7
Ni	60	2	H2	0.070235	10.9
Cu	63	2	H2	0.017731	43.3
Zn	66	2	H2	2.423195	4.0
As	75	2	H2	-0.070465	
Se	78	2	H2	0.193113	59.5
Sr	88	1	He	1.452986	1.5
Zr	90	1	He	-0.000330	
Mo	95	1	He	-0.075863	
Ag	107	1	He	0.003196	31.0
Cd	111	1	He	-0.001312	
(Sn)	118	1	He	-0.096442	
(Sn)	118	2	H2	-0.090538	
Sn	120	2	H2	-0.088272	
Sb	121	1	He	-0.005268	
Ba	137	1	He	1.832957	1.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.095797	
(Pb)	206	1	He	0.003755	101.2
(Pb)	207	1	He	0.001067	518.4
Pb	208	1	He	0.005272	50.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.91403759
Sc	45	1	He	94.90955964
Sc	45	2	H2	105.7311821
Ge	72	1	He	93.96105811
Ge	72	2	H2	99.77593277
Rh	103	1	He	90.92868379
Rh	103	2	H2	91.85367066
In	115	1	He	91.47171425
In	115	2	H2	92.45964359
Tb	159	1	He	91.91153368
Tb	159	2	H2	90.14024093
Lu	175	1	He	91.20544147
Lu	175	2	H2	90.41955199
Bi	209	1	He	86.46418099
Bi	209	2	H2	85.55905302

2

Sample Name	20285793003_1057x300
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1255SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:27:50 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.579924	25.6
Be	9	1	He	-0.021509	
B	11	1	He	2.299110	21.1
Na	23	2	H2	57783.38048	0.8
Mg	24	2	H2	78.205143	1.8
Al	27	2	H2	1.195836	10.1
Si	29	2	H2	7316.414839	64.6
K	39	2	H2	136.639030	0.9
Ca	44	2	H2	383.830544	1.6
Ti	47	2	H2	0.018297	235.0
V	51	2	H2	0.042864	14.8
Cr	52	2	H2	0.121805	6.7
Mn	55	2	H2	0.923832	2.9
Fe	57	2	H2	8.349622	19.3
Co	59	2	H2	8.996407	0.4
Ni	60	2	H2	0.078824	34.7
Cu	63	2	H2	0.019268	34.1
Zn	66	2	H2	3.688926	2.1
As	75	2	H2	-0.059972	
Se	78	2	H2	0.084596	79.2
Sr	88	1	He	2.049491	1.3
Zr	90	1	He	-0.001879	
Mo	95	1	He	-0.075371	
Ag	107	1	He	0.002428	14.8
Cd	111	1	He	-0.005506	
(Sn)	118	1	He	-0.101091	
(Sn)	118	2	H2	-0.104559	
Sn	120	2	H2	0.006340	2578.1
Sb	121	1	He	-0.022213	
Ba	137	1	He	1.765853	2.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.097676	
(Pb)	206	1	He	0.001785	196.0
(Pb)	207	1	He	-0.006028	
Pb	208	1	He	0.003500	37.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.56764372
Sc	45	1	He	95.54475131
Sc	45	2	H2	106.9905955
Ge	72	1	He	95.24214867
Ge	72	2	H2	101.5177600
Rh	103	1	He	91.73653521
Rh	103	2	H2	93.30786532
In	115	1	He	92.60700984
In	115	2	H2	94.17753212
Tb	159	1	He	92.79744335
Tb	159	2	H2	91.75384492
Lu	175	1	He	91.80519497
Lu	175	2	H2	92.06520853
Bi	209	1	He	87.52562862
Bi	209	2	H2	86.90343482

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1256_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:31:23 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	55.398950	2.4
Be	9	1	He	8.258097	0.3
B	11	1	He	67.142572	1.2
Na	23	2	H2	1074.115069	1.0
Mg	24	2	H2	1010.043884	1.3
Al	27	2	H2	209.381393	0.1
Si	29	2	H2	9191.215835	49.5
K	39	2	H2	1092.265291	0.6
Ca	44	2	H2	5090.649332	0.4
Ti	47	2	H2	9.553704	2.7
V	51	2	H2	10.013558	0.8
Cr	52	2	H2	10.168789	1.0
Mn	55	2	H2	51.586446	0.6
Fe	57	2	H2	987.532804	1.8
Co	59	2	H2	9.969006	1.0
Ni	60	2	H2	19.709179	1.5
Cu	63	2	H2	9.742211	0.5
Zn	66	2	H2	200.734726	1.2
As	75	2	H2	9.756814	1.3
Se	78	2	H2	10.153974	0.7
Sr	88	1	He	10.200863	0.3
Zr	90	1	He	9.916849	0.3
Mo	95	1	He	9.514531	0.5
Ag	107	1	He	9.888738	0.8
Cd	111	1	He	9.773408	1.2
(Sn)	118	1	He	9.579223	0.3
(Sn)	118	2	H2	9.723661	0.3
Sn	120	2	H2	9.674053	1.0
Sb	121	1	He	19.582969	0.3
Ba	137	1	He	9.809222	0.4
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.771519	0.5
(Pb)	206	1	He	9.978490	1.3
(Pb)	207	1	He	9.965492	0.5
Pb	208	1	He	10.051838	0.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	69.06589893
Sc	45	1	He	94.69458328
Sc	45	2	H2	106.2593388
Ge	72	1	He	93.65731548
Ge	72	2	H2	101.2093649
Rh	103	1	He	92.53873520
Rh	103	2	H2	95.42290390
In	115	1	He	93.10762660
In	115	2	H2	95.34018579
Tb	159	1	He	92.16846044
Tb	159	2	H2	91.67656301
Lu	175	1	He	91.70788031
Lu	175	2	H2	90.70802702
Bi	209	1	He	88.14765303
Bi	209	2	H2	88.33875361

2

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1257_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:34:56 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.123478	67.6
Be	9	1	He	-0.025864	
B	11	1	He	2.179782	8.4
Na	23	2	H2	17.733834	1.9
Mg	24	2	H2	0.674875	35.2
Al	27	2	H2	1.044965	12.9
Si	29	2	H2	8615.441194	56.4
K	39	2	H2	18.202076	5.9
Ca	44	2	H2	27.405773	30.4
Ti	47	2	H2	-0.034723	
V	51	2	H2	0.032382	30.8
Cr	52	2	H2	0.119286	16.0
Mn	55	2	H2	0.130535	5.8
Fe	57	2	H2	0.252626	61.1
Co	59	2	H2	0.001822	109.5
Ni	60	2	H2	0.010053	118.3
Cu	63	2	H2	0.015957	58.1
Zn	66	2	H2	0.976890	3.8
As	75	2	H2	-0.106220	
Se	78	2	H2	0.218792	21.7
Sr	88	1	He	0.005999	33.6
Zr	90	1	He	0.005632	14.0
Mo	95	1	He	-0.108756	
Ag	107	1	He	0.005184	20.7
Cd	111	1	He	-0.004918	
(Sn)	118	1	He	-0.070530	
(Sn)	118	2	H2	-0.080962	
Sn	120	2	H2	-0.074392	
Sb	121	1	He	0.005678	125.2
Ba	137	1	He	0.007736	36.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.089543	
(Pb)	206	1	He	0.003478	132.8
(Pb)	207	1	He	-0.001680	
Pb	208	1	He	0.000399	677.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	66.68819219
Sc	45	1	He	92.38002746
Sc	45	2	H2	105.4517000
Ge	72	1	He	92.37755363
Ge	72	2	H2	99.65749797
Rh	103	1	He	92.73215534
Rh	103	2	H2	94.71218140
In	115	1	He	92.15017704
In	115	2	H2	94.70850342
Tb	159	1	He	90.66822624
Tb	159	2	H2	90.22930205
Lu	175	1	He	89.78752606
Lu	175	2	H2	90.09264435
Bi	209	1	He	88.12675310
Bi	209	2	H2	87.37293947

2

Sample Name	1411873_1058
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1258SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:38:31 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.638826	18.1
Be	9	1	He	-0.031843	
B	11	1	He	6.587177	1.6
Na	23	2	H2	35.205340	2.5
Mg	24	2	H2	2.777615	13.1
Al	27	2	H2	2.454611	6.7
Si	29	2	H2	13105.24340	42.5
K	39	2	H2	22.448425	15.0
Ca	44	2	H2	39.930892	18.3
Ti	47	2	H2	0.087060	19.1
V	51	2	H2	0.099171	34.0
Cr	52	2	H2	0.120394	18.3
Mn	55	2	H2	0.382002	7.9
Fe	57	2	H2	1.598780	34.6
Co	59	2	H2	0.007690	26.4
Ni	60	2	H2	0.023518	31.7
Cu	63	2	H2	0.048261	3.2
Zn	66	2	H2	3.299425	1.8
As	75	2	H2	-0.108202	
Se	78	2	H2	0.219961	30.3
Sr	88	1	He	0.008082	30.4
Zr	90	1	He	0.004506	22.5
Mo	95	1	He	-0.130932	
Ag	107	1	He	0.002865	35.6
Cd	111	1	He	-0.008461	
(Sn)	118	1	He	-0.066332	
(Sn)	118	2	H2	-0.075281	
Sn	120	2	H2	-0.058604	
Sb	121	1	He	0.127715	1.3
Ba	137	1	He	0.060419	2.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.096043	
(Pb)	206	1	He	0.004072	102.7
(Pb)	207	1	He	0.003553	272.1
Pb	208	1	He	0.002986	204.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	58.52746777
Sc	45	1	He	90.03651089
Sc	45	2	H2	105.2539348
Ge	72	1	He	90.67508568
Ge	72	2	H2	99.34674956
Rh	103	1	He	90.88692939
Rh	103	2	H2	93.18118127
In	115	1	He	90.73727845
In	115	2	H2	92.18491020
Tb	159	1	He	89.44819579
Tb	159	2	H2	87.79273396
Lu	175	1	He	88.56494445
Lu	175	2	H2	86.65853750
Bi	209	1	He	85.70446191
Bi	209	2	H2	84.35160629

2

Sample Name	1411874_1058
Sample Type	LCS6020
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1259SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:42:05 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	306.988939	0.3
Be	9	1	He	37.157557	0.5
B	11	1	He	398.034830	1.0
Na	23	2	H2	5093.478434	1.4
Mg	24	2	H2	4792.313870	0.6
Al	27	2	H2	990.335581	0.3
Si	29	2	H2	16746.25693	34.0
K	39	2	H2	5217.636215	0.7
Ca	44	2	H2	24235.93695	0.7
Ti	47	2	H2	46.861336	0.9
V	51	2	H2	48.069691	0.2
Cr	52	2	H2	47.846776	0.2
Mn	55	2	H2	49.575530	0.2
Fe	57	2	H2	4706.307028	0.5
Co	59	2	H2	47.190877	0.6
Ni	60	2	H2	93.788714	0.7
Cu	63	2	H2	44.802083	0.3
Zn	66	2	H2	956.255969	0.3
As	75	2	H2	47.353845	0.2
Se	78	2	H2	9.587666	2.2
Sr	88	1	He	48.851938	0.1
Zr	90	1	He	9.821574	0.8
Mo	95	1	He	46.906365	1.1
Ag	107	1	He	48.090272	0.8
Cd	111	1	He	47.673947	1.1
(Sn)	118	1	He	47.200024	0.9
(Sn)	118	2	H2	47.643684	0.7
Sn	120	2	H2	47.341081	0.7
Sb	121	1	He	97.366922	0.9
Ba	137	1	He	47.669697	1.5
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	47.549206	0.5
(Pb)	206	1	He	47.978218	0.3
(Pb)	207	1	He	48.271615	0.5
Pb	208	1	He	48.419777	0.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	60.38192026
Sc	45	1	He	90.30525580
Sc	45	2	H2	105.0057358
Ge	72	1	He	90.37548626
Ge	72	2	H2	98.94679087
Rh	103	1	He	87.93531828
Rh	103	2	H2	90.73691270
In	115	1	He	89.32271262
In	115	2	H2	90.73250552
Tb	159	1	He	89.35766077
Tb	159	2	H2	88.36751728
Lu	175	1	He	88.73307442
Lu	175	2	H2	87.32014765
Bi	209	1	He	84.62490171
Bi	209	2	H2	83.21034027

2

Sample Name	20285718001_1058
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1260SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:45:40 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	2.101205	16.5
Be	9	1	He	-0.003731	
B	11	1	He	135.635023	1.1
Na	23	2	H2	24150.12787	0.2
Mg	24	2	H2	4833.917235	0.5
Al	27	2	H2	2.934213	9.5
Si	29	2	H2	20370.94416	24.7
K	39	2	H2	7366.199063	0.7
Ca	44	2	H2	37824.64530	0.4
Ti	47	2	H2	0.062464	62.4
V	51	2	H2	0.152505	12.2
Cr	52	2	H2	0.464718	3.1
Mn	55	2	H2	20.411532	1.0
Fe	57	2	H2	472.548176	0.8
Co	59	2	H2	0.216326	3.4
Ni	60	2	H2	13.120029	0.6
Cu	63	2	H2	10.523468	0.6
Zn	66	2	H2	19.559008	1.7
As	75	2	H2	17.845787	1.0
Se	78	2	H2	0.208268	17.9
Sr	88	1	He	278.177778	0.7
Zr	90	1	He	0.011263	20.0
Mo	95	1	He	0.156825	4.2
Ag	107	1	He	0.019966	19.8
Cd	111	1	He	0.009933	26.3
(Sn)	118	1	He	-0.015091	
(Sn)	118	2	H2	-0.003711	
Sn	120	2	H2	-0.014715	
Sb	121	1	He	0.202395	4.5
Ba	137	1	He	14.773470	0.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.045592	
(Pb)	206	1	He	1.184776	1.4
(Pb)	207	1	He	1.128531	0.9
Pb	208	1	He	1.155393	1.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	57.05996187
Sc	45	1	He	89.18526300
Sc	45	2	H2	104.3999185
Ge	72	1	He	90.16915488
Ge	72	2	H2	98.48172772
Rh	103	1	He	87.55633608
Rh	103	2	H2	89.59741284
In	115	1	He	89.55186229
In	115	2	H2	90.22114262
Tb	159	1	He	89.64694565
Tb	159	2	H2	87.63630713
Lu	175	1	He	89.20878695
Lu	175	2	H2	86.94163605
Bi	209	1	He	84.31661897
Bi	209	2	H2	83.12873660

Sample Name	20285740001_1058x5
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1261SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:49:13 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	9.666140	2.4
Be	9	1	He	-0.021809	
B	11	1	He	86.313590	1.0
Na	23	2	H2	156192.7648	0.8
Mg	24	2	H2	2329.083559	0.8
Al	27	2	H2	150.158776	1.0
Si	29	2	H2	9082.751394	49.8
K	39	2	H2	1722.278193	0.4
Ca	44	2	H2	6157.797336	0.5
Ti	47	2	H2	1.093561	11.1
V	51	2	H2	3.931778	2.2
Cr	52	2	H2	0.414946	2.3
Mn	55	2	H2	9.019856	0.6
Fe	57	2	H2	54.743741	2.5
Co	59	2	H2	1.075956	1.4
Ni	60	2	H2	0.774101	1.0
Cu	63	2	H2	0.873670	2.1
Zn	66	2	H2	8.619779	1.6
As	75	2	H2	0.735174	3.2
Se	78	2	H2	14.479881	2.4
Sr	88	1	He	143.170412	0.9
Zr	90	1	He	0.043753	4.4
Mo	95	1	He	5.884314	1.0
Ag	107	1	He	0.004353	13.3
Cd	111	1	He	0.022168	50.8
(Sn)	118	1	He	-0.071260	
(Sn)	118	2	H2	-0.071440	
Sn	120	2	H2	-0.075468	
Sb	121	1	He	1.425146	2.1
Ba	137	1	He	39.801484	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.083535	
(Pb)	206	1	He	0.293436	1.3
(Pb)	207	1	He	0.280061	5.1
Pb	208	1	He	0.279108	5.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	63.23224157
Sc	45	1	He	90.56560086
Sc	45	2	H2	102.8000834
Ge	72	1	He	90.85561358
Ge	72	2	H2	98.65270654
Rh	103	1	He	86.92931387
Rh	103	2	H2	88.81211146
In	115	1	He	87.66320139
In	115	2	H2	90.22536987
Tb	159	1	He	88.99824879
Tb	159	2	H2	88.69994705
Lu	175	1	He	88.46849921
Lu	175	2	H2	88.85206487
Bi	209	1	He	81.41305880
Bi	209	2	H2	81.87930276

2

Sample Name	20285743001_1058x200
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1262SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:52:49 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.559499	52.1
Be	9	1	He	-0.023734	
B	11	1	He	6.326344	1.5
Na	23	2	H2	3021.472552	0.9
Mg	24	2	H2	10.423951	7.1
Al	27	2	H2	82.306790	3.6
Si	29	2	H2	5613.228639	80.0
K	39	2	H2	20.241835	9.7
Ca	44	2	H2	50.255957	23.2
Ti	47	2	H2	0.056638	97.8
V	51	2	H2	14.799023	1.9
Cr	52	2	H2	0.120234	7.3
Mn	55	2	H2	0.279235	7.6
Fe	57	2	H2	6.758612	5.5
Co	59	2	H2	0.738495	2.0
Ni	60	2	H2	0.094566	15.5
Cu	63	2	H2	0.093412	14.0
Zn	66	2	H2	0.716165	10.3
As	75	2	H2	-0.105575	
Se	78	2	H2	0.166131	14.1
Sr	88	1	He	0.257628	7.3
Zr	90	1	He	-0.001498	
Mo	95	1	He	-0.073362	
Ag	107	1	He	0.002210	44.9
Cd	111	1	He	-0.006869	
(Sn)	118	1	He	-0.102830	
(Sn)	118	2	H2	-0.101672	
Sn	120	2	H2	-0.104583	
Sb	121	1	He	-0.019765	
Ba	137	1	He	0.163536	3.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.095084	
(Pb)	206	1	He	0.029795	11.5
(Pb)	207	1	He	0.022279	23.8
Pb	208	1	He	0.024428	24.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.51854223
Sc	45	1	He	93.39522839
Sc	45	2	H2	105.7297776
Ge	72	1	He	93.06877482
Ge	72	2	H2	100.5525741
Rh	103	1	He	92.97073472
Rh	103	2	H2	95.20532944
In	115	1	He	92.88798288
In	115	2	H2	94.37052805
Tb	159	1	He	91.92155425
Tb	159	2	H2	90.60690711
Lu	175	1	He	91.74619255
Lu	175	2	H2	90.11552327
Bi	209	1	He	87.58579461
Bi	209	2	H2	88.17149878

2

Sample Name	1411875_1058x200
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1263SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:56:23 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.975283	6.3
Be	9	1	He	0.164166	1.2
B	11	1	He	7.554556	2.1
Na	23	2	H2	3034.388839	0.4
Mg	24	2	H2	34.694157	2.4
Al	27	2	H2	88.752148	0.6
Si	29	2	H2	4594.409923	85.7
K	39	2	H2	44.956283	1.9
Ca	44	2	H2	168.741808	3.9
Ti	47	2	H2	0.280572	34.5
V	51	2	H2	15.174429	1.3
Cr	52	2	H2	0.381540	4.2
Mn	55	2	H2	0.559021	3.8
Fe	57	2	H2	33.468949	9.8
Co	59	2	H2	0.993498	1.2
Ni	60	2	H2	0.551436	2.0
Cu	63	2	H2	0.342121	4.2
Zn	66	2	H2	5.636253	2.4
As	75	2	H2	0.134804	10.7
Se	78	2	H2	0.135226	79.0
Sr	88	1	He	0.461747	1.8
Zr	90	1	He	0.012596	37.8
Mo	95	1	He	0.131704	8.1
Ag	107	1	He	0.233615	5.3
Cd	111	1	He	0.215270	4.4
(Sn)	118	1	He	0.100806	1.9
(Sn)	118	2	H2	0.105865	12.4
Sn	120	2	H2	0.117068	3.2
Sb	121	1	He	0.441873	1.3
Ba	137	1	He	0.386582	3.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.113435	7.4
(Pb)	206	1	He	0.257107	5.6
(Pb)	207	1	He	0.278166	6.5
Pb	208	1	He	0.260589	3.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	70.03782711
Sc	45	1	He	93.89235670
Sc	45	2	H2	106.7879993
Ge	72	1	He	93.76608276
Ge	72	2	H2	100.8860352
Rh	103	1	He	93.26087870
Rh	103	2	H2	95.85664043
In	115	1	He	93.36173494
In	115	2	H2	94.87191376
Tb	159	1	He	91.50948347
Tb	159	2	H2	90.68430129
Lu	175	1	He	90.86727752
Lu	175	2	H2	90.16947549
Bi	209	1	He	88.50883705
Bi	209	2	H2	88.47898756

2

Sample Name	1411876_1058x200
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1264SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 2:59:56 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	2.048141	8.6
Be	9	1	He	0.170259	5.6
B	11	1	He	7.454970	4.6
Na	23	2	H2	3068.136835	1.8
Mg	24	2	H2	36.318026	5.4
Al	27	2	H2	91.370314	1.5
Si	29	2	H2	6193.157130	71.6
K	39	2	H2	50.520028	5.2
Ca	44	2	H2	174.232847	11.7
Ti	47	2	H2	0.301983	17.4
V	51	2	H2	15.469755	1.4
Cr	52	2	H2	0.382990	4.4
Mn	55	2	H2	0.541075	4.5
Fe	57	2	H2	32.350503	1.9
Co	59	2	H2	1.005631	1.9
Ni	60	2	H2	0.575366	5.4
Cu	63	2	H2	0.342193	4.0
Zn	66	2	H2	5.516180	1.7
As	75	2	H2	0.137266	20.2
Se	78	2	H2	0.256525	14.1
Sr	88	1	He	0.464896	2.9
Zr	90	1	He	0.013437	43.0
Mo	95	1	He	0.132594	2.8
Ag	107	1	He	0.245393	0.1
Cd	111	1	He	0.229189	2.6
(Sn)	118	1	He	0.088886	6.8
(Sn)	118	2	H2	0.087313	9.7
Sn	120	2	H2	0.100385	17.4
Sb	121	1	He	0.460166	1.8
Ba	137	1	He	0.404113	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.117600	10.9
(Pb)	206	1	He	0.273270	7.1
(Pb)	207	1	He	0.249896	9.4
Pb	208	1	He	0.280032	1.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	69.46412550
Sc	45	1	He	94.35913555
Sc	45	2	H2	107.1652563
Ge	72	1	He	93.78718261
Ge	72	2	H2	102.0136676
Rh	103	1	He	93.71687444
Rh	103	2	H2	95.58522746
In	115	1	He	93.73691612
In	115	2	H2	95.02558747
Tb	159	1	He	92.46955730
Tb	159	2	H2	90.81029193
Lu	175	1	He	91.89401255
Lu	175	2	H2	90.34601659
Bi	209	1	He	89.04482408
Bi	209	2	H2	88.11364994

Sample Name	1412242_1058x200
Sample Type	PDS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1265SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:03:30 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	301.592119	0.6
Be	9	1	He	40.549572	0.5
B	11	1	He	362.617044	0.5
Na	23	2	H2	8031.756872	0.8
Mg	24	2	H2	4978.099868	0.9
Al	27	2	H2	1093.565122	1.0
Si	29	2	H2	5186.471096	86.6
K	39	2	H2	5242.960242	0.7
Ca	44	2	H2	24802.42906	0.2
Ti	47	2	H2	47.985912	1.2
V	51	2	H2	64.389762	1.0
Cr	52	2	H2	49.758160	1.2
Mn	55	2	H2	50.829859	0.6
Fe	57	2	H2	4885.069992	1.1
Co	59	2	H2	49.483667	0.8
Ni	60	2	H2	97.555238	0.7
Cu	63	2	H2	46.056946	0.6
Zn	66	2	H2	971.429068	0.6
As	75	2	H2	48.192878	0.6
Se	78	2	H2	9.738254	3.4
Sr	88	1	He	49.892565	0.9
Zr	90	1	He	48.452522	0.6
Mo	95	1	He	48.771684	1.7
Ag	107	1	He	50.281055	0.6
Cd	111	1	He	48.420114	0.5
(Sn)	118	1	He	48.336275	1.0
(Sn)	118	2	H2	48.997828	0.3
Sn	120	2	H2	48.760437	1.3
Sb	121	1	He	94.366385	1.7
Ba	137	1	He	48.890388	0.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	48.245984	0.5
(Pb)	206	1	He	49.337451	0.9
(Pb)	207	1	He	48.905809	1.4
Pb	208	1	He	48.769264	0.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	71.00749890
Sc	45	1	He	94.32558293
Sc	45	2	H2	107.3928119
Ge	72	1	He	93.72492865
Ge	72	2	H2	100.7908954
Rh	103	1	He	91.41224291
Rh	103	2	H2	93.52230336
In	115	1	He	91.58215184
In	115	2	H2	93.33590136
Tb	159	1	He	92.86381561
Tb	159	2	H2	90.87267996
Lu	175	1	He	92.25741734
Lu	175	2	H2	90.45708728
Bi	209	1	He	87.76070039
Bi	209	2	H2	86.50215085

Sample Name	1412243_1058x1000
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1266SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:07:03 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.499159	43.8
Be	9	1	He	-0.006912	
B	11	1	He	3.525432	15.2
Na	23	2	H2	610.281210	1.4
Mg	24	2	H2	2.826770	10.4
Al	27	2	H2	16.986784	2.9
Si	29	2	H2	6660.992447	69.7
K	39	2	H2	15.982702	18.5
Ca	44	2	H2	16.051005	96.9
Ti	47	2	H2	0.005969	477.3
V	51	2	H2	2.907122	2.1
Cr	52	2	H2	0.098702	29.7
Mn	55	2	H2	0.113662	1.7
Fe	57	2	H2	3.074274	16.9
Co	59	2	H2	0.150928	1.6
Ni	60	2	H2	0.038884	31.4
Cu	63	2	H2	0.029883	16.0
Zn	66	2	H2	1.081608	6.6
As	75	2	H2	-0.084748	
Se	78	2	H2	0.121357	33.3
Sr	88	1	He	0.055911	2.5
Zr	90	1	He	0.067873	14.0
Mo	95	1	He	-0.006628	
Ag	107	1	He	0.017697	16.8
Cd	111	1	He	0.006613	5.7
(Sn)	118	1	He	-0.045119	
(Sn)	118	2	H2	-0.053903	
Sn	120	2	H2	-0.049549	
Sb	121	1	He	0.542613	11.8
Ba	137	1	He	0.050436	10.5
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.076795	
(Pb)	206	1	He	0.022137	18.9
(Pb)	207	1	He	0.020529	30.9
Pb	208	1	He	0.026247	19.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.80989343
Sc	45	1	He	93.19385073
Sc	45	2	H2	105.9157064
Ge	72	1	He	93.24773644
Ge	72	2	H2	101.5901663
Rh	103	1	He	93.29206651
Rh	103	2	H2	95.57142934
In	115	1	He	93.56802048
In	115	2	H2	95.03440372
Tb	159	1	He	92.50246270
Tb	159	2	H2	91.24403920
Lu	175	1	He	91.67446947
Lu	175	2	H2	90.43156214
Bi	209	1	He	89.06292577
Bi	209	2	H2	88.55081303

2

Sample Name	20285743001_1058x2
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1267SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:10:36 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	5.284632	5.3
Be	9	1	He	-0.002564	
B	11	1	He	372.428021	2.1
Na	23	2	H2	285889.5641	0.6
Mg	24	2	H2	945.164606	0.1
Al	27	2	H2	7957.571708	0.2
Si	29	2	H2	13813.33620	30.3
K	39	2	H2	1473.095258	0.7
Ca	44	2	H2	3142.637053	0.9
Ti	47	2	H2	11.499699	11.5
V	51	2	H2	1516.132341	0.1
Cr	52	2	H2	5.687018	1.5
Mn	55	2	H2	22.636723	0.5
Fe	57	2	H2	688.396978	0.7
Co	59	2	H2	72.001181	0.3
Ni	60	2	H2	7.398197	1.8
Cu	63	2	H2	8.730675	0.6
Zn	66	2	H2	23.590492	1.6
As	75	2	H2	1.168690	3.7
Se	78	2	H2	0.428561	30.9
Sr	88	1	He	21.548932	0.5
Zr	90	1	He	0.337260	1.6
Mo	95	1	He	3.775250	1.2
Ag	107	1	He	0.031948	9.4
Cd	111	1	He	0.163438	4.3
(Sn)	118	1	He	0.966329	17.7
(Sn)	118	2	H2	1.137111	4.9
Sn	120	2	H2	1.113004	7.8
Sb	121	1	He	1.222937	5.9
Ba	137	1	He	15.286627	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.088531	
(Pb)	206	1	He	2.921086	1.7
(Pb)	207	1	He	2.716972	1.3
Pb	208	1	He	2.767262	1.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.29187954
Sc	45	1	He	91.84202648
Sc	45	2	H2	103.4994099
Ge	72	1	He	90.44447058
Ge	72	2	H2	98.05148410
Rh	103	1	He	86.54051155
Rh	103	2	H2	89.16581964
In	115	1	He	86.65030023
In	115	2	H2	89.83380744
Tb	159	1	He	89.86261936
Tb	159	2	H2	90.53150222
Lu	175	1	He	89.61771905
Lu	175	2	H2	91.12289022
Bi	209	1	He	78.74674781
Bi	209	2	H2	80.56402905

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1268SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:14:13 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.113880	26.5
Be	9	1	He	-0.035267	
B	11	1	He	5.163235	8.1
Na	23	2	H2	57.027034	8.3
Mg	24	2	H2	0.249689	100.3
Al	27	2	H2	10.246356	4.7
Si	29	2	H2	10263.01300	46.9
K	39	2	H2	26.415982	5.7
Ca	44	2	H2	43.508751	34.9
Ti	47	2	H2	0.342404	11.4
V	51	2	H2	0.449795	5.6
Cr	52	2	H2	0.208132	3.0
Mn	55	2	H2	0.500440	3.4
Fe	57	2	H2	8.518311	14.3
Co	59	2	H2	0.010557	15.1
Ni	60	2	H2	0.224003	17.9
Cu	63	2	H2	0.130002	11.3
Zn	66	2	H2	4.664405	2.1
As	75	2	H2	-0.039384	
Se	78	2	H2	0.129486	38.9
Sr	88	1	He	0.027349	15.9
Zr	90	1	He	0.100747	14.4
Mo	95	1	He	-0.085687	
Ag	107	1	He	0.008656	10.5
Cd	111	1	He	-0.001259	
(Sn)	118	1	He	2.787008	1.5
(Sn)	118	2	H2	2.870926	4.9
Sn	120	2	H2	2.811575	0.7
Sb	121	1	He	0.381377	10.9
Ba	137	1	He	0.029473	10.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.092454	
(Pb)	206	1	He	0.032994	16.3
(Pb)	207	1	He	0.031368	29.3
Pb	208	1	He	0.039651	7.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	55.54949698
Sc	45	1	He	85.81868658
Sc	45	2	H2	99.24296346
Ge	72	1	He	86.14667823
Ge	72	2	H2	91.53780815
Rh	103	1	He	86.82719569
Rh	103	2	H2	87.85173403
In	115	1	He	86.35822422
In	115	2	H2	85.36610804
Tb	159	1	He	86.21434563
Tb	159	2	H2	82.78107652
Lu	175	1	He	85.41802973
Lu	175	2	H2	80.94455326
Bi	209	1	He	82.09107359
Bi	209	2	H2	78.82490795

2

Sample Name	1411875_1058x2
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1269SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:17:46 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	168.204820	0.6
Be	9	1	He	20.450697	1.0
B	11	1	He	593.339759	1.7
Na	23	2	H2	305431.9294	1.0
Mg	24	2	H2	3497.925865	0.5
Al	27	2	H2	8993.559730	0.2
Si	29	2	H2	17480.59445	23.4
K	39	2	H2	4180.767093	0.3
Ca	44	2	H2	16107.33373	0.5
Ti	47	2	H2	36.414373	1.9
V	51	2	H2	1634.474714	0.6
Cr	52	2	H2	31.543794	2.0
Mn	55	2	H2	49.660646	1.5
Fe	57	2	H2	3264.599080	0.8
Co	59	2	H2	101.066878	0.9
Ni	60	2	H2	56.732666	1.0
Cu	63	2	H2	33.365609	0.5
Zn	66	2	H2	526.563917	0.5
As	75	2	H2	26.737560	0.3
Se	78	2	H2	5.031363	4.0
Sr	88	1	He	48.088101	0.8
Zr	90	1	He	2.019926	5.2
Mo	95	1	He	29.391643	1.5
Ag	107	1	He	24.704658	0.9
Cd	111	1	He	25.233312	0.6
(Sn)	118	1	He	22.439975	1.6
(Sn)	118	2	H2	23.208839	1.0
Sn	120	2	H2	23.134352	0.4
Sb	121	1	He	51.478719	1.0
Ba	137	1	He	42.568460	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	19.038627	5.2
(Pb)	206	1	He	29.182266	0.3
(Pb)	207	1	He	28.859957	0.6
Pb	208	1	He	28.602272	0.7

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.19718367
Sc	45	1	He	92.52111734
Sc	45	2	H2	101.0115907
Ge	72	1	He	91.13944862
Ge	72	2	H2	96.38690589
Rh	103	1	He	86.92398938
Rh	103	2	H2	88.15735857
In	115	1	He	86.90361761
In	115	2	H2	87.75221210
Tb	159	1	He	90.76912035
Tb	159	2	H2	88.96942779
Lu	175	1	He	90.64787002
Lu	175	2	H2	89.42946791
Bi	209	1	He	79.72282053
Bi	209	2	H2	79.50816323

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1270SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:21:23 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.240570	19.5
Be	9	1	He	-0.025665	
B	11	1	He	6.702740	9.5
Na	23	2	H2	68.799828	6.4
Mg	24	2	H2	0.348439	101.0
Al	27	2	H2	10.064208	3.7
Si	29	2	H2	9201.895276	57.5
K	39	2	H2	23.018767	9.3
Ca	44	2	H2	40.798805	22.7
Ti	47	2	H2	0.252941	12.1
V	51	2	H2	0.485016	8.1
Cr	52	2	H2	0.188435	11.1
Mn	55	2	H2	0.480456	5.1
Fe	57	2	H2	7.661913	17.9
Co	59	2	H2	0.015161	3.8
Ni	60	2	H2	0.233672	12.8
Cu	63	2	H2	0.128224	12.8
Zn	66	2	H2	4.773950	2.6
As	75	2	H2	-0.049768	
Se	78	2	H2	0.227055	46.3
Sr	88	1	He	0.031030	8.6
Zr	90	1	He	0.031586	8.5
Mo	95	1	He	-0.037725	
Ag	107	1	He	0.013061	31.7
Cd	111	1	He	0.001981	396.4
(Sn)	118	1	He	2.881791	0.9
(Sn)	118	2	H2	2.946472	2.8
Sn	120	2	H2	2.864430	0.6
Sb	121	1	He	0.224095	5.5
Ba	137	1	He	0.035092	25.5
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.010553	
(Pb)	206	1	He	0.033181	13.4
(Pb)	207	1	He	0.032722	30.7
Pb	208	1	He	0.038465	18.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	55.59228621
Sc	45	1	He	85.23921008
Sc	45	2	H2	97.26387788
Ge	72	1	He	85.22971694
Ge	72	2	H2	90.48699769
Rh	103	1	He	86.41909750
Rh	103	2	H2	87.33294514
In	115	1	He	86.62295581
In	115	2	H2	84.21196448
Tb	159	1	He	86.29972082
Tb	159	2	H2	82.19110006
Lu	175	1	He	86.06667049
Lu	175	2	H2	80.54634033
Bi	209	1	He	82.10054411
Bi	209	2	H2	78.70879408

2

Sample Name	1411876_1058x2
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1271SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:24:56 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	168.805014	1.1
Be	9	1	He	20.609809	1.3
B	11	1	He	589.935695	2.9
Na	23	2	H2	310607.8546	0.2
Mg	24	2	H2	3516.478023	0.4
Al	27	2	H2	9083.318418	0.2
Si	29	2	H2	15331.59759	22.8
K	39	2	H2	4146.095955	0.2
Ca	44	2	H2	16006.73558	0.7
Ti	47	2	H2	36.677463	1.4
V	51	2	H2	1642.740784	0.5
Cr	52	2	H2	35.102846	18.0
Mn	55	2	H2	49.217374	1.3
Fe	57	2	H2	3230.870418	0.8
Co	59	2	H2	101.961341	0.3
Ni	60	2	H2	56.536521	1.2
Cu	63	2	H2	34.327098	0.5
Zn	66	2	H2	521.292021	0.8
As	75	2	H2	26.351482	0.6
Se	78	2	H2	5.051210	0.4
Sr	88	1	He	47.975104	1.0
Zr	90	1	He	1.637954	0.5
Mo	95	1	He	29.437240	1.3
Ag	107	1	He	24.643982	1.0
Cd	111	1	He	24.950876	0.7
(Sn)	118	1	He	22.035122	1.5
(Sn)	118	2	H2	22.819857	0.7
Sn	120	2	H2	22.823793	1.1
Sb	121	1	He	51.348915	0.8
Ba	137	1	He	42.986178	1.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	18.841834	4.1
(Pb)	206	1	He	29.029882	0.5
(Pb)	207	1	He	28.806059	1.2
Pb	208	1	He	29.026773	0.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	66.28698009
Sc	45	1	He	92.46436491
Sc	45	2	H2	100.1087090
Ge	72	1	He	91.60524659
Ge	72	2	H2	96.51180899
Rh	103	1	He	87.39142534
Rh	103	2	H2	87.61107217
In	115	1	He	87.41400970
In	115	2	H2	86.58628505
Tb	159	1	He	91.51633594
Tb	159	2	H2	88.82434909
Lu	175	1	He	91.34543632
Lu	175	2	H2	89.20478435
Bi	209	1	He	80.05399701
Bi	209	2	H2	79.33364353

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1272SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:28:33 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.200133	24.3
Be	9	1	He	-0.019237	
B	11	1	He	6.088829	12.8
Na	23	2	H2	95.860575	19.3
Mg	24	2	H2	2.489601	78.1
Al	27	2	H2	10.464841	4.0
Si	29	2	H2	4442.590721	83.3
K	39	2	H2	11.741139	14.3
Ca	44	2	H2	30.804889	75.2
Ti	47	2	H2	0.215606	16.0
V	51	2	H2	0.487031	14.5
Cr	52	2	H2	0.168792	9.7
Mn	55	2	H2	0.566715	14.4
Fe	57	2	H2	8.961698	23.3
Co	59	2	H2	0.036917	54.4
Ni	60	2	H2	0.253100	7.5
Cu	63	2	H2	0.143445	12.6
Zn	66	2	H2	4.971422	10.3
As	75	2	H2	-0.025904	
Se	78	2	H2	0.181066	17.8
Sr	88	1	He	0.041601	24.2
Zr	90	1	He	0.021138	17.5
Mo	95	1	He	-0.035510	
Ag	107	1	He	0.014762	27.5
Cd	111	1	He	0.000285	909.9
(Sn)	118	1	He	2.863086	0.4
(Sn)	118	2	H2	2.849693	2.4
Sn	120	2	H2	2.901286	1.9
Sb	121	1	He	0.166180	1.2
Ba	137	1	He	0.039673	15.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	0.001097	2805.7
(Pb)	206	1	He	0.032316	2.0
(Pb)	207	1	He	0.037393	13.9
Pb	208	1	He	0.037746	10.1

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	59.62974248
Sc	45	1	He	87.51506554
Sc	45	2	H2	99.25815389
Ge	72	1	He	88.01245399
Ge	72	2	H2	91.78328387
Rh	103	1	He	89.19234574
Rh	103	2	H2	89.65765068
In	115	1	He	89.03146980
In	115	2	H2	85.76084640
Tb	159	1	He	88.83874901
Tb	159	2	H2	84.17331894
Lu	175	1	He	88.49209844
Lu	175	2	H2	82.08245891
Bi	209	1	He	85.02985103
Bi	209	2	H2	80.61739178

2

Sample Name	1412242_1058x2
Sample Type	PDS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1273SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:32:07 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	309.482478	1.1
Be	9	1	He	41.315804	1.2
B	11	1	He	714.517753	0.3
Na	23	2	H2	295431.3831	0.8
Mg	24	2	H2	5913.230198	0.9
Al	27	2	H2	8928.441523	0.7
Si	29	2	H2	7874.414983	41.6
K	39	2	H2	6477.540802	0.8
Ca	44	2	H2	28100.36145	0.3
Ti	47	2	H2	60.016040	0.3
V	51	2	H2	1604.343977	0.8
Cr	52	2	H2	56.075949	0.7
Mn	55	2	H2	73.133359	1.0
Fe	57	2	H2	5652.789531	3.3
Co	59	2	H2	122.314830	0.2
Ni	60	2	H2	104.706723	0.3
Cu	63	2	H2	56.787431	0.4
Zn	66	2	H2	1003.933657	0.6
As	75	2	H2	50.961815	0.6
Se	78	2	H2	9.884956	0.9
Sr	88	1	He	72.177914	0.1
Zr	90	1	He	49.733600	0.7
Mo	95	1	He	54.683388	0.7
Ag	107	1	He	44.660882	3.6
Cd	111	1	He	49.911874	0.8
(Sn)	118	1	He	48.204027	0.9
(Sn)	118	2	H2	49.384599	0.6
Sn	120	2	H2	49.314141	0.4
Sb	121	1	He	97.585873	1.6
Ba	137	1	He	66.413171	0.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	50.630020	0.6
(Pb)	206	1	He	54.304330	0.9
(Pb)	207	1	He	54.193525	0.6
Pb	208	1	He	54.555703	0.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	71.99374299
Sc	45	1	He	95.71172442
Sc	45	2	H2	103.9537889
Ge	72	1	He	94.16480040
Ge	72	2	H2	98.75164384
Rh	103	1	He	89.28247702
Rh	103	2	H2	90.78648283
In	115	1	He	90.02453100
In	115	2	H2	89.53164095
Tb	159	1	He	94.40774871
Tb	159	2	H2	92.34712863
Lu	175	1	He	94.19413507
Lu	175	2	H2	92.24413156
Bi	209	1	He	83.35323490
Bi	209	2	H2	82.53251157

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1274SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:35:44 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.707677	3.8
Be	9	1	He	-0.002660	
B	11	1	He	6.210596	6.2
Na	23	2	H2	94.927332	9.2
Mg	24	2	H2	1.872999	38.0
Al	27	2	H2	10.901040	0.8
Si	29	2	H2	2993.076252	114.0
K	39	2	H2	11.954494	15.3
Ca	44	2	H2	26.576643	18.8
Ti	47	2	H2	0.207044	39.8
V	51	2	H2	0.484519	5.9
Cr	52	2	H2	0.149386	9.7
Mn	55	2	H2	0.547665	10.1
Fe	57	2	H2	8.325495	8.6
Co	59	2	H2	0.025460	27.8
Ni	60	2	H2	0.252181	8.6
Cu	63	2	H2	0.144212	3.2
Zn	66	2	H2	4.918952	1.3
As	75	2	H2	-0.021082	
Se	78	2	H2	0.236049	16.6
Sr	88	1	He	0.080526	46.7
Zr	90	1	He	0.245786	17.5
Mo	95	1	He	0.033717	61.7
Ag	107	1	He	0.051610	43.7
Cd	111	1	He	0.019259	102.8
(Sn)	118	1	He	3.148549	2.0
(Sn)	118	2	H2	3.056686	2.1
Sn	120	2	H2	3.071384	2.4
Sb	121	1	He	1.339413	30.7
Ba	137	1	He	0.048301	25.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.067098	
(Pb)	206	1	He	0.049815	30.0
(Pb)	207	1	He	0.050538	20.2
Pb	208	1	He	0.055776	10.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	62.17804243
Sc	45	1	He	89.99779567
Sc	45	2	H2	99.25220337
Ge	72	1	He	90.15031488
Ge	72	2	H2	91.99203284
Rh	103	1	He	91.58435026
Rh	103	2	H2	90.12852247
In	115	1	He	90.49175898
In	115	2	H2	85.79629852
Tb	159	1	He	90.81292087
Tb	159	2	H2	84.12861205
Lu	175	1	He	90.79407193
Lu	175	2	H2	82.49416972
Bi	209	1	He	87.18364368
Bi	209	2	H2	81.04334657

2

Sample Name	1412243_1058x10
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1275SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:39:18 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.352326	2.5
Be	9	1	He	-0.021036	
B	11	1	He	65.701859	1.0
Na	23	2	H2	58453.40135	0.3
Mg	24	2	H2	189.728383	1.6
Al	27	2	H2	1578.754612	0.2
Si	29	2	H2	2496.791610	136.6
K	39	2	H2	294.028449	0.4
Ca	44	2	H2	601.604712	2.2
Ti	47	2	H2	2.060198	11.0
V	51	2	H2	292.818259	0.1
Cr	52	2	H2	1.160662	3.3
Mn	55	2	H2	4.426814	1.6
Fe	57	2	H2	133.316999	0.7
Co	59	2	H2	14.272708	0.6
Ni	60	2	H2	1.450783	2.9
Cu	63	2	H2	1.792783	1.9
Zn	66	2	H2	5.283346	2.6
As	75	2	H2	0.130871	16.2
Se	78	2	H2	0.142199	33.1
Sr	88	1	He	4.192684	0.1
Zr	90	1	He	0.073517	8.0
Mo	95	1	He	0.630368	3.8
Ag	107	1	He	0.008966	0.9
Cd	111	1	He	0.027759	28.2
(Sn)	118	1	He	-0.031137	
(Sn)	118	2	H2	-0.038227	
Sn	120	2	H2	-0.037483	
Sb	121	1	He	0.177016	10.3
Ba	137	1	He	2.940481	1.3
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.094818	
(Pb)	206	1	He	0.571163	6.0
(Pb)	207	1	He	0.516302	6.1
Pb	208	1	He	0.518460	2.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	70.78416082
Sc	45	1	He	96.76178999
Sc	45	2	H2	105.3047968
Ge	72	1	He	96.86269050
Ge	72	2	H2	100.7184191
Rh	103	1	He	95.16463615
Rh	103	2	H2	94.65322340
In	115	1	He	94.90933166
In	115	2	H2	92.39997355
Tb	159	1	He	96.98443591
Tb	159	2	H2	92.53027493
Lu	175	1	He	96.96396648
Lu	175	2	H2	91.86112049
Bi	209	1	He	89.94399562
Bi	209	2	H2	86.35915464

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1276SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:42:53 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.114672	8.7
Be	9	1	He	-0.028056	
B	11	1	He	4.822569	2.2
Na	23	2	H2	57.763806	3.8
Mg	24	2	H2	0.339735	68.2
Al	27	2	H2	10.127142	1.2
Si	29	2	H2	7794.663806	66.0
K	39	2	H2	20.174715	1.7
Ca	44	2	H2	35.983115	39.5
Ti	47	2	H2	0.203939	33.8
V	51	2	H2	0.375439	6.7
Cr	52	2	H2	0.178033	6.3
Mn	55	2	H2	0.497970	2.8
Fe	57	2	H2	6.796693	12.4
Co	59	2	H2	0.008429	19.2
Ni	60	2	H2	0.241087	8.6
Cu	63	2	H2	0.137478	4.2
Zn	66	2	H2	4.603151	0.4
As	75	2	H2	-0.043521	
Se	78	2	H2	0.155956	52.3
Sr	88	1	He	0.027347	2.4
Zr	90	1	He	0.080591	4.0
Mo	95	1	He	-0.100319	
Ag	107	1	He	0.007063	14.0
Cd	111	1	He	-0.011116	
(Sn)	118	1	He	2.799794	0.7
(Sn)	118	2	H2	2.828819	2.4
Sn	120	2	H2	2.886852	2.8
Sb	121	1	He	0.247109	5.1
Ba	137	1	He	0.031739	8.8
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.095247	
(Pb)	206	1	He	0.031099	18.0
(Pb)	207	1	He	0.024072	24.3
Pb	208	1	He	0.028099	16.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	53.67311654
Sc	45	1	He	86.87025784
Sc	45	2	H2	99.76568134
Ge	72	1	He	88.14585700
Ge	72	2	H2	92.38004920
Rh	103	1	He	89.19894327
Rh	103	2	H2	89.11096029
In	115	1	He	88.73377280
In	115	2	H2	85.38059471
Tb	159	1	He	89.88222888
Tb	159	2	H2	83.34215728
Lu	175	1	He	89.56696616
Lu	175	2	H2	81.34837078
Bi	209	1	He	85.52189361
Bi	209	2	H2	79.91248698

2

Sample Name	20285743002_1058x2
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1277SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:46:27 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	6.167951	9.2
Be	9	1	He	-0.025501	
B	11	1	He	80.646910	1.8
Na	23	2	H2	1296898.809	1.2
Mg	24	2	H2	1770.904835	0.6
Al	27	2	H2	235.508770	6.9
Si	29	2	H2	8638.373384	44.8
K	39	2	H2	1705.424162	0.6
Ca	44	2	H2	5411.702177	1.2
Ti	47	2	H2	5.770906	11.6
V	51	2	H2	0.935492	1.3
Cr	52	2	H2	1.897213	0.2
Mn	55	2	H2	25.809325	1.7
Fe	57	2	H2	459.675114	1.1
Co	59	2	H2	0.163637	3.2
Ni	60	2	H2	8.850172	2.3
Cu	63	2	H2	3.855603	1.5
Zn	66	2	H2	6.952023	1.4
As	75	2	H2	8.369324	0.8
Se	78	2	H2	0.451721	26.8
Sr	88	1	He	31.982162	1.1
Zr	90	1	He	2.713536	1.2
Mo	95	1	He	4.950955	0.5
Ag	107	1	He	0.015926	1.7
Cd	111	1	He	0.007507	37.7
(Sn)	118	1	He	0.008265	97.1
(Sn)	118	2	H2	0.025894	48.3
Sn	120	2	H2	0.021672	17.0
Sb	121	1	He	0.175370	9.3
Ba	137	1	He	13.982108	1.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.092349	
(Pb)	206	1	He	0.673585	3.8
(Pb)	207	1	He	0.643220	5.6
Pb	208	1	He	0.661105	4.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	71.75786924
Sc	45	1	He	91.75843665
Sc	45	2	H2	105.6185239
Ge	72	1	He	89.49378280
Ge	72	2	H2	99.22123782
Rh	103	1	He	83.22246672
Rh	103	2	H2	86.89571432
In	115	1	He	85.18465691
In	115	2	H2	92.00964720
Tb	159	1	He	87.79759094
Tb	159	2	H2	90.54850302
Lu	175	1	He	87.26232833
Lu	175	2	H2	92.76813057
Bi	209	1	He	77.40737043
Bi	209	2	H2	81.26144054

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1278SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:50:04 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.906939	16.0
Be	9	1	He	-0.032631	
B	11	1	He	3.695414	2.2
Na	23	2	H2	215.844762	11.7
Mg	24	2	H2	0.316072	97.7
Al	27	2	H2	10.122518	5.0
Si	29	2	H2	3638.215429	117.3
K	39	2	H2	19.981157	5.7
Ca	44	2	H2	17.862615	63.5
Ti	47	2	H2	0.243868	29.8
V	51	2	H2	0.383196	3.8
Cr	52	2	H2	0.154583	8.1
Mn	55	2	H2	0.518346	6.0
Fe	57	2	H2	6.209602	2.2
Co	59	2	H2	0.006666	27.9
Ni	60	2	H2	0.242046	8.4
Cu	63	2	H2	0.151998	8.6
Zn	66	2	H2	4.865174	2.0
As	75	2	H2	-0.038736	
Se	78	2	H2	0.128559	33.8
Sr	88	1	He	0.034793	24.9
Zr	90	1	He	0.086763	6.3
Mo	95	1	He	-0.105268	
Ag	107	1	He	0.018229	9.0
Cd	111	1	He	-0.008205	
(Sn)	118	1	He	2.735648	1.3
(Sn)	118	2	H2	2.872867	0.6
Sn	120	2	H2	2.801268	0.6
Sb	121	1	He	0.201071	2.4
Ba	137	1	He	0.029499	5.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.094572	
(Pb)	206	1	He	0.052849	17.3
(Pb)	207	1	He	0.047889	13.4
Pb	208	1	He	0.051032	12.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.03793335
Sc	45	1	He	91.88247537
Sc	45	2	H2	99.10165802
Ge	72	1	He	90.90061311
Ge	72	2	H2	93.58448825
Rh	103	1	He	90.60335805
Rh	103	2	H2	90.66010714
In	115	1	He	90.24732886
In	115	2	H2	87.44948038
Tb	159	1	He	90.51308505
Tb	159	2	H2	85.53903428
Lu	175	1	He	89.64127110
Lu	175	2	H2	83.99977741
Bi	209	1	He	84.99992212
Bi	209	2	H2	81.78878999

2

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1279_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:53:37 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	56.308467	0.5
Be	9	1	He	8.374192	1.5
B	11	1	He	68.603011	1.2
Na	23	2	H2	1151.559672	0.9
Mg	24	2	H2	1032.743847	0.4
Al	27	2	H2	209.094605	1.1
Si	29	2	H2	4578.357488	83.9
K	39	2	H2	1086.016660	0.8
Ca	44	2	H2	5164.232458	0.8
Ti	47	2	H2	9.801867	1.2
V	51	2	H2	10.111170	0.8
Cr	52	2	H2	10.288196	0.9
Mn	55	2	H2	51.818757	0.4
Fe	57	2	H2	999.140383	1.8
Co	59	2	H2	10.116730	0.5
Ni	60	2	H2	20.067374	1.3
Cu	63	2	H2	9.898998	1.4
Zn	66	2	H2	202.362474	0.5
As	75	2	H2	9.926601	0.8
Se	78	2	H2	10.203439	2.8
Sr	88	1	He	10.218991	0.1
Zr	90	1	He	10.402710	0.6
Mo	95	1	He	9.478637	1.3
Ag	107	1	He	9.830415	1.0
Cd	111	1	He	9.854304	0.1
(Sn)	118	1	He	9.639484	0.8
(Sn)	118	2	H2	9.851797	1.9
Sn	120	2	H2	9.903279	0.3
Sb	121	1	He	19.638698	0.8
Ba	137	1	He	9.738990	0.6
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.703487	0.6
(Pb)	206	1	He	9.986530	0.7
(Pb)	207	1	He	9.956293	0.7
Pb	208	1	He	9.974008	1.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	69.59495945
Sc	45	1	He	95.94975355
Sc	45	2	H2	105.2076014
Ge	72	1	He	95.52452841
Ge	72	2	H2	100.7314483
Rh	103	1	He	95.96087764
Rh	103	2	H2	95.88847115
In	115	1	He	96.67669076
In	115	2	H2	94.45508767
Tb	159	1	He	95.98365631
Tb	159	2	H2	92.06987412
Lu	175	1	He	95.01606363
Lu	175	2	H2	91.55998274
Bi	209	1	He	91.53623150
Bi	209	2	H2	89.28230424

2

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1280_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 3:57:10 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.809667	7.9
Be	9	1	He	-0.025634	
B	11	1	He	2.465276	11.8
Na	23	2	H2	74.002868	2.7
Mg	24	2	H2	0.758546	46.2
Al	27	2	H2	0.807277	31.5
Si	29	2	H2	3221.325933	137.5
K	39	2	H2	11.564198	8.4
Ca	44	2	H2	18.112546	74.3
Ti	47	2	H2	-0.028576	
V	51	2	H2	0.020359	93.0
Cr	52	2	H2	0.072393	12.1
Mn	55	2	H2	0.026596	62.9
Fe	57	2	H2	-0.058189	
Co	59	2	H2	0.001021	327.8
Ni	60	2	H2	0.006269	144.1
Cu	63	2	H2	0.003500	22.5
Zn	66	2	H2	0.092426	60.2
As	75	2	H2	-0.107498	
Se	78	2	H2	0.131497	35.0
Sr	88	1	He	0.003033	37.3
Zr	90	1	He	0.008043	11.2
Mo	95	1	He	-0.111857	
Ag	107	1	He	0.008020	20.5
Cd	111	1	He	-0.004147	
(Sn)	118	1	He	-0.089496	
(Sn)	118	2	H2	0.055983	428.6
Sn	120	2	H2	-0.093630	
Sb	121	1	He	0.027335	28.3
Ba	137	1	He	0.002791	153.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.080687	
(Pb)	206	1	He	0.002155	219.4
(Pb)	207	1	He	0.007721	69.7
Pb	208	1	He	0.008900	20.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.56883479
Sc	45	1	He	93.79902519
Sc	45	2	H2	104.4910312
Ge	72	1	He	93.86376130
Ge	72	2	H2	99.63917240
Rh	103	1	He	95.33004363
Rh	103	2	H2	95.51783450
In	115	1	He	94.21835476
In	115	2	H2	93.41088099
Tb	159	1	He	94.27987070
Tb	159	2	H2	90.29206946
Lu	175	1	He	93.32307171
Lu	175	2	H2	89.62868267
Bi	209	1	He	90.23680234
Bi	209	2	H2	87.62777149

2

Sample Name	1412068_1060
Sample Type	MBWATER
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1281SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:00:44 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.905267	37.3
Be	9	1	He	-0.029444	
B	11	1	He	5.547118	4.1
Na	23	2	H2	76.529891	2.0
Mg	24	2	H2	2.213612	14.1
Al	27	2	H2	2.110116	10.0
Si	29	2	H2	5038.784312	94.1
K	39	2	H2	13.013659	8.3
Ca	44	2	H2	23.058071	47.2
Ti	47	2	H2	0.034294	151.1
V	51	2	H2	0.090242	22.5
Cr	52	2	H2	0.097105	21.9
Mn	55	2	H2	0.395278	4.6
Fe	57	2	H2	0.368766	248.8
Co	59	2	H2	0.002803	96.0
Ni	60	2	H2	0.036109	46.6
Cu	63	2	H2	0.058082	3.6
Zn	66	2	H2	3.414527	5.3
As	75	2	H2	-0.095448	
Se	78	2	H2	0.110096	66.7
Sr	88	1	He	0.007481	16.1
Zr	90	1	He	0.004454	25.8
Mo	95	1	He	-0.132198	
Ag	107	1	He	0.004320	35.1
Cd	111	1	He	-0.011093	
(Sn)	118	1	He	-0.075009	
(Sn)	118	2	H2	-0.076972	
Sn	120	2	H2	-0.073306	
Sb	121	1	He	0.130568	4.0
Ba	137	1	He	0.154946	5.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.095146	
(Pb)	206	1	He	0.008466	43.4
(Pb)	207	1	He	0.005885	161.9
Pb	208	1	He	0.008649	88.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	63.63109150
Sc	45	1	He	92.76618539
Sc	45	2	H2	105.0901389
Ge	72	1	He	93.39789501
Ge	72	2	H2	99.14222521
Rh	103	1	He	94.24486639
Rh	103	2	H2	94.33792721
In	115	1	He	94.30955365
In	115	2	H2	92.48058593
Tb	159	1	He	93.67065245
Tb	159	2	H2	89.01304645
Lu	175	1	He	92.65667633
Lu	175	2	H2	88.56066800
Bi	209	1	He	89.80754264
Bi	209	2	H2	86.43593965

2

Sample Name	1412069_1060
Sample Type	LCS6020
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1282SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:04:18 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	303.637304	0.3
Be	9	1	He	37.751020	1.3
B	11	1	He	394.084189	1.9
Na	23	2	H2	5217.334848	1.0
Mg	24	2	H2	4913.093706	0.7
Al	27	2	H2	988.633949	0.5
Si	29	2	H2	9361.599401	51.1
K	39	2	H2	5110.932052	0.6
Ca	44	2	H2	24224.26265	0.7
Ti	47	2	H2	46.550986	1.2
V	51	2	H2	48.287542	0.3
Cr	52	2	H2	48.550470	0.2
Mn	55	2	H2	49.382097	0.7
Fe	57	2	H2	4744.135290	0.5
Co	59	2	H2	48.234791	0.2
Ni	60	2	H2	96.010332	0.7
Cu	63	2	H2	46.098984	0.5
Zn	66	2	H2	960.829997	0.4
As	75	2	H2	47.556151	0.7
Se	78	2	H2	9.304778	2.3
Sr	88	1	He	48.522548	0.4
Zr	90	1	He	9.945250	1.3
Mo	95	1	He	46.709775	1.6
Ag	107	1	He	47.806339	1.6
Cd	111	1	He	47.540935	1.1
(Sn)	118	1	He	46.964909	0.8
(Sn)	118	2	H2	47.813968	1.0
Sn	120	2	H2	47.471476	0.1
Sb	121	1	He	96.820363	0.8
Ba	137	1	He	47.362126	1.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	47.146264	0.7
(Pb)	206	1	He	47.844121	0.1
(Pb)	207	1	He	47.695041	1.1
Pb	208	1	He	47.901197	0.2

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.03767845
Sc	45	1	He	93.39939855
Sc	45	2	H2	104.3338834
Ge	72	1	He	93.77660451
Ge	72	2	H2	98.63052872
Rh	103	1	He	91.72284842
Rh	103	2	H2	91.92233740
In	115	1	He	92.94778046
In	115	2	H2	90.78867637
Tb	159	1	He	93.17365785
Tb	159	2	H2	88.80164747
Lu	175	1	He	92.89072021
Lu	175	2	H2	87.57006380
Bi	209	1	He	88.71109418
Bi	209	2	H2	84.39996672

2

Sample Name	20285545001_1060x10
Sample Type	AllRef
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1283SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:07:52 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	122.626208	2.0
Be	9	1	He	-0.005996	
B	11	1	He	117.156391	0.8
Na	23	2	H2	4973.889143	0.5
Mg	24	2	H2	127.846603	1.0
Al	27	2	H2	21.568447	1.7
Si	29	2	H2	1327.286632	306.2
K	39	2	H2	146.847675	2.7
Ca	44	2	H2	822.697252	2.1
Ti	47	2	H2	0.405000	101.5
V	51	2	H2	0.109635	18.5
Cr	52	2	H2	0.445626	5.1
Mn	55	2	H2	6.338892	1.2
Fe	57	2	H2	102.626403	5.0
Co	59	2	H2	0.052836	7.8
Ni	60	2	H2	1.354895	2.6
Cu	63	2	H2	1.626638	1.8
Zn	66	2	H2	174.160200	0.4
As	75	2	H2	-0.056188	
Se	78	2	H2	0.106851	44.9
Sr	88	1	He	1.548365	0.6
Zr	90	1	He	0.027109	13.5
Mo	95	1	He	20.043489	0.6
Ag	107	1	He	0.020312	18.3
Cd	111	1	He	0.951323	2.5
(Sn)	118	1	He	0.484024	1.0
(Sn)	118	2	H2	0.481887	2.4
Sn	120	2	H2	0.477819	1.9
Sb	121	1	He	1.634723	0.5
Ba	137	1	He	2.849471	0.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.055153	
(Pb)	206	1	He	2.853569	1.7
(Pb)	207	1	He	2.878161	2.0
Pb	208	1	He	2.839360	0.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	68.58354822
Sc	45	1	He	94.60462535
Sc	45	2	H2	106.4323226
Ge	72	1	He	95.47478645
Ge	72	2	H2	101.5774263
Rh	103	1	He	95.54743007
Rh	103	2	H2	95.89606409
In	115	1	He	96.15955848
In	115	2	H2	94.52022723
Tb	159	1	He	95.61418144
Tb	159	2	H2	91.52587428
Lu	175	1	He	94.62487736
Lu	175	2	H2	90.23458308
Bi	209	1	He	91.43099732
Bi	209	2	H2	88.26280709

2

Sample Name	1412070_1060x10
Sample Type	MS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1284SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:11:26 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	154.791766	0.5
Be	9	1	He	3.970665	1.0
B	11	1	He	155.115693	1.3
Na	23	2	H2	5528.953786	0.6
Mg	24	2	H2	630.041036	0.4
Al	27	2	H2	125.408682	1.8
Si	29	2	H2	1910.575136	187.3
K	39	2	H2	677.470699	1.0
Ca	44	2	H2	3325.159803	0.5
Ti	47	2	H2	5.209765	5.2
V	51	2	H2	5.058365	0.7
Cr	52	2	H2	5.382253	1.1
Mn	55	2	H2	11.332973	1.0
Fe	57	2	H2	585.210314	1.5
Co	59	2	H2	4.986729	1.2
Ni	60	2	H2	11.101205	0.3
Cu	63	2	H2	6.451575	1.6
Zn	66	2	H2	270.560370	0.1
As	75	2	H2	4.725591	1.0
Se	78	2	H2	0.972472	10.3
Sr	88	1	He	6.543809	0.7
Zr	90	1	He	0.969089	1.4
Mo	95	1	He	25.205701	1.5
Ag	107	1	He	4.844524	1.6
Cd	111	1	He	5.740829	1.9
(Sn)	118	1	He	5.208773	1.2
(Sn)	118	2	H2	5.342383	1.1
Sn	120	2	H2	5.324190	0.4
Sb	121	1	He	11.404734	0.7
Ba	137	1	He	7.689295	0.7
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.755131	0.8
(Pb)	206	1	He	7.759859	1.1
(Pb)	207	1	He	7.817320	0.5
Pb	208	1	He	7.803963	0.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	69.18951541
Sc	45	1	He	96.29280890
Sc	45	2	H2	107.1763275
Ge	72	1	He	96.49338498
Ge	72	2	H2	102.6616273
Rh	103	1	He	96.15019398
Rh	103	2	H2	96.12013367
In	115	1	He	96.06140727
In	115	2	H2	94.71838694
Tb	159	1	He	95.48045810
Tb	159	2	H2	91.80245922
Lu	175	1	He	95.40016749
Lu	175	2	H2	90.79784421
Bi	209	1	He	91.05290968
Bi	209	2	H2	88.32997514

2

Sample Name	1412071_1060x10
Sample Type	MSD
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1285SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:14:59 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	162.806828	1.2
Be	9	1	He	4.133538	2.5
B	11	1	He	167.240944	0.1
Na	23	2	H2	5796.555035	0.2
Mg	24	2	H2	657.919771	1.3
Al	27	2	H2	135.067323	2.9
Si	29	2	H2	3658.198956	125.4
K	39	2	H2	724.696379	1.3
Ca	44	2	H2	3548.040016	1.9
Ti	47	2	H2	5.269473	6.2
V	51	2	H2	5.326538	0.9
Cr	52	2	H2	5.672999	0.4
Mn	55	2	H2	11.973336	0.8
Fe	57	2	H2	623.631070	1.1
Co	59	2	H2	5.267086	0.4
Ni	60	2	H2	11.693870	0.1
Cu	63	2	H2	6.750072	1.3
Zn	66	2	H2	286.082318	0.2
As	75	2	H2	5.081083	0.2
Se	78	2	H2	1.021416	4.7
Sr	88	1	He	6.873728	0.7
Zr	90	1	He	1.011184	1.3
Mo	95	1	He	26.463944	1.0
Ag	107	1	He	5.072974	0.4
Cd	111	1	He	6.043508	0.3
(Sn)	118	1	He	5.506160	0.5
(Sn)	118	2	H2	5.538009	2.1
Sn	120	2	H2	5.587324	1.2
Sb	121	1	He	11.963491	0.6
Ba	137	1	He	8.003832	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	4.984407	0.4
(Pb)	206	1	He	8.131343	0.4
(Pb)	207	1	He	8.191951	2.0
Pb	208	1	He	8.088400	0.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.14165379
Sc	45	1	He	95.66636637
Sc	45	2	H2	107.2547518
Ge	72	1	He	96.13616130
Ge	72	2	H2	102.0820232
Rh	103	1	He	95.11878293
Rh	103	2	H2	95.94674449
In	115	1	He	95.90956320
In	115	2	H2	94.90122870
Tb	159	1	He	96.12166491
Tb	159	2	H2	91.77832395
Lu	175	1	He	95.25272181
Lu	175	2	H2	91.10418152
Bi	209	1	He	91.20189167
Bi	209	2	H2	88.56202537

2

Sample Name	1412481_1060x10
Sample Type	PDS
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1286SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:18:33 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	425.010423	0.6
Be	9	1	He	39.237939	0.6
B	11	1	He	485.528285	1.1
Na	23	2	H2	10194.59233	0.9
Mg	24	2	H2	5106.279278	0.2
Al	27	2	H2	1040.373627	0.9
Si	29	2	H2	2748.029890	156.9
K	39	2	H2	5435.830644	0.5
Ca	44	2	H2	25805.17855	0.3
Ti	47	2	H2	50.900187	8.5
V	51	2	H2	50.107697	1.0
Cr	52	2	H2	50.062725	0.9
Mn	55	2	H2	56.994032	1.2
Fe	57	2	H2	4986.505321	0.9
Co	59	2	H2	49.186875	0.7
Ni	60	2	H2	98.847525	1.1
Cu	63	2	H2	48.114885	0.4
Zn	66	2	H2	1147.479348	0.3
As	75	2	H2	48.432028	0.7
Se	78	2	H2	10.009062	1.8
Sr	88	1	He	51.185129	0.2
Zr	90	1	He	48.459416	1.0
Mo	95	1	He	69.264209	1.0
Ag	107	1	He	50.256484	1.0
Cd	111	1	He	49.482871	0.5
(Sn)	118	1	He	48.603264	1.2
(Sn)	118	2	H2	49.912488	0.4
Sn	120	2	H2	49.391114	0.3
Sb	121	1	He	95.593358	1.8
Ba	137	1	He	51.460868	1.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	49.066970	0.1
(Pb)	206	1	He	52.365226	0.1
(Pb)	207	1	He	52.441131	0.8
Pb	208	1	He	52.273304	0.5

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	67.67431757
Sc	45	1	He	95.63073935
Sc	45	2	H2	108.0000227
Ge	72	1	He	95.21209526
Ge	72	2	H2	102.0609700
Rh	103	1	He	92.49374072
Rh	103	2	H2	93.51015524
In	115	1	He	93.98168780
In	115	2	H2	93.59755916
Tb	159	1	He	94.77440529
Tb	159	2	H2	91.37470655
Lu	175	1	He	94.43691484
Lu	175	2	H2	90.89299593
Bi	209	1	He	88.90126827
Bi	209	2	H2	86.06517127

Sample Name	1412480_1060x50
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1287SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:22:07 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	22.486744	1.4
Be	9	1	He	-0.014093	
B	11	1	He	24.496522	2.7
Na	23	2	H2	1004.666021	0.8
Mg	24	2	H2	25.113584	2.8
Al	27	2	H2	5.626929	15.4
Si	29	2	H2	3194.279984	140.8
K	39	2	H2	37.819514	5.8
Ca	44	2	H2	173.636855	3.0
Ti	47	2	H2	-0.007054	
V	51	2	H2	0.022043	57.4
Cr	52	2	H2	0.153695	22.0
Mn	55	2	H2	1.314555	1.3
Fe	57	2	H2	20.547973	7.1
Co	59	2	H2	0.016124	16.3
Ni	60	2	H2	0.317202	8.2
Cu	63	2	H2	0.351105	2.9
Zn	66	2	H2	35.257230	0.8
As	75	2	H2	-0.080133	
Se	78	2	H2	0.209056	8.3
Sr	88	1	He	0.310350	4.2
Zr	90	1	He	0.074888	7.0
Mo	95	1	He	4.009789	1.0
Ag	107	1	He	0.021605	16.3
Cd	111	1	He	0.192643	9.5
(Sn)	118	1	He	0.070334	20.8
(Sn)	118	2	H2	0.050314	23.5
Sn	120	2	H2	0.062969	6.3
Sb	121	1	He	0.891761	6.4
Ba	137	1	He	0.577482	4.3
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.076440	
(Pb)	206	1	He	0.579668	2.0
(Pb)	207	1	He	0.596023	6.1
Pb	208	1	He	0.580971	5.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.33895840
Sc	45	1	He	94.38480160
Sc	45	2	H2	107.2246858
Ge	72	1	He	94.89092162
Ge	72	2	H2	102.2470516
Rh	103	1	He	95.81894463
Rh	103	2	H2	96.59054286
In	115	1	He	95.93622319
In	115	2	H2	95.37483911
Tb	159	1	He	94.68191527
Tb	159	2	H2	91.66261830
Lu	175	1	He	93.77754288
Lu	175	2	H2	90.94983319
Bi	209	1	He	91.10935261
Bi	209	2	H2	89.07784421

Sample Name	20284895001_1018x200
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1288SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:25:41 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.618018	22.3
Be	9	1	He	-0.033358	
B	11	1	He	36.313250	1.2
Na	23	2	H2	2634.496394	1.8
Mg	24	2	H2	7.607030	2.1
Al	27	2	H2	121.284343	1.9
Si	29	2	H2	3450.579883	132.5
K	39	2	H2	28.513711	7.8
Ca	44	2	H2	37.063047	35.8
Ti	47	2	H2	0.124678	51.7
V	51	2	H2	28.826846	0.3
Cr	52	2	H2	0.149848	13.4
Mn	55	2	H2	0.289641	3.3
Fe	57	2	H2	6.370237	15.6
Co	59	2	H2	1.397545	1.4
Ni	60	2	H2	0.112174	13.7
Cu	63	2	H2	0.073308	13.2
Zn	66	2	H2	3.235195	3.0
As	75	2	H2	-0.082831	
Se	78	2	H2	0.158438	37.9
Sr	88	1	He	0.187917	1.6
Zr	90	1	He	0.025776	9.8
Mo	95	1	He	-0.028716	
Ag	107	1	He	0.003347	50.4
Cd	111	1	He	-0.014409	
(Sn)	118	1	He	-0.085505	
(Sn)	118	2	H2	-0.085692	
Sn	120	2	H2	-0.084891	
Sb	121	1	He	0.143058	6.3
Ba	137	1	He	0.145018	5.1
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.095709	
(Pb)	206	1	He	0.023385	23.6
(Pb)	207	1	He	0.024684	6.4
Pb	208	1	He	0.023907	9.4

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	65.07033563
Sc	45	1	He	94.17401456
Sc	45	2	H2	106.4961548
Ge	72	1	He	94.65675810
Ge	72	2	H2	101.8340788
Rh	103	1	He	94.92731733
Rh	103	2	H2	96.02228560
In	115	1	He	95.48801409
In	115	2	H2	95.18958178
Tb	159	1	He	93.88474914
Tb	159	2	H2	91.36372703
Lu	175	1	He	92.87525856
Lu	175	2	H2	90.00194422
Bi	209	1	He	90.22912009
Bi	209	2	H2	88.70545603

2

Sample Name	CCV
Sample Type	CCV
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1289_CCV.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:29:13 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	64.323594	1.5
Be	9	1	He	8.054862	1.3
B	11	1	He	81.976017	1.6
Na	23	2	H2	1087.140041	0.7
Mg	24	2	H2	1032.603218	0.8
Al	27	2	H2	210.788808	0.8
Si	29	2	H2	5516.360945	81.7
K	39	2	H2	1096.137502	0.9
Ca	44	2	H2	5132.697881	0.2
Ti	47	2	H2	9.928279	1.0
V	51	2	H2	10.092124	1.1
Cr	52	2	H2	10.177392	0.7
Mn	55	2	H2	51.625524	0.4
Fe	57	2	H2	998.766841	0.9
Co	59	2	H2	10.154688	0.5
Ni	60	2	H2	19.947300	1.6
Cu	63	2	H2	9.651152	0.9
Zn	66	2	H2	200.590253	0.9
As	75	2	H2	9.874370	0.4
Se	78	2	H2	9.937520	1.2
Sr	88	1	He	10.232767	0.7
Zr	90	1	He	10.473259	1.7
Mo	95	1	He	9.459006	1.0
Ag	107	1	He	9.895175	0.4
Cd	111	1	He	9.879678	0.7
(Sn)	118	1	He	9.591469	1.0
(Sn)	118	2	H2	9.809498	0.9
Sn	120	2	H2	9.832757	0.2
Sb	121	1	He	19.691390	1.1
Ba	137	1	He	9.741937	1.3
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	9.706525	1.1
(Pb)	206	1	He	9.950406	0.5
(Pb)	207	1	He	9.946826	1.7
Pb	208	1	He	9.996171	0.6

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	64.93508040
Sc	45	1	He	94.04881507
Sc	45	2	H2	106.2470000
Ge	72	1	He	93.68438572
Ge	72	2	H2	100.9782699
Rh	103	1	He	94.26937681
Rh	103	2	H2	95.34583936
In	115	1	He	94.97897148
In	115	2	H2	94.29622665
Tb	159	1	He	93.23231718
Tb	159	2	H2	90.94608843
Lu	175	1	He	92.93305849
Lu	175	2	H2	89.84891473
Bi	209	1	He	89.39397762
Bi	209	2	H2	87.53274394

2

Sample Name	CCB
Sample Type	CCB
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1290_CCB.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:32:46 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	0.898367	19.5
Be	9	1	He	-0.020854	
B	11	1	He	3.390625	1.2
Na	23	2	H2	31.628821	4.2
Mg	24	2	H2	0.575495	37.3
Al	27	2	H2	1.043117	20.8
Si	29	2	H2	3777.502841	130.2
K	39	2	H2	9.851221	7.3
Ca	44	2	H2	9.875751	117.2
Ti	47	2	H2	-0.025677	
V	51	2	H2	0.016176	73.4
Cr	52	2	H2	0.103619	20.6
Mn	55	2	H2	0.116933	11.6
Fe	57	2	H2	0.946338	15.5
Co	59	2	H2	0.001097	228.6
Ni	60	2	H2	0.023565	113.6
Cu	63	2	H2	0.021408	23.5
Zn	66	2	H2	0.885648	2.1
As	75	2	H2	-0.097298	
Se	78	2	H2	0.169752	50.4
Sr	88	1	He	0.004862	37.9
Zr	90	1	He	0.008946	2.2
Mo	95	1	He	-0.087278	
Ag	107	1	He	0.005876	18.1
Cd	111	1	He	-0.007708	
(Sn)	118	1	He	-0.068096	
(Sn)	118	2	H2	-0.065079	
Sn	120	2	H2	-0.067297	
Sb	121	1	He	0.056018	17.5
Ba	137	1	He	0.004501	29.0
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.082792	
(Pb)	206	1	He	0.005826	42.6
(Pb)	207	1	He	0.003174	110.1
Pb	208	1	He	0.006531	26.3

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	63.71278551
Sc	45	1	He	92.48267471
Sc	45	2	H2	105.5039603
Ge	72	1	He	92.62475369
Ge	72	2	H2	99.40844975
Rh	103	1	He	93.81604704
Rh	103	2	H2	94.73671518
In	115	1	He	93.78200665
In	115	2	H2	93.29024463
Tb	159	1	He	92.79191403
Tb	159	2	H2	89.71777238
Lu	175	1	He	91.91541010
Lu	175	2	H2	89.32913371
Bi	209	1	He	88.05534791
Bi	209	2	H2	87.00448256

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1291SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:36:22 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.685903	13.4
Be	9	1	He	-0.034862	
B	11	1	He	5.514902	3.4
Na	23	2	H2	47.021754	1.0
Mg	24	2	H2	0.303750	132.6
Al	27	2	H2	10.044977	4.9
Si	29	2	H2	9656.235516	63.3
K	39	2	H2	23.100230	12.8
Ca	44	2	H2	34.943599	49.2
Ti	47	2	H2	0.433485	18.0
V	51	2	H2	0.371257	2.1
Cr	52	2	H2	0.188031	6.7
Mn	55	2	H2	0.519532	8.0
Fe	57	2	H2	7.559514	25.1
Co	59	2	H2	0.007169	42.4
Ni	60	2	H2	0.225765	6.3
Cu	63	2	H2	0.135439	7.9
Zn	66	2	H2	4.638330	1.5
As	75	2	H2	-0.044589	
Se	78	2	H2	0.171287	31.5
Sr	88	1	He	0.023109	13.7
Zr	90	1	He	0.045981	7.2
Mo	95	1	He	-0.091840	
Ag	107	1	He	0.008139	4.5
Cd	111	1	He	-0.002919	
(Sn)	118	1	He	2.772045	1.0
(Sn)	118	2	H2	2.844824	3.5
Sn	120	2	H2	2.831868	1.8
Sb	121	1	He	0.239284	7.3
Ba	137	1	He	0.030416	12.2
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.084527	
(Pb)	206	1	He	0.036630	19.6
(Pb)	207	1	He	0.028056	10.9
Pb	208	1	He	0.032875	8.0

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	47.92547530
Sc	45	1	He	82.96814668
Sc	45	2	H2	99.07602152
Ge	72	1	He	85.15303906
Ge	72	2	H2	90.91440600
Rh	103	1	He	86.30027714
Rh	103	2	H2	87.47776045
In	115	1	He	86.41239097
In	115	2	H2	83.86640078
Tb	159	1	He	86.01273233
Tb	159	2	H2	81.44253463
Lu	175	1	He	85.23623596
Lu	175	2	H2	79.52300096
Bi	209	1	He	81.18194403
Bi	209	2	H2	76.87631224

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1292SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:39:57 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.514245	17.7
Be	9	1	He	-0.033420	
B	11	1	He	5.157436	8.6
Na	23	2	H2	51.227036	3.7
Mg	24	2	H2	0.848226	25.0
Al	27	2	H2	10.157260	11.9
Si	29	2	H2	9433.820473	66.8
K	39	2	H2	23.297087	13.7
Ca	44	2	H2	43.053758	33.3
Ti	47	2	H2	0.348288	18.5
V	51	2	H2	0.373462	6.2
Cr	52	2	H2	0.195050	7.3
Mn	55	2	H2	0.540504	6.1
Fe	57	2	H2	7.422186	24.9
Co	59	2	H2	0.014285	53.4
Ni	60	2	H2	0.229027	5.2
Cu	63	2	H2	0.133431	8.9
Zn	66	2	H2	4.498083	2.0
As	75	2	H2	-0.038157	
Se	78	2	H2	0.239046	38.3
Sr	88	1	He	0.022969	9.3
Zr	90	1	He	0.033675	5.9
Mo	95	1	He	-0.106627	
Ag	107	1	He	0.005582	21.1
Cd	111	1	He	-0.006205	
(Sn)	118	1	He	2.763502	1.5
(Sn)	118	2	H2	2.796413	3.1
Sn	120	2	H2	2.824622	0.8
Sb	121	1	He	0.131855	1.6
Ba	137	1	He	0.026851	9.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.094734	
(Pb)	206	1	He	0.030607	3.6
(Pb)	207	1	He	0.022685	21.1
Pb	208	1	He	0.030716	19.9

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	46.65756945
Sc	45	1	He	82.75415642
Sc	45	2	H2	99.17121874
Ge	72	1	He	85.04136311
Ge	72	2	H2	91.74579725
Rh	103	1	He	86.96763839
Rh	103	2	H2	87.22681629
In	115	1	He	87.12986056
In	115	2	H2	83.74027896
Tb	159	1	He	87.14785873
Tb	159	2	H2	81.38367827
Lu	175	1	He	86.36327425
Lu	175	2	H2	79.65541523
Bi	209	1	He	81.71673087
Bi	209	2	H2	77.11756730

2

Sample Name	Blank
Sample Type	Sample
Operator	
Instrument	BRIM02 - 200.8 6020 6020A
Batch Name	2230815A_MS2.b
Data File Name	1293SMPL.d
Data Path Name	C:\Agilent\ICPMH\1\DATA
Acq. Date Time	8/15/2023 4:43:32 PM
Comment	TDM

Analytes

Name	Mass	Tune Step	Tune Mode	Conc.	Conc %RSD
Li	7	1	He	1.307076	15.2
Be	9	1	He	-0.024320	
B	11	1	He	4.083303	13.0
Na	23	2	H2	56.589723	3.0
Mg	24	2	H2	1.258160	14.8
Al	27	2	H2	10.612403	4.2
Si	29	2	H2	9316.514420	69.8
K	39	2	H2	20.709094	10.1
Ca	44	2	H2	49.964619	10.1
Ti	47	2	H2	0.450391	14.8
V	51	2	H2	0.402436	6.1
Cr	52	2	H2	0.186749	1.9
Mn	55	2	H2	0.545045	5.3
Fe	57	2	H2	7.383291	21.2
Co	59	2	H2	0.015147	28.8
Ni	60	2	H2	0.259055	11.0
Cu	63	2	H2	0.127378	8.4
Zn	66	2	H2	4.758167	1.3
As	75	2	H2	-0.040998	
Se	78	2	H2	0.210327	28.9
Sr	88	1	He	0.039610	16.9
Zr	90	1	He	0.030029	3.8
Mo	95	1	He	-0.125093	
Ag	107	1	He	0.005547	20.3
Cd	111	1	He	-0.001741	
(Sn)	118	1	He	2.721583	0.7
(Sn)	118	2	H2	2.822223	2.9
Sn	120	2	H2	2.761304	1.1
Sb	121	1	He	0.100462	4.4
Ba	137	1	He	0.029420	11.9
[Se]	156	2	H2		
Hg	201	1	He		
Tl	205	1	He	-0.097950	
(Pb)	206	1	He	0.031965	6.9
(Pb)	207	1	He	0.025977	18.3
Pb	208	1	He	0.031995	3.8

ISTD

Name	Mass	Tune Step	Tune Mode	% Rec
(Li)	6	1	He	46.47809590
Sc	45	1	He	83.77037535
Sc	45	2	H2	100.1951891
Ge	72	1	He	86.56914927
Ge	72	2	H2	92.41841098
Rh	103	1	He	87.82302551
Rh	103	2	H2	88.55071854
In	115	1	He	88.13064627
In	115	2	H2	84.53914232
Tb	159	1	He	87.79574029
Tb	159	2	H2	81.92665753
Lu	175	1	He	87.06278284
Lu	175	2	H2	79.82703518
Bi	209	1	He	82.68452452
Bi	209	2	H2	77.77638646

Prep Log Report

Batch Information: BR 6020W 294494 — **3005/3010/3020 | ICP_ICPMS Water**

Prep Method	EPA 3010A	Analysis Method	EPA 6020B	Prepared By	JL	Block ID	BRDB05
Thermometer ID	BRTM13	Correction Factor (C)	0	Block Temp (C)	94	Corrected Temp. (C)	94.00
Acceptance Range	90-95 C	Digestion Start Date/Time	08/15/2023 06:20:39:099	Digestion End Date/Time	08/15/2023 10:20:00	Digestion Vessel	185608
Metals Pipette 1	BRPP37	Metals Pipette 2	BRPP18	Metals Pipette 3	N/A	Metals Pipette 4	N/A
Dispenser ID 1	N/A	Dispenser ID 2	N/A	Reviewed By	TDM	Reviewed By Date	08/15/2023 10:59
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	1:1 HNO3 (L)	1:1 HCL (mL)	Final Volume (mL)	Sample Notes	BRICPM-SPK1 (mL)	BRICPM-SPK2 (mL)	BRICPM-SPK3 (mL)	BRICPM-SPK4 (mL)
BR6020B WP	BLANK	**1411873**	Water		50	177351 (2)	185975 (1)	50					
BR6020B WP	LCS	**1411874**	Water		50	177351 (2)	185975 (1)	50		179375 (.25)	185610 (.25)	185611 (.25)	160984 (.25)
BR6020B WP	PS	**20285718001**	Water		50	177351 (2)	185975 (1)	50					
BR6020B WP	PS	**20285740001**	Water		50	177351 (2)	185975 (1)	50					
BR6020B WP	PS	**20285743001**	Water		50	177351 (2)	185975 (1)	50					
BR6020B WP	MS	**1411875**	Water		50	177351 (2)	185975 (1)	50		179375 (.25)	185610 (.25)	185611 (.25)	160984 (.25)
BR6020B WP	MSD	**1411876**	Water		50	177351 (2)	185975 (1)	50		179375 (.25)	185610 (.25)	185611 (.25)	160984 (.25)
BR6020B WP	PS	**20285743002**	Water		50	177351 (2)	185975 (1)	50					

Standard Notes:

160984: BRMT Si Stock 1000mg/L **179375: BRMT ICPMS GCAL8 Spike & Cal Stock** **185610: BRMT BRMP ICPMS Prep Ag Se Sb Spike** **185611: BRMT BRMP ICPMS Prep Li B Zr Spike**

Standard Log Report

Standards Log Information for Standard #186152

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	100 mL	**Lot ID:**	PACE
Create Date:	08/07/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL4

Notes:

BRMT ICPMS CAL4 50ppb

Compound Name and Concentration for Standard #186152

Compound Name	Concentration	Compound Name	Concentration
Aluminum	1000 ppb	Antimony	100 ppb
Arsenic	50 ppb	Barium	50 ppb
Beryllium	50 ppb	Boron	250 ppb
Cadmium	50 ppb	Calcium	25000 ppb
Chromium	50 ppb	Cobalt	50 ppb
Copper	50 ppb	DI Water	ppb
Hydrochloric Acid	ppb	Iron	5000 ppb
Lead	50 ppb	Lithium	250 ppb
Magnesium	5000 ppb	Manganese	250 ppb
Molybdenum	50 ppb	Nickel	100 ppb
Nitric Acid	ppb	Potassium	5000 ppb
Selenium	25 ppb	Silicon	5000 ppb
Silver	50 ppb	Sodium	5000 ppb
Strontium	50 ppb	Thallium	50 ppb
Tin	50 ppb	Titanium	50 ppb
Vanadium	50 ppb	Zinc	1000 ppb
Zirconium	50 ppb		

Composed of Information for Standard #186152

Composed of Standard Seq	Volume	Units
186097	50	mL
179200	50	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #186098

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	08/06/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL3

Notes:

BRMT ICPMS CAL3 10ppb

Compound Name and Concentration for Standard #186098

Compound Name	Concentration	Compound Name	Concentration
Aluminum	200 ug/L	Antimony	20 ug/L
Arsenic	10 ug/L	Barium	10 ug/L
Beryllium	10 ug/L	Boron	50 ug/L
Cadmium	10 ug/L	Calcium	5000 ug/L
Chromium	10 ug/L	Cobalt	10 ug/L
Copper	10 ug/L	DI Water	ug/L
Hydrochloric Acid	ug/L	Iron	1000 ug/L
Lead	10 ug/L	Lithium	50 ug/L
Magnesium	1000 ug/L	Manganese	50 ug/L
Molybdenum	10 ug/L	Nickel	20 ug/L
Nitric Acid	ug/L	Potassium	1000 ug/L
Selenium	10 ug/L	Silicon	2000 ug/L
Silver	10 ug/L	Sodium	1000 ug/L
Strontium	10 ug/L	Thallium	10 ug/L
Tin	10 ug/L	Titanium	10 ug/L
Vanadium	10 ug/L	Zinc	200 ug/L
Zirconium	10 ug/L		

Composed of Information for Standard #186098

Composed of Standard Seq	Volume	Units
179369	50	mL
161000	2500	uL
160984	500	uL
160927	447	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #186097

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	08/06/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL5

Notes:

BRMT ICPMS CAL5 100ppb

Compound Name and Concentration for Standard #186097

Compound Name	Concentration	Compound Name	Concentration
Aluminum	2000 ppb	Antimony	200 ppb
Arsenic	100 ppb	Barium	100 ppb
Beryllium	100 ppb	Boron	500 ppb
Cadmium	100 ppb	Calcium	50000 ppb
Chromium	100 ppb	Cobalt	100 ppb
Copper	100 ppb	DI Water	ppb
Hydrochloric Acid	ppb	Iron	10000 ppb
Lead	100 ppb	Lithium	500 ppb
Magnesium	10000 ppb	Manganese	500 ppb
Molybdenum	100 ppb	Nickel	200 ppb
Nitric Acid	ppb	Potassium	10000 ppb
Selenium	50 ppb	Silicon	10000 ppb
Silver	100 ppb	Sodium	10000 ppb
Strontium	100 ppb	Thallium	100 ppb
Tin	100 ppb	Titanium	100 ppb
Vanadium	100 ppb	Zinc	2000 ppb
Zirconium	100 ppb		

Composed of Information for Standard #186097

Composed of Standard Seq	Volume	Units
179366	5	mL
161000	25	mL
160999	5	mL
160998	5	mL
160992	5	mL
160984	5	mL
160980	200	uL
160927	449.8	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #186072

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	08/04/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/22/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-ICSAB

Notes:

BRMT ICSAB Check Standard

Compound Name and Concentration for Standard #186072

Compound Name	Concentration	Compound Name	Concentration
Aluminum	1000 ug/L	Arsenic	10 ug/L
Boron	20 ug/L	Cadmium	10 ug/L
Calcium	3000 ug/L	Carbon	2000 ug/L
Chloride	20000 ug/L	Chromium	20 ug/L
Cobalt	20 ug/L	Copper	20 ug/L
DI Water	ug/L	Hydrochloric Acid	ug/L
Iron	2500 ug/L	Lithium	20 ug/L
Magnesium	1000 ug/L	Manganese	20 ug/L
Molybdenum	20 ug/L	Nickel	20 ug/L
Nitric Acid	ug/L	Phosphorus	1000 ug/L
Potassium	1000 ug/L	Selenium	10 ug/L
Silicon	1000 ug/L	Silver	5 ug/L
Sodium	2500 ug/L	Strontium	10 ug/L
Sulfur	1000 ug/L	Tin	10 ug/L
Titanium	20 ug/L	Vanadium	20 ug/L
Zinc	20 ug/L	Zirconium	20 ug/L

Composed of Information for Standard #186072

Composed of Standard Seq	Volume	Units
186071	500	uL
186070	500	uL
186069	500	uL
161040	500	uL
160984	500	uL
160927	497.5	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #186071

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	08/04/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/22/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMTICSABSt

Notes:

BRMT ICPMS ICSAB Stock

Compound Name and Concentration for Standard #186071

Compound Name	Concentration	Compound Name	Concentration
Arsenic	10 ppm	Cadmium	10 ppm
Chromium	20 ppm	Cobalt	20 ppm
Copper	20 ppm	DI Water	ppm
Manganese	20 ppm	Nickel	20 ppm
Nitric Acid	ppm	Selenium	10 ppm
Silver	5 ppm	Vanadium	20 ppm
Zinc	20 ppm		

Composed of Information for Standard #186071

Composed of Standard Seq	Volume	Units
179278	1	mL
179277	1	mL
179276	1	mL
179274	1	mL
161006	41	mL
160983	500	uL
160981	1	mL
160980	1	mL
160977	1	mL
160974	500	uL
160971	500	uL
160967	250	uL

Standard Log Report

Standards Log Information for Standard #186070

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	08/04/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	11/26/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMTICSLiBZr

Notes:

BRMT ICPMS ICS Li B Zr Stock

Compound Name and Concentration for Standard #186070

Compound Name	Concentration	Compound Name	Concentration
Boron	20 ppm	DI Water	ppm
Lithium	20 ppm	Nitric Acid	ppm
Zirconium	20 ppm		

Composed of Information for Standard #186070

Composed of Standard Seq	Volume	Units
179316	1000	uL
161006	47	mL
160978	1000	uL
160972	1000	uL

Standard Log Report

Standards Log Information for Standard #186069

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	08/04/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/22/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMTICSSnSr

Notes:

BRMT ICPMS ICS Sn Sr Stock

Compound Name and Concentration for Standard #186069

Compound Name	Concentration	Compound Name	Concentration
DI Water	ppm	Nitric Acid	ppm
Strontium	10 ppm	Tin	10 ppm

Composed of Information for Standard #186069

Composed of Standard Seq	Volume	Units
161006	49	mL
160987	500	uL
160986	500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #185975

WORKING STANDARD

Created By:	LHM	**Volume of Standard:**	200 mL	**Lot ID:**	PACE
Create Date:	08/01/2023	**Manufacturer:**	PACE	**Part ID:**	PACE
Expire Date:	08/01/2024	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT015

Notes:

BRWA 1:1 HCL N+N

Compound Name and Concentration for Standard #185975

Compound Name	Concentration	Compound Name	Concentration
DI Water	mg/L	Hydrochloric Acid	mg/L

Composed of Information for Standard #185975

Composed of Standard Seq	Volume	Units
184734	100	mL
71227	100	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #185611

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	07/27/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/27/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRICPM-SPK3

Notes:

BRMT BRMP ICPMS Prep Li B Zr Spike

Compound Name and Concentration for Standard #185611

Compound Name	Concentration	Compound Name	Concentration
Boron	50000 ug/L	DI Water	ug/L
Lithium	50000 ug/L	Nitric Acid	ug/L
Zirconium	2000 ug/L		

Composed of Information for Standard #185611

Composed of Standard Seq	Volume	Units
179316	100	uL
161006	44.9	mL
160978	2500	uL
160972	2500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #185610

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	07/27/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/27/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRICPM-SPK2

Notes:

BRMT BRMP ICPMS Prep Ag Se Sb Spike

Compound Name and Concentration for Standard #185610

Compound Name	Concentration	Compound Name	Concentration
Antimony	10000 ug/L	DI Water	ug/L
Nitric Acid	ug/L	Selenium	2000 ug/L
Silver	10000 ug/L		

Composed of Information for Standard #185610

Composed of Standard Seq	Volume	Units
161006	48.9	mL
160983	100	uL
160982	500	uL
160967	500	uL

Standard Log Report

Standards Log Information for Standard #185608

STOCK STANDARD

Created By:	LZ	**Volume of Standard:**		**Lot ID:**	204886
Create Date:	08/01/2023	**Manufacturer:**	Thermo Scientific	**Part ID:**	03EDM33
Expire Date:	01/28/2024	**Manufacturer Lot ID:**	MLD0030000149	**Standard ID:**	RGNT541

Notes:

BRMT BRMP 50mL Digestion Cups

Compound Name and Concentration for Standard #185608

Compound Name	Concentration	Compound Name	Concentration
Digestion Vessel			

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #184734

STOCK STANDARD

Created By:	RYC	**Volume of Standard:**		**Lot ID:**	208741
Create Date:	05/25/2022	**Manufacturer:**	Thermofisher	**Part ID:**	A144S-212
Expire Date:	04/30/2027	**Manufacturer Lot ID:**	218780	**Standard ID:**	RGNT153

Notes:

BRWA Hydrochloric Acid

Compound Name and Concentration for Standard #184734

Compound Name	Concentration	Compound Name	Concentration
Hydrochloric Acid			

Standard Log Report

Standards Log Information for Standard #184607

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	07/26/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/26/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRICPM-IS

Notes:

BRMT ICPMS Internal Standard

Compound Name and Concentration for Standard #184607

Compound Name	Concentration	Compound Name	Concentration
Bismuth-209 (IS)	2 mg/L	Bismuth-209 (IS1)	2 mg/L
DI Water	mg/L	Germanium-72 (IS)	2 mg/L
Germanium-72 (IS1)	2 mg/L	Hydrochloric Acid	mg/L
Indium-115 (IS)	2 mg/L	Indium-115 (IS1)	2 mg/L
Lithium-6 (IS)	2 mg/L	Lithium-6 (IS1)	2 mg/L
Methanol	0 mg/L	Nitric Acid	mg/L
Scandium-45 (IS)	2 mg/L	Scandium-45 (IS1)	2 mg/L
Scandium-45-CCT (IS)	2 mg/L	Terbium-159 (IS)	2 mg/L
Terbium-159 (IS1)	2 mg/L	Yttrium-89 (IS)	2 mg/L
Yttrium-89 (IS1)	2 mg/L		

Composed of Information for Standard #184607

Composed of Standard Seq	Volume	Units
179321	10	mL
161064	50	mL
160927	440	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179375

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208425
Create Date:	01/16/2023	**Manufacturer:**	Inorganic Ventures	**Part ID:**	GCAL-8
Expire Date:	01/17/2024	**Manufacturer Lot ID:**	U2-MEB728284	**Standard ID:**	BRICPM-SPK1

Notes:

BRMT ICPMS GCAL8 Spike & Cal Stock Multi

Compound Name and Concentration for Standard #179375

Compound Name	Concentration	Compound Name	Concentration
Aluminum	200000 ug/L	Antimony	10000 ug/L
Arsenic	10000 ug/L	Barium	10000 ug/L
Beryllium	10000 ug/L	Cadmium	10000 ug/L
Calcium	5000000 ug/L	Chromium	10000 ug/L
Cobalt	10000 ug/L	Copper	10000 ug/L
Iron	1000000 ug/L	Lead	10000 ug/L
Magnesium	1000000 ug/L	Manganese	10000 ug/L
Molybdenum	10000 ug/L	Nickel	20000 ug/L
Potassium	1000000 ug/L	Sodium	1000000 ug/L
Strontium	10000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	200000 ug/L

Standard Log Report

Standards Log Information for Standard #179372

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	07/11/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL1

Notes:

BRMT ICPMS CAL1 0.1ppb

Compound Name and Concentration for Standard #179372

Compound Name	Concentration	Compound Name	Concentration
Aluminum	2 ug/L	Antimony	.2 ug/L
Arsenic	.1 ug/L	Barium	.1 ug/L
Beryllium	.1 ug/L	Boron	1 ug/L
Cadmium	.1 ug/L	Calcium	50 ug/L
Chromium	.1 ug/L	Cobalt	.1 ug/L
Copper	.1 ug/L	DI Water	ug/L
Hydrochloric Acid	ug/L	Iron	10 ug/L
Lead	.1 ug/L	Lithium	.5 ug/L
Magnesium	10 ug/L	Manganese	.5 ug/L
Molybdenum	.1 ug/L	Nickel	.2 ug/L
Nitric Acid	ug/L	Potassium	10 ug/L
Selenium	.1 ug/L	Silicon	20 ug/L
Silver	.1 ug/L	Sodium	10 ug/L
Strontium	.1 ug/L	Thallium	.1 ug/L
Tin	.1 ug/L	Titanium	.1 ug/L
Vanadium	.1 ug/L	Zinc	2 ug/L
Zirconium	.1 ug/L		

Composed of Information for Standard #179372

Composed of Standard Seq	Volume	Units
179371	50	mL
160927	450	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179371

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	07/11/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL2

Notes:

BRMT ICPMS CAL2 1.0ppb

Compound Name and Concentration for Standard #179371

Compound Name	Concentration	Compound Name	Concentration
Aluminum	20 ug/L	Antimony	2 ug/L
Arsenic	1 ug/L	Barium	1 ug/L
Beryllium	1 ug/L	Boron	10 ug/L
Cadmium	1 ug/L	Calcium	500 ug/L
Chromium	1 ug/L	Cobalt	1 ug/L
Copper	1 ug/L	DI Water	ug/L
Hydrochloric Acid	ug/L	Iron	100 ug/L
Lead	1 ug/L	Lithium	5 ug/L
Magnesium	100 ug/L	Manganese	5 ug/L
Molybdenum	1 ug/L	Nickel	2 ug/L
Nitric Acid	ug/L	Potassium	100 ug/L
Selenium	1 ug/L	Silicon	200 ug/L
Silver	1 ug/L	Sodium	100 ug/L
Strontium	1 ug/L	Thallium	1 ug/L
Tin	1 ug/L	Titanium	1 ug/L
Vanadium	1 ug/L	Zinc	20 ug/L
Zirconium	1 ug/L		

Composed of Information for Standard #179371

Composed of Standard Seq	Volume	Units
179370	50	mL
161005	50	uL
160927	449.95	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179370

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	07/11/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL3

Notes:

BRMT ICPMS CAL3 10ppb

Compound Name and Concentration for Standard #179370

Compound Name	Concentration	Compound Name	Concentration
Aluminum	200 ug/L	Antimony	20 ug/L
Arsenic	10 ug/L	Barium	10 ug/L
Beryllium	10 ug/L	Boron	50 ug/L
Cadmium	10 ug/L	Calcium	5000 ug/L
Chromium	10 ug/L	Cobalt	10 ug/L
Copper	10 ug/L	DI Water	ug/L
Hydrochloric Acid	ug/L	Iron	1000 ug/L
Lead	10 ug/L	Lithium	50 ug/L
Magnesium	1000 ug/L	Manganese	50 ug/L
Molybdenum	10 ug/L	Nickel	20 ug/L
Nitric Acid	ug/L	Potassium	1000 ug/L
Selenium	10 ug/L	Silicon	2000 ug/L
Silver	10 ug/L	Sodium	1000 ug/L
Strontium	10 ug/L	Thallium	10 ug/L
Tin	10 ug/L	Titanium	10 ug/L
Vanadium	10 ug/L	Zinc	200 ug/L
Zirconium	10 ug/L		

Composed of Information for Standard #179370

Composed of Standard Seq	Volume	Units
179369	50	mL
161000	2500	uL
160984	500	uL
160927	447	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179369

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	07/11/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-CAL4

Notes:

BRMT ICPMS CAL4 100ppb

Compound Name and Concentration for Standard #179369

Compound Name	Concentration	Compound Name	Concentration
Aluminum	2000 ppb	Antimony	200 ppb
Arsenic	100 ppb	Barium	100 ppb
Beryllium	100 ppb	Boron	500 ppb
Cadmium	100 ppb	Calcium	50000 ppb
Chromium	100 ppb	Cobalt	100 ppb
Copper	100 ppb	DI Water	ppb
Hydrochloric Acid	ppb	Iron	10000 ppb
Lead	100 ppb	Lithium	500 ppb
Magnesium	10000 ppb	Manganese	500 ppb
Molybdenum	100 ppb	Nickel	200 ppb
Nitric Acid	ppb	Potassium	10000 ppb
Selenium	50 ppb	Silicon	10000 ppb
Silver	100 ppb	Sodium	10000 ppb
Strontium	100 ppb	Thallium	100 ppb
Tin	100 ppb	Titanium	100 ppb
Vanadium	100 ppb	Zinc	2000 ppb
Zirconium	100 ppb		

Composed of Information for Standard #179369

Composed of Standard Seq	Volume	Units
179366	5	mL
161000	25	mL
160999	5	mL
160998	5	mL
160992	5	mL
160984	5	mL
160980	200	uL
160927	449.8	mL

Standard Log Report

Standards Log Information for Standard #179366

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	07/11/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	11/26/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMTLiBZrCal

Notes:

BRMT Li B Zr Cal Stock

Compound Name and Concentration for Standard #179366

Compound Name	Concentration	Compound Name	Concentration
Boron	50000 ppb	DI Water	ppb
Lithium	50000 ppb	Nitric Acid	ppb
Zirconium	10000 ppb		

Composed of Information for Standard #179366

Composed of Standard Seq	Volume	Units
179316	500	uL
161006	44.5	mL
160978	2500	uL
160972	2500	uL

Standard Log Report

Standards Log Information for Standard #179328

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	500 mL	**Lot ID:**	PACE
Create Date:	06/14/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BR6020-ICV

Notes:

BRMT ICPMS ICV

Compound Name and Concentration for Standard #179328

Compound Name	Concentration	Compound Name	Concentration
Aluminum	1000 ug/L	Antimony	50 ug/L
Arsenic	50 ug/L	Barium	50 ug/L
Beryllium	50 ug/L	Boron	250 ug/L
Cadmium	50 ug/L	Calcium	25000 ug/L
Chromium	50 ug/L	Cobalt	50 ug/L
Copper	50 ug/L	DI Water	ug/L
Hydrochloric Acid	ug/L	Iron	5000 ug/L
Lead	50 ug/L	Lithium	250 ug/L
Magnesium	5000 ug/L	Manganese	50 ug/L
Molybdenum	50 ug/L	Nickel	100 ug/L
Nitric Acid	ug/L	Potassium	5000 ug/L
Selenium	25 ug/L	Silicon	5000 ug/L
Silver	50 ug/L	Sodium	5000 ug/L
Strontium	50 ug/L	Thallium	50 ug/L
Tin	50 ug/L	Titanium	50 ug/L
Vanadium	50 ug/L	Zinc	1000 ug/L
Zirconium	50 ug/L		

Composed of Information for Standard #179328

Composed of Standard Seq	Volume	Units
179327	2.5	mL
179326	2.5	mL
160993	2.5	mL
160985	2.5	mL
160927	490	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179327

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	12/29/2022	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMTLiBZrICV

Notes:

BRMT ICPMS ICV Li B Zr Stock

Compound Name and Concentration for Standard #179327

Compound Name	Concentration	Compound Name	Concentration
Boron	50000 ppb	DI Water	ppb
Lithium	50000 ppb	Nitric Acid	ppb
Zirconium	10000 ppb		

Composed of Information for Standard #179327

Composed of Standard Seq	Volume	Units
179315	500	uL
161006	44.5	mL
160979	2500	uL
160973	2500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179326

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	05/19/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMT Ag ICV

Notes:

BRMT ICPMS ICV Ag Stock

Compound Name and Concentration for Standard #179326

Compound Name	Concentration	Compound Name	Concentration
DI Water	ppb	Nitric Acid	ppb
Silver	10000 ppb		

Composed of Information for Standard #179326

Composed of Standard Seq	Volume	Units
161006	49.5	mL
160968	500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179321

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208391
Create Date:	07/05/2023	**Manufacturer:**	Inorganic Ventures	**Part ID:**	IV-STOCK-75
Expire Date:	09/20/2023	**Manufacturer Lot ID:**	T2-MEB721710	**Standard ID:**	BRICPM-ISStk

Notes:

BRMT ICPMS Internal Standards Stock

Compound Name and Concentration for Standard #179321

Compound Name	Concentration	Compound Name	Concentration
Bismuth-209 (IS)	100 ug/mL	Bismuth-209 (IS1)	100 ug/mL
Germanium-72 (IS)	100 ug/mL	Germanium-72 (IS1)	100 ug/mL
Indium-115 (IS)	100 ug/mL	Indium-115 (IS1)	100 ug/mL
Lithium-6 (IS)	100 ug/mL	Lithium-6 (IS1)	100 ug/mL
Scandium-45 (IS)	100 ug/mL	Scandium-45 (IS1)	100 ug/mL
Scandium-45-CCT (IS)	100 ug/mL	Terbium-159 (IS)	100 ug/mL
Terbium-159 (IS1)	100 ug/mL	Yttrium-89 (IS)	100 ug/mL
Yttrium-89 (IS1)	100 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179317

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	04/24/2023	**Manufacturer:**	PACE	**Part ID:**	PACE
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRIMPDS-

Notes:

BRMT ICPMS PDS Li B Zr ICPMS SPK 3

Compound Name and Concentration for Standard #179317

Compound Name	Concentration	Compound Name	Concentration
Boron	50000 ug/L	DI Water	ug/L
Lithium	50000 ug/L	Nitric Acid	ug/L
Zirconium	2000 ug/L		

Composed of Information for Standard #179317

Composed of Standard Seq	Volume	Units
179316	0.1	mL
161006	44.9	mL
160978	2.5	mL
160972	2.5	mL

Standard Log Report

Standards Log Information for Standard #179316

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208389
Create Date:	07/05/2023	**Manufacturer:**	NSI	**Part ID:**	TM-031L
Expire Date:	06/30/2024	**Manufacturer Lot ID:**	091516C	**Standard ID:**	BRMT Zr Stk

Notes:

BRMT Zr Stock 1000mg/L

Compound Name and Concentration for Standard #179316

Compound Name	Concentration	Compound Name	Concentration
Zirconium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179315

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208388
Create Date:	07/05/2023	**Manufacturer:**	CPI	**Part ID:**	S4400-1000691
Expire Date:	02/01/2024	**Manufacturer Lot ID:**	1241783-7	**Standard ID:**	BRMT Zr Stk2

Notes:

BRMT Zr ICV Stock 1000mg/L

Compound Name and Concentration for Standard #179315

Compound Name	Concentration	Compound Name	Concentration
Zirconium	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #179278

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208327
Create Date:	06/29/2023	**Manufacturer:**	NSI	**Part ID:**	TM-008L, TM-008L-
Expire Date:	05/31/2026	**Manufacturer Lot ID:**	090519B	**Standard ID:**	BRMT Co Stk

Notes:

BRMT Co Stock 1000mg/L

Compound Name and Concentration for Standard #179278

Compound Name	Concentration	Compound Name	Concentration
Cobalt	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179277

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208328
Create Date:	06/29/2023	**Manufacturer:**	NSI	**Part ID:**	TM-021L, TM-021L-
Expire Date:	03/31/2025	**Manufacturer Lot ID:**	210304	**Standard ID:**	BRMT Zn Stk

Notes:

BRMT Zn Stock 1000mg/L

Compound Name and Concentration for Standard #179277

Compound Name	Concentration	Compound Name	Concentration
Zinc	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179276

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208329
Create Date:	06/29/2023	**Manufacturer:**	NSI	**Part ID:**	TM-007L, TM-007L-
Expire Date:	05/31/2026	**Manufacturer Lot ID:**	220503	**Standard ID:**	BRMT Cr Stk

Notes:

BRMT Cr Stock 1000mg/L

Compound Name and Concentration for Standard #179276

Compound Name	Concentration	Compound Name	Concentration
Chromium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179274

INDIVIDUAL STANDARD

Created By:	LZ	**Volume of Standard:**	125 mL	**Lot ID:**	208330
Create Date:	06/29/2023	**Manufacturer:**	NSI	**Part ID:**	TM-020L, TM-020L-
Expire Date:	05/31/2026	**Manufacturer Lot ID:**	220311	**Standard ID:**	BRMT V Stk

Notes:

BRMT V Stock 1000mg/L

Compound Name and Concentration for Standard #179274

Compound Name	Concentration	Compound Name	Concentration
Vanadium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179200

WORKING STANDARD

Created By:	LZ	**Volume of Standard:**	5000 mL	**Lot ID:**	PACE
Create Date:	06/21/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRMT Matrix

Notes:

BRMT ICPMS Matrix 2%HCL 0.5%HNO3

Compound Name and Concentration for Standard #179200

Compound Name	Concentration	Compound Name	Concentration
DI Water		Hydrochloric Acid	
Nitric Acid			

Composed of Information for Standard #179200

Composed of Standard Seq	Volume	Units
179199	25	mL
179198	100	mL
160804	4875	mL

Standard Log Report

Standards Log Information for Standard #179199

STOCK STANDARD

Created By:	LZ	**Volume of Standard:**	4000 mL	**Lot ID:**	208217
Create Date:	06/21/2023	**Manufacturer:**	Fisher Scientific	**Part ID:**	A508-4
Expire Date:	08/30/2025	**Manufacturer Lot ID:**	22410207	**Standard ID:**	RGNT153

Notes:

BRMT BRMP Hydrochloric Acid

Compound Name and Concentration for Standard #179199

Compound Name	Concentration	Compound Name	Concentration
Hydrochloric Acid			

Standard Log Report

Standards Log Information for Standard #179198

STOCK STANDARD

Created By:	LZ	**Volume of Standard:**	2500 mL	**Lot ID:**	208216
Create Date:	06/21/2023	**Manufacturer:**	Fisher Scientific	**Part ID:**	A509P212
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	23040044	**Standard ID:**	RGNT373

Notes:

BRMT BRMP Nitric Acid

Compound Name and Concentration for Standard #179198

Compound Name	Concentration	Compound Name	Concentration
Nitric Acid			

Standard Log Report

Standards Log Information for Standard #177351

STOCK STANDARD

Created By:	RCH	**Volume of Standard:**	1 L	**Lot ID:**	TUSC-207446
Create Date:	03/23/2023	**Manufacturer:**	Labchem	**Part ID:**	LC177702
Expire Date:	02/23/2025	**Manufacturer Lot ID:**	N033-04	**Standard ID:**	RGNT014

Notes:

1:1 Nitric Acid

Compound Name and Concentration for Standard #177351

Compound Name	Concentration	Compound Name	Concentration
Nitric Acid	mg/kg		

Standard Log Report

Standards Log Information for Standard #161987

WORKING STANDARD

Created By:	SMW	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	10/01/2022	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRIMPDS-

Notes:

BRMT ICPMS PDS Se ICPMS SPK 4

Compound Name and Concentration for Standard #161987

Compound Name	Concentration	Compound Name	Concentration
DI Water	ug/L	Nitric Acid	ug/L
Selenium	100 ug/L		

Composed of Information for Standard #161987

Composed of Standard Seq	Volume	Units
161006	49.995	mL
160983	0.005	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161982

WORKING STANDARD

Created By:	SMW	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	10/01/2022	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRIMPDS-

Notes:

BRMT ICPMS PDS Sb SPK 2

Compound Name and Concentration for Standard #161982

Compound Name	Concentration	Compound Name	Concentration
Antimony	10000 ug/L	DI Water	ug/L
Nitric Acid	ug/L		

Composed of Information for Standard #161982

Composed of Standard Seq	Volume	Units
161006	49.5	mL
160982	500	uL

Standard Log Report

Standards Log Information for Standard #161981

WORKING STANDARD

Created By:	SMW	**Volume of Standard:**	50 mL	**Lot ID:**	PACE
Create Date:	10/01/2022	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	PACE	**Standard ID:**	BRIMPDS-

Notes:

BRMT ICPMS PDS Ag SPK1

Compound Name and Concentration for Standard #161981

Compound Name	Concentration	Compound Name	Concentration
DI Water	ug/L	Nitric Acid	ug/L
Silver	10000 ug/L		

Composed of Information for Standard #161981

Composed of Standard Seq	Volume	Units
161006	49.5	mL
160967	500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161064

STOCK STANDARD

Created By:	JAS	**Volume of Standard:**	1 L	**Lot ID:**	502305
Create Date:	09/28/2022	**Manufacturer:**	Honeywell Burdick & Jackson	**Part ID:**	B&J-232-1
Expire Date:	09/28/2023	**Manufacturer Lot ID:**	DH247	**Standard ID:**	RGNT179

Notes:

BRMT Methanol

Compound Name and Concentration for Standard #161064

Compound Name	Concentration	Compound Name	Concentration
Methanol	0 ug/mL		

Standard Log Report

Standards Log Information for Standard #161044

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	500 mL	**Lot ID:**	N/A
Create Date:	09/26/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BR6020-ICSA

Notes:

BRMT ICSA Check Standard

Compound Name and Concentration for Standard #161044

Compound Name	Concentration	Compound Name	Concentration
Aluminum	1000 ug/L	Calcium	3000 ug/L
Carbon	2000 ug/L	Chloride	20000 ug/L
DI Water	ug/L	Hydrochloric Acid	ug/L
Iron	2500 ug/L	Magnesium	1000 ug/L
Molybdenum	20 ug/L	Nitric Acid	ug/L
Phosphorus	1000 ug/L	Potassium	1000 ug/L
Sodium	2500 ug/L	Sulfur	1000 ug/L
Titanium	20 ug/L		

Composed of Information for Standard #161044

Composed of Standard Seq	Volume	Units
161040	500	uL
160927	499.5	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161040

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2132228
Create Date:	09/26/2022	**Manufacturer:**	HPS	**Part ID:**	ICP-MS-ICS-2-A-
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	2105704-100	**Standard ID:**	BRMTICSAStk

Notes:

BRMT ICPMS ICSA Stock Multi

Compound Name and Concentration for Standard #161040

Compound Name	Concentration	Compound Name	Concentration
Aluminum	1000 ug/mL	Calcium	3000 ug/mL
Carbon	2000 ug/mL	Chloride	20000 ug/mL
Iron	2500 ug/mL	Magnesium	1000 ug/mL
Molybdenum	20 ug/mL	Phosphorus	1000 ug/mL
Potassium	1000 ug/mL	Sodium	2500 ug/mL
Sulfur	1000 ug/mL	Titanium	20 ug/mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161034

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	500 mL	**Lot ID:**	N/A
Create Date:	09/26/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BR6020-CAL0

Notes:

BRMT ICPMS CAL0 Blank

Compound Name and Concentration for Standard #161034

Compound Name	Concentration	Compound Name	Concentration
DI Water	ug/L	Hydrochloric Acid	ug/L
Nitric Acid	ug/L		

Composed of Information for Standard #161034

Composed of Standard Seq	Volume	Units
160927	500	mL

Standard Log Report

Standards Log Information for Standard #161006

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	2000 mL	**Lot ID:**	N/A
Create Date:	09/23/2022	**Manufacturer:**	PACE	**Part ID:**	PACE
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT863

Notes:

BRMT 2% Nitric Acid Solution

Compound Name and Concentration for Standard #161006

Compound Name	Concentration	Compound Name	Concentration
DI Water	ug/L	Nitric Acid	ug/L

Composed of Information for Standard #161006

Composed of Standard Seq	Volume	Units
160814	40	mL
160804	null	mL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161005

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	50 mL	**Lot ID:**	N/A
Create Date:	09/23/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	02/29/2024	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BRMT B Spk

Notes:

BRMT ICPMS Boron Spike

Compound Name and Concentration for Standard #161005

Compound Name	Concentration	Compound Name	Concentration
Boron	50000 ppb	DI Water	ppb
Nitric Acid	ppb		

Composed of Information for Standard #161005

Composed of Standard Seq	Volume	Units
161006	47.5	mL
160972	2500	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #161000

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	250 mL	**Lot ID:**	N/A
Create Date:	09/22/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BRMT Se Cal

Notes:

BRMT Se ICPMS Cal Stock

Compound Name and Concentration for Standard #161000

Compound Name	Concentration	Compound Name	Concentration
DI Water	ppb	Nitric Acid	ppb
Selenium	1000 ppb		

Composed of Information for Standard #161000

Composed of Standard Seq	Volume	Units
161006	249.75	mL
160983	250	uL

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160999

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	50 mL	**Lot ID:**	N/A
Create Date:	09/22/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BRMT Ag Cal

Notes:

BRMT Ag ICPMS Cal Stock

Compound Name and Concentration for Standard #160999

Compound Name	Concentration	Compound Name	Concentration
DI Water	ppb	Nitric Acid	ppb
Silver	10000 ppb		

Composed of Information for Standard #160999

Composed of Standard Seq	Volume	Units
161006	49.5	mL
160967	500	uL

Standard Log Report

Standards Log Information for Standard #160998

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	50 mL	**Lot ID:**	N/A
Create Date:	09/22/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BRMT Sb Cal

Notes:

BRMT Sb ICPMS Cal Stock

Compound Name and Concentration for Standard #160998

Compound Name	Concentration	Compound Name	Concentration
Antimony	10000 ppb	DI Water	ppb
Nitric Acid	ppb		

Composed of Information for Standard #160998

Composed of Standard Seq	Volume	Units
161006	49.5	mL
160982	500	uL

Standard Log Report

Standards Log Information for Standard #160993

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2130853
Create Date:	09/22/2022	**Manufacturer:**	CPI	**Part ID:**	4400-
Expire Date:	08/31/2023	**Manufacturer Lot ID:**	10065683-10	**Standard ID:**	BRMT ICV Stk

Notes:

BRMT ICV Stock Multi

Compound Name and Concentration for Standard #160993

Compound Name	Concentration	Compound Name	Concentration
Aluminum	200 ug/mL	Antimony	10 ug/mL
Arsenic	10 ug/mL	Barium	10 ug/mL
Beryllium	10 ug/mL	Cadmium	10 ug/mL
Calcium	5000 ug/mL	Chromium	10 ug/mL
Cobalt	10 ug/mL	Copper	10 ug/mL
Iron	1000 ug/mL	Lead	10 ug/mL
Magnesium	1000 ug/mL	Manganese	10 ug/mL
Molybdenum	10 ug/mL	Nickel	20 ug/mL
Potassium	1000 ug/mL	Selenium	5 ug/mL
Sodium	1000 ug/mL	Strontium	10 ug/mL
Thallium	10 ug/mL	Tin	10 ug/mL
Titanium	10 ug/mL	Vanadium	10 ug/mL
Zinc	200 ug/mL		

Standard Log Report

Standards Log Information for Standard #160992

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129508
Create Date:	09/22/2022	**Manufacturer:**	Inorganic Ventures	**Part ID:**	GCAL-8
Expire Date:	09/10/2024	**Manufacturer Lot ID:**	R2-MEB696669	**Standard ID:**	BRICPM-SPK1

Notes:

BRMT GCAL8 ICPMS Spike & Cal Stock Multi

Compound Name and Concentration for Standard #160992

Compound Name	Concentration	Compound Name	Concentration
Aluminum	200000 ug/L	Antimony	10000 ug/L
Arsenic	10000 ug/L	Barium	10000 ug/L
Beryllium	10000 ug/L	Cadmium	10000 ug/L
Calcium	5000000 ug/L	Chromium	10000 ug/L
Cobalt	10000 ug/L	Copper	10000 ug/L
Iron	1000000 ug/L	Lead	10000 ug/L
Magnesium	1000000 ug/L	Manganese	10000 ug/L
Molybdenum	10000 ug/L	Nickel	20000 ug/L
Potassium	1000000 ug/L	Sodium	1000000 ug/L
Strontium	10000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	200000 ug/L

Standard Log Report

Standards Log Information for Standard #160987

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129844
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-016L, TM-016L-
Expire Date:	09/22/2023	**Manufacturer Lot ID:**	071019	**Standard ID:**	BRMT Sr Stk

Notes:

BRMT Sr Stock 1000mg/L

Compound Name and Concentration for Standard #160987

Compound Name	Concentration	Compound Name	Concentration
Strontium	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160986

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	250 mL	**Lot ID:**	2130698
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-018L, TM-018L-
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	210211	**Standard ID:**	BRMT Sn Stk

Notes:

BRMT Sn Stock 1000mg/L

Compound Name and Concentration for Standard #160986

Compound Name	Concentration	Compound Name	Concentration
Tin	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160985

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2131076
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-054L, TM-054L-
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	210128	**Standard ID:**	BRMT Si Stk2

Notes:

BRMT Si ICV Stock 1000mg/L

Compound Name and Concentration for Standard #160985

Compound Name	Concentration	Compound Name	Concentration
Silicon	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160984

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	500 mL	**Lot ID:**	2132218
Create Date:	09/22/2022	**Manufacturer:**	CPI	**Part ID:**	44001000504F-
Expire Date:	02/09/2024	**Manufacturer Lot ID:**	1197533-51	**Standard ID:**	BRICPM-SPK4

Notes:

BRMT Si Stock 1000mg/L

Compound Name and Concentration for Standard #160984

Compound Name	Concentration	Compound Name	Concentration
Silicon	1000000 ug/L		

Standard Log Report

Standards Log Information for Standard #160983

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129329
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-015L, TM-015L-
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	100719	**Standard ID:**	BRMT Se Stk

Notes:

BRMT Se Stock 1000mg/L

Compound Name and Concentration for Standard #160983

Compound Name	Concentration	Compound Name	Concentration
Selenium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160982

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2131531
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-002L, TM-002L-
Expire Date:	06/30/2025	**Manufacturer Lot ID:**	210607	**Standard ID:**	BRMT Sb Stk

Notes:

BRMT Sb Stock 1000mg/L

Compound Name and Concentration for Standard #160982

Compound Name	Concentration	Compound Name	Concentration
Antimony	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160981

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129666
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-014L, TM-014L-
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	200305	**Standard ID:**	BRMT Ni Stk

Notes:

BRMT Ni Stock 1000mg/L

Compound Name and Concentration for Standard #160981

Compound Name	Concentration	Compound Name	Concentration
Nickel	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160980

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2132211
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-012L, TM-012L-
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	210107	**Standard ID:**	BRMT Mn Stk

Notes:

BRMT Mn Stock 1000mg/L

Compound Name and Concentration for Standard #160980

Compound Name	Concentration	Compound Name	Concentration
Manganese	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160979

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2131075
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-048L, TM-048L-
Expire Date:	11/30/2023	**Manufacturer Lot ID:**	1111219	**Standard ID:**	BRMT Li Stk2

Notes:

BRMT Li ICV Stock 1000mg/L

Compound Name and Concentration for Standard #160979

Compound Name	Concentration	Compound Name	Concentration
Lithium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160978

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2132231
Create Date:	09/22/2022	**Manufacturer:**	CPI	**Part ID:**	S4400-1000291
Expire Date:	11/26/2023	**Manufacturer Lot ID:**	1186016-18	**Standard ID:**	BRMT Li Stk

Notes:

BRMT Li Stock 1000mg/L

Compound Name and Concentration for Standard #160978

Compound Name	Concentration	Compound Name	Concentration
Lithium	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160977

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129328
Create Date:	09/22/2022	**Manufacturer:**	N/A	**Part ID:**	TM-009L, TM-009L-
Expire Date:	07/31/2024	**Manufacturer Lot ID:**	200716	**Standard ID:**	BRMT Cu Stk

Notes:

BRMT Cu Stock 1000mg/L

Compound Name and Concentration for Standard #160977

Compound Name	Concentration	Compound Name	Concentration
Copper	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160974

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2128370
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-006L, TM-006L-
Expire Date:	09/22/2023	**Manufacturer Lot ID:**	071619	**Standard ID:**	BRMT Cd Stk

Notes:

BRMT Cd Stock 1000mg/L

Compound Name and Concentration for Standard #160974

Compound Name	Concentration	Compound Name	Concentration
Cadmium	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160973

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2131426
Create Date:	09/22/2022	**Manufacturer:**	HPS	**Part ID:**	10007-4-100
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	2128055-100	**Standard ID:**	BRMT B Stk2

Notes:

BRMT B ICV Stock 1000mg/L

Compound Name and Concentration for Standard #160973

Compound Name	Concentration	Compound Name	Concentration
Boron	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160972

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2130747
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-028L
Expire Date:	02/29/2024	**Manufacturer Lot ID:**	200227	**Standard ID:**	BRMT B Stk

Notes:

BRMT B Stock 1000mg/L

Compound Name and Concentration for Standard #160972

Compound Name	Concentration	Compound Name	Concentration
Boron	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160971

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2129084
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-003L
Expire Date:	01/31/2024	**Manufacturer Lot ID:**	200131	**Standard ID:**	BRMT As Stk

Notes:

BRMT As Stock 1000mg/L

Compound Name and Concentration for Standard #160971

Compound Name	Concentration	Compound Name	Concentration
Arsenic	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160968

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2128757
Create Date:	09/22/2022	**Manufacturer:**	NSI	**Part ID:**	TM-023L
Expire Date:	09/30/2023	**Manufacturer Lot ID:**	090519	**Standard ID:**	BRMT Ag Stk2

Notes:

BRMT Ag ICV Stock 1000mg/L

Compound Name and Concentration for Standard #160968

Compound Name	Concentration	Compound Name	Concentration
Silver	1000 ug/mL		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #160967

INDIVIDUAL STANDARD

Created By:	JAS	**Volume of Standard:**	125 mL	**Lot ID:**	2131547
Create Date:	09/22/2022	**Manufacturer:**	HPS	**Part ID:**	100051-1-100
Expire Date:	10/31/2023	**Manufacturer Lot ID:**	2136136-100	**Standard ID:**	BRMT Ag Stk

Notes:

BRMT Ag Stock 1000mg/L

Compound Name and Concentration for Standard #160967

Compound Name	Concentration	Compound Name	Concentration
Silver	1000 ug/mL		

Standard Log Report

Standards Log Information for Standard #160927

WORKING STANDARD

Created By:	JAS	**Volume of Standard:**	5000 mL	**Lot ID:**	N/A
Create Date:	09/21/2022	**Manufacturer:**	N/A	**Part ID:**	N/A
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	N/A	**Standard ID:**	BRMT Matrix

Notes:

BRMT ICPMS Matrix 2%HCL 0.5%HNO3

Compound Name and Concentration for Standard #160927

Compound Name	Concentration	Compound Name	Concentration
DI Water		Hydrochloric Acid	
Nitric Acid			

Composed of Information for Standard #160927

Composed of Standard Seq	Volume	Units
160816	25	mL
160814	100	mL
160804	4875	mL

Standard Log Report

Standards Log Information for Standard #160816

STOCK STANDARD

Created By:	SMW	**Volume of Standard:**	4000 mg/L	**Lot ID:**	207180
Create Date:	05/20/2022	**Manufacturer:**	Fisher Scientific	**Part ID:**	A508-4
Expire Date:	03/11/2025	**Manufacturer Lot ID:**	4122020	**Standard ID:**	RGNT153

Notes:

BRMT Hydrochloric Acid

Compound Name and Concentration for Standard #160816

Compound Name	Concentration	Compound Name	Concentration
Hydrochloric Acid			

Standard Log Report

Standards Log Information for Standard #160814

STOCK STANDARD

Created By:	SMW	**Volume of Standard:**	2500 mL	**Lot ID:**	207179
Create Date:	05/19/2022	**Manufacturer:**	Fisher Scientific	**Part ID:**	A509P212
Expire Date:	03/31/2024	**Manufacturer Lot ID:**	22120177	**Standard ID:**	RGNT373

Notes:

BRMT Nitric Acid

Compound Name and Concentration for Standard #160814

Compound Name	Concentration	Compound Name	Concentration
Nitric Acid			

Standard Log Report

Standards Log Information for Standard #160804

STOCK STANDARD

Created By:	MS	**Volume of Standard:**	500 mL	**Lot ID:**	0000000
Create Date:	06/14/2022	**Manufacturer:**	FISHER	**Part ID:**	frea
Expire Date:	12/11/2025	**Manufacturer Lot ID:**	N/A	**Standard ID:**	RGNT389

Notes:

BRMB DI Water

Compound Name and Concentration for Standard #160804

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #71227

STOCK STANDARD

Created By:	RT1	**Volume of Standard:**	10000 mL	**Lot ID:**	PACE
Create Date:	10/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	04/30/2030	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

BR - Baton Rouge DI Water

Compound Name and Concentration for Standard #71227

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's New Orleans Laboratory.

Ultimate Clean™ Cup - Certificate of Volume Accuracy and Metals Backgr

Representative samples of this lot of digestion cups have been tested for volume accuracy at all graduation lines by the pro in ASTM E542-01 *Standard Practice for Calibration of Laboratory Apparatus*. Volume accuracy was found to be within the C set forth in ASTM 1272-02 *Standard Specification for Laboratory Glass Graduated Cylinders*. Balances used in test procedu are certified yearly and traceable to NIST. Complete test results and test conditions are available at www.envexp.com.

Metals Background Analysis Report

The Ultimate Clean digestion cups are certified to the values listed below. These values are verified by taking samples of the digestion cups, digesting them using a HotBlock® system, and analyzing using an ICP-MS or CVAFS instrument. Care shoul storage and handling of cups to prevent contamination. If your laboratory is having difficulties achieving levels below the cer contact our Technical Support Team for advice on ultralow metals digestions and analysis.

Element	Results (ug/L)	Element	Results (ug/L)	Element	Results (ug/L)	Element	Results (ug/L)	Element	Results (ug/L)	Element	Resul
Ag	< 0.1	Cr	< 1.5	Ho	< 0.1	Nd	< 0.25	Sb	< 0.5	Tm	<
Al	< 30	Cs	< 0.1	In	< 0.1	Ni	< 0.25	Sc	< 0.2	U	<
As	< 0.2	Cu	< 0.5	Ir	< 0.1	Os	< 0.1	Se	< 0.25	V	<
Au	< .25	Dy	< 0.1	K	< 50	P	< 10	Si	< 50	W	<
B	< 10	Er	< 0.25	La	< 0.1	Pb	< 0.25	Sm	< 0.25	Y	<
Ba	< 1	Eu	< 0.1	Li	< 0.5	Pd	< 0.1	Sn	< 1	Yb	<
Be	< 0.1	Fe	< 25	Lu	< 0.1	Pr	< 0.1	Sr	< 2.5	Zn	<
Bi	< 0.1	Ga	< 0.5	Mg	< 15	Pt	< 0.5	Ta	< 0.1	Zr	<
Ca	< 150	Gd	< 0.1	Mn	< 0.1	Rb	< 0.1	Tb	< 0.1		
Cd	< 0.2	Ge	< 0.1	Mo	< 0.1	Re	< 0.1	Te	< 0.5		
Ce	< 0.2	Hf	< 0.1	Na	< 50	Rh	< 0.1	Ti	< 0.5		
Co	< 0.1	Hg	< 0.0005	Nb	< 0.1	Ru	< 0.1	Tl	< 0.08		

Lot Numb
1906257-0

Certified by Environmental Express Quality Department

112162
RGNT541
LOT 204886
EXP 28-MAY-21

204886
REC.05/26/20 BY MHB1
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Open __/__/__ By __

Contact us for more information!
800.343.5319 or 843.881.6560 | info@EnvExp.com

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Certificate of Analysis
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208216
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Open __/__/__ By __

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A509	Quality Test / Release Date	03/06/2023
Lot Number	23040044	Expiration Date	Feb/2025
Description	NITRIC ACID (TRACE METAL GRADE)		
Country of Origin	United States		
Chemical Origin	Inorganic		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ALUMINUM	ppb	<= 1	<1
ANTIMONY (Sb)	ppb	<= 0.5	<0.5
ARSENIC (As)	ppb	<= 0.5	<0.5
ASSAY	%	Inclusive Between 67 - 70	69.0
BARIUM (Ba)	ppb	<= 0.1	<0.1
BERYLLIUM (Be)	ppb	<= 0.1	<0.1
BISMUTH (Bi)	ppb	<= 0.1	<0.1
BORON (B)	ppb	<= 1	<1
CADMIUM (Cd)	ppb	<= 0.5	<0.5
CALCIUM (Ca)	ppb	<= 1	<1
CERIUM (Ce)	ppb	<= 0.1	<0.1
CESIUM (Cs)	ppb	<= 0.1	<0.1
CHLORIDE	ppm	<= 0.2	<0.2
CHROMIUM (Cr)	ppb	<= 1	<1
COBALT (Co)	ppb	<= 0.5	<0.5
COLOR	APHA	<= 10	<10
COPPER (Cu)	ppb	<= 0.5	<0.5
DYSPROSIUM (Dy)	ppb	<= 0.1	<0.1
ERBIUM (Er)	ppb	<= 0.1	<0.1
EUROPIUM (Eu)	ppb	<= 0.1	<0.1
GADOLINIUM (Gd)	ppb	<= 0.1	<0.1
GALLIUM (Ga)	ppb	<= 0.1	<0.1
GERMANIUM (Ge)	ppb	<= 0.1	<0.1
GOLD (Au)	ppb	<= 0.1	<0.1

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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HAFNIUM (Hf)	ppb	<= 0.1	<0.1
HOLMIUM (Ho)	ppb	<= 0.1	<0.1
INDIUM (In)	ppb	<= 0.1	<0.1
IRON (Fe)	ppb	<= 1	<1
LANTHANUM (La)	ppb	<= 0.1	<0.1
LEAD (Pb)	ppb	<= 0.1	<0.1
LITHIUM (Li)	ppb	<= 0.1	<0.1
LUTETIUM (Lu)	ppb	<= 0.1	<0.1
MAGNESIUM (Mg)	ppb	<= 1	<1
MANGANESE (Mn)	ppb	<= 0.1	<0.1
MERCURY (Hg)	ppb	<= 0.1	<0.1
MOLYBDENUM (Mo)	ppb	<= 0.1	<0.1
NEODYMIUM (Nd)	ppb	<= 0.1	<0.1
NICKEL (Ni)	ppb	<= 0.5	<0.5
NIOBIUM (Nb)	ppb	<= 0.1	<0.1
PALLADIUM (Pd)	ppb	<= 0.5	<0.5
PLATINUM (Pt)	ppb	<= 0.5	<0.5
POTASSIUM (K)	ppb	<= 1	<1
PRASEODYMIUM (Pr)	ppb	<= 0.1	<0.1
RHENIUM (Re)	ppb	<= 0.1	<0.1
RHODIUM (Rh)	ppb	<= 0.5	<0.5
RUBIDIUM (Rb)	ppb	<= 0.1	<0.1
RUTHENIUM (Ru)	ppb	<= 0.5	<0.5
SAMARIUM (Sm)	ppb	<= 0.1	<0.1
SCANDIUM (Sc)	ppb	<= 0.1	<0.1
SELENIUM (Se)	ppb	<= 1	<1
SILVER (Ag)	ppb	<= 0.1	<0.1
SODIUM (Na)	ppb	<= 1	<1
STRONTIUM (Sr)	ppb	<= 0.1	<0.1
TANTALUM (Ta)	ppb	IN INFORMATION ONLY	<1
TELLURIUM (Te)	ppb	<= 0.1	<0.1
TERBIUM (Tb)	ppb	<= 0.1	<0.1
THALLIUM (Tl)	ppb	<= 0.1	<0.1
THORIUM (Th)	ppb	<= 0.1	<0.1
THULIUM (Tm)	ppb	<= 0.1	<0.1
TIN (Sn)	ppb	<= 0.5	<0.5
TITANIUM (Ti)	ppb	<= 0.5	<0.5
TOTAL PHOSPHOROUS (P)	ppm	<= 0.01	<0.01
TOTAL SULFUR	ppm	<= 0.3	<0.3
TUNGSTEN (W)	ppb	<= 0.1	<0.1

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
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Certificate of Analysis

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Fair Lawn, NJ 07410
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URANIUM (U)	ppb	<= 0.1	<0.1
VANADIUM (V)	ppb	<= 0.5	<0.5
YTTERBIUM (Yb)	ppb	<= 0.1	<0.1
YTTRIUM (Y)	ppb	<= 0.1	<0.1
ZINC (Zn)	ppb	<= 0.5	<0.5
ZIRCONIUM (Zr)	ppb	<= 0.1	<0.1

Dudhatra Chetan

Chetan Dudhatra - Quality Control Supervisor - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
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208217
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Catalog Number	A508	Quality Test / Release Date	12/05/2022
Lot Number	22410207	Expiration Date	Oct/2025
Description	HYDROCHLORIC ACID, TRACE METAL GRADE		
Country of Origin	United States		
Chemical Origin	Synthetic		
BSE/TSE Comment	This material is produced using a synthetic process and the prodcution equipment does not come into contact with anything of animal origin. Therefore, there is no potential for BSE or TSE to be present in the product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ALUMINUM	ppb	<= 1	<1
ANTIMONY (Sb)	ppb	<= 0.5	<0.5
ARSENIC (As)	ppb	<= 0.5	<0.5
ASSAY	%	Inclusive Between 34 - 37	35
BARIUM (Ba)	ppb	<= 0.1	<0.1
BERYLLIUM (Be)	ppb	<= 0.1	<0.1
BISMUTH (Bi)	ppb	<= 0.1	<0.1
BORON (B)	ppb	<= 1	<1
CADMIUM (Cd)	ppb	<= 0.1	<0.1
CALCIUM (Ca)	ppb	<= 1	<1
CERIUM (Ce)	ppb	<= 0.1	<0.1
CESIUM (Cs)	ppb	<= 0.1	<0.1
CHROMIUM (Cr)	ppb	<= 0.5	<0.5
COBALT (Co)	ppb	<= 0.1	<0.1
COLOR	APHA	<= 10	<10
COPPER (Cu)	ppb	<= 0.5	<0.5
DYSPROSIUM (Dy)	ppb	<= 0.1	<0.1
ERBIUM (Er)	ppb	<= 0.1	<0.1
EUROPIUM (Eu)	ppb	<= 0.1	<0.1
FREE BROMINE	ppm	<= 10	<10
FREE CHLORINE (Cl2)	ppm	<= 0.5	<0.5
GADOLINIUM (Gd)	ppb	<= 0.1	<0.1
GALLIUM (Ga)	ppb	<= 0.1	<0.1
GOLD (Au)	ppb	<= 0.5	<0.5

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HAFNIUM (Hf)	ppb	<= 0.1	<0.1
HOLMIUM (Ho)	ppb	<= 0.1	<0.1
INDIUM (In)	ppb	<= 0.1	<0.1
IRON (Fe)	ppb	<= 1	<1
LANTHANUM (La)	ppb	<= 0.1	<0.1
LEAD (Pb)	ppb	<= 0.1	<0.1
LITHIUM (Li)	ppb	<= 0.1	<0.1
LUTETIUM (Lu)	ppb	<= 0.1	<0.1
MAGNESIUM (Mg)	ppb	<= 0.5	<0.5
MANGANESE (Mn)	ppb	<= 0.1	<0.1
MERCURY (Hg)	ppb	<= 0.1	<0.1
MOLYBDENUM (Mo)	ppb	<= 0.1	<0.1
NEODYMIUM (Nd)	ppb	<= 0.1	<0.1
NICKEL (Ni)	ppb	<= 0.5	<0.5
NIOBIUM (Nb)	ppb	<= 0.1	<0.1
PALLADIUM (Pd)	ppb		<0.5
PLATINUM (Pt)	ppb		<0.5
POTASSIUM (K)	ppb	<= 1	<1
PRASEODYMIUM (Pr)	ppb	<= 0.1	<0.1
RHENIUM (Re)	ppb	<= 0.1	<0.1
RHODIUM (Rh)	ppb	<= 0.1	<0.1
RUBIDIUM (Rb)	ppb	<= 0.1	<0.1
RUTHENIUM (Ru)	ppb	<= 0.1	<0.1
SAMARIUM (Sm)	ppb	<= 0.1	<0.1
SCANDIUM (Sc)	ppb	<= 0.1	<0.1
SELENIUM (Se)	ppb	<= 1	<1
SILVER (Ag)	ppb	<= 1	<1
SODIUM (Na)	ppb	<= 1	<1
STRONTIUM (Sr)	ppb	<= 0.1	<0.1
TANTALUM (Ta)	ppb		<1
TELLURIUM (Te)	ppb	<= 0.1	<0.1
TERBIUM (Tb)	ppb	<= 0.1	<0.1
THALLIUM (Tl)	ppb	<= 0.1	<0.1
THORIUM (Th)	ppb	<= 0.1	<0.1
THULIUM (Tm)	ppb	<= 0.1	<0.1
TIN (Sn)	ppb	<= 0.5	<0.5
TITANIUM (Ti)	ppb	<= 0.5	<0.5
TOTAL PHOSPHOROUS (P)	ppm	<= 0.01	<0.01
TOTAL SULFUR	ppm	<= 0.3	<0.3
TUNGSTEN (W)	ppb	<= 0.1	<0.1

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

URANIUM (U)	ppb	<= 0.1	<0.1
VANADIUM (V)	ppb	<= 0.5	<0.5
YTTERBIUM (Yb)	ppb	<= 0.1	<0.1
YTTRIUM (Y)	ppb	<= 0.1	<0.1
ZINC (Zn)	ppb	<= 1	<1
ZIRCONIUM (Zr)	ppb	<= 0.1	<0.1

Dudhatra Chete.

Chetan Dudhatra - Quality Control Supervisor - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

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2

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Certificate of Analysis

Cobalt ICP Standard - 1000 ug/mL

Catalog Number: TM-008L, TM-008L-25
Lot Number: 090519B
Manufacture Date: 09/05/19
Certified Date: 09/06/19

Expiration: 05/31/2026
Matrix: 5% Nitric Acid
Hazards: Irritant, Corrosive (See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (ug/mL Co)
W-726M-02	Cobalt (II) nitrate hexahydrate	10026-22-9	99.999%	1000 ± 5.75

Density: 1.038 g/mL at 22.8°C

Packaging, Storage, Instructions For Use

Store tightly capped at room temperature (15-30°C).

This certified reference material (CRM) is packaged in low density polyethylene. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by ICP against NIST SRM # 3113 with n=5.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

Catalog Number: TM-008L, TM-008L-25
Lot Number: 090519B

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Trace Metal Impurity Analysis

Impurity information is captured by ICP analysis and is reported below in ug/L. The values below are typical of a Cobalt solution at 10,000 ug/mL.

Aluminum <1	Cadmium <0.5	Lead <8	Nickel <3	Thallium <15
Antimony <20	Calcium **N**	Magnesium **N**	Potassium **N**	Tin <10
Arsenic <10	Chromium <1.5	Manganese <0.3	Selenium <20	Titanium <1
Barium <0.3	Cobalt **M**	Mercury **N**	Silver <3	Vanadium <2
Beryllium <0.1	Iron <1	Molybdenum <5	Strontium <0.1	Zinc <2
Copper <3				

N = Not Tested For **M** = Major Element

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

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2

Certificate of Analysis

Zinc ICP Standard - 1000 ug/mL

Catalog Number: TM-021L, TM-021L-25
Lot Number: 210304
Manufacture Date: 03/04/21
Certified Date: 03/05/21

Expiration: 03/31/2025
Matrix: 5% Nitric Acid
Hazards: Irritant, Corrosive (See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (ug/mL Zn)
W-1844M-04	Zinc nitrate hexahydrate	10196-18-6	99.999%	1000 ± 5.75

Density: 1.047 g/mL at 22.2°C

Packaging, Storage, Instructions For Use

Store tightly capped at room temperature (15-30°C).

This certified reference material (CRM) is packaged in low density polyethylene. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty. This CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by ICP against NIST SRM # 3168a with n=5.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: TM-021L, TM-021L-25
Lot Number: 210304

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Trace Metal Impurity Analysis

Impurity information is captured by ICP analysis and is reported below in ug/L. The values below are typical of a Zinc solution at 10,000 ug/mL.

Aluminum <1	Cadmium <0.5	Lead <8	Nickel <3	Thallium <15
Antimony <20	Calcium **N**	Magnesium **N**	Potassium **N**	Tin <10
Arsenic <10	Chromium <1.5	Manganese <0.3	Selenium <20	Titanium <1
Barium <0.3	Cobalt <2	Mercury **N**	Silver <3	Vanadium <2
Beryllium <0.1	Iron <1	Molybdenum <5	Strontium <0.1	Zinc **M**
Copper <3				

N = Not Tested For **M** = Major Element

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

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2

Certificate of Analysis

Chromium ICP Standard - 1000 ug/mL

Catalog Number: TM-007L, TM-007L-25
Lot Number: 220503
Manufacture Date: 05/03/22
Certified Date: 05/04/22

Expiration: 05/31/2026
Matrix: 5% Nitric Acid
Hazards: Irritant, Corrosive (See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (ug/mL Cr)
W-1579-29	Chromium metal	7440-47-3	99.995%	1000 ± 5.75

Density: 1.063 g/mL at 22.8°C

Packaging, Storage, Instructions For Use

Store tightly capped at room temperature (15-30°C).

This certified reference material (CRM) is packaged in low density polyethylene. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty. This CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by ICP against NIST SRM # 3112a with n=5.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: TM-007L, TM-007L-25
Lot Number: 220503

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Trace Metal Impurity Analysis

Impurity information is captured by ICP analysis and is reported below in ug/L. The values below are typical of a chromium solution at 10,000 ug/mL.

Aluminum <1	Cadmium <0.5	Lead <8	Nickel <3	Thallium <15
Antimony <20	Calcium **N**	Magnesium **N**	Potassium **N**	Tin <10
Arsenic <10	Chromium **M**	Manganese <0.3	Selenium <20	Titanium 5
Barium <0.3	Cobalt <2	Mercury **N**	Silver 4	Vanadium <2
Beryllium <0.1	Iron <1	Molybdenum <5	Strontium <0.1	Zinc <2
Copper <3				

N = Not Tested For **M** = Major Element

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of ten samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

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2

Certificate of Analysis

Vanadium ICP Standard - 1000 ug/mL

Catalog Number: TM-020L, TM-020L-25
Lot Number: 220311
Manufacture Date: 03/11/22
Certified Date: 03/14/22

Expiration: 05/31/2026
Matrix: 5% Nitric Acid
Hazards: Irritant, Corrosive (See MSDS)

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (ug/mL V)
W-1560-38	Ammonium metavanadate	7803-55-6	99.995%	1000 ± 5.75

Density: 1.056 g/mL at 22.8°C

Packaging, Storage, Instructions For Use

Store tightly capped at room temperature (15-30°C).

This certified reference material (CRM) is packaged in low density polyethylene. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty. This CRM was manufactured by NSI Lab Solutions following quality procedures meeting the requirements of ISO 9001, ISO 17025, and ISO 17034.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this CRM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by ICP against NIST SRM # 3165 with n=5.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our CRMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: TM-020L, TM-020L-25
Lot Number: 220311

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Trace Metal Impurity Analysis

Impurity information is captured by ICP analysis and is reported below in ug/L. The values below are typical of a Vanadium solution at 10,000 ug/mL.

Aluminum <1	Cadmium <0.5	Lead <8	Nickel <3	Thallium <15
Antimony <20	Calcium **N**	Magnesium **N**	Potassium **N**	Tin <10
Arsenic <10	Chromium <1.5	Manganese <0.3	Selenium <20	Titanium <1
Barium <0.3	Cobalt <2	Mercury **N**	Silver <3	Vanadium **M**
Beryllium <0.1	Iron <1	Molybdenum <5	Strontium <0.1	Zinc <2
Copper <3				

N = Not Tested For **M** = Major Element

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This CRM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this CRM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

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2

CERTIFICATE OF ANALYSIS

Single-Element Aqueous CRM — Product #: S4400-1000691

Zirconium (Zr) – 1000 µg/mL — Lot #: 1241783-7

Matrix: 2% HNO_3

Element	Certified Concentration & Uncertainty
Zr	994.0 ± 5.0 µg/mL (w/v)
	985.0 ± 5.0 µg/g (w/w)

Intended Use: This solution is intended for use as a certified reference material (CRM) or calibration standard for inductively coupled plasma optical emission spectroscopy (ICP-OES), inductively coupled plasma mass spectrometry (ICP-MS), flame or furnace atomic absorption spectroscopy (AA or GFAA), and other techniques for elemental analysis.

Certification & Traceability: This CRM was manufactured, processed, and/or certified under a quality management system that is registered/accredited to **ISO 17034, ISO/IEC 17025 and ISO 9001**. This CRM was prepared to a nominal concentration of 1000 µg/mL by gravimetric methods using 99.994% pure zirconium dinitrate oxide hydrate ($N_2O_7Zr{\cdot}xH_2O$). The solution was diluted with filtered (0.22um), 18 M-ohm water and stabilized with the appropriate high-purity acid as indicated in the listed matrix. The balances used in the preparation of this CRM are calibrated regularly with traceability to NIST, using a calibration provider that is accredited to ISO/IEC 17025 by a mutually recognized accreditation body. All volumetric dilutions are performed in Class A calibrated glassware. The certified concentration and uncertainty were determined using the "High Performance ICP-OES" protocol developed by NIST, and both the certified concentration and uncertainty values are traceable to **NIST SRM 3169, lot #1133407**. The uncertainty associated with the certified concentration represents the expanded uncertainty at the 95% confidence level using a coverage factor of k=2.

Indicative Values: ICP-MS was used to determine trace metal concentrations for this product (nd = not determined).

Trace Concentrations (µg/L)

Ag	9	Co	<1	Ge	<0.5	Lu	<0.2	P	<100	Sb	0.7	Te	<1
Al	19	Cs	<0.5	Hf	17	Mg	<5	Pb	<1	Sc	<5	Ti	<2
As	<2	Cr	2	Hg	<0.5	Mn	<1	Pd	<0.5	Se	<2	Tl	<0.5
Au	<0.5	Cu	<1	Ho	<0.2	Mo	<0.5	Pr	<0.2	Si	<100	Tm	<0.2
B	<5	Dy	<0.2	In	nd	Na	<25	Pt	<0.5	Sm	<0.2	V	<1
Ba	<1	Er	<0.2	Ir	<0.2	Nb	<0.5	Rb	<0.5	Sn	1	W	<0.5
Bi	<0.2	Eu	<0.2	K	<25	Nd	<0.2	Re	<0.2	Sr	<1	Y	<0.5
Ca	<25	Fe	<10	La	2	Ni	<2	Rh	<0.5	Ta	<0.5	Yb	<0.2
Cd	<0.5	Ga	<0.5	Li	<2	Os	<0.5	Ru	<0.5	Tb	<0.5	Zn	<2
Ce	<0.2	Gd	<0.2										

Instructions for Use: We recommend that the solution be thoroughly mixed by repeated shaking or swirling of the bottle immediately prior to use. To achieve the highest accuracy, the analyst should: (1) use only pre-cleaned containers and transferware, (2) not pipette directly from the CRM's original container, (3) never pour used product back into the original container, (4) make dilutions using calibrated balances or certified class A volumetric flasks and pipettes, (5) use a minimum sub-sample size of 500 µL, and (6) dilute with the same matrix as the original CRM or other chemically suitable matrix. The solution should be kept tightly capped and stored under normal laboratory conditions. Do not freeze, heat, or immerse the bottle or its contents, and avoid exposure to direct sunlight or moisture.

Period of Validity: CPI International ensures the accuracy of this solution for **18 months** from the certification date shown below, provided the instructions for use are followed. During the period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution.

Chuck Goudreau

Chuck Goudreau, Certifying Officer

January 20, 2023
Certification Date

CPI International waives all responsibility for any damages resulting from the usage and/or implementation of the products/data described herein.

USA
5580 Skylane Boulevard P: 707.525.5788
Santa Rosa, CA 95403 P: 800.878.7654
F: 707.545.7901
www.cpiinternational.com

Europe
Nieuwe Hemweg 7P P: +31 20 638 05 97
1013BG Amsterdam F: +31 20 420 28 36
The Netherlands

Health and Safety Information: Refer to the Safety Data Sheet (SDS).

Homogeneity: This solution was determined to be homogeneous by procedures consistent with the requirements of ISO 17034 and ISO Guide 35. Replicate samples of the finished solution were analyzed to confirm its homogeneity, in accordance with internal procedures for assessment of homogeneity and stability. To ensure homogeneity, users should not take a smaller sub-sample than specified in the Instructions for Use, as doing so will invalidate the certified values and uncertainties.

Further Information: Please contact CPI International for further information about this material.

Quality Certifications: This material was prepared under a quality management system that is registered/accredited to the following:

- ISO 17034 Accredited: Reference Materials Producer, A2LA Certificate No. 2848.02 – General Requirements for the Competence of Reference Material Producers
    - ISO 17034 references additional requirements specified in ISO Guide 31 and ISO Guide 35
- ISO/IEC 17025 Accredited: Chemical Testing, A2LA Certificate No. 2848.01 – General Requirements for the Competence of Testing and Calibration Laboratories
- ISO 9001 Certified: Quality Management Systems, Certificate Registration No. 56 100 19560101 – Requirements *(Registrar: TUV NORD)*

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Certificate of Analysis

Zirconium Calibration Standard - 1000 ug/mL

Catalog Number: TM-031L
Lot Number: 091516C
Manufacture Date: 09/15/16
Certified Date: 09/16/16

Expiration: 06/30/2024
Matrix: 1% HNO3/5% HCl
Hazards: Irritant, Corrosive

Bulk Number	Analyte	CAS #	Purity	Certified Concentration (ug/mL Zr)
W-1786-02	Zirconium metal	7440-67-7	99.8%	1000 ± 4.60

Packaging, Storage, Instructions For Use

Store tightly capped at room temperature (15-30°C).

This reference material (RM) is packaged in high density polyethylene. Small aliquots should be poured out of the bottle rather than directly pipetted out of bottle in order to prevent contamination or premature degradation. A 1 mL sample size is recommended. Smaller sample volumes may negatively affect estimated uncertainty.

Traceability Information

Analyte Source Materials: The highest purity analyte source materials are used in the manufacture of this RM. The actual purity is referenced above. Analyte source material purity and associated uncertainty has been analytically verified against appropriate NIST SRMs, if available.

Method: Certified concentration confirmed by ICP against NIST SRM 3169 with n=5.

Balance: All analytical balances are calibrated on a semiannual basis by an ISO 17025 accredited calibration laboratory and are traceable to NIST. Traceable Calibration Certificate available upon request.

All balances are checked daily by an in-house standard operating procedure. The weights used for this daily verification are calibrated annually by an ISO 17025 accredited calibration laboratory and are certified traceable to NIST. Certificate of Calibration and Traceability available upon request.

Thermometer: All thermometers are NIST traceable through thermometers that are calibrated annually by an ISO 17025 accredited calibration laboratory.

Glassware: All glassware used in the manufacture of our RMs is Class A. An in-house standard operating procedure is used to verify all glassware prior to it being placed into service. Volumetric pipetors are calibrated every four months by an ISO 17025 accredited calibration laboratory.

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Catalog Number: TM-031L
Lot Number: 091516C

Intended Uses

- Calibration of analytical instruments
- Validation of analytical methods
- Preparation of working level reference materials, i.e. "check standards"
- Detection limit studies

Trace Metal Impurity Analysis

Impurity information is captured by ICP analysis and is reported below in ug/L. The values below are typical of a Zirconium solution at 10,000 ug/mL.

Aluminum <1	Cadmium <0.5	Lead <8	Nickel <3	Thallium <15
Antimony <20	Calcium **N**	Magnesium **N**	Potassium **N**	Tin <10
Arsenic <10	Chromium <1.5	Manganese <0.5	Selenium <20	Titanium <1
Barium <0.3	Cobalt <2	Mercury **N**	Silver <3	Vanadium <2
Beryllium <0.1	Iron <1	Molybdenum <5	Strontium <0.1	Zinc <2
Copper <3				Zirconium **M**

N = Not Tested For

M = Major Element

Uncertainty

The ± uncertainty associated with the certified concentration is the expanded uncertainty at 95% confidence interval (CI) with K=2. This expanded uncertainty incorporates contributions from manufacturing, homogeneity, and stability.

Homogeneity

This RM was thoroughly mixed in production. Batch homogeneity was established through analysis of samples chosen at random. A minimum 1 mL sample size is recommended.

Stability/Expiration

The stability of this RM is based on short-term and long-term monitoring of the certified concentration. The expiration date is guaranteed to be valid from the manufacture date and is based on results of long-term monitoring.

Ewart Morris

Ewart Morris, Inorganics Technical Manager

Mark Hammersla

Mark Hammersla, President

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Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

208391
REC.09/19/22 BY LZ
Exp. __/__/__ By __
Open __/__/__ By __

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	IV-STOCK-75
Lot Number:	T2-MEB721710
Matrix:	10% (v/v) HNO3 tr. HF
Value / Analyte(s):	100 µg/mL ea: Bismuth, Germanium, Indium, 6-Lithium, Lutetium, Rhodium, Scandium, Terbium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	100.0 ± 0.3 µg/mL	Bismuth, Bi	100.0 ± 0.7 µg/mL
Germanium, Ge	100.0 ± 0.8 µg/mL	Indium, In	100.0 ± 0.5 µg/mL
Lutetium, Lu	100.0 ± 0.4 µg/mL	Rhodium, Rh	99.9 ± 0.5 µg/mL
Scandium, Sc	100.0 ± 0.7 µg/mL	Terbium, Tb	100.0 ± 0.4 µg/mL

Density: 1.053 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Ge	ICP Assay	3120a	151115
In	ICP Assay	3124a	110516
In	EDTA	928	928
Li6	Gravimetric		See Sec. 4.2
Lu	ICP Assay	3130a	100503
Lu	EDTA	928	928
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

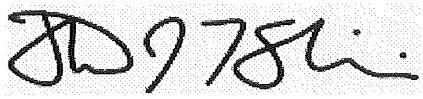
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

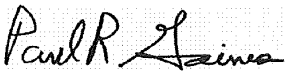
Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

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inorganicventures.com

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Open 1/2/23 By

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	GCAL-8
Lot Number:	U2-MEB728284
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	5 000 µg/mL ea: Calcium,
	1 000 µg/mL ea: Sodium, Iron, Potassium, Magnesium,
	200 µg/mL ea: Zinc, Aluminum,
	20 µg/mL ea: Nickel,
	10 µg/mL ea: Lead, Antimony, Tin, Strontium, Titanium, Thallium, Vanadium, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Chromium, Copper, Manganese, Molybdenum

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.6 µg/mL	Antimony, Sb	9.99 ± 0.08 µg/mL
Arsenic, As	10.00 ± 0.06 µg/mL	Barium, Ba	10.00 ± 0.05 µg/mL
Beryllium, Be	10.00 ± 0.06 µg/mL	Cadmium, Cd	10.00 ± 0.05 µg/mL
Calcium, Ca	5 000 ± 22 µg/mL	Chromium, Cr	10.00 ± 0.05 µg/mL
Cobalt, Co	10.00 ± 0.04 µg/mL	Copper, Cu	10.00 ± 0.06 µg/mL
Iron, Fe	1 000 ± 4 µg/mL	Lead, Pb	10.00 ± 0.04 µg/mL
Magnesium, Mg	1 000 ± 4 µg/mL	Manganese, Mn	10.00 ± 0.05 µg/mL
Molybdenum, Mo	9.99 ± 0.07 µg/mL	Nickel, Ni	20.00 ± 0.12 µg/mL
Potassium, K	1 000 ± 4 µg/mL	Sodium, Na	1 000 ± 4 µg/mL
Strontium, Sr	10.00 ± 0.06 µg/mL	Thallium, Tl	10.00 ± 0.07 µg/mL
Tin, Sn	9.99 ± 0.07 µg/mL	Titanium, Ti	9.99 ± 0.07 µg/mL
Vanadium, V	10.00 ± 0.05 µg/mL	Zinc, Zn	200.0 ± 0.9 µg/mL

Density: 1.054 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Al	Calculated		See Sec. 4.2
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Cd	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Cu	Calculated		See Sec. 4.2
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Mn	Calculated		See Sec. 4.2
Mo	ICP Assay	3134	130418
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Sb	ICP Assay	3102a	140911
Sn	ICP Assay	3161a	140917
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Sr	Calculated		See Sec. 4.2
Ti	ICP Assay	3162a	130925
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
V	Calculated		See Sec. 4.2

Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 09, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- January 09, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

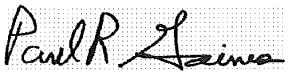
Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

208741
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Exp. __/__/__ By __
Open __/__/__ By __

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A144	Quality Test / Release Date	04/25/2022
Lot Number	218780		
Description	HYDROCHLORIC ACID, CERTIFIED A.C.S. PLUS		
Country of Origin	Canada	Suggested Retest Date	Apr/2027
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Comment	No Bisphenol-A or any other organic compound is used in the manufacture of this product. No melamine is used in the production or packaging of this product. It is not manufactured using genetically modified organisms or genetically engineered additives or raw materials.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid free from suspended matter
ALUMINUM	ppm	<= 0.3	<0.1
AMMONIUM (NH4)	ppm	<= 3	<3
ARSENIC AND ANTIMONY	ppm	<= 0.005	<0.005
ASSAY	w/w %	Inclusive Between 36.5 - 38.0	37.2
BORON (B)	ppm	<= 0.1	<0.1
BROMIDE	%	<= 0.005	<0.005
CALCIUM (Ca)	ppm	<= 0.3	<0.3
CHROMIUM (Cr)	ppm	<= 0.2	<0.2
COLOR	APHA	<= 10	<10
COPPER (Cu)	ppm	<= 0.1	<0.1
EXTRACTABLE ORGANIC SUBSTANCES	ppm	<= 5	<5
FREE CHLORINE	ppm	<= 0.4	<0.4
GOLD (Au)	ppm	<= 0.3	<0.3
HEAVY METALS (as Pb)	ppm	<= 0.1	<0.1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	ppm	<= 0.1	<0.1
LEAD (Pb)	ppm	<= 0.1	<0.1
MAGNESIUM (Mg)	ppm	<= 0.3	<0.3
MANGANESE (Mn)	ppm	<= 0.3	<0.3
MERCURY (Hg)	ppb	<= 5	<5

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

NICKEL (Ni)	ppm	<= 0.1	<0.1
PHOSPHATE (PO4)	ppm	<= 0.05	<0.05
POTASSIUM (K)	ppm	<= 0.3	<0.3
RESIDUE AFTER IGNITION	ppm	<= 4	1.03
SODIUM (Na)	ppm	<= 0.3	<0.3
SULFATE (SO4)	ppm	<= 0.5	<0.5
SULFITE	ppm	<= 0.8	<0.8
TIN (Sn)	ppm	<= 0.3	<0.2
TITANIUM (Ti)	ppm	<= 0.3	<0.3
ZINC (Zn)	ppm	<= 0.3	<0.200

Ira Marootian - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FC8458

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	COLLECTION TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAc	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
1	Effluent	8/4/23	0920	JWR	aq	1					x					X	

INITIAL ASSESSMENT:
LABEL VERIFICATION:
4.0 IR#1

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
x 5 Day- Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center 8/4
Northborough, MA

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation
1	Sovcon	8/4/23 11:30	2 Fedex Fed (SC)
3	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
	Fedex Fed	8/4/23	4 Fed Ex
5	Relinquished by/Affiliation	Date Time:	Received By/Affiliation
	0915	05Aug23	6 SGS 0915
7	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
			8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 4.0 IR#1 CS# 03007

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

FC8458: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FC8458 **Client:** SOVEREIGN CONSULTING INC **Project:** SHEPLEY'S HILL (SHL), DEVENS, MA

Date / Time Received: 8/5/2023 9:05:00 AM **Delivery Method:** FED EX **Airbill #'s:** 6455 9821 6856

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.0);

Cooler Temps (Corrected) °C: Cooler 1: (3.8);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320 pH 10-12 _____ Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: TORYW Date: 8/5/2023 9:05:00 AM Reviewer: _____ Date: _____

FC8458: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC10888

Sampling Date: 11/01/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **167**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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Please share your ideas about how we can serve you better at:
EHS.US.CustomerCare@sgs.com

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC10888

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC10888-1	11/01/23	12:00	JR	11/02/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC10888

Site: Shepley's Hill (SHL); Devens, MA **Report Date** 11/6/2023 5:07:16 PM

On 11/02/2023, 1 Sample was received at SGS North America Inc - Orlando. at a maximum corrected temperature of 0.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC10888 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP43074

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples FC10889-1DUP, FC10889-1MS, FC10889-1MSD, and FC10889-1SDL were used as the QC samples for metals.

Matrix Spike Duplicate Recovery for Arsenic is outside control limits. Probable cause is due to matrix interference.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Elizabeth Kent, Quality Assurance Officer *(Signature on File)*

Summary of Hits

Job Number: FC10888
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/01/23

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC10888-1	**EFFLUENT**					
Arsenic		8.0	2.0	0.80	ug/l	SW846 6020B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10888-1	**Date Sampled:**	11/01/23
Matrix:	AQ - Water	**Date Received:**	11/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	8.0	2.0	0.80	0.21	ug/l	2	11/02/23	11/03/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19806
(2) Prep QC Batch: MP43074

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF # FC10888

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	Total Arsenic - 6020A	LAB USE ONLY
1	Effluent	11/1/23	1200	JWR	aq	1					x					X	

ZB

INITIAL ASSESSMENT

LABEL VERIFICATION

SGS Service Center
Northborough, MA

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business)
7 Day
5 Day- Arsenic Only
3 Day *RUSH*
x 2 Day *RUSH*
1 Day *RUSH*
Other

Approved By: / Date:

RUSH!

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.

Pink samples contain KMnO4

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1		11-1-23 1353	2 Thelma Fleury (SC)	3 Thelma Fleury	11/1/23 1700	4 Fed Ex
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5	Fx		6 11/02/23 930	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

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0.4 (RT#)

FC10888: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: fc10888 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL

Date / Time Received: 11/2/2023 9:30:00 AM **Delivery Method:** FED EX **Airbill #'s:** 6455 9822 1970

Cooler Temps (Raw Measured) °C: Cooler 1: (0.4);

Cooler Temps (Corrected) °C: Cooler 1: (0.8);

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:	IR Gun		
5. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑

	W	or	S	N/A
3. Type of TB Received	☐		☐	☐

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples presented properly	☑		☐	
3. Suffiient volume/containers recv'd for analysis	☑		☐	
4. Condition of sample:	Intact			
5. Sample recv'd within HT	☑		☐	
6. Dates/Times/IDs on COC match sample label	☐		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
11. % Solids Jar Received?	☐		☐	☐
12. Residual Chlorine Present?	☐		☐	☐

Misc Information

Number of Encores: 25 Gram 5 Gram

Number of Lab Filtered Metals:

Test Strip Lot #s: pH 0-3: 226422 pH 10-12: Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #

Comments

SM001
Rev. Date 05/04/17

Technician: SHAYLAP Date: 11/2/2023 11:50:49 AM Reviewer: Date:

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10888
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/01/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP43074	SW846 6020B						
MP43074-B1	7440-38-2	Arsenic	BSP	REC	97	%	84-116
MP43074-S1*	7440-38-2	Arsenic	MS	REC	90	%	84-116
MP43074-S2*	7440-38-2	Arsenic	MSD	REC	75 [a]	%	84-116
MP43074-S2*	7440-38-2	Arsenic	MSD	RPD	1.6	%	20
MP43074-D1*	7440-38-2	Arsenic	DUP	RPD	2.9	%	20

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

* Sample used for QC is not from job FC10888

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:05	MA19806-STD1	1		STDA
11:09	MA19806-STD2	1		STDB
11:12	MA19806-STD3	1		STDC
11:16	MA19806-STD4	1		STDD
11:19	MA19806-STD5	1		STDE
11:23	MA19806-STD6	1		STDF
11:26	MA19806-STD7	1		STDG
11:29	MA19806-HSTD1	1		
11:32	MA19806-HSTD2	1		
11:35	MA19806-ICV1	1		
11:38	MA19806-ICB1	1		
11:42	MA19806-CRIA1	1		
11:45	MA19806-ICSA1	1		
11:48	MA19806-ICSAB1	1		
11:51	MA19806-CCV1	1		
11:54	MA19806-CCV2	1		
11:58	MA19806-CCB1	1		
12:01	MA19806-CRIA2	1		
12:04	MP43074-MB1	2		
12:08	MP43074-B1	2		
12:11	FC10889-1	2		(sample used for QC only; not part of login FC10888)
12:14	MP43074-D1	2		
12:17	MP43074-SD1	10		
12:21	MP43074-S1	2		
12:24	MP43074-S2	2		
12:27	MP43074-PS1	2		
12:30	ZZZZZZ	2		
12:36	MA19806-CCV3	1		
12:39	MA19806-CCV4	1		
12:42	MA19806-CCB2	1		
12:45	ZZZZZZ	2		
12:49	ZZZZZZ	2		
12:52	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:55	FC10888-1	2		
12:58	MP43077-MB1	5		
13:02	MP43077-B1	5		
13:05	FC10744-1	5		(sample used for QC only; not part of login FC10888)
13:08	MP43077-D1	5		
13:11	MP43077-SD1	25		
13:14	MP43077-S1	5		
13:17	MA19806-CCV5	1		
13:20	MA19806-CCV6	1		
13:23	MA19806-CCB3	1		
13:27	MP43077-S2	5		
13:30	MP43077-PS1	5		
13:33	ZZZZZZ	5		
13:36	ZZZZZZ	5		
13:39	ZZZZZZ	5		
13:42	ZZZZZZ	5		
13:45	ZZZZZZ	5		
13:48	ZZZZZZ	5		
13:51	ZZZZZZ	5		
13:54	ZZZZZZ	5		
13:57	MA19806-CCV7	1		
14:00	MA19806-CCV8	1		
14:03	MA19806-CCB4	1		
14:07	ZZZZZZ	5		
14:10	ZZZZZZ	5		
14:13	FC10889-1	20		(sample used for QC only; not part of login FC10888)
14:17	MP43074-D1	20		
14:20	MP43074-S1	20		
14:23	MP43074-S2	20		
---------->	Last reportable sample/prep for job FC10888			
14:27	MP43074-PS1	20		
14:30	ZZZZZZ	5		
14:33	ZZZZZZ	50		
14:37	ZZZZZZ	20		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:40	MA19806-CCV9	1		
14:43	MA19806-CCV10	1		
14:46	MA19806-CCB5	1		
---------->	Last reportable CCB for job FC10888			
14:49	FC10744-1	100		(sample used for QC only; not part of login FC10888)
14:53	MP43077-D1	100		
14:56	MP43077-SD1	500		
14:59	MP43077-S1	100		
15:03	MP43077-S2	100		
15:06	MP43077-PS1	100		
15:09	ZZZZZZ	100		
15:12	ZZZZZZ	50		
15:16	ZZZZZZ	500		
15:19	ZZZZZZ	50		
15:22	MA19806-CCV11	1		
15:25	MA19806-CCV12	1		
15:28	MA19806-CCB6	1		
15:32	ZZZZZZ	100		
15:35	ZZZZZZ	25		
15:38	ZZZZZZ	25		
15:42	ZZZZZZ	25		
15:45	ZZZZZZ	50		
15:48	MA19806-CCV13	1		
15:51	MA19806-CCV14	1		
15:54	MA19806-CCB7	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:29	MA19806-HSTD1	1		
11:32	MA19806-HSTD2	1	X	
11:35	MA19806-ICV1	1	X	
11:38	MA19806-ICB1	1	X	
11:42	MA19806-CRIA1	1	X	
11:45	MA19806-ICSA1	1	X	
11:48	MA19806-ICSAB1	1	X	
11:51	MA19806-CCV1	1		
11:54	MA19806-CCV2	1	X	
11:58	MA19806-CCB1	1	X	
12:01	MA19806-CRIA2	1		
12:04	MP43074-MB1	2	X	
12:08	MP43074-B1	2	X	
12:11	FC10889-1	2		(a)
12:14	MP43074-D1	2		
12:17	MP43074-SD1	10	X	
12:21	MP43074-S1	2		
12:24	MP43074-S2	2		
12:27	MP43074-PS1	2		
12:30	ZZZZZZ	2		
12:36	MA19806-CCV3	1		
12:39	MA19806-CCV4	1	X	
12:42	MA19806-CCB2	1	X	
12:45	ZZZZZZ	2		
12:49	ZZZZZZ	2		
12:52	ZZZZZZ	2		
12:55	FC10888-1	2	X	
12:58	MP43077-MB1	5	X	
13:02	MP43077-B1	5	X	
13:05	FC10744-1	5	X	(a)
13:08	MP43077-D1	5	X	
13:11	MP43077-SD1	25	X	
13:14	MP43077-S1	5	X	
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Element: Dilution	As	
13:17	MA19806-CCV5	1		
13:20	MA19806-CCV6	1	X	
13:23	MA19806-CCB3	1	X	
13:27	MP43077-S2	5	X	
13:30	MP43077-PS1	5		
13:33	ZZZZZZ	5		
13:36	ZZZZZZ	5		
13:39	ZZZZZZ	5		
13:42	ZZZZZZ	5		
13:45	ZZZZZZ	5		
13:48	ZZZZZZ	5		
13:51	ZZZZZZ	5		
13:54	ZZZZZZ	5		
13:57	MA19806-CCV7	1		
14:00	MA19806-CCV8	1	X	
14:03	MA19806-CCB4	1	X	
14:07	ZZZZZZ	5		
14:10	ZZZZZZ	5		
14:13	FC10889-1	20	X	(a)
14:17	MP43074-D1	20	X	
14:20	MP43074-S1	20	X	
14:23	MP43074-S2	20	X	
14:27	MP43074-PS1	20		
14:30	ZZZZZZ	5		
14:33	ZZZZZZ	50		
14:37	ZZZZZZ	20		
14:40	MA19806-CCV9	1		
14:43	MA19806-CCV10	1	X	
14:46	MA19806-CCB5	1	X	
14:49	FC10744-1	100		(a)
14:53	MP43077-D1	100		
14:56	MP43077-SD1	500		
14:59	MP43077-S1	100		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Dilution	Element: As
15:03	MP43077-S2	100	
15:06	MP43077-PS1	100	
15:09	ZZZZZZ	100	
15:12	ZZZZZZ	50	
15:16	ZZZZZZ	500	
15:19	ZZZZZZ	50	
15:22	MA19806-CCV11	1	
15:25	MA19806-CCV12	1	X
15:28	MA19806-CCB6	1	X
15:32	ZZZZZZ	100	
15:35	ZZZZZZ	25	
15:38	ZZZZZZ	25	
15:42	ZZZZZZ	25	
15:45	ZZZZZZ	50	
15:48	MA19806-CCV13	1	
15:51	MA19806-CCV14	1	X
15:54	MA19806-CCB7	1	X

(a) Sample used for QC only; not part of login FC10888.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:05	MA19806-STD1	100	100	100	100	100	100	100
11:09	MA19806-STD2	104.6	101	98.4	99.4	98.8	100	100.1
11:12	MA19806-STD3	98.6	100.7	99.4	100	99.8	100.4	101.2
11:16	MA19806-STD4	102	102	101.2	101.6	100	100.4	100.8
11:19	MA19806-STD5	98.5	102.4	101.4	101.9	99.8	101	98.9
11:23	MA19806-STD6	96.8	102.1	100.8	100.5	97.7	99.9	97.3
11:26	MA19806-STD7	94.7	102	100	99.2	96.5	98.7	94
11:29	MA19806-HSTD1	97.3	103.3	102	101.4	100.5	99.8	98.3
11:32	MA19806-HSTD2	100.1	102	100.2	99.7	97.7	99.5	95.4
11:35	MA19806-ICV1	105.3	101.2	99.4	99	97.3	100.1	97.5
11:38	MA19806-ICB1	98.5	101.9	100.6	101.1	101.5	101.3	102
11:42	MA19806-CRIA1	97.5	102.5	101.6	102.4	101.7	100.4	102.8
11:45	MA19806-ICSA1	86.1	101	99.2	93.8	92.8	95.5	86.8
11:48	MA19806-ICSAB1	85.3	104.9	102.4	97.7	94.3	97.3	88.9
11:51	MA19806-CCV1	99.9	108.8	108.2	108.7	104	106.6	105.3
11:54	MA19806-CCV2	102.6	108.9	108.3	108	105.6	106.7	103.3
11:58	MA19806-CCB1	103.6	109.9	109.3	109.8	109.9	107.6	109
12:01	MA19806-CRIA2	101.6	111	111	111.4	108.7	108.7	109.5
12:04	MP43074-MB1	102.2	109.5	108.3	108.4	108.3	110.3	112.6
12:08	MP43074-B1	97.3	108.6	106.9	106.3	105.8	108.6	105.5
12:11	FC10889-1	95.3	105.3	104.8	103.3	102	106	102.6
12:14	MP43074-D1	90.8	106.1	105.5	104	100.8	105.3	102.2
12:17	MP43074-SD1	99.7	107	106.5	106.3	105.8	106.8	106
12:21	MP43074-S1	91.2	107	106.5	104.2	100.9	105.9	99.4
12:24	MP43074-S2	89.3	105.4	104.4	102.5	100.1	104.2	100.4
12:27	MP43074-PS1	96	103.9	103.2	101.8	100.2	105.3	101.2
12:30	ZZZZZZ	97.9	102.9	101.2	100.9	100.1	104.1	101.8
12:36	MA19806-CCV3	103.5	109.9	108.6	108.9	108.9	107.8	106.9
12:39	MA19806-CCV4	94.3	108.5	106.6	106.6	104.1	105.8	103.5
12:42	MA19806-CCB2	105.7	108.6	107.5	107.6	109.5	107.1	107.2
12:45	ZZZZZZ	96.6	103.1	101.6	100.4	100.6	102.9	103.2
12:49	ZZZZZZ	95.7	102.7	101.8	100.4	101.2	103.5	102.2
12:52	ZZZZZZ	96.4	101.4	99.2	99.9	100.4	103.4	101.2

INTERNAL STANDARD SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
12:55	FC10888-1	98.7	101.5	98.4	98.9	99.7	104.6	102
12:58	MP43077-MB1	96.5	104	101.9	102.2	104.2	105.9	106.5
13:02	MP43077-B1	95.8	105.6	103.1	102.5	102.6	106.1	101.2
13:05	FC10744-1	101.2	137.7 !a	115	105.2	101.8	106.5	99.1
13:08	MP43077-D1	99.7	136.6 !a	114.7	105.3	100.9	106.5	99.9
13:11	MP43077-SD1	103.6	118.6	113.7	111.6	111	107.9	106.3
13:14	MP43077-S1	98	134.6 !a	113.5	104.6	103.3	106	99.4
13:17	MA19806-CCV5	104.4	112.4	110.8	111.6	109	109.3	106.4
13:20	MA19806-CCV6	100	110.4	109.3	108.9	107.3	106.5	103.6
13:23	MA19806-CCB3	100.7	112.1	110.6	111.2	111.8	108.7	108.2
13:27	MP43077-S2	94	134.1 !a	112.5	103.3	103.4	106.4	97.6
13:30	MP43077-PS1	100.4	137.9 !a	116.2	106.1	104.4	106.6	100.8
13:33	ZZZZZZ	99.2	142.3 !a	116.8	105	103.8	107.1	99
13:36	ZZZZZZ	94.6	144.5 !a	120.4	109.7	107.5	110.1	185.3 !a
13:39	ZZZZZZ	93.2	127.7	112.2	105	104.8	106.3	99.5
13:42	ZZZZZZ	87	181 !a	114.5	99.7	99.7	102.7	94.6
13:45	ZZZZZZ	91	141.3 !a	109.5	104.1	101.2	104.2	95.2
13:48	ZZZZZZ	92.9	140.5 !a	111.8	105.3	102	104.8	97.1
13:51	ZZZZZZ	93.6	142 !a	110.6	104.7	101.2	105.7	96.9
13:54	ZZZZZZ	97.3	114.6	108.5	107.8	107.7	108.7	104.3
13:57	MA19806-CCV7	99.8	111.3	111.9	111.4	110.2	109.2	107
14:00	MA19806-CCV8	96	109.6	108.6	108.8	108.5	107.1	104.4
14:03	MA19806-CCB4	102.5	111.4	111.9	111.2	113.2	109.9	107
14:07	ZZZZZZ	94.7	123.9	109.6	106.4	106.2	108.1	102.8
14:10	ZZZZZZ	103.1	114.8	113.1	113.3	112.9	111.6	113.3
14:13	FC10889-1	96	111.3	110.7	111.1	111	110.1	109
14:17	MP43074-D1	98.3	109.4	109.8	109.5	110.4	109.8	109.6
14:20	MP43074-S1	99.8	112.4	111.6	111.9	110.8	109.8	107.8
14:23	MP43074-S2	100.4	113.2	112.4	112.7	113.6	110.4	107.2
14:27	MP43074-PS1	No results reported for the elements associated with this internal standard.						
14:30	ZZZZZZ	97.1	110.1	109.3	109.3	109.2	109.6	106
14:33	ZZZZZZ	99.4	114.5	112.8	113.2	114.3	111.1	111.1
14:37	ZZZZZZ	99.2	114.4	113.7	113.4	115.3	112.4	109.7

INTERNAL STANDARD SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19806
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:40	MA19806-CCV9	98.6	116.9	116.4	116.9	114.5	112.3	108.9
14:43	MA19806-CCV10	97.3	112.8	111.4	111.7	108	110.4	103.7
14:46	MA19806-CCB5	101.5	115.3	113.8	113.7	116.4	111.2	109.5
14:49	FC10744-1	106.3	120.1	118.4	117.9	116	115.4	112.3
14:53	MP43077-D1	104	121.7	119.9	118.4	116.9	114.5	112.7
14:56	MP43077-SD1	109.1	122.1	120.2	119.8	118	115	113.1
14:59	MP43077-S1	104.6	122.9	120	119.7	116.9	114.8	112.6
15:03	MP43077-S2	102.5	120.9	118.4	118.1	117.5	113.9	111.3
15:06	MP43077-PS1	104	122.3	120	119.2	117.9	113.9	113.5
15:09	ZZZZZZ	104.7	123	120.5	119.8	117.8	115.4	113.2
15:12	ZZZZZZ	102.8	124.7	119.4	118.8	115.5	115.9	121.6
15:16	ZZZZZZ	106.2	121.8	121	120.6	118.8	115	116.4
15:19	ZZZZZZ	109.8	121.9	119.3	118.7	118.3	114.5	111.2
15:22	MA19806-CCV11	102.8	117	115.4	114.7	113	111.8	109.1
15:25	MA19806-CCV12	98.3	113.4	112.2	111.9	109.6	109.2	104.9
15:28	MA19806-CCB6	103.6	115.4	114.7	114.3	116.6	111.8	110.5
15:32	ZZZZZZ	104.6	125.3	118.4	118.3	117.4	114.5	113.2
15:35	ZZZZZZ	101.5	124.5	117	115	113.3	112.6	107.9
15:38	ZZZZZZ	101.7	122.7	114.6	113.9	112.5	111.5	107
15:42	ZZZZZZ	101.7	122	114.8	113.2	114	112	108.5
15:45	ZZZZZZ	103.8	118.2	116.3	116.3	115.9	113.8	111.9
15:48	MA19806-CCV13	101	116.6	114.4	114.8	113.5	112.8	108.9
15:51	MA19806-CCV14	95.4	112.5	110.6	110.8	109.1	109.2	105.4
15:54	MA19806-CCB7	104.9	113.9	112.9	112.7	113.3	111.3	110.1

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19806 Units: ug/l

Time: / Sample ID:			11:38 ICB1		11:58 CCB1		12:42 CCB2		13:23 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0390	<1.0	0.0300	<1.0	0.0430	<1.0	0.0260	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	5.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	2.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	2.0	.3								
Vanadium	1.0	.1	anr							
Zinc	5.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19806 Units: ug/l

Time: / Sample ID:			14:03 CCB4		14:46 CCB5	
Metal	RL	IDL	raw	final	raw	final
Aluminum	100	4.4	anr			
Antimony	1.0	.1	anr			
Arsenic	1.0	.1	0.0300	<1.0	0.0390	<1.0
Barium	1.0	.1	anr			
Beryllium	1.0	.1	anr			
Cadmium	1.0	.1	anr			
Calcium	100	7.2	anr			
Chromium	1.0	.1	anr			
Cobalt	1.0	.1	anr			
Copper	5.0	.1	anr			
Iron	100	7.9	anr			
Lead	1.0	.1	anr			
Magnesium	100	5.2	anr			
Manganese	1.0	.1	anr			
Molybdenum	1.0	.1				
Nickel	2.0	.1	anr			
Potassium	100	6.6	anr			
Selenium	1.0	.11	anr			
Silver	1.0	.1	anr			
Sodium	100	4.8	anr			
Strontium	1.0	.1				
Thallium	1.0	.1	anr			
Tin	1.0	.1				
Titanium	2.0	.3				
Vanadium	1.0	.1	anr			
Zinc	5.0	.29	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19806 Units: ug/l

Time:		11:35			11:51			11:54	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	104	104.0				100	96.6	96.6
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19806 Units: ug/l

Time:		12:36			12:39			13:17	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	97.2	97.2			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19806 Units: ug/l

Time:		13:20			13:57			14:00	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	96.5	96.5				100	97.2	97.2
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19806 Units: ug/l

Time:		14:40			14:43	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	96.8	96.8
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19806 Units: ug/l

Time:		11:29			11:32	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	195	97.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19806 Units: ug/l

Time:			11:42		12:01	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100	anr			
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	0.977	97.7		
Barium	1.0	1.0	anr			
Beryllium	1.0	1.0	anr			
Cadmium	1.0	1.0	anr			
Calcium	100	100	anr			
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0	anr			
Copper	1.0	1.0				
Iron	100	100	anr			
Lead	1.0	1.0	anr			
Magnesium	100	100	anr			
Manganese	1.0	1.0	anr			
Molybdenum	1.0	1.0				
Nickel	1.0	1.0	anr			
Potassium	100	100	anr			
Selenium	1.0	1.0	anr			
Silver	1.0	1.0	anr			
Sodium	100	100	anr			
Strontium	1.0	1.0				
Thallium	1.0	1.0	anr			
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0	anr			
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110323M1.CSV Date Analyzed: 11/03/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19806 Units: ug/l

Time:			11:45		11:48	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	96300	96.3	96300	96.3
Antimony			0.0800		0.0730	
Arsenic		20	0.0990		19.4	97.0
Barium			0.291		0.332	
Beryllium			-0.00200		0.00200	
Cadmium		20	0.951		19.3	96.5
Calcium	100000	100000	97600	97.6	98300	98.3
Chromium		20	1.40*(a)		19.5	97.5
Cobalt		20	0.663		19.1	95.5
Copper		20	-0.937		16.5	82.5
Iron	100000	100000	94500	94.5	96800	96.8
Lead			0.240		0.210	
Magnesium	100000	100000	105000	105.0	112000	112.0
Manganese		20	0.331		19.2	96.0
Molybdenum	2000	2000	2060HH	103.0	2070HH	103.5
Nickel		20	0.431		18.6	93.0
Potassium	100000	100000	98000	98.0	99000	99.0
Selenium			0.103		0.0550	
Silver		20	0.0190		17.8	89.0
Sodium	100000	100000	97300	97.3	97900	97.9
Strontium			0.693		0.718	
Thallium			0.00800		0.00600	
Tin			0.0460		0.0500	
Titanium	2000	2000	1980HH	99.0	2000HH	100.0
Vanadium			0.109		0.110	
Zinc		20	0.926		21.0	105.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43074
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/02/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.18	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	10	.2	1		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	50		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	4.0	.2	.4		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	50		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	4.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	10	.58	1.7		

Associated samples MP43074: FC10888-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43074
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/02/23 11/02/23

Metal	FC10889-1 Original	DUP	RPD	QC Limits	FC10889-1 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	1770	1720	2.9	0-20	1770	1950	200	90.0	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP43074: FC10888-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43074 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/02/23

Metal	FC10889-1 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	1770	1920	200	75.0 (a)	1.6	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP43074: FC10888-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43074
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/02/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	194	200	97.0	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP43074: FC10888-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10888
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43074
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/02/23

Metal	FC10889-1 Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	1770	1720	4.7	0-10
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP43074: FC10888-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC10888
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19806

Instrument Linear Ranges

Job Number: FC10888
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19806

Metals Analysis

Raw Data

Quantitation Report

File Name	001_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 10:19
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	2,228.75	4.462E-03	Pulse	0.50	3
As			1		ug/l	---	45.00	9.597E-05	Pulse	1.00	3
Mo			1		ug/l	---	374.68	5.605E-04	Pulse	0.50	3
Pb			1		ug/l	---	1,636.77	1.391E-04	Pulse	1.00	3
Be			1		ug/l	---	1.83	2.761E-06	Pulse	2.00	3
Ag			1		ug/l	---	251.33	4.992E-05	Pulse	0.50	3
Ba			1		ug/l	---	176.00	3.485E-05	Pulse	0.50	3
Tl			1		ug/l	---	1,126.09	1.072E-04	Pulse	0.50	3
Sn			1		ug/l	---	1,121.18	2.316E-04	Pulse	0.30	3
Sr			1		ug/l	---	671.35	1.288E-04	Pulse	0.50	3
Ca			1		ug/l	---	149.33	1.891E-04	Pulse	0.50	3
Ti			1		ug/l	---	86.00	1.160E-04	Pulse	0.50	3
Na			1		ug/l	---	22,393.95	2.744E-02	Pulse	1.00	3
Mg			1		ug/l	---	1,708.10	1.614E-01	Pulse	1.00	3
K			1		ug/l	---	22,519.09	2.794E-02	Pulse	1.00	3
V			1		ug/l	---	368.01	4.676E-04	Pulse	0.50	3
Mn			1		ug/l	---	368.67	7.742E-04	Pulse	0.50	3
Fe			1		ug/l	---	80,617.09	1.810E-01	Pulse	0.50	3
Co			1		ug/l	---	137.33	2.852E-04	Pulse	0.50	3
Ni			1		ug/l	---	248.00	4.848E-04	Pulse	0.50	3
Cu			1		ug/l	---	13,199.83	2.706E-02	Pulse	0.50	3
Zn			1		ug/l	---	18,582.30	2.479E-02	Pulse	1.00	3
Cd			1		ug/l	---	3.33	4.321E-06	Pulse	0.50	3
Al			1		ug/l	---	4,117.17	5.459E-03	Pulse	1.00	3
Se			1		ug/l	---	26.45	3.711E-05	Pulse	3.00	3
Sb			1		ug/l	---	319.67	4.732E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		12,118,811.67	19.95		Analog	0.50	3
1	Sc		836,999.93	20.00		Mix	0.30	3
1	Ge		505,036.51	19.07		Pulse	0.30	3
1	In		5,274,579.65	19.38		Analog	0.30	3
1	Tb		16,059,284.33	18.45		Analog	0.50	3
1	Lu		13,457,339.00	18.95		Analog	0.50	3
1	Ge		754,263.68	18.50		Pulse	0.30	3
1	Li		11,190.38	20.00		Pulse	0.30	3

Quantitation Report

File Name	002_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 10:22
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	344.67	1.984E-03	Pulse	0.50	3
As			1		ug/l	---	39.33	2.263E-04	Pulse	1.00	3
Mo			1		ug/l	---	94.00	3.665E-04	Pulse	0.50	3
Pb			1		ug/l	---	775.35	1.802E-04	Pulse	1.00	3
Be			1		ug/l	---	0.50	1.705E-06	Pulse	2.00	3
Ag			1		ug/l	---	78.00	4.090E-05	Pulse	0.50	3
Ba			1		ug/l	---	67.33	3.521E-05	Pulse	0.50	3
Tl			1		ug/l	---	94.00	2.184E-05	Pulse	0.50	3
Sn			1		ug/l	---	320.01	1.675E-04	Pulse	0.30	3
Sr			1		ug/l	---	281.33	1.475E-04	Pulse	0.50	3
Ca			1		ug/l	---	220.67	7.521E-04	Pulse	0.50	3
Ti			1		ug/l	---	10.00	3.406E-05	Pulse	0.50	3
Na			1		ug/l	---	20,091.14	6.847E-02	Pulse	1.00	3
Mg			1		ug/l	---	1,167.38	3.642E-01	Pulse	1.00	3
K			1		ug/l	---	45,824.54	1.562E-01	Pulse	1.00	3
V			1		ug/l	---	1,306.72	4.453E-03	Pulse	0.50	3
Mn			1		ug/l	---	396.68	2.283E-03	Pulse	0.50	3
Fe			1		ug/l	---	6,681.25	3.845E-02	Pulse	0.50	3
Co			1		ug/l	---	115.33	6.638E-04	Pulse	0.50	3
Ni			1		ug/l	---	222.67	1.282E-03	Pulse	0.50	3
Cu			1		ug/l	---	19,167.57	1.103E-01	Pulse	0.50	3
Zn			1		ug/l	---	5,990.34	2.335E-02	Pulse	1.00	3
Cd			1		ug/l	---	4.67	1.819E-05	Pulse	0.50	3
Al			1		ug/l	---	735.35	2.506E-03	Pulse	1.00	3
Se			1		ug/l	---	15.22	5.932E-05	Pulse	3.00	3
Sb			1		ug/l	---	76.00	2.963E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,304,229.50	0.20		Analog	0.50	3
1	Sc		293,406.86	0.10		Pulse	0.30	3
1	Ge		173,757.93	0.18		Pulse	0.30	3
1	In		1,908,482.28	1.24		Analog	0.30	3
1	Tb		5,579,937.00	0.21		Analog	0.50	3
1	Lu		4,719,380.33	0.32		Analog	0.50	3
1	Ge		256,571.18	0.14		Pulse	0.30	3
1	Li		3,216.96	5.83		Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 10:26
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	338.67	1.926E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	26.00	1.480E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	63.33	2.418E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	782.69	1.787E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.50	1.699E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	78.00	4.021E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	61.33	3.166E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	94.00	2.148E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	295.56	1.526E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	291.34	1.503E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	236.00	8.006E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	6.67	2.261E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	19,365.04	6.569E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	1,122.71	3.355E-01	Pulse	1.00	3
K			1	0.000	ug/l	---	46,422.36	1.575E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,334.05	4.525E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	378.01	2.149E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	6,441.16	3.663E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	122.00	6.942E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	255.33	1.451E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	18,808.52	1.069E-01	Pulse	0.50	3
Zn			1	0.000	ug/l	---	3,916.43	1.496E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	---	6.00	2.289E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	721.68	2.448E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	16.89	6.448E-05	Pulse	3.00	3
Sb			1	0.000	ug/l	---	58.67	2.240E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,380,608.17	0.72	100.0	Analog	0.50	3
1	Sc		294,814.83	0.54	100.0	Pulse	0.30	3
1	Ge		175,872.85	0.67	100.0	Pulse	0.30	3
1	In		1,939,562.77	1.57	100.0	Analog	0.30	3
1	Tb		5,851,018.33	0.43	100.0	Analog	0.50	3
1	Lu		4,798,143.67	1.03	100.0	Analog	0.50	3
1	Ge		261,877.10	0.35	100.0	Pulse	0.30	3
1	Li		3,349.21	3.31	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:30
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.493	ug/l	2.68	5,008.05	2.862E-02	Pulse	0.50	3
As			1	0.515	ug/l	1.87	616.34	3.522E-03	Pulse	1.00	3
Mo			1	0.456	ug/l	1.84	2,437.51	9.294E-03	Pulse	0.50	3
Pb			1	0.466	ug/l	0.90	16,407.04	3.720E-03	Pulse	1.00	3
Be			1	0.447	ug/l	14.41	45.00	1.523E-04	Pulse	2.00	3
Ag			1	0.457	ug/l	3.33	8,474.76	4.277E-03	Pulse	0.50	3
Ba			1	0.435	ug/l	6.24	1,342.72	6.773E-04	Pulse	0.50	3
Tl			1	0.457	ug/l	0.32	22,140.58	5.020E-03	Pulse	0.50	3
Sn			1	0.439	ug/l	6.09	3,315.90	1.674E-03	Pulse	0.30	3
Sr			1	0.435	ug/l	2.79	3,649.72	1.841E-03	Pulse	0.50	3
Ca			1	47.560	ug/l	1.78	2,179.47	7.376E-03	Pulse	0.50	3
Ti			1	0.499	ug/l	15.15	136.00	4.605E-04	Pulse	0.50	3
Na			1	49.840	ug/l	1.23	115,878.66	3.922E-01	Pulse	1.00	3
Mg			1	44.299	ug/l	3.41	48,411.69	1.484E+01	Pulse	1.00	3
K			1	45.266	ug/l	2.06	82,819.47	2.803E-01	Pulse	1.00	3
V			1	0.464	ug/l	2.39	4,926.68	1.667E-02	Pulse	0.50	3
Mn			1	0.459	ug/l	1.72	3,122.95	1.784E-02	Pulse	0.50	3
Fe			1	48.699	ug/l	0.52	409,249.85	2.338E+00	Pulse	0.50	3
Co			1	0.482	ug/l	1.13	7,102.09	4.058E-02	Pulse	0.50	3
Ni			1	0.451	ug/l	1.54	1,914.11	1.094E-02	Pulse	0.50	3
Cu			1	0.518	ug/l	10.39	23,688.29	1.354E-01	Pulse	0.50	3
Zn			1	-0.533	ug/l	-7.29	2,903.57	1.107E-02	Pulse	1.00	3
Cd			1	0.476	ug/l	4.95	1,442.06	5.497E-03	Pulse	0.50	3
Al			1	46.006	ug/l	0.57	20,095.20	6.801E-02	Pulse	1.00	3
Se			1	0.533	ug/l	11.00	77.67	2.962E-04	Pulse	3.00	3
Sb			1	0.443	ug/l	2.59	3,942.46	1.503E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,410,471.83	0.71	100.7	Analog	0.50	3
1	Sc		295,473.86	0.42	100.2	Pulse	0.30	3
1	Ge		175,025.46	0.87	99.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,982,629.23	2.16	102.2	Analog	0.30	3
1	Tb		5,814,262.00	1.03	99.4	Analog	0.50	3
1	Lu		4,769,135.67	1.54	99.4	Analog	0.50	3
1	Ge		262,264.26	0.74	100.1	Pulse	0.30	3
1	Li		3,263.63	2.80	97.4	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:33
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.986	ug/l	2.09	9,788.66	5.528E-02	Pulse	0.50	3
As			1	1.004	ug/l	5.95	1,190.71	6.727E-03	Pulse	1.00	3
Mo			1	0.934	ug/l	2.26	4,945.38	1.877E-02	Pulse	0.50	3
Pb			1	0.979	ug/l	1.54	33,454.04	7.624E-03	Pulse	1.00	3
Be			1	1.007	ug/l	4.89	101.67	3.408E-04	Pulse	2.00	3
Ag			1	0.948	ug/l	0.95	17,559.57	8.820E-03	Pulse	0.50	3
Ba			1	0.920	ug/l	2.78	2,780.24	1.397E-03	Pulse	0.50	3
Tl			1	0.969	ug/l	0.92	46,582.52	1.062E-02	Pulse	0.50	3
Sn			1	0.915	ug/l	1.90	6,621.31	3.326E-03	Pulse	0.30	3
Sr			1	0.917	ug/l	1.25	7,399.57	3.717E-03	Pulse	0.50	3
Ca			1	91.396	ug/l	4.98	4,008.45	1.344E-02	Pulse	0.50	3
Ti			1	0.877	ug/l	8.96	236.00	7.911E-04	Pulse	0.50	3
Na			1	97.140	ug/l	0.17	209,428.30	7.020E-01	Pulse	1.00	3
Mg			1	94.428	ug/l	8.55	100,189.18	3.126E+01	Pulse	1.00	3
K			1	94.143	ug/l	0.82	123,182.65	4.129E-01	Pulse	1.00	3
V			1	0.966	ug/l	3.20	8,891.54	2.981E-02	Pulse	0.50	3
Mn			1	0.949	ug/l	2.27	6,123.72	3.459E-02	Pulse	0.50	3
Fe			1	99.804	ug/l	1.50	841,702.81	4.754E+00	Pulse	0.50	3
Co			1	0.990	ug/l	1.97	14,643.30	8.270E-02	Pulse	0.50	3
Ni			1	1.006	ug/l	5.02	4,007.13	2.263E-02	Pulse	0.50	3
Cu			1	0.965	ug/l	3.23	28,312.25	1.599E-01	Pulse	0.50	3
Zn			1	-0.329	ug/l	-17.24	3,307.98	1.256E-02	Pulse	1.00	3
Cd			1	0.975	ug/l	3.47	2,962.93	1.125E-02	Pulse	0.50	3
Al			1	95.000	ug/l	0.29	41,117.00	1.378E-01	Pulse	1.00	3
Se			1	1.066	ug/l	11.43	139.11	5.280E-04	Pulse	3.00	3
Sb			1	0.933	ug/l	3.21	8,281.01	3.144E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,388,268.67	0.66	100.2	Analog	0.50	3
1	Sc		298,311.44	0.21	101.2	Pulse	0.30	3
1	Ge		177,087.91	1.35	100.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,990,879.64	0.12	102.6	Analog	0.30	3
1	Tb		5,873,846.50	1.41	100.4	Analog	0.50	3
1	Lu		4,797,970.33	1.01	100.0	Analog	0.50	3
1	Ge		263,416.03	0.86	100.6	Pulse	0.30	3
1	Li		3,220.29	8.38	96.2	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:37
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.308	ug/l	0.69	99,471.16	5.599E-01	Pulse	0.50	3
As			1	10.185	ug/l	1.89	11,883.63	6.689E-02	Pulse	1.00	3
Mo			1	9.915	ug/l	0.47	52,439.45	1.970E-01	Pulse	0.50	3
Pb			1	10.112	ug/l	2.18	342,126.28	7.710E-02	Pulse	1.00	3
Be			1	10.526	ug/l	3.10	1,064.20	3.548E-03	Pulse	2.00	3
Ag			1	10.171	ug/l	0.85	185,311.20	9.428E-02	Pulse	0.50	3
Ba			1	9.809	ug/l	1.29	28,660.90	1.458E-02	Pulse	0.50	3
Tl			1	10.017	ug/l	1.71	486,232.26	1.096E-01	Pulse	0.50	3
Sn			1	9.838	ug/l	0.71	67,368.11	3.428E-02	Pulse	0.30	3
Sr			1	9.792	ug/l	0.91	75,168.75	3.824E-02	Pulse	0.50	3
Ca			1	1012.515	ug/l	1.11	42,231.31	1.408E-01	Pulse	0.50	3
Ti			1	9.693	ug/l	3.61	2,555.52	8.520E-03	Pulse	0.50	3
Na			1	1062.594	ug/l	2.14	2,107,648.58	7.027E+00	Analog	1.00	3
Mg			1	956.944	ug/l	2.14	1,038,597.15	3.137E+02	Pulse	1.00	3
K			1	1006.683	ug/l	0.68	866,619.23	2.889E+00	Pulse	1.00	3
V			1	9.965	ug/l	0.88	79,573.15	2.653E-01	Pulse	0.50	3
Mn			1	10.241	ug/l	1.09	62,607.70	3.523E-01	Pulse	0.50	3
Fe			1	1041.525	ug/l	0.72	8,752,488.33	4.926E+01	Analog	0.50	3
Co			1	10.303	ug/l	0.95	151,692.43	8.538E-01	Pulse	0.50	3
Ni			1	10.708	ug/l	0.74	40,314.87	2.269E-01	Pulse	0.50	3
Cu			1	10.705	ug/l	1.21	123,331.37	6.942E-01	Pulse	0.50	3
Zn			1	9.309	ug/l	1.60	22,045.82	8.280E-02	Pulse	1.00	3
Cd			1	10.423	ug/l	1.77	31,944.12	1.200E-01	Pulse	0.50	3
Al			1	1000.818	ug/l	0.67	428,538.51	1.429E+00	Pulse	1.00	3
Se			1	10.240	ug/l	1.89	1,202.49	4.516E-03	Pulse	3.00	3
Sb			1	9.801	ug/l	0.33	87,365.45	3.281E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,438,579.00	1.61	101.3	Analog	0.50	3
1	Sc		299,950.58	0.40	101.7	Pulse	0.30	3
1	Ge		177,679.19	0.87	101.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,965,529.37	0.54	101.3	Analog	0.30	3
1	Tb		5,904,898.50	0.40	100.9	Analog	0.50	3
1	Lu		4,808,523.67	0.51	100.2	Analog	0.50	3
1	Ge		266,246.94	0.72	101.7	Pulse	0.30	3
1	Li		3,311.43	1.73	98.9	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:41
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.147	ug/l	0.59	471,647.01	2.662E+00	Pulse	0.50	3
As			1	49.410	ug/l	0.64	57,389.21	3.239E-01	Pulse	1.00	3
Mo			1	47.803	ug/l	0.94	251,660.00	9.487E-01	Pulse	0.50	3
Pb			1	49.012	ug/l	0.38	1,621,344.66	3.730E-01	Pulse	1.00	3
Be			1	49.863	ug/l	1.10	5,033.17	1.680E-02	Pulse	2.00	3
Ag			1	48.471	ug/l	0.45	880,098.86	4.492E-01	Pulse	0.50	3
Ba			1	47.166	ug/l	1.10	137,134.05	6.999E-02	Pulse	0.50	3
Tl			1	50.058	ug/l	1.53	2,379,532.00	5.474E-01	Analog	0.50	3
Sn			1	47.103	ug/l	1.02	320,414.24	1.635E-01	Pulse	0.30	3
Sr			1	47.310	ug/l	0.79	360,919.20	1.842E-01	Pulse	0.50	3
Ca			1	4853.327	ug/l	0.42	201,288.18	6.718E-01	Pulse	0.50	3
Ti			1	48.190	ug/l	0.72	12,663.77	4.227E-02	Pulse	0.50	3
Na			1	4888.316	ug/l	1.72	9,614,131.33	3.209E+01	Analog	1.00	3
Mg			1	4659.462	ug/l	3.14	4,970,615.33	1.526E+03	Analog	1.00	3
K			1	4889.963	ug/l	1.03	4,022,705.00	1.343E+01	Analog	1.00	3
V			1	47.777	ug/l	0.70	375,932.45	1.255E+00	Pulse	0.50	3
Mn			1	49.319	ug/l	0.65	299,187.80	1.689E+00	Pulse	0.50	3
Fe			1	4954.761	ug/l	0.69	41,496,037.33	2.342E+02	Analog	0.50	3
Co			1	48.803	ug/l	0.72	716,075.36	4.042E+00	Pulse	0.50	3
Ni			1	50.267	ug/l	0.41	187,778.81	1.060E+00	Pulse	0.50	3
Cu			1	50.585	ug/l	0.69	510,580.35	2.882E+00	Pulse	0.50	3
Zn			1	49.089	ug/l	0.89	98,882.99	3.728E-01	Pulse	1.00	3
Cd			1	49.439	ug/l	0.72	150,952.74	5.690E-01	Pulse	0.50	3
Al			1	5024.720	ug/l	1.53	2,146,062.08	7.163E+00	Analog	1.00	3
Se			1	49.393	ug/l	0.58	5,713.14	2.154E-02	Pulse	3.00	3
Sb			1	46.956	ug/l	0.48	416,789.64	1.571E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,346,808.50	0.15	99.2	Analog	0.50	3
1	Sc		299,603.62	0.35	101.6	Pulse	0.30	3
1	Ge		177,171.97	0.28	100.7	Pulse	0.30	3
1	In		1,959,393.53	0.56	101.0	Analog	0.30	3
1	Tb		5,873,661.00	0.87	100.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,825,387.67	1.08	100.6	Analog	0.50	3
1	Ge		265,276.34	0.43	101.3	Pulse	0.30	3
1	Li		3,259.19	3.52	97.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:44
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.077	ug/l	1.37	962,909.56	5.365E+00	Pulse	0.50	3
As			1	98.938	ug/l	1.21	116,395.43	6.485E-01	Pulse	1.00	3
Mo			1	97.851	ug/l	0.82	515,579.85	1.942E+00	Pulse	0.50	3
Pb			1	99.847	ug/l	1.44	3,230,776.92	7.597E-01	Analog	1.00	3
Be			1	99.539	ug/l	1.14	10,144.06	3.353E-02	Pulse	2.00	3
Ag			1	100.748	ug/l	0.84	1,797,436.59	9.336E-01	Analog	0.50	3
Ba			1	98.162	ug/l	1.64	280,365.35	1.456E-01	Pulse	0.50	3
Tl			1	99.713	ug/l	0.96	4,637,317.17	1.090E+00	Analog	0.50	3
Sn			1	98.052	ug/l	2.06	655,015.63	3.403E-01	Pulse	0.30	3
Sr			1	98.225	ug/l	1.70	735,948.27	3.823E-01	Pulse	0.50	3
Ca			1	9846.113	ug/l	0.45	412,054.99	1.362E+00	Pulse	0.50	3
Ti			1	98.341	ug/l	0.89	26,085.32	8.623E-02	Pulse	0.50	3
Na			1	9957.680	ug/l	1.37	19,752,571.33	6.530E+01	Analog	1.00	3
Mg			1	9870.687	ug/l	2.40	10,017,268.67	3.233E+03	Analog	1.00	3
K			1	10024.396	ug/l	0.94	8,276,313.17	2.736E+01	Analog	1.00	3
V			1	97.124	ug/l	0.68	770,188.33	2.546E+00	Pulse	0.50	3
Mn			1	99.238	ug/l	1.20	609,510.39	3.396E+00	Pulse	0.50	3
Fe			1	9947.066	ug/l	1.60	84,388,701.33	4.702E+02	Analog	0.50	3
Co			1	97.821	ug/l	0.71	1,454,045.33	8.101E+00	Pulse	0.50	3
Ni			1	99.898	ug/l	1.11	377,816.79	2.105E+00	Pulse	0.50	3
Cu			1	99.961	ug/l	1.09	1,003,442.98	5.590E+00	Pulse	0.50	3
Zn			1	100.485	ug/l	0.90	198,449.64	7.474E-01	Pulse	1.00	3
Cd			1	99.240	ug/l	0.81	303,299.92	1.142E+00	Pulse	0.50	3
Al			1	9922.890	ug/l	0.27	4,278,443.33	1.414E+01	Analog	1.00	3
Se			1	99.899	ug/l	1.26	11,548.74	4.349E-02	Pulse	3.00	3
Sb			1	96.023	ug/l	0.85	853,085.25	3.213E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,252,759.00	0.32	97.1	Analog	0.50	3
1	Sc		302,500.86	0.31	102.6	Pulse	0.30	3
1	Ge		179,505.12	1.01	102.1	Pulse	0.30	3
1	In		1,925,526.11	1.82	99.3	Analog	0.30	3
1	Tb		5,798,076.17	0.33	99.1	Analog	0.50	3
1	Lu		4,838,636.00	1.19	100.8	Analog	0.50	3
1	Ge		265,540.10	0.74	101.4	Pulse	0.30	3
1	Li		3,100.27	3.33	92.6	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:47
Sample Name CALSTD-7
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.659	ug/l	2.57	1,947,124.54	1.086E+01	Analog	0.50	3
As			1	200.669	ug/l	1.16	235,742.74	1.315E+00	Pulse	1.00	3
Mo			1	201.628	ug/l	0.32	1,056,094.23	4.001E+00	Pulse	0.50	3
Pb			1	200.318	ug/l	1.11	6,347,641.33	1.524E+00	Analog	1.00	3
Be			1	200.239	ug/l	0.65	20,416.68	6.746E-02	Pulse	2.00	3
Ag			1	152.525	ug/l	1.15	2,681,467.75	1.413E+00	Analog	0.50	3
Ba			1	201.638	ug/l	0.10	567,520.27	2.991E-01	Pulse	0.50	3
Tl			1	200.128	ug/l	0.63	9,116,168.00	2.189E+00	Analog	0.50	3
Sn			1	201.707	ug/l	0.40	1,327,754.70	6.998E-01	Pulse	0.30	3
Sr			1	201.571	ug/l	1.66	1,488,263.04	7.843E-01	Mix	0.50	3
Ca			1	20113.035	ug/l	0.16	841,949.67	2.782E+00	Pulse	0.50	3
Ti			1	201.298	ug/l	0.48	53,417.25	1.765E-01	Pulse	0.50	3
Na			1	20045.966	ug/l	0.58	39,767,933.33	1.314E+02	Analog	1.00	3
Mg			1	20151.986	ug/l	3.20	20,308,130.00	6.600E+03	Analog	1.00	3
K			1	20015.018	ug/l	0.31	16,486,665.33	5.447E+01	Analog	1.00	3
V			1	201.996	ug/l	2.97	1,601,167.91	5.290E+00	Analog	0.50	3
Mn			1	200.540	ug/l	1.24	1,229,716.96	6.860E+00	Pulse	0.50	3
Fe			1	20035.705	ug/l	1.43	169,752,768.00	9.470E+02	Analog	0.50	3
Co			1	201.374	ug/l	2.03	2,989,102.50	1.668E+01	Analog	0.50	3
Ni			1	199.949	ug/l	1.38	754,968.54	4.212E+00	Pulse	0.50	3
Cu			1	199.838	ug/l	0.82	1,984,273.54	1.107E+01	Analog	0.50	3
Zn			1	200.029	ug/l	0.31	388,825.28	1.473E+00	Pulse	1.00	3
Cd			1	200.499	ug/l	0.32	609,181.27	2.308E+00	Pulse	0.50	3
Al			1	20032.369	ug/l	0.98	8,641,913.33	2.855E+01	Analog	1.00	3
Se			1	200.190	ug/l	0.72	22,990.69	8.709E-02	Pulse	3.00	3
Sb			1	202.760	ug/l	2.17	1,790,634.83	6.784E+00	Analog	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,165,669.33	1.25	95.1	Analog	0.50	3
1	Sc		302,673.49	0.85	102.7	Pulse	0.30	3
1	Ge		179,265.81	0.75	101.9	Pulse	0.30	3
1	In		1,897,329.16	0.69	97.8	Analog	0.30	3
1	Tb		5,780,723.33	0.09	98.8	Analog	0.50	3
1	Lu		4,808,805.33	1.35	100.2	Analog	0.50	3
1	Ge		263,975.15	0.68	100.8	Pulse	0.30	3
1	Li		3,079.16	3.17	91.9	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:50
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.050	ug/l	1.45	969,082.17	5.363E+00	Pulse	0.50	3
As			1	99.943	ug/l	0.91	118,358.97	6.551E-01	Pulse	1.00	3
Mo			1	97.767	ug/l	0.75	521,722.33	1.940E+00	Pulse	0.50	3
Pb			1	100.095	ug/l	1.42	3,254,304.08	7.616E-01	Analog	1.00	3
Be			1	98.081	ug/l	1.56	10,064.35	3.304E-02	Pulse	2.00	3
Ag			1	99.939	ug/l	0.77	1,808,724.50	9.261E-01	Analog	0.50	3
Ba			1	97.556	ug/l	1.31	282,648.95	1.447E-01	Pulse	0.50	3
Tl			1	100.409	ug/l	1.66	4,691,681.00	1.098E+00	Analog	0.50	3
Sn			1	97.413	ug/l	1.57	660,167.41	3.380E-01	Pulse	0.30	3
Sr			1	97.677	ug/l	1.71	742,394.21	3.802E-01	Pulse	0.50	3
Ca			1	9845.006	ug/l	1.31	414,859.49	1.362E+00	Pulse	0.50	3
Ti			1	97.985	ug/l	1.56	26,170.08	8.592E-02	Pulse	0.50	3
Na			1	9960.955	ug/l	1.25	19,895,464.00	6.532E+01	Analog	1.00	3
Mg			1	9996.601	ug/l	6.87	10,177,921.00	3.274E+03	Analog	1.00	3
K			1	10006.573	ug/l	0.85	8,318,787.33	2.731E+01	Analog	1.00	3
V			1	97.308	ug/l	1.23	776,976.94	2.551E+00	Pulse	0.50	3
Mn			1	98.912	ug/l	0.79	611,554.39	3.385E+00	Pulse	0.50	3
Fe			1	9852.746	ug/l	1.14	84,146,733.33	4.657E+02	Analog	0.50	3
Co			1	98.061	ug/l	1.93	1,467,331.21	8.121E+00	Analog	0.50	3
Ni			1	99.767	ug/l	1.09	379,830.11	2.102E+00	Pulse	0.50	3
Cu			1	100.579	ug/l	1.06	1,016,246.75	5.624E+00	Pulse	0.50	3
Zn			1	99.076	ug/l	1.20	198,230.00	7.371E-01	Pulse	1.00	3
Cd			1	98.633	ug/l	0.99	305,300.32	1.135E+00	Pulse	0.50	3
Al			1	9887.980	ug/l	1.13	4,292,791.33	1.409E+01	Analog	1.00	3
Se			1	99.718	ug/l	0.87	11,675.27	4.341E-02	Pulse	3.00	3
Sb			1	95.349	ug/l	0.91	857,933.33	3.190E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,273,483.33	1.47	97.6	Analog	0.50	3
1	Sc		304,589.88	0.27	103.3	Pulse	0.30	3
1	Ge		180,682.14	0.49	102.7	Pulse	0.30	3
1	In		1,953,065.55	1.18	100.7	Analog	0.30	3
1	Tb		5,887,098.50	0.30	100.6	Analog	0.50	3
1	Lu		4,869,300.33	0.96	101.5	Analog	0.50	3
1	Ge		268,924.36	0.22	102.7	Pulse	0.30	3
1	Li		3,116.94	5.85	93.1	Pulse	0.30	3

Quantitation Report

File Name 011HSTD.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 10:53
Sample Name HSTD
Sample Type HSTD
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	196.802	ug/l	1.26	1,911,647.21	1.065E+01	Analog	0.50	3
As			1	197.012	ug/l	1.39	231,659.22	1.291E+00	Pulse	1.00	3
Mo			1	195.859	ug/l	1.27	1,033,686.06	3.886E+00	Pulse	0.50	3
Pb			1	195.748	ug/l	0.50	6,232,739.33	1.489E+00	Analog	1.00	3
Be			1	193.312	ug/l	0.04	19,841.74	6.512E-02	Pulse	2.00	3
Ag			1	146.782	ug/l	0.34	2,668,262.50	1.360E+00	Analog	0.50	3
Ba			1	191.894	ug/l	0.39	558,468.77	2.847E-01	Pulse	0.50	3
Tl			1	195.092	ug/l	1.14	8,928,870.00	2.133E+00	Analog	0.50	3
Sn			1	190.759	ug/l	1.14	1,298,418.39	6.618E-01	Pulse	0.30	3
Sr			1	191.961	ug/l	0.43	1,465,391.05	7.470E-01	Pulse	0.50	3
Ca			1	19630.169	ug/l	1.05	827,216.54	2.715E+00	Pulse	0.50	3
Ti			1	194.479	ug/l	1.30	51,953.06	1.705E-01	Pulse	0.50	3
Na			1	19645.069	ug/l	1.79	39,232,014.67	1.288E+02	Analog	1.00	3
Mg			1	19088.293	ug/l	7.95	19,919,784.00	6.251E+03	Analog	1.00	3
K			1	19718.079	ug/l	0.63	16,350,942.00	5.367E+01	Analog	1.00	3
V			1	195.194	ug/l	0.20	1,557,664.54	5.112E+00	Analog	0.50	3
Mn			1	196.548	ug/l	1.17	1,206,334.83	6.723E+00	Pulse	0.50	3
Fe			1	19429.696	ug/l	1.35	164,769,584.00	9.183E+02	Analog	0.50	3
Co			1	195.543	ug/l	2.08	2,905,217.42	1.619E+01	Analog	0.50	3
Ni			1	195.652	ug/l	1.47	739,425.96	4.121E+00	Pulse	0.50	3
Cu			1	196.102	ug/l	2.22	1,949,383.42	1.086E+01	Analog	0.50	3
Zn			1	195.752	ug/l	0.93	383,492.33	1.442E+00	Pulse	1.00	3
Cd			1	194.174	ug/l	1.19	594,464.71	2.235E+00	Pulse	0.50	3
Al			1	19457.174	ug/l	2.06	8,449,312.17	2.773E+01	Analog	1.00	3
Se			1	195.188	ug/l	1.20	22,587.28	8.492E-02	Pulse	3.00	3
Sb			1	194.993	ug/l	1.46	1,735,329.54	6.524E+00	Analog	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,185,359.83	0.89	95.5	Analog	0.50	3
1	Sc		304,678.36	0.63	103.3	Pulse	0.30	3
1	Ge		179,418.93	0.50	102.0	Pulse	0.30	3
1	In		1,961,817.91	1.26	101.1	Analog	0.30	3
1	Tb		5,834,243.50	1.62	99.7	Analog	0.50	3
1	Lu		4,823,330.83	0.45	100.5	Analog	0.50	3
1	Ge		265,983.26	0.82	101.6	Pulse	0.30	3
1	Li		3,198.07	7.15	95.5	Pulse	0.30	3

Quantitation Report

File Name	012_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 10:58
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.006	ug/l	98.78	404.01	2.248E-03	Pulse	0.50	3
As			1	0.022	ug/l	31.23	52.00	2.897E-04	Pulse	1.00	3
Mo			1	0.150	ug/l	45.08	861.36	3.213E-03	Pulse	0.50	3
Pb			1	0.034	ug/l	9.57	1,907.12	4.341E-04	Pulse	1.00	3
Be			1	0.046	ug/l	43.16	5.17	1.706E-05	Pulse	2.00	3
Ag			1	0.010	ug/l	31.52	272.00	1.356E-04	Pulse	0.50	3
Ba			1	-0.002	ug/l	-368.61	58.67	2.930E-05	Pulse	0.50	3
Tl			1	0.034	ug/l	14.33	1,702.10	3.878E-04	Pulse	0.50	3
Sn			1	0.100	ug/l	28.04	1,002.26	4.987E-04	Pulse	0.30	3
Sr			1	-0.001	ug/l	-329.29	290.67	1.448E-04	Pulse	0.50	3
Ca			1	-2.829	ug/l	-14.18	124.00	4.095E-04	Pulse	0.50	3
Ti			1	0.009	ug/l	201.73	9.33	3.081E-05	Pulse	0.50	3
Na			1	-0.130	ug/l	-206.29	19,623.65	6.483E-02	Pulse	1.00	3
Mg			1	0.406	ug/l	52.18	1,531.07	4.686E-01	Pulse	1.00	3
K			1	0.102	ug/l	777.91	47,746.70	1.577E-01	Pulse	1.00	3
V			1	-0.015	ug/l	-58.56	1,252.72	4.139E-03	Pulse	0.50	3
Mn			1	-0.026	ug/l	-14.85	227.33	1.266E-03	Pulse	0.50	3
Fe			1	1.219	ug/l	14.31	16,929.32	9.426E-02	Pulse	0.50	3
Co			1	0.009	ug/l	34.43	251.33	1.400E-03	Pulse	0.50	3
Ni			1	-0.020	ug/l	-47.76	184.00	1.024E-03	Pulse	0.50	3
Cu			1	-0.222	ug/l	-10.98	17,024.75	9.478E-02	Pulse	0.50	3
Zn			1	-1.749	ug/l	-0.89	591.01	2.205E-03	Pulse	1.00	3
Cd			1	0.006	ug/l	78.84	26.00	9.708E-05	Pulse	0.50	3
Al			1	-0.251	ug/l	-96.21	632.68	2.091E-03	Pulse	1.00	3
Se			1	0.056	ug/l	51.18	23.78	8.874E-05	Pulse	3.00	3
Sb			1	0.038	ug/l	20.01	404.01	1.507E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,391,893.17	0.93	100.3	Analog	0.50	3
1	Sc		302,699.62	0.43	102.7	Pulse	0.30	3
1	Ge		179,643.84	0.80	102.1	Pulse	0.30	3
1	In		2,010,300.27	3.02	103.6	Analog	0.30	3
1	Tb		5,933,278.33	0.86	101.4	Analog	0.50	3
1	Lu		4,835,735.33	0.09	100.8	Analog	0.50	3
1	Ge		267,987.62	0.20	102.3	Pulse	0.30	3
1	Li		3,263.64	1.84	97.4	Pulse	0.30	3

Quantitation Report

File Name	013_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:01
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.003	ug/l	-100.66	320.00	1.779E-03	Pulse	0.50	3
As			1	0.025	ug/l	14.96	56.33	3.130E-04	Pulse	1.00	3
Mo			1	0.051	ug/l	51.58	337.34	1.259E-03	Pulse	0.50	3
Pb			1	0.019	ug/l	1.74	1,457.40	3.234E-04	Pulse	1.00	3
Be			1	0.013	ug/l	78.86	1.83	6.033E-06	Pulse	2.00	3
Ag			1	0.005	ug/l	5.63	173.33	8.584E-05	Pulse	0.50	3
Ba			1	-0.002	ug/l	-258.17	57.33	2.836E-05	Pulse	0.50	3
Tl			1	0.010	ug/l	21.01	586.02	1.301E-04	Pulse	0.50	3
Sn			1	0.043	ug/l	49.00	608.90	3.012E-04	Pulse	0.30	3
Sr			1	-0.004	ug/l	-149.04	269.33	1.335E-04	Pulse	0.50	3
Ca			1	-4.060	ug/l	-4.00	72.67	2.393E-04	Pulse	0.50	3
Ti			1	-0.001	ug/l	-3105.05	6.67	2.200E-05	Pulse	0.50	3
Na			1	-0.900	ug/l	-16.94	18,157.17	5.979E-02	Pulse	1.00	3
Mg			1	-0.022	ug/l	-79.80	1,074.36	3.282E-01	Pulse	1.00	3
K			1	-0.507	ug/l	-62.64	47,396.86	1.561E-01	Pulse	1.00	3
V			1	-0.006	ug/l	-82.55	1,327.39	4.372E-03	Pulse	0.50	3
Mn			1	-0.032	ug/l	-10.71	187.33	1.041E-03	Pulse	0.50	3
Fe			1	0.374	ug/l	14.17	9,773.33	5.431E-02	Pulse	0.50	3
Co			1	0.003	ug/l	51.49	165.33	9.186E-04	Pulse	0.50	3
Ni			1	-0.027	ug/l	-22.38	160.00	8.889E-04	Pulse	0.50	3
Cu			1	-0.246	ug/l	-10.36	16,813.22	9.343E-02	Pulse	0.50	3
Zn			1	-1.783	ug/l	-1.46	525.68	1.960E-03	Pulse	1.00	3
Cd			1	0.003	ug/l	44.96	16.67	6.224E-05	Pulse	0.50	3
Al			1	-0.814	ug/l	-4.01	391.34	1.289E-03	Pulse	1.00	3
Se			1	0.022	ug/l	74.89	19.89	7.418E-05	Pulse	3.00	3
Sb			1	0.014	ug/l	37.52	184.00	6.864E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,506,144.83	0.41	102.9	Analog	0.50	3
1	Sc		303,658.07	0.48	103.0	Pulse	0.30	3
1	Ge		179,959.72	0.62	102.3	Pulse	0.30	3
1	In		2,019,541.94	0.61	104.1	Analog	0.30	3
1	Tb		5,945,276.00	0.96	101.6	Analog	0.50	3
1	Lu		4,908,547.67	0.88	102.3	Analog	0.50	3
1	Ge		268,110.72	0.92	102.4	Pulse	0.30	3
1	Li		3,273.64	2.24	97.7	Pulse	0.30	3

Quantitation Report

File Name	014CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:05
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	322.00	1.755E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	48.33	2.634E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	276.67	1.016E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,260.05	2.830E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	2.50	8.174E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	152.67	7.552E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	58.67	2.895E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	410.68	9.230E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	601.13	2.974E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	240.67	1.189E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	86.00	2.812E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	8.67	2.835E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	17,121.18	5.600E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	970.70	2.958E-01	Pulse	1.00	3
K			1	0.000	ug/l	---	47,784.19	1.563E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,310.72	4.287E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	204.67	1.115E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	9,204.37	5.017E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	171.33	9.338E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	168.67	9.191E-04	Pulse	0.50	3
Cu			1	0.000	ug/l	---	16,501.58	8.993E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	533.34	1.958E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	12.00	4.399E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	349.33	1.143E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	23.56	8.649E-05	Pulse	3.00	3
Sb			1	0.000	ug/l	---	170.67	6.263E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,451,296.00	0.97	100.0	Analog	0.50	3
1	Sc		305,736.70	0.15	100.0	Pulse	0.30	3
1	Ge		183,499.51	0.66	100.0	Pulse	0.30	3
1	In		2,022,475.40	0.97	100.0	Analog	0.30	3
1	Tb		6,002,728.17	1.35	100.0	Analog	0.50	3
1	Lu		4,960,591.00	0.77	100.0	Analog	0.50	3
1	Ge		272,409.04	0.32	100.0	Pulse	0.30	3
1	Li		3,289.19	4.41	100.0	Pulse	0.30	3

Quantitation Report

File Name 015CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:09
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.473	ug/l	3.59	5,001.37	2.769E-02	Pulse	0.50	3
As			1	0.493	ug/l	7.15	632.68	3.503E-03	Pulse	1.00	3
Mo			1	0.447	ug/l	4.14	2,667.55	9.850E-03	Pulse	0.50	3
Pb			1	0.469	ug/l	2.64	17,054.04	3.827E-03	Pulse	1.00	3
Be			1	0.423	ug/l	6.70	45.67	1.479E-04	Pulse	2.00	3
Ag			1	0.460	ug/l	0.67	8,689.53	4.349E-03	Pulse	0.50	3
Ba			1	0.445	ug/l	6.29	1,372.72	6.873E-04	Pulse	0.50	3
Tl			1	0.464	ug/l	1.41	22,995.09	5.159E-03	Pulse	0.50	3
Sn			1	0.437	ug/l	3.62	3,619.30	1.810E-03	Pulse	0.30	3
Sr			1	0.461	ug/l	2.42	3,918.45	1.961E-03	Pulse	0.50	3
Ca			1	46.895	ug/l	3.94	2,082.13	6.745E-03	Pulse	0.50	3
Ti			1	0.405	ug/l	8.00	118.00	3.822E-04	Pulse	0.50	3
Na			1	50.892	ug/l	0.56	118,813.42	3.849E-01	Pulse	1.00	3
Mg			1	43.594	ug/l	6.05	50,237.82	1.464E+01	Pulse	1.00	3
K			1	46.298	ug/l	1.03	87,000.64	2.818E-01	Pulse	1.00	3
V			1	0.440	ug/l	1.28	4,940.02	1.600E-02	Pulse	0.50	3
Mn			1	0.489	ug/l	2.47	3,224.96	1.786E-02	Pulse	0.50	3
Fe			1	49.025	ug/l	0.33	425,611.42	2.356E+00	Pulse	0.50	3
Co			1	0.487	ug/l	2.02	7,384.86	4.089E-02	Pulse	0.50	3
Ni			1	0.494	ug/l	4.56	2,042.79	1.131E-02	Pulse	0.50	3
Cu			1	0.493	ug/l	5.17	21,189.81	1.173E-01	Pulse	0.50	3
Zn			1	0.661	ug/l	4.79	1,846.76	6.819E-03	Pulse	1.00	3
Cd			1	0.502	ug/l	2.49	1,560.74	5.763E-03	Pulse	0.50	3
Al			1	46.907	ug/l	1.28	20,819.66	6.744E-02	Pulse	1.00	3
Se			1	0.444	ug/l	5.02	75.78	2.798E-04	Pulse	3.00	3
Sb			1	0.461	ug/l	2.99	4,291.21	1.584E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,457,358.00	1.52	100.1	Analog	0.50	3
1	Sc		308,725.47	0.42	101.0	Pulse	0.30	3
1	Ge		180,619.22	0.07	98.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,998,314.02	1.95	98.8	Analog	0.30	3
1	Tb		6,005,470.17	0.16	100.0	Analog	0.50	3
1	Lu		4,931,820.50	0.79	99.4	Analog	0.50	3
1	Ge		270,833.51	0.30	99.4	Pulse	0.30	3
1	Li		3,439.22	5.77	104.6	Pulse	0.30	3

Quantitation Report

File Name 016CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:12
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.977	ug/l	1.10	10,087.50	5.532E-02	Pulse	0.50	3
As			1	0.957	ug/l	4.56	1,194.38	6.550E-03	Pulse	1.00	3
Mo			1	0.908	ug/l	3.40	5,170.11	1.898E-02	Pulse	0.50	3
Pb			1	0.968	ug/l	2.39	34,174.56	7.592E-03	Pulse	1.00	3
Be			1	0.923	ug/l	8.57	96.33	3.130E-04	Pulse	2.00	3
Ag			1	0.950	ug/l	1.59	17,961.31	8.903E-03	Pulse	0.50	3
Ba			1	0.945	ug/l	4.27	2,880.26	1.428E-03	Pulse	0.50	3
Tl			1	0.957	ug/l	0.04	47,509.90	1.055E-02	Pulse	0.50	3
Sn			1	0.924	ug/l	4.46	7,054.83	3.497E-03	Pulse	0.30	3
Sr			1	0.932	ug/l	0.70	7,758.41	3.846E-03	Pulse	0.50	3
Ca			1	99.008	ug/l	2.06	4,287.19	1.393E-02	Pulse	0.50	3
Ti			1	0.930	ug/l	6.40	258.67	8.403E-04	Pulse	0.50	3
Na			1	109.236	ug/l	15.93	234,510.70	7.619E-01	Pulse	1.00	3
Mg			1	96.045	ug/l	9.77	102,844.47	3.190E+01	Pulse	1.00	3
K			1	95.828	ug/l	0.89	128,081.83	4.161E-01	Pulse	1.00	3
V			1	0.928	ug/l	4.86	8,912.89	2.896E-02	Pulse	0.50	3
Mn			1	0.997	ug/l	4.62	6,425.83	3.524E-02	Pulse	0.50	3
Fe			1	100.293	ug/l	0.74	869,435.67	4.768E+00	Pulse	0.50	3
Co			1	0.993	ug/l	2.44	15,026.28	8.241E-02	Pulse	0.50	3
Ni			1	1.000	ug/l	4.31	4,004.46	2.196E-02	Pulse	0.50	3
Cu			1	0.937	ug/l	6.10	25,879.94	1.419E-01	Pulse	0.50	3
Zn			1	1.131	ug/l	3.14	2,798.56	1.027E-02	Pulse	1.00	3
Cd			1	0.973	ug/l	2.59	3,032.28	1.113E-02	Pulse	0.50	3
Al			1	97.034	ug/l	0.85	42,567.59	1.383E-01	Pulse	1.00	3
Se			1	0.954	ug/l	3.32	136.67	5.017E-04	Pulse	3.00	3
Sb			1	0.929	ug/l	1.08	8,532.80	3.132E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,502,713.00	1.93	101.2	Analog	0.50	3
1	Sc		307,827.38	0.34	100.7	Pulse	0.30	3
1	Ge		182,345.91	0.41	99.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,017,567.63	0.88	99.8	Analog	0.30	3
1	Tb		6,026,730.17	0.99	100.4	Analog	0.50	3
1	Lu		4,934,435.83	0.34	99.5	Analog	0.50	3
1	Ge		272,405.11	0.43	100.0	Pulse	0.30	3
1	Li		3,243.63	9.38	98.6	Pulse	0.30	3

Quantitation Report

File Name 017CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:16
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.030	ug/l	0.48	102,542.95	5.519E-01	Pulse	0.50	3
As			1	10.068	ug/l	1.07	12,341.61	6.643E-02	Pulse	1.00	3
Mo			1	9.824	ug/l	1.69	54,039.00	1.953E-01	Pulse	0.50	3
Pb			1	10.256	ug/l	0.49	348,606.00	7.772E-02	Pulse	1.00	3
Be			1	10.408	ug/l	0.74	1,074.20	3.444E-03	Pulse	2.00	3
Ag			1	10.209	ug/l	1.02	192,093.11	9.494E-02	Pulse	0.50	3
Ba			1	9.886	ug/l	1.31	29,671.26	1.467E-02	Pulse	0.50	3
Tl			1	10.100	ug/l	0.85	495,622.50	1.105E-01	Pulse	0.50	3
Sn			1	9.909	ug/l	1.59	69,996.28	3.460E-02	Pulse	0.30	3
Sr			1	9.572	ug/l	1.24	77,693.59	3.840E-02	Pulse	0.50	3
Ca			1	1007.314	ug/l	0.71	43,392.68	1.391E-01	Pulse	0.50	3
Ti			1	9.911	ug/l	3.29	2,708.87	8.685E-03	Pulse	0.50	3
Na			1	1059.096	ug/l	0.95	2,151,999.83	6.900E+00	Analog	1.00	3
Mg			1	970.612	ug/l	4.16	1,071,131.88	3.197E+02	Pulse	1.00	3
K			1	1005.904	ug/l	0.50	899,308.85	2.883E+00	Pulse	1.00	3
V			1	9.694	ug/l	1.10	81,742.75	2.621E-01	Pulse	0.50	3
Mn			1	10.186	ug/l	0.49	64,990.01	3.498E-01	Pulse	0.50	3
Fe			1	1034.185	ug/l	1.54	9,047,348.67	4.870E+01	Analog	0.50	3
Co			1	10.222	ug/l	0.31	156,034.21	8.398E-01	Pulse	0.50	3
Ni			1	10.498	ug/l	0.27	41,216.25	2.218E-01	Pulse	0.50	3
Cu			1	10.539	ug/l	0.75	125,400.31	6.750E-01	Pulse	0.50	3
Zn			1	10.812	ug/l	1.69	22,535.11	8.146E-02	Pulse	1.00	3
Cd			1	10.381	ug/l	0.84	32,720.91	1.183E-01	Pulse	0.50	3
Al			1	1000.458	ug/l	0.35	441,384.08	1.415E+00	Pulse	1.00	3
Se			1	10.266	ug/l	0.59	1,260.27	4.555E-03	Pulse	3.00	3
Sb			1	9.829	ug/l	1.45	90,020.98	3.254E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,485,666.17	0.59	100.8	Analog	0.50	3
1	Sc		311,899.93	0.16	102.0	Pulse	0.30	3
1	Ge		185,792.80	0.93	101.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,023,280.34	0.72	100.0	Analog	0.30	3
1	Tb		6,027,339.33	0.22	100.4	Analog	0.50	3
1	Lu		4,956,386.67	0.99	99.9	Analog	0.50	3
1	Ge		276,669.49	0.86	101.6	Pulse	0.30	3
1	Li		3,354.76	4.45	102.0	Pulse	0.30	3

Quantitation Report

File Name	018CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:19
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.934	ug/l	0.76	489,548.36	2.631E+00	Pulse	0.50	3
As			1	48.709	ug/l	0.38	59,612.50	3.204E-01	Pulse	1.00	3
Mo			1	47.437	ug/l	1.28	260,658.06	9.393E-01	Pulse	0.50	3
Pb			1	49.787	ug/l	1.53	1,656,340.91	3.762E-01	Pulse	1.00	3
Be			1	49.648	ug/l	1.57	5,131.20	1.640E-02	Pulse	2.00	3
Ag			1	48.299	ug/l	1.21	905,804.71	4.489E-01	Pulse	0.50	3
Ba			1	47.767	ug/l	1.55	142,767.59	7.075E-02	Pulse	0.50	3
Tl			1	49.460	ug/l	1.27	2,381,232.92	5.407E-01	Analog	0.50	3
Sn			1	47.734	ug/l	1.29	334,018.32	1.655E-01	Pulse	0.30	3
Sr			1	46.492	ug/l	1.66	375,461.40	1.861E-01	Pulse	0.50	3
Ca			1	4839.927	ug/l	0.77	208,843.52	6.674E-01	Pulse	0.50	3
Ti			1	48.096	ug/l	1.74	13,154.77	4.204E-02	Pulse	0.50	3
Na			1	4919.210	ug/l	0.75	9,964,593.33	3.184E+01	Analog	1.00	3
Mg			1	4791.038	ug/l	2.63	5,109,202.83	1.577E+03	Analog	1.00	3
K			1	4936.016	ug/l	0.83	4,236,450.67	1.354E+01	Analog	1.00	3
V			1	46.845	ug/l	0.39	391,190.90	1.250E+00	Pulse	0.50	3
Mn			1	48.876	ug/l	0.73	311,490.62	1.674E+00	Pulse	0.50	3
Fe			1	4855.542	ug/l	1.35	42,511,921.33	2.285E+02	Analog	0.50	3
Co			1	48.719	ug/l	1.19	744,062.98	3.999E+00	Pulse	0.50	3
Ni			1	49.360	ug/l	1.44	193,434.90	1.040E+00	Pulse	0.50	3
Cu			1	49.341	ug/l	1.02	526,326.65	2.829E+00	Pulse	0.50	3
Zn			1	49.773	ug/l	0.39	102,109.50	3.679E-01	Pulse	1.00	3
Cd			1	49.051	ug/l	0.66	155,041.27	5.587E-01	Pulse	0.50	3
Al			1	4960.481	ug/l	0.83	2,194,304.08	7.012E+00	Analog	1.00	3
Se			1	49.449	ug/l	0.71	5,997.12	2.161E-02	Pulse	3.00	3
Sb			1	47.251	ug/l	0.69	433,460.94	1.562E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,403,717.33	1.33	98.9	Analog	0.50	3
1	Sc		312,932.82	0.30	102.4	Pulse	0.30	3
1	Ge		186,065.78	0.86	101.4	Pulse	0.30	3
1	In		2,018,099.16	1.33	99.8	Analog	0.30	3
1	Tb		6,065,746.50	0.42	101.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,031,155.00	0.61	101.4	Analog	0.50	3
1	Ge		277,524.78	0.65	101.9	Pulse	0.30	3
1	Li		3,241.41	2.11	98.5	Pulse	0.30	3

Quantitation Report

File Name 019CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:23
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.511	ug/l	0.99	989,313.16	5.351E+00	Pulse	0.50	3
As			1	99.304	ug/l	0.81	120,721.64	6.529E-01	Pulse	1.00	3
Mo			1	98.039	ug/l	0.67	531,031.29	1.940E+00	Pulse	0.50	3
Pb			1	101.340	ug/l	0.58	3,315,007.75	7.654E-01	Analog	1.00	3
Be			1	100.384	ug/l	0.85	10,347.00	3.315E-02	Pulse	2.00	3
Ag			1	100.830	ug/l	1.55	1,851,679.08	9.370E-01	Analog	0.50	3
Ba			1	98.202	ug/l	1.59	287,383.68	1.454E-01	Pulse	0.50	3
Tl			1	98.802	ug/l	2.09	4,677,287.50	1.080E+00	Analog	0.50	3
Sn			1	98.804	ug/l	1.93	676,420.55	3.423E-01	Pulse	0.30	3
Sr			1	96.300	ug/l	1.42	761,391.56	3.853E-01	Pulse	0.50	3
Ca			1	9899.924	ug/l	0.58	426,049.75	1.365E+00	Pulse	0.50	3
Ti			1	97.382	ug/l	1.40	26,561.39	8.509E-02	Pulse	0.50	3
Na			1	9939.858	ug/l	1.73	20,067,632.00	6.429E+01	Analog	1.00	3
Mg			1	9829.190	ug/l	1.61	10,292,064.67	3.235E+03	Analog	1.00	3
K			1	9893.379	ug/l	0.62	8,421,424.67	2.698E+01	Analog	1.00	3
V			1	95.430	ug/l	0.29	793,568.71	2.542E+00	Pulse	0.50	3
Mn			1	99.062	ug/l	1.11	627,166.61	3.392E+00	Pulse	0.50	3
Fe			1	9802.931	ug/l	0.75	85,277,125.33	4.612E+02	Analog	0.50	3
Co			1	100.289	ug/l	2.26	1,522,063.50	8.231E+00	Analog	0.50	3
Ni			1	99.735	ug/l	1.24	388,243.25	2.100E+00	Pulse	0.50	3
Cu			1	98.892	ug/l	1.18	1,031,577.62	5.579E+00	Pulse	0.50	3
Zn			1	100.384	ug/l	0.51	202,561.93	7.401E-01	Pulse	1.00	3
Cd			1	99.690	ug/l	1.11	310,762.40	1.135E+00	Pulse	0.50	3
Al			1	9961.958	ug/l	1.36	4,395,560.83	1.408E+01	Analog	1.00	3
Se			1	99.454	ug/l	0.25	11,872.18	4.338E-02	Pulse	3.00	3
Sb			1	96.806	ug/l	0.73	875,688.81	3.199E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,331,171.83	0.95	97.3	Analog	0.50	3
1	Sc		312,165.31	0.13	102.1	Pulse	0.30	3
1	Ge		184,904.97	0.95	100.8	Pulse	0.30	3
1	In		1,976,441.10	1.56	97.7	Analog	0.30	3
1	Tb		5,998,354.50	0.16	99.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,909,805.00	1.60	99.0	Analog	0.50	3
1	Ge		273,712.52	0.65	100.5	Pulse	0.30	3
1	Li		3,182.51	2.15	96.8	Pulse	0.30	3

Quantitation Report

File Name	020CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:26
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	201.759	ug/l	1.74	2,030,361.83	1.107E+01	Analog	0.50	3
As			1	200.668	ug/l	1.40	241,956.72	1.319E+00	Pulse	1.00	3
Mo			1	201.631	ug/l	0.63	1,077,918.34	3.989E+00	Pulse	0.50	3
Pb			1	199.371	ug/l	0.99	6,299,218.67	1.506E+00	Analog	1.00	3
Be			1	199.876	ug/l	0.25	20,578.02	6.599E-02	Pulse	2.00	3
Ag			1	149.126	ug/l	1.34	2,704,683.83	1.386E+00	Analog	0.50	3
Ba			1	201.463	ug/l	1.95	582,179.63	2.983E-01	Pulse	0.50	3
Tl			1	200.729	ug/l	0.79	9,180,487.67	2.194E+00	Analog	0.50	3
Sn			1	201.169	ug/l	2.41	1,359,489.15	6.966E-01	Pulse	0.30	3
Sr			1	202.749	ug/l	2.46	1,582,752.46	8.111E-01	Analog	0.50	3
Ca			1	20089.703	ug/l	0.87	863,581.81	2.769E+00	Pulse	0.50	3
Ti			1	201.790	ug/l	1.16	54,971.18	1.763E-01	Pulse	0.50	3
Na			1	20047.265	ug/l	1.46	40,414,426.67	1.296E+02	Analog	1.00	3
Mg			1	20139.151	ug/l	1.41	20,648,184.67	6.627E+03	Analog	1.00	3
K			1	20069.041	ug/l	0.64	17,015,168.67	5.456E+01	Analog	1.00	3
V			1	203.090	ug/l	1.19	1,685,640.46	5.405E+00	Analog	0.50	3
Mn			1	200.741	ug/l	0.76	1,260,629.16	6.873E+00	Pulse	0.50	3
Fe			1	20132.941	ug/l	1.43	173,729,680.00	9.471E+02	Analog	0.50	3
Co			1	200.165	ug/l	1.53	3,013,171.08	1.643E+01	Analog	0.50	3
Ni			1	200.267	ug/l	0.98	773,242.94	4.215E+00	Pulse	0.50	3
Cu			1	200.692	ug/l	0.38	2,059,993.96	1.123E+01	Analog	0.50	3
Zn			1	199.823	ug/l	0.71	397,545.12	1.471E+00	Pulse	1.00	3
Cd			1	200.373	ug/l	0.96	616,635.79	2.282E+00	Pulse	0.50	3
Al			1	20028.900	ug/l	1.26	8,827,683.00	2.831E+01	Analog	1.00	3
Se			1	200.398	ug/l	0.42	23,593.47	8.731E-02	Pulse	3.00	3
Sb			1	202.294	ug/l	0.80	1,806,378.79	6.685E+00	Analog	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,184,365.75	1.72	94.0	Analog	0.50	3
1	Sc		311,841.62	0.44	102.0	Pulse	0.30	3
1	Ge		183,432.58	0.63	100.0	Pulse	0.30	3
1	In		1,951,814.78	1.09	96.5	Analog	0.30	3
1	Tb		5,922,791.33	0.43	98.7	Analog	0.50	3
1	Lu		4,880,645.67	0.74	98.4	Analog	0.50	3
1	Ge		270,217.46	0.73	99.2	Pulse	0.30	3
1	Li		3,115.83	1.72	94.7	Pulse	0.30	3

Quantitation Report

File Name 021HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:29
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.689	ug/l	1.68	992,826.75	5.306E+00	Pulse	0.50	3
As			1	98.476	ug/l	0.79	121,158.26	6.475E-01	Pulse	1.00	3
Mo			1	97.841	ug/l	1.77	534,605.96	1.936E+00	Pulse	0.50	3
Pb			1	99.967	ug/l	0.56	3,302,321.83	7.550E-01	Analog	1.00	3
Be			1	98.828	ug/l	1.46	10,307.48	3.263E-02	Pulse	2.00	3
Ag			1	97.287	ug/l	1.04	1,838,261.46	9.041E-01	Analog	0.50	3
Ba			1	96.149	ug/l	0.54	289,524.81	1.424E-01	Pulse	0.50	3
Tl			1	98.945	ug/l	0.49	4,730,722.50	1.082E+00	Analog	0.50	3
Sn			1	96.101	ug/l	0.73	677,012.53	3.330E-01	Pulse	0.30	3
Sr			1	93.769	ug/l	0.54	762,837.52	3.752E-01	Pulse	0.50	3
Ca			1	9831.055	ug/l	0.85	428,113.53	1.355E+00	Pulse	0.50	3
Ti			1	96.671	ug/l	1.15	26,680.83	8.447E-02	Pulse	0.50	3
Na			1	9873.216	ug/l	0.78	20,170,122.67	6.385E+01	Analog	1.00	3
Mg			1	9853.784	ug/l	1.92	10,370,523.00	3.243E+03	Analog	1.00	3
K			1	9988.789	ug/l	1.47	8,603,301.67	2.724E+01	Analog	1.00	3
V			1	94.602	ug/l	1.55	796,041.96	2.520E+00	Pulse	0.50	3
Mn			1	98.253	ug/l	1.06	629,558.62	3.364E+00	Pulse	0.50	3
Fe			1	9802.097	ug/l	1.12	86,295,736.00	4.612E+02	Analog	0.50	3
Co			1	100.256	ug/l	2.33	1,539,760.54	8.228E+00	Analog	0.50	3
Ni			1	99.289	ug/l	1.04	391,168.85	2.090E+00	Pulse	0.50	3
Cu			1	98.321	ug/l	0.96	1,038,119.79	5.548E+00	Pulse	0.50	3
Zn			1	99.523	ug/l	1.86	202,589.01	7.337E-01	Pulse	1.00	3
Cd			1	99.077	ug/l	1.83	311,556.39	1.128E+00	Pulse	0.50	3
Al			1	9887.331	ug/l	1.61	4,414,449.33	1.398E+01	Analog	1.00	3
Se			1	99.626	ug/l	0.74	11,997.15	4.345E-02	Pulse	3.00	3
Sb			1	96.154	ug/l	1.71	877,414.09	3.178E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,373,694.67	0.34	98.3	Analog	0.50	3
1	Sc		315,875.23	0.22	103.3	Pulse	0.30	3
1	Ge		187,124.33	0.40	102.0	Pulse	0.30	3
1	In		2,033,293.74	0.91	100.5	Analog	0.30	3
1	Tb		5,993,153.67	2.21	99.8	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,018,650.33	1.52	101.2	Analog	0.50	3
1	Ge		276,119.30	0.50	101.4	Pulse	0.30	3
1	Li		3,199.18	2.69	97.3	Pulse	0.30	3

Quantitation Report

File Name	022HSTD.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:32
Sample Name	HSTD
Sample Type	HSTD
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	196.982	ug/l	1.30	1,987,946.50	1.081E+01	Analog	0.50	3
As			1	195.478	ug/l	1.06	236,369.86	1.285E+00	Pulse	1.00	3
Mo			1	196.139	ug/l	1.27	1,053,430.38	3.881E+00	Pulse	0.50	3
Pb			1	194.890	ug/l	3.37	6,250,287.17	1.472E+00	Analog	1.00	3
Be			1	195.137	ug/l	1.67	20,085.83	6.442E-02	Pulse	2.00	3
Ag			1	148.866	ug/l	1.73	2,731,805.75	1.383E+00	Analog	0.50	3
Ba			1	194.557	ug/l	2.30	568,886.83	2.881E-01	Pulse	0.50	3
Tl			1	195.502	ug/l	1.84	9,076,431.67	2.137E+00	Analog	0.50	3
Sn			1	193.893	ug/l	2.45	1,325,942.38	6.715E-01	Pulse	0.30	3
Sr			1	194.293	ug/l	2.48	1,534,756.87	7.772E-01	Analog	0.50	3
Ca			1	19631.976	ug/l	1.68	843,707.19	2.706E+00	Pulse	0.50	3
Ti			1	193.926	ug/l	3.04	52,814.90	1.694E-01	Pulse	0.50	3
Na			1	19629.786	ug/l	1.39	39,563,946.67	1.269E+02	Analog	1.00	3
Mg			1	18672.659	ug/l	7.22	20,178,810.67	6.145E+03	Analog	1.00	3
K			1	19617.666	ug/l	1.52	16,629,898.33	5.334E+01	Analog	1.00	3
V			1	196.752	ug/l	1.75	1,632,652.79	5.237E+00	Analog	0.50	3
Mn			1	195.969	ug/l	1.31	1,234,157.21	6.709E+00	Pulse	0.50	3
Fe			1	19580.966	ug/l	0.50	169,446,938.67	9.212E+02	Analog	0.50	3
Co			1	194.599	ug/l	2.38	2,937,856.00	1.597E+01	Analog	0.50	3
Ni			1	195.719	ug/l	0.95	757,815.23	4.120E+00	Pulse	0.50	3
Cu			1	196.952	ug/l	0.29	2,027,541.21	1.102E+01	Analog	0.50	3
Zn			1	195.797	ug/l	0.84	391,358.94	1.442E+00	Pulse	1.00	3
Cd			1	195.282	ug/l	1.35	603,760.79	2.224E+00	Pulse	0.50	3
Al			1	19707.567	ug/l	2.98	8,683,818.67	2.785E+01	Analog	1.00	3
Se			1	195.714	ug/l	0.99	23,149.22	8.527E-02	Pulse	3.00	3
Sb			1	199.686	ug/l	3.36	1,791,372.29	6.599E+00	Analog	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,247,508.50	0.80	95.4	Analog	0.50	3
1	Sc		311,787.64	0.67	102.0	Pulse	0.30	3
1	Ge		183,943.09	0.38	100.2	Pulse	0.30	3
1	In		1,974,956.66	1.08	97.7	Analog	0.30	3
1	Tb		5,970,229.17	1.59	99.5	Analog	0.50	3
1	Lu		4,949,718.33	1.10	99.8	Analog	0.50	3
1	Ge		271,465.13	0.38	99.7	Pulse	0.30	3
1	Li		3,293.64	6.10	100.1	Pulse	0.30	3

Quantitation Report

File Name 023_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:35
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	103.959	ug/l	1.87	1,040,401.39	5.704E+00	Pulse	0.50	3
As			1	103.863	ug/l	0.99	124,547.00	6.829E-01	Pulse	1.00	3
Mo			1	106.744	ug/l	0.78	569,632.82	2.112E+00	Pulse	0.50	3
Pb			1	103.963	ug/l	2.17	3,408,738.25	7.852E-01	Analog	1.00	3
Be			1	104.924	ug/l	2.13	10,714.20	3.464E-02	Pulse	2.00	3
Ag			1	49.077	ug/l	3.45	897,269.94	4.561E-01	Pulse	0.50	3
Ba			1	99.976	ug/l	4.23	291,209.39	1.481E-01	Pulse	0.50	3
Tl			1	102.238	ug/l	1.89	4,852,239.33	1.118E+00	Analog	0.50	3
Sn			1	96.585	ug/l	4.35	658,172.93	3.346E-01	Pulse	0.30	3
Sr			1	101.399	ug/l	3.73	798,015.44	4.057E-01	Pulse	0.50	3
Ca			1	10317.687	ug/l	1.66	439,905.63	1.422E+00	Pulse	0.50	3
Ti			1	107.347	ug/l	1.60	29,007.04	9.379E-02	Pulse	0.50	3
Na			1	10202.761	ug/l	1.82	20,406,875.33	6.598E+01	Analog	1.00	3
Mg			1	9878.290	ug/l	2.52	11,259,592.00	3.251E+03	Analog	1.00	3
K			1	10394.522	ug/l	1.70	8,763,480.33	2.834E+01	Analog	1.00	3
V			1	101.732	ug/l	1.87	838,037.18	2.710E+00	Pulse	0.50	3
Mn			1	105.470	ug/l	1.02	658,673.42	3.611E+00	Pulse	0.50	3
Fe			1	10384.599	ug/l	2.06	89,107,272.00	4.886E+02	Analog	0.50	3
Co			1	105.933	ug/l	0.85	1,585,723.21	8.694E+00	Analog	0.50	3
Ni			1	105.310	ug/l	1.12	404,372.10	2.217E+00	Pulse	0.50	3
Cu			1	106.453	ug/l	1.64	1,094,150.00	5.999E+00	Pulse	0.50	3
Zn			1	104.206	ug/l	1.04	207,155.62	7.682E-01	Pulse	1.00	3
Cd			1	104.400	ug/l	0.68	320,641.74	1.189E+00	Pulse	0.50	3
Al			1	10581.729	ug/l	3.27	4,625,519.50	1.496E+01	Analog	1.00	3
Se			1	101.724	ug/l	0.76	11,963.23	4.436E-02	Pulse	3.00	3
Sb			1	101.872	ug/l	1.05	907,923.17	3.367E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,341,968.50	1.23	97.5	Analog	0.50	3
1	Sc		309,290.03	0.64	101.2	Pulse	0.30	3
1	Ge		182,386.69	0.13	99.4	Pulse	0.30	3
1	In		1,968,439.37	2.76	97.3	Analog	0.30	3
1	Tb		6,007,733.33	1.02	100.1	Analog	0.50	3
1	Lu		4,922,774.33	0.89	99.2	Analog	0.50	3
1	Ge		269,664.71	0.45	99.0	Pulse	0.30	3
1	Li		3,464.78	2.04	105.3	Pulse	0.30	3

Quantitation Report

File Name 024_ICB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:38
Sample Name ICB
Sample Type ICB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.031	ug/l	37.14	637.35	3.452E-03	Pulse	0.50	3
As			1	0.039	ug/l	34.67	96.00	5.200E-04	Pulse	1.00	3
Mo			1	0.145	ug/l	31.51	1,070.71	3.889E-03	Pulse	0.50	3
Pb			1	0.053	ug/l	33.39	3,085.98	6.803E-04	Pulse	1.00	3
Be			1	0.055	ug/l	49.43	8.17	2.624E-05	Pulse	2.00	3
Ag			1	0.017	ug/l	31.80	473.34	2.307E-04	Pulse	0.50	3
Ba			1	0.028	ug/l	24.98	143.33	6.980E-05	Pulse	0.50	3
Tl			1	0.063	ug/l	2.66	3,529.73	7.777E-04	Pulse	0.50	3
Sn			1	0.083	ug/l	30.52	1,202.27	5.854E-04	Pulse	0.30	3
Sr			1	0.028	ug/l	11.97	478.01	2.328E-04	Pulse	0.50	3
Ca			1	3.273	ug/l	43.51	228.00	7.324E-04	Pulse	0.50	3
Ti			1	0.026	ug/l	27.68	16.00	5.135E-05	Pulse	0.50	3
Na			1	3.052	ug/l	39.38	23,583.99	7.572E-02	Pulse	1.00	3
Mg			1	3.152	ug/l	32.85	4,331.20	1.333E+00	Pulse	1.00	3
K			1	2.410	ug/l	56.96	50,723.72	1.628E-01	Pulse	1.00	3
V			1	0.031	ug/l	59.08	1,592.74	5.114E-03	Pulse	0.50	3
Mn			1	0.029	ug/l	38.48	387.34	2.098E-03	Pulse	0.50	3
Fe			1	3.780	ug/l	22.75	42,087.26	2.280E-01	Pulse	0.50	3
Co			1	0.033	ug/l	32.37	674.01	3.650E-03	Pulse	0.50	3
Ni			1	0.039	ug/l	38.63	320.67	1.737E-03	Pulse	0.50	3
Cu			1	-0.243	ug/l	-10.90	14,104.92	7.643E-02	Pulse	0.50	3
Zn			1	0.045	ug/l	42.89	629.68	2.285E-03	Pulse	1.00	3
Cd			1	0.030	ug/l	31.53	106.00	3.844E-04	Pulse	0.50	3
Al			1	3.049	ug/l	31.98	1,697.42	5.452E-03	Pulse	1.00	3
Se			1	0.038	ug/l	114.56	28.44	1.032E-04	Pulse	3.00	3
Sb			1	0.053	ug/l	7.31	658.35	2.389E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,538,963.50	0.50	102.0	Analog	0.50	3
1	Sc		311,536.63	0.42	101.9	Pulse	0.30	3
1	Ge		184,544.44	0.38	100.6	Pulse	0.30	3
1	In		2,053,003.60	1.08	101.5	Analog	0.30	3
1	Tb		6,078,900.67	1.58	101.3	Analog	0.50	3
1	Lu		5,015,245.83	1.38	101.1	Analog	0.50	3
1	Ge		275,501.46	0.66	101.1	Pulse	0.30	3
1	Li		3,239.19	1.99	98.5	Pulse	0.30	3

Quantitation Report

File Name 025LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:42
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.942	ug/l	0.80	9,965.43	5.344E-02	Pulse	0.50	3
As			1	0.977	ug/l	2.70	1,247.05	6.687E-03	Pulse	1.00	3
Mo			1	0.927	ug/l	3.84	5,399.52	1.935E-02	Pulse	0.50	3
Pb			1	0.952	ug/l	1.09	34,161.19	7.468E-03	Pulse	1.00	3
Be			1	0.976	ug/l	7.95	103.50	3.304E-04	Pulse	2.00	3
Ag			1	0.920	ug/l	4.13	17,718.40	8.624E-03	Pulse	0.50	3
Ba			1	0.924	ug/l	4.68	2,870.25	1.397E-03	Pulse	0.50	3
Tl			1	0.930	ug/l	1.37	46,938.19	1.026E-02	Pulse	0.50	3
Sn			1	1.288	ug/l	4.05	9,776.16	4.755E-03	Pulse	0.30	3
Sr			1	0.916	ug/l	4.39	7,773.74	3.783E-03	Pulse	0.50	3
Ca			1	97.755	ug/l	2.87	4,308.52	1.376E-02	Pulse	0.50	3
Ti			1	0.816	ug/l	9.48	232.00	7.408E-04	Pulse	0.50	3
Na			1	97.121	ug/l	0.92	214,129.99	6.836E-01	Pulse	1.00	3
Mg			1	96.466	ug/l	4.92	102,567.02	3.204E+01	Pulse	1.00	3
K			1	94.813	ug/l	0.86	129,476.57	4.133E-01	Pulse	1.00	3
V			1	0.905	ug/l	3.47	8,884.20	2.836E-02	Pulse	0.50	3
Mn			1	0.981	ug/l	2.59	6,469.18	3.469E-02	Pulse	0.50	3
Fe			1	98.711	ug/l	0.82	875,363.77	4.694E+00	Pulse	0.50	3
Co			1	0.979	ug/l	1.42	15,151.72	8.124E-02	Pulse	0.50	3
Ni			1	1.002	ug/l	2.91	4,105.82	2.201E-02	Pulse	0.50	3
Cu			1	0.687	ug/l	4.91	23,887.88	1.281E-01	Pulse	0.50	3
Zn			1	1.200	ug/l	2.29	3,008.59	1.078E-02	Pulse	1.00	3
Cd			1	0.986	ug/l	0.43	3,144.97	1.127E-02	Pulse	0.50	3
Al			1	95.154	ug/l	1.66	42,484.41	1.356E-01	Pulse	1.00	3
Se			1	0.977	ug/l	6.03	142.78	5.116E-04	Pulse	3.00	3
Sb			1	0.919	ug/l	0.77	8,649.53	3.100E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,574,605.83	0.87	102.8	Analog	0.50	3
1	Sc		313,253.74	0.38	102.5	Pulse	0.30	3
1	Ge		186,492.05	0.31	101.6	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,056,249.57	3.21	101.7	Analog	0.30	3
1	Tb		6,024,347.33	0.69	100.4	Analog	0.50	3
1	Lu		4,995,294.67	1.91	100.7	Analog	0.50	3
1	Ge		279,012.37	0.78	102.4	Pulse	0.30	3
1	Li		3,205.84	4.42	97.5	Pulse	0.30	3

Quantitation Report

File Name 026ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:45
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.396	ug/l	0.68	14,261.63	7.833E-02	Pulse	0.50	3
As			1	0.099	ug/l	33.64	166.00	9.109E-04	Pulse	1.00	3
Mo			1	2060.403	ug/l	1.91	10,419,620.33	4.075E+01	Analog	0.50	3
Pb			1	0.240	ug/l	8.23	8,081.38	2.095E-03	Pulse	1.00	3
Be			1	-0.002	ug/l	-420.56	2.33	7.573E-06	Pulse	2.00	3
Ag			1	0.019	ug/l	11.39	475.34	2.532E-04	Pulse	0.50	3
Ba			1	0.291	ug/l	7.85	864.03	4.603E-04	Pulse	0.50	3
Tl			1	0.008	ug/l	10.04	703.35	1.822E-04	Pulse	0.50	3
Sn			1	0.046	ug/l	33.31	858.92	4.575E-04	Pulse	0.30	3
Sr			1	0.693	ug/l	1.22	5,424.19	2.891E-03	Pulse	0.50	3
Ca			1	97599.416	ug/l	1.94	4,152,373.25	1.345E+01	Analog	0.50	3
Ti			1	1984.848	ug/l	2.32	535,166.96	1.734E+00	Pulse	0.50	3
Na			1	97312.864	ug/l	0.99	194,117,440.00	6.289E+02	Analog	1.00	3
Mg			1	104866.794	ug/l	3.50	97,672,610.67	3.451E+04	Analog	1.00	3
K			1	97968.584	ug/l	1.70	82,034,645.33	2.658E+02	Analog	1.00	3
V			1	0.109	ug/l	9.41	2,216.14	7.181E-03	Pulse	0.50	3
Mn			1	0.331	ug/l	6.13	2,266.82	1.245E-02	Pulse	0.50	3
Fe			1	94485.966	ug/l	3.70	809,256,106.67	4.445E+03	Analog	0.50	3
Co			1	0.663	ug/l	0.88	10,069.50	5.530E-02	Pulse	0.50	3
Ni			1	0.431	ug/l	2.66	1,818.10	9.985E-03	Pulse	0.50	3
Cu			1	-0.937	ug/l	-4.63	6,901.34	3.791E-02	Pulse	0.50	3
Zn			1	0.926	ug/l	4.28	2,242.48	8.770E-03	Pulse	1.00	3
Cd			1	0.951	ug/l	2.57	2,778.90	1.087E-02	Pulse	0.50	3
Al			1	96312.869	ug/l	2.80	42,021,726.67	1.361E+02	Analog	1.00	3
Se			1	0.103	ug/l	32.68	33.56	1.313E-04	Pulse	3.00	3
Sb			1	0.080	ug/l	4.84	834.69	3.264E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,861,527.33	1.84	86.8	Analog	0.50	3
1	Sc		308,670.61	0.81	101.0	Pulse	0.30	3
1	Ge		182,073.94	0.82	99.2	Pulse	0.30	3
1	In		1,876,255.27	1.11	92.8	Analog	0.30	3
1	Tb		5,730,614.33	0.78	95.5	Analog	0.50	3
1	Lu		4,787,396.00	1.18	96.5	Analog	0.50	3
1	Ge		255,648.84	0.74	93.8	Pulse	0.30	3
1	Li		2,832.45	4.03	86.1	Pulse	0.30	3

Quantitation Report

File Name 027ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:48
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	19.465	ug/l	2.55	201,042.72	1.070E+00	Pulse	0.50	3
As			1	19.430	ug/l	1.08	24,052.85	1.280E-01	Pulse	1.00	3
Mo			1	2067.991	ug/l	0.94	10,888,298.67	4.090E+01	Analog	0.50	3
Pb			1	0.210	ug/l	2.46	7,379.70	1.865E-03	Pulse	1.00	3
Be			1	0.002	ug/l	495.54	2.83	8.828E-06	Pulse	2.00	3
Ag			1	17.810	ug/l	2.26	315,649.74	1.656E-01	Pulse	0.50	3
Ba			1	0.332	ug/l	3.43	993.36	5.210E-04	Pulse	0.50	3
Tl			1	0.006	ug/l	21.66	632.68	1.599E-04	Pulse	0.50	3
Sn			1	0.050	ug/l	8.89	897.81	4.709E-04	Pulse	0.30	3
Sr			1	0.718	ug/l	2.11	5,698.95	2.989E-03	Pulse	0.50	3
Ca			1	98263.726	ug/l	2.44	4,345,431.00	1.354E+01	Analog	0.50	3
Ti			1	1995.116	ug/l	2.21	559,123.92	1.743E+00	Pulse	0.50	3
Na			1	97916.176	ug/l	1.31	203,015,253.33	6.328E+02	Analog	1.00	3
Mg			1	111541.065	ug/l	1.75	102,901,352.00	3.670E+04	Analog	1.00	3
K			1	98973.338	ug/l	2.03	86,137,426.67	2.685E+02	Analog	1.00	3
V			1	0.110	ug/l	9.12	2,315.49	7.216E-03	Pulse	0.50	3
Mn			1	19.178	ug/l	2.61	123,605.37	6.576E-01	Pulse	0.50	3
Fe			1	96757.733	ug/l	2.45	855,610,688.00	4.552E+03	Analog	0.50	3
Co			1	19.080	ug/l	1.93	294,514.92	1.567E+00	Pulse	0.50	3
Ni			1	18.586	ug/l	1.75	73,697.13	3.921E-01	Pulse	0.50	3
Cu			1	16.529	ug/l	2.56	189,367.05	1.007E+00	Pulse	0.50	3
Zn			1	20.987	ug/l	1.72	41,599.00	1.563E-01	Pulse	1.00	3
Cd			1	19.346	ug/l	1.58	58,661.04	2.204E-01	Pulse	0.50	3
Al			1	96301.458	ug/l	2.63	43,667,929.33	1.361E+02	Analog	1.00	3
Se			1	0.055	ug/l	22.49	29.45	1.106E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	2.71	806.02	3.028E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,957,126.58	0.78	88.9	Analog	0.50	3
1	Sc		320,842.61	0.90	104.9	Pulse	0.30	3
1	Ge		187,976.82	1.18	102.4	Pulse	0.30	3
1	In		1,906,484.44	0.38	94.3	Analog	0.30	3
1	Tb		5,842,114.83	1.26	97.3	Analog	0.50	3
1	Lu		4,860,208.17	2.26	98.0	Analog	0.50	3
1	Ge		266,178.25	0.66	97.7	Pulse	0.30	3
1	Li		2,804.67	3.65	85.3	Pulse	0.30	3

Quantitation Report

File Name	028CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:51
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.026	ug/l	1.17	512,313.31	2.581E+00	Pulse	0.50	3
As			1	47.411	ug/l	1.04	61,893.56	3.119E-01	Pulse	1.00	3
Mo			1	48.507	ug/l	1.42	284,504.24	9.604E-01	Pulse	0.50	3
Pb			1	47.588	ug/l	0.09	1,684,878.62	3.596E-01	Analog	1.00	3
Be			1	47.446	ug/l	3.20	5,213.89	1.567E-02	Pulse	2.00	3
Ag			1	48.502	ug/l	1.27	948,483.10	4.508E-01	Pulse	0.50	3
Ba			1	47.035	ug/l	0.83	146,593.97	6.967E-02	Pulse	0.50	3
Tl			1	48.792	ug/l	1.70	2,499,237.00	5.334E-01	Analog	0.50	3
Sn			1	47.058	ug/l	1.59	343,371.99	1.632E-01	Pulse	0.30	3
Sr			1	45.521	ug/l	1.24	383,345.22	1.822E-01	Pulse	0.50	3
Ca			1	4677.447	ug/l	0.91	214,616.03	6.450E-01	Pulse	0.50	3
Ti			1	47.130	ug/l	1.30	13,707.18	4.119E-02	Pulse	0.50	3
Na			1	4798.161	ug/l	1.79	10,334,977.00	3.106E+01	Analog	1.00	3
Mg			1	4875.631	ug/l	1.48	5,274,261.50	1.605E+03	Analog	1.00	3
K			1	4817.671	ug/l	0.89	4,397,942.33	1.322E+01	Analog	1.00	3
V			1	45.968	ug/l	1.59	408,193.16	1.227E+00	Pulse	0.50	3
Mn			1	47.049	ug/l	1.25	319,845.65	1.612E+00	Pulse	0.50	3
Fe			1	4831.548	ug/l	0.40	45,118,944.00	2.273E+02	Analog	0.50	3
Co			1	47.725	ug/l	0.76	777,492.15	3.918E+00	Pulse	0.50	3
Ni			1	48.731	ug/l	0.89	203,714.07	1.026E+00	Pulse	0.50	3
Cu			1	47.464	ug/l	0.60	540,751.98	2.725E+00	Pulse	0.50	3
Zn			1	47.944	ug/l	1.02	105,003.14	3.545E-01	Pulse	1.00	3
Cd			1	47.727	ug/l	1.19	161,018.01	5.436E-01	Pulse	0.50	3
Al			1	4798.737	ug/l	2.63	2,257,117.50	6.783E+00	Analog	1.00	3
Se			1	46.919	ug/l	1.52	6,074.70	2.051E-02	Pulse	3.00	3
Sb			1	45.440	ug/l	1.11	444,952.17	1.502E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,685,769.67	1.54	105.3	Analog	0.50	3
1	Sc		332,753.76	0.52	108.8	Pulse	0.30	3
1	Ge		198,469.64	0.82	108.2	Pulse	0.30	3
1	In		2,104,207.69	0.57	104.0	Analog	0.30	3
1	Tb		6,396,221.83	0.74	106.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,197,951.50	1.43	104.8	Analog	0.50	3
1	Ge		296,223.78	0.70	108.7	Pulse	0.30	3
1	Li		3,286.98	0.37	99.9	Pulse	0.30	3

Quantitation Report

File Name 029_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 11:54
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	95.433	ug/l	1.84	1,040,526.96	5.237E+00	Pulse	0.50	3
As			1	96.645	ug/l	1.26	126,265.04	6.354E-01	Pulse	1.00	3
Mo			1	96.819	ug/l	0.89	563,838.48	1.916E+00	Pulse	0.50	3
Pb			1	98.952	ug/l	3.30	3,434,253.75	7.474E-01	Analog	1.00	3
Be			1	97.286	ug/l	1.58	10,697.20	3.212E-02	Pulse	2.00	3
Ag			1	97.209	ug/l	1.81	1,929,116.50	9.034E-01	Analog	0.50	3
Ba			1	94.689	ug/l	0.57	299,435.32	1.402E-01	Pulse	0.50	3
Tl			1	98.690	ug/l	1.51	4,957,790.83	1.079E+00	Analog	0.50	3
Sn			1	94.891	ug/l	1.19	702,021.10	3.288E-01	Pulse	0.30	3
Sr			1	92.586	ug/l	0.92	790,998.29	3.704E-01	Pulse	0.50	3
Ca			1	9509.229	ug/l	1.67	436,558.71	1.311E+00	Pulse	0.50	3
Ti			1	95.851	ug/l	1.73	27,889.33	8.375E-02	Pulse	0.50	3
Na			1	9735.998	ug/l	1.13	20,969,261.33	6.297E+01	Analog	1.00	3
Mg			1	9546.168	ug/l	2.87	10,591,247.33	3.142E+03	Analog	1.00	3
K			1	9707.609	ug/l	1.43	8,816,009.33	2.647E+01	Analog	1.00	3
V			1	93.885	ug/l	1.56	832,864.15	2.501E+00	Pulse	0.50	3
Mn			1	95.752	ug/l	2.35	651,474.96	3.279E+00	Pulse	0.50	3
Fe			1	9667.052	ug/l	1.99	90,371,768.00	4.548E+02	Analog	0.50	3
Co			1	97.722	ug/l	1.32	1,593,904.37	8.021E+00	Analog	0.50	3
Ni			1	98.514	ug/l	1.64	412,126.90	2.074E+00	Pulse	0.50	3
Cu			1	97.061	ug/l	1.89	1,088,410.50	5.478E+00	Pulse	0.50	3
Zn			1	97.713	ug/l	1.35	212,003.00	7.204E-01	Pulse	1.00	3
Cd			1	96.725	ug/l	1.60	324,171.60	1.102E+00	Pulse	0.50	3
Al			1	9465.286	ug/l	1.98	4,455,274.50	1.338E+01	Analog	1.00	3
Se			1	96.725	ug/l	1.61	12,414.77	4.219E-02	Pulse	3.00	3
Sb			1	93.461	ug/l	1.25	908,963.39	3.089E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,596,011.17	1.09	103.3	Analog	0.50	3
1	Sc		333,017.94	0.39	108.9	Pulse	0.30	3
1	Ge		198,720.18	0.90	108.3	Pulse	0.30	3
1	In		2,135,359.99	0.45	105.6	Analog	0.30	3
1	Tb		6,404,349.33	0.27	106.7	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,214,066.00	0.92	105.1	Analog	0.50	3
1	Ge		294,282.02	0.47	108.0	Pulse	0.30	3
1	Li		3,373.65	3.52	102.6	Pulse	0.30	3

Quantitation Report

File Name	030_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 11:58
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.028	ug/l	54.04	664.01	3.309E-03	Pulse	0.50	3
As			1	0.030	ug/l	33.06	92.67	4.619E-04	Pulse	1.00	3
Mo			1	0.317	ug/l	38.45	2,180.16	7.290E-03	Pulse	0.50	3
Pb			1	0.021	ug/l	68.71	2,142.48	4.419E-04	Pulse	1.00	3
Be			1	0.038	ug/l	20.59	7.00	2.084E-05	Pulse	2.00	3
Ag			1	0.022	ug/l	30.08	630.68	2.844E-04	Pulse	0.50	3
Ba			1	0.029	ug/l	38.92	159.33	7.185E-05	Pulse	0.50	3
Tl			1	0.017	ug/l	62.92	1,332.74	2.750E-04	Pulse	0.50	3
Sn			1	0.106	ug/l	29.39	1,482.30	6.660E-04	Pulse	0.30	3
Sr			1	0.030	ug/l	32.74	527.34	2.377E-04	Pulse	0.50	3
Ca			1	4.512	ug/l	22.53	303.33	9.031E-04	Pulse	0.50	3
Ti			1	0.056	ug/l	43.82	26.00	7.740E-05	Pulse	0.50	3
Na			1	7.550	ug/l	19.33	35,198.98	1.048E-01	Pulse	1.00	3
Mg			1	3.987	ug/l	36.77	5,403.82	1.608E+00	Pulse	1.00	3
K			1	3.237	ug/l	50.81	55,453.96	1.651E-01	Pulse	1.00	3
V			1	0.033	ug/l	33.36	1,735.42	5.166E-03	Pulse	0.50	3
Mn			1	0.162	ug/l	2.68	1,333.39	6.647E-03	Pulse	0.50	3
Fe			1	4.992	ug/l	16.91	57,183.91	2.850E-01	Pulse	0.50	3
Co			1	0.020	ug/l	44.18	524.01	2.611E-03	Pulse	0.50	3
Ni			1	0.009	ug/l	141.48	222.67	1.109E-03	Pulse	0.50	3
Cu			1	-0.893	ug/l	-0.55	8,091.85	4.034E-02	Pulse	0.50	3
Zn			1	0.164	ug/l	26.23	946.03	3.163E-03	Pulse	1.00	3
Cd			1	0.022	ug/l	47.91	86.67	2.898E-04	Pulse	0.50	3
Al			1	4.357	ug/l	23.03	2,451.84	7.301E-03	Pulse	1.00	3
Se			1	0.034	ug/l	82.04	30.33	1.014E-04	Pulse	3.00	3
Sb			1	0.038	ug/l	8.88	567.34	1.897E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,852,565.17	1.24	109.0	Analog	0.50	3
1	Sc		335,957.82	0.29	109.9	Pulse	0.30	3
1	Ge		200,604.40	0.29	109.3	Pulse	0.30	3
1	In		2,222,319.91	1.77	109.9	Analog	0.30	3
1	Tb		6,459,381.33	0.88	107.6	Analog	0.50	3
1	Lu		5,331,027.83	1.14	107.5	Analog	0.50	3
1	Ge		299,075.76	0.02	109.8	Pulse	0.30	3
1	Li		3,407.00	8.53	103.6	Pulse	0.30	3

Quantitation Report

File Name 031LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:01
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.697	ug/l	0.71	52,832.53	2.594E-01	Pulse	0.50	3
As			1	4.794	ug/l	0.25	6,470.18	3.177E-02	Pulse	1.00	3
Mo			1	4.790	ug/l	2.37	29,066.10	9.576E-02	Pulse	0.50	3
Pb			1	4.688	ug/l	2.37	173,937.33	3.568E-02	Pulse	1.00	3
Be			1	4.737	ug/l	7.73	533.68	1.572E-03	Pulse	2.00	3
Ag			1	4.784	ug/l	2.32	97,870.66	4.453E-02	Pulse	0.50	3
Ba			1	4.564	ug/l	2.23	14,916.60	6.786E-03	Pulse	0.50	3
Tl			1	4.630	ug/l	1.92	247,186.96	5.071E-02	Pulse	0.50	3
Sn			1	4.591	ug/l	1.76	35,584.67	1.619E-02	Pulse	0.30	3
Sr			1	4.506	ug/l	3.82	39,868.99	1.814E-02	Pulse	0.50	3
Ca			1	572.723	ug/l	1.16	26,891.77	7.922E-02	Pulse	0.50	3
Ti			1	4.950	ug/l	1.05	1,477.40	4.352E-03	Pulse	0.50	3
Na			1	479.966	ug/l	0.69	1,071,798.42	3.157E+00	Pulse	1.00	3
Mg			1	493.247	ug/l	3.62	542,885.67	1.626E+02	Pulse	1.00	3
K			1	471.218	ug/l	0.13	486,696.05	1.434E+00	Pulse	1.00	3
V			1	4.594	ug/l	0.82	42,924.50	1.265E-01	Pulse	0.50	3
Mn			1	4.673	ug/l	0.53	32,804.32	1.611E-01	Pulse	0.50	3
Fe			1	489.979	ug/l	0.76	4,704,260.33	2.310E+01	Analog	0.50	3
Co			1	4.849	ug/l	0.50	81,235.05	3.989E-01	Pulse	0.50	3
Ni			1	4.948	ug/l	0.79	21,395.36	1.051E-01	Pulse	0.50	3
Cu			1	4.139	ug/l	0.96	65,103.22	3.197E-01	Pulse	0.50	3
Zn			1	5.092	ug/l	2.72	11,958.99	3.940E-02	Pulse	1.00	3
Cd			1	4.751	ug/l	1.90	16,435.18	5.415E-02	Pulse	0.50	3
Al			1	457.838	ug/l	1.31	220,042.68	6.482E-01	Pulse	1.00	3
Se			1	4.713	ug/l	2.40	648.90	2.138E-03	Pulse	3.00	3
Sb			1	4.530	ug/l	1.59	45,625.34	1.503E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,875,353.33	0.66	109.5	Analog	0.50	3
1	Sc		339,449.16	0.17	111.0	Pulse	0.30	3
1	Ge		203,653.23	0.64	111.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,198,422.97	1.15	108.7	Analog	0.30	3
1	Tb		6,524,009.83	0.76	108.7	Analog	0.50	3
1	Lu		5,284,349.00	0.45	106.5	Analog	0.50	3
1	Ge		303,528.18	0.12	111.4	Pulse	0.30	3
1	Li		3,341.43	3.49	101.6	Pulse	0.30	3

Quantitation Report

File Name 032_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:04
Sample Name MP43074-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.157	ug/l	11.90	1,204.71	6.056E-03	Pulse	0.50	3
As			1	0.181	ug/l	18.06	170.33	8.578E-04	Pulse	1.00	3
Mo			1	0.440	ug/l	26.89	1,577.41	5.365E-03	Pulse	0.50	3
Pb			1	0.027	ug/l	27.88	1,932.12	3.852E-04	Pulse	1.00	3
Be			1	0.040	ug/l	126.81	5.00	1.474E-05	Pulse	2.00	3
Ag			1	0.032	ug/l	17.16	487.34	2.222E-04	Pulse	0.50	3
Ba			1	0.028	ug/l	19.95	109.33	4.995E-05	Pulse	0.50	3
Tl			1	0.005	ug/l	95.24	603.35	1.199E-04	Pulse	0.50	3
Sn			1	0.317	ug/l	22.44	1,846.78	8.457E-04	Pulse	0.30	3
Sr			1	0.111	ug/l	11.62	746.69	3.413E-04	Pulse	0.50	3
Ca			1	65.937	ug/l	2.32	1,614.08	4.825E-03	Pulse	0.50	3
Ti			1	0.343	ug/l	25.11	59.33	1.779E-04	Pulse	0.50	3
Na			1	16.742	ug/l	6.41	36,849.88	1.101E-01	Pulse	1.00	3
Mg			1	11.783	ug/l	24.16	7,454.55	2.234E+00	Pulse	1.00	3
K			1	8.672	ug/l	30.44	56,210.57	1.680E-01	Pulse	1.00	3
V			1	1.164	ug/l	8.30	6,605.89	1.977E-02	Pulse	0.50	3
Mn			1	0.086	ug/l	11.14	514.68	2.585E-03	Pulse	0.50	3
Fe			1	16.724	ug/l	12.04	88,152.35	4.435E-01	Pulse	0.50	3
Co			1	0.010	ug/l	20.06	264.00	1.326E-03	Pulse	0.50	3
Ni			1	0.023	ug/l	18.62	230.00	1.156E-03	Pulse	0.50	3
Cu			1	4.493	ug/l	22.41	42,553.91	2.146E-01	Pulse	0.50	3
Zn			1	0.562	ug/l	4.56	1,188.37	4.025E-03	Pulse	1.00	3
Cd			1	0.010	ug/l	25.23	30.00	1.012E-04	Pulse	0.50	3
Al			1	14.371	ug/l	23.43	3,800.71	1.130E-02	Pulse	1.00	3
Se			1	0.040	ug/l	205.12	28.00	9.510E-05	Pulse	3.00	3
Sb			1	0.015	ug/l	48.51	258.67	8.783E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,014,161.33	3.25	112.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		334,697.48	4.44	109.5	Pulse	0.30	3
1	Ge		198,819.22	3.25	108.3	Pulse	0.30	3
1	In		2,190,641.23	3.29	108.3	Analog	0.30	3
1	Tb		6,618,602.17	2.62	110.3	Analog	0.50	3
1	Lu		5,245,959.67	4.90	105.8	Analog	0.50	3
1	Ge		295,423.30	3.32	108.4	Pulse	0.30	3
1	Li		3,360.32	8.73	102.2	Pulse	0.30	3

Quantitation Report

File Name 033_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:08
Sample Name MP43074-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	194.744	ug/l	4.58	1,046,870.81	5.343E+00	Pulse	0.50	3
As			1	194.368	ug/l	4.38	125,201.58	6.390E-01	Pulse	1.00	3
Mo			1	212.948	ug/l	4.76	609,629.42	2.107E+00	Pulse	0.50	3
Pb			1	194.126	ug/l	3.63	3,438,541.42	7.331E-01	Analog	1.00	3
Be			1	195.524	ug/l	5.21	10,699.87	3.228E-02	Pulse	2.00	3
Ag			1	97.439	ug/l	5.45	967,180.87	4.528E-01	Pulse	0.50	3
Ba			1	187.085	ug/l	5.91	295,860.71	1.385E-01	Pulse	0.50	3
Tl			1	187.826	ug/l	4.50	4,814,426.00	1.027E+00	Analog	0.50	3
Sn			1	180.358	ug/l	5.90	667,318.76	3.125E-01	Pulse	0.30	3
Sr			1	184.557	ug/l	5.79	788,552.32	3.692E-01	Pulse	0.50	3
Ca			1	18593.730	ug/l	5.38	424,821.60	1.282E+00	Pulse	0.50	3
Ti			1	191.135	ug/l	6.82	27,668.98	8.350E-02	Pulse	0.50	3
Na			1	18898.966	ug/l	5.59	20,257,491.33	6.112E+01	Analog	1.00	3
Mg			1	19835.180	ug/l	7.04	10,419,574.67	3.264E+03	Analog	1.00	3
K			1	18908.488	ug/l	4.51	8,549,494.33	2.579E+01	Analog	1.00	3
V			1	188.525	ug/l	5.95	832,162.94	2.511E+00	Pulse	0.50	3
Mn			1	193.644	ug/l	4.07	649,661.13	3.315E+00	Pulse	0.50	3
Fe			1	19182.527	ug/l	2.98	88,442,760.00	4.512E+02	Analog	0.50	3
Co			1	204.620	ug/l	5.22	1,645,038.54	8.397E+00	Analog	0.50	3
Ni			1	197.764	ug/l	4.78	407,883.24	2.082E+00	Pulse	0.50	3
Cu			1	201.687	ug/l	4.69	1,114,391.87	5.688E+00	Pulse	0.50	3
Zn			1	187.378	ug/l	5.08	199,872.49	6.908E-01	Pulse	1.00	3
Cd			1	192.662	ug/l	4.49	317,455.52	1.097E+00	Pulse	0.50	3
Al			1	18017.855	ug/l	7.15	4,218,371.75	1.273E+01	Analog	1.00	3
Se			1	174.579	ug/l	3.37	11,021.41	3.808E-02	Pulse	3.00	3
Sb			1	190.019	ug/l	4.61	908,549.88	3.140E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,694,354.00	3.55	105.5	Analog	0.50	3
1	Sc		331,998.31	4.61	108.6	Pulse	0.30	3
1	Ge		196,118.56	3.12	106.9	Pulse	0.30	3
1	In		2,139,507.41	4.48	105.8	Analog	0.30	3
1	Tb		6,518,145.33	3.90	108.6	Analog	0.50	3
1	Lu		5,320,501.00	4.24	107.3	Analog	0.50	3
1	Ge		289,631.91	3.22	106.3	Pulse	0.30	3
1	Li		3,201.40	5.90	97.3	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:11
Sample Name FC10889-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.425	ug/l	6.03	2,578.86	1.342E-02	Pulse	0.50	3
As			1	1645.846	ug/l	4.34	1,039,184.63	5.409E+00	Pulse	1.00	3
Mo			1	1.322	ug/l	8.87	3,959.80	1.409E-02	Pulse	0.50	3
Pb			1	0.598	ug/l	1.95	11,603.54	2.542E-03	Pulse	1.00	3
Be			1	0.104	ug/l	17.20	8.17	2.535E-05	Pulse	2.00	3
Ag			1	0.029	ug/l	48.11	434.67	2.094E-04	Pulse	0.50	3
Ba			1	48.714	ug/l	4.21	74,405.19	3.609E-02	Pulse	0.50	3
Tl			1	0.103	ug/l	8.80	3,004.30	6.567E-04	Pulse	0.50	3
Sn			1	0.261	ug/l	19.56	1,550.08	7.499E-04	Pulse	0.30	3
Sr			1	380.318	ug/l	7.90	1,567,202.00	7.607E-01	Analog	0.50	3
Ca			1	47365.788	ug/l	5.33	1,049,437.60	3.265E+00	Pulse	0.50	3
Ti			1	0.334	ug/l	9.50	56.00	1.742E-04	Pulse	0.50	3
Na			1	15434.858	ug/l	4.57	16,051,869.67	4.992E+01	Analog	1.00	3
Mg			1	7394.899	ug/l	2.71	3,813,495.50	1.217E+03	Analog	1.00	3
K			1	7771.882	ug/l	3.64	3,438,349.83	1.069E+01	Analog	1.00	3
V			1	1.198	ug/l	4.10	6,505.19	2.022E-02	Pulse	0.50	3
Mn			1	2052.621	ug/l	5.63	6,748,351.00	3.513E+01	Analog	0.50	3
Fe			1	69773.795	ug/l	5.08	315,288,576.00	1.641E+03	Analog	0.50	3
Co			1	18.070	ug/l	4.24	142,639.66	7.424E-01	Pulse	0.50	3
Ni			1	8.178	ug/l	4.47	16,709.10	8.697E-02	Pulse	0.50	3
Cu			1	7.355	ug/l	12.45	56,456.49	2.941E-01	Pulse	0.50	3
Zn			1	2.920	ug/l	4.02	3,570.69	1.269E-02	Pulse	1.00	3
Cd			1	0.144	ug/l	12.92	244.00	8.652E-04	Pulse	0.50	3
Al			1	13.741	ug/l	16.90	3,506.35	1.085E-02	Pulse	1.00	3
Se			1	0.090	ug/l	84.51	29.89	1.060E-04	Pulse	3.00	3
Sb			1	0.135	ug/l	11.30	806.36	2.861E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,565,656.67	4.69	102.6	Analog	0.50	3
1	Sc		321,881.84	3.67	105.3	Pulse	0.30	3
1	Ge		192,296.44	2.95	104.8	Pulse	0.30	3
1	In		2,063,282.70	2.99	102.0	Analog	0.30	3
1	Tb		6,365,409.00	2.53	106.0	Analog	0.50	3
1	Lu		5,109,338.50	4.09	103.0	Analog	0.50	3
1	Ge		281,461.07	2.69	103.3	Pulse	0.30	3
1	Li		3,134.72	2.01	95.3	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:14
Sample Name MP43074-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.388	ug/l	3.17	2,401.52	1.240E-02	Pulse	0.50	3
As			1	1651.993	ug/l	4.07	1,050,099.44	5.429E+00	Pulse	1.00	3
Mo			1	1.182	ug/l	7.55	3,597.72	1.271E-02	Pulse	0.50	3
Pb			1	0.483	ug/l	4.01	9,573.53	2.106E-03	Pulse	1.00	3
Be			1	0.007	ug/l	261.52	3.00	9.306E-06	Pulse	2.00	3
Ag			1	0.006	ug/l	42.93	210.67	1.035E-04	Pulse	0.50	3
Ba			1	49.983	ug/l	4.75	75,434.98	3.703E-02	Pulse	0.50	3
Tl			1	0.011	ug/l	17.67	690.02	1.517E-04	Pulse	0.50	3
Sn			1	0.113	ug/l	21.94	1,003.37	4.930E-04	Pulse	0.30	3
Sr			1	384.660	ug/l	5.43	1,567,081.62	7.694E-01	Analog	0.50	3
Ca			1	47765.730	ug/l	5.12	1,066,193.71	3.292E+00	Pulse	0.50	3
Ti			1	0.226	ug/l	23.90	41.33	1.273E-04	Pulse	0.50	3
Na			1	15326.143	ug/l	4.79	16,056,245.00	4.957E+01	Analog	1.00	3
Mg			1	7904.342	ug/l	8.26	3,873,036.08	1.301E+03	Analog	1.00	3
K			1	8024.390	ug/l	5.76	3,572,837.92	1.103E+01	Analog	1.00	3
V			1	1.148	ug/l	5.63	6,331.79	1.955E-02	Pulse	0.50	3
Mn			1	2073.240	ug/l	3.50	6,864,607.33	3.549E+01	Analog	0.50	3
Fe			1	70346.636	ug/l	4.90	320,013,226.67	1.655E+03	Analog	0.50	3
Co			1	18.097	ug/l	4.55	143,802.53	7.435E-01	Pulse	0.50	3
Ni			1	8.255	ug/l	5.03	16,975.35	8.778E-02	Pulse	0.50	3
Cu			1	7.668	ug/l	9.13	58,534.93	3.028E-01	Pulse	0.50	3
Zn			1	3.018	ug/l	4.31	3,697.05	1.305E-02	Pulse	1.00	3
Cd			1	0.086	ug/l	14.40	150.67	5.312E-04	Pulse	0.50	3
Al			1	7.931	ug/l	2.52	2,186.80	6.747E-03	Pulse	1.00	3
Se			1	-0.045	ug/l	-65.99	21.78	7.677E-05	Pulse	3.00	3
Sb			1	0.066	ug/l	24.86	487.01	1.722E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,549,074.33	2.06	102.2	Analog	0.50	3
1	Sc		324,282.06	3.82	106.1	Pulse	0.30	3
1	Ge		193,580.39	2.90	105.5	Pulse	0.30	3
1	In		2,039,288.04	3.58	100.8	Analog	0.30	3
1	Tb		6,321,311.50	3.34	105.3	Analog	0.50	3
1	Lu		5,188,408.17	5.02	104.6	Analog	0.50	3
1	Ge		283,414.78	2.57	104.0	Pulse	0.30	3
1	Li		2,988.04	7.39	90.8	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:17
Sample Name MP43074-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.273	ug/l	12.22	635.35	3.252E-03	Pulse	0.50	3
As			1	1723.938	ug/l	1.63	221,406.34	1.133E+00	Pulse	1.00	3
Mo			1	0.913	ug/l	18.74	816.36	2.821E-03	Pulse	0.50	3
Pb			1	0.426	ug/l	2.87	2,851.92	6.044E-04	Pulse	1.00	3
Be			1	0.078	ug/l	319.41	3.50	1.074E-05	Pulse	2.00	3
Ag			1	-0.017	ug/l	-70.46	127.33	5.942E-05	Pulse	0.50	3
Ba			1	49.304	ug/l	1.42	15,675.28	7.329E-03	Pulse	0.50	3
Tl			1	-0.036	ug/l	-8.76	249.33	5.284E-05	Pulse	0.50	3
Sn			1	-0.413	ug/l	-22.84	330.01	1.546E-04	Pulse	0.30	3
Sr			1	368.984	ug/l	2.45	315,865.66	1.477E-01	Pulse	0.50	3
Ca			1	48744.567	ug/l	1.83	219,876.03	6.721E-01	Pulse	0.50	3
Ti			1	0.190	ug/l	150.71	14.67	4.496E-05	Pulse	0.50	3
Na			1	15771.959	ug/l	2.13	3,352,203.25	1.025E+01	Analog	1.00	3
Mg			1	7325.417	ug/l	1.26	791,086.25	2.413E+02	Pulse	1.00	3
K			1	7900.298	ug/l	0.92	751,798.44	2.298E+00	Pulse	1.00	3
V			1	0.744	ug/l	9.94	2,049.46	6.264E-03	Pulse	0.50	3
Mn			1	2082.222	ug/l	1.22	1,392,779.95	7.129E+00	Mix	0.50	3
Fe			1	72203.940	ug/l	1.34	66,370,990.67	3.397E+02	Analog	0.50	3
Co			1	18.517	ug/l	3.51	29,871.36	1.529E-01	Pulse	0.50	3
Ni			1	8.245	ug/l	2.85	3,570.36	1.827E-02	Pulse	0.50	3
Cu			1	4.215	ug/l	9.26	22,140.98	1.133E-01	Pulse	0.50	3
Zn			1	3.554	ug/l	7.28	1,323.05	4.571E-03	Pulse	1.00	3
Cd			1	0.079	ug/l	33.93	38.67	1.335E-04	Pulse	0.50	3
Al			1	11.273	ug/l	2.66	895.02	2.736E-03	Pulse	1.00	3
Se			1	-0.161	ug/l	-220.41	23.00	7.950E-05	Pulse	3.00	3
Sb			1	-0.008	ug/l	-394.19	173.33	5.990E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,718,812.33	0.36	106.0	Analog	0.50	3
1	Sc		327,154.51	0.77	107.0	Pulse	0.30	3
1	Ge		195,386.59	0.85	106.5	Pulse	0.30	3
1	In		2,139,071.37	1.63	105.8	Analog	0.30	3
1	Tb		6,411,552.00	1.25	106.8	Analog	0.50	3
1	Lu		5,205,592.50	0.27	104.9	Analog	0.50	3
1	Ge		289,474.55	0.58	106.3	Pulse	0.30	3
1	Li		3,278.08	1.12	99.7	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:21
Sample Name MP43074-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	187.347	ug/l	5.55	1,002,802.46	5.140E+00	Pulse	0.50	3
As			1	1797.586	ug/l	4.98	1,152,652.17	5.907E+00	Pulse	1.00	3
Mo			1	209.352	ug/l	5.12	587,170.92	2.071E+00	Pulse	0.50	3
Pb			1	196.187	ug/l	4.34	3,275,623.75	7.409E-01	Analog	1.00	3
Be			1	189.298	ug/l	6.64	10,203.43	3.125E-02	Pulse	2.00	3
Ag			1	95.989	ug/l	5.83	908,514.62	4.461E-01	Pulse	0.50	3
Ba			1	235.793	ug/l	6.24	355,550.55	1.746E-01	Pulse	0.50	3
Tl			1	188.936	ug/l	4.25	4,565,786.33	1.033E+00	Analog	0.50	3
Sn			1	182.514	ug/l	6.46	643,866.87	3.162E-01	Pulse	0.30	3
Sr			1	570.210	ug/l	4.61	2,323,794.67	1.140E+00	Analog	0.50	3
Ca			1	68371.933	ug/l	5.38	1,539,165.29	4.712E+00	Analog	0.50	3
Ti			1	188.202	ug/l	7.05	26,839.06	8.222E-02	Pulse	0.50	3
Na			1	33469.829	ug/l	5.89	35,331,397.33	1.082E+02	Analog	1.00	3
Mg			1	27724.306	ug/l	8.62	13,637,910.33	4.562E+03	Analog	1.00	3
K			1	25895.832	ug/l	4.28	11,519,858.33	3.526E+01	Analog	1.00	3
V			1	183.919	ug/l	6.24	799,904.60	2.450E+00	Pulse	0.50	3
Mn			1	2200.761	ug/l	5.26	7,349,401.67	3.767E+01	Analog	0.50	3
Fe			1	86673.707	ug/l	5.43	397,762,410.67	2.039E+03	Analog	0.50	3
Co			1	213.503	ug/l	5.67	1,709,246.25	8.762E+00	Analog	0.50	3
Ni			1	194.202	ug/l	5.30	398,867.86	2.044E+00	Pulse	0.50	3
Cu			1	194.211	ug/l	5.25	1,069,257.13	5.480E+00	Pulse	0.50	3
Zn			1	182.874	ug/l	5.37	191,120.15	6.743E-01	Pulse	1.00	3
Cd			1	185.663	ug/l	5.22	299,686.06	1.057E+00	Pulse	0.50	3
Al			1	17668.650	ug/l	5.85	4,077,838.17	1.249E+01	Analog	1.00	3
Se			1	169.694	ug/l	4.28	10,495.53	3.702E-02	Pulse	3.00	3
Sb			1	185.988	ug/l	5.04	871,209.06	3.073E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,426,660.33	4.29	99.4	Analog	0.50	3
1	Sc		327,189.92	5.00	107.0	Pulse	0.30	3
1	Ge		195,391.53	4.14	106.5	Pulse	0.30	3
1	In		2,040,720.40	4.97	100.9	Analog	0.30	3
1	Tb		6,358,837.33	5.59	105.9	Analog	0.50	3
1	Lu		5,204,900.83	5.29	104.9	Analog	0.50	3
1	Ge		283,846.29	3.99	104.2	Pulse	0.30	3
1	Li		3,001.37	6.88	91.2	Pulse	0.30	3

Quantitation Report

File Name 038SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:24
Sample Name MP43074-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	190.646	ug/l	5.50	1,000,916.90	5.231E+00	Pulse	0.50	3
As			1	1813.862	ug/l	4.74	1,140,871.08	5.961E+00	Pulse	1.00	3
Mo			1	213.164	ug/l	4.50	588,417.29	2.109E+00	Pulse	0.50	3
Pb			1	196.822	ug/l	4.72	3,317,814.58	7.433E-01	Analog	1.00	3
Be			1	192.216	ug/l	6.52	10,207.43	3.173E-02	Pulse	2.00	3
Ag			1	97.134	ug/l	5.46	912,730.00	4.514E-01	Pulse	0.50	3
Ba			1	240.099	ug/l	5.68	359,455.66	1.778E-01	Pulse	0.50	3
Tl			1	187.970	ug/l	5.43	4,585,086.33	1.027E+00	Analog	0.50	3
Sn			1	184.568	ug/l	6.36	646,377.49	3.197E-01	Pulse	0.30	3
Sr			1	578.804	ug/l	6.33	2,340,299.17	1.158E+00	Analog	0.50	3
Ca			1	68014.351	ug/l	5.83	1,508,163.63	4.688E+00	Analog	0.50	3
Ti			1	189.906	ug/l	5.16	26,698.89	8.297E-02	Pulse	0.50	3
Na			1	33661.823	ug/l	6.59	34,999,504.00	1.088E+02	Analog	1.00	3
Mg			1	28034.463	ug/l	8.70	13,488,188.00	4.613E+03	Analog	1.00	3
K			1	26290.323	ug/l	6.53	11,513,040.00	3.579E+01	Analog	1.00	3
V			1	186.442	ug/l	6.35	798,841.17	2.483E+00	Pulse	0.50	3
Mn			1	2218.492	ug/l	4.46	7,268,330.00	3.797E+01	Analog	0.50	3
Fe			1	87328.684	ug/l	5.57	393,065,120.00	2.054E+03	Analog	0.50	3
Co			1	218.016	ug/l	5.33	1,712,185.38	8.947E+00	Analog	0.50	3
Ni			1	197.733	ug/l	5.09	398,356.94	2.082E+00	Pulse	0.50	3
Cu			1	197.558	ug/l	5.34	1,066,521.14	5.573E+00	Pulse	0.50	3
Zn			1	185.685	ug/l	4.78	190,986.32	6.846E-01	Pulse	1.00	3
Cd			1	190.832	ug/l	4.59	303,168.43	1.087E+00	Pulse	0.50	3
Al			1	18191.008	ug/l	6.80	4,135,051.83	1.286E+01	Analog	1.00	3
Se			1	172.451	ug/l	4.22	10,495.31	3.762E-02	Pulse	3.00	3
Sb			1	190.271	ug/l	4.95	877,084.34	3.144E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,469,183.50	3.96	100.4	Analog	0.50	3
1	Sc		322,367.40	5.11	105.4	Pulse	0.30	3
1	Ge		191,629.35	3.87	104.4	Pulse	0.30	3
1	In		2,025,255.33	4.29	100.1	Analog	0.30	3
1	Tb		6,256,650.50	5.08	104.2	Analog	0.50	3
1	Lu		5,176,941.17	3.65	104.4	Analog	0.50	3
1	Ge		279,285.02	3.59	102.5	Pulse	0.30	3
1	Li		2,938.02	8.18	89.3	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:27
Sample Name MP43074-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	19.597	ug/l	4.68	101,983.77	5.392E-01	Pulse	0.50	3
As			1	1679.357	ug/l	4.07	1,043,886.56	5.519E+00	Pulse	1.00	3
Mo			1	21.117	ug/l	3.09	58,172.75	2.099E-01	Pulse	0.50	3
Pb			1	20.043	ug/l	5.44	341,535.86	7.594E-02	Pulse	1.00	3
Be			1	19.434	ug/l	5.77	1,020.36	3.216E-03	Pulse	2.00	3
Ag			1	5.604	ug/l	5.88	52,842.83	2.611E-02	Pulse	0.50	3
Ba			1	68.700	ug/l	5.80	102,976.70	5.089E-02	Pulse	0.50	3
Tl			1	18.791	ug/l	5.89	462,206.79	1.028E-01	Pulse	0.50	3
Sn			1	17.881	ug/l	7.78	63,189.27	3.125E-02	Pulse	0.30	3
Sr			1	403.334	ug/l	6.86	1,632,135.71	8.067E-01	Analog	0.50	3
Ca			1	49899.349	ug/l	5.26	1,091,327.08	3.439E+00	Pulse	0.50	3
Ti			1	20.009	ug/l	4.06	2,782.89	8.767E-03	Pulse	0.50	3
Na			1	17297.478	ug/l	5.01	17,753,378.00	5.594E+01	Analog	1.00	3
Mg			1	9212.125	ug/l	4.81	4,783,238.33	1.516E+03	Analog	1.00	3
K			1	9937.499	ug/l	4.96	4,324,627.83	1.363E+01	Analog	1.00	3
V			1	20.147	ug/l	6.03	86,356.63	2.722E-01	Pulse	0.50	3
Mn			1	2082.674	ug/l	3.85	6,742,916.67	3.565E+01	Analog	0.50	3
Fe			1	72803.950	ug/l	4.84	323,861,877.33	1.712E+03	Analog	0.50	3
Co			1	37.824	ug/l	4.91	293,690.64	1.553E+00	Pulse	0.50	3
Ni			1	28.105	ug/l	4.38	56,106.91	2.966E-01	Pulse	0.50	3
Cu			1	25.935	ug/l	6.06	153,119.90	8.097E-01	Pulse	0.50	3
Zn			1	23.256	ug/l	3.90	24,241.66	8.746E-02	Pulse	1.00	3
Cd			1	19.349	ug/l	3.57	30,552.28	1.102E-01	Pulse	0.50	3
Al			1	1808.226	ug/l	5.19	405,855.81	1.279E+00	Pulse	1.00	3
Se			1	17.830	ug/l	3.87	1,099.59	3.967E-03	Pulse	3.00	3
Sb			1	17.824	ug/l	4.21	81,789.90	2.951E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,504,405.33	4.46	101.2	Analog	0.50	3
1	Sc		317,790.03	4.20	103.9	Pulse	0.30	3
1	Ge		189,316.47	3.23	103.2	Pulse	0.30	3
1	In		2,027,487.28	4.97	100.2	Analog	0.30	3
1	Tb		6,322,562.83	3.39	105.3	Analog	0.50	3
1	Lu		5,055,677.67	5.27	101.9	Analog	0.50	3
1	Ge		277,345.34	2.46	101.8	Pulse	0.30	3
1	Li		3,158.07	2.74	96.0	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:30
Sample Name FC10889-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.398	ug/l	1.20	2,354.16	1.267E-02	Pulse	0.50	3
As			1	409.765	ug/l	3.78	249,970.81	1.347E+00	Pulse	1.00	3
Mo			1	1.792	ug/l	3.82	5,149.44	1.874E-02	Pulse	0.50	3
Pb			1	0.237	ug/l	0.56	5,330.90	1.176E-03	Pulse	1.00	3
Be			1	0.038	ug/l	122.59	4.50	1.449E-05	Pulse	2.00	3
Ag			1	0.006	ug/l	30.06	211.33	1.043E-04	Pulse	0.50	3
Ba			1	63.866	ug/l	5.89	95,598.55	4.731E-02	Pulse	0.50	3
Tl			1	0.043	ug/l	17.81	1,478.07	3.272E-04	Pulse	0.50	3
Sn			1	0.244	ug/l	14.94	1,454.51	7.197E-04	Pulse	0.30	3
Sr			1	307.384	ug/l	6.06	1,242,338.00	6.148E-01	Pulse	0.50	3
Ca			1	37678.506	ug/l	5.84	815,376.81	2.597E+00	Pulse	0.50	3
Ti			1	0.286	ug/l	18.54	48.00	1.533E-04	Pulse	0.50	3
Na			1	16364.359	ug/l	4.58	16,624,282.67	5.293E+01	Analog	1.00	3
Mg			1	6243.378	ug/l	5.75	3,301,698.83	1.028E+03	Analog	1.00	3
K			1	9452.332	ug/l	4.85	4,073,245.67	1.297E+01	Analog	1.00	3
V			1	0.943	ug/l	5.07	5,288.12	1.683E-02	Pulse	0.50	3
Mn			1	1918.962	ug/l	3.22	6,096,745.83	3.284E+01	Analog	0.50	3
Fe			1	46071.713	ug/l	4.10	201,129,034.67	1.084E+03	Analog	0.50	3
Co			1	8.738	ug/l	4.19	66,716.02	3.595E-01	Pulse	0.50	3
Ni			1	2.195	ug/l	6.75	4,456.57	2.402E-02	Pulse	0.50	3
Cu			1	6.263	ug/l	6.16	48,949.76	2.637E-01	Pulse	0.50	3
Zn			1	9.715	ug/l	5.32	10,351.33	3.767E-02	Pulse	1.00	3
Cd			1	0.010	ug/l	70.67	27.33	1.002E-04	Pulse	0.50	3
Al			1	8.352	ug/l	2.26	2,215.14	7.045E-03	Pulse	1.00	3
Se			1	-0.021	ug/l	-239.81	22.56	8.186E-05	Pulse	3.00	3
Sb			1	0.074	ug/l	2.04	508.01	1.847E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,531,408.17	3.70	101.8	Analog	0.50	3
1	Sc		314,534.87	4.60	102.9	Pulse	0.30	3
1	Ge		185,723.17	2.56	101.2	Pulse	0.30	3
1	In		2,024,630.13	4.95	100.1	Analog	0.30	3
1	Tb		6,250,840.50	4.40	104.1	Analog	0.50	3
1	Lu		5,061,146.33	4.17	102.0	Analog	0.50	3
1	Ge		274,986.71	2.90	100.9	Pulse	0.30	3
1	Li		3,219.19	4.97	97.9	Pulse	0.30	3

Quantitation Report

File Name	041CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 12:36
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.090	ug/l	0.21	514,934.93	2.585E+00	Pulse	0.50	3
As			1	47.390	ug/l	0.70	62,099.23	3.117E-01	Pulse	1.00	3
Mo			1	46.443	ug/l	0.98	272,855.37	9.196E-01	Pulse	0.50	3
Pb			1	48.249	ug/l	1.41	1,735,128.87	3.646E-01	Analog	1.00	3
Be			1	47.937	ug/l	0.60	5,320.08	1.583E-02	Pulse	2.00	3
Ag			1	46.177	ug/l	1.73	945,243.92	4.292E-01	Pulse	0.50	3
Ba			1	45.219	ug/l	1.57	147,531.97	6.698E-02	Pulse	0.50	3
Tl			1	47.892	ug/l	1.86	2,492,125.25	5.236E-01	Analog	0.50	3
Sn			1	44.782	ug/l	3.17	342,040.45	1.553E-01	Pulse	0.30	3
Sr			1	43.911	ug/l	2.25	387,079.87	1.757E-01	Pulse	0.50	3
Ca			1	4701.816	ug/l	1.31	217,855.56	6.483E-01	Pulse	0.50	3
Ti			1	46.816	ug/l	1.05	13,749.88	4.092E-02	Pulse	0.50	3
Na			1	4778.521	ug/l	0.83	10,394,340.33	3.093E+01	Analog	1.00	3
Mg			1	4733.887	ug/l	3.80	5,302,916.00	1.558E+03	Analog	1.00	3
K			1	4835.885	ug/l	0.57	4,457,776.67	1.327E+01	Analog	1.00	3
V			1	45.980	ug/l	1.08	412,322.87	1.227E+00	Pulse	0.50	3
Mn			1	47.602	ug/l	0.42	324,835.25	1.631E+00	Pulse	0.50	3
Fe			1	4762.505	ug/l	0.65	44,641,740.00	2.241E+02	Analog	0.50	3
Co			1	47.916	ug/l	0.43	783,545.17	3.933E+00	Pulse	0.50	3
Ni			1	48.856	ug/l	0.69	205,002.89	1.029E+00	Pulse	0.50	3
Cu			1	47.924	ug/l	0.26	547,866.92	2.750E+00	Pulse	0.50	3
Zn			1	48.147	ug/l	1.79	105,617.08	3.560E-01	Pulse	1.00	3
Cd			1	47.694	ug/l	0.99	161,171.38	5.432E-01	Pulse	0.50	3
Al			1	4789.410	ug/l	0.98	2,274,952.75	6.770E+00	Analog	1.00	3
Se			1	47.396	ug/l	0.60	6,146.50	2.072E-02	Pulse	3.00	3
Sb			1	45.336	ug/l	1.16	444,645.54	1.499E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,760,096.33	1.43	106.9	Analog	0.50	3
1	Sc		336,017.21	0.16	109.9	Pulse	0.30	3
1	Ge		199,210.72	0.82	108.6	Pulse	0.30	3
1	In		2,202,805.26	1.26	108.9	Analog	0.30	3
1	Tb		6,472,165.50	0.38	107.8	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,276,297.17	1.14	106.4	Analog	0.50	3
1	Ge		296,698.84	0.28	108.9	Pulse	0.30	3
1	Li		3,405.88	3.06	103.5	Pulse	0.30	3

Quantitation Report

File Name 042_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:39
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.202	ug/l	1.76	1,032,164.04	5.279E+00	Pulse	0.50	3
As			1	97.189	ug/l	1.83	124,943.21	6.390E-01	Pulse	1.00	3
Mo			1	96.008	ug/l	0.99	551,521.88	1.900E+00	Pulse	0.50	3
Pb			1	98.863	ug/l	1.33	3,440,110.58	7.467E-01	Analog	1.00	3
Be			1	97.371	ug/l	0.81	10,669.68	3.215E-02	Pulse	2.00	3
Ag			1	99.864	ug/l	0.99	1,952,977.42	9.280E-01	Analog	0.50	3
Ba			1	95.170	ug/l	2.06	296,556.63	1.409E-01	Pulse	0.50	3
Tl			1	97.176	ug/l	2.22	4,893,775.33	1.062E+00	Analog	0.50	3
Sn			1	95.185	ug/l	1.64	693,928.32	3.298E-01	Pulse	0.30	3
Sr			1	93.308	ug/l	1.58	785,550.17	3.733E-01	Pulse	0.50	3
Ca			1	9591.137	ug/l	1.38	438,779.79	1.322E+00	Pulse	0.50	3
Ti			1	96.318	ug/l	2.64	27,925.37	8.416E-02	Pulse	0.50	3
Na			1	9559.816	ug/l	1.50	20,517,504.00	6.183E+01	Analog	1.00	3
Mg			1	10377.916	ug/l	5.62	10,570,187.67	3.415E+03	Analog	1.00	3
K			1	9844.327	ug/l	1.08	8,908,465.67	2.684E+01	Analog	1.00	3
V			1	93.369	ug/l	1.70	825,389.29	2.487E+00	Pulse	0.50	3
Mn			1	96.777	ug/l	1.32	647,961.50	3.314E+00	Pulse	0.50	3
Fe			1	9779.494	ug/l	1.19	89,963,352.00	4.601E+02	Analog	0.50	3
Co			1	99.985	ug/l	1.58	1,604,595.04	8.206E+00	Analog	0.50	3
Ni			1	98.566	ug/l	1.46	405,762.33	2.075E+00	Pulse	0.50	3
Cu			1	97.362	ug/l	1.11	1,074,330.37	5.494E+00	Pulse	0.50	3
Zn			1	97.287	ug/l	1.50	208,216.98	7.173E-01	Pulse	1.00	3
Cd			1	97.025	ug/l	0.93	320,763.73	1.105E+00	Pulse	0.50	3
Al			1	9564.073	ug/l	2.87	4,485,671.00	1.352E+01	Analog	1.00	3
Se			1	98.210	ug/l	0.60	12,433.67	4.283E-02	Pulse	3.00	3
Sb			1	93.742	ug/l	1.23	899,306.66	3.098E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,607,095.50	0.63	103.5	Analog	0.50	3
1	Sc		331,866.02	0.83	108.5	Pulse	0.30	3
1	Ge		195,537.92	0.48	106.6	Pulse	0.30	3
1	In		2,104,389.01	0.83	104.1	Analog	0.30	3
1	Tb		6,348,958.17	1.09	105.8	Analog	0.50	3
1	Lu		5,233,682.17	0.78	105.5	Analog	0.50	3
1	Ge		290,285.25	0.55	106.6	Pulse	0.30	3
1	Li		3,100.28	4.63	94.3	Pulse	0.30	3

Quantitation Report

File Name	043_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 12:42
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.024	ug/l	45.31	603.35	3.058E-03	Pulse	0.50	3
As			1	0.043	ug/l	34.87	108.00	5.475E-04	Pulse	1.00	3
Mo			1	0.158	ug/l	34.71	1,214.72	4.144E-03	Pulse	0.50	3
Pb			1	0.022	ug/l	47.89	2,161.82	4.520E-04	Pulse	1.00	3
Be			1	0.021	ug/l	99.81	5.00	1.505E-05	Pulse	2.00	3
Ag			1	0.018	ug/l	72.63	530.01	2.395E-04	Pulse	0.50	3
Ba			1	0.026	ug/l	58.82	148.00	6.687E-05	Pulse	0.50	3
Tl			1	0.014	ug/l	56.02	1,172.72	2.447E-04	Pulse	0.50	3
Sn			1	0.091	ug/l	37.47	1,353.40	6.108E-04	Pulse	0.30	3
Sr			1	0.029	ug/l	38.53	518.01	2.340E-04	Pulse	0.50	3
Ca			1	2.710	ug/l	16.10	217.33	6.547E-04	Pulse	0.50	3
Ti			1	-0.007	ug/l	-145.85	7.33	2.208E-05	Pulse	0.50	3
Na			1	1.165	ug/l	91.20	21,089.69	6.353E-02	Pulse	1.00	3
Mg			1	1.998	ug/l	63.38	3,276.99	9.532E-01	Pulse	1.00	3
K			1	-1.355	ug/l	-71.37	50,655.84	1.526E-01	Pulse	1.00	3
V			1	0.031	ug/l	21.36	1,695.42	5.108E-03	Pulse	0.50	3
Mn			1	0.181	ug/l	5.21	1,440.73	7.301E-03	Pulse	0.50	3
Fe			1	3.559	ug/l	27.75	42,925.09	2.176E-01	Pulse	0.50	3
Co			1	0.019	ug/l	60.30	498.68	2.528E-03	Pulse	0.50	3
Ni			1	0.015	ug/l	86.35	242.67	1.230E-03	Pulse	0.50	3
Cu			1	-0.775	ug/l	-1.13	9,253.73	4.689E-02	Pulse	0.50	3
Zn			1	0.132	ug/l	16.30	858.02	2.928E-03	Pulse	1.00	3
Cd			1	0.021	ug/l	67.27	84.00	2.869E-04	Pulse	0.50	3
Al			1	2.758	ug/l	40.86	1,674.08	5.041E-03	Pulse	1.00	3
Se			1	0.070	ug/l	38.64	34.33	1.172E-04	Pulse	3.00	3
Sb			1	0.031	ug/l	13.50	485.34	1.656E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,773,149.83	1.76	107.2	Analog	0.50	3
1	Sc		331,899.38	0.29	108.6	Pulse	0.30	3
1	Ge		197,348.80	0.35	107.5	Pulse	0.30	3
1	In		2,214,310.61	2.00	109.5	Analog	0.30	3
1	Tb		6,430,026.67	0.31	107.1	Analog	0.50	3
1	Lu		5,200,210.33	1.15	104.8	Analog	0.50	3
1	Ge		293,083.95	0.51	107.6	Pulse	0.30	3
1	Li		3,477.01	5.42	105.7	Pulse	0.30	3

Quantitation Report

File Name 044SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:45
Sample Name FC10889-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.324	ug/l	6.84	1,982.12	1.064E-02	Pulse	0.50	3
As			1	5107.950	ug/l	4.49	3,125,831.17	1.679E+01	Analog	1.00	3
Mo			1	1.689	ug/l	7.49	4,841.35	1.772E-02	Pulse	0.50	3
Pb			1	0.056	ug/l	2.02	2,263.50	4.929E-04	Pulse	1.00	3
Be			1	0.005	ug/l	867.10	2.83	8.939E-06	Pulse	2.00	3
Ag			1	0.021	ug/l	19.07	356.67	1.751E-04	Pulse	0.50	3
Ba			1	26.678	ug/l	5.26	40,218.26	1.978E-02	Pulse	0.50	3
Tl			1	0.012	ug/l	33.85	731.35	1.589E-04	Pulse	0.50	3
Sn			1	0.276	ug/l	18.29	1,576.75	7.760E-04	Pulse	0.30	3
Sr			1	289.188	ug/l	4.08	1,176,346.50	5.785E-01	Pulse	0.50	3
Ca			1	41616.421	ug/l	5.27	902,946.54	2.868E+00	Pulse	0.50	3
Ti			1	0.239	ug/l	26.10	42.00	1.327E-04	Pulse	0.50	3
Na			1	9301.944	ug/l	5.42	9,478,454.67	3.011E+01	Analog	1.00	3
Mg			1	5088.514	ug/l	4.31	2,659,482.00	8.375E+02	Analog	1.00	3
K			1	5620.966	ug/l	5.67	2,447,561.83	7.776E+00	Analog	1.00	3
V			1	0.945	ug/l	1.72	5,314.80	1.686E-02	Pulse	0.50	3
Mn			1	2577.265	ug/l	4.97	8,213,704.50	4.411E+01	Analog	0.50	3
Fe			1	72132.445	ug/l	5.23	315,913,685.33	1.697E+03	Analog	0.50	3
Co			1	24.961	ug/l	4.31	190,904.47	1.025E+00	Pulse	0.50	3
Ni			1	11.651	ug/l	5.23	22,998.69	1.235E-01	Pulse	0.50	3
Cu			1	3.867	ug/l	9.64	36,732.12	1.973E-01	Pulse	0.50	3
Zn			1	6.222	ug/l	3.13	6,788.29	2.483E-02	Pulse	1.00	3
Cd			1	0.012	ug/l	77.60	30.67	1.130E-04	Pulse	0.50	3
Al			1	3.904	ug/l	11.91	1,227.05	3.901E-03	Pulse	1.00	3
Se			1	0.109	ug/l	54.60	30.11	1.102E-04	Pulse	3.00	3
Sb			1	0.103	ug/l	8.98	635.34	2.326E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,592,371.67	3.96	103.2	Analog	0.50	3
1	Sc		315,240.14	4.01	103.1	Pulse	0.30	3
1	Ge		186,372.19	2.77	101.6	Pulse	0.30	3
1	In		2,035,091.31	2.69	100.6	Analog	0.30	3
1	Tb		6,175,865.00	3.07	102.9	Analog	0.50	3
1	Lu		5,113,575.17	3.80	103.1	Analog	0.50	3
1	Ge		273,475.96	2.47	100.4	Pulse	0.30	3
1	Li		3,178.07	2.88	96.6	Pulse	0.30	3

Quantitation Report

File Name 045SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:49
Sample Name FC10889-4
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.366	ug/l	5.36	2,200.14	1.179E-02	Pulse	0.50	3
As			1	2171.955	ug/l	3.85	1,331,979.46	7.138E+00	Pulse	1.00	3
Mo			1	1.859	ug/l	8.51	5,298.82	1.940E-02	Pulse	0.50	3
Pb			1	0.027	ug/l	12.42	1,757.43	3.863E-04	Pulse	1.00	3
Be			1	-0.001	ug/l	-1100.23	2.50	7.933E-06	Pulse	2.00	3
Ag			1	0.002	ug/l	161.45	172.00	8.422E-05	Pulse	0.50	3
Ba			1	48.355	ug/l	5.90	73,178.52	3.583E-02	Pulse	0.50	3
Tl			1	-0.002	ug/l	-112.41	371.34	8.166E-05	Pulse	0.50	3
Sn			1	0.694	ug/l	7.93	3,060.29	1.498E-03	Pulse	0.30	3
Sr			1	339.645	ug/l	5.16	1,387,916.79	6.794E-01	Pulse	0.50	3
Ca			1	45333.324	ug/l	5.09	979,906.56	3.125E+00	Pulse	0.50	3
Ti			1	0.133	ug/l	61.27	27.33	8.664E-05	Pulse	0.50	3
Na			1	14450.283	ug/l	5.26	14,659,116.33	4.674E+01	Analog	1.00	3
Mg			1	6776.678	ug/l	8.07	3,496,973.42	1.115E+03	Analog	1.00	3
K			1	7948.822	ug/l	3.06	3,430,192.25	1.093E+01	Analog	1.00	3
V			1	1.031	ug/l	6.38	5,645.56	1.800E-02	Pulse	0.50	3
Mn			1	2172.528	ug/l	4.36	6,938,738.17	3.718E+01	Analog	0.50	3
Fe			1	66662.305	ug/l	3.95	292,614,858.67	1.568E+03	Analog	0.50	3
Co			1	17.629	ug/l	4.31	135,154.50	7.243E-01	Pulse	0.50	3
Ni			1	7.786	ug/l	4.13	15,460.66	8.285E-02	Pulse	0.50	3
Cu			1	3.804	ug/l	7.13	36,484.33	1.955E-01	Pulse	0.50	3
Zn			1	3.883	ug/l	3.25	4,437.22	1.623E-02	Pulse	1.00	3
Cd			1	0.001	ug/l	207.80	14.00	5.125E-05	Pulse	0.50	3
Al			1	5.491	ug/l	11.08	1,573.74	5.023E-03	Pulse	1.00	3
Se			1	0.015	ug/l	1079.24	24.45	8.969E-05	Pulse	3.00	3
Sb			1	0.057	ug/l	27.95	429.01	1.572E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,551,275.83	2.94	102.2	Analog	0.50	3
1	Sc		314,068.38	4.21	102.7	Pulse	0.30	3
1	Ge		186,751.70	2.83	101.8	Pulse	0.30	3
1	In		2,045,814.85	4.03	101.2	Analog	0.30	3
1	Tb		6,210,660.00	4.24	103.5	Analog	0.50	3
1	Lu		5,079,606.33	4.50	102.4	Analog	0.50	3
1	Ge		273,457.39	2.61	100.4	Pulse	0.30	3
1	Li		3,146.95	6.70	95.7	Pulse	0.30	3

Quantitation Report

File Name 046SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:52
Sample Name FC10889-5
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.868	ug/l	1.62	4,654.61	2.557E-02	Pulse	0.50	3
As			1	43.171	ug/l	2.85	25,862.06	1.421E-01	Pulse	1.00	3
Mo			1	0.094	ug/l	19.45	529.34	1.949E-03	Pulse	0.50	3
Pb			1	-0.015	ug/l	-23.70	1,010.03	2.246E-04	Pulse	1.00	3
Be			1	0.010	ug/l	689.12	3.00	9.853E-06	Pulse	2.00	3
Ag			1	0.004	ug/l	64.53	188.00	9.280E-05	Pulse	0.50	3
Ba			1	5.549	ug/l	4.92	8,386.77	4.137E-03	Pulse	0.50	3
Tl			1	-0.011	ug/l	-6.77	144.00	3.193E-05	Pulse	0.50	3
Sn			1	0.062	ug/l	70.58	818.91	4.051E-04	Pulse	0.30	3
Sr			1	272.635	ug/l	4.51	1,105,768.83	5.453E-01	Pulse	0.50	3
Ca			1	41447.791	ug/l	5.27	884,703.52	2.857E+00	Pulse	0.50	3
Ti			1	0.078	ug/l	29.05	19.33	6.236E-05	Pulse	0.50	3
Na			1	15224.693	ug/l	5.01	15,252,259.00	4.925E+01	Analog	1.00	3
Mg			1	6457.497	ug/l	4.10	3,368,752.42	1.063E+03	Analog	1.00	3
K			1	27469.909	ug/l	4.47	11,582,475.33	3.739E+01	Analog	1.00	3
V			1	0.979	ug/l	6.54	5,360.15	1.731E-02	Pulse	0.50	3
Mn			1	6745.274	ug/l	3.60	21,003,338.00	1.154E+02	Analog	0.50	3
Fe			1	1286.364	ug/l	3.24	5,514,064.67	3.031E+01	Analog	0.50	3
Co			1	0.906	ug/l	3.62	6,932.69	3.811E-02	Pulse	0.50	3
Ni			1	6.712	ug/l	6.29	13,009.39	7.154E-02	Pulse	0.50	3
Cu			1	4.628	ug/l	3.83	39,740.49	2.184E-01	Pulse	0.50	3
Zn			1	3.666	ug/l	4.12	4,197.16	1.544E-02	Pulse	1.00	3
Cd			1	-0.001	ug/l	-531.31	10.67	3.940E-05	Pulse	0.50	3
Al			1	1.929	ug/l	7.43	777.02	2.506E-03	Pulse	1.00	3
Se			1	-0.031	ug/l	-132.96	21.67	7.968E-05	Pulse	3.00	3
Sb			1	0.014	ug/l	58.43	233.33	8.604E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,503,044.67	3.14	101.2	Analog	0.50	3
1	Sc		310,102.05	3.77	101.4	Pulse	0.30	3
1	Ge		182,045.68	2.71	99.2	Pulse	0.30	3
1	In		2,029,880.13	3.70	100.4	Analog	0.30	3
1	Tb		6,209,550.17	3.47	103.4	Analog	0.50	3
1	Lu		5,061,784.33	4.61	102.0	Analog	0.50	3
1	Ge		272,107.38	3.25	99.9	Pulse	0.30	3
1	Li		3,171.40	1.73	96.4	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 12:55
Sample Name FC10888-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.012	ug/l	4.29	5,324.80	2.951E-02	Pulse	0.50	3
As			1	7.979	ug/l	4.22	4,779.65	2.648E-02	Pulse	1.00	3
Mo			1	-0.019	ug/l	-39.86	222.00	8.257E-04	Pulse	0.50	3
Pb			1	1.029	ug/l	4.01	18,912.80	4.168E-03	Pulse	1.00	3
Be			1	-0.004	ug/l	-512.19	2.33	7.434E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	-886.21	148.00	7.381E-05	Pulse	0.50	3
Ba			1	4.891	ug/l	6.83	7,346.29	3.649E-03	Pulse	0.50	3
Tl			1	-0.012	ug/l	-8.29	121.33	2.666E-05	Pulse	0.50	3
Sn			1	0.081	ug/l	54.39	877.81	4.373E-04	Pulse	0.30	3
Sr			1	261.060	ug/l	5.66	1,051,515.46	5.222E-01	Pulse	0.50	3
Ca			1	40148.178	ug/l	5.33	857,823.67	2.767E+00	Pulse	0.50	3
Ti			1	0.103	ug/l	36.72	22.67	7.327E-05	Pulse	0.50	3
Na			1	15794.067	ug/l	4.07	15,841,903.00	5.109E+01	Analog	1.00	3
Mg			1	6055.308	ug/l	2.42	3,233,819.42	9.966E+02	Analog	1.00	3
K			1	26206.880	ug/l	6.35	11,058,456.00	3.568E+01	Analog	1.00	3
V			1	0.975	ug/l	4.92	5,352.15	1.725E-02	Pulse	0.50	3
Mn			1	5333.674	ug/l	4.43	16,473,295.67	9.129E+01	Analog	0.50	3
Fe			1	158.860	ug/l	3.87	683,410.35	3.787E+00	Pulse	0.50	3
Co			1	0.086	ug/l	8.64	804.02	4.454E-03	Pulse	0.50	3
Ni			1	24.048	ug/l	4.62	45,825.38	2.540E-01	Pulse	0.50	3
Cu			1	9.479	ug/l	4.98	63,713.78	3.530E-01	Pulse	0.50	3
Zn			1	23.423	ug/l	3.86	23,704.29	8.807E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-17.27	4.67	1.738E-05	Pulse	0.50	3
Al			1	1.612	ug/l	15.79	707.35	2.282E-03	Pulse	1.00	3
Se			1	-0.061	ug/l	-111.01	19.78	7.322E-05	Pulse	3.00	3
Sb			1	0.016	ug/l	51.84	241.33	8.984E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,541,098.50	2.83	102.0	Analog	0.50	3
1	Sc		310,450.44	4.07	101.5	Pulse	0.30	3
1	Ge		180,618.80	3.15	98.4	Pulse	0.30	3
1	In		2,016,973.11	4.40	99.7	Analog	0.30	3
1	Tb		6,276,583.00	3.01	104.6	Analog	0.50	3
1	Lu		5,085,604.50	3.63	102.5	Analog	0.50	3
1	Ge		269,359.09	3.05	98.9	Pulse	0.30	3
1	Li		3,245.86	1.67	98.7	Pulse	0.30	3

Quantitation Report

File Name	048_MB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 12:58
Sample Name	MP43077-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.453	ug/l	7.01	1,256.71	6.721E-03	Pulse	0.50	3
As			1	0.372	ug/l	3.44	140.67	7.523E-04	Pulse	1.00	3
Mo			1	-0.120	ug/l	-35.17	150.00	5.389E-04	Pulse	0.50	3
Pb			1	-0.027	ug/l	-37.24	1,145.71	2.420E-04	Pulse	1.00	3
Be			1	-0.068	ug/l	-53.55	1.17	3.674E-06	Pulse	2.00	3
Ag			1	-0.009	ug/l	-50.34	124.67	5.912E-05	Pulse	0.50	3
Ba			1	0.005	ug/l	249.61	64.00	3.038E-05	Pulse	0.50	3
Tl			1	-0.030	ug/l	-7.94	131.33	2.775E-05	Pulse	0.50	3
Sn			1	18.558	ug/l	4.66	27,689.02	1.315E-02	Pulse	0.30	3
Sr			1	0.461	ug/l	34.44	1,030.04	4.876E-04	Pulse	0.50	3
Ca			1	321.621	ug/l	3.67	2,910.25	9.147E-03	Pulse	0.50	3
Ti			1	0.078	ug/l	26.48	13.33	4.191E-05	Pulse	0.50	3
Na			1	14.981	ug/l	49.31	23,984.64	7.536E-02	Pulse	1.00	3
Mg			1	9.397	ug/l	36.83	2,901.58	9.142E-01	Pulse	1.00	3
K			1	30.116	ug/l	40.42	54,920.49	1.726E-01	Pulse	1.00	3
V			1	1.336	ug/l	5.49	3,625.04	1.139E-02	Pulse	0.50	3
Mn			1	5.337	ug/l	50.93	7,038.33	3.765E-02	Pulse	0.50	3
Fe			1	10.324	ug/l	6.67	27,541.65	1.473E-01	Pulse	0.50	3
Co			1	0.002	ug/l	304.48	179.33	9.591E-04	Pulse	0.50	3
Ni			1	0.205	ug/l	22.45	333.34	1.783E-03	Pulse	0.50	3
Cu			1	1.029	ug/l	8.53	18,950.67	1.014E-01	Pulse	0.50	3
Zn			1	1.526	ug/l	9.64	1,169.71	4.202E-03	Pulse	1.00	3
Cd			1	-0.016	ug/l	-19.50	2.00	7.186E-06	Pulse	0.50	3
Al			1	5.196	ug/l	5.44	830.69	2.611E-03	Pulse	1.00	3
Se			1	-0.122	ug/l	-82.40	21.11	7.585E-05	Pulse	3.00	3
Sb			1	-0.060	ug/l	-5.28	64.33	2.311E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,739,067.33	2.11	106.5	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		318,102.24	0.78	104.0	Pulse	0.30	3
1	Ge		186,978.73	0.07	101.9	Pulse	0.30	3
1	In		2,107,498.53	1.85	104.2	Analog	0.30	3
1	Tb		6,359,425.00	1.02	105.9	Analog	0.50	3
1	Lu		5,193,995.83	0.91	104.7	Analog	0.50	3
1	Ge		278,369.28	0.24	102.2	Pulse	0.30	3
1	Li		3,172.51	0.95	96.5	Pulse	0.30	3

Quantitation Report

File Name 049_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:02
Sample Name MP43077-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	510.219	ug/l	3.07	1,059,514.96	5.599E+00	Pulse	0.50	3
As			1	515.405	ug/l	3.06	128,243.13	6.777E-01	Pulse	1.00	3
Mo			1	557.465	ug/l	2.04	616,231.19	2.206E+00	Pulse	0.50	3
Pb			1	516.577	ug/l	2.91	3,514,657.25	7.803E-01	Analog	1.00	3
Be			1	509.422	ug/l	3.04	10,853.62	3.364E-02	Pulse	2.00	3
Ag			1	241.562	ug/l	2.05	931,340.77	4.490E-01	Pulse	0.50	3
Ba			1	494.511	ug/l	2.61	303,795.80	1.465E-01	Pulse	0.50	3
Tl			1	499.682	ug/l	2.49	4,921,528.67	1.092E+00	Analog	0.50	3
Sn			1	493.012	ug/l	2.85	708,567.16	3.416E-01	Pulse	0.30	3
Sr			1	485.679	ug/l	2.10	806,105.84	3.886E-01	Pulse	0.50	3
Ca			1	48890.162	ug/l	2.87	434,918.19	1.348E+00	Pulse	0.50	3
Ti			1	496.747	ug/l	3.99	28,003.47	8.681E-02	Pulse	0.50	3
Na			1	50297.698	ug/l	2.50	20,991,057.33	6.506E+01	Analog	1.00	3
Mg			1	51305.391	ug/l	3.98	10,633,848.67	3.377E+03	Analog	1.00	3
K			1	49242.639	ug/l	3.35	8,664,336.00	2.686E+01	Analog	1.00	3
V			1	489.157	ug/l	3.86	840,718.27	2.606E+00	Pulse	0.50	3
Mn			1	511.371	ug/l	2.65	662,674.86	3.502E+00	Pulse	0.50	3
Fe			1	50481.812	ug/l	2.43	89,884,466.67	4.750E+02	Analog	0.50	3
Co			1	539.618	ug/l	3.48	1,676,040.67	8.858E+00	Analog	0.50	3
Ni			1	517.355	ug/l	3.08	412,208.80	2.178E+00	Pulse	0.50	3
Cu			1	520.636	ug/l	3.13	1,110,725.75	5.870E+00	Pulse	0.50	3
Zn			1	499.757	ug/l	2.11	205,822.06	7.369E-01	Pulse	1.00	3
Cd			1	507.282	ug/l	1.56	322,742.54	1.155E+00	Pulse	0.50	3
Al			1	49159.195	ug/l	3.88	4,483,239.00	1.390E+01	Analog	1.00	3
Se			1	476.956	ug/l	2.60	11,621.01	4.161E-02	Pulse	3.00	3
Sb			1	502.008	ug/l	1.77	926,798.02	3.318E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,505,655.33	1.78	101.2	Analog	0.50	3
1	Sc		322,730.13	1.56	105.6	Pulse	0.30	3
1	Ge		189,251.92	0.82	103.1	Pulse	0.30	3
1	In		2,074,254.85	0.16	102.6	Analog	0.30	3
1	Tb		6,368,781.83	1.33	106.1	Analog	0.50	3
1	Lu		5,206,014.17	1.57	104.9	Analog	0.50	3
1	Ge		279,308.54	0.35	102.5	Pulse	0.30	3
1	Li		3,151.39	2.78	95.8	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 13:05
Sample Name	FC10744-1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	800.416	ug/l	1.68	1,853,077.87	8.783E+00	Analog	0.50	3
As			1	145.744	ug/l	2.32	40,471.74	1.918E-01	Pulse	1.00	3
Mo			1	37.846	ug/l	3.22	43,151.64	1.507E-01	Pulse	0.50	3
Pb			1	2444.704	ug/l	4.02	16,270,763.33	3.692E+00	Analog	1.00	3
Be			1	15.435	ug/l	9.19	431.84	1.027E-03	Pulse	2.00	3
Ag			1	33.476	ug/l	3.02	128,228.60	6.229E-02	Pulse	0.50	3
Ba			1	2545.492	ug/l	3.60	1,551,616.21	7.538E-01	Pulse	0.50	3
Tl			1	2.824	ug/l	1.44	27,625.70	6.265E-03	Pulse	0.50	3
Sn			1	193.632	ug/l	4.24	276,511.96	1.343E-01	Pulse	0.30	3
Sr			1	306.108	ug/l	3.62	504,278.19	2.450E-01	Pulse	0.50	3
Ca			1	53115.967	ug/l	3.42	616,168.12	1.465E+00	Pulse	0.50	3
Ti			1	1200.540	ug/l	3.11	88,255.90	2.098E-01	Pulse	0.50	3
Na			1	1467.886	ug/l	2.41	821,857.46	1.953E+00	Pulse	1.00	3
Mg			1	124269.318	ug/l	7.18	27,140,587.33	8.179E+03	Analog	1.00	3
K			1	44369.043	ug/l	3.40	10,187,675.67	2.421E+01	Analog	1.00	3
V			1	554.316	ug/l	3.21	1,242,285.83	2.953E+00	Pulse	0.50	3
Mn			1	10817.734	ug/l	2.27	15,625,019.00	7.406E+01	Analog	0.50	3
Fe			1	715248.660	ug/l	2.09	1,419,750,784.00	6.729E+03	Analog	0.50	3
Co			1	319.189	ug/l	2.34	1,105,442.67	5.240E+00	Pulse	0.50	3
Ni			1	1006.355	ug/l	2.36	893,801.79	4.237E+00	Pulse	0.50	3
Cu			1	8564.877	ug/l	1.78	20,080,634.67	9.518E+01	Analog	0.50	3
Zn			1	14556.511	ug/l	2.75	6,129,398.17	2.141E+01	Analog	1.00	3
Cd			1	150.570	ug/l	3.74	98,185.60	3.430E-01	Pulse	0.50	3
Al			1	296082.523	ug/l	2.61	35,217,852.00	8.370E+01	Analog	1.00	3
Se			1	22.511	ug/l	2.23	586.12	2.046E-03	Pulse	3.00	3
Sb			1	27.704	ug/l	3.04	52,595.13	1.837E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,410,233.17	2.58	99.1	Analog	0.50	3
1	Sc		420,973.24	2.54	137.7	Pulse	0.30	3
1	Ge		211,021.26	1.56	115.0	Pulse	0.30	3
1	In		2,059,628.88	2.52	101.8	Analog	0.30	3
1	Tb		6,390,988.33	2.89	106.5	Analog	0.50	3
1	Lu		5,199,334.67	2.56	104.8	Analog	0.50	3
1	Ge		286,445.96	2.68	105.2	Pulse	0.30	3
1	Li		3,328.09	6.02	101.2	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 13:08
Sample Name	MP43077-D1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	808.342	ug/l	3.63	1,867,273.50	8.870E+00	Analog	0.50	3
As			1	139.053	ug/l	2.41	38,532.48	1.830E-01	Pulse	1.00	3
Mo			1	38.437	ug/l	2.17	43,904.17	1.531E-01	Pulse	0.50	3
Pb			1	2390.011	ug/l	3.58	16,033,100.33	3.609E+00	Analog	1.00	3
Be			1	14.782	ug/l	10.00	410.50	9.841E-04	Pulse	2.00	3
Ag			1	32.848	ug/l	5.53	124,534.24	6.112E-02	Pulse	0.50	3
Ba			1	2389.003	ug/l	5.49	1,441,390.79	7.075E-01	Pulse	0.50	3
Tl			1	2.495	ug/l	3.90	24,633.53	5.546E-03	Pulse	0.50	3
Sn			1	179.739	ug/l	5.67	254,115.92	1.247E-01	Pulse	0.30	3
Sr			1	327.576	ug/l	4.91	534,205.19	2.622E-01	Pulse	0.50	3
Ca			1	59334.405	ug/l	2.99	682,975.83	1.636E+00	Pulse	0.50	3
Ti			1	1228.393	ug/l	6.25	89,565.56	2.146E-01	Pulse	0.50	3
Na			1	1440.189	ug/l	2.86	800,444.79	1.917E+00	Pulse	1.00	3
Mg			1	123772.017	ug/l	3.72	26,697,168.67	8.146E+03	Analog	1.00	3
K			1	43790.157	ug/l	1.89	9,979,212.33	2.390E+01	Analog	1.00	3
V			1	551.547	ug/l	3.38	1,226,447.25	2.938E+00	Pulse	0.50	3
Mn			1	10982.261	ug/l	1.29	15,829,186.33	7.519E+01	Analog	0.50	3
Fe			1	693899.825	ug/l	3.22	1,374,252,032.00	6.529E+03	Analog	0.50	3
Co			1	322.764	ug/l	2.38	1,115,371.91	5.298E+00	Pulse	0.50	3
Ni			1	1006.392	ug/l	2.89	891,828.73	4.237E+00	Pulse	0.50	3
Cu			1	8387.367	ug/l	2.98	19,619,266.00	9.321E+01	Analog	0.50	3
Zn			1	14257.419	ug/l	1.71	6,014,573.00	2.097E+01	Analog	1.00	3
Cd			1	148.528	ug/l	2.42	97,048.37	3.383E-01	Pulse	0.50	3
Al			1	298425.731	ug/l	3.48	35,215,662.67	8.436E+01	Analog	1.00	3
Se			1	23.120	ug/l	2.02	602.12	2.099E-03	Pulse	3.00	3
Sb			1	27.194	ug/l	2.66	51,726.19	1.803E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,445,521.33	3.10	99.9	Analog	0.50	3
1	Sc		417,648.90	1.98	136.6	Pulse	0.30	3
1	Ge		210,544.37	1.18	114.7	Pulse	0.30	3
1	In		2,040,253.95	3.84	100.9	Analog	0.30	3
1	Tb		6,391,369.33	1.93	106.5	Analog	0.50	3
1	Lu		5,214,422.50	2.45	105.1	Analog	0.50	3
1	Ge		286,867.60	0.94	105.3	Pulse	0.30	3
1	Li		3,279.19	2.21	99.7	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:11
Sample Name MP43077-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	812.396	ug/l	2.46	372,363.41	1.784E+00	Pulse	0.50	3
As			1	156.970	ug/l	1.12	8,667.45	4.153E-02	Pulse	1.00	3
Mo			1	35.365	ug/l	1.13	8,815.58	2.900E-02	Pulse	0.50	3
Pb			1	2485.955	ug/l	0.84	3,554,207.00	7.510E-01	Analog	1.00	3
Be			1	20.227	ug/l	13.82	99.83	2.753E-04	Pulse	2.00	3
Ag			1	32.682	ug/l	1.60	27,438.32	1.222E-02	Pulse	0.50	3
Ba			1	2438.477	ug/l	0.56	324,279.73	1.444E-01	Pulse	0.50	3
Tl			1	2.345	ug/l	4.86	5,290.22	1.118E-03	Pulse	0.50	3
Sn			1	183.019	ug/l	1.86	57,561.59	2.564E-02	Pulse	0.30	3
Sr			1	291.238	ug/l	0.70	104,867.82	4.671E-02	Pulse	0.50	3
Ca			1	63823.739	ug/l	0.64	127,706.11	3.522E-01	Pulse	0.50	3
Ti			1	1432.762	ug/l	1.35	18,163.09	5.009E-02	Pulse	0.50	3
Na			1	1679.754	ug/l	0.83	177,754.15	4.902E-01	Pulse	1.00	3
Mg			1	122859.690	ug/l	1.72	5,512,521.67	1.617E+03	Analog	1.00	3
K			1	54058.958	ug/l	1.89	2,182,490.67	6.019E+00	Analog	1.00	3
V			1	660.461	ug/l	1.88	256,324.95	7.069E-01	Pulse	0.50	3
Mn			1	11689.428	ug/l	1.86	3,340,566.58	1.601E+01	Analog	0.50	3
Fe			1	759296.850	ug/l	2.13	298,183,466.67	1.429E+03	Analog	0.50	3
Co			1	340.304	ug/l	2.59	233,316.28	1.118E+00	Pulse	0.50	3
Ni			1	1096.680	ug/l	1.70	192,855.95	9.241E-01	Pulse	0.50	3
Cu			1	9689.223	ug/l	1.74	4,508,837.17	2.160E+01	Analog	0.50	3
Zn			1	14954.572	ug/l	1.37	1,337,884.71	4.400E+00	Pulse	1.00	3
Cd			1	153.372	ug/l	2.78	21,255.77	6.991E-02	Pulse	0.50	3
Al			1	356342.257	ug/l	2.05	7,305,633.33	2.015E+01	Analog	1.00	3
Se			1	21.251	ug/l	4.24	138.78	4.565E-04	Pulse	3.00	3
Sb			1	27.350	ug/l	2.34	11,180.98	3.678E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,732,474.17	0.83	106.3	Analog	0.50	3
1	Sc		362,635.88	0.31	118.6	Pulse	0.30	3
1	Ge		208,723.91	1.03	113.7	Pulse	0.30	3
1	In		2,245,014.08	1.10	111.0	Analog	0.30	3
1	Tb		6,478,585.00	1.66	107.9	Analog	0.50	3
1	Lu		5,400,802.83	0.63	108.9	Analog	0.50	3
1	Ge		304,046.82	0.59	111.6	Pulse	0.30	3
1	Li		3,409.22	2.62	103.6	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:14
Sample Name MP43077-S1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1173.075	ug/l	1.95	2,680,691.83	1.287E+01	Analog	0.50	3
As			1	578.929	ug/l	2.36	158,534.12	7.612E-01	Pulse	1.00	3
Mo			1	546.320	ug/l	2.57	616,051.79	2.162E+00	Pulse	0.50	3
Pb			1	2560.690	ug/l	2.02	17,102,170.00	3.867E+00	Analog	1.00	3
Be			1	392.202	ug/l	2.60	10,655.34	2.590E-02	Pulse	2.00	3
Ag			1	251.170	ug/l	2.63	974,683.69	4.669E-01	Pulse	0.50	3
Ba			1	2691.099	ug/l	2.43	1,663,805.71	7.969E-01	Analog	0.50	3
Tl			1	459.866	ug/l	2.02	4,446,673.83	1.005E+00	Analog	0.50	3
Sn			1	606.922	ug/l	3.32	877,743.31	4.205E-01	Pulse	0.30	3
Sr			1	769.501	ug/l	3.48	1,285,186.71	6.157E-01	Pulse	0.50	3
Ca			1	88098.625	ug/l	3.96	998,929.94	2.429E+00	Pulse	0.50	3
Ti			1	1560.427	ug/l	4.15	112,119.14	2.726E-01	Pulse	0.50	3
Na			1	39685.034	ug/l	3.41	21,118,199.33	5.134E+01	Analog	1.00	3
Mg			1	164655.929	ug/l	2.42	34,924,040.00	1.084E+04	Analog	1.00	3
K			1	79523.468	ug/l	3.11	17,800,494.00	4.327E+01	Analog	1.00	3
V			1	931.291	ug/l	5.39	2,038,468.33	4.958E+00	Analog	0.50	3
Mn			1	10198.562	ug/l	1.29	14,542,039.00	6.982E+01	Analog	0.50	3
Fe			1	672039.522	ug/l	2.38	1,316,801,578.67	6.323E+03	Analog	0.50	3
Co			1	765.924	ug/l	2.70	2,618,216.75	1.257E+01	Analog	0.50	3
Ni			1	1330.688	ug/l	2.85	1,166,568.08	5.602E+00	Pulse	0.50	3
Cu			1	7790.760	ug/l	1.98	18,031,933.33	8.658E+01	Analog	0.50	3
Zn			1	12895.631	ug/l	2.01	5,404,076.17	1.897E+01	Analog	1.00	3
Cd			1	601.341	ug/l	2.96	390,247.99	1.370E+00	Pulse	0.50	3
Al			1	320184.559	ug/l	3.69	37,225,328.00	9.051E+01	Analog	1.00	3
Se			1	460.515	ug/l	1.86	11,447.56	4.018E-02	Pulse	3.00	3
Sb			1	236.969	ug/l	2.94	446,352.15	1.567E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,423,264.33	1.04	99.4	Analog	0.50	3
1	Sc		411,547.73	2.52	134.6	Pulse	0.30	3
1	Ge		208,291.17	0.97	113.5	Pulse	0.30	3
1	In		2,088,543.74	2.27	103.3	Analog	0.30	3
1	Tb		6,362,101.50	2.39	106.0	Analog	0.50	3
1	Lu		5,162,210.33	3.32	104.1	Analog	0.50	3
1	Ge		284,992.63	1.51	104.6	Pulse	0.30	3
1	Li		3,223.63	1.54	98.0	Pulse	0.30	3

Quantitation Report

File Name 054CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:17
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.082	ug/l	0.22	525,442.23	2.584E+00	Pulse	0.50	3
As			1	47.978	ug/l	0.70	64,163.17	3.156E-01	Pulse	1.00	3
Mo			1	46.473	ug/l	0.41	279,871.71	9.202E-01	Pulse	0.50	3
Pb			1	48.456	ug/l	2.34	1,734,351.12	3.661E-01	Analog	1.00	3
Be			1	46.525	ug/l	0.77	5,280.41	1.537E-02	Pulse	2.00	3
Ag			1	47.404	ug/l	0.64	971,276.77	4.406E-01	Pulse	0.50	3
Ba			1	46.458	ug/l	0.74	151,712.47	6.882E-02	Pulse	0.50	3
Tl			1	48.669	ug/l	1.43	2,520,470.42	5.321E-01	Analog	0.50	3
Sn			1	45.765	ug/l	0.36	349,916.79	1.587E-01	Pulse	0.30	3
Sr			1	45.199	ug/l	0.63	398,815.71	1.809E-01	Pulse	0.50	3
Ca			1	4689.912	ug/l	0.62	222,225.19	6.467E-01	Pulse	0.50	3
Ti			1	47.152	ug/l	1.65	14,162.20	4.121E-02	Pulse	0.50	3
Na			1	4649.886	ug/l	0.74	10,344,100.33	3.010E+01	Analog	1.00	3
Mg			1	4729.891	ug/l	4.24	5,337,595.50	1.557E+03	Analog	1.00	3
K			1	4830.404	ug/l	0.62	4,553,607.33	1.325E+01	Analog	1.00	3
V			1	46.005	ug/l	0.07	421,884.59	1.228E+00	Pulse	0.50	3
Mn			1	48.305	ug/l	1.27	336,389.38	1.655E+00	Pulse	0.50	3
Fe			1	4871.415	ug/l	1.17	46,599,894.67	2.292E+02	Analog	0.50	3
Co			1	48.225	ug/l	0.33	804,817.66	3.959E+00	Pulse	0.50	3
Ni			1	49.009	ug/l	0.69	209,874.19	1.032E+00	Pulse	0.50	3
Cu			1	48.566	ug/l	0.37	566,386.56	2.786E+00	Pulse	0.50	3
Zn			1	48.982	ug/l	0.61	110,134.19	3.621E-01	Pulse	1.00	3
Cd			1	47.296	ug/l	1.80	163,831.56	5.387E-01	Pulse	0.50	3
Al			1	4692.675	ug/l	0.75	2,279,465.17	6.634E+00	Analog	1.00	3
Se			1	47.750	ug/l	0.49	6,347.47	2.087E-02	Pulse	3.00	3
Sb			1	45.187	ug/l	0.84	454,305.45	1.494E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,737,695.50	1.47	106.4	Analog	0.50	3
1	Sc		343,625.75	0.07	112.4	Pulse	0.30	3
1	Ge		203,315.82	0.71	110.8	Pulse	0.30	3
1	In		2,204,679.98	0.97	109.0	Analog	0.30	3
1	Tb		6,562,852.17	1.25	109.3	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,412,421.17	1.11	109.1	Analog	0.50	3
1	Ge		304,139.17	0.05	111.6	Pulse	0.30	3
1	Li		3,432.56	3.88	104.4	Pulse	0.30	3

Quantitation Report

File Name 055_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:20
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	95.123	ug/l	2.22	1,046,487.25	5.220E+00	Pulse	0.50	3
As			1	96.489	ug/l	1.57	127,202.61	6.344E-01	Pulse	1.00	3
Mo			1	95.230	ug/l	0.83	558,969.35	1.885E+00	Pulse	0.50	3
Pb			1	97.820	ug/l	2.17	3,404,936.83	7.388E-01	Analog	1.00	3
Be			1	95.189	ug/l	1.61	10,608.64	3.143E-02	Pulse	2.00	3
Ag			1	96.761	ug/l	0.57	1,950,774.58	8.992E-01	Analog	0.50	3
Ba			1	93.585	ug/l	0.56	300,663.70	1.386E-01	Pulse	0.50	3
Tl			1	96.832	ug/l	1.56	4,878,530.50	1.059E+00	Analog	0.50	3
Sn			1	93.313	ug/l	0.36	701,369.61	3.233E-01	Pulse	0.30	3
Sr			1	92.478	ug/l	0.12	802,688.98	3.700E-01	Pulse	0.50	3
Ca			1	9531.558	ug/l	1.04	443,535.51	1.314E+00	Pulse	0.50	3
Ti			1	96.334	ug/l	3.41	28,406.77	8.417E-02	Pulse	0.50	3
Na			1	9523.399	ug/l	0.86	20,790,448.67	6.159E+01	Analog	1.00	3
Mg			1	9819.273	ug/l	5.68	10,608,170.00	3.231E+03	Analog	1.00	3
K			1	9673.316	ug/l	0.21	8,904,943.33	2.638E+01	Analog	1.00	3
V			1	93.031	ug/l	1.21	836,516.33	2.478E+00	Pulse	0.50	3
Mn			1	95.804	ug/l	1.50	657,767.98	3.281E+00	Pulse	0.50	3
Fe			1	9639.533	ug/l	1.58	90,932,013.33	4.535E+02	Analog	0.50	3
Co			1	99.376	ug/l	2.77	1,635,240.95	8.156E+00	Analog	0.50	3
Ni			1	97.712	ug/l	1.24	412,496.18	2.057E+00	Pulse	0.50	3
Cu			1	96.163	ug/l	1.86	1,088,274.46	5.428E+00	Pulse	0.50	3
Zn			1	96.942	ug/l	1.25	211,993.00	7.148E-01	Pulse	1.00	3
Cd			1	96.103	ug/l	1.22	324,626.57	1.095E+00	Pulse	0.50	3
Al			1	9590.761	ug/l	1.57	4,575,532.67	1.356E+01	Analog	1.00	3
Se			1	97.528	ug/l	1.23	12,616.46	4.254E-02	Pulse	3.00	3
Sb			1	93.090	ug/l	1.19	912,495.04	3.077E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,609,440.67	1.40	103.6	Analog	0.50	3
1	Sc		337,555.46	0.99	110.4	Pulse	0.30	3
1	Ge		200,537.89	1.67	109.3	Pulse	0.30	3
1	In		2,169,406.65	0.23	107.3	Analog	0.30	3
1	Tb		6,392,511.83	0.58	106.5	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,265,219.17	1.11	106.1	Analog	0.50	3
1	Ge		296,611.46	0.86	108.9	Pulse	0.30	3
1	Li		3,289.20	5.12	100.0	Pulse	0.30	3

Quantitation Report

File Name	056_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 13:23
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.014	ug/l	54.59	514.68	2.536E-03	Pulse	0.50	3
As			1	0.026	ug/l	8.39	88.67	4.368E-04	Pulse	1.00	3
Mo			1	0.196	ug/l	51.58	1,484.08	4.895E-03	Pulse	0.50	3
Pb			1	0.063	ug/l	14.39	3,646.76	7.570E-04	Pulse	1.00	3
Be			1	0.006	ug/l	215.82	3.50	1.023E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	46.07	455.34	2.012E-04	Pulse	0.50	3
Ba			1	0.030	ug/l	36.46	166.67	7.368E-05	Pulse	0.50	3
Tl			1	0.010	ug/l	21.77	982.04	2.039E-04	Pulse	0.50	3
Sn			1	0.071	ug/l	50.99	1,226.72	5.432E-04	Pulse	0.30	3
Sr			1	0.019	ug/l	37.50	445.34	1.969E-04	Pulse	0.50	3
Ca			1	2.084	ug/l	44.80	194.67	5.684E-04	Pulse	0.50	3
Ti			1	0.021	ug/l	113.91	16.00	4.664E-05	Pulse	0.50	3
Na			1	-0.047	ug/l	-981.62	19,084.43	5.570E-02	Pulse	1.00	3
Mg			1	1.505	ug/l	19.73	2,626.86	7.912E-01	Pulse	1.00	3
K			1	-2.875	ug/l	-27.45	50,891.48	1.485E-01	Pulse	1.00	3
V			1	0.042	ug/l	19.66	1,853.44	5.409E-03	Pulse	0.50	3
Mn			1	0.222	ug/l	6.59	1,772.10	8.728E-03	Pulse	0.50	3
Fe			1	4.854	ug/l	5.36	56,531.40	2.785E-01	Pulse	0.50	3
Co			1	0.008	ug/l	38.10	320.67	1.580E-03	Pulse	0.50	3
Ni			1	0.010	ug/l	6.50	228.00	1.123E-03	Pulse	0.50	3
Cu			1	-0.975	ug/l	-1.75	7,266.15	3.579E-02	Pulse	0.50	3
Zn			1	0.197	ug/l	7.54	1,031.70	3.405E-03	Pulse	1.00	3
Cd			1	0.009	ug/l	30.11	44.67	1.474E-04	Pulse	0.50	3
Al			1	2.882	ug/l	10.23	1,787.09	5.216E-03	Pulse	1.00	3
Se			1	0.045	ug/l	77.49	32.11	1.060E-04	Pulse	3.00	3
Sb			1	0.025	ug/l	15.13	441.34	1.457E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,815,750.33	0.74	108.2	Analog	0.50	3
1	Sc		342,722.87	0.53	112.1	Pulse	0.30	3
1	Ge		203,007.15	0.30	110.6	Pulse	0.30	3
1	In		2,260,394.36	0.72	111.8	Analog	0.30	3
1	Tb		6,526,686.33	0.65	108.7	Analog	0.50	3
1	Lu		5,393,410.33	0.83	108.7	Analog	0.50	3
1	Ge		302,985.30	0.27	111.2	Pulse	0.30	3
1	Li		3,311.42	3.45	100.7	Pulse	0.30	3

Quantitation Report

File Name 057SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:27
Sample Name MP43077-S2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1218.670	ug/l	5.21	2,758,883.50	1.337E+01	Analog	0.50	3
As			1	585.933	ug/l	3.35	158,990.89	7.704E-01	Pulse	1.00	3
Mo			1	549.188	ug/l	3.88	611,012.56	2.174E+00	Pulse	0.50	3
Pb			1	2713.024	ug/l	3.20	17,795,036.67	4.097E+00	Analog	1.00	3
Be			1	386.497	ug/l	3.72	10,461.56	2.553E-02	Pulse	2.00	3
Ag			1	1388.006	ug/l	2.36	5,394,824.33	2.580E+00	Analog	0.50	3
Ba			1	2732.569	ug/l	3.00	1,692,162.46	8.092E-01	Analog	0.50	3
Tl			1	464.171	ug/l	3.82	4,407,785.83	1.015E+00	Analog	0.50	3
Sn			1	608.455	ug/l	4.83	881,173.21	4.215E-01	Pulse	0.30	3
Sr			1	986.760	ug/l	4.07	1,650,511.13	7.895E-01	Analog	0.50	3
Ca			1	178350.187	ug/l	5.09	2,014,700.83	4.917E+00	Analog	0.50	3
Ti			1	1554.367	ug/l	4.76	111,278.66	2.716E-01	Pulse	0.50	3
Na			1	39947.466	ug/l	3.61	21,181,862.67	5.168E+01	Analog	1.00	3
Mg			1	173654.303	ug/l	6.56	35,238,768.00	1.143E+04	Analog	1.00	3
K			1	80728.762	ug/l	2.81	18,005,591.33	4.393E+01	Analog	1.00	3
V			1	947.646	ug/l	3.94	2,067,383.92	5.045E+00	Analog	0.50	3
Mn			1	10272.538	ug/l	2.41	14,514,867.00	7.033E+01	Analog	0.50	3
Fe			1	695892.358	ug/l	4.75	1,350,896,938.67	6.547E+03	Analog	0.50	3
Co			1	772.795	ug/l	3.57	2,617,622.83	1.268E+01	Analog	0.50	3
Ni			1	1355.551	ug/l	3.62	1,177,535.67	5.706E+00	Pulse	0.50	3
Cu			1	9403.501	ug/l	3.61	21,561,540.00	1.045E+02	Analog	0.50	3
Zn			1	13633.911	ug/l	4.05	5,636,788.33	2.005E+01	Analog	1.00	3
Cd			1	602.780	ug/l	4.44	385,945.84	1.373E+00	Pulse	0.50	3
Al			1	339345.248	ug/l	5.21	39,304,100.00	9.592E+01	Analog	1.00	3
Se			1	465.797	ug/l	3.15	11,424.55	4.064E-02	Pulse	3.00	3
Sb			1	229.952	ug/l	4.05	427,364.27	1.520E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,345,154.33	1.85	97.6	Analog	0.50	3
1	Sc		410,060.85	2.25	134.1	Pulse	0.30	3
1	Ge		206,448.51	1.84	112.5	Pulse	0.30	3
1	In		2,092,166.24	2.65	103.4	Analog	0.30	3
1	Tb		6,388,301.00	2.24	106.4	Analog	0.50	3
1	Lu		5,148,721.83	2.15	103.8	Analog	0.50	3
1	Ge		281,290.52	2.41	103.3	Pulse	0.30	3
1	Li		3,091.39	5.92	94.0	Pulse	0.30	3

Quantitation Report

File Name 058SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:30
Sample Name MP43077-PS1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	843.764	ug/l	2.19	1,974,136.38	9.259E+00	Analog	0.50	3
As			1	190.703	ug/l	3.75	53,493.88	2.509E-01	Pulse	1.00	3
Mo			1	86.701	ug/l	3.46	99,343.87	3.440E-01	Pulse	0.50	3
Pb			1	2392.640	ug/l	1.88	16,210,493.67	3.613E+00	Analog	1.00	3
Be			1	51.380	ug/l	2.75	1,432.72	3.400E-03	Pulse	2.00	3
Ag			1	50.347	ug/l	4.37	197,411.24	9.364E-02	Pulse	0.50	3
Ba			1	2581.776	ug/l	6.03	1,610,972.41	7.645E-01	Analog	0.50	3
Tl			1	48.322	ug/l	3.20	474,282.71	1.057E-01	Pulse	0.50	3
Sn			1	229.949	ug/l	5.67	336,095.80	1.595E-01	Pulse	0.30	3
Sr			1	344.373	ug/l	4.87	580,898.88	2.756E-01	Pulse	0.50	3
Ca			1	56363.896	ug/l	2.49	654,794.67	1.554E+00	Pulse	0.50	3
Ti			1	1242.338	ug/l	3.73	91,442.51	2.171E-01	Pulse	0.50	3
Na			1	5300.206	ug/l	2.76	2,909,764.50	6.906E+00	Analog	1.00	3
Mg			1	128606.367	ug/l	3.91	27,912,111.33	8.464E+03	Analog	1.00	3
K			1	48167.837	ug/l	2.24	11,070,622.67	2.627E+01	Analog	1.00	3
V			1	599.100	ug/l	5.79	1,343,938.88	3.191E+00	Mix	0.50	3
Mn			1	10795.246	ug/l	3.35	15,756,543.33	7.391E+01	Analog	0.50	3
Fe			1	711310.081	ug/l	3.17	1,426,811,050.67	6.692E+03	Analog	0.50	3
Co			1	358.029	ug/l	3.18	1,253,017.75	5.877E+00	Pulse	0.50	3
Ni			1	1036.863	ug/l	3.18	930,597.17	4.365E+00	Pulse	0.50	3
Cu			1	8458.544	ug/l	2.71	20,040,747.33	9.400E+01	Analog	0.50	3
Zn			1	14331.989	ug/l	2.44	6,087,958.67	2.108E+01	Analog	1.00	3
Cd			1	194.211	ug/l	3.12	127,769.49	4.424E-01	Pulse	0.50	3
Al			1	295352.992	ug/l	2.20	35,179,634.67	8.349E+01	Analog	1.00	3
Se			1	66.201	ug/l	4.25	1,689.19	5.849E-03	Pulse	3.00	3
Sb			1	70.973	ug/l	3.06	135,641.22	4.697E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,487,292.33	1.55	100.8	Analog	0.50	3
1	Sc		421,475.92	1.87	137.9	Pulse	0.30	3
1	Ge		213,280.90	1.88	116.2	Pulse	0.30	3
1	In		2,110,794.22	4.39	104.4	Analog	0.30	3
1	Tb		6,396,613.33	2.20	106.6	Analog	0.50	3
1	Lu		5,135,633.83	2.52	103.5	Analog	0.50	3
1	Ge		288,902.47	1.62	106.1	Pulse	0.30	3
1	Li		3,301.42	4.30	100.4	Pulse	0.30	3

Quantitation Report

File Name 059SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:33
Sample Name FC10744-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1033.413	ug/l	5.01	2,428,448.50	1.134E+01	Analog	0.50	3
As			1	161.411	ug/l	1.33	45,508.83	2.124E-01	Pulse	1.00	3
Mo			1	49.036	ug/l	2.46	55,769.74	1.950E-01	Pulse	0.50	3
Pb			1	2868.162	ug/l	2.22	19,086,112.00	4.331E+00	Analog	1.00	3
Be			1	16.207	ug/l	4.78	469.01	1.078E-03	Pulse	2.00	3
Ag			1	37.399	ug/l	5.19	145,865.00	6.958E-02	Pulse	0.50	3
Ba			1	2992.157	ug/l	4.50	1,857,947.54	8.861E-01	Analog	0.50	3
Tl			1	2.805	ug/l	1.70	27,431.39	6.225E-03	Pulse	0.50	3
Sn			1	210.176	ug/l	6.15	305,573.82	1.458E-01	Pulse	0.30	3
Sr			1	380.339	ug/l	5.42	638,022.36	3.044E-01	Pulse	0.50	3
Ca			1	68910.030	ug/l	2.44	826,576.29	1.900E+00	Pulse	0.50	3
Ti			1	1209.864	ug/l	2.69	91,962.73	2.114E-01	Pulse	0.50	3
Na			1	1659.043	ug/l	1.44	957,258.19	2.200E+00	Pulse	1.00	3
Mg			1	149872.291	ug/l	8.05	32,059,302.67	9.864E+03	Analog	1.00	3
K			1	47092.358	ug/l	2.59	11,176,672.00	2.569E+01	Analog	1.00	3
V			1	646.568	ug/l	1.44	1,498,339.88	3.443E+00	Analog	0.50	3
Mn			1	13594.585	ug/l	2.42	19,937,225.33	9.307E+01	Analog	0.50	3
Fe			1	815744.639	ug/l	2.20	1,644,104,320.00	7.675E+03	Analog	0.50	3
Co			1	391.859	ug/l	2.53	1,377,924.88	6.433E+00	Pulse	0.50	3
Ni			1	1179.200	ug/l	2.06	1,063,396.92	4.964E+00	Pulse	0.50	3
Cu			1	10097.163	ug/l	2.16	24,032,371.33	1.122E+02	Analog	0.50	3
Zn			1	17242.109	ug/l	1.74	7,253,150.17	2.536E+01	Analog	1.00	3
Cd			1	181.637	ug/l	2.15	118,342.40	4.138E-01	Pulse	0.50	3
Al			1	335715.375	ug/l	2.81	41,286,233.33	9.490E+01	Analog	1.00	3
Se			1	25.887	ug/l	5.16	669.13	2.340E-03	Pulse	3.00	3
Sb			1	29.881	ug/l	2.36	56,657.63	1.981E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,407,235.33	1.02	99.0	Analog	0.50	3
1	Sc		435,150.44	1.25	142.3	Pulse	0.30	3
1	Ge		214,255.76	1.29	116.8	Pulse	0.30	3
1	In		2,099,492.21	4.30	103.8	Analog	0.30	3
1	Tb		6,431,430.17	2.41	107.1	Analog	0.50	3
1	Lu		5,143,707.17	2.38	103.7	Analog	0.50	3
1	Ge		286,072.04	1.41	105.0	Pulse	0.30	3
1	Li		3,262.52	7.00	99.2	Pulse	0.30	3

Quantitation Report

File Name	060SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 13:36
Sample Name	FC10744-3
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	501.825	ug/l	3.18	1,216,623.75	5.507E+00	Pulse	0.50	3
As			1	160.142	ug/l	3.07	46,560.22	2.108E-01	Pulse	1.00	3
Mo			1	19.664	ug/l	2.20	23,548.51	7.880E-02	Pulse	0.50	3
Pb			1	16284.541	ug/l	0.98	202,835,829.33	2.459E+01	Analog	1.00	3
Be			1	14.415	ug/l	7.15	424.01	9.599E-04	Pulse	2.00	3
Ag			1	2.503	ug/l	1.83	10,281.06	4.727E-03	Pulse	0.50	3
Ba			1	4245.171	ug/l	0.90	2,734,041.92	1.257E+00	Analog	0.50	3
Tl			1	2.107	ug/l	0.57	38,757.21	4.698E-03	Pulse	0.50	3
Sn			1	42.677	ug/l	3.29	64,901.03	2.984E-02	Pulse	0.30	3
Sr			1	409.743	ug/l	2.63	713,094.56	3.279E-01	Pulse	0.50	3
Ca			1	150554.964	ug/l	2.29	1,833,785.29	4.151E+00	Analog	0.50	3
Ti			1	1070.096	ug/l	3.01	82,600.67	1.870E-01	Pulse	0.50	3
Na			1	696.875	ug/l	1.80	422,653.41	9.566E-01	Pulse	1.00	3
Mg			1	147100.389	ug/l	3.19	30,103,684.00	9.681E+03	Analog	1.00	3
K			1	51807.660	ug/l	1.11	12,480,694.33	2.825E+01	Analog	1.00	3
V			1	525.521	ug/l	2.41	1,236,806.58	2.799E+00	Pulse	0.50	3
Mn			1	85177.600	ug/l	2.39	128,829,693.33	5.831E+02	Analog	0.50	3
Fe			1	710181.884	ug/l	2.33	1,476,162,389.33	6.682E+03	Analog	0.50	3
Co			1	1109.186	ug/l	1.98	4,022,244.75	1.821E+01	Analog	0.50	3
Ni			1	637.846	ug/l	2.58	593,300.42	2.686E+00	Pulse	0.50	3
Cu			1	1166.953	ug/l	2.39	2,882,152.67	1.305E+01	Analog	0.50	3
Zn			1	2764.808	ug/l	2.21	1,215,568.67	4.068E+00	Pulse	1.00	3
Cd			1	19.262	ug/l	2.52	13,123.68	4.392E-02	Pulse	0.50	3
Al			1	260044.360	ug/l	2.65	32,476,074.00	7.351E+01	Analog	1.00	3
Se			1	20.304	ug/l	4.25	554.01	1.854E-03	Pulse	3.00	3
Sb			1	16.536	ug/l	2.02	32,842.30	1.099E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		8,249,027.67	0.67	185.3	Analog	0.50	3
1	Sc		441,853.23	0.66	144.5	Pulse	0.30	3
1	Ge		220,947.36	0.74	120.4	Pulse	0.30	3
1	In		2,174,969.42	0.88	107.5	Analog	0.30	3
1	Tb		6,607,243.33	1.82	110.1	Analog	0.50	3
1	Lu		5,270,017.83	1.94	106.2	Analog	0.50	3
1	Ge		298,832.51	0.26	109.7	Pulse	0.30	3
1	Li		3,110.28	1.13	94.6	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:39
Sample Name FC10744-4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	388.438	ug/l	2.16	877,466.38	4.263E+00	Pulse	0.50	3
As			1	104.783	ug/l	2.04	28,402.23	1.380E-01	Pulse	1.00	3
Mo			1	31.597	ug/l	2.25	36,034.99	1.260E-01	Pulse	0.50	3
Pb			1	1752.027	ug/l	1.44	11,716,054.67	2.646E+00	Analog	1.00	3
Be			1	12.517	ug/l	5.62	325.67	8.345E-04	Pulse	2.00	3
Ag			1	2.632	ug/l	0.71	10,522.54	4.967E-03	Pulse	0.50	3
Ba			1	1646.614	ug/l	1.21	1,033,127.10	4.876E-01	Pulse	0.50	3
Tl			1	1.934	ug/l	3.30	19,128.05	4.320E-03	Pulse	0.50	3
Sn			1	44.902	ug/l	1.56	66,493.66	3.138E-02	Pulse	0.30	3
Sr			1	440.872	ug/l	1.05	747,449.90	3.528E-01	Pulse	0.50	3
Ca			1	158246.396	ug/l	2.08	1,702,677.83	4.363E+00	Analog	0.50	3
Ti			1	777.909	ug/l	3.32	53,040.59	1.359E-01	Pulse	0.50	3
Na			1	394.836	ug/l	1.68	221,007.02	5.663E-01	Pulse	1.00	3
Mg			1	64514.379	ug/l	2.72	13,005,888.33	4.246E+03	Analog	1.00	3
K			1	28457.471	ug/l	2.13	6,082,712.67	1.559E+01	Analog	1.00	3
V			1	450.288	ug/l	2.69	936,304.31	2.399E+00	Pulse	0.50	3
Mn			1	4795.440	ug/l	1.08	6,757,870.17	3.283E+01	Analog	0.50	3
Fe			1	458835.179	ug/l	2.72	888,503,594.67	4.317E+03	Analog	0.50	3
Co			1	207.156	ug/l	2.40	699,979.02	3.401E+00	Pulse	0.50	3
Ni			1	424.805	ug/l	2.13	368,187.80	1.789E+00	Pulse	0.50	3
Cu			1	959.669	ug/l	3.02	2,211,263.42	1.074E+01	Analog	0.50	3
Zn			1	2390.811	ug/l	2.44	1,005,982.58	3.518E+00	Pulse	1.00	3
Cd			1	18.117	ug/l	5.33	11,810.73	4.131E-02	Pulse	0.50	3
Al			1	259472.017	ug/l	3.05	28,622,228.00	7.335E+01	Analog	1.00	3
Se			1	14.541	ug/l	4.59	386.67	1.352E-03	Pulse	3.00	3
Sb			1	20.452	ug/l	2.98	38,829.07	1.358E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,428,474.50	1.01	99.5	Analog	0.50	3
1	Sc		390,336.62	1.33	127.7	Pulse	0.30	3
1	Ge		205,850.02	1.03	112.2	Pulse	0.30	3
1	In		2,118,714.64	0.78	104.8	Analog	0.30	3
1	Tb		6,378,922.33	2.65	106.3	Analog	0.50	3
1	Lu		5,148,041.17	1.16	103.8	Analog	0.50	3
1	Ge		286,030.36	1.37	105.0	Pulse	0.30	3
1	Li		3,064.71	3.00	93.2	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:42
Sample Name FC10859-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	589.829	ug/l	3.10	1,359,705.38	6.473E+00	Mix	0.50	3
As			1	65.836	ug/l	1.31	18,237.65	8.680E-02	Pulse	1.00	3
Mo			1	18.537	ug/l	2.61	20,188.31	7.435E-02	Pulse	0.50	3
Pb			1	249.793	ug/l	3.13	1,588,871.58	3.775E-01	Pulse	1.00	3
Be			1	7.752	ug/l	6.48	287.83	5.200E-04	Pulse	2.00	3
Ag			1	0.510	ug/l	3.06	2,064.13	1.024E-03	Pulse	0.50	3
Ba			1	1104.199	ug/l	3.69	659,198.52	3.270E-01	Pulse	0.50	3
Tl			1	3.013	ug/l	2.75	28,120.57	6.680E-03	Pulse	0.50	3
Sn			1	38.465	ug/l	3.62	54,283.21	2.693E-02	Pulse	0.30	3
Sr			1	108.289	ug/l	3.73	174,863.22	8.674E-02	Pulse	0.50	3
Ca			1	9586.567	ug/l	1.86	146,324.51	2.646E-01	Pulse	0.50	3
Ti			1	4578.270	ug/l	2.22	442,363.76	7.998E-01	Pulse	0.50	3
Na			1	2379.434	ug/l	2.20	1,731,805.84	3.131E+00	Analog	1.00	3
Mg			1	11437.443	ug/l	4.18	2,151,405.08	7.530E+02	Analog	1.00	3
K			1	5732.417	ug/l	0.64	1,805,999.58	3.264E+00	Analog	1.00	3
V			1	1879.704	ug/l	1.78	5,532,242.83	1.000E+01	Analog	0.50	3
Mn			1	11611.532	ug/l	3.48	16,698,045.33	7.950E+01	Analog	0.50	3
Fe			1	1108476.599	ug/l	2.92	2,190,805,504.00	1.043E+04	Analog	0.50	3
Co			1	206.237	ug/l	2.80	711,272.06	3.386E+00	Pulse	0.50	3
Ni			1	138.658	ug/l	2.83	122,788.85	5.845E-01	Pulse	0.50	3
Cu			1	1084.052	ug/l	0.85	2,547,696.17	1.212E+01	Analog	0.50	3
Zn			1	501.288	ug/l	3.50	200,670.69	7.391E-01	Pulse	1.00	3
Cd			1	0.434	ug/l	12.21	280.00	1.032E-03	Pulse	0.50	3
Al			1	400070.129	ug/l	2.79	62,543,281.33	1.131E+02	Analog	1.00	3
Se			1	33.734	ug/l	4.51	820.69	3.023E-03	Pulse	3.00	3
Sb			1	3.937	ug/l	4.20	7,233.20	2.665E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,211,346.25	2.40	94.6	Analog	0.50	3
1	Sc		553,231.33	1.84	181.0	Pulse	0.30	3
1	Ge		210,143.44	1.93	114.5	Pulse	0.30	3
1	In		2,017,367.01	3.05	99.7	Analog	0.30	3
1	Tb		6,166,192.50	2.20	102.7	Analog	0.50	3
1	Lu		4,986,367.50	2.80	100.5	Analog	0.50	3
1	Ge		271,670.45	2.83	99.7	Pulse	0.30	3
1	Li		2,860.24	3.95	87.0	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:45
Sample Name FC10771-15
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1102.368	ug/l	1.65	2,431,325.83	1.210E+01	Analog	0.50	3
As			1	127.988	ug/l	0.82	33,870.06	1.685E-01	Pulse	1.00	3
Mo			1	5.000	ug/l	4.06	5,894.35	2.080E-02	Pulse	0.50	3
Pb			1	269.842	ug/l	2.97	1,728,246.50	4.077E-01	Analog	1.00	3
Be			1	6.005	ug/l	8.45	174.67	4.046E-04	Pulse	2.00	3
Ag			1	2.445	ug/l	2.61	9,454.60	4.620E-03	Pulse	0.50	3
Ba			1	801.456	ug/l	2.66	485,741.94	2.374E-01	Pulse	0.50	3
Tl			1	1.727	ug/l	2.28	16,395.05	3.868E-03	Pulse	0.50	3
Sn			1	43.912	ug/l	2.71	62,823.17	3.070E-02	Pulse	0.30	3
Sr			1	545.981	ug/l	2.94	894,008.40	4.369E-01	Pulse	0.50	3
Ca			1	58930.379	ug/l	3.19	701,653.83	1.625E+00	Pulse	0.50	3
Ti			1	9674.956	ug/l	3.45	729,856.64	1.690E+00	Pulse	0.50	3
Na			1	34581.333	ug/l	2.02	19,326,865.33	4.475E+01	Analog	1.00	3
Mg			1	180242.160	ug/l	7.96	35,371,352.00	1.186E+04	Analog	1.00	3
K			1	35981.248	ug/l	1.50	8,494,425.67	1.967E+01	Analog	1.00	3
V			1	817.582	ug/l	3.80	1,879,581.59	4.353E+00	Analog	0.50	3
Mn			1	6855.969	ug/l	1.36	9,435,085.00	4.694E+01	Analog	0.50	3
Fe			1	504223.593	ug/l	2.65	953,573,333.33	4.744E+03	Analog	0.50	3
Co			1	215.726	ug/l	2.08	711,879.21	3.542E+00	Pulse	0.50	3
Ni			1	1073.335	ug/l	2.11	908,230.98	4.518E+00	Pulse	0.50	3
Cu			1	628.726	ug/l	1.65	1,421,105.62	7.070E+00	Pulse	0.50	3
Zn			1	1891.946	ug/l	2.23	789,183.31	2.784E+00	Pulse	1.00	3
Cd			1	3.635	ug/l	6.12	2,358.84	8.323E-03	Pulse	0.50	3
Al			1	302961.062	ug/l	3.75	36,979,992.00	8.564E+01	Analog	1.00	3
Se			1	13.843	ug/l	7.23	366.01	1.292E-03	Pulse	3.00	3
Sb			1	3.317	ug/l	2.18	6,391.53	2.255E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,239,554.92	1.40	95.2	Analog	0.50	3
1	Sc		432,021.29	1.98	141.3	Pulse	0.30	3
1	Ge		201,020.03	0.66	109.5	Pulse	0.30	3
1	In		2,047,029.29	1.65	101.2	Analog	0.30	3
1	Tb		6,257,803.67	2.32	104.2	Analog	0.50	3
1	Lu		5,085,842.33	3.11	102.5	Analog	0.50	3
1	Ge		283,484.63	0.84	104.1	Pulse	0.30	3
1	Li		2,992.48	6.70	91.0	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:48
Sample Name FC10771-16
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	978.959	ug/l	4.45	2,202,567.00	1.074E+01	Analog	0.50	3
As			1	351.714	ug/l	2.78	94,863.34	4.626E-01	Pulse	1.00	3
Mo			1	7.482	ug/l	5.62	8,778.22	3.062E-02	Pulse	0.50	3
Pb			1	269.678	ug/l	3.60	1,759,927.54	4.075E-01	Analog	1.00	3
Be			1	5.903	ug/l	7.42	170.83	3.979E-04	Pulse	2.00	3
Ag			1	1.817	ug/l	3.71	7,120.81	3.453E-03	Pulse	0.50	3
Ba			1	1196.857	ug/l	2.76	730,948.42	3.544E-01	Pulse	0.50	3
Tl			1	1.616	ug/l	5.64	15,648.31	3.625E-03	Pulse	0.50	3
Sn			1	44.980	ug/l	3.07	64,829.57	3.144E-02	Pulse	0.30	3
Sr			1	722.632	ug/l	2.70	1,192,352.75	5.782E-01	Pulse	0.50	3
Ca			1	76809.569	ug/l	3.78	908,797.27	2.118E+00	Pulse	0.50	3
Ti			1	8766.909	ug/l	3.77	657,263.29	1.532E+00	Pulse	0.50	3
Na			1	46172.183	ug/l	2.29	25,638,016.67	5.973E+01	Analog	1.00	3
Mg			1	166783.372	ug/l	1.97	33,536,990.67	1.098E+04	Analog	1.00	3
K			1	34487.686	ug/l	3.28	8,092,579.50	1.886E+01	Analog	1.00	3
V			1	745.440	ug/l	4.71	1,703,229.25	3.969E+00	Analog	0.50	3
Mn			1	14176.996	ug/l	3.99	19,902,160.67	9.706E+01	Analog	0.50	3
Fe			1	520069.432	ug/l	3.21	1,003,423,936.00	4.893E+03	Analog	0.50	3
Co			1	245.963	ug/l	3.46	828,035.62	4.038E+00	Pulse	0.50	3
Ni			1	988.320	ug/l	3.16	853,231.31	4.161E+00	Pulse	0.50	3
Cu			1	527.626	ug/l	3.38	1,219,648.04	5.948E+00	Pulse	0.50	3
Zn			1	3237.639	ug/l	3.34	1,365,941.75	4.763E+00	Pulse	1.00	3
Cd			1	5.979	ug/l	5.73	3,917.12	1.366E-02	Pulse	0.50	3
Al			1	289007.575	ug/l	4.31	35,056,960.00	8.170E+01	Analog	1.00	3
Se			1	13.014	ug/l	2.61	349.78	1.219E-03	Pulse	3.00	3
Sb			1	2.927	ug/l	2.59	5,727.63	1.997E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,322,432.67	3.46	97.1	Analog	0.50	3
1	Sc		429,417.65	2.53	140.5	Pulse	0.30	3
1	Ge		205,135.75	1.52	111.8	Pulse	0.30	3
1	In		2,062,787.49	1.45	102.0	Analog	0.30	3
1	Tb		6,292,751.00	3.04	104.8	Analog	0.50	3
1	Lu		5,145,036.50	2.23	103.7	Analog	0.50	3
1	Ge		286,885.61	1.78	105.3	Pulse	0.30	3
1	Li		3,055.82	1.42	92.9	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:51
Sample Name FC10771-17
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1083.872	ug/l	3.45	2,412,049.08	1.189E+01	Analog	0.50	3
As			1	178.028	ug/l	3.13	47,516.72	2.343E-01	Pulse	1.00	3
Mo			1	6.644	ug/l	3.77	7,781.08	2.730E-02	Pulse	0.50	3
Pb			1	258.307	ug/l	4.81	1,681,694.54	3.903E-01	Mix	1.00	3
Be			1	6.155	ug/l	2.11	180.00	4.146E-04	Pulse	2.00	3
Ag			1	2.845	ug/l	4.13	10,974.17	5.363E-03	Pulse	0.50	3
Ba			1	873.680	ug/l	3.56	529,377.89	2.587E-01	Pulse	0.50	3
Tl			1	1.760	ug/l	4.86	16,973.64	3.940E-03	Pulse	0.50	3
Sn			1	44.938	ug/l	4.33	64,253.12	3.141E-02	Pulse	0.30	3
Sr			1	535.515	ug/l	3.21	876,734.33	4.285E-01	Pulse	0.50	3
Ca			1	39521.148	ug/l	2.81	473,064.56	1.090E+00	Pulse	0.50	3
Ti			1	9319.757	ug/l	3.57	706,700.79	1.628E+00	Pulse	0.50	3
Na			1	39058.200	ug/l	1.94	21,939,673.33	5.053E+01	Analog	1.00	3
Mg			1	167839.475	ug/l	2.53	34,019,601.33	1.105E+04	Analog	1.00	3
K			1	33476.880	ug/l	2.04	7,948,568.33	1.831E+01	Analog	1.00	3
V			1	774.291	ug/l	3.05	1,789,617.16	4.123E+00	Analog	0.50	3
Mn			1	5550.449	ug/l	4.09	7,706,377.67	3.800E+01	Analog	0.50	3
Fe			1	496878.437	ug/l	3.58	948,132,629.33	4.675E+03	Analog	0.50	3
Co			1	212.499	ug/l	3.26	707,587.31	3.489E+00	Pulse	0.50	3
Ni			1	1038.821	ug/l	3.16	887,013.52	4.373E+00	Pulse	0.50	3
Cu			1	648.549	ug/l	3.44	1,478,595.04	7.290E+00	Mix	0.50	3
Zn			1	1958.779	ug/l	2.59	821,766.44	2.882E+00	Pulse	1.00	3
Cd			1	4.210	ug/l	2.84	2,746.23	9.633E-03	Pulse	0.50	3
Al			1	298330.188	ug/l	3.51	36,605,070.67	8.433E+01	Analog	1.00	3
Se			1	13.574	ug/l	2.62	361.56	1.268E-03	Pulse	3.00	3
Sb			1	3.006	ug/l	4.04	5,842.33	2.049E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,311,536.50	2.46	96.9	Analog	0.50	3
1	Sc		434,273.04	2.07	142.0	Pulse	0.30	3
1	Ge		202,915.23	2.11	110.6	Pulse	0.30	3
1	In		2,047,063.95	2.29	101.2	Analog	0.30	3
1	Tb		6,341,994.83	1.90	105.7	Analog	0.50	3
1	Lu		5,176,411.50	2.38	104.4	Analog	0.50	3
1	Ge		285,166.74	1.63	104.7	Pulse	0.30	3
1	Li		3,080.27	0.89	93.6	Pulse	0.30	3

Quantitation Report

File Name 066SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 13:54
Sample Name FC10771-18
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	119.082	ug/l	2.03	260,346.17	1.308E+00	Pulse	0.50	3
As			1	77.173	ug/l	1.99	20,240.13	1.017E-01	Pulse	1.00	3
Mo			1	25.659	ug/l	2.51	30,099.14	1.025E-01	Pulse	0.50	3
Pb			1	17.003	ug/l	2.98	120,473.73	2.596E-02	Pulse	1.00	3
Be			1	0.965	ug/l	4.14	25.17	7.185E-05	Pulse	2.00	3
Ag			1	0.160	ug/l	10.65	814.02	3.737E-04	Pulse	0.50	3
Ba			1	156.832	ug/l	1.69	101,253.72	4.647E-02	Pulse	0.50	3
Tl			1	0.300	ug/l	4.34	3,475.72	7.490E-04	Pulse	0.50	3
Sn			1	20.575	ug/l	3.06	31,681.42	1.454E-02	Pulse	0.30	3
Sr			1	360.005	ug/l	1.94	627,729.62	2.881E-01	Pulse	0.50	3
Ca			1	24625.949	ug/l	2.35	237,863.08	6.791E-01	Pulse	0.50	3
Ti			1	1420.203	ug/l	2.05	86,907.12	2.481E-01	Pulse	0.50	3
Na			1	50452.854	ug/l	2.79	22,855,356.67	6.526E+01	Analog	1.00	3
Mg			1	30724.925	ug/l	2.43	6,468,195.00	2.022E+03	Analog	1.00	3
K			1	6680.263	ug/l	1.84	1,323,947.29	3.778E+00	Mix	1.00	3
V			1	216.690	ug/l	2.91	405,138.79	1.157E+00	Pulse	0.50	3
Mn			1	1852.200	ug/l	3.11	2,523,657.25	1.268E+01	Analog	0.50	3
Fe			1	82978.015	ug/l	1.63	155,376,458.67	7.807E+02	Analog	0.50	3
Co			1	49.215	ug/l	1.97	160,937.09	8.087E-01	Pulse	0.50	3
Ni			1	212.690	ug/l	2.04	178,334.71	8.961E-01	Pulse	0.50	3
Cu			1	74.647	ug/l	1.81	182,822.69	9.187E-01	Pulse	0.50	3
Zn			1	216.752	ug/l	2.14	94,154.51	3.207E-01	Pulse	1.00	3
Cd			1	1.162	ug/l	2.09	790.02	2.691E-03	Pulse	0.50	3
Al			1	45084.105	ug/l	2.69	4,463,956.67	1.275E+01	Analog	1.00	3
Se			1	3.192	ug/l	3.04	107.00	3.644E-04	Pulse	3.00	3
Sb			1	1.408	ug/l	2.21	2,915.92	9.932E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,642,350.67	1.36	104.3	Analog	0.50	3
1	Sc		350,332.77	1.69	114.6	Pulse	0.30	3
1	Ge		199,020.34	0.46	108.5	Pulse	0.30	3
1	In		2,179,105.40	0.89	107.7	Analog	0.30	3
1	Tb		6,527,328.17	1.41	108.7	Analog	0.50	3
1	Lu		5,329,277.00	0.75	107.4	Analog	0.50	3
1	Ge		293,604.07	0.82	107.8	Pulse	0.30	3
1	Li		3,199.18	1.76	97.3	Pulse	0.30	3

Quantitation Report

File Name	067CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 13:57
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	46.219	ug/l	1.24	521,084.23	2.537E+00	Pulse	0.50	3
As			1	47.506	ug/l	0.89	64,180.23	3.125E-01	Pulse	1.00	3
Mo			1	46.314	ug/l	1.68	278,402.28	9.171E-01	Pulse	0.50	3
Pb			1	47.516	ug/l	1.38	1,709,318.17	3.590E-01	Analog	1.00	3
Be			1	45.128	ug/l	0.48	5,071.02	1.491E-02	Pulse	2.00	3
Ag			1	46.340	ug/l	1.08	959,552.67	4.307E-01	Pulse	0.50	3
Ba			1	45.374	ug/l	1.21	149,745.14	6.721E-02	Pulse	0.50	3
Tl			1	48.103	ug/l	1.56	2,503,713.58	5.259E-01	Analog	0.50	3
Sn			1	44.858	ug/l	0.17	346,658.51	1.556E-01	Pulse	0.30	3
Sr			1	44.405	ug/l	0.22	396,006.84	1.777E-01	Pulse	0.50	3
Ca			1	4676.961	ug/l	1.66	219,401.20	6.449E-01	Pulse	0.50	3
Ti			1	46.635	ug/l	1.34	13,867.29	4.076E-02	Pulse	0.50	3
Na			1	4647.642	ug/l	0.31	10,236,359.00	3.009E+01	Analog	1.00	3
Mg			1	4868.423	ug/l	2.93	5,256,627.67	1.602E+03	Analog	1.00	3
K			1	4849.761	ug/l	2.24	4,526,334.00	1.330E+01	Analog	1.00	3
V			1	45.971	ug/l	2.13	417,366.45	1.227E+00	Pulse	0.50	3
Mn			1	46.630	ug/l	0.86	328,062.38	1.597E+00	Pulse	0.50	3
Fe			1	4750.144	ug/l	1.63	45,906,204.00	2.235E+02	Analog	0.50	3
Co			1	47.266	ug/l	1.27	796,873.46	3.880E+00	Pulse	0.50	3
Ni			1	48.387	ug/l	1.17	209,333.64	1.019E+00	Pulse	0.50	3
Cu			1	47.079	ug/l	0.98	555,216.85	2.703E+00	Pulse	0.50	3
Zn			1	47.641	ug/l	1.25	106,935.77	3.523E-01	Pulse	1.00	3
Cd			1	47.026	ug/l	1.45	162,599.25	5.356E-01	Pulse	0.50	3
Al			1	4700.752	ug/l	2.36	2,260,559.50	6.645E+00	Analog	1.00	3
Se			1	47.647	ug/l	2.39	6,322.01	2.083E-02	Pulse	3.00	3
Sb			1	45.143	ug/l	0.95	453,020.88	1.492E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,760,826.50	0.23	107.0	Analog	0.50	3
1	Sc		340,213.89	0.46	111.3	Pulse	0.30	3
1	Ge		205,387.22	0.13	111.9	Pulse	0.30	3
1	In		2,228,262.69	1.63	110.2	Analog	0.30	3
1	Tb		6,557,477.33	1.65	109.2	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,342,538.17	0.67	107.7	Analog	0.50	3
1	Ge		303,579.16	0.21	111.4	Pulse	0.30	3
1	Li		3,282.53	2.82	99.8	Pulse	0.30	3

Quantitation Report

File Name 068_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:00
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	95.404	ug/l	2.02	1,043,444.31	5.235E+00	Pulse	0.50	3
As			1	97.239	ug/l	1.64	127,434.88	6.393E-01	Pulse	1.00	3
Mo			1	95.477	ug/l	1.19	560,184.77	1.889E+00	Pulse	0.50	3
Pb			1	97.583	ug/l	1.75	3,423,965.75	7.370E-01	Analog	1.00	3
Be			1	92.551	ug/l	1.86	10,239.28	3.056E-02	Pulse	2.00	3
Ag			1	95.641	ug/l	3.47	1,949,709.29	8.888E-01	Analog	0.50	3
Ba			1	92.619	ug/l	2.45	300,923.24	1.372E-01	Pulse	0.50	3
Tl			1	96.717	ug/l	1.02	4,911,668.33	1.057E+00	Analog	0.50	3
Sn			1	92.124	ug/l	3.03	700,224.16	3.192E-01	Pulse	0.30	3
Sr			1	91.190	ug/l	2.87	800,400.79	3.649E-01	Pulse	0.50	3
Ca			1	9552.006	ug/l	0.90	441,243.23	1.317E+00	Pulse	0.50	3
Ti			1	96.092	ug/l	2.60	28,130.35	8.396E-02	Pulse	0.50	3
Na			1	9494.641	ug/l	1.33	20,575,642.00	6.141E+01	Analog	1.00	3
Mg			1	10078.744	ug/l	1.20	10,474,316.00	3.317E+03	Analog	1.00	3
K			1	9827.820	ug/l	0.66	8,979,910.00	2.680E+01	Analog	1.00	3
V			1	94.052	ug/l	1.29	839,501.69	2.506E+00	Pulse	0.50	3
Mn			1	95.938	ug/l	1.90	654,793.31	3.285E+00	Pulse	0.50	3
Fe			1	9762.509	ug/l	2.48	91,543,637.33	4.593E+02	Analog	0.50	3
Co			1	99.919	ug/l	0.96	1,634,803.96	8.201E+00	Analog	0.50	3
Ni			1	98.267	ug/l	1.52	412,386.33	2.069E+00	Pulse	0.50	3
Cu			1	96.556	ug/l	1.85	1,086,240.67	5.450E+00	Pulse	0.50	3
Zn			1	96.210	ug/l	1.16	210,313.30	7.094E-01	Pulse	1.00	3
Cd			1	95.413	ug/l	1.38	322,168.42	1.087E+00	Pulse	0.50	3
Al			1	9680.228	ug/l	0.68	4,584,882.50	1.368E+01	Analog	1.00	3
Se			1	96.539	ug/l	1.58	12,483.26	4.211E-02	Pulse	3.00	3
Sb			1	92.731	ug/l	1.29	908,613.46	3.065E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,646,045.50	1.40	104.4	Analog	0.50	3
1	Sc		335,084.04	0.78	109.6	Pulse	0.30	3
1	Ge		199,348.62	1.15	108.6	Pulse	0.30	3
1	In		2,194,679.08	2.17	108.5	Analog	0.30	3
1	Tb		6,431,310.50	1.34	107.1	Analog	0.50	3
1	Lu		5,262,776.67	0.91	106.1	Analog	0.50	3
1	Ge		296,488.94	0.61	108.8	Pulse	0.30	3
1	Li		3,158.06	1.11	96.0	Pulse	0.30	3

Quantitation Report

File Name	069_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 14:03
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.031	ug/l	41.69	714.01	3.478E-03	Pulse	0.50	3
As			1	0.030	ug/l	5.32	94.00	4.577E-04	Pulse	1.00	3
Mo			1	0.143	ug/l	42.02	1,162.71	3.834E-03	Pulse	0.50	3
Pb			1	0.071	ug/l	21.19	3,909.49	8.212E-04	Pulse	1.00	3
Be			1	0.026	ug/l	66.68	5.67	1.668E-05	Pulse	2.00	3
Ag			1	0.019	ug/l	60.02	582.68	2.541E-04	Pulse	0.50	3
Ba			1	0.034	ug/l	21.36	182.67	7.970E-05	Pulse	0.50	3
Tl			1	0.015	ug/l	56.06	1,228.72	2.583E-04	Pulse	0.50	3
Sn			1	0.095	ug/l	32.99	1,435.63	6.278E-04	Pulse	0.30	3
Sr			1	0.031	ug/l	40.55	554.01	2.416E-04	Pulse	0.50	3
Ca			1	3.374	ug/l	7.77	254.00	7.463E-04	Pulse	0.50	3
Ti			1	0.116	ug/l	42.26	44.00	1.293E-04	Pulse	0.50	3
Na			1	1.180	ug/l	95.23	21,647.99	6.363E-02	Pulse	1.00	3
Mg			1	3.006	ug/l	36.82	4,326.20	1.285E+00	Pulse	1.00	3
K			1	-1.258	ug/l	-107.37	52,045.01	1.529E-01	Pulse	1.00	3
V			1	0.079	ug/l	24.72	2,177.47	6.399E-03	Pulse	0.50	3
Mn			1	0.296	ug/l	1.55	2,309.49	1.124E-02	Pulse	0.50	3
Fe			1	7.359	ug/l	9.57	81,390.87	3.963E-01	Pulse	0.50	3
Co			1	0.019	ug/l	50.83	512.01	2.494E-03	Pulse	0.50	3
Ni			1	0.027	ug/l	41.71	306.00	1.490E-03	Pulse	0.50	3
Cu			1	-1.074	ug/l	-2.65	6,221.76	3.030E-02	Pulse	0.50	3
Zn			1	0.157	ug/l	8.28	943.03	3.112E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	62.06	68.00	2.247E-04	Pulse	0.50	3
Al			1	5.261	ug/l	17.68	2,917.90	8.578E-03	Pulse	1.00	3
Se			1	0.055	ug/l	54.34	33.44	1.104E-04	Pulse	3.00	3
Sb			1	0.031	ug/l	21.54	500.01	1.651E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,763,227.00	0.60	107.0	Analog	0.50	3
1	Sc		340,471.39	0.93	111.4	Pulse	0.30	3
1	Ge		205,383.79	0.26	111.9	Pulse	0.30	3
1	In		2,290,384.49	1.61	113.2	Analog	0.30	3
1	Tb		6,598,441.17	0.78	109.9	Analog	0.50	3
1	Lu		5,427,509.00	0.52	109.4	Analog	0.50	3
1	Ge		302,980.15	0.41	111.2	Pulse	0.30	3
1	Li		3,372.54	1.06	102.5	Pulse	0.30	3

Quantitation Report

File Name 070SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:07
Sample Name FC10771-19
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	436.131	ug/l	2.95	962,158.40	4.786E+00	Pulse	0.50	3
As			1	176.019	ug/l	1.87	46,567.90	2.316E-01	Pulse	1.00	3
Mo			1	8.276	ug/l	4.81	9,776.09	3.375E-02	Pulse	0.50	3
Pb			1	157.511	ug/l	2.82	1,088,796.29	2.381E-01	Pulse	1.00	3
Be			1	3.362	ug/l	16.62	87.00	2.302E-04	Pulse	2.00	3
Ag			1	1.638	ug/l	3.10	6,694.64	3.119E-03	Pulse	0.50	3
Ba			1	376.395	ug/l	3.04	239,293.80	1.115E-01	Pulse	0.50	3
Tl			1	1.100	ug/l	2.53	11,418.07	2.497E-03	Pulse	0.50	3
Sn			1	32.115	ug/l	3.85	48,355.70	2.253E-02	Pulse	0.30	3
Sr			1	296.605	ug/l	2.64	509,541.97	2.374E-01	Pulse	0.50	3
Ca			1	20097.076	ug/l	2.65	209,839.14	5.543E-01	Pulse	0.50	3
Ti			1	5039.176	ug/l	2.89	333,255.51	8.803E-01	Pulse	0.50	3
Na			1	46171.252	ug/l	1.91	22,614,376.00	5.973E+01	Analog	1.00	3
Mg			1	70626.517	ug/l	4.47	14,466,580.67	4.648E+03	Analog	1.00	3
K			1	20400.506	ug/l	3.27	4,246,417.17	1.122E+01	Analog	1.00	3
V			1	409.740	ug/l	3.27	826,564.90	2.184E+00	Pulse	0.50	3
Mn			1	2337.533	ug/l	1.52	3,217,896.08	1.600E+01	Analog	0.50	3
Fe			1	218645.349	ug/l	0.96	413,631,488.00	2.057E+03	Analog	0.50	3
Co			1	97.091	ug/l	2.55	320,533.35	1.594E+00	Pulse	0.50	3
Ni			1	413.934	ug/l	2.42	350,420.55	1.743E+00	Pulse	0.50	3
Cu			1	468.709	ug/l	2.30	1,064,171.58	5.293E+00	Pulse	0.50	3
Zn			1	5400.887	ug/l	2.96	2,301,447.83	7.944E+00	Analog	1.00	3
Cd			1	33.901	ug/l	2.53	22,383.16	7.726E-02	Pulse	0.50	3
Al			1	155222.878	ug/l	2.61	16,611,223.33	4.388E+01	Analog	1.00	3
Se			1	8.073	ug/l	3.98	228.67	7.893E-04	Pulse	3.00	3
Sb			1	2.244	ug/l	4.91	4,475.59	1.545E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,573,721.00	1.59	102.8	Analog	0.50	3
1	Sc		378,750.21	2.67	123.9	Pulse	0.30	3
1	Ge		201,095.13	2.02	109.6	Pulse	0.30	3
1	In		2,147,251.16	2.04	106.2	Analog	0.30	3
1	Tb		6,486,484.00	1.62	108.1	Analog	0.50	3
1	Lu		5,176,616.83	1.70	104.4	Analog	0.50	3
1	Ge		289,798.84	1.99	106.4	Pulse	0.30	3
1	Li		3,115.83	3.97	94.7	Pulse	0.30	3

Quantitation Report

File Name 071SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:10
Sample Name FC10612-4A
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.519	ug/l	2.26	10,650.47	5.133E-02	Pulse	0.50	3
As			1	0.627	ug/l	2.14	225.67	1.088E-03	Pulse	1.00	3
Mo			1	3.617	ug/l	4.56	4,729.32	1.532E-02	Pulse	0.50	3
Pb			1	40.597	ug/l	1.09	310,564.08	6.158E-02	Pulse	1.00	3
Be			1	-0.030	ug/l	-43.41	2.17	6.177E-06	Pulse	2.00	3
Ag			1	1.168	ug/l	2.57	5,128.78	2.247E-03	Pulse	0.50	3
Ba			1	6.458	ug/l	1.15	4,431.93	1.941E-03	Pulse	0.50	3
Tl			1	-0.010	ug/l	-64.03	354.01	7.021E-05	Pulse	0.50	3
Sn			1	21.135	ug/l	3.83	34,069.32	1.493E-02	Pulse	0.30	3
Sr			1	2.882	ug/l	1.09	5,534.23	2.424E-03	Pulse	0.50	3
Ca			1	1636.422	ug/l	2.64	15,928.96	4.539E-02	Pulse	0.50	3
Ti			1	4.770	ug/l	18.56	302.67	8.616E-04	Pulse	0.50	3
Na			1	129.511	ug/l	4.11	78,422.93	2.234E-01	Pulse	1.00	3
Mg			1	87.443	ug/l	10.53	20,551.12	6.050E+00	Pulse	1.00	3
K			1	97.612	ug/l	2.85	73,435.90	2.092E-01	Pulse	1.00	3
V			1	3.451	ug/l	6.62	7,944.43	2.264E-02	Pulse	0.50	3
Mn			1	19.911	ug/l	1.28	28,518.43	1.374E-01	Pulse	0.50	3
Fe			1	765.177	ug/l	6.33	1,504,320.71	7.249E+00	Mix	0.50	3
Co			1	0.668	ug/l	5.63	2,468.18	1.190E-02	Pulse	0.50	3
Ni			1	13.926	ug/l	1.65	12,352.92	5.953E-02	Pulse	0.50	3
Cu			1	180.145	ug/l	1.68	433,652.16	2.090E+00	Pulse	0.50	3
Zn			1	2448.067	ug/l	1.18	1,111,757.04	3.602E+00	Pulse	1.00	3
Cd			1	2.682	ug/l	1.97	1,898.78	6.152E-03	Pulse	0.50	3
Al			1	116.462	ug/l	24.27	11,979.41	3.406E-02	Pulse	1.00	3
Se			1	-0.133	ug/l	-49.59	23.11	7.489E-05	Pulse	3.00	3
Sb			1	3.944	ug/l	1.46	8,237.98	2.669E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		5,042,834.50	0.54	113.3	Analog	0.50	3
1	Sc		350,998.75	1.30	114.8	Pulse	0.30	3
1	Ge		207,513.24	0.69	113.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		2,283,088.87	1.77	112.9	Analog	0.30	3
1	Tb		6,696,515.33	1.75	111.6	Analog	0.50	3
1	Lu		5,404,337.00	1.84	108.9	Analog	0.50	3
1	Ge		308,651.49	0.28	113.3	Pulse	0.30	3
1	Li		3,392.55	3.56	103.1	Pulse	0.30	3

Quantitation Report

File Name	072SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 14:13
Sample Name	FC10889-1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.440	ug/l	16.13	601.34	2.961E-03	Pulse	0.50	3
As			1	1766.851	ug/l	0.50	117,982.16	5.809E-01	Pulse	1.00	3
Mo			1	0.482	ug/l	19.06	451.34	1.492E-03	Pulse	0.50	3
Pb			1	0.947	ug/l	7.10	3,107.31	6.406E-04	Pulse	1.00	3
Be			1	-0.376	ug/l	-27.34	0.67	1.961E-06	Pulse	2.00	3
Ag			1	0.010	ug/l	346.22	180.67	8.038E-05	Pulse	0.50	3
Ba			1	48.704	ug/l	0.97	8,159.99	3.635E-03	Pulse	0.50	3
Tl			1	-0.110	ug/l	-4.39	157.33	3.245E-05	Pulse	0.50	3
Sn			1	-0.838	ug/l	-15.99	342.23	1.524E-04	Pulse	0.30	3
Sr			1	373.094	ug/l	1.23	167,767.27	7.473E-02	Pulse	0.50	3
Ca			1	49937.199	ug/l	1.04	117,191.38	3.444E-01	Pulse	0.50	3
Ti			1	1.862	ug/l	58.61	37.33	1.097E-04	Pulse	0.50	3
Na			1	15741.758	ug/l	2.27	1,749,541.21	5.142E+00	Analog	1.00	3
Mg			1	7841.514	ug/l	2.10	408,382.15	1.293E+02	Pulse	1.00	3
K			1	7903.908	ug/l	0.42	417,716.50	1.228E+00	Pulse	1.00	3
V			1	4.483	ug/l	6.85	3,487.01	1.025E-02	Pulse	0.50	3
Mn			1	2123.430	ug/l	0.84	738,401.85	3.635E+00	Pulse	0.50	3
Fe			1	73593.060	ug/l	1.28	35,169,105.33	1.731E+02	Analog	0.50	3
Co			1	18.715	ug/l	1.31	15,786.92	7.772E-02	Pulse	0.50	3
Ni			1	8.729	ug/l	1.62	2,052.12	1.010E-02	Pulse	0.50	3
Cu			1	-15.657	ug/l	-4.57	9,439.83	4.648E-02	Pulse	0.50	3
Zn			1	10.604	ug/l	15.65	1,772.42	5.857E-03	Pulse	1.00	3
Cd			1	0.058	ug/l	40.54	23.33	7.709E-05	Pulse	0.50	3
Al			1	28.927	ug/l	6.29	1,084.37	3.187E-03	Pulse	1.00	3
Se			1	-0.615	ug/l	-71.85	22.11	7.310E-05	Pulse	3.00	3
Sb			1	-0.122	ug/l	-45.15	128.33	4.244E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,851,813.00	1.07	109.0	Analog	0.50	3
1	Sc		340,250.85	0.33	111.3	Pulse	0.30	3
1	Ge		203,111.33	0.25	110.7	Pulse	0.30	3
1	In		2,245,102.34	0.99	111.0	Analog	0.30	3
1	Tb		6,610,148.50	0.36	110.1	Analog	0.50	3
1	Lu		5,374,529.00	0.58	108.3	Analog	0.50	3
1	Ge		302,541.21	0.43	111.1	Pulse	0.30	3
1	Li		3,159.17	2.52	96.0	Pulse	0.30	3

Quantitation Report

File Name 073SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:17
Sample Name MP43074-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.395	ug/l	6.03	571.34	2.837E-03	Pulse	0.50	3
As			1	1720.847	ug/l	0.42	113,949.50	5.658E-01	Pulse	1.00	3
Mo			1	0.392	ug/l	29.41	418.68	1.403E-03	Pulse	0.50	3
Pb			1	0.750	ug/l	11.35	2,761.24	5.663E-04	Pulse	1.00	3
Be			1	-0.465	ug/l	-11.19	0.17	4.960E-07	Pulse	2.00	3
Ag			1	-0.012	ug/l	-92.85	156.67	7.015E-05	Pulse	0.50	3
Ba			1	48.226	ug/l	2.11	8,034.60	3.599E-03	Pulse	0.50	3
Tl			1	-0.130	ug/l	-2.76	104.00	2.133E-05	Pulse	0.50	3
Sn			1	-0.913	ug/l	-3.80	311.12	1.393E-04	Pulse	0.30	3
Sr			1	363.810	ug/l	1.55	162,666.59	7.288E-02	Pulse	0.50	3
Ca			1	48731.123	ug/l	1.94	112,407.20	3.361E-01	Pulse	0.50	3
Ti			1	0.948	ug/l	7.33	23.33	6.975E-05	Pulse	0.50	3
Na			1	15676.778	ug/l	0.24	1,712,721.75	5.121E+00	Analog	1.00	3
Mg			1	7411.129	ug/l	3.62	394,810.78	1.222E+02	Pulse	1.00	3
K			1	7775.147	ug/l	1.06	404,748.63	1.210E+00	Pulse	1.00	3
V			1	5.049	ug/l	3.80	3,679.06	1.100E-02	Pulse	0.50	3
Mn			1	2066.109	ug/l	0.87	712,447.84	3.537E+00	Pulse	0.50	3
Fe			1	71885.636	ug/l	0.76	34,066,614.00	1.691E+02	Analog	0.50	3
Co			1	18.440	ug/l	0.79	15,427.28	7.660E-02	Pulse	0.50	3
Ni			1	8.300	ug/l	5.97	1,944.78	9.652E-03	Pulse	0.50	3
Cu			1	-14.420	ug/l	-2.15	10,051.50	4.991E-02	Pulse	0.50	3
Zn			1	8.353	ug/l	9.27	1,500.73	5.029E-03	Pulse	1.00	3
Cd			1	0.041	ug/l	219.99	20.00	6.708E-05	Pulse	0.50	3
Al			1	24.992	ug/l	6.33	972.69	2.909E-03	Pulse	1.00	3
Se			1	0.150	ug/l	471.77	26.78	8.976E-05	Pulse	3.00	3
Sb			1	-0.171	ug/l	-7.40	102.67	3.440E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,878,649.67	1.46	109.6	Analog	0.50	3
1	Sc		334,452.51	0.63	109.4	Pulse	0.30	3
1	Ge		201,411.13	0.99	109.8	Pulse	0.30	3
1	In		2,232,400.12	1.34	110.4	Analog	0.30	3
1	Tb		6,588,496.83	1.89	109.8	Analog	0.50	3
1	Lu		5,372,702.50	0.85	108.3	Analog	0.50	3
1	Ge		298,409.26	0.26	109.5	Pulse	0.30	3
1	Li		3,232.52	3.16	98.3	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:20
Sample Name MP43074-S1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	195.322	ug/l	1.62	110,027.04	5.375E-01	Pulse	0.50	3
As			1	1945.253	ug/l	1.57	130,908.23	6.395E-01	Pulse	1.00	3
Mo			1	206.701	ug/l	1.62	62,626.68	2.054E-01	Pulse	0.50	3
Pb			1	192.750	ug/l	1.74	350,337.56	7.305E-02	Pulse	1.00	3
Be			1	188.868	ug/l	2.90	1,073.86	3.126E-03	Pulse	2.00	3
Ag			1	97.352	ug/l	2.30	101,470.01	4.531E-02	Pulse	0.50	3
Ba			1	237.127	ug/l	3.70	39,370.91	1.758E-02	Pulse	0.50	3
Tl			1	183.657	ug/l	1.75	481,849.66	1.005E-01	Pulse	0.50	3
Sn			1	180.355	ug/l	2.31	70,579.81	3.151E-02	Pulse	0.30	3
Sr			1	559.249	ug/l	2.92	250,727.21	1.120E-01	Pulse	0.50	3
Ca			1	67840.509	ug/l	0.91	160,722.78	4.678E-01	Pulse	0.50	3
Ti			1	200.045	ug/l	5.82	3,011.60	8.765E-03	Pulse	0.50	3
Na			1	33778.515	ug/l	0.77	3,768,629.67	1.097E+01	Analog	1.00	3
Mg			1	28262.646	ug/l	4.22	1,525,838.92	4.653E+02	Analog	1.00	3
K			1	26851.586	ug/l	2.78	1,304,239.54	3.796E+00	Mix	1.00	3
V			1	191.872	ug/l	0.34	89,125.22	2.594E-01	Pulse	0.50	3
Mn			1	2295.429	ug/l	1.68	804,473.79	3.930E+00	Pulse	0.50	3
Fe			1	91817.828	ug/l	1.66	44,219,600.00	2.160E+02	Analog	0.50	3
Co			1	218.305	ug/l	2.26	183,563.92	8.967E-01	Pulse	0.50	3
Ni			1	209.054	ug/l	0.97	45,219.82	2.209E-01	Pulse	0.50	3
Cu			1	190.155	ug/l	1.81	126,451.04	6.177E-01	Pulse	0.50	3
Zn			1	203.801	ug/l	0.63	23,438.59	7.688E-02	Pulse	1.00	3
Cd			1	196.145	ug/l	1.95	34,063.51	1.117E-01	Pulse	0.50	3
Al			1	17966.725	ug/l	1.36	436,601.65	1.271E+00	Pulse	1.00	3
Se			1	193.100	ug/l	1.52	1,307.49	4.289E-03	Pulse	3.00	3
Sb			1	191.256	ug/l	1.54	96,520.86	3.166E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,796,657.00	1.16	107.8	Analog	0.50	3
1	Sc		343,556.35	0.33	112.4	Pulse	0.30	3
1	Ge		204,717.07	0.89	111.6	Pulse	0.30	3
1	In		2,240,375.33	2.36	110.8	Analog	0.30	3
1	Tb		6,589,747.83	1.00	109.8	Analog	0.50	3
1	Lu		5,347,099.00	1.36	107.8	Analog	0.50	3
1	Ge		304,857.15	0.45	111.9	Pulse	0.30	3
1	Li		3,283.64	4.77	99.8	Pulse	0.30	3

Quantitation Report

File Name	075SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 14:23
Sample Name	MP43074-S2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	193.566	ug/l	0.46	109,841.74	5.327E-01	Pulse	0.50	3
As			1	1920.180	ug/l	0.69	130,175.20	6.313E-01	Pulse	1.00	3
Mo			1	206.206	ug/l	1.16	62,940.50	2.049E-01	Pulse	0.50	3
Pb			1	193.501	ug/l	1.35	349,923.02	7.333E-02	Pulse	1.00	3
Be			1	185.569	ug/l	2.37	1,063.03	3.071E-03	Pulse	2.00	3
Ag			1	94.515	ug/l	1.66	101,052.82	4.399E-02	Pulse	0.50	3
Ba			1	230.359	ug/l	1.60	39,243.31	1.708E-02	Pulse	0.50	3
Tl			1	184.047	ug/l	2.07	480,423.74	1.007E-01	Pulse	0.50	3
Sn			1	175.999	ug/l	2.28	70,657.91	3.076E-02	Pulse	0.30	3
Sr			1	542.247	ug/l	1.71	249,387.68	1.086E-01	Pulse	0.50	3
Ca			1	67211.873	ug/l	1.04	160,430.47	4.635E-01	Pulse	0.50	3
Ti			1	191.379	ug/l	4.72	2,902.91	8.386E-03	Pulse	0.50	3
Na			1	34205.289	ug/l	1.45	3,844,726.50	1.111E+01	Analog	1.00	3
Mg			1	28180.554	ug/l	5.63	1,528,949.50	4.639E+02	Analog	1.00	3
K			1	26360.422	ug/l	0.30	1,290,931.54	3.729E+00	Pulse	1.00	3
V			1	191.358	ug/l	1.54	89,559.02	2.587E-01	Pulse	0.50	3
Mn			1	2248.099	ug/l	0.57	793,687.79	3.849E+00	Pulse	0.50	3
Fe			1	89921.855	ug/l	0.57	43,626,432.00	2.116E+02	Analog	0.50	3
Co			1	217.578	ug/l	0.94	184,297.83	8.937E-01	Pulse	0.50	3
Ni			1	206.358	ug/l	0.56	44,966.55	2.181E-01	Pulse	0.50	3
Cu			1	191.298	ug/l	1.30	128,034.02	6.209E-01	Pulse	0.50	3
Zn			1	202.738	ug/l	1.39	23,491.66	7.649E-02	Pulse	1.00	3
Cd			1	194.585	ug/l	0.99	34,042.11	1.108E-01	Pulse	0.50	3
Al			1	17965.165	ug/l	1.15	439,841.81	1.271E+00	Pulse	1.00	3
Se			1	190.348	ug/l	2.94	1,298.71	4.229E-03	Pulse	3.00	3
Sb			1	189.904	ug/l	1.92	96,545.56	3.144E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,771,999.17	0.97	107.2	Analog	0.50	3
1	Sc		346,141.28	0.02	113.2	Pulse	0.30	3
1	Ge		206,217.13	0.12	112.4	Pulse	0.30	3
1	In		2,297,382.83	0.64	113.6	Analog	0.30	3
1	Tb		6,628,742.50	0.50	110.4	Analog	0.50	3
1	Lu		5,375,642.33	0.91	108.4	Analog	0.50	3
1	Ge		307,112.78	0.34	112.7	Pulse	0.30	3
1	Li		3,301.42	5.40	100.4	Pulse	0.30	3

Quantitation Report

File Name 076SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:27
Sample Name MP43074-PS1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.371	ug/l	5.06	6,257.77	3.020E-02	Pulse	0.50	3
As			1	1785.263	ug/l	0.52	121,620.66	5.869E-01	Pulse	1.00	3
Mo			1	10.723	ug/l	1.17	3,591.71	1.162E-02	Pulse	0.50	3
Pb			1	10.729	ug/l	1.88	21,279.73	4.333E-03	Pulse	1.00	3
Be			1	10.099	ug/l	7.56	60.83	1.749E-04	Pulse	2.00	3
Ag			1	2.837	ug/l	4.40	3,177.64	1.393E-03	Pulse	0.50	3
Ba			1	58.992	ug/l	3.24	10,022.99	4.396E-03	Pulse	0.50	3
Tl			1	9.552	ug/l	1.53	26,090.48	5.313E-03	Pulse	0.50	3
Sn			1	8.302	ug/l	4.09	3,953.81	1.734E-03	Pulse	0.30	3
Sr			1	386.154	ug/l	2.92	176,348.34	7.734E-02	Pulse	0.50	3
Ca			1	50667.022	ug/l	1.57	121,600.59	3.495E-01	Pulse	0.50	3
Ti			1	10.009	ug/l	3.45	162.00	4.655E-04	Pulse	0.50	3
Na			1	16814.126	ug/l	0.10	1,910,001.13	5.488E+00	Analog	1.00	3
Mg			1	8751.504	ug/l	1.56	476,727.46	1.443E+02	Pulse	1.00	3
K			1	8966.591	ug/l	1.05	477,333.45	1.372E+00	Pulse	1.00	3
V			1	12.994	ug/l	1.43	7,504.24	2.157E-02	Pulse	0.50	3
Mn			1	2148.392	ug/l	0.78	762,179.98	3.678E+00	Pulse	0.50	3
Fe			1	75609.112	ug/l	1.00	36,862,124.00	1.779E+02	Analog	0.50	3
Co			1	29.396	ug/l	2.13	25,188.24	1.216E-01	Pulse	0.50	3
Ni			1	19.213	ug/l	3.74	4,379.88	2.114E-02	Pulse	0.50	3
Cu			1	-3.751	ug/l	-12.32	16,478.23	7.952E-02	Pulse	0.50	3
Zn			1	18.655	ug/l	4.41	2,724.88	8.817E-03	Pulse	1.00	3
Cd			1	9.966	ug/l	3.47	1,768.10	5.719E-03	Pulse	0.50	3
Al			1	977.961	ug/l	1.29	24,446.07	7.025E-02	Pulse	1.00	3
Se			1	9.867	ug/l	20.46	93.11	3.012E-04	Pulse	3.00	3
Sb			1	9.058	ug/l	2.22	4,819.01	1.559E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,911,449.00	1.04	110.3	Analog	0.50	3
1	Sc		348,001.70	1.06	113.8	Pulse	0.30	3
1	Ge		207,219.48	0.19	112.9	Pulse	0.30	3
1	In		2,281,236.51	2.66	112.8	Analog	0.30	3
1	Tb		6,617,982.17	1.27	110.2	Analog	0.50	3
1	Lu		5,428,016.83	1.12	109.4	Analog	0.50	3
1	Ge		309,112.36	0.96	113.5	Pulse	0.30	3
1	Li		3,304.75	1.79	100.5	Pulse	0.30	3

Quantitation Report

File Name 077SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:30
Sample Name FC10889-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.358	ug/l	10.49	1,139.37	5.682E-03	Pulse	0.50	3
As			1	422.985	ug/l	2.29	111,572.23	5.563E-01	Pulse	1.00	3
Mo			1	1.542	ug/l	3.91	2,118.14	7.115E-03	Pulse	0.50	3
Pb			1	0.264	ug/l	8.08	3,216.33	6.819E-04	Pulse	1.00	3
Be			1	-0.094	ug/l	-27.60	0.67	1.975E-06	Pulse	2.00	3
Ag			1	-0.006	ug/l	-58.57	142.00	6.429E-05	Pulse	0.50	3
Ba			1	63.243	ug/l	1.89	41,416.46	1.876E-02	Pulse	0.50	3
Tl			1	-0.004	ug/l	-81.70	396.01	8.399E-05	Pulse	0.50	3
Sn			1	-0.033	ug/l	-112.10	606.68	2.747E-04	Pulse	0.30	3
Sr			1	307.203	ug/l	1.29	542,897.94	2.459E-01	Pulse	0.50	3
Ca			1	38481.622	ug/l	2.51	357,080.13	1.061E+00	Pulse	0.50	3
Ti			1	0.371	ug/l	52.78	31.33	9.317E-05	Pulse	0.50	3
Na			1	16043.375	ug/l	2.75	6,996,272.67	2.079E+01	Analog	1.00	3
Mg			1	6940.863	ug/l	3.48	1,458,712.46	4.571E+02	Analog	1.00	3
K			1	9843.935	ug/l	0.84	1,848,919.79	5.494E+00	Analog	1.00	3
V			1	1.269	ug/l	9.86	3,715.07	1.103E-02	Pulse	0.50	3
Mn			1	2005.492	ug/l	1.81	2,754,284.67	1.373E+01	Analog	0.50	3
Fe			1	46815.628	ug/l	2.58	88,355,680.00	4.405E+02	Analog	0.50	3
Co			1	8.620	ug/l	1.71	28,565.24	1.424E-01	Pulse	0.50	3
Ni			1	2.202	ug/l	6.38	2,042.79	1.019E-02	Pulse	0.50	3
Cu			1	-0.942	ug/l	-36.15	15,937.76	7.947E-02	Pulse	0.50	3
Zn			1	10.754	ug/l	3.28	5,290.46	1.777E-02	Pulse	1.00	3
Cd			1	-0.008	ug/l	-67.89	8.00	2.687E-05	Pulse	0.50	3
Al			1	7.970	ug/l	1.40	1,142.71	3.395E-03	Pulse	1.00	3
Se			1	-0.102	ug/l	-112.93	23.11	7.761E-05	Pulse	3.00	3
Sb			1	0.007	ug/l	62.04	201.00	6.751E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,717,827.83	1.33	106.0	Analog	0.50	3
1	Sc		336,563.39	0.75	110.1	Pulse	0.30	3
1	Ge		200,612.25	1.13	109.3	Pulse	0.30	3
1	In		2,208,147.21	0.41	109.2	Analog	0.30	3
1	Tb		6,577,899.33	0.97	109.6	Analog	0.50	3
1	Lu		5,361,819.33	1.14	108.1	Analog	0.50	3
1	Ge		297,721.88	0.72	109.3	Pulse	0.30	3
1	Li		3,192.51	3.32	97.1	Pulse	0.30	3

Quantitation Report

File Name 078SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:33
Sample Name FC10889-3
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.658	ug/l	43.32	512.68	2.477E-03	Pulse	0.50	3
As			1	5375.527	ug/l	1.53	146,275.39	7.068E-01	Pulse	1.00	3
Mo			1	-0.441	ug/l	-27.58	259.33	8.411E-04	Pulse	0.50	3
Pb			1	0.075	ug/l	86.36	1,456.07	2.943E-04	Pulse	1.00	3
Be			1	-0.445	ug/l	-101.60	1.83	5.238E-06	Pulse	2.00	3
Ag			1	-0.111	ug/l	-22.17	126.67	5.483E-05	Pulse	0.50	3
Ba			1	28.258	ug/l	6.00	1,999.46	8.657E-04	Pulse	0.50	3
Tl			1	-0.302	ug/l	-5.65	130.00	2.629E-05	Pulse	0.50	3
Sn			1	-2.685	ug/l	-7.03	257.78	1.115E-04	Pulse	0.30	3
Sr			1	294.316	ug/l	2.03	54,666.42	2.366E-02	Pulse	0.50	3
Ca			1	44618.316	ug/l	0.88	43,168.13	1.233E-01	Pulse	0.50	3
Ti			1	-0.424	ug/l	-44.04	7.33	2.094E-05	Pulse	0.50	3
Na			1	9098.357	ug/l	0.85	431,347.44	1.232E+00	Pulse	1.00	3
Mg			1	5546.953	ug/l	3.71	120,140.15	3.680E+01	Pulse	1.00	3
K			1	5482.463	ug/l	0.41	158,821.39	4.536E-01	Pulse	1.00	3
V			1	1.888	ug/l	29.81	1,852.77	5.291E-03	Pulse	0.50	3
Mn			1	2630.390	ug/l	1.31	372,889.74	1.802E+00	Pulse	0.50	3
Fe			1	75462.267	ug/l	0.85	14,702,914.00	7.105E+01	Analog	0.50	3
Co			1	25.994	ug/l	2.07	9,022.29	4.360E-02	Pulse	0.50	3
Ni			1	11.119	ug/l	3.87	1,158.71	5.599E-03	Pulse	0.50	3
Cu			1	-41.594	ug/l	-2.42	9,054.97	4.376E-02	Pulse	0.50	3
Zn			1	20.183	ug/l	0.75	1,519.07	4.926E-03	Pulse	1.00	3
Cd			1	-0.098	ug/l	-60.02	6.67	2.160E-05	Pulse	0.50	3
Al			1	4.469	ug/l	53.08	444.34	1.269E-03	Pulse	1.00	3
Se			1	-0.289	ug/l	-267.00	25.89	8.398E-05	Pulse	3.00	3
Sb			1	-0.570	ug/l	-14.45	77.00	2.499E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,947,334.67	0.74	111.1	Analog	0.50	3
1	Sc		350,170.47	0.25	114.5	Pulse	0.30	3
1	Ge		206,943.43	0.14	112.8	Pulse	0.30	3
1	In		2,310,714.28	1.53	114.3	Analog	0.30	3
1	Tb		6,668,705.67	1.11	111.1	Analog	0.50	3
1	Lu		5,415,058.33	0.81	109.2	Analog	0.50	3
1	Ge		308,357.04	0.47	113.2	Pulse	0.30	3
1	Li		3,268.08	4.35	99.4	Pulse	0.30	3

Quantitation Report

File Name 079SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:37
Sample Name FC10889-4
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.181	ug/l	35.38	470.01	2.252E-03	Pulse	0.50	3
As			1	2255.779	ug/l	0.67	154,755.43	7.415E-01	Pulse	1.00	3
Mo			1	1.082	ug/l	18.85	644.68	2.086E-03	Pulse	0.50	3
Pb			1	0.036	ug/l	59.64	1,448.40	2.966E-04	Pulse	1.00	3
Be			1	-0.206	ug/l	-243.66	1.67	4.778E-06	Pulse	2.00	3
Ag			1	-0.056	ug/l	-20.96	115.33	4.950E-05	Pulse	0.50	3
Ba			1	47.017	ug/l	1.85	8,181.33	3.510E-03	Pulse	0.50	3
Tl			1	-0.131	ug/l	-2.45	102.00	2.088E-05	Pulse	0.50	3
Sn			1	-0.652	ug/l	-4.92	430.01	1.845E-04	Pulse	0.30	3
Sr			1	334.520	ug/l	1.67	156,223.69	6.702E-02	Pulse	0.50	3
Ca			1	45690.458	ug/l	1.47	110,184.38	3.152E-01	Pulse	0.50	3
Ti			1	0.353	ug/l	202.63	15.33	4.377E-05	Pulse	0.50	3
Na			1	14471.452	ug/l	0.23	1,654,274.17	4.732E+00	Analog	1.00	3
Mg			1	7035.459	ug/l	4.81	378,221.55	1.160E+02	Pulse	1.00	3
K			1	7803.117	ug/l	0.49	424,444.79	1.214E+00	Pulse	1.00	3
V			1	1.751	ug/l	9.11	2,312.82	6.616E-03	Pulse	0.50	3
Mn			1	2167.595	ug/l	0.60	774,471.75	3.711E+00	Pulse	0.50	3
Fe			1	67865.354	ug/l	1.36	33,323,870.67	1.597E+02	Analog	0.50	3
Co			1	17.768	ug/l	1.10	15,409.94	7.384E-02	Pulse	0.50	3
Ni			1	7.357	ug/l	2.69	1,807.43	8.660E-03	Pulse	0.50	3
Cu			1	-15.759	ug/l	-1.83	9,640.61	4.619E-02	Pulse	0.50	3
Zn			1	7.752	ug/l	1.55	1,485.40	4.808E-03	Pulse	1.00	3
Cd			1	-0.047	ug/l	-28.71	5.33	1.731E-05	Pulse	0.50	3
Al			1	4.519	ug/l	38.41	511.01	1.462E-03	Pulse	1.00	3
Se			1	-0.438	ug/l	-84.60	23.78	7.697E-05	Pulse	3.00	3
Sb			1	-0.201	ug/l	-16.21	90.67	2.936E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,883,506.00	0.24	109.7	Analog	0.50	3
1	Sc		349,623.77	0.44	114.4	Pulse	0.30	3
1	Ge		208,693.79	0.34	113.7	Pulse	0.30	3
1	In		2,331,302.96	1.03	115.3	Analog	0.30	3
1	Tb		6,748,022.33	1.33	112.4	Analog	0.50	3
1	Lu		5,497,424.33	0.76	110.8	Analog	0.50	3
1	Ge		308,938.94	0.86	113.4	Pulse	0.30	3
1	Li		3,263.64	4.29	99.2	Pulse	0.30	3

Quantitation Report

File Name	080CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 14:40
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	46.381	ug/l	1.99	543,736.88	2.546E+00	Pulse	0.50	3
As			1	46.963	ug/l	2.65	65,973.75	3.089E-01	Pulse	1.00	3
Mo			1	45.533	ug/l	1.26	287,044.39	9.016E-01	Pulse	0.50	3
Pb			1	47.598	ug/l	2.18	1,743,236.38	3.597E-01	Analog	1.00	3
Be			1	44.477	ug/l	2.44	5,249.23	1.469E-02	Pulse	2.00	3
Ag			1	45.868	ug/l	1.19	987,230.52	4.263E-01	Pulse	0.50	3
Ba			1	45.050	ug/l	1.02	154,538.27	6.673E-02	Pulse	0.50	3
Tl			1	47.780	ug/l	3.12	2,531,783.17	5.224E-01	Analog	0.50	3
Sn			1	44.659	ug/l	1.40	358,678.39	1.549E-01	Pulse	0.30	3
Sr			1	44.508	ug/l	0.98	412,542.72	1.781E-01	Pulse	0.50	3
Ca			1	4703.767	ug/l	1.90	231,783.89	6.486E-01	Pulse	0.50	3
Ti			1	46.154	ug/l	0.80	14,417.72	4.034E-02	Pulse	0.50	3
Na			1	4629.440	ug/l	0.63	10,711,481.67	2.997E+01	Analog	1.00	3
Mg			1	5126.995	ug/l	1.99	5,470,280.17	1.687E+03	Analog	1.00	3
K			1	4768.879	ug/l	1.02	4,676,232.67	1.308E+01	Analog	1.00	3
V			1	45.724	ug/l	1.37	436,077.80	1.220E+00	Pulse	0.50	3
Mn			1	46.966	ug/l	1.51	343,610.47	1.609E+00	Pulse	0.50	3
Fe			1	4752.776	ug/l	2.03	47,760,880.00	2.236E+02	Analog	0.50	3
Co			1	47.238	ug/l	2.14	828,102.19	3.877E+00	Pulse	0.50	3
Ni			1	48.305	ug/l	1.69	217,310.93	1.017E+00	Pulse	0.50	3
Cu			1	46.933	ug/l	1.97	575,612.94	2.695E+00	Pulse	0.50	3
Zn			1	47.214	ug/l	0.98	111,149.74	3.491E-01	Pulse	1.00	3
Cd			1	45.927	ug/l	1.12	166,533.52	5.231E-01	Pulse	0.50	3
Al			1	4719.189	ug/l	3.18	2,383,548.75	6.671E+00	Analog	1.00	3
Se			1	47.142	ug/l	0.87	6,560.21	2.061E-02	Pulse	3.00	3
Sb			1	44.166	ug/l	1.50	464,798.51	1.460E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,847,874.67	1.28	108.9	Analog	0.50	3
1	Sc		357,413.01	1.52	116.9	Pulse	0.30	3
1	Ge		213,614.59	1.59	116.4	Pulse	0.30	3
1	In		2,316,097.96	1.47	114.5	Analog	0.30	3
1	Tb		6,740,438.83	1.35	112.3	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		5,440,878.17	0.28	109.7	Analog	0.50	3
1	Ge		318,393.80	1.17	116.9	Pulse	0.30	3
1	Li		3,242.52	1.63	98.6	Pulse	0.30	3

Quantitation Report

File Name 081_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File
Method Path
Acq Time 2023-11-03 14:43
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-03 11:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	94.909	ug/l	1.93	1,064,729.33	5.208E+00	Pulse	0.50	3
As			1	96.821	ug/l	1.45	130,153.05	6.366E-01	Pulse	1.00	3
Mo			1	94.296	ug/l	0.71	567,759.15	1.866E+00	Pulse	0.50	3
Pb			1	97.803	ug/l	1.63	3,410,572.58	7.387E-01	Analog	1.00	3
Be			1	91.339	ug/l	2.08	10,397.53	3.016E-02	Pulse	2.00	3
Ag			1	100.029	ug/l	0.34	2,031,064.29	9.296E-01	Analog	0.50	3
Ba			1	94.398	ug/l	1.38	305,420.55	1.398E-01	Pulse	0.50	3
Tl			1	97.428	ug/l	1.03	4,917,795.00	1.065E+00	Analog	0.50	3
Sn			1	94.269	ug/l	1.45	713,568.19	3.266E-01	Pulse	0.30	3
Sr			1	93.768	ug/l	1.20	819,650.69	3.752E-01	Pulse	0.50	3
Ca			1	9535.768	ug/l	1.21	453,248.46	1.315E+00	Pulse	0.50	3
Ti			1	96.325	ug/l	2.63	29,013.73	8.416E-02	Pulse	0.50	3
Na			1	9415.420	ug/l	1.30	20,996,188.00	6.090E+01	Analog	1.00	3
Mg			1	10253.363	ug/l	7.06	10,764,048.00	3.374E+03	Analog	1.00	3
K			1	9753.484	ug/l	0.33	9,171,536.33	2.660E+01	Analog	1.00	3
V			1	93.349	ug/l	1.72	857,347.06	2.487E+00	Pulse	0.50	3
Mn			1	95.818	ug/l	1.53	670,812.90	3.281E+00	Pulse	0.50	3
Fe			1	9733.565	ug/l	1.18	93,630,240.00	4.579E+02	Analog	0.50	3
Co			1	99.875	ug/l	1.04	1,676,342.09	8.197E+00	Analog	0.50	3
Ni			1	97.260	ug/l	2.33	418,626.66	2.048E+00	Pulse	0.50	3
Cu			1	95.783	ug/l	1.41	1,105,448.00	5.407E+00	Pulse	0.50	3
Zn			1	95.757	ug/l	0.27	214,813.96	7.060E-01	Pulse	1.00	3
Cd			1	94.479	ug/l	0.75	327,377.25	1.076E+00	Pulse	0.50	3
Al			1	9540.456	ug/l	2.35	4,648,877.50	1.349E+01	Analog	1.00	3
Se			1	96.174	ug/l	0.34	12,762.56	4.195E-02	Pulse	3.00	3
Sb			1	91.627	ug/l	1.12	921,308.94	3.028E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,617,936.33	1.88	103.7	Analog	0.50	3
1	Sc		344,812.22	1.41	112.8	Pulse	0.30	3
1	Ge		204,482.62	1.46	111.4	Pulse	0.30	3
1	In		2,184,998.18	1.18	108.0	Analog	0.30	3
1	Tb		6,625,805.00	1.60	110.4	Analog	0.50	3
1	Lu		5,418,354.83	1.32	109.2	Analog	0.50	3
1	Ge		304,252.41	0.62	111.7	Pulse	0.30	3
1	Li		3,200.29	6.79	97.3	Pulse	0.30	3

Quantitation Report

File Name	082_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Method File	
Method Path	
Acq Time	2023-11-03 14:46
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-03 11:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.022	ug/l	41.13	617.35	2.957E-03	Pulse	0.50	3
As			1	0.039	ug/l	30.96	108.67	5.206E-04	Pulse	1.00	3
Mo			1	0.129	ug/l	36.71	1,107.37	3.572E-03	Pulse	0.50	3
Pb			1	0.033	ug/l	34.03	2,587.22	5.309E-04	Pulse	1.00	3
Be			1	0.020	ug/l	46.84	5.17	1.467E-05	Pulse	2.00	3
Ag			1	0.020	ug/l	51.33	606.01	2.584E-04	Pulse	0.50	3
Ba			1	0.026	ug/l	51.35	156.67	6.674E-05	Pulse	0.50	3
Tl			1	0.013	ug/l	58.67	1,166.05	2.391E-04	Pulse	0.50	3
Sn			1	0.088	ug/l	18.84	1,417.85	6.015E-04	Pulse	0.30	3
Sr			1	0.028	ug/l	42.40	540.01	2.298E-04	Pulse	0.50	3
Ca			1	2.905	ug/l	34.13	240.00	6.816E-04	Pulse	0.50	3
Ti			1	0.037	ug/l	144.64	21.33	6.076E-05	Pulse	0.50	3
Na			1	0.307	ug/l	295.41	20,426.92	5.799E-02	Pulse	1.00	3
Mg			1	2.179	ug/l	51.59	3,386.01	1.013E+00	Pulse	1.00	3
K			1	-2.083	ug/l	-61.40	53,090.35	1.506E-01	Pulse	1.00	3
V			1	0.053	ug/l	15.31	2,008.79	5.700E-03	Pulse	0.50	3
Mn			1	0.192	ug/l	5.25	1,603.41	7.681E-03	Pulse	0.50	3
Fe			1	3.528	ug/l	23.06	45,118.06	2.161E-01	Pulse	0.50	3
Co			1	0.017	ug/l	57.24	491.34	2.354E-03	Pulse	0.50	3
Ni			1	0.019	ug/l	43.05	275.33	1.319E-03	Pulse	0.50	3
Cu			1	-1.125	ug/l	-1.07	5,741.61	2.750E-02	Pulse	0.50	3
Zn			1	0.144	ug/l	8.97	935.03	3.019E-03	Pulse	1.00	3
Cd			1	0.014	ug/l	58.48	64.67	2.091E-04	Pulse	0.50	3
Al			1	2.698	ug/l	33.07	1,744.42	4.956E-03	Pulse	1.00	3
Se			1	0.020	ug/l	85.21	29.56	9.539E-05	Pulse	3.00	3
Sb			1	0.030	ug/l	12.35	499.18	1.612E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		4,872,112.00	1.11	109.5	Analog	0.50	3
1	Sc		352,457.70	0.78	115.3	Pulse	0.30	3
1	Ge		208,762.02	0.14	113.8	Pulse	0.30	3
1	In		2,354,775.88	1.63	116.4	Analog	0.30	3
1	Tb		6,672,851.00	0.68	111.2	Analog	0.50	3
1	Lu		5,472,242.17	0.91	110.3	Analog	0.50	3
1	Ge		309,741.53	0.59	113.7	Pulse	0.30	3
1	Li		3,338.09	5.11	101.5	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

US EPA Tune Check Report

Operator Name	admin
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b
Acq. Date-Time	2023-11-03 10:04:54
Report Comment	---
Instrument Name	ICP-MS JP12151709

[2]

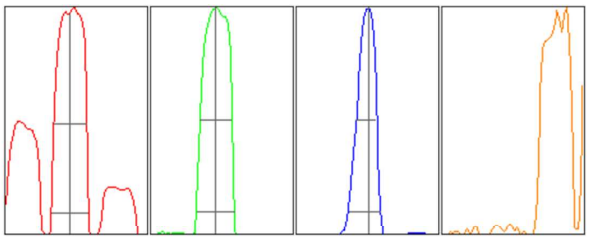
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59	1.00	1503	15028.62	5000.00		3.094	5.000
89	1.00	1502	15023.17	5000.00		3.315	5.000
205	1.00	4783	47829.62	5000.00		2.388	5.000
78		2	18.80			94.078	

Mass	RSD% (Flag)	Background	Background (Required)	Background (Flag)
59		0.100	2.000	
89		0.000	2.000	
205		0.600	2.000	
78		0.000	5.000	

Integration Time [sec]	0.1
Oxide	156 / 140 0.605 %
Doubly Charged	70 / 140 0.979 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	1455.64	58.90	58.90 - 59.10	
89	1517.47	88.90	88.90 - 89.10	
205	4759.43	205.05	204.90 - 205.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.70	0.783	0.900	
89	0.68	0.807	0.900	
205	0.44	0.684	0.900	
78				

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	1.09 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.2 V	Deflect	1.4 V
Extract 2	-120.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-65 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.3 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9989	QP Bias	-15.0 V
Mass Offset	129	Axis Offset	0.11		

Hardware Settings

Torch

Torch H	-0.5 mm	Torch V	0.2 mm

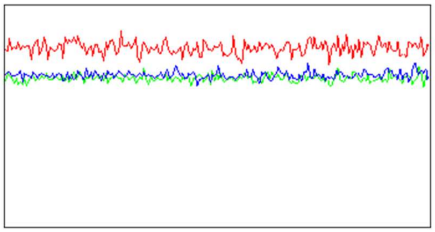
EM

Discriminator	4.5 mV	Analog HV	1776 V	Pulse HV	1729 V

Performance Report

Operator Name	admin
Acq. Date-Time	2023-11-03 09:55:39
Instrument Name	ICP-MS JP12151709
Sample Introduction	ISIS
Nebulizer Type	MicroMist
Ion Lens Model	x-Lens
Tune Parameters	Standard Tune

Sensitivity



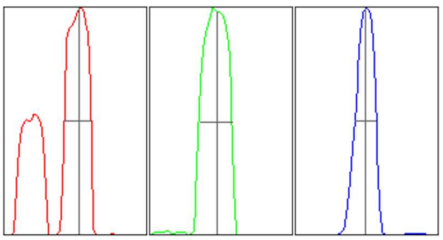
Mass	Range	Count	RSD%	Background
7	2000	1621	3.492	0.250
89	5000	3363	2.358	1.050
205	5000	3436	2.377	4.700

Sampling Period [sec]	0.311
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.239 %
Doubly Charged	70 / 140 2.183 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
7	1658.53	7.10	0.58	0.67
89	3363.82	88.95	0.70	0.85
205	3395.23	205.00	0.45	0.70

Integration Time [sec]	0.1
Acquisition Time [sec]	22.74

Tune Parameters

Plasma Parameters

RF Power	1550 W	Option Gas	---	Makeup Gas	0.00 L/min
RF Matching	1.60 V	Nebulizer Pump	0.10 rps	Auxiliary Gas	0.90 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C	Plasma Gas	15.0 L/min
Nebulizer Gas	0.99 L/min				

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.4 V	Deflect	13.4 V
Extract 2	-170.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-90 V	Cell Exit	-50 V		

Performance Report

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

QP Bias	-3.0 V

Hardware Settings

Torch

Torch H	-0.5 mm	Torch H (Hot)	---	Torch H (Cool)	---
Torch V	0.2 mm	Torch V (Hot)	---	Torch V (Cool)	---

Plasma Correction

Nebulizer Gas Offset	-0.06 L/min	Makeup Gas (Hot)	---	Makeup Gas (Cool)	---
		Sample Depth (Hot)	---		

Resolution/Axis

Mass Gain	124	Axis Gain	0.9989		
Mass Offset	129	Axis Offset	0.11		

EM

Discriminator	4.5 mV	Analog HV	1776 V	Pulse HV	1729 V

Performance Report

Meter

Name	Value	Unit
Nebulizer Gas	0.99	L/min
MU./Dil. Gas	0.00	L/min
Plasma Gas	14.99	L/min
Aux Gas	0.90	L/min
Ar Gas Tank Press	5.59E+2	kPa
+5V (Press Gage)	5.0	V
Ar AMFC Temp	27.6	°C
Nebulizer Gas(DP)	6.04E+0	kPa
MU./Dil. Gas(DP)	-3.09E-2	kPa
Aux Gas(DP)	1.25E+1	kPa
Plasma Gas(DP)	1.14E+1	kPa
Nebulizer Gas(BP)	2.77E+2	kPa
MU./Dil. Gas(BP)	0.00E+0	kPa
Aux Gas(BP)	5.56E+1	kPa
Plasma Gas(BP)	4.21E+1	kPa
S/C Temp (H)	17.7	°C
S/C Temp (L)	1.9	°C
Peltier Voltage	2.7	V
IF/BK Press	3.03E+2	Pa
Analyzer Press	1.58E-4	Pa
IG HV	179	V
IG Emission	5.00	µA
TMP Revolution	100.0	%
TMP Rev (RAW)	100.6	%
TMP Current	3.60	A
PWR AMP Drain I	0.4	A
PWR AMP Bias	2.84	V
OctP RF (Avg)	173.0	V
OctP RF Set	3.3	V
OctP FET Bias Set	3.31	V
OctP RF(+)	168.0	V
OctP RF(-)	176.9	V
OctP Bias	-8.0	V
Cell Temp.	65.0	°C
Cell Heater Volt.	4.5	V
+U Voltage	404.3	V

Name	Value	Unit
-U Voltage	-411.1	V
V Voltage	1761.3	V
QPRF Fader	1.3	V
Pickup Temp	55.0	°C
PWR Amp Temp	0.1	V
+600V	619.0	V
-120V	-133.7	V
-720V	-741.8	V
Prefilter Bias	-5.00	V
Pickup Heater I	0.11	A
QP PS +48V	47.8	V
QP PS +48V I	0.00	A
Analog HV	-1713	V
Pulse HV	1750	V
EM Gate	-38.0	V
Pulse Gate	361.2	V
EM Entrance	0.2	V
Analog -5V	-5.1	V
Analog +15V	14.7	V
Analog -15V	-14.5	V
Analog +5V	5.2	V
Shunt C Pos	1.3	V
Drain Volt.(max)	61.3	V
RF PS +48V	47.5	V
Forward Power	1550	W
Reflected Power	1	W
Plasma Freq.	26.74	MHz
Drain I 1	11.17	A
Drain I 2	10.64	A
Drain I 3	10.88	A
Drain I 4	10.92	A
Temp Sensor	2.9	V
Driver I	6.66	A
Igniter	0.0	V
Driver Voltage Set	7.1	V
Unbalance Current	0.36	A

Name	Value	Unit
PWM Threshold Set	0.2	V
Driver Voltage	5.7	V
PWM Threshold	0.2	V
Phase Detector	0.0	mV
H2 Gas	0.11	mL/min
He Gas	0.04	mL/min
H2 Gas Press	1.71E+0	kPa
He Gas Press	0.00E+0	kPa
ORS AMFC Temp	25.3	°C
Atmospheric Press	1.01E+2	kPa
Extract 1	-0.2	V
Extract 2	-171.1	V
Omega Bias	-90.0	V
Omega Lens	8.3	V
Cell Entrance	-30.2	V
Cell Exit	-50.2	V
Deflect	13.6	V
Plate Bias	-39.9	V
HV+530V	527	V
HV+240V	239	V
HV-360V	-359	V
Inlet Temp	26.3	°C
Internal Temp	32.8	°C
+24V	23.6	V
Water Temp	20.2	°C
Water RF/WC/IF	1.42	L/min

Performance Report History

Sensitivity

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-03 09:55:39	1621	3363	3436
2023-11-02 09:43:00	1591	3465	3262
2023-11-01 10:06:30	1702	3703	3566
2023-10-31 10:32:51	1896	3355	3399
2023-10-31 09:58:22	1634	3228	3571
2023-10-24 10:16:51	1999	3899	4119
2023-10-21 11:00:25	1707	4137	3864
2023-10-20 10:03:57	1787	4064	4106
2023-10-19 11:34:00	1779	3893	3812
2023-10-14 11:26:08	1377	4157	3891
2023-10-13 10:06:23	1366	4273	3584
2023-10-13 09:54:29	1429	4292	3641
2023-10-12 10:40:18	1515	5359	4809
2023-10-11 09:58:46	2050	5072	5025
2023-10-10 10:59:48	1624	4657	4676
2023-10-10 10:47:06	1902	4861	4881
2023-10-09 15:47:58	2367	5470	5775
2023-10-09 15:34:05	1969	3952	3641
2023-10-09 15:25:44	2218	4669	4364
2023-10-09 15:19:50	2080	4354	4087
2023-10-09 14:53:07	1948	4201	3879
2023-10-09 13:19:49	171	78	51
2023-10-09 13:14:00	340	246	180
2023-10-09 09:47:20	2821	4673	5008
2023-10-04 16:49:35	1014	792	945
2023-10-04 15:55:18	1890	2107	2413
2023-10-04 15:15:29	573	209	219
2023-09-21 10:00:54	1658	3131	3442
2023-09-19 11:19:40	2218	3287	3248
2023-09-16 10:28:46	1711	3573	3553
2023-09-14 11:00:11	1721	3210	3387
2023-09-09 10:05:04	1722	3568	3729
2023-09-07 09:53:49	2309	4081	4428
2023-09-02 10:39:33	2248	4065	4257
2023-09-01 09:34:24	1949	3868	4111
2023-08-31 09:25:36	1996	4315	4809
2023-08-31 09:18:43	1985	4296	4816
2023-08-29 10:05:32	2240	4135	4129
2023-08-26 10:39:41	2021	4299	4209
2023-08-25 13:19:27	2396	4661	4638
2023-08-25 10:13:41	2316	4944	5010

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-08-25 10:00:19	2496	4915	4756
2023-08-24 10:22:50	2511	4818	4583
2023-08-24 09:27:33	2424	5025	4351
2023-08-23 10:20:39	2574	5640	5183
2023-08-23 10:00:27	2462	5279	4587
2023-08-22 09:46:34	3016	5876	4894
2023-08-19 10:32:30	2657	4462	4107
2023-08-08 13:40:43	2000	4283	3815
2023-08-08 12:53:37	334	678	620
2023-08-08 11:20:33	743	1157	1099
2023-08-07 14:06:05	2460	4533	4712

Background

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-03 09:55:39	0.250	1.050	4.700
2023-11-02 09:43:00	0.200	0.900	5.150
2023-11-01 10:06:30	0.150	0.900	3.450
2023-10-31 10:32:51	0.000	0.850	4.050
2023-10-31 09:58:22	0.150	1.150	3.250
2023-10-24 10:16:51	0.550	1.200	3.900
2023-10-21 11:00:25	0.250	1.250	5.300
2023-10-20 10:03:57	0.050	0.750	3.150
2023-10-19 11:34:00	0.350	0.600	3.750
2023-10-14 11:26:08	0.300	1.000	5.350
2023-10-13 10:06:23	0.250	1.800	5.950
2023-10-13 09:54:29	0.300	2.150	4.150
2023-10-12 10:40:18	0.050	1.000	5.700
2023-10-11 09:58:46	0.200	1.000	5.250
2023-10-10 10:59:48	0.200	1.650	5.400
2023-10-10 10:47:06	0.250	1.200	4.950
2023-10-09 15:47:58	0.000	1.000	4.500
2023-10-09 15:34:05	1.050	1.250	4.150
2023-10-09 15:25:44	0.300	1.250	4.150
2023-10-09 15:19:50	0.400	1.050	4.750
2023-10-09 14:53:07	0.500	1.350	4.950
2023-10-09 13:19:49	0.350	0.750	4.650
2023-10-09 13:14:00	0.950	0.850	3.750
2023-10-09 09:47:20	0.150	0.950	5.700
2023-10-04 16:49:35	0.150	0.700	2.150
2023-10-04 15:55:18	0.100	0.700	3.500

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-04 15:15:29	0.300	0.200	2.200
2023-09-21 10:00:54	0.000	0.550	3.250
2023-09-19 11:19:40	0.300	0.850	3.200
2023-09-16 10:28:46	0.350	1.000	4.000
2023-09-14 11:00:11	0.100	1.200	4.300
2023-09-09 10:05:04	0.400	1.200	4.550
2023-09-07 09:53:49	0.450	0.950	3.600
2023-09-02 10:39:33	0.300	0.600	4.500
2023-09-01 09:34:24	0.150	0.650	3.400
2023-08-31 09:25:36	0.250	1.300	3.300
2023-08-31 09:18:43	0.400	0.550	4.000
2023-08-29 10:05:32	0.050	1.650	2.650
2023-08-26 10:39:41	0.200	1.250	4.000
2023-08-25 13:19:27	0.200	1.100	4.400
2023-08-25 10:13:41	0.300	1.000	4.550
2023-08-25 10:00:19	0.050	1.100	3.950
2023-08-24 10:22:50	0.350	1.400	3.100
2023-08-24 09:27:33	0.500	0.750	4.900
2023-08-23 10:20:39	0.200	1.250	3.850
2023-08-23 10:00:27	0.250	0.850	5.300
2023-08-22 09:46:34	0.250	1.800	5.400
2023-08-19 10:32:30	0.050	1.150	3.950
2023-08-08 13:40:43	0.200	1.200	4.800
2023-08-08 12:53:37	0.150	0.350	1.500
2023-08-08 11:20:33	0.100	0.350	1.400
2023-08-07 14:06:05	0.050	0.750	3.850

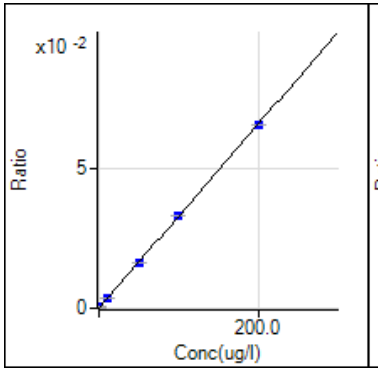
Tune Parameters

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-03 09:55:39	0.0 V	-170.0 V	-90 V
2023-11-02 09:43:00	0.0 V	-180.0 V	-90 V
2023-11-01 10:06:30	0.0 V	-160.0 V	-90 V
2023-10-31 10:32:51	0.0 V	-175.0 V	-90 V
2023-10-31 09:58:22	0.0 V	-175.0 V	-90 V
2023-10-24 10:16:51	0.0 V	-190.0 V	-100 V
2023-10-21 11:00:25	0.0 V	-185.0 V	-90 V
2023-10-20 10:03:57	0.0 V	-175.0 V	-90 V
2023-10-19 11:34:00	0.0 V	-185.0 V	-90 V
2023-10-14 11:26:08	0.0 V	-195.0 V	-100 V
2023-10-13 10:06:23	0.0 V	-195.0 V	-100 V

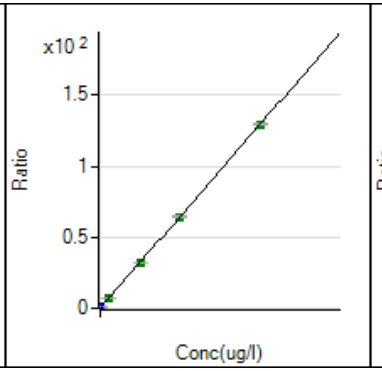
Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-10-13 09:54:29	0.0 V	-200.0 V	-100 V
2023-10-12 10:40:18	0.0 V	-195.0 V	-100 V
2023-10-11 09:58:46	0.0 V	-200.0 V	-100 V
2023-10-10 10:59:48	0.0 V	-200.0 V	-110 V
2023-10-10 10:47:06	0.0 V	-200.0 V	-100 V
2023-10-09 15:47:58	0.0 V	-200.0 V	-100 V
2023-10-09 15:34:05	0.0 V	-195.0 V	-100 V
2023-10-09 15:25:44	0.0 V	-195.0 V	-100 V
2023-10-09 15:19:50	0.0 V	-195.0 V	-100 V
2023-10-09 14:53:07	0.0 V	-195.0 V	-100 V
2023-10-09 13:19:49	0.0 V	-200.0 V	-110 V
2023-10-09 13:14:00	0.0 V	-200.0 V	-110 V
2023-10-09 09:47:20	0.0 V	-200.0 V	-110 V
2023-10-04 16:49:35	0.0 V	-160.0 V	-100 V
2023-10-04 15:55:18	0.0 V	-165.0 V	-100 V
2023-10-04 15:15:29	0.0 V	-170.0 V	-100 V
2023-09-21 10:00:54	0.0 V	-150.0 V	-90 V
2023-09-19 11:19:40	0.0 V	-155.0 V	-90 V
2023-09-16 10:28:46	0.0 V	-160.0 V	-100 V
2023-09-14 11:00:11	0.0 V	-165.0 V	-100 V
2023-09-09 10:05:04	0.0 V	-155.0 V	-100 V
2023-09-07 09:53:49	0.0 V	-165.0 V	-100 V
2023-09-02 10:39:33	0.0 V	-170.0 V	-110 V
2023-09-01 09:34:24	0.0 V	-175.0 V	-110 V
2023-08-31 09:25:36	0.0 V	-180.0 V	-110 V
2023-08-31 09:18:43	0.0 V	-180.0 V	-110 V
2023-08-29 10:05:32	0.0 V	-170.0 V	-110 V
2023-08-26 10:39:41	0.0 V	-180.0 V	-110 V
2023-08-25 13:19:27	0.0 V	-175.0 V	-110 V
2023-08-25 10:13:41	0.0 V	-175.0 V	-110 V
2023-08-25 10:00:19	0.0 V	-180.0 V	-110 V
2023-08-24 10:22:50	0.0 V	-185.0 V	-110 V
2023-08-24 09:27:33	0.0 V	-190.0 V	-110 V
2023-08-23 10:20:39	0.0 V	-170.0 V	-100 V
2023-08-23 10:00:27	0.0 V	-175.0 V	-100 V
2023-08-22 09:46:34	0.0 V	-175.0 V	-100 V
2023-08-19 10:32:30	0.0 V	-170.0 V	-100 V
2023-08-08 13:40:43	0.0 V	-155.0 V	-90 V
2023-08-08 12:53:37	0.0 V	-140.0 V	-90 V
2023-08-08 11:20:33	0.0 V	-175.0 V	-100 V
2023-08-07 14:06:05	0.0 V	-160.0 V	-100 V

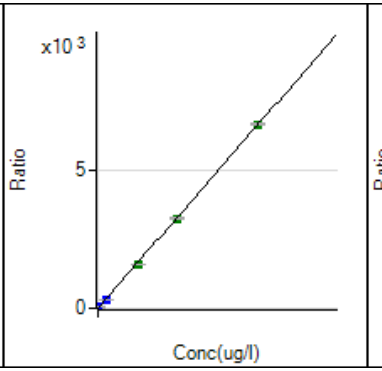
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b\047SMPL.d



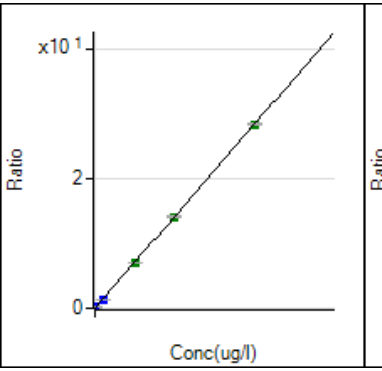
9 Be [2]
ISTD: 45 Sc
y = 3.301E-4 x + 8.174E-6
R 1.0000
DL 0.02566
BEC 0.02476



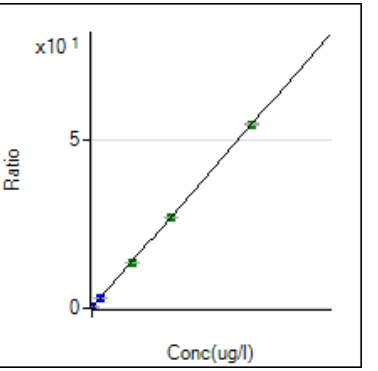
23 Na [2]
ISTD: 45 Sc
y = 6.462E-3 x + 5.600E-2
R 1.0000
DL 0.04304
BEC 8.666



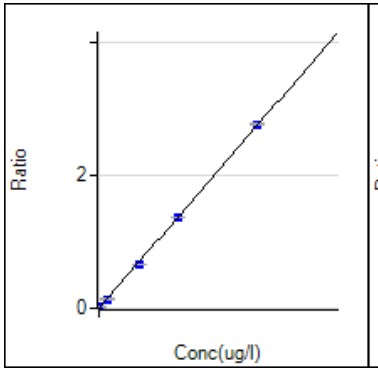
24 Mg [2]
ISTD: 6 Li
y = 3.291E-1 x + 2.958E-1
R 0.9999
DL 0.214
BEC 0.8989



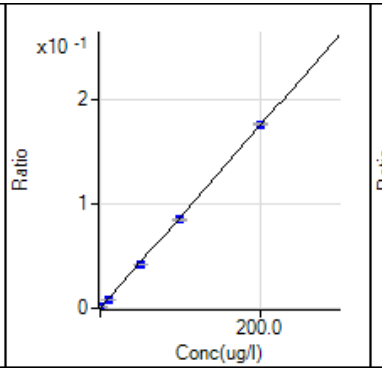
27 Al [2]
ISTD: 45 Sc
y = 1.413E-3 x + 1.143E-3
R 1.0000
DL 0.2018
BEC 0.8084



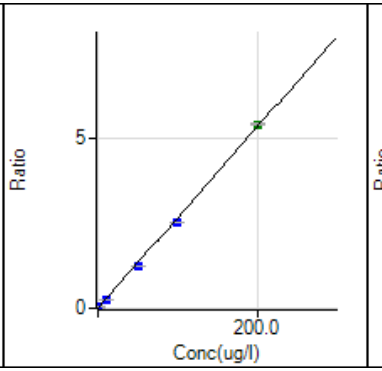
39 K [2]
ISTD: 45 Sc
y = 2.711E-3 x + 1.563E-1
R 1.0000
DL 2.235
BEC 57.65



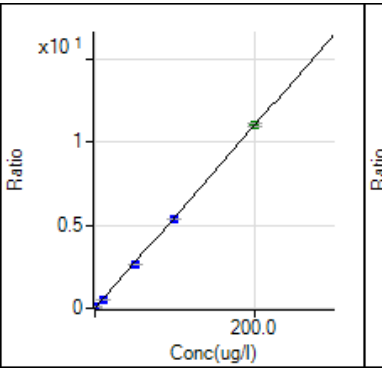
44 Ca [2]
ISTD: 45 Sc
y = 1.378E-4 x + 2.812E-4
R 0.9999
DL 1.61
BEC 2.04



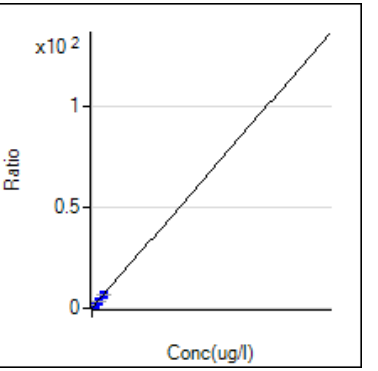
47 Ti [2]
ISTD: 45 Sc
y = 8.735E-4 x + 2.835E-5
R 0.9998
DL 0.02602
BEC 0.03246



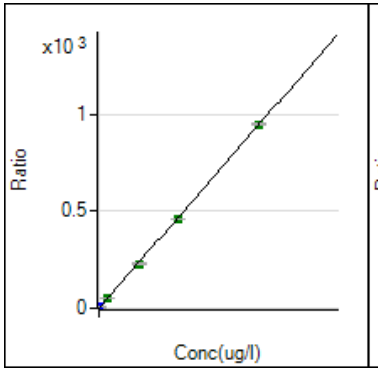
51 V [2]
ISTD: 45 Sc
y = 2.659E-2 x + 4.287E-3
R 0.9995
DL 0.02764
BEC 0.1612



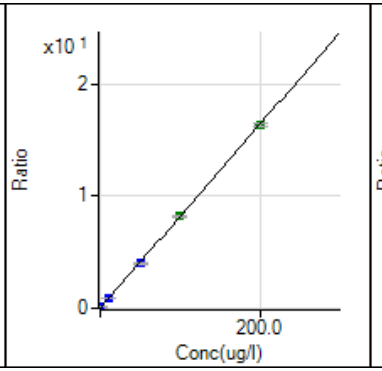
52 Cr [2]
ISTD: 72 Ge
y = 5.485E-2 x + 1.755E-3
R 0.9998
DL 0.002478
BEC 0.03199



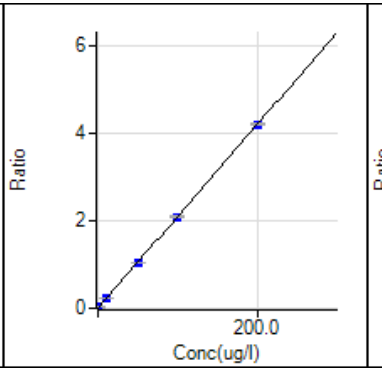
55 Mn [2]
ISTD: 72 Ge
y = 3.423E-2 x + 1.115E-3
R 1.0000
DL 0.008995
BEC 0.03257



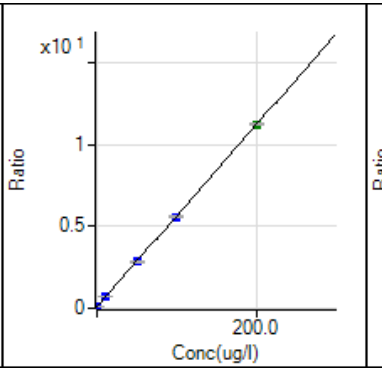
56 Fe [2]
ISTD: 72 Ge
y = 4.704E-2 x + 5.017E-2
R 0.9999
DL 0.1004
BEC 1.066



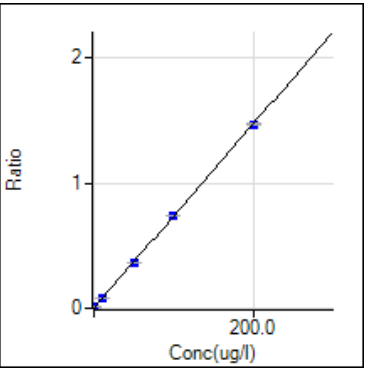
59 Co [2]
ISTD: 72 Ge
y = 8.207E-2 x + 9.338E-4
R 1.0000
DL 0.005851
BEC 0.01138



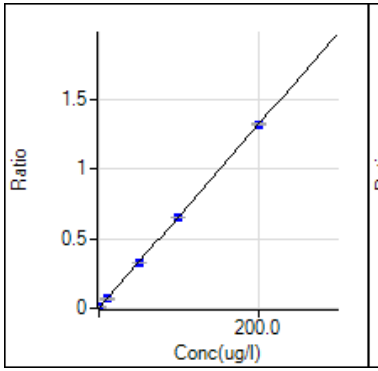
60 Ni [2]
ISTD: 72 Ge
y = 2.104E-2 x + 9.191E-4
R 1.0000
DL 0.006921
BEC 0.04367



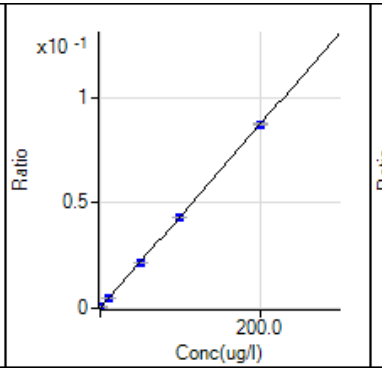
63 Cu [2]
ISTD: 72 Ge
y = 5.551E-2 x + 8.993E-2
R 1.0000
DL 0.06355
BEC 1.62



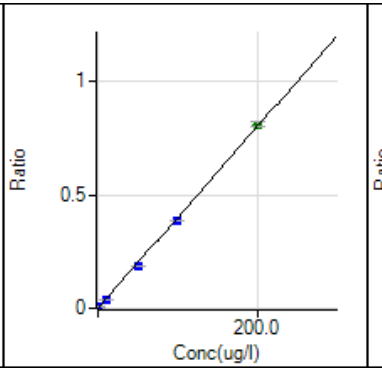
66 Zn [2]
ISTD: 74 Ge
y = 7.353E-3 x + 1.958E-3
R 1.0000
DL 0.07004
BEC 0.2663



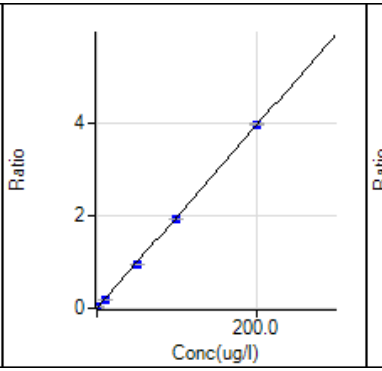
75 As [2]
ISTD: 72 Ge
y = 6.572E-3 x + 2.634E-4
R 1.0000
DL 0.006722
BEC 0.04007



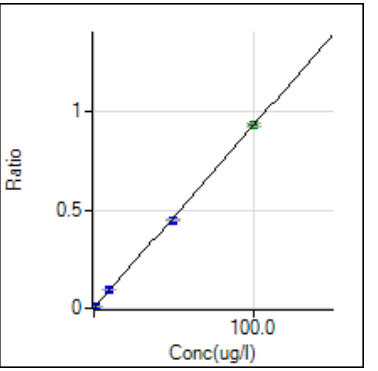
78 Se [2]
ISTD: 74 Ge
y = 4.353E-4 x + 8.649E-5
R 1.0000
DL 0.1178
BEC 0.1987



88 Sr [2]
ISTD: 115 In
y = 4.000E-3 x + 1.189E-4
R 0.9996
DL 0.009719
BEC 0.02973

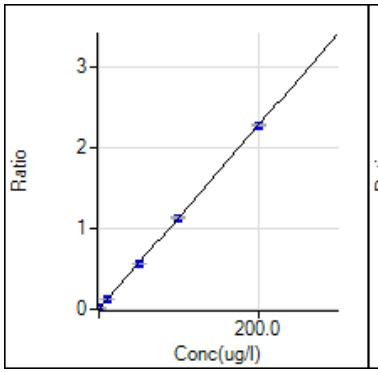


95 Mo [2]
ISTD: 74 Ge
y = 1.978E-2 x + 1.016E-3
R 0.9998
DL 0.0247
BEC 0.05135

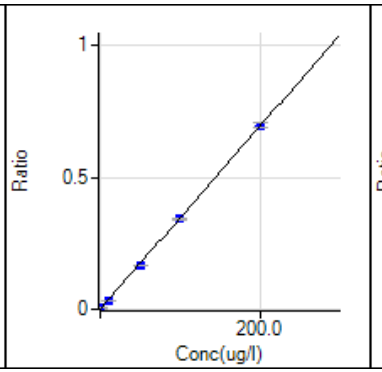


107 Ag [2]
ISTD: 115 In
y = 9.292E-3 x + 7.552E-5
R 0.9998
DL 0.003392
BEC 0.008127

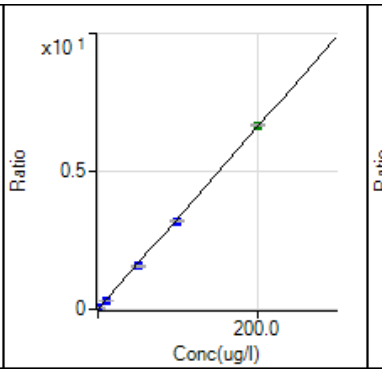
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa110323m1.b\047SMPL.d



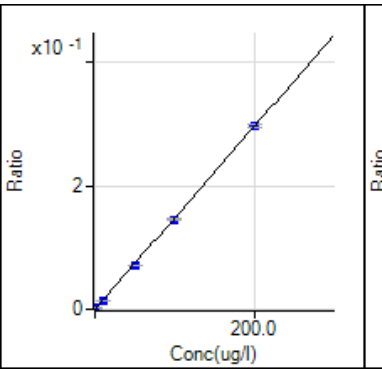
111 Cd [2]
ISTD: 74 Ge
y = 1.139E-2 x + 4.399E-5
R 1.0000
DL 0.008818
BEC 0.003863



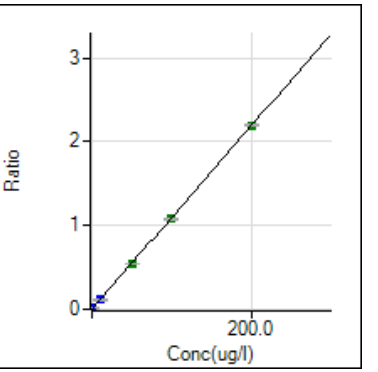
118 Sn [2]
ISTD: 115 In
y = 3.462E-3 x + 2.974E-4
R 0.9999
DL 0.0446
BEC 0.08592



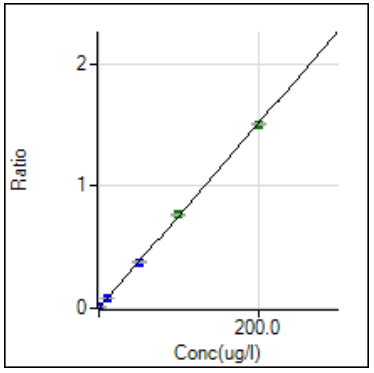
121 Sb [2]
ISTD: 74 Ge
y = 3.304E-2 x + 6.263E-4
R 0.9997
DL 0.01162
BEC 0.01895



137 Ba [2]
ISTD: 115 In
y = 1.481E-3 x + 2.895E-5
R 0.9999
DL 0.01847
BEC 0.01955



205 Tl [2]
ISTD: 209 Bi
y = 1.093E-2 x + 9.230E-5
R 1.0000
DL 0.002067
BEC 0.008444



208 Pb [2]
ISTD: 209 Bi
y = 7.550E-3 x + 2.830E-4
R 1.0000
DL 0.005051
BEC 0.03748

SGS Orlando

Date:	11/02/23
Time	14:13

[24hr]

Analysts Name:	Adam K
MP Batch ID:	43074
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1382	0.05	MU45274
Conc. HCl (B)	24003593	ACC1396	0.2	KU15244
NA	NA	MET7395	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	9	**Therm ID**	Mercury	**Temp. C**	**97**	**Corr. Factor**	**-0.5**	**Corrected Observed Temp. C**	96.5
pH Paper Lot Number	**230320**			**Filter Lot Number**		**306067223**		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	**50**	**50**	NA	
	NA	Spike Blank(SB)	**50**	**50**	NA	
	1	Matrix Spike(MS)	**50**	**50**	Y	
	1	Matrix Spike Dup(MSD)	**50**	**50**	Y	
	1	Duplicate(DUP)	**50**	**50**	Y	
1(QC) C	1	FC10889-1	**50**	**50**	Y	
2	1	FC10889-2	**50**	**50**	Y	
3	1	FC10889-3	**50**	**50**	Y	
4	1	FC10889-4	**50**	**50**	Y	
5	1	FC10889-5	**50**	**50**	Y	
6	1	FC10888-1	**50**	**50**	Y	
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

7.2.1.7

ICPMS_WaterPrep_Logbook
Rev. 07/09/2021
DM

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC10954

Sampling Date: 11/03/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **598**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC10954

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC10954-1	11/03/23	13:00	JR	11/04/23	AQ	Ground Water	EW-1
FC10954-1A	11/03/23	13:00	JR	11/04/23	AQ	Ground Water	EW-1
FC10954-2	11/03/23	13:10	JR	11/04/23	AQ	Ground Water	EW-3
FC10954-2A	11/03/23	13:10	JR	11/04/23	AQ	Ground Water	EW-3
FC10954-3	11/03/23	13:20	JR	11/04/23	AQ	Ground Water	EW-4
FC10954-3A	11/03/23	13:20	JR	11/04/23	AQ	Ground Water	EW-4

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC10954

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 11/20/2023 1:44:28

On 11/04/2023, 3 Sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC10954 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Volatiles By Method SW846 8260D

Matrix: AQ **Batch ID:** V5E1954

Sample(s) FC10847-6MS, FC10847-6MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 2-Chloroethyl Vinyl Ether, m,p-Xylene, Methyl Bromide, o-Xylene, Xylene (total), Ethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl Vinyl Ether, Ethylbenzene, m,p-Xylene, o-Xylene, Xylene (total) are outside control limits. Probable cause is due to matrix interference.

V5E1954-MB: Sample was treated with an anti-foaming agent.

FC10954-1A for 2-Chloroethyl Vinyl Ether: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-1A for Acrolein: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-1A for Acrylonitrile: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-2A for 2-Chloroethyl Vinyl Ether: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-2A for Acrolein: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-2A for Acrylonitrile: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-3A for 2-Chloroethyl Vinyl Ether: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-3A for Acrylonitrile: Result reported from HCl preserved sample and should be used for screening purposes only.

FC10954-3A for Acrolein: Result reported from HCl preserved sample and should be used for screening purposes only.

GC Volatiles By Method RSKSOP-147/175

Matrix: AQ **Batch ID:** GLL2990

Sample(s) FC11161-1DUP, FC11161-1MS were used as the QC samples indicated.

Matrix: AQ **Batch ID:** GLL2991

Sample(s) FC11172-1DUP, FC11172-1MS were used as the QC samples indicated.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP43108

Sample(s) FC10963-23DUP, FC10963-23MS, FC10963-23MSD, FC10963-23SDL, FC10963-23PS were used as the QC samples.

RPD(s) for Serial Dilution for Iron are outside control limits for sample MP43108-SD1. Probable cause is due to sample non-homogeneity.

MP43108-PS1 for Iron: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP43108-PS1 for Manganese: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Matrix: AQ **Batch ID:** MP43116

Sample(s) FC11003-2DUP, FC11003-2MS, FC11003-2MSD, FC11003-2PS, FC11003-2SDL were used as the QC samples.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP43089

Sample(s) FC10954-1DUP, FC10954-1MS, FC10954-1MSD were used as the QC samples for metals.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

Summary of Hits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC10954-1	**EW-1**					
Arsenic		1860	20	8.0	ug/l	SW846 6020B
FC10954-1A	**EW-1**					
Benzene		0.53 J	1.0	0.50	ug/l	SW846 8260D
Methane		3810	5.0	2.5	ug/l	RSKSOP-147/175
Ethane		2.0	1.0	0.50	ug/l	RSKSOP-147/175
Iron		70300	300	50	ug/l	SW846 6010D
Manganese		2020	15	2.0	ug/l	SW846 6010D
FC10954-2	**EW-3**					
Arsenic		586	10	4.0	ug/l	SW846 6020B
FC10954-2A	**EW-3**					
Benzene		0.84 J	1.0	0.50	ug/l	SW846 8260D
Methane		156	0.50	0.25	ug/l	RSKSOP-147/175
Iron		47700	300	50	ug/l	SW846 6010D
Manganese		1700	15	2.0	ug/l	SW846 6010D
FC10954-3	**EW-4**					
Arsenic		5890	50	20	ug/l	SW846 6020B
FC10954-3A	**EW-4**					
Benzene		0.65 J	1.0	0.50	ug/l	SW846 8260D
Methane		2360	5.0	2.5	ug/l	RSKSOP-147/175
Iron		75400	300	50	ug/l	SW846 6010D
Manganese		2990	15	2.0	ug/l	SW846 6010D

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EW-1		
Lab Sample ID:	FC10954-1	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1860	20	8.0	2.1	ug/l	20	11/04/23	11/07/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19813
(2) Prep QC Batch: MP43089

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-1		
Lab Sample ID:	FC10954-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5E43742.D	1	11/08/23 15:45	JL	n/a	n/a	V5E1954
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
107-02-8	Acrolein [a]	10 U	20	10	6.1	ug/l	
107-13-1	Acrylonitrile [a]	5.0 U	10	5.0	2.1	ug/l	
71-43-2	Benzene	0.53	1.0	0.50	0.31	ug/l	J
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether [a]	3.5 U	5.0	3.5	2.1	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-1		
Lab Sample ID:	FC10954-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	
1330-20-7	Xylene (total)	1.5 U	3.0	1.5	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	97%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-1		
Lab Sample ID:	FC10954-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL86300.D	1	11/14/23 12:40	SS	n/a	n/a	GLL2990
Run #2	LL86330.D	10	11/15/23 11:02	SS	n/a	n/a	GLL2991

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	3810 [a]	5.0	2.5	1.6	ug/l	
74-84-0	Ethane	2.0	1.0	0.50	0.32	ug/l	

(a) Result is from Run# 2

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-1		
Lab Sample ID:	FC10954-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	70300	300	50	17	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2020	15	2.0	1.0	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19821
(2) Prep QC Batch: MP43108

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EW-3		
Lab Sample ID:	FC10954-2	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	586	10	4.0	1.1	ug/l	10	11/04/23	11/07/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19813
(2) Prep QC Batch: MP43089

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-3		
Lab Sample ID:	FC10954-2A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5E43743.D	1	11/08/23 16:08	JL	n/a	n/a	V5E1954
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
107-02-8	Acrolein [a]	10 U	20	10	6.1	ug/l	
107-13-1	Acrylonitrile [a]	5.0 U	10	5.0	2.1	ug/l	
71-43-2	Benzene	0.84	1.0	0.50	0.31	ug/l	J
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether [a]	3.5 U	5.0	3.5	2.1	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-3		
Lab Sample ID:	FC10954-2A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	
1330-20-7	Xylene (total)	1.5 U	3.0	1.5	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-3		
Lab Sample ID:	FC10954-2A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL86301.D	1	11/14/23 12:48	SS	n/a	n/a	GLL2990
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	156	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-3		
Lab Sample ID:	FC10954-2A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	47700	300	50	17	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	1700	15	2.0	1.0	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19821
(2) Prep QC Batch: MP43108

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EW-4		
Lab Sample ID:	FC10954-3	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5890	50	20	5.3	ug/l	50	11/04/23	11/07/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19813
(2) Prep QC Batch: MP43089

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-4		
Lab Sample ID:	FC10954-3A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5E43744.D	1	11/08/23 16:31	JL	n/a	n/a	V5E1954
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
107-02-8	Acrolein [a]	10 U	20	10	6.1	ug/l	
107-13-1	Acrylonitrile [a]	5.0 U	10	5.0	2.1	ug/l	
71-43-2	Benzene	0.65	1.0	0.50	0.31	ug/l	J
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether [a]	3.5 U	5.0	3.5	2.1	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-4		
Lab Sample ID:	FC10954-3A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	SW846 8260D	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	
1330-20-7	Xylene (total)	1.5 U	3.0	1.5	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Result reported from HCl preserved sample and should be used for screening purposes only.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EW-4		
Lab Sample ID:	FC10954-3A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL86304.D	1	11/14/23 13:16	SS	n/a	n/a	GLL2990
Run #2	LL86331.D	10	11/15/23 11:15	SS	n/a	n/a	GLL2991

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	2360 [a]	5.0	2.5	1.6	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	

(a) Result is from Run# 2

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EW-4		
Lab Sample ID:	FC10954-3A	**Date Sampled:**	11/03/23
Matrix:	AQ - Ground Water	**Date Received:**	11/04/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	75400	300	50	17	ug/l	1	11/09/23	11/10/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2990	15	2.0	1.0	ug/l	1	11/09/23	11/10/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19827
(2) Prep QC Batch: MP43116

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

FC10954

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting
Address: 9 Payson
City: Foxboro State: MA Zip: 02035
Project Contact: Steve Passaforo Email:
Phone #: 508 339 3200
Sampler(s) Name(s) (Printed)
Sampler 1: Joe Rogers Sampler 2:

Project Information

Project Name: SHL ATP
Street
City Devens, MA State
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	ASMS (6020)	Fe Mn (6010)	V 8260 SL	VRSK 175 LH4	VGC + ethane	LAB USE ONLY
1	EW-1	11-3-23	1300	JR	Aq	7			X		X					X	X	X	X	X	
2	EW-3	11-3-23	1310	JR	Aq	7			X		X					X	X	X	X	X	
3	EW-4	11-3-23	1320	JR	Aq	7			X		X					X	X	X	X	X	

INITIAL ASSESSMENT ZD

LABEL VERIFICATION ZD

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day rush As Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See QAPP

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature] SOVCON	11323 330	2 Thelma Fley (SC)	3 Thelma Fley	11/3/23 1840	4 FedEx
5		6 [signature] 900 11/4/23	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.6 IR #1 CS# 03274 http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

5.1
5

FC10954: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: fc10954 **Client:** SOEVEREIGN CONSULTING **Project:** SHL ATP

Date / Time Received: 11/4/2023 9:00:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 645598222314

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:	IR Gun		
5. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑

	W	or	S	N/A
3. Type of TB Received	☐		☐	☐

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples presented properly	☑		☐	
3. Suffiient volume/containers recv'd for analysis	☑		☐	
4. Condition of sample:	Intact			
5. Sample recv'd within HT	☑		☐	
6. Dates/Times/IDs on COC match sample label	☐		☐	
7. VOCs have headspace	☐		☑	☐
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
11. % Solids Jar Received?	☐		☐	☐
12. Residual Chlorine Present?	☐		☐	☐

Misc Information

Number of Encores: 25 Gram 5 Gram Number of Lab Filtered Metals:

Test Strip Lot #s: pH 0-3: 226422 pH 10-12: Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #

Comments

SM001
Rev. Date 05/04/17

Technician: ZHANED Date: 11/4/2023 9:51:11 AM Reviewer: Date:

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V5E1954	SW846 8260D						
V5E1954-BS	67-64-1	Acetone	BSP	REC	115	%	39-160
V5E1954-BS	107-02-8	Acrolein	BSP	REC	114	%	39-155
V5E1954-BS	107-13-1	Acrylonitrile	BSP	REC	100	%	63-135
V5E1954-BS	71-43-2	Benzene	BSP	REC	103	%	79-120
V5E1954-BS	75-27-4	Bromodichloromethane	BSP	REC	94	%	79-125
V5E1954-BS	75-25-2	Bromoform	BSP	REC	96	%	66-130
V5E1954-BS	78-93-3	2-Butanone (MEK)	BSP	REC	98	%	56-143
V5E1954-BS	75-15-0	Carbon Disulfide	BSP	REC	102	%	64-133
V5E1954-BS	56-23-5	Carbon Tetrachloride	BSP	REC	101	%	72-136
V5E1954-BS	108-90-7	Chlorobenzene	BSP	REC	100	%	82-118
V5E1954-BS	75-00-3	Chloroethane	BSP	REC	119	%	60-138
V5E1954-BS	110-75-8	2-Chloroethyl Vinyl Ether	BSP	REC	109	%	51-139
V5E1954-BS	67-66-3	Chloroform	BSP	REC	99	%	79-124
V5E1954-BS	124-48-1	Dibromochloromethane	BSP	REC	105	%	74-126
V5E1954-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	97	%	80-119
V5E1954-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	96	%	80-119
V5E1954-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	97	%	79-118
V5E1954-BS	75-34-3	1,1-Dichloroethane	BSP	REC	99	%	77-125
V5E1954-BS	107-06-2	1,2-Dichloroethane	BSP	REC	97	%	73-128
V5E1954-BS	75-35-4	1,1-Dichloroethylene	BSP	REC	101	%	71-131
V5E1954-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	100	%	78-123
V5E1954-BS	156-60-5	trans-1,2-Dichloroethylene	BSP	REC	105	%	75-124
V5E1954-BS	78-87-5	1,2-Dichloropropane	BSP	REC	107	%	78-122
V5E1954-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	105	%	75-124
V5E1954-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	97	%	73-127
V5E1954-BS	100-41-4	Ethylbenzene	BSP	REC	98	%	79-121
V5E1954-BS	591-78-6	2-Hexanone	BSP	REC	112	%	57-139
V5E1954-BS	74-83-9	Methyl Bromide	BSP	REC	103	%	53-141
V5E1954-BS	74-87-3	Methyl Chloride	BSP	REC	102	%	50-139
V5E1954-BS	75-09-2	Methylene Chloride	BSP	REC	97	%	74-124
V5E1954-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	110	%	67-130
V5E1954-BS	100-42-5	Styrene	BSP	REC	104	%	78-123
V5E1954-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	96	%	71-121
V5E1954-BS	127-18-4	Tetrachloroethylene	BSP	REC	106	%	74-129
V5E1954-BS	108-88-3	Toluene	BSP	REC	103	%	80-121
V5E1954-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	96	%	74-131
V5E1954-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	106	%	80-119
V5E1954-BS	79-01-6	Trichloroethylene	BSP	REC	104	%	79-123
V5E1954-BS	75-69-4	Trichlorofluoromethane	BSP	REC	104	%	65-141
V5E1954-BS	108-05-4	Vinyl Acetate	BSP	REC	97	%	54-146
V5E1954-BS	75-01-4	Vinyl Chloride	BSP	REC	113	%	58-137
V5E1954-BS		m,p-Xylene	BSP	REC	100	%	80-121

* Sample used for QC is not from job FC10954

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V5E1954-BS	95-47-6	o-Xylene	BSP	REC	100	%	78-122
V5E1954-BS	1330-20-7	Xylene (total)	BSP	REC	100	%	79-121
V5E1954-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	98	%	80-119
V5E1954-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	96	%	81-118
V5E1954-BS	2037-26-5	Toluene-D8	BSP	SURR	102	%	89-112
V5E1954-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	101	%	85-114
FC10847-6MS*	67-64-1	Acetone	MS	REC	106	%	39-160
FC10847-6MS*	107-02-8	Acrolein	MS	REC	97	%	39-155
FC10847-6MS*	107-13-1	Acrylonitrile	MS	REC	96	%	63-135
FC10847-6MS*	71-43-2	Benzene	MS	REC	98	%	79-120
FC10847-6MS*	75-27-4	Bromodichloromethane	MS	REC	97	%	79-125
FC10847-6MS*	75-25-2	Bromoform	MS	REC	92	%	66-130
FC10847-6MS*	78-93-3	2-Butanone (MEK)	MS	REC	91	%	56-143
FC10847-6MS*	75-15-0	Carbon Disulfide	MS	REC	94	%	64-133
FC10847-6MS*	56-23-5	Carbon Tetrachloride	MS	REC	103	%	72-136
FC10847-6MS*	108-90-7	Chlorobenzene	MS	REC	95	%	82-118
FC10847-6MS*	75-00-3	Chloroethane	MS	REC	102	%	60-138
FC10847-6MS*	110-75-8	2-Chloroethyl Vinyl Ether	MS	REC	0	%	51-139
FC10847-6MS*	67-66-3	Chloroform	MS	REC	99	%	79-124
FC10847-6MS*	124-48-1	Dibromochloromethane	MS	REC	101	%	74-126
FC10847-6MS*	95-50-1	1,2-Dichlorobenzene	MS	REC	93	%	80-119
FC10847-6MS*	541-73-1	1,3-Dichlorobenzene	MS	REC	92	%	80-119
FC10847-6MS*	106-46-7	1,4-Dichlorobenzene	MS	REC	91	%	79-118
FC10847-6MS*	75-34-3	1,1-Dichloroethane	MS	REC	97	%	77-125
FC10847-6MS*	107-06-2	1,2-Dichloroethane	MS	REC	104	%	73-128
FC10847-6MS*	75-35-4	1,1-Dichloroethylene	MS	REC	98	%	71-131
FC10847-6MS*	156-59-2	cis-1,2-Dichloroethylene	MS	REC	102	%	78-123
FC10847-6MS*	156-60-5	trans-1,2-Dichloroethylene	MS	REC	106	%	75-124
FC10847-6MS*	78-87-5	1,2-Dichloropropane	MS	REC	102	%	78-122
FC10847-6MS*	10061-01-5	cis-1,3-Dichloropropene	MS	REC	98	%	75-124
FC10847-6MS*	10061-02-6	trans-1,3-Dichloropropene	MS	REC	86	%	73-127
FC10847-6MS*	100-41-4	Ethylbenzene	MS	REC	32 [a]	%	79-121
FC10847-6MS*	591-78-6	2-Hexanone	MS	REC	101	%	57-139
FC10847-6MS*	74-83-9	Methyl Bromide	MS	REC	53	%	53-141
FC10847-6MS*	74-87-3	Methyl Chloride	MS	REC	85	%	50-139
FC10847-6MS*	75-09-2	Methylene Chloride	MS	REC	97	%	74-124
FC10847-6MS*	108-10-1	4-Methyl-2-pentanone (MIBK)	MS	REC	97	%	67-130
FC10847-6MS*	100-42-5	Styrene	MS	REC	99	%	78-123
FC10847-6MS*	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	93	%	71-121
FC10847-6MS*	127-18-4	Tetrachloroethylene	MS	REC	99	%	74-129
FC10847-6MS*	108-88-3	Toluene	MS	REC	96	%	80-121
FC10847-6MS*	71-55-6	1,1,1-Trichloroethane	MS	REC	100	%	74-131
FC10847-6MS*	79-00-5	1,1,2-Trichloroethane	MS	REC	98	%	80-119
FC10847-6MS*	79-01-6	Trichloroethylene	MS	REC	102	%	79-123
FC10847-6MS*	75-69-4	Trichlorofluoromethane	MS	REC	94	%	65-141

* Sample used for QC is not from job FC10954

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC10847-6MS*	108-05-4	Vinyl Acetate	MS	REC	97	%	54-146
FC10847-6MS*	75-01-4	Vinyl Chloride	MS	REC	96	%	58-137
FC10847-6MS*		m,p-Xylene	MS	REC	54	%	80-121
FC10847-6MS*	95-47-6	o-Xylene	MS	REC	58	%	78-122
FC10847-6MS*	1330-20-7	Xylene (total)	MS	REC	56	%	79-121
FC10847-6MS*	1868-53-7	Dibromofluoromethane	MS	SURR	102	%	80-119
FC10847-6MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	105	%	81-118
FC10847-6MS*	2037-26-5	Toluene-D8	MS	SURR	99	%	89-112
FC10847-6MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	97	%	85-114
FC10847-6MSD*	67-64-1	Acetone	MSD	REC	113	%	39-160
FC10847-6MSD*	67-64-1	Acetone	MSD	RPD	6	%	20
FC10847-6MSD*	107-02-8	Acrolein	MSD	REC	107	%	39-155
FC10847-6MSD*	107-02-8	Acrolein	MSD	RPD	10	%	20
FC10847-6MSD*	107-13-1	Acrylonitrile	MSD	REC	106	%	63-135
FC10847-6MSD*	107-13-1	Acrylonitrile	MSD	RPD	10	%	20
FC10847-6MSD*	71-43-2	Benzene	MSD	REC	102	%	79-120
FC10847-6MSD*	71-43-2	Benzene	MSD	RPD	3	%	20
FC10847-6MSD*	75-27-4	Bromodichloromethane	MSD	REC	100	%	79-125
FC10847-6MSD*	75-27-4	Bromodichloromethane	MSD	RPD	3	%	20
FC10847-6MSD*	75-25-2	Bromoform	MSD	REC	98	%	66-130
FC10847-6MSD*	75-25-2	Bromoform	MSD	RPD	7	%	20
FC10847-6MSD*	78-93-3	2-Butanone (MEK)	MSD	REC	98	%	56-143
FC10847-6MSD*	78-93-3	2-Butanone (MEK)	MSD	RPD	7	%	20
FC10847-6MSD*	75-15-0	Carbon Disulfide	MSD	REC	98	%	64-133
FC10847-6MSD*	75-15-0	Carbon Disulfide	MSD	RPD	4	%	20
FC10847-6MSD*	56-23-5	Carbon Tetrachloride	MSD	REC	106	%	72-136
FC10847-6MSD*	56-23-5	Carbon Tetrachloride	MSD	RPD	2	%	20
FC10847-6MSD*	108-90-7	Chlorobenzene	MSD	REC	102	%	82-118
FC10847-6MSD*	108-90-7	Chlorobenzene	MSD	RPD	7	%	20
FC10847-6MSD*	75-00-3	Chloroethane	MSD	REC	111	%	60-138
FC10847-6MSD*	75-00-3	Chloroethane	MSD	RPD	8	%	20
FC10847-6MSD*	110-75-8	2-Chloroethyl Vinyl Ether	MSD	REC	0	%	51-139
FC10847-6MSD*	110-75-8	2-Chloroethyl Vinyl Ether	MSD	RPD	0	%	20
FC10847-6MSD*	67-66-3	Chloroform	MSD	REC	103	%	79-124
FC10847-6MSD*	67-66-3	Chloroform	MSD	RPD	4	%	20
FC10847-6MSD*	124-48-1	Dibromochloromethane	MSD	REC	107	%	74-126
FC10847-6MSD*	124-48-1	Dibromochloromethane	MSD	RPD	6	%	20
FC10847-6MSD*	95-50-1	1,2-Dichlorobenzene	MSD	REC	102	%	80-119
FC10847-6MSD*	95-50-1	1,2-Dichlorobenzene	MSD	RPD	9	%	20
FC10847-6MSD*	541-73-1	1,3-Dichlorobenzene	MSD	REC	98	%	80-119
FC10847-6MSD*	541-73-1	1,3-Dichlorobenzene	MSD	RPD	6	%	20
FC10847-6MSD*	106-46-7	1,4-Dichlorobenzene	MSD	REC	98	%	79-118
FC10847-6MSD*	106-46-7	1,4-Dichlorobenzene	MSD	RPD	8	%	20
FC10847-6MSD*	75-34-3	1,1-Dichloroethane	MSD	REC	99	%	77-125
FC10847-6MSD*	75-34-3	1,1-Dichloroethane	MSD	RPD	2	%	20

* Sample used for QC is not from job FC10954

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC10847-6MSD*	107-06-2	1,2-Dichloroethane	MSD	REC	105	%	73-128
FC10847-6MSD*	107-06-2	1,2-Dichloroethane	MSD	RPD	1	%	20
FC10847-6MSD*	75-35-4	1,1-Dichloroethylene	MSD	REC	102	%	71-131
FC10847-6MSD*	75-35-4	1,1-Dichloroethylene	MSD	RPD	3	%	20
FC10847-6MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	105	%	78-123
FC10847-6MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	3	%	20
FC10847-6MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	REC	103	%	75-124
FC10847-6MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	RPD	2	%	20
FC10847-6MSD*	78-87-5	1,2-Dichloropropane	MSD	REC	105	%	78-122
FC10847-6MSD*	78-87-5	1,2-Dichloropropane	MSD	RPD	2	%	20
FC10847-6MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	99	%	75-124
FC10847-6MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	1	%	20
FC10847-6MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	95	%	73-127
FC10847-6MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	10	%	20
FC10847-6MSD*	100-41-4	Ethylbenzene	MSD	REC	39 [a]	%	79-121
FC10847-6MSD*	100-41-4	Ethylbenzene	MSD	RPD	3	%	20
FC10847-6MSD*	591-78-6	2-Hexanone	MSD	REC	112	%	57-139
FC10847-6MSD*	591-78-6	2-Hexanone	MSD	RPD	11	%	20
FC10847-6MSD*	74-83-9	Methyl Bromide	MSD	REC	61	%	53-141
FC10847-6MSD*	74-83-9	Methyl Bromide	MSD	RPD	14	%	20
FC10847-6MSD*	74-87-3	Methyl Chloride	MSD	REC	94	%	50-139
FC10847-6MSD*	74-87-3	Methyl Chloride	MSD	RPD	11	%	20
FC10847-6MSD*	75-09-2	Methylene Chloride	MSD	REC	98	%	74-124
FC10847-6MSD*	75-09-2	Methylene Chloride	MSD	RPD	1	%	20
FC10847-6MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	REC	107	%	67-130
FC10847-6MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	RPD	10	%	20
FC10847-6MSD*	100-42-5	Styrene	MSD	REC	107	%	78-123
FC10847-6MSD*	100-42-5	Styrene	MSD	RPD	8	%	20
FC10847-6MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	98	%	71-121
FC10847-6MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	5	%	20
FC10847-6MSD*	127-18-4	Tetrachloroethylene	MSD	REC	104	%	74-129
FC10847-6MSD*	127-18-4	Tetrachloroethylene	MSD	RPD	5	%	20
FC10847-6MSD*	108-88-3	Toluene	MSD	REC	100	%	80-121
FC10847-6MSD*	108-88-3	Toluene	MSD	RPD	4	%	20
FC10847-6MSD*	71-55-6	1,1,1-Trichloroethane	MSD	REC	102	%	74-131
FC10847-6MSD*	71-55-6	1,1,1-Trichloroethane	MSD	RPD	2	%	20
FC10847-6MSD*	79-00-5	1,1,2-Trichloroethane	MSD	REC	106	%	80-119
FC10847-6MSD*	79-00-5	1,1,2-Trichloroethane	MSD	RPD	8	%	20
FC10847-6MSD*	79-01-6	Trichloroethylene	MSD	REC	107	%	79-123
FC10847-6MSD*	79-01-6	Trichloroethylene	MSD	RPD	5	%	20
FC10847-6MSD*	75-69-4	Trichlorofluoromethane	MSD	REC	98	%	65-141
FC10847-6MSD*	75-69-4	Trichlorofluoromethane	MSD	RPD	3	%	20
FC10847-6MSD*	108-05-4	Vinyl Acetate	MSD	REC	103	%	54-146
FC10847-6MSD*	108-05-4	Vinyl Acetate	MSD	RPD	6	%	20
FC10847-6MSD*	75-01-4	Vinyl Chloride	MSD	REC	100	%	58-137

* Sample used for QC is not from job FC10954

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC10847-6MSD*	75-01-4	Vinyl Chloride	MSD	RPD	4	%	20
FC10847-6MSD*		m,p-Xylene	MSD	REC	62	%	80-121
FC10847-6MSD*		m,p-Xylene	MSD	RPD	4	%	20
FC10847-6MSD*	95-47-6	o-Xylene	MSD	REC	69	%	78-122
FC10847-6MSD*	95-47-6	o-Xylene	MSD	RPD	5	%	20
FC10847-6MSD*	1330-20-7	Xylene (total)	MSD	REC	65	%	79-121
FC10847-6MSD*	1330-20-7	Xylene (total)	MSD	RPD	4	%	20
FC10847-6MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	98	%	80-119
FC10847-6MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	102	%	81-118
FC10847-6MSD*	2037-26-5	Toluene-D8	MSD	SURR	99	%	89-112
FC10847-6MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	95	%	85-114
V5E1954-MB	1868-53-7	Dibromofluoromethane	MB	SURR	96	%	80-119
V5E1954-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	92	%	81-118
V5E1954-MB	2037-26-5	Toluene-D8	MB	SURR	100	%	89-112
V5E1954-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	104	%	85-114
FC10954-1A	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC10954-1A	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	97	%	81-118
FC10954-1A	2037-26-5	Toluene-D8	SAMP	SURR	100	%	89-112
FC10954-1A	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	85-114
FC10954-2A	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
FC10954-2A	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	99	%	81-118
FC10954-2A	2037-26-5	Toluene-D8	SAMP	SURR	100	%	89-112
FC10954-2A	460-00-4	4-Bromofluorobenzene	SAMP	SURR	100	%	85-114
FC10954-3A	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
FC10954-3A	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	100	%	81-118
FC10954-3A	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC10954-3A	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	85-114
GLL2990	RSKSOP-147/175						
GLL2990-BS	74-82-8	Methane	BSP	REC	120	%	73-125
GLL2990-BS	74-84-0	Ethane	BSP	REC	120	%	74-131
GLL2990-BSD	74-82-8	Methane	BSD	REC	117	%	73-125
GLL2990-BSD	74-82-8	Methane	BSD	RPD	3	%	30
GLL2990-BSD	74-84-0	Ethane	BSD	REC	117	%	74-131
GLL2990-BSD	74-84-0	Ethane	BSD	RPD	3	%	30
FC11161-1MS*	74-82-8	Methane	MS	REC	108	%	73-125
FC11161-1MS*	74-84-0	Ethane	MS	REC	106	%	74-131
FC11161-1DUP*	74-82-8	Methane	DUP	RPD	0	%	30
FC11161-1DUP*	74-84-0	Ethane	DUP	RPD	0	%	30
GLL2991	RSKSOP-147/175						
GLL2991-BS	74-82-8	Methane	BSP	REC	98	%	73-125
GLL2991-BSD	74-82-8	Methane	BSD	REC	107	%	73-125

* Sample used for QC is not from job FC10954

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10954
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
GLL2991-BSD	74-82-8	Methane	BSD	RPD	9	%	30
FC11172-1MS*	74-82-8	Methane	MS	REC	109	%	73-125
FC11172-1DUP*	74-82-8	Methane	DUP	RPD	0	%	30
MP43089	SW846 6020B						
MP43089-B1	7440-38-2	Arsenic	BSP	REC	102.5	%	84-116
MP43089-S1	7440-38-2	Arsenic	MS	REC	115	%	84-116
MP43089-S2	7440-38-2	Arsenic	MSD	REC	115	%	84-116
MP43089-S2	7440-38-2	Arsenic	MSD	RPD	0	%	20
MP43089-D1	7440-38-2	Arsenic	DUP	RPD	2.1	%	20
MP43108	SW846 6010D						
MP43108-B1	7439-89-6	Iron	BSP	REC	93.5	%	87-115
MP43108-B1	7439-96-5	Manganese	BSP	REC	91.5	%	90-114
MP43108-S1*	7439-89-6	Iron	MS	REC	89.1	%	87-115
MP43108-S1*	7439-96-5	Manganese	MS	REC	95	%	90-114
MP43108-S2*	7439-89-6	Iron	MSD	REC	80.4	%	87-115
MP43108-S2*	7439-89-6	Iron	MSD	RPD	2	%	20
MP43108-S2*	7439-96-5	Manganese	MSD	REC	85	%	90-114
MP43108-S2*	7439-96-5	Manganese	MSD	RPD	.8	%	20
MP43108-D1*	7439-89-6	Iron	DUP	RPD	3.7	%	20
MP43108-D1*	7439-96-5	Manganese	DUP	RPD	2.7	%	20
MP43116	SW846 6010D						
MP43116-B1	7439-89-6	Iron	BSP	REC	96.3	%	87-115
MP43116-B1	7439-96-5	Manganese	BSP	REC	97	%	90-114
MP43116-S1*	7439-89-6	Iron	MS	REC	90.4	%	87-115
MP43116-S1*	7439-96-5	Manganese	MS	REC	87	%	90-114
MP43116-S2*	7439-89-6	Iron	MSD	REC	87.4	%	87-115
MP43116-S2*	7439-89-6	Iron	MSD	RPD	1.5	%	20
MP43116-S2*	7439-96-5	Manganese	MSD	REC	81	%	90-114
MP43116-S2*	7439-96-5	Manganese	MSD	RPD	1.9	%	20
MP43116-D1*	7439-89-6	Iron	DUP	RPD	3.5	%	20
MP43116-D1*	7439-96-5	Manganese	DUP	RPD	3.8	%	20

(a) Outside control limits due to high level in sample relative to spike amount.

* Sample used for QC is not from job FC10954

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E1954-MB [a]	5E43731.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-02-8	Acrolein	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile	ND	10	2.1	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	3.7	5.0	2.0	ug/l	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E1954-MB [a]	5E43731.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	96%	83-118%
17060-07-0	1,2-Dichloroethane-D4	92%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	104%	83-118%

(a) Sample was treated with an anti-foaming agent.

Blank Spike Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E1954-BS	5E43729.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	144	115	50-147
107-02-8	Acrolein	125	143	114	31-154
107-13-1	Acrylonitrile	125	125	100	58-126
71-43-2	Benzene	25	25.7	103	81-122
75-27-4	Bromodichloromethane	25	23.4	94	79-123
75-25-2	Bromoform	25	24.1	96	66-123
78-93-3	2-Butanone (MEK)	125	123	98	56-143
75-15-0	Carbon Disulfide	25	25.6	102	66-148
56-23-5	Carbon Tetrachloride	25	25.3	101	76-136
108-90-7	Chlorobenzene	25	24.9	100	82-124
75-00-3	Chloroethane	25	29.7	119	62-144
110-75-8	2-Chloroethyl Vinyl Ether	125	136	109	56-122
67-66-3	Chloroform	25	24.8	99	80-124
124-48-1	Dibromochloromethane	25	26.3	105	78-122
95-50-1	1,2-Dichlorobenzene	25	24.2	97	82-124
541-73-1	1,3-Dichlorobenzene	25	23.9	96	84-125
106-46-7	1,4-Dichlorobenzene	25	24.2	97	78-120
75-34-3	1,1-Dichloroethane	25	24.7	99	81-122
107-06-2	1,2-Dichloroethane	25	24.3	97	75-125
75-35-4	1,1-Dichloroethylene	25	25.3	101	78-137
156-59-2	cis-1,2-Dichloroethylene	25	24.9	100	78-120
156-60-5	trans-1,2-Dichloroethylene	25	26.3	105	76-127
78-87-5	1,2-Dichloropropane	25	26.8	107	76-124
10061-01-5	cis-1,3-Dichloropropene	25	26.3	105	75-118
10061-02-6	trans-1,3-Dichloropropene	25	24.3	97	80-120
100-41-4	Ethylbenzene	25	24.4	98	81-121
591-78-6	2-Hexanone	125	140	112	61-129
74-83-9	Methyl Bromide	25	25.7	103	59-143
74-87-3	Methyl Chloride	25	25.6	102	50-159
75-09-2	Methylene Chloride	25	24.2	97	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	138	110	66-122
100-42-5	Styrene	25	26.0	104	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	23.9	96	72-120
127-18-4	Tetrachloroethylene	25	26.6	106	76-135
108-88-3	Toluene	25	25.8	103	80-120
71-55-6	1,1,1-Trichloroethane	25	24.1	96	75-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5E1954-BS	5E43729.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-00-5	1,1,2-Trichloroethane	25	26.4	106	76-119
79-01-6	Trichloroethylene	25	25.9	104	81-126
75-69-4	Trichlorofluoromethane	25	26.1	104	71-156
108-05-4	Vinyl Acetate	125	121	97	43-154
75-01-4	Vinyl Chloride	25	28.2	113	69-159
	m,p-Xylene	50	49.9	100	79-126
95-47-6	o-Xylene	25	24.9	100	80-127
1330-20-7	Xylene (total)	75	74.8	100	80-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	96%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	101%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC10847-6MS	5E43752.D	5	11/08/23	JL	n/a	n/a	V5E1954
FC10847-6MSD	5E43753.D	5	11/08/23	JL	n/a	n/a	V5E1954
FC10847-6	5E43732.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	FC10847-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	25 U		625	665	106	625	707	113	6	50-147/21
107-02-8	Acrolein	20 U		625	606	97	625	671	107	10	31-154/29
107-13-1	Acrylonitrile	10 U		625	601	96	625	662	106	10	58-126/16
71-43-2	Benzene	1.0 U		125	123	98	125	127	102	3	81-122/14
75-27-4	Bromodichloromethane	1.0 U		125	121	97	125	125	100	3	79-123/19
75-25-2	Bromoform	1.0 U		125	115	92	125	123	98	7	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		625	569	91	625	613	98	7	56-143/18
75-15-0	Carbon Disulfide	2.0 U		125	118	94	125	123	98	4	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		125	129	103	125	132	106	2	76-136/23
108-90-7	Chlorobenzene	1.0 U		125	119	95	125	128	102	7	82-124/14
75-00-3	Chloroethane	2.0 U		125	128	102	125	139	111	8	62-144/20
110-75-8	2-Chloroethyl Vinyl Ether	5.0 U		625	ND	0*	625	ND	0*	nc	56-122/23
67-66-3	Chloroform	1.0 U		125	124	99	125	129	103	4	80-124/15
124-48-1	Dibromochloromethane	1.0 U		125	126	101	125	134	107	6	78-122/19
95-50-1	1,2-Dichlorobenzene	1.0 U		125	116	93	125	127	102	9	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		125	115	92	125	122	98	6	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		125	114	91	125	123	98	8	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		125	121	97	125	124	99	2	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		125	130	104	125	131	105	1	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		125	123	98	125	127	102	3	78-137/18
156-59-2	cis-1,2-Dichloroethylene	1.0 U		125	127	102	125	131	105	3	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		125	132	106	125	129	103	2	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		125	128	102	125	131	105	2	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		125	123	98	125	124	99	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		125	108	86	125	119	95	10	80-120/22
100-41-4	Ethylbenzene	267	L	125	307	32* [a]	125	316	39* [a]	3	81-121/14
591-78-6	2-Hexanone	10 U		625	629	101	625	701	112	11	61-129/18
74-83-9	Methyl Bromide	5.0 U		125	66.3	53*	125	76.0	61	14	59-143/19
74-87-3	Methyl Chloride	2.0 U		125	106	85	125	118	94	11	50-159/19
75-09-2	Methylene Chloride	5.0 U		125	121	97	125	122	98	1	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		625	609	97	625	671	107	10	66-122/16
100-42-5	Styrene	1.0 U		125	124	99	125	134	107	8	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		125	116	93	125	122	98	5	72-120/14
127-18-4	Tetrachloroethylene	1.0 U		125	124	99	125	130	104	5	76-135/16
108-88-3	Toluene	1.1		125	121	96	125	126	100	4	80-120/14
71-55-6	1,1,1-Trichloroethane	1.0 U		125	125	100	125	127	102	2	75-130/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC10847-6MS	5E43752.D	5	11/08/23	JL	n/a	n/a	V5E1954
FC10847-6MSD	5E43753.D	5	11/08/23	JL	n/a	n/a	V5E1954
FC10847-6	5E43732.D	1	11/08/23	JL	n/a	n/a	V5E1954

The QC reported here applies to the following samples: **Method:** SW846 8260D

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	FC10847-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-00-5	1,1,2-Trichloroethane	1.0 U		125	123	98	125	133	106	8	76-119/14
79-01-6	Trichloroethylene	1.0 U		125	128	102	125	134	107	5	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U		125	118	94	125	122	98	3	71-156/21
108-05-4	Vinyl Acetate	10 U		625	608	97	625	644	103	6	43-154/14
75-01-4	Vinyl Chloride	1.0 U		125	120	96	125	125	100	4	69-159/18
	m,p-Xylene	365	L	250	500	54*	250	520	62*	4	79-126/15
95-47-6	o-Xylene	180	L	125	253	58*	125	266	69*	5	80-127/14
1330-20-7	Xylene (total)	544	L	375	753	56*	375	786	65*	4	80-126/15

CAS No.	Surrogate Recoveries	MS	MSD	FC10847-6	Limits
1868-53-7	Dibromofluoromethane	102%	98%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	102%	93%	79-125%
2037-26-5	Toluene-D8	99%	99%	100%	85-112%
460-00-4	4-Bromofluorobenzene	97%	95%	97%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-BFB
Lab File ID: 5E43714.D
Instrument ID: GCMS5E
Injection Date: 11/07/23
Injection Time: 12:37

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	8367	19.3		Pass
75	30.0 - 60.0% of mass 95	21213	48.9		Pass
95	Base peak, 100% relative abundance	43357	100.0		Pass
96	5.0 - 9.0% of mass 95	2700	6.23		Pass
173	Less than 2.0% of mass 174	357	0.82	(0.90) [a]	Pass
174	50.0 - 100.0% of mass 95	39880	92.0		Pass
175	5.0 - 9.0% of mass 174	2986	6.89	(7.49) [a]	Pass
176	95.0 - 101.0% of mass 174	38632	89.1	(96.9) [a]	Pass
177	5.0 - 9.0% of mass 176	2396	5.53	(6.20) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5E1953-IC1953	5E43715.D	11/07/23	13:00	00:23	Initial cal 1
V5E1953-IC1953	5E43716.D	11/07/23	13:23	00:46	Initial cal 8
V5E1953-IC1953	5E43717.D	11/07/23	13:46	01:09	Initial cal 2
V5E1953-IC1953	5E43718.D	11/07/23	14:09	01:32	Initial cal 3
V5E1953-IC1953	5E43719.D	11/07/23	14:32	01:55	Initial cal 4
V5E1953-ICC1953	5E43720.D	11/07/23	14:56	02:19	Initial cal 5
V5E1953-IC1953	5E43721.D	11/07/23	15:19	02:42	Initial cal 6
V5E1953-IC1953	5E43722.D	11/07/23	15:42	03:05	Initial cal 7
V5E1953-ICV1953	5E43724.D	11/07/23	16:28	03:51	Initial cal verification 5

Instrument Performance Check (BFB)

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-BFB
Lab File ID: 5E43726.D
Instrument ID: GCMS5E
Injection Date: 11/08/23
Injection Time: 08:40

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	9844	18.8		Pass
75	30.0 - 60.0% of mass 95	25397	48.6		Pass
95	Base peak, 100% relative abundance	52237	100.0		Pass
96	5.0 - 9.0% of mass 95	3404	6.52		Pass
173	Less than 2.0% of mass 174	672	1.29	(1.42) [a]	Pass
174	50.0 - 100.0% of mass 95	47253	90.5		Pass
175	5.0 - 9.0% of mass 174	3619	6.93	(7.66) [a]	Pass
176	95.0 - 101.0% of mass 174	45013	86.2	(95.3) [a]	Pass
177	5.0 - 9.0% of mass 176	2880	5.51	(6.40) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5E1954-CC1953	5E43727.D	11/08/23	09:11	00:31	Continuing cal 5
V5E1953-ICV1953	5E43728.D	11/08/23	09:44	01:04	Initial cal verification 5
V5E1954-BS	5E43729.D	11/08/23	10:07	01:27	Blank Spike
V5E1954-MB	5E43731.D	11/08/23	10:53	02:13	Method Blank
FC10847-6	5E43732.D	11/08/23	11:54	03:14	(used for QC only; not part of job FC10954)
ZZZZZZ	5E43733.D	11/08/23	12:17	03:37	(unrelated sample)
ZZZZZZ	5E43734.D	11/08/23	12:40	04:00	(unrelated sample)
ZZZZZZ	5E43735.D	11/08/23	13:03	04:23	(unrelated sample)
ZZZZZZ	5E43736.D	11/08/23	13:26	04:46	(unrelated sample)
ZZZZZZ	5E43737.D	11/08/23	13:49	05:09	(unrelated sample)
ZZZZZZ	5E43738.D	11/08/23	14:12	05:32	(unrelated sample)
ZZZZZZ	5E43739.D	11/08/23	14:35	05:55	(unrelated sample)
ZZZZZZ	5E43740.D	11/08/23	14:58	06:18	(unrelated sample)
ZZZZZZ	5E43741.D	11/08/23	15:21	06:41	(unrelated sample)
FC10954-1A	5E43742.D	11/08/23	15:45	07:05	EW-1
FC10954-2A	5E43743.D	11/08/23	16:08	07:28	EW-3
FC10954-3A	5E43744.D	11/08/23	16:31	07:51	EW-4
ZZZZZZ	5E43745.D	11/08/23	16:54	08:14	(unrelated sample)
ZZZZZZ	5E43746.D	11/08/23	17:17	08:37	(unrelated sample)
ZZZZZZ	5E43747.D	11/08/23	17:40	09:00	(unrelated sample)
ZZZZZZ	5E43748.D	11/08/23	18:03	09:23	(unrelated sample)
ZZZZZZ	5E43749.D	11/08/23	18:26	09:46	(unrelated sample)
ZZZZZZ	5E43750.D	11/08/23	18:49	10:09	(unrelated sample)
ZZZZZZ	5E43751.D	11/08/23	19:12	10:32	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	V5E1954-BFB	**Injection Date:**	11/08/23
Lab File ID:	5E43726.D	**Injection Time:**	08:40
Instrument ID:	GCMS5E		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC10847-6MS	5E43752.D	11/08/23	19:35	10:55	Matrix Spike
FC10847-6MSD	5E43753.D	11/08/23	19:58	11:18	Matrix Spike Duplicate
V5E1954-ECC1953	5E43754.D	11/08/23	20:22	11:42	Ending cal 5

Internal Standard Area Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	V5E1954-CC1953	**Injection Date:**	11/08/23
Lab File ID:	5E43727.D	**Injection Time:**	09:11
Instrument ID:	GCMS5E	**Method:**	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal [a]	230680	8.46	179857	11.60	111652	13.96
Check Std [b]	274330	8.46	209466	11.60	128875	13.96
Upper Limit [c]	548660	8.63	418932	11.77	257750	14.13
Lower Limit [d]	137165	8.29	104733	11.43	64438	13.79

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5E1954-BS	265711	8.46	202034	11.60	124087	13.96
V5E1954-MB [e]	259771	8.46	196019	11.60	114873	13.96
FC10847-6	256217	8.46	199802	11.60	126407	13.96
ZZZZZZ	268258	8.46	208742	11.60	120713	13.96
ZZZZZZ	259608	8.46	197080	11.60	115538	13.96
ZZZZZZ	257068	8.46	197466	11.60	114674	13.96
ZZZZZZ	252839	8.46	194610	11.60	113305	13.96
ZZZZZZ	246987	8.46	192742	11.60	109686	13.96
ZZZZZZ	243558	8.46	185907	11.60	108392	13.96
ZZZZZZ	240018	8.46	183330	11.60	106710	13.96
ZZZZZZ	232342	8.46	180195	11.60	103078	13.96
ZZZZZZ	228853	8.46	176801	11.60	103075	13.96
FC10954-1A	224943	8.46	175142	11.60	101861	13.96
FC10954-2A	220811	8.46	174111	11.60	101209	13.96
FC10954-3A	216309	8.46	170587	11.60	98110	13.96
ZZZZZZ	215241	8.46	169857	11.60	99105	13.96
ZZZZZZ	215351	8.46	169821	11.60	97973	13.96
ZZZZZZ	211244	8.46	162838	11.60	92608	13.96
ZZZZZZ	205898	8.46	160709	11.60	94591	13.96
ZZZZZZ	203694	8.46	156122	11.60	90255	13.96
ZZZZZZ	200565	8.46	158175	11.60	89144	13.96
ZZZZZZ	197693	8.46	153579	11.60	91331	13.96
FC10847-6MS	204134	8.46	162618	11.60	101256	13.96
FC10847-6MSD	215040	8.46	167867	11.60	106045	13.96
V5E1954-ECC1953	226692	8.46	178921	11.60	110817	13.96

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4

(a) Initial Cal is: V5E1953-ICC1953 5E43720.D 11/07/23 14:56
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.

Internal Standard Area Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	V5E1954-CC1953	**Injection Date:**	11/08/23
Lab File ID:	5E43727.D	**Injection Time:**	09:11
Instrument ID:	GCMS5E	**Method:**	SW846 8260D

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT

(d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
(e) Sample was treated with an anti-foaming agent.

Surrogate Recovery Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Method: SW846 8260D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC10954-1A	5E43742.D	99	97	100	101
FC10954-2A	5E43743.D	101	99	100	100
FC10954-3A	5E43744.D	101	100	98	101
FC10847-6MS	5E43752.D	102	105	99	97
FC10847-6MSD	5E43753.D	98	102	99	95
V5E1954-BS	5E43729.D	98	96	102	101
V5E1954-MB	5E43731.D	96	92	100	104

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICC1953
Lab FileID: 5E43720.D

Response Factor Report MSVOA20

Method : C:\msdchem\1\met...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Calibration Files
1 =5E43715.D 2 =5E43717.D 3 =5E43718.D 4 =5E43719.D
5 =5E43720.D 6 =5E43721.D 7 =5E43722.D 8 =5E43716.D

Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1) I Fluorobenzene	----------ISTD----------									
2) Dichlorodifl	0.170	0.196	0.156	0.183	0.192	0.205	0.197	0.210	0.188	9.60
3) Chloromethan	0.217	0.235	0.185	0.197	0.200	0.216	0.216	0.220	0.211	7.58
4) Vinyl Chlori	0.143	0.165	0.139	0.161	0.167	0.181	0.179	0.174	0.164	9.59
5) 1,3-Butadien	0.185	0.209	0.230	0.218	0.208	0.228	0.235	0.233	0.218	7.72
6) Bromomethane	0.087	0.106	0.092	0.095	0.097	0.110	0.109	0.091	0.098	8.90
7) Chloroethane	0.076	0.112	0.100	0.106	0.109	0.117	0.112	0.103	0.105	12.28
8) Trichloroflu	0.355	0.375	0.302	0.365	0.364	0.387	0.376	0.445	0.371	10.64
9) Ethyl Ether	0.131	0.201	0.168	0.169	0.165	0.178	0.181	0.159	0.169	11.74
10) Ethanol			0.001	0.002	0.003	0.003	0.003		0.002	40.56
---- Linear regr., Force(0,0) ---- Coefficient = 0.9984										
Response Ratio = 0.00000 + 0.00273 *A										
11) 1,2-Dichloro	0.154	0.243	0.199	0.199	0.175	0.211	0.210	0.196	0.198	13.20
12) 1,1-Dichloro	0.284	0.380	0.325	0.329	0.289	0.337	0.333	0.309	0.323	9.41
13) Freon 113	0.133	0.221	0.200	0.199	0.173	0.208	0.208	0.188	0.191	14.51
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963										
Response Ratio = 0.00000 + 0.18504 *A + 0.01192 *A^2										
14) Carbon Disul	0.616	0.647	0.582	0.572	0.516	0.589	0.603	0.597	0.590	6.44
15) Iodomethane	0.039	0.103	0.100	0.140	0.165	0.194	0.193	0.044	0.122	50.11
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9947										
Response Ratio = 0.00000 + 0.12058 *A + 0.04098 *A^2										
16) Acrolein			0.025	0.041	0.044	0.044	0.049	0.052	0.034	0.041	22.48
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9981										
Response Ratio = 0.00000 + 0.03802 *A + 0.00146 *A^2										
17) Allyl chlori	0.177	0.180	0.243	0.246	0.230	0.252	0.247	0.198	0.222	14.22
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983										
Response Ratio = 0.00000 + 0.22832 *A + 0.01102 *A^2										
18) Methylene Ch	0.744	0.416	0.336	0.305	0.273	0.296	0.286	0.483	0.392	40.65
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9949										
Response Ratio = 0.00000 + 0.33308 *A + -0.02688 *A^2										
19) Acetone	0.065	0.072	0.076	0.077	0.074	0.076	0.079	0.050	0.071	13.29
20) Methyl aceta	0.145	0.192	0.174	0.176	0.174	0.185	0.192	0.191	0.179	8.79
21) trans-1,2-Di	0.252	0.343	0.302	0.297	0.277	0.316	0.316	0.280	0.298	9.53
22) Hexane	0.203	0.200	0.187	0.183	0.166	0.197	0.198	0.147	0.185	10.56
23) Methyl Tert	0.549	0.740	0.683	0.664	0.637	0.673	0.681	0.680	0.664	8.20
24) Acetonitrile	0.011	0.018	0.026	0.027	0.025	0.026	0.027	0.022	0.023	25.40
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983										
Response Ratio = 0.00000 + 0.02384 *A + 0.00017 *A^2										
25) Di-isopropyl	0.590	0.723	0.668	0.662	0.633	0.692	0.689	0.634	0.661	6.30

Initial Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICC1953
Lab FileID: 5E43720.D

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26) Chloroprene  0.204 0.254 0.322 0.318 0.298 0.341 0.351 0.250 0.292  17.51
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
              Response Ratio = 0.00000 + 0.28643 *A + 0.03362 *A^2

27) 1,1-Dichloro 0.392 0.422 0.397 0.388 0.365 0.405 0.406 0.385 0.395   4.28
28) Acrylonitril 0.042 0.090 0.089 0.089 0.091 0.095 0.100 0.103 0.087  21.95
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.08603 *A + 0.00135 *A^2

29) ETBE         0.610 0.768 0.726 0.708 0.687 0.729 0.731 0.686 0.706   6.64
30) Tert Butyl A 0.022 0.041 0.040 0.038 0.036 0.038 0.040 0.068 0.040  31.85
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9957
              Response Ratio = 0.00000 + 0.03683 *A + 0.00013 *A^2

31) Vinyl acetat 0.360 0.424 0.462 0.492 0.490 0.518 0.522 0.495 0.470  11.61
32) cis-1,2-Dich 0.161 0.254 0.235 0.237 0.223 0.239 0.246 0.221 0.227  12.75
33) 2,2-Dichloro 0.344 0.421 0.346 0.354 0.327 0.378 0.360 0.348 0.360   7.99
34) Bromochlorom 0.066 0.135 0.129 0.123 0.114 0.127 0.126 0.116 0.117  18.42
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9979
              Response Ratio = 0.00000 + 0.11920 *A + 0.00344 *A^2

35) Cyclohexane  0.242 0.394 0.343 0.358 0.308 0.376 0.385 0.338 0.343  14.44
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9963
              Response Ratio = 0.00000 + 0.32345 *A + 0.03052 *A^2

36) Chloroform   0.409 0.510 0.446 0.430 0.410 0.452 0.452 0.451 0.445   7.15
37) Ethyl acetat 0.163 0.238 0.247 0.253 0.249 0.256 0.263 0.294 0.246  15.16
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.24411 *A + 0.00186 *A^2

38) Tetrahydrofu       0.106 0.081 0.088 0.089 0.083 0.085 0.055 0.084  17.99
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9970
              Response Ratio = 0.00000 + 0.08823 *A + -0.00187 *A^2

39) Dibromofluor 0.323 0.320 0.325 0.323 0.320 0.326 0.321 0.326 0.323   0.83
40) Carbon Tetra 0.294 0.454 0.393 0.395 0.341 0.402 0.400 0.383 0.383  12.38
41) 1,1,1-Trichl 0.414 0.506 0.424 0.414 0.383 0.441 0.439 0.411 0.429   8.40
42) 2-Butanone   0.124 0.125 0.116 0.119 0.116 0.121 0.127 0.090 0.117  10.02
43) 1,1-Dichloro 0.210 0.314 0.280 0.289 0.261 0.307 0.306 0.230 0.275  13.97
44) tert-Butyl f 0.114 0.103 0.103 0.117 0.115 0.114 0.115 0.108 0.111   4.99
45) Propionitril 0.019 0.033 0.044 0.041 0.041 0.043 0.045 0.034 0.037  23.40
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
              Response Ratio = 0.00000 + 0.03844 *A + 0.00032 *A^2

46) Methacryloni 0.117 0.134 0.164 0.161 0.154 0.161 0.166 0.158 0.152  11.45
47) Benzene      0.751 0.898 0.811 0.776 0.737 0.818 0.817 0.799 0.801   6.21
48) TAME         0.553 0.737 0.645 0.636 0.614 0.645 0.641 0.613 0.635   8.04
49) 1,2-Dichloro 0.377 0.380 0.381 0.383 0.383 0.362 0.351 0.380 0.375   3.12
50) 1,2-Dichloro 0.341 0.423 0.372 0.365 0.349 0.370 0.359 0.326 0.363   7.93
51) tert Amyl al 0.017 0.030 0.029 0.029 0.028 0.029 0.032 0.024 0.027  17.00
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
              Response Ratio = 0.00000 + 0.02710 *A + 0.00020 *A^2

52) Trichloroeth 0.202 0.263 0.246 0.237 0.218 0.249 0.249 0.227 0.236   8.32
53) Methylcycloh 0.238 0.363 0.322 0.345 0.303 0.368 0.380 0.297 0.327  14.40
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9972
              Response Ratio = 0.00000 + 0.30647 *A + 0.03714 *A^2

54) Dibromometha 0.089 0.160 0.151 0.154 0.146 0.158 0.157 0.145 0.145  16.10
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
```

Job Number: FC10954 **Sample:** V5E1953-ICC1953
Account: SCMAW Sovereign Consulting **Lab FileID:** 5E43720.D
Project: Shepley's Hill (SHL); Devens, MA

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              Response Ratio = 0.00000 + 0.14798 *A + 0.00514 *A^2

55) 1,2-Dichloro 0.108 0.223 0.194 0.197 0.188 0.202 0.206 0.170 0.186  18.82
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
              Response Ratio = 0.00000 + 0.18846 *A + 0.00880 *A^2

56) Bromodichlor 0.288 0.379 0.359 0.336 0.327 0.354 0.351 0.334 0.341   7.93
57) Methyl metha       0.143 0.196 0.207 0.203 0.233 0.236 0.126 0.192  22.08
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
              Response Ratio = 0.00000 + 0.18403 *A + 0.02829 *A^2

58) 1,4-Dioxane        0.002 0.003 0.003 0.003 0.003 0.003       0.003  13.76
59) 2-Chloroethy 0.039 0.067 0.067 0.082 0.093 0.096 0.101 0.060 0.076  27.84
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
              Response Ratio = 0.00000 + 0.07480 *A + 0.00276 *A^2

60) cis-1,3-Dich 0.230 0.344 0.320 0.323 0.329 0.353 0.354 0.291 0.318  12.87

61) I   Chlorobenzene-d5      ----------------ISTD--------------------
62) Toluene-d8   1.248 1.277 1.282 1.252 1.271 1.288 1.276 1.242 1.267   1.35
63) Toluene      1.161 1.317 1.173 1.127 1.058 1.164 1.171 1.119 1.161   6.35
64) Isobutyl alc 0.011 0.012 0.014 0.015 0.014 0.015 0.016 0.010 0.013  16.50
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.01276 *A + 0.00009 *A^2

65) 2-Nitropropa 0.083 0.117 0.108 0.105 0.102 0.109 0.110 0.098 0.104  10.00
66) 4-Methyl-2-p 0.344 0.317 0.327 0.321 0.314 0.326 0.340 0.240 0.316  10.34
67) trans-1,3-Di 0.234 0.420 0.413 0.418 0.413 0.456 0.460 0.308 0.390  20.07
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.39442 *A + 0.03547 *A^2

68) Tetrachloroe 0.283 0.408 0.372 0.362 0.324 0.370 0.374 0.332 0.353  10.90
69) Ethyl methac       0.204 0.296 0.296 0.303 0.326 0.341 0.159 0.275  24.43
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9976
              Response Ratio = 0.00000 + 0.32049 *A

70) 1,1,2-Trichl 0.135 0.249 0.214 0.212 0.209 0.224 0.227 0.171 0.205  17.41
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
              Response Ratio = 0.00000 + 0.20695 *A + 0.01016 *A^2

71) Dibromochlor 0.257 0.376 0.387 0.364 0.355 0.397 0.394 0.325 0.357  13.11
72) 1,3-Dichloro 0.300 0.462 0.447 0.412 0.412 0.436 0.440 0.386 0.412  12.42
73) 1,2-Dibromoe 0.144 0.334 0.307 0.295 0.295 0.327 0.325 0.243 0.284  22.32
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9983
              Response Ratio = 0.00000 + 0.28962 *A + 0.01924 *A^2

74) 3,3-Dimethyl 0.029 0.028 0.026 0.030 0.029 0.030 0.033 0.030 0.029   6.98
75) 2-hexanone   0.172 0.218 0.221 0.225 0.223 0.233 0.250 0.124 0.208  19.51
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9989
              Response Ratio = 0.00000 + 0.20662 *A + 0.00419 *A^2

76) 1-Chlorohexa 0.236 0.394 0.359 0.364 0.334 0.396 0.403 0.280 0.346  17.38
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9976
              Response Ratio = 0.00000 + 0.33460 *A + 0.03546 *A^2

77) Ethylbenzene 1.439 1.578 1.394 1.322 1.241 1.384 1.385 1.443 1.398   7.00
78) Chlorobenzen 0.744 0.985 0.836 0.787 0.776 0.843 0.830 0.734 0.817   9.75
79) 1,1,1,2-Tetr 0.311 0.384 0.359 0.334 0.323 0.360 0.353 0.325 0.344   7.13
80) m,p-Xylene   1.060 1.274 1.114 1.056 1.006 1.111 1.122 1.051 1.099   7.38
81) o-Xylene     0.952 1.214 1.094 1.100 1.028 1.150 1.152 1.070 1.095   7.39
```

Initial Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICC1953
Lab FileID: 5E43720.D

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 82) Styrene      0.624 0.839 0.808 0.802 0.789 0.871 0.872 0.653 0.782  12.03
 83) Bromoform    0.127 0.260 0.259 0.266 0.254 0.287 0.292 0.163 0.239  25.10
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 0.24325 *A + 0.02581 *A^2

 84) Isopropylben 1.222 1.462 1.362 1.340 1.283 1.455 1.461 1.313 1.362   6.63

 85) I   1,4-Dichlorobenzene-d ----------------ISTD--------------------
 86) 4-Bromofluor 0.860 0.853 0.859 0.860 0.839 0.841 0.835 0.866 0.852   1.36
 87) cis-1,4-Dich       0.042 0.080 0.110 0.112 0.132 0.137       0.102  34.84
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9960
               Response Ratio = 0.00000 + 0.08866 *A + 0.02596 *A^2

 88) n-Propylbenz 2.402 2.917 2.603 2.585 2.331 2.590 2.606 2.728 2.595   6.97
 89) Bromobenzene 0.418 0.701 0.621 0.584 0.565 0.604 0.588 0.592 0.584  13.49
 90) 1,1,2,2-Tetr 0.612 0.700 0.639 0.607 0.588 0.628 0.634 0.607 0.627   5.41
 91) 1,3,5-Trimet 1.625 2.189 1.974 1.946 1.781 1.966 1.963 1.809 1.907   8.79
 92) 2-Chlorotolu 1.723 2.082 1.883 1.827 1.664 1.792 1.759 1.783 1.814   6.97
 93) trans-1,4-Di       0.071 0.091 0.123 0.134 0.141 0.152       0.119  26.34
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9976
               Response Ratio = 0.00000 + 0.10571 *A + 0.02408 *A^2

 94) 1,2,3-Trichl       0.272 0.217 0.214 0.202 0.215 0.221 0.186 0.218  12.22
 95) Cyclohexanon       0.016 0.018 0.019 0.020 0.021 0.022       0.019  10.19
 96) 4-Chlorotolu 1.554 1.873 1.758 1.636 1.505 1.646 1.647 1.563 1.648   7.23
 97) a-Methyl sty                                                 0.000  -1.00
 98) tert-Butylbe 1.173 1.227 1.139 1.095 1.005 1.108 1.120 1.128 1.124   5.67
 99) 1,2,4-Trimet 1.682 2.084 1.942 1.948 1.780 1.950 1.976 1.764 1.891   7.09
100) Pentachloroe 0.152 0.282 0.378 0.356 0.345 0.369 0.377 0.321 0.323  23.63
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 0.33406 *A + 0.02236 *A^2

101) sec-Butylben 2.043 2.647 2.370 2.327 2.088 2.392 2.434 2.131 2.304   8.87
102) 4-Isopropylt 1.952 2.303 2.057 2.072 1.918 2.176 2.229 1.927 2.079   6.98
103) 1,3-Dichloro 1.078 1.281 1.173 1.150 1.086 1.179 1.184 1.172 1.163   5.45
104) 1,2,3-Trimet 1.885 2.245 2.041 1.998 1.864 2.037 2.053 1.982 2.013   5.83
105) 1,4-Dichloro 1.150 1.465 1.326 1.252 1.160 1.250 1.229 1.333 1.271   8.10
106) n-Butylbenze 0.436 1.049 0.911 0.996 0.906 1.067 1.105 0.836 0.913  23.40
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9977
               Response Ratio = 0.00000 + 0.88734 *A + 0.11091 *A^2

107) Benzyl Chlor 0.087 0.234 0.218 0.237 0.245 0.273 0.281 0.111 0.211  34.25
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9987
               Response Ratio = 0.00000 + 0.21548 *A + 0.03498 *A^2

108) 1,2-Dichloro 0.965 1.309 1.133 1.124 1.074 1.136 1.149 1.082 1.121   8.56
109) 1,2-Dibromo-       0.131 0.127 0.133 0.132 0.138 0.145 0.074 0.126  18.80
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
               Response Ratio = 0.00000 + 0.12361 *A + 0.01073 *A^2

110) Hexachlorobu 0.392 0.297 0.266 0.278 0.242 0.290 0.300 0.267 0.292  15.35
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9972
               Response Ratio = 0.00000 + 0.25551 *A + 0.02139 *A^2

111) 1,2,4-Trichl 0.463 0.696 0.630 0.663 0.641 0.700 0.723 0.536 0.631  14.14
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.61926 *A + 0.05264 *A^2

112) Naphthalene  1.158 1.625 1.581 1.622 1.630 1.715 1.788 1.405 1.565  12.65
113) 1,2,3-Trichl 0.466 0.587 0.519 0.579 0.554 0.589 0.598 0.555 0.556   7.99
```

Initial Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICC1953
Lab FileID: 5E43720.D

```
--------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          V5E_11-07-2023_.M        Wed Nov 08 10:18:36 2023
```

Initial Calibration Verification

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICV1953
Lab FileID: 5E43724.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\11-07-2023\5E43724.D Vial: 11
Acq On : 7 Nov 2023 4:28 pm Operator: joannel
Sample : ICV1953-5 Inst : MSVOA20
Misc : MS55196,V5E1953,,,,, Multiplr: 1.00
MS Integration Params: ult...ll.p

Method : C:\msdchem\1\met...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Nov 08 08:42:33 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	113	0.00	8.46
2		Dichlorodifluoromethane	0.188	0.170	9.6	100	0.00	2.81
3	P	Chloromethane	0.211	0.200	5.2	112	0.00	3.14
4	C	Vinyl Chloride	0.164	0.167	-1.8	113	0.00	3.26
5		1,3-Butadiene	0.218	0.187	14.2	102	0.00	3.29
6		Bromomethane	0.098	0.091	7.1	105	0.00	3.77
7		Chloroethane	0.105	0.110	-4.8	113	0.00	3.95
8		Trichlorofluoromethane	0.371	0.345	7.0	107	0.00	4.16
9		Ethyl Ether	0.169	0.183	-8.3	126	0.00	4.58
			Amount	Calc.	%Drift			
10		Ethanol	800.000	856.687	-7.1	127	0.00	4.78
			AvgRF	CCRF	%Dev			
11		1,2-Dichlorotrifluoroetha	0.198	0.210	-6.1	136	0.00	4.82
12	C	1,1-Dichloroethene	0.323	0.308	4.6	121	0.00	4.86
			Amount	Calc.	%Drift			
13		Freon 113	40.000	44.623	-11.6	143	0.00	4.90
			AvgRF	CCRF	%Dev			
14		Carbon Disulfide	0.590	0.556	5.8	122	0.00	4.92
			Amount	Calc.	%Drift			
15		Iodomethane	40.000	39.643	0.9	104	0.00	5.06
16		Acrolein	200.000	219.695	-9.8	125	0.00	5.29
17		Allyl chloride	40.000	46.583	-16.5	136	0.00	5.46
18		Methylene Chloride	40.000	37.781	5.5	122	0.00	5.59
			AvgRF	CCRF	%Dev			
19		Acetone		NA				
20		Methyl acetate	0.179	0.181	-1.1	118	0.00	5.78
21		trans-1,2-Dichloroethene	0.298	0.302	-1.3	123	0.00	5.79
22		Hexane	0.185	0.185	0.0	126	0.00	5.87
23		Methyl Tert Butyl Ether	0.664	0.676	-1.8	120	0.00	5.90
			Amount	Calc.	%Drift			
24		Acetonitrile	400.000	463.901	-16.0	132	0.00	6.21
			AvgRF	CCRF	%Dev			
25		Di-isopropyl ether	0.661	0.678	-2.6	121	0.00	6.32

Initial Calibration Verification

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICV1953
Lab FileID: 5E43724.D

			Amount	Calc.	%Drift			
26		Chloroprene	40.000	36.545	8.6	108	0.00	6.49
			AvgRF	CCRF	%Dev			
27	P	1,1-Dichloroethane	0.395	0.371	6.1	115	0.00	6.52
			Amount	Calc.	%Drift			
28		Acrylonitrile	200.000	220.383	-10.2	125	0.00	6.57
			AvgRF	CCRF	%Dev			
29		ETBE	0.706	0.731	-3.5	120	0.00	6.74
			Amount	Calc.	%Drift			
30		Tert Butyl Alcohol	400.000	425.813	-6.5	127	0.00	5.98
			AvgRF	CCRF	%Dev			
31		Vinyl acetate	0.470	0.497	-5.7	114	0.00	6.77
32		cis-1,2-Dichloroethene	0.227	0.222	2.2	112	0.00	7.13
33		2,2-Dichloropropane	0.360	0.351	2.5	122	0.00	7.25
			Amount	Calc.	%Drift			
34		Bromochloromethane	40.000	39.099	2.3	118	0.00	7.35
35		Cyclohexane	40.000	40.226	-0.6	128	0.00	7.37
			AvgRF	CCRF	%Dev			
36	C	Chloroform	0.445	0.433	2.7	119	0.00	7.41
			Amount	Calc.	%Drift			
37		Ethyl acetate	200.000	218.045	-9.0	125	0.00	7.50
38		Tetrahydrofuran	40.000	38.519	3.7	106	0.00	7.60
			AvgRF	CCRF	%Dev			
39	S	Dibromofluoromethane	0.323	0.319	1.2	113	0.00	7.60
40		Carbon Tetrachloride	0.383	0.362	5.5	120	0.00	7.59
41		1,1,1-Trichloroethane	0.429	0.408	4.9	120	0.00	7.66
42		2-Butanone		----------NA----------				
43		1,1-Dichloropropene	0.275	0.283	-2.9	122	0.00	7.78
44		tert-Butyl formate	0.111	0.119	-7.2	117	0.00	7.87
			Amount	Calc.	%Drift			
45		Propionitrile	400.000	444.122	-11.0	127	0.00	8.05
			AvgRF	CCRF	%Dev			
46		Methacrylonitrile	0.152	0.173	-13.8	127	0.00	8.07
47		Benzene	0.801	0.783	2.2	120	0.00	8.04
48		TAME	0.635	0.628	1.1	115	0.00	8.12
49	S	1,2-Dichloroethane-d4	0.375	0.360	4.0	106	0.00	8.18
50		1,2-Dichloroethane	0.363	0.345	5.0	112	0.00	8.25
			Amount	Calc.	%Drift			
51		tert Amyl alcohol	400.000	433.386	-8.3	127	0.00	8.29
			AvgRF	CCRF	%Dev			
52		Trichloroethene	0.236	0.236	0.0	123	0.00	8.64
			Amount	Calc.	%Drift			
53		Methylcyclohexane	40.000	39.413	1.5	123	0.00	8.64
54		Dibromomethane	40.000	40.944	-2.4	120	0.00	9.08
55	C	1,2-Dichloropropane	40.000	41.446	-3.6	122	0.00	9.17

Initial Calibration Verification

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICV1953
Lab FileID: 5E43724.D

				AvgRF	CCRF	%Dev			
56		Bromodichloromethane		0.341	0.322	5.6	111	0.00	9.22
				Amount	Calc.	%Drift			
57		Methyl methacrylate		40.000	41.913	-4.8	121	0.00	9.33
				AvgRF	CCRF	%Dev			
58		1,4-Dioxane		0.003	0.003	0.0	110	0.00	9.42
				Amount	Calc.	%Drift			
59		2-Chloroethyl vinyl ether		200.000	213.698	-6.8	113	0.00	9.75
				AvgRF	CCRF	%Dev			
60		cis-1,3-Dichloropropene		0.318	0.334	-5.0	115	0.00	9.85
61	I	Chlorobenzene-d5		1.000	1.000	0.0	111	0.00	11.60
62	S	Toluene-d8		1.267	1.289	-1.7	112	0.00	10.04
63	C	Toluene		1.161	1.144	1.5	120	0.00	10.09
				Amount	Calc.	%Drift			
64		Isobutyl alcohol		800.000	924.243	-15.5	136	0.00	8.17
				AvgRF	CCRF	%Dev			
65		2-Nitropropane		0.104	0.102	1.9	111	0.00	10.32
66		4-Methyl-2-pentanone			----------NA----------				
				Amount	Calc.	%Drift			
67		trans-1,3-Dichloropropene		40.000	38.494	3.8	109	0.00	10.49
				AvgRF	CCRF	%Dev			
68		Tetrachloroethene		0.353	0.359	-1.7	122	0.00	10.49
				Amount	Calc.	%Drift			
69		Ethyl methacrylate		40.000	47.275	-18.2	138	0.00	10.58
70		1,1,2-Trichloroethane		40.000	39.993	0.0	114	0.00	10.65
				AvgRF	CCRF	%Dev			
71		Dibromochloromethane		0.357	0.376	-5.3	117	0.00	10.85
72		1,3-Dichloropropane		0.412	0.447	-8.5	120	0.00	10.94
				Amount	Calc.	%Drift			
73		1,2-Dibromoethane		40.000	41.044	-2.6	118	0.00	11.12
				AvgRF	CCRF	%Dev			
74		3,3-Dimethyl-1-butanol		0.029	0.032	-10.3	121	0.00	11.19
				Amount	Calc.	%Drift			
75		2-hexanone			----------NA----------				
76		1-Chlorohexane		40.000	40.149	-0.4	121	0.00	11.54
				AvgRF	CCRF	%Dev			
77	C	Ethylbenzene		1.398	1.316	5.9	117	0.00	11.61
78	P	Chlorobenzene		0.817	0.796	2.6	114	0.00	11.62
79		1,1,1,2-Tetrachloroethane		0.344	0.338	1.7	116	0.00	11.66
80		m,p-Xylene		1.099	1.070	2.6	118	0.00	11.74
81		o-Xylene		1.095	1.064	2.8	115	0.00	12.19
82		Styrene		0.782	0.818	-4.6	115	0.00	12.24
				Amount	Calc.	%Drift			
83	P	Bromoform		40.000	40.282	-0.7	116	0.00	12.30

Initial Calibration Verification

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1953-ICV1953
Lab FileID: 5E43724.D

			AvgRF	CCRF	%Dev			
84		Isopropylbenzene	1.362	1.333	2.1	115	0.00	12.49
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	13.96
86	S	4-Bromofluorobenzene	0.852	0.840	1.4	110	0.00	12.81
			Amount	Calc.	%Drift			
87		cis-1,4-Dichloro-2-butene	40.000	52.167	-30.4#	149	0.00	12.85
			AvgRF	CCRF	%Dev			
88		n-Propylbenzene	2.595	2.465	5.0	117	0.00	12.91
89		Bromobenzene	0.584	0.608	-4.1	119	0.00	12.94
90	P	1,1,2,2-Tetrachloroethane	0.627	0.622	0.8	117	0.00	12.98
91		1,3,5-Trimethylbenzene	1.907	1.919	-0.6	119	0.00	13.09
92		2-Chlorotoluene	1.814	1.737	4.2	115	0.00	13.11
			Amount	Calc.	%Drift			
93		trans-1,4-Dichloro-2-Bute	40.000	45.714	-14.3	120	0.00	13.16
			AvgRF	CCRF	%Dev			
94		1,2,3-Trichloropropane	0.218	0.220	-0.9	120	0.00	13.15
95		Cyclohexanone	0.019	0.037	-94.7#	204#	0.00	13.22
96		4-Chlorotoluene	1.648	1.564	5.1	115	0.00	13.27
97		a-Methyl styrene		----------NA----------				
98		tert-Butylbenzene	1.124	1.050	6.6	115	0.00	13.44
99		1,2,4-Trimethylbenzene	1.891	1.881	0.5	117	0.00	13.51
			Amount	Calc.	%Drift			
100		Pentachloroethane	40.000	43.597	-9.0	123	0.00	13.49
			AvgRF	CCRF	%Dev			
101		sec-Butylbenzene	2.304	2.143	7.0	113	0.00	13.62
102		4-Isopropyltoluene	2.079	1.984	4.6	114	0.00	13.75
103		1,3-Dichlorobenzene	1.163	1.092	6.1	111	0.00	13.89
104		1,2,3-Trimethylbenzene	2.013	1.914	4.9	113	0.00	13.96
105		1,4-Dichlorobenzene	1.271	1.201	5.5	114	0.00	13.97
			Amount	Calc.	%Drift			
106		n-Butylbenzene	40.000	41.642	-4.1	124	0.00	14.17
107		Benzyl Chloride	40.000	41.859	-4.6	115	0.00	14.20
			AvgRF	CCRF	%Dev			
108		1,2-Dichlorobenzene	1.121	1.084	3.3	111	0.00	14.39
			Amount	Calc.	%Drift			
109		1,2-Dibromo-3-Chloropropa	40.000	41.533	-3.8	115	0.00	15.12
110		Hexachlorobutadiene	40.000	39.302	1.7	122	0.00	15.66
111		1,2,4-Trichlorobenzene	40.000	40.262	-0.7	115	0.00	15.71
			AvgRF	CCRF	%Dev			
112		Naphthalene	1.565	1.685	-7.7	114	0.00	16.01
113		1,2,3-Trichlorobenzene	0.556	0.577	-3.8	115	0.00	16.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5E43720.D V5E_11-07-2023_.M Wed Nov 08 10:08:49 2023

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-CC1953
Lab FileID: 5E43727.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\11-08-2023\5E43727.D Vial: 2
Acq On : 8 Nov 2023 9:11 am Operator: joannel
Sample : CC1953-5 Inst : MSVOA20
Misc : MS55196,V5E1954,,,,, Multiplr: 1.00
MS Integration Params: ult...ll.p

Method : C:\msdchem\1\met...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Nov 08 08:42:33 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	119	0.00	8.46
2		Dichlorodifluoromethane	0.188	0.185	1.6	115	0.00	2.81
3	P	Chloromethane	0.211	0.214	-1.4	127	0.00	3.13
4	C	Vinyl Chloride	0.164	0.180	-9.8	128	0.00	3.26
5		1,3-Butadiene	0.218	0.218	0.0	125	0.00	3.29
6		Bromomethane	0.098	0.098	0.0	119	0.00	3.77
7		Chloroethane	0.105	0.118	-12.4	128	0.00	3.95
8		Trichlorofluoromethane	0.371	0.360	3.0	118	0.00	4.16
9		Ethyl Ether	0.169	0.164	3.0	118	0.00	4.58
			Amount	Calc.	%Drift			
10		Ethanol	800.000	770.385	3.7	121	0.00	4.77
			AvgRF	CCRF	%Dev			
11		1,2-Dichlorotrifluoroetha	0.198	0.196	1.0	133	0.00	4.83
12	C	1,1-Dichloroethene	0.323	0.310	4.0	128	0.00	4.86
			Amount	Calc.	%Drift			
13		Freon 113	40.000	39.729	0.7	133	0.00	4.90
			AvgRF	CCRF	%Dev			
14		Carbon Disulfide	0.590	0.574	2.7	132	0.00	4.92
			Amount	Calc.	%Drift			
15		Iodomethane	40.000	44.639	-11.6	126	0.00	5.06
16		Acrolein	200.000	199.787	0.1	119	0.00	5.29
17		Allyl chloride	40.000	41.834	-4.6	128	0.00	5.46
18		Methylene Chloride	40.000	36.964	7.6	126	0.00	5.59
			AvgRF	CCRF	%Dev			
19		Acetone	0.071	0.068	4.2	109	0.00	5.65
20		Methyl acetate	0.179	0.172	3.9	117	0.00	5.77
21		trans-1,2-Dichloroethene	0.298	0.298	0.0	128	0.00	5.79
22		Hexane	0.185	0.186	-0.5	133	0.00	5.87
23		Methyl Tert Butyl Ether	0.664	0.635	4.4	118	0.00	5.90
			Amount	Calc.	%Drift			
24		Acetonitrile	400.000	402.974	-0.7	120	0.00	6.21
			AvgRF	CCRF	%Dev			
25		Di-isopropyl ether	0.661	0.656	0.8	123	0.00	6.32

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-CC1953
Lab FileID: 5E43727.D

			Amount	Calc.	%Drift			
26		Chloroprene	40.000	40.343	-0.9	126	0.00	6.49
			AvgRF	CCRF	%Dev			
27	P	1,1-Dichloroethane	0.395	0.389	1.5	127	0.00	6.52
			Amount	Calc.	%Drift			
28		Acrylonitrile	200.000	188.795	5.6	112	0.00	6.57
			AvgRF	CCRF	%Dev			
29		ETBE	0.706	0.690	2.3	119	0.00	6.74
			Amount	Calc.	%Drift			
30		Tert Butyl Alcohol	400.000	339.553	15.1	106	0.00	5.98
			AvgRF	CCRF	%Dev			
31		Vinyl acetate	0.470	0.473	-0.6	115	0.00	6.77
32		cis-1,2-Dichloroethene	0.227	0.228	-0.4	122	0.00	7.13
33		2,2-Dichloropropane	0.360	0.341	5.3	124	0.00	7.25
			Amount	Calc.	%Drift			
34		Bromochloromethane	40.000	38.767	3.1	123	0.00	7.35
35		Cyclohexane	40.000	40.652	-1.6	137	0.00	7.37
			AvgRF	CCRF	%Dev			
36	C	Chloroform	0.445	0.424	4.7	123	0.00	7.41
			Amount	Calc.	%Drift			
37		Ethyl acetate	200.000	184.038	8.0	110	0.00	7.50
38		Tetrahydrofuran	40.000	38.095	4.8	110	0.00	7.60
			AvgRF	CCRF	%Dev			
39	S	Dibromofluoromethane	0.323	0.316	2.2	117	0.00	7.60
40		Carbon Tetrachloride	0.383	0.352	8.1	123	0.00	7.59
41		1,1,1-Trichloroethane	0.429	0.390	9.1	121	0.00	7.65
42		2-Butanone	0.117	0.107	8.5	110	0.00	7.73
43		1,1-Dichloropropene	0.275	0.285	-3.6	129	0.00	7.78
44		tert-Butyl formate	0.111	0.104	6.3	108	0.00	7.87
			Amount	Calc.	%Drift			
45		Propionitrile	400.000	375.214	6.2	112	0.00	8.05
			AvgRF	CCRF	%Dev			
46		Methacrylonitrile	0.152	0.150	1.3	115	0.00	8.07
47		Benzene	0.801	0.765	4.5	123	0.00	8.04
48		TAME	0.635	0.599	5.7	116	0.00	8.12
49	S	1,2-Dichloroethane-d4	0.375	0.367	2.1	114	0.00	8.18
50		1,2-Dichloroethane	0.363	0.335	7.7	114	0.00	8.25
			Amount	Calc.	%Drift			
51		tert Amyl alcohol	400.000	339.147	15.2	103	0.00	8.28
			AvgRF	CCRF	%Dev			
52		Trichloroethene	0.236	0.231	2.1	126	0.00	8.64
			Amount	Calc.	%Drift			
53		Methylcyclohexane	40.000	39.973	0.1	132	0.00	8.64
54		Dibromomethane	40.000	38.345	4.1	118	0.00	9.09
55	C	1,2-Dichloropropane	40.000	39.420	1.4	122	0.00	9.18

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-CC1953
Lab FileID: 5E43727.D

				AvgRF	CCRF	%Dev			
56		Bromodichloromethane		0.341	0.324	5.0	118	0.00	9.22
				Amount	Calc.	%Drift			
57		Methyl methacrylate		40.000	39.623	0.9	120	0.00	9.33
				AvgRF	CCRF	%Dev			
58		1,4-Dioxane		0.003	0.003	0.0	118	0.00	9.42
				Amount	Calc.	%Drift			
59		2-Chloroethyl vinyl ether		200.000	175.241	12.4	95	0.00	9.75
				AvgRF	CCRF	%Dev			
60		cis-1,3-Dichloropropene		0.318	0.331	-4.1	120	0.00	9.85
61	I	Chlorobenzene-d5		1.000	1.000	0.0	116	0.00	11.60
62	S	Toluene-d8		1.267	1.292	-2.0	118	0.00	10.04
63	C	Toluene		1.161	1.128	2.8	124	0.00	10.08
				Amount	Calc.	%Drift			
64		Isobutyl alcohol		800.000	729.528	8.8	110	0.00	8.18
				AvgRF	CCRF	%Dev			
65		2-Nitropropane		0.104	0.095	8.7	109	0.00	10.32
66		4-Methyl-2-pentanone		0.316	0.295	6.6	110	0.00	10.43
				Amount	Calc.	%Drift			
67		trans-1,3-Dichloropropene		40.000	40.068	-0.2	119	0.00	10.49
				AvgRF	CCRF	%Dev			
68		Tetrachloroethene		0.353	0.341	3.4	122	0.00	10.49
				Amount	Calc.	%Drift			
69		Ethyl methacrylate		40.000	37.265	6.8	115	0.00	10.58
70		1,1,2-Trichloroethane		40.000	40.238	-0.6	121	0.00	10.65
				AvgRF	CCRF	%Dev			
71		Dibromochloromethane		0.357	0.363	-1.7	119	0.00	10.85
72		1,3-Dichloropropane		0.412	0.421	-2.2	119	0.00	10.94
				Amount	Calc.	%Drift			
73		1,2-Dibromoethane		40.000	39.670	0.8	119	0.00	11.12
				AvgRF	CCRF	%Dev			
74		3,3-Dimethyl-1-butanol		0.029	0.022	24.1#	89	0.00	11.19
				Amount	Calc.	%Drift			
75		2-hexanone		200.000	188.178	5.9	110	0.00	11.25
76		1-Chlorohexane		40.000	40.648	-1.6	129	0.00	11.54
				AvgRF	CCRF	%Dev			
77	C	Ethylbenzene		1.398	1.314	6.0	123	0.00	11.61
78	P	Chlorobenzene		0.817	0.793	2.9	119	0.00	11.62
79		1,1,1,2-Tetrachloroethane		0.344	0.329	4.4	119	0.00	11.66
80		m,p-Xylene		1.099	1.047	4.7	121	0.00	11.75
81		o-Xylene		1.095	1.075	1.8	122	0.00	12.19
82		Styrene		0.782	0.814	-4.1	120	0.00	12.24
				Amount	Calc.	%Drift			
83	P	Bromoform		40.000	39.051	2.4	118	0.00	12.30

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-CC1953
Lab FileID: 5E43727.D

			AvgRF	CCRF	%Dev			
84		Isopropylbenzene	1.362	1.341	1.5	122	0.00	12.49
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	0.00	13.96
86	S	4-Bromofluorobenzene	0.852	0.866	-1.6	119	0.00	12.81
			Amount	Calc.	%Drift			
87		cis-1,4-Dichloro-2-butene	40.000	45.031	-12.6	130	0.00	12.85
			AvgRF	CCRF	%Dev			
88		n-Propylbenzene	2.595	2.512	3.2	124	0.00	12.91
89		Bromobenzene	0.584	0.571	2.2	117	0.00	12.94
90	P	1,1,2,2-Tetrachloroethane	0.627	0.600	4.3	118	0.00	12.98
91		1,3,5-Trimethylbenzene	1.907	1.899	0.4	123	0.00	13.10
92		2-Chlorotoluene	1.814	1.733	4.5	120	0.00	13.11
			Amount	Calc.	%Drift			
93		trans-1,4-Dichloro-2-Bute	40.000	44.319	-10.8	121	0.00	13.16
			AvgRF	CCRF	%Dev			
94		1,2,3-Trichloropropane	0.218	0.201	7.8	115	0.00	13.15
95		Cyclohexanone	0.019	0.019	0.0	108	0.00	13.22
96		4-Chlorotoluene	1.648	1.556	5.6	119	0.00	13.27
97		a-Methyl styrene		----------NA----------				
98		tert-Butylbenzene	1.124	1.050	6.6	121	0.00	13.44
99		1,2,4-Trimethylbenzene	1.891	1.894	-0.2	123	0.00	13.50
			Amount	Calc.	%Drift			
100		Pentachloroethane	40.000	40.871	-2.2	120	0.00	13.49
			AvgRF	CCRF	%Dev			
101		sec-Butylbenzene	2.304	2.257	2.0	125	0.00	13.62
102		4-Isopropyltoluene	2.079	2.048	1.5	123	0.00	13.75
103		1,3-Dichlorobenzene	1.163	1.126	3.2	120	0.00	13.89
104		1,2,3-Trimethylbenzene	2.013	1.947	3.3	121	0.00	13.96
105		1,4-Dichlorobenzene	1.271	1.172	7.8	117	0.00	13.97
			Amount	Calc.	%Drift			
106		n-Butylbenzene	40.000	40.645	-1.6	127	0.00	14.17
107		Benzyl Chloride	40.000	38.820	2.9	111	0.00	14.20
			AvgRF	CCRF	%Dev			
108		1,2-Dichlorobenzene	1.121	1.071	4.5	115	0.00	14.39
			Amount	Calc.	%Drift			
109		1,2-Dibromo-3-Chloropropa	40.000	35.122	12.2	101	0.00	15.12
110		Hexachlorobutadiene	40.000	37.363	6.6	121	0.00	15.66
111		1,2,4-Trichlorobenzene	40.000	39.452	1.4	117	0.00	15.71
			AvgRF	CCRF	%Dev			
112		Naphthalene	1.565	1.478	5.6	105	0.00	16.01
113		1,2,3-Trichlorobenzene	0.556	0.524	5.8	109	0.00	16.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5E43720.D V5E_11-07-2023_.M Wed Nov 08 10:15:45 2023

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-ECC1953
Lab FileID: 5E43754.D

Evaluate Continuing Calibration Report

Data File : R:\GBS Manila Data V...954\V5e1954\5E43754.d Vial: 29
Acq On : 8 Nov 2023 8:22 pm Operator: joannel
Sample : ECC1953-5 Inst : MSVOA20
Misc : MS55242,V5E1954,,,,, Multiplr: 1.00
MS Integration Params: ult...ll.p

Method : R:\GBS Manila Da...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Wed Nov 08 08:42:33 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	98	0.00	8.46
2		Dichlorodifluoromethane	0.188	0.206	-9.6	106	0.00	2.81
3	P	Chloromethane	0.211	0.222	-5.2	109	0.00	3.14
4	C	Vinyl Chloride	0.164	0.187	-14.0	110	0.00	3.26
5		1,3-Butadiene	0.218	0.267	-22.5	126	0.00	3.29
6		Bromomethane	0.098	0.086	12.2	87	0.00	3.77
7		Chloroethane	0.105	0.129	-22.9	116	0.00	3.95
8		Trichlorofluoromethane	0.371	0.412	-11.1	111	0.00	4.16
9		Ethyl Ether	0.169	0.181	-7.1	108	0.00	4.58
			True	Calc.	% Drift			
10		Ethanol	800.000	837.448	-4.7	108	0.00	4.78
			AvgRF	CCRF	% Dev			
11		1,2-Dichlorotrifluoroetha	0.198	0.215	-8.6	121	0.00	4.82
12	C	1,1-Dichloroethene	0.323	0.343	-6.2	117	0.00	4.86
			True	Calc.	% Drift			
13		Freon 113	40.000	42.398	-6.0	118	0.00	4.90
			AvgRF	CCRF	% Dev			
14		Carbon Disulfide	0.590	0.600	-1.7	114	0.00	4.92
			True	Calc.	% Drift			
15		Iodomethane	40.000	53.050	-32.6	130	0.00	5.06
16		Acrolein	200.000	208.444	-4.2	103	0.00	5.29
17		Allyl chloride	40.000	42.500	-6.3	108	0.00	5.46
18		Methylene Chloride	40.000	39.320	1.7	110	0.00	5.59
			AvgRF	CCRF	% Dev			
19		Acetone	0.071	0.081	-14.1	108	0.00	5.64
20		Methyl acetate	0.179	0.222	-24.0	125	0.00	5.78
21		trans-1,2-Dichloroethene	0.298	0.321	-7.7	114	0.00	5.79
22		Hexane	0.185	0.176	4.9	104	0.00	5.87
23		Methyl Tert Butyl Ether	0.664	0.720	-8.4	111	0.00	5.89
			True	Calc.	% Drift			
24		Acetonitrile	400.000	441.617	-10.4	109	0.00	6.21
			AvgRF	CCRF	% Dev			
25		Di-isopropyl ether	0.661	0.720	-8.9	112	0.00	6.32

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-ECC1953
Lab FileID: 5E43754.D

			True	Calc.	% Drift			
26		Chloroprene	40.000	44.396	-11.0	116	0.00	6.49
			AvgRF	CCRF	% Dev			
27	P	1,1-Dichloroethane	0.395	0.425	-7.6	114	0.00	6.52
			True	Calc.	% Drift			
28		Acrylonitrile	200.000	214.584	-7.3	106	0.00	6.57
			AvgRF	CCRF	% Dev			
29		ETBE	0.706	0.775	-9.8	111	0.00	6.74
			True	Calc.	% Drift			
30		Tert Butyl Alcohol	400.000	436.694	-9.2	113	0.00	5.97
			AvgRF	CCRF	% Dev			
31		Vinyl acetate	0.470	0.446	5.1	89	0.00	6.76
32		cis-1,2-Dichloroethene	0.227	0.245	-7.9	108	0.00	7.13
33		2,2-Dichloropropane	0.360	0.324	10.0	97	0.00	7.25
			True	Calc.	% Drift			
34		Bromochloromethane	40.000	43.105	-7.8	114	0.00	7.35
35		Cyclohexane	40.000	42.376	-5.9	118	0.00	7.37
			AvgRF	CCRF	% Dev			
36	C	Chloroform	0.445	0.463	-4.0	111	0.00	7.41
			True	Calc.	% Drift			
37		Ethyl acetate	200.000	205.913	-3.0	102	0.00	7.50
38		Tetrahydrofuran	40.000	42.224	-5.6	100	0.00	7.60
			AvgRF	CCRF	% Dev			
39	S	Dibromofluoromethane	0.323	0.325	-0.6	100	0.00	7.60
40		Carbon Tetrachloride	0.383	0.408	-6.5	118	0.00	7.59
41		1,1,1-Trichloroethane	0.429	0.453	-5.6	116	0.00	7.65
42		2-Butanone	0.117	0.127	-8.5	108	0.00	7.73
43		1,1-Dichloropropene	0.275	0.302	-9.8	114	0.00	7.78
44		tert-Butyl formate	0.111	0.116	-4.5	100	0.00	7.87
			True	Calc.	% Drift			
45		Propionitrile	400.000	432.752	-8.2	108	0.00	8.05
			AvgRF	CCRF	% Dev			
46		Methacrylonitrile	0.152	0.170	-11.8	108	0.00	8.07
47		Benzene	0.801	0.846	-5.6	113	0.00	8.04
48		TAME	0.635	0.682	-7.4	109	0.00	8.12
49	S	1,2-Dichloroethane-d4	0.375	0.385	-2.7	99	0.00	8.18
50		1,2-Dichloroethane	0.363	0.391	-7.7	110	0.00	8.25
			True	Calc.	% Drift			
51		tert Amyl alcohol	400.000	434.482	-8.6	111	0.00	8.29
			AvgRF	CCRF	% Dev			
52		Trichloroethene	0.236	0.257	-8.9	116	0.00	8.64
			True	Calc.	% Drift			
53		Methylcyclohexane	40.000	43.222	-8.1	119	0.00	8.64
54		Dibromomethane	40.000	42.272	-5.7	108	0.00	9.08
55	C	1,2-Dichloropropane	40.000	43.086	-7.7	110	0.00	9.17

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-ECC1953
Lab FileID: 5E43754.D

			AvgRF	CCRF	% Dev			
56		Bromodichloromethane	0.341	0.365	-7.0	110	0.00	9.22
			True	Calc.	% Drift			
57		Methyl methacrylate	40.000	44.927	-12.3	114	0.00	9.33
			AvgRF	CCRF	% Dev			
58		1,4-Dioxane	0.003	0.003	0.0	115	0.00	9.41
			True	Calc.	% Drift			
59		2-Chloroethyl vinyl ether	200.000	209.397	-4.7	96	0.00	9.75
			AvgRF	CCRF	% Dev			
60		cis-1,3-Dichloropropene	0.318	0.350	-10.1	105	0.00	9.85
61	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00	11.60
62	S	Toluene-d8	1.267	1.263	0.3	99	0.00	10.04
63	C	Toluene	1.161	1.180	-1.6	111	0.00	10.09
			True	Calc.	% Drift			
64		Isobutyl alcohol	800.000	865.941	-8.2	113	0.00	8.18
			AvgRF	CCRF	% Dev			
65		2-Nitropropane	0.104	0.112	-7.7	110	0.00	10.32
66		4-Methyl-2-pentanone	0.316	0.340	-7.6	108	0.00	10.43
			True	Calc.	% Drift			
67		trans-1,3-Dichloropropene	40.000	41.366	-3.4	106	0.00	10.49
			AvgRF	CCRF	% Dev			
68		Tetrachloroethene	0.353	0.388	-9.9	119	0.00	10.49
			True	Calc.	% Drift			
69		Ethyl methacrylate	40.000	40.791	-2.0	107	0.00	10.59
70		1,1,2-Trichloroethane	40.000	42.895	-7.2	110	0.00	10.65
			AvgRF	CCRF	% Dev			
71		Dibromochloromethane	0.357	0.393	-10.1	110	0.00	10.85
72		1,3-Dichloropropane	0.412	0.451	-9.5	109	0.00	10.94
			True	Calc.	% Drift			
73		1,2-Dibromoethane	40.000	42.784	-7.0	110	0.00	11.12
			AvgRF	CCRF	% Dev			
74		3,3-Dimethyl-1-butanol	0.029	0.029	0.0	98	0.00	11.19
			True	Calc.	% Drift			
75		2-hexanone	200.000	212.618	-6.3	107	0.00	11.25
76		1-Chlorohexane	40.000	42.715	-6.8	116	0.00	11.54
			AvgRF	CCRF	% Dev			
77	C	Ethylbenzene	1.398	1.402	-0.3	112	0.00	11.61
78	P	Chlorobenzene	0.817	0.846	-3.5	108	0.00	11.62
79		1,1,1,2-Tetrachloroethane	0.344	0.360	-4.7	111	0.00	11.66
80		m,p-Xylene	1.099	1.130	-2.8	112	0.00	11.75
81		o-Xylene	1.095	1.163	-6.2	113	0.00	12.19
82		Styrene	0.782	0.871	-11.4	110	0.00	12.24
			True	Calc.	% Drift			
83	P	Bromoform	40.000	41.221	-3.1	107	0.00	12.30

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V5E1954-ECC1953
Lab FileID: 5E43754.D

			AvgRF	CCRF	% Dev			
84		Isopropylbenzene	1.362	1.468	-7.8	114	0.00	12.49
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	13.96
86	S	4-Bromofluorobenzene	0.852	0.842	1.2	100	0.00	12.81
			True	Calc.	% Drift			
87		cis-1,4-Dichloro-2-butene	40.000	29.924	25.2	69	0.00	12.85
			AvgRF	CCRF	% Dev			
88		n-Propylbenzene	2.595	2.675	-3.1	114	0.00	12.91
89		Bromobenzene	0.584	0.617	-5.7	108	0.00	12.94
90	P	1,1,2,2-Tetrachloroethane	0.627	0.647	-3.2	109	0.00	12.98
91		1,3,5-Trimethylbenzene	1.907	2.043	-7.1	114	0.00	13.09
92		2-Chlorotoluene	1.814	1.852	-2.1	110	0.00	13.11
			True	Calc.	% Drift			
93		trans-1,4-Dichloro-2-Bute	40.000	32.474	18.8	73	0.00	13.16
			AvgRF	CCRF	% Dev			
94		1,2,3-Trichloropropane	0.218	0.218	0.0	107	0.00	13.15
95		Cyclohexanone	0.019	0.021	-10.5	107	0.00	13.22
96		4-Chlorotoluene	1.648	1.704	-3.4	112	0.00	13.27
97		a-Methyl styrene		----------NA----------				
98		tert-Butylbenzene	1.124	1.167	-3.8	115	0.00	13.44
99		1,2,4-Trimethylbenzene	1.891	2.033	-7.5	113	0.00	13.51
			True	Calc.	% Drift			
100		Pentachloroethane	40.000	39.816	0.5	101	0.00	13.49
			AvgRF	CCRF	% Dev			
101		sec-Butylbenzene	2.304	2.466	-7.0	117	0.00	13.61
102		4-Isopropyltoluene	2.079	2.207	-6.2	114	0.00	13.75
103		1,3-Dichlorobenzene	1.163	1.221	-5.0	112	0.00	13.89
104		1,2,3-Trimethylbenzene	2.013	2.107	-4.7	112	0.00	13.96
105		1,4-Dichlorobenzene	1.271	1.292	-1.7	111	0.00	13.97
			True	Calc.	% Drift			
106		n-Butylbenzene	40.000	41.716	-4.3	112	0.00	14.17
107		Benzyl Chloride	40.000	33.163	17.1	80	0.00	14.20
			AvgRF	CCRF	% Dev			
108		1,2-Dichlorobenzene	1.121	1.185	-5.7	110	0.00	14.39
			True	Calc.	% Drift			
109		1,2-Dibromo-3-Chloropropa	40.000	43.918	-9.8	110	0.00	15.12
110		Hexachlorobutadiene	40.000	41.809	-4.5	117	0.00	15.66
111		1,2,4-Trichlorobenzene	40.000	42.854	-7.1	110	0.00	15.71
			AvgRF	CCRF	% Dev			
112		Naphthalene	1.565	1.873	-19.7	114	0.00	16.00
113		1,2,3-Trichlorobenzene	0.556	0.619	-11.3	111	0.00	16.18

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5E43720.D V5E_11-07-2023_.M Thu Nov 09 06:38:02 2023

Run Sequence Report

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: V5E1953	**Method:** SW846 8260D	**Instrument ID:** GCMS5E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V5E1953-BFB	5E43714.D	11/07/23 12:37	n/a	BFB Tune
V5E1953-IC1953	5E43715.D	11/07/23 13:00	n/a	Initial cal 1
V5E1953-IC1953	5E43716.D	11/07/23 13:23	n/a	Initial cal 8
V5E1953-IC1953	5E43717.D	11/07/23 13:46	n/a	Initial cal 2
V5E1953-IC1953	5E43718.D	11/07/23 14:09	n/a	Initial cal 3
V5E1953-IC1953	5E43719.D	11/07/23 14:32	n/a	Initial cal 4
V5E1953-ICC1953	5E43720.D	11/07/23 14:56	n/a	Initial cal 5
V5E1953-IC1953	5E43721.D	11/07/23 15:19	n/a	Initial cal 6
V5E1953-IC1953	5E43722.D	11/07/23 15:42	n/a	Initial cal 7
V5E1953-ICV1953	5E43724.D	11/07/23 16:28	n/a	Initial cal verification 5
V5E1953-ICV1953	5E43728.D	11/08/23 09:44	n/a	Initial cal verification 5

Run Sequence Report

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: V5E1954 **Method:** SW846 8260D **Instrument ID:** GCMS5E

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V5E1954-BFB	5E43726.D	11/08/23 08:40	n/a	BFB Tune
V5E1954-CC1953	5E43727.D	11/08/23 09:11	n/a	Continuing cal 5
V5E1954-BS	5E43729.D	11/08/23 10:07	n/a	Blank Spike
V5E1954-MB	5E43731.D	11/08/23 10:53	n/a	Method Blank
FC10847-6	5E43732.D	11/08/23 11:54	n/a	(used for QC only; not part of job FC10954)
ZZZZZZ	5E43733.D	11/08/23 12:17	n/a	(unrelated sample)
ZZZZZZ	5E43734.D	11/08/23 12:40	n/a	(unrelated sample)
ZZZZZZ	5E43735.D	11/08/23 13:03	n/a	(unrelated sample)
ZZZZZZ	5E43736.D	11/08/23 13:26	n/a	(unrelated sample)
ZZZZZZ	5E43737.D	11/08/23 13:49	n/a	(unrelated sample)
ZZZZZZ	5E43738.D	11/08/23 14:12	n/a	(unrelated sample)
ZZZZZZ	5E43739.D	11/08/23 14:35	n/a	(unrelated sample)
ZZZZZZ	5E43740.D	11/08/23 14:58	n/a	(unrelated sample)
ZZZZZZ	5E43741.D	11/08/23 15:21	n/a	(unrelated sample)
FC10954-1A	5E43742.D	11/08/23 15:45	n/a	EW-1
FC10954-2A	5E43743.D	11/08/23 16:08	n/a	EW-3
FC10954-3A	5E43744.D	11/08/23 16:31	n/a	EW-4
ZZZZZZ	5E43745.D	11/08/23 16:54	n/a	(unrelated sample)
ZZZZZZ	5E43746.D	11/08/23 17:17	n/a	(unrelated sample)
ZZZZZZ	5E43747.D	11/08/23 17:40	n/a	(unrelated sample)
ZZZZZZ	5E43748.D	11/08/23 18:03	n/a	(unrelated sample)
ZZZZZZ	5E43749.D	11/08/23 18:26	n/a	(unrelated sample)
ZZZZZZ	5E43750.D	11/08/23 18:49	n/a	(unrelated sample)
ZZZZZZ	5E43751.D	11/08/23 19:12	n/a	(unrelated sample)
FC10847-6MS	5E43752.D	11/08/23 19:35	n/a	Matrix Spike
FC10847-6MSD	5E43753.D	11/08/23 19:58	n/a	Matrix Spike Duplicate
V5E1954-ECC1953	5E43754.D	11/08/23 20:22	n/a	Ending cal 5

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43742.d
Acq On : 8 Nov 2023 3:45 pm
Operator : joannel
Sample : FC10954-1A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 09 06:34:20 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

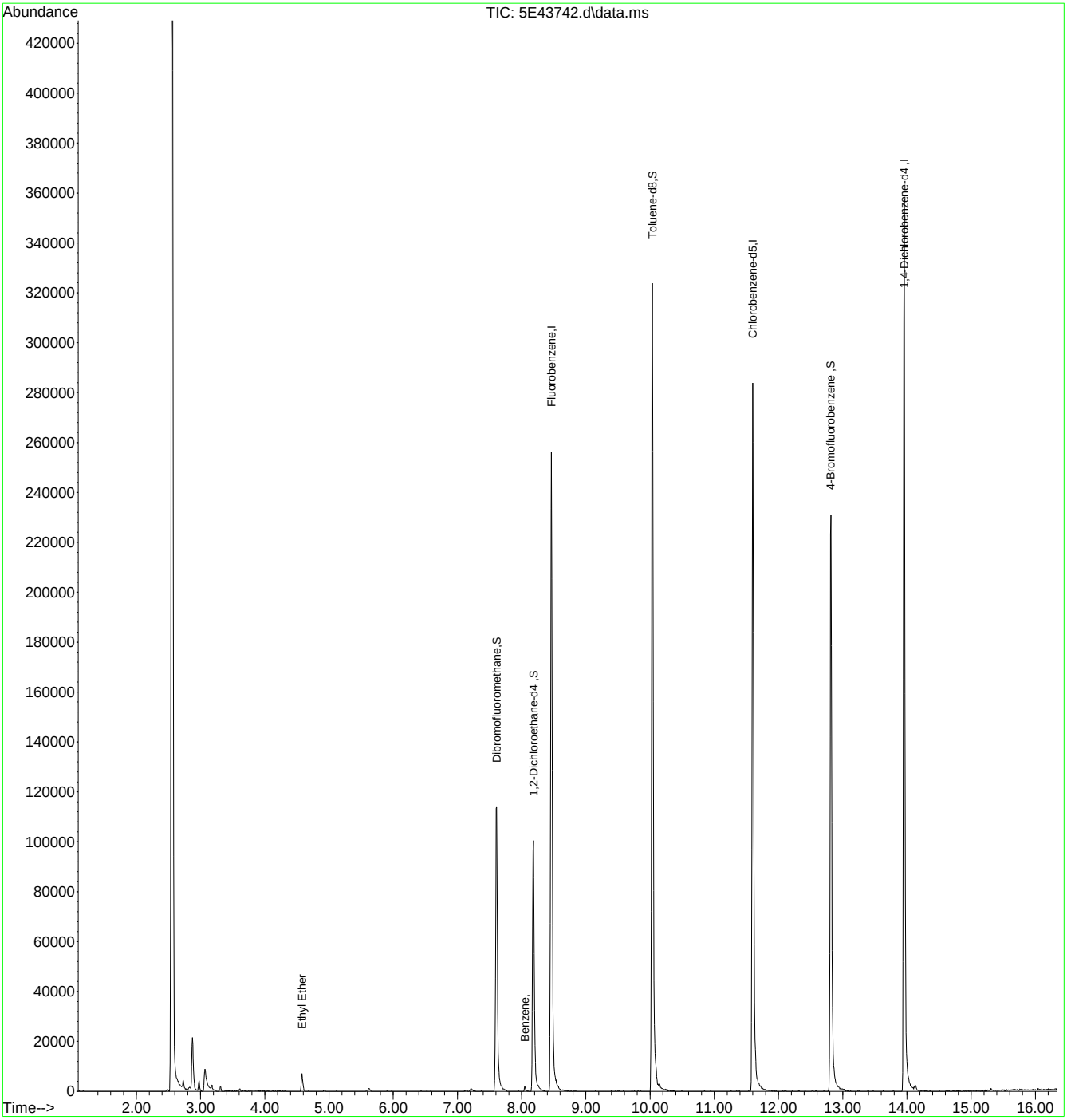
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	224943	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	175142	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	101861	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.610	113	71790	49.40	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.80%			
49) 1,2-Dichloroethane-d4	8.183	65	81455	48.33	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 96.66%			
62) Toluene-d8	10.036	98	221788	49.98	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.96%			
86) 4-Bromofluorobenzene	12.810	95	87678	50.53	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.06%			
Target Compounds						Qvalue
9) Ethyl Ether	4.580	59	4198	5.5209	ug/L	85
47) Benzene	8.049	78	1925	0.5343	ug/L	89

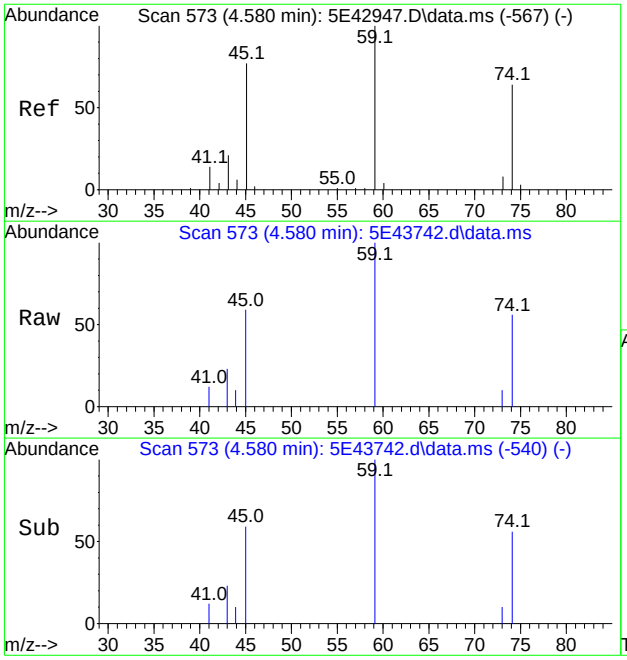
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43742.d
Acq On : 8 Nov 2023 3:45 pm
Operator : joannel
Sample : FC10954-1A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 09 06:34:20 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

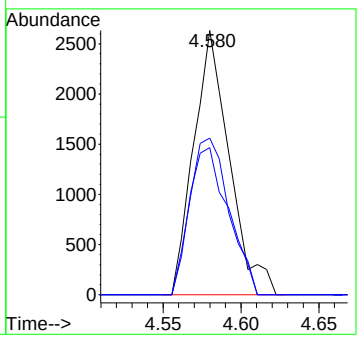


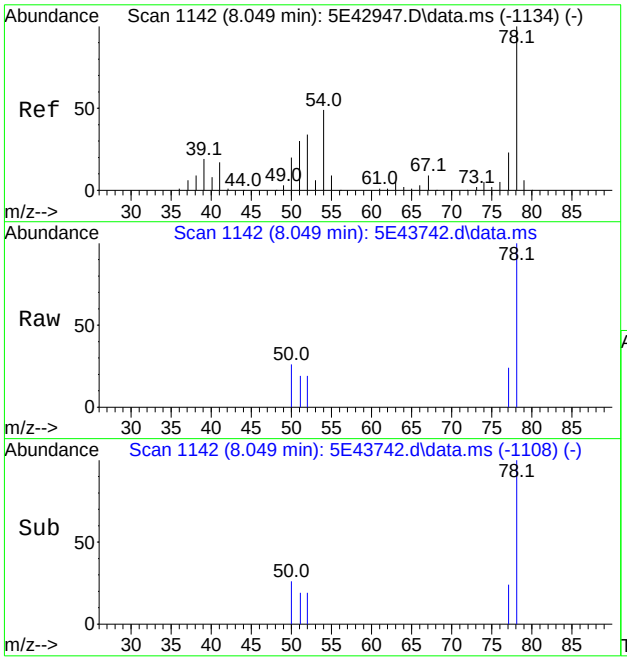


#9
Ethyl Ether
Concen: 5.5209 ug/L
RT: 4.580 min Scan# 573
Delta R.T. -0.000 min
Lab File: 5E43742.d
Acq: 8 Nov 2023 3:45 pm

Tgt Ion: 59 Resp: 4198

Ion	Ratio	Lower	Upper
59	100		
45	59.2	50.9	90.9
74	55.7	47.7	87.7

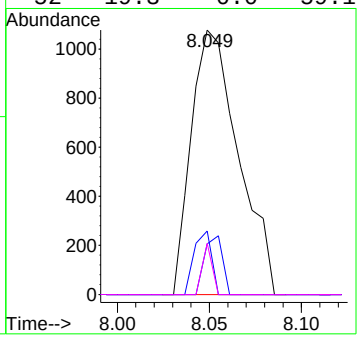




#47
Benzene
Concen: 0.5343 ug/L
RT: 8.049 min Scan# 1142
Delta R.T. 0.006 min
Lab File: 5E43742.d
Acq: 8 Nov 2023 3:45 pm

Tgt Ion: 78 Resp: 1925

Ion	Ratio	Lower	Upper
78	100		
51	19.1	0.0	55.5
77	24.0	0.0	53.4
52	19.3	0.0	59.1



Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43743.d
Acq On : 8 Nov 2023 4:08 pm
Operator : joannel
Sample : FC10954-2A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 09 06:34:44 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

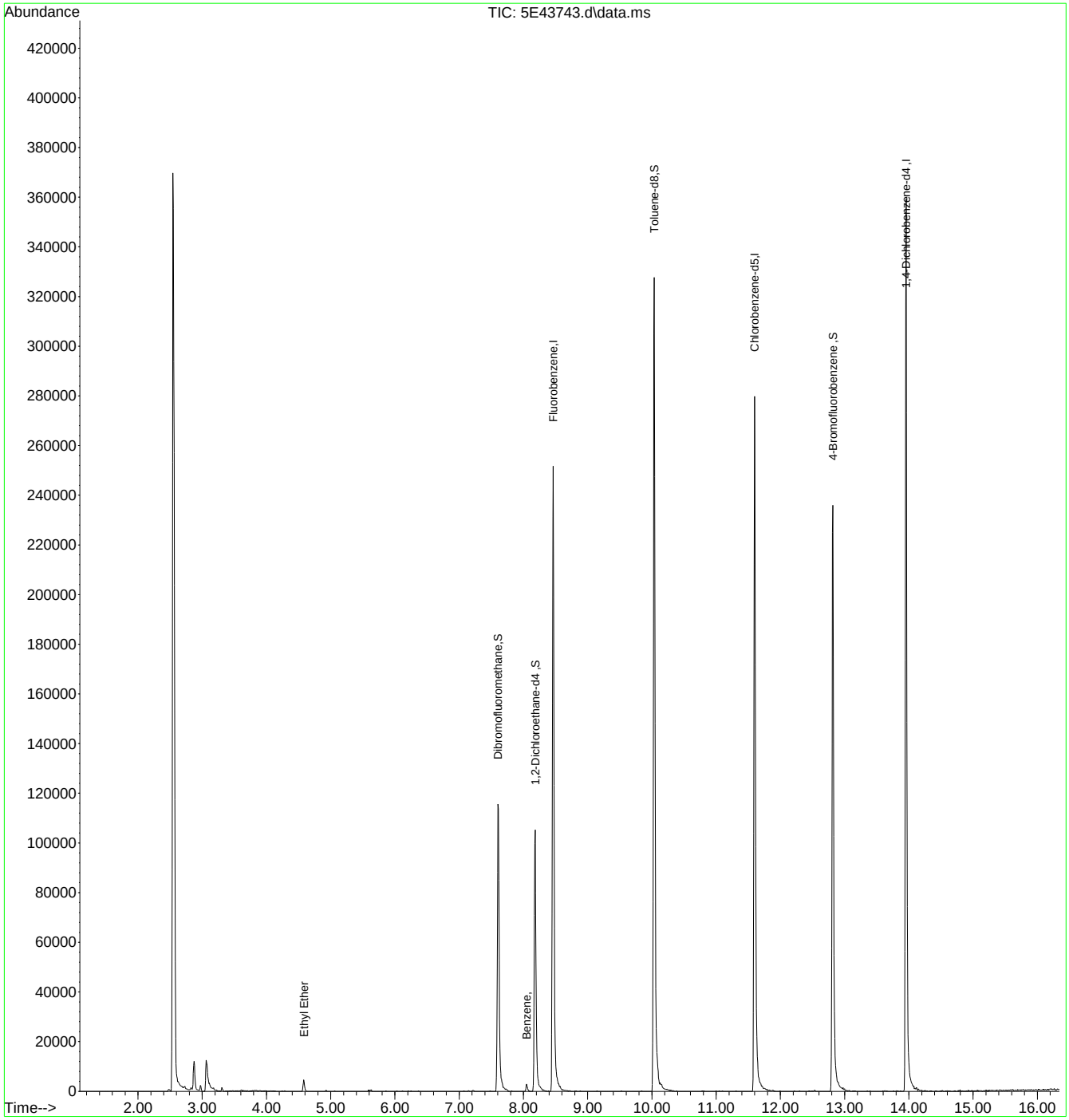
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.464	96	220811	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	174111	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	101209	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	72118	50.55	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.10%			
49) 1,2-Dichloroethane-d4	8.183	65	82153	49.65	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 99.30%			
62) Toluene-d8	10.036	98	219609	49.78	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.56%			
86) 4-Bromofluorobenzene	12.816	95	86230	50.02	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.04%			
Target Compounds						Qvalue
9) Ethyl Ether	4.586	59	2544	3.4083	ug/L #	72
47) Benzene	8.049	78	2967	0.8389	ug/L	90

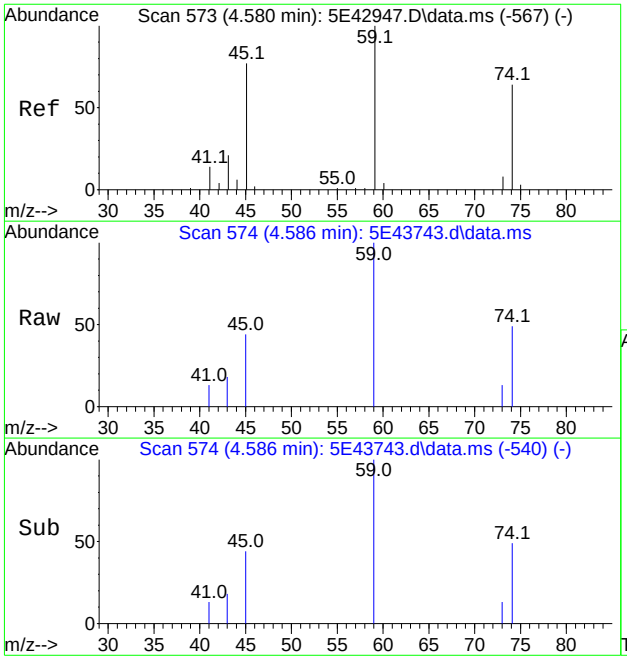
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43743.d
Acq On : 8 Nov 2023 4:08 pm
Operator : joannel
Sample : FC10954-2A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 09 06:34:44 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

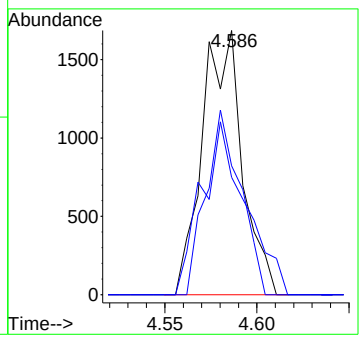


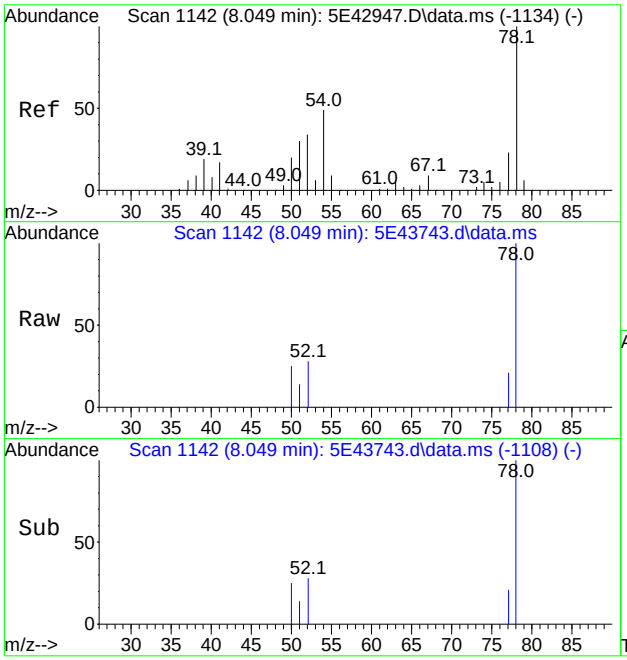


#9
Ethyl Ether
Concen: 3.4083 ug/L
RT: 4.586 min Scan# 574
Delta R.T. 0.006 min
Lab File: 5E43743.d
Acq: 8 Nov 2023 4:08 pm

Tgt Ion: 59 Resp: 2544

Ion	Ratio	Lower	Upper
59	100		
45	44.4	50.9	90.9#
74	48.7	47.7	87.7

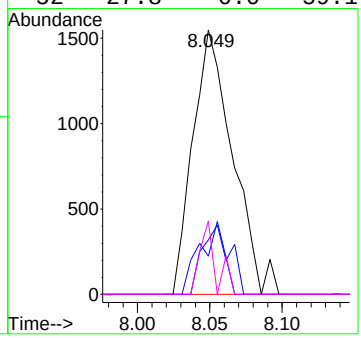




#47
Benzene
Concen: 0.8389 ug/L
RT: 8.049 min Scan# 1142
Delta R.T. 0.006 min
Lab File: 5E43743.d
Acq: 8 Nov 2023 4:08 pm

Tgt Ion: 78 Resp: 2967

Ion	Ratio	Lower	Upper
78	100		
51	14.5	0.0	55.5
77	20.6	0.0	53.4
52	27.8	0.0	59.1



Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43744.d
Acq On : 8 Nov 2023 4:31 pm
Operator : joannel
Sample : FC10954-3A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 09 06:35:17 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

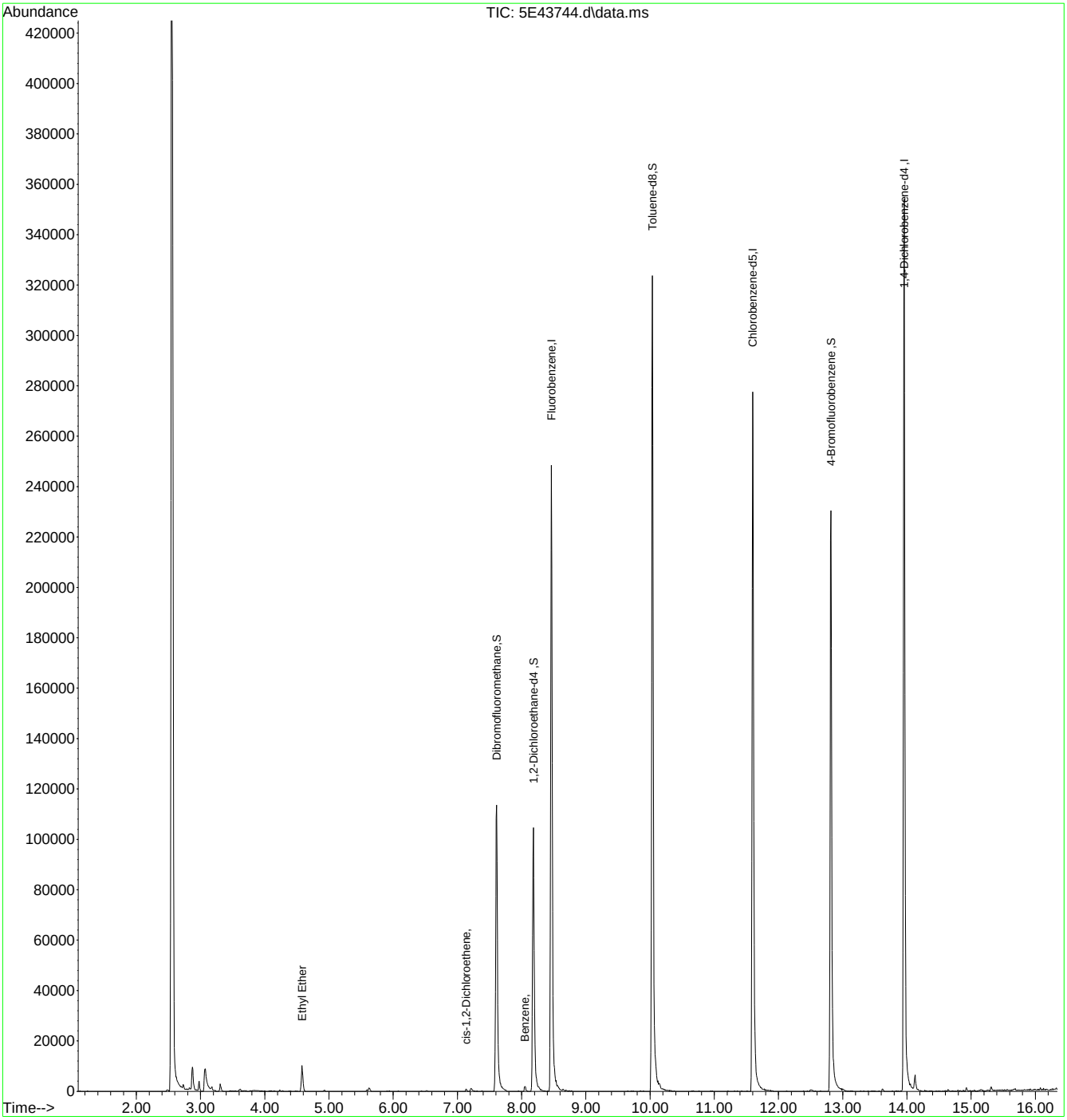
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.464	96	216309	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	170587	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	98110	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.610	113	70290	50.29	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.58%			
49) 1,2-Dichloroethane-d4	8.183	65	80974	49.96	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 99.92%			
62) Toluene-d8	10.036	98	212049	49.06	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 98.12%			
86) 4-Bromofluorobenzene	12.816	95	84550	50.59	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.18%			
Target Compounds						Qvalue
9) Ethyl Ether	4.580	59	5993	8.1961	ug/L	92
32) cis-1,2-Dichloroethene	7.135	96	258	0.2628	ug/L #	59
47) Benzene	8.049	78	2241	0.6468	ug/L	73

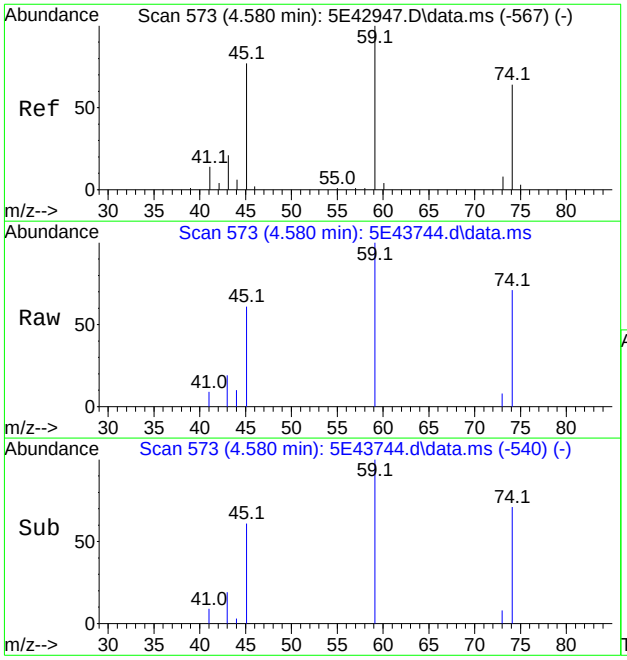
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43744.d
Acq On : 8 Nov 2023 4:31 pm
Operator : joannel
Sample : FC10954-3A Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Nov 09 06:35:17 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

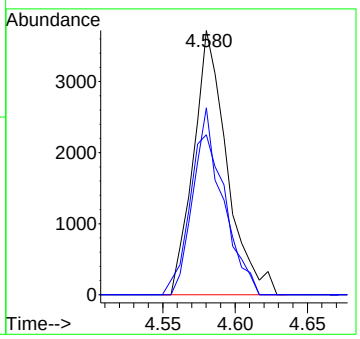


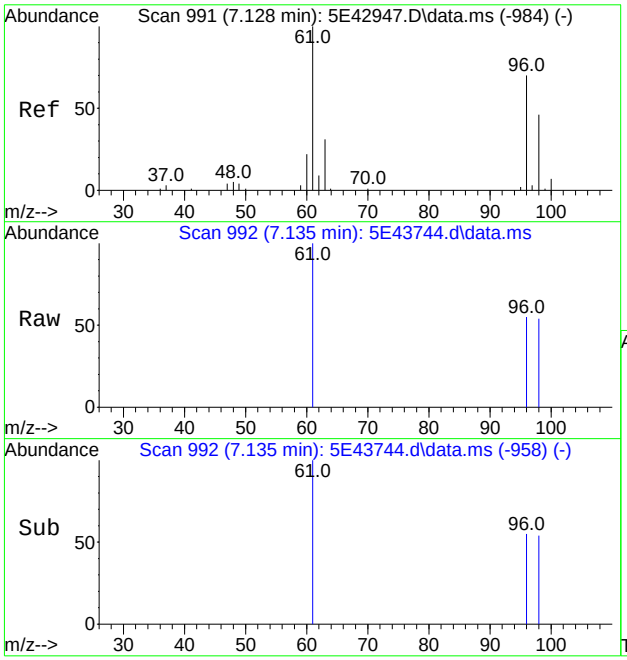


#9
Ethyl Ether
Concen: 8.1961 ug/L
RT: 4.580 min Scan# 573
Delta R.T. 0.000 min
Lab File: 5E43744.d
Acq: 8 Nov 2023 4:31 pm

Tgt Ion: 59 Resp: 5993

Ion	Ratio	Lower	Upper
59	100		
45	60.5	50.9	90.9
74	70.7	47.7	87.7

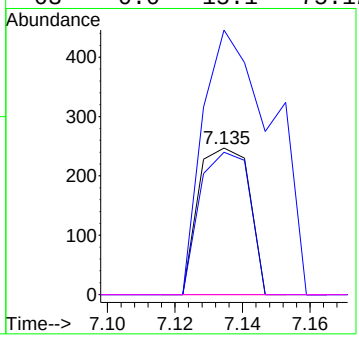


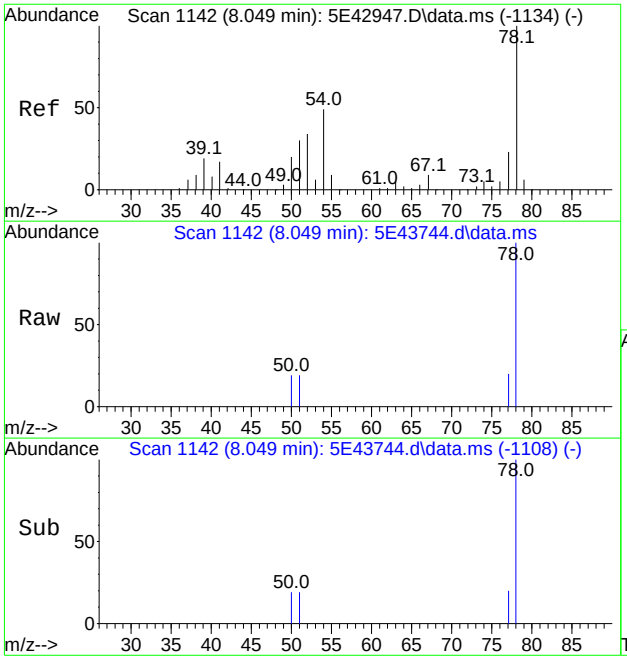


#32
cis-1,2-Dichloroethene
Concen: 0.2628 ug/L
RT: 7.135 min Scan# 992
Delta R.T. 0.006 min
Lab File: 5E43744.d
Acq: 8 Nov 2023 4:31 pm

Tgt Ion: 96 Resp: 258

Ion	Ratio	Lower	Upper
96	100		
61	180.6	110.0	170.0#
98	97.2	36.4	96.4#
63	0.0	15.1	75.1#

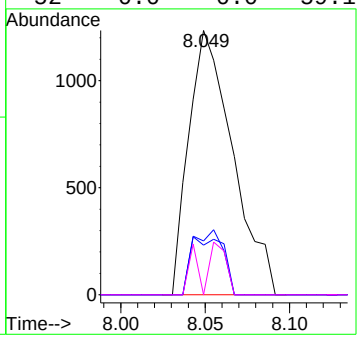




#47
Benzene
Concen: 0.6468 ug/L
RT: 8.049 min Scan# 1142
Delta R.T. 0.006 min
Lab File: 5E43744.d
Acq: 8 Nov 2023 4:31 pm

Tgt Ion: 78 Resp: 2241

Ion	Ratio	Lower	Upper
78	100		
51	18.8	0.0	55.5
77	20.3	0.0	53.4
52	0.0	0.0	59.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43731.D
Acq On : 8 Nov 2023 10:53 am
Operator : joannel
Sample : MB(AFA)
Misc : MS55196,V5E1954,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 08 11:47:23 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

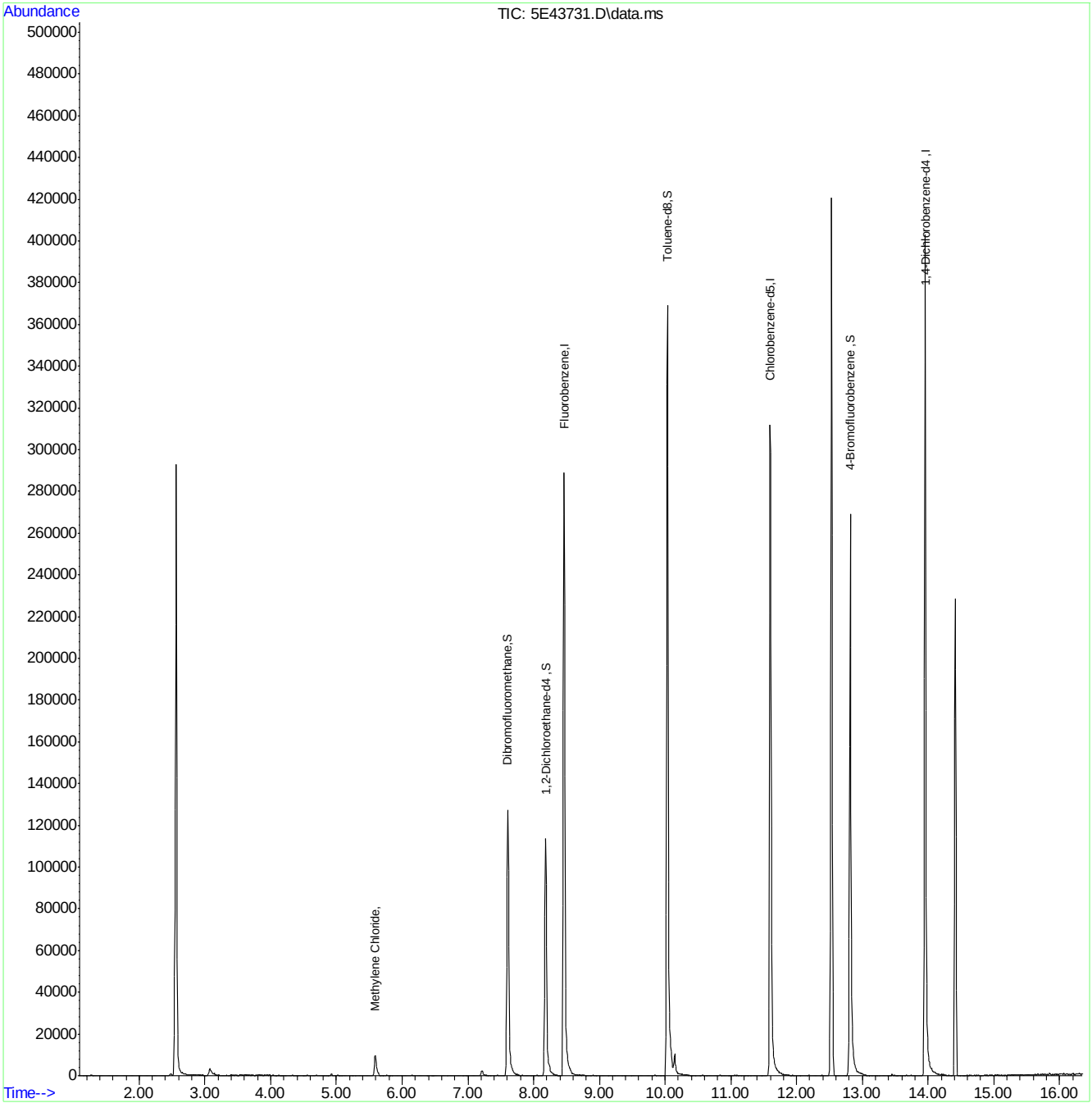
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	259771	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	196019	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	114873	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	80439	47.93	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.86%			
49) 1,2-Dichloroethane-d4	8.183	65	89567	46.02	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 92.04%			
62) Toluene-d8	10.036	98	247427	49.81	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.62%			
86) 4-Bromofluorobenzene	12.816	95	102031	52.14	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.28%			
Target Compounds						Qvalue
18) Methylene Chloride	5.592	49	6400	3.72	ug/L	92

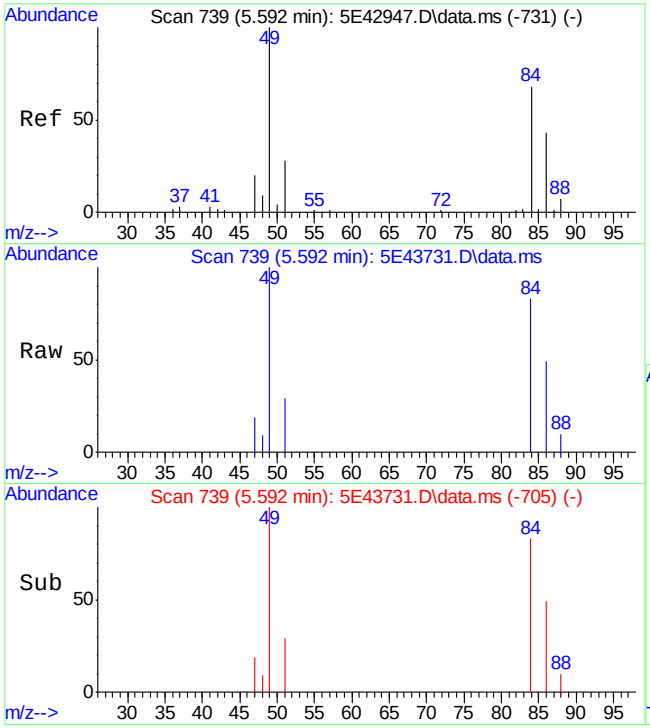
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43731.D
Acq On : 8 Nov 2023 10:53 am
Operator : joannel
Sample : MB(AFA)
Misc : MS55196,V5E1954,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 08 11:47:23 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

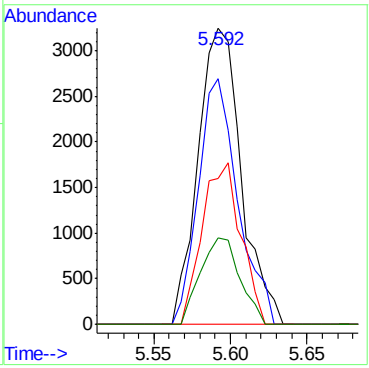




#18
Methylene Chloride
Concen: 3.72 ug/L
RT: 5.592 min Scan# 739
Delta R.T. 0.006 min
Lab File: 5E43731.D
Acq: 8 Nov 2023 10:53 am

Tgt Ion: 49 Resp: 6400

Ion	Ratio	Lower	Upper
49	100		
84	82.9	42.4	102.4
86	49.2	16.1	76.1
51	29.1	0.0	59.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43729.D
Acq On : 8 Nov 2023 10:07 am
Operator : joannel
Sample : BS
Misc : MS55196,V5E1954,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 10:25:19 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	265711	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	202034	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	124087	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	84393	49.16	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.32%			
49) 1,2-Dichloroethane-d4	8.177	65	95076	47.75	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 95.50%			
62) Toluene-d8	10.036	98	261182	51.02	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 102.04%			
86) 4-Bromofluorobenzene	12.816	95	106461	50.37	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.74%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	24370	24.34	ug/L	98
3) Chloromethane	3.129	50	28671	25.57	ug/L	95
4) Vinyl Chloride	3.263	62	24495	28.17	ug/L	97
5) 1,3-Butadiene	3.294	39	24584	21.20	ug/L	97
6) Bromomethane	3.769	94	13441	25.68	ug/L	87
7) Chloroethane	3.958	64	16510	29.73	ug/L	96
8) Trichlorofluoromethane	4.159	101	51380	26.06	ug/L	94
9) Ethyl Ether	4.580	59	23858	26.56	ug/L	96
10) Ethanol	4.769	45	5834	402.73	ug/L	77
11) 1,2-Dichlorotrifluoroe...	4.830	67	30010	28.47	ug/L	95
12) 1,1-Dichloroethene	4.861	61	43369	25.26	ug/L	94
13) Freon 113	4.903	101	31962	31.24	ug/L	95
14) Carbon Disulfide	4.922	76	80330	25.60	ug/L	96
15) Iodomethane	5.056	142	19957	26.41	ug/L	93
16) Acrolein	5.287	56	32136	143.27	ug/L	98
17) Allyl chloride	5.458	41	37684	30.18	ug/L	97
18) Methylene Chloride	5.592	49	41116	24.17	ug/L	96
19) Acetone	5.641	43	54578	144.13	ug/L	99
20) Methyl acetate	5.781	43	115502	121.51	ug/L	95
21) trans-1,2-Dichloroethene	5.793	61	41669	26.32	ug/L	96
22) Hexane	5.873	56	28270	28.72	ug/L	97
23) Methyl Tert Butyl Ether	5.891	73	92388	26.20	ug/L	91
24) Acetonitrile	6.214	41	36514	277.03	ug/L	96
25) Di-isopropyl ether	6.324	45	91565	26.05	ug/L	97
26) Chloroprene	6.488	53	37565	23.39	ug/L	94
27) 1,1-Dichloroethane	6.519	63	51776	24.65	ug/L	99
28) Acrylonitrile	6.574	53	59221	124.64	ug/L	96
29) ETBE	6.744	59	99178	26.45	ug/L	98
30) Tert Butyl Alcohol	5.970	59	46880	235.70	ug/L	95
31) Vinyl acetate	6.769	43	301603	120.67	ug/L	100
32) cis-1,2-Dichloroethene	7.128	96	30066	24.93	ug/L	96
33) 2,2-Dichloropropane	7.250	77	49926	26.12	ug/L	97
34) Bromochloromethane	7.354	128	16507	25.68	ug/L	92
35) Cyclohexane	7.366	56	51623	28.50	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43729.D
Acq On : 8 Nov 2023 10:07 am
Operator : joannel
Sample : BS
Misc : MS55196,V5E1954,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 10:25:19 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	58565	24.76	ug/L	98
37) Ethyl acetate	7.500	43	165921	125.51	ug/L	98
38) Tetrahydrofuran	7.598	42	11262	24.27	ug/L	95
40) Carbon Tetrachloride	7.586	117	51469	25.31	ug/L	97
41) 1,1,1-Trichloroethane	7.653	97	54835	24.05	ug/L	96
42) 2-Butanone	7.732	43	76432	122.67	ug/L	96
43) 1,1-Dichloropropene	7.781	75	40830	27.97	ug/L	98
44) tert-Butyl formate	7.872	59	161368	273.15	ug/L	98
45) Propionitrile	8.055	54	55033	258.15	ug/L	96
46) Methacrylonitrile	8.073	41	214444	266.07	ug/L	98
47) Benzene	8.043	78	109243	25.67	ug/L	97
48) TAME	8.116	73	86528	25.62	ug/L	97
50) 1,2-Dichloroethane	8.250	62	46945	24.32	ug/L	99
51) tert Amyl alcohol	8.287	59	35792	239.93	ug/L	97
52) Trichloroethene	8.640	95	32522	25.90	ug/L	97
53) Methylcyclohexane	8.640	83	51799	29.67	ug/L	96
54) Dibromomethane	9.085	93	20724	25.89	ug/L	98
55) 1,2-Dichloropropane	9.177	63	27546	26.83	ug/L	97
56) Bromodichloromethane	9.219	83	42376	23.39	ug/L	98
57) Methyl methacrylate	9.329	41	27663	26.18	ug/L	97
58) 1,4-Dioxane	9.415	88	6379	442.55	ug/L	86
59) 2-Chloroethyl vinyl ether	9.750	63	59488	136.01	ug/L	97
60) cis-1,3-Dichloropropene	9.847	75	44402	26.28	ug/L	99
63) Toluene	10.091	91	121241	25.83	ug/L	99
64) Isobutyl alcohol	8.177	43	29609	533.11	ug/L	91
65) 2-Nitropropane	10.317	41	47660	113.50	ug/L	98
66) 4-Methyl-2-pentanone	10.427	43	176295	138.02	ug/L	98
67) trans-1,3-Dichloropropene	10.487	75	40488	24.34	ug/L	95
68) Tetrachloroethene	10.494	166	37926	26.59	ug/L	96
69) Ethyl methacrylate	10.591	69	34968	27.00	ug/L	97
70) 1,1,2-Trichloroethane	10.652	83	22687	26.44	ug/L	94
71) Dibromochloromethane	10.847	129	37880	26.26	ug/L	99
72) 1,3-Dichloropropane	10.939	76	45070	27.09	ug/L	97
73) 1,2-Dibromoethane	11.115	107	31659	26.14	ug/L	94
74) 3,3-Dimethyl-1-butanol	11.189	57	145344	1225.56	ug/L	99
75) 2-hexanone	11.250	43	123288	139.75	ug/L	97
76) 1-Chlorohexane	11.542	91	40894	28.52	ug/L	91
77) Ethylbenzene	11.609	91	137648	24.36	ug/L	98
78) Chlorobenzene	11.615	112	82342	24.94	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.664	131	33937	24.44	ug/L	96
80) m,p-Xylene	11.749	91	221727	49.92	ug/L	99
81) o-Xylene	12.188	91	110262	24.92	ug/L	98
82) Styrene	12.243	104	82291	26.03	ug/L	97
83) Bromoform	12.304	173	24852	24.06	ug/L	94
84) Isopropylbenzene	12.493	105	141150	25.64	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.859	53	8819	33.50	ug/L	88
88) n-Propylbenzene	12.914	91	161850	25.13	ug/L	98
89) Bromobenzene	12.944	156	37434	25.83	ug/L	95
90) 1,1,2,2-Tetrachloroethane	12.981	83	37137	23.87	ug/L	99
91) 1,3,5-Trimethylbenzene	13.091	105	123231	26.04	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43729.D
Acq On : 8 Nov 2023 10:07 am
Operator : joannel
Sample : BS
Misc : MS55196,V5E1954,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 10:25:19 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

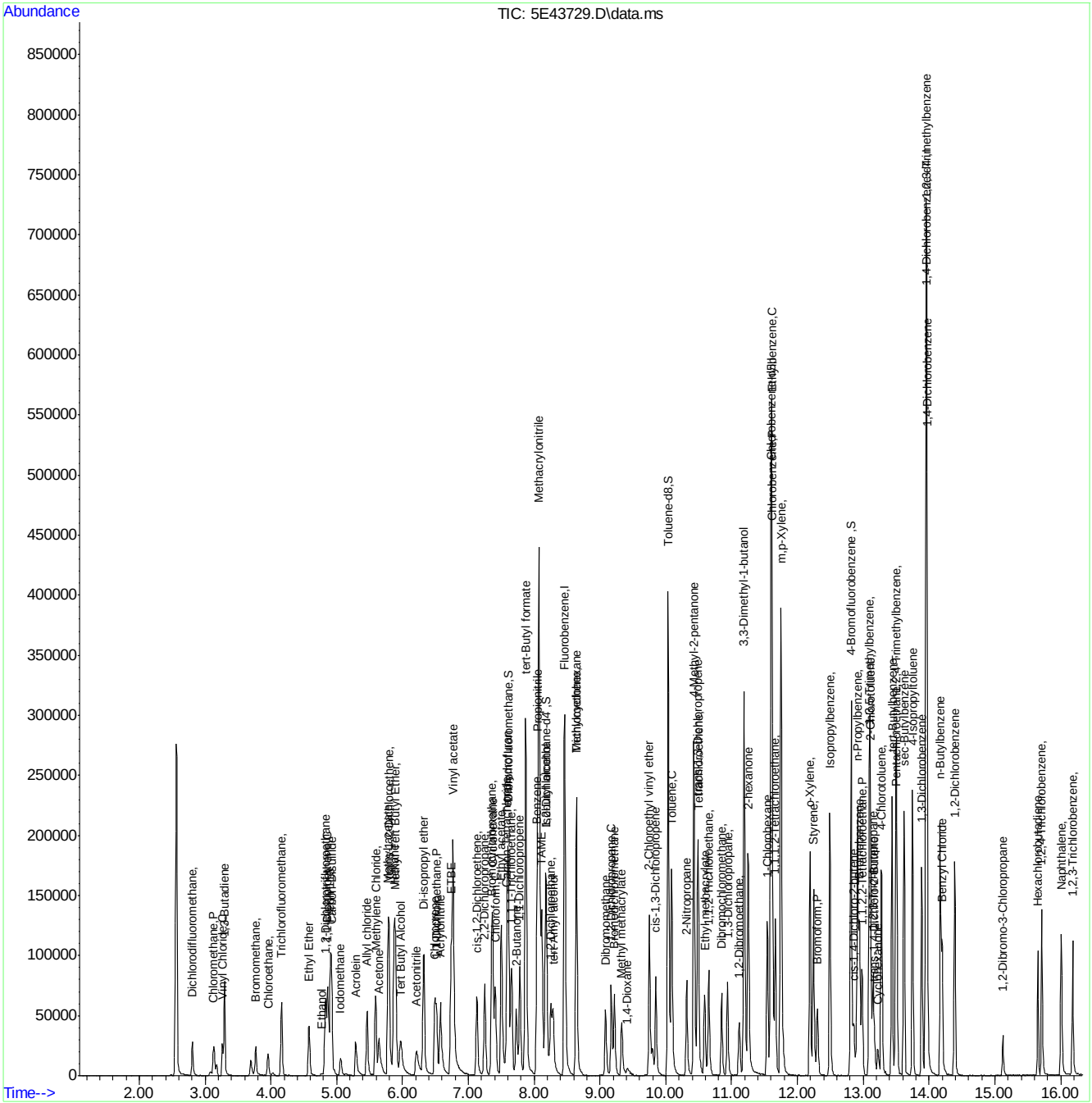
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	110465	24.53	ug/L		94
93)	trans-1,4-Dichloro-2-B...	13.170	53	8132	27.54	ug/L	#	80
94)	1,2,3-Trichloropropane	13.146	110	13499	24.94	ug/L		96
95)	Cyclohexanone	13.219	55	10025	209.11	ug/L		87
96)	4-Chlorotoluene	13.280	91	100070	24.47	ug/L		97
98)	tert-Butylbenzene	13.438	91	70180	25.15	ug/L		96
99)	1,2,4-Trimethylbenzene	13.505	105	120134	25.60	ug/L		99
100)	Pentachloroethane	13.493	167	21785	25.41	ug/L		89
101)	sec-Butylbenzene	13.621	105	142980	25.01	ug/L		98
102)	4-Isopropyltoluene	13.749	119	130055	25.20	ug/L		98
103)	1,3-Dichlorobenzene	13.889	146	68989	23.90	ug/L		98
104)	1,2,3-Trimethylbenzene	13.962	105	121809	24.38	ug/L		98
105)	1,4-Dichlorobenzene	13.969	146	76300	24.20	ug/L		97
106)	n-Butylbenzene	14.170	92	67455	28.59	ug/L		98
107)	Benzyl Chloride	14.200	126	15129	26.08	ug/L		93
108)	1,2-Dichlorobenzene	14.389	146	67241	24.16	ug/L		97
109)	1,2-Dibromo-3-Chloropr...	15.121	75	8088	25.26	ug/L		98
110)	Hexachlorobutadiene	15.657	225	17473	26.39	ug/L		97
111)	1,2,4-Trichlorobenzene	15.712	180	40790	25.44	ug/L		98
112)	Naphthalene	16.011	128	93998	24.20	ug/L		98
113)	1,2,3-Trichlorobenzene	16.182	180	33290	24.14	ug/L		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43729.D
Acq On : 8 Nov 2023 10:07 am
Operator : joannel
Sample : BS
Misc : MS55196,V5E1954,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 10:25:19 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43752.d
Acq On : 8 Nov 2023 7:35 pm
Operator : joannel
Sample : FC10847-6MS 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 09 05:41:11 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.464	96	204134	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	162618	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	101256	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	67035	50.83	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.66%			
49) 1,2-Dichloroethane-d4	8.177	65	80139	52.39	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 104.78%			
62) Toluene-d8	10.036	98	203094	49.29	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 98.58%			
86) 4-Bromofluorobenzene	12.816	95	83646	48.50	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	16928	22.0054	ug/L	96
3) Chloromethane	3.129	50	18270	21.2130	ug/L	98
4) Vinyl Chloride	3.263	62	16056	24.0346	ug/L	98
5) 1,3-Butadiene	3.294	39	21920	24.5997	ug/L	98
6) Bromomethane	3.769	94	5334	13.2645	ug/L	85
7) Chloroethane	3.952	64	10892	25.5259	ug/L	91
8) Trichlorofluoromethane	4.160	101	35760	23.6086	ug/L	99
9) Ethyl Ether	4.580	59	17848	25.8651	ug/L	93
10) Ethanol	4.769	45	4404	395.7177	ug/L	77
11) 1,2-Dichlorotrifluoroe...	4.830	67	22071	27.2591	ug/L	93
12) 1,1-Dichloroethene	4.861	61	32330	24.5072	ug/L	98
13) Freon 113	4.903	101	22575	28.8122	ug/L	95
14) Carbon Disulfide	4.922	76	56746	23.5426	ug/L	99
15) Iodomethane	5.062	142	12575	22.1958	ug/L	93
16) Acrolein	5.287	56	20577	121.2618	ug/L	99
17) Allyl chloride	5.464	41	26639	27.8294	ug/L	91
18) Methylene Chloride	5.592	49	31695	24.2575	ug/L	96
19) Acetone	5.647	43	38712	133.0705	ug/L	96
20) Methyl acetate	5.781	43	84152	115.2346	ug/L	97
21) trans-1,2-Dichloroethene	5.793	61	32218	26.4938	ug/L	98
22) Hexane	5.873	56	19130	25.3000	ug/L	94
23) Methyl Tert Butyl Ether	5.891	73	69489	25.6493	ug/L	96
24) Acetonitrile	6.214	41	28531	281.5844	ug/L	96
25) Di-isopropyl ether	6.318	45	67618	25.0385	ug/L	99
26) Chloroprene	6.494	53	27514	22.3550	ug/L	96
27) 1,1-Dichloroethane	6.519	63	39152	24.2666	ug/L	99
28) Acrylonitrile	6.574	53	43843	120.2700	ug/L	99
29) ETBE	6.744	59	74365	25.8170	ug/L	96
30) Tert Butyl Alcohol	5.970	59	41741	272.4954	ug/L	96
31) Vinyl acetate	6.769	43	233567	121.6372	ug/L	99
32) cis-1,2-Dichloroethene	7.128	96	23617	25.4875	ug/L	94
33) 2,2-Dichloropropane	7.250	77	34624	23.5762	ug/L	96
34) Bromochloromethane	7.354	128	13201	26.7132	ug/L	94
35) Cyclohexane	7.366	56	35950	25.9525	ug/L	96
36) Chloroform	7.409	83	45091	24.8190	ug/L	96
37) Ethyl acetate	7.500	43	124794	122.9218	ug/L	98
38) Tetrahydrofuran	7.598	42	7907	22.1601	ug/L	91
40) Carbon Tetrachloride	7.586	117	40273	25.7775	ug/L	97
41) 1,1,1-Trichloroethane	7.653	97	43797	25.0051	ug/L	95
42) 2-Butanone	7.726	43	54468	113.7916	ug/L	94
43) 1,1-Dichloropropene	7.781	75	29644	26.4313	ug/L	94
44) tert-Butyl formate	7.872	59	60317	132.8984	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43752.d
Acq On : 8 Nov 2023 7:35 pm
Operator : joannel
Sample : FC10847-6MS 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 09 05:41:11 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) Propionitrile	8.049	54	42707	260.6599	ug/L		97
46) Methacrylonitrile	8.073	41	165407	267.1304	ug/L		95
47) Benzene	8.049	78	80432	24.5993	ug/L		94
48) TAME	8.116	73	66714	25.7161	ug/L		94
50) 1,2-Dichloroethane	8.250	62	38645	26.0586	ug/L		99
51) tert Amyl alcohol	8.281	59	27782	242.3282	ug/L		97
52) Trichloroethene	8.640	95	24707	25.6117	ug/L		96
53) Methylcyclohexane	8.640	83	36410	27.2936	ug/L		97
54) Dibromomethane	9.079	93	15672	25.4881	ug/L		89
55) 1,2-Dichloropropane	9.171	63	20214	25.6565	ug/L		89
56) Bromodichloromethane	9.220	83	33610	24.1451	ug/L		96
57) Methyl methacrylate	9.329	41	20479	25.2905	ug/L		97
58) 1,4-Dioxane	9.415	88	4910	443.3929	ug/L		87
60) cis-1,3-Dichloropropene	9.854	75	31807	24.5007	ug/L		96
63) Toluene	10.091	91	91247	24.1560	ug/L		100
64) Isobutyl alcohol	8.177	43	22814	511.7935	ug/L		96
65) 2-Nitropropane	10.317	41	38497	113.9010	ug/L		100
66) 4-Methyl-2-pentanone	10.427	43	125138	121.7140	ug/L		96
67) trans-1,3-Dichloropropene	10.488	75	28898	21.6817	ug/L		95
68) Tetrachloroethene	10.494	166	28458	24.7841	ug/L		96
69) Ethyl methacrylate	10.591	69	26592	25.5114	ug/L		98
70) 1,1,2-Trichloroethane	10.652	83	16908	24.5295	ug/L		94
71) Dibromochloromethane	10.847	129	29295	25.2295	ug/L		95
72) 1,3-Dichloropropane	10.939	76	35115	26.2228	ug/L		95
73) 1,2-Dibromoethane	11.115	107	24195	24.8649	ug/L		94
74) 3,3-Dimethyl-1-butanol	11.189	57	101348	1061.7167	ug/L		97
75) 2-hexanone	11.250	43	88893	125.8533	ug/L		98
76) 1-Chlorohexane	11.542	91	28139	24.5771	ug/L		98
77) Ethylbenzene	11.609	91	279317	61.4187	ug/L		94
78) Chlorobenzene	11.615	112	63387	23.8553	ug/L		72
79) 1,1,1,2-Tetrachloroethane	11.664	131	26677	23.8686	ug/L		94
80) m,p-Xylene	11.749	91	357446	99.9857	ug/L		99
81) o-Xylene	12.188	91	180248	50.6120	ug/L		99
82) Styrene	12.243	104	63106	24.8034	ug/L		95
83) Bromoform	12.304	173	19164	23.0917	ug/L		96
84) Isopropylbenzene	12.493	105	125046	28.2248	ug/L		99
87) cis-1,4-Dichloro-2-butene	12.859	53	3485	17.5956	ug/L	#	73
88) n-Propylbenzene	12.914	91	172666	32.8535	ug/L		99
89) Bromobenzene	12.944	156	29676	25.0916	ug/L		91
90) 1,1,2,2-Tetrachloroethane	12.981	83	29341	23.1142	ug/L		97
91) 1,3,5-Trimethylbenzene	13.091	105	159311	41.2604	ug/L		100
92) 2-Chlorotoluene	13.109	91	90601	24.6594	ug/L		98
93) trans-1,4-Dichloro-2-B...	13.170	53	3087	13.5800	ug/L	#	23
94) 1,2,3-Trichloropropane	13.146	110	10179	23.0432	ug/L		82
95) Cyclohexanone	13.219	55	4270	109.1522	ug/L		93
96) 4-Chlorotoluene	13.274	91	76122	22.8124	ug/L		96
98) tert-Butylbenzene	13.438	91	53019	23.2865	ug/L		99
99) 1,2,4-Trimethylbenzene	13.505	105	326109	85.1647	ug/L		96
100) Pentachloroethane	13.493	167	18366	26.2272	ug/L	#	79
101) sec-Butylbenzene	13.621	105	109381	23.4437	ug/L		99
102) 4-Isopropyltoluene	13.749	119	100872	23.9548	ug/L		98
103) 1,3-Dichlorobenzene	13.889	146	54183	23.0078	ug/L		98
104) 1,2,3-Trimethylbenzene	13.962	105	172117	42.2163	ug/L		96
105) 1,4-Dichlorobenzene	13.969	146	58538	22.7488	ug/L		96
106) n-Butylbenzene	14.170	92	51824	27.0150	ug/L		92
107) Benzyl Chloride	14.200	126	10326	22.0805	ug/L	#	90
108) 1,2-Dichlorobenzene	14.389	146	52815	23.2554	ug/L		98
109) 1,2-Dibromo-3-Chloropr...	15.121	75	6566	25.1336	ug/L		81

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43752.d
Acq On : 8 Nov 2023 7:35 pm
Operator : joannel
Sample : FC10847-6MS 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 09 05:41:11 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

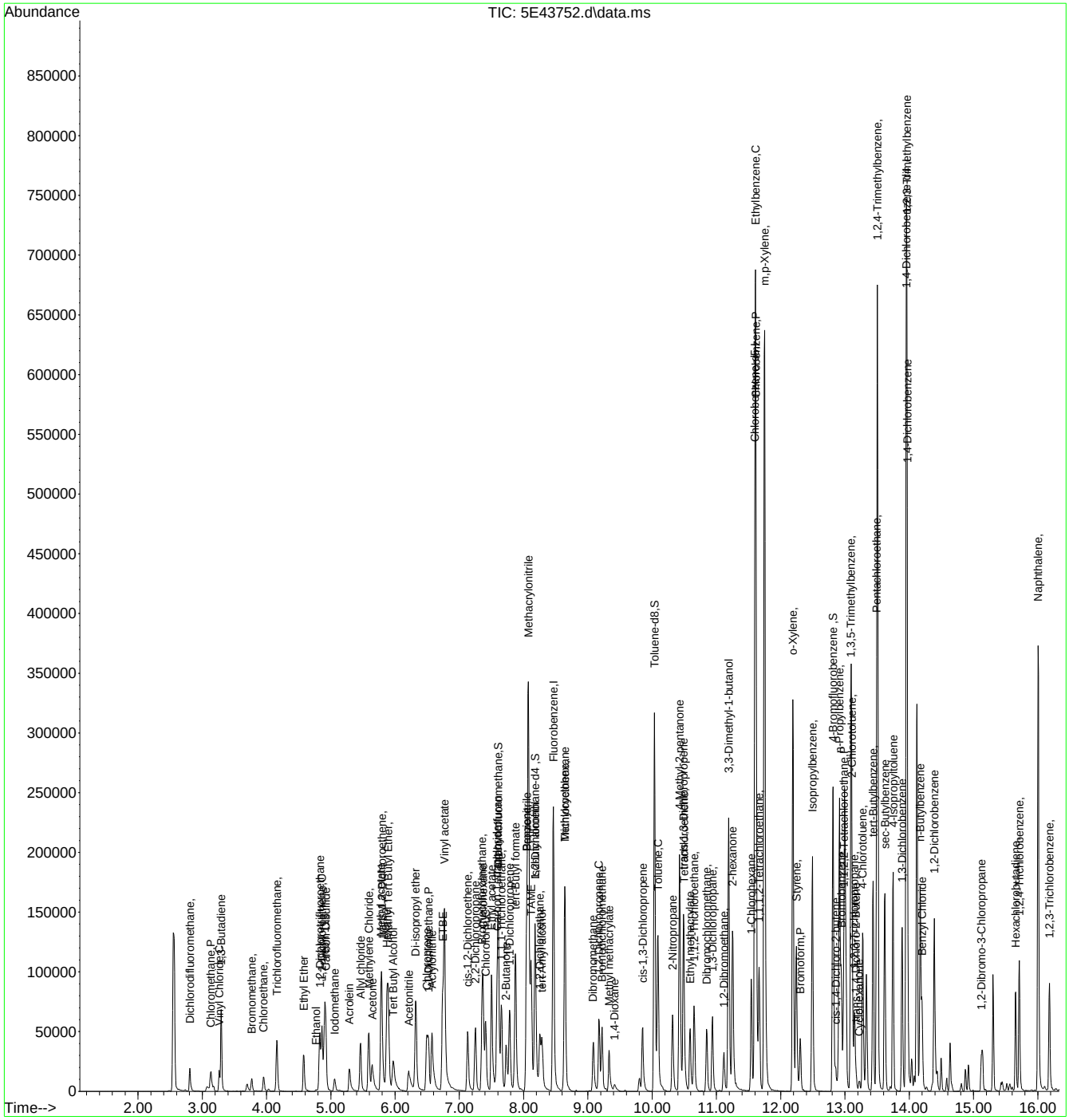
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	15.657	225	13246	24.5869	ug/L	99
111) 1,2,4-Trichlorobenzene	15.712	180	32301	24.7182	ug/L	96
112) Naphthalene	16.005	128	268617	84.7342	ug/L	100
113) 1,2,3-Trichlorobenzene	16.182	180	27101	24.0800	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43752.d
Acq On : 8 Nov 2023 7:35 pm
Operator : joannel
Sample : FC10847-6MS 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 09 05:41:11 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43753.d
Acq On : 8 Nov 2023 7:58 pm
Operator : joannel
Sample : FC10847-6MSD 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 09 05:41:18 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	215040	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	167867	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	106045	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	68185	49.08	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.16%			
49) 1,2-Dichloroethane-d4	8.177	65	82006	50.90	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 101.80%			
62) Toluene-d8	10.036	98	210798	49.56	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.12%			
86) 4-Bromofluorobenzene	12.810	95	86239	47.74	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	18284	22.5626	ug/L	95
3) Chloromethane	3.135	50	21412	23.6002	ug/L	97
4) Vinyl Chloride	3.263	62	17612	25.0267	ug/L	98
5) 1,3-Butadiene	3.294	39	24424	26.0197	ug/L	100
6) Bromomethane	3.769	94	6440	15.2027	ug/L	90
7) Chloroethane	3.952	64	12515	27.8420	ug/L	90
8) Trichlorofluoromethane	4.159	101	39066	24.4832	ug/L	96
9) Ethyl Ether	4.580	59	19083	26.2523	ug/L	93
10) Ethanol	4.775	45	6241	532.3392	ug/L	82
11) 1,2-Dichlorotrifluoroe...	4.824	67	23326	27.3480	ug/L	92
12) 1,1-Dichloroethene	4.860	61	35371	25.4526	ug/L	95
13) Freon 113	4.903	101	24671	29.8518	ug/L	94
14) Carbon Disulfide	4.921	76	62301	24.5363	ug/L	96
15) Iodomethane	5.062	142	18620	29.8496	ug/L	93
16) Acrolein	5.287	56	24207	134.1980	ug/L	96
17) Allyl chloride	5.458	41	28753	28.4965	ug/L	90
18) Methylene Chloride	5.592	49	33461	24.3125	ug/L	98
19) Acetone	5.647	43	43348	141.4494	ug/L	98
20) Methyl acetate	5.781	43	93320	121.3079	ug/L	98
21) trans-1,2-Dichloroethene	5.793	61	32924	25.7013	ug/L	95
22) Hexane	5.872	56	20362	25.5636	ug/L	97
23) Methyl Tert Butyl Ether	5.897	73	76653	26.8587	ug/L	90
24) Acetonitrile	6.208	41	30921	289.3799	ug/L	95
25) Di-isopropyl ether	6.324	45	73743	25.9216	ug/L	98
26) Chloroprene	6.488	53	30882	23.7453	ug/L	94
27) 1,1-Dichloroethane	6.519	63	42247	24.8569	ug/L	97
28) Acrylonitrile	6.573	53	51005	132.3363	ug/L	96
29) ETBE	6.738	59	82683	27.2489	ug/L	97
30) Tert Butyl Alcohol	5.976	59	48151	297.8919	ug/L	99
31) Vinyl acetate	6.769	43	260546	128.8058	ug/L	100
32) cis-1,2-Dichloroethene	7.128	96	25649	26.2766	ug/L	91
33) 2,2-Dichloropropane	7.250	77	37855	24.4689	ug/L	99
34) Bromochloromethane	7.348	128	13642	26.2130	ug/L	98
35) Cyclohexane	7.366	56	40061	27.3831	ug/L	95
36) Chloroform	7.409	83	49207	25.7109	ug/L	92
37) Ethyl acetate	7.500	43	141900	132.4932	ug/L	99
38) Tetrahydrofuran	7.598	42	9712	25.8797	ug/L	96
40) Carbon Tetrachloride	7.585	117	43426	26.3860	ug/L	97
41) 1,1,1-Trichloroethane	7.659	97	47010	25.4783	ug/L	98
42) 2-Butanone	7.726	43	61803	122.5673	ug/L	99
43) 1,1-Dichloropropene	7.781	75	33033	27.9593	ug/L	95
44) tert-Butyl formate	7.872	59	63093	131.9645	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43753.d
Acq On : 8 Nov 2023 7:58 pm
Operator : joannel
Sample : FC10847-6MSD 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 09 05:41:18 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) Propionitrile	8.055	54	48849	282.0513	ug/L		85
46) Methacrylonitrile	8.073	41	186948	286.6067	ug/L		97
47) Benzene	8.043	78	87812	25.4944	ug/L		97
48) TAME	8.116	73	71191	26.0501	ug/L		93
50) 1,2-Dichloroethane	8.250	62	40883	26.1696	ug/L		99
51) tert Amyl alcohol	8.280	59	31345	258.9215	ug/L		96
52) Trichloroethene	8.640	95	27203	26.7689	ug/L		98
53) Methylcyclohexane	8.640	83	40298	28.5917	ug/L		97
54) Dibromomethane	9.079	93	17336	26.7415	ug/L		96
55) 1,2-Dichloropropane	9.177	63	21821	26.2767	ug/L		90
56) Bromodichloromethane	9.219	83	36646	24.9910	ug/L		95
57) Methyl methacrylate	9.329	41	23751	27.6569	ug/L		93
58) 1,4-Dioxane	9.420	88	5606	480.5698	ug/L		91
60) cis-1,3-Dichloropropene	9.847	75	33890	24.7813	ug/L		97
63) Toluene	10.091	91	98617	25.2907	ug/L		98
64) Isobutyl alcohol	8.171	43	27115	583.6170	ug/L		96
65) 2-Nitropropane	10.317	41	43132	123.6243	ug/L		97
66) 4-Methyl-2-pentanone	10.426	43	142400	134.1728	ug/L		98
67) trans-1,3-Dichloropropene	10.487	75	32802	23.7559	ug/L		94
68) Tetrachloroethene	10.487	166	30794	25.9799	ug/L		98
69) Ethyl methacrylate	10.585	69	30850	28.6709	ug/L		98
70) 1,1,2-Trichloroethane	10.652	83	18924	26.5445	ug/L		92
71) Dibromochloromethane	10.847	129	32186	26.8525	ug/L		96
72) 1,3-Dichloropropane	10.938	76	38611	27.9319	ug/L		97
73) 1,2-Dibromoethane	11.115	107	26329	26.1680	ug/L		91
74) 3,3-Dimethyl-1-butanol	11.188	57	121423	1232.2468	ug/L		97
75) 2-hexanone	11.249	43	102776	140.1835	ug/L		98
76) 1-Chlorohexane	11.542	91	30456	25.7104	ug/L		98
77) Ethylbenzene	11.609	91	296450	63.1478	ug/L		94
78) Chlorobenzene	11.615	112	70093	25.5542	ug/L		76
79) 1,1,1,2-Tetrachloroethane	11.664	131	29157	25.2718	ug/L		96
80) m,p-Xylene	11.749	91	383449	103.9054	ug/L		98
81) o-Xylene	12.188	91	195940	53.2978	ug/L		99
82) Styrene	12.243	104	70572	26.8705	ug/L		98
83) Bromoform	12.304	173	21102	24.5590	ug/L		96
84) Isopropylbenzene	12.493	105	138076	30.1914	ug/L		99
87) cis-1,4-Dichloro-2-butene	12.853	53	3757	18.0671	ug/L	#	73
88) n-Propylbenzene	12.914	91	188591	34.2631	ug/L		99
89) Bromobenzene	12.944	156	33294	26.8794	ug/L		97
90) 1,1,2,2-Tetrachloroethane	12.981	83	32338	24.3247	ug/L		99
91) 1,3,5-Trimethylbenzene	13.091	105	175123	43.3073	ug/L		100
92) 2-Chlorotoluene	13.109	91	101446	26.3643	ug/L		98
93) trans-1,4-Dichloro-2-B...	13.170	53	3264	13.7030	ug/L	#	40
94) 1,2,3-Trichloropropane	13.145	110	11886	25.6924	ug/L		89
95) Cyclohexanone	13.219	55	4567	111.4721	ug/L		92
96) 4-Chlorotoluene	13.273	91	82252	23.5363	ug/L		98
98) tert-Butylbenzene	13.438	91	57848	24.2600	ug/L		99
99) 1,2,4-Trimethylbenzene	13.505	105	349861	87.2414	ug/L		97
100) Pentachloroethane	13.493	167	20636	28.0711	ug/L	#	68
101) sec-Butylbenzene	13.621	105	123289	25.2312	ug/L		99
102) 4-Isopropyltoluene	13.749	119	111199	25.2147	ug/L		97
103) 1,3-Dichlorobenzene	13.889	146	60004	24.3290	ug/L		98
104) 1,2,3-Trimethylbenzene	13.962	105	186449	43.6663	ug/L		97
105) 1,4-Dichlorobenzene	13.968	146	66102	24.5282	ug/L		98
106) n-Butylbenzene	14.170	92	56878	28.2303	ug/L		98
107) Benzyl Chloride	14.200	126	11284	22.9769	ug/L	#	90
108) 1,2-Dichlorobenzene	14.389	146	60286	25.3462	ug/L		97
109) 1,2-Dibromo-3-Chloropr...	15.121	75	7299	26.6122	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43753.d
Acq On : 8 Nov 2023 7:58 pm
Operator : joannel
Sample : FC10847-6MSD 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 09 05:41:18 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

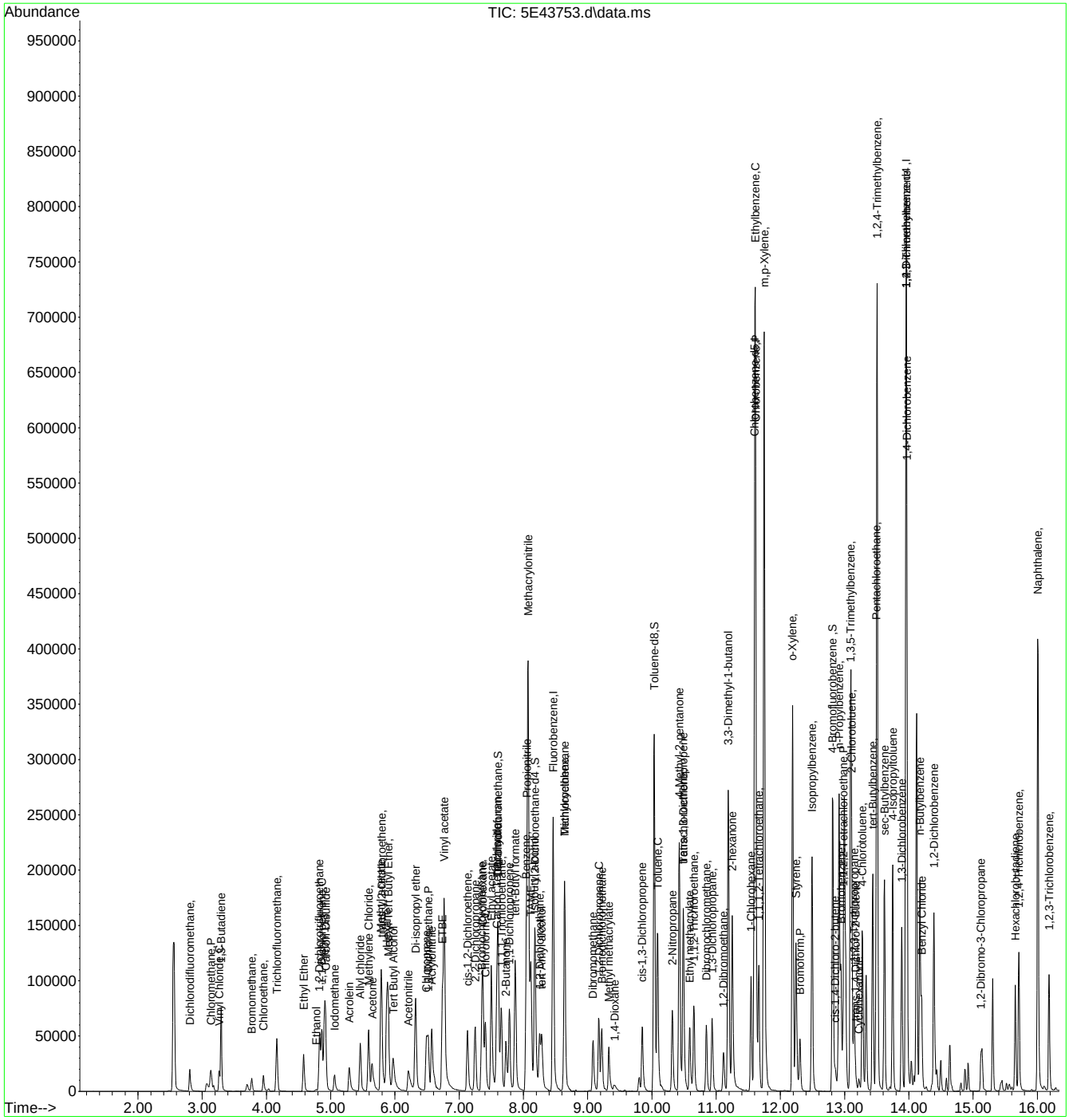
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	15.657	225	14553	25.7450	ug/L	96
111) 1,2,4-Trichlorobenzene	15.712	180	35240	25.7079	ug/L	98
112) Naphthalene	16.005	128	303582	91.4391	ug/L	98
113) 1,2,3-Trichlorobenzene	16.181	180	30697	26.0434	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43753.d
Acq On : 8 Nov 2023 7:58 pm
Operator : joannel
Sample : FC10847-6MSD 5X Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,5
ALS Vial : 28 Sample Multiplier: 1

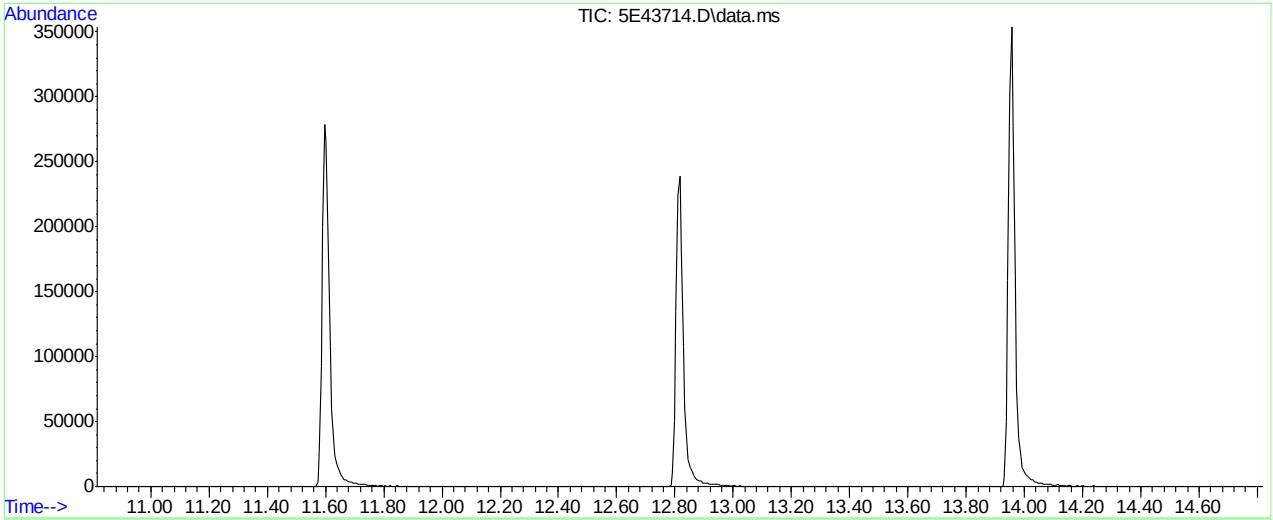
Quant Time: Nov 09 05:41:18 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



Methods: SW-846 8260B

Data File : C:\msdchem\1\data\11-07-2023\5E43714.D Vial: 1
Acq On : 7 Nov 2023 12:37 pm Operator: joannel
Sample : BFB Inst : MSVOA20
Misc : MS55196,V5E1953,,,,, Multiplr: 1.00
MS Integration Params: ult...ll.p

Method : C:\msdchem\1\met...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624



AutoFind: Scans 1923, 1924, 1925; Background Corrected with Scan 1916

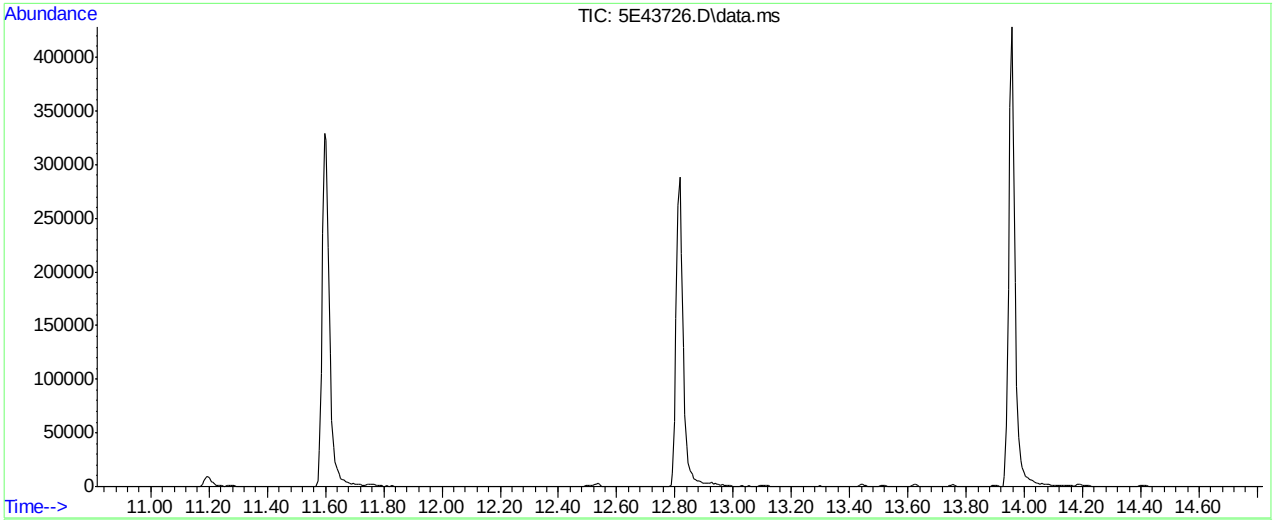
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	8367	PASS
75	95	30	60	48.9	21213	PASS
95	95	100	100	100.0	43357	PASS
96	95	5	9	6.2	2700	PASS
173	174	0.00	2	0.9	357	PASS
174	95	50	100	92.0	39880	PASS
175	174	5	9	7.5	2986	PASS
176	174	95	101	96.9	38632	PASS
177	176	5	9	6.2	2396	PASS

5E43714.D V5E_11-07-2023_.M Wed Nov 08 10:08:40 2023

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\11-08-2023\5E43726.D Vial: 1
Acq On : 8 Nov 2023 8:40 am Operator: joannel
Sample : BFB Inst : MSVOA20
Misc : MS55196,V5E1954,,,,, Multiplr: 1.00
MS Integration Params: ult...ll.p

Method : C:\msdchem\1\met...5E_11-07-2023_.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624



AutoFind: Scans 1923, 1924, 1925; Background Corrected with Scan 1916

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	9844	PASS
75	95	30	60	48.6	25397	PASS
95	95	100	100	100.0	52237	PASS
96	95	5	9	6.5	3404	PASS
173	174	0.00	2	1.4	672	PASS
174	95	50	100	90.5	47253	PASS
175	174	5	9	7.7	3619	PASS
176	174	95	101	95.3	45013	PASS
177	176	5	9	6.4	2880	PASS

5E43726.D V5E_11-07-2023_.M Wed Nov 08 13:05:08 2023

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/08/23 13:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:47:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	8.463	96	220268	50.00	ug/L		0.00
61) Chlorobenzene-d5	11.597	117	172337	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	100568	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	7.610	113	71144	53.37	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.74%				
49) 1,2-Dichloroethane-d4	8.183	65	83078	55.66	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 111.32%				
62) Toluene-d8	10.036	98	214998	46.42	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 92.84%				
86) 4-Bromofluorobenzene	12.816	95	86517	49.14	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.28%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.806	85	749	1.14	ug/L		79
3) Chloromethane	3.135	50	958	0.98	ug/L	#	40
4) Vinyl Chloride	3.263	62	629	0.81	ug/L		85
5) 1,3-Butadiene	3.294	39	817	0.80	ug/L	#	74
6) Bromomethane	3.769	94	384	1.13	ug/L		88
7) Chloroethane	3.958	64	334	0.68	ug/L		48
8) Trichlorofluoromethane	4.159	101	1563	1.10	ug/L		89
9) Ethyl Ether	4.580	59	579	0.78	ug/L		77
11) 1,2-Dichlorotrifluoroe...	4.824	67	679	0.74	ug/L	#	79
12) 1,1-Dichloroethene	4.854	61	1249	0.94	ug/L	#	84
13) Freon 113	4.897	101	584	0.69	ug/L	#	69
14) Carbon Disulfide	4.921	76	2714	1.05	ug/L		79
15) Iodomethane	5.068	142	172m	0.39	ug/L		
17) Allyl chloride	5.470	41	780	0.71	ug/L		78
18) Methylene Chloride	5.598	49	3277	2.39	ug/L		91
19) Acetone	5.659	43	1436	4.42	ug/L		45
20) Methyl acetate	5.805	43	3199	3.63	ug/L		90
21) trans-1,2-Dichloroethene	5.805	61	1108	0.86	ug/L		89
22) Hexane	5.872	56	894	1.00	ug/L	#	36
23) Methyl Tert Butyl Ether	5.897	73	2419	0.90	ug/L		90
24) Acetonitrile	6.324	41	464	3.44	ug/L	#	15
25) Di-isopropyl ether	6.324	45	2601	0.84	ug/L		98
26) Chloroprene	6.494	53	900	0.67	ug/L	#	71
27) 1,1-Dichloroethane	6.525	63	1729	1.02	ug/L		85
28) Acrylonitrile	6.598	53	919	2.09	ug/L	#	62
29) ETBE	6.744	59	2687	0.89	ug/L		93
30) Tert Butyl Alcohol	5.988	59	976	5.68	ug/L	#	39
31) Vinyl acetate	6.793	43	7924	3.53	ug/L		77
32) cis-1,2-Dichloroethene	7.134	96	708	0.74	ug/L	#	63
33) 2,2-Dichloropropane	7.250	77	1514	1.16	ug/L		75
34) Bromochloromethane	7.360	128	292	0.62	ug/L	#	40
35) Cyclohexane	7.372	56	1065	0.65	ug/L	#	67
36) Chloroform	7.409	83	1801	1.04	ug/L		93
37) Ethyl acetate	7.512	43	3594	2.88	ug/L		68

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:47:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
40)	Carbon Tetrachloride	7.579	117	1294	0.91	ug/L		66
41)	1,1,1-Trichloroethane	7.653	97	1822	1.16	ug/L		92
42)	2-Butanone	7.750	43	2722	4.83	ug/L		82
43)	1,1-Dichloropropene	7.787	75	923	0.80	ug/L		77
44)	tert-Butyl formate	7.878	59	5043	11.67	ug/L		97
45)	Propionitrile	8.073	54	819	4.11	ug/L		89
46)	Methacrylonitrile	8.079	41	5140	6.40	ug/L		94
47)	Benzene	8.055	78	3307	0.97	ug/L		93
48)	TAME	8.116	73	2436	0.92	ug/L		98
50)	1,2-Dichloroethane	8.256	62	1504	1.07	ug/L		87
51)	tert Amyl alcohol	8.299	59	753	5.30	ug/L	#	29
52)	Trichloroethene	8.646	95	890	0.90	ug/L		80
53)	Methylcyclohexane	8.646	83	1049	0.68	ug/L		91
54)	Dibromomethane	9.085	93	392	0.61	ug/L	#	52
55)	1,2-Dichloropropane	9.183	63	475	0.55	ug/L		89
56)	Bromodichloromethane	9.225	83	1269	0.94	ug/L	#	74
59)	2-Chloroethyl vinyl ether	9.774	63	856	1.64	ug/L	#	72
60)	cis-1,3-Dichloropropene	9.859	75	1014	0.76	ug/L	#	66
63)	Toluene	10.091	91	4003	0.99	ug/L		98
64)	Isobutyl alcohol	8.122	43	744	10.58	ug/L	#	53
65)	2-Nitropropane	10.323	41	1424	4.05	ug/L		87
66)	4-Methyl-2-pentanone	10.432	43	5936	4.71	ug/L		87
67)	trans-1,3-Dichloropropene	10.506	75	808	0.61	ug/L	#	39
68)	Tetrachloroethene	10.493	166	974	0.79	ug/L		95
70)	1,1,2-Trichloroethane	10.652	83	467	0.62	ug/L	#	28
71)	Dibromochloromethane	10.853	129	886	0.77	ug/L		86
72)	1,3-Dichloropropane	10.945	76	1034	0.72	ug/L	#	74
73)	1,2-Dibromoethane	11.121	107	497	0.51	ug/L		80
74)	3,3-Dimethyl-1-butanol	11.195	57	4961	37.25	ug/L		83
75)	2-hexanone	11.274	43	2962	3.02	ug/L		69
76)	1-Chlorohexane	11.554	91	813	0.56	ug/L	#	69
77)	Ethylbenzene	11.615	91	4959	1.05	ug/L		85
78)	Chlorobenzene	11.615	112	2564	0.92	ug/L		69
79)	1,1,1,2-Tetrachloroethane	11.664	131	1072	1.00	ug/L	#	60
80)	m,p-Xylene	11.755	91	7307	2.00	ug/L		98
81)	o-Xylene	12.194	91	3283	0.89	ug/L		91
82)	Styrene	12.261	104	2151	0.83	ug/L		69
83)	Bromoform	12.304	173	439	0.54	ug/L	#	32
84)	Isopropylbenzene	12.499	105	4211	0.91	ug/L		94
88)	n-Propylbenzene	12.920	91	4831	0.87	ug/L		94
89)	Bromobenzene	12.944	156	840	0.74	ug/L		78
90)	1,1,2,2-Tetrachloroethane	12.987	83	1231	0.87	ug/L		79
91)	1,3,5-Trimethylbenzene	13.103	105	3269	0.83	ug/L		83
92)	2-Chlorotoluene	13.115	91	3465	0.93	ug/L		88
96)	4-Chlorotoluene	13.292	91	3125	0.94	ug/L		93
98)	tert-Butylbenzene	13.438	91	2360	1.03	ug/L		94
99)	1,2,4-Trimethylbenzene	13.511	105	3384	0.88	ug/L		95
100)	Pentachloroethane	13.499	167	305	0.51	ug/L	#	81
101)	sec-Butylbenzene	13.627	105	4109	0.82	ug/L		95
102)	4-Isopropyltoluene	13.749	119	3926	0.92	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:47:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

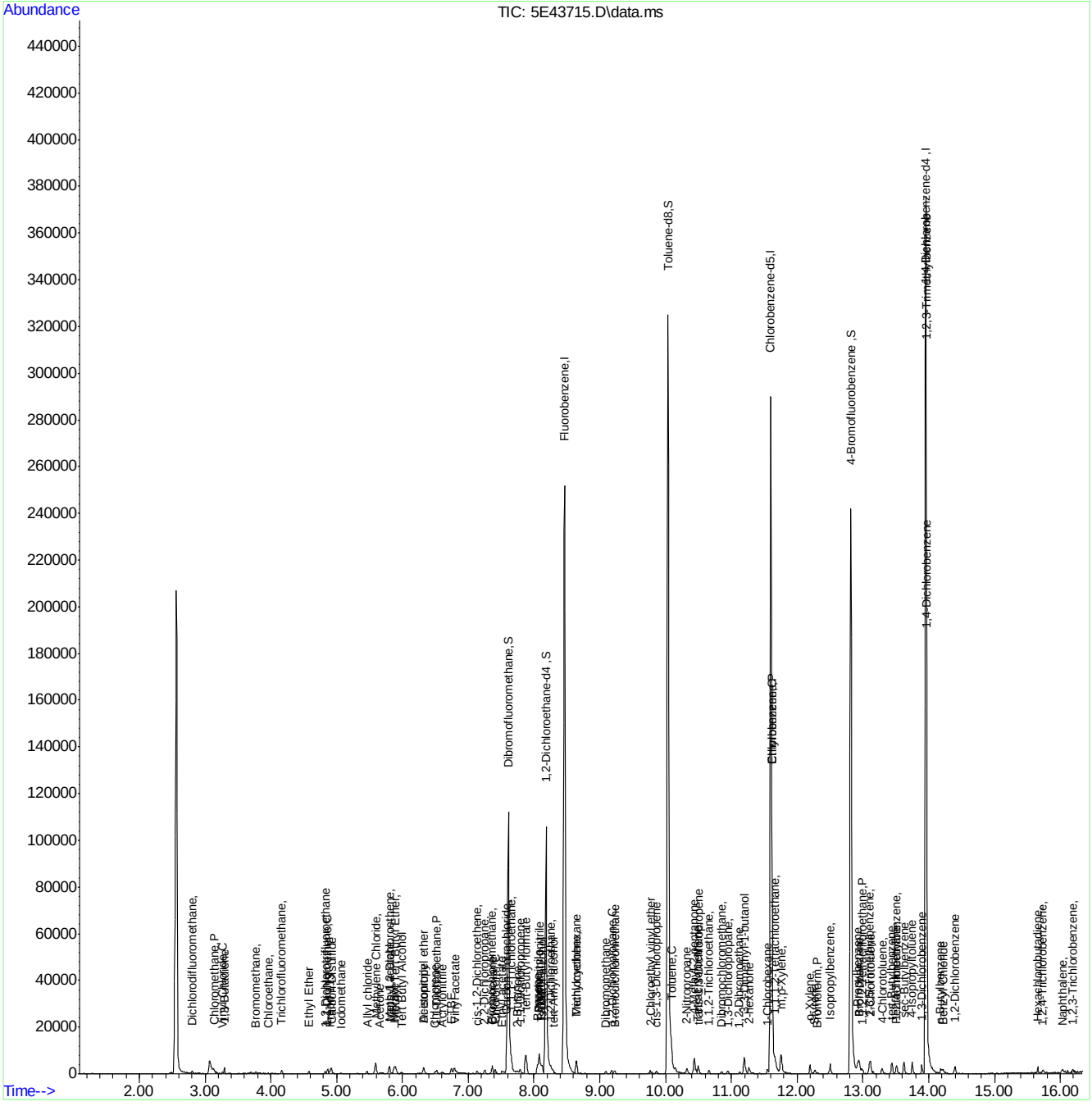
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
103) 1,3-Dichlorobenzene	13.895	146	2168	0.94	ug/L		90
104) 1,2,3-Trimethylbenzene	13.962	105	3792	0.93	ug/L	#	65
105) 1,4-Dichlorobenzene	13.968	146	2314m	0.94	ug/L		
106) n-Butylbenzene	14.182	92	877	0.41	ug/L		95
107) Benzyl Chloride	14.212	126	175m	0.42	ug/L		
108) 1,2-Dichlorobenzene	14.401	146	1940	0.88	ug/L		85
110) Hexachlorobutadiene	15.657	225	788	1.31	ug/L	#	78
111) 1,2,4-Trichlorobenzene	15.730	180	932	0.65	ug/L	#	54
112) Naphthalene	16.029	128	2329	0.62	ug/L		68
113) 1,2,3-Trichlorobenzene	16.194	180	937	0.73	ug/L	#	52

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:47:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Manual Integration Approval Summary

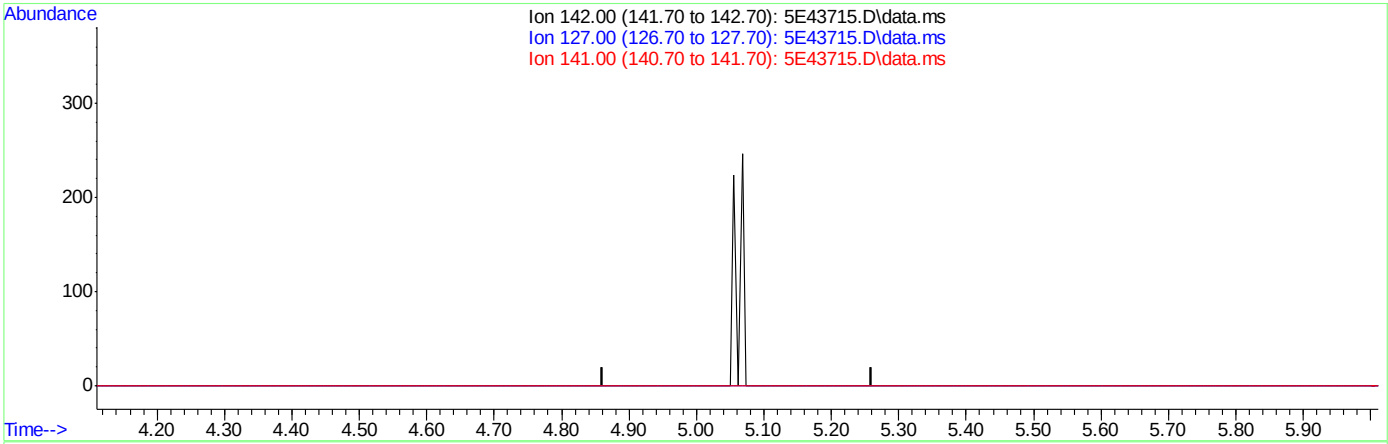
Sample Number: V5E1953-IC1953
Lab FileID: 5E43715.D
Injection Time: 11/07/23 13:00
Method: SW846 8260D
Analyst approved: 11/08/23 10:16 Jo-Ann Lugo De Jesus
Supervisor approved: 11/08/23 13:31 Karen Watson

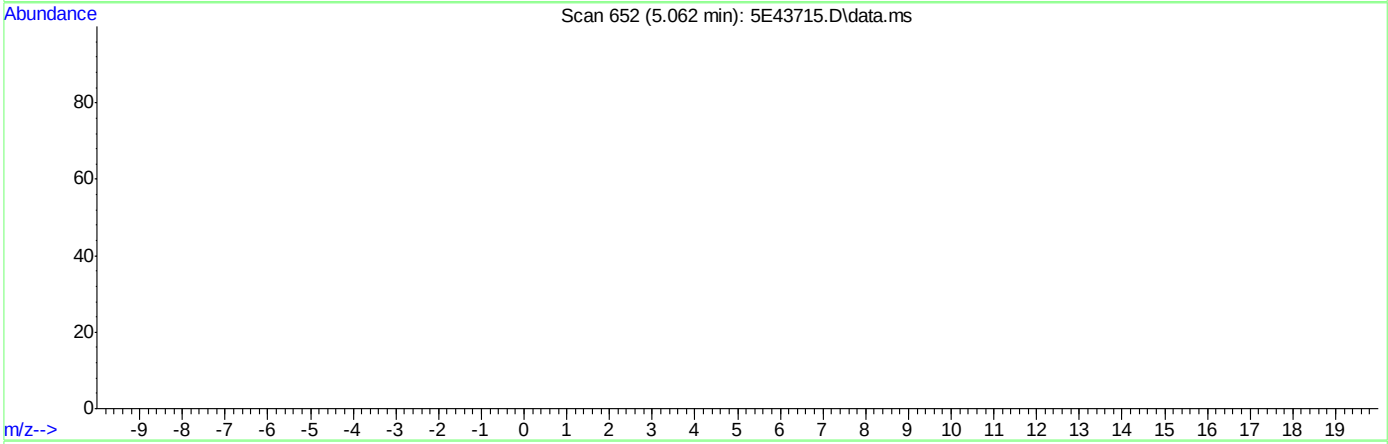
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methyl Iodide	74-88-4		5.07	Missed peak
1,4-Dichlorobenzene	106-46-7		13.97	Missed peak
Benzyl Chloride	100-44-7		14.21	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(15) Iodomethane

5.061min (-5.061) 0.00ug/L

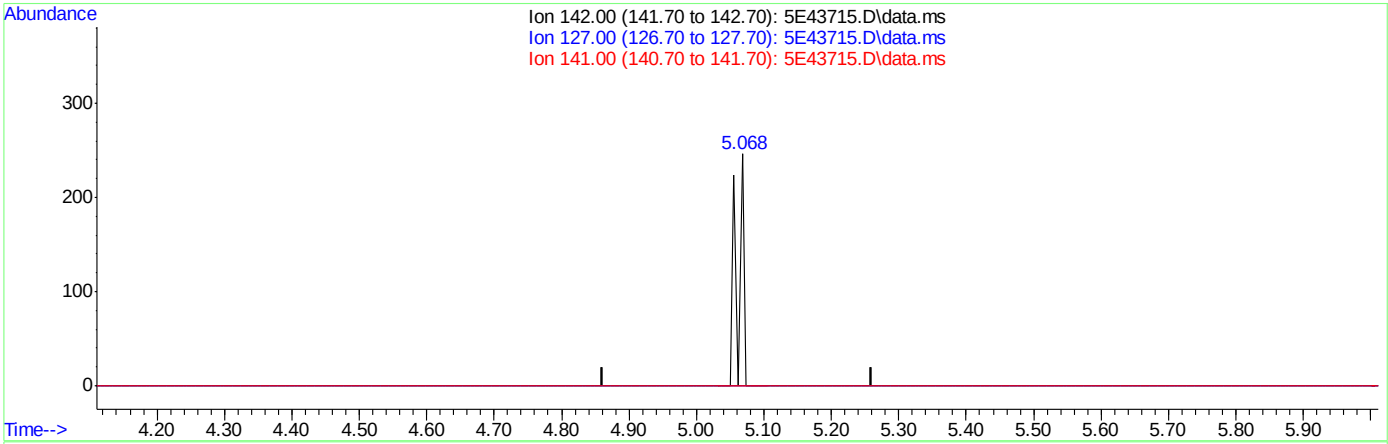
response 0

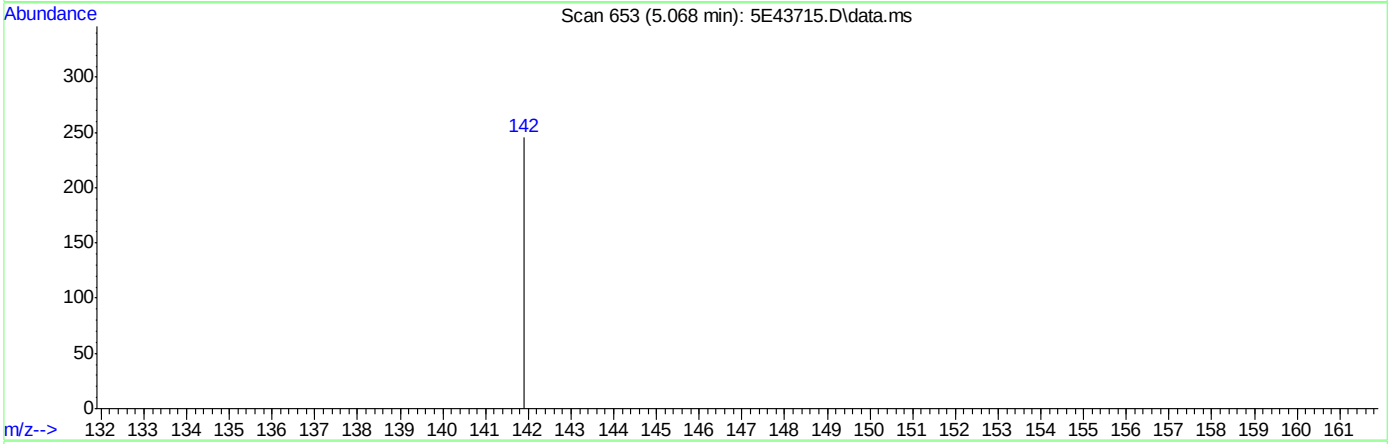
Ion	Exp%	Act%
142.00	100	0.00
127.00	47.60	0.00#
141.00	14.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(15) Iodomethane

5.068min (+0.007) 0.39ug/L m

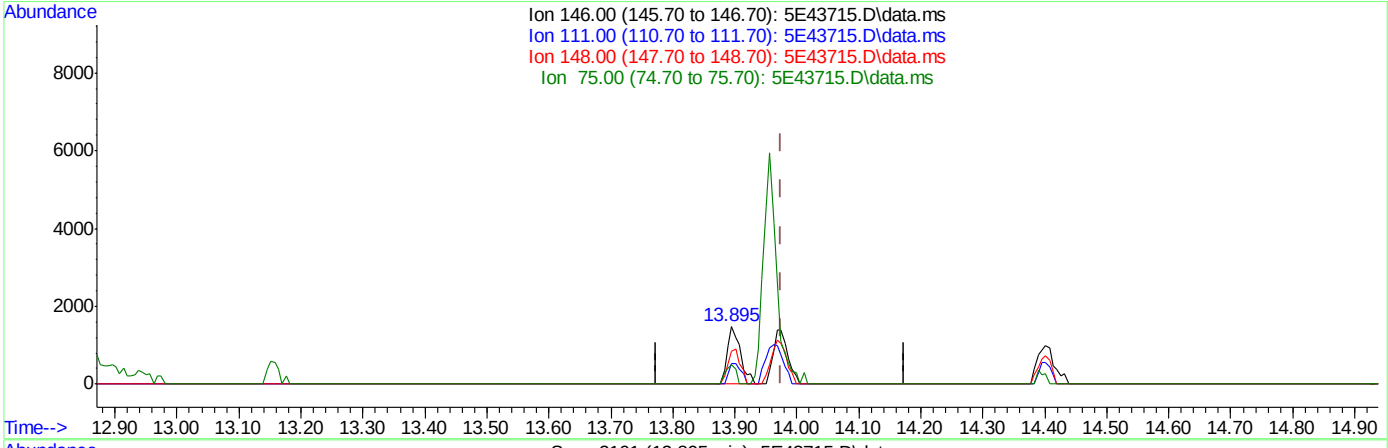
response 172

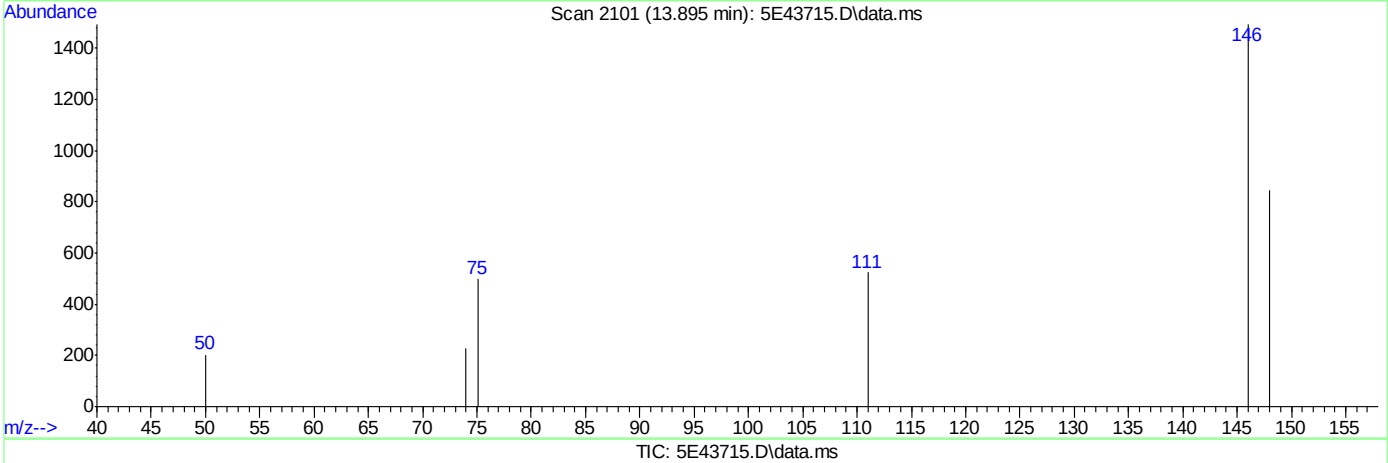
Ion	Exp%	Act%
142.00	100	100
127.00	47.60	0.00#
141.00	14.50	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(105) 1,4-Dichlorobenzene

13.895min (-0.079) 0.88ug/L

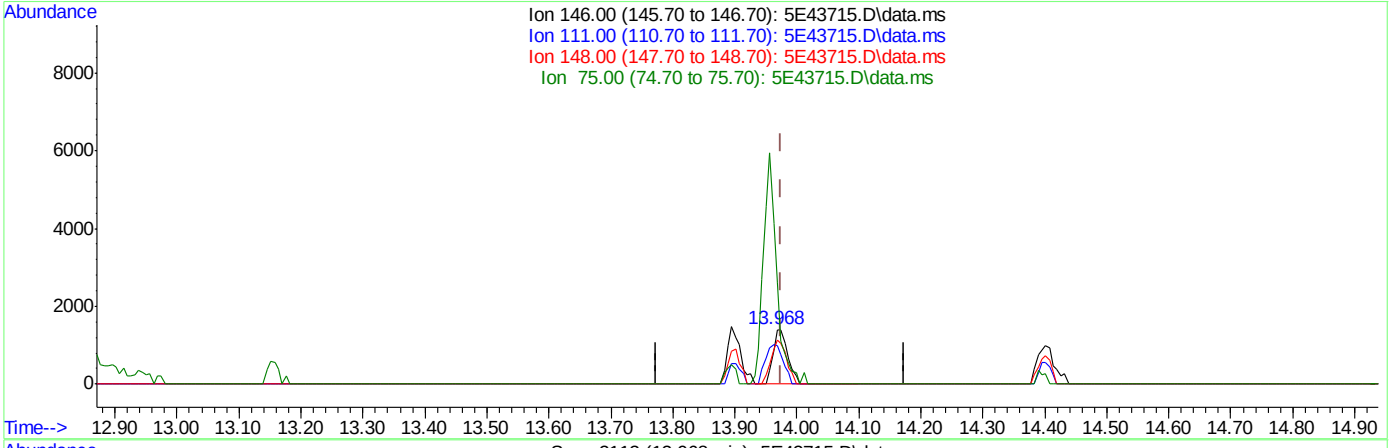
response 2168

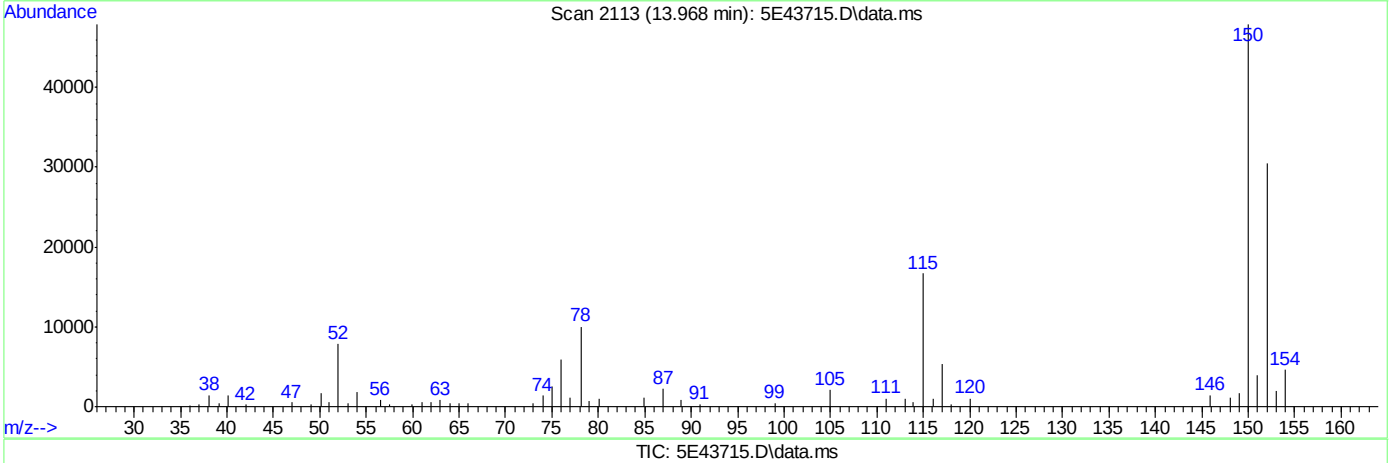
Ion	Exp%	Act%
146.00	100	100
111.00	37.80	35.10
148.00	64.70	56.60
75.00	29.40	33.42

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(105) 1,4-Dichlorobenzene

13.968min (-0.006) 0.94ug/L m

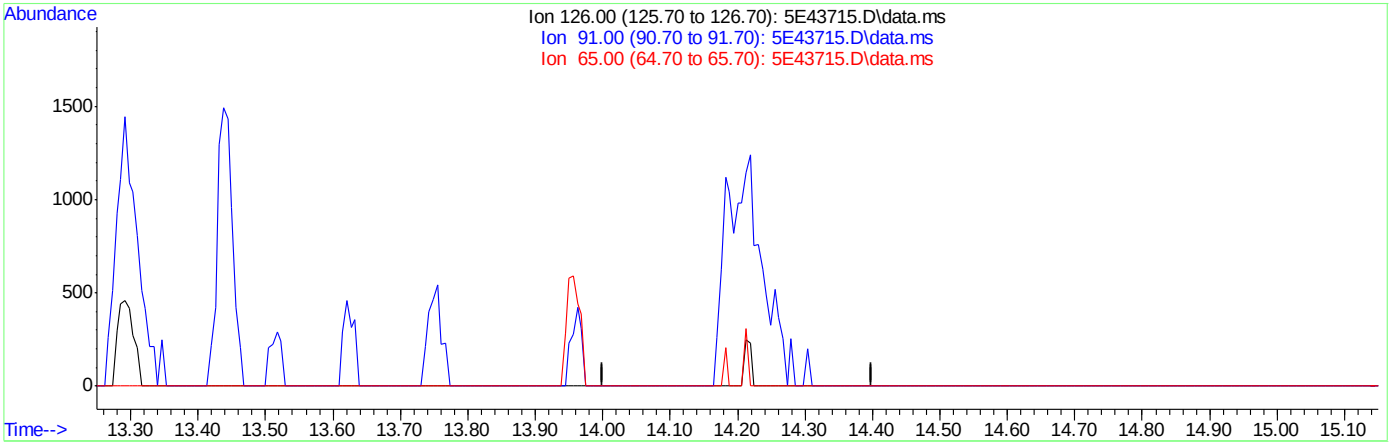
response 2314

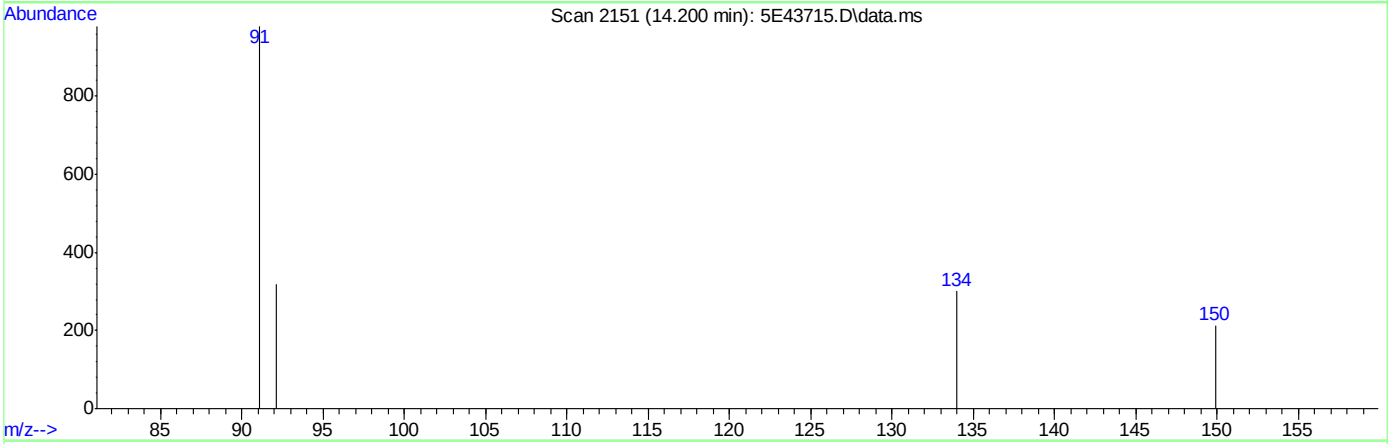
Ion	Exp%	Act%
146.00	100	100
111.00	37.80	70.55#
148.00	64.70	81.58
75.00	29.40	184.50#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(107) Benzyl Chloride

14.200min (-14.200) 0.00ug/L

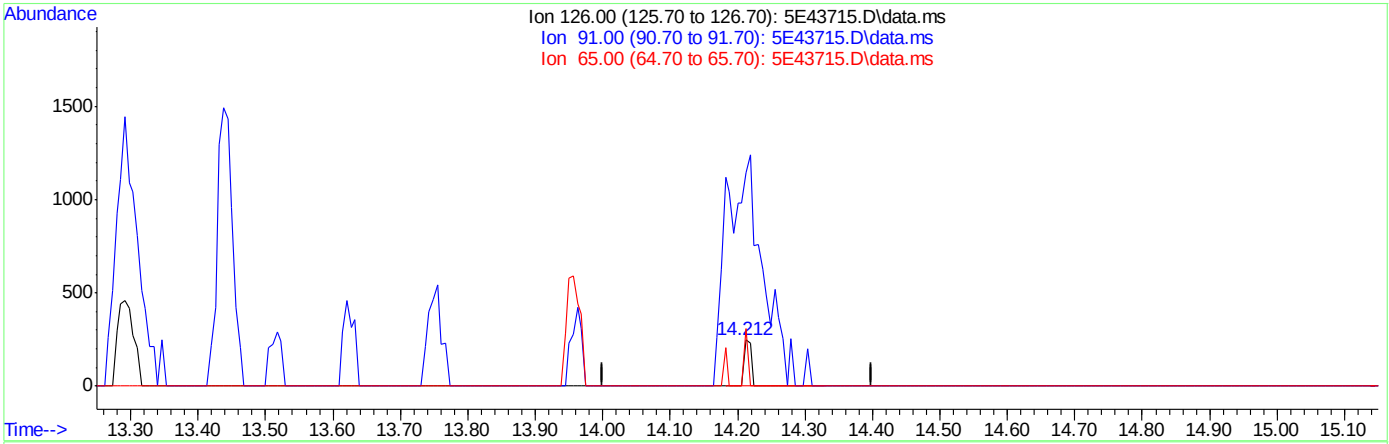
response 0

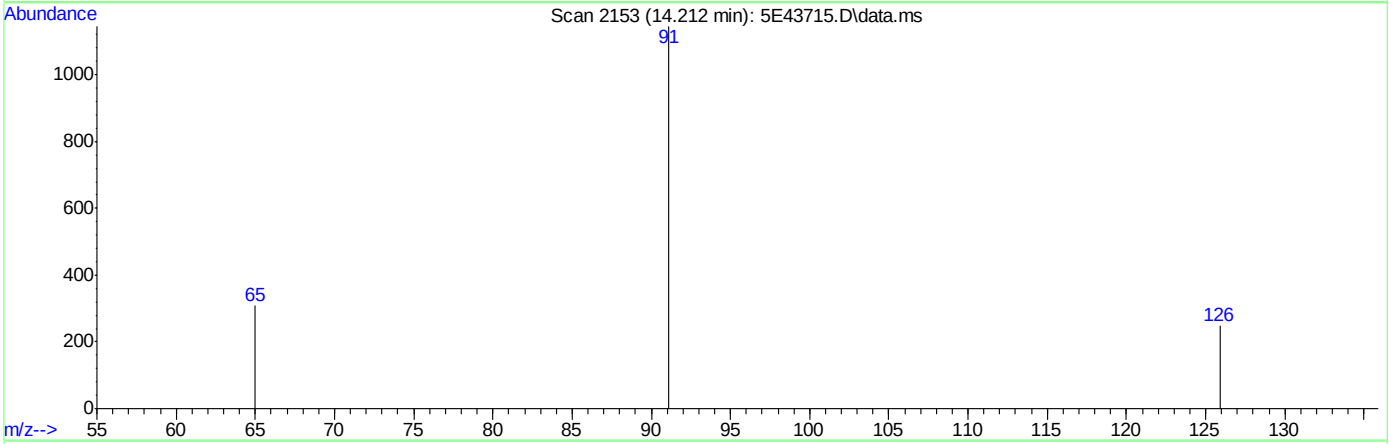
Ion	Exp%	Act%
126.00	100	0.00
91.00	500.80	0.00#
65.00	55.90	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43715.D
Acq On : 7 Nov 2023 1:00 pm
Operator : joannel
Sample : IC1953-1
Misc : MS55196,V5E1953,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 14:41:57 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43715.D\data.ms

(107) Benzyl Chloride

14.212min (+0.012) 0.42ug/L m

response 175

Ion	Exp%	Act%
126.00	100	100
91.00	500.80	461.69#
65.00	55.90	124.19#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/08/23 13:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:49:49 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	8.463	96	216325	50.00	ug/L		0.00
61) Chlorobenzene-d5	11.597	117	170335	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	98302	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	7.604	113	70593	53.92	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.84%				
49) 1,2-Dichloroethane-d4	8.183	65	82245	56.10	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.20%				
62) Toluene-d8	10.036	98	211586	46.22	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 92.44%				
86) 4-Bromofluorobenzene	12.816	95	85116	49.46	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.806	85	1813	2.81	ug/L		75
3) Chloromethane	3.129	50	1906	1.99	ug/L		97
4) Vinyl Chloride	3.263	62	1504	1.97	ug/L		94
5) 1,3-Butadiene	3.294	39	2013	2.01	ug/L		99
6) Bromomethane	3.769	94	788	2.36	ug/L		78
7) Chloroethane	3.958	64	895	1.86	ug/L		71
8) Trichlorofluoromethane	4.165	101	3848	2.75	ug/L		94
9) Ethyl Ether	4.574	59	1377	1.88	ug/L	#	83
11) 1,2-Dichlorotrifluoroe...	4.830	67	1694	1.87	ug/L	#	78
12) 1,1-Dichloroethene	4.860	61	2672	2.04	ug/L		93
13) Freon 113	4.903	101	1629	1.97	ug/L		90
14) Carbon Disulfide	4.927	76	5168	2.04	ug/L		87
15) Iodomethane	5.055	142	380	0.88	ug/L		83
16) Acrolein	5.305	56	1463	6.27	ug/L		70
17) Allyl chloride	5.464	41	1710	1.59	ug/L	#	73
18) Methylene Chloride	5.592	49	4178	3.10	ug/L		91
19) Acetone	5.653	43	2182	6.84	ug/L		45
20) Methyl acetate	5.793	43	8285	9.58	ug/L		93
21) trans-1,2-Dichloroethene	5.799	61	2420	1.91	ug/L		90
22) Hexane	5.885	56	1272	1.45	ug/L	#	58
23) Methyl Tert Butyl Ether	5.897	73	5885	2.23	ug/L		94
24) Acetonitrile	6.232	41	1869	14.12	ug/L		81
25) Di-isopropyl ether	6.323	45	5489	1.80	ug/L		99
26) Chloroprene	6.494	53	2167	1.65	ug/L		95
27) 1,1-Dichloroethane	6.525	63	3335	2.00	ug/L		89
28) Acrylonitrile	6.586	53	4462	10.31	ug/L		89
29) ETBE	6.744	59	5935	2.00	ug/L		94
30) Tert Butyl Alcohol	5.976	59	2962	17.55	ug/L		84
31) Vinyl acetate	6.781	43	21437	9.72	ug/L		99
32) cis-1,2-Dichloroethene	7.140	96	1909	2.03	ug/L		78
33) 2,2-Dichloropropane	7.250	77	3014	2.34	ug/L		98
34) Bromochloromethane	7.366	128	1006	2.18	ug/L	#	54
35) Cyclohexane	7.366	56	2921	1.81	ug/L		91
36) Chloroform	7.409	83	3901	2.28	ug/L		86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:49:49 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Ethyl acetate	7.518	43	12726	10.37	ug/L		94
38)	Tetrahydrofuran	7.610	42	478	1.18	ug/L	#	28
40)	Carbon Tetrachloride	7.592	117	3317	2.37	ug/L		91
41)	1,1,1-Trichloroethane	7.652	97	3560	2.32	ug/L		88
42)	2-Butanone	7.744	43	3891	7.03	ug/L		94
43)	1,1-Dichloropropene	7.787	75	1987	1.75	ug/L		71
44)	tert-Butyl formate	7.872	59	9331	21.99	ug/L		93
45)	Propionitrile	8.061	54	2939	15.03	ug/L		88
46)	Methacrylonitrile	8.079	41	13678	17.33	ug/L		94
47)	Benzene	8.049	78	6910	2.07	ug/L		81
48)	TAME	8.122	73	5306	2.04	ug/L		88
50)	1,2-Dichloroethane	8.256	62	2825	2.05	ug/L		84
51)	tert Amyl alcohol	8.287	59	2103	15.08	ug/L	#	79
52)	Trichloroethene	8.646	95	1965	2.02	ug/L		92
53)	Methylcyclohexane	8.646	83	2572	1.71	ug/L		94
54)	Dibromomethane	9.091	93	1257	2.01	ug/L		90
55)	1,2-Dichloropropane	9.177	63	1472	1.74	ug/L		82
56)	Bromodichloromethane	9.219	83	2890	2.19	ug/L		95
57)	Methyl methacrylate	9.353	41	1089	1.11	ug/L	#	52
59)	2-Chloroethyl vinyl ether	9.768	63	2606	5.10	ug/L		85
60)	cis-1,3-Dichloropropene	9.859	75	2520	1.93	ug/L		94
63)	Toluene	10.091	91	7625	1.90	ug/L		94
64)	Isobutyl alcohol	8.195	43	1410	20.29	ug/L	#	57
65)	2-Nitropropane	10.323	41	3323	9.56	ug/L		86
66)	4-Methyl-2-pentanone	10.432	43	8160	6.55	ug/L		91
67)	trans-1,3-Dichloropropene	10.499	75	2099	1.60	ug/L		76
68)	Tetrachloroethene	10.493	166	2264	1.87	ug/L		81
69)	Ethyl methacrylate	10.615	69	1085	0.90	ug/L	#	52
70)	1,1,2-Trichloroethane	10.658	83	1164	1.56	ug/L		97
71)	Dibromochloromethane	10.853	129	2216	1.94	ug/L		98
72)	1,3-Dichloropropane	10.945	76	2629	1.85	ug/L		95
73)	1,2-Dibromoethane	11.121	107	1654	1.70	ug/L		96
74)	3,3-Dimethyl-1-butanol	11.194	57	10156	77.16	ug/L		97
75)	2-hexanone	11.262	43	4214	4.34	ug/L		80
76)	1-Chlorohexane	11.548	91	1907	1.34	ug/L		89
77)	Ethylbenzene	11.615	91	9834	2.10	ug/L		88
78)	Chlorobenzene	11.621	112	5001	1.82	ug/L		90
79)	1,1,1,2-Tetrachloroethane	11.664	131	2213	2.09	ug/L	#	66
80)	m,p-Xylene	11.749	91	14318	3.96	ug/L		95
81)	o-Xylene	12.194	91	7288	2.00	ug/L		95
82)	Styrene	12.255	104	4450	1.73	ug/L		90
83)	Bromoform	12.310	173	1113	1.39	ug/L		82
84)	Isopropylbenzene	12.499	105	8949	1.96	ug/L		95
88)	n-Propylbenzene	12.920	91	10728	1.99	ug/L		98
89)	Bromobenzene	12.950	156	2327	2.10	ug/L		86
90)	1,1,2,2-Tetrachloroethane	12.981	83	2386	1.73	ug/L		87
91)	1,3,5-Trimethylbenzene	13.097	105	7115	1.84	ug/L		93
92)	2-Chlorotoluene	13.115	91	7012	1.93	ug/L		94
94)	1,2,3-Trichloropropane	13.151	110	730	1.80	ug/L	#	67
96)	4-Chlorotoluene	13.279	91	6147	1.89	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:49:49 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

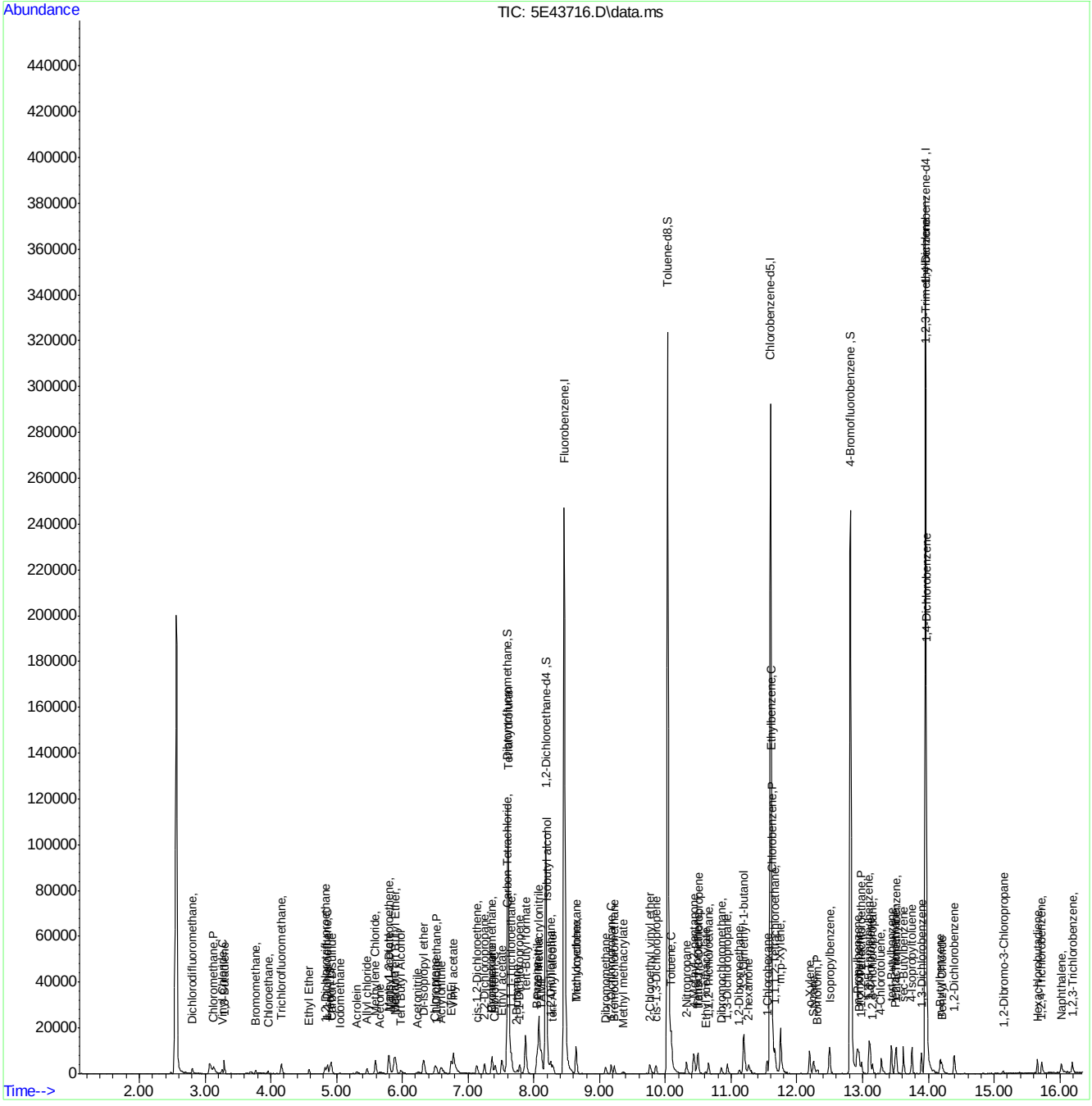
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
98)	tert-Butylbenzene	13.438	91	4436	1.98	ug/L		99
99)	1,2,4-Trimethylbenzene	13.511	105	6937	1.85	ug/L		89
100)	Pentachloroethane	13.499	167	1263	2.15	ug/L	#	69
101)	sec-Butylbenzene	13.621	105	8380	1.71	ug/L		95
102)	4-Isopropyltoluene	13.749	119	7579	1.81	ug/L		95
103)	1,3-Dichlorobenzene	13.895	146	4610	2.04	ug/L		94
104)	1,2,3-Trimethylbenzene	13.962	105	7793	1.96	ug/L	#	72
105)	1,4-Dichlorobenzene	13.968	146	5240m	2.18	ug/L		
106)	n-Butylbenzene	14.176	92	3286	1.56	ug/L		96
107)	Benzyl Chloride	14.206	126	437	1.06	ug/L	#	49
108)	1,2-Dichlorobenzene	14.395	146	4256	1.97	ug/L		96
109)	1,2-Dibromo-3-Chloropr...	15.139	75	290	1.13	ug/L	#	75
110)	Hexachlorobutadiene	15.663	225	1050	1.78	ug/L		88
111)	1,2,4-Trichlorobenzene	15.718	180	2106	1.50	ug/L		86
112)	Naphthalene	16.023	128	5525	1.50	ug/L		96
113)	1,2,3-Trichlorobenzene	16.187	180	2183	1.74	ug/L		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:49:49 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V5E1953-IC1953
Lab FileID: 5E43716.D
Injection Time: 11/07/23 13:23

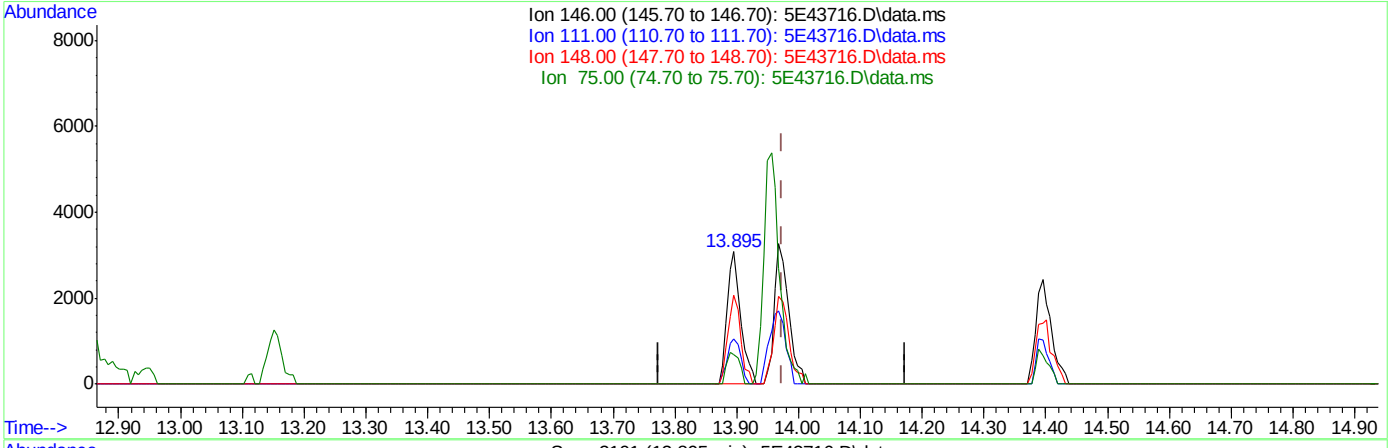
Method: SW846 8260D
Analyst approved: 11/08/23 10:16 Jo-Ann Lugo De Jesus
Supervisor approved: 11/08/23 13:31 Karen Watson

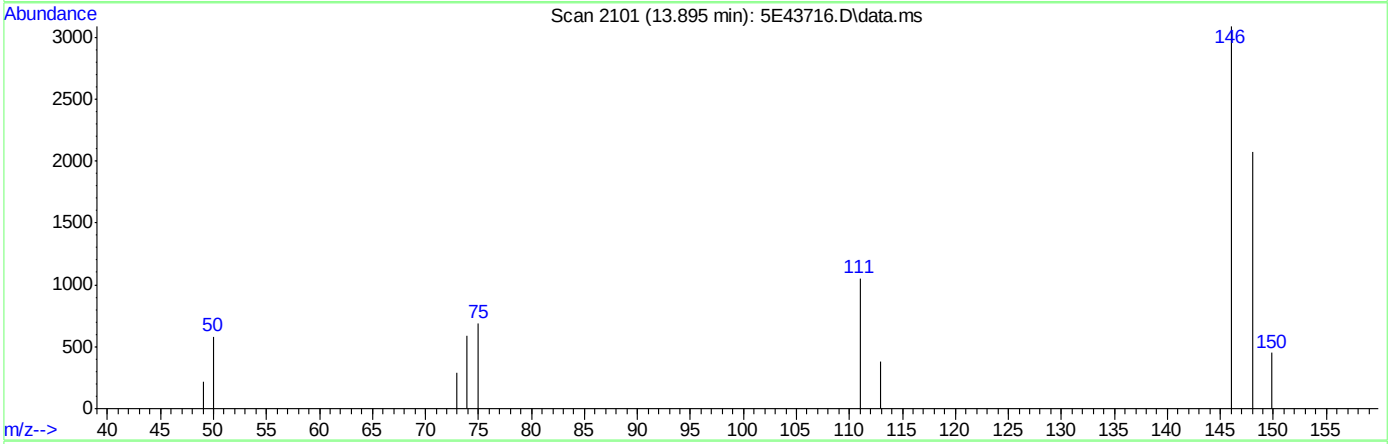
Parameter	CAS	Sig#	R.T. (min.)	Reason
1,4-Dichlorobenzene	106-46-7		13.97	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:41:59 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43716.D\data.ms

(105) 1,4-Dichlorobenzene

13.895min (-0.079) 1.92ug/L

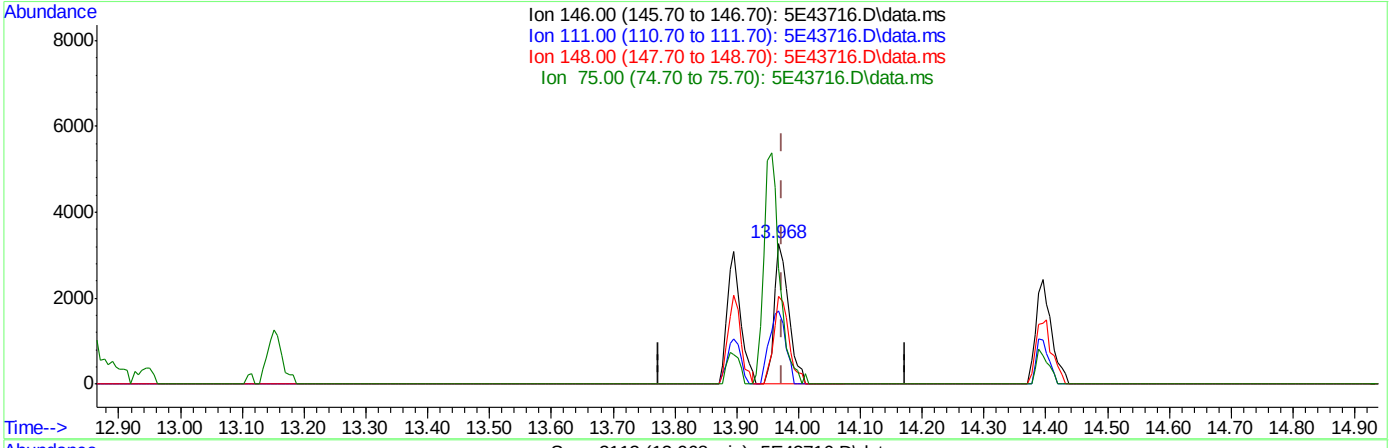
response 4610

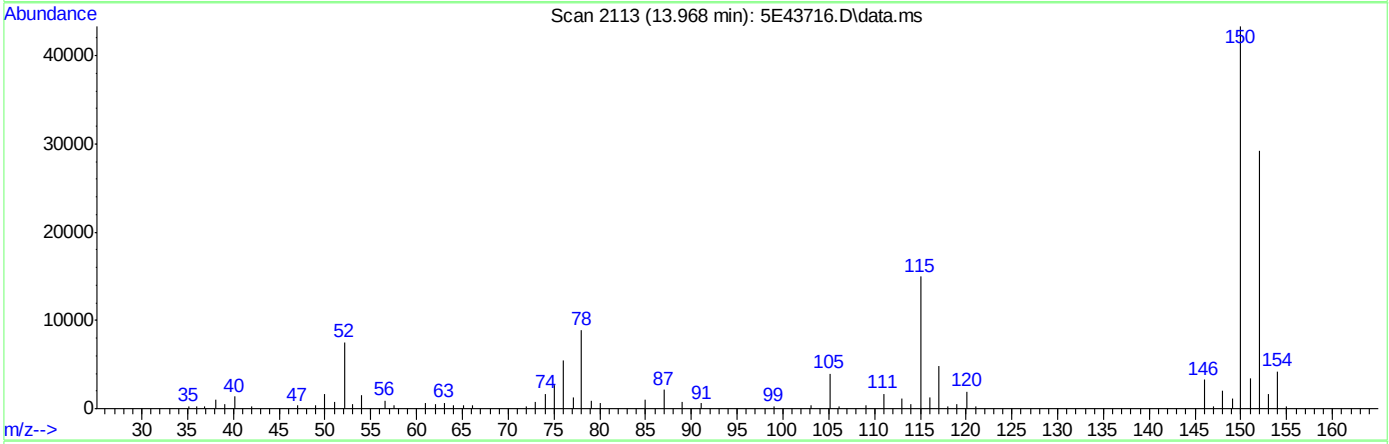
Ion	Exp%	Act%
146.00	100	100
111.00	37.80	34.06
148.00	64.70	67.27
75.00	29.40	22.29

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43716.D
Acq On : 7 Nov 2023 1:23 pm
Operator : joannel
Sample : IC1953-8
Misc : MS55196,V5E1953,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 14:41:59 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration





TIC: 5E43716.D\data.ms

(105) 1,4-Dichlorobenzene

13.968min (-0.006) 2.18ug/L m

response 5240

Ion	Exp%	Act%
146.00	100	100
111.00	37.80	52.09
148.00	64.70	62.60
75.00	29.40	82.00#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43717.D
Acq On : 7 Nov 2023 1:46 pm
Operator : joannel
Sample : IC1953-2
Misc : MS55196,V5E1953,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 14:42:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	8.464	96	214664	50.00	ug/L		0.00
61) Chlorobenzene-d5	11.597	117	164849	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	99202	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	7.604	113	68648	52.84	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.68%				
49) 1,2-Dichloroethane-d4	8.183	65	81589	56.09	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.18%				
62) Toluene-d8	10.036	98	210462	47.50	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 95.00%				
86) 4-Bromofluorobenzene	12.816	95	84599	48.71	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.42%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.806	85	4200	6.56	ug/L		94
3) Chloromethane	3.135	50	5054	5.33	ug/L		96
4) Vinyl Chloride	3.263	62	3547	4.68	ug/L		96
5) 1,3-Butadiene	3.294	39	4478	4.50	ug/L		87
6) Bromomethane	3.769	94	2280	6.88	ug/L		88
7) Chloroethane	3.958	64	2403	5.03	ug/L		74
8) Trichlorofluoromethane	4.159	101	8060	5.80	ug/L		93
9) Ethyl Ether	4.574	59	4312	5.94	ug/L	#	78
11) 1,2-Dichlorotrifluoroe...	4.824	67	5213	5.79	ug/L		91
12) 1,1-Dichloroethene	4.861	61	8147	6.27	ug/L		97
13) Freon 113	4.903	101	4741	5.77	ug/L	#	87
14) Carbon Disulfide	4.922	76	13896	5.54	ug/L		92
15) Iodomethane	5.056	142	2202	5.02	ug/L		96
16) Acrolein	5.300	56	2672	11.54	ug/L		94
17) Allyl chloride	5.458	41	3870	3.62	ug/L		96
18) Methylene Chloride	5.592	49	8935	6.69	ug/L		96
19) Acetone	5.653	43	7675	24.23	ug/L		90
20) Methyl acetate	5.787	43	20619	24.04	ug/L		97
21) trans-1,2-Dichloroethene	5.793	61	7360	5.84	ug/L		90
22) Hexane	5.873	56	4287	4.92	ug/L	#	88
23) Methyl Tert Butyl Ether	5.897	73	15887	6.06	ug/L		96
24) Acetonitrile	6.226	41	3916	29.82	ug/L		95
25) Di-isopropyl ether	6.324	45	15526	5.14	ug/L		90
26) Chloroprene	6.488	53	5457	4.19	ug/L		93
27) 1,1-Dichloroethane	6.513	63	9057	5.48	ug/L		93
28) Acrylonitrile	6.580	53	9611	22.38	ug/L		88
29) ETBE	6.738	59	16488	5.60	ug/L		99
30) Tert Butyl Alcohol	5.976	59	8745	52.20	ug/L		96
31) Vinyl acetate	6.775	43	45484	20.79	ug/L		94
32) cis-1,2-Dichloroethene	7.128	96	5447	5.84	ug/L		88
33) 2,2-Dichloropropane	7.250	77	9033	7.07	ug/L		98
34) Bromochloromethane	7.354	128	2895	6.32	ug/L		87
35) Cyclohexane	7.372	56	8461	5.29	ug/L		92
36) Chloroform	7.409	83	10949	6.46	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43717.D
Acq On : 7 Nov 2023 1:46 pm
Operator : joannel
Sample : IC1953-2
Misc : MS55196,V5E1953,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 14:42:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Ethyl acetate	7.506	43	25583	21.02	ug/L		97
38)	Tetrahydrofuran	7.604	42	2278	5.68	ug/L		86
40)	Carbon Tetrachloride	7.586	117	9752	7.02	ug/L		95
41)	1,1,1-Trichloroethane	7.659	97	10862	7.12	ug/L		95
42)	2-Butanone	7.738	43	13381	24.37	ug/L		99
43)	1,1-Dichloropropene	7.787	75	6743	6.00	ug/L		91
44)	tert-Butyl formate	7.872	59	22092	52.46	ug/L		91
45)	Propionitrile	8.061	54	7102	36.59	ug/L	#	78
46)	Methacrylonitrile	8.079	41	28662	36.59	ug/L		98
47)	Benzene	8.049	78	19279	5.81	ug/L		89
48)	TAME	8.116	73	15821	6.12	ug/L		94
50)	1,2-Dichloroethane	8.256	62	9091	6.65	ug/L		95
51)	tert Amyl alcohol	8.287	59	6488	46.89	ug/L		81
52)	Trichloroethene	8.646	95	5642	5.85	ug/L		95
53)	Methylcyclohexane	8.646	83	7802	5.21	ug/L		96
54)	Dibromomethane	9.085	93	3441	5.53	ug/L		96
55)	1,2-Dichloropropane	9.177	63	4784	5.69	ug/L		90
56)	Bromodichloromethane	9.226	83	8134	6.21	ug/L		96
57)	Methyl methacrylate	9.335	41	3065	3.15	ug/L		90
58)	1,4-Dioxane	9.421	88	878	78.88	ug/L	#	22
59)	2-Chloroethyl vinyl ether	9.756	63	7237	14.26	ug/L		95
60)	cis-1,3-Dichloropropene	9.854	75	7377	5.68	ug/L		96
63)	Toluene	10.085	91	21710	5.60	ug/L		95
64)	Isobutyl alcohol	8.183	43	3876	57.63	ug/L		89
65)	2-Nitropropane	10.317	41	9649	28.70	ug/L		91
66)	4-Methyl-2-pentanone	10.427	43	26148	21.68	ug/L		98
67)	trans-1,3-Dichloropropene	10.494	75	6917	5.46	ug/L		96
68)	Tetrachloroethene	10.494	166	6722	5.73	ug/L		89
69)	Ethyl methacrylate	10.597	69	3364	2.89	ug/L		86
70)	1,1,2-Trichloroethane	10.658	83	4106	5.68	ug/L		96
71)	Dibromochloromethane	10.853	129	6201	5.61	ug/L		97
72)	1,3-Dichloropropane	10.939	76	7614	5.54	ug/L		94
73)	1,2-Dibromoethane	11.115	107	5514	5.87	ug/L		83
74)	3,3-Dimethyl-1-butanol	11.189	57	23008	180.63	ug/L		98
75)	2-hexanone	11.256	43	18004	19.18	ug/L		92
76)	1-Chlorohexane	11.548	91	6497	4.71	ug/L		97
77)	Ethylbenzene	11.609	91	26014	5.73	ug/L		96
78)	Chlorobenzene	11.621	112	16243	6.12	ug/L		99
79)	1,1,1,2-Tetrachloroethane	11.664	131	6338	6.20	ug/L		92
80)	m,p-Xylene	11.749	91	42015	12.01	ug/L		98
81)	o-Xylene	12.195	91	20018	5.69	ug/L		100
82)	Styrene	12.249	104	13834	5.56	ug/L		97
83)	Bromoform	12.310	173	4291	5.55	ug/L		93
84)	Isopropylbenzene	12.493	105	24097	5.46	ug/L		99
87)	cis-1,4-Dichloro-2-butene	12.865	53	416	1.53	ug/L	#	87
88)	n-Propylbenzene	12.914	91	28935	5.31	ug/L		97
89)	Bromobenzene	12.944	156	6950	6.21	ug/L		94
90)	1,1,2,2-Tetrachloroethane	12.981	83	6941	5.00	ug/L		96
91)	1,3,5-Trimethylbenzene	13.097	105	21711	5.58	ug/L		98
92)	2-Chlorotoluene	13.109	91	20656	5.65	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43717.D
Acq On : 7 Nov 2023 1:46 pm
Operator : joannel
Sample : IC1953-2
Misc : MS55196,V5E1953,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 14:42:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

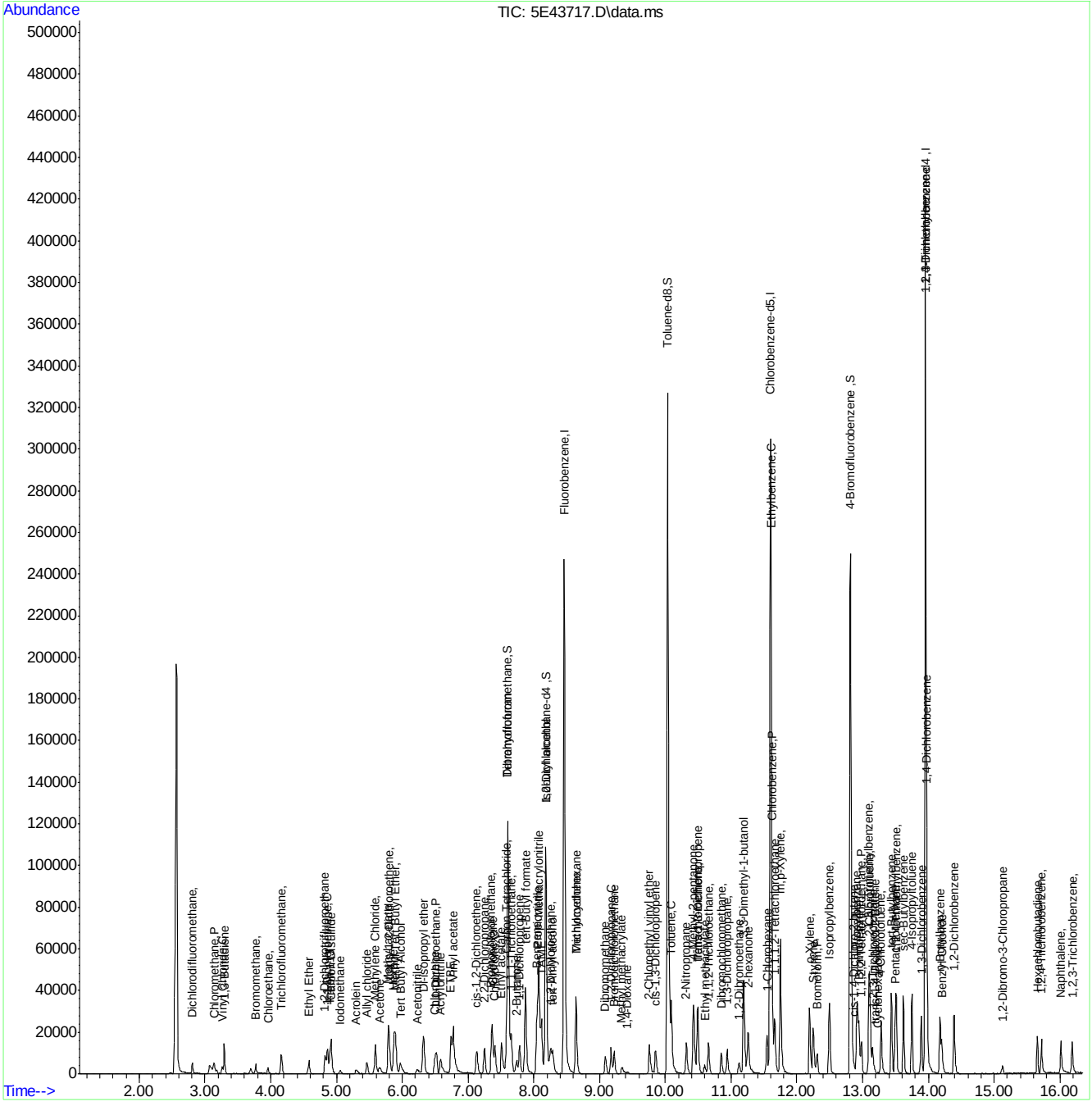
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	trans-1,4-Dichloro-2-B...	13.182	53	703	2.32	ug/L	#	84
94)	1,2,3-Trichloropropane	13.158	110	2699	6.59	ug/L		85
95)	Cyclohexanone	13.225	55	801	18.44	ug/L	#	64
96)	4-Chlorotoluene	13.280	91	18577	5.67	ug/L		95
98)	tert-Butylbenzene	13.438	91	12168	5.39	ug/L		94
99)	1,2,4-Trimethylbenzene	13.511	105	20678	5.47	ug/L		97
100)	Pentachloroethane	13.493	167	2802	4.72	ug/L		92
101)	sec-Butylbenzene	13.621	105	26262	5.30	ug/L		99
102)	4-Isopropyltoluene	13.749	119	22846	5.42	ug/L		95
103)	1,3-Dichlorobenzene	13.895	146	12707	5.57	ug/L		98
104)	1,2,3-Trimethylbenzene	13.962	105	22272	5.54	ug/L		91
105)	1,4-Dichlorobenzene	13.975	146	14538	5.99	ug/L		94
106)	n-Butylbenzene	14.176	92	10410	4.87	ug/L		97
107)	Benzyl Chloride	14.206	126	2324	5.50	ug/L	#	84
108)	1,2-Dichlorobenzene	14.395	146	12981	5.96	ug/L		95
109)	1,2-Dibromo-3-Chloropr...	15.127	75	1295	4.96	ug/L	#	71
110)	Hexachlorobutadiene	15.657	225	2951	4.96	ug/L		96
111)	1,2,4-Trichlorobenzene	15.718	180	6904	4.87	ug/L		96
112)	Naphthalene	16.011	128	16125	4.32	ug/L		92
113)	1,2,3-Trichlorobenzene	16.188	180	5825	4.60	ug/L		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43717.D
Acq On : 7 Nov 2023 1:46 pm
Operator : joannel
Sample : IC1953-2
Misc : MS55196,V5E1953,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 14:42:01 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43718.D
Acq On : 7 Nov 2023 2:09 pm
Operator : joannel
Sample : IC1953-3
Misc : MS55196,V5E1953,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 14:42:03 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	8.463	96	217302	50.00	ug/L		0.00
61) Chlorobenzene-d5	11.597	117	167325	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	100484	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	7.604	113	70678	53.74	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.48%				
49) 1,2-Dichloroethane-d4	8.183	65	82770	56.21	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.42%				
62) Toluene-d8	10.036	98	214487	47.69	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 95.38%				
86) 4-Bromofluorobenzene	12.810	95	86289	49.05	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.10%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.806	85	6769	10.44	ug/L		93
3) Chloromethane	3.135	50	8031	8.36	ug/L		93
4) Vinyl Chloride	3.263	62	6041	7.88	ug/L		94
5) 1,3-Butadiene	3.294	39	9995	9.92	ug/L		98
6) Bromomethane	3.769	94	3990	11.89	ug/L		92
7) Chloroethane	3.958	64	4338	8.98	ug/L		93
8) Trichlorofluoromethane	4.159	101	13106	9.32	ug/L		98
9) Ethyl Ether	4.580	59	7312	9.95	ug/L		97
10) Ethanol	4.781	45	582	47.30	ug/L	#	39
11) 1,2-Dichlorotrifluoroe...	4.824	67	8653	9.50	ug/L		87
12) 1,1-Dichloroethene	4.860	61	14121	10.73	ug/L		97
13) Freon 113	4.903	101	8698	10.45	ug/L		95
14) Carbon Disulfide	4.921	76	25307	9.96	ug/L		99
15) Iodomethane	5.055	142	4356	9.54	ug/L		87
16) Acrolein	5.293	56	8891	37.92	ug/L		100
17) Allyl chloride	5.458	41	10569	9.76	ug/L		92
18) Methylene Chloride	5.586	49	14603	10.80	ug/L		97
19) Acetone	5.641	43	16544	51.60	ug/L		97
20) Methyl acetate	5.781	43	37886	43.63	ug/L		98
21) trans-1,2-Dichloroethene	5.799	61	13108	10.27	ug/L		94
22) Hexane	5.878	56	8145	9.23	ug/L		97
23) Methyl Tert Butyl Ether	5.897	73	29700	11.19	ug/L		95
24) Acetonitrile	6.214	41	11109	83.57	ug/L		97
25) Di-isopropyl ether	6.317	45	29017	9.49	ug/L		99
26) Chloroprene	6.488	53	13975	10.59	ug/L		93
27) 1,1-Dichloroethane	6.512	63	17240	10.30	ug/L		96
28) Acrylonitrile	6.579	53	19297	44.39	ug/L		99
29) ETBE	6.738	59	31540	10.58	ug/L		100
30) Tert Butyl Alcohol	5.976	59	17303	102.04	ug/L		96
31) Vinyl acetate	6.768	43	100430	45.34	ug/L		98
32) cis-1,2-Dichloroethene	7.128	96	10203	10.81	ug/L		94
33) 2,2-Dichloropropane	7.250	77	15044	11.64	ug/L		96
34) Bromochloromethane	7.354	128	5598	12.07	ug/L	#	75
35) Cyclohexane	7.366	56	14901	9.21	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43718.D
Acq On : 7 Nov 2023 2:09 pm
Operator : joannel
Sample : IC1953-3
Misc : MS55196,V5E1953,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 14:42:03 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	7.409	83	19382	11.30	ug/L		98
37) Ethyl acetate	7.506	43	53648	43.54	ug/L		98
38) Tetrahydrofuran	7.604	42	3531	8.70	ug/L		96
40) Carbon Tetrachloride	7.585	117	17075	12.15	ug/L		96
41) 1,1,1-Trichloroethane	7.652	97	18435	11.94	ug/L		95
42) 2-Butanone	7.732	43	25303	45.53	ug/L		99
43) 1,1-Dichloropropene	7.780	75	12188	10.71	ug/L		93
44) tert-Butyl formate	7.872	59	44980	105.52	ug/L		96
45) Propionitrile	8.055	54	18918	96.29	ug/L		92
46) Methacrylonitrile	8.073	41	71139	89.72	ug/L		98
47) Benzene	8.043	78	35229	10.49	ug/L		93
48) TAME	8.116	73	28020	10.71	ug/L		99
50) 1,2-Dichloroethane	8.250	62	16176	11.69	ug/L		91
51) tert Amyl alcohol	8.286	59	12704	90.70	ug/L		94
52) Trichloroethene	8.640	95	10672	10.93	ug/L		95
53) Methylcyclohexane	8.640	83	14000	9.24	ug/L		95
54) Dibromomethane	9.085	93	6541	10.39	ug/L		97
55) 1,2-Dichloropropane	9.177	63	8429	9.90	ug/L		87
56) Bromodichloromethane	9.219	83	15610	11.77	ug/L		94
57) Methyl methacrylate	9.335	41	8499	8.62	ug/L		91
58) 1,4-Dioxane	9.420	88	2303	201.74	ug/L		70
59) 2-Chloroethyl vinyl ether	9.750	63	14487	28.21	ug/L		96
60) cis-1,3-Dichloropropene	9.847	75	13912	10.59	ug/L		97
63) Toluene	10.091	91	39259	9.98	ug/L		94
64) Isobutyl alcohol	8.177	43	9466	138.66	ug/L		96
65) 2-Nitropropane	10.317	41	18139	53.15	ug/L		94
66) 4-Methyl-2-pentanone	10.426	43	54767	44.74	ug/L		98
67) trans-1,3-Dichloropropene	10.487	75	13805	10.74	ug/L		97
68) Tetrachloroethene	10.493	166	12444	10.45	ug/L		89
69) Ethyl methacrylate	10.591	69	9916	8.40	ug/L		96
70) 1,1,2-Trichloroethane	10.652	83	7171	9.77	ug/L		94
71) Dibromochloromethane	10.847	129	12954	11.55	ug/L		98
72) 1,3-Dichloropropane	10.938	76	14959	10.72	ug/L		95
73) 1,2-Dibromoethane	11.115	107	10281	10.79	ug/L		93
74) 3,3-Dimethyl-1-butanol	11.188	57	43377	335.50	ug/L		99
75) 2-hexanone	11.255	43	36989	38.82	ug/L		98
76) 1-Chlorohexane	11.542	91	12027	8.58	ug/L		97
77) Ethylbenzene	11.609	91	46662	10.13	ug/L		97
78) Chlorobenzene	11.615	112	27976	10.39	ug/L		89
79) 1,1,1,2-Tetrachloroethane	11.664	131	12017	11.58	ug/L		90
80) m,p-Xylene	11.749	91	74584	21.01	ug/L		98
81) o-Xylene	12.188	91	36626	10.25	ug/L		97
82) Styrene	12.243	104	27028	10.70	ug/L		98
83) Bromoform	12.310	173	8684	11.07	ug/L		95
84) Isopropylbenzene	12.493	105	45592	10.17	ug/L		99
87) cis-1,4-Dichloro-2-butene	12.859	53	1615	5.78	ug/L	#	80
88) n-Propylbenzene	12.914	91	52314	9.48	ug/L		96
89) Bromobenzene	12.944	156	12473	11.00	ug/L		92
90) 1,1,2,2-Tetrachloroethane	12.981	83	12851	9.13	ug/L		94
91) 1,3,5-Trimethylbenzene	13.096	105	39674	10.06	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43718.D
Acq On : 7 Nov 2023 2:09 pm
Operator : joannel
Sample : IC1953-3
Misc : MS55196,V5E1953,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 14:42:03 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

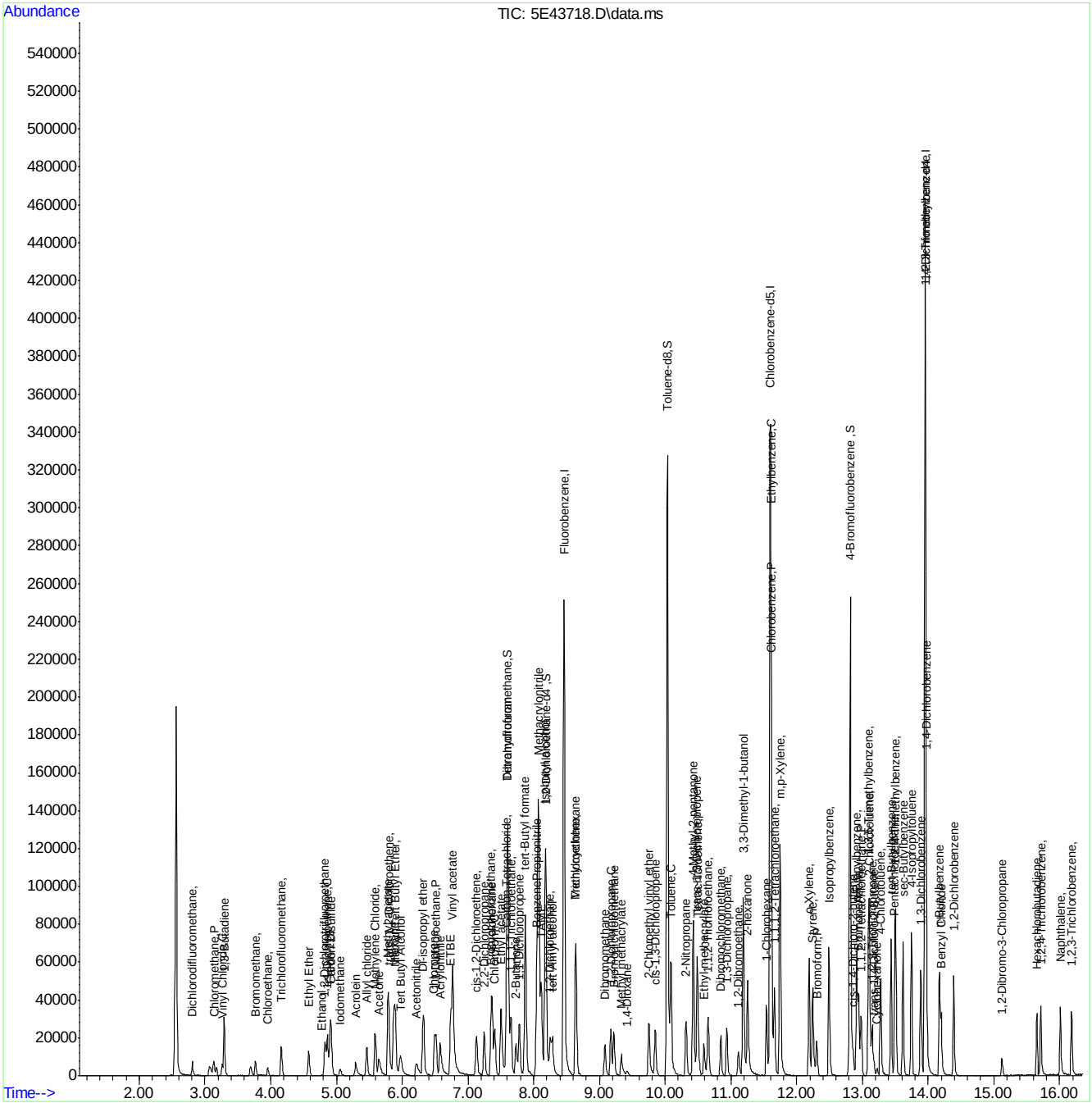
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	37841	10.21	ug/L		98
93)	trans-1,4-Dichloro-2-B...	13.176	53	1831	5.91	ug/L	#	66
94)	1,2,3-Trichloropropane	13.151	110	4370	10.53	ug/L		97
95)	Cyclohexanone	13.225	55	1851	41.45	ug/L		94
96)	4-Chlorotoluene	13.279	91	35331	10.65	ug/L		98
98)	tert-Butylbenzene	13.438	91	22888	10.02	ug/L		96
99)	1,2,4-Trimethylbenzene	13.505	105	39029	10.19	ug/L		99
100)	Pentachloroethane	13.493	167	7602	12.64	ug/L		89
101)	sec-Butylbenzene	13.621	105	47622	9.48	ug/L		99
102)	4-Isopropyltoluene	13.749	119	41336	9.68	ug/L		97
103)	1,3-Dichlorobenzene	13.889	146	23570	10.20	ug/L		99
104)	1,2,3-Trimethylbenzene	13.962	105	41020	10.07	ug/L		97
105)	1,4-Dichlorobenzene	13.974	146	26642	10.84	ug/L		97
106)	n-Butylbenzene	14.176	92	18317	8.40	ug/L		94
107)	Benzyl Chloride	14.200	126	4389	10.09	ug/L		95
108)	1,2-Dichlorobenzene	14.389	146	22773	10.33	ug/L		98
109)	1,2-Dibromo-3-Chloropr...	15.120	75	2544	9.54	ug/L		90
110)	Hexachlorobutadiene	15.657	225	5342	8.86	ug/L		95
111)	1,2,4-Trichlorobenzene	15.718	180	12657	8.82	ug/L		97
112)	Naphthalene	16.011	128	31764	8.34	ug/L		96
113)	1,2,3-Trichlorobenzene	16.181	180	10432	8.14	ug/L		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43718.D
Acq On : 7 Nov 2023 2:09 pm
Operator : joannel
Sample : IC1953-3
Misc : MS55196,V5E1953,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 14:42:03 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43719.D
Acq On : 7 Nov 2023 2:32 pm
Operator : joannel
Sample : IC1953-4
Misc : MS55196,V5E1953,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 14:51:41 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	219372	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	171320	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	103573	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	70799	53.32	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.64%			
49) 1,2-Dichloroethane-d4	8.177	65	83918	56.45	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.90%			
62) Toluene-d8	10.036	98	214544	46.59	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 93.18%			
86) 4-Bromofluorobenzene	12.810	95	89089	49.13	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.26%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	20049	30.64	ug/L	97
3) Chloromethane	3.135	50	21564	22.24	ug/L	99
4) Vinyl Chloride	3.263	62	17642	22.80	ug/L	100
5) 1,3-Butadiene	3.294	39	23935	23.53	ug/L	98
6) Bromomethane	3.769	94	10473	30.92	ug/L	98
7) Chloroethane	3.952	64	11650	23.88	ug/L	94
8) Trichlorofluoromethane	4.159	101	39998	28.17	ug/L	93
9) Ethyl Ether	4.580	59	18555	25.00	ug/L	92
10) Ethanol	4.781	45	5465	439.98	ug/L	93
11) 1,2-Dichlorotrifluoroe...	4.830	67	21789	23.70	ug/L	85
12) 1,1-Dichloroethene	4.860	61	36087	27.16	ug/L	98
13) Freon 113	4.903	101	21844	25.99	ug/L	94
14) Carbon Disulfide	4.921	76	62727	24.45	ug/L	95
15) Iodomethane	5.062	142	15354	29.64	ug/L	99
16) Acrolein	5.287	56	24321	102.74	ug/L	95
17) Allyl chloride	5.464	41	27013	24.72	ug/L	96
18) Methylene Chloride	5.592	49	33407	24.48	ug/L	99
19) Acetone	5.641	43	42474	131.21	ug/L	98
20) Methyl acetate	5.781	43	96691	110.30	ug/L	98
21) trans-1,2-Dichloroethene	5.793	61	32627	25.33	ug/L	96
22) Hexane	5.872	56	20078	22.53	ug/L	97
23) Methyl Tert Butyl Ether	5.891	73	72858	27.20	ug/L	96
24) Acetonitrile	6.214	41	29179	217.44	ug/L	92
25) Di-isopropyl ether	6.324	45	72624	23.52	ug/L	94
26) Chloroprene	6.488	53	34851	26.16	ug/L	97
27) 1,1-Dichloroethane	6.519	63	42612	25.23	ug/L	99
28) Acrylonitrile	6.574	53	48977	111.59	ug/L	98
29) ETBE	6.744	59	77633	25.79	ug/L	97
30) Tert Butyl Alcohol	5.970	59	41635	243.21	ug/L	99
31) Vinyl acetate	6.769	43	269629	120.58	ug/L	99
32) cis-1,2-Dichloroethene	7.128	96	26037	27.33	ug/L	90
33) 2,2-Dichloropropane	7.250	77	38843	29.76	ug/L	96
34) Bromochloromethane	7.348	128	13504	28.85	ug/L #	85
35) Cyclohexane	7.366	56	39267	24.04	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43719.D
Acq On : 7 Nov 2023 2:32 pm
Operator : joannel
Sample : IC1953-4
Misc : MS55196,V5E1953,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 14:51:41 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	47150	27.23	ug/L	97
37) Ethyl acetate	7.500	43	138891	111.65	ug/L	99
38) Tetrahydrofuran	7.604	42	9692	23.65	ug/L	97
40) Carbon Tetrachloride	7.586	117	43334	30.53	ug/L	97
41) 1,1,1-Trichloroethane	7.653	97	45413	29.13	ug/L	96
42) 2-Butanone	7.726	43	65214	116.24	ug/L	98
43) 1,1-Dichloropropene	7.781	75	31697	27.58	ug/L	98
44) tert-Butyl formate	7.872	59	127902	297.22	ug/L	92
45) Propionitrile	8.055	54	45516	229.49	ug/L	90
46) Methacrylonitrile	8.073	41	176226	220.16	ug/L	97
47) Benzene	8.043	78	85137	25.12	ug/L	93
48) TAME	8.116	73	69732	26.39	ug/L	98
50) 1,2-Dichloroethane	8.250	62	39984	28.63	ug/L	95
51) tert Amyl alcohol	8.287	59	32079	226.86	ug/L	97
52) Trichloroethene	8.640	95	26029	26.40	ug/L	98
53) Methylcyclohexane	8.640	83	37822	24.73	ug/L	92
54) Dibromomethane	9.085	93	16913	26.61	ug/L	95
55) 1,2-Dichloropropane	9.177	63	21607	25.14	ug/L	90
56) Bromodichloromethane	9.219	83	36827	27.49	ug/L	91
57) Methyl methacrylate	9.329	41	22733	22.85	ug/L	91
58) 1,4-Dioxane	9.414	88	6198	520.33	ug/L	88
59) 2-Chloroethyl vinyl ether	9.750	63	45028	86.85	ug/L	97
60) cis-1,3-Dichloropropene	9.847	75	35447	26.72	ug/L	97
63) Toluene	10.091	91	96573	23.99	ug/L	95
64) Isobutyl alcohol	8.177	43	25002	357.68	ug/L	96
65) 2-Nitropropane	10.317	41	44931	128.57	ug/L	94
66) 4-Methyl-2-pentanone	10.426	43	137447	109.67	ug/L	95
67) trans-1,3-Dichloropropene	10.487	75	35765	27.18	ug/L	93
68) Tetrachloroethene	10.494	166	30990	25.43	ug/L	95
69) Ethyl methacrylate	10.591	69	25313	20.94	ug/L	97
70) 1,1,2-Trichloroethane	10.652	83	18123	24.11	ug/L	96
71) Dibromochloromethane	10.847	129	31215	27.18	ug/L	96
72) 1,3-Dichloropropane	10.939	76	35257	24.68	ug/L	97
73) 1,2-Dibromoethane	11.115	107	25271	25.90	ug/L	90
74) 3,3-Dimethyl-1-butanol	11.189	57	126510	955.67	ug/L	96
75) 2-hexanone	11.249	43	96350	98.76	ug/L	97
76) 1-Chlorohexane	11.542	91	31218	21.76	ug/L	94
77) Ethylbenzene	11.609	91	113204	24.01	ug/L	97
78) Chlorobenzene	11.615	112	67372	24.43	ug/L	93
79) 1,1,1,2-Tetrachloroethane	11.664	131	28595	26.91	ug/L	93
80) m,p-Xylene	11.749	91	180862	49.75	ug/L	98
81) o-Xylene	12.188	91	94202	25.74	ug/L	98
82) Styrene	12.243	104	68733	26.56	ug/L	98
83) Bromoform	12.304	173	22826	28.43	ug/L	94
84) Isopropylbenzene	12.493	105	114773	25.01	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.853	53	5705	19.02	ug/L	93
88) n-Propylbenzene	12.914	91	133858	23.53	ug/L	96
89) Bromobenzene	12.938	156	30243	25.87	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.981	83	31422	21.67	ug/L	92
91) 1,3,5-Trimethylbenzene	13.097	105	100756	24.79	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43719.D
Acq On : 7 Nov 2023 2:32 pm
Operator : joannel
Sample : IC1953-4
Misc : MS55196,V5E1953,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 14:51:41 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

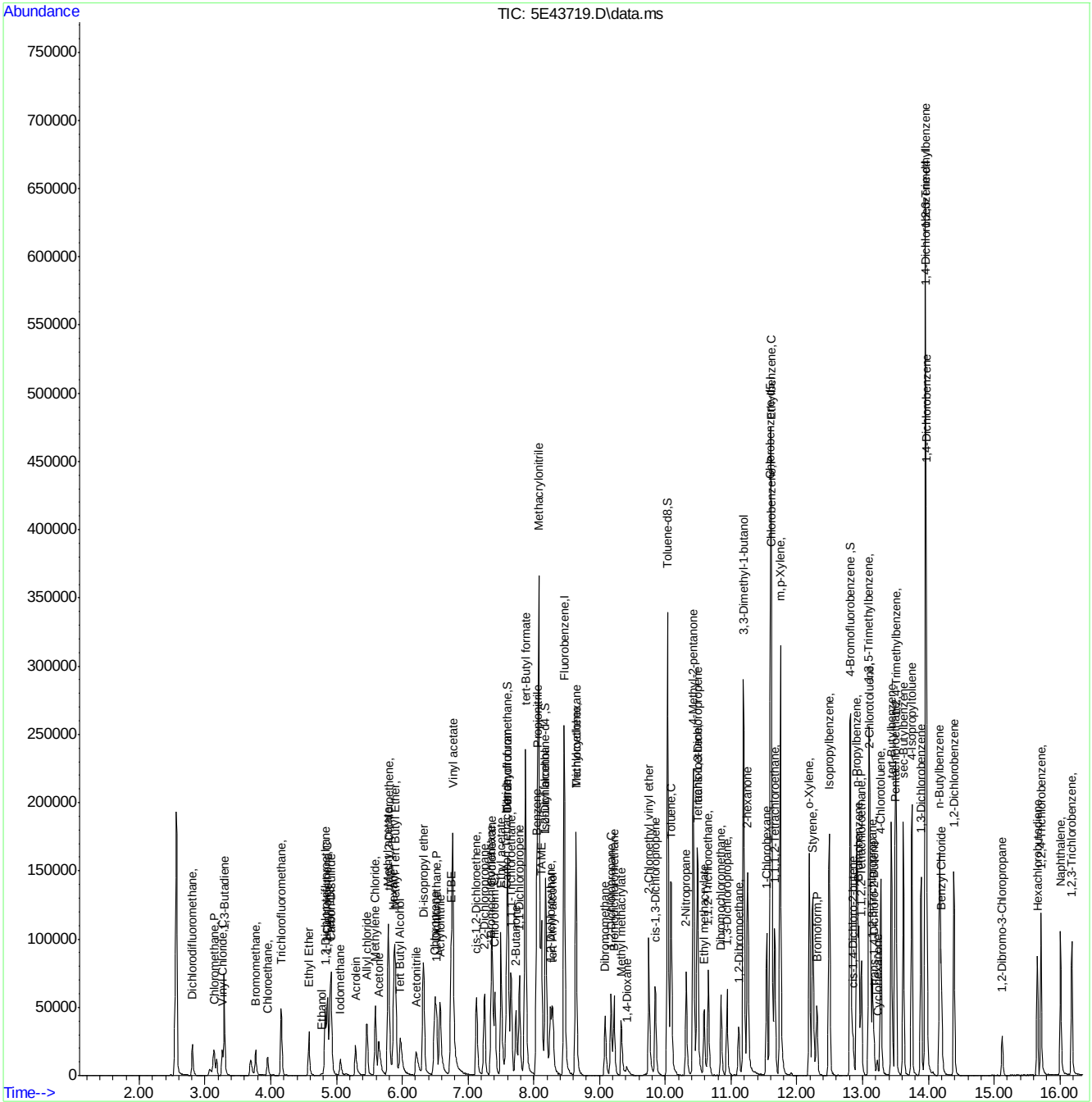
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	94616	24.78	ug/L		100
93)	trans-1,4-Dichloro-2-B...	13.170	53	6391	19.34	ug/L	#	91
94)	1,2,3-Trichloropropane	13.152	110	11081	25.91	ug/L		93
95)	Cyclohexanone	13.225	55	4919	102.75	ug/L		89
96)	4-Chlorotoluene	13.273	91	84736	24.78	ug/L		99
98)	tert-Butylbenzene	13.438	91	56691	24.07	ug/L		97
99)	1,2,4-Trimethylbenzene	13.505	105	100855	25.54	ug/L		99
100)	Pentachloroethane	13.493	167	18413	29.71	ug/L		92
101)	sec-Butylbenzene	13.621	105	120519	23.28	ug/L		98
102)	4-Isopropyltoluene	13.749	119	107296	24.39	ug/L		97
103)	1,3-Dichlorobenzene	13.889	146	59548	25.01	ug/L		99
104)	1,2,3-Trimethylbenzene	13.962	105	103456	24.63	ug/L		98
105)	1,4-Dichlorobenzene	13.968	146	64830	25.60	ug/L		96
106)	n-Butylbenzene	14.170	92	51593	22.37	ug/L		96
107)	Benzyl Chloride	14.200	126	12258	25.95	ug/L	#	75
108)	1,2-Dichlorobenzene	14.389	146	58205	25.61	ug/L		99
109)	1,2-Dibromo-3-Chloropr...	15.121	75	6889	24.44	ug/L		99
110)	Hexachlorobutadiene	15.657	225	14413	23.19	ug/L		95
111)	1,2,4-Trichlorobenzene	15.712	180	34326	23.21	ug/L		94
112)	Naphthalene	16.011	128	83980	21.01	ug/L		98
113)	1,2,3-Trichlorobenzene	16.181	180	29959	22.67	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43719.D
Acq On : 7 Nov 2023 2:32 pm
Operator : joannel
Sample : IC1953-4
Misc : MS55196,V5E1953,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 14:51:41 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43720.D
Acq On : 7 Nov 2023 2:56 pm
Operator : joannel
Sample : ICC1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 15:29:35 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	8.463	96	230680	50.00	ug/L		0.00
61) Chlorobenzene-d5	11.597	117	179857	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	111652	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	7.604	113	73796	52.86	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.72%				
49) 1,2-Dichloroethane-d4	8.183	65	88425	56.56	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 113.12%				
62) Toluene-d8	10.036	98	228626	47.29	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 94.58%				
86) 4-Bromofluorobenzene	12.810	95	93707	47.94	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.806	85	35356	51.39	ug/L		92
3) Chloromethane	3.135	50	36989	36.28	ug/L		99
4) Vinyl Chloride	3.263	62	30778	37.83	ug/L		98
5) 1,3-Butadiene	3.294	39	38422	35.93	ug/L		93
6) Bromomethane	3.769	94	17962	50.43	ug/L		90
7) Chloroethane	3.952	64	20177	39.33	ug/L		97
8) Trichlorofluoromethane	4.159	101	67113	44.95	ug/L		97
9) Ethyl Ether	4.580	59	30418	38.97	ug/L		94
10) Ethanol	4.769	45	9551	731.24	ug/L		84
11) 1,2-Dichlorotrifluoroe...	4.830	67	32255	33.36	ug/L	#	82
12) 1,1-Dichloroethene	4.860	61	53304	38.15	ug/L		99
13) Freon 113	4.903	101	31908	36.11	ug/L		99
14) Carbon Disulfide	4.921	76	95147	35.27	ug/L		99
15) Iodomethane	5.062	142	30450	50.21	ug/L		93
16) Acrolein	5.287	56	40549	162.90	ug/L		99
17) Allyl chloride	5.458	41	42489	36.97	ug/L		96
18) Methylene Chloride	5.586	49	50416	35.13	ug/L		96
19) Acetone	5.647	43	68271	200.57	ug/L		98
20) Methyl acetate	5.775	43	160730	174.37	ug/L		97
21) trans-1,2-Dichloroethene	5.793	61	51106	37.73	ug/L		98
22) Hexane	5.872	56	30645	32.71	ug/L		97
23) Methyl Tert Butyl Ether	5.891	73	117540	41.72	ug/L		98
24) Acetonitrile	6.208	41	46676	330.78	ug/L		98
25) Di-isopropyl ether	6.324	45	116802	35.97	ug/L		95
26) Chloroprene	6.488	53	55043	39.29	ug/L		98
27) 1,1-Dichloroethane	6.519	63	67344	37.91	ug/L		98
28) Acrylonitrile	6.574	53	84231	182.51	ug/L		99
29) ETBE	6.738	59	126781	40.05	ug/L		97
30) Tert Butyl Alcohol	5.970	59	66237	367.95	ug/L		99
31) Vinyl acetate	6.763	43	452093	192.26	ug/L		98
32) cis-1,2-Dichloroethene	7.128	96	41110	41.03	ug/L		99
33) 2,2-Dichloropropane	7.250	77	60255	43.91	ug/L		98
34) Bromochloromethane	7.354	128	21014	42.69	ug/L	#	86
35) Cyclohexane	7.366	56	56864	33.10	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43720.D
Acq On : 7 Nov 2023 2:56 pm
Operator : joannel
Sample : ICC1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 15:29:35 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	75752	41.61	ug/L	93
37) Ethyl acetate	7.500	43	229789	175.67	ug/L	97
38) Tetrahydrofuran	7.592	42	16507	38.31	ug/L	99
40) Carbon Tetrachloride	7.586	117	62863	42.12	ug/L	97
41) 1,1,1-Trichloroethane	7.653	97	70653	43.09	ug/L	100
42) 2-Butanone	7.726	43	106926	181.24	ug/L	98
43) 1,1-Dichloropropene	7.781	75	48229	39.91	ug/L	95
44) tert-Butyl formate	7.872	59	211967	468.42	ug/L	93
45) Propionitrile	8.049	54	75238	360.75	ug/L	98
46) Methacrylonitrile	8.073	41	284276	337.74	ug/L	98
47) Benzene	8.043	78	136064	38.17	ug/L	94
48) TAME	8.116	73	113286	40.77	ug/L	96
50) 1,2-Dichloroethane	8.250	62	64383	43.83	ug/L	96
51) tert Amyl alcohol	8.287	59	51351	345.34	ug/L	96
52) Trichloroethene	8.640	95	40202	38.78	ug/L	98
53) Methylcyclohexane	8.640	83	55863	34.74	ug/L	94
54) Dibromomethane	9.079	93	26975	40.37	ug/L	96
55) 1,2-Dichloropropane	9.171	63	34703	38.40	ug/L	91
56) Bromodichloromethane	9.219	83	60314	42.82	ug/L	96
57) Methyl methacrylate	9.329	41	37481	35.83	ug/L	91
58) 1,4-Dioxane	9.414	88	9780	762.02	ug/L	90
59) 2-Chloroethyl vinyl ether	9.750	63	85513	156.84	ug/L	97
60) cis-1,3-Dichloropropene	9.847	75	60745	43.54	ug/L	98
63) Toluene	10.091	91	152199	36.01	ug/L	99
64) Isobutyl alcohol	8.171	43	39286	535.35	ug/L	97
65) 2-Nitropropane	10.317	41	73266	199.70	ug/L	98
66) 4-Methyl-2-pentanone	10.426	43	225781	171.60	ug/L	97
67) trans-1,3-Dichloropropene	10.487	75	59453	43.04	ug/L	92
68) Tetrachloroethene	10.487	166	46661	36.47	ug/L	98
69) Ethyl methacrylate	10.591	69	43659	34.40	ug/L	96
70) 1,1,2-Trichloroethane	10.652	83	30033	38.05	ug/L	99
71) Dibromochloromethane	10.847	129	51040	42.33	ug/L	99
72) 1,3-Dichloropropane	10.939	76	59212	39.47	ug/L	99
73) 1,2-Dibromoethane	11.115	107	42488	41.47	ug/L	100
74) 3,3-Dimethyl-1-butanol	11.188	57	210873	1517.34	ug/L	97
75) 2-hexanone	11.249	43	160084	156.30	ug/L	99
76) 1-Chlorohexane	11.542	91	48031	31.89	ug/L	96
77) Ethylbenzene	11.609	91	178511	36.07	ug/L	98
78) Chlorobenzene	11.615	112	111710	38.59	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.664	131	46478	41.67	ug/L	98
80) m,p-Xylene	11.749	91	289447	75.84	ug/L	100
81) o-Xylene	12.188	91	147975	38.52	ug/L	98
82) Styrene	12.243	104	113456	41.77	ug/L	96
83) Bromoform	12.304	173	36533	43.34	ug/L	97
84) Isopropylbenzene	12.493	105	184566	38.31	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.853	53	9973	29.86	ug/L	95
88) n-Propylbenzene	12.914	91	208180	33.94	ug/L	96
89) Bromobenzene	12.944	156	50509	40.07	ug/L	89
90) 1,1,2,2-Tetrachloroethane	12.981	83	52519	33.59	ug/L	97
91) 1,3,5-Trimethylbenzene	13.091	105	159047	36.30	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43720.D
Acq On : 7 Nov 2023 2:56 pm
Operator : joannel
Sample : ICC1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 15:29:35 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

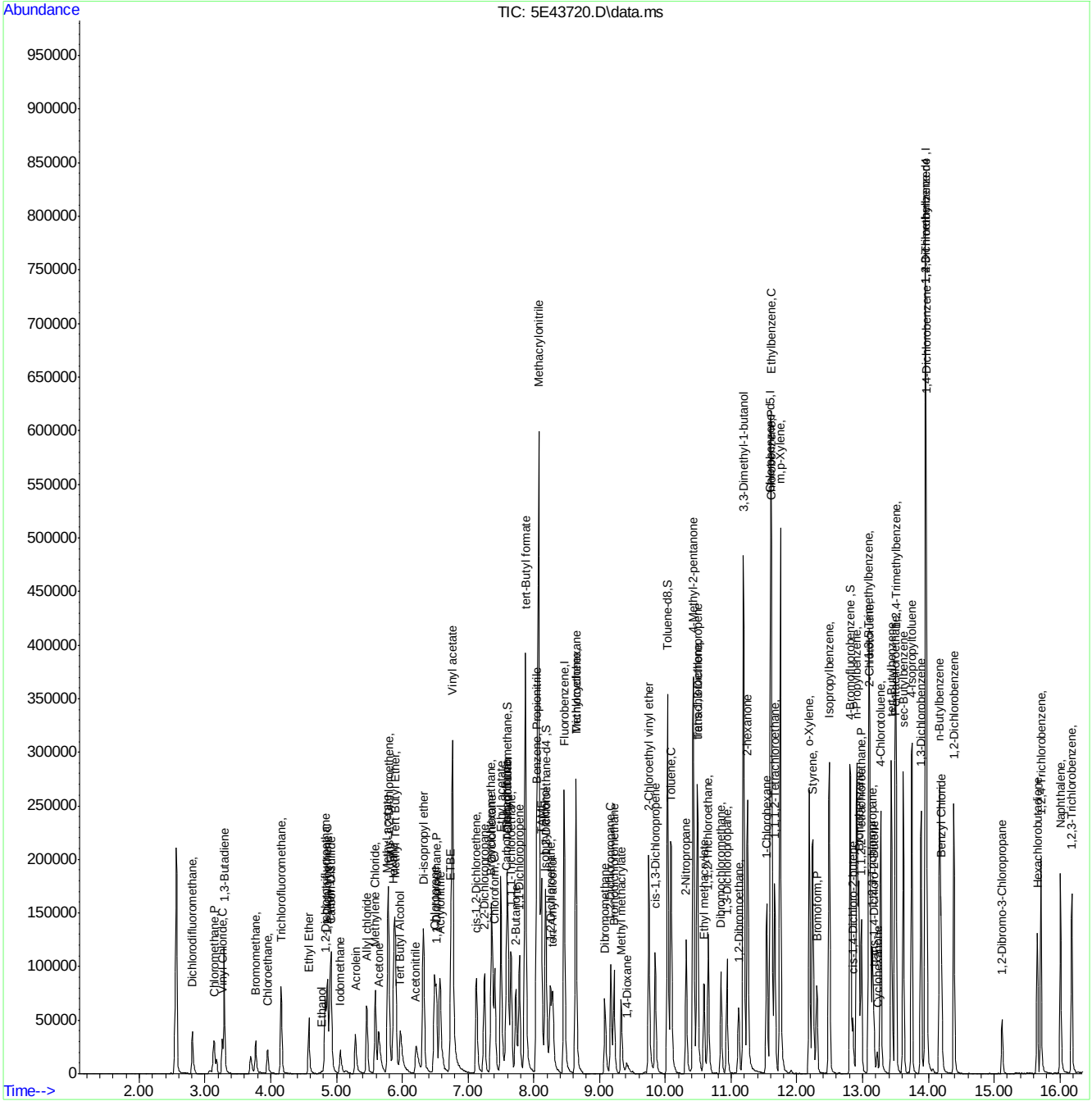
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	148671	36.11	ug/L		96
93)	trans-1,4-Dichloro-2-B...	13.170	53	11983	32.56	ug/L	#	74
94)	1,2,3-Trichloropropane	13.152	110	18043	39.13	ug/L		89
95)	Cyclohexanone	13.225	55	8855	165.12	ug/L		92
96)	4-Chlorotoluene	13.273	91	134393	36.45	ug/L		98
98)	tert-Butylbenzene	13.438	91	89774	35.35	ug/L		96
99)	1,2,4-Trimethylbenzene	13.505	105	159032	37.36	ug/L		98
100)	Pentachloroethane	13.493	167	30817	46.12	ug/L		90
101)	sec-Butylbenzene	13.621	105	186477	33.42	ug/L		99
102)	4-Isopropyltoluene	13.749	119	171363	36.13	ug/L		98
103)	1,3-Dichlorobenzene	13.889	146	97031	37.81	ug/L		99
104)	1,2,3-Trimethylbenzene	13.962	105	166512	36.78	ug/L		96
105)	1,4-Dichlorobenzene	13.968	146	103581	37.95	ug/L		96
106)	n-Butylbenzene	14.170	92	80887	31.97	ug/L		98
107)	Benzyl Chloride	14.200	126	21916	41.04	ug/L		95
108)	1,2-Dichlorobenzene	14.389	146	95961	39.17	ug/L		98
109)	1,2-Dibromo-3-Chloropr...	15.121	75	11804	37.99	ug/L		96
110)	Hexachlorobutadiene	15.657	225	21637	32.30	ug/L		94
111)	1,2,4-Trichlorobenzene	15.712	180	57277	35.93	ug/L		99
112)	Naphthalene	16.011	128	145605	33.20	ug/L		98
113)	1,2,3-Trichlorobenzene	16.181	180	49444	34.70	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43720.D
Acq On : 7 Nov 2023 2:56 pm
Operator : joannel
Sample : ICC1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 15:29:35 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43721.D
Acq On : 7 Nov 2023 3:19 pm
Operator : joannel
Sample : IC1953-6
Misc : MS55196,V5E1953,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 07 15:35:42 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	239698	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	186316	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	119955	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	78205	53.91	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.82%			
49) 1,2-Dichloroethane-d4	8.183	65	86667	53.35	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 106.70%			
62) Toluene-d8	10.036	98	239962	47.92	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 95.84%			
86) 4-Bromofluorobenzene	12.810	95	100887	48.04	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 96.08%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	68673	96.06	ug/L	88
3) Chloromethane	3.135	50	72604	68.54	ug/L	98
4) Vinyl Chloride	3.263	62	60875	72.00	ug/L	99
5) 1,3-Butadiene	3.294	39	76548	68.88	ug/L	100
6) Bromomethane	3.769	94	36820	99.48	ug/L	97
7) Chloroethane	3.946	64	39404	73.91	ug/L	94
8) Trichlorofluoromethane	4.153	101	129918	83.74	ug/L	100
9) Ethyl Ether	4.580	59	59645	73.54	ug/L	96
10) Ethanol	4.775	45	18871	1390.43	ug/L	97
11) 1,2-Dichlorotrifluoroe...	4.830	67	70817	70.49	ug/L	88
12) 1,1-Dichloroethene	4.861	61	113143	77.93	ug/L	96
13) Freon 113	4.903	101	69864	76.08	ug/L	95
14) Carbon Disulfide	4.915	76	197817	70.57	ug/L	98
15) Iodomethane	5.062	142	65113	87.30	ug/L	99
16) Acrolein	5.287	56	81729	315.98	ug/L	94
17) Allyl chloride	5.458	41	84421	70.69	ug/L	91
18) Methylene Chloride	5.592	49	99438	66.68	ug/L	98
19) Acetone	5.641	43	127633	360.85	ug/L	96
20) Methyl acetate	5.781	43	310684	324.37	ug/L	98
21) trans-1,2-Dichloroethene	5.793	61	106210	75.47	ug/L	99
22) Hexane	5.873	56	66145	67.94	ug/L	92
23) Methyl Tert Butyl Ether	5.897	73	226007	77.21	ug/L	93
24) Acetonitrile	6.214	41	87473	596.57	ug/L	99
25) Di-isopropyl ether	6.324	45	232339	68.87	ug/L	96
26) Chloroprene	6.488	53	114444	78.63	ug/L	96
27) 1,1-Dichloroethane	6.519	63	136033	73.70	ug/L	99
28) Acrylonitrile	6.574	53	159525	332.65	ug/L	99
29) ETBE	6.744	59	244747	74.41	ug/L	99
30) Tert Butyl Alcohol	5.976	59	126040	673.82	ug/L	98
31) Vinyl acetate	6.769	43	869608	355.91	ug/L	99
32) cis-1,2-Dichloroethene	7.128	96	80319	77.16	ug/L	91
33) 2,2-Dichloropropane	7.250	77	126960	89.04	ug/L	97
34) Bromochloromethane	7.348	128	42554	83.20	ug/L	90
35) Cyclohexane	7.366	56	126190	70.70	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43721.D
Acq On : 7 Nov 2023 3:19 pm
Operator : joannel
Sample : IC1953-6
Misc : MS55196,V5E1953,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 07 15:35:42 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	151580	80.13	ug/L	96
37) Ethyl acetate	7.500	43	429918	316.30	ug/L	98
38) Tetrahydrofuran	7.598	42	27971	62.47	ug/L	96
40) Carbon Tetrachloride	7.586	117	134760	86.90	ug/L	97
41) 1,1,1-Trichloroethane	7.653	97	147862	86.79	ug/L	98
42) 2-Butanone	7.726	43	203149	331.38	ug/L	95
43) 1,1-Dichloropropene	7.781	75	103097	82.11	ug/L	98
44) tert-Butyl formate	7.872	59	384172	817.04	ug/L	95
45) Propionitrile	8.055	54	143468	662.02	ug/L	92
46) Methacrylonitrile	8.073	41	539614	616.98	ug/L	97
47) Benzene	8.043	78	274526	74.12	ug/L	90
48) TAME	8.116	73	216285	74.92	ug/L	99
50) 1,2-Dichloroethane	8.250	62	124039	81.27	ug/L	95
51) tert Amyl alcohol	8.287	59	98264	635.98	ug/L	96
52) Trichloroethene	8.640	95	83509	77.53	ug/L	98
53) Methylcyclohexane	8.640	83	123414	73.86	ug/L	98
54) Dibromomethane	9.079	93	53176	76.58	ug/L	96
55) 1,2-Dichloropropane	9.177	63	67786	72.19	ug/L	95
56) Bromodichloromethane	9.219	83	118859	81.21	ug/L	98
57) Methyl methacrylate	9.329	41	78051	71.80	ug/L	91
58) 1,4-Dioxane	9.415	88	20488	1439.28	ug/L	91
59) 2-Chloroethyl vinyl ether	9.750	63	160537	283.37	ug/L	96
60) cis-1,3-Dichloropropene	9.847	75	118392	81.68	ug/L	97
63) Toluene	10.085	91	303685	69.36	ug/L	98
64) Isobutyl alcohol	8.177	43	80151	1054.36	ug/L	98
65) 2-Nitropropane	10.317	41	141543	372.43	ug/L	99
66) 4-Methyl-2-pentanone	10.427	43	425283	312.03	ug/L	97
67) trans-1,3-Dichloropropene	10.488	75	119057	83.19	ug/L	95
68) Tetrachloroethene	10.488	166	96517	72.82	ug/L	98
69) Ethyl methacrylate	10.585	69	85040	64.69	ug/L	97
70) 1,1,2-Trichloroethane	10.652	83	58446	71.49	ug/L	96
71) Dibromochloromethane	10.847	129	103624	82.96	ug/L	99
72) 1,3-Dichloropropane	10.939	76	113731	73.19	ug/L	99
73) 1,2-Dibromoethane	11.115	107	85334	80.41	ug/L	98
74) 3,3-Dimethyl-1-butanol	11.189	57	397026	2757.78	ug/L	97
75) 2-hexanone	11.250	43	303656	286.19	ug/L	97
76) 1-Chlorohexane	11.542	91	103406	66.28	ug/L	95
77) Ethylbenzene	11.609	91	361087	70.43	ug/L	99
78) Chlorobenzene	11.615	112	220009	73.37	ug/L	96
79) 1,1,1,2-Tetrachloroethane	11.664	131	93888	81.25	ug/L	94
80) m,p-Xylene	11.749	91	579605	146.61	ug/L	100
81) o-Xylene	12.188	91	299842	75.34	ug/L	98
82) Styrene	12.237	104	227262	80.76	ug/L	97
83) Bromoform	12.304	173	74763	85.61	ug/L	98
84) Isopropylbenzene	12.493	105	379478	76.03	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.853	53	22137	57.13	ug/L	94
88) n-Propylbenzene	12.914	91	434973	66.01	ug/L	98
89) Bromobenzene	12.944	156	101384	74.87	ug/L	89
90) 1,1,2,2-Tetrachloroethane	12.981	83	105434	62.77	ug/L	95
91) 1,3,5-Trimethylbenzene	13.091	105	330221	70.14	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43721.D
Acq On : 7 Nov 2023 3:19 pm
Operator : joannel
Sample : IC1953-6
Misc : MS55196,V5E1953,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 07 15:35:42 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

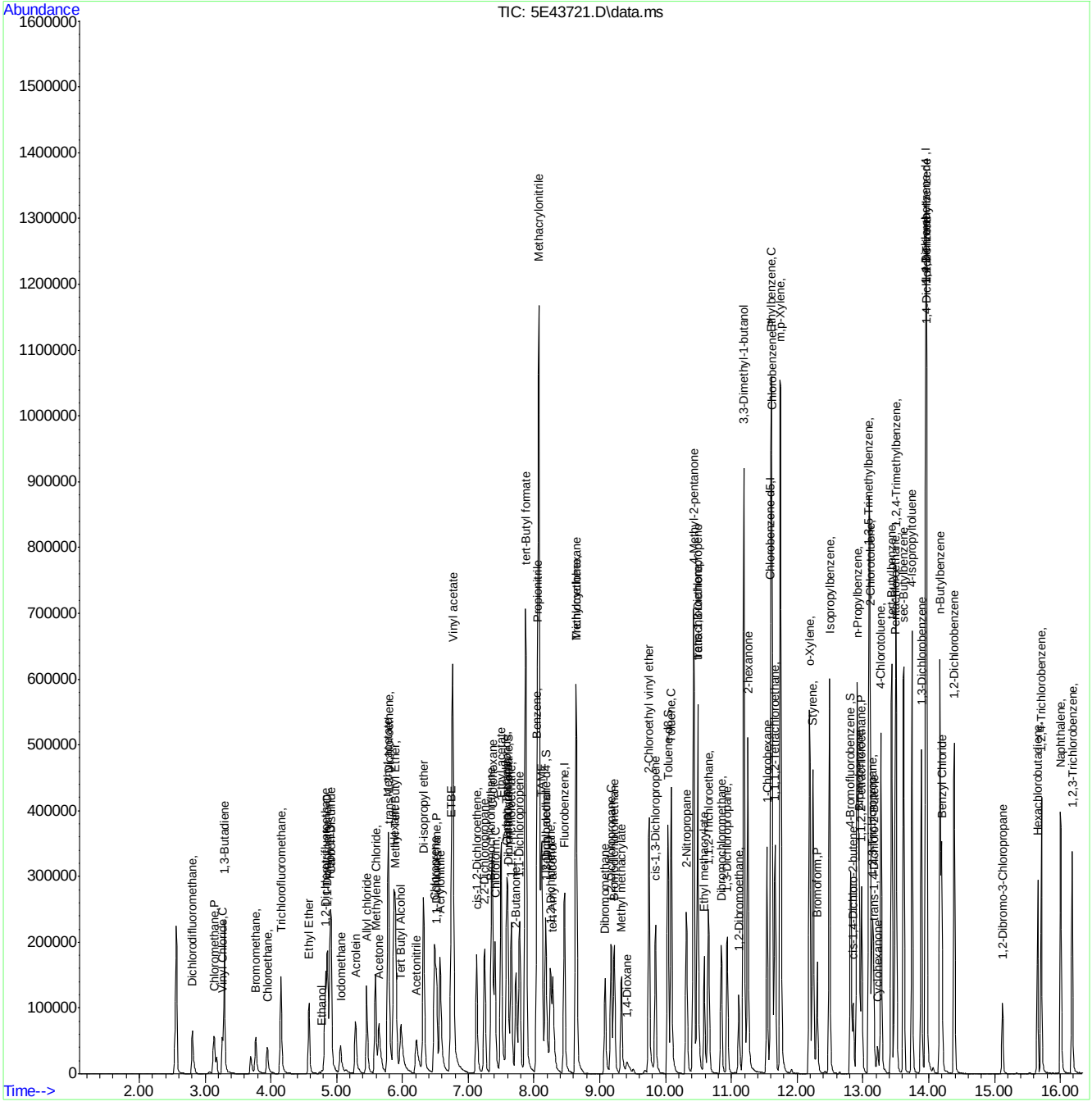
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	300977	68.05	ug/L		98
93)	trans-1,4-Dichloro-2-B...	13.164	53	23617	56.46	ug/L	#	82
94)	1,2,3-Trichloropropane	13.146	110	36086	72.85	ug/L		94
95)	Cyclohexanone	13.225	55	17362	281.55	ug/L		86
96)	4-Chlorotoluene	13.274	91	276503	69.81	ug/L		98
98)	tert-Butylbenzene	13.438	91	186050	68.20	ug/L		96
99)	1,2,4-Trimethylbenzene	13.505	105	327463	71.60	ug/L		98
100)	Pentachloroethane	13.493	167	61992	86.36	ug/L		95
101)	sec-Butylbenzene	13.621	105	401625	66.99	ug/L		99
102)	4-Isopropyltoluene	13.749	119	365501	71.72	ug/L		100
103)	1,3-Dichlorobenzene	13.889	146	197917	71.78	ug/L		98
104)	1,2,3-Trimethylbenzene	13.962	105	342103	70.33	ug/L		99
105)	1,4-Dichlorobenzene	13.969	146	209973	71.60	ug/L		98
106)	n-Butylbenzene	14.170	92	179210	62.53	ug/L		97
107)	Benzyl Chloride	14.200	126	45879	72.85	ug/L	#	90
108)	1,2-Dichlorobenzene	14.389	146	190788	72.49	ug/L		99
109)	1,2-Dibromo-3-Chloropr...	15.121	75	23186	66.41	ug/L		93
110)	Hexachlorobutadiene	15.657	225	48767	67.75	ug/L		95
111)	1,2,4-Trichlorobenzene	15.712	180	117519	68.62	ug/L		96
112)	Naphthalene	16.005	128	287929	58.95	ug/L		98
113)	1,2,3-Trichlorobenzene	16.182	180	98870	64.59	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43721.D
Acq On : 7 Nov 2023 3:19 pm
Operator : joannel
Sample : IC1953-6
Misc : MS55196,V5E1953,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 07 15:35:42 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43722.D
Acq On : 7 Nov 2023 3:42 pm
Operator : joannel
Sample : IC1953-7
Misc : MS55196,V5E1953,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 07:48:29 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.464	96	252621	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	197050	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	127549	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	81127	53.06	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.12%			
49) 1,2-Dichloroethane-d4	8.177	65	88760	51.85	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 103.70%			
62) Toluene-d8	10.036	98	251439	47.48	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 94.96%			
86) 4-Bromofluorobenzene	12.810	95	106543	47.71	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	99743	132.39	ug/L	95
3) Chloromethane	3.135	50	109284	97.89	ug/L	98
4) Vinyl Chloride	3.263	62	90522	101.59	ug/L	100
5) 1,3-Butadiene	3.294	39	118653	101.31	ug/L	93
6) Bromomethane	3.769	94	55160	141.40	ug/L	96
7) Chloroethane	3.940	64	56663	100.85	ug/L	95
8) Trichlorofluoromethane	4.147	101	189997	116.20	ug/L	99
9) Ethyl Ether	4.580	59	91308	106.83	ug/L	94
10) Ethanol	4.806	45	30168	2109.10	ug/L	93
11) 1,2-Dichlorotrifluoroe...	4.824	67	106227	100.33	ug/L	91
12) 1,1-Dichloroethene	4.861	61	168355	110.02	ug/L	96
13) Freon 113	4.897	101	105330	108.84	ug/L	97
14) Carbon Disulfide	4.915	76	304760	103.17	ug/L	98
15) Iodomethane	5.056	142	97630	112.41	ug/L	97
16) Acrolein	5.287	56	131997	484.21	ug/L	98
17) Allyl chloride	5.458	41	124737	99.11	ug/L	91
18) Methylene Chloride	5.586	49	144285	91.80	ug/L	95
19) Acetone	5.647	43	200262	537.23	ug/L	97
20) Methyl acetate	5.781	43	485328	480.79	ug/L	96
21) trans-1,2-Dichloroethene	5.787	61	159817	107.75	ug/L	99
22) Hexane	5.866	56	100218	97.67	ug/L	91
23) Methyl Tert Butyl Ether	5.897	73	344232	111.58	ug/L	91
24) Acetonitrile	6.214	41	137846	892.03	ug/L	99
25) Di-isopropyl ether	6.324	45	347943	97.86	ug/L	96
26) Chloroprene	6.488	53	177496	115.71	ug/L	98
27) 1,1-Dichloroethane	6.519	63	205231	105.50	ug/L	98
28) Acrylonitrile	6.574	53	252114	498.83	ug/L	99
29) ETBE	6.744	59	369101	106.47	ug/L	97
30) Tert Butyl Alcohol	5.982	59	202602	1027.71	ug/L	98
31) Vinyl acetate	6.763	43	1317625	511.68	ug/L	99
32) cis-1,2-Dichloroethene	7.128	96	124473	113.45	ug/L	95
33) 2,2-Dichloropropane	7.250	77	181791	120.97	ug/L	98
34) Bromochloromethane	7.348	128	63538	117.87	ug/L	88
35) Cyclohexane	7.366	56	194268	103.27	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43722.D
Acq On : 7 Nov 2023 3:42 pm
Operator : joannel
Sample : IC1953-7
Misc : MS55196,V5E1953,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 07:48:29 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	228518	114.62	ug/L	98
37) Ethyl acetate	7.500	43	664897	464.15	ug/L	99
38) Tetrahydrofuran	7.598	42	43003	91.12	ug/L	97
40) Carbon Tetrachloride	7.586	117	202019	123.61	ug/L	98
41) 1,1,1-Trichloroethane	7.653	97	222014	123.65	ug/L	98
42) 2-Butanone	7.726	43	321975	498.35	ug/L	93
43) 1,1-Dichloropropene	7.781	75	154816	117.00	ug/L	99
44) tert-Butyl formate	7.872	59	579335	1169.07	ug/L	92
45) Propionitrile	8.055	54	227177	994.66	ug/L	99
46) Methacrylonitrile	8.073	41	837974	909.11	ug/L	98
47) Benzene	8.043	78	413001	105.81	ug/L	90
48) TAME	8.116	73	324061	106.51	ug/L	99
50) 1,2-Dichloroethane	8.250	62	181548	112.87	ug/L	96
51) tert Amyl alcohol	8.287	59	159219	977.77	ug/L	95
52) Trichloroethene	8.640	95	125693	110.72	ug/L	93
53) Methylcyclohexane	8.640	83	192056	109.06	ug/L	95
54) Dibromomethane	9.079	93	79500	108.63	ug/L	93
55) 1,2-Dichloropropane	9.171	63	104231	105.32	ug/L	94
56) Bromodichloromethane	9.219	83	177192	114.88	ug/L	99
57) Methyl methacrylate	9.323	41	119391	104.21	ug/L	89
58) 1,4-Dioxane	9.415	88	30838	1960.32	ug/L	95
59) 2-Chloroethyl vinyl ether	9.750	63	254170	425.70	ug/L	98
60) cis-1,3-Dichloropropene	9.847	75	178623	116.92	ug/L	97
63) Toluene	10.085	91	461676	99.71	ug/L	99
64) Isobutyl alcohol	8.177	43	129838	1614.94	ug/L	98
65) 2-Nitropropane	10.317	41	217638	541.46	ug/L	99
66) 4-Methyl-2-pentanone	10.427	43	669190	464.24	ug/L	96
67) trans-1,3-Dichloropropene	10.488	75	181447	119.88	ug/L	98
68) Tetrachloroethene	10.488	166	147312	105.08	ug/L	98
69) Ethyl methacrylate	10.585	69	134451	96.70	ug/L	98
70) 1,1,2-Trichloroethane	10.652	83	89370	103.36	ug/L	95
71) Dibromochloromethane	10.847	129	155343	117.59	ug/L	99
72) 1,3-Dichloropropane	10.939	76	173403	105.51	ug/L	100
73) 1,2-Dibromoethane	11.115	107	127894	113.94	ug/L	98
74) 3,3-Dimethyl-1-butanol	11.189	57	651701	4280.18	ug/L	96
75) 2-hexanone	11.250	43	491888	438.35	ug/L	96
76) 1-Chlorohexane	11.542	91	158892	96.29	ug/L	96
77) Ethylbenzene	11.609	91	545967	100.69	ug/L	99
78) Chlorobenzene	11.615	112	327260	103.19	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.664	131	139119	113.84	ug/L	93
80) m,p-Xylene	11.743	91	884032	211.43	ug/L	100
81) o-Xylene	12.188	91	453807	107.82	ug/L	100
82) Styrene	12.243	104	343665	115.48	ug/L	94
83) Bromoform	12.304	173	115150	124.67	ug/L	97
84) Isopropylbenzene	12.493	105	575718	109.06	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.853	53	34854	79.70	ug/L	93
88) n-Propylbenzene	12.914	91	664820	94.88	ug/L	98
89) Bromobenzene	12.938	156	150077	104.23	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.981	83	161748	90.56	ug/L	97
91) 1,3,5-Trimethylbenzene	13.091	105	500727	100.03	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43722.D
Acq On : 7 Nov 2023 3:42 pm
Operator : joannel
Sample : IC1953-7
Misc : MS55196,V5E1953,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 07:48:29 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration

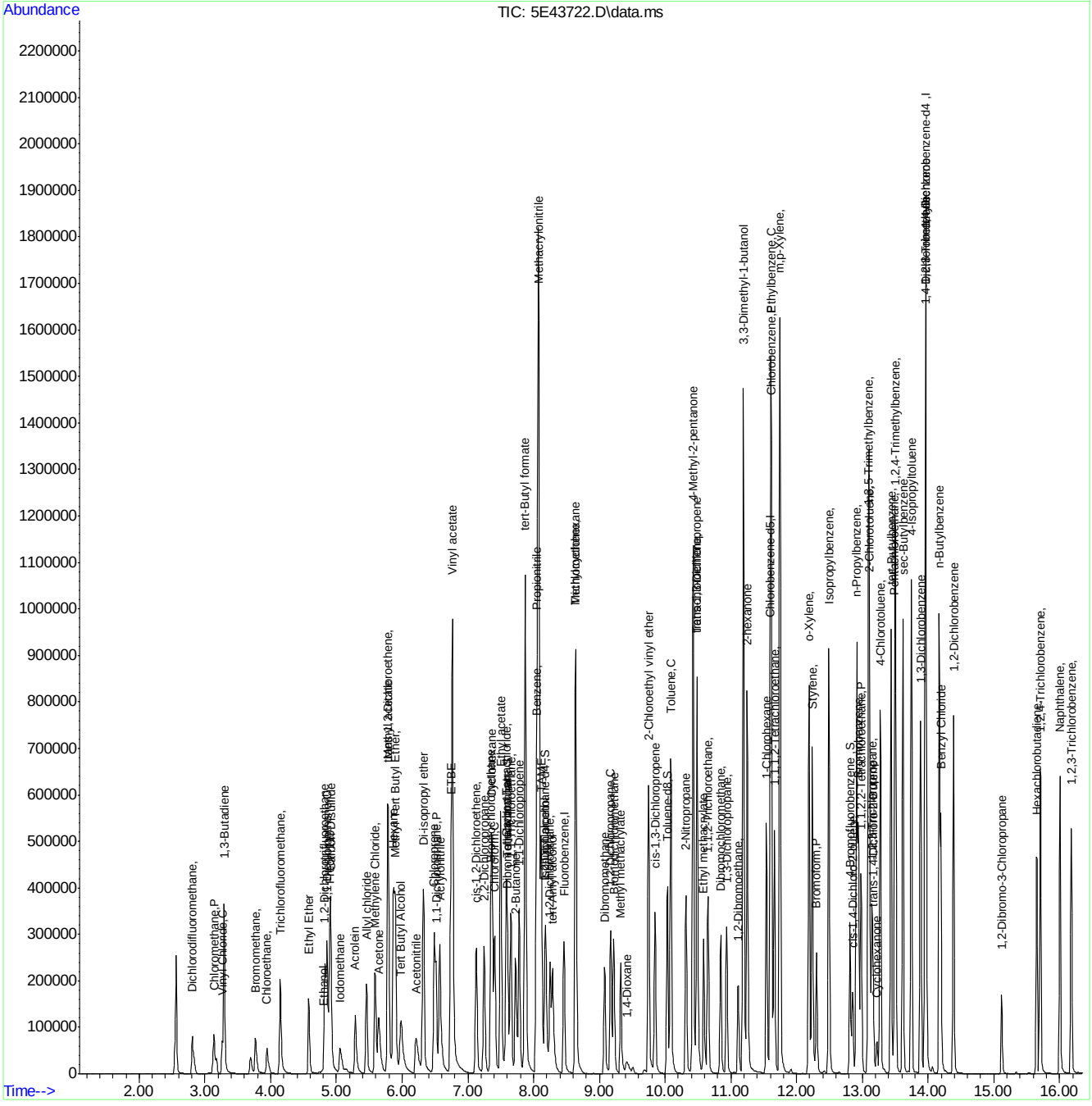
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	2-Chlorotoluene	13.109	91	448776	95.42	ug/L	99
93)	trans-1,4-Dichloro-2-B...	13.164	53	38712	82.19	ug/L	89
94)	1,2,3-Trichloropropane	13.146	110	56344	106.97	ug/L	96
95)	Cyclohexanone	13.225	55	27847	398.43	ug/L	91
96)	4-Chlorotoluene	13.274	91	420127	99.76	ug/L	98
98)	tert-Butylbenzene	13.438	91	285633	98.47	ug/L	96
99)	1,2,4-Trimethylbenzene	13.505	105	503980	103.64	ug/L	98
100)	Pentachloroethane	13.493	167	96214	126.05	ug/L	95
101)	sec-Butylbenzene	13.621	105	620854	97.39	ug/L	99
102)	4-Isopropyltoluene	13.749	119	568556	104.93	ug/L	99
103)	1,3-Dichlorobenzene	13.889	146	302122	103.04	ug/L	98
104)	1,2,3-Trimethylbenzene	13.962	105	523813	101.28	ug/L	99
105)	1,4-Dichlorobenzene	13.969	146	313563	100.55	ug/L	98
106)	n-Butylbenzene	14.170	92	281827	88.59	ug/L	97
107)	Benzyl Chloride	14.194	126	71598	99.51	ug/L	99
108)	1,2-Dichlorobenzene	14.389	146	293036	104.72	ug/L	98
109)	1,2-Dibromo-3-Chloropr...	15.121	75	37012	95.42	ug/L	94
110)	Hexachlorobutadiene	15.657	225	76481	99.93	ug/L	95
111)	1,2,4-Trichlorobenzene	15.712	180	184486	101.31	ug/L	99
112)	Naphthalene	16.005	128	456070	84.81	ug/L	98
113)	1,2,3-Trichlorobenzene	16.182	180	152520	93.70	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43722.D
Acq On : 7 Nov 2023 3:42 pm
Operator : joannel
Sample : IC1953-7
Misc : MS55196,V5E1953,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 07:48:29 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Oct 12 06:55:37 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43724.D
Acq On : 7 Nov 2023 4:28 pm
Operator : joannel
Sample : ICV1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 10:07:50 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	260483	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	199236	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	123292	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	83099	49.38	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.76%			
49) 1,2-Dichloroethane-d4	8.183	65	93731	48.02	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 96.04%			
62) Toluene-d8	10.036	98	256719	50.85	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 101.70%			
86) 4-Bromofluorobenzene	12.810	95	103543	49.30	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.60%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	35337	36.00	ug/L	100
3) Chloromethane	3.135	50	41576	37.83	ug/L	96
4) Vinyl Chloride	3.263	62	34796	40.82	ug/L	99
5) 1,3-Butadiene	3.294	39	39054	34.35	ug/L	97
6) Bromomethane	3.769	94	18916	36.86	ug/L	98
7) Chloroethane	3.946	64	22894	42.05	ug/L	97
8) Trichlorofluoromethane	4.159	101	71875	37.19	ug/L	97
9) Ethyl Ether	4.580	59	38179	43.36	ug/L	98
10) Ethanol	4.775	45	12166	856.69	ug/L	98
11) 1,2-Dichlorotrifluoroe...	4.824	67	43724	42.32	ug/L	91
12) 1,1-Dichloroethene	4.860	61	64261	38.17	ug/L	97
13) Freon 113	4.903	101	45491	44.62	ug/L	98
14) Carbon Disulfide	4.921	76	115942	37.70	ug/L	98
15) Iodomethane	5.062	142	31612	39.64	ug/L	92
16) Acrolein	5.287	56	50864	219.69	ug/L	96
17) Allyl chloride	5.458	41	57903	46.58	ug/L	98
18) Methylene Chloride	5.592	49	61560	37.78	ug/L	97
20) Methyl acetate	5.781	43	189028	202.85	ug/L	98
21) trans-1,2-Dichloroethene	5.793	61	62996	40.60	ug/L	96
22) Hexane	5.872	56	38652	40.06	ug/L	95
23) Methyl Tert Butyl Ether	5.897	73	140845	40.74	ug/L	90
24) Acetonitrile	6.214	41	61507	463.90	ug/L	93
25) Di-isopropyl ether	6.323	45	141183	40.97	ug/L	98
26) Chloroprene	6.488	53	59211	36.54	ug/L	99
27) 1,1-Dichloroethane	6.519	63	77228	37.51	ug/L	99
28) Acrylonitrile	6.573	53	105628	220.38	ug/L	99
29) ETBE	6.744	59	152383	41.46	ug/L	94
30) Tert Butyl Alcohol	5.976	59	84087	425.81	ug/L	97
31) Vinyl acetate	6.769	43	517486	211.20	ug/L	100
32) cis-1,2-Dichloroethene	7.128	96	46189	39.06	ug/L	98
33) 2,2-Dichloropropane	7.250	77	73222	39.07	ug/L	97
34) Bromochloromethane	7.354	128	24829	39.10	ug/L	95
35) Cyclohexane	7.366	56	72929	40.23	ug/L	94
36) Chloroform	7.409	83	90178	38.90	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43724.D
Acq On : 7 Nov 2023 4:28 pm
Operator : joannel
Sample : ICV1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 10:07:50 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) Ethyl acetate	7.500	43	286482	218.05	ug/L		99
38) Tetrahydrofuran	7.598	42	17415	38.52	ug/L		98
40) Carbon Tetrachloride	7.585	117	75469	37.86	ug/L		99
41) 1,1,1-Trichloroethane	7.659	97	85057	38.06	ug/L		99
43) 1,1-Dichloropropene	7.781	75	58891	41.15	ug/L		96
44) tert-Butyl formate	7.872	59	248006	428.23	ug/L		98
45) Propionitrile	8.049	54	95605	444.12	ug/L		95
46) Methacrylonitrile	8.073	41	361454	457.47	ug/L		97
47) Benzene	8.043	78	163190	39.11	ug/L		97
48) TAME	8.116	73	130796	39.51	ug/L		96
50) 1,2-Dichloroethane	8.250	62	71912	38.00	ug/L		99
51) tert Amyl alcohol	8.287	59	65146	433.39	ug/L		100
52) Trichloroethene	8.640	95	49261	40.02	ug/L		97
53) Methylcyclohexane	8.640	83	68939	39.41	ug/L		95
54) Dibromomethane	9.079	93	32464	40.94	ug/L		93
55) 1,2-Dichloropropane	9.171	63	42268	41.45	ug/L		92
56) Bromodichloromethane	9.219	83	67121	37.79	ug/L		94
57) Methyl methacrylate	9.329	41	45361	41.91	ug/L		97
58) 1,4-Dioxane	9.420	88	10789	763.53	ug/L		95
59) 2-Chloroethyl vinyl ether	9.750	63	96394	213.70	ug/L		94
60) cis-1,3-Dichloropropene	9.847	75	69656	42.05	ug/L		98
63) Toluene	10.091	91	182399	39.41	ug/L		99
64) Isobutyl alcohol	8.171	43	53279	924.24	ug/L		94
65) 2-Nitropropane	10.317	41	81604	197.07	ug/L		96
67) trans-1,3-Dichloropropene	10.487	75	64688	38.49	ug/L		93
68) Tetrachloroethene	10.487	166	57158	40.63	ug/L		99
69) Ethyl methacrylate	10.585	69	60374	47.28	ug/L		98
70) 1,1,2-Trichloroethane	10.652	83	34275	39.99	ug/L		95
71) Dibromochloromethane	10.847	129	59883	42.09	ug/L		98
72) 1,3-Dichloropropane	10.938	76	71261	43.43	ug/L		99
73) 1,2-Dibromoethane	11.115	107	49950	41.04	ug/L		95
74) 3,3-Dimethyl-1-butanol	11.188	57	255861	2187.75	ug/L		96
76) 1-Chlorohexane	11.542	91	58085	40.15	ug/L		96
77) Ethylbenzene	11.609	91	209707	37.64	ug/L		98
78) Chlorobenzene	11.615	112	126796	38.95	ug/L		97
79) 1,1,1,2-Tetrachloroethane	11.664	131	53950	39.40	ug/L		97
80) m,p-Xylene	11.743	91	341012	77.86	ug/L		98
81) o-Xylene	12.188	91	169537	38.86	ug/L		99
82) Styrene	12.243	104	130357	41.82	ug/L		99
83) Bromoform	12.304	173	42383	40.28	ug/L		94
84) Isopropylbenzene	12.493	105	212526	39.15	ug/L		99
87) cis-1,4-Dichloro-2-butene	12.853	53	14890	52.17	ug/L		96
88) n-Propylbenzene	12.914	91	243106	37.99	ug/L		99
89) Bromobenzene	12.944	156	59969	41.64	ug/L		93
90) 1,1,2,2-Tetrachloroethane	12.981	83	61312	39.67	ug/L		98
91) 1,3,5-Trimethylbenzene	13.090	105	189296	40.26	ug/L		99
92) 2-Chlorotoluene	13.109	91	171284	38.29	ug/L		97
93) trans-1,4-Dichloro-2-B...	13.164	53	14398	45.71	ug/L	#	58
94) 1,2,3-Trichloropropane	13.145	110	21676	40.30	ug/L		84
95) Cyclohexanone	13.225	55	18064	379.23	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43724.D
Acq On : 7 Nov 2023 4:28 pm
Operator : joannel
Sample : ICV1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 10:07:50 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

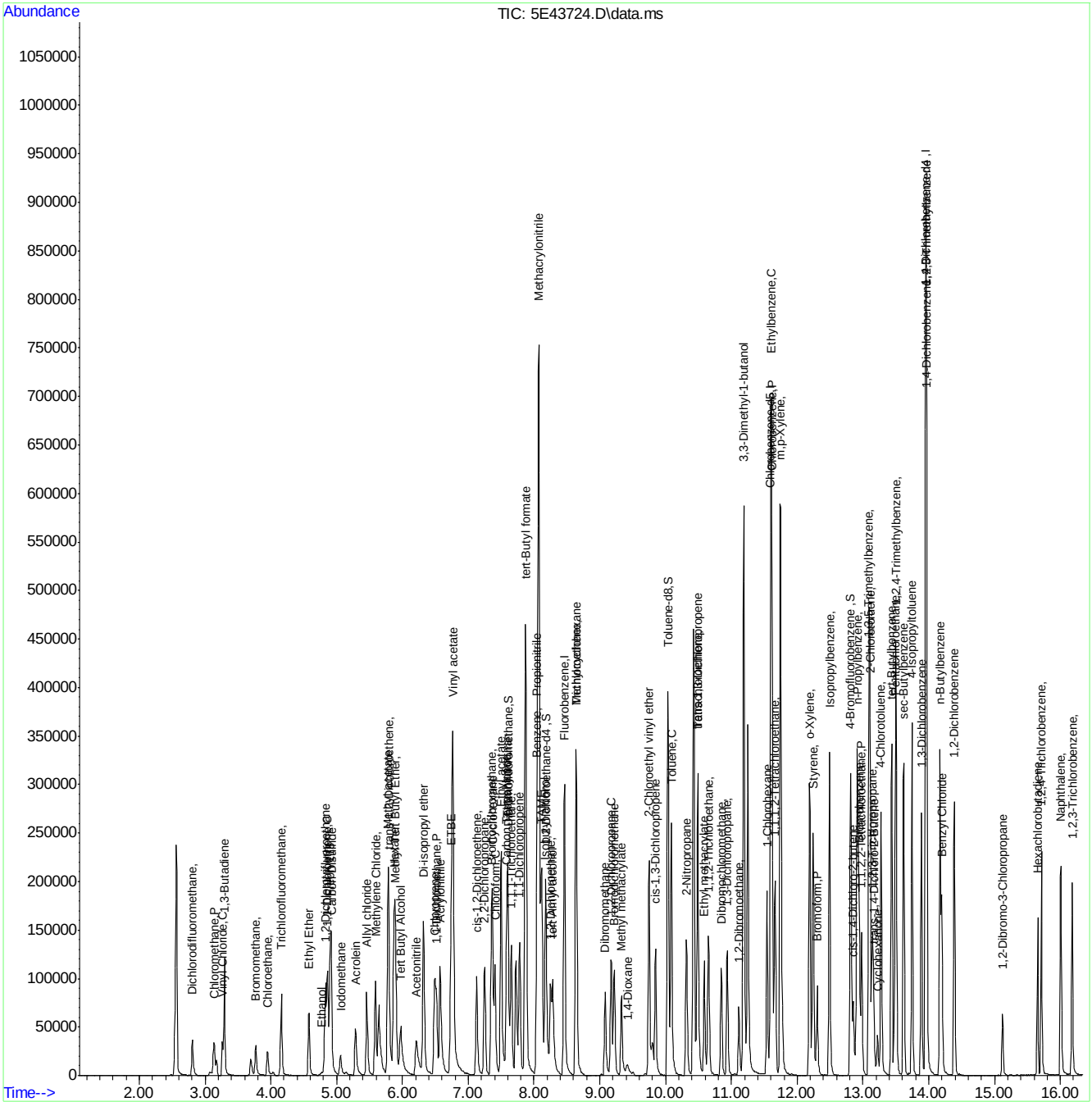
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
96)	4-Chlorotoluene	13.273	91	154269	37.97	ug/L		97
98)	tert-Butylbenzene	13.438	91	103603	37.37	ug/L		98
99)	1,2,4-Trimethylbenzene	13.505	105	185499	39.79	ug/L		99
100)	Pentachloroethane	13.493	167	38009	43.60	ug/L		98
101)	sec-Butylbenzene	13.621	105	211338	37.20	ug/L		99
102)	4-Isopropyltoluene	13.749	119	195675	38.16	ug/L		99
103)	1,3-Dichlorobenzene	13.889	146	107725	37.57	ug/L		98
104)	1,2,3-Trimethylbenzene	13.962	105	188755	38.02	ug/L		97
105)	1,4-Dichlorobenzene	13.968	146	118440	37.80	ug/L		96
106)	n-Butylbenzene	14.170	92	100601	41.64	ug/L		97
107)	Benzyl Chloride	14.200	126	25264	41.86	ug/L	#	84
108)	1,2-Dichlorobenzene	14.389	146	106925	38.67	ug/L		98
109)	1,2-Dibromo-3-Chloropr...	15.121	75	13572	41.53	ug/L		87
110)	Hexachlorobutadiene	15.657	225	26392	39.30	ug/L		97
111)	1,2,4-Trichlorobenzene	15.712	180	65687	40.26	ug/L		96
112)	Naphthalene	16.011	128	166188	43.05	ug/L		99
113)	1,2,3-Trichlorobenzene	16.181	180	56873	41.50	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-07-2023\
Data File : 5E43724.D
Acq On : 7 Nov 2023 4:28 pm
Operator : joannel
Sample : ICV1953-5
Misc : MS55196,V5E1953,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 10:07:50 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43727.D
Acq On : 8 Nov 2023 9:11 am
Operator : joannel
Sample : CC1953-5
Misc : MS55196,V5E1954,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:28:27 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.463	96	274330	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	209466	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	128875	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	86596	48.86	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.72%			
49) 1,2-Dichloroethane-d4	8.183	65	100553	48.92	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 97.84%			
62) Toluene-d8	10.036	98	270533	50.97	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 101.94%			
86) 4-Bromofluorobenzene	12.810	95	111585	50.83	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	40596	39.27	ug/L	99
3) Chloromethane	3.129	50	47025	40.63	ug/L	98
4) Vinyl Chloride	3.263	62	39487	43.98	ug/L	99
5) 1,3-Butadiene	3.294	39	47882	39.99	ug/L	98
6) Bromomethane	3.769	94	21459	39.71	ug/L	88
7) Chloroethane	3.952	64	25849	45.08	ug/L	98
8) Trichlorofluoromethane	4.159	101	78990	38.80	ug/L	98
9) Ethyl Ether	4.580	59	36006	38.83	ug/L	98
10) Ethanol	4.769	45	11522	770.39	ug/L	89
11) 1,2-Dichlorotrifluoroe...	4.830	67	42910	39.44	ug/L	94
12) 1,1-Dichloroethene	4.860	61	68124	38.43	ug/L	96
13) Freon 113	4.903	101	42400	39.73	ug/L	96
14) Carbon Disulfide	4.921	76	125957	38.89	ug/L	97
15) Iodomethane	5.061	142	38491	44.64	ug/L	98
16) Acrolein	5.287	56	48076	199.79	ug/L	97
17) Allyl chloride	5.458	41	54524	41.83	ug/L	97
18) Methylene Chloride	5.586	49	63521	36.96	ug/L	96
19) Acetone	5.647	43	74096	189.53	ug/L	95
20) Methyl acetate	5.775	43	188369	191.94	ug/L	99
21) trans-1,2-Dichloroethene	5.793	61	65394	40.02	ug/L	97
22) Hexane	5.872	56	40883	40.23	ug/L	95
23) Methyl Tert Butyl Ether	5.897	73	139278	38.25	ug/L	91
24) Acetonitrile	6.214	41	55802	402.97	ug/L	98
25) Di-isopropyl ether	6.323	45	143938	39.66	ug/L	98
26) Chloroprene	6.488	53	69405	40.34	ug/L	97
27) 1,1-Dichloroethane	6.519	63	85442	39.41	ug/L	98
28) Acrylonitrile	6.573	53	94412	188.79	ug/L	100
29) ETBE	6.744	59	151453	39.13	ug/L	93
30) Tert Butyl Alcohol	5.976	59	70213	339.55	ug/L	98
31) Vinyl acetate	6.769	43	519435	201.29	ug/L	100
32) cis-1,2-Dichloroethene	7.128	96	49990	40.14	ug/L	92
33) 2,2-Dichloropropane	7.250	77	74776	37.89	ug/L	97
34) Bromochloromethane	7.354	128	25922	38.77	ug/L	93
35) Cyclohexane	7.366	56	77677	40.65	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43727.D
Acq On : 8 Nov 2023 9:11 am
Operator : joannel
Sample : CC1953-5
Misc : MS55196,V5E1954,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:28:27 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	7.409	83	93162	38.16	ug/L	99
37) Ethyl acetate	7.500	43	253381	184.04	ug/L	98
38) Tetrahydrofuran	7.598	42	18142	38.09	ug/L	94
40) Carbon Tetrachloride	7.585	117	77252	36.79	ug/L	98
41) 1,1,1-Trichloroethane	7.652	97	85551	36.35	ug/L	98
42) 2-Butanone	7.726	43	117151	182.12	ug/L	99
43) 1,1-Dichloropropene	7.780	75	62450	41.43	ug/L	97
44) tert-Butyl formate	7.872	59	229207	375.79	ug/L	97
45) Propionitrile	8.049	54	84145	375.21	ug/L	98
46) Methacrylonitrile	8.073	41	328335	394.57	ug/L	98
47) Benzene	8.043	78	167838	38.20	ug/L	97
48) TAME	8.116	73	131507	37.72	ug/L	94
50) 1,2-Dichloroethane	8.250	62	73616	36.94	ug/L	94
51) tert Amyl alcohol	8.280	59	52981	339.15	ug/L	96
52) Trichloroethene	8.640	95	50632	39.06	ug/L	93
53) Methylcyclohexane	8.640	83	73727	39.97	ug/L	94
54) Dibromomethane	9.085	93	31963	38.34	ug/L	98
55) 1,2-Dichloropropane	9.177	63	42262	39.42	ug/L	97
56) Bromodichloromethane	9.219	83	71071	37.99	ug/L	96
57) Methyl methacrylate	9.329	41	44881	39.62	ug/L	98
58) 1,4-Dioxane	9.420	88	11574	777.74	ug/L	98
59) 2-Chloroethyl vinyl ether	9.750	63	81211	175.24	ug/L	96
60) cis-1,3-Dichloropropene	9.847	75	72690	41.67	ug/L	95
63) Toluene	10.085	91	189056	38.86	ug/L	100
64) Isobutyl alcohol	8.177	43	43116	729.53	ug/L	94
65) 2-Nitropropane	10.317	41	79613	182.87	ug/L	95
66) 4-Methyl-2-pentanone	10.426	43	247539	186.92	ug/L	98
67) trans-1,3-Dichloropropene	10.487	75	70978	40.07	ug/L	92
68) Tetrachloroethene	10.493	166	57113	38.62	ug/L	96
69) Ethyl methacrylate	10.585	69	50034	37.27	ug/L	97
70) 1,1,2-Trichloroethane	10.652	83	36264	40.24	ug/L	86
71) Dibromochloromethane	10.847	129	60864	40.69	ug/L	98
72) 1,3-Dichloropropane	10.938	76	70559	40.91	ug/L	100
73) 1,2-Dibromoethane	11.115	107	50669	39.67	ug/L	96
74) 3,3-Dimethyl-1-butanol	11.188	57	187493	1524.87	ug/L	98
75) 2-hexanone	11.249	43	175323	188.18	ug/L	99
76) 1-Chlorohexane	11.542	91	61887	40.65	ug/L	97
77) Ethylbenzene	11.609	91	220131	37.58	ug/L	97
78) Chlorobenzene	11.615	112	132809	38.80	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.664	131	55112	38.28	ug/L	95
80) m,p-Xylene	11.749	91	350991	76.22	ug/L	98
81) o-Xylene	12.188	91	180189	39.28	ug/L	99
82) Styrene	12.243	104	136417	41.63	ug/L	98
83) Bromoform	12.304	173	43093	39.05	ug/L	99
84) Isopropylbenzene	12.493	105	224772	39.39	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.853	53	13005	45.03	ug/L	97
88) n-Propylbenzene	12.914	91	258992	38.72	ug/L	99
89) Bromobenzene	12.944	156	58914	39.14	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.981	83	61911	38.32	ug/L	97
91) 1,3,5-Trimethylbenzene	13.097	105	195808	39.84	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43727.D
Acq On : 8 Nov 2023 9:11 am
Operator : joannel
Sample : CC1953-5
Misc : MS55196,V5E1954,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:28:27 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

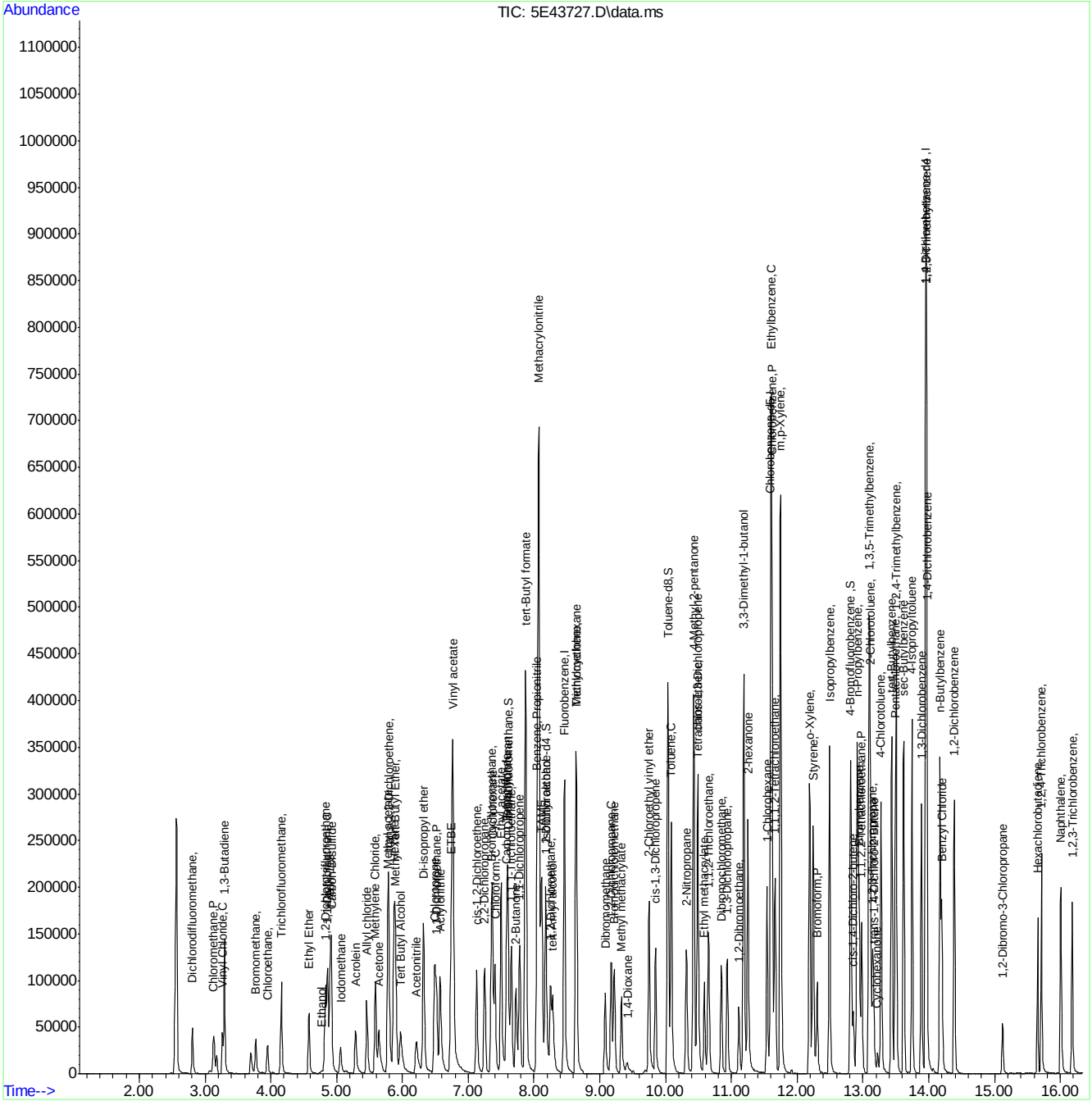
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	13.109	91	178695	38.21	ug/L		96
93)	trans-1,4-Dichloro-2-B...	13.164	53	14514	44.32	ug/L	#	60
94)	1,2,3-Trichloropropane	13.145	110	20733	36.88	ug/L		87
95)	Cyclohexanone	13.218	55	9604	192.89	ug/L		87
96)	4-Chlorotoluene	13.273	91	160423	37.77	ug/L		98
98)	tert-Butylbenzene	13.438	91	108280	37.37	ug/L		99
99)	1,2,4-Trimethylbenzene	13.505	105	195315	40.08	ug/L		100
100)	Pentachloroethane	13.493	167	37117	40.87	ug/L		93
101)	sec-Butylbenzene	13.621	105	232724	39.19	ug/L		100
102)	4-Isopropyltoluene	13.749	119	211176	39.40	ug/L		98
103)	1,3-Dichlorobenzene	13.889	146	116104	38.74	ug/L		98
104)	1,2,3-Trimethylbenzene	13.962	105	200707	38.68	ug/L		96
105)	1,4-Dichlorobenzene	13.974	146	120864	36.90	ug/L		97
106)	n-Butylbenzene	14.169	92	102405	40.64	ug/L		98
107)	Benzyl Chloride	14.200	126	24278	38.82	ug/L	#	91
108)	1,2-Dichlorobenzene	14.389	146	110380	38.19	ug/L		98
109)	1,2-Dibromo-3-Chloropr...	15.121	75	11872	35.12	ug/L		97
110)	Hexachlorobutadiene	15.657	225	26146	37.36	ug/L		99
111)	1,2,4-Trichlorobenzene	15.712	180	67195	39.45	ug/L		100
112)	Naphthalene	16.011	128	152391	37.77	ug/L		99
113)	1,2,3-Trichlorobenzene	16.181	180	54056	37.74	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\11-08-2023\
Data File : 5E43727.D
Acq On : 8 Nov 2023 9:11 am
Operator : joannel
Sample : CC1953-5
Misc : MS55196,V5E1954,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:28:27 2023
Quant Method : C:\msdchem\1\methods\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43754.d
Acq On : 8 Nov 2023 8:22 pm
Operator : joannel
Sample : ECC1953-5 Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 09 05:41:25 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	8.464	96	226692	50.00	ug/L	0.00
61) Chlorobenzene-d5	11.597	117	178921	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.956	152	110817	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	7.604	113	73626	50.27	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.54%			
49) 1,2-Dichloroethane-d4	8.177	65	87345	51.42	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 102.84%			
62) Toluene-d8	10.036	98	225994	49.85	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.70%			
86) 4-Bromofluorobenzene	12.810	95	93321	49.44	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.806	85	37396	43.7751	ug/L	98
3) Chloromethane	3.135	50	40302	42.1375	ug/L	97
4) Vinyl Chloride	3.263	62	34003	45.8348	ug/L	96
5) 1,3-Butadiene	3.294	39	48454	48.9665	ug/L	98
6) Bromomethane	3.769	94	15674	35.0992	ug/L	92
7) Chloroethane	3.946	64	23306	49.1836	ug/L	93
8) Trichlorofluoromethane	4.159	101	74652	44.3806	ug/L	97
9) Ethyl Ether	4.580	59	32811	42.8177	ug/L	98
10) Ethanol	4.775	45	10350	837.4477	ug/L	94
11) 1,2-Dichlorotrifluoroe...	4.824	67	39020	43.3966	ug/L	90
12) 1,1-Dichloroethene	4.861	61	62154	42.4265	ug/L	97
13) Freon 113	4.903	101	37513	42.3975	ug/L	95
14) Carbon Disulfide	4.915	76	108763	40.6330	ug/L	98
15) Iodomethane	5.062	142	39458	53.0495	ug/L	99
16) Acrolein	5.287	56	41688	208.4439	ug/L	98
17) Allyl chloride	5.458	41	45801	42.5000	ug/L	99
18) Methylene Chloride	5.586	49	55610	39.3203	ug/L	98
19) Acetone	5.641	43	73866	228.6440	ug/L	99
20) Methyl acetate	5.781	43	201492	248.4593	ug/L	98
21) trans-1,2-Dichloroethene	5.793	61	58196	43.0942	ug/L	91
22) Hexane	5.873	56	31854	37.9358	ug/L	95
23) Methyl Tert Butyl Ether	5.891	73	130565	43.3976	ug/L	98
24) Acetonitrile	6.214	41	50802	441.6166	ug/L	96
25) Di-isopropyl ether	6.324	45	130542	43.5286	ug/L	97
26) Chloroprene	6.488	53	63663	44.3962	ug/L	97
27) 1,1-Dichloroethane	6.519	63	76991	42.9708	ug/L	97
28) Acrylonitrile	6.574	53	89354	214.5843	ug/L	98
29) ETBE	6.744	59	140538	43.9349	ug/L	96
30) Tert Butyl Alcohol	5.970	59	75103	436.6938	ug/L	94
31) Vinyl acetate	6.763	43	404088	189.5004	ug/L	98
32) cis-1,2-Dichloroethene	7.128	96	44356	43.1056	ug/L	95
33) 2,2-Dichloropropane	7.250	77	58717	36.0030	ug/L	96
34) Bromochloromethane	7.348	128	23876	43.1052	ug/L	90
35) Cyclohexane	7.366	56	67112	42.3756	ug/L	97
36) Chloroform	7.409	83	84052	41.6602	ug/L	92
37) Ethyl acetate	7.500	43	235025	205.9125	ug/L	98
38) Tetrahydrofuran	7.598	42	16587	42.2242	ug/L	95
40) Carbon Tetrachloride	7.586	117	73918	42.6046	ug/L	99
41) 1,1,1-Trichloroethane	7.653	97	82232	42.2770	ug/L	97
42) 2-Butanone	7.726	43	115248	216.8111	ug/L	97
43) 1,1-Dichloropropene	7.781	75	54814	44.0101	ug/L	97
44) tert-Butyl formate	7.872	59	211007	418.6547	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43754.d
Acq On : 8 Nov 2023 8:22 pm
Operator : joannel
Sample : ECC1953-5 Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 09 05:41:25 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) Propionitrile	8.049	54	80928	432.7523	ug/L		99
46) Methacrylonitrile	8.073	41	308183	448.1849	ug/L		99
47) Benzene	8.043	78	153387	42.2437	ug/L		97
48) TAME	8.116	73	123658	42.9230	ug/L		96
50) 1,2-Dichloroethane	8.250	62	70844	43.0170	ug/L		99
51) tert Amyl alcohol	8.287	59	56847	434.4818	ug/L		97
52) Trichloroethene	8.640	95	46566	43.4677	ug/L		97
53) Methylcyclohexane	8.640	83	66349	43.2219	ug/L		98
54) Dibromomethane	9.079	93	29195	42.2717	ug/L		97
55) 1,2-Dichloropropane	9.171	63	38297	43.0863	ug/L		96
56) Bromodichloromethane	9.219	83	66168	42.8044	ug/L		98
57) Methyl methacrylate	9.329	41	42663	44.9268	ug/L		97
58) 1,4-Dioxane	9.408	88	11220	912.3874	ug/L		92
59) 2-Chloroethyl vinyl ether	9.750	63	81976	209.3971	ug/L		94
60) cis-1,3-Dichloropropene	9.847	75	63503	44.0483	ug/L		99
63) Toluene	10.085	91	168849	40.6267	ug/L		98
64) Isobutyl alcohol	8.177	43	44495	865.9414	ug/L		96
65) 2-Nitropropane	10.317	41	80491	216.4489	ug/L		96
66) 4-Methyl-2-pentanone	10.427	43	243191	214.9839	ug/L		99
67) trans-1,3-Dichloropropene	10.488	75	62729	41.3663	ug/L		94
68) Tetrachloroethene	10.488	166	55481	43.9158	ug/L		97
69) Ethyl methacrylate	10.585	69	46782	40.7915	ug/L		98
70) 1,1,2-Trichloroethane	10.652	83	33104	42.8946	ug/L		95
71) Dibromochloromethane	10.847	129	56264	44.0406	ug/L		95
72) 1,3-Dichloropropane	10.939	76	64532	43.7995	ug/L		98
73) 1,2-Dibromoethane	11.115	107	46861	42.7841	ug/L		98
74) 3,3-Dimethyl-1-butanol	11.189	57	206680	1967.8827	ug/L		95
75) 2-hexanone	11.250	43	170766	212.6184	ug/L		99
76) 1-Chlorohexane	11.542	91	55775	42.7151	ug/L		97
77) Ethylbenzene	11.609	91	200607	40.0919	ug/L		98
78) Chlorobenzene	11.615	112	121116	41.4279	ug/L		98
79) 1,1,1,2-Tetrachloroethane	11.664	131	51566	41.9334	ug/L		95
80) m,p-Xylene	11.749	91	323570	82.2627	ug/L		100
81) o-Xylene	12.188	91	166503	42.4925	ug/L		99
82) Styrene	12.243	104	124683	44.5404	ug/L		98
83) Bromoform	12.304	173	39020	41.2211	ug/L		99
84) Isopropylbenzene	12.493	105	210182	43.1186	ug/L		98
87) cis-1,4-Dichloro-2-butene	12.853	53	6911	29.9241	ug/L		93
88) n-Propylbenzene	12.914	91	237158	41.2313	ug/L		99
89) Bromobenzene	12.944	156	54732	42.2843	ug/L		98
90) 1,1,2,2-Tetrachloroethane	12.981	83	57357	41.2862	ug/L		100
91) 1,3,5-Trimethylbenzene	13.091	105	181163	42.8717	ug/L		97
92) 2-Chlorotoluene	13.109	91	164147	40.8223	ug/L		99
93) trans-1,4-Dichloro-2-B...	13.164	53	8734	32.4739	ug/L	#	31
94) 1,2,3-Trichloropropane	13.146	110	19293	39.9073	ug/L		91
95) Cyclohexanone	13.219	55	9503	221.9625	ug/L		94
96) 4-Chlorotoluene	13.274	91	151096	41.3741	ug/L		100
98) tert-Butylbenzene	13.438	91	103474	41.5258	ug/L		99
99) 1,2,4-Trimethylbenzene	13.505	105	180274	43.0174	ug/L		99
100) Pentachloroethane	13.493	167	31051	39.8162	ug/L		94
101) sec-Butylbenzene	13.615	105	218656	42.8213	ug/L		99
102) 4-Isopropyltoluene	13.749	119	195674	42.4590	ug/L		98
103) 1,3-Dichlorobenzene	13.889	146	108285	42.0141	ug/L		98
104) 1,2,3-Trimethylbenzene	13.962	105	186800	41.8646	ug/L		99
105) 1,4-Dichlorobenzene	13.969	146	114558	40.6780	ug/L		96
106) n-Butylbenzene	14.170	92	90597	41.7161	ug/L		99
107) Benzyl Chloride	14.200	126	17543	33.1630	ug/L	#	91
108) 1,2-Dichlorobenzene	14.389	146	105093	42.2819	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43754.d
Acq On : 8 Nov 2023 8:22 pm
Operator : joannel
Sample : ECC1953-5 Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 09 05:41:25 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration

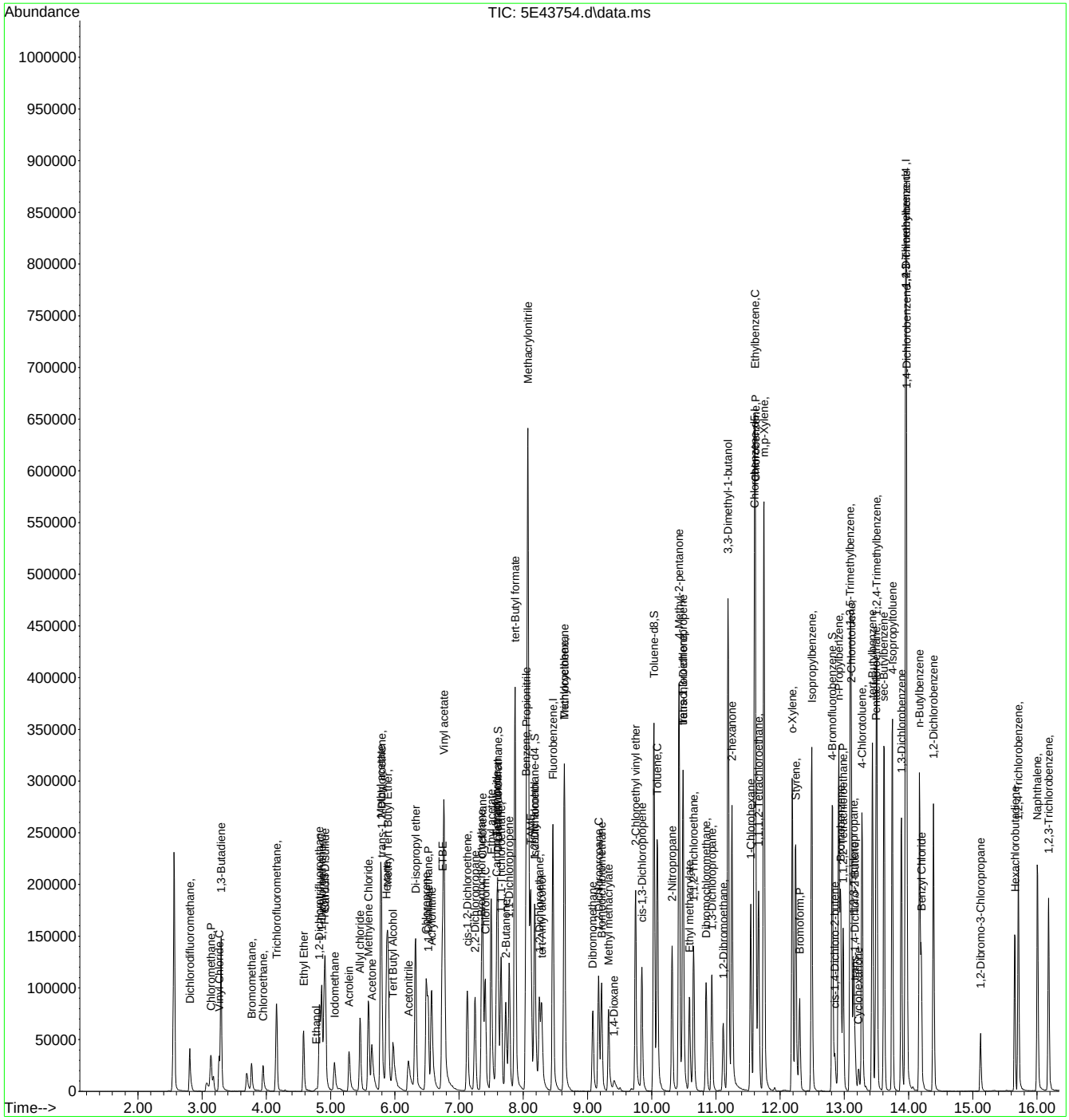
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2-Dibromo-3-Chloropr...	15.121	75	12949	43.9182	ug/L	97
110) Hexachlorobutadiene	15.657	225	25334	41.8091	ug/L	97
111) 1,2,4-Trichlorobenzene	15.712	180	63101	42.8537	ug/L	95
112) Naphthalene	16.005	128	166034	47.8560	ug/L	100
113) 1,2,3-Trichlorobenzene	16.182	180	54903	44.5740	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\V5e1954\
Data File : 5E43754.d
Acq On : 8 Nov 2023 8:22 pm
Operator : joannel
Sample : ECC1953-5 Inst : MSVOA20
Misc : MS55242,V5E1954,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 09 05:41:25 2023
Quant Method : R:\GBS Manila Data Validator\jenniferf\11-09-2023\V5E1954\METHOD\V5E_11-07-2023_.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Wed Nov 08 08:42:33 2023
Response via : Initial Calibration



SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA20-5E
Date:	11/7/2023
Analyst:	JoAnn L
Column Type	RTXVMS
Detector	5975 MSD
Purge Pressure	1.1 PSI
Purge Volume	5 mL

Method(s):	8260
Method File:	applX11-07-2023_.M
Calibration Date:	11/7/2023
Acq. Method:	8260VMSVI
EM Voltage:	1435V
Run ID:	**V5E1953**

BFB:	VS3540
ICAL/CC:	VS3523, VS3537, VS3524
VS3538, VS3525, VS3518,VS3526,,	
ICV/BS:	VS3533, VS3534, VS3541
VS3528, VS3536, VS3535,	
ISTD/Surr.:	VS3540

pH Paper Lot#:	206722
KI Paper Lot#:	14-860;05/09/2022
AFA Lot#:	VS3432A
Data processed by:	JoAnn L
Sample ID Ver. by:	JoAnn L
Date Verified:	11/7/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
5E43714	BFB	-	-	Water	1	-	-	-	-	Passed autofind✓
5E43715	IC1953-1	-	-	Water	2	-	-	-	-	1uL(-)100mL ✓
5E43716	IC1953-8	-	-	Water	3	-	-	-	-	2uL(-)100mL ✓
5E43717	IC1953-2	-	-	Water	4	-	-	-	-	5uL(-)100mL ✓
5E43718	IC1953-3	-	-	Water	5	-	-	-	-	5uL(-)50mL ✓
5E43719	IC1953-4	-	-	Water	6	-	-	-	-	12.5uL(-)50mL ✓
5E43720	ICC1953-5	-	-	Water	7	-	-	-	-	20uL(-)50mL ✓
5E43721	IC1953-6	-	-	Water	8	-	-	-	-	35uL(-)50mL ✓
5E43722	IC1953-7	-	-	Water	9	-	-	-	-	50uL(-)50mL ✓
5E43723	BLANK	-	-	Water	10	-	-	-	-	
5E43724	ICV1953-5	-	-	Water	11	-	-	-	-	20uL(-)50mL ✓
5E43725	ICV1953-4	-	-	Water	12	-	-	-	-	Not needed-not used
5E43728	ICV1953-5	-	-	Water	3	-	-	-	-	VS3541 ketones only; 20uL(-)50mL ✓

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate
Manual Integration Rational SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

SGS -ORLANDO **VOA-GCMS ANALYSIS LOG**

Instrument:	MSVOA20-5E
Date:	11/8/2023
Analyst:	JoAnn L
Column Type	RTXVMS
Detector	5975 MSD
Purge Pressure	1.1 PSI
Purge Volume	5 mL

Method(s):	8260
Method File:	applX11-07-2023_.M
Calibration Date:	11/7/2023
Acq. Method:	8260VMSVI
EM Voltage:	1435V
Run ID:	**V5E1954**

BFB:	VS3540
ICAL/CC:	VS3523, VS3537, VS3524
VS3538, VS3525, VS3518,VS3526,,	
ICV/BS:	VS3533, VS3534, VS3541
VS3528, VS3536, VS3535,	
ISTD/Surr.:	VS3540

pH Paper Lot#:	206722
KI Paper Lot#:	14-860;05/09/2022
AFA Lot#:	VS3432A
Data processed by:	JoAnn L/ Jennifer F
Sample ID Ver. by:	JoAnn L
Date Verified:	11/8/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
5E43726	BFB	-	-	Water	1	-	-	-	-	Passed autofind✓
5E43727	CC1953-5	-	-	Water	2	-	-	-	-	40uL(-)100mL ✓
5E43728	ICV1953-5	-	-	Water	3	-	-	-	-	ketones only; 20uL(-)50mL ✓
5E43729	BS	-	-	Water	4	-	-	-	-	12.5uL(-)50mL ✓
5E43730	RINSE	-	-	Water	5	-	-	-	-	
5E43731	MB(AFA)	-	-	Water	6	-	-	-	-	MEC✓
5E43732	FC10847-6	-	3	Water	7	MS55242	1	N	-	Ecombine✓
5E43733	**FC10968-1**	**-**	**1**	**Water**	**8**	**MS55242**	1	N	**1x**	**EB/NAPH/124-135TMB/XYL C/O**
5E43734	**FC10968-2**	**-**	**1**	**Water**	**9**	**MS55242**	1	N	**1x**	**NAPH C/O**
5E43735	FC10946-5	-	2	Water	10	MS55242	1	N	-	Acetone only✓
5E43736	FC10966-34	-	1	Water	11	MS55242	1	N	-	ND✓
5E43737	FC10966-35	-	1	Water	12	MS55242	1	N	-	ND✓
5E43738	FC10966-36	-	1	Water	13	MS55242	1	N	-	ND✓
5E43739	FC10991-2	-	1	Water	14	MS55242	1	N	-	✓
5E43740	FC10991-3	-	1	Water	15	MS55242	1	N	-	ND✓
5E43741	FC10991-4	-	1	Water	16	MS55242	1	N	-	ND✓
5E43742	FC10954-1A	-	4	Water	17	MS55242	1	N	-	✓
5E43743	FC10954-2A	-	1	Water	18	MS55242	1	N	-	✓
5E43744	FC10954-3A	-	1	Water	19	MS55242	1	N	-	✓
5E43745	FC10966-32	-	1	Water	20	MS55242	1	N	-	ND✓
5E43746	FC10966-33	-	1	Water	21	MS55242	1	N	-	ND✓
5E43747	FC10973-1	-	1	Water	22	MS55242	1	N	-	✓
5E43748	FC10973-2	-	1	Water	23	MS55242	1	N	-	✓
5E43749	FC10973-3	-	1	Water	24	MS55242	1	N	-	✓
5E43750	FC10991-5	-	1	Water	25	MS55242	1	N	-	ND✓
5E43751	FC10999-1A	-	2	Water	26	MS55242	1	N	-	ND✓
5E43752	FC10847-6MS 5	5X	3	Water	27	MS55242	1	N	-	20mL(-)100mL; 25uL(-)100mL ✓
5E43753	FC10847-6MSD	5X	3	Water	28	MS55242	1	N	-	20mL(-)100mL; 25uL(-)100mL ✓
5E43754	ECC1953-5	-	-	Water	29	-	-	-	-	40uL(-)100mL ✓

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate
Manual Integration Rational SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2990-MB	LL86294.D	1	11/14/23	SS	n/a	n/a	GLL2990

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	

Method Blank Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2991-MB	LL86327.D	1	11/15/23	SS	n/a	n/a	GLL2991

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-3A

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2990-BS	LL86291.D	1	11/14/23	SS	n/a	n/a	GLL2990
GLL2990-BSD	LL86292.D	1	11/14/23	SS	n/a	n/a	GLL2990

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	130	120	126	117	3	62-139/30
74-84-0	Ethane	219	263	120	256	117	3	67-141/30

8.2.1

8

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2991-BS	LL86324.D	1	11/15/23	SS	n/a	n/a	GLL2991
GLL2991-BSD	LL86325.D	1	11/15/23	SS	n/a	n/a	GLL2991

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	106	98	116	107	9	62-139/30

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC11161-1MS	LL86307.D	1	11/14/23	SS	n/a	n/a	GLL2990
FC11161-1	LL86305.D	1	11/14/23	SS	n/a	n/a	GLL2990

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	FC11161-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50 U		108	117	108	62-139
74-84-0	Ethane	1.0 U		219	233	106	67-141

8.3.1

8

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC11172-1MS	LL86334.D	1	11/15/23	SS	n/a	n/a	GLL2991
FC11172-1	LL86332.D	1	11/15/23	SS	n/a	n/a	GLL2991

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-3A

CAS No.	Compound	FC11172-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50	U	108	118	109	62-139

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC11161-1DUP	LL86306.D	1	11/14/23	SS	n/a	n/a	GLL2990
FC11161-1	LL86305.D	1	11/14/23	SS	n/a	n/a	GLL2990

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-2A, FC10954-3A

CAS No.	Compound	FC11161-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	0.50 U		ND		nc	30
74-84-0	Ethane	1.0 U		ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC11172-1DUP	LL86333.D	1	11/15/23	SS	n/a	n/a	GLL2991
FC11172-1	LL86332.D	1	11/15/23	SS	n/a	n/a	GLL2991

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FC10954-1A, FC10954-3A

CAS No.	Compound	FC11172-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	0.50 U		ND		nc	30

* = Outside of Control Limits.

Initial Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2678-ICC2678
Lab FileID: LL77119.D

Response Factor Report FID4-LL

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration

Calibration Files
1 =LL77115.D 2 =LL77116.D 3 =LL77117.D 4 =LL77118.D
5 =LL77119.D 6 =LL77120.D 7 =LL77121.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) Methane	8.147	7.784	5.707	6.267	6.226	6.254	6.064	6.636 E5	14.09
2) Acetylene	0.876	1.146	1.052	1.258	1.278	1.267	1.366	1.177 E6	14.18
3) Ethylene	0.806	0.993	0.972	1.105	1.114	1.088	1.088	1.024 E6	10.84
4) Ethane	0.897	1.013	0.978	1.114	1.120	1.125	1.117	1.052 E6	8.60
5) Propane	1.625	2.081	1.200	1.396	1.465	1.462	1.488	1.531 E6	17.89

1) Methane
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998
Response Ratio = 0.00000 + 610295.04174 *A

2) Acetylene
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989
Response Ratio = 0.00000 + 1345065.34207 *A

3) Ethylene
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000
Response Ratio = 0.00000 + 1087940.04642 *A

4) Ethane
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000
Response Ratio = 0.00000 + 1118890.75720 *A

5) Propane
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999
Response Ratio = 0.00000 + 1482646.11599 *A

(#) = Out of Range

RSK122321B.M Tue Dec 28 15:06:18 2021

Initial Calibration Verification

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2678-ICV2678
Lab FileID: LL77123.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15
Acq On : 12-23-2021 03:20:03 PM Operator: trangd
Sample : icv2678-5 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methane	1000.000	1023.341	-2.3	100	0.00	0.02- 0.55
2	Acetylene	1000.000	963.101	3.7	101	0.00	0.28- 0.88
3	Ethylene	1000.000	1024.733	-2.5	100	0.00	0.38- 1.18
4	Ethane	1000.000	1017.149	-1.7	102	0.00	0.61- 1.41
5	Propane	1000.000	1057.495	-5.7	107	0.00	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77119.D RSK122321B.M Thu Dec 30 10:09:01 2021

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2990-CC2678
Lab FileID: LL86290.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\111423\LL86290.D Vial: 2
Acq On : 11-14-2023 09:26:50 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
		Amount	Calc.	%Drift			
1	Methane	1000.000	1098.589	-9.9	108	0.00	0.02- 0.55
2	Acetylene	1000.000	1144.242	-14.4	120	0.00	0.28- 0.88
3	Ethylene	1000.000	1034.235	-3.4	101	-0.02	0.38- 1.18
4	Ethane	1000.000	1044.568	-4.5	104	-0.04	0.61- 1.41
5	Propane	1000.000	912.640	8.7	92	-0.10	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77119.D RSK122321B.M Tue Nov 14 09:33:01 2023

8.5.3

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2990-CC2678
Lab FileID: LL86302.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\111423\LL86302.D Vial: 14
Acq On : 11-14-2023 01:02:18 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methane	500.000	541.887	-8.4	106	0.00	0.02- 0.55
2	Acetylene	500.000	571.200	-14.2	122	0.00	0.28- 0.88
3	Ethylene	500.000	519.859	-4.0	102	-0.02	0.38- 1.18
4	Ethane	500.000	527.605	-5.5	106	-0.04	0.61- 1.41
5	Propane	500.000	449.035	10.2	95	-0.09	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77118.D RSK122321B.M Tue Nov 14 13:08:21 2023

8.5.4

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2990-CC2678
Lab FileID: LL86312.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\111423\LL86312.D Vial: 24
Acq On : 11-14-2023 02:57:58 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methane	500.000	560.218	-12.0	109	0.00	0.02- 0.55
2	Acetylene	500.000	601.100	-20.2#	129	0.00	0.28- 0.88
3	Ethylene	500.000	541.709	-8.3	107	-0.02	0.38- 1.18
4	Ethane	500.000	552.053	-10.4	111	-0.04	0.61- 1.41
5	Propane	500.000	499.135	0.2	106	-0.09	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77118.D RSK122321B.M Tue Nov 14 15:04:14 2023

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2991-CC2678
Lab FileID: LL86323.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\111523\LL86323.D Vial: 2
Acq On : 11-15-2023 09:03:47 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
		Amount	Calc.	%Drift			
1	Methane	1000.000	1083.944	-8.4	106	0.00	0.02- 0.55
2	Acetylene	1000.000	1120.646	-12.1	118	0.00	0.28- 0.88
3	Ethylene	1000.000	1032.859	-3.3	101	-0.02	0.38- 1.18
4	Ethane	1000.000	1049.631	-5.0	105	-0.04	0.61- 1.41
5	Propane	1000.000	925.355	7.5	94	-0.10	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77119.D RSK122321B.M Wed Nov 15 09:19:16 2023

Continuing Calibration Summary

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GLL2991-CC2678
Lab FileID: LL86335.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\111523\LL86335.D Vial: 14
Acq On : 15 Nov 2023 12:03 pm Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methane	500.000	555.154	-11.0	108	0.00	0.02- 0.55
2	Acetylene	500.000	588.333	-17.7#	126	0.00	0.28- 0.88
3	Ethylene	500.000	537.324	-7.5	106	-0.02	0.38- 1.18
4	Ethane	500.000	547.682	-9.5	110	-0.04	0.61- 1.41
5	Propane	500.000	500.915	-0.2	106	-0.09	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LL77118.D RSK122321B.M Wed Nov 15 16:20:57 2023

8.5.7

8

Run Sequence Report

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GLL2678 **Method:** RSKSOP-147/175 **Instrument ID:** GCLL

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2678-IC2678	LL77115.D	12/23/21 11:44	n/a	Initial cal 1
GLL2678-IC2678	LL77116.D	12/23/21 11:53	n/a	Initial cal 2
GLL2678-IC2678	LL77117.D	12/23/21 12:43	n/a	Initial cal 3
GLL2678-IC2678	LL77118.D	12/23/21 12:54	n/a	Initial cal 4
GLL2678-ICC2678	LL77119.D	12/23/21 13:01	n/a	Initial cal 5
GLL2678-IC2678	LL77120.D	12/23/21 14:24	n/a	Initial cal 6
GLL2678-IC2678	LL77121.D	12/23/21 14:39	n/a	Initial cal 7
GLL2678-ICV2678	LL77123.D	12/23/21 15:20	n/a	Initial cal verification 5

Run Sequence Report

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GLL2990 **Method:** RSKSOP-147/175 **Instrument ID:** GCLL

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2990-CC2678	LL86290.D	11/14/23 09:26	n/a	Continuing cal 5
GLL2990-BS	LL86291.D	11/14/23 09:34	n/a	Blank Spike
GLL2990-BSD	LL86292.D	11/14/23 09:52	n/a	Blank Spike Duplicate
GLL2990-MB	LL86294.D	11/14/23 10:11	n/a	Method Blank
ZZZZZZ	LL86295.D	11/14/23 11:50	n/a	(unrelated sample)
ZZZZZZ	LL86296.D	11/14/23 11:58	n/a	(unrelated sample)
ZZZZZZ	LL86297.D	11/14/23 12:10	n/a	(unrelated sample)
ZZZZZZ	LL86298.D	11/14/23 12:17	n/a	(unrelated sample)
ZZZZZZ	LL86299.D	11/14/23 12:30	n/a	(unrelated sample)
FC10954-1A	LL86300.D	11/14/23 12:40	n/a	EW-1
FC10954-2A	LL86301.D	11/14/23 12:48	n/a	EW-3
GLL2990-CC2678	LL86302.D	11/14/23 13:02	n/a	Continuing cal 4
FC10954-3A	LL86304.D	11/14/23 13:16	n/a	EW-4
FC11161-1	LL86305.D	11/14/23 13:46	n/a	(used for QC only; not part of job FC10954)
FC11161-1DUP	LL86306.D	11/14/23 13:58	n/a	Duplicate
FC11161-1MS	LL86307.D	11/14/23 14:15	n/a	Matrix Spike
ZZZZZZ	LL86308.D	11/14/23 14:23	n/a	(unrelated sample)
ZZZZZZ	LL86309.D	11/14/23 14:31	n/a	(unrelated sample)
ZZZZZZ	LL86310.D	11/14/23 14:41	n/a	(unrelated sample)
ZZZZZZ	LL86311.D	11/14/23 14:48	n/a	(unrelated sample)
GLL2990-CC2678	LL86312.D	11/14/23 14:57	n/a	Continuing cal 4
ZZZZZZ	LL86314.D	11/14/23 15:12	n/a	(unrelated sample)
ZZZZZZ	LL86315.D	11/14/23 15:19	n/a	(unrelated sample)
ZZZZZZ	LL86316.D	11/14/23 15:27	n/a	(unrelated sample)
ZZZZZZ	LL86317.D	11/14/23 15:34	n/a	(unrelated sample)
ZZZZZZ	LL86318.D	11/14/23 15:41	n/a	(unrelated sample)
ZZZZZZ	LL86319.D	11/14/23 15:48	n/a	(unrelated sample)
ZZZZZZ	LL86320.D	11/14/23 15:55	n/a	(unrelated sample)
GLL2990-ECC2678	LL86321.D	11/14/23 16:02	n/a	Ending cal 5

Run Sequence Report

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GLL2991 **Method:** RSKSOP-147/175 **Instrument ID:** GCLL

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2991-CC2678	LL86323.D	11/15/23 09:03	n/a	Continuing cal 5
GLL2991-BS	LL86324.D	11/15/23 09:23	n/a	Blank Spike
GLL2991-BSD	LL86325.D	11/15/23 09:35	n/a	Blank Spike Duplicate
GLL2991-MB	LL86327.D	11/15/23 09:49	n/a	Method Blank
ZZZZZZ	LL86328.D	11/15/23 10:44	n/a	(unrelated sample)
ZZZZZZ	LL86329.D	11/15/23 10:52	n/a	(unrelated sample)
FC10954-1A	LL86330.D	11/15/23 11:02	n/a	EW-1
FC10954-3A	LL86331.D	11/15/23 11:15	n/a	EW-4
FC11172-1	LL86332.D	11/15/23 11:24	n/a	(used for QC only; not part of job FC10954)
FC11172-1DUP	LL86333.D	11/15/23 11:43	n/a	Duplicate
FC11172-1MS	LL86334.D	11/15/23 11:55	n/a	Matrix Spike
GLL2991-CC2678	LL86335.D	11/15/23 12:03	n/a	Continuing cal 4
ZZZZZZ	LL86337.D	11/15/23 12:22	n/a	(unrelated sample)
ZZZZZZ	LL86338.D	11/15/23 12:58	n/a	(unrelated sample)
ZZZZZZ	LL86339.D	11/15/23 13:47	n/a	(unrelated sample)
ZZZZZZ	LL86340.D	11/15/23 13:57	n/a	(unrelated sample)
ZZZZZZ	LL86341.D	11/15/23 14:04	n/a	(unrelated sample)
ZZZZZZ	LL86342.D	11/15/23 14:26	n/a	(unrelated sample)
ZZZZZZ	LL86343.D	11/15/23 14:37	n/a	(unrelated sample)
ZZZZZZ	LL86344.D	11/15/23 14:57	n/a	(unrelated sample)
GLL2991-CC2678	LL86345.D	11/15/23 15:04	n/a	Continuing cal 4
ZZZZZZ	LL86347.D	11/15/23 15:18	n/a	(unrelated sample)
ZZZZZZ	LL86348.D	11/15/23 15:30	n/a	(unrelated sample)
ZZZZZZ	LL86349.D	11/15/23 15:38	n/a	(unrelated sample)
ZZZZZZ	LL86350.D	11/15/23 15:47	n/a	(unrelated sample)
ZZZZZZ	LL86351.D	11/15/23 15:56	n/a	(unrelated sample)
GLL2991-ECC2678	LL86352.D	11/15/23 16:05	n/a	Ending cal 5

GC Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86300.D Vial: 12
Acq On : 14 Nov 2023 12:40 pm Operator: samantha
Sample : FC10954-1A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 12:45:58 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

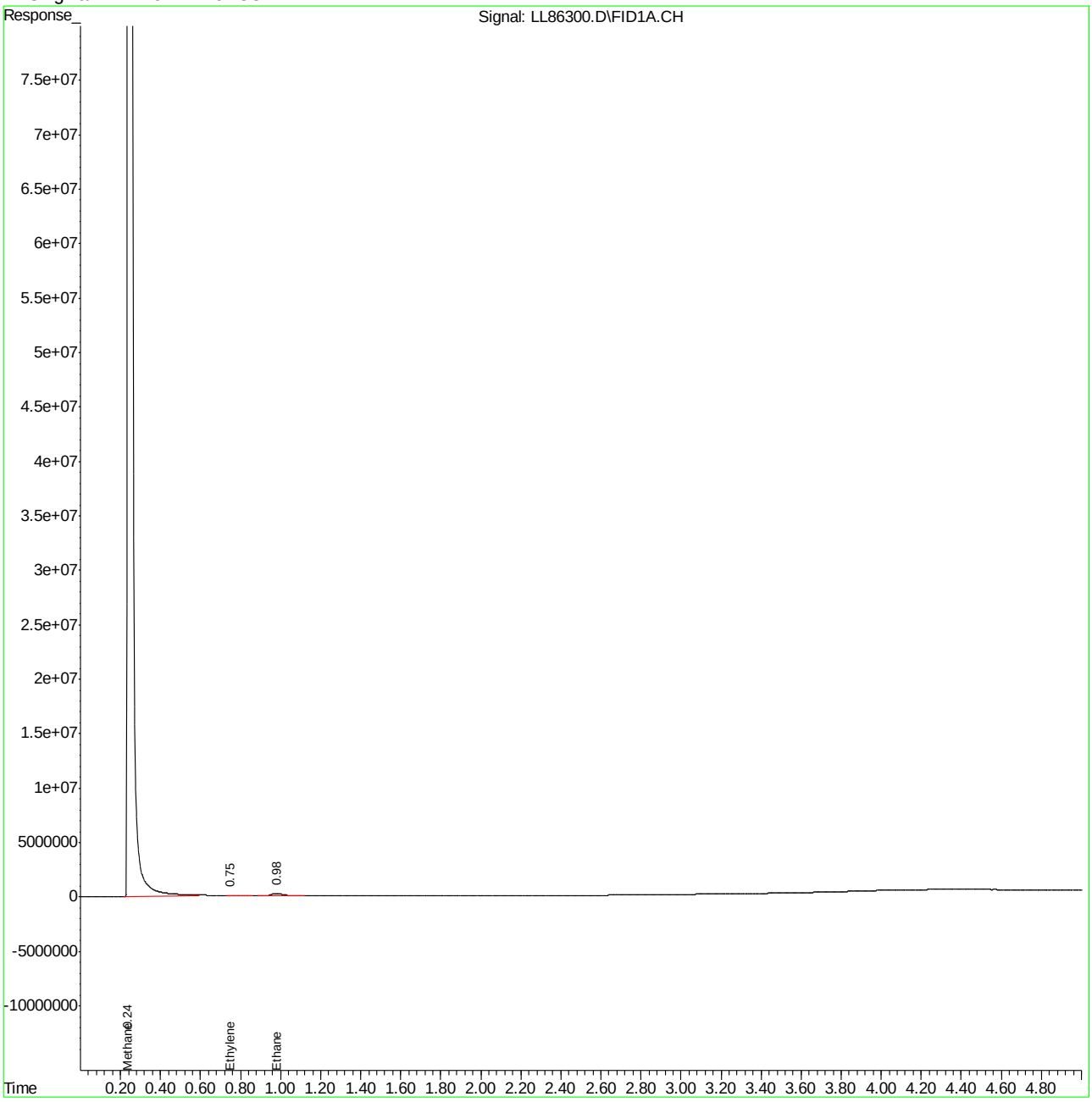
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	19854862808	32533.220	ppmv
2)	Acetylene	0.00	0	N.D.	ppmv d
3)	Ethylene	0.75	2712502	2.493	ppmv
4)	Ethane	0.98	9947002	8.890	ppmv
5)	Propane	3.20	-10039919	N.D.	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86300.D Vial: 12
Acq On : 14 Nov 2023 12:40 pm Operator: samantha
Sample : FC10954-1A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 12:46 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC10954-1A	**Sample Volume:**	38.0 ml
Lab FileID:	LL86300.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 12:40	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	32533.22	37600	3620	ug/l
Ethane	74-84-0	30	8.89	26300	2.0	ug/l
Ethene	74-85-1	28	2.49	10200	0.76	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86330.D Vial: 9
Acq On : 15 Nov 2023 11:02 am Operator: samantha
Sample : fc10954-1A Inst : FID4-LL
Misc : gc24458,gll2991,38,20,500,5,10 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 11:18:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1)	Methane	0.24	2090713633	3425.742	ppmv	
2)	Acetylene	0.58	48443	0.036	ppmv	
3)	Ethylene	0.00	0	N.D.	ppmv	d
4)	Ethane	0.98	981152	0.877	ppmv	
5)	Propane	0.00	0	N.D.	ppmv	

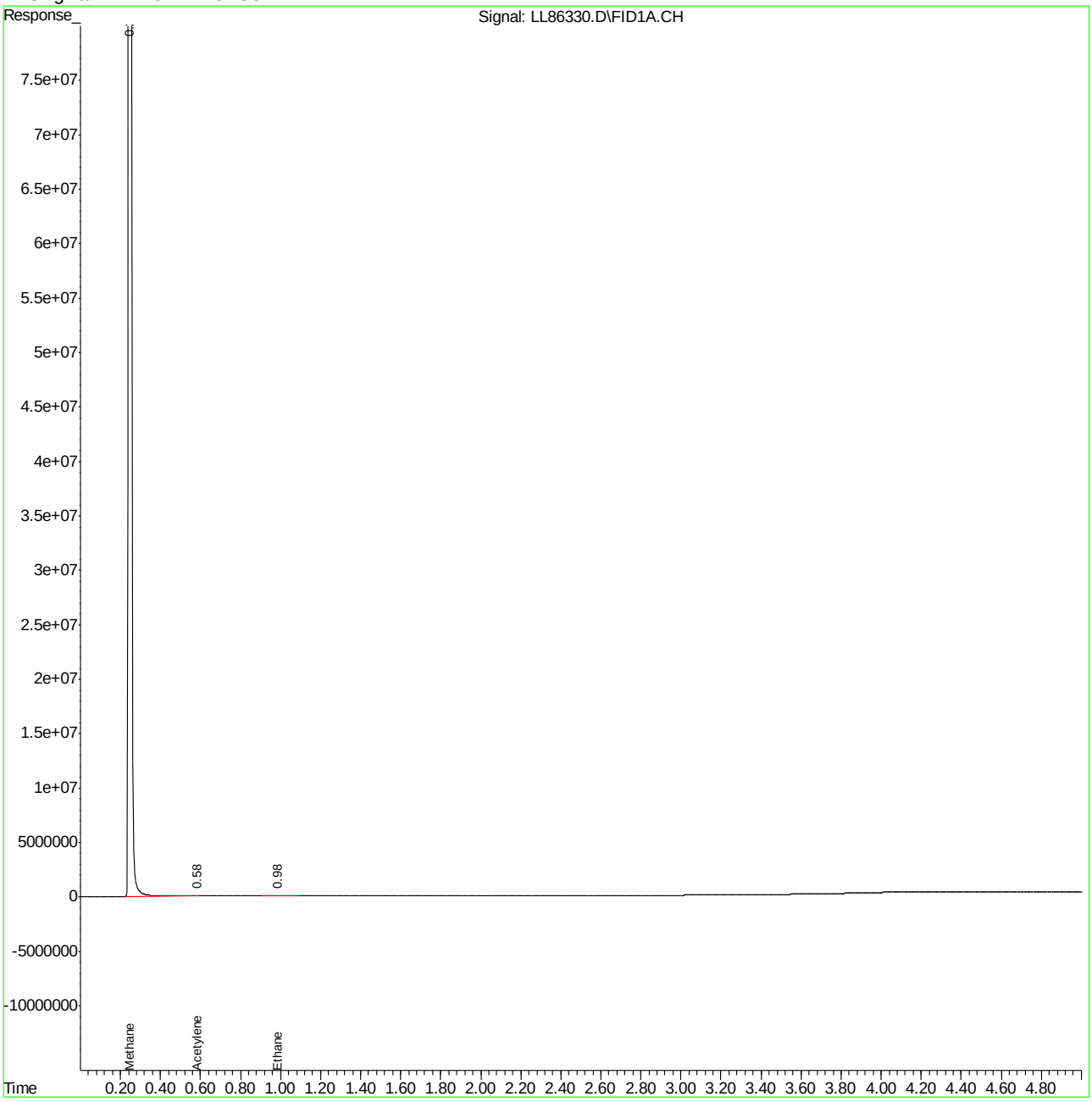
(f)=RT Delta > 1/2 Window (m)=manual int.
LL86330.D RSK122321B.M Wed Nov 15 16:29:05 2023 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86330.D Vial: 9
Acq On : 15 Nov 2023 11:02 am Operator: samantha
Sample : fc10954-1A Inst : FID4-LL
Misc : gc24458,gll2991,38,20,500,5,10 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 11:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC10954-1A	**Sample Volume:**	38.0 ml
Lab FileID:	LL86330.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 11:02	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	3425.74	37600	3810	ug/l
Ethane	74-84-0	30	0.88	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0.04	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86301.D Vial: 13
Acq On : 14 Nov 2023 12:48 pm Operator: samantha
Sample : FC10954-2A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:06:59 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	854828363	1400.680	ppmv
2)	Acetylene	0.57	196486	0.146	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv d
4)	Ethane	0.98	897942	0.803	ppmv
5)	Propane	3.14	-36897335	N.D.	ppmv

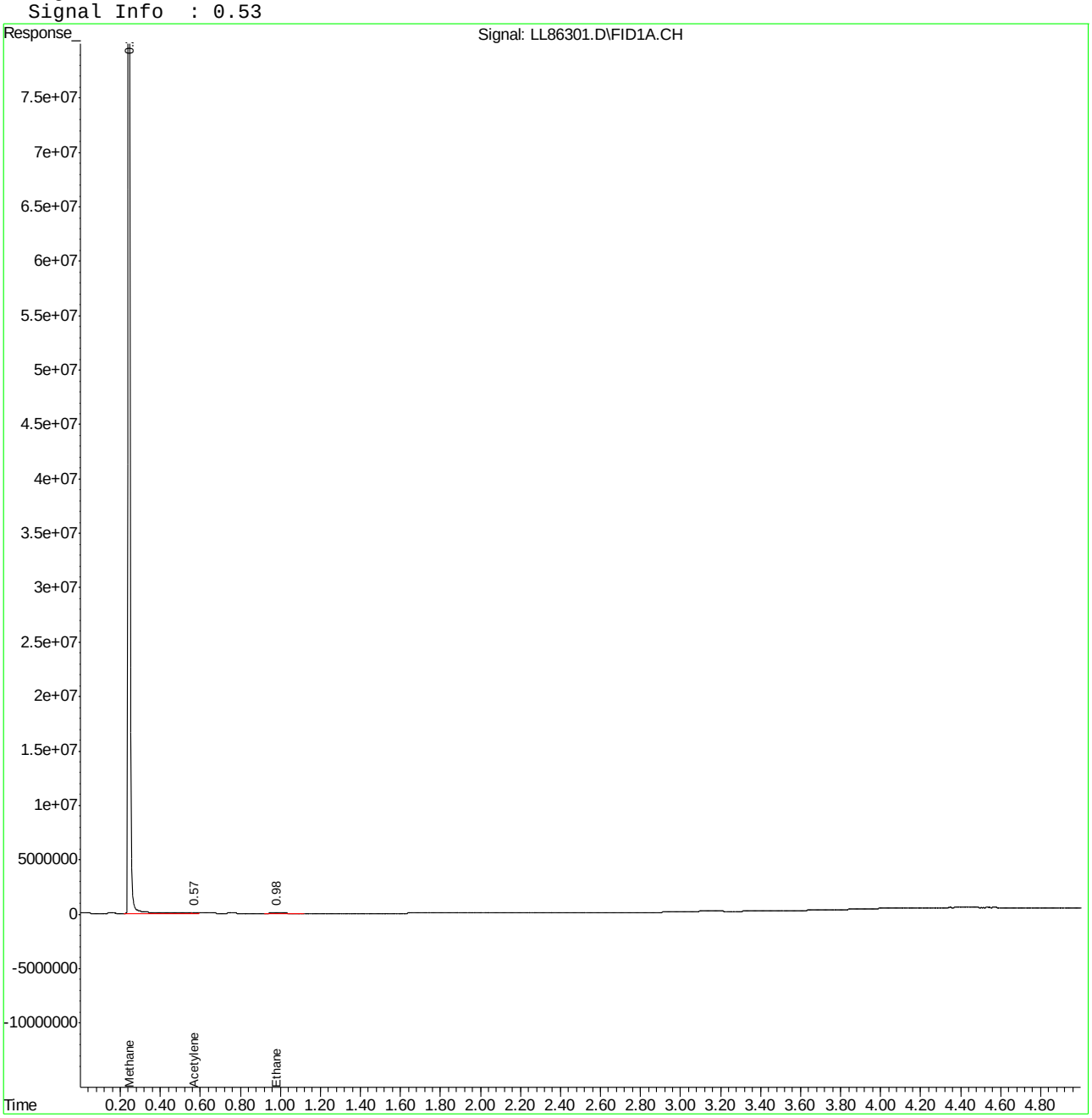
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86301.D Vial: 13
Acq On : 14 Nov 2023 12:48 pm Operator: samantha
Sample : FC10954-2A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:07 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC10954-2A	**Sample Volume:**	38.0 ml
Lab FileID:	LL86301.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 12:48	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1400.68	37600	156	ug/l
Ethane	74-84-0	30	0.8	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0.15	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86304.D Vial: 16
Acq On : 11-14-2023 01:16:41 PM Operator: samantha
Sample : fc10954-3A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:44:58 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

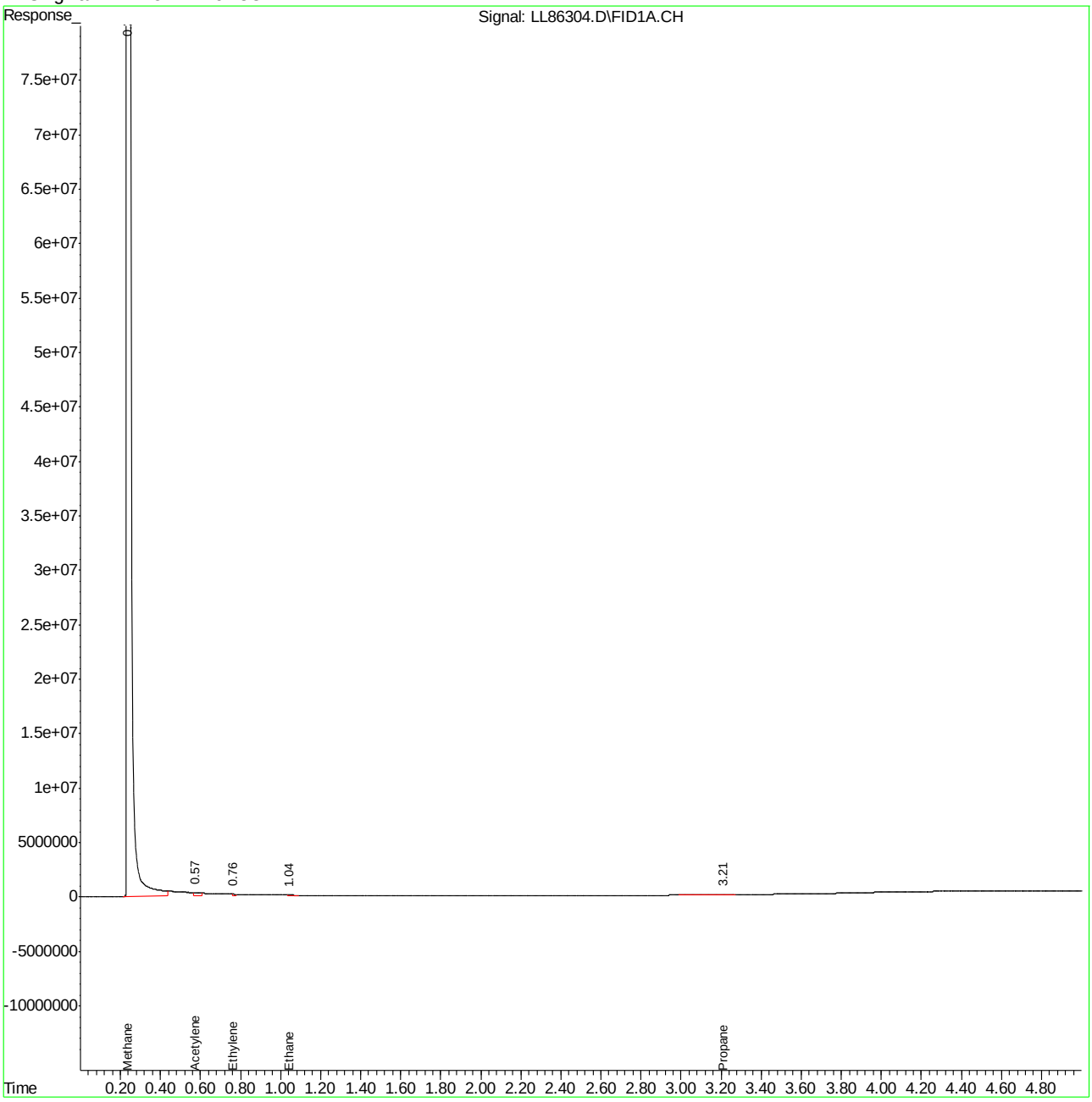
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	13468392872	22068.659	ppmv
2)	Acetylene	0.57	6303520	4.686	ppmv
3)	Ethylene	0.76	1550620	1.425	ppmv
4)	Ethane	1.04	428849	0.383	ppmv
5)	Propane	3.21	1731411	1.168	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86304.D Vial: 16
Acq On : 11-14-2023 01:16:41 PM Operator: samantha
Sample : fc10954-3A Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:44 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC10954-3A	**Sample Volume:**	38.0 ml
Lab FileID:	LL86304.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 13:16	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	22068.66	37600	2450	ug/l
Ethane	74-84-0	30	0.38	26300	0.0	ug/l
Ethene	74-85-1	28	1.43	10200	0.44	ug/l
Acetylene	74-86-2	26	4.69	11940	0.0	ug/l
Propane	74-98-6	44	1.17	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86331.D Vial: 10
Acq On : 15 Nov 2023 11:15 am Operator: samantha
Sample : fc10954-3A Inst : FID4-LL
Misc : gc24458,gll2991,38,20,500,5,10 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 11:44:08 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

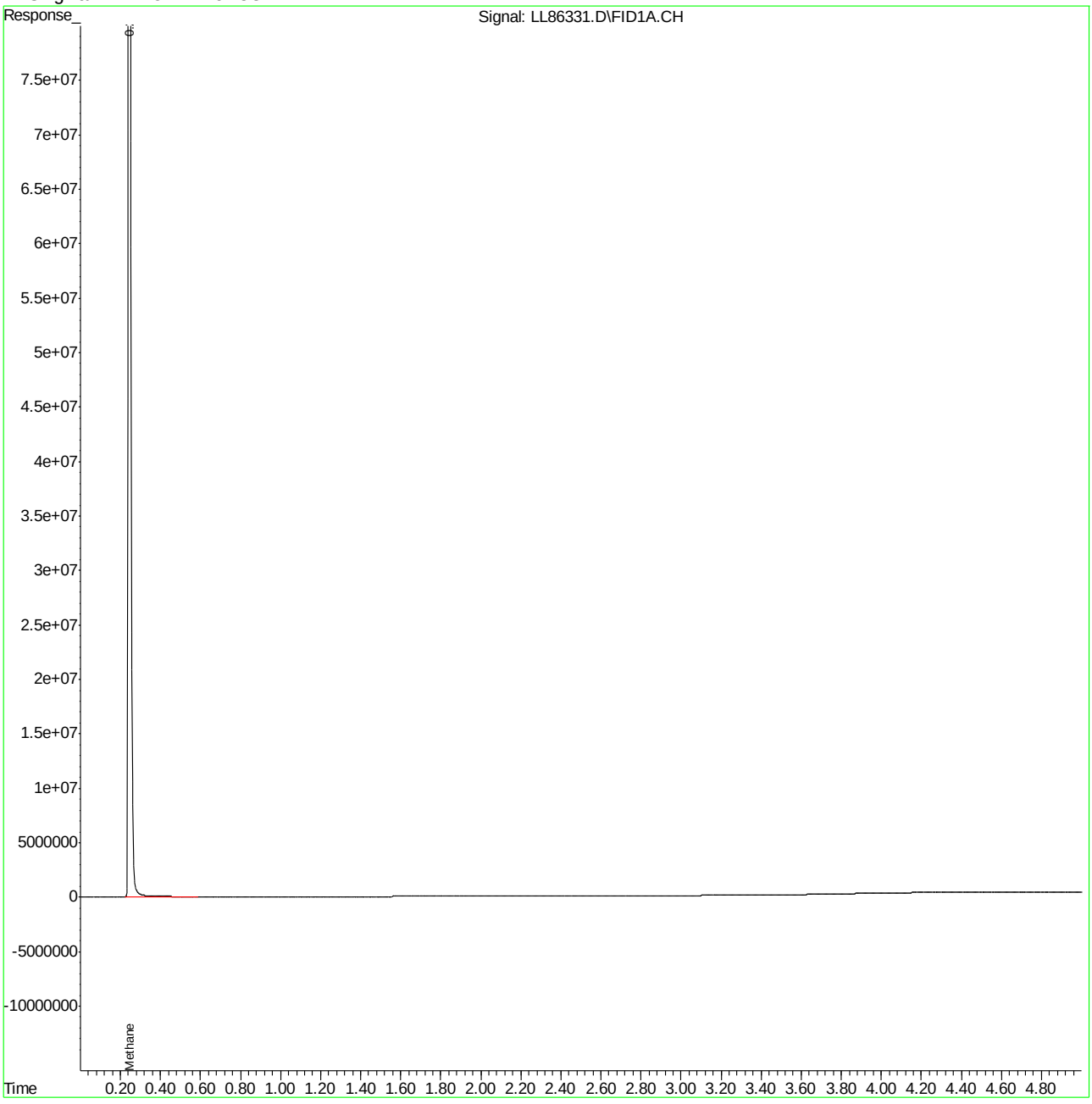
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	1297068085	2125.313	ppmv
2)	Acetylene	0.00	0	N.D.	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv
4)	Ethane	0.00	0	N.D.	ppmv
5)	Propane	0.00	0	N.D.	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86331.D Vial: 10
Acq On : 15 Nov 2023 11:15 am Operator: samantha
Sample : fc10954-3A Inst : FID4-LL
Misc : gc24458,gll2991,38,20,500,5,10 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 11:44 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC10954-3A	**Sample Volume:**	38.0 ml
Lab FileID:	LL86331.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 11:15	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	2125.31	37600	2360	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86294.D Vial: 6
Acq On : 14 Nov 2023 10:11 am Operator: samantha
Sample : mb Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 10:17:23 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

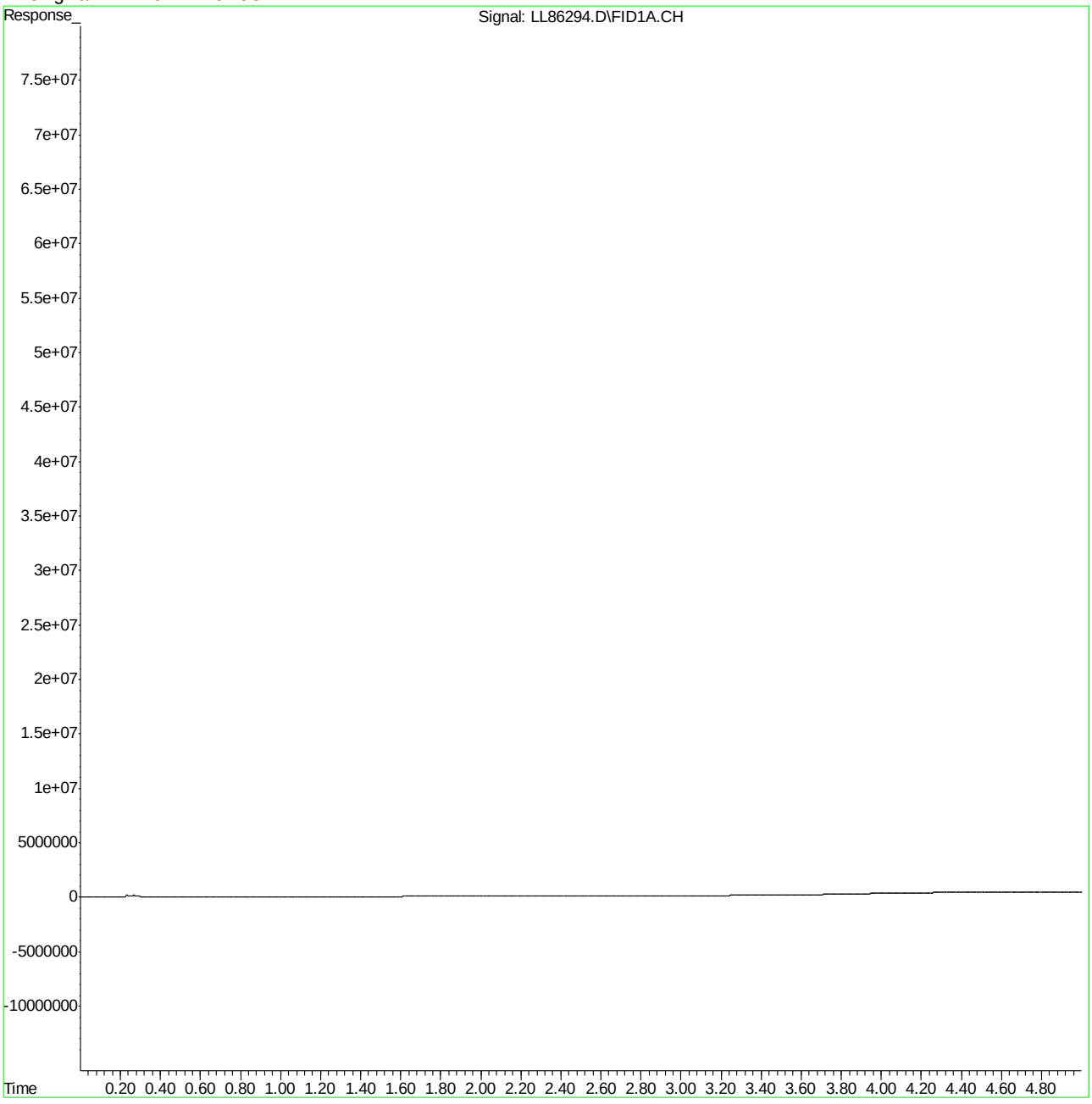
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.00	0	N.D.	ppmv d
2)	Acetylene	0.00	0	N.D.	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv
4)	Ethane	0.00	0	N.D.	ppmv
5)	Propane	0.00	0	N.D.	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86294.D Vial: 6
Acq On : 14 Nov 2023 10:11 am Operator: samantha
Sample : mb Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 10:17 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2990-MB	**Sample Volume:**	38.0 ml
Lab FileID:	LL86294.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 10:11	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86327.D Vial: 6
Acq On : 11-15-2023 09:49:25 AM Operator: samantha
Sample : mb Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 09:54:57 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.25	323143	0.529	ppmv
2)	Acetylene	0.00	0	N.D.	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv
4)	Ethane	0.00	0	N.D.	ppmv
5)	Propane	0.00	0	N.D.	ppmv

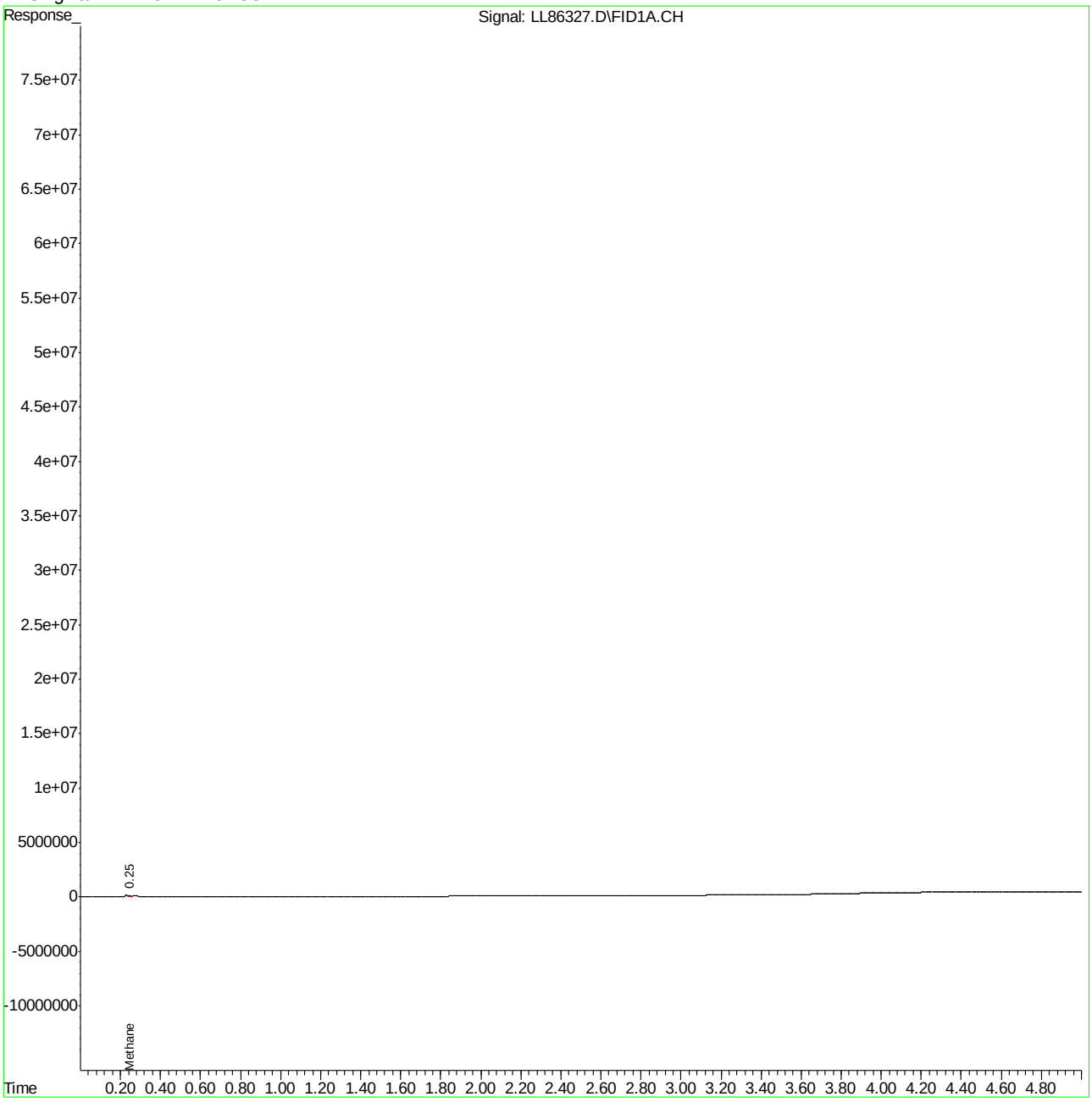
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86327.D Vial: 6
Acq On : 11-15-2023 09:49:25 AM Operator: samantha
Sample : mb Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 9:54 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2991-MB	**Sample Volume:**	38.0 ml
Lab FileID:	LL86327.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 09:49	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.53	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86291.D Vial: 3
Acq On : 11-14-2023 09:34:31 AM Operator: samantha
Sample : bs Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 09:51:29 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

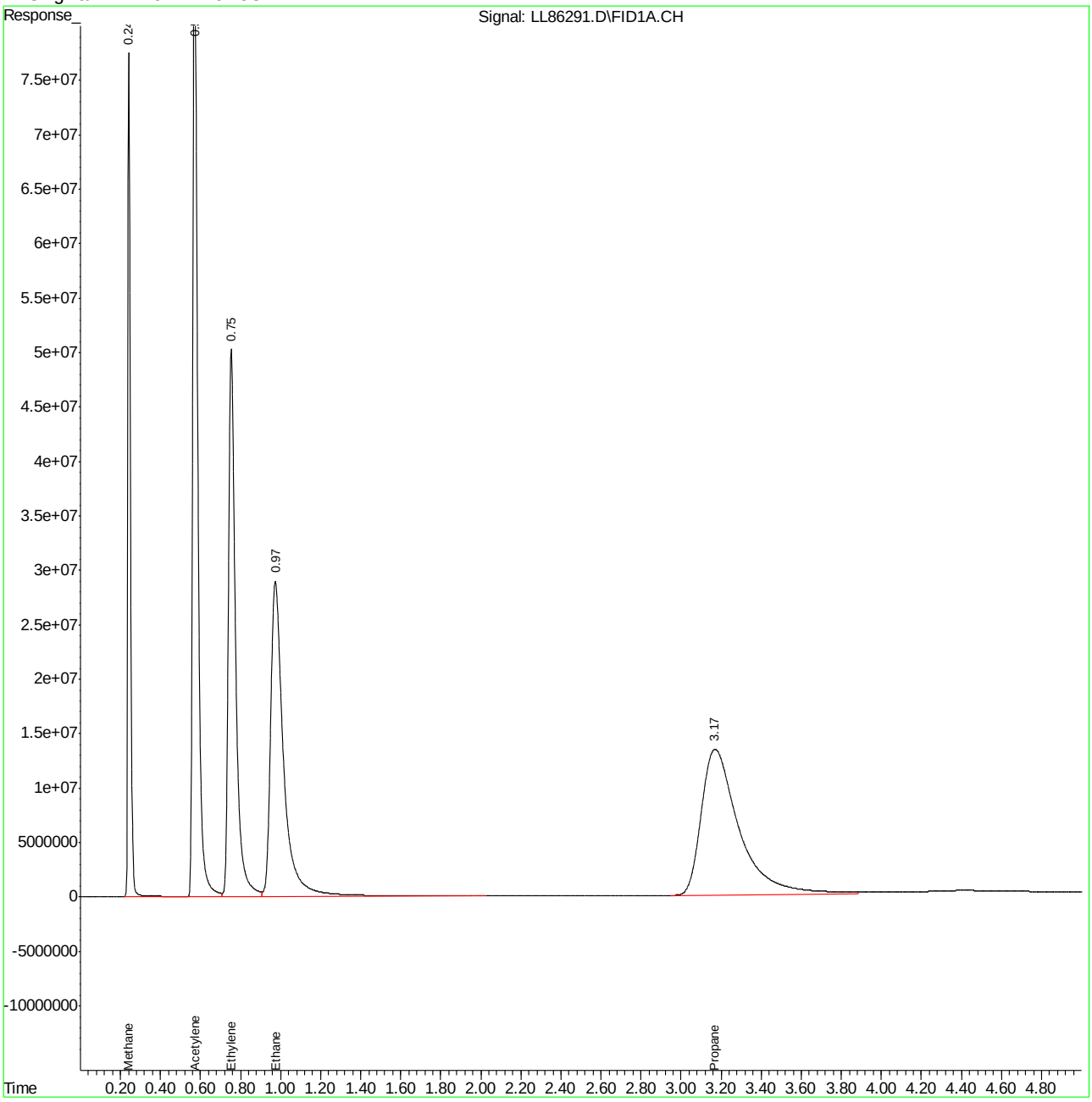
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	713628506	1169.317	ppmv
2)	Acetylene	0.57	1565921711	1164.198	ppmv
3)	Ethylene	0.75	1255569236	1154.079	ppmv
4)	Ethane	0.97	1294208481	1156.689	ppmv
5)	Propane	3.17	1755802455	1184.236	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86291.D Vial: 3
Acq On : 11-14-2023 09:34:31 AM Operator: samantha
Sample : bs Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 9:51 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2990-BS	**Sample Volume:**	38.0 ml
Lab FileID:	LL86291.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 09:34	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1169.32	37600	130	ug/l
Ethane	74-84-0	30	1156.69	26300	263	ug/l
Ethene	74-85-1	28	1154.08	10200	353	ug/l
Acetylene	74-86-2	26	1164.2	11940	306	ug/l
Propane	74-98-6	44	1184.24	31474	377	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86292.D Vial: 4
Acq On : 11-14-2023 09:52:43 AM Operator: samantha
Sample : bsd Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 09:59:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	692025066	1133.919	ppmv
2)	Acetylene	0.57	1547769689	1150.702	ppmv
3)	Ethylene	0.76	1227877034	1128.626	ppmv
4)	Ethane	0.98	1260815229	1126.844	ppmv
5)	Propane	3.17	1702356397	1148.188	ppmv

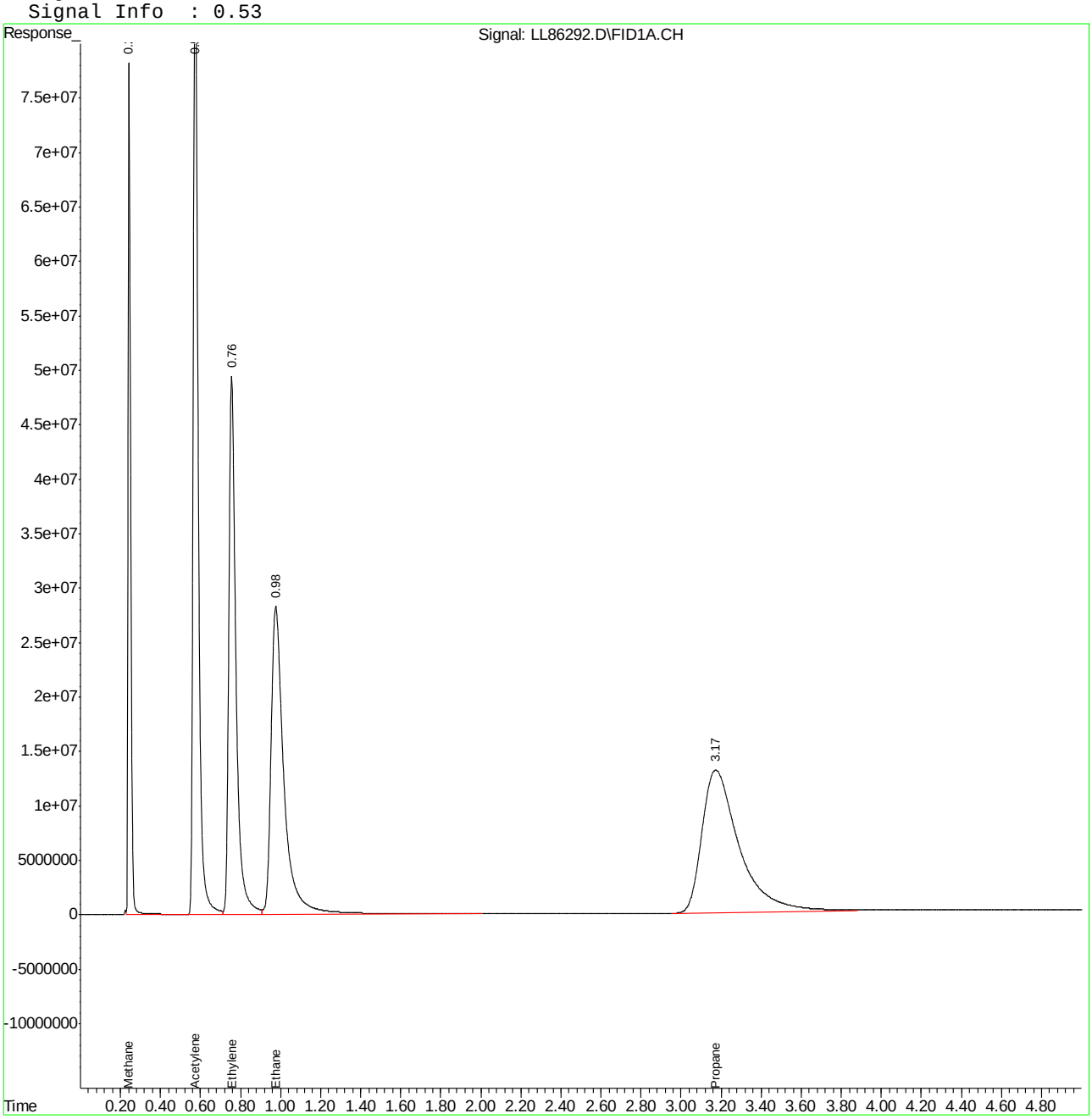
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86292.D Vial: 4
Acq On : 11-14-2023 09:52:43 AM Operator: samantha
Sample : bsd Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 9:59 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2990-BSD	**Sample Volume:**	38.0 ml
Lab FileID:	LL86292.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 09:52	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1133.92	37600	126	ug/l
Ethane	74-84-0	30	1126.84	26300	256	ug/l
Ethene	74-85-1	28	1128.63	10200	345	ug/l
Acetylene	74-86-2	26	1150.7	11940	303	ug/l
Propane	74-98-6	44	1148.19	31474	366	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86324.D Vial: 3
Acq On : 11-15-2023 09:23:48 AM Operator: samantha
Sample : bs Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 09:40:55 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.24	583574896	956.218 ppmv
2)	Acetylene	0.57	962647605	715.688 ppmv
3)	Ethylene	0.76	960243368	882.625 ppmv
4)	Ethane	0.98	1019308017	910.999 ppmv
5)	Propane	3.17	1261796131	851.043 ppmv

9.3.3

9

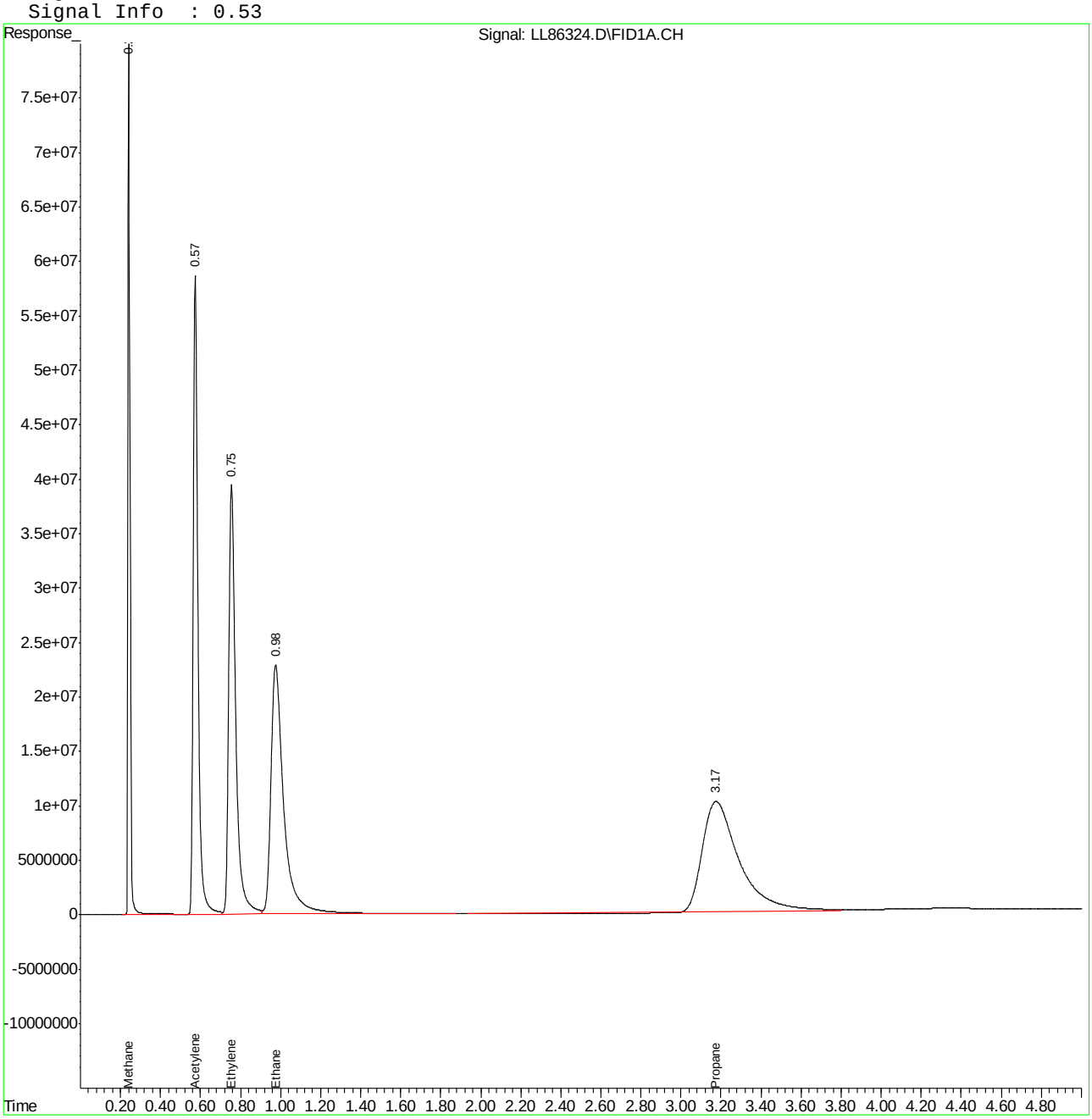
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86324.D Vial: 3
Acq On : 11-15-2023 09:23:48 AM Operator: samantha
Sample : bs Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 9:40 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2991-BS	**Sample Volume:**	38.0 ml
Lab FileID:	LL86324.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 09:23	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	956.22	37600	106	ug/l
Ethane	74-84-0	30	911	26300	207	ug/l
Ethene	74-85-1	28	882.63	10200	270	ug/l
Acetylene	74-86-2	26	715.69	11940	188	ug/l
Propane	74-98-6	44	851.04	31474	271	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86325.D Vial: 4
Acq On : 11-15-2023 09:35:17 AM Operator: samantha
Sample : bsd Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 09:40:56 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

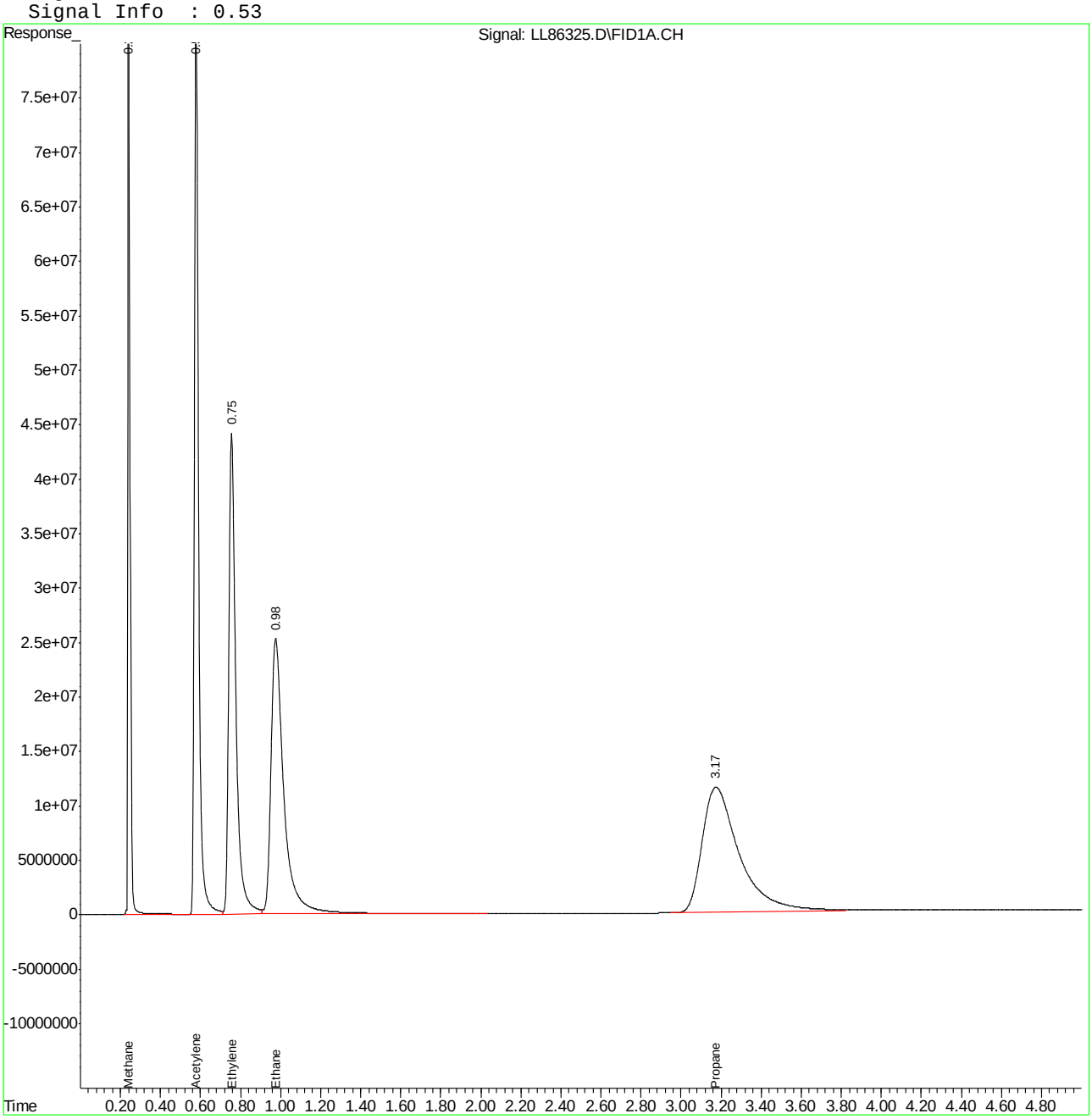
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	637194775	1044.077	ppmv
2)	Acetylene	0.58	1231528692	915.590	ppmv
3)	Ethylene	0.76	1086386371	998.572	ppmv
4)	Ethane	0.98	1134313356	1013.784	ppmv
5)	Propane	3.17	1487057187	1002.975	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86325.D Vial: 4
Acq On : 11-15-2023 09:35:17 AM Operator: samantha
Sample : bsd Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 9:40 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	GLL2991-BSD	**Sample Volume:**	38.0 ml
Lab FileID:	LL86325.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 09:35	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1044.08	37600	116	ug/l
Ethane	74-84-0	30	1013.78	26300	231	ug/l
Ethene	74-85-1	28	998.57	10200	305	ug/l
Acetylene	74-86-2	26	915.59	11940	241	ug/l
Propane	74-98-6	44	1002.98	31474	319	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86307.D Vial: 19
Acq On : 11-14-2023 02:15:33 PM Operator: samantha
Sample : fc11161-1ms Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 14:21:46 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	641611382	1051.313	ppmv
2)	Acetylene	0.58	1419318325	1055.204	ppmv
3)	Ethylene	0.76	1122749524	1031.996	ppmv
4)	Ethane	0.98	1148092830	1026.099	ppmv
5)	Propane	3.17	1490833771	1005.522	ppmv

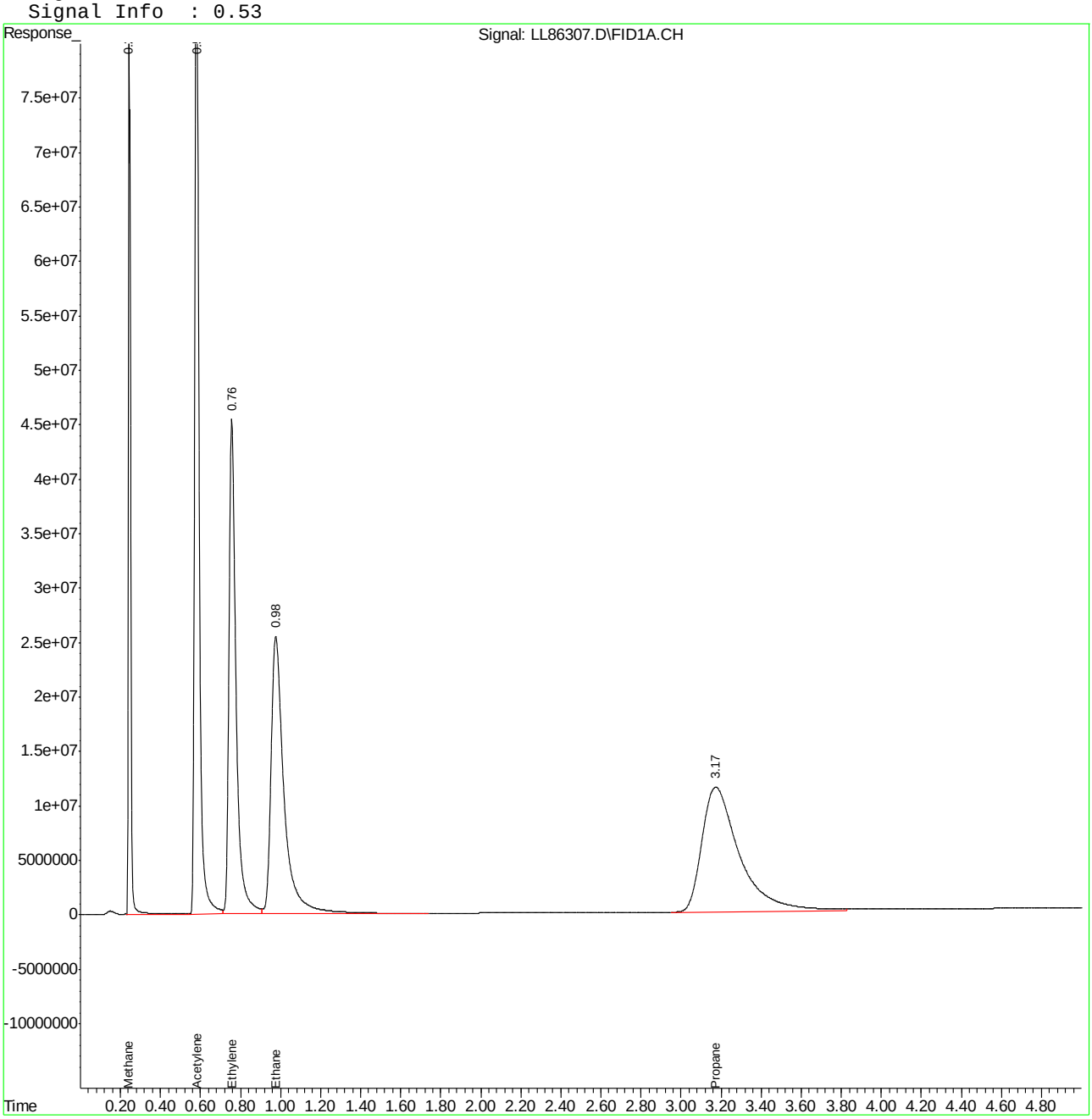
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86307.D Vial: 19
Acq On : 11-14-2023 02:15:33 PM Operator: samantha
Sample : fc11161-1ms Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 14:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC11161-1MS	**Sample Volume:**	38.0 ml
Lab FileID:	LL86307.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 14:15	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1051.31	37600	117	ug/l
Ethane	74-84-0	30	1026.1	26300	233	ug/l
Ethene	74-85-1	28	1032	10200	315	ug/l
Acetylene	74-86-2	26	1055.2	11940	278	ug/l
Propane	74-98-6	44	1005.52	31474	320	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86334.D Vial: 13
Acq On : 15 Nov 2023 11:55 am Operator: samantha
Sample : fc11172-1ms Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:01:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	649811047	1064.749	ppmv
2)	Acetylene	0.58	1365883699	1015.478	ppmv
3)	Ethylene	0.76	1133980277	1042.319	ppmv
4)	Ethane	0.98	1168317259	1044.175	ppmv
5)	Propane	3.18	1539946181	1038.647	ppmv

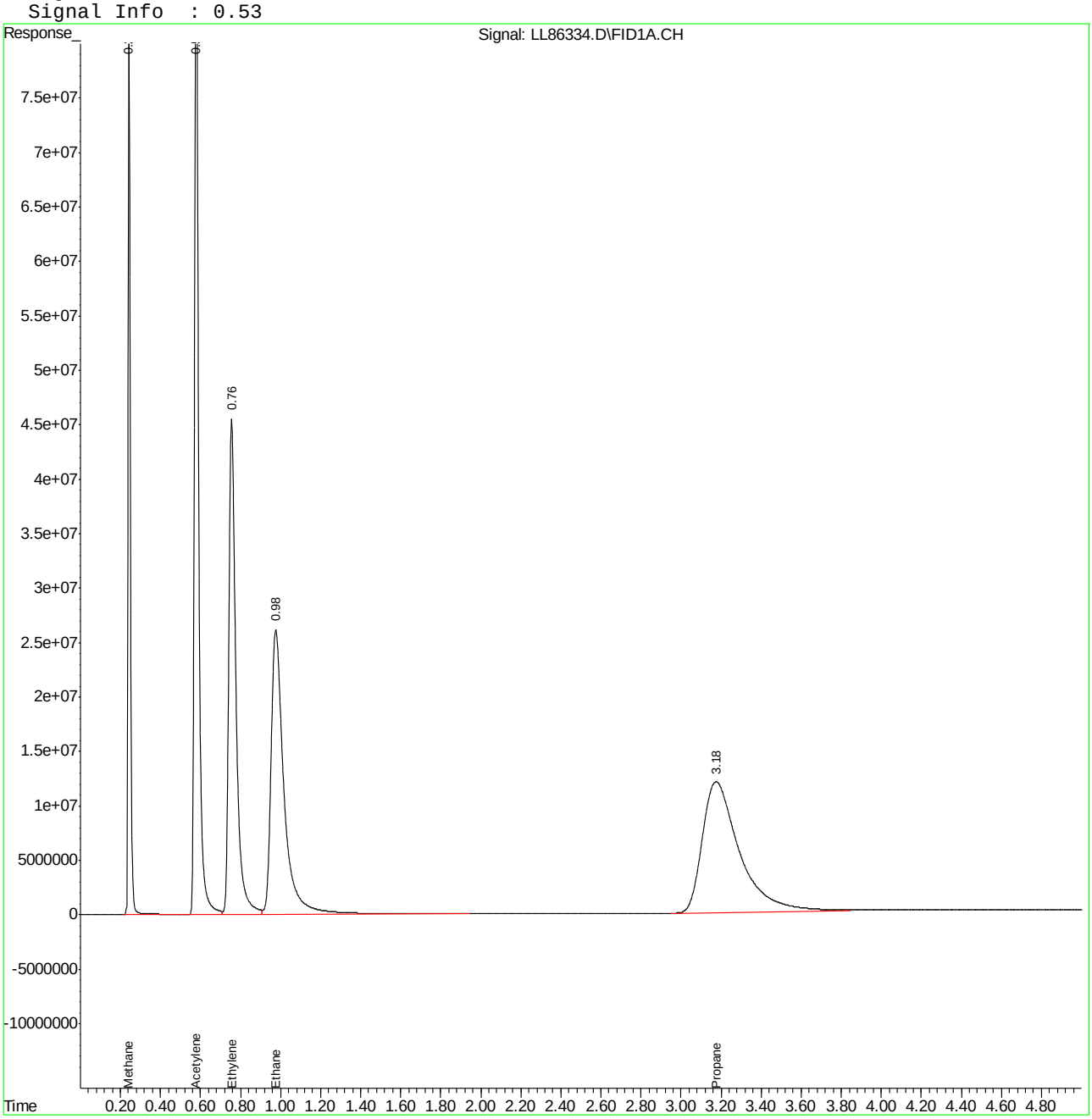
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86334.D Vial: 13
Acq On : 15 Nov 2023 11:55 am Operator: samantha
Sample : fc11172-1ms Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:01 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC11172-1MS	**Sample Volume:**	38.0 ml
Lab FileID:	LL86334.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 11:55	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1064.75	37600	118	ug/l
Ethane	74-84-0	30	1044.17	26300	238	ug/l
Ethene	74-85-1	28	1042.32	10200	319	ug/l
Acetylene	74-86-2	26	1015.48	11940	267	ug/l
Propane	74-98-6	44	1038.65	31474	331	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86306.D Vial: 18
Acq On : 11-14-2023 01:58:51 PM Operator: samantha
Sample : fc11161-1dup Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 14:12:45 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	294265	0.482	ppmv
2)	Acetylene	0.00	0	N.D.	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv
4)	Ethane	0.00	0	N.D.	ppmv
5)	Propane	0.00	0	N.D.	ppmv

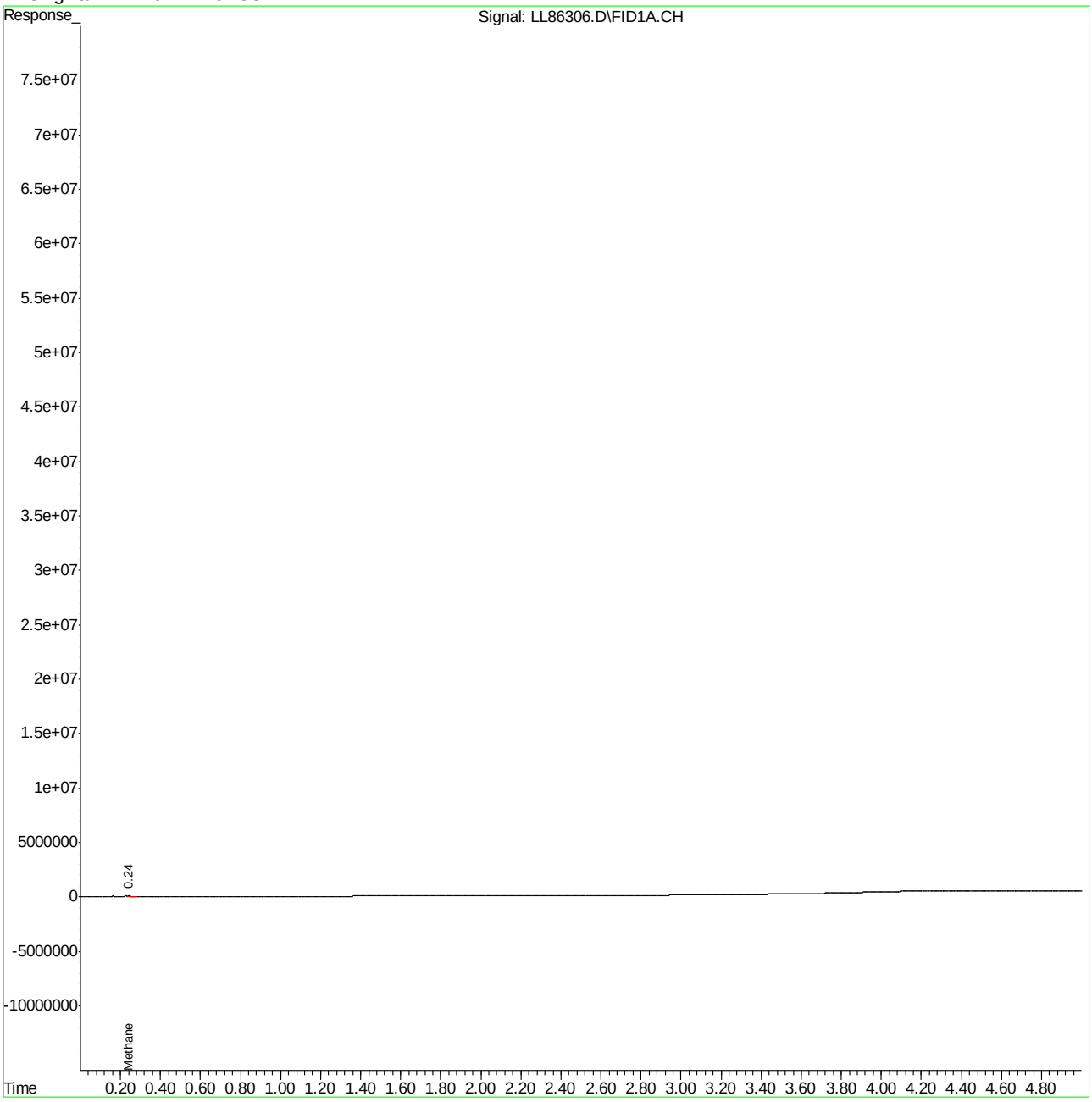
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86306.D Vial: 18
Acq On : 11-14-2023 01:58:51 PM Operator: samantha
Sample : fc11161-1dup Inst : FID4-LL
Misc : gc24458,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 14:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC11161-1DUP	**Sample Volume:**	38.0 ml
Lab FileID:	LL86306.D	**Headspace:**	5.0 ml
Injection Time:	11/14/23 13:58	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.48	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86333.D Vial: 12
Acq On : 15 Nov 2023 11:43 am Operator: samantha
Sample : fc11172-1dup Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:01:46 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	484749	0.794	ppmv
2)	Acetylene	0.00	0	N.D.	ppmv
3)	Ethylene	0.00	0	N.D.	ppmv
4)	Ethane	0.00	0	N.D.	ppmv
5)	Propane	0.00	0	N.D.	ppmv

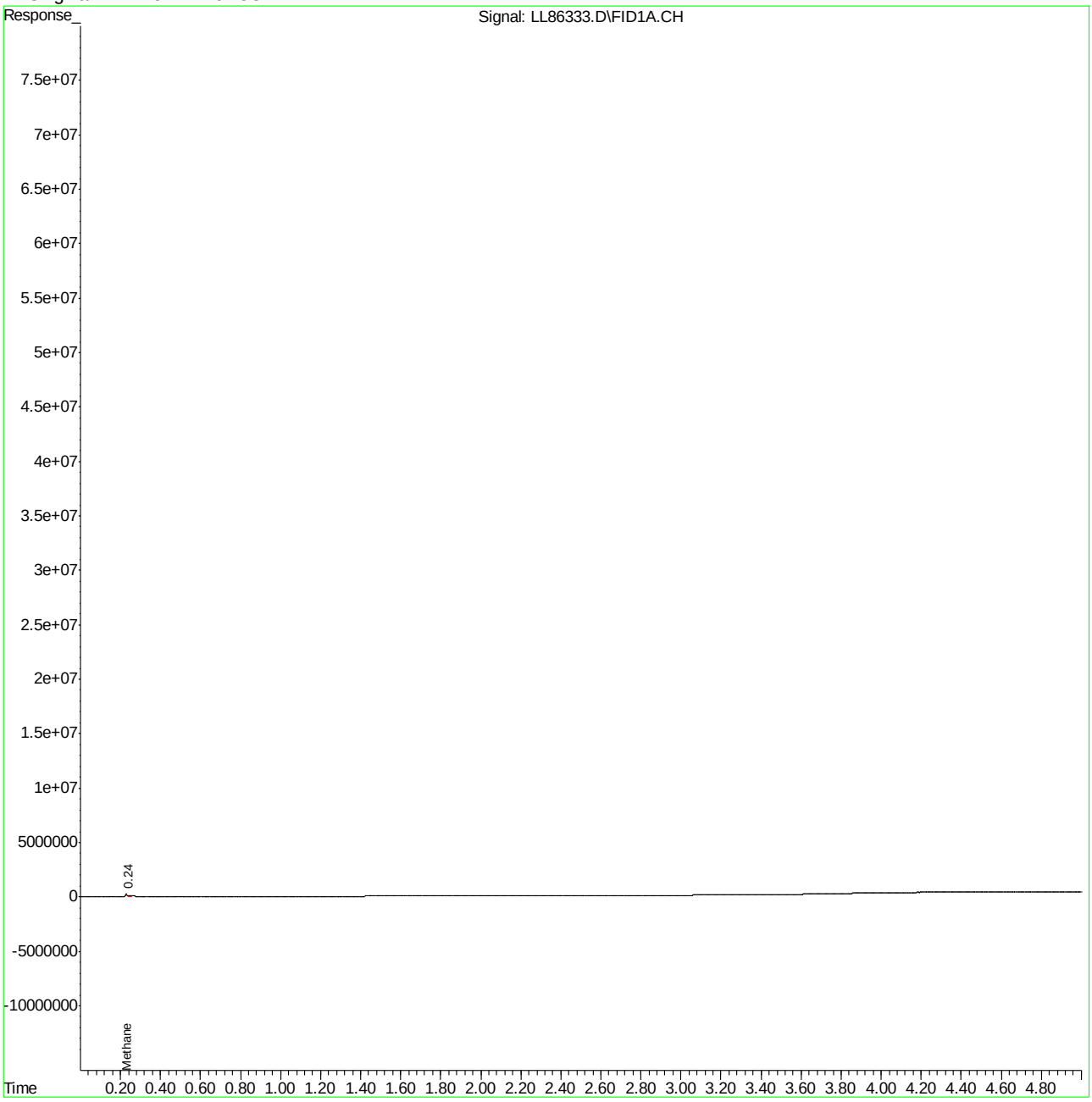
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86333.D Vial: 12
Acq On : 15 Nov 2023 11:43 am Operator: samantha
Sample : fc11172-1dup Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:01 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Dissolved Gases Raw Data Summary

Sample Number:	FC11172-1DUP	**Sample Volume:**	38.0 ml
Lab FileID:	LL86333.D	**Headspace:**	5.0 ml
Injection Time:	11/15/23 11:43	**Volume Injected:**	500 ul
Method:	RSKSOP-147/175	**Temperature:**	20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.79	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

Manual Integrations APPROVED
(compounds with "m" flag)
Chelsea VanDenBurg
01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\091823\LL77115.D Vial: 7
Acq On : 23 Dec 2021 11:44 am Operator: trangd
Sample : IC2678-1 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 11:50:08 2021 Quant Results File: rsk121321b.res

Quant Method : C:\MSDCHEM\1\METHODS\RSK121321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1)	Methane	0.25	1217768	2.343	ppmv	m
2)	Acetylene	0.58	1314517	1.290	ppmv	
3)	Ethylene	0.78	1209561	1.131	ppmv	
4)	Ethane	1.02	1345578	1.229	ppmv	
5)	Propane	3.32	-12218447	N.D.	ppmv	

9.6.1

9

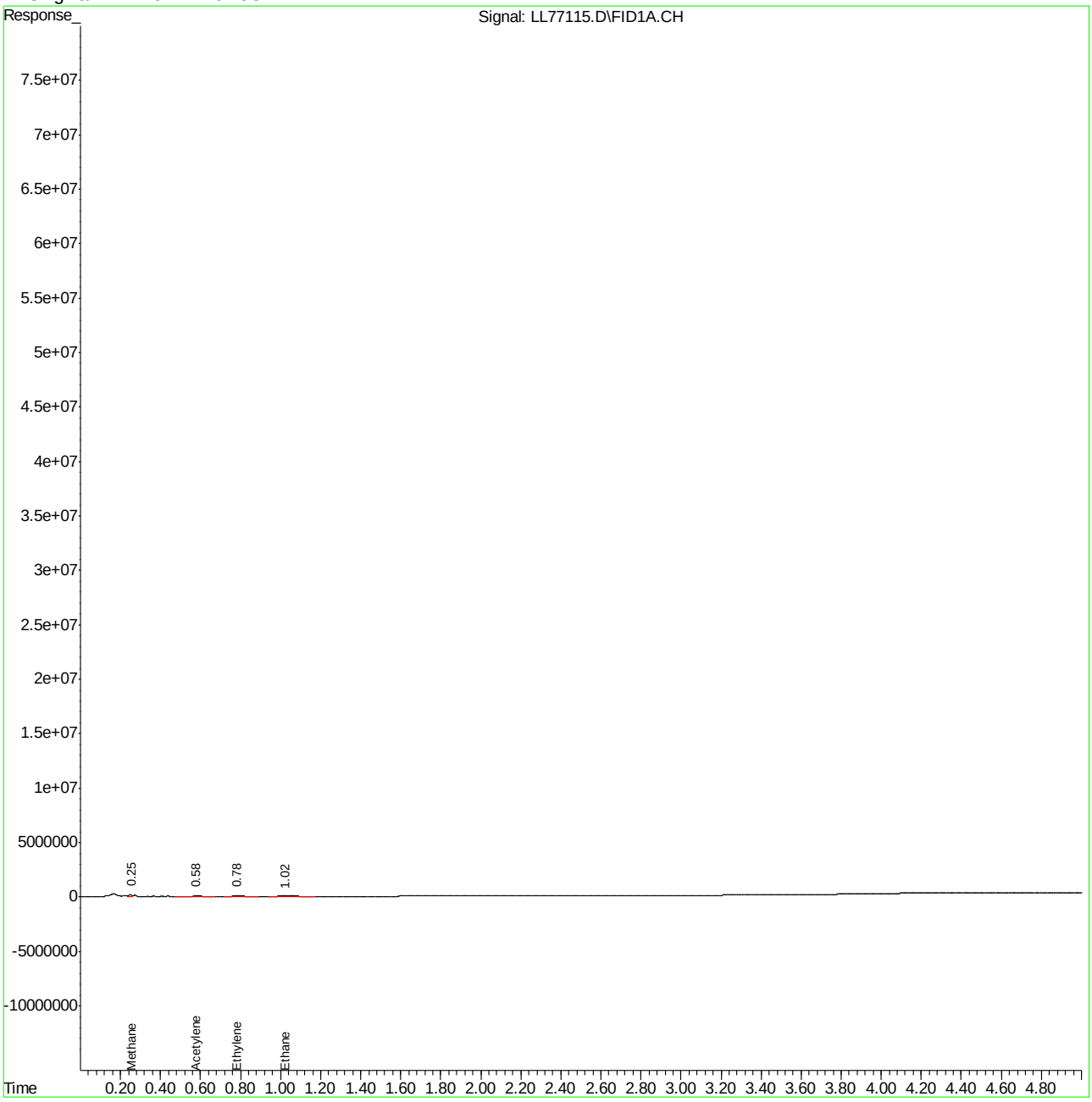
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\091823\LL77115.D Vial: 7
Acq On : 23 Dec 2021 11:44 am Operator: trangd
Sample : IC2678-1 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 18 16:46 2023 Quant Results File: rsk121321b.res

Quant Method : C:\MSDCHEM\1\METHODS\RSK121321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

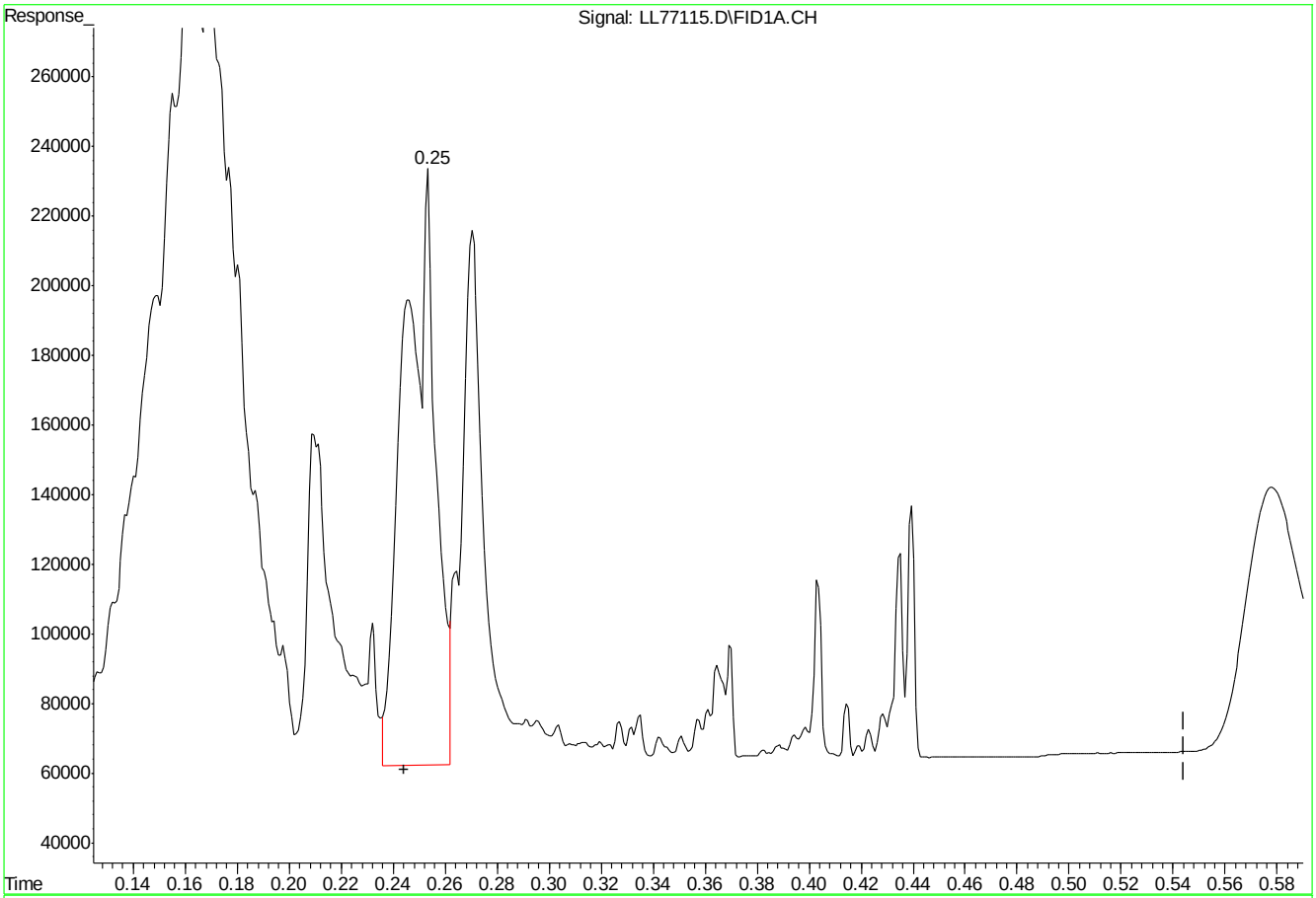
Sample Number: GLL2678-IC2678
Lab FileID: LL77115.D
Injection Time: 12/23/21 11:44
Method: RSKSOP-147/175
Analyst approved: 12/28/21 15:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.25	Poor instrument integration
Propane	74-98-6	1	3.32	Poor instrument integration

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\091823\LL77115.D Vial: 7
Acq On : 23 Dec 2021 11:44 am Operator: trangd
Sample : IC2678-1 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 12:50 2021 Quant Results File: rsk121321b.res

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration



(1) Methane

0.25min 2.739ppmv

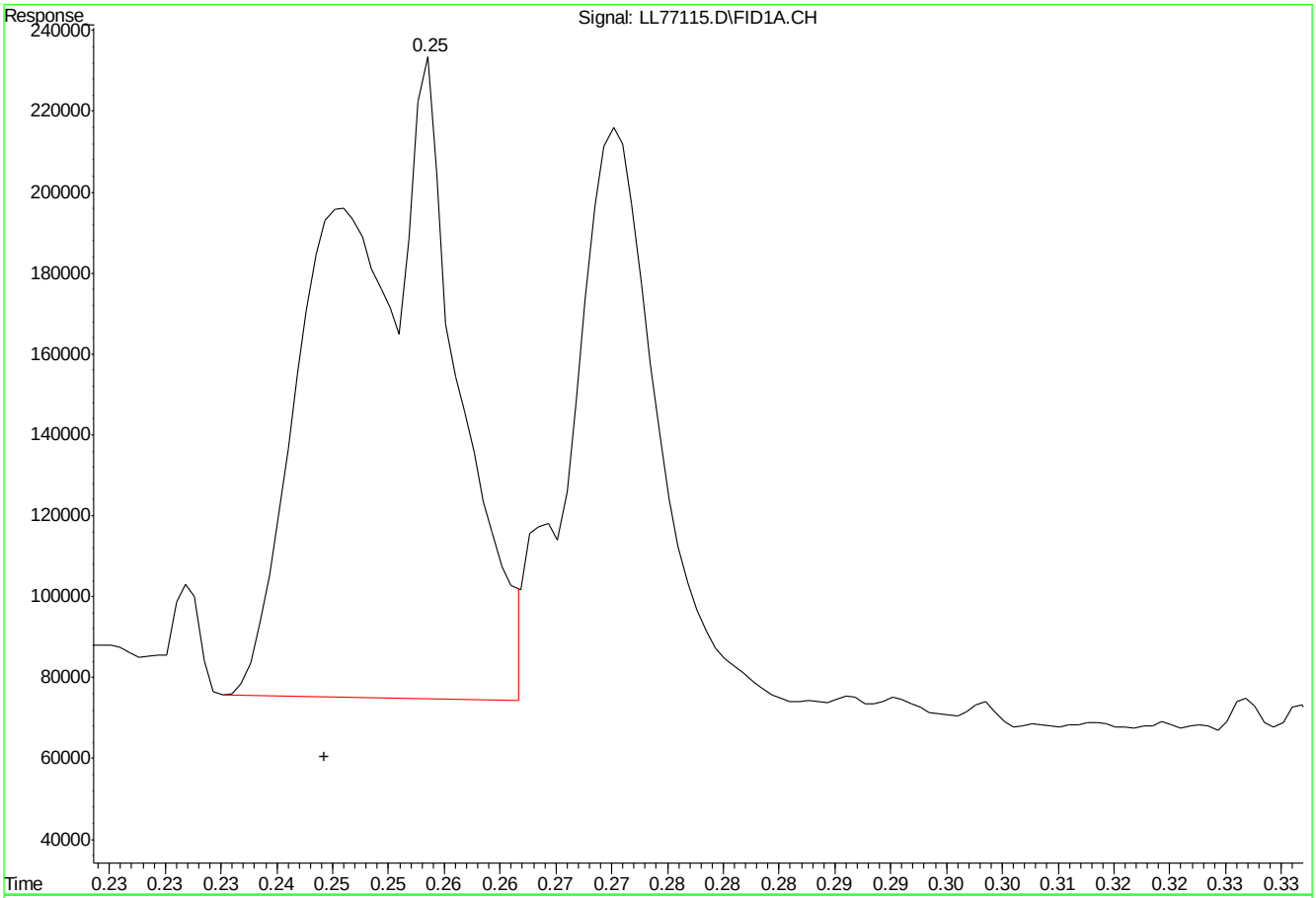
response 1423463

(+) = Expected Retention Time
LL77115.D RSK122321B.M Mon Sep 18 15:52:29 2023

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\091823\LL77115.D Vial: 7
Acq On : 23 Dec 2021 11:44 am Operator: trangd
Sample : IC2678-1 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 12:50 2021 Quant Results File: rsk121321b.res

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration



(1) Methane

0.25min 2.343ppmv m

response 1217768

(+) = Expected Retention Time
LL77115.D RSK122321B.M Mon Sep 18 16:46:18 2023

Manual Integrations APPROVED (compounds with "m" flag)
Chelsea VanDenBurg 01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8
Acq On : 23 Dec 2021 11:53 am Operator: trangd
Sample : IC2678-2 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:38 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.25	11676132	22.458 ppmv
2)	Acetylene	0.58	17192128	16.867 ppmv
3)	Ethylene	0.78	14889046	13.923 ppmv
4)	Ethane	1.02	15188973	13.873 ppmv
5)	Propane	3.29	31221296	21.155 ppmv m

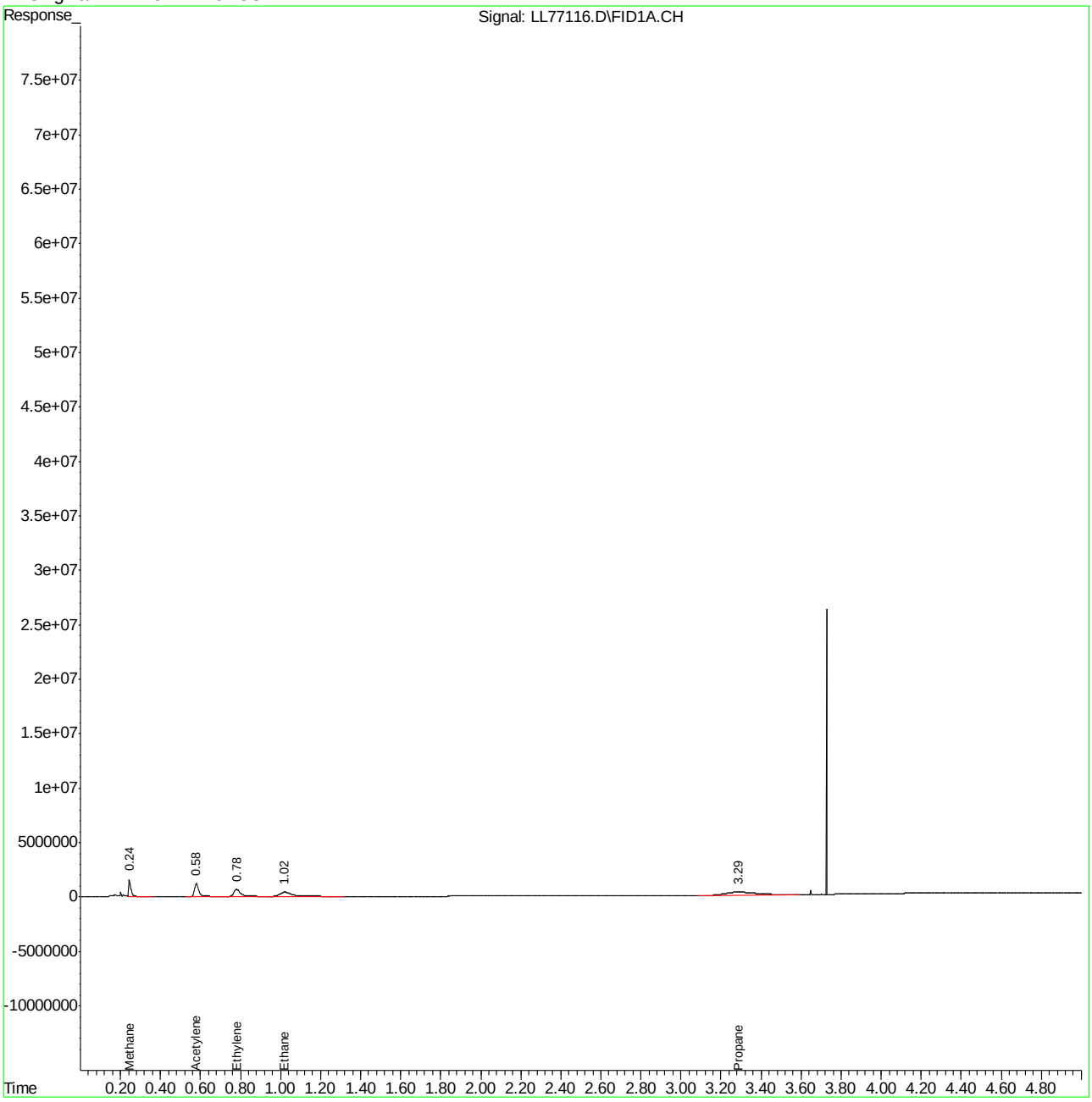
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8
Acq On : 23 Dec 2021 11:53 am Operator: trangd
Sample : IC2678-2 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

Sample Number: GLL2678-IC2678
Lab FileID: LL77116.D
Injection Time: 12/23/21 11:53
Method: RSKSOP-147/175
Analyst approved: 12/28/21 15:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.29	Poor instrument integration

Manual Integrations APPROVED (compounds with "m" flag)
Chelsea VanDenBurg 01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9
Acq On : 23 Dec 2021 12:43 pm Operator: trangd
Sample : IC2678-3 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:39 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.25	57068216	109.623	ppmv
2)	Acetylene	0.58	105203176	102.861	ppmv
3)	Ethylene	0.78	97229155	90.919	ppmv
4)	Ethane	1.02	97815788	89.344	ppmv
5)	Propane	3.28	120041232	81.337	ppmv m

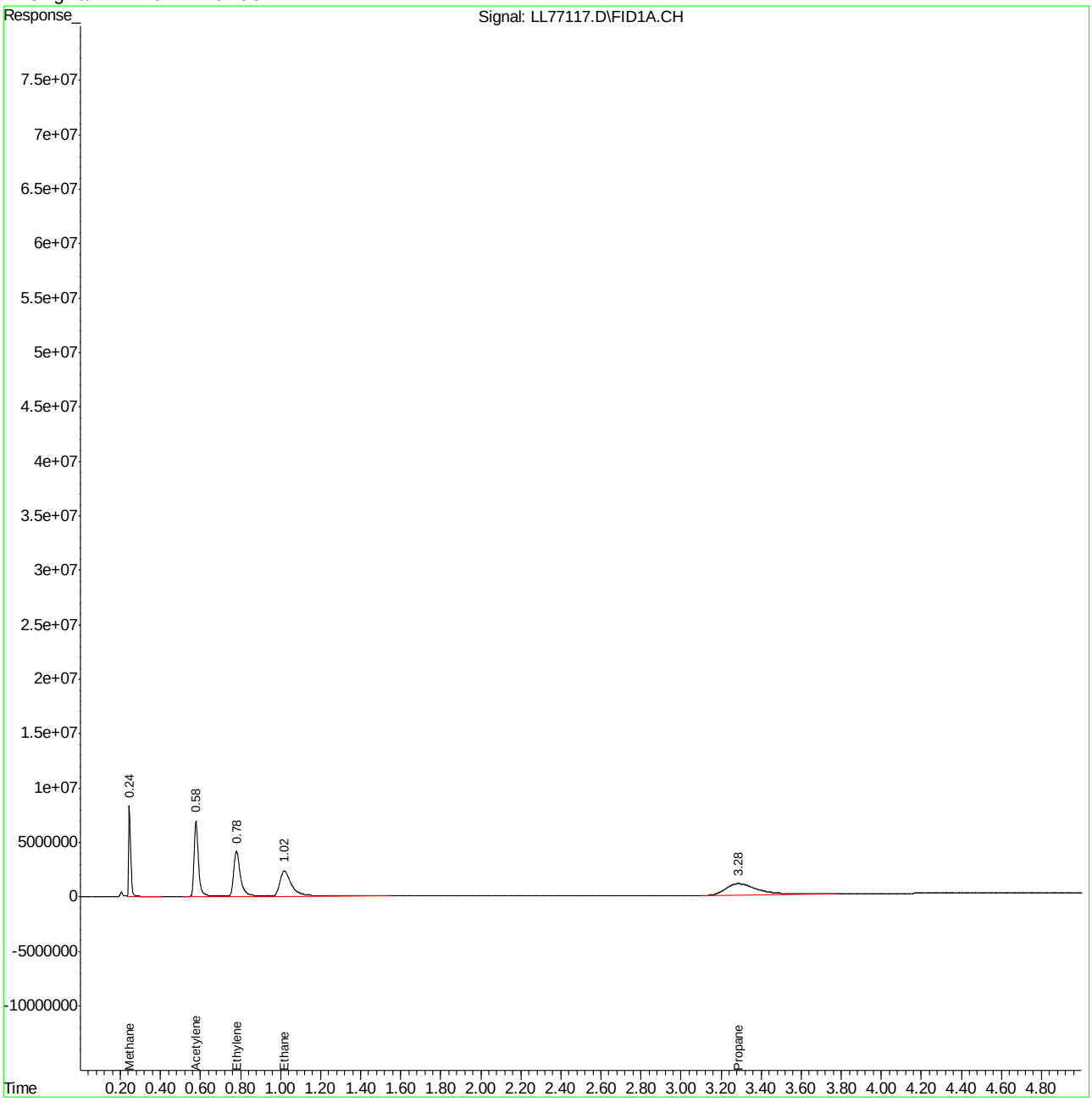
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9
Acq On : 23 Dec 2021 12:43 pm Operator: trangd
Sample : IC2678-3 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

Sample Number: GLL2678-IC2678
Lab FileID: LL77117.D
Injection Time: 12/23/21 12:43
Method: RSKSOP-147/175
Analyst approved: 12/28/21 15:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

Manual Integrations APPROVED (compounds with "m" flag)
Chelsea VanDenBurg 01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10
Acq On : 23 Dec 2021 12:54 pm Operator: trangd
Sample : IC2678-4 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:40 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.24	313371378	597.545 ppmv
2)	Acetylene	0.58	628819108	602.808 ppmv
3)	Ethylene	0.78	552483232	516.628 ppmv
4)	Ethane	1.02	557176327	508.920 ppmv
5)	Propane	3.28	698198981	473.084 ppmv m

9.6.4

9

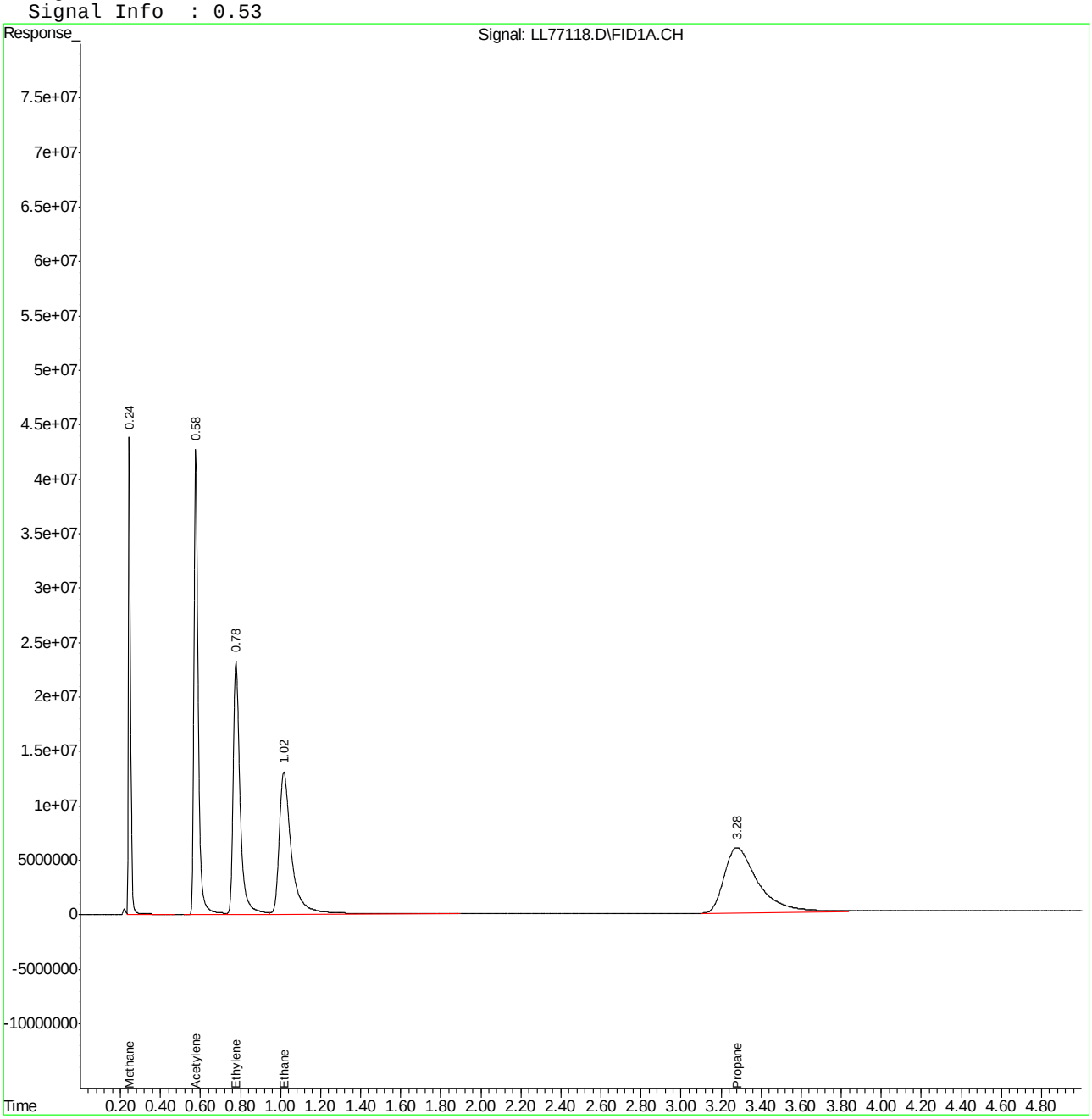
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10
Acq On : 23 Dec 2021 12:54 pm Operator: trangd
Sample : IC2678-4 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

Sample Number: GLL2678-IC2678
Lab FileID: LL77118.D
Injection Time: 12/23/21 12:54
Method: RSKSOP-147/175
Analyst approved: 12/28/21 15:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

Manual Integrations APPROVED (compounds with "m" flag)
Chelsea VanDenBurg 01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11
Acq On : 12-23-2021 01:01:40 PM Operator: trangd
Sample : ICC2678-5 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:41 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1)	Methane	0.25	622614864	1176.969	ppmv	
2)	Acetylene	0.58	1277889494	1197.217	ppmv	
3)	Ethylene	0.78	1114273972	1041.959	ppmv	
4)	Ethane	1.01	1119942427	1022.946	ppmv	
5)	Propane	3.27	1464950772	992.619	ppmv	m

9.6.5

9

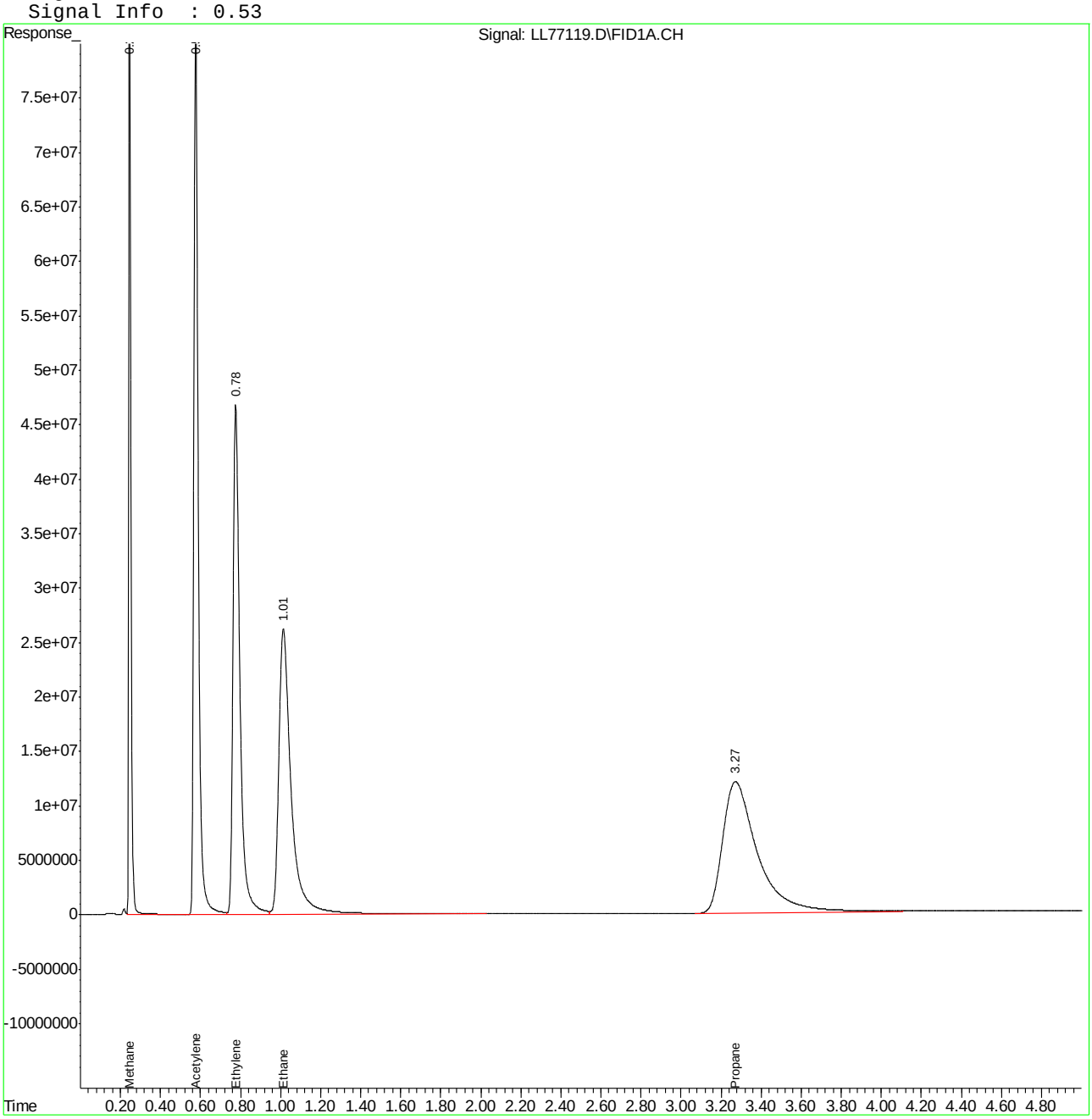
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11
Acq On : 12-23-2021 01:01:40 PM Operator: trangd
Sample : ICC2678-5 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

Sample Number: GLL2678-ICC2678
Lab FileID: LL77119.D
Injection Time: 12/23/21 13:01
Method: RSKSOP-147/175
Analyst approved: 12/28/21 15:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12
Acq On : 12-23-2021 02:24:22 PM Operator: trangd
Sample : IC2678-6 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:42 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

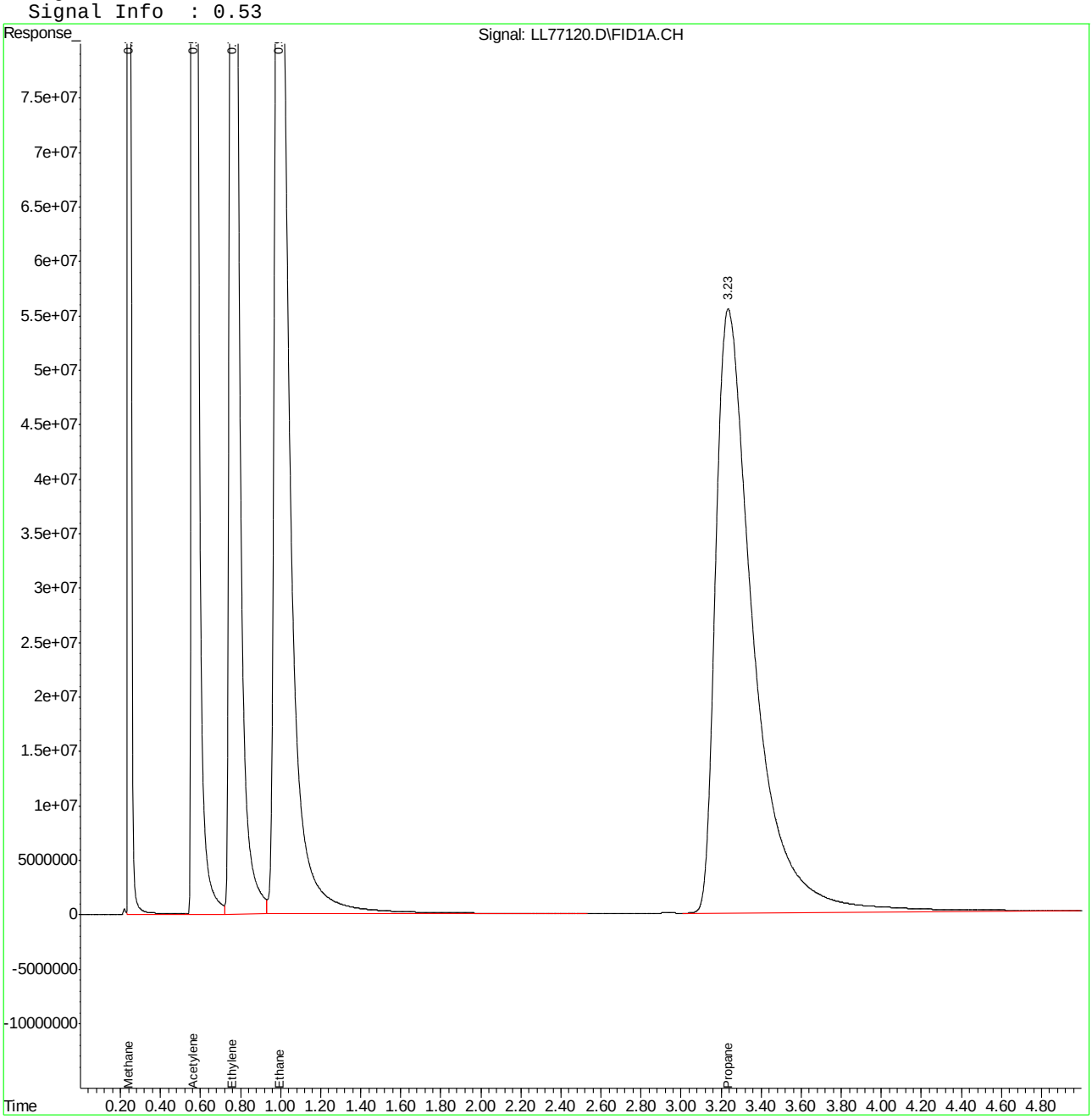
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	3127094366	5549.763	ppmv
2)	Acetylene	0.57	6334260778	5155.089	ppmv
3)	Ethylene	0.76	5440050642	5086.999	ppmv
4)	Ethane	0.99	5622997301	5135.999	ppmv
5)	Propane	3.23	7311594809	4954.177	ppmv

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D          Vial: 12
Acq On    : 12-23-2021 02:24:22 PM                   Operator: trangd
Sample    : IC2678-6                                 Inst    : FID4-LL
Misc      : gc23581,gll2678,38,20,500,5,1            Multiplr: 1.00
IntFile   : AUTOINT1.E
Quant Time: Dec 23 15:27 2021  Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title        : Dissolved Gases in Water
Last Update  : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj.  : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info  : 0.53
```



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13
Acq On : 12-23-2021 02:39:43 PM Operator: trangd
Sample : IC2678-7 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27:43 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	6063533448	10115.185	ppmv
2)	Acetylene	0.56	13655387265	9666.436	ppmv
3)	Ethylene	0.74	10876284063	10170.428	ppmv
4)	Ethane	0.98	11174787274	10206.958	ppmv
5)	Propane	3.19	14881473513	10083.362	ppmv

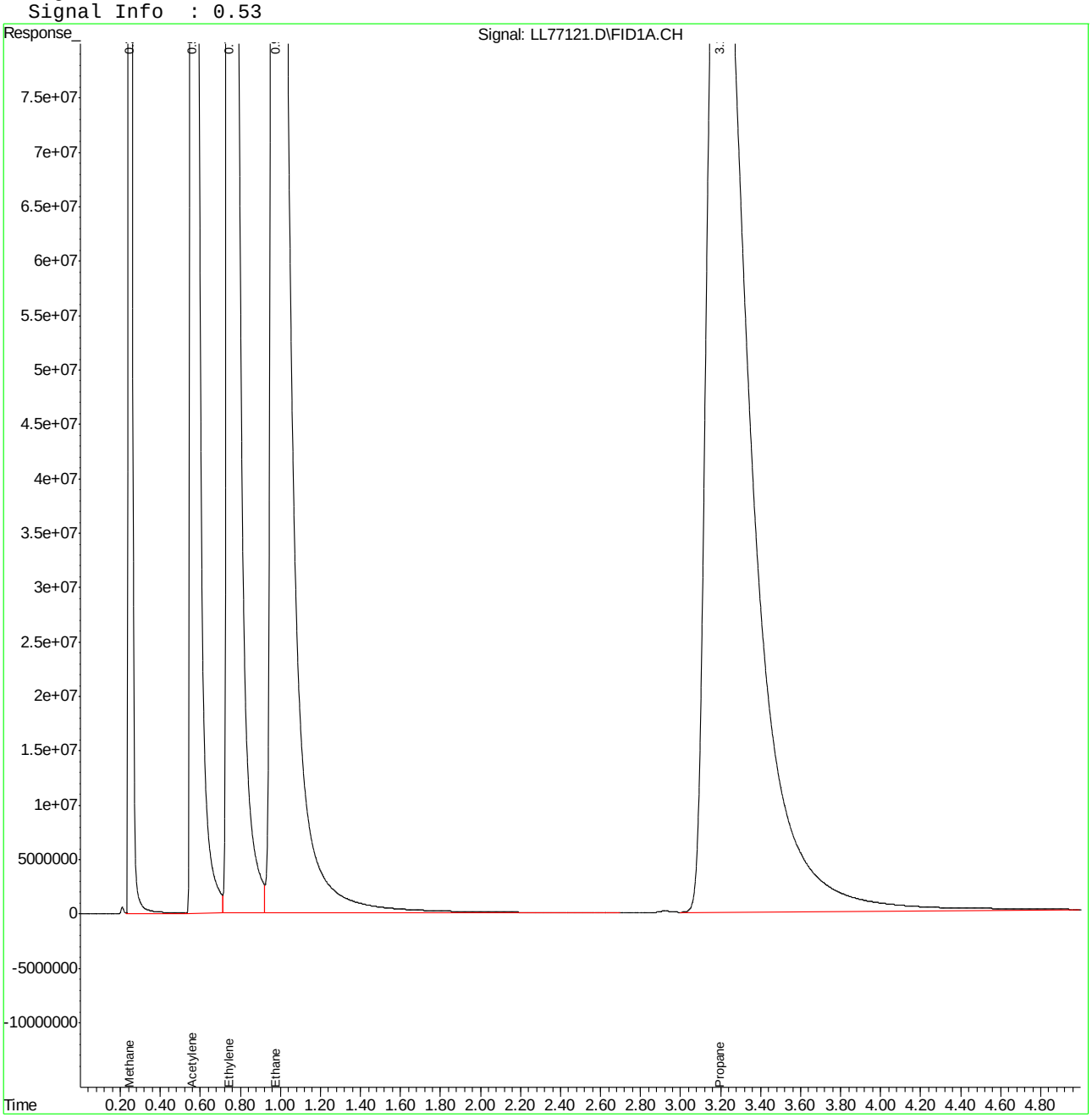
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13
Acq On : 12-23-2021 02:39:43 PM Operator: trangd
Sample : IC2678-7 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Thu Dec 16 14:24:26 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integrations APPROVED
(compounds with "m" flag)
Chelsea VanDenBurg
01/06/22 18:05

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15
Acq On : 12-23-2021 03:20:03 PM Operator: trangd
Sample : icv2678-5 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 28 15:03:54 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1)	Methane	0.25	624539960	1023.341	ppmv	
2)	Acetylene	0.58	1295434265	963.101	ppmv	
3)	Ethylene	0.78	1114848289	1024.733	ppmv	
4)	Ethane	1.02	1138078608	1017.149	ppmv	
5)	Propane	3.27	1567891284	1057.495	ppmv	m

9.6.8

9

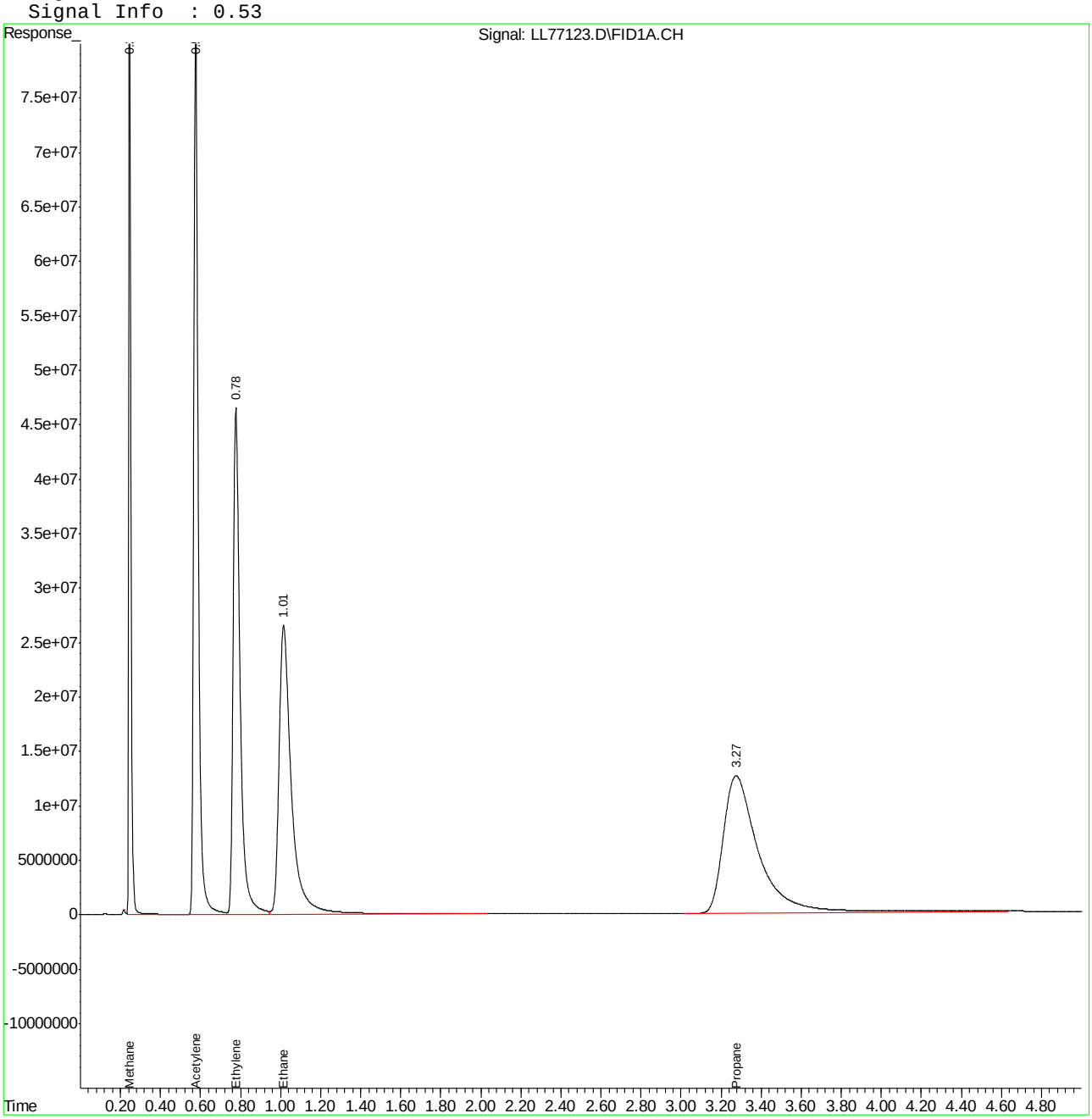
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15
Acq On : 12-23-2021 03:20:03 PM Operator: trangd
Sample : icv2678-5 Inst : FID4-LL
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 28 15:04 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Manual Integration Approval Summary

Sample Number: GLL2678-ICV2678
Lab FileID: LL77123.D
Injection Time: 12/23/21 15:20
Method: RSKSOP-147/175
Analyst approved: 12/30/21 10:10 Trang Diep
Supervisor approved: 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86290.D Vial: 2
Acq On : 11-14-2023 09:26:50 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 09:32:32 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

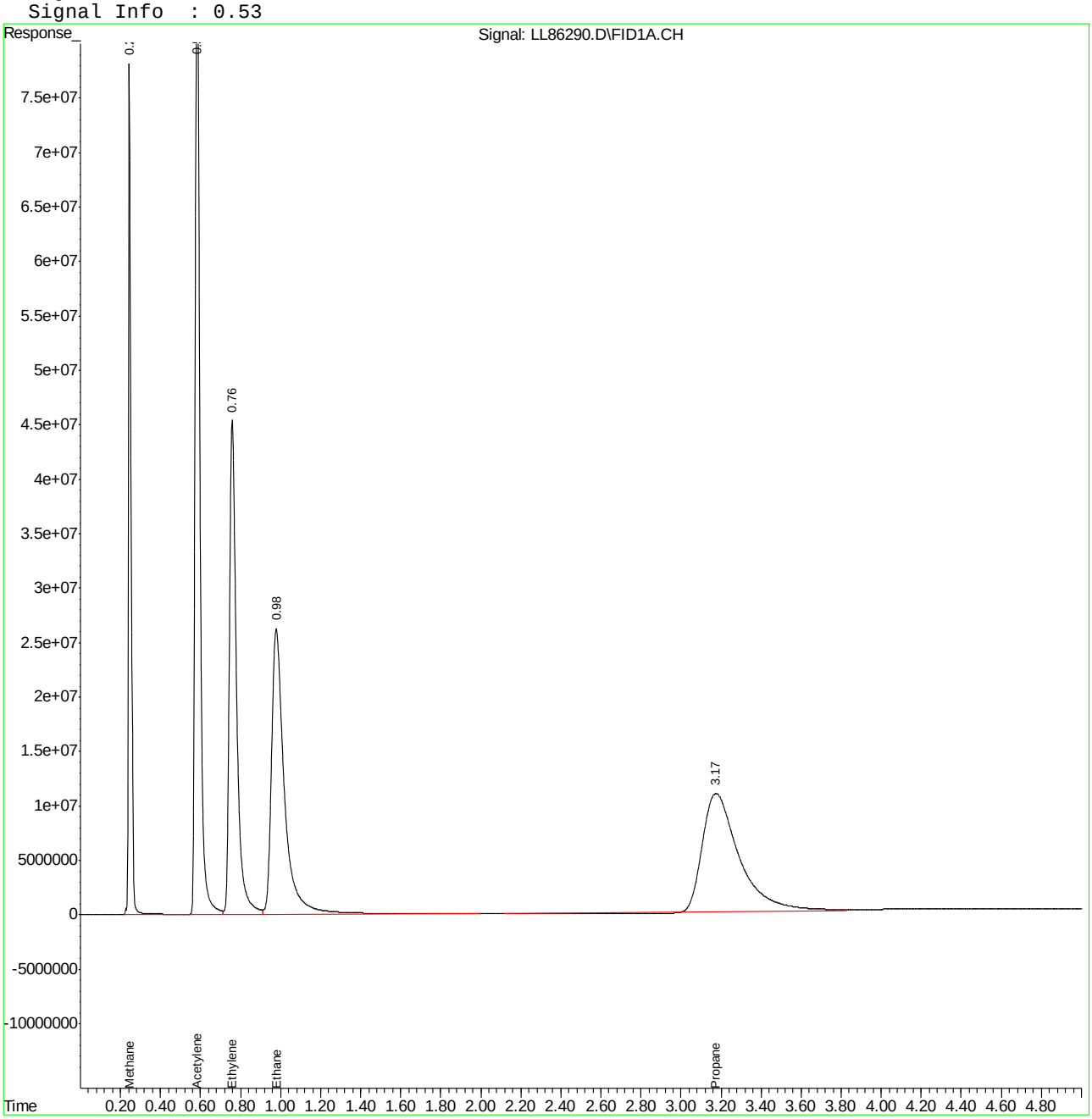
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	670463672	1098.589	ppmv
2)	Acetylene	0.58	1539080636	1144.242	ppmv
3)	Ethylene	0.76	1125185580	1034.235	ppmv
4)	Ethane	0.98	1168757076	1044.568	ppmv
5)	Propane	3.17	1353121617	912.640	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86290.D Vial: 2
Acq On : 11-14-2023 09:26:50 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2990,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 9:32 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86302.D Vial: 14
Acq On : 11-14-2023 01:02:18 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:07:48 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.24	330711064	541.887 ppmv
2)	Acetylene	0.58	768301536	571.200 ppmv
3)	Ethylene	0.76	565575324	519.859 ppmv
4)	Ethane	0.98	590331800	527.605 ppmv
5)	Propane	3.18	665759648	449.035 ppmv

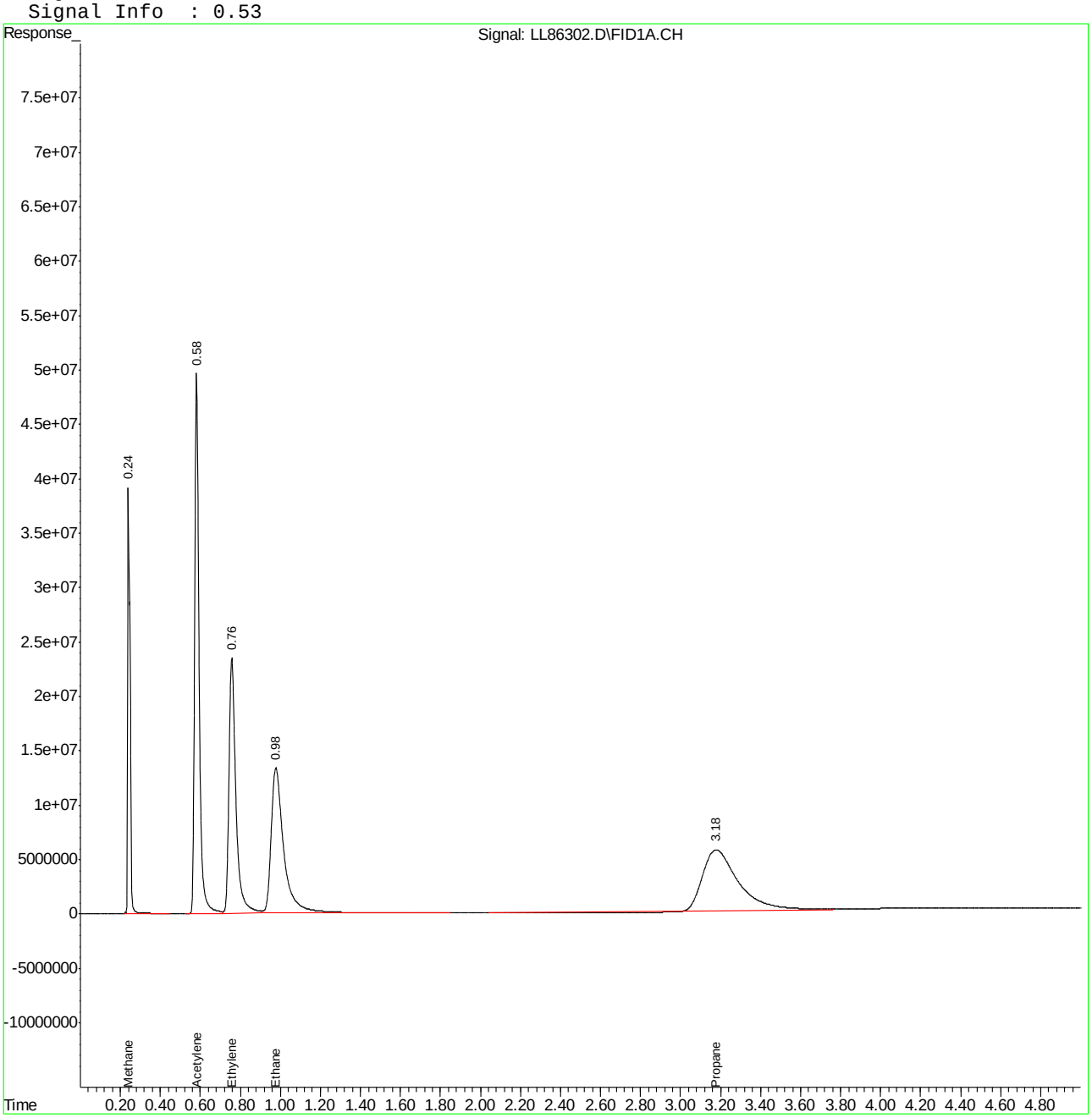
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86302.D Vial: 14
Acq On : 11-14-2023 01:02:18 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 13:07 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86312.D Vial: 24
Acq On : 11-14-2023 02:57:58 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 15:03:25 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

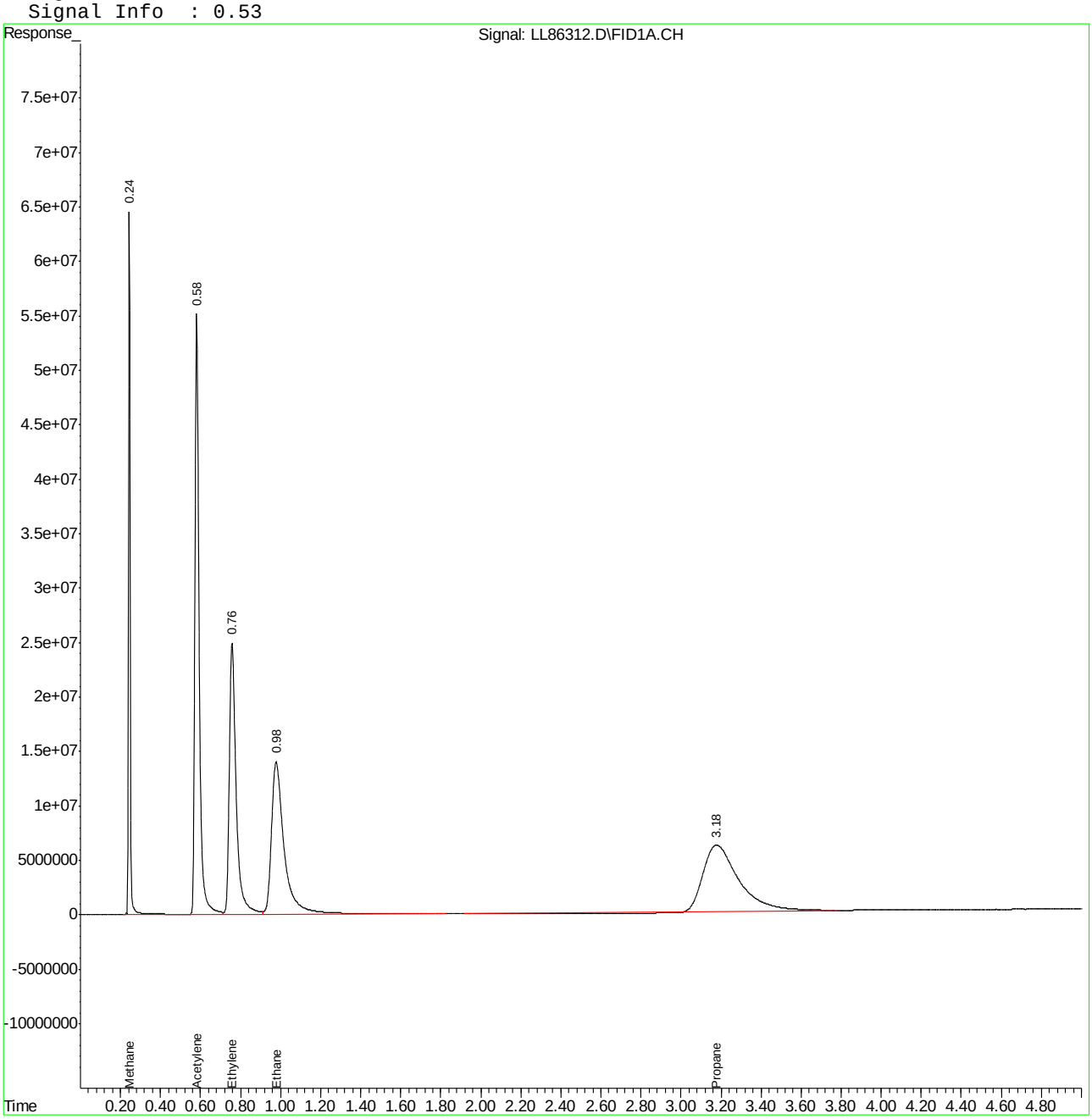
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.24	341898286	560.218 ppmv
2)	Acetylene	0.58	808518455	601.100 ppmv
3)	Ethylene	0.76	589347055	541.709 ppmv
4)	Ethane	0.98	617686640	552.053 ppmv
5)	Propane	3.18	740040981	499.135 ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111423\LL86312.D Vial: 24
Acq On : 11-14-2023 02:57:58 PM Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24458,gll2990,38,20,250,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 14 15:03 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86323.D Vial: 2
Acq On : 11-15-2023 09:03:47 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 09:18:48 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

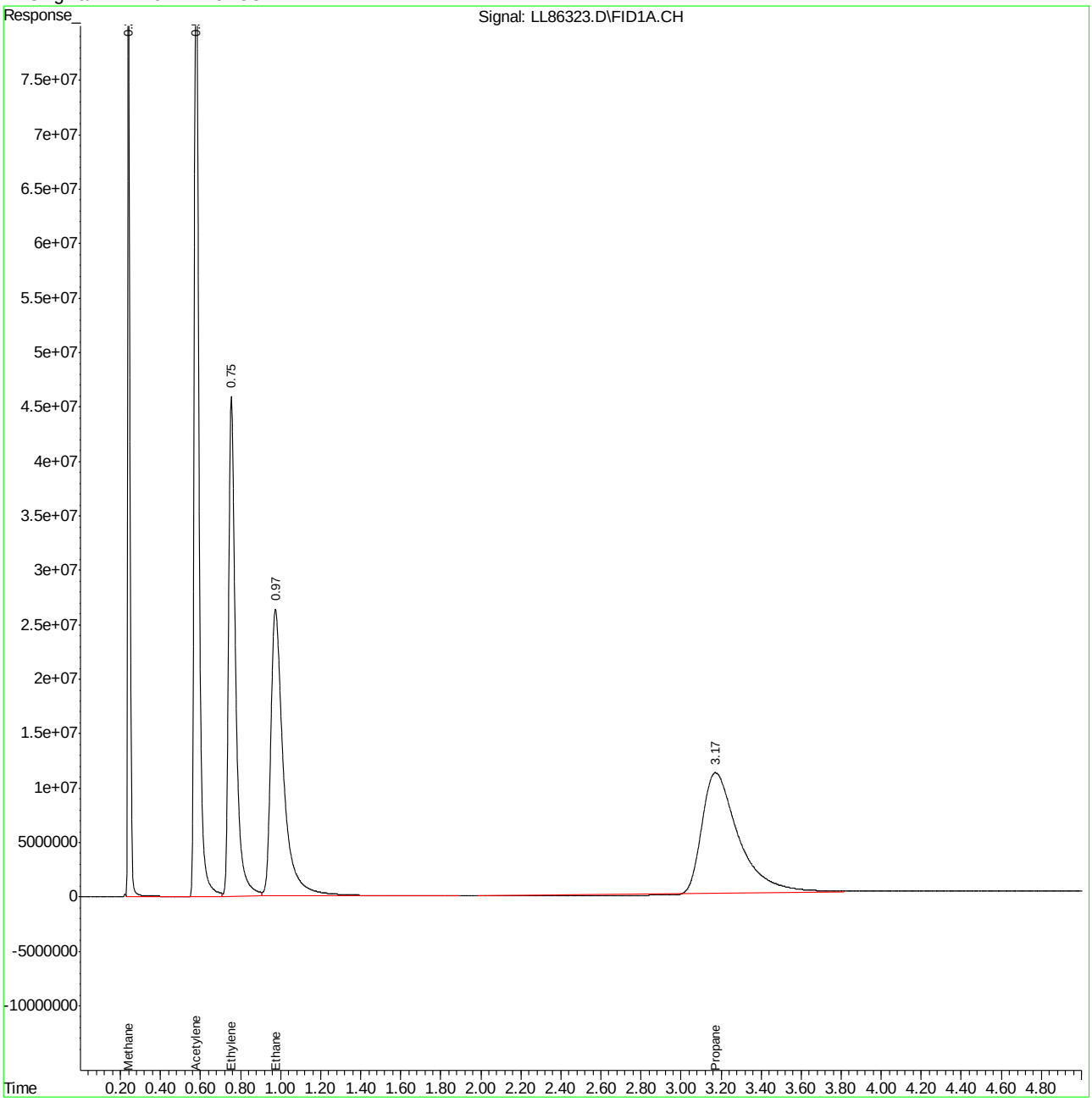
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Methane	0.24	661525672	1083.944	ppmv
2)	Acetylene	0.58	1507341682	1120.646	ppmv
3)	Ethylene	0.75	1123688858	1032.859	ppmv
4)	Ethane	0.97	1174422824	1049.631	ppmv
5)	Propane	3.17	1371973366	925.355	ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86323.D Vial: 2
Acq On : 11-15-2023 09:03:47 AM Operator: samantha
Sample : cc2678-5 Inst : FID4-LL
Misc : gc24456,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 9:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86335.D Vial: 14
Acq On : 15 Nov 2023 12:03 pm Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:11:06 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

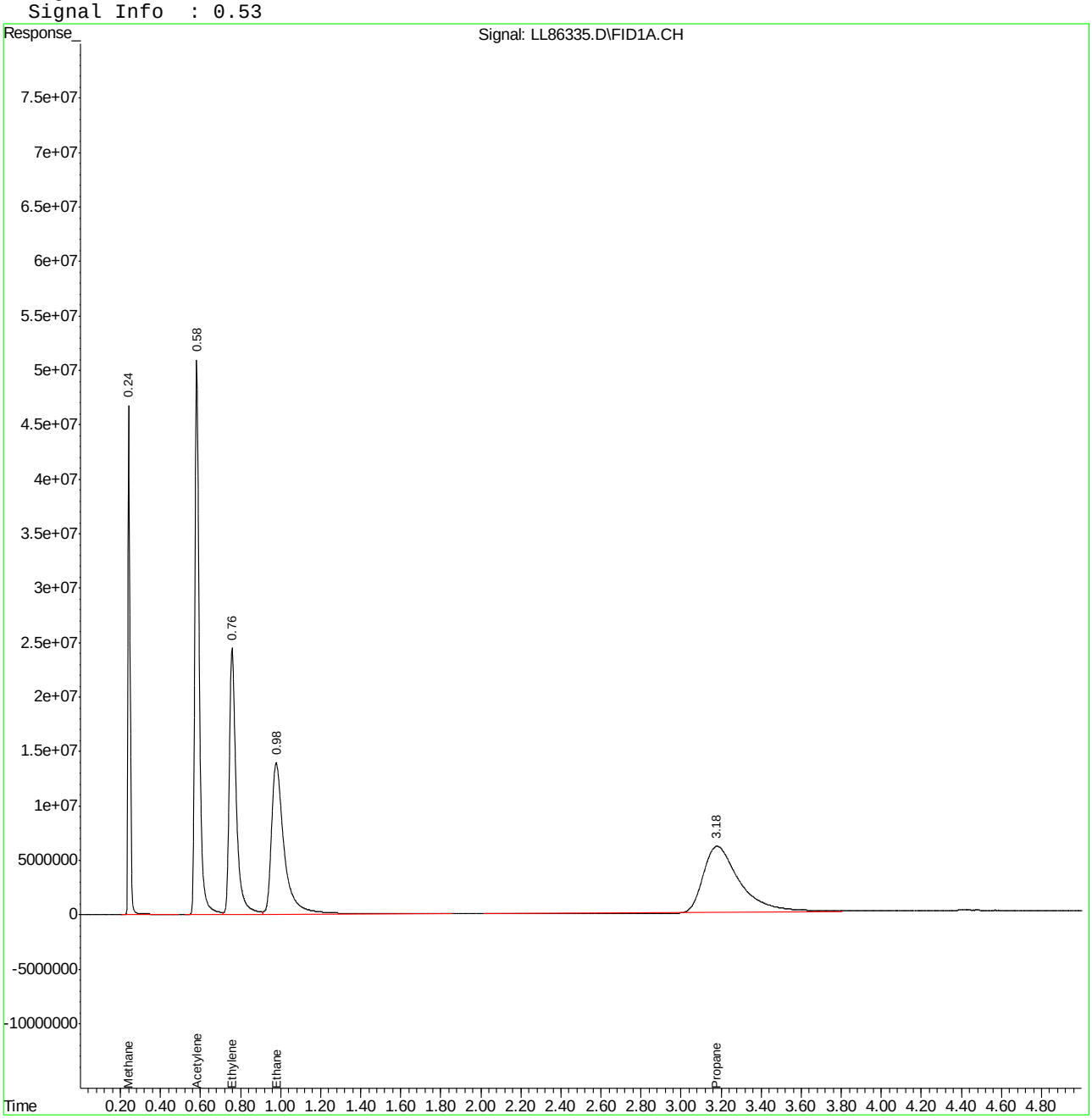
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Methane	0.24	338807710	555.154 ppmv
2)	Acetylene	0.58	791346851	588.333 ppmv
3)	Ethylene	0.76	584576104	537.324 ppmv
4)	Ethane	0.98	612796212	547.682 ppmv
5)	Propane	3.18	742679874	500.915 ppmv

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\111523\LL86335.D Vial: 14
Acq On : 15 Nov 2023 12:03 pm Operator: samantha
Sample : cc2678-4 Inst : FID4-LL
Misc : gc24460,gll2991,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 15 12:11 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



SGS -ORLANDO

GC VOA4-LL ANALYSIS LOG

DATE: 12/23/21	**METHODS:** NEWRSK 147/175	**STANDARDS:**	**PH LOT:** 225320
COLUMN TYPE: C1006	**METHOD FILE:** RSK122321B.M	**ICAL/CCV:** 9808, 10447A, 10395B	**KI PAPER LOT:** 011819
DETECTOR: FID	**CALIB. DATE:** 12/23/21		**AMBIENT TEMP. :** 18C- 20°C
INSTRUMENT: FID4-LL	**DataAqcMeth:** DGMEE3.M	**ISTD/SURR:** NA	**THERM ID:** 170563327
ANALYST: trangd			**Sample ID Verified: trangd**
	RUN ID: GLL2678	**ICV/QC:** 10456A, 9513	**DATE VERIFIED: 12/23/21**

Data File		Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Manually Integrated Peaks Rationale, Peak#	pH	CI	RR	Comments
LL77103	mb, helium	-	-	-	-	-		-	-	-	
LL77104	cc2675-5	-	-	W	500	1000		-	-	-	Low; not used
LL77105	bs	-	-	-	500	10000		-	-	-	Low; not used
LL77106	cc2675-5	-	-	W	500	1000		-	-	-	change gases septa; restart
LL77107	mb, helium	-	-	W	500			-	-	-	
LL77108	cc2675-5	-	-	W	500	1000		-	-	-	high; not used
LL77109	cc2675-5	-	-	W	500	1000		-	-	-	high; not used
LL77110	mb, helium	-	-	W	500			-	-	-	
LL77111	bs	-	-	W	500	10000		-	-	-	test std; not used
LL77112	cc2675-7	-	-	W	500	1000		-	-	-	test std; not used
LL77113	mb, helium	-	-	W	500			-	-	-	
LL77114	mb, helium	-	-	W	500			-	-	-	
LL77115	ic2678-1	10x	-	W	500	15	pii: 1,5	-	-	-	500mL/5mL
LL77116	ic2678-2	-	-	W	500	15	pii: 5	-	-	-	
LL77117	ic2678-3	10x	-	W	500	1000	pii: 5	-	-	-	500mL/5mL
LL77118	ic2678-4	-	-	W	250	1000	pii: 5	-	-	-	
LL77119	icc2678-5	-	-	W	500	1000	pii: 5	-	-	-	
LL77120	ic2678-6	-	-	W	250	10000	pii: 5	-	-	-	
LL77121	ic2678-7	-	-	W	500	10000		-	-	-	
LL77122	mb, helium	-	-	W	500			-	-	-	
LL77123	icv2628-5	-	-	W	500	10000	pii: 5	-	-	-	passed

TO
12/23/21

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate.

All strikeouts must be initialed and dated If correction was not due to a transcription error, then list the reason for correction

Manual Integration Rational SOP QA029 MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

Analyst's Signature:

SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	11/14/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAqcMeth	DGMEE3.M
RUN ID:	GLL2990

STANDARDS:		**PH LOT**	230320
ICAL/CCV:	9808, 11151A, 10395B	**KI PAPER LOT**	14-860
		AMBIENT TEMP.	20°C
ISTD/SURR:	NA	**THERM ID:**	170563327
		Sample ID Verified:	samantha
ICV/QC:	10456A, 11171A, 11530A	**DATE VERIFIED:**	11/14/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL86289	ccb, helium	-	-	-	-	-	-	-	-	-	
LL86290	cc2678-5	-	-	-	500	1000		-	-	-	✔
LL86291	bs	-	-	W	500	10000		-	-	-	✔
LL86292	bsd	-	-	W	500	10000		-	-	-	✔
LL86293	ccb, helium	-	-	-	-	-		-	-	-	
LL86294	mb	-	-	W	500	-		-	-	-	✔
LL86295	fc10922-4	10X	5	W	500	-	500uL(-)5mL	1	N	-	✔
LL86296	fc10922-5	1X	4	W	500	-		1	N	10X	Methane over range
LL86297	fc10922-6	1X	3	W	500	-		1	N	-	✔
LL86298	fc10922-7	1X	3	W	500	-		1	N	-	✔
LL86299	fc10922-8	1X	5	W	500	-		1	N	-	✔
LL86300	fc10954-1A	1X	1	W	500	-		1	N	10X	Methane over range
LL86301	fc10954-2A	1X	2	W	500	-		1	N	-	✔
LL86302	cc2678-4	-	-	-	250	1000		-	-	-	✔
LL86303	ccb, helium	-	-	-	-	-		-	-	-	
LL86304	fc10954-3A	1X	2	W	500	-		1	N	10X	Methane over range
LL86305	fc11161-1	1X	6	W	500	-		1	N	-	✔
LL86306	fc11161-1dup	1X	7	W	500	-		1	N	-	✔
LL86307	fc11161-1ms	1X	8	W	500	10000		1	N	-	✔
LL86308	fc11161-2	1X	5	W	500	-		1	N	-	✔
LL86309	fc11161-3	1X	6	W	500	-		1	N	-	✔
LL86310	fc11161-4	1X	6	W	500	-		1	N	-	✔
LL86311	fc11161-5	1X	6	W	500	-		1	N	-	✔
LL86312	cc2678-4	-	-	-	250	1000		-	-	-	Acetylene high (not reported)
LL86313	ccb, helium	-	-	-	-	-		-	-	-	
LL86314	fc11161-6	1X	5	W	500	-		1	N	-	✔
LL86315	fc11161-7	1X	7	W	500	-		1	N	-	✔
LL86316	fc11161-8	1X	4	W	500	-		1	N	-	✔
LL86317	fc11133-1B	1X	9	W	500	-		1	N	-	✔
LL86318	fc11133-2B	1X	3	W	500	-		1	N	-	✔
LL86319	fc11133-3B	1X	7	W	500	-		1	N	-	✔
LL86320	fc11133-4B	1X	3	W	500	-		1	N	-	✔
LL86321	ecc2678-5	-	-	W	500	1000		-	-	-	Acetylene high (not reported)

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate.

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

GCVOA_RSK_Log_Rev0

SGS - ORLANDO

DGMEE Preparation Logbook

Date 11/14/23
RUN ID GLL2990
Method NELAP SK 147/175
pH Paper Lot# 230320
KI Paper Lot # 14-860

DI H2O boiled, cooled 10 mins

Sample ID	Bottle Number	Headspace Created (mL)	Sample pH	Cl? Y/N	Sample Amount (ml)	Comments
FC10922-4	5	5.0	1	N	38.0	
FC10922-5	4	5.0	1	N	38.0	
FC10922-6	3	5.0	1	N	38.0	
FC10922-7	3	5.0	1	N	38.0	
FC10922-8	5	5.0	1	N	38.0	
FC10954-1A	1	5.0	1	N	38.0	
FC10954-2A	2	5.0	1	N	38.0	
FC10954-3A	2	5.0	1	N	38.0	
FC11161-1	6	5.0	1	N	38.0	
FC11161-1dup	7	5.0	1	N	38.0	
FC11161-1ms	8	5.0	1	N	38.0	
FC11161-2	5	5.0	1	N	38.0	
FC11161-3	6	5.0	1	N	38.0	
FC11161-4	6	5.0	1	N	38.0	
FC11161-5	6	4.9	1	N	38.1	
FC11161-6	5	5.0	1	N	38.0	
FC11161-7	7	5.0	1	N	38.0	
FC11161-8	4	5.0	1	N	38.0	
FC11161-						SS 11/14
FC11133-1B	9	5.0	1	N	38.0	
FC11133-2B	3	5.0	1	N	38.0	
FC11133-3B	7	4.9	1	N	38.1	
FC11133-4B	3	5.0	1	N	38.0	

Analyst:



SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	11/15/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAqcMeth	DGMEE3.M
RUN ID:	GLL2991

STANDARDS:		**PH LOT**	230320
ICAL/CCV:	9808, 11151A, 10395B	**KI PAPER LOT**	14-860
		AMBIENT TEMP.	20°C
ISTD/SURR:	NA	**THERM ID:**	170563327
		Sample ID Verified:	samantha
ICV/QC:	10456A, 11171A, 11530A	**DATE VERIFIED:**	11/15/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL86322	ccb, helium	-	-	-	-	-	-	-	-	-	
LL86323	cc2678-5	-	-	-	500	1000		-	-	-	✔
LL86324	bs	-	-	W	500	10000		-	-	-	✔
LL86325	bsd	-	-	W	500	10000		-	-	-	✔
LL86326	ccb, helium	-	-	-	-	-		-	-	-	
LL86327	mb	-	-	W	500	-		-	-	-	✔
LL86328	fc11176-10	1X	4	W	500	-		3	N	-	✔
LL86329	fc10922-5	10X	5	W	500	-	500uL(-)5mL	1	N	-	E-combine
LL86330	fc10954-1A	10X	5	W	500	-	500uL(-)5mL	1	N	-	E-combine
LL86331	fc10954-3A	10X	3	W	500	-	500uL(-)5mL	1	N	-	E-combine
LL86332	fc11172-1	1X	7	W	500	-		1	N	-	✔
LL86333	fc11172-1dup	1X	8	W	500	-		1	N	-	✔
LL86334	fc11172-1ms	1X	9	W	500	10000		1	N	-	✔
LL86335	cc2678-4	-	-	-	250	1000		-	-	-	Acetylene high (not reported)
LL86336	ccb, helium	-	-	-	-	-		-	-	-	
LL86337	fc11172-2	1X	4	W	500	-		1	N	-	✔
LL86338	fc11172-3	1X	8	W	500	-		1	N	-	✔
LL86339	fc11172-4	1X	6	W	500	-		1	N	-	✔
LL86340	fc11171-1B	1X	6	W	500	-		1	N	-	✔
LL86341	fc11171-2B	1X	1	W	500	-		1	N	-	✔
LL86342	fc11171-5B	1X	2	W	500	-		1	N	-	✔
LL86343	fc11171-6B	1X	2	W	500	-		1	N	-	✔
LL86344	fc11171-7B	1X	6	W	500	-		1	N	-	✔
LL86345	cc2678-4	-	-	-	250	1000		-	-	-	Acetylene high (not reported)
LL86346	ccb, helium	-	-	-	-	-		-	-	-	
LL86347	fc11171-8B	1X	5	W	500	-		1	N	-	✔
LL86348	fc11171-9B	1X	2	W	500	-		1	N	-	✔
LL86349	fc11171-10B	1X	6	W	500	-		1	N	-	✔
LL86350	fc11171-14B	1X	6	W	500	-		1	N	-	✔
LL86351	fc11171-15B	1X	1	W	500	-		1	N	-	✔
LL86352	ecc2678-5	-	-	-	500	1000		-	-	-	Acetylene high (not reported)

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate.

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

GCVOA_RSK_Log_Rev0

SGS - ORLANDO

DGMEE Preparation Logbook

Date 11/15/23

RUN ID GLL2991

Method: NCWRSK 147/175

pH Paper Lot# 230320

KI Paper Lot # 14-860

DI H_2O boiled, cooled 10 mins

Sample ID	Bottle Number	Headspace Created (mL)	Sample pH	Cl ? Y/N	Sample Amount (ml)	Comments
FC11176-10	4	5.0	3	N	38.0	
FC10922-5	5	5.0	1	N	38.0	
FC10954-1A	5	5.0	1	N	38.0	
FC10954-3A	3	5.0	1	N	38.0	
FC11172-1	7	5.0	1	N	38.0	
FC11172-Dup	8	5.0	1	N	38.0	
FC11172-1ms	9	5.0	1	N	38.0	
FC11172-2	4	5.0	1	N	38.0	
FC11172-3	8	5.0	1	N	38.0	
FC11172-4	6	5.0	1	N	38.0	
FC11171-1B	6	5.0	1	N	38.0	
FC11171-2B	1	5.0	1	N	38.0	
FC11171-5B	2	5.0	1	N	38.0	
FC11171-6B	2	5.0	1	N	38.0	
FC11171-7B	6	5.0	1	N	38.0	
FC11171-8B	5	5.0	1	N	38.0	
FC11171-9B	2	5.0	1	N	38.0	
FC11171-10B	6	5.0	1	N	38.0	
FC11171-14B	6	5.0	1	N	38.0	
FC11171-15B	1	5.0	1	N	38.0	

Analyst:



Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:19	MA19813-STD1	1		STDA
11:23	MA19813-STD2	1		STDB
11:26	MA19813-STD3	1		STDC
11:30	MA19813-STD4	1		STDD
11:33	MA19813-STD5	1		STDE
11:37	MA19813-STD6	1		STDF
11:40	MA19813-STD7	1		STDG
11:43	MA19813-HSTD1	1		
11:46	MA19813-HSTD2	1		
11:49	MA19813-ICV1	1		
11:53	MA19813-ICB1	1		
11:56	MA19813-CRIA1	1		
11:59	MA19813-ICSA1	1		
12:03	MA19813-ICSAB1	1		
12:06	MA19813-CCV1	1		
12:09	MA19813-CCV2	1		
12:12	MA19813-CCB1	1		
12:34	MA19813-CRIA2	1		
12:38	MP43092-MB1	5		
12:41	MP43092-B1	5		
12:44	FC10941-1	10		(sample used for QC only; not part of login FC10954)
12:47	MP43092-D1	10		
12:51	MP43092-SD1	50		
12:54	MP43092-S1	10		
12:57	MP43092-S2	10		
13:00	MP43092-PS1	10		
13:03	ZZZZZZ	10		
13:06	MA19813-CCV3	1		
13:10	MA19813-CCV4	1		
13:13	MA19813-CCB2	1		
13:16	MP43089-MB1	2		
13:20	MP43089-B1	2		
13:23	FC10954-1	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:26	MP43089-D1	2		
13:29	MP43089-SD1	10		
13:32	MP43089-S1	2		
13:35	MP43089-S2	2		
13:39	MP43089-PS1	2		
13:42	FC10954-2	2		
13:45	FC10954-3	2		
13:48	MA19813-CCV5	1		
13:51	MA19813-CCV6	1		
13:54	MA19813-CCB3	1		
13:58	ZZZZZZ	2		
14:01	FC10941-1	100		(sample used for QC only; not part of login FC10954)
14:04	MP43092-D1	100		
14:08	MP43092-S1	100		
14:11	MP43092-S2	100		
14:14	MP43092-PS1	100		
14:18	ZZZZZZ	50		
14:21	FC10954-1	20		
14:24	MP43089-D1	20		
14:28	MP43089-S1	20		
14:31	MA19813-CCV7	1		
14:34	MA19813-CCV8	1		
14:37	MA19813-CCB4	1		
14:41	MP43089-S2	20		
14:44	MP43089-PS1	20		
14:47	FC10954-2	10		
14:51	FC10954-3	50		
---------->	Last reportable sample/prep for job FC10954			
14:54	MA19813-CCV9	1		
14:57	MA19813-CCV10	1		
15:00	MA19813-CCB5	1		
---------->	Last reportable CCB for job FC10954			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:43	MA19813-HSTD1	1		
11:46	MA19813-HSTD2	1	X	
11:49	MA19813-ICV1	1	X	
11:53	MA19813-ICB1	1	X	
11:56	MA19813-CRIA1	1	X	
11:59	MA19813-ICSA1	1	X	
12:03	MA19813-ICSAB1	1	X	
12:06	MA19813-CCV1	1		
12:09	MA19813-CCV2	1	X	
12:12	MA19813-CCB1	1	X	
12:34	MA19813-CRIA2	1		
12:38	MP43092-MB1	5	X	
12:41	MP43092-B1	5	X	
12:44	FC10941-1	10	X	(a)
12:47	MP43092-D1	10	X	
12:51	MP43092-SD1	50	X	
12:54	MP43092-S1	10	X	
12:57	MP43092-S2	10	X	
13:00	MP43092-PS1	10		
13:03	ZZZZZZ	10		
13:06	MA19813-CCV3	1		
13:10	MA19813-CCV4	1	X	
13:13	MA19813-CCB2	1	X	
13:16	MP43089-MB1	2	X	
13:20	MP43089-B1	2	X	
13:23	FC10954-1	2		
13:26	MP43089-D1	2		
13:29	MP43089-SD1	10		
13:32	MP43089-S1	2		
13:35	MP43089-S2	2		
13:39	MP43089-PS1	2		
13:42	FC10954-2	2		
13:45	FC10954-3	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Dilution	Element: As
13:48	MA19813-CCV5	1	
13:51	MA19813-CCV6	1	X
13:54	MA19813-CCB3	1	X
13:58	ZZZZZZ	2	
14:01	FC10941-1	100	(a)
14:04	MP43092-D1	100	
14:08	MP43092-S1	100	
14:11	MP43092-S2	100	
14:14	MP43092-PS1	100	
14:18	ZZZZZZ	50	
14:21	FC10954-1	20	X
14:24	MP43089-D1	20	X
14:28	MP43089-S1	20	X
14:31	MA19813-CCV7	1	
14:34	MA19813-CCV8	1	X
14:37	MA19813-CCB4	1	X
14:41	MP43089-S2	20	X
14:44	MP43089-PS1	20	
14:47	FC10954-2	10	X
14:51	FC10954-3	50	X
14:54	MA19813-CCV9	1	
14:57	MA19813-CCV10	1	X
15:00	MA19813-CCB5	1	X

(a) Sample used for QC only; not part of login FC10954.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:19	MA19813-STD1	100	100	100	100	100	100	100
11:23	MA19813-STD2	102.5	99.1	100.5	99.7	98.8	100.9	99.8
11:26	MA19813-STD3	99.6	100.3	100.5	100	100.4	100.9	101.4
11:30	MA19813-STD4	99.3	102.3	103.2	102.1	101.8	101.6	100.3
11:33	MA19813-STD5	102.8	102.7	103.4	103.1	99.9	102.3	100.3
11:37	MA19813-STD6	103.7	100.6	100.5	100.1	96.8	99.5	97.1
11:40	MA19813-STD7	96.1	96.8	97.6	96	92.7	98.4	92.8
11:43	MA19813-HSTD1	97.2	97.6	97.7	96.6	93.5	98.4	97.6
11:46	MA19813-HSTD2	95.7	94.5	95.8	94.3	90.9	96.2	92.8
11:49	MA19813-ICV1	104.6	95.8	95.9	95.4	91.5	97.2	95.3
11:53	MA19813-ICB1	101.6	97.5	98.1	97.8	97.2	100.1	100.7
11:56	MA19813-CRIA1	98.8	99.2	99.4	98.5	97.4	100.2	101.7
11:59	MA19813-ICSA1	86.9	93.9	92.8	88	85.4	93.7	86.5
12:03	MA19813-ICSAB1	86.2	93	92.6	88.3	84.6	93.4	86
12:06	MA19813-CCV1	97	95.9	96.7	96.2	94.8	99.9	99.2
12:09	MA19813-CCV2	97	94.4	96	95.3	91.8	97	97.3
12:12	MA19813-CCB1	100.4	94.8	95.9	95.6	94.1	100.2	101.3
12:34	MA19813-CRIA2	107.1	97	97.3	96.7	97.6	100.5	102.8
12:38	MP43092-MB1	103.3	98.5	98.3	97.1	96.7	101.3	103.9
12:41	MP43092-B1	98.9	97.4	96.2	95.1	94.1	100.2	98.4
12:44	FC10941-1	109.2	122	98.1	92	89.4	96.9	93.9
12:47	MP43092-D1	104.8	117.8	97.1	90.3	87.9	97	93.5
12:51	MP43092-SD1	102	101.9	98.9	96.7	97.4	99.7	100
12:54	MP43092-S1	116.4	121	96.9	90.6	88.3	96.6	94
12:57	MP43092-S2	94.7	118.5	99.1	92.9	89.6	97.2	93.5
13:00	MP43092-PS1	108.7	123.1	101.4	95.1	92.3	99.4	95.1
13:03	ZZZZZZ	91	117.1	96.6	90.8	87.9	95.7	92.2
13:06	MA19813-CCV3	98.4	99.6	101.2	99.9	101.4	101.8	100
13:10	MA19813-CCV4	99.3	98.9	100.1	99.1	96.5	102.2	99.3
13:13	MA19813-CCB2	103.5	100.6	101	100.7	103	102.9	103.2
13:16	MP43089-MB1	102.4	104.7	103.1	102.3	105.8	103.5	105.6
13:20	MP43089-B1	103.7	102.4	100.7	100	98.3	103	99.2
13:23	FC10954-1	95.3	96.3	97	94.8	92.3	98.3	97.4

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
13:26	MP43089-D1	98.7	97.4	97.7	95.6	94.2	100.7	98.1
13:29	MP43089-SD1	104.9	100.7	102	101.1	101.8	104.8	103.6
13:32	MP43089-S1	97.5	99.4	100	96.8	93.9	101.9	96.7
13:35	MP43089-S2	96	95.8	97.8	94.7	91.8	99.4	94.2
13:39	MP43089-PS1	No results reported for the elements associated with this internal standard.						
13:42	FC10954-2	98.3	96.9	98.2	96	93.3	101.2	98.8
13:45	FC10954-3	97.8	97.7	98.4	96.4	94.7	101.8	100.8
13:48	MA19813-CCV5	104.6	104.5	105.4	104.9	105.6	107	104.6
13:51	MA19813-CCV6	102.7	102.2	103.4	101.7	102.7	103.8	102.2
13:54	MA19813-CCB3	109.2	101.8	102.6	101.5	104.4	104.6	105.3
13:58	ZZZZZZ	102.5	94.8	93.7	93.2	91.9	100.6	99.4
14:01	FC10941-1	104.6	104.8	103.2	101.9	102.1	106.7	106.6
14:04	MP43092-D1	113.1	109.7	108.3	107	108.3	108.2	108.3
14:08	MP43092-S1	106.8	108.6	105.8	104.7	104.9	106.3	105.2
14:11	MP43092-S2	105.7	107.4	105.3	103.8	105.1	106.2	106.2
14:14	MP43092-PS1	110.3	109.3	107.8	105.7	108.2	107.9	106.3
14:18	ZZZZZZ	106.7	109.7	105.5	103.1	103.8	105.4	104.7
14:21	FC10954-1	108.9	103.4	104.2	103.7	105.3	105.6	104.1
14:24	MP43089-D1	105.8	103.9	105.5	104.4	106.6	107	105.6
14:28	MP43089-S1	105.8	104	104.5	104	105.3	105.7	104.6
14:31	MA19813-CCV7	103.4	104.6	105.4	104	104.8	106.6	104.3
14:34	MA19813-CCV8	104.1	102.5	102.5	101.7	101	103.8	101.9
14:37	MA19813-CCB4	106.4	103	104.1	103.5	107.6	105.8	105.6
14:41	MP43089-S2	106.8	103.1	103.3	102.1	104.7	105.4	105.1
14:44	MP43089-PS1	No results reported for the elements associated with this internal standard.						
14:47	FC10954-2	101.9	101.6	102.9	102.3	104.5	104.3	103.8
14:51	FC10954-3	104.2	102.5	103.1	102.7	104.4	105.4	105.7
14:54	MA19813-CCV9	108.6	105	104.8	104.5	104.3	106.2	103.9
14:57	MA19813-CCV10	105.3	102.2	102.1	100.9	103.9	104	101.3
15:00	MA19813-CCB5	106.8	103.2	103.1	102.4	106.5	105.9	105

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7

Istd#7	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19813 Units: ug/l

Time: / Sample ID:			11:53 ICB1		12:12 CCB1		13:13 CCB2		13:54 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4								
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0450	<1.0	0.00900	<1.0	0.0330	<1.0	0.0620	<1.0
Barium	1.0	.1								
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2								
Chromium	1.0	.1	anr							
Cobalt	1.0	.1								
Copper	5.0	.1	anr							
Iron	100	7.9								
Lead	1.0	.1	anr							
Magnesium	100	5.2								
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	2.0	.1	anr							
Potassium	100	6.6								
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8								
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	2.0	.3								
Vanadium	1.0	.1								
Zinc	5.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19813 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	14:37 CCB4 raw	final	15:00 CCB5 raw	final
Aluminum	100	4.4				
Antimony	1.0	.1	anr			
Arsenic	1.0	.1	0.0200	<1.0	0.0220	<1.0
Barium	1.0	.1				
Beryllium	1.0	.1	anr			
Cadmium	1.0	.1	anr			
Calcium	100	7.2				
Chromium	1.0	.1	anr			
Cobalt	1.0	.1				
Copper	5.0	.1	anr			
Iron	100	7.9				
Lead	1.0	.1	anr			
Magnesium	100	5.2				
Manganese	1.0	.1	anr			
Molybdenum	1.0	.1				
Nickel	2.0	.1	anr			
Potassium	100	6.6				
Selenium	1.0	.11	anr			
Silver	1.0	.1	anr			
Sodium	100	4.8				
Strontium	1.0	.1				
Thallium	1.0	.1	anr			
Tin	1.0	.1				
Titanium	2.0	.3				
Vanadium	1.0	.1				
Zinc	5.0	.29	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		11:49			12:06			12:09	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	106	106.0				100	101	101.0
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		13:06			13:10				13:48	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV		CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True		Results	% Rec
Aluminum										
Antimony										
Arsenic				100	103	103.0				
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver	anr									
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		13:51			14:31			14:34	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	102	102.0				100	103	103.0
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		14:54			14:57	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	103	103.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		11:43			11:46	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	201	100.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19813 Units: ug/l

Time:			11:56		12:34	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100				
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	0.977	97.7		
Barium	1.0	1.0				
Beryllium	1.0	1.0	anr			
Cadmium	1.0	1.0	anr			
Calcium	100	100				
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0				
Copper	1.0	1.0				
Iron	100	100				
Lead	1.0	1.0	anr			
Magnesium	100	100				
Manganese	1.0	1.0	anr			
Molybdenum	1.0	1.0				
Nickel	1.0	1.0	anr			
Potassium	100	100				
Selenium	1.0	1.0	anr			
Silver	1.0	1.0	anr			
Sodium	100	100				
Strontium	1.0	1.0				
Thallium	1.0	1.0	anr			
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0				
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19813 Units: ug/l

Time:			11:59		12:03	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	97900H	97.9	101000HH	101.0
Antimony			0.107		0.101	
Arsenic		20	0.0900		20.2	101.0
Barium			0.341		0.325	
Beryllium			0.0280		0.0300	
Cadmium		20	0.856		20.3	101.5
Calcium	100000	100000	99000H	99.0	103000HH	103.0
Chromium		20	1.40*(a)		20.2	101.0
Cobalt		20	0.676		20.0	100.0
Copper		20	-0.0380		18.3	91.5
Iron	100000	100000	97600H	97.6	101000HH	101.0
Lead			0.211		0.214	
Magnesium	100000	100000	98200H	98.2	103000HH	103.0
Manganese		20	0.363		20.2	101.0
Molybdenum	2000	2000	2110HH	105.5	2160HH	108.0
Nickel		20	0.441		19.2	96.0
Potassium	100000	100000	98600H	98.6	103000HH	103.0
Selenium			0.101		0.0600	
Silver		20	0.0240		19.0	95.0
Sodium	100000	100000	98700H	98.7	103000HH	103.0
Strontium			0.745		0.755	
Thallium			0.0140		0.0110	
Tin			0.140		0.109	
Titanium	2000	2000	2050HH	102.5	2120HH	106.0
Vanadium			-0.295		-0.257	
Zinc		20	0.882		21.6	108.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:25	MA19821-STD1	1		STDA
10:31	MA19821-STD2	1		STDB
10:35	MA19821-STD3	1		STDC
10:39	MA19821-STD4	1		STDD
10:44	MA19821-STD5	1		STDE
10:48	MA19821-STD6	1		STDF
10:52	MA19821-STD7	1		STDG
11:01	MA19821-CRIA1	1		
11:08	MA19821-HSTD1	1		
11:19	MA19821-ICV1	1		
11:29	MA19821-ICB1	1		
11:39	MA19821-ICSA1	1		
11:46	MA19821-ICSAB1	1		
11:54	MA19821-CCV1	1		
12:04	MA19821-CCB1	1		
12:14	MP43102-MB1	1		
12:19	MP43102-B1	1		
12:24	FC10906-1L	1		(sample used for QC only; not part of login FC10954)
12:29	MP43102-D1	1		
12:35	MP43102-SD1	5		
12:40	MP43102-S1	1		
12:45	MP43102-S2	1		
12:50	ZZZZZZ	1		
12:55	ZZZZZZ	1		
13:00	MA19821-CCV2	1		
13:05	MA19821-CCB2	1		
13:10	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:26	MP43102-MB2	1		
13:31	MP43102-B2	1		
13:36	MP43103-MB1	1		
13:41	MP43103-B1	1		
13:46	FC10929-16	1		(sample used for QC only; not part of login FC10954)

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:51	MP43103-D1	1		
13:56	MP43103-SD1	5		
14:01	MA19821-CCV3	1		
14:06	MA19821-CCB3	1		
14:11	MP43103-PS1	1		
14:16	MP43103-S1	1		
14:21	MP43103-S2	1		
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	5		
14:42	ZZZZZZ	5		
14:47	ZZZZZZ	5		
14:52	ZZZZZZ	5		
14:57	ZZZZZZ	5		
15:03	MA19821-CCV4	1		
15:08	MA19821-CCB4	1		
15:14	ZZZZZZ	5		
15:19	ZZZZZZ	1		
15:24	ZZZZZZ	100		
15:29	ZZZZZZ	5		
15:34	MA19821-CCV5	1		
15:39	MA19821-CCB5	1		
16:07	MP43108-B1	1		
16:12	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:58	MA19821-CCV6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:03	MA19821-CCB6	1		
17:08	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:29	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:44	ZZZZZZ	1		
17:49	FC10954-1A	1		
17:54	FC10954-2A	1		
18:00	MA19821-CCV7	1		
18:05	MA19821-CCB7	1		
18:10	FC10963-23	1		(sample used for QC only; not part of login FC10954)
18:15	MP43108-D1	1		
18:21	MP43108-SD1	5		
18:26	MP43108-PS1	1		
18:31	MP43108-S1	1		
18:36	MP43108-S2	1		
---------->	Last reportable sample/prep for job FC10954			
18:42	MA19821-CCV8	1		
18:47	MA19821-CCB8	1		
---------->	Last reportable CCB for job FC10954			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
11:01	MA19821-CRIA1	1	X	X	
11:08	MA19821-HSTD1	1	X	X	
11:19	MA19821-ICV1	1	X	X	
11:29	MA19821-ICB1	1	X	X	
11:39	MA19821-ICSA1	1	X	X	
11:46	MA19821-ICSAB1	1	X	X	
11:54	MA19821-CCV1	1	X	X	
12:04	MA19821-CCB1	1	X	X	
12:14	MP43102-MB1	1			
12:19	MP43102-B1	1			
12:24	FC10906-1L	1			(a)
12:29	MP43102-D1	1			
12:35	MP43102-SD1	5			
12:40	MP43102-S1	1			
12:45	MP43102-S2	1			
12:50	ZZZZZZ	1			
12:55	ZZZZZZ	1			
13:00	MA19821-CCV2	1	X	X	
13:05	MA19821-CCB2	1	X	X	
13:10	ZZZZZZ	1			
13:20	ZZZZZZ	1			
13:26	MP43102-MB2	1			
13:31	MP43102-B2	1			
13:36	MP43103-MB1	1			
13:41	MP43103-B1	1			
13:46	FC10929-16	1			(a)
13:51	MP43103-D1	1			
13:56	MP43103-SD1	5			
14:01	MA19821-CCV3	1	X	X	
14:06	MA19821-CCB3	1	X	X	
14:11	MP43103-PS1	1			
14:16	MP43103-S1	1			
14:21	MP43103-S2	1			
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	5		
14:42	ZZZZZZ	5		
14:47	ZZZZZZ	5		
14:52	ZZZZZZ	5		
14:57	ZZZZZZ	5		
15:03	MA19821-CCV4	1	X	X
15:08	MA19821-CCB4	1	X	X
15:14	ZZZZZZ	5		
15:19	ZZZZZZ	1		
15:24	ZZZZZZ	100		
15:29	ZZZZZZ	5		
15:34	MA19821-CCV5	1	X	X
15:39	MA19821-CCB5	1	X	X
16:07	MP43108-B1	1	X	X
16:12	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:58	MA19821-CCV6	1	X	X
17:03	MA19821-CCB6	1	X	X
17:08	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:29	ZZZZZZ	1		
17:34	ZZZZZZ	1		
		Element:	Fe	Mn

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	F e	M n	
17:39	ZZZZZZ	1			
17:44	ZZZZZZ	1			
17:49	FC10954-1A	1	X	X	
17:54	FC10954-2A	1	X	X	
18:00	MA19821-CCV7	1	X	X	
18:05	MA19821-CCB7	1	X	X	
18:10	FC10963-23	1			(a)
18:15	MP43108-D1	1	X	X	
18:21	MP43108-SD1	5	X	X	
18:26	MP43108-PS1	1	X	X	
18:31	MP43108-S1	1	X	X	
18:36	MP43108-S2	1	X	X	
18:42	MA19821-CCV8	1	X	X	
18:47	MA19821-CCB8	1	X	X	

(a) Sample used for QC only; not part of login FC10954.

Element:	F e	M n

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:25	MA19821-STD1	8239	45520	9153	3198
10:31	MA19821-STD2	8166	44891	9117	3135
10:35	MA19821-STD3	8241	45628	9260	3123
10:39	MA19821-STD4	8196	45129	9194	3047
10:44	MA19821-STD5	8045	44467	9152	2912
10:48	MA19821-STD6	7880	44131	9115	2743
10:52	MA19821-STD7	7571	42914	9055	2505
11:01	MA19821-CRIA1	8156	45074	9168	3140
11:08	MA19821-HSTD1	7547	42384	9007	2487
11:19	MA19821-ICV1	7862	43767	9101	2738
11:29	MA19821-ICB1	8188 R	45093 R	9138 R	3187 R
11:39	MA19821-ICSA1	7280	39697	8817	2051
11:46	MA19821-ICSAB1	7307	39594	8813	2257
11:54	MA19821-CCV1	7791	43454	9009	2717
12:04	MA19821-CCB1	8143	45040	9146	3175
12:14	MP43102-MB1	8305	46031	9365	3238
12:19	MP43102-B1	8046	44839	9300	2865
12:24	FC10906-1L	8002	44472	9334	2951
12:29	MP43102-D1	8075	44729	9393	2969
12:35	MP43102-SD1	8217	45547	9451	3135
12:40	MP43102-S1	7955	43857	9339	2753
12:45	MP43102-S2	7951	43929	9266	2753
12:50	ZZZZZZ	8011	44443	9370	2947
12:55	ZZZZZZ	8080	44775	9390	3027
13:00	MA19821-CCV2	7919	43921	9265	2764
13:05	MA19821-CCB2	8315	45874	9356	3235
13:10	ZZZZZZ	8146	45269	9481	3086
13:20	ZZZZZZ	11797 !a	66041 !a	13852 !a	3002
13:26	MP43102-MB2	8082	44959	9452	3021
13:31	MP43102-B2	7987	44129	9429	2779
13:36	MP43103-MB1	8437	47897	9636	3282
13:41	MP43103-B1	8159	45974	9458	2891
13:46	FC10929-16	8955	49465	10282	2983

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:51	MP43103-D1	8867	48839	10131	2975
13:56	MP43103-SD1	8525	47196	9722	3166
14:01	MA19821-CCV3	7950	44802	9344	2762
14:06	MA19821-CCB3	8302	46414	9401	3211
14:11	MP43103-PS1	8946	49316	10281	2940
14:16	MP43103-S1	8707	48296	10137	2756
14:21	MP43103-S2	8709	48334	10177	2747
14:26	ZZZZZZ	9000	50323	10176	3200
14:31	ZZZZZZ	8954	50015	10129	3201
14:36	ZZZZZZ	8949	49937	10545	2781
14:42	ZZZZZZ	9275	51533	10669	2934
14:47	ZZZZZZ	9365	52247	10889	2898
14:52	ZZZZZZ	9332	52095	10728	2890
14:57	ZZZZZZ	9290	51819	10658	2881
15:03	MA19821-CCV4	7990	45036	9379	2772
15:08	MA19821-CCB4	8344	46816	9452	3222
15:14	ZZZZZZ	9494	52967	10897	2825
15:19	ZZZZZZ	8436	47972	9655	3213
15:24	ZZZZZZ	8301	46521	9420	3197
15:29	ZZZZZZ	8986	50666	10226	3154
15:34	MA19821-CCV5	7985	45138	9332	2765
15:39	MA19821-CCB5	8363	47080	9403	3229
16:07	MP43108-B1	8112	45731	9306	2835
16:12	ZZZZZZ	8038	45476	9243	2931
16:17	ZZZZZZ	7997	45640	9250	2920
16:23	ZZZZZZ	8010	45710	9397	2922
16:28	ZZZZZZ	8028	45896	9351	2920
16:33	ZZZZZZ	8344	47556	9516	3113
16:38	ZZZZZZ	8776	49267	9918	3061
16:43	ZZZZZZ	8543	48164	9700	2957
16:48	ZZZZZZ	8362	47492	9804	3201
16:53	ZZZZZZ	8299	47379	9728	3120
16:58	MA19821-CCV6	8001	45704	9240	2759

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:03	MA19821-CCB6	8306	47375	9318	3203
17:08	ZZZZZZ	8267	47335	9419	3111
17:13	ZZZZZZ	8451	48281	9771	2999
17:18	ZZZZZZ	8267	47473	9352	3155
17:23	ZZZZZZ	7994	45933	9372	2878
17:29	ZZZZZZ	8199	47192	9313	3028
17:34	ZZZZZZ	8179	46934	9296	3023
17:39	ZZZZZZ	8133	46973	9347	3024
17:44	ZZZZZZ	8156	46962	9326	3052
17:49	FC10954-1A	8194	47030	9288	2985
17:54	FC10954-2A	8168	47022	9252	2995
18:00	MA19821-CCV7	7947	45983	9186	2750
18:05	MA19821-CCB7	8275	47667	9377	3204
18:10	FC10963-23	8812	50594	10385	2630
18:15	MP43108-D1	8847	50883	10415	2625
18:21	MP43108-SD1	8467	48261	9620	3021
18:26	MP43108-PS1	8795	50246	10352	2607
18:31	MP43108-S1	8723	50293	10353	2474
18:36	MP43108-S2	8750	50050	10365	2488
18:42	MA19821-CCV8	7984	45915	9170	2754
18:47	MA19821-CCB8	8339	47437	9264	3206

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID:			11:29 ICB1		12:04 CCB1		13:05 CCB2		14:06 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14								
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	anr							
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50								
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.800	<300	2.20	<300	2.00	<300	1.00	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	anr							
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15	0.00	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID:			15:08 CCB4		15:39 CCB5		17:03 CCB6		18:05 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14								
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	anr							
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50								
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.900	<300	1.20	<300	0.900	<300	0.800	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	anr							
Manganese	15	.25	0.00	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	18:47 CCB8 raw	final
Aluminum	200	14		
Antimony	20	1	anr	
Arsenic	10	1.3	anr	
Barium	200	.5	anr	
Beryllium	5.0	.1	anr	
Boron	100	5		
Cadmium	4.0	.1	anr	
Calcium	5000	50		
Chromium	10	.5	anr	
Cobalt	50	.2	anr	
Copper	25	1	anr	
Iron	300	15	2.50	<300
Lead	20	1	anr	
Lithium	20	.5		
Magnesium	5000	35	anr	
Manganese	15	.25	0.00	<15
Molybdenum	50	.3	anr	
Nickel	40	.4	anr	
Potassium	10000	100		
Selenium	20	2	anr	
Silver	10	.5	anr	
Sodium	10000	250	anr	
Strontium	10	.25		
Thallium	10	1	anr	
Tin	50	.5		
Titanium	10	.5		
Vanadium	50	.5	anr	
Zinc	20	3	anr	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		11:19			11:54			13:00	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40700	101.8	40000	41100	102.8	40000	40700	101.8
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2050	102.5	2000	2040	102.0	2000	2050	102.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		14:01			15:03			15:34	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40500	101.3	40000	40300	100.8	40000	40300	100.8
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		16:58			18:00			18:42	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40700	101.8	40000	40500	101.3	40000	40500	101.3
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	1950	97.5	2000	1910	95.5	2000	1940	97.0
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19821 Units: ug/l

Time:		11:08	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	79900	99.9
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	4000	3980	99.5
Molybdenum	anr		
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19821 Units: ug/l

Time:			11:01	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200		
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	anr	
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	anr	
Calcium	2000	1000		
Chromium	20	10	anr	
Cobalt	100	50	anr	
Copper	50	25	anr	
Iron	600	300	302	100.7
Lead	10	5.0	anr	
Lithium	18	9.0		
Magnesium	10000	5000	anr	
Manganese	30	15	15.3	102.0
Molybdenum	100	50	anr	
Nickel	80	40	anr	
Potassium	20000	10000		
Selenium	20	10	anr	
Silver	20	10	anr	
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50		
Titanium	20	10		
Vanadium	100	50	anr	
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19821 Units: ug/l

Time:			11:39		11:46	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	500000	100.0	502000	100.4
Antimony		1000	1.90		1000	100.0
Arsenic		1000	0.500		996	99.6
Barium		500	-0.500		483	96.6
Beryllium		500	0.00		493	98.6
Boron		1000	-89.4		939	93.9
Cadmium		1000	0.500		950	95.0
Calcium	500000	500000	470000	94.0	479000	95.8
Chromium		500	0.400		490	98.0
Cobalt		500	0.400		457	91.4
Copper		500	1.00		532	106.4
Iron	500000	200000	467000	93.4	187000	93.5
Lead		1000	0.400		1060	106.0
Lithium		1000	0.00		533	53.3
Magnesium	500000	500000	502000	100.4	514000	102.8
Manganese		500	-0.900		510	102.0
Molybdenum		1000	-0.300		897	89.7
Nickel		1000	0.00		884	88.4
Potassium			3.00		19.5	
Selenium		1000	0.00		926	92.6
Silver		1000	0.00		1070	107.0
Sodium			249		261	
Strontium		1000	0.00		1010	101.0
Thallium		1000	0.00		991	99.1
Tin		1000	-0.600		890	89.0
Titanium		1000	-1.80		1020	102.0
Vanadium		500	1.00		511	102.2
Zinc		1000	1.00		922	92.2

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:38	MA19824-STD1	1		STDA
09:43	MA19824-STD2	1		STDB
09:47	MA19824-STD3	1		STDC
09:51	MA19824-STD4	1		STDD
09:55	MA19824-STD5	1		STDE
09:58	MA19824-STD6	1		STDF
10:02	MA19824-STD7	1		STDG
10:14	MA19824-CRIA1	1		
10:20	MA19824-CRIA2	1		
10:29	MA19824-HSTD1	1		
10:36	MA19824-ICV1	1		
10:44	MA19824-ICB1	1		
10:49	MA19824-ICSA1	1		
10:58	MA19824-ICSAB1	1		
11:07	MA19824-CCV1	1		
11:15	MA19824-CCB1	1		
11:22	MP43108-MB1	1		
---------->	Last reportable sample/prep for job FC10954			
11:27	ZZZZZZ	2		
11:32	MP43112-MB1	1		
11:37	MP43112-B1	1		
11:42	FC10973-1L	1		(sample used for QC only; not part of login FC10954)
11:47	MP43112-D1	1		
11:52	MP43112-SD1	5		
11:57	MP43112-S1	1		
12:02	MP43112-S2	1		
12:07	ZZZZZZ	1		
12:12	MA19824-CCV2	1		
12:16	MA19824-CCB2	1		
---------->	Last reportable CCB for job FC10954			
12:21	ZZZZZZ	1		
12:26	MP43112-MB2	1		
12:32	MP43112-B2	1		
12:36	MP43106-MB1	1		
12:41	MP43106-B1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:46	FC10990-1	1		(sample used for QC only; not part of login FC10954)
12:51	MP43106-D1	1		
12:56	MP43106-SD1	5		
13:01	MP43106-PS1	1		
13:06	MP43106-S1	1		
13:11	MA19824-CCV3	1		
13:15	MA19824-CCB3	1		
13:21	MP43106-S2	1		
13:25	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:11	MA19824-CCV4	1		
14:15	MA19824-CCB4	1		
14:20	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:41	MP43111-MB1	1		
14:46	MP43111-B1	1		
14:51	FC10966-24	1		(sample used for QC only; not part of login FC10954)
14:56	MP43111-D1	1		
15:01	MP43111-SD1	5		
15:06	MP43111-PS1	1		
15:21	MA19824-CCV5	1		
15:27	MA19824-CCB5	1		
16:06	MA19824-CCV6	1		
16:18	MA19824-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:23	MP43111-S1	1		
16:27	MP43111-S2	1		
16:32	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:47	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:58	ZZZZZZ	5		
17:03	ZZZZZZ	5		
17:08	ZZZZZZ	5		
17:13	MA19824-CCV7	1		
17:18	MA19824-CCB7	1		
17:23	ZZZZZZ	5		
17:28	ZZZZZZ	5		
17:33	ZZZZZZ	5		
17:39	ZZZZZZ	5		
17:44	ZZZZZZ	5		
17:55	ZZZZZZ	5		
18:00	ZZZZZZ	5		
18:05	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:15	MA19824-CCV8	1		
18:20	MA19824-CCB8	1		
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	20		
18:35	ZZZZZZ	100		
18:40	ZZZZZZ	100		
18:45	ZZZZZZ	100		
18:50	ZZZZZZ	20		
18:55	ZZZZZZ	5		
19:00	ZZZZZZ	10		
19:05	ZZZZZZ	10		
19:10	MA19824-CCV9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:15	MA19824-CCB9	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
10:14	MA19824-CRIA1	1			
10:20	MA19824-CRIA2	1	X	X	
10:29	MA19824-HSTD1	1	X	X	
10:36	MA19824-ICV1	1	X	X	
10:44	MA19824-ICB1	1	X	X	
10:49	MA19824-ICSA1	1	X	X	
10:58	MA19824-ICSAB1	1	X	X	
11:07	MA19824-CCV1	1	X	X	
11:15	MA19824-CCB1	1	X	X	
11:22	MP43108-MB1	1	X	X	
11:27	ZZZZZZ	2			
11:32	MP43112-MB1	1			
11:37	MP43112-B1	1			
11:42	FC10973-1L	1			(a)
11:47	MP43112-D1	1			
11:52	MP43112-SD1	5			
11:57	MP43112-S1	1			
12:02	MP43112-S2	1			
12:07	ZZZZZZ	1			
12:12	MA19824-CCV2	1	X	X	
12:16	MA19824-CCB2	1	X	X	
12:21	ZZZZZZ	1			
12:26	MP43112-MB2	1			
12:32	MP43112-B2	1			
12:36	MP43106-MB1	1	X		
12:41	MP43106-B1	1	X		
12:46	FC10990-1	1			(a)
12:51	MP43106-D1	1			
12:56	MP43106-SD1	5			
13:01	MP43106-PS1	1			
13:06	MP43106-S1	1			
13:11	MA19824-CCV3	1	X	X	
13:15	MA19824-CCB3	1	X	X	
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
13:21	MP43106-S2	1			
13:25	ZZZZZZ	1			
13:30	ZZZZZZ	1			
13:35	ZZZZZZ	1			
13:40	ZZZZZZ	1			
13:45	ZZZZZZ	1			
13:50	ZZZZZZ	1			
13:55	ZZZZZZ	1			
14:00	ZZZZZZ	1			
14:06	ZZZZZZ	1			
14:11	MA19824-CCV4	1	X	X	
14:15	MA19824-CCB4	1	X	X	
14:20	ZZZZZZ	1			
14:26	ZZZZZZ	1			
14:31	ZZZZZZ	1			
14:36	ZZZZZZ	1			
14:41	MP43111-MB1	1		X	
14:46	MP43111-B1	1		X	
14:51	FC10966-24	1			(a)
14:56	MP43111-D1	1		X	
15:01	MP43111-SD1	5		X	
15:06	MP43111-PS1	1		X	
15:21	MA19824-CCV5	1	X	X	
15:27	MA19824-CCB5	1	X	X	
16:06	MA19824-CCV6	1	X	X	
16:18	MA19824-CCB6	1	X	X	
16:23	MP43111-S1	1		X	
16:27	MP43111-S2	1		X	
16:32	ZZZZZZ	1			
16:37	ZZZZZZ	1			
16:42	ZZZZZZ	1			
16:47	ZZZZZZ	1			
16:52	ZZZZZZ	1			
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	F e	M n
16:58	ZZZZZZ	5		
17:03	ZZZZZZ	5		
17:08	ZZZZZZ	5		
17:13	MA19824-CCV7	1	X	X
17:18	MA19824-CCB7	1	X	X
17:23	ZZZZZZ	5		
17:28	ZZZZZZ	5		
17:33	ZZZZZZ	5		
17:39	ZZZZZZ	5		
17:44	ZZZZZZ	5		
17:55	ZZZZZZ	5		
18:00	ZZZZZZ	5		
18:05	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:15	MA19824-CCV8	1	X	X
18:20	MA19824-CCB8	1	X	X
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	20		
18:35	ZZZZZZ	100		
18:40	ZZZZZZ	100		
18:45	ZZZZZZ	100		
18:50	ZZZZZZ	20		
18:55	ZZZZZZ	5		
19:00	ZZZZZZ	10		
19:05	ZZZZZZ	10		
19:10	MA19824-CCV9	1	X	X
19:15	MA19824-CCB9	1	X	X

(a) Sample used for QC only; not part of login FC10954.

Element:	F e	M n

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:38	MA19824-STD1	2190	20503	4034	852
09:43	MA19824-STD2	2168	19932	4073	806
09:47	MA19824-STD3	2121	19808	4013	787
09:51	MA19824-STD4	2125	19837	4051	772
09:55	MA19824-STD5	2106	19390	4063	746
09:58	MA19824-STD6	2033	18912	3978	703
10:02	MA19824-STD7	1952	18264	3945	659
10:14	MA19824-CRIA1	2124			
10:20	MA19824-CRIA2	2165	20095	4065	803
10:29	MA19824-HSTD1	1948	18335	4032	656
10:36	MA19824-ICV1	2048	19057	4010	704
10:44	MA19824-ICB1	2153 R	20270 R	4061 R	836 R
10:49	MA19824-ICSA1	1797	16599	3855	630
10:58	MA19824-ICSAB1	1831	16894	3842	600
11:07	MA19824-CCV1	2024	19133	4018	699
11:15	MA19824-CCB1	2168	20362	3998	842
11:22	MP43108-MB1	2167	20525	4081	836
11:27	ZZZZZZ	2109	19876	4084	782
11:32	MP43112-MB1	2167	21067	4100	839
11:37	MP43112-B1	2039	19169	4040	712
11:42	FC10973-1L	2118	20292	4066	794
11:47	MP43112-D1	2107	19985	4033	791
11:52	MP43112-SD1	2163	20627	4064	831
11:57	MP43112-S1	2017	18914	4016	700
12:02	MP43112-S2	1987	18752	3999	689
12:07	ZZZZZZ	2120	20231	4052	801
12:12	MA19824-CCV2	1996	18946	3909	694
12:16	MA19824-CCB2	2138	20077	4005	833
12:21	ZZZZZZ	2091	19952	4052	788
12:26	MP43112-MB2	2132	20577	4034	827
12:32	MP43112-B2	2016	18978	3973	706
12:36	MP43106-MB1	2138	20635	4080	833
12:41	MP43106-B1	2008	19079	3955	702

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:46	FC10990-1	3052 !a	28227 !a	5961 !a	755
12:51	MP43106-D1	2975 !a	27539 !a	5811 !a	761
12:56	MP43106-SD1	2370	22319	4552	811
13:01	MP43106-PS1	2992 !a	27957 !a	5904 !a	741
13:06	MP43106-S1	3058 !a	28203 !a	6169 !a	689
13:11	MA19824-CCV3	2021	19247	4001	700
13:15	MA19824-CCB3	2138	20379	4014	832
13:21	MP43106-S2	2780 !a	25737 !a	5595 !a	682
13:25	ZZZZZZ	2573	24560	5008	781
13:30	ZZZZZZ	6416 !a	60630 !a	12834 !a	747
13:35	ZZZZZZ	2379	22449	4710	775
13:40	ZZZZZZ	2624	24148	5311	748
13:45	ZZZZZZ	3594 !a	33553 !a	7214 !a	752
13:50	ZZZZZZ	2291	21670	4610	760
13:55	ZZZZZZ	4633 !a	42510 !a	9520 !a	712
14:00	ZZZZZZ	4195 !a	38614 !a	8867 !a	695
14:06	ZZZZZZ	2067	20117	4189	783
14:11	MA19824-CCV4	2023	19402	4071	706
14:15	MA19824-CCB4	2140	20675	4167	835
14:20	ZZZZZZ	2053	20011	4202	782
14:26	ZZZZZZ	2048	19744	4140	772
14:31	ZZZZZZ	2049	19945	4170	778
14:36	ZZZZZZ	2047	20007	4203	775
14:41	MP43111-MB1	2176	21178	4180	846
14:46	MP43111-B1	2019	19325	4064	709
14:51	FC10966-24	2030	19363	4110	729
14:56	MP43111-D1	2028	19390	4088	730
15:01	MP43111-SD1	2127	20558	4165	803
15:06	MP43111-PS1	2012	19217	4066	711
15:21	MA19824-CCV5	2037	19725	3993	711
15:27	MA19824-CCB5	2175	20746	4107	853
16:06	MA19824-CCV6	2036	19518	4058	712
16:18	MA19824-CCB6	2156	20847	4134	850

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:23	MP43111-S1	1953	18754	3987	672
16:27	MP43111-S2	1988	19055	4083	683
16:32	ZZZZZZ	2018	19322	4105	721
16:37	ZZZZZZ	1981	18985	4050	698
16:42	ZZZZZZ	2001	19443	4048	717
16:47	ZZZZZZ	2019	19557	4089	728
16:52	ZZZZZZ	2129	20759	4116	804
16:58	ZZZZZZ	1958	19014	3983	698
17:03	ZZZZZZ	1895	17963	4007	659
17:08	ZZZZZZ	1872	18128	3953	642
17:13	MA19824-CCV7	2009	19543	3990	704
17:18	MA19824-CCB7	2140	20885	4127	843
17:23	ZZZZZZ	1828	17328	3951	617
17:28	ZZZZZZ	1629	15301	3932	527
17:33	ZZZZZZ	1708	16202	4051	564
17:39	ZZZZZZ	1859	17591	4133	632
17:44	ZZZZZZ	1498	14241	3756	474 !a
17:55	ZZZZZZ	1794	17091	4155	606
18:00	ZZZZZZ	1538	14653	4016	489
18:05	ZZZZZZ	2065	20225	4192	771
18:10	ZZZZZZ	2062	20039	4202	767
18:15	MA19824-CCV8	2012	19640	4144	709
18:20	MA19824-CCB8	2151	21183	4086	852
18:25	ZZZZZZ	2108	20586	4154	800
18:30	ZZZZZZ	2092	19983	4091	773
18:35	ZZZZZZ	2100	20762	4146	802
18:40	ZZZZZZ	2109	20350	4048	797
18:45	ZZZZZZ	2082	20032	4153	781
18:50	ZZZZZZ	2395	23284	4595	833
18:55	ZZZZZZ	2473	23562	4670	815
19:00	ZZZZZZ	2457	23219	4703	800
19:05	ZZZZZZ	2393	22560	4601	801
19:10	MA19824-CCV9	2040	19443	4017	715

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:15	MA19824-CCB9	2156	20757	4084	849

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19824 Units: ug/l

Time: / Sample ID:			10:44 ICB1		11:15 CCB1		12:16 CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	14						
Antimony	20	1	anr					
Arsenic	10	1.3	anr					
Barium	200	.5	anr					
Beryllium	5.0	.1	anr					
Boron	100	5						
Cadmium	4.0	.1	anr					
Calcium	5000	50	anr					
Chromium	10	.5	anr					
Cobalt	50	.2	anr					
Copper	25	1	anr					
Iron	300	15	2.70	<300	2.40	<300	6.50	<300
Lead	20	1	anr					
Lithium	20	.5						
Magnesium	5000	35	anr					
Manganese	15	.25	-0.100	<15	0.00	<15	0.100	<15
Molybdenum	50	.3	anr					
Nickel	40	.4	anr					
Potassium	10000	100						
Selenium	20	2	anr					
Silver	10	.5	anr					
Sodium	10000	250	anr					
Strontium	10	.25						
Thallium	10	1	anr					
Tin	50	.5						
Titanium	10	.5						
Vanadium	50	.5	anr					
Zinc	20	3	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19824 Units: ug/l

Time:		10:36			11:07			12:12	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	41600	104.0	40000	40000	100.0	40000	41700	104.3
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2070	103.5	2000	2000	100.0	2000	2030	101.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19824 Units: ug/l

Time:		10:29	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	79300	99.1
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	4000	4000	100.0
Molybdenum	anr		
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19824 Units: ug/l

Time:			10:14		10:20	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200				
Antimony	10	5.0				
Arsenic	20	10				
Barium	400	200				
Beryllium	10	5.0				
Boron	100	50				
Cadmium	10	5.0				
Calcium	2000	1000				
Chromium	20	10				
Cobalt	100	50				
Copper	50	25				
Iron	600	300			313	104.3
Lead	10	5.0				
Lithium	18	9.0				
Magnesium	10000	5000				
Manganese	30	15			15.3	102.0
Molybdenum	100	50				
Nickel	80	40				
Potassium	20000	10000				
Selenium	20	10	anr			
Silver	20	10				
Sodium	20000	10000				
Strontium	20	10				
Thallium	20	10				
Tin	100	50				
Titanium	20	10				
Vanadium	100	50				
Zinc	40	20				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19824 Units: ug/l

Time:			10:49		10:58	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	513000	102.6	510000	102.0
Antimony		1000	1.20		1030	103.0
Arsenic		1000	-2.00		1020	102.0
Barium		500	0.300		484	96.8
Beryllium		500	0.00		493	98.6
Boron		1000	0.700		1020	102.0
Cadmium		1000	0.100		953	95.3
Calcium	500000	500000	472000	94.4	475000	95.0
Chromium		500	0.300		481	96.2
Cobalt		500	0.400		463	92.6
Copper		500	0.00		537	107.4
Iron	500000	200000	466000	93.2	188000	94.0
Lead		1000	0.00		947	94.7
Lithium		1000	0.00		542	54.2
Magnesium	500000	500000	522000	104.4	530000	106.0
Manganese		500	0.00		501	100.2
Molybdenum		1000	-0.900		912	91.2
Nickel		1000	-0.400		894	89.4
Potassium			17.5		50.8	
Selenium		1000	0.100		942	94.2
Silver		1000	-0.700		1030	103.0
Sodium			289		299	
Strontium		1000	-0.400		1010	101.0
Thallium		1000	-0.400		918	91.8
Tin		1000	-0.800		884	88.4
Titanium		1000	-0.100		1010	101.0
Vanadium		500	0.00		511	102.2
Zinc		1000	1.10		923	92.3

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:11	MA19827-STD1	1		STDA
09:16	MA19827-STD2	1		STDB
09:20	MA19827-STD3	1		STDC
09:24	MA19827-STD4	1		STDD
09:29	MA19827-STD5	1		STDE
09:33	MA19827-STD6	1		STDF
09:37	MA19827-STD7	1		STDG
09:45	MA19827-CRIA1	1		
09:57	MA19827-HSTD1	1		
10:17	MA19827-ICV1	1		
10:24	MA19827-ICB1	1		
10:28	MA19827-ICSA1	1		
10:36	MA19827-ICSAB1	1		
10:43	MA19827-CCV1	1		
10:53	MA19827-CCB1	1		
11:00	MP43118-MB1	1		
11:05	MP43118-B1	1		
11:10	FC10983-1	1		(sample used for QC only; not part of login FC10954)
11:15	MP43118-D1	1		
11:20	MP43118-SD1	5		
11:25	MP43118-S1	1		
11:31	MP43118-S2	1		
11:36	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:46	ZZZZZZ	1		
11:51	MA19827-CCV2	1		
11:56	MA19827-CCB2	1		
12:01	ZZZZZZ	1		
12:07	ZZZZZZ	1		
12:12	MP43118-MB2	1		
12:17	MP43118-B2	1		
12:22	MP43118-MB3	1		
12:27	MP43118-B3	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:32	ZZZZZZ	1		
12:37	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:53	MA19827-CCV3	1		
12:58	MA19827-CCB3	1		
13:59	MA19827-CCV4	1		
14:11	MA19827-CCB4	1		
14:19	ZZZZZZ	1		
14:24	ZZZZZZ	10		
14:30	ZZZZZZ	20		
14:35	MP43117-MB1	1		
14:40	MP43117-B1	1		
14:45	FC11041-4	1		(sample used for QC only; not part of login FC10954)
14:50	MP43117-D1	1		
14:55	MP43117-SD1	5		
15:00	MP43117-PS1	1		
15:05	MP43117-S1	1		
15:10	MA19827-CCV5	1		
15:15	MA19827-CCB5	1		
15:20	MP43117-S2	1		
15:25	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:45	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:56	ZZZZZZ	1		
16:01	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:11	MA19827-CCV6	1		
16:25	MA19827-CCB6	1		
17:08	MA19827-CCV7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:15	MA19827-CCB7	1		
17:19	ZZZZZZ	1		
17:24	ZZZZZZ	5		
17:29	ZZZZZZ	5		
17:35	ZZZZZZ	100		
17:40	ZZZZZZ	100		
18:10	MA19827-CCV8	1		
18:15	MA19827-CCB8	1		
19:12	MA19827-CCV9	1		
19:17	MA19827-CCB9	1		
19:48	MP43116-MB1	1		
19:53	MP43116-B1	1		
19:58	FC11003-2	1		(sample used for QC only; not part of login FC10954)
20:03	MP43116-D1	1		
20:08	MP43116-SD1	5		
20:13	MA19827-CCV10	1		
20:18	MA19827-CCB10	1		
20:23	MP43116-PS1	1		
20:28	MP43116-S1	1		
20:33	MP43116-S2	1		
20:38	ZZZZZZ	1		
20:43	ZZZZZZ	1		
20:48	ZZZZZZ	1		
20:53	ZZZZZZ	1		
20:59	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:09	ZZZZZZ	1		
21:14	MA19827-CCV11	1		
21:19	MA19827-CCB11	1		
21:24	ZZZZZZ	1		
21:29	ZZZZZZ	1		
21:34	FC10954-3A	1		
21:39	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:44	ZZZZZZ	1		
21:50	ZZZZZZ	1		
21:55	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:10	ZZZZZZ	5		
22:15	MA19827-CCV12	1		
22:20	MA19827-CCB12	1		
22:25	ZZZZZZ	100		
22:30	ZZZZZZ	1		
22:35	ZZZZZZ	1		
22:41	MP43116-MB2A	1		
---------->	Last reportable sample/prep for job FC10954			
22:46	FC10990-1	5		(sample used for QC only; not part of login FC10954)
22:51	MP43106-D1	5		
22:56	MP43106-S1	5		
23:01	MP43106-S2	5		
23:06	MP43106-PS1	5		
23:11	MP43106-SD1	25		
23:16	MA19827-CCV13	1		
23:21	MA19827-CCB13	1		
---------->	Last reportable CCB for job FC10954			
23:26	MA19827-CCV14	1		
23:31	MA19827-CCB14	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
09:45	MA19827-CRIA1	1	X	X	
09:57	MA19827-HSTD1	1	X	X	
10:17	MA19827-ICV1	1	X	X	
10:24	MA19827-ICB1	1	X	X	
10:28	MA19827-ICSA1	1	X	X	
10:36	MA19827-ICSAB1	1	X	X	
10:43	MA19827-CCV1	1	X	X	
10:53	MA19827-CCB1	1	X	X	
11:00	MP43118-MB1	1			
11:05	MP43118-B1	1			
11:10	FC10983-1	1			(a)
11:15	MP43118-D1	1			
11:20	MP43118-SD1	5			
11:25	MP43118-S1	1			
11:31	MP43118-S2	1			
11:36	ZZZZZZ	1			
11:41	ZZZZZZ	1			
11:46	ZZZZZZ	1			
11:51	MA19827-CCV2	1	X	X	
11:56	MA19827-CCB2	1	X	X	
12:01	ZZZZZZ	1			
12:07	ZZZZZZ	1			
12:12	MP43118-MB2	1			
12:17	MP43118-B2	1			
12:22	MP43118-MB3	1			
12:27	MP43118-B3	1			
12:32	ZZZZZZ	1			
12:37	ZZZZZZ	1			
12:43	ZZZZZZ	1			
12:48	ZZZZZZ	1			
12:53	MA19827-CCV3	1	X	X	
12:58	MA19827-CCB3	1	X	X	
13:59	MA19827-CCV4	1	X	X	
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
14:11	MA19827-CCB4	1	X	X	
14:19	ZZZZZZ	1			
14:24	ZZZZZZ	10			
14:30	ZZZZZZ	20			
14:35	MP43117-MB1	1	X	X	
14:40	MP43117-B1	1	X	X	
14:45	FC11041-4	1	X		(a)
14:50	MP43117-D1	1	X	X	
14:55	MP43117-SD1	5	X	X	
15:00	MP43117-PS1	1	X	X	
15:05	MP43117-S1	1	X	X	
15:10	MA19827-CCV5	1	X	X	
15:15	MA19827-CCB5	1	X	X	
15:20	MP43117-S2	1	X	X	
15:25	ZZZZZZ	1			
15:30	ZZZZZZ	1			
15:35	ZZZZZZ	1			
15:40	ZZZZZZ	1			
15:45	ZZZZZZ	1			
15:51	ZZZZZZ	1			
15:56	ZZZZZZ	1			
16:01	ZZZZZZ	1			
16:06	ZZZZZZ	1			
16:11	MA19827-CCV6	1	X	X	
16:25	MA19827-CCB6	1	X	X	
17:08	MA19827-CCV7	1	X	X	
17:15	MA19827-CCB7	1	X	X	
17:19	ZZZZZZ	1			
17:24	ZZZZZZ	5			
17:29	ZZZZZZ	5			
17:35	ZZZZZZ	100			
17:40	ZZZZZZ	100			
18:10	MA19827-CCV8	1	X	X	
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	Fe	Mn	
18:15	MA19827-CCB8	1	X	X	
19:12	MA19827-CCV9	1	X	X	
19:17	MA19827-CCB9	1	X	X	
19:48	MP43116-MB1	1	X	X	
19:53	MP43116-B1	1	X	X	
19:58	FC11003-2	1			(a)
20:03	MP43116-D1	1	X	X	
20:08	MP43116-SD1	5	X	X	
20:13	MA19827-CCV10	1	X	X	
20:18	MA19827-CCB10	1	X	X	
20:23	MP43116-PS1	1	X	X	
20:28	MP43116-S1	1	X	X	
20:33	MP43116-S2	1	X	X	
20:38	ZZZZZZ	1			
20:43	ZZZZZZ	1			
20:48	ZZZZZZ	1			
20:53	ZZZZZZ	1			
20:59	ZZZZZZ	1			
21:04	ZZZZZZ	1			
21:09	ZZZZZZ	1			
21:14	MA19827-CCV11	1	X	X	
21:19	MA19827-CCB11	1	X	X	
21:24	ZZZZZZ	1			
21:29	ZZZZZZ	1			
21:34	FC10954-3A	1	X	X	
21:39	ZZZZZZ	1			
21:44	ZZZZZZ	1			
21:50	ZZZZZZ	1			
21:55	ZZZZZZ	1			
22:00	ZZZZZZ	1			
22:05	ZZZZZZ	1			
22:10	ZZZZZZ	5			
22:15	MA19827-CCV12	1	X	X	
		Element:	Fe	Mn	

REPORTED ELEMENTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Element: Dilution	F e	M n	
22:20	MA19827-CCB12	1	X	X	
22:25	ZZZZZZ	100			
22:30	ZZZZZZ	1			
22:35	ZZZZZZ	1			
22:41	MP43116-MB2A	1	X	X	
22:46	FC10990-1	5			(a)
22:51	MP43106-D1	5	X		
22:56	MP43106-S1	5	X		
23:01	MP43106-S2	5	X		
23:06	MP43106-PS1	5	X		
23:11	MP43106-SD1	25	X		
23:16	MA19827-CCV13	1	X	X	
23:21	MA19827-CCB13	1	X	X	
23:26	MA19827-CCV14	1	X	X	
23:31	MA19827-CCB14	1	X	X	

(a) Sample used for QC only; not part of login FC10954.

Element:	F e	M n

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:11	MA19827-STD1	6608	40524	9347	2733
09:16	MA19827-STD2	6525	39819	9358	2655
09:20	MA19827-STD3	6582	40286	9455	2652
09:24	MA19827-STD4	6531	39835	9446	2573
09:29	MA19827-STD5	6438	39351	9303	2468
09:33	MA19827-STD6	6309	38859	9215	2329
09:37	MA19827-STD7	6080	37876	9206	2130
09:45	MA19827-CRIA1	6502	39460	9251	2661
09:57	MA19827-HSTD1	6067	37430	9222	2136
10:17	MA19827-ICV1	6275	38213	9262	2336
10:24	MA19827-ICB1	6535 R	39649 R	9261 R	2728 R
10:28	MA19827-ICSA1	5706	34555	8938	1804
10:36	MA19827-ICSAB1	5825	34698	9001	1941
10:43	MA19827-CCV1	6285	37987	9213	2347
10:53	MA19827-CCB1	6527	39196	9266	2731
11:00	MP43118-MB1	6572	40097	9477	2751
11:05	MP43118-B1	6324	38292	9395	2409
11:10	FC10983-1	6161	37647	9307	2447
11:15	MP43118-D1	6145	37698	9304	2445
11:20	MP43118-SD1	6455	38961	9437	2660
11:25	MP43118-S1	6133	37070	9318	2247
11:31	MP43118-S2	6124	37028	9340	2256
11:36	ZZZZZZ	6676	40556	10108	2482
11:41	ZZZZZZ	7952	47960	11977	2504
11:46	ZZZZZZ	6998	42423	10569	2501
11:51	MA19827-CCV2	6250	37846	9254	2340
11:56	MA19827-CCB2	6540	39269	9400	2744
12:01	ZZZZZZ	6270	37872	9416	2493
12:07	ZZZZZZ	6244	37711	9354	2488
12:12	MP43118-MB2	6513	39511	9483	2737
12:17	MP43118-B2	6268	38043	9341	2410
12:22	MP43118-MB3	6228	37595	9363	2493
12:27	MP43118-B3	6146	37110	9319	2296

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:32	ZZZZZZ	6337	38339	9396	2515
12:37	ZZZZZZ	6290	38238	9317	2533
12:43	ZZZZZZ	6261	38047	9357	2472
12:48	ZZZZZZ	6220	38037	9303	2482
12:53	MA19827-CCV3	6242	37833	9266	2337
12:58	MA19827-CCB3	6489	39093	9423	2728
13:59	MA19827-CCV4	6223	37206	9311	2327
14:11	MA19827-CCB4	6480	38529	9332	2719
14:19	ZZZZZZ	6188	37245	9248	2456
14:24	ZZZZZZ	5442	31350	8918	1923
14:30	ZZZZZZ	5103	29562	8783	1667
14:35	MP43117-MB1	6521	39574	9289	2731
14:40	MP43117-B1	6255	37796	9182	2388
14:45	FC11041-4	6329	38636	9294	2556
14:50	MP43117-D1	6380	38753	9324	2570
14:55	MP43117-SD1	6496	39388	9293	2687
15:00	MP43117-PS1	6357	38904	9245	2517
15:05	MP43117-S1	6234	38026	9192	2326
15:10	MA19827-CCV5	6235	38249	9094	2319
15:15	MA19827-CCB5	6474	39623	9077	2695
15:20	MP43117-S2	6251	38448	9139	2325
15:25	ZZZZZZ	6460	39964	9260	2627
15:30	ZZZZZZ	6480	40095	9270	2629
15:35	ZZZZZZ	6390	39549	9121	2597
15:40	ZZZZZZ	6512	40196	9267	2627
15:45	ZZZZZZ	6466	40134	9221	2627
15:51	ZZZZZZ	6491	40376	9262	2629
15:56	ZZZZZZ	6454	40094	9115	2625
16:01	ZZZZZZ	6473	40067	9156	2628
16:06	ZZZZZZ	6462	40374	9140	2617
16:11	MA19827-CCV6	6255	39032	8996	2315
16:25	MA19827-CCB6	6619	40795	9064	2741
17:08	MA19827-CCV7	6278	38827	8928	2305

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:15	MA19827-CCB7	6548	40015	8932	2689
17:19	ZZZZZZ	6497	40140	9121	2618
17:24	ZZZZZZ	6092	37362	8780	2284
17:29	ZZZZZZ	6113	37306	8816	2293
17:35	ZZZZZZ	6510	39814	9007	2653
17:40	ZZZZZZ	6565	40267	9021	2665
18:10	MA19827-CCV8	6272	39132	8726	2295
18:15	MA19827-CCB8	6567	40534	8858	2691
19:12	MA19827-CCV9	6289	38672	8271	2301
19:17	MA19827-CCB9	6533	39836	8386	2682
19:48	MP43116-MB1	6600	40771	8355	2703
19:53	MP43116-B1	6358	39254	8187	2385
19:58	FC11003-2	6381	39665	8175	2470
20:03	MP43116-D1	6388	39821	8136	2469
20:08	MP43116-SD1	6516	40170	8123	2630
20:13	MA19827-CCV10	6263	38650	8038	2307
20:18	MA19827-CCB10	6520	40088	8122	2690
20:23	MP43116-PS1	6369	39399	8130	2432
20:28	MP43116-S1	6237	38581	8100	2276
20:33	MP43116-S2	6272	38859	8082	2280
20:38	ZZZZZZ	6592	40870	8278	2662
20:43	ZZZZZZ	6699	41389	8250	2753
20:48	ZZZZZZ	6196	38339	7887	2392
20:53	ZZZZZZ	6548	40676	8177	2651
20:59	ZZZZZZ	6635	41039	8218	2731
21:04	ZZZZZZ	6463	39959	8084	2567
21:09	ZZZZZZ	6527	40330	8128	2603
21:14	MA19827-CCV11	6284	38812	8012	2308
21:19	MA19827-CCB11	6535	40133	8014	2703
21:24	ZZZZZZ	6348	39497	8128	2512
21:29	ZZZZZZ	6577	40638	8199	2697
21:34	FC10954-3A	6477	39899	8156	2539
21:39	ZZZZZZ	6274	38577	8104	2388

INTERNAL STANDARD SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19827
Parameters: Fe,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:44	ZZZZZZ	6250	38495	7963	2377
21:50	ZZZZZZ	6302	38949	7990	2427
21:55	ZZZZZZ	6287	38875	7979	2417
22:00	ZZZZZZ	6517	40319	8183	2604
22:05	ZZZZZZ	6563	40607	8167	2645
22:10	ZZZZZZ	6002	36865	7806	2259
22:15	MA19827-CCV12	6261	38496	7856	2299
22:20	MA19827-CCB12	6521	39949	7966	2688
22:25	ZZZZZZ	6461	39718	7949	2637
22:30	ZZZZZZ	6316	39222	7978	2480
22:35	ZZZZZZ	6338	39371	8001	2494
22:41	MP43116-MB2A	6635	41018	8104	2734
22:46	FC10990-1	7233	43669	8810	2629
22:51	MP43106-D1	7183	43459	8837	2640
22:56	MP43106-S1	7280	43938	8954	2509
23:01	MP43106-S2	7084	42852	8683	2535
23:06	MP43106-PS1	7190	43528	8816	2621
23:11	MP43106-SD1	6725	40908	8233	2702
23:16	MA19827-CCV13	6263	38674	7954	2308
23:21	MA19827-CCB13	6528	40069	7965	2701
23:26	MA19827-CCV14	6255	38455	7858	2301
23:31	MA19827-CCB14	6523	39861	8044	2693

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19827 Units: ug/l

Time: / Sample ID:			10:24 ICB1		10:53 CCB1		11:56 CCB2		12:58 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	anr							
Beryllium	4.0	.1	anr							
Boron	200	5								
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	-0.200	<300	0.00	<300	2.70	<300	2.00	<300
Lead	5.0	1	anr							
Lithium	10	.5								
Magnesium	5000	35	anr							
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15	0.100	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	10	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19827 Units: ug/l

Time: / Sample ID:			14:11 CCB4		15:15 CCB5		16:25 CCB6		17:15 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	anr							
Beryllium	4.0	.1	anr							
Boron	200	5								
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	1.30	<300	2.60	<300	1.50	<300	1.00	<300
Lead	5.0	1	anr							
Lithium	10	.5								
Magnesium	5000	35	anr							
Manganese	15	.25	0.00	<15	0.100	<15	0.00	<15	0.100	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	10	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19827 Units: ug/l

Time: / Sample ID:			18:15 CCB8		19:17 CCB9		20:18 CCB10		21:19 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	6.0	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	anr							
Beryllium	4.0	.1	anr							
Boron	200	5								
Cadmium	5.0	.1	anr							
Calcium	1000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.800	<300	1.00	<300	0.400	<300	0.600	<300
Lead	5.0	1	anr							
Lithium	10	.5								
Magnesium	5000	35	anr							
Manganese	15	.25	0.100	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100	anr							
Selenium	10	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5	anr							
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19827 Units: ug/l

Time:			22:20		23:21	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	14	anr			
Antimony	6.0	1	anr			
Arsenic	10	1.3	anr			
Barium	200	.5	anr			
Beryllium	4.0	.1	anr			
Boron	200	5				
Cadmium	5.0	.1	anr			
Calcium	1000	50	anr			
Chromium	10	.5	anr			
Cobalt	50	.2	anr			
Copper	25	1	anr			
Iron	300	15	1.40	<300	0.300	<300
Lead	5.0	1	anr			
Lithium	10	.5				
Magnesium	5000	35	anr			
Manganese	15	.25	0.100	<15	0.100	<15
Molybdenum	50	.3	anr			
Nickel	40	.4	anr			
Potassium	10000	100	anr			
Selenium	10	2	anr			
Silver	10	.5	anr			
Sodium	10000	250	anr			
Strontium	10	.25				
Thallium	10	1	anr			
Tin	50	.5	anr			
Titanium	10	.5				
Vanadium	50	.5	anr			
Zinc	20	3	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19827 Units: ug/l

Time:		10:17			10:43			11:51	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40000	100.0	40000	40300	100.8	40000	40600	101.5
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2040	102.0	2000	2110	105.5	2000	2150	107.5
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19827 Units: ug/l

Time:		12:53			13:59			15:10	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40700	101.8	40000	40600	101.5	40000	40800	102.0
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2150	107.5	2000	2040	102.0	2000	1940	97.0
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19827 Units: ug/l

Time:		16:11			17:08			18:10	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	41100	102.8	40000	40200	100.5	40000	40100	100.3
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	1890	94.5	2000	2030	101.5	2000	1980	99.0
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19827 Units: ug/l

Time:		19:12			20:13			21:14	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	40400	101.0	40000	40400	101.0	40000	40400	101.0
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2000	2020	101.0	2000	2020	101.0	2000	1990	99.5
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19827 Units: ug/l

Time:		22:15			23:16	
Sample ID:	CCV	CCV12		CCV	CCV13	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	40000	41100	102.8	40000	40600	101.5
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	2000	2070	103.5	2000	2010	100.5
Molybdenum	anr					
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19827 Units: ug/l

Time:		09:57	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	78800	98.5
Lead	anr		
Lithium			
Magnesium	anr		
Manganese	4000	4020	100.5
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19827 Units: ug/l

Time:			09:45	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200	anr	
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	anr	
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	anr	
Calcium	2000	1000	anr	
Chromium	20	10	anr	
Cobalt	100	50	anr	
Copper	50	25	anr	
Iron	600	300	308	102.7
Lead	10	5.0	anr	
Lithium	18	9.0		
Magnesium	10000	5000	anr	
Manganese	30	15	15.3	102.0
Molybdenum	100	50	anr	
Nickel	80	40	anr	
Potassium	20000	10000	anr	
Selenium	20	10	anr	
Silver	20	10	anr	
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50	anr	
Titanium	20	10		
Vanadium	100	50	anr	
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA111023M1.ICP Date Analyzed: 11/10/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19827 Units: ug/l

Time:			10:28		10:36	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	512000	102.4	501000	100.2
Antimony		1000	0.00		1010	101.0
Arsenic		1000	0.00		1010	101.0
Barium		500	-0.400		489	97.8
Beryllium		500	0.00		494	98.8
Boron		1000	-111		981	98.1
Cadmium		1000	0.00		966	96.6
Calcium	500000	500000	483000	96.6	489000	97.8
Chromium		500	0.00		496	99.2
Cobalt		500	0.700		463	92.6
Copper		500	0.700		557	111.4
Iron	500000	200000	476000	95.2	188000	94.0
Lead		1000	-0.300		1030	103.0
Lithium		1000	-0.600		538	53.8
Magnesium	500000	500000	526000	105.2	535000	107.0
Manganese		500	0.900		521	104.2
Molybdenum		1000	-0.200		914	91.4
Nickel		1000	-0.100		878	87.8
Potassium			-25.3		38.2	
Selenium		1000	0.00		958	95.8
Silver		1000	0.00		1060	106.0
Sodium			267		266	
Strontium		1000	0.00		1010	101.0
Thallium		1000	0.00		960	96.0
Tin		1000	0.700		895	89.5
Titanium		1000	0.00		1050	105.0
Vanadium		500	0.600		528	105.6
Zinc		1000	2.10		917	91.7

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.23	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	10	.2	1		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	50		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	4.0	.2	.4		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	50		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	4.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	10	.58	1.7		

Associated samples MP43089: FC10954-1, FC10954-2, FC10954-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			11/04/23					11/04/23	
Metal	FC10954-1 Original	DUP	RPD	QC Limits	FC10954-1 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	1860	1900	2.1	0-20	1860	2090	200	115.0	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP43089: FC10954-1, FC10954-2, FC10954-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	FC10954-1 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	1860	2090	200	115.0	0.0	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP43089: FC10954-1, FC10954-2, FC10954-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	205	200	102.5	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP43089: FC10954-1, FC10954-2, FC10954-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	Original	%DIF	QC Limits
Aluminum			
Antimony			
Arsenic			
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP43089: FC10954-1, FC10954-2, FC10954-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1		
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2		
Calcium	1000	50	50		
Chromium	10	.5	1		
Cobalt	50	.2	.2		
Copper	25	1	1		
Iron	300	15	17	1.2	<300
Lead	5.0	1	1.1		
Lithium	10	.5	1.3		
Magnesium	5000	35	35		
Manganese	15	.25	1	0.0	<15
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9		
Silver	10	.5	.7		
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4		

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23 11/08/23

Metal	FC10963-23 Original	DUP	RPD	QC Limits	FC10963-23 Original	MS	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	158000	164000	3.7	0-20	158000	199000	46000	89.1	80-120
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	2220	2280	2.7	0-20	2220	2410	200	95.0	80-120
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	FC10963-23 Original	MSD	Spikelot MPFLICP5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	158000	195000	46000	80.4	2.0	20
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	2220	2390	200	85.0	0.8	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	BSP Result	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	43000	46000	93.5	80-120
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	183	200	91.5	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	FC10963-23 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	158000	178000	12.5*(a)	0-10
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	2220	2430	9.5	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	Sample ml	Final ml	FC10963-23 Raw	FC10963-23 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	158000	154840	159300	0.2	150	3000	148.7*(a	80-120
Lead										
Lithium										
Magnesium										
Manganese	9.8	10	2216	2171.68	2211	0.2	2.5	50	78.6*(a)	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP43108: FC10954-1A, FC10954-2A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date:				11/09/23		11/09/23	
Metal	RL	IDL	MDL	MB raw	MB final	MB raw	MB final
Aluminum	200	14	14				
Antimony	6.0	1	1				
Arsenic	10	1.3	1.3				
Barium	200	.5	1				
Beryllium	4.0	.1	.2				
Boron	100	5	10				
Cadmium	5.0	.1	.2				
Calcium	1000	50	50				
Chromium	10	.5	1				
Cobalt	50	.2	.2				
Copper	25	1	1				
Iron	300	15	17	2.1	<300	1.8	<300
Lead	5.0	1	1.1				
Lithium	10	.5	1.3				
Magnesium	5000	35	35				
Manganese	15	.25	1	0.10	<15	0.10	<15
Molybdenum	50	.3	.3				
Nickel	40	.4	.4				
Potassium	10000	100	200				
Selenium	10	2	2.9				
Silver	10	.5	.7				
Sodium	10000	250	500				
Strontium	10	.25	.5				
Thallium	10	1	1.4				
Tin	50	.5	1				
Titanium	10	.5	1				
Vanadium	50	.5	.6				
Zinc	20	3	4.4				

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/09/23 11/09/23

Metal	FC11003-2 Original	DUP	RPD	QC Limits	FC11003-2 Original	MS	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	55100	53200	3.5	0-20	55100	96700	46000	90.4	80-120
Lead	anr								
Lithium									
Magnesium	anr								
Manganese	452	435	3.8	0-20	452	626	200	87.0	80-120
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/09/23

Metal	FC11003-2 Original	MSD	Spikelot MPFLICP5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	55100	95300	46000	87.4	1.5	20
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	452	614	200	81.0	1.9	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/09/23

Metal	BSP Result	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	44300	46000	96.3	80-120
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	194	200	97.0	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/09/23

Metal	FC11003-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	55100	55900	1.4	0-10
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	452	457	1.1	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FC10954
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43116
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/09/23

Metal	Sample ml	Final ml	FC11003-2 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	55140	54037.2	57120	0.2	150	3000	102.8	80-120
Lead										
Lithium										
Magnesium										
Manganese	9.8	10	452	442.96	492.9	0.2	2.5	50	99.9	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP43116: FC10954-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19813

Instrument Detection Limits

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19821,MA19827

Instrument Detection Limits

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19824

Instrument Linear Ranges

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19813

Instrument Linear Ranges

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19821,MA19827

Instrument Linear Ranges

Job Number: FC10954
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19824

Metals Analysis

Raw Data

Quantitation Report

File Name	001_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:12
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	640.02	4.266E-03	Pulse	0.50	3
As			1		ug/l	---	70.67	4.711E-04	Pulse	1.00	3
Mo			1		ug/l	---	466.67	2.092E-03	Pulse	0.50	3
Pb			1		ug/l	---	1,098.71	3.156E-04	Pulse	1.00	3
Be			1		ug/l	---	1.50	5.886E-06	Pulse	2.00	3
Ag			1		ug/l	---	80.67	5.202E-05	Pulse	0.50	3
Ba			1		ug/l	---	40.00	2.566E-05	Pulse	0.50	3
Tl			1		ug/l	---	206.67	5.942E-05	Pulse	0.50	3
Sn			1		ug/l	---	760.02	4.896E-04	Pulse	0.30	3
Sr			1		ug/l	---	250.00	1.610E-04	Pulse	0.50	3
Ca			1		ug/l	---	108.00	4.230E-04	Pulse	0.50	3
Ti			1		ug/l	---	135.39	5.374E-04	Pulse	0.50	3
Na			1		ug/l	---	13,606.30	5.326E-02	Pulse	1.00	3
Mg			1		ug/l	---	1,257.38	4.920E-03	Pulse	1.00	3
K			1		ug/l	---	44,794.05	1.753E-01	Pulse	1.00	3
V			1		ug/l	---	3,855.76	1.509E-02	Pulse	0.50	3
Mn			1		ug/l	---	214.00	1.426E-03	Pulse	0.50	3
Fe			1		ug/l	---	46,445.58	3.097E-01	Pulse	0.50	3
Co			1		ug/l	---	80.67	5.375E-04	Pulse	0.50	3
Ni			1		ug/l	---	219.33	1.460E-03	Pulse	0.50	3
Cu			1		ug/l	---	4,744.64	3.161E-02	Pulse	0.50	3
Zn			1		ug/l	---	1,553.74	6.964E-03	Pulse	1.00	3
Cd			1		ug/l	---	5.33	2.394E-05	Pulse	0.50	3
Al			1		ug/l	---	967.03	3.781E-03	Pulse	1.00	3
Se			1		ug/l	---	16.11	7.221E-05	Pulse	3.00	3
Sb			1		ug/l	---	110.33	4.946E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,481,816.17	1.03		Analog	0.50	3
1	Sc		255,494.34	1.29		Pulse	0.30	3
1	Ge		150,089.02	0.55		Pulse	0.30	3
1	In		1,553,419.03	1.87		Analog	0.30	3
1	Tb		4,582,722.83	0.86		Analog	0.50	3
1	Lu		3,768,008.50	0.85		Analog	0.50	3
1	Ge		223,087.68	0.27		Pulse	0.30	3
1	Li		3,509.23	0.15		Pulse	0.30	3

Quantitation Report

File Name	002_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:16
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	367.34	2.454E-03	Pulse	0.50	3
As			1		ug/l	---	55.00	3.675E-04	Pulse	1.00	3
Mo			1		ug/l	---	56.67	2.524E-04	Pulse	0.50	3
Pb			1		ug/l	---	933.36	2.626E-04	Pulse	1.00	3
Be			1		ug/l	---	0.17	6.467E-07	Pulse	2.00	3
Ag			1		ug/l	---	82.67	5.321E-05	Pulse	0.50	3
Ba			1		ug/l	---	44.67	2.862E-05	Pulse	0.50	3
Tl			1		ug/l	---	72.67	2.041E-05	Pulse	0.50	3
Sn			1		ug/l	---	253.34	1.633E-04	Pulse	0.30	3
Sr			1		ug/l	---	236.00	1.518E-04	Pulse	0.50	3
Ca			1		ug/l	---	87.33	3.388E-04	Pulse	0.50	3
Ti			1		ug/l	---	4.67	1.811E-05	Pulse	0.50	3
Na			1		ug/l	---	13,386.15	5.192E-02	Pulse	1.00	3
Mg			1		ug/l	---	960.03	3.724E-03	Pulse	1.00	3
K			1		ug/l	---	44,408.43	1.723E-01	Pulse	1.00	3
V			1		ug/l	---	3,935.11	1.526E-02	Pulse	0.50	3
Mn			1		ug/l	---	200.67	1.341E-03	Pulse	0.50	3
Fe			1		ug/l	---	6,923.35	4.625E-02	Pulse	0.50	3
Co			1		ug/l	---	68.67	4.592E-04	Pulse	0.50	3
Ni			1		ug/l	---	187.33	1.251E-03	Pulse	0.50	3
Cu			1		ug/l	---	4,233.85	2.828E-02	Pulse	0.50	3
Zn			1		ug/l	---	695.35	3.098E-03	Pulse	1.00	3
Cd			1		ug/l	---	0.67	2.969E-06	Pulse	0.50	3
Al			1		ug/l	---	391.00	1.517E-03	Pulse	1.00	3
Se			1		ug/l	---	16.00	7.128E-05	Pulse	3.00	3
Sb			1		ug/l	---	51.00	2.272E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,555,729.92	0.96		Analog	0.50	3
1	Sc		257,803.06	0.08		Pulse	0.30	3
1	Ge		149,684.38	0.48		Pulse	0.30	3
1	In		1,554,865.25	2.81		Analog	0.30	3
1	Tb		4,591,503.33	0.33		Analog	0.50	3
1	Lu		3,738,307.58	0.50		Analog	0.50	3
1	Ge		224,460.25	0.18		Pulse	0.30	3
1	Li		3,602.59	3.19		Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:19
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	346.00	2.276E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	55.67	3.663E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	42.00	1.839E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	936.36	2.581E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.33	5.127E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	66.67	4.146E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	34.00	2.116E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	58.67	1.618E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	214.45	1.343E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	236.67	1.479E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	90.67	3.485E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	4.00	1.538E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	13,462.87	5.176E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	988.36	3.800E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	44,708.49	1.719E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	3,861.09	1.484E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	232.00	1.529E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	6,868.66	4.522E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	76.67	5.051E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	164.67	1.084E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	4,404.55	2.900E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	704.68	3.086E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	4.67	2.043E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	329.67	1.267E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	17.67	7.738E-05	Pulse	3.00	3
Sb			1	0.000	ug/l	---	47.00	2.058E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,628,934.75	0.90	100.0	Analog	0.50	3
1	Sc		260,114.39	0.09	100.0	Pulse	0.30	3
1	Ge		151,895.11	0.94	100.0	Pulse	0.30	3
1	In		1,603,263.72	3.30	100.0	Analog	0.30	3
1	Tb		4,762,521.00	0.79	100.0	Analog	0.50	3
1	Lu		3,861,967.00	1.24	100.0	Analog	0.50	3
1	Ge		228,360.29	0.18	100.0	Pulse	0.30	3
1	Li		3,542.58	3.72	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:23
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.483	ug/l	1.65	4,409.21	2.889E-02	Pulse	0.50	3
As			1	0.467	ug/l	12.56	521.01	3.413E-03	Pulse	1.00	3
Mo			1	0.452	ug/l	0.54	2,016.79	8.860E-03	Pulse	0.50	3
Pb			1	0.472	ug/l	1.79	13,541.04	3.739E-03	Pulse	1.00	3
Be			1	0.452	ug/l	3.35	48.67	1.888E-04	Pulse	2.00	3
Ag			1	0.470	ug/l	1.90	7,288.89	4.603E-03	Pulse	0.50	3
Ba			1	0.465	ug/l	5.84	1,090.04	6.884E-04	Pulse	0.50	3
Tl			1	0.465	ug/l	0.78	18,048.81	4.984E-03	Pulse	0.50	3
Sn			1	0.428	ug/l	4.09	2,451.30	1.548E-03	Pulse	0.30	3
Sr			1	0.457	ug/l	2.27	2,919.58	1.843E-03	Pulse	0.50	3
Ca			1	50.978	ug/l	2.41	1,791.43	6.950E-03	Pulse	0.50	3
Ti			1	0.425	ug/l	28.80	94.67	3.670E-04	Pulse	0.50	3
Na			1	49.261	ug/l	0.54	95,656.29	3.711E-01	Pulse	1.00	3
Mg			1	49.625	ug/l	1.25	42,640.98	1.654E-01	Pulse	1.00	3
K			1	48.595	ug/l	0.37	76,010.62	2.949E-01	Pulse	1.00	3
V			1	0.467	ug/l	3.38	6,914.67	2.683E-02	Pulse	0.50	3
Mn			1	0.475	ug/l	1.92	2,606.86	1.708E-02	Pulse	0.50	3
Fe			1	49.355	ug/l	0.87	352,060.89	2.307E+00	Pulse	0.50	3
Co			1	0.492	ug/l	0.53	6,313.12	4.136E-02	Pulse	0.50	3
Ni			1	0.501	ug/l	2.98	1,826.10	1.196E-02	Pulse	0.50	3
Cu			1	0.500	ug/l	6.49	8,800.86	5.766E-02	Pulse	0.50	3
Zn			1	0.618	ug/l	1.01	1,714.08	7.530E-03	Pulse	1.00	3
Cd			1	0.475	ug/l	4.84	1,174.04	5.159E-03	Pulse	0.50	3
Al			1	51.479	ug/l	1.11	18,451.16	7.158E-02	Pulse	1.00	3
Se			1	0.483	ug/l	8.04	62.33	2.739E-04	Pulse	3.00	3
Sb			1	0.471	ug/l	1.87	3,289.66	1.445E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,621,756.00	0.74	99.8	Analog	0.50	3
1	Sc		257,763.34	0.35	99.1	Pulse	0.30	3
1	Ge		152,636.65	0.14	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,583,801.19	0.76	98.8	Analog	0.30	3
1	Tb		4,806,113.67	1.46	100.9	Analog	0.50	3
1	Lu		3,909,128.08	1.28	101.2	Analog	0.50	3
1	Ge		227,627.89	0.91	99.7	Pulse	0.30	3
1	Li		3,632.60	2.90	102.5	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:26
Sample Name	CALSTD-3
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.007	ug/l	1.28	8,810.83	5.773E-02	Pulse	0.50	3
As			1	1.024	ug/l	2.26	1,076.70	7.054E-03	Pulse	1.00	3
Mo			1	0.956	ug/l	3.61	4,233.86	1.854E-02	Pulse	0.50	3
Pb			1	0.971	ug/l	1.14	27,284.11	7.413E-03	Pulse	1.00	3
Be			1	0.946	ug/l	3.56	101.67	3.895E-04	Pulse	2.00	3
Ag			1	0.968	ug/l	0.94	15,189.34	9.438E-03	Pulse	0.50	3
Ba			1	0.927	ug/l	3.76	2,176.15	1.352E-03	Pulse	0.50	3
Tl			1	0.955	ug/l	1.95	37,589.15	1.021E-02	Pulse	0.50	3
Sn			1	0.914	ug/l	5.17	5,071.89	3.152E-03	Pulse	0.30	3
Sr			1	0.926	ug/l	1.92	5,766.30	3.583E-03	Pulse	0.50	3
Ca			1	96.326	ug/l	0.78	3,346.32	1.282E-02	Pulse	0.50	3
Ti			1	0.903	ug/l	16.73	198.67	7.614E-04	Pulse	0.50	3
Na			1	98.868	ug/l	0.47	180,782.55	6.927E-01	Pulse	1.00	3
Mg			1	102.209	ug/l	0.24	87,872.10	3.367E-01	Pulse	1.00	3
K			1	99.928	ug/l	1.00	110,874.65	4.248E-01	Pulse	1.00	3
V			1	0.891	ug/l	2.68	9,835.36	3.769E-02	Pulse	0.50	3
Mn			1	0.988	ug/l	0.42	5,173.42	3.389E-02	Pulse	0.50	3
Fe			1	102.694	ug/l	0.37	725,046.77	4.750E+00	Pulse	0.50	3
Co			1	1.015	ug/l	1.90	12,958.67	8.491E-02	Pulse	0.50	3
Ni			1	1.041	ug/l	1.31	3,616.38	2.369E-02	Pulse	0.50	3
Cu			1	1.033	ug/l	1.77	13,467.73	8.824E-02	Pulse	0.50	3
Zn			1	0.995	ug/l	4.22	2,337.82	1.024E-02	Pulse	1.00	3
Cd			1	0.991	ug/l	1.42	2,453.52	1.074E-02	Pulse	0.50	3
Al			1	96.872	ug/l	0.69	34,864.29	1.336E-01	Pulse	1.00	3
Se			1	1.066	ug/l	6.24	116.67	5.110E-04	Pulse	3.00	3
Sb			1	0.985	ug/l	1.86	6,857.71	3.003E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,680,747.42	0.92	101.4	Analog	0.50	3
1	Sc		260,990.36	0.29	100.3	Pulse	0.30	3
1	Ge		152,632.60	0.66	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,609,258.13	0.41	100.4	Analog	0.30	3
1	Tb		4,803,244.17	0.31	100.9	Analog	0.50	3
1	Lu		3,908,748.67	1.02	101.2	Analog	0.50	3
1	Ge		228,369.04	0.94	100.0	Pulse	0.30	3
1	Li		3,529.24	3.34	99.6	Pulse	0.30	3

Quantitation Report

File Name	006CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:30
Sample Name	CALSTD-4
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.290	ug/l	0.86	89,128.72	5.687E-01	Pulse	0.50	3
As			1	10.445	ug/l	0.95	10,745.25	6.855E-02	Pulse	1.00	3
Mo			1	10.056	ug/l	0.72	45,069.78	1.933E-01	Pulse	0.50	3
Pb			1	10.487	ug/l	2.35	282,268.08	7.757E-02	Pulse	1.00	3
Be			1	10.498	ug/l	2.86	1,135.70	4.269E-03	Pulse	2.00	3
Ag			1	10.218	ug/l	2.03	161,901.77	9.922E-02	Pulse	0.50	3
Ba			1	9.996	ug/l	2.11	23,462.88	1.438E-02	Pulse	0.50	3
Tl			1	10.379	ug/l	2.10	403,357.24	1.108E-01	Pulse	0.50	3
Sn			1	9.891	ug/l	2.74	53,494.14	3.279E-02	Pulse	0.30	3
Sr			1	9.962	ug/l	2.46	60,523.36	3.709E-02	Pulse	0.50	3
Ca			1	1046.773	ug/l	0.93	36,155.67	1.359E-01	Pulse	0.50	3
Ti			1	10.323	ug/l	0.96	2,274.15	8.548E-03	Pulse	0.50	3
Na			1	1057.698	ug/l	1.17	1,838,114.54	6.908E+00	Analog	1.00	3
Mg			1	1071.920	ug/l	0.19	929,887.34	3.495E+00	Pulse	1.00	3
K			1	1045.473	ug/l	0.65	749,827.00	2.818E+00	Pulse	1.00	3
V			1	10.027	ug/l	0.40	72,365.39	2.720E-01	Pulse	0.50	3
Mn			1	10.407	ug/l	1.41	53,682.55	3.425E-01	Pulse	0.50	3
Fe			1	1065.709	ug/l	0.35	7,660,199.67	4.887E+01	Analog	0.50	3
Co			1	10.562	ug/l	0.91	137,681.49	8.784E-01	Pulse	0.50	3
Ni			1	10.711	ug/l	1.11	36,651.14	2.338E-01	Pulse	0.50	3
Cu			1	10.820	ug/l	1.95	101,766.52	6.493E-01	Pulse	0.50	3
Zn			1	10.800	ug/l	0.87	18,824.19	8.075E-02	Pulse	1.00	3
Cd			1	10.530	ug/l	1.26	26,574.40	1.140E-01	Pulse	0.50	3
Al			1	1025.269	ug/l	0.50	372,943.42	1.402E+00	Pulse	1.00	3
Se			1	10.407	ug/l	0.96	1,005.25	4.312E-03	Pulse	3.00	3
Sb			1	10.192	ug/l	1.18	71,979.27	3.088E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,639,880.75	2.29	100.3	Analog	0.50	3
1	Sc		266,063.44	0.26	102.3	Pulse	0.30	3
1	Ge		156,738.94	0.62	103.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,631,910.77	1.05	101.8	Analog	0.30	3
1	Tb		4,836,508.50	0.82	101.6	Analog	0.50	3
1	Lu		3,905,797.00	2.87	101.1	Analog	0.50	3
1	Ge		233,127.38	0.77	102.1	Pulse	0.30	3
1	Li		3,518.13	3.15	99.3	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:33
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.213	ug/l	0.64	417,014.77	2.656E+00	Pulse	0.50	3
As			1	49.018	ug/l	0.56	50,302.97	3.204E-01	Pulse	1.00	3
Mo			1	47.326	ug/l	0.48	214,031.91	9.092E-01	Pulse	0.50	3
Pb			1	49.195	ug/l	0.96	1,320,878.79	3.629E-01	Pulse	1.00	3
Be			1	49.054	ug/l	2.07	5,320.75	1.993E-02	Pulse	2.00	3
Ag			1	48.795	ug/l	1.28	758,219.38	4.737E-01	Pulse	0.50	3
Ba			1	47.606	ug/l	1.76	109,494.58	6.840E-02	Pulse	0.50	3
Tl			1	48.542	ug/l	1.26	1,886,497.00	5.184E-01	Analog	0.50	3
Sn			1	47.738	ug/l	2.03	252,456.88	1.577E-01	Pulse	0.30	3
Sr			1	47.709	ug/l	1.91	283,443.71	1.771E-01	Pulse	0.50	3
Ca			1	4907.131	ug/l	0.26	169,763.41	6.358E-01	Pulse	0.50	3
Ti			1	47.227	ug/l	1.56	10,426.34	3.905E-02	Pulse	0.50	3
Na			1	4885.160	ug/l	0.96	8,470,371.33	3.172E+01	Analog	1.00	3
Mg			1	4986.084	ug/l	1.10	4,337,185.50	1.624E+01	Analog	1.00	3
K			1	4996.090	ug/l	1.23	3,422,632.50	1.282E+01	Analog	1.00	3
V			1	48.186	ug/l	0.75	333,926.90	1.251E+00	Pulse	0.50	3
Mn			1	49.075	ug/l	0.24	252,697.12	1.609E+00	Pulse	0.50	3
Fe			1	4907.636	ug/l	0.55	35,310,090.67	2.249E+02	Analog	0.50	3
Co			1	49.355	ug/l	1.10	644,161.12	4.103E+00	Pulse	0.50	3
Ni			1	49.838	ug/l	0.92	170,200.36	1.084E+00	Pulse	0.50	3
Cu			1	49.955	ug/l	0.55	454,209.61	2.893E+00	Pulse	0.50	3
Zn			1	49.357	ug/l	0.54	84,281.80	3.580E-01	Pulse	1.00	3
Cd			1	48.675	ug/l	1.07	124,027.95	5.269E-01	Pulse	0.50	3
Al			1	5002.585	ug/l	1.44	1,824,870.12	6.834E+00	Analog	1.00	3
Se			1	48.889	ug/l	0.37	4,701.29	1.997E-02	Pulse	3.00	3
Sb			1	47.877	ug/l	0.36	341,257.02	1.450E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,639,450.17	0.82	100.3	Analog	0.50	3
1	Sc		267,025.20	0.46	102.7	Pulse	0.30	3
1	Ge		157,008.77	0.68	103.4	Pulse	0.30	3
1	In		1,600,909.73	1.21	99.9	Analog	0.30	3
1	Tb		4,871,689.33	1.06	102.3	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,985,193.00	1.11	103.2	Analog	0.50	3
1	Ge		235,409.51	0.16	103.1	Pulse	0.30	3
1	Li		3,642.60	6.13	102.8	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:37
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.805	ug/l	1.27	847,293.73	5.551E+00	Pulse	0.50	3
As			1	101.072	ug/l	0.99	100,777.86	6.602E-01	Pulse	1.00	3
Mo			1	99.252	ug/l	0.23	435,669.98	1.907E+00	Pulse	0.50	3
Pb			1	101.269	ug/l	1.10	2,631,274.92	7.469E-01	Analog	1.00	3
Be			1	99.760	ug/l	0.93	10,598.31	4.052E-02	Pulse	2.00	3
Ag			1	100.581	ug/l	1.44	1,514,272.00	9.763E-01	Pulse	0.50	3
Ba			1	99.655	ug/l	1.37	222,054.60	1.432E-01	Pulse	0.50	3
Tl			1	101.634	ug/l	1.71	3,823,420.08	1.085E+00	Analog	0.50	3
Sn			1	99.510	ug/l	1.23	509,707.90	3.286E-01	Pulse	0.30	3
Sr			1	99.420	ug/l	0.60	572,128.31	3.689E-01	Pulse	0.50	3
Ca			1	9967.358	ug/l	0.16	337,668.56	1.291E+00	Pulse	0.50	3
Ti			1	99.521	ug/l	1.43	21,516.73	8.227E-02	Pulse	0.50	3
Na			1	9993.279	ug/l	0.67	16,957,588.00	6.483E+01	Analog	1.00	3
Mg			1	10085.282	ug/l	0.71	8,592,383.67	3.285E+01	Analog	1.00	3
K			1	10023.871	ug/l	0.63	6,681,402.67	2.554E+01	Analog	1.00	3
V			1	100.170	ug/l	0.14	675,781.54	2.584E+00	Pulse	0.50	3
Mn			1	101.389	ug/l	1.49	507,299.66	3.324E+00	Pulse	0.50	3
Fe			1	10177.978	ug/l	0.81	71,192,504.00	4.664E+02	Analog	0.50	3
Co			1	101.840	ug/l	0.95	1,292,204.29	8.465E+00	Pulse	0.50	3
Ni			1	102.295	ug/l	1.01	339,478.04	2.224E+00	Pulse	0.50	3
Cu			1	102.902	ug/l	0.69	904,962.87	5.928E+00	Pulse	0.50	3
Zn			1	101.438	ug/l	0.50	167,392.26	7.325E-01	Pulse	1.00	3
Cd			1	100.435	ug/l	0.39	248,413.61	1.087E+00	Pulse	0.50	3
Al			1	10083.957	ug/l	1.34	3,602,776.58	1.378E+01	Analog	1.00	3
Se			1	101.188	ug/l	0.59	9,426.60	4.125E-02	Pulse	3.00	3
Sb			1	99.770	ug/l	0.60	690,229.16	3.021E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,523,555.33	1.82	97.1	Analog	0.50	3
1	Sc		261,555.99	0.63	100.6	Pulse	0.30	3
1	Ge		152,655.24	1.06	100.5	Pulse	0.30	3
1	In		1,551,184.94	1.30	96.8	Mix	0.30	3
1	Tb		4,739,025.67	1.63	99.5	Analog	0.50	3
1	Lu		3,889,405.67	1.20	100.7	Analog	0.50	3
1	Ge		228,511.72	0.62	100.1	Pulse	0.30	3
1	Li		3,673.71	5.82	103.7	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:40
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.030	ug/l	1.76	1,632,108.54	1.101E+01	Analog	0.50	3
As			1	199.687	ug/l	0.89	193,260.76	1.304E+00	Pulse	1.00	3
Mo			1	201.040	ug/l	0.53	846,594.13	3.862E+00	Pulse	0.50	3
Pb			1	199.543	ug/l	0.52	4,955,262.17	1.471E+00	Analog	1.00	3
Be			1	200.332	ug/l	0.51	20,493.26	8.137E-02	Pulse	2.00	3
Ag			1	128.619	ug/l	0.69	1,856,155.21	1.248E+00	Analog	0.50	3
Ba			1	200.772	ug/l	0.72	428,771.85	2.884E-01	Pulse	0.50	3
Tl			1	199.529	ug/l	0.71	7,175,378.17	2.131E+00	Analog	0.50	3
Sn			1	200.816	ug/l	0.55	985,735.17	6.630E-01	Pulse	0.30	3
Sr			1	200.865	ug/l	0.12	1,107,699.63	7.451E-01	Pulse	0.50	3
Ca			1	20037.215	ug/l	1.45	653,498.63	2.595E+00	Pulse	0.50	3
Ti			1	200.917	ug/l	0.59	41,827.12	1.661E-01	Pulse	0.50	3
Na			1	20029.193	ug/l	2.41	32,708,729.33	1.299E+02	Analog	1.00	3
Mg			1	19957.232	ug/l	1.91	16,369,341.00	6.500E+01	Analog	1.00	3
K			1	19986.772	ug/l	1.13	12,784,742.33	5.076E+01	Analog	1.00	3
V			1	200.368	ug/l	0.95	1,297,853.42	5.153E+00	Pulse	0.50	3
Mn			1	199.517	ug/l	0.88	969,067.86	6.539E+00	Pulse	0.50	3
Fe			1	19930.805	ug/l	1.39	135,341,242.67	9.132E+02	Analog	0.50	3
Co			1	199.213	ug/l	1.12	2,454,130.92	1.656E+01	Analog	0.50	3
Ni			1	198.857	ug/l	1.05	640,584.77	4.322E+00	Pulse	0.50	3
Cu			1	198.519	ug/l	1.78	1,690,938.21	1.141E+01	Analog	0.50	3
Zn			1	199.401	ug/l	0.73	315,038.24	1.437E+00	Pulse	1.00	3
Cd			1	200.088	ug/l	0.99	474,787.32	2.166E+00	Pulse	0.50	3
Al			1	19956.124	ug/l	0.88	6,865,423.67	2.726E+01	Analog	1.00	3
Se			1	199.663	ug/l	0.61	17,828.46	8.132E-02	Pulse	3.00	3
Sb			1	200.636	ug/l	0.84	1,331,642.04	6.074E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,367,665.58	1.20	92.8	Analog	0.50	3
1	Sc		251,878.48	1.71	96.8	Pulse	0.30	3
1	Ge		148,216.02	1.16	97.6	Pulse	0.30	3
1	In		1,486,702.44	0.73	92.7	Pulse	0.30	3
1	Tb		4,686,358.17	1.12	98.4	Analog	0.50	3
1	Lu		3,832,230.50	0.96	99.2	Analog	0.50	3
1	Ge		219,241.54	1.16	96.0	Pulse	0.30	3
1	Li		3,405.89	0.48	96.1	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:43
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.362	ug/l	2.01	811,844.69	5.471E+00	Pulse	0.50	3
As			1	99.822	ug/l	1.15	96,753.78	6.520E-01	Pulse	1.00	3
Mo			1	99.284	ug/l	1.48	420,742.67	1.907E+00	Pulse	0.50	3
Pb			1	98.840	ug/l	3.16	2,581,102.25	7.289E-01	Analog	1.00	3
Be			1	100.294	ug/l	0.81	10,340.50	4.074E-02	Pulse	2.00	3
Ag			1	100.628	ug/l	0.52	1,463,960.50	9.768E-01	Pulse	0.50	3
Ba			1	99.692	ug/l	0.80	214,654.09	1.432E-01	Pulse	0.50	3
Tl			1	98.879	ug/l	3.00	3,738,663.83	1.056E+00	Analog	0.50	3
Sn			1	99.251	ug/l	0.71	491,253.21	3.278E-01	Pulse	0.30	3
Sr			1	98.983	ug/l	0.64	550,395.58	3.672E-01	Pulse	0.50	3
Ca			1	9893.600	ug/l	0.81	325,273.81	1.281E+00	Pulse	0.50	3
Ti			1	98.939	ug/l	1.36	20,760.51	8.179E-02	Pulse	0.50	3
Na			1	10012.229	ug/l	0.53	16,488,481.67	6.496E+01	Analog	1.00	3
Mg			1	10021.349	ug/l	1.89	8,285,835.33	3.264E+01	Analog	1.00	3
K			1	9990.244	ug/l	0.62	6,462,504.17	2.546E+01	Analog	1.00	3
V			1	98.900	ug/l	1.56	647,538.54	2.551E+00	Pulse	0.50	3
Mn			1	99.734	ug/l	1.59	485,104.27	3.269E+00	Pulse	0.50	3
Fe			1	9978.033	ug/l	1.39	67,842,469.33	4.572E+02	Analog	0.50	3
Co			1	100.237	ug/l	1.50	1,236,344.41	8.332E+00	Pulse	0.50	3
Ni			1	100.741	ug/l	2.03	324,978.96	2.190E+00	Pulse	0.50	3
Cu			1	100.391	ug/l	1.54	858,310.96	5.784E+00	Pulse	0.50	3
Zn			1	100.972	ug/l	2.00	160,863.26	7.292E-01	Pulse	1.00	3
Cd			1	101.413	ug/l	1.99	242,156.36	1.098E+00	Pulse	0.50	3
Al			1	10030.539	ug/l	1.28	3,478,063.00	1.370E+01	Analog	1.00	3
Se			1	101.159	ug/l	1.66	9,098.10	4.124E-02	Pulse	3.00	3
Sb			1	100.233	ug/l	1.97	669,459.21	3.035E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,542,498.08	2.58	97.6	Analog	0.50	3
1	Sc		253,840.52	0.66	97.6	Pulse	0.30	3
1	Ge		148,393.99	0.74	97.7	Pulse	0.30	3
1	In		1,498,779.00	0.12	93.5	Pulse	0.30	3
1	Tb		4,684,172.33	0.43	98.4	Analog	0.50	3
1	Lu		3,866,035.92	0.73	100.1	Analog	0.50	3
1	Ge		220,629.65	0.86	96.6	Pulse	0.30	3
1	Li		3,442.56	7.21	97.2	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:46
Sample Name	HSTD
Sample Type	HSTD
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	199.419	ug/l	2.91	1,598,062.21	1.098E+01	Analog	0.50	3
As			1	200.721	ug/l	1.51	190,796.62	1.311E+00	Pulse	1.00	3
Mo			1	204.232	ug/l	0.70	844,826.87	3.923E+00	Pulse	0.50	3
Pb			1	202.488	ug/l	0.79	5,025,659.83	1.493E+00	Analog	1.00	3
Be			1	206.361	ug/l	1.29	20,599.21	8.381E-02	Pulse	2.00	3
Ag			1	124.473	ug/l	2.20	1,760,674.71	1.208E+00	Analog	0.50	3
Ba			1	203.574	ug/l	1.33	426,171.54	2.924E-01	Pulse	0.50	3
Tl			1	203.876	ug/l	0.28	7,328,028.33	2.177E+00	Analog	0.50	3
Sn			1	203.129	ug/l	1.35	977,368.57	6.707E-01	Pulse	0.30	3
Sr			1	202.262	ug/l	1.27	1,093,312.25	7.502E-01	Pulse	0.50	3
Ca			1	20322.428	ug/l	1.53	646,815.29	2.632E+00	Pulse	0.50	3
Ti			1	202.815	ug/l	0.96	41,201.13	1.676E-01	Pulse	0.50	3
Na			1	20428.490	ug/l	1.42	32,559,501.33	1.325E+02	Analog	1.00	3
Mg			1	20367.215	ug/l	2.46	16,302,816.00	6.634E+01	Analog	1.00	3
K			1	20233.868	ug/l	1.92	12,629,158.33	5.139E+01	Analog	1.00	3
V			1	202.680	ug/l	1.70	1,281,042.54	5.213E+00	Pulse	0.50	3
Mn			1	201.701	ug/l	1.59	962,209.33	6.610E+00	Pulse	0.50	3
Fe			1	20076.717	ug/l	1.54	133,904,109.33	9.199E+02	Analog	0.50	3
Co			1	203.129	ug/l	1.97	2,457,781.08	1.688E+01	Analog	0.50	3
Ni			1	199.315	ug/l	1.63	630,605.46	4.332E+00	Pulse	0.50	3
Cu			1	200.672	ug/l	1.22	1,678,954.42	1.153E+01	Analog	0.50	3
Zn			1	201.353	ug/l	0.96	312,489.68	1.451E+00	Pulse	1.00	3
Cd			1	202.589	ug/l	0.94	472,232.09	2.193E+00	Pulse	0.50	3
Al			1	20266.238	ug/l	2.74	6,803,025.00	2.768E+01	Analog	1.00	3
Se			1	200.989	ug/l	0.33	17,629.37	8.186E-02	Pulse	3.00	3
Sb			1	203.340	ug/l	0.88	1,325,740.84	6.156E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,365,900.50	0.35	92.8	Analog	0.50	3
1	Sc		245,786.76	0.92	94.5	Pulse	0.30	3
1	Ge		145,577.63	1.02	95.8	Pulse	0.30	3
1	In		1,457,308.87	0.37	90.9	Pulse	0.30	3
1	Tb		4,581,023.00	0.89	96.2	Analog	0.50	3
1	Lu		3,766,200.75	1.53	97.5	Analog	0.50	3
1	Ge		215,355.80	0.36	94.3	Pulse	0.30	3
1	Li		3,390.32	4.13	95.7	Pulse	0.30	3

Quantitation Report

File Name	012_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:49
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	106.092	ug/l	0.73	850,689.88	5.842E+00	Pulse	0.50	3
As			1	105.782	ug/l	0.77	100,615.71	6.909E-01	Pulse	1.00	3
Mo			1	108.056	ug/l	2.02	452,097.21	2.076E+00	Pulse	0.50	3
Pb			1	106.755	ug/l	2.85	2,722,719.42	7.873E-01	Analog	1.00	3
Be			1	106.553	ug/l	2.40	10,776.91	4.328E-02	Pulse	2.00	3
Ag			1	50.808	ug/l	1.01	723,756.92	4.932E-01	Pulse	0.50	3
Ba			1	102.213	ug/l	1.41	215,486.59	1.468E-01	Pulse	0.50	3
Tl			1	105.035	ug/l	2.12	3,879,190.33	1.122E+00	Analog	0.50	3
Sn			1	102.814	ug/l	1.82	498,249.27	3.395E-01	Pulse	0.30	3
Sr			1	108.608	ug/l	1.41	591,289.67	4.029E-01	Pulse	0.50	3
Ca			1	10479.699	ug/l	2.58	337,976.71	1.357E+00	Pulse	0.50	3
Ti			1	110.922	ug/l	3.06	22,829.64	9.169E-02	Pulse	0.50	3
Na			1	10384.768	ug/l	2.21	16,776,255.33	6.737E+01	Analog	1.00	3
Mg			1	11087.025	ug/l	2.86	8,992,370.00	3.611E+01	Analog	1.00	3
K			1	10399.903	ug/l	2.02	6,597,965.17	2.650E+01	Analog	1.00	3
V			1	105.787	ug/l	2.80	679,183.73	2.728E+00	Pulse	0.50	3
Mn			1	106.121	ug/l	0.58	506,542.51	3.479E+00	Pulse	0.50	3
Fe			1	10617.426	ug/l	0.36	70,843,104.00	4.865E+02	Analog	0.50	3
Co			1	107.001	ug/l	0.55	1,295,179.25	8.894E+00	Pulse	0.50	3
Ni			1	105.819	ug/l	0.72	335,003.98	2.301E+00	Pulse	0.50	3
Cu			1	107.815	ug/l	0.46	904,295.33	6.210E+00	Pulse	0.50	3
Zn			1	104.149	ug/l	2.20	163,800.00	7.520E-01	Pulse	1.00	3
Cd			1	105.588	ug/l	2.32	248,928.81	1.143E+00	Pulse	0.50	3
Al			1	10548.779	ug/l	2.90	3,587,917.58	1.441E+01	Analog	1.00	3
Se			1	101.153	ug/l	1.68	8,982.15	4.124E-02	Pulse	3.00	3
Sb			1	105.013	ug/l	1.82	692,500.14	3.179E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,459,053.33	1.15	95.3	Analog	0.50	3
1	Sc		249,070.35	1.71	95.8	Pulse	0.30	3
1	Ge		145,615.52	0.60	95.9	Pulse	0.30	3
1	In		1,467,521.50	0.56	91.5	Pulse	0.30	3
1	Tb		4,631,256.00	1.22	97.2	Analog	0.50	3
1	Lu		3,811,464.42	2.22	98.7	Analog	0.50	3
1	Ge		217,835.78	0.90	95.4	Pulse	0.30	3
1	Li		3,704.83	4.49	104.6	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:53
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.030	ug/l	65.90	583.35	3.920E-03	Pulse	0.50	3
As			1	0.045	ug/l	36.32	98.67	6.627E-04	Pulse	1.00	3
Mo			1	0.239	ug/l	30.14	1,064.04	4.768E-03	Pulse	0.50	3
Pb			1	0.043	ug/l	41.42	2,106.81	5.757E-04	Pulse	1.00	3
Be			1	0.050	ug/l	32.54	6.50	2.559E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	60.06	274.67	1.753E-04	Pulse	0.50	3
Ba			1	0.027	ug/l	50.85	93.33	5.964E-05	Pulse	0.50	3
Tl			1	0.052	ug/l	8.40	2,096.14	5.735E-04	Pulse	0.50	3
Sn			1	0.157	ug/l	16.99	1,015.59	6.528E-04	Pulse	0.30	3
Sr			1	0.023	ug/l	50.40	366.01	2.343E-04	Pulse	0.50	3
Ca			1	2.502	ug/l	15.04	170.67	6.726E-04	Pulse	0.50	3
Ti			1	0.035	ug/l	147.65	11.33	4.452E-05	Pulse	0.50	3
Na			1	3.395	ug/l	40.44	18,722.92	7.377E-02	Pulse	1.00	3
Mg			1	2.948	ug/l	57.29	3,404.69	1.340E-02	Pulse	1.00	3
K			1	4.381	ug/l	25.55	46,423.39	1.830E-01	Pulse	1.00	3
V			1	-0.334	ug/l	-7.30	1,592.08	6.273E-03	Pulse	0.50	3
Mn			1	0.030	ug/l	58.94	373.34	2.509E-03	Pulse	0.50	3
Fe			1	3.552	ug/l	44.13	30,937.40	2.080E-01	Pulse	0.50	3
Co			1	0.036	ug/l	40.81	517.34	3.477E-03	Pulse	0.50	3
Ni			1	0.024	ug/l	78.19	240.00	1.613E-03	Pulse	0.50	3
Cu			1	-0.018	ug/l	-168.39	4,163.16	2.795E-02	Pulse	0.50	3
Zn			1	0.022	ug/l	214.62	724.02	3.243E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	28.49	80.00	3.582E-04	Pulse	0.50	3
Al			1	2.965	ug/l	49.77	1,350.39	5.317E-03	Pulse	1.00	3
Se			1	0.072	ug/l	17.32	23.78	1.065E-04	Pulse	3.00	3
Sb			1	0.081	ug/l	1.82	590.68	2.646E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,654,981.00	1.46	100.7	Analog	0.50	3
1	Sc		253,715.17	0.63	97.5	Pulse	0.30	3
1	Ge		148,965.16	0.78	98.1	Pulse	0.30	3
1	In		1,558,281.60	2.02	97.2	Analog	0.30	3
1	Tb		4,765,950.00	0.23	100.1	Analog	0.50	3
1	Lu		3,906,535.00	1.49	101.2	Analog	0.50	3
1	Ge		223,278.64	0.62	97.8	Pulse	0.30	3
1	Li		3,598.14	4.87	101.6	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:56
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.965	ug/l	1.95	8,361.28	5.537E-02	Pulse	0.50	3
As			1	0.977	ug/l	2.44	1,018.70	6.746E-03	Pulse	1.00	3
Mo			1	1.000	ug/l	3.94	4,360.56	1.939E-02	Pulse	0.50	3
Pb			1	0.958	ug/l	0.34	27,029.66	7.321E-03	Pulse	1.00	3
Be			1	1.042	ug/l	6.61	110.50	4.283E-04	Pulse	2.00	3
Ag			1	0.975	ug/l	1.15	14,852.37	9.508E-03	Pulse	0.50	3
Ba			1	0.929	ug/l	1.92	2,117.47	1.356E-03	Pulse	0.50	3
Tl			1	0.939	ug/l	1.41	37,096.65	1.005E-02	Pulse	0.50	3
Sn			1	0.994	ug/l	5.12	5,334.20	3.416E-03	Pulse	0.30	3
Sr			1	0.919	ug/l	4.45	5,552.89	3.556E-03	Pulse	0.50	3
Ca			1	100.108	ug/l	4.01	3,435.01	1.331E-02	Pulse	0.50	3
Ti			1	0.948	ug/l	13.29	206.00	7.986E-04	Pulse	0.50	3
Na			1	98.569	ug/l	0.24	178,233.17	6.907E-01	Pulse	1.00	3
Mg			1	100.305	ug/l	0.79	85,276.19	3.305E-01	Pulse	1.00	3
K			1	99.394	ug/l	1.14	109,266.19	4.235E-01	Pulse	1.00	3
V			1	0.591	ug/l	5.59	7,737.67	2.999E-02	Pulse	0.50	3
Mn			1	0.993	ug/l	5.15	5,145.42	3.407E-02	Pulse	0.50	3
Fe			1	101.147	ug/l	0.82	706,577.94	4.679E+00	Pulse	0.50	3
Co			1	0.990	ug/l	1.18	12,498.35	8.278E-02	Pulse	0.50	3
Ni			1	0.993	ug/l	1.27	3,422.34	2.266E-02	Pulse	0.50	3
Cu			1	0.989	ug/l	2.85	12,939.34	8.570E-02	Pulse	0.50	3
Zn			1	1.034	ug/l	1.45	2,365.83	1.052E-02	Pulse	1.00	3
Cd			1	0.974	ug/l	5.53	2,376.84	1.057E-02	Pulse	0.50	3
Al			1	95.078	ug/l	0.53	33,836.73	1.311E-01	Pulse	1.00	3
Se			1	0.989	ug/l	10.53	107.89	4.797E-04	Pulse	3.00	3
Sb			1	0.976	ug/l	2.14	6,688.65	2.974E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,692,263.75	0.39	101.7	Analog	0.50	3
1	Sc		258,034.72	0.77	99.2	Pulse	0.30	3
1	Ge		150,997.56	0.49	99.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,562,278.72	1.81	97.4	Analog	0.30	3
1	Tb		4,773,315.67	0.47	100.2	Analog	0.50	3
1	Lu		3,939,476.00	1.76	102.0	Analog	0.50	3
1	Ge		224,919.04	0.42	98.5	Pulse	0.30	3
1	Li		3,499.23	4.51	98.8	Pulse	0.30	3

Quantitation Report

File Name	015ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:59
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.402	ug/l	2.00	11,198.14	7.947E-02	Pulse	0.50	3
As			1	0.090	ug/l	26.94	134.00	9.516E-04	Pulse	1.00	3
Mo			1	2105.235	ug/l	0.51	8,125,665.00	4.044E+01	Analog	0.50	3
Pb			1	0.211	ug/l	0.52	5,700.69	1.817E-03	Pulse	1.00	3
Be			1	0.028	ug/l	49.80	4.00	1.643E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	4.08	380.68	2.780E-04	Pulse	0.50	3
Ba			1	0.341	ug/l	3.69	699.35	5.109E-04	Pulse	0.50	3
Tl			1	0.014	ug/l	13.52	526.01	1.676E-04	Pulse	0.50	3
Sn			1	0.140	ug/l	22.40	817.80	5.959E-04	Pulse	0.30	3
Sr			1	0.745	ug/l	0.17	3,987.14	2.912E-03	Pulse	0.50	3
Ca			1	98965.478	ug/l	1.58	3,130,507.83	1.282E+01	Analog	0.50	3
Ti			1	2045.086	ug/l	2.03	412,842.27	1.690E+00	Pulse	0.50	3
Na			1	98737.168	ug/l	1.63	156,349,952.00	6.401E+02	Analog	1.00	3
Mg			1	98244.977	ug/l	2.41	78,159,146.67	3.200E+02	Analog	1.00	3
K			1	98629.971	ug/l	1.57	61,022,832.00	2.498E+02	Analog	1.00	3
V			1	-0.295	ug/l	-1.57	1,776.09	7.270E-03	Pulse	0.50	3
Mn			1	0.363	ug/l	1.48	1,892.11	1.343E-02	Pulse	0.50	3
Fe			1	97596.028	ug/l	1.33	630,204,480.00	4.472E+03	Analog	0.50	3
Co			1	0.676	ug/l	2.47	7,991.79	5.671E-02	Pulse	0.50	3
Ni			1	0.441	ug/l	7.42	1,502.73	1.067E-02	Pulse	0.50	3
Cu			1	-0.038	ug/l	-73.41	3,773.75	2.680E-02	Pulse	0.50	3
Zn			1	0.882	ug/l	7.68	1,893.77	9.427E-03	Pulse	1.00	3
Cd			1	0.856	ug/l	7.02	1,868.11	9.291E-03	Pulse	0.50	3
Al			1	97888.689	ug/l	2.49	32,659,246.67	1.337E+02	Analog	1.00	3
Se			1	0.101	ug/l	19.81	23.78	1.183E-04	Pulse	3.00	3
Sb			1	0.107	ug/l	7.72	694.68	3.455E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,137,738.00	0.64	86.5	Analog	0.50	3
1	Sc		244,282.51	1.56	93.9	Pulse	0.30	3
1	Ge		140,935.59	1.96	92.8	Pulse	0.30	3
1	In		1,369,226.02	2.13	85.4	Pulse	0.30	3
1	Tb		4,462,365.67	0.54	93.7	Analog	0.50	3
1	Lu		3,702,026.33	1.47	95.9	Analog	0.50	3
1	Ge		200,941.58	1.38	88.0	Pulse	0.30	3
1	Li		3,080.27	7.58	86.9	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:03
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.230	ug/l	1.56	156,902.17	1.116E+00	Pulse	0.50	3
As			1	20.161	ug/l	1.07	18,557.99	1.320E-01	Pulse	1.00	3
Mo			1	2163.681	ug/l	1.61	8,376,521.33	4.156E+01	Analog	0.50	3
Pb			1	0.214	ug/l	4.15	5,734.37	1.838E-03	Pulse	1.00	3
Be			1	0.030	ug/l	11.46	4.17	1.724E-05	Pulse	2.00	3
Ag			1	18.986	ug/l	2.13	249,949.97	1.843E-01	Pulse	0.50	3
Ba			1	0.325	ug/l	17.75	661.35	4.881E-04	Pulse	0.50	3
Tl			1	0.011	ug/l	6.16	429.34	1.376E-04	Pulse	0.50	3
Sn			1	0.109	ug/l	20.91	670.02	4.941E-04	Pulse	0.30	3
Sr			1	0.755	ug/l	2.53	3,995.80	2.946E-03	Pulse	0.50	3
Ca			1	102920.594	ug/l	0.97	3,222,820.58	1.333E+01	Analog	0.50	3
Ti			1	2117.279	ug/l	2.96	423,093.53	1.750E+00	Pulse	0.50	3
Na			1	102716.754	ug/l	1.58	161,019,605.33	6.659E+02	Analog	1.00	3
Mg			1	102647.169	ug/l	2.97	80,831,698.67	3.343E+02	Analog	1.00	3
K			1	102898.439	ug/l	2.64	63,018,010.67	2.606E+02	Analog	1.00	3
V			1	-0.257	ug/l	-10.12	1,996.78	8.262E-03	Pulse	0.50	3
Mn			1	20.166	ug/l	1.16	93,123.17	6.623E-01	Pulse	0.50	3
Fe			1	100570.928	ug/l	0.95	647,888,682.67	4.608E+03	Analog	0.50	3
Co			1	19.981	ug/l	1.43	233,611.44	1.661E+00	Pulse	0.50	3
Ni			1	19.192	ug/l	0.99	58,794.80	4.181E-01	Pulse	0.50	3
Cu			1	18.347	ug/l	0.79	151,968.17	1.081E+00	Pulse	0.50	3
Zn			1	21.564	ug/l	0.26	31,878.20	1.582E-01	Pulse	1.00	3
Cd			1	20.268	ug/l	1.07	44,221.04	2.194E-01	Pulse	0.50	3
Al			1	101407.377	ug/l	3.56	33,490,009.33	1.385E+02	Analog	1.00	3
Se			1	0.060	ug/l	65.22	20.56	1.019E-04	Pulse	3.00	3
Sb			1	0.101	ug/l	9.05	661.01	3.278E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,121,346.17	1.08	86.0	Analog	0.50	3
1	Sc		241,824.42	1.10	93.0	Pulse	0.30	3
1	Ge		140,603.88	1.24	92.6	Pulse	0.30	3
1	In		1,356,121.99	0.86	84.6	Pulse	0.30	3
1	Tb		4,447,852.00	1.09	93.4	Analog	0.50	3
1	Lu		3,634,932.00	0.57	94.1	Analog	0.50	3
1	Ge		201,561.81	1.14	88.3	Pulse	0.30	3
1	Li		3,052.49	2.90	86.2	Pulse	0.30	3

Quantitation Report

File Name 017CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:06
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.790	ug/l	1.33	403,039.86	2.743E+00	Pulse	0.50	3
As			1	50.695	ug/l	0.37	48,684.51	3.313E-01	Pulse	1.00	3
Mo			1	51.794	ug/l	1.03	218,631.69	9.950E-01	Pulse	0.50	3
Pb			1	50.428	ug/l	2.22	1,339,203.08	3.720E-01	Pulse	1.00	3
Be			1	52.268	ug/l	0.71	5,294.58	2.123E-02	Pulse	2.00	3
Ag			1	50.899	ug/l	2.55	751,006.21	4.941E-01	Pulse	0.50	3
Ba			1	49.536	ug/l	3.61	108,169.44	7.118E-02	Pulse	0.50	3
Tl			1	51.129	ug/l	1.91	1,965,465.09	5.460E-01	Analog	0.50	3
Sn			1	49.577	ug/l	3.14	248,945.17	1.638E-01	Pulse	0.30	3
Sr			1	48.811	ug/l	2.79	275,363.45	1.812E-01	Pulse	0.50	3
Ca			1	5074.335	ug/l	1.67	163,918.93	6.574E-01	Pulse	0.50	3
Ti			1	50.784	ug/l	1.56	10,469.03	4.199E-02	Pulse	0.50	3
Na			1	5141.803	ug/l	1.90	8,323,968.50	3.338E+01	Analog	1.00	3
Mg			1	5147.704	ug/l	1.54	4,181,250.33	1.677E+01	Analog	1.00	3
K			1	5192.474	ug/l	0.73	3,320,078.67	1.332E+01	Analog	1.00	3
V			1	49.734	ug/l	1.66	321,711.10	1.290E+00	Pulse	0.50	3
Mn			1	50.367	ug/l	0.98	242,715.67	1.652E+00	Pulse	0.50	3
Fe			1	5128.507	ug/l	0.88	34,532,332.00	2.350E+02	Analog	0.50	3
Co			1	50.888	ug/l	0.02	621,599.81	4.230E+00	Pulse	0.50	3
Ni			1	51.298	ug/l	0.43	163,955.85	1.116E+00	Pulse	0.50	3
Cu			1	51.744	ug/l	0.82	440,154.53	2.995E+00	Pulse	0.50	3
Zn			1	51.445	ug/l	1.32	81,965.52	3.730E-01	Pulse	1.00	3
Cd			1	51.732	ug/l	0.88	123,038.79	5.600E-01	Pulse	0.50	3
Al			1	5140.237	ug/l	1.45	1,750,965.58	7.022E+00	Analog	1.00	3
Se			1	50.940	ug/l	0.57	4,571.59	2.081E-02	Pulse	3.00	3
Sb			1	50.862	ug/l	1.56	338,377.64	1.540E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,600,294.75	1.31	99.2	Analog	0.50	3
1	Sc		249,354.19	0.76	95.9	Pulse	0.30	3
1	Ge		146,939.62	0.67	96.7	Pulse	0.30	3
1	In		1,520,578.59	2.26	94.8	Mix	0.30	3
1	Tb		4,756,771.67	0.40	99.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,861,988.08	1.19	100.0	Analog	0.50	3
1	Ge		219,731.43	0.32	96.2	Pulse	0.30	3
1	Li		3,437.00	2.67	97.0	Pulse	0.30	3

Quantitation Report

File Name 018_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:09
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.142	ug/l	0.78	803,857.29	5.514E+00	Pulse	0.50	3
As			1	101.387	ug/l	0.45	96,539.66	6.623E-01	Pulse	1.00	3
Mo			1	101.341	ug/l	2.16	423,758.38	1.947E+00	Pulse	0.50	3
Pb			1	101.819	ug/l	2.24	2,650,623.75	7.509E-01	Analog	1.00	3
Be			1	102.981	ug/l	1.78	10,268.13	4.183E-02	Pulse	2.00	3
Ag			1	102.918	ug/l	0.73	1,471,000.00	9.990E-01	Pulse	0.50	3
Ba			1	102.305	ug/l	1.29	216,408.32	1.470E-01	Pulse	0.50	3
Tl			1	100.401	ug/l	1.13	3,785,054.25	1.072E+00	Analog	0.50	3
Sn			1	102.029	ug/l	1.23	496,142.60	3.369E-01	Pulse	0.30	3
Sr			1	100.666	ug/l	0.65	549,923.63	3.735E-01	Pulse	0.50	3
Ca			1	10126.262	ug/l	1.64	321,960.31	1.312E+00	Pulse	0.50	3
Ti			1	101.391	ug/l	1.39	20,574.30	8.381E-02	Pulse	0.50	3
Na			1	10256.905	ug/l	2.51	16,334,097.67	6.654E+01	Analog	1.00	3
Mg			1	10259.401	ug/l	2.05	8,203,512.67	3.342E+01	Analog	1.00	3
K			1	10272.586	ug/l	1.44	6,425,594.33	2.617E+01	Analog	1.00	3
V			1	101.282	ug/l	1.96	641,226.44	2.612E+00	Pulse	0.50	3
Mn			1	101.377	ug/l	0.89	484,432.66	3.323E+00	Pulse	0.50	3
Fe			1	10107.581	ug/l	0.58	67,514,762.67	4.631E+02	Analog	0.50	3
Co			1	101.768	ug/l	0.65	1,233,178.25	8.459E+00	Pulse	0.50	3
Ni			1	101.770	ug/l	0.56	322,535.74	2.213E+00	Pulse	0.50	3
Cu			1	102.213	ug/l	0.86	858,464.04	5.889E+00	Pulse	0.50	3
Zn			1	102.159	ug/l	1.78	160,594.05	7.377E-01	Pulse	1.00	3
Cd			1	102.830	ug/l	2.11	242,292.39	1.113E+00	Pulse	0.50	3
Al			1	10113.420	ug/l	1.96	3,391,359.58	1.382E+01	Analog	1.00	3
Se			1	101.591	ug/l	1.50	9,015.83	4.142E-02	Pulse	3.00	3
Sb			1	102.012	ug/l	1.98	672,320.36	3.088E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,530,701.92	1.78	97.3	Analog	0.50	3
1	Sc		245,493.24	0.69	94.4	Pulse	0.30	3
1	Ge		145,772.49	0.46	96.0	Pulse	0.30	3
1	In		1,472,478.20	0.52	91.8	Pulse	0.30	3
1	Tb		4,620,575.50	1.17	97.0	Analog	0.50	3
1	Lu		3,833,759.00	1.00	99.3	Analog	0.50	3
1	Ge		217,714.32	1.11	95.3	Pulse	0.30	3
1	Li		3,434.78	5.68	97.0	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:12
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.021	ug/l	66.17	504.01	3.457E-03	Pulse	0.50	3
As			1	0.009	ug/l	46.26	61.67	4.231E-04	Pulse	1.00	3
Mo			1	0.400	ug/l	36.68	1,716.10	7.874E-03	Pulse	0.50	3
Pb			1	0.027	ug/l	47.60	1,688.10	4.587E-04	Pulse	1.00	3
Be			1	0.026	ug/l	62.04	3.83	1.552E-05	Pulse	2.00	3
Ag			1	0.021	ug/l	33.42	362.67	2.408E-04	Pulse	0.50	3
Ba			1	0.021	ug/l	69.11	77.33	5.136E-05	Pulse	0.50	3
Tl			1	0.021	ug/l	20.47	900.69	2.446E-04	Pulse	0.50	3
Sn			1	0.174	ug/l	29.03	1,070.04	7.087E-04	Pulse	0.30	3
Sr			1	0.024	ug/l	57.08	356.67	2.367E-04	Pulse	0.50	3
Ca			1	3.754	ug/l	36.73	206.00	8.347E-04	Pulse	0.50	3
Ti			1	0.109	ug/l	39.47	26.00	1.055E-04	Pulse	0.50	3
Na			1	6.994	ug/l	17.34	23,950.10	9.710E-02	Pulse	1.00	3
Mg			1	4.104	ug/l	27.57	4,236.17	1.717E-02	Pulse	1.00	3
K			1	5.698	ug/l	22.62	45,943.89	1.863E-01	Pulse	1.00	3
V			1	-0.296	ug/l	-3.93	1,790.10	7.258E-03	Pulse	0.50	3
Mn			1	0.026	ug/l	22.85	348.67	2.392E-03	Pulse	0.50	3
Fe			1	4.972	ug/l	17.52	39,793.75	2.730E-01	Pulse	0.50	3
Co			1	0.022	ug/l	54.91	334.67	2.295E-03	Pulse	0.50	3
Ni			1	0.013	ug/l	153.13	200.67	1.376E-03	Pulse	0.50	3
Cu			1	0.005	ug/l	216.43	4,270.53	2.930E-02	Pulse	0.50	3
Zn			1	0.079	ug/l	27.46	797.69	3.655E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	58.57	46.67	2.135E-04	Pulse	0.50	3
Al			1	3.638	ug/l	26.74	1,539.07	6.237E-03	Pulse	1.00	3
Se			1	0.114	ug/l	14.43	27.00	1.237E-04	Pulse	3.00	3
Sb			1	0.061	ug/l	6.10	449.01	2.058E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,675,473.67	1.52	101.3	Analog	0.50	3
1	Sc		246,599.86	0.58	94.8	Pulse	0.30	3
1	Ge		145,743.31	0.14	95.9	Pulse	0.30	3
1	In		1,508,730.25	0.95	94.1	Mix	0.30	3
1	Tb		4,772,745.83	1.02	100.2	Analog	0.50	3
1	Lu		3,927,301.00	1.21	101.7	Analog	0.50	3
1	Ge		218,248.54	0.94	95.6	Pulse	0.30	3
1	Li		3,555.91	3.14	100.4	Pulse	0.30	3

Quantitation Report

File Name 020LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:34
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	5.120	ug/l	0.62	42,008.46	2.841E-01	Pulse	0.50	3
As			1	5.111	ug/l	3.27	4,987.71	3.373E-02	Pulse	1.00	3
Mo			1	5.127	ug/l	1.57	21,782.23	9.865E-02	Pulse	0.50	3
Pb			1	4.967	ug/l	1.81	137,489.15	3.687E-02	Pulse	1.00	3
Be			1	5.631	ug/l	1.07	578.34	2.292E-03	Pulse	2.00	3
Ag			1	5.102	ug/l	2.72	77,532.34	4.957E-02	Pulse	0.50	3
Ba			1	4.976	ug/l	2.47	11,215.07	7.168E-03	Pulse	0.50	3
Tl			1	4.905	ug/l	1.41	195,356.65	5.239E-02	Pulse	0.50	3
Sn			1	4.920	ug/l	2.61	25,615.82	1.638E-02	Pulse	0.30	3
Sr			1	4.862	ug/l	2.01	28,440.30	1.818E-02	Pulse	0.50	3
Ca			1	576.935	ug/l	2.49	18,938.52	7.505E-02	Pulse	0.50	3
Ti			1	4.875	ug/l	6.65	1,020.37	4.044E-03	Pulse	0.50	3
Na			1	523.953	ug/l	0.43	870,125.27	3.448E+00	Pulse	1.00	3
Mg			1	534.787	ug/l	1.08	440,459.83	1.746E+00	Pulse	1.00	3
K			1	516.978	ug/l	0.73	373,565.93	1.480E+00	Pulse	1.00	3
V			1	4.799	ug/l	1.14	34,795.86	1.379E-01	Pulse	0.50	3
Mn			1	5.112	ug/l	2.29	24,990.57	1.690E-01	Pulse	0.50	3
Fe			1	537.437	ug/l	1.40	3,647,583.08	2.467E+01	Analog	0.50	3
Co			1	5.287	ug/l	1.78	65,058.01	4.400E-01	Pulse	0.50	3
Ni			1	5.293	ug/l	3.62	17,165.55	1.161E-01	Pulse	0.50	3
Cu			1	5.437	ug/l	1.34	50,378.21	3.407E-01	Pulse	0.50	3
Zn			1	5.428	ug/l	1.10	9,300.42	4.212E-02	Pulse	1.00	3
Cd			1	5.303	ug/l	1.20	12,678.01	5.742E-02	Pulse	0.50	3
Al			1	501.330	ug/l	1.30	173,110.26	6.860E-01	Pulse	1.00	3
Se			1	5.217	ug/l	3.49	485.78	2.200E-03	Pulse	3.00	3
Sb			1	5.172	ug/l	2.45	34,617.76	1.568E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,728,792.92	0.22	102.8	Analog	0.50	3
1	Sc		252,331.02	0.36	97.0	Pulse	0.30	3
1	Ge		147,856.83	0.34	97.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,564,845.81	2.46	97.6	Analog	0.30	3
1	Tb		4,786,140.67	0.39	100.5	Analog	0.50	3
1	Lu		3,935,301.75	0.49	101.9	Analog	0.50	3
1	Ge		220,800.36	0.42	96.7	Pulse	0.30	3
1	Li		3,792.62	5.23	107.1	Pulse	0.30	3

Quantitation Report

File Name 021_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:38
Sample Name MP43092-MB1
Sample Type MB
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.810	ug/l	6.70	1,670.75	1.120E-02	Pulse	0.50	3
As			1	0.375	ug/l	49.68	128.00	8.564E-04	Pulse	1.00	3
Mo			1	0.317	ug/l	42.43	310.67	1.403E-03	Pulse	0.50	3
Pb			1	0.017	ug/l	43.08	1,067.04	2.832E-04	Pulse	1.00	3
Be			1	0.017	ug/l	212.08	1.67	6.478E-06	Pulse	2.00	3
Ag			1	0.021	ug/l	8.78	127.33	8.228E-05	Pulse	0.50	3
Ba			1	0.059	ug/l	32.91	59.33	3.821E-05	Pulse	0.50	3
Tl			1	0.026	ug/l	22.05	268.67	7.112E-05	Pulse	0.50	3
Sn			1	22.805	ug/l	6.41	23,492.76	1.519E-02	Pulse	0.30	3
Sr			1	0.343	ug/l	5.68	623.35	4.025E-04	Pulse	0.50	3
Ca			1	372.924	ug/l	3.39	2,562.85	1.001E-02	Pulse	0.50	3
Ti			1	0.520	ug/l	30.62	26.00	1.013E-04	Pulse	0.50	3
Na			1	12.084	ug/l	5.32	17,271.00	6.742E-02	Pulse	1.00	3
Mg			1	6.240	ug/l	6.44	2,015.45	7.864E-03	Pulse	1.00	3
K			1	35.619	ug/l	10.44	48,648.79	1.899E-01	Pulse	1.00	3
V			1	1.728	ug/l	6.86	6,071.03	2.370E-02	Pulse	0.50	3
Mn			1	0.247	ug/l	18.38	469.34	3.144E-03	Pulse	0.50	3
Fe			1	8.848	ug/l	0.13	18,850.51	1.263E-01	Pulse	0.50	3
Co			1	0.027	ug/l	43.62	141.33	9.472E-04	Pulse	0.50	3
Ni			1	0.307	ug/l	6.73	360.67	2.417E-03	Pulse	0.50	3
Cu			1	0.701	ug/l	18.02	5,526.21	3.703E-02	Pulse	0.50	3
Zn			1	2.921	ug/l	6.47	1,616.08	7.286E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	108.91	10.00	4.502E-05	Pulse	0.50	3
Al			1	7.711	ug/l	6.89	864.02	3.374E-03	Pulse	1.00	3
Se			1	-0.028	ug/l	-285.39	16.67	7.511E-05	Pulse	3.00	3
Sb			1	0.028	ug/l	19.58	83.67	3.772E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,769,035.42	2.04	103.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		256,187.45	1.61	98.5	Pulse	0.30	3
1	Ge		149,255.63	0.84	98.3	Pulse	0.30	3
1	In		1,549,697.93	4.94	96.7	Mix	0.30	3
1	Tb		4,822,347.17	1.28	101.3	Analog	0.50	3
1	Lu		3,940,403.67	0.89	102.0	Analog	0.50	3
1	Ge		221,838.06	0.81	97.1	Pulse	0.30	3
1	Li		3,658.15	4.10	103.3	Pulse	0.30	3

Quantitation Report

File Name	022_BSP.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:41
Sample Name	MP43092-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	525.054	ug/l	3.80	844,488.63	5.782E+00	Pulse	0.50	3
As			1	529.341	ug/l	3.40	100,997.85	6.915E-01	Pulse	1.00	3
Mo			1	571.884	ug/l	2.59	476,916.78	2.197E+00	Pulse	0.50	3
Pb			1	521.015	ug/l	4.40	2,742,598.17	7.685E-01	Analog	1.00	3
Be			1	541.847	ug/l	4.77	11,142.79	4.402E-02	Pulse	2.00	3
Ag			1	244.599	ug/l	6.19	714,708.31	4.749E-01	Pulse	0.50	3
Ba			1	508.183	ug/l	6.16	219,759.55	1.460E-01	Pulse	0.50	3
Tl			1	501.556	ug/l	4.36	3,823,008.00	1.071E+00	Analog	0.50	3
Sn			1	526.233	ug/l	6.65	523,016.61	3.476E-01	Pulse	0.30	3
Sr			1	527.198	ug/l	6.60	588,650.17	3.912E-01	Pulse	0.50	3
Ca			1	50932.670	ug/l	4.21	334,012.63	1.319E+00	Pulse	0.50	3
Ti			1	523.848	ug/l	4.92	21,921.86	8.661E-02	Pulse	0.50	3
Na			1	52437.545	ug/l	2.41	17,230,779.33	6.804E+01	Analog	1.00	3
Mg			1	52104.202	ug/l	4.80	8,592,120.00	3.394E+01	Analog	1.00	3
K			1	51223.347	ug/l	4.32	6,608,428.00	2.610E+01	Analog	1.00	3
V			1	513.421	ug/l	4.73	670,336.48	2.648E+00	Pulse	0.50	3
Mn			1	523.202	ug/l	3.41	500,968.22	3.430E+00	Pulse	0.50	3
Fe			1	52475.175	ug/l	3.61	70,234,328.00	4.809E+02	Analog	0.50	3
Co			1	531.103	ug/l	3.33	1,289,592.34	8.830E+00	Pulse	0.50	3
Ni			1	524.950	ug/l	3.35	333,373.61	2.283E+00	Pulse	0.50	3
Cu			1	533.224	ug/l	3.24	897,226.94	6.143E+00	Pulse	0.50	3
Zn			1	512.882	ug/l	2.72	160,789.23	7.407E-01	Pulse	1.00	3
Cd			1	526.243	ug/l	2.57	247,292.18	1.139E+00	Pulse	0.50	3
Al			1	50715.807	ug/l	4.74	3,507,368.25	1.386E+01	Analog	1.00	3
Se			1	485.020	ug/l	1.82	8,585.62	3.955E-02	Pulse	3.00	3
Sb			1	530.870	ug/l	2.68	697,766.36	3.214E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,571,891.50	2.92	98.4	Analog	0.50	3
1	Sc		253,374.75	3.05	97.4	Pulse	0.30	3
1	Ge		146,121.17	2.05	96.2	Pulse	0.30	3
1	In		1,508,358.86	5.33	94.1	Mix	0.30	3
1	Tb		4,769,938.50	2.97	100.2	Analog	0.50	3
1	Lu		3,906,218.75	1.97	101.1	Analog	0.50	3
1	Ge		217,123.04	1.40	95.1	Pulse	0.30	3
1	Li		3,503.68	0.33	98.9	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:44
Sample Name	FC10941-1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	782.508	ug/l	2.11	642,089.48	4.309E+00	Pulse	0.50	3
As			1	422.089	ug/l	2.05	41,111.89	2.759E-01	Pulse	1.00	3
Mo			1	26.149	ug/l	4.44	10,579.23	5.041E-02	Pulse	0.50	3
Pb			1	342.592	ug/l	3.07	861,591.67	2.528E-01	Pulse	1.00	3
Be			1	13.472	ug/l	2.90	175.33	5.523E-04	Pulse	2.00	3
Ag			1	1.182	ug/l	0.98	1,704.09	1.189E-03	Pulse	0.50	3
Ba			1	1365.862	ug/l	2.35	281,243.92	1.962E-01	Pulse	0.50	3
Tl			1	6.655	ug/l	2.17	24,275.64	7.123E-03	Pulse	0.50	3
Sn			1	58.079	ug/l	1.35	27,675.63	1.931E-02	Pulse	0.30	3
Sr			1	310.373	ug/l	1.82	165,205.31	1.153E-01	Pulse	0.50	3
Ca			1	86734.445	ug/l	1.94	356,475.68	1.123E+00	Pulse	0.50	3
Ti			1	10067.589	ug/l	1.98	264,019.84	8.321E-01	Pulse	0.50	3
Na			1	2112.891	ug/l	0.85	451,086.82	1.421E+00	Pulse	1.00	3
Mg			1	68330.486	ug/l	2.22	7,062,422.83	2.226E+01	Analog	1.00	3
K			1	40757.722	ug/l	1.24	3,328,279.92	1.049E+01	Analog	1.00	3
V			1	1832.221	ug/l	0.98	1,495,762.12	4.714E+00	Analog	0.50	3
Mn			1	7907.338	ug/l	1.38	3,860,768.92	2.591E+01	Analog	0.50	3
Fe			1	1028212.075	ug/l	1.81	701,933,781.33	4.711E+03	Analog	0.50	3
Co			1	265.458	ug/l	1.88	328,838.51	2.207E+00	Pulse	0.50	3
Ni			1	1109.618	ug/l	1.51	359,436.73	2.412E+00	Pulse	0.50	3
Cu			1	5320.303	ug/l	2.01	4,549,009.17	3.053E+01	Analog	0.50	3
Zn			1	1168.670	ug/l	2.31	177,068.43	8.435E-01	Pulse	1.00	3
Cd			1	2.242	ug/l	11.65	514.68	2.448E-03	Pulse	0.50	3
Al			1	489021.703	ug/l	2.12	21,194,918.00	6.680E+01	Analog	1.00	3
Se			1	30.672	ug/l	9.03	278.12	1.325E-03	Pulse	3.00	3
Sb			1	4.304	ug/l	2.35	2,779.56	1.324E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,409,221.25	2.09	93.9	Analog	0.50	3
1	Sc		317,368.66	1.74	122.0	Pulse	0.30	3
1	Ge		149,020.33	1.25	98.1	Pulse	0.30	3
1	In		1,433,665.74	1.48	89.4	Pulse	0.30	3
1	Tb		4,617,198.17	0.67	96.9	Analog	0.50	3
1	Lu		3,803,453.17	2.04	98.5	Analog	0.50	3
1	Ge		209,981.16	1.85	92.0	Pulse	0.30	3
1	Li		3,868.20	1.83	109.2	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:47
Sample Name MP43092-D1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	725.502	ug/l	2.57	588,851.21	3.996E+00	Pulse	0.50	3
As			1	398.174	ug/l	2.14	38,364.46	2.603E-01	Pulse	1.00	3
Mo			1	25.286	ug/l	1.19	10,054.92	4.875E-02	Pulse	0.50	3
Pb			1	331.064	ug/l	3.15	828,686.38	2.443E-01	Pulse	1.00	3
Be			1	13.780	ug/l	11.50	172.83	5.648E-04	Pulse	2.00	3
Ag			1	1.044	ug/l	3.56	1,487.41	1.055E-03	Pulse	0.50	3
Ba			1	1269.607	ug/l	1.92	257,089.48	1.824E-01	Pulse	0.50	3
Tl			1	7.198	ug/l	4.23	26,121.86	7.703E-03	Pulse	0.50	3
Sn			1	57.338	ug/l	3.02	26,866.58	1.906E-02	Pulse	0.30	3
Sr			1	269.459	ug/l	1.87	141,066.41	1.001E-01	Pulse	0.50	3
Ca			1	62627.913	ug/l	2.28	248,452.06	8.113E-01	Pulse	0.50	3
Ti			1	10277.233	ug/l	2.52	260,114.60	8.494E-01	Pulse	0.50	3
Na			1	2104.959	ug/l	1.81	433,753.24	1.416E+00	Pulse	1.00	3
Mg			1	56824.244	ug/l	1.51	5,669,298.67	1.851E+01	Analog	1.00	3
K			1	39584.071	ug/l	0.98	3,121,491.33	1.019E+01	Analog	1.00	3
V			1	1806.049	ug/l	2.06	1,422,937.29	4.646E+00	Analog	0.50	3
Mn			1	7786.357	ug/l	2.17	3,760,214.17	2.551E+01	Analog	0.50	3
Fe			1	970031.137	ug/l	2.04	655,045,290.67	4.444E+03	Analog	0.50	3
Co			1	255.303	ug/l	2.06	312,829.12	2.123E+00	Pulse	0.50	3
Ni			1	859.610	ug/l	2.31	275,452.29	1.869E+00	Pulse	0.50	3
Cu			1	2611.451	ug/l	3.20	2,210,522.58	1.500E+01	Analog	0.50	3
Zn			1	1316.081	ug/l	1.85	195,827.05	9.495E-01	Pulse	1.00	3
Cd			1	2.275	ug/l	12.41	512.01	2.483E-03	Pulse	0.50	3
Al			1	535448.655	ug/l	2.97	22,396,222.67	7.314E+01	Analog	1.00	3
Se			1	29.260	ug/l	7.48	261.67	1.268E-03	Pulse	3.00	3
Sb			1	3.799	ug/l	2.02	2,414.51	1.171E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,393,238.33	2.30	93.5	Analog	0.50	3
1	Sc		306,307.75	1.55	117.8	Pulse	0.30	3
1	Ge		147,416.36	1.72	97.1	Pulse	0.30	3
1	In		1,409,795.78	1.34	87.9	Pulse	0.30	3
1	Tb		4,619,570.67	1.30	97.0	Analog	0.50	3
1	Lu		3,754,162.83	1.05	97.2	Analog	0.50	3
1	Ge		206,267.98	1.08	90.3	Pulse	0.30	3
1	Li		3,712.60	4.77	104.8	Pulse	0.30	3

Quantitation Report

File Name	025SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:51
Sample Name	MP43092-SD1
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	800.344	ug/l	1.19	132,670.21	8.833E-01	Pulse	0.50	3
As			1	436.061	ug/l	1.60	8,605.76	5.730E-02	Pulse	1.00	3
Mo			1	25.007	ug/l	1.50	2,162.14	9.790E-03	Pulse	0.50	3
Pb			1	336.957	ug/l	2.93	181,233.13	4.994E-02	Pulse	1.00	3
Be			1	19.808	ug/l	19.33	44.00	1.660E-04	Pulse	2.00	3
Ag			1	1.058	ug/l	6.86	385.34	2.469E-04	Pulse	0.50	3
Ba			1	1323.583	ug/l	3.37	59,388.88	3.805E-02	Pulse	0.50	3
Tl			1	6.287	ug/l	1.28	4,932.11	1.359E-03	Pulse	0.50	3
Sn			1	53.131	ug/l	5.83	5,684.32	3.642E-03	Pulse	0.30	3
Sr			1	296.344	ug/l	3.10	34,543.77	2.213E-02	Pulse	0.50	3
Ca			1	107631.809	ug/l	1.19	73,970.80	2.791E-01	Pulse	0.50	3
Ti			1	12333.720	ug/l	0.80	54,039.11	2.039E-01	Pulse	0.50	3
Na			1	2530.544	ug/l	0.76	100,676.18	3.798E-01	Pulse	1.00	3
Mg			1	85970.056	ug/l	2.27	1,485,241.75	5.604E+00	Analog	1.00	3
K			1	48310.139	ug/l	0.57	693,763.92	2.618E+00	Pulse	1.00	3
V			1	2197.170	ug/l	1.27	302,617.19	1.142E+00	Pulse	0.50	3
Mn			1	8098.169	ug/l	0.54	797,255.00	5.308E+00	Pulse	0.50	3
Fe			1	1082910.555	ug/l	1.32	149,044,218.67	9.924E+02	Analog	0.50	3
Co			1	275.744	ug/l	1.10	68,923.64	4.589E-01	Pulse	0.50	3
Ni			1	1176.886	ug/l	0.79	76,984.10	5.126E-01	Pulse	0.50	3
Cu			1	5687.101	ug/l	0.51	983,749.94	6.550E+00	Pulse	0.50	3
Zn			1	1209.482	ug/l	1.19	39,098.40	1.770E-01	Pulse	1.00	3
Cd			1	2.472	ug/l	15.43	122.67	5.555E-04	Pulse	0.50	3
Al			1	607785.969	ug/l	1.77	4,401,039.17	1.660E+01	Analog	1.00	3
Se			1	28.700	ug/l	6.94	68.66	3.109E-04	Pulse	3.00	3
Sb			1	3.838	ug/l	7.03	558.68	2.529E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,630,183.33	1.85	100.0	Analog	0.50	3
1	Sc		265,042.80	0.05	101.9	Pulse	0.30	3
1	Ge		150,191.06	0.53	98.9	Pulse	0.30	3
1	In		1,561,932.16	2.71	97.4	Mix	0.30	3
1	Tb		4,750,110.50	0.29	99.7	Analog	0.50	3
1	Lu		3,923,242.58	0.73	101.6	Analog	0.50	3
1	Ge		220,843.46	0.26	96.7	Pulse	0.30	3
1	Li		3,614.81	1.31	102.0	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:54
Sample Name	MP43092-S1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1535.715	ug/l	2.19	1,243,868.25	8.455E+00	Pulse	0.50	3
As			1	904.259	ug/l	1.78	86,899.76	5.907E-01	Pulse	1.00	3
Mo			1	524.881	ug/l	1.46	208,495.86	1.008E+00	Pulse	0.50	3
Pb			1	831.003	ug/l	3.47	2,090,171.96	6.129E-01	Analog	1.00	3
Be			1	427.889	ug/l	0.57	5,472.13	1.738E-02	Pulse	2.00	3
Ag			1	241.561	ug/l	1.94	331,844.20	2.345E-01	Pulse	0.50	3
Ba			1	2072.359	ug/l	2.42	421,243.91	2.977E-01	Pulse	0.50	3
Tl			1	526.219	ug/l	3.40	1,916,128.71	5.619E-01	Analog	0.50	3
Sn			1	573.179	ug/l	2.43	267,922.29	1.893E-01	Pulse	0.30	3
Sr			1	819.464	ug/l	2.32	430,233.02	3.041E-01	Pulse	0.50	3
Ca			1	107424.255	ug/l	1.99	437,952.35	1.391E+00	Pulse	0.50	3
Ti			1	12521.054	ug/l	2.59	325,723.49	1.035E+00	Pulse	0.50	3
Na			1	43451.849	ug/l	2.17	8,883,394.00	2.822E+01	Analog	1.00	3
Mg			1	127137.569	ug/l	2.56	13,034,394.33	4.141E+01	Analog	1.00	3
K			1	115745.592	ug/l	0.77	9,277,094.00	2.947E+01	Analog	1.00	3
V			1	2518.540	ug/l	1.56	2,037,742.04	6.474E+00	Analog	0.50	3
Mn			1	7924.348	ug/l	3.08	3,819,752.67	2.597E+01	Analog	0.50	3
Fe			1	1005409.378	ug/l	1.79	677,685,248.00	4.607E+03	Analog	0.50	3
Co			1	763.500	ug/l	1.26	933,691.96	6.347E+00	Pulse	0.50	3
Ni			1	1479.828	ug/l	1.74	473,229.79	3.217E+00	Pulse	0.50	3
Cu			1	2641.135	ug/l	1.96	2,231,970.08	1.517E+01	Analog	0.50	3
Zn			1	2088.017	ug/l	2.26	311,089.54	1.505E+00	Pulse	1.00	3
Cd			1	523.749	ug/l	2.94	117,206.97	5.669E-01	Pulse	0.50	3
Al			1	586564.766	ug/l	2.88	25,217,592.00	8.012E+01	Analog	1.00	3
Se			1	496.100	ug/l	1.96	4,189.94	2.026E-02	Pulse	3.00	3
Sb			1	211.602	ug/l	2.32	132,490.26	6.408E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,410,232.83	0.98	94.0	Analog	0.50	3
1	Sc		314,812.64	1.15	121.0	Pulse	0.30	3
1	Ge		147,120.25	0.42	96.9	Pulse	0.30	3
1	In		1,415,312.86	1.44	88.3	Pulse	0.30	3
1	Tb		4,600,322.83	1.22	96.6	Analog	0.50	3
1	Lu		3,756,355.42	1.88	97.3	Analog	0.50	3
1	Ge		206,798.22	1.34	90.6	Pulse	0.30	3
1	Li		4,123.81	0.69	116.4	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:57
Sample Name	MP43092-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1077.971	ug/l	2.64	892,961.46	5.936E+00	Pulse	0.50	3
As			1	821.346	ug/l	2.15	80,723.97	5.366E-01	Pulse	1.00	3
Mo			1	487.683	ug/l	2.92	198,639.34	9.369E-01	Pulse	0.50	3
Pb			1	861.132	ug/l	2.21	2,155,511.58	6.351E-01	Analog	1.00	3
Be			1	431.392	ug/l	2.98	5,400.11	1.753E-02	Pulse	2.00	3
Ag			1	239.301	ug/l	1.99	333,776.39	2.323E-01	Pulse	0.50	3
Ba			1	1838.897	ug/l	2.58	379,524.54	2.642E-01	Pulse	0.50	3
Tl			1	520.157	ug/l	2.61	1,885,097.79	5.555E-01	Analog	0.50	3
Sn			1	552.881	ug/l	2.56	262,406.07	1.826E-01	Pulse	0.30	3
Sr			1	1064.513	ug/l	2.48	567,393.17	3.949E-01	Pulse	0.50	3
Ca			1	420030.280	ug/l	2.48	1,676,116.58	5.439E+00	Analog	0.50	3
Ti			1	9554.568	ug/l	2.97	243,328.73	7.897E-01	Pulse	0.50	3
Na			1	43279.275	ug/l	2.44	8,661,661.67	2.811E+01	Analog	1.00	3
Mg			1	139902.467	ug/l	2.86	14,041,795.67	4.557E+01	Analog	1.00	3
K			1	78045.811	ug/l	1.34	6,141,350.67	1.993E+01	Analog	1.00	3
V			1	2040.207	ug/l	3.58	1,616,660.91	5.247E+00	Analog	0.50	3
Mn			1	10341.930	ug/l	2.08	5,098,108.17	3.389E+01	Analog	0.50	3
Fe			1	986261.706	ug/l	2.13	679,821,077.33	4.519E+03	Analog	0.50	3
Co			1	811.572	ug/l	2.40	1,014,910.83	6.746E+00	Pulse	0.50	3
Ni			1	1241.226	ug/l	2.70	405,924.17	2.698E+00	Pulse	0.50	3
Cu			1	3386.117	ug/l	2.38	2,924,873.92	1.944E+01	Analog	0.50	3
Zn			1	1721.361	ug/l	2.24	263,111.87	1.241E+00	Pulse	1.00	3
Cd			1	517.860	ug/l	2.48	118,848.12	5.605E-01	Pulse	0.50	3
Al			1	545761.478	ug/l	3.32	22,969,851.33	7.455E+01	Analog	1.00	3
Se			1	492.159	ug/l	1.86	4,262.62	2.010E-02	Pulse	3.00	3
Sb			1	165.278	ug/l	2.42	106,131.61	5.006E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,394,271.42	1.20	93.5	Analog	0.50	3
1	Sc		308,220.64	1.43	118.5	Pulse	0.30	3
1	Ge		150,462.15	0.90	99.1	Pulse	0.30	3
1	In		1,436,877.58	0.79	89.6	Pulse	0.30	3
1	Tb		4,628,510.83	1.37	97.2	Analog	0.50	3
1	Lu		3,801,703.42	1.64	98.4	Analog	0.50	3
1	Ge		212,049.53	0.77	92.9	Pulse	0.30	3
1	Li		3,355.88	1.27	94.7	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:00
Sample Name	MP43092-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	773.639	ug/l	1.94	656,181.94	4.261E+00	Pulse	0.50	3
As			1	425.109	ug/l	1.55	42,799.49	2.779E-01	Pulse	1.00	3
Mo			1	36.042	ug/l	1.91	15,065.17	6.941E-02	Pulse	0.50	3
Pb			1	351.732	ug/l	3.69	895,457.60	2.596E-01	Pulse	1.00	3
Be			1	21.325	ug/l	2.72	279.00	8.712E-04	Pulse	2.00	3
Ag			1	4.178	ug/l	0.56	6,061.74	4.097E-03	Pulse	0.50	3
Ba			1	1358.320	ug/l	3.36	288,517.47	1.951E-01	Pulse	0.50	3
Tl			1	16.906	ug/l	2.96	62,344.18	1.807E-02	Pulse	0.50	3
Sn			1	66.638	ug/l	4.49	32,716.71	2.213E-02	Pulse	0.30	3
Sr			1	316.863	ug/l	3.35	173,966.53	1.177E-01	Pulse	0.50	3
Ca			1	88057.776	ug/l	2.49	365,248.29	1.141E+00	Pulse	0.50	3
Ti			1	10093.803	ug/l	2.99	267,131.79	8.343E-01	Pulse	0.50	3
Na			1	2939.126	ug/l	1.38	626,785.08	1.957E+00	Pulse	1.00	3
Mg			1	68792.311	ug/l	2.24	7,176,134.00	2.241E+01	Analog	1.00	3
K			1	41968.849	ug/l	1.80	3,457,118.58	1.080E+01	Analog	1.00	3
V			1	1857.549	ug/l	3.39	1,530,070.04	4.778E+00	Analog	0.50	3
Mn			1	7873.195	ug/l	1.55	3,973,284.00	2.580E+01	Analog	0.50	3
Fe			1	1014465.535	ug/l	1.58	715,863,978.67	4.648E+03	Analog	0.50	3
Co			1	271.724	ug/l	1.79	347,920.51	2.259E+00	Pulse	0.50	3
Ni			1	1105.119	ug/l	1.91	370,012.35	2.403E+00	Pulse	0.50	3
Cu			1	5281.069	ug/l	1.40	4,667,758.50	3.031E+01	Analog	0.50	3
Zn			1	1158.356	ug/l	1.28	181,474.09	8.361E-01	Pulse	1.00	3
Cd			1	13.130	ug/l	6.06	3,088.29	1.423E-02	Pulse	0.50	3
Al			1	494407.438	ug/l	2.59	21,625,361.33	6.753E+01	Analog	1.00	3
Se			1	42.555	ug/l	6.44	392.56	1.809E-03	Pulse	3.00	3
Sb			1	13.962	ug/l	0.81	9,220.15	4.248E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,451,863.75	2.47	95.1	Analog	0.50	3
1	Sc		320,310.28	1.66	123.1	Pulse	0.30	3
1	Ge		154,032.18	1.15	101.4	Pulse	0.30	3
1	In		1,479,589.35	3.11	92.3	Mix	0.30	3
1	Tb		4,734,799.33	1.48	99.4	Analog	0.50	3
1	Lu		3,878,927.75	1.13	100.4	Analog	0.50	3
1	Ge		217,065.58	0.88	95.1	Pulse	0.30	3
1	Li		3,849.31	3.45	108.7	Pulse	0.30	3

Quantitation Report

File Name	029SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:03
Sample Name	FC10941-2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	651.944	ug/l	2.04	526,899.31	3.591E+00	Pulse	0.50	3
As			1	92.954	ug/l	2.40	8,957.93	6.105E-02	Pulse	1.00	3
Mo			1	32.019	ug/l	3.58	12,791.37	6.168E-02	Pulse	0.50	3
Pb			1	312.808	ug/l	3.37	772,456.12	2.309E-01	Pulse	1.00	3
Be			1	9.636	ug/l	1.72	120.83	3.965E-04	Pulse	2.00	3
Ag			1	2.528	ug/l	4.12	3,517.04	2.495E-03	Pulse	0.50	3
Ba			1	947.770	ug/l	1.72	191,938.14	1.362E-01	Pulse	0.50	3
Tl			1	3.375	ug/l	3.48	12,112.59	3.620E-03	Pulse	0.50	3
Sn			1	50.196	ug/l	0.92	23,549.51	1.670E-02	Pulse	0.30	3
Sr			1	138.103	ug/l	1.39	72,407.93	5.136E-02	Pulse	0.50	3
Ca			1	29112.583	ug/l	2.42	114,922.02	3.773E-01	Pulse	0.50	3
Ti			1	5040.075	ug/l	2.84	126,871.97	4.166E-01	Pulse	0.50	3
Na			1	5850.619	ug/l	1.73	1,171,331.21	3.844E+00	Mix	1.00	3
Mg			1	21965.970	ug/l	2.99	2,179,943.83	7.158E+00	Analog	1.00	3
K			1	10535.220	ug/l	1.46	864,701.67	2.839E+00	Pulse	1.00	3
V			1	3458.783	ug/l	1.39	2,706,588.33	8.885E+00	Analog	0.50	3
Mn			1	4148.286	ug/l	0.75	1,995,196.25	1.359E+01	Analog	0.50	3
Fe			1	1043903.029	ug/l	1.24	701,895,189.33	4.783E+03	Analog	0.50	3
Co			1	148.990	ug/l	1.32	181,808.71	1.239E+00	Pulse	0.50	3
Ni			1	342.491	ug/l	2.56	109,359.05	7.453E-01	Pulse	0.50	3
Cu			1	1186.379	ug/l	1.79	1,002,330.12	6.831E+00	Pulse	0.50	3
Zn			1	927.984	ug/l	1.33	139,054.16	6.704E-01	Pulse	1.00	3
Cd			1	0.988	ug/l	5.56	226.00	1.090E-03	Pulse	0.50	3
Al			1	606933.617	ug/l	3.10	25,247,368.67	8.290E+01	Analog	1.00	3
Se			1	22.114	ug/l	8.74	202.67	9.772E-04	Pulse	3.00	3
Sb			1	3.919	ug/l	3.75	2,502.85	1.207E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,347,571.33	2.36	92.2	Analog	0.50	3
1	Sc		304,692.45	2.44	117.1	Pulse	0.30	3
1	Ge		146,774.02	1.87	96.6	Pulse	0.30	3
1	In		1,409,889.66	1.52	87.9	Pulse	0.30	3
1	Tb		4,556,823.33	1.22	95.7	Analog	0.50	3
1	Lu		3,764,566.92	1.56	97.5	Analog	0.50	3
1	Ge		207,439.41	1.35	90.8	Pulse	0.30	3
1	Li		3,224.74	1.29	91.0	Pulse	0.30	3

Quantitation Report

File Name	030CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:06
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.150	ug/l	0.64	424,756.04	2.763E+00	Pulse	0.50	3
As			1	50.609	ug/l	0.86	50,850.50	3.308E-01	Pulse	1.00	3
Mo			1	50.354	ug/l	0.77	220,639.20	9.673E-01	Pulse	0.50	3
Pb			1	50.630	ug/l	1.68	1,354,916.33	3.735E-01	Pulse	1.00	3
Be			1	52.376	ug/l	0.46	5,514.14	2.128E-02	Pulse	2.00	3
Ag			1	49.239	ug/l	1.67	777,234.79	4.780E-01	Pulse	0.50	3
Ba			1	48.124	ug/l	1.28	112,448.43	6.915E-02	Pulse	0.50	3
Tl			1	52.728	ug/l	0.20	2,042,785.21	5.631E-01	Analog	0.50	3
Sn			1	47.760	ug/l	1.30	256,600.35	1.578E-01	Pulse	0.30	3
Sr			1	47.891	ug/l	1.42	289,055.81	1.778E-01	Pulse	0.50	3
Ca			1	5070.944	ug/l	1.22	170,261.74	6.570E-01	Pulse	0.50	3
Ti			1	50.041	ug/l	2.08	10,722.51	4.137E-02	Pulse	0.50	3
Na			1	5127.887	ug/l	0.64	8,628,559.67	3.329E+01	Analog	1.00	3
Mg			1	5186.503	ug/l	1.86	4,378,714.17	1.690E+01	Analog	1.00	3
K			1	5229.203	ug/l	1.58	3,474,852.25	1.341E+01	Analog	1.00	3
V			1	50.375	ug/l	1.54	338,644.76	1.307E+00	Pulse	0.50	3
Mn			1	50.653	ug/l	0.14	255,387.26	1.661E+00	Pulse	0.50	3
Fe			1	5168.927	ug/l	0.60	36,417,134.67	2.369E+02	Analog	0.50	3
Co			1	51.064	ug/l	0.35	652,645.27	4.245E+00	Pulse	0.50	3
Ni			1	51.868	ug/l	0.89	173,452.97	1.128E+00	Pulse	0.50	3
Cu			1	51.928	ug/l	0.24	462,165.22	3.006E+00	Pulse	0.50	3
Zn			1	51.795	ug/l	1.55	85,658.03	3.756E-01	Pulse	1.00	3
Cd			1	51.708	ug/l	1.96	127,659.42	5.597E-01	Pulse	0.50	3
Al			1	5214.277	ug/l	1.24	1,846,142.54	7.124E+00	Analog	1.00	3
Se			1	51.305	ug/l	1.52	4,779.31	2.095E-02	Pulse	3.00	3
Sb			1	50.686	ug/l	1.52	350,034.55	1.535E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,627,804.75	1.15	100.0	Analog	0.50	3
1	Sc		259,164.63	0.22	99.6	Pulse	0.30	3
1	Ge		153,743.08	1.05	101.2	Pulse	0.30	3
1	In		1,626,479.80	2.28	101.4	Analog	0.30	3
1	Tb		4,846,940.33	0.60	101.8	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,992,982.92	0.37	103.4	Analog	0.50	3
1	Ge		228,087.40	0.13	99.9	Pulse	0.30	3
1	Li		3,485.90	4.66	98.4	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:10
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.736	ug/l	1.52	843,055.96	5.547E+00	Pulse	0.50	3
As			1	102.686	ug/l	1.01	101,943.40	6.707E-01	Pulse	1.00	3
Mo			1	102.317	ug/l	1.27	444,748.64	1.965E+00	Pulse	0.50	3
Pb			1	102.605	ug/l	2.77	2,726,764.42	7.567E-01	Analog	1.00	3
Be			1	104.507	ug/l	1.56	10,916.32	4.245E-02	Pulse	2.00	3
Ag			1	103.035	ug/l	3.14	1,547,563.42	1.000E+00	Analog	0.50	3
Ba			1	100.956	ug/l	2.07	224,442.37	1.450E-01	Pulse	0.50	3
Tl			1	102.424	ug/l	2.41	3,941,662.33	1.094E+00	Analog	0.50	3
Sn			1	100.592	ug/l	2.12	514,073.58	3.322E-01	Pulse	0.30	3
Sr			1	100.338	ug/l	2.03	576,069.17	3.723E-01	Pulse	0.50	3
Ca			1	10193.759	ug/l	1.30	339,548.22	1.320E+00	Pulse	0.50	3
Ti			1	102.811	ug/l	1.23	21,857.11	8.499E-02	Pulse	0.50	3
Na			1	10354.120	ug/l	0.65	17,276,462.67	6.717E+01	Analog	1.00	3
Mg			1	10423.420	ug/l	1.62	8,731,314.33	3.395E+01	Analog	1.00	3
K			1	10419.118	ug/l	0.99	6,826,856.83	2.655E+01	Analog	1.00	3
V			1	102.103	ug/l	1.79	677,175.25	2.633E+00	Pulse	0.50	3
Mn			1	101.649	ug/l	1.59	506,407.10	3.332E+00	Pulse	0.50	3
Fe			1	10315.345	ug/l	1.76	71,835,648.00	4.727E+02	Analog	0.50	3
Co			1	102.127	ug/l	1.40	1,290,228.17	8.489E+00	Pulse	0.50	3
Ni			1	102.498	ug/l	1.35	338,677.78	2.228E+00	Pulse	0.50	3
Cu			1	103.167	ug/l	1.17	903,346.33	5.944E+00	Pulse	0.50	3
Zn			1	102.937	ug/l	1.76	168,198.45	7.433E-01	Pulse	1.00	3
Cd			1	102.799	ug/l	1.92	251,777.62	1.113E+00	Pulse	0.50	3
Al			1	10190.592	ug/l	1.62	3,579,953.58	1.392E+01	Analog	1.00	3
Se			1	101.561	ug/l	1.81	9,368.91	4.140E-02	Pulse	3.00	3
Sb			1	102.117	ug/l	1.89	699,573.81	3.092E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,604,621.50	1.80	99.3	Analog	0.50	3
1	Sc		257,198.99	1.23	98.9	Pulse	0.30	3
1	Ge		151,994.98	0.81	100.1	Pulse	0.30	3
1	In		1,547,837.75	1.61	96.5	Mix	0.30	3
1	Tb		4,867,286.50	1.22	102.2	Analog	0.50	3
1	Lu		3,953,664.33	1.55	102.4	Analog	0.50	3
1	Ge		226,308.91	1.12	99.1	Pulse	0.30	3
1	Li		3,518.13	3.27	99.3	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.043	ug/l	39.06	708.02	4.618E-03	Pulse	0.50	3
As			1	0.033	ug/l	120.27	89.33	5.832E-04	Pulse	1.00	3
Mo			1	0.264	ug/l	31.32	1,206.05	5.248E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	31.12	2,557.21	6.828E-04	Pulse	1.00	3
Be			1	0.072	ug/l	7.07	9.00	3.440E-05	Pulse	2.00	3
Ag			1	0.042	ug/l	50.99	750.02	4.525E-04	Pulse	0.50	3
Ba			1	0.037	ug/l	36.10	122.67	7.412E-05	Pulse	0.50	3
Tl			1	0.037	ug/l	31.04	1,529.41	4.083E-04	Pulse	0.50	3
Sn			1	0.186	ug/l	7.90	1,233.39	7.472E-04	Pulse	0.30	3
Sr			1	0.038	ug/l	48.76	480.68	2.905E-04	Pulse	0.50	3
Ca			1	3.682	ug/l	62.40	216.00	8.254E-04	Pulse	0.50	3
Ti			1	0.068	ug/l	51.81	18.67	7.136E-05	Pulse	0.50	3
Na			1	3.196	ug/l	47.57	18,968.45	7.248E-02	Pulse	1.00	3
Mg			1	3.734	ug/l	43.44	4,177.51	1.596E-02	Pulse	1.00	3
K			1	5.276	ug/l	25.03	48,476.32	1.852E-01	Pulse	1.00	3
V			1	-0.280	ug/l	-2.68	2,004.12	7.658E-03	Pulse	0.50	3
Mn			1	0.046	ug/l	44.35	466.67	3.044E-03	Pulse	0.50	3
Fe			1	5.978	ug/l	25.08	48,927.49	3.191E-01	Pulse	0.50	3
Co			1	0.043	ug/l	32.58	622.01	4.058E-03	Pulse	0.50	3
Ni			1	0.030	ug/l	78.26	267.33	1.743E-03	Pulse	0.50	3
Cu			1	0.075	ug/l	43.19	5,104.08	3.329E-02	Pulse	0.50	3
Zn			1	0.092	ug/l	67.10	862.69	3.750E-03	Pulse	1.00	3
Cd			1	0.032	ug/l	28.54	85.33	3.709E-04	Pulse	0.50	3
Al			1	4.340	ug/l	32.68	1,883.44	7.196E-03	Pulse	1.00	3
Se			1	0.071	ug/l	65.69	24.44	1.062E-04	Pulse	3.00	3
Sb			1	0.079	ug/l	10.84	596.01	2.591E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,743,968.58	0.30	103.2	Analog	0.50	3
1	Sc		261,712.49	0.51	100.6	Pulse	0.30	3
1	Ge		153,356.34	0.53	101.0	Pulse	0.30	3
1	In		1,651,574.83	1.17	103.0	Analog	0.30	3
1	Tb		4,901,679.83	0.81	102.9	Analog	0.50	3
1	Lu		3,996,461.42	0.25	103.5	Analog	0.50	3
1	Ge		230,002.20	0.42	100.7	Pulse	0.30	3
1	Li		3,665.94	4.25	103.5	Pulse	0.30	3

Quantitation Report

File Name 033_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:16
Sample Name MP43089-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.224	ug/l	6.12	1,319.39	8.427E-03	Pulse	0.50	3
As			1	0.227	ug/l	18.78	173.00	1.106E-03	Pulse	1.00	3
Mo			1	0.215	ug/l	40.82	522.68	2.247E-03	Pulse	0.50	3
Pb			1	0.066	ug/l	2.76	1,926.79	5.029E-04	Pulse	1.00	3
Be			1	0.050	ug/l	52.99	4.17	1.519E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	13.36	188.67	1.114E-04	Pulse	0.50	3
Ba			1	0.012	ug/l	73.86	50.00	2.951E-05	Pulse	0.50	3
Tl			1	0.012	ug/l	12.51	299.34	7.801E-05	Pulse	0.50	3
Sn			1	0.481	ug/l	17.29	1,572.30	9.284E-04	Pulse	0.30	3
Sr			1	0.176	ug/l	13.98	803.35	4.744E-04	Pulse	0.50	3
Ca			1	156.476	ug/l	5.60	2,850.24	1.048E-02	Pulse	0.50	3
Ti			1	0.129	ug/l	86.17	18.67	6.874E-05	Pulse	0.50	3
Na			1	4.025	ug/l	14.52	17,634.01	6.480E-02	Pulse	1.00	3
Mg			1	0.924	ug/l	8.75	1,443.39	5.304E-03	Pulse	1.00	3
K			1	14.869	ug/l	28.05	51,892.59	1.907E-01	Pulse	1.00	3
V			1	1.145	ug/l	2.98	8,037.14	2.953E-02	Pulse	0.50	3
Mn			1	0.114	ug/l	10.58	531.34	3.395E-03	Pulse	0.50	3
Fe			1	6.942	ug/l	7.59	31,959.54	2.042E-01	Pulse	0.50	3
Co			1	0.008	ug/l	19.49	132.00	8.430E-04	Pulse	0.50	3
Ni			1	0.015	ug/l	22.53	194.67	1.244E-03	Pulse	0.50	3
Cu			1	0.772	ug/l	12.86	7,998.47	5.113E-02	Pulse	0.50	3
Zn			1	0.753	ug/l	7.48	1,353.72	5.794E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	328.55	6.00	2.568E-05	Pulse	0.50	3
Al			1	7.334	ug/l	58.89	1,699.79	6.277E-03	Pulse	1.00	3
Se			1	0.012	ug/l	290.48	18.67	7.992E-05	Pulse	3.00	3
Sb			1	0.048	ug/l	13.24	217.00	9.302E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,830,835.92	2.66	105.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		272,269.92	3.18	104.7	Pulse	0.30	3
1	Ge		156,542.13	1.68	103.1	Pulse	0.30	3
1	In		1,696,396.04	2.81	105.8	Analog	0.30	3
1	Tb		4,928,200.17	2.70	103.5	Analog	0.50	3
1	Lu		4,021,380.67	3.13	104.1	Analog	0.50	3
1	Ge		233,545.93	1.68	102.3	Pulse	0.30	3
1	Li		3,628.14	4.73	102.4	Pulse	0.30	3

Quantitation Report

File Name	034_BSP.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:20
Sample Name	MP43089-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	203.519	ug/l	4.37	856,569.58	5.603E+00	Pulse	0.50	3
As			1	204.629	ug/l	4.04	102,170.76	6.683E-01	Pulse	1.00	3
Mo			1	219.842	ug/l	3.89	481,933.19	2.111E+00	Pulse	0.50	3
Pb			1	201.880	ug/l	6.46	2,674,233.83	7.444E-01	Analog	1.00	3
Be			1	207.164	ug/l	5.76	11,184.65	4.207E-02	Pulse	2.00	3
Ag			1	100.577	ug/l	9.15	765,581.52	4.882E-01	Pulse	0.50	3
Ba			1	197.766	ug/l	9.32	222,766.05	1.421E-01	Pulse	0.50	3
Tl			1	194.567	ug/l	6.12	3,732,385.17	1.039E+00	Analog	0.50	3
Sn			1	194.193	ug/l	9.92	502,657.83	3.207E-01	Pulse	0.30	3
Sr			1	204.046	ug/l	9.02	593,661.96	3.785E-01	Pulse	0.50	3
Ca			1	19592.122	ug/l	5.27	337,360.80	1.269E+00	Pulse	0.50	3
Ti			1	207.893	ug/l	5.43	22,844.99	8.593E-02	Pulse	0.50	3
Na			1	19858.808	ug/l	3.94	17,136,037.33	6.442E+01	Analog	1.00	3
Mg			1	19910.486	ug/l	5.42	8,621,766.67	3.243E+01	Analog	1.00	3
K			1	19742.490	ug/l	3.95	6,692,189.67	2.516E+01	Analog	1.00	3
V			1	199.896	ug/l	5.59	685,379.12	2.578E+00	Pulse	0.50	3
Mn			1	204.925	ug/l	4.11	513,461.33	3.359E+00	Pulse	0.50	3
Fe			1	20236.726	ug/l	4.56	70,871,226.67	4.636E+02	Analog	0.50	3
Co			1	207.046	ug/l	4.67	1,315,364.42	8.605E+00	Pulse	0.50	3
Ni			1	204.151	ug/l	4.06	339,265.77	2.219E+00	Pulse	0.50	3
Cu			1	206.544	ug/l	4.63	909,448.00	5.950E+00	Pulse	0.50	3
Zn			1	193.818	ug/l	3.81	159,770.75	7.000E-01	Pulse	1.00	3
Cd			1	199.023	ug/l	4.00	245,842.57	1.077E+00	Pulse	0.50	3
Al			1	19225.210	ug/l	5.64	3,490,943.50	1.313E+01	Analog	1.00	3
Se			1	183.797	ug/l	3.70	8,553.50	3.747E-02	Pulse	3.00	3
Sb			1	201.454	ug/l	4.02	696,037.75	3.050E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,600,165.58	5.07	99.2	Analog	0.50	3
1	Sc		266,352.06	5.02	102.4	Pulse	0.30	3
1	Ge		153,028.02	3.63	100.7	Pulse	0.30	3
1	In		1,576,728.17	8.79	98.3	Mix	0.30	3
1	Tb		4,904,228.33	3.37	103.0	Analog	0.50	3
1	Lu		4,019,335.67	3.21	104.1	Analog	0.50	3
1	Ge		228,432.46	3.16	100.0	Pulse	0.30	3
1	Li		3,673.72	4.10	103.7	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:23
Sample Name	FC10954-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.657	ug/l	3.92	3,000.26	2.036E-02	Pulse	0.50	3
As			1	1738.825	ug/l	2.93	836,341.89	5.676E+00	Pulse	1.00	3
Mo			1	1.735	ug/l	5.19	3,644.39	1.685E-02	Pulse	0.50	3
Pb			1	0.198	ug/l	23.23	3,506.40	9.878E-04	Pulse	1.00	3
Be			1	0.132	ug/l	31.22	8.00	3.186E-05	Pulse	2.00	3
Ag			1	0.065	ug/l	28.12	533.35	3.589E-04	Pulse	0.50	3
Ba			1	53.483	ug/l	5.76	56,732.54	3.843E-02	Pulse	0.50	3
Tl			1	0.162	ug/l	13.65	3,130.32	8.827E-04	Pulse	0.50	3
Sn			1	0.578	ug/l	5.68	1,607.86	1.088E-03	Pulse	0.30	3
Sr			1	427.463	ug/l	6.51	1,169,948.96	7.928E-01	Pulse	0.50	3
Ca			1	52291.555	ug/l	4.17	847,445.73	3.386E+00	Pulse	0.50	3
Ti			1	0.509	ug/l	22.99	56.67	2.255E-04	Pulse	0.50	3
Na			1	17132.171	ug/l	3.11	13,913,781.67	5.558E+01	Analog	1.00	3
Mg			1	7938.363	ug/l	2.37	3,237,432.67	1.293E+01	Analog	1.00	3
K			1	8907.407	ug/l	3.24	2,864,991.92	1.145E+01	Analog	1.00	3
V			1	0.827	ug/l	15.89	6,373.14	2.545E-02	Pulse	0.50	3
Mn			1	2291.702	ug/l	3.74	5,531,491.50	3.755E+01	Analog	0.50	3
Fe			1	75769.478	ug/l	2.41	255,769,381.33	1.736E+03	Analog	0.50	3
Co			1	20.220	ug/l	3.33	123,888.04	8.409E-01	Pulse	0.50	3
Ni			1	8.498	ug/l	3.13	13,763.28	9.341E-02	Pulse	0.50	3
Cu			1	0.931	ug/l	11.34	8,201.89	5.567E-02	Pulse	0.50	3
Zn			1	2.877	ug/l	2.47	2,907.57	1.343E-02	Pulse	1.00	3
Cd			1	0.119	ug/l	49.82	145.33	6.669E-04	Pulse	0.50	3
Al			1	18.080	ug/l	25.45	3,420.33	1.362E-02	Pulse	1.00	3
Se			1	0.181	ug/l	76.39	24.78	1.141E-04	Pulse	3.00	3
Sb			1	0.244	ug/l	12.84	845.02	3.898E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,536,341.67	3.50	97.4	Analog	0.50	3
1	Sc		250,460.89	2.61	96.3	Pulse	0.30	3
1	Ge		147,389.32	1.74	97.0	Pulse	0.30	3
1	In		1,479,025.18	5.10	92.3	Mix	0.30	3
1	Tb		4,682,887.83	3.59	98.3	Analog	0.50	3
1	Lu		3,880,076.75	2.84	100.5	Analog	0.50	3
1	Ge		216,474.32	2.33	94.8	Pulse	0.30	3
1	Li		3,376.99	4.82	95.3	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:26
Sample Name MP43089-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.519	ug/l	5.35	2,455.51	1.655E-02	Pulse	0.50	3
As			1	1779.931	ug/l	2.78	862,172.56	5.810E+00	Pulse	1.00	3
Mo			1	1.496	ug/l	1.27	3,176.97	1.455E-02	Pulse	0.50	3
Pb			1	0.054	ug/l	5.95	1,629.75	4.576E-04	Pulse	1.00	3
Be			1	0.040	ug/l	87.98	3.33	1.317E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	64.96	111.33	7.463E-05	Pulse	0.50	3
Ba			1	53.627	ug/l	8.31	58,005.50	3.854E-02	Pulse	0.50	3
Tl			1	0.016	ug/l	21.97	366.00	1.028E-04	Pulse	0.50	3
Sn			1	0.365	ug/l	14.64	1,107.82	7.370E-04	Pulse	0.30	3
Sr			1	432.249	ug/l	7.93	1,206,844.04	8.017E-01	Pulse	0.50	3
Ca			1	53182.710	ug/l	4.26	871,991.42	3.444E+00	Pulse	0.50	3
Ti			1	0.422	ug/l	16.04	48.00	1.899E-04	Pulse	0.50	3
Na			1	17493.899	ug/l	4.56	14,370,958.33	5.675E+01	Analog	1.00	3
Mg			1	7996.696	ug/l	3.68	3,298,938.83	1.303E+01	Analog	1.00	3
K			1	9011.685	ug/l	4.16	2,931,685.50	1.158E+01	Analog	1.00	3
V			1	0.740	ug/l	14.10	6,161.07	2.433E-02	Pulse	0.50	3
Mn			1	2353.918	ug/l	2.98	5,722,285.50	3.856E+01	Analog	0.50	3
Fe			1	77270.656	ug/l	3.32	262,658,181.33	1.770E+03	Analog	0.50	3
Co			1	20.472	ug/l	2.84	126,321.46	8.513E-01	Pulse	0.50	3
Ni			1	8.632	ug/l	2.57	14,077.53	9.487E-02	Pulse	0.50	3
Cu			1	1.162	ug/l	5.58	9,243.73	6.230E-02	Pulse	0.50	3
Zn			1	2.606	ug/l	6.00	2,718.21	1.246E-02	Pulse	1.00	3
Cd			1	0.014	ug/l	34.65	20.67	9.446E-05	Pulse	0.50	3
Al			1	11.290	ug/l	4.78	2,275.48	8.978E-03	Pulse	1.00	3
Se			1	0.041	ug/l	111.45	18.67	8.564E-05	Pulse	3.00	3
Sb			1	0.089	ug/l	16.84	339.67	1.559E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,560,601.17	1.75	98.1	Analog	0.50	3
1	Sc		253,432.06	2.94	97.4	Pulse	0.30	3
1	Ge		148,420.10	1.30	97.7	Pulse	0.30	3
1	In		1,510,984.21	6.95	94.2	Mix	0.30	3
1	Tb		4,796,251.50	2.21	100.7	Analog	0.50	3
1	Lu		3,891,397.92	2.47	100.8	Analog	0.50	3
1	Ge		218,411.18	2.95	95.6	Pulse	0.30	3
1	Li		3,495.90	1.18	98.7	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:29
Sample Name MP43089-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.410	ug/l	12.35	702.02	4.532E-03	Pulse	0.50	3
As			1	1807.155	ug/l	1.42	182,829.25	1.180E+00	Pulse	1.00	3
Mo			1	1.492	ug/l	8.13	704.02	3.049E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	69.22	1,053.04	2.802E-04	Pulse	1.00	3
Be			1	0.124	ug/l	21.97	2.67	1.018E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	23.05	104.67	6.415E-05	Pulse	0.50	3
Ba			1	51.037	ug/l	1.65	11,996.93	7.352E-03	Pulse	0.50	3
Tl			1	0.024	ug/l	5.37	157.33	4.186E-05	Pulse	0.50	3
Sn			1	0.305	ug/l	19.91	383.34	2.350E-04	Pulse	0.30	3
Sr			1	410.534	ug/l	2.25	248,660.03	1.524E-01	Pulse	0.50	3
Ca			1	53102.879	ug/l	1.38	180,191.75	6.880E-01	Pulse	0.50	3
Ti			1	0.800	ug/l	13.78	21.33	8.147E-05	Pulse	0.50	3
Na			1	17552.915	ug/l	0.90	2,993,858.83	1.143E+01	Analog	1.00	3
Mg			1	7910.665	ug/l	0.63	675,816.54	2.580E+00	Pulse	1.00	3
K			1	8750.035	ug/l	0.21	625,123.96	2.387E+00	Pulse	1.00	3
V			1	-2.520	ug/l	-5.59	2,195.47	8.382E-03	Pulse	0.50	3
Mn			1	2285.212	ug/l	1.76	1,160,186.83	7.489E+00	Pulse	0.50	3
Fe			1	77080.479	ug/l	0.85	54,719,989.33	3.532E+02	Analog	0.50	3
Co			1	20.334	ug/l	0.50	26,263.12	1.695E-01	Pulse	0.50	3
Ni			1	8.667	ug/l	0.87	3,085.61	1.992E-02	Pulse	0.50	3
Cu			1	0.978	ug/l	14.16	5,360.81	3.460E-02	Pulse	0.50	3
Zn			1	3.349	ug/l	9.12	1,268.38	5.494E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-84.50	3.33	1.445E-05	Pulse	0.50	3
Al			1	7.780	ug/l	6.98	610.34	2.330E-03	Pulse	1.00	3
Se			1	0.038	ug/l	622.54	18.22	7.894E-05	Pulse	3.00	3
Sb			1	0.120	ug/l	16.10	131.67	5.703E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,759,047.42	0.97	103.6	Analog	0.50	3
1	Sc		261,920.13	0.44	100.7	Pulse	0.30	3
1	Ge		154,928.63	0.54	102.0	Pulse	0.30	3
1	In		1,631,948.30	1.18	101.8	Analog	0.30	3
1	Tb		4,988,875.67	1.30	104.8	Analog	0.50	3
1	Lu		4,009,658.92	1.44	103.8	Analog	0.50	3
1	Ge		230,866.07	0.45	101.1	Pulse	0.30	3
1	Li		3,717.06	5.12	104.9	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:32
Sample Name	MP43089-S1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	204.398	ug/l	4.25	854,373.79	5.628E+00	Pulse	0.50	3
As			1	1914.376	ug/l	3.44	948,907.81	6.249E+00	Pulse	1.00	3
Mo			1	228.435	ug/l	3.69	484,917.03	2.194E+00	Pulse	0.50	3
Pb			1	210.640	ug/l	2.76	2,723,335.92	7.767E-01	Analog	1.00	3
Be			1	210.233	ug/l	4.49	11,028.88	4.270E-02	Pulse	2.00	3
Ag			1	103.500	ug/l	6.92	754,048.06	5.023E-01	Pulse	0.50	3
Ba			1	255.645	ug/l	7.50	275,562.34	1.836E-01	Pulse	0.50	3
Tl			1	200.479	ug/l	3.25	3,752,793.50	1.070E+00	Analog	0.50	3
Sn			1	203.504	ug/l	7.70	504,218.80	3.360E-01	Pulse	0.30	3
Sr			1	661.717	ug/l	7.60	1,841,534.21	1.227E+00	Analog	0.50	3
Ca			1	70821.266	ug/l	4.77	1,184,397.71	4.586E+00	Pulse	0.50	3
Ti			1	209.481	ug/l	4.86	22,364.41	8.658E-02	Pulse	0.50	3
Na			1	36922.392	ug/l	4.55	30,929,277.33	1.197E+02	Analog	1.00	3
Mg			1	27610.307	ug/l	5.67	11,611,200.33	4.497E+01	Analog	1.00	3
K			1	28498.795	ug/l	3.56	9,363,868.33	3.624E+01	Analog	1.00	3
V			1	204.670	ug/l	4.75	681,679.54	2.639E+00	Pulse	0.50	3
Mn			1	2431.721	ug/l	3.74	6,048,897.50	3.984E+01	Analog	0.50	3
Fe			1	94147.180	ug/l	3.96	327,461,045.33	2.157E+03	Analog	0.50	3
Co			1	228.771	ug/l	3.66	1,444,007.79	9.508E+00	Analog	0.50	3
Ni			1	208.568	ug/l	3.40	344,260.16	2.267E+00	Pulse	0.50	3
Cu			1	204.014	ug/l	4.33	892,235.52	5.877E+00	Pulse	0.50	3
Zn			1	198.009	ug/l	3.34	158,047.72	7.150E-01	Pulse	1.00	3
Cd			1	202.709	ug/l	3.26	242,490.06	1.097E+00	Pulse	0.50	3
Al			1	19628.181	ug/l	4.58	3,462,917.92	1.341E+01	Analog	1.00	3
Se			1	185.814	ug/l	2.88	8,374.30	3.788E-02	Pulse	3.00	3
Sb			1	206.573	ug/l	3.45	691,174.42	3.127E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,507,841.58	2.62	96.7	Analog	0.50	3
1	Sc		258,640.28	4.30	99.4	Pulse	0.30	3
1	Ge		151,952.97	3.15	100.0	Pulse	0.30	3
1	In		1,505,604.87	6.58	93.9	Mix	0.30	3
1	Tb		4,853,788.17	2.78	101.9	Analog	0.50	3
1	Lu		3,933,478.08	3.28	101.9	Analog	0.50	3
1	Ge		221,158.34	2.57	96.8	Pulse	0.30	3
1	Li		3,453.67	6.95	97.5	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:35
Sample Name	MP43089-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	205.984	ug/l	2.48	841,904.13	5.671E+00	Pulse	0.50	3
As			1	1915.722	ug/l	2.03	928,407.52	6.254E+00	Pulse	1.00	3
Mo			1	231.510	ug/l	1.88	480,633.99	2.224E+00	Pulse	0.50	3
Pb			1	212.293	ug/l	3.78	2,675,282.92	7.828E-01	Analog	1.00	3
Be			1	214.223	ug/l	2.15	10,839.94	4.351E-02	Pulse	2.00	3
Ag			1	105.291	ug/l	5.34	751,130.14	5.110E-01	Pulse	0.50	3
Ba			1	258.658	ug/l	6.06	273,011.29	1.858E-01	Pulse	0.50	3
Tl			1	208.152	ug/l	2.64	3,798,815.17	1.111E+00	Analog	0.50	3
Sn			1	207.307	ug/l	5.77	503,049.08	3.423E-01	Pulse	0.30	3
Sr			1	668.065	ug/l	5.65	1,820,857.46	1.239E+00	Analog	0.50	3
Ca			1	72268.470	ug/l	2.50	1,165,834.67	4.679E+00	Pulse	0.50	3
Ti			1	213.601	ug/l	2.45	21,995.94	8.828E-02	Pulse	0.50	3
Na			1	37609.163	ug/l	3.13	30,381,236.00	1.220E+02	Analog	1.00	3
Mg			1	28414.673	ug/l	3.90	11,526,848.00	4.628E+01	Analog	1.00	3
K			1	29249.915	ug/l	3.44	9,264,506.33	3.719E+01	Analog	1.00	3
V			1	208.502	ug/l	2.58	669,777.92	2.688E+00	Pulse	0.50	3
Mn			1	2444.302	ug/l	1.37	5,945,607.17	4.004E+01	Analog	0.50	3
Fe			1	94344.490	ug/l	1.28	320,901,205.33	2.161E+03	Analog	0.50	3
Co			1	226.610	ug/l	2.17	1,398,210.63	9.418E+00	Pulse	0.50	3
Ni			1	210.509	ug/l	2.29	339,704.26	2.288E+00	Pulse	0.50	3
Cu			1	205.823	ug/l	2.59	880,148.52	5.929E+00	Pulse	0.50	3
Zn			1	199.418	ug/l	2.27	155,651.01	7.201E-01	Pulse	1.00	3
Cd			1	206.236	ug/l	2.72	241,237.73	1.116E+00	Pulse	0.50	3
Al			1	20299.866	ug/l	3.61	3,453,775.25	1.387E+01	Analog	1.00	3
Se			1	186.810	ug/l	2.47	8,231.68	3.808E-02	Pulse	3.00	3
Sb			1	209.518	ug/l	2.90	685,483.08	3.172E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,419,015.33	1.79	94.2	Analog	0.50	3
1	Sc		249,251.48	2.59	95.8	Pulse	0.30	3
1	Ge		148,497.30	1.94	97.8	Pulse	0.30	3
1	In		1,472,495.05	5.13	91.8	Mix	0.30	3
1	Tb		4,734,861.33	2.49	99.4	Analog	0.50	3
1	Lu		3,850,519.42	1.63	99.7	Analog	0.50	3
1	Ge		216,215.71	2.13	94.7	Pulse	0.30	3
1	Li		3,399.22	3.61	96.0	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:39
Sample Name	MP43089-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.638	ug/l	5.91	92,629.62	6.253E-01	Pulse	0.50	3
As			1	1768.731	ug/l	3.99	855,615.67	5.774E+00	Pulse	1.00	3
Mo			1	24.889	ug/l	3.31	51,772.21	2.392E-01	Pulse	0.50	3
Pb			1	22.384	ug/l	2.89	292,118.52	8.277E-02	Pulse	1.00	3
Be			1	23.531	ug/l	3.13	1,204.04	4.784E-03	Pulse	2.00	3
Ag			1	6.223	ug/l	6.62	45,177.30	3.024E-02	Pulse	0.50	3
Ba			1	74.891	ug/l	7.64	80,346.61	5.381E-02	Pulse	0.50	3
Tl			1	21.363	ug/l	3.12	402,600.51	1.141E-01	Pulse	0.50	3
Sn			1	21.784	ug/l	8.50	53,871.98	3.609E-02	Pulse	0.30	3
Sr			1	449.149	ug/l	7.74	1,243,783.21	8.330E-01	Pulse	0.50	3
Ca			1	54545.256	ug/l	3.78	888,878.39	3.532E+00	Pulse	0.50	3
Ti			1	23.590	ug/l	8.79	2,455.51	9.764E-03	Pulse	0.50	3
Na			1	19477.481	ug/l	4.50	15,900,026.33	6.318E+01	Analog	1.00	3
Mg			1	10057.633	ug/l	3.55	4,123,212.17	1.638E+01	Analog	1.00	3
K			1	11030.942	ug/l	3.41	3,557,146.17	1.413E+01	Analog	1.00	3
V			1	23.290	ug/l	3.23	78,905.72	3.135E-01	Pulse	0.50	3
Mn			1	2299.386	ug/l	4.34	5,582,077.67	3.767E+01	Analog	0.50	3
Fe			1	78163.095	ug/l	4.63	265,322,517.33	1.791E+03	Analog	0.50	3
Co			1	42.824	ug/l	3.98	263,813.70	1.780E+00	Pulse	0.50	3
Ni			1	30.893	ug/l	3.86	49,902.12	3.367E-01	Pulse	0.50	3
Cu			1	23.902	ug/l	4.47	105,823.82	7.142E-01	Pulse	0.50	3
Zn			1	26.153	ug/l	3.33	21,020.94	9.712E-02	Pulse	1.00	3
Cd			1	22.366	ug/l	4.50	26,198.51	1.211E-01	Pulse	0.50	3
Al			1	2140.729	ug/l	4.33	368,241.41	1.463E+00	Pulse	1.00	3
Se			1	20.519	ug/l	2.28	920.58	4.252E-03	Pulse	3.00	3
Sb			1	21.261	ug/l	4.00	69,690.95	3.220E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,530,206.83	1.51	97.3	Analog	0.50	3
1	Sc		251,848.32	2.71	96.8	Pulse	0.30	3
1	Ge		148,294.02	2.68	97.6	Pulse	0.30	3
1	In		1,498,172.86	6.52	93.4	Mix	0.30	3
1	Tb		4,797,007.83	2.30	100.7	Analog	0.50	3
1	Lu		3,894,201.75	3.14	100.8	Analog	0.50	3
1	Ge		216,539.34	2.21	94.8	Pulse	0.30	3
1	Li		3,439.23	2.79	97.1	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:42
Sample Name FC10954-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.371	ug/l	4.37	1,862.77	1.250E-02	Pulse	0.50	3
As			1	556.981	ug/l	2.69	271,057.04	1.818E+00	Pulse	1.00	3
Mo			1	1.186	ug/l	5.15	2,534.86	1.157E-02	Pulse	0.50	3
Pb			1	0.078	ug/l	4.12	1,959.79	5.467E-04	Pulse	1.00	3
Be			1	0.086	ug/l	18.67	5.67	2.251E-05	Pulse	2.00	3
Ag			1	0.016	ug/l	28.26	175.33	1.169E-04	Pulse	0.50	3
Ba			1	56.344	ug/l	6.78	60,403.27	4.049E-02	Pulse	0.50	3
Tl			1	0.057	ug/l	8.78	1,147.38	3.204E-04	Pulse	0.50	3
Sn			1	0.425	ug/l	18.65	1,244.50	8.356E-04	Pulse	0.30	3
Sr			1	345.797	ug/l	6.85	956,767.19	6.414E-01	Pulse	0.50	3
Ca			1	39575.277	ug/l	3.78	645,310.27	2.563E+00	Pulse	0.50	3
Ti			1	0.361	ug/l	32.42	41.33	1.647E-04	Pulse	0.50	3
Na			1	17691.464	ug/l	5.77	14,447,778.67	5.740E+01	Analog	1.00	3
Mg			1	7010.376	ug/l	2.39	2,876,585.75	1.142E+01	Analog	1.00	3
K			1	9450.912	ug/l	2.92	3,055,941.33	1.213E+01	Analog	1.00	3
V			1	0.385	ug/l	10.70	4,986.70	1.979E-02	Pulse	0.50	3
Mn			1	1898.425	ug/l	3.97	4,635,342.17	3.110E+01	Analog	0.50	3
Fe			1	50217.473	ug/l	3.17	171,477,168.00	1.150E+03	Analog	0.50	3
Co			1	8.728	ug/l	2.14	54,150.89	3.633E-01	Pulse	0.50	3
Ni			1	2.387	ug/l	5.92	4,027.13	2.702E-02	Pulse	0.50	3
Cu			1	0.952	ug/l	12.41	8,387.31	5.629E-02	Pulse	0.50	3
Zn			1	2.993	ug/l	7.80	3,032.26	1.385E-02	Pulse	1.00	3
Cd			1	0.013	ug/l	35.36	19.33	8.846E-05	Pulse	0.50	3
Al			1	5.837	ug/l	6.67	1,325.05	5.254E-03	Pulse	1.00	3
Se			1	-0.039	ug/l	-133.25	15.22	6.944E-05	Pulse	3.00	3
Sb			1	0.097	ug/l	7.00	365.34	1.667E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,586,399.83	2.90	98.8	Analog	0.50	3
1	Sc		251,997.02	2.82	96.9	Pulse	0.30	3
1	Ge		149,104.54	1.75	98.2	Pulse	0.30	3
1	In		1,495,909.80	6.02	93.3	Mix	0.30	3
1	Tb		4,818,244.67	2.60	101.2	Analog	0.50	3
1	Lu		3,942,617.33	2.89	102.1	Analog	0.50	3
1	Ge		219,130.65	1.70	96.0	Pulse	0.30	3
1	Li		3,482.56	6.10	98.3	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:45
Sample Name FC10954-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.409	ug/l	6.06	2,023.46	1.354E-02	Pulse	0.50	3
As			1	5512.236	ug/l	2.96	2,688,251.50	1.799E+01	Analog	1.00	3
Mo			1	1.899	ug/l	3.67	4,053.82	1.842E-02	Pulse	0.50	3
Pb			1	0.019	ug/l	22.62	1,198.05	3.274E-04	Pulse	1.00	3
Be			1	0.097	ug/l	32.04	6.33	2.482E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	15.70	123.33	8.156E-05	Pulse	0.50	3
Ba			1	29.176	ug/l	7.53	31,719.63	2.098E-02	Pulse	0.50	3
Tl			1	0.014	ug/l	22.03	328.67	8.995E-05	Pulse	0.50	3
Sn			1	0.331	ug/l	9.59	1,028.93	6.804E-04	Pulse	0.30	3
Sr			1	336.417	ug/l	7.34	943,650.92	6.240E-01	Pulse	0.50	3
Ca			1	46748.643	ug/l	3.56	768,990.50	3.027E+00	Pulse	0.50	3
Ti			1	0.261	ug/l	30.43	31.33	1.232E-04	Pulse	0.50	3
Na			1	10284.098	ug/l	4.02	8,480,452.33	3.339E+01	Analog	1.00	3
Mg			1	5887.713	ug/l	3.37	2,436,836.50	9.592E+00	Analog	1.00	3
K			1	6035.633	ug/l	3.23	1,984,402.29	7.811E+00	Analog	1.00	3
V			1	0.423	ug/l	15.00	5,149.41	2.027E-02	Pulse	0.50	3
Mn			1	3067.088	ug/l	2.92	7,507,313.50	5.025E+01	Analog	0.50	3
Fe			1	77106.554	ug/l	2.84	263,918,848.00	1.766E+03	Analog	0.50	3
Co			1	27.341	ug/l	2.61	169,854.46	1.137E+00	Pulse	0.50	3
Ni			1	12.518	ug/l	3.93	20,479.64	1.371E-01	Pulse	0.50	3
Cu			1	0.916	ug/l	5.04	8,257.93	5.527E-02	Pulse	0.50	3
Zn			1	4.771	ug/l	1.01	4,454.56	2.024E-02	Pulse	1.00	3
Cd			1	0.002	ug/l	143.31	7.33	3.310E-05	Pulse	0.50	3
Al			1	3.400	ug/l	2.26	912.69	3.590E-03	Pulse	1.00	3
Se			1	0.031	ug/l	74.84	18.44	8.375E-05	Pulse	3.00	3
Sb			1	0.160	ug/l	6.20	580.34	2.635E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,658,080.75	2.19	100.8	Analog	0.50	3
1	Sc		254,223.35	3.10	97.7	Pulse	0.30	3
1	Ge		149,461.15	2.00	98.4	Pulse	0.30	3
1	In		1,517,507.47	6.94	94.7	Mix	0.30	3
1	Tb		4,850,265.83	2.69	101.8	Analog	0.50	3
1	Lu		3,971,109.92	2.71	102.8	Analog	0.50	3
1	Ge		220,079.98	1.81	96.4	Pulse	0.30	3
1	Li		3,465.90	1.49	97.8	Pulse	0.30	3

Quantitation Report

File Name	043CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:48
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.771	ug/l	1.05	447,868.94	2.797E+00	Pulse	0.50	3
As			1	52.078	ug/l	0.39	54,500.24	3.404E-01	Pulse	1.00	3
Mo			1	50.198	ug/l	0.43	231,114.28	9.643E-01	Pulse	0.50	3
Pb			1	50.317	ug/l	0.67	1,408,976.63	3.712E-01	Pulse	1.00	3
Be			1	52.219	ug/l	1.33	5,768.22	2.121E-02	Pulse	2.00	3
Ag			1	49.696	ug/l	1.49	816,653.64	4.824E-01	Pulse	0.50	3
Ba			1	47.910	ug/l	2.15	116,534.45	6.884E-02	Pulse	0.50	3
Tl			1	52.058	ug/l	1.24	2,109,836.00	5.559E-01	Analog	0.50	3
Sn			1	47.648	ug/l	1.94	266,490.44	1.574E-01	Pulse	0.30	3
Sr			1	47.684	ug/l	2.03	299,607.68	1.770E-01	Pulse	0.50	3
Ca			1	5109.417	ug/l	1.20	180,007.77	6.620E-01	Pulse	0.50	3
Ti			1	49.907	ug/l	1.73	11,220.82	4.126E-02	Pulse	0.50	3
Na			1	5290.238	ug/l	0.84	9,339,691.67	3.435E+01	Analog	1.00	3
Mg			1	5262.273	ug/l	1.19	4,661,641.50	1.714E+01	Analog	1.00	3
K			1	5351.272	ug/l	0.25	3,730,080.25	1.372E+01	Analog	1.00	3
V			1	50.578	ug/l	0.91	356,752.00	1.312E+00	Pulse	0.50	3
Mn			1	51.389	ug/l	0.39	269,863.93	1.685E+00	Pulse	0.50	3
Fe			1	5194.275	ug/l	0.86	38,117,164.00	2.380E+02	Analog	0.50	3
Co			1	51.742	ug/l	1.30	688,769.23	4.301E+00	Pulse	0.50	3
Ni			1	52.421	ug/l	0.99	182,586.78	1.140E+00	Pulse	0.50	3
Cu			1	52.562	ug/l	1.08	487,177.40	3.042E+00	Pulse	0.50	3
Zn			1	51.729	ug/l	1.06	89,890.48	3.751E-01	Pulse	1.00	3
Cd			1	51.556	ug/l	1.67	133,739.52	5.581E-01	Pulse	0.50	3
Al			1	5205.862	ug/l	2.52	1,934,049.71	7.112E+00	Analog	1.00	3
Se			1	50.745	ug/l	0.70	4,967.14	2.073E-02	Pulse	3.00	3
Sb			1	50.229	ug/l	0.85	364,476.03	1.521E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,795,479.83	0.88	104.6	Analog	0.50	3
1	Sc		271,928.30	0.27	104.5	Pulse	0.30	3
1	Ge		160,129.68	0.67	105.4	Pulse	0.30	3
1	In		1,692,914.31	0.42	105.6	Analog	0.30	3
1	Tb		5,093,920.83	0.71	107.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,190,175.92	0.29	108.5	Analog	0.50	3
1	Ge		239,655.03	0.64	104.9	Pulse	0.30	3
1	Li		3,704.83	3.71	104.6	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:51
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.114	ug/l	2.03	874,227.54	5.568E+00	Pulse	0.50	3
As			1	102.095	ug/l	1.19	104,712.35	6.669E-01	Pulse	1.00	3
Mo			1	102.488	ug/l	0.75	457,277.63	1.969E+00	Pulse	0.50	3
Pb			1	103.037	ug/l	2.00	2,818,522.58	7.599E-01	Analog	1.00	3
Be			1	105.596	ug/l	1.56	11,401.94	4.289E-02	Pulse	2.00	3
Ag			1	102.595	ug/l	1.08	1,638,990.67	9.959E-01	Analog	0.50	3
Ba			1	96.882	ug/l	1.54	229,058.37	1.392E-01	Pulse	0.50	3
Tl			1	102.482	ug/l	1.79	4,059,145.50	1.094E+00	Analog	0.50	3
Sn			1	96.770	ug/l	1.36	525,954.11	3.196E-01	Pulse	0.30	3
Sr			1	96.447	ug/l	1.09	588,896.23	3.578E-01	Pulse	0.50	3
Ca			1	10143.728	ug/l	0.57	349,290.59	1.314E+00	Pulse	0.50	3
Ti			1	101.797	ug/l	0.84	22,371.73	8.415E-02	Pulse	0.50	3
Na			1	10402.852	ug/l	0.47	17,942,646.00	6.749E+01	Analog	1.00	3
Mg			1	10384.942	ug/l	1.49	8,992,650.00	3.383E+01	Analog	1.00	3
K			1	10483.972	ug/l	0.08	7,101,013.50	2.671E+01	Analog	1.00	3
V			1	101.528	ug/l	1.49	696,114.48	2.619E+00	Pulse	0.50	3
Mn			1	101.423	ug/l	1.64	522,013.36	3.325E+00	Pulse	0.50	3
Fe			1	10257.080	ug/l	1.58	73,796,890.67	4.700E+02	Analog	0.50	3
Co			1	102.169	ug/l	1.53	1,333,502.50	8.493E+00	Pulse	0.50	3
Ni			1	102.844	ug/l	1.30	351,075.51	2.236E+00	Pulse	0.50	3
Cu			1	103.038	ug/l	1.39	932,095.94	5.936E+00	Pulse	0.50	3
Zn			1	103.242	ug/l	1.35	173,161.06	7.455E-01	Pulse	1.00	3
Cd			1	102.532	ug/l	1.80	257,768.59	1.110E+00	Pulse	0.50	3
Al			1	10275.548	ug/l	2.30	3,731,564.75	1.404E+01	Analog	1.00	3
Se			1	100.752	ug/l	0.86	9,540.55	4.107E-02	Pulse	3.00	3
Sb			1	101.566	ug/l	1.41	714,218.58	3.075E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,709,172.25	0.40	102.2	Analog	0.50	3
1	Sc		265,863.73	0.94	102.2	Pulse	0.30	3
1	Ge		157,030.18	1.00	103.4	Pulse	0.30	3
1	In		1,645,859.17	0.80	102.7	Analog	0.30	3
1	Tb		4,945,718.00	0.69	103.8	Analog	0.50	3
1	Lu		4,054,806.58	0.61	105.0	Analog	0.50	3
1	Ge		232,279.86	0.64	101.7	Pulse	0.30	3
1	Li		3,637.04	0.97	102.7	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:54
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.043	ug/l	51.30	722.68	4.634E-03	Pulse	0.50	3
As			1	0.062	ug/l	21.75	120.00	7.697E-04	Pulse	1.00	3
Mo			1	0.255	ug/l	30.14	1,178.71	5.086E-03	Pulse	0.50	3
Pb			1	0.053	ug/l	34.62	2,469.87	6.473E-04	Pulse	1.00	3
Be			1	0.077	ug/l	46.25	9.67	3.655E-05	Pulse	2.00	3
Ag			1	0.042	ug/l	42.69	743.36	4.455E-04	Pulse	0.50	3
Ba			1	0.045	ug/l	43.54	142.67	8.551E-05	Pulse	0.50	3
Tl			1	0.040	ug/l	26.68	1,680.77	4.406E-04	Pulse	0.50	3
Sn			1	0.201	ug/l	19.38	1,337.84	7.990E-04	Pulse	0.30	3
Sr			1	0.031	ug/l	43.00	440.01	2.632E-04	Pulse	0.50	3
Ca			1	4.679	ug/l	21.48	252.67	9.544E-04	Pulse	0.50	3
Ti			1	0.027	ug/l	33.74	10.00	3.779E-05	Pulse	0.50	3
Na			1	3.919	ug/l	44.53	20,425.69	7.717E-02	Pulse	1.00	3
Mg			1	4.024	ug/l	43.38	4,474.59	1.690E-02	Pulse	1.00	3
K			1	5.252	ug/l	37.05	49,010.74	1.852E-01	Pulse	1.00	3
V			1	-0.270	ug/l	-10.27	2,093.46	7.909E-03	Pulse	0.50	3
Mn			1	0.081	ug/l	22.54	652.68	4.186E-03	Pulse	0.50	3
Fe			1	6.073	ug/l	29.94	50,447.53	3.235E-01	Pulse	0.50	3
Co			1	0.043	ug/l	38.91	632.01	4.052E-03	Pulse	0.50	3
Ni			1	0.030	ug/l	51.80	269.33	1.727E-03	Pulse	0.50	3
Cu			1	0.091	ug/l	56.67	5,336.15	3.423E-02	Pulse	0.50	3
Zn			1	0.117	ug/l	42.17	911.02	3.929E-03	Pulse	1.00	3
Cd			1	0.039	ug/l	44.33	102.67	4.426E-04	Pulse	0.50	3
Al			1	4.715	ug/l	36.46	2,039.83	7.708E-03	Pulse	1.00	3
Se			1	0.125	ug/l	49.83	29.78	1.284E-04	Pulse	3.00	3
Sb			1	0.085	ug/l	13.74	643.35	2.774E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,821,676.75	1.10	105.3	Analog	0.50	3
1	Sc		264,672.76	0.39	101.8	Pulse	0.30	3
1	Ge		155,884.83	0.26	102.6	Pulse	0.30	3
1	In		1,673,401.95	1.44	104.4	Analog	0.30	3
1	Tb		4,980,784.83	1.75	104.6	Analog	0.50	3
1	Lu		4,073,390.58	0.93	105.5	Analog	0.50	3
1	Ge		231,852.25	0.25	101.5	Pulse	0.30	3
1	Li		3,867.09	2.41	109.2	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:58
Sample Name	FC10955-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.076	ug/l	3.20	4,536.58	3.189E-02	Pulse	0.50	3
As			1	4.995	ug/l	2.99	2,371.83	1.667E-02	Pulse	1.00	3
Mo			1	0.280	ug/l	30.93	608.01	2.869E-03	Pulse	0.50	3
Pb			1	0.637	ug/l	3.68	9,397.09	2.607E-03	Pulse	1.00	3
Be			1	0.019	ug/l	218.56	2.17	8.978E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	11.00	233.33	1.589E-04	Pulse	0.50	3
Ba			1	3.480	ug/l	5.25	3,705.08	2.521E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	11.19	254.00	7.043E-05	Pulse	0.50	3
Sn			1	0.659	ug/l	12.41	1,792.33	1.222E-03	Pulse	0.30	3
Sr			1	295.483	ug/l	5.77	805,417.00	5.481E-01	Pulse	0.50	3
Ca			1	42567.855	ug/l	3.89	679,334.27	2.756E+00	Pulse	0.50	3
Ti			1	0.279	ug/l	37.56	32.00	1.305E-04	Pulse	0.50	3
Na			1	15248.688	ug/l	3.26	12,196,105.67	4.948E+01	Analog	1.00	3
Mg			1	6767.400	ug/l	3.59	2,717,294.42	1.102E+01	Analog	1.00	3
K			1	29218.891	ug/l	2.69	9,158,965.67	3.715E+01	Analog	1.00	3
V			1	0.598	ug/l	12.47	5,546.87	2.251E-02	Pulse	0.50	3
Mn			1	6754.702	ug/l	4.09	15,738,632.33	1.107E+02	Analog	0.50	3
Fe			1	90.536	ug/l	4.95	301,355.03	2.119E+00	Pulse	0.50	3
Co			1	0.115	ug/l	4.24	752.02	5.280E-03	Pulse	0.50	3
Ni			1	15.457	ug/l	3.78	24,042.02	1.690E-01	Pulse	0.50	3
Cu			1	7.610	ug/l	6.11	35,138.90	2.471E-01	Pulse	0.50	3
Zn			1	12.848	ug/l	4.09	10,484.74	4.928E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	368.23	4.67	2.196E-05	Pulse	0.50	3
Al			1	3.614	ug/l	3.67	921.02	3.736E-03	Pulse	1.00	3
Se			1	0.049	ug/l	134.12	18.55	8.732E-05	Pulse	3.00	3
Sb			1	0.086	ug/l	14.60	321.00	1.511E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,607,990.25	3.77	99.4	Analog	0.50	3
1	Sc		246,682.72	3.50	94.8	Pulse	0.30	3
1	Ge		142,370.69	3.77	93.7	Pulse	0.30	3
1	In		1,472,689.49	5.48	91.9	Mix	0.30	3
1	Tb		4,793,143.67	3.39	100.6	Analog	0.50	3
1	Lu		3,842,012.67	2.38	99.5	Analog	0.50	3
1	Ge		212,879.93	2.48	93.2	Pulse	0.30	3
1	Li		3,632.60	4.50	102.5	Pulse	0.30	3

Quantitation Report

File Name	047SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:01
Sample Name	FC10941-1
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	804.022	ug/l	2.27	69,739.31	4.448E-01	Pulse	0.50	3
As			1	452.288	ug/l	2.00	4,687.29	2.989E-02	Pulse	1.00	3
Mo			1	25.190	ug/l	5.78	1,168.71	5.022E-03	Pulse	0.50	3
Pb			1	324.887	ug/l	1.03	93,617.10	2.421E-02	Pulse	1.00	3
Be			1	19.366	ug/l	9.30	22.83	8.378E-05	Pulse	2.00	3
Ag			1	1.233	ug/l	10.12	264.00	1.611E-04	Pulse	0.50	3
Ba			1	1281.522	ug/l	0.78	30,156.79	1.843E-02	Pulse	0.50	3
Tl			1	6.022	ug/l	3.47	2,548.88	6.593E-04	Pulse	0.50	3
Sn			1	57.086	ug/l	4.29	3,301.45	2.019E-03	Pulse	0.30	3
Sr			1	302.342	ug/l	0.51	18,592.60	1.136E-02	Pulse	0.50	3
Ca			1	113063.887	ug/l	1.17	40,027.06	1.468E-01	Pulse	0.50	3
Ti			1	12380.777	ug/l	1.29	27,914.02	1.023E-01	Pulse	0.50	3
Na			1	3063.159	ug/l	3.51	68,247.62	2.503E-01	Pulse	1.00	3
Mg			1	86563.603	ug/l	1.35	770,027.46	2.823E+00	Pulse	1.00	3
K			1	50171.965	ug/l	1.04	393,255.29	1.442E+00	Pulse	1.00	3
V			1	2209.055	ug/l	2.34	158,585.16	5.814E-01	Pulse	0.50	3
Mn			1	8272.593	ug/l	1.72	425,210.77	2.712E+00	Pulse	0.50	3
Fe			1	1088036.991	ug/l	1.99	78,167,698.67	4.986E+02	Analog	0.50	3
Co			1	277.165	ug/l	2.40	36,200.25	2.309E-01	Pulse	0.50	3
Ni			1	1180.144	ug/l	2.65	40,376.41	2.575E-01	Pulse	0.50	3
Cu			1	5749.580	ug/l	2.17	521,386.50	3.325E+00	Pulse	0.50	3
Zn			1	1344.289	ug/l	1.17	23,223.32	9.976E-02	Pulse	1.00	3
Cd			1	2.432	ug/l	13.42	66.00	2.837E-04	Pulse	0.50	3
Al			1	635140.725	ug/l	0.03	2,366,282.33	8.677E+00	Analog	1.00	3
Se			1	31.582	ug/l	18.75	48.00	2.059E-04	Pulse	3.00	3
Sb			1	4.173	ug/l	8.08	342.33	1.469E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,867,053.08	1.90	106.6	Analog	0.50	3
1	Sc		272,716.06	1.72	104.8	Pulse	0.30	3
1	Ge		156,769.13	1.55	103.2	Pulse	0.30	3
1	In		1,636,530.91	2.74	102.1	Analog	0.30	3
1	Tb		5,080,443.17	1.35	106.7	Analog	0.50	3
1	Lu		4,104,444.83	1.43	106.3	Analog	0.50	3
1	Ge		232,794.84	2.11	101.9	Pulse	0.30	3
1	Li		3,704.83	1.23	104.6	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:04
Sample Name MP43092-D1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	771.818	ug/l	0.92	70,235.18	4.271E-01	Pulse	0.50	3
As			1	425.573	ug/l	1.37	4,628.94	2.815E-02	Pulse	1.00	3
Mo			1	24.829	ug/l	3.81	1,210.05	4.953E-03	Pulse	0.50	3
Pb			1	323.565	ug/l	1.35	94,802.50	2.411E-02	Pulse	1.00	3
Be			1	16.009	ug/l	33.34	20.00	7.015E-05	Pulse	2.00	3
Ag			1	0.942	ug/l	20.48	230.67	1.329E-04	Pulse	0.50	3
Ba			1	1199.734	ug/l	0.95	29,967.15	1.725E-02	Pulse	0.50	3
Tl			1	7.165	ug/l	3.16	3,071.64	7.813E-04	Pulse	0.50	3
Sn			1	52.354	ug/l	1.76	3,234.77	1.863E-03	Pulse	0.30	3
Sr			1	263.327	ug/l	2.72	17,215.13	9.913E-03	Pulse	0.50	3
Ca			1	84039.617	ug/l	1.10	31,160.53	1.092E-01	Pulse	0.50	3
Ti			1	12979.478	ug/l	0.98	30,623.01	1.073E-01	Pulse	0.50	3
Na			1	2638.743	ug/l	0.86	63,598.30	2.228E-01	Pulse	1.00	3
Mg			1	72838.768	ug/l	1.23	678,201.56	2.376E+00	Pulse	1.00	3
K			1	48858.864	ug/l	1.00	402,054.00	1.409E+00	Pulse	1.00	3
V			1	2227.229	ug/l	1.83	167,260.82	5.860E-01	Pulse	0.50	3
Mn			1	8258.619	ug/l	1.71	445,221.52	2.707E+00	Pulse	0.50	3
Fe			1	1053878.663	ug/l	2.06	79,410,485.33	4.829E+02	Analog	0.50	3
Co			1	277.164	ug/l	1.43	37,966.49	2.309E-01	Pulse	0.50	3
Ni			1	958.110	ug/l	2.48	34,413.42	2.093E-01	Pulse	0.50	3
Cu			1	2864.429	ug/l	2.02	274,813.15	1.671E+00	Pulse	0.50	3
Zn			1	1510.384	ug/l	1.69	27,290.35	1.117E-01	Pulse	1.00	3
Cd			1	2.432	ug/l	24.88	69.33	2.837E-04	Pulse	0.50	3
Al			1	701396.892	ug/l	2.86	2,734,681.50	9.582E+00	Analog	1.00	3
Se			1	30.710	ug/l	14.16	49.44	2.023E-04	Pulse	3.00	3
Sb			1	3.615	ug/l	12.41	317.67	1.300E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,931,705.67	0.48	108.3	Analog	0.50	3
1	Sc		285,434.11	0.54	109.7	Pulse	0.30	3
1	Ge		164,449.90	0.57	108.3	Pulse	0.30	3
1	In		1,736,923.61	1.29	108.3	Analog	0.30	3
1	Tb		5,154,005.67	0.66	108.2	Analog	0.50	3
1	Lu		4,221,873.00	0.42	109.3	Analog	0.50	3
1	Ge		244,315.19	0.36	107.0	Pulse	0.30	3
1	Li		4,006.00	4.58	113.1	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:08
Sample Name MP43092-S1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1639.608	ug/l	1.17	145,446.74	9.048E-01	Pulse	0.50	3
As			1	964.130	ug/l	1.51	10,180.25	6.331E-02	Pulse	1.00	3
Mo			1	507.301	ug/l	3.33	23,355.61	9.762E-02	Pulse	0.50	3
Pb			1	822.412	ug/l	0.62	232,353.54	6.089E-02	Pulse	1.00	3
Be			1	572.326	ug/l	1.79	658.51	2.330E-03	Pulse	2.00	3
Ag			1	241.389	ug/l	1.66	39,450.74	2.347E-02	Pulse	0.50	3
Ba			1	1980.753	ug/l	0.83	47,862.07	2.847E-02	Pulse	0.50	3
Tl			1	494.824	ug/l	0.49	201,702.95	5.286E-02	Pulse	0.50	3
Sn			1	549.978	ug/l	1.82	30,740.89	1.829E-02	Pulse	0.30	3
Sr			1	799.103	ug/l	0.83	50,064.18	2.978E-02	Pulse	0.50	3
Ca			1	140924.378	ug/l	1.42	51,660.08	1.828E-01	Pulse	0.50	3
Ti			1	15954.684	ug/l	0.92	37,264.63	1.319E-01	Pulse	0.50	3
Na			1	55449.788	ug/l	0.84	1,030,342.25	3.646E+00	Pulse	1.00	3
Mg			1	170162.884	ug/l	2.47	1,566,952.54	5.546E+00	Analog	1.00	3
K			1	146683.732	ug/l	0.79	1,097,731.04	3.885E+00	Pulse	1.00	3
V			1	3109.058	ug/l	1.84	229,470.43	8.122E-01	Pulse	0.50	3
Mn			1	8311.186	ug/l	0.74	437,985.41	2.725E+00	Pulse	0.50	3
Fe			1	1080346.651	ug/l	0.23	79,585,456.00	4.950E+02	Analog	0.50	3
Co			1	826.405	ug/l	1.48	110,487.17	6.874E-01	Pulse	0.50	3
Ni			1	1617.405	ug/l	1.35	56,664.67	3.525E-01	Pulse	0.50	3
Cu			1	2912.180	ug/l	1.50	273,007.41	1.699E+00	Pulse	0.50	3
Zn			1	2330.007	ug/l	1.27	40,802.85	1.706E-01	Pulse	1.00	3
Cd			1	533.449	ug/l	0.69	13,811.54	5.776E-02	Pulse	0.50	3
Al			1	778941.571	ug/l	1.53	3,006,409.42	1.064E+01	Analog	1.00	3
Se			1	509.922	ug/l	3.59	514.67	2.152E-03	Pulse	3.00	3
Sb			1	207.976	ug/l	0.70	15,105.65	6.317E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,816,295.25	2.59	105.2	Analog	0.50	3
1	Sc		282,594.66	2.64	108.6	Pulse	0.30	3
1	Ge		160,770.29	2.89	105.8	Pulse	0.30	3
1	In		1,681,223.65	2.86	104.9	Analog	0.30	3
1	Tb		5,061,713.17	3.40	106.3	Analog	0.50	3
1	Lu		4,104,139.25	3.35	106.3	Analog	0.50	3
1	Ge		239,140.14	2.29	104.7	Pulse	0.30	3
1	Li		3,784.84	8.24	106.8	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:11
Sample Name MP43092-S2
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1149.633	ug/l	1.72	101,592.98	6.351E-01	Pulse	0.50	3
As			1	894.445	ug/l	1.16	9,400.83	5.876E-02	Pulse	1.00	3
Mo			1	478.360	ug/l	0.82	21,828.93	9.206E-02	Pulse	0.50	3
Pb			1	830.850	ug/l	1.57	237,007.18	6.151E-02	Pulse	1.00	3
Be			1	540.842	ug/l	2.72	615.18	2.202E-03	Pulse	2.00	3
Ag			1	239.564	ug/l	1.80	39,228.87	2.329E-02	Pulse	0.50	3
Ba			1	1759.974	ug/l	3.01	42,605.43	2.530E-02	Pulse	0.50	3
Tl			1	490.508	ug/l	2.25	201,867.03	5.240E-02	Pulse	0.50	3
Sn			1	534.508	ug/l	2.12	29,940.55	1.778E-02	Pulse	0.30	3
Sr			1	1031.446	ug/l	0.86	64,671.40	3.840E-02	Pulse	0.50	3
Ca			1	506223.594	ug/l	1.07	183,274.35	6.558E-01	Pulse	0.50	3
Ti			1	11804.928	ug/l	1.59	27,267.77	9.758E-02	Pulse	0.50	3
Na			1	53671.468	ug/l	0.76	986,759.94	3.531E+00	Pulse	1.00	3
Mg			1	184130.934	ug/l	1.20	1,676,898.67	6.001E+00	Analog	1.00	3
K			1	96599.982	ug/l	0.80	731,332.67	2.617E+00	Pulse	1.00	3
V			1	2455.956	ug/l	1.60	180,145.89	6.447E-01	Pulse	0.50	3
Mn			1	10937.102	ug/l	1.95	573,494.92	3.585E+00	Pulse	0.50	3
Fe			1	1066479.673	ug/l	1.87	78,172,957.33	4.887E+02	Analog	0.50	3
Co			1	883.228	ug/l	1.55	117,523.00	7.346E-01	Pulse	0.50	3
Ni			1	1380.172	ug/l	1.61	48,151.36	3.010E-01	Pulse	0.50	3
Cu			1	3811.116	ug/l	1.88	354,161.19	2.214E+00	Pulse	0.50	3
Zn			1	1974.156	ug/l	0.16	34,393.47	1.451E-01	Pulse	1.00	3
Cd			1	543.035	ug/l	0.89	13,942.32	5.880E-02	Pulse	0.50	3
Al			1	707536.009	ug/l	1.80	2,700,897.42	9.666E+00	Analog	1.00	3
Se			1	529.664	ug/l	1.94	529.34	2.233E-03	Pulse	3.00	3
Sb			1	167.655	ug/l	1.98	12,082.59	5.096E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,853,524.08	1.45	106.2	Analog	0.50	3
1	Sc		279,463.02	0.93	107.4	Pulse	0.30	3
1	Ge		159,992.06	1.13	105.3	Pulse	0.30	3
1	In		1,684,284.13	1.23	105.1	Analog	0.30	3
1	Tb		5,057,093.00	0.72	106.2	Analog	0.50	3
1	Lu		4,120,794.08	0.68	106.7	Analog	0.50	3
1	Ge		237,113.90	0.83	103.8	Pulse	0.30	3
1	Li		3,745.95	1.21	105.7	Pulse	0.30	3

Quantitation Report

File Name	051SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:14
Sample Name	MP43092-PS1
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	823.048	ug/l	1.57	74,579.68	4.553E-01	Pulse	0.50	3
As			1	460.069	ug/l	1.52	4,980.04	3.040E-02	Pulse	1.00	3
Mo			1	37.214	ug/l	2.97	1,770.10	7.332E-03	Pulse	0.50	3
Pb			1	342.823	ug/l	0.36	98,523.33	2.553E-02	Pulse	1.00	3
Be			1	27.896	ug/l	10.21	33.67	1.184E-04	Pulse	2.00	3
Ag			1	4.306	ug/l	5.73	797.35	4.594E-04	Pulse	0.50	3
Ba			1	1283.462	ug/l	0.47	32,030.21	1.846E-02	Pulse	0.50	3
Tl			1	16.677	ug/l	1.76	6,934.18	1.797E-03	Pulse	0.50	3
Sn			1	64.296	ug/l	3.65	3,916.03	2.257E-03	Pulse	0.30	3
Sr			1	301.551	ug/l	1.28	19,663.65	1.133E-02	Pulse	0.50	3
Ca			1	117167.083	ug/l	1.03	43,226.30	1.521E-01	Pulse	0.50	3
Ti			1	12741.925	ug/l	1.05	29,939.86	1.053E-01	Pulse	0.50	3
Na			1	3674.232	ug/l	0.23	82,421.56	2.899E-01	Pulse	1.00	3
Mg			1	88259.184	ug/l	1.48	818,187.92	2.878E+00	Pulse	1.00	3
K			1	51193.460	ug/l	0.91	417,211.95	1.468E+00	Pulse	1.00	3
V			1	2252.857	ug/l	1.33	168,446.76	5.926E-01	Pulse	0.50	3
Mn			1	8199.365	ug/l	1.41	440,307.57	2.688E+00	Pulse	0.50	3
Fe			1	1102279.157	ug/l	1.16	82,733,906.67	5.051E+02	Analog	0.50	3
Co			1	293.286	ug/l	1.97	40,013.52	2.443E-01	Pulse	0.50	3
Ni			1	1192.188	ug/l	1.12	42,613.51	2.601E-01	Pulse	0.50	3
Cu			1	5790.661	ug/l	1.38	548,545.77	3.349E+00	Pulse	0.50	3
Zn			1	1355.304	ug/l	1.28	24,275.04	1.005E-01	Pulse	1.00	3
Cd			1	12.336	ug/l	8.87	327.34	1.356E-03	Pulse	0.50	3
Al			1	636943.793	ug/l	1.85	2,473,400.92	8.701E+00	Analog	1.00	3
Se			1	43.300	ug/l	13.73	61.22	2.536E-04	Pulse	3.00	3
Sb			1	14.380	ug/l	2.98	1,100.71	4.559E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,858,830.25	0.99	106.3	Analog	0.50	3
1	Sc		284,268.71	0.46	109.3	Pulse	0.30	3
1	Ge		163,811.71	0.56	107.8	Pulse	0.30	3
1	In		1,735,389.44	0.48	108.2	Analog	0.30	3
1	Tb		5,136,405.00	0.63	107.9	Analog	0.50	3
1	Lu		4,161,946.75	0.83	107.8	Analog	0.50	3
1	Ge		241,429.29	0.20	105.7	Pulse	0.30	3
1	Li		3,905.98	0.81	110.3	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:18
Sample Name	FC10941-2
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	650.129	ug/l	1.88	115,002.29	7.180E-01	Pulse	0.50	3
As			1	94.442	ug/l	1.83	2,033.79	1.270E-02	Pulse	1.00	3
Mo			1	30.045	ug/l	4.27	2,758.89	1.173E-02	Pulse	0.50	3
Pb			1	286.144	ug/l	1.53	161,211.35	4.245E-02	Pulse	1.00	3
Be			1	12.234	ug/l	8.24	29.83	1.045E-04	Pulse	2.00	3
Ag			1	2.321	ug/l	7.22	818.69	4.920E-04	Pulse	0.50	3
Ba			1	857.307	ug/l	1.81	41,024.17	2.465E-02	Pulse	0.50	3
Tl			1	3.196	ug/l	2.46	2,653.56	6.988E-04	Pulse	0.50	3
Sn			1	45.103	ug/l	1.98	5,179.70	3.112E-03	Pulse	0.30	3
Sr			1	128.664	ug/l	1.44	16,128.74	9.691E-03	Pulse	0.50	3
Ca			1	36347.795	ug/l	2.89	26,955.86	9.448E-02	Pulse	0.50	3
Ti			1	5879.607	ug/l	1.24	27,737.76	9.720E-02	Pulse	0.50	3
Na			1	6513.458	ug/l	0.90	255,748.28	8.962E-01	Pulse	1.00	3
Mg			1	25238.108	ug/l	1.13	470,194.63	1.648E+00	Pulse	1.00	3
K			1	12227.724	ug/l	0.80	225,695.89	7.909E-01	Pulse	1.00	3
V			1	3961.758	ug/l	1.61	584,043.71	2.047E+00	Pulse	0.50	3
Mn			1	4019.808	ug/l	1.49	422,185.41	2.636E+00	Pulse	0.50	3
Fe			1	1059335.693	ug/l	1.85	155,492,266.67	9.708E+02	Analog	0.50	3
Co			1	149.702	ug/l	2.85	39,937.38	2.494E-01	Pulse	0.50	3
Ni			1	348.245	ug/l	1.83	24,415.85	1.524E-01	Pulse	0.50	3
Cu			1	1231.879	ug/l	1.96	230,885.52	1.441E+00	Pulse	0.50	3
Zn			1	979.841	ug/l	1.02	33,890.55	1.440E-01	Pulse	1.00	3
Cd			1	0.928	ug/l	26.61	52.00	2.213E-04	Pulse	0.50	3
Al			1	710803.202	ug/l	1.55	5,541,047.50	1.942E+01	Analog	1.00	3
Se			1	20.945	ug/l	2.25	58.33	2.478E-04	Pulse	3.00	3
Sb			1	3.531	ug/l	6.69	551.68	2.344E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,798,181.33	1.38	104.7	Analog	0.50	3
1	Sc		285,376.02	1.28	109.7	Pulse	0.30	3
1	Ge		160,208.54	1.80	105.5	Pulse	0.30	3
1	In		1,664,459.00	1.07	103.8	Analog	0.30	3
1	Tb		5,019,705.33	1.40	105.4	Analog	0.50	3
1	Lu		4,139,272.83	1.19	107.2	Analog	0.50	3
1	Ge		235,351.09	1.12	103.1	Pulse	0.30	3
1	Li		3,779.29	3.57	106.7	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:21
Sample Name FC10954-1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.582	ug/l	14.55	614.01	3.879E-03	Pulse	0.50	3
As			1	1860.022	ug/l	1.01	96,179.37	6.075E-01	Pulse	1.00	3
Mo			1	1.515	ug/l	3.57	388.01	1.639E-03	Pulse	0.50	3
Pb			1	0.180	ug/l	30.68	1,226.38	3.246E-04	Pulse	1.00	3
Be			1	0.022	ug/l	413.70	1.50	5.579E-06	Pulse	2.00	3
Ag			1	0.020	ug/l	85.59	86.67	5.126E-05	Pulse	0.50	3
Ba			1	50.816	ug/l	1.29	6,199.82	3.671E-03	Pulse	0.50	3
Tl			1	0.021	ug/l	13.08	103.33	2.734E-05	Pulse	0.50	3
Sn			1	3.552	ug/l	10.13	1,217.83	7.207E-04	Pulse	0.30	3
Sr			1	418.074	ug/l	2.02	131,162.94	7.767E-02	Pulse	0.50	3
Ca			1	54509.190	ug/l	0.94	95,026.85	3.533E-01	Pulse	0.50	3
Ti			1	2.568	ug/l	53.28	32.67	1.215E-04	Pulse	0.50	3
Na			1	17999.450	ug/l	2.68	1,583,381.42	5.886E+00	Analog	1.00	3
Mg			1	8016.029	ug/l	0.75	352,173.72	1.309E+00	Pulse	1.00	3
K			1	8905.943	ug/l	0.52	349,438.22	1.299E+00	Pulse	1.00	3
V			1	-3.803	ug/l	-12.42	2,681.54	9.967E-03	Pulse	0.50	3
Mn			1	2332.439	ug/l	0.51	605,176.54	3.823E+00	Pulse	0.50	3
Fe			1	78688.165	ug/l	0.96	28,545,786.00	1.803E+02	Analog	0.50	3
Co			1	20.679	ug/l	3.62	13,685.22	8.644E-02	Pulse	0.50	3
Ni			1	8.481	ug/l	5.14	1,630.75	1.030E-02	Pulse	0.50	3
Cu			1	5.703	ug/l	4.62	7,178.12	4.534E-02	Pulse	0.50	3
Zn			1	27.189	ug/l	2.75	3,045.93	1.286E-02	Pulse	1.00	3
Cd			1	0.014	ug/l	63.13	6.67	2.815E-05	Pulse	0.50	3
Al			1	101.663	ug/l	28.31	2,207.81	8.211E-03	Pulse	1.00	3
Se			1	-0.504	ug/l	-78.38	15.89	6.712E-05	Pulse	3.00	3
Sb			1	0.049	ug/l	69.83	66.33	2.801E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,778,108.50	1.15	104.1	Analog	0.50	3
1	Sc		268,999.75	0.29	103.4	Pulse	0.30	3
1	Ge		158,315.45	0.57	104.2	Pulse	0.30	3
1	In		1,688,864.34	1.26	105.3	Analog	0.30	3
1	Tb		5,027,309.33	1.53	105.6	Analog	0.50	3
1	Lu		4,104,339.33	0.91	106.3	Analog	0.50	3
1	Ge		236,809.95	0.45	103.7	Pulse	0.30	3
1	Li		3,858.20	3.73	108.9	Pulse	0.30	3

Quantitation Report

File Name 054SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:24
Sample Name MP43089-D1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.605	ug/l	30.47	631.35	3.940E-03	Pulse	0.50	3
As			1	1896.548	ug/l	0.61	99,250.08	6.194E-01	Pulse	1.00	3
Mo			1	1.360	ug/l	10.74	355.34	1.490E-03	Pulse	0.50	3
Pb			1	0.210	ug/l	15.96	1,285.40	3.353E-04	Pulse	1.00	3
Be			1	-0.131	ug/l	-39.88	0.67	2.465E-06	Pulse	2.00	3
Ag			1	0.026	ug/l	41.15	92.67	5.419E-05	Pulse	0.50	3
Ba			1	51.724	ug/l	2.57	6,382.55	3.736E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	30.05	82.00	2.139E-05	Pulse	0.50	3
Sn			1	1.116	ug/l	14.47	544.46	3.185E-04	Pulse	0.30	3
Sr			1	423.719	ug/l	1.86	134,479.61	7.872E-02	Pulse	0.50	3
Ca			1	56861.537	ug/l	1.15	99,621.01	3.685E-01	Pulse	0.50	3
Ti			1	1.896	ug/l	5.70	25.33	9.371E-05	Pulse	0.50	3
Na			1	18286.377	ug/l	0.90	1,616,392.96	5.979E+00	Analog	1.00	3
Mg			1	8211.911	ug/l	1.22	362,558.68	1.341E+00	Pulse	1.00	3
K			1	9136.549	ug/l	0.89	359,080.43	1.328E+00	Pulse	1.00	3
V			1	-2.389	ug/l	-31.31	3,184.29	1.178E-02	Pulse	0.50	3
Mn			1	2387.860	ug/l	0.22	627,028.21	3.913E+00	Pulse	0.50	3
Fe			1	80402.812	ug/l	0.81	29,519,448.00	1.842E+02	Analog	0.50	3
Co			1	21.403	ug/l	1.39	14,333.05	8.945E-02	Pulse	0.50	3
Ni			1	8.783	ug/l	1.77	1,702.75	1.063E-02	Pulse	0.50	3
Cu			1	5.988	ug/l	3.96	7,396.21	4.616E-02	Pulse	0.50	3
Zn			1	28.046	ug/l	0.64	3,140.95	1.317E-02	Pulse	1.00	3
Cd			1	-0.007	ug/l	-231.50	4.00	1.679E-05	Pulse	0.50	3
Al			1	43.368	ug/l	2.41	1,143.37	4.229E-03	Pulse	1.00	3
Se			1	0.113	ug/l	324.06	19.00	7.967E-05	Pulse	3.00	3
Sb			1	0.048	ug/l	13.32	66.33	2.781E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,833,408.25	0.43	105.6	Analog	0.50	3
1	Sc		270,354.76	0.45	103.9	Pulse	0.30	3
1	Ge		160,225.05	0.29	105.5	Pulse	0.30	3
1	In		1,708,712.36	1.64	106.6	Analog	0.30	3
1	Tb		5,097,329.00	0.57	107.0	Analog	0.50	3
1	Lu		4,131,904.42	0.93	107.0	Analog	0.50	3
1	Ge		238,495.98	0.45	104.4	Pulse	0.30	3
1	Li		3,749.28	4.85	105.8	Pulse	0.30	3

Quantitation Report

File Name	055SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:28
Sample Name	MP43089-S1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.883	ug/l	1.19	93,823.59	5.909E-01	Pulse	0.50	3
As			1	2086.971	ug/l	0.83	108,220.78	6.816E-01	Pulse	1.00	3
Mo			1	226.569	ug/l	0.86	51,725.40	2.178E-01	Pulse	0.50	3
Pb			1	207.991	ug/l	1.43	291,951.95	7.693E-02	Pulse	1.00	3
Be			1	218.901	ug/l	2.65	1,204.37	4.450E-03	Pulse	2.00	3
Ag			1	103.493	ug/l	3.22	84,806.60	5.027E-02	Pulse	0.50	3
Ba			1	252.097	ug/l	2.77	30,582.88	1.813E-02	Pulse	0.50	3
Tl			1	198.000	ug/l	1.19	401,275.54	1.057E-01	Pulse	0.50	3
Sn			1	200.996	ug/l	2.42	56,210.57	3.331E-02	Pulse	0.30	3
Sr			1	626.522	ug/l	1.86	196,272.32	1.163E-01	Pulse	0.50	3
Ca			1	75326.292	ug/l	1.45	132,081.49	4.880E-01	Pulse	0.50	3
Ti			1	214.225	ug/l	6.10	2,400.17	8.868E-03	Pulse	0.50	3
Na			1	38984.830	ug/l	1.06	3,433,831.08	1.269E+01	Analog	1.00	3
Mg			1	30555.572	ug/l	1.66	1,347,679.58	4.980E+00	Analog	1.00	3
K			1	29735.465	ug/l	0.94	1,065,029.50	3.935E+00	Pulse	1.00	3
V			1	209.055	ug/l	1.57	76,563.73	2.829E-01	Pulse	0.50	3
Mn			1	2548.392	ug/l	0.76	663,103.44	4.176E+00	Pulse	0.50	3
Fe			1	100816.147	ug/l	0.71	36,676,474.67	2.310E+02	Analog	0.50	3
Co			1	240.558	ug/l	0.45	158,815.25	1.000E+00	Pulse	0.50	3
Ni			1	226.351	ug/l	0.37	39,218.52	2.470E-01	Pulse	0.50	3
Cu			1	230.020	ug/l	1.20	109,297.01	6.884E-01	Pulse	0.50	3
Zn			1	243.266	ug/l	0.49	21,507.53	9.055E-02	Pulse	1.00	3
Cd			1	217.439	ug/l	0.24	27,954.58	1.177E-01	Pulse	0.50	3
Al			1	20245.984	ug/l	1.70	374,559.34	1.384E+00	Pulse	1.00	3
Se			1	204.398	ug/l	2.72	1,006.14	4.236E-03	Pulse	3.00	3
Sb			1	215.429	ug/l	0.20	77,500.78	3.263E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,795,135.42	0.41	104.6	Analog	0.50	3
1	Sc		270,639.63	0.18	104.0	Pulse	0.30	3
1	Ge		158,772.32	0.76	104.5	Pulse	0.30	3
1	In		1,687,684.34	1.78	105.3	Analog	0.30	3
1	Tb		5,033,431.67	1.37	105.7	Analog	0.50	3
1	Lu		4,080,600.75	1.73	105.7	Analog	0.50	3
1	Ge		237,513.01	0.54	104.0	Pulse	0.30	3
1	Li		3,749.29	2.47	105.8	Pulse	0.30	3

Quantitation Report

File Name	056CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:31
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.361	ug/l	2.36	444,072.97	2.774E+00	Pulse	0.50	3
As			1	51.217	ug/l	2.05	53,580.12	3.347E-01	Pulse	1.00	3
Mo			1	50.594	ug/l	0.38	230,846.79	9.720E-01	Pulse	0.50	3
Pb			1	49.715	ug/l	2.37	1,388,351.29	3.668E-01	Pulse	1.00	3
Be			1	51.796	ug/l	2.05	5,725.53	2.104E-02	Pulse	2.00	3
Ag			1	49.400	ug/l	4.08	804,921.36	4.795E-01	Pulse	0.50	3
Ba			1	48.054	ug/l	4.21	115,891.51	6.905E-02	Pulse	0.50	3
Tl			1	51.858	ug/l	1.22	2,096,523.25	5.538E-01	Analog	0.50	3
Sn			1	47.940	ug/l	3.57	265,899.76	1.584E-01	Pulse	0.30	3
Sr			1	48.331	ug/l	3.84	301,120.01	1.794E-01	Pulse	0.50	3
Ca			1	5078.634	ug/l	0.93	179,047.20	6.580E-01	Pulse	0.50	3
Ti			1	50.694	ug/l	3.29	11,404.94	4.191E-02	Pulse	0.50	3
Na			1	5172.903	ug/l	0.18	9,139,581.33	3.359E+01	Analog	1.00	3
Mg			1	5239.929	ug/l	1.74	4,645,004.17	1.707E+01	Analog	1.00	3
K			1	5273.324	ug/l	0.25	3,679,114.83	1.352E+01	Analog	1.00	3
V			1	50.518	ug/l	1.05	356,575.04	1.310E+00	Pulse	0.50	3
Mn			1	50.955	ug/l	2.18	267,484.78	1.671E+00	Pulse	0.50	3
Fe			1	5192.628	ug/l	1.95	38,089,922.67	2.380E+02	Analog	0.50	3
Co			1	51.430	ug/l	1.86	684,367.25	4.275E+00	Pulse	0.50	3
Ni			1	51.941	ug/l	2.10	180,843.14	1.130E+00	Pulse	0.50	3
Cu			1	52.153	ug/l	2.27	483,238.44	3.019E+00	Pulse	0.50	3
Zn			1	51.817	ug/l	0.74	89,236.27	3.757E-01	Pulse	1.00	3
Cd			1	51.274	ug/l	1.49	131,816.93	5.550E-01	Pulse	0.50	3
Al			1	5150.398	ug/l	1.49	1,914,696.33	7.036E+00	Analog	1.00	3
Se			1	51.655	ug/l	1.62	5,010.71	2.110E-02	Pulse	3.00	3
Sb			1	50.379	ug/l	0.97	362,287.01	1.525E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,786,105.33	1.41	104.3	Analog	0.50	3
1	Sc		272,125.75	0.33	104.6	Pulse	0.30	3
1	Ge		160,091.74	0.98	105.4	Pulse	0.30	3
1	In		1,680,016.18	3.34	104.8	Analog	0.30	3
1	Tb		5,076,713.67	0.47	106.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,145,913.58	1.85	107.4	Analog	0.50	3
1	Ge		237,508.00	0.62	104.0	Pulse	0.30	3
1	Li		3,661.48	0.92	103.4	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:34
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.468	ug/l	0.83	869,763.12	5.587E+00	Pulse	0.50	3
As			1	102.793	ug/l	0.39	104,520.27	6.714E-01	Pulse	1.00	3
Mo			1	101.822	ug/l	0.55	454,072.90	1.956E+00	Pulse	0.50	3
Pb			1	102.598	ug/l	3.40	2,797,410.75	7.567E-01	Analog	1.00	3
Be			1	103.358	ug/l	0.79	11,187.98	4.198E-02	Pulse	2.00	3
Ag			1	103.441	ug/l	0.66	1,625,110.25	1.004E+00	Analog	0.50	3
Ba			1	98.693	ug/l	0.70	229,475.76	1.418E-01	Pulse	0.50	3
Tl			1	102.464	ug/l	1.35	4,046,696.67	1.094E+00	Analog	0.50	3
Sn			1	98.139	ug/l	1.03	524,554.42	3.241E-01	Pulse	0.30	3
Sr			1	98.999	ug/l	0.82	594,450.79	3.673E-01	Pulse	0.50	3
Ca			1	10243.786	ug/l	1.05	353,579.09	1.327E+00	Pulse	0.50	3
Ti			1	101.616	ug/l	2.77	22,382.42	8.400E-02	Pulse	0.50	3
Na			1	10252.813	ug/l	1.51	17,725,944.00	6.652E+01	Analog	1.00	3
Mg			1	10355.913	ug/l	1.36	8,989,166.00	3.373E+01	Analog	1.00	3
K			1	10556.815	ug/l	1.40	7,166,896.17	2.689E+01	Analog	1.00	3
V			1	101.442	ug/l	1.57	697,214.50	2.616E+00	Pulse	0.50	3
Mn			1	102.140	ug/l	0.43	521,193.56	3.348E+00	Pulse	0.50	3
Fe			1	10428.726	ug/l	0.91	74,386,469.33	4.779E+02	Analog	0.50	3
Co			1	103.108	ug/l	0.44	1,334,180.75	8.571E+00	Pulse	0.50	3
Ni			1	102.931	ug/l	0.66	348,349.54	2.238E+00	Pulse	0.50	3
Cu			1	103.619	ug/l	0.54	929,255.65	5.970E+00	Pulse	0.50	3
Zn			1	103.205	ug/l	1.03	173,012.27	7.453E-01	Pulse	1.00	3
Cd			1	102.430	ug/l	1.19	257,388.93	1.109E+00	Pulse	0.50	3
Al			1	10249.846	ug/l	0.87	3,731,371.08	1.400E+01	Analog	1.00	3
Se			1	102.314	ug/l	1.37	9,683.07	4.171E-02	Pulse	3.00	3
Sb			1	101.558	ug/l	1.05	713,816.21	3.075E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,699,227.25	2.62	101.9	Analog	0.50	3
1	Sc		266,511.11	1.08	102.5	Pulse	0.30	3
1	Ge		155,666.27	0.16	102.5	Pulse	0.30	3
1	In		1,618,512.50	0.74	101.0	Analog	0.30	3
1	Tb		4,945,003.17	0.55	103.8	Analog	0.50	3
1	Lu		4,027,800.25	0.86	104.3	Analog	0.50	3
1	Ge		232,156.09	0.20	101.7	Pulse	0.30	3
1	Li		3,689.27	3.63	104.1	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:37
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	59.01	505.34	3.198E-03	Pulse	0.50	3
As			1	0.020	ug/l	37.48	78.67	4.979E-04	Pulse	1.00	3
Mo			1	0.225	ug/l	28.20	1,064.04	4.500E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	40.29	1,841.78	4.800E-04	Pulse	1.00	3
Be			1	0.052	ug/l	32.27	7.00	2.613E-05	Pulse	2.00	3
Ag			1	0.022	ug/l	33.45	436.67	2.525E-04	Pulse	0.50	3
Ba			1	0.013	ug/l	49.10	69.33	4.012E-05	Pulse	0.50	3
Tl			1	0.022	ug/l	10.66	949.37	2.476E-04	Pulse	0.50	3
Sn			1	0.175	ug/l	18.11	1,224.50	7.107E-04	Pulse	0.30	3
Sr			1	0.015	ug/l	43.76	354.01	2.051E-04	Pulse	0.50	3
Ca			1	2.098	ug/l	87.54	166.00	6.203E-04	Pulse	0.50	3
Ti			1	0.042	ug/l	12.17	13.33	4.975E-05	Pulse	0.50	3
Na			1	1.613	ug/l	66.28	16,664.99	6.222E-02	Pulse	1.00	3
Mg			1	1.689	ug/l	67.80	2,488.86	9.301E-03	Pulse	1.00	3
K			1	4.365	ug/l	38.17	49,015.73	1.829E-01	Pulse	1.00	3
V			1	-0.277	ug/l	-2.84	2,073.46	7.738E-03	Pulse	0.50	3
Mn			1	0.042	ug/l	17.06	461.34	2.919E-03	Pulse	0.50	3
Fe			1	3.911	ug/l	26.56	35,451.84	2.244E-01	Pulse	0.50	3
Co			1	0.022	ug/l	54.33	371.34	2.351E-03	Pulse	0.50	3
Ni			1	0.007	ug/l	204.08	194.00	1.228E-03	Pulse	0.50	3
Cu			1	0.038	ug/l	51.33	4,928.03	3.118E-02	Pulse	0.50	3
Zn			1	0.082	ug/l	54.75	867.36	3.672E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	58.70	46.00	1.949E-04	Pulse	0.50	3
Al			1	2.743	ug/l	42.56	1,342.06	5.014E-03	Pulse	1.00	3
Se			1	0.030	ug/l	92.49	21.11	8.939E-05	Pulse	3.00	3
Sb			1	0.060	ug/l	6.49	477.34	2.021E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,831,653.92	2.11	105.6	Analog	0.50	3
1	Sc		267,976.71	0.82	103.0	Pulse	0.30	3
1	Ge		158,050.44	0.76	104.1	Pulse	0.30	3
1	In		1,724,703.37	1.73	107.6	Analog	0.30	3
1	Tb		5,039,916.67	1.12	105.8	Analog	0.50	3
1	Lu		4,115,481.42	1.51	106.6	Analog	0.50	3
1	Ge		236,259.85	0.47	103.5	Pulse	0.30	3
1	Li		3,768.18	2.44	106.4	Pulse	0.30	3

Quantitation Report

File Name	059SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:41
Sample Name	MP43089-S2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	216.511	ug/l	0.99	93,871.19	5.981E-01	Pulse	0.50	3
As			1	2092.961	ug/l	0.87	107,275.88	6.835E-01	Pulse	1.00	3
Mo			1	230.463	ug/l	0.73	51,653.13	2.215E-01	Pulse	0.50	3
Pb			1	206.855	ug/l	2.72	291,727.10	7.651E-02	Pulse	1.00	3
Be			1	226.726	ug/l	2.22	1,235.71	4.609E-03	Pulse	2.00	3
Ag			1	105.236	ug/l	2.09	85,773.39	5.111E-02	Pulse	0.50	3
Ba			1	252.390	ug/l	2.95	30,450.63	1.815E-02	Pulse	0.50	3
Tl			1	196.874	ug/l	2.22	400,885.81	1.051E-01	Pulse	0.50	3
Sn			1	201.950	ug/l	3.56	56,149.17	3.347E-02	Pulse	0.30	3
Sr			1	627.964	ug/l	2.58	195,635.78	1.166E-01	Pulse	0.50	3
Ca			1	75829.480	ug/l	1.97	131,723.43	4.913E-01	Pulse	0.50	3
Ti			1	233.459	ug/l	3.70	2,592.19	9.663E-03	Pulse	0.50	3
Na			1	39828.687	ug/l	2.40	3,474,912.42	1.296E+01	Analog	1.00	3
Mg			1	30837.046	ug/l	2.41	1,347,318.08	5.026E+00	Analog	1.00	3
K			1	30228.530	ug/l	1.46	1,071,870.29	3.998E+00	Pulse	1.00	3
V			1	210.143	ug/l	1.91	76,224.26	2.843E-01	Pulse	0.50	3
Mn			1	2566.125	ug/l	1.14	659,992.00	4.205E+00	Pulse	0.50	3
Fe			1	101551.760	ug/l	0.45	36,519,140.00	2.327E+02	Analog	0.50	3
Co			1	241.021	ug/l	1.20	157,282.44	1.002E+00	Pulse	0.50	3
Ni			1	229.829	ug/l	0.97	39,360.18	2.508E-01	Pulse	0.50	3
Cu			1	230.752	ug/l	1.12	108,358.63	6.905E-01	Pulse	0.50	3
Zn			1	250.199	ug/l	0.75	21,696.75	9.305E-02	Pulse	1.00	3
Cd			1	217.525	ug/l	1.65	27,455.13	1.177E-01	Pulse	0.50	3
Al			1	20543.719	ug/l	2.62	376,480.90	1.404E+00	Pulse	1.00	3
Se			1	211.440	ug/l	2.16	1,021.14	4.379E-03	Pulse	3.00	3
Sb			1	220.268	ug/l	0.93	77,793.79	3.336E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,813,992.00	1.54	105.1	Analog	0.50	3
1	Sc		268,169.06	1.73	103.1	Pulse	0.30	3
1	Ge		156,947.38	0.99	103.3	Pulse	0.30	3
1	In		1,678,462.30	1.85	104.7	Analog	0.30	3
1	Tb		5,018,130.83	0.34	105.4	Analog	0.50	3
1	Lu		4,107,153.83	0.38	106.3	Analog	0.50	3
1	Ge		233,184.90	0.51	102.1	Pulse	0.30	3
1	Li		3,784.85	4.32	106.8	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:44
Sample Name MP43089-PS1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.358	ug/l	4.01	5,286.79	3.353E-02	Pulse	0.50	3
As			1	1834.480	ug/l	0.55	94,475.98	5.992E-01	Pulse	1.00	3
Mo			1	13.085	ug/l	7.68	3,002.27	1.275E-02	Pulse	0.50	3
Pb			1	10.600	ug/l	2.72	15,923.22	4.165E-03	Pulse	1.00	3
Be			1	11.468	ug/l	7.97	63.83	2.380E-04	Pulse	2.00	3
Ag			1	2.923	ug/l	4.16	2,456.18	1.460E-03	Pulse	0.50	3
Ba			1	60.201	ug/l	2.22	7,306.93	4.345E-03	Pulse	0.50	3
Tl			1	9.992	ug/l	1.12	20,457.70	5.351E-03	Pulse	0.50	3
Sn			1	12.268	ug/l	12.06	3,629.30	2.159E-03	Pulse	0.30	3
Sr			1	415.977	ug/l	1.13	129,975.43	7.728E-02	Pulse	0.50	3
Ca			1	54642.544	ug/l	1.30	94,945.50	3.541E-01	Pulse	0.50	3
Ti			1	12.190	ug/l	21.93	139.33	5.191E-04	Pulse	0.50	3
Na			1	18824.407	ug/l	0.87	1,649,828.88	6.153E+00	Analog	1.00	3
Mg			1	8956.157	ug/l	1.14	392,059.41	1.462E+00	Pulse	1.00	3
K			1	9798.368	ug/l	0.74	378,579.36	1.412E+00	Pulse	1.00	3
V			1	6.183	ug/l	3.28	6,105.71	2.277E-02	Pulse	0.50	3
Mn			1	2300.365	ug/l	1.23	594,437.98	3.770E+00	Pulse	0.50	3
Fe			1	78476.793	ug/l	1.11	28,353,396.00	1.798E+02	Analog	0.50	3
Co			1	31.904	ug/l	0.76	20,986.21	1.331E-01	Pulse	0.50	3
Ni			1	20.075	ug/l	3.90	3,609.71	2.290E-02	Pulse	0.50	3
Cu			1	17.724	ug/l	3.18	12,582.42	7.980E-02	Pulse	0.50	3
Zn			1	39.057	ug/l	0.48	4,034.46	1.713E-02	Pulse	1.00	3
Cd			1	11.092	ug/l	1.99	1,418.73	6.023E-03	Pulse	0.50	3
Al			1	1089.384	ug/l	1.70	20,287.06	7.567E-02	Pulse	1.00	3
Se			1	10.939	ug/l	25.23	70.67	2.999E-04	Pulse	3.00	3
Sb			1	10.397	ug/l	3.05	3,754.75	1.594E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,823,118.92	0.63	105.4	Analog	0.50	3
1	Sc		268,128.59	0.71	103.1	Pulse	0.30	3
1	Ge		157,679.78	0.57	103.8	Pulse	0.30	3
1	In		1,681,952.36	0.88	104.9	Analog	0.30	3
1	Tb		5,039,948.00	0.55	105.8	Analog	0.50	3
1	Lu		4,125,537.67	0.13	106.8	Analog	0.50	3
1	Ge		235,527.37	0.57	103.1	Pulse	0.30	3
1	Li		3,741.51	4.06	105.6	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:47
Sample Name	FC10954-2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.437	ug/l	4.56	731.35	4.680E-03	Pulse	0.50	3
As			1	585.577	ug/l	1.23	59,801.77	3.827E-01	Pulse	1.00	3
Mo			1	1.347	ug/l	12.02	647.35	2.771E-03	Pulse	0.50	3
Pb			1	0.128	ug/l	18.28	1,329.39	3.527E-04	Pulse	1.00	3
Be			1	-0.018	ug/l	-382.28	1.17	4.392E-06	Pulse	2.00	3
Ag			1	0.037	ug/l	18.03	129.33	7.722E-05	Pulse	0.50	3
Ba			1	52.826	ug/l	3.25	12,738.82	7.609E-03	Pulse	0.50	3
Tl			1	0.049	ug/l	9.29	260.00	6.899E-05	Pulse	0.50	3
Sn			1	0.681	ug/l	6.82	601.13	3.591E-04	Pulse	0.30	3
Sr			1	328.892	ug/l	2.28	204,458.76	1.221E-01	Pulse	0.50	3
Ca			1	41076.019	ug/l	2.45	140,601.65	5.322E-01	Pulse	0.50	3
Ti			1	1.006	ug/l	40.36	26.00	9.853E-05	Pulse	0.50	3
Na			1	17899.945	ug/l	1.00	3,079,575.67	1.166E+01	Analog	1.00	3
Mg			1	6880.098	ug/l	2.33	592,970.71	2.245E+00	Pulse	1.00	3
K			1	9369.777	ug/l	2.22	671,971.15	2.544E+00	Pulse	1.00	3
V			1	-1.464	ug/l	-13.32	2,931.58	1.109E-02	Pulse	0.50	3
Mn			1	1889.897	ug/l	0.66	967,996.55	6.194E+00	Pulse	0.50	3
Fe			1	51449.675	ug/l	1.19	36,848,298.67	2.358E+02	Analog	0.50	3
Co			1	8.768	ug/l	1.06	11,469.68	7.339E-02	Pulse	0.50	3
Ni			1	2.483	ug/l	5.33	1,012.70	6.480E-03	Pulse	0.50	3
Cu			1	3.363	ug/l	5.61	7,544.93	4.828E-02	Pulse	0.50	3
Zn			1	14.681	ug/l	0.64	3,187.29	1.364E-02	Pulse	1.00	3
Cd			1	-0.014	ug/l	-33.63	1.33	5.713E-06	Pulse	0.50	3
Al			1	13.925	ug/l	8.39	837.69	3.169E-03	Pulse	1.00	3
Se			1	0.097	ug/l	220.60	19.00	8.133E-05	Pulse	3.00	3
Sb			1	0.105	ug/l	21.94	122.33	5.235E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,768,400.42	1.17	103.8	Analog	0.50	3
1	Sc		264,239.42	1.54	101.6	Pulse	0.30	3
1	Ge		156,285.94	0.63	102.9	Pulse	0.30	3
1	In		1,674,629.62	1.58	104.5	Analog	0.30	3
1	Tb		4,968,001.17	1.42	104.3	Analog	0.50	3
1	Lu		4,042,167.83	1.50	104.7	Analog	0.50	3
1	Ge		233,616.01	0.23	102.3	Pulse	0.30	3
1	Li		3,609.25	6.88	101.9	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:51
Sample Name	FC10954-3
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.264	ug/l	80.05	402.01	2.567E-03	Pulse	0.50	3
As			1	5888.915	ug/l	1.22	120,404.22	7.693E-01	Pulse	1.00	3
Mo			1	2.480	ug/l	18.27	266.67	1.137E-03	Pulse	0.50	3
Pb			1	0.353	ug/l	12.27	1,189.38	3.102E-04	Pulse	1.00	3
Be			1	0.525	ug/l	117.39	2.50	9.389E-06	Pulse	2.00	3
Ag			1	0.072	ug/l	63.30	92.67	5.537E-05	Pulse	0.50	3
Ba			1	28.134	ug/l	1.61	1,388.06	8.294E-04	Pulse	0.50	3
Tl			1	0.037	ug/l	67.39	92.67	2.418E-05	Pulse	0.50	3
Sn			1	1.136	ug/l	44.06	350.01	2.093E-04	Pulse	0.30	3
Sr			1	339.527	ug/l	2.48	42,388.82	2.533E-02	Pulse	0.50	3
Ca			1	51017.035	ug/l	0.81	35,330.72	1.325E-01	Pulse	0.50	3
Ti			1	3.755	ug/l	24.56	20.67	7.744E-05	Pulse	0.50	3
Na			1	10417.745	ug/l	0.44	374,038.19	1.402E+00	Pulse	1.00	3
Mg			1	5948.148	ug/l	0.15	104,350.21	3.913E-01	Pulse	1.00	3
K			1	6199.514	ug/l	1.57	129,540.04	4.857E-01	Pulse	1.00	3
V			1	-14.613	ug/l	-2.30	1,960.11	7.349E-03	Pulse	0.50	3
Mn			1	3200.166	ug/l	1.09	328,469.59	2.099E+00	Pulse	0.50	3
Fe			1	82516.590	ug/l	1.23	11,843,029.67	7.566E+01	Analog	0.50	3
Co			1	28.700	ug/l	0.74	7,546.93	4.821E-02	Pulse	0.50	3
Ni			1	12.483	ug/l	10.30	1,019.37	6.509E-03	Pulse	0.50	3
Cu			1	16.378	ug/l	7.50	7,477.58	4.778E-02	Pulse	0.50	3
Zn			1	68.448	ug/l	2.13	3,032.93	1.293E-02	Pulse	1.00	3
Cd			1	-0.042	ug/l	-54.33	2.67	1.137E-05	Pulse	0.50	3
Al			1	40.746	ug/l	20.78	634.68	2.381E-03	Pulse	1.00	3
Se			1	0.795	ug/l	45.70	19.67	8.385E-05	Pulse	3.00	3
Sb			1	0.212	ug/l	13.41	78.33	3.340E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,834,624.50	0.43	105.7	Analog	0.50	3
1	Sc		266,705.08	0.81	102.5	Pulse	0.30	3
1	Ge		156,528.00	0.92	103.1	Pulse	0.30	3
1	In		1,673,745.70	1.35	104.4	Analog	0.30	3
1	Tb		5,019,032.17	0.28	105.4	Analog	0.50	3
1	Lu		4,116,282.58	0.19	106.6	Analog	0.50	3
1	Ge		234,562.37	0.14	102.7	Pulse	0.30	3
1	Li		3,690.39	3.46	104.2	Pulse	0.30	3

Quantitation Report

File Name 063CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:54
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.696	ug/l	1.39	444,376.98	2.793E+00	Pulse	0.50	3
As			1	51.860	ug/l	1.42	53,929.49	3.389E-01	Pulse	1.00	3
Mo			1	50.057	ug/l	0.69	229,388.81	9.616E-01	Pulse	0.50	3
Pb			1	49.270	ug/l	1.41	1,369,923.42	3.635E-01	Pulse	1.00	3
Be			1	51.245	ug/l	0.45	5,687.86	2.082E-02	Pulse	2.00	3
Ag			1	49.473	ug/l	3.00	802,967.52	4.802E-01	Pulse	0.50	3
Ba			1	48.531	ug/l	3.48	116,583.46	6.973E-02	Pulse	0.50	3
Tl			1	52.216	ug/l	1.86	2,101,473.12	5.576E-01	Analog	0.50	3
Sn			1	47.980	ug/l	3.34	265,031.78	1.585E-01	Pulse	0.30	3
Sr			1	48.518	ug/l	3.52	301,068.67	1.801E-01	Pulse	0.50	3
Ca			1	5097.375	ug/l	1.07	180,443.31	6.604E-01	Pulse	0.50	3
Ti			1	49.270	ug/l	2.37	11,130.75	4.074E-02	Pulse	0.50	3
Na			1	5154.156	ug/l	0.53	9,143,372.33	3.346E+01	Analog	1.00	3
Mg			1	5202.750	ug/l	1.45	4,630,916.33	1.695E+01	Analog	1.00	3
K			1	5333.881	ug/l	0.44	3,735,900.33	1.367E+01	Analog	1.00	3
V			1	50.031	ug/l	0.88	354,624.99	1.298E+00	Pulse	0.50	3
Mn			1	51.176	ug/l	1.11	267,047.84	1.678E+00	Pulse	0.50	3
Fe			1	5239.220	ug/l	1.42	38,202,376.00	2.401E+02	Analog	0.50	3
Co			1	51.577	ug/l	1.02	682,224.69	4.288E+00	Pulse	0.50	3
Ni			1	51.931	ug/l	1.01	179,733.73	1.130E+00	Pulse	0.50	3
Cu			1	52.377	ug/l	0.84	482,416.81	3.032E+00	Pulse	0.50	3
Zn			1	51.698	ug/l	0.71	89,417.51	3.749E-01	Pulse	1.00	3
Cd			1	50.840	ug/l	1.32	131,266.27	5.503E-01	Pulse	0.50	3
Al			1	5181.900	ug/l	0.74	1,934,293.92	7.079E+00	Analog	1.00	3
Se			1	51.787	ug/l	1.90	5,044.72	2.115E-02	Pulse	3.00	3
Sb			1	50.208	ug/l	1.03	362,624.02	1.520E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,768,873.92	0.44	103.9	Analog	0.50	3
1	Sc		273,229.11	0.35	105.0	Pulse	0.30	3
1	Ge		159,122.13	0.42	104.8	Pulse	0.30	3
1	In		1,672,767.37	2.33	104.3	Analog	0.30	3
1	Tb		5,056,782.17	1.95	106.2	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,150,962.83	0.53	107.5	Analog	0.50	3
1	Ge		238,540.27	0.79	104.5	Pulse	0.30	3
1	Li		3,845.97	6.65	108.6	Pulse	0.30	3

Quantitation Report

File Name	064_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:57
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.184	ug/l	1.59	863,916.77	5.572E+00	Pulse	0.50	3
As			1	103.003	ug/l	1.34	104,323.09	6.728E-01	Pulse	1.00	3
Mo			1	101.751	ug/l	1.57	450,516.06	1.955E+00	Pulse	0.50	3
Pb			1	101.902	ug/l	0.77	2,763,169.17	7.515E-01	Analog	1.00	3
Be			1	104.480	ug/l	1.89	11,277.87	4.244E-02	Pulse	2.00	3
Ag			1	100.531	ug/l	2.93	1,624,594.13	9.758E-01	Analog	0.50	3
Ba			1	95.217	ug/l	3.12	227,726.30	1.368E-01	Pulse	0.50	3
Tl			1	101.277	ug/l	0.87	3,976,428.00	1.082E+00	Analog	0.50	3
Sn			1	94.375	ug/l	3.27	518,850.86	3.117E-01	Pulse	0.30	3
Sr			1	95.402	ug/l	3.04	589,249.08	3.540E-01	Pulse	0.50	3
Ca			1	10195.999	ug/l	1.77	350,949.56	1.321E+00	Pulse	0.50	3
Ti			1	102.992	ug/l	2.46	22,624.03	8.514E-02	Pulse	0.50	3
Na			1	10342.977	ug/l	1.18	17,833,580.00	6.710E+01	Analog	1.00	3
Mg			1	10419.484	ug/l	2.05	9,019,172.00	3.394E+01	Analog	1.00	3
K			1	10488.382	ug/l	0.89	7,102,634.83	2.672E+01	Analog	1.00	3
V			1	101.052	ug/l	1.56	692,644.35	2.606E+00	Pulse	0.50	3
Mn			1	102.332	ug/l	1.42	520,122.92	3.354E+00	Pulse	0.50	3
Fe			1	10439.741	ug/l	1.46	74,173,090.67	4.784E+02	Analog	0.50	3
Co			1	102.769	ug/l	1.78	1,324,557.58	8.543E+00	Pulse	0.50	3
Ni			1	103.040	ug/l	1.75	347,342.59	2.240E+00	Pulse	0.50	3
Cu			1	103.102	ug/l	1.04	921,036.27	5.940E+00	Pulse	0.50	3
Zn			1	103.333	ug/l	1.65	171,988.94	7.462E-01	Pulse	1.00	3
Cd			1	102.601	ug/l	1.91	255,971.82	1.111E+00	Pulse	0.50	3
Al			1	10359.688	ug/l	2.14	3,760,667.92	1.415E+01	Analog	1.00	3
Se			1	102.363	ug/l	1.88	9,618.37	4.173E-02	Pulse	3.00	3
Sb			1	101.678	ug/l	1.83	709,539.90	3.078E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,676,829.67	0.50	101.3	Analog	0.50	3
1	Sc		265,794.10	1.45	102.2	Pulse	0.30	3
1	Ge		155,068.81	0.88	102.1	Pulse	0.30	3
1	In		1,665,618.16	2.50	103.9	Analog	0.30	3
1	Tb		4,953,011.17	0.58	104.0	Analog	0.50	3
1	Lu		4,038,278.08	0.44	104.6	Analog	0.50	3
1	Ge		230,525.78	1.23	100.9	Pulse	0.30	3
1	Li		3,731.50	4.73	105.3	Pulse	0.30	3

Quantitation Report

File Name	065_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 15:00
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	87.71	506.68	3.236E-03	Pulse	0.50	3
As			1	0.022	ug/l	74.61	80.00	5.108E-04	Pulse	1.00	3
Mo			1	0.256	ug/l	30.72	1,194.71	5.106E-03	Pulse	0.50	3
Pb			1	0.031	ug/l	54.03	1,869.79	4.899E-04	Pulse	1.00	3
Be			1	0.038	ug/l	55.62	5.50	2.051E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	47.91	460.68	2.713E-04	Pulse	0.50	3
Ba			1	0.020	ug/l	44.77	84.67	4.978E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	23.67	998.70	2.617E-04	Pulse	0.50	3
Sn			1	0.170	ug/l	20.42	1,186.72	6.943E-04	Pulse	0.30	3
Sr			1	0.016	ug/l	67.85	354.00	2.080E-04	Pulse	0.50	3
Ca			1	1.377	ug/l	50.92	141.33	5.269E-04	Pulse	0.50	3
Ti			1	0.030	ug/l	127.63	10.67	3.983E-05	Pulse	0.50	3
Na			1	1.377	ug/l	81.93	16,280.52	6.068E-02	Pulse	1.00	3
Mg			1	1.817	ug/l	63.76	2,606.87	9.719E-03	Pulse	1.00	3
K			1	3.941	ug/l	39.70	48,792.53	1.819E-01	Pulse	1.00	3
V			1	-0.284	ug/l	-0.85	2,029.45	7.564E-03	Pulse	0.50	3
Mn			1	0.036	ug/l	38.14	423.34	2.703E-03	Pulse	0.50	3
Fe			1	3.497	ug/l	31.34	32,169.80	2.054E-01	Pulse	0.50	3
Co			1	0.021	ug/l	68.86	349.34	2.232E-03	Pulse	0.50	3
Ni			1	0.002	ug/l	711.51	176.67	1.128E-03	Pulse	0.50	3
Cu			1	0.031	ug/l	125.21	4,819.33	3.076E-02	Pulse	0.50	3
Zn			1	0.089	ug/l	57.53	871.02	3.726E-03	Pulse	1.00	3
Cd			1	0.021	ug/l	72.36	58.00	2.485E-04	Pulse	0.50	3
Al			1	2.526	ug/l	47.89	1,265.38	4.718E-03	Pulse	1.00	3
Se			1	0.079	ug/l	34.92	25.56	1.093E-04	Pulse	3.00	3
Sb			1	0.064	ug/l	3.25	500.01	2.139E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,811,591.83	1.11	105.0	Analog	0.50	3
1	Sc		268,314.04	0.37	103.2	Pulse	0.30	3
1	Ge		156,674.02	0.38	103.1	Pulse	0.30	3
1	In		1,707,192.61	2.50	106.5	Analog	0.30	3
1	Tb		5,042,858.83	0.25	105.9	Analog	0.50	3
1	Lu		4,078,650.67	0.85	105.6	Analog	0.50	3
1	Ge		233,786.95	0.46	102.4	Pulse	0.30	3
1	Li		3,783.73	3.26	106.8	Pulse	0.30	3

US EPA Tune Check Report

Operator Name	admin
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Acq. Date-Time	2023-11-07 11:05:14
Report Comment	---
Instrument Name	ICP-MS JP12151709

[2]

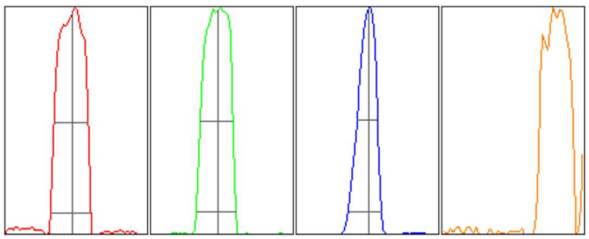
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59	1.00	1323	13232.42	5000.00		3.498	5.000
89	1.00	1247	12471.79	5000.00		3.752	5.000
205	1.00	3849	38494.56	5000.00		2.466	5.000
78		2	17.00			131.936	

Mass	RSD% (Flag)	Background	Background (Required)	Background (Flag)
59		0.000	2.000	
89		0.200	2.000	
205		0.300	2.000	
78		0.100	5.000	

Integration Time [sec]	0.1
Oxide	156 / 140 0.495 %
Doubly Charged	70 / 140 1.293 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	1346.55	58.95	58.90 - 59.10	
89	1208.97	88.95	88.90 - 89.10	
205	3925.67	205.05	204.90 - 205.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.72	0.849	0.900	
89	0.69	0.840	0.900	
205	0.43	0.706	0.900	
78				

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	1.09 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.1 V	Deflect	2.0 V
Extract 2	-110.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-60 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.3 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9989	QP Bias	-15.0 V
Mass Offset	128	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	0.2 mm		

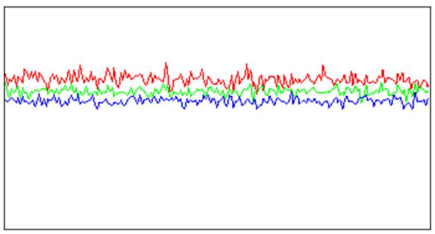
EM

Discriminator	4.5 mV	Analog HV	1777 V	Pulse HV	1716 V

Performance Report

Operator Name	admin
Acq. Date-Time	2023-11-07 10:53:11
Instrument Name	ICP-MS JP12151709
Sample Introduction	ISIS
Nebulizer Type	MicroMist
Ion Lens Model	x-Lens
Tune Parameters	Standard Tune

Sensitivity



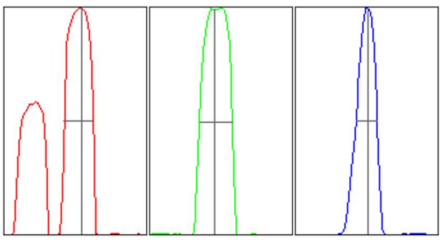
Mass	Range	Count	RSD%	Background
7	2000	1355	3.681	0.250
89	5000	3112	2.721	0.950
205	5000	2895	2.745	4.350

Sampling Period [sec]	0.311
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.180 %
Doubly Charged	70 / 140 9.585 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
7	1346.03	7.15	0.61	0.72
89	3096.84	88.90	0.69	0.85
205	2952.34	205.05	0.45	0.72

Integration Time [sec]	0.1
Acquisition Time [sec]	22.74

Tune Parameters

Plasma Parameters

RF Power	1550 W	Option Gas	---	Makeup Gas	0.00 L/min
RF Matching	1.60 V	Nebulizer Pump	0.10 rps	Auxiliary Gas	0.90 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C	Plasma Gas	15.0 L/min
Nebulizer Gas	0.99 L/min				

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.0 V	Deflect	13.6 V
Extract 2	-155.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-80 V	Cell Exit	-50 V		

Performance Report

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		

QP Parameters

QP Bias	-3.0 V

Hardware Settings

Torch

Torch H	-0.2 mm	Torch H (Hot)	---	Torch H (Cool)	---
Torch V	0.2 mm	Torch V (Hot)	---	Torch V (Cool)	---

Plasma Correction

Nebulizer Gas Offset	-0.06 L/min	Makeup Gas (Hot)	---	Makeup Gas (Cool)	---
		Sample Depth (Hot)	---		

Resolution/Axis

Mass Gain	124	Axis Gain	0.9989		
Mass Offset	128	Axis Offset	0.12		

EM

Discriminator	4.5 mV	Analog HV	1777 V	Pulse HV	1716 V

Performance Report

Meter

Name	Value	Unit
Nebulizer Gas	0.99	L/min
MU./Dil. Gas	0.00	L/min
Plasma Gas	14.98	L/min
Aux Gas	0.90	L/min
Ar Gas Tank Press	5.50E+2	kPa
+5V (Press Gage)	5.0	V
Ar AMFC Temp	30.4	°C
Nebulizer Gas(DP)	5.97E+0	kPa
MU./Dil. Gas(DP)	-4.63E-2	kPa
Aux Gas(DP)	1.25E+1	kPa
Plasma Gas(DP)	1.14E+1	kPa
Nebulizer Gas(BP)	2.84E+2	kPa
MU./Dil. Gas(BP)	0.00E+0	kPa
Aux Gas(BP)	5.56E+1	kPa
Plasma Gas(BP)	4.24E+1	kPa
S/C Temp (H)	17.9	°C
S/C Temp (L)	2.0	°C
Peltier Voltage	3.3	V
IF/BK Press	2.87E+2	Pa
Analyzer Press	1.60E-4	Pa
IG HV	179	V
IG Emission	5.00	µA
TMP Revolution	100.0	%
TMP Rev (RAW)	100.6	%
TMP Current	3.46	A
PWR AMP Drain I	0.4	A
PWR AMP Bias	2.84	V
OctP RF (Avg)	172.8	V
OctP RF Set	3.3	V
OctP FET Bias Set	3.31	V
OctP RF(+)	168.0	V
OctP RF(-)	176.9	V
OctP Bias	-7.9	V
Cell Temp.	65.0	°C
Cell Heater Volt.	4.2	V
+U Voltage	10.4	V

Name	Value	Unit
-U Voltage	-16.6	V
V Voltage	45.7	V
QPRF Fader	0.0	V
Pickup Temp	55.0	°C
PWR Amp Temp	0.1	V
+600V	618.1	V
-120V	-134.0	V
-720V	-742.2	V
Prefilter Bias	-5.01	V
Pickup Heater I	0.08	A
QP PS +48V	47.9	V
QP PS +48V I	0.00	A
Analog HV	-1715	V
Pulse HV	1738	V
EM Gate	-47.4	V
Pulse Gate	353.0	V
EM Entrance	0.2	V
Analog -5V	-5.1	V
Analog +15V	14.7	V
Analog -15V	-14.5	V
Analog +5V	5.2	V
Shunt C Pos	1.3	V
Drain Volt.(max)	60.5	V
RF PS +48V	47.5	V
Forward Power	1550	W
Reflected Power	0	W
Plasma Freq.	26.76	MHz
Drain I 1	11.23	A
Drain I 2	10.64	A
Drain I 3	10.93	A
Drain I 4	10.94	A
Temp Sensor	2.8	V
Driver I	6.89	A
Igniter	0.0	V
Driver Voltage Set	7.1	V
Unbalance Current	0.36	A

Name	Value	Unit
PWM Threshold Set	0.2	V
Driver Voltage	5.8	V
PWM Threshold	0.2	V
Phase Detector	0.0	mV
H2 Gas	0.10	mL/min
He Gas	0.04	mL/min
H2 Gas Press	1.70E+0	kPa
He Gas Press	0.00E+0	kPa
ORS AMFC Temp	27.4	°C
Atmospheric Press	1.00E+2	kPa
Extract 1	-0.1	V
Extract 2	-156.0	V
Omega Bias	-80.1	V
Omega Lens	7.9	V
Cell Entrance	-30.1	V
Cell Exit	-50.2	V
Deflect	13.8	V
Plate Bias	-40.0	V
HV+530V	526	V
HV+240V	240	V
HV-360V	-359	V
Inlet Temp	28.9	°C
Internal Temp	35.4	°C
+24V	23.6	V
Water Temp	20.6	°C
Water RF/WC/IF	1.42	L/min

Performance Report History

Sensitivity

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-07 10:53:11	1355	3112	2895
2023-11-07 10:29:48	1500	3330	3404
2023-11-04 10:36:04	1532	3281	2981
2023-11-04 10:12:21	1731	3335	3152
2023-11-03 09:55:39	1621	3363	3436
2023-11-02 09:43:00	1591	3465	3262
2023-11-01 10:06:30	1702	3703	3566
2023-10-31 10:32:51	1896	3355	3399
2023-10-31 09:58:22	1634	3228	3571
2023-10-24 10:16:51	1999	3899	4119
2023-10-21 11:00:25	1707	4137	3864
2023-10-20 10:03:57	1787	4064	4106
2023-10-19 11:34:00	1779	3893	3812
2023-10-14 11:26:08	1377	4157	3891
2023-10-13 10:06:23	1366	4273	3584
2023-10-13 09:54:29	1429	4292	3641
2023-10-12 10:40:18	1515	5359	4809
2023-10-11 09:58:46	2050	5072	5025
2023-10-10 10:59:48	1624	4657	4676
2023-10-10 10:47:06	1902	4861	4881
2023-10-09 15:47:58	2367	5470	5775
2023-10-09 15:34:05	1969	3952	3641
2023-10-09 15:25:44	2218	4669	4364
2023-10-09 15:19:50	2080	4354	4087
2023-10-09 14:53:07	1948	4201	3879
2023-10-09 13:19:49	171	78	51
2023-10-09 13:14:00	340	246	180
2023-10-09 09:47:20	2821	4673	5008
2023-10-04 16:49:35	1014	792	945
2023-10-04 15:55:18	1890	2107	2413
2023-10-04 15:15:29	573	209	219
2023-09-21 10:00:54	1658	3131	3442
2023-09-19 11:19:40	2218	3287	3248
2023-09-16 10:28:46	1711	3573	3553
2023-09-14 11:00:11	1721	3210	3387
2023-09-09 10:05:04	1722	3568	3729
2023-09-07 09:53:49	2309	4081	4428
2023-09-02 10:39:33	2248	4065	4257
2023-09-01 09:34:24	1949	3868	4111
2023-08-31 09:25:36	1996	4315	4809
2023-08-31 09:18:43	1985	4296	4816

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-08-29 10:05:32	2240	4135	4129
2023-08-26 10:39:41	2021	4299	4209
2023-08-25 13:19:27	2396	4661	4638
2023-08-25 10:13:41	2316	4944	5010
2023-08-25 10:00:19	2496	4915	4756
2023-08-24 10:22:50	2511	4818	4583
2023-08-24 09:27:33	2424	5025	4351
2023-08-23 10:20:39	2574	5640	5183
2023-08-23 10:00:27	2462	5279	4587
2023-08-22 09:46:34	3016	5876	4894
2023-08-19 10:32:30	2657	4462	4107
2023-08-08 13:40:43	2000	4283	3815
2023-08-08 12:53:37	334	678	620
2023-08-08 11:20:33	743	1157	1099
2023-08-07 14:06:05	2460	4533	4712

Background

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-07 10:53:11	0.250	0.950	4.350
2023-11-07 10:29:48	0.050	1.200	3.450
2023-11-04 10:36:04	0.300	1.200	5.700
2023-11-04 10:12:21	0.550	1.550	4.300
2023-11-03 09:55:39	0.250	1.050	4.700
2023-11-02 09:43:00	0.200	0.900	5.150
2023-11-01 10:06:30	0.150	0.900	3.450
2023-10-31 10:32:51	0.000	0.850	4.050
2023-10-31 09:58:22	0.150	1.150	3.250
2023-10-24 10:16:51	0.550	1.200	3.900
2023-10-21 11:00:25	0.250	1.250	5.300
2023-10-20 10:03:57	0.050	0.750	3.150
2023-10-19 11:34:00	0.350	0.600	3.750
2023-10-14 11:26:08	0.300	1.000	5.350
2023-10-13 10:06:23	0.250	1.800	5.950
2023-10-13 09:54:29	0.300	2.150	4.150
2023-10-12 10:40:18	0.050	1.000	5.700
2023-10-11 09:58:46	0.200	1.000	5.250
2023-10-10 10:59:48	0.200	1.650	5.400
2023-10-10 10:47:06	0.250	1.200	4.950
2023-10-09 15:47:58	0.000	1.000	4.500
2023-10-09 15:34:05	1.050	1.250	4.150

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-09 15:25:44	0.300	1.250	4.150
2023-10-09 15:19:50	0.400	1.050	4.750
2023-10-09 14:53:07	0.500	1.350	4.950
2023-10-09 13:19:49	0.350	0.750	4.650
2023-10-09 13:14:00	0.950	0.850	3.750
2023-10-09 09:47:20	0.150	0.950	5.700
2023-10-04 16:49:35	0.150	0.700	2.150
2023-10-04 15:55:18	0.100	0.700	3.500
2023-10-04 15:15:29	0.300	0.200	2.200
2023-09-21 10:00:54	0.000	0.550	3.250
2023-09-19 11:19:40	0.300	0.850	3.200
2023-09-16 10:28:46	0.350	1.000	4.000
2023-09-14 11:00:11	0.100	1.200	4.300
2023-09-09 10:05:04	0.400	1.200	4.550
2023-09-07 09:53:49	0.450	0.950	3.600
2023-09-02 10:39:33	0.300	0.600	4.500
2023-09-01 09:34:24	0.150	0.650	3.400
2023-08-31 09:25:36	0.250	1.300	3.300
2023-08-31 09:18:43	0.400	0.550	4.000
2023-08-29 10:05:32	0.050	1.650	2.650
2023-08-26 10:39:41	0.200	1.250	4.000
2023-08-25 13:19:27	0.200	1.100	4.400
2023-08-25 10:13:41	0.300	1.000	4.550
2023-08-25 10:00:19	0.050	1.100	3.950
2023-08-24 10:22:50	0.350	1.400	3.100
2023-08-24 09:27:33	0.500	0.750	4.900
2023-08-23 10:20:39	0.200	1.250	3.850
2023-08-23 10:00:27	0.250	0.850	5.300
2023-08-22 09:46:34	0.250	1.800	5.400
2023-08-19 10:32:30	0.050	1.150	3.950
2023-08-08 13:40:43	0.200	1.200	4.800
2023-08-08 12:53:37	0.150	0.350	1.500
2023-08-08 11:20:33	0.100	0.350	1.400
2023-08-07 14:06:05	0.050	0.750	3.850

Tune Parameters

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-07 10:53:11	0.0 V	-155.0 V	-80 V
2023-11-07 10:29:48	0.0 V	-160.0 V	-80 V
2023-11-04 10:36:04	0.0 V	-165.0 V	-80 V

Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-04 10:12:21	0.0 V	-175.0 V	-90 V
2023-11-03 09:55:39	0.0 V	-170.0 V	-90 V
2023-11-02 09:43:00	0.0 V	-180.0 V	-90 V
2023-11-01 10:06:30	0.0 V	-160.0 V	-90 V
2023-10-31 10:32:51	0.0 V	-175.0 V	-90 V
2023-10-31 09:58:22	0.0 V	-175.0 V	-90 V
2023-10-24 10:16:51	0.0 V	-190.0 V	-100 V
2023-10-21 11:00:25	0.0 V	-185.0 V	-90 V
2023-10-20 10:03:57	0.0 V	-175.0 V	-90 V
2023-10-19 11:34:00	0.0 V	-185.0 V	-90 V
2023-10-14 11:26:08	0.0 V	-195.0 V	-100 V
2023-10-13 10:06:23	0.0 V	-195.0 V	-100 V
2023-10-13 09:54:29	0.0 V	-200.0 V	-100 V
2023-10-12 10:40:18	0.0 V	-195.0 V	-100 V
2023-10-11 09:58:46	0.0 V	-200.0 V	-100 V
2023-10-10 10:59:48	0.0 V	-200.0 V	-110 V
2023-10-10 10:47:06	0.0 V	-200.0 V	-100 V
2023-10-09 15:47:58	0.0 V	-200.0 V	-100 V
2023-10-09 15:34:05	0.0 V	-195.0 V	-100 V
2023-10-09 15:25:44	0.0 V	-195.0 V	-100 V
2023-10-09 15:19:50	0.0 V	-195.0 V	-100 V
2023-10-09 14:53:07	0.0 V	-195.0 V	-100 V
2023-10-09 13:19:49	0.0 V	-200.0 V	-110 V
2023-10-09 13:14:00	0.0 V	-200.0 V	-110 V
2023-10-09 09:47:20	0.0 V	-200.0 V	-110 V
2023-10-04 16:49:35	0.0 V	-160.0 V	-100 V
2023-10-04 15:55:18	0.0 V	-165.0 V	-100 V
2023-10-04 15:15:29	0.0 V	-170.0 V	-100 V
2023-09-21 10:00:54	0.0 V	-150.0 V	-90 V
2023-09-19 11:19:40	0.0 V	-155.0 V	-90 V
2023-09-16 10:28:46	0.0 V	-160.0 V	-100 V
2023-09-14 11:00:11	0.0 V	-165.0 V	-100 V
2023-09-09 10:05:04	0.0 V	-155.0 V	-100 V
2023-09-07 09:53:49	0.0 V	-165.0 V	-100 V
2023-09-02 10:39:33	0.0 V	-170.0 V	-110 V
2023-09-01 09:34:24	0.0 V	-175.0 V	-110 V
2023-08-31 09:25:36	0.0 V	-180.0 V	-110 V
2023-08-31 09:18:43	0.0 V	-180.0 V	-110 V
2023-08-29 10:05:32	0.0 V	-170.0 V	-110 V
2023-08-26 10:39:41	0.0 V	-180.0 V	-110 V
2023-08-25 13:19:27	0.0 V	-175.0 V	-110 V

Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-08-25 10:13:41	0.0 V	-175.0 V	-110 V
2023-08-25 10:00:19	0.0 V	-180.0 V	-110 V
2023-08-24 10:22:50	0.0 V	-185.0 V	-110 V
2023-08-24 09:27:33	0.0 V	-190.0 V	-110 V
2023-08-23 10:20:39	0.0 V	-170.0 V	-100 V
2023-08-23 10:00:27	0.0 V	-175.0 V	-100 V
2023-08-22 09:46:34	0.0 V	-175.0 V	-100 V
2023-08-19 10:32:30	0.0 V	-170.0 V	-100 V
2023-08-08 13:40:43	0.0 V	-155.0 V	-90 V
2023-08-08 12:53:37	0.0 V	-140.0 V	-90 V
2023-08-08 11:20:33	0.0 V	-175.0 V	-100 V
2023-08-07 14:06:05	0.0 V	-160.0 V	-100 V

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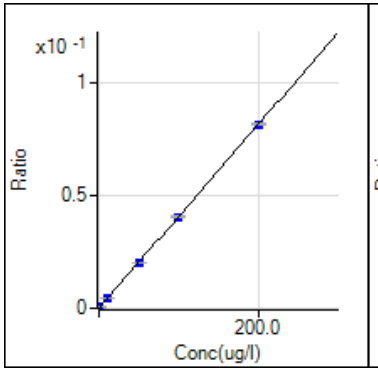
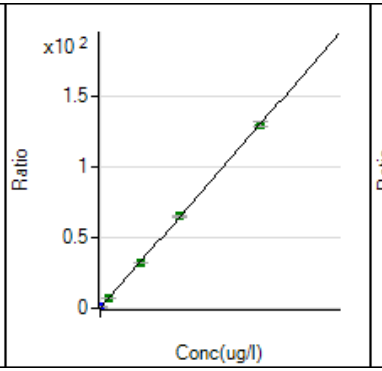
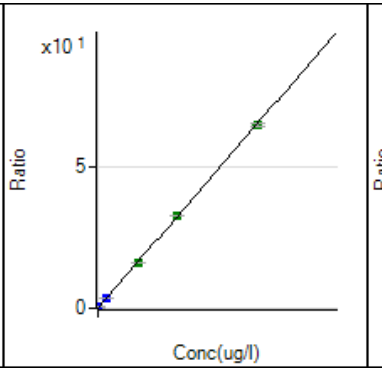


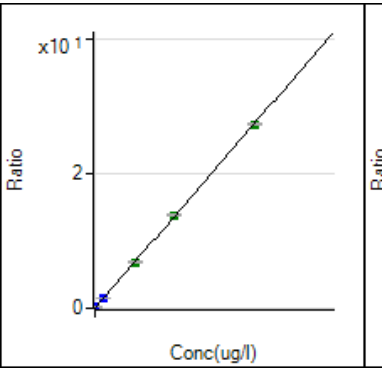
9 Be [2]
ISTD: 45 Sc
y = 4.061E-4 x + 5.127E-6
R 1.0000
DL 0.01643
BEC 0.01262



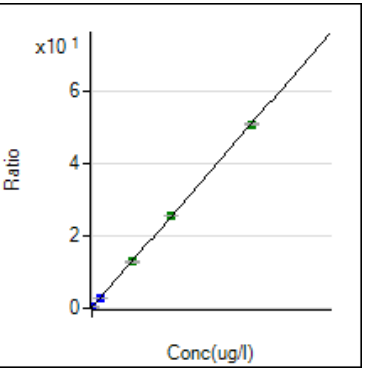
23 Na [2]
ISTD: 45 Sc
y = 6.483E-3 x + 5.176E-2
R 1.0000
DL 0.1155
BEC 7.984



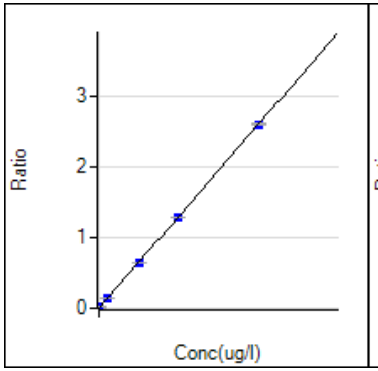
24 Mg [2]
ISTD: 45 Sc
y = 3.257E-3 x + 3.800E-3
R 1.0000
DL 0.0768
BEC 1.167



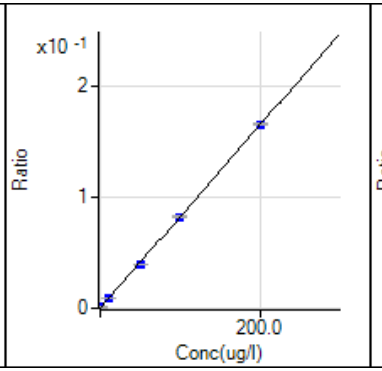
27 Al [2]
ISTD: 45 Sc
y = 1.366E-3 x + 1.267E-3
R 1.0000
DL 0.04504
BEC 0.9279



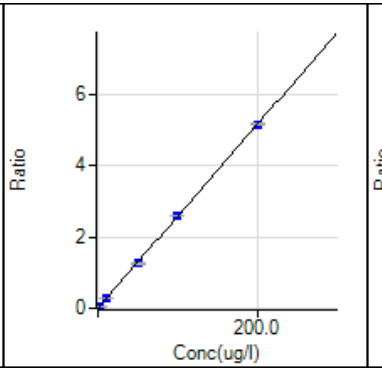
39 K [2]
ISTD: 45 Sc
y = 2.531E-3 x + 1.719E-1
R 1.0000
DL 1.295
BEC 67.9



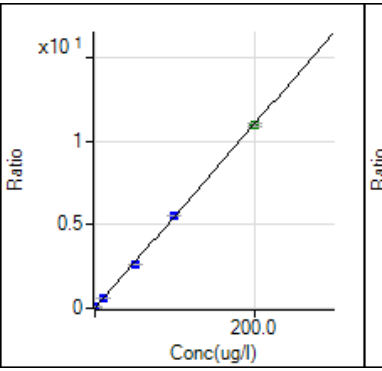
44 Ca [2]
ISTD: 45 Sc
y = 1.295E-4 x + 3.485E-4
R 1.0000
DL 0.8368
BEC 2.692



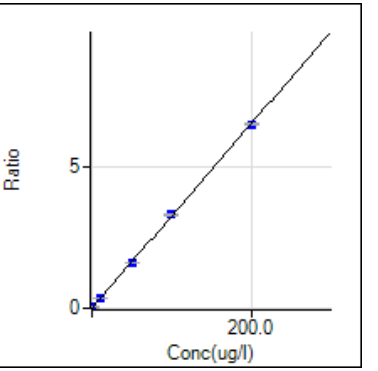
47 Ti [2]
ISTD: 45 Sc
y = 8.265E-4 x + 1.538E-5
R 0.9999
DL 0.07385
BEC 0.0186



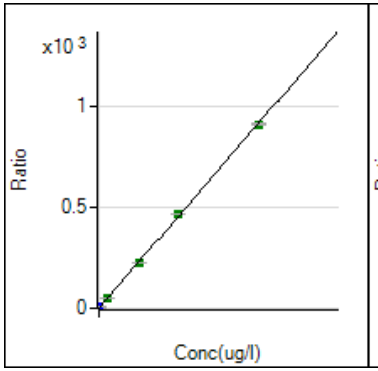
51 V [2]
ISTD: 45 Sc
y = 2.564E-2 x + 1.484E-2
R 1.0000
DL 0.04393
BEC 0.5788



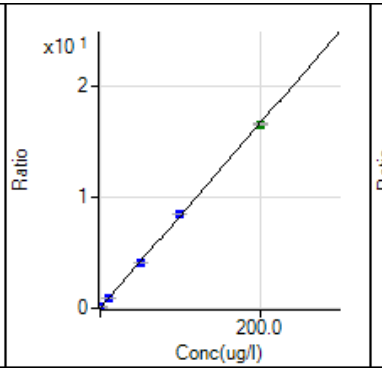
52 Cr [2]
ISTD: 72 Ge
y = 5.504E-2 x + 2.276E-3
R 0.9999
DL 0.0188
BEC 0.04135



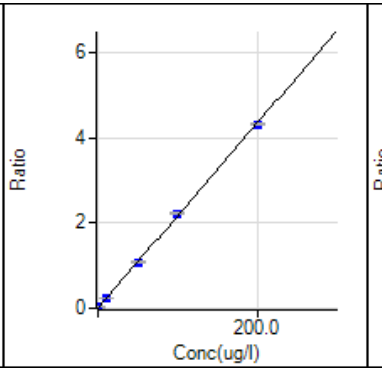
55 Mn [2]
ISTD: 72 Ge
y = 3.276E-2 x + 1.529E-3
R 1.0000
DL 0.01794
BEC 0.04665



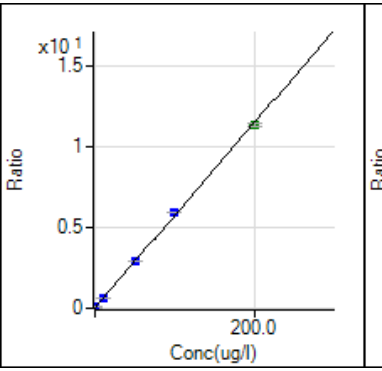
56 Fe [2]
ISTD: 72 Ge
y = 4.582E-2 x + 4.522E-2
R 0.9999
DL 0.05705
BEC 0.987



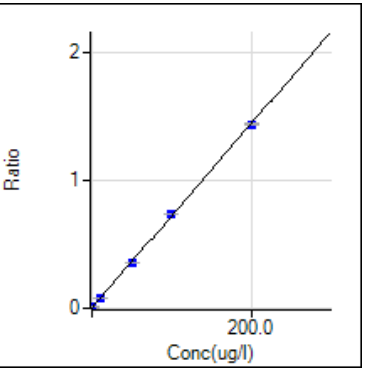
59 Co [2]
ISTD: 72 Ge
y = 8.312E-2 x + 5.051E-4
R 0.9999
DL 0.002148
BEC 0.006077



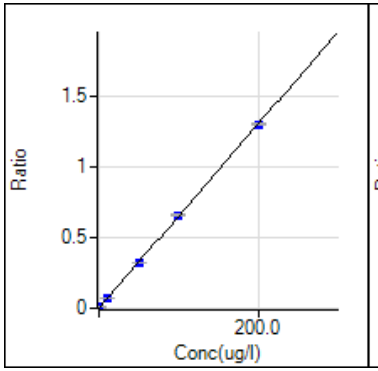
60 Ni [2]
ISTD: 72 Ge
y = 2.173E-2 x + 1.084E-3
R 0.9999
DL 0.005466
BEC 0.04988



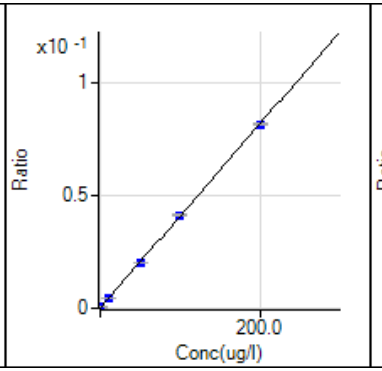
63 Cu [2]
ISTD: 72 Ge
y = 5.733E-2 x + 2.900E-2
R 0.9998
DL 0.006894
BEC 0.5058



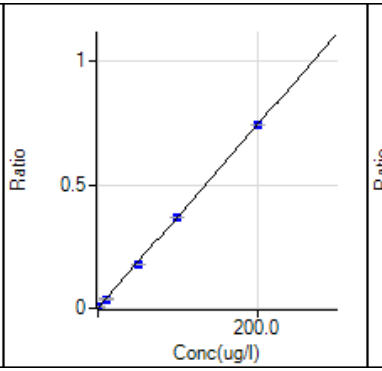
66 Zn [2]
ISTD: 74 Ge
y = 7.191E-3 x + 3.086E-3
R 1.0000
DL 0.05086
BEC 0.4291



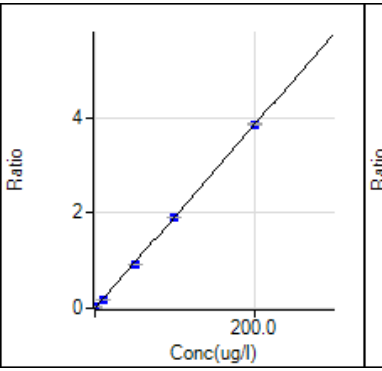
75 As [2]
ISTD: 72 Ge
y = 6.528E-3 x + 3.663E-4
R 1.0000
DL 0.01633
BEC 0.0561



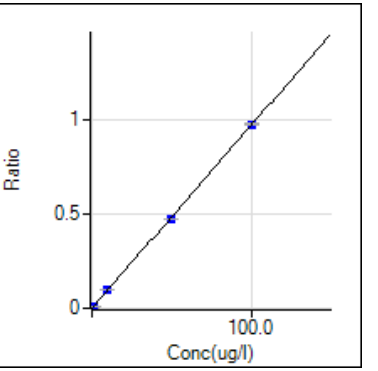
78 Se [2]
ISTD: 74 Ge
y = 4.069E-4 x + 7.738E-5
R 1.0000
DL 0.09306
BEC 0.1902



88 Sr [2]
ISTD: 115 In
y = 3.709E-3 x + 1.479E-4
R 0.9999
DL 0.01232
BEC 0.03988

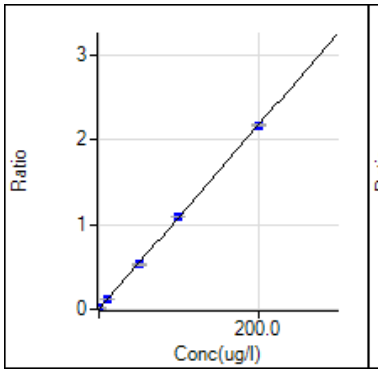


95 Mo [2]
ISTD: 74 Ge
y = 1.921E-2 x + 1.839E-4
R 0.9999
DL 0.01366
BEC 0.009572

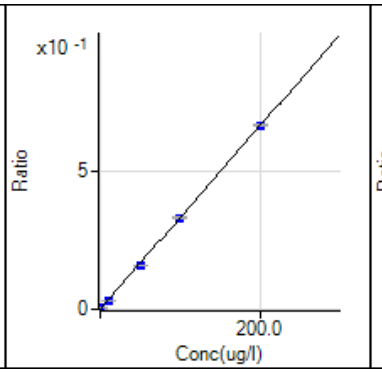


107 Ag [2]
ISTD: 115 In
y = 9.706E-3 x + 4.146E-5
R 0.9999
DL 0.00441
BEC 0.004272

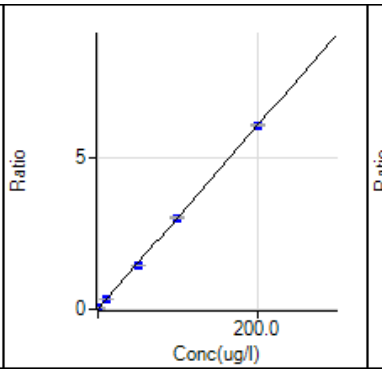
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b\019_CCB.d



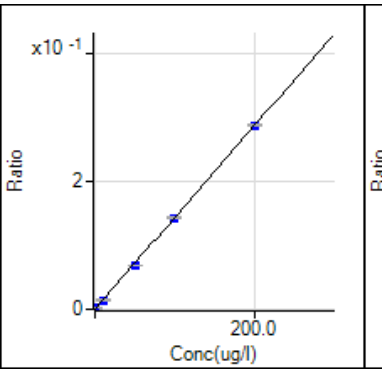
111 Cd [2]
ISTD: 74 Ge
y = 1.082E-2 x + 2.043E-5
R 1.0000
DL 0.007802
BEC 0.001887



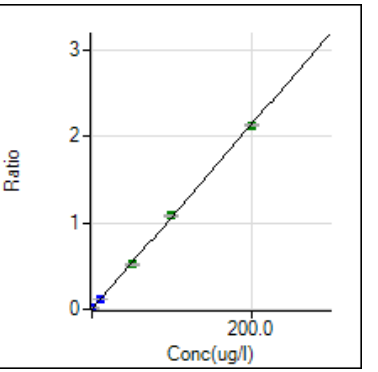
118 Sn [2]
ISTD: 115 In
y = 3.301E-3 x + 1.343E-4
R 0.9999
DL 0.02473
BEC 0.04069



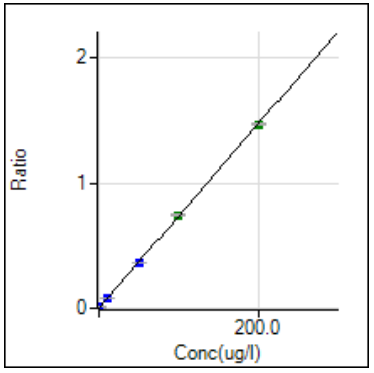
121 Sb [2]
ISTD: 74 Ge
y = 3.027E-2 x + 2.058E-4
R 0.9999
DL 0.005673
BEC 0.006799



137 Ba [2]
ISTD: 115 In
y = 1.436E-3 x + 2.116E-5
R 0.9999
DL 0.00807
BEC 0.01473



205 Tl [2]
ISTD: 209 Bi
y = 1.068E-2 x + 1.618E-5
R 0.9999
DL 0.000663
BEC 0.001515



208 Pb [2]
ISTD: 209 Bi
y = 7.372E-3 x + 2.581E-4
R 1.0000
DL 0.00249
BEC 0.035

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/8/2023 10:25:01 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0004**	**.0010**	**-.0003**	**.0031**	**.0018**	**-.0012**	**.0015**	**-.0008**	**-.0005**
Stddev	.0003	.0012	.0000	.0003	.0016	.0003	.0006	.0003	.0003
%RSD	66.76	120.4	7.406	11.32	85.27	24.16	39.81	36.71	55.68
#1	-.0002	.0023	-.0003	.0035	.0007	-.0013	.0022	-.0011	-.0007
#2	-.0003	-.0001	-.0003	.0029	.0036	-.0009	.0012	-.0005	-.0002
#3	-.0007	.0009	-.0003	.0029	.0012	-.0014	.0011	-.0008	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0082**	**.0000**	**.0020**	**.0051**	**.0001**	**.0005**	**.0004**	**.0159**
Stddev	.0001	.0003	.000	.0008	.0013	.0005	.0002	.0001	.0019
%RSD	72.32	4.092	938.4	41.45	26.44	558.2	32.70	40.19	11.84
#1	.0001	.0082	.0002	.0011	.0066	-.0004	.0004	.0005	.0179
#2	.0003	.0079	.0002	.0023	.0048	.0001	.0007	.0004	.0154
#3	.0001	.0086	-.0005	.0026	.0039	.0005	.0004	.0002	.0142

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0007**	**-.0038**	**.0004**	**-.0004**	**.0042**	**.0002**	**-.0004**	**.0015**	**-.0007**
Stddev	.0002	.0001	.0003	.0002	.0002	.0001	.0003	.0003	.0003
%RSD	22.63	2.678	82.40	55.20	4.559	50.79	75.60	20.14	45.32
#1	-.0009	-.0039	.0006	-.0006	.0041	.0003	-.0007	.0018	-.0005
#2	-.0006	-.0037	.0004	-.0002	.0040	.0001	-.0001	.0012	-.0006
#3	-.0006	-.0038	.0000	-.0006	.0044	.0003	-.0005	.0014	-.0011

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0008**
Stddev	.0003	.0000
%RSD	97.84	1.492
#1	.0000	.0008
#2	-.0002	.0008
#3	-.0006	.0008

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/8/2023 10:25:01 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3198.1**	**8238.8**	**45520.**	**9153.4**
Stddev	9.5	21.6	118.	6.3
%RSD	.29585	.26171	.25885	.06931
#1	3194.2	8230.1	45457.	9158.3
#2	3208.9	8263.4	45656.	9155.8
#3	3191.3	8223.0	45448.	9146.2

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/8/2023 10:31:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0061**	**.0357**	**.0009**	**.0183**	**1.840**	**.0756**	**.4553**	**.0243**	**.1402**
Stddev	.0001	.0007	.0001	.0003	.003	.0006	.0005	.0002	.0003
%RSD	1.870	1.901	13.65	1.635	.1577	.7415	.1089	.8371	.1829
#1	.0062	.0362	.0010	.0180	1.842	.0752	.4548	.0245	.1402
#2	.0061	.0349	.0009	.0185	1.840	.0753	.4552	.0241	.1400
#3	.0060	.0358	.0008	.0184	1.836	.0762	.4558	.0243	.1405

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0082**	**.0322**	**.0866**	**.7649**	**.0183**	**.2714**	**.0618**	**.0458**	**2.130**
Stddev	.0002	.0002	.0008	.0026	.0026	.0002	.0000	.0000	.008
%RSD	1.847	.6587	.9463	.3384	14.14	.0594	.0321	.0676	.3931
#1	.0083	.0321	.0858	.7666	.0213	.2713	.0618	.0458	2.132
#2	.0082	.0324	.0865	.7619	.0165	.2716	.0618	.0459	2.120
#3	.0080	.0320	.0874	.7662	.0172	.2713	.0618	.0458	2.137

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0663**	**.0016**	**.0013**	**.0004**	**.0195**	**.1458**	**.0261**	**.0016**	**.0556**
Stddev	.0002	.0005	.0001	.0001	.0000	.0011	.0001	.0003	.0000
%RSD	.2307	33.90	9.951	20.37	.1301	.7787	.2509	20.10	.0359
#1	.0662	.0012	.0011	.0004	.0195	.1464	.0260	.0018	.0557
#2	.0665	.0013	.0013	.0003	.0195	.1445	.0260	.0012	.0556
#3	.0662	.0022	.0014	.0003	.0195	.1465	.0261	.0018	.0556

Elem	Zn2062
Units	Cts/S
Avg	**.0646**
Stddev	.0001
%RSD	.1964
#1	.0647
#2	.0646
#3	.0644

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/8/2023 10:31:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3134.9**	**8165.9**	**44891.**	**9117.2**
Stddev	9.5	22.6	91.	40.1
%RSD	.30186	.27703	.20286	.43963
#1	3132.1	8152.4	44989.	9145.0
#2	3127.2	8153.3	44810.	9135.3
#3	3145.5	8192.0	44874.	9071.2

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/8/2023 10:35:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0207**	**.8365**	**.0287**	**.0865**	**2.257**	**3.694**	**2.272**	**1.218**	**.6914**
Stddev	.0002	.0010	.0001	.0007	.005	.004	.002	.001	.0006
%RSD	.9469	.1217	.1940	.7937	.2227	.0981	.0872	.1038	.0892
#1	.0209	.8357	.0286	.0857	2.258	3.697	2.272	1.217	.6916
#2	.0207	.8362	.0286	.0870	2.262	3.690	2.275	1.219	.6907
#3	.0205	.8376	.0287	.0868	2.252	3.695	2.271	1.220	.6919

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2008**	**.2385**	**1.419**	**.3859**	**.4248**	**.2720**	**1.004**	**.2295**	**1.147**
Stddev	.0004	.0007	.001	.0009	.0048	.0005	.001	.0000	.005
%RSD	.1929	.3077	.0408	.2395	1.122	.1897	.1225	.0118	.4046
#1	.2004	.2377	1.419	.3856	.4295	.2719	1.002	.2295	1.150
#2	.2008	.2392	1.419	.3852	.4249	.2726	1.004	.2295	1.148
#3	.2012	.2386	1.418	.3870	.4200	.2716	1.004	.2295	1.142

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4093**	**.2938**	**.0458**	**.0218**	**.0981**	**.0946**	**3.530**	**.5737**	**.0677**
Stddev	.0005	.0007	.0001	.0002	.0002	.0002	.004	.0010	.0007
%RSD	.1183	.2272	.1262	.7823	.1619	.2304	.1155	.1741	1.045
#1	.4089	.2938	.0457	.0217	.0983	.0948	3.534	.5733	.0684
#2	.4092	.2931	.0458	.0218	.0979	.0946	3.525	.5730	.0670
#3	.4098	.2944	.0458	.0220	.0981	.0943	3.530	.5748	.0675

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2739**	**.7678**
Stddev	.0012	.0007
%RSD	.4375	.0894
#1	.2726	.7673
#2	.2743	.7686
#3	.2749	.7676

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/8/2023 10:35:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3123.2**	**8240.7**	**45628.**	**9260.3**
Stddev	1.9	4.5	64.	48.1
%RSD	.06060	.05510	.14016	.51955
#1	3121.1	8242.4	45702.	9206.7
#2	3124.9	8235.6	45593.	9274.6
#3	3123.5	8244.2	45589.	9299.7

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/8/2023 10:39:44 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0419**	**1.674**	**.0583**	**.1716**	**4.542**	**7.474**	**4.562**	**2.459**	**1.384**
Stddev	.0002	.004	.0002	.0003	.006	.014	.011	.002	.001
%RSD	.3666	.2201	.3011	.1807	.1288	.1848	.2426	.0942	.0448
#1	.0421	1.670	.0583	.1713	4.539	7.464	4.555	2.457	1.383
#2	.0419	1.674	.0585	.1717	4.538	7.490	4.556	2.458	1.385
#3	.0418	1.677	.0581	.1718	4.549	7.469	4.575	2.461	1.384

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4038**	**.4704**	**2.842**	**.7737**	**.8580**	**.5474**	**2.028**	**.4628**	**2.319**
Stddev	.0004	.0015	.002	.0025	.0042	.0007	.003	.0004	.006
%RSD	.0919	.3253	.0848	.3277	.4952	.1252	.1671	.0882	.2821
#1	.4033	.4694	2.841	.7712	.8601	.5482	2.025	.4626	2.320
#2	.4039	.4722	2.845	.7736	.8607	.5472	2.030	.4633	2.324
#3	.4041	.4696	2.840	.7763	.8531	.5469	2.031	.4626	2.311

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8164**	**.6034**	**.0919**	**.0446**	**.1943**	**.1892**	**7.157**	**1.158**	**.1373**
Stddev	.0003	.0018	.0003	.0001	.0002	.0004	.017	.001	.0002
%RSD	.0428	.3030	.3550	.1230	.1282	.1932	.2309	.1242	.1779
#1	.8162	.6017	.0923	.0446	.1944	.1894	7.155	1.157	.1374
#2	.8168	.6054	.0917	.0447	.1940	.1888	7.174	1.158	.1370
#3	.8162	.6032	.0918	.0446	.1944	.1894	7.141	1.159	.1375

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.5522**	**1.535**
Stddev	.0016	.002
%RSD	.2865	.1058
#1	.5505	1.533
#2	.5523	1.535
#3	.5537	1.536

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/8/2023 10:39:44 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3047.0**	**8196.3**	**45129.**	**9193.6**
Stddev	6.2	7.7	234.	16.8
%RSD	.20270	.09401	.51825	.18313
#1	3053.9	8204.3	45352.	9199.5
#2	3042.1	8188.9	44885.	9206.7
#3	3045.0	8195.6	45149.	9174.6

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/8/2023 10:44:28 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0816**	**3.383**	**.1208**	**.3556**	**9.405**	**15.51**	**9.193**	**5.031**	**2.822**
Stddev	.0001	.001	.0003	.0031	.015	.03	.006	.004	.003
%RSD	.1540	.0388	.2683	.8726	.1615	.1923	.0675	.0891	.0973
#1	.0815	3.383	.1209	.3524	9.418	15.53	9.200	5.029	2.819
#2	.0817	3.381	.1210	.3586	9.408	15.52	9.190	5.028	2.822
#3	.0817	3.383	.1204	.3559	9.388	15.47	9.190	5.037	2.825

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8254**	**.9581**	**5.781**	**1.566**	**1.761**	**1.098**	**4.153**	**.9440**	**4.749**
Stddev	.0013	.0015	.010	.004	.008	.002	.005	.0006	.010
%RSD	.1534	.1517	.1807	.2269	.4401	.1758	.1192	.0593	.2120
#1	.8240	.9578	5.785	1.568	1.769	1.099	4.148	.9434	4.760
#2	.8260	.9596	5.789	1.567	1.758	1.100	4.153	.9442	4.741
#3	.8263	.9567	5.769	1.562	1.755	1.096	4.158	.9445	4.747

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.661**	**1.258**	**.1882**	**.0918**	**.3650**	**.3856**	**14.87**	**2.389**	**.2861**
Stddev	.003	.001	.0004	.0001	.0003	.0004	.01	.003	.0009
%RSD	.1782	.0853	.1910	.0635	.0711	.0998	.0455	.1085	.3092
#1	1.657	1.257	.1883	.0919	.3650	.3853	14.87	2.389	.2858
#2	1.661	1.259	.1885	.0918	.3648	.3854	14.88	2.387	.2871
#3	1.663	1.259	.1878	.0917	.3653	.3861	14.87	2.392	.2854

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.133**	**3.149**
Stddev	.003	.004
%RSD	.2381	.1148
#1	1.131	3.145
#2	1.133	3.151
#3	1.136	3.152

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/8/2023 10:44:28 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2911.9**	**8044.9**	**44467.**	**9152.1**
Stddev	8.9	31.2	196.	25.8
%RSD	.30493	.38832	.44088	.28202
#1	2922.1	8080.8	44627.	9148.7
#2	2905.7	8029.9	44526.	9179.5
#3	2908.0	8023.9	44249.	9128.2

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/8/2023 10:48:48 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1643**	**6.797**	**.2454**	**.7268**	**18.98**	**31.29**	**18.50**	**10.09**	**5.656**
Stddev	.0006	.003	.0004	.0021	.03	.02	.03	.01	.006
%RSD	.3591	.0506	.1698	.2957	.1633	.0741	.1764	.0718	.1103
#1	.1638	6.799	.2455	.7271	18.99	31.30	18.54	10.10	5.657
#2	.1641	6.799	.2458	.7246	18.95	31.30	18.47	10.09	5.661
#3	.1650	6.793	.2450	.7288	19.01	31.26	18.50	10.08	5.649

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.644**	**1.921**	**11.62**	**3.144**	**3.543**	**2.198**	**8.167**	**1.908**	**9.598**
Stddev	.002	.006	.01	.004	.002	.006	.034	.001	.025
%RSD	.1427	.3297	.1185	.1179	.0480	.2973	.4141	.0757	.2587
#1	1.647	1.927	11.62	3.147	3.542	2.204	8.157	1.908	9.571
#2	1.642	1.915	11.63	3.140	3.542	2.198	8.139	1.909	9.621
#3	1.644	1.922	11.60	3.144	3.545	2.191	8.204	1.906	9.601

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.315**	**2.595**	**.3795**	**.1861**	**.7342**	**.7672**	**30.02**	**4.791**	**.5863**
Stddev	.005	.011	.0001	.0004	.0004	.0016	.04	.005	.0016
%RSD	.1400	.4129	.0325	.2188	.0585	.2097	.1323	.1097	.2685
#1	3.318	2.599	.3796	.1864	.7343	.7679	30.01	4.786	.5875
#2	3.318	2.603	.3794	.1861	.7345	.7683	30.07	4.796	.5869
#3	3.310	2.583	.3795	.1856	.7337	.7653	29.99	4.792	.5845

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.274**	**6.318**
Stddev	.003	.013
%RSD	.1173	.2028
#1	2.271	6.325
#2	2.276	6.325
#3	2.275	6.303

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/8/2023 10:48:48 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2743.2**	**7879.6**	**44131.**	**9115.4**
Stddev	6.7	8.0	76.	20.4
%RSD	.24469	.10178	.17186	.22420
#1	2738.1	7873.4	44155.	9106.4
#2	2740.7	7876.7	44191.	9101.0
#3	2750.8	7888.6	44046.	9138.8

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/8/2023 10:52:53 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3306**	**13.18**	**.4919**	**1.387**	**37.32**	**60.78**	**35.53**	**19.83**	**11.13**
Stddev	.0007	.00	.0003	.009	.24	.99	.21	.01	.00
%RSD	.2228	.0282	.0664	.6457	.6494	1.630	.6033	.0658	.0350
#1	.3299	13.18	.4922	1.376	37.60	60.45	35.77	19.83	11.12
#2	.3314	13.18	.4920	1.392	37.17	59.99	35.38	19.85	11.13
#3	.3306	13.18	.4915	1.391	37.19	61.89	35.43	19.83	11.13

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.217**	**3.793**	**22.23**	**6.116**	**6.954**	**4.215**	**15.90**	**3.770**	**18.42**
Stddev	.005	.011	.03	.010	.009	.013	.05	.003	.03
%RSD	.1544	.2834	.1259	.1593	.1323	.3044	.2976	.0687	.1446
#1	3.211	3.797	22.26	6.119	6.955	4.230	15.87	3.768	18.41
#2	3.220	3.781	22.22	6.105	6.944	4.205	15.95	3.773	18.39
#3	3.220	3.802	22.20	6.124	6.963	4.210	15.87	3.770	18.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.522**	**5.362**	**.7486**	**.3710**	**1.056**	**1.496**	**57.71**	**9.388**	**1.189**
Stddev	.003	.013	.0007	.0005	.001	.001	.37	.042	.004
%RSD	.0428	.2477	.0926	.1398	.0479	.0815	.6468	.4420	.3653
#1	6.523	5.358	.7493	.3715	1.055	1.495	58.09	9.345	1.191
#2	6.524	5.377	.7486	.3710	1.056	1.497	57.34	9.390	1.193
#3	6.519	5.351	.7479	.3705	1.056	1.496	57.69	9.428	1.185

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**4.476**	**12.40**
Stddev	.007	.02
%RSD	.1571	.1309
#1	4.470	12.40
#2	4.484	12.42
#3	4.474	12.39

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/8/2023 10:52:53 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2505.4**	**7570.6**	**42914.**	**9055.4**
Stddev	6.9	6.7	142.	63.3
%RSD	.27568	.08895	.33085	.69871
#1	2507.7	7573.4	43035.	8982.9
#2	2497.7	7562.9	42758.	9084.3
#3	2510.9	7575.5	42950.	9099.1

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/8/2023 11:01:22 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**.2114**	**.0104**	F **.0539**	**.1985**	**.0050**	**1.007**	**.0051**	**.0504**
Stddev	.0003	.0045	.0006	.0004	.0006	.0000	.003	.0000	.0001
%RSD	3.002	2.117	5.769	.7467	.3263	.9900	.3243	.5596	.1851
#1	.0097	.2101	.0103	.0534	.1979	.0049	1.003	.0051	.0503
#2	.0096	.2163	.0111	.0540	.1992	.0050	1.009	.0052	.0505
#3	.0091	.2076	.0099	.0542	.1983	.0050	1.009	.0051	.0503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0253**	**.3015**	**9.864**	**.0088**	**5.014**	**.0153**	**.0487**	**9.018**
Stddev	.0002	.0001	.0011	.030	.0028	.025	.0001	.0003	.044
%RSD	2.008	.4503	.3702	.3073	31.51	.4997	.3758	.5803	.4852
#1	.0101	.0253	.3003	9.845	.0110	4.995	.0153	.0490	8.969
#2	.0098	.0252	.3017	9.898	.0057	5.004	.0154	.0487	9.034
#3	.0098	.0254	.3025	9.847	.0096	5.042	.0153	.0484	9.052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0412**	**.0045**	F **.0060**	F **.0080**	**.0192**	**.0510**	**.0099**	**.0104**	**.0099**
Stddev	.0002	.0005	.0005	.0011	.0003	.0005	.0001	.0003	.0011
%RSD	.3768	10.23	7.767	13.16	1.491	1.026	.7250	2.555	11.08
#1	.0414	.0045	.0060	.0092	.0190	.0515	.0100	.0105	.0107
#2	.0411	.0040	.0056	.0077	.0195	.0511	.0099	.0106	.0103
#3	.0412	.0049	.0065	.0071	.0191	.0505	.0100	.0101	.0086
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0050	.0100					
Range			20.00%	-20.00%					

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/8/2023 11:01:22 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0502**	**.0205**
Stddev	.0002	.0000
%RSD	.3289	.0916
#1	.0502	.0205
#2	.0500	.0205
#3	.0503	.0205
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3139.8**	**8156.1**	**45074.**	**9168.2**
Stddev	.5	2.8	238.	52.1
%RSD	.01566	.03391	.52876	.56865
#1	3139.6	8153.4	45046.	9181.6
#2	3140.3	8156.0	44851.	9212.3
#3	3139.4	8158.9	45325.	9110.6

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/8/2023 11:08:40 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5032**	**80.19**	**4.079**	**3.931**	**3.949**	**3.960**	**78.91**	**4.017**	**4.004**
Stddev	.0009	.16	.005	.016	.031	.030	.44	.003	.005
%RSD	.1780	.2028	.1283	.4175	.7896	.7540	.5611	.0738	.1231
#1	.5022	80.36	4.079	3.916	3.944	3.978	79.23	4.015	3.998
#2	.5039	80.16	4.084	3.929	3.983	3.976	79.10	4.020	4.008
#3	.5036	80.04	4.073	3.949	3.921	3.925	78.41	4.015	4.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.036**	**4.077**	**79.86**	**79.96**	**4.069**	**79.63**	**3.977**	**4.035**	**82.05**
Stddev	.009	.007	.12	.09	.006	.12	.042	.003	.19
%RSD	.2276	.1778	.1492	.1119	.1580	.1500	1.060	.0798	.2274
#1	4.031	4.081	79.96	80.00	4.075	79.53	3.963	4.032	82.23
#2	4.047	4.081	79.88	80.02	4.069	79.76	4.024	4.038	82.06
#3	4.031	4.069	79.73	79.86	4.062	79.59	3.943	4.036	81.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.001**	**4.148**	**4.046**	**4.037**	**3.384**	**3.977**	**4.075**	**4.007**	**4.117**
Stddev	.005	.006	.010	.004	.003	.004	.018	.031	.010
%RSD	.1152	.1339	.2406	.0976	.0768	.0988	.4506	.7710	.2423
#1	3.996	4.142	4.035	4.033	3.382	3.973	4.059	4.040	4.112
#2	4.005	4.149	4.050	4.041	3.387	3.980	4.095	4.004	4.129
#3	4.001	4.153	4.053	4.036	3.383	3.980	4.071	3.978	4.111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/8/2023 11:08:40 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**3.998**	**4.015**
Stddev	.007	.003
%RSD	.1769	.0624
#1	3.990	4.013
#2	4.000	4.018
#3	4.004	4.014
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2486.5**	**7547.4**	**42384.**	**9006.7**
Stddev	3.2	5.7	202.	24.0
%RSD	.13022	.07545	.47768	.26665
#1	2484.0	7540.8	42560.	8996.1
#2	2490.2	7550.6	42163.	8989.8
#3	2485.5	7550.8	42430.	9034.2

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/8/2023 11:19:41 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536**	**40.76**	**2.041**	**1.986**	**2.046**	**2.055**	**40.98**	**2.055**	**2.034**
Stddev	.0007	.13	.009	.025	.003	.007	.09	.007	.006
%RSD	.2790	.3071	.4360	1.284	.1556	.3220	.2074	.3213	.2774
#1	.2530	40.62	2.049	2.015	2.048	2.048	40.95	2.059	2.037
#2	.2544	40.83	2.042	1.970	2.042	2.054	40.91	2.058	2.037
#3	.2535	40.84	2.031	1.973	2.047	2.061	41.08	2.047	2.027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060**	**2.046**	**40.72**	**40.51**	F **2.736**	**41.29**	**2.047**	**2.004**	**40.38**
Stddev	.004	.005	.16	.12	.010	.20	.012	.006	.27
%RSD	.2093	.2584	.4033	.3068	.3712	.4770	.5893	.3197	.6769
#1	2.057	2.040	40.54	40.42	2.728	41.07	2.054	2.009	40.11
#2	2.059	2.046	40.76	40.47	2.733	41.38	2.054	2.006	40.37
#3	2.065	2.051	40.86	40.65	2.748	41.43	2.033	1.996	40.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					2.000				
Range					10.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.038**	**2.008**	**2.045**	**2.025**	**1.389**	**2.003**	**2.071**	**2.066**	**2.045**
Stddev	.006	.002	.009	.007	.003	.005	.008	.003	.002
%RSD	.3114	.1070	.4151	.3726	.1983	.2292	.3813	.1512	.0911
#1	2.042	2.005	2.049	2.028	1.391	2.007	2.064	2.064	2.043
#2	2.041	2.008	2.050	2.031	1.391	2.004	2.071	2.064	2.045
#3	2.031	2.009	2.035	2.017	1.386	1.998	2.079	2.070	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/8/2023 11:19:41 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.053**	**2.041**
Stddev	.005	.007
%RSD	.2630	.3560
#1	2.050	2.046
#2	2.049	2.045
#3	2.059	2.033
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2737.6**	**7861.5**	**43767.**	**9101.1**
Stddev	2.7	28.5	177.	79.1
%RSD	.09827	.36295	.40336	.86946
#1	2739.7	7847.5	43570.	9192.2
#2	2734.6	7842.6	43911.	9049.2
#3	2738.5	7894.3	43822.	9062.0

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/8/2023 11:29:51 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0055**	**.0007**	F **.0041**	**.0000**	**.0000**	**-.0009**	**.0000**	**-.0001**
Stddev	.000	.0020	.0012	.0010	.0002	.0000	.0004	.000	.0000
%RSD	1758.	35.78	171.0	24.40	552.8	64.00	51.77	1231.	41.42
#1	-.0002	.0047	.0017	.0036	.0002	.0000	-.0004	.0000	-.0001
#2	-.0002	.0041	.0009	.0052	-.0001	.0001	-.0013	.0000	-.0002
#3	.0003	.0078	-.0006	.0034	.0001	.0001	-.0008	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0008**	**.0066**	**.0005**	**-.0031**	**.0000**	**.0001**	**-.0436**
Stddev	.0003	.0003	.0003	.0250	.0011	.0098	.000	.0001	.0192
%RSD	110.4	215.3	40.81	380.5	215.1	317.3	392.7	104.2	43.93
#1	-.0006	-.0001	.0006	-.0213	.0006	.0050	.0000	.0002	-.0248
#2	.0000	.0000	.0007	.0141	-.0006	-.0140	.0000	.0000	-.0431
#3	-.0003	.0005	.0012	.0269	.0015	-.0002	.0000	.0001	-.0631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	F **.0020**	**-.0007**	**.0007**	**-.0003**	**.0000**	**.0002**	**-.0005**
Stddev	.0001	.0006	.0014	.0015	.0001	.0003	.000	.0001	.0010
%RSD	158.9	274.9	70.68	202.9	20.90	106.5	147.8	40.59	189.1
#1	-.0002	-.0001	.0004	-.0020	.0006	-.0004	.0000	.0003	.0003
#2	-.0002	-.0009	.0028	-.0012	.0008	.0001	.0000	.0001	-.0016
#3	.0001	.0003	.0029	.0009	.0006	-.0004	.0000	.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0020						
Low Limit			-.0020						

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/8/2023 11:29:51 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0000**
Stddev	.0002	.0000
%RSD	115.3	931.2
#1	.0000	.0000
#2	-.0001	.0000
#3	-.0004	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3187.1**	**8187.8**	**45093.**	**9137.5**
Stddev	7.0	8.4	87.	63.7
%RSD	.21903	.10238	.19284	.69701
#1	3190.8	8187.6	45113.	9095.5
#2	3191.4	8196.3	44998.	9210.8
#3	3179.1	8179.6	45168.	9106.1

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/8/2023 11:39:04 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**499.7**	**.0005**	F **-.0894**	**-.0005**	**.0000**	**470.2**	**.0005**
Stddev	.0008	3.5	.0007	.0048	.0002	.0000	10.5	.0002
%RSD	5468.	.7028	137.1	5.358	37.49	8.071	2.239	39.69
#1	.0009	496.1	.0009	-.0945	-.0003	.0000	479.5	.0003
#2	-.0003	499.9	-.0003	-.0888	-.0006	.0000	472.3	.0006
#3	-.0005	503.1	.0009	-.0850	-.0006	.0000	458.7	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0004**	**.0010**	F **466.9**	**.0030**	**.0000**	**501.8**	**-.0009**
Stddev	.0001	.0001	.0002	5.4	.0145	.002	.7	.0000
%RSD	36.42	15.68	19.27	1.161	479.7	3292.	.1416	4.280
#1	.0003	.0005	.0009	473.0	.0090	.0000	501.1	-.0008
#2	.0005	.0003	.0008	464.7	-.0135	.0014	501.7	-.0009
#3	.0004	.0004	.0012	462.9	.0136	-.0016	502.5	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
High Limit				240.0				
Low Limit				160.0				

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.2485**	**.0000**	**.0004**	**.0019**	**.0000**	**.0771**	**-.0006**
Stddev	.0001	.0072	.0003	.0004	.0016	.0020	.0009	.0005
%RSD	51.22	2.896	1574.	94.70	86.72	170200.	1.210	85.81
#1	-.0002	.2452	.0003	.0001	.0001	-.0001	.0782	-.0004
#2	-.0004	.2436	-.0001	.0003	.0034	-.0020	.0764	-.0002
#3	-.0002	.2568	-.0002	.0009	.0022	.0021	.0767	-.0011
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/8/2023 11:39:04 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0018**	**.0000**	**.0010**	**.0010**
Stddev	.0001	.0001	.002	.0004	.0002
%RSD	228.5	7.857	7309.	39.28	16.55
#1	.0002	-.0017	-.0026	.0007	.0012
#2	.0000	-.0019	.0015	.0014	.0009
#3	.0000	-.0018	.0010	.0009	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2051.1**	**7280.2**	**39697.**	**8817.3**
Stddev	6.3	9.9	74.	13.8
%RSD	.30536	.13654	.18521	.15682
#1	2046.5	7274.0	39679.	8804.3
#2	2058.2	7291.7	39777.	8815.7
#3	2048.6	7274.9	39633.	8831.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/8/2023 11:46:41 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.066**	**502.1**	**.9964**	**.9385**	**.4834**	**.4928**	**479.2**	**.9498**	**.4572**
Stddev	.003	5.4	.0016	.0075	.0002	.0005	9.3	.0012	.0003
%RSD	.3198	1.081	.1603	.8023	.0314	.1046	1.933	.1276	.0744
#1	1.063	507.9	.9979	.9301	.4833	.4934	488.1	.9508	.4573
#2	1.066	501.2	.9947	.9445	.4836	.4926	479.9	.9485	.4569
#3	1.070	497.2	.9967	.9409	.4834	.4924	469.6	.9501	.4575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4898**	**.5319**	**187.1**	**.0195**	F **.5333**	**514.0**	**.5095**	**.8974**	**.2614**
Stddev	.0007	.0022	1.2	.0304	.0021	1.9	.0015	.0011	.0092
%RSD	.1509	.4058	.6613	155.7	.3874	.3662	.2998	.1266	3.525
#1	.4890	.5337	188.5	.0342	.5339	516.0	.5080	.8985	.2701
#2	.4900	.5295	186.6	-.0154	.5350	513.5	.5096	.8962	.2518
#3	.4905	.5325	186.2	.0397	.5310	512.4	.5110	.8975	.2624
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8837**	**1.064**	**1.002**	**.9264**	**.0487**	**.8899**	**1.010**	**1.021**	**.9905**
Stddev	.0008	.002	.002	.0048	.0010	.0009	.003	.002	.0012
%RSD	.0928	.1379	.2370	.5221	1.963	.1015	.2845	.2164	.1247
#1	.8846	1.064	1.002	.9258	.0492	.8908	1.013	1.019	.9902
#2	.8834	1.063	1.005	.9219	.0476	.8890	1.010	1.021	.9894
#3	.8831	1.066	.9999	.9315	.0493	.8900	1.007	1.024	.9918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/8/2023 11:46:41 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5114**	**.9219**
Stddev	.0018	.0004
%RSD	.3431	.0451
#1	.5105	.9223
#2	.5102	.9220
#3	.5134	.9215
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2256.7**	**7307.1**	**39594.**	**8812.5**
Stddev	5.4	10.5	95.	71.0
%RSD	.23741	.14425	.23965	.80518
#1	2250.5	7296.6	39699.	8731.2
#2	2260.0	7306.9	39567.	8862.1
#3	2259.7	7317.7	39515.	8844.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 11:54:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2502**	**41.05**	**2.033**	**2.053**	**2.042**	**2.048**	**40.97**	**2.040**	**2.036**
Stddev	.0002	.04	.002	.013	.004	.002	.04	.001	.001
%RSD	.0726	.1035	.1042	.6456	.1806	.1102	.0857	.0657	.0223
#1	.2500	41.00	2.033	2.068	2.043	2.047	40.97	2.042	2.036
#2	.2504	41.09	2.031	2.048	2.044	2.051	41.01	2.040	2.037
#3	.2502	41.05	2.035	2.043	2.037	2.047	40.94	2.039	2.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.040**	**41.06**	**41.05**	**2.053**	**41.12**	**2.040**	**2.040**	**42.08**
Stddev	.003	.005	.05	.07	.006	.06	.008	.001	.04
%RSD	.1365	.2588	.1305	.1609	.2916	.1526	.3783	.0359	.0916
#1	2.050	2.036	41.01	41.04	2.051	41.07	2.044	2.040	42.09
#2	2.055	2.046	41.12	41.11	2.060	41.19	2.031	2.040	42.12
#3	2.051	2.038	41.06	40.98	2.048	41.10	2.045	2.041	42.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**1.994**	**2.029**	**2.023**	**2.347**	**2.038**	**2.078**	**2.038**	**2.005**
Stddev	.001	.003	.001	.004	.002	.002	.003	.003	.001
%RSD	.0397	.1480	.0314	.2093	.0834	.0892	.1564	.1226	.0567
#1	2.025	1.991	2.028	2.028	2.345	2.036	2.079	2.036	2.005
#2	2.026	1.997	2.029	2.023	2.347	2.040	2.081	2.041	2.003
#3	2.024	1.995	2.030	2.019	2.349	2.038	2.075	2.039	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 11:54:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.035**	**2.048**
Stddev	.005	.001
%RSD	.2417	.0698
#1	2.031	2.050
#2	2.040	2.047
#3	2.034	2.047
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2716.5**	**7791.3**	**43454.**	**9009.1**
Stddev	5.3	12.0	40.	50.1
%RSD	.19330	.15395	.09300	.55612
#1	2715.4	7787.2	43448.	9064.1
#2	2722.2	7804.8	43496.	8997.0
#3	2711.9	7781.9	43416.	8966.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 12:04:42 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0070**	**.0011**	F **-.0039**	**-.0001**	**.0001**	**.0004**	**.0000**
Stddev	.0003	.0070	.0002	.0016	.0001	.0001	.0016	.0000
%RSD	232.4	99.58	17.04	41.74	139.7	95.98	432.8	116.0
#1	.0004	.0090	.0010	-.0024	-.0001	.0001	.0021	.0000
#2	.0002	.0128	.0011	-.0038	.0000	.0000	-.0002	.0000
#3	-.0002	-.0007	.0013	-.0057	-.0002	.0000	-.0009	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0000**	**.0022**	**-.0108**	**.0002**	**.0130**	**.0000**
Stddev	.000	.000	.000	.0019	.0367	.0005	.0042	.0001
%RSD	154.0	233.7	133.9	86.89	337.9	248.4	32.18	4082.
#1	.0000	.0000	.0000	.0004	.0260	.0002	.0135	-.0001
#2	.0000	-.0001	-.0001	.0020	-.0473	-.0003	.0169	.0000
#3	.0000	.0000	-.0001	.0041	-.0113	.0006	.0086	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0535**	**-.0002**	**-.0003**	**.0007**	**-.0006**	**.0006**	**.0001**
Stddev	.0001	.0045	.0002	.0006	.0010	.0008	.0005	.0002
%RSD	42.23	8.358	109.9	207.5	142.7	131.0	76.97	190.4
#1	-.0001	-.0536	-.0001	-.0006	.0019	-.0015	.0008	-.0001
#2	-.0002	-.0490	-.0001	-.0006	-.0001	-.0001	.0001	.0002
#3	-.0002	-.0579	-.0005	.0004	.0005	-.0002	.0010	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 12:04:42 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0005**	**-.0001**	**.0001**
Stddev	.0000	.0000	.0016	.0001	.0001
%RSD	43.99	21.86	356.4	132.1	44.58
#1	.0002	.0002	.0013	.0000	.0002
#2	.0001	.0002	-.0018	-.0002	.0001
#3	.0001	.0002	-.0009	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3174.7**	**8143.4**	**45040.**	**9145.7**
Stddev	1.4	18.6	191.	132.6
%RSD	.04378	.22902	.42491	1.4503
#1	3173.2	8139.0	45177.	9186.6
#2	3175.1	8127.3	45122.	8997.5
#3	3175.9	8163.8	44822.	9253.1

Zoom In Zoom Out

Sample Name: DI CHECK Acquired: 11/8/2023 12:09:45 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0098**	**.0009**	F **-.0052**	**-.0002**	**.0000**	**.0065**	**.0000**
Stddev	.0004	.0033	.0004	.0007	.0001	.0001	.0009	.0000
%RSD	437.5	33.13	46.14	12.62	50.83	419.1	14.56	142.6
#1	-.0004	.0078	.0007	-.0047	-.0001	.0000	.0054	.0000
#2	-.0002	.0081	.0006	-.0059	-.0002	.0001	.0068	.0000
#3	.0004	.0136	.0013	-.0049	-.0004	-.0001	.0072	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0001**	**.0006**	**-.0522**	**-.0024**	**.0037**	**.0000**
Stddev	.0000	.0001	.0001	.0003	.0454	.0025	.0072	.000
%RSD	162.2	60.88	89.95	44.34	87.00	101.9	196.4	113.2
#1	.0000	-.0001	.0002	.0005	-.0980	-.0053	-.0021	.0000
#2	.0000	-.0002	.0000	.0009	-.0071	-.0006	.0118	.0000
#3	.0001	-.0004	.0001	.0004	-.0515	-.0014	.0014	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0477**	**-.0001**	**.0001**	**.0004**	**.0008**	**-.0012**	**-.0001**
Stddev	.0001	.0218	.0000	.0002	.0011	.0004	.0003	.0002
%RSD	181.4	45.78	18.65	456.0	271.7	54.05	28.16	156.2
#1	.0001	-.0503	-.0001	-.0001	-.0001	.0013	-.0014	-.0003
#2	-.0001	-.0681	-.0001	.0003	-.0003	.0008	-.0015	.0001
#3	-.0001	-.0247	-.0001	-.0001	.0016	.0004	-.0008	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: DI CHECK Acquired: 11/8/2023 12:09:45 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0006**	**-.0001**	**.0003**
Stddev	.0001	.0001	.0009	.0001	.0001
%RSD	113.7	35.82	153.4	73.39	50.33
#1	.0000	.0001	.0003	-.0001	.0005
#2	.0001	.0002	-.0015	-.0001	.0002
#3	.0001	.0002	-.0007	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3206.0**	**8106.0**	**44836.**	**9095.6**
Stddev	5.2	12.8	69.	17.1
%RSD	.16311	.15844	.15471	.18797
#1	3212.0	8118.9	44906.	9091.7
#2	3202.7	8093.2	44767.	9114.4
#3	3203.2	8105.9	44834.	9080.9

Zoom In Zoom Out

Sample Name: MP43102-MB1 Acquired: 11/8/2023 12:14:49 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0033**	**-.0009**	F **-.0054**	**-.0001**	**.0000**	**.0049**	**.0000**
Stddev	.0004	.0050	.0005	.0017	.0001	.0000	.0006	.000
%RSD	618.5	149.1	53.32	31.34	51.93	82.46	11.76	93.81
#1	.0003	.0083	-.0014	-.0070	-.0001	.0000	.0052	.0000
#2	-.0001	.0034	-.0004	-.0056	-.0002	.0000	.0043	.0000
#3	-.0004	-.0017	-.0011	-.0037	-.0001	.0000	.0053	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0002**	**.0011**	**-.0347**	**-.0005**	**-.0013**	**.0000**
Stddev	.0001	.0003	.0003	.0006	.0319	.0007	.0092	.000
%RSD	79.16	239.2	169.9	52.51	91.90	133.6	690.8	219.4
#1	-.0001	-.0004	.0004	.0015	-.0526	.0003	-.0018	.0000
#2	-.0001	.0001	.0003	.0013	-.0536	-.0010	.0081	-.0001
#3	.0000	-.0001	-.0002	.0004	.0021	-.0009	-.0103	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0537**	**.0000**	**-.0003**	**.0022**	**.0009**	**.0012**	**.0000**
Stddev	.0002	.0039	.0002	.0001	.0002	.0017	.0002	.0001
%RSD	102.1	7.240	1287.	47.95	10.46	188.1	18.39	7572.
#1	-.0002	-.0496	.0002	-.0004	.0020	.0028	.0009	-.0001
#2	-.0002	-.0574	-.0001	-.0003	.0021	-.0002	.0013	-.0001
#3	.0000	-.0540	.0000	-.0002	.0025	.0000	.0013	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP43102-MB1 Acquired: 11/8/2023 12:14:49 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**-.0020**	**.0001**	**.0003**
Stddev	.0001	.0001	.0014	.0002	.0000
%RSD	246.1	78.18	69.40	351.1	10.22
#1	.0000	.0000	-.0026	-.0001	.0004
#2	.0001	.0001	-.0030	.0003	.0003
#3	.0000	.0002	-.0004	-.0001	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3237.9**	**8305.2**	**46031.**	**9365.3**
Stddev	11.4	22.9	74.	60.5
%RSD	.35091	.27548	.16109	.64596
#1	3236.7	8296.4	46047.	9380.8
#2	3249.8	8331.2	45950.	9298.6
#3	3227.2	8288.1	46095.	9416.6

Zoom In Zoom Out

Sample Name: MP43102-B1 Acquired: 11/8/2023 12:19:52 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1943**	**24.11**	**.1952**	**.4603**	**.1944**	**.1945**	**43.86**	**.1917**	**.1915**
Stddev	.0003	.07	.0005	.0034	.0005	.0006	.15	.0001	.0002
%RSD	.1480	.3013	.2598	.7306	.2503	.2941	.3358	.0482	.0868
#1	.1945	24.15	.1951	.4637	.1939	.1948	43.76	.1917	.1914
#2	.1940	24.16	.1947	.4570	.1948	.1949	44.03	.1918	.1917
#3	.1945	24.03	.1957	.4601	.1946	.1939	43.78	.1917	.1915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1989**	**.1956**	**43.42**	**43.24**	**.5153**	**43.02**	**.1934**	**.6680**	**41.01**
Stddev	.0002	.0003	.12	.11	.0008	.20	.0010	.0004	.28
%RSD	.1150	.1530	.2765	.2549	.1589	.4655	.4933	.0569	.6943
#1	.1992	.1959	43.44	43.18	.5154	42.86	.1943	.6683	41.13
#2	.1987	.1953	43.54	43.36	.5161	43.24	.1937	.6675	41.21
#3	.1989	.1956	43.30	43.16	.5145	42.94	.1924	.6681	40.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1923**	**.1792**	**.1968**	**.1885**	**.5218**	**.4893**	**.5121**	**.4984**	**.1851**
Stddev	.0001	.0007	.0004	.0014	.0009	.0014	.0022	.0014	.0022
%RSD	.0751	.3674	.2054	.7679	.1807	.2773	.4319	.2773	1.167
#1	.1922	.1792	.1969	.1869	.5216	.4884	.5133	.4996	.1845
#2	.1923	.1786	.1963	.1897	.5229	.4909	.5135	.4986	.1833
#3	.1924	.1799	.1971	.1889	.5210	.4887	.5096	.4969	.1875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43102-B1 Acquired: 11/8/2023 12:19:52 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1971**	**.1929**
Stddev	.0006	.0001
%RSD	.3147	.0378
#1	.1978	.1928
#2	.1970	.1929
#3	.1965	.1930
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2865.4**	**8045.7**	**44839.**	**9299.6**
Stddev	1.6	12.6	243.	87.7
%RSD	.05729	.15628	.54224	.94335
#1	2867.0	8060.1	45024.	9376.6
#2	2865.5	8039.5	44930.	9204.1
#3	2863.7	8037.3	44564.	9318.2

Zoom In Zoom Out

Sample Name: FC10906-1L Acquired: 11/8/2023 12:24:46 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0537**	**-.0002**	**.0287**	**.0098**	**.0000**	**38.19**	**.0000**	**.0000**
Stddev	.0001	.0065	.0008	.0016	.0003	.0000	.07	.0001	.0001
%RSD	152.2	12.05	407.2	5.445	3.291	36.81	.1873	162.4	4895.
#1	.0000	.0493	.0003	.0304	.0094	.0001	38.16	.0000	.0000
#2	-.0002	.0507	-.0011	.0282	.0099	.0001	38.14	.0000	.0000
#3	.0000	.0612	.0002	.0274	.0100	.0000	38.27	.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0078**	**.0847**	**.0003**	**.4860**	**.0037**	**.0002**	F **125.1**
Stddev	.0001	.0002	.0018	.0164	.0009	.0056	.0000	.0001	1.9
%RSD	54.97	36.49	22.77	19.41	274.3	1.155	.6015	46.61	1.535
#1	.0002	.0006	.0095	.0697	.0013	.4878	.0037	.0001	122.9
#2	.0001	.0008	.0079	.1023	-.0005	.4797	.0037	.0003	125.8
#3	.0001	.0004	.0060	.0821	.0002	.4906	.0037	.0001	126.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0005**	**.0014**	**.0007**	**.0683**	**.0002**	**.1547**	**.0025**	**-.0023**
Stddev	.000	.0004	.0006	.0005	.0018	.0004	.0001	.0004	.0009
%RSD	743.1	84.33	42.03	71.95	2.597	214.5	.0424	15.20	37.83
#1	-.0001	-.0006	.0014	.0004	.0694	.0004	.1548	.0028	-.0026
#2	.0000	-.0009	.0008	.0004	.0693	-.0003	.1547	.0025	-.0030
#3	.0001	-.0001	.0021	.0012	.0663	.0005	.1547	.0021	-.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0027**
Stddev	.0002	.0000
%RSD	39.31	1.781
#1	.0003	.0028
#2	.0003	.0027
#3	.0006	.0028

Zoom In Zoom Out

Sample Name: FC10906-1L Acquired: 11/8/2023 12:24:46 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2950.9**	**8001.8**	**44472.**	**9334.4**
Stddev	4.5	1.7	116.	66.1
%RSD	.15106	.02149	.26135	.70852
#1	2953.2	8000.7	44495.	9402.2
#2	2953.7	8001.0	44575.	9331.1
#3	2945.7	8003.8	44346.	9270.0

Zoom In Zoom Out

Sample Name: MP43102-D1 Acquired: 11/8/2023 12:29:56 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0583**	**-.0001**	**.0262**	**.0098**	**.0000**	**37.74**	**.0000**	**.0000**
Stddev	.0002	.0021	.0002	.0015	.0001	.0000	.04	.0000	.000
%RSD	1868.	3.655	339.2	5.902	.9126	35.13	.0950	126.1	218.5
#1	-.0001	.0561	-.0003	.0280	.0099	.0000	37.78	.0000	.0000
#2	.0003	.0585	.0000	.0256	.0099	.0000	37.71	.0000	-.0001
#3	-.0001	.0603	.0001	.0251	.0097	.0000	37.74	.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**.0073**	**.1334**	**.0032**	**.4806**	**.0036**	**.0000**	F **124.2**
Stddev	.0001	.0003	.0005	.0248	.0011	.0168	.0001	.0002	1.2
%RSD	77.34	78.87	6.640	18.56	32.63	3.502	1.480	394.8	.9280
#1	.0000	.0001	.0078	.1317	.0042	.4880	.0036	-.0001	124.3
#2	.0002	.0002	.0068	.1590	.0021	.4613	.0037	.0002	123.0
#3	.0001	.0006	.0074	.1096	.0034	.4924	.0036	.0001	125.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0008**	**.0017**	**.0646**	**.0001**	**.1529**	**.0025**	**-.0027**
Stddev	.0001	.0010	.0010	.0006	.0005	.0003	.0003	.0004	.0014
%RSD	450.0	709.4	126.9	35.48	.8212	395.0	.1709	15.17	50.79
#1	.0002	-.0005	-.0001	.0024	.0648	.0005	.1532	.0023	-.0012
#2	.0000	-.0003	.0006	.0012	.0650	-.0001	.1528	.0029	-.0039
#3	-.0001	.0012	.0020	.0016	.0640	-.0001	.1528	.0022	-.0032

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0029**
Stddev	.0002	.0000
%RSD	62.20	1.519
#1	.0002	.0029
#2	.0007	.0028
#3	.0003	.0029

Zoom In Zoom Out

Sample Name: MP43102-D1 Acquired: 11/8/2023 12:29:56 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2969.3**	**8074.5**	**44729.**	**9392.6**
Stddev	4.7	5.3	168.	17.3
%RSD	.15745	.06571	.37502	.18454
#1	2965.4	8072.3	44921.	9379.4
#2	2974.5	8080.5	44615.	9386.1
#3	2968.0	8070.6	44649.	9412.2

Zoom In Zoom Out

Sample Name: MP43102-SD1 Acquired: 11/8/2023 12:35:06 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.1024**	**.0039**	**-.0046**	**.0086**	**.0001**	**37.26**	**-.0001**	**.0001**
Stddev	.0024	.0175	.0018	.0095	.0001	.0001	.06	.0002	.0005
%RSD	313.5	17.10	45.36	206.9	1.519	98.65	.1557	191.0	504.3
#1	.0020	.1146	.0045	.0064	.0087	.0001	37.28	-.0001	.0001
#2	-.0025	.0824	.0053	-.0107	.0086	.0000	37.31	.0001	-.0004
#3	-.0019	.1103	.0019	-.0096	.0084	.0001	37.20	-.0002	.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0005**	**.0052**	**.0254**	**.0029**	**.4992**	**.0035**	**-.0007**	**124.8**
Stddev	.0002	.0005	.0104	.1060	.0116	.0251	.0002	.0004	.1
%RSD	2179.	105.6	199.6	417.1	397.3	5.021	5.168	51.87	.0895
#1	-.0002	.0003	.0171	.1103	.0135	.5280	.0033	-.0003	124.8
#2	.0003	.0010	-.0021	-.0934	-.0096	.4824	.0035	-.0009	124.7
#3	.0000	.0001	.0006	.0593	.0049	.4872	.0037	-.0009	124.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0030**	**.0081**	**-.0005**	**.0697**	**.0005**	**.1527**	**.0045**	**-.0046**
Stddev	.0010	.0024	.0027	.0139	.0016	.0009	.0002	.0005	.0044
%RSD	100.1	80.13	33.24	2849.	2.303	172.2	.1339	10.41	96.23
#1	.0000	.0010	.0080	.0032	.0685	.0000	.1529	.0040	-.0003
#2	-.0010	.0023	.0054	.0112	.0716	.0000	.1526	.0044	-.0092
#3	-.0019	.0056	.0108	-.0159	.0692	.0016	.1525	.0050	-.0043

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0035**
Stddev	.0010	.0006
%RSD	97.36	16.49
#1	.0006	.0039
#2	.0021	.0037
#3	.0003	.0028

Zoom In Zoom Out

Sample Name: MP43102-SD1 Acquired: 11/8/2023 12:35:06 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3135.3**	**8217.1**	**45547.**	**9451.3**
Stddev	9.0	20.5	251.	41.8
%RSD	.28732	.24976	.55039	.44252
#1	3126.1	8199.8	45794.	9404.6
#2	3135.7	8211.9	45554.	9485.2
#3	3144.1	8239.8	45293.	9464.2

Zoom In Zoom Out

Sample Name: MP43102-S1 Acquired: 11/8/2023 12:40:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1970**	**24.25**	**.1991**	**.4940**	**.2023**	**.1965**	**80.07**	**.1916**	**.1899**
Stddev	.0004	.05	.0006	.0094	.0002	.0002	.16	.0001	.0001
%RSD	.1963	.2243	.3129	1.911	.0870	.0931	.1988	.0511	.0665
#1	.1968	24.21	.1996	.5020	.2025	.1963	79.90	.1916	.1898
#2	.1975	24.22	.1984	.4964	.2022	.1966	80.09	.1916	.1900
#3	.1968	24.31	.1995	.4836	.2023	.1965	80.22	.1914	.1900

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2004**	**.1988**	**43.50**	**43.56**	F **.5227**	**43.26**	**.1948**	**.6705**	F **166.1**
Stddev	.0008	.0011	.10	.08	.0019	.18	.0001	.0005	1.3
%RSD	.4086	.5315	.2317	.1830	.3630	.4258	.0341	.0754	.7955
#1	.1995	.1979	43.41	43.51	.5215	43.12	.1948	.6707	165.2
#2	.2009	.1986	43.48	43.51	.5217	43.18	.1949	.6709	165.5
#3	.2009	.1999	43.61	43.65	.5249	43.47	.1947	.6700	167.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1904**	**.1829**	**.1983**	**.1935**	**.5892**	**.4844**	**.6720**	**.4980**	**.1849**
Stddev	.0003	.0005	.0012	.0012	.0013	.0010	.0008	.0002	.0014
%RSD	.1573	.2706	.6169	.6398	.2230	.2031	.1162	.0396	.7520
#1	.1907	.1823	.1979	.1923	.5903	.4840	.6713	.4978	.1833
#2	.1904	.1832	.1974	.1935	.5877	.4837	.6719	.4979	.1858
#3	.1901	.1831	.1997	.1948	.5894	.4855	.6728	.4982	.1857

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1984**	**.1963**
Stddev	.0002	.0001
%RSD	.0900	.0736
#1	.1983	.1962
#2	.1982	.1964
#3	.1986	.1963

Zoom In Zoom Out

Sample Name: MP43102-S1 Acquired: 11/8/2023 12:40:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2752.5**	**7955.0**	**43857.**	**9338.9**
Stddev	6.6	7.2	144.	89.0
%RSD	.23826	.09059	.32839	.95340
#1	2750.3	7959.4	43847.	9419.2
#2	2747.3	7946.7	43718.	9354.3
#3	2759.9	7958.9	44006.	9243.1

Zoom In Zoom Out

Sample Name: MP43102-S2 Acquired: 11/8/2023 12:45:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1951**	**24.21**	**.1976**	**.4891**	**.2016**	**.1962**	**79.91**	**.1903**	**.1886**
Stddev	.0006	.01	.0010	.0001	.0002	.0005	1.70	.0002	.0002
%RSD	.3169	.0621	.5080	.0215	.0842	.2437	2.123	.1217	.1235
#1	.1957	24.22	.1987	.4892	.2017	.1957	78.32	.1903	.1886
#2	.1950	24.19	.1970	.4892	.2014	.1962	81.69	.1901	.1884
#3	.1945	24.21	.1970	.4890	.2018	.1967	79.72	.1905	.1889

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1995**	**.1978**	**43.46**	**43.47**	F **.5237**	**43.29**	**.1935**	**.6660**	F **166.9**
Stddev	.0001	.0006	.04	.03	.0015	.13	.0003	.0010	2.7
%RSD	.0331	.2931	.0960	.0581	.2885	.3063	.1597	.1462	1.626
#1	.1995	.1984	43.45	43.50	.5232	43.25	.1934	.6668	169.9
#2	.1994	.1977	43.42	43.48	.5224	43.18	.1939	.6649	166.3
#3	.1996	.1973	43.50	43.45	.5253	43.44	.1933	.6663	164.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1893**	**.1806**	**.1974**	**.1919**	**.5847**	**.4811**	**.6720**	**.4952**	**.1840**
Stddev	.0003	.0004	.0013	.0028	.0004	.0008	.0011	.0005	.0005
%RSD	.1711	.2002	.6664	1.479	.0742	.1667	.1600	.1071	.2883
#1	.1893	.1807	.1961	.1951	.5844	.4803	.6712	.4949	.1834
#2	.1889	.1802	.1973	.1910	.5844	.4810	.6715	.4958	.1843
#3	.1896	.1809	.1987	.1896	.5852	.4819	.6732	.4949	.1842

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1961**	**.1946**
Stddev	.0003	.0003
%RSD	.1746	.1448
#1	.1962	.1947
#2	.1965	.1942
#3	.1958	.1948

Zoom In Zoom Out

Sample Name: MP43102-S2 Acquired: 11/8/2023 12:45:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2752.5**	**7950.8**	**43929.**	**9265.8**
Stddev	5.4	10.7	201.	17.5
%RSD	.19698	.13514	.45856	.18859
#1	2749.7	7956.2	44142.	9267.4
#2	2758.7	7957.8	43741.	9282.3
#3	2749.0	7938.4	43903.	9247.5

Zoom In Zoom Out

Sample Name: FC10890-17 Acquired: 11/8/2023 12:50:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0175**	**.0000**	**-.0017**	**.0426**	**.0000**	**54.26**	**.0000**	**.0055**
Stddev	.0000	.0070	.0010	.0005	.0001	.0000	.18	.0000	.0001
%RSD	12.39	39.92	2613.	31.56	.2904	579.2	.3261	261.1	1.949
#1	.0004	.0096	-.0001	-.0019	.0427	.0000	54.37	.0000	.0056
#2	.0003	.0229	.0012	-.0011	.0426	.0000	54.35	.0000	.0054
#3	.0004	.0201	-.0009	-.0020	.0425	.0000	54.05	.0000	.0056

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0061**	**.2871**	**.0026**	**2.058**	**1.023**	**.0002**	F **119.6**
Stddev	.0001	.0002	.0004	.0227	.0009	.021	.002	.0000	1.3
%RSD	3822.	172.7	6.100	7.906	32.81	1.001	.1417	13.26	1.067
#1	.0001	-.0001	.0064	.2811	.0018	2.064	1.025	.0002	119.5
#2	-.0001	.0002	.0057	.2679	.0025	2.074	1.024	.0002	118.4
#3	-.0001	.0003	.0060	.3121	.0035	2.035	1.022	.0002	120.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**-.0010**	**.0010**	**.0010**	**.0872**	**.0004**	**.1214**	**.0013**	**-.0013**
Stddev	.0001	.0002	.0008	.0006	.0004	.0004	.0006	.0001	.0001
%RSD	4.507	16.97	79.60	61.39	.4492	108.8	.4981	6.197	10.09
#1	.0022	-.0009	.0014	.0005	.0868	.0000	.1220	.0013	-.0012
#2	.0020	-.0012	.0001	.0008	.0875	.0003	.1215	.0013	-.0014
#3	.0021	-.0009	.0014	.0016	.0872	.0007	.1208	.0014	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0024**
Stddev	.0002	.0000
%RSD	220.0	1.912
#1	-.0002	.0024
#2	.0003	.0024
#3	.0002	.0024

Zoom In Zoom Out

Sample Name: FC10890-17 Acquired: 11/8/2023 12:50:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2947.0**	**8011.2**	**44443.**	**9370.2**
Stddev	5.7	14.4	165.	24.6
%RSD	.19338	.17945	.37101	.26208
#1	2942.6	8013.5	44491.	9348.7
#2	2953.4	8024.3	44259.	9397.0
#3	2945.0	7995.8	44578.	9364.8

Zoom In Zoom Out

Sample Name: FC10904-1L Acquired: 11/8/2023 12:55:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0105**	**.0047**	**.0343**	**.0269**	**.0000**	**2.081**	**.0000**	**.0003**
Stddev	.0002	.0092	.0007	.0018	.0002	.0000	.003	.000	.0001
%RSD	186.2	87.34	15.14	5.280	.7668	78.85	.1461	66.61	20.85
#1	.0000	.0211	.0045	.0356	.0270	.0000	2.083	.0000	.0004
#2	.0000	.0050	.0041	.0323	.0270	.0000	2.077	-.0001	.0004
#3	-.0003	.0054	.0055	.0351	.0266	.0000	2.082	.0000	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0005**	**.0033**	**4.303**	**.0066**	**2.021**	**.0356**	**.0004**	F **116.8**
Stddev	.0000	.0001	.0019	.013	.0011	.016	.0001	.0001	1.1
%RSD	14.32	24.55	58.21	.2965	17.26	.7944	.2567	24.02	.9646
#1	-.0003	.0005	.0019	4.318	.0052	2.005	.0357	.0003	115.5
#2	-.0002	.0005	.0024	4.296	.0073	2.022	.0356	.0004	117.5
#3	-.0003	.0007	.0054	4.295	.0071	2.037	.0355	.0005	117.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0000**	**.0011**	**.0002**	**.2909**	**.0000**	**.0642**	**.0003**	**-.0010**
Stddev	.0002	.000	.0005	.0003	.0007	.0002	.0003	.0000	.0006
%RSD	4.398	432.1	49.14	143.0	.2574	944.7	.4515	5.868	54.32
#1	.0037	.0000	.0007	.0001	.2900	.0001	.0644	.0003	-.0012
#2	.0034	.0000	.0009	-.0001	.2912	-.0002	.0643	.0004	-.0016
#3	.0035	.0000	.0017	.0005	.2914	.0001	.0639	.0003	-.0004

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0027**
Stddev	.0000	.0000
%RSD	3.453	.6963
#1	.0009	.0028
#2	.0009	.0028
#3	.0009	.0027

Zoom In Zoom Out

Sample Name: FC10904-1L Acquired: 11/8/2023 12:55:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3027.2**	**8080.0**	**44775.**	**9390.2**
Stddev	6.3	14.2	48.	11.3
%RSD	.20863	.17636	.10787	.12037
#1	3021.9	8072.0	44829.	9401.4
#2	3025.7	8071.6	44735.	9378.8
#3	3034.2	8096.5	44761.	9390.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 13:00:50 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2513**	**40.81**	**2.027**	**2.067**	**2.059**	**2.042**	**41.02**	**2.042**	**2.038**
Stddev	.0000	.08	.003	.015	.003	.005	.05	.003	.002
%RSD	.0063	.1959	.1388	.7419	.1569	.2452	.1311	.1613	.1202
#1	.2513	40.76	2.024	2.065	2.062	2.037	41.07	2.043	2.038
#2	.2513	40.90	2.029	2.053	2.056	2.047	40.96	2.045	2.040
#3	.2513	40.78	2.028	2.084	2.060	2.042	41.04	2.039	2.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.083**	**40.69**	**41.05**	**2.053**	**40.87**	**2.054**	**2.041**	**42.18**
Stddev	.003	.004	.13	.05	.007	.13	.004	.002	.24
%RSD	.1561	.2038	.3147	.1300	.3198	.3219	.2164	.1122	.5598
#1	2.052	2.078	40.60	40.99	2.047	40.80	2.052	2.041	42.06
#2	2.052	2.087	40.84	41.10	2.060	41.02	2.059	2.044	42.46
#3	2.058	2.084	40.64	41.05	2.053	40.78	2.051	2.040	42.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**1.986**	**2.033**	**2.042**	**2.363**	**2.039**	**2.082**	**2.045**	**2.002**
Stddev	.002	.003	.004	.001	.003	.002	.008	.007	.007
%RSD	.0746	.1671	.2136	.0235	.1168	.1108	.3958	.3648	.3278
#1	2.016	1.989	2.028	2.043	2.362	2.038	2.075	2.044	1.998
#2	2.019	1.985	2.037	2.042	2.366	2.042	2.091	2.038	2.009
#3	2.017	1.983	2.033	2.042	2.361	2.037	2.079	2.053	1.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 13:00:50 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.049**	**2.032**
Stddev	.009	.002
%RSD	.4543	.0969
#1	2.043	2.032
#2	2.045	2.034
#3	2.060	2.030
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2764.3**	**7918.7**	**43921.**	**9264.6**
Stddev	7.0	.5	255.	42.1
%RSD	.25214	.00660	.58029	.45426
#1	2758.4	7918.2	44054.	9238.6
#2	2762.4	7918.8	44082.	9242.0
#3	2772.0	7919.2	43627.	9313.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 13:05:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0054**	**.0006**	F **-.0015**	**.0000**	**.0001**	**.0011**	**.0000**
Stddev	.0002	.0043	.0005	.0007	.000	.0000	.0032	.0000
%RSD	171.5	79.38	72.20	44.95	386.1	62.47	286.7	76.51
#1	.0003	.0046	.0002	-.0009	-.0001	.0001	-.0025	.0000
#2	-.0001	.0016	.0006	-.0022	-.0001	.0000	.0022	.0001
#3	.0002	.0101	.0011	-.0014	.0001	.0000	.0036	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0002**	**.0020**	**-.0019**	**.0001**	**-.0103**	**.0001**
Stddev	.0002	.0002	.0004	.0002	.0539	.0002	.0146	.0000
%RSD	257.8	234.9	248.5	11.16	2877.	166.3	141.9	33.85
#1	-.0001	-.0002	-.0003	.0018	.0213	-.0001	-.0230	.0000
#2	.0003	.0002	.0003	.0023	-.0635	.0004	-.0137	.0001
#3	.0000	-.0002	.0005	.0020	.0365	.0002	.0057	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0391**	**-.0001**	**.0001**	**.0013**	**.0015**	**.0009**	**.0001**
Stddev	.0002	.0028	.0001	.0003	.0011	.0021	.0005	.0001
%RSD	94.63	7.184	86.52	195.2	87.63	141.8	57.78	113.6
#1	.0004	-.0366	-.0001	-.0001	.0007	.0037	.0005	.0000
#2	.0000	-.0386	.0000	.0001	.0006	-.0003	.0015	.0002
#3	.0003	-.0422	-.0002	.0004	.0026	.0009	.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 13:05:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**-.0001**	**.0003**
Stddev	.0001	.0000	.0013	.0000	.0000
%RSD	117.4	30.20	1543.	43.18	6.652
#1	.0001	.0001	.0013	-.0001	.0003
#2	.0000	.0001	-.0013	-.0001	.0003
#3	.0002	.0001	.0002	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3235.0**	**8315.1**	**45874.**	**9355.5**
Stddev	1.4	4.9	117.	6.7
%RSD	.04416	.05907	.25466	.07197
#1	3236.4	8311.6	45765.	9349.0
#2	3233.5	8320.7	45860.	9362.4
#3	3235.1	8312.9	45997.	9355.1

Zoom In Zoom Out

Sample Name: FC10959-1L Acquired: 11/8/2023 13:10:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0091**	**-.0002**	**.2141**	**.0077**	**.0000**	**4.289**	**-.0001**	**.0003**
Stddev	.0004	.0088	.0009	.0022	.0002	.0000	.004	.0000	.0001
%RSD	154.3	97.42	526.5	1.014	2.623	52.22	.1061	59.97	24.96
#1	-.0002	-.0011	-.0006	.2162	.0075	.0001	4.291	.0000	.0003
#2	.0003	.0133	-.0008	.2142	.0078	.0000	4.283	-.0001	.0002
#3	.0007	.0149	.0008	.2118	.0079	.0000	4.291	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0010**	**.0107**	**1.269**	**.0013**	**.7351**	**.1629**	**.0000**	**69.69**
Stddev	.0002	.0000	.0006	.052	.0010	.0025	.0004	.0001	.12
%RSD	40.50	4.861	5.729	4.085	72.90	.3467	.2491	133.1	.1687
#1	.0007	.0010	.0101	1.224	.0005	.7326	.1634	.0001	69.56
#2	.0003	.0010	.0113	1.325	.0010	.7377	.1628	.0000	69.80
#3	.0007	.0009	.0107	1.257	.0024	.7348	.1626	.0000	69.70

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0004**	**.0017**	**-.0002**	**.6197**	**.0000**	**.0378**	**.0006**	**-.0005**
Stddev	.0000	.0003	.0009	.0006	.0016	.0001	.0002	.0001	.0009
%RSD	1.908	74.20	54.15	261.0	.2567	267.4	.4120	12.34	166.3
#1	.0022	-.0004	.0017	-.0009	.6210	.0001	.0376	.0006	-.0005
#2	.0022	-.0001	.0008	.0001	.6179	.0001	.0379	.0005	-.0014
#3	.0023	-.0007	.0027	.0001	.6201	-.0001	.0378	.0006	.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0092**
Stddev	.0001	.0000
%RSD	138.5	.2230
#1	.0000	.0092
#2	-.0002	.0092
#3	-.0001	.0092

Zoom In Zoom Out

Sample Name: FC10959-1L Acquired: 11/8/2023 13:10:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3086.1**	**8146.0**	**45269.**	**9481.3**
Stddev	4.2	11.9	166.	48.0
%RSD	.13757	.14548	.36701	.50674
#1	3090.3	8156.6	45094.	9506.3
#2	3086.0	8148.1	45286.	9511.8
#3	3081.8	8133.2	45425.	9426.0

Zoom In Zoom Out

Sample Name: CCV CHECK Acquired: 11/8/2023 13:15:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2528**	**39.40**	**1.986**	**1.883**	**2.009**	**1.999**	**39.45**	**1.997**	**1.993**
Stddev	.0008	.08	.003	.012	.007	.002	.06	.002	.002
%RSD	.3295	.2022	.1579	.6163	.3376	.1038	.1416	.1180	.0865
#1	.2524	39.48	1.990	1.870	2.002	2.000	39.39	1.999	1.994
#2	.2537	39.39	1.985	1.893	2.011	1.999	39.47	1.998	1.994
#3	.2522	39.32	1.984	1.888	2.015	1.996	39.50	1.994	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.020**	**39.39**	**39.51**	**1.983**	**39.29**	**2.006**	**1.985**	**40.41**
Stddev	.004	.011	.10	.09	.005	.11	.022	.002	.15
%RSD	.1803	.5552	.2436	.2220	.2345	.2826	1.100	.1224	.3754
#1	2.009	2.026	39.48	39.46	1.986	39.38	2.014	1.988	40.54
#2	2.010	2.027	39.40	39.61	1.986	39.32	2.023	1.985	40.45
#3	2.003	2.007	39.29	39.45	1.978	39.17	1.981	1.983	40.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**1.950**	**1.958**	**1.988**	**1.735**	**1.986**	**2.005**	**1.978**	**1.980**
Stddev	.003	.006	.001	.001	.003	.002	.005	.002	.009
%RSD	.1234	.2995	.0398	.0574	.1503	.0981	.2604	.1211	.4725
#1	1.991	1.944	1.958	1.989	1.738	1.987	2.009	1.978	1.974
#2	1.989	1.952	1.959	1.989	1.733	1.986	2.007	1.980	1.975
#3	1.986	1.955	1.958	1.987	1.734	1.984	1.999	1.976	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV CHECK Acquired: 11/8/2023 13:15:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.983**	**1.987**
Stddev	.006	.002
%RSD	.2820	.1094
#1	1.983	1.988
#2	1.988	1.989
#3	1.977	1.985
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2767.4**	**7920.2**	**44049.**	**9205.1**
Stddev	5.8	20.8	173.	23.3
%RSD	.20963	.26310	.39284	.25346
#1	2772.6	7909.9	44119.	9180.5
#2	2761.2	7906.5	43852.	9226.9
#3	2768.5	7944.2	44177.	9208.1

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 13:20:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0361**	**.0007**	**.0176**	**.1485**	**.0001**	**5.495**	**.0000**	**.0001**
Stddev	.0002	.0027	.0007	.0015	.0003	.0000	.010	.0000	.0000
%RSD	48.15	7.380	98.69	8.674	.2355	10.81	.1773	77.43	74.18
#1	.0002	.0349	.0015	.0192	.1488	.0000	5.503	.0000	.0000
#2	.0006	.0391	.0002	.0176	.1481	.0001	5.484	.0000	.0000
#3	.0004	.0342	.0005	.0161	.1487	.0001	5.498	.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0203**	**.0459**	**.0365**	**.0005**	**.2283**	**.0042**	**.0009**	**78.95**
Stddev	.000	.0002	.0007	.0045	.0007	.0058	.0000	.0001	.72
%RSD	1966.	.9252	1.600	12.40	137.3	2.557	.7635	8.059	.9167
#1	.0001	.0201	.0466	.0414	.0010	.2340	.0042	.0009	79.78
#2	-.0002	.0205	.0452	.0356	-.0003	.2223	.0042	.0008	78.41
#3	.0000	.0203	.0458	.0325	.0009	.2287	.0041	.0009	78.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0264**	**.0014**	**.0028**	**.0022**	**.0674**	**.0002**	**.0728**	**.0003**	**-.0028**
Stddev	.0000	.0001	.0006	.0014	.0010	.0001	.0004	.0001	.0010
%RSD	.0926	7.820	20.78	65.58	1.485	85.42	.4853	24.35	35.28
#1	.0264	.0013	.0032	.0008	.0669	.0003	.0729	.0003	-.0026
#2	.0264	.0015	.0021	.0021	.0668	.0000	.0724	.0002	-.0019
#3	.0263	.0014	.0030	.0037	.0686	.0002	.0731	.0003	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.1583**
Stddev	.0000	.0003
%RSD	19.04	.1979
#1	.0002	.1584
#2	.0002	.1580
#3	.0002	.1586

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 13:20:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3001.6**	**11797.**	**66041.**	**13852.**
Stddev	1.2	10.	125.	43.
%RSD	.04083	.08639	.18859	.31113
#1	3001.4	11785.	66027.	13829.
#2	3000.6	11802.	65925.	13826.
#3	3003.0	11803.	66172.	13902.

Zoom In Zoom Out

Sample Name: MP43102-MB2 Acquired: 11/8/2023 13:26:09 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0112**	**.0008**	**-.0029**	**.0000**	**.0001**	**.0066**	**.0000**	**.0000**
Stddev	.0003	.0082	.0005	.0008	.000	.0001	.0019	.000	.0001
%RSD	149.1	72.87	55.80	25.73	109.7	112.4	29.14	11.85	1257.
#1	-.0001	.0069	.0004	-.0033	.0000	.0000	.0088	-.0001	.0001
#2	.0006	.0206	.0013	-.0021	-.0001	.0001	.0054	.0000	.0000
#3	.0001	.0060	.0007	-.0034	.0000	.0000	.0055	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0040**	**.0111**	**.0021**	**.0028**	**.0001**	**.0001**	F **120.7**
Stddev	.0001	.0003	.0011	.0376	.0002	.0051	.0000	.0001	.8
%RSD	90.10	383.2	27.38	338.4	10.95	185.4	24.46	160.1	.6500
#1	.0002	.0003	.0032	.0478	.0022	-.0010	.0001	-.0001	121.3
#2	.0000	.0003	.0035	-.0274	.0018	.0007	.0001	.0001	119.8
#3	.0002	-.0003	.0052	.0130	.0022	.0086	.0001	.0001	121.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									2.500
Low Limit									-2.500

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	F **.0027**	**.0013**	**.0151**	**.0000**	**.0001**	**.0001**	**-.0022**
Stddev	.000	.0004	.0005	.0014	.0006	.000	.0001	.0001	.0003
%RSD	53.95	462.4	18.04	109.4	4.112	2910.	61.93	35.40	11.88
#1	-.0001	.0004	.0028	.0024	.0157	.0004	.0002	.0002	-.0020
#2	-.0001	-.0002	.0021	-.0003	.0151	-.0003	.0000	.0001	-.0021
#3	.0000	-.0004	.0031	.0019	.0144	-.0002	.0001	.0001	-.0025
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0025						
Low Limit			-.0025						

Zoom In Zoom Out

Sample Name: MP43102-MB2 Acquired: 11/8/2023 13:26:09 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0011**
Stddev	.0003	.0001
%RSD	136.4	5.693
#1	.0001	.0011
#2	-.0003	.0011
#3	-.0004	.0010
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3020.8**	**8082.0**	**44959.**	**9451.9**
Stddev	5.2	11.6	245.	35.3
%RSD	.17265	.14352	.54524	.37345
#1	3014.8	8070.1	44992.	9484.2
#2	3023.4	8082.7	44699.	9414.3
#3	3024.2	8093.2	45186.	9457.3

Zoom In Zoom Out

Sample Name: MP43102-B2 Acquired: 11/8/2023 13:31:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1990**	**24.33**	**.1998**	**.4772**	**.1967**	**.1961**	**44.04**	**.1935**	**.1926**
Stddev	.0010	.05	.0018	.0020	.0005	.0003	.08	.0003	.0002
%RSD	.5272	.2040	.9206	.4092	.2320	.1455	.1841	.1565	.1009
#1	.1980	24.38	.2004	.4750	.1971	.1964	44.14	.1933	.1925
#2	.1989	24.29	.2013	.4788	.1967	.1959	43.99	.1933	.1925
#3	.2001	24.31	.1978	.4779	.1962	.1961	44.00	.1938	.1928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2012**	**.1969**	**43.47**	**43.69**	**.5200**	**42.78**	**.1954**	**.6735**	F **160.7**
Stddev	.0004	.0008	.10	.09	.0010	.01	.0007	.0016	1.3
%RSD	.1967	.3918	.2279	.1965	.2002	.0337	.3575	.2386	.8289
#1	.2008	.1960	43.59	43.74	.5211	42.77	.1951	.6731	159.5
#2	.2012	.1973	43.42	43.74	.5190	42.77	.1949	.6721	160.4
#3	.2015	.1974	43.41	43.59	.5200	42.79	.1962	.6753	162.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value									45.00
Range									20.00%

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1946**	**.1839**	**.2019**	**.1931**	**.5402**	**.4909**	**.5159**	**.5065**	**.1875**
Stddev	.0003	.0003	.0005	.0025	.0009	.0005	.0006	.0006	.0007
%RSD	.1543	.1736	.2322	1.295	.1712	.1038	.1142	.1191	.3762
#1	.1942	.1838	.2013	.1954	.5392	.4913	.5165	.5060	.1868
#2	.1947	.1836	.2022	.1936	.5404	.4910	.5154	.5064	.1877
#3	.1948	.1842	.2020	.1905	.5410	.4903	.5157	.5072	.1881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43102-B2 Acquired: 11/8/2023 13:31:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2007**	**.1960**
Stddev	.0005	.0003
%RSD	.2540	.1734
#1	.2001	.1957
#2	.2009	.1963
#3	.2011	.1961
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2779.3**	**7986.5**	**44129.**	**9429.2**
Stddev	2.3	9.3	219.	20.2
%RSD	.08389	.11685	.49527	.21406
#1	2777.9	7995.8	44134.	9449.4
#2	2782.0	7977.1	44345.	9409.0
#3	2777.9	7986.6	43908.	9429.4

Zoom In Zoom Out

Sample Name: MP43103-MB1 Acquired: 11/8/2023 13:36:23 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0220**	**-.0007**	**-.0035**	**.0000**	**.0000**	**.0184**	**.0000**	**-.0001**
Stddev	.0002	.0028	.0017	.0016	.000	.000	.0018	.000	.0001
%RSD	132.9	12.91	243.5	45.05	199.6	169.2	9.608	243.7	168.6
#1	.0000	.0245	.0007	-.0026	.0000	.0000	.0202	-.0001	-.0002
#2	-.0001	.0226	-.0003	-.0026	-.0001	.0000	.0184	.0000	.0000
#3	-.0003	.0189	-.0026	-.0054	.0000	-.0001	.0166	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0003**	**.0258**	**.0379**	F **.0053**	**-.0003**	**.0003**	**.0002**	**.0067**
Stddev	.0002	.0001	.0008	.0253	.0009	.0008	.0000	.0001	.0062
%RSD	40.50	36.66	3.225	66.81	17.01	249.5	7.770	46.31	93.07
#1	.0003	-.0002	.0267	.0671	.0061	-.0012	.0002	.0002	.0118
#2	.0006	-.0004	.0256	.0237	.0043	.0002	.0003	.0002	-.0002
#3	.0003	-.0003	.0250	.0228	.0054	.0000	.0003	.0001	.0084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0050				
Low Limit					-.0050				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**.0022**	**-.0002**	**.0057**	**.0213**	**.0001**	**.0003**	**-.0021**
Stddev	.0001	.0006	.0016	.0017	.0002	.0001	.0001	.0001	.0010
%RSD	17.27	198.7	72.12	900.2	3.116	.6501	145.4	18.97	46.53
#1	.0003	-.0003	.0028	.0014	.0059	.0214	.0000	.0003	-.0011
#2	.0004	.0003	.0004	-.0001	.0055	.0214	.0001	.0003	-.0021
#3	.0003	.0009	.0035	-.0019	.0057	.0212	.0001	.0002	-.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43103-MB1 Acquired: 11/8/2023 13:36:23 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0014**
Stddev	.0002	.0000
%RSD	1833.	2.076
#1	-.0002	.0014
#2	-.0001	.0014
#3	.0003	.0015
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3281.9**	**8436.5**	**47897.**	**9635.6**
Stddev	4.6	7.6	274.	8.4
%RSD	.13959	.09060	.57305	.08711
#1	3279.9	8427.7	48090.	9639.6
#2	3287.2	8441.8	48019.	9641.2
#3	3278.7	8439.9	47583.	9625.9

Zoom In Zoom Out

Sample Name: MP43103-B1 Acquired: 11/8/2023 13:41:25 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1869**	**23.49**	**.1888**	**.4355**	**.1885**	**.1888**	**42.25**	**.1846**	**.1854**
Stddev	.0005	.03	.0018	.0016	.0006	.0005	.08	.0002	.0003
%RSD	.2631	.1444	.9502	.3750	.3110	.2506	.1811	.0985	.1692
#1	.1872	23.49	.1894	.4343	.1892	.1887	42.34	.1844	.1851
#2	.1863	23.46	.1868	.4374	.1880	.1884	42.18	.1847	.1853
#3	.1872	23.53	.1902	.4349	.1884	.1894	42.24	.1846	.1857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1918**	**.1869**	**42.03**	**41.79**	**.5024**	**41.12**	**.1864**	**.6457**	**39.54**
Stddev	.0005	.0008	.04	.06	.0022	.13	.0005	.0005	.05
%RSD	.2628	.4299	.0868	.1315	.4456	.3219	.2759	.0822	.1187
#1	.1913	.1860	42.03	41.76	.5038	41.18	.1859	.6451	39.50
#2	.1923	.1875	41.99	41.75	.4998	40.97	.1869	.6461	39.59
#3	.1919	.1871	42.06	41.85	.5035	41.21	.1863	.6460	39.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1881**	**.1757**	**.1919**	**.1773**	**.5000**	**.4865**	**.4959**	**.4813**	**.1818**
Stddev	.0002	.0004	.0010	.0016	.0004	.0006	.0005	.0005	.0018
%RSD	.1022	.2411	.5423	.8776	.0772	.1197	.1089	.1065	.9710
#1	.1883	.1761	.1909	.1788	.4996	.4861	.4953	.4809	.1808
#2	.1880	.1757	.1929	.1757	.5000	.4863	.4964	.4819	.1808
#3	.1881	.1753	.1917	.1774	.5004	.4872	.4960	.4810	.1839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43103-B1 Acquired: 11/8/2023 13:41:25 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1896**	**.1889**
Stddev	.0013	.0002
%RSD	.6947	.1121
#1	.1881	.1887
#2	.1905	.1889
#3	.1902	.1891
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2890.5**	**8158.7**	**45974.**	**9458.2**
Stddev	4.3	5.6	125.	77.5
%RSD	.15016	.06921	.27088	.81980
#1	2886.6	8153.2	46084.	9392.0
#2	2889.6	8164.5	45999.	9543.5
#3	2895.1	8158.4	45839.	9439.0

Zoom In Zoom Out

Sample Name: FC10929-16 Acquired: 11/8/2023 13:46:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**99.88**	**.0109**	**-.0072**	**.2609**	**.0008**	**62.86**	**-.0001**	**.0043**
Stddev	.0004	.26	.0004	.0007	.0003	.0001	1.14	.0000	.0000
%RSD	79.95	.2641	3.959	9.799	.1007	6.697	1.808	23.86	.5081
#1	.0003	99.92	.0109	-.0065	.2611	.0008	61.55	-.0001	.0043
#2	.0010	99.59	.0114	-.0071	.2606	.0008	63.52	-.0001	.0042
#3	.0002	100.1	.0105	-.0079	.2611	.0009	63.50	-.0001	.0042

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012**	**.0208**	**25.89**	**1.229**	**.0364**	**13.24**	**.1569**	**.0081**	**.3060**
Stddev	.0003	.0003	.11	.034	.0018	.06	.0004	.0002	.0124
%RSD	.3328	1.416	.4387	2.786	5.074	.4532	.2540	2.026	4.055
#1	.1016	.0205	25.89	1.190	.0369	13.22	.1564	.0080	.3031
#2	.1010	.0210	25.78	1.254	.0379	13.18	.1571	.0080	.2953
#3	.1010	.0210	26.01	1.244	.0343	13.30	.1571	.0083	.3196

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0340**	**.0834**	**.0034**	**-.0028**	**6.370**	**.0218**	**.2288**	**1.096**	**-.0033**
Stddev	.0001	.0009	.0006	.0016	.004	.0001	.0008	.009	.0007
%RSD	.3896	1.101	16.43	57.67	.0575	.6582	.3354	.7923	21.27
#1	.0341	.0823	.0029	-.0010	6.366	.0218	.2288	1.089	-.0030
#2	.0339	.0840	.0040	-.0040	6.372	.0219	.2280	1.106	-.0041
#3	.0342	.0838	.0033	-.0034	6.371	.0216	.2295	1.093	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0707**	**.0496**
Stddev	.0003	.0001
%RSD	.4322	.1344
#1	.0704	.0495
#2	.0710	.0496
#3	.0707	.0496

Zoom In Zoom Out

Sample Name: FC10929-16 Acquired: 11/8/2023 13:46:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2983.0**	**8954.7**	**49465.**	**10282.**
Stddev	7.5	10.6	188.	47.
%RSD	.25029	.11838	.38096	.45780
#1	2991.1	8956.8	49621.	10275.
#2	2976.3	8943.2	49256.	10332.
#3	2981.8	8964.1	49518.	10239.

Zoom In Zoom Out

Sample Name: MP43103-D1 Acquired: 11/8/2023 13:51:29 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**85.42**	**.0096**	**-.0079**	**.2216**	**.0006**	**83.99**	**-.0001**	**.0038**
Stddev	.0003	.15	.0005	.0014	.0011	.0000	.59	.0000	.0001
%RSD	266.0	.1737	5.245	17.33	.4764	1.226	.6970	44.45	2.112
#1	.0000	85.58	.0094	-.0094	.2221	.0006	84.25	.0000	.0038
#2	-.0005	85.38	.0101	-.0074	.2224	.0006	84.40	-.0001	.0038
#3	.0001	85.30	.0092	-.0068	.2204	.0006	83.32	-.0001	.0037

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0871**	**.0182**	**22.00**	**1.142**	**.0340**	**15.01**	**.1472**	**.0075**	**.2954**
Stddev	.0002	.0002	.04	.033	.0003	.04	.0004	.0000	.0091
%RSD	.2260	1.272	.1759	2.924	.8811	.2418	.2688	.5078	3.073
#1	.0872	.0184	22.04	1.105	.0336	15.03	.1467	.0075	.3015
#2	.0869	.0180	21.96	1.169	.0342	15.03	.1474	.0075	.2850
#3	.0872	.0182	21.99	1.151	.0340	14.97	.1474	.0075	.2997

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0295**	**.0657**	**.0029**	**-.0025**	**5.375**	**.0215**	**.1983**	**.9850**	**-.0027**
Stddev	.0000	.0003	.0011	.0018	.003	.0003	.0004	.0024	.0008
%RSD	.1193	.4552	36.04	70.63	.0619	1.243	.2009	.2425	29.19
#1	.0295	.0658	.0026	-.0039	5.378	.0215	.1987	.9834	-.0019
#2	.0295	.0660	.0021	-.0031	5.372	.0217	.1983	.9838	-.0026
#3	.0294	.0654	.0041	-.0005	5.376	.0212	.1979	.9877	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0619**	**.0475**
Stddev	.0003	.0001
%RSD	.5000	.1346
#1	.0616	.0474
#2	.0622	.0475
#3	.0620	.0474

Zoom In Zoom Out

Sample Name: MP43103-D1 Acquired: 11/8/2023 13:51:29 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2975.2**	**8866.6**	**48839.**	**10131.**
Stddev	9.1	12.0	235.	111.
%RSD	.30600	.13550	.48088	1.0968
#1	2966.8	8853.2	48654.	10096.
#2	2974.0	8870.3	49103.	10042.
#3	2984.9	8876.4	48759.	10255.

Zoom In Zoom Out

Sample Name: MP43103-SD1 Acquired: 11/8/2023 13:56:36 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**100.2**	**.0122**	**-.0353**	**.2628**	**.0010**	**63.46**	**-.0002**	**.0043**
Stddev	.0015	.3	.0042	.0028	.0004	.0002	.04	.0002	.0005
%RSD	185.6	.2543	34.86	7.966	.1623	16.35	.0613	115.0	10.92
#1	.0009	100.3	.0083	-.0326	.2625	.0008	63.51	-.0003	.0045
#2	-.0020	99.94	.0167	-.0352	.2633	.0011	63.44	-.0003	.0038
#3	-.0013	100.4	.0114	-.0382	.2626	.0011	63.44	.0001	.0046

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012**	**.0195**	**26.33**	**1.032**	**.0437**	**13.48**	**.1604**	**.0076**	**.0180**
Stddev	.0017	.0018	.01	.106	.0057	.01	.0004	.0005	.0036
%RSD	1.721	9.167	.0488	10.24	13.02	.0778	.2200	6.849	19.98
#1	.1006	.0215	26.34	1.140	.0469	13.48	.1604	.0071	.0145
#2	.1031	.0189	26.32	.9285	.0470	13.47	.1608	.0077	.0217
#3	.0998	.0181	26.34	1.027	.0371	13.49	.1600	.0082	.0179

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0350**	**.0762**	**.0025**	**-.0102**	**6.502**	**.0229**	**.2301**	**1.087**	**-.0066**
Stddev	.0004	.0019	.0034	.0055	.052	.0021	.0002	.011	.0027
%RSD	1.217	2.484	139.5	53.91	.8030	9.310	.1005	.9730	41.01
#1	.0355	.0781	-.0013	-.0133	6.551	.0205	.2302	1.075	-.0080
#2	.0347	.0743	.0034	-.0038	6.509	.0238	.2299	1.095	-.0083
#3	.0348	.0762	.0053	-.0134	6.447	.0245	.2303	1.091	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0712**	**.0526**
Stddev	.0017	.0001
%RSD	2.457	.2403
#1	.0716	.0526
#2	.0692	.0525
#3	.0726	.0527

Zoom In Zoom Out

Sample Name: MP43103-SD1 Acquired: 11/8/2023 13:56:36 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3165.7**	**8524.7**	**47196.**	**9722.0**
Stddev	6.0	3.4	32.	40.9
%RSD	.18884	.03947	.06844	.42031
#1	3172.3	8523.9	47167.	9677.3
#2	3164.0	8528.4	47190.	9731.5
#3	3160.7	8521.8	47230.	9757.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 14:01:34 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2512**	**40.95**	**2.032**	**2.042**	**2.029**	**2.024**	**40.36**	**2.013**	**2.022**
Stddev	.0003	.05	.002	.009	.001	.004	.03	.004	.003
%RSD	.1144	.1263	.0967	.4225	.0638	.1885	.0747	.2002	.1309
#1	.2510	40.89	2.031	2.052	2.031	2.023	40.33	2.014	2.023
#2	.2515	40.98	2.031	2.035	2.028	2.020	40.34	2.009	2.019
#3	.2512	40.97	2.034	2.040	2.029	2.028	40.39	2.017	2.024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026**	**2.018**	**40.49**	**40.56**	**2.036**	**39.91**	**2.000**	**2.019**	**41.39**
Stddev	.010	.005	.06	.06	.003	.08	.007	.003	.11
%RSD	.5027	.2741	.1592	.1368	.1500	.2070	.3434	.1686	.2539
#1	2.016	2.012	40.43	40.56	2.035	39.83	1.996	2.021	41.35
#2	2.036	2.023	40.48	40.51	2.034	39.91	2.008	2.015	41.31
#3	2.024	2.019	40.56	40.62	2.040	40.00	1.997	2.020	41.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**2.010**	**2.053**	**2.013**	**2.330**	**2.030**	**2.056**	**2.016**	**2.031**
Stddev	.003	.003	.001	.006	.001	.003	.007	.006	.003
%RSD	.1319	.1367	.0371	.3052	.0387	.1260	.3597	.3004	.1342
#1	2.035	2.010	2.054	2.015	2.329	2.030	2.059	2.013	2.028
#2	2.032	2.008	2.053	2.006	2.331	2.027	2.048	2.023	2.034
#3	2.037	2.013	2.052	2.018	2.329	2.032	2.061	2.012	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 14:01:34 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.000**	**2.026**
Stddev	.006	.004
%RSD	.2825	.2065
#1	1.994	2.028
#2	2.005	2.021
#3	2.000	2.029
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2761.8**	**7950.2**	**44802.**	**9343.6**
Stddev	5.5	11.1	188.	19.1
%RSD	.19773	.13979	.42065	.20412
#1	2764.5	7949.6	44999.	9361.6
#2	2765.4	7961.6	44623.	9323.6
#3	2755.5	7939.4	44784.	9345.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 14:06:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0061**	**-.0001**	F **-.0012**	**.0002**	**.0000**	**.0016**	**.0000**
Stddev	.0001	.0088	.0005	.0013	.0001	.0000	.0007	.0000
%RSD	210.3	144.8	848.5	108.3	34.34	90.47	42.35	23.19
#1	.0000	.0155	-.0006	-.0002	.0001	.0000	.0009	.0000
#2	.0001	-.0020	.0001	-.0006	.0001	.0001	.0017	.0001
#3	.0000	.0048	.0004	-.0026	.0002	.0001	.0022	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**-.0003**	**.0010**	**-.0207**	**-.0009**	**-.0020**	**.0000**
Stddev	.0001	.0001	.0001	.0007	.0046	.0007	.0078	.000
%RSD	152.7	52.56	35.95	71.96	22.44	73.32	395.6	576.1
#1	.0000	-.0001	-.0004	.0004	-.0259	-.0003	-.0098	.0000
#2	.0001	-.0002	-.0002	.0007	-.0191	-.0017	.0059	.0000
#3	.0001	-.0003	-.0003	.0017	-.0170	-.0007	-.0020	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0499**	**-.0002**	**-.0002**	**.0016**	**-.0011**	**.0015**	**.0001**
Stddev	.0000	.0104	.0001	.0002	.0005	.0015	.0002	.0002
%RSD	15.96	20.90	54.59	122.4	29.50	141.8	13.29	209.3
#1	.0004	-.0616	-.0001	.0000	.0020	-.0018	.0017	.0000
#2	.0003	-.0415	-.0003	-.0002	.0018	.0007	.0013	.0000
#3	.0003	-.0466	-.0002	-.0003	.0011	-.0020	.0016	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 14:06:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0004**	**-.0002**	**.0002**
Stddev	.0000	.0000	.0006	.0001	.0000
%RSD	264.8	33.02	167.4	56.61	24.02
#1	.0000	.0001	.0011	-.0002	.0002
#2	.0001	.0002	.0002	-.0003	.0002
#3	.0000	.0001	-.0001	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3211.1**	**8302.4**	**46414.**	**9401.4**
Stddev	8.1	13.7	110.	33.6
%RSD	.25265	.16560	.23592	.35748
#1	3220.3	8314.0	46500.	9379.1
#2	3205.0	8287.2	46452.	9440.0
#3	3208.1	8305.9	46291.	9384.9

Zoom In Zoom Out

Sample Name: MP43103-PS1 Acquired: 11/8/2023 14:11:42 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0469**	**100.2**	**.1027**	**-.0077**	**.4849**	**.0476**	**65.47**	**.0451**	**.0493**
Stddev	.0001	.2	.0004	.0004	.0016	.0001	.35	.0000	.0001
%RSD	.2202	.1661	.4311	4.961	.3340	.3068	.5407	.0266	.2601
#1	.0468	100.0	.1025	-.0081	.4842	.0474	65.10	.0451	.0493
#2	.0470	100.3	.1024	-.0076	.4837	.0476	65.80	.0451	.0495
#3	.0470	100.2	.1032	-.0074	.4867	.0477	65.51	.0451	.0492

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1451**	**.1139**	**28.01**	**10.19**	**.0355**	**17.49**	**.1979**	**.0928**	**8.763**
Stddev	.0003	.0002	.06	.01	.0024	.03	.0002	.0001	.026
%RSD	.1769	.1649	.2003	.1039	6.815	.1739	.0840	.1075	.2990
#1	.1452	.1141	27.96	10.18	.0372	17.46	.1977	.0928	8.734
#2	.1453	.1137	28.07	10.20	.0328	17.52	.1980	.0927	8.783
#3	.1448	.1139	28.01	10.18	.0366	17.50	.1980	.0929	8.773

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1251**	**.1316**	**.0951**	**.0831**	**6.100**	**.0675**	**.2703**	**1.148**	**.0946**
Stddev	.0000	.0003	.0024	.0017	.016	.0003	.0008	.010	.0020
%RSD	.0216	.2027	2.521	2.033	.2557	.4885	.2871	.8535	2.136
#1	.1252	.1319	.0967	.0813	6.103	.0679	.2695	1.139	.0967
#2	.1251	.1314	.0963	.0832	6.114	.0672	.2711	1.148	.0944
#3	.1251	.1316	.0924	.0847	6.083	.0675	.2703	1.158	.0927

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1145**	**.2719**
Stddev	.0001	.0002
%RSD	.0596	.0886
#1	.1145	.2720
#2	.1146	.2720
#3	.1146	.2716

Zoom In Zoom Out

Sample Name: MP43103-PS1 Acquired: 11/8/2023 14:11:42 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2939.7**	**8945.5**	**49316.**	**10281.**
Stddev	2.8	19.2	90.	16.
%RSD	.09560	.21517	.18157	.15676
#1	2936.9	8930.6	49299.	10263.
#2	2939.8	8938.8	49412.	10288.
#3	2942.5	8967.2	49235.	10293.

Zoom In Zoom Out

Sample Name: MP43103-S1 Acquired: 11/8/2023 14:16:47 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1790**	**125.7**	**.1747**	**.3849**	**.4305**	**.1770**	**106.3**	**.1677**	**.1728**
Stddev	.0006	.1	.0007	.0026	.0009	.0001	.8	.0002	.0002
%RSD	.3135	.1123	.4010	.6641	.1984	.0738	.7338	.1057	.0869
#1	.1787	125.9	.1754	.3824	.4314	.1769	106.2	.1676	.1727
#2	.1786	125.8	.1748	.3850	.4297	.1772	107.1	.1679	.1729
#3	.1797	125.6	.1740	.3875	.4304	.1769	105.6	.1676	.1726

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2749**	**.1968**	**65.31**	**40.38**	F **.5148**	**50.56**	**.3369**	**.5814**	**37.29**
Stddev	.0007	.0005	.11	.02	.0015	.03	.0010	.0007	.18
%RSD	.2601	.2677	.1695	.0598	.2949	.0645	.2894	.1179	.4780
#1	.2755	.1969	65.41	40.37	.5136	50.54	.3379	.5810	37.18
#2	.2751	.1973	65.33	40.41	.5143	50.55	.3359	.5822	37.49
#3	.2741	.1962	65.19	40.37	.5165	50.60	.3369	.5810	37.19

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2083**	**.2623**	**.0956**	**.1555**	**5.333**	**.4384**	**.6995**	**1.216**	**.1812**
Stddev	.0002	.0003	.0007	.0029	.005	.0007	.0009	.005	.0006
%RSD	.0844	.1283	.7299	1.855	.0988	.1508	.1309	.4209	.3526
#1	.2082	.2623	.0951	.1570	5.327	.4378	.6986	1.221	.1809
#2	.2085	.2620	.0964	.1573	5.338	.4391	.7004	1.211	.1819
#3	.2082	.2626	.0953	.1522	5.334	.4383	.6994	1.215	.1807

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2496**	**.2289**
Stddev	.0007	.0003
%RSD	.2624	.1505
#1	.2504	.2290
#2	.2492	.2292
#3	.2494	.2285

Zoom In Zoom Out

Sample Name: MP43103-S1 Acquired: 11/8/2023 14:16:47 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2755.5**	**8707.3**	**48296.**	**10137.**
Stddev	4.5	14.7	111.	48.
%RSD	.16469	.16826	.23019	.47059
#1	2756.4	8700.2	48168.	10097.
#2	2750.6	8697.6	48351.	10124.
#3	2759.5	8724.2	48368.	10189.

Zoom In Zoom Out

Sample Name: MP43103-S2 Acquired: 11/8/2023 14:21:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1782**	**121.9**	**.1789**	**.3896**	**.4380**	**.1774**	**105.5**	**.1677**	**.1726**
Stddev	.0003	.3	.0013	.0035	.0006	.0003	1.4	.0001	.0002
%RSD	.1884	.2273	.7416	.9024	.1419	.1439	1.323	.0708	.1067
#1	.1780	122.1	.1786	.3860	.4387	.1775	106.5	.1677	.1727
#2	.1786	121.9	.1777	.3899	.4376	.1776	106.1	.1675	.1724
#3	.1782	121.6	.1803	.3930	.4377	.1771	103.9	.1678	.1726

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2734**	**.1965**	**69.49**	**40.40**	F **.5182**	**51.93**	**.3362**	**.5800**	**37.48**
Stddev	.0001	.0007	.19	.10	.0013	.15	.0009	.0008	.07
%RSD	.0380	.3693	.2717	.2502	.2454	.2965	.2690	.1459	.1959
#1	.2735	.1973	69.70	40.51	.5176	52.10	.3369	.5799	37.53
#2	.2733	.1965	69.44	40.31	.5197	51.87	.3366	.5792	37.51
#3	.2733	.1958	69.34	40.39	.5174	51.80	.3352	.5809	37.40

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2062**	**.2589**	**.0953**	**.1561**	**6.181**	**.4402**	**.7183**	**1.257**	**.1835**
Stddev	.0003	.0008	.0008	.0015	.007	.0004	.0014	.007	.0006
%RSD	.1326	.3160	.8871	.9589	.1123	.0891	.1905	.5426	.3491
#1	.2065	.2583	.0944	.1552	6.180	.4407	.7198	1.264	.1841
#2	.2059	.2598	.0961	.1579	6.189	.4399	.7174	1.255	.1828
#3	.2063	.2587	.0953	.1553	6.175	.4401	.7175	1.251	.1835

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2535**	**.2290**
Stddev	.0007	.0005
%RSD	.2835	.2122
#1	.2544	.2290
#2	.2533	.2286
#3	.2530	.2295

Zoom In Zoom Out

Sample Name: MP43103-S2 Acquired: 11/8/2023 14:21:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2746.8**	**8708.9**	**48334.**	**10177.**
Stddev	9.2	20.9	86.	51.
%RSD	.33494	.24024	.17749	.49748
#1	2748.6	8703.0	48384.	10120.
#2	2754.9	8732.1	48235.	10194.
#3	2736.8	8691.5	48383.	10217.

Zoom In Zoom Out

Sample Name: FC10929-17 Acquired: 11/8/2023 14:26:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**39.80**	**.0075**	**-.0083**	**.1010**	**.0004**	**3.415**	**-.0002**	**.0026**
Stddev	.0003	.05	.0005	.0002	.0000	.0000	.003	.0001	.0001
%RSD	133.2	.1199	6.155	2.825	.0461	11.39	.0794	53.71	4.341
#1	-.0001	39.81	.0071	-.0084	.1009	.0004	3.414	-.0002	.0025
#2	.0003	39.84	.0081	-.0085	.1010	.0004	3.413	-.0003	.0026
#3	.0004	39.75	.0074	-.0081	.1010	.0004	3.418	-.0001	.0027

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0349**	**.0097**	**19.23**	**.7023**	**.0194**	**1.415**	**.1041**	**.0027**	**-.0055**
Stddev	.0002	.0002	.04	.0327	.0017	.001	.0002	.0002	.0084
%RSD	.5393	2.453	.2334	4.658	8.497	.0951	.1956	6.118	152.1
#1	.0346	.0095	19.25	.7373	.0213	1.417	.1041	.0028	-.0085
#2	.0349	.0096	19.27	.6970	.0183	1.415	.1043	.0025	-.0120
#3	.0350	.0100	19.18	.6725	.0186	1.414	.1039	.0028	.0040

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0144**	**.0279**	**.0016**	**-.0001**	**4.739**	**.0205**	**.0575**	**.7838**	**-.0023**
Stddev	.0001	.0003	.0009	.0013	.008	.0002	.0000	.0018	.0008
%RSD	.7465	1.152	56.85	1116.	.1670	1.078	.0644	.2325	33.87
#1	.0144	.0283	.0009	.0014	4.744	.0207	.0575	.7820	-.0014
#2	.0145	.0277	.0012	-.0009	4.730	.0204	.0575	.7856	-.0029
#3	.0143	.0277	.0026	-.0008	4.743	.0203	.0575	.7838	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0464**	**.0322**
Stddev	.0002	.0000
%RSD	.4531	.0906
#1	.0465	.0322
#2	.0466	.0322
#3	.0462	.0322

Zoom In Zoom Out

Sample Name: FC10929-17 Acquired: 11/8/2023 14:26:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3200.4**	**8999.6**	**50323.**	**10176.**
Stddev	4.5	13.4	262.	16.
%RSD	.14141	.14879	.52086	.15767
#1	3195.3	8984.9	50021.	10185.
#2	3201.6	9002.7	50462.	10186.
#3	3204.1	9011.1	50486.	10158.

Zoom In Zoom Out

Sample Name: FC10929-18 Acquired: 11/8/2023 14:31:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**43.56**	**.0062**	**-.0079**	**.1558**	**.0004**	**.8223**	**-.0002**	**.0023**
Stddev	.0002	.22	.0002	.0013	.0007	.0000	.0031	.0001	.0001
%RSD	81.90	.5065	3.825	15.93	.4306	9.795	.3809	23.41	3.375
#1	-.0003	43.41	.0064	-.0073	.1556	.0004	.8197	-.0002	.0024
#2	.0000	43.45	.0063	-.0070	.1552	.0004	.8214	-.0002	.0023
#3	-.0004	43.81	.0060	-.0093	.1565	.0005	.8258	-.0003	.0023

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0352**	**.0092**	**13.64**	**.6022**	**.0191**	**1.241**	**.0707**	**.0010**	**-.0153**
Stddev	.0002	.0002	.06	.0424	.0008	.016	.0001	.0003	.0160
%RSD	.6259	1.983	.4280	7.043	4.025	1.304	.1066	25.84	105.0
#1	.0350	.0091	13.60	.5946	.0187	1.238	.0706	.0010	-.0323
#2	.0354	.0094	13.61	.5641	.0200	1.227	.0708	.0012	-.0132
#3	.0353	.0091	13.71	.6479	.0187	1.258	.0707	.0007	-.0004

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0158**	**.0393**	**.0019**	**.0006**	**5.382**	**.0200**	**.1851**	**.7917**	**-.0015**
Stddev	.0001	.0005	.0002	.0027	.003	.0001	.0010	.0034	.0006
%RSD	.7749	1.170	8.159	458.6	.0600	.6708	.5290	.4320	44.29
#1	.0157	.0391	.0021	.0017	5.378	.0201	.1846	.7923	-.0018
#2	.0159	.0398	.0018	-.0025	5.384	.0199	.1846	.7948	-.0007
#3	.0158	.0389	.0019	.0025	5.384	.0201	.1863	.7880	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0368**	**.0275**
Stddev	.0002	.0000
%RSD	.4677	.1641
#1	.0367	.0275
#2	.0370	.0275
#3	.0367	.0276

Zoom In Zoom Out

Sample Name: FC10929-18 Acquired: 11/8/2023 14:31:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3200.5**	**8954.4**	**50015.**	**10129.**
Stddev	10.4	25.4	250.	28.
%RSD	.32533	.28337	.50055	.27322
#1	3188.6	8926.4	50000.	10160.
#2	3208.1	8975.8	49772.	10106.
#3	3204.7	8961.1	50272.	10121.

Zoom In Zoom Out

Sample Name: FC10963-24 Acquired: 11/8/2023 14:36:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**199.4**	**.3091**	**-.0473**	**1.742**	**.0123**	**937.4**	**.0055**	**.2066**
Stddev	.0021	.8	.0052	.0043	.008	.0002	14.8	.0002	.0003
%RSD	395.8	.4033	1.684	9.135	.4453	1.527	1.575	3.261	.1417
#1	.0002	198.9	.3048	-.0478	1.734	.0124	953.9	.0055	.2066
#2	-.0014	199.0	.3075	-.0427	1.740	.0121	925.5	.0054	.2068
#3	.0027	200.3	.3149	-.0513	1.750	.0125	932.7	.0057	.2062

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3409**	**.4993**	**513.0**	**31.67**	**.2795**	**141.5**	**8.768**	**.1129**	**1.302**
Stddev	.0021	.0031	1.7	.15	.0090	.8	.070	.0006	.019
%RSD	.6200	.6285	.3292	.4871	3.236	.5617	.7990	.5012	1.446
#1	.3385	.4958	511.8	31.65	.2826	140.6	8.833	.1127	1.309
#2	.3423	.5002	512.2	31.83	.2865	141.7	8.693	.1124	1.280
#3	.3419	.5019	514.9	31.52	.2693	142.1	8.777	.1135	1.316

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5895**	**.4404**	**.0099**	**.0091**	**5.181**	**.0265**	**.6480**	**1.498**	**.0093**
Stddev	.0006	.0090	.0074	.0124	.026	.0012	.0041	.002	.0040
%RSD	.1087	2.041	75.36	137.0	.5006	4.477	.6343	.1252	43.21
#1	.5889	.4340	.0036	.0208	5.164	.0257	.6442	1.496	.0086
#2	.5894	.4507	.0079	-.0040	5.211	.0259	.6474	1.500	.0056
#3	.5902	.4366	.0181	.0104	5.169	.0278	.6524	1.498	.0135

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5165**	**1.713**
Stddev	.0008	.004
%RSD	.1487	.2152
#1	.5159	1.714
#2	.5164	1.717
#3	.5174	1.709

Zoom In Zoom Out

Sample Name: FC10963-24 Acquired: 11/8/2023 14:36:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2781.0**	**8949.0**	**49937.**	**10545.**
Stddev	5.7	19.2	251.	42.
%RSD	.20511	.21503	.50289	.39656
#1	2784.8	8946.3	49986.	10500.
#2	2774.4	8931.3	50160.	10583.
#3	2783.7	8969.5	49665.	10553.

Zoom In Zoom Out

Sample Name: FC10958-1 Acquired: 11/8/2023 14:42:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**308.2**	**.0863**	F **-.0861**	**2.882**	**.0060**	**103.0**	**-.0019**
Stddev	.0014	.0	.0040	.0046	.004	.0002	.0	.0002
%RSD	24.51	.0076	4.632	5.343	.1315	2.593	.0097	8.724
#1	.0064	308.2	.0902	-.0913	2.878	.0062	103.0	-.0021
#2	.0041	308.2	.0865	-.0826	2.883	.0059	103.0	-.0017
#3	.0066	308.2	.0822	-.0843	2.885	.0060	103.0	-.0018

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2599**	**1.219**	**.3666**	**451.5**	**20.29**	**.2409**	**141.9**	**9.981**
Stddev	.0000	.002	.0024	.2	.23	.0042	.4	.042
%RSD	.0134	.1699	.6627	.0466	1.150	1.734	.3050	.4198
#1	.2598	1.216	.3650	451.7	20.16	.2363	142.4	9.942
#2	.2599	1.219	.3655	451.3	20.55	.2418	141.8	10.03
#3	.2599	1.220	.3694	451.4	20.14	.2445	141.6	9.976

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**5.113**	**1.711**	**.0817**	**.0299**	**.0028**	**8.109**	**.0338**
Stddev	.0001	.031	.002	.0027	.0039	.0083	.025	.0010
%RSD	3.499	.6011	.1256	3.353	12.92	299.3	.3079	2.872
#1	.0027	5.117	1.709	.0814	.0258	.0108	8.136	.0328
#2	.0026	5.141	1.710	.0791	.0304	-.0058	8.105	.0348
#3	.0028	5.080	1.713	.0845	.0335	.0033	8.087	.0337

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4745**	F **22.19**	**.0012**	**.9259**	**.7901**
Stddev	.0004	.11	.0027	.0041	.0006
%RSD	.0779	.4774	224.7	.4444	.0752
#1	.4741	22.23	.0008	.9213	.7894
#2	.4749	22.27	-.0013	.9292	.7905
#3	.4745	22.07	.0041	.9273	.7904

Zoom In Zoom Out

Sample Name: FC10958-1 Acquired: 11/8/2023 14:42:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2933.8**	**9274.8**	**51533.**	**10669.**
Stddev	8.8	19.0	143.	83.
%RSD	.30090	.20534	.27669	.77880
#1	2934.8	9267.2	51670.	10574.
#2	2942.1	9296.4	51545.	10725.
#3	2924.5	9260.6	51385.	10710.

Zoom In Zoom Out

Sample Name: FC10958-2 Acquired: 11/8/2023 14:47:23 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070**	**335.5**	**.0985**	F **-.0858**	**3.980**	**.0070**	**111.3**	**-.0020**
Stddev	.0008	.3	.0026	.0080	.007	.0001	.3	.0001
%RSD	11.50	.0859	2.600	9.351	.1658	1.840	.3095	3.736
#1	.0080	335.4	.1009	-.0941	3.979	.0072	111.3	-.0020
#2	.0064	335.8	.0958	-.0780	3.987	.0070	111.6	-.0019
#3	.0068	335.3	.0989	-.0854	3.974	.0069	110.9	-.0020

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3306**	**1.312**	**.4252**	**496.0**	**23.38**	**.2558**	**166.6**	**12.69**
Stddev	.0014	.002	.0014	.2	.04	.0036	.2	.01
%RSD	.4181	.1708	.3231	.0418	.1748	1.406	.1394	.0991
#1	.3292	1.314	.4254	495.9	23.41	.2521	166.5	12.70
#2	.3319	1.309	.4237	495.8	23.33	.2562	166.9	12.69
#3	.3306	1.311	.4264	496.2	23.39	.2593	166.4	12.68

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**6.155**	**1.926**	**.1055**	**.0262**	**.0092**	**6.438**	**.0334**
Stddev	.0001	.055	.006	.0027	.0025	.0050	.020	.0014
%RSD	10.34	.8953	.3080	2.531	9.703	53.92	.3066	4.103
#1	.0011	6.097	1.921	.1030	.0268	.0076	6.434	.0320
#2	.0013	6.163	1.933	.1083	.0284	.0052	6.460	.0334
#3	.0013	6.206	1.925	.1053	.0234	.0148	6.421	.0348

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5579**	F **21.73**	**.0041**	**1.009**	**.8826**
Stddev	.0003	.14	.0042	.003	.0027
%RSD	.0528	.6261	100.8	.2969	.3069
#1	.5582	21.88	.0084	1.006	.8805
#2	.5576	21.61	.0000	1.009	.8857
#3	.5578	21.72	.0040	1.012	.8818

Zoom In Zoom Out

Sample Name: FC10958-2 Acquired: 11/8/2023 14:47:23 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2897.5**	**9365.0**	**52247.**	**10889.**
Stddev	5.8	23.8	100.	72.
%RSD	.20058	.25438	.19146	.66480
#1	2903.6	9386.6	52230.	10851.
#2	2892.0	9339.4	52355.	10843.
#3	2897.0	9369.1	52157.	10972.

Zoom In Zoom Out

Sample Name: FC10958-3 Acquired: 11/8/2023 14:52:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**311.9**	**.0879**	F **-.1206**	**3.265**	**.0078**	**104.0**	**-.0016**
Stddev	.0022	.7	.0018	.0026	.007	.0001	.3	.0001
%RSD	44.33	.2112	2.095	2.169	.2167	1.238	.3273	7.674
#1	.0062	311.4	.0873	-.1191	3.258	.0078	103.7	-.0015
#2	.0061	312.6	.0899	-.1236	3.272	.0080	104.4	-.0015
#3	.0024	311.6	.0864	-.1190	3.266	.0078	104.0	-.0017

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2931**	**1.295**	**.4389**	**484.4**	**21.39**	**.2470**	**179.1**	**12.78**
Stddev	.0008	.002	.0009	1.1	.17	.0014	.3	.07
%RSD	.2639	.1710	.2105	.2247	.8139	.5775	.1573	.5745
#1	.2940	1.294	.4388	483.4	21.30	.2476	178.8	12.84
#2	.2925	1.298	.4399	485.6	21.60	.2480	179.4	12.70
#3	.2928	1.295	.4380	484.2	21.29	.2453	179.2	12.80

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**7.404**	**2.094**	**.1577**	**.0212**	**.0131**	**3.660**	**.0278**
Stddev	.0004	.102	.001	.0031	.0014	.0011	.006	.0013
%RSD	56.67	1.380	.0448	1.975	6.550	8.408	.1605	4.830
#1	-.0009	7.340	2.094	.1603	.0213	.0132	3.665	.0273
#2	-.0011	7.522	2.093	.1586	.0225	.0142	3.662	.0293
#3	-.0003	7.351	2.094	.1542	.0198	.0120	3.653	.0267

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4889**	**16.32**	**.0124**	**.8446**	**.9257**
Stddev	.0003	.15	.0059	.0033	.0007
%RSD	.0706	.9255	47.82	.3913	.0778
#1	.4887	16.24	.0057	.8453	.9259
#2	.4893	16.49	.0147	.8410	.9249
#3	.4887	16.22	.0168	.8475	.9263

Zoom In Zoom Out

Sample Name: FC10958-3 Acquired: 11/8/2023 14:52:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2890.3**	**9332.3**	**52095.**	**10728.**
Stddev	3.7	13.0	114.	63.
%RSD	.12798	.13970	.21808	.59155
#1	2889.3	9331.1	52113.	10751.
#2	2894.4	9345.8	52199.	10656.
#3	2887.2	9319.8	51974.	10777.

Zoom In Zoom Out

Sample Name: FC10958-4 Acquired: 11/8/2023 14:57:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087**	**315.1**	**.1173**	F **-.1054**	**4.525**	**.0069**	**113.5**	**-.0027**
Stddev	.0020	1.1	.0016	.0075	.022	.0003	.6	.0001
%RSD	23.24	.3524	1.364	7.111	.4811	4.358	.5482	4.592
#1	.0108	314.1	.1189	-.1021	4.503	.0066	112.8	-.0026
#2	.0084	315.0	.1157	-.1002	4.547	.0072	114.0	-.0028
#3	.0068	316.3	.1171	-.1140	4.526	.0070	113.6	-.0027

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2973**	**1.203**	**.3982**	**526.6**	**21.53**	**.2535**	**163.3**	F **20.54**
Stddev	.0012	.004	.0012	1.8	.26	.0016	1.1	.09
%RSD	.3869	.3111	.3002	.3381	1.217	.6324	.6494	.4517
#1	.2966	1.200	.3994	525.1	21.26	.2532	162.2	20.62
#2	.2986	1.201	.3970	526.2	21.56	.2522	163.5	20.56
#3	.2967	1.207	.3981	528.6	21.78	.2553	164.3	20.43

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**4.951**	**1.959**	**.0623**	**.0319**	**.0133**	**4.534**	**.0312**
Stddev	.0007	.019	.002	.0023	.0019	.0067	.014	.0009
%RSD	15.15	.3781	.1135	3.772	5.998	50.34	.3152	3.026
#1	.0040	4.972	1.960	.0607	.0298	.0077	4.550	.0321
#2	.0052	4.947	1.960	.0650	.0335	.0115	4.523	.0302
#3	.0041	4.935	1.956	.0611	.0323	.0207	4.528	.0312

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4785**	F **24.41**	**.0158**	**1.010**	**.8873**
Stddev	.0015	.08	.0040	.006	.0012
%RSD	.3197	.3464	25.45	.5500	.1312
#1	.4773	24.43	.0169	1.012	.8872
#2	.4781	24.32	.0192	1.003	.8885
#3	.4802	24.49	.0114	1.013	.8862

Zoom In Zoom Out

Sample Name: FC10958-4 Acquired: 11/8/2023 14:57:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2880.7**	**9290.3**	**51819.**	**10658.**
Stddev	5.1	12.8	282.	79.
%RSD	.17828	.13819	.54363	.74571
#1	2881.0	9283.2	52008.	10750.
#2	2875.4	9282.6	51953.	10608.
#3	2885.7	9305.1	51495.	10616.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:03:10 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2506**	**41.04**	**2.035**	**2.030**	**2.030**	**2.015**	**40.28**	**2.005**	**2.019**
Stddev	.0006	.10	.004	.014	.001	.004	.02	.000	.001
%RSD	.2445	.2558	.1711	.6942	.0702	.1933	.0596	.0135	.0243
#1	.2500	41.12	2.039	2.020	2.028	2.018	40.26	2.005	2.020
#2	.2508	41.07	2.035	2.025	2.030	2.018	40.30	2.006	2.020
#3	.2511	40.92	2.032	2.046	2.030	2.011	40.29	2.006	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.981**	**40.30**	**40.65**	**2.032**	**39.60**	**2.003**	**2.009**	**41.10**
Stddev	.003	.001	.09	.09	.003	.02	.004	.001	.18
%RSD	.1557	.0695	.2174	.2258	.1312	.0544	.1757	.0298	.4353
#1	2.013	1.980	40.35	40.56	2.031	39.58	2.007	2.009	41.05
#2	2.012	1.981	40.36	40.74	2.035	39.62	2.000	2.009	41.30
#3	2.017	1.982	40.20	40.65	2.030	39.60	2.004	2.008	40.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**2.016**	**2.060**	**2.001**	**2.323**	**2.026**	**2.052**	**2.015**	**2.038**
Stddev	.001	.002	.005	.003	.002	.002	.004	.001	.003
%RSD	.0562	.0936	.2297	.1498	.0944	.0812	.2092	.0455	.1226
#1	2.042	2.014	2.065	2.004	2.325	2.026	2.053	2.015	2.037
#2	2.040	2.018	2.055	1.999	2.324	2.025	2.055	2.014	2.041
#3	2.040	2.017	2.061	1.999	2.321	2.028	2.047	2.015	2.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:03:10 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.992**	**2.024**
Stddev	.003	.001
%RSD	.1565	.0510
#1	1.995	2.023
#2	1.989	2.023
#3	1.993	2.025
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2771.9**	**7989.7**	**45036.**	**9379.3**
Stddev	6.1	8.8	86.	43.9
%RSD	.21922	.10963	.19086	.46852
#1	2778.7	7999.7	44950.	9352.0
#2	2766.9	7985.5	45037.	9355.8
#3	2770.2	7983.8	45122.	9430.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:08:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0022**	**.0004**	F **-.0039**	**.0001**	**.0000**	**-.0003**	**.0000**
Stddev	.0004	.0046	.0010	.0015	.0001	.0000	.0013	.0000
%RSD	105.9	206.5	234.0	38.07	170.9	5.879	431.6	307.9
#1	.0000	.0075	-.0001	-.0026	.0000	.0000	-.0008	.0000
#2	.0007	.0003	.0016	-.0055	.0002	.0000	.0011	.0000
#3	.0004	-.0011	-.0002	-.0036	.0000	.0000	-.0013	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0004**	**-.0005**	**.0009**	**-.0153**	**.0001**	**-.0063**	**.0000**
Stddev	.0000	.0002	.0003	.0015	.0089	.0009	.0088	.0000
%RSD	108.6	41.00	59.63	171.4	58.25	1484.	140.9	122.1
#1	.0000	-.0003	-.0002	.0025	-.0209	.0009	-.0015	.0001
#2	.0000	-.0006	-.0008	.0003	-.0200	-.0009	-.0008	.0000
#3	.0001	-.0003	-.0005	-.0003	-.0050	.0002	-.0164	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0545**	**-.0001**	**-.0004**	**.0012**	**-.0004**	**.0011**	**.0001**
Stddev	.0001	.0098	.0001	.0003	.0007	.0012	.0007	.0001
%RSD	103.6	17.89	206.0	71.75	60.66	310.1	61.29	91.37
#1	.0000	-.0587	.0000	-.0006	.0016	-.0016	.0006	.0002
#2	.0001	-.0615	.0000	-.0001	.0016	-.0001	.0009	.0001
#3	.0002	-.0434	-.0002	-.0005	.0004	.0007	.0019	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:08:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0009**	**.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0000
%RSD	84.83	55.08	24.12	374.1	18.94
#1	.0000	.0002	-.0007	-.0001	.0001
#2	.0001	.0003	-.0011	.0003	.0002
#3	.0001	.0001	-.0008	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3222.2**	**8344.3**	**46816.**	**9451.6**
Stddev	4.3	16.9	62.	65.8
%RSD	.13401	.20274	.13225	.69580
#1	3218.6	8328.6	46865.	9511.9
#2	3227.0	8362.2	46837.	9461.4
#3	3220.9	8342.1	46747.	9381.4

Zoom In Zoom Out

Sample Name: FC10958-5 Acquired: 11/8/2023 15:14:00 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**387.9**	**.1154**	F **-.1066**	**3.594**	**.0073**	**128.4**	**-.0037**
Stddev	.0009	1.2	.0016	.0102	.016	.0002	.4	.0004
%RSD	17.03	.2991	1.387	9.596	.4375	2.166	.3299	10.85
#1	.0045	389.2	.1147	-.1061	3.609	.0071	128.8	-.0039
#2	.0056	387.5	.1172	-.0967	3.597	.0072	128.5	-.0032
#3	.0064	387.0	.1142	-.1171	3.577	.0074	128.0	-.0039

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3315**	**1.533**	**.4835**	**606.3**	**29.89**	**.3408**	**229.6**	**10.43**
Stddev	.0010	.003	.0007	7.5	.18	.0078	.7	.04
%RSD	.3067	.2118	.1506	1.245	.6167	2.300	.2907	.3385
#1	.3323	1.533	.4838	609.6	30.01	.3491	230.3	10.42
#2	.3303	1.536	.4841	597.6	29.68	.3398	228.9	10.47
#3	.3317	1.529	.4827	611.6	29.98	.3335	229.5	10.40

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**4.497**	**2.288**	**.1147**	**.0351**	**.0110**	**5.753**	**.0317**
Stddev	.0001	.036	.000	.0034	.0019	.0049	.009	.0008
%RSD	13.53	.8091	.0122	2.973	5.311	45.16	.1632	2.409
#1	.0008	4.512	2.288	.1154	.0356	.0164	5.764	.0317
#2	.0008	4.455	2.288	.1177	.0368	.0067	5.751	.0324
#3	.0006	4.523	2.288	.1110	.0331	.0099	5.745	.0309

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5590**	F **28.03**	**.0043**	**1.064**	**1.118**
Stddev	.0011	.15	.0036	.003	.003
%RSD	.1997	.5409	83.36	.3078	.2623
#1	.5589	28.09	.0083	1.067	1.122
#2	.5580	28.15	.0012	1.064	1.118
#3	.5602	27.86	.0035	1.060	1.116

Zoom In Zoom Out

Sample Name: FC10958-5 Acquired: 11/8/2023 15:14:00 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2825.4**	**9493.8**	**52967.**	**10897.**
Stddev	9.1	28.6	93.	45.
%RSD	.32314	.30157	.17512	.41479
#1	2816.1	9468.4	53074.	10924.
#2	2825.7	9488.1	52911.	10923.
#3	2834.3	9524.8	52916.	10845.

Zoom In Zoom Out

Sample Name: FC10959-1 Acquired: 11/8/2023 15:19:24 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0135**	**1.039**	F **-.0126**	**.0169**	**.0000**	**2.359**	**-.0002**
Stddev	.0003	.0080	.002	.0005	.0002	.000	.004	.0001
%RSD	15.76	59.39	.1788	3.758	.9207	104900.	.1709	27.37
#1	.0019	.0227	1.041	-.0132	.0168	.0000	2.357	-.0003
#2	.0016	.0076	1.038	-.0125	.0171	.0000	2.356	-.0002
#3	.0014	.0103	1.038	-.0122	.0170	.0000	2.363	-.0002

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0031**	**-.0003**	**25.28**	**.6847**	**.0023**	**.1381**	F **9.669**
Stddev	.0001	.0001	.0003	.09	.0389	.0018	.0019	.147
%RSD	1.029	3.378	106.8	.3473	5.686	77.95	1.354	1.525
#1	.0063	.0030	.0000	25.36	.7129	.0039	.1381	9.794
#2	.0062	.0032	-.0006	25.31	.7010	.0004	.1399	9.506
#3	.0063	.0032	-.0003	25.19	.6403	.0026	.1362	9.707

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.3518**	**.0009**	F **-.0061**	**.0011**	**.0063**	**.4211**	**.0203**
Stddev	.0001	.0040	.0002	.0004	.0008	.0015	.0006	.0004
%RSD	54.89	1.148	23.99	6.809	71.58	23.07	.1395	2.017
#1	.0001	.3479	.0009	-.0061	.0004	.0050	.4217	.0202
#2	.0002	.3560	.0010	-.0057	.0019	.0062	.4212	.0199
#3	.0001	.3516	.0006	-.0066	.0010	.0079	.4205	.0207

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0342**	**.0006**	**.0092**	**-.0005**	**.0022**
Stddev	.0001	.0002	.0016	.0000	.0000
%RSD	.3124	24.14	16.98	7.834	1.168
#1	.0342	.0007	.0084	-.0005	.0021
#2	.0343	.0005	.0111	-.0006	.0022
#3	.0341	.0007	.0083	-.0005	.0021

Zoom In Zoom Out

Sample Name: FC10959-1 Acquired: 11/8/2023 15:19:24 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3212.9**	**8435.7**	**47972.**	**9655.0**
Stddev	6.0	9.4	428.	47.5
%RSD	.18523	.11172	.89177	.49211
#1	3215.5	8433.6	47676.	9608.8
#2	3206.1	8427.5	48463.	9652.5
#3	3217.0	8446.0	47778.	9703.7

Zoom In Zoom Out

Sample Name: FC10714-11F Acquired: 11/8/2023 15:24:32 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0027**	**.6906**	**.0221**	**-.1295**	**.2727**	**.0011**	**253.7**	**-.0002**	**-.0107**
Stddev	.0192	.3440	.0708	.0392	.0192	.0039	.5	.0011	.0014
%RSD	713.7	49.82	320.6	30.26	7.030	340.1	.1828	511.8	12.93
#1	-.0199	.7481	.0302	-.1070	.2879	-.0028	254.1	-.0013	-.0092
#2	.0181	.3214	-.0524	-.1068	.2792	.0013	253.2	.0009	-.0118
#3	-.0062	1.002	.0885	-.1748	.2512	.0050	253.9	-.0003	-.0113

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0331**	**-.0401**	**5.679**	**45.12**	**.0027**	**207.0**	**3.326**	**-.0154**	**1478.**
Stddev	.0191	.0094	.034	1.66	.1396	1.3	.013	.0106	5.
%RSD	57.73	23.44	.6001	3.671	5165.	.6271	.4012	68.49	.3680
#1	-.0439	-.0474	5.674	46.22	.1482	206.0	3.329	-.0203	1471.
#2	-.0110	-.0295	5.648	43.22	-.0101	208.5	3.338	-.0033	1481.
#3	-.0444	-.0434	5.716	45.94	-.1300	206.6	3.312	-.0227	1480.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0004**	**.1001**	**-.1980**	**12.40**	**-.0416**	**2.247**	**.0429**	**-.1399**
Stddev	.0137	.0054	.0428	.1517	.05	.0040	.011	.0051	.0363
%RSD	478.1	1322.	42.74	76.61	.3703	9.721	.4788	11.80	25.95
#1	.0145	-.0057	.0582	-.3645	12.44	-.0459	2.236	.0483	-.1804
#2	-.0123	.0044	.1437	-.1617	12.40	-.0379	2.248	.0421	-.1290
#3	.0064	.0025	.0986	-.0678	12.35	-.0411	2.258	.0383	-.1103

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0131**	**.0189**
Stddev	.0095	.0026
%RSD	72.19	13.85
#1	-.0108	.0206
#2	-.0236	.0203
#3	-.0050	.0159

Zoom In Zoom Out

Sample Name: FC10714-11F Acquired: 11/8/2023 15:24:32 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3197.1**	**8300.8**	**46521.**	**9419.7**
Stddev	14.2	22.0	124.	55.6
%RSD	.44408	.26534	.26674	.59076
#1	3213.4	8325.8	46627.	9479.8
#2	3188.2	8284.3	46384.	9409.5
#3	3189.5	8292.3	46550.	9369.9

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 15:29:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0703**	**.0003**	**-.0097**	**.1883**	**.0002**	**7.386**	**-.0001**	**.0000**
Stddev	.0016	.0571	.0033	.0040	.0009	.0002	.013	.0002	.0005
%RSD	210.2	81.27	994.2	41.10	.4911	79.52	.1698	265.0	1807.
#1	.0025	.1235	.0040	-.0067	.1878	.0004	7.388	-.0003	.0003
#2	.0004	.0773	-.0005	-.0081	.1894	.0002	7.373	.0001	-.0005
#3	-.0006	.0100	-.0025	-.0142	.1878	.0000	7.398	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0235**	**.0553**	**.0191**	**-.0138**	**.2894**	**.0053**	**.0000**	**100.6**
Stddev	.0016	.0011	.0023	.1337	.0052	.0317	.0001	.0008	.3
%RSD	322.5	4.798	4.248	699.6	38.07	10.94	1.859	116000.	.3039
#1	-.0005	.0223	.0528	.1246	-.0141	.3258	.0052	.0009	100.4
#2	-.0022	.0239	.0556	-.1313	-.0188	.2746	.0053	-.0004	100.6
#3	.0011	.0244	.0574	.0640	-.0084	.2679	.0054	-.0005	101.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0338**	**.0006**	**.0069**	**.0016**	**.0923**	**.0008**	**.0936**	**.0006**	**-.0028**
Stddev	.0006	.0013	.0026	.0091	.0038	.0013	.0008	.0004	.0026
%RSD	1.747	217.1	37.30	562.3	4.111	164.3	.8323	69.14	92.37
#1	.0331	.0016	.0070	-.0024	.0930	.0021	.0930	.0004	.0000
#2	.0343	-.0008	.0043	-.0048	.0882	-.0005	.0933	.0002	-.0032
#3	.0339	.0009	.0095	.0121	.0957	.0009	.0945	.0010	-.0051

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0011**	**.2042**
Stddev	.0006	.0001
%RSD	53.03	.0734
#1	-.0016	.2043
#2	-.0005	.2043
#3	-.0011	.2040

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 15:29:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3153.8**	**8986.0**	**50666.**	**10226.**
Stddev	1.3	6.1	71.	69.
%RSD	.03978	.06780	.14027	.67849
#1	3152.7	8989.4	50690.	10298.
#2	3155.2	8989.6	50722.	10221.
#3	3153.6	8978.9	50586.	10160.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:34:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**41.20**	**2.034**	**2.015**	**2.023**	**2.013**	**40.19**	**1.991**	**2.015**
Stddev	.0005	.17	.004	.004	.009	.009	.20	.004	.003
%RSD	.2078	.4049	.1913	.2000	.4406	.4347	.4956	.1976	.1235
#1	.2502	41.12	2.036	2.019	2.023	2.011	40.10	1.995	2.017
#2	.2512	41.39	2.037	2.011	2.032	2.022	40.42	1.991	2.016
#3	.2509	41.08	2.030	2.015	2.015	2.005	40.05	1.987	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**1.962**	**40.33**	**40.53**	**2.031**	**39.44**	**1.991**	**2.001**	**40.95**
Stddev	.003	.002	.21	.22	.011	.35	.005	.003	.25
%RSD	.1656	.0801	.5298	.5362	.5430	.8997	.2613	.1311	.6106
#1	2.003	1.961	40.25	40.45	2.029	39.24	1.997	2.003	40.81
#2	2.010	1.961	40.57	40.78	2.043	39.85	1.989	2.002	41.24
#3	2.005	1.964	40.16	40.36	2.021	39.24	1.988	1.998	40.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**2.026**	**2.061**	**1.982**	**2.308**	**2.026**	**2.045**	**2.006**	**2.047**
Stddev	.002	.003	.004	.005	.002	.003	.009	.004	.001
%RSD	.0851	.1444	.1762	.2620	.1006	.1359	.4223	.1979	.0555
#1	2.042	2.025	2.064	1.988	2.311	2.027	2.053	2.004	2.047
#2	2.042	2.029	2.062	1.980	2.308	2.028	2.036	2.010	2.047
#3	2.039	2.024	2.057	1.978	2.306	2.023	2.045	2.003	2.045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:34:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.980**	**2.023**
Stddev	.009	.004
%RSD	.4331	.1831
#1	1.977	2.026
#2	1.990	2.026
#3	1.973	2.019
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2764.7**	**7985.1**	**45138.**	**9331.7**
Stddev	3.5	11.5	120.	86.7
%RSD	.12641	.14443	.26501	.92924
#1	2764.3	7981.9	45193.	9376.4
#2	2761.4	7975.5	45000.	9231.7
#3	2768.3	7997.9	45220.	9386.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:39:48 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0053**	**-.0001**	F **-.0033**	**.0001**	**.0001**	**.0003**	**.0000**
Stddev	.0003	.0036	.0009	.0023	.0002	.0000	.0013	.0000
%RSD	223.8	66.73	783.8	71.75	143.1	13.61	510.3	225.3
#1	.0002	.0052	-.0001	-.0060	.0000	.0001	-.0012	.0000
#2	.0003	.0090	.0008	-.0019	.0003	.0001	.0013	.0001
#3	-.0002	.0019	-.0010	-.0019	.0001	.0001	.0006	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**-.0002**	**.0012**	**.0013**	**.0004**	**-.0069**	**.0000**
Stddev	.0000	.0001	.0005	.0008	.0564	.0022	.0069	.0000
%RSD	141.8	43.13	210.1	69.85	4491.	500.4	101.0	48.17
#1	.0000	-.0002	.0002	.0008	.0323	.0029	-.0010	.0000
#2	.0001	-.0002	-.0007	.0006	-.0639	-.0013	-.0145	.0001
#3	.0000	-.0001	-.0002	.0022	.0353	-.0003	-.0051	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0665**	**-.0002**	**-.0002**	**.0017**	**.0003**	**.0013**	**.0001**
Stddev	.0000	.0088	.0001	.0004	.0006	.0011	.0001	.0001
%RSD	15.89	13.21	71.03	170.4	34.23	327.1	5.895	134.3
#1	.0003	-.0688	-.0003	-.0004	.0010	-.0005	.0014	.0002
#2	.0002	-.0739	-.0002	.0002	.0020	.0016	.0014	.0000
#3	.0002	-.0568	.0000	-.0004	.0020	.0000	.0012	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:39:48 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0005**	**.0000**	**.0002**
Stddev	.0001	.0001	.0011	.000	.0001
%RSD	121.0	32.21	226.6	1513.	29.73
#1	.0001	.0003	.0006	-.0001	.0002
#2	.0000	.0002	-.0016	-.0001	.0002
#3	.0002	.0002	-.0004	.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3229.0**	**8362.7**	**47080.**	**9402.8**
Stddev	7.0	16.3	118.	33.7
%RSD	.21717	.19445	.25161	.35852
#1	3229.1	8360.5	47031.	9366.5
#2	3236.0	8380.0	47215.	9409.0
#3	3222.0	8347.7	46994.	9433.1

Zoom In Zoom Out

Sample Name: MP43108-B1 Acquired: 11/8/2023 16:07:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1922**	**24.07**	**.1952**	**.4302**	**.1881**	**.1934**	**42.11**	**.1862**	**.1874**
Stddev	.0005	.06	.0004	.0045	.0004	.0005	.04	.0002	.0003
%RSD	.2494	.2318	.2057	1.036	.2227	.2542	.0959	.1226	.1781
#1	.1927	24.02	.1955	.4271	.1881	.1928	42.14	.1860	.1871
#2	.1917	24.13	.1948	.4353	.1886	.1937	42.14	.1864	.1878
#3	.1923	24.08	.1953	.4281	.1878	.1936	42.07	.1863	.1873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1952**	**.1887**	**42.97**	**42.19**	**.5156**	**41.59**	**.1826**	**.6540**	**41.03**
Stddev	.0002	.0007	.07	.06	.0041	.08	.0002	.0010	.13
%RSD	.1006	.3591	.1665	.1339	.8028	.1924	.1184	.1604	.3284
#1	.1951	.1879	42.90	42.24	.5162	41.51	.1828	.6529	40.89
#2	.1951	.1890	42.99	42.22	.5193	41.58	.1826	.6541	41.16
#3	.1955	.1892	43.04	42.13	.5111	41.67	.1824	.6550	41.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1917**	**.1836**	**.1984**	**.1819**	**.5081**	**.4829**	**.5151**	**.4793**	**.1887**
Stddev	.0002	.0012	.0008	.0007	.0004	.0009	.0013	.0005	.0017
%RSD	.1152	.6517	.3917	.4065	.0715	.1774	.2581	.1050	.9052
#1	.1915	.1849	.1992	.1828	.5084	.4824	.5138	.4788	.1891
#2	.1916	.1835	.1977	.1817	.5082	.4838	.5165	.4798	.1903
#3	.1919	.1825	.1983	.1813	.5077	.4823	.5150	.4793	.1869
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43108-B1 Acquired: 11/8/2023 16:07:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1869**	**.1907**
Stddev	.0006	.0003
%RSD	.3077	.1474
#1	.1875	.1906
#2	.1870	.1911
#3	.1864	.1905
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2834.8**	**8112.1**	**45731.**	**9306.0**
Stddev	3.6	10.6	168.	66.4
%RSD	.12534	.13084	.36793	.71324
#1	2832.4	8121.1	45563.	9257.0
#2	2838.9	8114.7	45729.	9381.6
#3	2833.1	8100.4	45900.	9279.6

Zoom In Zoom Out

Sample Name: FC10999-1 Acquired: 11/8/2023 16:12:48 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.3211**	**.0039**	**.1114**	**.0321**	**.0000**	**96.17**	**.0000**	**.0001**
Stddev	.0005	.0051	.0010	.0015	.0001	.0000	.25	.000	.0000
%RSD	97.63	1.594	26.24	1.343	.3098	45.11	.2596	107.7	21.45
#1	.0009	.3175	.0044	.1105	.0320	.0000	96.18	-.0001	.0002
#2	.0008	.3188	.0047	.1131	.0322	.0001	95.91	.0000	.0001
#3	-.0001	.3269	.0028	.1105	.0322	.0001	96.41	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0008**	**.2367**	**3.186**	**.0041**	**14.85**	**.0194**	**.0028**	**69.82**
Stddev	.0002	.0003	.0018	.016	.0025	.06	.0002	.0001	.07
%RSD	36.61	34.34	.7530	.5099	61.17	.4342	.9596	2.214	.0950
#1	.0008	-.0005	.2385	3.196	.0070	14.90	.0195	.0029	69.86
#2	.0004	-.0008	.2349	3.167	.0021	14.86	.0196	.0028	69.86
#3	.0006	-.0010	.2366	3.194	.0033	14.78	.0192	.0028	69.75

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0009**	**.0016**	**-.0017**	**3.270**	**.0006**	**.9018**	**.0069**	**-.0016**
Stddev	.0001	.0001	.0010	.0018	.009	.0006	.0020	.0012	.0014
%RSD	46.63	17.02	62.13	110.8	.2807	100.6	.2198	17.01	92.49
#1	.0002	-.0009	.0007	-.0024	3.274	.0009	.9038	.0075	-.0004
#2	.0002	-.0010	.0027	.0004	3.276	-.0001	.9017	.0076	-.0032
#3	.0004	-.0007	.0015	-.0031	3.259	.0009	.8998	.0055	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0019**	**.0143**
Stddev	.0001	.0000
%RSD	7.512	.3469
#1	.0020	.0143
#2	.0018	.0142
#3	.0018	.0143

Zoom In Zoom Out

Sample Name: FC10999-1 Acquired: 11/8/2023 16:12:48 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2930.6**	**8038.4**	**45476.**	**9242.6**
Stddev	6.9	25.9	215.	20.8
%RSD	.23540	.32166	.47267	.22528
#1	2934.1	8055.4	45268.	9239.6
#2	2935.1	8051.2	45461.	9264.7
#3	2922.7	8008.7	45698.	9223.4

Zoom In Zoom Out

Sample Name: FC10999-2 Acquired: 11/8/2023 16:17:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.3746**	**.0034**	**.1268**	**.0306**	**.0000**	**92.15**	**.0000**	**.0002**
Stddev	.0003	.0068	.0004	.0008	.0001	.0000	.45	.000	.0001
%RSD	199.9	1.817	11.18	.6080	.3275	1180.	.4847	62.52	41.29
#1	.0000	.3753	.0037	.1277	.0305	.0000	91.83	.0000	.0002
#2	.0005	.3675	.0036	.1263	.0306	.0000	91.97	-.0001	.0002
#3	-.0001	.3811	.0030	.1264	.0307	.0000	92.66	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0006**	**.1336**	**3.828**	**.0059**	**16.44**	**.0234**	**.0030**	**78.76**
Stddev	.0001	.0003	.0005	.024	.0015	.07	.0000	.0001	.44
%RSD	14.47	53.28	.3369	.6252	24.85	.4489	.1678	2.996	.5552
#1	.0009	-.0006	.1341	3.846	.0073	16.50	.0234	.0030	79.10
#2	.0007	-.0008	.1335	3.801	.0044	16.47	.0234	.0030	78.91
#3	.0009	-.0002	.1332	3.837	.0058	16.36	.0234	.0031	78.27

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0010**	**.0015**	**-.0007**	**3.081**	**.0004**	**.8917**	**.0122**	**-.0013**
Stddev	.0002	.0003	.0005	.0019	.010	.0003	.0019	.0003	.0018
%RSD	142.2	26.48	33.11	259.3	.3261	76.30	.2107	2.510	136.0
#1	.0001	-.0013	.0012	-.0007	3.091	.0003	.8932	.0119	.0007
#2	.0003	-.0008	.0012	.0011	3.071	.0002	.8923	.0125	-.0021
#3	.0000	-.0009	.0021	-.0026	3.082	.0007	.8896	.0123	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0015**	**.0142**
Stddev	.0001	.0001
%RSD	10.12	.5908
#1	.0015	.0142
#2	.0016	.0141
#3	.0013	.0143

Zoom In Zoom Out

Sample Name: FC10999-2 Acquired: 11/8/2023 16:17:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2920.4**	**7997.4**	**45640.**	**9250.0**
Stddev	4.6	21.6	86.	80.3
%RSD	.15617	.27049	.18791	.86785
#1	2915.6	7976.0	45541.	9188.2
#2	2920.7	7996.8	45689.	9221.0
#3	2924.7	8019.3	45690.	9340.7

Zoom In Zoom Out

Sample Name: FC10999-1A Acquired: 11/8/2023 16:23:09 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.2674**	**.0030**	**.1163**	**.0333**	**.0001**	**95.79**	**-.0001**	**.0002**
Stddev	.0004	.0122	.0010	.0018	.0005	.0000	1.35	.0001	.0001
%RSD	278.7	4.572	34.26	1.573	1.527	67.19	1.404	93.92	35.64
#1	.0005	.2748	.0018	.1157	.0338	.0001	94.25	.0000	.0002
#2	-.0002	.2533	.0034	.1148	.0328	.0001	96.37	-.0001	.0003
#3	.0001	.2742	.0037	.1183	.0333	.0000	96.75	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0006**	**.2131**	**3.258**	**.0039**	**14.94**	**.0200**	**.0026**	**69.61**
Stddev	.0000	.0002	.0032	.044	.0007	.10	.0001	.0000	.31
%RSD	5.049	37.19	1.506	1.355	17.17	.6627	.2803	1.585	.4491
#1	.0006	-.0009	.2167	3.303	.0039	14.87	.0200	.0027	69.25
#2	.0006	-.0005	.2104	3.215	.0032	14.91	.0200	.0026	69.78
#3	.0006	-.0005	.2123	3.254	.0046	15.06	.0201	.0026	69.81

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0015**	**.0014**	**-.0011**	**3.225**	**.0004**	**.9068**	**.0059**	**-.0028**
Stddev	.0001	.0002	.0008	.0028	.008	.0001	.0026	.0001	.0015
%RSD	46.18	10.75	55.50	249.4	.2371	22.46	.2818	.9831	55.80
#1	.0002	-.0013	.0006	-.0012	3.220	.0003	.9039	.0058	-.0042
#2	.0002	-.0017	.0022	.0017	3.233	.0005	.9080	.0059	-.0011
#3	.0004	-.0015	.0015	-.0039	3.220	.0004	.9086	.0059	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0019**	**.0014**
Stddev	.0000	.0000
%RSD	1.741	2.367
#1	.0019	.0014
#2	.0019	.0014
#3	.0019	.0014

Zoom In Zoom Out

Sample Name: FC10999-1A Acquired: 11/8/2023 16:23:09 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2922.3**	**8009.7**	**45710.**	**9397.2**
Stddev	6.2	22.7	97.	53.1
%RSD	.21054	.28324	.21116	.56550
#1	2917.1	8018.6	45687.	9433.6
#2	2929.1	8026.6	45816.	9421.9
#3	2920.7	7983.9	45627.	9336.3

Zoom In Zoom Out

Sample Name: FC10999-2A Acquired: 11/8/2023 16:28:19 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.5099**	**.0031**	**.1281**	**.0308**	**.0001**	**91.22**	**.0000**	**.0002**
Stddev	.0001	.0154	.0005	.0014	.0003	.0000	.95	.000	.0001
%RSD	40.51	3.013	16.63	1.098	.9739	56.15	1.045	207.1	42.18
#1	.0002	.4953	.0036	.1276	.0305	.0001	91.57	.0001	.0002
#2	.0001	.5084	.0029	.1269	.0311	.0001	91.95	-.0001	.0001
#3	.0003	.5259	.0027	.1296	.0309	.0000	90.14	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0009**	**.1552**	**3.872**	**.0075**	**16.55**	**.0233**	**.0032**	**78.68**
Stddev	.0001	.0004	.0016	.031	.0014	.03	.0001	.0001	.16
%RSD	8.976	43.45	1.001	.8002	19.26	.1860	.3502	4.271	.2014
#1	.0011	-.0013	.1560	3.846	.0084	16.54	.0234	.0031	78.51
#2	.0010	-.0007	.1534	3.907	.0082	16.58	.0233	.0033	78.83
#3	.0011	-.0007	.1563	3.863	.0058	16.52	.0234	.0030	78.70

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0009**	**.0017**	**-.0012**	**3.191**	**.0003**	**.9009**	**.0132**	**-.0015**
Stddev	.0000	.0002	.0015	.0017	.014	.0001	.0013	.0003	.0004
%RSD	14.63	19.35	87.06	135.2	.4270	26.85	.1452	2.123	30.21
#1	.0002	-.0008	.0033	-.0024	3.193	.0003	.8994	.0134	-.0010
#2	.0002	-.0012	.0013	-.0020	3.203	.0004	.9017	.0129	-.0018
#3	.0003	-.0009	.0005	.0007	3.176	.0004	.9016	.0132	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0013**	**.0015**
Stddev	.0000	.0000
%RSD	2.443	2.802
#1	.0013	.0015
#2	.0013	.0015
#3	.0014	.0014

Zoom In Zoom Out

Sample Name: FC10999-2A Acquired: 11/8/2023 16:28:19 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2920.2**	**8028.4**	**45896.**	**9351.2**
Stddev	4.4	3.1	95.	63.6
%RSD	.15203	.03858	.20795	.68065
#1	2925.3	8031.6	45793.	9285.5
#2	2917.2	8028.4	45982.	9355.5
#3	2918.2	8025.4	45914.	9412.6

Zoom In Zoom Out

Sample Name: FC11006-4 Acquired: 11/8/2023 16:33:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.8022**	**.0001**	**.0161**	**.0136**	**.0000**	**14.82**	**.0000**	**.0002**
Stddev	.0002	.0097	.0007	.0019	.0003	.0000	.02	.000	.0001
%RSD	301.0	1.214	1053.	11.99	2.139	197.7	.1249	483.9	63.99
#1	.0002	.7958	-.0004	.0158	.0138	.0000	14.84	.0000	.0003
#2	-.0003	.7973	-.0003	.0182	.0136	.0000	14.81	.0001	.0001
#3	-.0001	.8134	.0009	.0144	.0133	.0000	14.82	-.0001	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0008**	**.2243**	**.6404**	**.0021**	**6.717**	**.0158**	**.0009**	**41.39**
Stddev	.0002	.0001	.0024	.0306	.0019	.018	.0001	.0001	.12
%RSD	32.71	12.46	1.091	4.786	87.27	.2709	.6652	9.611	.2885
#1	.0008	-.0008	.2266	.6070	.0028	6.704	.0158	.0008	41.47
#2	.0004	-.0008	.2217	.6470	.0000	6.709	.0159	.0010	41.25
#3	.0006	-.0007	.2247	.6672	.0036	6.738	.0157	.0009	41.43

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0003**	**.0016**	**-.0005**	**1.724**	**.0000**	**.0288**	**.0135**	**-.0022**
Stddev	.0000	.0002	.0007	.0010	.007	.000	.0001	.0010	.0006
%RSD	1.653	71.41	47.38	209.2	.4169	287.1	.2953	7.469	26.41
#1	.0025	.0001	.0014	.0006	1.722	.0001	.0287	.0147	-.0015
#2	.0025	.0005	.0009	-.0012	1.732	-.0001	.0289	.0130	-.0025
#3	.0026	.0004	.0024	-.0008	1.718	-.0001	.0288	.0130	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0011**	**.0040**
Stddev	.0000	.0000
%RSD	3.695	.8452
#1	.0012	.0040
#2	.0011	.0040
#3	.0011	.0040

Zoom In Zoom Out

Sample Name: FC11006-4 Acquired: 11/8/2023 16:33:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3112.6**	**8343.6**	**47556.**	**9516.0**
Stddev	4.1	11.5	299.	47.3
%RSD	.13045	.13759	.62789	.49689
#1	3116.9	8356.5	47284.	9475.8
#2	3112.0	8339.7	47508.	9568.1
#3	3108.9	8334.6	47876.	9504.0

Zoom In Zoom Out

Sample Name: FC11006-5 Acquired: 11/8/2023 16:38:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**29.15**	**.0026**	**.0154**	**.1177**	**.0008**	**15.98**	**-.0001**	**.0007**
Stddev	.0001	.04	.0000	.0011	.0006	.0000	.03	.0000	.0000
%RSD	55.26	.1527	1.864	7.442	.5258	5.559	.1671	27.04	5.270
#1	.0000	29.11	.0025	.0149	.1171	.0008	15.95	.0000	.0006
#2	-.0002	29.19	.0025	.0167	.1183	.0008	16.00	-.0001	.0007
#3	-.0001	29.13	.0026	.0146	.1176	.0008	15.98	-.0001	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0355**	**-.0003**	**2.287**	**2.412**	**.0048**	**4.020**	**.0195**	**.0007**	**28.23**
Stddev	.0004	.0003	.006	.067	.0019	.017	.0000	.0001	.20
%RSD	1.101	82.13	.2733	2.788	39.15	.4186	.2386	12.46	.7158
#1	.0350	-.0002	2.280	2.338	.0069	4.015	.0195	.0007	28.02
#2	.0357	-.0001	2.289	2.428	.0037	4.039	.0195	.0007	28.42
#3	.0357	-.0007	2.291	2.470	.0037	4.007	.0196	.0008	28.24

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.0096**	**.0012**	**-.0011**	**8.697**	**.0004**	**.1756**	**.2722**	**-.0016**
Stddev	.0001	.0002	.0013	.0024	.008	.0001	.0008	.0019	.0002
%RSD	2.057	1.984	114.2	225.6	.0949	28.56	.4375	.6947	12.38
#1	.0037	.0095	.0010	-.0011	8.704	.0005	.1749	.2700	-.0014
#2	.0039	.0098	.0026	-.0034	8.699	.0004	.1764	.2736	-.0018
#3	.0038	.0096	-.0001	.0014	8.687	.0003	.1754	.2730	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0093**	**.0084**
Stddev	.0003	.0001
%RSD	2.992	.8755
#1	.0090	.0085
#2	.0092	.0085
#3	.0096	.0084

Zoom In Zoom Out

Sample Name: FC11006-5 Acquired: 11/8/2023 16:38:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3061.1**	**8775.7**	**49267.**	**9917.9**
Stddev	4.4	18.4	202.	33.4
%RSD	.14394	.20962	.41012	.33644
#1	3056.2	8757.2	49464.	9883.8
#2	3062.5	8794.0	49277.	9950.4
#3	3064.6	8775.9	49060.	9919.5

Zoom In Zoom Out

Sample Name: FC11006-6 Acquired: 11/8/2023 16:43:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**20.63**	**.0021**	**.0254**	**.1202**	**.0003**	**59.45**	**.0000**	**.0009**
Stddev	.0003	.06	.0005	.0012	.0002	.0000	.13	.0000	.0001
%RSD	3794.	.2796	26.77	4.576	.1648	1.547	.2110	352.2	11.18
#1	.0003	20.57	.0015	.0259	.1202	.0003	59.33	.0000	.0010
#2	-.0003	20.64	.0026	.0241	.1200	.0003	59.44	.0000	.0008
#3	.0001	20.68	.0021	.0262	.1204	.0003	59.58	.0000	.0010

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0202**	**-.0006**	**1.951**	**15.34**	**.0077**	**13.32**	**.0300**	**.0010**	**29.70**
Stddev	.0001	.0002	.010	.03	.0018	.07	.0001	.0001	.10
%RSD	.3389	39.55	.5172	.1829	22.98	.5046	.4040	14.60	.3519
#1	.0203	-.0005	1.939	15.31	.0093	13.25	.0301	.0010	29.59
#2	.0202	-.0004	1.955	15.34	.0058	13.33	.0300	.0011	29.69
#3	.0201	-.0008	1.958	15.37	.0080	13.38	.0299	.0008	29.80

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0069**	**.0028**	**-.0025**	**7.506**	**.0006**	**.2631**	**.2562**	**-.0024**
Stddev	.0001	.0006	.0012	.0010	.035	.0005	.0016	.0059	.0008
%RSD	.9092	9.228	44.42	39.07	.4708	85.50	.6008	2.289	34.54
#1	.0062	.0062	.0034	-.0028	7.540	.0001	.2623	.2622	-.0015
#2	.0063	.0071	.0014	-.0032	7.507	.0005	.2620	.2561	-.0032
#3	.0061	.0075	.0036	-.0014	7.470	.0011	.2649	.2504	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0070**	**.0087**
Stddev	.0002	.0000
%RSD	2.523	.4359
#1	.0070	.0087
#2	.0071	.0087
#3	.0068	.0087

Zoom In Zoom Out

Sample Name: FC11006-6 Acquired: 11/8/2023 16:43:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2956.8**	**8543.3**	**48164.**	**9700.1**
Stddev	4.6	10.8	66.	72.9
%RSD	.15439	.12652	.13696	.75182
#1	2961.1	8551.4	48131.	9757.5
#2	2957.3	8547.5	48240.	9724.9
#3	2952.1	8531.0	48121.	9618.1

Zoom In Zoom Out

Sample Name: FC11006-7 Acquired: 11/8/2023 16:48:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.2388**	**-.0007**	**.0168**	**.0061**	**.0000**	**6.930**	**-.0001**	**.0002**
Stddev	.0002	.0193	.0013	.0016	.0004	.0000	.618	.0000	.0001
%RSD	225.9	8.084	181.9	9.728	6.635	62.88	8.923	16.78	32.51
#1	.0001	.2508	-.0007	.0149	.0062	.0000	7.288	-.0001	.0003
#2	-.0003	.2165	.0006	.0176	.0056	.0000	6.216	-.0001	.0002
#3	.0000	.2490	-.0019	.0179	.0064	.0001	7.286	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0008**	**1.705**	**.6090**	**-.0010**	**1.018**	**.0268**	**.0014**	**6.657**
Stddev	.0002	.0004	.157	.0367	.0007	.095	.0000	.0001	.601
%RSD	121.9	52.99	9.211	6.021	74.89	9.347	.1127	7.830	9.034
#1	-.0001	-.0013	1.801	.6316	-.0018	1.070	.0268	.0014	7.014
#2	.0003	-.0005	1.524	.5667	-.0006	.9082	.0269	.0013	5.963
#3	.0002	-.0006	1.790	.6287	-.0005	1.076	.0268	.0015	6.995

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**-.0002**	**.0023**	**.0029**	**1.126**	**.0003**	**.0124**	**.0030**	**-.0017**
Stddev	.0001	.0004	.0009	.0012	.003	.0003	.0011	.0001	.0008
%RSD	3.666	212.1	38.54	39.90	.2254	93.52	8.899	1.968	50.75
#1	.0037	-.0006	.0034	.0036	1.123	.0006	.0131	.0030	-.0022
#2	.0039	-.0002	.0019	.0035	1.127	.0002	.0111	.0031	-.0007
#3	.0036	.0002	.0017	.0016	1.128	.0001	.0130	.0030	-.0021

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0112**
Stddev	.0003	.0001
%RSD	31.78	.4925
#1	.0006	.0111
#2	.0012	.0111
#3	.0010	.0112

Zoom In Zoom Out

Sample Name: FC11006-7 Acquired: 11/8/2023 16:48:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3201.1**	**8361.8**	**47492.**	**9804.1**
Stddev	1.0	5.5	168.	797.4
%RSD	.03123	.06533	.35340	8.1330
#1	3201.2	8365.8	47679.	9321.2
#2	3202.0	8364.0	47445.	10724.
#3	3200.0	8355.6	47353.	9366.6

Zoom In Zoom Out

Sample Name: FC10789-11 Acquired: 11/8/2023 16:53:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0850**	**.0000**	**.0057**	**.0128**	**.0000**	**31.66**	**-.0001**	**.0001**
Stddev	.0005	.0142	.001	.0028	.0009	.0000	2.24	.0000	.0001
%RSD	934.5	16.69	1747.	49.06	7.104	117.9	7.080	47.80	144.0
#1	.0007	.0808	.0005	.0027	.0133	.0000	32.86	-.0001	.0001
#2	-.0004	.0733	-.0007	.0064	.0118	.0000	29.08	.0000	.0000
#3	-.0001	.1007	.0001	.0082	.0133	.0000	33.05	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0006**	**.0554**	**.7097**	**-.0008**	**6.070**	**.0007**	**.0028**	**8.593**
Stddev	.0001	.0004	.0052	.0783	.0032	.403	.0000	.0002	.550
%RSD	55.92	73.31	9.311	11.04	401.5	6.632	2.259	5.436	6.404
#1	.0001	.0001	.0576	.7678	.0016	6.266	.0007	.0029	8.889
#2	.0002	.0009	.0495	.6206	-.0045	5.607	.0008	.0028	7.958
#3	.0004	.0008	.0591	.7408	.0004	6.338	.0007	.0026	8.932

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0000**	**.0023**	**.0001**	**1.983**	**.0004**	**.0653**	**.0026**	**-.0019**
Stddev	.0001	.0005	.0007	.0008	.001	.0001	.0044	.0001	.0013
%RSD	10.57	1526.	29.97	1305.	.0633	34.49	6.731	2.990	65.67
#1	.0008	.0000	.0026	.0010	1.983	.0004	.0677	.0026	-.0026
#2	.0009	.0006	.0027	.0000	1.981	.0005	.0602	.0027	-.0005
#3	.0008	-.0005	.0015	-.0007	1.984	.0003	.0679	.0025	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.0078**
Stddev	.0001	.0001
%RSD	10.85	.8981
#1	.0007	.0077
#2	.0008	.0078
#3	.0007	.0078

Zoom In Zoom Out

Sample Name: FC10789-11 Acquired: 11/8/2023 16:53:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3119.9**	**8298.8**	**47379.**	**9727.8**
Stddev	4.8	14.8	247.	614.3
%RSD	.15481	.17824	.52056	6.3147
#1	3116.2	8282.8	47611.	9439.0
#2	3118.2	8301.8	47407.	10433.
#3	3125.4	8311.9	47120.	9311.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 16:58:40 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**41.74**	**2.056**	**1.942**	**1.983**	**2.016**	**39.58**	**1.964**	**2.003**
Stddev	.0005	.18	.004	.005	.007	.009	.15	.002	.002
%RSD	.2016	.4260	.1811	.2849	.3310	.4644	.3772	.1167	.1117
#1	.2507	41.78	2.059	1.937	1.983	2.018	39.62	1.967	2.005
#2	.2513	41.90	2.058	1.940	1.990	2.025	39.70	1.963	2.001
#3	.2502	41.55	2.052	1.948	1.977	2.006	39.41	1.963	2.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**1.929**	**40.67**	**40.29**	**2.040**	**39.15**	**1.946**	**1.989**	**41.28**
Stddev	.004	.008	.17	.16	.014	.17	.018	.002	.32
%RSD	.1944	.4281	.4113	.4035	.6795	.4436	.9376	.0845	.7718
#1	1.997	1.921	40.68	40.30	2.046	39.21	1.934	1.991	41.35
#2	2.005	1.938	40.83	40.45	2.050	39.29	1.967	1.989	41.56
#3	2.003	1.928	40.49	40.12	2.024	38.96	1.937	1.988	40.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.052**	**2.076**	**1.954**	**2.283**	**2.020**	**2.056**	**1.957**	**2.065**
Stddev	.002	.006	.001	.002	.002	.002	.009	.003	.004
%RSD	.1152	.2834	.0627	.0793	.0751	.0821	.4476	.1643	.2172
#1	2.045	2.056	2.076	1.956	2.285	2.022	2.050	1.954	2.067
#2	2.040	2.054	2.077	1.955	2.282	2.020	2.067	1.958	2.068
#3	2.042	2.045	2.074	1.953	2.282	2.019	2.051	1.960	2.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 16:58:40 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.927**	**2.039**
Stddev	.006	.003
%RSD	.3045	.1490
#1	1.920	2.042
#2	1.929	2.037
#3	1.931	2.037
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2758.7**	**8001.1**	**45704.**	**9240.3**
Stddev	2.6	10.2	72.	44.9
%RSD	.09374	.12764	.15818	.48556
#1	2756.4	7997.5	45769.	9215.7
#2	2758.1	8012.6	45626.	9213.0
#3	2761.5	7993.2	45717.	9292.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 17:03:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0040**	**-.0003**	F **-.0024**	**.0000**	**.0001**	**-.0010**	**.0000**
Stddev	.0003	.0033	.0009	.0015	.000	.0000	.0004	.0000
%RSD	298.4	81.84	273.2	62.26	460.4	41.46	35.64	784.3
#1	.0005	.0038	.0000	-.0034	-.0002	.0001	-.0009	.0000
#2	-.0002	.0008	-.0013	-.0031	.0001	.0001	-.0008	.0000
#3	.0001	.0074	.0004	-.0007	.0000	.0001	-.0014	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**-.0008**	**.0009**	**-.0083**	**.0002**	**-.0125**	**.0000**
Stddev	.0001	.000	.0003	.0011	.0351	.0025	.0049	.000
%RSD	295.2	311.7	41.98	120.4	420.2	1033.	39.39	298.1
#1	.0000	.0000	-.0011	.0003	.0143	.0031	-.0073	.0000
#2	.0001	.0000	-.0008	.0021	.0094	-.0006	-.0131	.0000
#3	-.0001	-.0001	-.0005	.0002	-.0487	-.0018	-.0170	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0619**	**-.0001**	**-.0003**	**.0010**	**.0009**	**.0010**	**-.0001**
Stddev	.0000	.0086	.0001	.0001	.0006	.0017	.0004	.0002
%RSD	26.37	13.92	40.27	37.83	58.73	194.4	36.78	242.4
#1	.0001	-.0691	-.0002	-.0003	.0009	.0027	.0007	.0001
#2	.0002	-.0643	-.0001	-.0002	.0016	.0004	.0010	.0000
#3	.0001	-.0524	-.0001	-.0004	.0005	-.0006	.0014	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 17:03:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0003**	**.0000**	**.0001**
Stddev	.0001	.0001	.0011	.000	.0000
%RSD	79.66	128.6	358.4	412.2	16.80
#1	.0002	.0001	.0006	.0001	.0001
#2	.0000	.0000	.0000	.0000	.0002
#3	.0000	.0001	-.0015	-.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3202.8**	**8306.0**	**47375.**	**9318.2**
Stddev	1.7	15.4	179.	27.3
%RSD	.05307	.18561	.37810	.29287
#1	3204.7	8313.9	47322.	9287.5
#2	3201.9	8288.3	47575.	9339.6
#3	3201.7	8315.9	47229.	9327.7

Zoom In Zoom Out

Sample Name: FC10789-13 Acquired: 11/8/2023 17:08:51 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1797**	**.0010**	**.0096**	**.0148**	**.0000**	**33.77**	**.0000**	**.0001**
Stddev	.0002	.0106	.0010	.0002	.0001	.0000	.14	.000	.0000
%RSD	102.9	5.905	100.2	2.371	.8094	175.3	.4055	197.4	21.25
#1	.0004	.1781	.0007	.0097	.0146	.0000	33.78	-.0001	.0001
#2	.0001	.1910	.0002	.0093	.0148	.0000	33.64	.0000	.0002
#3	.0000	.1699	.0021	.0097	.0149	.0000	33.91	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0017**	**.1496**	**.6769**	**.0028**	**6.572**	**.0020**	**.0026**	**13.75**
Stddev	.0001	.0002	.0014	.0072	.0014	.031	.0001	.0001	.04
%RSD	14.32	14.06	.9499	1.063	49.72	.4760	3.237	2.392	.3095
#1	.0006	.0018	.1480	.6690	.0030	6.544	.0021	.0025	13.70
#2	.0004	.0019	.1507	.6788	.0040	6.566	.0021	.0026	13.78
#3	.0006	.0014	.1500	.6830	.0013	6.605	.0020	.0026	13.77

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**-.0001**	**.0017**	**-.0004**	**2.247**	**.0005**	**.0788**	**.0051**	**-.0014**
Stddev	.0001	.0006	.0001	.0011	.002	.0003	.0002	.0002	.0009
%RSD	10.03	830.4	7.041	316.6	.0937	52.37	.2826	4.689	63.46
#1	.0011	.0005	.0016	-.0002	2.249	.0004	.0785	.0049	-.0014
#2	.0013	-.0007	.0018	.0007	2.245	.0008	.0789	.0052	-.0005
#3	.0012	.0000	.0017	-.0016	2.246	.0003	.0790	.0053	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.0070**
Stddev	.0002	.0000
%RSD	25.92	.3701
#1	.0010	.0071
#2	.0008	.0070
#3	.0006	.0070

Zoom In Zoom Out

Sample Name: FC10789-13 Acquired: 11/8/2023 17:08:51 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3111.4**	**8267.0**	**47335.**	**9418.5**
Stddev	1.5	15.3	31.	52.8
%RSD	.04745	.18563	.06573	.56099
#1	3110.1	8270.7	47369.	9414.4
#2	3111.2	8280.1	47331.	9473.2
#3	3113.0	8250.1	47307.	9367.8

Zoom In Zoom Out

Sample Name: FC10918-1 Acquired: 11/8/2023 17:13:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.9408**	**.0029**	F **37.44**	**.0031**	**.0010**	**11.13**	**.0000**	**.0089**
Stddev	.0003	.0063	.0003	.12	.0001	.0000	.02	.000	.0001
%RSD	89.76	.6676	8.929	.3150	3.296	4.359	.2060	35.53	.9915
#1	.0002	.9342	.0029	37.34	.0031	.0009	11.11	.0000	.0089
#2	.0001	.9415	.0027	37.40	.0030	.0010	11.14	-.0001	.0088
#3	.0008	.9467	.0032	37.57	.0032	.0010	11.15	.0000	.0089

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0291**	**4.807**	**.6392**	**.0073**	**1.113**	**.0670**	**.0089**	F **92.16**
Stddev	.0001	.0003	.010	.0364	.0002	.002	.0002	.0002	.36
%RSD	2.689	1.128	.2049	5.693	3.307	.1479	.2318	2.181	.3885
#1	.0049	.0294	4.797	.6639	.0075	1.112	.0671	.0090	91.84
#2	.0050	.0292	4.807	.6563	.0070	1.112	.0668	.0090	92.55
#3	.0048	.0288	4.816	.5974	.0074	1.115	.0671	.0086	92.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**-.0001**	**.0014**	**-.0020**	**3.410**	**.0011**	**.1385**	**.0248**	**-.0009**
Stddev	.0001	.0003	.0005	.0012	.003	.0001	.0003	.0003	.0003
%RSD	.9427	240.7	39.80	60.24	.0791	7.153	.1996	1.138	27.38
#1	.0090	.0002	.0016	-.0033	3.408	.0010	.1382	.0246	-.0007
#2	.0091	-.0002	.0007	-.0014	3.413	.0012	.1388	.0251	-.0010
#3	.0089	-.0003	.0017	-.0012	3.410	.0010	.1384	.0246	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.1192**
Stddev	.0001	.0002
%RSD	16.40	.1870
#1	.0006	.1190
#2	.0009	.1194
#3	.0008	.1194

Zoom In Zoom Out

Sample Name: FC10918-1 Acquired: 11/8/2023 17:13:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2999.0**	**8450.6**	**48281.**	**9771.2**
Stddev	2.5	13.4	77.	12.6
%RSD	.08306	.15844	.15903	.12897
#1	2999.3	8448.7	48193.	9756.7
#2	3001.3	8464.8	48324.	9779.2
#3	2996.4	8438.2	48327.	9777.8

Zoom In Zoom Out

Sample Name: FC10918-2 Acquired: 11/8/2023 17:18:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0090**	**.0004**	**.3053**	**.0033**	**.0000**	**9.961**	**.0000**	**.0003**
Stddev	.0003	.0036	.0007	.0031	.0001	.0000	.023	.000	.0001
%RSD	62.03	40.16	172.9	1.003	4.039	389.7	.2270	94.71	45.53
#1	.0005	.0131	.0006	.3085	.0033	.0000	9.986	.0000	.0004
#2	.0002	.0061	-.0004	.3051	.0034	.0000	9.941	-.0001	.0003
#3	.0008	.0079	.0010	.3024	.0031	.0000	9.956	.0000	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0026**	**.0306**	**1.706**	**.0000**	**1.087**	**.0006**	**.0061**	**15.75**
Stddev	.0001	.0003	.0012	.007	.0008	.003	.0000	.0001	.02
%RSD	33.26	11.61	4.025	.4172	1831.	.2441	4.920	1.394	.1207
#1	.0004	.0030	.0320	1.699	.0007	1.085	.0006	.0061	15.76
#2	.0004	.0025	.0296	1.705	-.0009	1.090	.0006	.0060	15.76
#3	.0002	.0024	.0303	1.714	.0003	1.086	.0006	.0062	15.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**-.0002**	**.0016**	**-.0004**	**1.174**	**.0004**	**.1655**	**.0009**	**-.0023**
Stddev	.0002	.0004	.0003	.0011	.001	.0002	.0002	.0002	.0009
%RSD	1.923	193.7	18.68	289.3	.0782	64.28	.1414	28.79	37.78
#1	.0098	-.0002	.0019	.0007	1.175	.0003	.1657	.0011	-.0033
#2	.0101	-.0006	.0015	-.0015	1.174	.0002	.1655	.0008	-.0019
#3	.0101	.0002	.0013	-.0004	1.174	.0006	.1653	.0007	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0200**
Stddev	.000	.0001
%RSD	360.9	.6391
#1	.0000	.0199
#2	.0001	.0199
#3	-.0002	.0201

Zoom In Zoom Out

Sample Name: FC10918-2 Acquired: 11/8/2023 17:18:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3155.4**	**8266.5**	**47473.**	**9351.5**
Stddev	10.9	19.4	81.	32.1
%RSD	.34578	.23501	.17037	.34300
#1	3166.8	8285.6	47384.	9388.2
#2	3154.1	8267.1	47543.	9329.0
#3	3145.1	8246.8	47490.	9337.4

Zoom In Zoom Out

Sample Name: FC10918-3 Acquired: 11/8/2023 17:23:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0718**	**.0014**	F **.8906**	**.0105**	**.0000**	**37.08**	**-.0001**	**.0002**
Stddev	.0003	.0019	.0005	.0027	.0000	.000	.05	.0000	.0001
%RSD	152.2	2.682	33.72	.3059	.1493	606.2	.1396	28.03	33.80
#1	-.0001	.0701	.0013	.8880	.0105	.0000	37.14	-.0001	.0003
#2	.0002	.0715	.0020	.8934	.0105	.0000	37.05	-.0001	.0002
#3	.0005	.0739	.0010	.8905	.0105	.0000	37.04	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0078**	**.7665**	**4.990**	**.0074**	**2.852**	**.0384**	**.0009**	F **169.5**
Stddev	.0002	.0001	.0039	.038	.0009	.008	.0002	.0000	2.9
%RSD	68.01	1.872	.5134	.7529	12.20	.2938	.4691	3.674	1.713
#1	.0002	.0079	.7679	4.975	.0068	2.862	.0385	.0009	172.9
#2	.0002	.0076	.7621	5.033	.0085	2.846	.0382	.0009	167.6
#3	.0005	.0079	.7696	4.962	.0070	2.849	.0384	.0008	168.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0007**	**.0018**	**-.0003**	**2.599**	**.0005**	**.2836**	**.0026**	**-.0008**
Stddev	.0000	.0003	.0009	.0003	.009	.0002	.0005	.0003	.0013
%RSD	5.087	44.61	48.13	99.57	.3496	35.37	.1668	11.67	153.7
#1	.0008	-.0009	.0011	-.0003	2.593	.0005	.2841	.0026	.0001
#2	.0008	-.0004	.0028	.0000	2.594	.0007	.2832	.0023	-.0023
#3	.0008	-.0009	.0015	-.0007	2.609	.0004	.2834	.0029	-.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0275**
Stddev	.0002	.0001
%RSD	23.26	.4889
#1	.0008	.0274
#2	.0009	.0275
#3	.0012	.0277

Zoom In Zoom Out

Sample Name: FC10918-3 Acquired: 11/8/2023 17:23:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2878.4**	**7993.6**	**45933.**	**9372.2**
Stddev	11.3	34.8	270.	48.7
%RSD	.39266	.43516	.58882	.51919
#1	2881.7	8003.6	45846.	9359.4
#2	2887.6	8022.3	46236.	9426.0
#3	2865.8	7954.9	45716.	9331.2

Zoom In Zoom Out

Sample Name: FC10925-1 Acquired: 11/8/2023 17:29:07 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0185**	**.0098**	**.0401**	**.5127**	**.0000**	**69.03**	**-.0002**	**.0002**
Stddev	.0002	.0155	.0012	.0015	.0012	.000	1.17	.0001	.0001
%RSD	49.34	84.03	12.03	3.628	.2399	555.9	1.691	36.16	47.39
#1	.0006	.0343	.0099	.0418	.5139	.0000	70.29	-.0002	.0002
#2	.0005	.0180	.0086	.0393	.5128	.0000	68.81	-.0001	.0002
#3	.0002	.0032	.0109	.0393	.5115	.0000	67.98	-.0002	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0012**	**11.02**	**2.505**	**.0127**	**9.896**	**1.509**	**.0016**	**11.32**
Stddev	.0001	.0003	.06	.044	.0026	.056	.013	.0001	.05
%RSD	20.00	24.35	.5696	1.746	20.38	.5702	.8872	9.161	.4705
#1	.0004	-.0013	11.04	2.527	.0142	9.919	1.500	.0015	11.34
#2	.0003	-.0009	11.07	2.533	.0097	9.936	1.524	.0017	11.35
#3	.0005	-.0015	10.95	2.455	.0141	9.831	1.503	.0017	11.25

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0040**	**.0016**	**-.0012**	**10.86**	**.0003**	**.3076**	**.0011**	**-.0003**
Stddev	.0002	.0003	.0018	.0013	.01	.0002	.0017	.0002	.0009
%RSD	85.95	6.915	112.4	111.4	.1005	61.81	.5545	13.47	355.5
#1	.0003	-.0043	.0032	-.0024	10.86	.0001	.3085	.0013	.0002
#2	.0000	-.0039	.0021	-.0014	10.85	.0004	.3087	.0010	.0003
#3	.0003	-.0038	-.0004	.0002	10.87	.0005	.3057	.0010	-.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0006**
Stddev	.0002	.0000
%RSD	70.29	5.277
#1	.0001	.0007
#2	.0005	.0007
#3	.0002	.0006

Zoom In Zoom Out

Sample Name: FC10925-1 Acquired: 11/8/2023 17:29:07 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3028.4**	**8199.2**	**47192.**	**9313.1**
Stddev	1.2	6.4	332.	72.8
%RSD	.04092	.07784	.70403	.78173
#1	3029.5	8205.6	47552.	9240.7
#2	3027.1	8199.1	46897.	9312.2
#3	3028.5	8192.8	47126.	9386.3

Zoom In Zoom Out

Sample Name: FC10925-2 Acquired: 11/8/2023 17:34:27 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0164**	**.0075**	**.0330**	**.4707**	**.0000**	**69.49**	**-.0001**	**.0001**
Stddev	.0001	.0133	.0005	.0017	.0011	.0000	.93	.0000	.0001
%RSD	61.19	81.19	6.237	5.058	.2439	199.2	1.343	20.92	51.30
#1	.0004	.0104	.0070	.0316	.4719	.0001	68.59	-.0001	.0000
#2	.0002	.0316	.0076	.0325	.4697	.0000	70.45	-.0001	.0001
#3	.0001	.0071	.0080	.0348	.4703	.0000	69.41	-.0002	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0011**	**8.472**	**2.544**	**.0122**	**9.983**	**1.210**	**.0016**	**11.37**
Stddev	.0002	.0002	.039	.004	.0014	.015	.003	.0002	.06
%RSD	39.30	16.17	.4622	.1427	11.72	.1487	.2341	13.02	.5644
#1	.0006	-.0012	8.512	2.549	.0136	9.971	1.207	.0018	11.44
#2	.0003	-.0012	8.434	2.542	.0107	9.979	1.210	.0016	11.31
#3	.0004	-.0009	8.469	2.542	.0122	10.000	1.213	.0014	11.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0035**	**.0017**	**.0002**	**10.76**	**.0003**	**.3077**	**.0011**	**-.0013**
Stddev	.0001	.0004	.0011	.0006	.01	.0002	.0017	.0001	.0006
%RSD	77.89	11.20	63.19	319.3	.0689	71.26	.5397	8.249	46.49
#1	.0002	-.0031	.0013	-.0002	10.76	.0001	.3095	.0012	-.0006
#2	.0000	-.0034	.0029	-.0001	10.76	.0005	.3063	.0011	-.0014
#3	.0001	-.0039	.0009	.0009	10.75	.0003	.3072	.0010	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0007**
Stddev	.0001	.0000
%RSD	33.36	5.844
#1	.0003	.0007
#2	.0002	.0007
#3	.0004	.0007

Zoom In Zoom Out

Sample Name: FC10925-2 Acquired: 11/8/2023 17:34:27 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3022.9**	**8178.7**	**46934.**	**9295.8**
Stddev	7.1	8.8	103.	44.0
%RSD	.23404	.10743	.21850	.47372
#1	3031.0	8188.1	47021.	9328.7
#2	3020.1	8177.4	46960.	9312.9
#3	3017.7	8170.7	46821.	9245.8

Zoom In Zoom Out

Sample Name: FC10945-1 Acquired: 11/8/2023 17:39:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.2031**	**.0021**	**.4228**	**.2202**	**.0000**	**18.68**	**.0001**	**.0004**
Stddev	.0003	.0097	.0009	.0021	.0006	.0000	.04	.0000	.0001
%RSD	1657.	4.769	44.85	.4936	.2887	323.5	.2368	9.796	14.62
#1	.0003	.1925	.0014	.4208	.2195	.0000	18.63	.0001	.0004
#2	-.0003	.2056	.0031	.4250	.2203	.0000	18.71	.0001	.0004
#3	.0001	.2114	.0017	.4224	.2207	.0000	18.71	.0001	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0256**	**.0434**	**3.282**	**12.24**	**.0045**	**8.132**	**.1092**	**.0041**	**52.91**
Stddev	.0002	.0004	.012	.03	.0016	.014	.0007	.0000	.08
%RSD	.7261	1.002	.3509	.2524	34.76	.1721	.6070	.9054	.1519
#1	.0254	.0430	3.269	12.20	.0048	8.117	.1087	.0040	53.01
#2	.0256	.0432	3.284	12.25	.0059	8.145	.1090	.0041	52.85
#3	.0258	.0438	3.292	12.26	.0028	8.132	.1100	.0041	52.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140**	**.0003**	**.0022**	**-.0005**	**1.185**	**.0256**	**.1943**	**.0111**	**-.0014**
Stddev	.0002	.0004	.0007	.0017	.002	.0001	.0004	.0001	.0008
%RSD	1.523	136.8	32.88	311.2	.1258	.2446	.2092	1.321	53.45
#1	.0140	.0008	.0016	-.0001	1.184	.0256	.1945	.0110	-.0012
#2	.0138	.0002	.0020	-.0024	1.184	.0257	.1939	.0111	-.0008
#3	.0142	.0000	.0030	.0009	1.187	.0256	.1946	.0113	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0889**
Stddev	.0000	.0000
%RSD	2.100	.0242
#1	.0009	.0889
#2	.0010	.0890
#3	.0010	.0889

Zoom In Zoom Out

Sample Name: FC10945-1 Acquired: 11/8/2023 17:39:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3023.9**	**8133.3**	**46973.**	**9347.2**
Stddev	5.3	6.7	354.	14.2
%RSD	.17496	.08270	.75266	.15192
#1	3029.7	8136.0	47308.	9355.9
#2	3022.4	8125.6	47008.	9330.8
#3	3019.4	8138.2	46603.	9354.9

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/8/2023 17:44:38 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0027**	**.0052**	**.1025**	**.0025**	**.0000**	**40.26**	**-.0001**	**.0000**
Stddev	.0003	.0061	.0012	.0009	.0002	.0000	.05	.0000	.0001
%RSD	39.70	223.8	23.32	.8670	7.852	159.5	.1246	19.39	649.9
#1	.0004	.0070	.0060	.1015	.0026	.0001	40.24	-.0001	.0000
#2	.0011	.0054	.0038	.1028	.0023	.0001	40.32	-.0001	.0001
#3	.0009	-.0043	.0058	.1032	.0027	.0000	40.23	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0044**	**.0800**	**26.92**	**.0031**	**5.767**	F **5.680**	**-.0001**	**12.71**
Stddev	.0002	.0003	.0018	.05	.0009	.031	.087	.0001	.08
%RSD	8.943	7.135	2.282	.1969	28.60	.5360	1.537	86.18	.6023
#1	.0021	.0044	.0820	26.92	.0027	5.743	5.779	-.0001	12.66
#2	.0020	.0048	.0784	26.97	.0041	5.802	5.645	.0000	12.80
#3	.0024	.0041	.0796	26.87	.0025	5.756	5.615	-.0002	12.67

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0145**	**.0000**	**.0018**	**-.0003**	**5.902**	**.0001**	**.2844**	**.0010**	**.0047**
Stddev	.0001	.001	.0002	.0011	.004	.0003	.0009	.0001	.0013
%RSD	.4174	1151.	10.54	322.4	.0720	258.3	.3019	10.96	28.23
#1	.0145	-.0005	.0018	.0009	5.907	.0000	.2839	.0010	.0032
#2	.0144	.0000	.0017	-.0008	5.899	.0004	.2854	.0012	.0059
#3	.0145	.0004	.0021	-.0011	5.900	-.0001	.2838	.0010	.0049

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0120**
Stddev	.0000	.0001
%RSD	29.65	.4747
#1	-.0002	.0120
#2	-.0002	.0121
#3	-.0001	.0120

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/8/2023 17:44:38 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3051.8**	**8155.9**	**46962.**	**9325.9**
Stddev	1.1	8.5	149.	48.6
%RSD	.03500	.10378	.31817	.52082
#1	3052.2	8165.5	46824.	9269.8
#2	3050.6	8152.6	46940.	9353.5
#3	3052.6	8149.5	47121.	9354.4

Zoom In Zoom Out

Sample Name: FC10954-1A Acquired: 11/8/2023 17:49:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0147**	**1.704**	**.0982**	**.0505**	**.0000**	**48.86**	**-.0005**
Stddev	.0005	.0064	.006	.0012	.0003	.0000	.23	.0001
%RSD	210.3	43.69	.3354	1.186	.5013	20.62	.4685	17.33
#1	-.0001	.0118	1.708	.0974	.0504	.0000	48.69	-.0005
#2	.0008	.0102	1.697	.0975	.0503	.0000	48.77	-.0005
#3	.0000	.0221	1.706	.0995	.0508	.0000	49.12	-.0007

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0178**	**.0016**	**-.0008**	**70.26**	**7.954**	**.0015**	**6.737**	**2.021**
Stddev	.0001	.0001	.0003	.39	.013	.0006	.047	.009
%RSD	.7910	6.720	33.69	.5599	.1678	42.58	.6989	.4229
#1	.0176	.0015	-.0011	70.01	7.968	.0017	6.686	2.013
#2	.0179	.0017	-.0005	70.05	7.942	.0019	6.746	2.030
#3	.0179	.0016	-.0009	70.71	7.951	.0007	6.779	2.019

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**14.48**	**.0069**	F **-.0196**	**.0019**	**.0020**	**7.357**	**.0001**
Stddev	.0001	.09	.0001	.0006	.0001	.0012	.007	.0003
%RSD	21.35	.6470	1.261	2.882	7.254	60.32	.0892	279.1
#1	.0005	14.45	.0069	-.0202	.0020	.0030	7.359	-.0002
#2	.0007	14.41	.0070	-.0191	.0017	.0007	7.349	.0001
#3	.0004	14.59	.0068	-.0195	.0020	.0022	7.362	.0003

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4017**	**.0011**	**.0021**	**.0007**	**.0011**
Stddev	.0027	.0001	.0002	.0001	.0000
%RSD	.6629	5.331	9.710	12.49	2.590
#1	.4003	.0011	.0022	.0007	.0010
#2	.3999	.0011	.0021	.0007	.0011
#3	.4047	.0012	.0018	.0006	.0011

Zoom In Zoom Out

Sample Name: FC10954-1A Acquired: 11/8/2023 17:49:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2984.7**	**8193.9**	**47030.**	**9288.2**
Stddev	8.9	5.4	105.	63.2
%RSD	.29802	.06639	.22266	.68020
#1	2994.7	8195.3	47086.	9356.9
#2	2981.6	8198.6	47095.	9232.7
#3	2977.7	8187.9	46909.	9275.0

Zoom In Zoom Out

Sample Name: FC10954-2A Acquired: 11/8/2023 17:54:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0317**	**.5673**	**.0911**	**.0552**	**.0000**	**37.57**	**-.0004**
Stddev	.0002	.0030	.0011	.0018	.0003	.0001	.07	.0000
%RSD	383.4	9.533	.1872	1.991	.5252	349.0	.1899	1.349
#1	-.0002	.0283	.5660	.0925	.0552	.0001	37.49	-.0004
#2	.0003	.0341	.5677	.0917	.0555	.0000	37.58	-.0004
#3	.0001	.0326	.5680	.0890	.0549	-.0001	37.63	-.0004

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079**	**.0008**	**-.0009**	**47.74**	**8.726**	**.0039**	**6.041**	**1.703**
Stddev	.0000	.0000	.0003	.12	.011	.0013	.042	.004
%RSD	.4837	3.251	35.32	.2513	.1224	32.73	.7026	.2329
#1	.0079	.0008	-.0010	47.70	8.721	.0038	6.015	1.702
#2	.0079	.0008	-.0006	47.64	8.718	.0026	6.019	1.700
#3	.0078	.0008	-.0013	47.87	8.738	.0052	6.090	1.708

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**15.11**	**.0011**	F **-.0137**	**.0016**	**.0028**	**5.828**	**.0002**
Stddev	.0001	.09	.0001	.0005	.0003	.0005	.003	.0003
%RSD	27.86	.5876	12.10	3.908	17.12	17.17	.0456	139.5
#1	.0006	15.11	.0010	-.0133	.0013	.0031	5.828	.0006
#2	.0003	15.02	.0013	-.0135	.0018	.0031	5.831	.0000
#3	.0005	15.19	.0010	-.0143	.0017	.0023	5.826	.0000

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.3363**	**.0011**	**.0004**	**.0005**	**.0025**
Stddev	.0010	.0001	.0014	.0003	.0000
%RSD	.2899	8.488	320.0	75.54	.5796
#1	.3362	.0010	.0010	.0008	.0025
#2	.3354	.0011	.0014	.0005	.0025
#3	.3374	.0012	-.0011	.0001	.0025

Zoom In Zoom Out

Sample Name: FC10954-2A Acquired: 11/8/2023 17:54:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2995.1**	**8168.4**	**47022.**	**9252.4**
Stddev	5.5	9.7	152.	40.9
%RSD	.18467	.11906	.32254	.44180
#1	3001.1	8179.4	47185.	9277.7
#2	2994.1	8160.7	46995.	9274.2
#3	2990.2	8165.2	46885.	9205.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:00:05 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2510**	**41.88**	**2.052**	**1.949**	**1.979**	**2.008**	**39.45**	**1.965**	**2.004**
Stddev	.0009	.15	.002	.006	.002	.010	.05	.003	.001
%RSD	.3669	.3652	.0911	.3246	.1124	.5042	.1234	.1417	.0610
#1	.2503	41.98	2.050	1.942	1.980	2.014	39.45	1.962	2.003
#2	.2508	41.70	2.053	1.951	1.977	1.997	39.40	1.968	2.005
#3	.2521	41.95	2.053	1.954	1.981	2.014	39.50	1.966	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.885**	**40.47**	**40.18**	**2.039**	**38.78**	**1.914**	**1.984**	**40.67**
Stddev	.007	.009	.18	.14	.011	.13	.016	.002	.28
%RSD	.3707	.4577	.4521	.3435	.5322	.3477	.8377	.1009	.6802
#1	1.973	1.885	40.57	40.24	2.046	38.83	1.927	1.982	40.84
#2	1.964	1.876	40.26	40.02	2.027	38.62	1.896	1.986	40.35
#3	1.978	1.894	40.58	40.28	2.044	38.88	1.919	1.983	40.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.058**	**2.051**	**2.092**	**1.952**	**2.284**	**2.028**	**2.040**	**1.955**	**2.070**
Stddev	.001	.006	.002	.002	.004	.001	.015	.006	.002
%RSD	.0221	.2728	.0877	.1208	.1786	.0414	.7363	.3261	.1176
#1	2.058	2.056	2.090	1.950	2.279	2.028	2.051	1.950	2.073
#2	2.059	2.045	2.094	1.952	2.286	2.028	2.045	1.951	2.068
#3	2.058	2.052	2.092	1.954	2.286	2.027	2.022	1.962	2.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:00:05 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.907**	**2.034**
Stddev	.007	.001
%RSD	.3577	.0518
#1	1.904	2.034
#2	1.902	2.034
#3	1.914	2.032
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2749.8**	**7947.0**	**45983.**	**9186.0**
Stddev	4.0	7.5	250.	21.5
%RSD	.14489	.09477	.54292	.23370
#1	2749.1	7955.6	45972.	9169.7
#2	2754.1	7943.6	46237.	9178.1
#3	2746.2	7941.8	45738.	9210.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:05:12 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0024**	**.0008**	F **.0015**	**.0000**	**.0001**	**-.0008**	**.0000**	**.0001**
Stddev	.0001	.0091	.0010	.0014	.0001	.0000	.0007	.0000	.0002
%RSD	64.34	371.2	121.5	91.86	282.9	44.82	91.88	21.28	171.7
#1	.0002	-.0024	.0009	.0011	.0001	.0000	-.0010	.0000	.0003
#2	.0001	.0129	.0018	.0031	.0000	.0001	.0000	.0000	.0000
#3	.0003	-.0032	-.0002	.0004	.0000	.0001	-.0015	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0008**	**.0008**	**-.0061**	**-.0001**	**.0008**	**.0000**	**.0002**	**-.0519**
Stddev	.0003	.0002	.0011	.0033	.0012	.0040	.0000	.0000	.0014
%RSD	226.3	26.78	135.0	53.57	837.3	518.5	19.51	27.33	2.695
#1	-.0003	-.0007	.0017	-.0098	.0003	.0042	.0000	.0002	-.0506
#2	.0002	-.0007	-.0004	-.0033	.0008	.0018	.0000	.0002	-.0518
#3	-.0003	-.0011	.0012	-.0054	-.0015	-.0036	.0000	.0001	-.0534
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	F **.0021**	**.0002**	**.0010**	**.0002**	**.0002**	**.0001**	**-.0008**
Stddev	.0001	.0001	.0024	.0008	.0008	.0000	.0000	.0002	.0011
%RSD	152.0	144.4	109.6	405.0	80.29	27.30	25.05	138.8	135.7
#1	.0000	.0001	.0041	.0004	.0004	.0002	.0001	-.0001	.0000
#2	.0000	.0001	-.0005	-.0007	.0006	.0001	.0002	.0002	-.0003
#3	-.0002	.0000	.0028	.0009	.0018	.0001	.0001	.0002	-.0021
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0020						
Low Limit			-.0020						

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:05:12 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0001**
Stddev	.0001	.0000
%RSD	169.6	43.33
#1	.0000	.0001
#2	.0000	.0001
#3	.0001	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3203.6**	**8274.5**	**47667.**	**9376.5**
Stddev	3.6	5.4	399.	94.0
%RSD	.11303	.06521	.83734	1.0020
#1	3200.9	8276.5	48087.	9273.4
#2	3202.0	8268.4	47622.	9398.7
#3	3207.7	8278.6	47293.	9457.4

Zoom In Zoom Out

Sample Name: FC10963-23 Acquired: 11/8/2023 18:10:16 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**47.86**	**.0805**	**.0443**	**.5258**	**.0031**	**192.5**	**.0015**	**.0657**
Stddev	.0003	.12	.0006	.0024	.0007	.0000	3.2	.0001	.0001
%RSD	67.29	.2477	.7982	5.400	.1377	.0567	1.668	5.739	.1714
#1	-.0003	47.99	.0808	.0441	.5251	.0031	192.6	.0015	.0656
#2	-.0008	47.83	.0810	.0468	.5259	.0031	189.2	.0015	.0659
#3	-.0002	47.76	.0798	.0421	.5265	.0031	195.6	.0014	.0657

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1135**	**.1490**	**158.0**	**14.14**	**.1446**	**83.02**	**2.216**	**.0483**	**15.14**
Stddev	.0006	.0004	1.6	.05	.0011	.20	.011	.0001	.02
%RSD	.5156	.2590	.9830	.3805	.7682	.2391	.4901	.2440	.1082
#1	.1128	.1492	156.6	14.08	.1452	82.93	2.206	.0484	15.15
#2	.1138	.1486	157.7	14.16	.1434	82.88	2.227	.0483	15.15
#3	.1138	.1493	159.6	14.19	.1453	83.24	2.214	.0482	15.12

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1878**	**.0604**	**.0016**	**.0048**	**35.89**	**.0026**	**1.237**	**.2054**	**.0021**
Stddev	.0002	.0009	.0004	.0022	.02	.0001	.002	.0009	.0020
%RSD	.1151	1.431	22.75	45.54	.0619	3.931	.1187	.4367	93.39
#1	.1880	.0600	.0018	.0073	35.88	.0025	1.236	.2044	.0017
#2	.1876	.0614	.0018	.0032	35.88	.0027	1.239	.2055	.0004
#3	.1879	.0598	.0012	.0039	35.92	.0025	1.236	.2062	.0043

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1041**	**.5369**
Stddev	.0003	.0005
%RSD	.2980	.1020
#1	.1038	.5365
#2	.1041	.5366
#3	.1044	.5375

Zoom In Zoom Out

Sample Name: FC10963-23 Acquired: 11/8/2023 18:10:16 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2629.6**	**8811.6**	**50594.**	**10385.**
Stddev	4.4	7.6	218.	49.
%RSD	.16706	.08656	.43175	.47224
#1	2624.6	8803.4	50844.	10388.
#2	2631.6	8812.8	50496.	10433.
#3	2632.7	8818.6	50441.	10335.

Zoom In Zoom Out

Sample Name: MP43108-D1 Acquired: 11/8/2023 18:15:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**48.76**	**.0794**	**.0365**	**.5402**	**.0032**	**198.6**	**.0014**	**.0675**
Stddev	.0003	.08	.0002	.0025	.0016	.0000	.6	.0001	.0001
%RSD	159.5	.1571	.2866	6.901	.3045	.5067	.3193	8.664	.1376
#1	-.0004	48.78	.0794	.0344	.5418	.0032	198.8	.0013	.0675
#2	.0002	48.82	.0791	.0358	.5385	.0032	199.1	.0015	.0676
#3	-.0004	48.67	.0796	.0393	.5402	.0032	197.9	.0015	.0675

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1164**	**.1532**	**164.1**	**14.32**	**.1457**	**85.88**	**2.277**	**.0477**	**15.85**
Stddev	.0004	.0006	1.2	.03	.0003	.22	.011	.0000	.03
%RSD	.3065	.4111	.7268	.1840	.2122	.2524	.4889	.0479	.1651
#1	.1162	.1527	165.5	14.35	.1454	86.02	2.290	.0476	15.86
#2	.1168	.1531	163.2	14.30	.1456	85.99	2.271	.0477	15.87
#3	.1162	.1539	163.6	14.31	.1460	85.63	2.270	.0477	15.82

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1933**	**.0636**	**.0013**	**.0048**	**37.78**	**.0027**	**1.287**	**.1981**	**.0024**
Stddev	.0004	.0002	.0014	.0028	.02	.0003	.001	.0004	.0006
%RSD	.2309	.2590	107.7	58.64	.0542	9.332	.0827	.1892	27.32
#1	.1938	.0634	.0022	.0042	37.79	.0029	1.287	.1976	.0027
#2	.1931	.0637	-.0003	.0023	37.76	.0025	1.287	.1982	.0028
#3	.1930	.0635	.0019	.0078	37.80	.0028	1.285	.1983	.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1045**	**.5513**
Stddev	.0001	.0009
%RSD	.0634	.1610
#1	.1045	.5513
#2	.1044	.5504
#3	.1045	.5522

Zoom In Zoom Out

Sample Name: MP43108-D1 Acquired: 11/8/2023 18:15:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2624.5**	**8847.2**	**50883.**	**10415.**
Stddev	1.6	15.9	64.	56.
%RSD	.06020	.17963	.12524	.53522
#1	2624.9	8829.4	50956.	10405.
#2	2625.8	8859.9	50855.	10365.
#3	2622.7	8852.5	50838.	10475.

Zoom In Zoom Out

Sample Name: MP43108-SD1 Acquired: 11/8/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**51.66**	**.0879**	**.0184**	**.5622**	**.0034**	**212.3**	**.0012**	**.0730**
Stddev	.0020	.12	.0021	.0100	.0031	.0002	.4	.0001	.0002
%RSD	479.2	.2295	2.366	54.38	.5551	6.114	.1702	7.794	.2591
#1	.0004	51.77	.0890	.0068	.5612	.0036	212.6	.0012	.0732
#2	.0010	51.54	.0855	.0244	.5597	.0032	211.9	.0011	.0728
#3	-.0026	51.68	.0892	.0238	.5657	.0033	212.3	.0013	.0729

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1245**	**.1553**	**177.8**	**15.18**	**.1609**	**91.89**	**2.427**	**.0513**	**15.76**
Stddev	.0003	.0022	.5	.12	.0117	.24	.006	.0006	.04
%RSD	.2042	1.429	.3057	.8061	7.289	.2657	.2373	1.222	.2282
#1	.1243	.1573	178.3	15.08	.1744	92.16	2.432	.0510	15.79
#2	.1245	.1529	177.2	15.31	.1549	91.70	2.429	.0521	15.72
#3	.1248	.1556	177.8	15.14	.1534	91.79	2.420	.0510	15.76

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2092**	**.0452**	**.0024**	**-.0026**	**38.51**	**.0031**	**1.322**	**.2236**	**-.0031**
Stddev	.0010	.0026	.0046	.0147	.09	.0025	.003	.0006	.0023
%RSD	.4916	5.642	190.7	555.1	.2320	77.98	.2606	.2893	72.91
#1	.2099	.0423	.0049	-.0186	38.43	.0055	1.325	.2242	-.0026
#2	.2080	.0463	-.0029	.0004	38.49	.0033	1.318	.2237	-.0011
#3	.2096	.0470	.0052	.0103	38.61	.0006	1.323	.2229	-.0055

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1113**	**.6043**
Stddev	.0007	.0008
%RSD	.6342	.1247
#1	.1107	.6042
#2	.1112	.6036
#3	.1121	.6051

Zoom In Zoom Out

Sample Name: MP43108-SD1 Acquired: 11/8/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3020.6**	**8467.0**	**48261.**	**9619.6**
Stddev	9.0	28.5	124.	22.0
%RSD	.29810	.33675	.25643	.22847
#1	3030.0	8484.8	48169.	9618.1
#2	3019.7	8482.1	48213.	9642.3
#3	3012.0	8434.1	48402.	9598.4

Zoom In Zoom Out

Sample Name: MP43108-PS1 Acquired: 11/8/2023 18:26:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0464**	**49.63**	**.1716**	**.0340**	**.7337**	**.0482**	**191.2**	**.0435**	**.1068**
Stddev	.0003	.14	.0008	.0039	.0010	.0001	3.2	.0000	.0000
%RSD	.5982	.2788	.4591	11.47	.1420	.1859	1.658	.0498	.0373
#1	.0461	49.63	.1721	.0385	.7344	.0481	188.1	.0435	.1068
#2	.0467	49.77	.1707	.0319	.7342	.0483	194.4	.0435	.1068
#3	.0465	49.49	.1720	.0316	.7325	.0481	190.9	.0436	.1069

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1567**	**.2329**	**159.3**	**22.72**	**.1416**	**86.26**	**2.211**	**.1288**	**23.45**
Stddev	.0002	.0007	.6	.06	.0001	.25	.018	.0002	.16
%RSD	.1027	.2990	.3681	.2782	.0899	.2896	.7898	.1238	.6905
#1	.1565	.2328	158.9	22.71	.1417	86.32	2.227	.1287	23.57
#2	.1567	.2336	159.0	22.79	.1416	86.47	2.212	.1290	23.51
#3	.1568	.2322	160.0	22.66	.1415	85.98	2.193	.1289	23.26

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2726**	**.1123**	**.0964**	**.0865**	**35.33**	**.0464**	**1.272**	**.2875**	**.1044**
Stddev	.0006	.0007	.0015	.0010	.04	.0001	.006	.0005	.0034
%RSD	.2206	.6677	1.529	1.160	.1156	.2605	.4554	.1608	3.227
#1	.2732	.1129	.0948	.0877	35.32	.0463	1.275	.2871	.1009
#2	.2720	.1114	.0977	.0862	35.30	.0465	1.275	.2880	.1048
#3	.2726	.1125	.0966	.0858	35.38	.0463	1.265	.2874	.1076

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1444**	**.7428**
Stddev	.0010	.0004
%RSD	.7266	.0574
#1	.1448	.7432
#2	.1452	.7424
#3	.1432	.7428

Zoom In Zoom Out

Sample Name: MP43108-PS1 Acquired: 11/8/2023 18:26:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2607.1**	**8794.5**	**50246.**	**10352.**
Stddev	2.9	9.1	106.	33.
%RSD	.11252	.10402	.21177	.31731
#1	2607.3	8784.3	50350.	10384.
#2	2609.9	8801.8	50137.	10318.
#3	2604.1	8797.5	50250.	10354.

Zoom In Zoom Out

Sample Name: MP43108-S1 Acquired: 11/8/2023 18:31:26 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1794**	**71.85**	**.2545**	**.4405**	**.6996**	**.1750**	**233.3**	**.1599**	**.2275**
Stddev	.0002	.12	.0011	.0048	.0010	.0004	2.4	.0001	.0002
%RSD	.1130	.1609	.4459	1.093	.1383	.2407	1.017	.0931	.0857
#1	.1796	71.84	.2550	.4460	.6986	.1751	233.9	.1600	.2277
#2	.1792	71.97	.2532	.4375	.7006	.1753	230.7	.1597	.2274
#3	.1794	71.74	.2553	.4379	.6996	.1745	235.4	.1599	.2273

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2840**	**.3167**	**198.7**	**51.41**	F **.6183**	**122.0**	**2.406**	**.5653**	**52.07**
Stddev	.0002	.0014	1.0	.05	.0028	.2	.018	.0005	.21
%RSD	.0579	.4550	.5268	.1042	.4516	.1284	.7415	.0910	.3980
#1	.2841	.3154	199.4	51.39	.6181	122.1	2.426	.5659	52.10
#2	.2838	.3163	199.3	51.47	.6212	122.1	2.392	.5651	52.26
#3	.2840	.3183	197.5	51.37	.6156	121.8	2.401	.5650	51.85

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3580**	**.2676**	**.0878**	**.1405**	**39.53**	**.3525**	**1.745**	**.5955**	**.1076**
Stddev	.0003	.0007	.0019	.0007	.04	.0003	.005	.0012	.0011
%RSD	.0918	.2713	2.217	.5028	.1001	.0833	.2876	.1962	1.026
#1	.3577	.2668	.0862	.1405	39.58	.3527	1.746	.5967	.1063
#2	.3581	.2682	.0872	.1398	39.51	.3522	1.750	.5956	.1082
#3	.3583	.2678	.0900	.1412	39.51	.3527	1.740	.5943	.1082

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2650**	**.7195**
Stddev	.0011	.0007
%RSD	.4201	.1042
#1	.2663	.7203
#2	.2643	.7188
#3	.2646	.7195

Zoom In Zoom Out

Sample Name: MP43108-S1 Acquired: 11/8/2023 18:31:26 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2473.6**	**8723.3**	**50293.**	**10353.**
Stddev	4.1	13.1	242.	30.
%RSD	.16465	.15021	.48047	.29055
#1	2468.9	8708.3	50037.	10388.
#2	2475.6	8732.5	50517.	10340.
#3	2476.3	8729.1	50324.	10333.

Zoom In Zoom Out

Sample Name: MP43108-S2 Acquired: 11/8/2023 18:36:50 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1773**	**71.22**	**.2453**	**.4382**	**.6932**	**.1722**	**230.9**	**.1581**	**.2252**
Stddev	.0000	.40	.0008	.0058	.0027	.0007	1.7	.0001	.0002
%RSD	.0181	.5578	.3283	1.328	.3847	.4230	.7147	.0854	.0901
#1	.1773	71.57	.2461	.4324	.6959	.1729	231.9	.1580	.2251
#2	.1773	71.31	.2454	.4440	.6930	.1722	229.0	.1583	.2254
#3	.1773	70.79	.2445	.4383	.6906	.1715	231.8	.1582	.2251

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2821**	**.3138**	**194.7**	**50.75**	F **.6118**	**120.2**	**2.394**	**.5545**	**51.14**
Stddev	.0007	.0009	.7	.23	.0046	.3	.009	.0004	.32
%RSD	.2407	.2949	.3786	.4508	.7545	.2647	.3665	.0776	.6293
#1	.2814	.3147	195.1	50.97	.6164	120.6	2.385	.5545	51.39
#2	.2827	.3128	195.0	50.77	.6117	120.0	2.402	.5549	51.26
#3	.2822	.3138	193.8	50.51	.6072	120.0	2.395	.5541	50.78

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3537**	**.2626**	**.0870**	**.1350**	**39.21**	**.3427**	**1.730**	**.5955**	**.1099**
Stddev	.0006	.0004	.0003	.0008	.02	.0003	.015	.0012	.0010
%RSD	.1658	.1535	.3937	.5846	.0591	.0835	.8610	.2028	.8777
#1	.3530	.2623	.0872	.1354	39.20	.3428	1.723	.5964	.1089
#2	.3542	.2631	.0872	.1341	39.24	.3423	1.720	.5941	.1109
#3	.3538	.2626	.0866	.1355	39.19	.3429	1.747	.5960	.1097

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2648**	**.7038**
Stddev	.0003	.0007
%RSD	.1189	.1017
#1	.2649	.7037
#2	.2645	.7045
#3	.2651	.7031

Zoom In Zoom Out

Sample Name: MP43108-S2 Acquired: 11/8/2023 18:36:50 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2488.3**	**8749.5**	**50050.**	**10365.**
Stddev	2.4	9.3	284.	86.
%RSD	.09821	.10582	.56839	.83262
#1	2485.9	8739.4	50325.	10276.
#2	2488.1	8751.4	50069.	10448.
#3	2490.8	8757.7	49757.	10371.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:42:13 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2508**	**41.91**	**2.060**	**1.934**	**1.983**	**2.007**	**39.50**	**1.960**	**2.005**
Stddev	.0009	.07	.004	.012	.001	.001	.03	.001	.000
%RSD	.3710	.1698	.1721	.6232	.0464	.0373	.0778	.0371	.0219
#1	.2510	41.85	2.059	1.941	1.983	2.007	39.49	1.959	2.005
#2	.2498	41.90	2.057	1.939	1.982	2.006	39.47	1.960	2.004
#3	.2516	41.99	2.064	1.920	1.983	2.008	39.53	1.960	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**1.903**	**40.53**	**40.31**	**2.036**	**38.96**	**1.942**	**1.983**	**40.85**
Stddev	.003	.004	.03	.05	.003	.11	.017	.001	.12
%RSD	.1718	.2385	.0691	.1165	.1640	.2868	.8598	.0704	.3009
#1	1.993	1.907	40.49	40.31	2.036	39.02	1.948	1.983	40.77
#2	1.989	1.898	40.54	40.26	2.033	38.83	1.923	1.982	40.78
#3	1.996	1.906	40.54	40.35	2.040	39.02	1.955	1.984	40.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.061**	**2.084**	**1.946**	**2.281**	**2.023**	**2.037**	**1.950**	**2.069**
Stddev	.001	.006	.003	.002	.002	.001	.033	.003	.004
%RSD	.0278	.3000	.1328	.0872	.0948	.0413	1.608	.1443	.1713
#1	2.051	2.068	2.081	1.948	2.279	2.022	2.001	1.949	2.068
#2	2.053	2.061	2.083	1.946	2.280	2.023	2.065	1.948	2.073
#3	2.052	2.055	2.087	1.944	2.283	2.024	2.045	1.953	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:42:13 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.912**	**2.042**
Stddev	.004	.001
%RSD	.2017	.0244
#1	1.910	2.042
#2	1.910	2.043
#3	1.917	2.042
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2753.8**	**7984.3**	**45915.**	**9170.1**
Stddev	6.8	16.4	139.	58.3
%RSD	.24759	.20512	.30288	.63571
#1	2752.0	7995.8	45962.	9218.3
#2	2748.1	7965.5	46024.	9186.6
#3	2761.3	7991.5	45758.	9105.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:47:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0060**	**-.0001**	**-.0006**	**.0002**	**.0001**	**.0009**	**.0001**	**.0000**
Stddev	.0002	.0032	.0004	.0010	.0004	.0000	.0012	.0000	.0001
%RSD	62.85	52.60	286.0	170.2	184.3	19.24	125.7	38.17	1116.
#1	-.0006	.0056	-.0006	-.0005	.0006	.0001	.0000	.0001	.0002
#2	-.0003	.0093	.0001	.0004	.0001	.0001	.0022	.0001	.0000
#3	-.0001	.0031	.0001	-.0016	-.0001	.0001	.0005	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0004**	**.0025**	**.0180**	F **.0039**	**-.0002**	**.0000**	**.0003**	**-.0586**
Stddev	.0001	.0000	.0014	.0214	.0001	.0067	.0000	.0001	.0087
%RSD	68.17	7.490	54.90	119.0	2.738	2936.	61.09	37.87	14.79
#1	-.0001	-.0005	.0031	.0312	.0037	.0073	.0000	.0002	-.0510
#2	-.0002	-.0005	.0010	-.0067	.0039	-.0054	.0000	.0003	-.0567
#3	-.0003	-.0004	.0036	.0294	.0039	-.0026	.0000	.0004	-.0680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0010				
Low Limit					-.0010				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0011**	**-.0018**	**.0014**	**.0001**	**.0001**	**.0002**	**-.0006**
Stddev	.0002	.0008	.0001	.0017	.0007	.0002	.0000	.0001	.0001
%RSD	164.9	5055.	6.073	98.44	49.71	207.0	14.13	37.49	21.08
#1	-.0001	.0001	.0010	-.0001	.0012	.0000	.0001	.0001	-.0005
#2	.0001	-.0008	.0011	-.0017	.0022	.0004	.0001	.0002	-.0007
#3	-.0003	.0008	.0011	-.0036	.0009	.0000	.0001	.0002	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:47:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0001**
Stddev	.0001	.0000
%RSD	134.2	36.15
#1	.0000	.0001
#2	.0001	.0001
#3	.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3206.4**	**8339.1**	**47437.**	**9263.8**
Stddev	.8	5.2	99.	18.0
%RSD	.02628	.06198	.20917	.19424
#1	3207.4	8334.3	47327.	9276.6
#2	3205.8	8344.5	47463.	9243.2
#3	3206.0	8338.4	47520.	9271.6

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000043	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000070	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.001297	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000029	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000089	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000060	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000016	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	0.000007	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000030	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	0.000004	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000001	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000040	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	0.000291	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000182	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000019	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.002735	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000054	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000009	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000006	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000043	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000010	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000006	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000398	0.698819	0.000000	1.000000
Al 396.152 { 85}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001031	0.166544	0.000000	1.000000
As 189.042 {478}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000305	0.122343	0.000000	1.000000
B 249.773 {135}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.003071	0.340828	0.000000	1.000000
Ba 455.403 { 74}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001720	9.344939	0.000000	1.000000
Be 313.042 {108}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.001182	15.325199	0.000000	1.000000
Ca 317.933 {106}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001541	0.451948	0.000000	1.000000
Cd 226.502 {449}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000783	4.979372	0.000000	1.000000
Co 228.616 {447}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000475	2.794917	0.000000	1.000000
Cr 267.716 {126}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000188	0.811923	0.000000	1.000000
Cu 324.754 {104}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.008227	0.947530	0.000000	1.000000
Fe 259.940 {130}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000040	0.283129	0.000000	1.000000
In 230.606 {446}*	11/8/2023 11:46:00	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.002005	0.077198	0.000000	1.000000
Li 670.784 { 50}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.005088	1.742898	0.000000	1.000000
Mg 279.079 {121}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000099	0.053759	0.000000	1.000000
Mn 257.610 {131}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000534	4.031864	0.000000	1.000000
Mo 202.030 {467}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000360	0.943381	0.000000	1.000000
Na 589.592 { 57}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.015776	0.231903	0.000000	1.000000
Ni 231.604 {445}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000675	1.642129	0.000000	1.000000
Pb 220.353 {453}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.003797	1.297473	0.000000	1.000000
Sb 206.833 {463}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000353	0.187909	0.000000	1.000000
Se 196.090 {472}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000430	0.092651	0.000000	1.000000
Si 212.412 {459}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.004225	0.313081	0.000000	1.000000
Sn 189.989 {477}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000218	0.378237	0.000000	1.000000
Sr 407.771 { 83}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000415	14.617256	0.000000	1.000000
Ti 334.941 {101}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001513	2.360725	0.000000	1.000000
Tl 190.856 {477}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000740	0.291999	0.000000	1.000000
V 292.402 {115}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000279	1.138731	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000798	3.118625	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999959	0.000022	0.000410	0.001367	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999903	0.000483	0.008294	0.027648	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999881	0.000020	0.001019	0.003397	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999695	0.000202	0.001580	0.005266	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999919	0.005608	0.000199	0.000662	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999876	0.001774	0.000043	0.000143	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999831	0.003880	0.001778	0.005926	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999954	0.000352	0.000047	0.000156	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999966	0.000537	0.000095	0.000317	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999936	0.000096	0.000249	0.000829	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999955	0.000147	0.000336	0.001121	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999796	0.001460	0.001411	0.004704	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999924	0.001018	0.029216	0.097387	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999915	0.000224	0.001433	0.004777	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999797	0.001143	0.010359	0.034530	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999868	0.000836	0.000043	0.000142	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999955	0.000208	0.000149	0.000495	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999578	0.007226	0.009703	0.032345	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999965	0.000287	0.000164	0.000546	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999440	0.000322	0.000482	0.001605	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999946	0.000014	0.001210	0.004034	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999930	0.000011	0.002099	0.006998	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.986473	0.002801	0.000526	0.001752	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999918	0.000113	0.000338	0.001128	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999810	0.002970	0.000077	0.000256	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999926	0.000299	0.000121	0.000402	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999702	0.000074	0.000988	0.003293	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999954	0.000252	0.000243	0.000809	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999951	0.000454	0.000055	0.000182	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/9/2023 9:38:32 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0004**	**.0015**	**-.0007**	**.0056**	**.0083**	**.0006**	**.0053**	**-.0001**	**-.0006**
Stddev	.0001	.0016	.0001	.0004	.0004	.0005	.0005	.0003	.0001
%RSD	22.24	102.7	21.42	7.099	4.532	80.90	8.669	259.4	14.89
#1	-.0004	-.0003	-.0006	.0061	.0082	.0009	.0047	-.0004	-.0007
#2	-.0004	.0024	-.0008	.0053	.0087	.0008	.0054	-.0003	-.0005
#3	-.0005	.0025	-.0006	.0054	.0080	.0000	.0056	.0002	-.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0034**	**.0002**	**.0058**	**-.0027**	**-.0007**	**.0003**	**.0012**	**.0195**
Stddev	.0002	.0001	.0003	.0022	.0002	.0003	.0001	.0001	.0008
%RSD	127.7	4.380	161.9	36.89	8.652	49.76	38.15	12.49	4.142
#1	.0001	.0034	.0001	.0064	-.0026	-.0009	.0004	.0013	.0199
#2	.0000	.0032	.0005	.0035	-.0027	-.0009	.0002	.0013	.0200
#3	.0004	.0035	-.0001	.0077	-.0030	-.0003	.0003	.0010	.0185

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**-.0022**	**.0009**	**.0001**	**.0072**	**.0004**	**-.0007**	**.0009**	**-.0017**
Stddev	.0002	.0001	.0001	.0002	.0001	.0001	.0008	.0002	.0007
%RSD	16.71	3.639	13.50	355.5	1.089	25.59	107.4	23.96	42.07
#1	-.0009	-.0021	.0010	-.0001	.0072	.0004	.0000	.0010	-.0012
#2	-.0008	-.0022	.0009	.0003	.0071	.0003	-.0015	.0011	-.0013
#3	-.0011	-.0023	.0008	.0000	.0072	.0005	-.0005	.0007	-.0025

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0011**
Stddev	.0001	.0001
%RSD	39.30	5.417
#1	-.0004	.0011
#2	-.0002	.0011
#3	-.0002	.0012

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/9/2023 9:38:32 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**851.67**	**2190.2**	**20503.**	**4034.2**
Stddev	4.79	9.4	86.	26.8
%RSD	.56274	.42803	.41829	.66553
#1	856.17	2199.2	20598.	4041.4
#2	852.22	2190.9	20478.	4004.5
#3	846.63	2180.5	20432.	4056.8

Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/9/2023 9:43:15 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0059**	**.0419**	**.0012**	**.0281**	**3.544**	**.0578**	**.3391**	**.0263**	**.1379**
Stddev	.0003	.0014	.0002	.0004	.007	.0003	.0018	.0003	.0006
%RSD	4.878	3.221	17.61	1.298	.2042	.5208	.5172	1.218	.4268
#1	.0062	.0435	.0011	.0284	3.536	.0582	.3383	.0263	.1378
#2	.0058	.0409	.0011	.0277	3.550	.0577	.3411	.0266	.1385
#3	.0056	.0415	.0015	.0281	3.547	.0576	.3378	.0260	.1374

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0046**	**.0315**	**.0588**	**1.542**	**.0216**	**.1515**	**.0553**	**.0642**	**5.451**
Stddev	.0002	.0001	.0005	.004	.0038	.0006	.0002	.0003	.011
%RSD	3.880	.3291	.8966	.2489	17.71	.4193	.2957	.5419	.2062
#1	.0048	.0316	.0586	1.538	.0207	.1522	.0555	.0642	5.438
#2	.0047	.0314	.0594	1.546	.0258	.1510	.0553	.0646	5.458
#3	.0045	.0315	.0584	1.543	.0183	.1513	.0552	.0639	5.458

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0603**	**.0049**	**.0020**	**.0013**	**.0236**	**.2301**	**.0244**	**.0043**	**.0452**
Stddev	.0007	.0009	.0003	.0001	.0001	.0007	.0002	.0007	.0001
%RSD	1.152	18.40	14.67	7.395	.6348	.2897	.8179	15.64	.2837
#1	.0611	.0055	.0024	.0012	.0237	.2304	.0246	.0048	.0451
#2	.0599	.0039	.0018	.0014	.0237	.2293	.0242	.0044	.0453
#3	.0599	.0053	.0019	.0013	.0235	.2306	.0245	.0035	.0452

Elem	Zn2062
Units	Cts/S
Avg	**.0538**
Stddev	.0004
%RSD	.7930
#1	.0542
#2	.0534
#3	.0536

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/9/2023 9:43:15 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**805.62**	**2167.6**	**19932.**	**4073.1**
Stddev	.45	3.6	122.	9.6
%RSD	.05643	.16706	.61226	.23647
#1	805.88	2168.5	19854.	4078.7
#2	805.10	2163.7	19870.	4062.0
#3	805.89	2170.8	20073.	4078.6

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/9/2023 9:47:11 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0191**	**1.060**	**.0443**	**.1325**	**4.441**	**2.879**	**1.724**	**1.335**	**.7072**
Stddev	.0000	.003	.0004	.0014	.021	.015	.005	.009	.0045
%RSD	.2572	.2861	.9683	1.041	.4738	.5169	.2984	.6480	.6360
#1	.0191	1.057	.0444	.1331	4.417	2.863	1.721	1.339	.7087
#2	.0192	1.063	.0446	.1309	4.458	2.891	1.730	1.341	.7107
#3	.0191	1.061	.0438	.1335	4.447	2.884	1.721	1.325	.7021

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1176**	**.2830**	**.9864**	**.7991**	**.7255**	**.1557**	**.9194**	**.3285**	**3.069**
Stddev	.0002	.0010	.0083	.0019	.0030	.0010	.0012	.0020	.017
%RSD	.1660	.3631	.8462	.2394	.4104	.6687	.1315	.6067	.5625
#1	.1176	.2822	.9769	.7974	.7237	.1546	.9180	.3296	3.050
#2	.1175	.2826	.9902	.7987	.7289	.1567	.9201	.3298	3.084
#3	.1179	.2841	.9922	.8011	.7239	.1560	.9202	.3262	3.071

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3827**	**.3584**	**.0765**	**.0381**	**.1454**	**.1191**	**5.814**	**.5706**	**.1409**
Stddev	.0029	.0019	.0008	.0004	.0005	.0009	.017	.0027	.0022
%RSD	.7641	.5415	1.087	1.180	.3534	.7784	.2851	.4722	1.588
#1	.3851	.3586	.0769	.0382	.1454	.1193	5.795	.5675	.1395
#2	.3835	.3602	.0770	.0385	.1460	.1198	5.827	.5717	.1435
#3	.3794	.3563	.0755	.0376	.1449	.1180	5.819	.5725	.1397

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2254**	**.6505**
Stddev	.0006	.0043
%RSD	.2804	.6639
#1	.2247	.6530
#2	.2254	.6529
#3	.2260	.6455

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/9/2023 9:47:11 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**786.82**	**2120.8**	**19808.**	**4012.8**
Stddev	3.45	9.9	47.	23.2
%RSD	.43910	.46538	.23658	.57791
#1	787.82	2116.5	19861.	4037.8
#2	782.97	2113.8	19790.	3992.1
#3	789.66	2132.1	19773.	4008.4

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/9/2023 9:51:14 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0381**	**2.093**	**.0897**	**.2604**	**8.788**	**5.700**	**3.385**	**2.627**	**1.393**
Stddev	.0001	.009	.0006	.0011	.031	.021	.014	.005	.003
%RSD	.3535	.4128	.7007	.4272	.3574	.3776	.4158	.1936	.1888
#1	.0380	2.094	.0895	.2608	8.767	5.696	3.379	2.624	1.391
#2	.0382	2.084	.0891	.2613	8.773	5.680	3.375	2.633	1.393
#3	.0382	2.102	.0903	.2592	8.824	5.723	3.401	2.625	1.396

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2327**	**.5521**	**1.950**	**1.593**	**1.440**	**.3079**	**1.798**	**.6510**	**6.056**
Stddev	.0018	.0006	.004	.003	.005	.0006	.008	.0010	.020
%RSD	.7621	.1069	.2009	.2041	.3808	.1891	.4284	.1524	.3292
#1	.2319	.5525	1.952	1.591	1.439	.3082	1.794	.6507	6.042
#2	.2347	.5523	1.946	1.591	1.435	.3082	1.807	.6503	6.049
#3	.2314	.5514	1.953	1.597	1.446	.3072	1.793	.6522	6.079

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7502**	**.7191**	**.1507**	**.0765**	**.2817**	**.2330**	**11.43**	**1.121**	**.2812**
Stddev	.0021	.0029	.0004	.0002	.0003	.0006	.04	.003	.0011
%RSD	.2862	.3966	.2651	.2320	.1208	.2702	.3398	.2556	.3819
#1	.7488	.7167	.1508	.0764	.2816	.2330	11.42	1.118	.2818
#2	.7527	.7223	.1503	.0766	.2821	.2336	11.40	1.124	.2818
#3	.7490	.7184	.1511	.0763	.2815	.2323	11.48	1.122	.2800

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4481**	**1.282**
Stddev	.0018	.005
%RSD	.4070	.3655
#1	.4460	1.278
#2	.4494	1.287
#3	.4488	1.282

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/9/2023 9:51:14 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**771.81**	**2125.0**	**19837.**	**4050.9**
Stddev	1.03	1.8	60.	16.1
%RSD	.13356	.08670	.30246	.39699
#1	772.97	2126.9	19906.	4044.4
#2	771.02	2124.7	19800.	4069.2
#3	771.42	2123.3	19805.	4039.0

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/9/2023 9:55:07 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0754**	**4.057**	**.1799**	**.4990**	**17.67**	**11.45**	**6.534**	**5.193**	**2.736**
Stddev	.0002	.014	.0004	.0033	.03	.03	.026	.007	.005
%RSD	.2010	.3422	.2050	.6541	.1633	.2667	.3928	.1353	.1672
#1	.0752	4.041	.1801	.4981	17.64	11.42	6.507	5.201	2.740
#2	.0754	4.066	.1801	.4963	17.70	11.48	6.558	5.189	2.736
#3	.0755	4.064	.1794	.5027	17.68	11.45	6.538	5.188	2.731

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4692**	**1.101**	**3.808**	**3.090**	**2.871**	**.5951**	**3.602**	**1.285**	**11.72**
Stddev	.0015	.002	.014	.010	.009	.0014	.005	.001	.01
%RSD	.3277	.1356	.3719	.3277	.3205	.2426	.1429	.0866	.0689
#1	.4701	1.100	3.792	3.080	2.861	.5936	3.608	1.285	11.71
#2	.4700	1.103	3.810	3.100	2.879	.5965	3.601	1.286	11.73
#3	.4674	1.101	3.820	3.090	2.873	.5951	3.598	1.284	11.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.475**	**1.445**	**.2977**	**.1522**	**.3953**	**.4549**	**22.71**	**2.224**	**.5569**
Stddev	.003	.003	.0014	.0008	.0012	.0009	.05	.001	.0027
%RSD	.2005	.1826	.4572	.5515	.2934	.2055	.2286	.0631	.4860
#1	1.478	1.443	.2979	.1518	.3964	.4559	22.65	2.222	.5539
#2	1.472	1.445	.2963	.1532	.3955	.4540	22.75	2.224	.5574
#3	1.474	1.448	.2990	.1516	.3941	.4547	22.72	2.224	.5593

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.8930**	**2.531**
Stddev	.0022	.004
%RSD	.2467	.1780
#1	.8947	2.536
#2	.8905	2.531
#3	.8939	2.527

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/9/2023 9:55:07 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**745.92**	**2105.7**	**19390.**	**4062.5**
Stddev	2.68	.9	28.	16.6
%RSD	.35920	.04119	.14636	.40825
#1	748.82	2106.2	19379.	4064.6
#2	745.38	2106.2	19422.	4045.0
#3	743.55	2104.7	19369.	4078.0

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/9/2023 9:58:45 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1524**	**8.248**	**.3711**	**1.027**	**35.96**	**23.13**	**13.18**	**10.51**	**5.521**
Stddev	.0013	.065	.0005	.002	.29	.23	.10	.01	.002
%RSD	.8237	.7849	.1431	.1654	.8170	.9973	.7700	.0917	.0438
#1	.1516	8.221	.3718	1.028	35.84	23.02	13.15	10.51	5.522
#2	.1539	8.322	.3709	1.029	36.30	23.40	13.29	10.52	5.522
#3	.1519	8.201	.3708	1.026	35.75	22.98	13.10	10.50	5.518

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.9473**	**2.224**	**7.649**	**6.330**	**5.885**	**1.209**	**7.211**	**2.620**	**23.90**
Stddev	.0010	.006	.093	.050	.040	.014	.004	.001	.22
%RSD	.1047	.2745	1.218	.7939	.6786	1.125	.0486	.0333	.9172
#1	.9484	2.219	7.594	6.310	5.871	1.199	7.213	2.619	23.81
#2	.9467	2.230	7.757	6.387	5.930	1.224	7.214	2.621	24.15
#3	.9466	2.221	7.597	6.293	5.854	1.203	7.207	2.619	23.75

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.955**	**2.969**	**.6123**	**.3117**	**.8042**	**.9183**	**46.10**	**4.510**	**1.123**
Stddev	.003	.006	.0015	.0006	.0019	.0014	.43	.003	.004
%RSD	.0840	.1983	.2414	.1977	.2345	.1498	.9269	.0640	.3460
#1	2.957	2.968	.6106	.3111	.8030	.9191	45.91	4.512	1.121
#2	2.956	2.976	.6131	.3123	.8063	.9190	46.59	4.512	1.127
#3	2.952	2.965	.6132	.3119	.8031	.9167	45.81	4.507	1.120

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.796**	**5.133**
Stddev	.005	.007
%RSD	.2986	.1385
#1	1.790	5.140
#2	1.800	5.131
#3	1.798	5.126

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/9/2023 9:58:45 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**702.75**	**2032.9**	**18912.**	**3978.2**
Stddev	1.10	2.3	31.	33.1
%RSD	.15705	.11323	.16496	.83262
#1	703.72	2034.9	18902.	4000.2
#2	701.55	2030.3	18947.	3940.1
#3	702.97	2033.4	18887.	3994.4

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/9/2023 10:02:41 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3057**	**16.64**	**.7583**	**2.107**	**72.29**	**45.98**	**26.37**	**20.74**	**10.91**
Stddev	.0027	.05	.0051	.015	.30	.19	.07	.12	.06
%RSD	.8920	.2865	.6762	.7133	.4129	.4113	.2555	.5749	.5812
#1	.3086	16.58	.7528	2.092	71.98	45.77	26.29	20.61	10.85
#2	.3053	16.66	.7592	2.107	72.32	46.14	26.43	20.77	10.93
#3	.3032	16.67	.7629	2.122	72.58	46.02	26.38	20.85	10.97

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.885**	**4.476**	**15.22**	**12.85**	**12.07**	**2.414**	**14.26**	**5.230**	**48.09**
Stddev	.024	.029	.08	.05	.04	.014	.14	.029	.20
%RSD	1.278	.6543	.5014	.3866	.3081	.5720	1.000	.5621	.4155
#1	1.912	4.499	15.14	12.79	12.03	2.400	14.41	5.199	47.87
#2	1.873	4.487	15.28	12.86	12.07	2.428	14.23	5.235	48.24
#3	1.868	4.443	15.26	12.89	12.11	2.415	14.13	5.257	48.17

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.815**	**5.943**	**1.248**	**.6291**	**1.512**	**1.813**	**92.02**	**9.080**	**2.203**
Stddev	.033	.025	.006	.0040	.006	.010	.49	.066	.009
%RSD	.5596	.4115	.4704	.6281	.4280	.5294	.5359	.7232	.4056
#1	5.779	5.915	1.242	.6254	1.506	1.802	92.43	9.136	2.193
#2	5.825	5.955	1.248	.6286	1.511	1.814	92.15	9.097	2.209
#3	5.842	5.958	1.254	.6332	1.519	1.821	91.47	9.008	2.206

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**3.600**	**10.13**
Stddev	.032	.06
%RSD	.8927	.6228
#1	3.633	10.07
#2	3.599	10.15
#3	3.568	10.19

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/9/2023 10:02:41 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**658.95**	**1952.2**	**18264.**	**3944.9**
Stddev	2.37	10.5	203.	23.5
%RSD	.35994	.53752	1.1138	.59636
#1	661.69	1963.7	18029.	3961.7
#2	657.42	1949.8	18377.	3918.0
#3	657.75	1943.1	18384.	3955.0

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:14:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Se1960
Units	ppm
Avg	**.0084**
Stddev	.0015
%RSD	17.83
#1	.0079
#2	.0101
#3	.0072
Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243
Units	Cts/S
Avg	**2124.3**
Stddev	4.1
%RSD	.19316
#1	2120.0
#2	2124.5
#3	2128.2

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:20:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0093**	**.1940**	**.0102**	F **.0428**	**.1997**	**.0050**	**1.033**	**.0051**	**.0510**
Stddev	.0002	.0062	.0003	.0003	.0004	.0000	.004	.0000	.0002
%RSD	2.184	3.213	3.014	.6569	.2065	.3354	.3624	.4782	.3827
#1	.0091	.1957	.0106	.0427	.1994	.0050	1.036	.0051	.0508
#2	.0094	.1993	.0100	.0431	.1996	.0050	1.028	.0051	.0512
#3	.0095	.1871	.0101	.0425	.2002	.0050	1.034	.0050	.0509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0098**	**.0250**	**.3125**	**9.927**	**.0100**	**5.049**	**.0153**	**.0489**	**9.182**
Stddev	.0002	.0001	.0060	.010	.0006	.049	.0001	.0003	.021
%RSD	2.088	.5604	1.921	.1004	6.480	.9791	.4174	.5808	.2322
#1	.0100	.0251	.3172	9.919	.0102	5.059	.0153	.0488	9.191
#2	.0098	.0249	.3057	9.924	.0093	4.995	.0154	.0492	9.157
#3	.0096	.0251	.3146	9.938	.0106	5.092	.0153	.0487	9.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0415**	**.0046**	**.0044**	**.0314**	**.0514**	**.0100**	**.0103**	**.0102**	**.0497**
Stddev	.0001	.0002	.0009	.0003	.0004	.0001	.0000	.0008	.0002
%RSD	.2776	4.657	19.78	.9122	.8522	.5473	.1861	7.448	.4791
#1	.0413	.0048	.0043	.0317	.0518	.0101	.0103	.0102	.0500
#2	.0415	.0044	.0053	.0311	.0514	.0100	.0103	.0094	.0497
#3	.0415	.0046	.0036	.0313	.0510	.0100	.0103	.0109	.0495
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:20:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
Units	ppm
Avg	**.0205**
Stddev	.0002
%RSD	.7615
#1	.0206
#2	.0206
#3	.0204
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**803.21**	**2165.3**	**20095.**	**4065.1**
Stddev	5.57	9.6	53.	11.6
%RSD	.69321	.44495	.26289	.28509
#1	809.22	2174.3	20092.	4067.5
#2	802.16	2166.4	20044.	4075.4
#3	798.24	2155.2	20149.	4052.6

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/9/2023 10:29:40 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5002**	**79.81**	**4.103**	**4.147**	**3.980**	**3.981**	**79.40**	**4.017**	**4.011**
Stddev	.0077	.39	.021	.018	.060	.020	.45	.024	.023
%RSD	1.541	.4853	.5167	.4343	1.514	.4969	.5690	.5924	.5684
#1	.4921	80.24	4.125	4.141	4.033	4.002	79.92	4.043	4.037
#2	.5074	79.67	4.102	4.167	3.915	3.977	79.16	4.009	4.003
#3	.5012	79.51	4.083	4.133	3.991	3.963	79.12	3.997	3.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.035**	**4.038**	**79.27**	**80.58**	**4.041**	**79.35**	**4.001**	**4.048**	**80.29**
Stddev	.074	.073	.64	.50	.020	.64	.063	.023	.48
%RSD	1.824	1.814	.8026	.6253	.4981	.8091	1.569	.5715	.6040
#1	3.970	3.959	79.98	81.13	4.063	80.08	3.942	4.073	80.84
#2	4.115	4.104	79.11	80.45	4.034	79.11	4.067	4.044	80.15
#3	4.022	4.052	78.74	80.15	4.025	78.87	3.996	4.028	79.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.990**	**4.073**	**4.078**	**4.082**	**3.784**	**4.008**	**3.951**	**4.049**	**3.992**
Stddev	.022	.012	.020	.021	.021	.023	.035	.058	.007
%RSD	.5579	.2932	.4891	.5115	.5485	.5828	.8985	1.422	.1785
#1	4.016	4.087	4.099	4.106	3.808	4.035	3.974	3.986	3.994
#2	3.983	4.068	4.076	4.072	3.772	3.995	3.970	4.099	3.997
#3	3.973	4.065	4.060	4.067	3.772	3.994	3.910	4.061	3.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/9/2023 10:29:40 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**4.027**	**4.022**
Stddev	.067	.027
%RSD	1.652	.6659
#1	3.962	4.052
#2	4.095	4.013
#3	4.024	4.001
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**656.06**	**1947.9**	**18335.**	**4031.7**
Stddev	.54	6.4	250.	36.0
%RSD	.08284	.32761	1.3652	.89271
#1	655.97	1941.1	18587.	3990.8
#2	655.56	1948.9	18087.	4058.6
#3	656.64	1953.7	18331.	4045.8

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/9/2023 10:36:45 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2530**	**41.35**	**2.051**	**2.088**	**2.067**	**2.075**	**41.54**	**2.060**	**2.060**
Stddev	.0005	.06	.001	.012	.014	.008	.01	.004	.002
%RSD	.1850	.1525	.0258	.5685	.6553	.3896	.0269	.1845	.1149
#1	.2524	41.34	2.051	2.095	2.057	2.074	41.53	2.065	2.061
#2	.2532	41.29	2.051	2.074	2.060	2.068	41.56	2.057	2.057
#3	.2533	41.41	2.052	2.095	2.082	2.084	41.54	2.059	2.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.071**	**2.060**	**41.63**	**41.50**	**2.070**	**41.53**	**2.070**	**2.067**	**41.67**
Stddev	.006	.004	.19	.25	.006	.08	.002	.001	.19
%RSD	.2801	.2146	.4657	.6070	.2835	.1913	.0966	.0304	.4452
#1	2.067	2.055	41.51	41.30	2.066	41.56	2.069	2.067	41.63
#2	2.069	2.061	41.52	41.43	2.068	41.44	2.069	2.066	41.51
#3	2.078	2.064	41.85	41.78	2.077	41.59	2.073	2.067	41.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.070**	**2.045**	**2.048**	**2.236**	**2.077**	**2.084**	**2.081**	**2.063**
Stddev	.005	.004	.002	.003	.001	.002	.010	.002	.004
%RSD	.2472	.1875	.1088	.1318	.0281	.0943	.4923	.0943	.1894
#1	2.060	2.073	2.047	2.047	2.236	2.079	2.083	2.084	2.066
#2	2.051	2.066	2.046	2.046	2.236	2.077	2.074	2.080	2.059
#3	2.051	2.072	2.043	2.051	2.237	2.076	2.094	2.080	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/9/2023 10:36:45 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.083**	**2.063**
Stddev	.003	.004
%RSD	.1653	.1845
#1	2.083	2.067
#2	2.079	2.060
#3	2.086	2.061
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**703.64**	**2048.3**	**19057.**	**4010.4**
Stddev	2.27	3.1	48.	16.6
%RSD	.32287	.15201	.25395	.41476
#1	703.21	2048.7	19087.	4020.3
#2	706.10	2051.2	19083.	3991.2
#3	701.62	2045.0	19001.	4019.7

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/9/2023 10:44:31 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0055**	**.0003**	F **-.0036**	**.0000**	**.0000**	**-.0028**	**-.0001**
Stddev	.0001	.0075	.0007	.0015	.0001	.0001	.0027	.0000
%RSD	167.6	135.2	218.4	42.05	189.0	192.5	98.09	24.46
#1	.0001	.0011	.0011	-.0045	.0000	.0001	-.0002	-.0001
#2	.0000	-.0137	.0001	-.0044	.0001	.0000	-.0025	-.0002
#3	.0000	-.0040	-.0003	-.0018	.0000	.0001	-.0056	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**-.0001**	**.0027**	**-.0076**	**-.0009**	**.0103**	**-.0001**
Stddev	.0001	.0001	.0001	.0010	.0129	.0010	.0211	.0000
%RSD	106.3	69.10	83.27	38.65	169.8	117.0	205.4	18.84
#1	-.0001	-.0001	.0000	.0020	.0072	.0002	-.0059	-.0001
#2	-.0001	-.0004	-.0002	.0022	-.0135	-.0018	.0026	-.0001
#3	.0000	-.0001	-.0001	.0039	-.0166	-.0009	.0341	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0072**	**.0000**	**-.0007**	**-.0009**	F **-.0022**	**-.0006**	**-.0005**
Stddev	.000	.0045	.000	.0010	.0008	.0004	.0002	.0001
%RSD	659.6	62.36	1893.	132.7	81.47	19.47	38.04	11.85
#1	.0000	-.0021	-.0001	-.0010	-.0017	-.0017	-.0009	-.0006
#2	.0001	-.0092	.0003	-.0015	-.0002	-.0025	-.0004	-.0005
#3	-.0002	-.0103	-.0002	.0003	-.0009	-.0023	-.0005	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/9/2023 10:44:31 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0003**	**-.0001**	**-.0001**
Stddev	.000	.0001	.0018	.0001	.0000
%RSD	16.12	305.9	534.5	138.8	28.50
#1	-.0001	-.0001	-.0017	.0000	-.0001
#2	.0000	.0000	.0010	-.0001	-.0001
#3	.0000	.0002	.0017	-.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.66**	**2153.4**	**20270.**	**4060.7**
Stddev	.68	6.7	45.	26.6
%RSD	.08194	.31213	.22075	.65590
#1	835.24	2159.1	20303.	4090.1
#2	836.45	2155.2	20287.	4038.2
#3	835.30	2146.0	20219.	4053.8

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/9/2023 10:49:09 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**512.7**	**-.0020**	**.0007**	**.0003**	**.0000**	**472.3**	**.0001**	**.0004**
Stddev	.0027	9.3	.0026	.0031	.0002	.000	5.1	.0013	.0001
%RSD	369.8	1.811	130.8	447.1	58.99	52.56	1.079	2267.	30.08
#1	-.0038	505.4	-.0018	.0042	.0001	.0000	467.7	.0014	.0003
#2	.0006	523.1	.0005	-.0008	.0003	.0000	477.8	-.0001	.0005
#3	.0010	509.5	-.0046	-.0013	.0004	.0000	471.4	-.0011	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	F **466.4**	**.0175**	**.0000**	**521.7**	**.0000**	**-.0009**	**.2887**
Stddev	.0001	.001	8.0	.0235	.0009	8.8	.0002	.0003	.0083
%RSD	42.97	2686.	1.724	133.9	15190.	1.688	653.2	32.46	2.876
#1	.0005	-.0014	457.3	.0437	.0004	511.7	-.0001	-.0007	.2808
#2	.0004	.0003	469.6	.0105	.0007	528.5	.0002	-.0007	.2879
#3	.0002	.0009	472.4	-.0016	-.0010	524.7	.0001	-.0012	.2974
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit			240.0						
Low Limit			160.0						

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0000**	**.0012**	**.0001**	**.0846**	**-.0008**	**-.0004**	**-.0001**	**-.0004**
Stddev	.0003	.003	.0012	.0012	.0009	.0001	.0001	.0001	.0023
%RSD	63.94	8860.	104.9	1774.	1.081	8.922	25.04	123.7	599.2
#1	-.0006	.0011	.0012	-.0002	.0841	-.0007	-.0003	-.0002	-.0002
#2	-.0006	-.0034	-.0001	-.0010	.0857	-.0008	-.0006	.0000	-.0028
#3	-.0001	.0022	.0024	.0014	.0841	-.0008	-.0004	.0000	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/9/2023 10:49:09 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0011**
Stddev	.000	.0002
%RSD	2726.	20.19
#1	.0002	.0008
#2	-.0001	.0011
#3	-.0002	.0013
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**629.56**	**1797.1**	**16599.**	**3854.6**
Stddev	1.91	2.3	115.	54.1
%RSD	.30313	.12943	.69124	1.4042
#1	627.37	1794.5	16480.	3914.2
#2	630.51	1797.7	16709.	3808.4
#3	630.82	1799.1	16608.	3841.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/9/2023 10:58:04 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.026**	**509.7**	**1.018**	**1.018**	**.4844**	**.4933**	**475.2**	**.9534**	**.4633**
Stddev	.006	5.1	.005	.008	.0010	.0006	4.9	.0021	.0009
%RSD	.5849	.9926	.4498	.7513	.2012	.1228	1.028	.2191	.1983
#1	1.019	514.8	1.013	1.009	.4854	.4934	480.6	.9513	.4622
#2	1.027	504.7	1.020	1.023	.4835	.4939	471.1	.9554	.4640
#3	1.031	509.6	1.022	1.021	.4842	.4927	473.9	.9535	.4636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4814**	**.5372**	**188.3**	**.0508**	F **.5421**	**530.3**	**.5013**	**.9123**	**.2993**
Stddev	.0060	.0039	.9	.0128	.0017	2.4	.0041	.0024	.0030
%RSD	1.238	.7174	.4779	25.31	.3050	.4528	.8253	.2626	.9918
#1	.4745	.5356	189.3	.0652	.5437	533.0	.4967	.9097	.2970
#2	.4854	.5344	187.5	.0407	.5404	528.5	.5024	.9128	.2982
#3	.4841	.5416	188.0	.0464	.5423	529.4	.5048	.9144	.3027
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8935**	**.9472**	**1.026**	**.9415**	**.0424**	**.8838**	**1.007**	**1.012**	**.9180**
Stddev	.0026	.0028	.007	.0037	.0013	.0027	.001	.006	.0040
%RSD	.2919	.2978	.6912	.3878	3.010	.3068	.1209	.5811	.4407
#1	.8905	.9442	1.018	.9376	.0436	.8822	1.007	1.006	.9217
#2	.8945	.9477	1.028	.9448	.0426	.8869	1.008	1.012	.9137
#3	.8954	.9498	1.031	.9421	.0411	.8823	1.006	1.018	.9186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/9/2023 10:58:04 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5107**	**.9232**
Stddev	.0035	.0021
%RSD	.6913	.2327
#1	.5068	.9220
#2	.5115	.9257
#3	.5137	.9220
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**599.89**	**1831.4**	**16894.**	**3841.5**
Stddev	1.96	5.7	148.	24.7
%RSD	.32639	.31009	.87866	.64406
#1	600.54	1837.9	17063.	3813.7
#2	601.43	1828.6	16833.	3861.0
#3	597.69	1827.6	16786.	3849.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 11:07:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2476**	**39.50**	**2.015**	**1.992**	**1.994**	**2.000**	**39.65**	**2.031**	**2.030**
Stddev	.0005	.38	.027	.041	.021	.019	.27	.030	.032
%RSD	.2112	.9639	1.361	2.056	1.029	.9325	.6913	1.474	1.576
#1	.2474	39.28	1.983	1.945	1.978	1.989	39.48	1.997	1.993
#2	.2482	39.94	2.030	2.023	2.017	2.022	39.97	2.050	2.049
#3	.2473	39.29	2.031	2.007	1.988	1.990	39.50	2.047	2.048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**1.991**	**40.04**	**39.72**	**1.962**	**39.88**	**2.001**	**2.027**	**39.86**
Stddev	.017	.006	.36	.34	.018	.47	.009	.030	.41
%RSD	.8299	.3041	.8877	.8445	.9280	1.167	.4635	1.467	1.039
#1	1.997	1.984	39.83	39.43	1.949	39.63	2.005	1.993	39.62
#2	2.008	1.993	40.45	40.09	1.983	40.42	2.008	2.044	40.34
#3	1.976	1.995	39.85	39.64	1.955	39.60	1.990	2.044	39.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.032**	**2.031**	**2.000**	**2.014**	**2.006**	**2.029**	**1.989**	**1.999**	**2.034**
Stddev	.033	.033	.033	.038	.033	.030	.023	.004	.027
%RSD	1.643	1.634	1.632	1.897	1.622	1.482	1.160	.2031	1.322
#1	1.994	1.993	1.963	1.970	1.969	1.994	1.976	2.001	2.003
#2	2.051	2.057	2.020	2.039	2.026	2.045	2.016	1.994	2.052
#3	2.052	2.042	2.019	2.032	2.024	2.048	1.976	2.002	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 11:07:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.993**	**2.032**
Stddev	.004	.030
%RSD	.1896	1.472
#1	1.992	1.997
#2	1.997	2.052
#3	1.989	2.045
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**699.13**	**2024.4**	**19133.**	**4017.9**
Stddev	11.05	30.3	48.	24.5
%RSD	1.5807	1.4959	.25255	.60875
#1	711.71	2059.3	19102.	4019.1
#2	691.00	2005.8	19110.	3992.9
#3	694.68	2008.0	19189.	4041.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 11:15:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0016**	**-.0001**	F **-.0054**	**.0000**	**.0000**	**-.0035**	**-.0001**
Stddev	.0004	.0032	.0010	.0015	.000	.000	.0011	.0001
%RSD	303.8	202.1	1124.	27.16	1041.	231.5	31.85	74.92
#1	-.0003	-.0010	-.0008	-.0071	.0000	.0000	-.0031	.0000
#2	.0003	-.0051	.0010	-.0044	.0001	-.0001	-.0048	-.0001
#3	.0004	.0013	-.0004	-.0048	-.0001	.0000	-.0027	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0008**	**.0024**	**-.0057**	**.0001**	**-.0089**	**.0000**
Stddev	.000	.0004	.0002	.0006	.0154	.0006	.0074	.000
%RSD	112.7	153.5	29.63	25.94	268.5	849.2	83.28	88.19
#1	-.0001	.0000	.0007	.0021	.0041	-.0005	-.0171	-.0001
#2	.0000	.0000	.0006	.0032	.0022	.0007	-.0027	.0000
#3	.0000	-.0007	.0010	.0021	-.0235	.0000	-.0068	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0044**	**-.0001**	**-.0007**	**-.0016**	F **-.0032**	**-.0001**	**-.0004**
Stddev	.0001	.0015	.0002	.0006	.0003	.0007	.0007	.0002
%RSD	79.35	34.08	272.2	74.40	21.49	22.70	656.3	45.00
#1	.0000	.0048	.0000	-.0008	-.0017	-.0024	-.0005	-.0004
#2	-.0001	.0056	.0001	-.0013	-.0012	-.0036	-.0004	-.0002
#3	-.0001	.0027	-.0002	-.0002	-.0018	-.0036	.0007	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 11:15:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0001**	**-.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0000
%RSD	168.7	380.5	318.2	188.1	19.78
#1	.0000	.0000	.0000	-.0003	.0002
#2	.0000	.0000	-.0001	.0001	.0002
#3	-.0002	.0001	.0003	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**841.77**	**2167.8**	**20362.**	**3997.7**
Stddev	9.26	22.7	131.	26.4
%RSD	1.0999	1.0476	.64306	.66055
#1	831.34	2143.4	20251.	3990.5
#2	849.01	2188.3	20329.	4026.9
#3	844.96	2171.8	20506.	3975.6

Zoom In Zoom Out

Sample Name: MP43108-MB1 Acquired: 11/9/2023 11:22:18 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0007**	**.0005**	F **-.0064**	**-.0001**	**-.0001**	**.0067**	**-.0001**
Stddev	.0002	.0028	.0014	.0008	.0001	.0000	.0012	.0000
%RSD	134.6	411.6	270.1	12.92	100.4	46.11	18.19	18.58
#1	.0004	.0039	-.0009	-.0069	-.0001	-.0001	.0079	-.0001
#2	.0001	-.0014	.0018	-.0069	-.0001	.0000	.0067	-.0001
#3	.0000	-.0004	.0007	-.0055	.0000	-.0001	.0054	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0000**	**.0012**	**-.0096**	**.0005**	**.0084**	**.0000**
Stddev	.0001	.0004	.000	.0016	.0163	.0006	.0144	.0001
%RSD	174.9	172.0	791.3	130.9	169.8	127.5	172.8	197.5
#1	.0000	.0000	.0001	.0030	-.0250	-.0001	.0248	.0000
#2	-.0002	-.0006	-.0002	.0003	.0075	.0012	-.0020	.0000
#3	.0000	.0000	.0001	.0003	-.0113	.0004	.0022	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0047**	**.0000**	**-.0003**	**-.0004**	**-.0025**	**.0017**	**-.0002**
Stddev	.0001	.0044	.000	.0001	.0003	.0021	.0001	.0004
%RSD	39.40	92.44	2189.	41.09	69.09	84.39	8.822	188.8
#1	-.0003	.0097	-.0002	-.0002	-.0004	-.0050	.0018	.0002
#2	-.0004	.0013	.0001	-.0003	-.0001	-.0010	.0015	-.0002
#3	-.0002	.0033	.0001	-.0004	-.0007	-.0017	.0017	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

SGS FC10954

Zoom In Zoom Out

Sample Name: MP43108-MB1 Acquired: 11/9/2023 11:22:18 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**-.0001**	**-.0002**	**.0007**
Stddev	.000	.0001	.0009	.0000	.0000
%RSD	228.9	319.7	594.9	19.66	4.148
#1	.0000	.0000	-.0011	-.0002	.0007
#2	.0000	.0000	.0001	-.0002	.0008
#3	.0000	.0001	.0006	-.0003	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.53**	**2166.7**	**20525.**	**4081.3**
Stddev	4.47	11.4	301.	22.3
%RSD	.53528	.52707	1.4668	.54561
#1	833.75	2166.8	20872.	4075.9
#2	832.23	2155.2	20330.	4062.2
#3	840.62	2178.1	20374.	4105.8

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/9/2023 11:27:25 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0041**	**.0048**	**.0921**	**.0025**	**.0000**	**43.42**	**-.0002**	**-.0003**
Stddev	.0005	.0111	.0006	.0013	.0001	.000	.02	.0001	.0001
%RSD	117.3	268.6	12.80	1.377	5.217	251.1	.0402	52.61	21.53
#1	.0008	.0069	.0042	.0934	.0026	-.0001	43.40	-.0001	-.0002
#2	-.0001	-.0081	.0048	.0909	.0024	.0000	43.44	-.0002	-.0003
#3	.0007	.0137	.0055	.0919	.0025	.0000	43.42	-.0003	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0060**	**.0850**	**28.07**	**.0013**	**6.271**	**6.337**	**-.0007**	**13.37**
Stddev	.0002	.0004	.0041	.16	.0015	.047	.045	.0002	.08
%RSD	9.075	7.144	4.824	.5641	116.2	.7469	.7154	26.74	.5988
#1	.0020	.0057	.0894	27.89	.0029	6.219	6.337	-.0005	13.28
#2	.0024	.0065	.0812	28.14	.0010	6.287	6.292	-.0009	13.41
#3	.0021	.0059	.0844	28.18	-.0001	6.309	6.382	-.0007	13.42

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0148**	**.0000**	**-.0015**	**-.0018**	**7.068**	**-.0007**	**.2986**	**.0015**	**.0066**
Stddev	.0004	.0005	.0014	.0048	.015	.0006	.0015	.0002	.0024
%RSD	2.425	5439.	92.85	271.7	.2121	98.62	.5025	12.91	36.95
#1	.0151	-.0005	.0001	.0036	7.085	-.0013	.2969	.0015	.0072
#2	.0150	.0004	-.0024	-.0031	7.058	.0000	.2992	.0017	.0039
#3	.0144	.0001	-.0022	-.0058	7.061	-.0007	.2997	.0013	.0086

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0126**
Stddev	.0003	.0001
%RSD	284.9	.8128
#1	.0002	.0125
#2	-.0002	.0125
#3	-.0003	.0127

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/9/2023 11:27:25 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**781.52**	**2108.6**	**19876.**	**4083.8**
Stddev	2.33	4.4	108.	17.6
%RSD	.29829	.20997	.54260	.43101
#1	781.04	2106.1	19908.	4063.9
#2	784.05	2113.7	19964.	4090.1
#3	779.46	2106.0	19756.	4097.3

Zoom In Zoom Out

Sample Name: MP43112-MB1 Acquired: 11/9/2023 11:32:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0062**	**-.0005**	F **-.0061**	**.0010**	**.0000**	**.0044**	**-.0001**
Stddev	.0001	.0058	.0005	.0016	.0001	.000	.0014	.0000
%RSD	25.45	94.71	105.0	26.79	7.597	83.88	32.79	24.39
#1	.0003	.0005	-.0009	-.0043	.0011	-.0001	.0029	-.0002
#2	.0002	-.0084	-.0005	-.0072	.0009	.0000	.0045	-.0001
#3	.0002	-.0105	.0000	-.0069	.0010	.0000	.0058	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0002**	**.0000**	**.0020**	**.0320**	**.0003**	**.0076**	**.0001**
Stddev	.0001	.0004	.000	.0011	.0139	.0011	.0057	.0000
%RSD	34.96	170.9	4135.	53.21	43.55	375.3	75.46	22.00
#1	-.0003	-.0006	.0001	.0030	.0466	.0000	.0142	.0001
#2	-.0002	.0001	-.0001	.0020	.0307	.0016	.0046	.0001
#3	-.0002	-.0002	.0000	.0009	.0188	-.0006	.0039	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0843**	**-.0002**	**.0001**	**-.0014**	**-.0015**	**.0024**	**-.0003**
Stddev	.0001	.0010	.0002	.0004	.0012	.0013	.0007	.0001
%RSD	103.9	1.202	77.72	382.5	84.36	87.51	28.71	40.06
#1	-.0002	.0851	-.0002	.0005	.0000	-.0014	.0031	-.0003
#2	-.0002	.0832	-.0001	-.0004	-.0022	-.0002	.0017	-.0004
#3	.0000	.0847	-.0004	.0003	-.0019	-.0028	.0025	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP43112-MB1 Acquired: 11/9/2023 11:32:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0006**	**-.0017**	**-.0003**	**.0004**
Stddev	.000	.0001	.0003	.0003	.0001
%RSD	58.67	15.98	14.39	97.76	13.80
#1	.0000	.0004	-.0016	.0000	.0004
#2	.0000	.0006	-.0016	-.0003	.0004
#3	.0000	.0006	-.0020	-.0005	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**838.59**	**2166.5**	**21067.**	**4099.7**
Stddev	2.10	1.7	78.	29.5
%RSD	.25079	.08065	.36948	.72023
#1	840.18	2168.0	21154.	4120.5
#2	836.20	2167.0	21006.	4065.9
#3	839.38	2164.6	21040.	4112.8

Zoom In Zoom Out

Sample Name: MP43112-B1 Acquired: 11/9/2023 11:37:30 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1861**	**24.13**	**.1969**	**.4943**	**.1991**	**.2004**	**43.93**	**.1973**	**.1962**
Stddev	.0009	.05	.0019	.0023	.0009	.0006	.18	.0002	.0002
%RSD	.4868	.1900	.9567	.4708	.4273	.2973	.4050	.0836	.1052
#1	.1872	24.18	.1953	.4961	.2001	.2009	43.89	.1971	.1961
#2	.1854	24.13	.1965	.4917	.1985	.2005	44.13	.1974	.1962
#3	.1858	24.08	.1990	.4952	.1988	.1997	43.78	.1974	.1965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1974**	**.1980**	**44.16**	**43.44**	**.5190**	**43.63**	**.1971**	**.6870**	**40.84**
Stddev	.0007	.0002	.12	.19	.0018	.18	.0005	.0008	.11
%RSD	.3519	.1058	.2609	.4404	.3541	.4227	.2417	.1217	.2806
#1	.1969	.1982	44.18	43.58	.5209	43.67	.1975	.6862	40.97
#2	.1982	.1978	44.26	43.52	.5189	43.79	.1966	.6878	40.81
#3	.1971	.1979	44.04	43.22	.5172	43.43	.1970	.6870	40.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1967**	**.1946**	**.2011**	**.1916**	**.5877**	**.4988**	**.5217**	**.5143**	**.1943**
Stddev	.0003	.0020	.0015	.0010	.0010	.0005	.0021	.0010	.0013
%RSD	.1419	1.014	.7638	.5261	.1640	.1011	.4053	.1876	.6571
#1	.1971	.1969	.2011	.1922	.5875	.4990	.5240	.5153	.1931
#2	.1966	.1935	.2026	.1922	.5887	.4991	.5211	.5134	.1941
#3	.1966	.1934	.1995	.1904	.5868	.4982	.5199	.5141	.1957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43112-B1 Acquired: 11/9/2023 11:37:30 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2014**	**.1961**
Stddev	.0004	.0003
%RSD	.2125	.1594
#1	.2019	.1964
#2	.2012	.1958
#3	.2010	.1960
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**712.24**	**2039.4**	**19169.**	**4040.1**
Stddev	1.45	3.3	19.	24.9
%RSD	.20429	.16349	.10069	.61646
#1	710.60	2042.3	19151.	4054.9
#2	712.78	2035.8	19166.	4011.3
#3	713.36	2040.1	19190.	4054.0

Zoom In Zoom Out

Sample Name: FC10973-1L Acquired: 11/9/2023 11:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0077**	**.0005**	**.0135**	**.0185**	**.0000**	**7.956**	**-.0001**	**-.0001**
Stddev	.0002	.0040	.0010	.0006	.0003	.000	.027	.0001	.0001
%RSD	58.63	51.63	201.9	4.460	1.687	218.5	.3368	52.11	57.75
#1	.0007	-.0121	.0016	.0140	.0183	.0000	7.930	-.0001	-.0001
#2	.0003	-.0068	-.0004	.0128	.0184	-.0001	7.954	-.0002	-.0002
#3	.0002	-.0043	.0003	.0136	.0189	.0000	7.984	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0060**	**.7683**	**.0011**	**5.989**	**.0490**	**.0008**	**12.58**
Stddev	.0002	.0001	.0013	.0021	.0012	.053	.0003	.0001	.10
%RSD	11090.	58.58	21.82	.2682	112.5	.8841	.6875	14.52	.8331
#1	.0002	.0001	.0052	.7674	.0014	5.929	.0492	.0009	12.49
#2	.0000	.0002	.0075	.7706	-.0003	6.011	.0486	.0007	12.56
#3	-.0002	.0002	.0052	.7668	.0021	6.028	.0491	.0007	12.69

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0006**	**-.0003**	**-.0034**	**1.369**	**.0001**	**.0511**	**.0002**	**-.0005**
Stddev	.0001	.0002	.0012	.0020	.005	.0004	.0002	.0001	.0007
%RSD	32.93	42.78	350.4	58.17	.3355	536.3	.4293	23.06	133.5
#1	-.0003	-.0005	.0004	-.0054	1.363	.0004	.0509	.0003	-.0007
#2	-.0002	-.0004	.0003	-.0015	1.370	.0002	.0510	.0002	.0002
#3	-.0002	-.0008	-.0017	-.0032	1.372	-.0003	.0513	.0003	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0013**	**.0007**
Stddev	.0001	.0001
%RSD	10.25	7.851
#1	.0013	.0006
#2	.0014	.0008
#3	.0011	.0007

Zoom In Zoom Out

Sample Name: FC10973-1L Acquired: 11/9/2023 11:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**793.82**	**2117.9**	**20292.**	**4066.1**
Stddev	.92	4.1	117.	24.7
%RSD	.11581	.19433	.57887	.60750
#1	794.35	2122.2	20199.	4082.3
#2	794.35	2114.0	20424.	4078.3
#3	792.76	2117.5	20254.	4037.6

Zoom In Zoom Out

Sample Name: MP43112-D1 Acquired: 11/9/2023 11:47:19 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0004**	**.0000**	**.0127**	**.0190**	**.0000**	**8.142**	**-.0001**	**-.0001**
Stddev	.0006	.0079	.0008	.0014	.0000	.000	.014	.0000	.0001
%RSD	183.7	2005.	4116.	10.62	.2233	492.7	.1697	30.30	138.5
#1	.0007	-.0088	-.0006	.0116	.0190	-.0001	8.127	-.0001	-.0001
#2	.0007	.0047	-.0003	.0123	.0190	.0000	8.153	-.0002	.0000
#3	-.0004	.0053	.0009	.0142	.0189	.0000	8.147	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**.0038**	**.7602**	**.0011**	**6.098**	**.0504**	**.0007**	**12.84**
Stddev	.0002	.0002	.0012	.0053	.0011	.014	.0002	.0001	.03
%RSD	43.50	94.72	31.28	.7025	96.49	.2339	.4602	9.298	.2308
#1	.0002	.0003	.0027	.7617	.0015	6.087	.0503	.0007	12.82
#2	.0005	.0003	.0036	.7647	-.0001	6.093	.0503	.0007	12.82
#3	.0005	.0000	.0051	.7543	.0019	6.114	.0507	.0006	12.87

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0007**	**.0001**	**.0012**	**1.400**	**-.0002**	**.0524**	**.0004**	**-.0011**
Stddev	.0002	.0005	.0002	.0012	.003	.0002	.0002	.0001	.0010
%RSD	172.2	78.31	286.7	104.9	.1767	124.6	.4714	15.66	96.46
#1	-.0001	-.0011	-.0001	.0002	1.399	-.0005	.0526	.0004	-.0003
#2	.0001	-.0008	.0003	.0008	1.399	.0000	.0521	.0004	-.0006
#3	-.0004	-.0001	.0000	.0025	1.403	-.0001	.0524	.0003	-.0022

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0015**	**.0009**
Stddev	.0003	.0000
%RSD	16.60	5.668
#1	.0016	.0009
#2	.0012	.0008
#3	.0017	.0009

Zoom In Zoom Out

Sample Name: MP43112-D1 Acquired: 11/9/2023 11:47:19 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**791.10**	**2107.2**	**19985.**	**4032.7**
Stddev	1.50	3.3	122.	13.1
%RSD	.18926	.15552	.60952	.32545
#1	792.38	2108.1	20125.	4028.7
#2	791.48	2109.9	19904.	4022.0
#3	789.46	2103.6	19927.	4047.3

Zoom In Zoom Out

Sample Name: MP43112-SD1 Acquired: 11/9/2023 11:52:21 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0220**	**-.0031**	**-.0214**	**.0176**	**.0001**	**8.054**	**-.0004**	**-.0006**
Stddev	.0023	.0425	.0064	.0026	.0003	.0002	.025	.0002	.0006
%RSD	1559.	192.9	207.0	11.94	1.588	242.1	.3134	63.80	95.39
#1	.0021	-.0027	-.0074	-.0229	.0173	-.0002	8.042	-.0002	.0000
#2	.0007	.0073	.0042	-.0184	.0176	.0002	8.038	-.0007	-.0011
#3	-.0024	-.0707	-.0061	-.0228	.0179	.0003	8.083	-.0003	-.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0002**	**-.0011**	**.6752**	**-.0034**	**5.736**	**.0476**	**-.0015**	**12.16**
Stddev	.0005	.0008	.0058	.0255	.0053	.103	.0002	.0003	.03
%RSD	38.80	499.1	525.7	3.774	156.4	1.789	.3705	21.25	.2680
#1	-.0018	-.0005	-.0059	.6738	-.0078	5.849	.0477	-.0017	12.13
#2	-.0014	.0011	-.0027	.7014	.0024	5.709	.0478	-.0011	12.16
#3	-.0008	.0000	.0053	.6505	-.0047	5.650	.0474	-.0017	12.20

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0020**	**-.0095**	**-.0057**	**1.330**	**-.0030**	**.0494**	**.0006**	**.0001**
Stddev	.0003	.0007	.0013	.0112	.004	.0017	.0003	.0005	.0052
%RSD	82.14	35.33	13.52	196.4	.3387	58.81	.5673	74.90	8333.
#1	-.0003	-.0028	-.0107	-.0100	1.327	-.0010	.0492	.0006	-.0060
#2	-.0007	-.0015	-.0082	.0070	1.327	-.0040	.0494	.0011	.0031
#3	-.0001	-.0016	-.0096	-.0142	1.335	-.0039	.0497	.0002	.0031

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0010**
Stddev	.0008	.0004
%RSD	839.8	36.44
#1	-.0006	.0014
#2	-.0001	.0007
#3	.0009	.0010

Zoom In Zoom Out

Sample Name: MP43112-SD1 Acquired: 11/9/2023 11:52:21 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**831.08**	**2163.1**	**20627.**	**4063.8**
Stddev	3.72	10.2	24.	9.2
%RSD	.44723	.47368	.11637	.22650
#1	835.13	2174.7	20630.	4067.8
#2	830.30	2159.6	20602.	4070.3
#3	827.82	2155.2	20650.	4053.2

Zoom In Zoom Out

Sample Name: MP43112-S1 Acquired: 11/9/2023 11:57:24 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1901**	**24.54**	**.2014**	F **.5261**	**.2201**	**.2036**	**52.41**	**.1986**	**.1978**
Stddev	.0016	.04	.0017	.0039	.0007	.0007	.16	.0002	.0005
%RSD	.8187	.1679	.8221	.7417	.2983	.3672	.3011	.0939	.2517
#1	.1896	24.56	.1997	.5254	.2205	.2038	52.52	.1984	.1973
#2	.1918	24.49	.2030	.5226	.2194	.2027	52.23	.1987	.1983
#3	.1888	24.56	.2014	.5303	.2205	.2041	52.48	.1987	.1979

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1990**	**.2018**	**44.75**	**44.76**	F **.5310**	**50.14**	**.2471**	**.6941**	**54.09**
Stddev	.0008	.0013	.02	.09	.0004	.03	.0008	.0007	.14
%RSD	.4260	.6402	.0452	.2104	.0723	.0554	.3264	.1067	.2506
#1	.1983	.2020	44.73	44.74	.5313	50.15	.2462	.6935	54.09
#2	.2000	.2029	44.75	44.68	.5305	50.17	.2477	.6949	53.95
#3	.1988	.2004	44.77	44.86	.5311	50.11	.2475	.6939	54.22

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1979**	**.1971**	**.2044**	**.1934**	**1.998**	**.5031**	**.5826**	**.5215**	**.1987**
Stddev	.0002	.0003	.0010	.0031	.003	.0011	.0021	.0010	.0026
%RSD	.1228	.1616	.5110	1.590	.1480	.2185	.3660	.1962	1.320
#1	.1982	.1967	.2033	.1912	1.995	.5019	.5829	.5204	.2016
#2	.1978	.1974	.2045	.1969	2.001	.5036	.5803	.5225	.1980
#3	.1977	.1972	.2053	.1921	1.998	.5039	.5846	.5216	.1965

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2052**	**.1983**
Stddev	.0010	.0001
%RSD	.5107	.0722
#1	.2042	.1985
#2	.2063	.1982
#3	.2051	.1983

Zoom In Zoom Out

Sample Name: MP43112-S1 Acquired: 11/9/2023 11:57:24 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**699.76**	**2016.7**	**18914.**	**4016.4**
Stddev	.24	.3	67.	2.9
%RSD	.03459	.01610	.35614	.07127
#1	699.48	2017.0	18991.	4017.9
#2	699.88	2016.4	18886.	4013.1
#3	699.92	2016.8	18866.	4018.2

Zoom In Zoom Out

Sample Name: MP43112-S2 Acquired: 11/9/2023 12:02:12 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1925**	**24.51**	**.2035**	F **.5309**	**.2199**	**.2042**	**52.41**	**.2015**	**.2003**
Stddev	.0010	.17	.0025	.0017	.0011	.0012	.26	.0003	.0004
%RSD	.5245	.6760	1.212	.3239	.5174	.5918	.4987	.1633	.2179
#1	.1915	24.49	.2041	.5301	.2200	.2041	52.47	.2014	.2000
#2	.1936	24.35	.2008	.5329	.2188	.2031	52.12	.2018	.2008
#3	.1925	24.68	.2056	.5297	.2210	.2055	52.64	.2012	.2001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2006**	**.2038**	**44.87**	**44.83**	F **.5283**	**50.43**	**.2498**	**.7025**	**54.06**
Stddev	.0015	.0009	.23	.18	.0024	.30	.0008	.0006	.28
%RSD	.7335	.4602	.5101	.4084	.4593	.5978	.3208	.0788	.5220
#1	.1994	.2028	44.99	44.80	.5292	50.53	.2490	.7020	54.02
#2	.2023	.2047	44.61	44.67	.5256	50.09	.2506	.7031	53.80
#3	.2002	.2040	45.02	45.03	.5302	50.67	.2498	.7025	54.36

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2006**	**.2002**	**.2082**	**.1975**	**2.032**	**.5083**	**.5808**	**.5259**	**.2012**
Stddev	.0004	.0008	.0015	.0026	.004	.0023	.0040	.0015	.0003
%RSD	.2058	.3778	.7143	1.309	.2167	.4548	.6873	.2842	.1584
#1	.2007	.1994	.2073	.1945	2.029	.5095	.5791	.5242	.2010
#2	.2001	.2003	.2099	.1992	2.037	.5099	.5780	.5269	.2011
#3	.2009	.2009	.2073	.1987	2.029	.5057	.5854	.5267	.2016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2081**	**.2007**
Stddev	.0007	.0001
%RSD	.3353	.0363
#1	.2076	.2006
#2	.2089	.2006
#3	.2079	.2007

Zoom In Zoom Out

Sample Name: MP43112-S2 Acquired: 11/9/2023 12:02:12 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	689.29	1986.9	18752.	3999.1
Stddev	1.73	2.4	55.	34.2
%RSD	.25133	.12017	.29486	.85454
#1	691.01	1989.4	18809.	3981.2
#2	689.32	1984.6	18699.	4038.5
#3	687.55	1986.8	18749.	3977.5

Zoom In Zoom Out

Sample Name: FC10973-2L Acquired: 11/9/2023 12:07:00 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002	-.0003	-.0004	.0304	.0122	.0000	7.204	-.0001	-.0002
Stddev	.0003	.0053	.0001	.0007	.0001	.000	.018	.0001	.0001
%RSD	115.2	1650.	26.74	2.282	.5657	140.6	.2565	35.57	31.65
#1	.0003	-.0063	-.0005	.0312	.0123	-.0001	7.223	-.0001	-.0002
#2	.0005	.0039	-.0004	.0298	.0122	.0000	7.186	-.0002	-.0002
#3	-.0001	.0014	-.0003	.0303	.0122	.0000	7.203	-.0002	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016	.0002	.0212	.9096	.0024	2.672	.0039	.0015	10.58
Stddev	.0001	.0002	.0010	.0076	.0009	.011	.0000	.0002	.00
%RSD	8.400	108.9	4.811	.8392	37.83	.4186	.2805	16.17	.0424
#1	.0016	.0004	.0200	.9126	.0033	2.670	.0039	.0017	10.58
#2	.0015	.0002	.0220	.9153	.0016	2.662	.0039	.0016	10.58
#3	.0017	.0000	.0215	.9010	.0021	2.684	.0038	.0012	10.58

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0002	.0002	-.0008	-.0031	1.045	-.0002	.0391	.0004	-.0013
Stddev	.0001	.0002	.0007	.0011	.003	.0001	.0000	.0001	.0013
%RSD	41.66	85.38	94.01	34.11	.2766	71.02	.1215	28.09	97.03
#1	-.0003	.0004	-.0004	-.0020	1.042	-.0001	.0391	.0004	-.0029
#2	-.0001	.0002	-.0003	-.0032	1.047	-.0001	.0391	.0006	-.0006
#3	-.0002	.0000	-.0016	-.0041	1.045	-.0003	.0392	.0003	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.0018	.0007
Stddev	.0001	.0000
%RSD	4.557	7.037
#1	.0019	.0007
#2	.0017	.0006
#3	.0018	.0007

Zoom In Zoom Out

Sample Name: FC10973-2L Acquired: 11/9/2023 12:07:00 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	801.15	2119.5	20231.	4052.1
Stddev	.42	1.6	57.	12.9
%RSD	.05304	.07560	.28036	.31747
#1	800.68	2121.1	20215.	4037.8
#2	801.24	2119.3	20183.	4062.6
#3	801.52	2118.0	20293.	4055.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 12:12:03 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2543	41.08	2.052	2.041	2.075	2.086	41.05	2.062	2.070
Stddev	.0019	.15	.011	.010	.014	.007	.12	.001	.002
%RSD	.7428	.3662	.5142	.4853	.6700	.3348	.2849	.0587	.1057
#1	.2550	40.90	2.042	2.031	2.059	2.078	40.92	2.062	2.068
#2	.2557	41.16	2.050	2.051	2.086	2.091	41.10	2.061	2.070
#3	.2521	41.17	2.063	2.041	2.080	2.089	41.13	2.063	2.072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.012	2.052	41.71	41.20	2.040	41.65	2.032	2.065	41.55
Stddev	.009	.003	.23	.22	.012	.08	.009	.004	.16
%RSD	.4258	.1461	.5616	.5230	.5714	.1938	.4291	.2055	.3809
#1	2.016	2.053	41.44	40.96	2.027	41.58	2.038	2.063	41.37
#2	2.018	2.054	41.84	41.30	2.046	41.74	2.036	2.063	41.66
#3	2.002	2.048	41.85	41.35	2.048	41.62	2.022	2.070	41.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.073	2.053	2.053	2.062	2.056	2.070	2.077	2.044	2.079
Stddev	.005	.007	.008	.008	.008	.003	.007	.002	.004
%RSD	.2398	.3224	.4029	.4040	.4032	.1608	.3607	.0927	.2092
#1	2.070	2.056	2.049	2.061	2.054	2.069	2.069	2.044	2.079
#2	2.071	2.057	2.047	2.054	2.049	2.067	2.079	2.046	2.083
#3	2.079	2.045	2.062	2.071	2.065	2.073	2.083	2.042	2.075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 12:12:03 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.031**	**2.055**
Stddev	.009	.001
%RSD	.4375	.0554
#1	2.040	2.054
#2	2.032	2.056
#3	2.022	2.054
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**693.95**	**1996.2**	**18946.**	**3908.9**
Stddev	1.00	4.6	34.	23.2
%RSD	.14389	.23062	.17725	.59391
#1	693.32	1998.5	18929.	3907.2
#2	693.43	1999.2	18923.	3933.0
#3	695.10	1990.9	18984.	3886.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 12:16:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0030**	**.0007**	F **-.0025**	**.0001**	**.0002**	**.0020**	**-.0001**
Stddev	.0002	.0021	.0016	.0002	.0000	.0000	.0012	.0000
%RSD	1042.	69.13	248.4	8.339	21.26	16.18	58.19	55.21
#1	.0000	-.0035	.0019	-.0023	.0001	.0002	.0011	.0000
#2	.0003	-.0048	-.0012	-.0028	.0001	.0002	.0016	.0000
#3	-.0002	-.0007	.0013	-.0025	.0001	.0002	.0034	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0003**	**.0065**	**-.0133**	**-.0003**	**-.0053**	**.0001**
Stddev	.0002	.0002	.0001	.0006	.0236	.0018	.0023	.0000
%RSD	185.5	130.7	49.17	9.441	177.4	690.1	42.41	33.67
#1	-.0001	-.0002	.0001	.0064	.0106	.0009	-.0027	.0001
#2	.0002	.0001	.0003	.0060	-.0366	.0006	-.0068	.0001
#3	.0001	-.0003	.0004	.0072	-.0140	-.0023	-.0065	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0018**	**.0000**	**-.0003**	**-.0007**	**-.0017**	**-.0005**	**-.0001**
Stddev	.0003	.0056	.0002	.0006	.0006	.0013	.0003	.0002
%RSD	203.9	311.2	1121.	192.0	75.07	75.96	67.49	230.0
#1	.0002	.0043	-.0001	-.0002	-.0014	-.0002	-.0007	-.0002
#2	.0003	-.0067	.0002	.0002	-.0004	-.0022	-.0001	-.0002
#3	-.0002	-.0031	-.0001	-.0010	-.0005	-.0025	-.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 12:16:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0005**	**.0000**	**.0000**
Stddev	.0000	.0000	.0004	.000	.000
%RSD	29.24	14.31	78.70	729.2	572.3
#1	.0002	.0002	.0001	.0001	.0000
#2	.0001	.0002	.0005	.0002	-.0001
#3	.0001	.0002	.0010	-.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**833.11**	**2138.0**	**20077.**	**4005.1**
Stddev	1.33	9.8	167.	20.4
%RSD	.15936	.45765	.83142	.50913
#1	833.08	2126.7	20109.	4028.4
#2	831.80	2143.4	20225.	3990.9
#3	834.45	2143.8	19896.	3995.9

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000269	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000031	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000907	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000031	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000625	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000116	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000011	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	-0.000123	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000024	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	-0.000003	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000003	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000024	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	-0.000008	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000043	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000007	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.000441	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000058	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000006	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000008	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000035	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000015	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000010	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	11/9/2023 10:57:38	11/9/2023 10:06:05	Curvilin	1/Conc	-0.000427	0.671531	0.001315	1.000000
Al 396.152 { 85}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001543	0.206591	0.000000	1.000000
As 189.042 {478}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000664	0.186807	0.000000	1.000000
B 249.773 {135}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005592	0.506372	0.000000	1.000000
Ba 455.403 { 74}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.008120	17.934006	0.000000	1.000000
Be 313.042 {108}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000612	11.497762	0.000000	1.000000
Ca 317.933 {106}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005273	0.330110	0.000000	1.000000
Cd 226.502 {449}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000127	5.201735	0.000000	1.000000
Co 228.616 {447}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000603	2.742349	0.000000	1.000000
Cr 267.716 {126}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000171	0.471124	0.000000	1.000000
Cu 324.754 {104}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.003374	1.115476	0.000000	1.000000
Fe 259.940 {130}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000172	0.191085	0.000000	1.000000
In 230.606 {446}*	11/9/2023 10:57:38	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005806	0.158587	0.000000	1.000000
Li 670.784 { 50}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.002753	2.966915	0.000000	1.000000
Mg 279.079 {121}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000673	0.030231	0.000000	1.000000
Mn 257.610 {131}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000293	3.585812	0.000000	1.000000
Mo 202.030 {467}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001192	1.304103	0.000000	1.000000
Na 589.592 { 57}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.019310	0.595035	0.000000	1.000000
Ni 231.604 {445}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000923	1.468402	0.000000	1.000000
Pb 220.353 {453}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.002168	1.475005	0.000000	1.000000
Sb 206.833 {463}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000918	0.307355	0.000000	1.000000
Se 196.090 {472}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000068	0.155901	0.000000	1.000000
Si 212.412 {459}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.007220	0.400338	0.000000	1.000000
Sn 189.989 {477}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000422	0.456194	0.000000	1.000000
Sr 407.771 { 83}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000703	22.975224	0.000000	1.000000
Ti 334.941 {101}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000923	2.258676	0.000000	1.000000
Tl 190.856 {477}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.001655	0.554741	0.000000	1.000000
V 292.402 {115}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000270	0.910327	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001130	2.545464	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999980	0.000016	0.000471	0.001570	Warnin	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999953	0.000417	0.007542	0.025140	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999802	0.000039	0.001238	0.004126	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999728	0.000281	0.001773	0.005911	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999952	0.008251	0.000130	0.000433	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999992	0.000341	0.000063	0.000210	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999945	0.001620	0.002545	0.008482	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999972	0.000286	0.000066	0.000220	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999962	0.000557	0.000135	0.000449	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999988	0.000024	0.000379	0.001265	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999975	0.000130	0.000253	0.000842	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999964	0.000415	0.002206	0.007353	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999887	0.002556	0.022172	0.073905	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999820	0.000556	0.001130	0.003766	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999953	0.000310	0.018198	0.060661	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999975	0.000326	0.000048	0.000159	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999977	0.000208	0.000180	0.000599	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999712	0.015322	0.005432	0.018106	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999915	0.000400	0.000251	0.000836	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999933	0.000126	0.000720	0.002400	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999833	0.000041	0.001198	0.003993	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999894	0.000024	0.002238	0.007459	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.992285	0.002693	0.000645	0.002149	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999943	0.000113	0.000426	0.001421	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999986	0.001253	0.000061	0.000204	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999973	0.000174	0.000127	0.000422	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999941	0.000063	0.001211	0.004036	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999996	0.000057	0.000285	0.000949	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999974	0.000270	0.000101	0.000336	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/10/2023 9:11:53 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0003**	**.0009**	**-.0002**	**.0025**	**.0013**	**.0000**	**.0016**	**-.0010**	**-.0007**
Stddev	.0003	.0012	.0001	.0006	.0005	.0004	.0004	.0001	.0001
%RSD	122.9	133.5	54.67	24.50	38.34	3423.	24.21	12.52	10.68
#1	-.0004	.0001	-.0001	.0032	.0007	-.0004	.0016	-.0010	-.0008
#2	-.0005	.0003	-.0003	.0020	.0015	.0000	.0012	-.0009	-.0007
#3	.0001	.0022	-.0002	.0025	.0016	.0004	.0019	-.0012	-.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0068**	**.0003**	**.0021**	**.0002**	**-.0003**	**.0003**	**.0004**	**.0017**
Stddev	.0002	.0001	.0001	.0002	.0020	.0006	.0001	.0002	.0017
%RSD	3775.	1.649	50.07	10.32	1260.	198.7	30.53	45.35	105.1
#1	-.0002	.0068	.0003	.0023	-.0012	-.0006	.0004	.0004	.0008
#2	.0002	.0068	.0002	.0019	-.0008	.0004	.0004	.0002	.0037
#3	-.0001	.0070	.0005	.0023	.0025	-.0007	.0002	.0006	.0005

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0006**	**-.0024**	**.0003**	**-.0003**	**.0040**	**.0001**	**-.0003**	**.0013**	**-.0007**
Stddev	.0002	.0004	.0003	.0001	.0001	.0001	.0005	.0000	.0002
%RSD	28.86	14.59	92.55	37.98	2.109	120.5	162.0	1.691	34.78
#1	-.0007	-.0020	.0005	-.0004	.0041	.0001	-.0004	.0013	-.0009
#2	-.0007	-.0026	.0000	-.0004	.0039	.0001	-.0008	.0013	-.0008
#3	-.0004	-.0027	.0005	-.0002	.0040	.0000	.0003	.0012	-.0004

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0004**	**.0002**
Stddev	.0001	.0001
%RSD	28.63	60.41
#1	-.0006	.0001
#2	-.0004	.0003
#3	-.0003	.0003

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/10/2023 9:11:53 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2733.3**	**6607.8**	**40524.**	**9347.0**
Stddev	5.0	10.2	226.	58.3
%RSD	.18436	.15377	.55862	.62401
#1	2739.1	6617.5	40263.	9383.4
#2	2730.1	6597.2	40669.	9378.0
#3	2730.7	6608.8	40641.	9279.8

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/10/2023 9:16:41 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0058**	**.0327**	**.0008**	**.0212**	**1.911**	**.0646**	**.3931**	**.0226**	**.1343**
Stddev	.0001	.0004	.0001	.0006	.004	.0001	.0018	.0001	.0001
%RSD	2.493	1.174	14.12	2.751	.1827	.2260	.4595	.2229	.0749
#1	.0057	.0326	.0008	.0206	1.908	.0645	.3933	.0226	.1342
#2	.0060	.0331	.0010	.0212	1.915	.0647	.3949	.0226	.1344
#3	.0058	.0324	.0007	.0218	1.910	.0645	.3913	.0225	.1343

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0071**	**.0312**	**.0764**	**.7537**	**.0185**	**.2052**	**.0499**	**.0457**	**2.080**
Stddev	.0001	.0004	.0006	.0042	.0001	.0006	.0004	.0002	.005
%RSD	1.172	1.149	.8132	.5531	.5851	.2878	.7185	.3570	.2493
#1	.0072	.0314	.0768	.7524	.0186	.2049	.0497	.0459	2.084
#2	.0071	.0313	.0766	.7583	.0185	.2059	.0503	.0457	2.081
#3	.0071	.0307	.0757	.7502	.0184	.2048	.0497	.0456	2.074

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0629**	**.0029**	**.0013**	**.0005**	**.0178**	**.1471**	**.0245**	**.0019**	**.0514**
Stddev	.0005	.0005	.0001	.0001	.0002	.0026	.0005	.0001	.0003
%RSD	.7804	17.35	8.403	15.42	.8647	1.752	2.044	5.326	.5462
#1	.0633	.0030	.0012	.0005	.0178	.1458	.0241	.0018	.0512
#2	.0631	.0034	.0014	.0005	.0180	.1501	.0244	.0018	.0517
#3	.0623	.0024	.0012	.0006	.0177	.1454	.0251	.0020	.0513

Elem	Zn2062
Units	Cts/S
Avg	**.0550**
Stddev	.0001
%RSD	.1441
#1	.0551
#2	.0550
#3	.0549

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/10/2023 9:16:41 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2655.4**	**6524.5**	**39819.**	**9358.4**
Stddev	2.4	16.7	149.	48.3
%RSD	.09176	.25598	.37495	.51621
#1	2658.2	6529.1	39991.	9364.9
#2	2654.2	6506.0	39721.	9307.1
#3	2653.8	6538.5	39745.	9403.1

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/10/2023 9:20:42 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0198**	**.7937**	**.0271**	**.0969**	**2.353**	**3.137**	**1.954**	**1.128**	**.6640**
Stddev	.0003	.0022	.0001	.0007	.005	.005	.003	.001	.0009
%RSD	1.499	.2725	.2748	.7422	.2262	.1743	.1570	.1073	.1325
#1	.0199	.7926	.0271	.0973	2.358	3.131	1.954	1.128	.6631
#2	.0195	.7923	.0271	.0973	2.354	3.142	1.951	1.127	.6643
#3	.0201	.7962	.0270	.0961	2.347	3.138	1.957	1.129	.6648

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1762**	**.2420**	**1.254**	**.3834**	**.4205**	**.2068**	**.8098**	**.2266**	**1.125**
Stddev	.0004	.0005	.002	.0019	.0018	.0005	.0023	.0003	.002
%RSD	.2087	.2064	.1159	.5081	.4350	.2563	.2787	.1478	.1949
#1	.1766	.2418	1.253	.3856	.4185	.2069	.8096	.2265	1.124
#2	.1761	.2426	1.256	.3821	.4221	.2062	.8121	.2269	1.128
#3	.1758	.2416	1.254	.3825	.4210	.2072	.8076	.2263	1.124

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3869**	**.2512**	**.0458**	**.0209**	**.0996**	**.0858**	**3.621**	**.5476**	**.0605**
Stddev	.0005	.0006	.0002	.0002	.0002	.0001	.006	.0007	.0002
%RSD	.1375	.2299	.3633	1.063	.2330	.0854	.1730	.1205	.4004
#1	.3864	.2511	.0456	.0208	.0993	.0858	3.622	.5483	.0603
#2	.3868	.2518	.0459	.0207	.0997	.0858	3.628	.5469	.0604
#3	.3874	.2507	.0458	.0211	.0997	.0857	3.615	.5475	.0607

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2530**	**.6506**
Stddev	.0006	.0009
%RSD	.2366	.1311
#1	.2537	.6516
#2	.2528	.6501
#3	.2525	.6501

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/10/2023 9:20:42 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2651.6**	**6581.7**	**40286.**	**9455.2**
Stddev	4.7	9.0	115.	38.4
%RSD	.17569	.13676	.28526	.40617
#1	2646.3	6571.5	40260.	9450.2
#2	2653.5	6585.4	40186.	9495.8
#3	2655.1	6588.3	40412.	9419.5

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/10/2023 9:24:35 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0401**	**1.585**	**.0549**	**.1973**	**4.742**	**6.324**	**3.926**	**2.264**	**1.325**
Stddev	.0002	.009	.0000	.0011	.008	.027	.008	.003	.002
%RSD	.5589	.5808	.0592	.5407	.1651	.4225	.1933	.1115	.1294
#1	.0402	1.585	.0549	.1969	4.734	6.326	3.929	2.265	1.327
#2	.0401	1.575	.0549	.1985	4.749	6.297	3.918	2.265	1.326
#3	.0398	1.594	.0549	.1965	4.744	6.350	3.932	2.261	1.323

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3553**	**.4808**	**2.503**	**.7639**	**.8430**	**.4146**	**1.644**	**.4583**	**2.261**
Stddev	.0010	.0013	.010	.0029	.0054	.0025	.005	.0005	.011
%RSD	.2949	.2644	.3823	.3764	.6421	.6083	.3080	.1194	.4774
#1	.3553	.4800	2.503	.7644	.8450	.4145	1.638	.4589	2.260
#2	.3564	.4823	2.493	.7608	.8368	.4121	1.648	.4580	2.251
#3	.3543	.4802	2.512	.7664	.8471	.4171	1.645	.4579	2.273

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7697**	**.5137**	**.0915**	**.0423**	**.1970**	**.1720**	**7.303**	**1.106**	**.1236**
Stddev	.0010	.0020	.0002	.0001	.0007	.0005	.029	.002	.0008
%RSD	.1327	.3876	.2435	.3440	.3414	.2745	.4008	.1618	.6592
#1	.7707	.5140	.0917	.0423	.1975	.1723	7.291	1.107	.1246
#2	.7696	.5116	.0915	.0424	.1973	.1723	7.282	1.107	.1231
#3	.7687	.5156	.0912	.0421	.1963	.1715	7.337	1.104	.1232

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.5133**	**1.306**
Stddev	.0008	.002
%RSD	.1479	.1227
#1	.5129	1.308
#2	.5141	1.306
#3	.5127	1.305

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/10/2023 9:24:35 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2572.8**	**6530.5**	**39835.**	**9445.9**
Stddev	3.0	3.1	77.	88.3
%RSD	.11681	.04740	.19244	.93484
#1	2573.9	6527.1	39918.	9399.4
#2	2575.2	6531.3	39820.	9547.7
#3	2569.5	6533.1	39767.	9390.5

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/10/2023 9:29:22 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0791**	**3.086**	**.1116**	**.3717**	**9.558**	**12.87**	**7.598**	**4.549**	**2.647**
Stddev	.0002	.002	.0000	.0006	.016	.00	.008	.007	.002
%RSD	.2635	.0788	.0423	.1612	.1702	.0376	.1000	.1534	.0865
#1	.0792	3.086	.1116	.3714	9.539	12.86	7.607	4.543	2.647
#2	.0792	3.088	.1116	.3713	9.564	12.87	7.597	4.556	2.650
#3	.0788	3.084	.1116	.3724	9.570	12.87	7.592	4.547	2.645

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7125**	**.9584**	**4.946**	**1.491**	**1.694**	**.8099**	**3.325**	**.9123**	**4.530**
Stddev	.0011	.0016	.003	.002	.002	.0033	.010	.0009	.013
%RSD	.1486	.1699	.0579	.1522	.1293	.4109	.3063	.0969	.2873
#1	.7119	.9574	4.948	1.492	1.691	.8133	3.316	.9119	4.530
#2	.7137	.9603	4.943	1.488	1.695	.8066	3.336	.9133	4.517
#3	.7118	.9576	4.948	1.492	1.695	.8099	3.322	.9117	4.543

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.529**	**1.055**	**.1840**	**.0853**	**.2908**	**.3404**	**14.72**	**2.190**	**.2533**
Stddev	.002	.002	.0006	.0001	.0005	.0006	.02	.006	.0006
%RSD	.1231	.1447	.3320	.1369	.1624	.1684	.1351	.2798	.2405
#1	1.530	1.057	.1835	.0853	.2907	.3403	14.70	2.197	.2526
#2	1.531	1.054	.1846	.0855	.2913	.3410	14.73	2.187	.2538
#3	1.527	1.054	.1838	.0852	.2904	.3399	14.74	2.187	.2535

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.014**	**2.614**
Stddev	.003	.003
%RSD	.3116	.1105
#1	1.017	2.616
#2	1.014	2.614
#3	1.011	2.611

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/10/2023 9:29:22 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2467.6**	**6438.2**	**39351.**	**9302.8**
Stddev	2.0	6.0	44.	36.1
%RSD	.08110	.09292	.11105	.38756
#1	2467.3	6433.2	39325.	9261.9
#2	2469.8	6436.4	39325.	9329.7
#3	2465.8	6444.8	39401.	9317.0

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/10/2023 9:33:11 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1599**	**6.260**	**.2272**	**.7545**	**19.30**	**26.17**	**15.32**	**9.150**	**5.308**
Stddev	.0007	.004	.0003	.0037	.02	.00	.01	.012	.007
%RSD	.4172	.0574	.1114	.4914	.0974	.0174	.0405	.1312	.1289
#1	.1591	6.257	.2271	.7509	19.29	26.17	15.33	9.139	5.302
#2	.1602	6.259	.2275	.7583	19.29	26.18	15.32	9.163	5.316
#3	.1603	6.264	.2271	.7543	19.32	26.17	15.33	9.147	5.307

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.427**	**1.952**	**9.994**	**3.022**	**3.451**	**1.633**	**6.631**	**1.844**	**9.347**
Stddev	.001	.004	.008	.002	.007	.004	.036	.002	.046
%RSD	.0886	.1862	.0783	.0684	.1995	.2686	.5401	.1070	.4961
#1	1.425	1.948	10.00	3.022	3.448	1.631	6.632	1.843	9.325
#2	1.428	1.956	9.997	3.020	3.446	1.631	6.667	1.846	9.316
#3	1.427	1.953	9.985	3.024	3.459	1.638	6.595	1.842	9.401

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.055**	**2.171**	**.3726**	**.1734**	**.5869**	**.6797**	**29.99**	**4.412**	**.5156**
Stddev	.002	.005	.0003	.0002	.0010	.0007	.06	.014	.0017
%RSD	.0583	.2250	.0834	.1233	.1655	.0981	.2133	.3267	.3276
#1	3.055	2.166	.3726	.1735	.5861	.6796	29.96	4.395	.5145
#2	3.056	2.174	.3729	.1735	.5880	.6804	29.95	4.423	.5148
#3	3.053	2.175	.3722	.1731	.5866	.6791	30.07	4.416	.5176

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.040**	**5.246**
Stddev	.006	.006
%RSD	.2753	.1216
#1	2.034	5.250
#2	2.044	5.249
#3	2.042	5.238

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/10/2023 9:33:11 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2328.6**	**6309.3**	**38859.**	**9214.8**
Stddev	4.2	5.9	111.	37.1
%RSD	.18053	.09408	.28562	.40235
#1	2333.2	6311.3	38935.	9174.8
#2	2327.6	6302.6	38731.	9248.0
#3	2324.9	6313.9	38909.	9221.6

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/10/2023 9:37:03 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3179**	**12.51**	**.4632**	**1.569**	**39.01**	**51.64**	**30.82**	**18.21**	**10.60**
Stddev	.0001	.02	.0004	.002	.07	.53	.14	.01	.01
%RSD	.0426	.1331	.0868	.1472	.1911	1.034	.4664	.0668	.0505
#1	.3178	12.52	.4636	1.570	39.09	51.31	30.78	18.22	10.61
#2	.3180	12.52	.4630	1.567	39.02	51.35	30.70	18.20	10.60
#3	.3180	12.49	.4629	1.571	38.94	52.25	30.98	18.20	10.60

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.827**	**3.930**	**19.61**	**6.087**	**6.938**	**3.245**	**13.02**	**3.707**	**18.45**
Stddev	.010	.020	.02	.010	.018	.007	.06	.003	.06
%RSD	.3617	.5140	.1138	.1700	.2624	.2241	.4851	.0730	.3151
#1	2.824	3.914	19.64	6.098	6.959	3.254	13.03	3.710	18.51
#2	2.818	3.923	19.60	6.077	6.926	3.240	13.08	3.706	18.42
#3	2.838	3.952	19.60	6.085	6.929	3.242	12.95	3.705	18.41

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.078**	**4.516**	**.7551**	**.3525**	**1.077**	**1.352**	**59.94**	**8.938**	**1.055**
Stddev	.006	.005	.0013	.0001	.000	.002	.37	.039	.001
%RSD	.0956	.1139	.1665	.0410	.0031	.1307	.6174	.4408	.1257
#1	6.082	4.519	.7554	.3523	1.077	1.354	60.05	8.892	1.055
#2	6.081	4.518	.7562	.3525	1.077	1.352	59.53	8.962	1.057
#3	6.072	4.510	.7537	.3526	1.077	1.351	60.24	8.959	1.054

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**4.154**	**10.42**
Stddev	.006	.02
%RSD	.1402	.1675
#1	4.155	10.44
#2	4.148	10.42
#3	4.160	10.40

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/10/2023 9:37:03 Type: Cal
Method: 60102007_COMBO_102422(v706) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2130.4**	**6080.1**	**37876.**	**9206.0**
Stddev	3.6	9.2	35.	19.3
%RSD	.16972	.15118	.09136	.20979
#1	2128.4	6072.3	37892.	9212.1
#2	2134.6	6090.3	37899.	9221.6
#3	2128.2	6077.8	37836.	9184.4

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/10/2023 9:45:03 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**.2090**	**.0086**	F **.0559**	**.2011**	**.0050**	**1.033**	**.0053**	**.0516**
Stddev	.0005	.0045	.0007	.0009	.0005	.0000	.000	.0000	.0001
%RSD	4.972	2.147	7.568	1.646	.2512	.4095	.0144	.1314	.2143
#1	.0096	.2121	.0081	.0566	.2008	.0050	1.033	.0053	.0515
#2	.0103	.2058	.0091	.0553	.2015	.0050	1.033	.0053	.0517
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.0257**	**.3084**	**10.11**	**.0087**	**5.160**	**.0153**	**.0494**	**9.203**
Stddev	.0002	.0003	.0001	.03	.0000	.014	.0001	.0002	.025
%RSD	2.400	1.192	.0453	.2687	.0213	.2653	.6715	.3283	.2679
#1	.0102	.0259	.3083	10.09	.0087	5.150	.0154	.0495	9.220
#2	.0099	.0255	.3085	10.13	.0087	5.169	.0153	.0493	9.185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0417**	**.0046**	**.0057**	**.0120**	**.0452**	**.0522**	**.0100**	**.0106**	**.0097**
Stddev	.0003	.0003	.0019	.0008	.0003	.0000	.0000	.0000	.0008
%RSD	.7082	6.715	32.96	6.272	.6104	.0575	.1248	.4261	8.150
#1	.0420	.0044	.0070	.0114	.0450	.0522	.0100	.0106	.0103
#2	.0415	.0048	.0044	.0125	.0454	.0522	.0100	.0105	.0092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/10/2023 9:45:03 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0515**	**.0211**
Stddev	.0005	.0000
%RSD	1.022	.1060
#1	.0519	.0211
#2	.0511	.0211
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2660.7**	**6502.3**	**39460.**	**9251.4**
Stddev	2.5	3.3	230.	55.5
%RSD	.09573	.05098	.58349	.59980
#1	2658.9	6504.6	39297.	9212.1
#2	2662.5	6499.9	39623.	9290.6

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/10/2023 9:57:12 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5002**	**79.39**	**4.045**	**4.124**	**4.088**	**3.960**	**80.41**	**4.044**	**4.016**
Stddev	.0010	.09	.004	.022	.051	.003	.41	.002	.004
%RSD	.2071	.1160	.0884	.5439	1.243	.0686	.5057	.0455	.0898
#1	.5005	79.38	4.045	4.113	4.144	3.961	80.87	4.044	4.018
#2	.5011	79.49	4.041	4.110	4.044	3.962	80.26	4.046	4.018
#3	.4991	79.31	4.048	4.150	4.078	3.957	80.10	4.042	4.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.027**	**4.100**	**78.80**	**80.75**	**4.013**	**79.99**	**4.020**	**4.058**	**80.45**
Stddev	.013	.018	.13	.11	.002	.20	.004	.001	.14
%RSD	.3330	.4508	.1690	.1383	.0562	.2546	.0953	.0268	.1775
#1	4.017	4.081	78.70	80.88	4.011	80.19	4.017	4.056	80.29
#2	4.042	4.118	78.95	80.68	4.015	79.98	4.024	4.058	80.52
#3	4.022	4.103	78.74	80.69	4.013	79.79	4.019	4.058	80.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.971**	**4.070**	**4.010**	**4.084**	**3.765**	**3.989**	**4.004**	**4.104**	**4.037**
Stddev	.005	.013	.006	.002	.002	.003	.056	.026	.009
%RSD	.1301	.3258	.1474	.0504	.0404	.0695	1.406	.6242	.2108
#1	3.976	4.082	4.015	4.082	3.766	3.991	4.041	4.111	4.045
#2	3.972	4.071	4.012	4.086	3.767	3.991	4.031	4.126	4.038
#3	3.965	4.056	4.004	4.085	3.764	3.986	3.939	4.076	4.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/10/2023 9:57:12 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**4.122**	**4.000**
Stddev	.010	.006
%RSD	.2382	.1405
#1	4.117	4.005
#2	4.133	4.000
#3	4.115	3.994
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2135.9**	**6067.0**	**37430.**	**9221.7**
Stddev	6.1	12.9	82.	62.6
%RSD	.28672	.21201	.21912	.67832
#1	2130.9	6054.7	37493.	9160.4
#2	2134.1	6065.9	37337.	9219.3
#3	2142.8	6080.3	37460.	9285.5

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/10/2023 10:17:30 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2449**	**39.47**	**1.981**	**2.019**	**2.013**	**2.003**	**40.28**	**2.014**	**2.001**
Stddev	.0004	.07	.001	.016	.003	.004	.10	.001	.002
%RSD	.1622	.1694	.0647	.8136	.1638	.1983	.2585	.0390	.0835
#1	.2451	39.53	1.982	2.004	2.012	2.007	40.30	2.014	2.002
#2	.2445	39.48	1.980	2.016	2.016	2.000	40.36	2.015	2.002
#3	.2452	39.40	1.981	2.037	2.009	2.001	40.16	2.013	1.999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.015**	**2.030**	**40.00**	**40.19**	**2.005**	**40.32**	**2.044**	**2.010**	**40.67**
Stddev	.003	.002	.11	.05	.004	.19	.008	.002	.18
%RSD	.1310	.1001	.2672	.1174	.2003	.4659	.4048	.0948	.4402
#1	2.014	2.032	40.12	40.22	2.009	40.48	2.053	2.012	40.88
#2	2.012	2.028	39.97	40.21	2.001	40.37	2.037	2.009	40.56
#3	2.017	2.031	39.91	40.13	2.004	40.11	2.044	2.009	40.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.977**	**1.933**	**1.982**	**2.011**	**2.170**	**2.015**	**2.011**	**2.036**	**1.942**
Stddev	.003	.008	.006	.002	.003	.004	.005	.004	.007
%RSD	.1323	.4176	.2806	.1199	.1276	.1733	.2480	.1934	.3574
#1	1.977	1.938	1.985	2.013	2.173	2.018	2.017	2.040	1.950
#2	1.979	1.937	1.986	2.011	2.167	2.016	2.008	2.033	1.942
#3	1.974	1.924	1.976	2.008	2.169	2.011	2.009	2.035	1.936
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/10/2023 10:17:30 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.042**	**1.989**
Stddev	.004	.002
%RSD	.1735	.1224
#1	2.045	1.990
#2	2.039	1.990
#3	2.043	1.986
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2336.2**	**6274.9**	**38213.**	**9262.1**
Stddev	7.9	12.4	121.	68.5
%RSD	.33604	.19778	.31533	.73919
#1	2332.0	6272.3	38181.	9209.6
#2	2331.3	6264.1	38346.	9237.1
#3	2345.2	6288.5	38112.	9339.5

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/10/2023 10:24:03 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0001**	**-.0007**	F **.0022**	**.0000**	**.0000**	**.0030**	**.0000**	**.0002**
Stddev	.0003	.0107	.0002	.0021	.0001	.0000	.0009	.0000	.0000
%RSD	453.3	13810.	31.10	96.76	254.5	217.5	30.05	69.16	3.644
#1	.0001	-.0023	-.0007	.0034	.0000	.0000	.0038	.0000	.0002
#2	.0000	.0118	-.0005	.0034	.0000	.0000	.0020	.0001	.0001
#3	-.0004	-.0092	-.0010	-.0003	.0002	.0000	.0033	.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**-.0002**	**.0192**	**.0000**	**.0014**	**.0000**	**.0000**	**.0083**
Stddev	.000	.0001	.0003	.0316	.0005	.0018	.0000	.0000	.0088
%RSD	655.8	51.27	134.3	164.4	1460.	124.1	176.4	42.89	106.2
#1	.0000	.0003	.0001	-.0092	.0004	-.0005	.0001	.0000	.0180
#2	.0000	.0002	-.0005	.0532	.0003	.0029	.0000	.0001	.0060
#3	.0000	.0001	-.0003	.0137	-.0006	.0019	.0000	.0000	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0005**	**.0015**	**.0003**	**.0000**	**.0000**	**.0000**	**.0011**
Stddev	.0001	.0008	.0003	.0019	.0001	.0002	.000	.000	.0011
%RSD	270.3	1499.	60.45	123.9	45.19	698.4	158.5	1486.	103.8
#1	-.0001	.0008	.0005	.0014	.0002	-.0001	.0000	.0001	.0024
#2	.0000	-.0007	.0009	-.0003	.0002	-.0001	.0000	-.0001	.0003
#3	.0001	-.0003	.0002	.0035	.0004	.0002	-.0001	.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/10/2023 10:24:03 Type: QC
Method: 60102007_COMBO_102422(v706) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0000**
Stddev	.0002	.0001
%RSD	196.3	172.5
#1	.0001	.0001
#2	-.0003	.0000
#3	-.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2728.4**	**6535.1**	**39649.**	**9260.9**
Stddev	7.6	13.6	51.	67.8
%RSD	.27767	.20739	.12894	.73239
#1	2733.5	6547.3	39690.	9194.7
#2	2731.9	6537.4	39664.	9257.8
#3	2719.7	6520.5	39592.	9330.2

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/10/2023 10:28:05 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**512.4**	**.0000**	F **-.1105**	**-.0004**	**.0000**	**483.0**	**.0000**
Stddev	.0003	5.8	.004	.0043	.0003	.000	6.4	.000
%RSD	44150.	1.141	15580.	3.923	63.74	147.5	1.329	2953.
#1	-.0001	518.6	.0039	-.1129	-.0006	.0000	488.2	-.0002
#2	.0004	511.4	-.0010	-.1131	-.0006	-.0001	484.9	-.0002
#3	-.0003	507.1	-.0030	-.1055	-.0001	.0000	475.8	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0000**	**.0007**	F **476.2**	**-.0253**	**-.0006**	**525.5**	**.0009**
Stddev	.0001	.0001	.0004	2.8	.0172	.0007	2.0	.0001
%RSD	14.35	514.1	65.01	.5909	67.98	112.6	.3727	6.110
#1	.0008	.0000	.0003	478.4	-.0451	.0002	527.4	.0009
#2	.0006	.0000	.0012	477.3	-.0157	-.0012	525.7	.0009
#3	.0008	.0001	.0005	473.0	-.0151	-.0008	523.5	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
High Limit				240.0				
Low Limit				160.0				

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.2670**	**-.0001**	**-.0003**	**.0000**	**.0000**	**.0874**	**.0007**
Stddev	.0001	.0027	.0001	.0010	.002	.004	.0004	.0006
%RSD	55.60	1.005	109.7	346.7	22350.	9631.	.5085	81.25
#1	-.0001	.2659	.0000	-.0012	-.0005	.0035	.0869	.0002
#2	-.0003	.2650	-.0002	.0008	.0025	-.0044	.0876	.0006
#3	-.0002	.2700	-.0001	-.0005	-.0020	.0008	.0878	.0014
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/10/2023 10:28:05 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0000**	**.0006**	**.0021**
Stddev	.000	.0001	.001	.0002	.0001
%RSD	102.0	130300.	36440.	41.19	3.694
#1	-.0001	-.0001	-.0011	.0007	.0021
#2	.0000	.0000	-.0003	.0003	.0020
#3	-.0001	.0001	.0015	.0007	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1803.7**	**5706.4**	**34555.**	**8937.5**
Stddev	10.1	5.4	63.	69.7
%RSD	.56013	.09515	.18242	.78027
#1	1793.0	5701.8	34513.	8872.4
#2	1813.1	5712.4	34525.	8928.9
#3	1804.9	5704.9	34627.	9011.1

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/10/2023 10:36:35 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.063**	**500.9**	**1.012**	**.9812**	**.4888**	**.4942**	**488.6**	**.9660**	**.4629**
Stddev	.002	4.9	.004	.0140	.0016	.0005	4.1	.0007	.0003
%RSD	.1593	.9874	.3511	1.428	.3205	.1082	.8443	.0690	.0724
#1	1.062	497.3	1.011	.9798	.4885	.4942	484.6	.9668	.4629
#2	1.062	506.6	1.016	.9679	.4874	.4937	492.8	.9655	.4632
#3	1.065	498.9	1.009	.9958	.4905	.4948	488.3	.9659	.4626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4957**	**.5569**	**188.2**	**.0382**	F **.5377**	**534.5**	**.5207**	**.9144**	**.2658**
Stddev	.0012	.0003	1.9	.0290	.0025	.2	.0015	.0009	.0051
%RSD	.2496	.0502	.9948	75.81	.4659	.0460	.2964	.0952	1.920
#1	.4970	.5567	188.3	.0642	.5406	534.2	.5221	.9154	.2675
#2	.4945	.5568	190.1	.0070	.5357	534.6	.5190	.9139	.2698
#3	.4957	.5572	186.3	.0435	.5369	534.6	.5208	.9140	.2600
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8780**	**1.025**	**1.013**	**.9575**	**.0509**	**.8950**	**1.013**	**1.049**	**.9599**
Stddev	.0013	.002	.004	.0005	.0004	.0007	.002	.002	.0021
%RSD	.1431	.2107	.4386	.0485	.8153	.0777	.1504	.2084	.2236
#1	.8766	1.027	1.008	.9580	.0504	.8942	1.013	1.047	.9579
#2	.8789	1.022	1.017	.9573	.0511	.8953	1.012	1.047	.9598
#3	.8785	1.025	1.014	.9572	.0511	.8955	1.015	1.051	.9622
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/10/2023 10:36:35 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5279**	**.9165**
Stddev	.0022	.0004
%RSD	.4258	.0395
#1	.5264	.9169
#2	.5268	.9164
#3	.5305	.9162
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1941.3**	**5824.8**	**34698.**	**9000.6**
Stddev	3.2	13.2	106.	47.3
%RSD	.16342	.22694	.30681	.52605
#1	1942.3	5840.0	34754.	9031.5
#2	1943.9	5818.0	34765.	8946.1
#3	1937.8	5816.3	34575.	9024.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 10:43:58 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2533**	**39.66**	**2.009**	**2.033**	**2.068**	**2.040**	**41.07**	**2.068**	**2.047**
Stddev	.0003	.09	.002	.003	.003	.004	.07	.003	.002
%RSD	.1348	.2371	.0772	.1294	.1208	.2188	.1762	.1334	.0753
#1	.2529	39.72	2.008	2.030	2.071	2.045	41.10	2.069	2.047
#2	.2535	39.55	2.011	2.036	2.066	2.037	40.98	2.064	2.046
#3	.2536	39.71	2.008	2.033	2.068	2.038	41.11	2.069	2.049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.059**	**2.092**	**40.27**	**40.89**	**2.017**	**41.15**	**2.108**	**2.045**	**41.25**
Stddev	.007	.009	.08	.04	.005	.09	.019	.001	.16
%RSD	.3476	.4345	.1959	.0970	.2331	.2078	.8864	.0221	.3924
#1	2.067	2.102	40.36	40.89	2.020	41.23	2.129	2.045	41.37
#2	2.056	2.087	40.20	40.84	2.019	41.06	2.102	2.045	41.32
#3	2.054	2.086	40.25	40.92	2.012	41.15	2.093	2.046	41.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.004**	**1.950**	**1.997**	**2.073**	**2.099**	**2.035**	**2.029**	**2.078**	**1.964**
Stddev	.001	.005	.002	.004	.002	.001	.003	.006	.004
%RSD	.0444	.2683	.0835	.1814	.1142	.0600	.1683	.2994	.2034
#1	2.005	1.955	1.996	2.070	2.096	2.036	2.032	2.082	1.968
#2	2.004	1.944	1.995	2.072	2.099	2.034	2.029	2.081	1.960
#3	2.004	1.950	1.998	2.077	2.101	2.034	2.025	2.071	1.965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 10:43:58 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.093**	**2.018**
Stddev	.007	.005
%RSD	.3433	.2447
#1	2.100	2.022
#2	2.094	2.012
#3	2.086	2.019
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2347.0**	**6284.8**	**37987.**	**9213.1**
Stddev	6.0	17.0	111.	48.1
%RSD	.25695	.27087	.29210	.52158
#1	2345.6	6288.4	37862.	9233.9
#2	2353.6	6299.8	38028.	9247.3
#3	2341.8	6266.3	38072.	9158.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 10:53:14 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0021**	**-.0008**	**-.0007**	**.0000**	**.0000**	**.0018**	**.0001**	**.0001**
Stddev	.0002	.0101	.0007	.0012	.000	.0001	.0012	.0000	.0001
%RSD	228.5	489.2	86.21	167.4	336.3	860.0	67.62	74.01	50.50
#1	.0002	-.0036	.0000	-.0009	.0001	.0000	.0031	.0000	.0002
#2	.0000	-.0039	-.0011	.0006	-.0001	.0001	.0016	.0000	.0002
#3	.0000	.0137	-.0013	-.0019	-.0001	.0000	.0007	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0006**	**.0000**	**-.0064**	**-.0005**	**.0004**	**.0000**	**.0000**	**-.0109**
Stddev	.0002	.0001	.0009	.0298	.0011	.0058	.0000	.0001	.0053
%RSD	84.58	16.16	2495.	469.0	214.7	1563.	148.8	1188.	49.19
#1	.0002	.0005	-.0009	-.0229	.0005	.0070	.0000	.0001	-.0118
#2	.0004	.0007	.0002	.0281	-.0004	-.0038	.0000	.0000	-.0051
#3	.0000	.0006	.0008	-.0242	-.0016	-.0021	.0001	-.0001	-.0157
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0008**	**.0004**	**.0006**	**.0003**	**.0000**	**.0001**	**-.0009**
Stddev	.000	.0003	.0016	.0003	.0004	.0002	.000	.0001	.0012
%RSD	533.4	232.7	202.7	64.61	60.78	92.53	254.0	104.5	140.9
#1	.0001	.0005	.0025	.0004	.0002	.0004	.0000	.0001	-.0023
#2	.0000	.0001	-.0005	.0007	.0010	.0000	.0000	.0000	-.0001
#3	-.0001	-.0002	.0003	.0002	.0006	.0004	-.0001	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 10:53:14 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0002**
Stddev	.0001	.0000
%RSD	2031.	50.20
#1	.0001	.0001
#2	-.0001	.0002
#3	.0001	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2730.5**	**6526.5**	**39196.**	**9265.8**
Stddev	1.8	10.8	269.	22.6
%RSD	.06589	.16607	.68523	.24342
#1	2730.0	6539.0	38993.	9291.4
#2	2732.5	6520.7	39095.	9248.9
#3	2729.0	6519.7	39501.	9257.0

Zoom In Zoom Out

Sample Name: MP43118-MB1 Acquired: 11/10/2023 11:00:21 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0009**	**-.0016**	**-.0018**	**.0001**	**-.0001**	**.0060**	**.0000**	**.0000**
Stddev	.0001	.0056	.0009	.0017	.0002	.0000	.0011	.0000	.0001
%RSD	42.20	614.0	54.91	98.05	352.0	44.58	18.37	99.16	1201.
#1	.0001	.0038	-.0025	.0001	.0003	-.0001	.0068	.0000	.0001
#2	.0002	-.0071	-.0010	-.0033	-.0001	.0000	.0048	.0000	.0001
#3	.0002	.0006	-.0011	-.0021	-.0001	-.0001	.0065	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0004**	**.0048**	**.0187**	**.0007**	**.0022**	**.0001**	**.0000**	**-.0077**
Stddev	.0002	.0002	.0008	.0111	.0008	.0058	.0000	.000	.0068
%RSD	355.2	42.22	16.29	59.45	110.8	262.3	32.55	253.1	88.47
#1	-.0003	.0002	.0044	.0107	.0016	-.0019	.0001	.0001	-.0101
#2	.0000	.0004	.0043	.0315	.0005	.0089	.0001	-.0001	.0000
#3	.0001	.0006	.0057	.0140	.0000	-.0003	.0001	-.0001	-.0129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0005**	**.0014**	**.0025**	**.0002**	**.0000**	**-.0001**	**-.0010**
Stddev	.0000	.0003	.0008	.0009	.0007	.0001	.0001	.0001	.0007
%RSD	33.46	368.9	151.4	68.33	28.27	58.13	2740.	121.0	63.75
#1	-.0001	.0001	.0011	.0005	.0029	.0001	.0000	.0000	-.0003
#2	-.0001	.0001	.0007	.0013	.0030	.0004	-.0001	-.0002	-.0011
#3	-.0002	-.0004	-.0004	.0024	.0017	.0002	.0001	.0000	-.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43118-MB1 Acquired: 11/10/2023 11:00:21 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0008**
Stddev	.0001	.0001
%RSD	82.81	7.733
#1	.0000	.0009
#2	-.0002	.0007
#3	-.0001	.0008
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2751.0**	**6571.7**	**40097.**	**9477.3**
Stddev	4.5	10.8	193.	77.9
%RSD	.16260	.16418	.48089	.82221
#1	2748.5	6574.4	40150.	9446.3
#2	2756.1	6580.9	39884.	9419.6
#3	2748.2	6559.8	40259.	9565.9

Zoom In Zoom Out

Sample Name: MP43118-B1 Acquired: 11/10/2023 11:05:29 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1968**	**24.43**	**.1970**	**.5154**	**.2038**	**.2017**	**45.93**	**.2024**	**.2004**
Stddev	.0003	.11	.0005	.0069	.0007	.0009	.06	.0003	.0001
%RSD	.1528	.4331	.2600	1.330	.3193	.4397	.1332	.1334	.0710
#1	.1971	24.49	.1967	.5075	.2032	.2014	45.89	.2021	.2003
#2	.1965	24.49	.1976	.5190	.2039	.2027	46.00	.2026	.2004
#3	.1969	24.31	.1968	.5197	.2045	.2010	45.90	.2024	.2006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2067**	**.2109**	**44.65**	**45.16**	**.5414**	**45.22**	**.2053**	**.7072**	**42.64**
Stddev	.0008	.0012	.19	.08	.0012	.20	.0012	.0008	.19
%RSD	.3685	.5472	.4347	.1832	.2167	.4317	.5900	.1081	.4502
#1	.2074	.2113	44.71	45.11	.5424	45.38	.2060	.7066	42.82
#2	.2059	.2096	44.81	45.25	.5417	45.28	.2039	.7071	42.66
#3	.2068	.2118	44.43	45.11	.5401	45.00	.2061	.7081	42.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1970**	**.1831**	**.1996**	**.2000**	**.6132**	**.5119**	**.5371**	**.5410**	**.1878**
Stddev	.0001	.0003	.0006	.0006	.0009	.0004	.0015	.0019	.0021
%RSD	.0324	.1601	.3033	.2901	.1404	.0813	.2724	.3509	1.100
#1	.1969	.1833	.2000	.1998	.6123	.5124	.5376	.5431	.1858
#2	.1970	.1833	.2000	.2006	.6141	.5116	.5383	.5395	.1899
#3	.1971	.1828	.1989	.1996	.6133	.5116	.5355	.5402	.1876
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43118-B1 Acquired: 11/10/2023 11:05:29 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2134**	**.1984**
Stddev	.0013	.0001
%RSD	.6030	.0301
#1	.2148	.1984
#2	.2124	.1984
#3	.2130	.1985
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2409.3**	**6323.6**	**38292.**	**9395.0**
Stddev	5.9	2.6	218.	44.9
%RSD	.24354	.04164	.57049	.47840
#1	2410.7	6325.7	38178.	9354.6
#2	2402.9	6320.7	38544.	9387.1
#3	2414.4	6324.5	38154.	9443.4

Zoom In Zoom Out

Sample Name: FC10983-1 Acquired: 11/10/2023 11:10:24 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0258**	**-.0015**	**.0086**	**.3213**	**-.0001**	**229.0**	**.0000**	**.0000**
Stddev	.0003	.0078	.0008	.0020	.0011	.0001	1.5	.0000	.000
%RSD	321.0	30.18	56.94	23.43	.3479	75.60	.6435	152.8	566.5
#1	-.0001	.0339	-.0020	.0109	.3222	.0000	230.3	.0000	.0000
#2	.0005	.0250	-.0019	.0072	.3216	.0000	227.4	.0001	.0000
#3	-.0001	.0184	-.0005	.0077	.3200	-.0001	229.3	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0013**	**.0020**	**6.907**	**.0094**	**.0242**	**.0000**	**.0012**	**25.70**
Stddev	.0001	.0003	.0015	.018	.0011	.0027	.0000	.0001	.03
%RSD	14.22	24.61	73.42	.2617	11.27	10.97	102.0	10.20	.1318
#1	.0007	.0017	.0007	6.928	.0092	.0218	.0001	.0012	25.66
#2	.0006	.0012	.0037	6.895	.0105	.0239	.0000	.0011	25.71
#3	.0005	.0010	.0017	6.899	.0085	.0271	.0001	.0014	25.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0026**	**.0004**	**.0004**	**.0619**	**.0004**	**.5698**	**.0010**	**-.0031**
Stddev	.0000	.0007	.0005	.0013	.0007	.0001	.0011	.0001	.0015
%RSD	.2349	27.08	125.1	304.3	1.073	38.22	.1914	7.808	49.92
#1	-.0002	-.0029	-.0002	.0018	.0626	.0003	.5704	.0010	-.0047
#2	-.0002	-.0032	.0006	.0001	.0613	.0005	.5704	.0009	-.0026
#3	-.0002	-.0018	.0008	-.0007	.0616	.0002	.5685	.0011	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0006**
Stddev	.0001	.0000
%RSD	168.2	4.146
#1	.0002	.0006
#2	.0000	.0006
#3	.0000	.0006

Zoom In Zoom Out

Sample Name: FC10983-1 Acquired: 11/10/2023 11:10:24 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2447.3**	**6160.8**	**37647.**	**9306.9**
Stddev	2.2	9.1	115.	28.5
%RSD	.08867	.14836	.30488	.30625
#1	2449.8	6168.9	37519.	9294.4
#2	2446.1	6162.7	37741.	9286.7
#3	2445.9	6150.9	37681.	9339.5

Zoom In Zoom Out

Sample Name: MP43118-D1 Acquired: 11/10/2023 11:15:38 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0318**	**-.0017**	**.0071**	**.3186**	**.0000**	**229.8**	**.0000**	**.0000**
Stddev	.000	.0050	.0001	.0008	.0004	.000	3.5	.000	.000
%RSD	549.1	15.82	4.974	10.78	.1246	45.47	1.507	1166.	161.0
#1	-.0002	.0354	-.0016	.0062	.3182	.0000	231.3	.0000	-.0001
#2	.0002	.0261	-.0018	.0074	.3186	.0000	232.2	.0000	-.0001
#3	-.0001	.0339	-.0017	.0077	.3190	.0000	225.8	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0010**	**.0002**	**6.808**	**.0090**	**.0257**	**.0001**	**.0012**	**25.20**
Stddev	.0003	.0002	.0007	.027	.0004	.0079	.0000	.0001	.09
%RSD	48.26	23.84	394.3	.4011	4.935	30.86	60.44	10.75	.3564
#1	.0004	.0010	-.0003	6.778	.0094	.0337	.0001	.0012	25.09
#2	.0009	.0007	.0010	6.817	.0085	.0257	.0000	.0011	25.24
#3	.0005	.0011	-.0002	6.830	.0092	.0178	.0001	.0013	25.26

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0022**	**.0008**	**-.0016**	**.0617**	**.0002**	**.5611**	**.0008**	**-.0017**
Stddev	.0002	.0008	.0006	.0017	.0006	.0003	.0011	.0001	.0019
%RSD	137.2	37.57	75.87	107.4	.9791	113.2	.1883	8.726	113.4
#1	-.0003	-.0031	.0014	-.0034	.0621	-.0001	.5599	.0008	.0003
#2	.0000	-.0022	.0002	-.0002	.0620	.0003	.5619	.0009	-.0035
#3	.0000	-.0014	.0008	-.0010	.0610	.0004	.5616	.0008	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0005**
Stddev	.0002	.0000
%RSD	157.3	4.423
#1	.0000	.0005
#2	.0003	.0005
#3	.0000	.0005

Zoom In Zoom Out

Sample Name: MP43118-D1 Acquired: 11/10/2023 11:15:38 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2444.7**	**6144.9**	**37698.**	**9303.6**
Stddev	2.9	1.1	44.	36.4
%RSD	.12005	.01737	.11609	.39134
#1	2445.8	6145.5	37749.	9261.6
#2	2447.0	6145.5	37673.	9326.9
#3	2441.4	6143.7	37673.	9322.2

Zoom In Zoom Out

Sample Name: MP43118-SD1 Acquired: 11/10/2023 11:20:53 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0016**	**.0359**	**-.0069**	**-.0092**	**.3161**	**-.0002**	**231.1**	**.0001**	**.0002**
Stddev	.0007	.0282	.0026	.0054	.0016	.0001	1.1	.0001	.0003
%RSD	46.87	78.61	37.73	58.85	.5065	37.20	.4568	160.1	102.6
#1	-.0008	.0138	-.0089	-.0078	.3170	-.0002	231.9	.0000	.0005
#2	-.0019	.0261	-.0040	-.0047	.3171	-.0003	231.5	.0002	.0000
#3	-.0022	.0676	-.0079	-.0152	.3142	-.0002	229.9	.0000	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0031**	**.0005**	**6.711**	**.0145**	**.0207**	**.0000**	**.0000**	**24.53**
Stddev	.0003	.0006	.0052	.089	.0102	.0298	.0002	.0003	.14
%RSD	307.2	18.30	1077.	1.333	70.21	143.9	1701.	1118.	.5713
#1	-.0004	.0037	.0016	6.795	.0258	.0519	-.0001	-.0003	24.63
#2	.0001	.0031	.0051	6.721	.0116	.0174	.0003	.0003	24.58
#3	.0001	.0026	-.0052	6.617	.0061	-.0073	-.0001	.0001	24.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0008**	**-.0010**	**.0066**	**.0629**	**.0000**	**.5569**	**.0076**	**-.0060**
Stddev	.0001	.0011	.0019	.0045	.0033	.0010	.0016	.0005	.0063
%RSD	138.6	137.5	203.4	67.85	5.226	2566.	.2823	6.984	105.4
#1	-.0001	-.0007	.0003	.0070	.0667	.0011	.5586	.0081	-.0028
#2	-.0002	.0002	-.0032	.0108	.0610	-.0002	.5566	.0070	-.0019
#3	.0001	-.0019	.0000	.0019	.0610	-.0008	.5554	.0076	-.0133

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0018**
Stddev	.0008	.0002
%RSD	292.1	13.00
#1	.0011	.0016
#2	.0002	.0020
#3	-.0004	.0016

Zoom In Zoom Out

Sample Name: MP43118-SD1 Acquired: 11/10/2023 11:20:53 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2659.8**	**6454.7**	**38961.**	**9436.8**
Stddev	2.4	14.9	47.	31.4
%RSD	.09142	.23033	.12141	.33252
#1	2659.4	6465.7	38958.	9471.4
#2	2662.4	6460.7	39010.	9410.2
#3	2657.6	6437.8	38916.	9428.8

Zoom In Zoom Out

Sample Name: MP43118-S1 Acquired: 11/10/2023 11:25:59 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1977**	**24.54**	**.1997**	F **.5244**	**.5183**	**.2029**	**269.4**	**.1962**	**.1936**
Stddev	.0006	.06	.0007	.0009	.0013	.0005	3.1	.0002	.0002
%RSD	.2925	.2270	.3611	.1635	.2495	.2324	1.148	.0769	.0952
#1	.1984	24.58	.1999	.5248	.5186	.2030	270.0	.1960	.1934
#2	.1973	24.47	.1989	.5234	.5169	.2024	266.0	.1962	.1935
#3	.1976	24.55	.2003	.5249	.5195	.2033	272.1	.1963	.1938

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2047**	**.2135**	**44.24**	**52.18**	F **.5626**	**44.14**	**.2061**	**.7028**	**69.98**
Stddev	.0004	.0003	.16	.19	.0047	.25	.0003	.0008	.37
%RSD	.1877	.1220	.3598	.3613	.8273	.5627	.1354	.1128	.5335
#1	.2051	.2133	44.35	52.24	.5657	44.35	.2062	.7022	70.05
#2	.2044	.2135	44.06	51.96	.5573	43.87	.2058	.7037	69.58
#3	.2047	.2138	44.32	52.32	.5650	44.21	.2063	.7025	70.31

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1897**	**.1791**	**.2006**	**.1997**	**.6796**	**.4961**	**1.113**	**.5326**	**.1824**
Stddev	.0002	.0003	.0018	.0005	.0006	.0007	.003	.0009	.0014
%RSD	.1105	.1851	.9056	.2490	.0946	.1440	.2840	.1740	.7842
#1	.1895	.1794	.1999	.2002	.6795	.4956	1.115	.5328	.1815
#2	.1899	.1788	.1993	.1996	.6790	.4957	1.110	.5334	.1840
#3	.1898	.1792	.2027	.1992	.6803	.4969	1.116	.5316	.1815

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2104**	**.1914**
Stddev	.0005	.0000
%RSD	.2499	.0133
#1	.2103	.1914
#2	.2110	.1914
#3	.2099	.1914

Zoom In Zoom Out

Sample Name: MP43118-S1 Acquired: 11/10/2023 11:25:59 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2247.4**	**6133.3**	**37070.**	**9317.9**
Stddev	5.1	7.1	111.	80.2
%RSD	.22876	.11645	.29917	.86087
#1	2247.7	6138.3	37197.	9273.2
#2	2252.3	6136.3	36997.	9410.5
#3	2242.1	6125.1	37015.	9269.9

Zoom In Zoom Out

Sample Name: MP43118-S2 Acquired: 11/10/2023 11:31:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1996**	**24.50**	**.2010**	F **.5342**	**.5249**	**.2020**	**271.5**	**.1975**	**.1948**
Stddev	.0006	.06	.0009	.0038	.0018	.0004	3.4	.0002	.0002
%RSD	.2791	.2292	.4276	.7155	.3340	.1894	1.237	.0832	.0912
#1	.2000	24.45	.2006	.5386	.5265	.2016	268.0	.1973	.1947
#2	.1998	24.56	.2020	.5315	.5252	.2023	274.7	.1975	.1950
#3	.1990	24.51	.2005	.5326	.5230	.2022	271.9	.1976	.1948

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2052**	**.2135**	**43.97**	**52.35**	F **.5581**	**44.01**	**.2038**	**.7054**	**68.55**
Stddev	.0009	.0006	.06	.09	.0019	.07	.0007	.0001	.05
%RSD	.4497	.2629	.1343	.1745	.3459	.1699	.3209	.0087	.0695
#1	.2042	.2136	43.91	52.40	.5566	43.99	.2039	.7054	68.54
#2	.2059	.2141	44.02	52.40	.5603	44.09	.2045	.7053	68.60
#3	.2056	.2130	43.99	52.25	.5575	43.94	.2031	.7053	68.51

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1910**	**.1804**	**.2012**	**.2009**	**.6839**	**.4980**	**1.102**	**.5401**	**.1843**
Stddev	.0003	.0010	.0007	.0025	.0014	.0009	.001	.0007	.0010
%RSD	.1455	.5595	.3298	1.252	.2021	.1744	.0580	.1308	.5584
#1	.1908	.1792	.2006	.2002	.6851	.4980	1.102	.5393	.1841
#2	.1913	.1810	.2019	.2037	.6824	.4989	1.102	.5402	.1833
#3	.1908	.1809	.2009	.1988	.6842	.4972	1.101	.5407	.1854

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2142**	**.1922**
Stddev	.0006	.0002
%RSD	.2829	.1237
#1	.2137	.1919
#2	.2141	.1923
#3	.2149	.1923

Zoom In Zoom Out

Sample Name: MP43118-S2 Acquired: 11/10/2023 11:31:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2256.3**	**6123.9**	**37028.**	**9339.8**
Stddev	3.8	6.9	130.	42.8
%RSD	.16743	.11233	.35056	.45833
#1	2259.5	6131.8	37173.	9383.9
#2	2257.2	6120.8	36922.	9298.5
#3	2252.1	6119.2	36990.	9336.9

Zoom In Zoom Out

Sample Name: FC10932-1 Acquired: 11/10/2023 11:36:06 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0618**	**-.0015**	**.0239**	**.0060**	**.0000**	**.4199**	**.0027**	**.0118**
Stddev	.0001	.0047	.0010	.0018	.0002	.000	.0036	.0000	.0001
%RSD	227.4	7.573	65.38	7.620	3.563	26.54	.8542	1.157	.5783
#1	.0000	.0634	-.0007	.0260	.0063	-.0001	.4191	.0027	.0119
#2	-.0002	.0654	-.0027	.0226	.0059	.0000	.4238	.0027	.0119
#3	.0001	.0565	-.0012	.0232	.0058	.0000	.4168	.0027	.0118

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.1237**	**.0130**	**.1326**	**.0006**	**.1008**	**.0013**	**.0026**	F **138.1**
Stddev	.0002	.0004	.0003	.0077	.0006	.0104	.0000	.0001	1.3
%RSD	3.693	.3420	2.681	5.836	105.9	10.34	.2092	3.214	.9351
#1	.0064	.1240	.0128	.1360	.0010	.0894	.0013	.0027	138.6
#2	.0059	.1232	.0128	.1381	.0009	.1035	.0013	.0026	139.1
#3	.0063	.1238	.0134	.1238	-.0001	.1097	.0013	.0026	136.7

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0344**	**.0046**	**.0015**	**.0033**	**.0485**	**.0003**	**.0031**	**.0001**	**-.0017**
Stddev	.0003	.0005	.0011	.0021	.0003	.0002	.0000	.0000	.0003
%RSD	.7865	10.40	78.14	64.50	.6372	62.57	1.570	34.35	15.21
#1	.0345	.0047	.0002	.0052	.0483	.0003	.0031	.0002	-.0019
#2	.0346	.0040	.0017	.0010	.0484	.0006	.0031	.0001	-.0017
#3	.0341	.0050	.0024	.0037	.0488	.0001	.0031	.0001	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0904**
Stddev	.0001	.0002
%RSD	33.94	.2677
#1	.0001	.0902
#2	.0002	.0903
#3	.0003	.0907

Zoom In Zoom Out

Sample Name: FC10932-1 Acquired: 11/10/2023 11:36:06 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2481.7**	**6675.9**	**40556.**	**10108.**
Stddev	4.5	3.1	80.	84.
%RSD	.18294	.04575	.19704	.82811
#1	2486.8	6673.3	40629.	10130.
#2	2480.1	6679.2	40567.	10016.
#3	2478.2	6675.1	40471.	10178.

Zoom In Zoom Out

Sample Name: FC10932-2 Acquired: 11/10/2023 11:41:20 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0606**	**-.0004**	**.0228**	**.0196**	**.0000**	**.8311**	**.0191**	**.1050**
Stddev	.0003	.0049	.0009	.0014	.0001	.000	.0022	.0000	.0000
%RSD	159.9	8.049	247.8	6.163	.5179	317.4	.2636	.1689	.0426
#1	.0002	.0569	.0006	.0220	.0194	.0000	.8289	.0191	.1050
#2	-.0001	.0661	-.0012	.0244	.0196	.0000	.8332	.0191	.1049
#3	.0005	.0587	-.0005	.0219	.0196	.0000	.8313	.0191	.1050

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0164**	**.6623**	**.0155**	**.3925**	**.0008**	**.1805**	**.0051**	**.0098**	F **114.1**
Stddev	.0002	.0014	.0003	.0113	.0005	.0095	.0000	.0002	1.4
%RSD	1.347	.2103	1.899	2.881	64.61	5.241	.6447	1.538	1.247
#1	.0163	.6639	.0158	.4037	.0014	.1896	.0051	.0098	114.2
#2	.0167	.6617	.0157	.3925	.0006	.1707	.0050	.0097	115.4
#3	.0162	.6613	.0152	.3811	.0004	.1812	.0051	.0100	112.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2975**	**.0116**	**.0021**	**.0029**	**.0833**	**.0004**	**.0094**	**.0000**	**-.0021**
Stddev	.0007	.0005	.0007	.0012	.0006	.0002	.0000	.0001	.0010
%RSD	.2227	4.148	31.28	42.31	.7341	45.28	.3927	148.0	44.60
#1	.2982	.0110	.0017	.0038	.0840	.0004	.0093	.0001	-.0021
#2	.2973	.0119	.0029	.0015	.0830	.0007	.0094	.0000	-.0031
#3	.2969	.0118	.0017	.0035	.0829	.0002	.0094	.0000	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.6669**
Stddev	.0002	.0007
%RSD	85.37	.1016
#1	.0004	.6671
#2	.0001	.6661
#3	.0001	.6674

Zoom In Zoom Out

Sample Name: FC10932-2 Acquired: 11/10/2023 11:41:20 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2503.5**	**7951.9**	**47960.**	**11977.**
Stddev	1.0	10.3	75.	45.
%RSD	.04022	.12975	.15675	.37937
#1	2504.7	7954.1	48045.	11960.
#2	2502.9	7960.9	47934.	11943.
#3	2503.0	7940.6	47902.	12029.

Zoom In Zoom Out

Sample Name: FC10932-3 Acquired: 11/10/2023 11:46:33 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0485**	**-.0006**	**.0206**	**.0062**	**.0000**	**.7868**	**.0144**	**.0567**
Stddev	.0003	.0037	.0009	.0011	.0002	.000	.0029	.0000	.0001
%RSD	79.66	7.521	153.6	5.288	3.783	35.57	.3736	.2773	.1507
#1	.0003	.0485	-.0015	.0198	.0065	.0000	.7897	.0144	.0567
#2	.0008	.0522	.0002	.0218	.0061	.0000	.7867	.0144	.0566
#3	.0002	.0449	-.0003	.0202	.0061	.0000	.7839	.0143	.0568

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140**	**.2737**	**.0233**	**.1452**	**.0011**	**.1274**	**.0041**	**.0108**	F **125.0**
Stddev	.0002	.0011	.0004	.0202	.0015	.0116	.0000	.0002	1.7
%RSD	1.171	.3900	1.906	13.89	135.8	9.139	.5506	1.473	1.328
#1	.0142	.2745	.0230	.1221	.0024	.1168	.0041	.0110	126.2
#2	.0139	.2725	.0238	.1539	-.0005	.1256	.0041	.0107	123.1
#3	.0141	.2742	.0231	.1596	.0015	.1398	.0041	.0107	125.7

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1722**	**.0034**	**.0005**	**.0020**	**.0969**	**.0006**	**.0058**	**.0001**	**-.0026**
Stddev	.0004	.0006	.0005	.0003	.0004	.0003	.0000	.0000	.0005
%RSD	.2383	18.84	109.4	14.15	.4485	50.02	.5851	17.79	20.70
#1	.1718	.0037	-.0001	.0020	.0965	.0004	.0058	.0001	-.0024
#2	.1722	.0026	.0009	.0022	.0974	.0009	.0058	.0001	-.0032
#3	.1726	.0037	.0007	.0017	.0969	.0005	.0058	.0001	-.0021

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.3397**
Stddev	.0001	.0003
%RSD	99.28	.0898
#1	.0001	.3395
#2	.0000	.3400
#3	.0001	.3395

Zoom In Zoom Out

Sample Name: FC10932-3 Acquired: 11/10/2023 11:46:33 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2500.8**	**6998.2**	**42423.**	**10569.**
Stddev	1.2	12.9	144.	20.
%RSD	.04859	.18494	.33976	.18536
#1	2502.2	7013.0	42395.	10563.
#2	2500.1	6988.8	42579.	10554.
#3	2500.0	6992.8	42294.	10591.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 11:51:45 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2544**	**39.76**	**2.023**	**2.046**	**2.088**	**2.059**	**41.19**	**2.090**	**2.057**
Stddev	.0009	.02	.004	.005	.003	.002	.08	.001	.002
%RSD	.3688	.0582	.1925	.2694	.1358	.1049	.1849	.0346	.0916
#1	.2546	39.78	2.021	2.052	2.091	2.061	41.28	2.089	2.055
#2	.2534	39.74	2.020	2.046	2.086	2.058	41.13	2.090	2.058
#3	.2552	39.74	2.027	2.041	2.088	2.057	41.18	2.089	2.057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.080**	**2.153**	**40.56**	**41.17**	**2.046**	**41.43**	**2.150**	**2.073**	**42.15**
Stddev	.001	.006	.01	.03	.001	.02	.010	.001	.05
%RSD	.0517	.2979	.0273	.0684	.0672	.0434	.4511	.0566	.1173
#1	2.081	2.151	40.57	41.19	2.045	41.45	2.150	2.072	42.09
#2	2.080	2.148	40.55	41.14	2.047	41.41	2.141	2.072	42.17
#3	2.079	2.160	40.56	41.19	2.047	41.44	2.160	2.074	42.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**1.941**	**2.008**	**2.104**	**2.123**	**2.038**	**2.060**	**2.084**	**1.966**
Stddev	.002	.006	.003	.006	.003	.001	.001	.001	.004
%RSD	.1169	.3187	.1321	.2960	.1361	.0592	.0381	.0354	.2057
#1	2.005	1.941	2.008	2.105	2.122	2.037	2.059	2.085	1.966
#2	2.008	1.936	2.006	2.109	2.121	2.039	2.059	2.084	1.962
#3	2.009	1.948	2.011	2.097	2.127	2.037	2.061	2.084	1.970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 11:51:45 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.108**	**2.020**
Stddev	.001	.000
%RSD	.0600	.0145
#1	2.108	2.020
#2	2.109	2.020
#3	2.106	2.020
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2339.5**	**6249.7**	**37846.**	**9254.2**
Stddev	7.2	18.9	58.	43.1
%RSD	.30841	.30189	.15326	.46587
#1	2345.1	6271.1	37864.	9289.5
#2	2342.0	6235.5	37781.	9266.9
#3	2331.3	6242.4	37893.	9206.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 11:56:43 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0063**	**-.0011**	**-.0001**	**.0001**	**.0001**	**.0029**	**.0001**	**.0001**
Stddev	.0002	.0050	.0007	.0012	.0002	.0000	.0024	.0000	.0000
%RSD	321.3	78.78	60.00	1001.	176.4	39.42	82.55	44.09	40.03
#1	.0000	.0047	-.0005	.0009	-.0001	.0001	.0016	.0001	.0001
#2	-.0001	.0119	-.0018	-.0014	.0001	.0000	.0056	.0000	.0001
#3	.0002	.0024	-.0011	.0001	.0004	.0001	.0015	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0009**	**.0027**	**.0043**	**.0002**	**.0087**	**.0001**	**.0001**	**.0101**
Stddev	.0002	.0001	.0010	.0265	.0009	.0032	.0000	.0001	.0075
%RSD	156.2	15.43	37.47	609.9	366.3	36.81	13.53	49.84	74.68
#1	-.0002	.0007	.0033	.0331	-.0006	.0077	.0001	.0001	.0040
#2	.0001	.0009	.0016	-.0012	.0001	.0061	.0001	.0002	.0078
#3	-.0002	.0010	.0033	-.0189	.0012	.0123	.0001	.0001	.0185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**.0002**	**.0007**	**.0008**	**.0000**	**.0000**	**.0001**	**.0003**
Stddev	.0001	.0003	.0011	.0013	.0003	.0004	.000	.0000	.0012
%RSD	235.0	107.7	567.5	184.0	30.22	1826.	217.5	52.37	421.0
#1	.0002	.0004	.0015	.0008	.0007	.0002	.0000	.0001	.0015
#2	-.0001	-.0001	-.0001	-.0006	.0011	.0003	.0000	.0001	-.0009
#3	.0000	.0004	-.0008	.0020	.0007	-.0004	.0000	.0000	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 11:56:43 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0003**
Stddev	.0002	.0000
%RSD	225.5	9.031
#1	-.0001	.0002
#2	.0002	.0002
#3	.0003	.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2744.4**	**6540.3**	**39269.**	**9400.2**
Stddev	4.1	19.4	300.	12.1
%RSD	.14903	.29655	.76339	.12909
#1	2748.8	6562.5	39551.	9386.3
#2	2743.8	6531.8	38954.	9406.0
#3	2740.7	6526.6	39302.	9408.4

Zoom In Zoom Out

Sample Name: FC10932-4 Acquired: 11/10/2023 12:01:51 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0070**	**-.0019**	**.0359**	**.0052**	**.0000**	**.9882**	**.0026**	**.0285**
Stddev	.000	.0039	.0006	.0016	.0000	.000	.0009	.0001	.0001
%RSD	184.8	56.03	29.48	4.546	.6095	100.5	.0929	2.122	.5117
#1	.0000	.0055	-.0014	.0341	.0052	.0000	.9876	.0025	.0286
#2	-.0001	.0041	-.0018	.0367	.0052	.0000	.9877	.0027	.0285
#3	.0000	.0115	-.0025	.0371	.0052	-.0001	.9892	.0026	.0283

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0122**	**.0034**	**.1104**	**-.0007**	**.1183**	**.0032**	**.0082**	F **144.7**
Stddev	.0001	.0002	.0007	.0279	.0003	.0046	.0000	.0001	1.5
%RSD	5.848	1.925	19.75	25.24	35.65	3.888	.4837	1.821	1.012
#1	.0020	.0124	.0028	.1415	-.0007	.1173	.0032	.0083	146.4
#2	.0018	.0119	.0032	.0878	-.0005	.1233	.0032	.0080	144.1
#3	.0019	.0123	.0041	.1018	-.0010	.1142	.0032	.0082	143.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0691**	**.0004**	**.0005**	**.0027**	**.1311**	**.0002**	**.0082**	**.0001**	**-.0016**
Stddev	.0001	.0003	.0009	.0007	.0006	.0003	.0001	.0001	.0002
%RSD	.1842	72.90	192.3	25.77	.4711	140.7	.6644	86.41	15.30
#1	.0691	.0002	.0003	.0034	.1306	.0001	.0082	.0002	-.0019
#2	.0690	.0002	.0015	.0020	.1310	.0005	.0082	.0002	-.0015
#3	.0692	.0007	-.0004	.0026	.1318	-.0001	.0081	.0000	-.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0925**
Stddev	.0001	.0001
%RSD	1520.	.1484
#1	-.0001	.0925
#2	.0001	.0923
#3	.0000	.0926

Zoom In Zoom Out

Sample Name: FC10932-4 Acquired: 11/10/2023 12:01:51 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2492.8**	**6269.6**	**37872.**	**9416.4**
Stddev	3.9	3.2	168.	90.2
%RSD	.15807	.05115	.44331	.95840
#1	2492.9	6266.7	37679.	9312.3
#2	2488.9	6273.1	37966.	9463.5
#3	2496.7	6269.0	37973.	9473.3

Zoom In Zoom Out

Sample Name: FC10932-5 Acquired: 11/10/2023 12:07:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0118**	**-.0019**	**.0392**	**.0039**	**-.0001**	**.4260**	**.0001**	**.0025**
Stddev	.0005	.0067	.0009	.0005	.0001	.0000	.0015	.0000	.0001
%RSD	332.0	56.47	46.71	1.323	2.986	68.73	.3450	8.786	3.834
#1	.0006	.0047	-.0012	.0393	.0040	-.0001	.4275	.0001	.0025
#2	.0002	.0127	-.0029	.0397	.0039	.0000	.4245	.0001	.0026
#3	-.0003	.0180	-.0016	.0387	.0038	.0000	.4259	.0001	.0025

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**.0187**	**.0043**	**.0636**	**.0001**	**.1069**	**.0005**	**.0002**	F **142.2**
Stddev	.0001	.0001	.0003	.0186	.0009	.0062	.0000	.0000	1.0
%RSD	5.926	.4777	8.155	29.25	1727.	5.814	3.147	16.54	.6888
#1	.0018	.0186	.0047	.0437	-.0010	.0998	.0005	.0002	143.3
#2	.0019	.0188	.0040	.0805	.0007	.1102	.0004	.0002	141.9
#3	.0021	.0187	.0041	.0668	.0004	.1108	.0004	.0003	141.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0011**	**.0010**	**.0034**	**.0652**	**.0000**	**.0028**	**.0000**	**-.0036**
Stddev	.0001	.0001	.0007	.0016	.0010	.0005	.0000	.0001	.0007
%RSD	1.403	12.36	76.52	46.04	1.471	1018.	.5421	240.6	19.81
#1	.0041	.0010	.0018	.0046	.0648	.0005	.0028	.0001	-.0037
#2	.0040	.0010	.0003	.0039	.0645	.0000	.0028	-.0001	-.0043
#3	.0040	.0012	.0008	.0016	.0663	-.0004	.0027	.0001	-.0029

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0085**
Stddev	.0001	.0000
%RSD	154.1	.3252
#1	.0000	.0085
#2	.0001	.0086
#3	.0002	.0086

Zoom In Zoom Out

Sample Name: FC10932-5 Acquired: 11/10/2023 12:07:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2487.8**	**6244.4**	**37711.**	**9353.8**
Stddev	2.3	5.7	168.	24.5
%RSD	.09190	.09081	.44540	.26140
#1	2487.8	6250.8	37638.	9331.6
#2	2485.4	6242.7	37903.	9349.6
#3	2490.0	6239.8	37592.	9380.0

Zoom In Zoom Out

Sample Name: MP43118-MB2 Acquired: 11/10/2023 12:12:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0031**	**-.0014**	**-.0036**	**.0000**	**.0000**	**.0084**	**.0000**	**.0000**
Stddev	.0002	.0072	.0004	.0004	.000	.000	.0003	.000	.000
%RSD	359.5	229.6	26.88	10.10	841.5	33.61	3.665	64.18	191.3
#1	.0001	.0112	-.0019	-.0040	-.0002	.0000	.0080	.0000	.0000
#2	.0000	-.0025	-.0011	-.0033	.0000	.0000	.0086	-.0001	-.0001
#3	-.0003	.0006	-.0014	-.0036	.0001	.0000	.0084	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0009**	**.0011**	**.0100**	**-.0002**	**.0000**	**.0001**	**-.0001**	**.0230**
Stddev	.0003	.0002	.0013	.0203	.0004	.007	.0000	.0000	.0027
%RSD	132.8	23.58	109.3	202.2	190.9	1272000.	49.67	38.86	11.86
#1	-.0001	.0009	.0010	.0306	.0003	-.0065	.0000	-.0001	.0227
#2	.0004	.0007	.0025	.0095	-.0005	.0073	.0001	-.0001	.0205
#3	.0002	.0011	.0000	-.0100	-.0005	-.0008	.0000	-.0001	.0259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0008**	**.0017**	**.0035**	**.0000**	**.0000**	**.0000**	**-.0018**
Stddev	.0001	.0003	.0010	.0018	.0006	.0004	.000	.0001	.0013
%RSD	1360.	463.4	120.4	107.1	17.82	8499.	728.1	1588.	75.33
#1	.0000	-.0003	-.0003	.0010	.0035	.0004	.0000	.0001	-.0015
#2	-.0001	-.0001	.0015	.0037	.0041	-.0004	.0000	-.0001	-.0032
#3	.0001	.0003	.0012	.0003	.0028	.0000	.0000	.0000	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43118-MB2 Acquired: 11/10/2023 12:12:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0013**
Stddev	.000	.0000
%RSD	135.1	2.366
#1	-.0001	.0013
#2	.0000	.0013
#3	.0000	.0013
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2737.0**	**6513.4**	**39511.**	**9483.3**
Stddev	6.1	9.1	213.	94.3
%RSD	.22120	.14031	.53966	.99430
#1	2740.8	6514.1	39269.	9402.9
#2	2740.2	6522.1	39589.	9459.9
#3	2730.1	6503.9	39674.	9587.1

Zoom In Zoom Out

Sample Name: MP43118-B2 Acquired: 11/10/2023 12:17:28 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1932**	**23.85**	**.1949**	**.5046**	**.2009**	**.1978**	**45.07**	**.1992**	**.1966**
Stddev	.0004	.08	.0023	.0052	.0007	.0002	.16	.0001	.0001
%RSD	.1941	.3181	1.177	1.029	.3557	.0800	.3596	.0643	.0535
#1	.1929	23.93	.1928	.5007	.2016	.1979	45.20	.1991	.1967
#2	.1936	23.86	.1944	.5027	.2011	.1979	45.13	.1991	.1965
#3	.1932	23.78	.1973	.5105	.2002	.1976	44.89	.1993	.1967
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2042**	**.2084**	**43.68**	**44.18**	**.5322**	**44.39**	**.2019**	**.6996**	**41.90**
Stddev	.0006	.0005	.12	.11	.0005	.16	.0004	.0006	.16
%RSD	.2732	.2203	.2858	.2591	.0992	.3582	.1992	.0814	.3817
#1	.2047	.2089	43.76	44.26	.5317	44.45	.2023	.6990	41.83
#2	.2036	.2084	43.74	44.24	.5328	44.50	.2015	.6996	42.08
#3	.2043	.2080	43.54	44.05	.5320	44.21	.2020	.7002	41.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1928**	**.1769**	**.1966**	**.1982**	**.6034**	**.5028**	**.5284**	**.5334**	**.1815**
Stddev	.0003	.0008	.0013	.0028	.0014	.0016	.0013	.0008	.0025
%RSD	.1381	.4376	.6839	1.411	.2325	.3234	.2461	.1509	1.356
#1	.1925	.1760	.1951	.1957	.6019	.5009	.5272	.5342	.1787
#2	.1930	.1774	.1975	.1977	.6037	.5033	.5298	.5335	.1830
#3	.1929	.1773	.1973	.2012	.6047	.5040	.5282	.5326	.1828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43118-B2 Acquired: 11/10/2023 12:17:28 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2101**	**.1939**
Stddev	.0001	.0002
%RSD	.0319	.1147
#1	.2102	.1938
#2	.2101	.1941
#3	.2101	.1937
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2409.9**	**6268.3**	**38043.**	**9340.9**
Stddev	3.0	10.0	128.	87.8
%RSD	.12492	.15924	.33623	.93957
#1	2412.9	6277.9	38027.	9286.4
#2	2410.1	6269.2	38178.	9294.2
#3	2406.9	6258.0	37923.	9442.2

Zoom In Zoom Out

Sample Name: MP43118-MB3 Acquired: 11/10/2023 12:22:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0041**	**-.0020**	**-.0023**	**-.0001**	**-.0001**	**.0113**	**.0000**	**.0001**
Stddev	.0004	.0037	.0002	.0017	.0001	.0001	.0028	.000	.0001
%RSD	202.5	89.65	9.179	73.00	206.8	106.3	24.80	94.72	93.24
#1	.0002	.0069	-.0018	-.0022	-.0001	-.0001	.0126	.0000	.0001
#2	.0005	.0056	-.0019	-.0041	-.0001	.0000	.0131	-.0001	.0000
#3	-.0002	-.0001	-.0022	-.0007	.0001	-.0001	.0081	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0014**	**.0018**	**.0362**	**.0010**	**.0147**	**.0001**	**.0000**	F **141.1**
Stddev	.0002	.0001	.0012	.0198	.0008	.0129	.0000	.000	1.9
%RSD	140.3	9.758	65.65	54.78	82.04	87.66	13.09	202.5	1.325
#1	-.0001	.0014	.0013	.0536	.0009	.0281	.0001	.0000	140.3
#2	.0000	.0015	.0009	.0404	.0019	.0135	.0001	-.0001	143.2
#3	-.0003	.0012	.0031	.0146	.0002	.0024	.0001	-.0001	139.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									2.500
Low Limit									-2.500

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**-.0005**	**.0014**	**.0219**	**.0003**	**.0000**	**.0000**	**-.0016**
Stddev	.0002	.0003	.0010	.0009	.0000	.0001	.0000	.0000	.0012
%RSD	287.6	518.2	210.5	61.38	.1045	28.18	73.09	110.1	74.86
#1	.0000	-.0004	-.0005	.0010	.0219	.0003	.0000	.0001	-.0014
#2	-.0002	.0000	-.0014	.0024	.0219	.0002	.0001	.0000	-.0028
#3	.0000	.0002	.0005	.0008	.0219	.0003	.0000	.0000	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43118-MB3 Acquired: 11/10/2023 12:22:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0013**
Stddev	.0002	.0001
%RSD	266.0	4.739
#1	.0003	.0012
#2	.0000	.0013
#3	-.0001	.0013
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2492.7**	**6228.0**	**37595.**	**9362.9**
Stddev	8.3	10.1	50.	22.7
%RSD	.33344	.16212	.13238	.24196
#1	2501.5	6238.2	37632.	9373.0
#2	2491.4	6227.9	37539.	9337.0
#3	2485.1	6218.0	37615.	9378.8

Zoom In Zoom Out

Sample Name: MP43118-B3 Acquired: 11/10/2023 12:27:38 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1966**	**24.07**	**.1995**	**.5196**	**.2024**	**.1995**	**45.31**	**.2010**	**.1967**
Stddev	.0009	.05	.0020	.0030	.0005	.0003	.12	.0001	.0001
%RSD	.4640	.2025	1.018	.5699	.2532	.1349	.2593	.0707	.0709
#1	.1956	24.13	.2018	.5204	.2029	.1998	45.41	.2011	.1969
#2	.1968	24.03	.1985	.5163	.2020	.1993	45.35	.2008	.1967
#3	.1973	24.06	.1982	.5221	.2022	.1994	45.18	.2010	.1966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2058**	**.2113**	**43.97**	**44.96**	**.5363**	**44.49**	**.2041**	**.7040**	F **184.3**
Stddev	.0004	.0018	.04	.09	.0013	.23	.0008	.0011	.4
%RSD	.2137	.8554	.1007	.1942	.2507	.5203	.4135	.1545	.1908
#1	.2054	.2093	44.02	45.05	.5378	44.60	.2034	.7051	184.7
#2	.2063	.2129	43.95	44.96	.5351	44.64	.2050	.7029	184.3
#3	.2058	.2116	43.94	44.88	.5360	44.22	.2038	.7040	184.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value									45.00
Range									20.00%

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1937**	**.1803**	**.1995**	**.2035**	**.6282**	**.5011**	**.5305**	**.5356**	**.1833**
Stddev	.0002	.0002	.0007	.0028	.0006	.0001	.0006	.0009	.0014
%RSD	.0892	.1361	.3329	1.389	.1010	.0196	.1166	.1712	.7368
#1	.1938	.1801	.2003	.2051	.6289	.5010	.5312	.5350	.1847
#2	.1935	.1802	.1991	.2052	.6276	.5011	.5299	.5366	.1833
#3	.1938	.1806	.1991	.2003	.6280	.5012	.5303	.5350	.1820
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43118-B3 Acquired: 11/10/2023 12:27:38 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2125**	**.1985**
Stddev	.0004	.0001
%RSD	.1803	.0744
#1	.2121	.1985
#2	.2128	.1983
#3	.2127	.1986
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2296.3**	**6145.5**	**37110.**	**9319.1**
Stddev	2.4	5.9	108.	36.2
%RSD	.10501	.09595	.29027	.38816
#1	2298.8	6145.8	37025.	9301.0
#2	2296.2	6151.2	37074.	9295.5
#3	2294.0	6139.4	37231.	9360.8

Zoom In Zoom Out

Sample Name: FC11041-1 Acquired: 11/10/2023 12:32:43 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**1.595**	**.0006**	**.0152**	**.1002**	**.0000**	**101.9**	**.0001**	**.0018**
Stddev	.0003	.002	.0014	.0009	.0001	.0000	2.0	.0000	.0001
%RSD	628.9	.1133	249.0	6.211	.0755	104.2	2.011	6.383	4.601
#1	.0001	1.596	-.0005	.0144	.1002	.0001	103.9	.0001	.0017
#2	-.0003	1.595	.0001	.0150	.1003	.0001	99.76	.0001	.0018
#3	.0004	1.593	.0021	.0163	.1001	.0000	102.0	.0001	.0017

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0116**	**.0059**	**2.854**	**2.940**	**.0049**	**30.40**	**.0620**	**.0048**	**3.697**
Stddev	.0001	.0002	.000	.035	.0014	.08	.0002	.0000	.011
%RSD	1.111	2.831	.0153	1.190	28.02	.2533	.3522	.6969	.2970
#1	.0117	.0060	2.854	2.903	.0065	30.41	.0617	.0048	3.709
#2	.0115	.0060	2.854	2.972	.0042	30.32	.0621	.0048	3.693
#3	.0115	.0057	2.854	2.946	.0041	30.47	.0621	.0048	3.688

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**-.0006**	**-.0001**	**.0006**	**6.950**	**.0005**	**.1684**	**.0359**	**-.0014**
Stddev	.0001	.0003	.0008	.0015	.009	.0002	.0003	.0004	.0003
%RSD	2.667	48.25	615.5	267.6	.1363	36.54	.1835	1.061	18.68
#1	.0051	-.0003	.0004	-.0012	6.942	.0003	.1682	.0362	-.0017
#2	.0049	-.0007	.0002	.0015	6.948	.0005	.1687	.0355	-.0014
#3	.0048	-.0008	-.0011	.0014	6.961	.0006	.1682	.0359	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0035**	**.0319**
Stddev	.0000	.0001
%RSD	.5410	.4608
#1	.0035	.0319
#2	.0035	.0321
#3	.0035	.0318

Zoom In Zoom Out

Sample Name: FC11041-1 Acquired: 11/10/2023 12:32:43 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2514.8**	**6336.5**	**38339.**	**9396.0**
Stddev	3.4	11.5	30.	57.3
%RSD	.13393	.18088	.07699	.61018
#1	2518.4	6341.7	38308.	9351.9
#2	2511.8	6323.3	38367.	9460.8
#3	2514.1	6344.4	38343.	9375.2

Zoom In Zoom Out

Sample Name: FC11041-2 Acquired: 11/10/2023 12:37:53 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0137**	**-.0007**	**.0372**	**.2000**	**-.0001**	**87.95**	**.0000**	**.0005**
Stddev	.0003	.0024	.0002	.0006	.0007	.0000	.28	.0000	.0001
%RSD	234.1	17.35	22.58	1.616	.3367	20.70	.3191	59.15	14.83
#1	.0000	.0164	-.0006	.0377	.2007	-.0001	88.27	.0000	.0004
#2	-.0004	.0128	-.0007	.0365	.1994	-.0001	87.73	.0000	.0004
#3	.0001	.0119	-.0009	.0373	.1999	-.0001	87.85	.0000	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0005**	**.0837**	**1.381**	**.0085**	**28.85**	**.2970**	**.0075**	**6.556**
Stddev	.0000	.0002	.0006	.010	.0009	.08	.0012	.0002	.017
%RSD	12.64	35.96	.7387	.7567	10.58	.2734	.3884	2.311	.2598
#1	.0002	.0006	.0831	1.381	.0095	28.93	.2974	.0074	6.549
#2	.0002	.0006	.0843	1.391	.0083	28.77	.2979	.0077	6.543
#3	.0002	.0003	.0836	1.370	.0077	28.85	.2957	.0074	6.575

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0012**	**.0012**	**.0018**	**6.410**	**.0008**	**1.108**	**.0017**	**-.0016**
Stddev	.0001	.0004	.0012	.0023	.002	.0004	.004	.0000	.0008
%RSD	21.05	29.96	103.9	125.7	.0336	55.41	.3869	1.631	49.02
#1	.0004	-.0010	.0016	.0042	6.408	.0010	1.112	.0017	-.0012
#2	.0005	-.0016	-.0002	-.0004	6.410	.0003	1.103	.0017	-.0011
#3	.0006	-.0010	.0021	.0016	6.413	.0010	1.109	.0017	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0084**
Stddev	.000	.0001
%RSD	3584.	.6798
#1	-.0002	.0083
#2	.0000	.0084
#3	.0002	.0083

Zoom In Zoom Out

Sample Name: FC11041-2 Acquired: 11/10/2023 12:37:53 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2533.0**	**6290.2**	**38238.**	**9317.2**
Stddev	5.9	9.6	25.	12.5
%RSD	.23412	.15246	.06537	.13457
#1	2532.0	6294.9	38219.	9304.0
#2	2539.3	6296.5	38266.	9329.0
#3	2527.6	6279.1	38230.	9318.5

Zoom In Zoom Out

Sample Name: FC11041-3 Acquired: 11/10/2023 12:43:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**1.678**	**.0005**	**.0338**	**.1286**	**.0000**	**129.0**	**.0000**	**.0010**
Stddev	.0001	.011	.0010	.0017	.0003	.0000	1.4	.0000	.0001
%RSD	62.22	.6642	202.8	4.962	.2705	45.88	1.086	102.8	5.608
#1	.0000	1.686	.0011	.0324	.1287	.0000	128.5	.0001	.0009
#2	-.0001	1.666	.0011	.0356	.1282	.0000	127.8	.0000	.0011
#3	-.0001	1.684	-.0007	.0333	.1289	.0001	130.5	.0000	.0010

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.0137**	**2.956**	**1.632**	**.0099**	**41.25**	**.0624**	**.0045**	**5.193**
Stddev	.0001	.0002	.018	.015	.0007	.38	.0002	.0000	.020
%RSD	1.481	1.451	.6124	.9005	7.362	.9103	.3474	.7550	.3904
#1	.0102	.0139	2.956	1.648	.0100	41.29	.0626	.0044	5.200
#2	.0101	.0136	2.938	1.626	.0106	40.86	.0622	.0045	5.171
#3	.0099	.0136	2.974	1.620	.0092	41.61	.0625	.0044	5.209

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**.0001**	**-.0001**	**.0003**	**7.554**	**.0010**	**.5872**	**.0382**	**-.0017**
Stddev	.0001	.0002	.0012	.0011	.009	.0002	.0015	.0010	.0006
%RSD	1.052	166.1	1797.	383.9	.1222	14.43	.2480	2.688	36.31
#1	.0048	-.0001	.0002	.0007	7.565	.0011	.5865	.0384	-.0011
#2	.0048	.0001	.0009	-.0009	7.551	.0009	.5861	.0371	-.0023
#3	.0047	.0002	-.0014	.0010	7.547	.0012	.5888	.0391	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0036**	**.0366**
Stddev	.0003	.0001
%RSD	7.109	.2596
#1	.0034	.0366
#2	.0035	.0366
#3	.0039	.0365

Zoom In Zoom Out

Sample Name: FC11041-3 Acquired: 11/10/2023 12:43:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2472.1**	**6261.3**	**38047.**	**9356.8**
Stddev	1.2	7.3	21.	120.8
%RSD	.04890	.11695	.05603	1.2915
#1	2471.2	6256.3	38025.	9328.8
#2	2471.7	6269.7	38067.	9489.2
#3	2473.5	6258.0	38049.	9252.5

Zoom In Zoom Out

Sample Name: FC11041-5 Acquired: 11/10/2023 12:48:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.2783**	**-.0004**	**.0100**	**.1124**	**.0000**	**120.4**	**.0000**	**.0011**
Stddev	.0001	.0046	.0015	.0017	.0002	.000	.6	.0001	.0000
%RSD	37.53	1.652	340.7	16.68	.1747	82.75	.5081	596.4	2.577
#1	.0002	.2835	-.0021	.0083	.1123	-.0001	119.9	.0000	.0011
#2	.0004	.2749	.0008	.0101	.1127	.0000	121.0	.0000	.0010
#3	.0004	.2766	.0000	.0116	.1124	.0000	120.1	.0001	.0011

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0014**	**.9034**	**1.117**	**.0075**	**44.27**	**.5789**	**.0031**	**4.663**
Stddev	.0002	.0002	.0028	.007	.0006	.05	.0007	.0000	.019
%RSD	23.01	12.98	.3117	.6322	7.373	.1067	.1127	.4497	.4106
#1	.0008	.0016	.9047	1.112	.0072	44.31	.5796	.0030	4.677
#2	.0009	.0013	.9054	1.115	.0071	44.29	.5785	.0031	4.670
#3	.0006	.0013	.9002	1.125	.0081	44.22	.5785	.0031	4.641

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0009**	**.0010**	**-.0009**	**6.716**	**.0004**	**.1432**	**.0075**	**-.0011**
Stddev	.0003	.0007	.0012	.0016	.009	.0003	.0003	.0001	.0010
%RSD	22.18	80.76	125.3	174.4	.1294	72.66	.2172	1.850	86.78
#1	.0016	-.0008	.0008	-.0012	6.706	.0006	.1430	.0073	-.0022
#2	.0010	-.0002	-.0002	-.0023	6.722	.0001	.1436	.0075	-.0008
#3	.0014	-.0016	.0023	.0008	6.721	.0005	.1431	.0075	-.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0007**	**.0194**
Stddev	.0001	.0001
%RSD	19.35	.3738
#1	.0006	.0193
#2	.0007	.0194
#3	.0009	.0194

Zoom In Zoom Out

Sample Name: FC11041-5 Acquired: 11/10/2023 12:48:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2481.8**	**6220.2**	**38037.**	**9303.1**
Stddev	3.4	10.8	27.	3.4
%RSD	.13673	.17316	.07071	.03686
#1	2482.6	6231.5	38030.	9306.2
#2	2484.8	6219.0	38067.	9299.4
#3	2478.1	6210.1	38015.	9303.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 12:53:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2549**	**39.91**	**2.030**	**2.060**	**2.094**	**2.065**	**41.26**	**2.094**	**2.065**
Stddev	.0003	.07	.002	.014	.001	.003	.07	.001	.001
%RSD	.1099	.1810	.1113	.6563	.0688	.1427	.1655	.0541	.0366
#1	.2549	39.97	2.028	2.050	2.094	2.065	41.32	2.093	2.064
#2	.2546	39.83	2.032	2.075	2.092	2.062	41.18	2.096	2.065
#3	.2552	39.94	2.030	2.055	2.095	2.068	41.27	2.094	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.089**	**2.158**	**40.65**	**41.25**	**2.049**	**41.54**	**2.153**	**2.079**	**42.28**
Stddev	.012	.005	.08	.08	.002	.13	.016	.000	.14
%RSD	.5714	.2434	.2010	.1900	.1074	.3163	.7189	.0190	.3293
#1	2.096	2.163	40.70	41.28	2.050	41.54	2.157	2.079	42.26
#2	2.075	2.152	40.55	41.16	2.046	41.41	2.136	2.079	42.15
#3	2.094	2.160	40.69	41.31	2.050	41.67	2.166	2.079	42.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.953**	**2.015**	**2.104**	**2.128**	**2.045**	**2.067**	**2.089**	**1.976**
Stddev	.002	.000	.001	.002	.003	.001	.003	.002	.003
%RSD	.1196	.0141	.0631	.0779	.1572	.0240	.1274	.0917	.1440
#1	2.012	1.953	2.015	2.106	2.131	2.045	2.066	2.091	1.975
#2	2.014	1.954	2.013	2.104	2.125	2.045	2.065	2.087	1.980
#3	2.017	1.953	2.016	2.103	2.129	2.044	2.070	2.089	1.975
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 12:53:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.117**	**2.029**
Stddev	.005	.003
%RSD	.2541	.1267
#1	2.121	2.029
#2	2.111	2.031
#3	2.118	2.026
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2337.0**	**6242.1**	**37833.**	**9266.2**
Stddev	6.5	19.3	272.	48.6
%RSD	.27759	.30847	.71835	.52407
#1	2344.3	6263.4	37780.	9239.0
#2	2334.8	6237.0	38127.	9322.3
#3	2331.9	6225.9	37591.	9237.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 12:58:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0047**	**-.0009**	F **-.0012**	**.0000**	**.0000**	**.0042**	**.0001**
Stddev	.0002	.0053	.0003	.0024	.000	.0001	.0016	.0000
%RSD	111.4	112.1	39.20	201.8	521.4	211.1	38.26	46.33
#1	.0005	-.0014	-.0012	.0012	.0000	.0001	.0052	.0000
#2	.0001	.0073	-.0008	-.0036	.0001	.0000	.0023	.0001
#3	.0001	.0083	-.0005	-.0012	-.0002	.0000	.0051	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0009**	**.0020**	**-.0245**	**.0007**	**.0104**	**.0001**
Stddev	.0000	.0001	.0000	.0004	.0242	.0007	.0082	.0000
%RSD	20.15	50.43	4.555	19.27	98.54	99.80	78.59	38.79
#1	.0002	.0004	.0010	.0024	-.0220	.0012	.0046	.0001
#2	.0002	.0001	.0009	.0016	-.0018	.0009	.0069	.0001
#3	.0002	.0002	.0009	.0021	-.0499	-.0001	.0198	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0069**	**.0000**	**.0002**	**-.0001**	**.0008**	**.0011**	**-.0003**
Stddev	.0001	.0118	.0001	.0003	.0012	.0026	.0004	.0001
%RSD	164.2	170.3	256.5	206.4	1179.	341.1	39.21	29.38
#1	.0002	-.0059	.0001	-.0002	.0008	-.0017	.0007	-.0003
#2	.0000	.0044	-.0001	.0004	.0004	.0035	.0015	-.0003
#3	.0001	-.0192	.0000	.0003	-.0015	.0005	.0010	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 12:58:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0005**	**.0001**	**.0002**
Stddev	.000	.0000	.0004	.0001	.0000
%RSD	30.76	67.55	77.38	124.4	20.46
#1	.0000	.0001	.0004	.0000	.0002
#2	.0000	.0001	.0009	.0002	.0002
#3	.0000	.0000	.0002	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2727.5**	**6489.1**	**39093.**	**9422.9**
Stddev	2.7	11.1	184.	32.4
%RSD	.09922	.17128	.47166	.34346
#1	2728.7	6495.6	39227.	9456.8
#2	2729.4	6495.4	39170.	9419.6
#3	2724.4	6476.3	38883.	9392.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 13:59:09 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2543**	**40.23**	**1.994**	**1.995**	**2.039**	**2.036**	**40.81**	**2.026**	**2.016**
Stddev	.0012	.16	.002	.005	.008	.007	.11	.001	.002
%RSD	.4549	.3904	.0925	.2335	.3723	.3388	.2776	.0629	.0879
#1	.2536	40.42	1.996	1.991	2.045	2.043	40.88	2.026	2.015
#2	.2556	40.16	1.993	2.000	2.041	2.032	40.86	2.025	2.015
#3	.2536	40.13	1.993	1.994	2.030	2.031	40.68	2.028	2.018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.037**	**2.024**	**40.56**	**40.50**	**2.006**	**40.77**	**2.038**	**2.007**	**40.56**
Stddev	.013	.018	.13	.12	.009	.08	.028	.001	.23
%RSD	.6422	.8701	.3134	.3022	.4683	.2043	1.351	.0420	.5583
#1	2.035	2.019	40.71	40.61	2.017	40.87	2.034	2.007	40.81
#2	2.051	2.043	40.51	40.51	2.001	40.73	2.068	2.007	40.39
#3	2.026	2.009	40.48	40.37	2.000	40.72	2.013	2.008	40.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.013**	**1.985**	**1.986**	**2.000**	**2.038**	**2.012**	**2.012**	**2.036**	**1.993**
Stddev	.001	.006	.003	.004	.002	.002	.010	.014	.002
%RSD	.0511	.3105	.1737	.2008	.0876	.1062	.5189	.6907	.0812
#1	2.014	1.992	1.986	1.996	2.038	2.011	2.024	2.032	1.995
#2	2.012	1.985	1.982	2.002	2.037	2.011	2.006	2.052	1.992
#3	2.013	1.979	1.989	2.003	2.040	2.015	2.007	2.025	1.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 13:59:09 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.032**	**2.024**
Stddev	.015	.002
%RSD	.7228	.1036
#1	2.031	2.026
#2	2.047	2.024
#3	2.018	2.022
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2327.3**	**6222.6**	**37206.**	**9311.3**
Stddev	2.0	9.4	239.	4.8
%RSD	.08474	.15111	.64184	.05108
#1	2327.6	6233.3	37296.	9312.8
#2	2325.2	6218.7	36935.	9315.1
#3	2329.1	6215.7	37386.	9305.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 14:11:13 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0055**	**-.0003**	F **.0059**	**.0000**	**.0000**	**-.0008**	**.0001**	**.0000**
Stddev	.000	.0079	.0006	.0007	.000	.000	.0008	.0000	.0001
%RSD	283.4	143.1	232.2	12.60	5115.	161.5	111.1	25.95	304.4
#1	.0000	.0069	-.0002	.0068	.0001	.0000	.0002	.0001	.0001
#2	.0000	-.0030	.0003	.0053	-.0002	-.0001	-.0011	.0001	-.0001
#3	-.0001	.0125	-.0009	.0058	.0001	.0000	-.0014	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0007**	**.0013**	**-.0061**	F **.0026**	**-.0026**	**.0000**	**.0001**	**-.0014**
Stddev	.0001	.0001	.0010	.0192	.0002	.0072	.0000	.0000	.0044
%RSD	49.38	11.14	75.66	317.4	9.347	273.9	487.7	22.08	324.2
#1	-.0002	.0006	.0003	-.0093	.0027	-.0057	.0000	.0001	-.0017
#2	-.0002	.0006	.0022	.0146	.0023	.0056	.0000	.0001	.0032
#3	-.0004	.0007	.0013	-.0235	.0028	-.0078	.0000	.0001	-.0056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0010				
Low Limit					-.0010				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0003**	**.0003**	**.0000**	**.0003**	**.0003**	**.0000**	**.0000**	**-.0013**
Stddev	.000	.0005	.0010	.0014	.0005	.0004	.0000	.000	.0013
%RSD	7117.	192.2	323.6	3223.	185.6	130.7	214.3	308.6	105.8
#1	.0002	.0003	.0002	-.0010	.0000	.0006	.0000	-.0001	-.0027
#2	-.0002	-.0005	.0014	.0016	.0000	.0004	.0000	.0001	-.0008
#3	-.0001	-.0006	-.0007	-.0005	.0008	-.0001	.0001	-.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 14:11:13 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0001**
Stddev	.0000	.0000
%RSD	143.3	7.202
#1	.0000	.0001
#2	.0000	.0001
#3	.0000	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2718.9**	**6479.6**	**38529.**	**9331.7**
Stddev	3.2	17.2	106.	43.8
%RSD	.11720	.26591	.27432	.46891
#1	2722.6	6499.3	38428.	9380.2
#2	2717.1	6471.7	38520.	9319.6
#3	2717.0	6467.7	38638.	9295.2

Zoom In Zoom Out

Sample Name: FC11041-6 Acquired: 11/10/2023 14:19:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0419**	**-.0009**	**.0356**	**.1227**	**.0000**	**99.76**	**.0000**	**.0000**
Stddev	.000	.0048	.0013	.0004	.0005	.000	.85	.0001	.0001
%RSD	457.4	11.44	132.6	1.190	.4357	113.4	.8500	4532.	321.8
#1	.0001	.0458	-.0019	.0352	.1229	.0000	100.3	.0001	.0000
#2	.0000	.0366	-.0015	.0354	.1231	.0000	100.2	.0000	.0000
#3	-.0002	.0433	.0005	.0361	.1221	.0000	98.79	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0007**	**.0454**	**1.119**	**.0048**	**36.08**	**.0591**	**.0028**	**35.20**
Stddev	.0001	.0003	.0013	.015	.0009	.13	.0004	.0001	.15
%RSD	167.2	40.40	2.759	1.304	18.79	.3713	.7403	4.910	.4260
#1	-.0001	.0005	.0469	1.123	.0057	36.23	.0595	.0029	35.37
#2	.0002	.0006	.0447	1.102	.0039	35.99	.0591	.0027	35.09
#3	.0001	.0010	.0447	1.130	.0047	36.01	.0586	.0027	35.13

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0018**	**.0008**	**-.0011**	**4.867**	**.0003**	**.2547**	**.0023**	**-.0017**
Stddev	.0002	.0003	.0016	.0021	.007	.0002	.0007	.0002	.0019
%RSD	107.5	17.52	200.3	188.7	.1431	62.98	.2679	9.026	110.7
#1	.0000	-.0018	-.0010	.0002	4.859	.0005	.2555	.0022	-.0036
#2	.0005	-.0022	.0016	-.0035	4.871	.0002	.2541	.0025	-.0018
#3	.0002	-.0015	.0017	.0000	4.870	.0002	.2546	.0021	.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0169**
Stddev	.0001	.0000
%RSD	23.87	.0262
#1	.0005	.0169
#2	.0004	.0169
#3	.0003	.0169

Zoom In Zoom Out

Sample Name: FC11041-6 Acquired: 11/10/2023 14:19:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2456.2**	**6187.8**	**37245.**	**9248.4**
Stddev	3.4	10.7	220.	27.5
%RSD	.14028	.17253	.59092	.29698
#1	2456.3	6199.6	37067.	9216.7
#2	2452.7	6178.9	37177.	9262.2
#3	2459.6	6184.8	37491.	9266.2

Zoom In Zoom Out

Sample Name: FC10988-4 Acquired: 11/10/2023 14:24:44 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0482**	**.4607**	F **8.080**	**1.313**	**-.0003**	**140.1**	**.0001**
Stddev	.0033	.0194	.0054	.119	.004	.0006	.7	.0002
%RSD	284.0	40.38	1.165	1.476	.3006	212.4	.4974	137.2
#1	-.0026	.0383	.4643	8.089	1.315	-.0009	140.3	.0000
#2	.0031	.0706	.4632	7.956	1.316	.0002	140.7	.0000
#3	.0029	.0356	.4545	8.194	1.309	-.0002	139.3	.0003

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0347**	**.0384**	**.0160**	**6.196**	F **8825.**	F **22.39**	**5.645**	**.0737**
Stddev	.0001	.0015	.0012	.059	108.	.09	.053	.0004
%RSD	.2205	3.915	7.258	.9467	1.223	.4111	.9398	.4880
#1	.0346	.0375	.0147	6.157	8811.	22.35	5.607	.0737
#2	.0347	.0375	.0164	6.264	8939.	22.50	5.622	.0741
#3	.0348	.0401	.0170	6.168	8725.	22.33	5.705	.0734

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.135**	F **15870.**	**.4073**	**-.0162**	**.0372**	**.1267**	**56.53**	**.0054**
Stddev	.011	294.	.0010	.0102	.0076	.0010	.14	.0011
%RSD	.1373	1.851	.2565	62.90	20.34	.7857	.2394	19.89
#1	8.146	15980.	.4075	-.0273	.0368	.1256	56.62	.0047
#2	8.123	16090.	.4062	-.0141	.0299	.1271	56.38	.0049
#3	8.137	15540.	.4083	-.0072	.0450	.1274	56.59	.0066

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**20.82**	**.0162**	**-.0361**	**.2252**	**.0194**
Stddev	.10	.0004	.0097	.0020	.0010
%RSD	.4634	2.264	26.90	.8887	5.199
#1	20.76	.0161	-.0407	.2268	.0204
#2	20.93	.0166	-.0249	.2257	.0195
#3	20.76	.0159	-.0426	.2229	.0184

Zoom In Zoom Out

Sample Name: FC10988-4 Acquired: 11/10/2023 14:24:44 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1923.0**	**5442.1**	**31350.**	**8918.3**
Stddev	4.5	15.4	65.	111.4
%RSD	.23223	.28218	.20715	1.2496
#1	1927.6	5446.8	31423.	8935.2
#2	1922.8	5454.6	31298.	8799.3
#3	1918.7	5425.0	31331.	9020.2

Zoom In Zoom Out

Sample Name: FC10988-5 Acquired: 11/10/2023 14:30:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0073**	**.6842**	**7.888**	F **195.6**	**.1269**	**-.0023**	**30.28**	**-.0036**
Stddev	.0033	.0276	.017	1.1	.0011	.0003	.07	.0008
%RSD	45.41	4.035	.2206	.5801	.8412	12.34	.2300	21.83
#1	.0097	.7139	7.908	195.3	.1268	-.0025	30.26	-.0037
#2	.0087	.6593	7.879	194.7	.1280	-.0020	30.36	-.0043
#3	.0035	.6794	7.876	196.9	.1258	-.0025	30.23	-.0028

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4641**	**.7796**	**.0407**	**11.18**	F **26290.**	F **31.00**	**-.0937**	**.1929**
Stddev	.0030	.0024	.0055	.05	132.	.06	.2516	.0002
%RSD	.6519	.3056	13.51	.4891	.5021	.1966	268.4	.0988
#1	.4640	.7772	.0458	11.21	26390.	31.02	-.3659	.1928
#2	.4612	.7796	.0413	11.11	26330.	31.04	-.0458	.1931
#3	.4672	.7820	.0349	11.20	26140.	30.93	.1305	.1928

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**76.67**	*****	**13.74**	**-.0143**	**.3209**	**1.309**	**107.6**	**.0261**
Stddev	.11	-----	.01	.0238	.0297	.033	.2	.0053
%RSD	.1382	-----	.0677	166.1	9.244	2.530	.1754	20.50
#1	76.72	-----	13.74	.0128	.2882	1.304	107.8	.0317
#2	76.55	-----	13.73	-.0242	.3460	1.344	107.4	.0253
#3	76.74	-----	13.75	-.0317	.3286	1.279	107.8	.0211

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**3.740**	**.0144**	F **-.2567**	**2.035**	**.0662**
Stddev	.016	.0009	.0140	.004	.0013
%RSD	.4149	6.086	5.449	.1815	1.942
#1	3.741	.0134	-.2430	2.040	.0653
#2	3.755	.0148	-.2561	2.033	.0655
#3	3.724	.0150	-.2709	2.033	.0677

Zoom In Zoom Out

Sample Name: FC10988-5 Acquired: 11/10/2023 14:30:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1666.5**	**5102.8**	**29562.**	**8783.1**
Stddev	2.1	4.6	48.	53.5
%RSD	.12889	.08934	.16265	.60957
#1	1666.8	5107.2	29517.	8792.0
#2	1664.2	5103.1	29557.	8725.6
#3	1668.5	5098.1	29613.	8831.6

Zoom In Zoom Out

Sample Name: MP43117-MB1 Acquired: 11/10/2023 14:35:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0055**	**-.0006**	F **.0157**	**.0001**	**-.0001**	**.0332**	**.0000**	**.0000**
Stddev	.0002	.0078	.0008	.0009	.0001	.0000	.0017	.000	.0001
%RSD	101.7	140.6	129.8	5.647	50.55	56.20	5.063	87.59	229.9
#1	.0000	.0093	-.0001	.0165	.0002	.0000	.0351	-.0001	.0001
#2	-.0003	-.0034	-.0002	.0159	.0002	.0000	.0319	.0000	.0000
#3	-.0003	.0107	-.0016	.0148	.0001	-.0001	.0327	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050					
Low Limit				-.0050					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0004**	**.0133**	**.7909**	**.0038**	**.0068**	**.0001**	**.0006**	**.6230**
Stddev	.0001	.0002	.0011	.0475	.0008	.0077	.0000	.0001	.0331
%RSD	61.11	50.97	7.952	6.002	22.30	114.4	28.95	9.743	5.317
#1	-.0001	.0002	.0132	.8374	.0029	-.0022	.0001	.0007	.6540
#2	-.0002	.0005	.0145	.7927	.0045	.0112	.0001	.0006	.6269
#3	-.0002	.0005	.0124	.7425	.0039	.0112	.0001	.0006	.5881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**-.0007**	**.0007**	**.0176**	**-.0001**	**.0000**	**.0000**	**-.0015**
Stddev	.0001	.000	.0007	.0014	.0019	.0002	.0000	.000	.0009
%RSD	97.92	1122.	100.8	209.4	10.62	195.9	87.58	107.2	60.80
#1	-.0001	-.0004	.0001	.0009	.0192	.0001	.0000	-.0001	-.0006
#2	.0000	.0001	-.0010	-.0008	.0179	-.0002	.0000	.0000	-.0024
#3	-.0002	.0003	-.0013	.0019	.0156	-.0003	.0000	.0000	-.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43117-MB1 Acquired: 11/10/2023 14:35:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0007**
Stddev	.000	.0000
%RSD	729.3	2.951
#1	.0000	.0007
#2	-.0001	.0007
#3	.0000	.0007
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2730.7**	**6521.2**	**39574.**	**9289.4**
Stddev	24.6	56.0	304.	63.0
%RSD	.89944	.85870	.76832	.67791
#1	2737.8	6532.4	39925.	9274.8
#2	2703.3	6460.5	39408.	9235.1
#3	2750.9	6570.8	39389.	9358.4

Zoom In Zoom Out

Sample Name: MP43117-B1 Acquired: 11/10/2023 14:40:27 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1945**	**24.64**	**.1956**	**.4838**	**.1970**	**.1982**	**44.99**	**.1941**	**.1946**
Stddev	.0005	.05	.0002	.0025	.0003	.0004	.05	.0004	.0004
%RSD	.2769	.1999	.0893	.5102	.1589	.1886	.1125	.1852	.2114
#1	.1951	24.68	.1957	.4828	.1971	.1985	45.05	.1938	.1943
#2	.1945	24.59	.1954	.4820	.1966	.1978	44.95	.1940	.1946
#3	.1940	24.67	.1957	.4866	.1972	.1983	44.98	.1945	.1951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2003**	**.1946**	**44.45**	**44.39**	**.5308**	**44.10**	**.1928**	**.6815**	**40.92**
Stddev	.0003	.0002	.05	.05	.0021	.08	.0005	.0021	.13
%RSD	.1586	.1207	.1169	.1077	.3997	.1797	.2709	.3149	.3268
#1	.2007	.1949	44.50	44.44	.5328	44.16	.1934	.6794	41.05
#2	.2002	.1946	44.40	44.38	.5285	44.13	.1928	.6815	40.79
#3	.2001	.1944	44.46	44.34	.5311	44.01	.1923	.6837	40.91
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1966**	**.1854**	**.1965**	**.1878**	**.5832**	**.5017**	**.5203**	**.5168**	**.1903**
Stddev	.0005	.0018	.0015	.0023	.0012	.0022	.0011	.0005	.0002
%RSD	.2385	.9500	.7841	1.243	.2063	.4464	.2040	.1039	.1163
#1	.1963	.1841	.1972	.1861	.5820	.4998	.5214	.5173	.1901
#2	.1964	.1846	.1976	.1868	.5832	.5011	.5193	.5168	.1904
#3	.1972	.1874	.1948	.1904	.5844	.5041	.5202	.5162	.1905
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43117-B1 Acquired: 11/10/2023 14:40:27 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2013**	**.1971**
Stddev	.0003	.0002
%RSD	.1427	.0825
#1	.2015	.1969
#2	.2010	.1972
#3	.2014	.1970
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2387.6**	**6255.2**	**37796.**	**9181.6**
Stddev	5.1	19.6	139.	27.0
%RSD	.21455	.31407	.36660	.29375
#1	2392.2	6262.7	37643.	9172.5
#2	2388.5	6269.9	37830.	9160.3
#3	2382.0	6232.9	37914.	9211.9

Zoom In Zoom Out

Sample Name: FC11041-4 Acquired: 11/10/2023 14:45:22 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0407**	**.0142**	**.0478**	**.4890**	**-.0001**	**55.64**	**.0000**	**-.0001**
Stddev	.0003	.0078	.0011	.0011	.0014	.0000	.05	.000	.0000
%RSD	84.31	19.23	7.853	2.366	.2865	75.82	.0919	68.58	21.85
#1	.0005	.0357	.0150	.0490	.4905	.0000	55.69	.0000	-.0001
#2	.0000	.0497	.0129	.0475	.4887	.0000	55.61	.0000	-.0001
#3	.0004	.0368	.0147	.0468	.4878	-.0001	55.60	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**3.355**	**4.571**	**.0068**	**14.99**	**.0674**	**.0366**	**9.615**
Stddev	.000	.000	.002	.011	.0006	.02	.0004	.0001	.013
%RSD	867.0	2599.	.0527	.2354	9.234	.1241	.6287	.2425	.1330
#1	.0003	.0001	3.357	4.583	.0071	15.01	.0678	.0366	9.627
#2	-.0001	-.0003	3.356	4.565	.0072	14.97	.0670	.0367	9.615
#3	-.0003	.0002	3.353	4.564	.0061	15.00	.0672	.0366	9.602

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0012**	**.0007**	**-.0005**	**5.643**	**.0009**	**.3148**	**.0023**	**-.0023**
Stddev	.0001	.0004	.0004	.0021	.009	.0002	.0004	.0003	.0006
%RSD	114.6	34.80	50.91	417.2	.1528	22.77	.1424	11.13	26.86
#1	-.0001	-.0015	.0003	-.0023	5.652	.0008	.3152	.0021	-.0016
#2	.0000	-.0013	.0011	-.0010	5.644	.0008	.3149	.0021	-.0029
#3	-.0001	-.0007	.0008	.0018	5.635	.0011	.3143	.0026	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0141**
Stddev	.0001	.0000
%RSD	58.25	.1092
#1	.0004	.0141
#2	.0001	.0141
#3	.0003	.0141

Zoom In Zoom Out

Sample Name: FC11041-4 Acquired: 11/10/2023 14:45:22 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2555.5**	**6329.0**	**38636.**	**9293.9**
Stddev	2.8	9.1	244.	39.8
%RSD	.10767	.14362	.63211	.42875
#1	2555.2	6334.0	38402.	9312.8
#2	2553.0	6318.5	38889.	9320.7
#3	2558.4	6334.5	38615.	9248.1

Zoom In Zoom Out

Sample Name: MP43117-D1 Acquired: 11/10/2023 14:50:25 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0385**	**.0139**	**.0447**	**.4801**	**.0000**	**54.75**	**.0000**	**-.0001**
Stddev	.0001	.0014	.0008	.0008	.0003	.000	.06	.000	.0001
%RSD	112.6	3.743	5.908	1.820	.0694	155.6	.1086	76.84	44.15
#1	.0000	.0370	.0148	.0444	.4803	.0000	54.73	-.0001	-.0001
#2	.0000	.0399	.0138	.0456	.4797	-.0001	54.71	.0000	-.0002
#3	.0002	.0387	.0132	.0441	.4803	.0000	54.82	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**3.310**	**4.445**	**.0047**	**14.74**	**.0658**	**.0359**	**9.290**
Stddev	.0001	.0003	.021	.018	.0002	.03	.0002	.0000	.069
%RSD	96.27	180.2	.6392	.4015	3.847	.1851	.2651	.1160	.7432
#1	.0002	.0004	3.286	4.455	.0047	14.73	.0657	.0359	9.213
#2	.0001	-.0002	3.320	4.424	.0045	14.72	.0660	.0359	9.307
#3	.0000	.0003	3.324	4.455	.0049	14.77	.0658	.0359	9.348

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0012**	**.0003**	**.0004**	**5.535**	**.0002**	**.3086**	**.0023**	**-.0014**
Stddev	.0001	.0002	.0003	.0007	.011	.0004	.0018	.0003	.0006
%RSD	60.33	19.83	96.60	173.1	.1973	177.4	.5783	11.46	45.58
#1	.0000	-.0014	.0006	.0002	5.546	.0004	.3065	.0026	-.0007
#2	-.0002	-.0009	.0005	.0011	5.524	-.0002	.3097	.0022	-.0018
#3	-.0002	-.0013	.0000	-.0002	5.536	.0004	.3095	.0022	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0144**
Stddev	.0000	.0000
%RSD	17.86	.3028
#1	.0002	.0144
#2	.0002	.0144
#3	.0002	.0145

Zoom In Zoom Out

Sample Name: MP43117-D1 Acquired: 11/10/2023 14:50:25 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2569.8**	**6380.1**	**38753.**	**9324.1**
Stddev	2.0	4.0	132.	51.7
%RSD	.07763	.06235	.34013	.55489
#1	2571.9	6384.2	38859.	9343.5
#2	2568.0	6376.2	38605.	9363.4
#3	2569.3	6379.8	38795.	9265.5

Zoom In Zoom Out

Sample Name: MP43117-SD1 Acquired: 11/10/2023 14:55:26 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0640**	**.0139**	**.0552**	**.4709**	**.0000**	**54.29**	**.0001**	**.0000**
Stddev	.0011	.0172	.0017	.0059	.0013	.000	.14	.0001	.001
%RSD	233.5	26.95	12.61	10.68	.2841	77.83	.2578	81.07	2313.
#1	-.0016	.0783	.0156	.0491	.4719	-.0001	54.38	.0002	.0000
#2	.0006	.0448	.0121	.0608	.4715	-.0001	54.35	.0002	.0005
#3	-.0004	.0688	.0139	.0556	.4694	.0000	54.13	.0000	-.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0008**	**3.310**	**4.948**	**.0078**	**14.86**	**.0661**	**.0350**	**9.520**
Stddev	.0007	.0007	.013	.080	.0018	.10	.0007	.0009	.004
%RSD	196.7	88.58	.4030	1.616	23.71	.6764	1.017	2.618	.0421
#1	-.0011	-.0001	3.323	5.034	.0071	14.98	.0665	.0339	9.520
#2	.0001	-.0007	3.312	4.876	.0064	14.81	.0664	.0353	9.524
#3	.0000	-.0015	3.296	4.934	.0099	14.80	.0653	.0357	9.516

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0003**	**.0058**	**.0016**	**5.468**	**.0010**	**.3057**	**.0047**	**-.0026**
Stddev	.0010	.0016	.0048	.0109	.003	.0005	.0010	.0003	.0068
%RSD	220.2	533.3	82.39	696.9	.0617	46.41	.3163	7.020	264.5
#1	-.0016	-.0013	.0003	.0102	5.464	.0006	.3066	.0047	-.0104
#2	.0001	-.0012	.0087	-.0107	5.471	.0015	.3047	.0051	.0017
#3	.0002	.0016	.0084	.0052	5.467	.0011	.3056	.0044	.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0152**
Stddev	.0006	.0001
%RSD	308.3	.9539
#1	.0006	.0153
#2	.0005	.0150
#3	-.0005	.0153

Zoom In Zoom Out

Sample Name: MP43117-SD1 Acquired: 11/10/2023 14:55:26 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2687.1**	**6496.1**	**39388.**	**9292.9**
Stddev	3.7	5.4	137.	57.0
%RSD	.13731	.08331	.34903	.61315
#1	2683.0	6500.3	39289.	9239.5
#2	2690.2	6498.0	39330.	9286.4
#3	2688.1	6490.0	39545.	9352.9

Zoom In Zoom Out

Sample Name: MP43117-PS1 Acquired: 11/10/2023 15:00:30 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0509**	**2.711**	**.1185**	**.0426**	**.7277**	**.0526**	**59.03**	**.0513**	**.0515**
Stddev	.0003	.013	.0007	.0013	.0010	.0001	.08	.0001	.0001
%RSD	.6638	.4891	.6205	3.139	.1326	.2175	.1314	.2206	.2309
#1	.0510	2.713	.1176	.0416	.7286	.0527	59.12	.0515	.0516
#2	.0512	2.696	.1186	.0441	.7276	.0525	58.98	.0513	.0514
#3	.0505	2.722	.1191	.0422	.7267	.0525	58.99	.0513	.0515

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0527**	**.0980**	**6.436**	**14.45**	**.0056**	**19.73**	**.1140**	**.1320**	**18.53**
Stddev	.0003	.0003	.017	.05	.0016	.08	.0005	.0003	.02
%RSD	.5168	.3190	.2672	.3289	27.93	.3829	.4301	.2611	.1254
#1	.0525	.0978	6.456	14.47	.0072	19.78	.1134	.1316	18.56
#2	.0530	.0984	6.430	14.49	.0054	19.76	.1143	.1322	18.52
#3	.0526	.0979	6.423	14.40	.0041	19.64	.1142	.1322	18.51

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1054**	**.0473**	**.1063**	**.0939**	**5.445**	**.0537**	**.3547**	**.1070**	**.0971**
Stddev	.0001	.0004	.0005	.0011	.003	.0002	.0008	.0004	.0015
%RSD	.1377	.8950	.4365	1.223	.0581	.3629	.2229	.3305	1.549
#1	.1055	.0471	.1065	.0938	5.443	.0539	.3554	.1066	.0954
#2	.1052	.0478	.1058	.0952	5.449	.0535	.3548	.1072	.0982
#3	.1055	.0470	.1067	.0929	5.444	.0536	.3538	.1071	.0978

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0512**	**.2710**
Stddev	.0003	.0004
%RSD	.5169	.1658
#1	.0509	.2713
#2	.0513	.2705
#3	.0514	.2713

Zoom In Zoom Out

Sample Name: MP43117-PS1 Acquired: 11/10/2023 15:00:30 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2516.6**	**6357.4**	**38904.**	**9245.4**
Stddev	2.4	4.8	212.	31.6
%RSD	.09458	.07507	.54470	.34172
#1	2518.9	6355.1	39070.	9208.9
#2	2516.6	6362.9	38666.	9263.7
#3	2514.2	6354.2	38978.	9263.6

Zoom In Zoom Out

Sample Name: MP43117-S1 Acquired: 11/10/2023 15:05:27 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1999**	**25.47**	**.2149**	F **.5263**	**.6617**	**.2007**	**97.41**	**.1923**	**.1944**
Stddev	.0004	.09	.0010	.0009	.0016	.0008	1.25	.0001	.0000
%RSD	.2058	.3357	.4870	.1719	.2370	.3784	1.287	.0417	.0146
#1	.1996	25.52	.2144	.5255	.6625	.2009	98.79	.1924	.1944
#2	.2003	25.52	.2161	.5261	.6627	.2014	97.10	.1922	.1944
#3	.1997	25.37	.2142	.5273	.6599	.1999	96.34	.1923	.1944

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2004**	**.1894**	**48.30**	**49.24**	F **.5459**	**57.99**	**.2507**	**.7214**	**49.93**
Stddev	.0005	.0006	.12	.14	.0029	.10	.0006	.0004	.34
%RSD	.2647	.3169	.2434	.2891	.5231	.1790	.2338	.0513	.6848
#1	.2009	.1896	48.33	49.28	.5477	58.00	.2513	.7210	50.14
#2	.2004	.1900	48.39	49.36	.5475	58.09	.2508	.7218	50.13
#3	.1999	.1888	48.16	49.08	.5426	57.88	.2501	.7215	49.54

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1991**	**.1920**	**.2031**	**.1893**	**5.936**	**.5100**	**.8272**	**.5249**	**.1944**
Stddev	.0003	.0007	.0023	.0037	.003	.0009	.0031	.0007	.0011
%RSD	.1510	.3780	1.110	1.954	.0569	.1847	.3805	.1308	.5621
#1	.1988	.1926	.2010	.1852	5.932	.5104	.8293	.5256	.1940
#2	.1994	.1923	.2055	.1924	5.939	.5090	.8287	.5242	.1936
#3	.1991	.1912	.2026	.1902	5.936	.5107	.8236	.5250	.1957

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2019**	**.2111**
Stddev	.0002	.0004
%RSD	.0937	.1885
#1	.2021	.2113
#2	.2017	.2107
#3	.2019	.2114

Zoom In Zoom Out

Sample Name: MP43117-S1 Acquired: 11/10/2023 15:05:27 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2325.6**	**6233.6**	**38026.**	**9192.3**
Stddev	.4	3.9	58.	23.7
%RSD	.01553	.06235	.15369	.25736
#1	2325.3	6230.7	37986.	9173.5
#2	2326.0	6238.0	38093.	9184.4
#3	2325.6	6232.1	37998.	9218.8

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 15:10:30 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2549**	**41.10**	**2.011**	**1.919**	**2.012**	**2.023**	**40.48**	**1.987**	**2.010**
Stddev	.0003	.01	.003	.005	.005	.004	.08	.001	.001
%RSD	.1323	.0173	.1677	.2600	.2509	.2133	.2092	.0600	.0671
#1	.2550	41.10	2.012	1.925	2.017	2.028	40.57	1.988	2.011
#2	.2545	41.09	2.014	1.916	2.007	2.019	40.42	1.988	2.011
#3	.2551	41.10	2.007	1.916	2.011	2.023	40.44	1.986	2.009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.999**	**1.904**	**40.77**	**40.53**	**2.000**	**39.91**	**1.942**	**1.992**	**39.47**
Stddev	.008	.012	.02	.07	.003	.03	.017	.002	.09
%RSD	.3868	.6192	.0476	.1738	.1529	.0654	.8868	.1030	.2332
#1	1.998	1.904	40.78	40.61	2.000	39.94	1.933	1.992	39.44
#2	1.991	1.893	40.75	40.49	1.997	39.89	1.930	1.993	39.40
#3	2.006	1.916	40.78	40.50	2.003	39.89	1.962	1.989	39.57
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.049**	**2.042**	**2.034**	**1.941**	**2.000**	**2.032**	**1.982**	**1.992**	**2.043**
Stddev	.002	.004	.004	.002	.003	.001	.003	.005	.001
%RSD	.0996	.2137	.1861	.0853	.1531	.0285	.1556	.2763	.0680
#1	2.048	2.045	2.030	1.943	1.999	2.032	1.982	1.994	2.041
#2	2.051	2.037	2.034	1.940	2.003	2.032	1.978	1.986	2.043
#3	2.048	2.044	2.038	1.940	1.998	2.031	1.984	1.997	2.044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 15:10:30 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.962**	**2.044**
Stddev	.009	.003
%RSD	.4860	.1276
#1	1.962	2.046
#2	1.953	2.045
#3	1.972	2.041
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2319.4**	**6234.6**	**38249.**	**9093.6**
Stddev	3.6	4.9	79.	15.0
%RSD	.15442	.07838	.20568	.16496
#1	2316.9	6239.2	38279.	9107.1
#2	2323.5	6229.5	38309.	9077.5
#3	2317.7	6235.0	38160.	9096.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 15:15:30 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0025**	**.0000**	F **.0046**	**.0001**	**.0000**	**-.0014**	**.0000**	**.0001**
Stddev	.0002	.0088	.001	.0008	.0001	.0000	.0009	.0001	.0000
%RSD	182.1	346.1	2712.	18.03	75.61	35.47	67.37	203.8	33.24
#1	.0003	-.0029	.0001	.0053	.0000	.0000	-.0022	.0000	.0001
#2	.0000	.0064	.0010	.0047	.0002	.0000	-.0017	.0001	.0002
#3	.0000	-.0111	-.0012	.0037	.0002	.0000	-.0003	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0003**	**.0026**	**.0971**	**.0004**	**-.0082**	**.0001**	**.0002**	**.0388**
Stddev	.0002	.0001	.0011	.0144	.0004	.0117	.0000	.0001	.0048
%RSD	700.6	31.66	43.47	14.79	88.31	142.1	35.09	28.20	12.41
#1	-.0002	-.0002	.0036	.1115	.0002	.0025	.0001	.0002	.0428
#2	.0001	-.0003	.0028	.0969	.0002	-.0066	.0001	.0003	.0335
#3	.0002	-.0004	.0014	.0828	.0009	-.0206	.0000	.0002	.0400
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0010**	**.0002**	**.0008**	**.0001**	**.0001**	**.0001**	**-.0001**
Stddev	.0001	.0005	.0013	.0009	.0006	.0003	.0000	.0001	.0011
%RSD	126.2	224.2	134.7	383.5	76.41	239.7	23.22	56.40	780.9
#1	-.0002	.0003	.0014	-.0003	.0015	.0005	.0001	.0001	.0001
#2	-.0002	-.0006	-.0005	.0013	.0004	-.0001	.0001	.0001	-.0014
#3	.0000	-.0004	.0021	-.0003	.0005	.0001	.0001	.0002	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 15:15:30 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0001**
Stddev	.0001	.0000
%RSD	109.7	32.62
#1	.0002	.0001
#2	.0000	.0001
#3	.0002	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2694.8**	**6473.5**	**39623.**	**9077.0**
Stddev	4.2	13.7	152.	54.3
%RSD	.15448	.21238	.38291	.59783
#1	2699.2	6488.4	39460.	9130.0
#2	2691.0	6461.2	39761.	9079.6
#3	2694.3	6470.9	39647.	9021.5

Zoom In Zoom Out

Sample Name: MP43117-S2 Acquired: 11/10/2023 15:20:37 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2021**	**25.88**	**.2170**	F **.5179**	**.6538**	**.2030**	**96.88**	**.1931**	**.1962**
Stddev	.0004	.04	.0021	.0039	.0023	.0002	.97	.0001	.0003
%RSD	.1782	.1457	.9632	.7436	.3589	.0792	1.003	.0371	.1480
#1	.2022	25.92	.2168	.5143	.6536	.2029	97.77	.1930	.1962
#2	.2018	25.85	.2192	.5220	.6515	.2030	95.84	.1932	.1959
#3	.2025	25.86	.2151	.5174	.6562	.2032	97.02	.1931	.1965

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2021**	**.1900**	**48.94**	**49.56**	F **.5503**	**58.24**	**.2510**	**.7248**	**50.46**
Stddev	.0010	.0001	.07	.13	.0009	.31	.0014	.0007	.17
%RSD	.4769	.0434	.1524	.2633	.1615	.5380	.5731	.0988	.3357
#1	.2032	.1900	48.99	49.62	.5509	58.47	.2527	.7240	50.64
#2	.2014	.1900	48.85	49.41	.5507	57.88	.2499	.7250	50.31
#3	.2018	.1901	48.98	49.65	.5493	58.36	.2505	.7254	50.43

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2021**	**.1956**	**.2076**	**.1882**	**5.835**	**.5144**	**.8277**	**.5228**	**.1993**
Stddev	.0002	.0007	.0007	.0039	.006	.0001	.0010	.0014	.0013
%RSD	.1137	.3831	.3594	2.076	.1086	.0245	.1171	.2587	.6757
#1	.2022	.1961	.2082	.1839	5.829	.5144	.8287	.5212	.2009
#2	.2023	.1948	.2067	.1916	5.842	.5145	.8268	.5234	.1985
#3	.2019	.1960	.2077	.1889	5.833	.5142	.8278	.5237	.1986

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2008**	**.2136**
Stddev	.0004	.0003
%RSD	.2080	.1364
#1	.2012	.2137
#2	.2004	.2133
#3	.2008	.2138

Zoom In Zoom Out

Sample Name: MP43117-S2 Acquired: 11/10/2023 15:20:37 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2324.5**	**6250.6**	**38448.**	**9139.1**
Stddev	2.9	1.2	142.	65.6
%RSD	.12339	.01977	.36904	.71790
#1	2325.4	6251.8	38288.	9080.9
#2	2326.8	6250.6	38559.	9210.2
#3	2321.3	6249.3	38496.	9126.3

Zoom In Zoom Out

Sample Name: FC11040-1 Acquired: 11/10/2023 15:25:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0723**	**-.0008**	**.0159**	**.0208**	**.0000**	**56.84**	**.0000**	**.0000**
Stddev	.0004	.0113	.0005	.0006	.0001	.000	.22	.0000	.000
%RSD	190.9	15.70	65.09	3.615	.2645	335.8	.3813	51.28	1277.
#1	-.0001	.0846	-.0014	.0165	.0208	-.0001	57.06	.0000	.0001
#2	.0001	.0698	-.0005	.0156	.0208	.0000	56.85	.0001	-.0001
#3	.0007	.0624	-.0005	.0155	.0207	.0000	56.62	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0074**	**.0749**	**1.205**	**.0039**	**.8960**	**.0029**	**.0003**	**4.802**
Stddev	.0002	.0004	.0018	.027	.0003	.0097	.0000	.0002	.008
%RSD	11.42	5.105	2.376	2.238	7.954	1.088	1.177	55.89	.1703
#1	.0018	.0078	.0734	1.234	.0035	.8979	.0030	.0003	4.792
#2	.0020	.0071	.0744	1.201	.0040	.8855	.0029	.0005	4.805
#3	.0016	.0072	.0769	1.180	.0041	.9047	.0029	.0001	4.808

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0006**	**.0010**	**-.0005**	**4.431**	**.0004**	**.0401**	**.0029**	**-.0001**
Stddev	.0001	.0004	.0010	.0030	.005	.0003	.0001	.0002	.0017
%RSD	16.23	69.45	94.45	625.4	.1209	97.31	.1717	5.625	1527.
#1	.0009	-.0007	.0004	-.0036	4.431	.0000	.0400	.0031	-.0018
#2	.0007	-.0001	.0005	-.0001	4.426	.0003	.0401	.0029	.0016
#3	.0007	-.0009	.0022	.0023	4.437	.0007	.0401	.0027	-.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0274**
Stddev	.0001	.0000
%RSD	91.52	.1379
#1	.0001	.0273
#2	.0003	.0274
#3	.0001	.0274

Zoom In Zoom Out

Sample Name: FC11040-1 Acquired: 11/10/2023 15:25:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2627.1**	**6459.5**	**39964.**	**9260.4**
Stddev	3.6	8.0	56.	37.7
%RSD	.13779	.12404	.13898	.40764
#1	2631.2	6463.1	39905.	9218.7
#2	2626.1	6465.0	40014.	9270.3
#3	2624.2	6450.3	39974.	9292.2

Zoom In Zoom Out

Sample Name: FC11040-2 Acquired: 11/10/2023 15:30:46 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.2503**	**-.0005**	**.0247**	**.0250**	**.0001**	**50.81**	**.0000**	**.0000**
Stddev	.0002	.0033	.0007	.0008	.0001	.0000	.07	.000	.0001
%RSD	733.9	1.330	146.5	3.280	.2871	31.23	.1419	126.3	530.1
#1	.0002	.2513	-.0003	.0238	.0251	.0002	50.89	.0000	.0001
#2	-.0001	.2466	.0001	.0249	.0249	.0001	50.75	.0000	.0000
#3	-.0001	.2530	-.0013	.0254	.0250	.0001	50.80	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**-.0005**	**.2329**	**1.319**	**.0028**	**.8674**	**.0053**	**.0002**	**5.366**
Stddev	.0002	.0000	.0011	.026	.0007	.0123	.0000	.0000	.017
%RSD	7.888	9.025	.4623	2.000	24.44	1.415	.2658	20.55	.3213
#1	.0021	-.0005	.2317	1.303	.0022	.8679	.0053	.0002	5.348
#2	.0022	-.0005	.2334	1.349	.0026	.8548	.0053	.0003	5.369
#3	.0019	-.0004	.2337	1.304	.0035	.8793	.0052	.0002	5.382

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0008**	**.0005**	**-.0001**	**5.276**	**.0004**	**.0810**	**.0043**	**-.0013**
Stddev	.0001	.0006	.0015	.0007	.012	.0002	.0003	.0001	.0003
%RSD	3.528	73.15	293.1	713.7	.2301	51.37	.3258	2.317	22.95
#1	.0036	-.0015	.0023	.0003	5.284	.0002	.0808	.0042	-.0015
#2	.0035	-.0004	-.0003	-.0009	5.281	.0006	.0810	.0044	-.0014
#3	.0037	-.0006	-.0004	.0003	5.262	.0004	.0813	.0042	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.1011**
Stddev	.0002	.0002
%RSD	39.34	.1650
#1	.0004	.1010
#2	.0007	.1011
#3	.0003	.1013

Zoom In Zoom Out

Sample Name: FC11040-2 Acquired: 11/10/2023 15:30:46 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2628.6**	**6480.1**	**40095.**	**9269.6**
Stddev	8.7	14.3	142.	97.4
%RSD	.32979	.22008	.35425	1.0510
#1	2637.8	6491.7	40005.	9162.1
#2	2627.4	6484.3	40259.	9295.0
#3	2620.6	6464.2	40021.	9351.9

Zoom In Zoom Out

Sample Name: FC11040-3 Acquired: 11/10/2023 15:35:51 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0189**	**-.0013**	**.0138**	**.0174**	**.0000**	**53.31**	**-.0001**	**.0000**
Stddev	.0001	.0087	.0003	.0002	.0002	.000	.08	.0000	.000
%RSD	73.09	45.96	21.56	1.088	1.280	12.98	.1551	49.25	433.9
#1	.0002	.0136	-.0011	.0137	.0176	.0000	53.25	-.0001	.0000
#2	.0002	.0289	-.0011	.0137	.0174	.0000	53.40	-.0001	.0001
#3	.0000	.0142	-.0016	.0140	.0172	.0000	53.28	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0004**	**.0501**	**1.069**	**.0007**	**.7108**	**.0012**	**.0001**	**5.180**
Stddev	.0001	.0000	.0012	.031	.0011	.0148	.0000	.0000	.030
%RSD	5.489	8.524	2.469	2.911	153.1	2.087	2.160	30.70	.5894
#1	.0014	-.0004	.0497	1.065	.0014	.7000	.0012	.0002	5.145
#2	.0014	-.0004	.0515	1.040	-.0005	.7048	.0011	.0001	5.202
#3	.0012	-.0003	.0491	1.102	.0012	.7277	.0012	.0001	5.192

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0010**	**.0003**	**.0003**	**4.324**	**.0004**	**.0382**	**.0018**	**-.0020**
Stddev	.0002	.0008	.0009	.0010	.011	.0004	.0001	.0000	.0011
%RSD	6.328	75.45	363.9	303.7	.2451	104.4	.2538	1.753	53.91
#1	.0027	-.0002	-.0008	-.0003	4.319	.0000	.0381	.0018	-.0017
#2	.0026	-.0011	.0011	-.0001	4.317	.0005	.0382	.0018	-.0033
#3	.0024	-.0017	.0004	.0015	4.336	.0008	.0383	.0018	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0193**
Stddev	.0002	.0001
%RSD	33.93	.6280
#1	.0006	.0191
#2	.0005	.0193
#3	.0003	.0194

Zoom In Zoom Out

Sample Name: FC11040-3 Acquired: 11/10/2023 15:35:51 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2596.8**	**6390.1**	**39549.**	**9120.7**
Stddev	1.5	13.6	126.	20.0
%RSD	.05794	.21357	.31871	.21977
#1	2595.6	6392.9	39425.	9141.8
#2	2598.5	6402.1	39544.	9118.5
#3	2596.3	6375.2	39677.	9101.9

Zoom In Zoom Out

Sample Name: FC11040-4 Acquired: 11/10/2023 15:40:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.6609**	**-.0008**	**.0133**	**.0535**	**.0000**	**51.93**	**.0000**	**-.0001**
Stddev	.0003	.0053	.0004	.0016	.0002	.0000	.05	.0000	.0001
%RSD	1630.	.7964	46.49	12.07	.3223	42.20	.0893	167.4	64.48
#1	.0000	.6637	-.0004	.0139	.0534	.0000	51.96	.0001	-.0001
#2	.0003	.6641	-.0011	.0115	.0534	.0000	51.95	.0000	-.0001
#3	-.0003	.6548	-.0010	.0146	.0537	.0001	51.88	.0000	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0004**	**.6780**	**2.808**	**.0047**	**1.409**	**.0397**	**.0004**	**2.578**
Stddev	.0002	.0002	.0010	.006	.0006	.024	.0001	.0001	.017
%RSD	10.06	60.58	.1469	.2257	12.30	1.709	.2261	15.89	.6442
#1	.0022	-.0003	.6788	2.808	.0045	1.437	.0398	.0004	2.576
#2	.0019	-.0006	.6784	2.801	.0042	1.395	.0397	.0004	2.596
#3	.0024	-.0002	.6769	2.813	.0053	1.395	.0396	.0003	2.563

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0028**	**-.0002**	**-.0003**	**.0009**	**11.22**	**.0003**	**.1849**	**.0157**	**-.0016**
Stddev	.0002	.0008	.0008	.0007	.01	.0002	.0006	.0006	.0017
%RSD	6.872	387.4	284.6	79.54	.1151	54.90	.3324	3.550	110.9
#1	.0027	-.0002	-.0003	.0004	11.20	.0003	.1854	.0157	-.0005
#2	.0026	.0006	.0005	.0018	11.21	.0001	.1852	.0151	-.0036
#3	.0030	-.0010	-.0011	.0006	11.23	.0005	.1842	.0162	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0270**
Stddev	.0000	.0001
%RSD	5.544	.3570
#1	.0009	.0270
#2	.0008	.0269
#3	.0009	.0271

Zoom In Zoom Out

Sample Name: FC11040-4 Acquired: 11/10/2023 15:40:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2627.4**	**6512.3**	**40196.**	**9267.0**
Stddev	3.0	1.8	54.	37.4
%RSD	.11549	.02754	.13433	.40385
#1	2630.5	6511.8	40230.	9227.3
#2	2624.4	6514.3	40134.	9272.3
#3	2627.3	6510.8	40224.	9301.6

Zoom In Zoom Out

Sample Name: FC11040-5 Acquired: 11/10/2023 15:45:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0179**	**-.0008**	**.0110**	**.0227**	**-.0001**	**60.20**	**.0000**	**-.0001**
Stddev	.0003	.0039	.0008	.0014	.0001	.0000	.12	.000	.0001
%RSD	121.4	21.51	94.16	13.21	.3630	64.10	.2025	223.2	183.6
#1	-.0006	.0154	-.0003	.0106	.0228	.0000	60.22	-.0001	.0000
#2	-.0001	.0224	-.0017	.0097	.0226	-.0001	60.07	.0000	-.0002
#3	-.0001	.0160	-.0004	.0126	.0227	.0000	60.31	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0008**	**.0180**	**.9402**	**.0040**	**.7898**	**.0003**	**.0000**	**4.229**
Stddev	.0002	.0003	.0005	.0162	.0006	.0019	.0000	.0000	.021
%RSD	26.13	34.06	2.860	1.728	14.91	.2459	3.995	120.7	.5013
#1	.0008	-.0011	.0182	.9226	.0046	.7900	.0004	.0000	4.209
#2	.0010	-.0006	.0174	.9547	.0038	.7877	.0003	.0000	4.225
#3	.0006	-.0007	.0184	.9432	.0034	.7916	.0003	.0001	4.251

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0010**	**.0010**	**-.0006**	**4.314**	**.0008**	**.0392**	**.0016**	**-.0021**
Stddev	.0001	.0001	.0004	.0004	.006	.0003	.0001	.0000	.0009
%RSD	90.13	11.62	45.86	69.16	.1416	36.11	.1765	.7551	39.95
#1	.0003	-.0011	.0009	-.0011	4.312	.0009	.0392	.0016	-.0028
#2	.0000	-.0011	.0014	-.0006	4.309	.0009	.0393	.0016	-.0012
#3	.0001	-.0009	.0005	-.0002	4.320	.0005	.0392	.0016	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0240**
Stddev	.0001	.0001
%RSD	20.62	.3019
#1	.0002	.0240
#2	.0002	.0239
#3	.0003	.0239

Zoom In Zoom Out

Sample Name: FC11040-5 Acquired: 11/10/2023 15:45:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2627.2**	**6466.4**	**40134.**	**9221.3**
Stddev	2.4	6.2	86.	56.2
%RSD	.08983	.09608	.21322	.60955
#1	2629.9	6471.2	40037.	9189.2
#2	2625.8	6468.6	40165.	9286.2
#3	2625.9	6459.4	40200.	9188.4

Zoom In Zoom Out

Sample Name: FC11040-6 Acquired: 11/10/2023 15:51:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.1443**	**-.0010**	**.0116**	**.0281**	**.0000**	**53.06**	**.0000**	**-.0001**
Stddev	.000	.0047	.0002	.0008	.0002	.0000	.18	.000	.0001
%RSD	389.6	3.243	18.38	6.903	.8557	246.7	.3463	63.49	137.7
#1	-.0001	.1398	-.0011	.0107	.0282	.0000	53.27	.0000	-.0002
#2	.0000	.1440	-.0011	.0122	.0283	.0000	52.93	.0000	-.0001
#3	.0000	.1492	-.0008	.0119	.0279	.0000	52.99	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0002**	**.3931**	**2.956**	**.0047**	**.9077**	**.0105**	**.0005**	**2.633**
Stddev	.0001	.0002	.0013	.032	.0023	.0052	.0000	.0000	.009
%RSD	16.75	91.53	.3265	1.083	47.86	.5715	.1382	9.252	.3421
#1	.0009	.0003	.3919	2.993	.0048	.9094	.0105	.0005	2.640
#2	.0007	.0004	.3929	2.936	.0070	.9119	.0105	.0005	2.636
#3	.0009	.0000	.3944	2.939	.0024	.9019	.0105	.0004	2.623

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0010**	**.0007**	**-.0009**	**9.440**	**.0006**	**.0954**	**.0037**	**-.0016**
Stddev	.0001	.0003	.0010	.0004	.016	.0002	.0003	.0000	.0008
%RSD	32.04	31.90	149.3	49.71	.1663	25.92	.3350	.0578	51.86
#1	-.0005	-.0010	-.0005	-.0013	9.422	.0008	.0957	.0037	-.0022
#2	-.0003	-.0007	.0016	-.0005	9.448	.0005	.0956	.0037	-.0020
#3	-.0003	-.0013	.0010	-.0008	9.451	.0005	.0951	.0037	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0522**
Stddev	.0002	.0001
%RSD	614.9	.0978
#1	-.0002	.0522
#2	.0001	.0523
#3	.0001	.0522

Zoom In Zoom Out

Sample Name: FC11040-6 Acquired: 11/10/2023 15:51:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2629.4**	**6490.6**	**40376.**	**9262.1**
Stddev	5.8	13.1	71.	39.5
%RSD	.22158	.20142	.17488	.42637
#1	2628.6	6503.8	40450.	9263.9
#2	2624.1	6477.6	40369.	9300.6
#3	2635.6	6490.3	40309.	9221.7

Zoom In Zoom Out

Sample Name: FC11040-7 Acquired: 11/10/2023 15:56:06 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0239**	**-.0012**	**.0140**	**.0226**	**.0000**	**55.24**	**.0000**	**.0000**
Stddev	.0002	.0006	.0009	.0023	.0001	.000	.02	.000	.000
%RSD	502.6	2.388	74.27	16.13	.5990	423.7	.0409	482.1	227.8
#1	.0003	.0232	-.0019	.0159	.0225	.0001	55.26	.0000	.0000
#2	-.0001	.0243	-.0014	.0147	.0225	.0000	55.24	.0000	-.0001
#3	.0000	.0241	-.0002	.0115	.0227	.0000	55.22	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0005**	**.0355**	**1.955**	**.0022**	**.9240**	**.0003**	**.0001**	**5.139**
Stddev	.0001	.0001	.0008	.014	.0012	.0082	.0000	.0000	.020
%RSD	19.62	15.45	2.351	.7258	53.48	.8872	9.369	43.37	.3900
#1	.0008	-.0004	.0346	1.948	.0033	.9150	.0003	.0000	5.129
#2	.0006	-.0004	.0362	1.946	.0022	.9310	.0004	.0001	5.162
#3	.0008	-.0005	.0357	1.972	.0010	.9262	.0004	.0001	5.126

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0003**	**.0009**	**.0022**	**4.298**	**.0001**	**.0454**	**.0016**	**-.0015**
Stddev	.0002	.0006	.0003	.0005	.007	.0003	.0000	.0001	.0000
%RSD	6.386	225.3	31.71	23.79	.1729	407.9	.1025	5.987	3.015
#1	.0024	-.0006	.0006	.0019	4.300	-.0001	.0455	.0015	-.0015
#2	.0027	.0004	.0012	.0027	4.290	-.0002	.0454	.0017	-.0015
#3	.0025	-.0006	.0009	.0018	4.305	.0005	.0454	.0016	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0350**
Stddev	.0001	.0001
%RSD	49.64	.2167
#1	.0001	.0349
#2	.0001	.0350
#3	.0002	.0350

Zoom In Zoom Out

Sample Name: FC11040-7 Acquired: 11/10/2023 15:56:06 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2625.3**	**6453.6**	**40094.**	**9114.6**
Stddev	7.2	17.8	48.	29.6
%RSD	.27304	.27544	.12040	.32428
#1	2631.8	6469.9	40147.	9148.7
#2	2626.5	6456.1	40083.	9097.0
#3	2617.6	6434.7	40052.	9098.1

Zoom In Zoom Out

Sample Name: FC11040-8 Acquired: 11/10/2023 16:01:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.1672**	**-.0015**	**.0171**	**.0226**	**.0001**	**54.12**	**.0000**	**.0001**
Stddev	.0002	.0061	.0011	.0011	.0002	.0000	.16	.0000	.0000
%RSD	38.58	3.657	71.19	6.305	1.059	78.75	.2888	119.4	74.40
#1	-.0006	.1609	-.0008	.0181	.0223	.0001	54.29	.0000	.0001
#2	-.0003	.1731	-.0028	.0159	.0226	.0000	54.06	.0000	.0000
#3	-.0006	.1677	-.0010	.0174	.0228	.0001	54.00	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**-.0003**	**.4110**	**1.128**	**.0032**	**.7239**	**.0151**	**.0002**	**4.236**
Stddev	.0000	.0002	.0017	.005	.0003	.0140	.0001	.0001	.032
%RSD	1.261	74.48	.4213	.4834	9.299	1.932	.3918	81.85	.7427
#1	.0031	-.0001	.4123	1.130	.0035	.7078	.0151	.0000	4.271
#2	.0031	-.0005	.4117	1.132	.0029	.7310	.0150	.0003	4.227
#3	.0031	-.0003	.4090	1.122	.0032	.7330	.0150	.0001	4.210

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0120**	**-.0007**	**-.0002**	**.0017**	**4.783**	**.0005**	**.0387**	**.0062**	**-.0021**
Stddev	.0002	.0004	.0013	.0014	.005	.0003	.0002	.0005	.0011
%RSD	1.357	49.73	756.0	83.60	.1136	55.99	.4566	7.729	53.23
#1	.0118	-.0011	-.0006	.0019	4.781	.0008	.0389	.0061	-.0014
#2	.0120	-.0003	-.0012	.0029	4.779	.0006	.0386	.0068	-.0034
#3	.0121	-.0008	.0013	.0002	4.789	.0002	.0386	.0058	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.1103**
Stddev	.0003	.0003
%RSD	48.39	.3161
#1	.0004	.1100
#2	.0008	.1101
#3	.0004	.1107

Zoom In Zoom Out

Sample Name: FC11040-8 Acquired: 11/10/2023 16:01:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2628.1**	**6473.3**	**40067.**	**9155.7**
Stddev	1.8	11.7	132.	77.9
%RSD	.06981	.18031	.32862	.85054
#1	2629.9	6477.2	39924.	9075.5
#2	2628.1	6482.5	40091.	9160.4
#3	2626.2	6460.2	40184.	9231.1

Zoom In Zoom Out

Sample Name: FC11040-9 Acquired: 11/10/2023 16:06:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0494**	**-.0008**	**.0121**	**.0238**	**.0000**	**57.32**	**.0000**	**-.0001**
Stddev	.0002	.0041	.0012	.0006	.0004	.000	.89	.000	.0001
%RSD	145.0	8.239	143.5	5.178	1.508	1115.	1.551	98.01	170.5
#1	.0001	.0541	.0005	.0121	.0239	.0000	57.20	.0000	.0000
#2	.0004	.0466	-.0018	.0114	.0234	.0000	56.50	.0000	.0000
#3	.0000	.0476	-.0012	.0127	.0241	.0001	58.26	-.0001	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0160**	**.0294**	**.9827**	**.0032**	**.8272**	**.0005**	**.0000**	**4.864**
Stddev	.0002	.0001	.0008	.0363	.0010	.0213	.0000	.0001	.080
%RSD	11.83	.6547	2.691	3.696	31.58	2.580	4.535	299.7	1.649
#1	.0015	.0160	.0301	.9689	.0041	.8355	.0005	.0001	4.883
#2	.0011	.0161	.0286	.9553	.0021	.8029	.0005	.0002	4.776
#3	.0013	.0159	.0294	1.024	.0034	.8430	.0005	-.0001	4.933

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0004**	**.0000**	**.0012**	**4.435**	**.0004**	**.0390**	**.0028**	**-.0021**
Stddev	.0000	.0005	.001	.0022	.006	.0004	.0005	.0001	.0012
%RSD	6.960	127.5	1158.	193.2	.1336	93.34	1.305	3.181	56.10
#1	.0003	.0007	-.0006	.0017	4.430	.0002	.0390	.0028	-.0014
#2	.0003	.0006	.0006	-.0013	4.442	.0001	.0385	.0028	-.0034
#3	.0003	-.0002	-.0001	.0030	4.434	.0008	.0395	.0029	-.0015

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0309**
Stddev	.0001	.0001
%RSD	24.59	.3562
#1	.0004	.0311
#2	.0002	.0308
#3	.0004	.0309

Zoom In Zoom Out

Sample Name: FC11040-9 Acquired: 11/10/2023 16:06:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2616.7**	**6462.3**	**40374.**	**9140.4**
Stddev	2.7	6.3	94.	185.1
%RSD	.10450	.09811	.23385	2.0254
#1	2616.7	6455.4	40470.	9190.6
#2	2619.4	6463.5	40281.	9295.3
#3	2613.9	6467.9	40372.	8935.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 16:11:18 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2552**	**41.63**	**2.036**	**1.879**	**1.986**	**2.025**	**40.30**	**1.971**	**2.004**
Stddev	.0014	.07	.002	.013	.003	.004	.05	.003	.002
%RSD	.5673	.1751	.0931	.6888	.1701	.2045	.1284	.1327	.1137
#1	.2556	41.55	2.037	1.869	1.985	2.021	40.27	1.972	2.005
#2	.2536	41.66	2.034	1.893	1.990	2.025	40.27	1.968	2.002
#3	.2564	41.68	2.037	1.874	1.984	2.029	40.36	1.974	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.984**	**1.846**	**41.12**	**40.43**	**1.997**	**39.70**	**1.894**	**1.985**	**39.07**
Stddev	.014	.012	.08	.10	.004	.19	.024	.002	.18
%RSD	.6985	.6720	.2044	.2450	.2182	.4686	1.263	.1098	.4536
#1	1.985	1.844	41.03	40.31	1.994	39.69	1.906	1.985	38.91
#2	1.970	1.835	41.13	40.47	1.996	39.52	1.866	1.983	39.03
#3	1.998	1.860	41.20	40.50	2.002	39.89	1.909	1.987	39.26
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.073**	**2.085**	**2.060**	**1.923**	**1.978**	**2.037**	**1.970**	**1.962**	**2.077**
Stddev	.000	.005	.002	.002	.002	.002	.006	.012	.008
%RSD	.0189	.2411	.0850	.1250	.1035	.1039	.2992	.6013	.3847
#1	2.072	2.080	2.062	1.922	1.979	2.037	1.964	1.967	2.072
#2	2.073	2.090	2.058	1.922	1.976	2.036	1.975	1.948	2.086
#3	2.073	2.084	2.061	1.926	1.980	2.040	1.973	1.970	2.073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 16:11:18 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.916**	**2.064**
Stddev	.015	.001
%RSD	.7873	.0643
#1	1.920	2.066
#2	1.899	2.064
#3	1.928	2.064
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2314.6**	**6254.8**	**39032.**	**8996.3**
Stddev	3.9	10.6	373.	53.4
%RSD	.16950	.16880	.95579	.59325
#1	2319.0	6256.6	39045.	8991.5
#2	2311.3	6264.4	39398.	9051.9
#3	2313.6	6243.5	38652.	8945.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 16:25:03 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0025**	**-.0005**	F **.0029**	**.0000**	**.0000**	**-.0012**	**.0000**
Stddev	.0001	.0030	.0004	.0005	.0001	.0000	.0010	.0000
%RSD	3823.	117.5	71.15	18.09	849.5	664.7	81.63	112.1
#1	-.0001	.0008	-.0006	.0034	-.0001	.0000	-.0022	.0001
#2	.0001	.0060	-.0009	.0024	.0000	.0000	-.0002	.0000
#3	.0000	.0009	-.0001	.0030	.0001	.0000	-.0012	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**-.0004**	**.0015**	**.0563**	**.0005**	**-.0058**	**.0000**
Stddev	.0001	.0002	.0002	.0007	.0077	.0011	.0063	.000
%RSD	225.2	150.2	40.35	48.27	13.66	206.8	108.9	393.4
#1	-.0001	-.0001	-.0005	.0010	.0475	.0017	-.0107	.0000
#2	.0001	.0001	-.0002	.0012	.0616	.0004	-.0079	.0000
#3	.0000	.0004	-.0005	.0023	.0598	-.0005	.0013	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0066**	**-.0001**	**-.0007**	**.0011**	F **-.0020**	**-.0004**	**.0002**
Stddev	.0001	.0026	.0001	.0004	.0005	.0016	.0000	.0002
%RSD	7561.	38.95	185.5	51.31	46.25	76.82	8.495	111.6
#1	.0001	.0049	-.0002	-.0005	.0006	-.0036	-.0004	.0000
#2	.0001	.0095	.0001	-.0012	.0011	-.0005	-.0004	.0001
#3	-.0001	.0052	-.0001	-.0006	.0016	-.0020	-.0004	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 16:25:03 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0007**	**-.0001**	**.0000**
Stddev	.0001	.0001	.0012	.0001	.0000
%RSD	65.93	1380.	172.0	270.2	38.53
#1	.0001	.0001	.0011	-.0002	.0001
#2	.0002	.0001	-.0007	.0000	.0000
#3	.0000	-.0001	.0016	.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2740.7**	**6619.2**	**40795.**	**9063.7**
Stddev	15.7	35.0	139.	41.3
%RSD	.57138	.52823	.34104	.45591
#1	2758.4	6654.8	40646.	9108.2
#2	2735.0	6618.0	40921.	9026.5
#3	2728.7	6584.9	40819.	9056.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 17:08:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2517**	**39.85**	**1.987**	**1.973**	**2.017**	**2.029**	**40.43**	**2.023**	**2.011**
Stddev	.0005	.07	.004	.006	.003	.002	.04	.001	.001
%RSD	.2120	.1824	.2022	.2893	.1629	.0878	.0888	.0299	.0711
#1	.2515	39.92	1.983	1.967	2.020	2.031	40.47	2.022	2.010
#2	.2513	39.78	1.989	1.977	2.017	2.028	40.43	2.023	2.011
#3	.2523	39.86	1.990	1.975	2.013	2.028	40.39	2.023	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**2.008**	**40.23**	**39.97**	**1.986**	**40.35**	**2.029**	**2.003**	**40.23**
Stddev	.002	.008	.04	.06	.004	.09	.003	.002	.11
%RSD	.1170	.3875	.1051	.1551	.1799	.2258	.1646	.1019	.2832
#1	2.023	2.016	40.27	40.04	1.990	40.45	2.033	2.001	40.36
#2	2.022	2.000	40.23	39.97	1.984	40.34	2.026	2.004	40.18
#3	2.027	2.008	40.19	39.91	1.984	40.27	2.028	2.005	40.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.009**	**1.995**	**1.988**	**1.987**	**2.041**	**2.014**	**2.007**	**2.005**	**2.002**
Stddev	.001	.002	.001	.002	.004	.001	.004	.002	.005
%RSD	.0509	.0847	.0521	.1214	.1745	.0298	.1909	.1089	.2324
#1	2.008	1.996	1.988	1.986	2.038	2.014	2.012	2.005	2.008
#2	2.008	1.993	1.987	1.990	2.039	2.013	2.005	2.002	1.999
#3	2.010	1.995	1.989	1.986	2.045	2.014	2.006	2.006	2.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 17:08:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.012**	**2.021**
Stddev	.004	.003
%RSD	.2232	.1234
#1	2.015	2.023
#2	2.006	2.022
#3	2.013	2.018
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2305.1**	**6278.4**	**38827.**	**8927.5**
Stddev	4.3	7.0	101.	16.9
%RSD	.18686	.11227	.26034	.18956
#1	2302.3	6280.0	38902.	8919.3
#2	2310.0	6284.5	38867.	8916.3
#3	2302.9	6270.8	38712.	8947.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 17:15:13 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0049**	**.0002**	F **.0042**	**-.0001**	**.0001**	**-.0008**	**.0001**	**.0000**
Stddev	.0001	.0031	.0001	.0011	.0000	.0000	.0012	.0000	.000
%RSD	75.12	62.75	69.64	25.74	20.03	27.78	147.0	35.03	74.90
#1	.0000	-.0078	.0004	.0039	-.0001	.0001	-.0010	.0000	.0000
#2	.0003	-.0016	.0001	.0033	-.0001	.0001	-.0020	.0001	.0000
#3	.0002	-.0054	.0001	.0054	-.0001	.0000	.0005	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0010**	**.0201**	**-.0004**	**-.0068**	**.0001**	**.0004**	**-.0050**
Stddev	.0002	.0001	.0007	.0153	.0015	.0076	.0000	.0001	.0078
%RSD	121.1	41.02	73.87	76.26	404.3	111.7	42.34	22.84	155.0
#1	.0000	.0002	.0017	.0074	-.0005	.0000	.0000	.0005	-.0066
#2	.0005	.0003	.0007	.0371	-.0017	-.0054	.0001	.0003	.0034
#3	.0001	.0002	.0004	.0157	.0012	-.0151	.0001	.0004	-.0119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0005**	**.0011**	**.0012**	**.0001**	**.0008**	**.0000**	**.0000**	**-.0005**
Stddev	.0001	.0006	.0008	.0008	.0003	.0003	.000	.0000	.0005
%RSD	74.09	129.0	80.82	69.12	259.2	32.66	433.8	175.4	113.3
#1	.0001	.0002	.0005	.0019	.0003	.0009	.0000	.0001	-.0004
#2	.0000	-.0009	.0020	.0015	.0003	.0005	-.0001	.0000	.0000
#3	.0002	-.0008	.0006	.0003	-.0002	.0010	.0000	.0000	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 17:15:13 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0000**
Stddev	.000	.000
%RSD	450.4	187.7
#1	-.0001	.0000
#2	-.0002	.0000
#3	.0002	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2689.2**	**6547.6**	**40015.**	**8931.8**
Stddev	1.3	11.6	157.	31.0
%RSD	.04908	.17712	.39346	.34756
#1	2688.7	6561.0	40003.	8953.3
#2	2688.2	6541.2	40178.	8945.9
#3	2690.7	6540.7	39864.	8896.2

Zoom In Zoom Out

Sample Name: FC11040-10 Acquired: 11/10/2023 17:19:35 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0181**	**-.0014**	**.0136**	**.0219**	**.0000**	**53.26**	**.0000**	**-.0001**
Stddev	.0003	.0037	.0005	.0005	.0001	.0000	.12	.0000	.0001
%RSD	162.5	20.55	38.86	3.419	.3776	184.6	.2309	216.1	107.8
#1	-.0003	.0183	-.0019	.0133	.0218	.0000	53.23	.0000	-.0002
#2	-.0005	.0143	-.0014	.0133	.0220	.0001	53.40	.0000	-.0001
#3	.0001	.0217	-.0008	.0141	.0219	.0000	53.16	.0000	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0002**	**.0638**	**1.169**	**.0018**	**1.112**	**.0020**	**.0004**	**4.394**
Stddev	.0002	.0001	.0015	.009	.0012	.001	.0000	.0001	.029
%RSD	14.52	60.95	2.395	.7530	68.93	.1246	.8778	20.33	.6655
#1	.0015	.0002	.0653	1.164	.0006	1.114	.0020	.0003	4.428
#2	.0012	.0003	.0623	1.164	.0017	1.111	.0020	.0005	4.374
#3	.0015	.0001	.0637	1.179	.0031	1.112	.0020	.0004	4.381

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**-.0006**	**.0018**	**.0028**	**3.764**	**.0006**	**.0400**	**.0016**	**-.0010**
Stddev	.0002	.0006	.0013	.0010	.002	.0004	.0002	.0000	.0001
%RSD	3.395	100.9	68.59	35.29	.0635	66.67	.4463	2.948	12.85
#1	.0054	-.0013	.0020	.0034	3.766	.0002	.0402	.0016	-.0009
#2	.0057	-.0004	.0030	.0034	3.761	.0010	.0399	.0016	-.0011
#3	.0058	-.0001	.0005	.0017	3.765	.0007	.0400	.0015	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0177**
Stddev	.0001	.0001
%RSD	40.05	.7468
#1	.0003	.0175
#2	.0004	.0178
#3	.0002	.0177

Zoom In Zoom Out

Sample Name: FC11040-10 Acquired: 11/10/2023 17:19:35 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2618.3**	**6496.7**	**40140.**	**9120.9**
Stddev	6.0	12.2	70.	65.0
%RSD	.22928	.18794	.17389	.71275
#1	2617.5	6500.3	40138.	9113.1
#2	2624.7	6506.6	40071.	9060.2
#3	2612.8	6483.0	40210.	9189.5

Zoom In Zoom Out

Sample Name: FC11067-1 Acquired: 11/10/2023 17:24:40 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0281**	**.0036**	**.6395**	**.0085**	**.0003**	**261.7**	**-.0003**	**.0002**
Stddev	.002	.0722	.0017	.0051	.0008	.0004	.4	.0003	.0005
%RSD	4079.	257.2	47.02	.8031	9.919	128.2	.1562	96.12	218.7
#1	-.0002	-.0171	.0035	.6349	.0091	.0006	261.9	-.0002	-.0001
#2	-.0014	.1113	.0053	.6386	.0088	-.0001	262.0	-.0006	.0008
#3	.0015	-.0101	.0020	.6450	.0075	.0003	261.2	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0066**	**20.52**	**14.80**	**.6550**	**293.7**	**.0234**	**.0018**	F **1293.**
Stddev	.0010	.0015	.05	.09	.0007	1.3	.0003	.0008	11.
%RSD	38.75	22.49	.2520	.5745	.1114	.4388	1.105	43.41	.8192
#1	.0022	.0083	20.55	14.77	.6544	293.3	.0236	.0020	1281.
#2	.0036	.0061	20.55	14.74	.6558	295.1	.0235	.0024	1296.
#3	.0017	.0054	20.46	14.90	.6547	292.6	.0231	.0009	1302.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0074**	**.0054**	**.2386**	**5.301**	**.0090**	**3.236**	**.0084**	**-.0069**
Stddev	.0013	.0069	.0035	.0082	.014	.0026	.005	.0002	.0062
%RSD	48.62	93.11	64.57	3.455	.2673	28.86	.1651	2.267	89.14
#1	.0014	-.0025	.0094	.2351	5.298	.0060	3.232	.0084	.0002
#2	.0024	-.0152	.0034	.2327	5.289	.0100	3.242	.0083	-.0099
#3	.0039	-.0044	.0034	.2480	5.316	.0108	3.233	.0086	-.0110

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0041**	**.0069**
Stddev	.0020	.0005
%RSD	47.65	7.121
#1	.0038	.0069
#2	.0024	.0064
#3	.0062	.0074

Zoom In Zoom Out

Sample Name: FC11067-1 Acquired: 11/10/2023 17:24:40 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2284.4**	**6091.5**	**37362.**	**8780.1**
Stddev	4.9	16.5	174.	23.7
%RSD	.21607	.27104	.46525	.27043
#1	2290.0	6110.5	37183.	8761.1
#2	2280.5	6081.6	37531.	8772.6
#3	2282.8	6082.3	37372.	8806.7

Zoom In Zoom Out

Sample Name: FC11067-2 Acquired: 11/10/2023 17:29:52 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**.0499**	**.0012**	**.6742**	**.0066**	**.0001**	**265.2**	**.0003**	**.0005**
Stddev	.0002	.0125	.0039	.0093	.0002	.0002	.7	.0002	.0005
%RSD	11.24	25.07	331.0	1.384	3.482	114.5	.2473	61.93	105.4
#1	.0015	.0623	.0040	.6730	.0067	.0003	266.0	.0002	.0002
#2	.0016	.0501	.0029	.6841	.0064	.0000	264.7	.0002	.0002
#3	.0013	.0373	-.0033	.6655	.0068	.0001	265.1	.0006	.0011

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0309**	**.0860**	**15.39**	**.6861**	**303.6**	**.0027**	**.0035**	F **1330.**
Stddev	.0008	.0013	.0050	.15	.0078	.8	.0001	.0006	12.
%RSD	53.27	4.345	5.818	.9502	1.135	.2800	5.415	18.43	.8815
#1	.0006	.0296	.0819	15.30	.6866	303.8	.0028	.0034	1338.
#2	.0022	.0323	.0844	15.31	.6780	302.6	.0028	.0029	1317.
#3	.0020	.0307	.0916	15.56	.6935	304.3	.0025	.0041	1337.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0036**	**-.0046**	**.0065**	**.2501**	**6.141**	**.0032**	**3.341**	**.0080**	**-.0023**
Stddev	.0003	.0029	.0030	.0092	.010	.0013	.005	.0006	.0069
%RSD	8.898	62.81	46.35	3.678	.1593	42.01	.1582	6.955	300.9
#1	.0039	-.0077	.0077	.2396	6.130	.0043	3.347	.0087	-.0093
#2	.0033	-.0022	.0086	.2542	6.144	.0035	3.337	.0077	-.0022
#3	.0036	-.0038	.0030	.2566	6.149	.0017	3.339	.0077	.0046

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0014**	**.0055**
Stddev	.0013	.0002
%RSD	94.51	4.487
#1	-.0022	.0057
#2	-.0021	.0052
#3	.0001	.0054

Zoom In Zoom Out

Sample Name: FC11067-2 Acquired: 11/10/2023 17:29:52 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2293.4**	**6112.5**	**37306.**	**8816.0**
Stddev	.9	7.3	80.	58.8
%RSD	.03914	.11965	.21518	.66740
#1	2292.7	6120.9	37229.	8839.0
#2	2294.4	6109.3	37389.	8859.8
#3	2293.2	6107.3	37299.	8749.1

Zoom In Zoom Out

Sample Name: FC11067-1 Acquired: 11/10/2023 17:35:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0019**	**.4329**	**.0557**	**.6231**	**.0067**	**.0045**	**277.7**	**-.0007**	**-.0140**
Stddev	.0380	.6252	.0836	.1218	.0147	.0007	1.4	.0018	.0037
%RSD	1998.	144.4	149.9	19.55	219.0	15.83	.4955	245.9	26.65
#1	.0024	.1806	.0298	.6592	.0021	.0054	277.3	.0014	-.0137
#2	.0338	1.145	-.0118	.4874	.0231	.0041	279.2	-.0017	-.0105
#3	-.0419	-.0267	.1492	.7228	-.0051	.0041	276.5	-.0018	-.0180

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0091**	**.0037**	**20.69**	**14.55**	**.6874**	**297.3**	**.0247**	**.0114**	**1298.**
Stddev	.0161	.0223	.25	2.21	.1093	1.2	.0047	.0090	8.
%RSD	176.2	595.9	1.207	15.19	15.90	.4182	18.84	78.94	.5873
#1	.0047	.0020	20.78	12.01	.7245	297.9	.0257	.0212	1302.
#2	.0270	.0269	20.88	16.02	.7733	298.2	.0196	.0036	1303.
#3	-.0043	-.0177	20.41	15.61	.5644	295.9	.0288	.0094	1289.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**-.0248**	**.0603**	**.5250**	**5.216**	**.0543**	**3.244**	**.0261**	**.0379**
Stddev	.0204	.0805	.0347	.2008	.030	.0434	.013	.0116	.1100
%RSD	709.1	325.2	57.50	38.25	.5749	79.90	.3879	44.38	290.1
#1	-.0042	-.0346	.0825	.3191	5.249	.0490	3.256	.0194	-.0328
#2	.0258	.0603	.0203	.7204	5.189	.0138	3.246	.0394	-.0181
#3	-.0130	-.0999	.0780	.5354	5.211	.1000	3.231	.0194	.1647

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0189**	**.0228**
Stddev	.0087	.0048
%RSD	46.02	20.94
#1	.0252	.0210
#2	.0090	.0282
#3	.0224	.0192

Zoom In Zoom Out

Sample Name: FC11067-1 Acquired: 11/10/2023 17:35:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2652.8**	**6510.0**	**39814.**	**9007.2**
Stddev	4.3	11.5	188.	63.2
%RSD	.16390	.17736	.47173	.70220
#1	2657.4	6523.1	40013.	9061.4
#2	2652.1	6501.6	39791.	8937.7
#3	2648.8	6505.3	39639.	9022.4

Zoom In Zoom Out

Sample Name: FC11067-2 Acquired: 11/10/2023 17:40:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0115**	**-.6477**	**.0510**	**.5424**	**-.0110**	**.0043**	**262.0**	**.0002**	**-.0052**
Stddev	.0237	.0556	.0191	.0729	.0121	.0022	.7	.0020	.0164
%RSD	205.3	8.592	37.49	13.43	110.6	50.51	.2845	856.0	313.9
#1	.0095	-.6122	.0514	.5779	-.0203	.0021	261.2	-.0012	.0137
#2	-.0372	-.6190	.0317	.5908	.0027	.0064	262.1	-.0007	-.0155
#3	-.0069	-.7118	.0699	.4586	-.0153	.0043	262.7	.0026	-.0138

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**.0396**	**.1221**	**16.90**	**.5543**	**295.2**	**.0057**	**.0079**	**1283.**
Stddev	.0218	.0195	.0361	.94	.0566	1.6	.0010	.0133	2.
%RSD	397.2	49.18	29.57	5.552	10.21	.5329	16.74	167.9	.1733
#1	-.0188	.0619	.0827	17.90	.6190	296.6	.0049	-.0074	1284.
#2	.0118	.0309	.1536	16.77	.5293	293.5	.0054	.0153	1281.
#3	.0234	.0260	.1302	16.03	.5145	295.4	.0068	.0159	1285.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**-.0043**	**.0447**	**.6536**	**5.741**	**.0235**	**3.203**	**.0190**	**-.0945**
Stddev	.0141	.0178	.0699	.1484	.020	.0259	.008	.0074	.0294
%RSD	306.4	410.3	156.5	22.70	.3538	110.5	.2548	39.20	31.06
#1	.0156	-.0119	.1250	.4828	5.738	.0067	3.199	.0112	-.1051
#2	-.0113	.0160	-.0023	.7513	5.722	.0534	3.197	.0260	-.1172
#3	.0095	-.0171	.0114	.7266	5.763	.0104	3.212	.0197	-.0614

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0032**	**.0381**
Stddev	.0172	.0024
%RSD	538.2	6.297
#1	.0008	.0407
#2	.0116	.0376
#3	-.0221	.0360

Zoom In Zoom Out

Sample Name: FC11067-2 Acquired: 11/10/2023 17:40:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2665.2**	**6565.3**	**40267.**	**9021.4**
Stddev	1.0	4.6	84.	38.1
%RSD	.03902	.06979	.20833	.42265
#1	2665.5	6568.2	40191.	9063.5
#2	2666.0	6560.1	40357.	8989.2
#3	2664.0	6567.8	40253.	9011.5

Zoom In Zoom Out

Sample Name: MP43125-MB1 Acquired: 11/10/2023 17:45:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0062**	**.0001**	**-.0011**	**-.0002**	**.0000**	**.0063**	**.0001**	**.0000**
Stddev	.0002	.0089	.0006	.0011	.0001	.0000	.0005	.0001	.000
%RSD	124.2	144.8	631.3	97.18	51.79	492.0	7.348	143.1	688.3
#1	.0001	.0038	-.0005	-.0007	-.0002	.0001	.0063	.0000	-.0001
#2	-.0003	.0160	.0002	-.0023	-.0001	.0000	.0058	.0001	-.0001
#3	-.0004	-.0013	.0006	-.0003	-.0003	.0000	.0067	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0006**	**-.0003**	**.0093**	**-.0002**	**-.0004**	**.0001**	**.0002**	**.0129**
Stddev	.000	.0000	.0012	.0067	.0010	.0034	.0000	.0001	.0062
%RSD	178.9	6.745	420.6	72.16	486.1	765.7	41.97	40.47	48.04
#1	.0000	.0006	.0008	.0016	.0010	-.0035	.0001	.0002	.0110
#2	.0000	.0006	-.0016	.0125	-.0010	-.0010	.0000	.0002	.0078
#3	-.0001	.0006	-.0001	.0137	-.0006	.0032	.0001	.0001	.0198
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0003**	**-.0003**	**.0021**	**-.0001**	**-.0001**	**.0000**	**-.0001**	**-.0001**
Stddev	.0001	.0001	.0006	.0014	.0007	.0002	.000	.0001	.0012
%RSD	111.1	51.52	173.8	68.43	439.3	161.1	419.9	49.40	2052.
#1	.0002	-.0002	-.0004	.0007	.0006	-.0002	.0001	-.0001	.0014
#2	.0002	-.0004	-.0010	.0020	-.0007	.0001	-.0001	.0000	-.0009
#3	.0000	-.0002	.0003	.0035	-.0003	-.0003	-.0001	-.0001	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43125-MB1 Acquired: 11/10/2023 17:45:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0009**
Stddev	.0002	.0000
%RSD	332.6	2.209
#1	.0001	.0009
#2	-.0002	.0008
#3	-.0001	.0009
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2706.5**	**6576.2**	**40592.**	**8983.2**
Stddev	4.5	7.3	237.	36.9
%RSD	.16616	.11095	.58400	.41024
#1	2707.0	6582.5	40860.	9025.7
#2	2710.7	6577.9	40412.	8960.7
#3	2701.8	6568.2	40504.	8963.1

Zoom In Zoom Out

Sample Name: MP43125-B1 Acquired: 11/10/2023 17:50:27 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2000**	**24.44**	**.2015**	**.4818**	**.1982**	**.1995**	**45.13**	**.1987**	**.1977**
Stddev	.0001	.06	.0007	.0023	.0003	.0004	.07	.0000	.0002
%RSD	.0601	.2466	.3255	.4785	.1268	.1988	.1594	.0144	.1049
#1	.2001	24.37	.2017	.4795	.1980	.1991	45.06	.1987	.1976
#2	.1999	24.45	.2007	.4841	.1984	.1995	45.12	.1987	.1977
#3	.1999	24.49	.2020	.4820	.1983	.1999	45.20	.1987	.1980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2033**	**.1973**	**44.47**	**44.20**	**.5266**	**44.32**	**.1956**	**.6796**	**40.99**
Stddev	.0005	.0010	.06	.16	.0005	.17	.0009	.0008	.18
%RSD	.2263	.5068	.1341	.3684	.1032	.3754	.4733	.1114	.4294
#1	.2028	.1964	44.41	44.04	.5272	44.18	.1946	.6789	40.86
#2	.2033	.1972	44.47	44.21	.5265	44.26	.1959	.6794	40.91
#3	.2038	.1984	44.53	44.36	.5262	44.50	.1964	.6804	41.19
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1999**	**.1912**	**.2044**	**.1988**	**.5869**	**.5129**	**.5207**	**.5192**	**.1969**
Stddev	.0002	.0008	.0011	.0024	.0012	.0017	.0014	.0014	.0016
%RSD	.1215	.4173	.5185	1.190	.2107	.3225	.2714	.2733	.7936
#1	.1996	.1907	.2038	.2015	.5855	.5113	.5195	.5176	.1951
#2	.2001	.1909	.2056	.1973	.5876	.5128	.5202	.5197	.1974
#3	.1999	.1921	.2038	.1976	.5877	.5146	.5223	.5203	.1982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43125-B1 Acquired: 11/10/2023 17:50:27 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2050**	**.2010**
Stddev	.0005	.0005
%RSD	.2310	.2295
#1	.2046	.2015
#2	.2049	.2006
#3	.2055	.2009
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2368.0**	**6320.5**	**38744.**	**8909.1**
Stddev	1.6	11.6	116.	46.7
%RSD	.06725	.18323	.29929	.52434
#1	2369.1	6333.7	38816.	8919.0
#2	2368.7	6316.0	38610.	8950.1
#3	2366.2	6311.9	38805.	8858.3

Zoom In Zoom Out

Sample Name: FC10981-1F Acquired: 11/10/2023 17:55:23 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0536**	**.3586**	**.0151**	**1.051**	**.2242**	**.0013**	**17.74**	**.0004**
Stddev	.0023	.0430	.0037	.010	.0007	.0003	.09	.0003
%RSD	4.260	11.99	24.36	.9326	.2918	21.60	.5163	65.12
#1	.0561	.3639	.0179	1.041	.2244	.0016	17.81	.0006
#2	.0530	.3133	.0110	1.061	.2247	.0012	17.77	.0001
#3	.0516	.3988	.0165	1.050	.2234	.0011	17.63	.0005

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0202**	**-.0003**	**1.023**	**.2332**	**27.58**	**.1437**	**2.038**	**.0528**
Stddev	.0004	.0016	.001	.0048	.35	.0105	.050	.0001
%RSD	1.974	530.3	.1255	2.044	1.269	7.333	2.430	.1808
#1	.0204	.0005	1.022	.2286	27.31	.1349	2.052	.0527
#2	.0198	.0007	1.022	.2381	27.46	.1409	1.983	.0529
#3	.0205	-.0021	1.024	.2328	27.98	.1554	2.079	.0528

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4813**	*****	**1.184**	**-.0125**	**.0669**	**.0707**	**.2936**	**.0088**
Stddev	.0017	-----	.001	.0019	.0046	.0103	.0011	.0019
%RSD	.3615	-----	.0512	15.46	6.844	14.58	.3826	21.39
#1	.4821	-----	1.183	-.0138	.0662	.0799	.2925	.0074
#2	.4793	-----	1.184	-.0135	.0719	.0726	.2938	.0081
#3	.4825	-----	1.184	-.0103	.0628	.0596	.2947	.0110

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0684**	**.0113**	F **-.2233**	F **27.58**	**.0784**
Stddev	.0003	.0009	.0057	.13	.0002
%RSD	.4203	7.914	2.552	.4667	.3166
#1	.0687	.0112	-.2173	27.70	.0784
#2	.0682	.0122	-.2239	27.44	.0781
#3	.0682	.0104	-.2287	27.60	.0785

Zoom In Zoom Out

Sample Name: FC10981-1F Acquired: 11/10/2023 17:55:23 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1634.7**	**4915.3**	**28738.**	**8190.1**
Stddev	2.6	9.9	209.	57.0
%RSD	.16178	.20073	.72695	.69591
#1	1636.7	4926.6	28530.	8131.1
#2	1631.7	4911.1	28948.	8194.4
#3	1635.8	4908.3	28736.	8244.8

Zoom In Zoom Out

Sample Name: MP43125-D1 Acquired: 11/10/2023 18:00:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0498**	**.3455**	**.0157**	**.9741**	**.2119**	**.0013**	**16.76**	**.0001**
Stddev	.0024	.0282	.0045	.0109	.0016	.0001	.06	.0000
%RSD	4.748	8.157	28.52	1.123	.7329	9.914	.3474	19.65
#1	.0480	.3359	.0129	.9811	.2136	.0012	16.81	.0001
#2	.0525	.3235	.0133	.9796	.2115	.0014	16.70	.0001
#3	.0490	.3773	.0208	.9614	.2106	.0013	16.78	.0001

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0192**	**-.0017**	**.9527**	**.2090**	**25.60**	**.1466**	**1.933**	**.0495**
Stddev	.0010	.0010	.0036	.0051	.08	.0047	.044	.0004
%RSD	5.035	59.08	.3738	2.429	.3132	3.212	2.256	.8529
#1	.0197	-.0025	.9563	.2057	25.52	.1498	1.959	.0499
#2	.0180	-.0022	.9526	.2148	25.59	.1489	1.882	.0496
#3	.0197	-.0006	.9492	.2064	25.68	.1412	1.957	.0490

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4513**	*****	**1.109**	**-.0106**	**.0580**	**.0471**	**.2679**	**.0063**
Stddev	.0006	-----	.003	.0037	.0050	.0083	.0039	.0029
%RSD	.1357	-----	.2398	34.69	8.647	17.57	1.440	45.56
#1	.4506	-----	1.112	-.0064	.0522	.0465	.2652	.0044
#2	.4515	-----	1.110	-.0131	.0610	.0556	.2662	.0095
#3	.4518	-----	1.107	-.0123	.0608	.0391	.2723	.0049

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0647**	**.0105**	F **-.2089**	F **25.81**	**.0682**
Stddev	.0004	.0003	.0016	.13	.0004
%RSD	.6398	2.805	.7642	.5174	.5360
#1	.0650	.0107	-.2076	25.94	.0686
#2	.0642	.0101	-.2084	25.82	.0682
#3	.0648	.0106	-.2107	25.67	.0678

Zoom In Zoom Out

Sample Name: MP43125-D1 Acquired: 11/10/2023 18:00:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1660.3**	**4977.6**	**29251.**	**8198.8**
Stddev	2.6	6.2	84.	54.6
%RSD	.15381	.12458	.28653	.66620
#1	1658.2	4980.7	29186.	8228.6
#2	1659.6	4970.5	29221.	8232.0
#3	1663.2	4981.7	29346.	8135.8

Zoom In Zoom Out

Sample Name: MP43125-SD1 Acquired: 11/10/2023 18:05:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0471**	**.3617**	**.0058**	**.8969**	**.2107**	**.0019**	**18.41**	**.0022**
Stddev	.0073	.0320	.0170	.0182	.0014	.0002	.05	.0019
%RSD	15.41	8.849	291.4	2.032	.6620	10.27	.2793	86.36
#1	.0548	.3984	.0141	.9118	.2116	.0020	18.44	.0041
#2	.0405	.3473	-.0137	.9023	.2091	.0017	18.44	.0004
#3	.0459	.3395	.0172	.8766	.2115	.0021	18.35	.0020

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0209**	**-.0009**	**.9286**	**.2546**	**23.04**	**.1355**	**1.832**	**.0515**
Stddev	.0010	.0041	.0020	.0048	.59	.0108	.397	.0009
%RSD	4.614	473.0	.2203	1.893	2.581	7.951	21.65	1.661
#1	.0203	-.0042	.9308	.2574	23.47	.1339	2.236	.0509
#2	.0220	-.0021	.9267	.2491	23.29	.1257	1.817	.0512
#3	.0204	.0037	.9284	.2574	22.36	.1471	1.443	.0525

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4690**	F **29060.**	**1.172**	**-.0191**	**.0462**	**.0514**	**.2799**	**.0125**
Stddev	.0036	413.	.002	.0229	.0336	.0611	.0119	.0115
%RSD	.7580	1.421	.1934	120.1	72.70	118.9	4.262	91.83
#1	.4665	29310.	1.171	-.0298	.0194	-.0191	.2931	.0012
#2	.4675	29280.	1.174	-.0346	.0839	.0841	.2765	.0121
#3	.4731	28580.	1.170	.0072	.0353	.0892	.2700	.0241

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0655**	**.0104**	**-.1925**	**26.00**	**.0736**
Stddev	.0014	.0018	.0195	.08	.0016
%RSD	2.151	17.02	10.11	.3110	2.225
#1	.0641	.0084	-.2148	26.09	.0755
#2	.0669	.0114	-.1793	25.96	.0729
#3	.0655	.0115	-.1833	25.94	.0725

Zoom In Zoom Out

Sample Name: MP43125-SD1 Acquired: 11/10/2023 18:05:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2034.9**	**5712.2**	**34042.**	**8445.3**
Stddev	4.8	16.8	166.	13.6
%RSD	.23437	.29354	.48896	.16127
#1	2032.9	5716.3	33900.	8458.6
#2	2040.3	5726.5	34002.	8446.1
#3	2031.4	5693.7	34225.	8431.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 18:10:57 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2516**	**39.97**	**1.983**	**1.914**	**2.011**	**2.016**	**40.20**	**2.010**	**2.009**
Stddev	.0007	.16	.002	.012	.008	.009	.14	.003	.003
%RSD	.2900	.4001	.0830	.6062	.3763	.4365	.3573	.1327	.1482
#1	.2509	39.93	1.981	1.925	2.007	2.014	40.11	2.006	2.006
#2	.2524	39.83	1.985	1.916	2.007	2.009	40.11	2.011	2.012
#3	.2514	40.14	1.982	1.902	2.020	2.026	40.36	2.011	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.000**	**1.972**	**40.10**	**40.22**	**2.007**	**39.96**	**1.982**	**1.989**	**39.69**
Stddev	.002	.005	.22	.22	.011	.19	.001	.004	.33
%RSD	.1011	.2517	.5596	.5486	.5294	.4825	.0584	.1830	.8375
#1	2.002	1.973	40.10	40.11	2.006	39.91	1.983	1.986	39.63
#2	2.001	1.977	39.87	40.06	1.998	39.80	1.981	1.993	39.40
#3	1.998	1.967	40.32	40.47	2.019	40.17	1.981	1.988	40.05
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.016**	**2.012**	**1.991**	**1.978**	**2.027**	**2.014**	**1.992**	**1.994**	**2.009**
Stddev	.004	.006	.006	.001	.006	.002	.011	.006	.003
%RSD	.1984	.2951	.3063	.0679	.2820	.1191	.5671	.3214	.1406
#1	2.012	2.005	1.985	1.976	2.022	2.012	1.990	1.989	2.011
#2	2.020	2.014	1.997	1.978	2.034	2.016	1.982	2.001	2.006
#3	2.015	2.016	1.991	1.979	2.027	2.012	2.004	1.993	2.009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 18:10:57 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.996**	**2.021**
Stddev	.005	.002
%RSD	.2707	.1079
#1	1.991	2.019
#2	2.002	2.023
#3	1.994	2.021
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2295.3**	**6271.9**	**39132.**	**8725.7**
Stddev	8.6	18.2	35.	76.7
%RSD	.37658	.29021	.08839	.87846
#1	2305.3	6291.9	39171.	8796.7
#2	2291.3	6256.3	39107.	8735.8
#3	2289.4	6267.4	39117.	8644.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 18:15:57 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0085**	**.0002**	F **.0021**	**-.0001**	**.0001**	**.0002**	**.0000**	**.0000**
Stddev	.0001	.0037	.0009	.0005	.0001	.0000	.0011	.0000	.000
%RSD	58.01	43.43	503.5	24.10	108.7	19.65	533.9	270.7	128.4
#1	-.0002	.0118	.0002	.0015	-.0001	.0001	.0014	.0000	.0000
#2	-.0003	.0092	-.0007	.0022	.0000	.0001	-.0007	.0001	.0000
#3	-.0001	.0045	.0011	.0025	-.0002	.0001	-.0001	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0001**	**.0008**	**.0411**	F **.0021**	**.0069**	**.0001**	**.0005**	**.3816**
Stddev	.0001	.0001	.0008	.0166	.0009	.0160	.0000	.0000	.0047
%RSD	74.08	57.39	98.34	40.30	42.58	230.9	9.691	3.348	1.225
#1	.0001	.0002	.0015	.0225	.0018	-.0012	.0001	.0005	.3868
#2	.0001	.0001	-.0001	.0542	.0030	-.0034	.0001	.0005	.3777
#3	.0003	.0000	.0011	.0468	.0014	.0254	.0001	.0005	.3805
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0010				
Low Limit					-.0010				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0000**	**.0010**	**.0010**	**.0003**	**.0003**	**.0001**	**.0001**	**.0000**
Stddev	.0001	.0006	.0007	.0029	.0002	.0001	.0000	.0000	.001
%RSD	37.42	1811.	65.90	275.9	72.32	48.06	71.21	40.40	6427.
#1	-.0002	-.0006	.0012	-.0023	.0001	.0002	.0001	.0001	.0010
#2	-.0001	.0007	.0016	.0029	.0005	.0002	.0001	.0001	-.0003
#3	-.0001	.0000	.0003	.0025	.0002	.0004	.0000	.0001	-.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 18:15:57 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0000**
Stddev	.0001	.0000
%RSD	65.14	186.3
#1	.0001	.0001
#2	.0000	.0000
#3	.0001	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2690.6**	**6566.8**	**40534.**	**8857.6**
Stddev	1.4	14.8	194.	31.3
%RSD	.05047	.22512	.47796	.35357
#1	2691.2	6581.4	40551.	8823.7
#2	2691.5	6567.3	40719.	8885.4
#3	2689.0	6551.9	40332.	8863.8

Zoom In Zoom Out

Sample Name: MP43125-PS1 Acquired: 11/10/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1100**	**2.658**	**.1430**	**.9574**	**.4389**	**.0462**	**21.11**	**.0520**
Stddev	.0012	.066	.0034	.0113	.0037	.0005	.05	.0007
%RSD	1.122	2.462	2.357	1.177	.8531	1.155	.2302	1.424
#1	.1113	2.588	.1430	.9654	.4360	.0458	21.06	.0512
#2	.1088	2.669	.1397	.9623	.4377	.0461	21.14	.0525
#3	.1100	2.717	.1464	.9445	.4431	.0468	21.14	.0524

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0673**	**.0513**	**1.054**	**2.971**	**32.03**	**.1177**	**6.527**	**.0997**
Stddev	.0005	.0015	.002	.034	.36	.0103	.128	.0002
%RSD	.7848	2.913	.2188	1.126	1.127	8.759	1.953	.2305
#1	.0667	.0496	1.056	2.934	31.67	.1058	6.431	.0994
#2	.0672	.0521	1.055	2.980	32.03	.1225	6.478	.0998
#3	.0678	.0523	1.051	2.999	32.39	.1247	6.672	.0998

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5427**	*****	**1.198**	**.0404**	**.1682**	**.1781**	**.2789**	**.0584**
Stddev	.0016	-----	.002	.0009	.0020	.0106	.0017	.0030
%RSD	.3012	-----	.1329	2.230	1.188	5.933	.6111	5.051
#1	.5418	-----	1.198	.0410	.1674	.1727	.2805	.0554
#2	.5416	-----	1.197	.0394	.1668	.1903	.2771	.0585
#3	.5446	-----	1.200	.0408	.1705	.1715	.2790	.0613

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1126**	**.1083**	F **-.1165**	F **25.64**	**.3412**
Stddev	.0003	.0026	.0026	.15	.0037
%RSD	.2946	2.380	2.227	.5886	1.080
#1	.1125	.1064	-.1166	25.75	.3376
#2	.1123	.1073	-.1189	25.69	.3410
#3	.1130	.1112	-.1138	25.47	.3450

Zoom In Zoom Out

Sample Name: MP43125-PS1 Acquired: 11/10/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1656.8**	**4992.6**	**29215.**	**8103.7**
Stddev	5.2	6.5	95.	34.3
%RSD	.31141	.13070	.32600	.42305
#1	1657.3	4995.2	29120.	8141.8
#2	1661.7	4997.4	29216.	8094.1
#3	1651.4	4985.2	29310.	8075.3

Zoom In Zoom Out

Sample Name: MP43125-S1 Acquired: 11/10/2023 18:26:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3098**	**26.50**	**.2670**	**1.608**	**.4371**	**.2032**	**63.56**	**.2027**	**.2110**
Stddev	.0021	.04	.0041	.008	.0013	.0001	.06	.0005	.0006
%RSD	.6773	.1447	1.532	.5110	.2968	.0721	.0959	.2516	.3040
#1	.3118	26.53	.2683	1.599	.4386	.2034	63.62	.2030	.2103
#2	.3100	26.52	.2624	1.610	.4364	.2032	63.54	.2021	.2115
#3	.3076	26.46	.2702	1.615	.4363	.2031	63.51	.2030	.2111

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2144**	**1.282**	**46.57**	**77.48**	**.7355**	**46.43**	**.2648**	**1.188**	*****
Stddev	.0004	.007	.14	.03	.0056	.06	.0017	.002	-----
%RSD	.1674	.5288	.2949	.0364	.7640	.1280	.6265	.2056	-----
#1	.2146	1.275	46.66	77.46	.7419	46.41	.2630	1.189	-----
#2	.2140	1.288	46.65	77.51	.7334	46.50	.2662	1.185	-----
#3	.2147	1.283	46.42	77.46	.7312	46.39	.2652	1.189	-----

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.398**	**.2043**	**.2846**	**.3197**	**.9438**	**.5117**	**.6297**	**.5595**	**-.0442**
Stddev	.000	.0030	.0041	.0120	.0016	.0027	.0020	.0017	.0155
%RSD	.0275	1.491	1.442	3.747	.1701	.5279	.3133	.2992	35.11
#1	1.399	.2043	.2851	.3294	.9439	.5091	.6313	.5591	-.0452
#2	1.398	.2013	.2803	.3234	.9454	.5145	.6303	.5613	-.0592
#3	1.398	.2074	.2885	.3063	.9422	.5116	.6275	.5581	-.0282

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	F **27.90**	**.2927**
Stddev	.12	.0005
%RSD	.4174	.1668
#1	27.79	.2921
#2	28.02	.2928
#3	27.89	.2931

Zoom In Zoom Out

Sample Name: MP43125-S1 Acquired: 11/10/2023 18:26:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1613.6**	**4971.8**	**29284.**	**8070.8**
Stddev	2.4	10.6	130.	15.8
%RSD	.14854	.21357	.44444	.19521
#1	1615.7	4983.3	29396.	8087.7
#2	1611.0	4969.8	29141.	8056.6
#3	1614.1	4962.4	29315.	8067.9

Zoom In Zoom Out

Sample Name: MP43125-S2 Acquired: 11/10/2023 18:31:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2833**	**24.52**	**.2418**	**1.482**	**.4074**	**.1889**	**59.47**	**.1896**	**.1977**
Stddev	.0013	.08	.0031	.013	.0019	.0004	.17	.0001	.0001
%RSD	.4661	.3251	1.294	.8674	.4541	.2188	.2886	.0308	.0714
#1	.2826	24.53	.2453	1.491	.4095	.1889	59.54	.1896	.1978
#2	.2848	24.60	.2405	1.467	.4060	.1893	59.60	.1896	.1978
#3	.2824	24.44	.2395	1.488	.4068	.1885	59.28	.1895	.1976

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1992**	**1.170**	**43.19**	**71.00**	**.6696**	**43.61**	**.2454**	**1.103**	*****
Stddev	.0005	.003	.28	.28	.0016	.21	.0001	.001	-----
%RSD	.2364	.2414	.6455	.3896	.2460	.4768	.0585	.1305	-----
#1	.1988	1.168	43.14	71.10	.6707	43.64	.2455	1.102	-----
#2	.1990	1.173	43.49	71.21	.6677	43.80	.2453	1.103	-----
#3	.1997	1.169	42.94	70.69	.6704	43.39	.2453	1.105	-----

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.299**	**.1810**	**.2632**	**.2915**	**.8760**	**.4772**	**.5856**	**.5238**	**-.0312**
Stddev	.003	.0037	.0079	.0132	.0018	.0023	.0014	.0013	.0089
%RSD	.2086	2.022	3.006	4.518	.2016	.4861	.2331	.2516	28.50
#1	1.296	.1769	.2696	.2922	.8741	.4765	.5870	.5231	-.0210
#2	1.301	.1837	.2544	.3043	.8776	.4753	.5856	.5253	-.0358
#3	1.299	.1825	.2657	.2780	.8764	.4798	.5843	.5229	-.0369

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	F **25.90**	**.2719**
Stddev	.04	.0002
%RSD	.1624	.0689
#1	25.92	.2718
#2	25.92	.2718
#3	25.85	.2721

Zoom In Zoom Out

Sample Name: MP43125-S2 Acquired: 11/10/2023 18:31:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1642.0**	**5023.8**	**29452.**	**8016.4**
Stddev	.5	5.0	37.	64.4
%RSD	.02922	.09886	.12668	.80319
#1	1642.1	5028.7	29409.	8034.9
#2	1642.4	5024.0	29473.	7944.8
#3	1641.4	5018.8	29474.	8069.6

Zoom In Zoom Out

Sample Name: FC10981-2F Acquired: 11/10/2023 18:36:18 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0409**	**.2564**	**.0122**	**1.129**	**.2238**	**.0011**	**32.69**	**.0006**
Stddev	.0005	.0088	.0055	.010	.0005	.0001	.08	.0003
%RSD	1.244	3.422	44.67	.8685	.2015	12.12	.2458	54.38
#1	.0404	.2628	.0067	1.124	.2241	.0010	32.65	.0009
#2	.0410	.2464	.0177	1.123	.2233	.0013	32.63	.0003
#3	.0414	.2600	.0123	1.140	.2240	.0011	32.78	.0006

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0330**	**.0006**	**.8158**	**.2530**	**30.79**	**.1330**	**.2183**	**.0961**
Stddev	.0010	.0020	.0038	.0027	.32	.0075	.0460	.0001
%RSD	2.913	324.5	.4695	1.075	1.047	5.653	21.07	.1467
#1	.0319	.0028	.8119	.2509	30.77	.1298	.2064	.0960
#2	.0333	.0002	.8159	.2520	30.49	.1276	.1794	.0962
#3	.0338	-.0011	.8196	.2561	31.13	.1416	.2690	.0961

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7079**	*****	**1.452**	**-.0118**	**.0769**	**.1001**	**.2541**	**.0098**
Stddev	.0007	-----	.005	.0012	.0022	.0056	.0060	.0016
%RSD	.0966	-----	.3222	10.00	2.909	5.579	2.371	16.50
#1	.7071	-----	1.447	-.0105	.0770	.1057	.2527	.0089
#2	.7081	-----	1.457	-.0127	.0791	.1001	.2607	.0117
#3	.7084	-----	1.453	-.0122	.0746	.0946	.2488	.0089

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1511**	**.0191**	F **-.1845**	F **20.42**	**.0622**
Stddev	.0007	.0002	.0064	.07	.0002
%RSD	.4572	1.071	3.462	.3470	.2919
#1	.1517	.0192	-.1918	20.39	.0620
#2	.1504	.0188	-.1797	20.37	.0623
#3	.1513	.0191	-.1822	20.50	.0623

Zoom In Zoom Out

Sample Name: FC10981-2F Acquired: 11/10/2023 18:36:18 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1520.4**	**4680.2**	**27519.**	**7793.9**
Stddev	.3	12.6	76.	50.3
%RSD	.02107	.26934	.27775	.64586
#1	1520.4	4694.0	27579.	7851.8
#2	1520.7	4669.3	27545.	7769.0
#3	1520.0	4677.2	27433.	7760.8

Zoom In Zoom Out

Sample Name: FC10981-3F Acquired: 11/10/2023 18:41:27 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0500**	**.4866**	**.0130**	**.9124**	**.2121**	**.0013**	**16.41**	**.0004**
Stddev	.0027	.0286	.0038	.0000	.0011	.0003	.04	.0001
%RSD	5.376	5.882	29.52	.0038	.5363	21.07	.2562	25.98
#1	.0488	.4558	.0175	.9124	.2127	.0015	16.36	.0003
#2	.0482	.4916	.0109	.9123	.2127	.0010	16.42	.0004
#3	.0531	.5124	.0107	.9124	.2107	.0015	16.45	.0006

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0200**	**.0005**	**.9455**	**.2543**	**19.67**	**.0760**	**1.838**	**.0507**
Stddev	.0005	.0012	.0007	.0064	.13	.0068	.078	.0003
%RSD	2.494	233.8	.0723	2.535	.6728	8.952	4.233	.5166
#1	.0202	.0011	.9458	.2542	19.53	.0837	1.749	.0510
#2	.0204	-.0009	.9460	.2480	19.78	.0730	1.873	.0506
#3	.0194	.0013	.9447	.2609	19.71	.0711	1.892	.0505

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4424**	*****	**1.197**	**-.0118**	**.0559**	**.0611**	**.2663**	**.0066**
Stddev	.0018	-----	.005	.0037	.0031	.0063	.0027	.0007
%RSD	.3976	-----	.4537	31.34	5.508	10.24	1.022	9.970
#1	.4442	-----	1.203	-.0081	.0567	.0587	.2691	.0064
#2	.4424	-----	1.196	-.0155	.0586	.0564	.2636	.0061
#3	.4407	-----	1.193	-.0118	.0525	.0682	.2661	.0074

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0655**	**.0107**	F **-.2104**	F **25.47**	**.0789**
Stddev	.0005	.0001	.0062	.05	.0006
%RSD	.6933	1.264	2.970	.1881	.7088
#1	.0660	.0107	-.2043	25.50	.0795
#2	.0655	.0105	-.2168	25.49	.0784
#3	.0651	.0108	-.2101	25.42	.0789

Zoom In Zoom Out

Sample Name: FC10981-3F Acquired: 11/10/2023 18:41:27 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1663.4**	**4981.2**	**29132.**	**7979.7**
Stddev	3.4	8.7	43.	22.4
%RSD	.20223	.17542	.14628	.28011
#1	1664.9	4982.1	29166.	7982.8
#2	1665.7	4989.4	29085.	8000.4
#3	1659.5	4972.0	29146.	7956.0

Zoom In Zoom Out

Sample Name: FC10981-4F Acquired: 11/10/2023 18:46:35 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0350**	**.5400**	**.0037**	**.9931**	**.1958**	**.0009**	**28.95**	**.0002**
Stddev	.0029	.0429	.0085	.0112	.0013	.0001	.20	.0002
%RSD	8.153	7.944	229.6	1.133	.6496	11.63	.6929	86.06
#1	.0375	.5521	-.0038	.9843	.1973	.0010	29.18	.0003
#2	.0354	.4923	.0020	1.006	.1953	.0008	28.86	.0003
#3	.0319	.5755	.0130	.9893	.1949	.0009	28.81	.0000

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0288**	**.0013**	**.6195**	**.2134**	**25.21**	**.0956**	**.2024**	**.0831**
Stddev	.0002	.0003	.0007	.0042	.14	.0019	.0104	.0006
%RSD	.5970	22.64	.1168	1.961	.5545	2.000	5.138	.6636
#1	.0289	.0015	.6188	.2155	25.11	.0975	.1938	.0835
#2	.0287	.0010	.6203	.2086	25.16	.0957	.2139	.0834
#3	.0286	.0015	.6195	.2162	25.37	.0937	.1994	.0825

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6044**	*****	**1.279**	**-.0137**	**.0647**	**.0961**	**.2154**	**.0059**
Stddev	.0043	-----	.008	.0033	.0019	.0057	.0028	.0003
%RSD	.7137	-----	.6133	24.25	2.979	5.884	1.287	5.753
#1	.6090	-----	1.287	-.0135	.0645	.0982	.2186	.0061
#2	.6036	-----	1.277	-.0105	.0630	.1005	.2133	.0055
#3	.6005	-----	1.272	-.0171	.0668	.0897	.2145	.0061

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1297**	**.0172**	F **-.1456**	**17.03**	**.0666**
Stddev	.0010	.0003	.0084	.10	.0003
%RSD	.8020	1.777	5.750	.5951	.4366
#1	.1301	.0175	-.1453	17.02	.0664
#2	.1305	.0169	-.1541	17.14	.0669
#3	.1285	.0171	-.1374	16.94	.0666

Zoom In Zoom Out

Sample Name: FC10981-4F Acquired: 11/10/2023 18:46:35 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1577.9**	**4807.1**	**28085.**	**7849.1**
Stddev	.8	5.6	95.	31.8
%RSD	.04828	.11583	.33778	.40528
#1	1578.7	4803.0	28097.	7820.3
#2	1577.4	4804.8	27985.	7883.3
#3	1577.4	4813.4	28173.	7843.7

Zoom In Zoom Out

Sample Name: FC10981-5F Acquired: 11/10/2023 18:51:45 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0509**	**.3477**	**.0100**	**.9371**	**.2150**	**.0010**	**16.79**	**.0005**
Stddev	.0014	.0343	.0035	.0119	.0006	.0002	.02	.0001
%RSD	2.778	9.854	34.82	1.267	.2973	20.07	.1166	22.73
#1	.0525	.3127	.0060	.9424	.2156	.0008	16.81	.0004
#2	.0499	.3811	.0122	.9454	.2144	.0011	16.77	.0005
#3	.0502	.3493	.0119	.9235	.2148	.0011	16.79	.0006

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0177**	**.0000**	**.9483**	**.1808**	**19.70**	**.0712**	**1.913**	**.0473**
Stddev	.0005	.0021	.0027	.0054	.08	.0097	.036	.0001
%RSD	2.833	5000.	.2796	3.001	.4074	13.59	1.875	.2839
#1	.0173	-.0014	.9462	.1824	19.63	.0805	1.923	.0472
#2	.0176	-.0009	.9475	.1852	19.68	.0612	1.873	.0472
#3	.0183	.0025	.9513	.1748	19.79	.0719	1.942	.0475

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4525**	*****	**1.023**	**-.0128**	**.0583**	**.0381**	**.2653**	**.0078**
Stddev	.0010	-----	.002	.0042	.0039	.0115	.0019	.0018
%RSD	.2203	-----	.2319	32.63	6.711	30.28	.7141	23.59
#1	.4514	-----	1.020	-.0170	.0581	.0513	.2633	.0068
#2	.4533	-----	1.024	-.0128	.0623	.0304	.2670	.0067
#3	.4528	-----	1.024	-.0087	.0545	.0325	.2655	.0099

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0639**	**.0102**	F **-.2077**	F **26.23**	**.0529**
Stddev	.0003	.0009	.0084	.01	.0005
%RSD	.4487	8.740	4.021	.0345	.9126
#1	.0642	.0106	-.2007	26.23	.0524
#2	.0640	.0091	-.2170	26.23	.0528
#3	.0636	.0107	-.2054	26.24	.0534

Zoom In Zoom Out

Sample Name: FC10981-5F Acquired: 11/10/2023 18:51:45 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1662.3**	**4987.5**	**29144.**	**7939.8**
Stddev	3.2	16.4	47.	26.3
%RSD	.18967	.32782	.16055	.33174
#1	1664.3	5002.9	29159.	7909.5
#2	1664.0	4989.2	29180.	7957.5
#3	1658.7	4970.3	29091.	7952.3

Zoom In Zoom Out

Sample Name: FC10981-6F Acquired: 11/10/2023 18:56:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0402**	**.3162**	**.0085**	**.9857**	**.2236**	**.0010**	**29.56**	**.0004**
Stddev	.0021	.0201	.0022	.0064	.0012	.0002	.11	.0002
%RSD	5.212	6.346	26.35	.6529	.5551	16.67	.3859	43.78
#1	.0383	.3363	.0061	.9797	.2251	.0012	29.69	.0006
#2	.0400	.3162	.0089	.9925	.2228	.0010	29.51	.0002
#3	.0424	.2962	.0105	.9850	.2231	.0009	29.48	.0005

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0292**	**-.0005**	**.7356**	**.2323**	**25.69**	**.0965**	**.1769**	**.0843**
Stddev	.0006	.0018	.0025	.0087	.05	.0053	.0336	.0001
%RSD	2.122	349.9	.3455	3.758	.1887	5.522	18.97	.0739
#1	.0295	.0009	.7365	.2404	25.65	.0963	.2120	.0843
#2	.0297	.0001	.7377	.2231	25.67	.1018	.1451	.0842
#3	.0285	-.0026	.7328	.2333	25.74	.0912	.1737	.0844

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6266**	*****	**1.293**	**-.0158**	**.0685**	**.0885**	**.2235**	**.0065**
Stddev	.0027	-----	.005	.0018	.0066	.0059	.0025	.0018
%RSD	.4301	-----	.3911	11.12	9.628	6.718	1.140	28.29
#1	.6294	-----	1.298	-.0147	.0630	.0887	.2264	.0086
#2	.6240	-----	1.294	-.0179	.0758	.0943	.2218	.0055
#3	.6263	-----	1.288	-.0149	.0666	.0824	.2222	.0053

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1360**	**.0166**	F **-.1688**	**19.96**	**.0520**
Stddev	.0003	.0004	.0017	.07	.0003
%RSD	.2232	2.464	1.016	.3572	.5088
#1	.1362	.0165	-.1673	20.03	.0517
#2	.1357	.0163	-.1707	19.98	.0523
#3	.1362	.0171	-.1684	19.89	.0519

Zoom In Zoom Out

Sample Name: FC10981-6F Acquired: 11/10/2023 18:56:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1562.9**	**4778.4**	**28020.**	**7750.8**
Stddev	1.5	6.8	105.	33.9
%RSD	.09466	.14271	.37327	.43686
#1	1563.9	4785.4	28132.	7733.2
#2	1563.6	4778.2	27925.	7789.8
#3	1561.2	4771.7	28002.	7729.3

Zoom In Zoom Out

Sample Name: FC10981-1 Acquired: 11/10/2023 19:02:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0613**	**9.759**	**.0252**	**.9921**	**.2323**	**.0014**	**18.23**	**.0002**
Stddev	.0016	.039	.0030	.0112	.0015	.0001	.04	.0003
%RSD	2.668	.4029	11.78	1.131	.6534	10.11	.2075	139.6
#1	.0631	9.748	.0270	1.005	.2334	.0013	18.26	-.0001
#2	.0609	9.726	.0218	.9874	.2305	.0016	18.19	.0003
#3	.0599	9.802	.0269	.9839	.2328	.0014	18.24	.0004

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0300**	**.0124**	**1.084**	**1.044**	**20.97**	**.0630**	**2.280**	**.0585**
Stddev	.0004	.0012	.003	.007	.19	.0074	.044	.0004
%RSD	1.307	9.600	.2447	.6798	.8885	11.76	1.916	.7306
#1	.0295	.0130	1.084	1.045	20.75	.0639	2.309	.0582
#2	.0302	.0110	1.082	1.036	21.06	.0699	2.230	.0583
#3	.0302	.0132	1.087	1.050	21.09	.0552	2.302	.0590

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4761**	*****	**2.434**	**-.0037**	**.0726**	**.0492**	**.5243**	**.0072**
Stddev	.0026	-----	.004	.0066	.0160	.0079	.0043	.0020
%RSD	.5438	-----	.1637	178.6	21.97	16.11	.8281	27.60
#1	.4787	-----	2.435	-.0110	.0654	.0430	.5231	.0078
#2	.4736	-----	2.429	.0018	.0616	.0581	.5206	.0087
#3	.4759	-----	2.437	-.0019	.0909	.0465	.5291	.0049

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0707**	**.0276**	F **-.2448**	F **30.51**	**.1955**
Stddev	.0006	.0004	.0020	.01	.0006
%RSD	.8294	1.286	.8260	.0470	.2868
#1	.0702	.0278	-.2469	30.50	.1960
#2	.0705	.0278	-.2429	30.52	.1949
#3	.0713	.0272	-.2445	30.50	.1957

Zoom In Zoom Out

Sample Name: FC10981-1 Acquired: 11/10/2023 19:02:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1639.7**	**4975.3**	**29137.**	**7850.7**
Stddev	.4	9.8	77.	31.9
%RSD	.02188	.19638	.26350	.40575
#1	1639.8	4975.0	29185.	7868.5
#2	1639.3	4985.3	29178.	7814.0
#3	1640.0	4965.8	29049.	7869.7

Zoom In Zoom Out

Sample Name: FC10981-2 Acquired: 11/10/2023 19:07:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0543**	**46.04**	**.0321**	**1.018**	**.1722**	**.0015**	**31.00**	**.0003**
Stddev	.0005	.07	.0060	.011	.0002	.0001	.04	.0003
%RSD	.9572	.1516	18.70	1.027	.1228	4.472	.1367	110.7
#1	.0549	46.02	.0328	1.021	.1721	.0015	31.02	-.0001
#2	.0538	46.12	.0258	1.006	.1720	.0016	31.03	.0005
#3	.0543	45.98	.0378	1.026	.1724	.0015	30.95	.0005

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0438**	**.0269**	**1.010**	**2.603**	**26.20**	**.0899**	**.2452**	**.0949**
Stddev	.0006	.0012	.002	.016	.17	.0046	.0606	.0003
%RSD	1.479	4.436	.2275	.6183	.6639	5.063	24.70	.3120
#1	.0445	.0268	1.010	2.586	26.04	.0938	.2691	.0946
#2	.0433	.0281	1.012	2.604	26.18	.0849	.1764	.0952
#3	.0436	.0258	1.008	2.619	26.39	.0911	.2902	.0950

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6341**	*****	**3.389**	**.0153**	**.0839**	**.0813**	**.5422**	**.0112**
Stddev	.0007	-----	.006	.0049	.0073	.0080	.0033	.0019
%RSD	.1096	-----	.1882	32.28	8.661	9.862	.6058	16.62
#1	.6347	-----	3.389	.0200	.0910	.0874	.5427	.0094
#2	.6342	-----	3.395	.0157	.0843	.0842	.5451	.0112
#3	.6333	-----	3.382	.0102	.0765	.0722	.5386	.0131

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1426**	**.0465**	F **-.2386**	F **27.21**	**.2595**
Stddev	.0004	.0007	.0038	.07	.0003
%RSD	.2491	1.540	1.581	.2659	.1162
#1	.1423	.0472	-.2429	27.27	.2594
#2	.1430	.0464	-.2362	27.13	.2599
#3	.1427	.0458	-.2366	27.22	.2593

Zoom In Zoom Out

Sample Name: FC10981-2 Acquired: 11/10/2023 19:07:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1543.6**	**4851.6**	**28477.**	**7728.7**
Stddev	3.9	2.1	63.	26.9
%RSD	.25205	.04359	.22175	.34846
#1	1542.7	4852.3	28510.	7754.5
#2	1540.3	4849.2	28517.	7700.8
#3	1547.9	4853.2	28405.	7730.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 19:12:18 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536**	**40.27**	**1.987**	**1.826**	**2.049**	**2.037**	**40.66**	**2.022**	**2.018**
Stddev	.0008	.02	.004	.013	.005	.002	.05	.001	.000
%RSD	.3222	.0593	.2014	.7222	.2697	.0741	.1108	.0247	.0086
#1	.2537	40.28	1.991	1.812	2.055	2.039	40.69	2.022	2.018
#2	.2544	40.28	1.987	1.839	2.049	2.036	40.67	2.021	2.017
#3	.2528	40.24	1.983	1.825	2.044	2.037	40.60	2.022	2.017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**2.007**	**40.35**	**42.11**	**2.097**	**40.55**	**2.018**	**1.997**	**41.43**
Stddev	.003	.002	.02	.02	.003	.01	.018	.001	.04
%RSD	.1238	.1161	.0380	.0402	.1251	.0356	.8796	.0513	.0952
#1	2.027	2.009	40.36	42.13	2.096	40.57	2.038	1.998	41.42
#2	2.023	2.007	40.33	42.10	2.095	40.54	2.008	1.997	41.48
#3	2.024	2.004	40.35	42.11	2.100	40.54	2.007	1.996	41.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.017**	**2.011**	**1.996**	**1.991**	**2.047**	**2.019**	**2.016**	**2.018**	**2.010**
Stddev	.000	.006	.006	.001	.004	.001	.003	.002	.003
%RSD	.0219	.2971	.2841	.0708	.1891	.0353	.1403	.1014	.1320
#1	2.016	2.005	2.001	1.992	2.051	2.020	2.019	2.017	2.007
#2	2.016	2.016	1.997	1.992	2.046	2.019	2.014	2.020	2.011
#3	2.017	2.014	1.990	1.990	2.043	2.019	2.015	2.016	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 19:12:18 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.026**	**2.021**
Stddev	.004	.001
%RSD	.1756	.0665
#1	2.027	2.021
#2	2.029	2.019
#3	2.022	2.022
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2300.9**	**6289.3**	**38672.**	**8271.1**
Stddev	7.4	12.5	160.	38.3
%RSD	.32141	.19902	.41342	.46262
#1	2309.0	6297.6	38487.	8248.3
#2	2299.2	6295.5	38763.	8315.3
#3	2294.6	6274.9	38765.	8249.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 19:17:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0017**	**.0002**	**.0000**	**.0000**	**.0001**	**.0005**	**.0001**	**.0000**
Stddev	.0002	.0035	.0002	.0013	.0000	.0001	.0011	.0000	.000
%RSD	151.4	200.6	135.7	2800.	135.2	44.42	209.5	24.44	305.4
#1	-.0003	-.0006	-.0001	-.0014	.0001	.0001	.0017	.0001	.0000
#2	-.0002	-.0056	.0003	.0005	.0000	.0001	.0000	.0001	.0001
#3	.0001	.0011	.0002	.0010	.0000	.0002	-.0002	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**.0010**	**.0417**	**.0002**	**-.0029**	**.0001**	**.0004**	**1.577**
Stddev	.0001	.0002	.0002	.0094	.0009	.0092	.0000	.0002	.011
%RSD	85.56	132.7	25.06	22.41	354.8	313.1	18.78	44.43	.7036
#1	.0002	-.0001	.0009	.0523	.0002	.0046	.0001	.0005	1.566
#2	.0001	.0004	.0008	.0386	-.0006	-.0132	.0001	.0005	1.589
#3	.0000	.0003	.0013	.0344	.0012	-.0002	.0001	.0002	1.577
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0018**	F **.0022**	**-.0001**	**.0005**	**.0000**	**.0000**	**.0006**
Stddev	.0001	.0004	.0003	.0022	.0001	.0002	.0001	.000	.0005
%RSD	106.3	602.6	14.47	98.61	258.2	34.93	145.1	350.9	82.19
#1	-.0001	-.0005	.0016	-.0002	-.0002	.0007	.0001	.0000	.0007
#2	.0000	-.0001	.0017	.0028	.0000	.0003	.0000	.0000	.0011
#3	-.0001	.0004	.0021	.0041	.0000	.0004	.0000	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 19:17:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0000**
Stddev	.0001	.000
%RSD	104.1	276.1
#1	.0001	.0000
#2	.0000	.0000
#3	.0001	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2681.8**	**6533.4**	**39836.**	**8386.3**
Stddev	2.4	5.3	213.	9.2
%RSD	.09050	.08060	.53405	.10986
#1	2683.4	6539.2	40077.	8387.6
#2	2682.9	6529.0	39755.	8376.5
#3	2679.0	6531.9	39676.	8394.8

Zoom In Zoom Out

Sample Name: FC10981-3 Acquired: 11/10/2023 19:22:28 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0609**	**21.37**	**.0277**	**.8944**	**.2212**	**.0017**	**16.97**	**.0001**
Stddev	.0028	.04	.0040	.0114	.0006	.0001	.05	.0001
%RSD	4.528	.1666	14.33	1.271	.2551	4.188	.3028	136.5
#1	.0630	21.33	.0320	.8858	.2208	.0016	17.00	.0001
#2	.0578	21.40	.0269	.9072	.2211	.0017	17.00	.0000
#3	.0619	21.38	.0242	.8901	.2219	.0017	16.91	.0002

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0402**	**.0281**	**1.080**	**2.074**	**18.22**	**.0628**	**2.213**	**.0615**
Stddev	.0005	.0003	.005	.009	.17	.0042	.029	.0004
%RSD	1.325	.9885	.4352	.4344	.9365	6.742	1.319	.7256
#1	.0397	.0284	1.079	2.064	18.09	.0622	2.182	.0611
#2	.0408	.0278	1.085	2.080	18.16	.0674	2.218	.0620
#3	.0401	.0282	1.075	2.079	18.41	.0590	2.239	.0615

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4350**	*****	**3.949**	**.0108**	**.0682**	**.0439**	**.6676**	**.0113**
Stddev	.0006	-----	.003	.0055	.0060	.0113	.0047	.0012
%RSD	.1348	-----	.0832	50.48	8.845	25.68	.6997	11.01
#1	.4351	-----	3.952	.0073	.0724	.0421	.6711	.0102
#2	.4354	-----	3.949	.0171	.0613	.0336	.6623	.0127
#3	.4343	-----	3.945	.0080	.0708	.0560	.6695	.0111

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0681**	**.0508**	F **-.2551**	F **31.80**	**.3198**
Stddev	.0004	.0006	.0162	.04	.0006
%RSD	.5592	1.229	6.368	.1409	.1738
#1	.0679	.0510	-.2453	31.85	.3204
#2	.0685	.0512	-.2739	31.80	.3194
#3	.0679	.0500	-.2463	31.76	.3195

Zoom In Zoom Out

Sample Name: FC10981-3 Acquired: 11/10/2023 19:22:28 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1656.6**	**5042.3**	**29404.**	**7711.3**
Stddev	1.5	5.7	20.	21.8
%RSD	.09059	.11396	.06674	.28301
#1	1655.7	5048.2	29382.	7730.4
#2	1655.7	5036.7	29421.	7687.5
#3	1658.3	5042.1	29408.	7716.0

Zoom In Zoom Out

Sample Name: FC10981-4 Acquired: 11/10/2023 19:27:34 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0513**	**51.08**	**.0312**	**.9704**	**.1677**	**.0013**	**29.62**	**.0005**
Stddev	.0012	.16	.0022	.0185	.0004	.0003	.09	.0004
%RSD	2.399	.3050	7.058	1.909	.2258	20.94	.3045	81.78
#1	.0523	51.23	.0289	.9493	.1678	.0017	29.69	.0009
#2	.0517	51.09	.0313	.9841	.1680	.0011	29.65	.0002
#3	.0499	50.92	.0333	.9777	.1673	.0013	29.52	.0003

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0436**	**.0290**	**.9708**	**2.738**	**23.88**	**.0860**	**.3278**	**.0921**
Stddev	.0006	.0010	.0048	.003	.06	.0058	.0291	.0003
%RSD	1.308	3.466	.4957	.1110	.2715	6.734	8.880	.3537
#1	.0442	.0299	.9756	2.738	23.81	.0841	.3197	.0921
#2	.0432	.0291	.9660	2.735	23.90	.0925	.3600	.0924
#3	.0433	.0279	.9710	2.741	23.93	.0814	.3035	.0918

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5973**	*****	**3.468**	**.0089**	**.0815**	**.0773**	**.5516**	**.0091**
Stddev	.0020	-----	.007	.0035	.0040	.0110	.0007	.0015
%RSD	.3329	-----	.2109	38.94	4.850	14.22	.1306	16.07
#1	.5974	-----	3.460	.0057	.0842	.0779	.5517	.0106
#2	.5992	-----	3.475	.0085	.0770	.0660	.5508	.0077
#3	.5952	-----	3.468	.0126	.0834	.0880	.5523	.0090

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1351**	**.0483**	F **-.2192**	F **26.18**	**.2809**
Stddev	.0003	.0004	.0133	.09	.0005
%RSD	.2562	.7720	6.088	.3501	.1851
#1	.1352	.0487	-.2261	26.21	.2803
#2	.1354	.0482	-.2038	26.26	.2814
#3	.1347	.0479	-.2276	26.08	.2809

Zoom In Zoom Out

Sample Name: FC10981-4 Acquired: 11/10/2023 19:27:34 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1565.8**	**4901.8**	**28587.**	**7689.5**
Stddev	3.8	9.9	91.	51.0
%RSD	.24129	.20099	.31949	.66279
#1	1569.2	4911.7	28594.	7648.6
#2	1561.7	4892.0	28492.	7673.4
#3	1566.3	4901.8	28675.	7746.6

Zoom In Zoom Out

Sample Name: FC10981-5 Acquired: 11/10/2023 19:32:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0500**	**1.418**	**.0165**	**.8958**	**.2123**	**.0012**	**16.55**	**.0004**
Stddev	.0008	.025	.0038	.0087	.0016	.0002	.11	.0002
%RSD	1.659	1.801	22.75	.9716	.7737	19.32	.6841	39.81
#1	.0498	1.392	.0207	.8860	.2141	.0010	16.68	.0003
#2	.0509	1.444	.0155	.8987	.2115	.0012	16.45	.0005
#3	.0493	1.419	.0134	.9027	.2111	.0015	16.53	.0003

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0186**	**-.0001**	**.9338**	**.2306**	**18.27**	**.0574**	**1.871**	**.0472**
Stddev	.0001	.0017	.0056	.0084	.13	.0039	.110	.0001
%RSD	.4892	1230.	.5952	3.632	.7248	6.770	5.873	.2222
#1	.0186	-.0016	.9400	.2335	18.40	.0611	1.973	.0472
#2	.0186	.0017	.9319	.2211	18.29	.0533	1.884	.0472
#3	.0185	-.0005	.9294	.2371	18.13	.0577	1.755	.0470

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4418**	*****	**1.078**	**-.0122**	**.0584**	**.0375**	**.2726**	**.0043**
Stddev	.0009	-----	.003	.0037	.0050	.0082	.0024	.0013
%RSD	.2045	-----	.3058	30.06	8.512	21.91	.8872	28.92
#1	.4410	-----	1.081	-.0082	.0639	.0345	.2712	.0058
#2	.4428	-----	1.074	-.0154	.0542	.0468	.2754	.0035
#3	.4416	-----	1.079	-.0130	.0571	.0313	.2712	.0038

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0630**	**.0105**	F **-.2090**	F **25.68**	**.0604**
Stddev	.0003	.0009	.0050	.14	.0002
%RSD	.4820	8.981	2.400	.5296	.2612
#1	.0632	.0111	-.2137	25.84	.0603
#2	.0632	.0094	-.2094	25.58	.0603
#3	.0627	.0110	-.2037	25.63	.0606

Zoom In Zoom Out

Sample Name: FC10981-5 Acquired: 11/10/2023 19:32:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1661.8**	**4976.9**	**29129.**	**7673.7**
Stddev	4.5	10.8	120.	53.0
%RSD	.27215	.21741	.41259	.69052
#1	1665.9	4984.5	29019.	7612.5
#2	1662.4	4981.7	29257.	7705.9
#3	1656.9	4964.5	29110.	7702.7

Zoom In Zoom Out

Sample Name: FC10981-6 Acquired: 11/10/2023 19:37:52 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0455**	**10.01**	**.0132**	**1.046**	**.1895**	**.0010**	**31.72**	**.0005**
Stddev	.0015	.09	.0084	.008	.0004	.0003	.10	.0004
%RSD	3.377	.8760	63.17	.7489	.2065	25.37	.3053	80.18
#1	.0465	10.03	.0061	1.053	.1899	.0011	31.63	.0004
#2	.0438	10.07	.0224	1.045	.1895	.0007	31.82	.0002
#3	.0463	9.906	.0111	1.038	.1891	.0012	31.70	.0010

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0335**	**.0037**	**.8414**	**.6558**	**25.89**	**.0840**	**.2197**	**.0908**
Stddev	.0006	.0001	.0018	.0034	.16	.0063	.0490	.0005
%RSD	1.712	3.846	.2189	.5186	.6077	7.444	22.31	.5370
#1	.0340	.0036	.8435	.6597	25.77	.0779	.2697	.0902
#2	.0329	.0039	.8405	.6544	25.84	.0839	.1718	.0910
#3	.0337	.0037	.8401	.6534	26.07	.0904	.2176	.0911

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6701**	*****	**1.733**	**-.0092**	**.0795**	**.0852**	**.3818**	**.0087**
Stddev	.0023	-----	.002	.0015	.0042	.0155	.0013	.0012
%RSD	.3381	-----	.0972	16.00	5.221	18.25	.3293	13.88
#1	.6697	-----	1.735	-.0109	.0761	.0677	.3829	.0074
#2	.6680	-----	1.732	-.0081	.0841	.0902	.3820	.0098
#3	.6725	-----	1.733	-.0087	.0784	.0976	.3804	.0091

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.1445**	**.0233**	F **-.1914**	F **22.89**	**.0910**
Stddev	.0008	.0006	.0082	.03	.0005
%RSD	.5194	2.757	4.294	.1430	.5989
#1	.1442	.0237	-.2003	22.92	.0910
#2	.1453	.0226	-.1898	22.88	.0916
#3	.1439	.0237	-.1841	22.86	.0905

Zoom In Zoom Out

Sample Name: FC10981-6 Acquired: 11/10/2023 19:37:52 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1535.0**	**4751.0**	**27871.**	**7514.0**
Stddev	2.8	7.1	51.	48.7
%RSD	.18158	.14877	.18467	.64840
#1	1536.2	4759.1	27859.	7556.3
#2	1531.8	4747.5	27927.	7524.9
#3	1537.0	4746.3	27826.	7460.7

Zoom In Zoom Out

Sample Name: MP43125-MB2A Acquired: 11/10/2023 19:43:01 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0021**	**-.0007**	**-.0026**	**-.0001**	**.0000**	**.0187**	**.0000**	**-.0001**
Stddev	.0005	.0023	.0012	.0008	.0002	.0000	.0015	.000	.0000
%RSD	355.5	111.5	180.1	29.98	172.0	40.15	8.127	1686.	54.45
#1	-.0003	.0045	.0006	-.0033	-.0002	.0001	.0204	.0000	-.0001
#2	.0007	.0019	-.0019	-.0028	-.0001	.0000	.0174	.0000	-.0001
#3	.0000	-.0001	-.0007	-.0018	.0001	.0000	.0184	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0007**	**.0030**	**.1037**	**.0011**	**.0356**	**.0001**	**.0002**	F **3.404**
Stddev	.0001	.0001	.0012	.0053	.0013	.0026	.0000	.0000	.074
%RSD	85.50	11.23	38.62	5.142	112.3	7.440	17.37	23.38	2.182
#1	.0002	.0008	.0017	.1056	-.0003	.0385	.0001	.0001	3.485
#2	.0003	.0007	.0034	.1078	.0017	.0333	.0001	.0002	3.388
#3	.0000	.0007	.0039	.0977	.0020	.0350	.0001	.0001	3.339
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									2.500
Low Limit									-2.500

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0002**	**.0007**	**.0016**	**.0013**	**.0006**	**.0005**	**.0000**	**-.0003**
Stddev	.0001	.0006	.0006	.0018	.0000	.0005	.0000	.000	.0010
%RSD	87.64	309.4	93.63	115.9	2.986	94.29	4.693	227.8	305.8
#1	.0001	.0005	.0000	.0014	.0012	.0002	.0005	.0000	-.0006
#2	.0001	-.0007	.0012	.0035	.0013	.0004	.0006	.0000	.0008
#3	.0000	-.0004	.0009	-.0001	.0013	.0011	.0005	.0000	-.0012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43125-MB2A Acquired: 11/10/2023 19:43:01 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0004**	F **.0152**
Stddev	.0002	.0003
%RSD	44.74	1.693
#1	.0002	.0150
#2	.0003	.0155
#3	.0006	.0151
Check ?	Chk Pass	Chk Fail
High Limit		.0100
Low Limit		-.0100

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2694.5**	**6536.5**	**40572.**	**8364.9**
Stddev	21.9	61.9	179.	54.0
%RSD	.81276	.94664	.44051	.64583
#1	2712.7	6581.5	40454.	8385.1
#2	2670.2	6466.0	40484.	8406.0
#3	2700.6	6562.1	40778.	8303.7

Zoom In Zoom Out

Sample Name: MP43116-MB1 Acquired: 11/10/2023 19:48:08 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0012**	**-.0007**	**-.0023**	**-.0001**	**.0000**	**.0039**	**.0000**	**-.0001**
Stddev	.0006	.0030	.0009	.0010	.0001	.000	.0007	.000	.0001
%RSD	1832.	245.7	130.7	46.31	149.8	5375.	18.78	124.4	162.7
#1	-.0006	-.0041	-.0004	-.0034	.0000	.0000	.0044	.0000	.0000
#2	.0003	-.0014	.0000	-.0015	.0000	.0000	.0042	.0000	.0000
#3	.0004	.0019	-.0018	-.0019	-.0003	.0000	.0031	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**.0021**	**.0292**	**.0016**	**-.0047**	**.0001**	**.0001**	**2.001**
Stddev	.0001	.0001	.0015	.0056	.0020	.0029	.0000	.0001	.038
%RSD	98.97	20.06	73.36	19.03	122.5	62.16	5.370	48.33	1.898
#1	.0002	.0006	.0034	.0246	.0039	-.0014	.0001	.0001	2.035
#2	.0002	.0005	.0004	.0276	.0002	-.0071	.0001	.0002	2.009
#3	.0000	.0004	.0024	.0354	.0008	-.0056	.0001	.0001	1.960
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0016**	**.0025**	**.0032**	**.0004**	**.0000**	**-.0001**	**-.0008**
Stddev	.0001	.0007	.0007	.0002	.0003	.0005	.000	.0001	.0010
%RSD	236.2	212.8	46.41	9.765	9.649	135.3	112.8	169.2	126.1
#1	-.0001	-.0004	.0010	.0025	.0031	.0008	.0000	-.0002	-.0007
#2	.0001	.0004	.0013	.0023	.0036	-.0001	.0000	.0000	.0002
#3	.0001	.0009	.0024	.0027	.0030	.0004	-.0001	.0000	-.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43116-MB1 Acquired: 11/10/2023 19:48:08 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0005**
Stddev	.0001	.0000
%RSD	432.2	7.385
#1	.0000	.0005
#2	-.0001	.0005
#3	.0002	.0005
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2703.2**	**6600.2**	**40771.**	**8354.6**
Stddev	4.8	.8	124.	61.4
%RSD	.17896	.01151	.30384	.73457
#1	2703.4	6599.5	40894.	8318.1
#2	2707.9	6601.0	40772.	8320.1
#3	2698.2	6600.2	40646.	8425.4

Zoom In Zoom Out

Sample Name: MP43116-B1 Acquired: 11/10/2023 19:53:17 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1937**	**24.46**	**.1963**	**.4356**	**.1991**	**.1993**	**45.11**	**.1953**	**.1950**
Stddev	.0007	.07	.0008	.0032	.0003	.0002	.10	.0003	.0004
%RSD	.3523	.2705	.3967	.7450	.1369	.0819	.2164	.1529	.1808
#1	.1941	24.53	.1966	.4366	.1994	.1994	45.19	.1950	.1946
#2	.1929	24.46	.1954	.4320	.1988	.1994	45.13	.1955	.1952
#3	.1940	24.39	.1968	.4382	.1990	.1991	45.00	.1954	.1951
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2012**	**.1951**	**44.25**	**46.52**	**.5606**	**44.16**	**.1941**	**.6850**	**42.09**
Stddev	.0005	.0005	.10	.08	.0029	.08	.0006	.0007	.14
%RSD	.2397	.2371	.2217	.1701	.5166	.1880	.3266	.1036	.3394
#1	.2017	.1952	44.28	46.60	.5605	44.26	.1946	.6842	42.23
#2	.2012	.1945	44.33	46.48	.5635	44.10	.1934	.6856	42.09
#3	.2008	.1954	44.14	46.46	.5577	44.13	.1942	.6852	41.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1963**	**.1856**	**.1975**	**.1901**	**.5822**	**.5055**	**.5222**	**.5195**	**.1884**
Stddev	.0003	.0008	.0004	.0006	.0016	.0004	.0008	.0016	.0012
%RSD	.1367	.4370	.2256	.3319	.2717	.0804	.1518	.3176	.6160
#1	.1960	.1864	.1972	.1902	.5806	.5050	.5229	.5210	.1878
#2	.1963	.1856	.1980	.1894	.5837	.5058	.5223	.5177	.1876
#3	.1966	.1848	.1972	.1906	.5823	.5056	.5214	.5198	.1897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43116-B1 Acquired: 11/10/2023 19:53:17 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2035**	**.1970**
Stddev	.0006	.0001
%RSD	.2989	.0367
#1	.2042	.1970
#2	.2030	.1970
#3	.2033	.1971
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2384.9**	**6357.7**	**39254.**	**8186.7**
Stddev	4.2	6.2	79.	51.8
%RSD	.17781	.09728	.20129	.63282
#1	2382.0	6359.6	39164.	8158.5
#2	2389.7	6362.7	39309.	8155.2
#3	2382.8	6350.7	39291.	8246.5

Zoom In Zoom Out

Sample Name: FC11003-2 Acquired: 11/10/2023 19:58:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0840**	**.0269**	**.0817**	**.0547**	**.0000**	**78.97**	**-.0005**
Stddev	.0001	.0047	.0005	.0009	.0002	.0000	.25	.0001
%RSD	268.1	5.575	1.764	1.108	.3545	92.49	.3110	13.12
#1	-.0001	.0786	.0270	.0816	.0549	.0001	79.24	-.0006
#2	.0002	.0872	.0263	.0808	.0546	.0000	78.87	-.0005
#3	.0000	.0862	.0273	.0826	.0547	.0000	78.78	-.0005

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0021**	**.0031**	**55.14**	**8.770**	**-.0004**	**31.56**	**.4520**
Stddev	.0001	.0001	.0001	.18	.020	.0003	.17	.0010
%RSD	20.18	3.894	4.085	.3349	.2311	90.65	.5514	.2189
#1	-.0004	.0020	.0031	55.31	8.788	.0000	31.75	.4510
#2	-.0003	.0021	.0030	55.17	8.773	-.0004	31.52	.4529
#3	-.0003	.0022	.0032	54.95	8.748	-.0006	31.41	.4522

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**14.97**	**-.0012**	F **-.0109**	**.0014**	**.0018**	**4.689**	**.0006**
Stddev	.0001	.05	.0001	.0005	.0010	.0026	.015	.0004
%RSD	33.58	.3410	10.89	4.972	69.10	142.9	.3224	71.85
#1	.0003	15.02	-.0013	-.0107	.0010	.0031	4.677	.0001
#2	.0004	14.97	-.0011	-.0115	.0025	-.0012	4.684	.0009
#3	.0002	14.92	-.0011	-.0105	.0007	.0035	4.706	.0008

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4039**	**.0039**	**.0012**	**.0017**	**.0592**
Stddev	.0016	.0003	.0006	.0001	.0001
%RSD	.3942	7.267	47.45	8.709	.1377
#1	.4055	.0035	.0010	.0017	.0592
#2	.4038	.0041	.0008	.0016	.0593
#3	.4023	.0040	.0019	.0018	.0591

Zoom In Zoom Out

Sample Name: FC11003-2 Acquired: 11/10/2023 19:58:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2469.7**	**6380.9**	**39665.**	**8174.6**
Stddev	4.1	15.0	110.	45.6
%RSD	.16617	.23498	.27616	.55761
#1	2468.0	6396.8	39785.	8128.9
#2	2466.8	6379.1	39639.	8174.8
#3	2474.4	6366.9	39571.	8220.1

Zoom In Zoom Out

Sample Name: MP43116-D1 Acquired: 11/10/2023 20:03:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0898**	**.0268**	**.0789**	**.0526**	**.0000**	**76.10**	**-.0005**
Stddev	.000	.0041	.0009	.0004	.0002	.000	.09	.0000
%RSD	516.6	4.585	3.496	.5296	.3038	103.2	.1219	7.441
#1	.0001	.0876	.0259	.0794	.0526	.0000	76.21	-.0005
#2	-.0001	.0872	.0269	.0786	.0525	.0000	76.07	-.0006
#3	-.0001	.0945	.0278	.0787	.0528	.0000	76.03	-.0005

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0021**	**.0029**	**53.24**	**8.480**	**-.0018**	**30.37**	**.4346**
Stddev	.0001	.0001	.0002	.13	.014	.0007	.03	.0009
%RSD	19.47	6.644	7.740	.2449	.1595	40.78	.0994	.1972
#1	-.0002	.0020	.0029	53.39	8.488	-.0019	30.40	.4340
#2	-.0003	.0022	.0026	53.18	8.488	-.0010	30.36	.4356
#3	-.0004	.0020	.0031	53.15	8.464	-.0025	30.34	.4341

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**14.26**	**-.0012**	F **-.0104**	**.0017**	**.0039**	**4.512**	**.0005**
Stddev	.0001	.03	.0001	.0006	.0010	.0018	.006	.0002
%RSD	47.54	.1773	7.124	5.486	58.65	46.33	.1388	44.11
#1	.0004	14.26	-.0012	-.0110	.0022	.0059	4.510	.0003
#2	.0003	14.29	-.0013	-.0099	.0005	.0025	4.506	.0004
#3	.0001	14.24	-.0011	-.0104	.0023	.0032	4.518	.0007

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.3879**	**.0036**	**.0000**	**.0013**	**.0571**
Stddev	.0010	.0002	.001	.0003	.0001
%RSD	.2630	5.738	1924.	21.06	.2088
#1	.3889	.0034	.0003	.0012	.0570
#2	.3880	.0038	.0006	.0017	.0571
#3	.3869	.0037	-.0011	.0011	.0573

Zoom In Zoom Out

Sample Name: MP43116-D1 Acquired: 11/10/2023 20:03:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2469.4**	**6387.7**	**39821.**	**8135.6**
Stddev	6.0	15.2	197.	18.5
%RSD	.24353	.23789	.49397	.22749
#1	2476.0	6405.0	39786.	8154.4
#2	2468.1	6381.3	40033.	8135.0
#3	2464.2	6376.7	39644.	8117.4

Zoom In Zoom Out

Sample Name: MP43116-SD1 Acquired: 11/10/2023 20:08:18 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0677**	**.0295**	**.0780**	**.0541**	**.0001**	**79.39**	**-.0007**	**-.0006**
Stddev	.0014	.0454	.0045	.0035	.0009	.0002	.16	.0002	.0005
%RSD	546.4	67.05	15.13	4.537	1.640	171.0	.2065	32.32	95.51
#1	.0001	.0672	.0346	.0741	.0547	.0001	79.58	-.0005	-.0001
#2	-.0011	.1134	.0277	.0787	.0545	.0000	79.32	-.0008	-.0011
#3	.0017	.0226	.0262	.0811	.0531	.0003	79.28	-.0010	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**.0036**	**55.91**	**8.870**	**-.0080**	**32.05**	**.4571**	**.0006**	**18.12**
Stddev	.0012	.0011	.12	.152	.0076	.20	.0025	.0008	.05
%RSD	44.67	29.57	.2156	1.710	94.38	.6120	.5491	143.0	.2695
#1	.0021	.0044	56.04	9.034	-.0078	32.02	.4597	-.0004	18.17
#2	.0041	.0024	55.86	8.735	-.0005	31.87	.4547	.0011	18.13
#3	.0019	.0040	55.82	8.839	-.0157	32.26	.4567	.0010	18.07

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**-.0119**	**.0010**	**.0105**	**4.684**	**.0019**	**.4048**	**.0065**	**-.0018**
Stddev	.0003	.0016	.0043	.0048	.004	.0006	.0007	.0007	.0040
%RSD	18.21	13.89	426.2	46.26	.0900	33.16	.1780	11.04	220.9
#1	-.0017	-.0101	.0056	.0150	4.680	.0015	.4053	.0067	.0018
#2	-.0020	-.0121	-.0030	.0110	4.685	.0016	.4050	.0057	-.0011
#3	-.0014	-.0133	.0005	.0054	4.688	.0026	.4039	.0071	-.0061

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0610**
Stddev	.0011	.0002
%RSD	259.3	.4024
#1	-.0005	.0613
#2	.0016	.0608
#3	.0002	.0609

Zoom In Zoom Out

Sample Name: MP43116-SD1 Acquired: 11/10/2023 20:08:18 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2630.3**	**6516.0**	**40170.**	**8123.0**
Stddev	6.1	12.8	189.	8.6
%RSD	.23305	.19597	.47124	.10582
#1	2632.1	6528.0	40371.	8131.6
#2	2623.5	6502.6	39995.	8114.4
#3	2635.4	6517.5	40145.	8123.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 20:13:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2542**	**40.23**	**2.003**	F **1.792**	**2.045**	**2.033**	**40.74**	**2.028**	**2.024**
Stddev	.0005	.04	.003	.012	.003	.002	.03	.004	.004
%RSD	.1771	.0915	.1612	.6878	.1599	.0986	.0846	.2060	.1742
#1	.2541	40.21	2.006	1.802	2.048	2.033	40.74	2.028	2.024
#2	.2537	40.21	2.000	1.778	2.041	2.031	40.71	2.024	2.020
#3	.2546	40.28	2.003	1.796	2.046	2.035	40.78	2.032	2.027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000					
Range				-10.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.027**	**1.987**	**40.39**	**42.63**	**2.116**	**40.56**	**2.022**	**2.008**	**41.27**
Stddev	.004	.003	.04	.04	.003	.10	.011	.004	.15
%RSD	.1861	.1711	.0932	.0922	.1578	.2412	.5562	.1853	.3521
#1	2.032	1.990	40.36	42.65	2.120	40.47	2.026	2.008	41.44
#2	2.024	1.988	40.36	42.59	2.113	40.66	2.031	2.005	41.20
#3	2.026	1.984	40.43	42.66	2.117	40.55	2.010	2.012	41.18
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**2.008**	**2.005**	**1.991**	**2.051**	**2.026**	**1.999**	**2.024**	**2.007**
Stddev	.003	.003	.001	.003	.006	.006	.001	.002	.004
%RSD	.1567	.1376	.0664	.1302	.3017	.2980	.0551	.0912	.2201
#1	2.026	2.010	2.004	1.991	2.047	2.026	1.999	2.023	2.012
#2	2.020	2.005	2.006	1.988	2.049	2.020	1.998	2.026	2.003
#3	2.025	2.008	2.005	1.994	2.058	2.032	2.000	2.022	2.008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 20:13:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.027**	**2.033**
Stddev	.003	.004
%RSD	.1286	.2088
#1	2.030	2.035
#2	2.026	2.028
#3	2.026	2.035
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2306.6**	**6263.3**	**38650.**	**8038.3**
Stddev	2.7	5.1	104.	13.6
%RSD	.11917	.08072	.26959	.16909
#1	2303.5	6260.7	38543.	8052.9
#2	2308.6	6269.1	38656.	8026.0
#3	2307.8	6260.0	38751.	8035.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 20:18:22 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0015**	**-.0001**	**.0000**	**-.0002**	**.0001**	**.0000**	**.0001**	**.0000**
Stddev	.0001	.0079	.0003	.001	.0002	.0000	.002	.0000	.000
%RSD	71.92	527.0	333.0	1771.	96.33	31.36	6246.	47.46	280.7
#1	-.0002	.0035	-.0003	.0004	-.0002	.0001	-.0013	.0001	.0000
#2	-.0002	-.0072	.0003	-.0010	-.0003	.0001	-.0007	.0000	.0001
#3	.0000	.0082	-.0003	.0004	.0000	.0000	.0019	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0004**	**.0097**	**.0002**	**.0005**	**.0001**	**.0004**	**.6812**
Stddev	.0001	.0001	.0011	.0226	.0012	.0090	.0000	.0001	.0092
%RSD	80.21	208.1	295.7	232.6	733.3	1675.	34.17	32.17	1.354
#1	.0002	.0000	.0016	.0315	-.0002	.0094	.0000	.0006	.6714
#2	.0002	.0000	-.0003	-.0136	-.0008	.0007	.0001	.0004	.6827
#3	.0000	.0001	-.0002	.0113	.0015	-.0085	.0001	.0004	.6896
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0001**	**.0019**	**-.0001**	**.0002**	**.0001**	**.0000**	**.0012**
Stddev	.0001	.0007	.0003	.0022	.0001	.0004	.0000	.0001	.0005
%RSD	451.8	211.5	556.7	118.1	82.40	270.0	47.55	1802.	39.08
#1	.0000	-.0005	.0002	.0038	-.0001	.0005	.0001	.0000	.0016
#2	.0002	.0006	-.0003	.0025	-.0002	.0003	.0001	.0001	.0012
#3	-.0001	.0009	.0003	-.0006	.0000	-.0003	.0000	-.0001	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 20:18:22 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0000**
Stddev	.0002	.000
%RSD	98.58	302.7
#1	-.0003	.0000
#2	.0000	.0000
#3	-.0001	-.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2690.1**	**6520.1**	**40088.**	**8122.2**
Stddev	1.6	3.7	59.	73.4
%RSD	.05993	.05662	.14681	.90393
#1	2691.7	6516.0	40139.	8183.0
#2	2688.5	6523.2	40102.	8143.0
#3	2690.0	6521.0	40023.	8040.6

Zoom In Zoom Out

Sample Name: MP43116-PS1 Acquired: 11/10/2023 20:23:30 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0508**	**2.685**	**.1287**	**.0809**	**.3098**	**.0520**	**82.50**	**.0509**	**.0508**
Stddev	.0003	.002	.0014	.0021	.0004	.0001	.17	.0001	.0002
%RSD	.4998	.0834	1.090	2.648	.1361	.1960	.2017	.2231	.2976
#1	.0510	2.686	.1285	.0786	.3094	.0520	82.48	.0508	.0506
#2	.0505	2.683	.1302	.0813	.3099	.0520	82.35	.0508	.0508
#3	.0508	2.688	.1274	.0828	.3102	.0522	82.68	.0510	.0509

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0547**	**.1047**	**57.12**	**19.31**	**.0003**	**36.01**	**.4929**	**.0971**	**23.80**
Stddev	.0003	.0004	.10	.04	.0031	.08	.0027	.0002	.19
%RSD	.5183	.3409	.1730	.2272	1109.	.2140	.5464	.2452	.7856
#1	.0549	.1049	57.01	19.27	-.0018	35.97	.4957	.0969	23.58
#2	.0548	.1043	57.16	19.29	.0038	35.97	.4904	.0970	23.92
#3	.0544	.1050	57.19	19.36	-.0012	36.10	.4926	.0974	23.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1018**	**.0385**	**.1047**	**.0996**	**4.600**	**.0529**	**.4451**	**.1092**	**.0980**
Stddev	.0003	.0006	.0009	.0031	.009	.0003	.0022	.0002	.0002
%RSD	.3411	1.524	.8888	3.100	.1990	.5023	.4880	.2103	.1632
#1	.1017	.0384	.1037	.1011	4.595	.0528	.4428	.1093	.0978
#2	.1015	.0392	.1056	.0960	4.593	.0527	.4470	.1094	.0981
#3	.1022	.0380	.1047	.1016	4.610	.0532	.4456	.1090	.0982

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0542**	**.3095**
Stddev	.0001	.0008
%RSD	.1243	.2625
#1	.0542	.3092
#2	.0543	.3089
#3	.0543	.3104

Zoom In Zoom Out

Sample Name: MP43116-PS1 Acquired: 11/10/2023 20:23:30 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2432.0**	**6368.7**	**39399.**	**8130.3**
Stddev	6.8	10.6	22.	35.3
%RSD	.27925	.16694	.05464	.43420
#1	2439.5	6376.3	39374.	8118.9
#2	2430.3	6373.3	39409.	8169.9
#3	2426.3	6356.6	39413.	8102.1

Zoom In Zoom Out

Sample Name: MP43116-S1 Acquired: 11/10/2023 20:28:31 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1993**	**25.01**	**.2257**	F **.5332**	**.2530**	**.2006**	**119.9**	**.1943**	**.1945**
Stddev	.0003	.05	.0015	.0027	.0008	.0009	1.6	.0002	.0003
%RSD	.1275	.2102	.6774	.4975	.3212	.4321	1.324	.0990	.1683
#1	.1990	24.97	.2242	.5362	.2521	.1997	120.0	.1942	.1943
#2	.1993	25.07	.2273	.5323	.2534	.2014	118.3	.1941	.1945
#3	.1995	25.00	.2257	.5312	.2536	.2007	121.4	.1945	.1949

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2042**	**.2013**	**96.67**	**55.93**	F **.5698**	**74.35**	**.6255**	**.6915**	**55.96**
Stddev	.0007	.0010	.30	.16	.0016	.33	.0020	.0008	.25
%RSD	.3658	.5204	.3056	.2794	.2886	.4497	.3129	.1227	.4433
#1	.2046	.2003	96.37	55.75	.5688	73.96	.6243	.6906	55.68
#2	.2033	.2011	96.96	56.05	.5688	74.57	.6244	.6917	56.15
#3	.2046	.2024	96.69	55.98	.5717	74.51	.6277	.6923	56.04

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1953**	**.1807**	**.2023**	**.1946**	**5.091**	**.5063**	**.9141**	**.5308**	**.1949**
Stddev	.0004	.0004	.0016	.0012	.008	.0009	.0024	.0007	.0007
%RSD	.2123	.2176	.7813	.6136	.1565	.1806	.2585	.1388	.3618
#1	.1948	.1812	.2013	.1957	5.082	.5053	.9118	.5309	.1941
#2	.1955	.1807	.2014	.1948	5.096	.5064	.9165	.5300	.1954
#3	.1955	.1804	.2041	.1933	5.096	.5072	.9139	.5315	.1952

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2083**	**.2514**
Stddev	.0006	.0002
%RSD	.2931	.0816
#1	.2085	.2512
#2	.2076	.2517
#3	.2087	.2514

Zoom In Zoom Out

Sample Name: MP43116-S1 Acquired: 11/10/2023 20:28:31 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2276.3**	**6237.2**	**38581.**	**8100.1**
Stddev	8.9	5.6	127.	23.8
%RSD	.39093	.08925	.33044	.29340
#1	2268.6	6231.3	38479.	8115.2
#2	2286.0	6238.0	38541.	8112.5
#3	2274.2	6242.4	38724.	8072.7

Zoom In Zoom Out

Sample Name: MP43116-S2 Acquired: 11/10/2023 20:33:36 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1948**	**24.62**	**.2214**	F **.5192**	**.2485**	**.1969**	**119.2**	**.1906**	**.1906**
Stddev	.0004	.01	.0018	.0038	.0006	.0004	.2	.0003	.0004
%RSD	.2129	.0560	.8097	.7286	.2412	.2072	.1765	.1798	.2214
#1	.1952	24.64	.2195	.5154	.2487	.1973	118.9	.1903	.1901
#2	.1945	24.61	.2214	.5230	.2478	.1964	119.2	.1909	.1908
#3	.1946	24.61	.2231	.5190	.2489	.1969	119.3	.1907	.1909

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2002**	**.1967**	**95.26**	**55.08**	F **.5597**	**73.33**	**.6138**	**.6779**	**55.26**
Stddev	.0011	.0008	.27	.10	.0008	.07	.0029	.0010	.08
%RSD	.5357	.4179	.2792	.1802	.1506	.0898	.4714	.1469	.1441
#1	.2014	.1973	95.57	55.20	.5606	73.35	.6171	.6768	55.35
#2	.1993	.1971	95.13	55.04	.5590	73.26	.6122	.6781	55.20
#3	.1998	.1958	95.09	55.01	.5594	73.38	.6120	.6788	55.23

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1914**	**.1775**	**.1974**	**.1876**	**5.002**	**.4954**	**.9004**	**.5197**	**.1929**
Stddev	.0006	.0002	.0004	.0044	.011	.0009	.0013	.0005	.0015
%RSD	.3131	.1229	.2093	2.350	.2166	.1848	.1419	.0934	.8017
#1	.1910	.1776	.1976	.1830	4.991	.4952	.9019	.5201	.1926
#2	.1913	.1773	.1976	.1880	5.001	.4946	.8995	.5192	.1946
#3	.1921	.1777	.1969	.1918	5.013	.4964	.8998	.5197	.1915

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2041**	**.2470**
Stddev	.0003	.0003
%RSD	.1535	.1315
#1	.2040	.2466
#2	.2039	.2473
#3	.2045	.2470

Zoom In Zoom Out

Sample Name: MP43116-S2 Acquired: 11/10/2023 20:33:36 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2280.1**	**6272.2**	**38859.**	**8081.5**
Stddev	2.2	2.9	229.	37.0
%RSD	.09794	.04666	.58894	.45828
#1	2278.1	6275.0	38651.	8046.0
#2	2279.7	6272.3	39104.	8119.9
#3	2282.5	6269.2	38821.	8078.7

Zoom In Zoom Out

Sample Name: FC11003-1 Acquired: 11/10/2023 20:38:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.1044**	**.0014**	**.0408**	**.0332**	**.0000**	**6.293**	**-.0003**	**.0003**
Stddev	.0000	.0075	.0003	.0005	.0001	.0000	.001	.0001	.0001
%RSD	55.30	7.145	18.99	1.285	.2736	583.5	.0201	21.55	21.27
#1	.0001	.1017	.0012	.0405	.0332	.0000	6.292	-.0002	.0003
#2	.0000	.0986	.0013	.0404	.0333	.0000	6.294	-.0003	.0002
#3	.0001	.1128	.0017	.0414	.0332	.0000	6.294	-.0003	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0000**	**15.33**	**2.472**	**-.0008**	**2.199**	**.0524**	**.0001**	**18.35**
Stddev	.0001	.000	.02	.029	.0020	.021	.0002	.0001	.03
%RSD	7.645	1115.	.1335	1.154	260.3	.9728	.3580	104.1	.1505
#1	.0012	.0003	15.35	2.487	-.0029	2.175	.0526	.0002	18.36
#2	.0011	.0000	15.32	2.490	.0008	2.206	.0524	.0000	18.32
#3	.0010	-.0004	15.31	2.439	-.0002	2.216	.0522	.0001	18.38

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0021**	**.0015**	**.0028**	**1.680**	**.0004**	**.0379**	**.0012**	**.0001**
Stddev	.0001	.0005	.0008	.0023	.003	.0002	.0002	.0001	.0015
%RSD	32.23	21.79	56.32	80.19	.1764	40.44	.5288	10.46	1375.
#1	.0002	-.0024	.0021	.0004	1.680	.0005	.0378	.0011	.0016
#2	.0003	-.0016	.0005	.0033	1.677	.0004	.0381	.0013	.0001
#3	.0002	-.0024	.0019	.0048	1.683	.0002	.0377	.0012	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0007**	**.0193**
Stddev	.0001	.0001
%RSD	13.78	.3074
#1	.0008	.0193
#2	.0007	.0193
#3	.0006	.0194

Zoom In Zoom Out

Sample Name: FC11003-1 Acquired: 11/10/2023 20:38:42 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2661.9**	**6591.6**	**40870.**	**8277.6**
Stddev	.5	10.9	100.	15.9
%RSD	.01774	.16510	.24364	.19260
#1	2661.4	6600.6	40966.	8266.0
#2	2661.8	6594.7	40768.	8295.8
#3	2662.4	6579.5	40875.	8271.1

Zoom In Zoom Out

Sample Name: FC11003-3 Acquired: 11/10/2023 20:43:45 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0008**	**-.0008**	**-.0003**	**.0000**	**.0000**	**.0125**	**-.0001**	**-.0002**
Stddev	.000	.0037	.0008	.0009	.000	.0000	.0017	.0000	.0000
%RSD	20.44	480.1	97.07	272.3	2973.	205.4	13.87	60.91	26.36
#1	-.0001	.0031	-.0017	-.0014	.0001	.0000	.0105	-.0001	-.0001
#2	.0000	-.0034	-.0003	.0003	-.0001	.0000	.0131	-.0001	-.0001
#3	.0000	.0026	-.0004	.0001	.0001	.0000	.0138	.0000	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0079**	**-.0041**	**-.0008**	**.0042**	**.0002**	**.0001**	**.4512**
Stddev	.0001	.0003	.0004	.0228	.0009	.0163	.0000	.0000	.0136
%RSD	249.6	497.2	4.976	553.2	112.1	387.7	16.32	26.38	3.021
#1	.0001	.0000	.0077	-.0151	-.0015	-.0141	.0002	.0001	.4667
#2	-.0001	.0002	.0084	.0221	-.0012	.0174	.0002	.0001	.4412
#3	.0001	-.0004	.0076	-.0194	.0002	.0093	.0002	.0001	.4456

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0007**	**.0020**	**.0144**	**.0005**	**.0001**	**.0000**	**-.0023**
Stddev	.0001	.0004	.0008	.0009	.0002	.0002	.0001	.000	.0002
%RSD	148.6	284.9	118.8	47.79	1.565	46.87	52.27	255.1	8.689
#1	.0002	.0003	-.0003	.0011	.0142	.0003	.0001	.0000	-.0021
#2	.0000	-.0004	.0011	.0029	.0147	.0007	.0002	-.0001	-.0024
#3	.0000	-.0003	.0013	.0020	.0144	.0004	.0001	.0000	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0002**	**.0168**
Stddev	.0002	.0001
%RSD	70.34	.4694
#1	-.0004	.0167
#2	-.0001	.0168
#3	-.0001	.0168

Zoom In Zoom Out

Sample Name: FC11003-3 Acquired: 11/10/2023 20:43:45 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2753.4**	**6699.4**	**41389.**	**8249.5**
Stddev	9.5	11.1	165.	115.6
%RSD	.34491	.16576	.39807	1.4008
#1	2764.1	6712.2	41203.	8174.1
#2	2746.2	6693.7	41516.	8191.9
#3	2749.8	6692.3	41447.	8382.5

Zoom In Zoom Out

Sample Name: FC11003-4 Acquired: 11/10/2023 20:48:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0891**	**.0276**	**.0846**	**.0569**	**.0000**	**82.59**	**-.0006**
Stddev	.0002	.0089	.0011	.0016	.0002	.0000	.24	.0001
%RSD	295.5	9.955	3.950	1.837	.3647	388.4	.2933	8.405
#1	.0000	.0948	.0264	.0831	.0567	.0000	82.31	-.0006
#2	.0001	.0936	.0280	.0845	.0569	.0000	82.72	-.0007
#3	-.0002	.0789	.0285	.0862	.0571	.0000	82.73	-.0006

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0023**	**.0036**	**57.77**	**9.185**	**.0008**	**32.97**	**.4750**
Stddev	.0000	.0002	.0003	.10	.035	.0007	.07	.0025
%RSD	4.070	8.232	9.279	.1797	.3859	84.80	.2130	.5307
#1	-.0004	.0024	.0033	57.66	9.183	.0012	32.93	.4740
#2	-.0004	.0024	.0037	57.86	9.150	.0000	32.94	.4732
#3	-.0004	.0021	.0039	57.79	9.221	.0011	33.05	.4779

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**15.13**	**-.0011**	F **-.0114**	**.0026**	**.0015**	**4.872**	**.0005**
Stddev	.0001	.03	.0001	.0007	.0004	.0021	.001	.0004
%RSD	61.05	.1766	8.714	6.185	16.41	139.3	.0249	77.10
#1	.0003	15.12	-.0010	-.0118	.0028	-.0009	4.871	.0003
#2	.0003	15.11	-.0010	-.0117	.0021	.0032	4.872	.0003
#3	.0001	15.16	-.0012	-.0106	.0029	.0022	4.874	.0010

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4208**	**.0039**	**.0007**	**.0015**	**.0574**
Stddev	.0003	.0001	.0015	.0001	.0002
%RSD	.0740	3.636	219.9	8.403	.4063
#1	.4206	.0038	.0023	.0016	.0577
#2	.4212	.0038	.0005	.0014	.0573
#3	.4208	.0041	-.0007	.0016	.0572

Zoom In Zoom Out

Sample Name: FC11003-4 Acquired: 11/10/2023 20:48:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2392.3**	**6196.0**	**38339.**	**7886.7**
Stddev	6.3	6.2	77.	39.3
%RSD	.26418	.09939	.20184	.49885
#1	2388.3	6191.8	38424.	7914.0
#2	2399.6	6203.0	38320.	7904.4
#3	2389.1	6193.1	38273.	7841.6

Zoom In Zoom Out

Sample Name: FC11003-1F Acquired: 11/10/2023 20:53:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0420**	**.0002**	**.0406**	**.0335**	**.0001**	**6.442**	**-.0002**	**.0003**
Stddev	.000	.0033	.0006	.0005	.0002	.0000	.036	.0000	.0001
%RSD	52.36	7.971	307.6	1.176	.6434	42.99	.5573	19.06	22.49
#1	.0000	.0442	.0001	.0409	.0337	.0000	6.452	-.0002	.0003
#2	.0000	.0382	.0008	.0400	.0334	.0001	6.472	-.0002	.0004
#3	.0000	.0437	-.0003	.0408	.0333	.0001	6.402	-.0002	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0005**	**10.76**	**2.514**	**.0013**	**2.250**	**.0531**	**.0001**	**18.56**
Stddev	.0001	.0000	.04	.039	.0009	.031	.0000	.0001	.13
%RSD	13.60	3.138	.3383	1.539	68.18	1.368	.0915	104.6	.7007
#1	.0009	.0005	10.78	2.500	.0021	2.238	.0532	.0002	18.56
#2	.0007	.0005	10.77	2.558	.0003	2.285	.0531	.0000	18.69
#3	.0009	.0005	10.71	2.484	.0015	2.228	.0531	.0000	18.43

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0021**	**.0007**	**.0034**	**1.670**	**.0002**	**.0385**	**.0004**	**.0001**
Stddev	.0001	.0003	.0008	.0015	.003	.0000	.0001	.0000	.0012
%RSD	12.54	15.41	124.4	43.86	.1722	16.42	.2404	10.75	1068.
#1	.0012	-.0024	.0009	.0042	1.669	.0001	.0386	.0004	.0002
#2	.0009	-.0020	-.0002	.0017	1.668	.0002	.0386	.0005	.0013
#3	.0011	-.0018	.0014	.0043	1.674	.0002	.0384	.0004	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0191**
Stddev	.000	.0000
%RSD	801.2	.1612
#1	-.0002	.0191
#2	-.0001	.0191
#3	.0002	.0191

Zoom In Zoom Out

Sample Name: FC11003-1F Acquired: 11/10/2023 20:53:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2650.6**	**6547.9**	**40676.**	**8176.7**
Stddev	2.9	10.5	219.	52.2
%RSD	.11081	.16015	.53727	.63832
#1	2653.1	6560.0	40712.	8190.8
#2	2647.4	6541.8	40874.	8118.9
#3	2651.2	6541.8	40441.	8220.4

Zoom In Zoom Out

Sample Name: FC11003-3F Acquired: 11/10/2023 20:59:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0047**	**-.0009**	**-.0004**	**.0000**	**.0000**	**.0259**	**-.0001**	**.0000**
Stddev	.0002	.0007	.0004	.0015	.0001	.0000	.0019	.0000	.000
%RSD	100.3	13.92	45.09	394.6	366.2	99.09	7.275	39.16	170.8
#1	.0000	.0052	-.0009	.0004	.0001	.0000	.0280	-.0001	.0000
#2	-.0003	.0040	-.0005	.0006	.0001	.0000	.0248	.0000	-.0001
#3	-.0001	.0050	-.0012	-.0020	-.0001	.0001	.0248	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0020**	**.0225**	**-.0015**	**.0019**	**.0001**	**.0001**	**.3919**
Stddev	.0000	.0002	.0020	.0237	.0006	.0046	.0000	.0001	.0124
%RSD	24.93	97.69	103.0	105.3	38.04	239.9	21.59	94.38	3.167
#1	.0002	.0004	.0030	-.0029	-.0020	.0057	.0001	.0000	.3991
#2	.0001	.0000	-.0004	.0265	-.0018	-.0032	.0001	.0003	.3991
#3	.0002	.0002	.0033	.0440	-.0009	.0033	.0001	.0001	.3776

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**.0001**	**.0017**	**.0136**	**.0005**	**.0001**	**-.0001**	**-.0014**
Stddev	.0000	.0005	.0009	.0018	.0007	.0002	.0001	.0001	.0003
%RSD	25.08	134.9	609.4	110.0	5.355	41.19	105.1	86.73	23.86
#1	.0001	.0002	-.0002	.0000	.0142	.0003	.0001	.0000	-.0018
#2	.0001	-.0007	.0011	.0036	.0139	.0007	.0002	-.0001	-.0012
#3	.0001	-.0007	-.0005	.0014	.0128	.0006	.0000	-.0001	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0167**
Stddev	.0001	.0000
%RSD	52.78	.2434
#1	-.0002	.0167
#2	-.0001	.0168
#3	-.0001	.0167

Zoom In Zoom Out

Sample Name: FC11003-3F Acquired: 11/10/2023 20:59:03 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2730.6**	**6635.3**	**41039.**	**8218.3**
Stddev	3.1	3.3	75.	46.1
%RSD	.11267	.04918	.18277	.56073
#1	2733.6	6637.4	40992.	8271.1
#2	2727.5	6631.6	41125.	8186.2
#3	2730.6	6637.1	40998.	8197.6

Zoom In Zoom Out

Sample Name: FC11003-4F Acquired: 11/10/2023 21:04:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0665**	**.0002**	**.0204**	**.0113**	**.0000**	**16.21**	**-.0001**	**.0001**
Stddev	.0003	.0018	.0008	.0018	.0001	.0000	.04	.0000	.0001
%RSD	167.4	2.675	525.5	9.017	.7082	85.17	.2158	15.47	175.4
#1	-.0003	.0684	-.0007	.0187	.0114	.0000	16.23	-.0001	.0002
#2	-.0004	.0650	.0002	.0224	.0113	.0000	16.17	-.0001	-.0001
#3	.0001	.0659	.0009	.0201	.0112	.0001	16.22	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0004**	**.1365**	**.7459**	**.0025**	**7.346**	**.0175**	**.0014**	**45.46**
Stddev	.0002	.0002	.0018	.0005	.0013	.023	.0001	.0001	.21
%RSD	98.24	34.10	1.286	.0719	50.99	.3149	.5166	5.566	.4638
#1	.0003	.0005	.1365	.7456	.0038	7.349	.0176	.0014	45.45
#2	.0004	.0003	.1383	.7466	.0012	7.321	.0175	.0013	45.25
#3	.0000	.0005	.1347	.7456	.0025	7.367	.0174	.0014	45.67

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.0000**	**.0006**	**.0025**	**1.674**	**.0005**	**.0240**	**.0012**	**-.0010**
Stddev	.0002	.0003	.0003	.0009	.002	.0001	.0001	.0001	.0002
%RSD	7.460	1046.	49.77	36.99	.1382	15.90	.5090	10.77	22.82
#1	.0031	-.0002	.0004	.0035	1.672	.0006	.0241	.0012	-.0008
#2	.0030	.0000	.0005	.0020	1.675	.0004	.0238	.0013	-.0012
#3	.0027	.0003	.0010	.0019	1.676	.0006	.0240	.0011	-.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0059**	**.0048**
Stddev	.0001	.0000
%RSD	1.050	.7043
#1	.0059	.0048
#2	.0060	.0048
#3	.0059	.0048

Zoom In Zoom Out

Sample Name: FC11003-4F Acquired: 11/10/2023 21:04:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2566.5**	**6462.8**	**39959.**	**8083.6**
Stddev	4.9	6.9	171.	23.0
%RSD	.19011	.10631	.42864	.28460
#1	2570.2	6470.5	39813.	8086.2
#2	2568.4	6457.2	39917.	8059.4
#3	2561.0	6460.8	40147.	8105.2

Zoom In Zoom Out

Sample Name: FC11003-5F Acquired: 11/10/2023 21:09:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.5297**	**-.0001**	**.0214**	**.0114**	**.0000**	**17.46**	**-.0001**	**.0002**
Stddev	.0004	.0002	.0002	.0008	.0002	.0000	.02	.0000	.0001
%RSD	371.7	.0291	383.2	3.711	1.883	151.5	.1278	8.064	36.86
#1	.0002	.5298	.0002	.0221	.0112	.0000	17.48	-.0001	.0002
#2	-.0006	.5296	-.0003	.0206	.0116	.0000	17.47	-.0001	.0003
#3	.0000	.5296	.0000	.0215	.0115	.0000	17.44	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0001**	**.5851**	**2.393**	**-.0008**	**4.244**	**.0169**	**.0004**	**31.57**
Stddev	.0001	.0002	.0036	.023	.0004	.005	.0001	.0002	.06
%RSD	9.652	150.0	.6106	.9453	47.24	.1248	.4742	42.39	.1867
#1	.0009	.0002	.5815	2.418	-.0013	4.249	.0170	.0006	31.58
#2	.0009	-.0001	.5852	2.386	-.0005	4.246	.0169	.0004	31.51
#3	.0010	.0001	.5886	2.375	-.0008	4.238	.0169	.0002	31.62

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0004**	**.0014**	**.0012**	**1.248**	**.0009**	**.0369**	**.0039**	**-.0021**
Stddev	.0002	.0006	.0005	.0019	.003	.0005	.0000	.0001	.0006
%RSD	13.62	156.9	33.11	150.4	.1994	54.66	.0718	2.594	26.77
#1	.0015	-.0006	.0014	.0031	1.245	.0004	.0369	.0040	-.0016
#2	.0012	.0003	.0010	.0014	1.250	.0008	.0369	.0039	-.0020
#3	.0013	-.0007	.0019	-.0007	1.249	.0013	.0369	.0038	-.0027

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0032**	**.0054**
Stddev	.0002	.0000
%RSD	6.080	.8352
#1	.0033	.0055
#2	.0032	.0054
#3	.0030	.0054

Zoom In Zoom Out

Sample Name: FC11003-5F Acquired: 11/10/2023 21:09:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2603.3**	**6526.9**	**40330.**	**8127.6**
Stddev	1.3	8.2	114.	25.1
%RSD	.04939	.12623	.28152	.30912
#1	2602.2	6534.2	40201.	8133.3
#2	2604.8	6528.7	40375.	8149.4
#3	2603.0	6518.0	40415.	8100.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 21:14:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2547**	**40.17**	**1.995**	**1.801**	**2.062**	**2.040**	**41.11**	**2.036**	**2.028**
Stddev	.0002	.13	.002	.013	.006	.005	.12	.003	.003
%RSD	.0843	.3274	.0950	.7405	.2884	.2639	.2905	.1471	.1357
#1	.2548	40.32	1.995	1.786	2.069	2.046	41.25	2.037	2.028
#2	.2545	40.10	1.997	1.804	2.059	2.036	41.07	2.032	2.025
#3	.2549	40.09	1.994	1.813	2.058	2.039	41.02	2.037	2.030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**1.991**	**40.44**	**42.93**	**2.124**	**40.79**	**1.993**	**2.009**	**41.18**
Stddev	.004	.006	.13	.21	.006	.22	.022	.002	.14
%RSD	.1924	.3159	.3216	.4918	.2769	.5321	1.125	.0738	.3378
#1	2.029	1.994	40.58	43.17	2.129	41.02	1.989	2.011	41.32
#2	2.022	1.983	40.33	42.77	2.117	40.75	1.973	2.008	41.05
#3	2.025	1.994	40.41	42.86	2.125	40.59	2.018	2.010	41.16
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.028**	**2.015**	**1.994**	**1.995**	**2.054**	**2.028**	**1.998**	**2.038**	**2.013**
Stddev	.001	.007	.002	.002	.002	.002	.006	.005	.005
%RSD	.0319	.3458	.1215	.0871	.0712	.1059	.3112	.2717	.2655
#1	2.028	2.007	1.995	1.997	2.056	2.026	2.004	2.041	2.009
#2	2.027	2.017	1.996	1.994	2.053	2.030	1.992	2.041	2.010
#3	2.029	2.021	1.991	1.996	2.053	2.030	1.997	2.032	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 21:14:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.047**	**2.037**
Stddev	.007	.002
%RSD	.3555	.1092
#1	2.055	2.038
#2	2.046	2.035
#3	2.040	2.039
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2307.7**	**6283.9**	**38812.**	**8012.2**
Stddev	9.8	12.0	51.	60.0
%RSD	.42383	.19133	.13014	.74907
#1	2315.6	6288.0	38755.	7943.0
#2	2310.7	6293.3	38832.	8050.8
#3	2296.8	6270.3	38850.	8042.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 21:19:22 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0022**	**-.0001**	**.0007**	**-.0001**	**.0001**	**-.0002**	**.0000**
Stddev	.0002	.0084	.0007	.0014	.0001	.0000	.0009	.0000
%RSD	2764.	374.8	634.2	188.1	69.39	22.18	379.0	125.8
#1	.0001	.0019	.0005	.0012	-.0001	.0001	-.0011	.0000
#2	-.0002	-.0060	.0000	.0019	.0000	.0002	-.0002	.0000
#3	.0001	.0107	-.0009	-.0008	-.0002	.0001	.0006	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0004**	**.0006**	**-.0140**	F **-.0014**	**-.0032**	**.0001**
Stddev	.0001	.0000	.0002	.0013	.0268	.0005	.0029	.0000
%RSD	1251.	10.04	46.84	205.7	191.5	37.73	88.39	59.12
#1	.0000	.0003	.0005	.0001	.0117	-.0009	-.0065	.0001
#2	.0001	.0003	.0005	-.0003	-.0418	-.0019	-.0013	.0001
#3	-.0001	.0003	.0002	.0021	-.0119	-.0015	-.0019	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.2764**	**.0000**	**-.0002**	**.0011**	F **.0023**	**.0003**	**.0002**
Stddev	.0001	.0118	.000	.0004	.0012	.0023	.0006	.0003
%RSD	33.29	4.251	557.5	179.1	103.9	97.82	165.8	135.9
#1	.0005	.2880	.0002	.0002	.0005	-.0002	.0001	-.0001
#2	.0003	.2645	.0000	-.0004	.0025	.0040	.0010	.0003
#3	.0003	.2768	-.0003	-.0004	.0004	.0031	-.0001	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 21:19:22 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0003**	**-.0001**	**.0001**
Stddev	.0000	.0000	.0015	.0001	.0000
%RSD	14.10	73.51	454.3	189.0	5.349
#1	.0001	.0000	.0001	-.0001	.0001
#2	.0001	.0001	.0009	-.0002	.0001
#3	.0001	.0001	-.0020	.0001	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2702.9**	**6534.9**	**40133.**	**8014.3**
Stddev	5.0	5.9	155.	6.7
%RSD	.18520	.08990	.38724	.08338
#1	2697.3	6535.2	40302.	8017.9
#2	2706.9	6540.6	39996.	8018.4
#3	2704.4	6528.8	40100.	8006.6

Zoom In Zoom Out

Sample Name: FC11003-6F Acquired: 11/10/2023 21:24:29 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0542**	**-.0005**	**.0322**	**.0499**	**.0000**	**67.04**	**.0000**	**.0004**
Stddev	.0001	.0034	.0016	.0014	.0001	.0000	.11	.000	.0000
%RSD	81.79	6.282	297.1	4.379	.2137	64.29	.1621	141.1	9.075
#1	.0000	.0528	-.0022	.0317	.0500	.0000	67.16	.0000	.0005
#2	.0002	.0580	.0010	.0312	.0498	.0000	66.95	.0000	.0005
#3	.0003	.0517	-.0003	.0339	.0499	.0000	67.00	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.8465**	**17.68**	**.0013**	**14.66**	**.0318**	**.0006**	**32.40**
Stddev	.0003	.0003	.0020	.06	.0017	.08	.0001	.0001	.12
%RSD	158.4	111.5	.2346	.3453	137.1	.5769	.4117	18.08	.3739
#1	.0002	-.0001	.8485	17.75	.0008	14.75	.0319	.0007	32.54
#2	-.0001	.0004	.8466	17.63	.0032	14.59	.0320	.0006	32.34
#3	.0004	.0004	.8445	17.67	-.0002	14.63	.0317	.0005	32.32

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034**	**-.0013**	**.0006**	**.0033**	**1.271**	**.0003**	**.1445**	**.0017**	**-.0015**
Stddev	.0000	.0003	.0011	.0018	.004	.0003	.0003	.0000	.0015
%RSD	.4464	25.68	193.0	54.68	.2746	86.53	.2206	1.371	104.1
#1	.0034	-.0016	.0015	.0016	1.267	.0006	.1449	.0017	-.0014
#2	.0034	-.0012	.0008	.0031	1.271	.0003	.1443	.0017	-.0030
#3	.0034	-.0010	-.0006	.0052	1.274	.0001	.1444	.0018	.0000

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0024**	**.0061**
Stddev	.0002	.0001
%RSD	8.896	1.249
#1	.0025	.0060
#2	.0024	.0060
#3	.0021	.0062

Zoom In Zoom Out

Sample Name: FC11003-6F Acquired: 11/10/2023 21:24:29 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2511.6**	**6347.7**	**39497.**	**8127.8**
Stddev	4.3	8.5	170.	49.9
%RSD	.17123	.13454	.43162	.61348
#1	2515.3	6357.5	39563.	8078.9
#2	2506.9	6341.5	39303.	8178.6
#3	2512.5	6344.2	39624.	8125.9

Zoom In Zoom Out

Sample Name: FC11003-7F Acquired: 11/10/2023 21:29:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0179**	**-.0005**	**.0255**	**.0056**	**.0000**	**8.182**	**.0000**	**.0001**
Stddev	.000	.0013	.0007	.0005	.0001	.0000	.022	.000	.0001
%RSD	3873.	7.456	154.5	1.774	1.476	240.8	.2701	76.29	39.88
#1	.0004	.0177	-.0008	.0254	.0055	.0000	8.194	.0000	.0002
#2	-.0004	.0168	-.0009	.0251	.0057	.0000	8.156	-.0001	.0001
#3	-.0001	.0194	.0004	.0260	.0056	.0000	8.195	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0001**	**1.791**	**.8058**	**-.0011**	**1.200**	**.0288**	**.0019**	**7.719**
Stddev	.0000	.0002	.005	.0188	.0004	.002	.0001	.0001	.034
%RSD	16.68	406.6	.3001	2.334	41.08	.1229	.1830	3.115	.4396
#1	.0002	-.0003	1.792	.8240	-.0010	1.199	.0288	.0019	7.742
#2	.0003	.0002	1.785	.8069	-.0015	1.200	.0288	.0020	7.680
#3	.0003	-.0001	1.796	.7865	-.0006	1.202	.0287	.0019	7.735

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0039**	**-.0007**	**.0012**	**.0055**	**1.199**	**.0001**	**.0119**	**.0006**	**-.0004**
Stddev	.0001	.0006	.0006	.0022	.001	.0004	.0000	.0001	.0018
%RSD	2.678	85.51	47.84	40.18	.1025	349.4	.1432	8.898	424.3
#1	.0038	-.0005	.0019	.0040	1.198	.0005	.0119	.0006	-.0024
#2	.0039	-.0014	.0008	.0081	1.199	.0001	.0119	.0006	.0004
#3	.0040	-.0003	.0010	.0045	1.201	-.0003	.0119	.0005	.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0014**	**.0101**
Stddev	.0002	.0001
%RSD	14.64	.6423
#1	.0015	.0101
#2	.0014	.0100
#3	.0011	.0102

Zoom In Zoom Out

Sample Name: FC11003-7F Acquired: 11/10/2023 21:29:32 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2696.9**	**6576.7**	**40638.**	**8198.8**
Stddev	2.6	6.4	159.	28.8
%RSD	.09606	.09687	.39130	.35071
#1	2696.5	6579.1	40820.	8210.9
#2	2699.7	6569.5	40571.	8219.5
#3	2694.6	6581.5	40525.	8165.9

Zoom In Zoom Out

Sample Name: FC10954-3A Acquired: 11/10/2023 21:34:36 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0091**	F **5.354**	**.0190**	**.0315**	**.0000**	**48.66**	**-.0010**
Stddev	.0000	.0083	.009	.0004	.0001	.0000	.09	.0000
%RSD	1.760	90.80	.1779	2.134	.2561	81.52	.1950	1.023
#1	.0008	.0169	5.352	.0195	.0314	.0000	48.56	-.0010
#2	.0008	.0101	5.345	.0189	.0314	.0001	48.69	-.0010
#3	.0008	.0004	5.364	.0187	.0315	.0000	48.74	-.0010

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0262**	**.0011**	**.0004**	**75.39**	**6.039**	**-.0008**	**5.481**	**2.988**
Stddev	.0000	.0001	.0001	.16	.011	.0006	.050	.021
%RSD	.0998	8.040	35.21	.2103	.1798	71.38	.9172	.7023
#1	.0262	.0011	.0003	75.30	6.051	-.0012	5.474	2.964
#2	.0262	.0010	.0002	75.31	6.032	-.0010	5.434	3.001
#3	.0261	.0011	.0005	75.58	6.033	-.0001	5.534	2.999

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**9.290**	**.0104**	F **-.0147**	**.0005**	**.0046**	**8.138**	**.0003**
Stddev	.0002	.054	.0001	.0002	.0009	.0007	.017	.0002
%RSD	13.09	.5827	.9843	1.697	187.0	14.39	.2108	94.95
#1	.0014	9.268	.0103	-.0146	.0003	.0045	8.119	.0005
#2	.0011	9.250	.0105	-.0145	.0015	.0054	8.143	.0000
#3	.0014	9.352	.0104	-.0150	-.0003	.0040	8.152	.0002

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.3329**	**.0015**	**.0027**	**.0004**	**.0001**
Stddev	.0013	.0002	.0003	.0002	.0000
%RSD	.3825	11.48	9.644	46.26	56.72
#1	.3323	.0014	.0025	.0005	.0001
#2	.3320	.0017	.0027	.0005	.0001
#3	.3343	.0013	.0030	.0002	.0000

Zoom In Zoom Out

Sample Name: FC10954-3A Acquired: 11/10/2023 21:34:36 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2539.2**	**6476.9**	**39899.**	**8156.3**
Stddev	5.1	8.6	216.	42.2
%RSD	.19997	.13299	.54147	.51745
#1	2533.3	6467.3	40146.	8139.7
#2	2541.9	6479.4	39745.	8204.3
#3	2542.3	6483.9	39807.	8125.0

Zoom In Zoom Out

Sample Name: FC10968-1 Acquired: 11/10/2023 21:39:47 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**2.256**	**.0015**	**.1652**	**.0688**	**.0001**	**137.5**	**.0000**	**.0034**
Stddev	.0004	.001	.0009	.0018	.0003	.0000	1.8	.000	.0000
%RSD	190.1	.0340	58.13	1.077	.3790	9.186	1.330	523.7	.9173
#1	.0006	2.255	.0017	.1651	.0685	.0001	135.6	.0000	.0034
#2	.0003	2.257	.0022	.1634	.0690	.0001	137.6	.0000	.0034
#3	-.0002	2.256	.0005	.1670	.0689	.0001	139.2	.0000	.0034

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0201**	**.0088**	**1.960**	**41.00**	**.0183**	**7.510**	**.0611**	**.0132**	F **96.65**
Stddev	.0002	.0001	.005	.09	.0014	.053	.0002	.0001	.47
%RSD	.9462	.8286	.2603	.2263	7.533	.7107	.3227	.4162	.4833
#1	.0200	.0088	1.954	40.89	.0167	7.454	.0609	.0132	96.16
#2	.0203	.0088	1.963	41.06	.0194	7.560	.0613	.0132	97.09
#3	.0200	.0087	1.963	41.04	.0186	7.516	.0611	.0131	96.69

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070**	**-.0015**	**.0013**	**.0017**	**14.14**	**.0026**	**.7252**	**.1669**	**-.0008**
Stddev	.0001	.0005	.0003	.0021	.02	.0003	.0031	.0003	.0017
%RSD	1.499	30.82	25.54	123.8	.1255	13.39	.4215	.1832	200.9
#1	.0071	-.0018	.0015	.0016	14.16	.0024	.7218	.1670	-.0019
#2	.0069	-.0017	.0014	.0038	14.13	.0030	.7278	.1672	.0011
#3	.0070	-.0010	.0009	-.0004	14.13	.0024	.7258	.1666	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0199**	**.0264**
Stddev	.0001	.0000
%RSD	.4769	.1677
#1	.0198	.0264
#2	.0199	.0265
#3	.0199	.0264

Zoom In Zoom Out

Sample Name: FC10968-1 Acquired: 11/10/2023 21:39:47 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2388.0**	**6274.1**	**38577.**	**8103.6**
Stddev	3.9	5.2	118.	55.4
%RSD	.16490	.08219	.30557	.68325
#1	2389.8	6273.5	38671.	8166.1
#2	2390.8	6279.6	38444.	8060.6
#3	2383.5	6269.3	38614.	8084.1

Zoom In Zoom Out

Sample Name: FC10973-1 Acquired: 11/10/2023 21:44:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.6776**	**.0031**	**.1288**	**.2152**	**.0000**	**80.06**	**.0000**	**.0006**
Stddev	.0002	.0069	.0014	.0014	.0009	.0000	.10	.000	.0001
%RSD	2550.	1.012	43.70	1.087	.4159	32.09	.1242	134.4	11.68
#1	.0001	.6853	.0041	.1273	.2159	.0000	80.17	-.0001	.0007
#2	-.0003	.6722	.0016	.1291	.2142	.0000	79.97	.0000	.0006
#3	.0002	.6752	.0038	.1301	.2155	.0001	80.05	.0000	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0077**	**.0025**	**.9909**	**8.438**	**.0134**	**60.14**	**.6080**	**.0083**	F **121.4**
Stddev	.0003	.0002	.0036	.039	.0005	.11	.0022	.0002	.8
%RSD	4.293	6.634	.3672	.4562	3.937	.1757	.3576	2.330	.6571
#1	.0077	.0026	.9950	8.482	.0140	60.15	.6105	.0085	122.2
#2	.0073	.0023	.9896	8.423	.0133	60.23	.6072	.0082	120.6
#3	.0079	.0026	.9881	8.410	.0130	60.02	.6064	.0081	121.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**-.0003**	**.0034**	**.0011**	**14.80**	**.0013**	**.4994**	**.0346**	**-.0021**
Stddev	.0000	.0008	.0009	.0018	.01	.0003	.0020	.0003	.0011
%RSD	.7664	259.1	26.00	166.3	.0600	19.47	.4041	.8498	51.98
#1	.0046	.0004	.0042	.0023	14.81	.0010	.5016	.0349	-.0023
#2	.0047	-.0012	.0025	.0018	14.79	.0013	.4987	.0347	-.0009
#3	.0046	-.0002	.0037	-.0010	14.79	.0015	.4977	.0343	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0168**	**.0072**
Stddev	.0002	.0001
%RSD	1.264	1.100
#1	.0169	.0073
#2	.0170	.0072
#3	.0166	.0072

Zoom In Zoom Out

Sample Name: FC10973-1 Acquired: 11/10/2023 21:44:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2377.3**	**6249.9**	**38495.**	**7962.5**
Stddev	4.2	8.1	67.	48.1
%RSD	.17784	.12934	.17515	.60410
#1	2381.2	6259.2	38420.	7980.5
#2	2378.0	6244.8	38550.	7907.9
#3	2372.8	6245.5	38515.	7998.9

Zoom In Zoom Out

Sample Name: FC10973-2 Acquired: 11/10/2023 21:50:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.7475**	**.0059**	**.2911**	**.1432**	**.0000**	**70.63**	**.0000**	**.0004**
Stddev	.0002	.0141	.0014	.0004	.0001	.0000	.04	.000	.0001
%RSD	146.8	1.887	23.87	.1357	.1004	155.4	.0505	177.2	29.16
#1	.0001	.7329	.0074	.2915	.1434	.0000	70.67	.0000	.0005
#2	-.0002	.7610	.0045	.2910	.1431	.0001	70.60	-.0001	.0003
#3	-.0002	.7486	.0058	.2907	.1431	.0000	70.63	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0219**	**.0052**	**1.102**	**10.11**	**.0270**	**26.66**	**.0957**	**.0149**	F **100.9**
Stddev	.0001	.0001	.002	.03	.0005	.10	.0003	.0000	.5
%RSD	.4734	1.589	.2018	.3179	1.945	.3662	.2866	.2749	.4740
#1	.0218	.0052	1.105	10.08	.0270	26.65	.0957	.0149	101.0
#2	.0220	.0053	1.100	10.14	.0265	26.56	.0960	.0149	100.4
#3	.0219	.0051	1.102	10.10	.0275	26.76	.0954	.0150	101.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**-.0010**	**.0019**	**.0032**	**11.39**	**.0011**	**.3761**	**.0348**	**-.0022**
Stddev	.0002	.0002	.0007	.0019	.01	.0001	.0017	.0009	.0009
%RSD	5.895	21.79	36.68	60.54	.1284	5.437	.4403	2.532	41.16
#1	.0040	-.0010	.0023	.0017	11.37	.0011	.3766	.0352	-.0012
#2	.0039	-.0012	.0024	.0054	11.39	.0011	.3742	.0353	-.0031
#3	.0036	-.0008	.0011	.0025	11.40	.0012	.3774	.0338	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0197**	**.0031**
Stddev	.0002	.0000
%RSD	1.108	1.422
#1	.0197	.0030
#2	.0194	.0031
#3	.0199	.0031

Zoom In Zoom Out

Sample Name: FC10973-2 Acquired: 11/10/2023 21:50:04 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2427.0**	**6301.9**	**38949.**	**7990.0**
Stddev	4.2	10.1	146.	18.0
%RSD	.17266	.16010	.37548	.22550
#1	2423.2	6294.8	38811.	8010.7
#2	2431.5	6313.5	38933.	7981.2
#3	2426.3	6297.6	39102.	7978.0

Zoom In Zoom Out

Sample Name: FC10973-3 Acquired: 11/10/2023 21:55:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0411**	**.0071**	**.1062**	**.1109**	**.0000**	**52.39**	**.0000**	**.0000**
Stddev	.0004	.0006	.0007	.0010	.0001	.0000	.05	.000	.0001
%RSD	227.9	1.473	9.327	.9424	.0819	57.69	.0906	143.5	1841.
#1	-.0003	.0405	.0065	.1051	.1109	.0000	52.34	.0000	-.0001
#2	.0006	.0417	.0078	.1068	.1110	.0000	52.43	.0000	.0000
#3	.0002	.0411	.0070	.1068	.1108	.0000	52.39	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075**	**.0018**	**.2166**	**6.696**	**.0120**	**44.32**	**.0781**	**.0130**	F **103.9**
Stddev	.0002	.0002	.0022	.031	.0017	.20	.0003	.0001	.5
%RSD	2.278	12.94	1.016	.4590	13.76	.4419	.4125	.7480	.4704
#1	.0076	.0015	.2188	6.672	.0139	44.17	.0785	.0129	103.7
#2	.0075	.0019	.2166	6.731	.0111	44.54	.0780	.0131	104.5
#3	.0073	.0019	.2144	6.685	.0110	44.25	.0778	.0131	103.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**-.0003**	**.0034**	**.0030**	**12.19**	**.0015**	**.3573**	**.0020**	**-.0016**
Stddev	.0001	.0009	.0007	.0016	.02	.0000	.0012	.0000	.0020
%RSD	9.164	366.1	19.08	53.56	.1456	2.234	.3285	2.497	123.0
#1	.0013	-.0009	.0041	.0018	12.17	.0015	.3580	.0019	-.0001
#2	.0015	.0008	.0028	.0049	12.20	.0016	.3580	.0020	-.0009
#3	.0013	-.0006	.0034	.0024	12.20	.0015	.3560	.0020	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0152**	**.0021**
Stddev	.0000	.0001
%RSD	.1797	3.025
#1	.0152	.0020
#2	.0152	.0021
#3	.0153	.0021

Zoom In Zoom Out

Sample Name: FC10973-3 Acquired: 11/10/2023 21:55:05 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2416.9**	**6286.8**	**38875.**	**7979.1**
Stddev	6.7	18.5	86.	35.5
%RSD	.27676	.29452	.22106	.44430
#1	2419.3	6293.7	38845.	8018.8
#2	2422.1	6300.8	38809.	7967.9
#3	2409.4	6265.8	38972.	7950.6

Zoom In Zoom Out

Sample Name: FC10989-1 Acquired: 11/10/2023 22:00:09 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0304**	**.0046**	**.0153**	**.0919**	**.0000**	**14.82**	**.0000**	**-.0001**
Stddev	.0001	.0084	.0020	.0022	.0000	.0000	.03	.0001	.0001
%RSD	52.58	27.77	43.82	14.06	.0231	59.96	.1863	922.8	76.52
#1	-.0002	.0207	.0027	.0153	.0919	.0000	14.83	.0000	.0000
#2	-.0001	.0357	.0043	.0132	.0919	.0000	14.83	.0001	-.0001
#3	-.0004	.0348	.0067	.0175	.0919	.0000	14.79	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0005**	**.0503**	**3.205**	**.0034**	**10.30**	**.0141**	**.0030**	**31.39**
Stddev	.0002	.0001	.0011	.019	.0010	.02	.0001	.0000	.18
%RSD	70.12	26.26	2.232	.6030	29.68	.2379	.5088	1.146	.5634
#1	.0005	.0006	.0490	3.227	.0044	10.32	.0142	.0030	31.40
#2	.0001	.0005	.0508	3.191	.0024	10.32	.0140	.0030	31.56
#3	.0002	.0003	.0511	3.197	.0034	10.27	.0141	.0030	31.20

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0019**	**-.0002**	**.0002**	**.0014**	**4.932**	**.0003**	**.0401**	**.0011**	**-.0012**
Stddev	.0000	.0004	.0007	.0015	.003	.0003	.0000	.0000	.0012
%RSD	.8480	178.7	405.9	107.6	.0567	110.9	.0859	3.558	99.79
#1	.0018	.0002	.0004	.0030	4.929	.0007	.0401	.0011	-.0003
#2	.0019	-.0004	.0007	.0010	4.933	.0001	.0401	.0011	-.0007
#3	.0019	-.0004	-.0006	.0001	4.935	.0001	.0400	.0011	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0014**	**.0093**
Stddev	.0001	.0001
%RSD	6.560	1.047
#1	.0014	.0093
#2	.0013	.0093
#3	.0015	.0091

Zoom In Zoom Out

Sample Name: FC10989-1 Acquired: 11/10/2023 22:00:09 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2604.3**	**6516.5**	**40319.**	**8183.4**
Stddev	2.1	2.2	70.	9.1
%RSD	.08133	.03439	.17312	.11081
#1	2604.8	6518.4	40244.	8192.8
#2	2602.0	6514.0	40382.	8174.7
#3	2606.2	6516.9	40330.	8182.7

Zoom In Zoom Out

Sample Name: FC10989-2 Acquired: 11/10/2023 22:05:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.6232**	**.0003**	**.0357**	**.0425**	**.0001**	**25.43**	**-.0001**	**.0003**
Stddev	.0002	.0084	.0004	.0008	.0002	.0001	.08	.0001	.0001
%RSD	105.5	1.341	144.6	2.193	.3810	45.97	.2999	83.70	25.55
#1	.0000	.6166	.0006	.0351	.0423	.0001	25.50	.0000	.0003
#2	.0003	.6326	-.0002	.0366	.0426	.0001	25.44	.0000	.0003
#3	.0002	.6205	.0005	.0355	.0426	.0002	25.35	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**.0032**	**2.421**	**10.20**	**.0337**	**2.892**	**.0806**	**.0028**	**4.855**
Stddev	.0002	.0001	.001	.03	.0008	.021	.0006	.0001	.021
%RSD	6.225	2.515	.0533	.2856	2.401	.7332	.6888	3.666	.4280
#1	.0033	.0033	2.422	10.17	.0344	2.891	.0801	.0027	4.879
#2	.0033	.0033	2.422	10.21	.0328	2.914	.0804	.0029	4.842
#3	.0030	.0031	2.420	10.23	.0339	2.871	.0812	.0029	4.844

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081**	**.0022**	**.0005**	**.0029**	**2.926**	**.0007**	**.1201**	**.0225**	**-.0018**
Stddev	.0001	.0010	.0004	.0028	.003	.0001	.0001	.0002	.0015
%RSD	.8375	44.24	85.91	95.83	.1091	9.215	.0870	.8067	82.98
#1	.0082	.0033	.0001	.0048	2.930	.0006	.1202	.0224	-.0028
#2	.0080	.0013	.0009	.0042	2.925	.0007	.1202	.0224	-.0001
#3	.0081	.0021	.0004	-.0003	2.924	.0007	.1200	.0227	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0164**	**.0565**
Stddev	.0003	.0001
%RSD	1.561	.1881
#1	.0162	.0566
#2	.0167	.0565
#3	.0163	.0564

Zoom In Zoom Out

Sample Name: FC10989-2 Acquired: 11/10/2023 22:05:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2645.3**	**6562.7**	**40607.**	**8167.0**
Stddev	2.7	2.0	99.	39.5
%RSD	.10093	.03005	.24440	.48367
#1	2647.3	6564.7	40683.	8129.4
#2	2642.3	6560.7	40645.	8163.4
#3	2646.4	6562.7	40495.	8208.2

Zoom In Zoom Out

Sample Name: FC10987-5 Acquired: 11/10/2023 22:10:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0006**	**.0591**	**.0146**	F **4.387**	**-.0085**	**.0002**	**537.0**	**.0000**	**.0000**
Stddev	.0017	.0249	.0082	.015	.0008	.0003	3.6	.000	.0001
%RSD	288.3	42.06	56.33	.3508	9.697	165.3	.6665	1057.	1070.
#1	-.0017	.0860	.0067	4.387	-.0094	-.0001	540.2	.0003	.0000
#2	-.0014	.0545	.0231	4.372	-.0084	.0003	537.6	-.0001	.0001
#3	.0014	.0369	.0141	4.403	-.0077	.0003	533.1	-.0003	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**.0015**	**.1634**	**15.41**	**.3169**	**425.5**	**.0056**	**.0121**	F **1337.**
Stddev	.0007	.0011	.0014	.15	.0025	.8	.0003	.0006	13.
%RSD	57.50	68.49	.8474	.9775	.7828	.1861	4.786	5.019	.9777
#1	.0019	.0023	.1640	15.39	.3197	424.6	.0056	.0115	1345.
#2	.0013	.0019	.1618	15.28	.3160	425.9	.0059	.0127	1345.
#3	.0005	.0003	.1644	15.58	.3150	426.0	.0053	.0121	1322.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0092**	**-.0078**	**.0072**	**.0086**	**3.759**	**.0020**	**8.824**	**.0067**	**-.0009**
Stddev	.0003	.0064	.0024	.0098	.008	.0017	.008	.0003	.0036
%RSD	3.259	81.65	33.98	114.1	.2156	85.76	.0870	4.989	381.2
#1	.0090	-.0033	.0095	.0130	3.768	.0003	8.816	.0070	-.0051
#2	.0095	-.0050	.0075	.0153	3.752	.0037	8.831	.0069	.0009
#3	.0090	-.0151	.0046	-.0026	3.758	.0019	8.823	.0064	.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0023**	**.0091**
Stddev	.0006	.0003
%RSD	26.26	3.170
#1	-.0016	.0094
#2	-.0026	.0088
#3	-.0027	.0090

Zoom In Zoom Out

Sample Name: FC10987-5 Acquired: 11/10/2023 22:10:16 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2258.9**	**6002.2**	**36865.**	**7806.1**
Stddev	6.7	13.0	64.	17.1
%RSD	.29615	.21599	.17367	.21889
#1	2264.6	6014.5	36794.	7810.3
#2	2260.4	6003.5	36880.	7787.2
#3	2251.5	5988.6	36920.	7820.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 22:15:37 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2545**	**40.51**	**1.998**	F **1.764**	**2.050**	**2.066**	**41.13**	**2.046**	**2.032**
Stddev	.0003	.13	.002	.016	.004	.003	.06	.002	.002
%RSD	.1133	.3087	.0759	.9096	.1964	.1625	.1379	.0822	.0886
#1	.2547	40.65	1.999	1.745	2.046	2.068	41.15	2.045	2.033
#2	.2541	40.42	1.998	1.771	2.054	2.068	41.17	2.044	2.030
#3	.2545	40.46	1.996	1.775	2.049	2.062	41.06	2.048	2.034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000					
Range				-10.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.050**	**2.030**	**41.07**	**43.18**	**2.160**	**41.50**	**2.069**	**2.018**	**42.52**
Stddev	.003	.007	.11	.05	.004	.17	.013	.001	.12
%RSD	.1369	.3245	.2670	.1188	.2080	.4108	.6177	.0699	.2824
#1	2.047	2.027	41.19	43.20	2.164	41.69	2.071	2.020	42.63
#2	2.050	2.026	41.04	43.22	2.161	41.35	2.081	2.017	42.54
#3	2.053	2.038	40.97	43.12	2.155	41.47	2.056	2.018	42.39
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026**	**2.012**	**1.998**	**2.001**	**2.062**	**2.031**	**2.030**	**2.035**	**2.010**
Stddev	.001	.006	.002	.002	.002	.003	.002	.001	.002
%RSD	.0618	.2763	.0825	.1036	.1060	.1216	.0881	.0540	.1093
#1	2.027	2.007	1.997	1.999	2.065	2.028	2.032	2.034	2.008
#2	2.025	2.011	1.998	2.001	2.060	2.032	2.030	2.035	2.010
#3	2.027	2.018	2.000	2.003	2.062	2.033	2.028	2.036	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 22:15:37 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.048**	**2.042**
Stddev	.004	.002
%RSD	.2190	.0749
#1	2.046	2.044
#2	2.046	2.041
#3	2.054	2.043
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2298.7**	**6261.3**	**38496.**	**7856.3**
Stddev	7.7	15.6	145.	34.9
%RSD	.33710	.24906	.37654	.44439
#1	2302.9	6264.1	38662.	7816.5
#2	2303.5	6275.3	38426.	7881.8
#3	2289.7	6244.5	38398.	7870.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 22:20:40 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0004**	**.0002**	**-.0002**	**.0001**	**-.0011**	**.0000**
Stddev	.0002	.0037	.0005	.0003	.0000	.0000	.0003	.0000
%RSD	152.0	1820.	120.5	165.1	11.76	40.62	27.12	116.2
#1	-.0002	-.0037	.0006	.0005	-.0002	.0001	-.0015	.0000
#2	.0001	-.0006	-.0001	.0000	-.0002	.0001	-.0010	.0001
#3	-.0002	.0037	.0007	.0000	-.0002	.0001	-.0009	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**.0002**	**.0014**	**-.0011**	F **-.0014**	**-.0015**	**.0001**
Stddev	.000	.0002	.0003	.0009	.0223	.0009	.0205	.0000
%RSD	125.2	67.86	115.1	61.20	2105.	66.01	1338.	15.17
#1	.0000	.0003	.0004	.0010	.0142	-.0009	.0179	.0001
#2	.0000	.0001	.0004	.0009	-.0266	-.0024	.0005	.0001
#3	.0000	.0005	-.0001	.0024	.0093	-.0007	-.0230	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit						.0010		
Low Limit						-.0010		

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.2033**	**.0000**	**.0002**	**.0014**	**.0016**	**.0002**	**.0003**
Stddev	.0001	.0081	.000	.0003	.0003	.0010	.0001	.0002
%RSD	43.22	4.007	725.2	192.2	19.53	62.23	63.05	59.16
#1	.0005	.2028	.0001	.0002	.0014	.0020	.0002	.0002
#2	.0002	.1954	.0000	.0004	.0017	.0024	.0004	.0003
#3	.0002	.2117	-.0001	-.0002	.0011	.0005	.0001	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 22:20:40 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0002**	**-.0002**	**.0000**
Stddev	.0001	.0001	.0011	.0002	.000
%RSD	388.8	217.8	706.8	91.45	780.8
#1	.0000	.0001	.0012	-.0002	.0000
#2	.0001	-.0001	.0002	-.0003	.0000
#3	.0000	.0002	-.0009	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2688.1**	**6521.3**	**39949.**	**7966.3**
Stddev	4.9	15.4	143.	48.3
%RSD	.18398	.23678	.35674	.60617
#1	2691.6	6532.7	39785.	7971.2
#2	2682.4	6503.7	40044.	7915.8
#3	2690.2	6527.6	40018.	8012.0

Zoom In Zoom Out

Sample Name: FC10987-5 Acquired: 11/10/2023 22:25:48 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0243**	**-.1122**	**-.0336**	**4.353**	**-.0247**	**.0015**	**600.6**	**-.0031**	**.0006**
Stddev	.0256	.4316	.1098	.162	.0216	.0023	.6	.0016	.0036
%RSD	105.7	384.7	326.8	3.709	87.62	158.6	.0917	50.58	577.4
#1	.0024	-.1926	-.1562	4.475	-.0333	-.0009	600.0	-.0019	.0035
#2	.0179	-.4979	-.0002	4.414	-.0406	.0016	601.0	-.0049	.0018
#3	.0525	.3539	.0557	4.170	-.0001	.0037	600.8	-.0025	-.0035

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0155**	**-.0273**	**.1723**	**17.24**	**.1412**	**467.4**	**.0105**	**.0218**	**1465.**
Stddev	.0054	.0094	.1109	2.25	.1031	2.8	.0027	.0015	4.
%RSD	34.58	34.50	64.38	13.06	73.04	.6023	26.03	6.942	.2612
#1	.0098	-.0372	.2881	19.75	.2338	465.4	.0081	.0235	1468.
#2	.0204	-.0263	.0671	15.38	.1596	466.1	.0135	.0205	1461.
#3	.0164	-.0184	.1616	16.59	.0301	470.6	.0099	.0215	1466.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0162**	**-.0162**	**.0626**	**.1966**	**4.036**	**.0420**	**9.525**	**.0446**	**.0078**
Stddev	.0093	.0405	.0218	.0768	.057	.0238	.035	.0039	.1172
%RSD	57.29	250.8	34.85	39.07	1.419	56.63	.3727	8.729	1498.
#1	.0064	.0074	.0878	.2248	4.094	.0610	9.546	.0418	.0211
#2	.0174	.0071	.0504	.1097	4.033	.0153	9.484	.0491	.1178
#3	.0248	-.0629	.0496	.2554	3.980	.0496	9.544	.0431	-.1155

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0122**	**.0122**
Stddev	.0126	.0043
%RSD	102.6	35.33
#1	-.0170	.0131
#2	-.0217	.0159
#3	.0020	.0075

Zoom In Zoom Out

Sample Name: FC10987-5 Acquired: 11/10/2023 22:25:48 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2637.2**	**6461.4**	**39718.**	**7949.0**
Stddev	4.8	6.0	154.	52.3
%RSD	.18375	.09220	.38844	.65817
#1	2633.9	6459.7	39847.	7949.9
#2	2642.7	6468.0	39547.	8000.9
#3	2634.9	6456.4	39761.	7896.3

Zoom In Zoom Out

Sample Name: FC10999-3 Acquired: 11/10/2023 22:30:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0354**	**.0055**	**.0712**	**.0298**	**.0000**	**88.22**	**.0000**	**-.0001**
Stddev	.0002	.0052	.0005	.0016	.0001	.0000	.38	.000	.0001
%RSD	335.6	14.78	8.361	2.272	.3490	139.7	.4252	203.0	119.0
#1	-.0001	.0387	.0050	.0729	.0297	.0001	88.63	-.0001	.0000
#2	.0000	.0294	.0055	.0696	.0299	.0000	88.12	.0000	-.0001
#3	.0003	.0382	.0059	.0712	.0299	.0000	87.91	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0001**	**.2915**	**4.133**	**.0018**	**9.354**	**.0229**	**.0029**	**56.38**
Stddev	.0001	.0001	.0010	.025	.0004	.039	.0001	.0001	.36
%RSD	35.08	103.9	.3579	.6102	20.69	.4163	.6018	2.128	.6443
#1	.0002	.0002	.2924	4.160	.0021	9.383	.0228	.0029	56.53
#2	.0004	.0003	.2903	4.130	.0014	9.370	.0228	.0029	56.65
#3	.0004	.0000	.2917	4.110	.0020	9.310	.0230	.0028	55.97

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0007**	**.0000**	**-.0007**	**2.423**	**.0003**	**.7723**	**.0020**	**-.0021**
Stddev	.0002	.0001	.0006	.0008	.003	.0002	.0033	.0001	.0022
%RSD	103.9	20.88	1411.	126.6	.1230	76.05	.4226	5.709	106.5
#1	.0000	-.0008	.0007	-.0004	2.422	.0001	.7747	.0021	-.0008
#2	.0003	-.0005	-.0001	-.0016	2.421	.0002	.7737	.0019	-.0046
#3	.0002	-.0008	-.0005	.0000	2.426	.0006	.7686	.0020	-.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0036**
Stddev	.0002	.0000
%RSD	93.28	.9704
#1	.0004	.0037
#2	.0004	.0037
#3	.0000	.0036

Zoom In Zoom Out

Sample Name: FC10999-3 Acquired: 11/10/2023 22:30:54 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2479.8**	**6315.7**	**39222.**	**7978.3**
Stddev	2.1	.6	107.	20.0
%RSD	.08568	.00941	.27382	.25046
#1	2481.7	6316.3	39167.	7970.0
#2	2477.5	6315.5	39346.	8001.2
#3	2480.3	6315.2	39154.	7963.9

Zoom In Zoom Out

Sample Name: FC10999-3A Acquired: 11/10/2023 22:35:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0508**	**.0054**	**.0695**	**.0288**	**.0000**	**85.68**	**-.0001**	**.0000**
Stddev	.0002	.0050	.0012	.0012	.0002	.0001	.37	.0000	.0001
%RSD	218.6	9.925	21.85	1.686	.7219	226.2	.4273	48.78	230.9
#1	-.0001	.0547	.0060	.0704	.0291	.0001	85.93	.0000	.0000
#2	.0003	.0527	.0040	.0698	.0288	.0000	85.85	.0000	.0000
#3	.0000	.0451	.0061	.0682	.0286	.0000	85.26	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0004**	**.3066**	**3.906**	**.0039**	**8.949**	**.0214**	**.0026**	**51.86**
Stddev	.0001	.0001	.0031	.029	.0007	.042	.0002	.0000	.18
%RSD	18.27	33.12	.9951	.7433	18.20	.4640	.8043	.9946	.3383
#1	.0006	.0005	.3077	3.875	.0039	8.904	.0215	.0027	51.77
#2	.0004	.0002	.3089	3.932	.0032	8.986	.0212	.0026	52.06
#3	.0004	.0004	.3031	3.912	.0046	8.956	.0214	.0026	51.75

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0012**	**.0008**	**.0013**	**2.344**	**.0007**	**.7436**	**.0020**	**-.0019**
Stddev	.0000	.0005	.0003	.0008	.001	.0002	.0012	.0002	.0004
%RSD	32.44	40.29	40.51	60.28	.0476	28.76	.1550	9.900	21.47
#1	.0000	-.0014	.0009	.0018	2.343	.0005	.7443	.0022	-.0022
#2	.0001	-.0007	.0004	.0016	2.345	.0009	.7443	.0020	-.0020
#3	.0000	-.0016	.0010	.0004	2.344	.0007	.7423	.0018	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0009**
Stddev	.0001	.0000
%RSD	34.35	.5020
#1	.0004	.0009
#2	.0004	.0009
#3	.0002	.0009

Zoom In Zoom Out

Sample Name: FC10999-3A Acquired: 11/10/2023 22:35:58 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2493.8**	**6337.8**	**39371.**	**8001.1**
Stddev	3.5	7.7	47.	83.3
%RSD	.13885	.12158	.11852	1.0414
#1	2494.4	6345.4	39329.	8000.3
#2	2496.9	6338.2	39363.	7918.2
#3	2490.1	6330.0	39421.	8084.9

Zoom In Zoom Out

Sample Name: MP43116-MB2A Acquired: 11/10/2023 22:41:03 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0021**	**.0002**	**-.0026**	**.0000**	**.0000**	**.0220**	**.0000**	**-.0001**
Stddev	.0001	.0100	.0005	.0006	.000	.0000	.0021	.000	.0001
%RSD	130.0	484.1	234.1	24.37	346.7	376.0	9.384	155.8	54.64
#1	.0000	.0113	.0001	-.0022	-.0001	.0000	.0236	.0000	-.0001
#2	-.0001	.0034	.0008	-.0033	.0001	.0001	.0197	-.0001	-.0002
#3	-.0003	-.0085	-.0002	-.0022	-.0001	.0000	.0228	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0004**	**.0018**	**.0146**	**-.0005**	**.0285**	**.0001**	**.0002**	**.3867**
Stddev	.0002	.0002	.0001	.0164	.0008	.0025	.0000	.0001	.0064
%RSD	368.1	39.88	7.445	112.3	167.2	8.719	8.977	38.99	1.665
#1	.0003	.0003	.0019	.0125	-.0004	.0278	.0001	.0002	.3883
#2	.0000	.0003	.0018	-.0006	-.0013	.0313	.0002	.0002	.3922
#3	-.0001	.0006	.0016	.0320	.0003	.0265	.0001	.0001	.3796
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0007**	**.0032**	**.0048**	**.0002**	**.0005**	**.0000**	**-.0024**
Stddev	.0001	.0001	.0015	.0027	.0005	.0002	.0000	.000	.0006
%RSD	376.1	73.82	198.8	84.69	10.92	128.4	5.116	432.0	23.63
#1	.0000	.0002	.0006	.0064	.0042	.0004	.0005	-.0002	-.0018
#2	.0001	.0002	-.0007	.0015	.0051	.0000	.0005	.0000	-.0028
#3	.0000	.0000	.0023	.0018	.0050	.0001	.0005	.0001	-.0026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43116-MB2A Acquired: 11/10/2023 22:41:03 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0003**	F **.0152**
Stddev	.0002	.0000
%RSD	58.89	.2558
#1	.0004	.0152
#2	.0002	.0153
#3	.0001	.0153
Check ?	Chk Pass	Chk Fail
High Limit		.0100
Low Limit		-.0100

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2733.7**	**6634.9**	**41018.**	**8104.4**
Stddev	3.7	9.3	55.	82.0
%RSD	.13630	.13963	.13400	1.0118
#1	2731.5	6636.8	40957.	8191.3
#2	2738.0	6643.0	41031.	8093.5
#3	2731.7	6624.8	41065.	8028.4

Zoom In Zoom Out

Sample Name: FC10990-1 Acquired: 11/10/2023 22:46:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**150.1**	**.0286**	F **-.0731**	**.3267**	**.0027**	**3.394**	**-.0017**
Stddev	.0003	.4	.0023	.0040	.0019	.0001	.013	.0002
%RSD	43.52	.2851	7.876	5.428	.5777	3.377	.3748	12.47
#1	.0011	149.8	.0312	-.0776	.3287	.0026	3.398	-.0015
#2	.0006	150.6	.0273	-.0703	.3249	.0027	3.405	-.0017
#3	.0005	150.0	.0273	-.0713	.3265	.0028	3.380	-.0020

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0130**	**.2455**	**.0716**	**121.0**	**1.813**	**.0472**	**2.942**	**.7841**
Stddev	.0001	.0008	.0015	.2	.127	.0061	.089	.0016
%RSD	1.155	.3384	2.070	.1695	7.012	12.97	3.017	.2093
#1	.0130	.2465	.0731	120.8	1.725	.0537	2.848	.7852
#2	.0131	.2450	.0715	121.2	1.755	.0415	3.024	.7822
#3	.0128	.2450	.0701	121.0	1.958	.0464	2.954	.7849

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**.9224**	**.0561**	**.0630**	**.0016**	**.0046**	**11.89**	**.0283**
Stddev	.0008	.0437	.0002	.0045	.0040	.0115	.03	.0008
%RSD	24.43	4.734	.2809	7.185	243.6	251.0	.2462	2.909
#1	.0035	.9215	.0560	.0682	-.0013	-.0086	11.92	.0286
#2	.0022	.8793	.0563	.0603	.0061	.0101	11.86	.0274
#3	.0036	.9666	.0561	.0604	.0001	.0122	11.91	.0290

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0277**	**1.294**	**.0019**	**.3541**	**.1183**
Stddev	.0000	.002	.0053	.0005	.0005
%RSD	.1118	.1263	277.7	.1274	.3936
#1	.0277	1.296	-.0022	.3540	.1178
#2	.0277	1.293	.0000	.3538	.1187
#3	.0276	1.295	.0080	.3546	.1185

Zoom In Zoom Out

Sample Name: FC10990-1 Acquired: 11/10/2023 22:46:11 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2628.5**	**7233.0**	**43669.**	**8809.8**
Stddev	11.8	14.7	167.	32.8
%RSD	.44887	.20330	.38157	.37177
#1	2637.3	7241.0	43565.	8829.4
#2	2615.1	7216.0	43580.	8772.0
#3	2633.2	7241.9	43861.	8828.1

Zoom In Zoom Out

Sample Name: MP43106-D1 Acquired: 11/10/2023 22:51:12 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**145.8**	**.0259**	F **-.0619**	**.3113**	**.0028**	**3.255**	**-.0014**
Stddev	.0010	.3	.0047	.0012	.0010	.0002	.024	.0003
%RSD	911.1	.2182	18.01	2.008	.3087	6.782	.7388	19.71
#1	.0010	145.4	.0210	-.0610	.3107	.0028	3.228	-.0012
#2	.0003	145.9	.0303	-.0615	.3107	.0030	3.265	-.0014
#3	-.0010	146.0	.0265	-.0633	.3124	.0026	3.273	-.0017

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0123**	**.1359**	**.0678**	**110.2**	**1.791**	**.0449**	**2.845**	**.7877**
Stddev	.0002	.0009	.0008	.4	.047	.0067	.115	.0022
%RSD	1.524	.6772	1.190	.3177	2.649	14.83	4.051	.2749
#1	.0125	.1348	.0685	110.0	1.753	.0425	2.733	.7876
#2	.0122	.1363	.0681	110.6	1.776	.0524	2.963	.7856
#3	.0122	.1365	.0669	110.1	1.844	.0397	2.838	.7899

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.8295**	**.0556**	**.0581**	**.0013**	**.0166**	**10.89**	**.0259**
Stddev	.0005	.0736	.0003	.0022	.0035	.0038	.03	.0012
%RSD	17.94	8.875	.5071	3.785	276.8	23.25	.2991	4.793
#1	.0036	.8107	.0553	.0596	-.0027	.0204	10.92	.0250
#2	.0030	.9107	.0558	.0556	.0037	.0127	10.86	.0273
#3	.0025	.7671	.0558	.0592	.0028	.0166	10.87	.0254

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0270**	**1.322**	**-.0019**	**.3193**	**.1253**
Stddev	.0006	.005	.0083	.0010	.0001
%RSD	2.215	.3875	448.6	.3162	.1167
#1	.0264	1.318	-.0106	.3205	.1254
#2	.0275	1.328	-.0010	.3187	.1252
#3	.0271	1.321	.0060	.3189	.1252

Zoom In Zoom Out

Sample Name: MP43106-D1 Acquired: 11/10/2023 22:51:12 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2640.3**	**7183.1**	**43459.**	**8837.0**
Stddev	5.5	7.3	173.	41.7
%RSD	.20766	.10194	.39863	.47153
#1	2642.3	7190.2	43566.	8879.3
#2	2644.6	7183.4	43552.	8796.0
#3	2634.2	7175.6	43259.	8835.8

Zoom In Zoom Out

Sample Name: MP43106-S1 Acquired: 11/10/2023 22:56:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1901**	**294.5**	**.1882**	**.2304**	**.6428**	**.1974**	**48.17**	**.1878**	**.2104**
Stddev	.0004	.1	.0007	.0068	.0019	.0003	.04	.0002	.0003
%RSD	.2317	.0466	.3960	2.964	.2969	.1572	.0727	.0961	.1405
#1	.1900	294.6	.1873	.2235	.6416	.1971	48.17	.1876	.2103
#2	.1897	294.6	.1886	.2307	.6417	.1973	48.14	.1879	.2107
#3	.1906	294.4	.1886	.2371	.6450	.1977	48.21	.1878	.2101

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4110**	**.3069**	**197.2**	**47.76**	**.6391**	**48.25**	**1.278**	**.5308**	**40.35**
Stddev	.0010	.0007	.2	.14	.0047	.21	.002	.0005	.04
%RSD	.2316	.2350	.0887	.2904	.7290	.4421	.1170	.0956	.0943
#1	.4110	.3075	197.2	47.79	.6376	48.06	1.278	.5302	40.37
#2	.4101	.3061	197.4	47.60	.6443	48.21	1.276	.5311	40.37
#3	.4120	.3071	197.0	47.87	.6354	48.48	1.279	.5310	40.30

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3020**	**.3010**	**.0596**	**.1525**	**11.05**	**.4925**	**.5390**	**1.717**	**.2031**
Stddev	.0007	.0019	.0023	.0087	.01	.0024	.0009	.004	.0036
%RSD	.2218	.6236	3.841	5.725	.1185	.4951	.1625	.2289	1.760
#1	.3015	.3028	.0577	.1615	11.06	.4917	.5399	1.716	.2061
#2	.3027	.3009	.0589	.1440	11.04	.4952	.5390	1.721	.2041
#3	.3017	.2991	.0622	.1520	11.06	.4905	.5381	1.713	.1992

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.6579**	**.4075**
Stddev	.0012	.0011
%RSD	.1777	.2624
#1	.6570	.4064
#2	.6592	.4086
#3	.6575	.4074

Zoom In Zoom Out

Sample Name: MP43106-S1 Acquired: 11/10/2023 22:56:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2509.3**	**7280.0**	**43938.**	**8953.5**
Stddev	5.9	12.8	187.	28.0
%RSD	.23578	.17618	.42549	.31245
#1	2509.7	7291.4	44055.	8939.7
#2	2503.2	7266.1	43722.	8935.2
#3	2515.0	7282.4	44036.	8985.7

Zoom In Zoom Out

Sample Name: MP43106-S2 Acquired: 11/10/2023 23:01:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1855**	**220.9**	**.1774**	**.2678**	**.5190**	**.1926**	**46.47**	**.1863**	**.2025**
Stddev	.0019	.7	.0043	.0076	.0027	.0012	.23	.0006	.0006
%RSD	1.010	.3160	2.405	2.853	.5207	.6372	.4845	.3430	.2831
#1	.1836	221.6	.1821	.2593	.5171	.1933	46.59	.1858	.2028
#2	.1873	220.2	.1738	.2699	.5177	.1912	46.21	.1870	.2029
#3	.1855	220.9	.1764	.2741	.5221	.1934	46.61	.1860	.2019

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3361**	**.2710**	**151.6**	**46.68**	**.6029**	**46.45**	**.9947**	**.5474**	**39.55**
Stddev	.0009	.0007	.5	.25	.0057	.27	.0016	.0012	.10
%RSD	.2548	.2509	.3135	.5441	.9524	.5875	.1594	.2164	.2564
#1	.3354	.2716	152.1	46.82	.6093	46.77	.9937	.5461	39.64
#2	.3371	.2712	151.1	46.38	.6011	46.29	.9965	.5481	39.56
#3	.3360	.2703	151.6	46.83	.5983	46.30	.9938	.5482	39.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2707**	**.2640**	**.0662**	**.1656**	**11.52**	**.4918**	**.5198**	**1.503**	**.1927**
Stddev	.0008	.0010	.0034	.0111	.01	.0010	.0014	.005	.0041
%RSD	.3074	.3842	5.112	6.687	.0652	.1939	.2687	.3380	2.102
#1	.2715	.2628	.0701	.1579	11.51	.4920	.5206	1.497	.1973
#2	.2699	.2645	.0647	.1783	11.52	.4908	.5181	1.505	.1912
#3	.2707	.2646	.0638	.1606	11.53	.4926	.5205	1.507	.1897

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5202**	**.3517**
Stddev	.0024	.0005
%RSD	.4664	.1377
#1	.5176	.3516
#2	.5208	.3523
#3	.5224	.3513

Zoom In Zoom Out

Sample Name: MP43106-S2 Acquired: 11/10/2023 23:01:14 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2535.3**	**7084.0**	**42852.**	**8682.6**
Stddev	1.3	6.0	270.	56.2
%RSD	.05171	.08435	.62944	.64671
#1	2533.9	7079.7	43159.	8622.8
#2	2535.7	7081.4	42739.	8734.2
#3	2536.4	7090.8	42656.	8690.8

Zoom In Zoom Out

Sample Name: MP43106-PS1 Acquired: 11/10/2023 23:06:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0440**	**149.6**	**.1142**	F **-.0698**	**.5491**	**.0481**	**7.701**	**.0441**
Stddev	.0009	.2	.0005	.0046	.0015	.0002	.008	.0003
%RSD	2.064	.1012	.4240	6.598	.2706	.4775	.1056	.6428
#1	.0443	149.5	.1142	-.0738	.5474	.0479	7.710	.0439
#2	.0430	149.8	.1147	-.0648	.5498	.0483	7.694	.0439
#3	.0448	149.6	.1137	-.0707	.5501	.0482	7.701	.0444

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0584**	**.2868**	**.1591**	**120.2**	**11.11**	**.0552**	**7.555**	**.7992**
Stddev	.0000	.0009	.0009	.2	.08	.0040	.009	.0024
%RSD	.0390	.3108	.5582	.1980	.6947	7.324	.1193	.3049
#1	.0584	.2859	.1581	119.9	11.02	.0535	7.563	.7979
#2	.0585	.2868	.1598	120.4	11.16	.0523	7.556	.7977
#3	.0584	.2877	.1594	120.3	11.15	.0598	7.545	.8020

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0857**	**8.829**	**.1472**	**.1075**	**.0917**	**.0853**	**13.28**	**.0736**
Stddev	.0003	.049	.0001	.0030	.0061	.0066	.02	.0007
%RSD	.3874	.5559	.0559	2.796	6.658	7.764	.1559	.9306
#1	.0857	8.778	.1471	.1109	.0849	.0793	13.25	.0743
#2	.0861	8.834	.1473	.1051	.0935	.0924	13.29	.0735
#3	.0854	8.876	.1471	.1066	.0967	.0842	13.28	.0730

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0711**	**1.452**	**.0892**	**.3985**	**.3414**
Stddev	.0008	.007	.0088	.0011	.0005
%RSD	1.058	.5179	9.919	.2693	.1379
#1	.0703	1.456	.0793	.3992	.3409
#2	.0718	1.444	.0963	.3972	.3415
#3	.0712	1.458	.0919	.3990	.3418

Zoom In Zoom Out

Sample Name: MP43106-PS1 Acquired: 11/10/2023 23:06:13 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2620.7**	**7190.2**	**43528.**	**8816.4**
Stddev	6.6	6.7	121.	18.3
%RSD	.25263	.09321	.27720	.20806
#1	2626.9	7195.3	43583.	8834.4
#2	2621.5	7192.8	43610.	8797.8
#3	2613.7	7182.6	43389.	8817.1

Zoom In Zoom Out

Sample Name: MP43106-SD1 Acquired: 11/10/2023 23:11:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**167.3**	**.0325**	**-.1287**	**.3588**	**.0028**	**5.152**	**-.0024**	**.0154**
Stddev	.0050	.2	.0144	.0330	.0017	.0005	.070	.0008	.0007
%RSD	428.7	.1425	44.39	25.66	.4813	16.03	1.354	31.46	4.664
#1	-.0027	167.5	.0265	-.1660	.3608	.0032	5.203	-.0017	.0162
#2	.0069	167.3	.0221	-.1033	.3581	.0031	5.072	-.0032	.0147
#3	-.0006	167.0	.0490	-.1168	.3576	.0023	5.180	-.0023	.0154

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2683**	**.0851**	**133.6**	**1.397**	**.0316**	**2.977**	**.8578**	**.0018**	**3.123**
Stddev	.0008	.0041	.2	.502	.0272	.275	.0016	.0052	.035
%RSD	.3015	4.802	.1154	35.94	86.08	9.240	.1872	289.9	1.133
#1	.2687	.0843	133.8	1.714	.0035	3.277	.8564	-.0026	3.112
#2	.2688	.0895	133.5	.8183	.0334	2.916	.8575	.0076	3.162
#3	.2674	.0814	133.5	1.660	.0579	2.737	.8596	.0005	3.094

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0639**	**.0507**	**.0164**	**.0595**	**15.65**	**.0363**	**.0311**	**1.552**	**-.0046**
Stddev	.0003	.0066	.0111	.0414	.04	.0076	.0015	.041	.0085
%RSD	.4943	12.98	67.76	69.65	.2404	20.97	4.711	2.640	185.6
#1	.0639	.0549	.0202	.0812	15.69	.0443	.0326	1.506	-.0072
#2	.0642	.0431	.0250	.0117	15.65	.0355	.0310	1.586	-.0114
#3	.0635	.0540	.0039	.0855	15.61	.0291	.0297	1.563	.0049

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3897**	**.1330**
Stddev	.0039	.0006
%RSD	1.008	.4790
#1	.3861	.1336
#2	.3939	.1324
#3	.3892	.1332

Zoom In Zoom Out

Sample Name: MP43106-SD1 Acquired: 11/10/2023 23:11:15 Type: Unk
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 25.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2701.9**	**6724.7**	**40908.**	**8232.7**
Stddev	8.1	21.4	70.	20.8
%RSD	.30130	.31898	.17079	.25292
#1	2704.4	6735.1	40923.	8213.9
#2	2708.4	6739.1	40832.	8229.2
#3	2692.8	6700.1	40969.	8255.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 23:16:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2542**	**40.17**	**1.997**	F **1.798**	**2.055**	**2.049**	**41.14**	**2.042**	**2.033**
Stddev	.0003	.02	.006	.010	.006	.003	.04	.005	.003
%RSD	.1334	.0522	.2817	.5562	.2993	.1528	.0850	.2435	.1387
#1	.2539	40.19	1.992	1.793	2.056	2.052	41.17	2.046	2.034
#2	.2542	40.18	1.997	1.792	2.048	2.046	41.10	2.036	2.029
#3	.2546	40.15	2.003	1.810	2.060	2.049	41.14	2.043	2.034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				2.000					
Range				-10.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.005**	**40.58**	**43.06**	**2.138**	**41.03**	**2.005**	**2.013**	**41.68**
Stddev	.001	.003	.09	.10	.004	.20	.014	.003	.14
%RSD	.0528	.1697	.2099	.2343	.1932	.4755	.6902	.1502	.3477
#1	2.028	2.005	40.67	43.03	2.142	41.25	1.992	2.016	41.80
#2	2.030	2.008	40.51	42.97	2.134	40.95	2.020	2.010	41.52
#3	2.030	2.001	40.54	43.17	2.136	40.88	2.003	2.014	41.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.030**	**2.008**	**1.999**	**2.001**	**2.062**	**2.032**	**2.006**	**2.037**	**2.007**
Stddev	.002	.002	.001	.002	.003	.005	.004	.001	.004
%RSD	.0793	.1010	.0413	.1171	.1339	.2718	.2257	.0662	.1862
#1	2.030	2.008	1.998	1.999	2.060	2.035	2.009	2.035	2.009
#2	2.028	2.010	1.999	2.001	2.060	2.025	2.001	2.036	2.009
#3	2.032	2.006	1.999	2.004	2.065	2.034	2.009	2.038	2.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/10/2023 23:16:20 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.045**	**2.038**
Stddev	.004	.005
%RSD	.1857	.2459
#1	2.041	2.043
#2	2.047	2.033
#3	2.047	2.038
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2307.6**	**6262.5**	**38674.**	**7954.3**
Stddev	1.2	14.0	85.	26.7
%RSD	.05104	.22315	.21906	.33508
#1	2307.3	6255.0	38771.	7925.0
#2	2308.9	6278.7	38613.	7960.9
#3	2306.7	6254.0	38639.	7977.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 23:21:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0014**	**.0004**	**.0003**	**.0000**	**.0001**	**.0015**	**.0000**	**.0000**
Stddev	.0000	.0055	.0003	.0012	.000	.0000	.0008	.0001	.0001
%RSD	12.66	382.2	78.36	463.6	81.64	22.48	56.93	146.8	268.2
#1	-.0002	-.0031	.0003	.0017	.0000	.0001	.0014	.0001	.0001
#2	-.0002	.0047	.0007	-.0005	.0000	.0001	.0024	.0001	.0000
#3	-.0002	-.0059	.0001	-.0004	-.0001	.0001	.0007	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0004**	**.0003**	**-.0151**	**-.0004**	**-.0067**	**.0001**	**.0004**	**.1209**
Stddev	.0001	.0001	.0014	.0274	.0021	.0139	.0000	.0002	.0073
%RSD	33.55	31.62	541.3	182.3	545.6	206.9	15.21	38.59	6.050
#1	.0003	.0002	-.0005	-.0024	-.0025	-.0226	.0001	.0005	.1282
#2	.0003	.0004	-.0005	.0038	.0018	.0030	.0001	.0005	.1136
#3	.0004	.0004	.0018	-.0465	-.0005	-.0006	.0001	.0002	.1209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0006**	**-.0003**	**.0011**	**.0001**	**.0001**	**.0001**	**.0007**
Stddev	.0001	.0005	.0006	.0014	.0004	.0002	.0001	.0000	.0015
%RSD	183.5	385.2	112.3	538.3	35.63	129.3	50.36	19.07	197.7
#1	.0001	-.0006	-.0001	.0013	.0012	.0002	.0002	.0001	-.0004
#2	.0002	-.0001	.0012	-.0008	.0015	.0003	.0001	.0001	.0003
#3	-.0001	.0003	.0006	-.0012	.0007	-.0001	.0001	.0001	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/10/2023 23:21:23 Type: QC
Method: 60102007_COMBO_102422(v707) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0000**
Stddev	.000	.000
%RSD	596.3	646.7
#1	.0001	.0000
#2	-.0001	.0000
#3	.0000	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2701.0**	**6527.5**	**40069.**	**7964.9**
Stddev	4.6	4.6	214.	13.8
%RSD	.17011	.07029	.53318	.17375
#1	2700.3	6530.8	40162.	7979.7
#2	2705.9	6529.5	39824.	7962.5
#3	2696.8	6522.3	40220.	7952.3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000036	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000066	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.001297	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000029	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000089	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000079	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000014	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	0.000007	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000030	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	0.000004	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000001	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000040	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	0.000203	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000182	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000013	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.002735	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000043	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000009	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000010	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000051	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000010	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000006	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000271	0.672770	0.000000	1.000000
Al 396.152 { 85}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000885	0.156030	0.000000	1.000000
As 189.042 {478}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000210	0.114357	0.000000	1.000000
B 249.773 {135}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.002548	0.374387	0.000000	1.000000
Ba 455.403 { 74}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.001160	9.664171	0.000000	1.000000
Be 313.042 {108}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000009	12.923362	0.000000	1.000000
Ca 317.933 {106}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.001583	0.384662	0.000000	1.000000
Cd 226.502 {449}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.001032	4.547852	0.000000	1.000000
Co 228.616 {447}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000746	2.649554	0.000000	1.000000
Cr 267.716 {126}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000006	0.709537	0.000000	1.000000
Cu 324.754 {104}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.006837	0.971841	0.000000	1.000000
Fe 259.940 {130}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000303	0.247163	0.000000	1.000000
In 230.606 {446}*	11/10/2023 10:36:15	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.002143	0.075679	0.000000	1.000000
Li 670.784 { 50}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000161	1.721787	0.000000	1.000000
Mg 279.079 {121}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000280	0.040730	0.000000	1.000000
Mn 257.610 {131}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000348	3.280908	0.000000	1.000000
Mo 202.030 {467}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000390	0.922020	0.000000	1.000000
Na 589.592 { 57}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.001538	0.228982	0.000000	1.000000
Ni 231.604 {445}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000593	1.525562	0.000000	1.000000
Pb 220.353 {453}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.002425	1.093101	0.000000	1.000000
Sb 206.833 {463}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000324	0.187279	0.000000	1.000000
Se 196.090 {472}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000316	0.087282	0.000000	1.000000
Si 212.412 {459}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.004048	0.287937	0.000000	1.000000
Sn 189.989 {477}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000079	0.339369	0.000000	1.000000
Sr 407.771 { 83}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000334	14.912710	0.000000	1.000000
Ti 334.941 {101}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.001257	2.218253	0.000000	1.000000
Tl 190.856 {477}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000716	0.258849	0.000000	1.000000
V 292.402 {115}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	-0.000446	1.042837	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	11/10/2023 10:36:15	11/10/2023 9:41:15	Linear	1/Conc	0.000215	2.611007	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999966	0.000019	0.000378	0.001259	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999980	0.000208	0.007547	0.025157	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999841	0.000021	0.001095	0.003652	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999734	0.000207	0.001447	0.004824	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999947	0.004705	0.000165	0.000549	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999950	0.000951	0.000043	0.000144	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999969	0.001410	0.001762	0.005875	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999995	0.000109	0.000050	0.000168	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999998	0.000113	0.000098	0.000327	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999990	0.000032	0.000251	0.000837	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999915	0.000209	0.000290	0.000968	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999959	0.000574	0.001368	0.004561	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999973	0.000598	0.025978	0.086593	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999925	0.000208	0.001246	0.004155	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999977	0.000292	0.011504	0.038347	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999956	0.000394	0.000043	0.000144	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999978	0.000143	0.000150	0.000501	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999661	0.006394	0.008395	0.027984	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999984	0.000178	0.000173	0.000576	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999479	0.000261	0.000564	0.001880	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999919	0.000018	0.001191	0.003972	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999914	0.000012	0.002209	0.007363	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.993374	0.001793	0.000564	0.001879	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999981	0.000049	0.000379	0.001264	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999952	0.001514	0.000064	0.000214	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999966	0.000192	0.000114	0.000379	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999783	0.000056	0.001137	0.003790	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999952	0.000236	0.000234	0.000779	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999992	0.000149	0.000064	0.000213	OK.	1.000000	0.000000	1	0

SGS Orlando

Date:	11/04/23
Time	14:13

[24hr]

Analysts Name:	Adam K
MP Batch ID:	43089
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1382	0.05	MU45274
Conc. HCl (B)	24003593	ACC1396	0.2	KU15244
NA	NA	MET7395	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	97	**Corr. Factor**	0.5	**Corrected Observed Temp. C**	97.5
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	7	Matrix Spike(MS)	50	50	Y	
	7	Matrix Spike Dup(MSD)	50	50	Y	
	7	Duplicate(DUP)	50	50	Y	
1(QC) C	7	FC10954-1	50	50	Y	
2	7	FC10954-2	50	50	Y	
3	7	FC10954-3	50	50	Y	
4	6	FC10955-1	50	50	Y	
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

11.5.1 11

ICPMS_WaterPrep_Logbook
Rev. 07/09/2021
DM

SGS Orlando

Date:	11/08/23
Time [24hr]	12:18

Analysts Name:	Thomas F
MP Batch ID:	MP43108
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1399	1	KU15244
Conc. HCl (B)	24003593	ACC1396	0.25	KU15244
NA	NA	MET7472	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	Therm ID	6130	Temp. C	96	Corr. Factor	0.5	Corrected Observed Temp. C	96.5
pH Paper Lot Number	230320			Filter Lot Number		306067223		Digestion Tube Lot Number	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	7	Matrix Spike(MS)	50	50	Y	
	7	Matrix Spike Dup(MSD)	50	50	Y	
	7	Duplicate(DUP)	50	50	Y	
1(QC) C	7	FC10963-23	50	50	Y	
2	6	FC10999-1	50	50	Y	
3	6	FC10999-2	50	50	Y	
4	7	FC10999-1A	50	50	Y	
5	7	FC10999-2A	50	50	Y	
6	9	FC11006-4	50	50	Y	
7	9	FC11006-5	50	50	Y	
8	9	FC11006-6	50	50	Y	
9	9	FC11006-7	50	50	Y	
10	2	FC10789-11	50	50	Y	
11	2	FC10789-13	50	50	Y	
12	7	FC10918-1	50	50	Y	
13	7	FC10918-2	50	50	Y	
14	7	FC10918-3	50	50	Y	
15	4	FC10925-1	50	50	Y	
16	5	FC10925-2	50	50	Y	
17	7	FC10945-1	50	50	Y	
18	6	FC10955-1A	50	50	Y	
19	7	FC10954-1	50	50	Y	
20	7	FC10954-2	50	50	Y	
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

SGS Orlando

Date:	11/09/23
Time	13:39

[24hr]

Analysts Name:	Adam K
MP Batch ID:	43116
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1399	1	KU15244
Conc. HCl (B)	24003593	ACC1396	0.25	KU15244
NA	NA	MET7472	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	9	**Therm ID**	Mercury	**Temp. C**	**97**	**Corr. Factor**	**-0.5**	**Corrected Observed Temp. C**	96.5
pH Paper Lot Number	**230320**			**Filter Lot Number**		**306067223**		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	**50**	**50**	NA	
	NA	Spike Blank(SB)	**50**	**50**	NA	
	6	Matrix Spike(MS)	**50**	**50**	Y	
	6	Matrix Spike Dup(MSD)	**50**	**50**	Y	
	6	Duplicate(DUP)	**50**	**50**	Y	
1(QC) C	6	FC11003-2	**50**	**50**	Y	
2	2	FC11003-1	**50**	**50**	Y	
3	2	FC11003-3	**50**	**50**	Y	
4	2	FC11003-4	**50**	**50**	Y	
5	1	FC11003-1F	**50**	**50**	Y	
6	1	FC11003-3F	**50**	**50**	Y	
7	8	FC11006-4F	**50**	**50**	Y	MB2A
8	8	FC11006-5F	**50**	**50**	Y	MB2A
9	8	FC11006-6F	**50**	**50**	Y	MB2A
10	8	FC11006-7F	**50**	**50**	Y	MB2A
11	7	FC10954-3A	**50**	**50**	Y	
12	8	FC10968-1	**50**	**50**	Y	
13	13	FC10973-1	**50**	**50**	Y	
14	13	FC10973-2	**50**	**50**	Y	
15	12	FC10973-3	**50**	**50**	Y	
16	8	FC10989-1	**50**	**50**	Y	
17	8	FC10989-2	**50**	**50**	Y	
18	2	FC10987-5	**50**	**50**	Y	
19	4	FC10999-3	**50**	**50**	Y	
20	5	FC10999-3A	**50**	**50**	Y	
21 [D]		MB2A-11/8	**50**	**50**	Y	
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A **Used for SB, MS, MSD**
B **For reagent volumes used refer to SOP MET 103, current verion**
C **Parent sample used to prepare MS, MSD, DUP**
D **Additional matrix QC**

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC10955

Sampling Date: 11/03/23



Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **1492**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC10955

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC10955-1	11/03/23	12:15	JR	11/03/23	AQ	Water	EFFLUENT
FC10955-1A	11/03/23	12:15	JR	11/03/23	AQ	Water	EFFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC10955

Site: Shepley's Hill (SHL); Devens, MA **Report Date:** 11/29/2023 5:30:00

On 11/03/2023, 1 Sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC10955 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Volatiles By Method EPA 624.1

Matrix: AQ **Batch ID:** V1A1978

Sample(s) FC10918-1MS, FC10918-1MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 2-Chloroethyl Vinyl Ether are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl Vinyl Ether are outside control limits. Probable cause is due to matrix interference.

V1A1978-MB: Sample was treated with an anti-foaming agent.

FC10955-1A for Carbon Disulfide: Associated CCV outside control limits high.

FC10955-1A for 2-Hexanone: Associated CCV outside control limits low.

MS Semi-volatiles By Method EPA 625.1

Matrix: AQ **Batch ID:** OP99915

Sample(s) FC10918-2MS, FC10918-2MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Hexachlorocyclopentadiene, Benzidine are outside control limits.

Matrix Spike Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Aniline, Benzidine, Pentachlorophenol are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, Aniline, Benzidine are outside control limits. Probable cause is due to matrix interference.

Sample(s) FC10955-1A have surrogates outside control limits.

For Sample(s) FC10955-1A are associated with an CCV that has a recovery for 4-Chloroaniline, Benzyl Alcohol, Benzidine outside low control limit.

FC10955-1A: Insufficient sample for re-extraction. Confirmed by re-analysis.

FC10955-1A: Confirmation run.

FC10955-1A for Hexachlorocyclopentadiene: Associated BS outside control limits high, sample was ND.

FC10955-1A for 4-Chloroaniline: Associated CCV outside of control limits low.

FC10955-1A for 2,4,6-Tribromophenol: Outside control limits due to matrix interference.

FC10955-1A for Benzidine: Associated CCV outside of control limits low. Associated ECC outside control limits. Confirmed by reanalysis.

OP99915-BS for Benzidine: Sporadic marginal failure.

GC/LC Semi-volatiles By Method EPA 608.3

Matrix: AQ **Batch ID:** OP99916

No Matrix QC available.

FC10955-1A for 4,4'-DDT: Associated CCV outside of control limits high, sample was ND.

FC10955-1A for Endrin ketone: Associated CCV outside of control limits high, sample was ND.

FC10955-1A for Methoxychlor: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** OP99917

No Matrix QC available.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP43108

Sample(s) FC10963-23DUP, FC10963-23MS, FC10963-23MSD, FC10963-23PS, FC10963-23SDL were used as the QC samples for metals.

Matrix Spike Recovery(s) for Cadmium, Selenium are outside control limits. Spike recovery indicates possible matrix interference.

Matrix Spike Duplicate Recovery(s) for Cadmium, Selenium are outside control limits. Probable cause is due to matrix interference.

RPD(s) for Serial Dilution for Cadmium, Selenium, Lead, Magnesium are outside control limits for sample MP43108-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP43108-PS1 for Manganese: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP43108-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

MP43108-SD1 for Lead: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP43089

Sample(s) FC10954-1DUP, FC10954-1MS, FC10954-1MSD were used as the QC samples for metals.

Metals Analysis By Method SW846 7470A

Matrix: AQ **Batch ID:** MP43131

Sample(s) FC10972-43DUP, FC10972-43MS, FC10972-43MSD, FC10972-43SDL were used as the QC samples for metals.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP39351

Sample(s) FC10931-3MSD, FC10931-3MS were used as the QC samples for Chloride, Sulfate.

Matrix Spike Recovery(s) for Chloride, Sulfate are outside control limits. Spike amount low relative to the sample amount and/or possible matrix interference. Refer to lab control or spike blank for recovery information.

Matrix: AQ **Batch ID:** R61441

FC10955-1 for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** N:GP50359

FC10955-1 for Nitrogen, Nitrate + Nitrite: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** N:R206823

FC10955-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** N:GN47884

FC10955-1 for Nitrogen, Nitrite: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FC10955
Site:	SCMAW: Shepley's Hill (SHL); Devens, MA	**Report Date**	11/7/2023 8:35:53 AM

On 11/03/2023, 1 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 4.4 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of FC10955 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP50359

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD76126-3DUP, JD76126-3MS were used as the QC samples for the Nitrogen, Nitrate + Nitrite analysis.
- The matrix spike (MS) recovery(s) of Nitrogen, Nitrate + Nitrite are outside control limits. Spike recovery indicates possible matrix interference.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R206823

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- FC10955-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN47884

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FC10955-1MS, FC10955-1MSD were used as the QC samples for the Nitrogen, Nitrite analysis.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: FC10955
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC10955-1	**EFFLUENT**					
Arsenic		5.0	2.0	0.80	ug/l	SW846 6020B
Nitrogen, Nitrate + Nitrite [a]		0.10	0.10	0.095	mg/l	EPA 353.2/LACHAT
Nitrogen, Nitrite [a]		0.036	0.010	0.0050	mg/l	SM4500NO2 B-11
FC10955-1A	**EFFLUENT**					
Benzene		0.62 J	1.0	0.50	ug/l	EPA 624.1
Carbon Disulfide [b]		2.1	2.0	1.0	ug/l	EPA 624.1
1,4-Dichlorobenzene [c]		0.70 J	5.2	2.1	ug/l	EPA 625.1
Barium		2.5 J	200	5.0	ug/l	SW846 6010D
Chromium		2.2 J	10	5.0	ug/l	SW846 6010D
Copper		4.4 J	25	2.0	ug/l	SW846 6010D
Magnesium		5770	5000	100	ug/l	SW846 6010D
Manganese		6340	30	4.0	ug/l	SW846 6010D
Silver		0.80 J	10	2.0	ug/l	SW846 6010D
Chloride		19.6	2.0	1.0	mg/l	EPA 300/SW846 9056A
Sulfate		9.2	2.0	1.0	mg/l	EPA 300/SW846 9056A

(a) Analysis performed at SGS Dayton, NJ.
(b) Associated CCV outside control limits high.
(c) Insufficient sample for re-extraction. Confirmed by re-analysis.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.0	2.0	0.80	0.21	ug/l	2	11/04/23	11/07/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19813
(2) Prep QC Batch: MP43089

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	0.10 U	0.11	0.10	0.093	mg/l	1	11/06/23 22:42	ANJ	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]	0.10	0.10	0.095	0.090	mg/l	1	11/06/23 22:42	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrate + Nitrite [c]	0.11 U	0.12	0.11	0.096	mg/l	1	11/06/23 22:42	ANJ	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	0.036	0.010	0.0050	0.0030	mg/l	1	11/04/23 11:45	ANJ	SM4500NO2 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.
(c) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

SGS North America Inc.

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A50515.D	1	11/06/23 15:48	JW	n/a	n/a	V1A1978
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
107-02-8	Acrolein	10 U	20	10	6.1	ug/l	
107-13-1	Acrylonitrile	5.0 U	10	5.0	2.1	ug/l	
71-43-2	Benzene	0.62	1.0	0.50	0.31	ug/l	J
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide [a]	2.1	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether	3.5 U	5.0	3.5	2.1	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
591-78-6	2-Hexanone [b]	5.0 U	10	5.0	2.0	ug/l	
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 624.1	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
108-05-4	Vinyl Acetate	5.0 U	10	5.0	2.0	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	
1330-20-7	Xylene (total)	1.5 U	3.0	1.5	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Associated CCV outside control limits high.
(b) Associated CCV outside control limits low.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 625.1 SW846 3510C	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	6F21235.D	1	11/07/23 11:04	KA	11/06/23 08:07	OP99915	S6F799
Run #2 [b]	6F21280.D	1	11/08/23 11:52	KA	11/06/23 08:07	OP99915	S6F801

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2	960 ml	1.0 ml

ABN SPECIAL LIST

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
65-85-0	Benzoic Acid	26 U	52	26	10	ug/l	
59-50-7	4-Chloro-3-methyl Phenol	1.0 U	5.2	1.0	0.62	ug/l	
95-57-8	2-Chlorophenol	1.0 U	5.2	1.0	0.66	ug/l	
120-83-2	2,4-Dichlorophenol	1.0 U	5.2	1.0	0.87	ug/l	
105-67-9	2,4-Dimethylphenol	2.1 U	5.2	2.1	0.77	ug/l	
51-28-5	2,4-Dinitrophenol [c]	21 U	26	21	5.2	ug/l	
534-52-1	4,6-Dinitro-o-cresol [c]	4.2 U	10	4.2	2.1	ug/l	
95-48-7	2-Methylphenol	1.0 U	5.2	1.0	0.58	ug/l	
	3&4-Methylphenol	2.1 U	5.2	2.1	1.0	ug/l	
88-75-5	2-Nitrophenol	2.1 U	5.2	2.1	0.89	ug/l	
100-02-7	4-Nitrophenol [c]	10 U	26	10	5.2	ug/l	
87-86-5	Pentachlorophenol	10 U	26	10	5.2	ug/l	
108-95-2	Phenol	2.1 U	5.2	2.1	0.52	ug/l	
95-95-4	2,4,5-Trichlorophenol	2.1 U	5.2	2.1	0.77	ug/l	
88-06-2	2,4,6-Trichlorophenol	2.1 U	5.2	2.1	0.78	ug/l	
83-32-9	Acenaphthene	1.0 U	5.2	1.0	0.65	ug/l	
208-96-8	Acenaphthylene	1.0 U	5.2	1.0	0.66	ug/l	
62-53-3	Aniline	2.1 U	5.2	2.1	1.0	ug/l	
120-12-7	Anthracene	1.0 U	5.2	1.0	0.83	ug/l	
92-87-5	Benzidine [d]	10 U	26	10	5.2	ug/l	
56-55-3	Benzo(a)anthracene	1.0 U	5.2	1.0	0.79	ug/l	
50-32-8	Benzo(a)pyrene	1.0 U	5.2	1.0	0.82	ug/l	
205-99-2	Benzo(b)fluoranthene	1.0 U	5.2	1.0	0.81	ug/l	
191-24-2	Benzo(g,h,i)perylene	1.0 U	5.2	1.0	0.86	ug/l	
207-08-9	Benzo(k)fluoranthene	1.0 U	5.2	1.0	0.89	ug/l	
100-51-6	Benzyl Alcohol [e]	1.0 U	5.2	1.0	0.64	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	1.0 U	5.2	1.0	0.88	ug/l	
85-68-7	Butyl Benzyl Phthalate	2.1 U	5.2	2.1	1.0	ug/l	
86-74-8	Carbazole	1.0 U	5.2	1.0	0.63	ug/l	
106-47-8	4-Chloroaniline [e]	1.0 U	5.2	1.0	0.66	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	2.1 U	5.2	2.1	0.84	ug/l	
111-44-4	bis(2-Chloroethyl)ether	1.0 U	5.2	1.0	0.76	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 625.1 SW846 3510C	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

ABN SPECIAL LIST

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
108-60-1	2,2'-Oxybis(1-chloropropane)	1.0 U	5.2	1.0	0.79	ug/l	
91-58-7	2-Chloronaphthalene	2.1 U	5.2	2.1	0.53	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	1.0 U	5.2	1.0	0.56	ug/l	
218-01-9	Chrysene	1.0 U	5.2	1.0	0.89	ug/l	
53-70-3	Dibenzo(a,h)anthracene	1.0 U	5.2	1.0	0.84	ug/l	
132-64-9	Dibenzofuran	1.0 U	5.2	1.0	0.63	ug/l	
95-50-1	1,2-Dichlorobenzene	2.1 U	5.2	2.1	0.52	ug/l	
541-73-1	1,3-Dichlorobenzene	2.1 U	5.2	2.1	0.52	ug/l	
106-46-7	1,4-Dichlorobenzene	0.70	5.2	2.1	0.52	ug/l	J
91-94-1	3,3'-Dichlorobenzidine	2.1 U	5.2	2.1	0.67	ug/l	
84-66-2	Diethyl Phthalate	2.1 U	5.2	2.1	1.0	ug/l	
131-11-3	Dimethyl Phthalate	2.1 U	5.2	2.1	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	2.1 U	5.2	2.1	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	2.1 U	5.2	2.1	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	1.0 U	5.2	1.0	0.85	ug/l	
606-20-2	2,6-Dinitrotoluene	1.0 U	5.2	1.0	0.74	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	2.1 U	5.2	2.1	1.0	ug/l	
206-44-0	Fluoranthene	1.0 U	5.2	1.0	0.58	ug/l	
86-73-7	Fluorene	1.0 U	5.2	1.0	0.73	ug/l	
118-74-1	Hexachlorobenzene	1.0 U	5.2	1.0	0.72	ug/l	
87-68-3	Hexachlorobutadiene	1.0 U	5.2	1.0	0.52	ug/l	
77-47-4	Hexachlorocyclopentadiene [f]	3.6 U	5.2	3.6	1.9	ug/l	
67-72-1	Hexachloroethane	2.1 U	5.2	2.1	1.7	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	1.0 U	5.2	1.0	0.74	ug/l	
78-59-1	Isophorone	1.0 U	5.2	1.0	0.81	ug/l	
90-12-0	1-Methylnaphthalene	1.0 U	5.2	1.0	0.55	ug/l	
91-57-6	2-Methylnaphthalene	1.0 U	5.2	1.0	0.63	ug/l	
91-20-3	Naphthalene	1.0 U	5.2	1.0	0.52	ug/l	
88-74-4	2-Nitroaniline	3.6 U	5.2	3.6	1.9	ug/l	
99-09-2	3-Nitroaniline	2.1 U	5.2	2.1	0.92	ug/l	
100-01-6	4-Nitroaniline	2.1 U	5.2	2.1	1.2	ug/l	
98-95-3	Nitrobenzene	2.1 U	5.2	2.1	0.97	ug/l	
62-75-9	N-Nitrosodimethylamine	2.1 U	5.2	2.1	0.52	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	2.1 U	5.2	2.1	0.70	ug/l	
86-30-6	N-Nitrosodiphenylamine	2.1 U	5.2	2.1	0.84	ug/l	
85-01-8	Phenanthrene	1.0 U	5.2	1.0	0.90	ug/l	
129-00-0	Pyrene	1.0 U	5.2	1.0	0.71	ug/l	
120-82-1	1,2,4-Trichlorobenzene	2.1 U	5.2	2.1	1.1	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 625.1 SW846 3510C	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

ABN SPECIAL LIST

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	0% g	0%	14-67%
4165-62-2	Phenol-d5	0% g	1%	10-50%
118-79-6	2,4,6-Tribromophenol	3% g	4%	33-118%
4165-60-0	Nitrobenzene-d5	78%	76%	42-108%
321-60-8	2-Fluorobiphenyl	87%	85%	40-106%
1718-51-0	Terphenyl-d14	37% g	40%	39-121%

(a) Insufficient sample for re-extraction. Confirmed by re-analysis.
(b) Confirmation run.
(c) Associated ECC outside control limits. Confirmed by reanalysis.
(d) Associated CCV outside of control limits low. Associated ECC outside control limits. Confirmed by reanalysis.
(e) Associated CCV outside of control limits low.
(f) Associated BS outside control limits high, sample was ND.
(g) Outside control limits due to matrix interference.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 608.3 SW846 3510C	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ST171463.D	1	11/21/23 11:59	WH	11/06/23 08:10	OP99916	GST4185
Run #2	MM85915.D	1	11/06/23 18:58	EM	11/06/23 08:15	OP99917	GMM1839

	Initial Volume	Final Volume
Run #1	880 ml	5.0 ml
Run #2	880 ml	5.0 ml

Pesticide TCL List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	0.011 U	0.028	0.011	0.0028	ug/l	
319-84-6	alpha-BHC	0.011 U	0.028	0.011	0.0028	ug/l	
319-85-7	beta-BHC	0.011 U	0.028	0.011	0.0033	ug/l	
319-86-8	delta-BHC	0.011 U	0.028	0.011	0.0028	ug/l	
58-89-9	gamma-BHC (Lindane)	0.011 U	0.028	0.011	0.0028	ug/l	
12789-03-6	Chlordane	0.20 U	0.28	0.20	0.11	ug/l	
5103-71-9	alpha-Chlordane	0.011 U	0.028	0.011	0.0028	ug/l	
5103-74-2	gamma-Chlordane	0.011 U	0.028	0.011	0.0031	ug/l	
60-57-1	Dieldrin	0.011 U	0.028	0.011	0.0028	ug/l	
72-54-8	4,4'-DDD	0.011 U	0.057	0.011	0.0057	ug/l	
72-55-9	4,4'-DDE	0.011 U	0.057	0.011	0.0057	ug/l	
50-29-3	4,4'-DDT [a]	0.011 U	0.057	0.011	0.0057	ug/l	
72-20-8	Endrin	0.011 U	0.057	0.011	0.0028	ug/l	
1031-07-8	Endosulfan sulfate	0.011 U	0.057	0.011	0.0028	ug/l	
7421-93-4	Endrin aldehyde	0.011 U	0.057	0.011	0.0028	ug/l	
53494-70-5	Endrin ketone [a]	0.011 U	0.057	0.011	0.0028	ug/l	
959-98-8	Endosulfan-I	0.011 U	0.028	0.011	0.0028	ug/l	
33213-65-9	Endosulfan-II	0.011 U	0.028	0.011	0.0028	ug/l	
76-44-8	Heptachlor	0.011 U	0.028	0.011	0.0028	ug/l	
1024-57-3	Heptachlor epoxide	0.011 U	0.028	0.011	0.0028	ug/l	
72-43-5	Methoxychlor [a]	0.011 U	0.057	0.011	0.0057	ug/l	
8001-35-2	Toxaphene	0.57 U	1.1	0.57	0.28	ug/l	
12674-11-2	Aroclor 1016	0.14 U [b]	0.28	0.14	0.11	ug/l	
11104-28-2	Aroclor 1221	0.20 U [b]	0.28	0.20	0.11	ug/l	
11141-16-5	Aroclor 1232	0.20 U [b]	0.28	0.20	0.11	ug/l	
53469-21-9	Aroclor 1242	0.14 U [b]	0.28	0.14	0.11	ug/l	
12672-29-6	Aroclor 1248	0.14 U [b]	0.28	0.14	0.11	ug/l	
11097-69-1	Aroclor 1254	0.14 U [b]	0.28	0.14	0.11	ug/l	
11096-82-5	Aroclor 1260	0.14 U [b]	0.28	0.14	0.11	ug/l	

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LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
Method:	EPA 608.3 SW846 3510C	**Percent Solids:**	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Pesticide TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	89%	96%	42-127%
2051-24-3	Decachlorobiphenyl	42%	36%	27-127%

(a) Associated CCV outside of control limits high, sample was ND.
(b) Result is from Run# 2

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EFFLUENT
Lab Sample ID: FC10955-1A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 11/03/23
Date Received: 11/03/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	2.5 J	200	5.0	1.0	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Cadmium	1.0 U	5.0	1.0	0.20	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Chromium	2.2 J	10	5.0	1.0	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Copper	4.4 J	25	2.0	1.0	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Lead	2.0 U	5.0	2.0	1.1	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Magnesium	5770	5000	100	35	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Manganese	6340	30	4.0	2.0	ug/l	2	11/08/23	11/09/23	LM	SW846 6010D [2]	SW846 3010A [4]
Mercury	0.10 U	0.50	0.10	0.030	ug/l	1	11/13/23	11/13/23	ST	SW846 7470A [3]	SW846 7470A [5]
Selenium	5.0 U	10	5.0	2.9	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]
Silver	0.80 J	10	2.0	0.70	ug/l	1	11/08/23	11/08/23	LM	SW846 6010D [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA19821
(2) Instrument QC Batch: MA19824
(3) Instrument QC Batch: MA19829
(4) Prep QC Batch: MP43108
(5) Prep QC Batch: MP43131

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC10955-1A	**Date Sampled:**	11/03/23
Matrix:	AQ - Water	**Date Received:**	11/03/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	19.6	2.0	1.0	0.80	mg/l	1	11/05/23 04:05	JB	EPA 300/SW846 9056A
Sulfate	9.2	2.0	1.0	0.60	mg/l	1	11/05/23 04:05	JB	EPA 300/SW846 9056A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Subcontract Lab Data

Report of Analysis

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 20296131

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Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

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November 28, 2023

Evita Martinez
SGS North America Inc.
4405 Vineland Rd
Suite C-15
Orlando, FL 32811

RE: Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Dear Evita Martinez:

Enclosed are the analytical results for sample(s) received by the laboratory on November 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the DOD Quality Systems Manual Version 5.4 and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh

Ruth Welsh
ruth.welsh@pacelabs.com
(225) 678-1833
Project Manager

Enclosures

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

CERTIFICATIONS

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

REPORT OF LABORATORY ANALYSIS

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7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

SAMPLE SUMMARY

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20296131001	**EFFLEUNT**	Water	11/03/23 12:15	11/07/23 09:58

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REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20296131001	**EFFLEUNT**	EPA 1664A	TSB	1

PASI-BR = Pace Analytical Services - Baton Rouge

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PROJECT NARRATIVE

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Method: **EPA 1664A**
Description: BR HEM, Oil and Grease
Client: SGS ACCUTEST_ORLANDO
Date: November 28, 2023

General Information:
1 sample was analyzed for EPA 1664A by Pace Analytical Services Baton Rouge. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Sample: EFFLEUNT **Lab ID: 20296131001** Collected: 11/03/23 12:15 Received: 11/07/23 09:58 Matrix: Water

Parameters	Results	Units	DL	LOD	LOQ	DF	Prepared	Analyzed	CAS No.	Qual
BR HEM, Oil and Grease	Analytical Method: EPA 1664A Pace Analytical Services - Baton Rouge									
Oil and Grease	**5.4U**	mg/L	1.6	5.4	5.4	1		11/09/23 09:40		

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Baton Rouge, LA 70820
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QUALITY CONTROL DATA

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

QC Batch: 307250
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: BR 1664A HEM, Oil and Grease
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20296131001

METHOD BLANK: 1470771 Matrix: Water
Associated Lab Samples: 20296131001

Parameter	Units	Blank Result	DL	LOD	LOQ	Analyzed	Qualifiers
Oil and Grease	mg/L	5.0U	1.5	5.0	5.0	11/09/23 09:40	

LABORATORY CONTROL SAMPLE & LCSD: 1470772 1470773

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	50	51.1	50.0		100	78-114	2	18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - The reported result is an estimated value.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

DL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Analyte was not detected and is reported as less than the LOD or as defined by the customer.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FC10955 Shepley's Hill
Pace Project No.: 20296131

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20296131001	**EFFLEUNT**	EPA 1664A	307250		

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FC10955-1
Bot # 11
SUB
H2SO4

FC10955-1 Bot # 11 H2SO4 SUB SUB

CHAIN OF CUSTODY

"SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa"

FED-EX Tracking # | Bottle Order Control #

SGS Quote # | SGS Job # FC10955

WO# : 20296131

20296131

Client / Reporting Information

Company Name: SGS North America Inc.

Street Address: 4405 Vineland Rd, Suite C-15

City: Orlando State: FL Zip: 3281

Project Contact: evita.martinez@sgs.com E-mail

Phone #: 407-425-6700 Fax #

Sampler(s) Name(s): JR Phone

Project Information

Project Name: Shepley's Hill (SHL); Devens, MA

Street

City State

Project #

Client Purchase Order #

Project Manager

Attention:

Billing Information (if different from Report to)

Company Name

Street Address

City State Zip

Requested Analy

SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liqui
AIR - Air
SOL - Other Soli
WP - Wipe
FB-Field Blank
EB-Equipment Bla
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	PHC1664	LAB USE ONL
1A	EFFLUENT		11/3/23	12:15:00 PM	JR	AQ	1									X	1

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 11/10/2023

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [X] EDD Format
- [ ] Other

X x FULT1

Commercial "A" = Results Only

Commercial "B" = Results + QC Summary

Comments / Special Instructions

Please send to PACE

7979 Innovation Park Drive
Baton Rouge, LA 70820

DOD project

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
	11/6/23 1730	1	2 FedEx	11/7/23 9:58	2 DNP
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Intact	Preserved where applicable	On Ice	Cooler Temp

Pace

Sample Condition Upon Recie

Workorc

WO#: 20296131

PM: RW Due Date: 11/22/23

CLIENT: BR-SGS_ORLAN

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: GSK / 11-7-23

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☒ FedEx ☐ Other: _____

☐ Yes	☒ No		Were custody seals present on the cooler?
☐ Yes	☐ No	☒ NA	If custody seals were present, were they intact and unbroken?

Method: ☐ Temperature Blank ☒ Against Bottles IR Gun ID: 4 IR Gun Correction Factor: 0 °C

Cooler #1	Cooler Temp °C: 1.3	(Actual/True)	Samples on ice ☒ Yes ☐ No; pH Strip Lot #
Cooler #2	Cooler Temp °C: _____	(Actual/True)	
Cooler #3	Cooler Temp °C: _____	(Actual/True)	Method of coolant: ☒ Wet ☐ Ice Packs ☐ Dry Ice ☐ None
Cooler #4	Cooler Temp °C: _____	(Actual/True)	

Tracking #: 7024 6972 2884 0

☒ Yes	☐ No	☐ NA	Is a temperature blank present?	
☒ Yes	☐ No	☐ NA	Was a chain of custody (COC) recieved?	
☐ Yes	☒ No	☐ NA	Was the line and profile number listed on the COC?	
☒ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email.	
☒ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?	
☐ Yes	☒ No	☐ NA	Is the sampler name and signature on the COC?	
☒ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?	
☒ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?	
☒ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?	
☒ Yes	☐ No		Were tests to be performed listed on the COC?	
☒ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
☒ Yes	☐ No		Was adequate sample volume available?	
☒ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?	
☒ Yes	☐ No		Were all samples containers accounted for? (No missing / excess)	
☐ Yes	☐ No	☒ NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?	
☐ Yes	☐ No	☒ NA	Trip blank present?	
☐ Yes	☐ No	☒ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*	
☐ Yes	☐ No	☒ NA	Were all metals/nutrient samples received at a pH of < 2?	If No, was preservative added? ☐ Yes ☐ No If added, record lots. Dispenser/pipette lot #: _____
☐ Yes	☐ No	☒ NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	HNO_3 _____ H_2SO_4 _____ NaOH _____ Date: _____ Time: _____

Comments:

SAMPLE NO.

EFFLEUNT

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Lab Sample ID: 20296131001 Percent Moisture:

CAS No.	Analyte	Conc.	Q	DL	LOD	LOQ	Units	DF	Analysis Date/Time
	Oil and Grease	5.4	U	1.6	5.4	5.4	mg/L	1	11/09/2023 09:40

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FORM III INORGANIC-1
BLANKS

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract : FC10955 Shepley's Hill

Method Blank Matrix: Water Instrument ID: BRBL03

Method Blank Concentration Units: mg/L

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1470771	C
Oil and Grease									5.0	U

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SAMPLE NO.

1470773LCSD

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Matrix: Water Concentration Units: mg/L

Percent Moisture: Basis: Wet

Analyte	RPD Control Limit	Sample	Duplicate	RPD
Oil and Grease	18	51.1	50.0	2

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SAMPLE NO.

1470772LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Oil and Grease	mg/L	50.0	51.1	102	78	114

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SAMPLE NO.

1470773LCSD

FORM VII INORGANIC-2
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Oil and Grease	mg/L	50.0	50.0	100	78	114

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FORM IX INORGANIC-1
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Preparation Method: EPA 1664A Instrument ID: BRBL03

Concentration Units: mg/L

Analyte	PQL	MDL	MDL Date
Oil and Grease	5.0	1.5	10/01/2022

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FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Preparation Method: EPA 1664A Batch: BREX 1801

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1470771	1470771	11/09/2023	1000	1000
1470772	1470772	11/09/2023	1000	1000
1470773	1470773	11/09/2023	1000	1000
20296131001	EFFLEUNT	11/09/2023	920	1000

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FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - New Orleans SDG No. : 20296131 Contract: FC10955 Shepley's Hill

Instrument ID: BRBL03 Analysis Method: EPA 1664A

Start Date: 11/09/2023 09:40 End Date: 11/09/2023 09:40

Sample Name	Lab Sample ID	D/F	Date	Time	og
1470771BLANK	1470771	1	11/09/2023	09:40	X
1470772LCS	1470772	1	11/09/2023	09:40	X
1470773LCSD	1470773	1	11/09/2023	09:40	X
EFFLEUNT	20296131001	1	11/09/2023	09:40	X

Prep Log Report

Batch Information: BREX 307250 1664 OG W

1664/9071 | Oil and Grease/TPH Analytical

Prep Method	EPA 1664A	Analysis Method	EPA 1664A	Analyzed By	TSB	Analysis Date/Time	11/09/2023 09:40:00
Instrument	BRBL03	Hexane	191788	1:1 HCl	185777	Sodium Sulfate	188330
Drierite Dessicant	179548	Disposable Pipettes	179557	Desic. In 1 ID | Date/Time | Init	D10 | 11/09/2023 11:33 | TSB	Desic. Out 1 Date/Time | Init	11/09/2023 12:06 | TSB
Desic. In 2 ID | Date/Time | Init	D10 | 11/09/2023 12:09 | TSB	Desic. Out 2 Date/Time | Init	11/09/2023 12:42 | TSB	Desic. In 3 ID | Date/Time | Init		Reviewed By	
Reviewed By Date		Batch Notes					

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Matrix	Analysis Type	pH (su)	Evaporator ID	O&G Raw (mg)	O&G Posted	Final Units	Initial Amount (g | mL | wipe)	Tare Weight (g)	O&G Wt 1 (g)
BR1664 W	BLANK	**1470771**	Y	TH1	Water	O&G	<2	BRHP04	0.6000	0.6000	mg/L	1000	4.3499	4.35
BR1664 W	LCS	**1470772**	Y	TH2	Water	O&G	<2	BRHP04	51.100	51.100	mg/L	1000	4.3381	4.3894
BR1664 W	LCSD	**1470773**	Y	TH3	Water	O&G	<2	BRHP04	50.000	50.000	mg/L	1000	4.3563	4.4066
BR1664 W	PS	**20296204001**	Y	TH4	Water	O&G	<2	BRHP04	1.8000	1.9149	mg/L	940	4.3618	4.3631
BR1664 W	PS	**20296204002**	Y	TH5	Water	O&G	<2	BRHP04	1.2000	1.2903	mg/L	930	4.3245	4.3256
BR1664 W	PS	**20296204003**	Y	TH6	Water	O&G	<2	BRHP04	0.5000	0.5556	mg/L	900	4.3479	4.3481
BR1664 W	PS	**20296204004**	Y	TH7	Water	O&G	<2	BRHP04	1.2000	1.1858	mg/L	1012	4.3397	4.3406
BR1664 W	PS	**20296207001**	Y	TH8	Water	O&G	<2	BRHP04	2.5000	2.4201	mg/L	1033	4.3439	4.3461
BR1664 W	PS	**20296110001**	Y	TH9	Water	O&G	<2	BRHP04	2.1000	2.0428	mg/L	1028	4.3407	4.3425
BR1664 W	PS	**20296114001**	Y	TH10	Water	O&G	<2	BRHP04	2.9000	3.1868	mg/L	910	4.3366	4.3394
BR1664 W	PS	**20296125001**	Y	TH11	Water	O&G	<2	BRHP04	1.6000	1.6000	mg/L	1000	4.3123	4.3135
BR1664 W	PS	**20296186001**	Y	TH12	Water	O&G	<2	BRHP04	0.4000	0.4040	mg/L	990	4.3172	4.3178
BR1664 W	PS	**20296212001**	Y	TH13	Water	O&G	<2	BRHP04	16.800	16.634	mg/L	1010	4.3414	4.3577
BR1664 W	PS	**20296248001**	Y	TH14	Water	O&G	<2	BRHP04	0.7000	0.7865	mg/L	890	4.3444	4.3447
BR1664 W	PS	**20296248002**	Y	TH15	Water	O&G	<2	BRHP04	0.4000	0.4348	mg/L	920	4.3064	4.3069
BR1664 W	PS	**20296198001**	Y	TH16	Water	O&G	<2	BRHP04	0.6000	0.6186	mg/L	970	4.2674	4.2676
BR1664 W	PS	**20296265003**	Y	TH17	Water	O&G	<2	BRHP04	0.7000	0.7143	mg/L	980	4.3035	4.3038
BR1664 W	PS	**20296131001**	Y	TH18	Water	O&G	<2	BRHP04	0.4000	0.4348	mg/L	920	4.314	4.3146
BR1664 W	PS	**20296256001**	Y	TH19	Water	O&G	<2	BRHP04	0.2000	0.1932	mg/L	1035	4.2874	4.2879

Thu, 9 Nov 2023 15:31:33 -0600

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	O&G Use 1	O&G Wt 2 (g)	O&G Use 2	O&G Wt Diff 1&2	O&G %Diff 1&2	Sample Notes	BR1664-SPK (mL)
BR1664 W	BLANK	**1470771**	N	4.3505	Y	0.0005	142.8571		
BR1664 W	LCS	**1470772**	N	4.3892	Y	0.0002	0.3906		184434 (10)
BR1664 W	LCSD	**1470773**	N	4.4063	Y	0.0003	0.5982		184434 (10)
BR1664 W	PS	**20296204001**	N	4.3636	Y	0.0005	32.2581		
BR1664 W	PS	**20296204002**	N	4.3257	Y	0.0001	8.6957		
BR1664 W	PS	**20296204003**	N	4.3484	Y	0.0003	85.7143		
BR1664 W	PS	**20296204004**	N	4.3409	Y	0.0003	28.5714		
BR1664 W	PS	**20296207001**	N	4.3464	Y	0.0003	12.7660		
BR1664 W	PS	**20296110001**	N	4.3428	Y	0.0003	15.3846		
BR1664 W	PS	**20296114001**	N	4.3395	Y	0.0001	3.5088		
BR1664 W	PS	**20296125001**	N	4.3139	Y	0.0004	28.5714		
BR1664 W	PS	**20296186001**	N	4.3176	Y	0.0002	40.0000		
BR1664 W	PS	**20296212001**	N	4.3582	Y	0.0005	3.0211		
BR1664 W	PS	**20296248001**	N	4.3451	Y	0.0004	80.0000		
BR1664 W	PS	**20296248002**	N	4.3068	Y	0.0001	22.2222		
BR1664 W	PS	**20296198001**	N	4.268	Y	0.0004	100.0000		
BR1664 W	PS	**20296265003**	N	4.3042	Y	0.0004	80.0000		
BR1664 W	PS	**20296131001**	N	4.3144	Y	0.0002	40.0000		
BR1664 W	PS	**20296256001**	N	4.2876	Y	0.0003	85.7143		

Standard Notes:

184434: BREX O&G SPK

Thu, 9 Nov 2023 15:31:33 -0600

Standard Log Report

Standards Log Information for Standard #191788

STOCK STANDARD

Created By:	KLB	**Volume of Standard:**	4 L	**Lot ID:**	209037
Create Date:	09/01/2023	**Manufacturer:**	Thermofisher	**Part ID:**	H300-4
Expire Date:	11/30/2027	**Manufacturer Lot ID:**	224922	**Standard ID:**	RGNT150

Notes:

BREX HEXANES, PESTICIDE GRADE

Compound Name and Concentration for Standard #191788

Compound Name	Concentration	Compound Name	Concentration
Hexanes			

5

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #188330

STOCK STANDARD

Created By:	AM	**Volume of Standard:**	2.5 kg	**Lot ID:**	208910
Create Date:	08/29/2023	**Manufacturer:**	Thermo Scientific	**Part ID:**	S415
Expire Date:	12/31/2025	**Manufacturer Lot ID:**	226488	**Standard ID:**	RGNT301

Notes:

BREX Sodium Sulfate

Compound Name and Concentration for Standard #188330

Compound Name	Concentration	Compound Name	Concentration
Sodium Sulfate			

Standard Log Report

Standards Log Information for Standard #185777

STOCK STANDARD

Created By:	TTM	**Volume of Standard:**	2000 mL	**Lot ID:**	209002
Create Date:	08/02/2023	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/29/2024	**Manufacturer Lot ID:**	N/A	**Standard ID:**	RGNT015

Notes:

BREX 1:1 HCL

Compound Name and Concentration for Standard #185777

Compound Name	Concentration	Compound Name	Concentration
1:1 HCl	L		

Standard Log Report

Standards Log Information for Standard #184434

INDIVIDUAL STANDARD

Created By:	KLB	**Volume of Standard:**	500 mL	**Lot ID:**	209094
Create Date:	06/09/2023	**Manufacturer:**	Absolute Standards	**Part ID:**	97738A
Expire Date:	08/02/2026	**Manufacturer Lot ID:**	080223	**Standard ID:**	BR1664-SPK

Notes:

BREX O&G SPK

Compound Name and Concentration for Standard #184434

Compound Name	Concentration	Compound Name	Concentration
Oil and Grease	5000 mg/L		

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179557

INDIVIDUAL STANDARD

Created By:	TTM	**Volume of Standard:**		**Lot ID:**	208678
Create Date:	07/20/2023	**Manufacturer:**	FISHER	**Part ID:**	N/A
Expire Date:	01/16/2024	**Manufacturer Lot ID:**	20220728-01	**Standard ID:**	RGNT896

Notes:

BREX 10ML STERILE PIPETS

Compound Name and Concentration for Standard #179557

Compound Name	Concentration	Compound Name	Concentration
Sterile Pipet			

The standards listed are from Pace's New Orleans Laboratory.

Standard Log Report

Standards Log Information for Standard #179548

STOCK STANDARD

Created By:	TTM	**Volume of Standard:**	1000 g	**Lot ID:**	208675
Create Date:	07/20/2023	**Manufacturer:**	RICCA Chemical Co.	**Part ID:**	TBD
Expire Date:	01/16/2024	**Manufacturer Lot ID:**	TBD	**Standard ID:**	RGNT921

Notes:

BREX - O&G Drierite

Compound Name and Concentration for Standard #179548

Compound Name	Concentration	Compound Name	Concentration
Drierite Indicating	mg/kg		

The standards listed are from Pace's New Orleans Laboratory.

Certificate of Analysis
ThermoFisher SCIENTIFIC

208910
REC.07/28/23 BY KGL
Exp. __/__/__ By __
Open __/__/__ By __

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	S415	Quality Test / Release Date	04/17/2023
Lot Number	231175		
Description	SODIUM SULFATE, PESTICIDE ANALYSIS GRADE, 10-60 MESH CERTIFIED A.C.S.		
Country of Origin	China	Suggested Retest Date	Dec/2025
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	White granules
ASSAY	%	>= 99.0	99.6
CALCIUM	%	<= 0.01	<0.01
CHLORIDE	%	<= 0.001	0.001
HEAVY METALS (by ICP-OES)	ppm	<= 5	2.1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.01
IRON (Fe)	%	<= 0.001	0.001
LOSS ON IGNITION	%	<= 0.5	0.03
MAGNESIUM	%	<= 0.005	<0.005
MESH SIZE	PASS/FAIL	IN P.T. (10-60 MESH);PASS TEST	P.T. (10-60 MESH)
NITROGEN COMPOUNDS	ppm	<= 5	4
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.2 - 9.2	5.9
PHOSPHATE (PO4)	%	<= 0.001	0.001
POTASSIUM (K)	%	<= 0.01	<0.01
SUITABILITY FOR EPA TEST 8081A	PASS/FAIL	= PASS TEST	PASS TEST

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

209094
REC. 08/09/23 BY KGL
Exp. __/__/__ By __
Open __/__/__ By __

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 97738A
Lot Number: 080223
Description: EPA Method 1664 - Oil & Grease
Hexadecane & Stearic acid
Expiration Date: 080226
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Acetone 220128-BOO2554

Gabriel Helland 080223
Formulated By: Gabriel Helland DATE

Pedro Rentas 080223
Reviewed By: Pedro L. Rentas DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 1999.7 0.0001 Flask Uncertainty

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	n-Hexadecane	514	SHBH9089	2500	99.2	0.20	5.03953	5.04131	2500.9	10.1	544-76-3	N/A	N/A
2.	Stearic acid	1559	4TK6F-ED	2500	98	0.20	5.10124	5.10287	2500.8	10.2	57-11-4	N/A	N/A

Total Oil & Grease Concentration: 5001.7 **ug/mL**

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SDG #

FC10955

Client / Reporting Information

Company Name: Sovereign Consulting
Address: 9 Payson Rd ste 150
City: Foxboro State: MA Zip: 02035
Project Contact: Steve Passafaro Email: spassafaro@sovcon.com
Phone #: 508 339 3200 Fax #
Sampler(s) Name(s) (Printed)
Sampler 1: Joe Rogers Sampler 2:

Project Information

Project Name: SHL ATP
Street
City State
Project #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	ASMS 6020	8g Cd Cr Cu Pb Mn Se Ag Hg 6010	MET SW846 6010	CHL	XN030* SO4	V624 SL1	P608 PCB	P608 PE STTCL	PGC+CHL	AD625 SL	PHC 1664	LAB USE ONLY
1	Effluent	11-3-23	1315	JR	AQ	14		6	6		X	X				X	X	X	X	X	X	X	X	X	X	X	

INITIAL ASSESSMENT JD

LABEL VERIFICATION JD

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day rush As only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

See QAPP

* XN030 direct Sub to Dayton from MASC TF 11/3/23

Please process EDDs once logged

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	Sovcon	11-3-23 330	2 Helen Frey (SC)	3 Helen Frey	11/3/23 1730	4 FedEx
	Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5	Fx		6 11/04/23 900	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.6 IR #1 CSH 03274

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

SGS Sample Receipt Summary

Job Number: fc10955 **Client:** SOVEREIGN CONSULTING **Project:** SHL ATP

Date / Time Received: 11/4/2023 9:00:00 AM **Delivery Method:** FED EX **Airbill #'s:** 7859 3095 6780

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (4.0);

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:	IR Gun		
5. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐

	W	or	S	N/A
3. Type of TB Received	☐		☐	☐

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples presented properly	☑		☐	
3. Suffiient volume/containers recv'd for analysis	☑		☐	
4. Condition of sample:	Intact			
5. Sample recv'd within HT	☑		☐	
6. Dates/Times/IDs on COC match sample label	☐		☐	
7. VOCs have headspace	☐		☑	☐
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
11. % Solids Jar Received?	☐		☐	☐
12. Residual Chlorine Present?	☐		☐	☐

Misc Information

Number of Encores: 25 Gram 5 Gram

Number of Lab Filtered Metals:

Test Strip Lot #s: pH 0-3: 226422 pH 10-12: Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #

Comments

SM001
Rev. Date 05/04/17

Technician: SHAYLAP Date: 11/4/2023 10:21:48 AM Reviewer: Date:

6.1 6

FC10955: Chain of Custody
Page 2 of 2

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10955
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP43089	SW846 6020B						
MP43089-B1	7440-38-2	Arsenic	BSP	REC	102.5	%	84-116
MP43089-S1*	7440-38-2	Arsenic	MS	REC	115	%	84-116
MP43089-S2*	7440-38-2	Arsenic	MSD	REC	115	%	84-116
MP43089-S2*	7440-38-2	Arsenic	MSD	RPD	0	%	20
MP43089-D1*	7440-38-2	Arsenic	DUP	RPD	2.1	%	20
MP43108	SW846 6010D						
MP43108-B1	7440-39-3	Barium	BSP	REC	94	%	88-113
MP43108-B1	7440-43-9	Cadmium	BSP	REC	93	%	88-113
MP43108-B1	7440-47-3	Chromium	BSP	REC	97.5	%	90-113
MP43108-B1	7440-50-8	Copper	BSP	REC	94.5	%	86-114
MP43108-B1	7439-92-1	Lead	BSP	REC	92	%	86-113
MP43108-B1	7439-95-4	Magnesium	BSP	REC	92.4	%	85-113
MP43108-B1	7439-96-5	Manganese	BSP	REC	91.5	%	90-114
MP43108-B1	7782-49-2	Selenium	BSP	REC	91	%	83-114
MP43108-B1	7440-22-4	Silver	BSP	REC	96	%	84-115
MP43108-S1*	7440-39-3	Barium	MS	REC	87	%	88-113
MP43108-S1*	7440-43-9	Cadmium	MS	REC	79.3 [a]	%	88-113
MP43108-S1*	7440-47-3	Chromium	MS	REC	85	%	90-113
MP43108-S1*	7440-50-8	Copper	MS	REC	84	%	86-114
MP43108-S1*	7439-92-1	Lead	MS	REC	103.8	%	86-113
MP43108-S1*	7439-95-4	Magnesium	MS	REC	86.7	%	85-113
MP43108-S1*	7439-96-5	Manganese	MS	REC	95	%	90-114
MP43108-S1*	7782-49-2	Selenium	MS	REC	68.1 [a]	%	83-114
MP43108-S1*	7440-22-4	Silver	MS	REC	89.5	%	84-115
MP43108-S2*	7440-39-3	Barium	MSD	REC	83.5	%	88-113
MP43108-S2*	7440-39-3	Barium	MSD	RPD	1	%	20
MP43108-S2*	7440-43-9	Cadmium	MSD	REC	78.3 [a]	%	88-113
MP43108-S2*	7440-43-9	Cadmium	MSD	RPD	1.3	%	20
MP43108-S2*	7440-47-3	Chromium	MSD	REC	84	%	90-113
MP43108-S2*	7440-47-3	Chromium	MSD	RPD	.7	%	20
MP43108-S2*	7440-50-8	Copper	MSD	REC	82.5	%	86-114
MP43108-S2*	7440-50-8	Copper	MSD	RPD	1	%	20
MP43108-S2*	7439-92-1	Lead	MSD	REC	101.3	%	86-113
MP43108-S2*	7439-92-1	Lead	MSD	RPD	1.9	%	20
MP43108-S2*	7439-95-4	Magnesium	MSD	REC	82.2	%	85-113
MP43108-S2*	7439-95-4	Magnesium	MSD	RPD	1.7	%	20
MP43108-S2*	7439-96-5	Manganese	MSD	REC	85	%	90-114
MP43108-S2*	7439-96-5	Manganese	MSD	RPD	.8	%	20
MP43108-S2*	7782-49-2	Selenium	MSD	REC	65.1 [a]	%	83-114
MP43108-S2*	7782-49-2	Selenium	MSD	RPD	4.3	%	20

* Sample used for QC is not from job FC10955

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10955
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP43108-S2*	7440-22-4	Silver	MSD	REC	88.5	%	84-115
MP43108-S2*	7440-22-4	Silver	MSD	RPD	1.1	%	20
MP43108-D1*	7440-39-3	Barium	DUP	RPD	2.6	%	20
MP43108-D1*	7440-43-9	Cadmium	DUP	RPD	6.9	%	20
MP43108-D1*	7440-47-3	Chromium	DUP	RPD	1.7	%	20
MP43108-D1*	7440-50-8	Copper	DUP	RPD	2.6	%	20
MP43108-D1*	7439-92-1	Lead	DUP	RPD	5.2	%	20
MP43108-D1*	7439-95-4	Magnesium	DUP	RPD	3.4	%	20
MP43108-D1*	7439-96-5	Manganese	DUP	RPD	2.7	%	20
MP43108-D1*	7782-49-2	Selenium	DUP	RPD	0	%	20
MP43108-D1*	7440-22-4	Silver	DUP	RPD	0	%	20
MP43131	SW846 7470A						
MP43131-B1	7439-97-6	Mercury	BSP	REC	93.3	%	82-119
MP43131-S1*	7439-97-6	Mercury	MS	REC	96.7	%	82-119
MP43131-S2*	7439-97-6	Mercury	MSD	REC	96.7	%	82-119
MP43131-S2*	7439-97-6	Mercury	MSD	RPD	0	%	20
MP43131-D1*	7439-97-6	Mercury	DUP	RPD	0	%	20
GP39351	EPA 300/SW846 9056A						
GP39351-B1	16887-00-6	Chloride	BSP	REC	102.8	%	87-111
GP39351-B1	14808-79-8	Sulfate	BSP	REC	99	%	87-112
GP39351-S1*	16887-00-6	Chloride	MS	REC	-36 [b]	%	87-111
GP39351-S1*	14808-79-8	Sulfate	MS	REC	77.8 [a]	%	87-112
GP39351-S2*	16887-00-6	Chloride	MSD	RPD	.6	%	15
GP39351-S2*	16887-00-6	Chloride	MSD	REC	-40 [b]	%	87-111
GP39351-S2*	14808-79-8	Sulfate	MSD	RPD	1	%	15
GP39351-S2*	14808-79-8	Sulfate	MSD	REC	76.4	%	87-112

(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

* Sample used for QC is not from job FC10955

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A1978-MB [a]	1A50506.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-02-8	Acrolein	ND	20	6.1	ug/l	
107-13-1	Acrylonitrile	ND	10	2.1	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
110-75-8	2-Chloroethyl Vinyl Ether	ND	5.0	2.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A1978-MB [a]	1A50506.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.0	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.72	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

(a) Sample was treated with an anti-foaming agent.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A1978-BS	1A50504.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	137	110	50-147
107-02-8	Acrolein	125	119	95	31-154
107-13-1	Acrylonitrile	125	117	94	58-126
71-43-2	Benzene	25	25.5	102	81-122
75-27-4	Bromodichloromethane	25	25.6	102	79-123
75-25-2	Bromoform	25	24.6	98	66-123
78-93-3	2-Butanone (MEK)	125	121	97	56-143
75-15-0	Carbon Disulfide	25	28.0	112	66-148
56-23-5	Carbon Tetrachloride	25	27.0	108	76-136
108-90-7	Chlorobenzene	25	22.9	92	82-124
75-00-3	Chloroethane	25	21.4	86	62-144
110-75-8	2-Chloroethyl Vinyl Ether	125	117	94	56-122
67-66-3	Chloroform	25	26.1	104	80-124
124-48-1	Dibromochloromethane	25	25.8	103	78-122
95-50-1	1,2-Dichlorobenzene	25	23.5	94	82-124
541-73-1	1,3-Dichlorobenzene	25	22.6	90	84-125
106-46-7	1,4-Dichlorobenzene	25	22.4	90	78-120
75-34-3	1,1-Dichloroethane	25	24.8	99	81-122
107-06-2	1,2-Dichloroethane	25	26.0	104	75-125
75-35-4	1,1-Dichloroethylene	25	25.0	100	78-137
156-59-2	cis-1,2-Dichloroethylene	25	25.1	100	78-120
156-60-5	trans-1,2-Dichloroethylene	25	25.7	103	76-127
78-87-5	1,2-Dichloropropane	25	24.0	96	76-124
10061-01-5	cis-1,3-Dichloropropene	25	25.8	103	75-118
10061-02-6	trans-1,3-Dichloropropene	25	22.2	89	80-120
100-41-4	Ethylbenzene	25	23.3	93	81-121
591-78-6	2-Hexanone	125	108	86	61-129
74-83-9	Methyl Bromide	25	22.8	91	59-143
74-87-3	Methyl Chloride	25	19.9	80	50-159
75-09-2	Methylene Chloride	25	26.7	107	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	103	82	66-122
100-42-5	Styrene	25	25.1	100	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	20.7	83	72-120
127-18-4	Tetrachloroethylene	25	21.0	84	76-135
108-88-3	Toluene	25	23.1	92	80-120
71-55-6	1,1,1-Trichloroethane	25	26.7	107	75-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A1978-BS	1A50504.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
79-00-5	1,1,2-Trichloroethane	25	22.7	91	76-119
79-01-6	Trichloroethylene	25	25.1	100	81-126
75-69-4	Trichlorofluoromethane	25	22.8	91	71-156
108-05-4	Vinyl Acetate	125	121	97	43-154
75-01-4	Vinyl Chloride	25	18.6	74	69-159
	m,p-Xylene	50	48.6	97	79-126
95-47-6	o-Xylene	25	24.2	97	80-127
1330-20-7	Xylene (total)	75	72.8	97	80-126

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	103%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC10918-1MS	1A50528.D	5	11/06/23	JW	n/a	n/a	V1A1978
FC10918-1MSD	1A50529.D	5	11/06/23	JW	n/a	n/a	V1A1978
FC10918-1	1A50512.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	FC10918-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	440		625	1140	112	625	1090	104	4	50-147/21
107-02-8	Acrolein	20 U		625	615	98	625	643	103	4	31-154/29
107-13-1	Acrylonitrile	10 U		625	645	103	625	663	106	3	58-126/16
71-43-2	Benzene	1.0 U		125	130	104	125	135	108	4	81-122/14
75-27-4	Bromodichloromethane	1.0 U		125	135	108	125	138	110	2	79-123/19
75-25-2	Bromoform	1.0 U		125	122	98	125	130	104	6	66-123/21
78-93-3	2-Butanone (MEK)	4.7	I	625	627	100	625	624	99	0	56-143/18
75-15-0	Carbon Disulfide	2.0 U		125	142	114	125	149	119	5	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		125	155	124	125	158	126	2	76-136/23
108-90-7	Chlorobenzene	1.0 U		125	119	95	125	122	98	2	82-124/14
75-00-3	Chloroethane	2.0 U		125	121	97	125	132	106	9	62-144/20
110-75-8	2-Chloroethyl Vinyl Ether	5.0 U		625	ND	0*	625	ND	0*	nc	56-122/23
67-66-3	Chloroform	1.0 U		125	141	113	125	147	118	4	80-124/15
124-48-1	Dibromochloromethane	1.0 U		125	132	106	125	136	109	3	78-122/19
95-50-1	1,2-Dichlorobenzene	1.0 U		125	117	94	125	124	99	6	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		125	116	93	125	122	98	5	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		125	113	90	125	120	96	6	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		125	127	102	125	133	106	5	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		125	147	118	125	153	122	4	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		125	141	113	125	144	115	2	78-137/18
156-59-2	cis-1,2-Dichloroethylene	1.0 U		125	129	103	125	131	105	2	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		125	137	110	125	143	114	4	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		125	126	101	125	133	106	5	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		125	128	102	125	129	103	1	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		125	117	94	125	114	91	3	80-120/22
100-41-4	Ethylbenzene	1.0 U		125	121	97	125	124	99	2	81-121/14
591-78-6	2-Hexanone	10 U		625	591	95	625	577	92	2	61-129/18
74-83-9	Methyl Bromide	5.0 U		125	117	94	125	128	102	9	59-143/19
74-87-3	Methyl Chloride	2.0 U		125	112	90	125	116	93	4	50-159/19
75-09-2	Methylene Chloride	5.0 U		125	154	123	125	156	125	1	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		625	568	91	625	577	92	2	66-122/16
100-42-5	Styrene	1.0 U		125	131	105	125	132	106	1	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		125	101	81	125	108	86	7	72-120/14
127-18-4	Tetrachloroethylene	1.0 U		125	108	86	125	112	90	4	76-135/16
108-88-3	Toluene	1.0 U		125	118	94	125	125	100	6	80-120/14
71-55-6	1,1,1-Trichloroethane	1.0 U		125	151	121	125	161	129	6	75-130/16

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC10918-1MS	1A50528.D	5	11/06/23	JW	n/a	n/a	V1A1978
FC10918-1MSD	1A50529.D	5	11/06/23	JW	n/a	n/a	V1A1978
FC10918-1	1A50512.D	1	11/06/23	JW	n/a	n/a	V1A1978

The QC reported here applies to the following samples: **Method:** EPA 624.1

FC10955-1A

CAS No.	Compound	FC10918-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
79-00-5	1,1,2-Trichloroethane	1.0	U	125	112	90	125	115	92	3	76-119/14
79-01-6	Trichloroethylene	1.0	U	125	131	105	125	134	107	2	81-126/15
75-69-4	Trichlorofluoromethane	2.0	U	125	144	115	125	150	120	4	71-156/21
108-05-4	Vinyl Acetate	10	U	625	679	109	625	697	112	3	43-154/14
75-01-4	Vinyl Chloride	1.0	U	125	108	86	125	117	94	8	69-159/18
	m,p-Xylene	2.0	U	250	251	100	250	259	104	3	79-126/15
95-47-6	o-Xylene	1.0	U	125	124	99	125	129	103	4	80-127/14
1330-20-7	Xylene (total)	3.0	U	375	375	100	375	388	103	3	80-126/15

CAS No.	Surrogate Recoveries	MS	MSD	FC10918-1	Limits
1868-53-7	Dibromofluoromethane	108%	109%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	115%	112%	105%	79-125%
2037-26-5	Toluene-D8	95%	95%	98%	85-112%
460-00-4	4-Bromofluorobenzene	101%	104%	102%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-BFB
Lab File ID: 1A50133.D
Instrument ID: GCMS1A
Injection Date: 10/23/23
Injection Time: 08:49

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16804	24.4		Pass
75	30.0 - 60.0% of mass 95	31551	45.8		Pass
95	Base peak, 100% relative abundance	68835	100.0		Pass
96	5.0 - 9.0% of mass 95	4591	6.67		Pass
173	Less than 2.0% of mass 174	538	0.78	(0.86) [a]	Pass
174	50.0 - 100.0% of mass 95	62365	90.6		Pass
175	5.0 - 9.0% of mass 174	4595	6.68	(7.37) [a]	Pass
176	95.0 - 101.0% of mass 174	59501	86.4	(95.4) [a]	Pass
177	5.0 - 9.0% of mass 176	4038	5.87	(6.79) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A1961-IC1961	1A50134.D	10/23/23	09:13	00:24	Initial cal 1
V1A1961-IC1961	1A50135.D	10/23/23	09:38	00:49	Initial cal 8
V1A1961-IC1961	1A50136.D	10/23/23	10:02	01:13	Initial cal 2
V1A1961-IC1961	1A50137.D	10/23/23	10:26	01:37	Initial cal 3
V1A1961-IC1961	1A50138.D	10/23/23	11:07	02:18	Initial cal 4
V1A1961-ICC1961	1A50139.D	10/23/23	11:32	02:43	Initial cal 5
V1A1961-IC1961	1A50140.D	10/23/23	11:56	03:07	Initial cal 6
V1A1961-IC1961	1A50141.D	10/23/23	12:20	03:31	Initial cal 7
V1A1961-CC1961	1A50143A.D	10/23/23	13:23	04:34	Continuing cal 5
V1A1961-ICV1961	1A50143.D	10/23/23	13:23	04:34	Initial cal verification 5
V1A1961-BS	1A50144.D	10/23/23	13:47	04:58	Blank Spike
V1A1961-MB	1A50146.D	10/23/23	14:35	05:46	Method Blank
ZZZZZZ	1A50147.D	10/23/23	15:05	06:16	(unrelated sample)
FC10579-9	1A50148.D	10/23/23	15:29	06:40	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50149.D	10/23/23	15:54	07:05	(unrelated sample)
ZZZZZZ	1A50150.D	10/23/23	16:18	07:29	(unrelated sample)
ZZZZZZ	1A50151.D	10/23/23	16:42	07:53	(unrelated sample)
ZZZZZZ	1A50152.D	10/23/23	17:07	08:18	(unrelated sample)
ZZZZZZ	1A50153.D	10/23/23	17:31	08:42	(unrelated sample)
ZZZZZZ	1A50154.D	10/23/23	17:55	09:06	(unrelated sample)
ZZZZZZ	1A50155.D	10/23/23	18:19	09:30	(unrelated sample)
ZZZZZZ	1A50156.D	10/23/23	18:44	09:55	(unrelated sample)
FC10579-9MS	1A50157.D	10/23/23	19:08	10:19	Matrix Spike
FC10579-9MSD	1A50158.D	10/23/23	19:32	10:43	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	V1A1961-BFB	**Injection Date:**	10/23/23
Lab File ID:	1A50133.D	**Injection Time:**	08:49
Instrument ID:	GCMS1A		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A1961-ECC1961	1A50159.D	10/23/23	19:57	11:08	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-BFB
Lab File ID: 1A50502.D
Instrument ID: GCMS1A
Injection Date: 11/06/23
Injection Time: 10:32

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	13799	23.1		Pass
75	30.0 - 60.0% of mass 95	29079	48.6		Pass
95	Base peak, 100% relative abundance	59779	100.0		Pass
96	5.0 - 9.0% of mass 95	4018	6.72		Pass
173	Less than 2.0% of mass 174	444	0.74	(0.85) [a]	Pass
174	50.0 - 100.0% of mass 95	51939	86.9		Pass
175	5.0 - 9.0% of mass 174	4009	6.71	(7.72) [a]	Pass
176	95.0 - 101.0% of mass 174	49584	82.9	(95.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3277	5.48	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A1977-CC1961	1A50503.D	11/06/23	10:56	00:24	Continuing cal 5
V1A1978-BS	1A50504.D	11/06/23	11:24	00:52	Blank Spike
V1A1977-BS	1A50504.D	11/06/23	11:24	00:52	Blank Spike
V1A1978-MB	1A50506.D	11/06/23	12:09	01:37	Method Blank
V1A1977-MB	1A50506.D	11/06/23	12:09	01:37	Method Blank
ZZZZZZ	1A50508.D	11/06/23	13:01	02:29	(unrelated sample)
ZZZZZZ	1A50509.D	11/06/23	13:25	02:53	(unrelated sample)
FC10885-3	1A50510.D	11/06/23	13:47	03:15	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50511.D	11/06/23	14:11	03:39	(unrelated sample)
FC10918-1	1A50512.D	11/06/23	14:35	04:03	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50513.D	11/06/23	14:59	04:27	(unrelated sample)
ZZZZZZ	1A50514.D	11/06/23	15:23	04:51	(unrelated sample)
FC10955-1A	1A50515.D	11/06/23	15:48	05:16	EFFLUENT
ZZZZZZ	1A50516.D	11/06/23	16:12	05:40	(unrelated sample)
ZZZZZZ	1A50517.D	11/06/23	16:36	06:04	(unrelated sample)
ZZZZZZ	1A50518.D	11/06/23	17:01	06:29	(unrelated sample)
ZZZZZZ	1A50519.D	11/06/23	17:28	06:56	(unrelated sample)
ZZZZZZ	1A50520.D	11/06/23	17:53	07:21	(unrelated sample)
ZZZZZZ	1A50521.D	11/06/23	18:17	07:45	(unrelated sample)
ZZZZZZ	1A50522.D	11/06/23	18:41	08:09	(unrelated sample)
ZZZZZZ	1A50523.D	11/06/23	19:06	08:34	(unrelated sample)
ZZZZZZ	1A50524.D	11/06/23	19:30	08:58	(unrelated sample)
ZZZZZZ	1A50525.D	11/06/23	19:54	09:22	(unrelated sample)
FC10885-3MS	1A50526.D	11/06/23	20:15	09:43	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	V1A1977-BFB	**Injection Date:**	11/06/23
Lab File ID:	1A50502.D	**Injection Time:**	10:32
Instrument ID:	GCMS1A		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC10885-3MSD	1A50527.D	11/06/23	20:43	10:11	Matrix Spike Duplicate
FC10918-1MS	1A50528.D	11/06/23	21:07	10:35	Matrix Spike
FC10918-1MSD	1A50529.D	11/06/23	21:31	10:59	Matrix Spike Duplicate
V1A1977-ECC1961	1A50530.D	11/06/23	21:56	11:24	Ending cal 5

Internal Standard Area Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	V1A1977-CC1961	**Injection Date:**	11/06/23
Lab File ID:	1A50503.D	**Injection Time:**	10:56
Instrument ID:	GCMS1A	**Method:**	EPA 624.1

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal [a]	350721	3.40	260330	5.35	130763	7.10
Check Std [b]	261102	3.40	203372	5.35	108918	7.10
Upper Limit [c]	522204	3.57	406744	5.52	217836	7.27
Lower Limit [d]	130551	3.23	101686	5.18	54459	6.93

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V1A1978-BS	270118	3.40	212050	5.35	113438	7.10
V1A1977-BS	270118	3.40	212050	5.35	113438	7.10
V1A1978-MB [e]	242983	3.40	187846	5.35	103132	7.10
V1A1977-MB [e]	242983	3.40	187846	5.35	103132	7.10
ZZZZZZ	255818	3.40	195032	5.35	107303	7.10
ZZZZZZ	235362	3.40	182398	5.35	97748	7.10
FC10885-3	232635	3.40	180540	5.35	96265	7.10
FC10955-1A	225260	3.40	177014	5.35	97001	7.10
ZZZZZZ	212262	3.40	166270	5.35	90550	7.10
ZZZZZZ	203253	3.40	160090	5.35	86054	7.10
ZZZZZZ	192850	3.40	152899	5.35	84730	7.10
ZZZZZZ	196488	3.40	155377	5.35	84248	7.10
ZZZZZZ	193185	3.40	150233	5.35	83370	7.10
ZZZZZZ	183490	3.40	148356	5.35	79949	7.10
ZZZZZZ	185200	3.40	144938	5.35	81444	7.10
ZZZZZZ	188756	3.40	148758	5.35	83085	7.10
ZZZZZZ	182300	3.40	144231	5.35	77301	7.10
FC10885-3MS	195283	3.40	154144	5.35	86932	7.10
FC10885-3MSD	201298	3.40	160737	5.35	89875	7.10
FC10918-1MS	204982	3.40	164095	5.35	92358	7.10
FC10918-1MSD	205510	3.40	164814	5.35	89785	7.10
V1A1977-ECC1961	214697	3.40	174070	5.35	95942	7.10

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4

(a) Initial Cal is: V1A1961-ICC1961 1A50139.D 10/23/23 11:32
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
(e) Sample was treated with an anti-foaming agent.

Surrogate Recovery Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Method: EPA 624.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC10955-1A	1A50515.D	111	107	96	99
FC10918-1MS	1A50528.D	108	115	95	101
FC10918-1MSD	1A50529.D	109	112	95	104
V1A1978-BS	1A50504.D	105	105	96	103
V1A1978-MB	1A50506.D	109	105	96	100

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICC1961
Lab FileID: 1A50139.D

Response Factor Report MSVOA17

Method : C:\msdchem\1\MET...V1A_10-23-2023.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Calibration Files
1 =1A50134.D 2 =1A50136.D 3 =1A50137.D 4 =1A50138.D
5 =1A50139.D 6 =1A50140.D 7 =1A50141.D 8 =1A50135.D

Compound	1	2	3	4	5	6	7	8	Avg	%RSD
1) I Fluorobenzene	ISTD									
2) Dichlorodifl	0.268	0.233	0.221	0.209	0.215	0.213	0.201	0.258	0.227	10.52
3) Chloromethan	0.543	0.458	0.477	0.423	0.418	0.420	0.401	0.505	0.456	10.87
4) 1,3-butadien	0.523	0.360	0.340	0.322	0.325	0.312	0.325	0.401	0.363	19.41
---- Linear regr., Force(0,0) ---- Coefficient = 0.9996										
Response Ratio = 0.00000 + 0.32372 *A										
5) Vinyl Chlori	0.423	0.362	0.365	0.340	0.345	0.342	0.337	0.405	0.365	8.93
6) Bromomethane	0.122	0.108	0.103	0.092	0.091	0.093	0.091	0.110	0.101	11.33
7) Chloroethane	0.304	0.194	0.192	0.165	0.156	0.142	0.135	0.239	0.191	29.78
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984										
Response Ratio = 0.00000 + 0.18453 *A + -0.02684 *A^2										
8) Trichloroflu	0.474	0.382	0.378	0.379	0.375	0.370	0.337	0.408	0.388	10.30
9) Ethyl Ether	0.516	0.323	0.321	0.280	0.263	0.298	0.272	0.360	0.329	24.85
---- Linear regr., Force(0,0) ---- Coefficient = 0.9970										
Response Ratio = 0.00000 + 0.28348 *A										
10) Ethanol	0.014	0.011	0.008	0.008	0.007	0.007	0.006	0.011	0.009	28.58
---- Linear regr., Force(0,0) ---- Coefficient = 0.9933										
Response Ratio = 0.00000 + 0.00716 *A										
11) 1,2-Dichloro	0.389	0.299	0.318	0.264	0.280	0.305	0.289	0.318	0.308	12.20
12) 1,1-Dichloro	0.589	0.466	0.489	0.421	0.436	0.472	0.452	0.537	0.483	11.47
13) Freon 113	0.253	0.226	0.235	0.202	0.208	0.227	0.215	0.256	0.228	8.64
14) Carbon Disul	0.999	0.695	0.719	0.611	0.633	0.680	0.650	0.867	0.732	18.24
---- Linear regr., Force(0,0) ---- Coefficient = 0.9983										
Response Ratio = 0.00000 + 0.65862 *A										
15) Iodomethane	0.109	0.091	0.124	0.152	0.165	0.196	0.189	0.103	0.141	28.44
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9947										
Response Ratio = 0.00000 + 0.13599 *A + 0.03082 *A^2										
16) Acrolein	0.100	0.108	0.105	0.095	0.094	0.099	0.093	0.105	0.100	5.53
17) Allyl chlori	0.638	0.521	0.504	0.482	0.469	0.499	0.509	0.611	0.529	11.61
18) Methylene Ch	1.942	0.803	0.677	0.529	0.512	0.526	0.495	1.269	0.844	60.86
---- Linear regr., Force(0,0) ---- Coefficient = 0.9988										
Response Ratio = 0.00000 + 0.53483 *A										
19) Acetone	0.648	0.263	0.221	0.152	0.148	0.152	0.142	0.441	0.271	67.44
---- Linear regr., Force(0,0) ---- Coefficient = 0.9960										
Response Ratio = 0.00000 + 0.15648 *A										
20) Methyl aceta	0.562	0.470	0.442	0.414	0.401	0.441	0.412	0.499	0.455	11.87
21) trans-1,2-Di	0.576	0.474	0.500	0.447	0.455	0.490	0.467	0.558	0.496	9.57
22) Hexane	0.495	0.392	0.417	0.361	0.368	0.400	0.365	0.437	0.404	11.18

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICC1961
Lab FileID: 1A50139.D

23)	Methyl Tert	0.907	0.752	0.756	0.708	0.702	0.756	0.728	0.776	0.761	8.47
24)	Acetonitrile	0.133	0.082	0.074	0.067	0.062	0.061	0.056	0.099	0.079	32.25
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9966										
	Response Ratio = 0.00000 + 0.06150 *A										
25)	Tert Butyl A	0.094	0.073	0.077	0.068	0.067	0.071	0.064	0.077	0.074	12.61
26)	Di-isopropyl	1.534	1.325	1.367	1.252	1.255	1.367	1.306	1.365	1.346	6.63
27)	Chloroprene	1.921	1.735	1.728	1.589	1.576	1.633	1.617	1.713	1.689	6.67
28)	1,1-Dichloro	0.706	0.599	0.627	0.571	0.577	0.618	0.598	0.697	0.624	8.23
29)	Acrylonitril	0.227	0.218	0.223	0.200	0.198	0.204	0.198	0.205	0.209	5.61
30)	ETBE	1.213	1.127	1.115	1.069	1.065	1.145	1.094	1.142	1.121	4.27
31)	Vinyl acetat	0.930	0.879	0.948	0.937	0.939	0.950	0.915	0.834	0.916	4.41
32)	cis-1,2-Dich	0.354	0.308	0.291	0.272	0.265	0.284	0.272	0.302	0.293	9.86
33)	2,2-Dichloro	0.440	0.353	0.368	0.337	0.347	0.371	0.359	0.395	0.371	8.88
34)	Bromochlorom	0.170	0.150	0.147	0.135	0.131	0.132	0.122	0.157	0.143	10.97
35)	Cyclohexane	0.702	0.697	0.714	0.628	0.675	0.723	0.683	0.756	0.697	5.37
36)	Chloroform	0.612	0.491	0.488	0.469	0.467	0.492	0.472	0.552	0.505	10.08
37)	Ethyl acetat	0.597	0.559	0.593	0.535	0.548	0.560	0.553	0.514	0.557	4.96
38)	Tetrahydrofu	0.252	0.189	0.213	0.191	0.195	0.192	0.180	0.208	0.203	11.10
39)	Dibromofluor	0.282	0.269	0.274	0.275	0.274	0.278	0.271	0.284	0.276	1.84
40)	Carbon Tetra	0.502	0.369	0.385	0.346	0.357	0.388	0.368	0.420	0.392	12.69
41)	1,1,1-Trichl	0.527	0.395	0.417	0.374	0.396	0.414	0.398	0.446	0.421	11.33
42)	2-Butanone	0.320	0.310	0.313	0.283	0.286	0.298	0.284	0.304	0.300	4.77
43)	1,1-Dichloro	0.428	0.338	0.356	0.314	0.333	0.360	0.347	0.390	0.358	10.03
44)	tert-Butyl f	0.306	0.332	0.303	0.327	0.323	0.332	0.336	0.331	0.324	3.84
45)	Propionitril	0.136	0.109	0.102	0.087	0.084	0.085	0.083	0.113	0.100	18.94
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9983										
	Response Ratio = 0.00000 + 0.08546 *A										
46)	Methacryloni	0.432	0.374	0.348	0.317	0.312	0.320	0.320	0.371	0.349	11.88
47)	Benzene	1.304	1.072	1.079	1.015	1.017	1.066	1.043	1.092	1.086	8.52
48)	TAME	0.900	0.725	0.745	0.695	0.724	0.766	0.745	0.730	0.754	8.30
49)	1,2-Dichloro	0.349	0.344	0.358	0.361	0.366	0.383	0.343	0.360	0.358	3.67
50)	1,2-Dichloro	0.587	0.466	0.483	0.445	0.437	0.455	0.443	0.522	0.480	10.71
51)	Isobutyl Alc	0.063	0.055	0.053	0.048	0.046	0.044	0.040	0.056	0.051	14.48
52)	Tert Amyl Al	0.067	0.061	0.064	0.059	0.058	0.061	0.056	0.059	0.061	5.69
53)	Trichloroeth	0.369	0.298	0.311	0.264	0.269	0.286	0.279	0.331	0.301	11.71
54)	Methylcycloh	0.477	0.445	0.481	0.424	0.468	0.492	0.478	0.474	0.467	4.77
55)	Dibromometha	0.229	0.193	0.182	0.176	0.170	0.174	0.175	0.201	0.188	10.61
56)	1,2-Dichloro	0.455	0.403	0.364	0.333	0.334	0.351	0.357	0.391	0.373	11.00
57)	Bromodichlor	0.492	0.399	0.380	0.350	0.345	0.371	0.371	0.403	0.389	11.95
58)	Methyl metha	0.589	0.484	0.464	0.410	0.415	0.436	0.466	0.490	0.469	12.12
59)	1,4-Dioxane	0.004	0.004	0.005	0.004	0.004	0.004	0.004	0.004	0.004	6.25
60)	2-Chloroethy	0.140	0.211	0.212	0.217	0.220	0.222	0.234	0.174	0.204	15.13
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9992										
	Response Ratio = 0.00000 + 0.22444 *A										
61)	cis-1,3-Dich	0.480	0.452	0.439	0.418	0.426	0.440	0.444	0.454	0.444	4.27
62)	I Chlorobenzene-d5	----------	----------	ISTD	----------	----------	----------	----------	----------	----------	
63)	Toluene-d8	1.318	1.367	1.316	1.332	1.348	1.325	1.403	1.331	1.342	2.20
64)	Toluene	1.830	1.624	1.574	1.429	1.463	1.521	1.588	1.678	1.588	8.02
65)	2-Nitropropa	0.196	0.188	0.177	0.169	0.171	0.171	0.178	0.181	0.179	5.18
66)	4-Methyl-2-p	0.778	0.875	0.832	0.747	0.786	0.794	0.836	0.785	0.804	5.07
67)	trans-1,3-Di	0.685	0.578	0.586	0.536	0.557	0.566	0.585	0.562	0.582	7.70
68)	Tetrachloroe	0.619	0.592	0.586	0.413	0.458	0.501	0.535	0.569	0.534	13.46
69)	Ethyl methac	0.546	0.502	0.487	0.418	0.427	0.449	0.489	0.480	0.475	8.87
70)	1,1,2-Trichl	0.375	0.354	0.321	0.289	0.288	0.293	0.304	0.336	0.320	10.20
71)	Dibromochlor	0.441	0.423	0.414	0.386	0.380	0.396	0.408	0.415	0.408	4.92
72)	1,3-Dichloro	0.694	0.629	0.602	0.558	0.560	0.567	0.585	0.622	0.602	7.66

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICC1961
Lab FileID: 1A50139.D

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 73) 1,2-Dibromoe 0.468 0.398 0.399 0.362 0.353 0.374 0.378 0.397 0.391   9.06
 74) 3,3-Dimethyl 0.093 0.110 0.112 0.098 0.099 0.104 0.112 0.094 0.103   7.75
 75) 2-hexanone   0.740 0.841 0.834 0.723 0.748 0.746 0.783 0.739 0.769   5.91
 76) 1-Chlorohexa 0.724 0.576 0.635 0.516 0.550 0.561 0.556 0.536 0.582  11.54
 77) Ethylbenzene 1.938 1.699 1.667 1.558 1.558 1.630 1.637 1.763 1.681   7.39
 78) Chlorobenzen 1.324 1.086 1.081 0.988 0.971 1.001 0.996 1.130 1.072  10.87
 79) 1,1,1,2-Tetr 0.450 0.404 0.408 0.372 0.357 0.381 0.378 0.410 0.395   7.41
 80) m,p-Xylene   1.549 1.326 1.382 1.286 1.283 1.323 1.323 1.374 1.356   6.33
 81) o-Xylene     1.529 1.400 1.366 1.320 1.311 1.375 1.369 1.391 1.383   4.83
 82) Styrene      1.059 1.005 1.020 1.020 1.009 1.066 1.049 0.960 1.023   3.37
 83) Bromoform    0.333 0.298 0.301 0.291 0.276 0.292 0.285 0.288 0.296   5.80
 84) Isopropylben 1.700 1.571 1.612 1.561 1.544 1.626 1.627 1.535 1.597   3.44

 85) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 86) 4-Bromofluor 0.846 0.831 0.834 0.824 0.833 0.821 0.851 0.833 0.834   1.21
 87) cis-1,4-Dich 0.569 0.418 0.414 0.359 0.356 0.356 0.391 0.473 0.417  17.62
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9971
              Response Ratio = 0.00000 + 0.37538 *A

 88) n-Propylbenz 4.167 3.769 3.835 3.549 3.552 3.753 3.893 3.996 3.814   5.51
 89) Bromobenzene 0.955 0.859 0.822 0.744 0.733 0.771 0.773 0.965 0.828  11.02
 90) 1,1,2,2-Tetr 1.261 1.071 1.023 0.974 0.907 0.951 0.972 1.176 1.042  11.65
 91) 1,3,5-Trimet 2.654 2.544 2.652 2.470 2.502 2.600 2.660 2.476 2.570   3.19
 92) 2-Chlorotolu 2.635 2.234 2.280 2.055 2.102 2.170 2.213 2.396 2.261   8.15
 93) trans-1,4-Di 0.570 0.499 0.529 0.461 0.481 0.487 0.493 0.475 0.499   6.93
 94) 1,2,3-Trichl 0.371 0.304 0.299 0.271 0.258 0.275 0.272 0.309 0.295  12.05
 95) Cyclohexanon 0.067 0.067 0.068 0.061 0.060 0.061 0.063 0.054 0.063   7.65
 96) 4-Chlorotolu 2.594 2.408 2.418 2.231 2.233 2.284 2.360 2.451 2.372   5.18
 97) tert-Butylbe 1.504 1.399 1.477 1.379 1.423 1.449 1.489 1.430 1.444   3.06
 98) 1,2,4-Trimet 2.405 2.396 2.510 2.373 2.440 2.511 2.602 2.288 2.441   4.01
 99) Pentachloroe 0.584 0.347 0.324 0.429 0.381 0.358 0.360 0.450 0.404  20.77
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9950
              Response Ratio = 0.00000 + 0.36965 *A

100) sec-Butylben 3.192 3.039 3.298 3.114 3.203 3.274 3.372 3.078 3.196   3.61
101) 4-Isopropylt 2.357 2.488 2.706 2.561 2.630 2.707 2.771 2.424 2.581   5.75
102) 1,3-Dichloro 1.662 1.611 1.543 1.453 1.452 1.462 1.478 1.609 1.534   5.49
103) 1,2,3-Trimet 2.726 2.442 2.535 2.367 2.412 2.482 2.504 2.455 2.490   4.37
104) 1,4-Dichloro 1.873 1.646 1.606 1.445 1.443 1.487 1.484 1.771 1.595  10.07
105) n-Butylbenze 1.102 1.173 1.223 1.202 1.261 1.290 1.327 1.206 1.223   5.75
106) Benzyl Chlor 0.367 0.295 0.309 0.324 0.324 0.345 0.344 0.313 0.328   7.15
107) 1,2-Dichloro 1.651 1.408 1.402 1.265 1.294 1.329 1.315 1.419 1.385   8.78
108) 1,2-Dibromo- 0.160 0.149 0.145 0.144 0.140 0.159 0.157 0.163 0.152   5.66
109) Hexachlorobu 0.215 0.234 0.243 0.222 0.225 0.220 0.210 0.300 0.234  12.31
110) 1,2,4-Trichl 0.612 0.550 0.557 0.521 0.528 0.578 0.573 0.567 0.561   5.18
111) Naphthalene  1.115 1.043 1.086 1.054 1.096 1.334 1.380 1.208 1.164  11.12
112) 1,2,3-Trichl 0.398 0.402 0.385 0.364 0.369 0.410 0.420 0.421 0.396   5.49
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           V1A_10-23-2023.M        Tue Oct 24 09:34:49 2023
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Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICV1961
Lab FileID: 1A50143.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\10-23-2023\1A50143.D Vial: 11
Acq On : 23 Oct 2023 1:23 pm Operator: jeniferw
Sample : ICV1961-5 Inst : MSVOA17
Misc : MS55077,V1A1961,,,,, Multiplr: 1.00
MS Integration Params: big.p

Method : C:\msdchem\1\MET...V1A_10-23-2023.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Mon Oct 23 13:18:22 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	103	0.00	3.40
2	Dichlorodifluoromethane	0.227	0.234	-3.1	112	0.00	1.02
3	Chloromethane	0.456	0.437	4.2	108	0.00	1.13
		Amount	Calc.	%Drift			
4	1,3-butadiene	40.000	61.481	-53.7#	158	0.00	1.18
		AvgRF	CCRF	%Dev			
5	Vinyl Chloride	0.365	0.352	3.6	106	0.00	1.17
6	Bromomethane	0.101	0.098	3.0	111	0.00	1.34
		Amount	Calc.	%Drift			
7	Chloroethane	40.000	39.744	0.6	107	0.00	1.40
		AvgRF	CCRF	%Dev			
8	Trichlorofluoromethane	0.388	0.360	7.2	99	0.00	1.49
		Amount	Calc.	%Drift			
9	Ethyl Ether	40.000	44.770	-11.9	125	0.00	1.66
10	Ethanol	800.000	873.898	-9.2	113	0.00	1.71
		AvgRF	CCRF	%Dev			
11	1,2-Dichlorotrifluoroetha	0.308	0.335	-8.8	124	0.00	1.74
12	1,1-Dichloroethene	0.483	0.478	1.0	113	0.00	1.76
13	Freon 113	0.228	0.273	-19.7	136	0.00	1.78
		Amount	Calc.	%Drift			
14	Carbon Disulfide	40.000	44.852	-12.1	120	0.00	1.78
15	Iodomethane	40.000	41.439	-3.6	104	0.00	1.83
		AvgRF	CCRF	%Dev			
16	Acrolein	0.100	0.096	4.0	105	0.00	1.90
17	Allyl chloride	0.529	0.536	-1.3	118	0.00	2.00
		Amount	Calc.	%Drift			
18	Methylene Chloride	40.000	41.393	-3.5	112	0.00	2.04
19	Acetone	200.000	189.708	5.1	104	0.00	2.05
		AvgRF	CCRF	%Dev			
20	Methyl acetate	0.455	0.402	11.6	104	0.00	2.12
21	trans-1,2-Dichloroethene	0.496	0.489	1.4	111	0.00	2.13
22	Hexane	0.404	0.434	-7.4	122	0.00	2.20

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICV1961
Lab FileID: 1A50143.D

23		Methyl Tert Butyl Ether	0.761	0.777	-2.1	114	0.00	2.20
		----------	Amount	Calc.	%Drift	----------		
24		Acetonitrile	400.000	430.828	-7.7	110	0.00	2.27
		----------	AvgRF	CCRF	%Dev	----------		
25		Tert Butyl Alcohol	0.074	0.070	5.4	109	0.00	2.21
26		Di-isopropyl ether	1.346	1.337	0.7	110	0.00	2.40
27		Chloroprene	1.689	1.593	5.7	104	0.00	2.44
28		1,1-Dichloroethane	0.624	0.592	5.1	106	0.00	2.44
29		Acrylonitrile	0.209	0.204	2.4	106	0.00	2.44
30		ETBE	1.121	1.171	-4.5	113	0.00	2.58
31		Vinyl acetate	0.916	0.949	-3.6	104	0.00	2.56
32		cis-1,2-Dichloroethene	0.293	0.276	5.8	108	0.00	2.72
33		2,2-Dichloropropane	0.371	0.402	-8.4	120	0.00	2.78
34		Bromochloromethane	0.143	0.136	4.9	107	0.00	2.82
35		Cyclohexane	0.697	0.746	-7.0	114	0.00	2.86
36		Chloroform	0.505	0.484	4.2	107	0.00	2.86
37		Ethyl acetate	0.557	0.569	-2.2	107	0.00	2.91
38		Tetrahydrofuran	0.203	0.191	5.9	101	0.00	2.94
39	S	Dibromofluoromethane	0.276	0.273	1.1	103	0.00	2.95
40		Carbon Tetrachloride	0.392	0.387	1.3	112	0.00	2.96
41		1,1,1-Trichloroethane	0.421	0.411	2.4	107	0.00	2.99
42		2-Butanone	0.300	0.294	2.0	106	0.00	3.00
43		1,1-Dichloropropene	0.358	0.366	-2.2	113	0.00	3.05
44		tert-Butyl formate	0.324	0.353	-9.0	113	0.00	3.10
		----------	Amount	Calc.	%Drift	----------		
45		Propionitrile	400.000	418.903	-4.7	110	0.00	3.14
		----------	AvgRF	CCRF	%Dev	----------		
46		Methacrylonitrile	0.349	0.330	5.4	109	0.00	3.17
47		Benzene	1.086	1.085	0.1	110	0.00	3.18
48		TAME	0.754	0.768	-1.9	109	0.00	3.25
49	S	1,2-Dichloroethane-d4	0.358	0.364	-1.7	103	0.00	3.24
50		1,2-Dichloroethane	0.480	0.453	5.6	107	0.00	3.27
51		Isobutyl Alcohol	0.051	0.049	3.9	110	0.00	3.26
52		Tert Amyl Alcohol	0.061	0.059	3.3	104	0.00	3.33
53		Trichloroethene	0.301	0.288	4.3	110	0.00	3.51
54		Methylcyclohexane	0.467	0.509	-9.0	112	0.00	3.53
55		Dibromomethane	0.188	0.183	2.7	111	0.00	3.74
56		1,2-Dichloropropane	0.373	0.366	1.9	113	0.00	3.80
57		Bromodichloromethane	0.389	0.357	8.2	107	0.00	3.83
58		Methyl methacrylate	0.469	0.442	5.8	110	0.00	3.92
59		1,4-Dioxane	0.004	0.004	0.0	95	0.00	3.94
		----------	Amount	Calc.	%Drift	----------		
60		2-Chloroethyl vinyl ether	200.000	194.251	2.9	102	0.00	4.17
		----------	AvgRF	CCRF	%Dev	----------		
61		cis-1,3-Dichloropropene	0.444	0.440	0.9	107	0.00	4.21
62	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00	5.35
63	S	Toluene-d8	1.342	1.359	-1.3	99	0.00	4.34
64		Toluene	1.588	1.574	0.9	106	0.00	4.37
65		2-Nitropropane	0.179	0.168	6.1	97	0.00	4.47
66		4-Methyl-2-pentanone	0.804	0.799	0.6	100	0.00	4.58
67		trans-1,3-Dichloropropene	0.582	0.553	5.0	98	0.00	4.61
68		Tetrachloroethene	0.534	0.457	14.4	98	0.00	4.64
69		Ethyl methacrylate	0.475	0.480	-1.1	111	0.00	4.73

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1961-ICV1961
Lab FileID: 1A50143.D

70		1,1,2-Trichloroethane	0.320	0.303	5.3	104	0.00	4.72
71		Dibromochloromethane	0.408	0.417	-2.2	108	0.00	4.84
72		1,3-Dichloropropane	0.602	0.615	-2.2	108	0.00	4.90
73		1,2-Dibromoethane	0.391	0.378	3.3	106	0.00	5.00
74		3,3-Dimethyl-1-Butanol	0.103	0.102	1.0	102	0.00	5.13
75		2-hexanone	0.769	0.788	-2.5	104	0.00	5.14
76		1-Chlorohexane	0.582	0.583	-0.2	104	0.00	5.37
77		Ethylbenzene	1.681	1.682	-0.1	106	0.00	5.40
78		Chlorobenzene	1.072	1.025	4.4	104	0.00	5.37
79		1,1,1,2-Tetrachloroethane	0.395	0.391	1.0	108	0.00	5.41
80		m,p-Xylene	1.356	1.371	-1.1	105	0.00	5.50
81		o-Xylene	1.383	1.394	-0.8	105	0.00	5.81
82		Styrene	1.023	1.080	-5.6	106	0.00	5.84
83		Bromoform	0.296	0.283	4.4	101	0.00	5.84
84		Isopropylbenzene	1.597	1.630	-2.1	104	0.00	6.04
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	7.10
86	S	4-Bromofluorobenzene	0.834	0.845	-1.3	103	0.00	6.24
		----------	Amount	Calc.	%Drift		----------	
87		cis-1,4-Dichloro-2-butene	40.000	38.625	3.4	104	0.00	6.27
		----------	AvgRF	CCRF	%Dev		----------	
88		n-Propylbenzene	3.814	3.779	0.9	109	0.00	6.35
89		Bromobenzene	0.828	0.816	1.4	114	0.00	6.31
90		1,1,2,2-Tetrachloroethane	1.042	0.966	7.3	109	0.00	6.38
91		1,3,5-Trimethylbenzene	2.570	2.689	-4.6	110	0.00	6.51
92		2-Chlorotoluene	2.261	2.173	3.9	106	0.00	6.46
93		trans-1,4-Dichloro-2-Bute	0.499	0.478	4.2	101	0.00	6.51
94		1,2,3-Trichloropropane	0.295	0.296	-0.3	117	0.00	6.47
95		Cyclohexanone	0.063	0.083	-31.7#	142	0.00	6.48
96		4-Chlorotoluene	2.372	2.297	3.2	105	0.00	6.58
97		tert-Butylbenzene	1.444	1.470	-1.8	105	0.00	6.75
98		1,2,4-Trimethylbenzene	2.441	2.563	-5.0	107	0.00	6.81
		----------	Amount	Calc.	%Drift		----------	
99		Pentachloroethane	40.000	50.220	-25.5#	124	0.00	6.75
		----------	AvgRF	CCRF	%Dev		----------	
100		sec-Butylbenzene	3.196	3.197	-0.0	102	0.00	6.89
101		4-Isopropyltoluene	2.581	2.696	-4.5	105	0.00	7.01
102		1,3-Dichlorobenzene	1.534	1.468	4.3	103	0.00	7.04
103		1,2,3-Trimethylbenzene	2.490	2.344	5.9	99	0.00	7.15
104		1,4-Dichlorobenzene	1.595	1.514	5.1	107	0.00	7.11
105		n-Butylbenzene	1.223	1.377	-12.6	111	0.00	7.35
106		Benzyl Chloride	0.328	0.335	-2.1	106	0.00	7.30
107		1,2-Dichlorobenzene	1.385	1.314	5.1	104	0.00	7.43
108		1,2-Dibromo-3-Chloropropa	0.152	0.149	2.0	109	0.00	8.01
109		Hexachlorobutadiene	0.234	0.243	-3.8	110	0.00	8.52
110		1,2,4-Trichlorobenzene	0.561	0.569	-1.4	110	0.00	8.51
111		Naphthalene	1.164	1.211	-4.0	113	0.00	8.72
112		1,2,3-Trichlorobenzene	0.396	0.403	-1.8	111	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A50139.D V1A_10-23-2023.M Tue Oct 24 09:35:00 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-CC1961
Lab FileID: 1A50503.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\11-06-2023\1A50503.D Vial: 2
Acq On : 6 Nov 2023 10:56 am Operator: jeniferw
Sample : CC1961-5 Inst : MSVOA17
Misc : MS55197,V1A1977,,,,, Multiplr: 1.00
MS Integration Params: big.p

Method : C:\msdchem\1\MET...V1A_10-23-2023.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Mon Oct 23 13:18:22 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	74	0.00	3.40
2	Dichlorodifluoromethane	0.227	0.240	-5.7	83	0.00	1.02
3	Chloromethane	0.456	0.399	12.5	71	0.00	1.13
		Amount	Calc.	%Drift			
4	1,3-butadiene	40.000	33.170	17.1	62	0.00	1.18
		AvgRF	CCRF	%Dev			
5	Vinyl Chloride	0.365	0.327	10.4	71	0.00	1.17
6	Bromomethane	0.101	0.115	-13.9	95	0.00	1.34
		Amount	Calc.	%Drift			
7	Chloroethane	40.000	39.721	0.7	77	0.00	1.41
		AvgRF	CCRF	%Dev			
8	Trichlorofluoromethane	0.388	0.398	-2.6	79	0.00	1.50
		Amount	Calc.	%Drift			
9	Ethyl Ether	40.000	39.068	2.3	78	0.00	1.66
10	Ethanol	800.000	541.901	32.3#	50	0.00	1.71
		AvgRF	CCRF	%Dev			
11	1,2-Dichlorotrifluoroetha	0.308	0.317	-2.9	84	0.00	1.74
12	1,1-Dichloroethene	0.483	0.533	-10.4	91	0.00	1.76
13	Freon 113	0.228	0.255	-11.8	91	0.00	1.79
		Amount	Calc.	%Drift			
14	Carbon Disulfide	40.000	48.671	-21.7#	94	0.00	1.78
15	Iodomethane	40.000	54.964	-37.4#	105	0.00	1.83
		AvgRF	CCRF	%Dev			
16	Acrolein	0.100	0.093	7.0	74	0.00	1.90
17	Allyl chloride	0.529	0.471	11.0	75	0.00	2.00
		Amount	Calc.	%Drift			
18	Methylene Chloride	40.000	46.398	-16.0	90	0.00	2.04
19	Acetone	200.000	169.850	15.1	67	0.00	2.05
		AvgRF	CCRF	%Dev			
20	Methyl acetate	0.455	0.407	10.5	76	0.00	2.13
21	trans-1,2-Dichloroethene	0.496	0.537	-8.3	88	0.00	2.13
22	Hexane	0.404	0.414	-2.5	84	0.00	2.20

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-CC1961
Lab FileID: 1A50503.D

23		Methyl Tert Butyl Ether	0.761	0.838	-10.1	89	0.00	2.20
		----------	Amount	Calc.	%Drift	----------		
24		Acetonitrile	400.000	332.292	16.9	61	0.00	2.27
		----------	AvgRF	CCRF	%Dev	----------		
25		Tert Butyl Alcohol	0.074	0.061	17.6	68	0.00	2.21
26		Di-isopropyl ether	1.346	1.305	3.0	77	0.00	2.40
27		Chloroprene	1.689	1.582	6.3	75	0.00	2.44
28		1,1-Dichloroethane	0.624	0.657	-5.3	85	0.00	2.44
29		Acrylonitrile	0.209	0.192	8.1	72	0.00	2.44
30		ETBE	1.121	1.209	-7.9	85	0.00	2.58
31		Vinyl acetate	0.916	0.881	3.8	70	0.00	2.56
32		cis-1,2-Dichloroethene	0.293	0.306	-4.4	86	0.00	2.72
33		2,2-Dichloropropane	0.371	0.443	-19.4	95	0.00	2.78
34		Bromochloromethane	0.143	0.160	-11.9	91	0.00	2.82
35		Cyclohexane	0.697	0.746	-7.0	82	0.00	2.86
36		Chloroform	0.505	0.555	-9.9	88	0.00	2.86
37		Ethyl acetate	0.557	0.492	11.7	67	0.00	2.91
38		Tetrahydrofuran	0.203	0.189	6.9	72	0.00	2.95
39	S	Dibromofluoromethane	0.276	0.287	-4.0	78	0.00	2.96
40		Carbon Tetrachloride	0.392	0.459	-17.1	96	0.00	2.96
41		1,1,1-Trichloroethane	0.421	0.497	-18.1	94	0.00	2.99
42		2-Butanone	0.300	0.258	14.0	67	0.00	3.00
43		1,1-Dichloropropene	0.358	0.397	-10.9	89	0.00	3.06
44		tert-Butyl formate	0.324	0.369	-13.9	85	0.00	3.10
		----------	Amount	Calc.	%Drift	----------		
45		Propionitrile	400.000	366.342	8.4	70	0.00	3.14
		----------	AvgRF	CCRF	%Dev	----------		
46		Methacrylonitrile	0.349	0.276	20.9#	66	0.00	3.17
47		Benzene	1.086	1.160	-6.8	85	0.00	3.18
48		TAME	0.754	0.830	-10.1	85	0.00	3.25
49	S	1,2-Dichloroethane-d4	0.358	0.386	-7.8	79	0.00	3.24
50		1,2-Dichloroethane	0.480	0.510	-6.3	87	0.00	3.27
51		Isobutyl Alcohol	0.051	0.040	21.6#	65	0.00	3.26
52		Tert Amyl Alcohol	0.061	0.054	11.5	69	0.00	3.33
53		Trichloroethene	0.301	0.324	-7.6	90	0.00	3.51
54		Methylcyclohexane	0.467	0.523	-12.0	83	0.00	3.53
55		Dibromomethane	0.188	0.197	-4.8	86	0.00	3.74
56		1,2-Dichloropropane	0.373	0.370	0.8	82	0.00	3.80
57		Bromodichloromethane	0.389	0.423	-8.7	91	0.00	3.83
58		Methyl methacrylate	0.469	0.386	17.7	69	0.00	3.92
59		1,4-Dioxane	0.004	0.003	25.0#	60	0.00	3.94
		----------	Amount	Calc.	%Drift	----------		
60		2-Chloroethyl vinyl ether	200.000	191.642	4.2	73	0.00	4.17
		----------	AvgRF	CCRF	%Dev	----------		
61		cis-1,3-Dichloropropene	0.444	0.479	-7.9	84	0.00	4.21
62	I	Chlorobenzene-d5	1.000	1.000	0.0	78	0.00	5.35
63	S	Toluene-d8	1.342	1.302	3.0	75	0.00	4.34
64		Toluene	1.588	1.579	0.6	84	0.00	4.37
65		2-Nitropropane	0.179	0.159	11.2	73	0.00	4.47
66		4-Methyl-2-pentanone	0.804	0.655	18.5	65	0.00	4.58
67		trans-1,3-Dichloropropene	0.582	0.587	-0.9	82	0.00	4.61
68		Tetrachloroethene	0.534	0.481	9.9	82	0.00	4.64
69		Ethyl methacrylate	0.475	0.395	16.8	72	0.00	4.73

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-CC1961
Lab FileID: 1A50503.D

70		1,1,2-Trichloroethane	0.320	0.295	7.8	80	0.00	4.72
71		Dibromochloromethane	0.408	0.431	-5.6	89	0.00	4.84
72		1,3-Dichloropropane	0.602	0.562	6.6	78	0.00	4.90
73		1,2-Dibromoethane	0.391	0.382	2.3	84	0.00	5.00
74		3,3-Dimethyl-1-Butanol	0.103	0.081	21.4#	64	0.00	5.13
75		2-hexanone	0.769	0.593	22.9#	62	0.00	5.14
76		1-Chlorohexane	0.582	0.579	0.5	82	0.00	5.37
77		Ethylbenzene	1.681	1.703	-1.3	85	0.00	5.40
78		Chlorobenzene	1.072	1.029	4.0	83	0.00	5.37
79		1,1,1,2-Tetrachloroethane	0.395	0.416	-5.3	91	0.00	5.41
80		m,p-Xylene	1.356	1.394	-2.8	85	0.00	5.50
81		o-Xylene	1.383	1.444	-4.4	86	0.00	5.81
82		Styrene	1.023	1.096	-7.1	85	0.00	5.84
83		Bromoform	0.296	0.326	-10.1	92	0.00	5.84
84		Isopropylbenzene	1.597	1.707	-6.9	86	0.00	6.04
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	0.00	7.10
86	S	4-Bromofluorobenzene	0.834	0.854	-2.4	85	0.00	6.24
		----------	Amount	Calc.	%Drift		----------	
87		cis-1,4-Dichloro-2-butene	40.000	32.993	17.5	73	0.00	6.27
		----------	AvgRF	CCRF	%Dev		----------	
88		n-Propylbenzene	3.814	3.723	2.4	87	0.00	6.35
89		Bromobenzene	0.828	0.804	2.9	91	0.00	6.31
90		1,1,2,2-Tetrachloroethane	1.042	0.902	13.4	83	0.00	6.38
91		1,3,5-Trimethylbenzene	2.570	2.652	-3.2	88	0.00	6.51
92		2-Chlorotoluene	2.261	2.177	3.7	86	0.00	6.46
93		trans-1,4-Dichloro-2-Bute	0.499	0.458	8.2	79	0.00	6.51
94		1,2,3-Trichloropropane	0.295	0.281	4.7	91	0.00	6.47
95		Cyclohexanone	0.063	0.045	28.6#	63	0.00	6.48
96		4-Chlorotoluene	2.372	2.276	4.0	85	0.00	6.58
97		tert-Butylbenzene	1.444	1.523	-5.5	89	0.00	6.75
98		1,2,4-Trimethylbenzene	2.441	2.595	-6.3	89	0.00	6.81
		----------	Amount	Calc.	%Drift		----------	
99		Pentachloroethane	40.000	48.438	-21.1#	98	0.00	6.75
		----------	AvgRF	CCRF	%Dev		----------	
100		sec-Butylbenzene	3.196	3.287	-2.8	85	0.00	6.89
101		4-Isopropyltoluene	2.581	2.789	-8.1	88	0.00	7.01
102		1,3-Dichlorobenzene	1.534	1.503	2.0	86	0.00	7.04
103		1,2,3-Trimethylbenzene	2.490	2.534	-1.8	88	0.00	7.14
104		1,4-Dichlorobenzene	1.595	1.513	5.1	87	0.00	7.11
105		n-Butylbenzene	1.223	1.263	-3.3	83	0.00	7.35
106		Benzyl Chloride	0.328	0.343	-4.6	88	0.00	7.30
107		1,2-Dichlorobenzene	1.385	1.373	0.9	88	0.00	7.43
108		1,2-Dibromo-3-Chloropropa	0.152	0.167	-9.9	99	0.00	8.01
109		Hexachlorobutadiene	0.234	0.344	-47.0#	128	0.00	8.51
110		1,2,4-Trichlorobenzene	0.561	0.755	-34.6#	119	0.00	8.51
111		Naphthalene	1.164	1.857	-59.5#	141	0.00	8.72
112		1,2,3-Trichlorobenzene	0.396	0.625	-57.8#	141	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A50139.D V1A_10-23-2023.M Mon Nov 06 11:29:26 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-ECC1961
Lab FileID: 1A50530.D

Evaluate Continuing Calibration Report

Data File : X:\Orlando VOA\celin...\V1A1977-78\1A50530.d Vial: 29
Acq On : 6 Nov 2023 9:56 pm Operator: jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,, Multiplr: 1.00
MS Integration Params: big.p

Method : X:\Orlando VOA\c...V1A_10-23-2023.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B
Last Update : Mon Oct 23 13:18:22 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	61	0.00	3.40
2	Dichlorodifluoromethane	0.227	0.242	-6.6	69	0.00	1.02
3	Chloromethane	0.456	0.412	9.6	60	0.00	1.13
	----------	True	Calc.	% Drift	----------		
4	1,3-butadiene	40.000	40.554	-1.4	62	0.00	1.18
	----------	AvgRF	CCRF	% Dev	----------		
5	Vinyl Chloride	0.365	0.306	16.2	54	0.00	1.17
6	Bromomethane	0.101	0.108	-6.9	73	0.00	1.34
	----------	True	Calc.	% Drift	----------		
7	Chloroethane	40.000	40.450	-1.1	65	0.00	1.41
	----------	AvgRF	CCRF	% Dev	----------		
8	Trichlorofluoromethane	0.388	0.423	-9.0	69	0.00	1.50
	----------	True	Calc.	% Drift	----------		
9	Ethyl Ether	40.000	39.462	1.3	65	0.00	1.66
10	Ethanol	800.000	555.036	30.6	42	0.00	1.70
	----------	AvgRF	CCRF	% Dev	----------		
11	1,2-Dichlorotrifluoroetha	0.308	0.302	1.9	66	0.00	1.74
12	1,1-Dichloroethene	0.483	0.530	-9.7	74	0.00	1.76
13	Freon 113	0.228	0.242	-6.1	71	0.00	1.78
	----------	True	Calc.	% Drift	----------		
14	Carbon Disulfide	40.000	45.438	-13.6	72	0.00	1.78
15	Iodomethane	40.000	61.442	-53.6#	99	0.00	1.83
	----------	AvgRF	CCRF	% Dev	----------		
16	Acrolein	0.100	0.098	2.0	64	0.00	1.90
17	Allyl chloride	0.529	0.471	11.0	61	0.00	2.00
	----------	True	Calc.	% Drift	----------		
18	Methylene Chloride	40.000	43.821	-9.6	70	0.00	2.04
19	Acetone	200.000	187.223	6.4	61	0.00	2.05
	----------	AvgRF	CCRF	% Dev	----------		
20	Methyl acetate	0.455	0.453	0.4	69	0.00	2.12
21	trans-1,2-Dichloroethene	0.496	0.534	-7.7	72	0.00	2.13
22	Hexane	0.404	0.398	1.5	66	0.00	2.20

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-ECC1961
Lab FileID: 1A50530.D

23		Methyl Tert Butyl Ether	0.761	0.860	-13.0	75	0.00	2.19
		----------	True	Calc.	% Drift	----------		
24		Acetonitrile	400.000	371.908	7.0	56	0.00	2.27
		----------	AvgRF	CCRF	% Dev	----------		
25		Tert Butyl Alcohol	0.074	0.060	18.9	55	0.00	2.21
26		Di-isopropyl ether	1.346	1.335	0.8	65	0.00	2.39
27		Chloroprene	1.689	1.645	2.6	64	0.00	2.43
28		1,1-Dichloroethane	0.624	0.662	-6.1	70	0.00	2.44
29		Acrylonitrile	0.209	0.201	3.8	62	0.00	2.43
30		ETBE	1.121	1.245	-11.1	72	0.00	2.58
31		Vinyl acetate	0.916	0.880	3.9	57	0.00	2.56
32		cis-1,2-Dichloroethene	0.293	0.306	-4.4	71	0.00	2.72
33		2,2-Dichloropropane	0.371	0.403	-8.6	71	0.00	2.78
34		Bromochloromethane	0.143	0.159	-11.2	74	0.00	2.82
35		Cyclohexane	0.697	0.731	-4.9	66	0.00	2.86
36		Chloroform	0.505	0.559	-10.7	73	0.00	2.86
37		Ethyl acetate	0.557	0.515	7.5	57	0.00	2.91
38		Tetrahydrofuran	0.203	0.198	2.5	62	0.00	2.94
39	S	Dibromofluoromethane	0.276	0.296	-7.2	66	0.00	2.96
40		Carbon Tetrachloride	0.392	0.471	-20.2	81	0.00	2.96
41		1,1,1-Trichloroethane	0.421	0.502	-19.2	78	0.00	2.99
42		2-Butanone	0.300	0.270	10.0	58	0.00	3.00
43		1,1-Dichloropropene	0.358	0.382	-6.7	70	0.00	3.05
44		tert-Butyl formate	0.324	0.378	-16.7	72	0.00	3.10
		----------	True	Calc.	% Drift	----------		
45		Propionitrile	400.000	385.569	3.6	60	0.00	3.14
		----------	AvgRF	CCRF	% Dev	----------		
46		Methacrylonitrile	0.349	0.307	12.0	60	0.00	3.17
47		Benzene	1.086	1.134	-4.4	68	0.00	3.18
48		TAME	0.754	0.842	-11.7	71	0.00	3.25
49	S	1,2-Dichloroethane-d4	0.358	0.407	-13.7	68	0.00	3.24
50		1,2-Dichloroethane	0.480	0.550	-14.6	77	0.00	3.27
51		Isobutyl Alcohol	0.051	0.042	17.6	56	0.00	3.26
52		Tert Amyl Alcohol	0.061	0.053	13.1	55	0.00	3.32
53		Trichloroethene	0.301	0.316	-5.0	72	0.00	3.51
54		Methylcyclohexane	0.467	0.495	-6.0	65	0.00	3.53
55		Dibromomethane	0.188	0.198	-5.3	71	0.00	3.74
56		1,2-Dichloropropane	0.373	0.375	-0.5	69	0.00	3.80
57		Bromodichloromethane	0.389	0.434	-11.6	77	0.00	3.83
58		Methyl methacrylate	0.469	0.425	9.4	63	0.00	3.92
59		1,4-Dioxane	0.004	0.003	25.0	40#	0.00	3.94
		----------	True	Calc.	% Drift	----------		
60		2-Chloroethyl vinyl ether	200.000	189.377	5.3	59	0.00	4.17
		----------	AvgRF	CCRF	% Dev	----------		
61		cis-1,3-Dichloropropene	0.444	0.467	-5.2	67	0.00	4.21
62	I	Chlorobenzene-d5	1.000	1.000	0.0	67	0.00	5.35
63	S	Toluene-d8	1.342	1.252	6.7	62	0.00	4.34
64		Toluene	1.588	1.465	7.7	67	0.00	4.37
65		2-Nitropropane	0.179	0.165	7.8	65	0.00	4.47
66		4-Methyl-2-pentanone	0.804	0.676	15.9	58	0.00	4.58
67		trans-1,3-Dichloropropene	0.582	0.568	2.4	68	0.00	4.61
68		Tetrachloroethene	0.534	0.470	12.0	69	0.00	4.64
69		Ethyl methacrylate	0.475	0.412	13.3	65	0.00	4.73

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: V1A1977-ECC1961
Lab FileID: 1A50530.D

70		1,1,2-Trichloroethane	0.320	0.285	10.9	66	0.00	4.72
71		Dibromochloromethane	0.408	0.422	-3.4	74	0.00	4.84
72		1,3-Dichloropropane	0.602	0.567	5.8	68	0.00	4.90
73		1,2-Dibromoethane	0.391	0.379	3.1	72	0.00	5.00
74		3,3-Dimethyl-1-Butanol	0.103	0.080	22.3	54	0.00	5.13
75		2-hexanone	0.769	0.611	20.5	55	0.00	5.14
76		1-Chlorohexane	0.582	0.538	7.6	65	0.00	5.37
77		Ethylbenzene	1.681	1.598	4.9	69	0.00	5.40
78		Chlorobenzene	1.072	0.994	7.3	68	0.00	5.37
79		1,1,1,2-Tetrachloroethane	0.395	0.399	-1.0	75	0.00	5.41
80		m,p-Xylene	1.356	1.334	1.6	70	0.00	5.50
81		o-Xylene	1.383	1.388	-0.4	71	0.00	5.81
82		Styrene	1.023	1.054	-3.0	70	0.00	5.84
83		Bromoform	0.296	0.306	-3.4	74	0.00	5.84
84		Isopropylbenzene	1.597	1.619	-1.4	70	0.00	6.04
85	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00	7.10
86	S	4-Bromofluorobenzene	0.834	0.841	-0.8	74	0.00	6.23
		----------	True	Calc.	% Drift	----------		
87		cis-1,4-Dichloro-2-butene	40.000	25.651	35.9	50	0.00	6.27
		----------	AvgRF	CCRF	% Dev	----------		
88		n-Propylbenzene	3.814	3.422	10.3	71	0.00	6.35
89		Bromobenzene	0.828	0.780	5.8	78	0.00	6.31
90		1,1,2,2-Tetrachloroethane	1.042	0.864	17.1	70	0.00	6.38
91		1,3,5-Trimethylbenzene	2.570	2.496	2.9	73	0.00	6.51
92		2-Chlorotoluene	2.261	2.059	8.9	72	0.00	6.46
93		trans-1,4-Dichloro-2-Bute	0.499	0.353	29.3	54	0.00	6.51
94		1,2,3-Trichloropropane	0.295	0.278	5.8	79	0.00	6.47
95		Cyclohexanone	0.063	0.039	38.1	48#	0.00	6.48
96		4-Chlorotoluene	2.372	2.149	9.4	71	0.00	6.58
97		tert-Butylbenzene	1.444	1.430	1.0	74	0.00	6.75
98		1,2,4-Trimethylbenzene	2.441	2.418	0.9	73	0.00	6.81
		----------	True	Calc.	% Drift	----------		
99		Pentachloroethane	40.000	46.648	-16.6	83	0.00	6.75
		----------	AvgRF	CCRF	% Dev	----------		
100		sec-Butylbenzene	3.196	3.013	5.7	69	0.00	6.89
101		4-Isopropyltoluene	2.581	2.622	-1.6	73	0.00	7.01
102		1,3-Dichlorobenzene	1.534	1.461	4.8	74	0.00	7.04
103		1,2,3-Trimethylbenzene	2.490	2.420	2.8	74	0.00	7.14
104		1,4-Dichlorobenzene	1.595	1.463	8.3	74	0.00	7.11
105		n-Butylbenzene	1.223	1.153	5.7	67	0.00	7.34
106		Benzyl Chloride	0.328	0.293	10.7	66	0.00	7.30
107		1,2-Dichlorobenzene	1.385	1.312	5.3	74	0.00	7.43
108		1,2-Dibromo-3-Chloropropa	0.152	0.165	-8.6	87	0.00	8.01
109		Hexachlorobutadiene	0.234	0.333	-42.3	109	0.00	8.51
110		1,2,4-Trichlorobenzene	0.561	0.679	-21.0	94	0.00	8.50
111		Naphthalene	1.164	1.652	-41.9	111	0.00	8.71
112		1,2,3-Trichlorobenzene	0.396	0.581	-46.7	115	0.00	8.84

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1A50139.D V1A_10-23-2023.M Tue Nov 07 03:11:39 2023

7.7.4

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: V1A1961 **Method:** SW846 8260D **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A1961-BFB	1A50133.D	10/23/23 08:49	n/a	BFB Tune
V1A1961-IC1961	1A50134.D	10/23/23 09:13	n/a	Initial cal 1
V1A1961-IC1961	1A50135.D	10/23/23 09:38	n/a	Initial cal 8
V1A1961-IC1961	1A50136.D	10/23/23 10:02	n/a	Initial cal 2
V1A1961-IC1961	1A50137.D	10/23/23 10:26	n/a	Initial cal 3
V1A1961-IC1961	1A50138.D	10/23/23 11:07	n/a	Initial cal 4
V1A1961-ICC1961	1A50139.D	10/23/23 11:32	n/a	Initial cal 5
V1A1961-IC1961	1A50140.D	10/23/23 11:56	n/a	Initial cal 6
V1A1961-IC1961	1A50141.D	10/23/23 12:20	n/a	Initial cal 7
V1A1961-CC1961	1A50143A.D	10/23/23 13:23	n/a	Continuing cal 5
V1A1961-ICV1961	1A50143.D	10/23/23 13:23	n/a	Initial cal verification 5
V1A1961-BS	1A50144.D	10/23/23 13:47	n/a	Blank Spike
V1A1961-MB	1A50146.D	10/23/23 14:35	n/a	Method Blank
ZZZZZZ	1A50147.D	10/23/23 15:05	n/a	(unrelated sample)
FC10579-9	1A50148.D	10/23/23 15:29	n/a	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50149.D	10/23/23 15:54	n/a	(unrelated sample)
ZZZZZZ	1A50150.D	10/23/23 16:18	n/a	(unrelated sample)
ZZZZZZ	1A50151.D	10/23/23 16:42	n/a	(unrelated sample)
ZZZZZZ	1A50152.D	10/23/23 17:07	n/a	(unrelated sample)
ZZZZZZ	1A50153.D	10/23/23 17:31	n/a	(unrelated sample)
ZZZZZZ	1A50154.D	10/23/23 17:55	n/a	(unrelated sample)
ZZZZZZ	1A50155.D	10/23/23 18:19	n/a	(unrelated sample)
ZZZZZZ	1A50156.D	10/23/23 18:44	n/a	(unrelated sample)
FC10579-9MS	1A50157.D	10/23/23 19:08	n/a	Matrix Spike
FC10579-9MSD	1A50158.D	10/23/23 19:32	n/a	Matrix Spike Duplicate
V1A1961-ECC1961	1A50159.D	10/23/23 19:57	n/a	Ending cal 5

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: V1A1977 **Method:** SW846 8260D **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A1977-BFB	1A50502.D	11/06/23 10:32	n/a	BFB Tune
V1A1977-CC1961	1A50503.D	11/06/23 10:56	n/a	Continuing cal 5
V1A1977-BS	1A50504.D	11/06/23 11:24	n/a	Blank Spike
V1A1977-MB	1A50506.D	11/06/23 12:09	n/a	Method Blank
ZZZZZZ	1A50508.D	11/06/23 13:01	n/a	(unrelated sample)
ZZZZZZ	1A50509.D	11/06/23 13:25	n/a	(unrelated sample)
FC10885-3	1A50510.D	11/06/23 13:47	n/a	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50520.D	11/06/23 17:53	n/a	(unrelated sample)
ZZZZZZ	1A50521.D	11/06/23 18:17	n/a	(unrelated sample)
ZZZZZZ	1A50522.D	11/06/23 18:41	n/a	(unrelated sample)
ZZZZZZ	1A50523.D	11/06/23 19:06	n/a	(unrelated sample)
ZZZZZZ	1A50524.D	11/06/23 19:30	n/a	(unrelated sample)
ZZZZZZ	1A50525.D	11/06/23 19:54	n/a	(unrelated sample)
FC10885-3MS	1A50526.D	11/06/23 20:15	n/a	Matrix Spike
FC10885-3MSD	1A50527.D	11/06/23 20:43	n/a	Matrix Spike Duplicate
V1A1977-ECC1961	1A50530.D	11/06/23 21:56	n/a	Ending cal 5

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: V1A1978 **Method:** EPA 624.1 **Instrument ID:** GCMS1A

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V1A1978-BS	1A50504.D	11/06/23 11:24	n/a	Blank Spike
V1A1978-MB	1A50506.D	11/06/23 12:09	n/a	Method Blank
ZZZZZZ	1A50511.D	11/06/23 14:11	n/a	(unrelated sample)
FC10918-1	1A50512.D	11/06/23 14:35	n/a	(used for QC only; not part of job FC10955)
ZZZZZZ	1A50513.D	11/06/23 14:59	n/a	(unrelated sample)
ZZZZZZ	1A50514.D	11/06/23 15:23	n/a	(unrelated sample)
FC10955-1A	1A50515.D	11/06/23 15:48	n/a	EFFLUENT
ZZZZZZ	1A50516.D	11/06/23 16:12	n/a	(unrelated sample)
ZZZZZZ	1A50517.D	11/06/23 16:36	n/a	(unrelated sample)
ZZZZZZ	1A50518.D	11/06/23 17:01	n/a	(unrelated sample)
ZZZZZZ	1A50519.D	11/06/23 17:28	n/a	(unrelated sample)
FC10918-1MS	1A50528.D	11/06/23 21:07	n/a	Matrix Spike
FC10918-1MSD	1A50529.D	11/06/23 21:31	n/a	Matrix Spike Duplicate

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : D:\
Data File : 1A50515.d
Acq On : 6 Nov 2023 3:48 pm
Operator : jeniferw
Sample : FC10955-1A
Misc : MS55217,V1A1978,,,,,
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 10:06:28 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

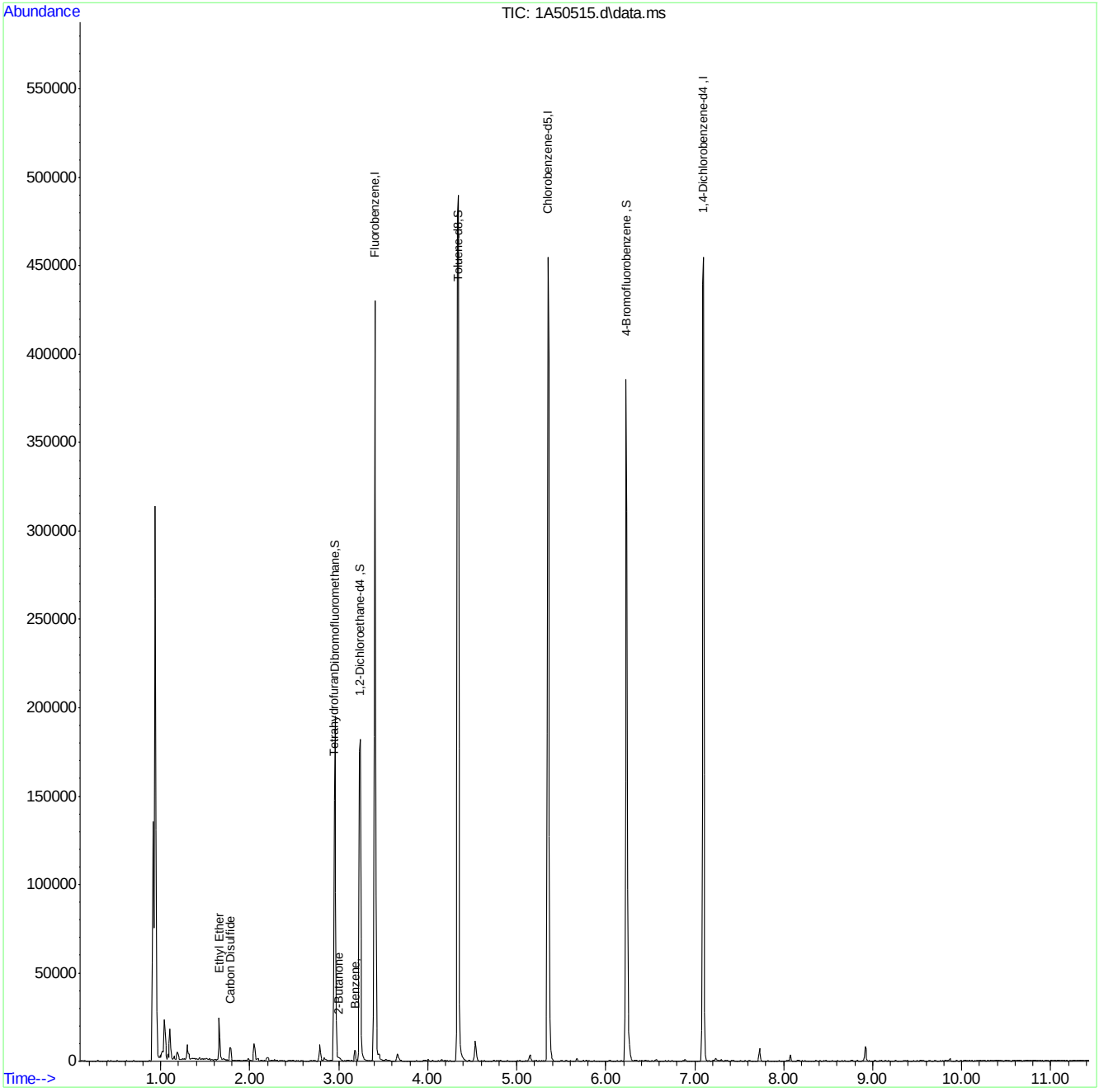
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.404	96	225260	50.00	ug/L	0.00
62) Chlorobenzene-d5	5.352	117	177014	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	97001	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	2.958	113	68915	55.48	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 110.96%			
49) 1,2-Dichloroethane-d4	3.243	65	86037	53.33	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 106.66%			
63) Toluene-d8	4.343	98	227030	47.78	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 95.56%			
86) 4-Bromofluorobenzene	6.229	174	79886	49.36	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.72%			
Target Compounds						Qvalue
9) Ethyl Ether	1.657	59	7720	6.04	ug/L #	84
14) Carbon Disulfide	1.780	76	6220	2.10	ug/L	89
38) Tetrahydrofuran	2.950	42	4099	4.49	ug/L	88
42) 2-Butanone	3.004	43	1504	1.11	ug/L	93
47) Benzene	3.189	78	3045	0.62	ug/L	82

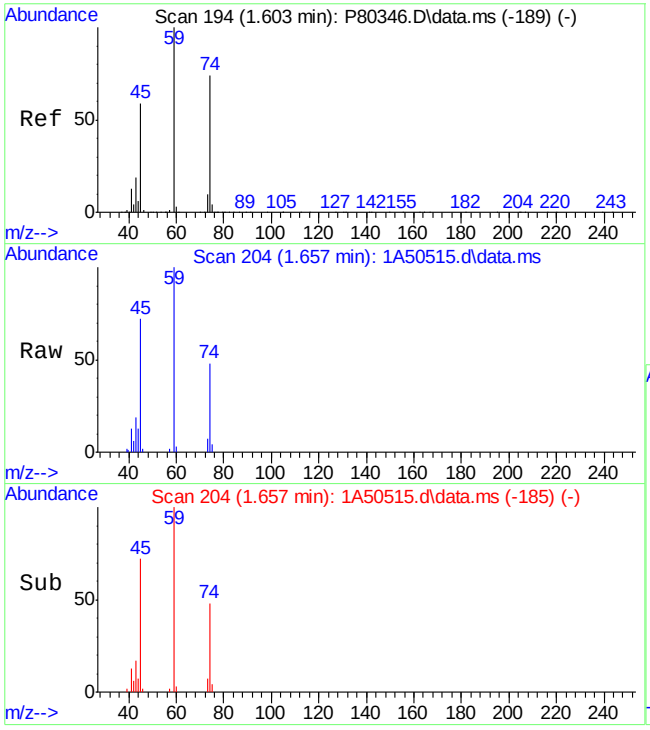
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\
Data File : 1A50515.d
Acq On : 6 Nov 2023 3:48 pm
Operator : jeniferw
Sample : FC10955-1A
Misc : MS55217,V1A1978,,,,,
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 10:06:28 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

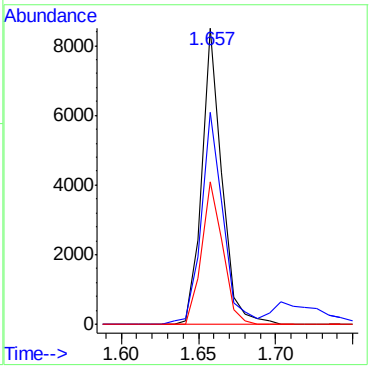


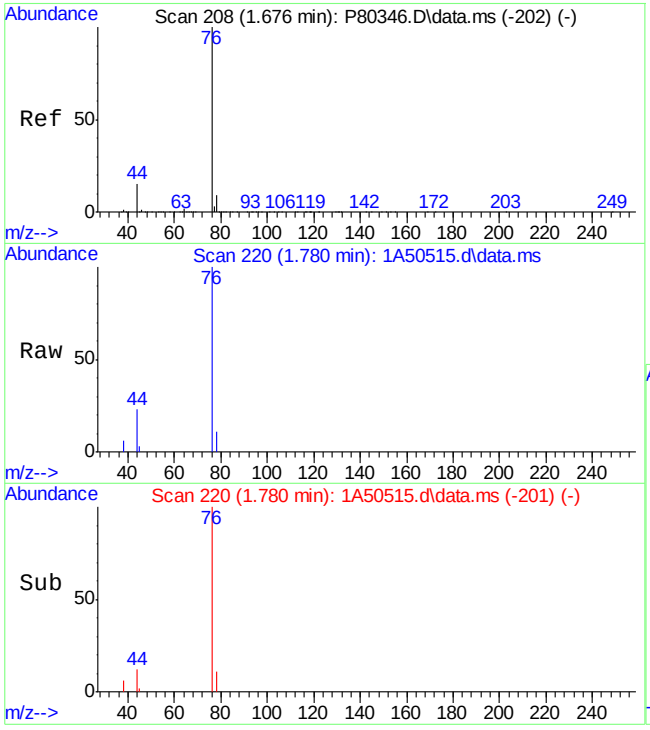


#9
Ethyl Ether
Concen: 6.04 ug/L
RT: 1.657 min Scan# 204
Delta R.T. -0.001 min
Lab File: 1A50515.d
Acq: 6 Nov 2023 3:48 pm

Tgt Ion: 59 Resp: 7720

Ion	Ratio	Lower	Upper
59	100		
45	71.8	54.8	94.8
74	48.2	52.2	92.2#

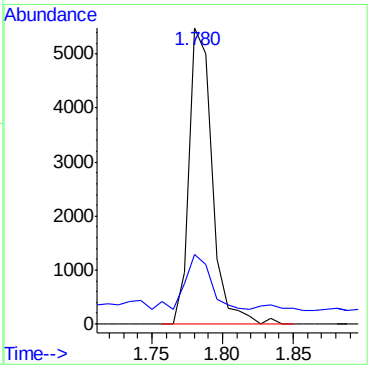


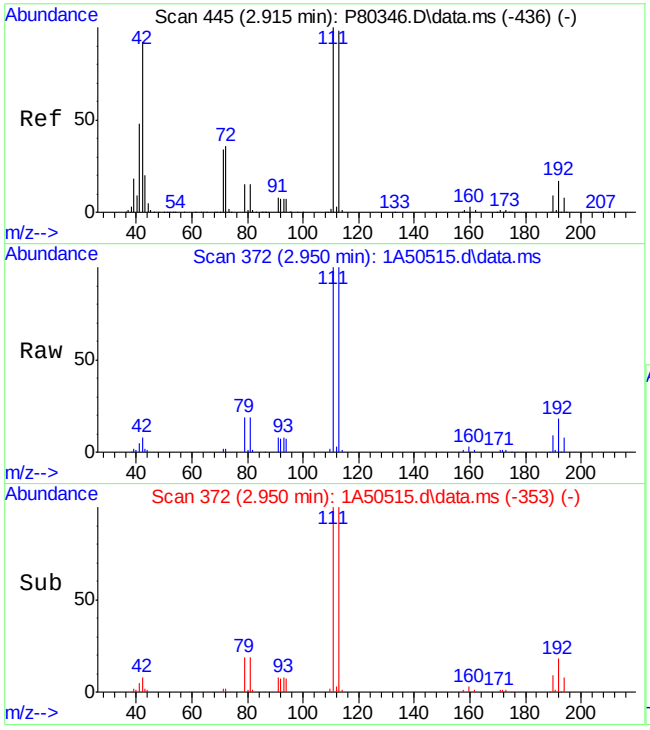


#14
Carbon Disulfide
Concen: 2.10 ug/L
RT: 1.780 min Scan# 220
Delta R.T. -0.001 min
Lab File: 1A50515.d
Acq: 6 Nov 2023 3:48 pm

Tgt Ion: 76 Resp: 6220

Ion	Ratio	Lower	Upper
76	100		
44	18.1	0.0	43.6

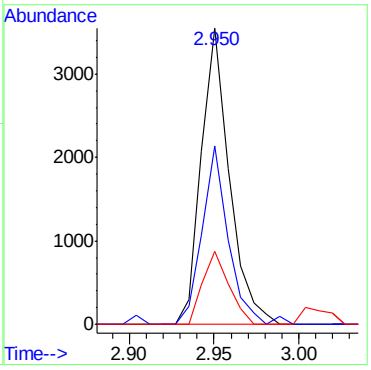


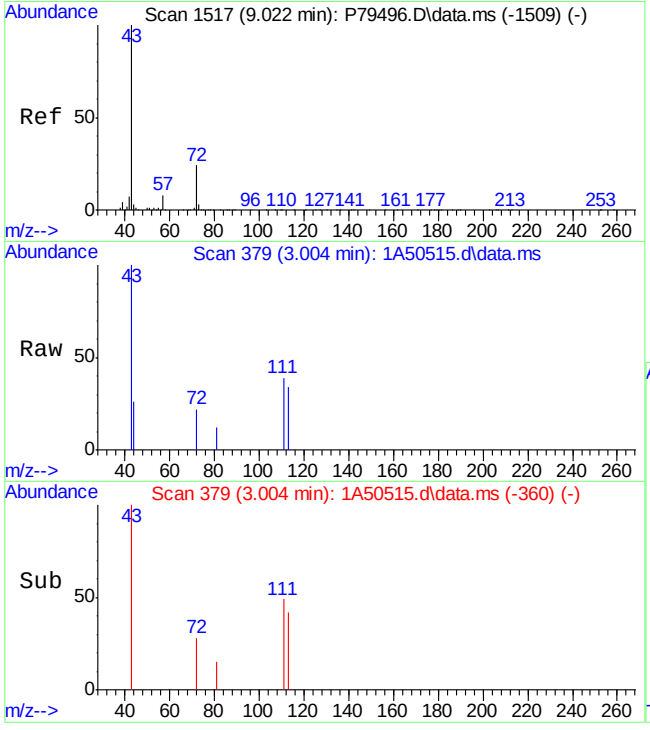


#38
Tetrahydrofuran
Concen: 4.49 ug/L
RT: 2.950 min Scan# 372
Delta R.T. -0.000 min
Lab File: 1A50515.d
Acq: 6 Nov 2023 3:48 pm

Tgt Ion: 42 Resp: 4099

Ion	Ratio	Lower	Upper
42	100		
41	60.1	38.7	78.7
72	24.7	21.1	61.1

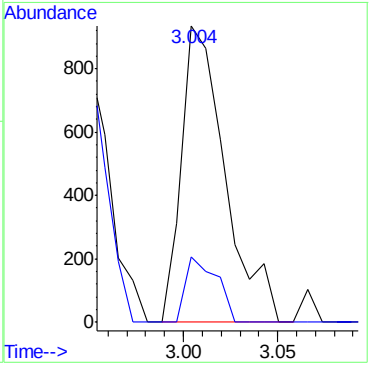


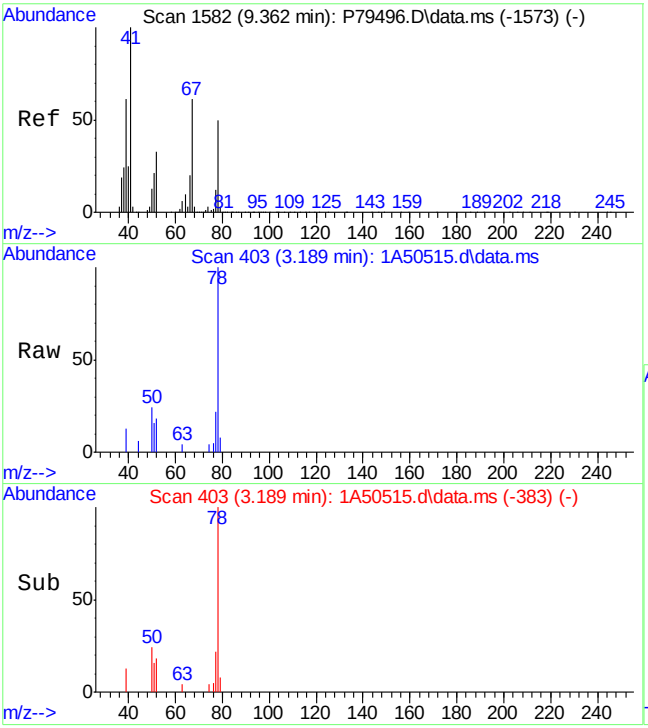


#42
2-Butanone
Concen: 1.11 ug/L
RT: 3.004 min Scan# 379
Delta R.T. -0.001 min
Lab File: 1A50515.d
Acq: 6 Nov 2023 3:48 pm

Tgt Ion: 43 Resp: 1504

Ion	Ratio	Lower	Upper
43	100		
72	21.9	0.0	55.5

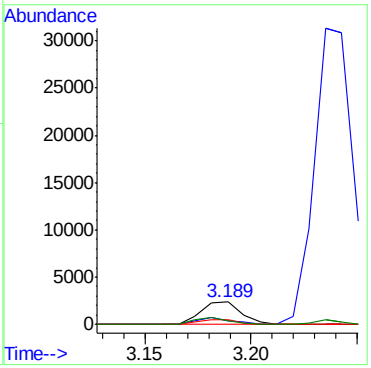




#47
Benzene
Concen: 0.62 ug/L
RT: 3.189 min Scan# 403
Delta R.T. 0.007 min
Lab File: 1A50515.d
Acq: 6 Nov 2023 3:48 pm

Tgt Ion: 78 Resp: 3045

Ion	Ratio	Lower	Upper
78	100		
51	16.4	0.0	54.6
77	21.9	0.0	53.3
52	18.2	5.0	65.0



Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50506.d
Acq On : 6 Nov 2023 12:09 pm
Operator : jeniferw
Sample : MB Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 01:53:47 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

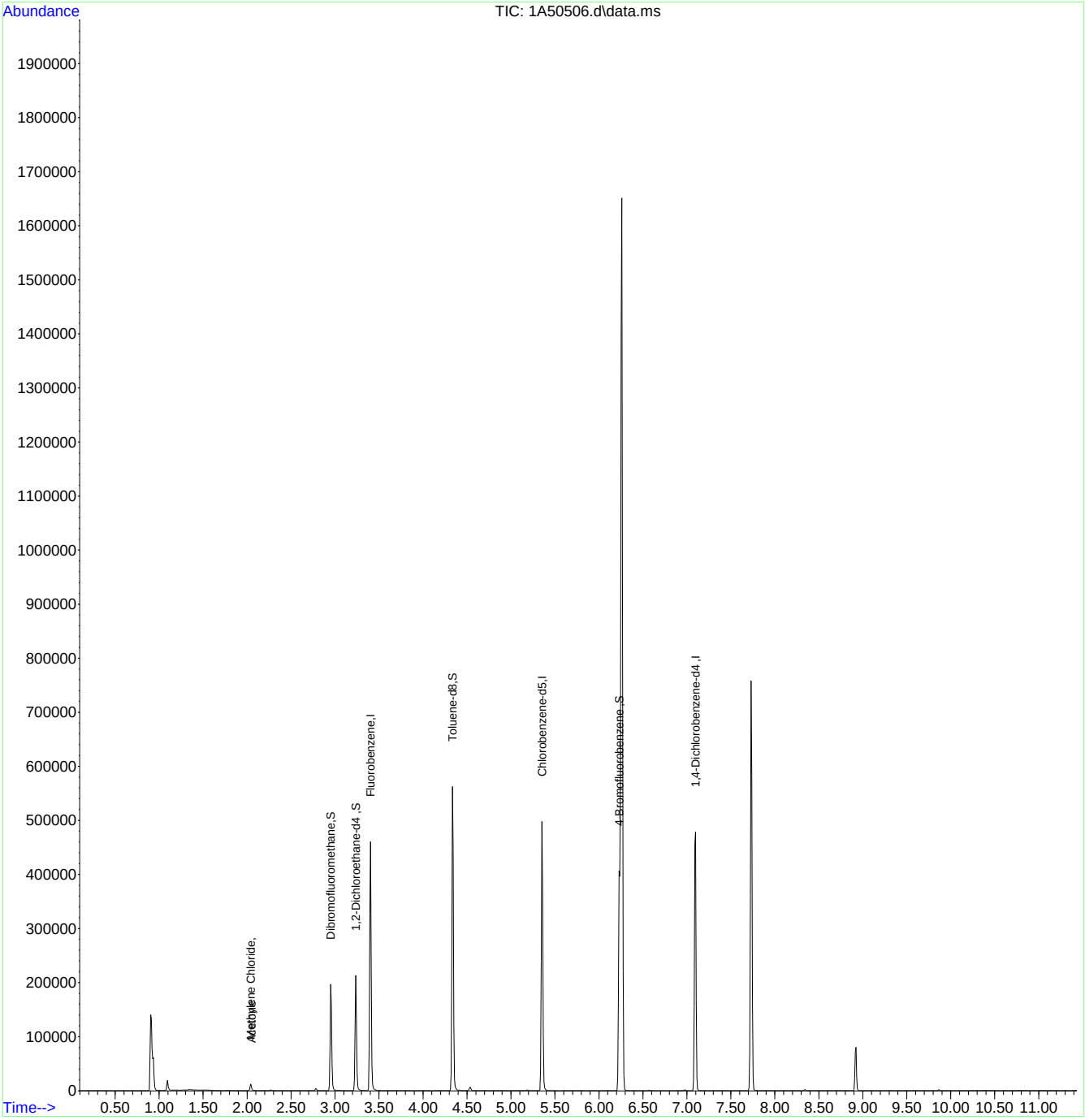
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.404	96	242983	50.00	ug/L	0.00
62) Chlorobenzene-d5	5.352	117	187846	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	103132	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	2.950	113	73008	54.48	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 108.96%			
49) 1,2-Dichloroethane-d4	3.235	65	91093	52.35	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 104.70%			
63) Toluene-d8	4.336	98	242126	48.01	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 96.02%			
86) 4-Bromofluorobenzene	6.229	174	85993	49.98	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.96%			
Target Compounds						Qvalue
18) Methylene Chloride	2.042	49	5089	1.9580	ug/L	83
19) Acetone	2.050	43	629	0.8272	ug/L	90

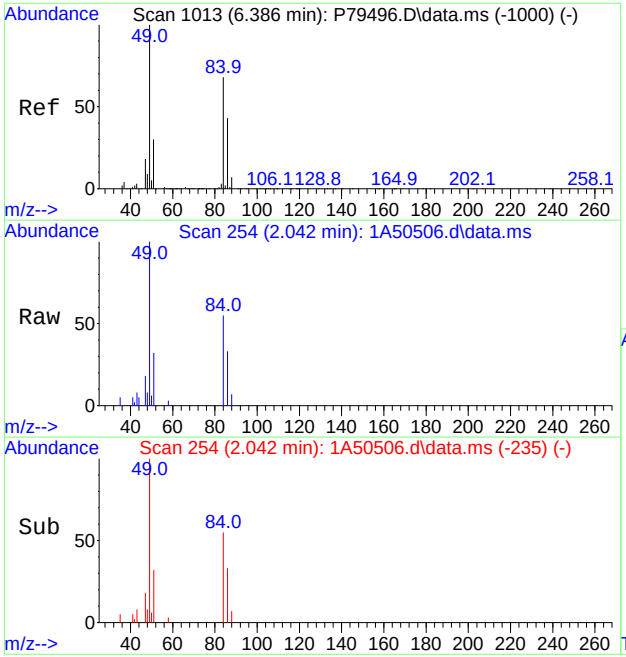
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50506.d
Acq On : 6 Nov 2023 12:09 pm
Operator : jeniferw
Sample : MB Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 01:53:47 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

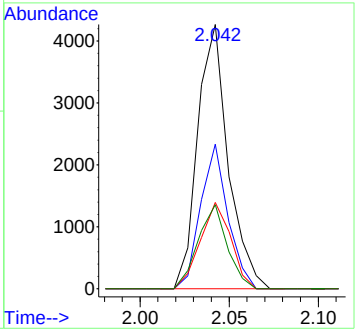


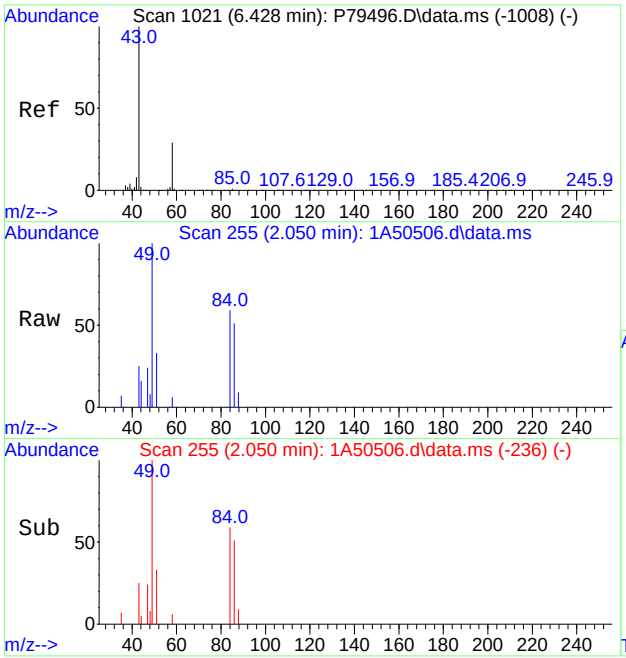


#18
Methylene Chloride
Concen: 1.9580 ug/L
RT: 2.042 min Scan# 254
Delta R.T. -0.001 min
Lab File: 1A50506.d
Acq: 6 Nov 2023 12:09 pm

Tgt Ion: 49 Resp: 5089

Ion	Ratio	Lower	Upper
49	100		
84	54.7	41.8	101.8
86	32.7	15.6	75.6
51	31.8	0.0	59.7

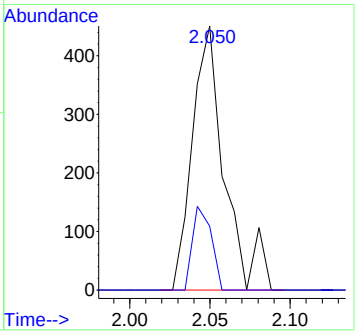




#19
Acetone
Concen: 0.8272 ug/L
RT: 2.050 min Scan# 255
Delta R.T. -0.000 min
Lab File: 1A50506.d
Acq: 6 Nov 2023 12:09 pm

Tgt Ion: 43 Resp: 629

Ion	Ratio	Lower	Upper
43	100		
58	24.2	0.0	59.6



Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/08/23 12:11

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:38:11 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.404	96	270118	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	212050	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	113438	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.950	113	78499	52.70	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.40%				
49) 1,2-Dichloroethane-d4	3.235	65	101848	52.65	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 105.30%				
63) Toluene-d8	4.336	98	273611	48.06	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 96.12%				
86) 4-Bromofluorobenzene	6.229	174	97508	51.52	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.04%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	25298	20.61	ug/L		96
3) Chloromethane	1.126	50	48991	19.91	ug/L		97
4) 1,3-butadiene	1.180	39	39365	22.51	ug/L		88
5) Vinyl Chloride	1.172	62	36616	18.58	ug/L		97
6) Bromomethane	1.342	94	12445	22.76	ug/L		89
7) Chloroethane	1.411	64	19998	21.39	ug/L		97
8) Trichlorofluoromethane	1.496	101	47729	22.78	ug/L		97
9) Ethyl Ether	1.657	59	38107	24.88	ug/L		88
10) Ethanol	1.703	45	17206	444.57	ug/L		94
11) 1,2-Dichlorotrifluoroe...	1.742	67	40658	24.45	ug/L		95
12) 1,1-Dichloroethene	1.757	61	65144	24.98	ug/L		87
13) Freon 113	1.780	101	36064	29.31	ug/L		88
14) Carbon Disulfide	1.780	76	99476	27.96	ug/L		95
15) Iodomethane	1.827	142	25254	30.23	ug/L		98
16) Acrolein	1.904	56	64275	119.18	ug/L		97
17) Allyl chloride	1.996	41	74149	25.94	ug/L		87
18) Methylene Chloride	2.042	49	77159	26.70	ug/L		81
19) Acetone	2.050	43	115956	137.17	ug/L		91
20) Methyl acetate	2.127	43	258473	105.12	ug/L		92
21) trans-1,2-Dichloroethene	2.134	61	68797	25.67	ug/L		85
22) Hexane	2.196	56	52273	23.92	ug/L		96
23) Methyl Tert Butyl Ether	2.196	73	114454	27.86	ug/L	#	64
24) Acetonitrile	2.273	41	83739	252.04	ug/L		96
25) Tert Butyl Alcohol	2.211	59	89832	225.48	ug/L		99
26) Di-isopropyl ether	2.396	45	171653	23.60	ug/L		91
27) Chloroprene	2.435	53	211685	23.20	ug/L		91
28) 1,1-Dichloroethane	2.442	63	83574	24.79	ug/L		96
29) Acrylonitrile	2.435	52	132087	116.91	ug/L		99
30) ETBE	2.581	59	166774	27.53	ug/L		89
31) Vinyl acetate	2.558	43	600580	121.31	ug/L		97
32) cis-1,2-Dichloroethene	2.719	96	39839	25.13	ug/L	#	78
33) 2,2-Dichloropropane	2.781	77	58011	28.93	ug/L		97
34) Bromochloromethane	2.819	128	20964	27.13	ug/L	#	57
35) Cyclohexane	2.858	56	91235	24.22	ug/L	#	81

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:38:11 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	71350	26.13	ug/L		97
37) Ethyl acetate	2.912	43	356017	118.21	ug/L		98
38) Tetrahydrofuran	2.943	42	23990	21.93	ug/L		87
40) Carbon Tetrachloride	2.958	117	57241m	27.04	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	60699	26.69	ug/L		94
42) 2-Butanone	3.004	43	195547	120.74	ug/L		85
43) 1,1-Dichloropropene	3.050	75	50305	26.00	ug/L		90
44) tert-Butyl formate	3.097	59	268098	153.38	ug/L		96
45) Propionitrile	3.143	54	116967	253.35	ug/L		98
46) Methacrylonitrile	3.166	41	412410	218.58	ug/L		96
47) Benzene	3.181	78	149618	25.50	ug/L		85
48) TAME	3.250	73	109390	26.86	ug/L	#	71
50) 1,2-Dichloroethane	3.274	62	67495	26.04	ug/L		94
51) Isobutyl Alcohol	3.258	43	121515	443.94	ug/L		96
52) Tert Amyl Alcohol	3.320	59	75183	229.64	ug/L		84
53) Trichloroethene	3.512	95	40772	25.09	ug/L		97
54) Methylcyclohexane	3.528	83	61924	24.54	ug/L	#	74
55) Dibromomethane	3.735	93	26253	25.89	ug/L		84
56) 1,2-Dichloropropane	3.797	63	48470	24.02	ug/L		89
57) Bromodichloromethane	3.828	83	53767	25.60	ug/L		97
58) Methyl methacrylate	3.920	41	50783	20.04	ug/L		85
59) 1,4-Dioxane	3.943	88	9596	433.12	ug/L	#	63
60) 2-Chloroethyl vinyl ether	4.166	63	141883	117.01	ug/L		92
61) cis-1,3-Dichloropropene	4.213	75	61910	25.80	ug/L		90
64) Toluene	4.374	91	155487	23.09	ug/L		97
65) 2-Nitropropane	4.466	41	78962	104.06	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	352133	103.27	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	54775	22.20	ug/L		88
68) Tetrachloroethene	4.636	166	47533	20.99	ug/L		97
69) Ethyl methacrylate	4.728	69	50439	25.05	ug/L	#	82
70) 1,1,2-Trichloroethane	4.713	83	30791	22.68	ug/L		93
71) Dibromochloromethane	4.844	129	44707	25.84	ug/L		97
72) 1,3-Dichloropropane	4.897	76	61215	23.98	ug/L		86
73) 1,2-Dibromoethane	4.998	107	38673	23.32	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.128	57	474390	1087.53	ug/L		86
75) 2-hexanone	5.136	43	353559	108.36	ug/L		99
76) 1-Chlorohexane	5.367	91	53959m	21.87	ug/L		
77) Ethylbenzene	5.398	91	165793m	23.25	ug/L		
78) Chlorobenzene	5.367	112	104137	22.90	ug/L		97
79) 1,1,1,2-Tetrachloroethane	5.413	131	40483	24.17	ug/L		98
80) m,p-Xylene	5.498	91	279669	48.64	ug/L		99
81) o-Xylene	5.806	91	141767	24.18	ug/L		98
82) Styrene	5.836	104	108765	25.06	ug/L		92
83) Bromoform	5.844	173	30826	24.59	ug/L		98
84) Isopropylbenzene	6.044	105	162763	24.03	ug/L		99
87) cis-1,4-Dichloro-2-butene	6.267	53	21473	25.21	ug/L	#	80
88) n-Propylbenzene	6.352	91	189398	21.89	ug/L		99
89) Bromobenzene	6.306	156	45296	24.12	ug/L		87
90) 1,1,2,2-Tetrachloroethane	6.375	83	48868	20.67	ug/L		95
91) 1,3,5-Trimethylbenzene	6.506	105	141487	24.27	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:38:11 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

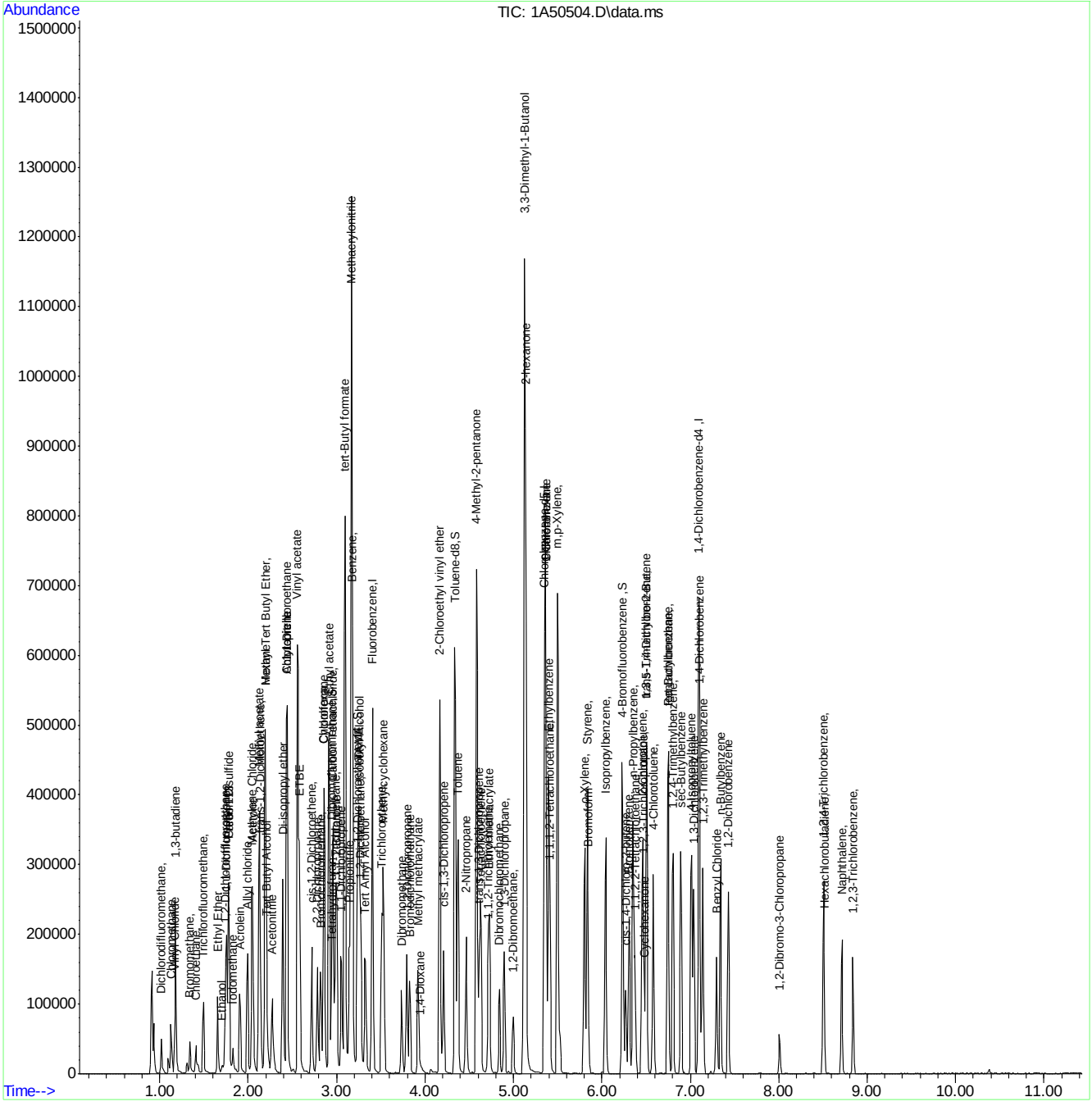
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	6.460	91	116482	22.71	ug/L		98
93)	trans-1,4-Dichloro-2-B...	6.506	53	24113	21.28	ug/L		82
94)	1,2,3-Trichloropropane	6.468	110	16169	24.16	ug/L	#	76
95)	Cyclohexanone	6.483	55	23558	165.52	ug/L		91
96)	4-Chlorotoluene	6.583	91	119750	22.25	ug/L		97
97)	tert-Butylbenzene	6.752	91	75955	23.19	ug/L		93
98)	1,2,4-Trimethylbenzene	6.806	105	133068	24.03	ug/L		99
99)	Pentachloroethane	6.752	167	27299	32.55	ug/L		92
100)	sec-Butylbenzene	6.891	105	158080	21.80	ug/L		97
101)	4-Isopropyltoluene	7.014	119	137938	23.56	ug/L		99
102)	1,3-Dichlorobenzene	7.037	146	78597	22.59	ug/L		96
103)	1,2,3-Trimethylbenzene	7.145	105	131319	23.24	ug/L		97
104)	1,4-Dichlorobenzene	7.106	146	81074	22.41	ug/L		95
105)	n-Butylbenzene	7.345	92	66919	24.12	ug/L		99
106)	Benzyl Chloride	7.299	126	19311	25.98	ug/L		95
107)	1,2-Dichlorobenzene	7.430	146	73967	23.53	ug/L		97
108)	1,2-Dibromo-3-Chloropr...	8.007	75	8875	25.71	ug/L		92
109)	Hexachlorobutadiene	8.515	225	18009	33.98	ug/L		96
110)	1,2,4-Trichlorobenzene	8.507	180	39712	31.22	ug/L		98
111)	Naphthalene	8.715	128	98724	37.37	ug/L		98
112)	1,2,3-Trichlorobenzene	8.838	180	33154	36.88	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:38:11 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



Manual Integration Approval Summary

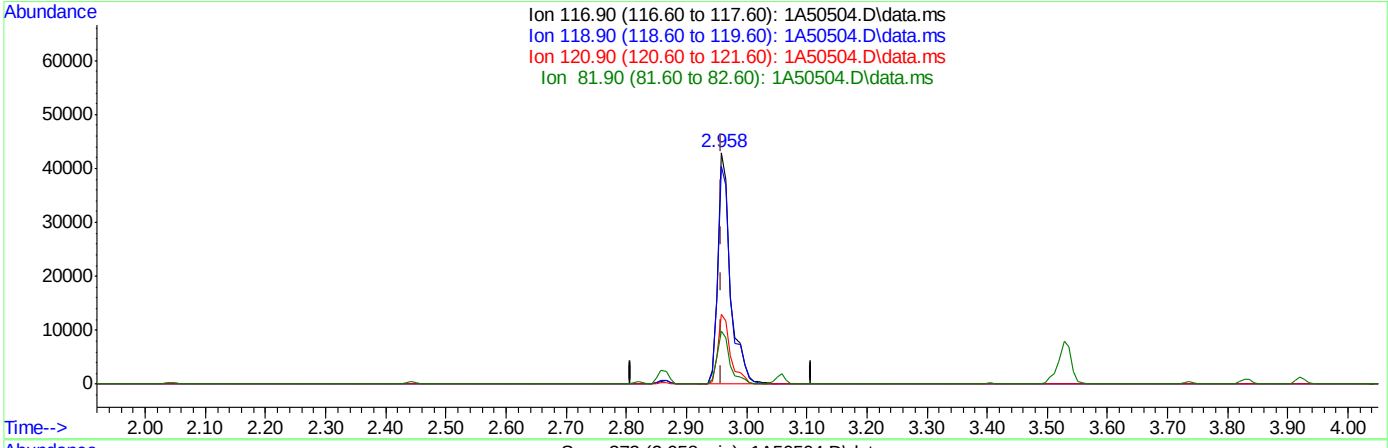
Sample Number: V1A1978-BS
Lab FileID: 1A50504.D
Injection Time: 11/06/23 11:24
Method: EPA 624.1
Analyst approved: 11/08/23 09:23 Jenifer Willis
Supervisor approved: 11/08/23 12:11 Karen Watson

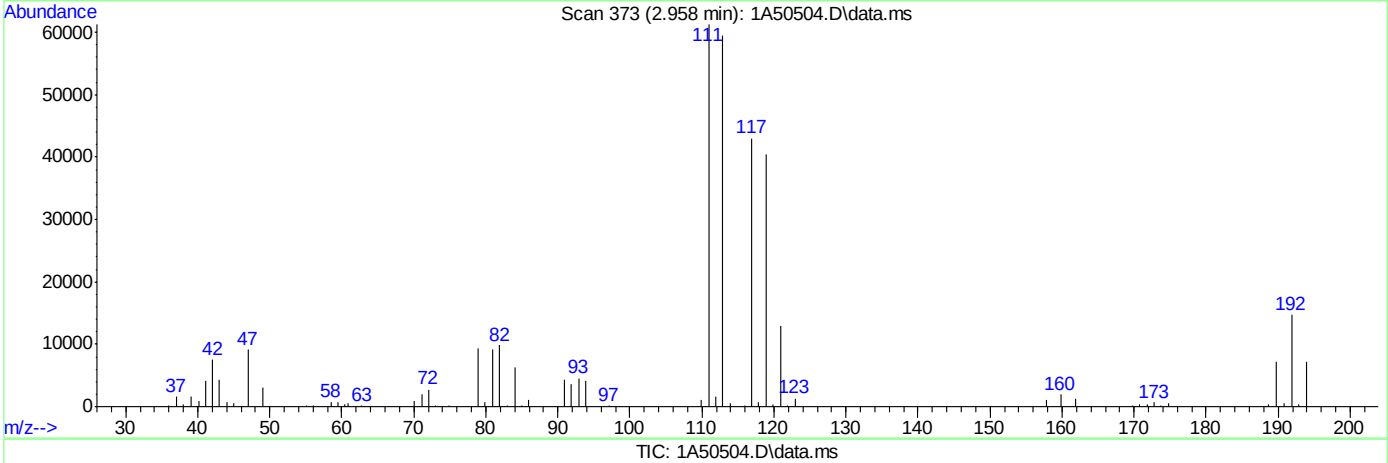
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (0.000) 30.04ug/L

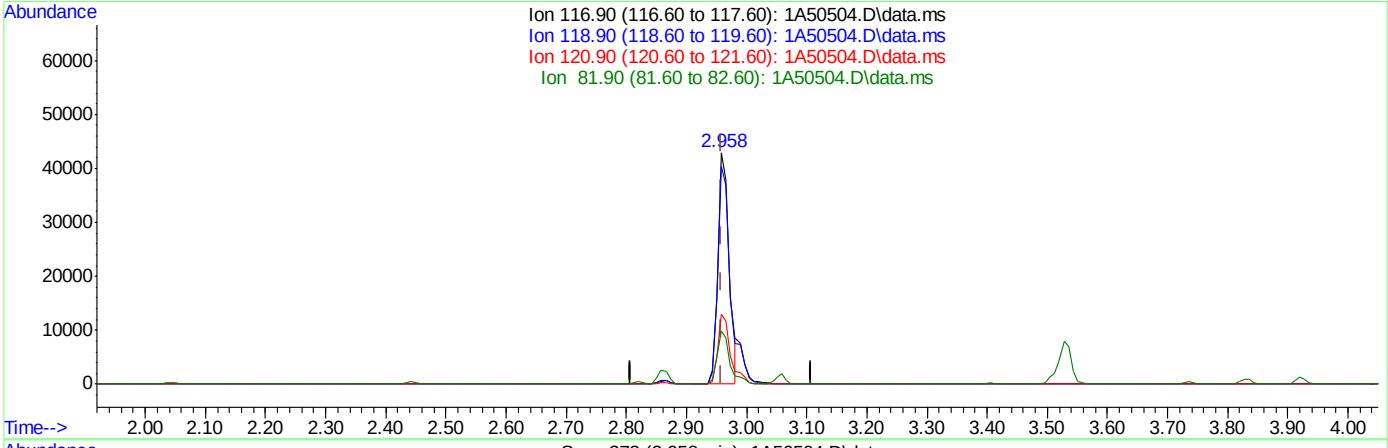
response 63597

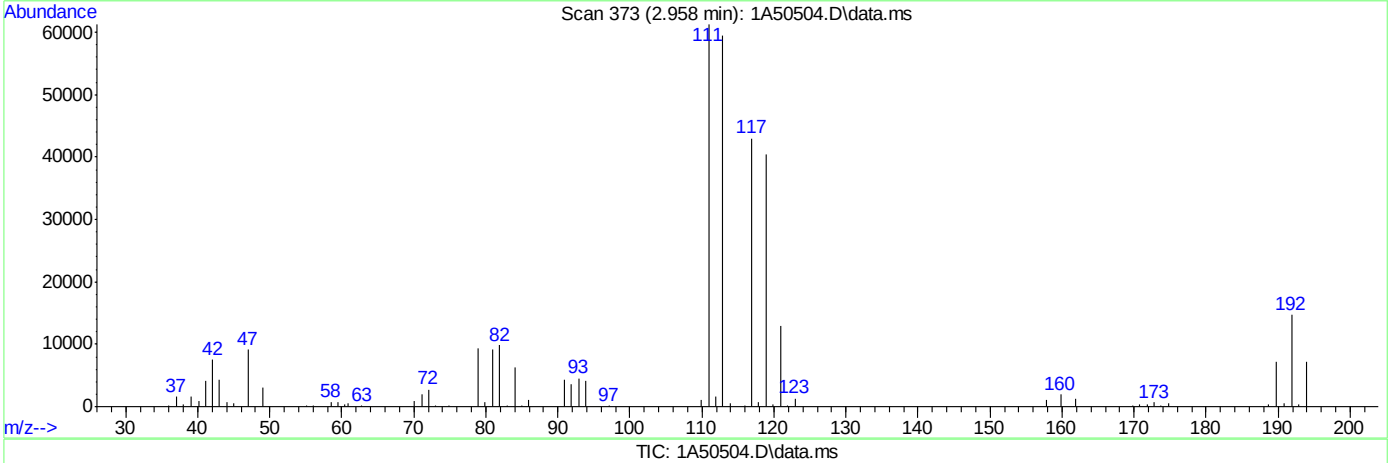
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.00
120.90	31.10	30.24
81.90	25.40	22.93

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (0.000) 27.04ug/L m

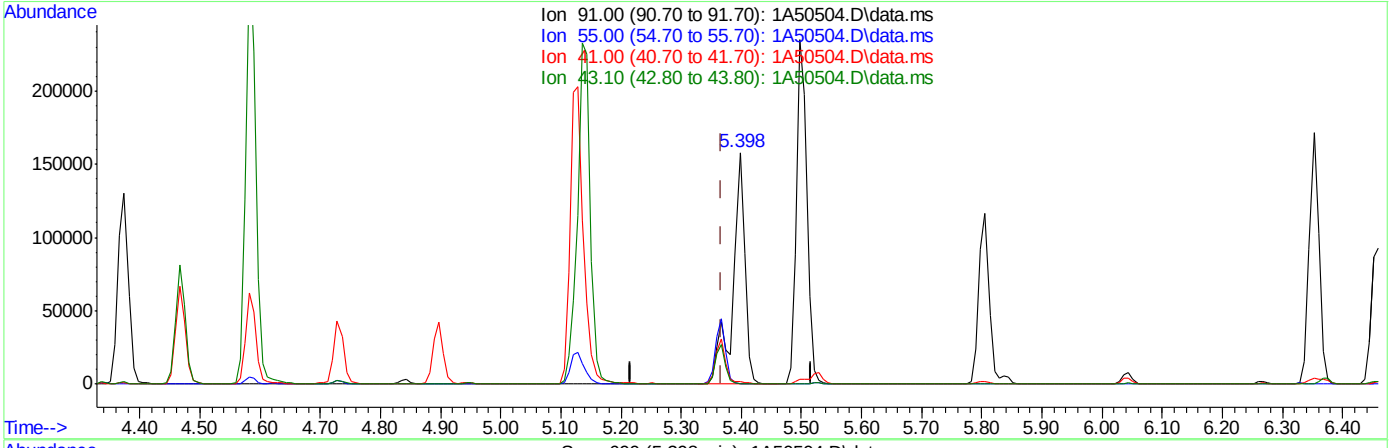
response 57241

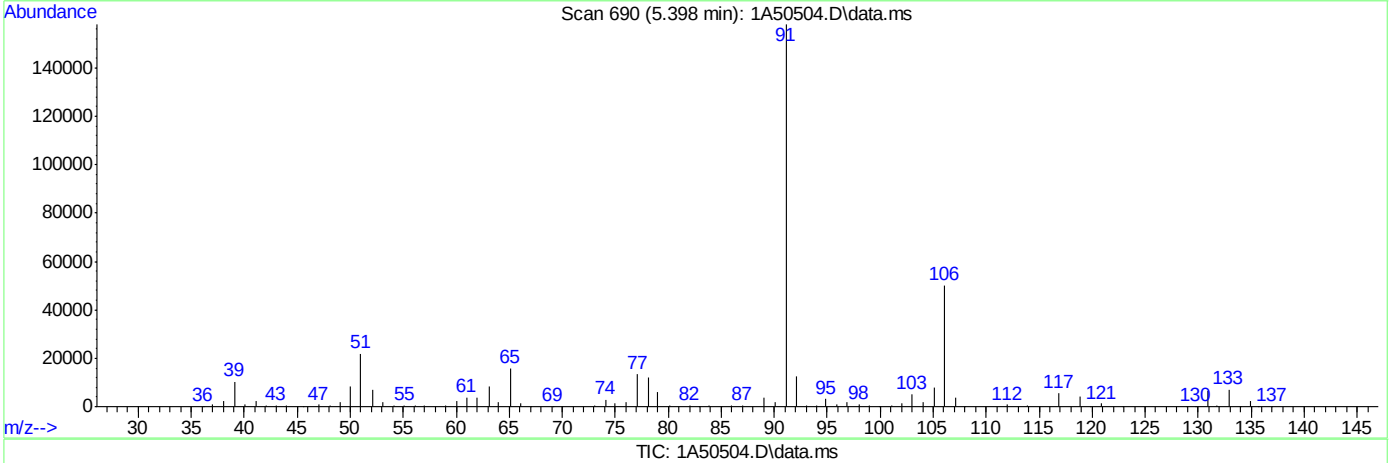
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.00
120.90	31.10	30.24
81.90	25.40	22.93

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.030) 89.05ug/L

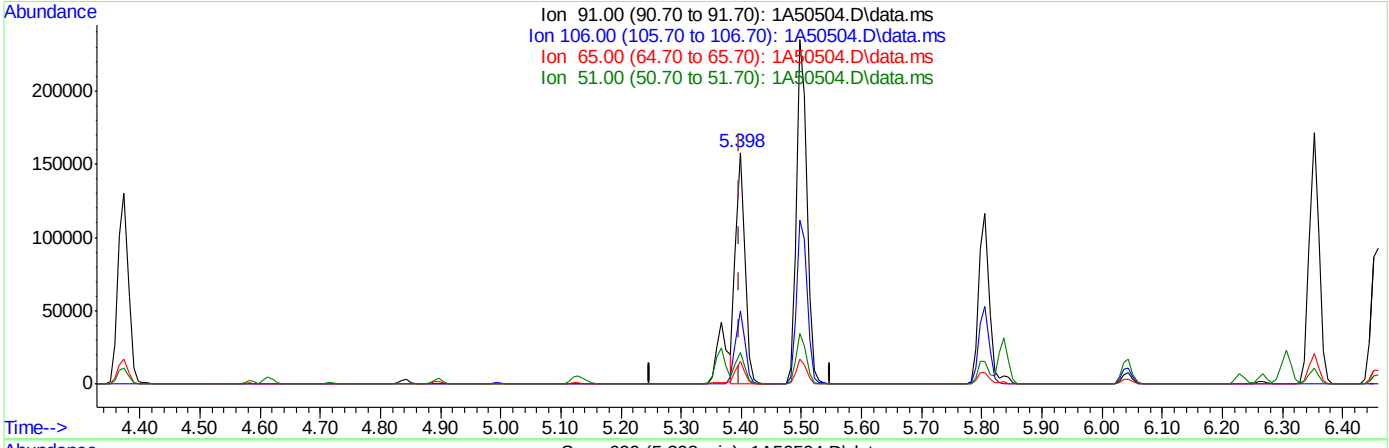
response 219749

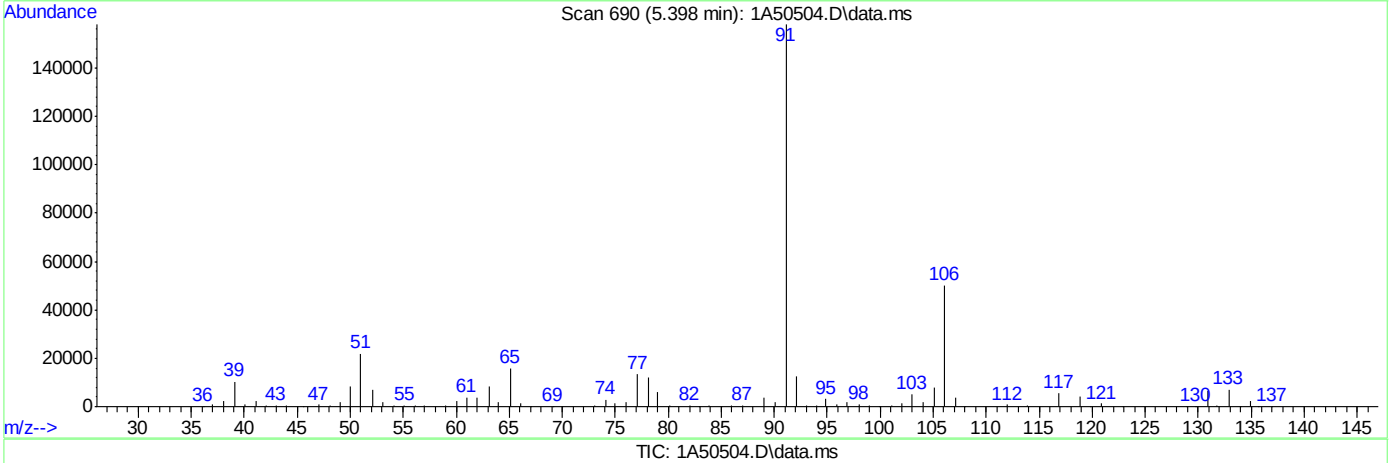
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.33#
41.00	53.90	1.26#
43.10	42.90	0.25#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 23.25ug/L m

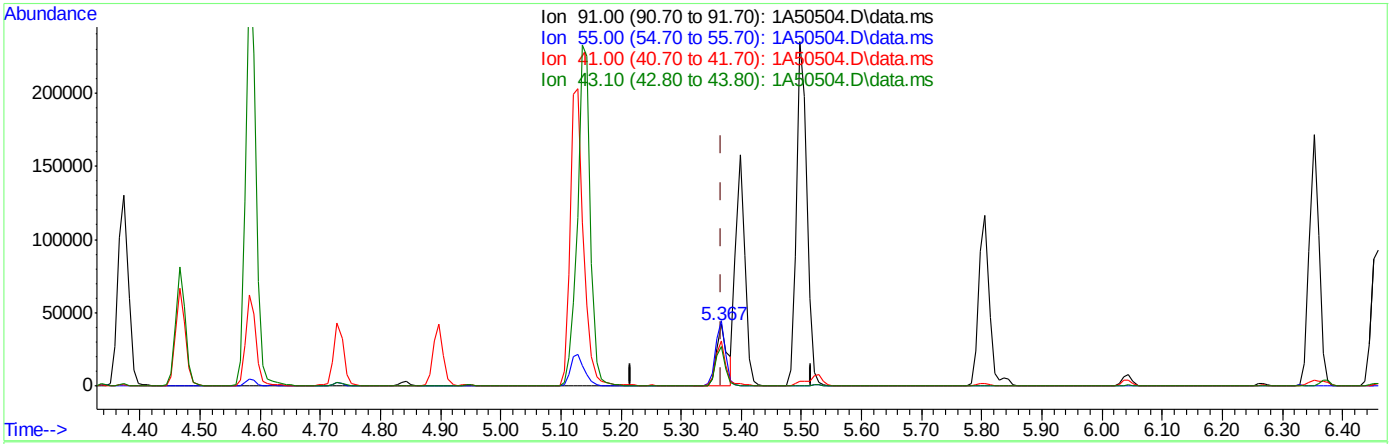
response 165793

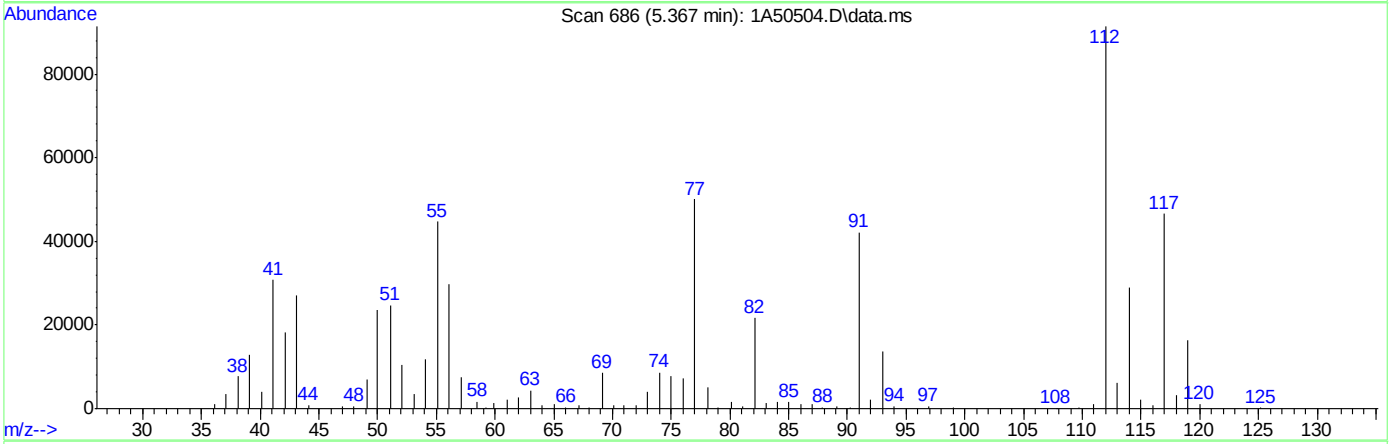
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.82
65.00	8.30	10.06
51.00	10.10	13.87

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 21.87ug/L m

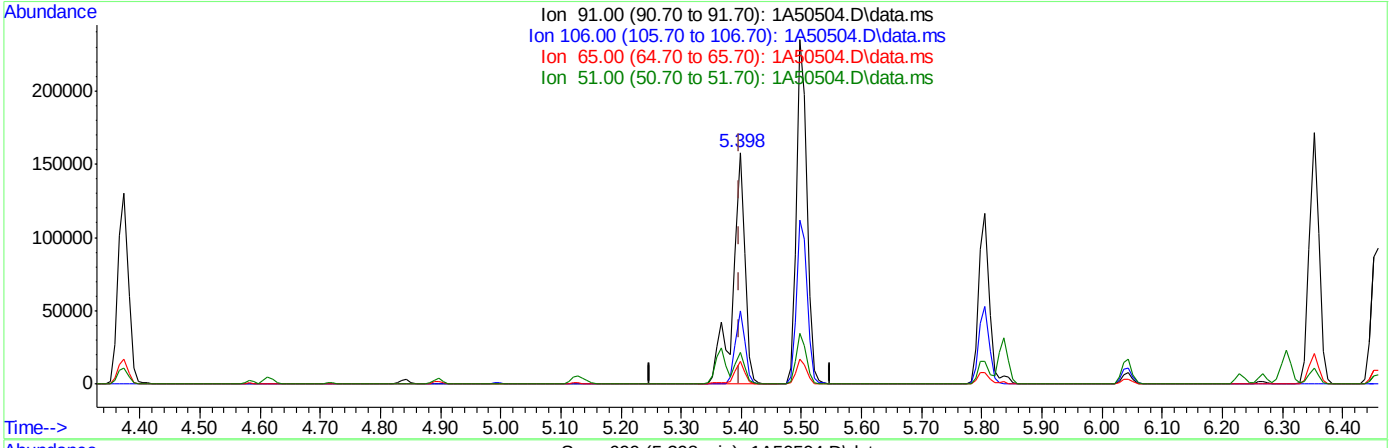
response 53959

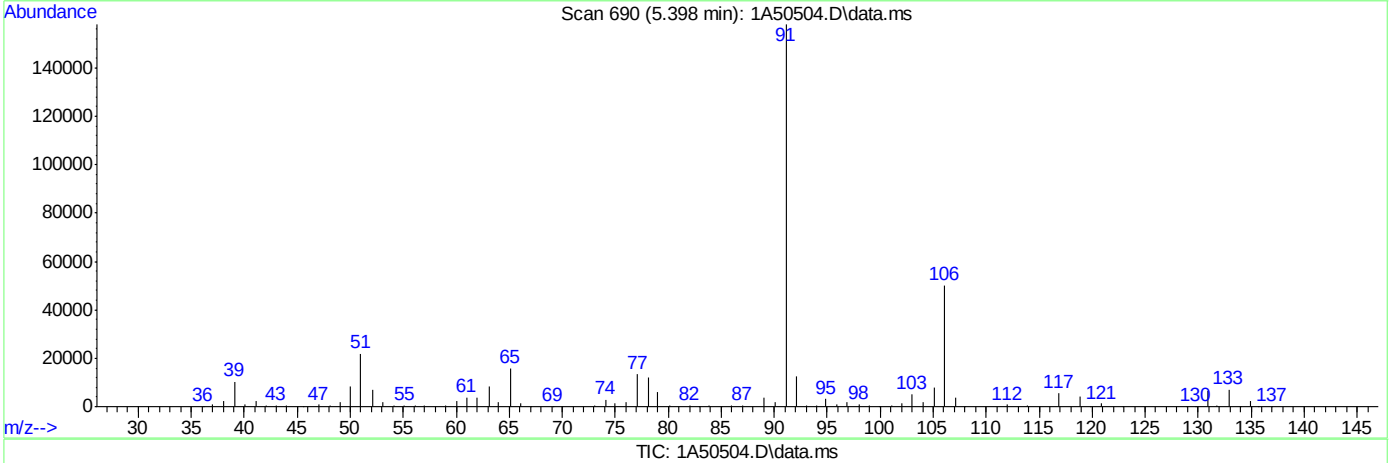
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	105.94#
41.00	53.90	73.05
43.10	42.90	64.25#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50504.D
Acq On : 6 Nov 2023 11:24 am
Operator : jeniferw
Sample : BS
Misc : MS55197,V1A1977,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 11:37:47 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50504.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 30.82ug/L

response 219749

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.82
65.00	8.30	10.06
51.00	10.10	13.87

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/08/23 12:11

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A19
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 03:06:34 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.404	96	204982	50.00	ug/L	0.00
62) Chlorobenzene-d5	5.352	117	164095	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	92358	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	2.950	113	61277	54.21	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 108.42%			
49) 1,2-Dichloroethane-d4	3.235	65	84364	57.47	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 114.94%			
63) Toluene-d8	4.336	98	209115	47.47	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 94.94%			
86) 4-Bromofluorobenzene	6.229	174	77619	50.37	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.74%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.018	85	25099	26.9416	ug/L	99
3) Chloromethane	1.126	50	41663	22.3099	ug/L	96
4) 1,3-butadiene	1.180	39	39908	30.0706	ug/L	91
5) Vinyl Chloride	1.172	62	32350	21.6292	ug/L	98
6) Bromomethane	1.342	94	9695	23.3609	ug/L	93
7) Chloroethane	1.411	64	17019	24.2004	ug/L	99
8) Trichlorofluoromethane	1.496	101	45848	28.8403	ug/L	95
9) Ethyl Ether	1.657	59	35997	30.9740	ug/L #	84
10) Ethanol	1.711	45	25860	880.4911	ug/L	99
11) 1,2-Dichlorotrifluoroe...	1.742	67	34250	27.1459	ug/L	92
12) 1,1-Dichloroethene	1.757	61	55643	28.1175	ug/L	85
13) Freon 113	1.780	101	29920	32.0388	ug/L	95
14) Carbon Disulfide	1.780	76	76514	28.3374	ug/L	90
15) Iodomethane	1.827	142	24942	38.1428	ug/L	94
16) Acrolein	1.904	56	50336	122.9969	ug/L	99
17) Allyl chloride	1.996	41	63286	29.1747	ug/L	86
18) Methylene Chloride	2.042	49	67522	30.7954	ug/L	80
19) Acetone	2.050	43	145897	227.4306	ug/L	93
20) Methyl acetate	2.119	43	217474	116.5560	ug/L	88
21) trans-1,2-Dichloroethene	2.134	61	55544	27.3135	ug/L	84
22) Hexane	2.196	56	44601	26.8979	ug/L #	90
23) Methyl Tert Butyl Ether	2.188	73	93349	29.9408	ug/L	91
24) Acetonitrile	2.273	41	77018m	305.4702	ug/L	
25) Tert Butyl Alcohol	2.211	59	88042	291.2081	ug/L	96
26) Di-isopropyl ether	2.388	45	139799	25.3265	ug/L	89
27) Chloroprene	2.435	53	174701	25.2309	ug/L	92
28) 1,1-Dichloroethane	2.442	63	64894	25.3628	ug/L	97
29) Acrylonitrile	2.435	52	110591	128.9909	ug/L	98
30) ETBE	2.581	59	136593	29.7148	ug/L	90
31) Vinyl acetate	2.558	43	510171	135.7961	ug/L	98
32) cis-1,2-Dichloroethene	2.719	96	31118	25.8695	ug/L #	74
33) 2,2-Dichloropropane	2.781	77	45157	29.6748	ug/L	97
34) Bromochloromethane	2.819	128	17182	29.2990	ug/L #	61
35) Cyclohexane	2.858	56	76577	26.7940	ug/L #	78
36) Chloroform	2.858	83	58346	28.1563	ug/L	95
37) Ethyl acetate	2.912	43	302252	132.2461	ug/L	97
38) Tetrahydrofuran	2.943	42	20595	24.8050	ug/L	88
40) Carbon Tetrachloride	2.958	117	49692m	30.9331	ug/L	
41) 1,1,1-Trichloroethane	2.989	97	52240	30.2737	ug/L	91
42) 2-Butanone	3.004	43	154082	125.3702	ug/L	82
43) 1,1-Dichloropropene	3.050	75	41471	28.2436	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 03:06:34 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl formate	3.096	59	109871	82.8299	ug/L		93
45) Propionitrile	3.143	54	99356	283.5872	ug/L		95
46) Methacrylonitrile	3.166	41	353263	246.7302	ug/L		99
47) Benzene	3.181	78	115466	25.9346	ug/L		83
48) TAME	3.250	73	87553	28.3294	ug/L	#	67
50) 1,2-Dichloroethane	3.273	62	57673	29.3243	ug/L		93
51) Isobutyl Alcohol	3.258	43	103905	500.2338	ug/L		95
52) Tert Amyl Alcohol	3.320	59	65622	264.1335	ug/L		85
53) Trichloroethene	3.512	95	32414	26.2865	ug/L		97
54) Methylcyclohexane	3.527	83	50774	26.5106	ug/L	#	78
55) Dibromomethane	3.735	93	21489	27.9298	ug/L		89
56) 1,2-Dichloropropane	3.789	63	38496	25.1429	ug/L		92
57) Bromodichloromethane	3.828	83	43117	27.0555	ug/L	#	94
58) Methyl methacrylate	3.920	41	42726	22.2150	ug/L	#	83
59) 1,4-Dioxane	3.943	88	7895	469.5752	ug/L	#	65
60) 2-Chloroethyl vinyl ether	4.205	63	309	0.3358	ug/L	#	45
61) cis-1,3-Dichloropropene	4.212	75	46621	25.6056	ug/L		86
64) Toluene	4.374	91	122875	23.5753	ug/L		99
65) 2-Nitropropane	4.466	41	69847	118.9460	ug/L		99
66) 4-Methyl-2-pentanone	4.582	43	299703	113.5819	ug/L		98
67) trans-1,3-Dichloropropene	4.613	75	44515	23.3103	ug/L		89
68) Tetrachloroethene	4.636	166	37800	21.5652	ug/L		98
69) Ethyl methacrylate	4.728	69	40406	25.9352	ug/L	#	76
70) 1,1,2-Trichloroethane	4.720	83	23562	22.4298	ug/L		92
71) Dibromochloromethane	4.844	129	35268	26.3436	ug/L		99
72) 1,3-Dichloropropane	4.897	76	48981	24.7902	ug/L		80
73) 1,2-Dibromoethane	4.997	107	31503	24.5484	ug/L		92
74) 3,3-Dimethyl-1-Butanol	5.128	57	430563	1275.5115	ug/L		85
75) 2-hexanone	5.136	43	298288	118.1373	ug/L		98
76) 1-Chlorohexane	5.367	91	44140m	23.1148	ug/L		
77) Ethylbenzene	5.398	91	133489m	24.1932	ug/L		
78) Chlorobenzene	5.367	112	83444	23.7165	ug/L		94
79) 1,1,1,2-Tetrachloroethane	5.413	131	33300	25.6915	ug/L		98
80) m,p-Xylene	5.498	91	223789	50.2948	ug/L		98
81) o-Xylene	5.806	91	112241	24.7367	ug/L		98
82) Styrene	5.836	104	87707	26.1131	ug/L		94
83) Bromoform	5.844	173	23616	24.3430	ug/L		96
84) Isopropylbenzene	6.044	105	130876	24.9702	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.267	53	13407	19.3355	ug/L	#	80
88) n-Propylbenzene	6.352	91	153841	21.8349	ug/L		97
89) Bromobenzene	6.306	156	36723	24.0174	ug/L		86
90) 1,1,2,2-Tetrachloroethane	6.375	83	38763	20.1419	ug/L		97
91) 1,3,5-Trimethylbenzene	6.506	105	113337	23.8780	ug/L		95
92) 2-Chlorotoluene	6.460	91	92066	22.0488	ug/L		96
93) trans-1,4-Dichloro-2-B...	6.506	53	15896	17.2296	ug/L	#	76
94) 1,2,3-Trichloropropane	6.468	110	13953	25.6094	ug/L	#	75
95) Cyclohexanone	6.483	55	11850	102.2627	ug/L		85
96) 4-Chlorotoluene	6.583	91	97183	22.1774	ug/L		97
97) tert-Butylbenzene	6.752	91	63682	23.8797	ug/L		93
98) 1,2,4-Trimethylbenzene	6.806	105	108616	24.0921	ug/L		100
99) Pentachloroethane	6.745	167	22810	33.4069	ug/L	#	82
100) sec-Butylbenzene	6.891	105	129874	21.9986	ug/L		98
101) 4-Isopropyltoluene	7.014	119	112732	23.6491	ug/L		99
102) 1,3-Dichlorobenzene	7.037	146	65761	23.2120	ug/L		97
103) 1,2,3-Trimethylbenzene	7.145	105	106474	23.1478	ug/L		99
104) 1,4-Dichlorobenzene	7.106	146	66353	22.5274	ug/L		97
105) n-Butylbenzene	7.345	92	52314	23.1585	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 03:06:34 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

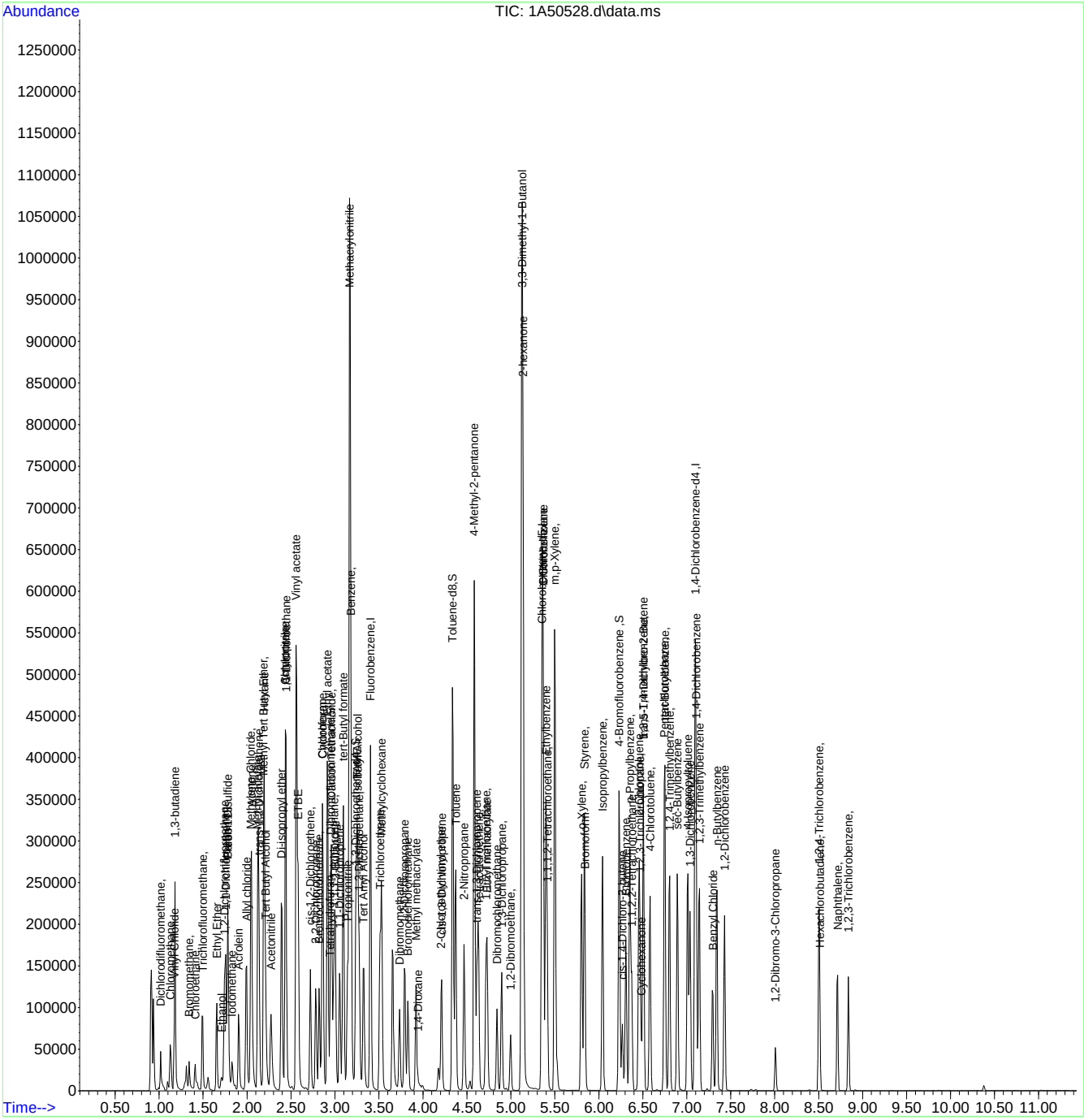
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	7.299	126	13634	22.5301	ug/L	99
107) 1,2-Dichlorobenzene	7.430	146	60094	23.4827	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	8.007	75	8442	30.0419	ug/L	89
109) Hexachlorobutadiene	8.515	225	14636	33.9151	ug/L	93
110) 1,2,4-Trichlorobenzene	8.507	180	30467	29.4158	ug/L	98
111) Naphthalene	8.715	128	73343	34.0985	ug/L	99
112) 1,2,3-Trichlorobenzene	8.838	180	26566	36.2949	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 03:06:34 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



V1A_10-23-2023.M Tue Nov 07 03:12:36 2023 Page: 4

Manual Integration Approval Summary

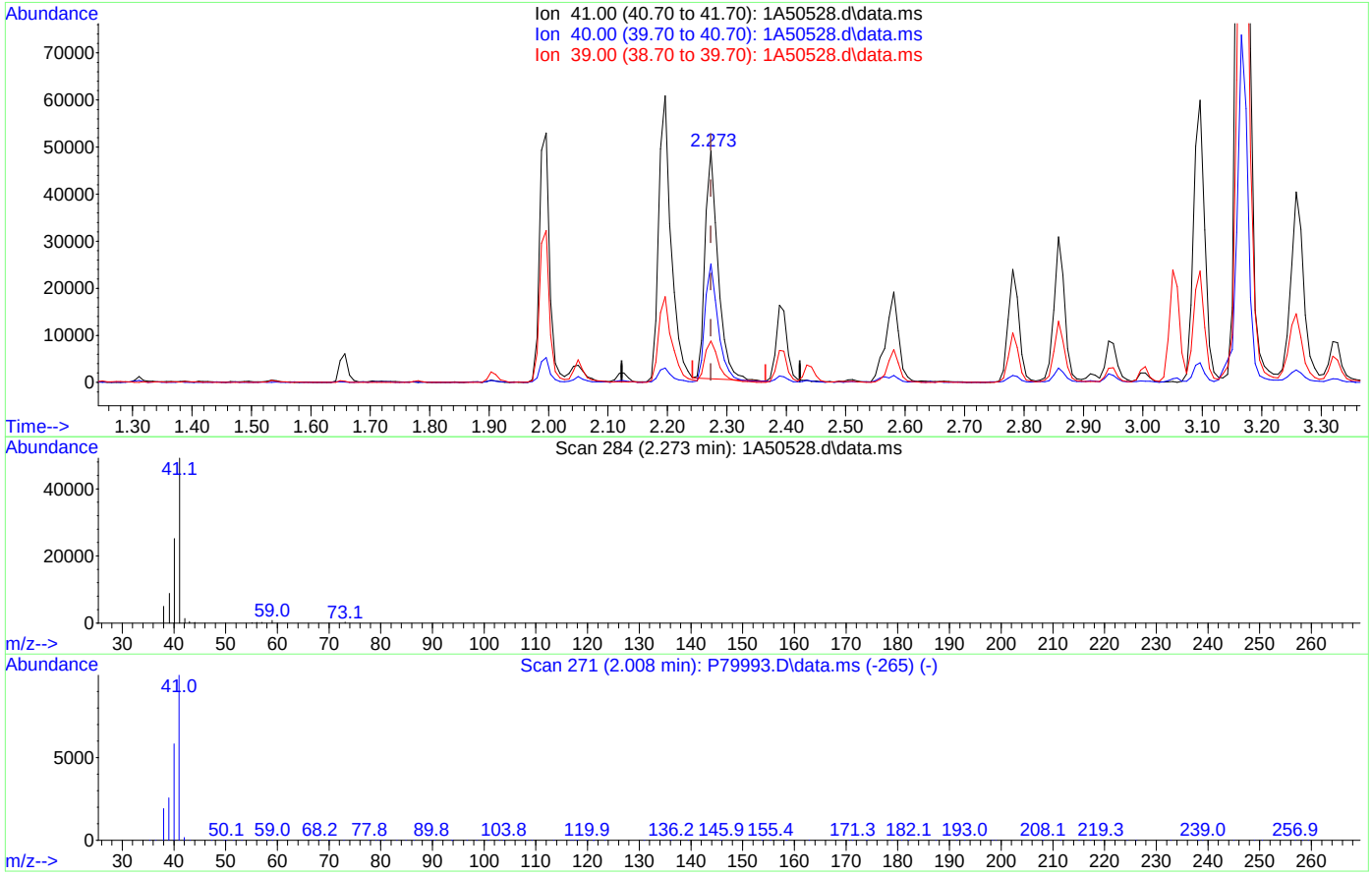
Sample Number: FC10918-1MS
Lab FileID: 1A50528.D
Injection Time: 11/06/23 21:07
Method: EPA 624.1
Analyst approved: 11/06/23 22:20 Celine Celis
Supervisor approved: 11/08/23 12:11 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		2.27	Poor instrument integration
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 02:52:28 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50528.d\data.ms

(24) Acetonitrile

2.273min (-0.000) 290.80ug/L

response 73319

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	51.15
39.00	21.10	18.01
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
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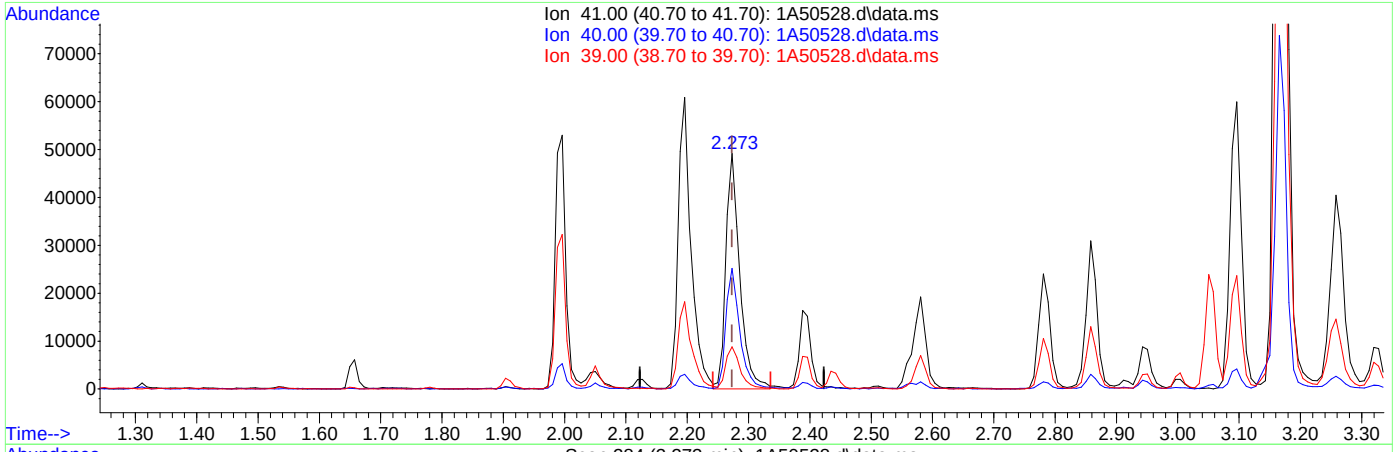

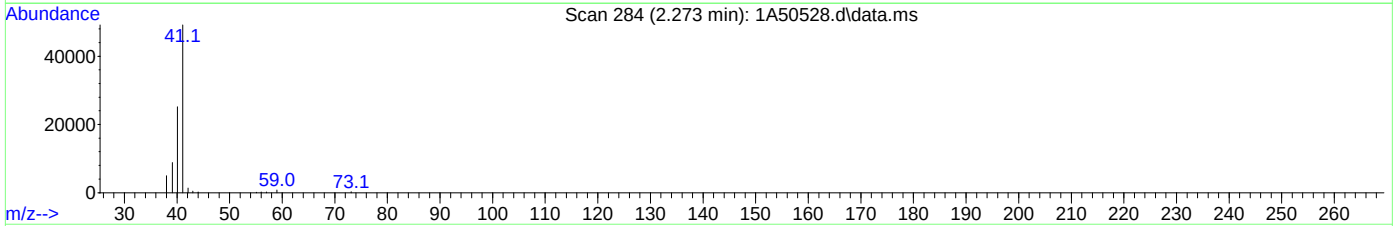

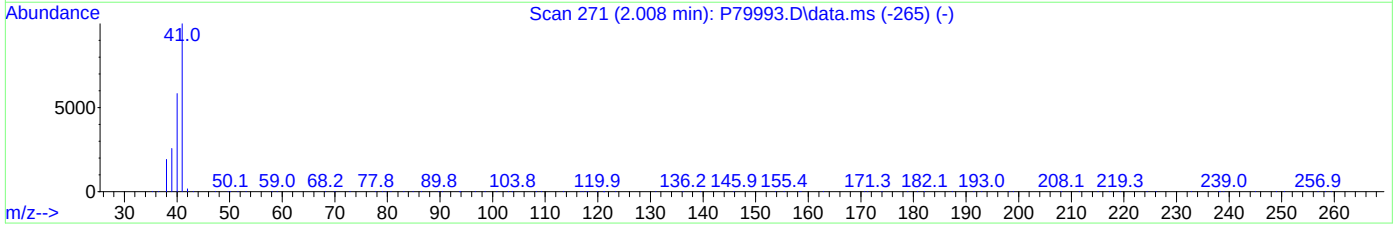

TIC: 1A50528.d\data.ms

(24) Acetonitrile

2.273min (-0.000) 305.47ug/L m

response 77018

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	51.20
39.00	21.10	17.92
0.00	0.00	0.00

Quantitation Report (Qedit)

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ALS Vial : 27 Sample Multiplier: 1

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... .M
Quant Title : SW-846 Method 5035A/8260B
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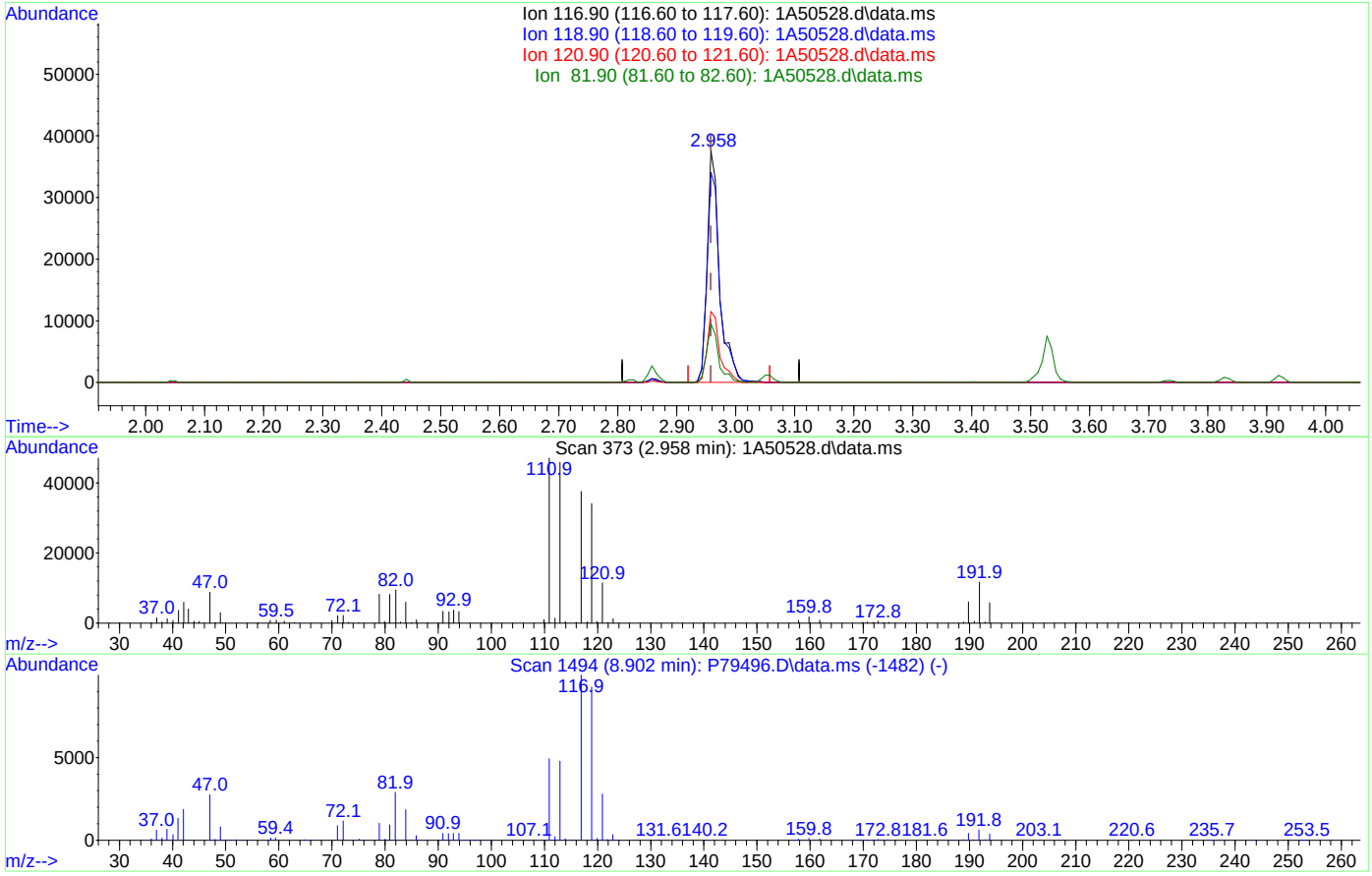

TIC: 1A50528.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.000) 34.40ug/L

response 55261

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	90.74
120.90	31.10	30.57
81.90	25.40	25.30

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
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Operator : jeniferw
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Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 02:52:28 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
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QLast Update : Mon Oct 23 13:18:22 2023
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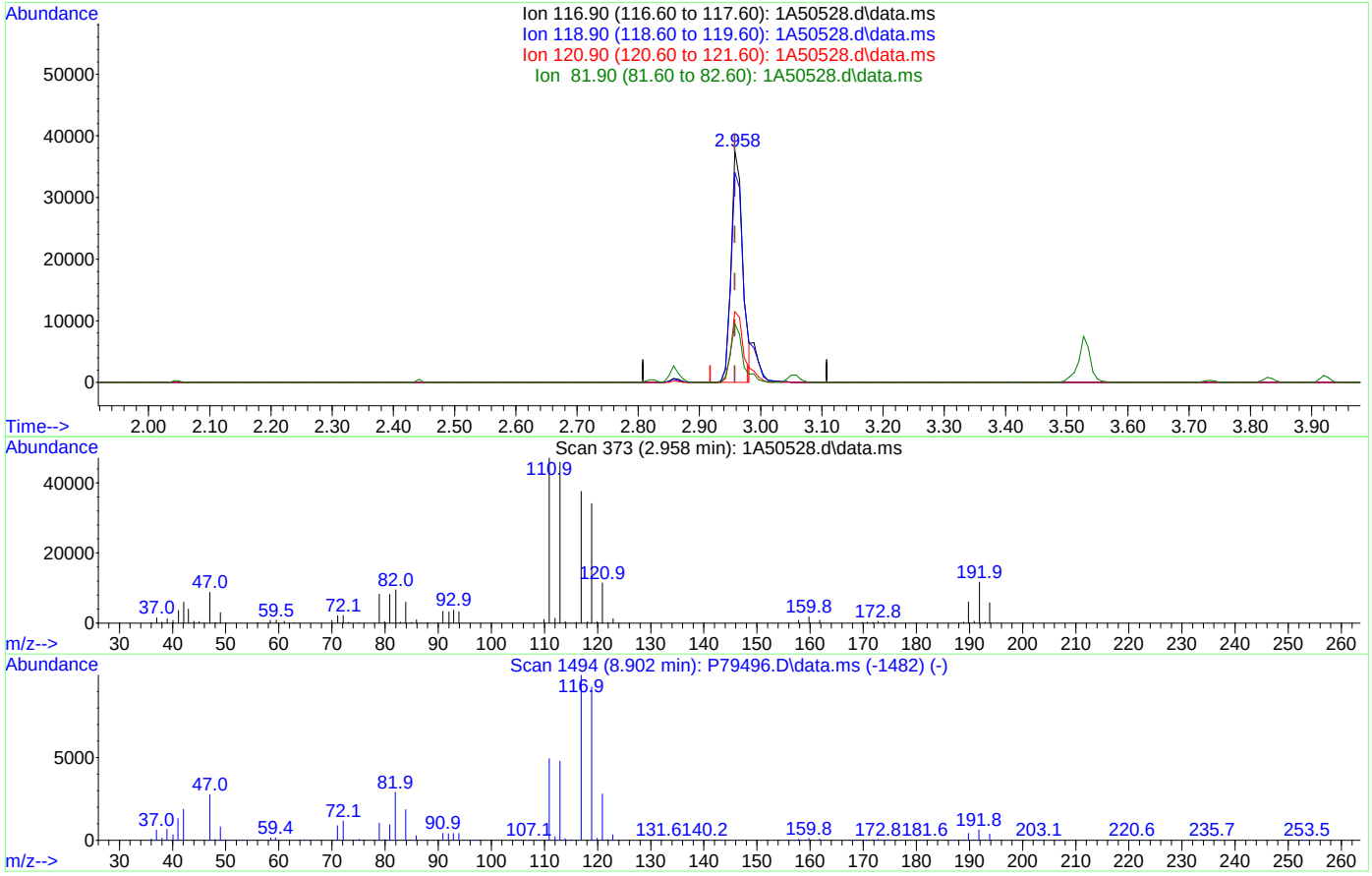

TIC: 1A50528.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.000) 30.93ug/L m

response 49692

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	90.74
120.90	31.10	30.57
81.90	25.40	25.30

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
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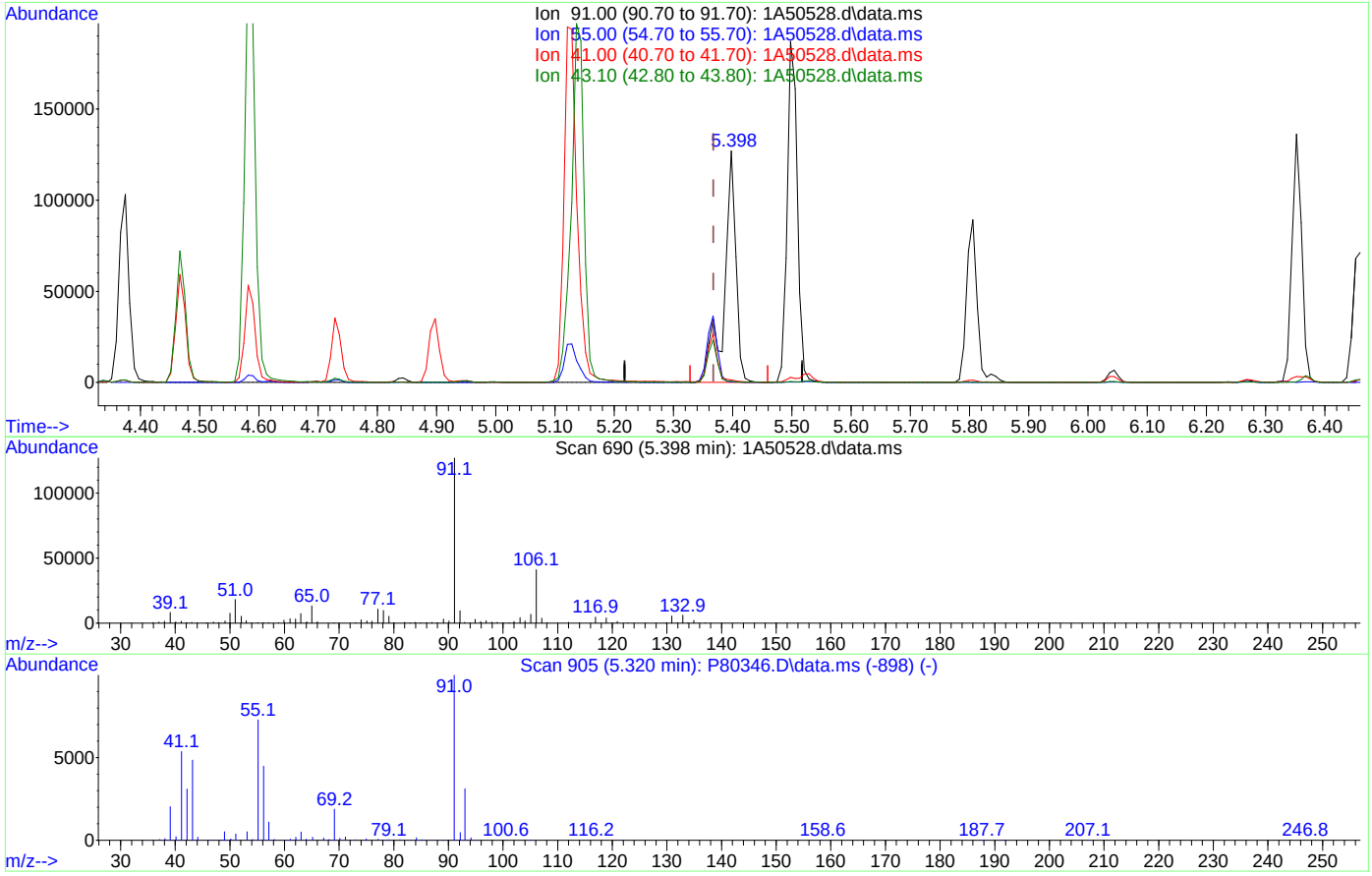

TIC: 1A50528.d\data.ms

(76) 1-Chlorohexane

5.398min (+0.030) 93.01ug/L

response 177616

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.30#
41.00	53.90	0.94#
43.10	42.90	0.50#

Quantitation Report (Qedit)

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Operator : jeniferw
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Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

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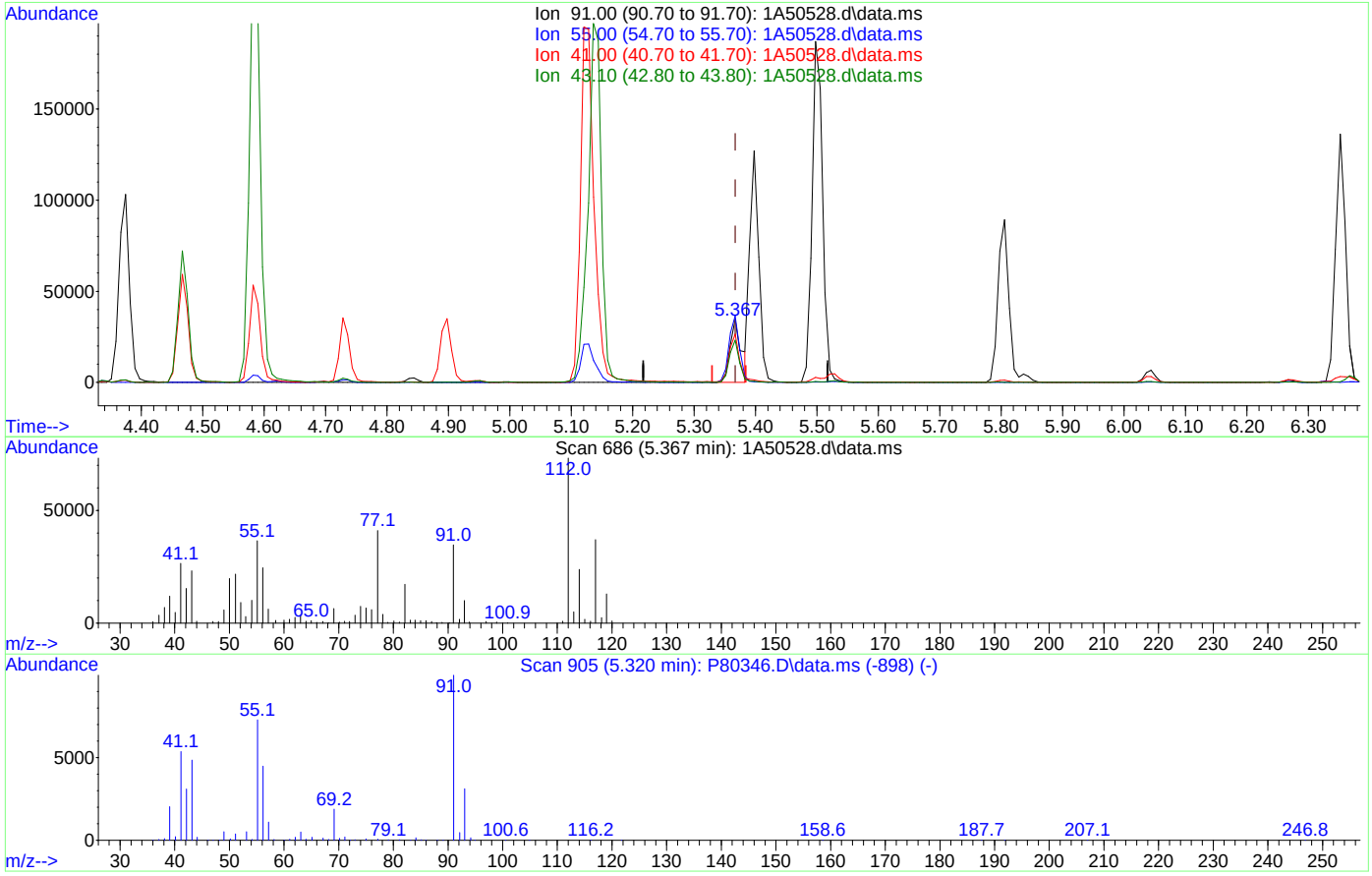

TIC: 1A50528.d\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 23.11ug/L m

response 44140

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	105.25#
41.00	53.90	76.30#
43.10	42.90	66.93#

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
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Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 02:52:28 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
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Quant Title : SW-846 Method 5035A/8260B
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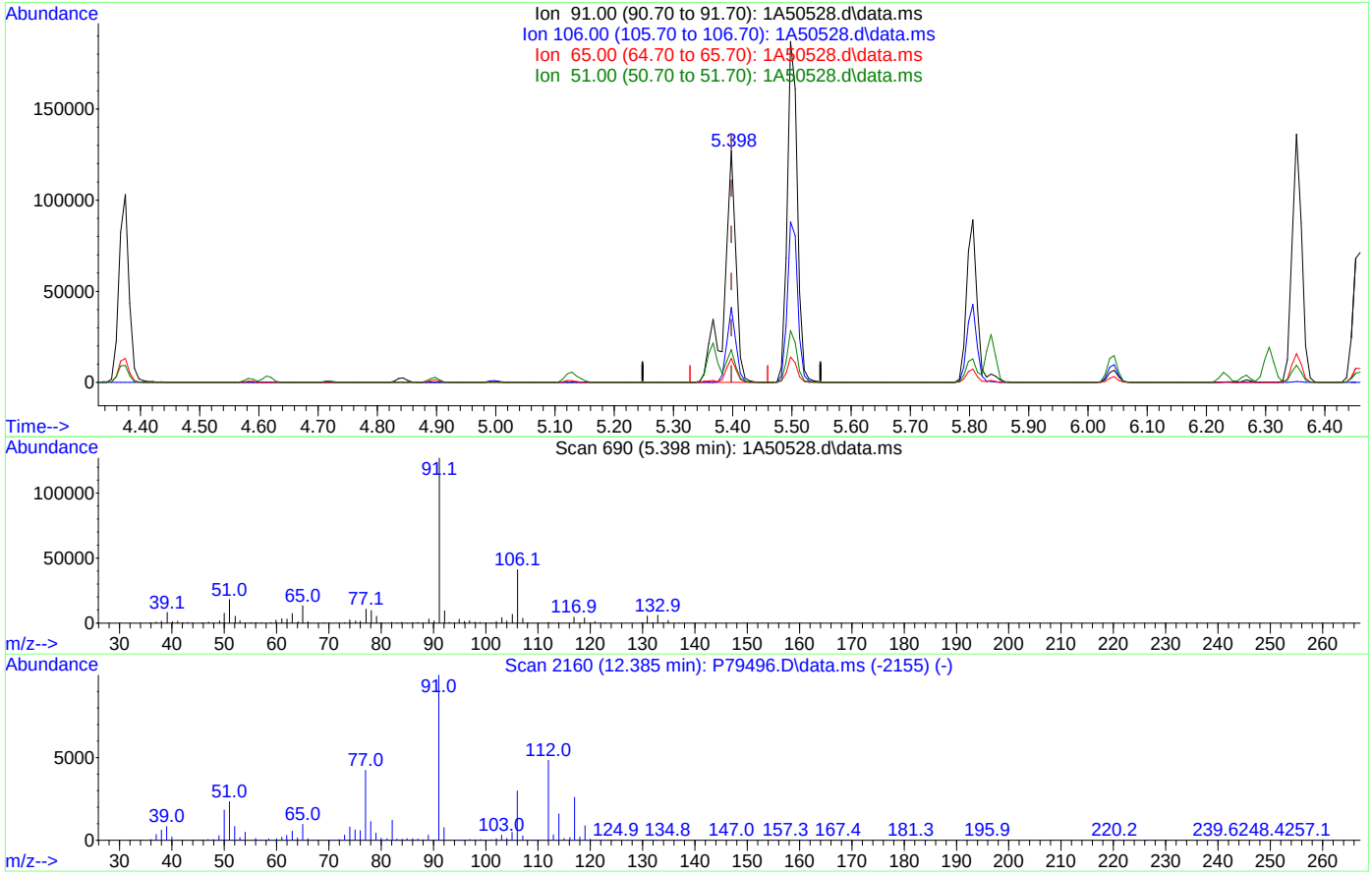

TIC: 1A50528.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 32.19ug/L

response 177616

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.39
65.00	8.30	10.37
51.00	10.10	14.24

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50528.d
Acq On : 6 Nov 2023 9:07 pm
Operator : jeniferw
Sample : FC10918-1MS Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Nov 07 03:06:34 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
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Quant Title : SW-846 Method 5035A/8260B
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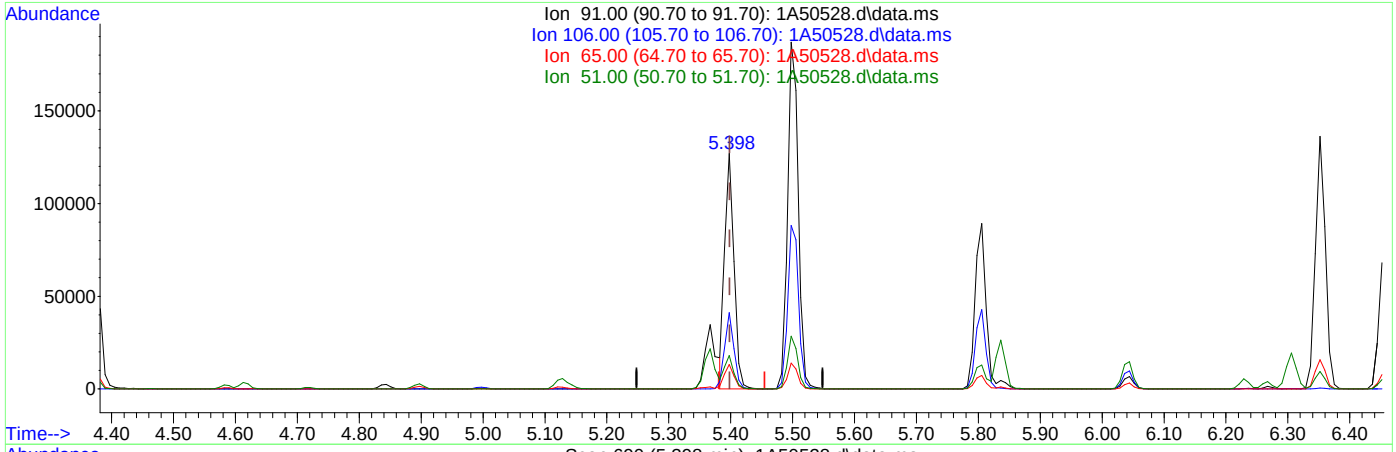

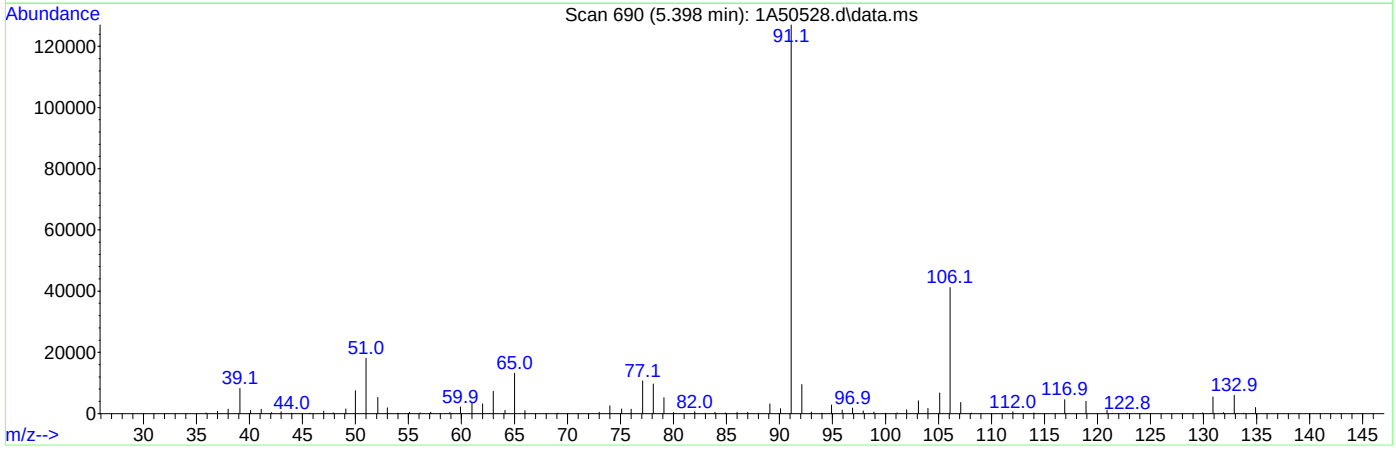

TIC: 1A50528.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 24.19ug/L m

response 133489

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.39
65.00	8.30	10.37
51.00	10.10	14.24

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/08/23 12:11

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A19
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 03:07:13 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.404	96	205510	50.00	ug/L	0.00
62) Chlorobenzene-d5	5.352	117	164814	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	89785	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	2.950	113	61502	54.27	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 108.54%			
49) 1,2-Dichloroethane-d4	3.235	65	82510	56.06	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.12%			
63) Toluene-d8	4.336	98	210113	47.49	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 94.98%			
86) 4-Bromofluorobenzene	6.229	174	77881	51.99	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.98%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.018	85	26263	28.1186	ug/L	97
3) Chloromethane	1.126	50	43369	23.1638	ug/L	100
4) 1,3-butadiene	1.180	39	42308	31.7971	ug/L	92
5) Vinyl Chloride	1.172	62	35111	23.4149	ug/L	99
6) Bromomethane	1.342	94	10656	25.6105	ug/L	94
7) Chloroethane	1.411	64	18480	26.3912	ug/L	94
8) Trichlorofluoromethane	1.496	101	47858	30.0274	ug/L	99
9) Ethyl Ether	1.657	59	36183	31.0541	ug/L	86
10) Ethanol	1.703	45	21357	725.3030	ug/L	90
11) 1,2-Dichlorotrifluoroe...	1.742	67	36215	28.6295	ug/L	89
12) 1,1-Dichloroethene	1.757	61	56985	28.7217	ug/L	85
13) Freon 113	1.780	101	30590	32.6720	ug/L	91
14) Carbon Disulfide	1.780	76	80848	29.8655	ug/L	92
15) Iodomethane	1.827	142	28709	42.9861	ug/L	97
16) Acrolein	1.904	56	52746	128.5547	ug/L	97
17) Allyl chloride	1.996	41	65912	30.3072	ug/L	85
18) Methylene Chloride	2.042	49	68609	31.2108	ug/L	79
19) Acetone	2.050	43	140612	218.6289	ug/L	94
20) Methyl acetate	2.119	43	220774	118.0207	ug/L	88
21) trans-1,2-Dichloroethene	2.134	61	58417	28.6525	ug/L	82
22) Hexane	2.196	56	43947	26.4354	ug/L	95
23) Methyl Tert Butyl Ether	2.188	73	95695	30.6144	ug/L	97
24) Acetonitrile	2.273	41	74930m	296.4252	ug/L	
25) Tert Butyl Alcohol	2.211	59	77392	255.3245	ug/L	100
26) Di-isopropyl ether	2.388	45	145281	26.2520	ug/L	89
27) Chloroprene	2.435	53	180416	25.9894	ug/L	92
28) 1,1-Dichloroethane	2.442	63	68445	26.6819	ug/L	96
29) Acrylonitrile	2.435	52	113927	132.5405	ug/L	99
30) ETBE	2.581	59	139520	30.2735	ug/L	90
31) Vinyl acetate	2.558	43	524815	139.3351	ug/L	98
32) cis-1,2-Dichloroethene	2.719	96	31565	26.1737	ug/L #	71
33) 2,2-Dichloropropane	2.781	77	46651	30.5778	ug/L	97
34) Bromochloromethane	2.819	128	17378	29.5571	ug/L #	62
35) Cyclohexane	2.858	56	80528	28.1041	ug/L #	79
36) Chloroform	2.858	83	60949	29.3369	ug/L	93
37) Ethyl acetate	2.912	43	300538	131.1584	ug/L	98
38) Tetrahydrofuran	2.943	42	22430	26.9457	ug/L	86
40) Carbon Tetrachloride	2.958	117	50901m	31.6043	ug/L	
41) 1,1,1-Trichloroethane	2.989	97	55734	32.2156	ug/L	91
42) 2-Butanone	3.004	43	153885	124.8882	ug/L	83
43) 1,1-Dichloropropene	3.050	75	42341	28.7620	ug/L	89

Quantitation Report (QT Reviewed)

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Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 03:07:13 2023
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... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl formate	3.096	59	109310	82.1953	ug/L		95
45) Propionitrile	3.143	54	98074	279.2088	ug/L		97
46) Methacrylonitrile	3.166	41	361372	251.7454	ug/L		97
47) Benzene	3.181	78	120558	27.0087	ug/L		83
48) TAME	3.250	73	89988	29.0425	ug/L	#	62
50) 1,2-Dichloroethane	3.273	62	60280	30.5711	ug/L		96
51) Isobutyl Alcohol	3.258	43	98304	472.0528	ug/L		95
52) Tert Amyl Alcohol	3.320	59	58269	233.9346	ug/L		85
53) Trichloroethene	3.512	95	33191	26.8474	ug/L		97
54) Methylcyclohexane	3.527	83	53068	27.6372	ug/L	#	73
55) Dibromomethane	3.735	93	21648	28.0641	ug/L		94
56) 1,2-Dichloropropane	3.789	63	40776	26.5636	ug/L		92
57) Bromodichloromethane	3.828	83	43989	27.5318	ug/L	#	97
58) Methyl methacrylate	3.920	41	45592	23.6443	ug/L	#	80
59) 1,4-Dioxane	3.935	88	6366	377.6613	ug/L		73
60) 2-Chloroethyl vinyl ether	4.205	63	265	0.2873	ug/L	#	40
61) cis-1,3-Dichloropropene	4.212	75	47183	25.8477	ug/L		82
64) Toluene	4.374	91	130642	24.9561	ug/L		95
65) 2-Nitropropane	4.466	41	70250	119.1104	ug/L		96
66) 4-Methyl-2-pentanone	4.582	43	306034	115.4753	ug/L		97
67) trans-1,3-Dichloropropene	4.613	75	43866	22.8702	ug/L		88
68) Tetrachloroethene	4.636	166	39558	22.4697	ug/L		97
69) Ethyl methacrylate	4.728	69	41920	26.7896	ug/L	#	81
70) 1,1,2-Trichloroethane	4.720	83	24337	23.0665	ug/L		85
71) Dibromochloromethane	4.844	129	36603	27.2215	ug/L		99
72) 1,3-Dichloropropane	4.897	76	50423	25.4087	ug/L		81
73) 1,2-Dibromoethane	4.997	107	32506	25.2195	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.128	57	401067	1182.9485	ug/L		84
75) 2-hexanone	5.136	43	292449	115.3195	ug/L		98
76) 1-Chlorohexane	5.367	91	45711m	23.8331	ug/L		
77) Ethylbenzene	5.398	91	137917m	24.8867	ug/L		
78) Chlorobenzene	5.367	112	86318	24.4263	ug/L		94
79) 1,1,1,2-Tetrachloroethane	5.413	131	34894	26.8039	ug/L		99
80) m,p-Xylene	5.498	91	231906	51.8916	ug/L		99
81) o-Xylene	5.806	91	117488	25.7801	ug/L		98
82) Styrene	5.836	104	89059	26.4000	ug/L		93
83) Bromoform	5.844	173	25417	26.0851	ug/L		97
84) Isopropylbenzene	6.044	105	137266	26.0751	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.267	53	12643	18.7562	ug/L	#	79
88) n-Propylbenzene	6.352	91	160395	23.4175	ug/L		98
89) Bromobenzene	6.306	156	38445	25.8642	ug/L		87
90) 1,1,2,2-Tetrachloroethane	6.375	83	40495	21.6449	ug/L		98
91) 1,3,5-Trimethylbenzene	6.506	105	121014	26.2260	ug/L		99
92) 2-Chlorotoluene	6.460	91	94993	23.4018	ug/L		98
93) trans-1,4-Dichloro-2-B...	6.506	53	16791	18.7213	ug/L	#	78
94) 1,2,3-Trichloropropane	6.467	110	13957	26.3509	ug/L		81
95) Cyclohexanone	6.483	55	9645	85.6193	ug/L		86
96) 4-Chlorotoluene	6.583	91	100835	23.6702	ug/L		99
97) tert-Butylbenzene	6.752	91	67976	26.2203	ug/L		96
98) 1,2,4-Trimethylbenzene	6.806	105	114031	26.0180	ug/L		97
99) Pentachloroethane	6.752	167	24033	36.2067	ug/L		95
100) sec-Butylbenzene	6.891	105	137039	23.8774	ug/L		98
101) 4-Isopropyltoluene	7.014	119	118414	25.5530	ug/L		96
102) 1,3-Dichlorobenzene	7.037	146	67144	24.3793	ug/L		96
103) 1,2,3-Trimethylbenzene	7.145	105	111531	24.9420	ug/L		99
104) 1,4-Dichlorobenzene	7.106	146	68886	24.0576	ug/L		98
105) n-Butylbenzene	7.345	92	55904	25.4570	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 03:07:13 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
106) Benzyl Chloride	7.299	126	13634	23.1757 ug/L	99
107) 1,2-Dichlorobenzene	7.430	146	61906	24.8840 ug/L	97
108) 1,2-Dibromo-3-Chloropr...	8.007	75	8635	31.6093 ug/L	89
109) Hexachlorobutadiene	8.515	225	15102	35.9978 ug/L	93
110) 1,2,4-Trichlorobenzene	8.499	180	32221	32.0008 ug/L	95
111) Naphthalene	8.707	128	74661	35.7060 ug/L	99
112) 1,2,3-Trichlorobenzene	8.838	180	25846	36.3232 ug/L	95

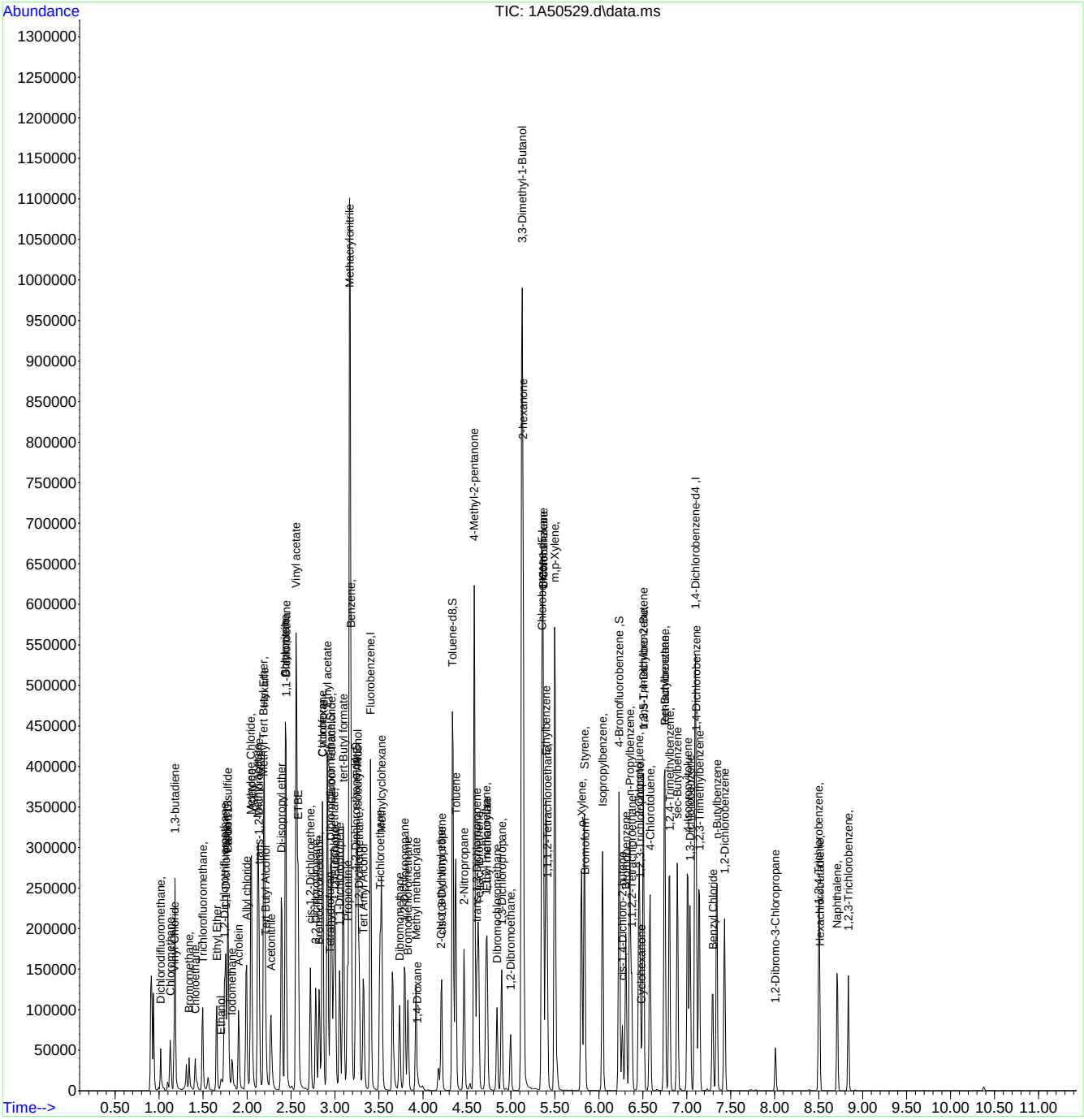
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8.4.2
8

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 03:07:13 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



Manual Integration Approval Summary

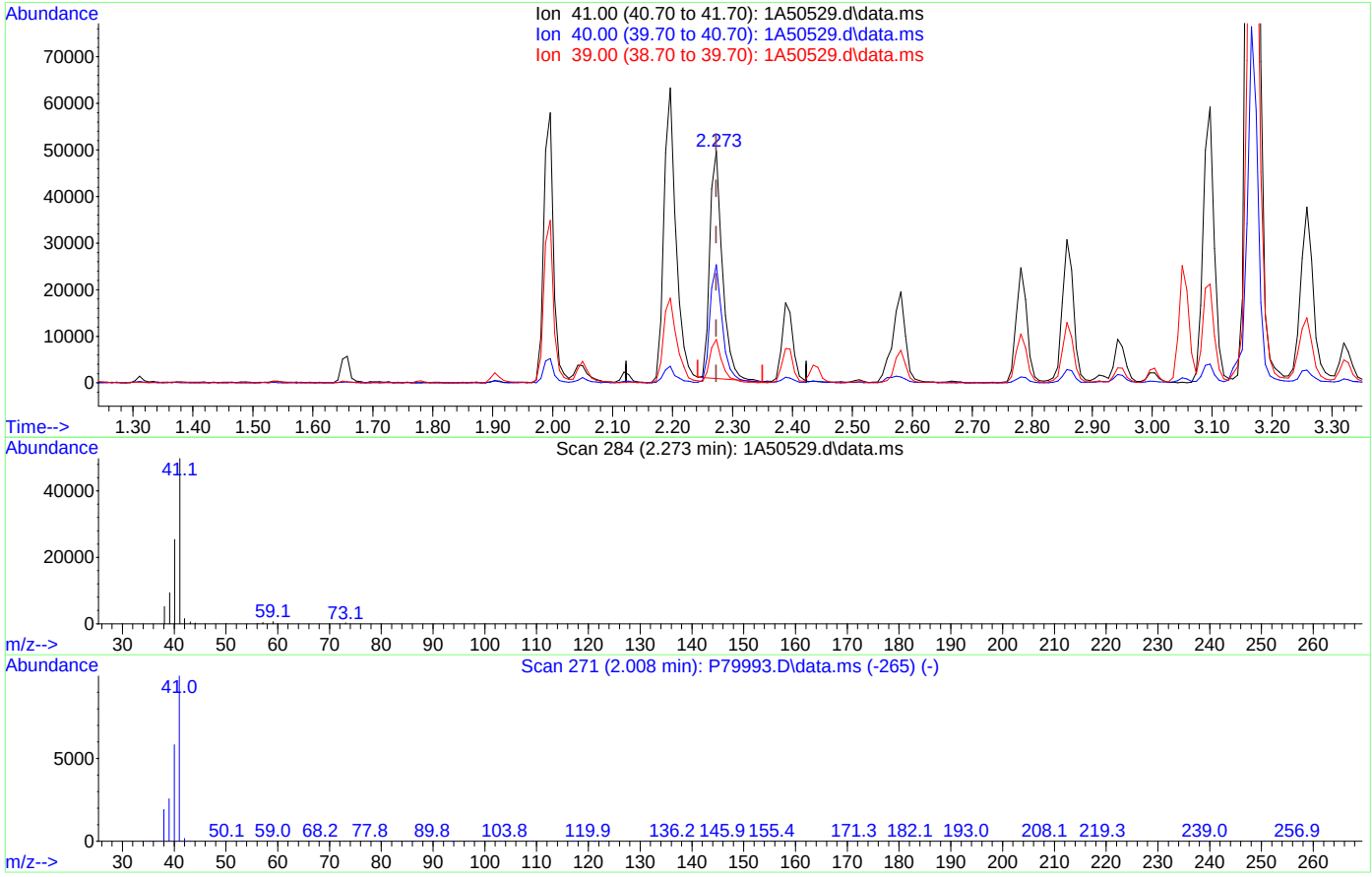
Sample Number: FC10918-1MSD
Lab FileID: 1A50529.D
Injection Time: 11/06/23 21:31
Method: EPA 624.1
Analyst approved: 11/06/23 22:20 Celine Celis
Supervisor approved: 11/08/23 12:11 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		2.27	Poor instrument integration
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(24) Acetonitrile

2.273min (-0.000) 277.77ug/L

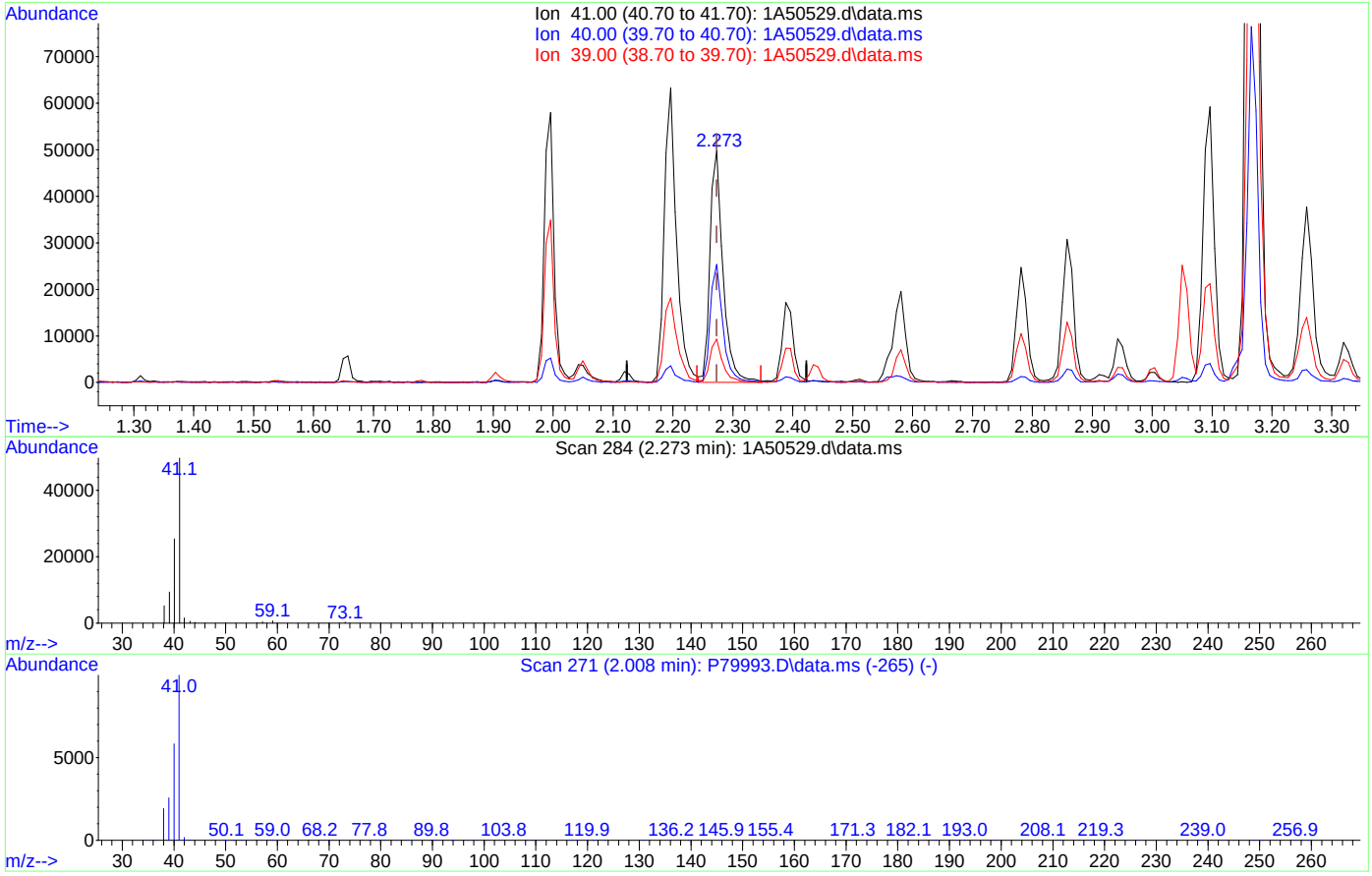
response 70214

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	51.01
39.00	21.10	18.68
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(24) Acetonitrile

2.273min (-0.000) 296.43ug/L m

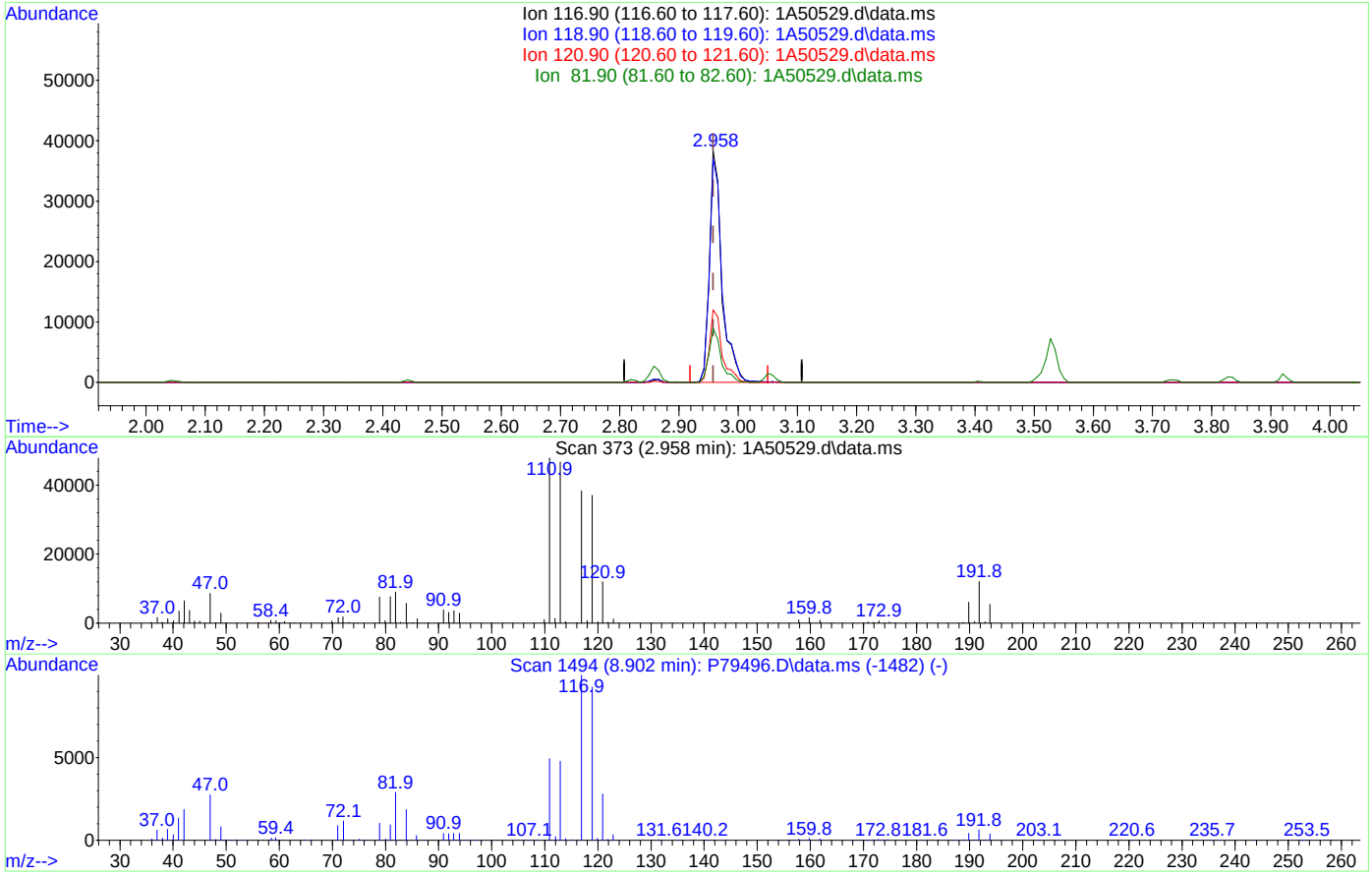
response 74930

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	50.99
39.00	21.10	18.79
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.000) 34.97ug/L

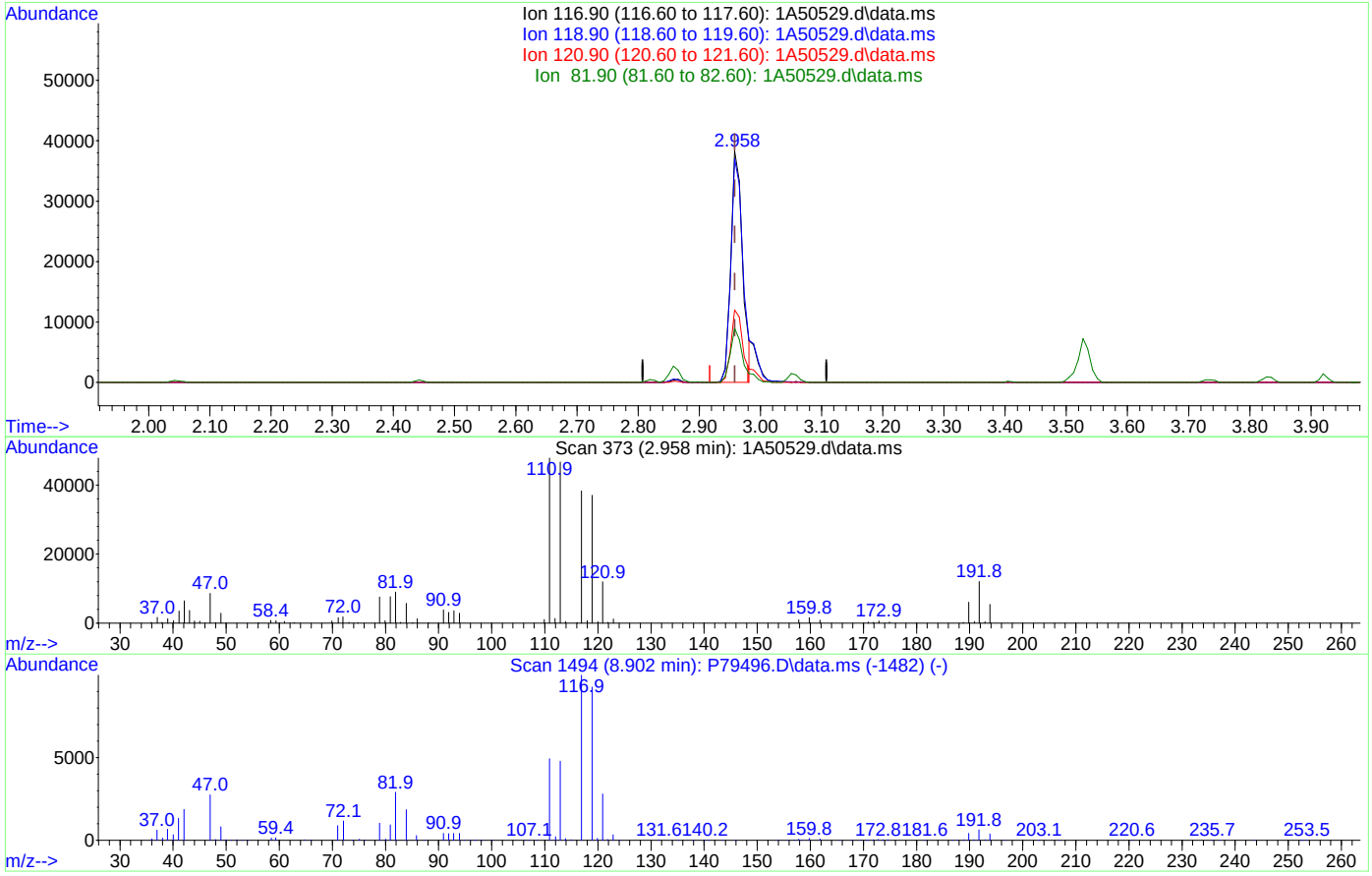
response 56329

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	96.70
120.90	31.10	31.30
81.90	25.40	23.38

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.000) 31.60ug/L m

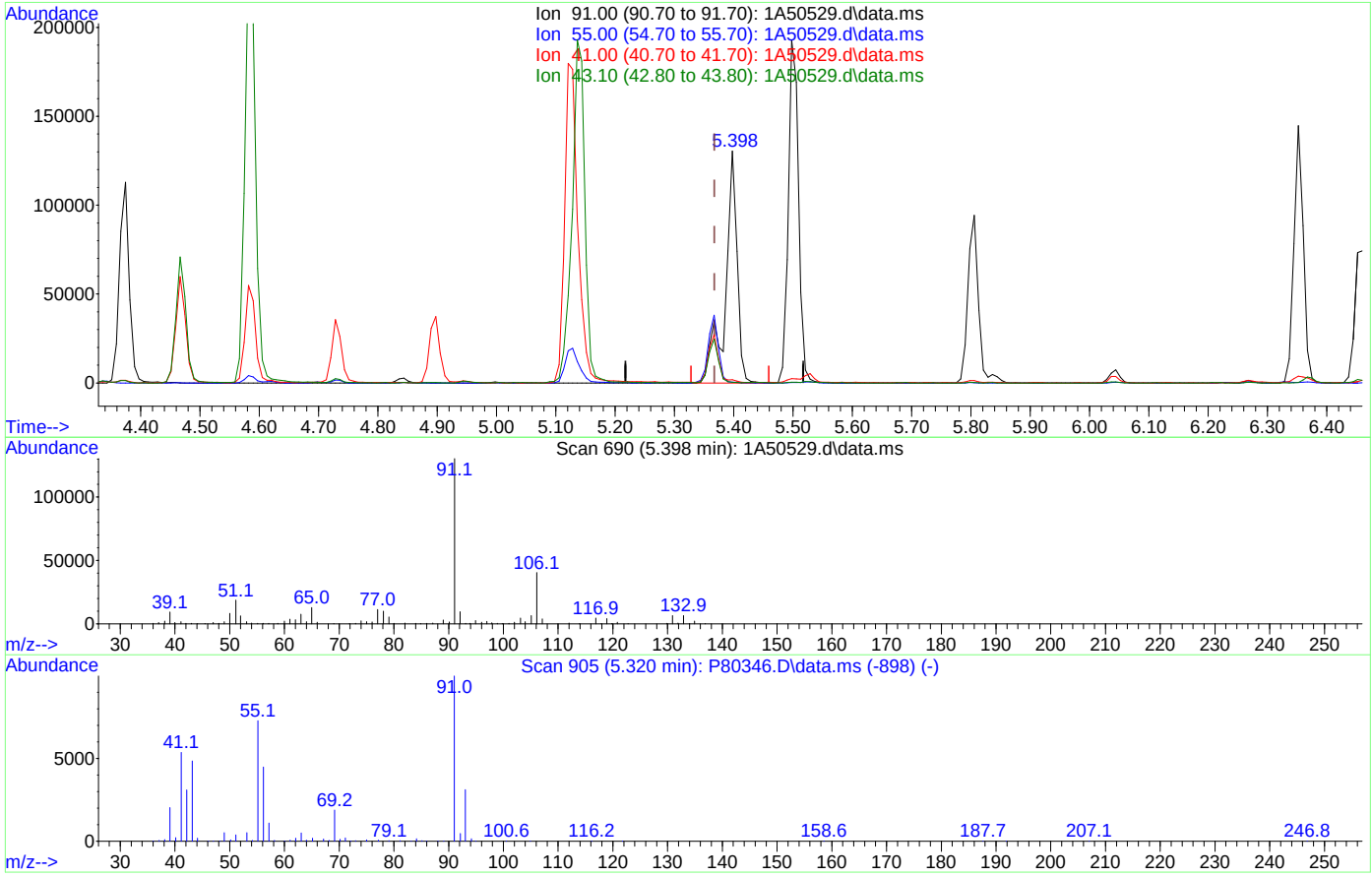
response 50901

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	96.70
120.90	31.10	31.30
81.90	25.40	23.38

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(76) 1-Chlorohexane

5.398min (+0.030) 95.75ug/L

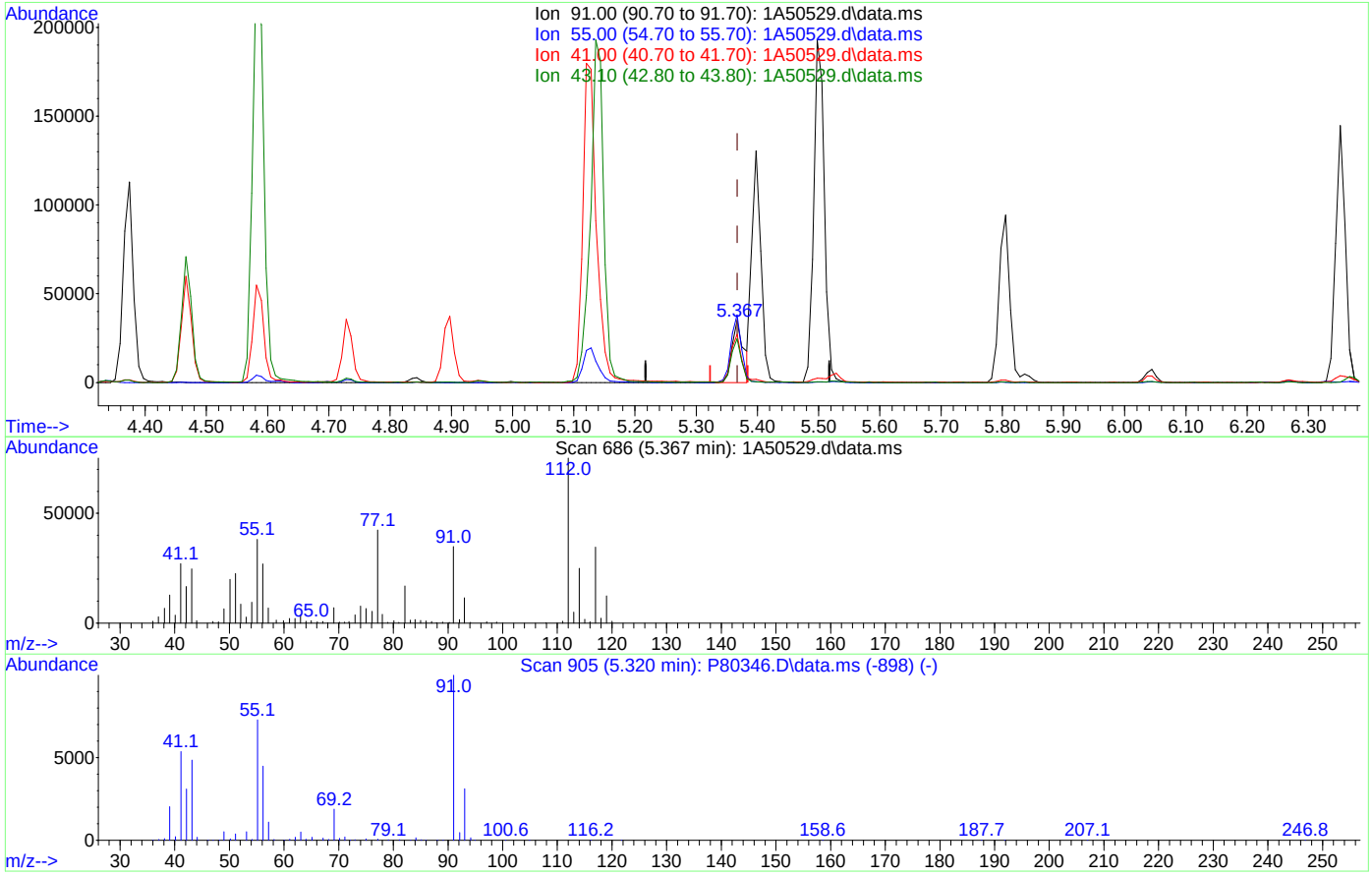
response 183649

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.25#
41.00	53.90	1.09#
43.10	42.90	0.22#

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 23.83ug/L m

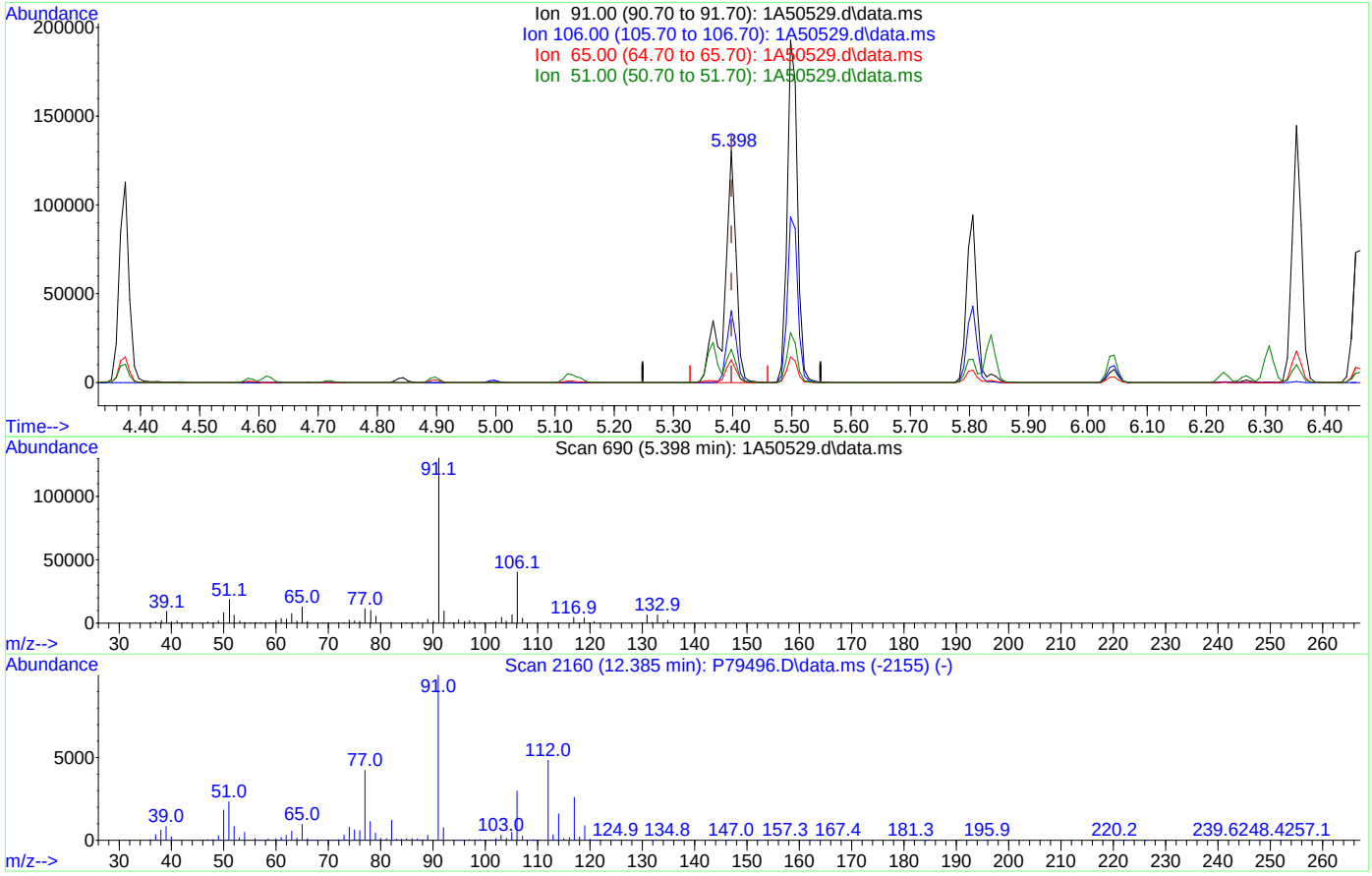
response 45711

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	109.11#
41.00	53.90	77.56#
43.10	42.90	70.61#

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 33.14ug/L

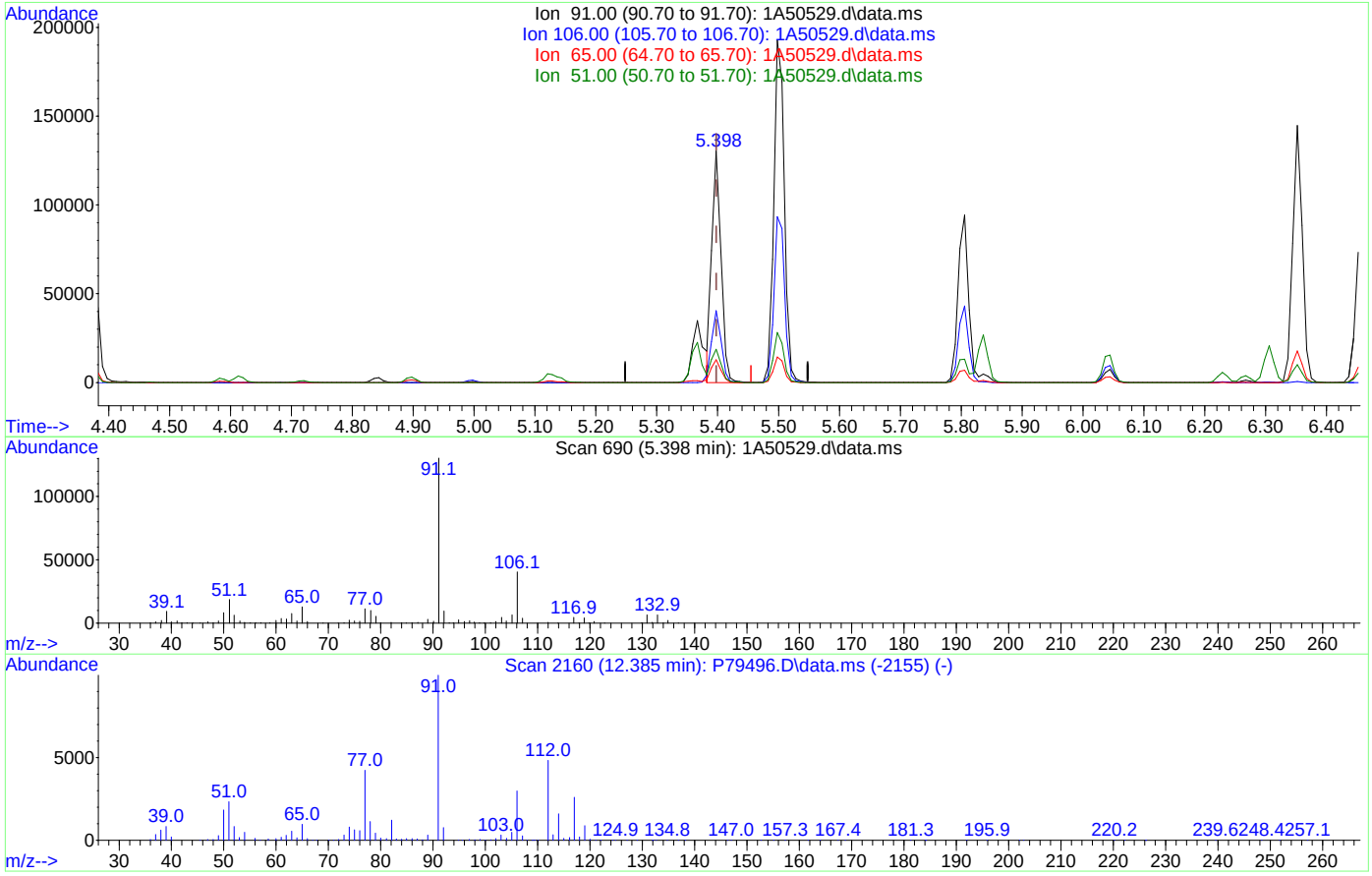
response 183649

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.01
65.00	8.30	9.77
51.00	10.10	14.30

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50529.d
Acq On : 6 Nov 2023 9:31 pm
Operator : jeniferw
Sample : FC10918-1MSD Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,5
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Nov 07 02:52:36 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50529.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 24.89ug/L m

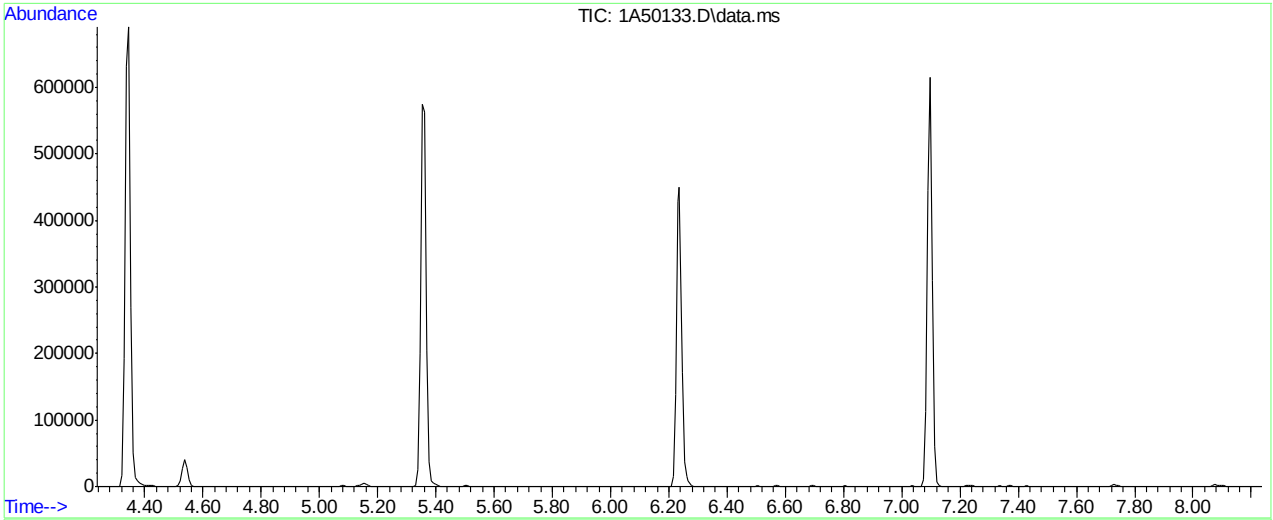
response 137917

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.01
65.00	8.30	9.77
51.00	10.10	14.30

Methods: SW-846 8260B

Data File : C:\msdchem\1\DATA\10-23-2023\1A50133.D Vial: 1
Acq On : 23 Oct 2023 8:49 am Operator: jeniferw
Sample : BFB Inst : MSVOA17
Misc : MS55077,V1A1961,,,,, Multiplr: 1.00
MS Integration Params: big.p

Method : C:\msdchem\1\MET...V1A_10-23-2023.M (RTE Integrator)
Title : SW-846 Method 5035A/8260B



AutoFind: Scans 798, 799, 800; Background Corrected with Scan 792

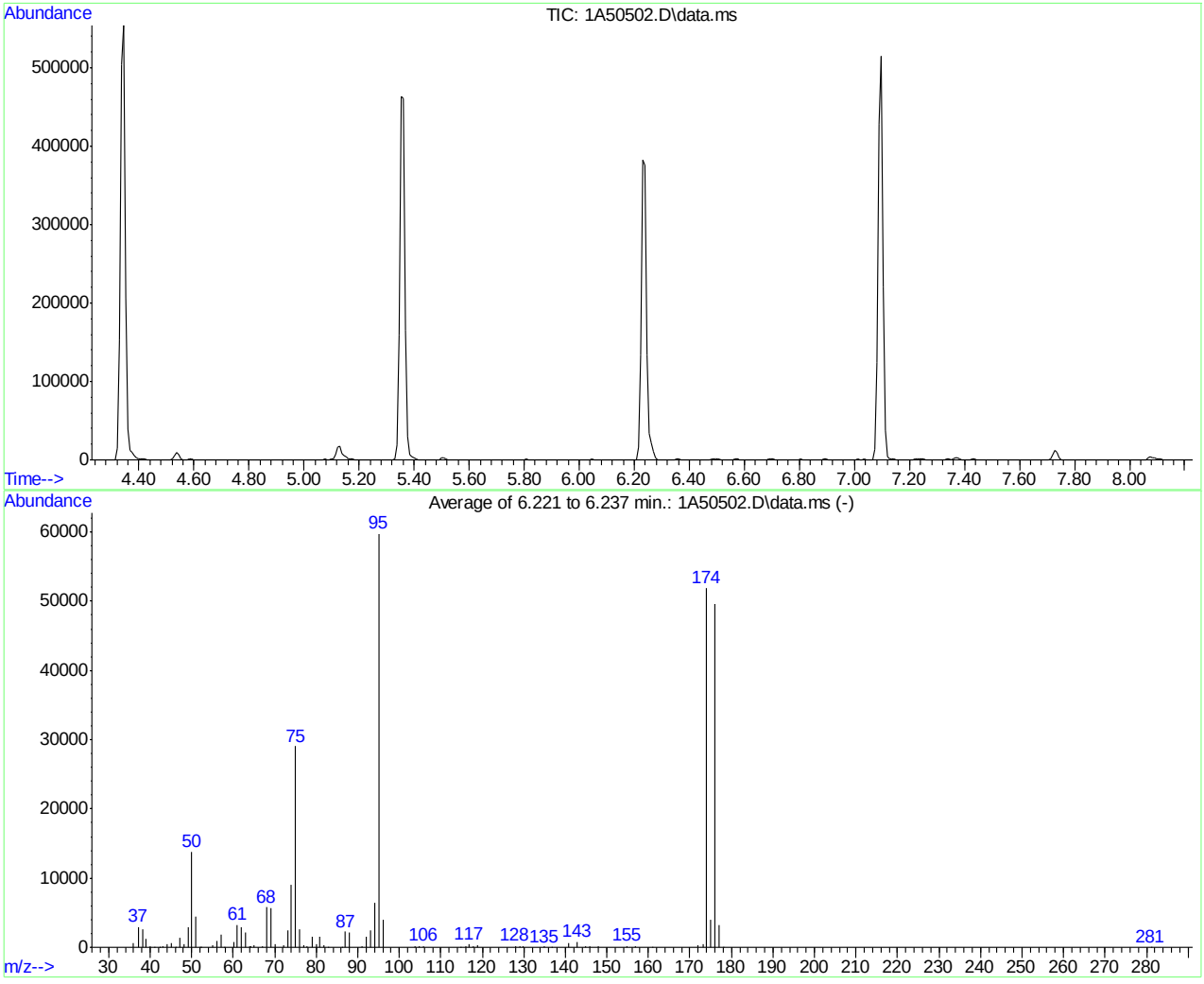
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.4	16804	PASS
75	95	30	60	45.8	31551	PASS
95	95	100	100	100.0	68835	PASS
96	95	5	9	6.7	4591	PASS
173	174	0.00	2	0.9	538	PASS
174	95	50	100	90.6	62365	PASS
175	174	5	9	7.4	4595	PASS
176	174	95	101	95.4	59501	PASS
177	176	5	9	6.8	4038	PASS

1A50133.D V1A_10-23-2023.M Tue Oct 24 10:01:45 2023

Methods: SW-846 8260B

```
Data File : C:\msdchem\1\DATA\11-06-2023\1A50502.D       Vial: 1
Acq On    :  6 Nov 2023  10:32 am                    Operator: jeniferw
Sample    : BFB                                      Inst    : MSVOA17
Misc      : MS55197,V1A1977,,,,,                     Multiplr: 1.00
MS Integration Params: big.p

Method    : C:\msdchem\1\MET...V1A_10-23-2023.M (RTE Integrator)
Title     : SW-846 Method 5035A/8260B
```



AutoFind: Scans 797, 798, 799; Background Corrected with Scan 792

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	13799	PASS
75	95	30	60	48.6	29079	PASS
95	95	100	100	100.0	59779	PASS
96	95	5	9	6.7	4018	PASS
173	174	0.00	2	0.9	444	PASS
174	95	50	100	86.9	51939	PASS
175	174	5	9	7.7	4009	PASS
176	174	95	101	95.5	49584	PASS
177	176	5	9	6.6	3277	PASS

1A50502.D V1A_10-23-2023.M Mon Nov 06 11:17:30 2023

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:52:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	309757	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	221290	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	114054	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	87301	46.27	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 92.54%				
49) 1,2-Dichloroethane-d4	3.235	65	108186	56.16	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 112.32%				
63) Toluene-d8	4.344	98	291668	56.85	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 113.70%#				
86) 4-Bromofluorobenzene	6.237	174	96493	53.94	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.88%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	1660	1.20	ug/L		97
3) Chloromethane	1.134	50	3362	2.02	ug/L		99
4) 1,3-butadiene	1.180	39	3242	1.88	ug/L		94
5) Vinyl Chloride	1.173	62	2623	1.74	ug/L		94
6) Bromomethane	1.350	94	756m	1.15	ug/L		
7) Chloroethane	1.411	64	1883	2.33	ug/L		87
8) Trichlorofluoromethane	1.496	101	2937	1.12	ug/L		99
9) Ethyl Ether	1.658	59	3196	2.36	ug/L	#	77
10) Ethanol	1.704	45	1769	64.73	ug/L		76
11) 1,2-Dichlorotrifluoroe...	1.750	67	2407	1.40	ug/L	#	82
12) 1,1-Dichloroethene	1.758	61	3647	1.51	ug/L		81
13) Freon 113	1.788	101	1568	0.93	ug/L		89
14) Carbon Disulfide	1.781	76	6188	1.39	ug/L		78
15) Iodomethane	1.835	142	676m	0.64	ug/L		
16) Acrolein	1.912	56	3088	7.66	ug/L		98
17) Allyl chloride	1.996	41	3951	1.81	ug/L		90
18) Methylene Chloride	2.042	49	12030	5.03	ug/L		74
19) Acetone	2.050	43	20060	33.92	ug/L		93
20) Methyl acetate	2.127	43	17418	9.59	ug/L		89
21) trans-1,2-Dichloroethene	2.135	61	3570	1.55	ug/L		80
22) Hexane	2.196	56	3065	1.72	ug/L	#	93
23) Methyl Tert Butyl Ether	2.196	73	5618	1.15	ug/L		70
24) Acetonitrile	2.273	41	8221	28.92	ug/L		95
25) Tert Butyl Alcohol	2.212	59	5793	16.65	ug/L		91
26) Di-isopropyl ether	2.396	45	9506	1.72	ug/L		93
27) Chloroprene	2.443	53	11898	1.78	ug/L		93
28) 1,1-Dichloroethane	2.443	63	4375	1.34	ug/L		94
29) Acrylonitrile	2.443	52	7036	8.48	ug/L		92
30) ETBE	2.581	59	7514	1.43	ug/L		77
31) Vinyl acetate	2.566	43	28816	7.79	ug/L		99
32) cis-1,2-Dichloroethene	2.720	96	2195	1.14	ug/L	#	81
33) 2,2-Dichloropropane	2.781	77	2726	1.10	ug/L		94
34) Bromochloromethane	2.827	128	1051	0.99	ug/L	#	61
35) Cyclohexane	2.866	56	4349	1.51	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:52:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
36) Chloroform	2.866	83	3793	1.19 ug/L		96
37) Ethyl acetate	2.920	43	18507	8.54 ug/L		94
38) Tetrahydrofuran	2.951	42	1561	2.05 ug/L		88
40) Carbon Tetrachloride	2.966	117	3108m	1.03 ug/L		
41) 1,1,1-Trichloroethane	2.989	97	3263	1.10 ug/L		88
42) 2-Butanone	3.004	43	9906	8.86 ug/L		81
43) 1,1-Dichloropropene	3.058	75	2651	1.20 ug/L		90
44) tert-Butyl formate	3.097	59	9475	9.00 ug/L		89
45) Propionitrile	3.143	54	8397	23.69 ug/L		98
46) Methacrylonitrile	3.166	41	26739	21.08 ug/L		95
47) Benzene	3.182	78	8079	1.19 ug/L		77
48) TAME	3.251	73	5576	1.21 ug/L	#	69
50) 1,2-Dichloroethane	3.274	62	3636	1.41 ug/L		91
51) Isobutyl Alcohol	3.258	43	7790	41.79 ug/L		94
52) Tert Amyl Alcohol	3.328	59	4125	15.64 ug/L		84
53) Trichloroethene	3.512	95	2285	1.18 ug/L		91
54) Methylcyclohexane	3.536	83	2952	0.99 ug/L	#	68
55) Dibromomethane	3.736	93	1421	1.22 ug/L	#	84
56) 1,2-Dichloropropane	3.797	63	2817	1.69 ug/L		84
57) Bromodichloromethane	3.828	83	3046	1.21 ug/L	#	92
58) Methyl methacrylate	3.920	41	3649	2.31 ug/L	#	80
59) 1,4-Dioxane	3.943	88	466m	17.94 ug/L		
60) 2-Chloroethyl vinyl ether	4.167	63	4349	4.63 ug/L		80
61) cis-1,3-Dichloropropene	4.213	75	2976	1.15 ug/L		84
64) Toluene	4.374	91	8098	1.39 ug/L		99
65) 2-Nitropropane	4.467	41	4344	9.75 ug/L		95
66) 4-Methyl-2-pentanone	4.590	43	17208	10.41 ug/L		97
67) trans-1,3-Dichloropropene	4.613	75	3031	1.55 ug/L		83
68) Tetrachloroethene	4.636	166	2741	1.31 ug/L		94
69) Ethyl methacrylate	4.728	69	2418	1.81 ug/L	#	82
70) 1,1,2-Trichloroethane	4.713	83	1661	1.57 ug/L		88
71) Dibromochloromethane	4.844	129	1953	1.09 ug/L		90
72) 1,3-Dichloropropane	4.898	76	3073	1.63 ug/L	#	62
73) 1,2-Dibromoethane	4.998	107	2070	1.35 ug/L		93
74) 3,3-Dimethyl-1-Butanol	5.121	57	20652	95.45 ug/L	#	82
75) 2-hexanone	5.144	43	16376	10.51 ug/L	#	72
76) 1-Chlorohexane	5.367	91	3205m	1.52 ug/L		
77) Ethylbenzene	5.398	91	8576	1.38 ug/L		95
78) Chlorobenzene	5.367	112	5858	1.43 ug/L		87
79) 1,1,1,2-Tetrachloroethane	5.413	131	1992	1.16 ug/L		92
80) m,p-Xylene	5.498	91	13713	2.70 ug/L		93
81) o-Xylene	5.806	91	6766	1.31 ug/L		94
82) Styrene	5.837	104	4688	1.17 ug/L		89
83) Bromoform	5.844	173	1476	1.17 ug/L		91
84) Isopropylbenzene	6.045	105	7523	1.21 ug/L		97
87) cis-1,4-Dichloro-2-butene	6.268	53	1298	4.34 ug/L	#	60
88) n-Propylbenzene	6.352	91	9506	1.58 ug/L		98
89) Bromobenzene	6.306	156	2179	1.40 ug/L	#	60
90) 1,1,2,2-Tetrachloroethane	6.375	83	2876	1.90 ug/L		96
91) 1,3,5-Trimethylbenzene	6.506	105	6054	1.31 ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:52:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	6.460	91	6010	1.70	ug/L		96
93)	trans-1,4-Dichloro-2-B...	6.506	53	1300	2.93	ug/L	#	77
94)	1,2,3-Trichloropropane	6.476	110	846m	1.66	ug/L		
95)	Cyclohexanone	6.483	55	769m	13.37	ug/L		
96)	4-Chlorotoluene	6.583	91	5917	1.58	ug/L		99
97)	tert-Butylbenzene	6.745	91	3430	1.42	ug/L		81
98)	1,2,4-Trimethylbenzene	6.806	105	5487	1.25	ug/L		97
99)	Pentachloroethane	6.753	167	1332	1.64	ug/L	#	86
100)	sec-Butylbenzene	6.891	105	7281	1.30	ug/L		92
101)	4-Isopropyltoluene	7.014	119	5377	1.05	ug/L		98
102)	1,3-Dichlorobenzene	7.037	146	3791	1.28	ug/L		95
103)	1,2,3-Trimethylbenzene	7.145	105	6219	1.42	ug/L		98
104)	1,4-Dichlorobenzene	7.107	146	4273m	1.45	ug/L		
105)	n-Butylbenzene	7.338	92	2514	1.24	ug/L		96
106)	Benzyl Chloride	7.291	126	838m	1.39	ug/L		
107)	1,2-Dichlorobenzene	7.430	146	3767	1.43	ug/L		84
108)	1,2-Dibromo-3-Chloropr...	8.015	75	365m	1.62	ug/L		
109)	Hexachlorobutadiene	8.515	225	490m	0.83	ug/L		
110)	1,2,4-Trichlorobenzene	8.507	180	1396	1.10	ug/L		87
111)	Naphthalene	8.715	128	2543	1.35	ug/L		75
112)	1,2,3-Trichlorobenzene	8.838	180	909m	1.02	ug/L		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
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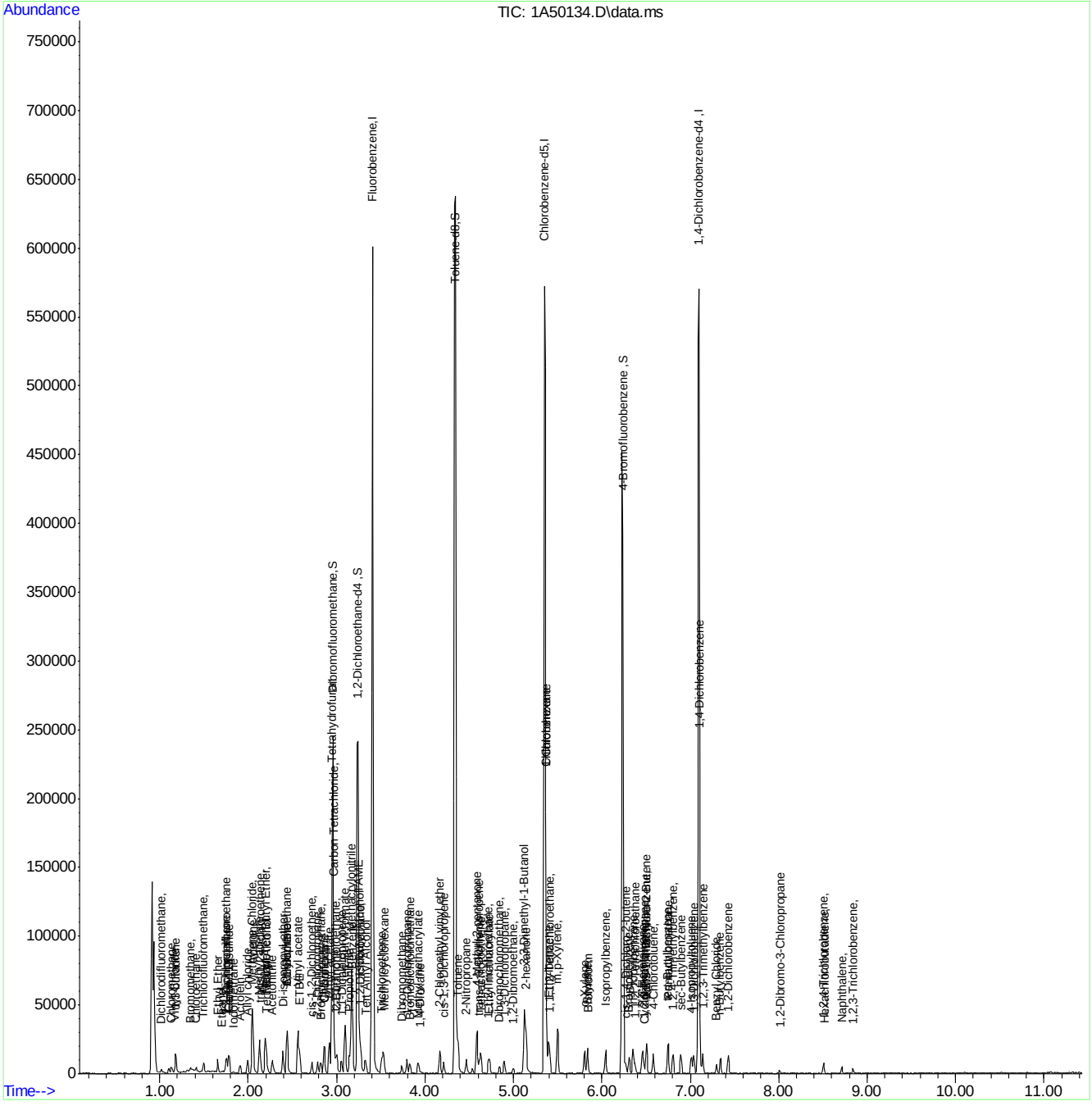
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:52:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

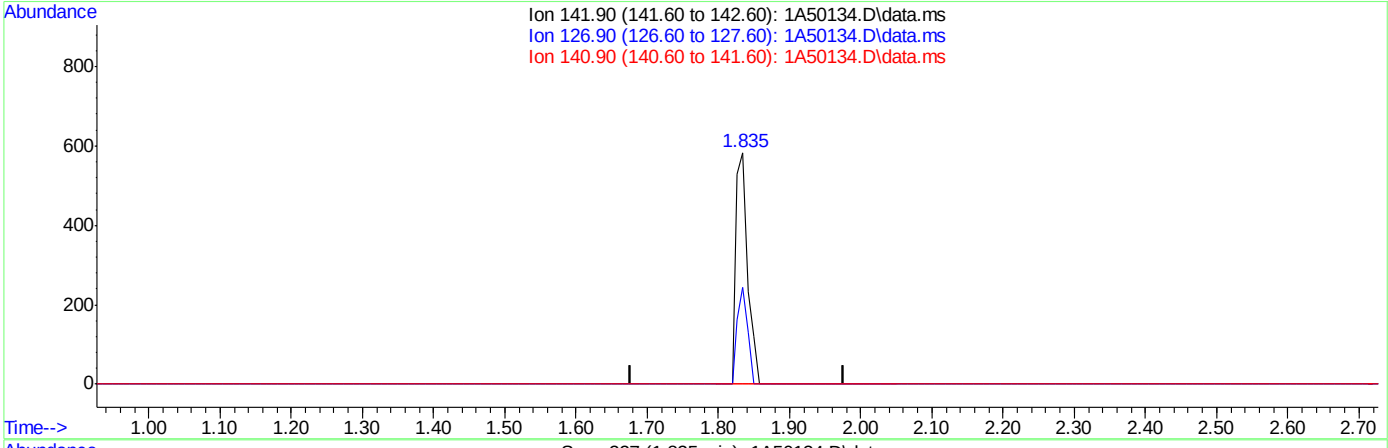
Sample Number: V1A1961-IC1961
Lab FileID: 1A50134.D
Injection Time: 10/23/23 09:13
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

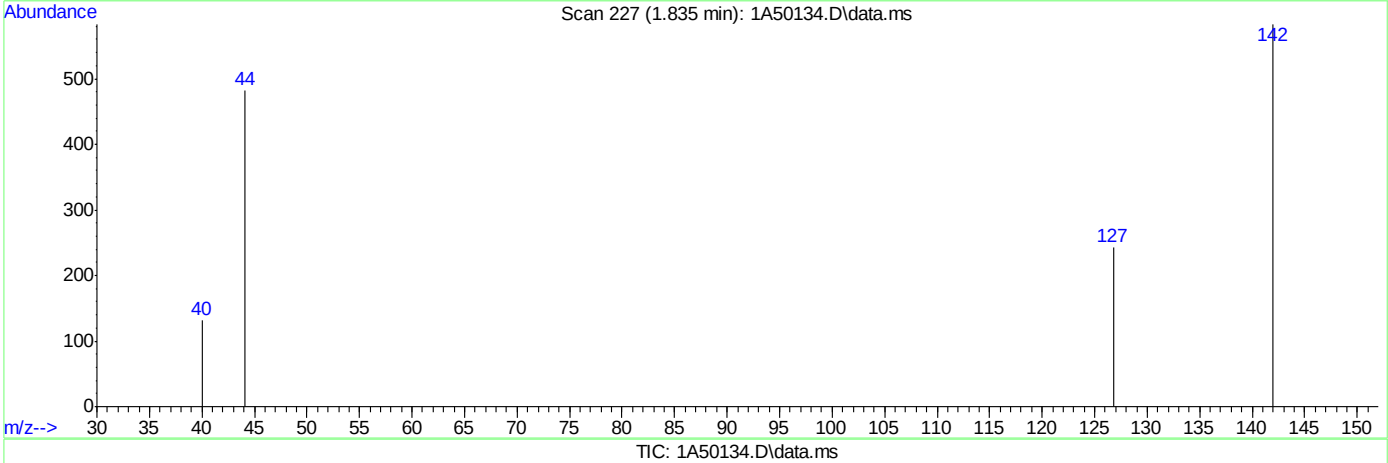
Parameter	CAS	Sig#	R.T. (min.)	Reason
Methyl Bromide	74-83-9		1.35	Missed peak
Methyl Iodide	74-88-4		1.83	Missed peak
Carbon Tetrachloride	56-23-5		2.97	Overlapping peak
1,4-Dioxane	123-91-1		3.94	Missed peak
1-Chlorohexane	544-10-5		5.37	Poorly defined baseline
Cyclohexanone	108-94-1		6.48	Missed peak
1,2,3-Trichloropropane	96-18-4		6.48	Missed peak
1,4-Dichlorobenzene	106-46-7		7.11	Missed peak
Benzyl Chloride	100-44-7		7.29	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.01	Missed peak
Hexachlorobutadiene	87-68-3		8.52	Missed peak
1,2,3-Trichlorobenzene	87-61-6		8.84	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(15) Iodomethane

1.835min (+0.008) 0.64ug/L m

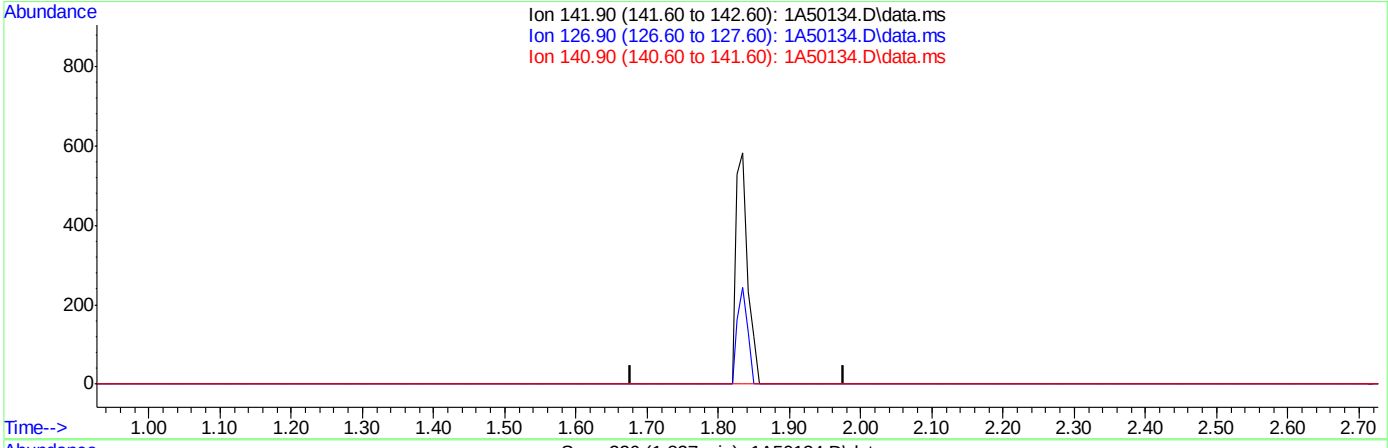
response 676

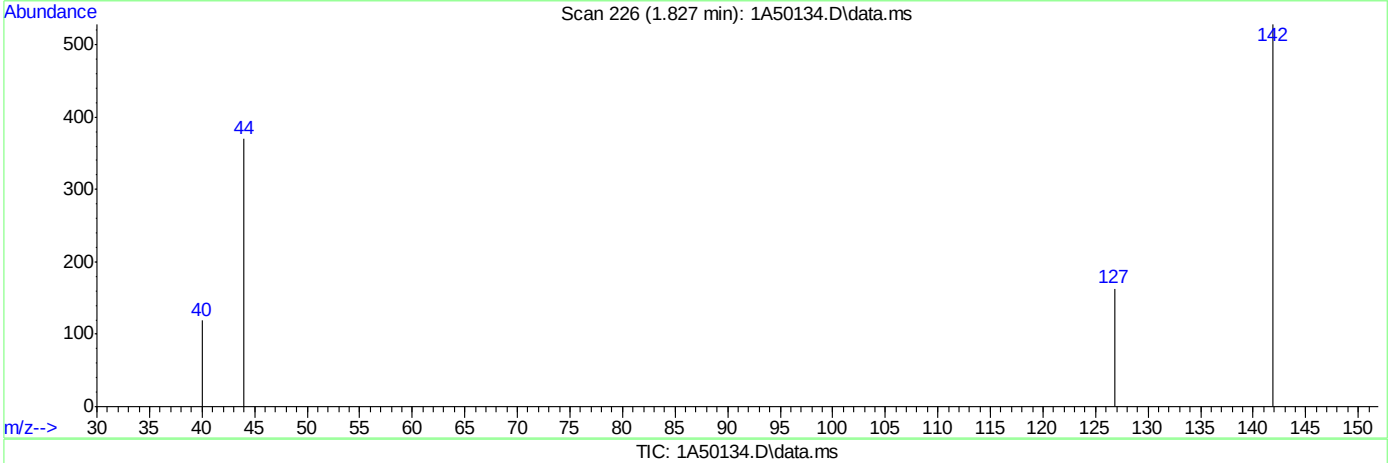
Ion	Exp%	Act%
141.90	100	100
126.90	46.70	41.68
140.90	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(15) Iodomethane

1.827min (-1.827) 0.00ug/L

response 0

Ion	Exp%	Act%
141.90	100	0.00
126.90	46.70	0.00#
140.90	14.30	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
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Quant Title : SW-846 Method 5035A/8260B
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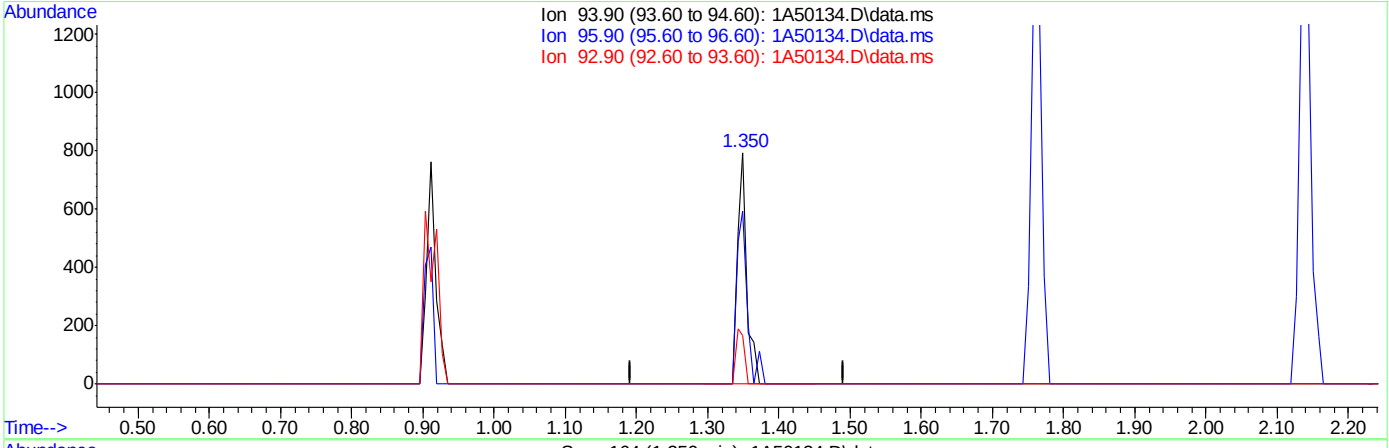
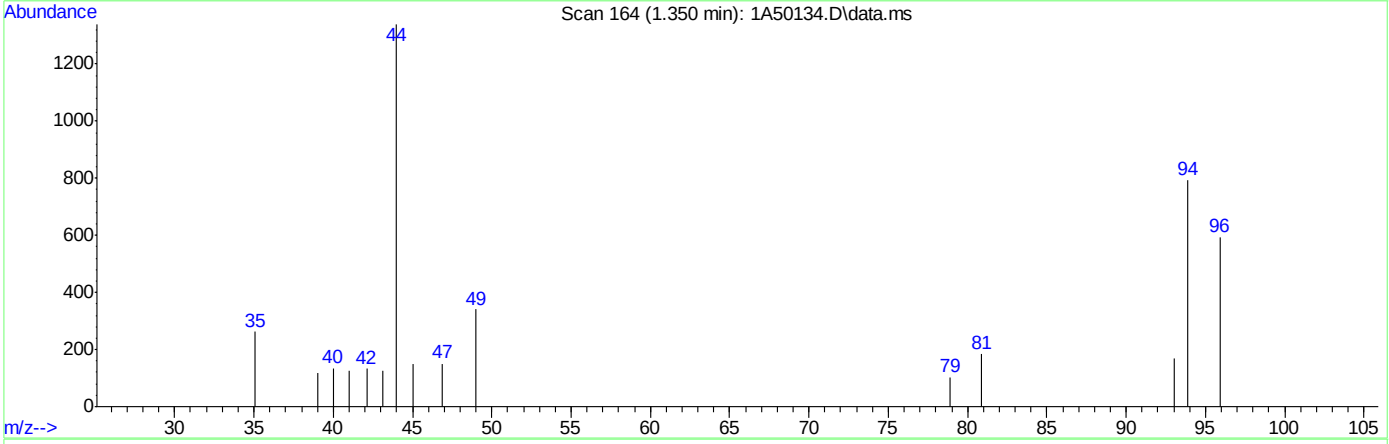
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(6) Bromomethane ( )

1.350min (+0.008) 1.15ug/L m

response 756

Ion	Exp%	Act%
93.90	100	100
95.90	88.70	74.72
92.90	19.40	21.13
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
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Quant Time: Oct 23 12:49:17 2023
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Quant Title : SW-846 Method 5035A/8260B
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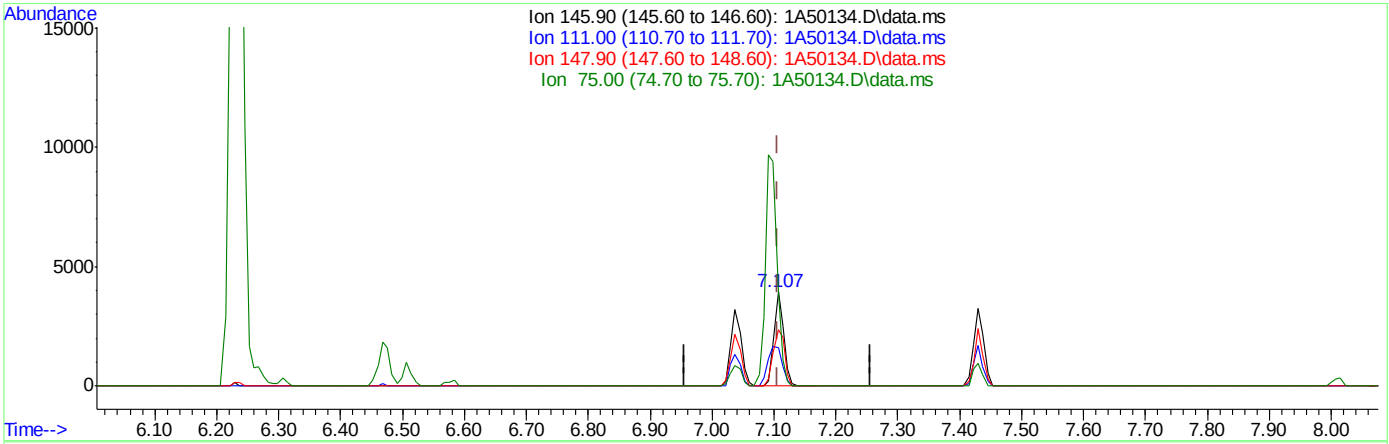

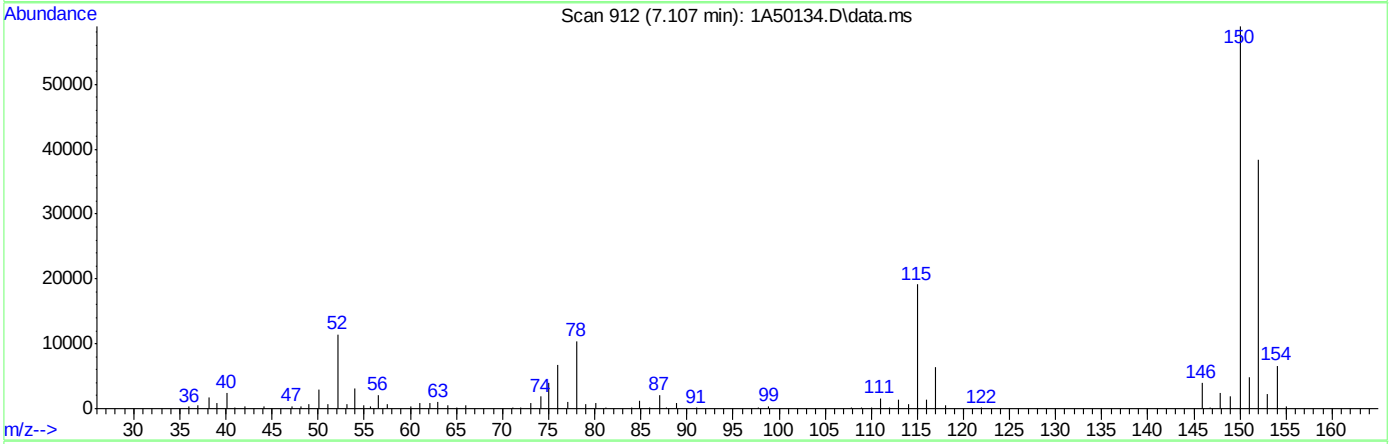

TIC: 1A50134.D\data.ms

(104) 1,4-Dichlorobenzene

7.107min (-0.000) 1.45ug/L m

response 4273

Ion	Exp%	Act%
145.90	100	100
111.00	38.00	41.37
147.90	65.40	59.69
75.00	26.40	99.52#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
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Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
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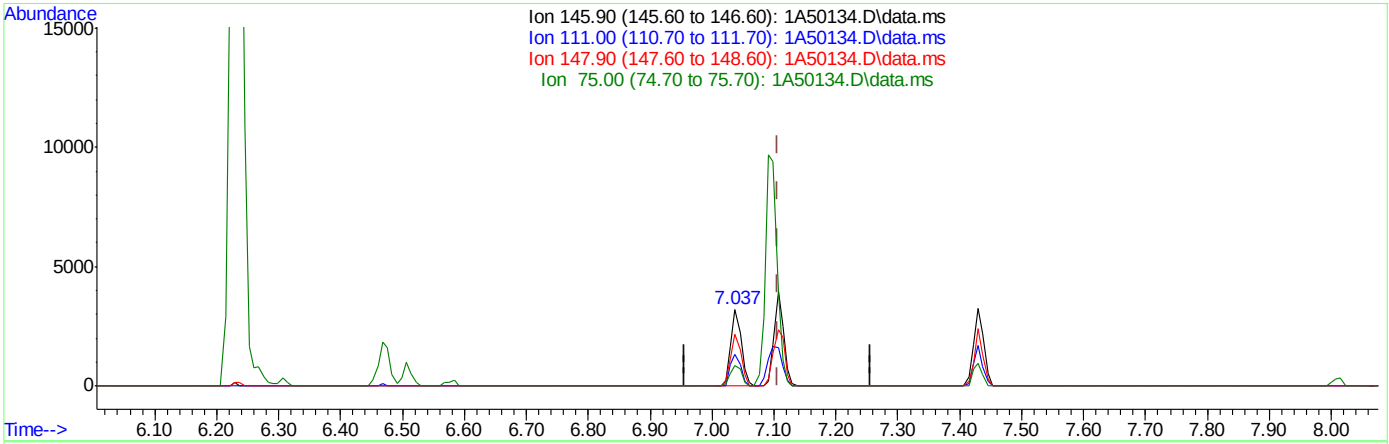

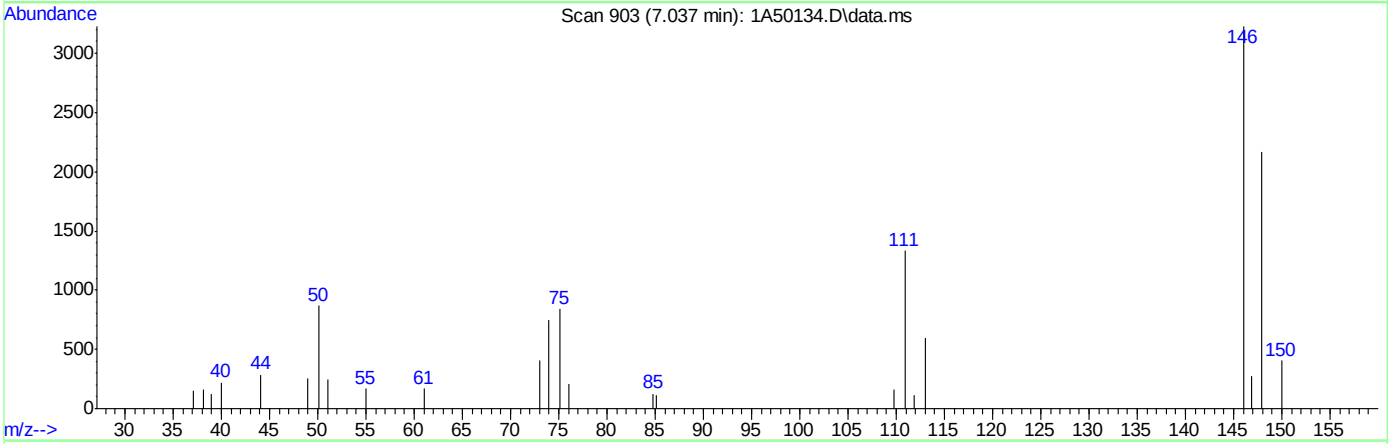

TIC: 1A50134.D\data.ms

(104) 1,4-Dichlorobenzene

7.037min (-0.070) 1.29ug/L

response 3791

Ion	Exp%	Act%
145.90	100	100
111.00	38.00	41.31
147.90	65.40	67.21
75.00	26.40	26.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
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Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
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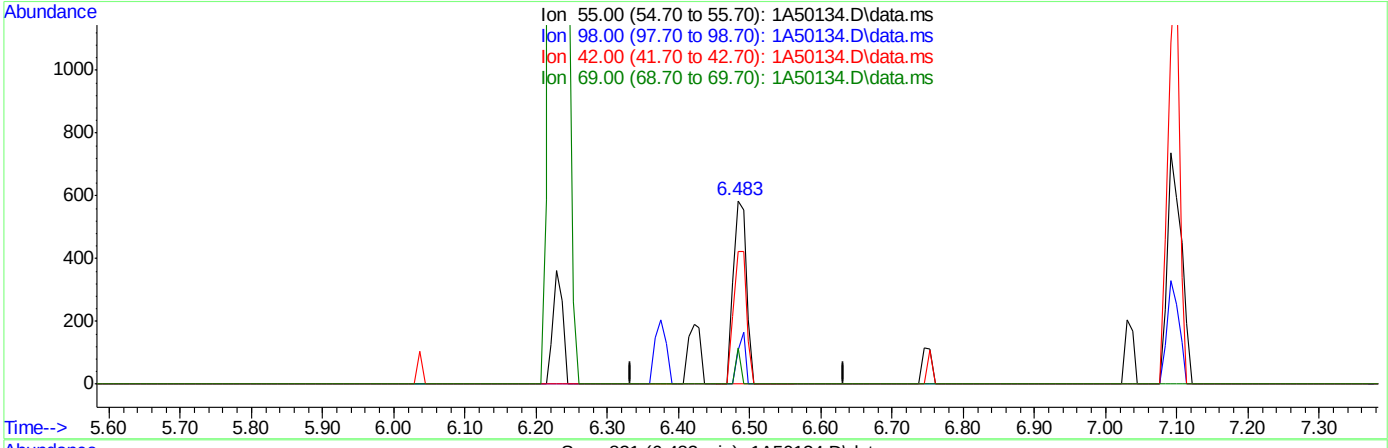

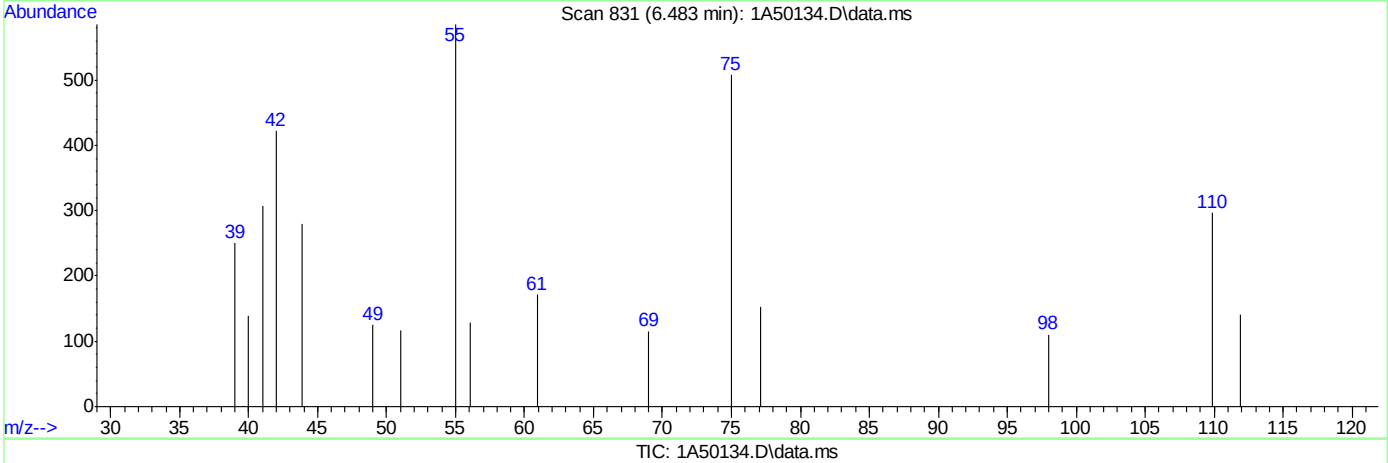

TIC: 1A50134.D\data.ms

(95) Cyclohexanone

6.483min (+0.000) 13.37ug/L m

response 769

Ion	Exp%	Act%
55.00	100	100
98.00	41.70	18.80#
42.00	67.70	72.14
69.00	27.00	19.66

Quantitation Report (Qedit)

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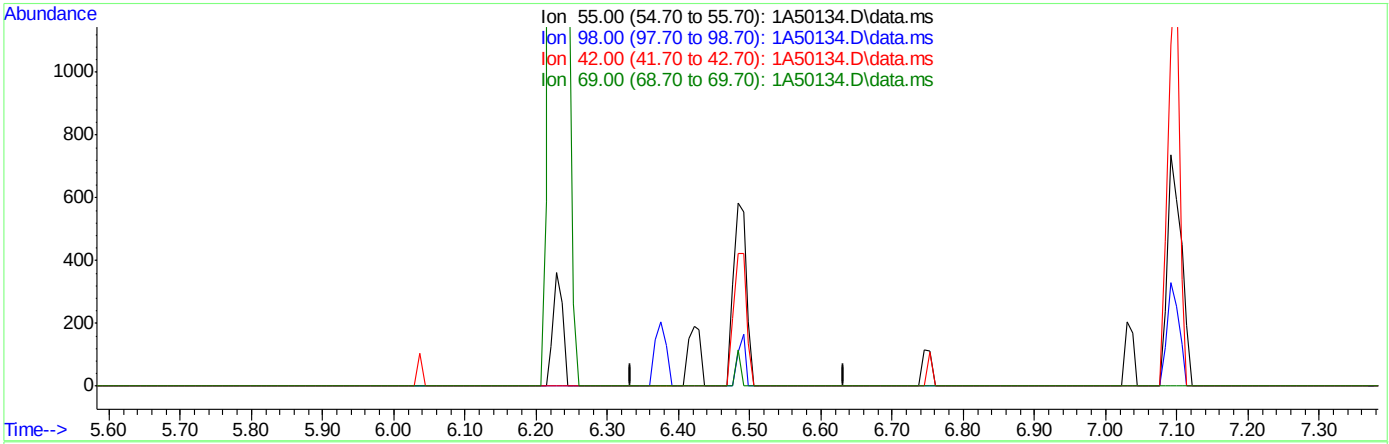

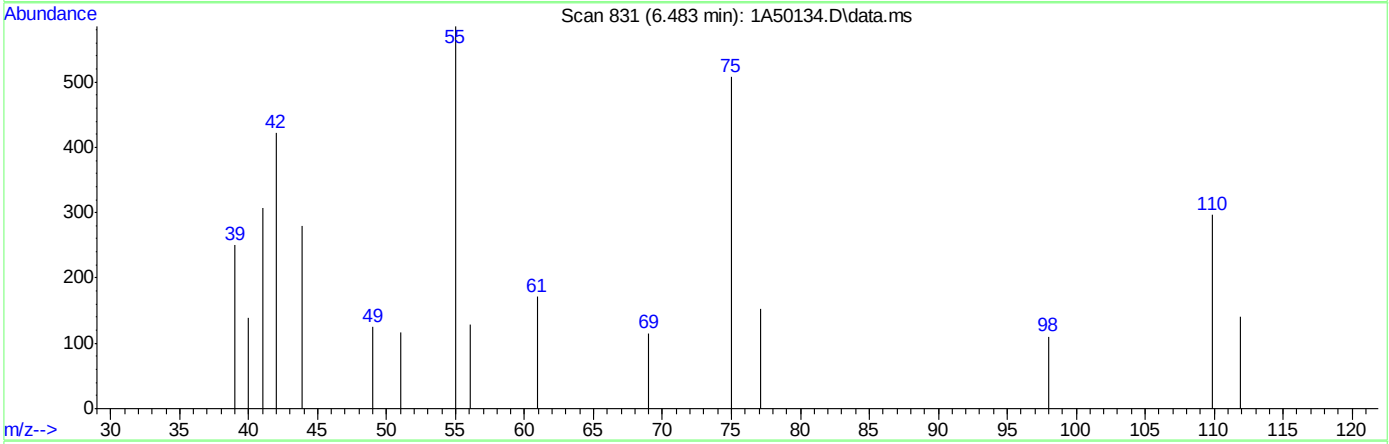

TIC: 1A50134.D\data.ms

(95) Cyclohexanone

6.483min (-6.483) 0.00ug/L

response 0

Ion	Exp%	Act%
55.00	100	0.00
98.00	41.70	0.00#
42.00	67.70	0.00#
69.00	27.00	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
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Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
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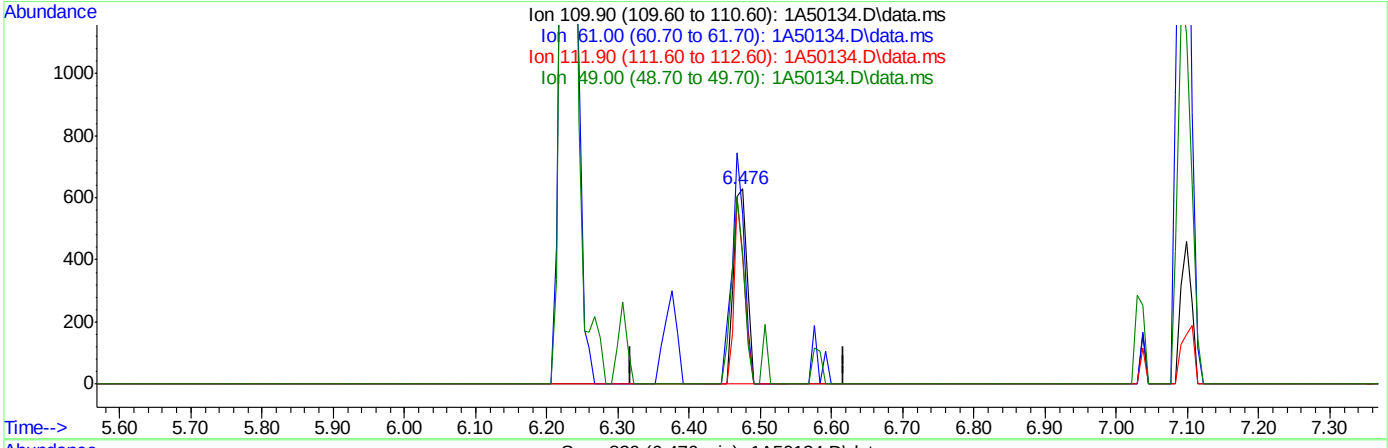

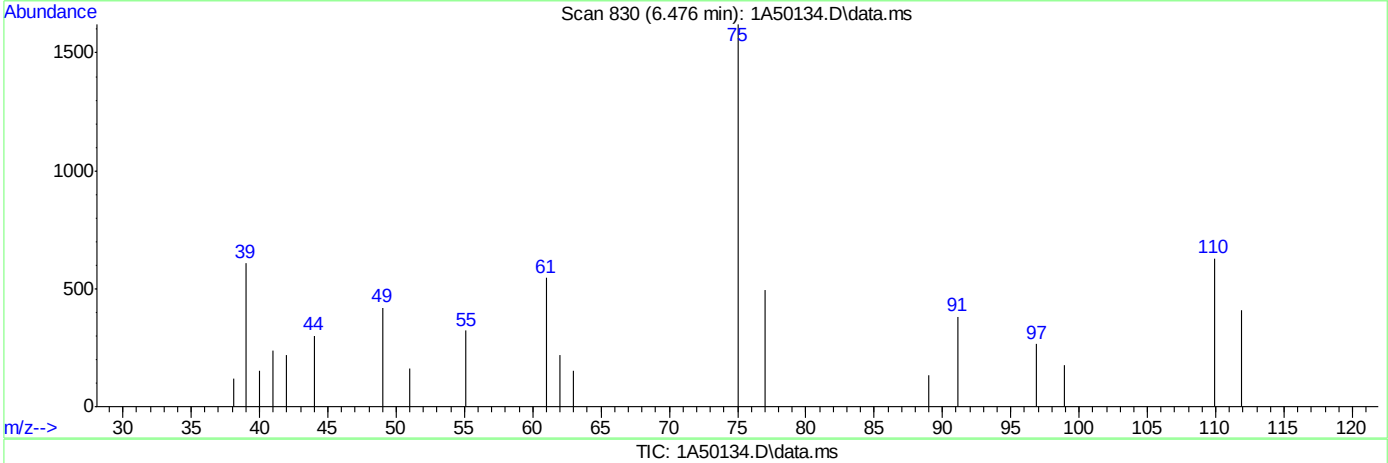

TIC: 1A50134.D\data.ms

(94) 1,2,3-Trichloropropane ( )

6.476min (+0.008) 1.66ug/L m

response 846

Ion	Exp%	Act%
109.90	100	100
61.00	66.40	86.78
111.90	64.30	65.29
49.00	57.90	66.72

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
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Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

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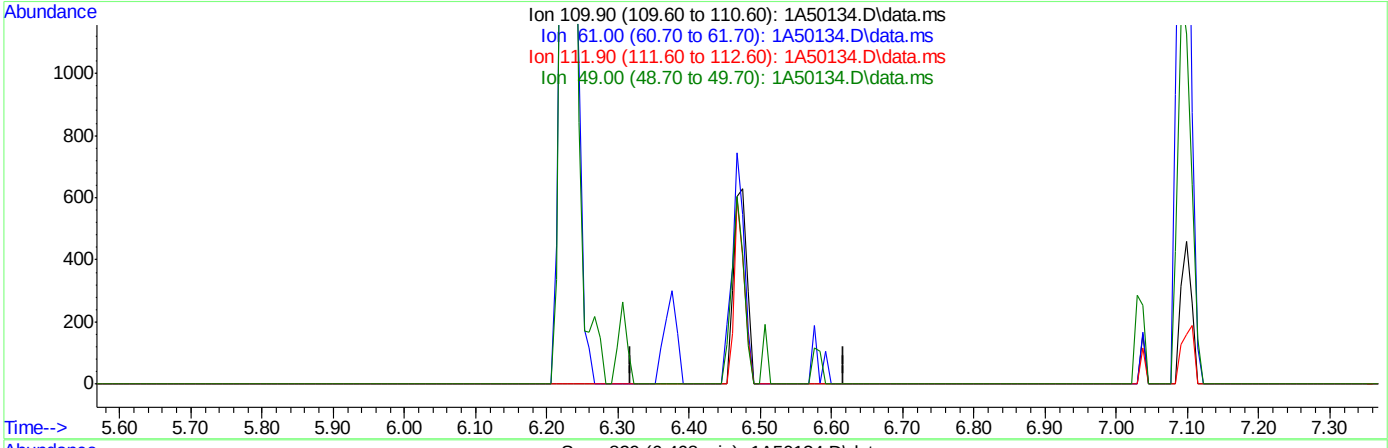
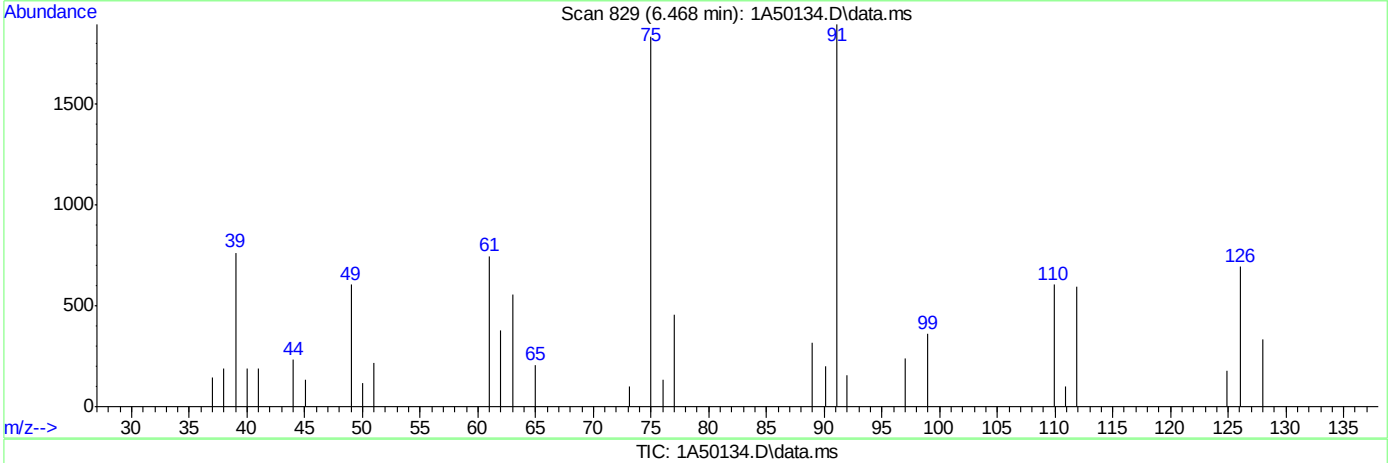




TIC: 1A50134.D\data.ms

(94) 1,2,3-Trichloropropane ( )

6.468min (-6.468) 0.00ug/L

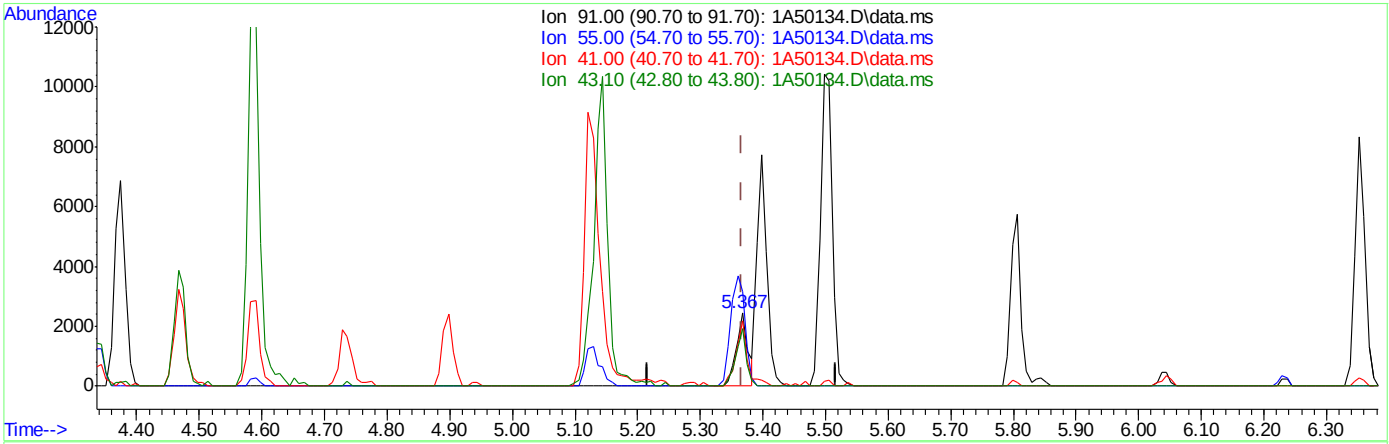
response 0

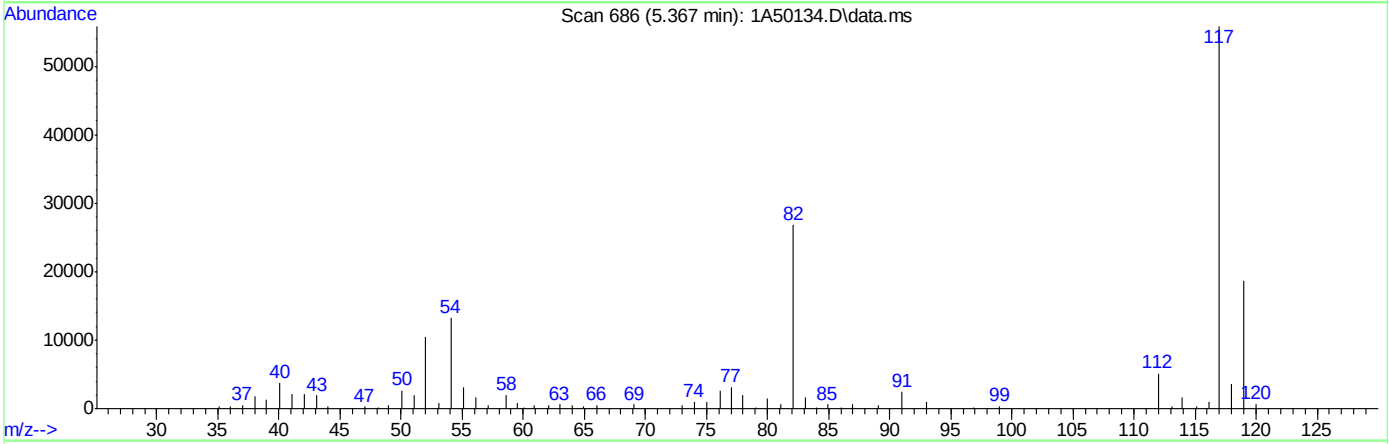
Ion	Exp%	Act%
109.90	100	0.00
61.00	66.40	0.00#
111.90	64.30	0.00#
49.00	57.90	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 1.52ug/L m

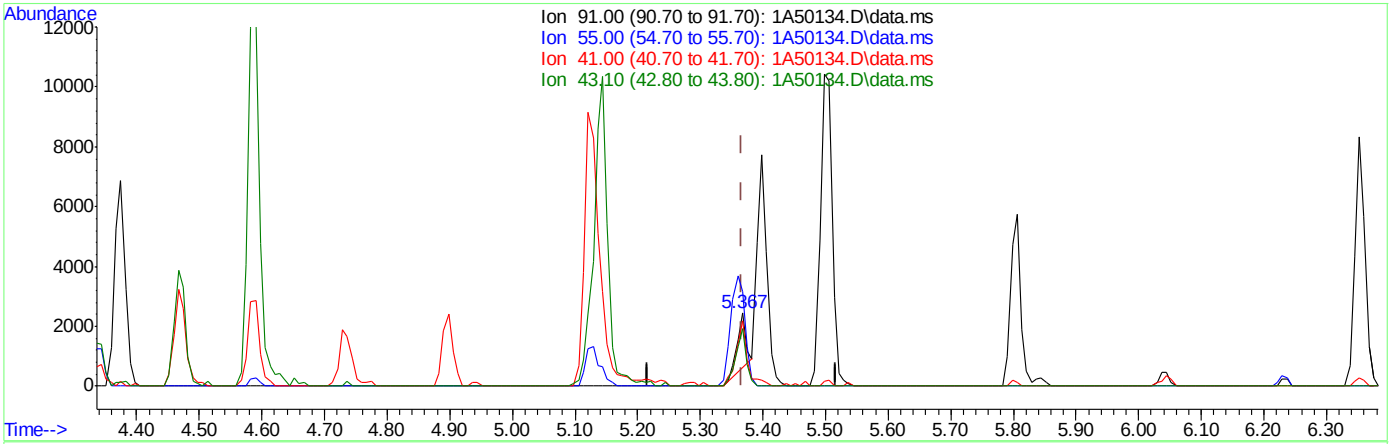
response 3205

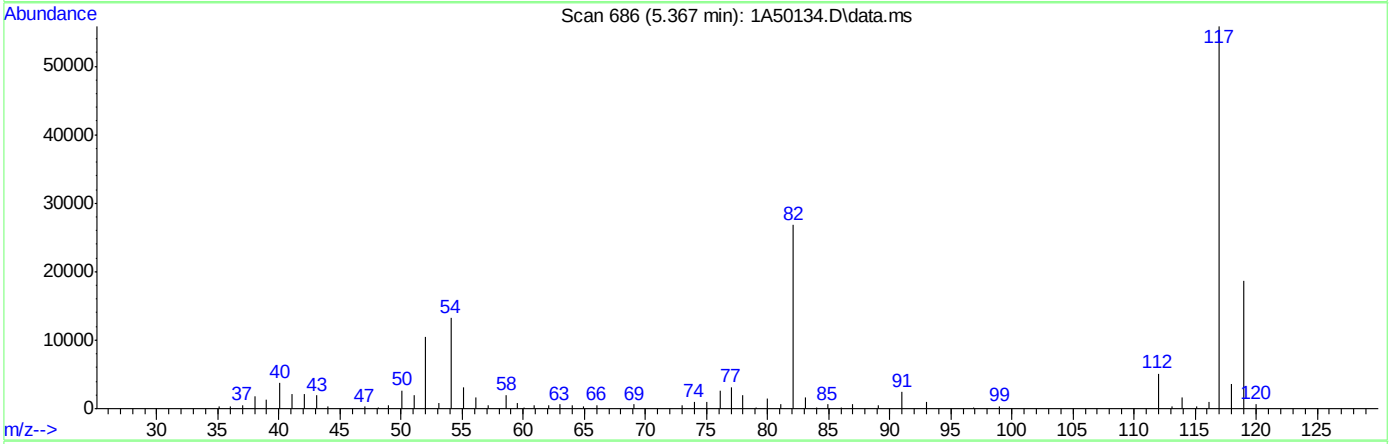
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	129.67#
41.00	53.90	90.29#
43.10	42.90	78.40#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 0.91ug/L

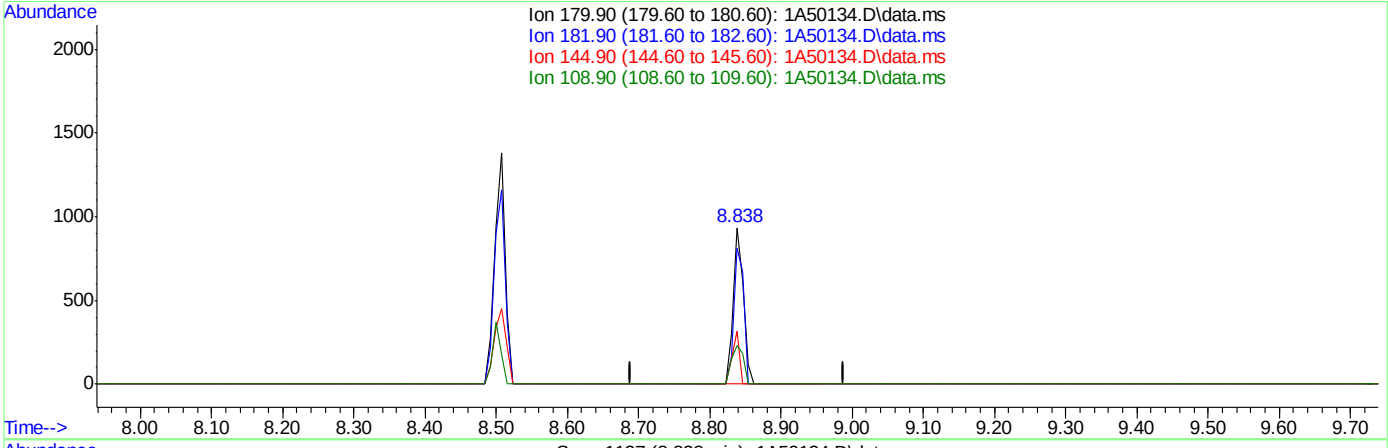
response 1915

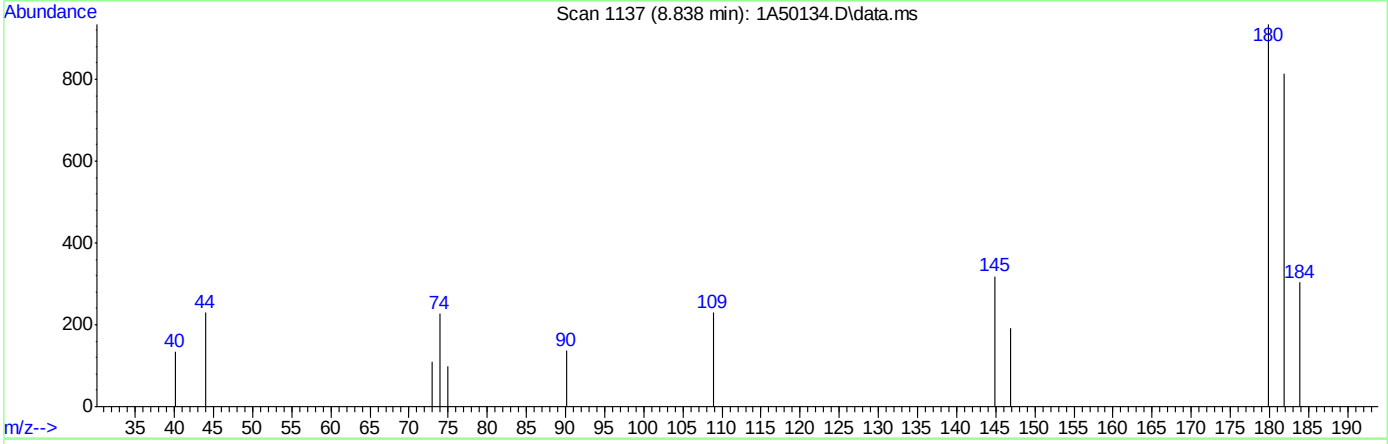
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	121.23#
41.00	53.90	90.29#
43.10	42.90	78.40#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(112) 1,2,3-Trichlorobenzene ( )

8.838min (-0.001) 1.02ug/L m

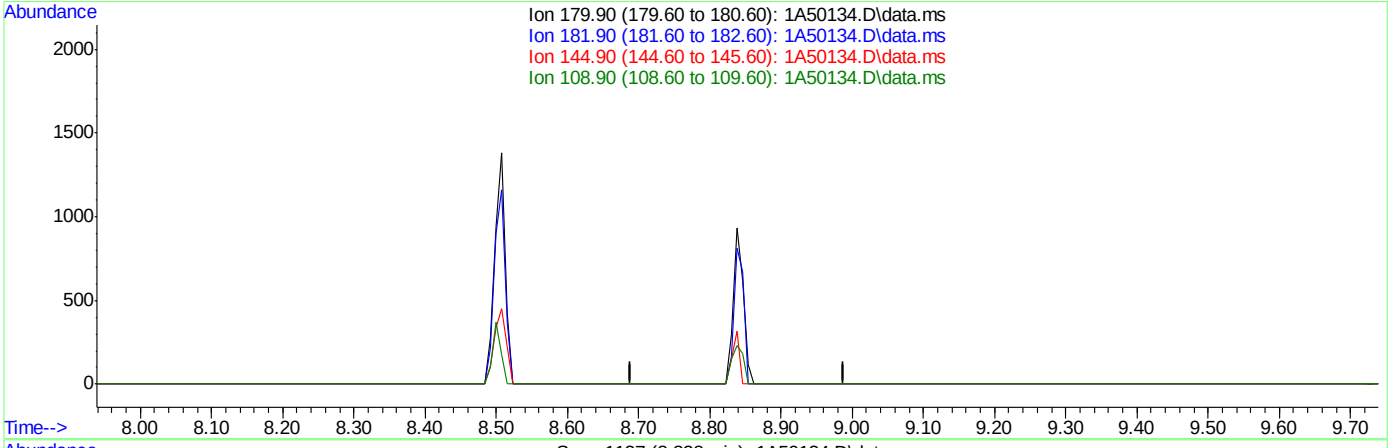
response 909

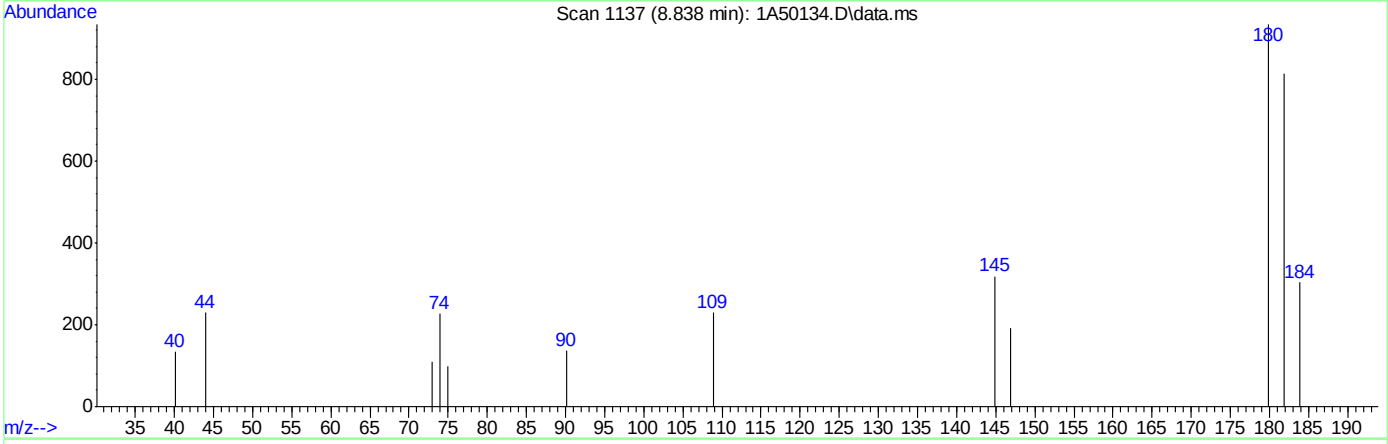
Ion	Exp%	Act%
179.90	100	100
181.90	97.70	87.15
144.90	27.30	34.15
108.90	20.90	24.52

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(112) 1,2,3-Trichlorobenzene ( )

8.839min (-8.839) 0.00ug/L

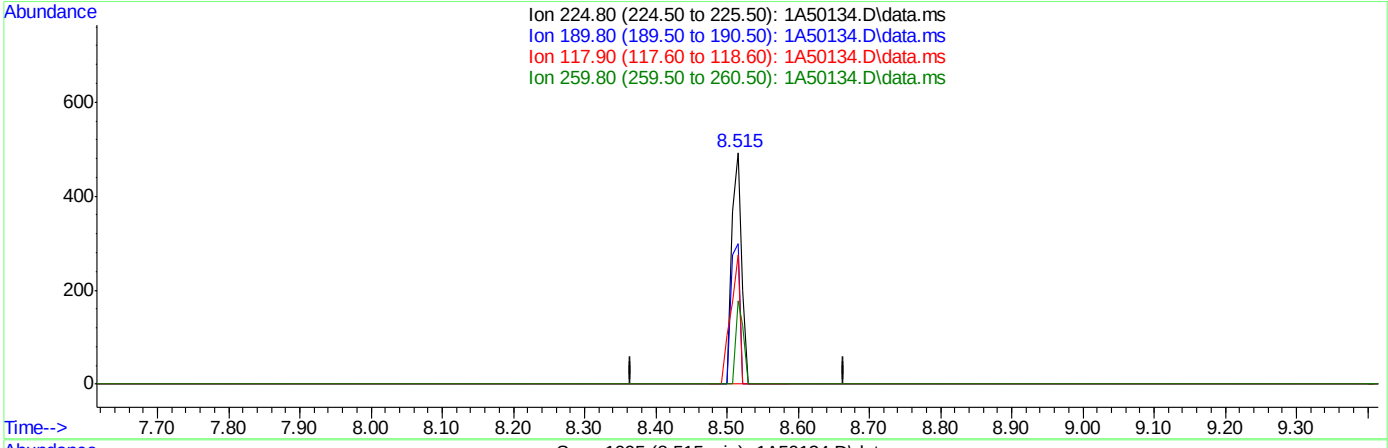
response 0

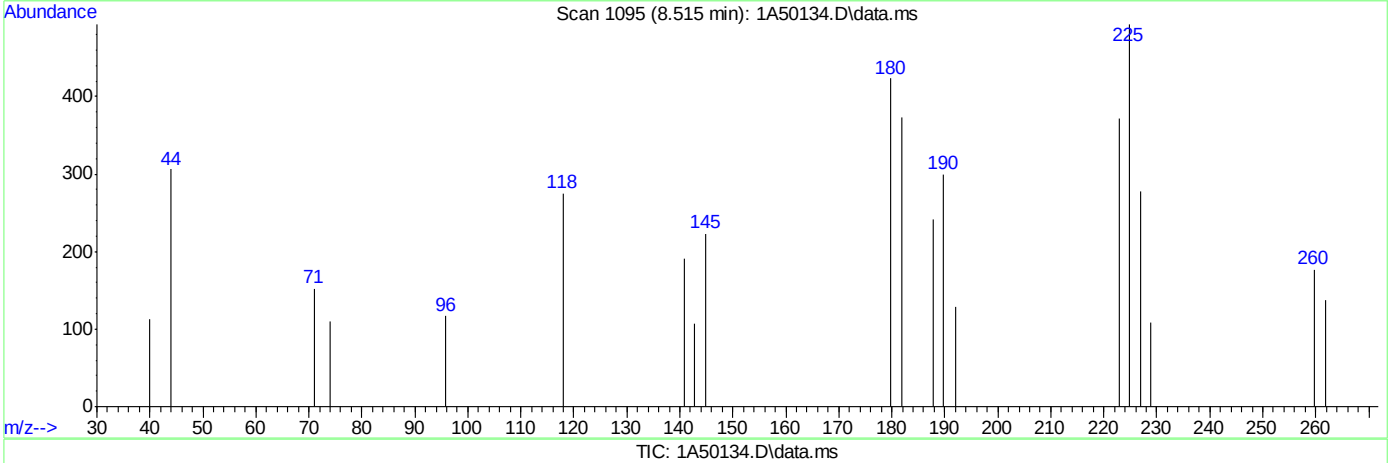
Ion	Exp%	Act%
179.90	100	0.00
181.90	97.70	0.00#
144.90	27.30	0.00
108.90	20.90	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(109) Hexachlorobutadiene ( )

8.515min (+0.000) 0.83ug/L m

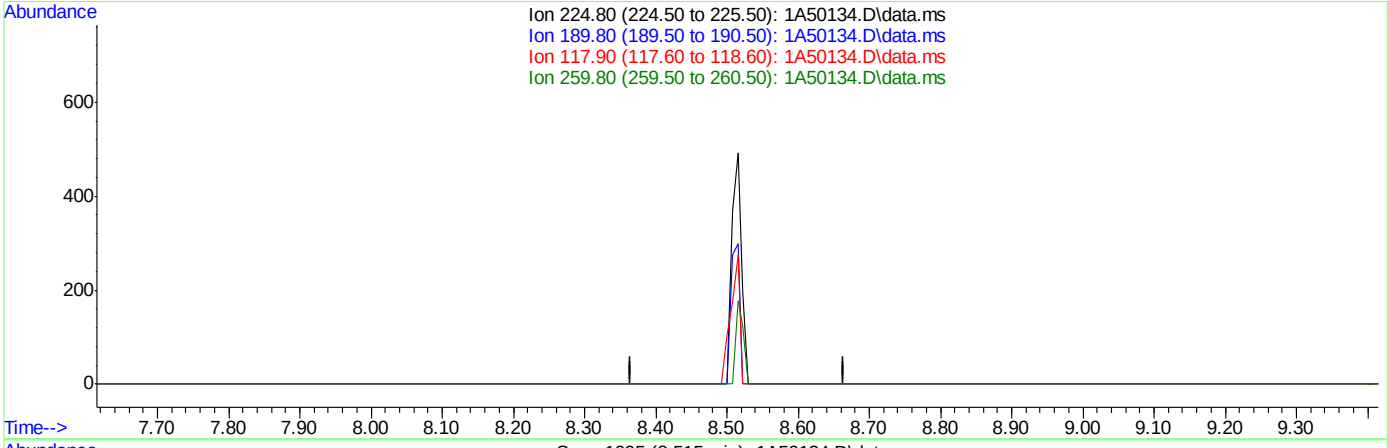
response 490

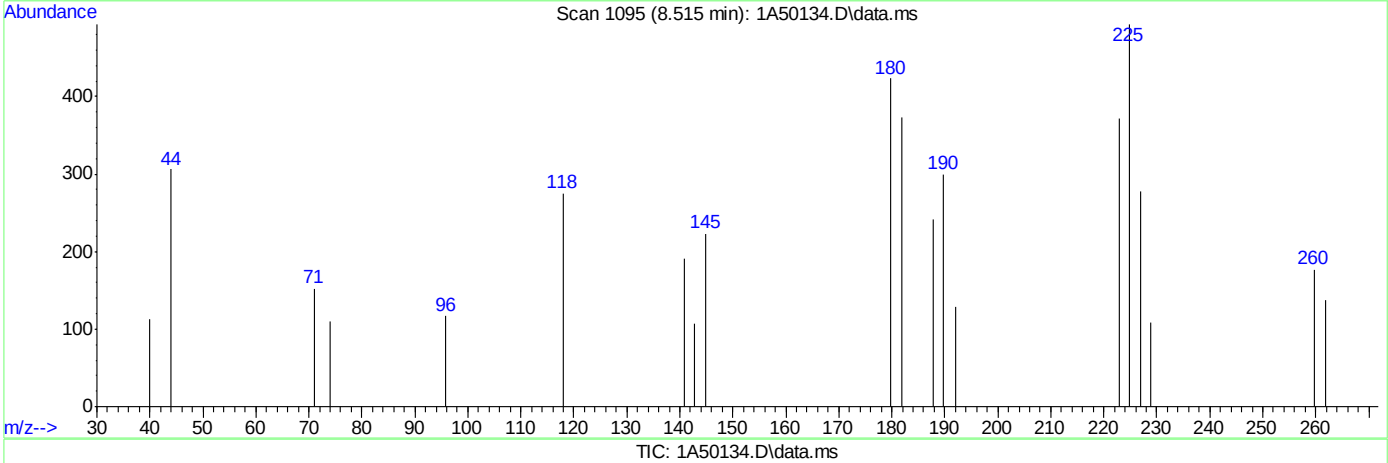
Ion	Exp%	Act%
224.80	100	100
189.80	44.60	60.85
117.90	34.60	55.78
259.80	28.20	35.90

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(109) Hexachlorobutadiene ( )

8.515min (-8.515) 0.00ug/L

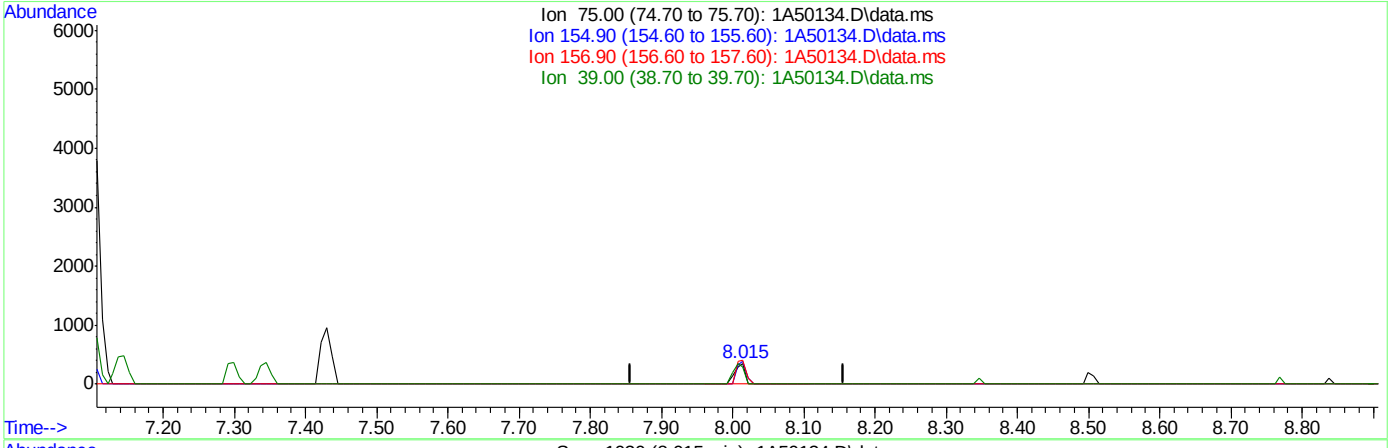
response 0

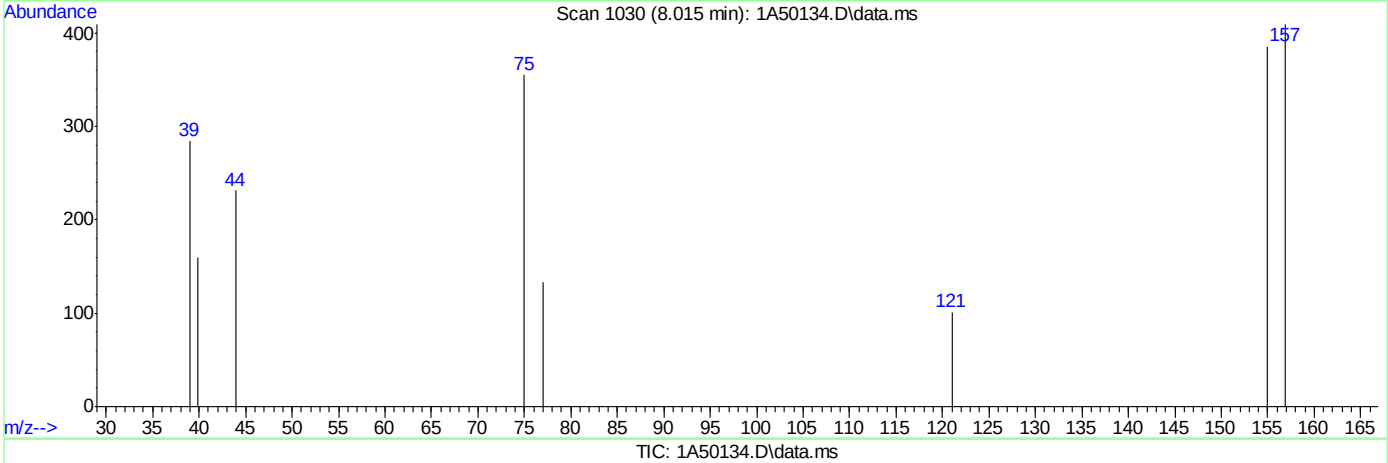
Ion	Exp%	Act%
224.80	100	0.00
189.80	44.60	0.00#
117.90	34.60	0.00#
259.80	28.20	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(108) 1,2-Dibromo-3-Chloropropane

8.015min (+0.008) 1.62ug/L m

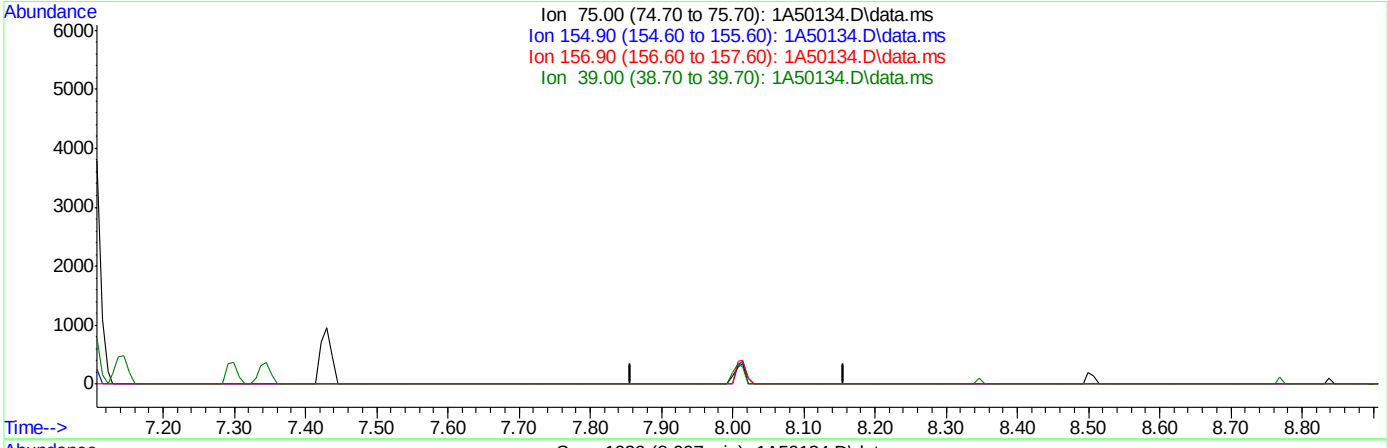
response 365

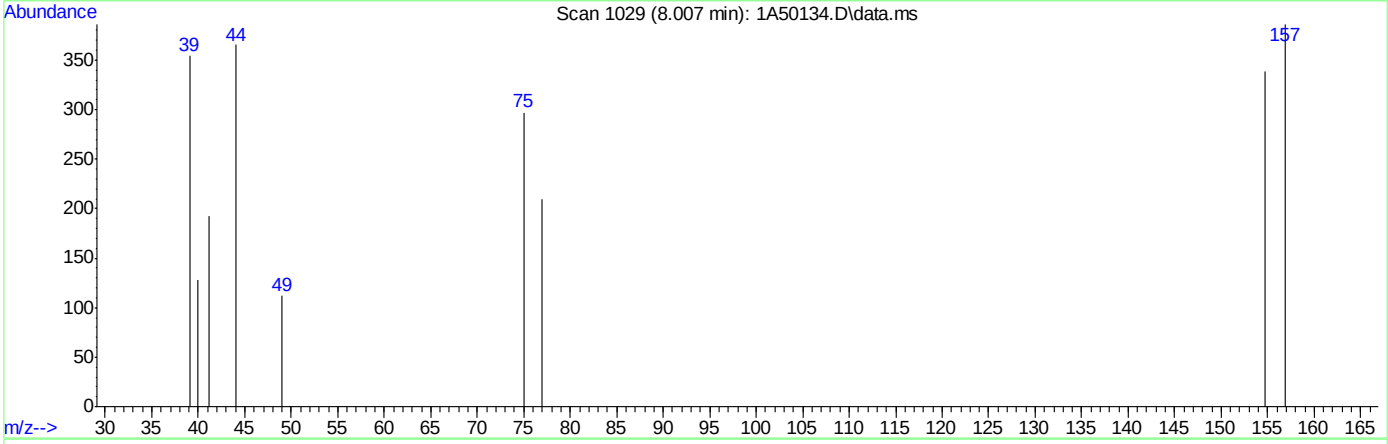
Ion	Exp%	Act%
75.00	100	100
154.90	86.70	108.45
156.90	114.50	115.21
39.00	63.50	80.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(108) 1,2-Dibromo-3-Chloropropane

8.007min (-8.007) 0.00ug/L

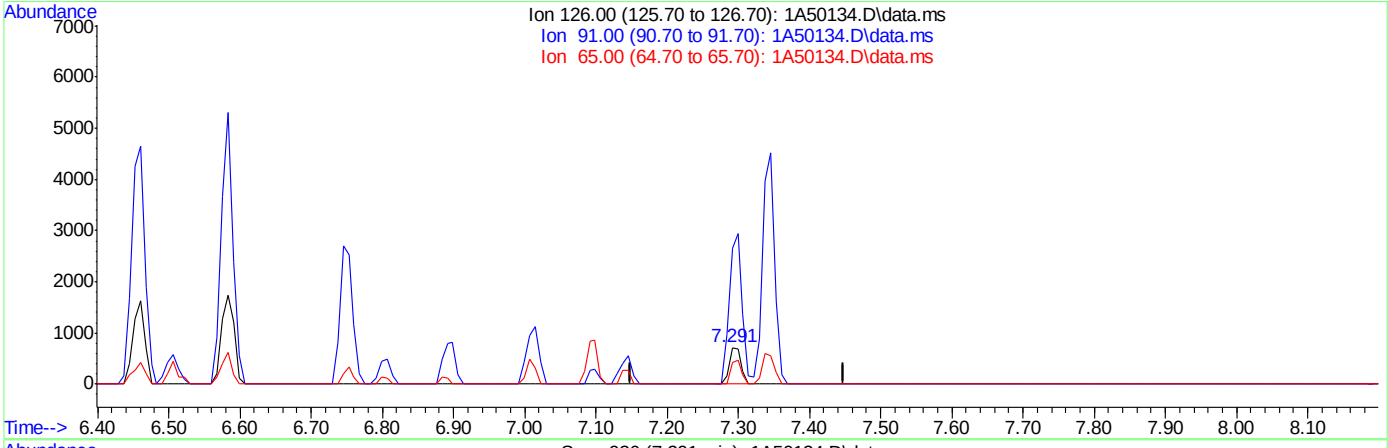
response 0

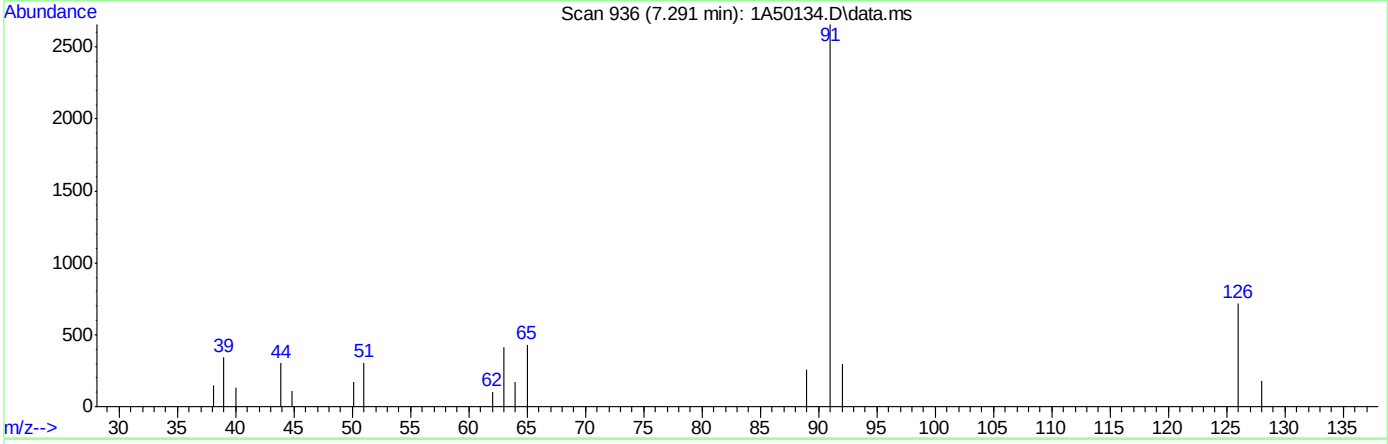
Ion	Exp%	Act%
75.00	100	0.00
154.90	86.70	0.00#
156.90	114.50	0.00#
39.00	63.50	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(106) Benzyl Chloride

7.291min (-0.008) 1.39ug/L m

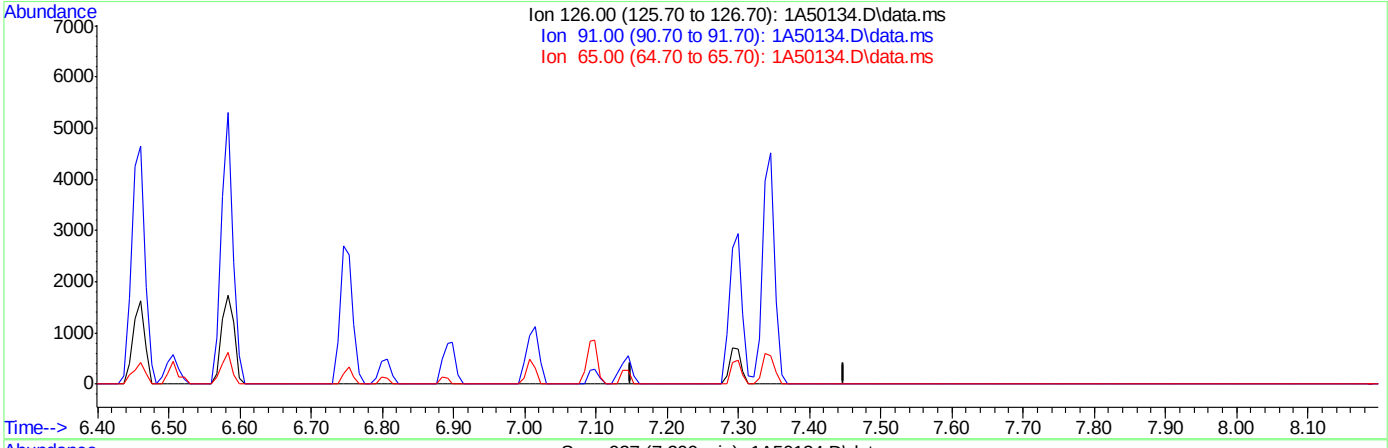
response 838

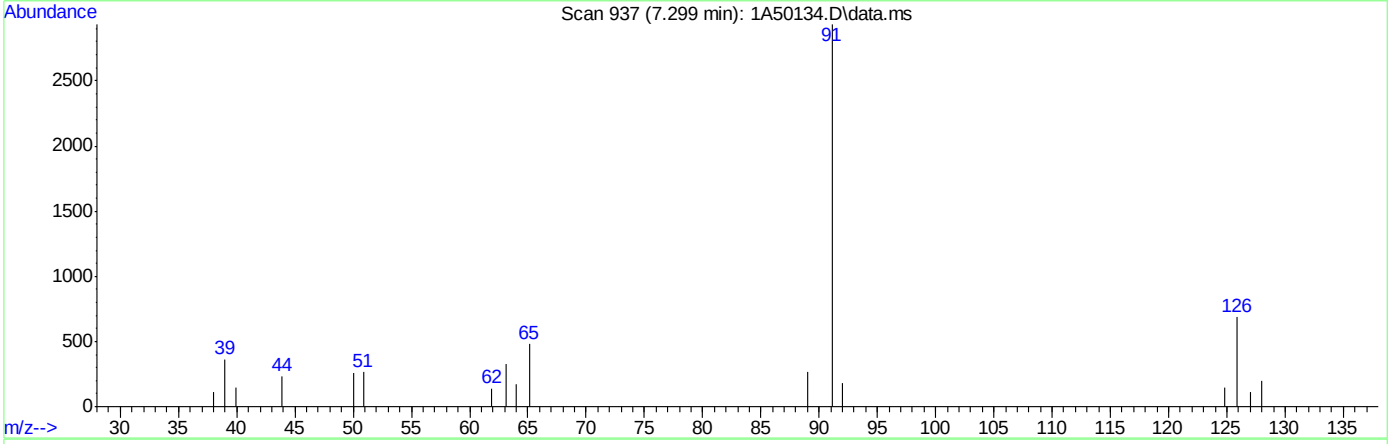
Ion	Exp%	Act%
126.00	100	100
91.00	460.20	370.06#
65.00	60.50	59.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50134.D
Acq On : 23 Oct 2023 9:13 am
Operator : jeniferw
Sample : IC1961-1
Misc : MS55077,V1A1961,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 23 12:49:17 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50134.D\data.ms

(106) Benzyl Chloride

7.299min (-7.299) 0.00ug/L

response 0

Ion	Exp%	Act%
126.00	100	0.00
91.00	460.20	0.00#
65.00	60.50	0.00#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:55:01 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	303934	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	228889	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	115972	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.951	113	86228	46.58	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 93.16%				
49) 1,2-Dichloroethane-d4	3.236	65	109486	57.93	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 115.86%				
63) Toluene-d8	4.336	98	304550	57.39	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 114.78%#				
86) 4-Bromofluorobenzene	6.229	174	96647	53.13	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.26%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	3131	2.31	ug/L		95
3) Chloromethane	1.127	50	6140	3.77	ug/L		99
4) 1,3-butadiene	1.181	39	4876	2.88	ug/L		88
5) Vinyl Chloride	1.173	62	4925	3.33	ug/L		95
6) Bromomethane	1.342	94	1333	2.07	ug/L		99
7) Chloroethane	1.412	64	2905	3.67	ug/L		93
8) Trichlorofluoromethane	1.496	101	4959	1.93	ug/L		93
9) Ethyl Ether	1.650	59	4382	3.29	ug/L	#	71
10) Ethanol	1.704	45	2579	96.18	ug/L		99
11) 1,2-Dichlorotrifluoroe...	1.742	67	3870	2.30	ug/L		84
12) 1,1-Dichloroethene	1.758	61	6528	2.75	ug/L		84
13) Freon 113	1.781	101	3115	1.88	ug/L	#	86
14) Carbon Disulfide	1.781	76	10542	2.41	ug/L		91
15) Iodomethane	1.827	142	1255	1.20	ug/L		84
16) Acrolein	1.904	56	6373	16.11	ug/L		99
17) Allyl chloride	1.996	41	7434	3.47	ug/L		80
18) Methylene Chloride	2.043	49	15424	6.57	ug/L		77
19) Acetone	2.050	43	26794	46.18	ug/L		96
20) Methyl acetate	2.120	43	30310	17.01	ug/L		86
21) trans-1,2-Dichloroethene	2.135	61	6789	3.00	ug/L		77
22) Hexane	2.197	56	5317	3.05	ug/L		99
23) Methyl Tert Butyl Ether	2.189	73	9439	1.98	ug/L		74
24) Acetonitrile	2.274	41	12043	43.18	ug/L		95
25) Tert Butyl Alcohol	2.212	59	9379	27.47	ug/L		94
26) Di-isopropyl ether	2.389	45	16590	3.07	ug/L		90
27) Chloroprene	2.435	53	20821	3.18	ug/L		91
28) 1,1-Dichloroethane	2.443	63	8475	2.64	ug/L		89
29) Acrylonitrile	2.435	52	12465	15.31	ug/L		96
30) ETBE	2.581	59	13878	2.69	ug/L		89
31) Vinyl acetate	2.558	43	50693	13.96	ug/L		99
32) cis-1,2-Dichloroethene	2.720	96	3671	1.94	ug/L	#	75
33) 2,2-Dichloropropane	2.781	77	4808	1.97	ug/L		97
34) Bromochloromethane	2.820	128	1910	1.84	ug/L	#	37
35) Cyclohexane	2.858	56	9186	3.24	ug/L	#	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:55:01 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	6709	2.14	ug/L		95
37) Ethyl acetate	2.912	43	31240	14.69	ug/L		96
38) Tetrahydrofuran	2.951	42	2527	3.38	ug/L		81
40) Carbon Tetrachloride	2.958	117	5106m	1.72	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	5422	1.86	ug/L		90
42) 2-Butanone	3.005	43	18488	16.85	ug/L		81
43) 1,1-Dichloropropene	3.051	75	4744	2.18	ug/L		91
44) tert-Butyl formate	3.097	59	20119	19.47	ug/L		89
45) Propionitrile	3.143	54	13768	39.59	ug/L		97
46) Methacrylonitrile	3.166	41	45163	36.28	ug/L		98
47) Benzene	3.182	78	13280	1.99	ug/L		87
48) TAME	3.251	73	8880	1.96	ug/L	#	38
50) 1,2-Dichloroethane	3.274	62	6351	2.51	ug/L		86
51) Isobutyl Alcohol	3.259	43	13535	73.99	ug/L		94
52) Tert Amyl Alcohol	3.320	59	7204	27.83	ug/L		87
53) Trichloroethene	3.513	95	4020	2.12	ug/L		97
54) Methylcyclohexane	3.528	83	5763	1.96	ug/L	#	72
55) Dibromomethane	3.736	93	2447	2.15	ug/L		87
56) 1,2-Dichloropropane	3.797	63	4754	2.91	ug/L		88
57) Bromodichloromethane	3.828	83	4903	1.99	ug/L	#	86
58) Methyl methacrylate	3.921	41	5959	3.84	ug/L	#	84
59) 1,4-Dioxane	3.944	88	956m	37.51	ug/L		
60) 2-Chloroethyl vinyl ether	4.167	63	10604	11.49	ug/L		81
61) cis-1,3-Dichloropropene	4.213	75	5515	2.17	ug/L		79
64) Toluene	4.375	91	15361	2.54	ug/L		99
65) 2-Nitropropane	4.467	41	8269	17.93	ug/L		97
66) 4-Methyl-2-pentanone	4.582	43	35942	21.03	ug/L		94
67) trans-1,3-Dichloropropene	4.613	75	5150	2.54	ug/L		80
68) Tetrachloroethene	4.636	166	5213	2.40	ug/L		95
69) Ethyl methacrylate	4.729	69	4391	3.19	ug/L	#	73
70) 1,1,2-Trichloroethane	4.713	83	3077	2.82	ug/L		94
71) Dibromochloromethane	4.844	129	3800	2.05	ug/L		97
72) 1,3-Dichloropropane	4.898	76	5695	2.92	ug/L		82
73) 1,2-Dibromoethane	4.998	107	3633	2.29	ug/L		88
74) 3,3-Dimethyl-1-Butanol	5.121	57	42879	191.61	ug/L		83
75) 2-hexanone	5.144	43	33833	21.00	ug/L	#	70
76) 1-Chlorohexane	5.367	91	4910m	2.25	ug/L		
77) Ethylbenzene	5.398	91	16145	2.51	ug/L		91
78) Chlorobenzene	5.367	112	10343	2.43	ug/L		92
79) 1,1,1,2-Tetrachloroethane	5.414	131	3752	2.11	ug/L		81
80) m,p-Xylene	5.498	91	25152	4.79	ug/L		98
81) o-Xylene	5.806	91	12732	2.39	ug/L		93
82) Styrene	5.837	104	8789	2.13	ug/L		90
83) Bromoform	5.845	173	2636	2.03	ug/L		96
84) Isopropylbenzene	6.045	105	14056	2.19	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.268	53	2193	7.20	ug/L	#	73
88) n-Propylbenzene	6.353	91	18537	3.03	ug/L		96
89) Bromobenzene	6.306	156	4475	2.84	ug/L		83
90) 1,1,2,2-Tetrachloroethane	6.376	83	5457	3.54	ug/L		90
91) 1,3,5-Trimethylbenzene	6.507	105	11484	2.44	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:55:01 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 2-Chlorotoluene	6.453	91	11114	3.10	ug/L		96
93) trans-1,4-Dichloro-2-B...	6.507	53	2203	4.88	ug/L	#	76
94) 1,2,3-Trichloropropane	6.468	110	1432m	2.76	ug/L		
95) Cyclohexanone	6.483	55	1254m	21.43	ug/L		
96) 4-Chlorotoluene	6.583	91	11369	2.99	ug/L		93
97) tert-Butylbenzene	6.753	91	6635	2.69	ug/L		86
98) 1,2,4-Trimethylbenzene	6.807	105	10613	2.38	ug/L		99
99) Pentachloroethane	6.745	167	2089	2.53	ug/L	#	79
100) sec-Butylbenzene	6.891	105	14277	2.50	ug/L		96
101) 4-Isopropyltoluene	7.014	119	11244	2.17	ug/L		95
102) 1,3-Dichlorobenzene	7.038	146	7463	2.47	ug/L		88
103) 1,2,3-Trimethylbenzene	7.145	105	11387	2.55	ug/L		95
104) 1,4-Dichlorobenzene	7.107	146	8216m	2.74	ug/L		
105) n-Butylbenzene	7.338	92	5595	2.71	ug/L		82
106) Benzyl Chloride	7.292	126	1451m	2.37	ug/L		
107) 1,2-Dichlorobenzene	7.430	146	6584	2.46	ug/L		96
108) 1,2-Dibromo-3-Chloropr...	8.007	75	756m	3.29	ug/L		
109) Hexachlorobutadiene	8.515	225	1391	2.31	ug/L		95
110) 1,2,4-Trichlorobenzene	8.508	180	2629	2.03	ug/L		86
111) Naphthalene	8.715	128	5606	2.90	ug/L		90
112) 1,2,3-Trichlorobenzene	8.839	180	1955	2.17	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
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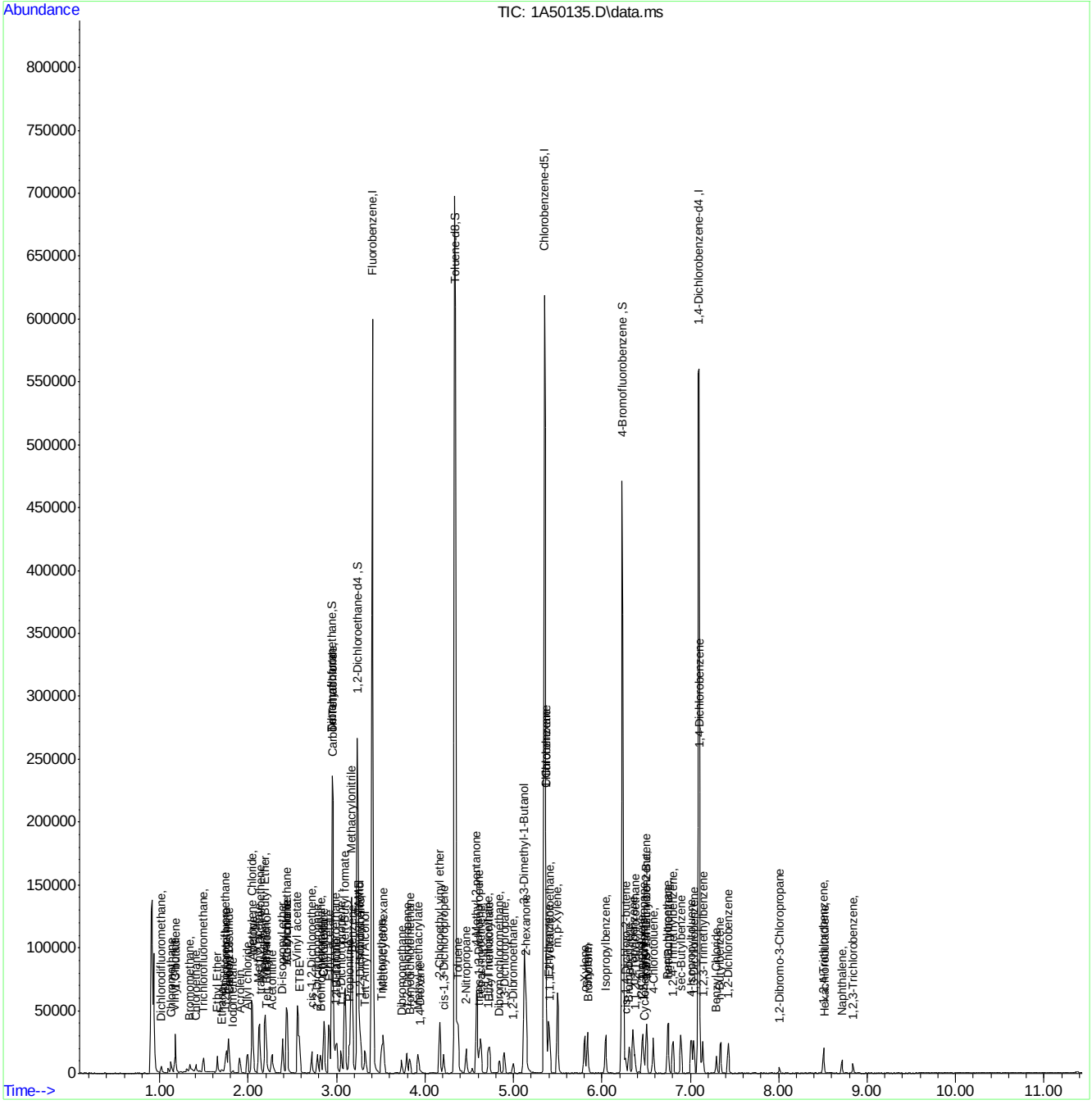
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V1A1961-IC1961
Lab FileID: 1A50135.D
Injection Time: 10/23/23 09:38
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1,4-Dioxane	123-91-1		3.94	Missed peak
1-Chlorohexane	544-10-5		5.37	Poorly defined baseline
1,2,3-Trichloropropane	96-18-4		6.47	Missed peak
Cyclohexanone	108-94-1		6.48	Missed peak
1,4-Dichlorobenzene	106-46-7		7.11	Missed peak
Benzyl Chloride	100-44-7		7.29	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.01	Missed peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
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Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
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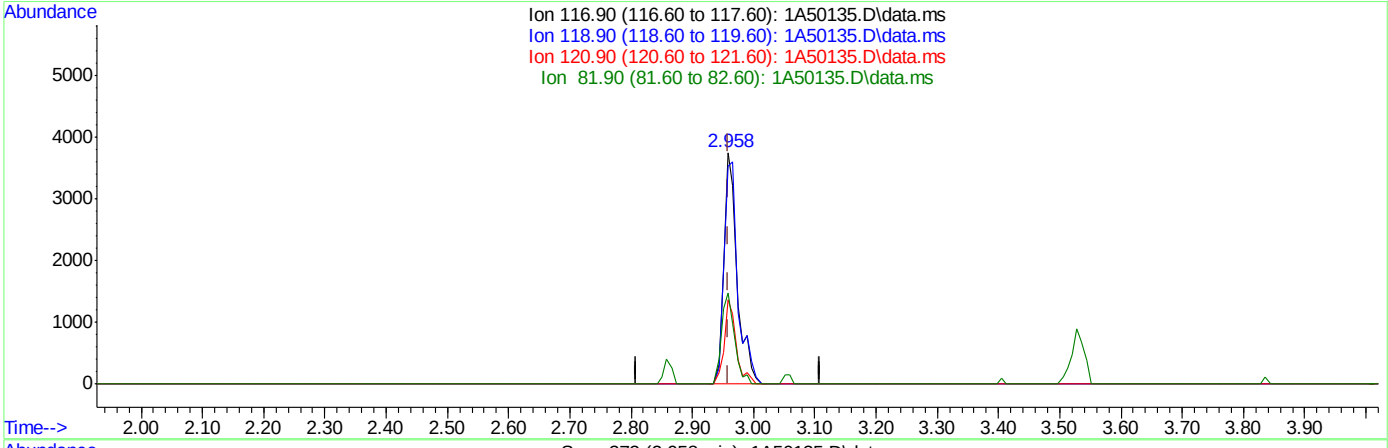

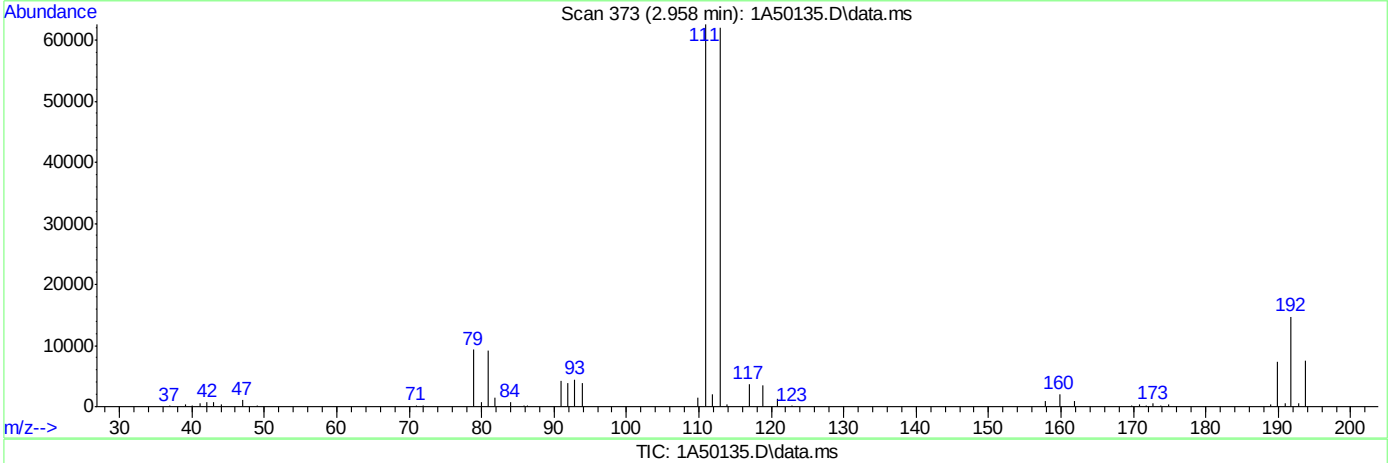

TIC: 1A50135.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 1.90ug/L

response 5639

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.11
120.90	31.10	36.57
81.90	25.40	39.21

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
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Sample : IC1961-8
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Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
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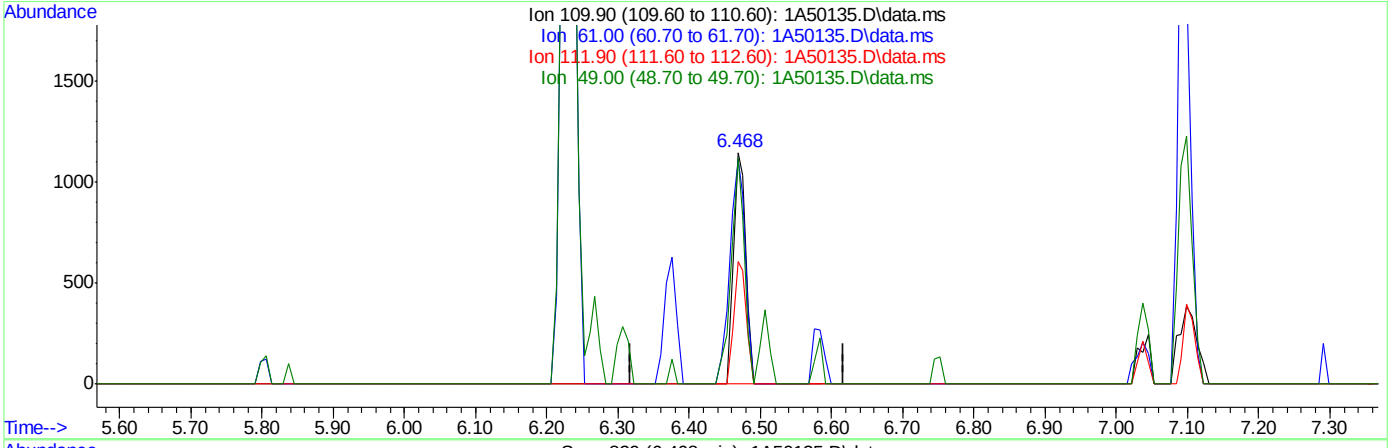
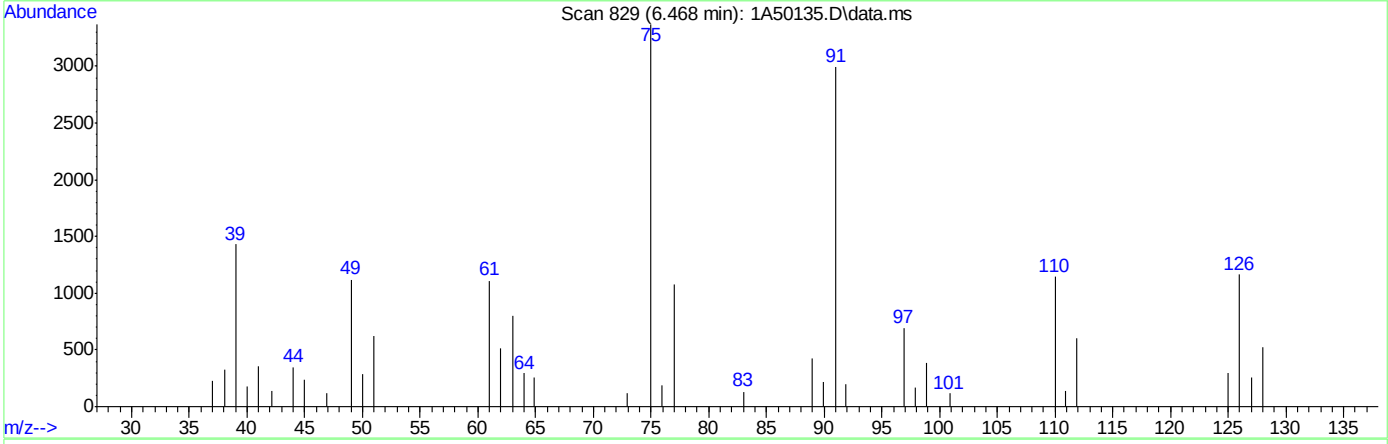




TIC: 1A50135.D\data.ms

(94) 1,2,3-Trichloropropane ( )

6.468min (+0.000) 2.76ug/L m

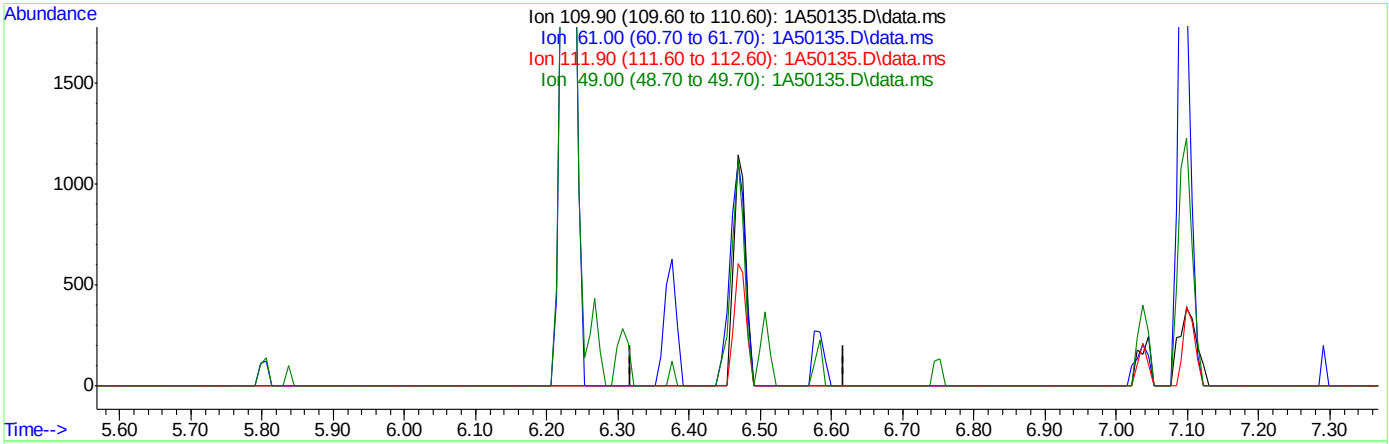
response 1432

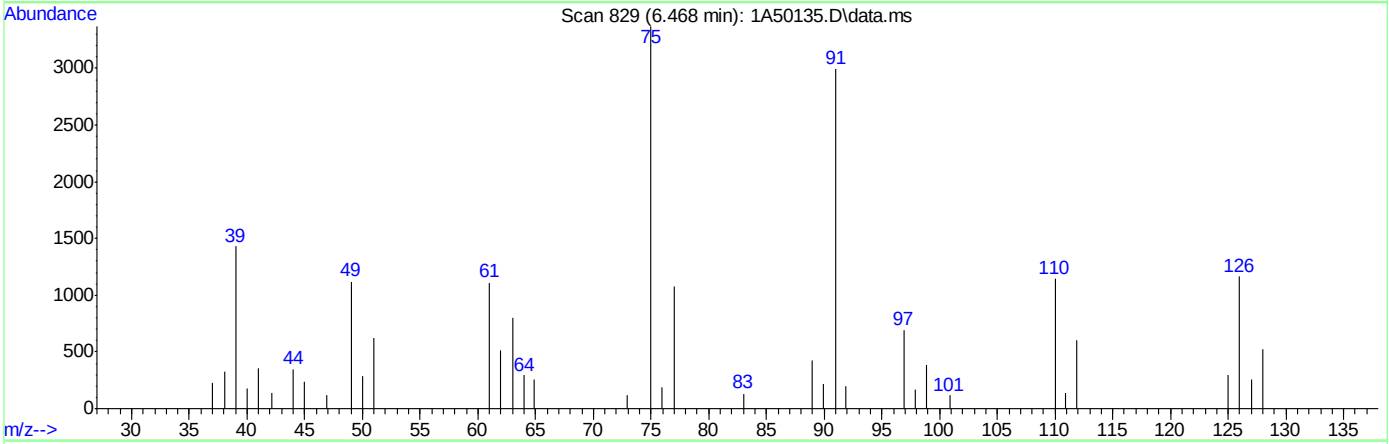
Ion	Exp%	Act%
109.90	100	100
61.00	66.40	96.86#
111.90	64.30	52.66
49.00	57.90	97.55#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(94) 1,2,3-Trichloropropane ( )

6.468min (-6.468) 0.00ug/L

response 0

Ion	Exp%	Act%
109.90	100	0.00
61.00	66.40	0.00#
111.90	64.30	0.00#
49.00	57.90	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
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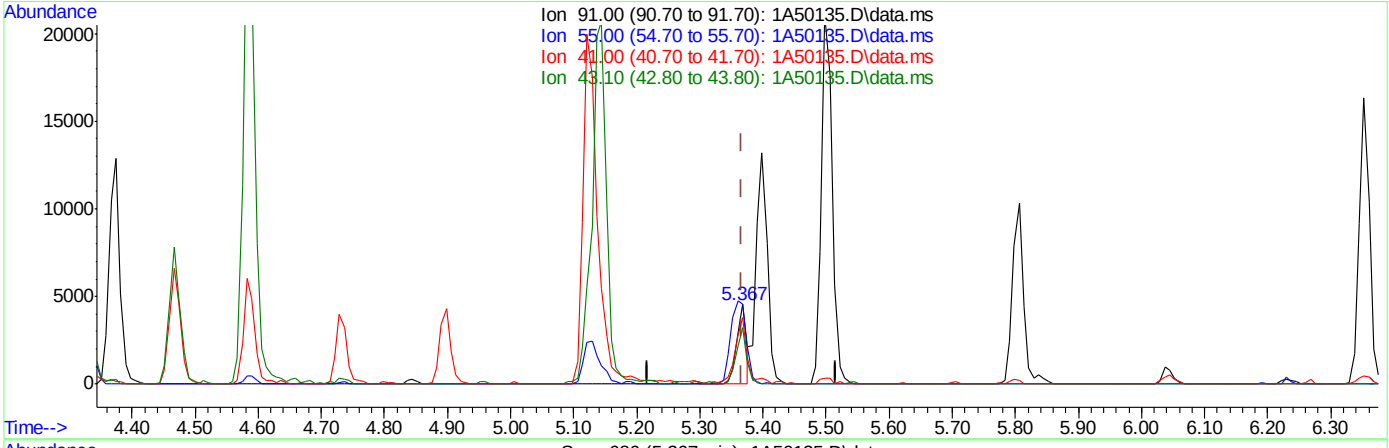

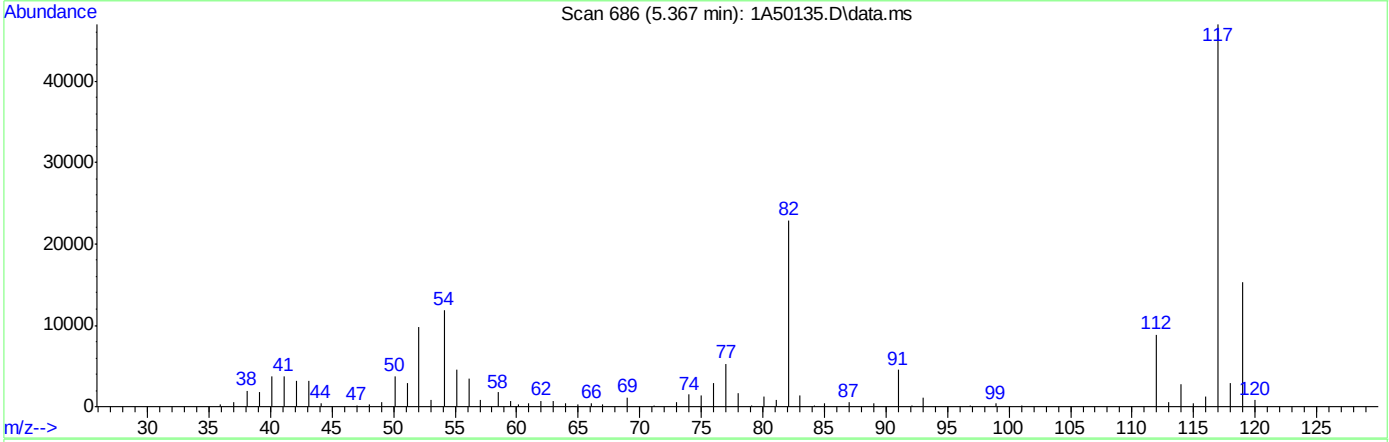

TIC: 1A50135.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 2.25ug/L m

response 4910

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	99.82#
41.00	53.90	83.16#
43.10	42.90	70.57#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
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Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
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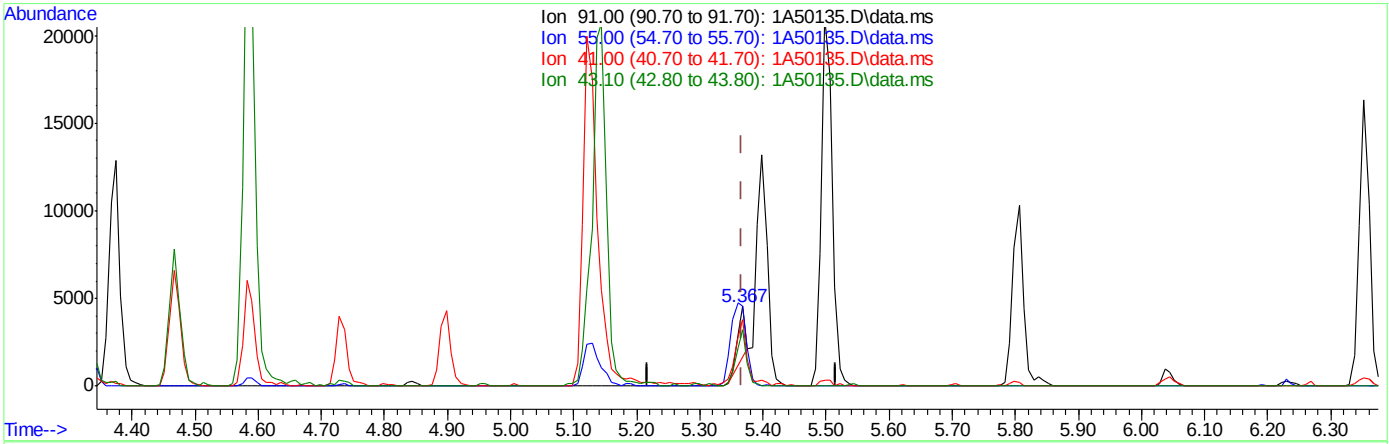

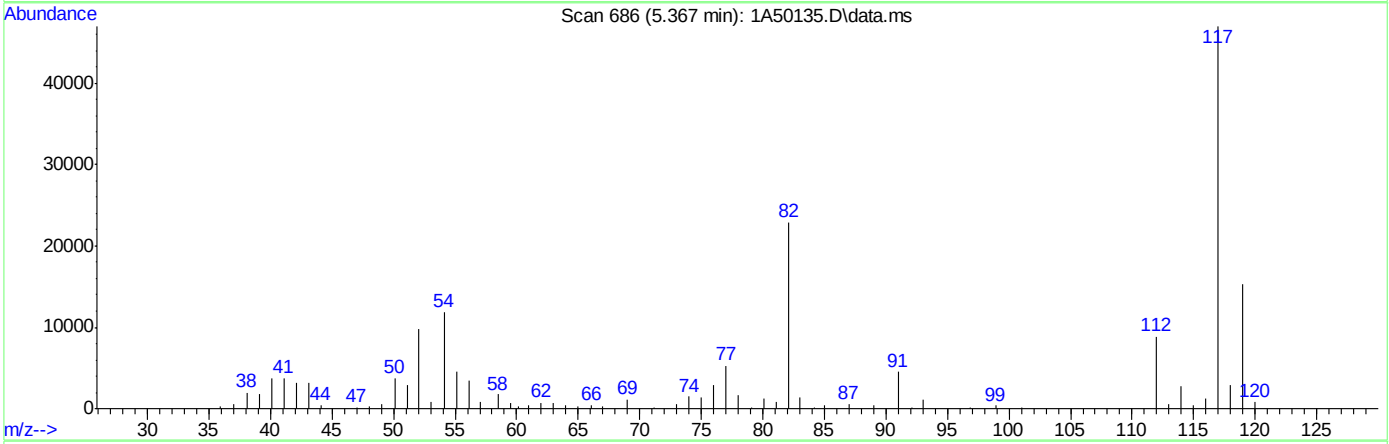

TIC: 1A50135.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 1.29ug/L

response 2812

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	65.63
41.00	53.90	76.72#
43.10	42.90	68.31#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
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Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
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Quant Title : SW-846 Method 5035A/8260B
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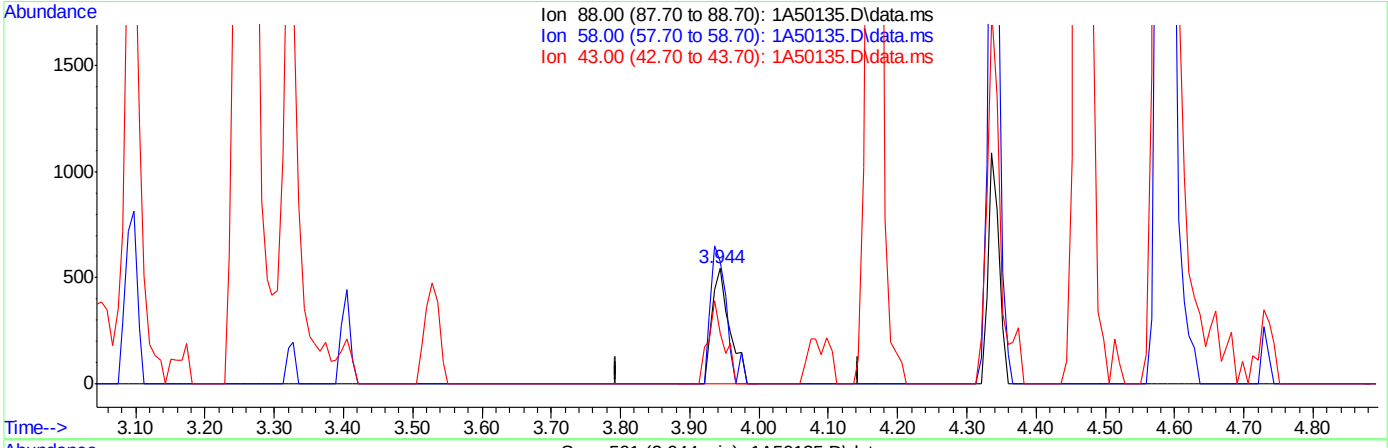

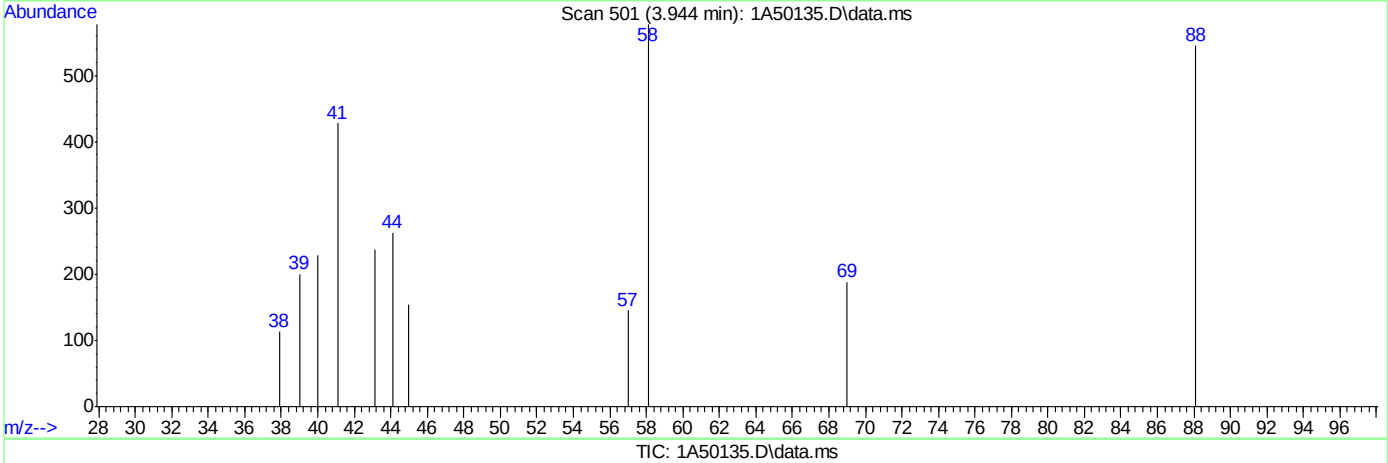

TIC: 1A50135.D\data.ms

(59) 1,4-Dioxane

3.944min (-0.000) 37.51ug/L m

response 956

Ion	Exp%	Act%
88.00	100	100
58.00	69.70	105.87#
43.00	26.80	43.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
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Sample : IC1961-8
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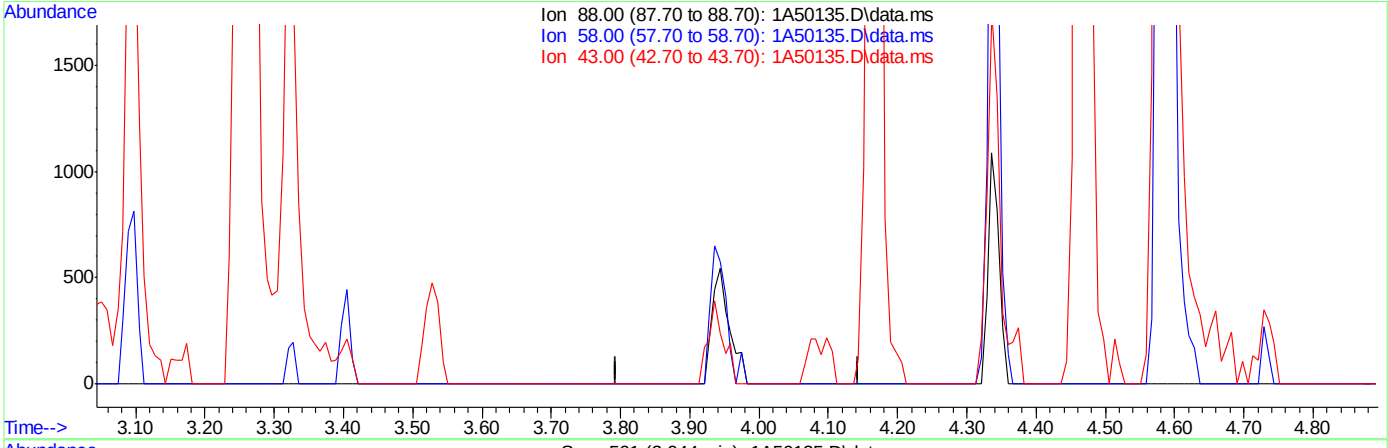

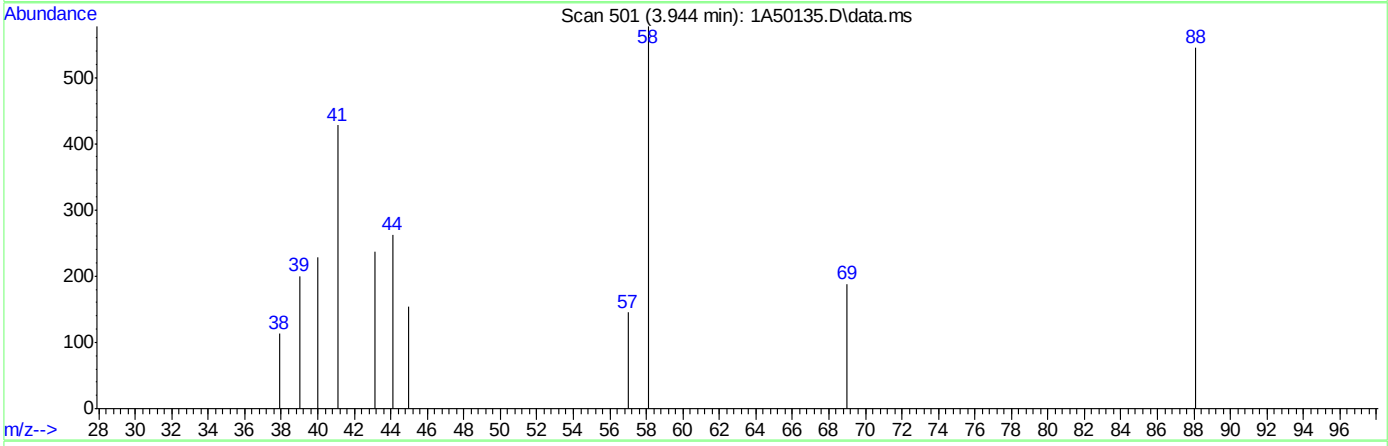

TIC: 1A50135.D\data.ms

(59) 1,4-Dioxane

3.944min (-3.944) 0.00ug/L

response 0

Ion	Exp%	Act%
88.00	100	0.00
58.00	69.70	0.00#
43.00	26.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
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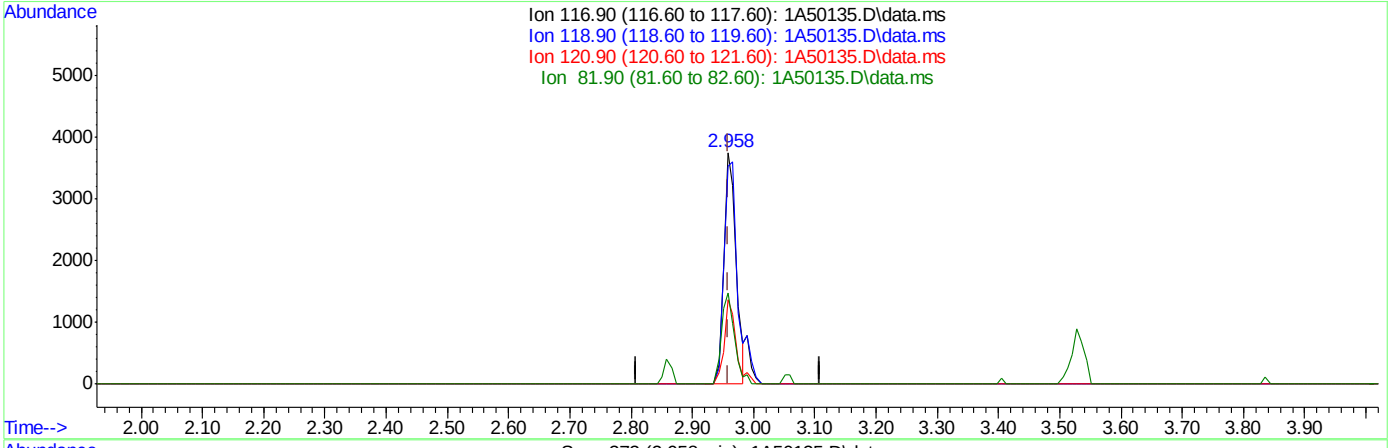

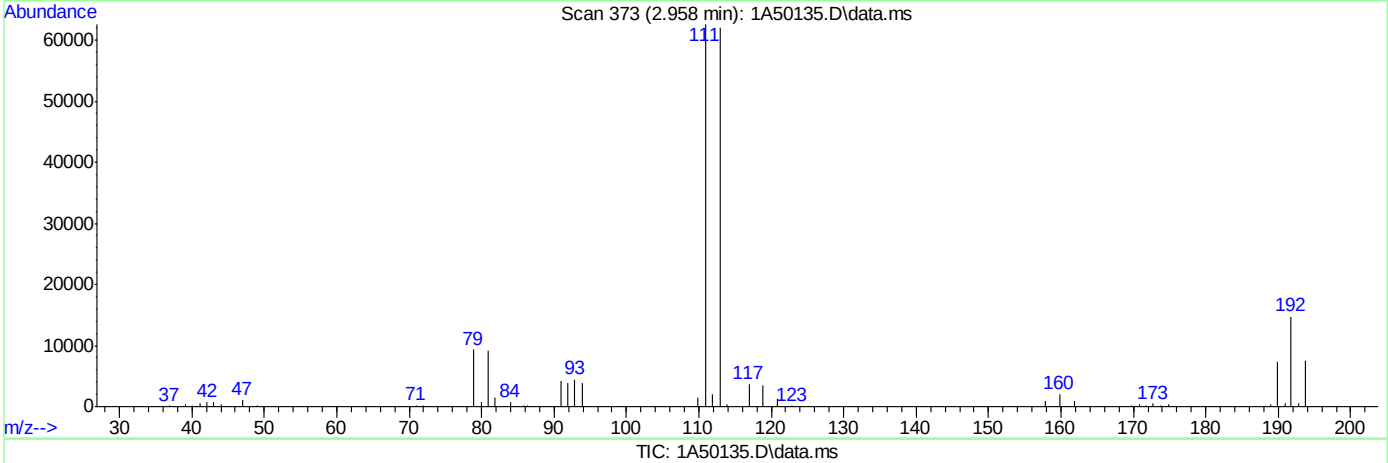

TIC: 1A50135.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 1.72ug/L m

response 5106

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.11
120.90	31.10	36.57
81.90	25.40	39.21

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
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Misc : MS55077,V1A1961,,,,,
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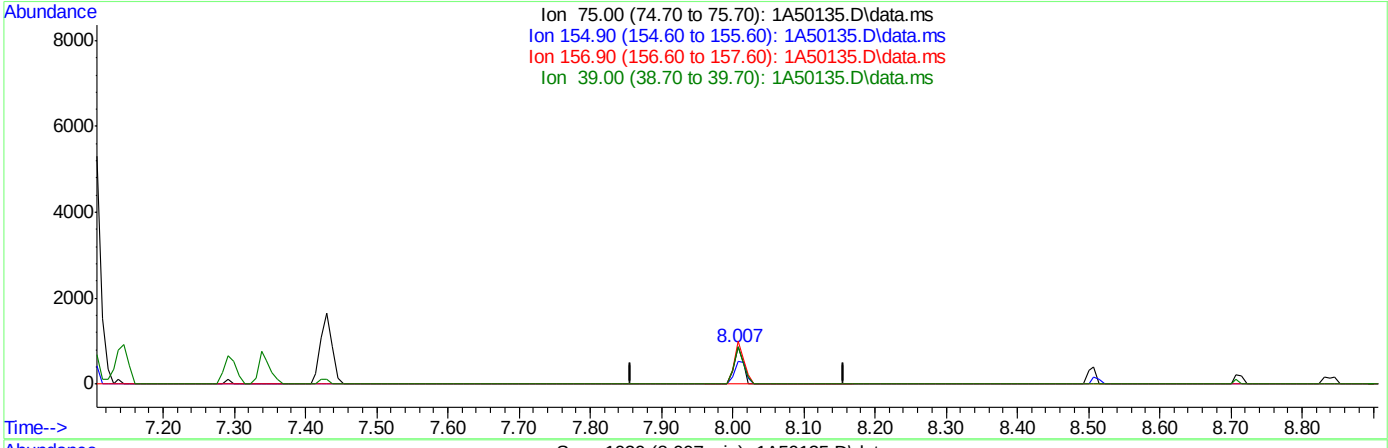

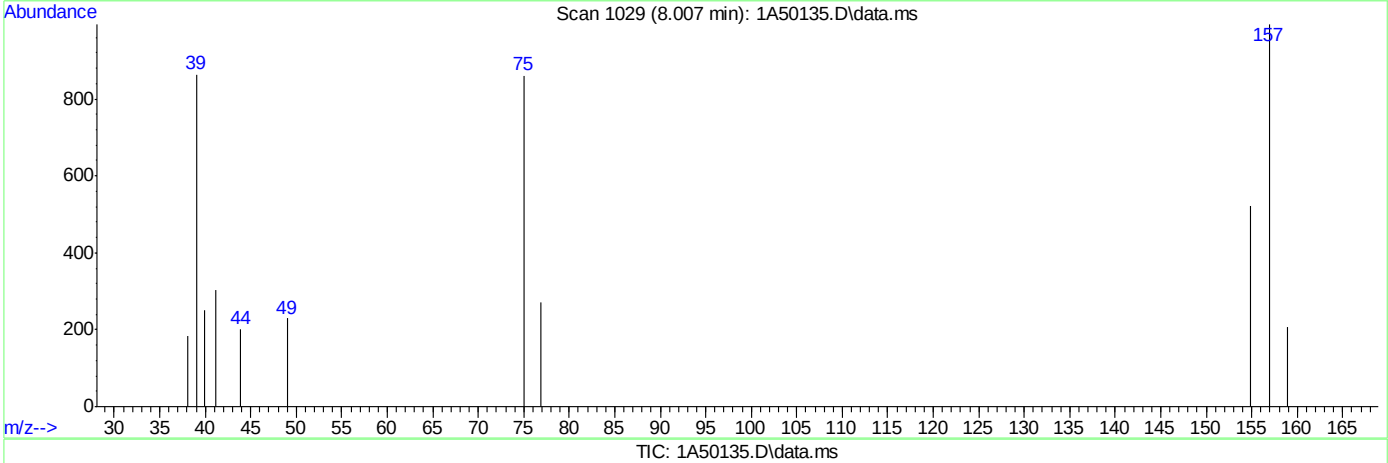

TIC: 1A50135.D\data.ms

(108) 1,2-Dibromo-3-Chloropropane

8.007min (+0.000) 3.29ug/L m

response 756

Ion	Exp%	Act%
75.00	100	100
154.90	86.70	60.74
156.90	114.50	115.45
39.00	63.50	100.23#

Quantitation Report (Qedit)

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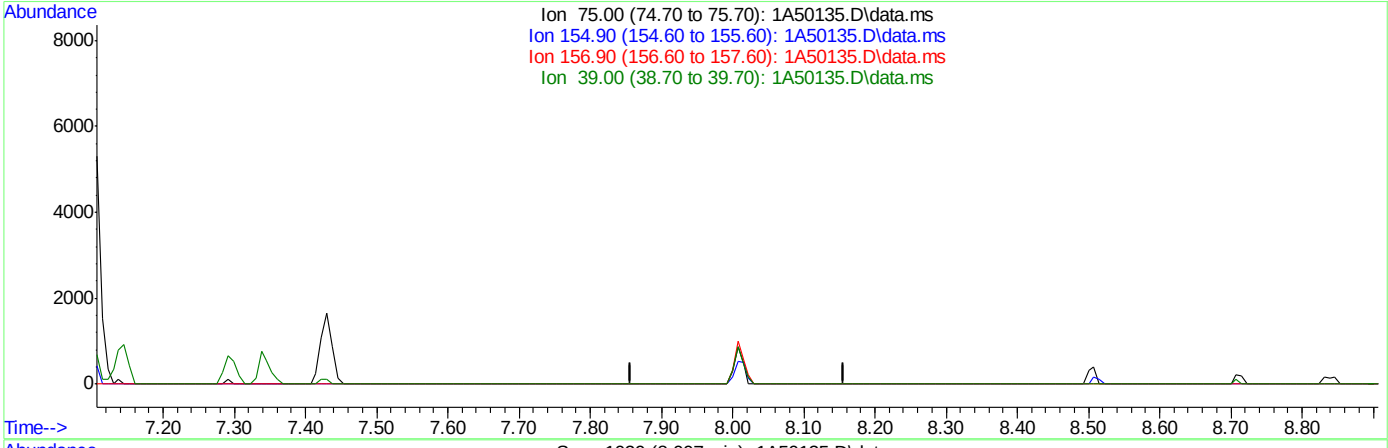
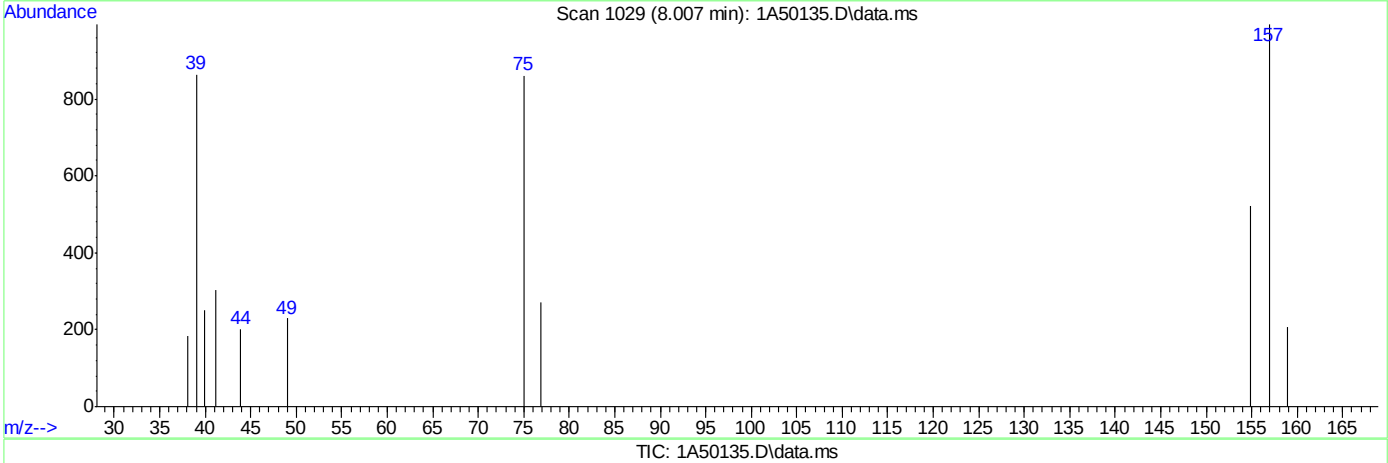
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(108) 1,2-Dibromo-3-Chloropropane

8.007min (-8.007) 0.00ug/L

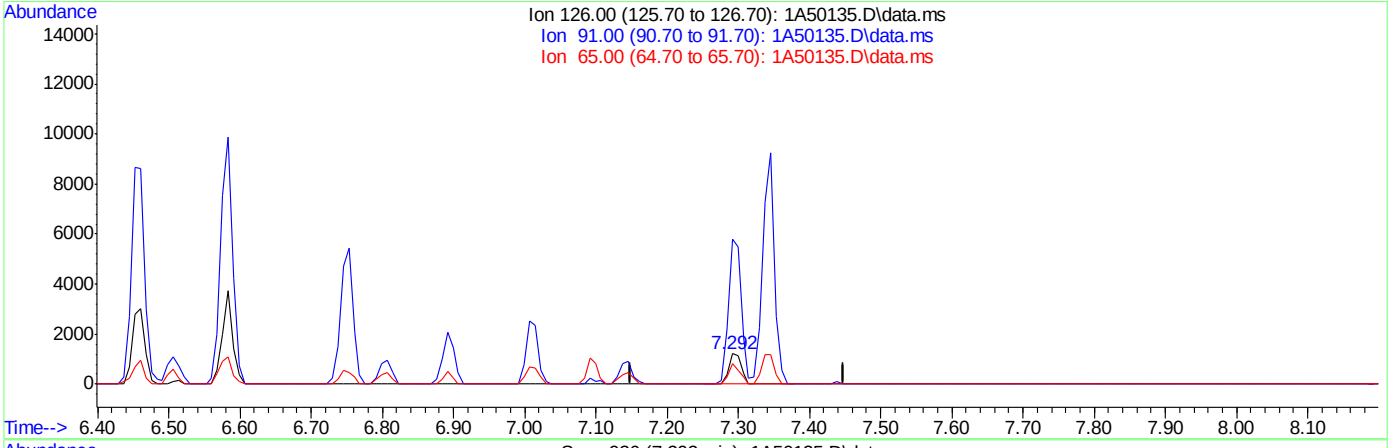
response 0

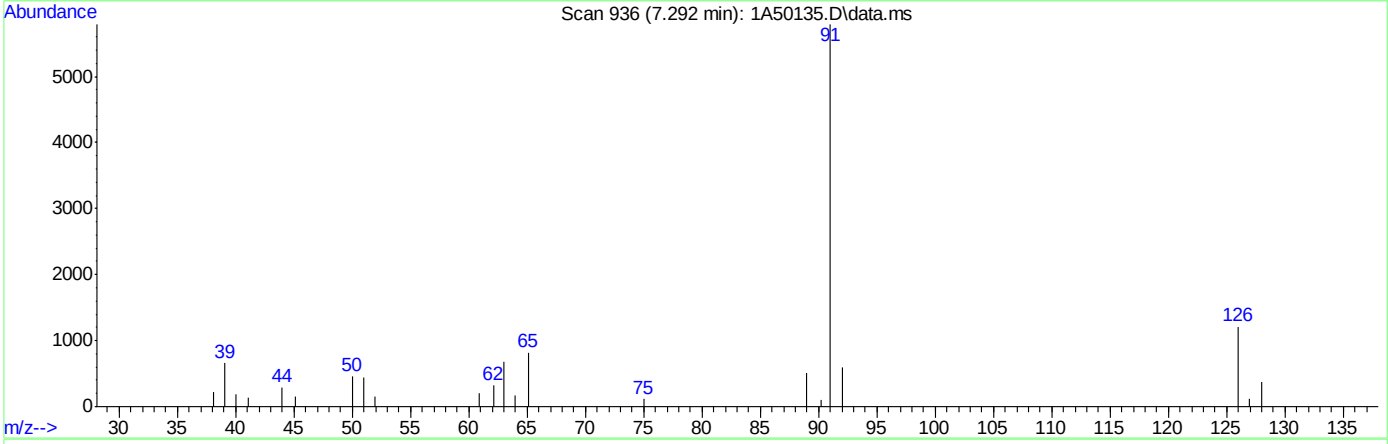
Ion	Exp%	Act%
75.00	100	0.00
154.90	86.70	0.00#
156.90	114.50	0.00#
39.00	63.50	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(106) Benzyl Chloride

7.292min (-0.007) 2.37ug/L m

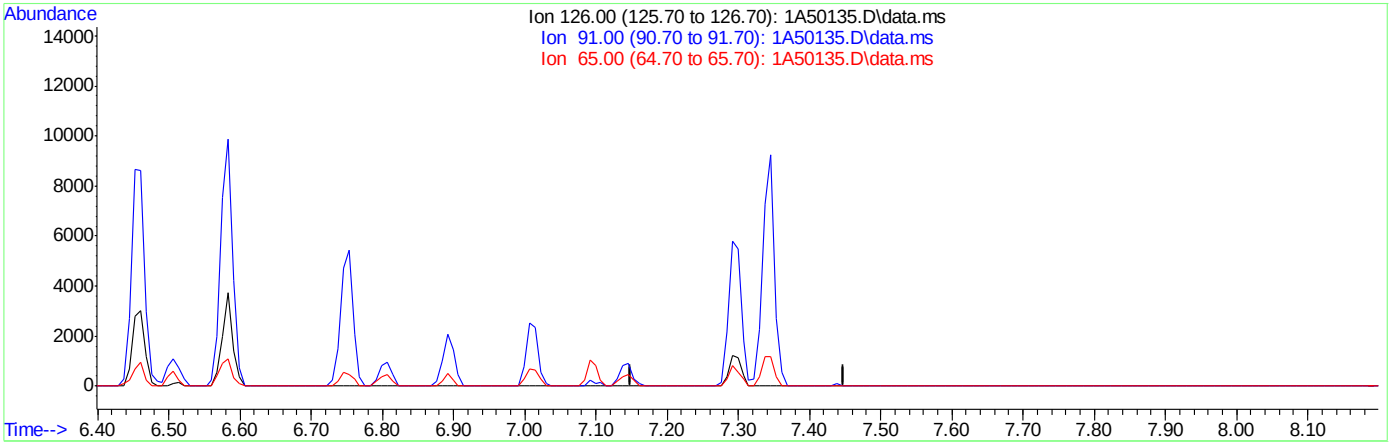
response 1451

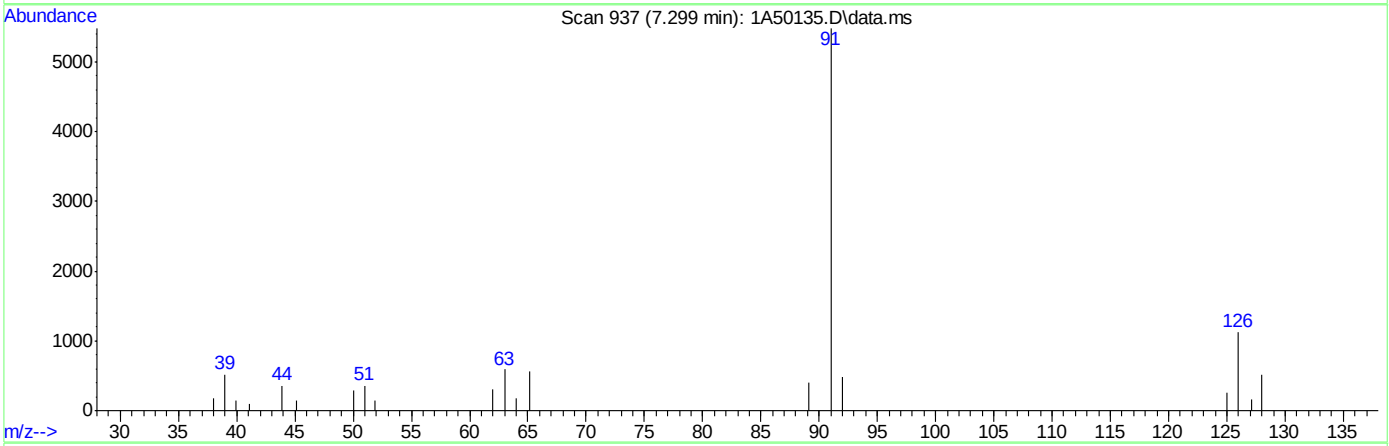
Ion	Exp%	Act%
126.00	100	100
91.00	460.20	479.39
65.00	60.50	68.05
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(106) Benzyl Chloride

7.299min (-7.299) 0.00ug/L

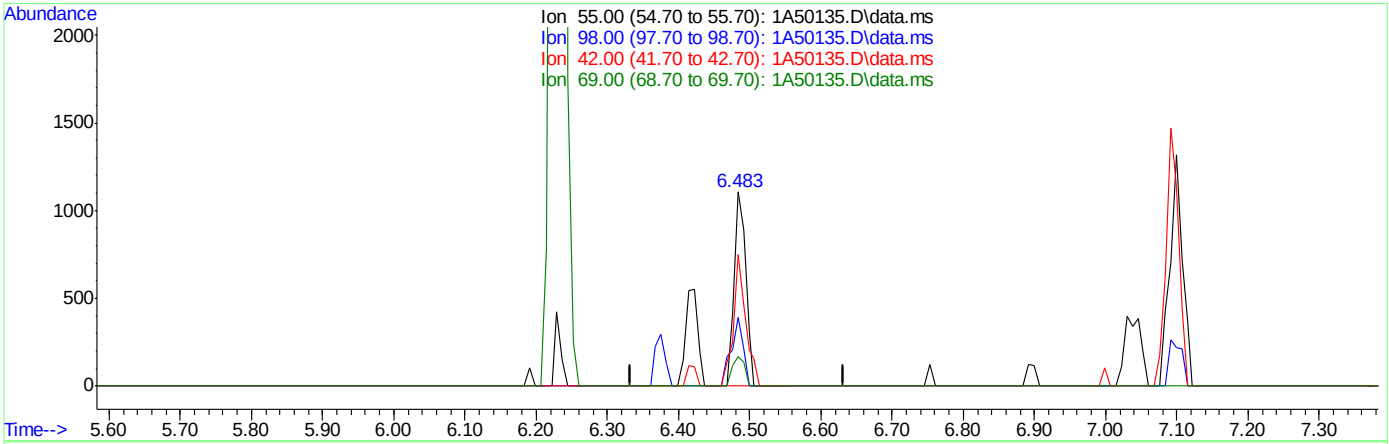
response 0

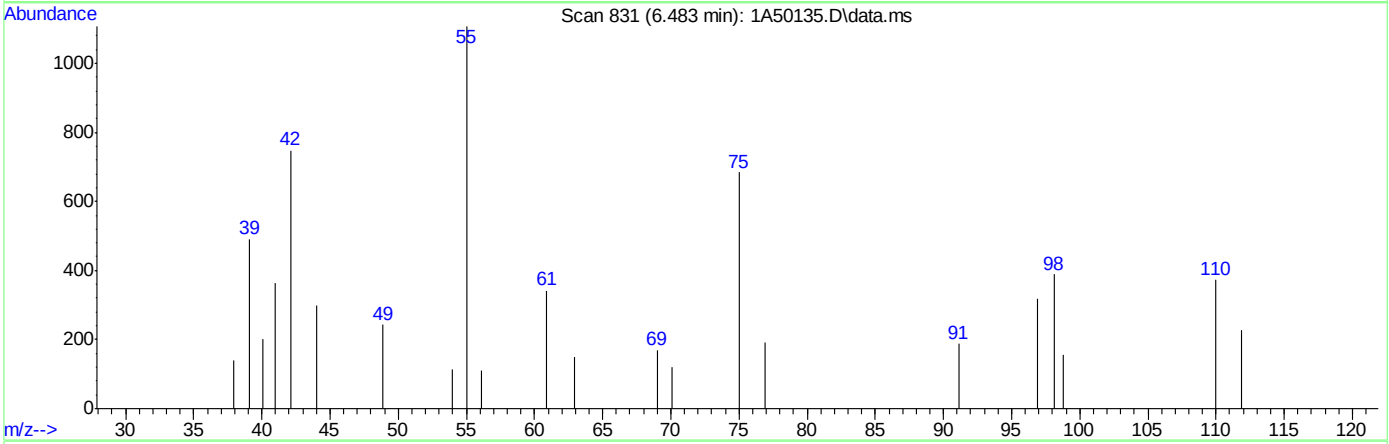
Ion	Exp%	Act%
126.00	100	0.00
91.00	460.20	0.00#
65.00	60.50	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(95) Cyclohexanone

6.483min (+0.000) 21.43ug/L m

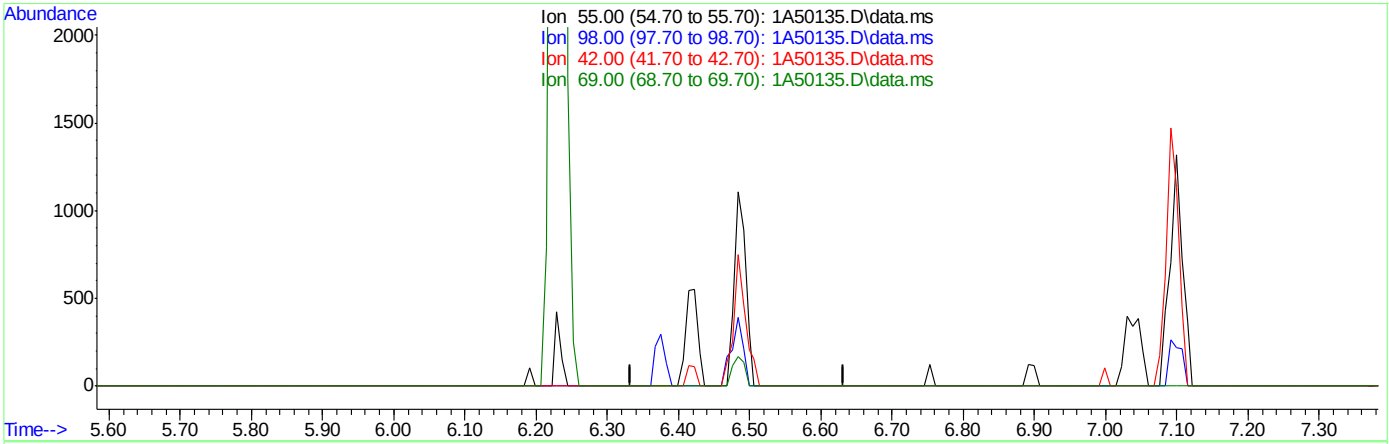
response 1254

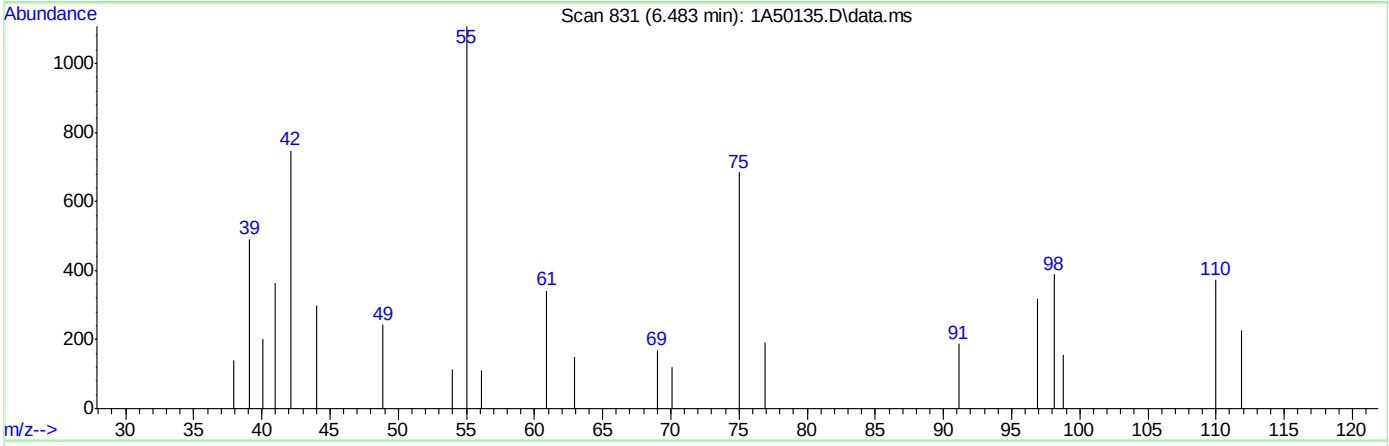
Ion	Exp%	Act%
55.00	100	100
98.00	41.70	35.14
42.00	67.70	67.48
69.00	27.00	15.36

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:49:20 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(95) Cyclohexanone

6.483min (-6.483) 0.00ug/L

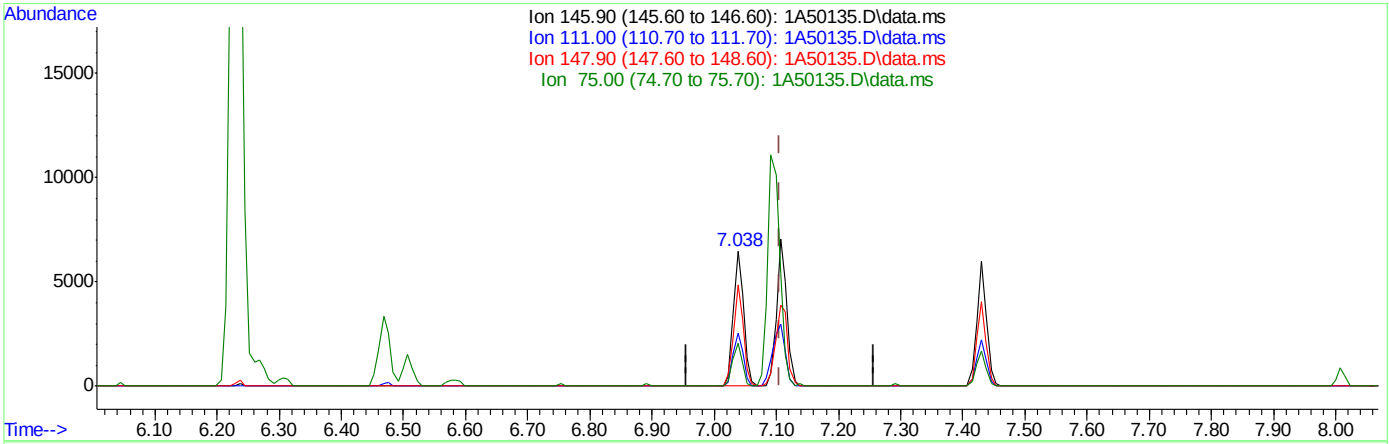
response 0

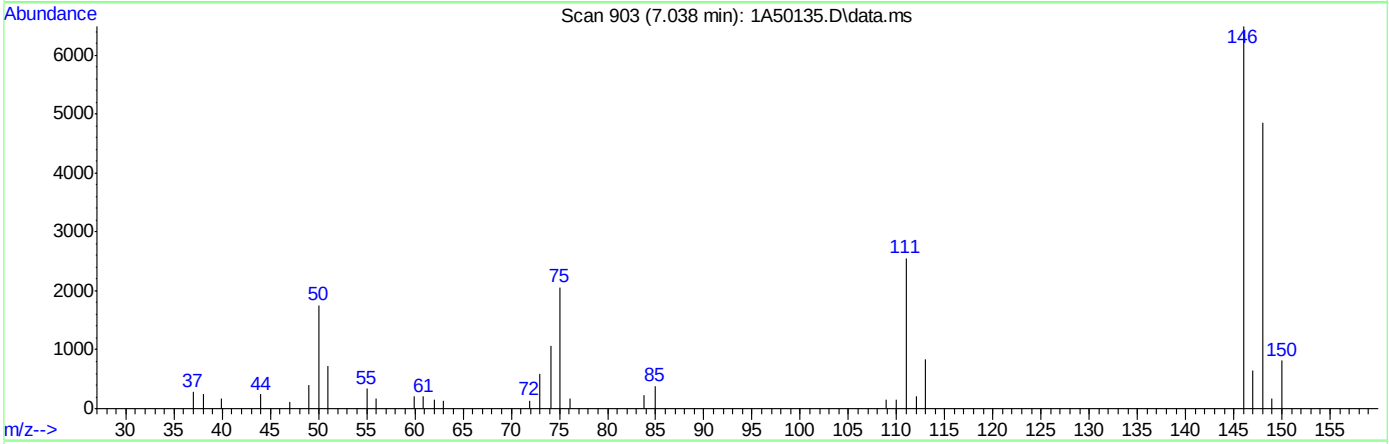
Ion	Exp%	Act%
55.00	100	0.00
98.00	41.70	0.00#
42.00	67.70	0.00#
69.00	27.00	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:53:54 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(104) 1,4-Dichlorobenzene

7.038min (-0.069) 2.49ug/L

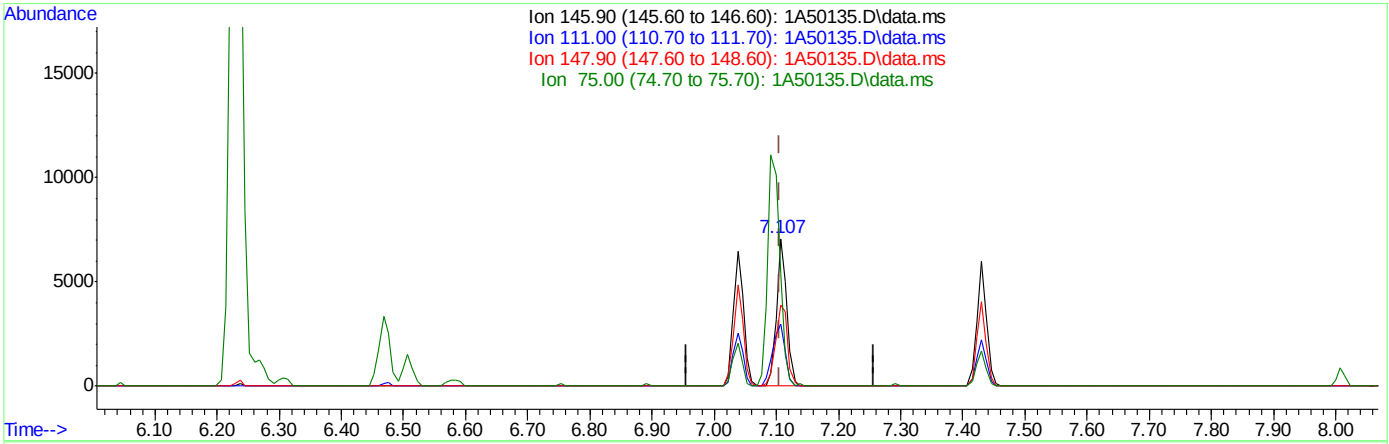
response 7463

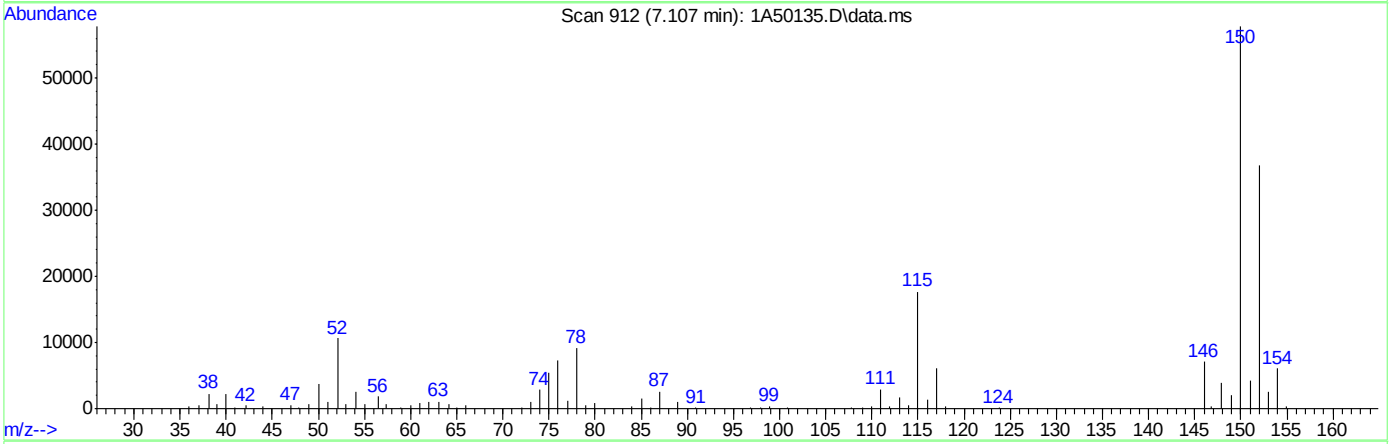
Ion	Exp%	Act%
145.90	100	100
111.00	38.00	39.41
147.90	65.40	74.78
75.00	26.40	31.71

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50135.D
Acq On : 23 Oct 2023 9:38 am
Operator : jeniferw
Sample : IC1961-8
Misc : MS55077,V1A1961,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 23 12:53:54 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50135.D\data.ms

(104) 1,4-Dichlorobenzene

7.107min (-0.000) 2.74ug/L m

response 8216

Ion	Exp%	Act%
145.90	100	100
111.00	38.00	41.89
147.90	65.40	55.38
75.00	26.40	76.30#

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:54:33 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	328264	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	228956	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	119354	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	88388	44.21	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 88.42%				
49) 1,2-Dichloroethane-d4	3.243	65	112765	55.24	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 110.48%				
63) Toluene-d8	4.344	98	312891	58.94	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 117.88%#				
86) 4-Bromofluorobenzene	6.237	174	99201	52.99	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.98%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	7642	5.22	ug/L		99
3) Chloromethane	1.134	50	15026	8.58	ug/L		97
4) 1,3-butadiene	1.180	39	11804	6.44	ug/L		92
5) Vinyl Chloride	1.173	62	11897	7.46	ug/L		97
6) Bromomethane	1.350	94	3554	5.12	ug/L		98
7) Chloroethane	1.419	64	6353	7.50	ug/L		95
8) Trichlorofluoromethane	1.496	101	12543	4.52	ug/L		96
9) Ethyl Ether	1.658	59	10593	7.37	ug/L	#	83
10) Ethanol	1.711	45	6899	238.21	ug/L		95
11) 1,2-Dichlorotrifluoroe...	1.742	67	9808	5.39	ug/L		85
12) 1,1-Dichloroethene	1.758	61	15288	5.97	ug/L		80
13) Freon 113	1.788	101	7429	4.15	ug/L		91
14) Carbon Disulfide	1.781	76	22810	4.84	ug/L		87
15) Iodomethane	1.835	142	2989	2.63	ug/L		95
16) Acrolein	1.912	56	17680	41.39	ug/L		95
17) Allyl chloride	1.996	41	17094	7.38	ug/L		79
18) Methylene Chloride	2.042	49	26358	10.40	ug/L		76
19) Acetone	2.050	43	43112	68.79	ug/L		95
20) Methyl acetate	2.127	43	77109	40.08	ug/L		88
21) trans-1,2-Dichloroethene	2.135	61	15557	6.36	ug/L		84
22) Hexane	2.196	56	12872	6.83	ug/L		95
23) Methyl Tert Butyl Ether	2.196	73	24670	4.78	ug/L	#	62
24) Acetonitrile	2.273	41	26844	89.12	ug/L		96
25) Tert Butyl Alcohol	2.212	59	23844	64.66	ug/L		91
26) Di-isopropyl ether	2.396	45	43487	7.44	ug/L		91
27) Chloroprene	2.443	53	56950	8.05	ug/L		93
28) 1,1-Dichloroethane	2.443	63	19670	5.68	ug/L		97
29) Acrylonitrile	2.443	52	35801	40.72	ug/L		97
30) ETBE	2.581	59	36989	6.64	ug/L		87
31) Vinyl acetate	2.566	43	144224	36.78	ug/L		99
32) cis-1,2-Dichloroethene	2.720	96	10109	4.96	ug/L	#	75
33) 2,2-Dichloropropane	2.789	77	11588	4.41	ug/L		92
34) Bromochloromethane	2.827	128	4923	4.39	ug/L	#	62
35) Cyclohexane	2.858	56	22877	7.47	ug/L	#	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:54:33 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	16129	4.77	ug/L		87
37) Ethyl acetate	2.920	43	91745	39.93	ug/L		97
38) Tetrahydrofuran	2.951	42	6207	7.68	ug/L		92
40) Carbon Tetrachloride	2.966	117	12105m	3.78	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	12961	4.12	ug/L		87
42) 2-Butanone	3.004	43	50894	42.94	ug/L		82
43) 1,1-Dichloropropene	3.058	75	11092	4.72	ug/L		88
44) tert-Butyl formate	3.097	59	54417	48.76	ug/L		86
45) Propionitrile	3.143	54	35667	94.96	ug/L		98
46) Methacrylonitrile	3.166	41	122748	91.29	ug/L		94
47) Benzene	3.181	78	35174	4.89	ug/L		76
48) TAME	3.251	73	23795	4.87	ug/L	#	55
50) 1,2-Dichloroethane	3.274	62	15297	5.61	ug/L		84
51) Isobutyl Alcohol	3.258	43	36037	182.41	ug/L		95
52) Tert Amyl Alcohol	3.328	59	20130	72.00	ug/L		84
53) Trichloroethene	3.512	95	9785	4.77	ug/L		95
54) Methylcyclohexane	3.535	83	14596	4.61	ug/L	#	80
55) Dibromomethane	3.736	93	6343	5.16	ug/L		87
56) 1,2-Dichloropropane	3.797	63	13225	7.49	ug/L		91
57) Bromodichloromethane	3.828	83	13108	4.91	ug/L	#	93
58) Methyl methacrylate	3.920	41	15878	9.48	ug/L	#	83
59) 1,4-Dioxane	3.943	88	2751	99.95	ug/L	#	63
60) 2-Chloroethyl vinyl ether	4.167	63	34563	34.69	ug/L		85
61) cis-1,3-Dichloropropene	4.213	75	14844	5.42	ug/L		83
64) Toluene	4.374	91	37175	6.15	ug/L		92
65) 2-Nitropropane	4.467	41	21469	46.55	ug/L		97
66) 4-Methyl-2-pentanone	4.582	43	100207	58.61	ug/L		95
67) trans-1,3-Dichloropropene	4.613	75	13240	6.52	ug/L		80
68) Tetrachloroethene	4.636	166	13554	6.25	ug/L		98
69) Ethyl methacrylate	4.736	69	11494	8.34	ug/L		84
70) 1,1,2-Trichloroethane	4.721	83	8115	7.43	ug/L		94
71) Dibromochloromethane	4.844	129	9679	5.22	ug/L		98
72) 1,3-Dichloropropane	4.898	76	14394	7.37	ug/L		77
73) 1,2-Dibromoethane	4.998	107	9115	5.75	ug/L		96
74) 3,3-Dimethyl-1-Butanol	5.129	57	126438	564.82	ug/L	#	82
75) 2-hexanone	5.144	43	96311	59.76	ug/L	#	73
76) 1-Chlorohexane	5.367	91	13193m	6.06	ug/L		
77) Ethylbenzene	5.398	91	38896m	6.04	ug/L		
78) Chlorobenzene	5.367	112	24861	5.85	ug/L		89
79) 1,1,1,2-Tetrachloroethane	5.413	131	9244	5.19	ug/L		95
80) m,p-Xylene	5.498	91	60713	11.55	ug/L		97
81) o-Xylene	5.806	91	32043	6.01	ug/L		94
82) Styrene	5.837	104	23000	5.57	ug/L		90
83) Bromoform	5.844	173	6818	5.25	ug/L		96
84) Isopropylbenzene	6.044	105	35961	5.59	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.268	53	4989	15.93	ug/L	#	70
88) n-Propylbenzene	6.352	91	44986	7.14	ug/L		99
89) Bromobenzene	6.306	156	10253	6.31	ug/L	#	77
90) 1,1,2,2-Tetrachloroethane	6.375	83	12781	8.06	ug/L		99
91) 1,3,5-Trimethylbenzene	6.506	105	30364	6.27	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:54:33 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

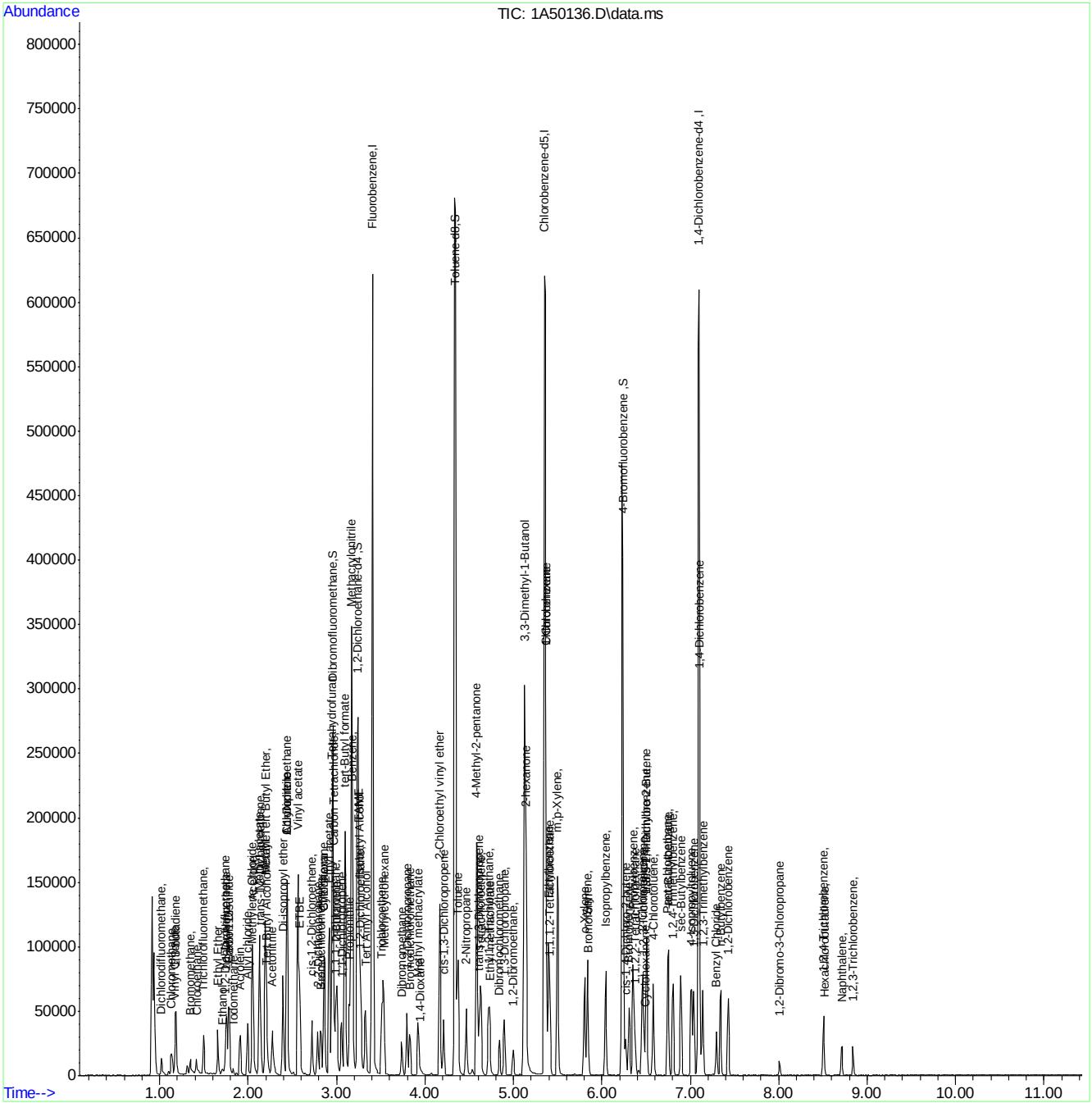
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	6.460	91	26660	7.22	ug/L		94
93)	trans-1,4-Dichloro-2-B...	6.506	53	5951	12.80	ug/L	#	71
94)	1,2,3-Trichloropropane	6.468	110	3625	6.78	ug/L	#	60
95)	Cyclohexanone	6.491	55	4001	66.45	ug/L		81
96)	4-Chlorotoluene	6.583	91	28736	7.33	ug/L		95
97)	tert-Butylbenzene	6.753	91	16698	6.58	ug/L		89
98)	1,2,4-Trimethylbenzene	6.806	105	28603	6.23	ug/L		99
99)	Pentachloroethane	6.745	167	4145	4.89	ug/L	#	49
100)	sec-Butylbenzene	6.891	105	36266	6.18	ug/L		97
101)	4-Isopropyltoluene	7.014	119	29696	5.56	ug/L		97
102)	1,3-Dichlorobenzene	7.037	146	19231	6.19	ug/L		95
103)	1,2,3-Trimethylbenzene	7.145	105	29149	6.35	ug/L		99
104)	1,4-Dichlorobenzene	7.107	146	19647	6.38	ug/L		88
105)	n-Butylbenzene	7.345	92	13996	6.58	ug/L		97
106)	Benzyl Chloride	7.291	126	3517	5.57	ug/L		93
107)	1,2-Dichlorobenzene	7.430	146	16800	6.10	ug/L		94
108)	1,2-Dibromo-3-Chloropr...	8.007	75	1784	7.55	ug/L	#	86
109)	Hexachlorobutadiene	8.515	225	2793	4.50	ug/L		87
110)	1,2,4-Trichlorobenzene	8.507	180	6563	4.92	ug/L		92
111)	Naphthalene	8.715	128	12445	6.16	ug/L		100
112)	1,2,3-Trichlorobenzene	8.838	180	4794	5.16	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:54:33 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

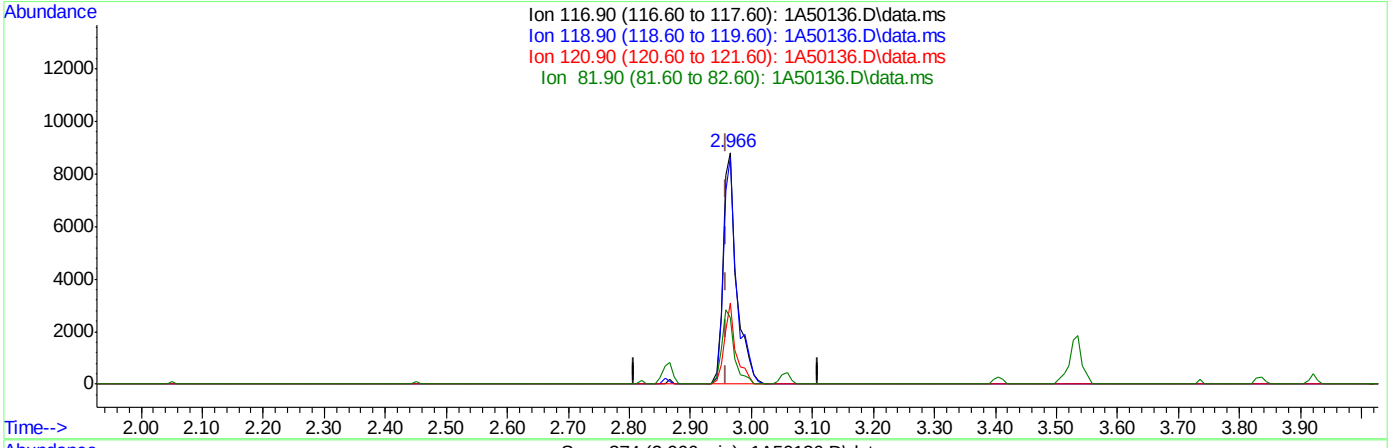
Sample Number: V1A1961-IC1961
Lab FileID: 1A50136.D
Injection Time: 10/23/23 10:02
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

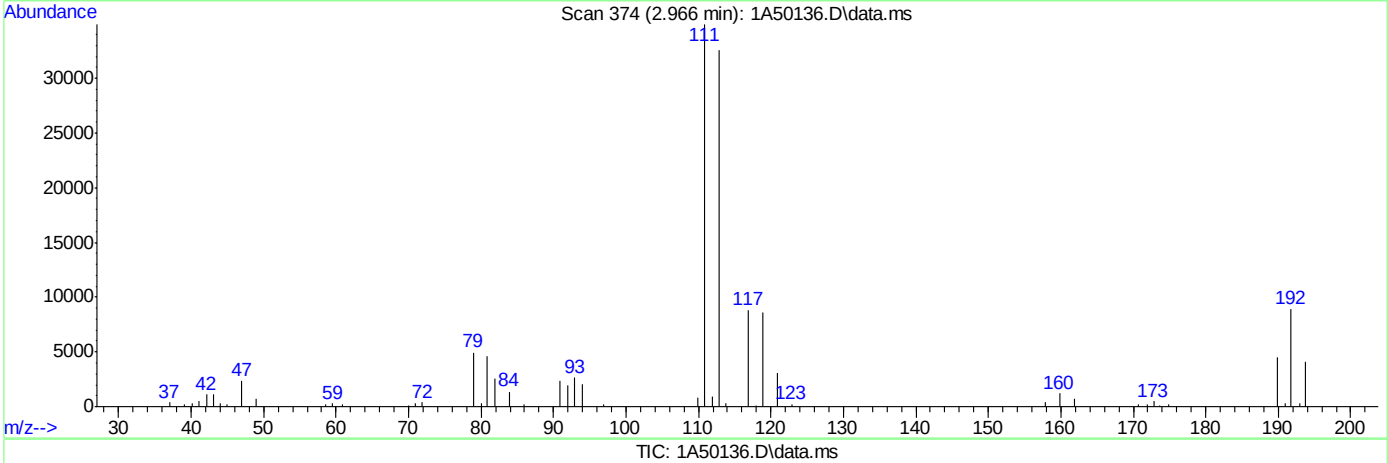
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.97	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:49:22 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50136.D\data.ms

(40) Carbon Tetrachloride ( )

2.966min (+0.007) 4.24ug/L

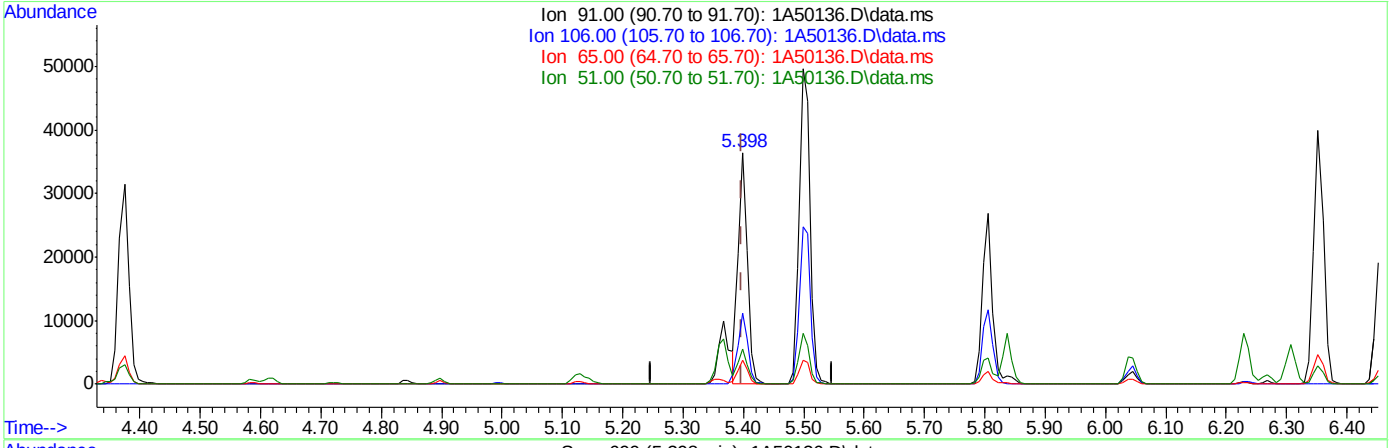
response 13606

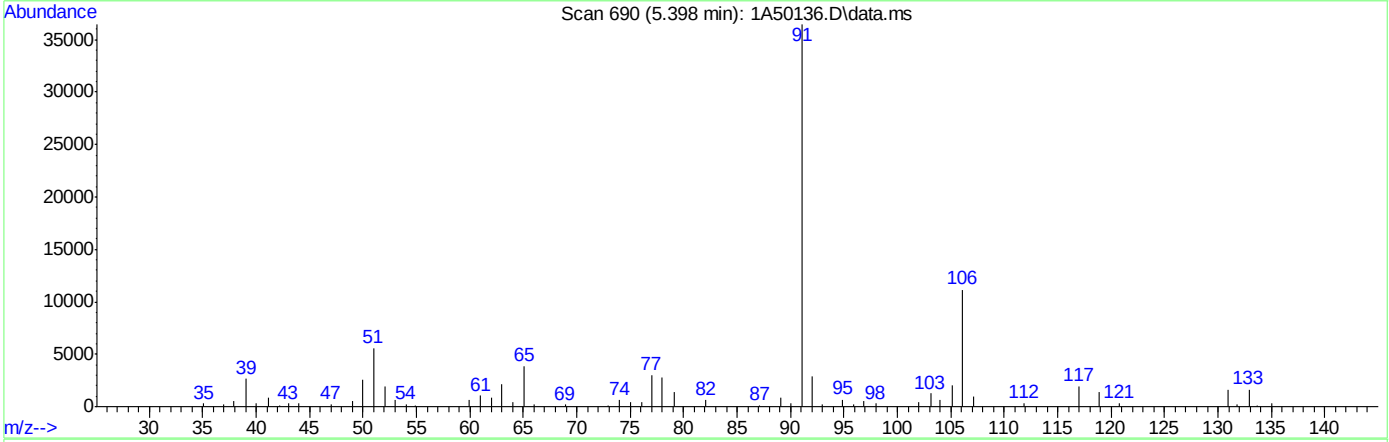
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.74
120.90	31.10	34.95
81.90	25.40	28.52

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:49:22 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50136.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 6.04ug/L m

response 38896

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	30.53
65.00	8.30	10.56
51.00	10.10	15.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:49:22 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
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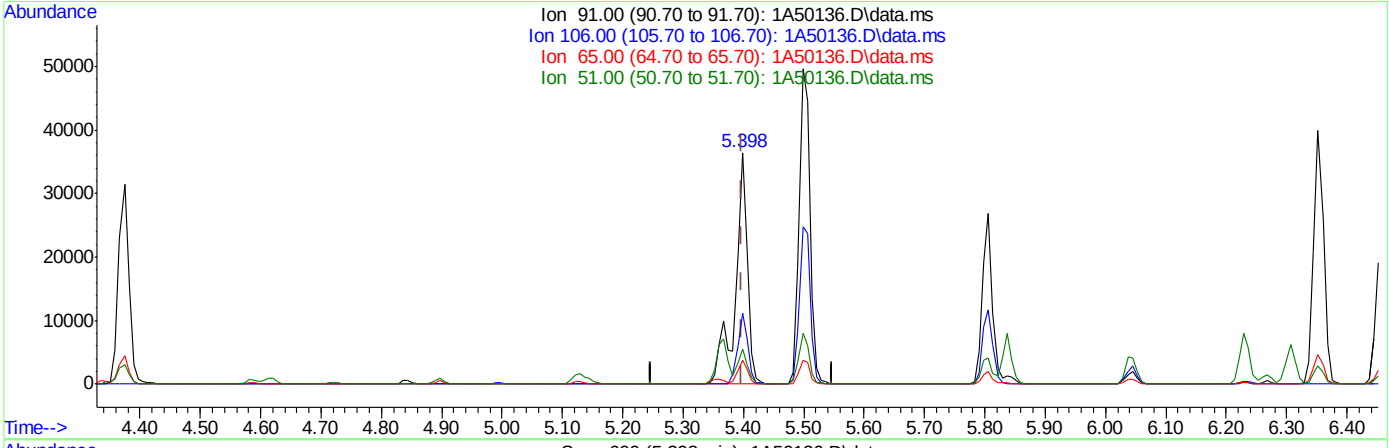
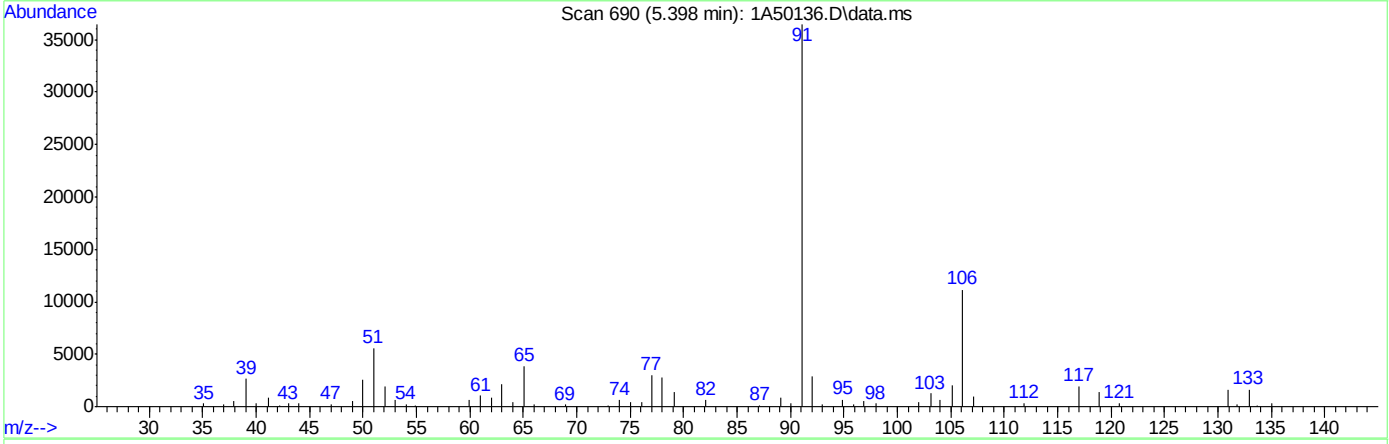




TIC: 1A50136.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 8.09ug/L

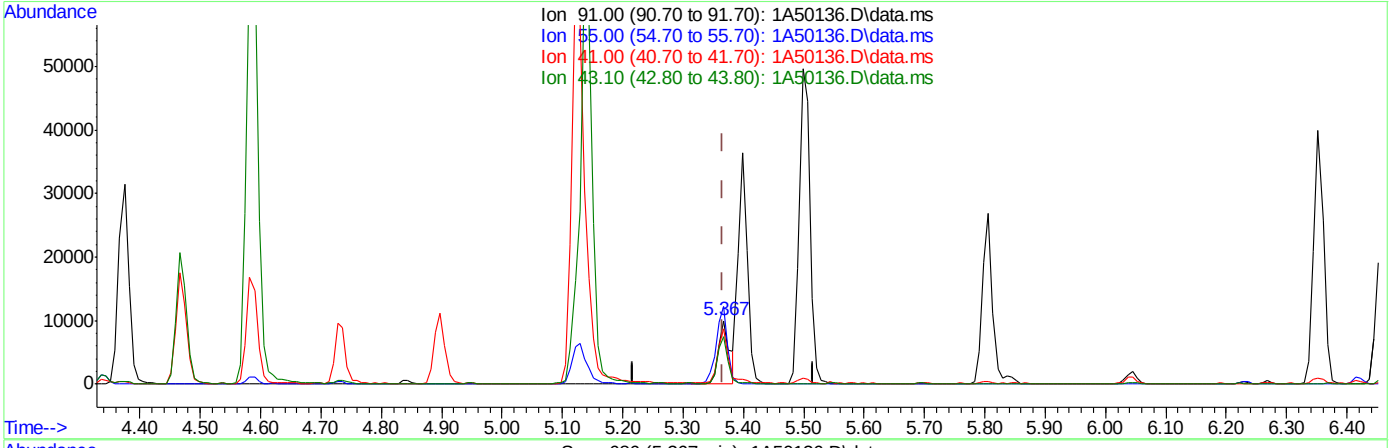
response 52083

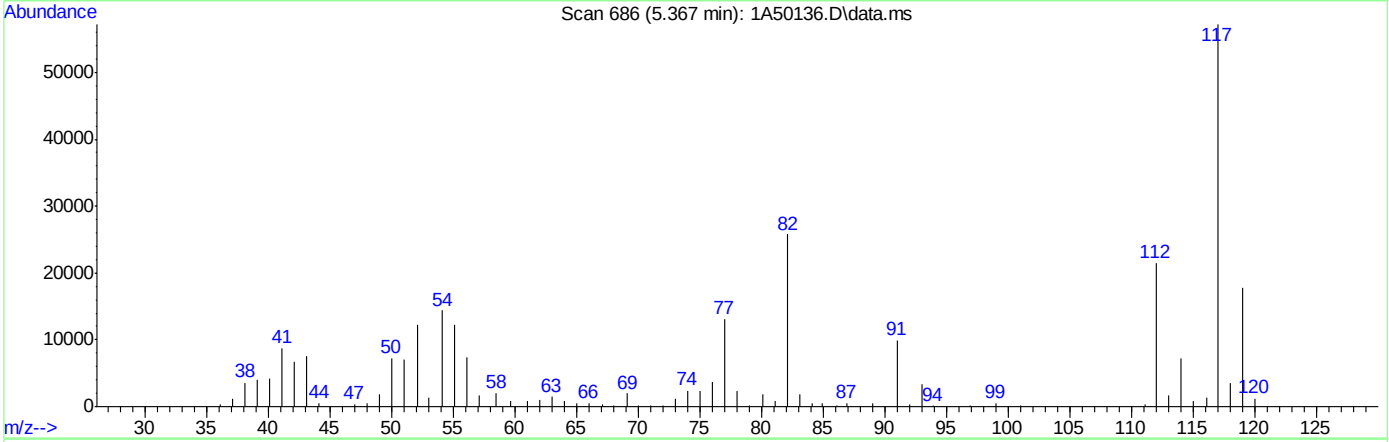
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	30.53
65.00	8.30	10.56
51.00	10.10	15.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:49:22 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50136.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 6.06ug/L m

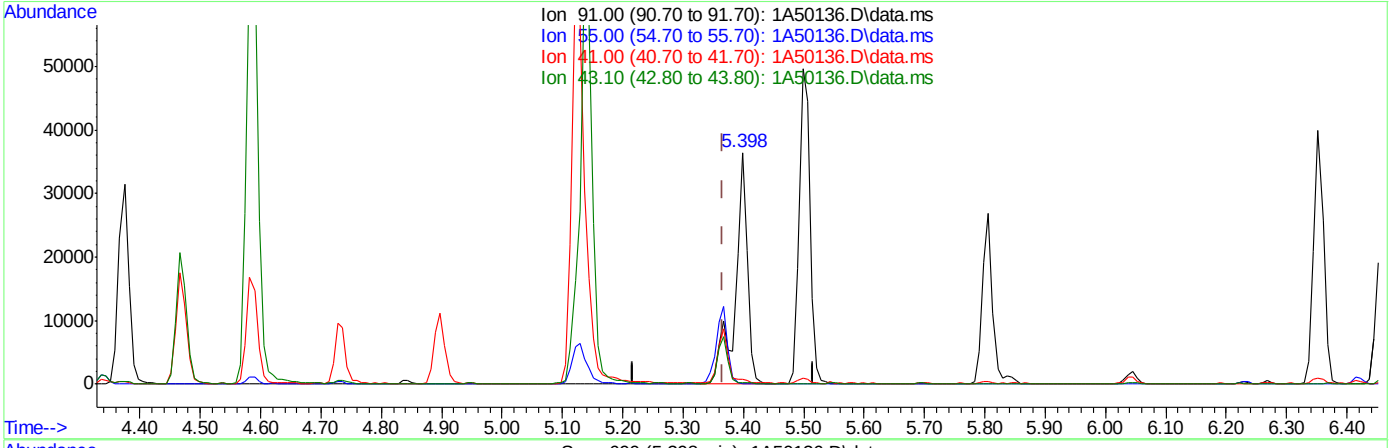
response 13193

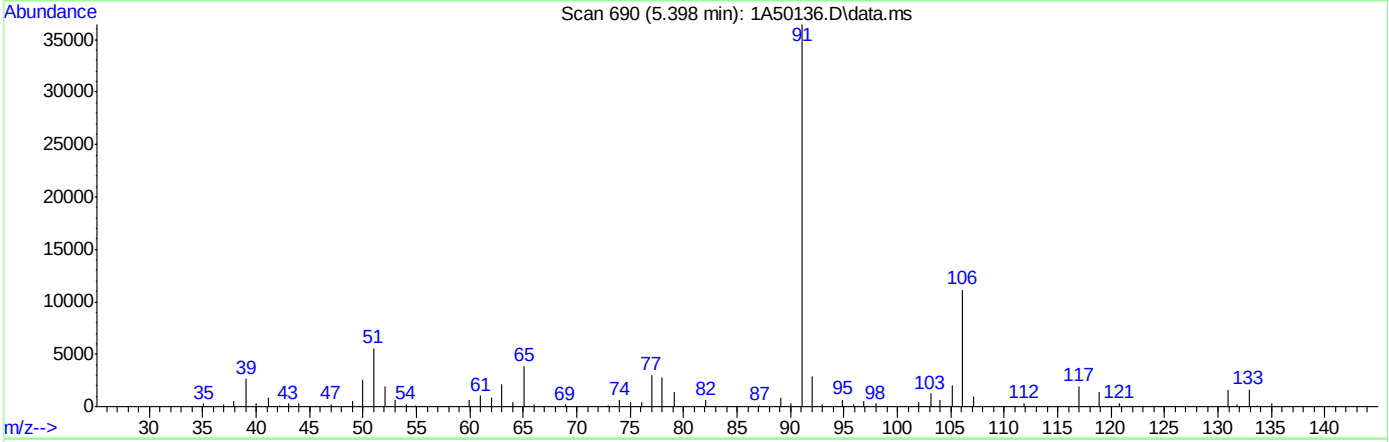
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	122.70#
41.00	53.90	87.97#
43.10	42.90	75.07#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 23 12:49:22 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50136.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 23.91ug/L

response 52083

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.39#
41.00	53.90	1.89#
43.10	42.90	0.51#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50136.D
Acq On : 23 Oct 2023 10:02 am
Operator : jeniferw
Sample : IC1961-2
Misc : MS55077,V1A1961,,,,,
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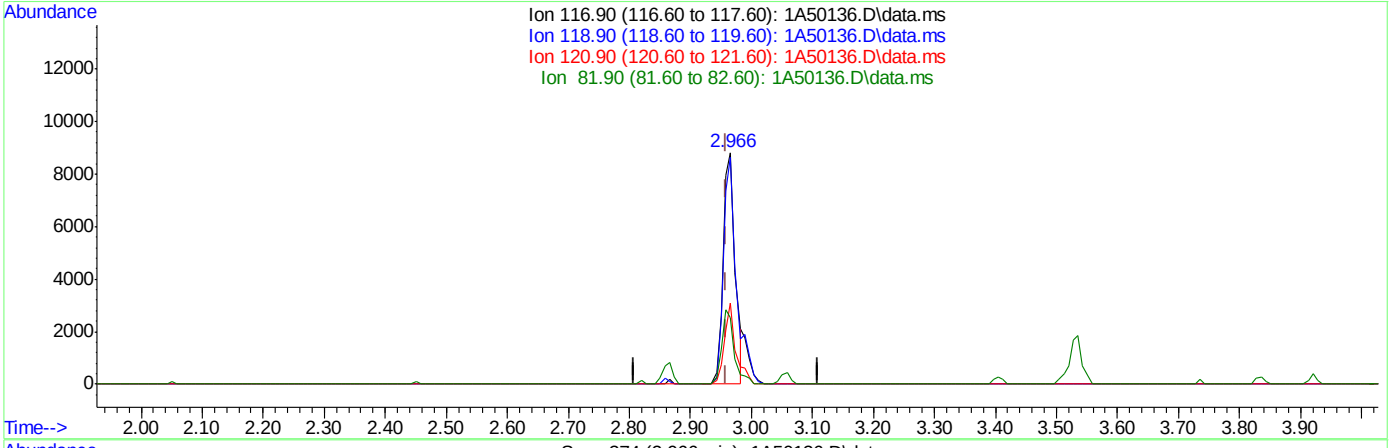

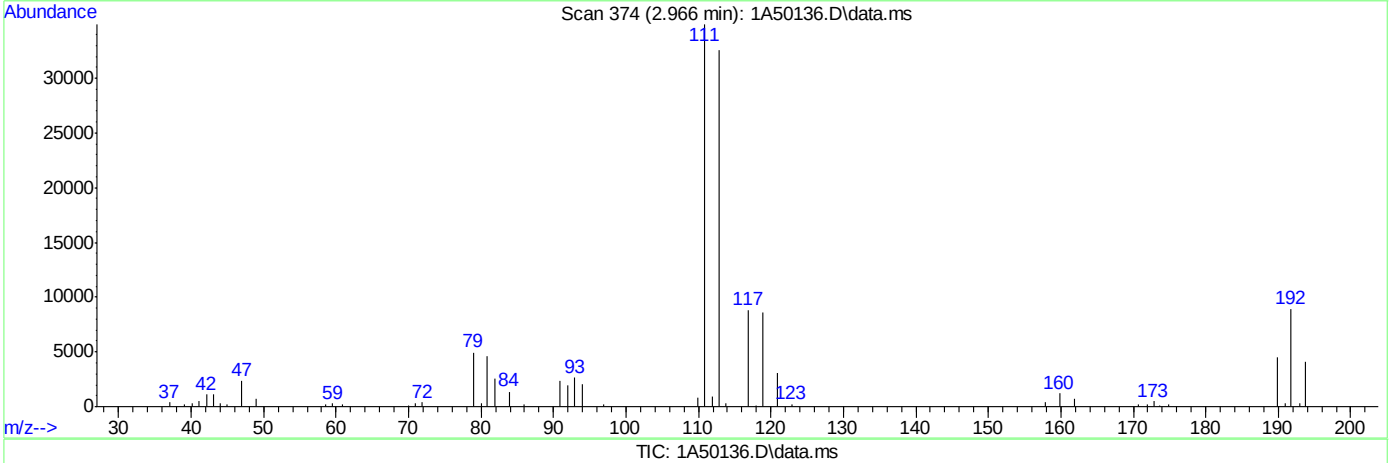

TIC: 1A50136.D\data.ms

(40) Carbon Tetrachloride ( )

2.966min (+0.007) 3.78ug/L m

response 12105

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.74
120.90	31.10	34.95
81.90	25.40	28.52

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:55:41 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	320116	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	235263	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	121748	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.951	113	87582	44.92	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 89.84%				
49) 1,2-Dichloroethane-d4	3.235	65	114644	57.59	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 115.18%				
63) Toluene-d8	4.336	98	309489	56.74	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 113.48%#				
86) 4-Bromofluorobenzene	6.229	174	101550	53.18	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.36%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	14166	9.92	ug/L		97
3) Chloromethane	1.127	50	30508	18.08	ug/L		99
4) 1,3-butadiene	1.181	39	21776	12.19	ug/L		91
5) Vinyl Chloride	1.165	62	23371	15.02	ug/L		96
6) Bromomethane	1.342	94	6600	9.79	ug/L		91
7) Chloroethane	1.411	64	12276	15.12	ug/L		91
8) Trichlorofluoromethane	1.488	101	24177	8.93	ug/L		94
9) Ethyl Ether	1.650	59	20568	14.67	ug/L	#	81
10) Ethanol	1.704	45	10529	372.80	ug/L		97
11) 1,2-Dichlorotrifluoroe...	1.742	67	20381	11.49	ug/L		87
12) 1,1-Dichloroethene	1.758	61	31277	12.53	ug/L		88
13) Freon 113	1.781	101	15020	8.61	ug/L		90
14) Carbon Disulfide	1.781	76	46051	10.01	ug/L		88
15) Iodomethane	1.827	142	7925	7.01	ug/L		98
16) Acrolein	1.904	56	33597	80.65	ug/L		97
17) Allyl chloride	1.989	41	32262	14.29	ug/L		83
18) Methylene Chloride	2.042	49	43329	17.53	ug/L		80
19) Acetone	2.050	43	70875	115.98	ug/L		98
20) Methyl acetate	2.119	43	141525	75.43	ug/L		88
21) trans-1,2-Dichloroethene	2.135	61	32038	13.43	ug/L		85
22) Hexane	2.196	56	26722	14.53	ug/L		92
23) Methyl Tert Butyl Ether	2.189	73	48392	9.62	ug/L		74
24) Acetonitrile	2.273	41	47367	161.25	ug/L		96
25) Tert Butyl Alcohol	2.212	59	49354	137.25	ug/L		97
26) Di-isopropyl ether	2.389	45	87493	15.35	ug/L		88
27) Chloroprene	2.435	53	110630	16.05	ug/L		92
28) 1,1-Dichloroethane	2.443	63	40118	11.88	ug/L		96
29) Acrylonitrile	2.435	52	71284	83.14	ug/L		98
30) ETBE	2.581	59	71395	13.13	ug/L		87
31) Vinyl acetate	2.558	43	303318	79.32	ug/L		98
32) cis-1,2-Dichloroethene	2.720	96	18625	9.37	ug/L	#	73
33) 2,2-Dichloropropane	2.781	77	23550	9.18	ug/L		97
34) Bromochloromethane	2.820	128	9422	8.66	ug/L	#	57
35) Cyclohexane	2.858	56	45693	15.31	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:55:41 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	31271	9.47	ug/L		93
37) Ethyl acetate	2.912	43	189761	84.70	ug/L		97
38) Tetrahydrofuran	2.943	42	13614	17.27	ug/L		84
40) Carbon Tetrachloride	2.958	117	24664m	7.89	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	26729	8.71	ug/L		92
42) 2-Butanone	3.005	43	100269	86.76	ug/L		83
43) 1,1-Dichloropropene	3.051	75	22771	9.93	ug/L		87
44) tert-Butyl formate	3.097	59	96968	89.10	ug/L		87
45) Propionitrile	3.143	54	65115	177.78	ug/L		99
46) Methacrylonitrile	3.166	41	223044	170.11	ug/L		98
47) Benzene	3.182	78	69090	9.84	ug/L		91
48) TAME	3.251	73	47715	10.02	ug/L	#	47
50) 1,2-Dichloroethane	3.274	62	30892	11.61	ug/L		89
51) Isobutyl Alcohol	3.259	43	68492	355.51	ug/L		90
52) Tert Amyl Alcohol	3.320	59	40858	149.87	ug/L		83
53) Trichloroethene	3.513	95	19885	9.93	ug/L		95
54) Methylcyclohexane	3.528	83	30794	9.97	ug/L	#	74
55) Dibromomethane	3.736	93	11683	9.74	ug/L		87
56) 1,2-Dichloropropane	3.790	63	23292	13.53	ug/L		90
57) Bromodichloromethane	3.828	83	24304	9.34	ug/L	#	92
58) Methyl methacrylate	3.920	41	29692	18.17	ug/L	#	83
59) 1,4-Dioxane	3.943	88	5951	221.71	ug/L	#	56
60) 2-Chloroethyl vinyl ether	4.167	63	67768	69.74	ug/L		85
61) cis-1,3-Dichloropropene	4.213	75	28087	10.51	ug/L		84
64) Toluene	4.374	91	74039	11.91	ug/L		96
65) 2-Nitropropane	4.467	41	41728	88.05	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	195804	111.45	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	27581	13.23	ug/L		83
68) Tetrachloroethene	4.636	166	27553	12.37	ug/L		96
69) Ethyl methacrylate	4.729	69	22915	16.18	ug/L	#	72
70) 1,1,2-Trichloroethane	4.713	83	15085	13.44	ug/L		90
71) Dibromochloromethane	4.844	129	19486	10.22	ug/L		99
72) 1,3-Dichloropropane	4.898	76	28320	14.12	ug/L		76
73) 1,2-Dibromoethane	4.998	107	18781	11.52	ug/L		94
74) 3,3-Dimethyl-1-Butanol	5.121	57	264080	1148.07	ug/L		83
75) 2-hexanone	5.136	43	196247	118.51	ug/L		93
76) 1-Chlorohexane	5.367	91	29872m	13.35	ug/L		
77) Ethylbenzene	5.398	91	78448m	11.86	ug/L		
78) Chlorobenzene	5.367	112	50878	11.65	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	19219	10.51	ug/L		97
80) m,p-Xylene	5.498	91	130073	24.08	ug/L		99
81) o-Xylene	5.806	91	64289	11.74	ug/L		98
82) Styrene	5.837	104	47996	11.31	ug/L		89
83) Bromoform	5.845	173	14174	10.61	ug/L		97
84) Isopropylbenzene	6.045	105	75858	11.47	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.268	53	10078	31.54	ug/L	#	68
88) n-Propylbenzene	6.352	91	93389	14.54	ug/L		96
89) Bromobenzene	6.306	156	20018	12.08	ug/L	#	76
90) 1,1,2,2-Tetrachloroethane	6.376	83	24901	15.39	ug/L		98
91) 1,3,5-Trimethylbenzene	6.506	105	64583	13.08	ug/L		98

Quantitation Report (QT Reviewed)

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Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
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Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:55:41 2023
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Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 2-Chlorotoluene	6.452	91	55515	14.74	ug/L		98
93) trans-1,4-Dichloro-2-B...	6.506	53	12881	27.15	ug/L	#	71
94) 1,2,3-Trichloropropane	6.468	110	7286	13.36	ug/L	#	70
95) Cyclohexanone	6.483	55	8301	135.16	ug/L		86
96) 4-Chlorotoluene	6.583	91	58878	14.73	ug/L		99
97) tert-Butylbenzene	6.753	91	35974	13.91	ug/L		86
98) 1,2,4-Trimethylbenzene	6.807	105	61128	13.06	ug/L		99
99) Pentachloroethane	6.745	167	7886	9.12	ug/L	#	36
100) sec-Butylbenzene	6.891	105	80296	13.41	ug/L		98
101) 4-Isopropyltoluene	7.014	119	65898	12.09	ug/L		95
102) 1,3-Dichlorobenzene	7.037	146	37562	11.86	ug/L		95
103) 1,2,3-Trimethylbenzene	7.145	105	61720	13.19	ug/L		96
104) 1,4-Dichlorobenzene	7.107	146	39107	12.44	ug/L		94
105) n-Butylbenzene	7.338	92	29770	13.71	ug/L		96
106) Benzyl Chloride	7.299	126	7529	11.70	ug/L	#	84
107) 1,2-Dichlorobenzene	7.430	146	34130	12.14	ug/L		98
108) 1,2-Dibromo-3-Chloropr...	8.007	75	3529	14.65	ug/L	#	80
109) Hexachlorobutadiene	8.515	225	5923	9.36	ug/L		92
110) 1,2,4-Trichlorobenzene	8.507	180	13563	9.97	ug/L		97
111) Naphthalene	8.715	128	26437	12.44	ug/L		96
112) 1,2,3-Trichlorobenzene	8.838	180	9375	9.89	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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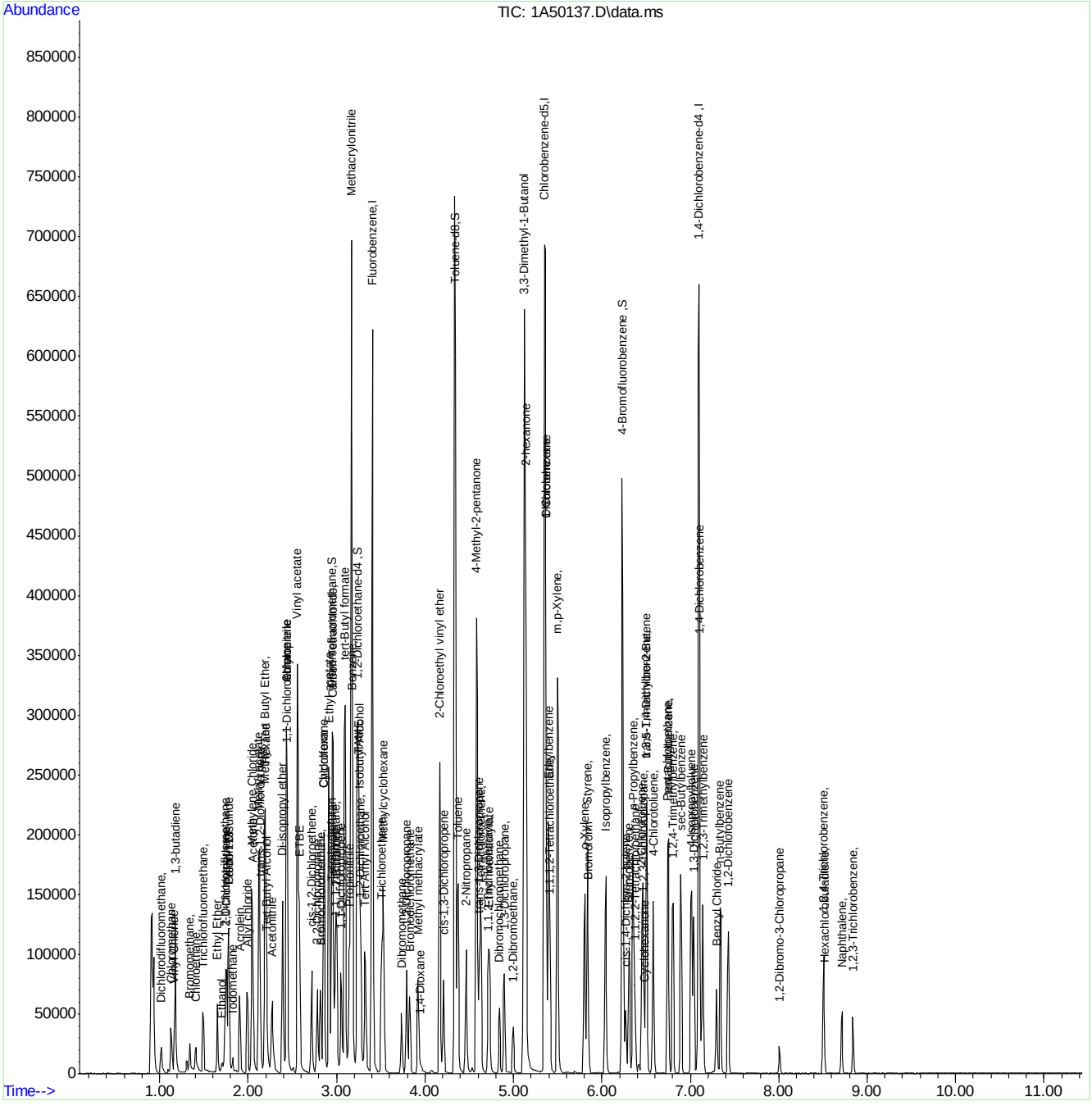
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:55:41 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

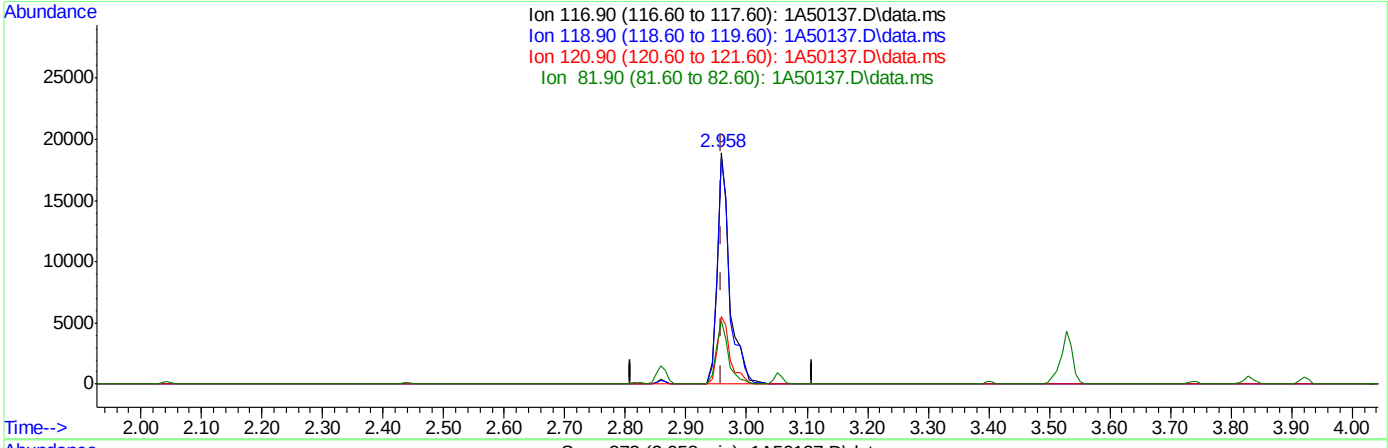
Sample Number: V1A1961-IC1961
Lab FileID: 1A50137.D
Injection Time: 10/23/23 10:26
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

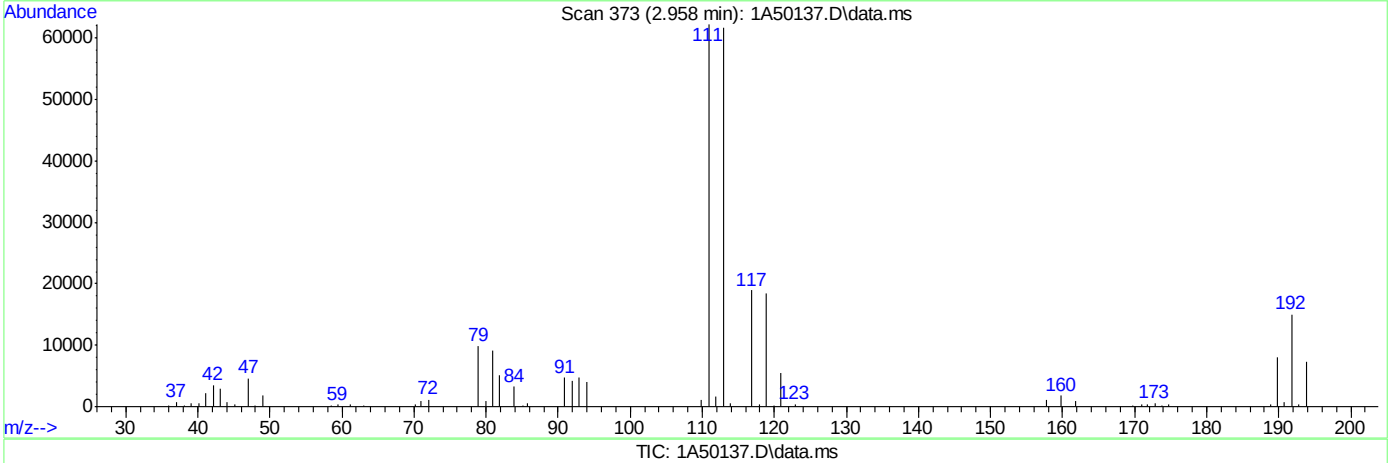
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 8.71ug/L

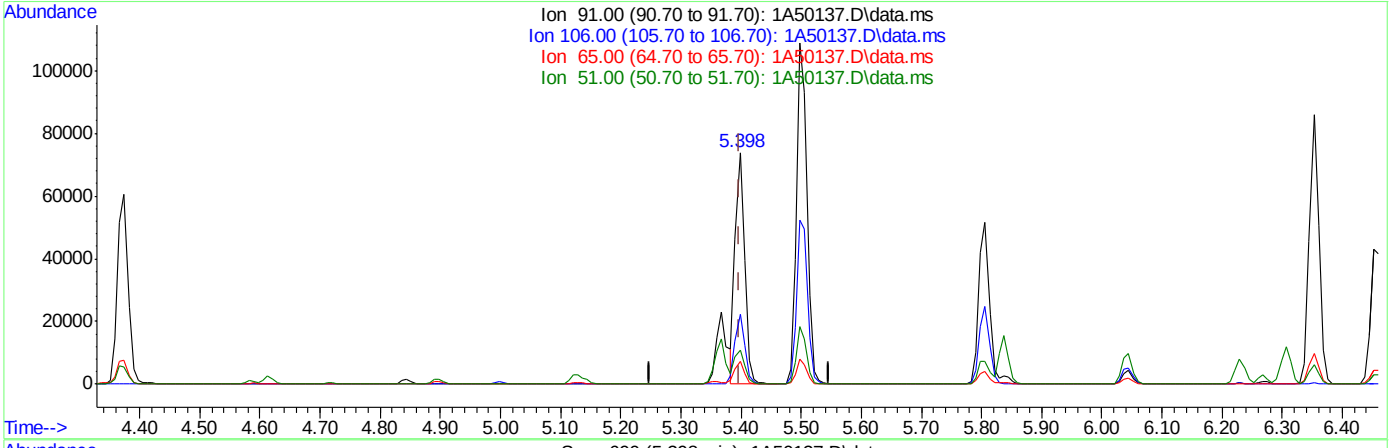
response 27240

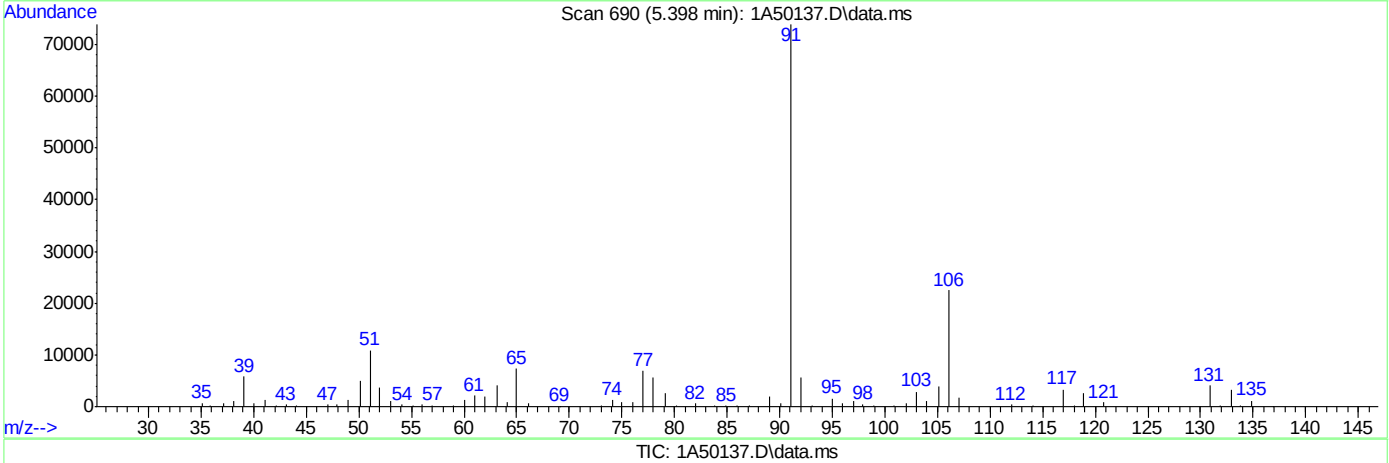
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.21
120.90	31.10	29.17
81.90	25.40	27.46

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 11.86ug/L m

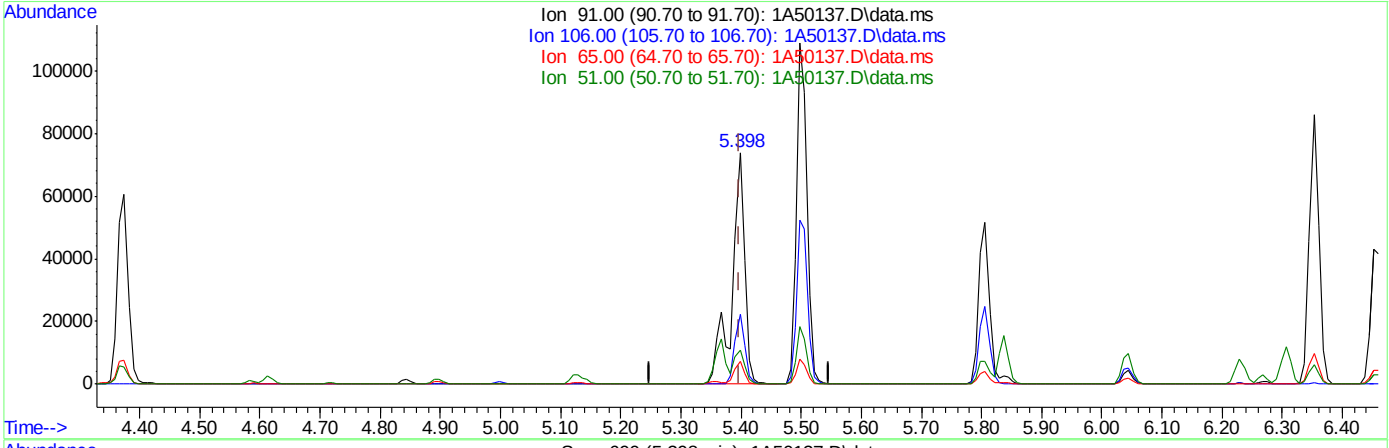
response 78448

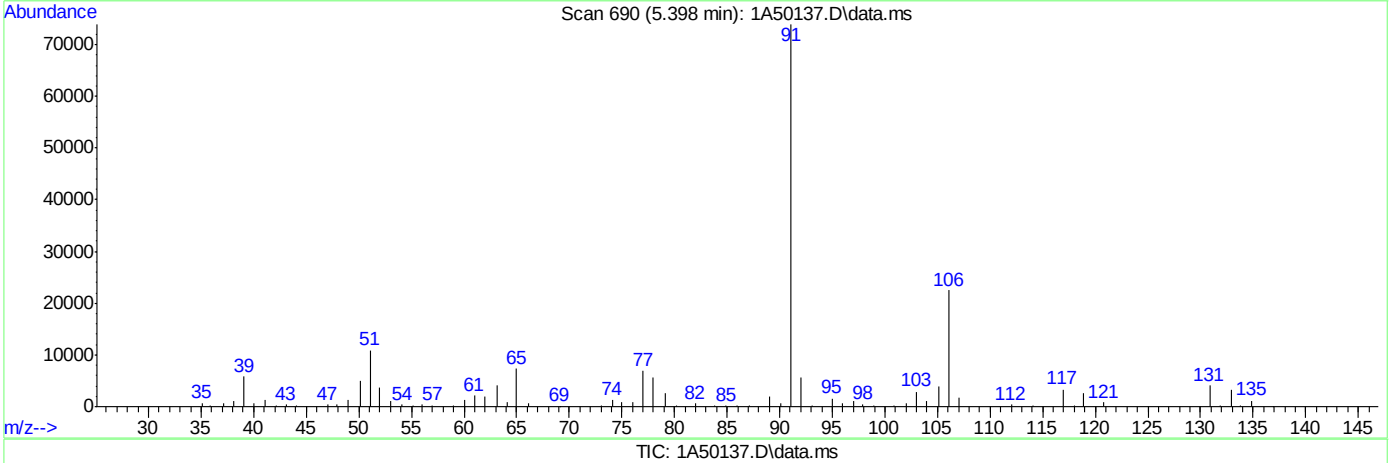
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	30.39
65.00	8.30	9.93
51.00	10.10	14.70

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 16.38ug/L

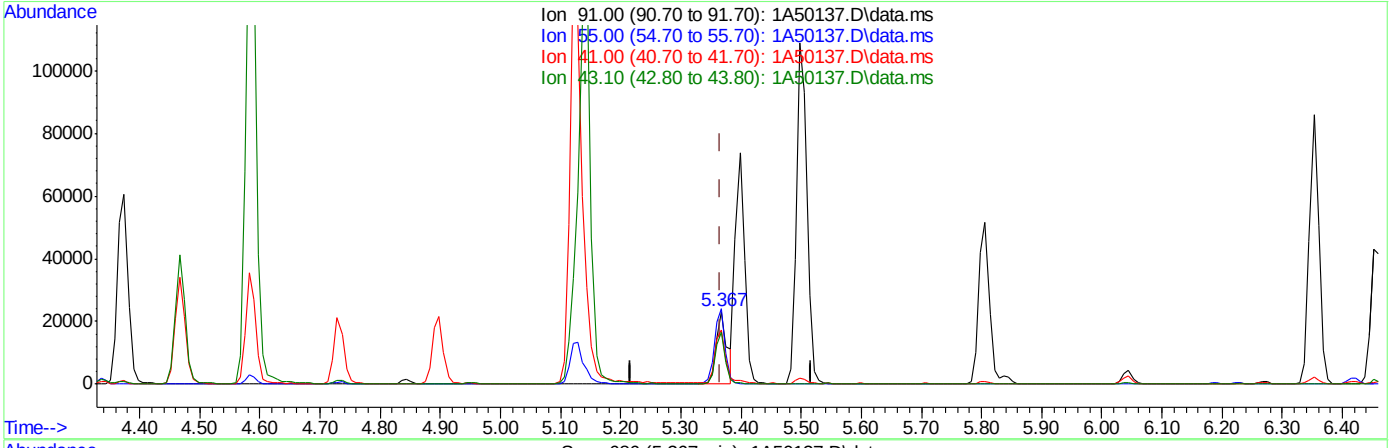
response 108325

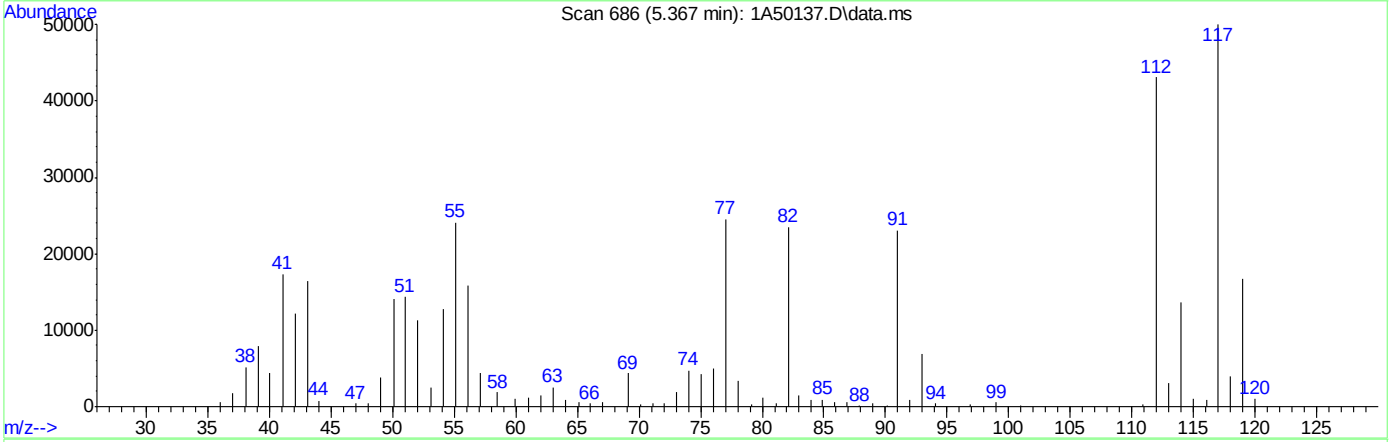
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	30.39
65.00	8.30	9.93
51.00	10.10	14.70

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 13.35ug/L m

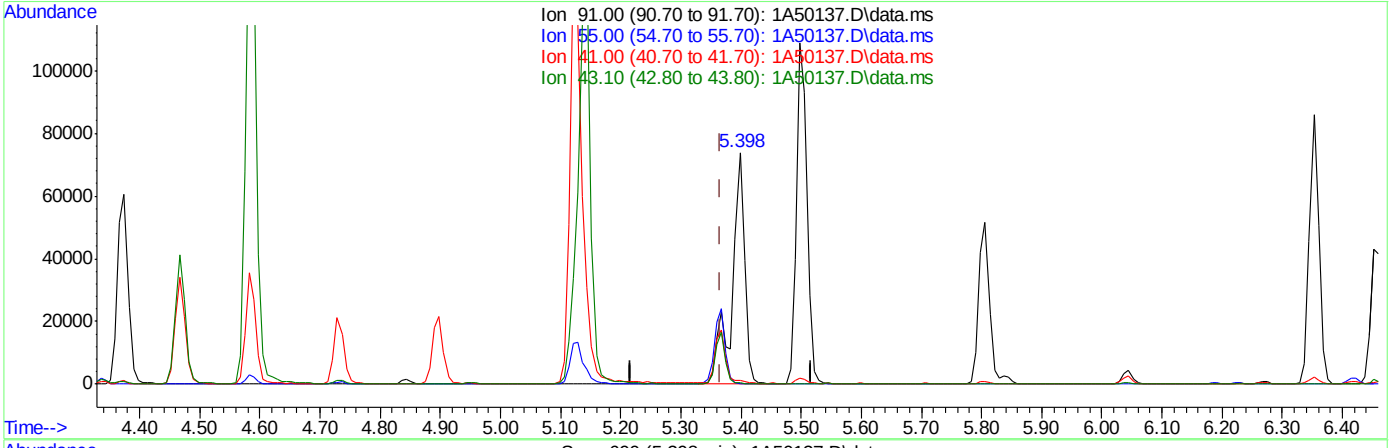
response 29872

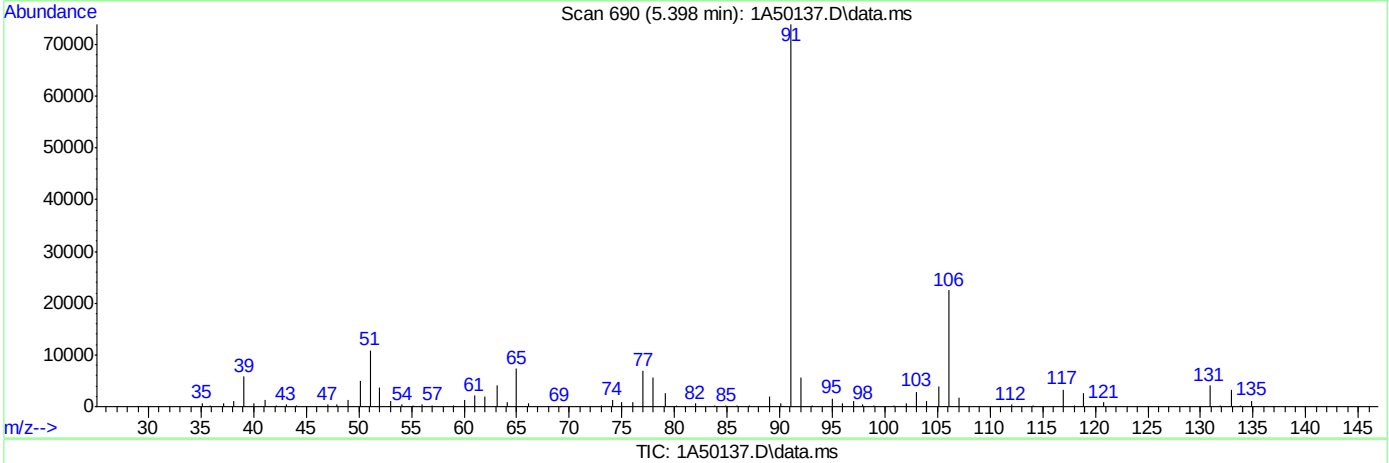
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	104.36#
41.00	53.90	75.21#
43.10	42.90	71.30#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 48.39ug/L

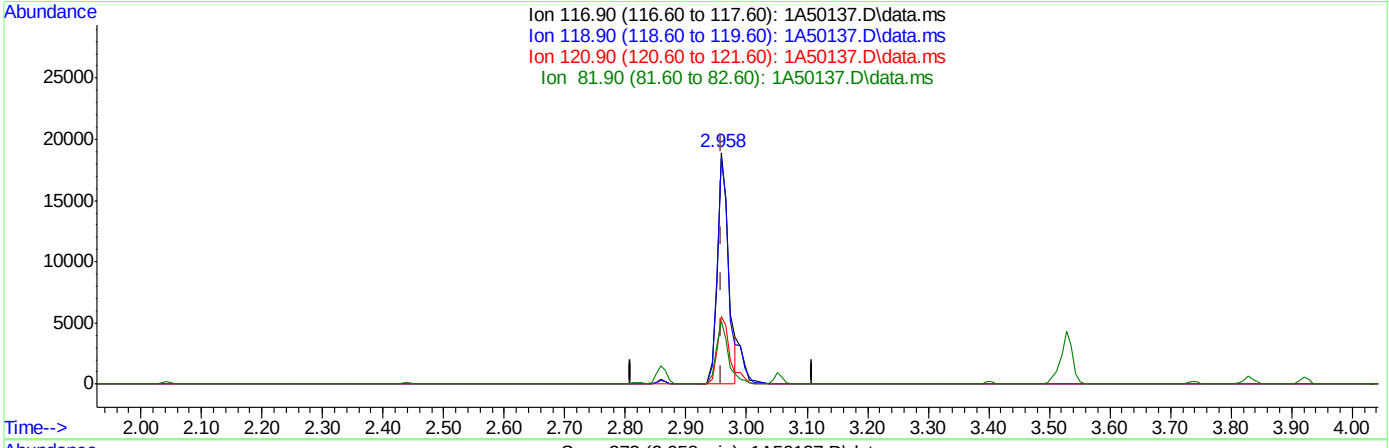
response 108325

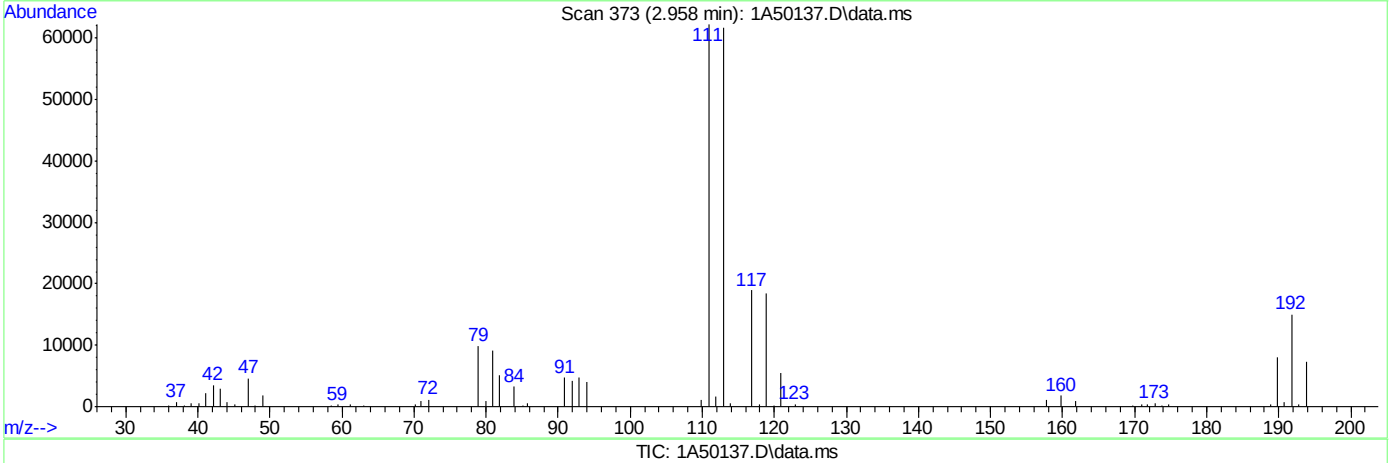
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.22#
41.00	53.90	1.62#
43.10	42.90	0.46#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50137.D
Acq On : 23 Oct 2023 10:26 am
Operator : jeniferw
Sample : IC1961-3
Misc : MS55077,V1A1961,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 23 12:49:24 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50137.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 7.89ug/L m

response 24664

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.21
120.90	31.10	29.17
81.90	25.40	27.46

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:56:15 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	326727	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	236189	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	126940	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.951	113	89716	45.08	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 90.16%				
49) 1,2-Dichloroethane-d4	3.235	65	118060	58.11	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 116.22%				
63) Toluene-d8	4.336	98	314522	57.43	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 114.86%#				
86) 4-Bromofluorobenzene	6.237	174	104553	52.51	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.02%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	34105	23.39	ug/L		99
3) Chloromethane	1.127	50	69040	41.23	ug/L		96
4) 1,3-butadiene	1.181	39	52653	28.88	ug/L		91
5) Vinyl Chloride	1.165	62	55517	34.96	ug/L		96
6) Bromomethane	1.342	94	15042	22.03	ug/L		97
7) Chloroethane	1.404	64	26874	33.83	ug/L		92
8) Trichlorofluoromethane	1.488	101	61963	22.42	ug/L		96
9) Ethyl Ether	1.650	59	45820	32.02	ug/L	#	78
10) Ethanol	1.704	45	26241	910.31	ug/L		94
11) 1,2-Dichlorotrifluoroe...	1.742	67	43133	23.82	ug/L		89
12) 1,1-Dichloroethene	1.758	61	68847	27.02	ug/L		90
13) Freon 113	1.781	101	33020	18.55	ug/L		92
14) Carbon Disulfide	1.781	76	99860	21.27	ug/L		91
15) Iodomethane	1.827	142	24845	20.27	ug/L		96
16) Acrolein	1.904	56	77865	183.14	ug/L		97
17) Allyl chloride	1.989	41	78717	34.16	ug/L		81
18) Methylene Chloride	2.043	49	86454	34.27	ug/L		78
19) Acetone	2.050	43	124227	199.16	ug/L		93
20) Methyl acetate	2.119	43	338360	176.68	ug/L		87
21) trans-1,2-Dichloroethene	2.135	61	73076	30.01	ug/L		84
22) Hexane	2.196	56	59041	31.45	ug/L		96
23) Methyl Tert Butyl Ether	2.189	73	115721	22.54	ug/L		72
24) Acetonitrile	2.273	41	109385	364.85	ug/L		98
25) Tert Butyl Alcohol	2.212	59	110795	301.87	ug/L		98
26) Di-isopropyl ether	2.389	45	204551	35.16	ug/L		89
27) Chloroprene	2.435	53	259647	36.90	ug/L		92
28) 1,1-Dichloroethane	2.443	63	93249	27.06	ug/L		96
29) Acrylonitrile	2.435	52	163199	186.49	ug/L		98
30) ETBE	2.581	59	174674	31.48	ug/L		89
31) Vinyl acetate	2.558	43	765404	196.12	ug/L		98
32) cis-1,2-Dichloroethene	2.720	96	44370	21.86	ug/L	#	80
33) 2,2-Dichloropropane	2.781	77	54993	21.01	ug/L		98
34) Bromochloromethane	2.820	128	22044	20.08	ug/L	#	45
35) Cyclohexane	2.858	56	102587	33.67	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:56:15 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	76698	22.77	ug/L		95
37) Ethyl acetate	2.912	43	437285	191.23	ug/L		97
38) Tetrahydrofuran	2.943	42	31241	38.84	ug/L		86
40) Carbon Tetrachloride	2.958	117	56594m	17.74	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	61036	19.50	ug/L		92
42) 2-Butanone	3.005	43	231354	196.13	ug/L		80
43) 1,1-Dichloropropene	3.051	75	51227	21.90	ug/L		89
44) tert-Butyl formate	3.097	59	266830	240.23	ug/L		90
45) Propionitrile	3.143	54	142078	380.07	ug/L		96
46) Methacrylonitrile	3.166	41	517241	386.51	ug/L		96
47) Benzene	3.182	78	165743	23.13	ug/L		87
48) TAME	3.251	73	113539	23.36	ug/L	#	56
50) 1,2-Dichloroethane	3.274	62	72690	26.77	ug/L		90
51) Isobutyl Alcohol	3.259	43	156503	795.89	ug/L		94
52) Tert Amyl Alcohol	3.328	59	95655	343.76	ug/L		87
53) Trichloroethene	3.513	95	43088	21.03	ug/L		95
54) Methylcyclohexane	3.528	83	69197	21.94	ug/L	#	73
55) Dibromomethane	3.736	93	28692	23.44	ug/L		85
56) 1,2-Dichloropropane	3.790	63	54356	30.93	ug/L		91
57) Bromodichloromethane	3.828	83	57183	21.54	ug/L	#	93
58) Methyl methacrylate	3.920	41	66972	40.16	ug/L	#	80
59) 1,4-Dioxane	3.944	88	13203	481.94	ug/L	#	66
60) 2-Chloroethyl vinyl ether	4.167	63	177092	178.56	ug/L		84
61) cis-1,3-Dichloropropene	4.213	75	68329	25.05	ug/L		85
64) Toluene	4.375	91	168729	27.05	ug/L		98
65) 2-Nitropropane	4.467	41	99907	209.99	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	441035	250.06	ug/L		95
67) trans-1,3-Dichloropropene	4.613	75	63251	30.22	ug/L		84
68) Tetrachloroethene	4.636	166	48716	21.78	ug/L		99
69) Ethyl methacrylate	4.729	69	49359	34.71	ug/L	#	71
70) 1,1,2-Trichloroethane	4.721	83	34101	30.27	ug/L		92
71) Dibromochloromethane	4.844	129	45546	23.81	ug/L		98
72) 1,3-Dichloropropane	4.898	76	65849	32.70	ug/L		78
73) 1,2-Dibromoethane	4.998	107	42762	26.13	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.129	57	579729	2510.46	ug/L		84
75) 2-hexanone	5.144	43	426778	256.71	ug/L	#	74
76) 1-Chlorohexane	5.367	91	60993m	27.14	ug/L		
77) Ethylbenzene	5.398	91	184000m	27.71	ug/L		
78) Chlorobenzene	5.367	112	116637	26.60	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	43935	23.92	ug/L		95
80) m,p-Xylene	5.498	91	303813	56.02	ug/L		98
81) o-Xylene	5.806	91	155868	28.34	ug/L		99
82) Styrene	5.837	104	120400	28.27	ug/L		92
83) Bromoform	5.845	173	34398	25.65	ug/L		99
84) Isopropylbenzene	6.045	105	184379	27.78	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.268	53	22758	68.31	ug/L	#	72
88) n-Propylbenzene	6.352	91	225250	33.63	ug/L		95
89) Bromobenzene	6.306	156	47213	27.34	ug/L	#	76
90) 1,1,2,2-Tetrachloroethane	6.376	83	61822	36.64	ug/L		95
91) 1,3,5-Trimethylbenzene	6.506	105	156746	30.45	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:56:15 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

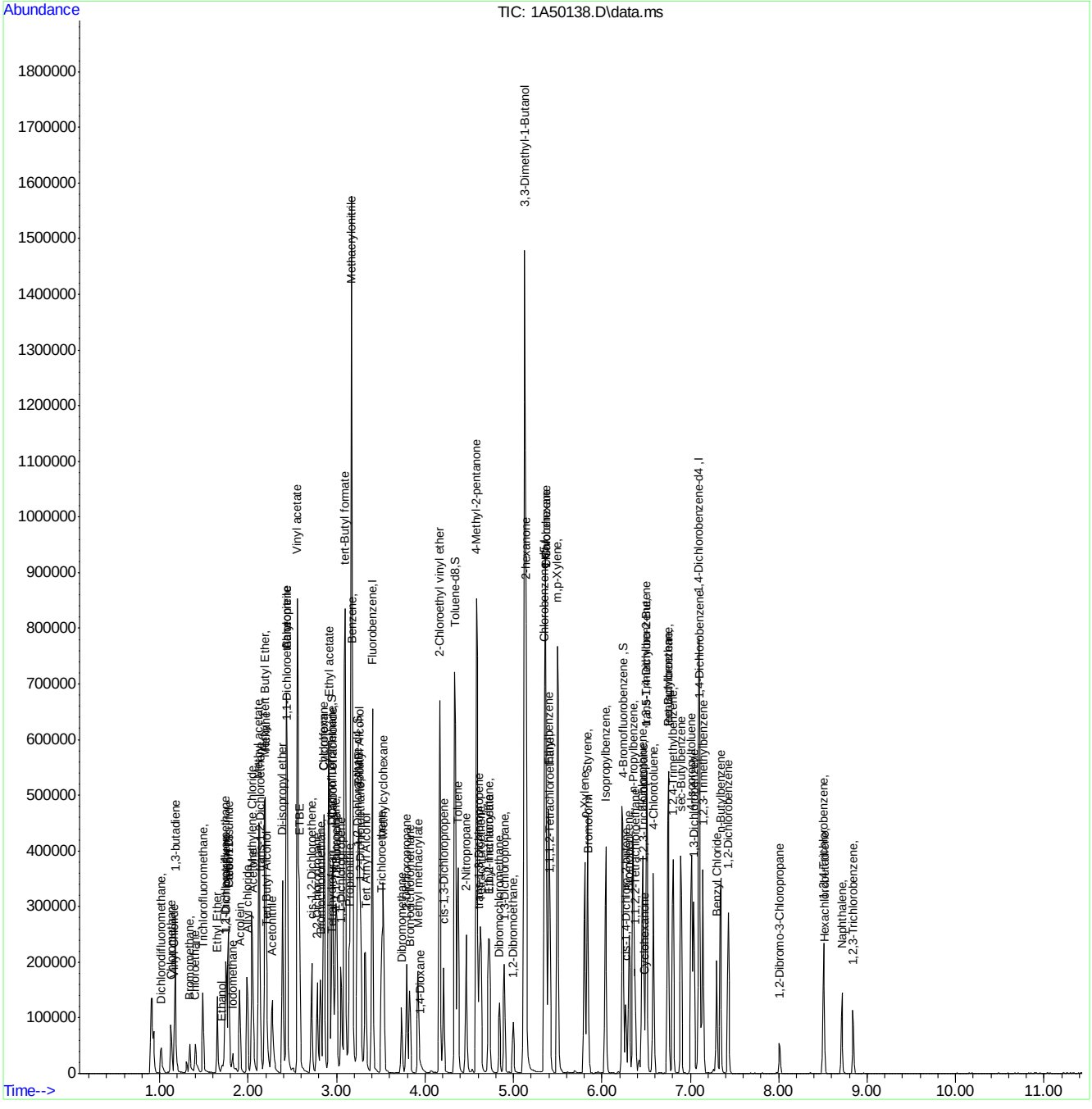
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 2-Chlorotoluene	6.460	91	130411	33.20	ug/L		96
93) trans-1,4-Dichloro-2-B...	6.506	53	29291	59.22	ug/L		81
94) 1,2,3-Trichloropropane	6.468	110	17206	30.25	ug/L	#	72
95) Cyclohexanone	6.483	55	19352	302.21	ug/L		88
96) 4-Chlorotoluene	6.583	91	141624	33.98	ug/L		96
97) tert-Butylbenzene	6.753	91	87522	32.45	ug/L		87
98) 1,2,4-Trimethylbenzene	6.807	105	150615	30.85	ug/L		97
99) Pentachloroethane	6.753	167	27224	30.36	ug/L	#	74
100) sec-Butylbenzene	6.891	105	197635	31.65	ug/L		96
101) 4-Isopropyltoluene	7.014	119	162574	28.61	ug/L		98
102) 1,3-Dichlorobenzene	7.037	146	92237	27.93	ug/L		96
103) 1,2,3-Trimethylbenzene	7.145	105	150210	30.79	ug/L		98
104) 1,4-Dichlorobenzene	7.107	146	91739	27.99	ug/L		94
105) n-Butylbenzene	7.345	92	76283	33.70	ug/L		96
106) Benzyl Chloride	7.299	126	20538	30.60	ug/L		98
107) 1,2-Dichlorobenzene	7.430	146	80293	27.39	ug/L		95
108) 1,2-Dibromo-3-Chloropr...	8.007	75	9135	36.37	ug/L		86
109) Hexachlorobutadiene	8.515	225	14122	21.40	ug/L		93
110) 1,2,4-Trichlorobenzene	8.507	180	33083	23.33	ug/L		98
111) Naphthalene	8.715	128	66886	28.09	ug/L		99
112) 1,2,3-Trichlorobenzene	8.838	180	23107	23.38	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:56:15 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

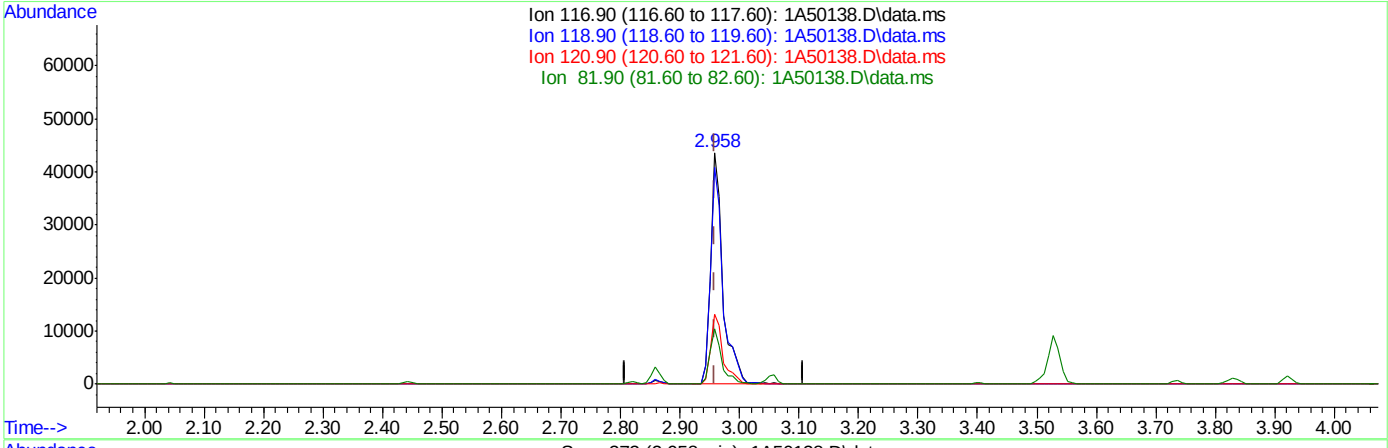
Sample Number:	V1A1961-IC1961	**Method:**	SW846 8260D
Lab FileID:	1A50138.D	**Analyst approved:**	10/23/23 14:29 Jenifer Willis
Injection Time:	10/23/23 11:07	**Supervisor approved:**	10/24/23 10:18 Neil Christiana

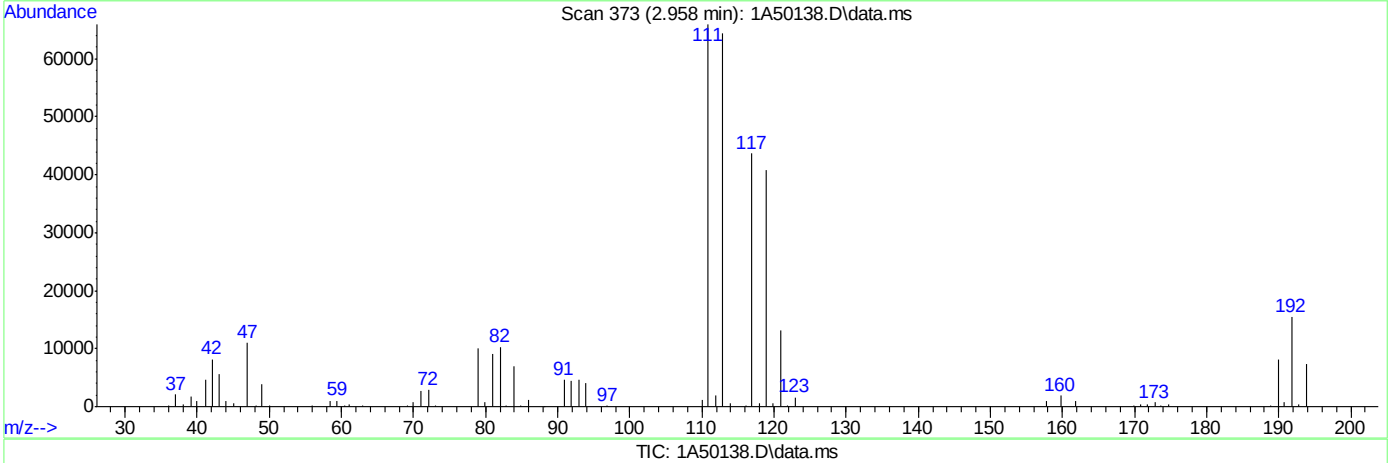
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 19.76ug/L

response 63044

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	93.66
120.90	31.10	30.25
81.90	25.40	23.66

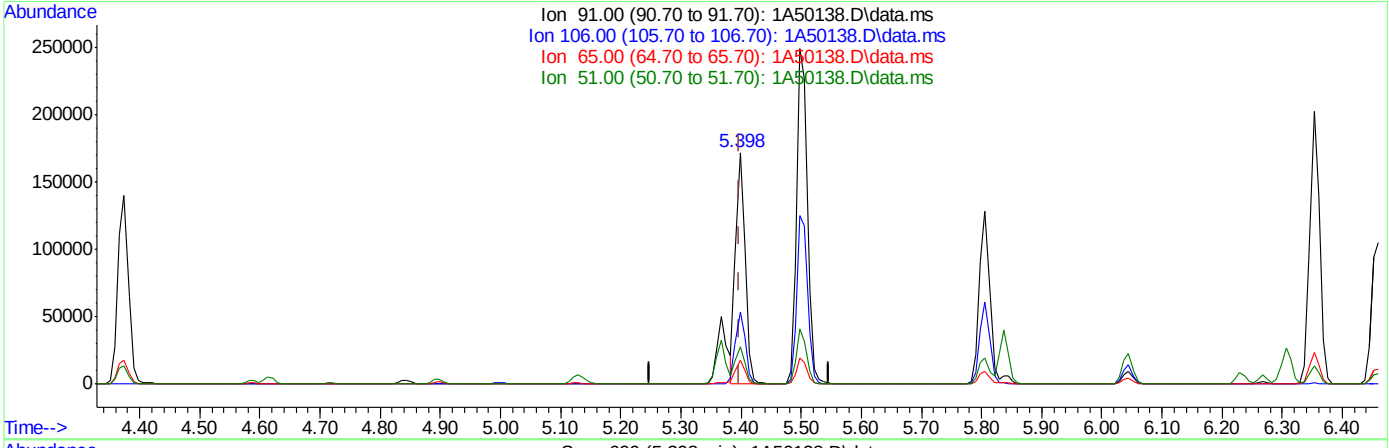
8.6.5.2

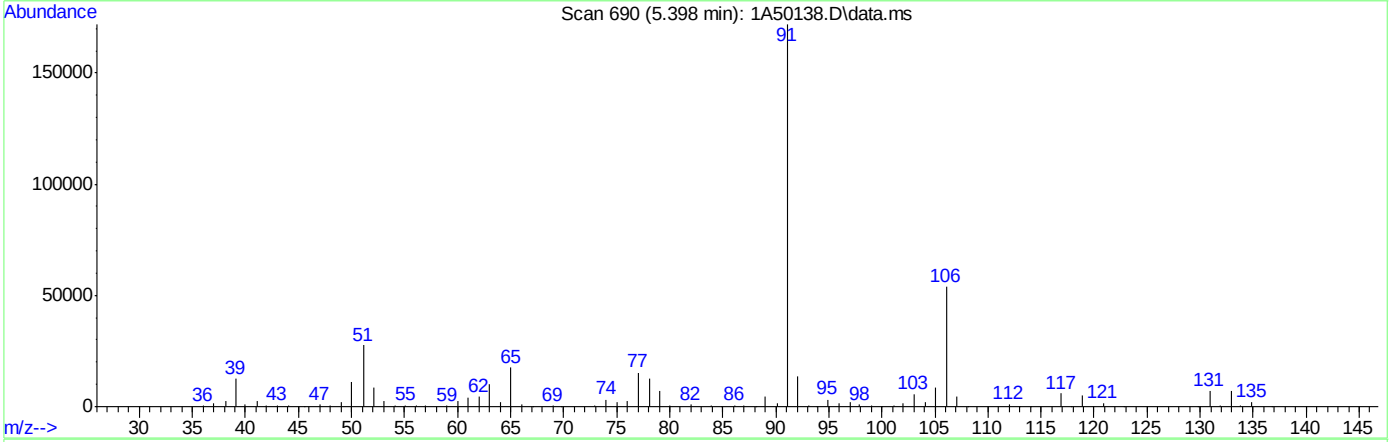
8

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 27.71ug/L m

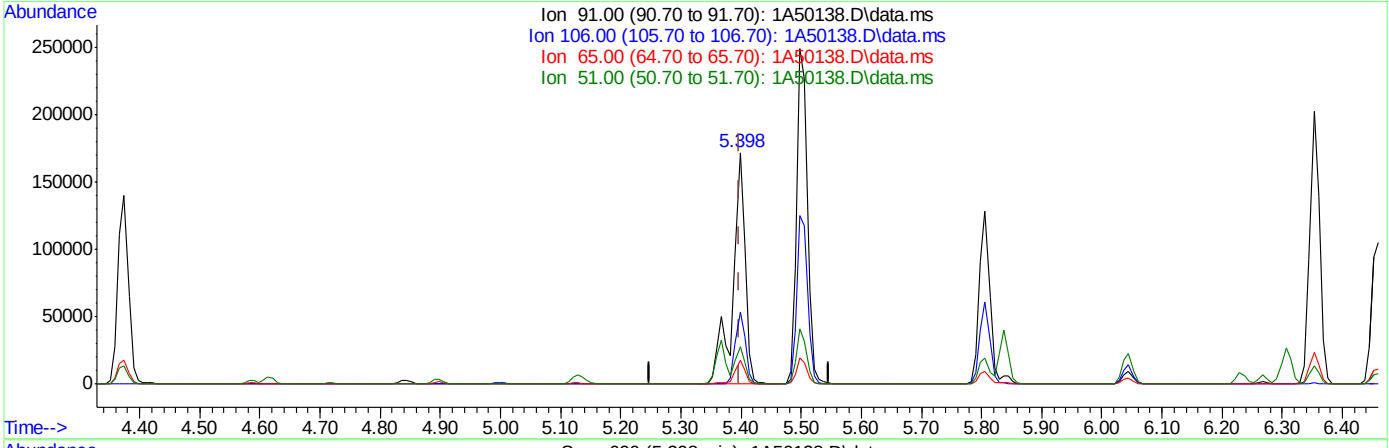
response 184000

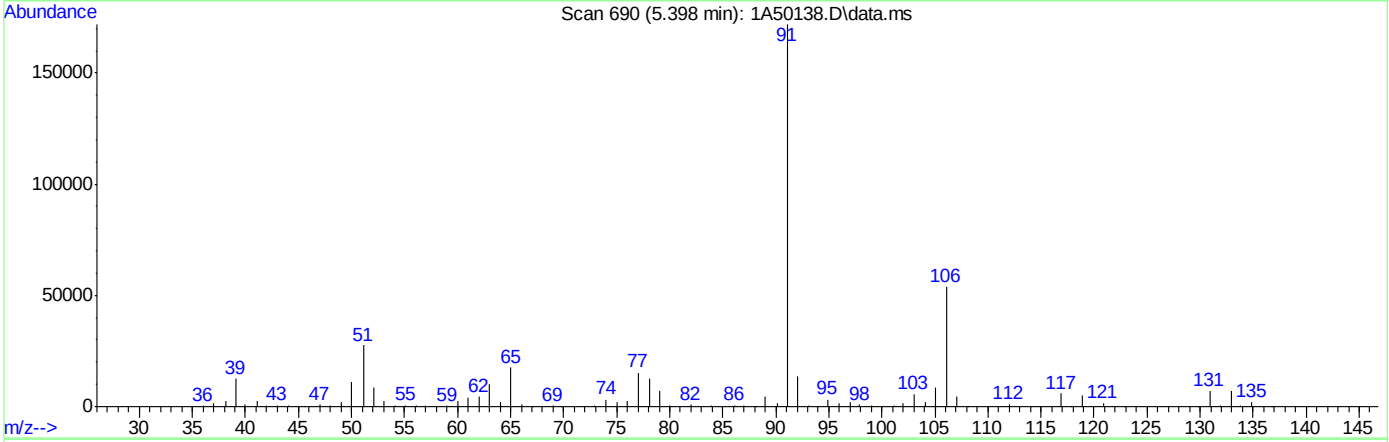
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.37
65.00	8.30	10.17
51.00	10.10	16.08

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 36.90ug/L

response 245014

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.37
65.00	8.30	10.17
51.00	10.10	16.08

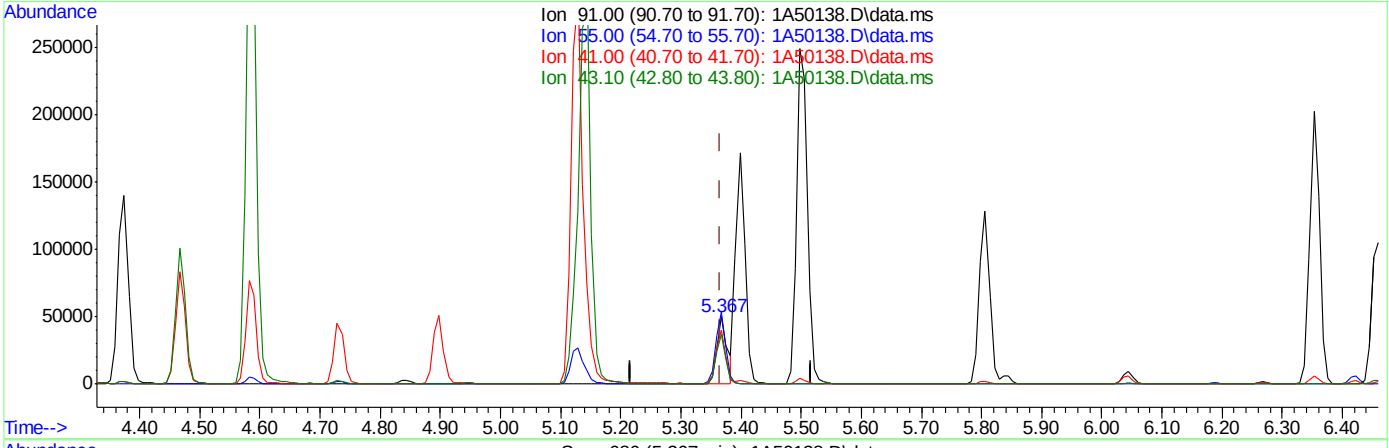
8.6.5.4

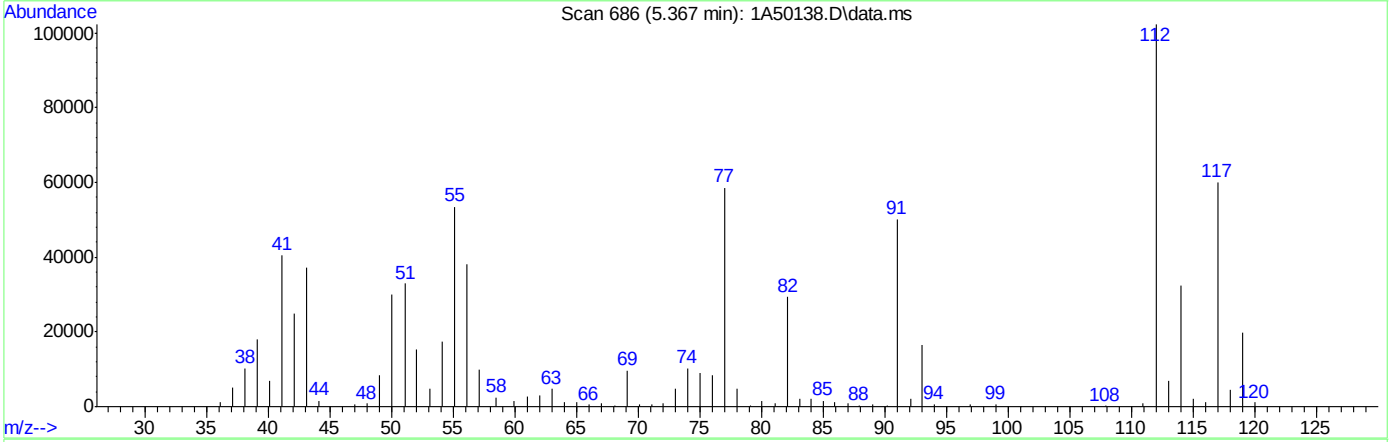
8

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 27.14ug/L m

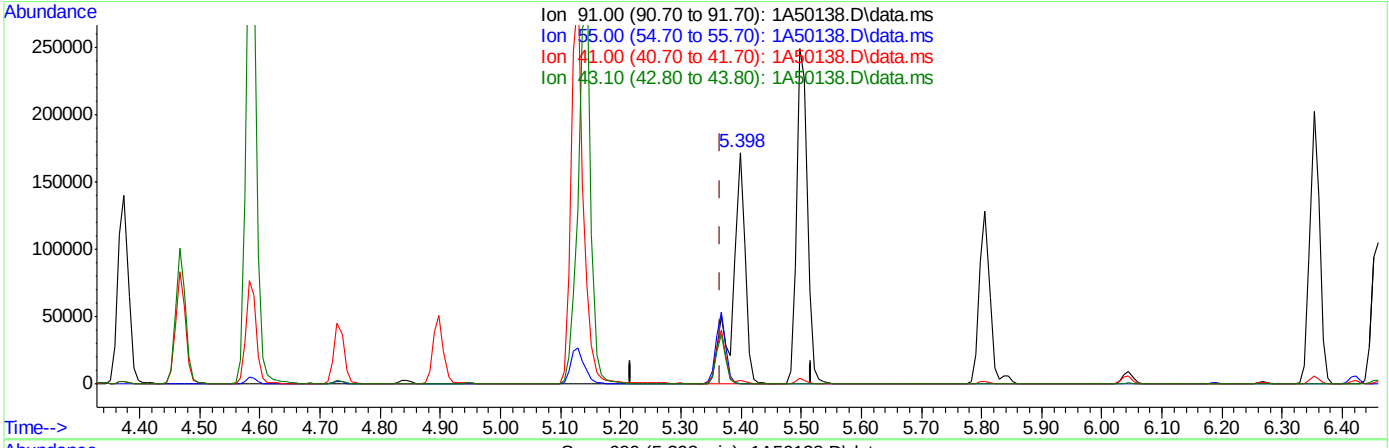
response 60993

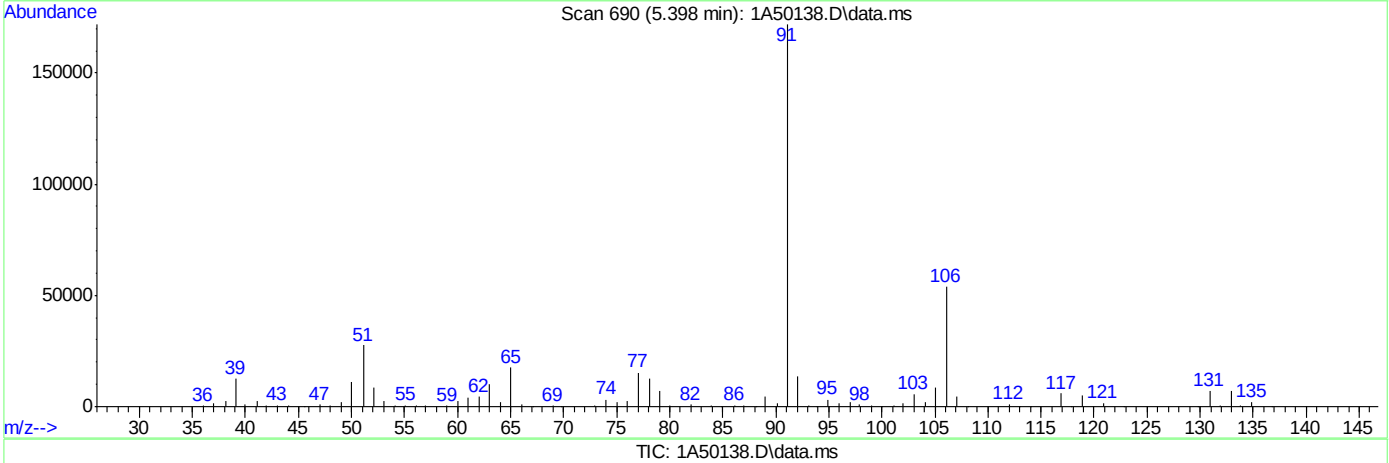
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	106.71#
41.00	53.90	80.87#
43.10	42.90	74.37#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 109.03ug/L

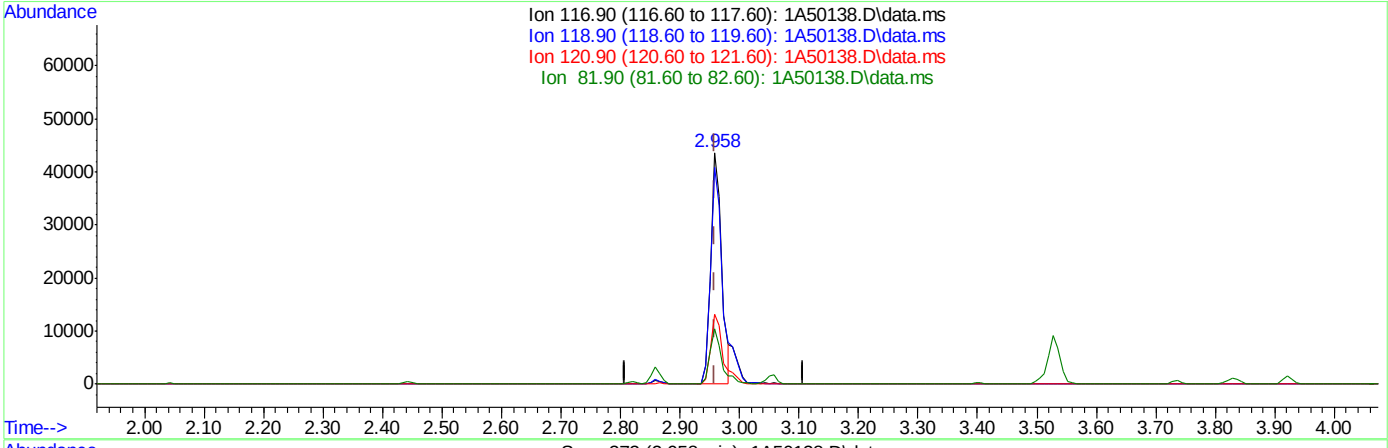
response 245014

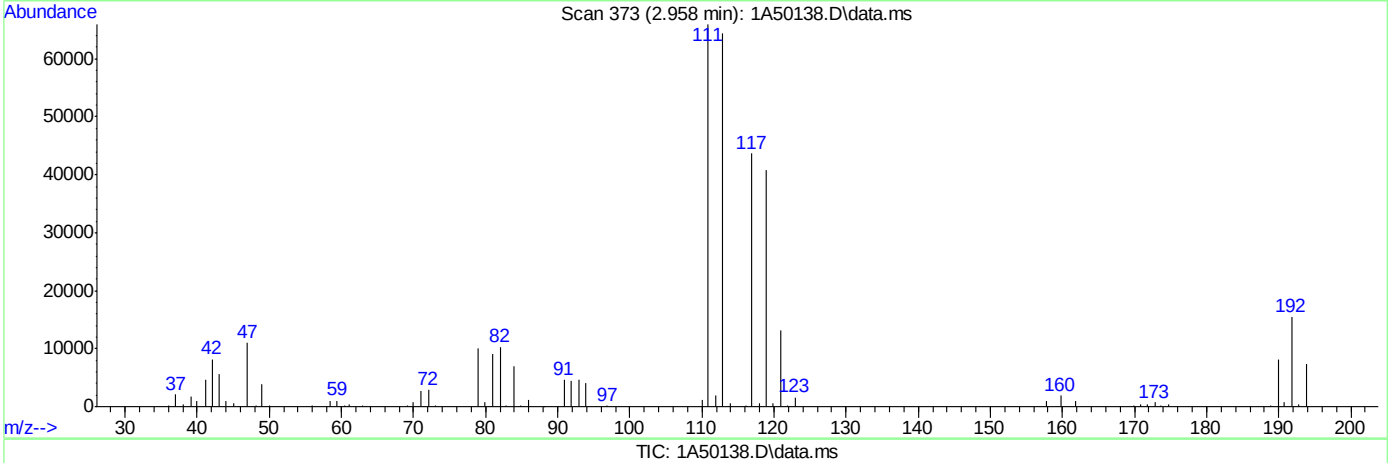
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.32#
41.00	53.90	1.26#
43.10	42.90	0.28#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50138.D
Acq On : 23 Oct 2023 11:07 am
Operator : jeniferw
Sample : IC1961-4
Misc : MS55077,V1A1961,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 23 12:49:26 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50138.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 17.74ug/L m

response 56594

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	93.66
120.90	31.10	30.25
81.90	25.40	23.66

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:56:58 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	350721	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	260330	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	130763	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	96123	45.00	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 90.00%				
49) 1,2-Dichloroethane-d4	3.235	65	128320	58.84	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 117.68%				
63) Toluene-d8	4.336	98	350879	58.13	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 116.26%#				
86) 4-Bromofluorobenzene	6.229	174	108962	53.12	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.24%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	60357	38.56	ug/L		97
3) Chloromethane	1.134	50	117336	67.47	ug/L		94
4) 1,3-butadiene	1.181	39	91079	46.54	ug/L		97
5) Vinyl Chloride	1.173	62	96663	56.70	ug/L		99
6) Bromomethane	1.342	94	25457	35.03	ug/L		94
7) Chloroethane	1.411	64	43749	53.79	ug/L		92
8) Trichlorofluoromethane	1.488	101	105103	35.42	ug/L		100
9) Ethyl Ether	1.658	59	73725	48.00	ug/L	#	82
10) Ethanol	1.712	45	40209	1299.44	ug/L		95
11) 1,2-Dichlorotrifluoroe...	1.742	67	78583	40.44	ug/L		86
12) 1,1-Dichloroethene	1.758	61	122455	44.78	ug/L		85
13) Freon 113	1.781	101	58359	30.55	ug/L		93
14) Carbon Disulfide	1.781	76	177663	35.26	ug/L		92
15) Iodomethane	1.827	142	46397	33.35	ug/L		93
16) Acrolein	1.904	56	132444	290.20	ug/L		98
17) Allyl chloride	1.996	41	131685	53.24	ug/L		84
18) Methylene Chloride	2.043	49	143636	53.05	ug/L		76
19) Acetone	2.050	43	207332	309.66	ug/L		97
20) Methyl acetate	2.127	43	562104	273.43	ug/L		89
21) trans-1,2-Dichloroethene	2.135	61	127648	48.84	ug/L		82
22) Hexane	2.196	56	103167	51.20	ug/L		97
23) Methyl Tert Butyl Ether	2.196	73	196885	35.72	ug/L	#	53
24) Acetonitrile	2.273	41	174589	542.49	ug/L		95
25) Tert Butyl Alcohol	2.212	59	186987	474.61	ug/L		90
26) Di-isopropyl ether	2.397	45	352217	56.40	ug/L		90
27) Chloroprene	2.443	53	442273	58.55	ug/L		92
28) 1,1-Dichloroethane	2.443	63	161919	43.77	ug/L		96
29) Acrylonitrile	2.443	52	277782	295.71	ug/L		98
30) ETBE	2.581	59	298817	50.17	ug/L		87
31) Vinyl acetate	2.566	43	1317062	314.39	ug/L		97
32) cis-1,2-Dichloroethene	2.720	96	74308	34.10	ug/L	#	72
33) 2,2-Dichloropropane	2.781	77	97330	34.64	ug/L		97
34) Bromochloromethane	2.820	128	36807	31.62	ug/L	#	45
35) Cyclohexane	2.858	56	189456	57.92	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:56:58 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	130918	36.20	ug/L		96
37) Ethyl acetate	2.912	43	769299	313.40	ug/L		96
38) Tetrahydrofuran	2.951	42	54678	63.32	ug/L		85
40) Carbon Tetrachloride	2.958	117	100135m	29.24	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	111082	33.05	ug/L		92
42) 2-Butanone	3.005	43	401301	316.93	ug/L		82
43) 1,1-Dichloropropene	3.058	75	93552	37.25	ug/L		94
44) tert-Butyl formate	3.097	59	453376	380.25	ug/L		90
45) Propionitrile	3.143	54	234800	585.13	ug/L		97
46) Methacrylonitrile	3.166	41	876498	610.16	ug/L		96
47) Benzene	3.182	78	285357	37.10	ug/L		80
48) TAME	3.251	73	203203	38.95	ug/L	#	73
50) 1,2-Dichloroethane	3.274	62	122712	42.09	ug/L		87
51) Isobutyl Alcohol	3.259	43	257860	1221.62	ug/L		95
52) Tert Amyl Alcohol	3.328	59	163736	548.18	ug/L		84
53) Trichloroethene	3.513	95	75453	34.20	ug/L		96
54) Methylcyclohexane	3.528	83	131203	38.76	ug/L	#	73
55) Dibromomethane	3.736	93	47783	36.37	ug/L		86
56) 1,2-Dichloropropane	3.790	63	93848	49.74	ug/L		89
57) Bromodichloromethane	3.828	83	96671	33.93	ug/L	#	94
58) Methyl methacrylate	3.920	41	116434	65.04	ug/L	#	80
59) 1,4-Dioxane	3.944	88	23104	785.65	ug/L	#	69
60) 2-Chloroethyl vinyl ether	4.167	63	309035	290.28	ug/L		85
61) cis-1,3-Dichloropropene	4.213	75	119546	40.83	ug/L		84
64) Toluene	4.375	91	304667	44.31	ug/L		100
65) 2-Nitropropane	4.467	41	178145	339.72	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	818017	420.79	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	115991	50.27	ug/L		84
68) Tetrachloroethene	4.636	166	95329	38.66	ug/L		98
69) Ethyl methacrylate	4.729	69	88945	56.75	ug/L	#	68
70) 1,1,2-Trichloroethane	4.721	83	60084	48.38	ug/L		90
71) Dibromochloromethane	4.844	129	79199	37.56	ug/L		98
72) 1,3-Dichloropropane	4.898	76	116666	52.56	ug/L		80
73) 1,2-Dibromoethane	4.998	107	73523	40.76	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.129	57	1028414	4040.47	ug/L		84
75) 2-hexanone	5.144	43	779141	425.20	ug/L	#	74
76) 1-Chlorohexane	5.367	91	114604m	46.27	ug/L		
77) Ethylbenzene	5.398	91	324522m	44.34	ug/L		
78) Chlorobenzene	5.367	112	202138	41.82	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	74352	36.73	ug/L		95
80) m,p-Xylene	5.498	91	534491	89.41	ug/L		99
81) o-Xylene	5.806	91	273087	45.05	ug/L		98
82) Styrene	5.837	104	210204	44.77	ug/L		92
83) Bromoform	5.845	173	57521	38.92	ug/L		96
84) Isopropylbenzene	6.045	105	321537	43.95	ug/L		99
87) cis-1,4-Dichloro-2-butene	6.268	53	37206	108.41	ug/L	#	68
88) n-Propylbenzene	6.353	91	371536	53.85	ug/L		96
89) Bromobenzene	6.306	156	76642	43.08	ug/L		82
90) 1,1,2,2-Tetrachloroethane	6.376	83	94884	54.59	ug/L		94
91) 1,3,5-Trimethylbenzene	6.506	105	261729	49.36	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:56:58 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
92) 2-Chlorotoluene	6.460	91	219884	54.34 ug/L	97
93) trans-1,4-Dichloro-2-B...	6.506	53	50338	98.79 ug/L #	75
94) 1,2,3-Trichloropropane	6.468	110	27031	46.13 ug/L #	66
95) Cyclohexanone	6.483	55	31237	473.54 ug/L	89
96) 4-Chlorotoluene	6.583	91	233599	54.41 ug/L	96
97) tert-Butylbenzene	6.753	91	148835	53.56 ug/L	89
98) 1,2,4-Trimethylbenzene	6.807	105	255212	50.75 ug/L	99
99) Pentachloroethane	6.745	167	39873	43.29 ug/L #	76
100) sec-Butylbenzene	6.891	105	335108	52.09 ug/L	97
101) 4-Isopropyltoluene	7.014	119	275103	47.00 ug/L	99
102) 1,3-Dichlorobenzene	7.037	146	151892	44.65 ug/L	95
103) 1,2,3-Trimethylbenzene	7.145	105	252269	50.20 ug/L	98
104) 1,4-Dichlorobenzene	7.107	146	151000	44.72 ug/L	95
105) n-Butylbenzene	7.345	92	131885	56.57 ug/L	99
106) Benzyl Chloride	7.299	126	33883	49.01 ug/L	99
107) 1,2-Dichlorobenzene	7.430	146	135346	44.82 ug/L	95
108) 1,2-Dibromo-3-Chloropr...	8.007	75	14649	56.62 ug/L	85
109) Hexachlorobutadiene	8.515	225	23515	34.60 ug/L	96
110) 1,2,4-Trichlorobenzene	8.508	180	55188	37.78 ug/L	98
111) Naphthalene	8.715	128	114678	43.72 ug/L	99
112) 1,2,3-Trichlorobenzene	8.838	180	38646	37.97 ug/L	95

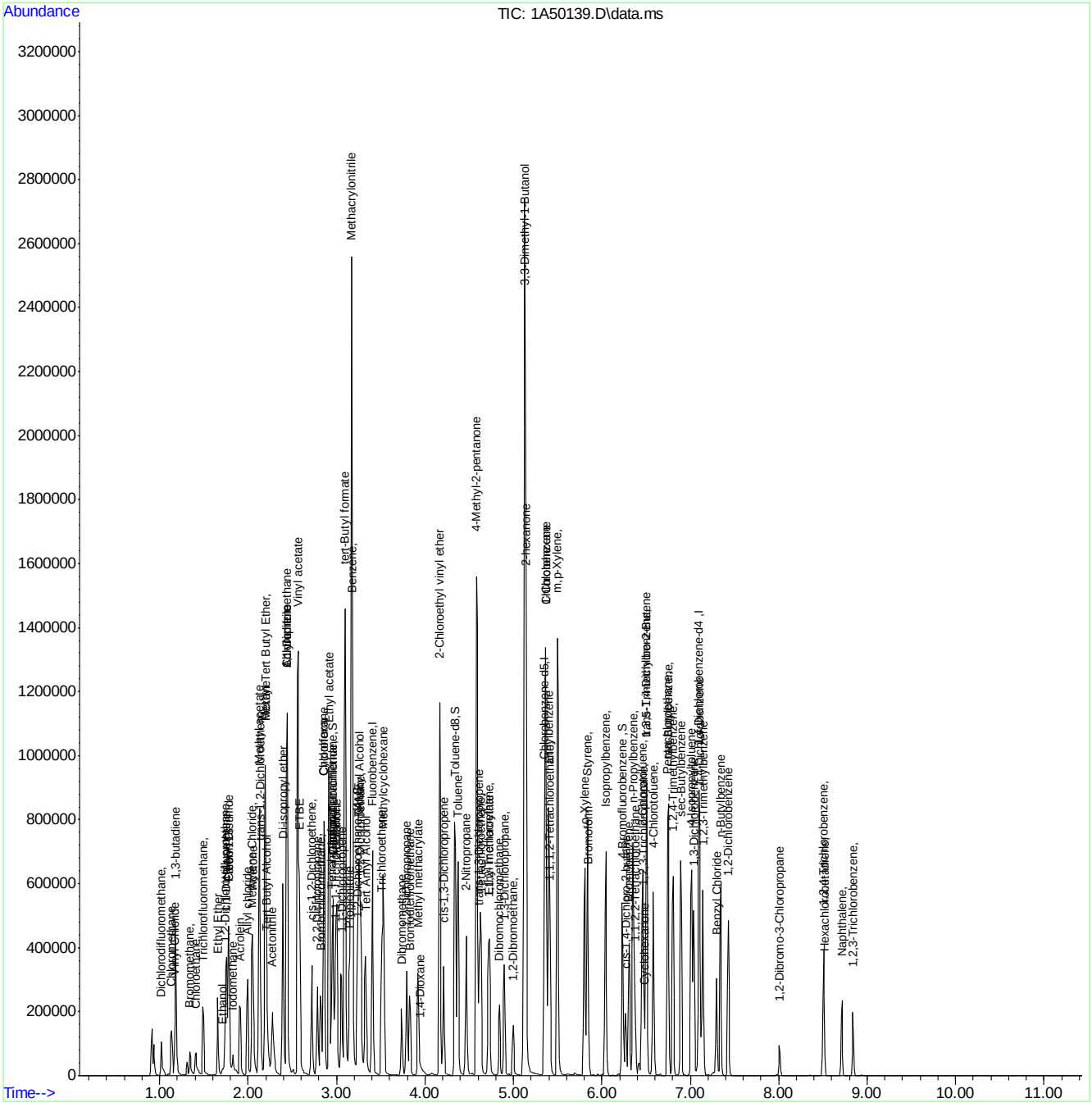
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8.6.6
8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:56:58 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

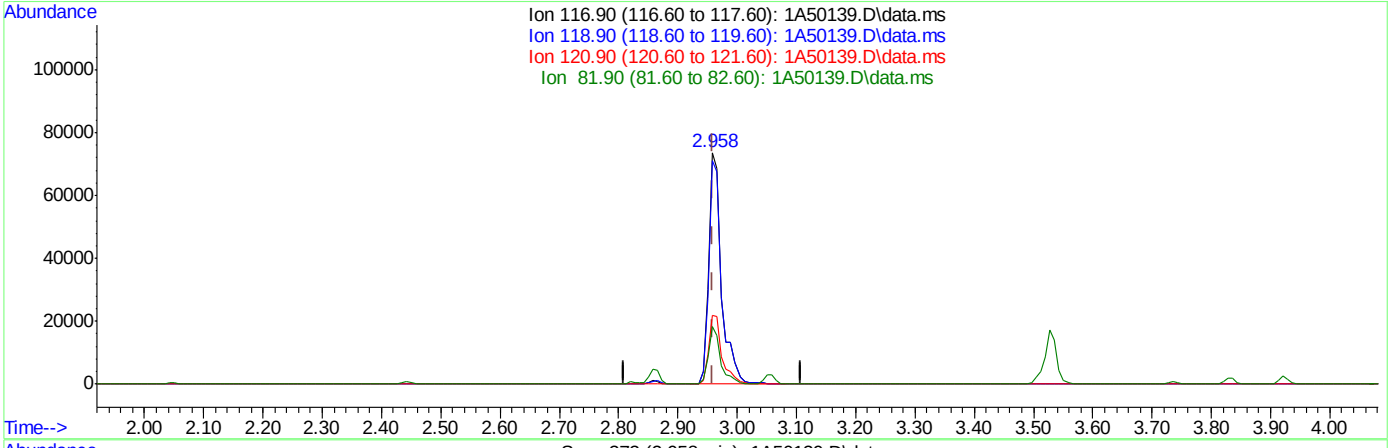
Sample Number: V1A1961-ICC1961 **Method:** SW846 8260D
Lab FileID: 1A50139.D **Analyst approved:** 10/23/23 14:29 Jenifer Willis
Injection Time: 10/23/23 11:32 **Supervisor approved:** 10/24/23 10:18 Neil Christiana

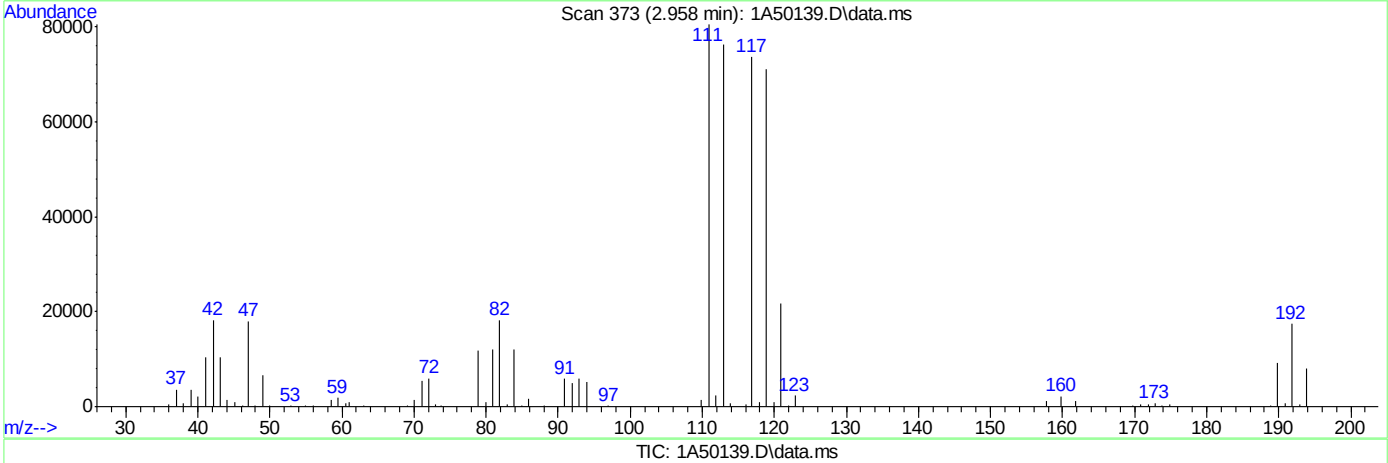
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 32.75ug/L

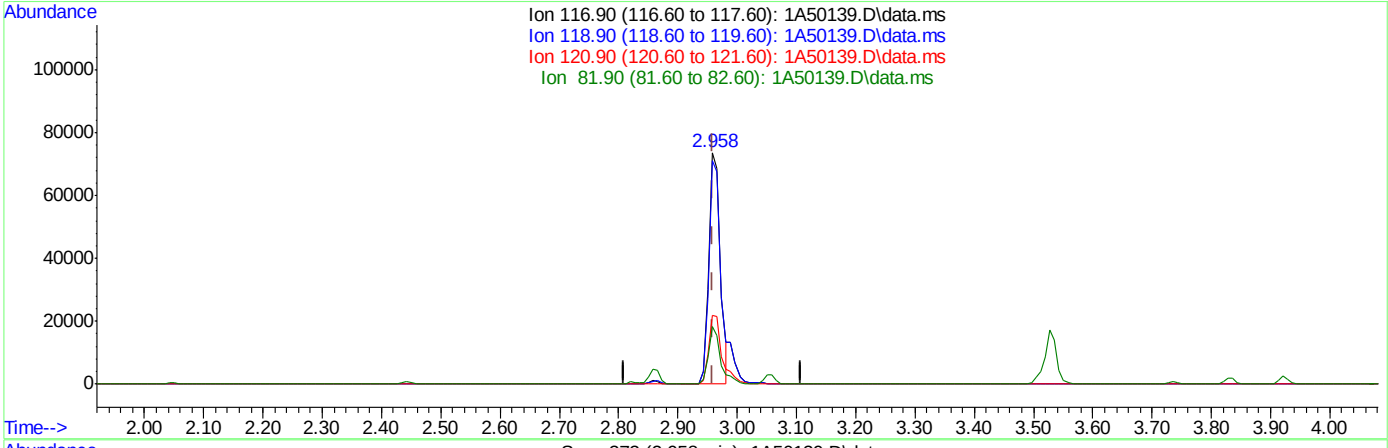
response 112162

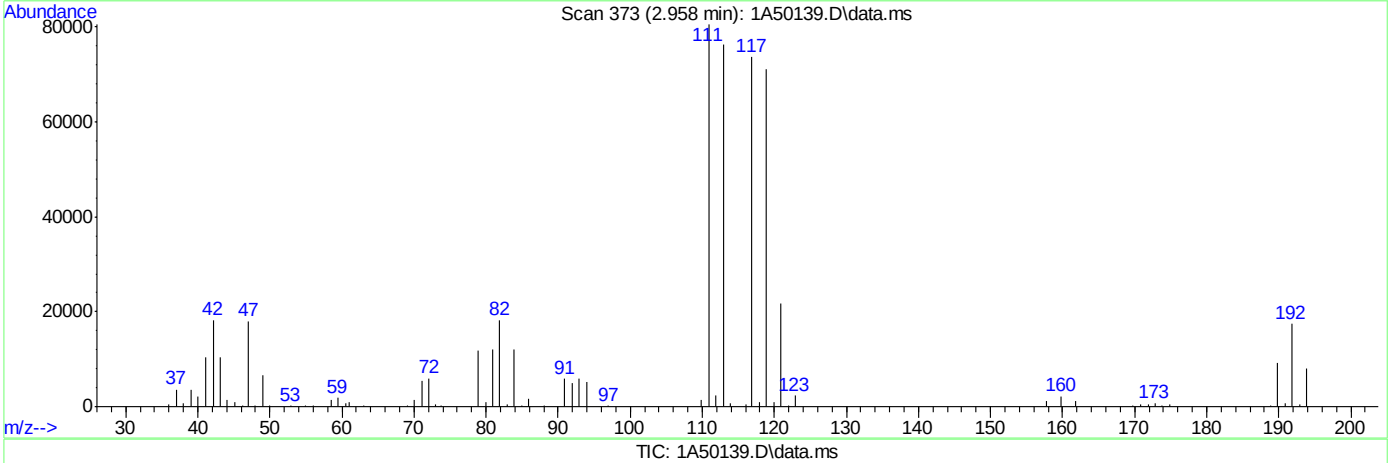
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	96.36
120.90	31.10	29.50
81.90	25.40	24.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 29.24ug/L m

response 100135

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	96.36
120.90	31.10	29.50
81.90	25.40	24.73

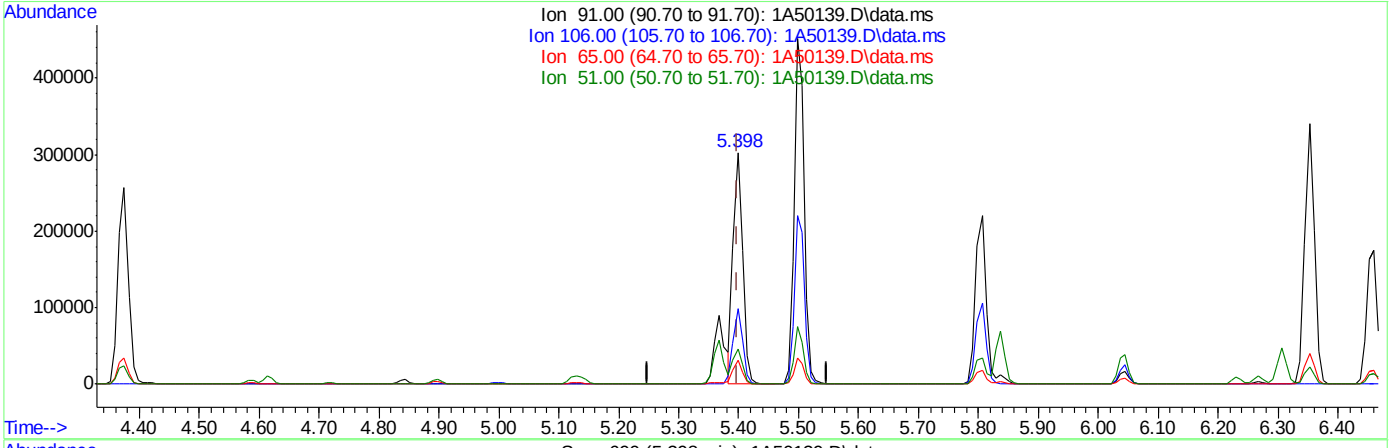
8.6.6.3

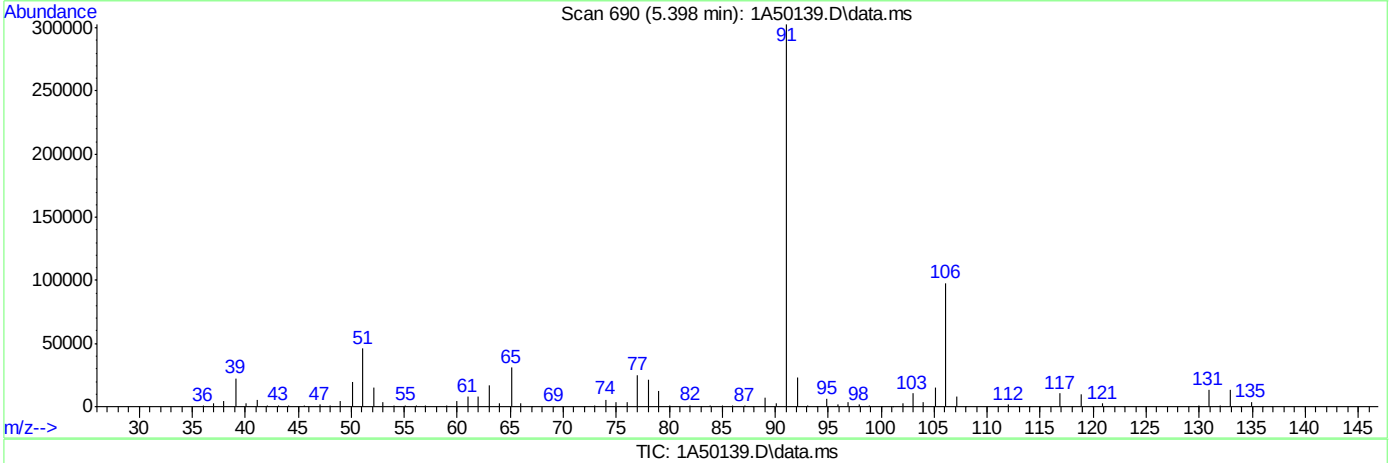
8

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 44.34ug/L m

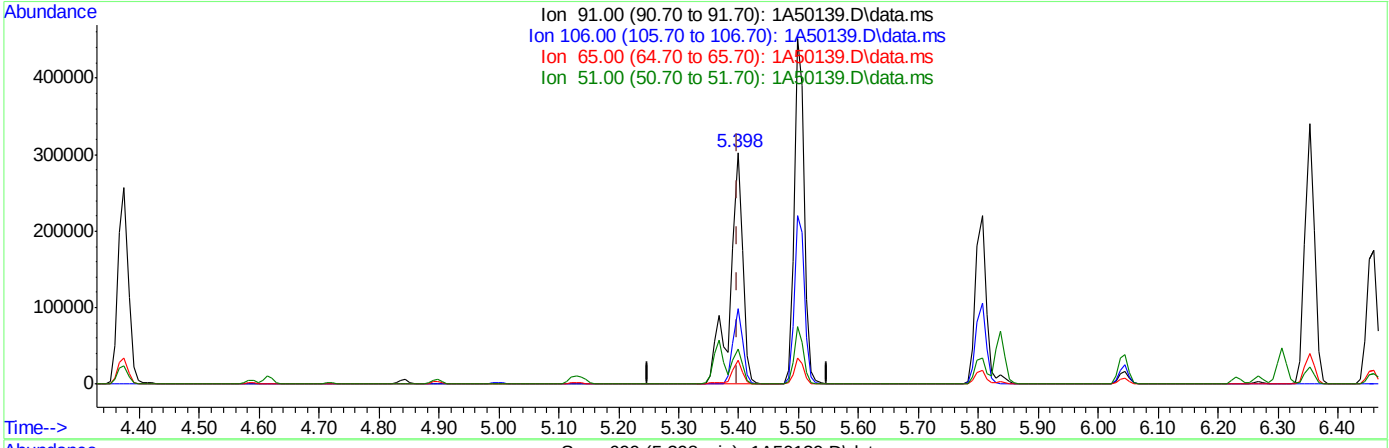
response 324522

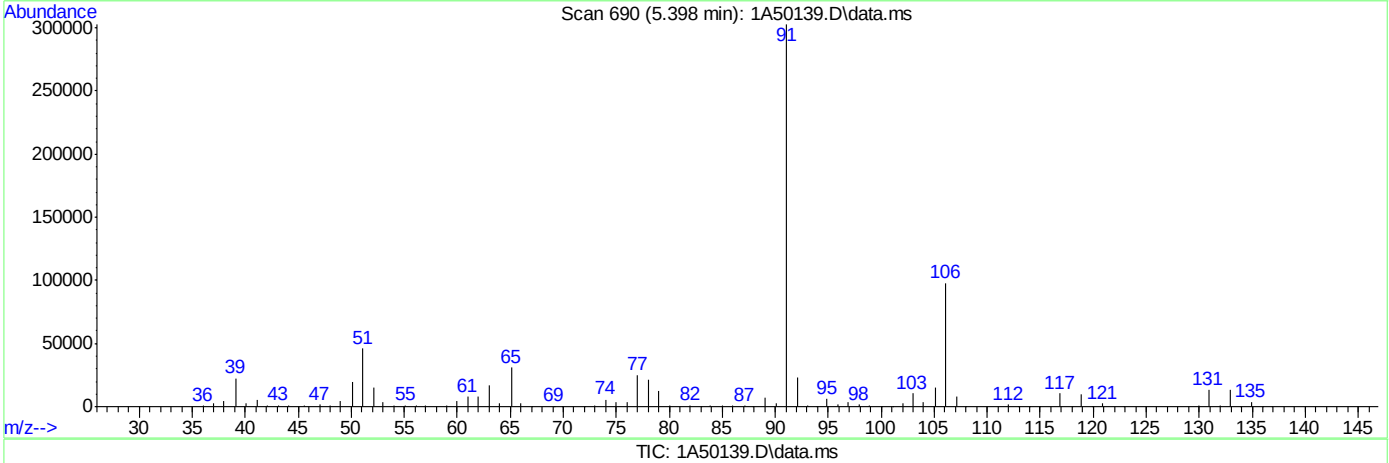
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.38
65.00	8.30	10.21
51.00	10.10	15.18

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(77) Ethylbenzene

5.398min (+0.000) 60.01ug/L

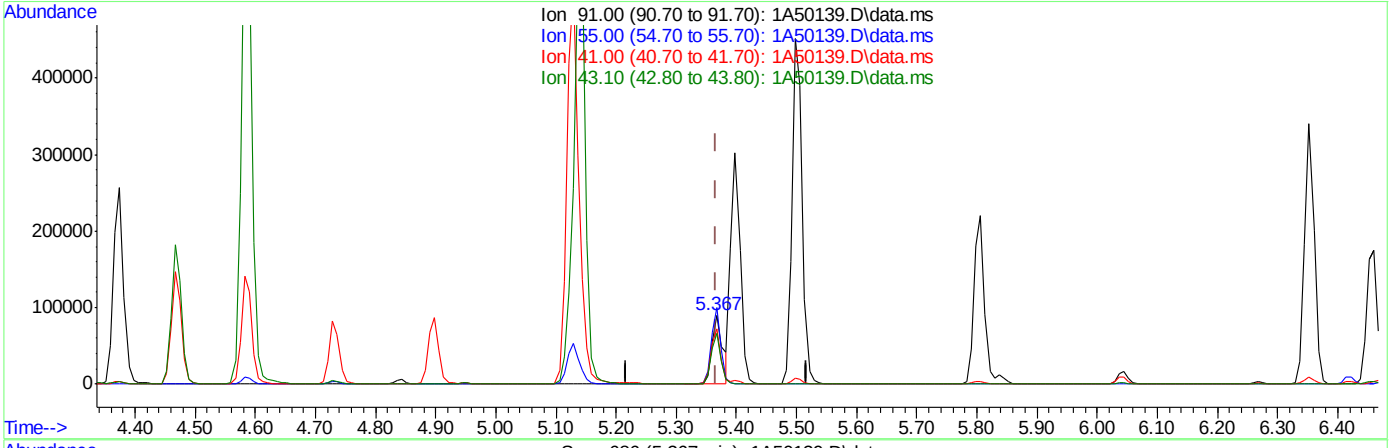
response 439209

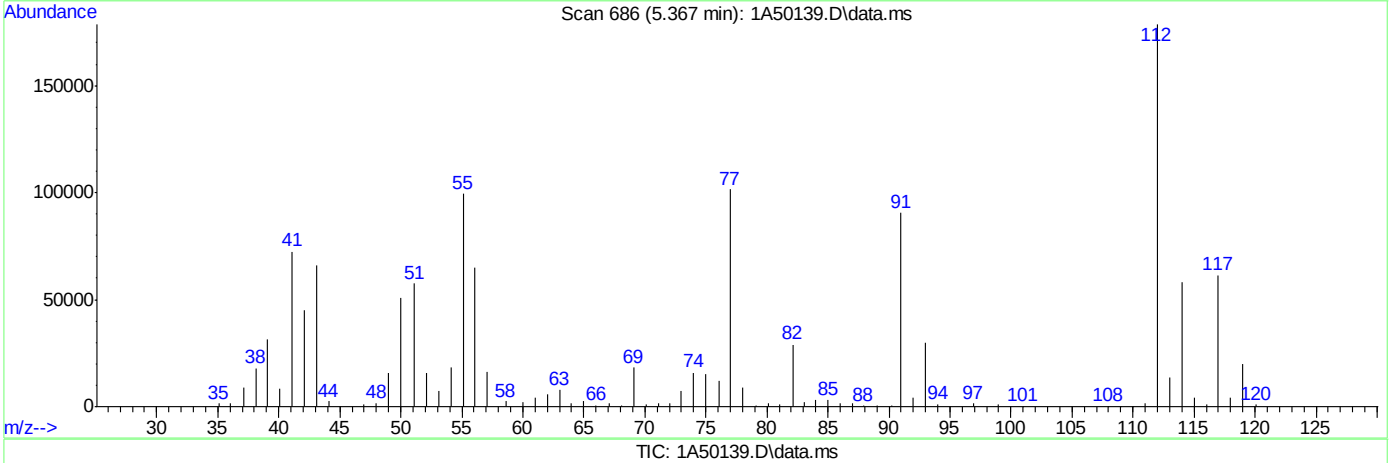
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.38
65.00	8.30	10.21
51.00	10.10	15.18

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 46.27ug/L m

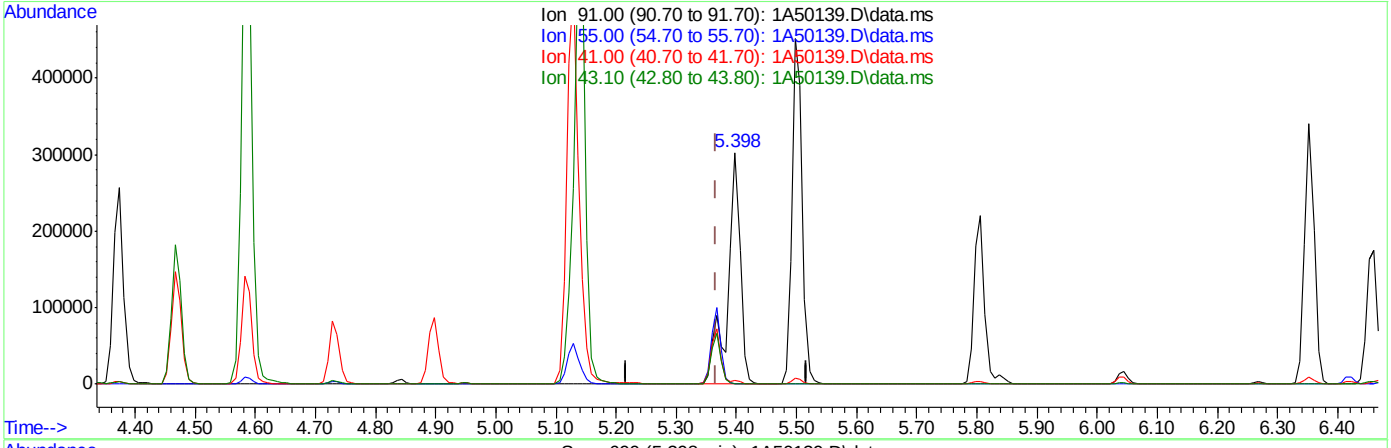
response 114604

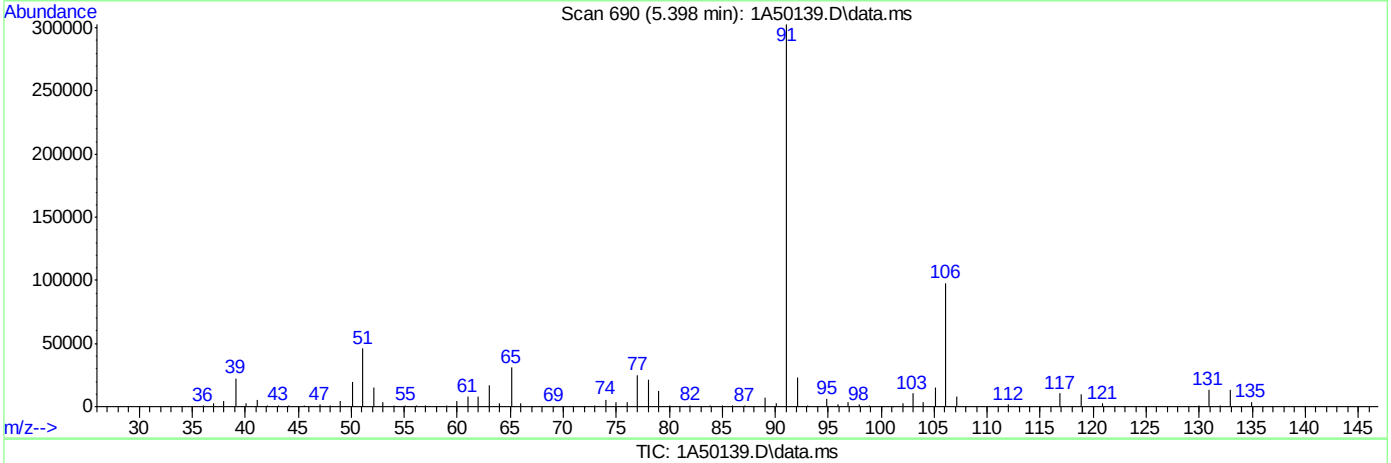
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	110.04#
41.00	53.90	80.10#
43.10	42.90	73.30#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50139.D
Acq On : 23 Oct 2023 11:32 am
Operator : jeniferw
Sample : ICC1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 23 12:49:28 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50139.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 177.13ug/L

response 438725

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.37#
41.00	53.90	1.50#
43.10	42.90	0.25#

1A50140.D

Manual Integrations APPROVED (compounds with "m" flag)

Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:57:29 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	349439	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	256546	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	131318	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	97116	45.63	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 91.26%				
49) 1,2-Dichloroethane-d4	3.235	65	133858	61.60	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 123.20%				
63) Toluene-d8	4.336	98	340011	57.16	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 114.32%#				
86) 4-Bromofluorobenzene	6.229	174	107796	52.33	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.66%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	104327	66.90	ug/L		99
3) Chloromethane	1.134	50	205503	128.68	ug/L		97
4) 1,3-butadiene	1.181	39	152664	78.30	ug/L		99
5) Vinyl Chloride	1.173	62	167175	98.42	ug/L		98
6) Bromomethane	1.342	94	45283	63.76	ug/L		92
7) Chloroethane	1.404	64	69538	95.48	ug/L		95
8) Trichlorofluoromethane	1.488	101	181014	61.23	ug/L		99
9) Ethyl Ether	1.658	59	146004	95.40	ug/L	#	81
10) Ethanol	1.727	45	71215	2309.91	ug/L		98
11) 1,2-Dichlorotrifluoroe...	1.742	67	149155	77.03	ug/L		87
12) 1,1-Dichloroethene	1.758	61	230834	84.72	ug/L		86
13) Freon 113	1.781	101	110970	58.30	ug/L		93
14) Carbon Disulfide	1.781	76	332861	66.31	ug/L		93
15) Iodomethane	1.827	142	96058	61.97	ug/L		95
16) Acrolein	1.912	56	241807	531.77	ug/L		98
17) Allyl chloride	1.996	41	243918	98.97	ug/L		83
18) Methylene Chloride	2.043	49	257267	95.36	ug/L		78
19) Acetone	2.058	43	371258	556.53	ug/L		94
20) Methyl acetate	2.127	43	1078382	526.50	ug/L		88
21) trans-1,2-Dichloroethene	2.135	61	239568	91.99	ug/L		83
22) Hexane	2.196	56	195468	97.37	ug/L		94
23) Methyl Tert Butyl Ether	2.196	73	369657	67.31	ug/L	#	59
24) Acetonitrile	2.281	41	299076	932.72	ug/L		94
25) Tert Butyl Alcohol	2.220	59	349014	889.11	ug/L		90
26) Di-isopropyl ether	2.397	45	668963	107.50	ug/L		89
27) Chloroprene	2.443	53	798746	106.13	ug/L		92
28) 1,1-Dichloroethane	2.443	63	302098	81.96	ug/L		97
29) Acrylonitrile	2.443	52	499392	533.57	ug/L		98
30) ETBE	2.581	59	560210	94.41	ug/L		88
31) Vinyl acetate	2.566	43	2322855	556.50	ug/L		97
32) cis-1,2-Dichloroethene	2.720	96	139042	64.05	ug/L	#	75
33) 2,2-Dichloropropane	2.781	77	181290	64.75	ug/L		98
34) Bromochloromethane	2.820	128	64527	57.21	ug/L	#	42
35) Cyclohexane	2.858	56	353466	108.47	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:57:29 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	240536	66.76	ug/L		94
37) Ethyl acetate	2.920	43	1370569	560.40	ug/L		98
38) Tetrahydrofuran	2.951	42	93997	109.26	ug/L		84
40) Carbon Tetrachloride	2.958	117	189817m	55.63	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	202665	60.52	ug/L		91
42) 2-Butanone	3.005	43	729045	577.87	ug/L		81
43) 1,1-Dichloropropene	3.051	75	176001	70.35	ug/L		90
44) tert-Butyl formate	3.097	59	811100	682.77	ug/L		90
45) Propionitrile	3.151	54	414158	1035.88	ug/L		97
46) Methacrylonitrile	3.174	41	1565263	1093.63	ug/L		98
47) Benzene	3.182	78	521735	68.08	ug/L		68
48) TAME	3.251	73	374602	72.07	ug/L		82
50) 1,2-Dichloroethane	3.274	62	222520	76.61	ug/L		88
51) Isobutyl Alcohol	3.259	43	431143	2050.05	ug/L		88
52) Tert Amyl Alcohol	3.328	59	299967	1007.95	ug/L		85
53) Trichloroethene	3.513	95	139969	63.24	ug/L		96
54) Methylcyclohexane	3.528	83	240938	71.44	ug/L	#	74
55) Dibromomethane	3.736	93	85221	65.10	ug/L		86
56) 1,2-Dichloropropane	3.797	63	171601	91.29	ug/L		88
57) Bromodichloromethane	3.828	83	181399	63.89	ug/L	#	93
58) Methyl methacrylate	3.920	41	213125	119.49	ug/L	#	79
59) 1,4-Dioxane	3.944	88	40013	1365.62	ug/L	#	62
60) 2-Chloroethyl vinyl ether	4.167	63	542528	511.47	ug/L		86
61) cis-1,3-Dichloropropene	4.213	75	215053	73.72	ug/L		85
64) Toluene	4.375	91	546153	80.59	ug/L		100
65) 2-Nitropropane	4.467	41	307182	594.43	ug/L		97
66) 4-Methyl-2-pentanone	4.582	43	1425253	743.97	ug/L		95
67) trans-1,3-Dichloropropene	4.613	75	203177	89.36	ug/L		86
68) Tetrachloroethene	4.636	166	180084	74.11	ug/L		99
69) Ethyl methacrylate	4.729	69	161167	104.34	ug/L	#	74
70) 1,1,2-Trichloroethane	4.721	83	105067	85.85	ug/L		93
71) Dibromochloromethane	4.844	129	142312	68.48	ug/L		99
72) 1,3-Dichloropropane	4.898	76	203516	93.04	ug/L		79
73) 1,2-Dibromoethane	4.998	107	134193	75.49	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.129	57	1871775	7462.36	ug/L		84
75) 2-hexanone	5.144	43	1340201	742.17	ug/L		82
76) 1-Chlorohexane	5.367	91	201512m	82.56	ug/L		
77) Ethylbenzene	5.398	91	585306	81.15	ug/L		96
78) Chlorobenzene	5.367	112	359645	75.50	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	136762	68.56	ug/L		97
80) m,p-Xylene	5.498	91	950507	161.36	ug/L		100
81) o-Xylene	5.806	91	493793	82.66	ug/L		99
82) Styrene	5.837	104	382766	82.73	ug/L		93
83) Bromoform	5.845	173	104996	72.09	ug/L		98
84) Isopropylbenzene	6.045	105	584178	81.03	ug/L		99
87) cis-1,4-Dichloro-2-butene	6.268	53	65487	190.00	ug/L	#	73
88) n-Propylbenzene	6.353	91	689977	99.58	ug/L		96
89) Bromobenzene	6.306	156	141820	79.38	ug/L	#	76
90) 1,1,2,2-Tetrachloroethane	6.376	83	174890	100.19	ug/L		97
91) 1,3,5-Trimethylbenzene	6.506	105	477922	89.74	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:57:29 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

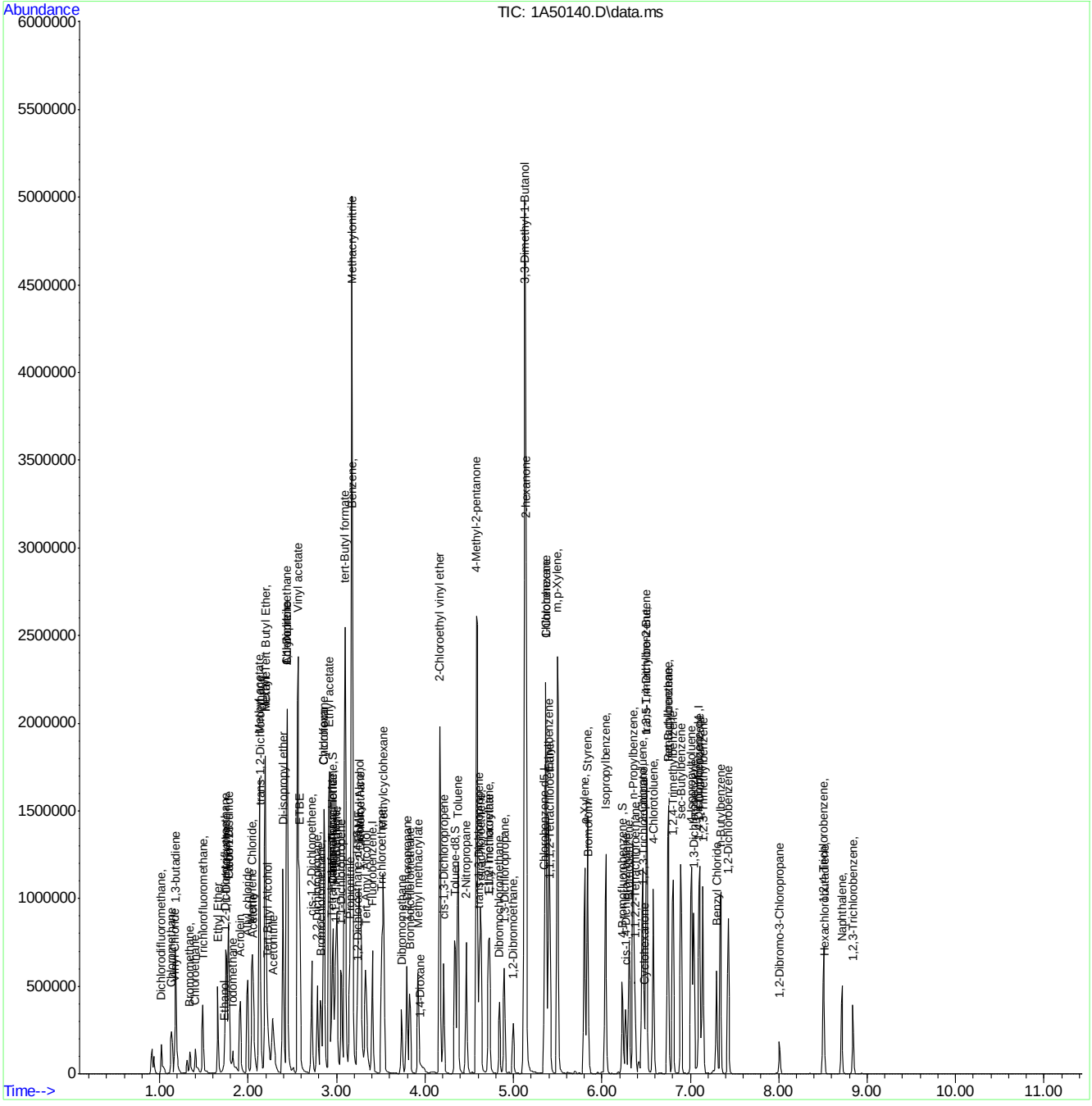
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 2-Chlorotoluene	6.460	91	398990	98.19	ug/L		97
93) trans-1,4-Dichloro-2-B...	6.506	53	89618	175.14	ug/L		81
94) 1,2,3-Trichloropropane	6.468	110	50623	86.03	ug/L	#	73
95) Cyclohexanone	6.483	55	56034	845.87	ug/L		88
96) 4-Chlorotoluene	6.583	91	419900	97.39	ug/L		97
97) tert-Butylbenzene	6.753	91	266321	95.44	ug/L		90
98) 1,2,4-Trimethylbenzene	6.807	105	461559	91.39	ug/L		99
99) Pentachloroethane	6.753	167	65774	71.58	ug/L	#	31
100) sec-Butylbenzene	6.891	105	601859	93.17	ug/L		97
101) 4-Isopropyltoluene	7.014	119	497740	84.68	ug/L		97
102) 1,3-Dichlorobenzene	7.037	146	268751	78.67	ug/L		95
103) 1,2,3-Trimethylbenzene	7.145	105	456223	90.40	ug/L		98
104) 1,4-Dichlorobenzene	7.107	146	273388	80.63	ug/L		96
105) n-Butylbenzene	7.345	92	237206	101.31	ug/L		99
106) Benzyl Chloride	7.299	126	63439	91.37	ug/L		100
107) 1,2-Dichlorobenzene	7.430	146	244406	80.60	ug/L		97
108) 1,2-Dibromo-3-Chloropr...	8.007	75	29215	112.44	ug/L		83
109) Hexachlorobutadiene	8.515	225	40490	59.32	ug/L		94
110) 1,2,4-Trichlorobenzene	8.508	180	106319	72.47	ug/L		97
111) Naphthalene	8.715	128	245159	80.68	ug/L		97
112) 1,2,3-Trichlorobenzene	8.838	180	75317	73.68	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:57:29 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



8.6.7

8

Manual Integration Approval Summary

Sample Number: V1A1961-IC1961
Lab FileID: 1A50140.D
Injection Time: 10/23/23 11:56

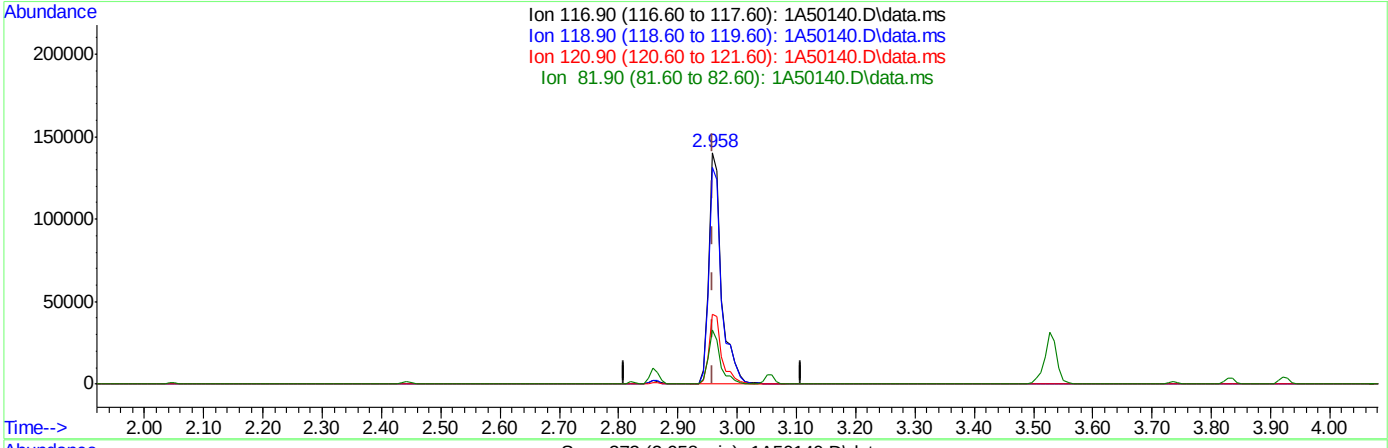
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

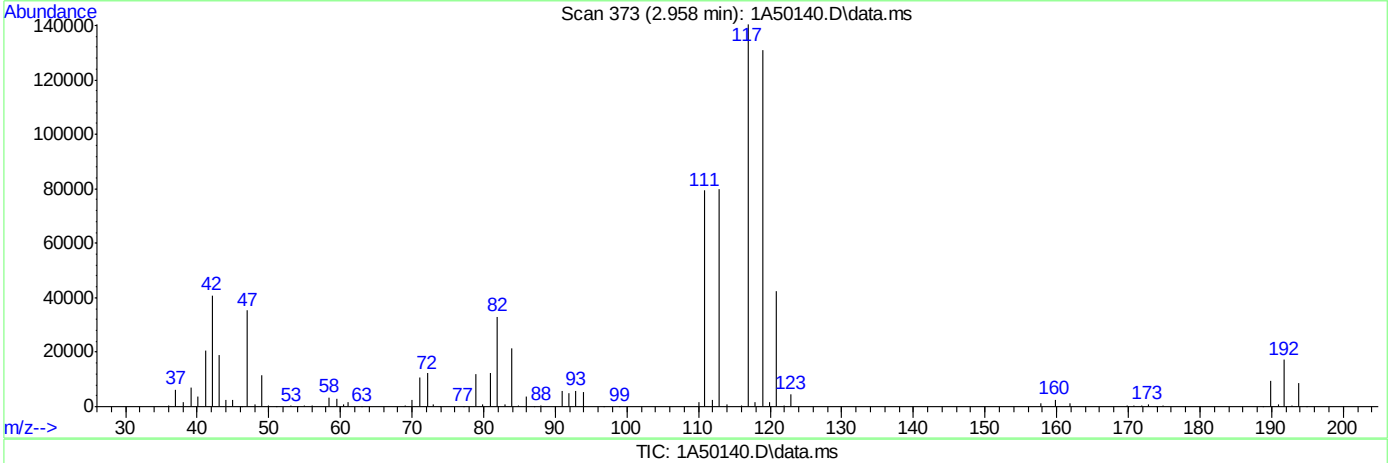
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:49:30 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50140.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 62.11ug/L

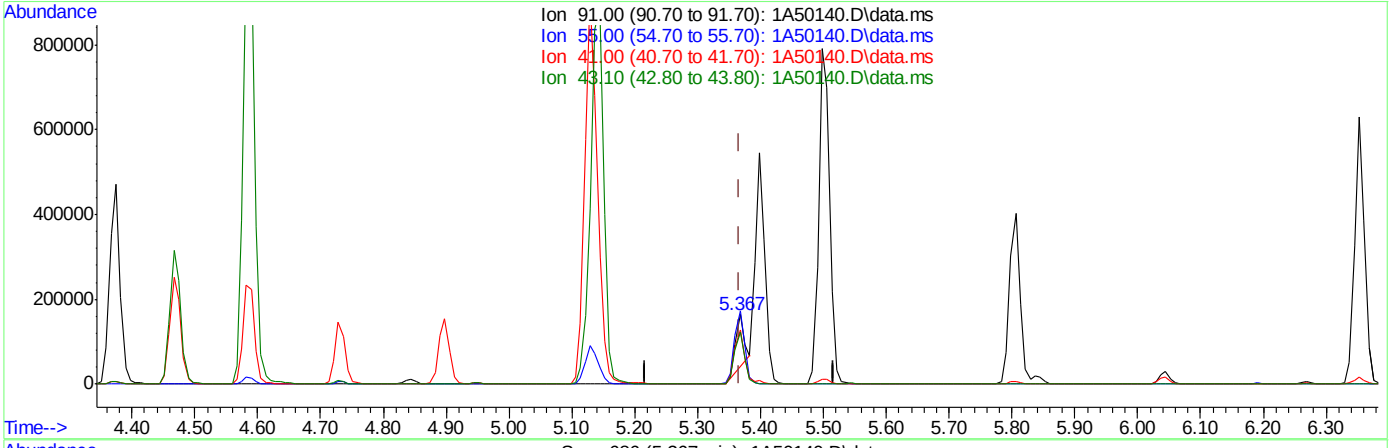
response 211936

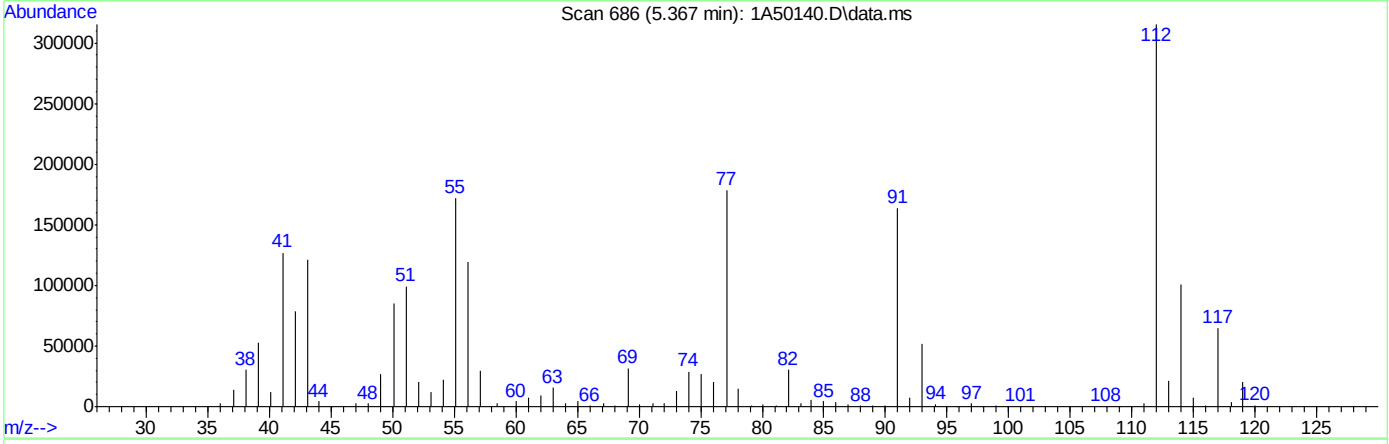
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	93.35
120.90	31.10	30.09
81.90	25.40	23.51

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:49:30 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50140.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 49.95ug/L

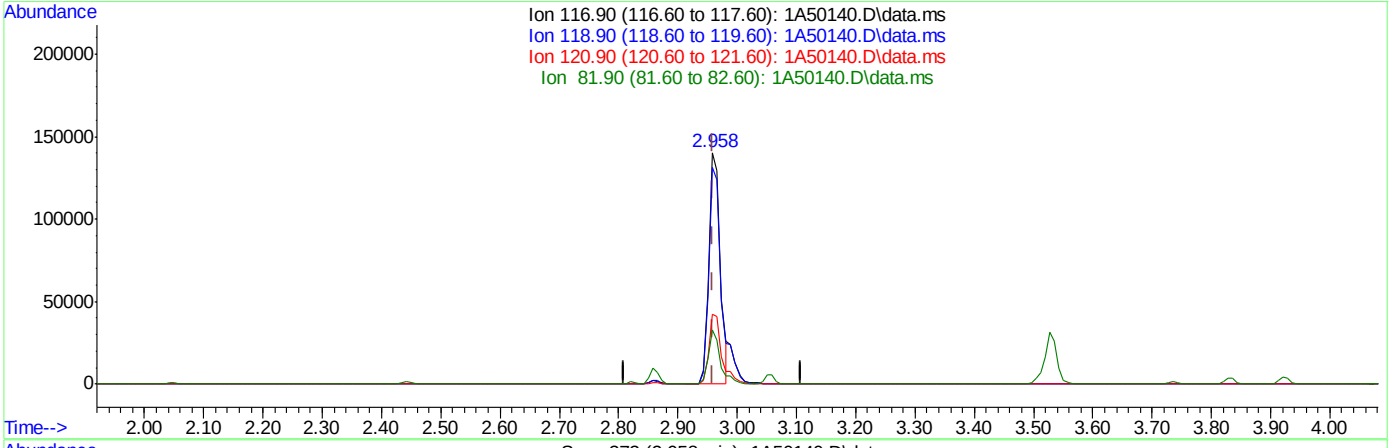
response 121929

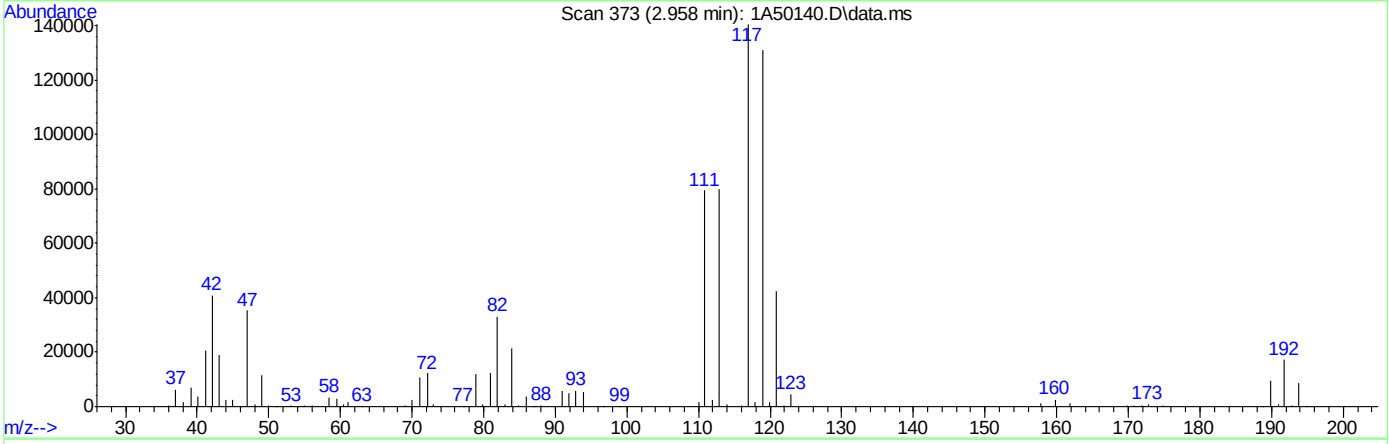
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	104.34#
41.00	53.90	76.84#
43.10	42.90	73.72#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50140.D
Acq On : 23 Oct 2023 11:56 am
Operator : jeniferw
Sample : IC1961-6
Misc : MS55077,V1A1961,,,,,
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 23 12:49:30 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50140.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 55.63ug/L m

response 189817

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	93.35
120.90	31.10	30.09
81.90	25.40	23.51

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:58:05 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	373240	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	263983	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	133225	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	101121	44.48	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 88.96%				
49) 1,2-Dichloroethane-d4	3.243	65	128119	55.20	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 110.40%				
63) Toluene-d8	4.344	98	370286	60.50	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 121.00%#				
86) 4-Bromofluorobenzene	6.229	174	113360	54.25	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 108.50%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	150218	90.19	ug/L		99
3) Chloromethane	1.134	50	299555	192.76	ug/L		95
4) 1,3-butadiene	1.188	39	242536	116.46	ug/L		91
5) Vinyl Chloride	1.173	62	251252	138.48	ug/L		95
6) Bromomethane	1.350	94	68263	91.74	ug/L		95
7) Chloroethane	1.404	64	100463	152.86	ug/L		96
8) Trichlorofluoromethane	1.488	101	251227	79.56	ug/L		99
9) Ethyl Ether	1.658	59	203371	124.41	ug/L	#	80
10) Ethanol	1.758	45	96347	2925.81	ug/L		100
11) 1,2-Dichlorotrifluoroe...	1.742	67	215809	104.35	ug/L		86
12) 1,1-Dichloroethene	1.758	61	337467	115.96	ug/L		87
13) Freon 113	1.781	101	160604	79.00	ug/L		92
14) Carbon Disulfide	1.781	76	485159	90.48	ug/L		93
15) Iodomethane	1.827	142	140884	79.82	ug/L		92
16) Acrolein	1.912	56	346383	713.17	ug/L		98
17) Allyl chloride	1.996	41	380185	144.43	ug/L		83
18) Methylene Chloride	2.043	49	369737	128.31	ug/L		77
19) Acetone	2.058	43	529780	743.51	ug/L		95
20) Methyl acetate	2.127	43	1539028	703.49	ug/L		88
21) trans-1,2-Dichloroethene	2.135	61	348834	125.40	ug/L		83
22) Hexane	2.197	56	272807	127.22	ug/L		97
23) Methyl Tert Butyl Ether	2.197	73	543218	92.61	ug/L	#	62
24) Acetonitrile	2.281	41	420845	1228.78	ug/L		95
25) Tert Butyl Alcohol	2.220	59	476139	1135.61	ug/L		97
26) Di-isopropyl ether	2.397	45	975038	146.70	ug/L		89
27) Chloroprene	2.443	53	1207186	150.16	ug/L		93
28) 1,1-Dichloroethane	2.443	63	446647	113.44	ug/L		97
29) Acrylonitrile	2.443	52	739225	739.45	ug/L		98
30) ETBE	2.581	59	816975	128.90	ug/L		88
31) Vinyl acetate	2.566	43	3415874	766.18	ug/L		97
32) cis-1,2-Dichloroethene	2.720	96	202672	87.41	ug/L	#	73
33) 2,2-Dichloropropane	2.781	77	268022	89.63	ug/L		98
34) Bromochloromethane	2.828	128	91410	77.61	ug/L	#	61
35) Cyclohexane	2.858	56	509943	146.50	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:58:05 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	352383	91.57	ug/L		94
37) Ethyl acetate	2.920	43	2063136	789.79	ug/L		97
38) Tetrahydrofuran	2.951	42	134655	146.53	ug/L		84
40) Carbon Tetrachloride	2.958	117	274546m	75.33	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	297467	83.17	ug/L		91
42) 2-Butanone	3.005	43	1058884	785.79	ug/L		81
43) 1,1-Dichloropropene	3.059	75	258900	96.88	ug/L		96
44) tert-Butyl formate	3.097	59	1252943	987.44	ug/L		92
45) Propionitrile	3.151	54	615941	1442.34	ug/L		99
46) Methacrylonitrile	3.174	41	2385628	1560.52	ug/L		97
47) Benzene	3.182	78	778455	95.10	ug/L	#	54
48) TAME	3.251	73	556305	100.20	ug/L		86
50) 1,2-Dichloroethane	3.274	62	330598	106.57	ug/L		89
51) Isobutyl Alcohol	3.259	43	604562	2691.33	ug/L		82
52) Tert Amyl Alcohol	3.328	59	415052	1305.72	ug/L		83
53) Trichloroethene	3.513	95	208499	87.70	ug/L		96
54) Methylcyclohexane	3.528	83	356456	98.95	ug/L	#	73
55) Dibromomethane	3.736	93	130555	93.37	ug/L		85
56) 1,2-Dichloropropane	3.797	63	266749	132.85	ug/L		89
57) Bromodichloromethane	3.828	83	276618	91.22	ug/L	#	93
58) Methyl methacrylate	3.921	41	347769	182.55	ug/L	#	78
59) 1,4-Dioxane	3.951	88	60175	1922.78	ug/L		71
60) 2-Chloroethyl vinyl ether	4.167	63	872173	769.82	ug/L		85
61) cis-1,3-Dichloropropene	4.213	75	331533	106.40	ug/L		84
64) Toluene	4.375	91	838369	120.23	ug/L		100
65) 2-Nitropropane	4.467	41	470509	884.83	ug/L		98
66) 4-Methyl-2-pentanone	4.590	43	2205587	1118.86	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	308868	132.02	ug/L		84
68) Tetrachloroethene	4.636	166	282344	112.93	ug/L		99
69) Ethyl methacrylate	4.729	69	258156	162.42	ug/L	#	74
70) 1,1,2-Trichloroethane	4.721	83	160740	127.64	ug/L		94
71) Dibromochloromethane	4.844	129	215419	100.74	ug/L		98
72) 1,3-Dichloropropane	4.898	76	308832	137.21	ug/L		77
73) 1,2-Dibromoethane	4.998	107	199390	109.00	ug/L		97
74) 3,3-Dimethyl-1-Butanol	5.129	57	2956160	11453.54	ug/L		84
75) 2-hexanone	5.144	43	2066836	1112.32	ug/L		93
76) 1-Chlorohexane	5.367	91	293289m	116.77	ug/L		
77) Ethylbenzene	5.398	91	864112	116.44	ug/L		96
78) Chlorobenzene	5.367	112	526103	107.33	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	199355	97.12	ug/L		97
80) m,p-Xylene	5.506	91	1396636	230.41	ug/L		97
81) o-Xylene	5.806	91	722948	117.61	ug/L		100
82) Styrene	5.837	104	553800	116.33	ug/L		93
83) Bromoform	5.845	173	150249	100.25	ug/L		99
84) Isopropylbenzene	6.045	105	858831	115.78	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.268	53	104189	297.97	ug/L	#	68
88) n-Propylbenzene	6.353	91	1037336	147.57	ug/L		95
89) Bromobenzene	6.306	156	206001	113.65	ug/L	#	72
90) 1,1,2,2-Tetrachloroethane	6.376	83	258972	146.23	ug/L		96
91) 1,3,5-Trimethylbenzene	6.506	105	708731	131.18	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:58:05 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration

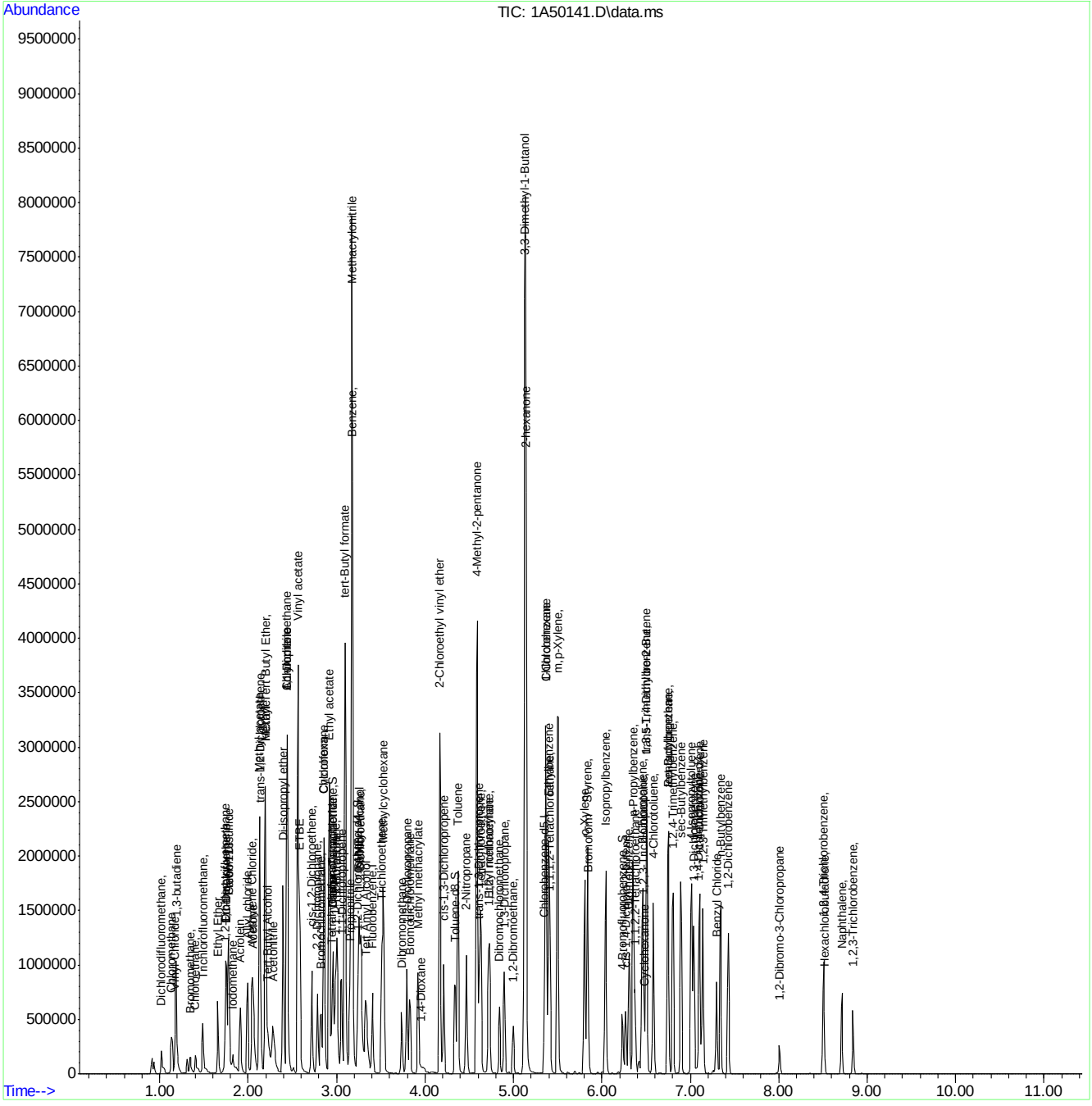
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	6.460	91	589698	143.05	ug/L		98
93)	trans-1,4-Dichloro-2-B...	6.506	53	131408	253.13	ug/L		82
94)	1,2,3-Trichloropropane	6.468	110	72561	121.55	ug/L	#	67
95)	Cyclohexanone	6.483	55	84586	1258.60	ug/L		86
96)	4-Chlorotoluene	6.583	91	628792	143.76	ug/L		98
97)	tert-Butylbenzene	6.753	91	396762	140.15	ug/L		92
98)	1,2,4-Trimethylbenzene	6.807	105	693353	135.33	ug/L		100
99)	Pentachloroethane	6.753	167	96048	103.81	ug/L	#	31
100)	sec-Butylbenzene	6.891	105	898542	137.10	ug/L		97
101)	4-Isopropyltoluene	7.014	119	738351	123.82	ug/L		98
102)	1,3-Dichlorobenzene	7.038	146	393885	113.65	ug/L		94
103)	1,2,3-Trimethylbenzene	7.145	105	667109	130.30	ug/L		98
104)	1,4-Dichlorobenzene	7.107	146	395461	114.96	ug/L		97
105)	n-Butylbenzene	7.345	92	353614	148.86	ug/L		99
106)	Benzyl Chloride	7.299	126	91736	130.24	ug/L		99
107)	1,2-Dichlorobenzene	7.430	146	350390	113.89	ug/L		96
108)	1,2-Dibromo-3-Chloropr...	8.007	75	41774	158.47	ug/L		86
109)	Hexachlorobutadiene	8.515	225	55841	80.64	ug/L		96
110)	1,2,4-Trichlorobenzene	8.508	180	152684	102.58	ug/L		98
111)	Naphthalene	8.715	128	367772	108.46	ug/L		97
112)	1,2,3-Trichlorobenzene	8.838	180	111981	107.98	ug/L		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:58:05 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V1A1961-IC1961
Lab FileID: 1A50141.D
Injection Time: 10/23/23 12:20

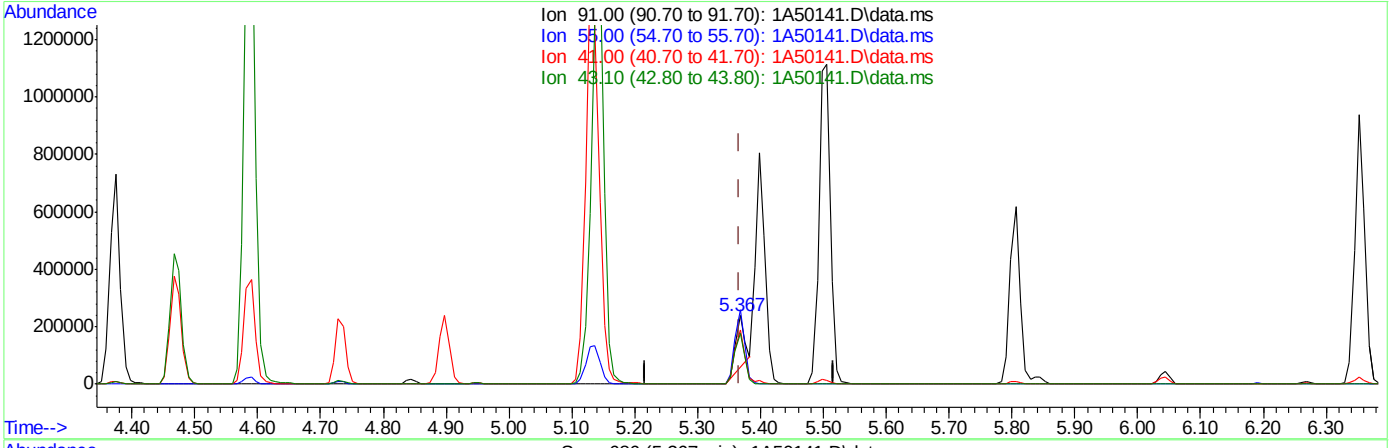
Method: SW846 8260D
Analyst approved: 10/23/23 14:29 Jenifer Willis
Supervisor approved: 10/24/23 10:18 Neil Christiana

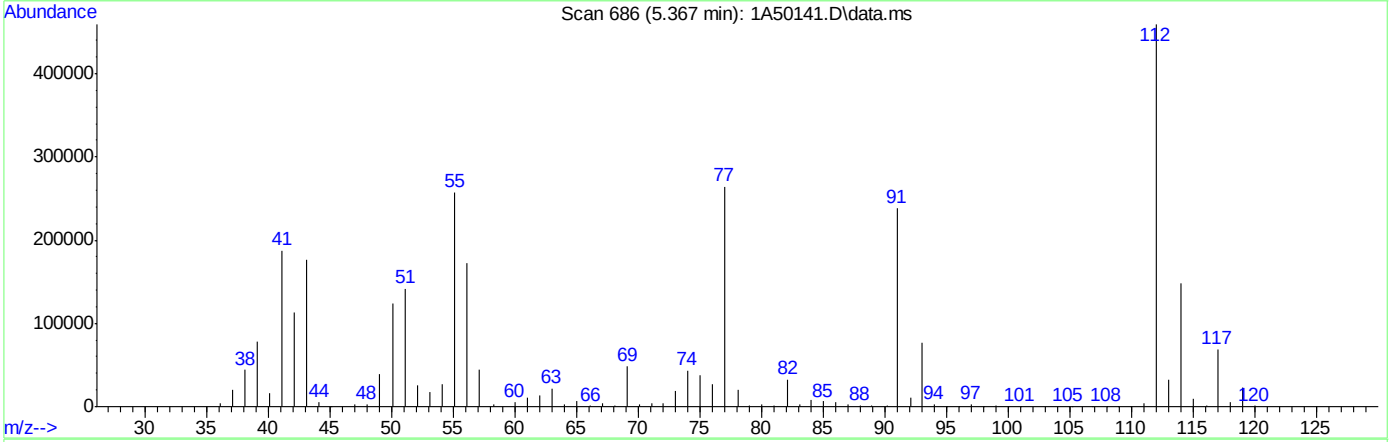
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:49:32 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50141.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 72.30ug/L

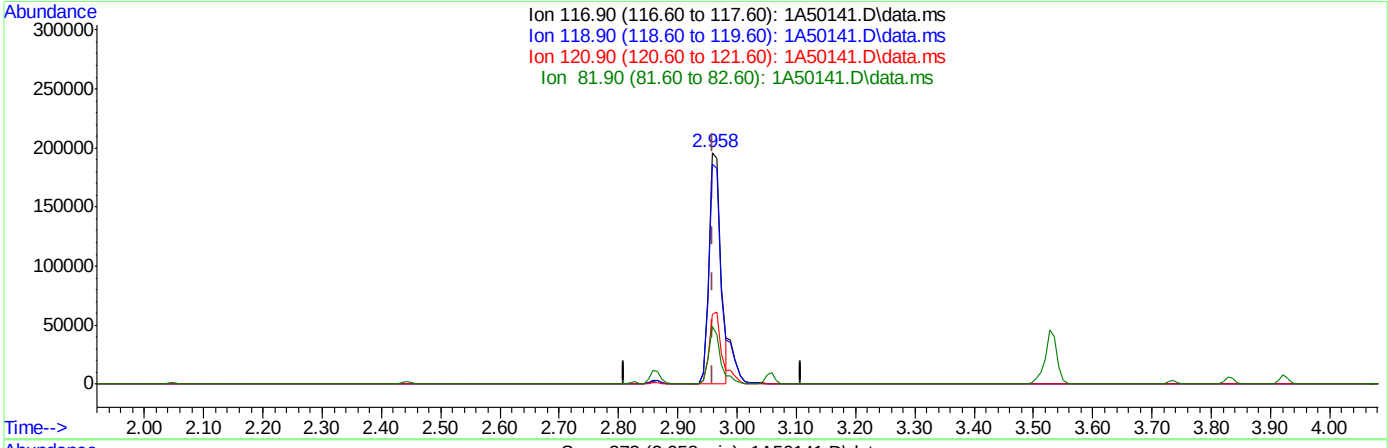
response 181601

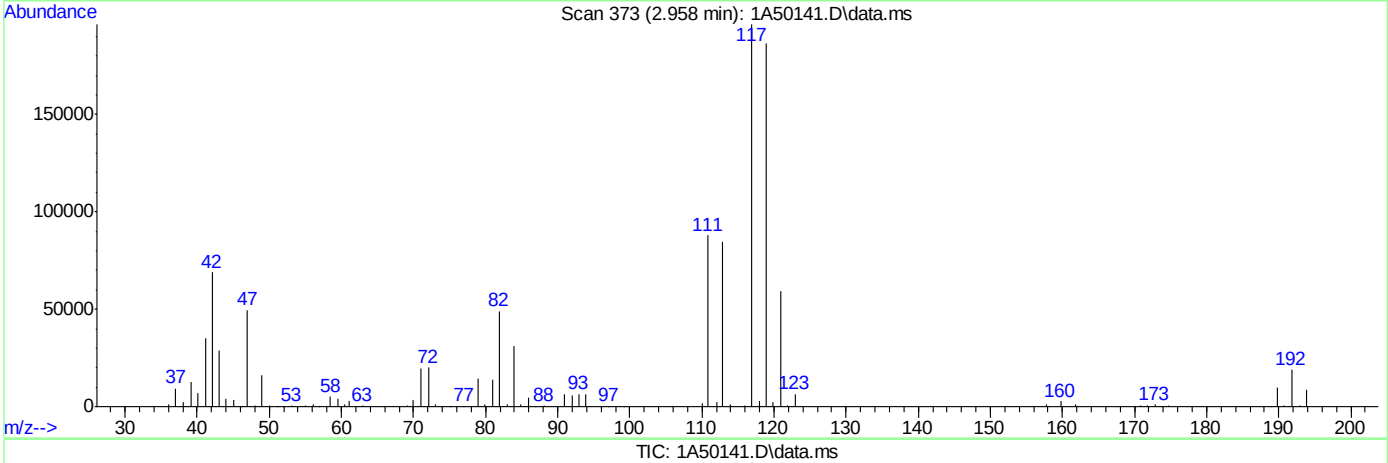
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	107.20#
41.00	53.90	77.85#
43.10	42.90	73.49#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:49:32 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50141.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 75.33ug/L m

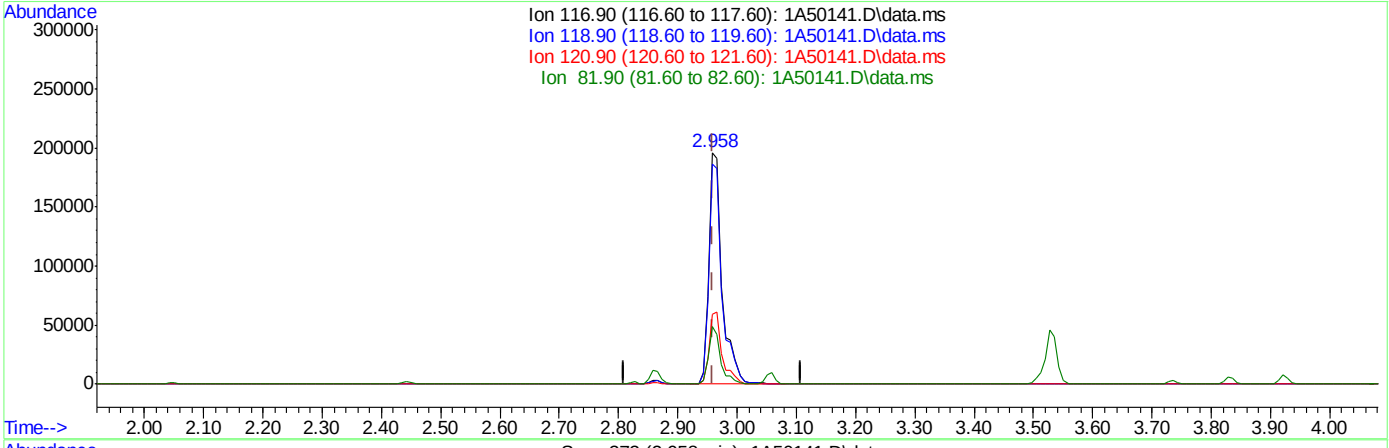
response 274546

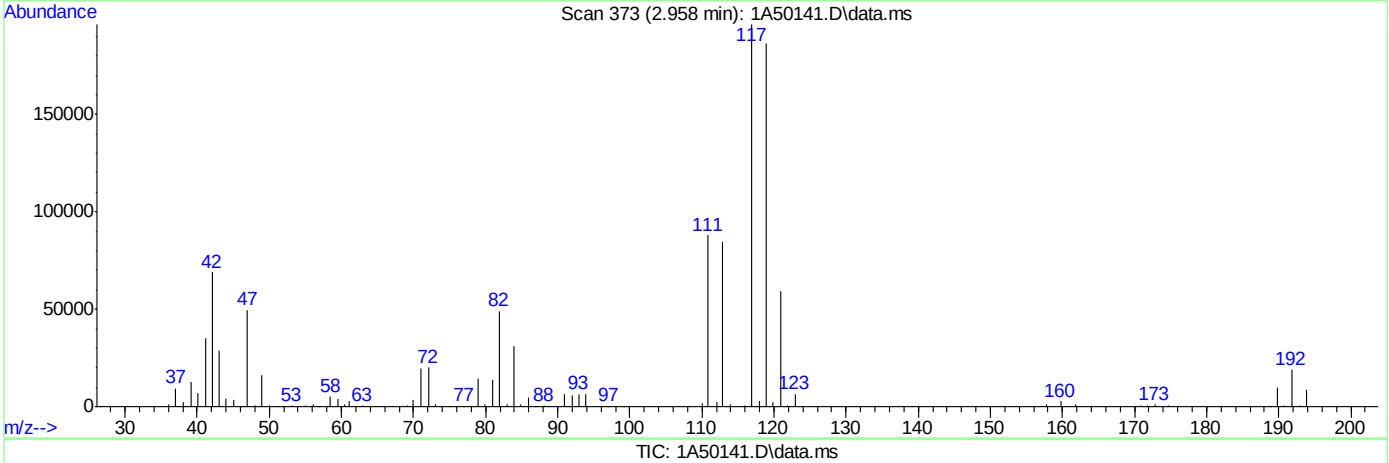
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	95.11
120.90	31.10	30.30
81.90	25.40	25.07

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:49:32 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50141.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (-0.001) 84.84ug/L

response 309199

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	95.11
120.90	31.10	30.30
81.90	25.40	25.07

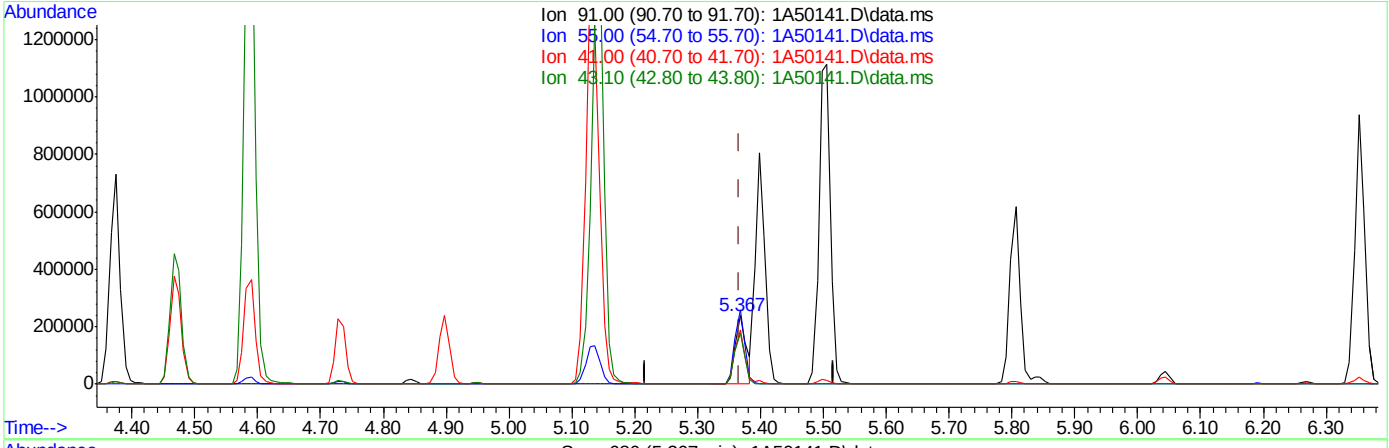
8.6.8.4

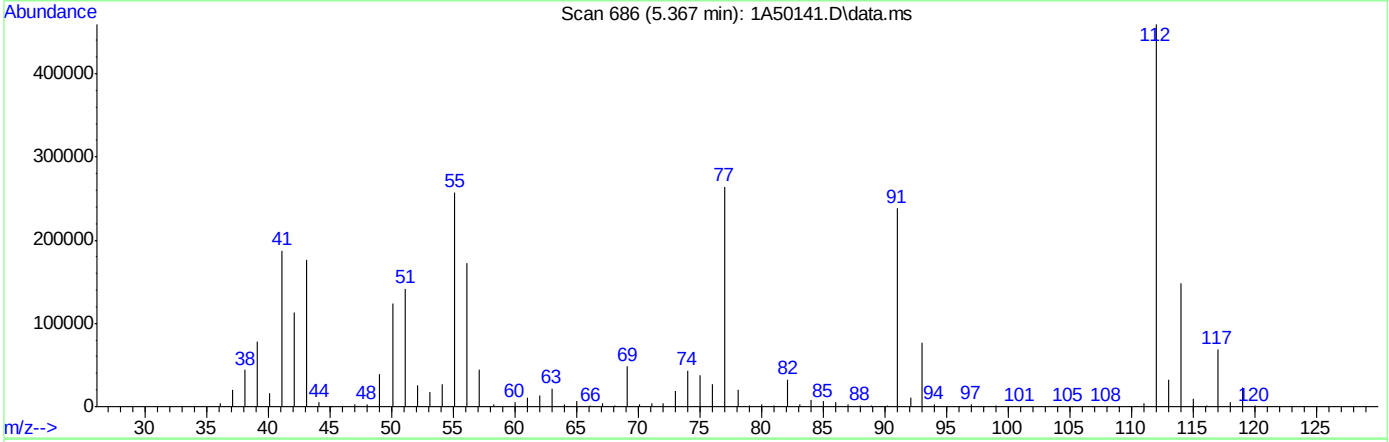
8

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50141.D
Acq On : 23 Oct 2023 12:20 pm
Operator : jeniferw
Sample : IC1961-7
Misc : MS55077,V1A1961,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 23 12:49:32 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 02 13:54:42 2023
Response via : Initial Calibration





TIC: 1A50141.D\data.ms

(76) 1-Chlorohexane

5.367min (+0.000) 116.77ug/L m

response 293289

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	107.93#
41.00	53.90	78.44#
43.10	42.90	73.94#

Manual Integrations APPROVED (compounds with "m" flag)
Neil Christiana 10/24/23 10:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:49 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	361944	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	256752	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	133448	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.951	113	98734	49.47	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.94%				
49) 1,2-Dichloroethane-d4	3.235	65	131580	50.76	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 101.52%				
63) Toluene-d8	4.336	98	349023	50.64	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 101.28%				
86) 4-Bromofluorobenzene	6.237	174	112756	50.65	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.30%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	67762	41.19	ug/L		99
3) Chloromethane	1.127	50	126502	38.36	ug/L		96
4) 1,3-butadiene	1.180	39	144073	61.48	ug/L		97
5) Vinyl Chloride	1.173	62	102062	38.65	ug/L		98
6) Bromomethane	1.342	94	28344	38.68	ug/L		91
7) Chloroethane	1.404	64	46952	39.74	ug/L		91
8) Trichlorofluoromethane	1.488	101	104340	37.17	ug/L		98
9) Ethyl Ether	1.658	59	91872	44.77	ug/L	#	83
10) Ethanol	1.712	45	45320	873.90	ug/L		96
11) 1,2-Dichlorotrifluoroe...	1.742	67	97096	43.58	ug/L		86
12) 1,1-Dichloroethene	1.758	61	138490	39.63	ug/L		87
13) Freon 113	1.781	101	79136	47.99	ug/L		93
14) Carbon Disulfide	1.781	76	213842	44.85	ug/L		92
15) Iodomethane	1.827	142	48456	41.44	ug/L		95
16) Acrolein	1.904	56	139364	192.86	ug/L		99
17) Allyl chloride	1.996	41	155182	40.51	ug/L		84
18) Methylene Chloride	2.042	49	160254	41.39	ug/L		79
19) Acetone	2.050	43	214886	189.71	ug/L		94
20) Methyl acetate	2.119	43	582213	176.72	ug/L		87
21) trans-1,2-Dichloroethene	2.135	61	141661	39.45	ug/L		83
22) Hexane	2.196	56	125657	42.92	ug/L		91
23) Methyl Tert Butyl Ether	2.196	73	224855	40.84	ug/L	#	42
24) Acetonitrile	2.273	41	191802	430.83	ug/L		94
25) Tert Butyl Alcohol	2.212	59	203168	380.58	ug/L		97
26) Di-isopropyl ether	2.397	45	387214	39.73	ug/L		90
27) Chloroprene	2.435	53	461189	37.72	ug/L		92
28) 1,1-Dichloroethane	2.443	63	171488	37.96	ug/L		96
29) Acrylonitrile	2.435	52	295154	194.97	ug/L		97
30) ETBE	2.581	59	339071	41.77	ug/L		88
31) Vinyl acetate	2.558	43	1374232	207.16	ug/L		97
32) cis-1,2-Dichloroethene	2.720	96	79918	37.63	ug/L	#	76
33) 2,2-Dichloropropane	2.781	77	116436	43.33	ug/L		99
34) Bromochloromethane	2.820	128	39473	38.12	ug/L	#	47
35) Cyclohexane	2.858	56	215912	42.78	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:49 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	140262	38.33	ug/L		91
37) Ethyl acetate	2.912	43	824024	204.19	ug/L		96
38) Tetrahydrofuran	2.943	42	55353	37.76	ug/L		85
40) Carbon Tetrachloride	2.958	117	112176m	39.55	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	118938	39.04	ug/L		90
42) 2-Butanone	3.005	43	425483	196.06	ug/L		83
43) 1,1-Dichloropropene	3.051	75	105975	40.87	ug/L		88
44) tert-Butyl formate	3.097	59	511162	218.24	ug/L		90
45) Propionitrile	3.143	54	259147	418.90	ug/L		98
46) Methacrylonitrile	3.166	41	955695	378.02	ug/L		95
47) Benzene	3.182	78	314305	39.98	ug/L		82
48) TAME	3.251	73	222302	40.74	ug/L	#	72
50) 1,2-Dichloroethane	3.274	62	131205	37.78	ug/L		89
51) Isobutyl Alcohol	3.259	43	282474	770.18	ug/L		94
52) Tert Amyl Alcohol	3.328	59	170112	387.78	ug/L		87
53) Trichloroethene	3.512	95	83270	38.24	ug/L		96
54) Methylcyclohexane	3.528	83	147368	43.58	ug/L	#	78
55) Dibromomethane	3.736	93	52865	38.91	ug/L		85
56) 1,2-Dichloropropane	3.797	63	105845	39.15	ug/L		88
57) Bromodichloromethane	3.828	83	103395	36.74	ug/L	#	92
58) Methyl methacrylate	3.920	41	128001	37.69	ug/L	#	81
59) 1,4-Dioxane	3.943	88	21856	736.20	ug/L	#	61
60) 2-Chloroethyl vinyl ether	4.167	63	315602	194.25	ug/L		87
61) cis-1,3-Dichloropropene	4.213	75	127525	39.67	ug/L		86
64) Toluene	4.374	91	323242	39.64	ug/L		100
65) 2-Nitropropane	4.467	41	172299	187.53	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	820786	198.81	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	113597	38.02	ug/L		86
68) Tetrachloroethene	4.636	166	93798	34.20	ug/L		99
69) Ethyl methacrylate	4.729	69	98612	40.45	ug/L	#	78
70) 1,1,2-Trichloroethane	4.721	83	62291	37.90	ug/L		93
71) Dibromochloromethane	4.844	129	85626	40.88	ug/L		97
72) 1,3-Dichloropropane	4.898	76	126359	40.87	ug/L		79
73) 1,2-Dibromoethane	4.998	107	77716	38.70	ug/L		98
74) 3,3-Dimethyl-1-Butanol	5.129	57	1045720	1979.91	ug/L		84
75) 2-hexanone	5.144	43	809551	204.92	ug/L	#	74
76) 1-Chlorohexane	5.367	91	119676m	40.05	ug/L		
77) Ethylbenzene	5.398	91	345409m	40.01	ug/L		
78) Chlorobenzene	5.367	112	210554	38.25	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.414	131	80324	39.61	ug/L		96
80) m,p-Xylene	5.498	91	563306	80.91	ug/L		99
81) o-Xylene	5.806	91	286339	40.33	ug/L		100
82) Styrene	5.837	104	221815	42.21	ug/L		91
83) Bromoform	5.844	173	58084	38.27	ug/L		98
84) Isopropylbenzene	6.045	105	334740	40.82	ug/L		99
87) cis-1,4-Dichloro-2-butene	6.268	53	38697	38.62	ug/L	#	70
88) n-Propylbenzene	6.352	91	403470	39.63	ug/L		95
89) Bromobenzene	6.306	156	87142	39.44	ug/L	#	72
90) 1,1,2,2-Tetrachloroethane	6.376	83	103112	37.08	ug/L		96
91) 1,3,5-Trimethylbenzene	6.506	105	287025	41.85	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:49 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

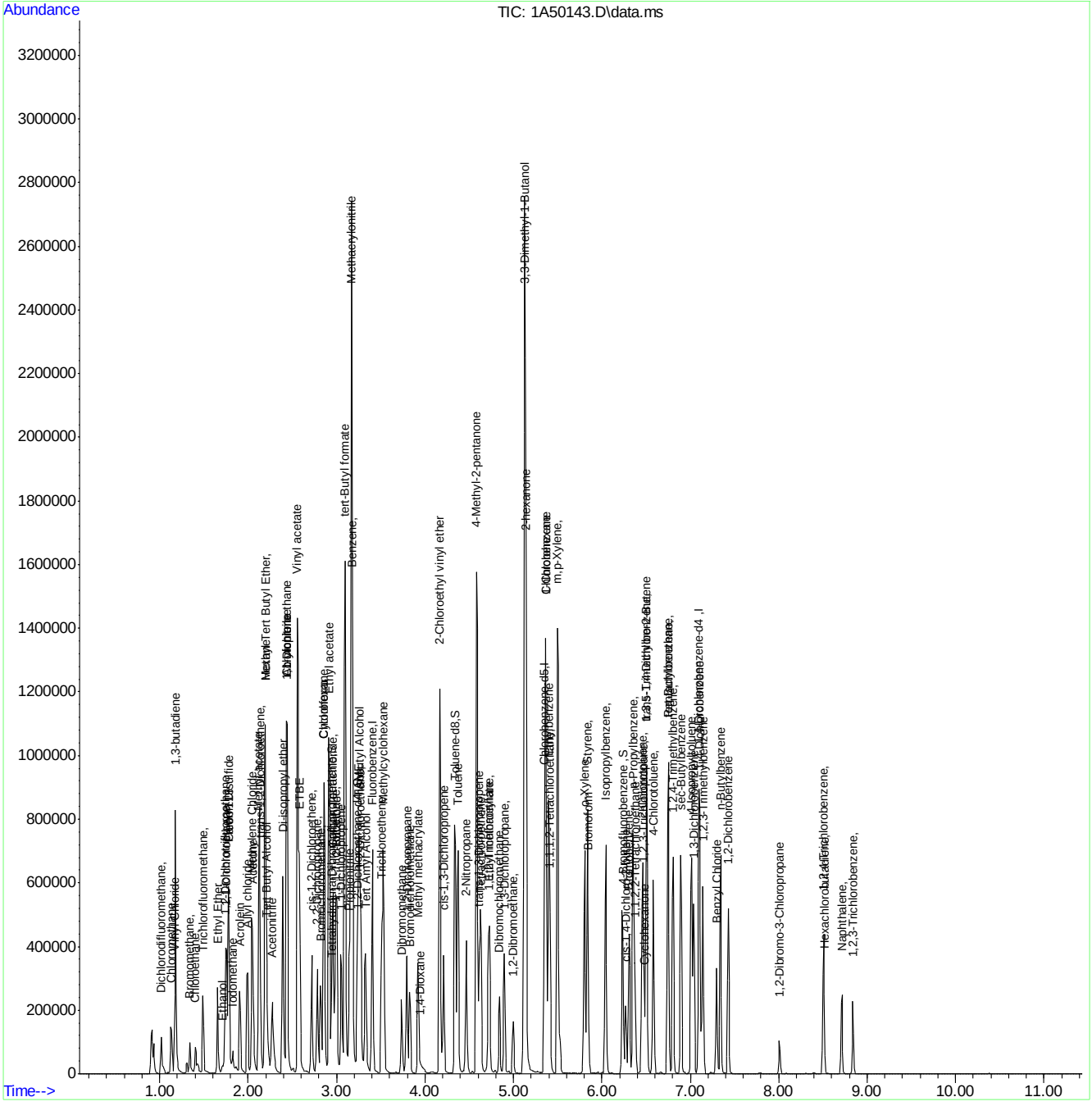
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	2-Chlorotoluene	6.460	91	231978	38.45	ug/L		97
93)	trans-1,4-Dichloro-2-B...	6.506	53	50979	38.24	ug/L	#	79
94)	1,2,3-Trichloropropane	6.468	110	31637	40.19	ug/L	#	72
95)	Cyclohexanone	6.483	55	44427	265.34	ug/L		88
96)	4-Chlorotoluene	6.583	91	245277	38.74	ug/L		98
97)	tert-Butylbenzene	6.753	91	156906	40.72	ug/L		90
98)	1,2,4-Trimethylbenzene	6.807	105	273642	42.01	ug/L		98
99)	Pentachloroethane	6.753	167	49545	50.22	ug/L	#	75
100)	sec-Butylbenzene	6.891	105	341324	40.01	ug/L		97
101)	4-Isopropyltoluene	7.014	119	287809	41.79	ug/L		97
102)	1,3-Dichlorobenzene	7.037	146	156726	38.29	ug/L		96
103)	1,2,3-Trimethylbenzene	7.145	105	250194	37.64	ug/L		97
104)	1,4-Dichlorobenzene	7.107	146	161682	37.99	ug/L		95
105)	n-Butylbenzene	7.345	92	146961	45.03	ug/L		97
106)	Benzyl Chloride	7.299	126	35761	40.90	ug/L		98
107)	1,2-Dichlorobenzene	7.430	146	140260	37.93	ug/L		97
108)	1,2-Dibromo-3-Chloropr...	8.007	75	15895	39.15	ug/L	#	85
109)	Hexachlorobutadiene	8.515	225	25944	41.61	ug/L		95
110)	1,2,4-Trichlorobenzene	8.507	180	60742	40.59	ug/L		97
111)	Naphthalene	8.715	128	129284	41.60	ug/L		97
112)	1,2,3-Trichlorobenzene	8.838	180	43024	40.68	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:49 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



Manual Integration Approval Summary

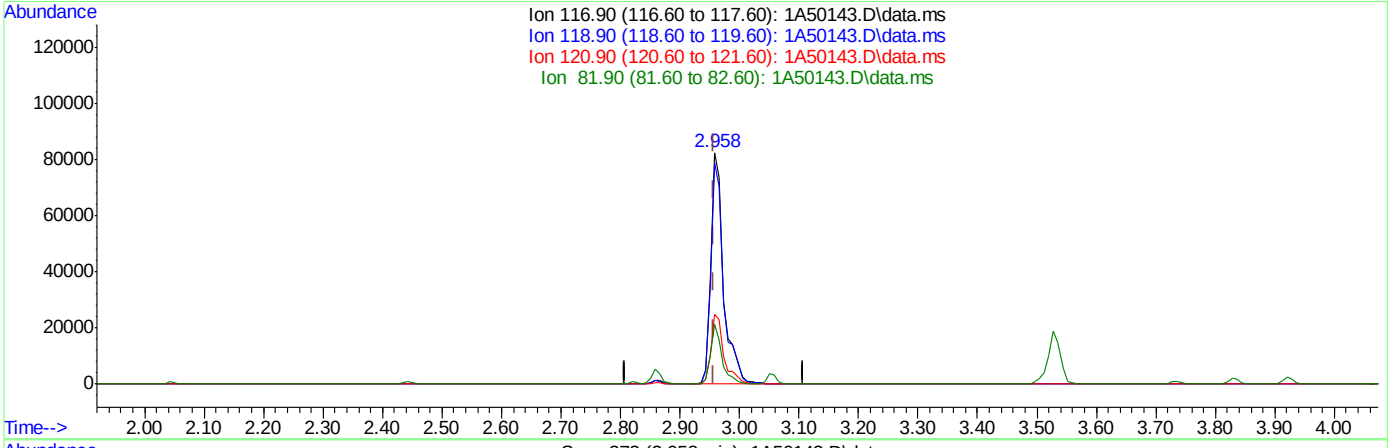
Sample Number: V1A1961-ICV1961 **Method:** SW846 8260D
Lab FileID: 1A50143.D **Analyst approved:** 10/24/23 09:37 Jenifer Willis
Injection Time: 10/23/23 13:23 **Supervisor approved:** 10/24/23 10:18 Neil Christiana

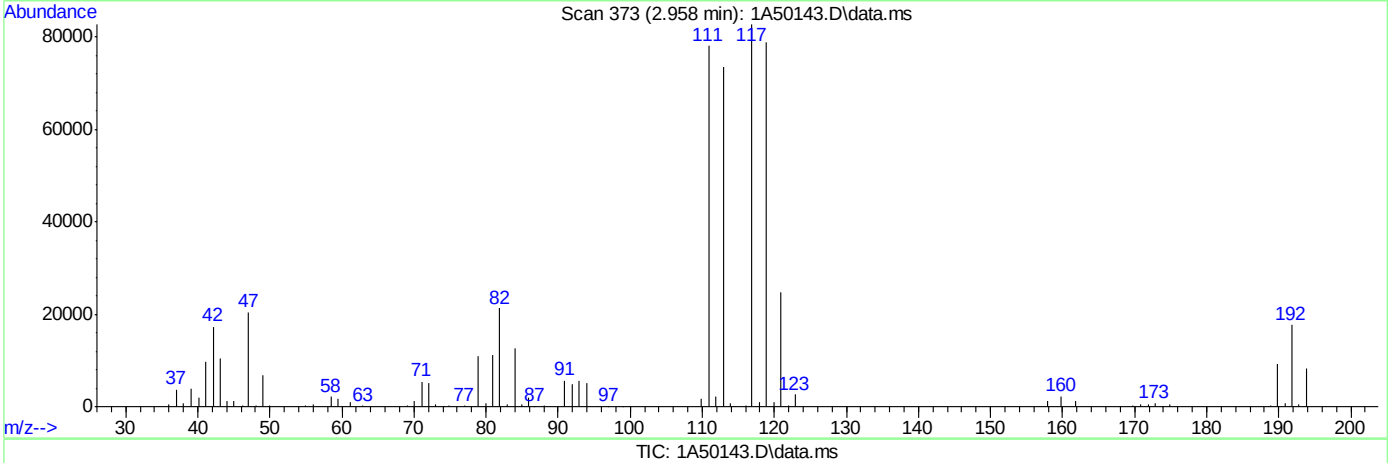
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 44.08ug/L

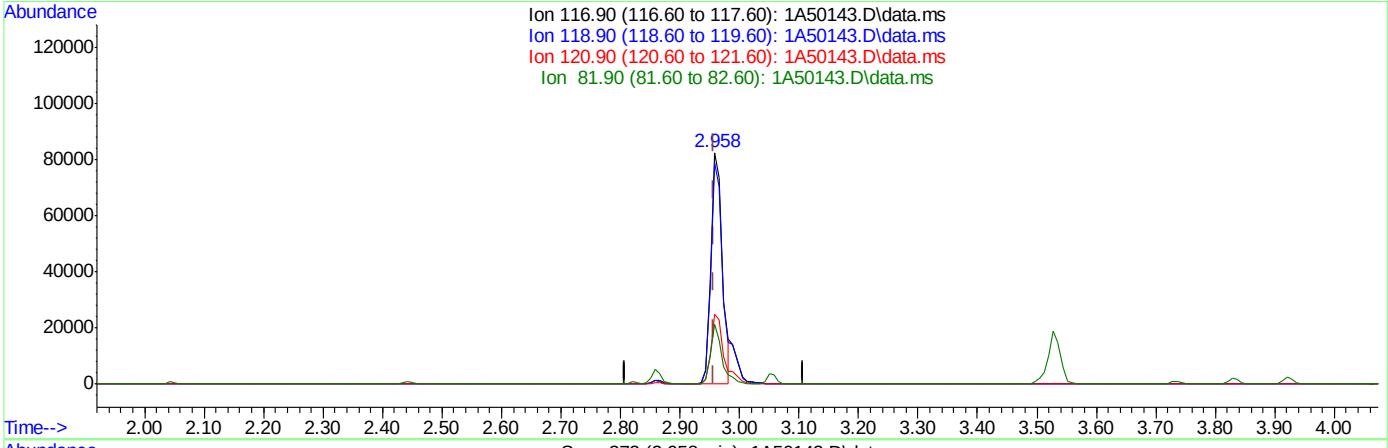
response 125029

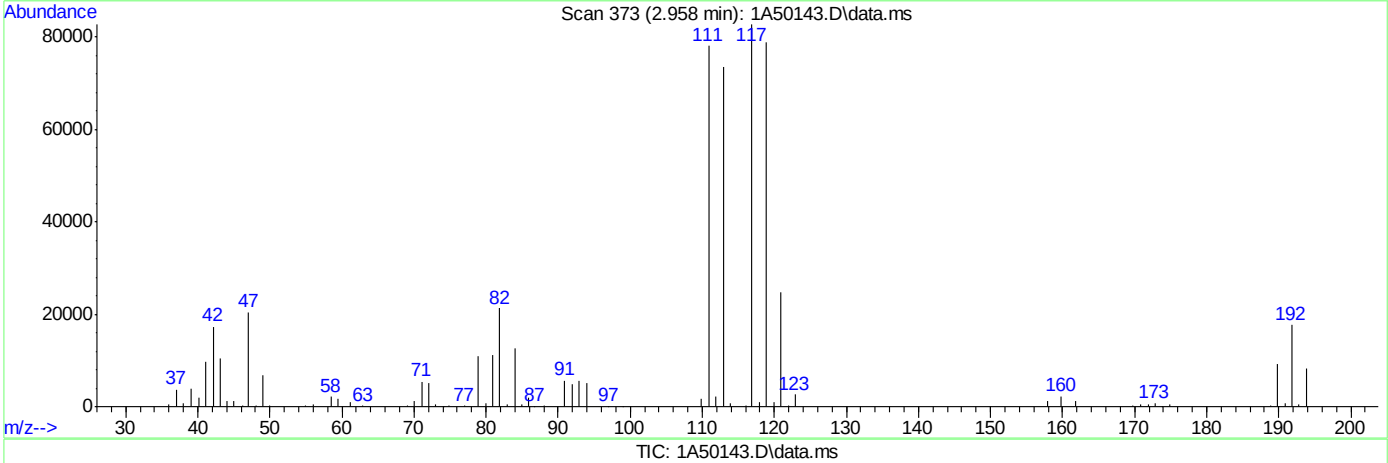
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	95.41
120.90	31.10	29.96
81.90	25.40	25.68

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 39.55ug/L m

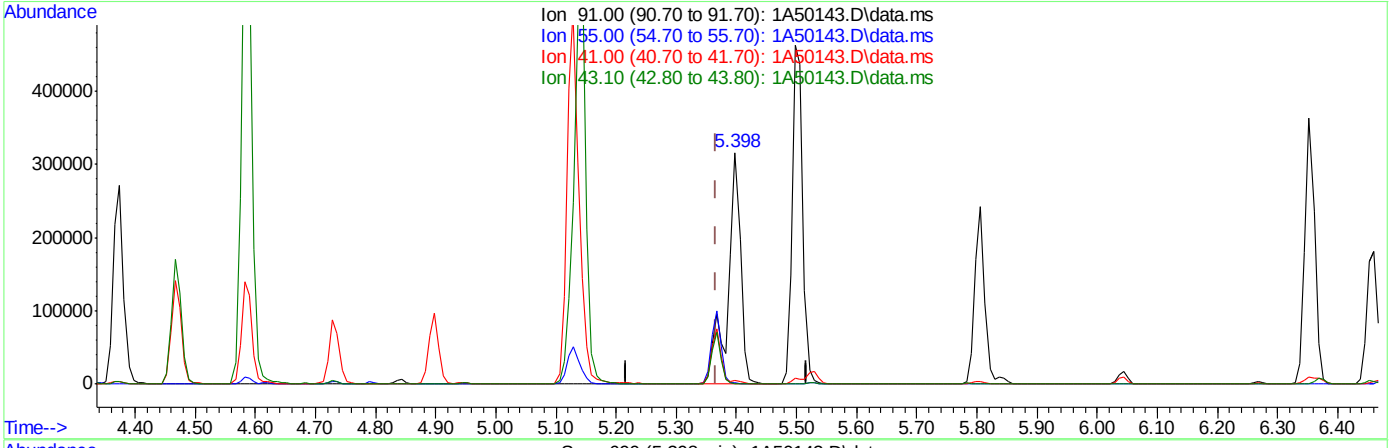
response 112176

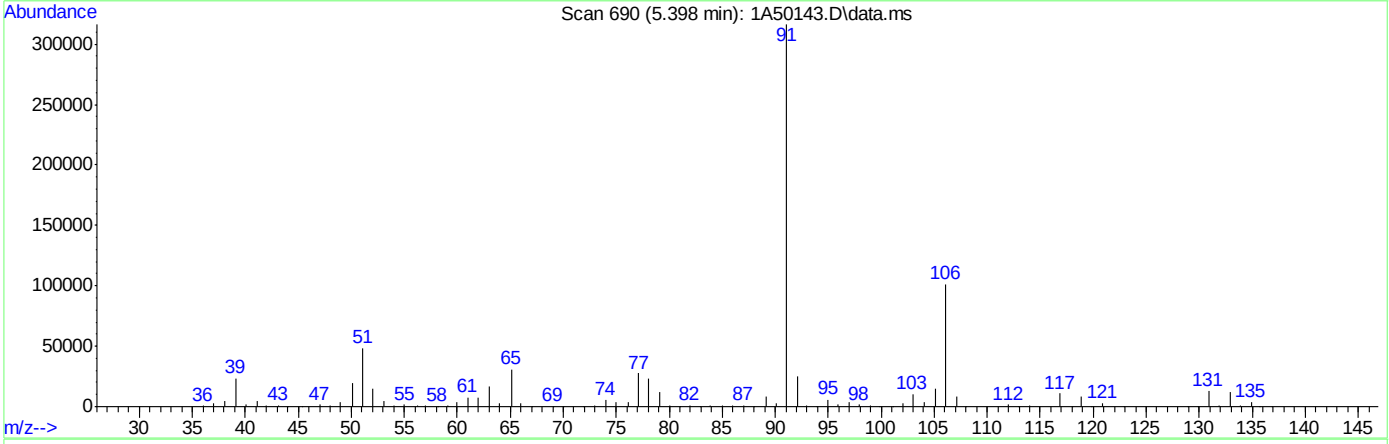
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	95.41
120.90	31.10	29.96
81.90	25.40	25.68

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 155.53ug/L

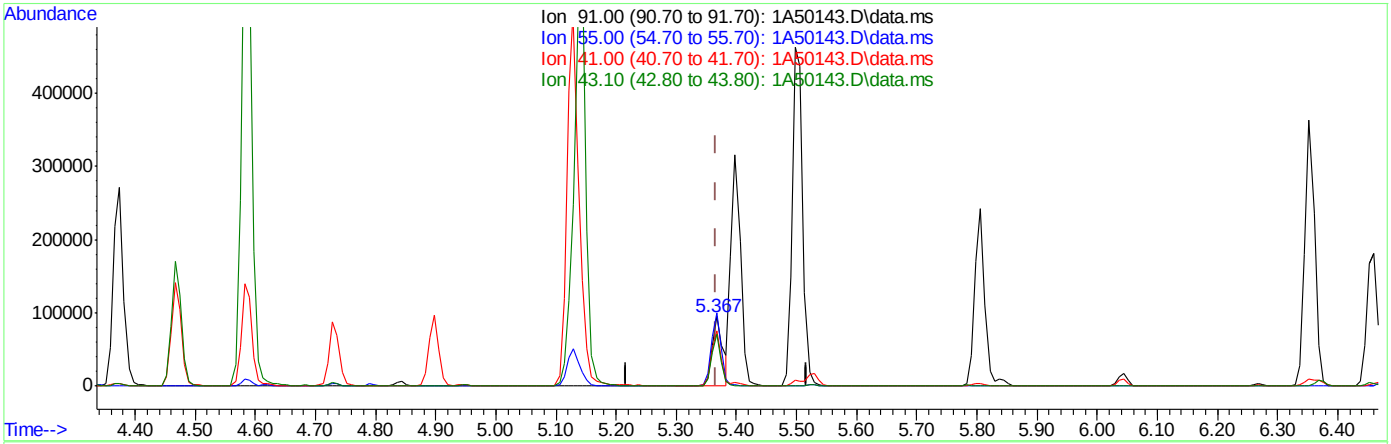
response 464699

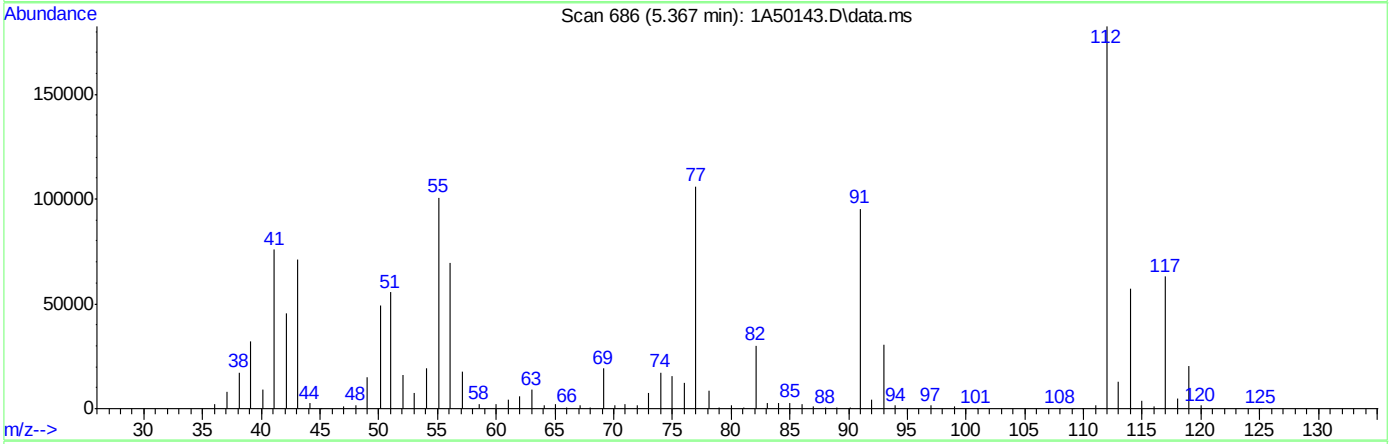
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.48#
41.00	53.90	1.42#
43.10	42.90	0.26#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 40.05ug/L m

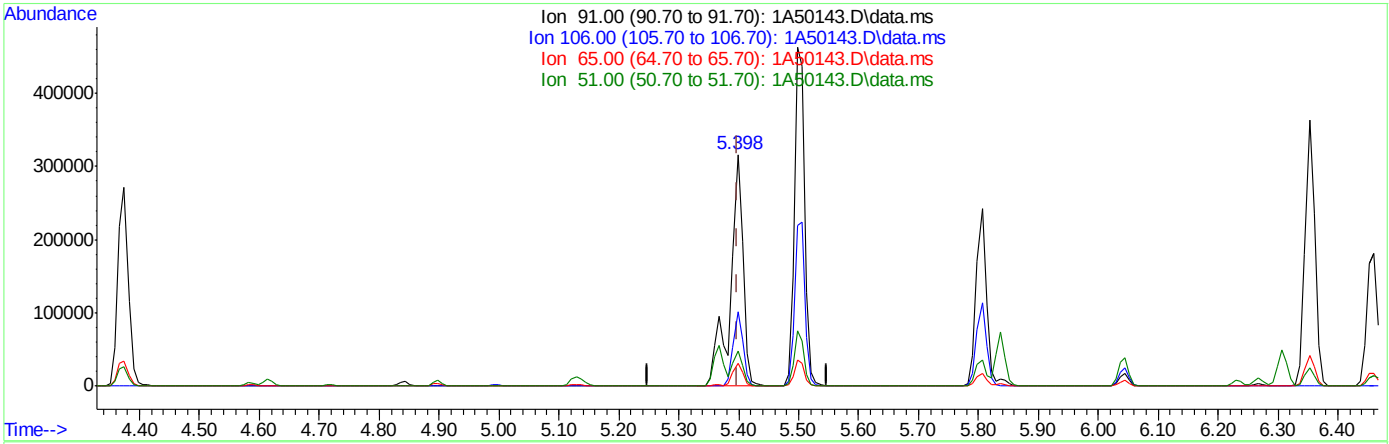
response 119676

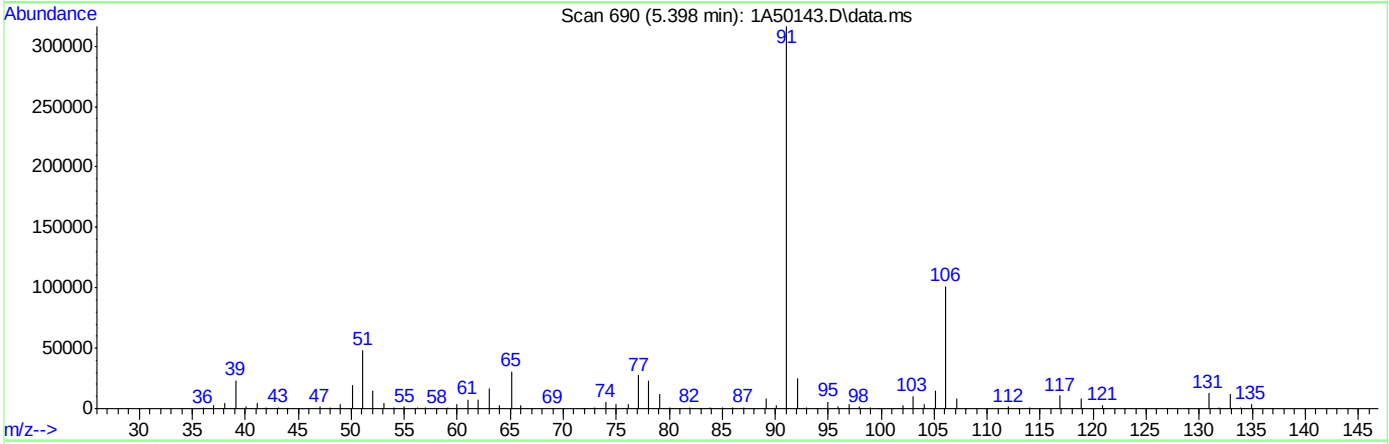
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	105.59#
41.00	53.90	79.50#
43.10	42.90	74.75#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 53.88ug/L

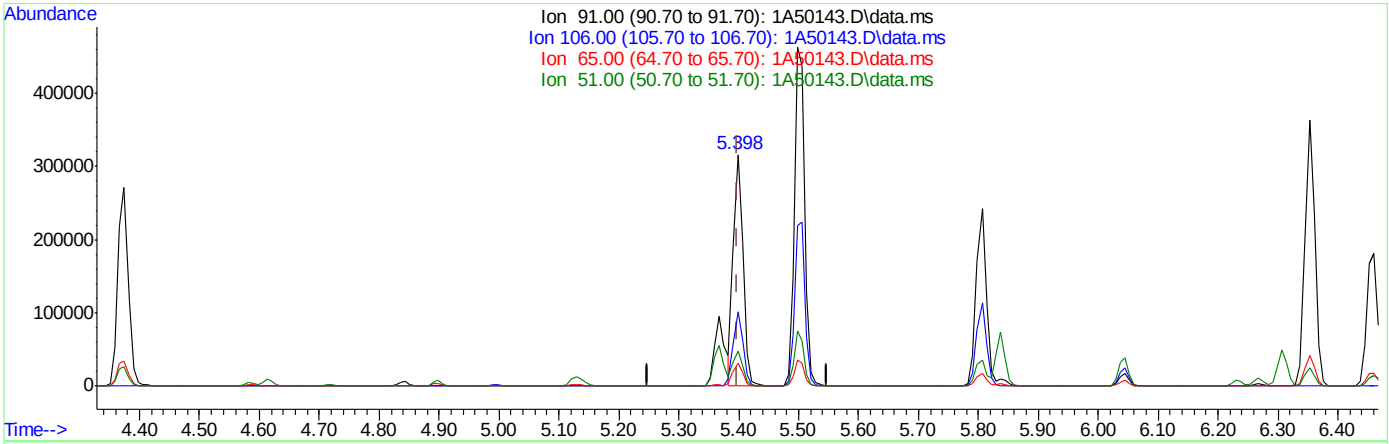
response 465132

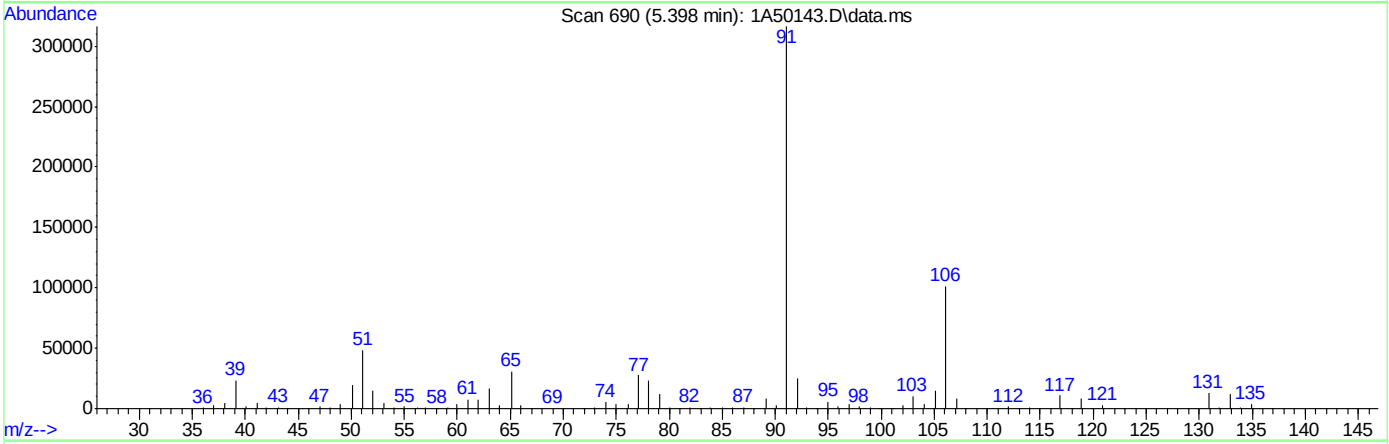
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.01
65.00	8.30	9.73
51.00	10.10	15.28

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\10-23-2023\
Data File : 1A50143.D
Acq On : 23 Oct 2023 1:23 pm
Operator : jeniferw
Sample : ICV1961-5
Misc : MS55077,V1A1961,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 23 14:04:21 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50143.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 40.01ug/L m

response 345409

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	32.01
65.00	8.30	9.73
51.00	10.10	15.28

8.6.9.7

8

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/07/23 14:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:18:16 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.405	96	261102	50.00	ug/L		0.00
62) Chlorobenzene-d5	5.352	117	203372	50.00	ug/L		0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	108918	50.00	ug/L		0.00
System Monitoring Compounds							
39) Dibromofluoromethane	2.958	113	74888	52.01	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.02%				
49) 1,2-Dichloroethane-d4	3.235	65	100886	53.95	ug/L		0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 107.90%				
63) Toluene-d8	4.343	98	264748	48.49	ug/L		0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 96.98%				
86) 4-Bromofluorobenzene	6.237	174	93006	51.18	ug/L		0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 102.36%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.019	85	50209	42.31	ug/L		96
3) Chloromethane	1.126	50	83319	35.03	ug/L		99
4) 1,3-butadiene	1.180	39	56073	33.17	ug/L		95
5) Vinyl Chloride	1.173	62	68274	35.84	ug/L		97
6) Bromomethane	1.342	94	24108	45.60	ug/L		96
7) Chloroethane	1.411	64	33854	39.72	ug/L		97
8) Trichlorofluoromethane	1.496	101	83130	41.05	ug/L		97
9) Ethyl Ether	1.657	59	57834	39.07	ug/L	#	86
10) Ethanol	1.711	45	20273	541.90	ug/L		96
11) 1,2-Dichlorotrifluoroe...	1.742	67	66254	41.23	ug/L		89
12) 1,1-Dichloroethene	1.758	61	111263	44.14	ug/L		87
13) Freon 113	1.788	101	53226	44.74	ug/L		99
14) Carbon Disulfide	1.781	76	167395	48.67	ug/L		94
15) Iodomethane	1.834	142	48758	54.96	ug/L		93
16) Acrolein	1.904	56	97404	186.85	ug/L		98
17) Allyl chloride	1.996	41	98469	35.64	ug/L		86
18) Methylene Chloride	2.042	49	129584	46.40	ug/L		80
19) Acetone	2.050	43	138790	169.85	ug/L		92
20) Methyl acetate	2.127	43	424727	178.71	ug/L		90
21) trans-1,2-Dichloroethene	2.135	61	112135	43.29	ug/L		82
22) Hexane	2.196	56	86506	40.96	ug/L	#	89
23) Methyl Tert Butyl Ether	2.196	73	175099	44.09	ug/L	#	62
24) Acetonitrile	2.273	41	106718	332.29	ug/L		94
25) Tert Butyl Alcohol	2.212	59	127257	330.45	ug/L		91
26) Di-isopropyl ether	2.396	45	272626	38.77	ug/L		92
27) Chloroprene	2.442	53	330438	37.47	ug/L		94
28) 1,1-Dichloroethane	2.442	63	137228	42.11	ug/L		97
29) Acrylonitrile	2.442	52	200632	183.72	ug/L		96
30) ETBE	2.581	59	252504	43.12	ug/L		90
31) Vinyl acetate	2.558	43	920185	192.29	ug/L		98
32) cis-1,2-Dichloroethene	2.720	96	63917	41.72	ug/L	#	72
33) 2,2-Dichloropropane	2.781	77	92563	47.75	ug/L		99
34) Bromochloromethane	2.820	128	33344	44.64	ug/L	#	57
35) Cyclohexane	2.858	56	155743	42.78	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:18:16 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) Chloroform	2.858	83	115849	43.89	ug/L		95
37) Ethyl acetate	2.912	43	513441	176.36	ug/L		98
38) Tetrahydrofuran	2.950	42	39563	37.41	ug/L		89
40) Carbon Tetrachloride	2.958	117	95816m	46.83	ug/L		
41) 1,1,1-Trichloroethane	2.989	97	103862	47.25	ug/L		93
42) 2-Butanone	3.004	43	269324	172.04	ug/L		84
43) 1,1-Dichloropropene	3.058	75	82926	44.34	ug/L		95
44) tert-Butyl formate	3.097	59	385509	228.16	ug/L		94
45) Propionitrile	3.143	54	163489	366.34	ug/L		97
46) Methacrylonitrile	3.166	41	576954	316.35	ug/L		97
47) Benzene	3.181	78	242208	42.71	ug/L		86
48) TAME	3.251	73	173361	44.04	ug/L		80
50) 1,2-Dichloroethane	3.274	62	106491	42.51	ug/L		92
51) Isobutyl Alcohol	3.258	43	166645	629.85	ug/L		96
52) Tert Amyl Alcohol	3.328	59	113100	357.39	ug/L		86
53) Trichloroethene	3.512	95	67580	43.03	ug/L		96
54) Methylcyclohexane	3.528	83	109322	44.81	ug/L	#	78
55) Dibromomethane	3.735	93	41103	41.94	ug/L		88
56) 1,2-Dichloropropane	3.797	63	77212	39.59	ug/L		90
57) Bromodichloromethane	3.828	83	88256	43.48	ug/L	#	94
58) Methyl methacrylate	3.920	41	80703	32.94	ug/L	#	83
59) 1,4-Dioxane	3.943	88	13807	644.70	ug/L	#	69
60) 2-Chloroethyl vinyl ether	4.166	63	224614	191.64	ug/L		91
61) cis-1,3-Dichloropropene	4.213	75	100090	43.16	ug/L		89
64) Toluene	4.374	91	256969	39.78	ug/L		99
65) 2-Nitropropane	4.467	41	129267	177.62	ug/L		98
66) 4-Methyl-2-pentanone	4.582	43	532449	162.82	ug/L		97
67) trans-1,3-Dichloropropene	4.613	75	95423	40.32	ug/L		90
68) Tetrachloroethene	4.636	166	78244	36.02	ug/L		98
69) Ethyl methacrylate	4.728	69	64193	33.25	ug/L	#	79
70) 1,1,2-Trichloroethane	4.721	83	47960	36.84	ug/L		90
71) Dibromochloromethane	4.844	129	70176	42.29	ug/L		97
72) 1,3-Dichloropropane	4.898	76	91458	37.35	ug/L		84
73) 1,2-Dibromoethane	4.998	107	62119	39.06	ug/L		98
74) 3,3-Dimethyl-1-Butanol	5.129	57	658645	1574.36	ug/L		85
75) 2-hexanone	5.144	43	482174	154.08	ug/L	#	73
76) 1-Chlorohexane	5.367	91	94155m	39.78	ug/L		
77) Ethylbenzene	5.398	91	277026m	40.51	ug/L		
78) Chlorobenzene	5.367	112	167472	38.41	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.413	131	67608	42.09	ug/L		97
80) m,p-Xylene	5.498	91	453672	82.27	ug/L		100
81) o-Xylene	5.806	91	234992	41.79	ug/L		99
82) Styrene	5.837	104	178309	42.84	ug/L		94
83) Bromoform	5.844	173	52990	44.07	ug/L		97
84) Isopropylbenzene	6.044	105	277675	42.75	ug/L		99
87) cis-1,4-Dichloro-2-butene	6.268	53	26979	32.99	ug/L	#	83
88) n-Propylbenzene	6.352	91	324428	39.05	ug/L		98
89) Bromobenzene	6.306	156	70083	38.87	ug/L		83
90) 1,1,2,2-Tetrachloroethane	6.375	83	78637	34.65	ug/L		96
91) 1,3,5-Trimethylbenzene	6.506	105	231114	41.29	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:18:16 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

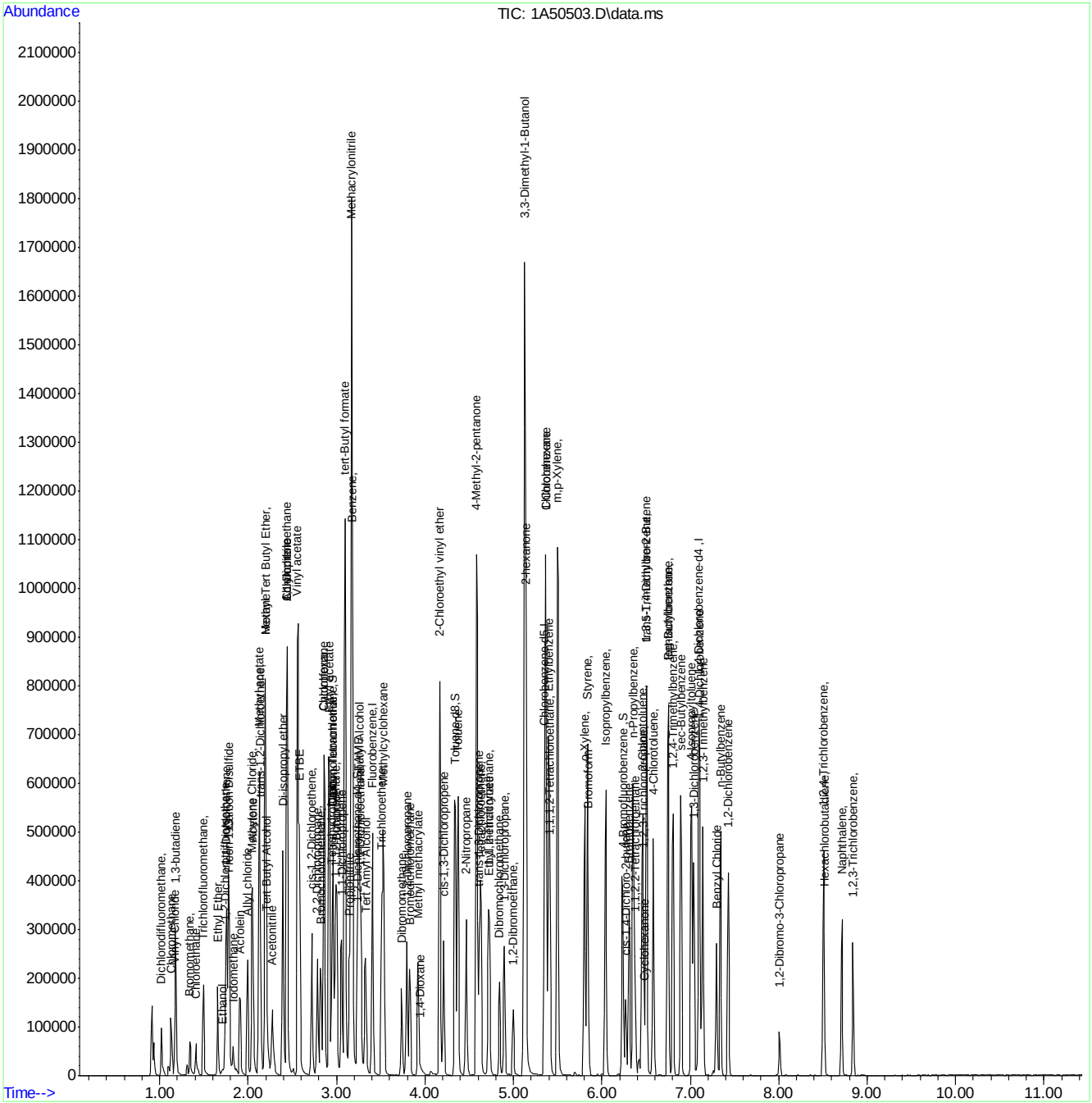
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92) 2-Chlorotoluene	6.460	91	189692	38.52	ug/L		97
93) trans-1,4-Dichloro-2-B...	6.506	53	39867	36.64	ug/L		81
94) 1,2,3-Trichloropropane	6.468	110	24503	38.14	ug/L		78
95) Cyclohexanone	6.483	55	19609	143.49	ug/L		86
96) 4-Chlorotoluene	6.583	91	198321	38.38	ug/L		97
97) tert-Butylbenzene	6.752	91	132718	42.20	ug/L		95
98) 1,2,4-Trimethylbenzene	6.806	105	226137	42.53	ug/L		99
99) Pentachloroethane	6.752	167	39003	48.44	ug/L	#	61
100) sec-Butylbenzene	6.891	105	286403	41.14	ug/L		97
101) 4-Isopropyltoluene	7.014	119	243050	43.24	ug/L		98
102) 1,3-Dichlorobenzene	7.037	146	130979	39.20	ug/L		96
103) 1,2,3-Trimethylbenzene	7.145	105	220765	40.70	ug/L		96
104) 1,4-Dichlorobenzene	7.106	146	131796	37.94	ug/L		96
105) n-Butylbenzene	7.345	92	110029	41.30	ug/L		97
106) Benzyl Chloride	7.299	126	29901	41.90	ug/L		98
107) 1,2-Dichlorobenzene	7.430	146	119654	39.65	ug/L		96
108) 1,2-Dibromo-3-Chloropr...	8.007	75	14523	43.82	ug/L		95
109) Hexachlorobutadiene	8.515	225	29991	58.93	ug/L		94
110) 1,2,4-Trichlorobenzene	8.507	180	65796	53.87	ug/L		97
111) Naphthalene	8.715	128	161773	63.78	ug/L		97
112) 1,2,3-Trichlorobenzene	8.838	180	54438	63.07	ug/L		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:18:16 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V1A1977-CC1961
Lab FileID: 1A50503.D
Injection Time: 11/06/23 10:56

Method: SW846 8260D
Analyst approved: 11/06/23 11:36 Jenifer Willis
Supervisor approved: 11/07/23 14:04 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:17:45 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
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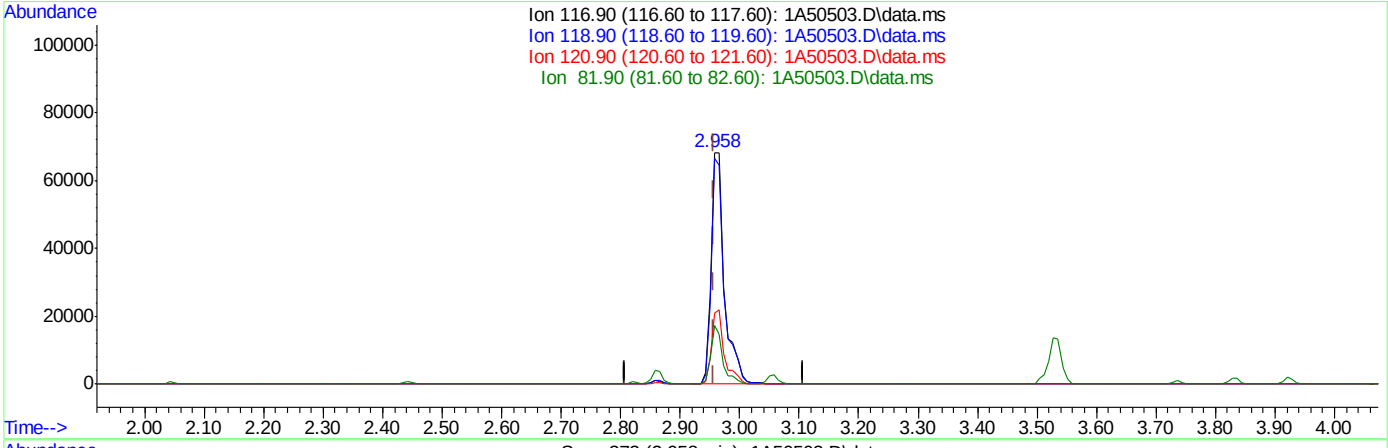
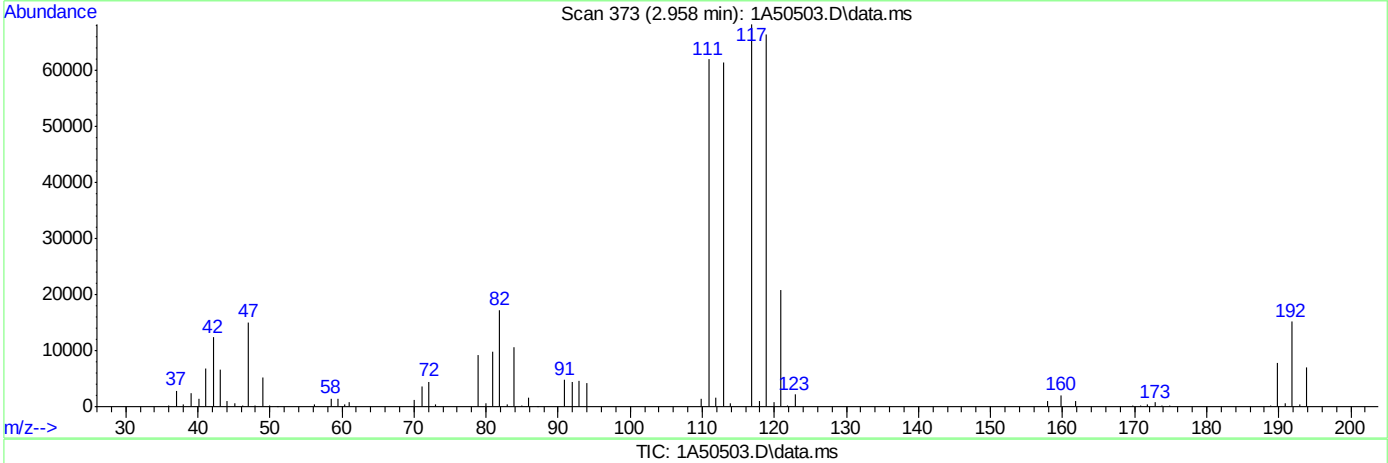
Response via : Initial Calibration





TIC: 1A50503.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 52.40ug/L

response 107223

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.50
120.90	31.10	30.52
81.90	25.40	25.37

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
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Sample : CC1961-5
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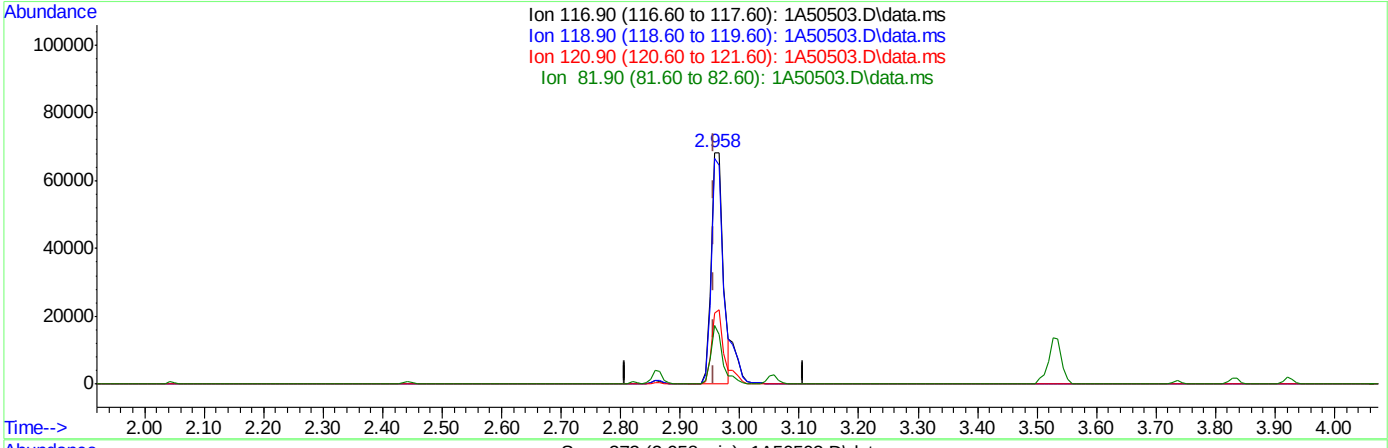
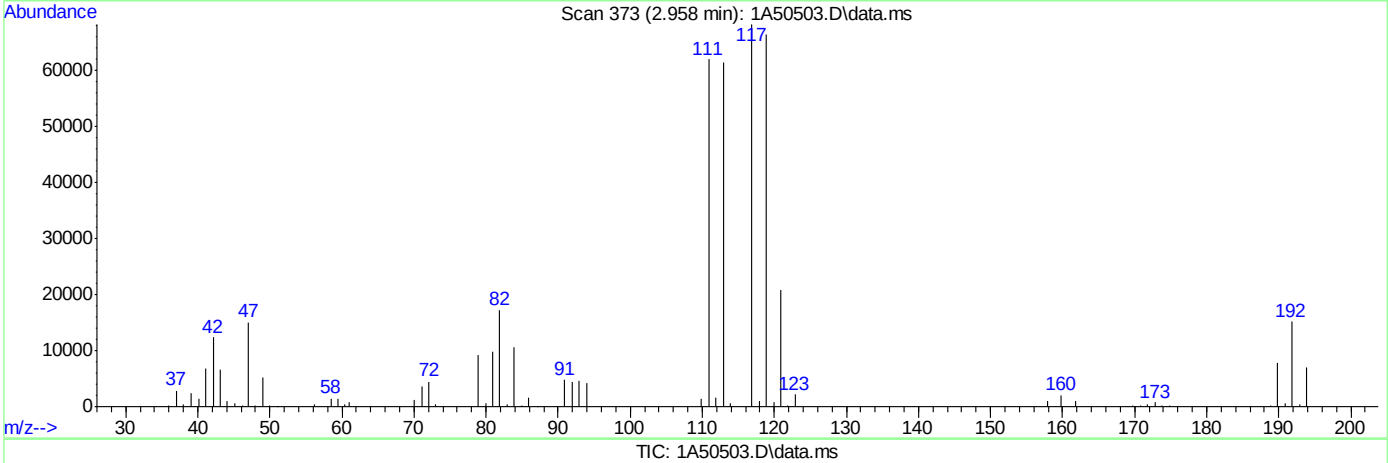




TIC: 1A50503.D\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 46.83ug/L m

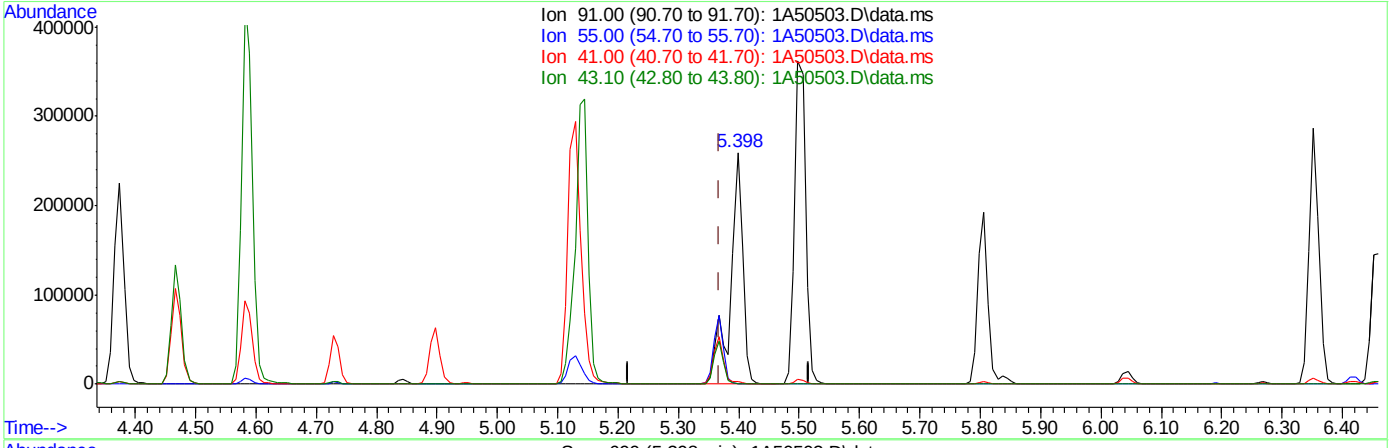
response 95816

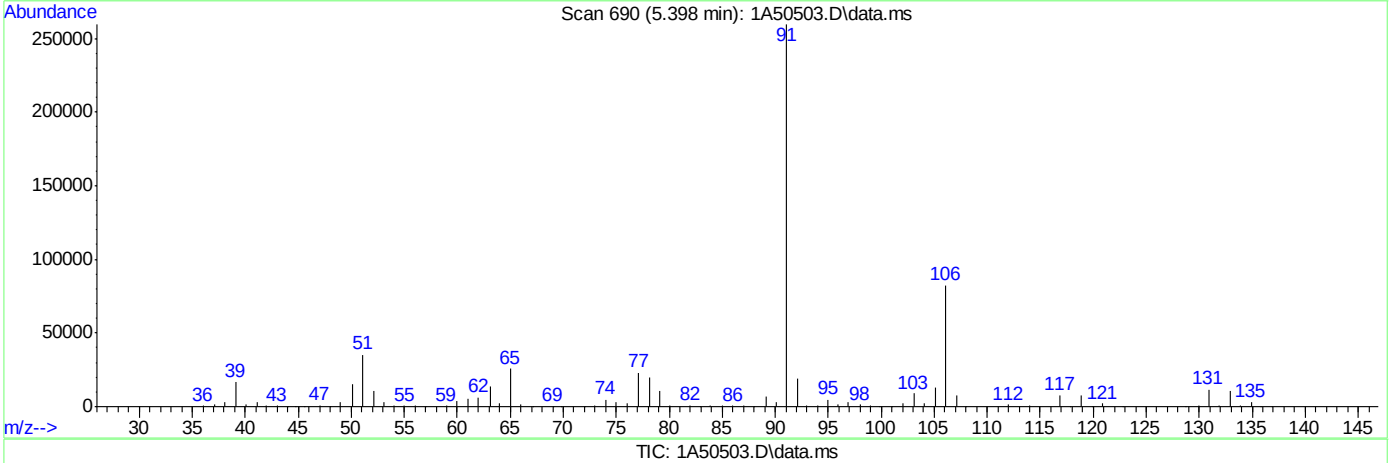
Ion	Exp%	Act%
116.90	100	100
118.90	94.50	97.50
120.90	31.10	30.52
81.90	25.40	25.37

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:17:45 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50503.D\data.ms

(76) 1-Chlorohexane

5.398min (+0.031) 156.68ug/L

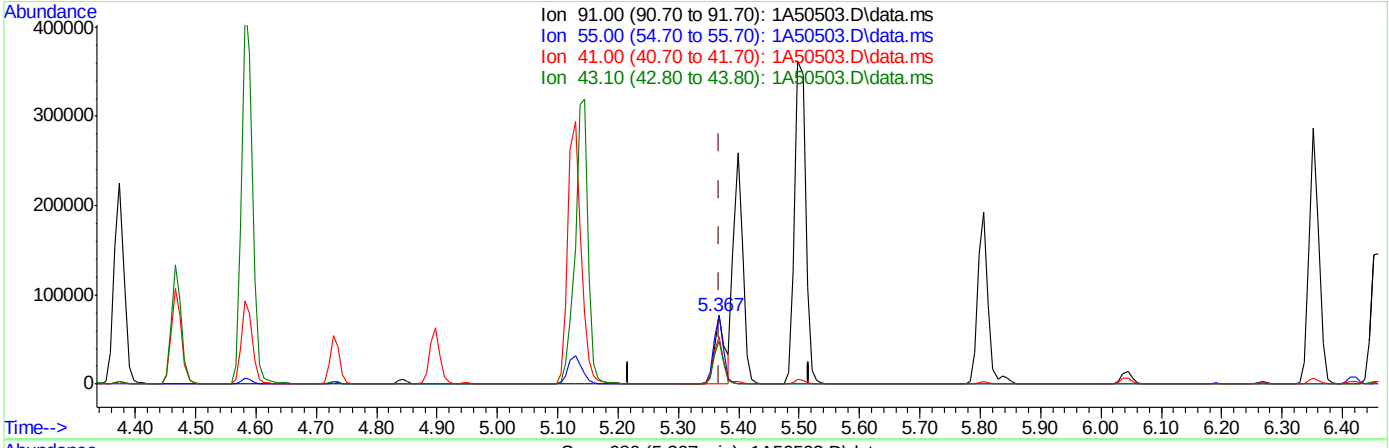
response 370816

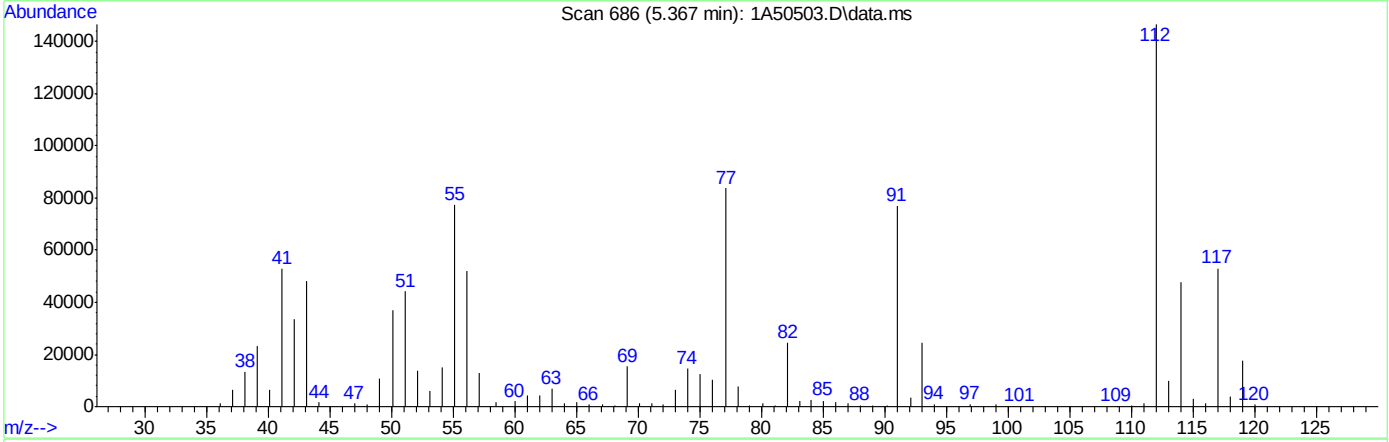
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.20#
41.00	53.90	1.06#
43.10	42.90	0.23#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:17:45 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50503.D\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 39.78ug/L m

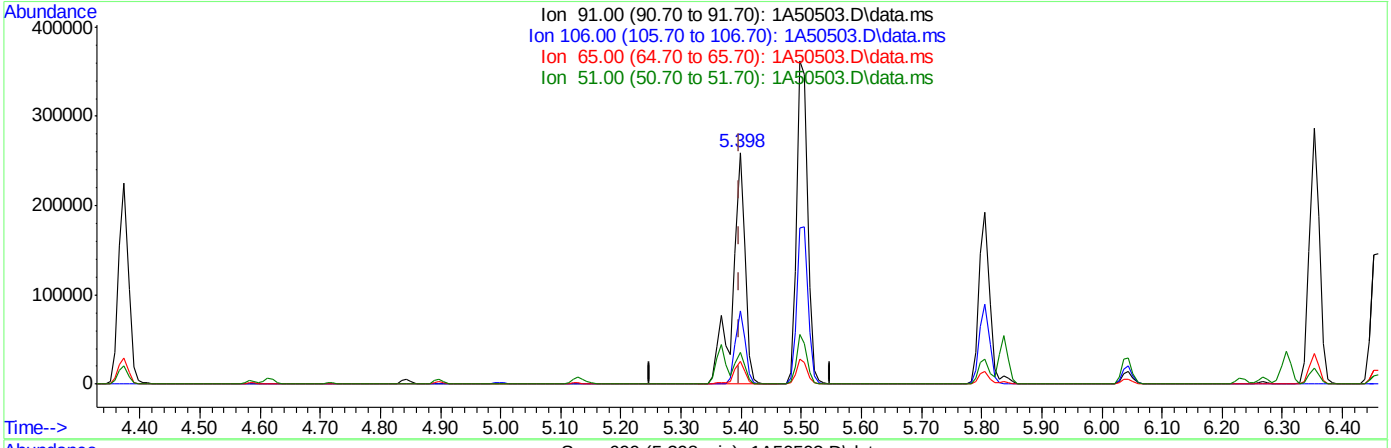
response 94155

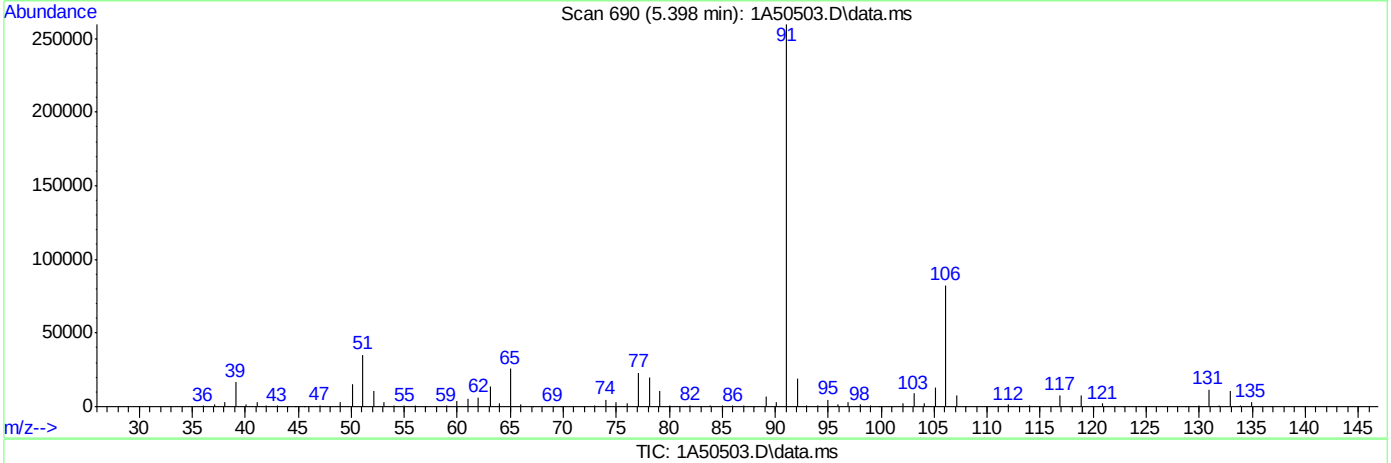
Ion	Exp%	Act%
91.00	100	100
55.00	74.60	100.65#
41.00	53.90	68.65
43.10	42.90	62.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:17:45 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50503.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 54.29ug/L

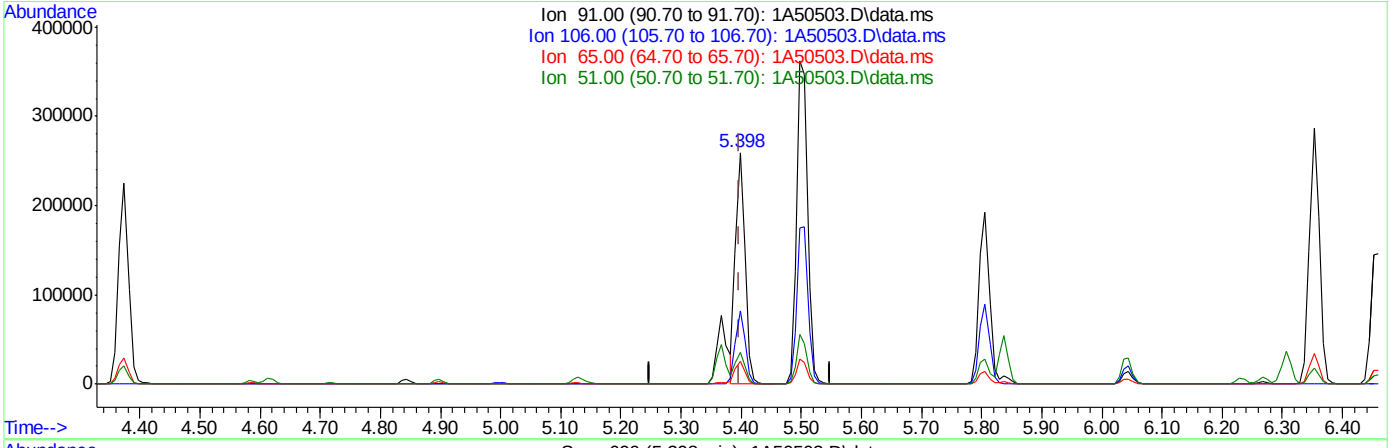
response 371238

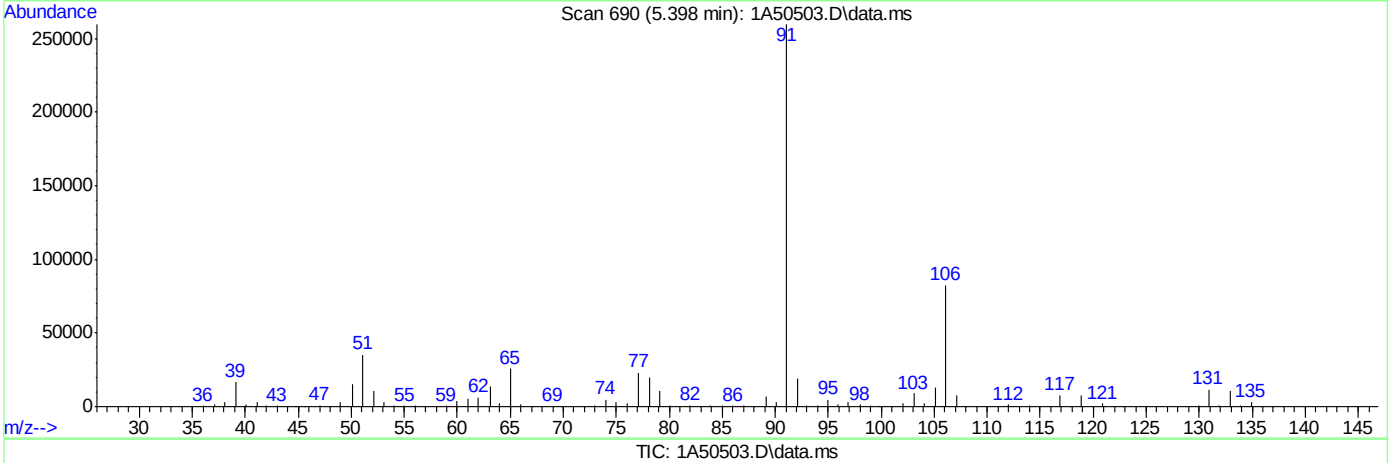
Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.74
65.00	8.30	9.90
51.00	10.10	13.50

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\11-06-2023\
Data File : 1A50503.D
Acq On : 6 Nov 2023 10:56 am
Operator : jeniferw
Sample : CC1961-5
Misc : MS55197,V1A1977,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 11:17:45 2023
Quant Method : C:\msdchem\1\METHODS\V1A_10-23-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration





TIC: 1A50503.D\data.ms

(77) Ethylbenzene

5.398min (-0.000) 40.51ug/L m

response 277026

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.74
65.00	8.30	9.90
51.00	10.10	13.50

Manual Integrations APPROVED (compounds with "m" flag)
Karen Watson
11/07/23 14:04

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A19
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:08:10 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.404	96	214697	50.00	ug/L	0.00
62) Chlorobenzene-d5	5.352	117	174070	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.099	152	95942	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	2.958	113	63553	53.68	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.36%			
49) 1,2-Dichloroethane-d4	3.235	65	87320	56.79	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 113.58%			
63) Toluene-d8	4.336	98	217926	46.64	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 93.28%			
86) 4-Bromofluorobenzene	6.229	174	80700	50.42	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.84%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.019	85	41484	42.5145	ug/L	96
3) Chloromethane	1.126	50	70700	36.1457	ug/L	100
4) 1,3-butadiene	1.180	39	56372	40.5542	ug/L	94
5) Vinyl Chloride	1.172	62	52622	33.5911	ug/L	97
6) Bromomethane	1.342	94	18515	42.5946	ug/L	94
7) Chloroethane	1.411	64	28280	40.4500	ug/L	96
8) Trichlorofluoromethane	1.496	101	72677	43.6482	ug/L	95
9) Ethyl Ether	1.657	59	48035	39.4620	ug/L #	86
10) Ethanol	1.704	45	17074	555.0364	ug/L	90
11) 1,2-Dichlorotrifluoroe...	1.742	67	51836	39.2251	ug/L	93
12) 1,1-Dichloroethene	1.757	61	91008	43.9072	ug/L	84
13) Freon 113	1.780	101	41511	42.4392	ug/L	95
14) Carbon Disulfide	1.780	76	128501	45.4375	ug/L	91
15) Iodomethane	1.827	142	45871	61.4416	ug/L	98
16) Acrolein	1.904	56	84287	196.6373	ug/L	98
17) Allyl chloride	1.996	41	80936	35.6230	ug/L	88
18) Methylene Chloride	2.042	49	100636	43.8211	ug/L	79
19) Acetone	2.050	43	125796	187.2230	ug/L	93
20) Methyl acetate	2.119	43	389144	199.1258	ug/L	88
21) trans-1,2-Dichloroethene	2.135	61	91653	43.0306	ug/L	82
22) Hexane	2.196	56	68392	39.3794	ug/L	93
23) Methyl Tert Butyl Ether	2.188	73	147697	45.2288	ug/L	94
24) Acetonitrile	2.273	41	98213m	371.9079	ug/L	
25) Tert Butyl Alcohol	2.211	59	102838	324.7558	ug/L	98
26) Di-isopropyl ether	2.389	45	229251	39.6526	ug/L	90
27) Chloroprene	2.435	53	282457	38.9476	ug/L	93
28) 1,1-Dichloroethane	2.442	63	113756	42.4479	ug/L	96
29) Acrylonitrile	2.435	52	173020	192.6750	ug/L	98
30) ETBE	2.581	59	213922	44.4313	ug/L	90
31) Vinyl acetate	2.558	43	755441	191.9826	ug/L	99
32) cis-1,2-Dichloroethene	2.719	96	52474	41.6496	ug/L #	70
33) 2,2-Dichloropropane	2.781	77	69304	43.4821	ug/L	98
34) Bromochloromethane	2.820	128	27233	44.3368	ug/L #	64
35) Cyclohexane	2.858	56	125490	41.9217	ug/L #	80
36) Chloroform	2.858	83	96018	44.2392	ug/L	94
37) Ethyl acetate	2.912	43	442301	184.7658	ug/L	97
38) Tetrahydrofuran	2.943	42	34071	39.1788	ug/L	84
40) Carbon Tetrachloride	2.958	117	80971m	48.1234	ug/L	
41) 1,1,1-Trichloroethane	2.989	97	86171	47.6775	ug/L	94
42) 2-Butanone	3.004	43	232136	180.3328	ug/L	84
43) 1,1-Dichloropropene	3.050	75	65586	42.6458	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:08:10 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tert-Butyl formate	3.097	59	324707	233.7145	ug/L		94
45) Propionitrile	3.143	54	141488	385.5688	ug/L		96
46) Methacrylonitrile	3.166	41	527009	351.4245	ug/L		97
47) Benzene	3.181	78	194842	41.7827	ug/L		84
48) TAME	3.251	73	144639	44.6830	ug/L	#	71
50) 1,2-Dichloroethane	3.274	62	94542	45.8954	ug/L		95
51) Isobutyl Alcohol	3.258	43	143945	661.6418	ug/L		98
52) Tert Amyl Alcohol	3.320	59	90752	348.7547	ug/L		87
53) Trichloroethene	3.512	95	54238	41.9946	ug/L		98
54) Methylcyclohexane	3.528	83	85084	42.4146	ug/L	#	73
55) Dibromomethane	3.735	93	33966	42.1488	ug/L		92
56) 1,2-Dichloropropane	3.797	63	64491	40.2150	ug/L		90
57) Bromodichloromethane	3.828	83	74545	44.6596	ug/L	#	96
58) Methyl methacrylate	3.920	41	73010	36.2432	ug/L	#	84
59) 1,4-Dioxane	3.943	88	9196	522.2059	ug/L		66
60) 2-Chloroethyl vinyl ether	4.166	63	182511	189.3769	ug/L		88
61) cis-1,3-Dichloropropene	4.213	75	80279	42.0965	ug/L		85
64) Toluene	4.374	91	204056	36.9074	ug/L		98
65) 2-Nitropropane	4.467	41	115174	184.8961	ug/L		97
66) 4-Methyl-2-pentanone	4.582	43	470495	168.0910	ug/L		96
67) trans-1,3-Dichloropropene	4.613	75	79100	39.0471	ug/L		89
68) Tetrachloroethene	4.636	166	65504	35.2291	ug/L		98
69) Ethyl methacrylate	4.728	69	57391	34.7264	ug/L	#	78
70) 1,1,2-Trichloroethane	4.721	83	39626	35.5603	ug/L		88
71) Dibromochloromethane	4.844	129	58701	41.3343	ug/L		98
72) 1,3-Dichloropropane	4.898	76	78904	37.6463	ug/L		85
73) 1,2-Dibromoethane	4.998	107	52727	38.7325	ug/L		99
74) 3,3-Dimethyl-1-Butanol	5.128	57	557886	1557.9896	ug/L		85
75) 2-hexanone	5.144	43	425370	158.8143	ug/L	#	71
76) 1-Chlorohexane	5.367	91	74901m	36.9757	ug/L		
77) Ethylbenzene	5.398	91	222462m	38.0080	ug/L		
78) Chlorobenzene	5.367	112	138365	37.0726	ug/L		93
79) 1,1,1,2-Tetrachloroethane	5.413	131	55542	40.3960	ug/L		97
80) m,p-Xylene	5.498	91	371578	78.7237	ug/L		99
81) o-Xylene	5.806	91	193338	40.1678	ug/L		99
82) Styrene	5.836	104	146763	41.1919	ug/L		93
83) Bromoform	5.844	173	42619	41.4135	ug/L		96
84) Isopropylbenzene	6.044	105	225463	40.5516	ug/L		98
87) cis-1,4-Dichloro-2-butene	6.267	53	18476	25.6506	ug/L	#	79
88) n-Propylbenzene	6.352	91	262682	35.8901	ug/L		95
89) Bromobenzene	6.306	156	59851	37.6813	ug/L		91
90) 1,1,2,2-Tetrachloroethane	6.375	83	66352	33.1896	ug/L		97
91) 1,3,5-Trimethylbenzene	6.506	105	191594	38.8574	ug/L		97
92) 2-Chlorotoluene	6.460	91	158041	36.4353	ug/L		98
93) trans-1,4-Dichloro-2-B...	6.506	53	27058	28.2325	ug/L	#	74
94) 1,2,3-Trichloropropane	6.468	110	21370	37.7574	ug/L	#	75
95) Cyclohexanone	6.483	55	14958	124.2620	ug/L		87
96) 4-Chlorotoluene	6.583	91	164956	36.2371	ug/L		98
97) tert-Butylbenzene	6.752	91	109778	39.6271	ug/L		94
98) 1,2,4-Trimethylbenzene	6.806	105	185564	39.6223	ug/L		100
99) Pentachloroethane	6.752	167	33087	46.6481	ug/L	#	69
100) sec-Butylbenzene	6.891	105	231227	37.7031	ug/L		98
101) 4-Isopropyltoluene	7.014	119	201252	40.6419	ug/L		98
102) 1,3-Dichlorobenzene	7.037	146	112106	38.0924	ug/L		96
103) 1,2,3-Trimethylbenzene	7.145	105	185719	38.8676	ug/L		97
104) 1,4-Dichlorobenzene	7.106	146	112283	36.6969	ug/L		96
105) n-Butylbenzene	7.345	92	88534	37.7285	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:08:10 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	7.299	126	22467	35.7396	ug/L	98
107) 1,2-Dichlorobenzene	7.430	146	100687	37.8754	ug/L	97
108) 1,2-Dibromo-3-Chloropr...	8.007	75	12680	43.4378	ug/L	91
109) Hexachlorobutadiene	8.515	225	25590	57.0830	ug/L	92
110) 1,2,4-Trichlorobenzene	8.499	180	52089	48.4131	ug/L	94
111) Naphthalene	8.707	128	126780	56.7405	ug/L	97
112) 1,2,3-Trichlorobenzene	8.838	180	44573	58.6215	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

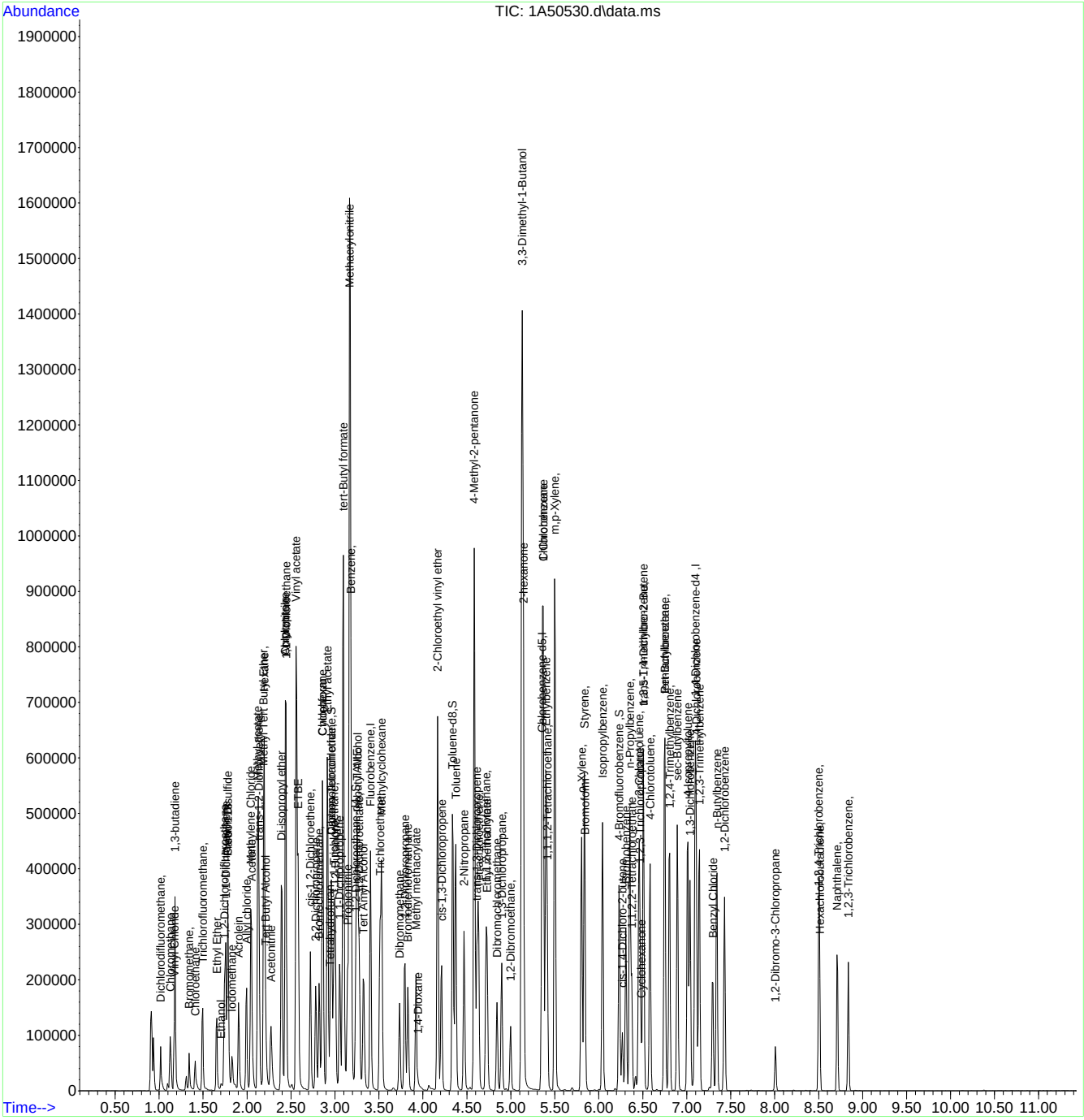
8.6.11

8

Quantitation Report (QT Reviewed)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:08:10 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



Manual Integration Approval Summary

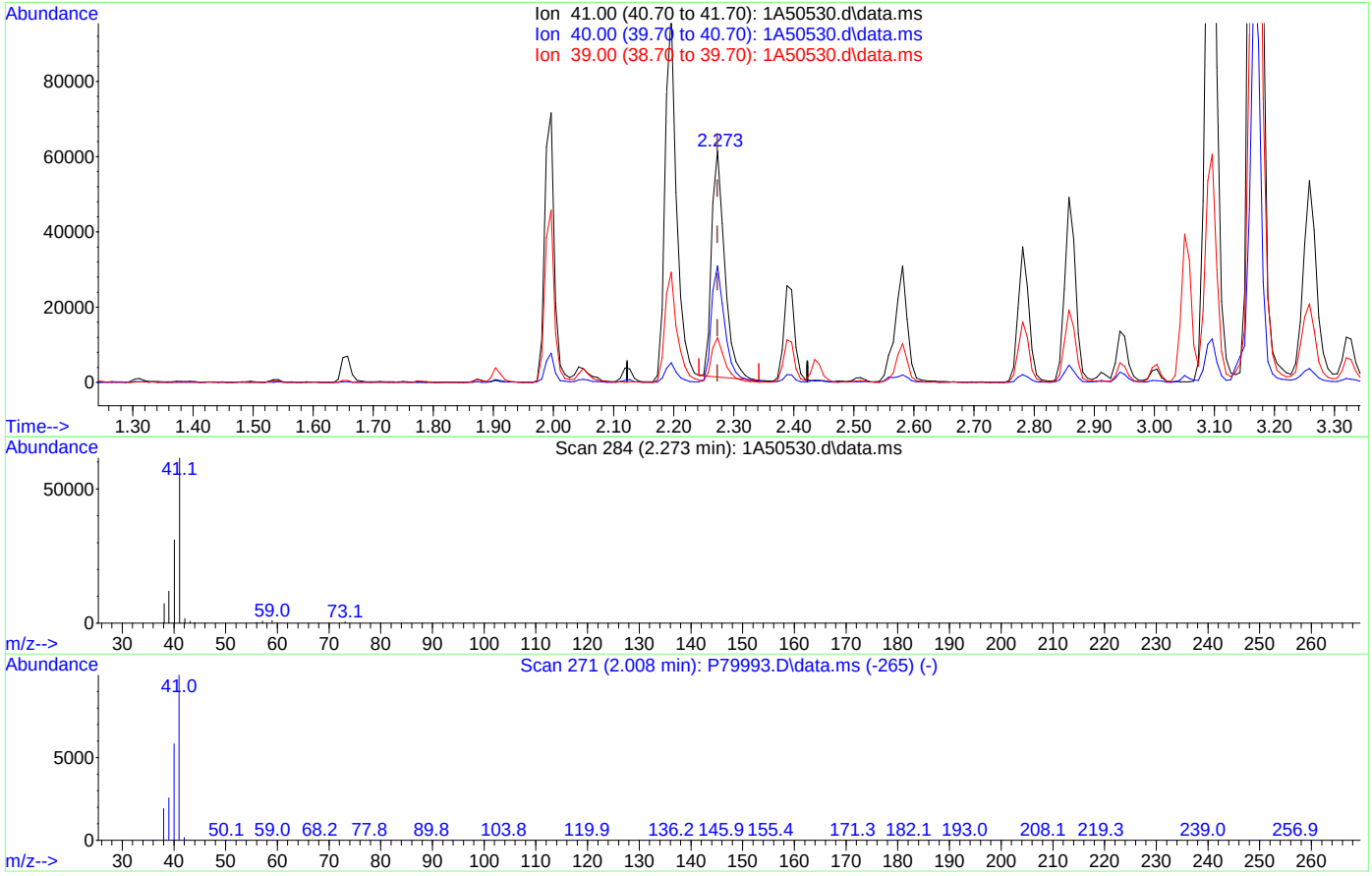
Sample Number: V1A1977-ECC1961 **Method:** SW846 8260D
Lab FileID: 1A50530.D **Analyst approved:** 11/07/23 11:41 Jenifer Willis
Injection Time: 11/06/23 21:56 **Supervisor approved:** 11/07/23 14:04 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		2.27	Poorly defined baseline
Carbon Tetrachloride	56-23-5		2.96	Overlapping peak
1-Chlorohexane	544-10-5		5.37	Overlapping peak
Ethylbenzene	100-41-4		5.40	Overlapping peak

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(24) Acetonitrile

2.273min (+0.000) 344.04ug/L

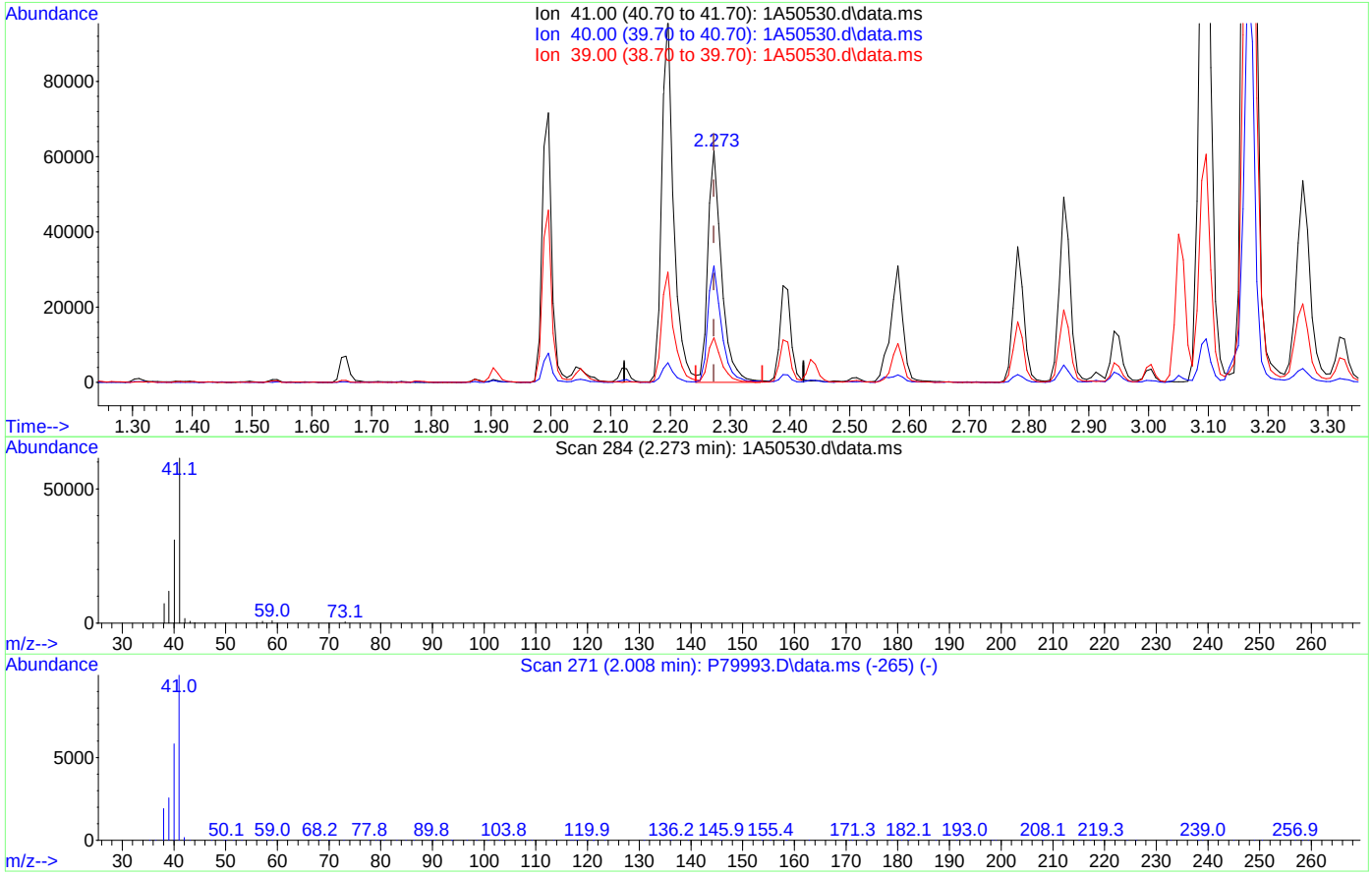
response 90853

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	50.44
39.00	21.10	19.49
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(24) Acetonitrile

2.273min (+0.000) 371.91ug/L m

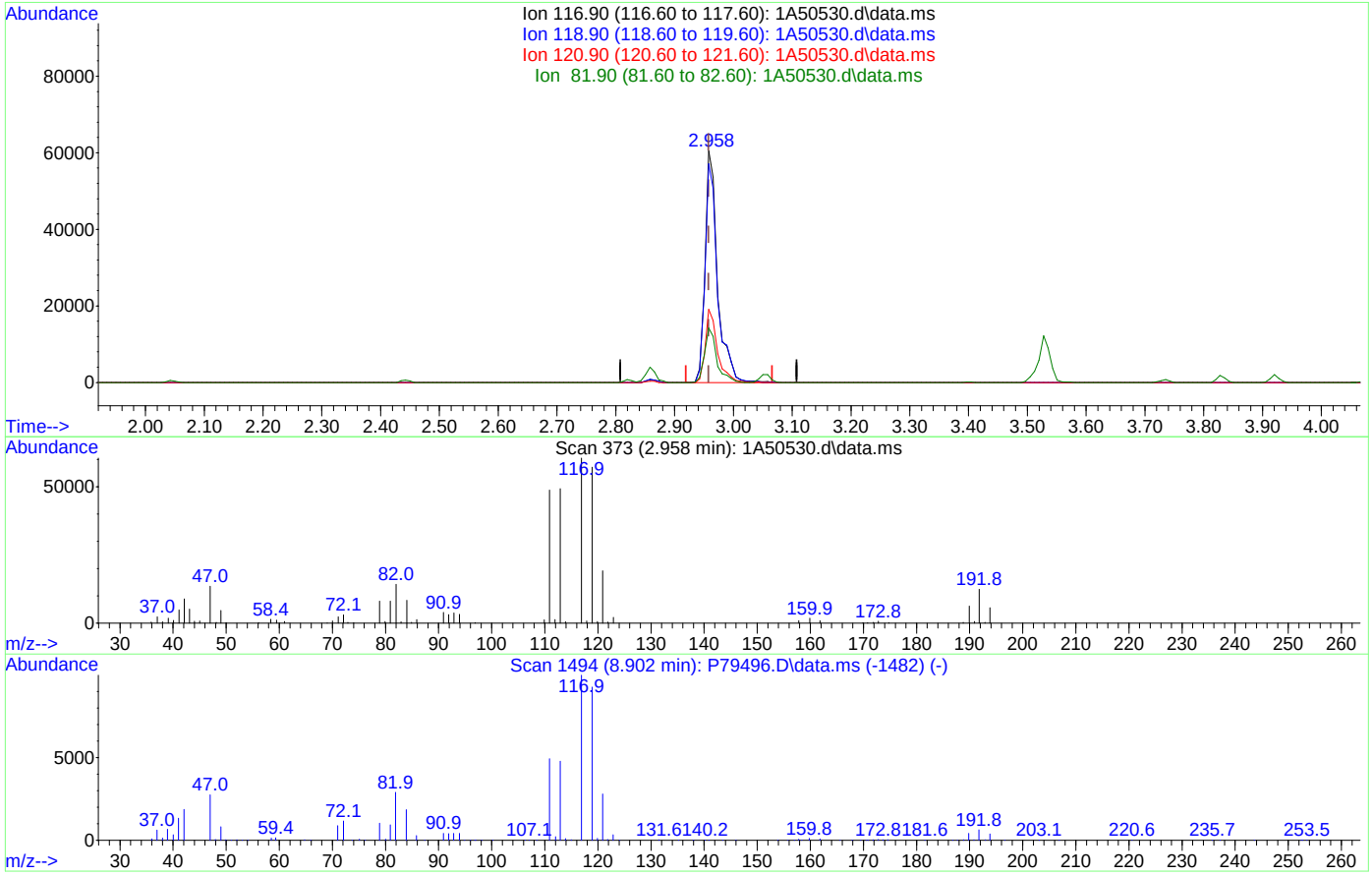
response 98213

Ion	Exp%	Act%
41.00	100	100
40.00	54.10	50.34
39.00	21.10	19.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 53.32ug/L

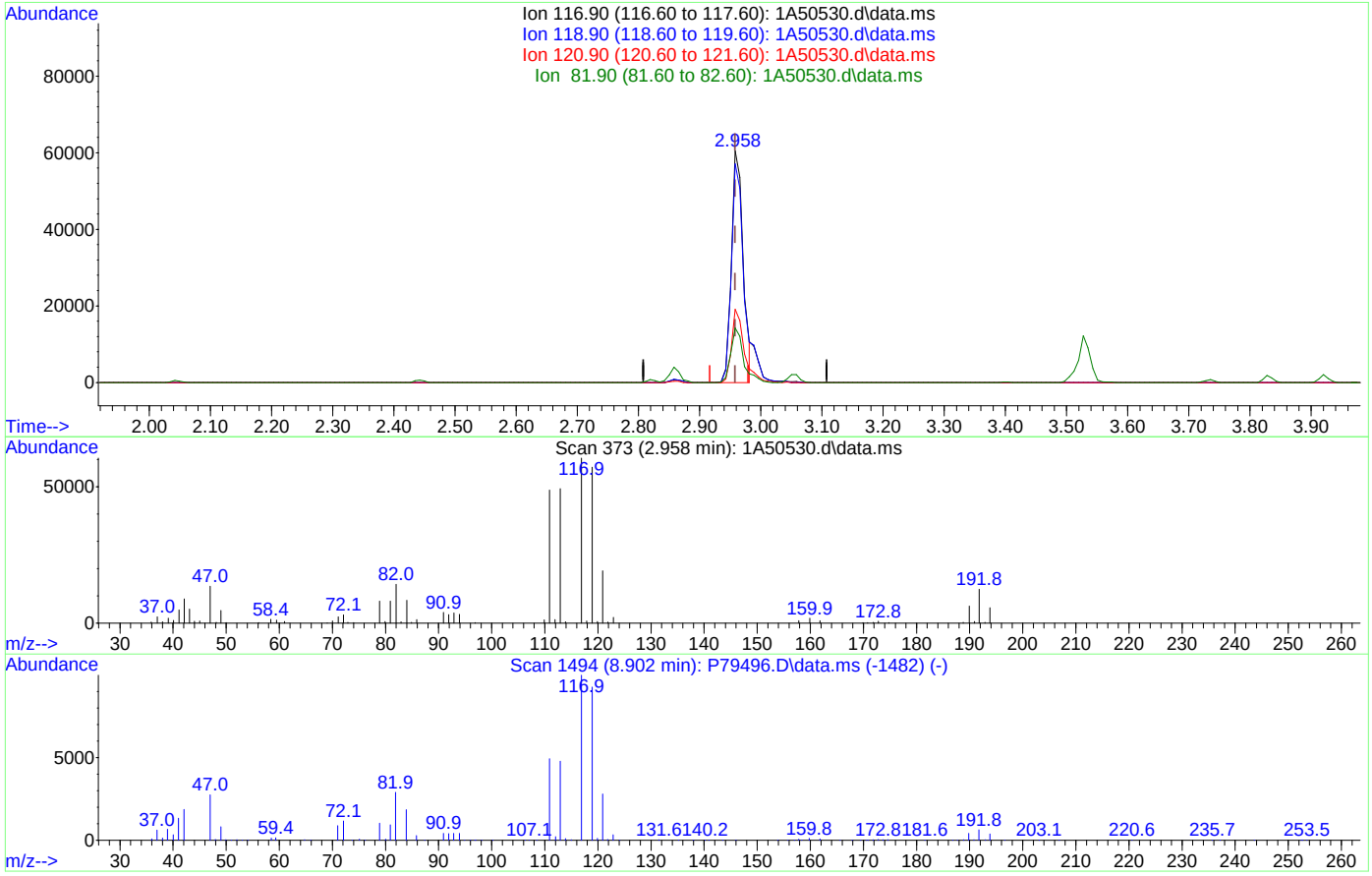
response 89711

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.38
120.90	31.10	31.60
81.90	25.40	23.53

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(40) Carbon Tetrachloride ( )

2.958min (+0.000) 48.12ug/L m

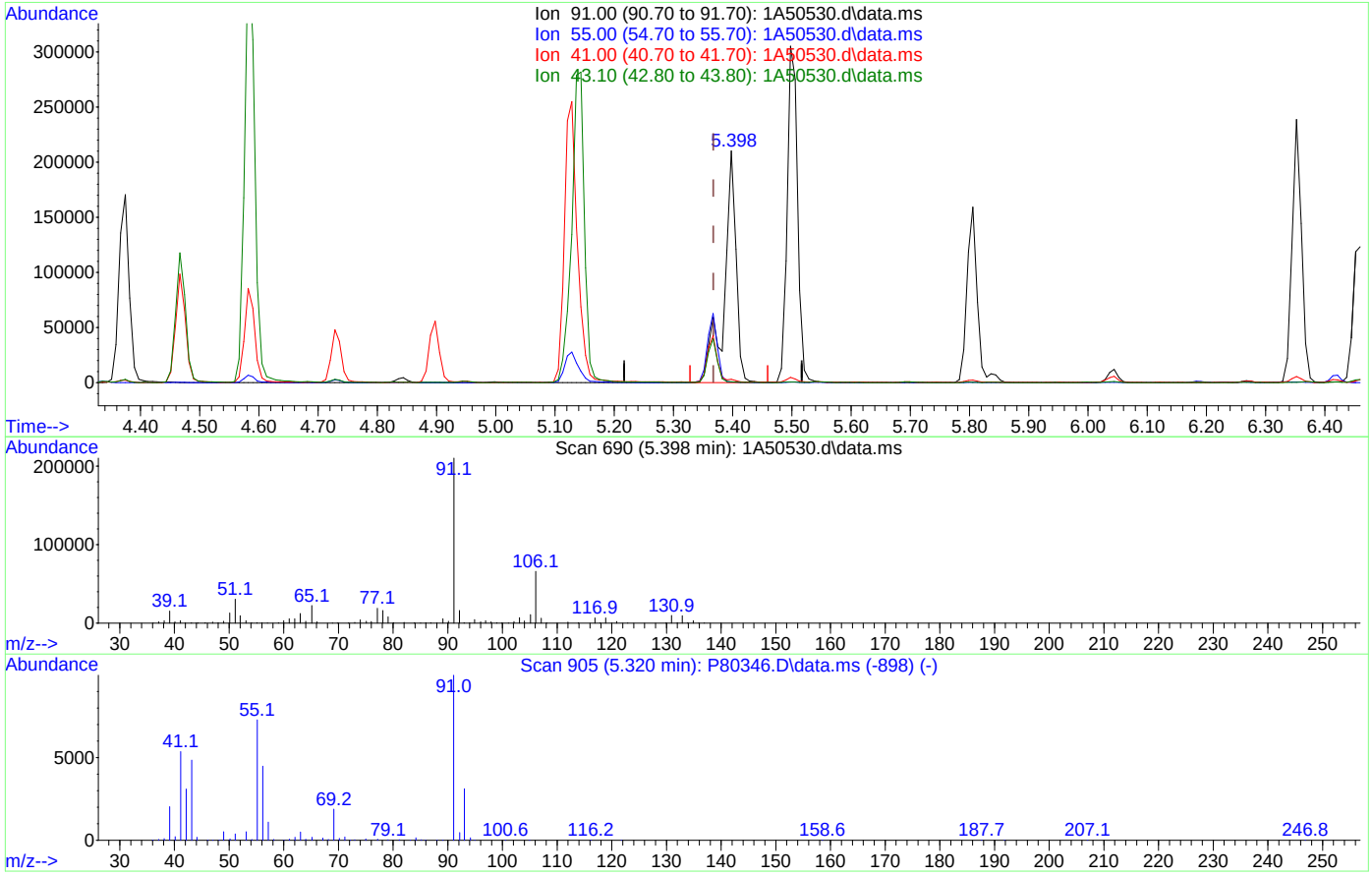
response 80971

Ion	Exp%	Act%
116.90	100	100
118.90	94.50	94.38
120.90	31.10	31.60
81.90	25.40	23.53

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(76) 1-Chlorohexane

5.398min (+0.030) 146.81ug/L

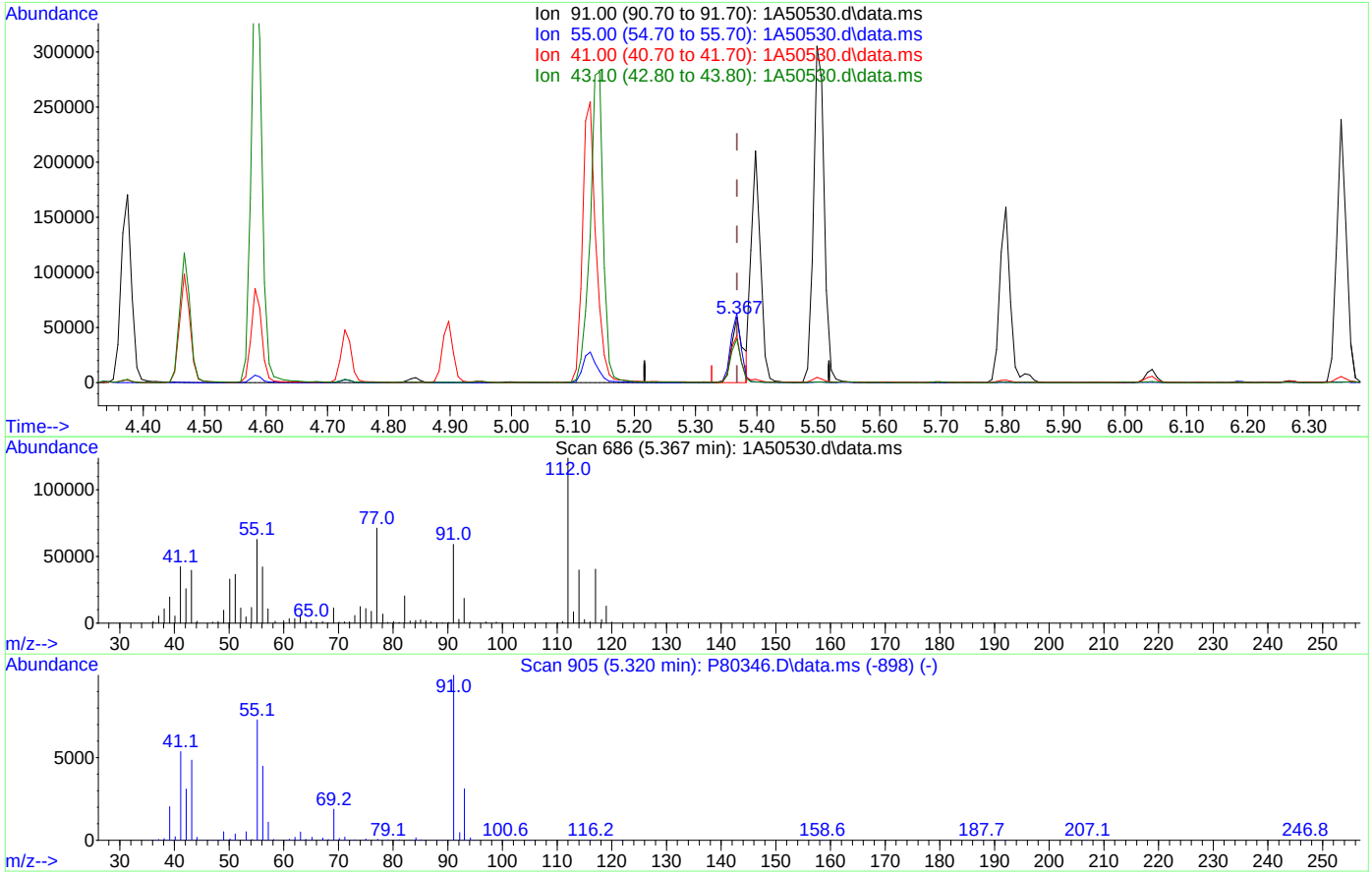
response 297380

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	0.20#
41.00	53.90	1.24#
43.10	42.90	0.23#

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(76) 1-Chlorohexane

5.367min (-0.000) 36.98ug/L m

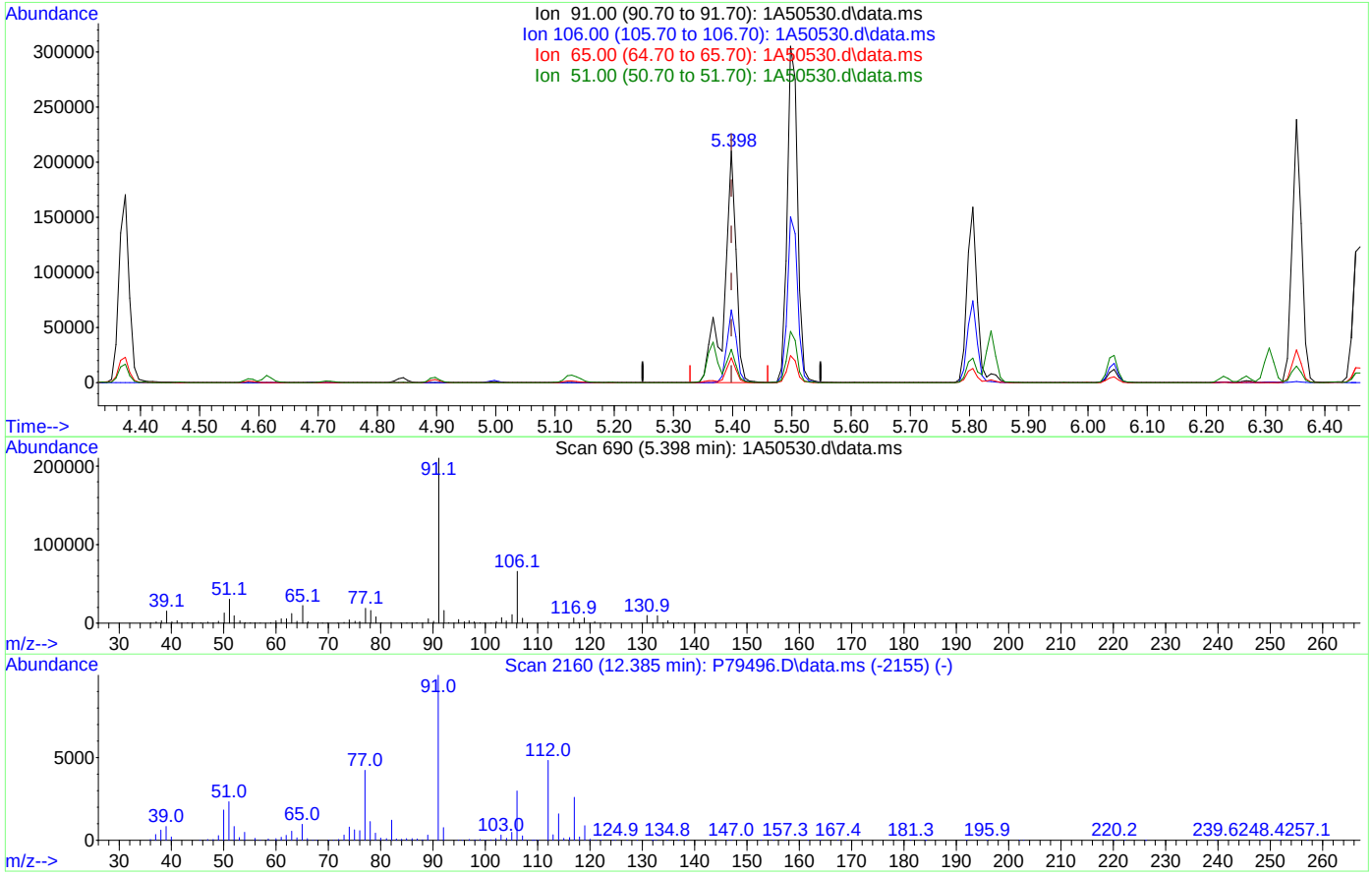
response 74901

Ion	Exp%	Act%
91.00	100	100
55.00	74.60	106.29#
41.00	53.90	71.80
43.10	42.90	67.13#

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 50.81ug/L

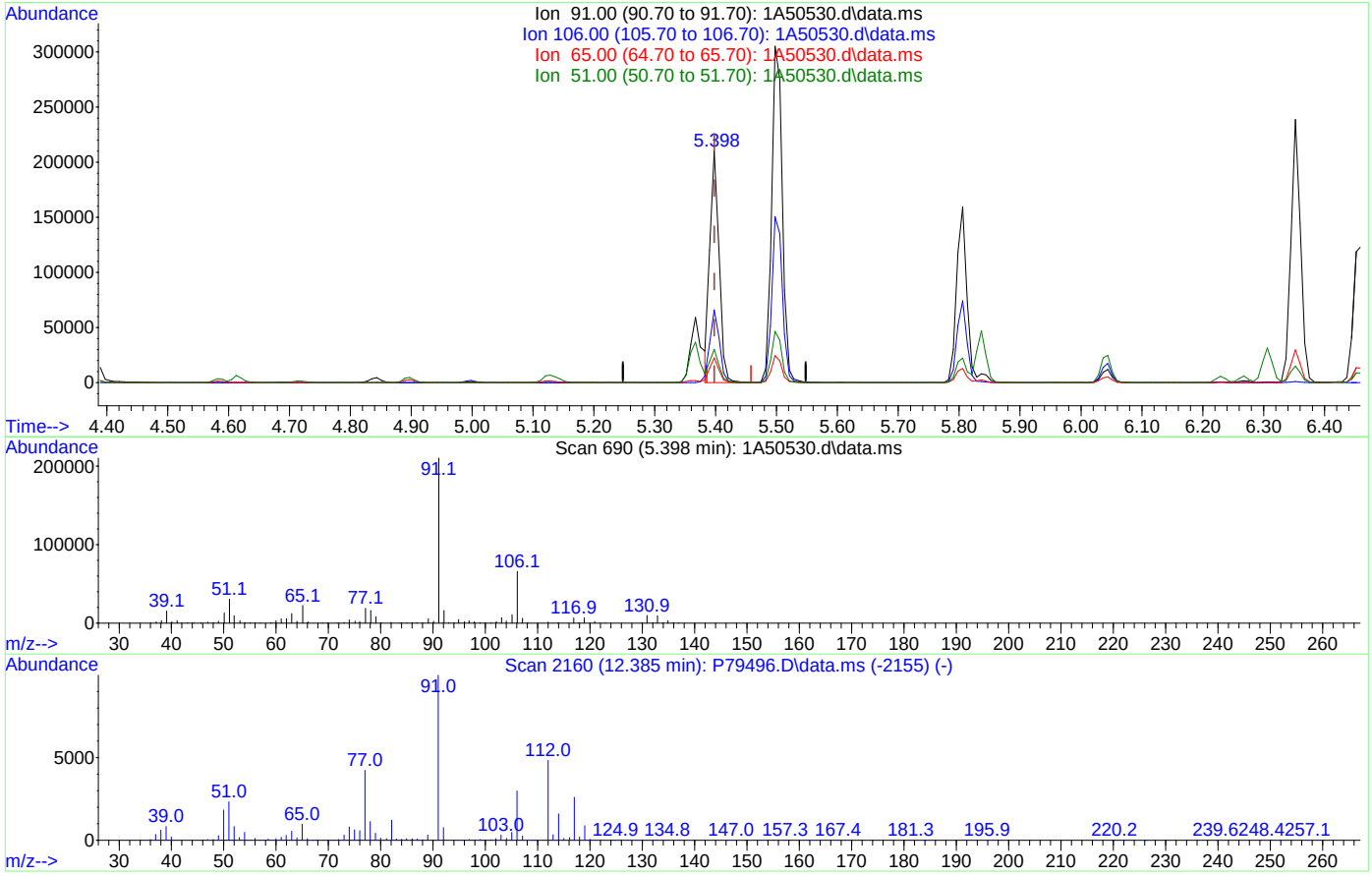
response 297380

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.32
65.00	8.30	10.59
51.00	10.10	14.38

Quantitation Report (Qedit)

Data Path : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\V1A1977-78\
Data File : 1A50530.d
Acq On : 6 Nov 2023 9:56 pm
Operator : jeniferw
Sample : ECC1961-5 Inst : MSVOA17
Misc : MS55217,V1A1978,,,,,
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Nov 07 03:05:38 2023
Quant Method : X:\Orlando VOA\celinec\November 2023\11-07-2023\V1A1977-1978\method\V1A_10-23-2023
... .M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Mon Oct 23 13:18:22 2023
Response via : Initial Calibration



TIC: 1A50530.d\data.ms

(77) Ethylbenzene

5.398min (-0.000) 38.01ug/L m

response 222462

Ion	Exp%	Act%
91.00	100	100
106.00	32.00	31.32
65.00	8.30	10.59
51.00	10.10	14.38

SGS -ORLANDO **VOA-GCMS ANALYSIS LOG**

Instrument:	MSVOA17-1A
Date:	10/23/2023
Analyst:	Jenifer W
Column Type	RTXVMS
Detector	5975C-MSD
Purge Pressure	1.4 psi
Purge Volume	5mL

Method(s):	VMS8260
Method File:	V1A_10-02-2023.M
Calibration Date:	10/2/2023
Acq. Method:	8260_NITROGEN40.M
EM Voltage:	1765V
Run ID:	**V1A1961**

BFB:	VS3452
ICAL/CC:	VS3457, VS3489, VS3499
VS3476, VS3477, VS3481,VS3497,,	
ICV/BS:	VS3472, VS3490, VS3500
VS3470, VS3469, VS3498,	
ISTD/Surr.:	VS3452

pH Paper Lot#:	230320A/206722
KI Paper Lot#:	14-860 05/09/2022
AFA Lot#:	VS3432
Data processed by:	Jeniferw / Celine C.
Sample ID Ver. by:	Jenifer W
Date Verified:	10/23/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
1A50133	BFB	-	-	Water	1	-	-	-	-	Autofind Tune Passed ✓
1A50134	IC1961-1	-	-	Water	2	-	-	-	-	
1A50135	IC1961-8	-	-	Water	3	-	-	-	-	
1A50136	IC1961-2	-	-	Water	4	-	-	-	-	
1A50137	IC1961-3	-	-	Water	5	-	-	-	-	
1A50138	IC1961-4	-	-	Water	6	-	-	-	-	
1A50139	ICC1961-5	-	-	Water	7	-	-	-	-	
1A50140	IC1961-6	-	-	Water	8	-	-	-	-	
1A50141	IC1961-7	-	-	Water	9	-	-	-	-	
1A50142	rinse	-	-	Water	10	-	-	-	-	
1A50143	ICV1961-5	-	-	Water	11	-	-	-	-	
1A50143A	CC1961-5	-	-	Water	11	-	-	-	-	20uL→50mL(OP)#40,76,77 ✓
1A50144	BS	-	-	Water	12	-	-	-	-	12.5uL→50mL(OP)#40,76,77 ✓
1A50145	rinse	-	-	Water	13	-	-	-	-	-
1A50146	MB	-	-	Water	14	-	-	-	-	AFA, ND ✓
1A50147	FC10555-5	1x	1	Water	15	MS55115	1	N	-	ND ✓
1A50148	**FC10579-9**	1x	2	Water	16	MS55115	1	N	**1x**	#100(MP) **DOD: VA (ECC) low**
1A50149	**FC10579-8**	1x	1	Water	17	MS55115	1	N	**1x**	**DOD: VA (ECC) low**
1A50150	**FC10579-10**	1x	1	Water	18	MS55115	1	N	**1x**	**DOD: VA (ECC) low**
1A50151	**FC10579-11**	1x	1	Water	19	MS55115	1	N	**1x**	**DOD: VA (ECC) low**
1A50152	**FC10579-12**	1x	1	Water	20	MS55115	1	N	**1x**	#100(MP) #101(OP) **DOD: VA (ECC) low**
1A50153	FC10555-1	1x	1	Water	21	MS55115	1	N	-	✓
1A50154	FC10555-2 25x	25x	1	Water	22	MS55115	1	N	-	2mL→50mL ✓
1A50155	FC10555-3 25x	25x	1	Water	23	MS55115	1	N	-	2mL→50mL ✓
1A50156	FC10555-4 2.5x	2.5x	1	Water	24	MS55115	1	N	-	20mL→50mL ✓
1A50157	FC10579-9MS	5x	1	Water	25	MS55115	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50158	FC10579-9MSD	5x	1	Water	26	MS55115	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50159	ECC1961-5	-	-	Water	27	-	-	-	-	20uL→50mL(OP)#40,76,77 ✓

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous Liquid, and "TCLP" or "SPLP" for Leachate
Manual Integration Rational SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

SGS -ORLANDO **VOA-GCMS ANALYSIS LOG**

Instrument:	MSVOA17-1A
Date:	11/06/2023
Analyst:	Jenifer W
Column Type	RTXVMS
Detector	5975C-MSD
Purge Pressure	1.4 psi
Purge Volume	5mL

Method(s):	VMS8260
Method File:	V1A_10-23-2023.M
Calibration Date:	10/23/2023
Acq. Method:	8260_NITROGEN40.M
EM Voltage:	1624V
Run ID:	**V1A1977/V1A1978**

BFB:	VS3507
ICAL/CC:	VS3523, VS3489, VS3524
VS3510, VS3525, VS3518,VS3526,,	
ICV/BS:	VS3533, VS3534, VS3487
VS3528, VS3536, VS3535,	
ISTD/Surr.:	VS3507

pH Paper Lot#:	230320A/206722
KI Paper Lot#:	14-860 05/09/2022
AFA Lot#:	VS3432
Data processed by:	Jenfier W / Celine C.
Sample ID Ver. by:	Jenifer W.
Date Verified:	11/06/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
1A50502	BFB	-	-	Water	1	-	-	-	-	Autofind Tune Passed ✓
1A50503	CC1961-5	-	-	Water	2	-	-	-	-	40uL→100mL (OP)#40,76,77 ✓
1A50504	BS	-	-	Water	3	-	-	-	-	25uL→100mL (OP)#40,76,77 ✓
1A50505	rinse	-	-	Water	4	-	-	-	-	-
1A50506	MB	-	-	Water	5	-	-	-	-	AFA, ND ✓
1A50507	CC1961-1	-	-	Water	6	-	-	-	-	1uL→100mL
1A50508	FC10885-1	1x	1	Water	7	MS55218	1	N	-	ND ✓
1A50509	FC10899-3	1x	1	Water	8	MS55218	1	N	-	ND ✓
1A50510	FC10885-3	1x	9	Water	9	MS55218	1	N	-	ND ✓
1A50511	**FC10927-1 25X**	25x	1	Water	10	MS55217	7	N	**10x**	AFA, 2mL→50mL **Overdiluted**
1A50512	FC10918-1	1x	1	Water	11	MS55217	1	N	**-**	ND ✓
1A50513	FC10918-2	1x	1	Water	12	MS55217	1	N	**-**	✓
1A50514	FC10918-3	1x	3	Water	13	MS55217	1	N	**-**	AFA ✓
1A50515	FC10955-1A	1x	1	Water	14	MS55217	1	N	**-**	
1A50516	**FC10953-1**	1x	1	Water	15	MS55217	1	N	**2x**	**1,2,4-TCB O/R; 1,2,3-TCB (CCV,BS) hit**
1A50517	FC10953-2	1x	1	Water	16	MS55217	7	N	**-**	ND ✓
1A50518	FC10953-3	1x	1	Water	17	MS55217	1	N	**-**	✓
1A50519	**FC10892-1 5x**	5x	1	Water	18	MS55218	7	N	**2x**	AFA, 10mL→50mL **Overdiluted**
1A50520	FC10885-2	1x	4	Water	19	MS55218	1	N	**-**	✓
1A50521	FC10885-4	1x	4	Water	20	MS55218	1	N	**-**	ND ✓
1A50522	FC10899-1	1x	1	Water	21	MS55218	1	N	**-**	AFA ✓
1A50523	FC10899-2	1x	1	Water	22	MS55218	7	N	**-**	AFA ✓
1A50524	FC10847-4	1x	2	Water	23	MS55218	1	N	**-**	#100(MP) ✓
1A50525	FC10847-5	1x	2	Water	24	MS55218	1	N	**-**	✓
1A50526	FC10885-3MS	1x	10	Water	25	MS55218	1	N	-	10.5uL→40mL (OP)#40,76,77
1A50527	FC10885-3MSD	1x	11	Water	26	MS55218	1	N	-	10.5uL→40mL (OP)#40,76,77
1A50528	FC10918-1MS	5x	2	Water	27	MS55217	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50529	FC10918-1MSD	5x	2	Water	28	MS55217	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50530	ECC1961-5	-	-	Water	29	-	-	-	-	40uL→100mL (OP)#40,76,77 ü

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous LIquid, and "TCLP" or "SPLP" for Leachate
Manual Integration Rational SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA17-1A
Date:	11/06/2023
Analyst:	Jenifer W
Column Type	RTXVMS
Detector	5975C-MSD
Purge Pressure	1.4 psi
Purge Volume	5mL

Method(s):	VMS8260
Method File:	V1A_10-23-2023.M
Calibration Date:	10/23/2023
Acq. Method:	8260_NITROGEN40.M
EM Voltage:	1624V
Run ID:	**V1A1977/V1A1978**

BFB:	VS3507
ICAL/CC:	VS3523, VS3489, VS3524
VS3510, VS3525, VS3518,VS3526,,	
ICV/BS:	VS3533, VS3534, VS3487
VS3528, VS3536, VS3535,	
ISTD/Surr.:	VS3507

pH Paper Lot#:	230320A/206722
KI Paper Lot#:	14-860 05/09/2022
AFA Lot#:	VS3432
Data processed by:	Jenfier W / Celine C.
Sample ID Ver. by:	Jenifer W.
Date Verified:	11/06/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
1A50502	BFB	-	-	Water	1	-	-	-	-	Autofind Tune Passed ✓
1A50503	CC1961-5	-	-	Water	2	-	-	-	-	40uL→100mL (OP)#40,76,77 ✓
1A50504	BS	-	-	Water	3	-	-	-	-	25uL→100mL (OP)#40,76,77 ✓
1A50505	rinse	-	-	Water	4	-	-	-	-	-
1A50506	MB	-	-	Water	5	-	-	-	-	AFA, ND ✓
1A50507	CC1961-1	-	-	Water	6	-	-	-	-	1uL→100mL
1A50508	FC10885-1	1x	1	Water	7	MS55218	1	N	-	ND ✓
1A50509	FC10899-3	1x	1	Water	8	MS55218	1	N	-	ND ✓
1A50510	FC10885-3	1x	9	Water	9	MS55218	1	N	-	ND ✓
1A50511	**FC10927-1 25X**	25x	1	Water	10	MS55217	7	N	**10x**	AFA, 2mL→50mL **Overdiluted**
1A50512	FC10918-1	1x	1	Water	11	MS55217	1	N	**-**	ND ✓
1A50513	FC10918-2	1x	1	Water	12	MS55217	1	N	**-**	✓
1A50514	FC10918-3	1x	3	Water	13	MS55217	1	N	**-**	AFA ✓
1A50515	FC10955-1A	1x	1	Water	14	MS55217	1	N	**-**	
1A50516	**FC10953-1**	1x	1	Water	15	MS55217	1	N	**2x**	**1,2,4-TCB O/R; 1,2,3-TCB (CCV,BS) hit**
1A50517	FC10953-2	1x	1	Water	16	MS55217	7	N	**-**	ND ✓
1A50518	FC10953-3	1x	1	Water	17	MS55217	1	N	**-**	✓
1A50519	**FC10892-1 5x**	5x	1	Water	18	MS55218	7	N	**2x**	AFA, 10mL→50mL **Overdiluted**
1A50520	FC10885-2	1x	4	Water	19	MS55218	1	N	**-**	✓
1A50521	FC10885-4	1x	4	Water	20	MS55218	1	N	**-**	ND ✓
1A50522	FC10899-1	1x	1	Water	21	MS55218	1	N	**-**	AFA ✓
1A50523	FC10899-2	1x	1	Water	22	MS55218	7	N	**-**	AFA ✓
1A50524	FC10847-4	1x	2	Water	23	MS55218	1	N	**-**	#100(MP) ✓
1A50525	FC10847-5	1x	2	Water	24	MS55218	1	N	**-**	✓
1A50526	FC10885-3MS	1x	10	Water	25	MS55218	1	N	-	10.5uL→40mL (OP)#40,76,77
1A50527	FC10885-3MSD	1x	11	Water	26	MS55218	1	N	-	10.5uL→40mL (OP)#40,76,77
1A50528	FC10918-1MS	5x	2	Water	27	MS55217	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50529	FC10918-1MSD	5x	2	Water	28	MS55217	1	N	-	20mL→100mL spike 25uL→100mL (OP)#40,76,77
1A50530	ECC1961-5	-	-	Water	29	-	-	-	-	40uL→100mL (OP)#40,76,77 ü

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aquous LIquid, and "TCLP" or "SPLP" for Leachate
Manual Integration Rational SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MB	6F21228.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	50	10	ug/l	
59-50-7	4-Chloro-3-methyl Phenol	ND	5.0	0.59	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.63	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.84	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.74	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.56	ug/l	
	3&4-Methylphenol	ND	5.0	0.98	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.85	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.74	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.75	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.63	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.64	ug/l	
62-53-3	Aniline	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	0.80	ug/l	
92-87-5	Benzidine	ND	25	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.76	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.78	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.78	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.82	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.61	ug/l	
101-55-3	4-Bromophenyl Phenyl Ether	ND	5.0	0.85	ug/l	
85-68-7	Butyl Benzyl Phthalate	ND	5.0	1.0	ug/l	
86-74-8	Carbazole	ND	5.0	0.60	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.63	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.81	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.73	ug/l	
108-60-1	2,2'-Oxybis(1-chloropropane)	ND	5.0	0.76	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.50	ug/l	
7005-72-3	4-Chlorophenyl Phenyl Ether	ND	5.0	0.54	ug/l	
218-01-9	Chrysene	ND	5.0	0.85	ug/l	

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MB	6F21228.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.80	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.60	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.64	ug/l	
84-66-2	Diethyl Phthalate	ND	5.0	1.0	ug/l	
131-11-3	Dimethyl Phthalate	ND	5.0	1.0	ug/l	
84-74-2	Di-n-butyl Phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl Phthalate	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.71	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.55	ug/l	
86-73-7	Fluorene	ND	5.0	0.70	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.69	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.8	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.71	ug/l	
78-59-1	Isophorone	ND	5.0	0.78	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.53	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.60	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.8	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	0.88	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.93	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitrosodi-n-propylamine	ND	5.0	0.67	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.81	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.86	ug/l	
129-00-0	Pyrene	ND	5.0	0.68	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MB	6F21228.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	48%	14-67%
4165-62-2	Phenol-d5	39%	10-50%
118-79-6	2,4,6-Tribromophenol	77%	33-118%
4165-60-0	Nitrobenzene-d5	79%	42-108%
321-60-8	2-Fluorobiphenyl	76%	40-106%
1718-51-0	Terphenyl-d14	82%	39-121%

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-BS	6F21227.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	43.8	44	10-69
59-50-7	4-Chloro-3-methyl Phenol	50	43.5	87	54-103
95-57-8	2-Chlorophenol	50	41.1	82	52-98
120-83-2	2,4-Dichlorophenol	50	46.1	92	53-103
105-67-9	2,4-Dimethylphenol	50	42.4	85	43-90
51-28-5	2,4-Dinitrophenol	100	99.3	99	44-112
534-52-1	4,6-Dinitro-o-cresol	100	98.0	98	66-121
95-48-7	2-Methylphenol	50	36.2	72	43-90
	3&4-Methylphenol	100	71.5	72	36-88
88-75-5	2-Nitrophenol	50	46.6	93	53-102
100-02-7	4-Nitrophenol	100	53.5	54	18-62
87-86-5	Pentachlorophenol	100	85.3	85	61-115
108-95-2	Phenol	50	24.4	49	19-56
95-95-4	2,4,5-Trichlorophenol	50	47.4	95	62-109
88-06-2	2,4,6-Trichlorophenol	50	47.4	95	59-107
83-32-9	Acenaphthene	50	43.8	88	61-107
208-96-8	Acenaphthylene	50	45.7	91	60-104
62-53-3	Aniline	50	34.8	70	47-100
120-12-7	Anthracene	50	41.0	82	65-108
92-87-5	Benzidine	50	6.3	13* [a]	25-99
56-55-3	Benzo(a)anthracene	50	44.9	90	66-111
50-32-8	Benzo(a)pyrene	50	45.3	91	62-107
205-99-2	Benzo(b)fluoranthene	50	48.6	97	65-114
191-24-2	Benzo(g,h,i)perylene	50	46.3	93	66-116
207-08-9	Benzo(k)fluoranthene	50	48.7	97	65-114
100-51-6	Benzyl Alcohol	50	35.9	72	46-94
101-55-3	4-Bromophenyl Phenyl Ether	50	45.8	92	65-109
85-68-7	Butyl Benzyl Phthalate	50	47.9	96	65-112
86-74-8	Carbazole	50	44.0	88	59-113
106-47-8	4-Chloroaniline	50	34.9	70	49-105
111-91-1	bis(2-Chloroethoxy)methane	50	45.3	91	51-102
111-44-4	bis(2-Chloroethyl)ether	50	42.2	84	53-100
108-60-1	2,2'-Oxybis(1-chloropropane)	50	43.5	87	45-106
91-58-7	2-Chloronaphthalene	50	44.1	88	57-103
7005-72-3	4-Chlorophenyl Phenyl Ether	50	45.2	90	62-105
218-01-9	Chrysene	50	47.1	94	66-111

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-BS	6F21227.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	50	48.8	98	66-119
132-64-9	Dibenzofuran	50	41.7	83	61-106
95-50-1	1,2-Dichlorobenzene	50	40.3	81	48-97
541-73-1	1,3-Dichlorobenzene	50	41.2	82	45-95
106-46-7	1,4-Dichlorobenzene	50	41.3	83	45-98
91-94-1	3,3'-Dichlorobenzidine	50	41.3	83	46-117
84-66-2	Diethyl Phthalate	50	46.7	93	64-108
131-11-3	Dimethyl Phthalate	50	45.1	90	63-106
84-74-2	Di-n-butyl Phthalate	50	45.6	91	65-107
117-84-0	Di-n-octyl Phthalate	50	49.9	100	62-118
121-14-2	2,4-Dinitrotoluene	50	46.0	92	61-110
606-20-2	2,6-Dinitrotoluene	50	47.4	95	63-108
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.1	96	61-117
206-44-0	Fluoranthene	50	44.9	90	63-106
86-73-7	Fluorene	50	46.4	93	62-108
118-74-1	Hexachlorobenzene	50	44.1	88	63-108
87-68-3	Hexachlorobutadiene	50	44.0	88	42-102
77-47-4	Hexachlorocyclopentadiene	50	55.8	112*	39-102
67-72-1	Hexachloroethane	50	40.7	81	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.3	89	64-119
78-59-1	Isophorone	50	41.9	84	43-87
90-12-0	1-Methylnaphthalene	50	45.3	91	53-102
91-57-6	2-Methylnaphthalene	50	43.7	87	51-102
91-20-3	Naphthalene	50	42.5	85	47-100
88-74-4	2-Nitroaniline	50	44.5	89	54-128
99-09-2	3-Nitroaniline	50	40.0	80	56-106
100-01-6	4-Nitroaniline	50	44.1	88	55-120
98-95-3	Nitrobenzene	50	42.9	86	50-104
62-75-9	N-Nitrosodimethylamine	50	32.7	65	28-78
621-64-7	N-Nitrosodi-n-propylamine	50	45.9	92	52-104
86-30-6	N-Nitrosodiphenylamine	50	42.8	86	64-108
85-01-8	Phenanthrene	50	45.2	90	66-110
129-00-0	Pyrene	50	45.5	91	64-113
120-82-1	1,2,4-Trichlorobenzene	50	42.9	86	45-97

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-BS	6F21227.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	61%	14-67%
4165-62-2	Phenol-d5	50%	10-50%
118-79-6	2,4,6-Tribromophenol	86%	33-118%
4165-60-0	Nitrobenzene-d5	86%	42-108%
321-60-8	2-Fluorobiphenyl	87%	40-106%
1718-51-0	Terphenyl-d14	89%	39-121%

(a) Sporadic marginal failure.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MS	6F21236.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
OP99915-MSD	6F21237.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
FC10918-2	6F21233.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	FC10918-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	48	U	192	47.5	25	192	46.9	24	1	10-69/39
59-50-7	4-Chloro-3-methyl Phenol	4.8	U	96.2	60.8	63	96.2	60.2	63	1	54-103/23
95-57-8	2-Chlorophenol	4.8	U	96.2	54.9	57	96.2	56.5	59	3	52-98/25
120-83-2	2,4-Dichlorophenol	4.8	U	96.2	65.7	68	96.2	67.2	70	2	53-103/26
105-67-9	2,4-Dimethylphenol	4.8	U	96.2	64.2	67	96.2	64.7	67	1	43-90/27
51-28-5	2,4-Dinitrophenol	24	U	192	44.0	23*	192	47.5	25*	8	44-112/25
534-52-1	4,6-Dinitro-o-cresol	9.5	U	192	66.7	35*	192	74.0	38*	10	66-121/23
95-48-7	2-Methylphenol	4.8	U	96.2	48.3	50	96.2	48.7	51	1	43-90/28
	3&4-Methylphenol	4.8	U	192	89.1	46	192	89.1	46		36-88/28
88-75-5	2-Nitrophenol	4.8	U	96.2	66.7	69	96.2	70.1	73	5	53-102/29
87-86-5	Pentachlorophenol	24	U	192	116	60*	192	119	62	3	61-115/26
108-95-2	Phenol	4.8	U	96.2	25.5	27	96.2	26.0	27	2	19-56/35
95-95-4	2,4,5-Trichlorophenol	4.8	U	96.2	68.6	71	96.2	71.3	74	4	62-109/22
88-06-2	2,4,6-Trichlorophenol	4.8	U	96.2	73.7	77	96.2	76.6	80	4	59-107/23
83-32-9	Acenaphthene	4.8	U	96.2	72.0	75	96.2	75.1	78	4	61-107/22
208-96-8	Acenaphthylene	4.8	U	96.2	74.9	78	96.2	77.7	81	4	60-104/22
62-53-3	Aniline	4.8	U	96.2	39.4	41*	96.2	42.8	45*	8	47-100/30
120-12-7	Anthracene	4.8	U	96.2	72.0	75	96.2	71.7	75	0	65-108/20
92-87-5	Benzidine	24	U	96.2	ND	0*	96.2	ND	0*	nc	25-99/31
56-55-3	Benzo(a)anthracene	4.8	U	96.2	78.8	82	96.2	77.0	80	2	66-111/22
50-32-8	Benzo(a)pyrene	4.8	U	96.2	77.8	81	96.2	77.2	80	1	62-107/23
205-99-2	Benzo(b)fluoranthene	4.8	U	96.2	82.8	86	96.2	80.5	84	3	65-114/23
191-24-2	Benzo(g,h,i)perylene	4.8	U	96.2	87.9	91	96.2	88.2	92		66-116/23
207-08-9	Benzo(k)fluoranthene	4.8	U	96.2	79.5	83	96.2	78.5	82	1	65-114/24
100-51-6	Benzyl Alcohol	4.8	U	96.2	45.8	48	96.2	46.4	48	1	46-94/27
101-55-3	4-Bromophenyl Phenyl Ether	4.8	U	96.2	83.4	87	96.2	85.4	89	2	65-109/23
85-68-7	Butyl Benzyl Phthalate	4.8	U	96.2	79.7	83	96.2	78.9	82	1	65-112/24
86-74-8	Carbazole	4.8	U	96.2	71.3	74	96.2	68.9	72	3	59-113/21
106-47-8	4-Chloroaniline	4.8	U	96.2	47.3	49	96.2	49.6	52	5	49-105/27
111-91-1	bis(2-Chloroethoxy)methane	4.8	U	96.2	71.6	74	96.2	73.2	76	2	51-102/28
111-44-4	bis(2-Chloroethyl)ether	4.8	U	96.2	62.2	65	96.2	63.6	66	2	53-100/27
108-60-1	2,2'-Oxybis(1-chloropropane)	4.8	U	96.2	67.0	70	96.2	68.6	71	2	45-106/26
91-58-7	2-Chloronaphthalene	4.8	U	96.2	73.6	77	96.2	77.2	80	5	57-103/23
7005-72-3	4-Chlorophenyl Phenyl Ether	4.8	U	96.2	74.3	77	96.2	75.8	79	2	62-105/20
218-01-9	Chrysene	4.8	U	96.2	80.9	84	96.2	79.8	83	1	66-111/22
53-70-3	Dibenzo(a,h)anthracene	4.8	U	96.2	89.6	93	96.2	88.5	92	1	66-119/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MS	6F21236.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
OP99915-MSD	6F21237.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
FC10918-2	6F21233.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Compound	FC10918-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
132-64-9	Dibenzofuran	4.8	U	96.2	70.7	74	96.2	72.7	76	3	61-106/21
95-50-1	1,2-Dichlorobenzene	4.8	U	96.2	62.3	65	96.2	63.9	66	3	48-97/24
541-73-1	1,3-Dichlorobenzene	4.8	U	96.2	63.8	66	96.2	66.7	69	4	45-95/25
106-46-7	1,4-Dichlorobenzene	4.8	U	96.2	64.8	67	96.2	66.8	69	3	45-98/25
91-94-1	3,3'-Dichlorobenzidine	4.8	U	96.2	59.3	62	96.2	63.3	66	7	46-117/29
84-66-2	Diethyl Phthalate	4.8	U	96.2	76.1	79	96.2	76.4	79		64-108/21
131-11-3	Dimethyl Phthalate	4.8	U	96.2	76.4	79	96.2	76.9	80	1	63-106/22
84-74-2	Di-n-butyl Phthalate	4.8	U	96.2	79.7	83	96.2	79.2	82	1	65-107/21
117-84-0	Di-n-octyl Phthalate	4.8	U	96.2	74.9	78	96.2	71.1	74	5	62-118/24
121-14-2	2,4-Dinitrotoluene	4.8	U	96.2	68.5	71	96.2	68.3	71		61-110/21
606-20-2	2,6-Dinitrotoluene	4.8	U	96.2	71.3	74	96.2	72.7	76	2	63-108/21
117-81-7	bis(2-Ethylhexyl)phthalate	4.8	U	96.2	81.0	84	96.2	79.8	83	1	61-117/23
206-44-0	Fluoranthene	4.8	U	96.2	73.8	77	96.2	72.0	75	2	63-106/21
86-73-7	Fluorene	4.8	U	96.2	76.7	80	96.2	77.5	81	1	62-108/20
118-74-1	Hexachlorobenzene	4.8	U	96.2	81.2	84	96.2	82.1	85	1	63-108/22
87-68-3	Hexachlorobutadiene	4.8	U	96.2	71.5	74	96.2	77.1	80	8	42-102/28
77-47-4	Hexachlorocyclopentadiene	4.8	U	96.2	56.1	58	96.2	65.9	69	16	39-102/29
67-72-1	Hexachloroethane	4.8	U	96.2	62.9	65	96.2	65.7	68	4	42-100/29
193-39-5	Indeno(1,2,3-cd)pyrene	4.8	U	96.2	86.8	90	96.2	85.3	89	2	64-119/24
78-59-1	Isophorone	4.8	U	96.2	70.8	74	96.2	71.8	75	1	43-87/25
90-12-0	1-Methylnaphthalene	4.8	U	96.2	70.4	73	96.2	71.9	75	2	53-102/27
91-57-6	2-Methylnaphthalene	4.8	U	96.2	68.0	71	96.2	70.3	73	3	51-102/26
91-20-3	Naphthalene	4.8	U	96.2	67.7	70	96.2	69.7	72	3	47-100/29
88-74-4	2-Nitroaniline	4.8	U	96.2	69.3	72	96.2	69.5	72		54-128/24
99-09-2	3-Nitroaniline	4.8	U	96.2	59.1	61	96.2	58.1	60	2	56-106/27
100-01-6	4-Nitroaniline	4.8	U	96.2	55.5	58	96.2	54.1	56	3	55-120/24
98-95-3	Nitrobenzene	4.8	U	96.2	67.4	70	96.2	69.9	73	4	50-104/28
62-75-9	N-Nitrosodimethylamine	4.8	U	96.2	42.4	44	96.2	43.9	46	3	28-78/30
621-64-7	N-Nitrosodi-n-propylamine	4.8	U	96.2	66.9	70	96.2	66.6	69		52-104/25
86-30-6	N-Nitrosodiphenylamine	4.8	U	96.2	77.4	80	96.2	79.0	82	2	64-108/23
85-01-8	Phenanthrene	4.8	U	96.2	79.1	82	96.2	79.9	83	1	66-110/21
129-00-0	Pyrene	4.8	U	96.2	78.3	81	96.2	77.9	81	1	64-113/23
120-82-1	1,2,4-Trichlorobenzene	4.8	U	96.2	69.0	72	96.2	72.6	76	5	45-97/28

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99915-MS	6F21236.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
OP99915-MSD	6F21237.D	1	11/07/23	KA	11/06/23	OP99915	S6F799
FC10918-2	6F21233.D	1	11/07/23	KA	11/06/23	OP99915	S6F799

The QC reported here applies to the following samples: **Method:** EPA 625.1

FC10955-1A

CAS No.	Surrogate Recoveries	MS	MSD	FC10918-2	Limits
367-12-4	2-Fluorophenol	38%	39%	21%	14-67%
4165-62-2	Phenol-d5	27%	28%	13%	10-50%
118-79-6	2,4,6-Tribromophenol	74%	75%	66%	33-118%
4165-60-0	Nitrobenzene-d5	69%	72%	65%	42-108%
321-60-8	2-Fluorobiphenyl	74%	79%	69%	40-106%
1718-51-0	Terphenyl-d14	77%	77%	71%	39-121%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-DFTPP
Lab File ID: 6F21172.D
Instrument ID: GCMS6F
Injection Date: 11/02/23
Injection Time: 10:14

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	56376	33.0		Pass
68	Less than 2.0% of mass 69	771	0.45	(1.17) [a]	Pass
69	Mass 69 relative abundance	65920	38.6		Pass
70	Less than 2.0% of mass 69	363	0.21	(0.55) [a]	Pass
127	40.0 - 60.0% of mass 198	86931	50.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	170901	100.0		Pass
199	5.0 - 9.0% of mass 198	11511	6.74		Pass
275	10.0 - 30.0% of mass 198	39317	23.0		Pass
365	1.0 - 100.0% of mass 198	4676	2.74		Pass
441	Present, but less than mass 443	11268	6.59	(75.2) [b]	Pass
442	40.0 - 100.0% of mass 198	77749	45.5		Pass
443	17.0 - 23.0% of mass 442	14986	8.77	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
S6F797-IC797	6F21173.D	11/02/23	10:31	00:17	Initial cal 1
S6F797-IC797	6F21174.D	11/02/23	10:57	00:43	Initial cal 5
S6F797-IC797	6F21175.D	11/02/23	11:23	01:09	Initial cal 10
S6F797-IC797	6F21176.D	11/02/23	11:49	01:35	Initial cal 25
S6F797-ICC797	6F21177.D	11/02/23	12:15	02:01	Initial cal 50
S6F797-IC797	6F21178.D	11/02/23	12:41	02:27	Initial cal 60
S6F797-IC797	6F21179.D	11/02/23	13:07	02:53	Initial cal 75
S6F797-IC797	6F21180.D	11/02/23	13:33	03:19	Initial cal 100
S6F797-ICV797	6F21181.D	11/02/23	14:00	03:46	Initial cal verification 50
S6F797-ICV797	6F21182.D	11/02/23	14:26	04:12	Initial cal verification 50
S6F797-ICV797	6F21183.D	11/02/23	14:52	04:38	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-DFTPP
Lab File ID: 6F21224.D
Instrument ID: GCMS6F
Injection Date: 11/07/23
Injection Time: 06:25

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	215433	30.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	250436	35.5		Pass
70	Less than 2.0% of mass 69	1465	0.21	(0.58) [a]	Pass
127	40.0 - 60.0% of mass 198	338993	48.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	706325	100.0		Pass
199	5.0 - 9.0% of mass 198	48408	6.85		Pass
275	10.0 - 30.0% of mass 198	179637	25.4		Pass
365	1.0 - 100.0% of mass 198	20203	2.86		Pass
441	Present, but less than mass 443	59808	8.47	(74.0) [b]	Pass
442	40.0 - 100.0% of mass 198	417003	59.0		Pass
443	17.0 - 23.0% of mass 442	80816	11.4	(19.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
S6F799-CC797	6F21225.D	11/07/23	06:41	00:16	Continuing cal 50
S6F799-CC797	6F21226.D	11/07/23	07:07	00:42	Continuing cal 5
OP99915-BS	6F21227.D	11/07/23	07:33	01:08	Blank Spike
OP99915-MB	6F21228.D	11/07/23	07:59	01:34	Method Blank
ZZZZZZ	6F21229.D	11/07/23	08:25	02:00	(unrelated sample)
ZZZZZZ	6F21231.D	11/07/23	09:17	02:52	(unrelated sample)
ZZZZZZ	6F21232.D	11/07/23	09:44	03:19	(unrelated sample)
FC10918-2	6F21233.D	11/07/23	10:11	03:46	(used for QC only; not part of job FC10955)
ZZZZZZ	6F21234.D	11/07/23	10:38	04:13	(unrelated sample)
FC10955-1A	6F21235.D	11/07/23	11:04	04:39	EFFLUENT
OP99915-MS	6F21236.D	11/07/23	11:30	05:05	Matrix Spike
OP99915-MSD	6F21237.D	11/07/23	11:56	05:31	Matrix Spike Duplicate
OP99883-BS	6F21238.D	11/07/23	12:23	05:58	Blank Spike
OP99883-MB	6F21239.D	11/07/23	12:49	06:24	Method Blank
S6F799-ECC797	6F21244.D	11/07/23	15:19	08:54	Ending cal 50

Instrument Performance Check (DFTPP)

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-DFTPP
Lab File ID: 6F21276.D
Instrument ID: GCMS6F
Injection Date: 11/08/23
Injection Time: 10:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	62282	32.6		Pass
68	Less than 2.0% of mass 69	1353	0.71	(1.86) [a]	Pass
69	Mass 69 relative abundance	72903	38.2		Pass
70	Less than 2.0% of mass 69	279	0.15	(0.38) [a]	Pass
127	40.0 - 60.0% of mass 198	98351	51.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	191080	100.0		Pass
199	5.0 - 9.0% of mass 198	12783	6.69		Pass
275	10.0 - 30.0% of mass 198	45003	23.6		Pass
365	1.0 - 100.0% of mass 198	5659	2.96		Pass
441	Present, but less than mass 443	14825	7.76	(72.7) [b]	Pass
442	40.0 - 100.0% of mass 198	102605	53.7		Pass
443	17.0 - 23.0% of mass 442	20393	10.7	(19.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
S6F801-CC797	6F21277.D	11/08/23	10:33	00:16	Continuing cal 50
S6F801-CC797	6F21278.D	11/08/23	10:59	00:42	Continuing cal 5
ZZZZZZ	6F21279.D	11/08/23	11:26	01:09	(unrelated sample)
FC10955-1A	6F21280.D	11/08/23	11:52	01:35	EFFLUENT
ZZZZZZ	6F21281.D	11/08/23	12:18	02:01	(unrelated sample)
ZZZZZZ	6F21282.D	11/08/23	12:45	02:28	(unrelated sample)
ZZZZZZ	6F21283.D	11/08/23	13:11	02:54	(unrelated sample)
OP99934-MB	6F21284.D	11/08/23	13:38	03:21	Method Blank
OP99934-BS	6F21285.D	11/08/23	14:04	03:47	Blank Spike
S6F801-ECC797	6F21286.D	11/08/23	14:31	04:14	Ending cal 50

Internal Standard Area Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std: S6F799-CC797 **Injection Date:** 11/07/23
Lab File ID: 6F21225.D **Injection Time:** 06:41
Instrument ID: GCMS6F **Method:** EPA 625.1

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	368935	6.10	1391866	7.53	782426	9.59	1397423	11.35	1039226	14.66	937762	17.04
Check Std [b]	417777	6.10	1549352	7.54	846180	9.59	1558071	11.35	1197357	14.67	1101258	17.05
Upper Limit [c]	835554	6.27	3098704	7.71	1692360	9.76	3116142	11.52	2394714	14.84	2202516	17.22
Lower Limit [d]	208889	5.93	774676	7.37	423090	9.42	779036	11.18	598679	14.50	550629	16.88

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP99915-BS	389882	6.10	1448034	7.53	802941	9.59	1480375	11.35	1110102	14.66	1004172	17.05
OP99915-MB	363346	6.09	1385802	7.53	807965	9.59	1512547	11.35	1163815	14.66	1078360	17.04
ZZZZZZ	380278	6.09	1447226	7.53	819380	9.59	1542691	11.35	1201176	14.66	1118462	17.04
ZZZZZZ	379660	6.10	1348688	7.53	724383	9.59	1221681	11.35	844181	14.66	789860	17.05
ZZZZZZ	373393	6.10	1303088	7.53	691953	9.59	1145798	11.35	799565	14.66	774071	17.05
FC10918-2	396118	6.10	1400039	7.53	745449	9.59	1287756	11.35	933345	14.66	895843	17.05
ZZZZZZ	460887	6.10	1567915	7.53	772546	9.59	1146971	11.35	727936	14.66	767748	17.05
FC10955-1A [e]	377232	6.10	1304974	7.53	660247	9.59	1116864	11.35	794720	14.66	773920	17.05
OP99915-MS	425764	6.10	1473774	7.53	763021	9.59	1240095	11.35	888497	14.67	909608	17.05
OP99915-MSD	465912	6.10	1573177	7.54	779459	9.59	1241755	11.35	863421	14.67	907583	17.05
OP99883-BS	484227	6.10	1641772	7.54	800956	9.59	1227131	11.35	807609	14.67	866344	17.05
OP99883-MB	448831	6.10	1584764	7.53	821128	9.59	1283260	11.35	844249	14.66	853386	17.05
S6F799-ECC797	514409	6.10	1691359	7.54	818172	9.59	1268100	11.35	920361	14.67	972726	17.05

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Initial Cal is: S6F797-ICC797 6F21177.D 11/02/23 12:15
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
(e) Insufficient sample for re-extraction. Confirmed by re-analysis.

Internal Standard Area Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	S6F801-CC797	**Injection Date:**	11/08/23
Lab File ID:	6F21277.D	**Injection Time:**	10:33
Instrument ID:	GCMS6F	**Method:**	EPA 625.1

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Initial Cal [a]	368935	6.10	1391866	7.53	782426	9.59	1397423	11.35	1039226	14.66	937762	17.04
Check Std [b]	477889	6.10	1762305	7.54	965115	9.59	1778521	11.35	1341274	14.67	1287993	17.05
Upper Limit [c]	955778	6.27	3524610	7.71	1930230	9.76	3557042	11.52	2682548	14.84	2575986	17.22
Lower Limit [d]	238945	5.93	881153	7.37	482558	9.42	889261	11.18	670637	14.50	643997	16.88

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	272236	6.11	907442	7.54	508962	9.59	955665	11.36	690930	14.67	666185	17.06
FC10955-1A [e]	313679	6.10	1143815	7.53	626905	9.59	1101754	11.35	792062	14.66	769622	17.04
ZZZZZZ	327789	6.10	1198137	7.53	648950	9.59	1130614	11.35	789105	14.66	777932	17.04
ZZZZZZ	311809	6.10	1139672	7.53	630581	9.59	1091814	11.35	785292	14.66	747381	17.04
ZZZZZZ	338165	6.10	1133340	7.53	555285	9.59	922631	11.35	714522	14.66	745946	17.04
OP99934-MB	326117	6.10	1178596	7.53	627787	9.59	1084403	11.35	767036	14.66	768285	17.04
OP99934-BS	303998	6.10	1104789	7.53	586243	9.59	1017087	11.35	752494	14.66	753765	17.05
S6F801-ECC797	369375	6.10	1313357	7.54	686013	9.59	1193349	11.35	849533	14.67	857894	17.05

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Initial Cal is: S6F797-ICC797 6F21177.D 11/02/23 12:15
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
(e) Confirmation run.

Surrogate Recovery Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Method: EPA 625.1 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
FC10955-1A	6F21235.D	0* [a]	0* [a]	3* [a]	78	87	37* [a]
FC10955-1A	6F21280.D	0*	1*	4*	76	85	40
OP99915-BS	6F21227.D	61	50	86	86	87	89
OP99915-MB	6F21228.D	48	39	77	79	76	82
OP99915-MS	6F21236.D	38	27	74	69	74	77
OP99915-MSD	6F21237.D	39	28	75	72	79	77

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	14-67%
S2 = Phenol-d5	10-50%
S3 = 2,4,6-Tribromophenol	33-118%
S4 = Nitrobenzene-d5	42-108%
S5 = 2-Fluorobiphenyl	40-106%
S6 = Terphenyl-d14	39-121%

(a) Outside control limits due to matrix interference.

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICC797
Lab FileID: 6F21177.D

Response Factor Report MSBNA10

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:21:44 2023
Response via : Initial Calibration

Calibration Files
5 =6F21174.D 10 =6F21175.D 25 =6F21176.D 50 =6F21177.D
60 =6F21178.D 75 =6F21179.D 100 =6F21180.D 1 =6F21173.D

Compound	5	10	25	50	60	75	100	1	Avg %RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------								
2) 1,4-Dioxane	1.053	1.079	1.047	1.028	1.020	0.999	0.972	1.326	1.066	10.36
3) N-nitrosodim	0.887	0.879	0.881	0.869	0.862	0.840	0.817	0.992	0.878	5.85
4) Pyridine	2.663	2.709	2.648	2.599	2.569	2.536	2.461	3.260	2.681	9.20
5) Benzaldehyde	1.746	1.679	1.380	1.093	1.040	0.918	0.753	2.047	1.332	34.22
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976									
Response Ratio = 0.00000 + 1.60349 *A + -0.35498 *A^2									
6) Aniline	3.245	3.177	3.012	2.723	2.593	2.431	2.176	3.905	2.908	18.78
---- Quadratic regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 3.25349 *A + -0.43295 *A^2									
7) 2-Fluorophen	1.878	1.858	1.786	1.696	1.674	1.606	1.514	2.170	1.773	11.42
8) bis(2-Chloro	2.242	2.196	2.126	2.030	1.984	1.932	1.837	2.644	2.124	11.77
9) Phenol-d5	2.614	2.579	2.427	2.226	2.172	2.072	1.922	3.025	2.380	14.93
10) Phenol	3.021	2.982	2.832	2.513	2.388	2.240	2.021	3.493	2.686	17.98
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 3.00186 *A + -0.39643 *A^2									
11) 2-Chlorophen	1.522	1.511	1.480	1.419	1.410	1.376	1.317	1.797	1.479	9.86
12) 1,3-Dichloro	1.547	1.519	1.477	1.388	1.383	1.338	1.287	1.822	1.470	11.42
13) 1,4-Dichloro	1.540	1.524	1.458	1.387	1.355	1.328	1.265	1.852	1.464	12.54
14) 1,2-Dichloro	1.468	1.446	1.395	1.317	1.297	1.265	1.179	1.746	1.389	12.46
15) Benzyl alcoh	1.340	1.333	1.304	1.252	1.235	1.193	1.131	1.546	1.292	9.68
16) bis(2-chloro	2.084	2.026	1.903	1.679	1.612	1.496	1.314	2.515	1.829	20.93
---- Quadratic regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 2.06443 *A + -0.30105 *A^2									
17) 2-Methylphen	1.764	1.736	1.711	1.612	1.571	1.528	1.426	2.003	1.669	10.59
18) Acetophenone	2.970	2.862	2.686	2.548	2.502	2.396	2.230	3.457	2.707	14.29
19) Hexachloroet	0.752	0.743	0.728	0.693	0.685	0.667	0.641	0.882	0.724	10.27
20) N-Nitroso-di	1.436	1.388	1.231	1.039	0.976	0.911	0.813	1.739	1.192	26.38
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 1.35683 *A + -0.22894 *A^2									
21) 3&4-Methylph	1.898	1.913	1.816	1.654	1.613	1.551	1.427	2.202	1.759	14.08
22) I Naphthalene-d8	----------ISTD----------								
23) Nitrobenzene	0.608	0.607	0.596	0.569	0.552	0.542	0.511	0.734	0.590	11.44
24) Nitrobenzene	0.590	0.588	0.562	0.522	0.506	0.489	0.458	0.696	0.552	13.60
25) Isophorone	1.137	1.119	1.065	0.992	0.954	0.934	0.890	1.375	1.058	14.69
26) 2-Nitropheno	0.188	0.194	0.195	0.190	0.188	0.185	0.177	0.206	0.190	4.42
27) 2,4-Dimethyl	0.440	0.444	0.443	0.426	0.415	0.407	0.387	0.527	0.436	9.56
28) O,O,O-Trieth	0.199	0.189	0.182	0.179	0.175	0.169	0.163	0.231	0.186	11.41
29) bis(2-Chloro	0.659	0.649	0.609	0.573	0.542	0.530	0.500	0.770	0.604	14.50
30) Benzoic Acid	0.298	0.347	0.406	0.429	0.431	0.439	0.429	0.287	0.383	16.48

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICC797
Lab FileID: 6F21177.D

```
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
              Response Ratio = 0.00000 + 0.38642 *A + 0.02240 *A^2

31) 2,4-Dichloro 0.292 0.296 0.296 0.285 0.276 0.272 0.261 0.328 0.288   7.06
32) 1,2,4-Trichl 0.324 0.323 0.313 0.300 0.296 0.291 0.280 0.404 0.316  12.23
33) alpha-Terpin                                                 0.000  -1.00
34) Naphthalene  1.105 1.086 1.037 0.972 0.951 0.927 0.877 1.326 1.035  13.65
35) 4-Chloroanil 0.457 0.449 0.429 0.394 0.382 0.375 0.356 0.544 0.423  14.39
36) 2,6-Dichloro 0.303 0.302 0.291 0.272 0.264 0.261 0.254 0.351 0.287  11.12
37) Hexachlorobu 0.186 0.185 0.182 0.176 0.172 0.170 0.165 0.228 0.183  10.80
38) Caprolactam  0.167 0.164 0.160 0.155 0.155 0.149 0.140 0.194 0.161   9.84
39) 4-Chloro-3-m 0.449 0.446 0.440 0.419 0.410 0.404 0.390 0.522 0.435   9.45
40) 2-Methylnaph 0.574 0.561 0.545 0.516 0.499 0.492 0.476 0.680 0.543  12.04
41) 1-Methylnaph 0.634 0.621 0.595 0.561 0.550 0.538 0.518 0.772 0.599  13.50
42) 1,2,4,5-Tetr 0.320 0.313 0.303 0.288 0.281 0.280 0.273 0.393 0.306  12.67

43) I   Acenaphthene-d10      ----------------ISTD--------------------
44) Hexachlorocy 0.252 0.269 0.286 0.294 0.294 0.291 0.291 0.263 0.280   5.81
45) 2,4,6-Trichl 0.366 0.364 0.360 0.353 0.351 0.348 0.337 0.416 0.362   6.53
46) 2,4,5-Trichl 0.389 0.396 0.388 0.381 0.375 0.371 0.367 0.444 0.389   6.30
47) 2-Fluorobiph 1.344 1.333 1.252 1.189 1.162 1.149 1.113 1.614 1.270  12.83
48) 1,1'-Bipheny 1.553 1.498 1.387 1.327 1.307 1.257 1.211 1.833 1.422  14.25
49) 2-Chloronaph 1.141 1.121 1.059 1.015 0.996 0.963 0.946 1.350 1.074  12.26
50) 2-Nitroanili 0.460 0.456 0.439 0.412 0.405 0.396 0.376 0.524 0.433  10.82
51) p-Dinitroben 0.281 0.378 0.307 0.300 0.298 0.295 0.284 0.312 0.307   9.95
52) Acenaphthyle 1.756 1.748 1.632 1.535 1.517 1.476 1.440 2.059 1.645  12.45
53) Dimethylphth 1.371 1.354 1.281 1.237 1.210 1.188 1.137 1.649 1.304  12.35
54) m-Dinitroben 0.172 0.226 0.225 0.220 0.219 0.217 0.211 0.170 0.208  11.18
55) 2,6-Dinitrot 0.304 0.306 0.300 0.291 0.288 0.283 0.277 0.332 0.298   5.77
56) o-Dinitroben 0.230 0.226 0.206 0.184 0.180 0.174 0.167 0.280 0.206  18.52
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
              Response Ratio = 0.00000 + 0.20663 *A + -0.01640 *A^2

57) Acenaphthene 1.156 1.146 1.082 1.036 1.017 1.003 0.970 1.392 1.100  12.29
58) 3-Nitroanili 0.348 0.352 0.335 0.323 0.322 0.318 0.309 0.395 0.338   8.11
59) 2,4-Dinitrop       0.128 0.162 0.181 0.185 0.190 0.193       0.173  14.25
60) Dibenzofuran 1.640 1.578 1.475 1.379 1.363 1.340 1.305 1.979 1.508  14.89
61) 2,4-Dinitrot 0.410 0.408 0.395 0.378 0.373 0.367 0.361 0.442 0.392   6.98
62) 4-Nitropheno 0.298 0.280 0.297 0.305 0.308 0.309 0.306 0.318 0.303   3.69
63) 2,3,5,6-Tetr 0.293 0.299 0.305 0.306 0.301 0.299 0.294 0.292 0.299   1.71
64) 2,3,4,6-Tetr 0.306 0.311 0.307 0.298 0.303 0.298 0.295 0.349 0.308   5.60
65) Fluorene     1.308 1.257 1.163 1.098 1.090 1.074 1.056 1.564 1.201  14.34
66) 4-Chlorophen 0.656 0.639 0.603 0.566 0.566 0.560 0.549 0.800 0.617  13.53
67) Diethylphtha 1.342 1.330 1.262 1.217 1.207 1.186 1.154 1.574 1.284  10.48
68) Thionazin    0.479 0.458 0.410 0.365 0.359 0.339 0.310 0.548 0.409  19.80
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.43364 *A + -0.04995 *A^2

69) 4-Nitroanili 0.355 0.349 0.338 0.325 0.322 0.321 0.309 0.376 0.337   6.50

70) I   Phenanthrene-d10      ----------------ISTD--------------------
71) 4,6-Dinitro- 0.101 0.116 0.134 0.138 0.136 0.137 0.135 0.083 0.122  16.90
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
              Response Ratio = 0.00000 + 0.13693 *A + -0.00060 *A^2

72) n-Nitrosodip 0.509 0.502 0.489 0.548 0.451 0.441 0.513 0.736 0.524  17.65
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9928
              Response Ratio = 0.00000 + 0.51701 *A + -0.01689 *A^2

73) Diphenylamin 0.610 0.602 0.587 0.548 0.541 0.529 0.513 0.736 0.583  12.18
```

Initial Calibration Summary

Job Number: FC10955
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Sample: S6F797-ICC797
Lab FileID: 6F21177.D

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 74) 1,2-Diphenyl 1.015 1.007 0.955 0.864 0.830 0.796 0.744 1.215 0.928  16.38
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 0.98619 *A + -0.09846 *A^2

 75) 2,4,6-Tribro 0.072 0.073 0.073 0.073 0.072 0.074 0.075 0.079 0.074   3.23
 76) Sulfotep     0.194 0.191 0.186 0.172 0.168 0.159 0.148 0.220 0.180  12.60
 77) Phorate      0.597 0.583 0.548 0.499 0.484 0.453 0.417 0.637 0.527  14.48
 78) 4-Bromopheny 0.185 0.182 0.177 0.170 0.168 0.167 0.165 0.210 0.178   8.31
 79) Hexachlorobe 0.175 0.174 0.170 0.163 0.163 0.161 0.160 0.213 0.172  10.00
 80) Dimethoate   0.436 0.429 0.408 0.370 0.357 0.338 0.311 0.438 0.386  12.66
 81) Simazine     0.115 0.114 0.111 0.101 0.097 0.094 0.090 0.131 0.107  12.81
 82) Atrazine     0.231 0.229 0.217 0.201 0.197 0.186 0.190 0.263 0.214  12.15
 83) Pentachlorop 0.083 0.098 0.115 0.117 0.119 0.120 0.117 0.068 0.105  18.94
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
               Response Ratio = 0.00000 + 0.11707 *A + 0.00049 *A^2

 84) Phenanthrene 1.038 0.994 0.951 0.886 0.876 0.860 0.837 1.262 0.963  14.49
 85) Anthracene   1.045 1.030 0.997 0.934 0.919 0.902 0.874 1.249 0.994  12.09
 86) Disulfoton   0.622 0.598 0.555 0.486 0.467 0.447 0.408 0.673 0.532  17.66
 87) Carbazole    0.965 0.944 0.918 0.869 0.846 0.837 0.806 1.121 0.913  10.99
 88) Methyl Parat 0.305 0.313 0.318 0.300 0.290 0.277 0.255 0.278 0.292   7.29
 89) Di-n-butylph 1.161 1.152 1.137 1.085 1.065 1.044 0.998 1.307 1.119   8.48
 90) Ethyl Parath 0.206 0.211 0.217 0.208 0.205 0.197 0.185 0.185 0.202   5.78
 91) Fluoranthene 1.062 1.048 1.037 0.975 0.960 0.946 0.926 1.250 1.025  10.12

 92) I   Chrysene-d12          ----------------ISTD--------------------
 93) Benzidine    0.832 0.809 0.680 0.551 0.485 0.428 0.342 1.079 0.651  37.86
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
               Response Ratio = 0.00000 + 0.79653 *A + -0.18941 *A^2

 94) Pyrene       1.471 1.409 1.394 1.346 1.340 1.321 1.296 1.715 1.412   9.54
 95) Terphenyl-d1 1.026 1.006 0.996 0.976 0.978 0.969 0.955 1.182 1.011   7.20
 96) Famphur      0.541 0.500 0.377 0.289 0.271 0.246       0.560 0.398  33.85
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9934
               Response Ratio = 0.00000 + 0.48318 *A + -0.13588 *A^2

 97) Butylbenzylp 0.637 0.634 0.645 0.632 0.630 0.618 0.603 0.720 0.640   5.44
 98) 3,3'-Dichlor 0.423 0.426 0.425 0.407 0.400 0.397 0.381 0.488 0.418   7.70
 99) Benzo[a]anth 1.234 1.190 1.177 1.177 1.173 1.171 1.151 1.541 1.227  10.52
100) Chrysene     1.157 1.149 1.140 1.113 1.110 1.091 1.081 1.413 1.157   9.26
101) bis(2-Ethylh 0.821 0.826 0.858 0.837 0.833 0.820 0.805 0.910 0.839   3.87

102) I   Perylene-d12          ----------------ISTD--------------------
103) Di-n-octylph 1.275 1.292 1.434 1.476 1.492 1.495 1.472 1.452 1.424   6.25
104) Benzo[b]fluo 0.979 0.975 1.035 1.027 1.059 1.039 1.032 1.151 1.037   5.26
105) Benzo[k]fluo 1.085 1.100 1.130 1.117 1.099 1.121 1.086 1.195 1.116   3.19
106) Benzo[a]pyre 0.972 0.971 1.009 0.999 1.014 1.016 0.999 1.130 1.014   4.94
107) Indeno[1,2,3 0.861 0.851 0.871 0.870 0.898 0.883 0.885 1.045 0.895   6.94
108) Dibenz[a,h]a 0.884 0.908 0.927 0.941 0.944 0.944 0.935 1.036 0.940   4.69
109) Benzo[g,h,i] 0.978 0.956 0.949 0.915 0.929 0.914 0.908 1.203 0.969  10.07
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          8270D6F110223.m        Thu Nov 02 16:23:31 2023
```

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21181.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F797\6F21181.D Vial: 10
Acq On : 2 Nov 2023 2:00 pm Operator: karena
Sample : icv797-50, A Inst : MSBNA10
Misc : op99780,S6F797,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:28:01 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	88	0.00	6.09
2		1,4-Dioxane	50.000	43.351	13.3	79	0.01	2.94
3		N-nitrosodimethylamine	50.000	44.899	10.2	79	0.00	3.26
4		Pyridine		----------NA----------				
		----------	Amount	Calc.	%Drift			
5	P	Benzaldehyde	50.000	70.017	-40.0#	110	0.00	5.62
6		Aniline		----------NA----------				
		----------	Amount	Calc.	%Drift			
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether	50.000	44.071	11.9	81	0.00	5.82
9	S	Phenol-d5		----------NA----------				
		----------	Amount	Calc.	%Drift			
10	P	Phenol	50.000	48.055	3.9	85	0.00	5.73
		----------	Amount	Calc.	%Drift			
11	P	2-Chlorophenol	50.000	44.685	10.6	82	0.00	5.87
12		1,3-Dichlorobenzene	50.000	44.888	10.2	83	0.00	6.03
13		1,4-Dichlorobenzene	50.000	44.857	10.3	83	0.00	6.12
14		1,2-Dichlorobenzene	50.000	45.267	9.5	84	0.00	6.28
15		Benzyl alcohol		----------NA----------				
		----------	Amount	Calc.	%Drift			
16	P	bis(2-chloroisopropyl)eth	50.000	49.074	1.9	87	0.00	6.42
		----------	Amount	Calc.	%Drift			
17	P	2-Methylphenol	50.000	42.798	14.4	78	0.00	6.39
18	P	Acetophenone	50.000	42.284	15.4	79	0.00	6.54
19	P	Hexachloroethane	50.000	45.379	9.2	83	0.00	6.66
		----------	Amount	Calc.	%Drift			
20	P	N-Nitroso-di-n-propylamin	50.000	43.632	12.7	81	0.00	6.55
		----------	Amount	Calc.	%Drift			
21	P	3&4-Methylphenol	100.000	82.701	17.3	154	0.00	6.57
22	I	Naphthalene-d8	40.000	40.000	0.0	86	0.00	7.53
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene	50.000	44.698	10.6	81	0.00	6.74
25	P	Isophorone	50.000	42.868	14.3	78	0.00	7.01

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26	P	2-Nitrophenol	50.000	45.898	8.2	79	0.00	7.09
27	P	2,4-Dimethylphenol	50.000	42.707	14.6	75	0.00	7.16
28		O,O,O-Triethylphosphoroth		----------NA----------				
29	P	bis(2-Chloroethoxy)methan	50.000	46.172	7.7	83	0.00	7.27
		---------- Amount		Calc.	%Drift		----------	
30		Benzoic Acid	100.000	86.884	13.1	151	0.03	7.34
		---------- Amount		Calc.	%Drift		----------	
31	P	2,4-Dichlorophenol	50.000	45.532	8.9	79	0.00	7.38
32		1,2,4-Trichlorobenzene	50.000	44.600	10.8	80	0.00	7.47
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	50.000	43.892	12.2	80	0.00	7.55
35	P	4-Chloroaniline		----------NA----------				
36		2,6-Dichlorophenol	50.000	44.303	11.4	80	0.00	7.64
37	P	Hexachlorobutadiene	50.000	46.080	7.8	82	0.00	7.70
38	P	Caprolactam	50.000	41.512	17.0	74	-0.01	8.05
39	P	4-Chloro-3-methylphenol	50.000	42.397	15.2	75	0.00	8.21
40	P	2-Methylnaphthalene		----------NA----------				
41		1-Methylnaphthalene	50.000	45.522	9.0	83	0.00	8.48
42	P	1,2,4,5-Tetrachlorobenzen	50.000	41.990	16.0	77	0.00	8.56
43	I	Acenaphthene-d10	40.000	40.000	0.0	82	0.00	9.59
44	P	Hexachlorocyclopentadiene	50.000	62.592	-25.2#	98	0.00	8.55
45	P	2,4,6-Trichlorophenol	50.000	45.195	9.6	76	0.00	8.70
46	P	2,4,5-Trichlorophenol	50.000	46.720	6.6	78	0.00	8.75
47	S	2-Fluorobiphenyl		----------NA----------				
48	P	1,1'-Biphenyl	50.000	43.981	12.0	77	0.00	8.92
49	P	2-Chloronaphthalene	50.000	45.247	9.5	79	0.00	8.93
50	P	2-Nitroaniline		----------NA----------				
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene	50.000	46.211	7.6	81	0.00	9.42
53	P	Dimethylphthalate	50.000	45.547	8.9	79	-0.01	9.29
54		m-Dinitrobenzene		----------NA----------				
55	P	2,6-Dinitrotoluene	50.000	44.027	11.9	74	0.00	9.36
		---------- Amount		Calc.	%Drift		----------	
56		o-Dinitrobenzene		----------NA----------				
		---------- Amount		Calc.	%Drift		----------	
57	P	Acenaphthene	50.000	43.870	12.3	77	0.00	9.62
58	P	3-Nitroaniline		----------NA----------				
59	P	2,4-Dinitrophenol	100.000	85.353	14.6	134	0.00	9.67
60	P	Dibenzofuran		----------NA----------				
61	P	2,4-Dinitrotoluene	50.000	47.686	4.6	81	0.00	9.83
62	P	4-Nitrophenol	100.000	88.716	11.3	145	0.00	9.79
63		2,3,5,6-Tetrachlorophenol		----------NA----------				
64	P	2,3,4,6-Tetrachlorophenol	50.000	43.273	13.5	74	0.00	9.98
65	P	Fluorene	50.000	45.915	8.2	83	0.00	10.23
66	P	4-Chlorophenyl-phenylethe	50.000	44.650	10.7	80	0.00	10.25
67	P	Diethylphthalate	50.000	45.135	9.7	78	0.00	10.14
		---------- Amount		Calc.	%Drift		----------	
68		Thionazin		----------NA----------				
		---------- Amount		Calc.	%Drift		----------	
69	P	4-Nitroaniline		----------NA----------				
70	I	Phenanthrene-d10	40.000	40.000	0.0	80	0.00	11.34

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Lab FileID: 6F21181.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno	100.000	99.171	0.8	155	0.00	10.31
72	P	n-Nitrosodiphenylamine		NA				
			Amount	Calc.	%Drift			
73		Diphenylamine		NA				
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine	50.000	48.312	3.4	77	0.00	10.44
			Amount	Calc.	%Drift			
75	S	2,4,6-Tribromophenol		NA				
76		Sulfotep		NA				
77		Phorate		NA				
78	P	4-Bromophenyl-phenylether	50.000	47.178	5.6	79	0.00	10.83
79	P	Hexachlorobenzene	50.000	44.203	11.6	75	0.00	10.88
80		Dimethoate		NA				
81		Simazine		NA				
82	P	Atrazine	50.000	44.370	11.3	76	0.00	11.05
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol	100.000	91.345	8.7	147	0.00	11.12
			Amount	Calc.	%Drift			
84	P	Phenanthrene	50.000	46.013	8.0	80	0.00	11.37
85	P	Anthracene	50.000	42.344	15.3	72	0.00	11.43
86		Disulfoton		NA				
87	P	Carbazole		NA				
88		Methyl Parathion		NA				
89	P	Di-n-butylphthalate	50.000	46.087	7.8	76	0.00	12.09
90		Ethyl Parathion		NA				
91	P	Fluoranthene	50.000	43.881	12.2	74	0.00	12.78
92	I	Chrysene-d12	40.000	40.000	0.0	76	0.00	14.66
			Amount	Calc.	%Drift			
93		Benzidine		NA				
			Amount	Calc.	%Drift			
94	P	Pyrene	50.000	47.607	4.8	75	0.00	13.05
95	S	Terphenyl-d14		NA				
			Amount	Calc.	%Drift			
96		Famphur		NA				
			Amount	Calc.	%Drift			
97	P	Butylbenzylphthalate	50.000	48.311	3.4	74	0.00	13.94
98	P	3,3'-Dichlorobenzidine		NA				
99	P	Benzo[a]anthracene	50.000	44.263	11.5	70	0.00	14.64
100	P	Chrysene	50.000	46.630	6.7	73	0.00	14.70
101	P	bis(2-Ethylhexyl)phthalat	50.000	47.532	4.9	72	0.00	14.79
102	I	Perylene-d12	40.000	40.000	0.0	77	0.00	17.04
103	P	Di-n-octylphthalate	50.000	47.346	5.3	70	0.00	15.88
104	P	Benzo[b]fluoranthene	50.000	48.062	3.9	75	0.00	16.40
105	P	Benzo[k]fluoranthene	50.000	47.993	4.0	74	0.00	16.44
106	P	Benzo[a]pyrene	50.000	44.752	10.5	70	0.00	16.94
107	P	Indeno[1,2,3-cd]pyrene	50.000	44.541	10.9	71	0.00	18.67
108	P	Dibenz[a,h]anthracene	50.000	46.765	6.5	72	0.00	18.72
109	P	Benzo[g,h,i]perylene	50.000	47.778	4.4	78	0.00	19.04

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21181.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6F21177.D 8270D6F110223.m Thu Nov 02 16:43:21 2023

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21182.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F797\6F21182.D Vial: 11
Acq On : 2 Nov 2023 2:26 pm Operator: karena
Sample : icv797-50, B Inst : MSBNA10
Misc : op99780,S6F797,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:54:38 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	97	0.00	6.09
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine		----------NA----------				
4		Pyridine	50.000	49.445	1.1	99	0.00	3.29
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------NA----------				
6		Aniline	50.000	60.097	-20.2#	111	0.00	5.74
		----------	Amount	Calc.	%Drift	----------		
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether		----------NA----------				
9	S	Phenol-d5		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
10	P	Phenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
11	P	2-Chlorophenol		----------NA----------				
12		1,3-Dichlorobenzene		----------NA----------				
13		1,4-Dichlorobenzene		----------NA----------				
14		1,2-Dichlorobenzene		----------NA----------				
15		Benzyl alcohol	50.000	48.356	3.3	97	0.00	6.26
		----------	Amount	Calc.	%Drift	----------		
16	P	bis(2-chloroisopropyl)eth		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
17	P	2-Methylphenol		----------NA----------				
18	P	Acetophenone		----------NA----------				
19	P	Hexachloroethane		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
20	P	N-Nitroso-di-n-propylamin		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
21	P	3&4-Methylphenol		----------NA----------				
22	I	Naphthalene-d8	40.000	40.000	0.0	99	0.00	7.53
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene		----------NA----------				
25	P	Isophorone		----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21182.D

			Amount	Calc.	%Drift			
26	P	2-Nitrophenol		----------NA----------				
27	P	2,4-Dimethylphenol		----------NA----------				
28		O,O,O-Triethylphosphoroth		----------NA----------				
29	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
30		Benzoic Acid		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
31	P	2,4-Dichlorophenol		----------NA----------				
32		1,2,4-Trichlorobenzene		----------NA----------				
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene		----------NA----------				
35	P	4-Chloroaniline	50.000	51.505	-3.0	110	0.00	7.63
36		2,6-Dichlorophenol		----------NA----------				
37	P	Hexachlorobutadiene		----------NA----------				
38	P	Caprolactam		----------NA----------				
39	P	4-Chloro-3-methylphenol		----------NA----------				
40	P	2-Methylnaphthalene	50.000	49.161	1.7	102	0.00	8.36
41		1-Methylnaphthalene		----------NA----------				
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
43	I	Acenaphthene-d10	40.000	40.000	0.0	101	0.00	9.59
44	P	Hexachlorocyclopentadiene		----------NA----------				
45	P	2,4,6-Trichlorophenol		----------NA----------				
46	P	2,4,5-Trichlorophenol		----------NA----------				
47	S	2-Fluorobiphenyl		----------NA----------				
48	P	1,1'-Biphenyl		----------NA----------				
49	P	2-Chloronaphthalene		----------NA----------				
50	P	2-Nitroaniline	50.000	58.265	-16.5	124	0.00	9.06
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene		----------NA----------				
53	P	Dimethylphthalate		----------NA----------				
54		m-Dinitrobenzene	50.000	52.834	-5.7	101	0.00	9.32
55	P	2,6-Dinitrotoluene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
56		o-Dinitrobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
57	P	Acenaphthene		----------NA----------				
58	P	3-Nitroaniline	50.000	50.778	-1.6	107	0.00	9.56
59	P	2,4-Dinitrophenol		----------NA----------				
60	P	Dibenzofuran	50.000	47.844	4.3	106	0.00	9.83
61	P	2,4-Dinitrotoluene		----------NA----------				
62	P	4-Nitrophenol		----------NA----------				
63		2,3,5,6-Tetrachlorophenol		----------NA----------				
64	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
65	P	Fluorene		----------NA----------				
66	P	4-Chlorophenyl-phenylethe		----------NA----------				
67	P	Diethylphthalate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
68		Thionazin		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
69	P	4-Nitroaniline	50.000	49.780	0.4	104	-0.02	10.27
70	I	Phenanthrene-d10	40.000	40.000	0.0	102	0.00	11.34

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21182.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno		NA				
72	P	n-Nitrosodiphenylamine	50.000	55.086	-10.2	102	0.00	10.39
			Amount	Calc.	%Drift			
73		Diphenylamine	50.000	46.629	6.7	102	0.00	10.39
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine		NA				
			Amount	Calc.	%Drift			
75	S	2,4,6-Tribromophenol		NA				
76		Sulfotep		NA				
77		Phorate		NA				
78	P	4-Bromophenyl-phenylether		NA				
79	P	Hexachlorobenzene		NA				
80		Dimethoate		NA				
81		Simazine		NA				
82	P	Atrazine		NA				
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol		NA				
			Amount	Calc.	%Drift			
84	P	Phenanthrene		NA				
85	P	Anthracene		NA				
86		Disulfoton		NA				
87	P	Carbazole	50.000	48.073	3.9	103	0.00	11.64
88		Methyl Parathion		NA				
89	P	Di-n-butylphthalate		NA				
90		Ethyl Parathion		NA				
91	P	Fluoranthene		NA				
92	I	Chrysene-d12	40.000	40.000	0.0	106	-0.01	14.65
93		Benzidine	50.000	59.153	-18.3#	149	0.00	12.97
94	P	Pyrene		NA				
95	S	Terphenyl-d14		NA				
			Amount	Calc.	%Drift			
96		Famphur		NA				
			Amount	Calc.	%Drift			
97	P	Butylbenzylphthalate		NA				
98	P	3,3'-Dichlorobenzidine	50.000	49.997	0.0	109	0.00	14.64
99	P	Benzo[a]anthracene		NA				
100	P	Chrysene		NA				
101	P	bis(2-Ethylhexyl)phthalat		NA				
102	I	Perylene-d12	40.000	40.000	0.0	108	0.00	17.04
103	P	Di-n-octylphthalate		NA				
104	P	Benzo[b]fluoranthene		NA				
105	P	Benzo[k]fluoranthene		NA				
106	P	Benzo[a]pyrene		NA				
107	P	Indeno[1,2,3-cd]pyrene		NA				
108	P	Dibenz[a,h]anthracene		NA				
109	P	Benzo[g,h,i]perylene		NA				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

9.7.3

6

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21182.D

6F21177.D 8270D6F110223.m Thu Nov 02 16:57:05 2023

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21183.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F797\6F21183.D Vial: 12
Acq On : 2 Nov 2023 2:52 pm Operator: karena
Sample : icv797-50, C Inst : MSBNA10
Misc : op99780,S6F797,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:24:07 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	97	0.00	6.09
2		1,4-Dioxane		----------	NA	----------		
3		N-nitrosodimethylamine		----------	NA	----------		
4		Pyridine		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------	NA	----------		
6		Aniline		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
7	S	2-Fluorophenol		----------	NA	----------		
8	P	bis(2-Chloroethyl)ether		----------	NA	----------		
9	S	Phenol-d5		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
10	P	Phenol		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
11	P	2-Chlorophenol		----------	NA	----------		
12		1,3-Dichlorobenzene		----------	NA	----------		
13		1,4-Dichlorobenzene		----------	NA	----------		
14		1,2-Dichlorobenzene		----------	NA	----------		
15		Benzyl alcohol		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
16	P	bis(2-chloroisopropyl)eth		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
17	P	2-Methylphenol		----------	NA	----------		
18	P	Acetophenone		----------	NA	----------		
19	P	Hexachloroethane		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
20	P	N-Nitroso-di-n-propylamin		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
21	P	3&4-Methylphenol		----------	NA	----------		
22	I	Naphthalene-d8	40.000	40.000	0.0	98	0.00	7.53
23	S	Nitrobenzene-d5		----------	NA	----------		
24	P	Nitrobenzene		----------	NA	----------		
25	P	Isophorone		----------	NA	----------		

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21183.D

26	P	2-Nitrophenol		----------NA----------					
27	P	2,4-Dimethylphenol		----------NA----------					
28		O,O,O-Triethylphosphoroth	50.000	45.831	8.3	94	0.00	7.24	
29	P	bis(2-Chloroethoxy)methan		----------NA----------					
		---------- Amount	Calc.	%Drift	----------				
30		Benzoic Acid		----------NA----------					
		---------- Amount	Calc.	%Drift	----------				
31	P	2,4-Dichlorophenol		----------NA----------					
32		1,2,4-Trichlorobenzene		----------NA----------					
33		alpha-Terpineol		----------NA----------					
34	P	Naphthalene		----------NA----------					
35	P	4-Chloroaniline		----------NA----------					
36		2,6-Dichlorophenol		----------NA----------					
37	P	Hexachlorobutadiene		----------NA----------					
38	P	Caprolactam		----------NA----------					
39	P	4-Chloro-3-methylphenol		----------NA----------					
40	P	2-Methylnaphthalene		----------NA----------					
41		1-Methylnaphthalene		----------NA----------					
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------					
43	I	Acenaphthene-d10	40.000	40.000	0.0	99	0.00	9.59	
44	P	Hexachlorocyclopentadiene		----------NA----------					
45	P	2,4,6-Trichlorophenol		----------NA----------					
46	P	2,4,5-Trichlorophenol		----------NA----------					
47	S	2-Fluorobiphenyl		----------NA----------					
48	P	1,1'-Biphenyl		----------NA----------					
49	P	2-Chloronaphthalene		----------NA----------					
50	P	2-Nitroaniline		----------NA----------					
51		p-Dinitrobenzene		----------NA----------					
52	P	Acenaphthylene		----------NA----------					
53	P	Dimethylphthalate		----------NA----------					
54		m-Dinitrobenzene		----------NA----------					
55	P	2,6-Dinitrotoluene		----------NA----------					
		---------- Amount	Calc.	%Drift	----------				
56		o-Dinitrobenzene		----------NA----------					
		---------- Amount	Calc.	%Drift	----------				
57	P	Acenaphthene		----------NA----------					
58	P	3-Nitroaniline		----------NA----------					
59	P	2,4-Dinitrophenol		----------NA----------					
60	P	Dibenzofuran		----------NA----------					
61	P	2,4-Dinitrotoluene		----------NA----------					
62	P	4-Nitrophenol		----------NA----------					
63		2,3,5,6-Tetrachlorophenol		----------NA----------					
64	P	2,3,4,6-Tetrachlorophenol		----------NA----------					
65	P	Fluorene		----------NA----------					
66	P	4-Chlorophenyl-phenylethe		----------NA----------					
67	P	Diethylphthalate		----------NA----------					
		---------- Amount	Calc.	%Drift	----------				
68		Thionazin	50.000	56.217	-12.4	111	-0.02	10.22	
		---------- Amount	Calc.	%Drift	----------				
69	P	4-Nitroaniline		----------NA----------					
70	I	Phenanthrene-d10	40.000	40.000	0.0	102	0.00	11.34	

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21183.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno		NA				
72	P	n-Nitrosodiphenylamine		NA				
			Amount	Calc.	%Drift			
73		Diphenylamine		NA				
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine		NA				
			Amount	Calc.	%Drift			
75	S	2,4,6-Tribromophenol		NA				
76		Sulfotep	50.000	45.798	8.4	97	0.00	10.61
77		Phorate	50.000	44.412	11.2	96	0.00	10.75
78	P	4-Bromophenyl-phenylether		NA				
79	P	Hexachlorobenzene		NA				
80		Dimethoate	50.000	48.259	3.5	103	0.00	10.95
81		Simazine		NA				
82	P	Atrazine		NA				
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol		NA				
			Amount	Calc.	%Drift			
84	P	Phenanthrene		NA				
85	P	Anthracene		NA				
86		Disulfoton	50.000	40.966	18.1	91	0.00	11.38
87	P	Carbazole		NA				
88		Methyl Parathion	50.000	52.054	-4.1	103	0.00	11.82
89	P	Di-n-butylphthalate		NA				
90		Ethyl Parathion	50.000	48.801	2.4	97	0.00	12.29
91	P	Fluoranthene		NA				
92	I	Chrysene-d12	40.000	40.000	0.0	104	-0.01	14.65
			Amount	Calc.	%Drift			
93		Benzidine		NA				
			Amount	Calc.	%Drift			
94	P	Pyrene		NA				
95	S	Terphenyl-d14		NA				
96		Famphur	50.000	67.441	-34.9#	193	0.00	13.84
97	P	Butylbenzylphthalate		NA				
98	P	3,3'-Dichlorobenzidine		NA				
99	P	Benzo[a]anthracene		NA				
100	P	Chrysene		NA				
101	P	bis(2-Ethylhexyl)phthalat		NA				
102	I	Perylene-d12	40.000	40.000	0.0	107	0.00	17.04
103	P	Di-n-octylphthalate		NA				
104	P	Benzo[b]fluoranthene		NA				
105	P	Benzo[k]fluoranthene		NA				
106	P	Benzo[a]pyrene		NA				
107	P	Indeno[1,2,3-cd]pyrene		NA				
108	P	Dibenz[a,h]anthracene		NA				
109	P	Benzo[g,h,i]perylene		NA				

(#) = Out of Range SPCC's out = 0 CCC's out = 0

9.7.4

9

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F797-ICV797
Lab FileID: 6F21183.D

6F21177.D 8270D6F110223.m Thu Nov 02 16:27:41 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21225.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F799\6F21225.D Vial: 2
Acq On : 7 Nov 2023 6:41 am Operator: karena
Sample : cc797-50 Inst : MSBNA10
Misc : op99780,S6F799,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	6.10
2		1,4-Dioxane	1.066	0.925	13.2	102	0.00	2.93
3		N-nitrosodimethylamine	0.878	0.765	12.9	100	0.00	3.26
4		Pyridine	2.681	2.281	14.9	99	0.00	3.30
			Amount	Calc.	%Drift			
5	P	Benzaldehyde	50.000	43.763	12.5	110	0.00	5.62
6		Aniline	50.000	42.806	14.4	99	0.01	5.75
			AvgRF	CCRF	%Dev			
7	S	2-Fluorophenol	1.773	1.540	13.1	103	0.05	4.76
8	P	bis(2-Chloroethyl)ether	2.124	1.943	8.5	108	0.00	5.82
9	S	Phenol-d5	2.380	1.937	18.6	99	0.06	5.78
			Amount	Calc.	%Drift			
10	P	Phenol	50.000	43.702	12.6	101	0.05	5.79
			AvgRF	CCRF	%Dev			
11	P	2-Chlorophenol	1.479	1.277	13.7	102	0.03	5.90
12		1,3-Dichlorobenzene	1.470	1.261	14.2	103	0.00	6.04
13		1,4-Dichlorobenzene	1.464	1.249	14.7	102	0.00	6.12
14		1,2-Dichlorobenzene	1.389	1.136	18.2	98	0.00	6.28
15		Benzyl alcohol	1.292	0.978	24.3#	88	0.02	6.28
			Amount	Calc.	%Drift			
16	P	bis(2-chloroisopropyl)eth	50.000	44.680	10.6	104	0.00	6.41
			AvgRF	CCRF	%Dev			
17	P	2-Methylphenol	1.669	1.430	14.3	100	0.04	6.43
18	P	Acetophenone	2.707	2.189	19.1	97	0.00	6.55
19	P	Hexachloroethane	0.724	0.617	14.8	101	0.00	6.66
			Amount	Calc.	%Drift			
20	P	N-Nitroso-di-n-propylamin	50.000	43.761	12.5	106	0.00	6.56
			AvgRF	CCRF	%Dev			
21	P	3&4-Methylphenol	1.759	1.550	11.9	106	0.05	6.62
22	I	Naphthalene-d8	1.000	1.000	0.0	111	0.00	7.54
23	S	Nitrobenzene-d5	0.590	0.506	14.2	99	0.00	6.72
24	P	Nitrobenzene	0.552	0.466	15.6	99	0.00	6.74
25	P	Isophorone	1.058	0.869	17.9	98	0.00	7.02

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21225.D

26	P	2-Nitrophenol	0.190	0.171	10.0	100	0.00	7.10
27	P	2,4-Dimethylphenol	0.436	0.378	13.3	99	0.03	7.20
28		O,O,O-Triethylphosphoroth	0.186	0.160	14.0	100	0.00	7.24
29	P	bis(2-Chloroethoxy)methan	0.604	0.509	15.7	99	0.00	7.28
			Amount	Calc.	%Drift			
30		Benzoic Acid	50.000	45.409	9.2	97	0.05	7.35
			AvgRF	CCRF	%Dev			
31	P	2,4-Dichlorophenol	0.288	0.255	11.5	100	0.03	7.41
32		1,2,4-Trichlorobenzene	0.316	0.272	13.9	101	0.00	7.47
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.035	0.870	15.9	100	0.00	7.56
35	P	4-Chloroaniline	0.423	0.337	20.3#	95	0.01	7.65
36		2,6-Dichlorophenol	0.287	0.245	14.6	101	0.01	7.65
37	P	Hexachlorobutadiene	0.183	0.157	14.2	99	0.00	7.70
38	P	Caprolactam	0.161	0.143	11.2	103	0.01	8.07
39	P	4-Chloro-3-methylphenol	0.435	0.374	14.0	99	0.04	8.26
40	P	2-Methylnaphthalene	0.543	0.460	15.3	99	0.00	8.37
41		1-Methylnaphthalene	0.599	0.501	16.4	99	0.00	8.48
42	P	1,2,4,5-Tetrachlorobenzen	0.306	0.260	15.0	101	0.00	8.56
43	I	Acenaphthene-d10	1.000	1.000	0.0	108	0.00	9.59
44	P	Hexachlorocyclopentadiene	0.280	0.245	12.5	90	0.00	8.55
45	P	2,4,6-Trichlorophenol	0.362	0.330	8.8	101	0.02	8.72
46	P	2,4,5-Trichlorophenol	0.389	0.351	9.8	100	0.03	8.79
47	S	2-Fluorobiphenyl	1.270	1.090	14.2	99	0.00	8.81
48	P	1,1'-Biphenyl	1.422	1.215	14.6	99	0.00	8.92
49	P	2-Chloronaphthalene	1.074	0.936	12.8	100	0.00	8.94
50	P	2-Nitroaniline	0.433	0.380	12.2	100	0.02	9.08
51		p-Dinitrobenzene	0.307	0.280	8.8	101	0.00	9.25
52	P	Acenaphthylene	1.645	1.415	14.0	100	0.00	9.42
53	P	Dimethylphthalate	1.304	1.139	12.7	100	0.00	9.31
54		m-Dinitrobenzene	0.208	0.208	0.0	102	0.00	9.33
55	P	2,6-Dinitrotoluene	0.298	0.269	9.7	100	0.00	9.37
			Amount	Calc.	%Drift			
56		o-Dinitrobenzene	50.000	44.290	11.4	98	0.00	9.43
			AvgRF	CCRF	%Dev			
57	P	Acenaphthene	1.100	0.947	13.9	99	0.00	9.63
58	P	3-Nitroaniline	0.338	0.290	14.2	97	0.02	9.57
59	P	2,4-Dinitrophenol	0.173	0.159	8.1	95	0.00	9.68
60	P	Dibenzofuran	1.508	1.267	16.0	99	0.00	9.83
61	P	2,4-Dinitrotoluene	0.392	0.346	11.7	99	0.00	9.84
62	P	4-Nitrophenol	0.303	0.283	6.6	100	0.06	9.85
63		2,3,5,6-Tetrachlorophenol	0.299	0.273	8.7	96	0.01	9.95
64	P	2,3,4,6-Tetrachlorophenol	0.308	0.279	9.4	101	0.02	10.00
65	P	Fluorene	1.201	1.011	15.8	100	0.00	10.24
66	P	4-Chlorophenyl-phenylethe	0.617	0.533	13.6	102	0.00	10.26
67	P	Diethylphthalate	1.284	1.117	13.0	99	0.00	10.14
			Amount	Calc.	%Drift			
68		Thionazin	50.000	44.915	10.2	100	0.00	10.23
			AvgRF	CCRF	%Dev			
69	P	4-Nitroaniline	0.337	0.299	11.3	99	0.02	10.30
70	I	Phenanthrene-d10	1.000	1.000	0.0	111	0.00	11.35

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21225.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno	50.000	44.260	11.5	97	0.00	10.32
72	P	n-Nitrosodiphenylamine	50.000	49.907	0.2	101	0.00	10.41
			AvgRF	CCRF	%Dev			
73		Diphenylamine	0.583	0.495	15.1	101	0.00	10.41
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine	50.000	42.277	15.4	96	0.00	10.44
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol	0.074	0.064	13.5	98	0.00	10.53
76		Sulfotep	0.180	0.152	15.6	98	0.00	10.61
77		Phorate	0.527	0.442	16.1	99	0.00	10.76
78	P	4-Bromophenyl-phenylether	0.178	0.154	13.5	101	0.00	10.83
79	P	Hexachlorobenzene	0.172	0.148	14.0	101	0.00	10.88
80		Dimethoate	0.386	0.333	13.7	100	0.01	10.97
81		Simazine	0.107	0.086	19.6	95	0.01	11.03
82	P	Atrazine	0.214	0.185	13.6	103	0.01	11.07
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol	50.000	40.066	19.9	89	0.02	11.14
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene	0.963	0.798	17.1	100	0.00	11.38
85	P	Anthracene	0.994	0.848	14.7	101	0.00	11.44
86		Disulfoton	0.532	0.426	19.9	98	0.00	11.38
87	P	Carbazole	0.913	0.787	13.8	101	0.01	11.65
88		Methyl Parathion	0.292	0.268	8.2	99	0.00	11.82
89	P	Di-n-butylphthalate	1.119	0.995	11.1	102	0.00	12.10
90		Ethyl Parathion	0.202	0.188	6.9	101	0.00	12.30
91	P	Fluoranthene	1.025	0.896	12.6	103	0.00	12.79
92	I	Chrysene-d12	1.000	1.000	0.0	115	0.00	14.67
			Amount	Calc.	%Drift			
93		Benzidine	50.000	38.035	23.9#	98	0.01	12.98
			AvgRF	CCRF	%Dev			
94	P	Pyrene	1.412	1.201	14.9	103	0.00	13.05
95	S	Terphenyl-d14	1.011	0.880	13.0	104	0.00	13.27
			Amount	Calc.	%Drift			
96		Famphur	50.000	25.691	48.6#	81	0.01	13.85
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate	0.640	0.571	10.8	104	0.00	13.94
98	P	3,3'-Dichlorobenzidine	0.418	0.358	14.4	101	0.01	14.65
99	P	Benzo[a]anthracene	1.227	1.067	13.0	104	0.00	14.65
100	P	Chrysene	1.157	1.006	13.1	104	0.00	14.71
101	P	bis(2-Ethylhexyl)phthalat	0.839	0.758	9.7	104	0.00	14.80
102	I	Perylene-d12	1.000	1.000	0.0	117	0.02	17.05
103	P	Di-n-octylphthalate	1.424	1.346	5.5	107	0.00	15.89
104	P	Benzo[b]fluoranthene	1.037	0.951	8.3	109	0.01	16.41
105	P	Benzo[k]fluoranthene	1.116	0.984	11.8	103	0.00	16.46
106	P	Benzo[a]pyrene	1.014	0.912	10.1	107	0.00	16.95
107	P	Indeno[1,2,3-cd]pyrene	0.895	0.814	9.1	110	0.01	18.68
108	P	Dibenz[a,h]anthracene	0.940	0.832	11.5	104	0.00	18.73
109	P	Benzo[g,h,i]perylene	0.969	0.824	15.0	106	0.00	19.05

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21225.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6F21177.D 8270D6F110223.m Tue Nov 07 14:36:56 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21226.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F799\6F21226.D Vial: 3
Acq On : 7 Nov 2023 7:07 am Operator: karena
Sample : cc797-5 Inst : MSBNA10
Misc : op99780,S6F799,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00	6.10
2		1,4-Dioxane		----------	NA	----------		
3		N-nitrosodimethylamine		----------	NA	----------		
4		Pyridine		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------	NA	----------		
6		Aniline		----------	NA	----------		
		----------	AvgRF	CCRF	%Dev	----------		
7	S	2-Fluorophenol		----------	NA	----------		
8	P	bis(2-Chloroethyl)ether		----------	NA	----------		
9	S	Phenol-d5		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
10	P	Phenol		----------	NA	----------		
		----------	AvgRF	CCRF	%Dev	----------		
11	P	2-Chlorophenol		----------	NA	----------		
12		1,3-Dichlorobenzene		----------	NA	----------		
13		1,4-Dichlorobenzene		----------	NA	----------		
14		1,2-Dichlorobenzene		----------	NA	----------		
15		Benzyl alcohol	1.292	1.408	-9.0	101	0.00	6.27
		----------	Amount	Calc.	%Drift	----------		
16	P	bis(2-chloroisopropyl)eth		----------	NA	----------		
		----------	AvgRF	CCRF	%Dev	----------		
17	P	2-Methylphenol		----------	NA	----------		
18	P	Acetophenone		----------	NA	----------		
19	P	Hexachloroethane		----------	NA	----------		
		----------	Amount	Calc.	%Drift	----------		
20	P	N-Nitroso-di-n-propylamin		----------	NA	----------		
		----------	AvgRF	CCRF	%Dev	----------		
21	P	3&4-Methylphenol		----------	NA	----------		
22	I	Naphthalene-d8	1.000	1.000	0.0	94	0.00	7.53
23	S	Nitrobenzene-d5		----------	NA	----------		
24	P	Nitrobenzene		----------	NA	----------		
25	P	Isophorone		----------	NA	----------		

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21226.D

26	P	2-Nitrophenol		----------NA----------					
27	P	2,4-Dimethylphenol		----------NA----------					
28		O,O,O-Triethylphosphoroth		----------NA----------					
29	P	bis(2-Chloroethoxy)methan		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
30		Benzoic Acid		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
31	P	2,4-Dichlorophenol		----------NA----------					
32		1,2,4-Trichlorobenzene		----------NA----------					
33		alpha-Terpineol		----------NA----------					
34	P	Naphthalene		----------NA----------					
35	P	4-Chloroaniline	0.423	0.464	-9.7	95	0.00	7.63	
36		2,6-Dichlorophenol		----------NA----------					
37	P	Hexachlorobutadiene		----------NA----------					
38	P	Caprolactam		----------NA----------					
39	P	4-Chloro-3-methylphenol		----------NA----------					
40	P	2-Methylnaphthalene		----------NA----------					
41		1-Methylnaphthalene		----------NA----------					
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------					
43	I	Acenaphthene-d10	1.000	1.000	0.0	91	0.00	9.59	
44	P	Hexachlorocyclopentadiene		----------NA----------					
45	P	2,4,6-Trichlorophenol		----------NA----------					
46	P	2,4,5-Trichlorophenol		----------NA----------					
47	S	2-Fluorobiphenyl		----------NA----------					
48	P	1,1'-Biphenyl		----------NA----------					
49	P	2-Chloronaphthalene		----------NA----------					
50	P	2-Nitroaniline		----------NA----------					
51		p-Dinitrobenzene		----------NA----------					
52	P	Acenaphthylene		----------NA----------					
53	P	Dimethylphthalate		----------NA----------					
54		m-Dinitrobenzene		----------NA----------					
55	P	2,6-Dinitrotoluene		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
56		o-Dinitrobenzene		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
57	P	Acenaphthene		----------NA----------					
58	P	3-Nitroaniline		----------NA----------					
59	P	2,4-Dinitrophenol		----------NA----------					
60	P	Dibenzofuran		----------NA----------					
61	P	2,4-Dinitrotoluene		----------NA----------					
62	P	4-Nitrophenol		----------NA----------					
63		2,3,5,6-Tetrachlorophenol		----------NA----------					
64	P	2,3,4,6-Tetrachlorophenol		----------NA----------					
65	P	Fluorene		----------NA----------					
66	P	4-Chlorophenyl-phenylethe		----------NA----------					
67	P	Diethylphthalate		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
68		Thionazin		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
69	P	4-Nitroaniline		----------NA----------					
70	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00	11.35	

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21226.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno		NA				
72	P	n-Nitrosodiphenylamine		NA				
			AvgRF	CCRF	%Dev			
73		Diphenylamine		NA				
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine		NA				
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol		NA				
76		Sulfotep		NA				
77		Phorate		NA				
78	P	4-Bromophenyl-phenylether		NA				
79	P	Hexachlorobenzene		NA				
80		Dimethoate		NA				
81		Simazine		NA				
82	P	Atrazine		NA				
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol		NA				
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene		NA				
85	P	Anthracene		NA				
86		Disulfoton		NA				
87	P	Carbazole		NA				
88		Methyl Parathion		NA				
89	P	Di-n-butylphthalate		NA				
90		Ethyl Parathion		NA				
91	P	Fluoranthene		NA				
92	I	Chrysene-d12	1.000	1.000	0.0	93	0.00	14.66
			Amount	Calc.	%Drift			
93		Benzidine	5.000	1.425	71.5#	25	0.00	12.97
			AvgRF	CCRF	%Dev			
94	P	Pyrene		NA				
95	S	Terphenyl-d14		NA				
			Amount	Calc.	%Drift			
96		Famphur	5.000	4.061	18.8	65	0.00	13.84
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate		NA				
98	P	3,3'-Dichlorobenzidine		NA				
99	P	Benzo[a]anthracene		NA				
100	P	Chrysene		NA				
101	P	bis(2-Ethylhexyl)phthalat		NA				
102	I	Perylene-d12	1.000	1.000	0.0	93	0.00	17.04
103	P	Di-n-octylphthalate		NA				
104	P	Benzo[b]fluoranthene		NA				
105	P	Benzo[k]fluoranthene		NA				
106	P	Benzo[a]pyrene		NA				
107	P	Indeno[1,2,3-cd]pyrene		NA				
108	P	Dibenz[a,h]anthracene		NA				
109	P	Benzo[g,h,i]perylene		NA				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-CC797
Lab FileID: 6F21226.D

(#) = Out of Range SPCC's out = 59 CCC's out = 0
6F21174.D 8270D6F110223.m Tue Nov 07 14:37:29 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-ECC797
Lab FileID: 6F21244.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F799\6F21244.D Vial: 2
Acq On : 7 Nov 2023 3:19 pm Operator: karena
Sample : ecc797-50 Inst : MSBNA10
Misc : op99780,S6F799,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	139	0.00	6.10
2		1,4-Dioxane	1.066	0.980	8.1	133	0.00	2.93
3		N-nitrosodimethylamine	0.878	0.751	14.5	120	0.01	3.27
4		Pyridine	2.681	2.133	20.4	114	0.00	3.30
			Amount	Calc.	%Drift			
5	P	Benzaldehyde	50.000	42.121	15.8	132	0.00	5.62
6		Aniline	50.000	29.877	40.2	90	0.02	5.76
			AvgRF	CCRF	%Dev			
7	S	2-Fluorophenol	1.773	1.409	20.5	116	0.06	4.77
8	P	bis(2-Chloroethyl)ether	2.124	1.632	23.2	112	0.00	5.82
9	S	Phenol-d5	2.380	1.638	31.2	103	0.08	5.80
			Amount	Calc.	%Drift			
10	P	Phenol	50.000	34.106	31.8	101	0.08	5.81
			AvgRF	CCRF	%Dev			
11	P	2-Chlorophenol	1.479	1.152	22.1	113	0.03	5.90
12		1,3-Dichlorobenzene	1.470	1.263	14.1	127	0.00	6.04
13		1,4-Dichlorobenzene	1.464	1.229	16.1	124	0.00	6.12
14		1,2-Dichlorobenzene	1.389	1.122	19.2	119	0.00	6.28
15		Benzyl alcohol	1.292	0.830	35.8	92	0.03	6.29
			Amount	Calc.	%Drift			
16	P	bis(2-chloroisopropyl)eth	50.000	42.251	15.5	123	0.00	6.41
			AvgRF	CCRF	%Dev			
17	P	2-Methylphenol	1.669	1.233	26.1	107	0.05	6.44
18	P	Acetophenone	2.707	1.947	28.1	107	0.00	6.55
19	P	Hexachloroethane	0.724	0.612	15.5	123	0.00	6.66
			Amount	Calc.	%Drift			
20	P	N-Nitroso-di-n-propylamin	50.000	37.659	24.7	115	0.00	6.57
			AvgRF	CCRF	%Dev			
21	P	3&4-Methylphenol	1.759	1.278	27.3	108	0.06	6.63
22	I	Naphthalene-d8	1.000	1.000	0.0	122	0.00	7.54
23	S	Nitrobenzene-d5	0.590	0.509	13.7	109	0.00	6.72
24	P	Nitrobenzene	0.552	0.462	16.3	108	0.00	6.75
25	P	Isophorone	1.058	0.857	19.0	105	0.00	7.02

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-ECC797
Lab FileID: 6F21244.D

26	P	2-Nitrophenol	0.190	0.163	14.2	104	0.00	7.11
27	P	2,4-Dimethylphenol	0.436	0.353	19.0	101	0.03	7.20
28		O,O,O-Triethylphosphoroth	0.186	0.166	10.8	113	0.00	7.25
29	P	bis(2-Chloroethoxy)methan	0.604	0.508	15.9	108	0.00	7.28
			Amount	Calc.	%Drift			
30		Benzoic Acid	50.000	33.656	32.7	77	0.06	7.36
			AvgRF	CCRF	%Dev			
31	P	2,4-Dichlorophenol	0.288	0.231	19.8	99	0.04	7.42
32		1,2,4-Trichlorobenzene	0.316	0.285	9.8	116	0.00	7.47
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.035	0.881	14.9	110	0.00	7.56
35	P	4-Chloroaniline	0.423	0.242	42.8	75	0.02	7.65
36		2,6-Dichlorophenol	0.287	0.229	20.2	103	0.02	7.66
37	P	Hexachlorobutadiene	0.183	0.173	5.5	120	0.00	7.70
38	P	Caprolactam	0.161	0.112	30.4	88	0.00	8.07
39	P	4-Chloro-3-methylphenol	0.435	0.301	30.8	87	0.05	8.27
40	P	2-Methylnaphthalene	0.543	0.444	18.2	105	0.00	8.37
41		1-Methylnaphthalene	0.599	0.481	19.7	104	0.00	8.48
42	P	1,2,4,5-Tetrachlorobenzen	0.306	0.256	16.3	108	0.00	8.56
43	I	Acenaphthene-d10	1.000	1.000	0.0	105	0.00	9.59
44	P	Hexachlorocyclopentadiene	0.280	0.181	35.4	65	0.00	8.55
45	P	2,4,6-Trichlorophenol	0.362	0.319	11.9	94	0.02	8.73
46	P	2,4,5-Trichlorophenol	0.389	0.319	18.0	88	-0.03	8.73
47	S	2-Fluorobiphenyl	1.270	1.161	8.6	102	0.00	8.81
48	P	1,1'-Biphenyl	1.422	1.286	9.6	101	0.00	8.92
49	P	2-Chloronaphthalene	1.074	0.967	10.0	100	0.00	8.94
50	P	2-Nitroaniline	0.433	0.343	20.8	87	0.02	9.08
51		p-Dinitrobenzene	0.307	0.231	24.8	80	0.00	9.24
52	P	Acenaphthylene	1.645	1.405	14.6	96	0.00	9.42
53	P	Dimethylphthalate	1.304	1.079	17.3	91	0.00	9.31
54		m-Dinitrobenzene	0.208	0.172	17.3	81	0.00	9.33
55	P	2,6-Dinitrotoluene	0.298	0.236	20.8	85	0.00	9.37
			Amount	Calc.	%Drift			
56		o-Dinitrobenzene	50.000	37.191	25.6	81	0.00	9.43
			AvgRF	CCRF	%Dev			
57	P	Acenaphthene	1.100	0.940	14.5	95	0.00	9.63
58	P	3-Nitroaniline	0.338	0.221	34.6	72	0.02	9.58
59	P	2,4-Dinitrophenol	0.173	0.033	80.9#	19#	0.00	9.68
60	P	Dibenzofuran	1.508	1.233	18.2	94	0.00	9.83
61	P	2,4-Dinitrotoluene	0.392	0.282	28.1	78	0.00	9.84
62	P	4-Nitrophenol	0.303	0.007#	97.7#	2#	0.05	9.83
63		2,3,5,6-Tetrachlorophenol	0.299	0.226	24.4	77	0.02	9.95
64	P	2,3,4,6-Tetrachlorophenol	0.308	0.234	24.0	82	0.02	10.00
65	P	Fluorene	1.201	0.950	20.9	90	0.00	10.24
66	P	4-Chlorophenyl-phenylethe	0.617	0.504	18.3	93	0.00	10.26
67	P	Diethylphthalate	1.284	1.021	20.5	88	0.00	10.14
			Amount	Calc.	%Drift			
68		Thionazin	50.000	40.747	18.5	89	0.00	10.23
			AvgRF	CCRF	%Dev			
69	P	4-Nitroaniline	0.337	0.221	34.4	71	0.01	10.30
70	I	Phenanthrene-d10	1.000	1.000	0.0	91	0.00	11.35

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-ECC797
Lab FileID: 6F21244.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno	50.000	14.652	70.7#	26	0.00	10.31
72	P	n-Nitrosodiphenylamine	50.000	52.910	-5.8	87	0.00	10.41
			AvgRF	CCRF	%Dev			
73		Diphenylamine	0.583	0.523	10.3	87	0.00	10.41
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine	50.000	47.848	4.3	87	0.00	10.44
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol	0.074	0.063	14.9	78	0.00	10.53
76		Sulfotep	0.180	0.164	8.9	86	0.00	10.61
77		Phorate	0.527	0.477	9.5	87	0.00	10.76
78	P	4-Bromophenyl-phenylether	0.178	0.165	7.3	88	0.00	10.83
79	P	Hexachlorobenzene	0.172	0.161	6.4	89	0.00	10.88
80		Dimethoate	0.386	0.270	30.1	66	0.01	10.97
81		Simazine	0.107	0.075	29.9	67	0.00	11.03
82	P	Atrazine	0.214	0.159	25.7	72	0.00	11.06
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol	50.000	34.638	30.7	63	0.02	11.14
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene	0.963	0.799	17.0	82	0.00	11.38
85	P	Anthracene	0.994	0.848	14.7	82	0.00	11.44
86		Disulfoton	0.532	0.449	15.6	84	0.00	11.38
87	P	Carbazole	0.913	0.724	20.7	76	0.01	11.65
88		Methyl Parathion	0.292	0.212	27.4	64	0.00	11.82
89	P	Di-n-butylphthalate	1.119	0.957	14.5	80	0.00	12.10
90		Ethyl Parathion	0.202	0.165	18.3	72	0.00	12.29
91	P	Fluoranthene	1.025	0.834	18.6	78	0.00	12.79
92	I	Chrysene-d12	1.000	1.000	0.0	89	0.00	14.67
			Amount	Calc.	%Drift			
93		Benzidine	50.000	3.248	93.5#	8	0.01	12.98
			AvgRF	CCRF	%Dev			
94	P	Pyrene	1.412	1.177	16.6	77	0.00	13.05
95	S	Terphenyl-d14	1.011	0.844	16.5	77	0.00	13.27
			Amount	Calc.	%Drift			
96		Famphur	50.000	20.954	58.1#	53	0.01	13.85
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate	0.640	0.534	16.6	75	0.00	13.94
98	P	3,3'-Dichlorobenzidine	0.418	0.284	32.1	62	0.01	14.65
99	P	Benzo[a]anthracene	1.227	1.057	13.9	80	0.00	14.65
100	P	Chrysene	1.157	0.994	14.1	79	0.00	14.71
101	P	bis(2-Ethylhexyl)phthalat	0.839	0.699	16.7	74	0.00	14.80
102	I	Perylene-d12	1.000	1.000	0.0	104	0.01	17.05
103	P	Di-n-octylphthalate	1.424	1.098	22.9	77	0.00	15.89
104	P	Benzo[b]fluoranthene	1.037	0.892	14.0	90	0.01	16.41
105	P	Benzo[k]fluoranthene	1.116	0.931	16.6	87	0.00	16.45
106	P	Benzo[a]pyrene	1.014	0.895	11.7	93	0.00	16.95
107	P	Indeno[1,2,3-cd]pyrene	0.895	0.886	1.0	106	0.01	18.68
108	P	Dibenz[a,h]anthracene	0.940	0.935	0.5	103	0.01	18.73
109	P	Benzo[g,h,i]perylene	0.969	0.915	5.6	104	0.01	19.05

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F799-ECC797
Lab FileID: 6F21244.D

(#) = Out of Range SPCC's out = 1 CCC's out = 0
6F21177.D 8270D6F110223.m Tue Nov 07 16:08:40 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21277.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F801\6F21277.D Vial: 2
Acq On : 8 Nov 2023 10:33 am Operator: karena
Sample : cc797-50 Inst : MSBNA10
Misc : op99780,S6F801,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	130	0.00	6.10
2		1,4-Dioxane	1.066	0.937	12.1	118	0.00	2.93
3		N-nitrosodimethylamine	0.878	0.766	12.8	114	0.00	3.26
4		Pyridine	2.681	2.270	15.3	113	0.00	3.29
			Amount	Calc.	%Drift			
5	P	Benzaldehyde	50.000	44.300	11.4	127	0.00	5.62
6		Aniline	50.000	42.047	15.9	112	0.01	5.75
			AvgRF	CCRF	%Dev			
7	S	2-Fluorophenol	1.773	1.503	15.2	115	0.05	4.76
8	P	bis(2-Chloroethyl)ether	2.124	1.807	14.9	115	0.00	5.82
9	S	Phenol-d5	2.380	1.865	21.6#	109	0.06	5.78
			Amount	Calc.	%Drift			
10	P	Phenol	50.000	41.579	16.8	111	0.05	5.79
			AvgRF	CCRF	%Dev			
11	P	2-Chlorophenol	1.479	1.263	14.6	115	0.03	5.90
12		1,3-Dichlorobenzene	1.470	1.252	14.8	117	0.00	6.04
13		1,4-Dichlorobenzene	1.464	1.236	15.6	115	0.00	6.12
14		1,2-Dichlorobenzene	1.389	1.126	18.9	111	0.00	6.28
15		Benzyl alcohol	1.292	1.006	22.1#	104	0.02	6.28
			Amount	Calc.	%Drift			
16	P	bis(2-chloroisopropyl)eth	50.000	41.903	16.2	113	0.00	6.41
			AvgRF	CCRF	%Dev			
17	P	2-Methylphenol	1.669	1.417	15.1	114	0.04	6.43
18	P	Acetophenone	2.707	2.165	20.0#	110	0.00	6.55
19	P	Hexachloroethane	0.724	0.611	15.6	114	0.00	6.66
			Amount	Calc.	%Drift			
20	P	N-Nitroso-di-n-propylamin	50.000	41.605	16.8	116	0.00	6.57
			AvgRF	CCRF	%Dev			
21	P	3&4-Methylphenol	1.759	1.555	11.6	122	0.04	6.61
22	I	Naphthalene-d8	1.000	1.000	0.0	127	0.00	7.54
23	S	Nitrobenzene-d5	0.590	0.494	16.3	110	0.00	6.72
24	P	Nitrobenzene	0.552	0.452	18.1	110	0.00	6.75
25	P	Isophorone	1.058	0.822	22.3#	105	0.01	7.03

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21277.D

26	P	2-Nitrophenol	0.190	0.171	10.0	114	0.00	7.11
27	P	2,4-Dimethylphenol	0.436	0.374	14.2	111	0.03	7.20
28		O,O,O-Triethylphosphoroth	0.186	0.161	13.4	114	0.00	7.25
29	P	bis(2-Chloroethoxy)methan	0.604	0.497	17.7	110	0.00	7.28
			Amount	Calc.	%Drift			
30		Benzoic Acid	50.000	46.796	6.4	114	0.06	7.36
			AvgRF	CCRF	%Dev			
31	P	2,4-Dichlorophenol	0.288	0.258	10.4	115	0.03	7.41
32		1,2,4-Trichlorobenzene	0.316	0.274	13.3	116	0.00	7.47
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.035	0.863	16.6	112	0.00	7.56
35	P	4-Chloroaniline	0.423	0.314	25.8#	101	0.01	7.65
36		2,6-Dichlorophenol	0.287	0.247	13.9	115	0.02	7.66
37	P	Hexachlorobutadiene	0.183	0.163	10.9	118	0.00	7.70
38	P	Caprolactam	0.161	0.141	12.4	115	0.02	8.08
39	P	4-Chloro-3-methylphenol	0.435	0.369	15.2	112	0.04	8.26
40	P	2-Methylnaphthalene	0.543	0.458	15.7	112	0.00	8.37
41		1-Methylnaphthalene	0.599	0.503	16.0	114	0.00	8.48
42	P	1,2,4,5-Tetrachlorobenzen	0.306	0.265	13.4	117	0.00	8.56
43	I	Acenaphthene-d10	1.000	1.000	0.0	123	0.00	9.59
44	P	Hexachlorocyclopentadiene	0.280	0.260	7.1	109	0.00	8.55
45	P	2,4,6-Trichlorophenol	0.362	0.328	9.4	115	0.02	8.72
46	P	2,4,5-Trichlorophenol	0.389	0.353	9.3	114	0.03	8.79
47	S	2-Fluorobiphenyl	1.270	1.105	13.0	115	0.00	8.81
48	P	1,1'-Biphenyl	1.422	1.231	13.4	114	0.00	8.92
49	P	2-Chloronaphthalene	1.074	0.928	13.6	113	0.00	8.94
50	P	2-Nitroaniline	0.433	0.362	16.4	108	0.02	9.08
51		p-Dinitrobenzene	0.307	0.269	12.4	110	0.00	9.25
52	P	Acenaphthylene	1.645	1.409	14.3	113	0.00	9.43
53	P	Dimethylphthalate	1.304	1.128	13.5	112	0.00	9.31
54		m-Dinitrobenzene	0.208	0.206	1.0	115	0.01	9.34
55	P	2,6-Dinitrotoluene	0.298	0.266	10.7	113	0.01	9.37
			Amount	Calc.	%Drift			
56		o-Dinitrobenzene	50.000	43.424	13.2	110	0.01	9.43
			AvgRF	CCRF	%Dev			
57	P	Acenaphthene	1.100	0.951	13.5	113	0.00	9.63
58	P	3-Nitroaniline	0.338	0.280	17.2	107	0.02	9.58
59	P	2,4-Dinitrophenol	0.173	0.167	3.5	114	0.01	9.69
60	P	Dibenzofuran	1.508	1.258	16.6	113	0.00	9.84
61	P	2,4-Dinitrotoluene	0.392	0.343	12.5	112	0.00	9.84
62	P	4-Nitrophenol	0.303	0.271	10.6	110	0.06	9.85
63		2,3,5,6-Tetrachlorophenol	0.299	0.274	8.4	110	0.01	9.95
64	P	2,3,4,6-Tetrachlorophenol	0.308	0.278	9.7	115	0.02	10.00
65	P	Fluorene	1.201	1.000	16.7	112	0.00	10.25
66	P	4-Chlorophenyl-phenylethe	0.617	0.529	14.3	115	0.00	10.26
67	P	Diethylphthalate	1.284	1.108	13.7	112	0.00	10.14
			Amount	Calc.	%Drift			
68		Thionazin	50.000	43.357	13.3	111	0.00	10.24
			AvgRF	CCRF	%Dev			
69	P	4-Nitroaniline	0.337	0.288	14.5	109	0.02	10.30
70	I	Phenanthrene-d10	1.000	1.000	0.0	127	0.00	11.35

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21277.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno	50.000	45.644	8.7	115	0.00	10.32
72	P	n-Nitrosodiphenylamine	50.000	49.486	1.0	114	0.00	10.41
			AvgRF	CCRF	%Dev			
73		Diphenylamine	0.583	0.491	15.8	114	0.00	10.41
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine	50.000	40.233	19.5	105	0.00	10.44
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol	0.074	0.081	-9.5	142	0.01	10.54
76		Sulfotep	0.180	0.147	18.3	109	0.00	10.61
77		Phorate	0.527	0.420	20.3#	107	0.00	10.76
78	P	4-Bromophenyl-phenylether	0.178	0.164	7.9	123	0.00	10.84
79	P	Hexachlorobenzene	0.172	0.169	1.7	131	0.00	10.88
80		Dimethoate	0.386	0.306	20.7#	105	0.01	10.97
81		Simazine	0.107	0.082	23.4#	103	0.01	11.03
82	P	Atrazine	0.214	0.174	18.7	110	0.01	11.07
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol	50.000	46.288	7.4	118	0.02	11.14
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene	0.963	0.784	18.6	113	0.00	11.38
85	P	Anthracene	0.994	0.839	15.6	114	0.01	11.44
86		Disulfoton	0.532	0.409	23.1#	107	0.00	11.38
87	P	Carbazole	0.913	0.770	15.7	113	0.01	11.65
88		Methyl Parathion	0.292	0.247	15.4	105	0.00	11.82
89	P	Di-n-butylphthalate	1.119	0.964	13.9	113	0.00	12.10
90		Ethyl Parathion	0.202	0.178	11.9	109	0.00	12.30
91	P	Fluoranthene	1.025	0.885	13.7	116	0.00	12.79
92	I	Chrysene-d12	1.000	1.000	0.0	129	0.01	14.67
			Amount	Calc.	%Drift			
93		Benzidine	50.000	32.520	35.0#	98	0.01	12.98
			AvgRF	CCRF	%Dev			
94	P	Pyrene	1.412	1.209	14.4	116	0.01	13.06
95	S	Terphenyl-d14	1.011	0.936	7.4	124	0.00	13.28
			Amount	Calc.	%Drift			
96		Famphur	50.000	19.097	61.8#	71	0.01	13.85
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate	0.640	0.560	12.5	114	0.00	13.94
98	P	3,3'-Dichlorobenzidine	0.418	0.376	10.0	119	0.01	14.65
99	P	Benzo[a]anthracene	1.227	1.069	12.9	117	0.00	14.65
100	P	Chrysene	1.157	1.002	13.4	116	0.01	14.71
101	P	bis(2-Ethylhexyl)phthalat	0.839	0.742	11.6	114	0.00	14.80
102	I	Perylene-d12	1.000	1.000	0.0	137	0.02	17.05
103	P	Di-n-octylphthalate	1.424	1.250	12.2	116	0.00	15.89
104	P	Benzo[b]fluoranthene	1.037	0.956	7.8	128	0.02	16.41
105	P	Benzo[k]fluoranthene	1.116	0.974	12.7	120	0.01	16.46
106	P	Benzo[a]pyrene	1.014	0.907	10.6	125	0.01	16.96
107	P	Indeno[1,2,3-cd]pyrene	0.895	0.809	9.6	128	0.02	18.69
108	P	Dibenz[a,h]anthracene	0.940	0.846	10.0	123	0.01	18.73
109	P	Benzo[g,h,i]perylene	0.969	0.824	15.0	124	0.02	19.06

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21277.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6F21177.D 8270D6F110223.m Wed Nov 08 15:06:18 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21278.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F801\6F21278.D Vial: 3
Acq On : 8 Nov 2023 10:59 am Operator: karena
Sample : cc797-5 Inst : MSBNA10
Misc : op99780,S6F801,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00	6.10
2		1,4-Dioxane		----------NA----------				
3		N-nitrosodimethylamine		----------NA----------				
4		Pyridine		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
5	P	Benzaldehyde		----------NA----------				
6		Aniline		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
7	S	2-Fluorophenol		----------NA----------				
8	P	bis(2-Chloroethyl)ether		----------NA----------				
9	S	Phenol-d5	2.380	3.089	-29.8	126	0.05	5.77
		----------	Amount	Calc.	%Drift	----------		
10	P	Phenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
11	P	2-Chlorophenol		----------NA----------				
12		1,3-Dichlorobenzene		----------NA----------				
13		1,4-Dichlorobenzene		----------NA----------				
14		1,2-Dichlorobenzene		----------NA----------				
15		Benzyl alcohol	1.292	1.471	-13.9	117	0.01	6.27
		----------	Amount	Calc.	%Drift	----------		
16	P	bis(2-chloroisopropyl)eth		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
17	P	2-Methylphenol		----------NA----------				
18	P	Acetophenone	2.707	3.062	-13.1	110	0.00	6.54
19	P	Hexachloroethane		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
20	P	N-Nitroso-di-n-propylamin		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
21	P	3&4-Methylphenol		----------NA----------				
22	I	Naphthalene-d8	1.000	1.000	0.0	104	0.00	7.53
23	S	Nitrobenzene-d5		----------NA----------				
24	P	Nitrobenzene		----------NA----------				
25	P	Isophorone	1.058	1.327	-25.4	121	0.00	7.01

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21278.D

26	P	2-Nitrophenol		----------NA----------					
27	P	2,4-Dimethylphenol		----------NA----------					
28		O,O,O-Triethylphosphoroth		----------NA----------					
29	P	bis(2-Chloroethoxy)methan		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
30		Benzoic Acid		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
31	P	2,4-Dichlorophenol		----------NA----------					
32		1,2,4-Trichlorobenzene		----------NA----------					
33		alpha-Terpineol		----------NA----------					
34	P	Naphthalene		----------NA----------					
35	P	4-Chloroaniline	0.423	0.484	-14.4	110	0.00	7.64	
36		2,6-Dichlorophenol		----------NA----------					
37	P	Hexachlorobutadiene		----------NA----------					
38	P	Caprolactam		----------NA----------					
39	P	4-Chloro-3-methylphenol		----------NA----------					
40	P	2-Methylnaphthalene		----------NA----------					
41		1-Methylnaphthalene		----------NA----------					
42	P	1,2,4,5-Tetrachlorobenzen		----------NA----------					
43	I	Acenaphthene-d10	1.000	1.000	0.0	101	0.00	9.59	
44	P	Hexachlorocyclopentadiene		----------NA----------					
45	P	2,4,6-Trichlorophenol		----------NA----------					
46	P	2,4,5-Trichlorophenol		----------NA----------					
47	S	2-Fluorobiphenyl		----------NA----------					
48	P	1,1'-Biphenyl		----------NA----------					
49	P	2-Chloronaphthalene		----------NA----------					
50	P	2-Nitroaniline		----------NA----------					
51		p-Dinitrobenzene		----------NA----------					
52	P	Acenaphthylene		----------NA----------					
53	P	Dimethylphthalate		----------NA----------					
54		m-Dinitrobenzene		----------NA----------					
55	P	2,6-Dinitrotoluene		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
56		o-Dinitrobenzene		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
57	P	Acenaphthene		----------NA----------					
58	P	3-Nitroaniline		----------NA----------					
59	P	2,4-Dinitrophenol		----------NA----------					
60	P	Dibenzofuran		----------NA----------					
61	P	2,4-Dinitrotoluene		----------NA----------					
62	P	4-Nitrophenol		----------NA----------					
63		2,3,5,6-Tetrachlorophenol		----------NA----------					
64	P	2,3,4,6-Tetrachlorophenol		----------NA----------					
65	P	Fluorene		----------NA----------					
66	P	4-Chlorophenyl-phenylethe		----------NA----------					
67	P	Diethylphthalate		----------NA----------					
		----------	Amount	Calc.	%Drift	----------			
68		Thionazin		----------NA----------					
		----------	AvgRF	CCRF	%Dev	----------			
69	P	4-Nitroaniline		----------NA----------					
70	I	Phenanthrene-d10	1.000	1.000	0.0	101	0.00	11.35	

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21278.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno		----------NA----------				
72	P	n-Nitrosodiphenylamine		----------NA----------				
			AvgRF	CCRF	%Dev			
73		Diphenylamine		----------NA----------				
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine		----------NA----------				
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol		----------NA----------				
76		Sulfotep		----------NA----------				
77		Phorate	0.527	0.631	-19.7	106	0.00	10.75
78	P	4-Bromophenyl-phenylether		----------NA----------				
79	P	Hexachlorobenzene		----------NA----------				
80		Dimethoate	0.386	0.443	-14.8	102	0.00	10.95
81		Simazine	0.107	0.127	-18.7	111	-0.01	11.01
82	P	Atrazine		----------NA----------				
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol		----------NA----------				
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene		----------NA----------				
85	P	Anthracene		----------NA----------				
86		Disulfoton	0.532	0.657	-23.5	106	0.00	11.38
87	P	Carbazole		----------NA----------				
88		Methyl Parathion		----------NA----------				
89	P	Di-n-butylphthalate		----------NA----------				
90		Ethyl Parathion		----------NA----------				
91	P	Fluoranthene		----------NA----------				
92	I	Chrysene-d12	1.000	1.000	0.0	103	0.00	14.66
			Amount	Calc.	%Drift			
93		Benzidine	5.000	1.912	61.8#	37	0.00	12.97
			AvgRF	CCRF	%Dev			
94	P	Pyrene		----------NA----------				
95	S	Terphenyl-d14		----------NA----------				
			Amount	Calc.	%Drift			
96		Famphur	5.000	3.374	32.5	60	0.00	13.84
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate		----------NA----------				
98	P	3,3'-Dichlorobenzidine		----------NA----------				
99	P	Benzo[a]anthracene		----------NA----------				
100	P	Chrysene		----------NA----------				
101	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
102	I	Perylene-d12	1.000	1.000	0.0	109	0.01	17.05
103	P	Di-n-octylphthalate		----------NA----------				
104	P	Benzo[b]fluoranthene		----------NA----------				
105	P	Benzo[k]fluoranthene		----------NA----------				
106	P	Benzo[a]pyrene		----------NA----------				
107	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
108	P	Dibenz[a,h]anthracene		----------NA----------				
109	P	Benzo[g,h,i]perylene		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-CC797
Lab FileID: 6F21278.D

(#) = Out of Range SPCC's out = 57 CCC's out = 0
6F21174.D 8270D6F110223.m Wed Nov 08 15:06:38 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-ECC797
Lab FileID: 6F21286.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\S6F801\6F21286.D Vial: 2
Acq On : 8 Nov 2023 2:31 pm Operator: karena
Sample : ecc797-50 Inst : MSBNA10
Misc : op99780,S6F801,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: lscint.p

Method : C:\msdchem\1\met...\8270D6F110223.m (RTE Integrator)
Title : SW846 8270D OR EPA 625
Last Update : Thu Nov 02 16:58:16 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00	6.10
2		1,4-Dioxane	1.066	0.997	6.5	97	0.00	2.92
3		N-nitrosodimethylamine	0.878	0.806	8.2	93	0.00	3.25
4		Pyridine	2.681	2.382	11.2	92	0.00	3.29
			Amount	Calc.	%Drift			
5	P	Benzaldehyde	50.000	53.275	-6.5	110	0.00	5.62
6		Aniline	50.000	40.389	19.2	84	0.01	5.75
			AvgRF	CCRF	%Dev			
7	S	2-Fluorophenol	1.773	1.620	8.6	96	0.05	4.76
8	P	bis(2-Chloroethyl)ether	2.124	1.924	9.4	95	0.00	5.82
9	S	Phenol-d5	2.380	2.010	15.5	90	0.06	5.78
			Amount	Calc.	%Drift			
10	P	Phenol	50.000	45.164	9.7	92	0.06	5.79
			AvgRF	CCRF	%Dev			
11	P	2-Chlorophenol	1.479	1.334	9.8	94	0.03	5.90
12		1,3-Dichlorobenzene	1.470	1.346	8.4	97	0.00	6.04
13		1,4-Dichlorobenzene	1.464	1.352	7.7	98	0.00	6.12
14		1,2-Dichlorobenzene	1.389	1.225	11.8	93	0.00	6.28
15		Benzyl alcohol	1.292	1.041	19.4	83	0.02	6.28
			Amount	Calc.	%Drift			
16	P	bis(2-chloroisopropyl)eth	50.000	46.867	6.3	96	0.00	6.41
			AvgRF	CCRF	%Dev			
17	P	2-Methylphenol	1.669	1.486	11.0	92	0.04	6.44
18	P	Acetophenone	2.707	2.244	17.1	88	0.00	6.55
19	P	Hexachloroethane	0.724	0.634	12.4	92	0.00	6.66
			Amount	Calc.	%Drift			
20	P	N-Nitroso-di-n-propylamin	50.000	44.918	10.2	95	0.00	6.56
			AvgRF	CCRF	%Dev			
21	P	3&4-Methylphenol	1.759	1.599	9.1	97	0.05	6.62
22	I	Naphthalene-d8	1.000	1.000	0.0	94	0.00	7.54
23	S	Nitrobenzene-d5	0.590	0.545	7.6	90	0.00	6.72
24	P	Nitrobenzene	0.552	0.500	9.4	90	0.00	6.74
25	P	Isophorone	1.058	0.907	14.3	86	0.01	7.03

Continuing Calibration Summary

Job Number: FC10955 **Sample:** S6F801-ECC797
Account: SCMAW Sovereign Consulting **Lab FileID:** 6F21286.D
Project: Shepley's Hill (SHL); Devens, MA

26	P	2-Nitrophenol	0.190	0.181	4.7	90	0.00	7.11
27	P	2,4-Dimethylphenol	0.436	0.402	7.8	89	0.03	7.20
28		O,O,O-Triethylphosphoroth	0.186	0.171	8.1	90	0.00	7.24
29	P	bis(2-Chloroethoxy)methan	0.604	0.544	9.9	89	0.00	7.28
			Amount	Calc.	%Drift			
30		Benzoic Acid	50.000	45.173	9.7	82	0.05	7.35
			AvgRF	CCRF	%Dev			
31	P	2,4-Dichlorophenol	0.288	0.277	3.8	92	0.03	7.41
32		1,2,4-Trichlorobenzene	0.316	0.301	4.7	95	0.00	7.47
33		alpha-Terpineol		----------NA----------				
34	P	Naphthalene	1.035	0.951	8.1	92	0.00	7.56
35	P	4-Chloroaniline	0.423	0.311	26.5	75	0.01	7.65
36		2,6-Dichlorophenol	0.287	0.266	7.3	92	0.02	7.66
37	P	Hexachlorobutadiene	0.183	0.178	2.7	96	0.00	7.70
38	P	Caprolactam	0.161	0.142	11.8	86	0.00	8.07
39	P	4-Chloro-3-methylphenol	0.435	0.385	11.5	87	0.04	8.26
40	P	2-Methylnaphthalene	0.543	0.495	8.8	90	0.00	8.37
41		1-Methylnaphthalene	0.599	0.539	10.0	91	0.00	8.48
42	P	1,2,4,5-Tetrachlorobenzen	0.306	0.286	6.5	94	0.00	8.56
43	I	Acenaphthene-d10	1.000	1.000	0.0	88	0.00	9.59
44	P	Hexachlorocyclopentadiene	0.280	0.113	59.6#	34#	0.00	8.55
45	P	2,4,6-Trichlorophenol	0.362	0.364	-0.6	90	0.02	8.72
46	P	2,4,5-Trichlorophenol	0.389	0.378	2.8	87	0.04	8.79
47	S	2-Fluorobiphenyl	1.270	1.228	3.3	91	0.00	8.81
48	P	1,1'-Biphenyl	1.422	1.359	4.4	90	0.00	8.92
49	P	2-Chloronaphthalene	1.074	1.032	3.9	89	0.00	8.94
50	P	2-Nitroaniline	0.433	0.409	5.5	87	0.02	9.08
51		p-Dinitrobenzene		----------NA----------				
52	P	Acenaphthylene	1.645	1.549	5.8	88	0.00	9.42
53	P	Dimethylphthalate	1.304	1.235	5.3	88	0.00	9.31
54		m-Dinitrobenzene	0.208	0.187	10.1	74	-0.08	9.24
55	P	2,6-Dinitrotoluene	0.298	0.281	5.7	85	0.00	9.37
			Amount	Calc.	%Drift			
56		o-Dinitrobenzene		----------NA----------				
			AvgRF	CCRF	%Dev			
57	P	Acenaphthene	1.100	1.037	5.7	88	0.00	9.63
58	P	3-Nitroaniline	0.338	0.294	13.0	80	0.02	9.57
59	P	2,4-Dinitrophenol	0.173	0.032	81.5#	16#	0.00	9.68
60	P	Dibenzofuran	1.508	1.396	7.4	89	0.00	9.84
61	P	2,4-Dinitrotoluene	0.392	0.352	10.2	82	0.00	9.84
62	P	4-Nitrophenol		----------NA----------				
63		2,3,5,6-Tetrachlorophenol	0.299	0.290	3.0	83	0.02	9.95
64	P	2,3,4,6-Tetrachlorophenol	0.308	0.299	2.9	88	0.02	10.00
65	P	Fluorene	1.201	1.089	9.3	87	0.00	10.24
66	P	4-Chlorophenyl-phenylethe	0.617	0.580	6.0	90	0.00	10.26
67	P	Diethylphthalate	1.284	1.200	6.5	86	0.00	10.14
			Amount	Calc.	%Drift			
68		Thionazin		----------NA----------				
			AvgRF	CCRF	%Dev			
69	P	4-Nitroaniline	0.337	0.306	9.2	82	0.01	10.30
70	I	Phenanthrene-d10	1.000	1.000	0.0	85	0.00	11.35

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-ECC797
Lab FileID: 6F21286.D

			Amount	Calc.	%Drift			
71	P	4,6-Dinitro-2-methylpheno	50.000	14.818	70.4#	25	0.00	10.31
72	P	n-Nitrosodiphenylamine	50.000	57.086	-14.2	88	0.00	10.41
			AvgRF	CCRF	%Dev			
73		Diphenylamine	0.583	0.563	3.4	88	0.00	10.41
			Amount	Calc.	%Drift			
74		1,2-Diphenylhydrazine	50.000	48.634	2.7	83	0.00	10.44
			AvgRF	CCRF	%Dev			
75	S	2,4,6-Tribromophenol	0.074	0.090	-21.6	105	0.00	10.53
76		Sulfotep		NA				
77		Phorate		NA				
78	P	4-Bromophenyl-phenylether	0.178	0.187	-5.1	94	0.00	10.83
79	P	Hexachlorobenzene	0.172	0.189	-9.9	99	0.00	10.88
80		Dimethoate		NA				
81		Simazine		NA				
82	P	Atrazine	0.214	0.205	4.2	87	0.00	11.06
			Amount	Calc.	%Drift			
83	P	Pentachlorophenol	50.000	47.433	5.1	81	0.02	11.14
			AvgRF	CCRF	%Dev			
84	P	Phenanthrene	0.963	0.888	7.8	86	0.00	11.38
85	P	Anthracene	0.994	0.942	5.2	86	0.00	11.44
86		Disulfoton		NA				
87	P	Carbazole	0.913	0.854	6.5	84	0.01	11.65
88		Methyl Parathion		NA				
89	P	Di-n-butylphthalate	1.119	1.078	3.7	85	0.00	12.10
90		Ethyl Parathion		NA				
91	P	Fluoranthene	1.025	0.956	6.7	84	0.00	12.79
92	I	Chrysene-d12	1.000	1.000	0.0	82	0.00	14.67
			Amount	Calc.	%Drift			
93		Benzidine	50.000	13.699	72.6#	30	0.01	12.98
			AvgRF	CCRF	%Dev			
94	P	Pyrene	1.412	1.382	2.1	84	0.00	13.05
95	S	Terphenyl-d14	1.011	1.055	-4.4	88	0.00	13.27
			Amount	Calc.	%Drift			
96		Famphur		NA				
			AvgRF	CCRF	%Dev			
97	P	Butylbenzylphthalate	0.640	0.638	0.3	83	0.00	13.94
98	P	3,3'-Dichlorobenzidine	0.418	0.392	6.2	79	0.01	14.65
99	P	Benzo[a]anthracene	1.227	1.179	3.9	82	0.00	14.65
100	P	Chrysene	1.157	1.109	4.1	81	0.00	14.71
101	P	bis(2-Ethylhexyl)phthalat	0.839	0.847	-1.0	83	0.00	14.80
102	I	Perylene-d12	1.000	1.000	0.0	91	0.01	17.05
103	P	Di-n-octylphthalate	1.424	1.346	5.5	83	0.00	15.89
104	P	Benzo[b]fluoranthene	1.037	1.039	-0.2	93	0.01	16.41
105	P	Benzo[k]fluoranthene	1.116	1.072	3.9	88	0.00	16.45
106	P	Benzo[a]pyrene	1.014	1.008	0.6	92	0.00	16.95
107	P	Indeno[1,2,3-cd]pyrene	0.895	0.880	1.7	93	0.01	18.68
108	P	Dibenz[a,h]anthracene	0.940	0.897	4.6	87	0.00	18.73
109	P	Benzo[g,h,i]perylene	0.969	0.859	11.4	86	0.00	19.05

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: S6F801-ECC797
Lab FileID: 6F21286.D

(#) = Out of Range SPCC's out = 1 CCC's out = 0
6F21177.D 8270D6F110223.m Wed Nov 08 15:04:48 2023

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: S6F797 **Method:** SW846 8270E **Instrument ID:** GCMS6F

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
S6F797-DFTPP	6F21172.D	11/02/23 10:14	n/a	DFTPP Tune
S6F797-IC797	6F21173.D	11/02/23 10:31	n/a	Initial cal 1
S6F797-IC797	6F21174.D	11/02/23 10:57	n/a	Initial cal 5
S6F797-IC797	6F21175.D	11/02/23 11:23	n/a	Initial cal 10
S6F797-IC797	6F21176.D	11/02/23 11:49	n/a	Initial cal 25
S6F797-ICC797	6F21177.D	11/02/23 12:15	n/a	Initial cal 50
S6F797-IC797	6F21178.D	11/02/23 12:41	n/a	Initial cal 60
S6F797-IC797	6F21179.D	11/02/23 13:07	n/a	Initial cal 75
S6F797-IC797	6F21180.D	11/02/23 13:33	n/a	Initial cal 100
S6F797-ICV797	6F21181.D	11/02/23 14:00	n/a	Initial cal verification 50
S6F797-ICV797	6F21182.D	11/02/23 14:26	n/a	Initial cal verification 50
S6F797-ICV797	6F21183.D	11/02/23 14:52	n/a	Initial cal verification 50

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: S6F799 **Method:** EPA 625.1 **Instrument ID:** GCMS6F

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
S6F799-DFTPP	6F21224.D	11/07/23 06:25	n/a	DFTPP Tune
S6F799-CC797	6F21225.D	11/07/23 06:41	n/a	Continuing cal 50
S6F799-CC797	6F21226.D	11/07/23 07:07	n/a	Continuing cal 5
OP99915-BS	6F21227.D	11/07/23 07:33	OP99915	Blank Spike
OP99915-MB	6F21228.D	11/07/23 07:59	OP99915	Method Blank
ZZZZZZ	6F21229.D	11/07/23 08:25	OP99915	(unrelated sample)
ZZZZZZ	6F21231.D	11/07/23 09:17	OP99915	(unrelated sample)
ZZZZZZ	6F21232.D	11/07/23 09:44	OP99915	(unrelated sample)
FC10918-2	6F21233.D	11/07/23 10:11	OP99915	(used for QC only; not part of job FC10955)
ZZZZZZ	6F21234.D	11/07/23 10:38	OP99915	(unrelated sample)
FC10955-1A	6F21235.D	11/07/23 11:04	OP99915	EFFLUENT
OP99915-MS	6F21236.D	11/07/23 11:30	OP99915	Matrix Spike
OP99915-MSD	6F21237.D	11/07/23 11:56	OP99915	Matrix Spike Duplicate
OP99883-BS	6F21238.D	11/07/23 12:23	OP99883	Blank Spike
OP99883-MB	6F21239.D	11/07/23 12:49	OP99883	Method Blank
S6F799-ECC797	6F21244.D	11/07/23 15:19	n/a	Ending cal 50

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: S6F801 **Method:** SW846 8270E **Instrument ID:** GCMS6F

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
S6F801-DFTPP	6F21276.D	11/08/23 10:17	n/a	DFTPP Tune
S6F801-CC797	6F21277.D	11/08/23 10:33	n/a	Continuing cal 50
S6F801-CC797	6F21278.D	11/08/23 10:59	n/a	Continuing cal 5
ZZZZZZ	6F21279.D	11/08/23 11:26	OP99915	(unrelated sample)
FC10955-1A	6F21280.D	11/08/23 11:52	OP99915	EFFLUENT
ZZZZZZ	6F21281.D	11/08/23 12:18	OP99883	(unrelated sample)
ZZZZZZ	6F21282.D	11/08/23 12:45	OP99938	(unrelated sample)
ZZZZZZ	6F21283.D	11/08/23 13:11	OP99938	(unrelated sample)
OP99934-MB	6F21284.D	11/08/23 13:38	OP99934	Method Blank
OP99934-BS	6F21285.D	11/08/23 14:04	OP99934	Blank Spike
S6F801-ECC797	6F21286.D	11/08/23 14:31	n/a	Ending cal 50

MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21235.D
Acq On : 7 Nov 2023 11:04 am
Operator : karena
Sample : fc10955-1
Misc : op99915,S6F799,960,,,1,1,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 07 14:30:33 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

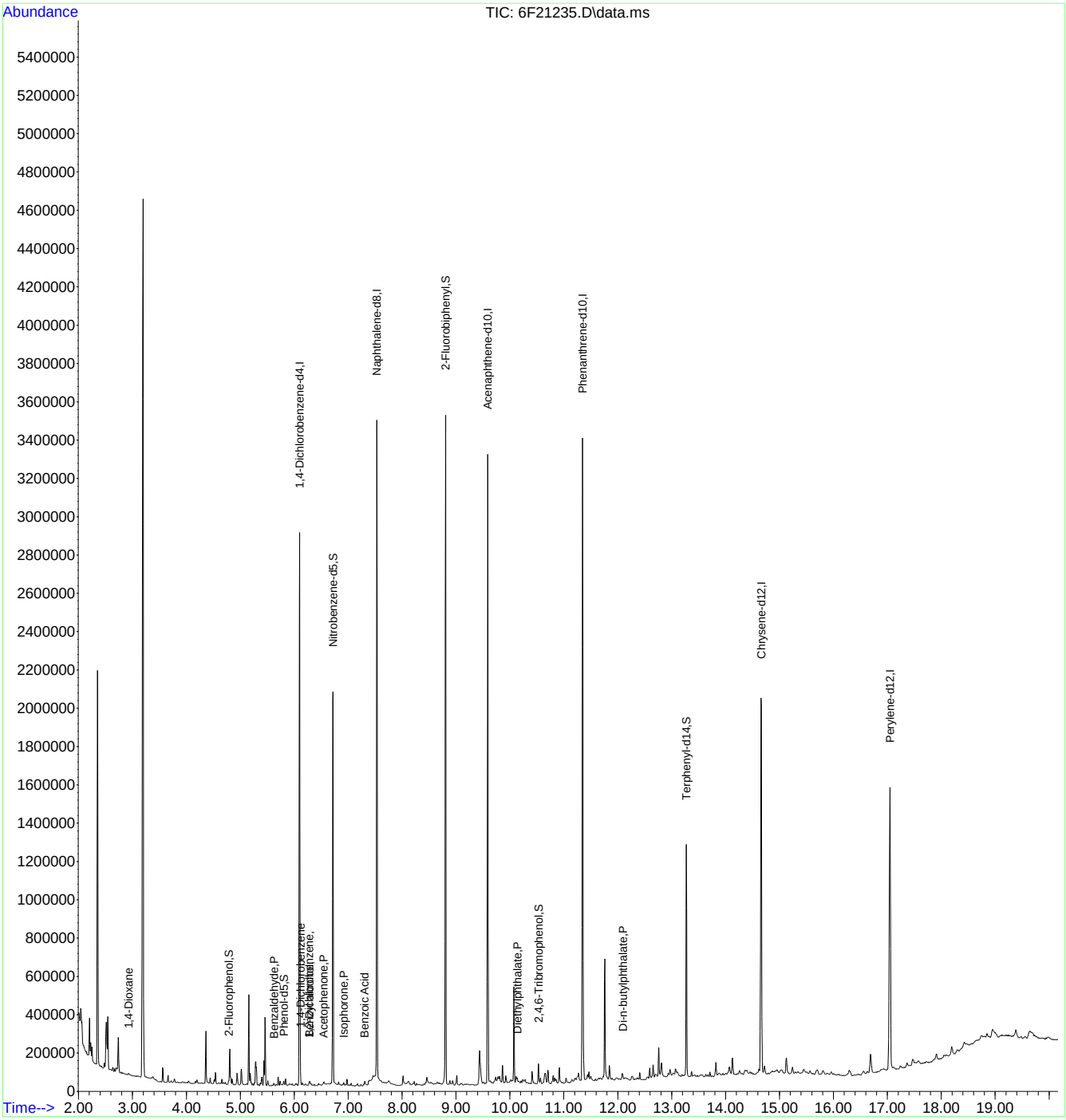
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	377232	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1304974	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	660247	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1116864	40.00	ppm	0.00
92) Chrysene-d12	14.663	240	794720	40.00	ppm	0.00
102) Perylene-d12	17.049	264	773920	40.00	ppm	0.01
System Monitoring Compounds						
7) 2-Fluorophenol	4.784	112	6162	0.37	ppm	0.08
Spiked Amount 100.000	Range 14 - 67		Recovery = 0.37%#			
9) Phenol-d5	5.806	99	10135	0.45	ppm	0.09
Spiked Amount 100.000	Range 10 - 50		Recovery = 0.45%#			
23) Nitrobenzene-d5	6.720	82	752940	39.12	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 78.24%			
47) 2-Fluorobiphenyl	8.806	172	908493	43.35	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 86.70%			
75) 2,4,6-Tribromophenol	10.534	330	6981	3.38	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 3.38%#			
95) Terphenyl-d14	13.273	244	372496	18.54	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 37.08%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	5374	0.53	ppm	91
5) Benzaldehyde	5.624	106	2301	0.15	ppm	90
13) 1,4-Dichlorobenzene	6.116	146	9329	0.68	ppm	89
14) 1,2-Dichlorobenzene	6.277	146	1016	0.08	ppm	84
15) Benzyl alcohol	6.282	108	2572	0.21	ppm	90
18) Acetophenone	6.544	105	3261	0.13	ppm	81
25) Isophorone	6.918	82	1218	0.04	ppm	94
30) Benzoic Acid	7.303	105	3412	0.27	ppm	87
67) Diethylphthalate	10.138	149	6061	0.29	ppm	93
89) Di-n-butylphthalate	12.096	149	2444	0.08	ppm	99

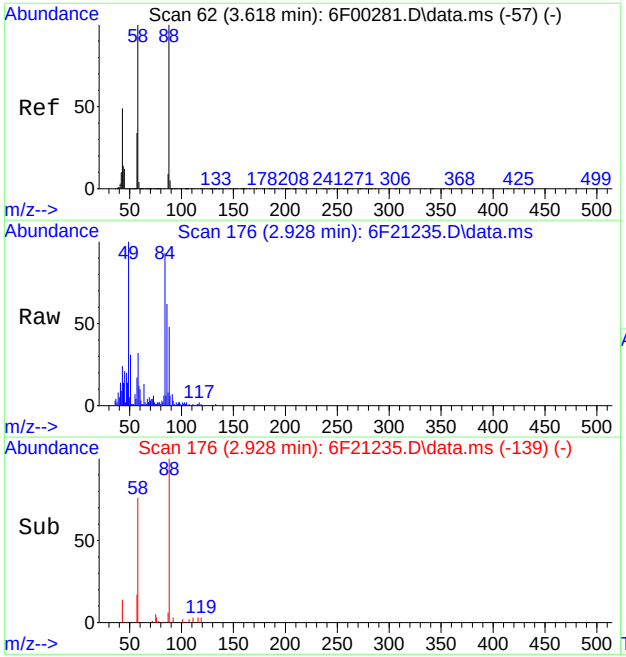
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21235.D
Acq On : 7 Nov 2023 11:04 am
Operator : karena
Sample : fc10955-1
Misc : op99915,S6F799,960,,,1,1,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 07 14:30:33 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

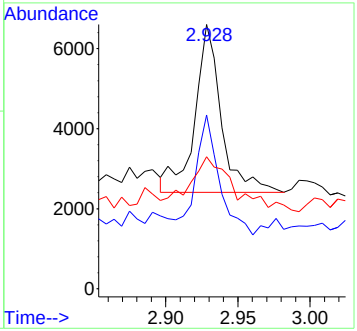


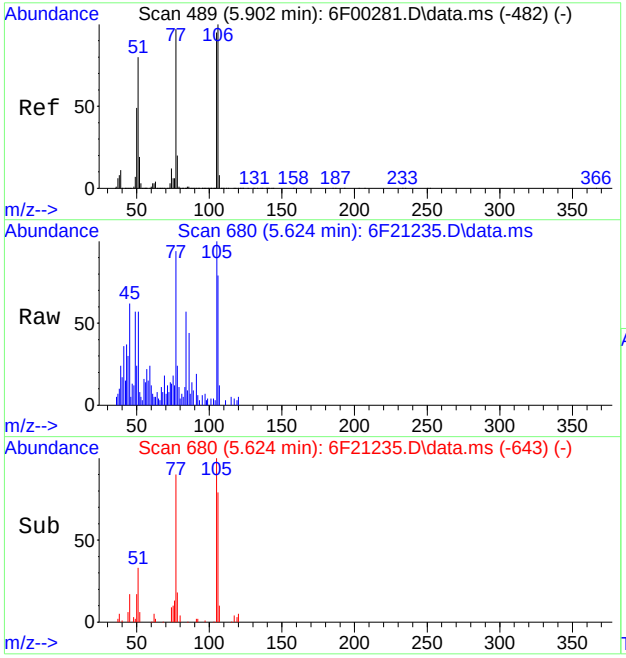


#2
1,4-Dioxane
Concen: 0.53 ppm
RT: 2.928 min Scan# 176
Delta R.T. 0.000 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion: 88 Resp: 5374

Ion	Ratio	Lower	Upper
88	100		
58	67.0	31.7	91.7
43	28.5	0.0	51.2

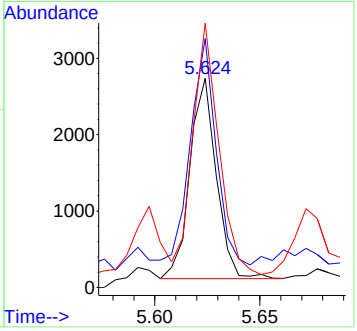


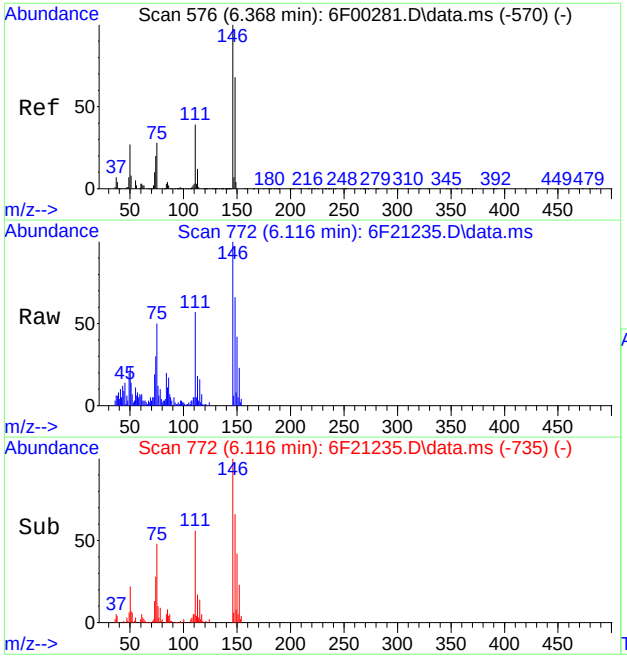


#5
Benzaldehyde
Concen: 0.15 ppm
RT: 5.624 min Scan# 680
Delta R.T. -0.000 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:106 Resp: 2301

Ion	Ratio	Lower	Upper
106	100		
77	108.2	74.4	134.4
105	114.4	67.6	127.6

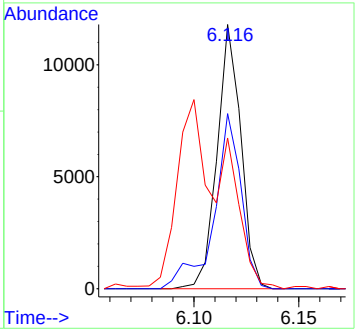


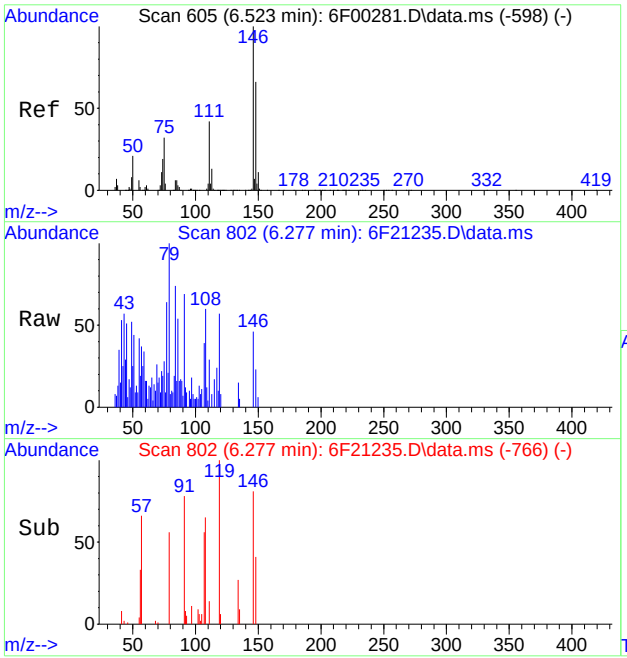


#13
1,4-Dichlorobenzene
Concen: 0.68 ppm
RT: 6.116 min Scan# 772
Delta R.T. 0.000 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:146 Resp: 9329

Ion	Ratio	Lower	Upper
146	100		
148	66.3	33.9	93.9
111	54.9	10.6	70.6

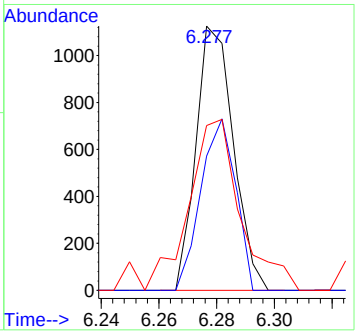


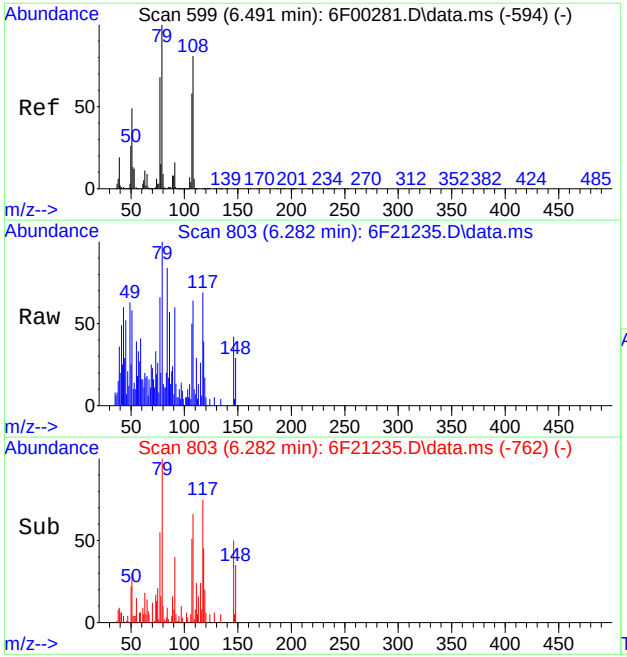


#14
1,2-Dichlorobenzene
Concen: 0.08 ppm
RT: 6.277 min Scan# 802
Delta R.T. -0.005 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:146 Resp: 1016

Ion	Ratio	Lower	Upper
146	100		
148	50.8	34.1	94.1
111	51.5	12.9	72.9

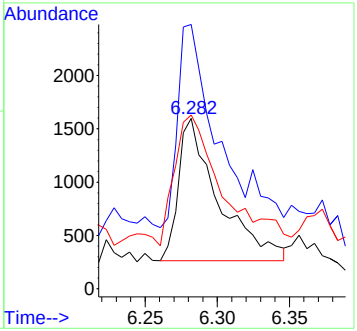


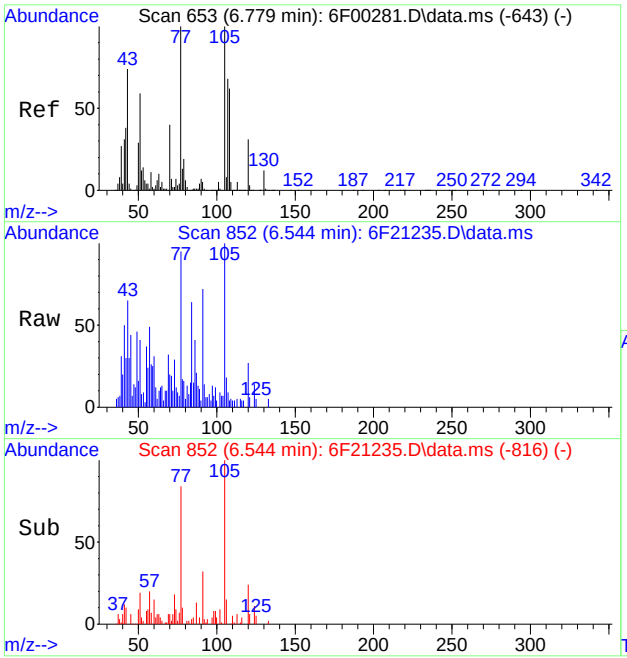


#15
Benzyl alcohol
Concen: 0.21 ppm
RT: 6.282 min Scan# 803
Delta R.T. 0.022 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:108 Resp: 2572

Ion	Ratio	Lower	Upper
108	100		
79	145.7	101.9	161.9
77	91.7	54.4	114.4

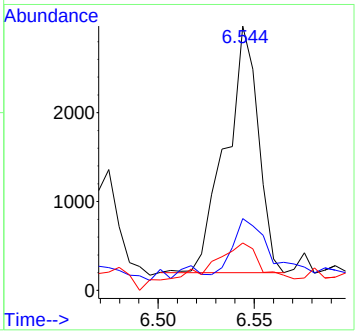


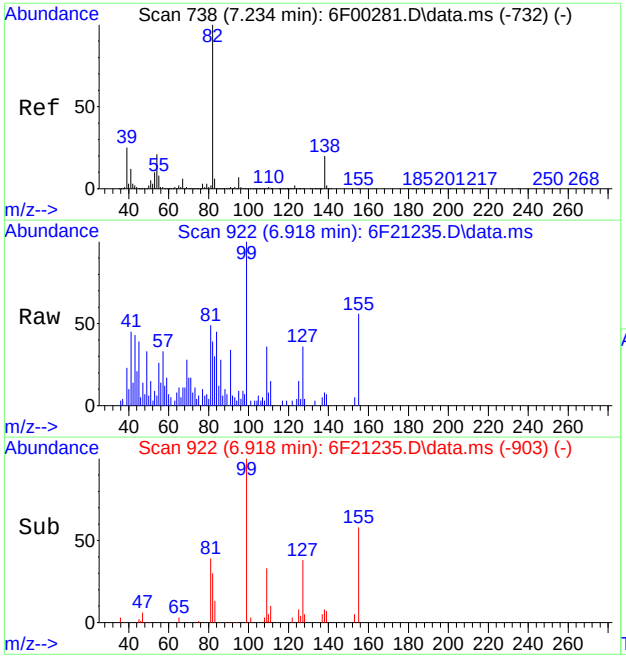


#18
Acetophenone
Concen: 0.13 ppm
RT: 6.544 min Scan# 852
Delta R.T. -0.005 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:105 Resp: 3261

Ion	Ratio	Lower	Upper
105	100		
120	19.1	0.0	59.8
106	14.1	0.0	37.9

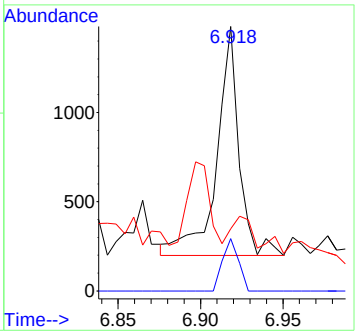


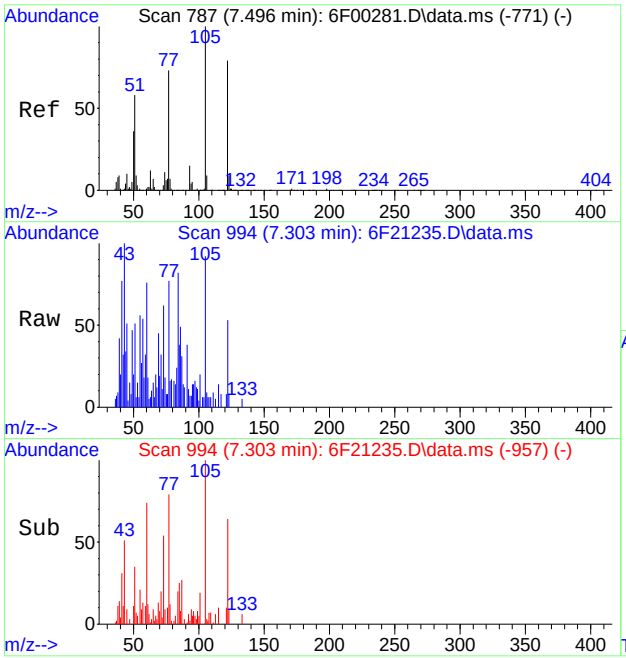


#25
Isophorone
Concen: 0.04 ppm
RT: 6.918 min Scan# 922
Delta R.T. -0.097 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion: 82 Resp: 1218

Ion	Ratio	Lower	Upper
82	100		
138	23.4	0.0	50.4
95	6.2	0.0	37.8

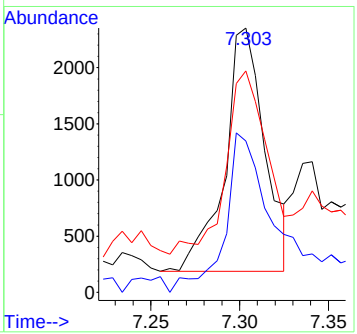


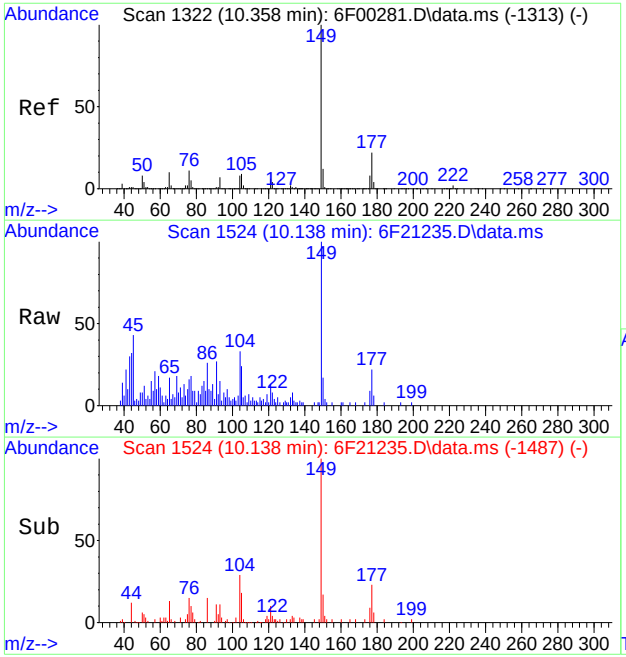


#30
Benzoic Acid
Concen: 0.27 ppm
RT: 7.303 min Scan# 994
Delta R.T. 0.000 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:105 Resp: 3412

Ion	Ratio	Lower	Upper
105	100		
122	54.6	45.3	105.3
77	77.5	46.4	106.4

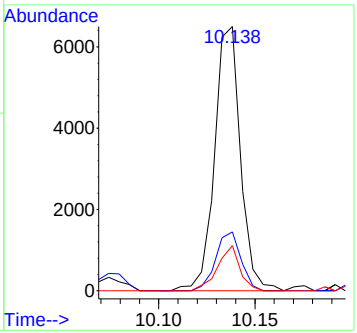


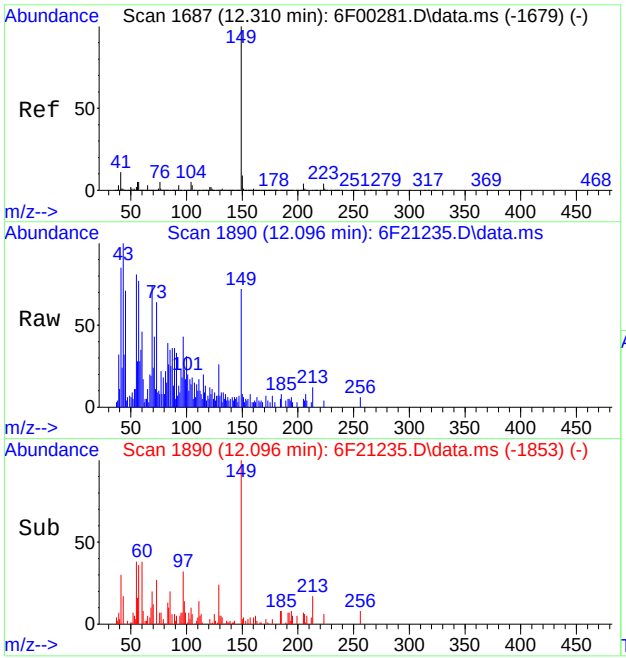


#67
Diethylphthalate
Concen: 0.29 ppm
RT: 10.138 min Scan# 1524
Delta R.T. -0.005 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:149 Resp: 6061

Ion	Ratio	Lower	Upper
149	100		
177	22.3	0.0	54.2
150	17.0	0.0	41.9

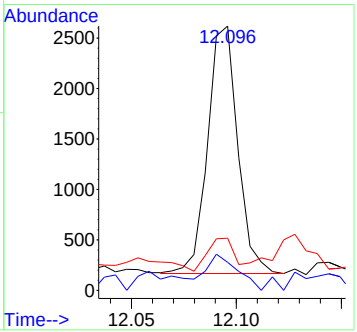




#89
Di-n-butylphthalate
Concen: 0.08 ppm
RT: 12.096 min Scan# 1890
Delta R.T. -0.000 min
Lab File: 6F21235.D
Acq: 7 Nov 2023 11:04 am

Tgt Ion:149 Resp: 2444

Ion	Ratio	Lower	Upper
149	100		
150	9.0	0.0	39.4
104	5.1	0.0	35.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21280.D
Acq On : 8 Nov 2023 11:52 am
Operator : karena
Sample : fc10955-1A
Misc : op99915,S6F801,960,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 14:42:02 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

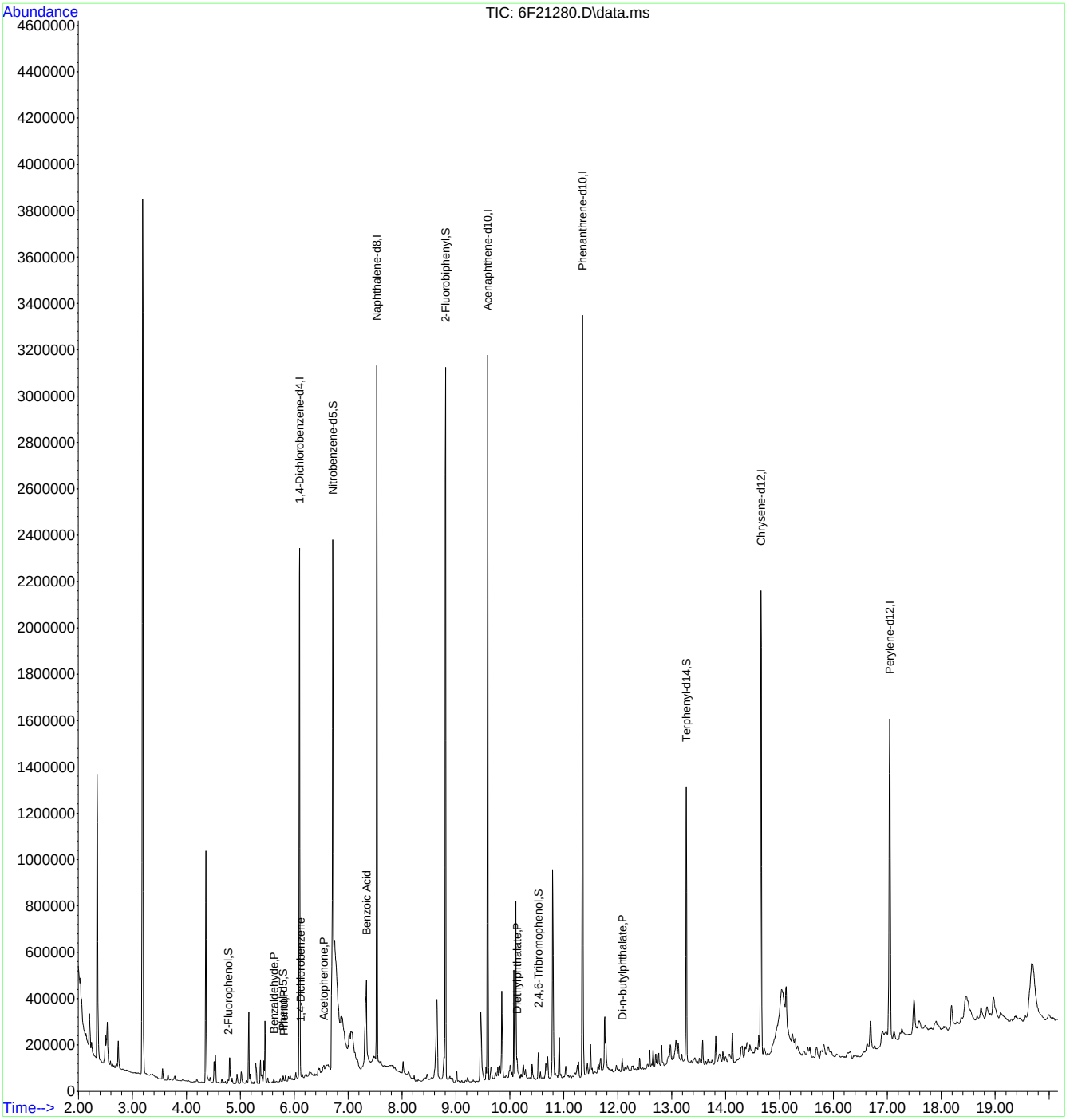
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	313679	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1143815	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	626905	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1101754	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	792062	40.00	ppm	0.00
102) Perylene-d12	17.043	264	769622	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.779	112	6381	0.46	ppm	0.07
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.46%#		
9) Phenol-d5	5.795	99	10788	0.58	ppm	0.08
Spiked Amount 100.000	Range 10 - 50		Recovery =	0.58%#		
23) Nitrobenzene-d5	6.715	82	643267	38.13	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery =	76.26%		
47) 2-Fluorobiphenyl	8.806	172	841080	42.27	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery =	84.54%		
75) 2,4,6-Tribromophenol	10.529	330	8919	4.38	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	4.38%#		
95) Terphenyl-d14	13.272	244	399912	19.98	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery =	39.96%		
Target Compounds						Qvalue
5) Benzaldehyde	5.624	106	3529	0.28	ppm	87
10) Phenol	5.806	94	1235	0.05	ppm	91
13) 1,4-Dichlorobenzene	6.116	146	7833	0.68	ppm	91
18) Acetophenone	6.549	105	3101	0.15	ppm	81
30) Benzoic Acid	7.341	105	218936	19.28	ppm	91
67) Diethylphthalate	10.133	149	6198	0.31	ppm	92
89) Di-n-butylphthalate	12.090	149	2430	0.08	ppm	94

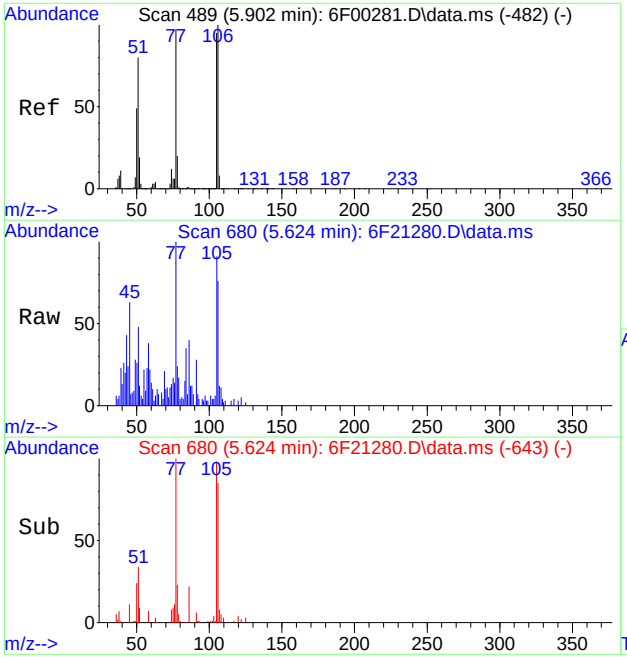
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21280.D
Acq On : 8 Nov 2023 11:52 am
Operator : karena
Sample : fc10955-1A
Misc : op99915,S6F801,960,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 14:42:02 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

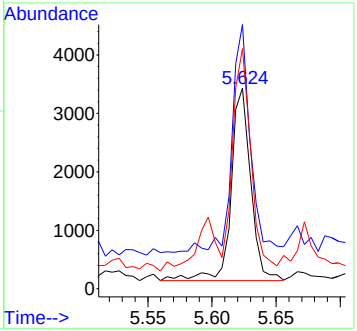


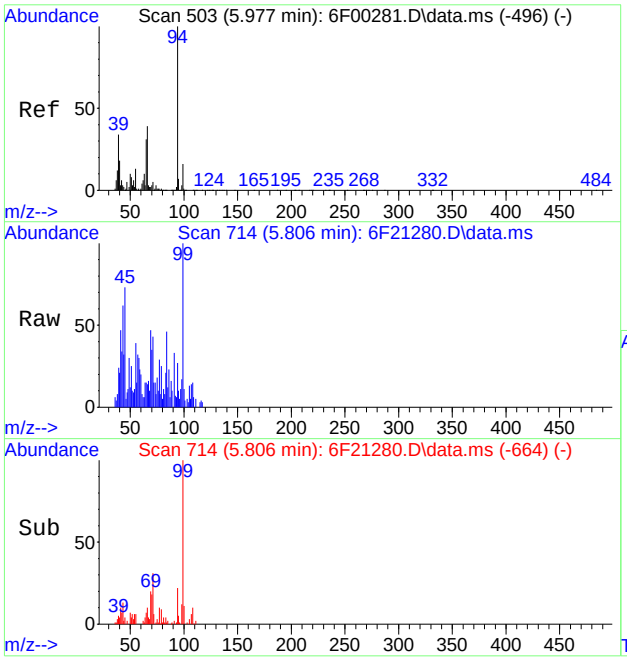


#5
Benzaldehyde
Concen: 0.28 ppm
RT: 5.624 min Scan# 680
Delta R.T. -0.000 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:106 Resp: 3529

Ion	Ratio	Lower	Upper
106	100		
77	117.3	74.4	134.4
105	111.8	67.6	127.6

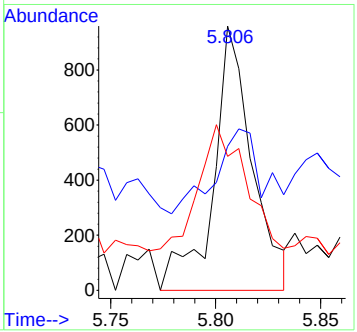


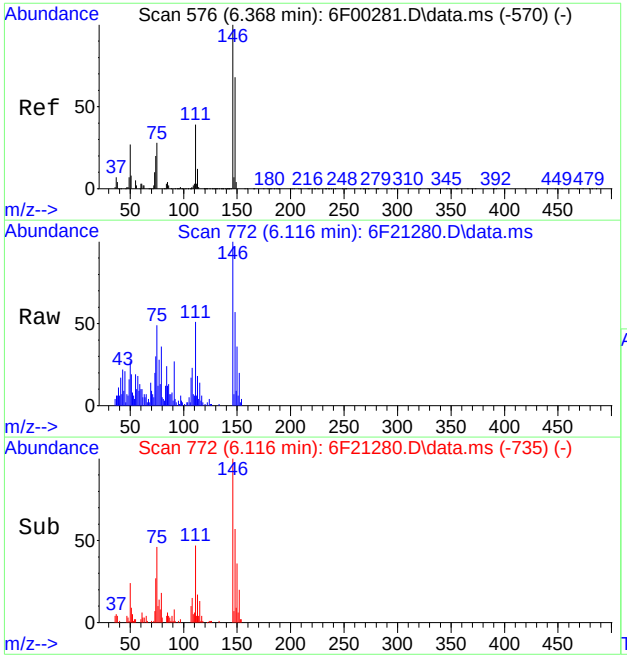


#10
Phenol
Concen: 0.05 ppm
RT: 5.806 min Scan# 714
Delta R.T. 0.070 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion: 94 Resp: 1235

Ion	Ratio	Lower	Upper
94	100		
65	22.5	0.0	54.5
66	37.7	0.5	60.5

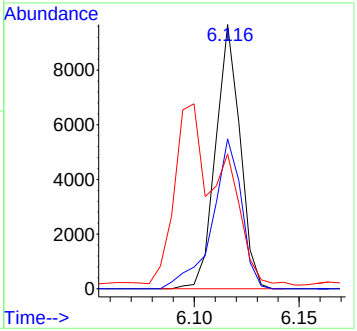


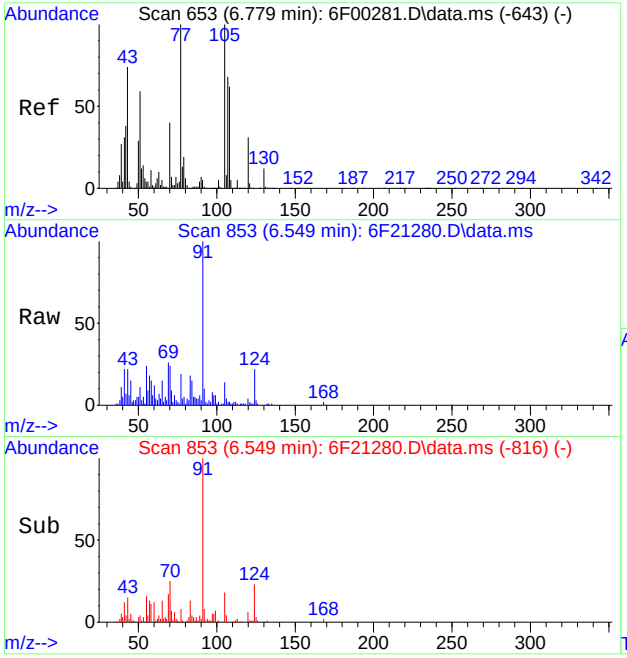


#13
1,4-Dichlorobenzene
Concen: 0.68 ppm
RT: 6.116 min Scan# 772
Delta R.T. -0.000 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:146 Resp: 7833

Ion	Ratio	Lower	Upper
146	100		
148	56.7	33.9	93.9
111	45.5	10.6	70.6

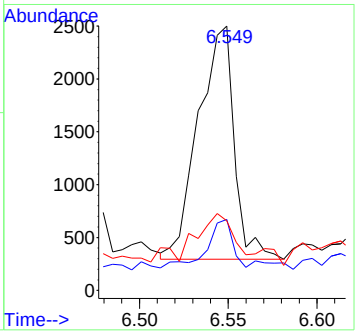


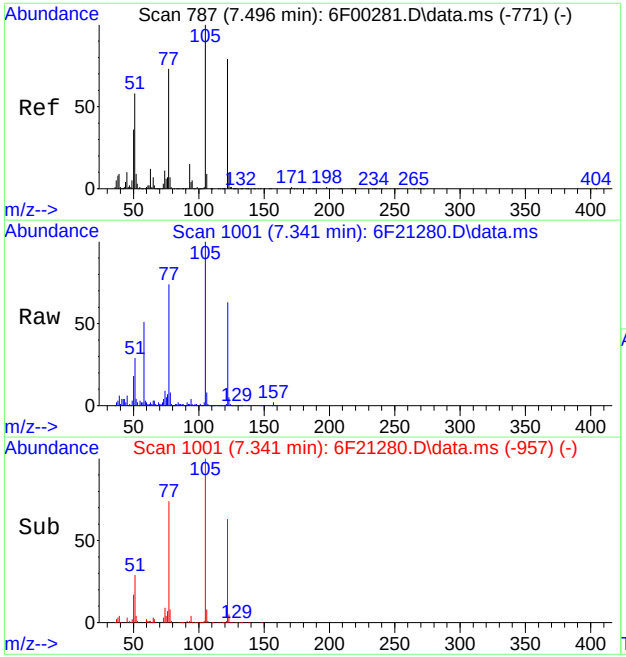


#18
Acetophenone
Concen: 0.15 ppm
RT: 6.549 min Scan# 853
Delta R.T. 0.000 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:105 Resp: 3101

Ion	Ratio	Lower	Upper
105	100		
120	20.0	0.0	59.8
106	15.5	0.0	37.9

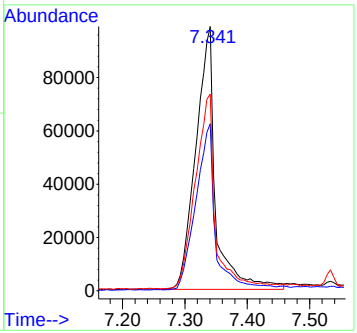


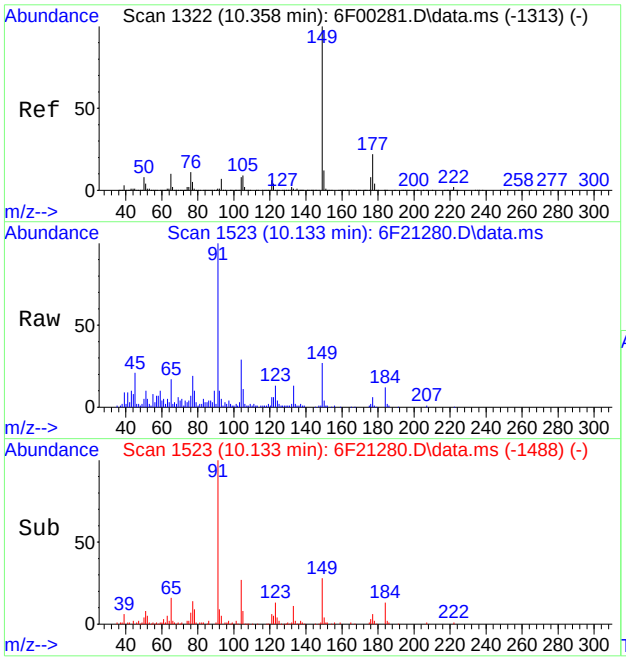


#30
Benzoic Acid
Concen: 19.28 ppm
RT: 7.341 min Scan# 1001
Delta R.T. 0.038 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:105 Resp: 218936

Ion	Ratio	Lower	Upper
105	100		
122	63.0	45.3	105.3
77	73.9	46.4	106.4

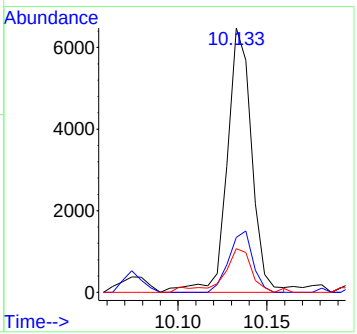


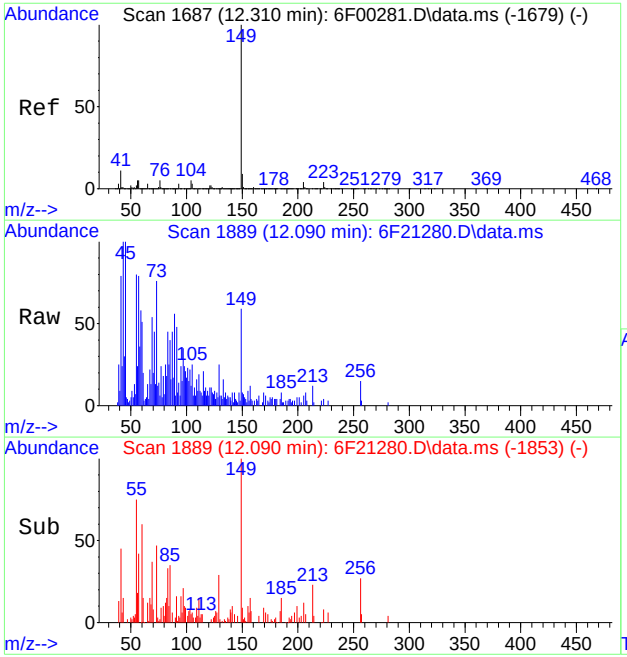


#67
Diethylphthalate
Concen: 0.31 ppm
RT: 10.133 min Scan# 1523
Delta R.T. -0.010 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:149 Resp: 6198

Ion	Ratio	Lower	Upper
149	100		
177	21.0	0.0	54.2
150	15.9	0.0	41.9

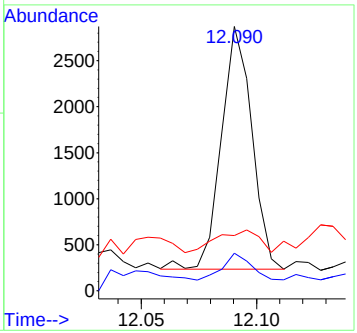




#89
Di-n-butylphthalate
Concen: 0.08 ppm
RT: 12.090 min Scan# 1889
Delta R.T. -0.006 min
Lab File: 6F21280.D
Acq: 8 Nov 2023 11:52 am

Tgt Ion:149 Resp: 2430

Ion	Ratio	Lower	Upper
149	100		
150	10.1	0.0	39.4
104	1.7	0.0	35.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21228.D
Acq On : 7 Nov 2023 7:59 am
Operator : karena
Sample : op99915-mb
Misc : op99915,S6F799,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 12:15:58 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

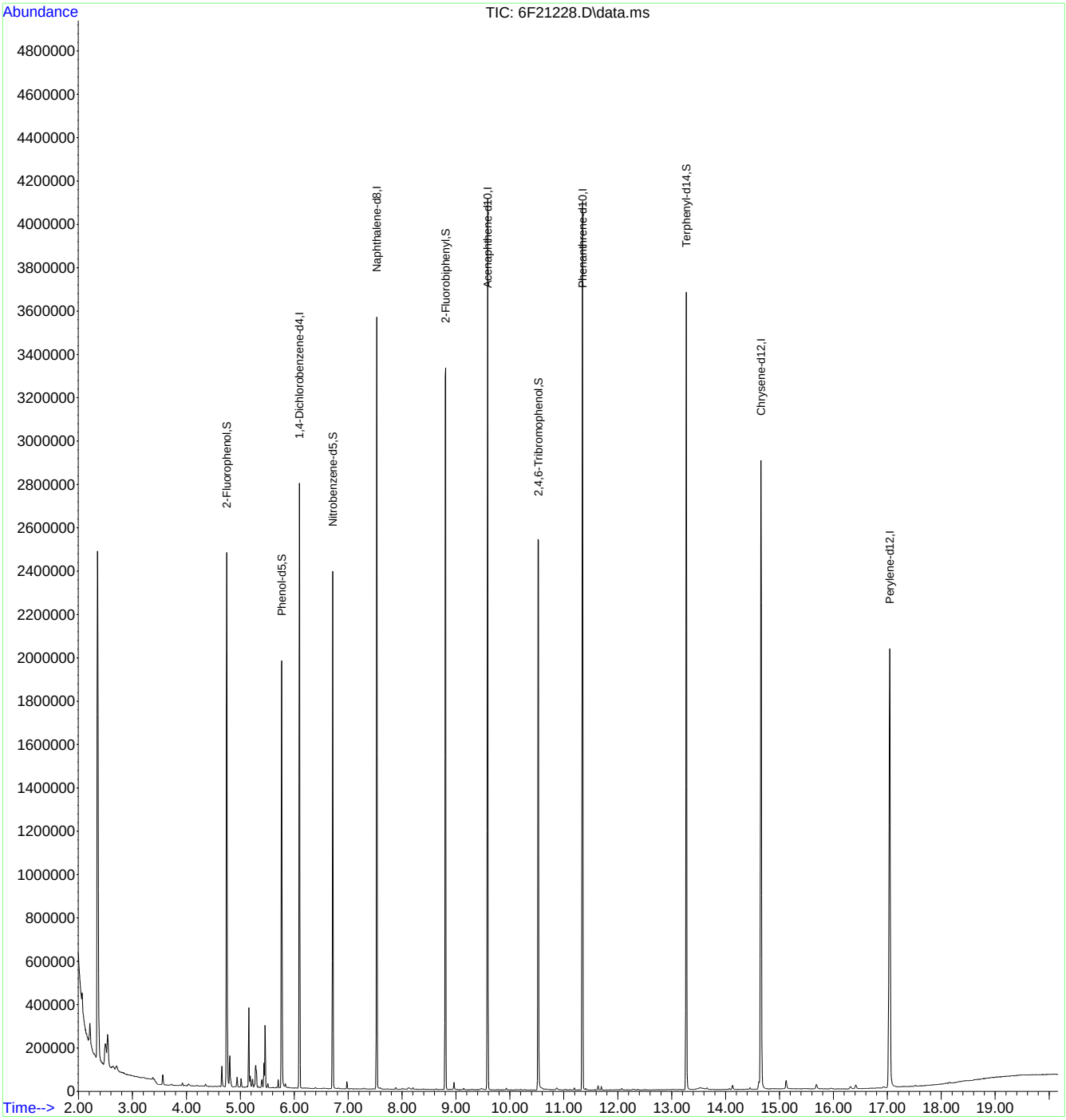
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.095	152	363346	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1385802	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	807965	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1512547	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	1163815	40.00	ppm	0.00
102) Perylene-d12	17.043	264	1078360	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.747	112	770016	47.82	ppm	0.04
Spiked Amount 100.000	Range 14 - 67		Recovery = 47.82%			
9) Phenol-d5	5.768	99	837906	38.76	ppm	0.05
Spiked Amount 100.000	Range 10 - 50		Recovery = 38.76%			
23) Nitrobenzene-d5	6.715	82	802553	39.27	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 78.54%			
47) 2-Fluorobiphenyl	8.806	172	976732	38.09	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 76.18%			
75) 2,4,6-Tribromophenol	10.529	330	215333	77.06	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 77.06%			
95) Terphenyl-d14	13.272	244	1201513	40.84	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 81.68%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21228.D
Acq On : 7 Nov 2023 7:59 am
Operator : karena
Sample : op99915-mb
Misc : op99915,S6F799,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 12:15:58 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21227.D
Acq On : 7 Nov 2023 7:33 am
Operator : karena
Sample : op99915-bs
Misc : op99915,S6F799,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 12:15:20 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	389882	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1448034	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	802941	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1480375	40.00	ppm	0.00
92) Chrysene-d12	14.663	240	1110102	40.00	ppm	0.00
102) Perylene-d12	17.049	264	1004172	40.00	ppm	0.01
System Monitoring Compounds						
7) 2-Fluorophenol	4.752	112	1060573	61.38	ppm	0.04
Spiked Amount 100.000	Range 14 - 67		Recovery = 61.38%			
9) Phenol-d5	5.768	99	1151170	49.63	ppm	0.05
Spiked Amount 100.000	Range 10 - 50		Recovery = 49.63%			
23) Nitrobenzene-d5	6.720	82	918710	43.02	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 86.04%			
47) 2-Fluorobiphenyl	8.806	172	1106253	43.41	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 86.82%			
75) 2,4,6-Tribromophenol	10.534	330	235492	86.11	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 86.11%			
95) Terphenyl-d14	13.272	244	1247523	44.46	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 88.92%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	284927	27.43	ppm	98
3) N-nitrosodimethylamine	3.260	42	279817	32.68	ppm	95
4) Pyridine	3.292	79	738847	28.28	ppm	99
5) Benzaldehyde	5.624	106	635440	61.78	ppm	99
6) Aniline	5.747	93	976731	34.84	ppm	88
8) bis(2-Chloroethyl)ether	5.816	93	873164	42.18	ppm	94
10) Phenol	5.784	94	655826	24.38	ppm	90
11) 2-Chlorophenol	5.891	128	591901	41.06	ppm	93
12) 1,3-Dichlorobenzene	6.030	146	589730	41.16	ppm	88
13) 1,4-Dichlorobenzene	6.116	146	589650	41.33	ppm	90
14) 1,2-Dichlorobenzene	6.282	146	545094	40.26	ppm	90
15) Benzyl alcohol	6.276	108	451578	35.86	ppm	94
16) bis(2-chloroisopropyl)...	6.415	45	736870	43.53	ppm	94
17) 2-Methylphenol	6.426	108	588285	36.17	ppm	92
18) Acetophenone	6.549	105	1073460	40.69	ppm	93
19) Hexachloroethane	6.656	117	287414	40.74	ppm	88
20) N-Nitroso-di-n-propyla...	6.560	70	489589	45.91	ppm	89
21) 3&4-Methylphenol	6.613	108	1226119	71.51	ppm	96
24) Nitrobenzene	6.742	77	855667	42.86	ppm	89
25) Isophorone	7.020	82	1603947	41.87	ppm	89
26) 2-Nitrophenol	7.100	139	321587	46.64	ppm	78
27) 2,4-Dimethylphenol	7.191	107	668834	42.37	ppm	86
29) bis(2-Chloroethoxy)met...	7.277	93	990940	45.32	ppm	96
30) Benzoic Acid	7.357	105	651869	43.82	ppm	92
31) 2,4-Dichlorophenol	7.405	162	481081	46.12	ppm	90
32) 1,2,4-Trichlorobenzene	7.469	180	491425	42.91	ppm	99
34) Naphthalene	7.560	128	1592469	42.50	ppm	93
35) 4-Chloroaniline	7.640	127	534122	34.86	ppm	97
36) 2,6-Dichlorophenol	7.651	162	440025	42.31	ppm	94
37) Hexachlorobutadiene	7.704	225	291248	43.96	ppm	100
38) Caprolactam	8.047	113	109305	18.81	ppm	87
39) 4-Chloro-3-methylphenol	8.250	107	685036	43.50	ppm	82
40) 2-Methylnaphthalene	8.368	141	859778	43.74	ppm	93
41) 1-Methylnaphthalene	8.480	142	982570	45.35	ppm	94
42) 1,2,4,5-Tetrachloroben...	8.560	216	464402	41.87	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21227.D
Acq On : 7 Nov 2023 7:33 am
Operator : karena
Sample : op99915-bs
Misc : op99915,S6F799,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 12:15:20 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

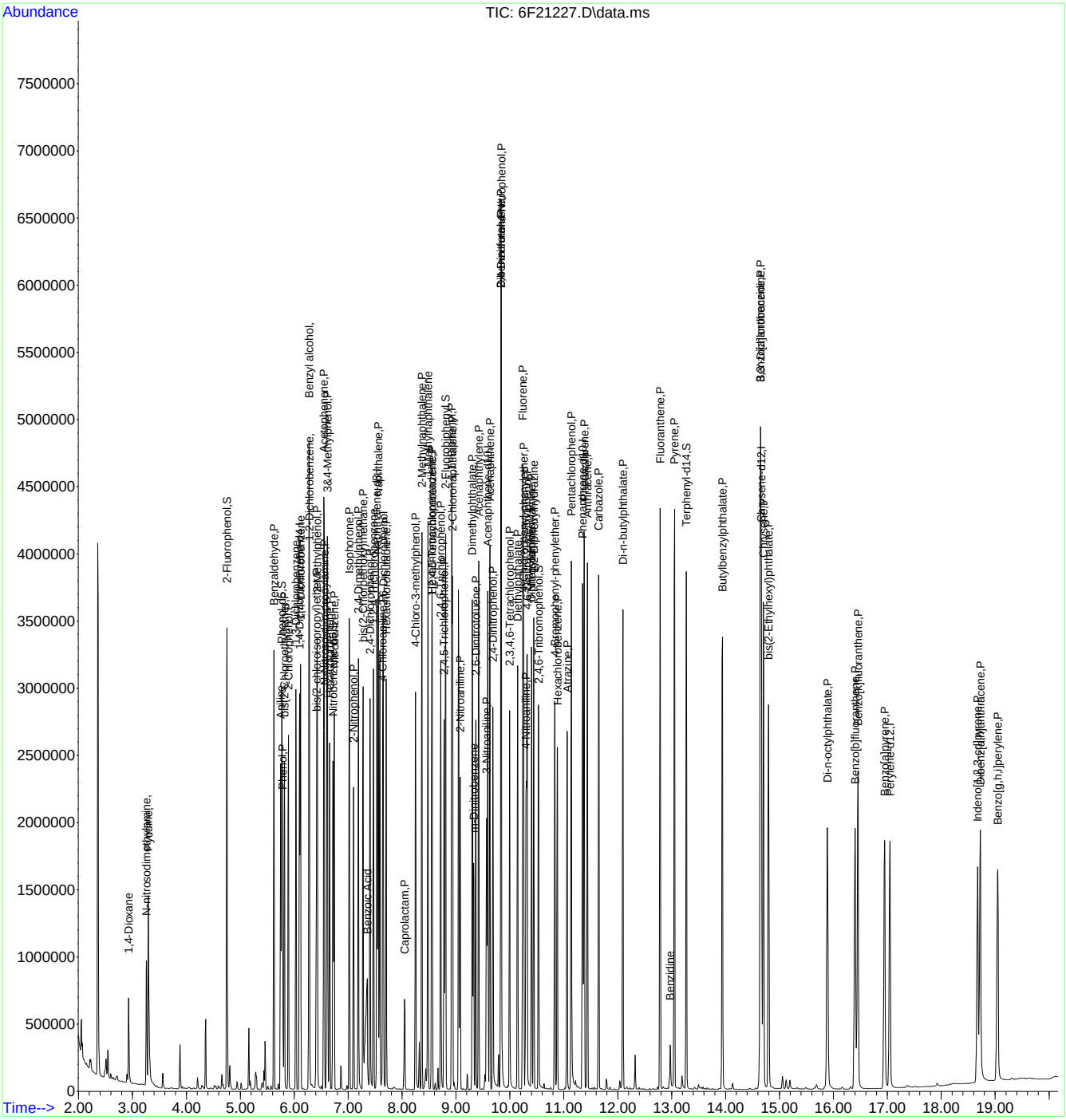
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Hexachlorocyclopentadiene	8.550	237	313640	55.83	ppm		99
45) 2,4,6-Trichlorophenol	8.715	196	344786	47.44	ppm		99
46) 2,4,5-Trichlorophenol	8.780	196	370156	47.41	ppm		99
48) 1,1'-Biphenyl	8.919	154	1232563	43.19	ppm		99
49) 2-Chloronaphthalene	8.935	162	949811	44.07	ppm		97
50) 2-Nitroaniline	9.079	65	387478	44.53	ppm		85
52) Acenaphthylene	9.421	152	1508703	45.68	ppm		100
53) Dimethylphthalate	9.304	163	1181000	45.13	ppm		100
54) m-Dinitrobenzene	9.330	168	206109	49.44	ppm	#	74
55) 2,6-Dinitrotoluene	9.368	165	283651	47.44	ppm		80
57) Acenaphthene	9.630	153	967305	43.80	ppm		98
58) 3-Nitroaniline	9.566	138	271420	40.01	ppm	#	52
59) 2,4-Dinitrophenol	9.683	184	344978	99.27	ppm		80
60) Dibenzofuran	9.833	168	1260946	41.67	ppm		84
61) 2,4-Dinitrotoluene	9.833	165	361557	45.99	ppm		70
62) 4-Nitrophenol	9.839	109	324856	53.49	ppm	#	43
64) 2,3,4,6-Tetrachlorophenol	9.994	232	282181	45.61	ppm		99
65) Fluorene	10.240	166	1118020	46.37	ppm		99
66) 4-Chlorophenyl-phenyle...	10.256	204	559538	45.16	ppm		99
67) Diethylphthalate	10.143	149	1203091	46.68	ppm		97
69) 4-Nitroaniline	10.299	138	298246	44.11	ppm	#	64
71) 4,6-Dinitro-2-methylph...	10.320	198	491261	98.00	ppm	#	46
72) n-Nitrosodiphenylamine	10.400	169	789521	42.75	ppm		98
73) Diphenylamine	10.400	169	789521	36.57	ppm		98
74) 1,2-Diphenylhydrazine	10.443	77	1447108	44.62	ppm		90
78) 4-Bromophenyl-phenylether	10.833	248	301561	45.83	ppm		85
79) Hexachlorobenzene	10.882	284	281631	44.14	ppm		93
82) Atrazine	11.063	200	349398	44.09	ppm		98
83) Pentachlorophenol	11.138	266	372890	85.30	ppm		100
84) Phenanthrene	11.379	178	1611069	45.21	ppm		99
85) Anthracene	11.438	178	1506221	40.95	ppm		100
87) Carbazole	11.646	167	1489163	44.05	ppm		99
89) Di-n-butylphthalate	12.096	149	1889128	45.63	ppm		97
91) Fluoranthene	12.786	202	1704802	44.93	ppm		96
93) Benzidine	12.973	184	133882	6.29	ppm		96
94) Pyrene	13.053	202	1781080	45.46	ppm		97
97) Butylbenzylphthalate	13.941	149	850168	47.89	ppm		88
98) 3,3'-Dichlorobenzidine	14.647	252	480245	41.35	ppm		98
99) Benzo[a]anthracene	14.647	228	1527749	44.88	ppm		100
100) Chrysene	14.700	228	1513562	47.14	ppm		99
101) bis(2-Ethylhexyl)phtha...	14.797	149	1120093	48.12	ppm		98
103) Di-n-octylphthalate	15.888	149	1782673	49.88	ppm		100
104) Benzo[b]fluoranthene	16.401	252	1266154	48.63	ppm		97
105) Benzo[k]fluoranthene	16.455	252	1364849	48.70	ppm		98
106) Benzo[a]pyrene	16.947	252	1152380	45.28	ppm		97
107) Indeno[1,2,3-cd]pyrene	18.675	276	995360	44.28	ppm		96
108) Dibenz[a,h]anthracene	18.723	278	1151127	48.80	ppm		95
109) Benzo[g,h,i]perylene	19.049	276	1125075	46.25	ppm		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21227.D
Acq On : 7 Nov 2023 7:33 am
Operator : karena
Sample : op99915-bs
Misc : op99915,S6F799,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 12:15:20 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21236.D
Acq On : 7 Nov 2023 11:30 am
Operator : karena
Sample : op99915-ms
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 14:31:41 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	425764	40.00	ppm	0.00
22) Naphthalene-d8	7.534	136	1473774	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	763021	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1240095	40.00	ppm	0.00
92) Chrysene-d12	14.669	240	888497	40.00	ppm	0.00
102) Perylene-d12	17.049	264	909608	40.00	ppm	0.01
System Monitoring Compounds						
7) 2-Fluorophenol	4.774	112	712648	37.77	ppm	0.06
Spiked Amount 100.000	Range 14 - 67		Recovery = 37.77%			
9) Phenol-d5	5.795	99	693942	27.40	ppm	0.08
Spiked Amount 100.000	Range 10 - 50		Recovery = 27.40%			
23) Nitrobenzene-d5	6.721	82	747841	34.41	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 68.82%			
47) 2-Fluorobiphenyl	8.806	172	899297	37.14	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 74.28%			
75) 2,4,6-Tribromophenol	10.534	330	169437	73.96	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 73.96%			
95) Terphenyl-d14	13.273	244	866904	38.60	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 77.20%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.934	88	218610	19.27	ppm	99
3) N-nitrosodimethylamine	3.260	42	206136	22.05	ppm	100
4) Pyridine	3.303	79	509234	17.85	ppm	98
5) Benzaldehyde	5.624	106	546964	41.65	ppm	99
6) Aniline	5.752	93	661741	20.51	ppm	94
8) bis(2-Chloroethyl)ether	5.822	93	731597	32.36	ppm	93
10) Phenol	5.811	94	404397	13.23	ppm	84
11) 2-Chlorophenol	5.902	128	449613	28.56	ppm	91
12) 1,3-Dichlorobenzene	6.036	146	519197	33.18	ppm	90
13) 1,4-Dichlorobenzene	6.116	146	525142	33.71	ppm	89
14) 1,2-Dichlorobenzene	6.282	146	478603	32.37	ppm	90
15) Benzyl alcohol	6.282	108	327150	23.79	ppm	88
16) bis(2-chloroisopropyl)...	6.416	45	667995	34.82	ppm	95
17) 2-Methylphenol	6.442	108	446473	25.13	ppm	96
18) Acetophenone	6.549	105	902564	31.33	ppm	92
19) Hexachloroethane	6.656	117	251864	32.69	ppm	86
20) N-Nitroso-di-n-propyla...	6.560	70	428675	34.79	ppm	89
21) 3&4-Methylphenol	6.630	108	867086	46.31	ppm	97
24) Nitrobenzene	6.742	77	711656	35.02	ppm	88
25) Isophorone	7.020	82	1436225	36.84	ppm	89
26) 2-Nitrophenol	7.100	139	243570	34.71	ppm	73
27) 2,4-Dimethylphenol	7.202	107	536009	33.36	ppm	86
29) bis(2-Chloroethoxy)met...	7.277	93	828946	37.25	ppm	96
30) Benzoic Acid	7.357	105	364423	24.71	ppm	91
31) 2,4-Dichlorophenol	7.421	162	362508	34.15	ppm	92
32) 1,2,4-Trichlorobenzene	7.469	180	418238	35.88	ppm	98
34) Naphthalene	7.560	128	1342627	35.21	ppm	92
35) 4-Chloroaniline	7.646	127	383342	24.58	ppm	94
36) 2,6-Dichlorophenol	7.657	162	341579	32.27	ppm	95
37) Hexachlorobutadiene	7.705	225	250884	37.21	ppm	99
38) Caprolactam	8.047	113	60520	10.23	ppm	90
39) 4-Chloro-3-methylphenol	8.266	107	506440	31.60	ppm	82
40) 2-Methylnaphthalene	8.368	141	707555	35.37	ppm	93
41) 1-Methylnaphthalene	8.480	142	807551	36.62	ppm	93
42) 1,2,4,5-Tetrachloroben...	8.560	216	389373	34.49	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21236.D
Acq On : 7 Nov 2023 11:30 am
Operator : karena
Sample : op99915-ms
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 14:31:41 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

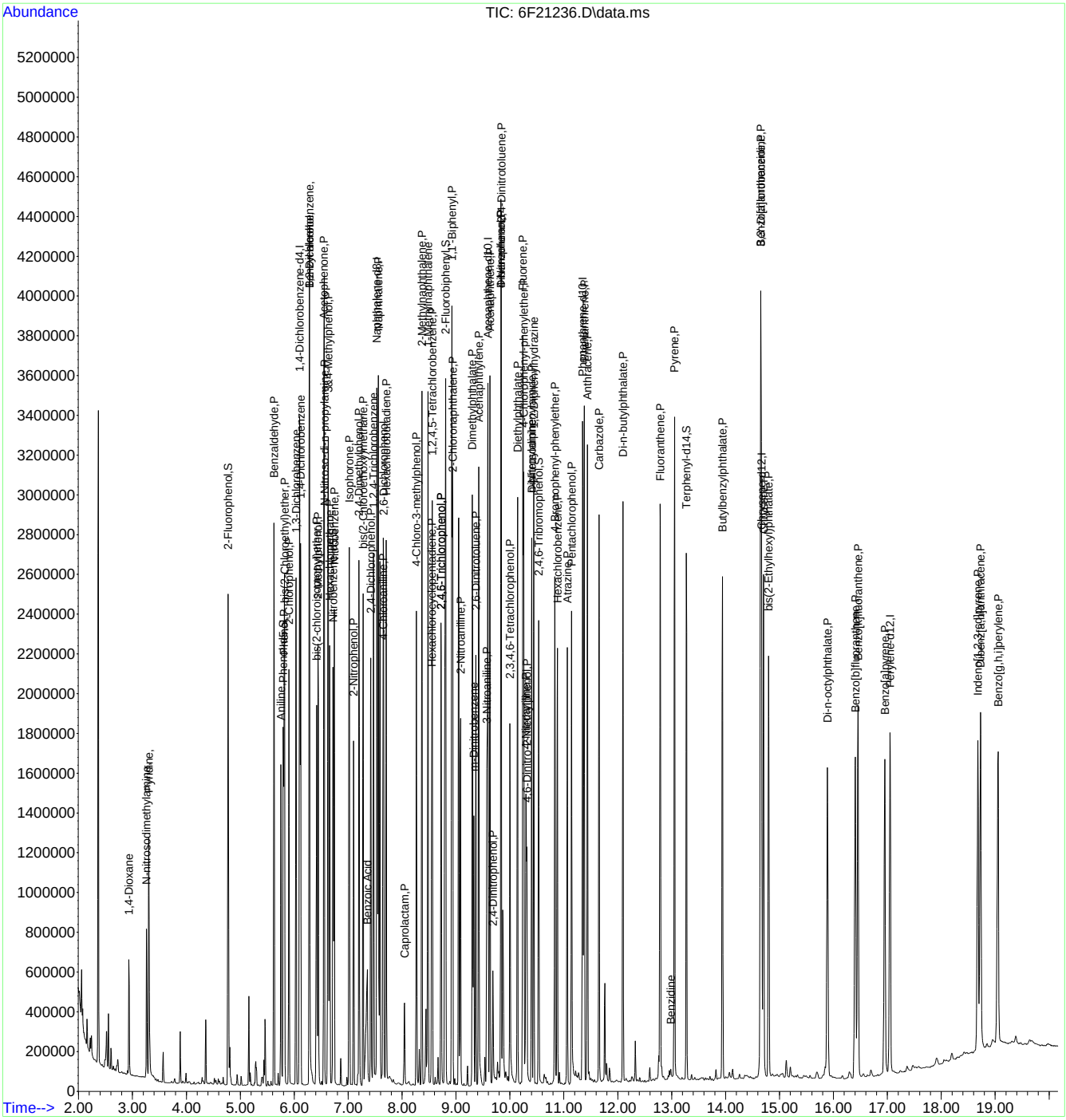
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Hexachlorocyclopentadiene	8.550	237	155800	29.19	ppm		98
45) 2,4,6-Trichlorophenol	8.726	196	264557	38.30	ppm		99
46) 2,4,5-Trichlorophenol	8.726	196	264557	35.66	ppm		98
48) 1,1'-Biphenyl	8.924	154	1033428	38.11	ppm		100
49) 2-Chloronaphthalene	8.940	162	783716	38.26	ppm		99
50) 2-Nitroaniline	9.085	65	298176	36.06	ppm		84
52) Acenaphthylene	9.422	152	1222649	38.95	ppm		100
53) Dimethylphthalate	9.304	163	988268	39.74	ppm		100
54) m-Dinitrobenzene	9.331	168	145163	36.64	ppm	#	68
55) 2,6-Dinitrotoluene	9.368	165	210633	37.07	ppm	#	69
57) Acenaphthene	9.630	153	785796	37.44	ppm		98
58) 3-Nitroaniline	9.571	138	198042	30.72	ppm	#	51
59) 2,4-Dinitrophenol	9.684	184	75587	22.89	ppm		92
60) Dibenzofuran	9.833	168	1057843	36.79	ppm		97
61) 2,4-Dinitrotoluene	9.839	165	266024	35.61	ppm		85
62) 4-Nitrophenol	9.833	109	6131	1.06	ppm	#	1
64) 2,3,4,6-Tetrachlorophenol	9.999	232	198869	33.83	ppm		98
65) Fluorene	10.240	166	914327	39.90	ppm		100
66) 4-Chlorophenyl-phenyle...	10.256	204	455093	38.65	ppm		98
67) Diethylphthalate	10.144	149	969528	39.59	ppm		98
69) 4-Nitroaniline	10.299	138	185420	28.86	ppm	#	61
71) 4,6-Dinitro-2-methylph...	10.315	198	146787	34.71	ppm		82
72) n-Nitrosodiphenylamine	10.406	169	623535	40.22	ppm		99
73) Diphenylamine	10.406	169	623535	34.48	ppm		99
74) 1,2-Diphenylhydrazine	10.443	77	1187924	43.60	ppm		90
78) 4-Bromophenyl-phenylether	10.834	248	239160	43.39	ppm	#	81
79) Hexachlorobenzene	10.882	284	225693	42.23	ppm		90
82) Atrazine	11.064	200	249163	37.54	ppm		96
83) Pentachlorophenol	11.144	266	219968	60.23	ppm		99
84) Phenanthrene	11.379	178	1228226	41.15	ppm		99
85) Anthracene	11.438	178	1152765	37.42	ppm		100
87) Carbazole	11.652	167	1049846	37.07	ppm		99
89) Di-n-butylphthalate	12.096	149	1437552	41.45	ppm		98
91) Fluoranthene	12.791	202	1219549	38.36	ppm		97
93) Benzidine	12.984	184	23217	1.32	ppm		95
94) Pyrene	13.053	202	1277364	40.74	ppm		97
97) Butylbenzylphthalate	13.941	149	588900	41.45	ppm		83
98) 3,3'-Dichlorobenzidine	14.653	252	286461	30.82	ppm		98
99) Benzo[a]anthracene	14.653	228	1116061	40.96	ppm		99
100) Chrysene	14.706	228	1081318	42.08	ppm		99
101) bis(2-Ethylhexyl)phtha...	14.797	149	784957	42.13	ppm		99
103) Di-n-octylphthalate	15.888	149	1260525	38.94	ppm		100
104) Benzo[b]fluoranthene	16.407	252	1015021	43.04	ppm		98
105) Benzo[k]fluoranthene	16.455	252	1050169	41.36	ppm		97
106) Benzo[a]pyrene	16.952	252	932557	40.46	ppm		97
107) Indeno[1,2,3-cd]pyrene	18.680	276	918617	45.11	ppm		95
108) Dibenz[a,h]anthracene	18.728	278	995582	46.59	ppm		95
109) Benzo[g,h,i]perylene	19.054	276	1006988	45.70	ppm		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21236.D
Acq On : 7 Nov 2023 11:30 am
Operator : karena
Sample : op99915-ms
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 07 14:31:41 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21237.D
Acq On : 7 Nov 2023 11:56 am
Operator : karena
Sample : op99915-msd
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 14:32:37 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	465912	40.00	ppm	0.00
22) Naphthalene-d8	7.539	136	1573177	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	779459	40.00	ppm	0.00
70) Phenanthrene-d10	11.352	188	1241755	40.00	ppm	0.00
92) Chrysene-d12	14.668	240	863421	40.00	ppm	0.00
102) Perylene-d12	17.049	264	907583	40.00	ppm	0.01
System Monitoring Compounds						
7) 2-Fluorophenol	4.773	112	807720	39.12	ppm	0.06
Spiked Amount 100.000	Range 14 - 67		Recovery = 39.12%			
9) Phenol-d5	5.795	99	777168	28.04	ppm	0.07
Spiked Amount 100.000	Range 10 - 50		Recovery = 28.04%			
23) Nitrobenzene-d5	6.720	82	830439	35.79	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 71.58%			
47) 2-Fluorobiphenyl	8.806	172	978864	39.57	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 79.14%			
75) 2,4,6-Tribromophenol	10.534	330	172781	75.32	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 75.32%			
95) Terphenyl-d14	13.272	244	836481	38.33	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 76.66%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.939	88	255868	20.62	ppm	99
3) N-nitrosodimethylamine	3.265	42	233748	22.85	ppm	100
4) Pyridine	3.308	79	585830	18.76	ppm	98
5) Benzaldehyde	5.629	106	608178	42.61	ppm	98
6) Aniline	5.752	93	781697	22.28	ppm	92
8) bis(2-Chloroethyl)ether	5.822	93	817690	33.05	ppm	93
10) Phenol	5.811	94	452009	13.53	ppm	88
11) 2-Chlorophenol	5.902	128	506485	29.40	ppm	92
12) 1,3-Dichlorobenzene	6.036	146	593430	34.66	ppm	90
13) 1,4-Dichlorobenzene	6.121	146	592051	34.73	ppm	92
14) 1,2-Dichlorobenzene	6.282	146	537547	33.22	ppm	89
15) Benzyl alcohol	6.282	108	363434	24.15	ppm	81
16) bis(2-chloroisopropyl)...	6.415	45	746422	35.68	ppm	95
17) 2-Methylphenol	6.442	108	492138	25.32	ppm	94
18) Acetophenone	6.554	105	1001296	31.76	ppm	93
19) Hexachloroethane	6.656	117	288200	34.19	ppm	86
20) N-Nitroso-di-n-propyla...	6.560	70	467442	34.64	ppm	91
21) 3&4-Methylphenol	6.629	108	949656	46.35	ppm	98
24) Nitrobenzene	6.742	77	788742	36.36	ppm	87
25) Isophorone	7.020	82	1553698	37.33	ppm	89
26) 2-Nitrophenol	7.105	139	272870	36.43	ppm	81
27) 2,4-Dimethylphenol	7.202	107	576722	33.63	ppm	86
29) bis(2-Chloroethoxy)met...	7.277	93	904813	38.09	ppm	97
30) Benzoic Acid	7.357	105	383879	24.40	ppm	92
31) 2,4-Dichlorophenol	7.421	162	396067	34.95	ppm	91
32) 1,2,4-Trichlorobenzene	7.469	180	469461	37.73	ppm	99
34) Naphthalene	7.560	128	1476287	36.26	ppm	92
35) 4-Chloroaniline	7.646	127	429048	25.77	ppm	95
36) 2,6-Dichlorophenol	7.656	162	375968	33.28	ppm	94
37) Hexachlorobutadiene	7.704	225	288413	40.07	ppm	100
38) Caprolactam	8.047	113	62704	9.93	ppm	90
39) 4-Chloro-3-methylphenol	8.266	107	535390	31.29	ppm	71
40) 2-Methylnaphthalene	8.368	141	780867	36.56	ppm	93
41) 1-Methylnaphthalene	8.480	142	880708	37.41	ppm	92
42) 1,2,4,5-Tetrachloroben...	8.560	216	435906	36.18	ppm	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21237.D
Acq On : 7 Nov 2023 11:56 am
Operator : karena
Sample : op99915-msd
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 14:32:37 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

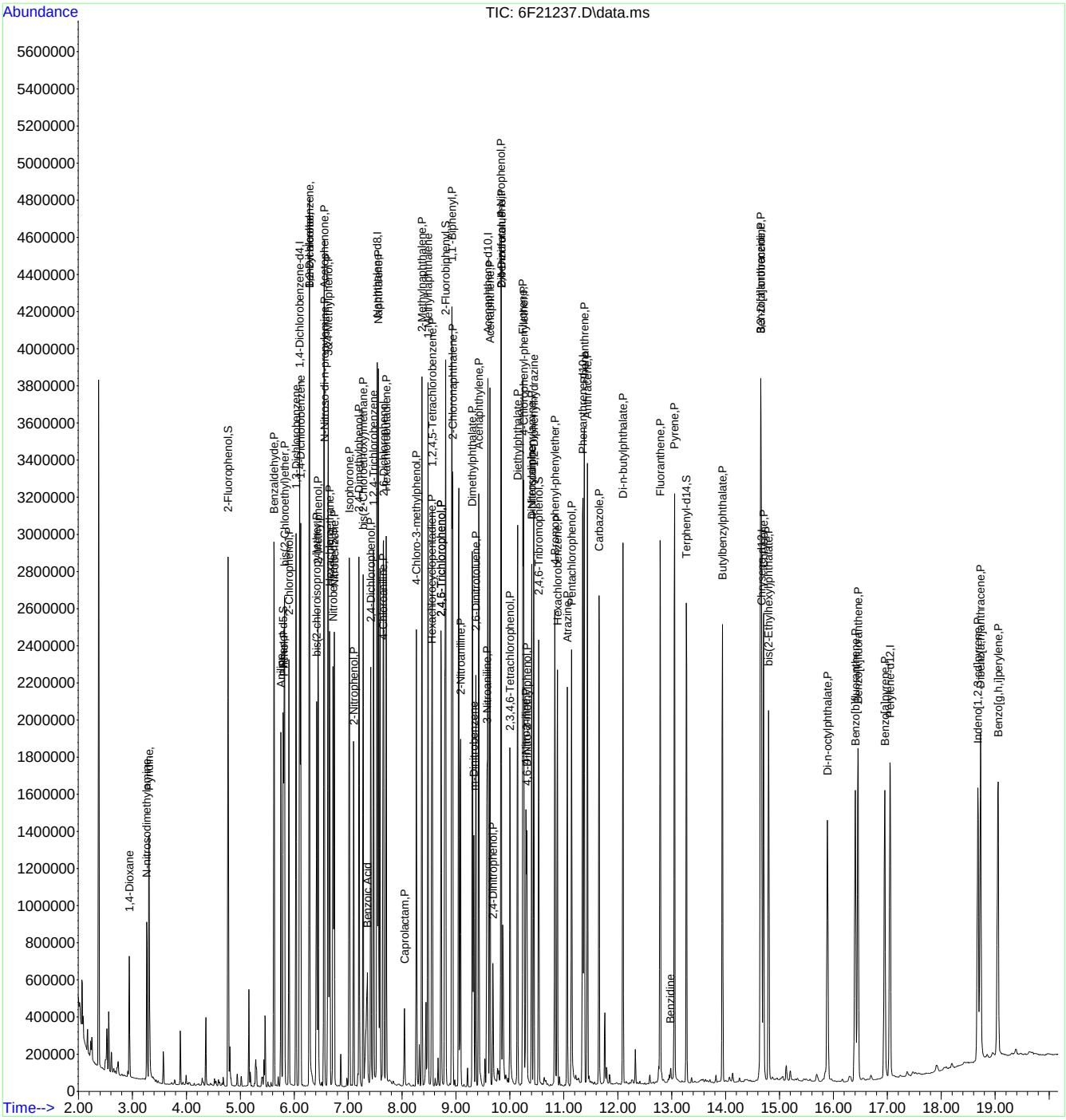
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	Hexachlorocyclopentadiene	8.550	237	186858	34.27	ppm		98
45)	2,4,6-Trichlorophenol	8.726	196	281143	39.85	ppm		99
46)	2,4,5-Trichlorophenol	8.726	196	281143	37.10	ppm		98
48)	1,1'-Biphenyl	8.924	154	1109993	40.07	ppm		100
49)	2-Chloronaphthalene	8.940	162	839881	40.14	ppm		99
50)	2-Nitroaniline	9.084	65	305204	36.13	ppm		84
52)	Acenaphthylene	9.421	152	1296056	40.42	ppm		100
53)	Dimethylphthalate	9.304	163	1015355	39.97	ppm		100
54)	m-Dinitrobenzene	9.330	168	150331	37.15	ppm	#	71
55)	2,6-Dinitrotoluene	9.368	165	219315	37.79	ppm	#	66
57)	Acenaphthene	9.630	153	837372	39.06	ppm		99
58)	3-Nitroaniline	9.576	138	198823	30.19	ppm	#	60
59)	2,4-Dinitrophenol	9.683	184	83287	24.69	ppm		78
60)	Dibenzofuran	9.839	168	1109994	37.79	ppm		98
61)	2,4-Dinitrotoluene	9.839	165	270885	35.49	ppm		81
62)	4-Nitrophenol	9.833	109	6482	1.10	ppm	#	1
64)	2,3,4,6-Tetrachlorophenol	10.004	232	203712	33.92	ppm		95
65)	Fluorene	10.240	166	943726	40.32	ppm		100
66)	4-Chlorophenyl-phenyle...	10.256	204	474330	39.43	ppm		99
67)	Diethylphthalate	10.143	149	993980	39.73	ppm		98
69)	4-Nitroaniline	10.299	138	184533	28.12	ppm	#	64
71)	4,6-Dinitro-2-methylph...	10.315	198	162899	38.48	ppm		92
72)	n-Nitrosodiphenylamine	10.406	169	637271	41.08	ppm		99
73)	Diphenylamine	10.406	169	637271	35.19	ppm		99
74)	1,2-Diphenylhydrazine	10.443	77	1224319	45.06	ppm		90
78)	4-Bromophenyl-phenylether	10.833	248	245008	44.39	ppm	#	83
79)	Hexachlorobenzene	10.882	284	228528	42.70	ppm		87
82)	Atrazine	11.063	200	246327	37.06	ppm		96
83)	Pentachlorophenol	11.144	266	226099	61.81	ppm		99
84)	Phenanthrene	11.379	178	1241905	41.55	ppm		99
85)	Anthracene	11.438	178	1150418	37.29	ppm		99
87)	Carbazole	11.652	167	1016383	35.84	ppm		99
89)	Di-n-butylphthalate	12.096	149	1429451	41.16	ppm		97
91)	Fluoranthene	12.786	202	1191020	37.42	ppm		95
93)	Benzidine	12.978	184	46837	2.77	ppm		93
94)	Pyrene	13.053	202	1234358	40.51	ppm		96
97)	Butylbenzylphthalate	13.941	149	566503	41.03	ppm		83
98)	3,3'-Dichlorobenzidine	14.652	252	297523	32.94	ppm		98
99)	Benzo[a]anthracene	14.652	228	1059464	40.01	ppm		100
100)	Chrysene	14.706	228	1036387	41.50	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	751704	41.52	ppm		98
103)	Di-n-octylphthalate	15.888	149	1194406	36.98	ppm		99
104)	Benzo[b]fluoranthene	16.407	252	985488	41.88	ppm		98
105)	Benzo[k]fluoranthene	16.455	252	1034154	40.82	ppm		97
106)	Benzo[a]pyrene	16.952	252	922949	40.13	ppm		98
107)	Indeno[1,2,3-cd]pyrene	18.680	276	901356	44.36	ppm		95
108)	Dibenz[a,h]anthracene	18.728	278	981527	46.04	ppm		95
109)	Benzo[g,h,i]perylene	19.054	276	1008747	45.88	ppm		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21237.D
Acq On : 7 Nov 2023 11:56 am
Operator : karena
Sample : op99915-msd
Misc : op99915,S6F799,520,,,1,1,water
ALS Vial : 14 Sample Multiplier: 1

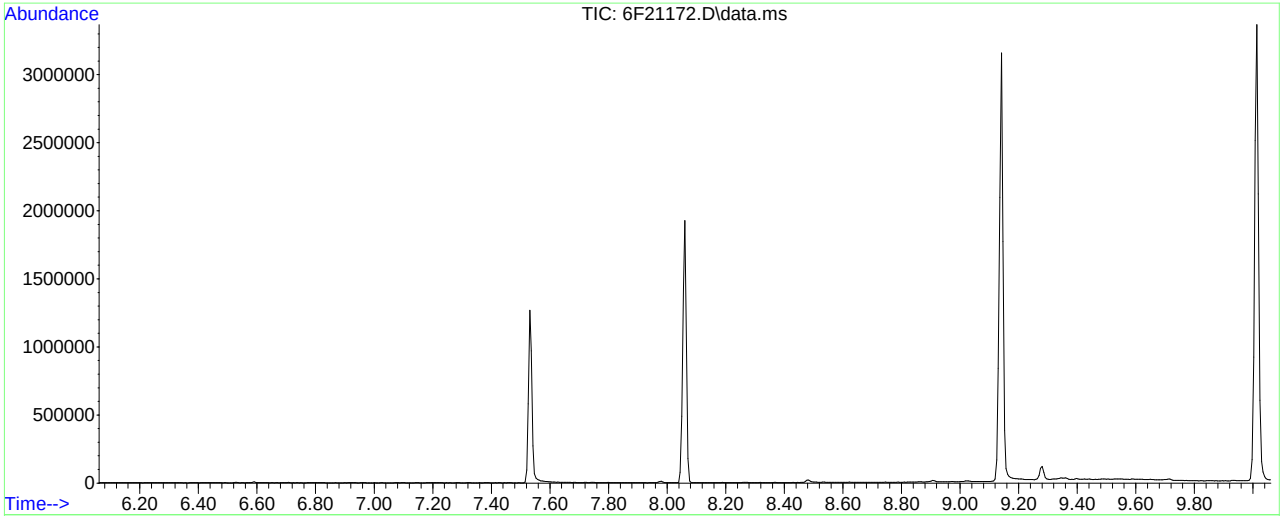
Quant Time: Nov 07 14:32:37 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



SW-846 Method 8270

Data File : C:\msdchem\1\data\S6F797\6F21172.D Vial: 1
Acq On : 2 Nov 2023 10:14 am Operator: karena
Sample : DFTPP Inst : MSBNA10
Misc : op99780,S6F797,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\DFTPP.m (RTE Integrator)
Title : Tune Evaluation



AutoFind: Scans 555, 556, 557; Background Corrected with Scan 549

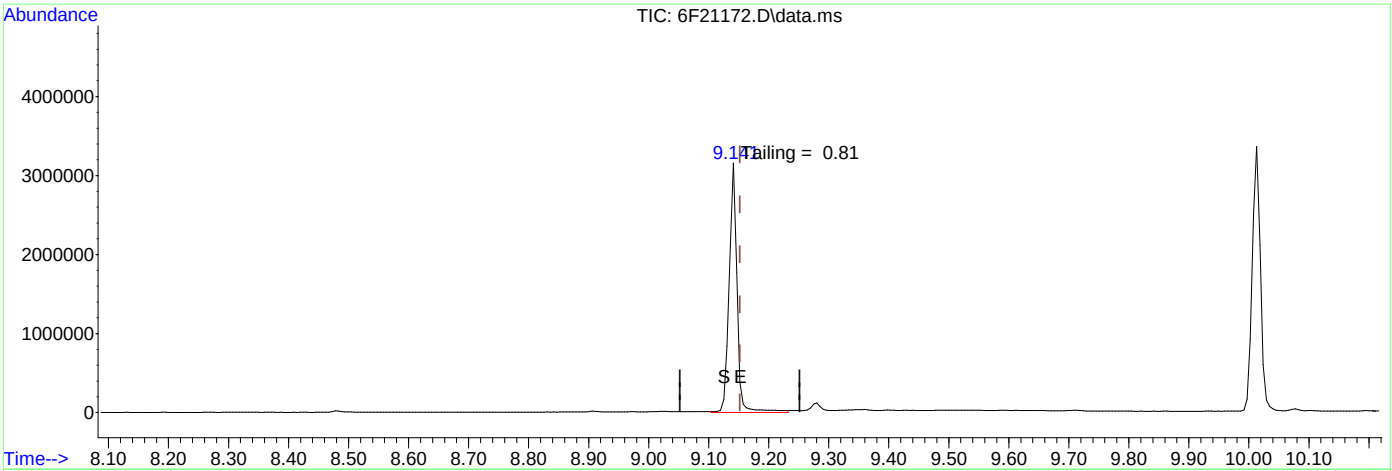
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.0	56376	PASS
68	69	0.00	2	1.2	771	PASS
69	198	0.00	100	38.6	65920	PASS
70	69	0.00	2	0.6	363	PASS
127	198	40	60	50.9	86931	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	170901	PASS
199	198	5	9	6.7	11511	PASS
275	198	10	30	23.0	39317	PASS
365	198	1	100	2.7	4676	PASS
441	443	0.01	100	75.2	11268	PASS
442	198	40	100	45.5	77749	PASS
443	442	17	23	19.3	14986	PASS

6F21172.D DFTPP.m Thu Nov 02 16:49:46 2023

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21172.D
Acq On : 2 Nov 2023 10:14 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 02 16:49:01 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration



TIC: 6F21172.D\data.ms

(3) Benzidine

9.141min (-0.011) 66.45

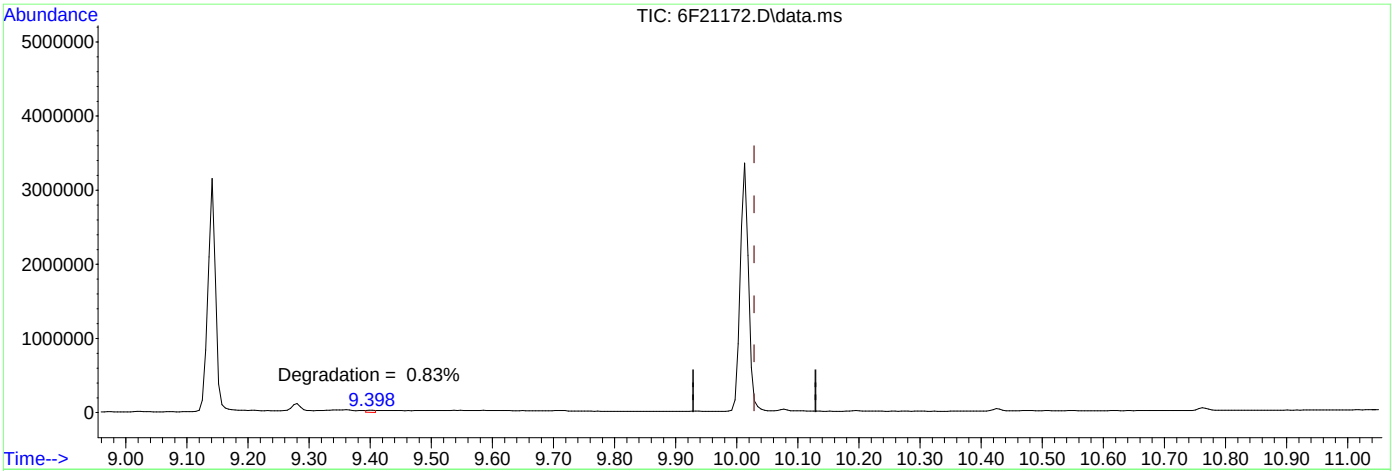
response 2818560

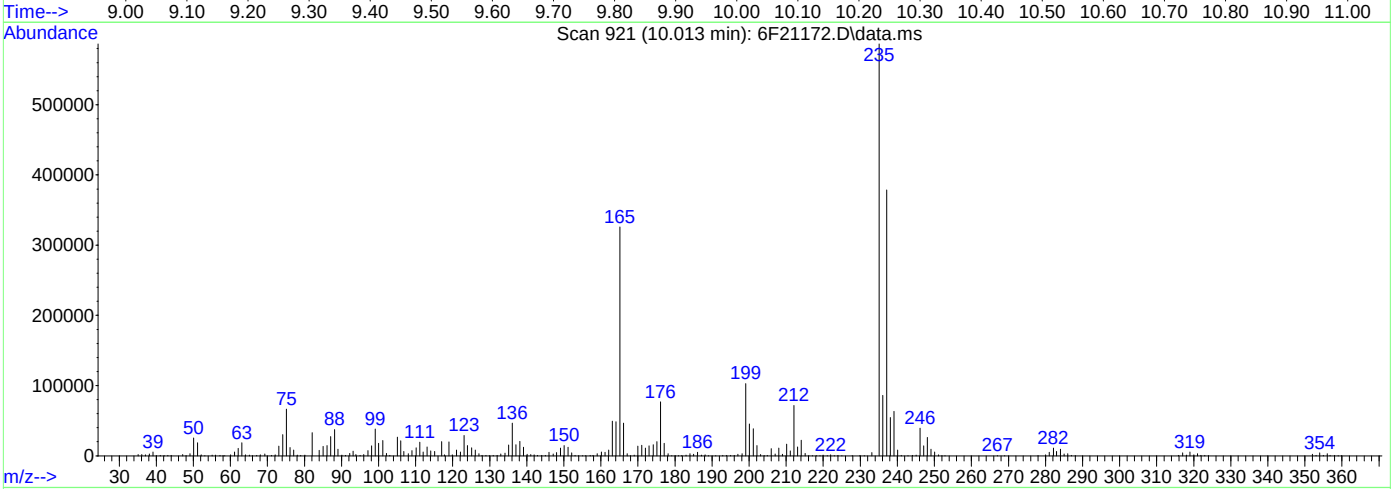
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21172.D
Acq On : 2 Nov 2023 10:14 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 02 16:49:01 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21172.D\data.ms

(4) DDT

10.013min (-0.016) 91.00

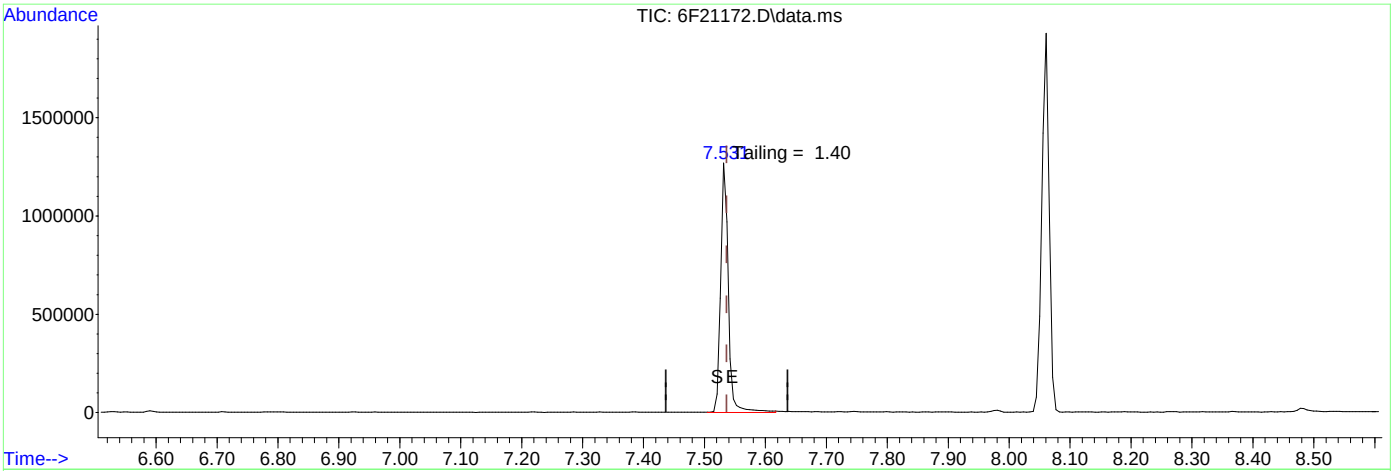
response 3176771

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21172.D
Acq On : 2 Nov 2023 10:14 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 02 16:49:01 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration



TIC: 6F21172.D\data.ms

(1) Pentachlorophenol

7.531min (-0.005) 45.87

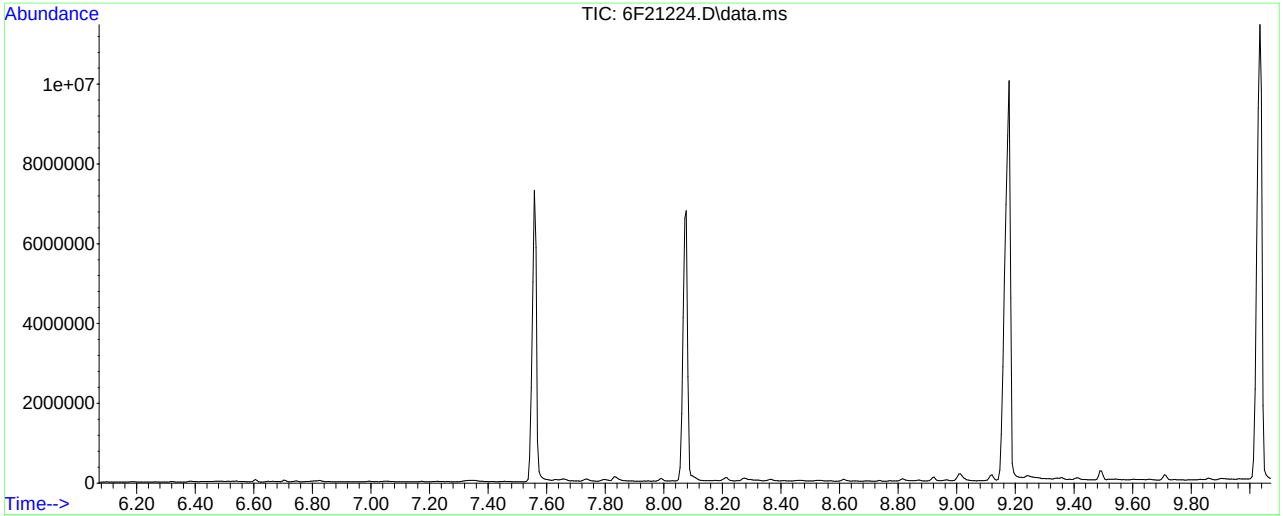
response 1097181

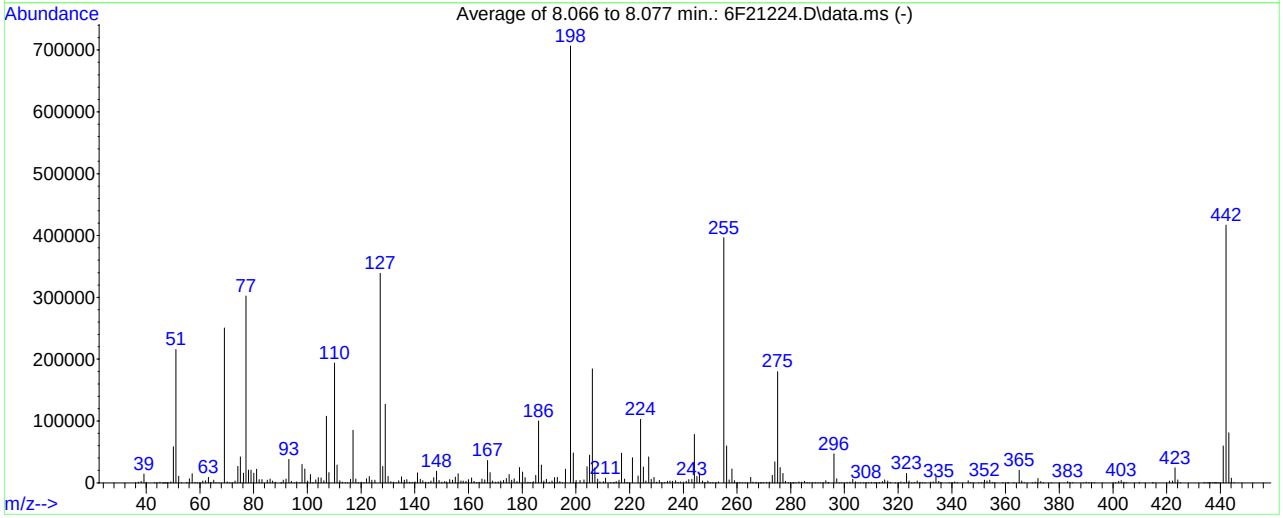
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8270

Data File : C:\msdchem\1\data\S6F799\6F21224.D Vial: 1
Acq On : 7 Nov 2023 6:25 am Operator: karena
Sample : dftpp Inst : MSBNA10
Misc : op99780,S6F799,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\DFTPP.m (RTE Integrator)
Title : Tune Evaluation





AutoFind: Scans 557, 558, 559; Background Corrected with Scan 550

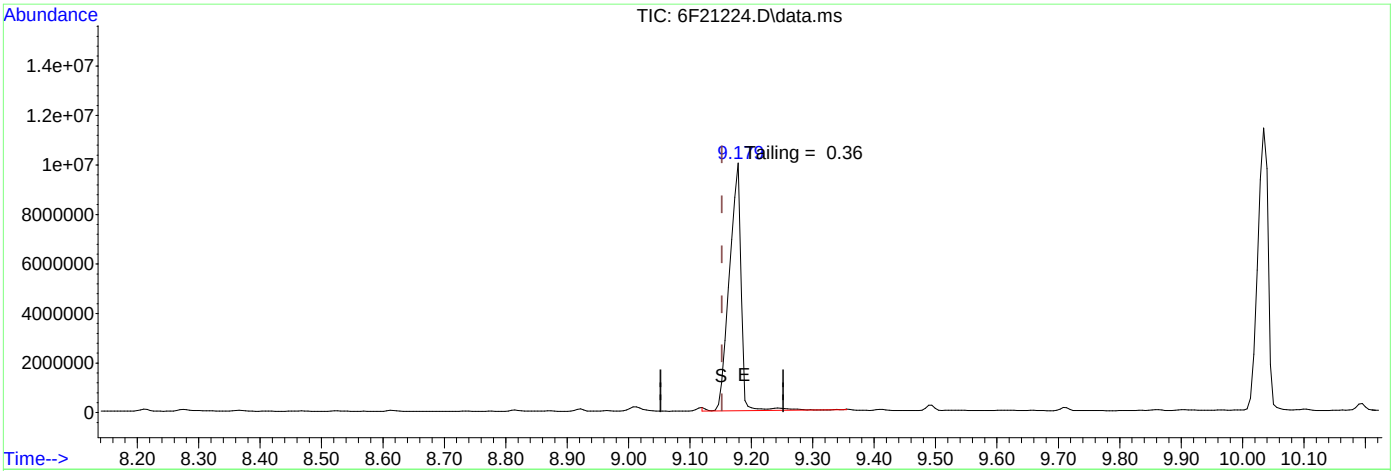
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.5	215433	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	35.5	250436	PASS
70	69	0.00	2	0.6	1465	PASS
127	198	40	60	48.0	338993	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	706325	PASS
199	198	5	9	6.9	48408	PASS
275	198	10	30	25.4	179637	PASS
365	198	1	100	2.9	20203	PASS
441	443	0.01	100	74.0	59808	PASS
442	198	40	100	59.0	417003	PASS
443	442	17	23	19.4	80816	PASS

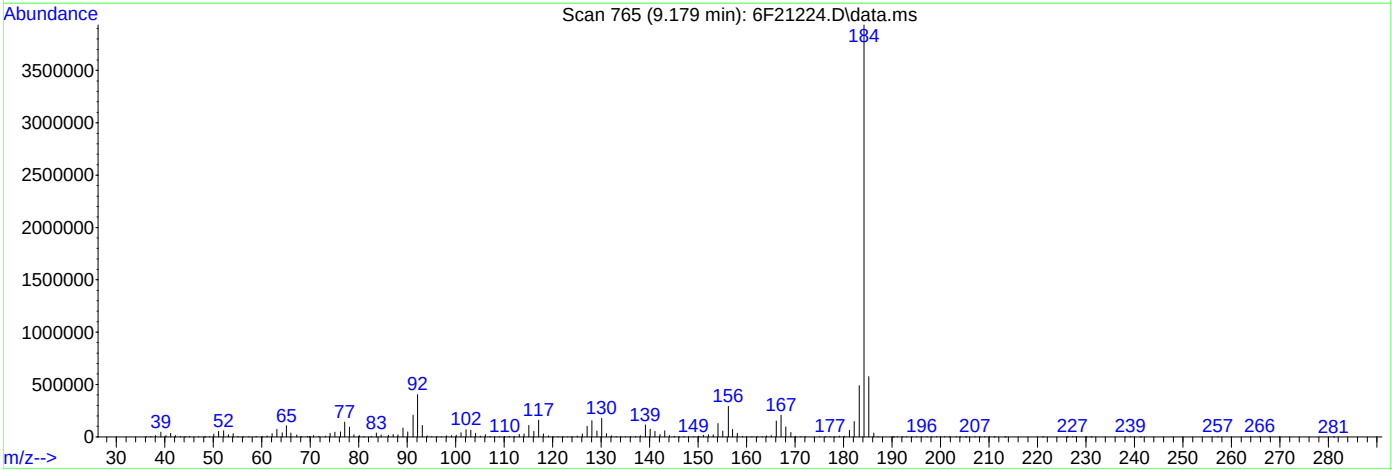
6F21224.D DFTPP.m Tue Nov 07 12:12:55 2023

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21224.D
Acq On : 7 Nov 2023 6:25 am
Operator : karena
Sample : dftpp
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 09:19:55 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21224.D\data.ms

(3) Benzidine

9.179min (+0.027) 306.42

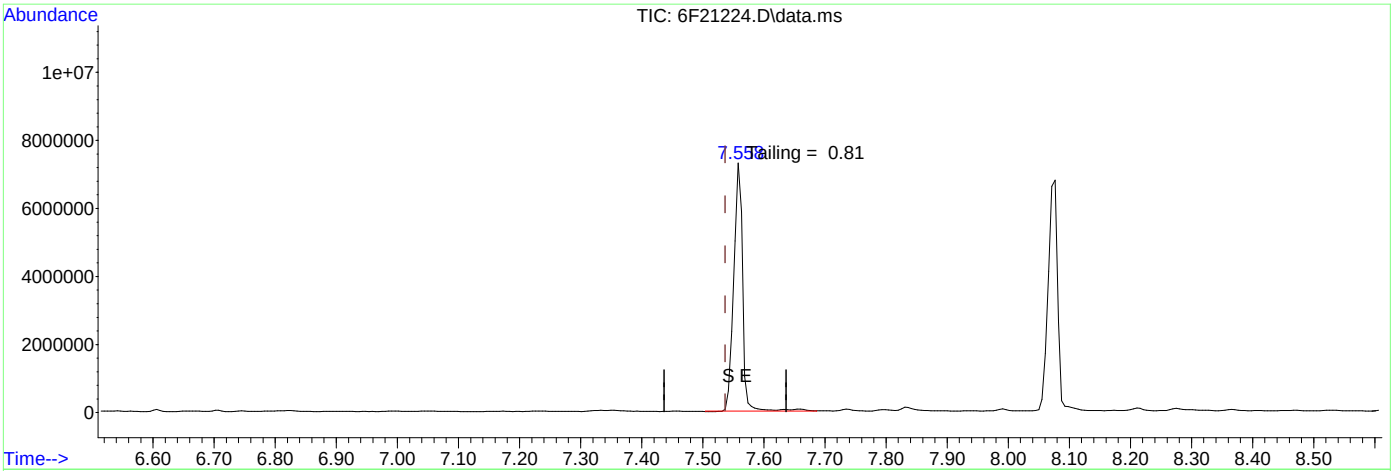
response 12997162

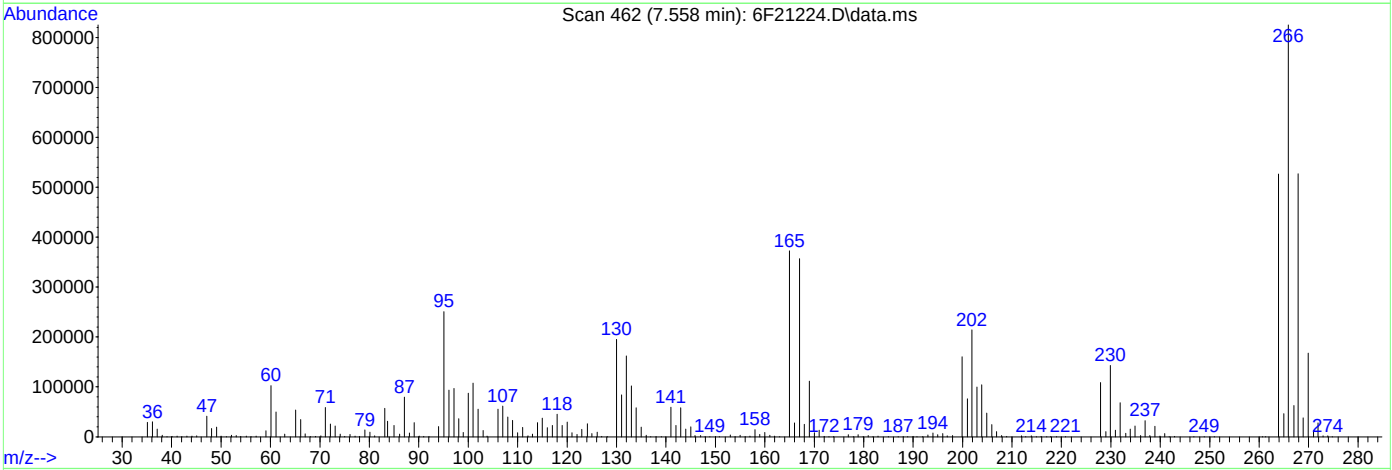
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21224.D
Acq On : 7 Nov 2023 6:25 am
Operator : karena
Sample : dftpp
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 09:19:55 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21224.D\data.ms

(1) Pentachlorophenol

7.558min (+0.021) 309.79

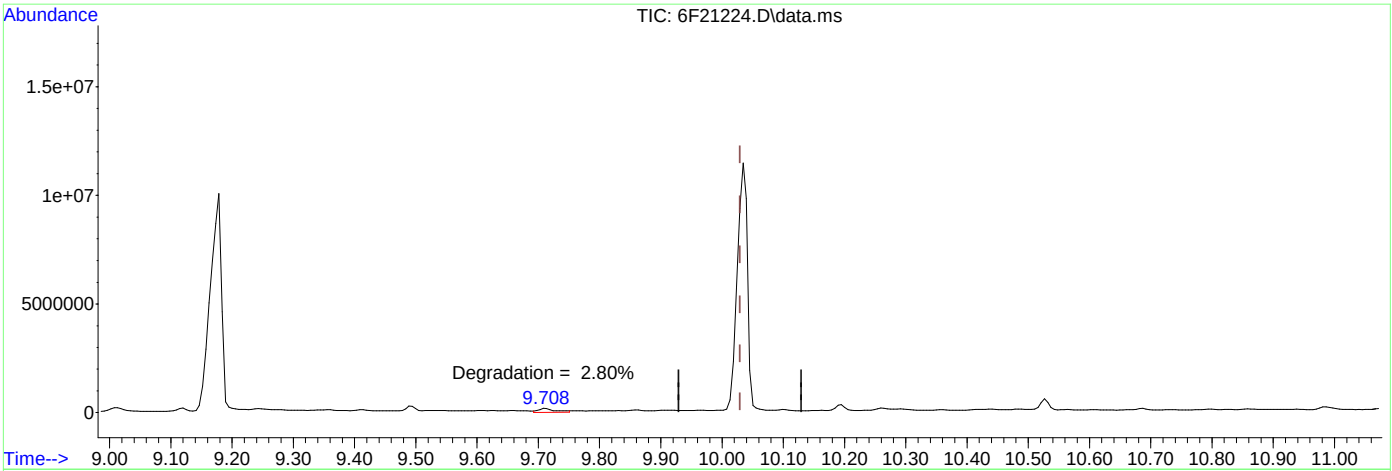
response 7410107

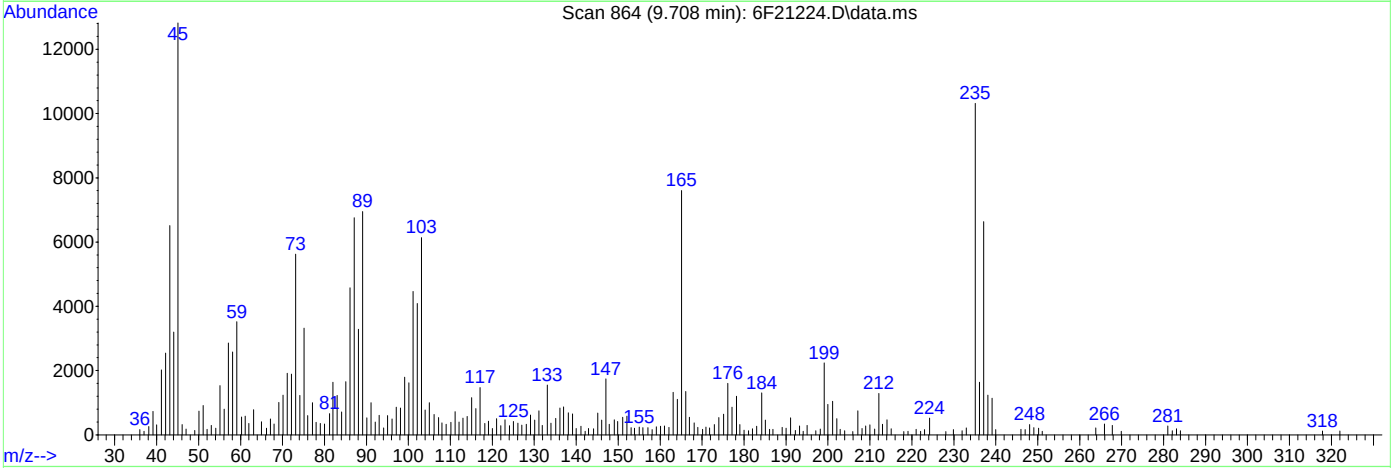
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21224.D
Acq On : 7 Nov 2023 6:25 am
Operator : karena
Sample : dftpp
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 12:11:39 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21224.D\data.ms

(4) DDT

10.034min (+0.005) 378.99

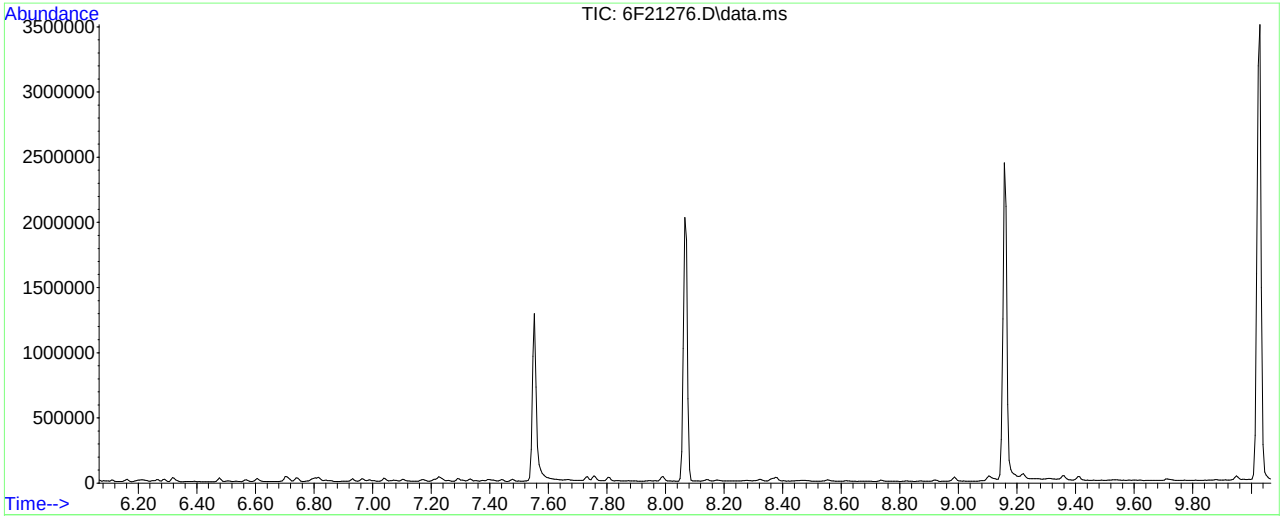
response 13229801

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

SW-846 Method 8270

Data File : C:\msdchem\1\data\S6F801\6F21276.D Vial: 1
Acq On : 8 Nov 2023 10:17 am Operator: karena
Sample : DFTPP Inst : MSBNA10
Misc : op99780,S6F801,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\DFTPP.m (RTE Integrator)
Title : Tune Evaluation



AutoFind: Scans 556, 557, 558; Background Corrected with Scan 551

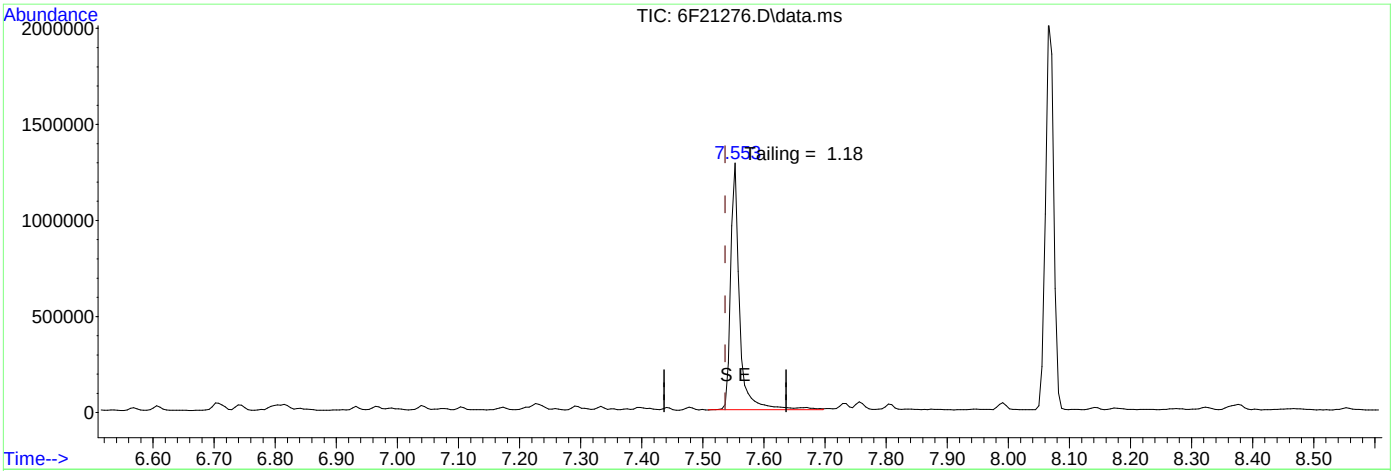
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.6	62282	PASS
68	69	0.00	2	1.9	1353	PASS
69	198	0.00	100	38.2	72903	PASS
70	69	0.00	2	0.4	279	PASS
127	198	40	60	51.5	98351	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	191080	PASS
199	198	5	9	6.7	12783	PASS
275	198	10	30	23.6	45003	PASS
365	198	1	100	3.0	5659	PASS
441	443	0.01	100	72.7	14825	PASS
442	198	40	100	53.7	102605	PASS
443	442	17	23	19.9	20393	PASS

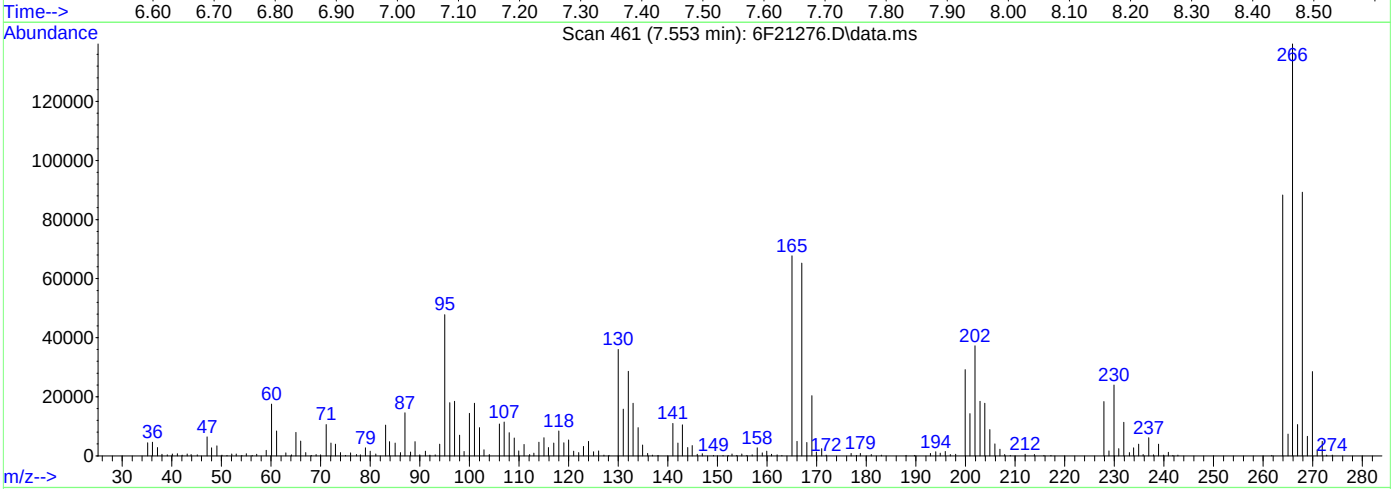
6F21276.D DFTPP.m Wed Nov 08 14:25:36 2023

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21276.D
Acq On : 8 Nov 2023 10:17 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 14:24:03 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21276.D\data.ms

(1) Pentachlorophenol

7.553min (+0.016) 53.29

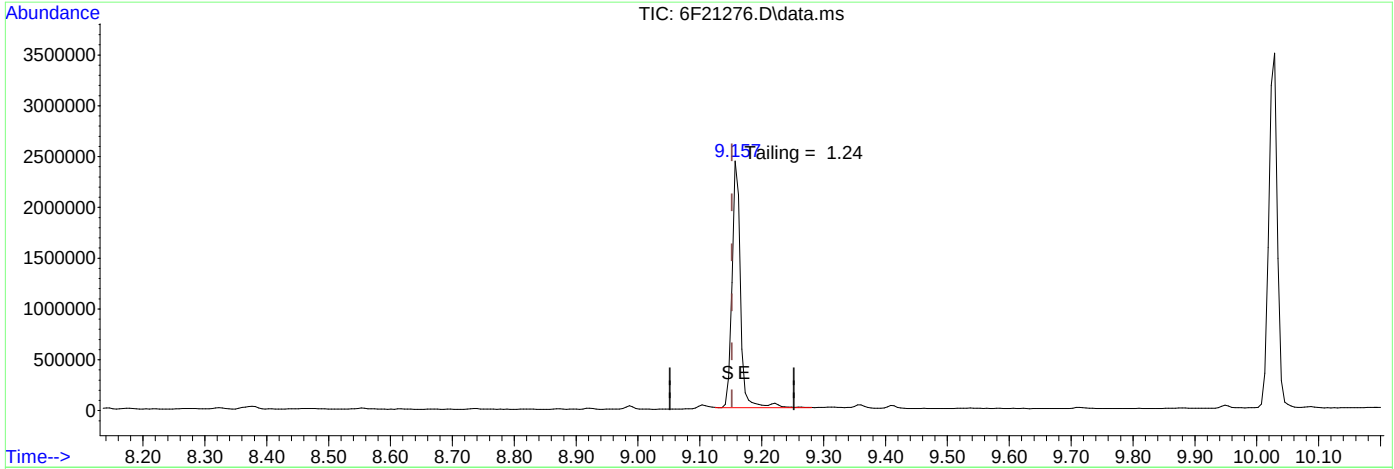
response 1274612

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21276.D
Acq On : 8 Nov 2023 10:17 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 14:24:03 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration



TIC: 6F21276.D\data.ms

(3) Benzidine

9.157min (+0.005) 53.44

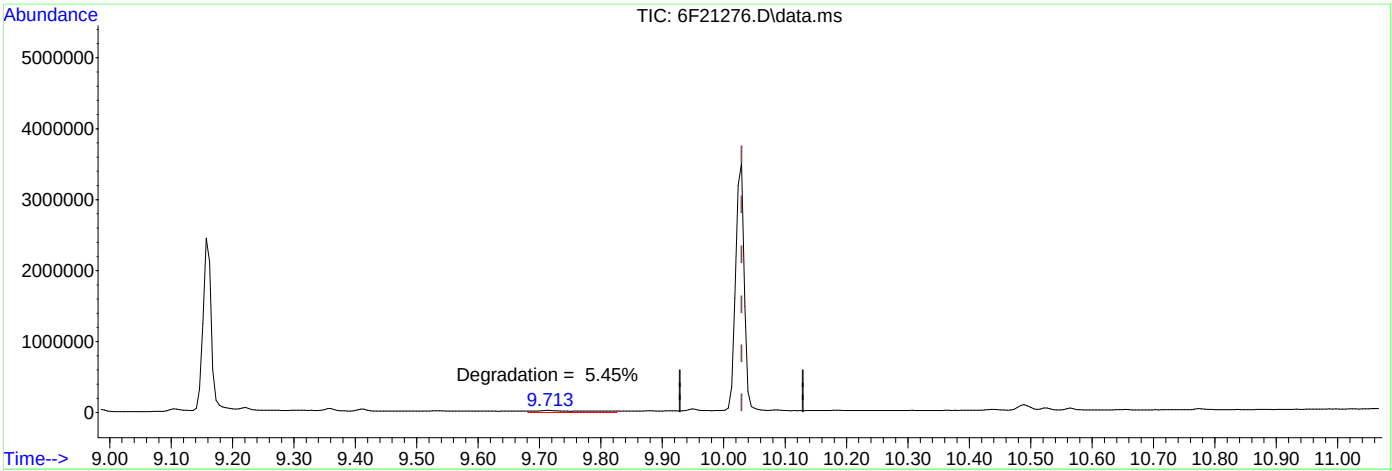
response 2266775

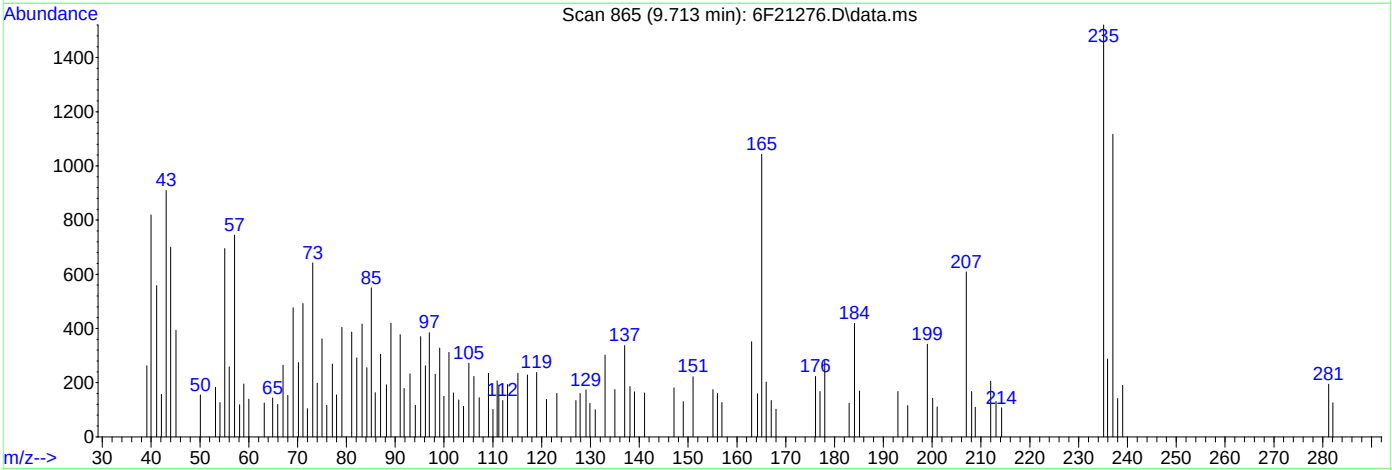
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21276.D
Acq On : 8 Nov 2023 10:17 am
Operator : karena
Sample : DFTPP
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 08 14:24:03 2023
Quant Method : C:\msdchem\1\methods\DFTPP.m
Quant Title : Tune Evaluation
QLast Update : Tue Oct 10 12:47:09 2023
Response via : Initial Calibration





TIC: 6F21276.D\data.ms

(4) DDT

10.029min (-0.000) 96.58

response 3371489

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21173.D
Acq On : 2 Nov 2023 10:31 am
Operator : karena
Sample : ic797-1
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 15:36:50 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.094	152	316354	40.00	ppm		0.00
22) Naphthalene-d8	7.528	136	1204345	40.00	ppm		-0.01
43) Acenaphthene-d10	9.587	164	689521	40.00	ppm		0.00
70) Phenanthrene-d10	11.342	188	1295609	40.00	ppm		0.00
92) Chrysene-d12	14.652	240	997130	40.00	ppm		-0.01
102) Perylene-d12	17.038	264	937006	40.00	ppm		0.00
System Monitoring Compounds							
7) 2-Fluorophenol	4.709	112	34322	2.64	ppm		0.02
Spiked Amount 100.000	Range 14 - 67		Recovery =	2.64%#			
9) Phenol-d5	5.715	99	47847	2.73	ppm		0.02
Spiked Amount 100.000	Range 10 - 50		Recovery =	2.73%#			
23) Nitrobenzene-d5	6.710	82	22107	1.36	ppm		-0.01
Spiked Amount 50.000	Range 42 - 108		Recovery =	2.72%#			
47) 2-Fluorobiphenyl	8.801	172	27822	1.32	ppm		-0.01
Spiked Amount 50.000	Range 40 - 106		Recovery =	2.64%#			
75) 2,4,6-Tribromophenol	10.518	330	5127	2.07	ppm		0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	2.07%#			
95) Terphenyl-d14	13.267	244	29472	1.19	ppm		-0.01
Spiked Amount 50.000	Range 39 - 121		Recovery =	2.38%#			
Target Compounds							Qvalue
2) 1,4-Dioxane	2.933	88	10490	1.39	ppm		97
3) N-nitrosodimethylamine	3.270	42	7842	1.11	ppm		89
4) Pyridine	3.319	79	25781	1.26	ppm		100
5) Benzaldehyde	5.618	106	16193	1.36	ppm		96
6) Aniline	5.736	93	30887	1.48	ppm		88
8) bis(2-Chloroethyl)ether	5.811	93	20910	1.38	ppm		97
10) Phenol	5.731	94	27628	1.41	ppm	#	55
11) 2-Chlorophenol	5.870	128	14211	1.27	ppm		88
12) 1,3-Dichlorobenzene	6.030	146	14407	1.28	ppm		88
13) 1,4-Dichlorobenzene	6.116	146	14644	1.30	ppm		97
14) 1,2-Dichlorobenzene	6.276	146	13805	1.29	ppm		87
15) Benzyl alcohol	6.255	108	12230	1.26	ppm		94
16) bis(2-chloroisopropyl)...	6.405	45	19894	1.56	ppm		93
17) 2-Methylphenol	6.389	108	15843	1.26	ppm		98
18) Acetophenone	6.544	105	27341	1.33	ppm		93
19) Hexachloroethane	6.656	117	6973	1.24	ppm		93
20) N-Nitroso-di-n-propyla...	6.549	70	13754	1.38	ppm		86
21) 3&4-Methylphenol	6.565	108	17419	1.32	ppm		97
24) Nitrobenzene	6.731	77	20967	1.40	ppm		84
25) Isophorone	7.004	82	41387	1.44	ppm		86
26) 2-Nitrophenol	7.095	139	6217	1.12	ppm		63
27) 2,4-Dimethylphenol	7.159	107	15870	1.26	ppm		86
28) O,O,O-Triethylphosphor...	7.239	198	6945	1.25	ppm		85
29) bis(2-Chloroethoxy)met...	7.266	93	23194	1.40	ppm		95
30) Benzoic Acid	7.223	105	8650m	0.74	ppm		
31) 2,4-Dichlorophenol	7.383	162	9869	1.15	ppm		90
32) 1,2,4-Trichlorobenzene	7.464	180	12178	1.28	ppm		98
34) Naphthalene	7.555	128	39916	1.32	ppm		97
35) 4-Chloroaniline	7.624	127	16394	1.34	ppm		91
36) 2,6-Dichlorophenol	7.635	162	10568	1.24	ppm		93
37) Hexachlorobutadiene	7.704	225	6875	1.21	ppm		98
38) Caprolactam	7.993	113	5828	1.28	ppm		87
39) 4-Chloro-3-methylphenol	8.213	107	15728	1.23	ppm		81
40) 2-Methylnaphthalene	8.362	141	20485	1.26	ppm		88
41) 1-Methylnaphthalene	8.475	142	23232	1.31	ppm		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21173.D
Acq On : 2 Nov 2023 10:31 am
Operator : karena
Sample : ic797-1
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 15:36:50 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.555	216	11839	1.24	ppm		98
44)	Hexachlorocyclopentadiene	8.544	237	4528	0.91	ppm		95
45)	2,4,6-Trichlorophenol	8.699	196	7164	1.16	ppm		96
46)	2,4,5-Trichlorophenol	8.747	196	7662	1.17	ppm		94
48)	1,1'-Biphenyl	8.913	154	31604	1.34	ppm		99
49)	2-Chloronaphthalene	8.929	162	23267	1.31	ppm		97
50)	2-Nitroaniline	9.058	65	9031	1.34	ppm		79
51)	p-Dinitrobenzene	9.309	75	5370	1.14	ppm		85
52)	Acenaphthylene	9.416	152	35500	1.29	ppm		99
53)	Dimethylphthalate	9.288	163	28429	1.30	ppm		99
54)	m-Dinitrobenzene	9.229	168	2924	0.80	ppm		91
55)	2,6-Dinitrotoluene	9.352	165	5729	1.14	ppm	#	60
56)	o-Dinitrobenzene	9.400	50	4830	1.42	ppm	#	1
57)	Acenaphthene	9.619	153	23999	1.30	ppm		99
58)	3-Nitroaniline	9.544	138	6812	1.24	ppm	#	65
59)	2,4-Dinitrophenol	9.673	184	1220	0.47	ppm		98
60)	Dibenzofuran	9.828	168	34122	1.34	ppm		98
61)	2,4-Dinitrotoluene	9.822	165	7619	1.13	ppm	#	67
62)	4-Nitrophenol	9.790	109	5479m	1.05	ppm		
63)	2,3,5,6-Tetrachlorophenol	9.929	232	5035	0.95	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.978	232	6012	1.11	ppm		95
65)	Fluorene	10.234	166	26953	1.32	ppm		98
66)	4-Chlorophenyl-phenyle...	10.250	204	13791	1.30	ppm		93
67)	Diethylphthalate	10.133	149	27129	1.24	ppm		99
68)	Thionazin	10.224	97	9452	1.42	ppm		78
69)	4-Nitroaniline	10.261	138	6475	1.15	ppm	#	59
71)	4,6-Dinitro-2-methylph...	10.299	198	2675	0.66	ppm		89
72)	n-Nitrosodiphenylamine	10.389	169	23832	1.46	ppm		99
73)	Diphenylamine	10.389	169	23832	1.31	ppm		99
74)	1,2-Diphenylhydrazine	10.432	77	39338	1.47	ppm		85
76)	Sulfotep	10.603	97	7125	1.30	ppm	#	50
77)	Phorate	10.753	75	20618	1.36	ppm		93
78)	4-Bromophenyl-phenylether	10.828	248	6792	1.20	ppm	#	84
79)	Hexachlorobenzene	10.876	284	6883	1.23	ppm		90
80)	Dimethoate	10.940	87	14194	1.26	ppm		91
81)	Simazine	10.999	201	4236	1.26	ppm		97
82)	Atrazine	11.042	200	8510	1.24	ppm		92
83)	Pentachlorophenol	11.122	266	2198	0.63	ppm		98
84)	Phenanthrene	11.368	178	40872	1.35	ppm		98
85)	Anthracene	11.427	178	40455	1.29	ppm		98
86)	Disulfoton	11.374	88	21797	1.39	ppm		91
87)	Carbazole	11.630	167	36315	1.21	ppm		99
88)	Methyl Parathion	11.812	109	9019	0.85	ppm		77
89)	Di-n-butylphthalate	12.090	149	42342	1.12	ppm		98
90)	Ethyl Parathion	12.288	97	5999	0.90	ppm	#	77
91)	Fluoranthene	12.775	202	40477	1.18	ppm		92
93)	Benzidine	12.967	184	26899	1.47	ppm		96
94)	Pyrene	13.042	202	42751	1.31	ppm		96
96)	Famphur	13.834	218	13962	1.25	ppm		73
97)	Butylbenzylphthalate	13.930	149	17939	1.13	ppm		71
98)	3,3'-Dichlorobenzidine	14.636	252	12162	1.16	ppm		91
99)	Benzo[a]anthracene	14.642	228	38403	1.26	ppm		99
100)	Chrysene	14.684	228	35234	1.26	ppm		98
101)	bis(2-Ethylhexyl)phtha...	14.791	149	22683	1.10	ppm		97
103)	Di-n-octylphthalate	15.882	149	34025	0.98	ppm		97
104)	Benzo[b]fluoranthene	16.380	252	26966	1.06	ppm		93
105)	Benzo[k]fluoranthene	16.433	252	27989	1.05	ppm		97
106)	Benzo[a]pyrene	16.931	252	26468	1.12	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21173.D
Acq On : 2 Nov 2023 10:31 am
Operator : karena
Sample : ic797-1
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 15:36:50 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

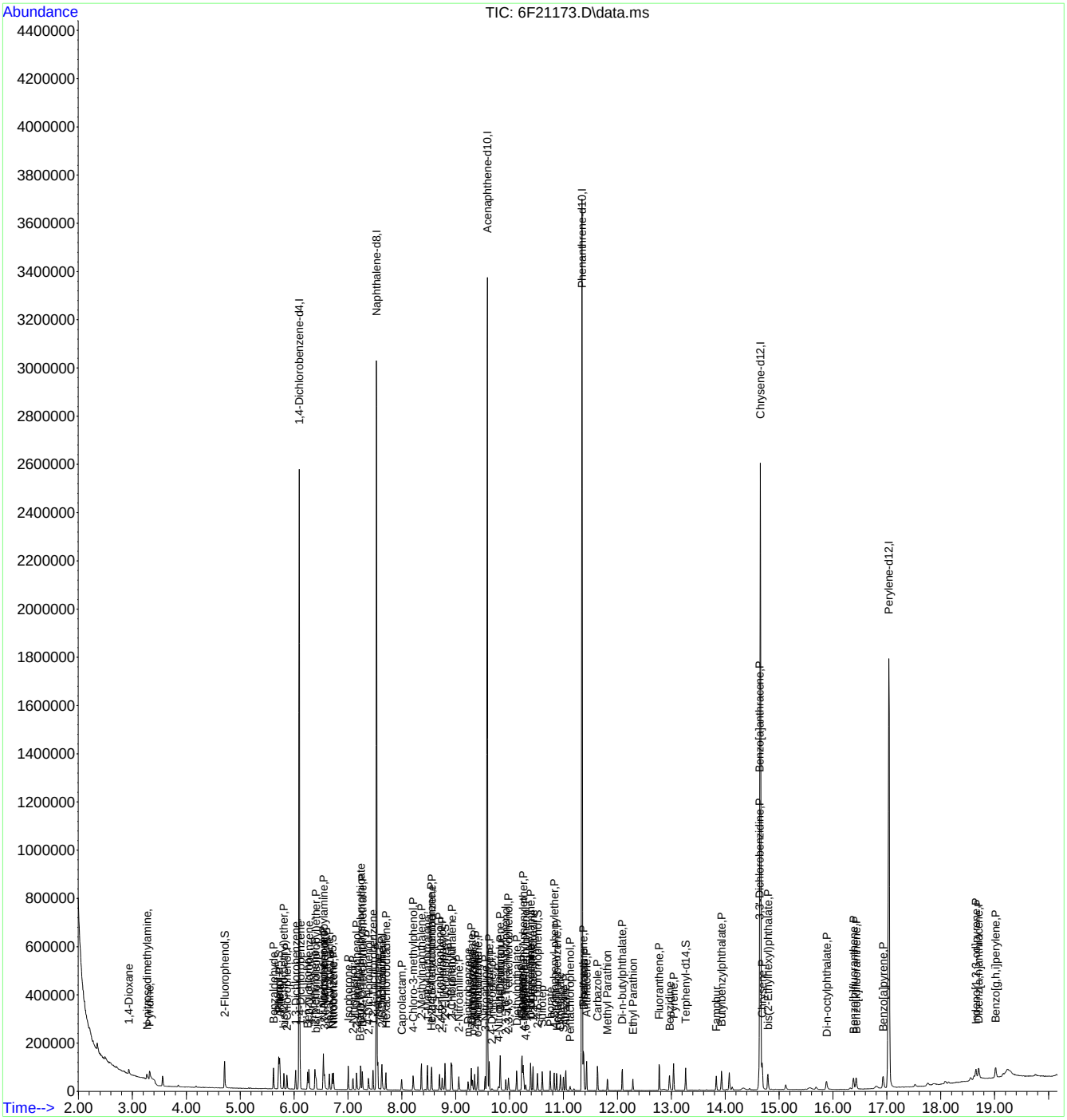
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.653	276	24479	1.18	ppm	91
108) Dibenz[a,h]anthracene	18.701	278	24269	1.13	ppm	91
109) Benzo[g,h,i]perylene	19.017	276	28183	1.29	ppm	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21173.D
Acq On : 2 Nov 2023 10:31 am
Operator : karena
Sample : ic797-1
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 15:36:50 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integration Approval Summary

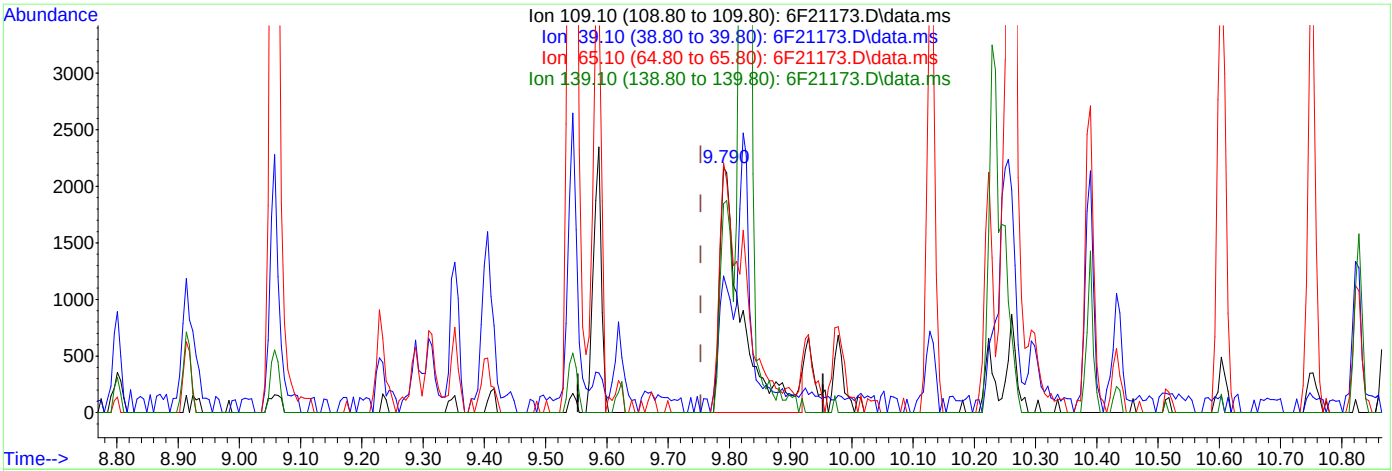
Sample Number: S6F797-IC797
Lab FileID: 6F21173.D
Injection Time: 11/02/23 10:31
Method: SW846 8270E
Analyst approved: 11/02/23 16:51 William Hustedde
Supervisor approved: 11/02/23 17:48 Naresh Jiawan

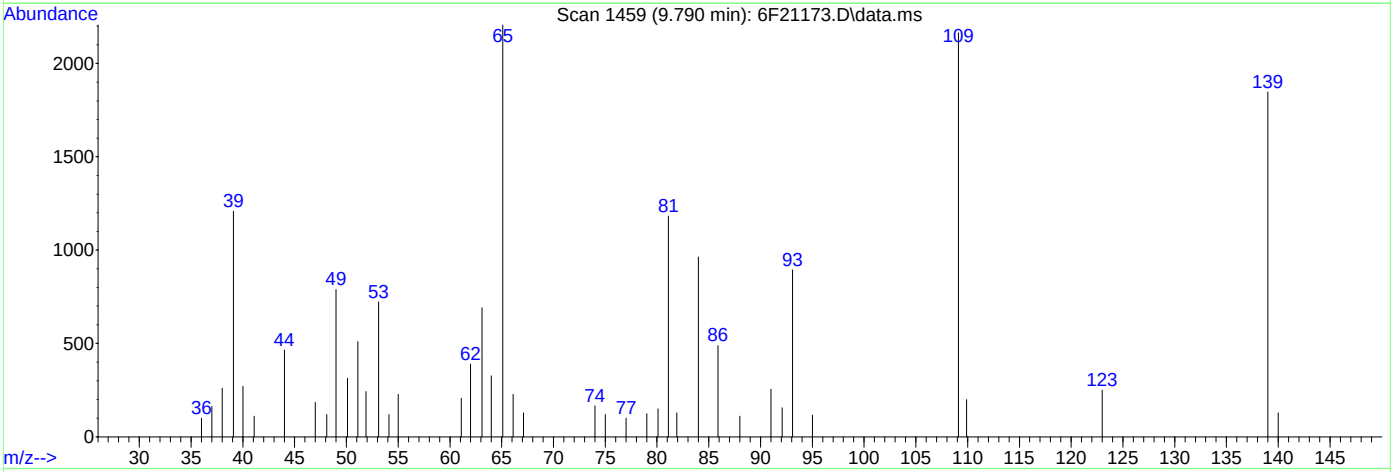
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		7.22	Poor instrument integration
4-Nitrophenol	100-02-7		9.79	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21173.D
Acq On : 2 Nov 2023 10:31 am
Operator : karena
Sample : ic797-1
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 15:34:28 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21173.D\data.ms

(62) 4-Nitrophenol (P)

9.790min (+0.037) 1.05ppm m

response 5479

Ion	Exp%	Act%
109.10	100	100
39.10	71.70	55.80
65.10	137.80	101.94#
139.10	129.60	85.31#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21174.D
Acq On : 2 Nov 2023 10:57 am
Operator : karena
Sample : ic797-5
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 15:34:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.095	152	338865	40.00	ppm	0.00
22) Naphthalene-d8	7.528	136	1309087	40.00	ppm	-0.01
43) Acenaphthene-d10	9.587	164	746039	40.00	ppm	0.00
70) Phenanthrene-d10	11.342	188	1375999	40.00	ppm	0.00
92) Chrysene-d12	14.653	240	1042058	40.00	ppm	-0.01
102) Perylene-d12	17.038	264	978051	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.709	112	159093	11.42	ppm	0.02
Spiked Amount 100.000	Range 14 - 67		Recovery = 11.42%#			
9) Phenol-d5	5.710	99	221462	11.79	ppm	0.01
Spiked Amount 100.000	Range 10 - 50		Recovery = 11.79%			
23) Nitrobenzene-d5	6.710	82	99463	5.64	ppm	-0.01
Spiked Amount 50.000	Range 42 - 108		Recovery = 11.28%#			
47) 2-Fluorobiphenyl	8.801	172	125356	5.50	ppm	-0.01
Spiked Amount 50.000	Range 40 - 106		Recovery = 11.00%#			
75) 2,4,6-Tribromophenol	10.518	330	24758	9.40	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 9.40%#			
95) Terphenyl-d14	13.267	244	133670	5.15	ppm	-0.01
Spiked Amount 50.000	Range 39 - 121		Recovery = 10.30%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	44599	5.51	ppm	96
3) N-nitrosodimethylamine	3.260	42	37580	4.97	ppm	98
4) Pyridine	3.303	79	112802	5.16	ppm	98
5) Benzaldehyde	5.619	106	73964	5.95	ppm	97
6) Aniline	5.736	93	137457	6.13	ppm	92
8) bis(2-Chloroethyl)ether	5.811	93	94969	5.83	ppm	98
10) Phenol	5.726	94	127983	6.10	ppm	83
11) 2-Chlorophenol	5.865	128	64465	5.39	ppm	85
12) 1,3-Dichlorobenzene	6.031	146	65517	5.44	ppm	90
13) 1,4-Dichlorobenzene	6.116	146	65246	5.40	ppm	92
14) 1,2-Dichlorobenzene	6.277	146	62173	5.44	ppm	87
15) Benzyl alcohol	6.250	108	56781	5.48	ppm	90
16) bis(2-chloroisopropyl)...	6.405	45	88292	6.48	ppm	93
17) 2-Methylphenol	6.389	108	74734	5.55	ppm	98
18) Acetophenone	6.544	105	125821	5.70	ppm	92
19) Hexachloroethane	6.656	117	31844	5.31	ppm	89
20) N-Nitroso-di-n-propyla...	6.549	70	60827	5.79	ppm	88
21) 3&4-Methylphenol	6.560	108	80394	5.67	ppm	98
24) Nitrobenzene	6.731	77	96482	5.91	ppm	85
25) Isophorone	7.004	82	185997	5.96	ppm	87
26) 2-Nitrophenol	7.095	139	30806	5.10	ppm	79
27) 2,4-Dimethylphenol	7.159	107	71960	5.25	ppm	75
28) O,O,O-Triethylphosphor...	7.239	198	32504	5.38	ppm	90
29) bis(2-Chloroethoxy)met...	7.266	93	107809	5.99	ppm	95
30) Benzoic Acid	7.239	105	48759	3.84	ppm	95
31) 2,4-Dichlorophenol	7.378	162	47724	5.13	ppm	88
32) 1,2,4-Trichlorobenzene	7.464	180	53001	5.14	ppm	97
34) Naphthalene	7.555	128	180859	5.49	ppm	93
35) 4-Chloroaniline	7.624	127	74739	5.62	ppm	91
36) 2,6-Dichlorophenol	7.630	162	49609	5.34	ppm	91
37) Hexachlorobutadiene	7.705	225	30397	4.91	ppm	99
38) Caprolactam	8.004	113	27372	5.52	ppm	87
39) 4-Chloro-3-methylphenol	8.207	107	73500	5.28	ppm	80
40) 2-Methylnaphthalene	8.363	141	93914	5.31	ppm	94
41) 1-Methylnaphthalene	8.475	142	103762	5.38	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21174.D
Acq On : 2 Nov 2023 10:57 am
Operator : karena
Sample : ic797-5
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 15:34:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 1,2,4,5-Tetrachloroben...	8.555	216	52396	5.07	ppm		99
44) Hexachlorocyclopentadiene	8.544	237	23501	4.35	ppm		97
45) 2,4,6-Trichlorophenol	8.699	196	34148	5.12	ppm		99
46) 2,4,5-Trichlorophenol	8.748	196	36274	5.12	ppm		98
48) 1,1'-Biphenyl	8.913	154	144784	5.69	ppm		99
49) 2-Chloronaphthalene	8.929	162	106367	5.54	ppm		99
50) 2-Nitroaniline	9.058	65	42914	5.87	ppm		81
51) p-Dinitrobenzene	9.229	75	26174	5.15	ppm		78
52) Acenaphthylene	9.416	152	163728	5.51	ppm		99
53) Dimethylphthalate	9.288	163	127883	5.42	ppm		100
54) m-Dinitrobenzene	9.229	168	16048	4.07	ppm		88
55) 2,6-Dinitrotoluene	9.352	165	28383	5.24	ppm	#	67
56) o-Dinitrobenzene	9.406	50	21468	5.83	ppm	#	1
57) Acenaphthene	9.619	153	107767	5.39	ppm		99
58) 3-Nitroaniline	9.545	138	32481	5.47	ppm	#	52
59) 2,4-Dinitrophenol	9.668	184	9351	3.28	ppm		82
60) Dibenzofuran	9.828	168	152910	5.53	ppm		98
61) 2,4-Dinitrotoluene	9.823	165	38229	5.23	ppm	#	67
62) 4-Nitrophenol	9.780	109	27749	4.93	ppm	#	74
63) 2,3,5,6-Tetrachlorophenol	9.930	232	27338	4.76	ppm		99
64) 2,3,4,6-Tetrachlorophenol	9.978	232	28509	4.85	ppm		97
65) Fluorene	10.229	166	122012	5.53	ppm		98
66) 4-Chlorophenyl-phenyle...	10.251	204	61197	5.32	ppm		99
67) Diethylphthalate	10.133	149	125107	5.28	ppm		97
68) Thionazin	10.224	97	44639	6.20	ppm		84
69) 4-Nitroaniline	10.261	138	33059	5.43	ppm	#	60
71) 4,6-Dinitro-2-methylph...	10.299	198	17422	4.07	ppm		91
72) n-Nitrosodiphenylamine	10.390	169	104968	6.07	ppm		98
73) Diphenylamine	10.390	169	104968	5.44	ppm		98
74) 1,2-Diphenylhydrazine	10.432	77	174584	6.16	ppm		86
76) Sulfotep	10.604	97	33405	5.76	ppm	#	54
77) Phorate	10.753	75	102624	6.38	ppm		94
78) 4-Bromophenyl-phenylether	10.828	248	31791	5.29	ppm		85
79) Hexachlorobenzene	10.876	284	30145	5.06	ppm		92
80) Dimethoate	10.941	87	74960	6.28	ppm		88
81) Simazine	10.999	201	19863	5.58	ppm		97
82) Atrazine	11.042	200	39718	5.43	ppm		88
83) Pentachlorophenol	11.122	266	14249	3.83	ppm		98
84) Phenanthrene	11.368	178	178484	5.55	ppm		99
85) Anthracene	11.427	178	179796	5.41	ppm		99
86) Disulfoton	11.374	88	106924	6.44	ppm		94
87) Carbazole	11.631	167	166065	5.22	ppm		99
88) Methyl Parathion	11.812	109	52454	4.72	ppm		78
89) Di-n-butylphthalate	12.091	149	199643	5.00	ppm		97
90) Ethyl Parathion	12.288	97	35437	4.99	ppm	#	80
91) Fluoranthene	12.775	202	182715	5.05	ppm		93
93) Benzidine	12.962	184	108319	5.81	ppm		95
94) Pyrene	13.043	202	191638	5.62	ppm		95
96) Famphur	13.840	218	70446	6.18	ppm		86
97) Butylbenzylphthalate	13.930	149	82932	5.01	ppm		77
98) 3,3'-Dichlorobenzidine	14.636	252	55107	5.05	ppm		97
99) Benzo[a]anthracene	14.642	228	160730	5.05	ppm		100
100) Chrysene	14.690	228	150731	5.14	ppm		99
101) bis(2-Ethylhexyl)phtha...	14.792	149	106947	4.96	ppm		98
103) Di-n-octylphthalate	15.883	149	155833	4.29	ppm		100
104) Benzo[b]fluoranthene	16.380	252	119700	4.53	ppm		96
105) Benzo[k]fluoranthene	16.434	252	132633	4.78	ppm		96
106) Benzo[a]pyrene	16.931	252	118801	4.82	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21174.D
Acq On : 2 Nov 2023 10:57 am
Operator : karena
Sample : ic797-5
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 15:34:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

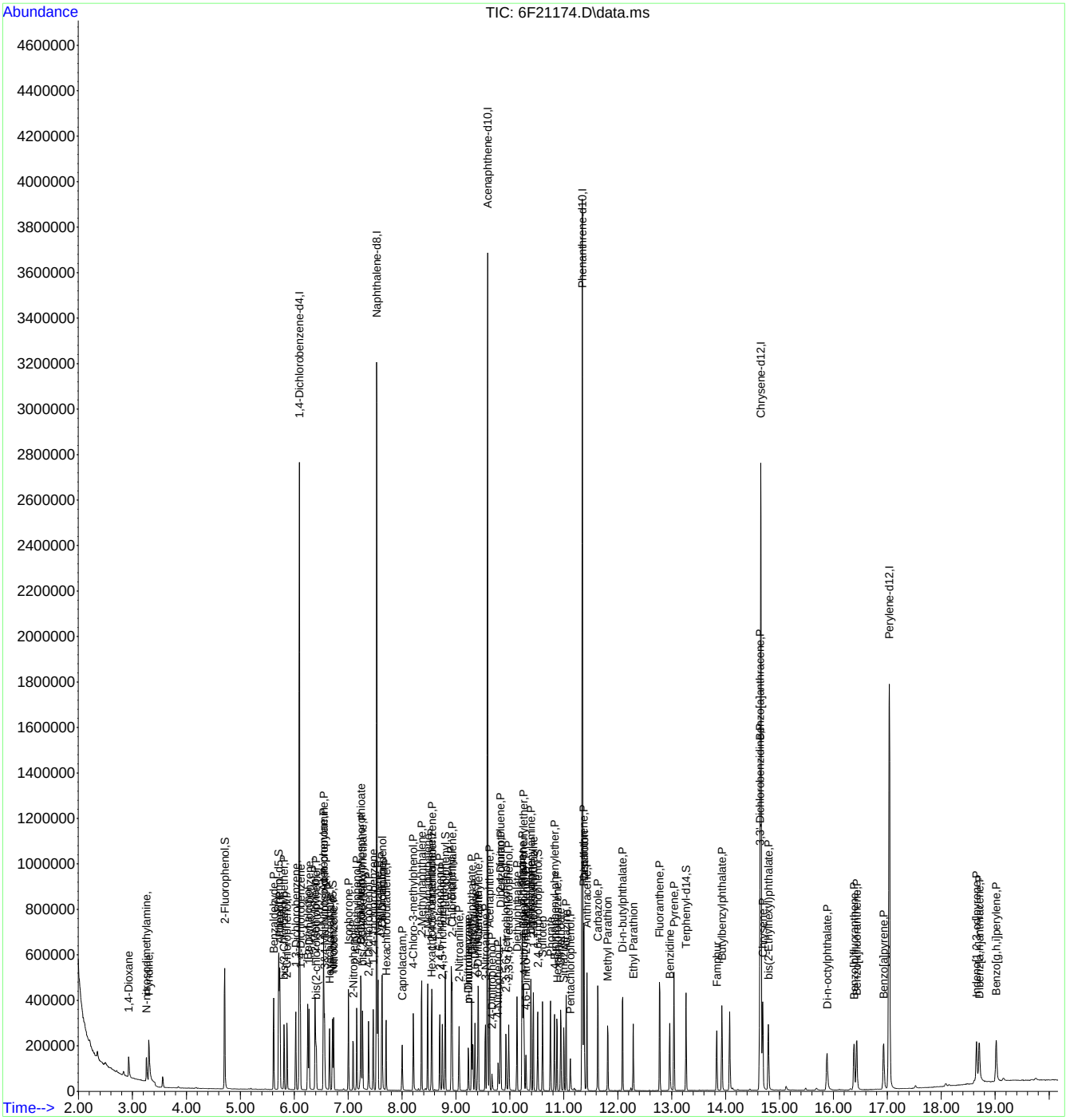
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.653	276	105232	4.87	ppm	95
108) Dibenz[a,h]anthracene	18.707	278	108094	4.82	ppm	94
109) Benzo[g,h,i]perylene	19.017	276	119528	5.25	ppm	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21174.D
Acq On : 2 Nov 2023 10:57 am
Operator : karena
Sample : ic797-5
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 15:34:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:39:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.095	152	340347	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1302779	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	735650	40.00	ppm	0.00
70) Phenanthrene-d10	11.342	188	1344181	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	1022483	40.00	ppm	0.00
102) Perylene-d12	17.038	264	959196	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.709	112	316184	22.60	ppm	0.02
Spiked Amount 100.000	Range 14 - 67		Recovery = 22.60%			
9) Phenol-d5	5.710	99	438938	23.27	ppm	0.01
Spiked Amount 100.000	Range 10 - 50		Recovery = 23.27%			
23) Nitrobenzene-d5	6.710	82	197858	11.28	ppm	-0.01
Spiked Amount 50.000	Range 42 - 108		Recovery = 22.56%#			
47) 2-Fluorobiphenyl	8.801	172	245113	10.90	ppm	-0.01
Spiked Amount 50.000	Range 40 - 106		Recovery = 21.80%#			
75) 2,4,6-Tribromophenol	10.518	330	48852	19.00	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 19.00%#			
95) Terphenyl-d14	13.267	244	257118	10.09	ppm	-0.01
Spiked Amount 50.000	Range 39 - 121		Recovery = 20.18%#			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	91813	11.27	ppm	99
3) N-nitrosodimethylamine	3.255	42	74813	9.90	ppm	98
4) Pyridine	3.297	79	230515	10.55	ppm	99
5) Benzaldehyde	5.619	106	142819	11.82	ppm	97
6) Aniline	5.736	93	270306	12.00	ppm	94
8) bis(2-Chloroethyl)ether	5.811	93	186880	11.43	ppm	98
10) Phenol	5.726	94	253687	12.03	ppm	86
11) 2-Chlorophenol	5.870	128	128556	10.71	ppm	91
12) 1,3-Dichlorobenzene	6.031	146	129210	10.68	ppm	90
13) 1,4-Dichlorobenzene	6.116	146	129684	10.68	ppm	91
14) 1,2-Dichlorobenzene	6.277	146	123023	10.72	ppm	90
15) Benzyl alcohol	6.250	108	113446	10.90	ppm	90
16) bis(2-chloroisopropyl)...	6.405	45	172369	12.59	ppm	94
17) 2-Methylphenol	6.389	108	147683	10.93	ppm	98
18) Acetophenone	6.544	105	243519	10.98	ppm	92
19) Hexachloroethane	6.656	117	63236	10.49	ppm	91
20) N-Nitroso-di-n-propyla...	6.549	70	118109	11.43	ppm	89
21) 3&4-Methylphenol	6.560	108	162786	11.44	ppm	98
24) Nitrobenzene	6.731	77	191571	11.80	ppm	86
25) Isophorone	7.009	82	364562	11.73	ppm	89
26) 2-Nitrophenol	7.095	139	63040	10.48	ppm	86
27) 2,4-Dimethylphenol	7.159	107	144522	10.59	ppm	79
28) O,O,O-Triethylphosphor...	7.239	198	61500	10.24	ppm #	78
29) bis(2-Chloroethoxy)met...	7.266	93	211375	11.79	ppm	96
30) Benzoic Acid	7.245	105	112946	8.88	ppm	94
31) 2,4-Dichlorophenol	7.378	162	96493	10.42	ppm	89
32) 1,2,4-Trichlorobenzene	7.464	180	105076	10.25	ppm	98
34) Naphthalene	7.555	128	353620	10.79	ppm	93
35) 4-Chloroaniline	7.624	127	146254	11.04	ppm	91
36) 2,6-Dichlorophenol	7.635	162	98384	10.64	ppm	94
37) Hexachlorobutadiene	7.705	225	60335	9.79	ppm	98
38) Caprolactam	8.009	113	53391	10.82	ppm	88
39) 4-Chloro-3-methylphenol	8.213	107	145107	10.47	ppm	83
40) 2-Methylnaphthalene	8.363	141	182765	10.38	ppm	92
41) 1-Methylnaphthalene	8.475	142	202167	10.53	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:39:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 1,2,4,5-Tetrachloroben...	8.555	216	101848	9.96	ppm		99
44) Hexachlorocyclopentadiene	8.544	237	49495	9.29	ppm		98
45) 2,4,6-Trichlorophenol	8.699	196	67034	10.19	ppm		99
46) 2,4,5-Trichlorophenol	8.748	196	72899	10.44	ppm		98
48) 1,1'-Biphenyl	8.913	154	275517	10.98	ppm		99
49) 2-Chloronaphthalene	8.929	162	206239	10.90	ppm		98
50) 2-Nitroaniline	9.058	65	83842	11.64	ppm		79
51) p-Dinitrobenzene	9.315	75	69470	13.86	ppm		87
52) Acenaphthylene	9.416	152	321454	10.97	ppm		99
53) Dimethylphthalate	9.293	163	249102	10.71	ppm		99
54) m-Dinitrobenzene	9.315	168	41643	10.71	ppm		82
55) 2,6-Dinitrotoluene	9.357	165	56290	10.53	ppm		79
56) o-Dinitrobenzene	9.406	50	41607	11.45	ppm	#	1
57) Acenaphthene	9.625	153	210696	10.69	ppm		98
58) 3-Nitroaniline	9.545	138	64707	11.05	ppm	#	49
59) 2,4-Dinitrophenol	9.668	184	23527	8.25	ppm		87
60) Dibenzofuran	9.828	168	290304	10.65	ppm		98
61) 2,4-Dinitrotoluene	9.823	165	74970	10.40	ppm	#	69
62) 4-Nitrophenol	9.780	109	51558m	9.29	ppm		
63) 2,3,5,6-Tetrachlorophenol	9.930	232	55065	9.72	ppm		99
64) 2,3,4,6-Tetrachlorophenol	9.978	232	57151	9.87	ppm		99
65) Fluorene	10.235	166	231094	10.61	ppm		100
66) 4-Chlorophenyl-phenyle...	10.251	204	117433	10.35	ppm		99
67) Diethylphthalate	10.133	149	244622	10.48	ppm		97
68) Thionazin	10.224	97	84215	11.87	ppm		84
69) 4-Nitroaniline	10.261	138	64207	10.69	ppm	#	55
71) 4,6-Dinitro-2-methylph...	10.299	198	39023	9.32	ppm	#	60
72) n-Nitrosodiphenylamine	10.390	169	202444	11.98	ppm		99
73) Diphenylamine	10.390	169	202444	10.75	ppm		99
74) 1,2-Diphenylhydrazine	10.432	77	338271	12.22	ppm		85
76) Sulfotep	10.604	97	64318	11.35	ppm	#	55
77) Phorate	10.753	75	195975	12.47	ppm		93
78) 4-Bromophenyl-phenylether	10.828	248	61037	10.40	ppm		85
79) Hexachlorobenzene	10.876	284	58497	10.04	ppm		92
80) Dimethoate	10.946	87	144249	12.38	ppm		91
81) Simazine	11.005	201	38259	11.00	ppm		93
82) Atrazine	11.042	200	76902	10.76	ppm		89
83) Pentachlorophenol	11.122	266	32768	9.02	ppm		99
84) Phenanthrene	11.368	178	334168	10.64	ppm		100
85) Anthracene	11.427	178	346065	10.66	ppm		99
86) Disulfoton	11.374	88	200854	12.38	ppm		93
87) Carbazole	11.631	167	317310	10.28	ppm		99
88) Methyl Parathion	11.812	109	105343	9.80	ppm		81
89) Di-n-butylphthalate	12.091	149	387206	9.99	ppm		97
90) Ethyl Parathion	12.288	97	70928	10.23	ppm	#	82
91) Fluoranthene	12.781	202	352125	10.03	ppm		95
93) Benzidine	12.962	184	206786	11.69	ppm		95
94) Pyrene	13.043	202	360201	10.77	ppm		95
96) Famphur	13.840	218	127715	11.78	ppm		86
97) Butylbenzylphthalate	13.930	149	162045	9.99	ppm		78
98) 3,3'-Dichlorobenzidine	14.636	252	109002	10.18	ppm		97
99) Benzo[a]anthracene	14.642	228	304183	9.75	ppm		99
100) Chrysene	14.690	228	293721	10.21	ppm		100
101) bis(2-Ethylhexyl)phtha...	14.792	149	211236	9.99	ppm		98
103) Di-n-octylphthalate	15.883	149	309764	8.69	ppm		99
104) Benzo[b]fluoranthene	16.385	252	233729	9.02	ppm		96
105) Benzo[k]fluoranthene	16.434	252	263697	9.68	ppm		97
106) Benzo[a]pyrene	16.931	252	232791	9.62	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:39:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

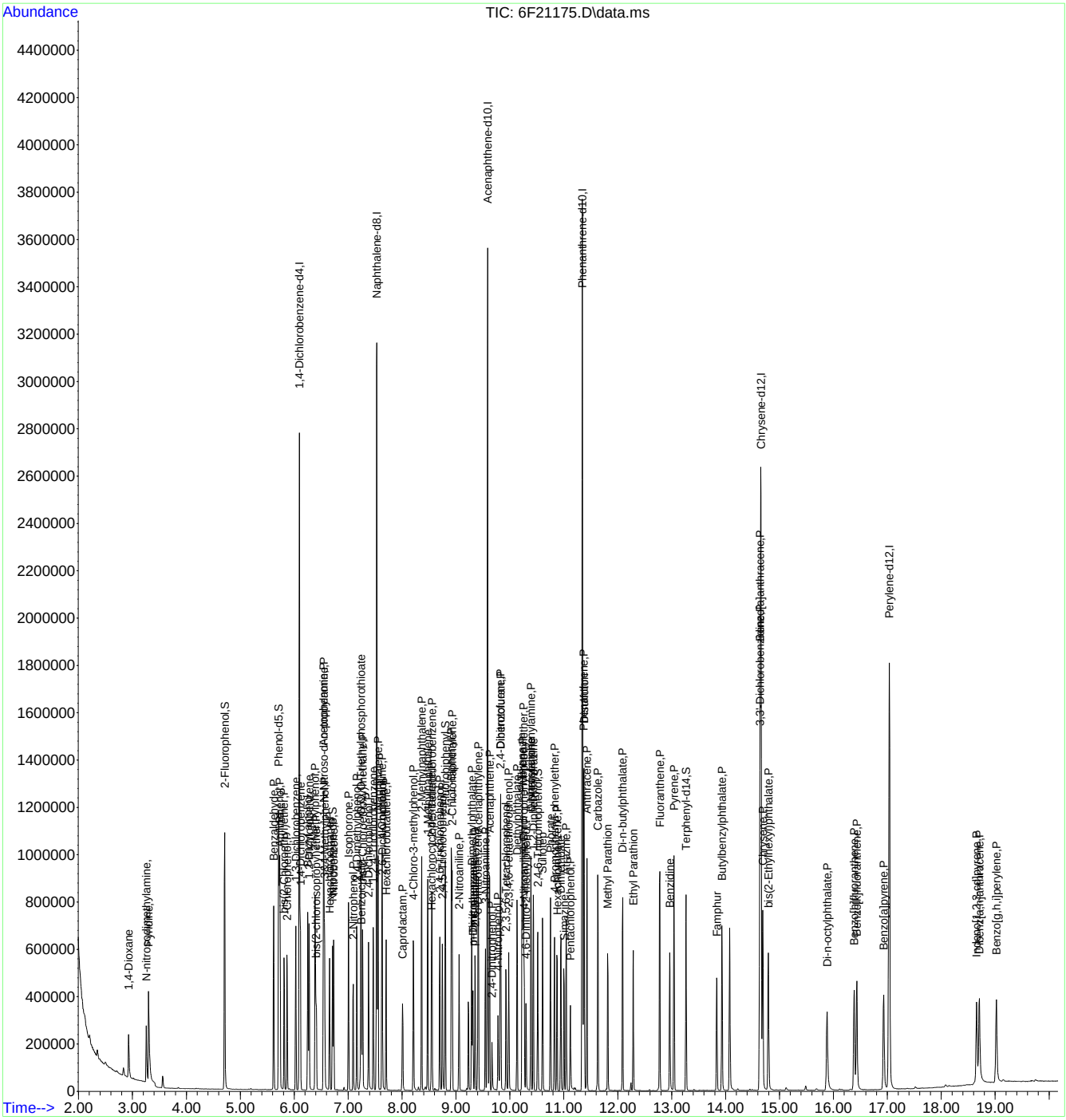
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.653	276	204169	9.63	ppm	92
108) Dibenz[a,h]anthracene	18.707	278	217682	9.89	ppm	94
109) Benzo[g,h,i]perylene	19.022	276	229297	10.27	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:39:31 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integration Approval Summary

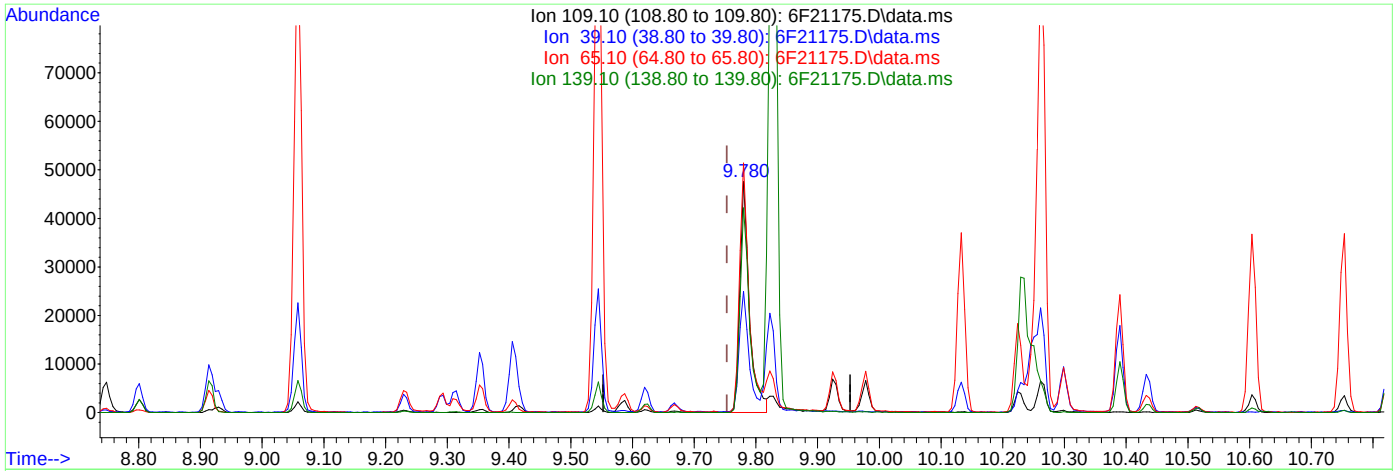
Sample Number:	S6F797-IC797	**Method:**	SW846 8270E
Lab FileID:	6F21175.D	**Analyst approved:**	11/02/23 16:51 William Hustedde
Injection Time:	11/02/23 11:23	**Supervisor approved:**	11/02/23 17:48 Naresh Jiawan

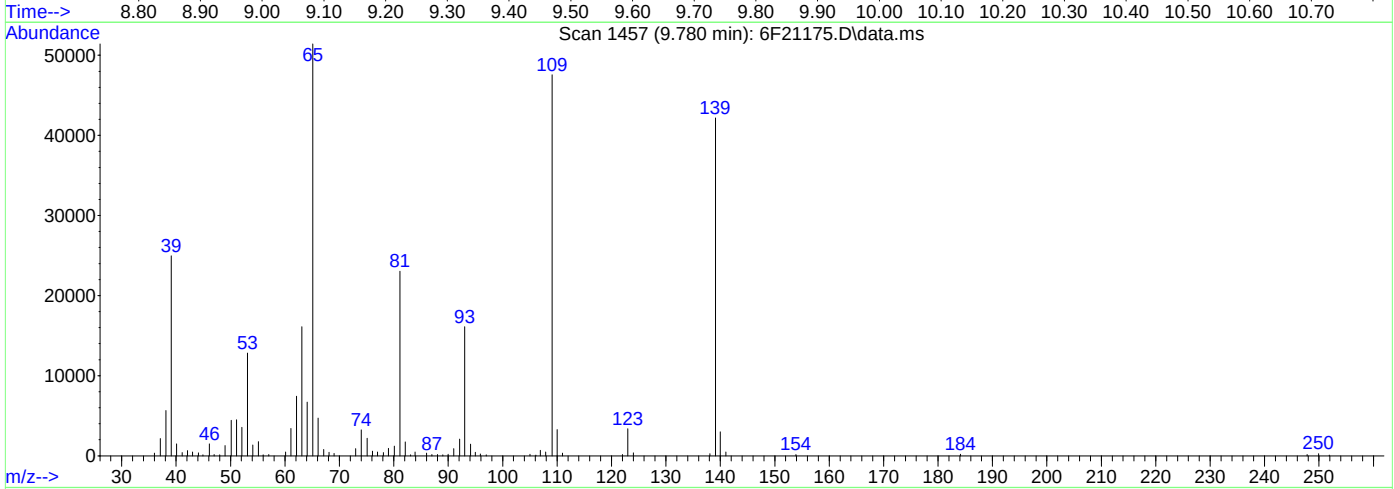
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		9.78	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:34:34 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21175.D\data.ms

(62) 4-Nitrophenol (P)

9.780min (+0.027) 9.30ppm

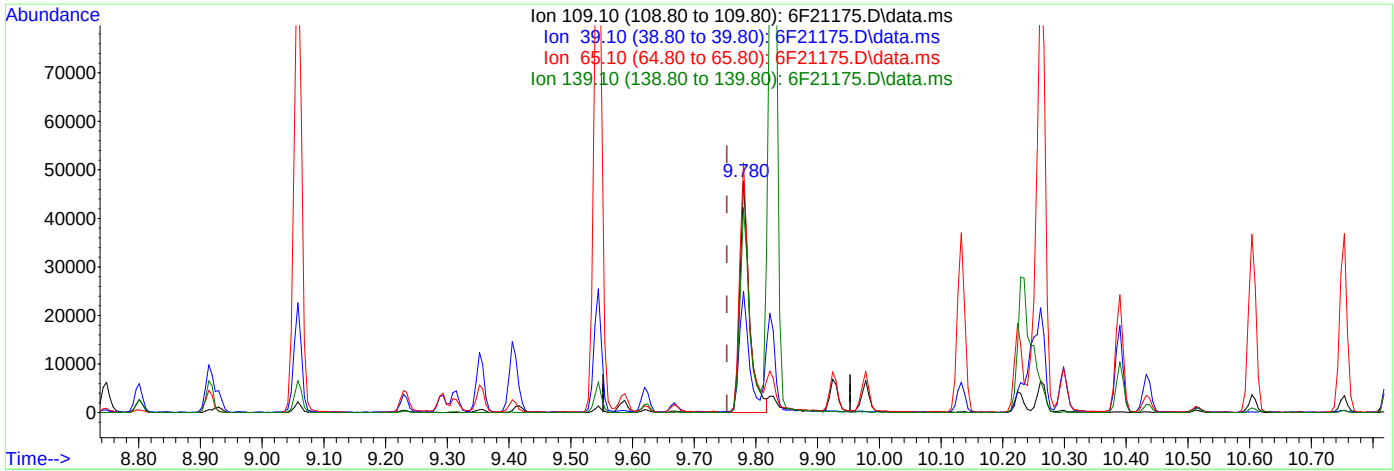
response 51592

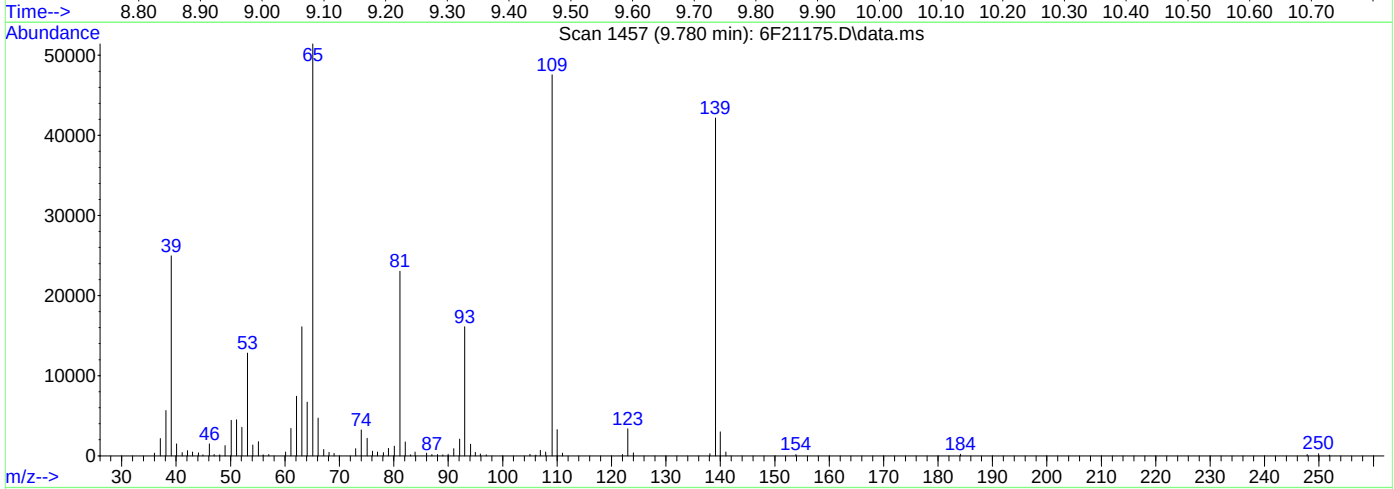
Ion	Exp%	Act%
109.10	100	100
39.10	71.70	38.88#
65.10	137.80	104.16#
139.10	129.60	56.27#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21175.D
Acq On : 2 Nov 2023 11:23 am
Operator : karena
Sample : ic797-10
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 15:34:34 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21175.D\data.ms

(62) 4-Nitrophenol (P)

9.780min (+0.027) 9.29ppm m

response 51558

Ion	Exp%	Act%
109.10	100	100
39.10	71.70	52.46
65.10	137.80	108.10
139.10	129.60	88.68#

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21176.D
Acq On : 2 Nov 2023 11:49 am
Operator : karena
Sample : ic797-25
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 15:42:28 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.095	152	358604	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1359845	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	776554	40.00	ppm	0.00
70) Phenanthrene-d10	11.342	188	1370617	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	1037991	40.00	ppm	0.00
102) Perylene-d12	17.038	264	950342	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.709	112	800691	54.33	ppm	0.02
Spiked Amount 100.000	Range 14 - 67		Recovery =	54.33%		
9) Phenol-d5	5.715	99	1088047	54.75	ppm	0.02
Spiked Amount 100.000	Range 10 - 50		Recovery =	54.75%#		
23) Nitrobenzene-d5	6.715	82	506284	27.65	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery =	55.30%		
47) 2-Fluorobiphenyl	8.801	172	607719	25.59	ppm	-0.01
Spiked Amount 50.000	Range 40 - 106		Recovery =	51.18%		
75) 2,4,6-Tribromophenol	10.523	330	124610	47.52	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	47.52%		
95) Terphenyl-d14	13.267	244	646284	25.00	ppm	-0.01
Spiked Amount 50.000	Range 39 - 121		Recovery =	50.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	234563	27.25	ppm	99
3) N-nitrosodimethylamine	3.255	42	197394	25.20	ppm	96
4) Pyridine	3.292	79	593549	26.10	ppm	99
5) Benzaldehyde	5.619	106	309303	26.43	ppm	98
6) Aniline	5.736	93	674983	28.45	ppm	89
8) bis(2-Chloroethyl)ether	5.817	93	476433	27.66	ppm	95
10) Phenol	5.726	94	634789	28.57	ppm	88
11) 2-Chlorophenol	5.870	128	331736	26.23	ppm	91
12) 1,3-Dichlorobenzene	6.031	146	331061	25.97	ppm	89
13) 1,4-Dichlorobenzene	6.116	146	326814	25.54	ppm	91
14) 1,2-Dichlorobenzene	6.277	146	312732	25.86	ppm	89
15) Benzyl alcohol	6.255	108	292260	26.65	ppm	95
16) bis(2-chloroisopropyl)...	6.405	45	426537	29.57	ppm	93
17) 2-Methylphenol	6.389	108	383396	26.92	ppm	98
18) Acetophenone	6.544	105	601925	25.75	ppm	92
19) Hexachloroethane	6.656	117	163059	25.68	ppm	86
20) N-Nitroso-di-n-propyla...	6.555	70	275811	26.84	ppm	89
21) 3&4-Methylphenol	6.565	108	406987	27.14	ppm	96
24) Nitrobenzene	6.737	77	477812	28.19	ppm	87
25) Isophorone	7.009	82	905532	27.92	ppm	88
26) 2-Nitrophenol	7.095	139	165518	26.37	ppm	75
27) 2,4-Dimethylphenol	7.164	107	376213	26.40	ppm	83
28) O,O,O-Triethylphosphor...	7.239	198	154850	24.69	ppm #	70
29) bis(2-Chloroethoxy)met...	7.271	93	517244	27.64	ppm	97
30) Benzoic Acid	7.271	105	345394	25.38	ppm	90
31) 2,4-Dichlorophenol	7.378	162	251916	26.05	ppm	88
32) 1,2,4-Trichlorobenzene	7.469	180	265628	24.81	ppm	99
34) Naphthalene	7.555	128	881057	25.76	ppm	92
35) 4-Chloroaniline	7.630	127	364749	26.38	ppm	95
36) 2,6-Dichlorophenol	7.635	162	247580	25.65	ppm	93
37) Hexachlorobutadiene	7.705	225	154867	24.07	ppm	99
38) Caprolactam	8.036	113	136239	26.44	ppm	91
39) 4-Chloro-3-methylphenol	8.213	107	373951	25.85	ppm	80
40) 2-Methylnaphthalene	8.363	141	463370	25.22	ppm	93
41) 1-Methylnaphthalene	8.475	142	506033	25.26	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21176.D
Acq On : 2 Nov 2023 11:49 am
Operator : karena
Sample : ic797-25
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 15:42:28 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 1,2,4,5-Tetrachloroben...	8.555	216	257148	24.59	ppm		99
44) Hexachlorocyclopentadiene	8.550	237	138584	24.64	ppm		97
45) 2,4,6-Trichlorophenol	8.699	196	174930	25.20	ppm		97
46) 2,4,5-Trichlorophenol	8.748	196	188117	25.52	ppm		98
48) 1,1'-Biphenyl	8.919	154	673137	25.42	ppm		99
49) 2-Chloronaphthalene	8.929	162	513856	25.73	ppm		97
50) 2-Nitroaniline	9.063	65	212958	28.00	ppm		83
51) p-Dinitrobenzene	9.234	75	148778	28.12	ppm		80
52) Acenaphthylene	9.416	152	792077	25.60	ppm		100
53) Dimethylphthalate	9.299	163	621923	25.34	ppm		99
54) m-Dinitrobenzene	9.320	168	109206	26.61	ppm		81
55) 2,6-Dinitrotoluene	9.357	165	145503	25.79	ppm	#	66
56) o-Dinitrobenzene	9.411	50	99942	26.06	ppm	#	1
57) Acenaphthene	9.625	153	524933	25.22	ppm		99
58) 3-Nitroaniline	9.550	138	162789	26.34	ppm	#	51
59) 2,4-Dinitrophenol	9.673	184	78643	24.98	ppm		90
60) Dibenzofuran	9.828	168	716032	24.89	ppm		97
61) 2,4-Dinitrotoluene	9.828	165	191775	25.21	ppm	#	74
62) 4-Nitrophenol	9.780	109	144142	24.60	ppm	#	63
63) 2,3,5,6-Tetrachlorophenol	9.930	232	147828	24.71	ppm		98
64) 2,3,4,6-Tetrachlorophenol	9.978	232	148838	24.34	ppm		98
65) Fluorene	10.235	166	564420	24.56	ppm		99
66) 4-Chlorophenyl-phenyle...	10.251	204	292535	24.42	ppm		98
67) Diethylphthalate	10.138	149	612667	24.86	ppm		98
68) Thionazin	10.229	97	198947	26.56	ppm		84
69) 4-Nitroaniline	10.272	138	164039	25.88	ppm	#	62
71) 4,6-Dinitro-2-methylph...	10.304	198	114629	26.86	ppm	#	67
72) n-Nitrosodiphenylamine	10.395	169	503176	29.21	ppm		99
73) Diphenylamine	10.395	169	503176	26.20	ppm		99
74) 1,2-Diphenylhydrazine	10.438	77	818457	29.01	ppm		88
76) Sulfotep	10.609	97	159211	27.55	ppm	#	64
77) Phorate	10.753	75	469587	29.30	ppm		93
78) 4-Bromophenyl-phenylether	10.828	248	151339	25.30	ppm	#	81
79) Hexachlorobenzene	10.876	284	145701	24.54	ppm		83
80) Dimethoate	10.946	87	349517	29.42	ppm		91
81) Simazine	11.010	201	94762	26.72	ppm		96
82) Atrazine	11.053	200	185745	25.49	ppm		99
83) Pentachlorophenol	11.122	266	98759	26.65	ppm		100
84) Phenanthrene	11.368	178	814609	25.44	ppm		99
85) Anthracene	11.433	178	853742	25.79	ppm		98
86) Disulfoton	11.379	88	475496	28.75	ppm		90
87) Carbazole	11.636	167	786096	25.49	ppm		99
88) Methyl Parathion	11.818	109	272474	25.74	ppm		86
89) Di-n-butylphthalate	12.091	149	973839	25.15	ppm		97
90) Ethyl Parathion	12.288	97	185502	26.23	ppm	#	80
91) Fluoranthene	12.781	202	888004	25.29	ppm		95
93) Benzidine	12.968	184	441457	27.09	ppm		96
94) Pyrene	13.043	202	904616	26.64	ppm		94
96) Famphur	13.840	218	244405	23.86	ppm		83
97) Butylbenzylphthalate	13.936	149	418208	25.39	ppm		85
98) 3,3'-Dichlorobenzidine	14.636	252	275631	25.36	ppm		98
99) Benzo[a]anthracene	14.642	228	763337	24.09	ppm		99
100) Chrysene	14.695	228	739791	25.34	ppm		99
101) bis(2-Ethylhexyl)phtha...	14.792	149	556309	25.91	ppm		97
103) Di-n-octylphthalate	15.883	149	851606	24.12	ppm		99
104) Benzo[b]fluoranthene	16.391	252	614599	23.93	ppm		96
105) Benzo[k]fluoranthene	16.439	252	671228	24.88	ppm		97
106) Benzo[a]pyrene	16.936	252	599074	24.99	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21176.D
Acq On : 2 Nov 2023 11:49 am
Operator : karena
Sample : ic797-25
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 15:42:28 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

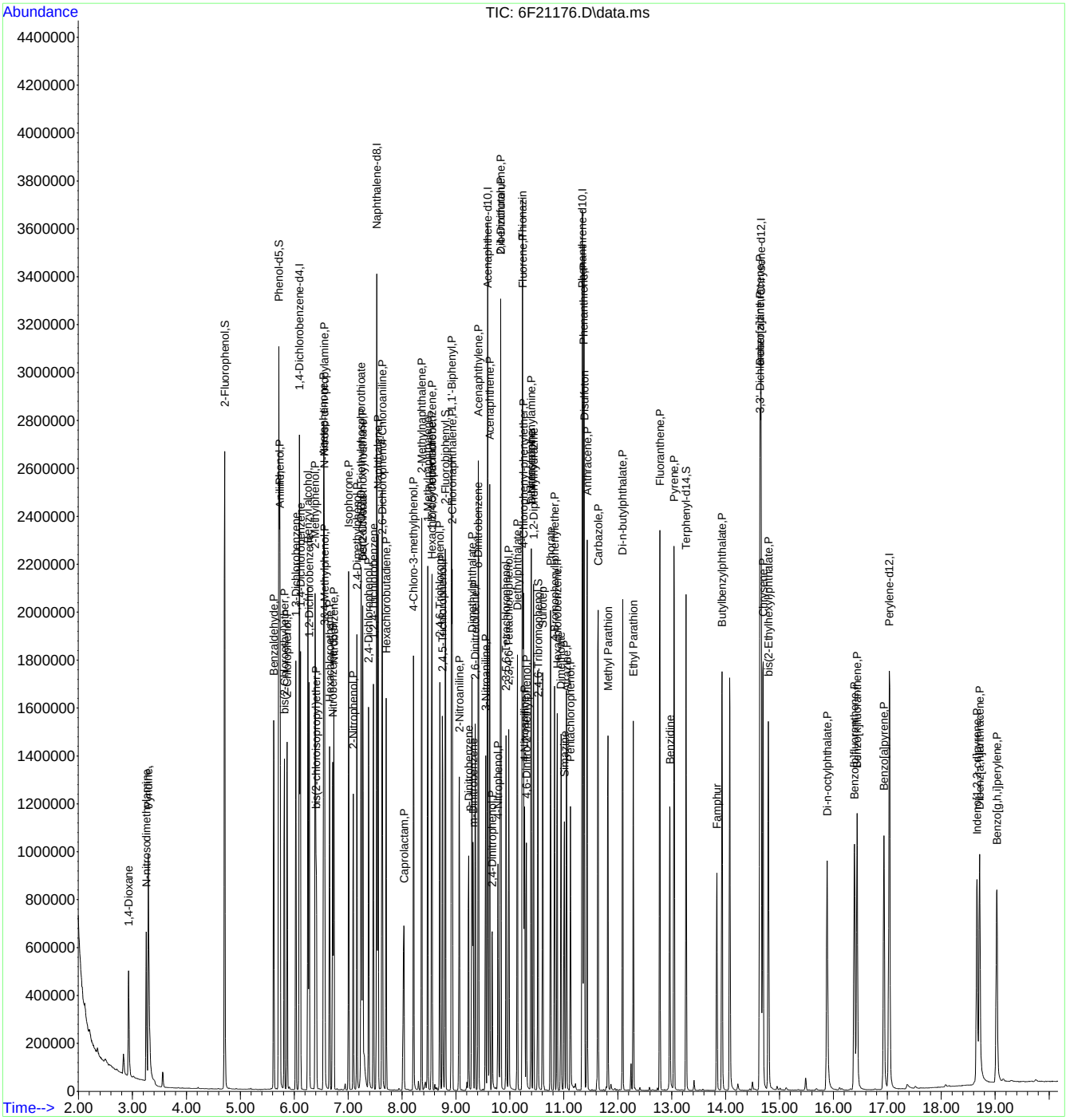
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.664	276	517353	24.64	ppm	96
108) Dibenz[a,h]anthracene	18.712	278	550617	25.26	ppm	95
109) Benzo[g,h,i]perylene	19.033	276	563462	25.46	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21176.D
Acq On : 2 Nov 2023 11:49 am
Operator : karena
Sample : ic797-25
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 02 15:42:28 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:45:11 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	368935	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1391866	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	782426	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1397423	40.00	ppm	0.00
92) Chrysene-d12	14.663	240	1039226	40.00	ppm	0.00
102) Perylene-d12	17.038	264	937762	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.709	112	1563906	103.14	ppm	0.02
Spiked Amount 100.000	Range 14 - 67		Recovery =	103.14%#		
9) Phenol-d5	5.720	99	2053278	100.42	ppm	0.02
Spiked Amount 100.000	Range 10 - 50		Recovery =	100.42%#		
23) Nitrobenzene-d5	6.715	82	990640	52.85	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery =	105.70%		
47) 2-Fluorobiphenyl	8.806	172	1162729	48.60	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery =	97.20%		
75) 2,4,6-Tribromophenol	10.529	330	254716	95.27	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	95.27%		
95) Terphenyl-d14	13.272	244	1268386	49.00	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery =	98.00%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	474036	53.26	ppm	97
3) N-nitrosodimethylamine	3.254	42	400868	51.21	ppm	99
4) Pyridine	3.292	79	1198588	52.33	ppm	98
5) Benzaldehyde	5.624	106	503949	48.17	ppm	100
6) Aniline	5.742	93	1255591	51.43	ppm	93
8) bis(2-Chloroethyl)ether	5.822	93	936220	52.83	ppm	93
10) Phenol	5.736	94	1158997	50.70	ppm	68
11) 2-Chlorophenol	5.870	128	654305	50.28	ppm	91
12) 1,3-Dichlorobenzene	6.030	146	640094	48.80	ppm	87
13) 1,4-Dichlorobenzene	6.116	146	639699	48.59	ppm	90
14) 1,2-Dichlorobenzene	6.282	146	607142	48.80	ppm	89
15) Benzyl alcohol	6.260	108	577344	51.17	ppm	97
16) bis(2-chloroisopropyl)...	6.410	45	774474	52.19	ppm	94
17) 2-Methylphenol	6.394	108	743345	50.73	ppm	98
18) Acetophenone	6.549	105	1175109	48.87	ppm	92
19) Hexachloroethane	6.656	117	319497	48.91	ppm	88
20) N-Nitroso-di-n-propyla...	6.560	70	478941	49.69	ppm	90
21) 3&4-Methylphenol	6.571	108	762711	49.44	ppm	95
24) Nitrobenzene	6.742	77	907517	52.31	ppm	90
25) Isophorone	7.015	82	1725239	51.96	ppm	89
26) 2-Nitrophenol	7.100	139	330495	51.44	ppm	80
27) 2,4-Dimethylphenol	7.170	107	741250	50.82	ppm	85
28) O,O,O-Triethylphosphor...	7.245	198	310986	48.45	ppm #	77
29) bis(2-Chloroethoxy)met...	7.277	93	997421	52.08	ppm	96
30) Benzoic Acid	7.303	105	746714m	51.62	ppm	
31) 2,4-Dichlorophenol	7.384	162	495036	50.02	ppm	90
32) 1,2,4-Trichlorobenzene	7.469	180	521892	47.63	ppm	100
34) Naphthalene	7.560	128	1690908	48.29	ppm	92
35) 4-Chloroaniline	7.635	127	685249	48.43	ppm	98
36) 2,6-Dichlorophenol	7.640	162	472603	47.84	ppm	94
37) Hexachlorobutadiene	7.704	225	305401	46.37	ppm	99
38) Caprolactam	8.063	113	269035	51.02	ppm	89
39) 4-Chloro-3-methylphenol	8.218	107	728655	49.21	ppm	82
40) 2-Methylnaphthalene	8.368	141	898605	47.79	ppm	94
41) 1-Methylnaphthalene	8.480	142	975849	47.59	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:45:11 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	500284	48.34	ppm		100
44)	Hexachlorocyclopentadiene	8.550	237	287222	50.68	ppm		99
45)	2,4,6-Trichlorophenol	8.705	196	345692	49.42	ppm		99
46)	2,4,5-Trichlorophenol	8.753	196	372443	50.14	ppm		100
48)	1,1'-Biphenyl	8.919	154	1297658	48.63	ppm		99
49)	2-Chloronaphthalene	8.935	162	992790	49.34	ppm		97
50)	2-Nitroaniline	9.063	65	403242	52.63	ppm		81
51)	p-Dinitrobenzene	9.240	75	293655	55.08	ppm		83
52)	Acenaphthylene	9.421	152	1501566	48.16	ppm		100
53)	Dimethylphthalate	9.304	163	1210081	48.94	ppm		99
54)	m-Dinitrobenzene	9.325	168	215592	52.14	ppm		85
55)	2,6-Dinitrotoluene	9.363	165	284692	50.09	ppm	#	70
56)	o-Dinitrobenzene	9.421	50	180243	46.64	ppm	#	1
57)	Acenaphthene	9.630	153	1013155	48.32	ppm		100
58)	3-Nitroaniline	9.555	138	316382	50.80	ppm	#	50
59)	2,4-Dinitrophenol	9.678	184	176842	52.05	ppm		88
60)	Dibenzofuran	9.833	168	1348229	46.52	ppm		98
61)	2,4-Dinitrotoluene	9.833	165	369238	48.18	ppm		79
62)	4-Nitrophenol	9.785	109	297881	50.46	ppm	#	66
63)	2,3,5,6-Tetrachlorophenol	9.935	232	298995	49.61	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.983	232	291259	47.27	ppm		98
65)	Fluorene	10.240	166	1074245	46.39	ppm		98
66)	4-Chlorophenyl-phenyle...	10.256	204	553339	45.85	ppm		98
67)	Diethylphthalate	10.143	149	1189881	47.92	ppm		98
68)	Thionazin	10.240	97	357372	47.36	ppm		90
69)	4-Nitroaniline	10.288	138	318246	49.84	ppm	#	62
71)	4,6-Dinitro-2-methylph...	10.315	198	241147	55.42	ppm		79
72)	n-Nitrosodiphenylamine	10.400	169	957212	54.51	ppm		99
73)	Diphenylamine	10.400	169	957212	48.89	ppm		99
74)	1,2-Diphenylhydrazine	10.443	77	1508368	52.43	ppm		90
76)	Sulfotep	10.609	97	301278	51.13	ppm	#	58
77)	Phorate	10.759	75	871384	53.33	ppm		88
78)	4-Bromophenyl-phenylether	10.833	248	297248	48.74	ppm		84
79)	Hexachlorobenzene	10.882	284	285201	47.11	ppm		90
80)	Dimethoate	10.956	87	645899	53.32	ppm		93
81)	Simazine	11.021	201	175996	48.67	ppm		96
82)	Atrazine	11.058	200	350579	47.19	ppm		98
83)	Pentachlorophenol	11.128	266	205188	54.31	ppm		99
84)	Phenanthrene	11.374	178	1547102	47.39	ppm		100
85)	Anthracene	11.432	178	1630969	48.33	ppm		100
86)	Disulfoton	11.379	88	848193	50.30	ppm		92
87)	Carbazole	11.641	167	1518140	49.95	ppm		99
88)	Methyl Parathion	11.818	109	524188	51.46	ppm		81
89)	Di-n-butylphthalate	12.096	149	1894786	49.69	ppm		97
90)	Ethyl Parathion	12.294	97	363006	50.35	ppm		83
91)	Fluoranthene	12.786	202	1702455	49.10	ppm		96
93)	Benzidine	12.968	184	715914	52.83	ppm		96
94)	Pyrene	13.048	202	1748977	51.45	ppm		95
96)	Famphur	13.839	218	375474	40.93	ppm		81
97)	Butylbenzylphthalate	13.936	149	821298	49.80	ppm		84
98)	3,3'-Dichlorobenzidine	14.642	252	529130	48.62	ppm		97
99)	Benzo[a]anthracene	14.647	228	1528884	48.20	ppm		100
100)	Chrysene	14.701	228	1445952	49.46	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1087529	50.59	ppm		99
103)	Di-n-octylphthalate	15.888	149	1729813	49.65	ppm		100
104)	Benzo[b]fluoranthene	16.396	252	1204031	47.50	ppm		96
105)	Benzo[k]fluoranthene	16.450	252	1309193	49.17	ppm		98
106)	Benzo[a]pyrene	16.947	252	1171343	49.52	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:45:11 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

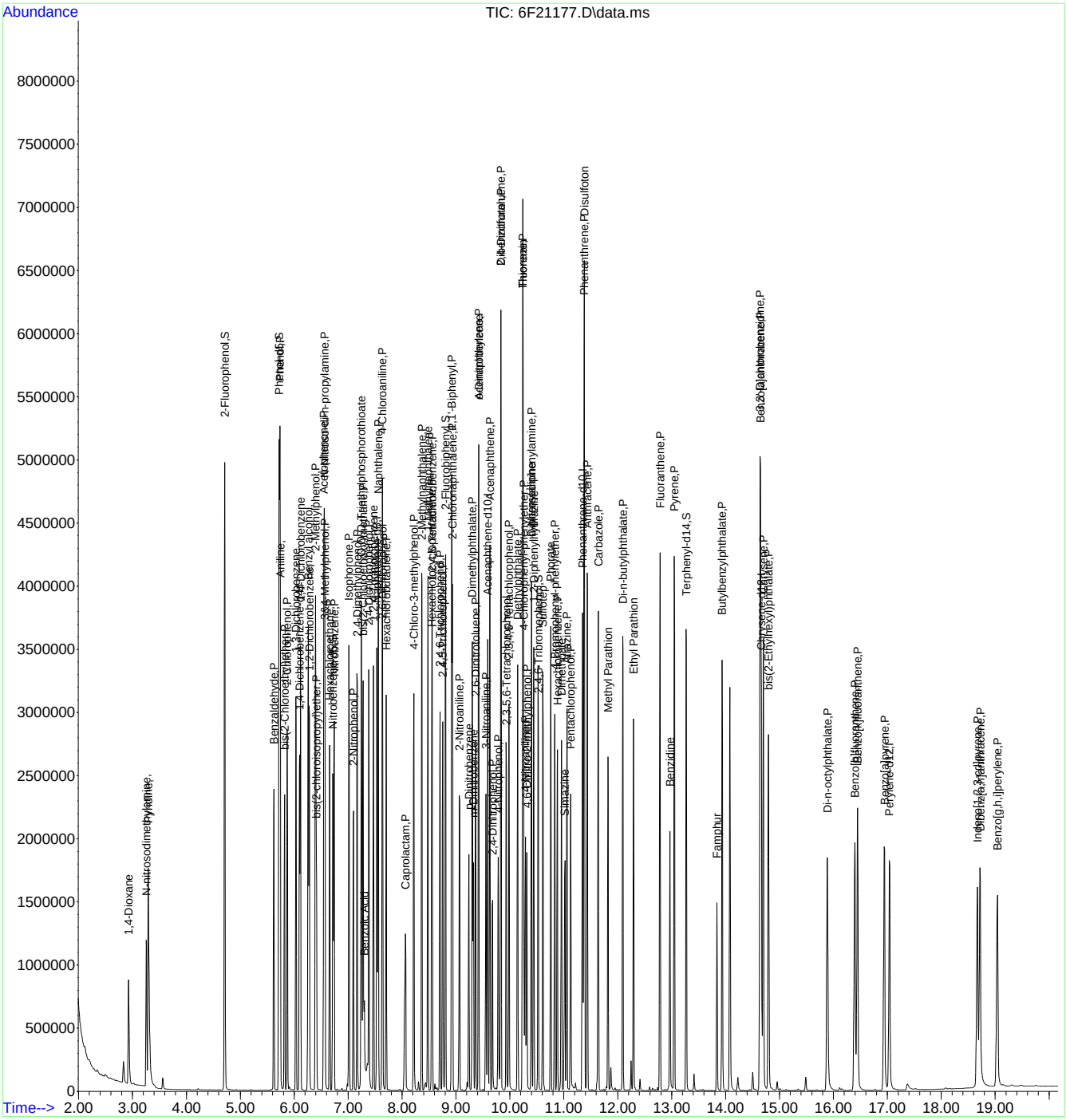
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.669	276	1019433	49.20	ppm	95
108) Dibenz[a,h]anthracene	18.723	278	1102460	51.25	ppm	95
109) Benzo[g,h,i]perylene	19.044	276	1073013	49.14	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:45:11 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integration Approval Summary

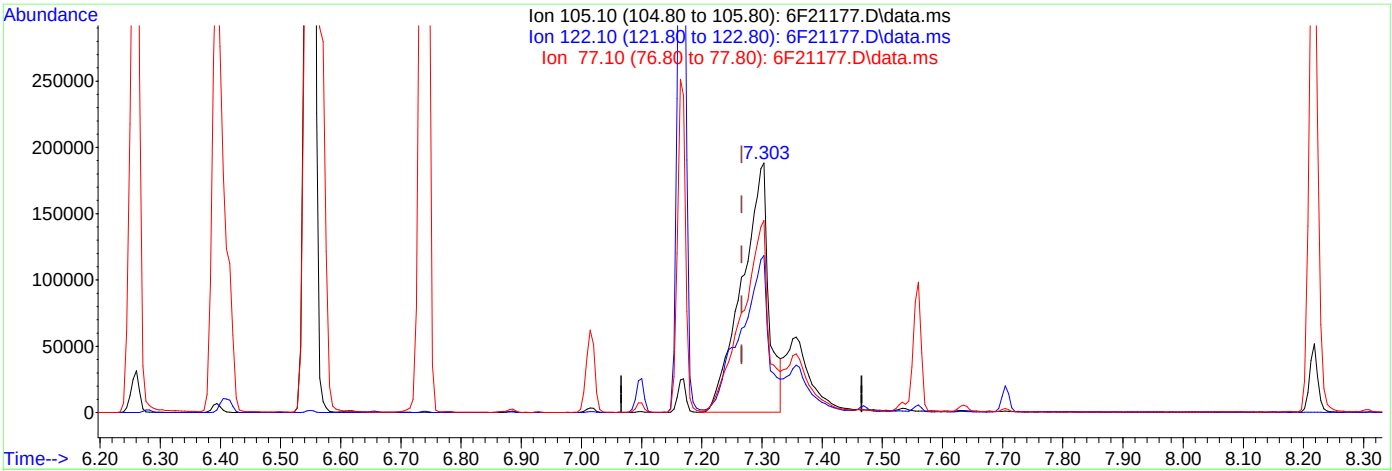
Sample Number: S6F797-ICC797
Lab FileID: 6F21177.D
Injection Time: 11/02/23 12:15
Method: SW846 8270E
Analyst approved: 11/02/23 16:51 William Hustedde
Supervisor approved: 11/02/23 17:48 Naresh Jiawan

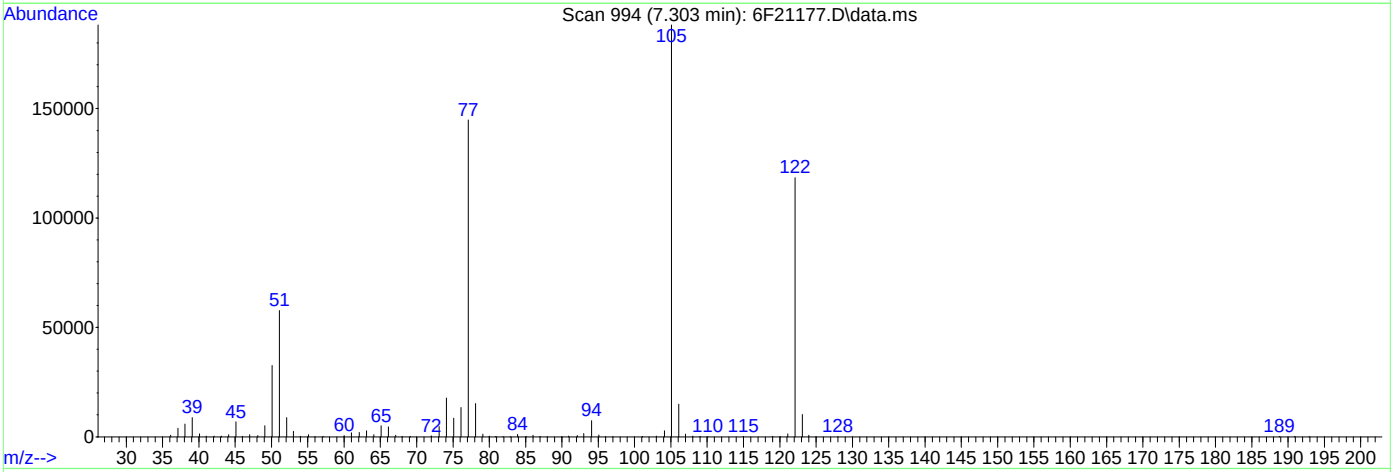
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		7.30	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:34:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21177.D\data.ms

(30) Benzoic Acid

7.303min (+0.037) 40.68ppm

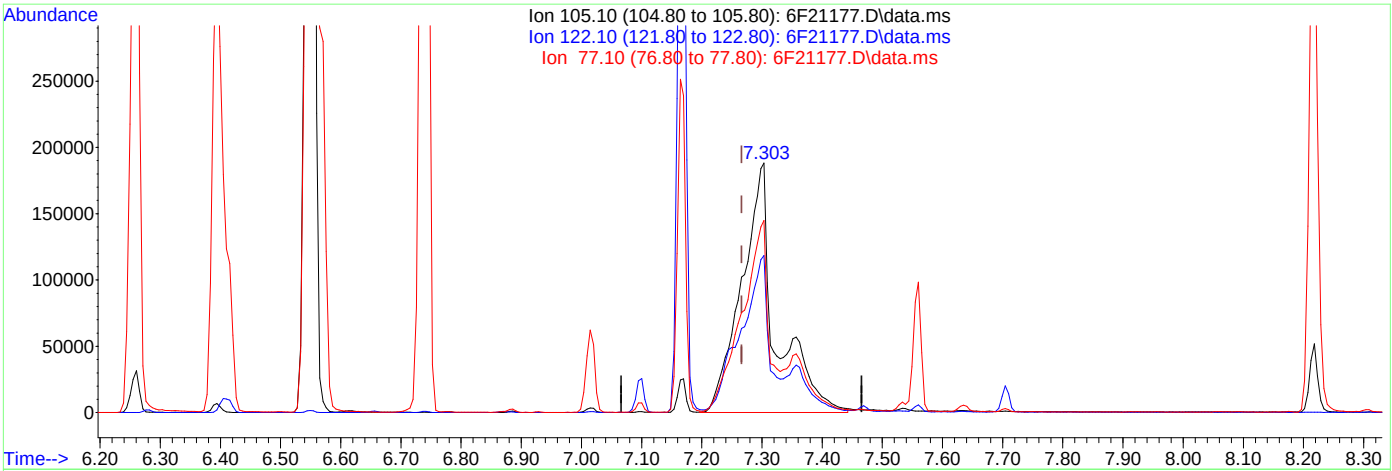
response 579313

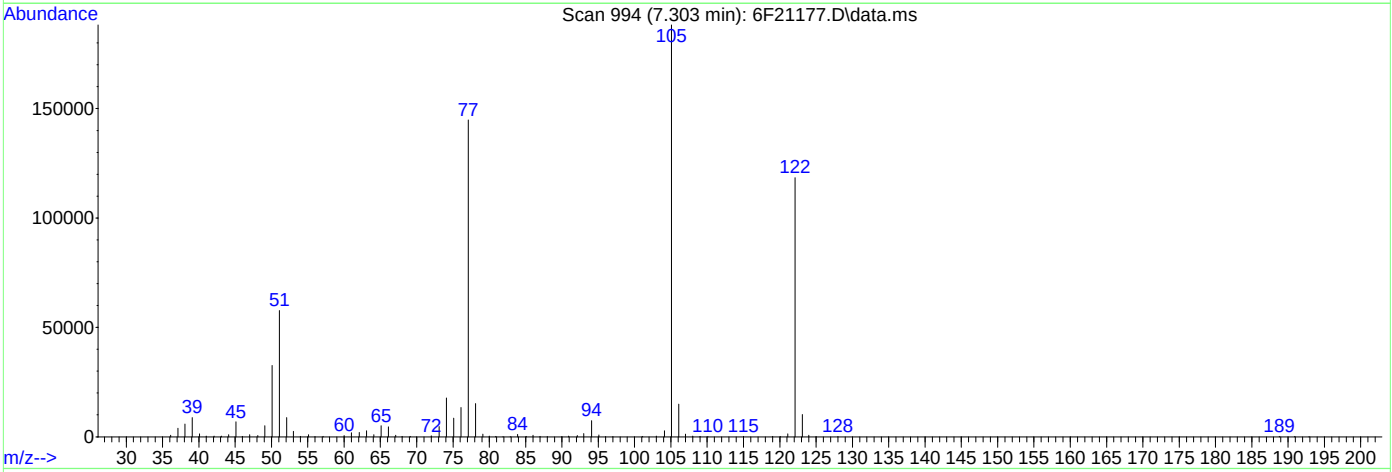
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.40
77.10	76.40	76.74
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:34:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21177.D\data.ms

(30) Benzoic Acid

7.303min (+0.037) 51.62ppm m

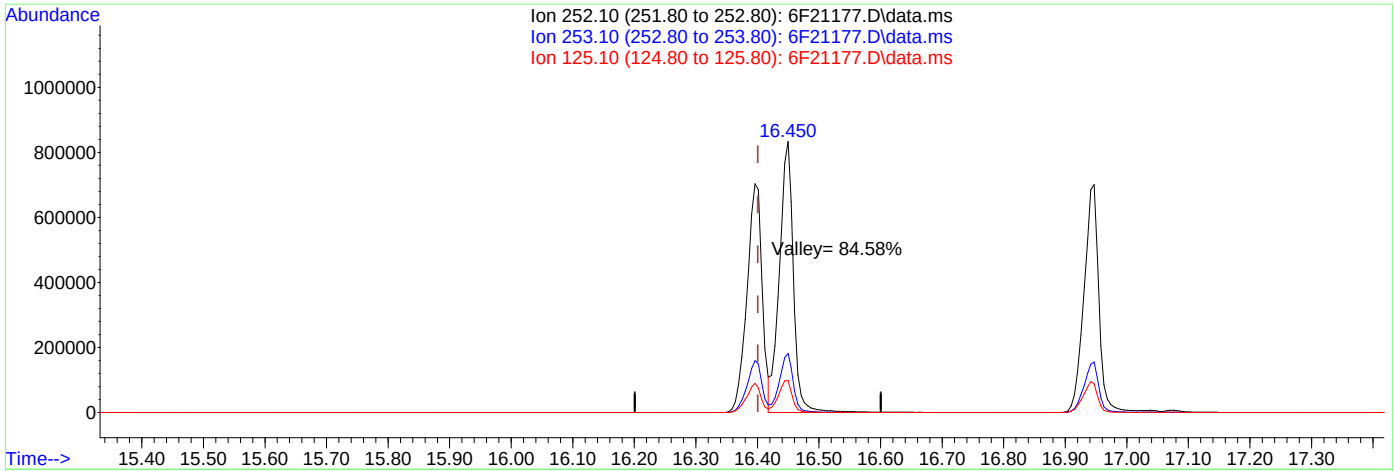
response 746714

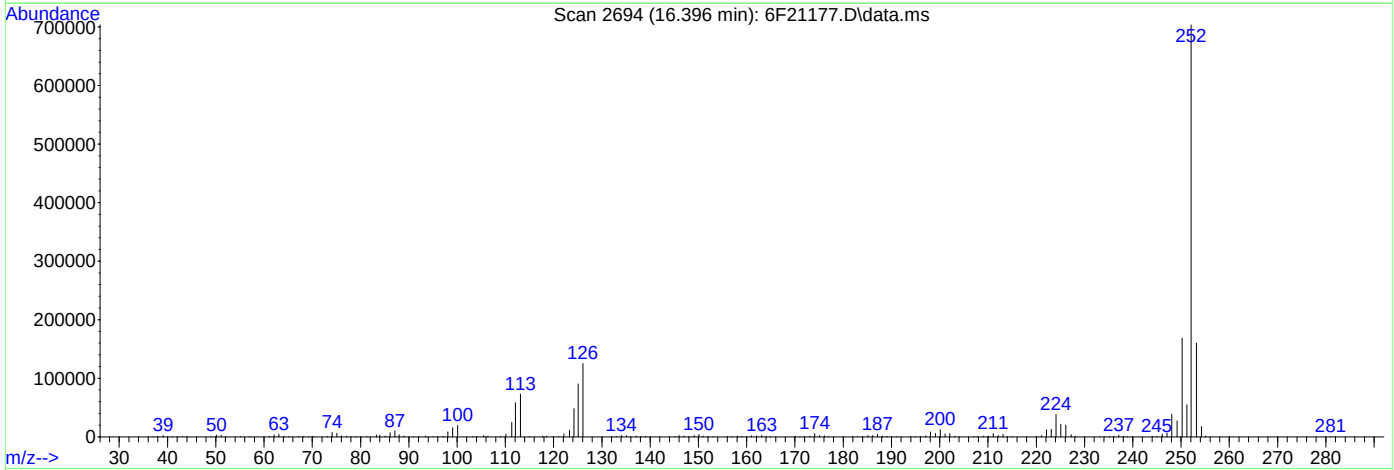
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.90
77.10	76.40	76.92
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21177.D
Acq On : 2 Nov 2023 12:15 pm
Operator : karena
Sample : icc797-50
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 02 15:45:11 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21177.D\data.ms

(104) Benzo[b]fluoranthene (P)

16.396min (-0.005) 47.50ppm

response 1204031

Ion	Exp%	Act%
252.10	100	100
253.10	22.10	22.80
125.10	9.30	13.05
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:52:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.100	152	358791	40.00	ppm		0.00
22) Naphthalene-d8	7.533	136	1364523	40.00	ppm		0.00
43) Acenaphthene-d10	9.587	164	761590	40.00	ppm		0.00
70) Phenanthrene-d10	11.347	188	1372788	40.00	ppm		0.00
92) Chrysene-d12	14.663	240	1013927	40.00	ppm		0.00
102) Perylene-d12	17.043	264	902456	40.00	ppm		0.00
System Monitoring Compounds							
7) 2-Fluorophenol	4.709	112	1802039	122.20	ppm		0.02
Spiked Amount 100.000	Range 14 - 67		Recovery = 122.20%#				
9) Phenol-d5	5.720	99	2338039	117.58	ppm		0.02
Spiked Amount 100.000	Range 10 - 50		Recovery = 117.58%#				
23) Nitrobenzene-d5	6.720	82	1129081	61.45	ppm		0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 122.90%#				
47) 2-Fluorobiphenyl	8.806	172	1328010	57.03	ppm		0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 114.06%#				
75) 2,4,6-Tribromophenol	10.529	330	297378	113.22	ppm		0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 113.22%				
95) Terphenyl-d14	13.272	244	1486794	58.87	ppm		0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 117.74%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.928	88	549146	63.31	ppm		98
3) N-nitrosodimethylamine	3.260	42	464079	61.69	ppm		97
4) Pyridine	3.292	79	1382807	62.60	ppm		98
5) Benzaldehyde	5.624	106	559961	59.92	ppm		100
6) Aniline	5.742	93	1395515	58.78	ppm		82
8) bis(2-Chloroethyl)ether	5.822	93	1067859	61.96	ppm		94
10) Phenol	5.736	94	1284971	57.80	ppm		72
11) 2-Chlorophenol	5.870	128	759024	59.97	ppm		92
12) 1,3-Dichlorobenzene	6.036	146	744121	58.34	ppm		90
13) 1,4-Dichlorobenzene	6.116	146	729459	56.97	ppm		88
14) 1,2-Dichlorobenzene	6.282	146	698000	57.68	ppm		90
15) Benzyl alcohol	6.260	108	664703	60.57	ppm		96
16) bis(2-chloroisopropyl)...	6.410	45	867547	60.12	ppm		94
17) 2-Methylphenol	6.394	108	845660	59.35	ppm		98
18) Acetophenone	6.549	105	1346775	57.59	ppm		92
19) Hexachloroethane	6.656	117	368839	58.06	ppm		86
20) N-Nitroso-di-n-propyla...	6.560	70	525167	58.10	ppm		92
21) 3&4-Methylphenol	6.571	108	867958	57.85	ppm		96
24) Nitrobenzene	6.742	77	1036284	60.93	ppm		89
25) Isophorone	7.020	82	1952367	59.98	ppm		90
26) 2-Nitrophenol	7.100	139	385637	61.23	ppm		86
27) 2,4-Dimethylphenol	7.170	107	849455	59.41	ppm		83
28) O,O,O-Triethylphosphor...	7.245	198	357351	56.79	ppm	#	77
29) bis(2-Chloroethoxy)met...	7.277	93	1109808	59.11	ppm		97
30) Benzoic Acid	7.309	105	881955m	61.35	ppm		
31) 2,4-Dichlorophenol	7.384	162	563998	58.13	ppm		89
32) 1,2,4-Trichlorobenzene	7.469	180	606386	56.45	ppm		100
34) Naphthalene	7.560	128	1947300	56.73	ppm		92
35) 4-Chloroaniline	7.635	127	781821	56.36	ppm		98
36) 2,6-Dichlorophenol	7.640	162	541070	55.87	ppm		95
37) Hexachlorobutadiene	7.705	225	352200	54.55	ppm		100
38) Caprolactam	8.074	113	317914	61.49	ppm		93
39) 4-Chloro-3-methylphenol	8.218	107	839692	57.85	ppm		80
40) 2-Methylnaphthalene	8.368	141	1022330	55.45	ppm		94
41) 1-Methylnaphthalene	8.480	142	1125511	55.99	ppm		93

10.6.6 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:52:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	575338	57.47	ppm		98
44)	Hexachlorocyclopentadiene	8.550	237	335424	60.80	ppm		98
45)	2,4,6-Trichlorophenol	8.705	196	401389	58.95	ppm		100
46)	2,4,5-Trichlorophenol	8.753	196	428696	59.29	ppm		99
48)	1,1'-Biphenyl	8.919	154	1492744	57.47	ppm		100
49)	2-Chloronaphthalene	8.935	162	1137249	58.07	ppm		98
50)	2-Nitroaniline	9.068	65	462671	62.03	ppm		84
51)	p-Dinitrobenzene	9.240	75	340924	65.70	ppm		82
52)	Acenaphthylene	9.421	152	1733523	57.12	ppm		100
53)	Dimethylphthalate	9.304	163	1382420	57.43	ppm		99
54)	m-Dinitrobenzene	9.325	168	250683	62.28	ppm		90
55)	2,6-Dinitrotoluene	9.368	165	329440	59.55	ppm		84
56)	o-Dinitrobenzene	9.421	50	205790	54.71	ppm	#	1
57)	Acenaphthene	9.630	153	1161677	56.91	ppm		98
58)	3-Nitroaniline	9.560	138	368029	60.71	ppm	#	63
59)	2,4-Dinitrophenol	9.678	184	211380	62.35	ppm		84
60)	Dibenzofuran	9.833	168	1557058	55.19	ppm		94
61)	2,4-Dinitrotoluene	9.833	165	426047	57.11	ppm	#	76
62)	4-Nitrophenol	9.785	109	351902	61.25	ppm	#	66
63)	2,3,5,6-Tetrachlorophenol	9.935	232	343557	58.56	ppm		99
64)	2,3,4,6-Tetrachlorophenol	9.983	232	346606	57.79	ppm		99
65)	Fluorene	10.240	166	1245314	55.25	ppm		100
66)	4-Chlorophenyl-phenyle...	10.256	204	646597	55.04	ppm		99
67)	Diethylphthalate	10.143	149	1378992	57.06	ppm		96
68)	Thionazin	10.240	97	410636	55.91	ppm		90
69)	4-Nitroaniline	10.293	138	367909	59.19	ppm	#	63
71)	4,6-Dinitro-2-methylph...	10.315	198	280209	65.56	ppm		88
72)	n-Nitrosodiphenylamine	10.400	169	1113766	64.56	ppm		100
73)	Diphenylamine	10.400	169	1113766	57.90	ppm		100
74)	1,2-Diphenylhydrazine	10.443	77	1708883	60.47	ppm		90
76)	Sulfotep	10.609	97	346440	59.85	ppm	#	60
77)	Phorate	10.759	75	995706	62.03	ppm		87
78)	4-Bromophenyl-phenylether	10.833	248	345008	57.58	ppm		86
79)	Hexachlorobenzene	10.882	284	335138	56.35	ppm		89
80)	Dimethoate	10.956	87	734722	61.74	ppm		92
81)	Simazine	11.021	201	200700	56.49	ppm		95
82)	Atrazine	11.058	200	406550	55.71	ppm		98
83)	Pentachlorophenol	11.128	266	245063	66.03	ppm		100
84)	Phenanthrene	11.374	178	1803213	56.23	ppm		99
85)	Anthracene	11.438	178	1893176	57.11	ppm		100
86)	Disulfoton	11.379	88	961976	58.07	ppm		93
87)	Carbazole	11.641	167	1743014	59.14	ppm		99
88)	Methyl Parathion	11.823	109	596347	60.93	ppm		88
89)	Di-n-butylphthalate	12.096	149	2193456	59.37	ppm		97
90)	Ethyl Parathion	12.294	97	421648	59.54	ppm		84
91)	Fluoranthene	12.786	202	1976064	58.79	ppm		96
93)	Benzidine	12.968	184	736945	58.24	ppm		96
94)	Pyrene	13.053	202	2037622	61.44	ppm		97
96)	Famphur	13.839	218	412058	48.61	ppm		81
97)	Butylbenzylphthalate	13.936	149	958601	59.57	ppm		85
98)	3,3'-Dichlorobenzidine	14.642	252	608825	57.34	ppm		97
99)	Benzo[a]anthracene	14.647	228	1783397	57.62	ppm		99
100)	Chrysene	14.701	228	1688401	59.19	ppm		99
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1266731	60.39	ppm		99
103)	Di-n-octylphthalate	15.888	149	2020265	60.26	ppm		100
104)	Benzo[b]fluoranthene	16.401	252	1433007	58.75	ppm		98
105)	Benzo[k]fluoranthene	16.455	252	1487472	58.05	ppm		99
106)	Benzo[a]pyrene	16.947	252	1372307	60.28	ppm		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:52:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

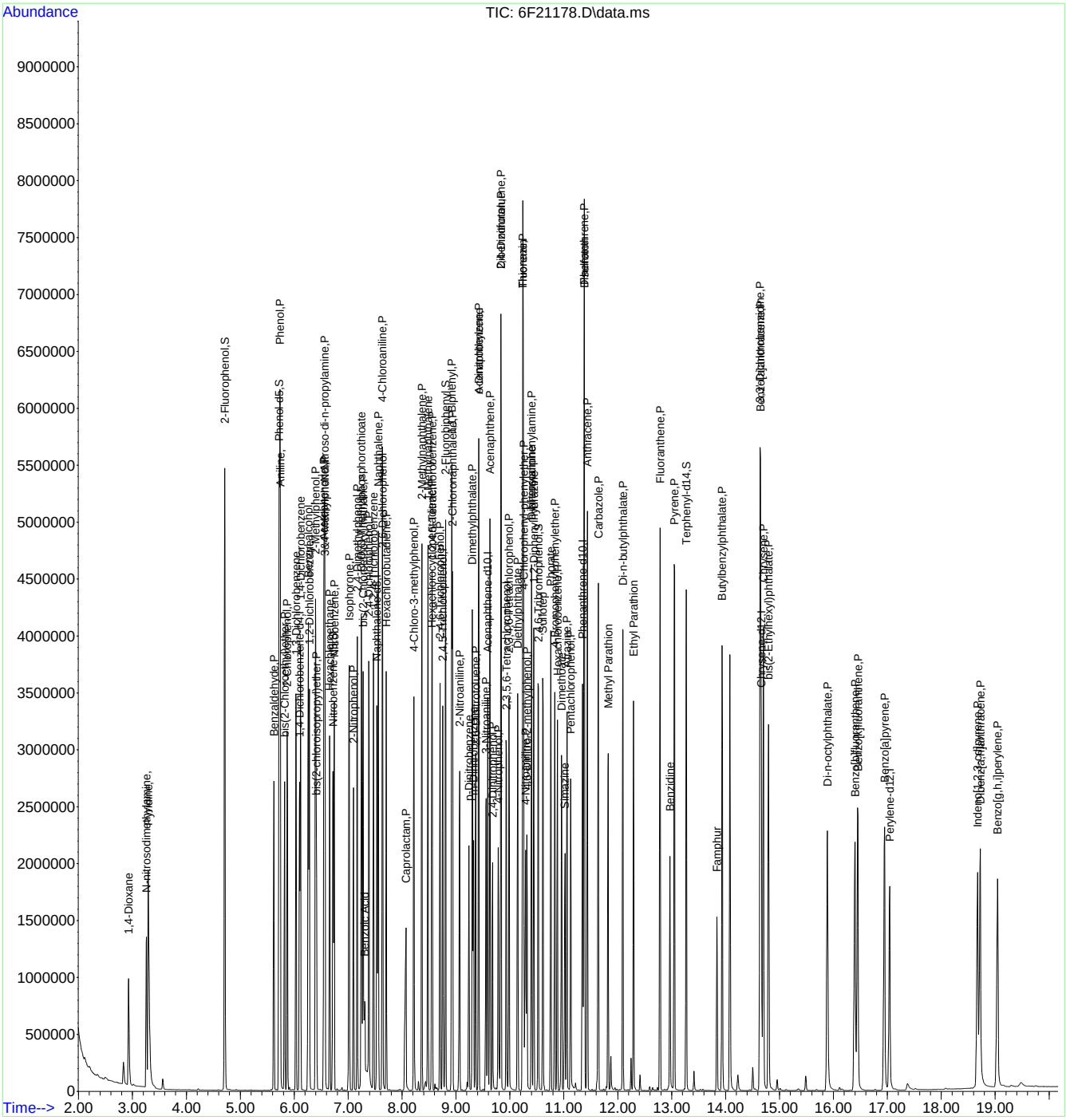
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.675	276	1215324	60.95	ppm	95
108) Dibenz[a,h]anthracene	18.723	278	1277267	61.70	ppm	95
109) Benzo[g,h,i]perylene	19.044	276	1257630	59.85	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:52:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integration Approval Summary

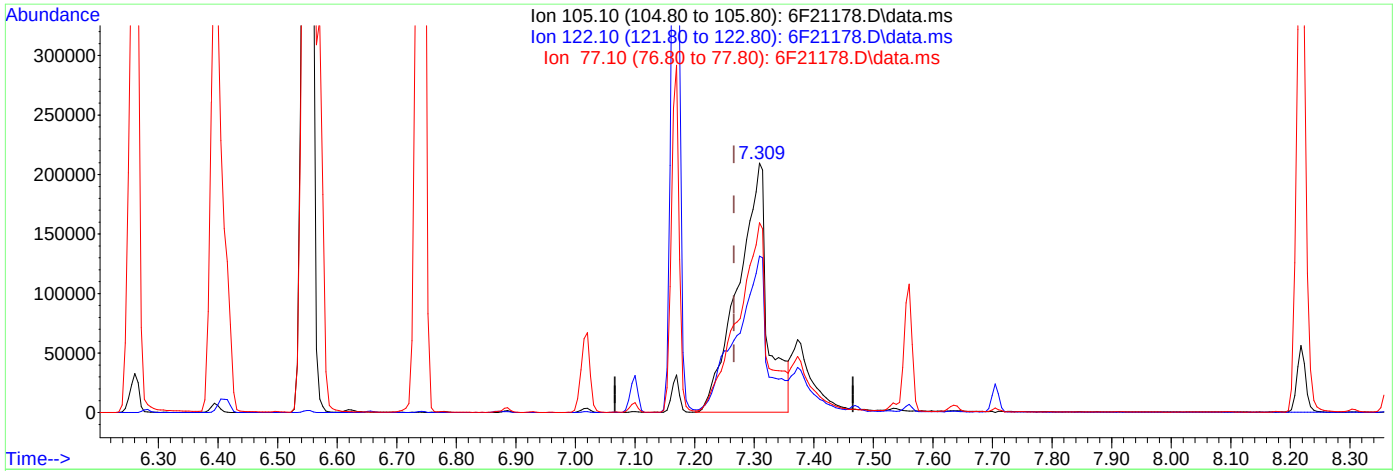
Sample Number: S6F797-IC797
Lab FileID: 6F21178.D
Injection Time: 11/02/23 12:41
Method: SW846 8270E
Analyst approved: 11/02/23 16:51 William Hustedde
Supervisor approved: 11/02/23 17:48 Naresh Jiawan

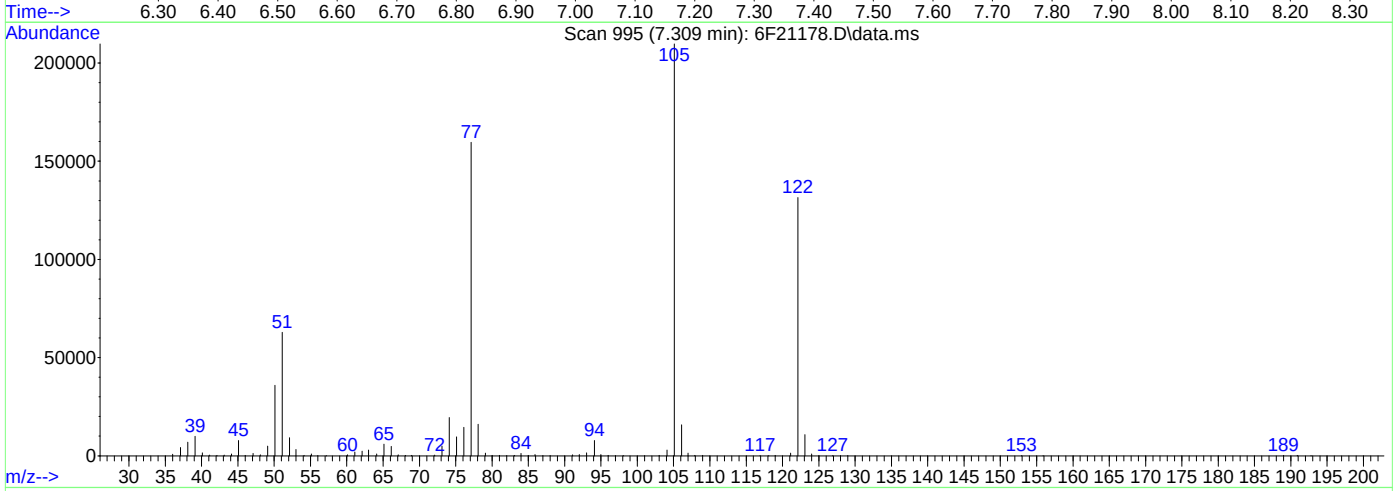
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		7.31	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:34:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21178.D\data.ms

(30) Benzoic Acid

7.309min (+0.043) 51.42ppm

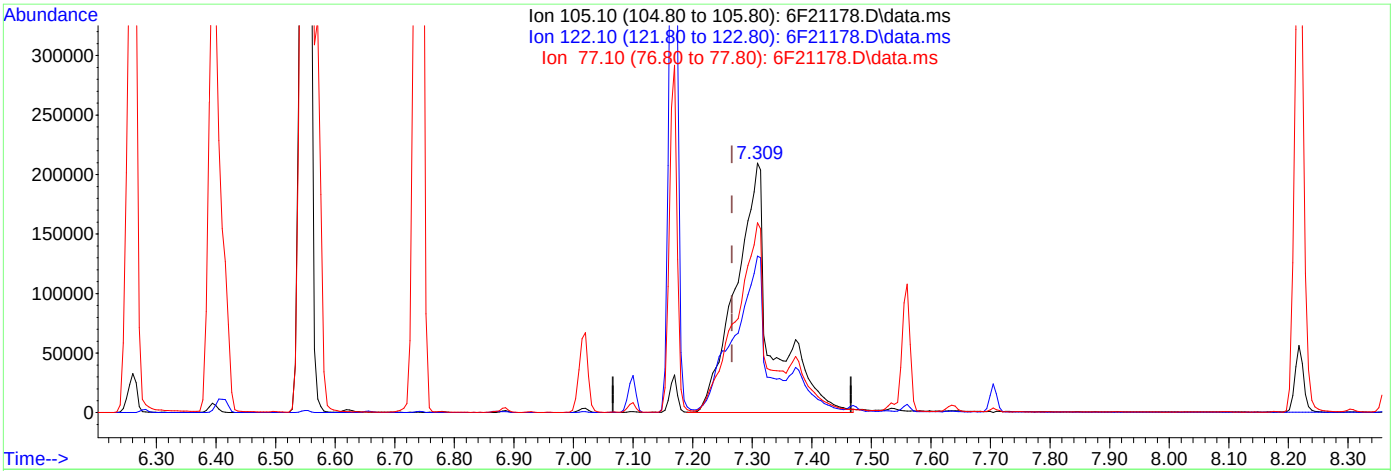
response 728949

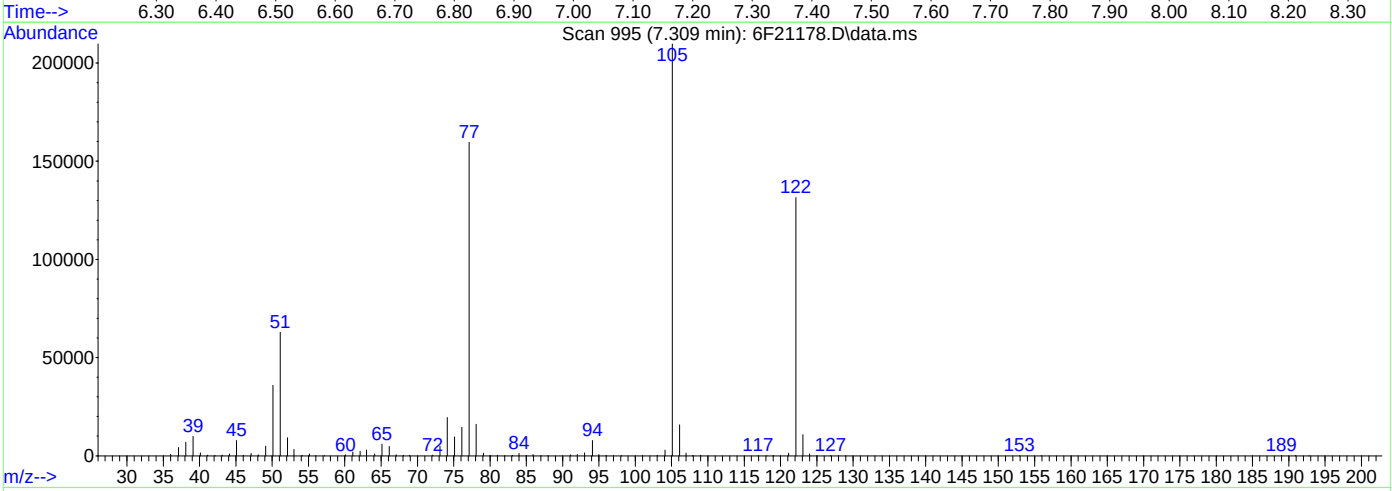
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.19
77.10	76.40	75.75
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21178.D
Acq On : 2 Nov 2023 12:41 pm
Operator : karena
Sample : ic797-60
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 02 15:34:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21178.D\data.ms

(30) Benzoic Acid

7.309min (+0.043) 61.35ppm m

response 881955

Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.66
77.10	76.40	76.08
0.00	0.00	0.00

6F21179.D

Manual Integrations APPROVED (compounds with "m" flag)

Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:52:52 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	352869	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1337306	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	749808	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1354595	40.00	ppm	0.00
92) Chrysene-d12	14.663	240	1004349	40.00	ppm	0.00
102) Perylene-d12	17.043	264	887507	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.709	112	2125073	146.53	ppm	0.02
Spiked Amount 100.000	Range 14 - 67		Recovery =	146.53%#		
9) Phenol-d5	5.726	99	2741831	140.20	ppm	0.03
Spiked Amount 100.000	Range 10 - 50		Recovery =	140.20%#		
23) Nitrobenzene-d5	6.720	82	1359656	75.50	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery =	151.00%#		
47) 2-Fluorobiphenyl	8.806	172	1615356	70.46	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery =	140.92%#		
75) 2,4,6-Tribromophenol	10.529	330	377088	145.50	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	145.50%#		
95) Terphenyl-d14	13.272	244	1825105	72.95	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery =	145.90%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	660917	77.27	ppm	98
3) N-nitrosodimethylamine	3.260	42	555841	76.42	ppm	98
4) Pyridine	3.292	79	1677736	78.23	ppm	98
5) Benzaldehyde	5.624	106	607393	73.85	ppm	99
6) Aniline	5.742	93	1608439	68.89	ppm	56
8) bis(2-Chloroethyl)ether	5.822	93	1278195	75.41	ppm	93
10) Phenol	5.736	94	1482006	67.78	ppm	72
11) 2-Chlorophenol	5.870	128	910197	73.13	ppm	92
12) 1,3-Dichlorobenzene	6.036	146	885200	70.56	ppm	89
13) 1,4-Dichlorobenzene	6.116	146	878342	69.75	ppm	90
14) 1,2-Dichlorobenzene	6.282	146	837040	70.34	ppm	89
15) Benzyl alcohol	6.260	108	789045	73.11	ppm	97
16) bis(2-chloroisopropyl)...	6.415	45	989841	69.74	ppm	96
17) 2-Methylphenol	6.394	108	1010746	72.12	ppm	98
18) Acetophenone	6.555	105	1585515	68.94	ppm	93
19) Hexachloroethane	6.656	117	441099	70.60	ppm	87
20) N-Nitroso-di-n-propyla...	6.565	70	603010	72.37	ppm	93
21) 3&4-Methylphenol	6.571	108	1026059	69.53	ppm	98
24) Nitrobenzene	6.742	77	1227223	73.62	ppm	89
25) Isophorone	7.020	82	2342843	73.45	ppm	90
26) 2-Nitrophenol	7.100	139	463595	75.11	ppm	78
27) 2,4-Dimethylphenol	7.170	107	1020775	72.84	ppm	83
28) O,O,O-Triethylphosphor...	7.250	198	424464	68.83	ppm	84
29) bis(2-Chloroethoxy)met...	7.277	93	1328946	72.22	ppm	96
30) Benzoic Acid	7.325	105	1100529m	76.49	ppm	
31) 2,4-Dichlorophenol	7.389	162	681670	71.68	ppm	91
32) 1,2,4-Trichlorobenzene	7.469	180	729520	69.30	ppm	99
34) Naphthalene	7.560	128	2324827	69.11	ppm	92
35) 4-Chloroaniline	7.635	127	939527	69.10	ppm	98
36) 2,6-Dichlorophenol	7.640	162	654133	68.92	ppm	95
37) Hexachlorobutadiene	7.705	225	425351	67.22	ppm	99
38) Caprolactam	8.084	113	373450	73.70	ppm	94
39) 4-Chloro-3-methylphenol	8.223	107	1013834	71.27	ppm	83
40) 2-Methylnaphthalene	8.368	141	1233099	68.25	ppm	94
41) 1-Methylnaphthalene	8.480	142	1349417	68.49	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:52:52 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	703113	73.38	ppm		100
44)	Hexachlorocyclopentadiene	8.550	237	409594	75.41	ppm		98
45)	2,4,6-Trichlorophenol	8.705	196	489590	73.04	ppm		97
46)	2,4,5-Trichlorophenol	8.753	196	521668	73.29	ppm		100
48)	1,1'-Biphenyl	8.924	154	1767556	69.12	ppm		99
49)	2-Chloronaphthalene	8.940	162	1353946	70.22	ppm		98
50)	2-Nitroaniline	9.068	65	556221	75.75	ppm		83
51)	p-Dinitrobenzene	9.240	75	414394	81.11	ppm		81
52)	Acenaphthylene	9.421	152	2074602	69.43	ppm		99
53)	Dimethylphthalate	9.309	163	1670273	70.48	ppm		99
54)	m-Dinitrobenzene	9.330	168	305701	77.15	ppm	#	77
55)	2,6-Dinitrotoluene	9.368	165	398334	73.13	ppm		76
56)	o-Dinitrobenzene	9.427	50	245017	66.16	ppm	#	1
57)	Acenaphthene	9.630	153	1410382	70.18	ppm		98
58)	3-Nitroaniline	9.560	138	447692	75.02	ppm	#	55
59)	2,4-Dinitrophenol	9.684	184	267373	77.33	ppm		94
60)	Dibenzofuran	9.833	168	1884281	67.84	ppm		98
61)	2,4-Dinitrotoluene	9.839	165	516508	70.33	ppm		86
62)	4-Nitrophenol	9.790	109	434570	76.82	ppm	#	58
63)	2,3,5,6-Tetrachlorophenol	9.935	232	420874	72.86	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.988	232	418687	70.91	ppm		95
65)	Fluorene	10.240	166	1510275	68.06	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	787181	68.06	ppm		99
67)	Diethylphthalate	10.149	149	1667020	70.06	ppm		98
68)	Thionazin	10.245	97	476030	65.83	ppm		91
69)	4-Nitroaniline	10.299	138	450935	73.69	ppm	#	63
71)	4,6-Dinitro-2-methylph...	10.320	198	347858	82.48	ppm		88
72)	n-Nitrosodiphenylamine	10.406	169	1342922	78.89	ppm		99
73)	Diphenylamine	10.406	169	1342922	70.75	ppm		99
74)	1,2-Diphenylhydrazine	10.443	77	2021800	72.50	ppm		89
76)	Sulfotep	10.614	97	404621	70.84	ppm	#	68
77)	Phorate	10.759	75	1150213	72.62	ppm		88
78)	4-Bromophenyl-phenylether	10.833	248	423882	71.70	ppm	#	84
79)	Hexachlorobenzene	10.882	284	408809	69.66	ppm		85
80)	Dimethoate	10.962	87	857885	73.05	ppm		92
81)	Simazine	11.026	201	237774	67.83	ppm		96
82)	Atrazine	11.063	200	471351	65.45	ppm		99
83)	Pentachlorophenol	11.128	266	303548	82.89	ppm		99
84)	Phenanthrene	11.379	178	2183214	68.99	ppm		99
85)	Anthracene	11.438	178	2290989	70.03	ppm		99
86)	Disulfoton	11.384	88	1134473	69.40	ppm		91
87)	Carbazole	11.641	167	2126930	74.81	ppm		99
88)	Methyl Parathion	11.823	109	702616	75.33	ppm		86
89)	Di-n-butylphthalate	12.096	149	2651664	74.35	ppm		98
90)	Ethyl Parathion	12.294	97	500778	71.66	ppm		84
91)	Fluoranthene	12.786	202	2402506	73.99	ppm		95
93)	Benzidine	12.968	184	805056	73.59	ppm		96
94)	Pyrene	13.053	202	2487673	75.72	ppm		97
96)	Famphur	13.839	218	462766	60.19	ppm		83
97)	Butylbenzylphthalate	13.941	149	1163098	72.97	ppm		90
98)	3,3'-Dichlorobenzidine	14.647	252	748263	71.14	ppm		98
99)	Benzo[a]anthracene	14.647	228	2206065	71.96	ppm		100
100)	Chrysene	14.706	228	2054706	72.72	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1545061	74.36	ppm		99
103)	Di-n-octylphthalate	15.888	149	2488099	75.46	ppm		100
104)	Benzo[b]fluoranthene	16.401	252	1729231	72.09	ppm		97
105)	Benzo[k]fluoranthene	16.455	252	1865463	74.03	ppm		96
106)	Benzo[a]pyrene	16.952	252	1690634	75.52	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:52:52 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration

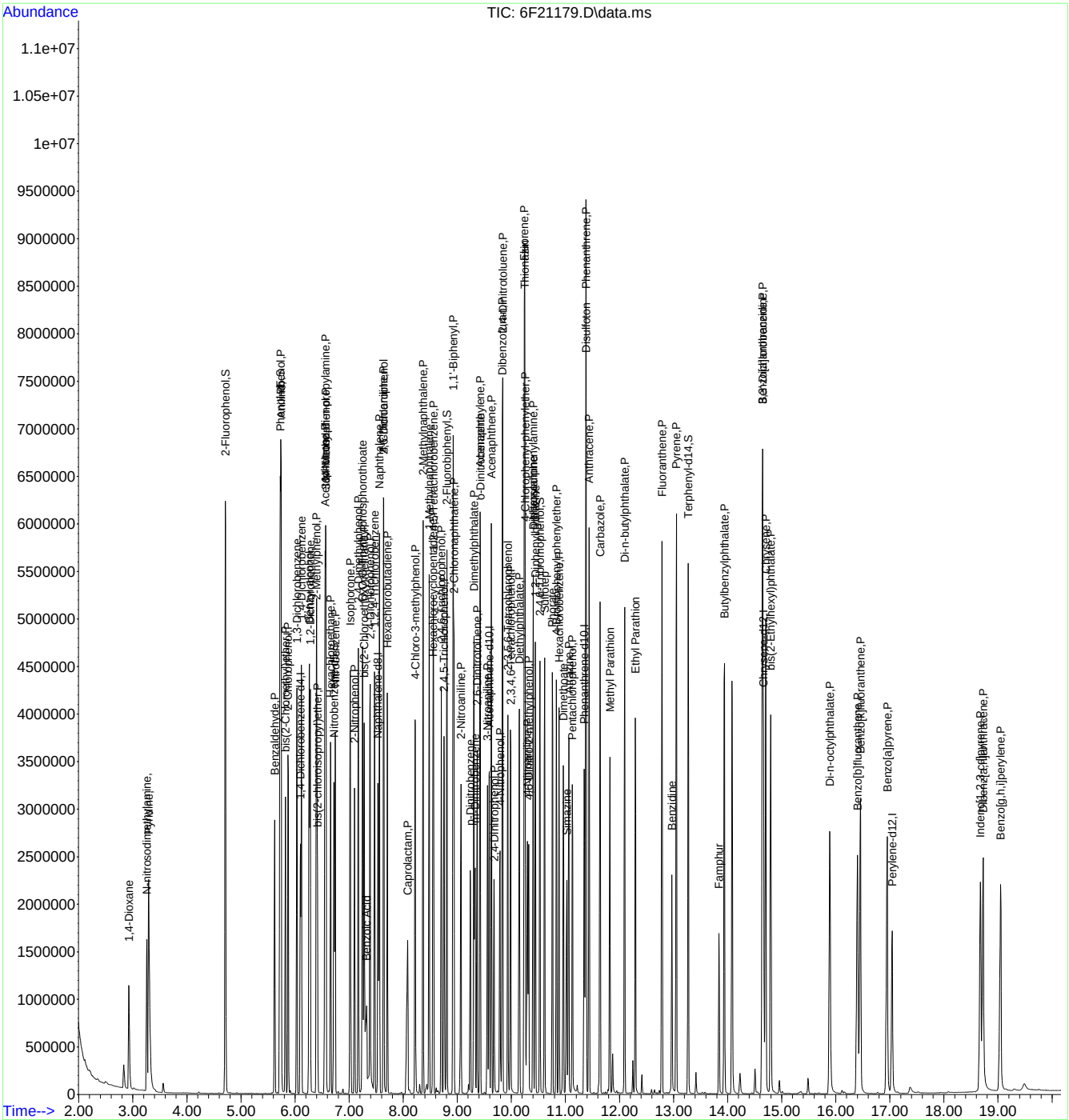
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.675	276	1469419	74.94	ppm	95
108) Dibenz[a,h]anthracene	18.728	278	1570187	77.12	ppm	95
109) Benzo[g,h,i]perylene	19.049	276	1520931	73.60	ppm	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:52:52 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration



Manual Integration Approval Summary

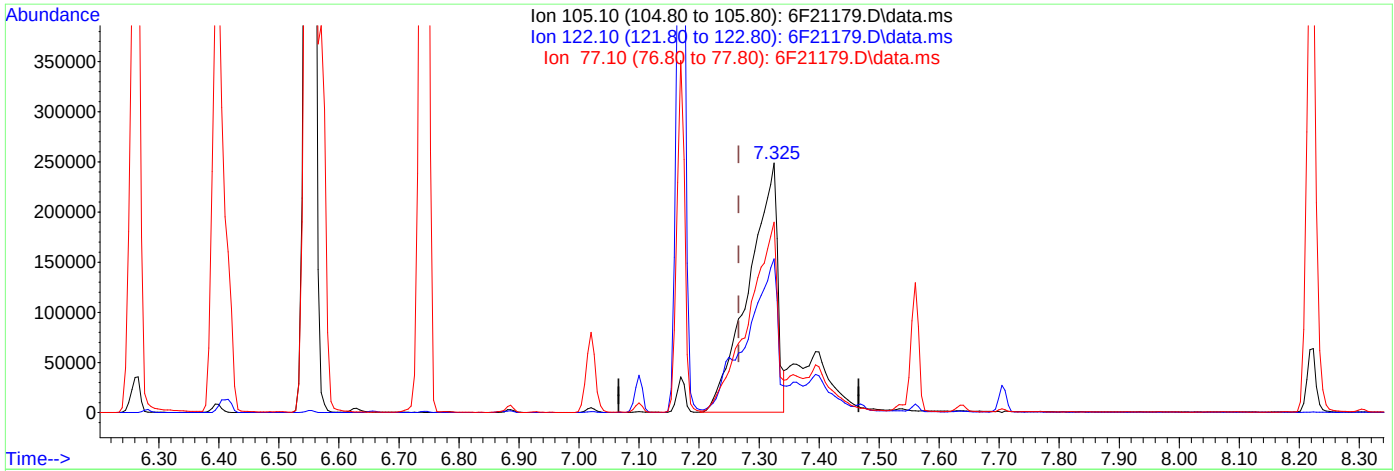
Sample Number: S6F797-IC797
Lab FileID: 6F21179.D
Injection Time: 11/02/23 13:07
Method: SW846 8270E
Analyst approved: 11/02/23 16:51 William Hustedde
Supervisor approved: 11/02/23 17:48 Naresh Jiawan

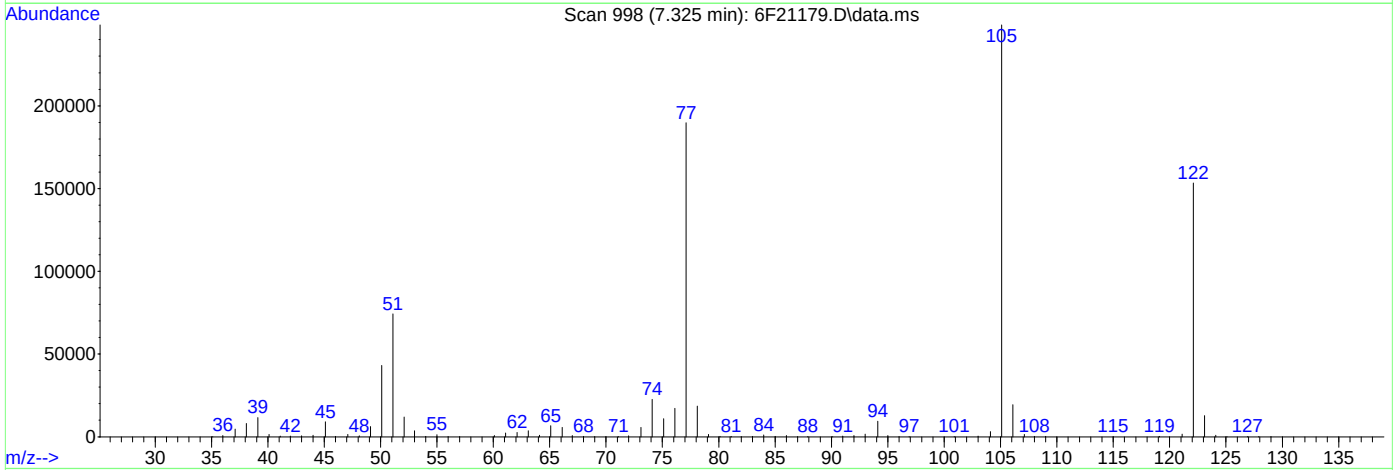
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		7.32	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:34:47 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21179.D\data.ms

(30) Benzoic Acid

7.325min (+0.059) 59.06ppm

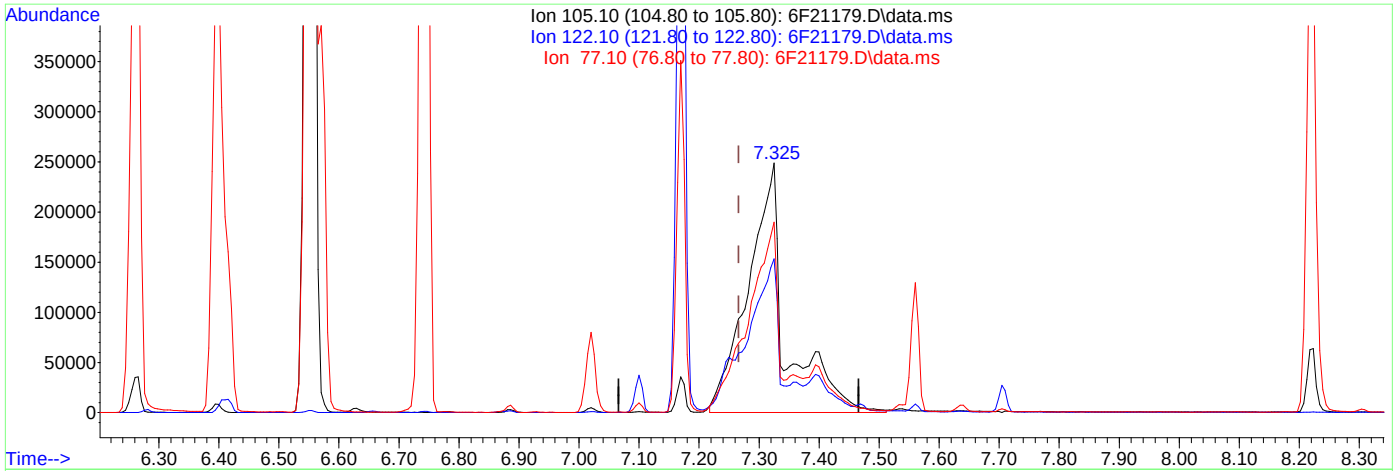
response 829523

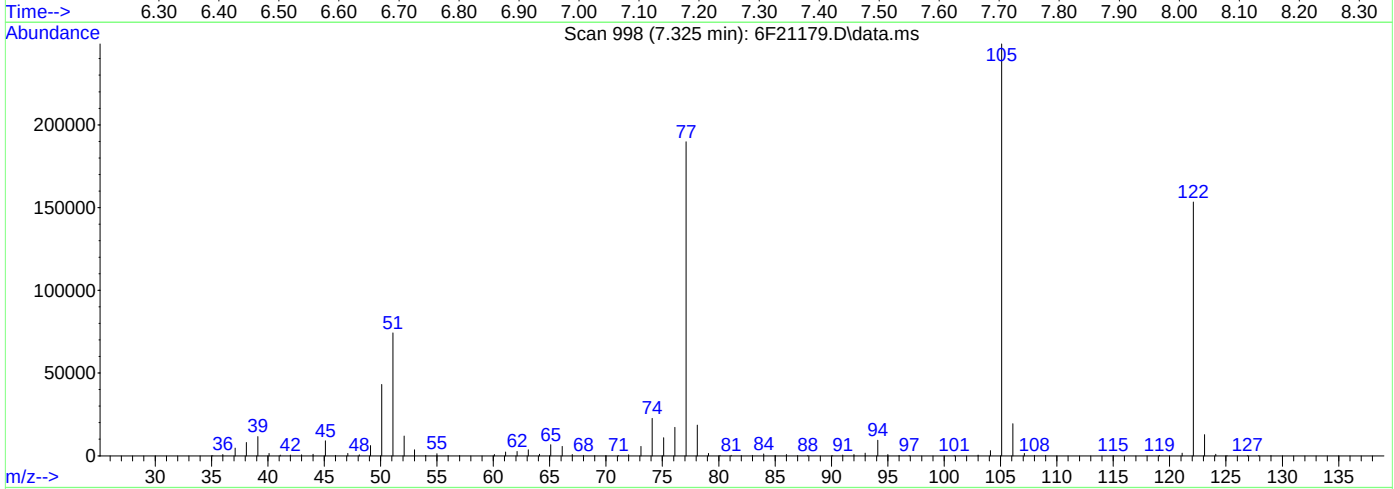
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	60.81
77.10	76.40	75.84
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21179.D
Acq On : 2 Nov 2023 1:07 pm
Operator : karena
Sample : ic797-75
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 02 15:34:47 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21179.D\data.ms

(30) Benzoic Acid

7.325min (+0.059) 76.49ppm m

response 1100529

Ion	Exp%	Act%
105.10	100	100
122.10	75.30	61.59
77.10	76.40	76.22
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/02/23 17:48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 16:05:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:03:10 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	355609	40.00	ppm	0.00
22) Naphthalene-d8	7.539	136	1344042	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	745251	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1351478	40.00	ppm	0.00
92) Chrysene-d12	14.668	240	990821	40.00	ppm	0.00
102) Perylene-d12	17.043	264	877296	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	4.715	112	2691271	170.77	ppm	0.00
Spiked Amount 100.000	Range 14 - 67		Recovery =	170.77%#		
9) Phenol-d5	5.731	99	3417333	161.53	ppm	0.01
Spiked Amount 100.000	Range 10 - 50		Recovery =	161.53%#		
23) Nitrobenzene-d5	6.726	82	1717281	86.63	ppm	0.01
Spiked Amount 50.000	Range 42 - 108		Recovery =	173.26%#		
47) 2-Fluorobiphenyl	8.812	172	2073013	87.64	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery =	175.28%#		
75) 2,4,6-Tribromophenol	10.534	330	508844	203.80	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	203.80%#		
95) Terphenyl-d14	13.278	244	2364685	94.42	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery =	188.84%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	864480	91.26	ppm	97
3) N-nitrosodimethylamine	3.260	42	726223	93.00	ppm	100
4) Pyridine	3.292	79	2187754	91.80	ppm	97
5) Benzaldehyde	5.624	106	669348	Below Cal		99
6) Aniline	5.747	93	1934714	100.47	ppm	57
8) bis(2-Chloroethyl)ether	5.827	93	1632877	86.48	ppm	91
10) Phenol	5.742	94	1796455	100.98	ppm	69
11) 2-Chlorophenol	5.875	128	1171252	89.08	ppm	97
12) 1,3-Dichlorobenzene	6.036	146	1143941	87.54	ppm	89
13) 1,4-Dichlorobenzene	6.121	146	1124317	86.41	ppm	90
14) 1,2-Dichlorobenzene	6.282	146	1048409	84.90	ppm	89
15) Benzyl alcohol	6.266	108	1005626	87.56	ppm	99
16) bis(2-chloroisopropyl)...	6.415	45	1168427	100.44	ppm	92
17) 2-Methylphenol	6.399	108	1267699	85.45	ppm	98
18) Acetophenone	6.555	105	1982551	82.40	ppm	92
19) Hexachloroethane	6.656	117	569909	88.57	ppm	85
20) N-Nitroso-di-n-propyla...	6.571	70	722685	Below Cal		95
21) 3&4-Methylphenol	6.576	108	1268331	81.10	ppm	96
24) Nitrobenzene	6.747	77	1540263	83.12	ppm	92
25) Isophorone	7.025	82	2989531	84.08	ppm	91
26) 2-Nitrophenol	7.105	139	595993	93.14	ppm	84
27) 2,4-Dimethylphenol	7.175	107	1300829	88.78	ppm	86
28) O,O,O-Triethylphosphor...	7.250	198	549188	87.97	ppm	78
29) bis(2-Chloroethoxy)met...	7.282	93	1680722	82.81	ppm	95
30) Benzoic Acid	7.346	105	1442220m	97.25	ppm	
31) 2,4-Dichlorophenol	7.389	162	876814	90.57	ppm	90
32) 1,2,4-Trichlorobenzene	7.475	180	942167	88.63	ppm	99
34) Naphthalene	7.565	128	2945926	84.70	ppm	93
35) 4-Chloroaniline	7.640	127	1196236	84.11	ppm	96
36) 2,6-Dichlorophenol	7.640	162	852256	88.30	ppm	96
37) Hexachlorobutadiene	7.710	225	555588	90.34	ppm	99
38) Caprolactam	8.100	113	472080	87.51	ppm	95
39) 4-Chloro-3-methylphenol	8.223	107	1309384	89.58	ppm	80
40) 2-Methylnaphthalene	8.368	141	1598544	87.61	ppm	94
41) 1-Methylnaphthalene	8.485	142	1738964	86.47	ppm	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 16:05:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:03:10 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.566	216	918320	89.20	ppm		99
44)	Hexachlorocyclopentadiene	8.555	237	541719	103.90	ppm		99
45)	2,4,6-Trichlorophenol	8.710	196	627504	93.02	ppm		99
46)	2,4,5-Trichlorophenol	8.758	196	683332	94.30	ppm		100
48)	1,1'-Biphenyl	8.924	154	2256583	85.20	ppm		98
49)	2-Chloronaphthalene	8.940	162	1762759	88.11	ppm		97
50)	2-Nitroaniline	9.074	65	700982	86.79	ppm		87
51)	p-Dinitrobenzene	9.245	75	528752	92.53	ppm		83
52)	Acenaphthylene	9.427	152	2682680	87.51	ppm		99
53)	Dimethylphthalate	9.314	163	2118325	87.22	ppm		99
54)	m-Dinitrobenzene	9.336	168	393099	101.59	ppm		79
55)	2,6-Dinitrotoluene	9.373	165	516971	93.16	ppm		81
56)	o-Dinitrobenzene	9.432	50	310718	100.92	ppm	#	1
57)	Acenaphthene	9.635	153	1808099	88.21	ppm		96
58)	3-Nitroaniline	9.566	138	575853	91.45	ppm	#	58
59)	2,4-Dinitrophenol	9.684	184	359143	97.47	ppm		83
60)	Dibenzofuran	9.839	168	2432275	86.60	ppm		96
61)	2,4-Dinitrotoluene	9.844	165	671988	92.09	ppm		80
62)	4-Nitrophenol	9.796	109	570348	101.17	ppm	#	48
63)	2,3,5,6-Tetrachlorophenol	9.935	232	548403	98.55	ppm		97
64)	2,3,4,6-Tetrachlorophenol	9.988	232	548749	95.57	ppm		97
65)	Fluorene	10.245	166	1966694	87.88	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	1022693	88.93	ppm		99
67)	Diethylphthalate	10.149	149	2150811	89.91	ppm		97
68)	Thionazin	10.245	97	577122	100.54	ppm		93
69)	4-Nitroaniline	10.309	138	575725	91.75	ppm	#	66
71)	4,6-Dinitro-2-methylph...	10.331	198	455304	99.50	ppm	#	57
72)	n-Nitrosodiphenylamine	10.406	169	1733138	108.90	ppm		99
73)	Diphenylamine	10.406	169	1733138	87.94	ppm		99
74)	1,2-Diphenylhydrazine	10.448	77	2512568	100.74	ppm		92
76)	Sulfotep	10.614	97	500570	82.33	ppm	#	67
77)	Phorate	10.764	75	1408172	79.07	ppm		83
78)	4-Bromophenyl-phenylether	10.839	248	557617	92.82	ppm		90
79)	Hexachlorobenzene	10.887	284	541376	92.95	ppm		95
80)	Dimethoate	10.967	87	1049388	80.51	ppm		93
81)	Simazine	11.031	201	303128	84.21	ppm		95
82)	Atrazine	11.069	200	641174	88.64	ppm		97
83)	Pentachlorophenol	11.133	266	396915	99.31	ppm		99
84)	Phenanthrene	11.379	178	2826807	86.90	ppm		99
85)	Anthracene	11.443	178	2953426	87.96	ppm		100
86)	Disulfoton	11.384	88	1378636	76.72	ppm		94
87)	Carbazole	11.646	167	2724112	88.26	ppm		99
88)	Methyl Parathion	11.823	109	861404	87.30	ppm		85
89)	Di-n-butylphthalate	12.096	149	3372126	89.22	ppm		98
90)	Ethyl Parathion	12.299	97	624535	91.65	ppm		89
91)	Fluoranthene	12.791	202	3129175	90.33	ppm		97
93)	Benzidine	12.968	184	847347	Below Cal			96
94)	Pyrene	13.053	202	3210372	91.81	ppm		96
96)	Famphur	13.845	218	528544	Below Cal			87
97)	Butylbenzylphthalate	13.941	149	1492434	94.19	ppm		90
98)	3,3'-Dichlorobenzidine	14.647	252	943133	90.98	ppm		98
99)	Benzo[a]anthracene	14.652	228	2850427	93.81	ppm		100
100)	Chrysene	14.711	228	2677104	93.42	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1994446	95.99	ppm		99
103)	Di-n-octylphthalate	15.893	149	3229308	103.43	ppm		100
104)	Benzo[b]fluoranthene	16.407	252	2263471	99.51	ppm		98
105)	Benzo[k]fluoranthene	16.466	252	2381003	97.24	ppm		98
106)	Benzo[a]pyrene	16.958	252	2192065	98.60	ppm		97

10.6.8 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 16:05:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:03:10 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.685	276	1940532	98.81	ppm	97
108) Dibenz[a,h]anthracene	18.733	278	2050158	99.49	ppm	95
109) Benzo[g,h,i]perylene	19.060	276	1990873	93.68	ppm	93

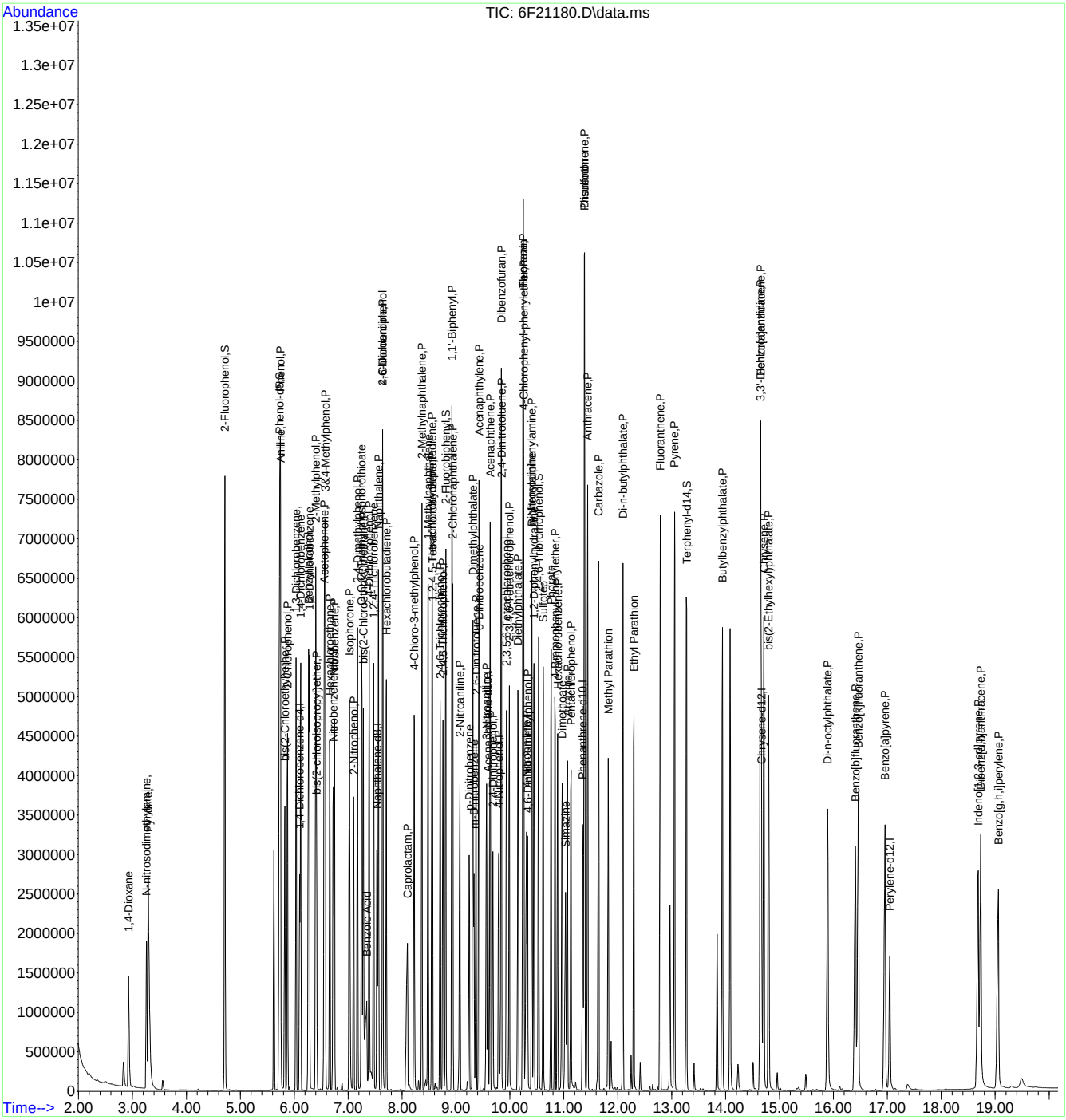
(#) = qualifier out of range (m) = manual integration (+) = signals summed

10.6.8 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 16:05:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:03:10 2023
Response via : Initial Calibration



8270D6F110223.m Thu Nov 02 16:19:29 2023 Page: 4

Manual Integration Approval Summary

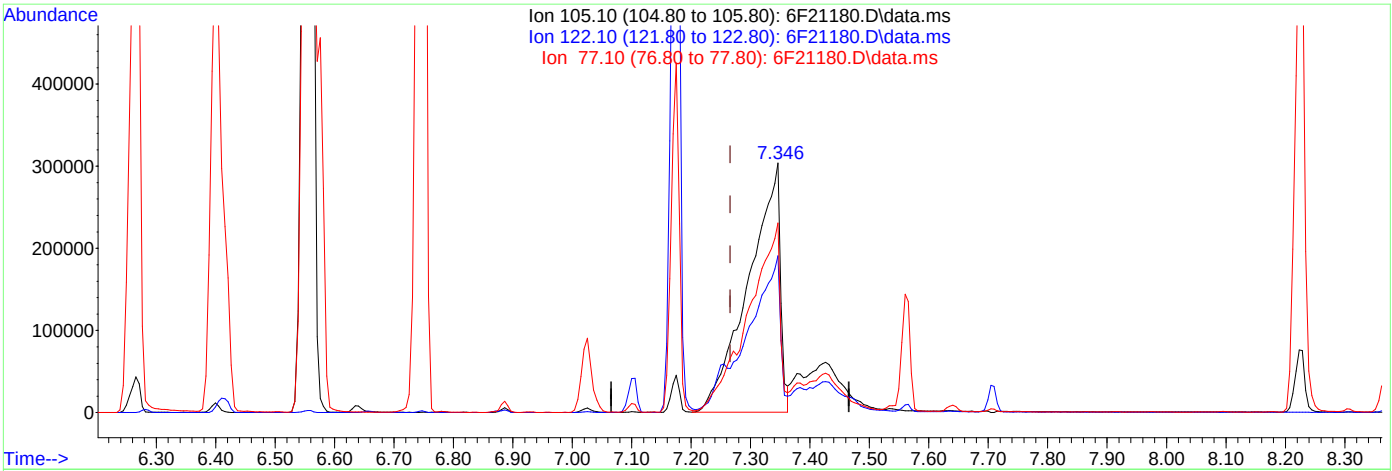
Sample Number: S6F797-IC797
Lab FileID: 6F21180.D
Injection Time: 11/02/23 13:33
Method: SW846 8270E
Analyst approved: 11/02/23 16:51 William Hustedde
Supervisor approved: 11/02/23 17:48 Naresh Jiawan

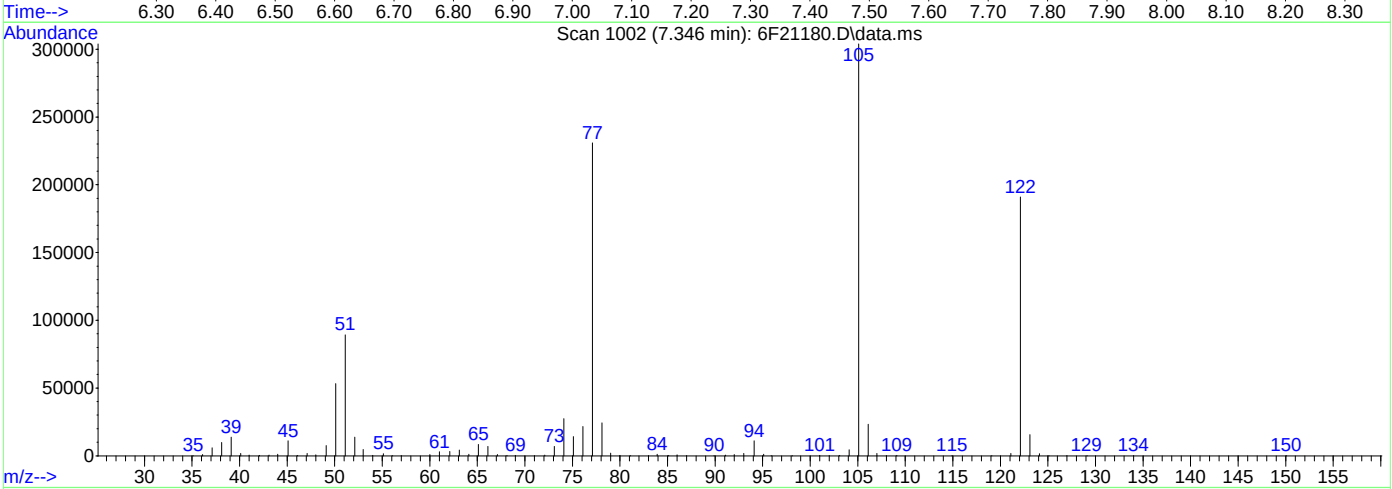
Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzoic Acid	65-85-0		7.35	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 15:48:39 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21180.D\data.ms

(30) Benzoic Acid

7.346min (+0.080) 77.50ppm

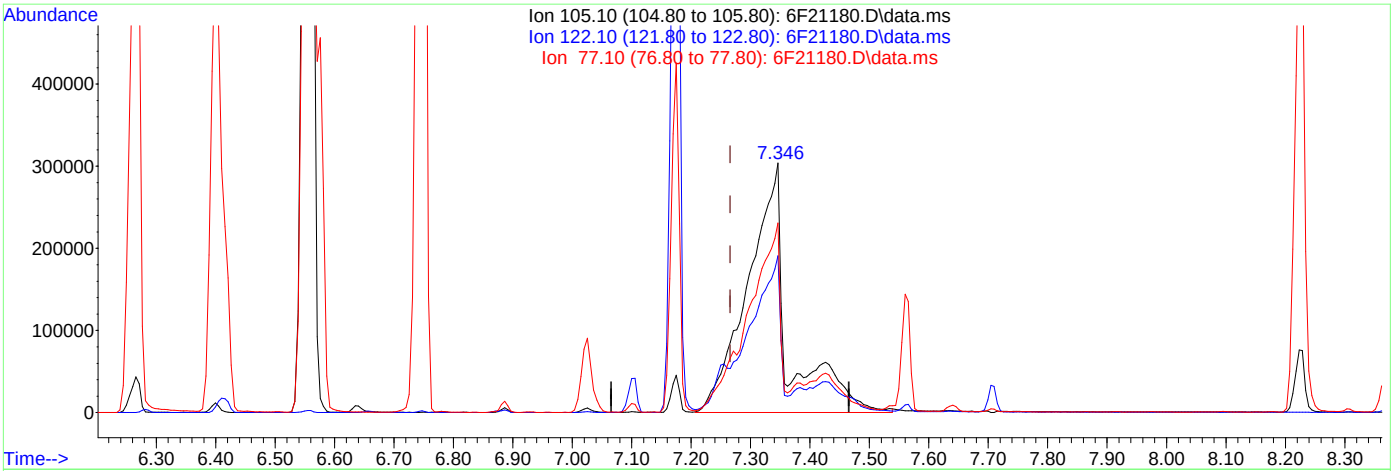
response 1122296

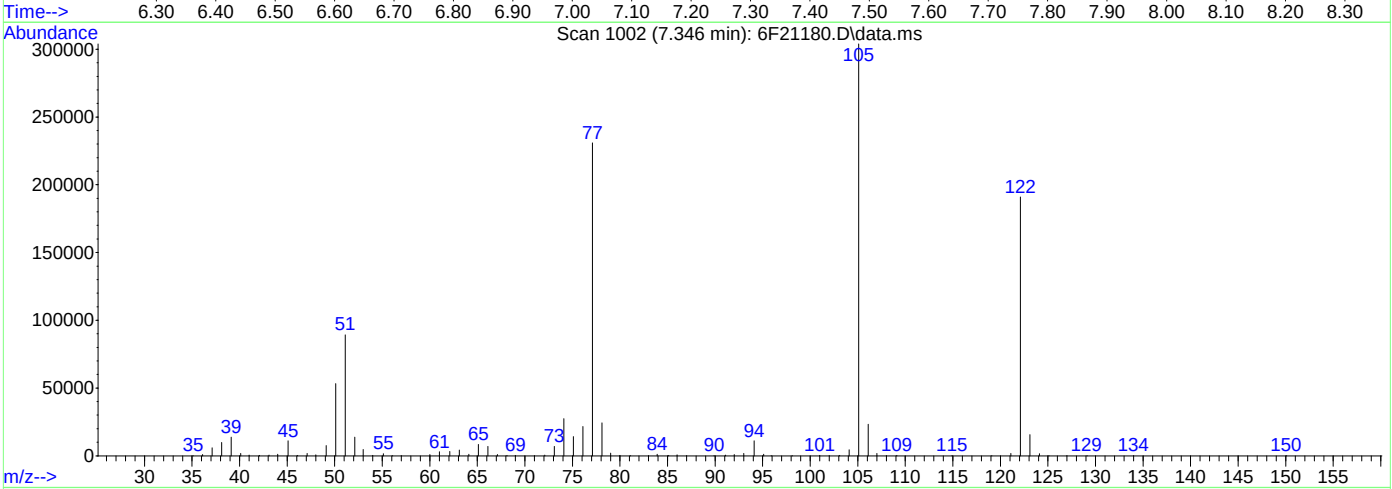
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.14
77.10	76.40	75.68
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 15:48:39 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21180.D\data.ms

(30) Benzoic Acid

7.346min (+0.080) 97.15ppm m

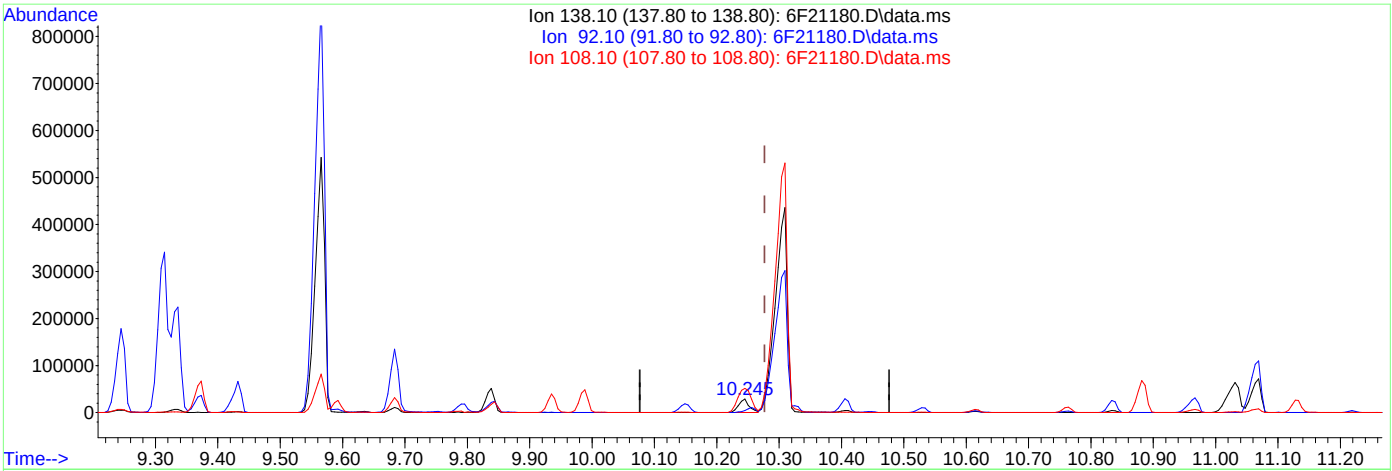
response 1444591

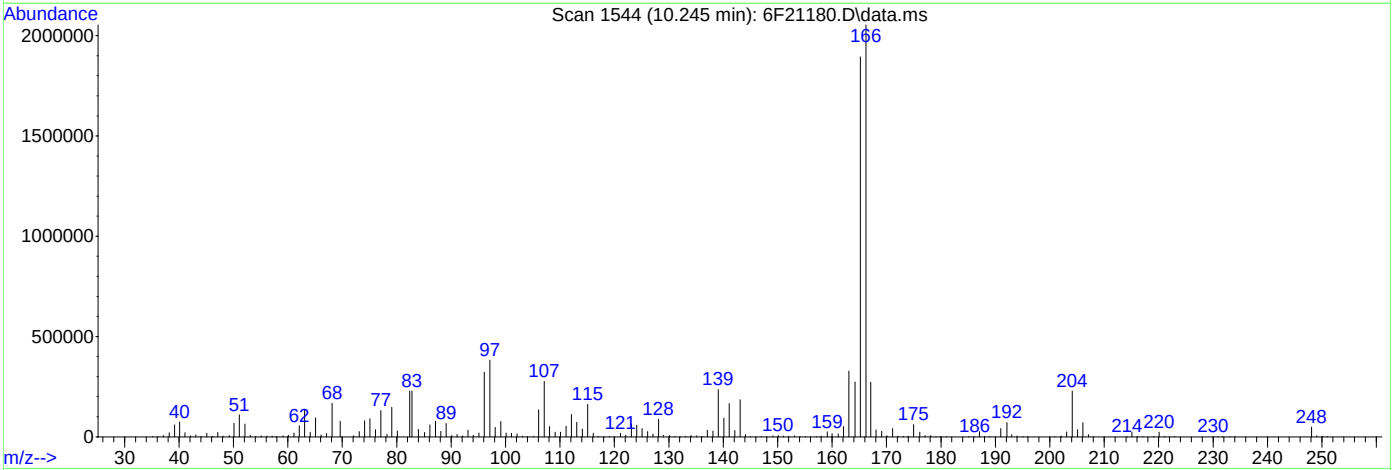
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.84
77.10	76.40	75.96
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 15:53:03 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21180.D\data.ms

(69) 4-Nitroaniline (P)

10.245min (-0.032) 5.52ppm

response 33582

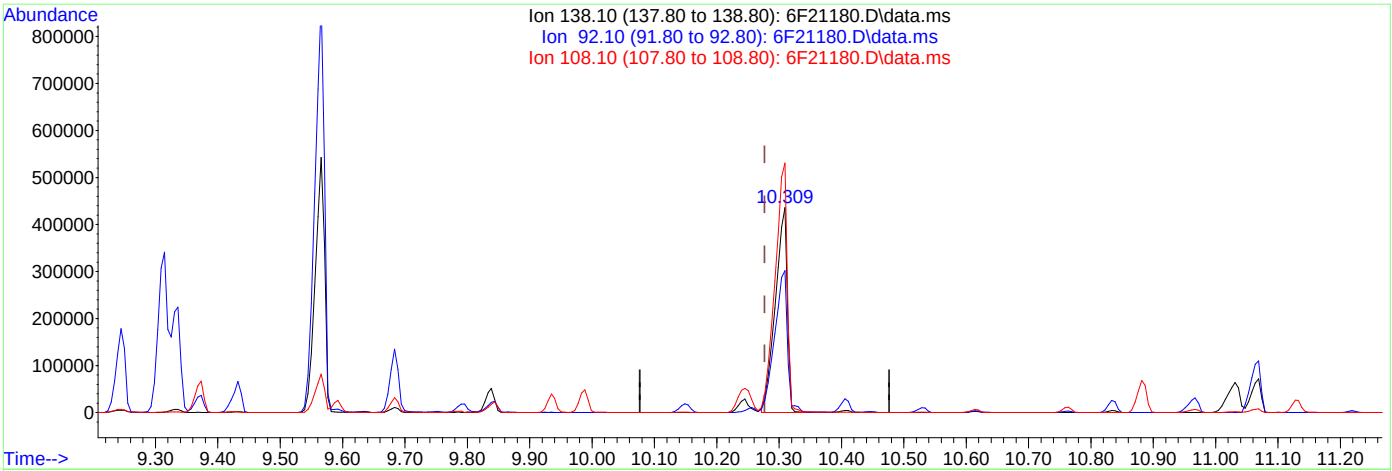
Ion	Exp%	Act%
138.10	100	100
92.10	50.90	11.45#
108.10	85.50	179.23#
0.00	0.00	0.00

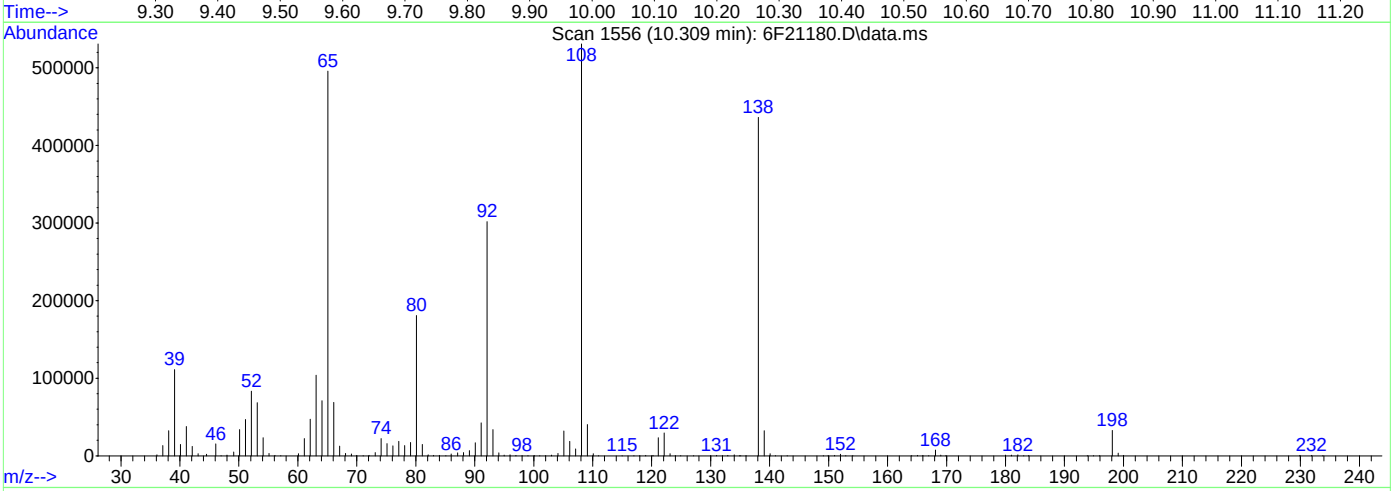
10.6.8.4 10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 15:53:03 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Wed Nov 01 15:41:18 2023
Response via : Initial Calibration





TIC: 6F21180.D\data.ms

(69) 4-Nitroaniline (P)

10.309min (+0.032) 94.62ppm m

response 575493

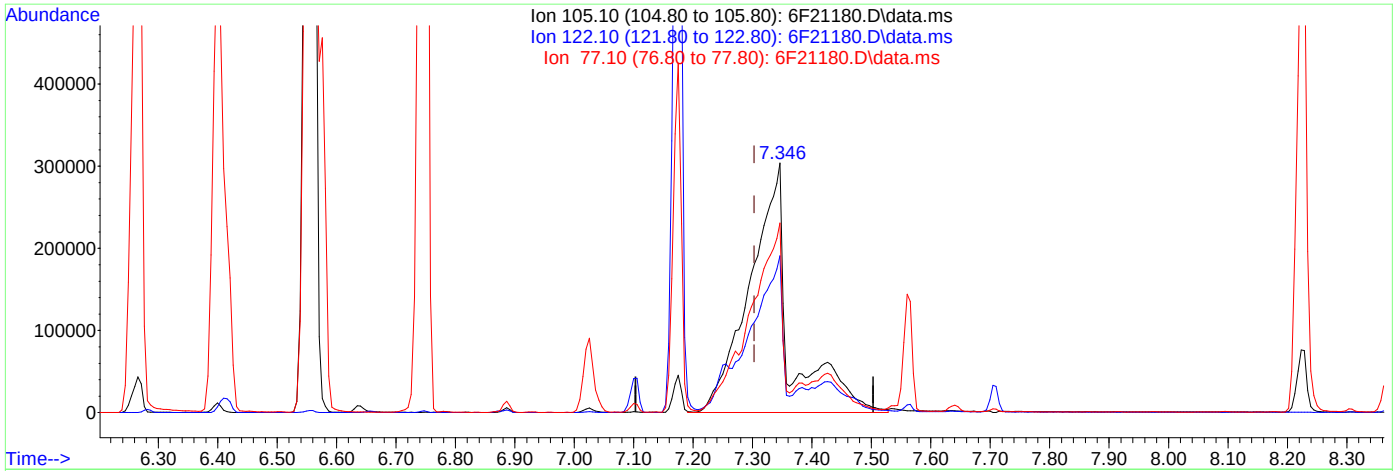
Ion	Exp%	Act%
138.10	100	100
92.10	50.90	69.20
108.10	85.50	121.75#
0.00	0.00	0.00

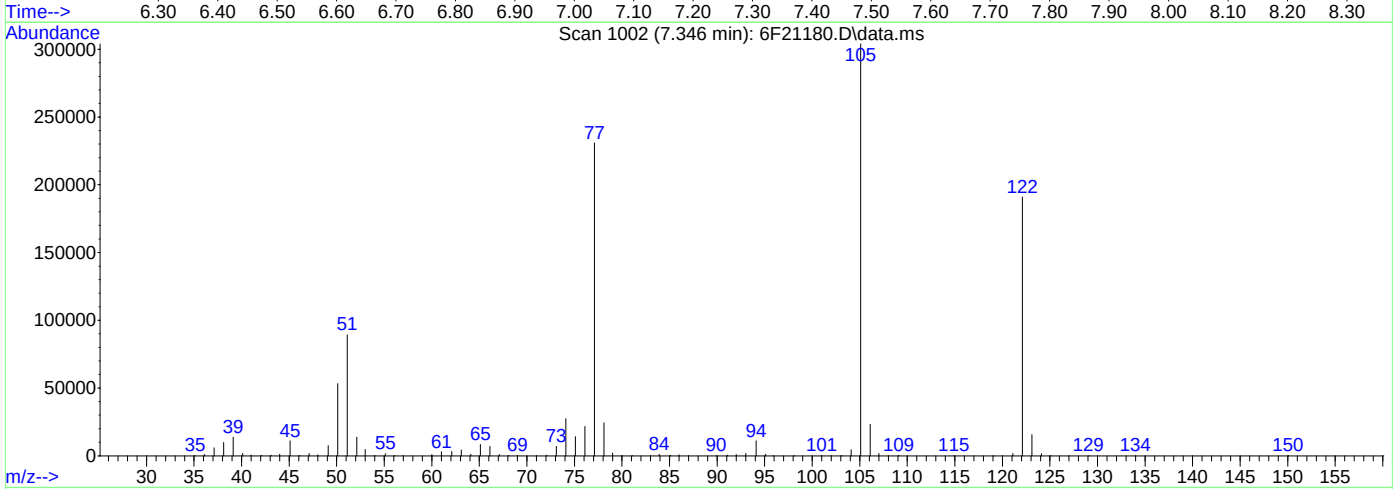
10.6.8.5 10

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21180.D
Acq On : 2 Nov 2023 1:33 pm
Operator : karena
Sample : ic797-100
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 16:05:04 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:03:10 2023
Response via : Initial Calibration





TIC: 6F21180.D\data.ms

(30) Benzoic Acid

7.346min (+0.043) 97.25ppm m

response 1442220

Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.84
77.10	76.40	75.96
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21181.D
Acq On : 2 Nov 2023 2:00 pm
Operator : karena
Sample : icv797-50, A
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 16:30:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:09:51 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.095	152	323148	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1190407	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	642951	40.00	ppm	0.00
70) Phenanthrene-d10	11.342	188	1115442	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	785747	40.00	ppm	0.00
102) Perylene-d12	17.038	264	721358	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	0.000	112	0	0.00	ppm	
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.00%#		
9) Phenol-d5	0.000	99	0	0.00	ppm	
Spiked Amount 100.000	Range 10 - 50		Recovery =	0.00%#		
23) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 42 - 108		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 50.000	Range 40 - 106		Recovery =	0.00%#		
75) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 100.000	Range 33 - 118		Recovery =	0.00%#		
95) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 50.000	Range 39 - 121		Recovery =	0.00%#		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.939	88	373177	43.35	ppm	97
3) N-nitrosodimethylamine	3.260	42	318619	44.90	ppm	100
5) Benzaldehyde	5.624	106	555531	70.02	ppm	98
8) bis(2-Chloroethyl)ether	5.816	93	756178	44.07	ppm	94
10) Phenol	5.731	94	980501	48.06	ppm	97
11) 2-Chlorophenol	5.870	128	533916	44.69	ppm	92
12) 1,3-Dichlorobenzene	6.030	146	533048	44.89	ppm	89
13) 1,4-Dichlorobenzene	6.116	146	530398	44.86	ppm	91
14) 1,2-Dichlorobenzene	6.276	146	507967	45.27	ppm	88
16) bis(2-chloroisopropyl)...	6.416	45	672025	49.07	ppm	97
17) 2-Methylphenol	6.389	108	577006	42.80	ppm	98
18) Acetophenone	6.544	105	924546	42.28	ppm	92
19) Hexachloroethane	6.656	117	265334	45.38	ppm	88
20) N-Nitroso-di-n-propyla...	6.555	70	390243	43.63	ppm	91
21) 3&4-Methylphenol	6.571	108	1175348	82.70	ppm	94
24) Nitrobenzene	6.736	77	733643	44.70	ppm	88
25) Isophorone	7.015	82	1350010	42.87	ppm	89
26) 2-Nitrophenol	7.095	139	260158	45.90	ppm	75
27) 2,4-Dimethylphenol	7.164	107	554222	42.71	ppm	85
29) bis(2-Chloroethoxy)met...	7.271	93	830031	46.17	ppm	97
30) Benzoic Acid	7.335	105	1124946	86.88	ppm	92
31) 2,4-Dichlorophenol	7.384	162	390423	45.53	ppm	92
32) 1,2,4-Trichlorobenzene	7.469	180	419942	44.60	ppm	100
34) Naphthalene	7.555	128	1352033	43.89	ppm	92
36) 2,6-Dichlorophenol	7.635	162	378734	44.30	ppm	94
37) Hexachlorobutadiene	7.705	225	250985	46.08	ppm	99
38) Caprolactam	8.052	113	198351	41.51	ppm	88
39) 4-Chloro-3-methylphenol	8.213	107	548875	42.40	ppm	80
41) 1-Methylnaphthalene	8.480	142	810864	45.52	ppm	94
42) 1,2,4,5-Tetrachloroben...	8.560	216	382856	41.99	ppm	99
44) Hexachlorocyclopentadiene	8.550	237	281546	62.59	ppm	98
45) 2,4,6-Trichlorophenol	8.699	196	263024	45.19	ppm	100
46) 2,4,5-Trichlorophenol	8.753	196	292060	46.72	ppm	99
48) 1,1'-Biphenyl	8.919	154	1005005	43.98	ppm	100
49) 2-Chloronaphthalene	8.935	162	780950	45.25	ppm	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21181.D
Acq On : 2 Nov 2023 2:00 pm
Operator : karena
Sample : icv797-50, A
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 16:30:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:09:51 2023
Response via : Initial Calibration

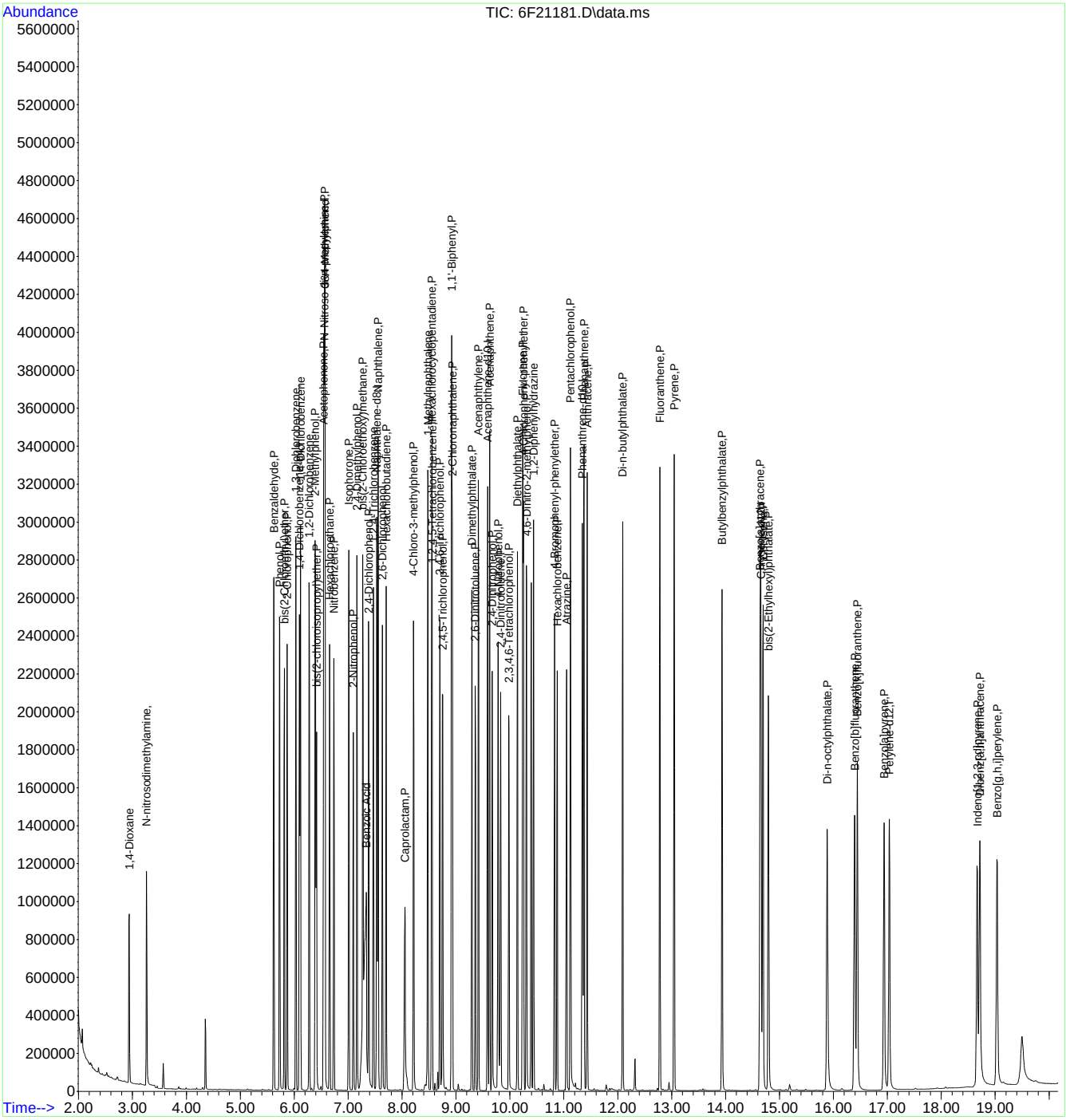
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
52) Acenaphthylene	9.416	152	1222172	46.21	ppm		100
53) Dimethylphthalate	9.293	163	954386	45.55	ppm		100
55) 2,6-Dinitrotoluene	9.357	165	210786	44.03	ppm	#	61
57) Acenaphthene	9.625	153	775802	43.87	ppm		95
59) 2,4-Dinitrophenol	9.673	184	237518	85.35	ppm		83
61) 2,4-Dinitrotoluene	9.828	165	300199	47.69	ppm		80
62) 4-Nitrophenol	9.785	109	431468	88.72	ppm	#	67
64) 2,3,4,6-Tetrachlorophenol	9.983	232	214358	43.27	ppm		96
65) Fluorene	10.234	166	886536	45.92	ppm		99
66) 4-Chlorophenyl-phenyle...	10.251	204	443005	44.65	ppm		97
67) Diethylphthalate	10.138	149	931489	45.13	ppm		96
71) 4,6-Dinitro-2-methylph...	10.309	198	374544	99.17	ppm		91
74) 1,2-Diphenylhydrazine	10.438	77	1168403	48.31	ppm		88
78) 4-Bromophenyl-phenylether	10.828	248	233926	47.18	ppm	#	81
79) Hexachlorobenzene	10.876	284	212497	44.20	ppm		80
82) Atrazine	11.053	200	264910	44.37	ppm		99
83) Pentachlorophenol	11.122	266	301058	91.34	ppm		99
84) Phenanthrene	11.374	178	1235403	46.01	ppm		99
85) Anthracene	11.433	178	1173431	42.34	ppm		99
89) Di-n-butylphthalate	12.090	149	1437638	46.09	ppm		97
91) Fluoranthene	12.780	202	1254681	43.88	ppm		95
94) Pyrene	13.048	202	1320112	47.61	ppm		96
97) Butylbenzylphthalate	13.936	149	607068	48.31	ppm		85
99) Benzo[a]anthracene	14.642	228	1066522	44.26	ppm		99
100) Chrysene	14.695	228	1059686	46.63	ppm		99
101) bis(2-Ethylhexyl)phtha...	14.791	149	783206	47.53	ppm		98
103) Di-n-octylphthalate	15.883	149	1215471	47.35	ppm		99
104) Benzo[b]fluoranthene	16.396	252	898885	48.06	ppm		98
105) Benzo[k]fluoranthene	16.444	252	966319	47.99	ppm		98
106) Benzo[a]pyrene	16.942	252	818094	44.75	ppm		97
107) Indeno[1,2,3-cd]pyrene	18.669	276	719251	44.54	ppm		97
108) Dibenz[a,h]anthracene	18.717	278	792484	46.77	ppm		95
109) Benzo[g,h,i]perylene	19.038	276	834896	47.78	ppm		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21181.D
Acq On : 2 Nov 2023 2:00 pm
Operator : karena
Sample : icv797-50, A
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 02 16:30:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:09:51 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21182.D
Acq On : 2 Nov 2023 2:26 pm
Operator : karena
Sample : icv797-50, B
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 02 16:56:44 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:54:38 2023
Response via : Initial Calibration

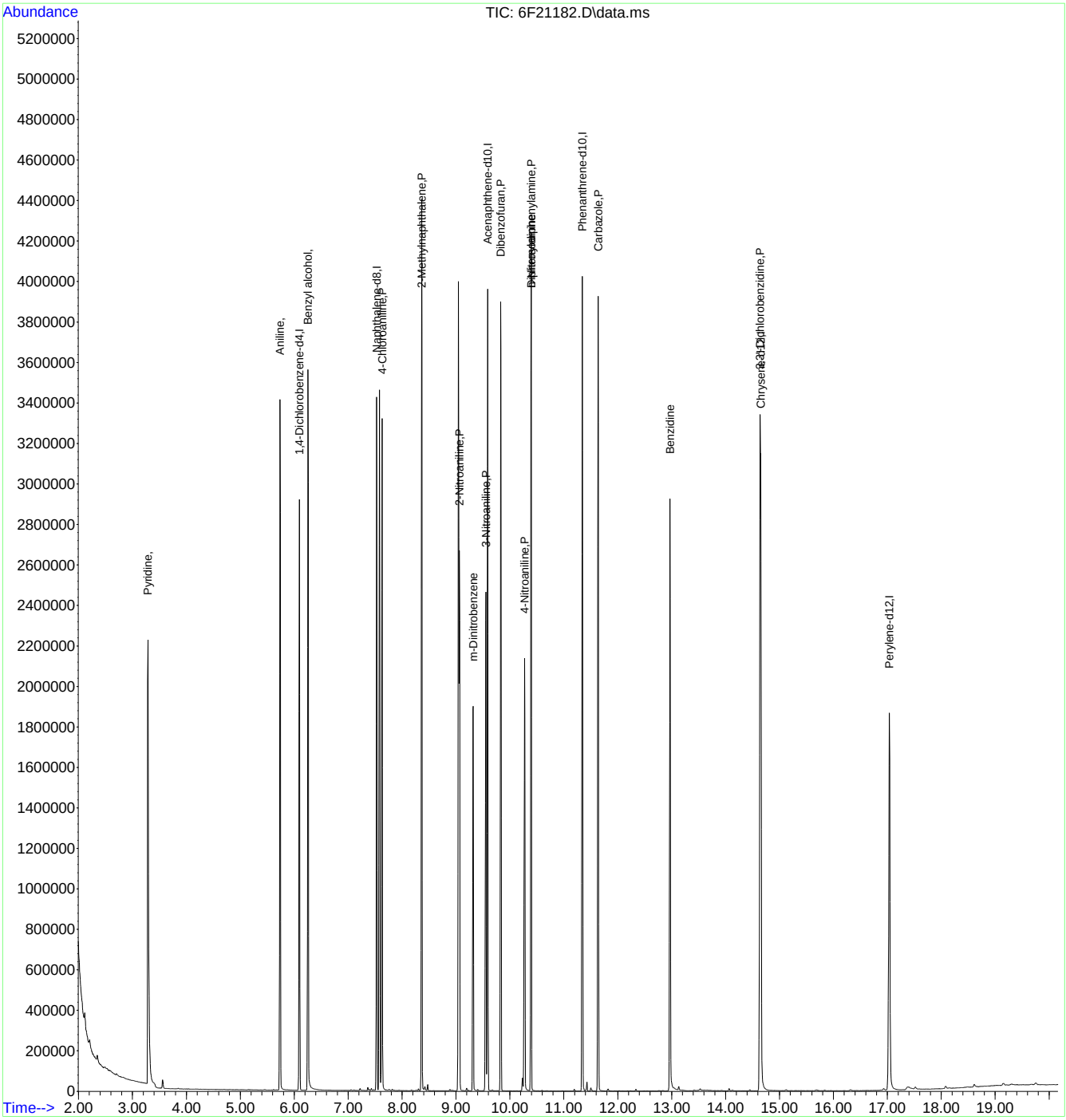
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.095	152	357970	40.00	ppm		0.00
22) Naphthalene-d8	7.528	136	1377702	40.00	ppm		0.00
43) Acenaphthene-d10	9.587	164	792471	40.00	ppm		0.00
70) Phenanthrene-d10	11.342	188	1430971	40.00	ppm		0.00
92) Chrysene-d12	14.652	240	1105304	40.00	ppm		-0.01
102) Perylene-d12	17.038	264	1010420	40.00	ppm		0.00
System Monitoring Compounds							
7) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.00%#			
9) Phenol-d5	0.000	99	0	0.00	ppm		
Spiked Amount 100.000	Range 10 - 50		Recovery =	0.00%#			
23) Nitrobenzene-d5	0.000	82	0	0.00	ppm		
Spiked Amount 50.000	Range 42 - 108		Recovery =	0.00%#			
47) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000	Range 40 - 106		Recovery =	0.00%#			
75) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 100.000	Range 33 - 118		Recovery =	0.00%#			
95) Terphenyl-d14	0.000	244	0	0.00	ppm		
Spiked Amount 50.000	Range 39 - 121		Recovery =	0.00%#			
Target Compounds							Qvalue
4) Pyridine	3.287	79	1186176	49.44	ppm		98
6) Aniline	5.736	93	1399964	60.10	ppm		96
15) Benzyl alcohol	6.255	108	559057	48.36	ppm		93
35) 4-Chloroaniline	7.630	127	750831	51.51	ppm		96
40) 2-Methylnaphthalene	8.362	141	919453	49.16	ppm		92
50) 2-Nitroaniline	9.063	65	500395	58.27	ppm		81
54) m-Dinitrobenzene	9.320	168	217386	52.83	ppm		89
58) 3-Nitroaniline	9.555	138	340014	50.78	ppm	#	58
60) Dibenzofuran	9.828	168	1428947	47.84	ppm		96
69) 4-Nitroaniline	10.272	138	332166	49.78	ppm	#	59
72) n-Nitrosodiphenylamine	10.395	169	973019	55.09	ppm		99
73) Diphenylamine	10.395	169	973019	46.63	ppm		99
87) Carbazole	11.636	167	1570975	48.07	ppm		99
93) Benzidine	12.968	184	1063547	59.15	ppm		96
98) 3,3'-Dichlorobenzidine	14.642	252	578170	50.00	ppm		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21182.D
Acq On : 2 Nov 2023 2:26 pm
Operator : karena
Sample : icv797-50, B
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 02 16:56:44 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:54:38 2023
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21183.D
Acq On : 2 Nov 2023 2:52 pm
Operator : karena
Sample : icv797-50, C
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 02 16:24:59 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:24:07 2023
Response via : Initial Calibration

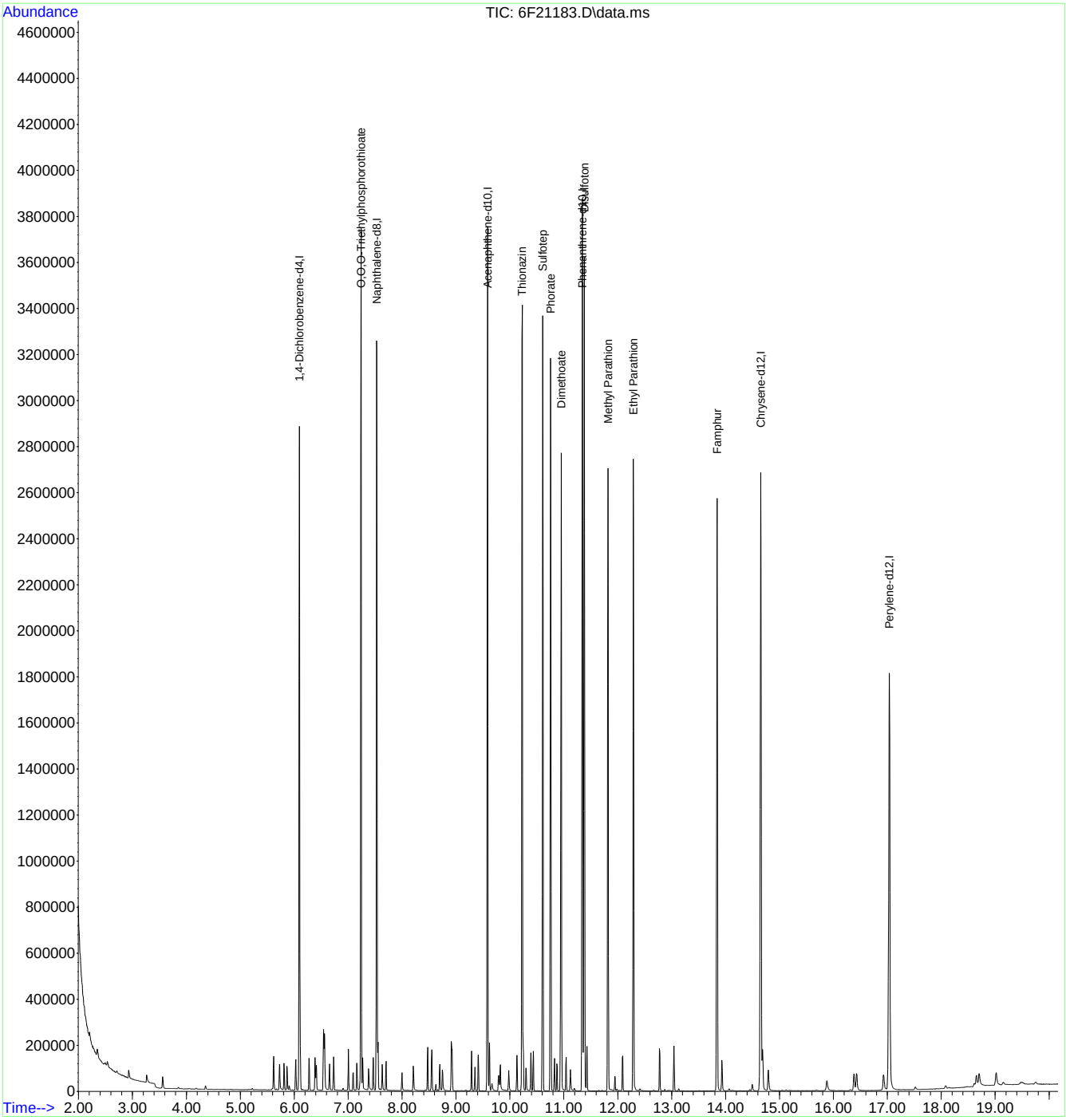
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.095	152	356583	40.00	ppm		0.00
22) Naphthalene-d8	7.533	136	1367502	40.00	ppm		0.00
43) Acenaphthene-d10	9.587	164	774409	40.00	ppm		0.00
70) Phenanthrene-d10	11.342	188	1424627	40.00	ppm		0.00
92) Chrysene-d12	14.652	240	1082334	40.00	ppm		-0.01
102) Perylene-d12	17.038	264	999061	40.00	ppm		0.00
System Monitoring Compounds							
7) 2-Fluorophenol	0.000	112	0	0.00	ppm		
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.00%#			
9) Phenol-d5	0.000	99	0	0.00	ppm		
Spiked Amount 100.000	Range 10 - 50		Recovery =	0.00%#			
23) Nitrobenzene-d5	0.000	82	0d	0.00	ppm		
Spiked Amount 50.000	Range 42 - 108		Recovery =	0.00%#			
47) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm		
Spiked Amount 50.000	Range 40 - 106		Recovery =	0.00%#			
75) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm		
Spiked Amount 100.000	Range 33 - 118		Recovery =	0.00%#			
95) Terphenyl-d14	0.000	244	0	0.00	ppm		
Spiked Amount 50.000	Range 39 - 121		Recovery =	0.00%#			
Target Compounds							Qvalue
28) O,O,O-Triethylphosphor...	7.239	198	291121	45.83	ppm		80
68) Thionazin	10.224	97	395559	56.22	ppm		83
76) Sulfotep	10.609	97	293525	45.80	ppm	#	62
77) Phorate	10.753	75	833709	44.41	ppm		90
80) Dimethoate	10.951	87	663069	48.26	ppm		92
86) Disulfoton	11.379	88	775994	40.97	ppm		89
88) Methyl Parathion	11.818	109	541410	52.05	ppm		84
90) Ethyl Parathion	12.288	97	350540	48.80	ppm	#	80
96) Famphur	13.845	218	725499	67.44	ppm		87

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F797\
Data File : 6F21183.D
Acq On : 2 Nov 2023 2:52 pm
Operator : karena
Sample : icv797-50, C
Misc : op99780,S6F797,1000,,,1,1,water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 02 16:24:59 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:24:07 2023
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/08/23 10:07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:04:04 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	417777	40.00	ppm	0.00
22) Naphthalene-d8	7.539	136	1549352	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	846180	40.00	ppm	0.00
70) Phenanthrene-d10	11.352	188	1558071	40.00	ppm	0.00
92) Chrysene-d12	14.669	240	1197357	40.00	ppm	0.00
102) Perylene-d12	17.054	264	1101258	40.00	ppm	0.02
System Monitoring Compounds						
7) 2-Fluorophenol	4.758	112	1608788	86.89	ppm	0.05
Spiked Amount 100.000	Range 14 - 67		Recovery =	86.89%#		
9) Phenol-d5	5.779	99	2022924	81.39	ppm	0.06
Spiked Amount 100.000	Range 10 - 50		Recovery =	81.39%#		
23) Nitrobenzene-d5	6.721	82	980371	42.90	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery =	85.80%		
47) 2-Fluorobiphenyl	8.806	172	1153127	42.94	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery =	85.88%		
75) 2,4,6-Tribromophenol	10.534	330	249795	86.78	ppm	0.00
Spiked Amount 100.000	Range 33 - 118		Recovery =	86.78%		
95) Terphenyl-d14	13.273	244	1317294	43.53	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery =	87.06%		
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	483019	43.40	ppm	99
3) N-nitrosodimethylamine	3.260	42	399444	43.54	ppm	98
4) Pyridine	3.297	79	1191389	42.55	ppm	98
5) Benzaldehyde	5.624	106	555402	43.76	ppm	100
6) Aniline	5.752	93	1247450m	42.81	ppm	
8) bis(2-Chloroethyl)ether	5.822	93	1014702	45.74	ppm	90
10) Phenol	5.790	94	1172492	43.70	ppm	97
11) 2-Chlorophenol	5.897	128	667101	43.19	ppm	94
12) 1,3-Dichlorobenzene	6.036	146	658306	42.88	ppm	90
13) 1,4-Dichlorobenzene	6.116	146	652413	42.68	ppm	90
14) 1,2-Dichlorobenzene	6.282	146	593087	40.88	ppm	89
15) Benzyl alcohol	6.282	108	510919	37.87	ppm	83
16) bis(2-chloroisopropyl)...	6.410	45	806456	44.68	ppm	98
17) 2-Methylphenol	6.432	108	746516	42.83	ppm #	82
18) Acetophenone	6.555	105	1143107	40.44	ppm	93
19) Hexachloroethane	6.656	117	322405	42.65	ppm	85
20) N-Nitroso-di-n-propyla...	6.560	70	505669	43.76	ppm	91
21) 3&4-Methylphenol	6.619	108	809278	44.05	ppm	97
24) Nitrobenzene	6.742	77	901759	42.21	ppm	88
25) Isophorone	7.020	82	1682237	41.04	ppm	89
26) 2-Nitrophenol	7.100	139	330720	44.83	ppm	74
27) 2,4-Dimethylphenol	7.197	107	732185	43.35	ppm	86
28) O,O,O-Triethylphosphor...	7.245	198	310791	43.19	ppm #	78
29) bis(2-Chloroethoxy)met...	7.277	93	984854	42.09	ppm	96
30) Benzoic Acid	7.352	105	724386m	45.41	ppm	
31) 2,4-Dichlorophenol	7.410	162	494136	44.28	ppm	90
32) 1,2,4-Trichlorobenzene	7.469	180	527134	43.01	ppm	99
34) Naphthalene	7.560	128	1684845	42.02	ppm	92
35) 4-Chloroaniline	7.646	127	653102m	39.84	ppm	
36) 2,6-Dichlorophenol	7.651	162	474995	42.69	ppm	94
37) Hexachlorobutadiene	7.705	225	303673	42.84	ppm	99
38) Caprolactam	8.074	113	277412	44.61	ppm	94
39) 4-Chloro-3-methylphenol	8.261	107	723966	42.97	ppm #	63
40) 2-Methylnaphthalene	8.368	141	890434	42.33	ppm	94
41) 1-Methylnaphthalene	8.480	142	969709	41.83	ppm	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:04:04 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	503098	42.39	ppm		100
44)	Hexachlorocyclopentadiene	8.550	237	259006	43.75	ppm		98
45)	2,4,6-Trichlorophenol	8.721	196	349474	45.63	ppm		99
46)	2,4,5-Trichlorophenol	8.785	196	371609	45.17	ppm		98
48)	1,1'-Biphenyl	8.924	154	1285619	42.75	ppm		98
49)	2-Chloronaphthalene	8.940	162	989877	43.58	ppm		99
50)	2-Nitroaniline	9.079	65	402033	43.84	ppm		83
51)	p-Dinitrobenzene	9.245	75	296271	45.66	ppm		81
52)	Acenaphthylene	9.422	152	1496285	42.99	ppm		100
53)	Dimethylphthalate	9.309	163	1205025	43.70	ppm		99
54)	m-Dinitrobenzene	9.331	168	219916	50.06	ppm		86
55)	2,6-Dinitrotoluene	9.368	165	284043	45.08	ppm	#	74
56)	o-Dinitrobenzene	9.427	50	176590	44.29	ppm	#	1
57)	Acenaphthene	9.630	153	1002036	43.05	ppm		100
58)	3-Nitroaniline	9.571	138	306212	42.83	ppm	#	56
59)	2,4-Dinitrophenol	9.684	184	167752	45.80	ppm		80
60)	Dibenzofuran	9.833	168	1339928	42.02	ppm		96
61)	2,4-Dinitrotoluene	9.839	165	366270	44.21	ppm		83
62)	4-Nitrophenol	9.849	109	298913	46.70	ppm	#	72
63)	2,3,5,6-Tetrachlorophenol	9.946	232	288490	45.66	ppm		97
64)	2,3,4,6-Tetrachlorophenol	9.999	232	294960	45.24	ppm		96
65)	Fluorene	10.240	166	1068969	42.07	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	563533	43.16	ppm		99
67)	Diethylphthalate	10.144	149	1181565	43.50	ppm		98
68)	Thionazin	10.235	97	358737	44.92	ppm		87
69)	4-Nitroaniline	10.304	138	316621	44.44	ppm	#	69
71)	4,6-Dinitro-2-methylph...	10.320	198	234922	44.26	ppm	#	39
72)	n-Nitrosodiphenylamine	10.406	169	964085	49.91	ppm		100
73)	Diphenylamine	10.406	169	964085	42.43	ppm		100
74)	1,2-Diphenylhydrazine	10.443	77	1452653	42.28	ppm		89
76)	Sulfotep	10.614	97	295591	42.17	ppm	#	67
77)	Phorate	10.759	75	861161	41.95	ppm		89
78)	4-Bromophenyl-phenylether	10.834	248	299142	43.19	ppm	#	83
79)	Hexachlorobenzene	10.882	284	288816	43.01	ppm		86
80)	Dimethoate	10.967	87	648330	43.15	ppm		93
81)	Simazine	11.032	201	167987	40.48	ppm		95
82)	Atrazine	11.069	200	361116	43.30	ppm		98
83)	Pentachlorophenol	11.144	266	183466	40.07	ppm		99
84)	Phenanthrene	11.379	178	1553759	41.43	ppm		99
85)	Anthracene	11.438	178	1650879	42.65	ppm		100
86)	Disulfoton	11.385	88	828751	40.00	ppm		92
87)	Carbazole	11.652	167	1533066	43.09	ppm		99
88)	Methyl Parathion	11.823	109	521276	45.83	ppm		83
89)	Di-n-butylphthalate	12.096	149	1937083	44.46	ppm		98
90)	Ethyl Parathion	12.299	97	365784	46.56	ppm		86
91)	Fluoranthene	12.791	202	1745133	43.69	ppm		97
93)	Benzidine	12.978	184	701823	38.04	ppm		96
94)	Pyrene	13.053	202	1798273	42.56	ppm		97
96)	Famphur	13.850	218	304459	25.69	ppm		88
97)	Butylbenzylphthalate	13.941	149	854682	44.63	ppm		87
98)	3,3'-Dichlorobenzidine	14.653	252	535295	42.73	ppm		97
99)	Benzo[a]anthracene	14.653	228	1596380	43.48	ppm		100
100)	Chrysene	14.706	228	1506402	43.50	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1133845	45.16	ppm		98
103)	Di-n-octylphthalate	15.888	149	1852441	47.27	ppm		100
104)	Benzo[b]fluoranthene	16.407	252	1308481	45.83	ppm		98
105)	Benzo[k]fluoranthene	16.455	252	1353954	44.05	ppm		97
106)	Benzo[a]pyrene	16.952	252	1254956	44.97	ppm		97

10.6.12 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:04:04 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

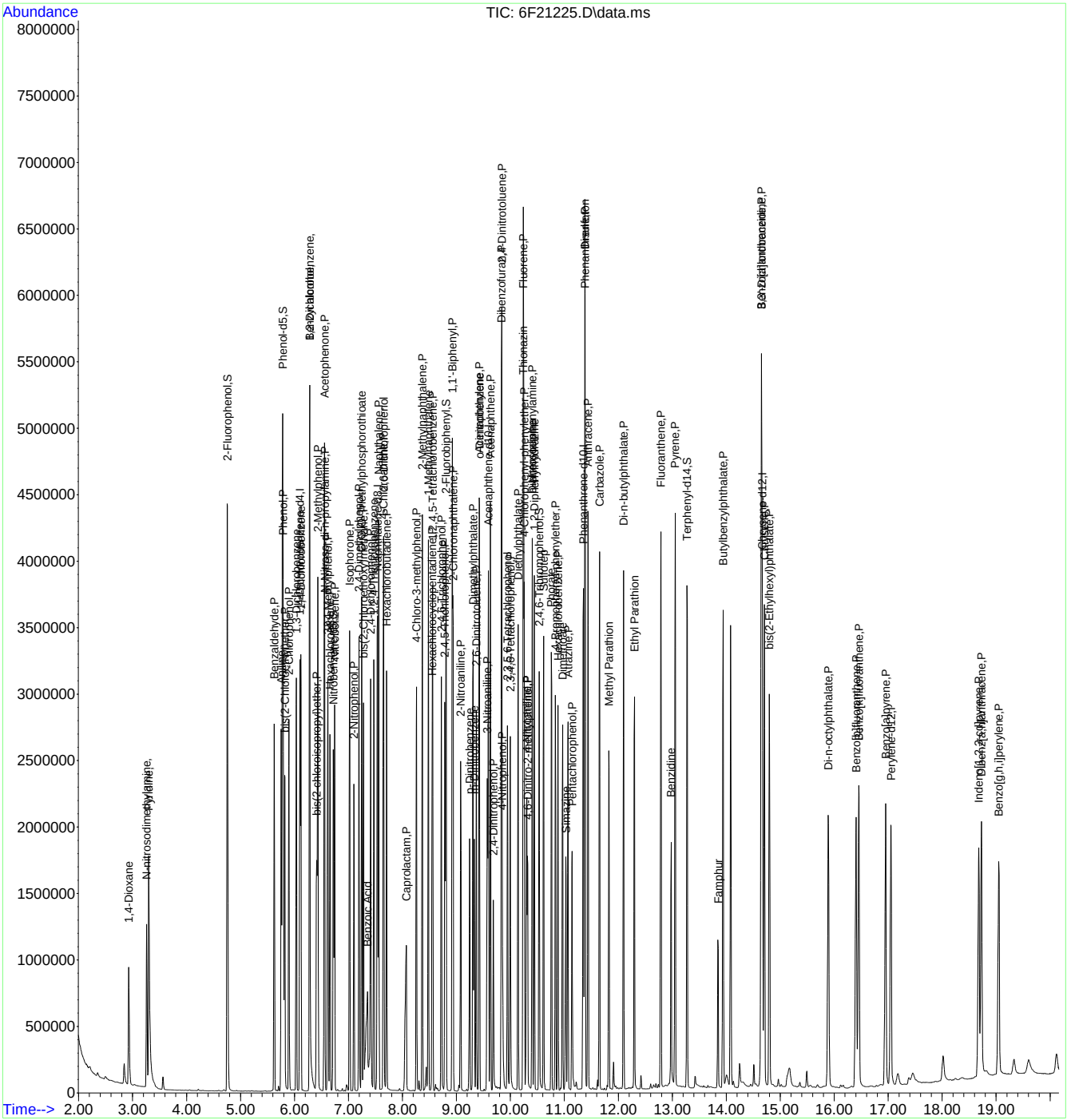
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.680	276	1120760	45.46	ppm	96
108) Dibenz[a,h]anthracene	18.728	278	1145506	44.28	ppm	95
109) Benzo[g,h,i]perylene	19.049	276	1133741	42.50	ppm	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:04:04 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Manual Integration Approval Summary

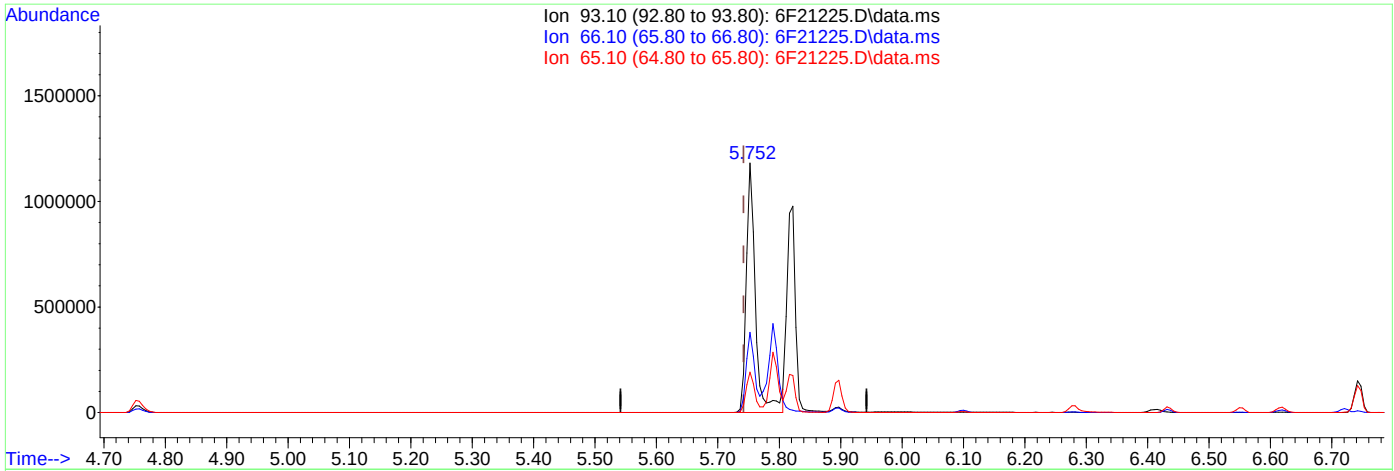
Sample Number: S6F799-CC797
Lab FileID: 6F21225.D
Injection Time: 11/07/23 06:41
Method: SW846 8270E
Analyst approved: 11/07/23 16:28 Karen Avila
Supervisor approved: 11/08/23 10:07 William Hustedde

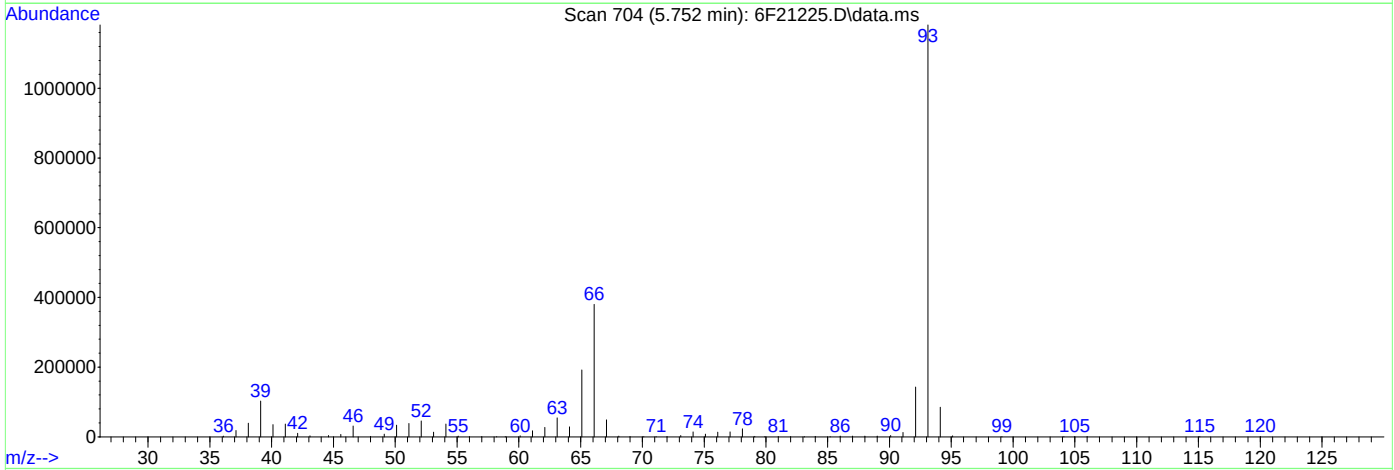
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aniline	62-53-3		5.75	Poor instrument integration
Benzoic Acid	65-85-0		7.35	Split peak
4-Chloroaniline	106-47-8		7.65	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:02:39 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21225.D\data.ms

(6) Aniline ( )

5.752min (+0.010) 42.81ppm m

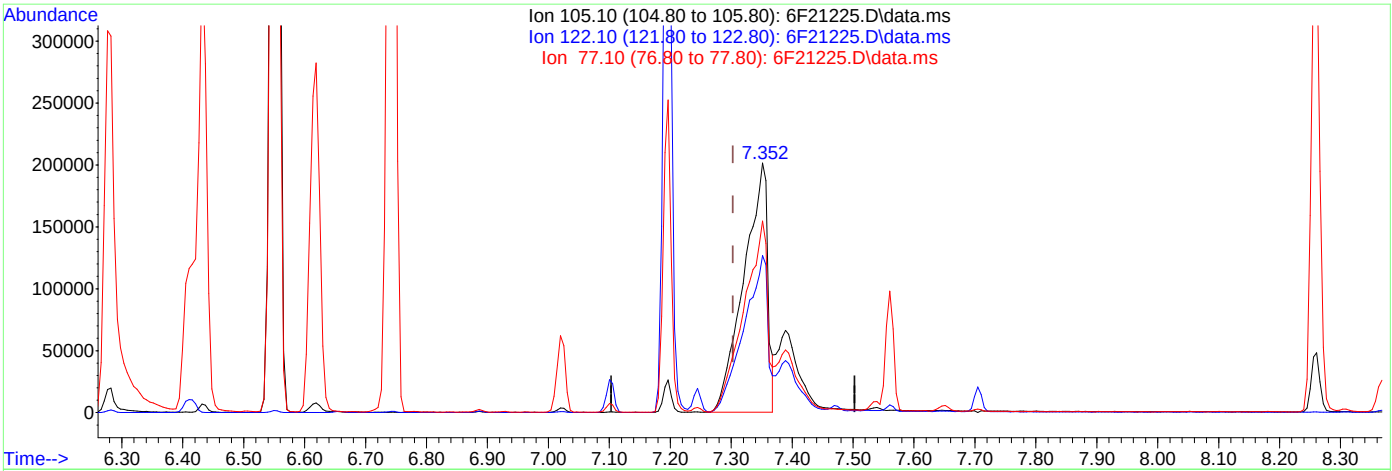
response 1247450

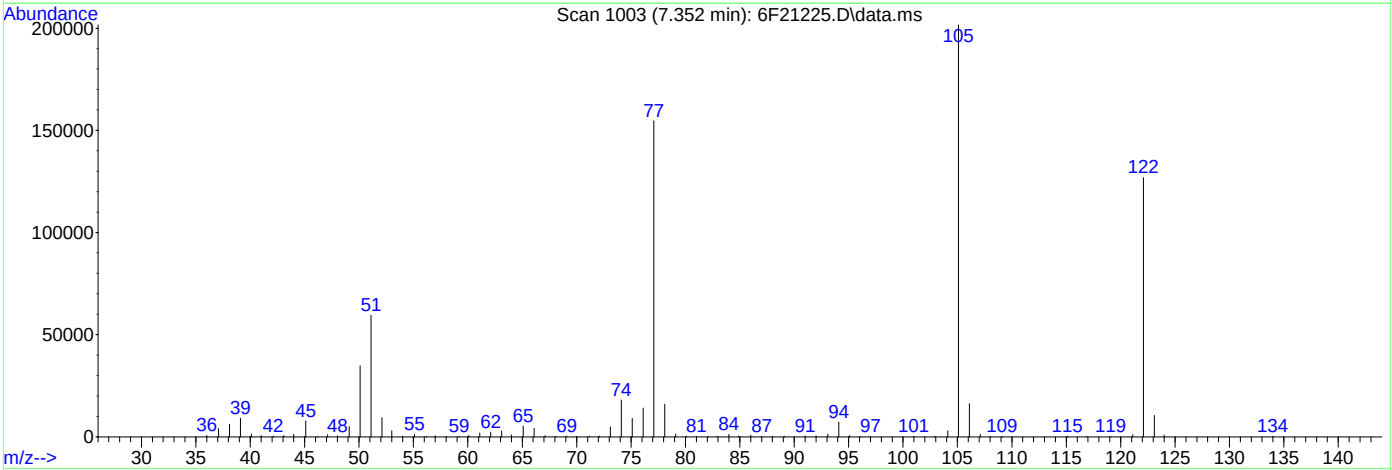
Ion	Exp%	Act%
93.10	100	100
66.10	35.50	32.16
65.10	18.10	16.24
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:03:23 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21225.D\data.ms

(30) Benzoic Acid

7.352min (+0.049) 34.86ppm

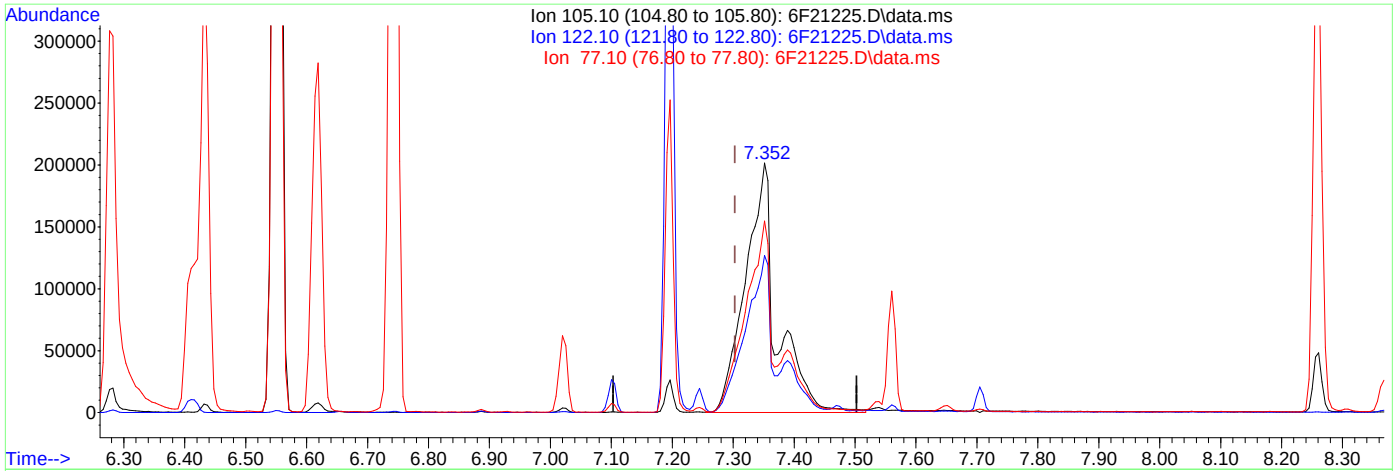
response 548099

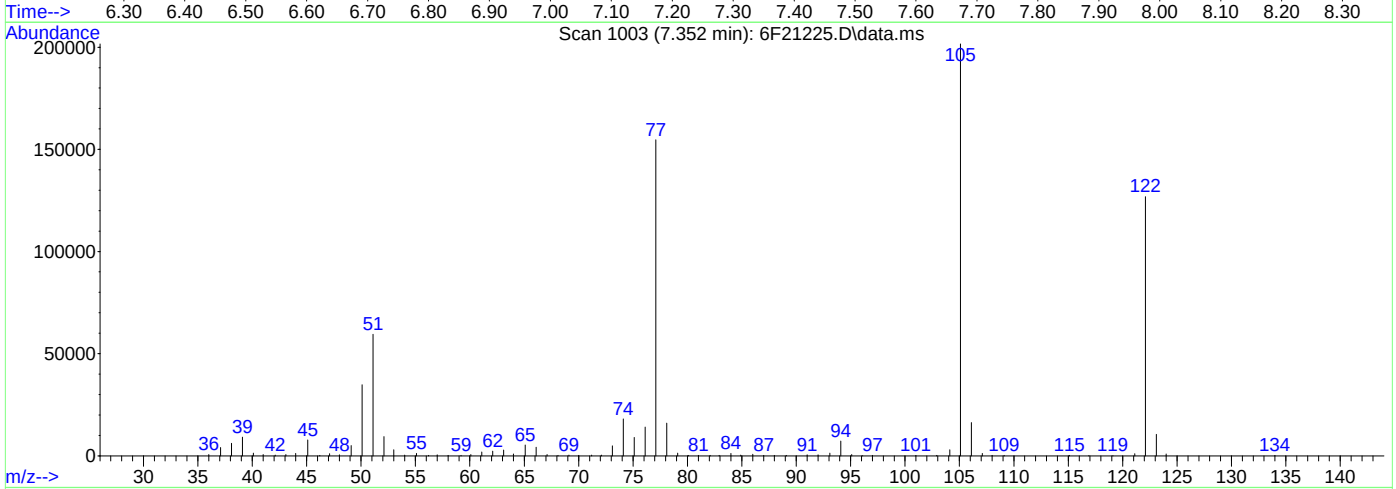
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.57
77.10	76.40	76.32
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:03:23 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21225.D\data.ms

(30) Benzoic Acid

7.352min (+0.049) 45.41ppm m

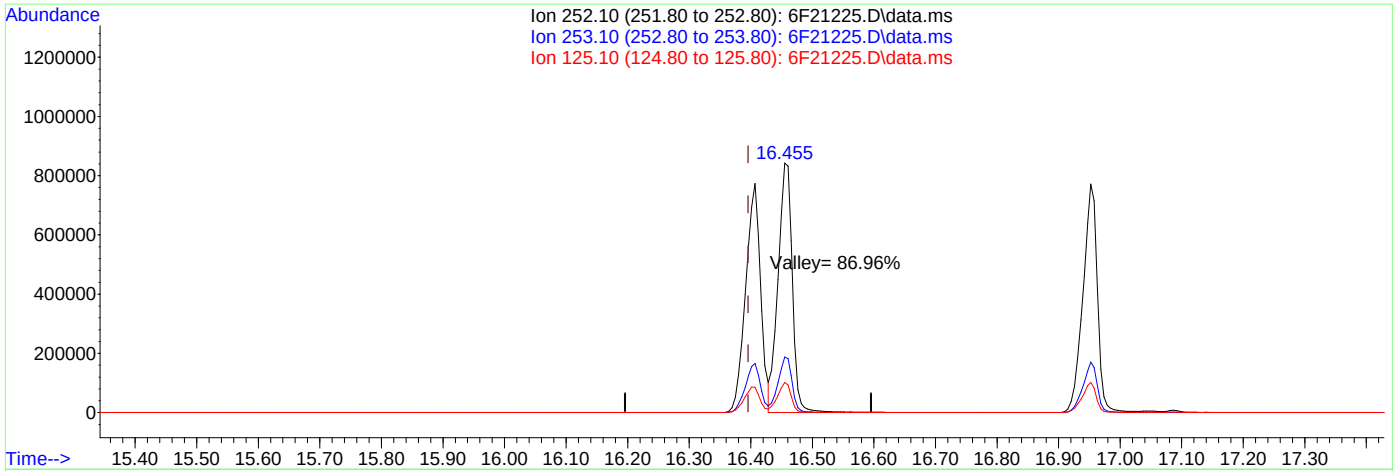
response 724386

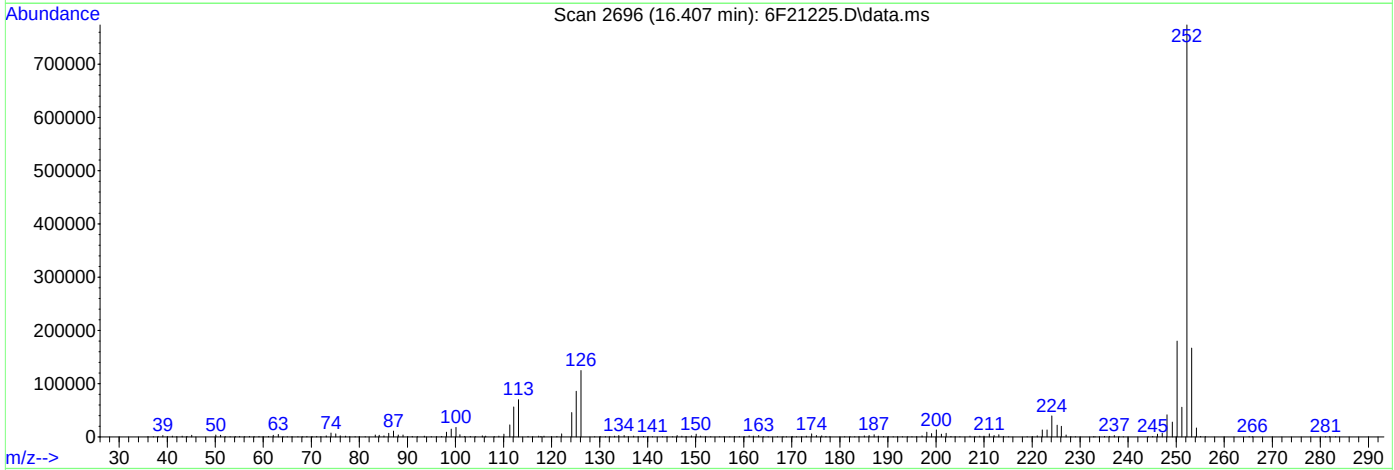
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.87
77.10	76.40	76.71
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21225.D
Acq On : 7 Nov 2023 6:41 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 07:03:23 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21225.D\data.ms

(104) Benzo[b]fluoranthene (P)

16.407min (+0.011) 45.83ppm

response 1308481

Ion	Exp%	Act%
252.10	100	100
253.10	22.10	21.52
125.10	9.30	11.01
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21226.D
Acq On : 7 Nov 2023 7:07 am
Operator : karena
Sample : cc797-5
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 12:14:41 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	325766	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1225939	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	680509	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1249068	40.00	ppm	0.00
92) Chrysene-d12	14.658	240	965158	40.00	ppm	0.00
102) Perylene-d12	17.043	264	904711	40.00	ppm	0.00
System Monitoring Compounds						
7) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.00%#		
9) Phenol-d5	0.000	99	0d	0.00	ppm	
Spiked Amount 100.000	Range 10 - 50		Recovery =	0.00%#		
23) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 42 - 108		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 40 - 106		Recovery =	0.00%#		
75) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 100.000	Range 33 - 118		Recovery =	0.00%#		
95) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 39 - 121		Recovery =	0.00%#		
Target Compounds						Qvalue
15) Benzyl alcohol	6.266	108	57349	5.45	ppm	96
35) 4-Chloroaniline	7.635	127	71077	5.48	ppm	91
93) Benzidine	12.973	184	27159	1.43	ppm	95
96) Famphur	13.839	218	45998	4.06	ppm	78

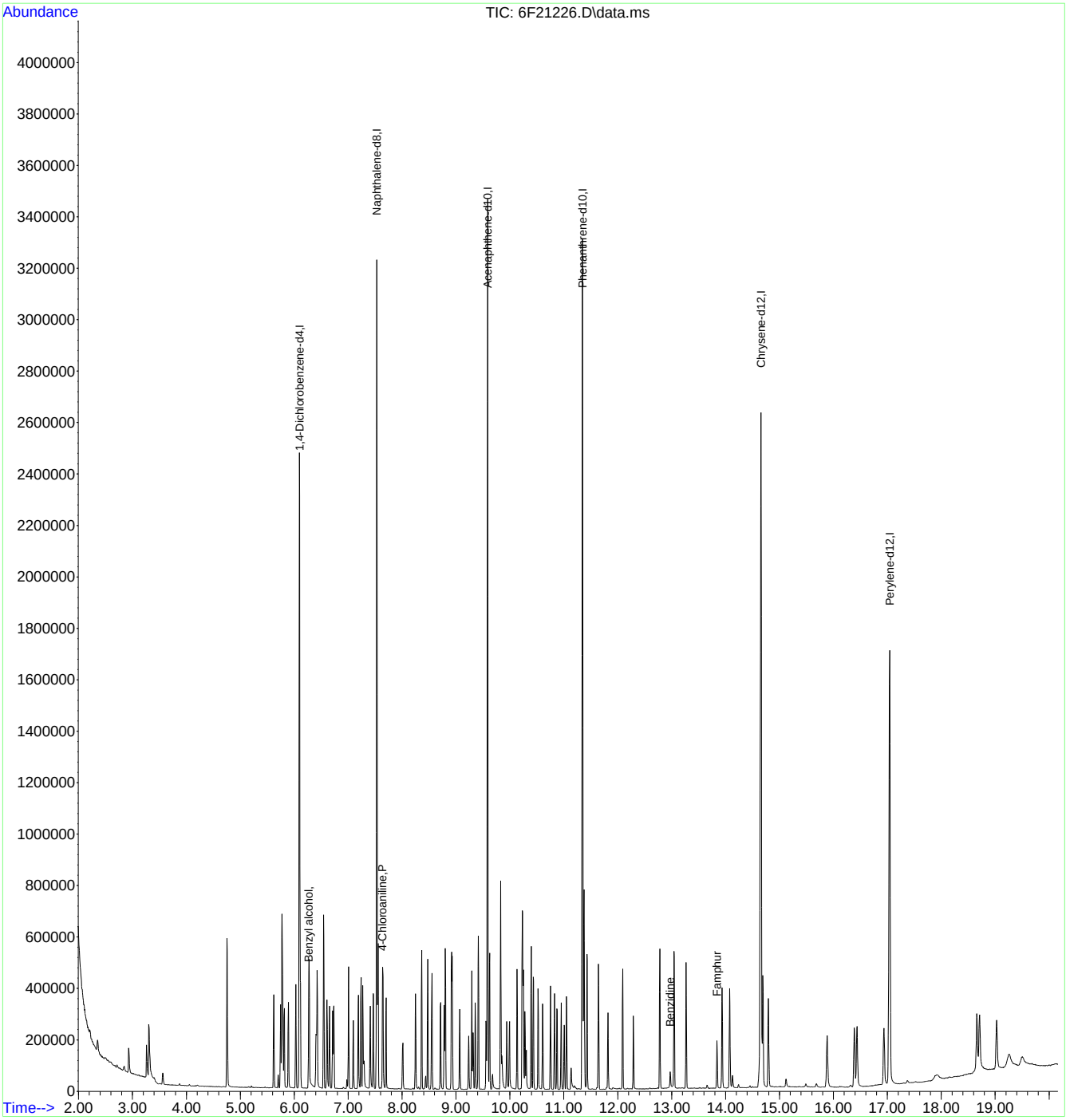
(#) = qualifier out of range (m) = manual integration (+) = signals summed

10.6.13 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21226.D
Acq On : 7 Nov 2023 7:07 am
Operator : karena
Sample : cc797-5
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 12:14:41 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



8270D6F110223.m Tue Nov 07 14:37:58 2023 Page: 2

Manual Integrations APPROVED
(compounds with "m" flag)
William Hustedde
11/08/23 10:07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:09:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.100	152	514409	40.00	ppm		0.00
22) Naphthalene-d8	7.539	136	1691359	40.00	ppm		0.00
43) Acenaphthene-d10	9.593	164	818172	40.00	ppm		0.00
70) Phenanthrene-d10	11.347	188	1268100	40.00	ppm		0.00
92) Chrysene-d12	14.669	240	920361	40.00	ppm		0.00
102) Perylene-d12	17.049	264	972726	40.00	ppm		0.01
System Monitoring Compounds							
7) 2-Fluorophenol	4.768	112	1812574	79.51	ppm		0.06
Spiked Amount 100.000	Range 14 - 67		Recovery = 79.51%#				
9) Phenol-d5	5.795	99	2105908	68.81	ppm		0.08
Spiked Amount 100.000	Range 10 - 50		Recovery = 68.81%#				
23) Nitrobenzene-d5	6.720	82	1075314	43.11	ppm		0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 86.22%				
47) 2-Fluorobiphenyl	8.806	172	1187412	45.73	ppm		0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 91.46%				
75) 2,4,6-Tribromophenol	10.534	330	199474	85.14	ppm		0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 85.14%				
95) Terphenyl-d14	13.273	244	971269	41.75	ppm		0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 83.50%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.934	88	630240	45.99	ppm		95
3) N-nitrosodimethylamine	3.265	42	482966	42.75	ppm		99
4) Pyridine	3.297	79	1371355	39.78	ppm		99
5) Benzaldehyde	5.624	106	666099	42.12	ppm		99
6) Aniline	5.758	93	1125825	29.88	ppm		88
8) bis(2-Chloroethyl)ether	5.822	93	1049647	38.43	ppm		92
10) Phenol	5.811	94	1168406	34.11	ppm		97
11) 2-Chlorophenol	5.902	128	740999	38.96	ppm		93
12) 1,3-Dichlorobenzene	6.036	146	812343	42.97	ppm		90
13) 1,4-Dichlorobenzene	6.121	146	790285	41.99	ppm		90
14) 1,2-Dichlorobenzene	6.282	146	721494	40.39	ppm		89
15) Benzyl alcohol	6.287	108	533724	32.13	ppm		85
16) bis(2-chloroisopropyl)...	6.410	45	948936	42.25	ppm		99
17) 2-Methylphenol	6.442	108	792813	36.94	ppm		96
18) Acetophenone	6.555	105	1251676	35.96	ppm		93
19) Hexachloroethane	6.656	117	393601	42.29	ppm		87
20) N-Nitroso-di-n-propyla...	6.565	70	552726	37.66	ppm		90
21) 3&4-Methylphenol	6.630	108	821657	36.32	ppm		99
24) Nitrobenzene	6.747	77	975862	41.85	ppm		91
25) Isophorone	7.020	82	1810931	40.47	ppm		89
26) 2-Nitrophenol	7.106	139	344215	42.74	ppm		80
27) 2,4-Dimethylphenol	7.202	107	746573	40.49	ppm		85
28) O,O,O-Triethylphosphor...	7.250	198	350673	44.64	ppm		83
29) bis(2-Chloroethoxy)met...	7.282	93	1074714	42.08	ppm		97
30) Benzoic Acid	7.362	105	576734	33.66	ppm		92
31) 2,4-Dichlorophenol	7.421	162	487972	40.05	ppm		91
32) 1,2,4-Trichlorobenzene	7.475	180	603110	45.08	ppm		100
34) Naphthalene	7.560	128	1862884	42.56	ppm		92
35) 4-Chloroaniline	7.651	127	512384	28.63	ppm		97
36) 2,6-Dichlorophenol	7.656	162	484492	39.89	ppm		94
37) Hexachlorobutadiene	7.705	225	366116	47.31	ppm		99
38) Caprolactam	8.068	113	236087	34.77	ppm		92
39) 4-Chloro-3-methylphenol	8.272	107	636227	34.59	ppm	#	30
40) 2-Methylnaphthalene	8.368	141	939097	40.90	ppm		93
41) 1-Methylnaphthalene	8.480	142	1016734	40.17	ppm		92

10.6.14
10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:09:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	542174	41.85	ppm		100
44)	Hexachlorocyclopentadiene	8.550	237	185356	32.38	ppm		98
45)	2,4,6-Trichlorophenol	8.726	196	326354	44.07	ppm		100
46)	2,4,5-Trichlorophenol	8.726	196	326354	41.02	ppm		99
48)	1,1'-Biphenyl	8.924	154	1315358	45.24	ppm		99
49)	2-Chloronaphthalene	8.940	162	988566	45.01	ppm		99
50)	2-Nitroaniline	9.085	65	350860	39.57	ppm		83
51)	p-Dinitrobenzene	9.245	75	236308	37.67	ppm		82
52)	Acenaphthylene	9.422	152	1436924	42.69	ppm		100
53)	Dimethylphthalate	9.309	163	1103767	41.40	ppm		99
54)	m-Dinitrobenzene	9.331	168	175701	41.36	ppm		79
55)	2,6-Dinitrotoluene	9.368	165	241339	39.61	ppm	#	68
56)	o-Dinitrobenzene	9.427	50	145590	37.19	ppm	#	1
57)	Acenaphthene	9.630	153	961019	42.71	ppm		99
58)	3-Nitroaniline	9.577	138	226373	32.74	ppm	#	60
59)	2,4-Dinitrophenol	9.684	184	33646	9.50	ppm		87
60)	Dibenzofuran	9.833	168	1260837	40.89	ppm		99
61)	2,4-Dinitrotoluene	9.839	165	287928	35.94	ppm		81
62)	4-Nitrophenol	9.871	109	252643m	40.82	ppm		
63)	2,3,5,6-Tetrachlorophenol	9.951	232	231002	37.81	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.999	232	239544	38.00	ppm		98
65)	Fluorene	10.240	166	971574	39.54	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	515398	40.82	ppm		98
67)	Diethylphthalate	10.144	149	1044040	39.75	ppm		98
68)	Thionazin	10.234	97	319011	40.75	ppm		87
69)	4-Nitroaniline	10.299	138	225969	32.80	ppm	#	63
71)	4,6-Dinitro-2-methylph...	10.315	198	63505	14.65	ppm		92
72)	n-Nitrosodiphenylamine	10.406	169	829753	52.91	ppm		99
73)	Diphenylamine	10.406	169	829753	44.87	ppm		99
74)	1,2-Diphenylhydrazine	10.443	77	1317283	47.85	ppm		90
76)	Sulfotep	10.614	97	259976	45.57	ppm	#	65
77)	Phorate	10.759	75	756863	45.30	ppm		90
78)	4-Bromophenyl-phenylether	10.834	248	261965	46.47	ppm	#	80
79)	Hexachlorobenzene	10.882	284	255230	46.70	ppm		88
80)	Dimethoate	10.967	87	428505	35.04	ppm		93
81)	Simazine	11.026	201	118208	35.00	ppm		96
82)	Atrazine	11.064	200	251943	37.12	ppm		95
83)	Pentachlorophenol	11.144	266	129020	34.64	ppm		100
84)	Phenanthrene	11.379	178	1265946	41.47	ppm		99
85)	Anthracene	11.438	178	1344609	42.68	ppm		99
86)	Disulfoton	11.384	88	711094	42.17	ppm		91
87)	Carbazole	11.652	167	1147968	39.64	ppm		99
88)	Methyl Parathion	11.823	109	336530	36.35	ppm		83
89)	Di-n-butylphthalate	12.096	149	1517135	42.78	ppm		97
90)	Ethyl Parathion	12.294	97	261533	40.90	ppm	#	79
91)	Fluoranthene	12.786	202	1322273	40.68	ppm		95
93)	Benzidine	12.978	184	64758m	3.61	ppm		
94)	Pyrene	13.053	202	1353992	41.69	ppm		97
96)	Famphur	13.850	218	198637	20.95	ppm		88
97)	Butylbenzylphthalate	13.941	149	614877	41.78	ppm		84
98)	3,3'-Dichlorobenzidine	14.652	252	326341	33.89	ppm		98
99)	Benzo[a]anthracene	14.652	228	1215825	43.08	ppm		100
100)	Chrysene	14.706	228	1143956	42.98	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	804185	41.67	ppm		99
103)	Di-n-octylphthalate	15.888	149	1335550	38.58	ppm		100
104)	Benzo[b]fluoranthene	16.407	252	1084005	42.98	ppm		98
105)	Benzo[k]fluoranthene	16.455	252	1132588	41.72	ppm		98
106)	Benzo[a]pyrene	16.952	252	1087668	44.12	ppm		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:09:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

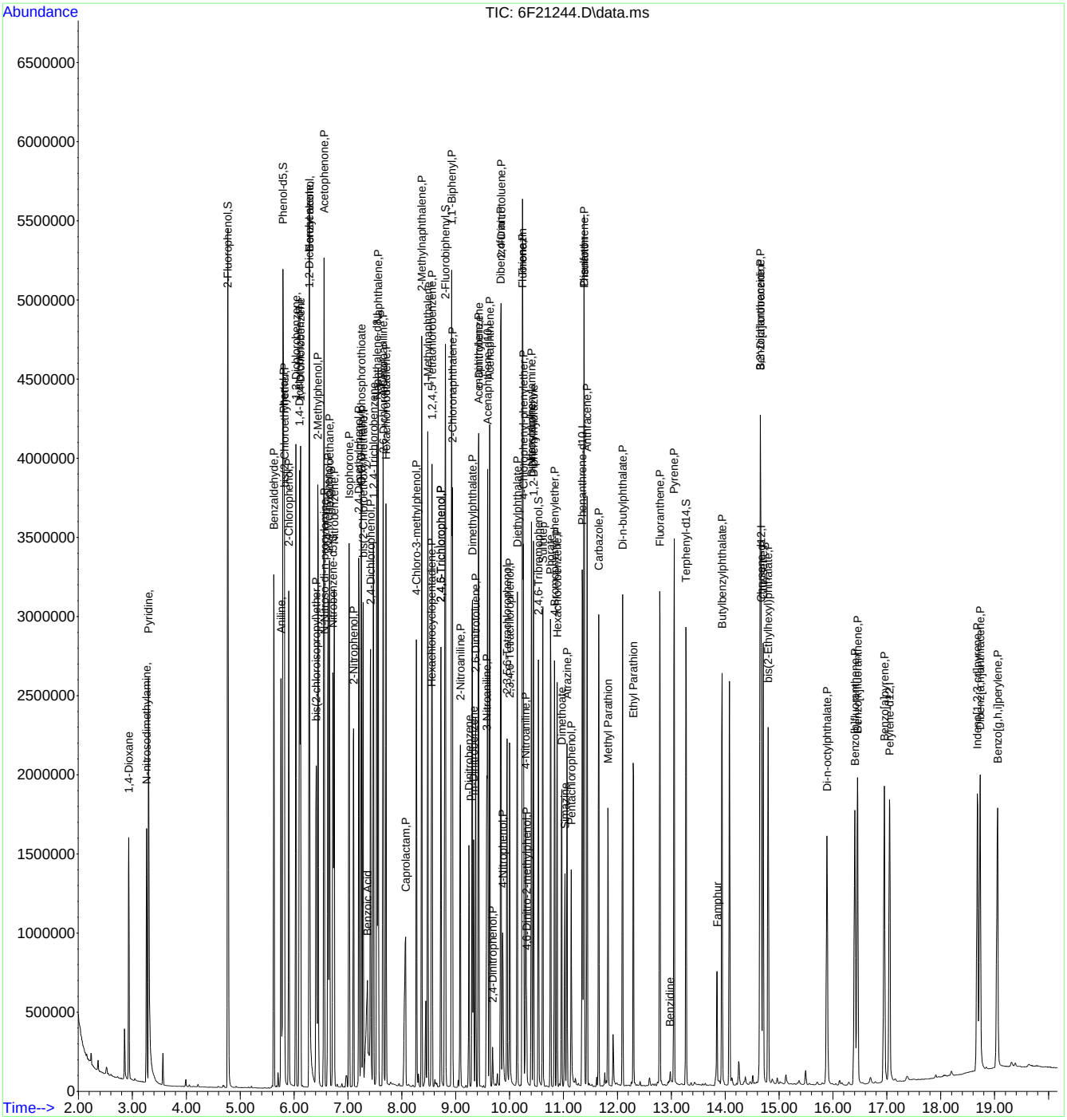
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.680	276	1077462	49.48	ppm	95
108) Dibenz[a,h]anthracene	18.733	278	1137103	49.76	ppm	96
109) Benzo[g,h,i]perylene	19.054	276	1113109	47.24	ppm	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:09:45 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



8270D6F110223.m Tue Nov 07 16:12:45 2023 Page: 4

Manual Integration Approval Summary

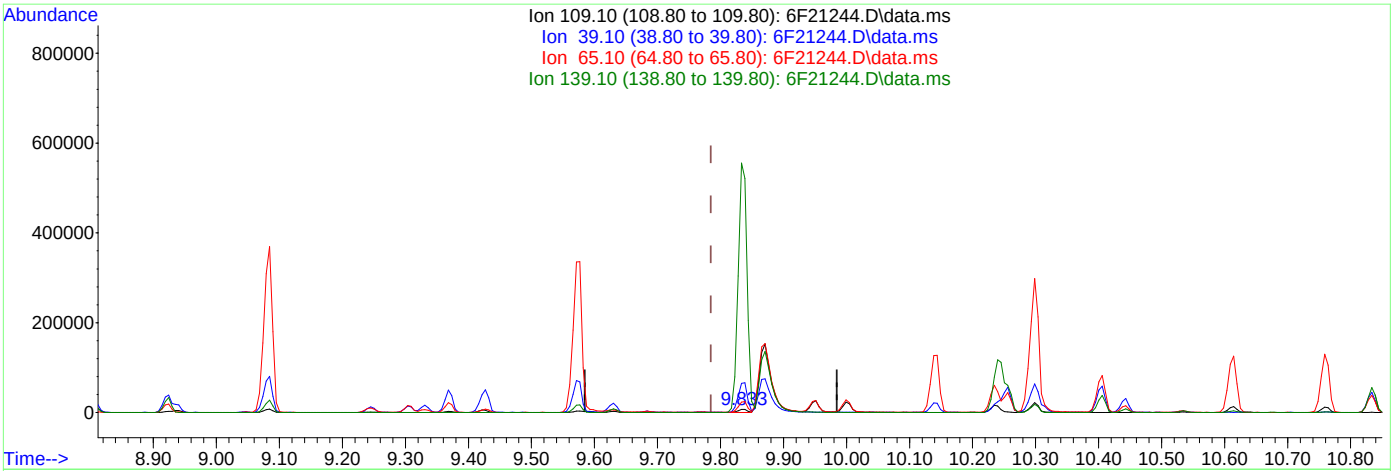
Sample Number: S6F799-ECC797
Lab FileID: 6F21244.D
Injection Time: 11/07/23 15:19
Method: SW846 8270E
Analyst approved: 11/07/23 16:28 Karen Avila
Supervisor approved: 11/08/23 10:07 William Hustedde

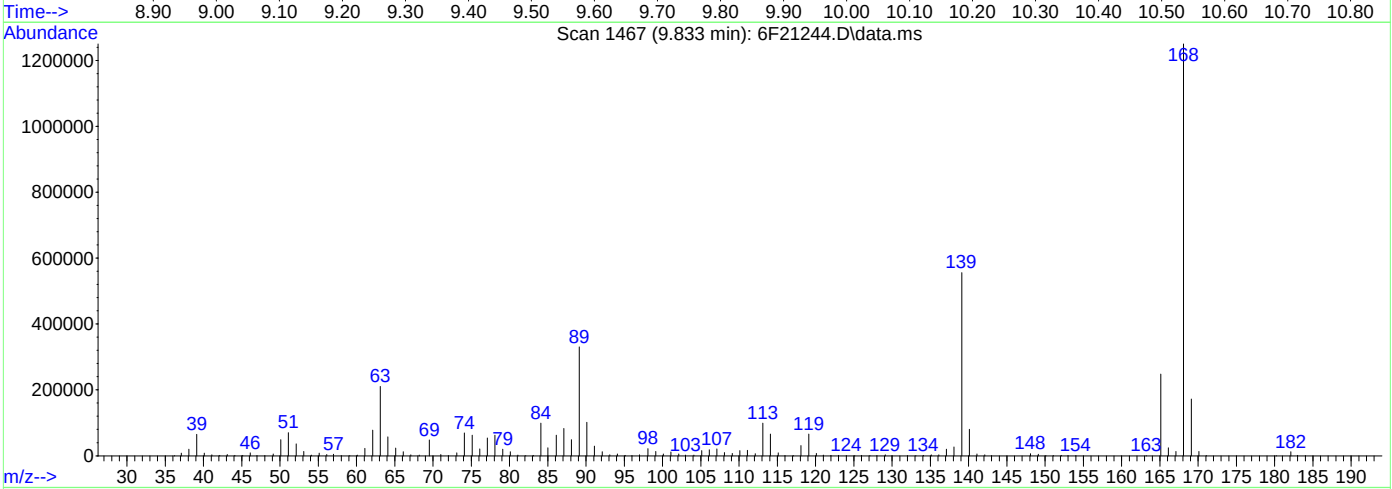
Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Nitrophenol	100-02-7		9.87	Poor instrument integration
Benzidine	92-87-5		12.98	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:08:18 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21244.D\data.ms

(62) 4-Nitrophenol (P)

9.833min (+0.048) 1.15ppm

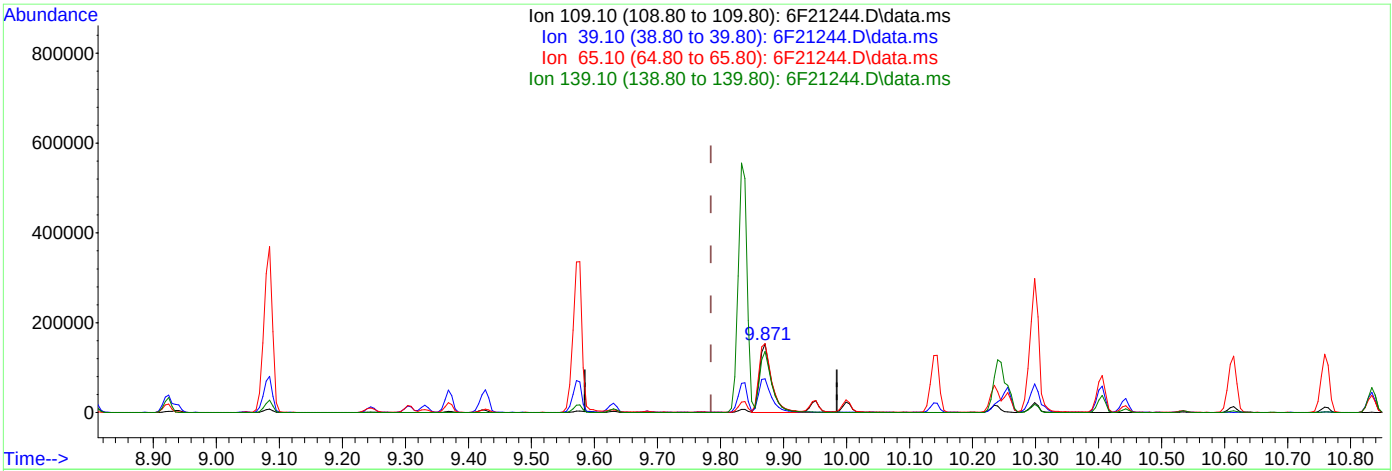
response 7118

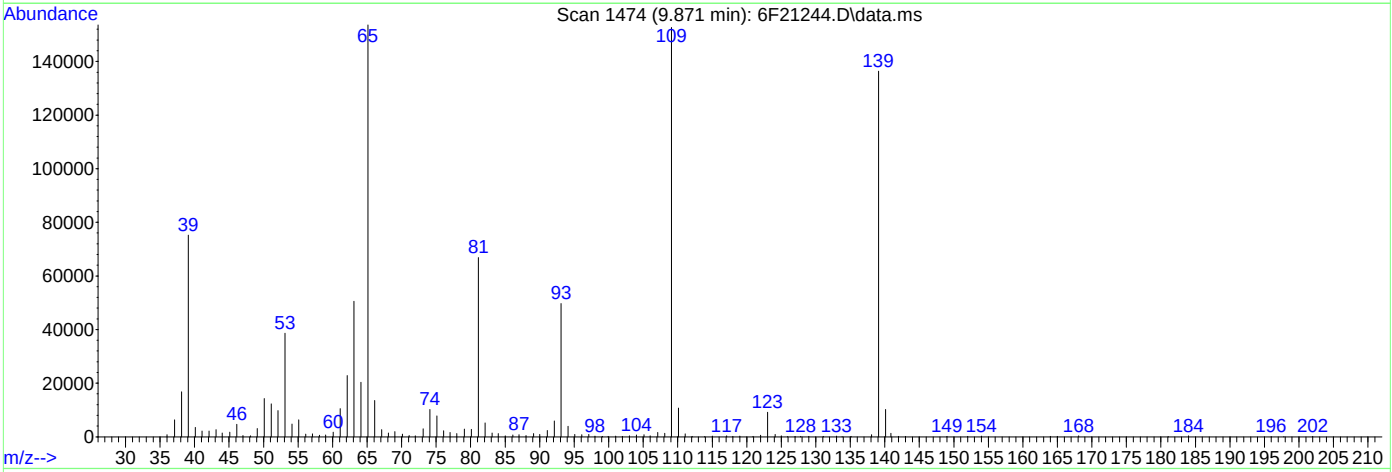
Ion	Exp%	Act%
109.10	100	100
39.10	71.70	961.61#
65.10	137.80	327.62#
139.10	129.60	8252.80#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F799\
Data File : 6F21244.D
Acq On : 7 Nov 2023 3:19 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F799,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 16:08:18 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21244.D\data.ms

(62) 4-Nitrophenol (P)

9.871min (+0.086) 40.82ppm m

response 252643

Ion	Exp%	Act%
109.10	100	100
39.10	71.70	49.28
65.10	137.80	100.63#
139.10	129.60	89.31#

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/08/23 16:02

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:28:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	477889	40.00	ppm	0.00
22) Naphthalene-d8	7.539	136	1762305	40.00	ppm	0.00
43) Acenaphthene-d10	9.593	164	965115	40.00	ppm	0.00
70) Phenanthrene-d10	11.352	188	1778521	40.00	ppm	0.00
92) Chrysene-d12	14.674	240	1341274	40.00	ppm	0.01
102) Perylene-d12	17.054	264	1287993	40.00	ppm	0.02
System Monitoring Compounds						
7) 2-Fluorophenol	4.758	112	1795744	84.79	ppm	0.05
Spiked Amount 100.000	Range 14 - 67		Recovery = 84.79%#			
9) Phenol-d5	5.779	99	2228460	78.38	ppm	0.06
Spiked Amount 100.000	Range 10 - 50		Recovery = 78.38%#			
23) Nitrobenzene-d5	6.720	82	1088201	41.87	ppm	0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 83.74%			
47) 2-Fluorobiphenyl	8.806	172	1332762	43.51	ppm	0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 87.02%			
75) 2,4,6-Tribromophenol	10.539	330	360979	109.86	ppm	0.01
Spiked Amount 100.000	Range 33 - 118		Recovery = 109.86%			
95) Terphenyl-d14	13.278	244	1568731	46.27	ppm	0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 92.54%			
Target Compounds						Qvalue
2) 1,4-Dioxane	2.928	88	559731	43.97	ppm	96
3) N-nitrosodimethylamine	3.260	42	457408	43.59	ppm	100
4) Pyridine	3.292	79	1356273	42.35	ppm	98
5) Benzaldehyde	5.624	106	640594	44.30	ppm	99
6) Aniline	5.752	93	1405767m	42.05	ppm	
8) bis(2-Chloroethyl)ether	5.822	93	1079152	42.53	ppm	92
10) Phenol	5.790	94	1286478	41.58	ppm	97
11) 2-Chlorophenol	5.897	128	754346	42.69	ppm	96
12) 1,3-Dichlorobenzene	6.036	146	748134	42.60	ppm	90
13) 1,4-Dichlorobenzene	6.121	146	738562	42.24	ppm	91
14) 1,2-Dichlorobenzene	6.282	146	672770	40.54	ppm	89
15) Benzyl alcohol	6.282	108	600683	38.92	ppm	80
16) bis(2-chloroisopropyl)...	6.410	45	875628	41.90	ppm	98
17) 2-Methylphenol	6.432	108	846180	42.44	ppm	97
18) Acetophenone	6.555	105	1293576	40.01	ppm	93
19) Hexachloroethane	6.656	117	365265	42.24	ppm	86
20) N-Nitroso-di-n-propyla...	6.565	70	556070	41.61	ppm	89
21) 3&4-Methylphenol	6.614	108	928645	44.18	ppm	99
24) Nitrobenzene	6.747	77	995795	40.98	ppm	92
25) Isophorone	7.025	82	1810130	38.83	ppm	91
26) 2-Nitrophenol	7.106	139	375692	44.77	ppm	83
27) 2,4-Dimethylphenol	7.197	107	823560	42.87	ppm	86
28) O,O,O-Triethylphosphor...	7.250	198	354604	43.32	ppm	90
29) bis(2-Chloroethoxy)met...	7.282	93	1093795	41.10	ppm	97
30) Benzoic Acid	7.362	105	850713m	46.80	ppm	
31) 2,4-Dichlorophenol	7.410	162	567419	44.70	ppm	92
32) 1,2,4-Trichlorobenzene	7.475	180	603509	43.30	ppm	99
34) Naphthalene	7.560	128	1900991	41.69	ppm	92
35) 4-Chloroaniline	7.646	127	691909	37.10	ppm	97
36) 2,6-Dichlorophenol	7.657	162	543875	42.97	ppm	96
37) Hexachlorobutadiene	7.705	225	359166	44.54	ppm	99
38) Caprolactam	8.079	113	309666	43.78	ppm	96
39) 4-Chloro-3-methylphenol	8.261	107	813142	42.43	ppm	81
40) 2-Methylnaphthalene	8.368	141	1008266	42.14	ppm	94
41) 1-Methylnaphthalene	8.480	142	1108336	42.03	ppm	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:28:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	584819	43.33	ppm		99
44)	Hexachlorocyclopentadiene	8.550	237	313888	46.49	ppm		98
45)	2,4,6-Trichlorophenol	8.721	196	395907	45.32	ppm		99
46)	2,4,5-Trichlorophenol	8.785	196	425660	45.36	ppm		99
48)	1,1'-Biphenyl	8.924	154	1484575	43.28	ppm		99
49)	2-Chloronaphthalene	8.940	162	1119551	43.21	ppm		98
50)	2-Nitroaniline	9.079	65	436281	41.71	ppm		83
51)	p-Dinitrobenzene	9.245	75	324116	43.80	ppm		81
52)	Acenaphthylene	9.427	152	1699325	42.80	ppm		99
53)	Dimethylphthalate	9.309	163	1360648	43.26	ppm		100
54)	m-Dinitrobenzene	9.336	168	247983	49.49	ppm	#	70
55)	2,6-Dinitrotoluene	9.373	165	320365	44.58	ppm		81
56)	o-Dinitrobenzene	9.432	50	197843	43.42	ppm	#	1
57)	Acenaphthene	9.630	153	1146832	43.20	ppm		99
58)	3-Nitroaniline	9.577	138	337539	41.39	ppm	#	67
59)	2,4-Dinitrophenol	9.689	184	201115	48.15	ppm		91
60)	Dibenzofuran	9.839	168	1517081	41.71	ppm		95
61)	2,4-Dinitrotoluene	9.839	165	413346	43.74	ppm		80
62)	4-Nitrophenol	9.849	109	326908	44.78	ppm	#	74
63)	2,3,5,6-Tetrachlorophenol	9.946	232	330168	45.82	ppm		97
64)	2,3,4,6-Tetrachlorophenol	9.999	232	335150	45.07	ppm		97
65)	Fluorene	10.245	166	1206680	41.63	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	638719	42.89	ppm		98
67)	Diethylphthalate	10.144	149	1337012	43.16	ppm		97
68)	Thionazin	10.240	97	396999	43.36	ppm		92
69)	4-Nitroaniline	10.304	138	347787	42.80	ppm	#	62
71)	4,6-Dinitro-2-methylph...	10.320	198	276504	45.64	ppm		70
72)	n-Nitrosodiphenylamine	10.406	169	1091607	49.49	ppm		100
73)	Diphenylamine	10.406	169	1091607	42.09	ppm		100
74)	1,2-Diphenylhydrazine	10.443	77	1587021	40.23	ppm		89
76)	Sulfotep	10.614	97	327352	40.91	ppm	#	72
77)	Phorate	10.764	75	933691	39.84	ppm		84
78)	4-Bromophenyl-phenylether	10.839	248	364712	46.13	ppm		92
79)	Hexachlorobenzene	10.882	284	374760	48.89	ppm		91
80)	Dimethoate	10.967	87	679302	39.60	ppm		92
81)	Simazine	11.031	201	181265	38.27	ppm		94
82)	Atrazine	11.069	200	386235	40.57	ppm		99
83)	Pentachlorophenol	11.144	266	242104	46.29	ppm		99
84)	Phenanthrene	11.379	178	1742875	40.71	ppm		99
85)	Anthracene	11.443	178	1866005	42.23	ppm		99
86)	Disulfoton	11.384	88	909213	38.45	ppm		93
87)	Carbazole	11.652	167	1712827	42.17	ppm		99
88)	Methyl Parathion	11.823	109	550079	42.36	ppm		84
89)	Di-n-butylphthalate	12.096	149	2144108	43.11	ppm		98
90)	Ethyl Parathion	12.299	97	395038	44.05	ppm		88
91)	Fluoranthene	12.791	202	1966839	43.14	ppm		96
93)	Benzidine	12.978	184	700661	32.52	ppm		96
94)	Pyrene	13.059	202	2027427	42.83	ppm		98
96)	Famphur	13.850	218	267868	19.10	ppm		89
97)	Butylbenzylphthalate	13.941	149	939256	43.79	ppm		87
98)	3,3'-Dichlorobenzidine	14.653	252	631112	44.97	ppm		98
99)	Benzo[a]anthracene	14.653	228	1792716	43.59	ppm		99
100)	Chrysene	14.711	228	1680511	43.32	ppm		99
101)	bis(2-Ethylhexyl)phtha...	14.797	149	1244405	44.24	ppm		99
103)	Di-n-octylphthalate	15.888	149	2012235	43.90	ppm		100
104)	Benzo[b]fluoranthene	16.412	252	1539070	46.09	ppm		98
105)	Benzo[k]fluoranthene	16.460	252	1568140	43.62	ppm		98
106)	Benzo[a]pyrene	16.958	252	1459883	44.73	ppm		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:28:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

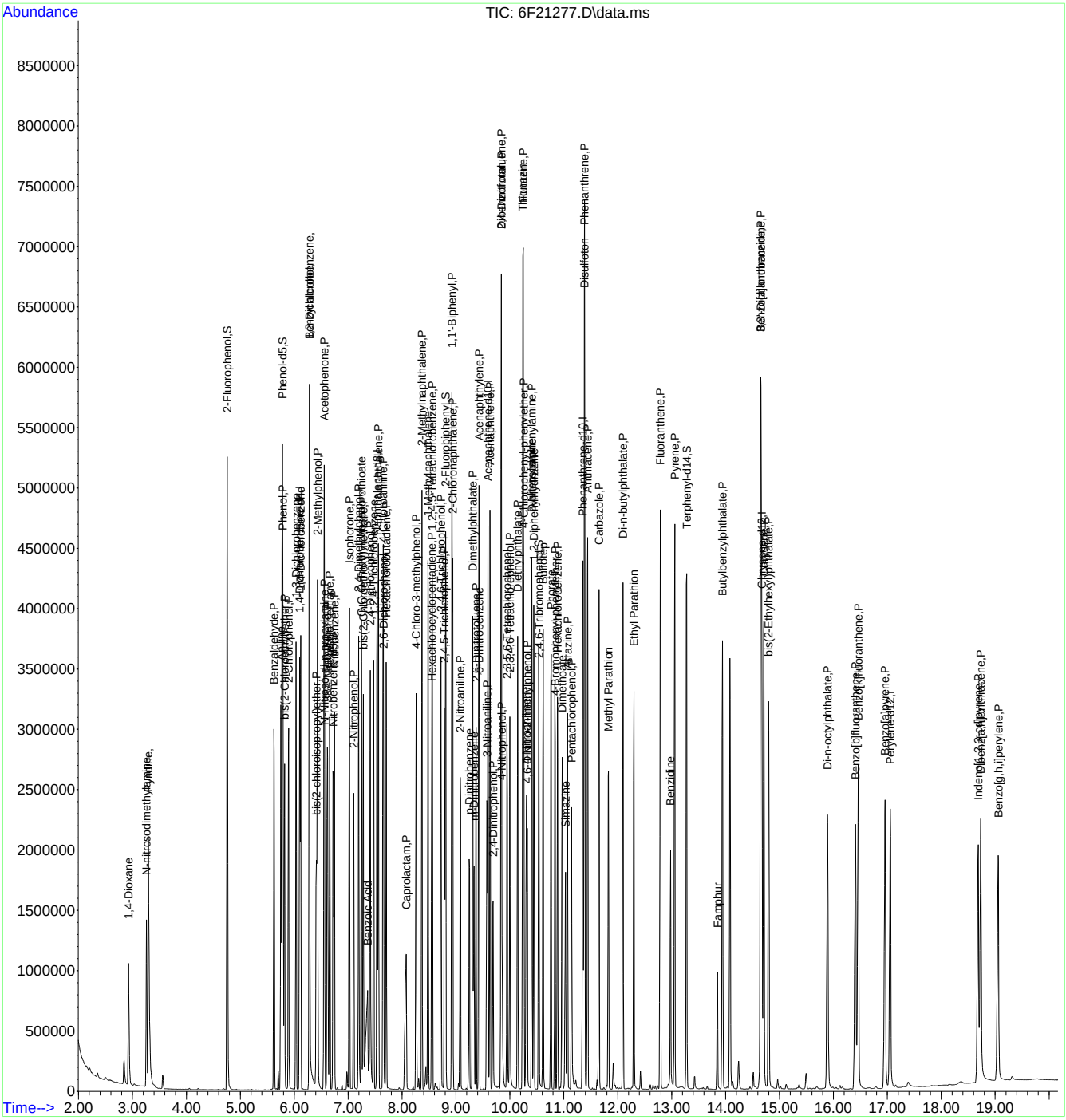
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) Indeno[1,2,3-cd]pyrene	18.685	276	1302439	45.17	ppm	98
108) Dibenz[a,h]anthracene	18.734	278	1361454	45.00	ppm	97
109) Benzo[g,h,i]perylene	19.060	276	1326254	42.51	ppm	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:28:40 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Manual Integration Approval Summary

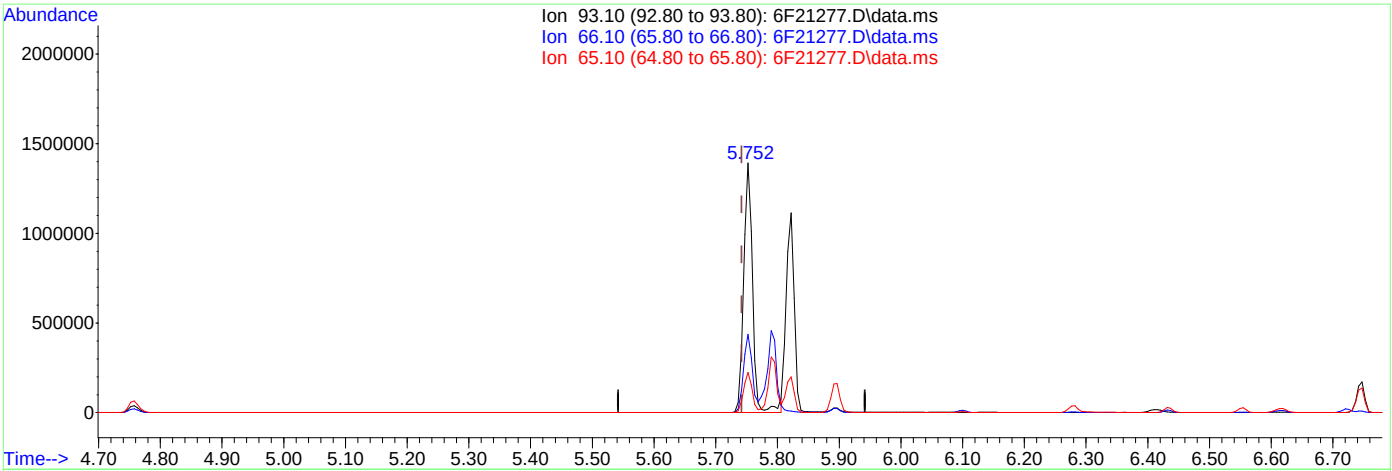
Sample Number: S6F801-CC797
Lab FileID: 6F21277.D
Injection Time: 11/08/23 10:33
Method: SW846 8270E
Analyst approved: 11/08/23 15:14 Karen Avila
Supervisor approved: 11/08/23 16:02 William Hustedde

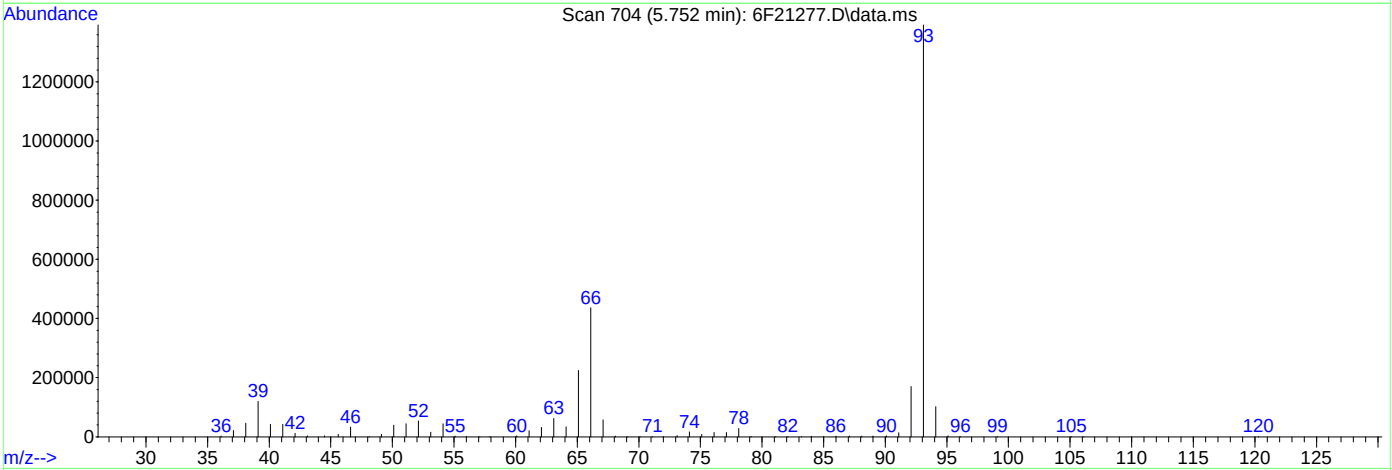
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aniline	62-53-3		5.75	Poor instrument integration
Benzoic Acid	65-85-0		7.36	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:26:07 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21277.D\data.ms

(6) Aniline ( )

5.752min (+0.010) 42.05ppm m

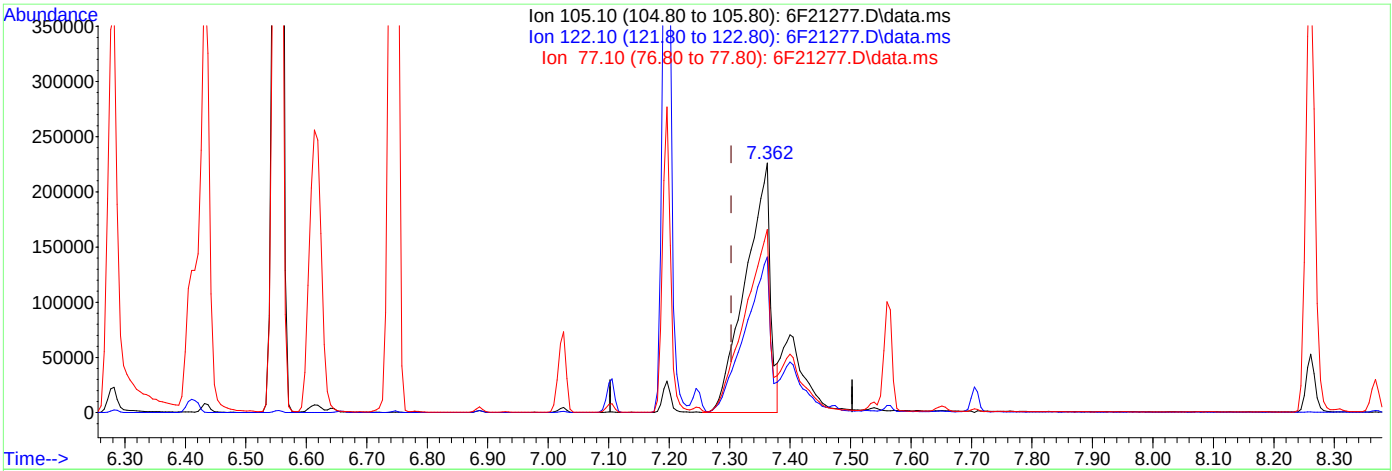
response 1405767

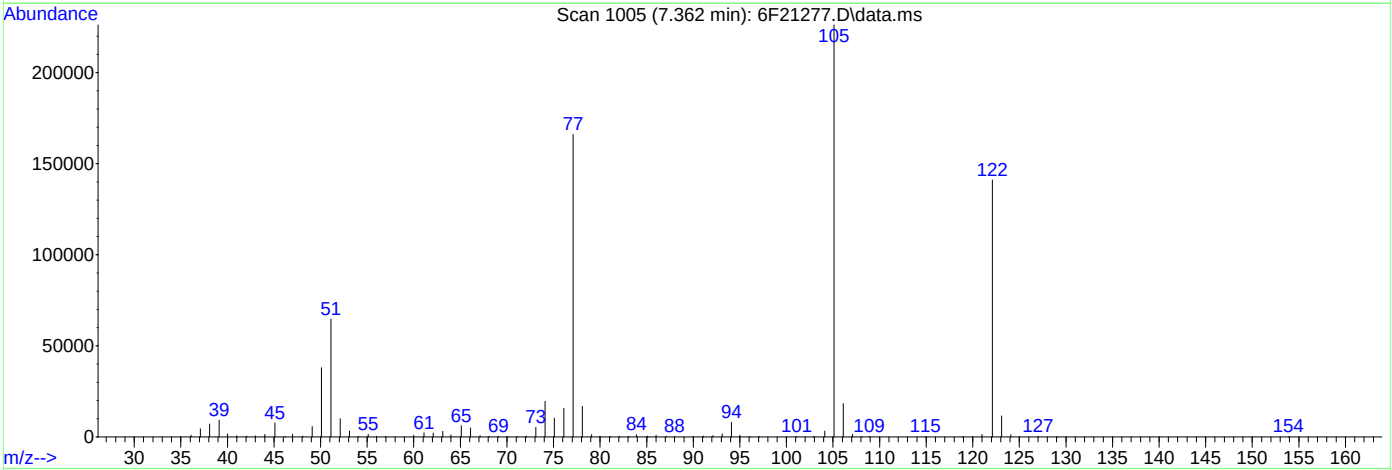
Ion	Exp%	Act%
93.10	100	100
66.10	35.50	31.36
65.10	18.10	16.08
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:26:07 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21277.D\data.ms

(30) Benzoic Acid

7.362min (+0.059) 35.73ppm

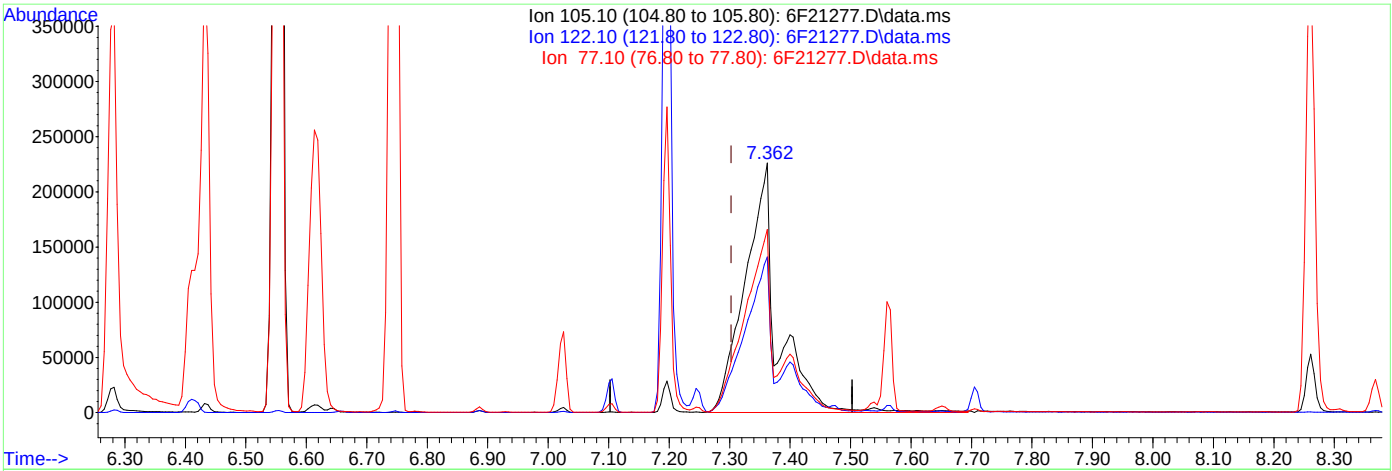
response 639702

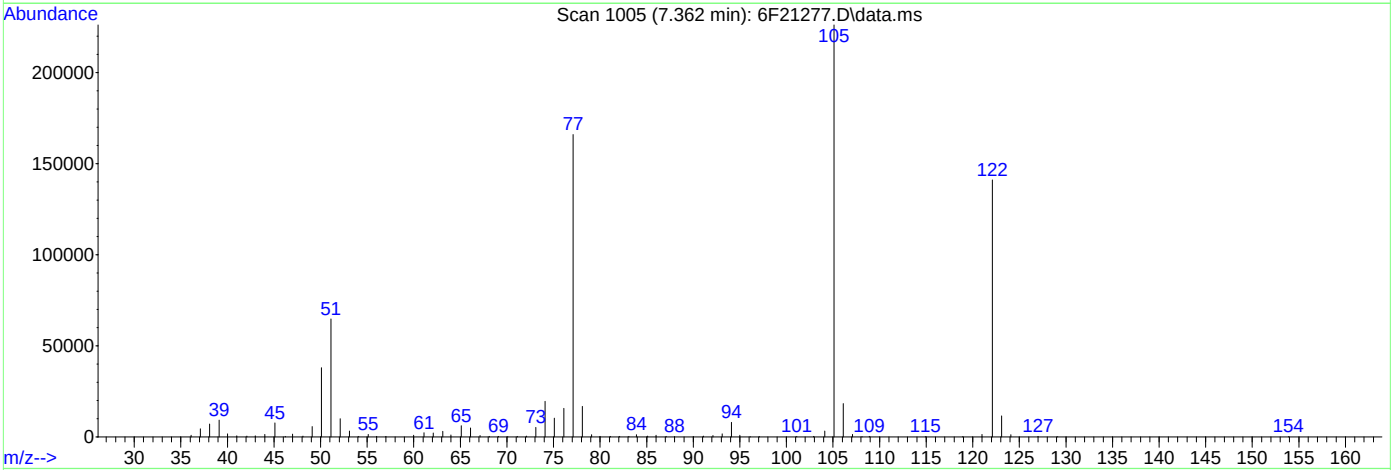
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	60.86
77.10	76.40	72.85
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:26:07 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21277.D\data.ms

(30) Benzoic Acid

7.362min (+0.059) 46.80ppm m

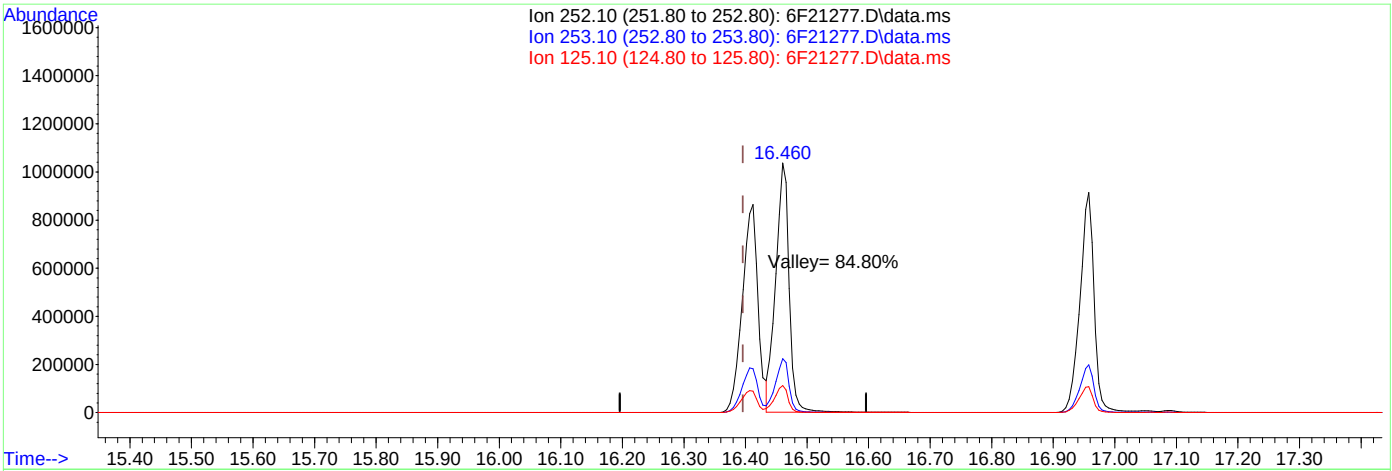
response 850713

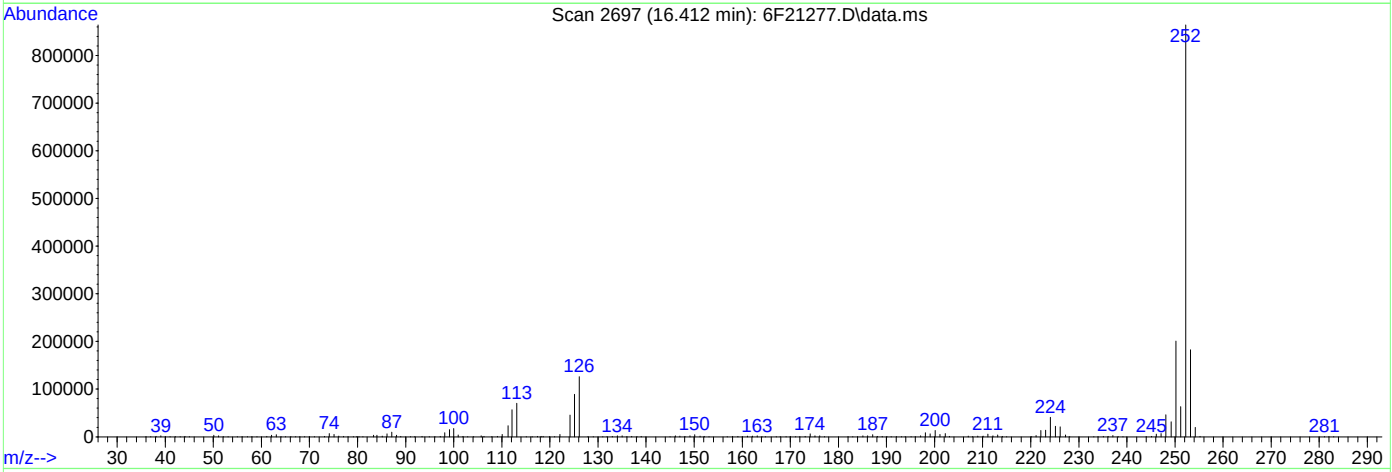
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.32
77.10	76.40	73.35
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21277.D
Acq On : 8 Nov 2023 10:33 am
Operator : karena
Sample : cc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 14:26:07 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21277.D\data.ms

(104) Benzo[b]fluoranthene (P)

16.412min (+0.016) 46.09ppm

response 1539070

Ion	Exp%	Act%
252.10	100	100
253.10	22.10	21.12
125.10	9.30	10.10
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21278.D
Acq On : 8 Nov 2023 10:59 am
Operator : karena
Sample : cc797-5
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 08 14:33:19 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dichlorobenzene-d4	6.100	152	362457	40.00	ppm	0.00
22) Naphthalene-d8	7.533	136	1360409	40.00	ppm	0.00
43) Acenaphthene-d10	9.587	164	755611	40.00	ppm	0.00
70) Phenanthrene-d10	11.347	188	1384576	40.00	ppm	0.00
92) Chrysene-d12	14.663	240	1068716	40.00	ppm	0.00
102) Perylene-d12	17.049	264	1068596	40.00	ppm	0.01
System Monitoring Compounds						
7) 2-Fluorophenol	0.000	112	0d	0.00	ppm	
Spiked Amount 100.000	Range 14 - 67		Recovery =	0.00%#		
9) Phenol-d5	5.774	99	279894	12.98	ppm	0.05
Spiked Amount 100.000	Range 10 - 50		Recovery =	12.98%		
23) Nitrobenzene-d5	0.000	82	0d	0.00	ppm	
Spiked Amount 50.000	Range 42 - 108		Recovery =	0.00%#		
47) 2-Fluorobiphenyl	0.000	172	0d	0.00	ppm	
Spiked Amount 50.000	Range 40 - 106		Recovery =	0.00%#		
75) 2,4,6-Tribromophenol	0.000	330	0d	0.00	ppm	
Spiked Amount 100.000	Range 33 - 118		Recovery =	0.00%#		
95) Terphenyl-d14	0.000	244	0d	0.00	ppm	
Spiked Amount 50.000	Range 39 - 121		Recovery =	0.00%#		
Target Compounds						Qvalue
15) Benzyl alcohol	6.271	108	66639	5.69	ppm	91
18) Acetophenone	6.544	105	138734	5.66	ppm	93
25) Isophorone	7.009	82	225687	6.27	ppm	89
35) 4-Chloroaniline	7.635	127	82229	5.71	ppm	91
77) Phorate	10.753	75	109231	5.99	ppm	94
80) Dimethoate	10.951	87	76645	5.74	ppm	91
81) Simazine	11.010	201	21968	5.96	ppm	92
86) Disulfoton	11.379	88	113770	6.18	ppm	92
93) Benzidine	12.973	184	40226	1.91	ppm	93
96) Famphur	13.845	218	42519	3.37	ppm	86

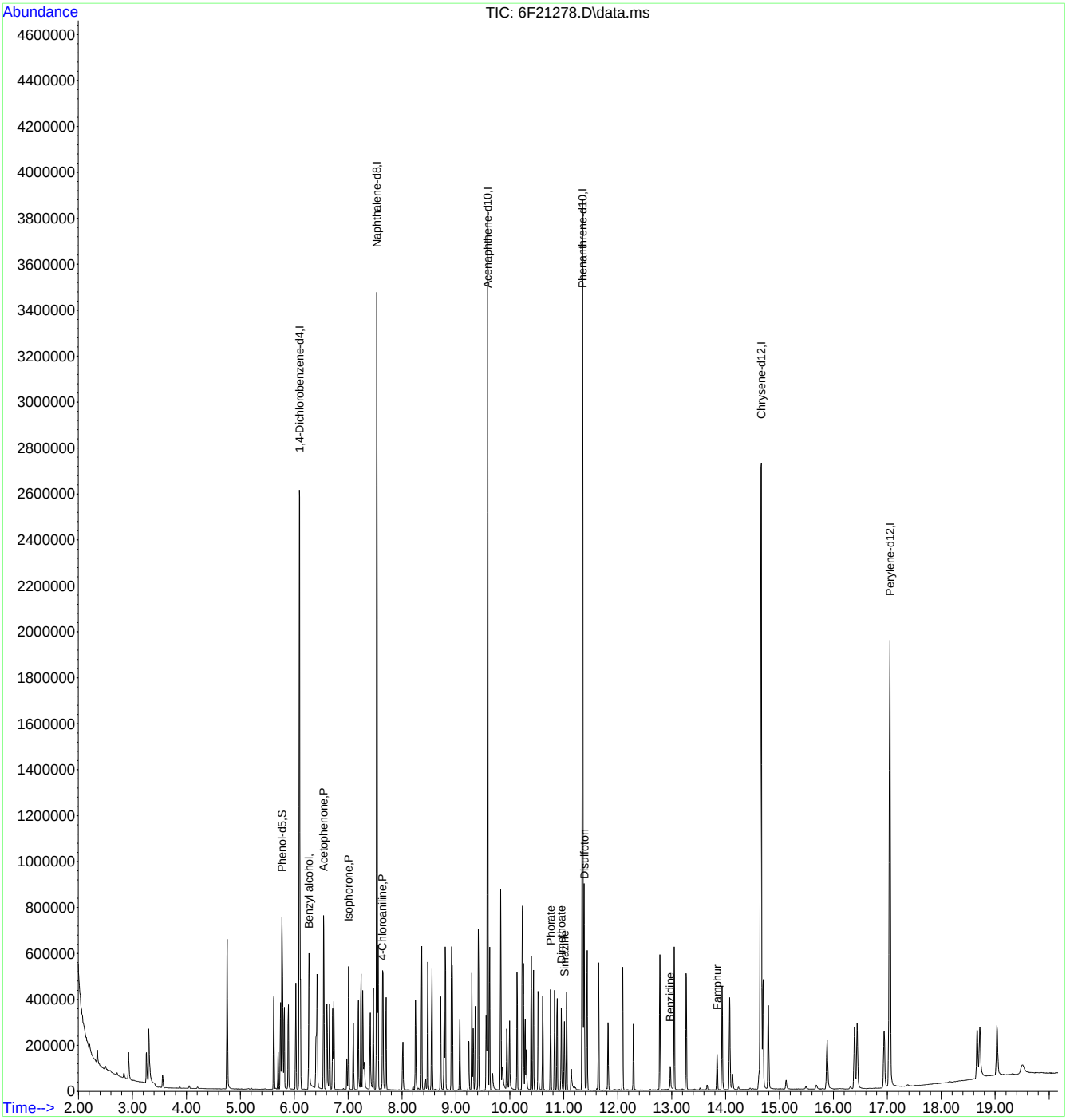
(#) = qualifier out of range (m) = manual integration (+) = signals summed

10.6.16 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21278.D
Acq On : 8 Nov 2023 10:59 am
Operator : karena
Sample : cc797-5
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 08 14:33:19 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Manual Integrations APPROVED
(compounds with "m" flag)
William Hustedde
11/08/23 16:02

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:04:29 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) 1,4-Dichlorobenzene-d4	6.100	152	369375	40.00	ppm		0.00
22) Naphthalene-d8	7.539	136	1313357	40.00	ppm		0.00
43) Acenaphthene-d10	9.592	164	686013	40.00	ppm		0.00
70) Phenanthrene-d10	11.347	188	1193349	40.00	ppm		0.00
92) Chrysene-d12	14.668	240	849533	40.00	ppm		0.00
102) Perylene-d12	17.048	264	857894	40.00	ppm		0.01
System Monitoring Compounds							
7) 2-Fluorophenol	4.763	112	1495979	91.39	ppm		0.05
Spiked Amount 100.000	Range 14 - 67		Recovery = 91.39%#				
9) Phenol-d5	5.784	99	1855723	84.44	ppm		0.06
Spiked Amount 100.000	Range 10 - 50		Recovery = 84.44%#				
23) Nitrobenzene-d5	6.720	82	894052	46.16	ppm		0.00
Spiked Amount 50.000	Range 42 - 108		Recovery = 92.32%				
47) 2-Fluorobiphenyl	8.806	172	1053104	48.37	ppm		0.00
Spiked Amount 50.000	Range 40 - 106		Recovery = 96.74%				
75) 2,4,6-Tribromophenol	10.534	330	268258	121.68	ppm		0.00
Spiked Amount 100.000	Range 33 - 118		Recovery = 121.68%#				
95) Terphenyl-d14	13.272	244	1120018	52.16	ppm		0.00
Spiked Amount 50.000	Range 39 - 121		Recovery = 104.32%				
Target Compounds							Qvalue
2) 1,4-Dioxane	2.923	88	460468	46.80	ppm		97
3) N-nitrosodimethylamine	3.254	42	372148	45.88	ppm		99
4) Pyridine	3.292	79	1099734	44.43	ppm		98
5) Benzaldehyde	5.624	106	556261	53.28	ppm		100
6) Aniline	5.752	93	1050404m	40.39	ppm		
8) bis(2-Chloroethyl)ether	5.822	93	888306	45.29	ppm		92
10) Phenol	5.795	94	1065279	45.16	ppm		97
11) 2-Chlorophenol	5.897	128	615706	45.08	ppm		94
12) 1,3-Dichlorobenzene	6.036	146	621635	45.80	ppm		90
13) 1,4-Dichlorobenzene	6.121	146	624303	46.19	ppm		91
14) 1,2-Dichlorobenzene	6.282	146	565756	44.11	ppm		89
15) Benzyl alcohol	6.282	108	480695	40.29	ppm		82
16) bis(2-chloroisopropyl)...	6.410	45	740801	46.87	ppm		98
17) 2-Methylphenol	6.437	108	686255	44.53	ppm		91
18) Acetophenone	6.554	105	1036305	41.46	ppm		93
19) Hexachloroethane	6.656	117	292680	43.79	ppm		87
20) N-Nitroso-di-n-propyla...	6.560	70	456164	44.92	ppm		91
21) 3&4-Methylphenol	6.619	108	738257	45.45	ppm		100
24) Nitrobenzene	6.742	77	821209	45.35	ppm		87
25) Isophorone	7.025	82	1488290	42.83	ppm		91
26) 2-Nitrophenol	7.105	139	296628	47.43	ppm		82
27) 2,4-Dimethylphenol	7.196	107	659864	46.09	ppm		86
28) O,O,O-Triethylphosphor...	7.244	198	280940	46.05	ppm	#	79
29) bis(2-Chloroethoxy)met...	7.277	93	892345	44.99	ppm		96
30) Benzoic Acid	7.351	105	610652m	45.17	ppm		
31) 2,4-Dichlorophenol	7.410	162	454376	48.03	ppm		91
32) 1,2,4-Trichlorobenzene	7.474	180	493869	47.54	ppm		100
34) Naphthalene	7.560	128	1561970	45.96	ppm		92
35) 4-Chloroaniline	7.646	127	510526	36.74	ppm		96
36) 2,6-Dichlorophenol	7.656	162	436504	46.28	ppm		95
37) Hexachlorobutadiene	7.704	225	291962	48.59	ppm		99
38) Caprolactam	8.068	113	232399	44.08	ppm		93
39) 4-Chloro-3-methylphenol	8.261	107	632330	44.27	ppm	#	64
40) 2-Methylnaphthalene	8.368	141	812169	45.55	ppm		93
41) 1-Methylnaphthalene	8.480	142	884540	45.01	ppm		93

10.6.17 10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:04:29 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration

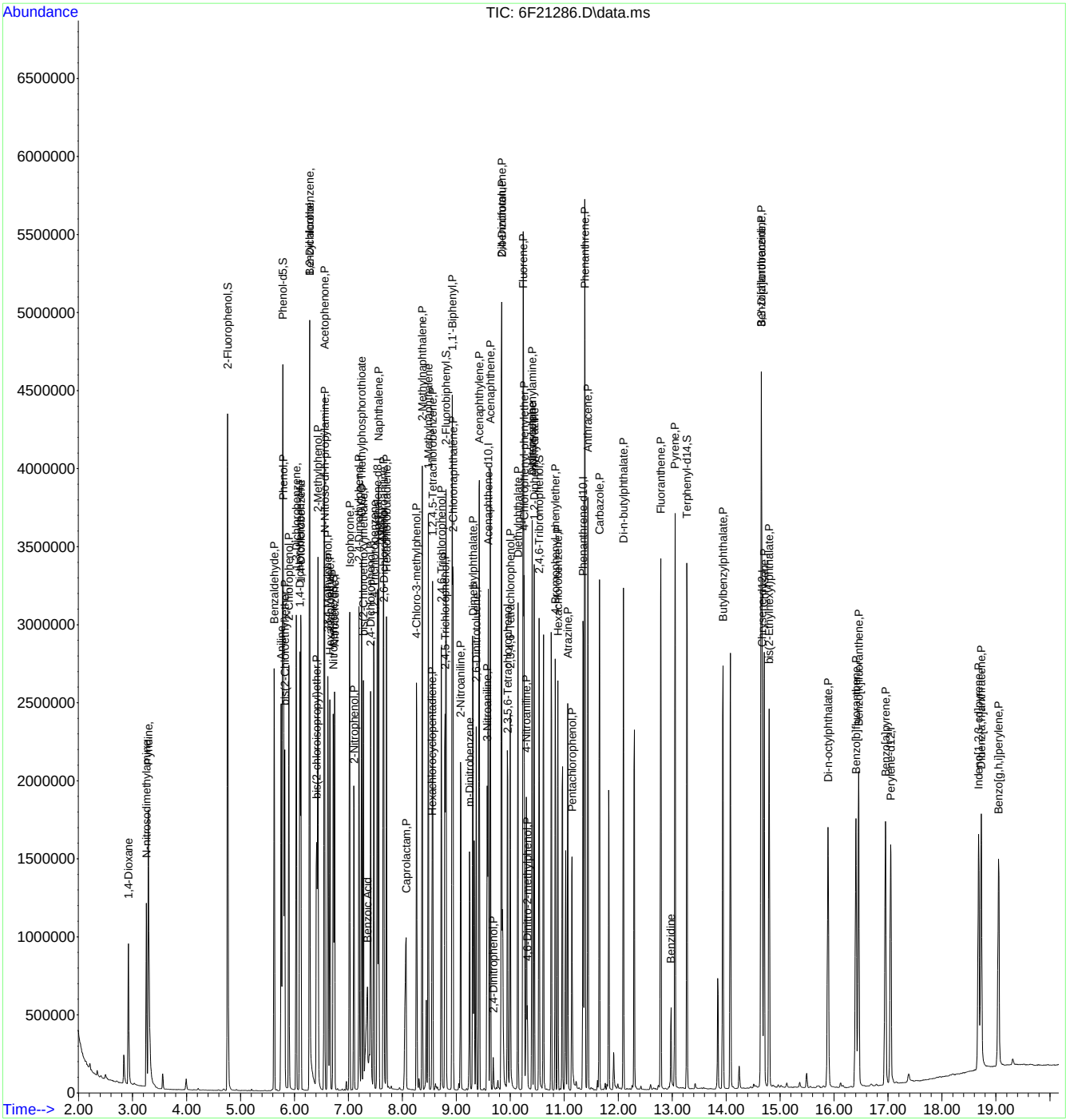
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42)	1,2,4,5-Tetrachloroben...	8.560	216	469174	46.64	ppm		99
44)	Hexachlorocyclopentadiene	8.550	237	96996	20.21	ppm		98
45)	2,4,6-Trichlorophenol	8.721	196	311766	50.21	ppm		99
46)	2,4,5-Trichlorophenol	8.790	196	324560	48.66	ppm		99
48)	1,1'-Biphenyl	8.924	154	1165510	47.80	ppm		99
49)	2-Chloronaphthalene	8.940	162	884732	48.04	ppm		99
50)	2-Nitroaniline	9.079	65	350667	47.17	ppm		81
52)	Acenaphthylene	9.421	152	1328520	47.08	ppm		100
53)	Dimethylphthalate	9.309	163	1059020	47.37	ppm		99
54)	m-Dinitrobenzene	9.245	168	160393	45.03	ppm		87
55)	2,6-Dinitrotoluene	9.368	165	241260	47.23	ppm	#	71
57)	Acenaphthene	9.630	153	889347	47.13	ppm		99
58)	3-Nitroaniline	9.571	138	252454	43.55	ppm	#	54
59)	2,4-Dinitrophenol	9.683	184	27794	9.36	ppm	#	69
60)	Dibenzofuran	9.839	168	1197013	46.30	ppm		99
61)	2,4-Dinitrotoluene	9.839	165	301528	44.89	ppm		84
63)	2,3,5,6-Tetrachlorophenol	9.951	232	248454	48.50	ppm		98
64)	2,3,4,6-Tetrachlorophenol	9.999	232	256637	48.56	ppm		98
65)	Fluorene	10.240	166	934011	45.34	ppm		99
66)	4-Chlorophenyl-phenyle...	10.256	204	497340	46.98	ppm		99
67)	Diethylphthalate	10.143	149	1029071	46.73	ppm		98
69)	4-Nitroaniline	10.299	138	262049	45.37	ppm	#	63
71)	4,6-Dinitro-2-methylph...	10.315	198	60437	14.82	ppm		89
72)	n-Nitrosodiphenylamine	10.405	169	839468	57.09	ppm		99
73)	Diphenylamine	10.405	169	839468	48.24	ppm		99
74)	1,2-Diphenylhydrazine	10.443	77	1257200	48.63	ppm		90
78)	4-Bromophenyl-phenylether	10.833	248	279072	52.61	ppm		84
79)	Hexachlorobenzene	10.882	284	281282	54.69	ppm		93
82)	Atrazine	11.063	200	305331	47.80	ppm		96
83)	Pentachlorophenol	11.144	266	166487	47.43	ppm		98
84)	Phenanthrene	11.379	178	1323977	46.09	ppm		99
85)	Anthracene	11.438	178	1404729	47.38	ppm		100
87)	Carbazole	11.652	167	1274114	46.75	ppm		99
89)	Di-n-butylphthalate	12.096	149	1608125	48.19	ppm		98
91)	Fluoranthene	12.791	202	1426427	46.63	ppm		96
93)	Benzidine	12.978	184	212876	13.70	ppm		96
94)	Pyrene	13.053	202	1467829	48.96	ppm		96
97)	Butylbenzylphthalate	13.941	149	677938	49.90	ppm		87
98)	3,3'-Dichlorobenzidine	14.652	252	416270	46.83	ppm		98
99)	Benzo[a]anthracene	14.652	228	1252286	48.07	ppm		100
100)	Chrysene	14.706	228	1177579	47.93	ppm		100
101)	bis(2-Ethylhexyl)phtha...	14.797	149	899646	50.50	ppm		99
103)	Di-n-octylphthalate	15.888	149	1443279	47.27	ppm		100
104)	Benzo[b]fluoranthene	16.407	252	1113893	50.08	ppm		98
105)	Benzo[k]fluoranthene	16.455	252	1149919	48.02	ppm		99
106)	Benzo[a]pyrene	16.952	252	1081375	49.74	ppm		98
107)	Indeno[1,2,3-cd]pyrene	18.680	276	943185	49.11	ppm		98
108)	Dibenz[a,h]anthracene	18.728	278	961849	47.73	ppm		96
109)	Benzo[g,h,i]perylene	19.049	276	921058	44.32	ppm		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:04:29 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration



Manual Integration Approval Summary

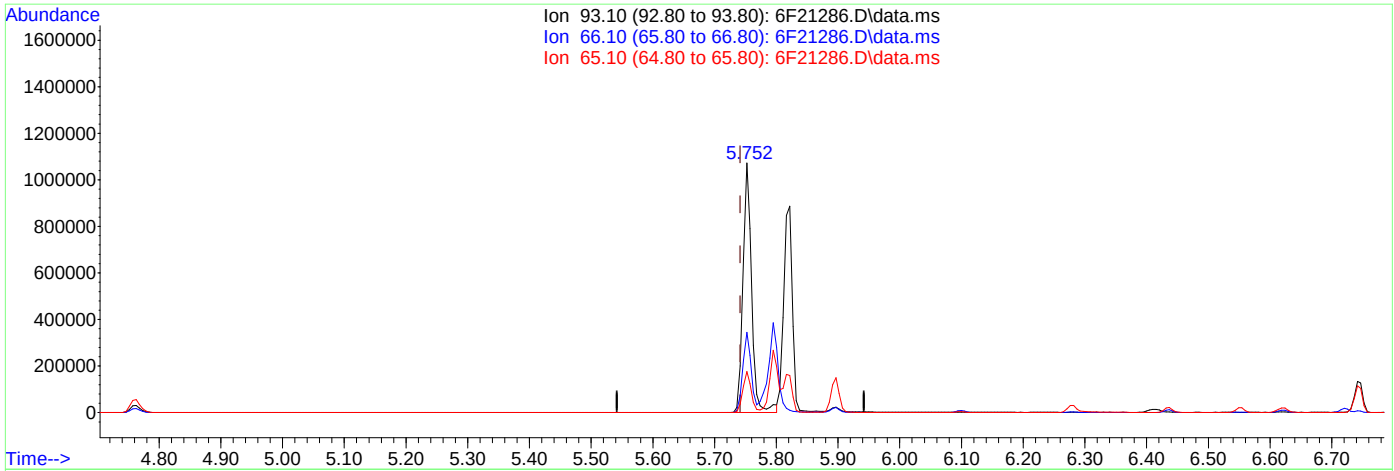
Sample Number: S6F801-ECC797
Lab FileID: 6F21286.D
Injection Time: 11/08/23 14:31
Method: SW846 8270E
Analyst approved: 11/08/23 15:14 Karen Avila
Supervisor approved: 11/08/23 16:02 William Hustedde

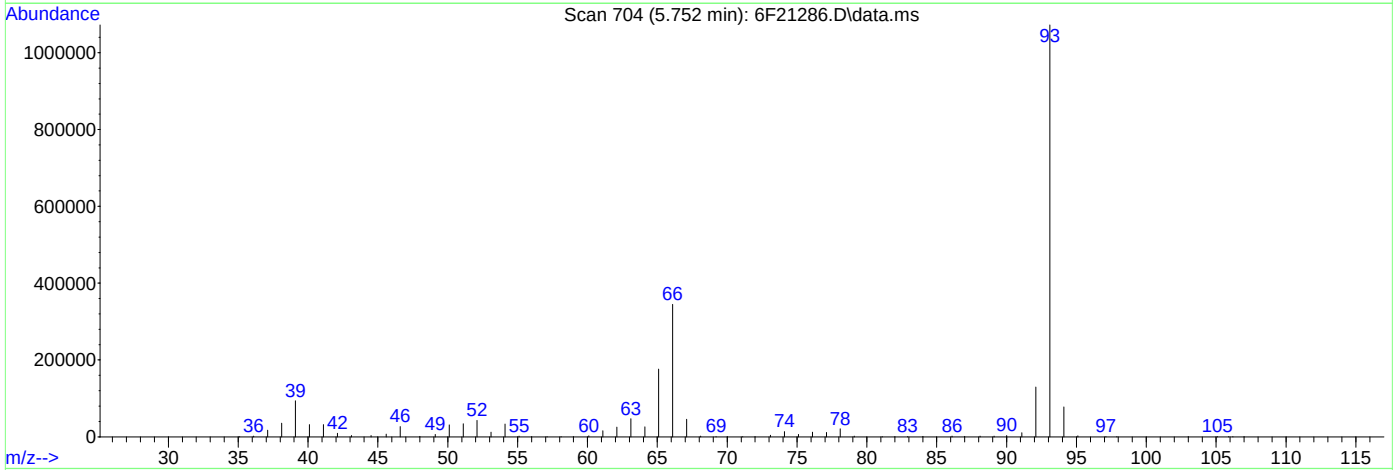
Parameter	CAS	Sig#	R.T. (min.)	Reason
Aniline	62-53-3		5.75	Poor instrument integration
Benzoic Acid	65-85-0		7.35	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:03:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21286.D\data.ms

(6) Aniline ( )

5.752min (+0.010) 40.39ppm m

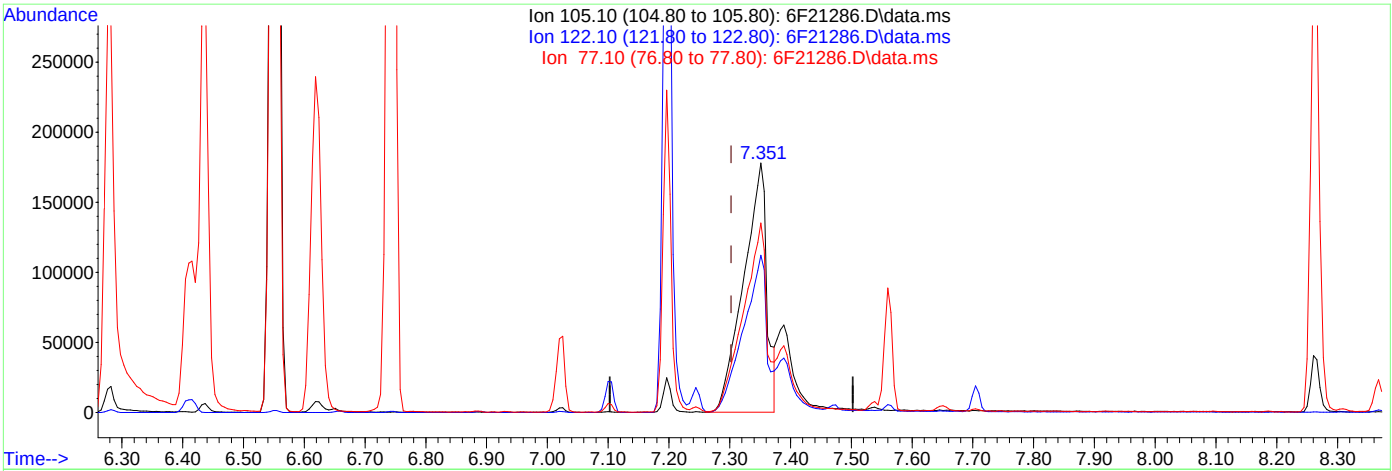
response 1050404

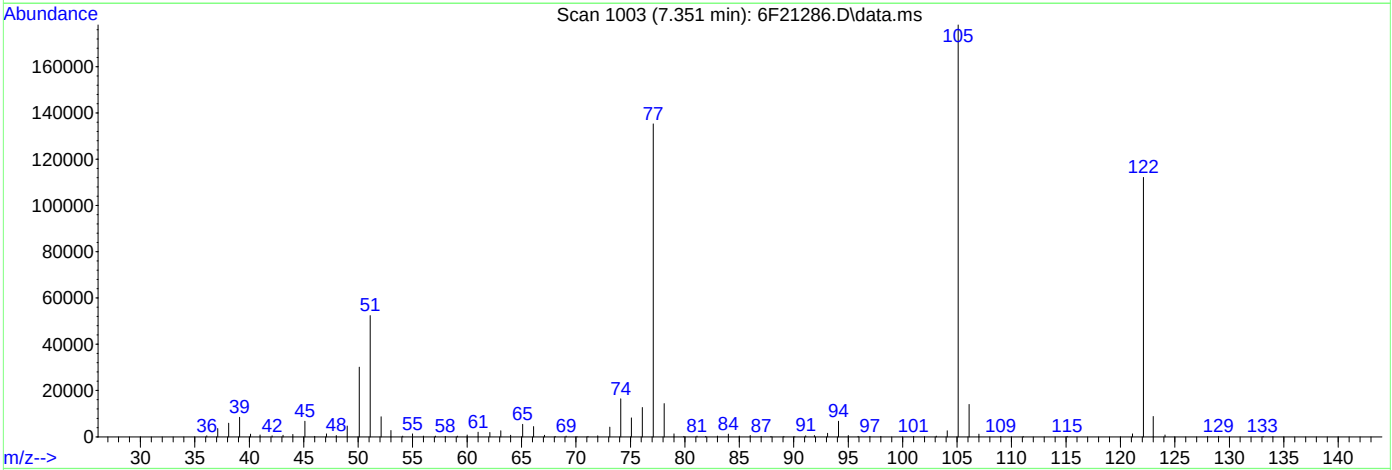
Ion	Exp%	Act%
93.10	100	100
66.10	35.50	32.18
65.10	18.10	16.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:03:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21286.D\data.ms

(30) Benzoic Acid

7.351min (+0.048) 35.39ppm

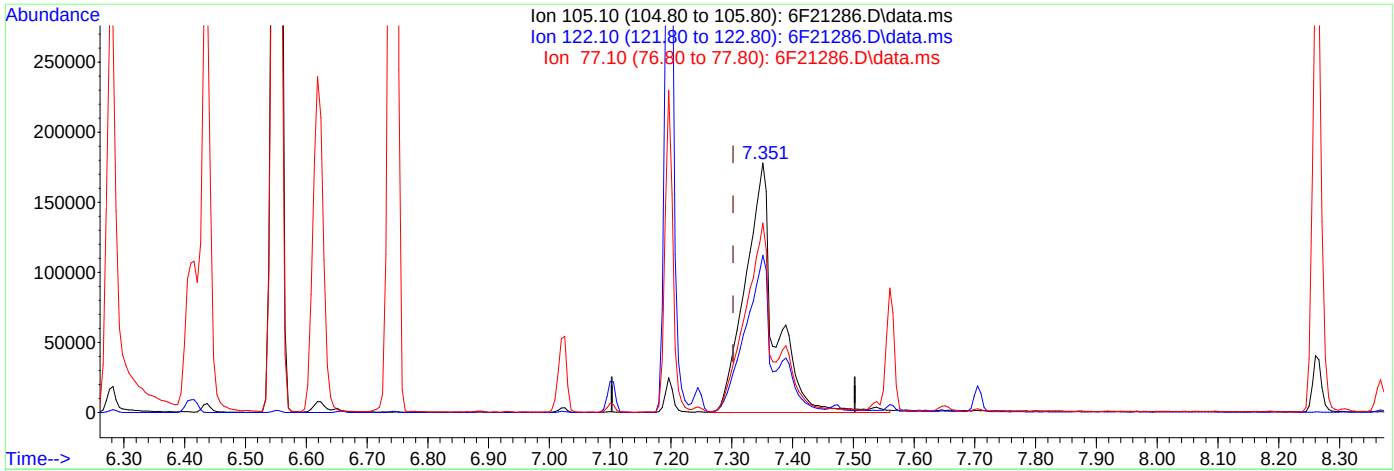
response 472012

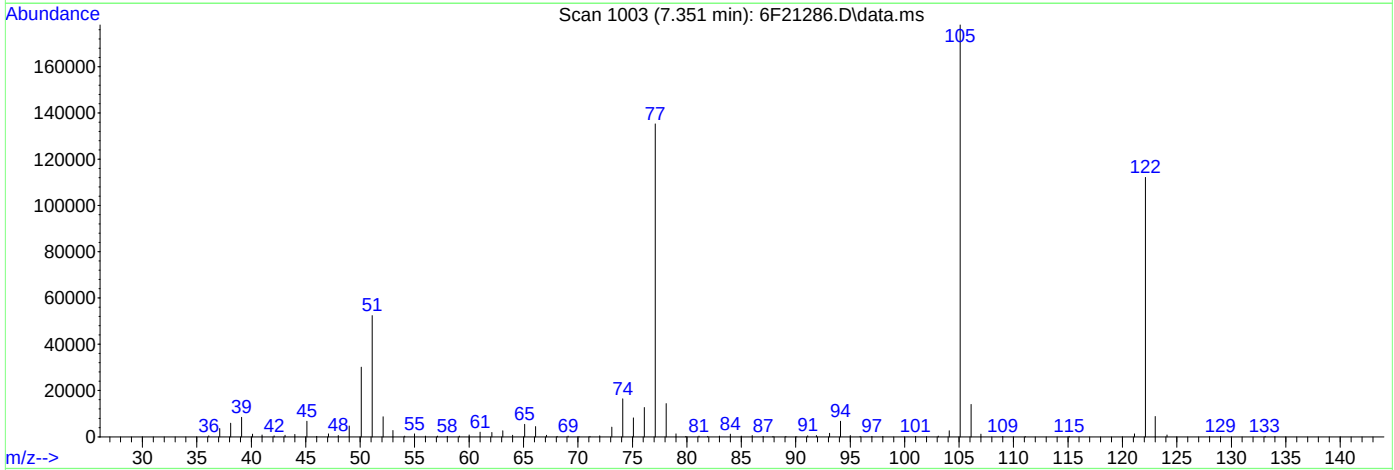
Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.64
77.10	76.40	75.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\S6F801\
Data File : 6F21286.D
Acq On : 8 Nov 2023 2:31 pm
Operator : karena
Sample : ecc797-50
Misc : op99780,S6F801,1000,,,1,1,water
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 15:03:43 2023
Quant Method : C:\msdchem\1\methods\8270D6F110223.m
Quant Title : SW846 8270D OR EPA 625
QLast Update : Thu Nov 02 16:58:16 2023
Response via : Initial Calibration





TIC: 6F21286.D\data.ms

(30) Benzoic Acid

7.351min (+0.048) 45.17ppm m

response 610652

Ion	Exp%	Act%
105.10	100	100
122.10	75.30	62.98
77.10	76.40	75.96
0.00	0.00	0.00

SGS-ORLANDO MS BNA10-6F **ANALYSIS LOG**

DATE	11/2/2023	**METHODS**	8270D	**IC/ICC STD LOT**	s7027/s6991
COLUMN TYPE	DB-5MS	**ACQ. METHOD**	ACQ_BNA2	**ICV STD LOT**	12017C
AMOUNT INJ	2	**PROC. METHOD**	8270D6F110223.M	**DFTPP**	s6992
INSTRUMENT	MSBNA10 - 6F	**CALIB. DATE**	11/2/2023	**EM VOLTAGE**	1729V
ANALYST	KA	**RUN BATCH**	S6F797	**ISTD LOT**	11996N

ICV(A) 11884F ICV(B) 11232B + 11519 + 11586I ICV(C)(OP) 11354B ICV(F) 11718A

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
6F21169	1	cs	DFTPP	1	op99780,S6F797,1000,,,1,1,water	-
6F21170	1	DFTPP	DFTPP	1	op99780,S6F797,1000,,,1,1,water	pass
6F21171	2	ic797-1	8270	2+2/400	op99780,S6F797,1000,,,1,1,water	readback failed 2,4-DNP, drop point
6F21172	3	ic797-5	8270	10+10/400	op99780,S6F797,1000,,,1,1,water	readback passed, drop 2,4-DNP for ICV
6F21173	4	ic797-10	8270	20+20/400	op99780,S6F797,1000,,,1,1,water	\
6F21174	5	ic797-25	8270	50+50/400	op99780,S6F797,1000,,,1,1,water	2,4-DNP RL
6F21175	6	icc797-50	8270	100+100/400	op99780,S6F797,1000,,,1,1,water	\
6F21176	7	ic797-60	8270	120+120/400	op99780,S6F797,1000,,,1,1,water	\
6F21177	8	ic797-75	8270	150+150/400	op99780,S6F797,1000,,,1,1,water	\
6F21178	9	ic797-100	8270	200+200/400	op99780,S6F797,1000,,,1,1,water	drop famphur
6F21179	10	icv797-50, A	8270	2x	op99780,S6F797,1000,,,1,1,water	Benzaldehyde,HCCPD-FH
6F21180	11	icv797-50, B	8270	20+20+10/400	op99780,S6F797,1000,,,1,1,water	aniline,benzidine-FH
6F21181	12	icv797-50, C	8270	10/400	op99780,S6F797,1000,,,1,1,water	famphur-FH

SGS-ORLANDO MS BNA10-6F ANALYSIS LOG

DATE	11/6/2023	METHODS	8270D	IC/ICC STD LOT	s7027/s6991
COLUMN TYPE	DB-5MS	ACQ. METHOD	ACQ_BNA2	ICV STD LOT	12017C
AMOUNT INJ	2	PROC. METHOD	8270D6F110223.M	DFTPP	s6992
INSTRUMENT	MSBNA10 - 6F	CALIB. DATE	11/2/2023	EM VOLTAGE	1729V
ANALYST	KA	RUN BATCH	S6F799	ISTD LOT	11996N

ICV(A) 11884F ICV(B) 11232B + 11519 + 11586I ICV(C)(OP) 11354B ICV(F) 11718A

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
6F21224	1	DFTPP	DFTPP	1	op99780,S6F799,1000,,,1,1,water	pass
6F21225	2	cc797-50	8270	100+100/400	op99780,S6F799,1000,,,1,1,water	pass, 15/35/93/96
6F21226	3	cc797-5	8270	10+10/400	op99780,S6F799,1000,,,1,1,water	pass, peaks present
6F21227	4	op99915-bs	8270	1	op99915,S6F799,1000,,,1,1,water	pass
6F21228	5	op99915-mb	8270	1	op99915,S6F799,1000,,,1,1,water	nd
6F21229	6	fc10838-1	8270	1	op99915,S6F799,1020,,,1,1,water	ok
6F21230	7	fc10927-1	8270	1	op99915,S6F799,1050,,,1,1,water	rr2x pyridine
6F21231	8	fc10953-2	8270	1	op99915,S6F799,1050,,,1,1,water	report, nd target compounds
6F21232	9	fc10918-1	8270	1	op99915,S6F799,1050,,,1,1,water	report, nd target compounds
6F21233	10	fc10918-2	8270	1	op99915,S6F799,1050,,,1,1,water	nd
6F21234	11	fc10918-3	8270	1	op99915,S6F799,1050,,,1,1,water	ok
6F21235	12	fc10955-1A	8270	1	op99915,S6F799,960,,,1,1,water	rr1x low surr
6F21236	13	op99915-ms	8270	1	op99915,S6F799,520,,,1,1,water	pass
6F21237	14	op99915-msd	8270	1	op99915,S6F799,520,,,1,1,water	pass
6F21238	15	op99883-bs	8270	1	op99883,S6F799,1000,,,1,1,water	pass
6F21239	16	op99883-mb	8270	1	op99883,S6F799,1000,,,1,1,water	nd
6F21240	17	fc10758-1	8270	1	op99883,S6F799,1060,,,1,1,water	rr1x doesn't match
6F21241	18	fc10693-1L	8270	1	op99896,S6F799,100,,,1,1,water	redo fail low
6F21242	19	fc10628-1L	8270	1	op99896,S6F799,100,,,1,1,water	redo fail low
6F21243	20	fcc10814-1	8270	1	op99896,S6F799,100,,,1,1,water	report, surr high, sludge
6F21244	2	ecc797-50	8270	100+100/400	op99780,S6F799,1000,,,1,1,water	pass target dod compounds, 59/71/93/96 FL

SGS-ORLANDO MS BNA10-6F **ANALYSIS LOG**

DATE	11/8/2023	**METHODS**	8270D	**IC/ICC STD LOT**	s7027/s6991
COLUMN TYPE	DB-5MS	**ACQ. METHOD**	ACQ_BNA2	**ICV STD LOT**	12017C
AMOUNT INJ	2	**PROC. METHOD**	8270D6F110223.M	**DFTPP**	s6992
INSTRUMENT	MSBNA10 - 6F	**CALIB. DATE**	11/2/2023	**EM VOLTAGE**	1729V
ANALYST	KA	**RUN BATCH**	S6F801	**ISTD LOT**	11996N

ICV(A) 11884F ICV(B) 11232B + 11519 + 11586I ICV(C)(OP) 11354B ICV(F) 11718A

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
6F21276	1	DFTPP	DFTPP	1	op99780,S6F801,1000,,,1,1,water	pass
6F21277	2	cc797-50	8270	100+100/400	op99780,S6F801,1000,,,1,1,water	pass
6F21278	3	cc797-5	8270	10+10/400	op99780,S6F801,1000,,,1,1,water	pass
6F21279	4	fc10927-1	8270	50/250	op99915,S6F801,1050,,,1,5,water	rr100x benzoic acid
6F21280	5	fc10955-1A	8270	1	op99915,S6F801,960,,,1,1,water	rr1x carryover
6F21281	6	fc10758-1	8270	1	op99883,S6F801,1060,,,1,1,water	nd, cfs
6F21282	7	fc10941-1	8270	25/250	op99938,S6F801,30.1,,,2,10,soil	report, flag for matrix
6F21283	8	fc10963-24	8270	1	op99938,S6F801,30.3,,,1,1,soil	rr1x for dod
6F21284	9	op99934-mb	8270	1	op99934,S6F801,1,,,10,1,soil	nd
6F21285	10	op99934-bs	8270	1	op99934,S6F801,1,,,10,1,soil	pass
6F21286	2	ecc797-50	8270	100+100/400	op99780,S6F801,1000,,,1,1,water	pass, 44/59/71/93 FL dod

SGS - ORLANDO

LIQUID SAMPLE PREP REPORT

Date/Time: 11/6/2023 8:07 (Started) {mm/dd/yy 24:00}
Date/Time: 11-6-23 10:00 (Finished) {mm/dd/yy 24:00}

Prep Method: 3510C ✓ 3580A ____

Analytical Method: 625

Batch#: OP99915 Ext. By: JX,VK Conc. By: QN Vialed By: *AM GT

Sample ID	Bottle Number	Amount Extracted (ml)	Initial pH	Adjusted pH	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP99915-MB	-	1000	6	<2>11	0.5		1.0ml	
OP99915-BS	-	1000	6	<2>11	0.5	0.5+0.5		
fc10838-1	17	1020						
fc10927-1	15	1050						
fc10953-2	9	1050						
fc10918-1	10	1050						
fc10918-2	9	1050						
fc10918-3	9	1050						
fc10955-1	7	960						
fc10918-2MS	10	520	6	<2>11	0.5	0.5+0.5	1.0ml	
fc10918-2MSD	10	520	1		0.5	0.5+0.5		
DUP					0.5			

QN 11-06-23

Comments: *QN 11-6-23

Surr ID: E74080 Conc: 100/200 ppm Exp. Date: 8-31-24 Inj. By: JL Ver. By: M

Spk ID: E74262 Conc: 100 ppm Exp. Date: 04-18-24 Inj. By: JL Ver. By: M

Spk ID: 12017 Conc: Various Exp. Date: 31-Jan-24 Inj. By: JL Ver. By: M

Initial Bath Temp (Therm ID): TV#14 Exchange Bath/N-Evap Temp (Therm ID): —

Observed Temp °C: 45c Observed Temp °C: — Corr. Temp °C: —

CH2CL2 Lot# 226057 Hexane Lot # X H2SO4 Lot# 421B66

Syr Filter Lot# X pH Paper # 205423 NaOH Lot # 35778

Copper Lot # X If Sulfur Cleaning is performed in Extractions (3660B)

Relinquished By: QN Date: 11-6-23

Accepted By: m c m Date: 11-6-23

625aq_rev 02232021_SH

Page 1 of 1

10.8.1 10

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- DDT/Endrin Breakdown Checks
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99916-MB	ST171215.D	1	11/10/23	EM	11/06/23	OP99916	GST4180

The QC reported here applies to the following samples: **Method:** EPA 608.3

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.025	0.0025	ug/l	
319-84-6	alpha-BHC	ND	0.025	0.0025	ug/l	
319-85-7	beta-BHC	ND	0.025	0.0029	ug/l	
319-86-8	delta-BHC	ND	0.025	0.0025	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.025	0.0025	ug/l	
12789-03-6	Chlordane	ND	0.25	0.10	ug/l	
5103-71-9	alpha-Chlordane	ND	0.025	0.0025	ug/l	
5103-74-2	gamma-Chlordane	ND	0.025	0.0027	ug/l	
60-57-1	Dieldrin	ND	0.025	0.0025	ug/l	
72-54-8	4,4'-DDD	ND	0.050	0.0050	ug/l	
72-55-9	4,4'-DDE	ND	0.050	0.0050	ug/l	
50-29-3	4,4'-DDT	ND	0.050	0.0050	ug/l	
72-20-8	Endrin	ND	0.050	0.0025	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.050	0.0025	ug/l	
7421-93-4	Endrin aldehyde	ND	0.050	0.0025	ug/l	
53494-70-5	Endrin ketone	ND	0.050	0.0025	ug/l	
959-98-8	Endosulfan-I	ND	0.025	0.0025	ug/l	
33213-65-9	Endosulfan-II	ND	0.025	0.0025	ug/l	
76-44-8	Heptachlor	ND	0.025	0.0025	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.025	0.0025	ug/l	
72-43-5	Methoxychlor	ND	0.050	0.0050	ug/l	
8001-35-2	Toxaphene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	94%	42-127%
2051-24-3	Decachlorobiphenyl	100%	27-127%

Method Blank Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99917-MB	MM85907.D	1	11/06/23	EM	11/06/23	OP99917	GMM1839

The QC reported here applies to the following samples: **Method:** EPA 608.3

FC10955-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.10	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.10	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.10	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.10	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.10	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	98%	42-127%
2051-24-3	Decachlorobiphenyl	92%	27-127%

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99916-BS	ST171213.D	1	11/10/23	EM	11/06/23	OP99916	GST4180

The QC reported here applies to the following samples: **Method:** EPA 608.3

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
309-00-2	Aldrin	0.25	0.24	96	61-126
319-84-6	alpha-BHC	0.25	0.26	104	66-129
319-85-7	beta-BHC	0.25	0.25	100	66-132
319-86-8	delta-BHC	0.25	0.24	96	41-142
58-89-9	gamma-BHC (Lindane)	0.25	0.26	104	68-132
5103-71-9	alpha-Chlordane	0.25	0.25	100	66-131
5103-74-2	gamma-Chlordane	0.25	0.26	104	68-128
60-57-1	Dieldrin	0.25	0.24	96	66-138
72-54-8	4,4'-DDD	0.25	0.23	92	63-138
72-55-9	4,4'-DDE	0.25	0.23	92	59-133
50-29-3	4,4'-DDT	0.25	0.27	108	55-145
72-20-8	Endrin	0.25	0.23	92	71-147
1031-07-8	Endosulfan sulfate	0.25	0.23	92	64-128
7421-93-4	Endrin aldehyde	0.25	0.22	88	60-130
53494-70-5	Endrin ketone	0.25	0.25	100	66-137
959-98-8	Endosulfan-I	0.25	0.26	104	66-133
33213-65-9	Endosulfan-II	0.25	0.23	92	65-133
76-44-8	Heptachlor	0.25	0.25	100	63-130
1024-57-3	Heptachlor epoxide	0.25	0.24	96	67-129
72-43-5	Methoxychlor	0.25	0.29	116	60-136

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	98%	42-127%
2051-24-3	Decachlorobiphenyl	106%	27-127%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99916-BS2	ST171214.D	1	11/10/23	EM	11/06/23	OP99916	GST4180

The QC reported here applies to the following samples: **Method:** EPA 608.3

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12789-03-6	Chlordane	1.25	1.1	88	57-151
8001-35-2	Toxaphene	2.5	2.7	108	57-151

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	88%	42-127%
2051-24-3	Decachlorobiphenyl	98%	27-127%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99917-BS	MM85906.D	1	11/06/23	EM	11/06/23	OP99917	GMM1839

The QC reported here applies to the following samples: **Method:** EPA 608.3

FC10955-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	1.9	95	57-122
11096-82-5	Aroclor 1260	2	1.8	90	45-130

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	86%	42-127%
2051-24-3	Decachlorobiphenyl	87%	27-127%

* = Outside of Control Limits.

DDT/Endrin Breakdown Check

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-DDT
Lab File ID: ST170836.D
Instrument ID: GCST
Injection Date: 10/31/23
Injection Time: 09:28

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	147585	24233
4,4'-DDE	265362	54670
4,4'-DDT	4652049	1361105
DDT Breakdown [a]	8.2 %	5.5 %
Endrin aldehyde	69485	6274
Endrin ketone	17613	5142
Endrin	7700255	1834039
Endrin Breakdown [b]	1.1 %	0.6 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GST4174-IC4174	ST170837.D	10/31/23	09:42	00:14	Initial cal 2
GST4174-IC4174	ST170838.D	10/31/23	09:57	00:29	Initial cal 5
GST4174-IC4174	ST170839.D	10/31/23	10:12	00:44	Initial cal 20
GST4174-ICC4174	ST170840.D	10/31/23	10:27	00:59	Initial cal 40
GST4174-IC4174	ST170841.D	10/31/23	10:42	01:14	Initial cal 60
GST4174-IC4174	ST170842.D	10/31/23	10:57	01:29	Initial cal 80
GST4174-IC4174	ST170843.D	10/31/23	11:12	01:44	Initial cal 120
GST4174-ICV4174	ST170844.D	10/31/23	11:26	01:58	Initial cal verification 20
GST4174-IC4174	ST170846.D	10/31/23	11:56	02:28	Initial cal 100
GST4174-IC4174	ST170847.D	10/31/23	12:11	02:43	Initial cal 200
GST4174-IC4174	ST170848.D	10/31/23	12:26	02:58	Initial cal 500
GST4174-IC4174	ST170849.D	10/31/23	12:41	03:13	Initial cal 750
GST4174-IC4174	ST170850.D	10/31/23	12:56	03:28	Initial cal 1000
GST4174-IC4174	ST170851.D	10/31/23	13:11	03:43	Initial cal 2000
GST4174-ICV4174	ST170852.D	10/31/23	13:26	03:58	Initial cal verification 500
GST4174-IC4174	ST170853.D	10/31/23	13:41	04:13	Initial cal 20
GST4174-IC4174	ST170854.D	10/31/23	13:56	04:28	Initial cal 50
GST4174-IC4174	ST170855.D	10/31/23	14:10	04:42	Initial cal 200
GST4174-IC4174	ST170856.D	10/31/23	14:25	04:57	Initial cal 400
GST4174-IC4174	ST170857.D	10/31/23	14:40	05:12	Initial cal 600
GST4174-IC4174	ST170858.D	10/31/23	14:55	05:27	Initial cal 1000
GST4174-ICV4174	ST170859.D	10/31/23	15:10	05:42	Initial cal verification 200

DDT/Endrin Breakdown Check

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	GST4180-DDT	**Injection Date:**	11/10/23
Lab File ID:	ST171209.D	**Injection Time:**	14:49
Instrument ID:	GCST		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	68284	18659
4,4'-DDE	324264	60995
4,4'-DDT	4871933	1398686
DDT Breakdown [a]	7.5 %	5.4 %
Endrin aldehyde	106457	28482
Endrin ketone	117742	19482
Endrin	7568880	1884579
Endrin Breakdown [b]	2.9 %	2.5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GST4180-CC4174	ST171210.D	11/10/23	15:04	00:15	Continuing cal 40
GST4180-CC4174	ST171211.D	11/10/23	15:19	00:30	Continuing cal 200
GST4180-CC4174	ST171212.D	11/10/23	15:33	00:44	Continuing cal 500
OP99916-BS	ST171213.D	11/10/23	15:48	00:59	Blank Spike
OP99916-BS2	ST171214.D	11/10/23	16:03	01:14	Blank Spike
OP99916-MB	ST171215.D	11/10/23	16:18	01:29	Method Blank
ZZZZZZ	ST171216.D	11/10/23	16:33	01:44	(unrelated sample)
ZZZZZZ	ST171217.D	11/10/23	16:48	01:59	(unrelated sample)
ZZZZZZ	ST171219.D	11/10/23	17:18	02:29	(unrelated sample)
GST4180-CC4174	ST171222.D	11/10/23	18:02	03:13	Continuing cal 40
GST4180-CC4174	ST171223.D	11/10/23	18:17	03:28	Continuing cal 200
GST4180-CC4174	ST171224.D	11/10/23	18:32	03:43	Continuing cal 500
ZZZZZZ	ST171229.D	11/10/23	19:46	04:57	(unrelated sample)
ZZZZZZ	ST171230.D	11/10/23	20:01	05:12	(unrelated sample)
ZZZZZZ	ST171231.D	11/10/23	20:16	05:27	(unrelated sample)
ZZZZZZ	ST171232.D	11/10/23	20:31	05:42	(unrelated sample)
GST4180-CC4174	ST171233.D	11/10/23	20:46	05:57	Continuing cal 40
ZZZZZZ	ST171234.D	11/10/23	21:01	06:12	(unrelated sample)
ZZZZZZ	ST171235.D	11/10/23	21:16	06:27	(unrelated sample)
ZZZZZZ	ST171236.D	11/10/23	21:30	06:41	(unrelated sample)
ZZZZZZ	ST171237.D	11/10/23	21:45	06:56	(unrelated sample)
ZZZZZZ	ST171238.D	11/10/23	22:00	07:11	(unrelated sample)
GST4180-CC4174	ST171239.D	11/10/23	22:15	07:26	Continuing cal 40
OP11-BS	ST171240.D	11/10/23	22:30	07:41	Blank Spike

DDT/Endrin Breakdown Check

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	GST4180-DDT	**Injection Date:**	11/10/23
Lab File ID:	ST171209.D	**Injection Time:**	14:49
Instrument ID:	GCST		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
OP11-BS2	ST171241.D	11/10/23	22:45	07:56	Blank Spike
OP11-MB	ST171242.D	11/10/23	23:00	08:11	Method Blank
OP11-MS	ST171243.D	11/10/23	23:14	08:25	Matrix Spike
OP11-MSD	ST171244.D	11/10/23	23:29	08:40	Matrix Spike Duplicate
ZZZZZZ	ST171245.D	11/10/23	23:44	08:55	(unrelated sample)
LA95227-1	ST171246.D	11/10/23	23:59	09:10	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171247.D	11/11/23	00:14	09:25	(unrelated sample)
ZZZZZZ	ST171248.D	11/11/23	00:29	09:40	(unrelated sample)
ZZZZZZ	ST171249.D	11/11/23	00:44	09:55	(unrelated sample)
GST4180-CC4174	ST171250.D	11/11/23	00:58	10:09	Continuing cal 40
ZZZZZZ	ST171251.D	11/11/23	01:13	10:24	(unrelated sample)
ZZZZZZ	ST171252.D	11/11/23	01:28	10:39	(unrelated sample)
ZZZZZZ	ST171253.D	11/11/23	01:43	10:54	(unrelated sample)
GST4180-ECC4174	ST171254.D	11/11/23	01:58	11:09	Ending cal 40

DDT/Endrin Breakdown Check

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	GST4185-DDT	**Injection Date:**	11/21/23
Lab File ID:	ST171457.D	**Injection Time:**	10:30
Instrument ID:	GCST		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	102731	23280
4,4'-DDE	244445	50107
4,4'-DDT	5482373	1350388
DDT Breakdown [a]	6 %	5.2 %
Endrin aldehyde	44029	5023
Endrin ketone	28825	5415
Endrin	7165020	1688367
Endrin Breakdown [b]	1 %	0.6 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GST4185-CC4174	ST171458.D	11/21/23	10:45	00:15	Continuing cal 40
GST4185-CC4174	ST171459.D	11/21/23	10:59	00:29	Continuing cal 200
GST4185-CC4174	ST171460.D	11/21/23	11:14	00:44	Continuing cal 500
ZZZZZZ	ST171461.D	11/21/23	11:29	00:59	(unrelated sample)
ZZZZZZ	ST171462.D	11/21/23	11:44	01:14	(unrelated sample)
FC10955-1A	ST171463.D	11/21/23	11:59	01:29	EFFLUENT
ZZZZZZ	ST171464.D	11/21/23	12:13	01:43	(unrelated sample)
ZZZZZZ	ST171465.D	11/21/23	12:28	01:58	(unrelated sample)
GST4185-CC4174	ST171466.D	11/21/23	12:43	02:13	Continuing cal 40
GST4185-CC4174	ST171467.D	11/21/23	12:58	02:28	Continuing cal 200
GST4185-CC4174	ST171468.D	11/21/23	13:13	02:43	Continuing cal 500
OP45-MB	ST171469.D	11/21/23	13:28	02:58	Method Blank
FC10972-1	ST171470.D	11/21/23	13:42	03:12	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171471.D	11/21/23	13:57	03:27	(unrelated sample)
ZZZZZZ	ST171472.D	11/21/23	14:12	03:42	(unrelated sample)
ZZZZZZ	ST171473.D	11/21/23	14:27	03:57	(unrelated sample)
ZZZZZZ	ST171474.D	11/21/23	14:42	04:12	(unrelated sample)
ZZZZZZ	ST171475.D	11/21/23	14:56	04:26	(unrelated sample)
ZZZZZZ	ST171476.D	11/21/23	15:11	04:41	(unrelated sample)
ZZZZZZ	ST171477.D	11/21/23	15:26	04:56	(unrelated sample)
ZZZZZZ	ST171478.D	11/21/23	15:41	05:11	(unrelated sample)
GST4185-CC4174	ST171479.D	11/21/23	15:56	05:26	Continuing cal 40
ZZZZZZ	ST171480.D	11/21/23	16:11	05:41	(unrelated sample)
OP48-MB	ST171481.D	11/21/23	16:25	05:55	Method Blank

DDT/Endrin Breakdown Check

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample:	GST4185-DDT	**Injection Date:**	11/21/23
Lab File ID:	ST171457.D	**Injection Time:**	10:30
Instrument ID:	GCST		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC10972-14	ST171482.D	11/21/23	16:40	06:10	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171483.D	11/21/23	16:55	06:25	(unrelated sample)
ZZZZZZ	ST171484.D	11/21/23	17:10	06:40	(unrelated sample)
ZZZZZZ	ST171485.D	11/21/23	17:25	06:55	(unrelated sample)
ZZZZZZ	ST171487.D	11/21/23	17:54	07:24	(unrelated sample)
ZZZZZZ	ST171488.D	11/21/23	18:09	07:39	(unrelated sample)
ZZZZZZ	ST171489.D	11/21/23	18:24	07:54	(unrelated sample)
GST4185-CC4174	ST171490.D	11/21/23	18:39	08:09	Continuing cal 40
ZZZZZZ	ST171491.D	11/21/23	18:54	08:24	(unrelated sample)
ZZZZZZ	ST171492.D	11/21/23	19:09	08:39	(unrelated sample)
ZZZZZZ	ST171493.D	11/21/23	19:23	08:53	(unrelated sample)
ZZZZZZ	ST171494.D	11/21/23	19:38	09:08	(unrelated sample)
ZZZZZZ	ST171495.D	11/21/23	19:53	09:23	(unrelated sample)
ZZZZZZ	ST171496.D	11/21/23	20:08	09:38	(unrelated sample)
GST4185-CC4174	ST171497.D	11/21/23	20:23	09:53	Continuing cal 40
GST4185-CC4174	ST171498.D	11/21/23	20:37	10:07	Continuing cal 200
GST4185-CC4174	ST171499.D	11/21/23	20:52	10:22	Continuing cal 500

Surrogate Recovery Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Method: EPA 608.3 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
FC10955-1A	ST171463.D	89	42
FC10955-1A	MM85915.D	96	36
OP99916-BS	ST171213.D	98	106
OP99916-BS2	ST171214.D	88	98
OP99916-MB	ST171215.D	94	100
OP99917-BS	MM85906.D	86	87
OP99917-MB	MM85907.D	98	92

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	42-127%
S2 = Decachlorobiphenyl	27-127%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	GST4180-CC4174	**Injection Date:**	11/10/23
Lab File ID:	ST171210.D	**Injection Time:**	15:04
Instrument ID:	GCST	**Method:**	EPA 608.3

	S1 [a] RT	S2 [a] RT
Check Std	3.45	7.41

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP99916-BS	ST171213.D	11/10/23	15:48	3.45	7.41
OP99916-BS2	ST171214.D	11/10/23	16:03	3.45	7.41
OP99916-MB	ST171215.D	11/10/23	16:18	3.45	7.41
ZZZZZZ	ST171216.D	11/10/23	16:33	3.45	7.41
ZZZZZZ	ST171217.D	11/10/23	16:48	3.45	7.41
ZZZZZZ	ST171219.D	11/10/23	17:18	3.45	7.41

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	GST4185-CC4174	**Injection Date:**	11/21/23
Lab File ID:	ST171458.D	**Injection Time:**	10:45
Instrument ID:	GCST	**Method:**	EPA 608.3

	S1 [a] RT	S2 [a] RT
Check Std	3.43	7.39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
ZZZZZZ	ST171461.D	11/21/23	11:29	0.00	0.00
ZZZZZZ	ST171462.D	11/21/23	11:44	3.43	7.39
FC10955-1A	ST171463.D	11/21/23	11:59	3.43	7.39
ZZZZZZ	ST171464.D	11/21/23	12:13	3.43	7.39
ZZZZZZ	ST171465.D	11/21/23	12:28	3.43	7.39

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Check Std:	GMM1839-CC1833	**Injection Date:**	11/06/23
Lab File ID:	MM85901.D	**Injection Time:**	16:15
Instrument ID:	GCMM	**Method:**	EPA 608.3

	S1 [a] RT	S2 [a] RT
Check Std	3.51	7.30

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP99917-BS	MM85906.D	11/06/23	17:14	3.51	7.30
OP99917-MB	MM85907.D	11/06/23	17:25	3.51	7.30
ZZZZZZ	MM85908.D	11/06/23	17:37	3.51	7.30
ZZZZZZ	MM85909.D	11/06/23	17:48	3.51	7.30
ZZZZZZ	MM85910.D	11/06/23	18:00	3.51	7.30
ZZZZZZ	MM85911.D	11/06/23	18:12	0.00	0.00
ZZZZZZ	MM85912.D	11/06/23	18:23	3.51	7.30
ZZZZZZ	MM85913.D	11/06/23	18:35	3.51	7.30
ZZZZZZ	MM85914.D	11/06/23	18:47	3.51	7.30
FC10955-1A	MM85915.D	11/06/23	18:58	3.51	7.30

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICC1833
Lab FileID: MM85660.D

Response Factor Report ECD 9

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Calibration Files
20 =MM85685.D 50 =MM85686.D 200 =MM85687.D 400 =MM85688.D
600 =MM85689.D 1000 =MM85690.D

		Compound	20	50	200	400	600	1000	Avg		%RSD
1)	S	Tetrachloro-m-xylen	5.684	5.199	5.051	5.051	4.608	4.522	5.019	E6	8.42
2)	L1	AR1016-A	1.011	0.866	0.803	0.801	0.736	0.732	0.825	E5	12.58
3)	L1	AR1016-B	1.380	1.171	1.082	1.031	0.996	0.968	1.104	E5	13.82
4)	L1	AR1016-C	1.238	1.067	1.014	1.022	0.957	0.941	1.040	E5	10.32
5)	L1	AR1016-D	2.539	2.249	2.104	2.244	2.233	2.135	2.251	E5	6.83
6)	L1	AR1016-E	1.178	1.051	0.997	1.034	1.022	0.989	1.045	E5	6.60
7)	L1	AR1016-F	1.081	0.931	0.880	0.898	0.858	0.859	0.918	E5	9.19
8)	L2	AR1221-A	4.704	3.770	3.170	2.942	2.775	2.683	3.341	E4	23.12
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9982									
		Response Ratio = 0.00000 + 28377.73328 *A									
9)	L2	AR1221-B	1.432	1.228	1.072	0.967	0.923	0.879	1.083	E4	19.51
10)	L2	AR1221-C	5.611	4.753	4.566	4.509	4.348	4.359	4.691	E4	10.12
11)	L2	AR1221-D	4.274	3.456	3.234	3.245	3.123	3.049	3.397	E4	13.28
12)	L2	AR1221-E	1.481	1.275	1.196	1.159	1.122	1.078	1.218	E5	11.91
13)	L3	AR1232-A	1.103	0.940	0.879	0.857	0.817	0.792	0.898	E5	12.55
14)	L3	AR1232-B	6.610	5.554	5.125	5.017	4.726	4.584	5.269	E4	14.02
15)	L3	AR1232-C	6.164	5.154	4.780	4.754	4.629	4.501	4.997	E4	12.25
16)	L3	AR1232-D	1.186	1.000	1.036	1.033	0.993	0.989	1.040	E5	7.18
17)	L3	AR1232-E	5.524	4.789	4.706	4.744	4.555	4.466	4.797	E4	7.84
18)	L3	AR1232-F	4.908	4.197	3.928	3.942	3.862	3.752	4.098	E4	10.32
19)	L4	AR1242-A	8.667	7.109	6.636	6.462	6.282	6.094	6.875	E4	13.73
20)	L4	AR1242-B	1.216	0.953	0.914	0.879	0.860	0.843	0.944	E5	14.69
21)	L4	AR1242-C	1.107	0.890	0.854	0.840	0.837	0.793	0.887	E5	12.67
22)	L4	AR1242-D	2.170	1.849	1.840	1.832	1.803	1.767	1.877	E5	7.83
23)	L4	AR1242-E	1.037	0.836	0.853	0.837	0.829	0.840	0.872	E5	9.31
24)	L4	AR1242-F	9.251	7.720	7.342	7.370	7.431	7.309	7.737	E4	9.77
25)	L5	AR1248-A	1.396	1.157	1.078	1.079	1.051	1.061	1.137	E5	11.62
26)	L5	AR1248-B	1.540	1.321	1.205	1.260	1.228	1.235	1.298	E5	9.63
27)	L5	AR1248-C	1.201	1.011	0.976	1.003	0.977	0.990	1.026	E5	8.45
28)	L5	AR1248-D	1.787	1.503	1.399	1.482	1.449	1.452	1.512	E5	9.22
29)	L5	AR1248-E	1.428	1.205	1.130	1.148	1.137	1.160	1.201	E5	9.49
30)	L5	AR1248-F	8.728	7.296	7.007	7.303	7.087	7.132	7.426	E4	8.73
31)	L6	AR1254-A	1.669	1.393	1.350	1.361	1.327	1.364	1.411	E5	9.10
32)	L6	AR1254-B	2.211	1.814	1.791	1.799	1.742	1.769	1.854	E5	9.51
33)	L6	AR1254-C	2.597	2.278	2.274	2.206	2.181	2.282	2.303	E5	6.52
34)	L6	AR1254-D	1.849	1.579	1.625	1.589	1.543	1.610	1.632	E5	6.74
35)	L6	AR1254-E	1.349	1.148	1.197	1.193	1.205	1.203	1.216	E5	5.66
36)	L6	AR1254-F	1.980	1.702	1.714	1.673	1.642	1.732	1.740	E5	6.98
37)	L7	AR1260-A	1.833	1.618	1.489	1.527	1.477	1.499	1.574	E5	8.69
38)	L7	AR1260-B	2.132	1.920	1.786	1.796	1.798	1.817	1.875	E5	7.22
39)	L7	AR1260-C	2.237	2.019	1.924	1.955	1.913	1.938	1.998	E5	6.16
40)	L7	AR1260-D	1.490	1.353	1.325	1.281	1.272	1.285	1.335	E5	6.16
41)	L7	AR1260-E	3.268	2.985	2.833	2.854	2.863	2.794	2.933	E5	6.01
42)	L7	AR1260-F	1.869	1.690	1.571	1.590	1.565	1.566	1.642	E5	7.38
43)	L9	AR1262-A	1.595	1.289	1.216	1.233	1.201	1.222	1.293	E5	11.68
44)	L9	AR1262-B	1.836	1.453	1.435	1.424	1.423	1.419	1.498	E5	11.05

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICC1833
Lab FileID: MM85660.D

45)	L9	AR1262-C	2.294	1.909	1.814	1.844	1.824	1.897	1.930	E5	9.44
46)	L9	AR1262-D	1.815	1.573	1.527	1.528	1.497	1.475	1.569	E5	7.97
47)	L9	AR1262-E	3.825	3.174	3.088	3.205	3.196	3.288	3.296	E5	8.10
48)	L9	AR1262-F	2.413	1.995	1.912	1.900	1.909	1.929	2.010	E5	9.98
49)	L8	AR1268-A	8.355	7.115	7.059	6.969	6.601	6.596	7.116	E4	9.10
50)	L8	AR1268-B	9.555	8.342	7.794	8.030	7.522	7.298	8.090	E4	9.97
51)	L8	AR1268-C	4.063	3.560	3.270	3.334	3.277	3.238	3.457	E5	9.22
52)	L8	AR1268-D	3.371	2.863	2.768	2.804	2.683	2.659	2.858	E5	9.19
53)	L8	AR1268-E	2.723	2.346	2.399	2.319	2.268	2.187	2.374	E5	7.83
54)	L8	AR1268-F	1.070	0.923	0.906	0.908	0.852	0.904	0.927	E5	7.98
55)	S	Decachlorobiphenyl	1.661	1.408	1.335	1.300	1.293	1.291	1.381	E6	10.42

Signal #2

1)	S	Tetrachloro-m-xylen	2.652	2.398	2.280	2.340	2.285	2.142	2.349	E7	7.28
2)	L1	AR1016-A	4.939	4.164	3.521	3.496	3.285	3.146	3.759	E5	17.98
3)	L1	AR1016-B	6.605	5.486	4.789	4.575	4.291	4.102	4.975	E5	18.73
4)	L1	AR1016-C	5.962	5.176	4.419	4.335	4.199	3.953	4.674	E5	16.12
5)	L1	AR1016-D	1.191	1.021	0.948	0.949	0.908	0.896	0.986	E6	11.13
6)	L1	AR1016-E	5.942	5.153	4.671	4.605	4.506	4.456	4.889	E5	11.72
7)	L1	AR1016-F	5.247	4.489	3.973	3.989	3.917	3.805	4.237	E5	12.94
8)	L2	AR1221-A	2.160	1.606	1.268	1.103	1.042	0.985	1.361	E5	33.15
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9963									
		Response Ratio = 0.00000 + 106975.70625 *A									
9)	L2	AR1221-B	6.613	5.623	4.505	4.124	3.944	3.501	4.718	E4	24.88
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9933									
		Response Ratio = 0.00000 + 36966.91754 *A									
10)	L2	AR1221-C	3.176	2.503	2.122	2.027	1.983	1.872	2.280	E5	21.44
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
		Response Ratio = 0.00000 + 197615.75301 *A									
11)	L2	AR1221-D	2.217	1.763	1.507	1.424	1.358	1.271	1.590	E5	22.01
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9977									
		Response Ratio = 0.00000 + 136120.55606 *A									
12)	L2	AR1221-E	7.421	5.914	5.174	4.850	4.635	4.392	5.398	E5	20.80
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9981									
		Response Ratio = 0.00000 + 466609.54844 *A									
13)	L3	AR1232-A	5.253	4.437	3.759	3.576	3.482	3.305	3.969	E5	18.67
14)	L3	AR1232-B	3.151	2.591	2.226	2.108	2.060	1.994	2.355	E5	18.86
15)	L3	AR1232-C	3.002	2.415	2.113	2.051	1.969	1.992	2.257	E5	17.68
16)	L3	AR1232-D	5.584	4.705	4.310	4.288	4.229	4.124	4.540	E5	12.08
17)	L3	AR1232-E	2.754	2.313	2.116	2.075	2.039	2.066	2.227	E5	12.41
18)	L3	AR1232-F	2.466	2.060	1.838	1.727	1.723	1.692	1.918	E5	15.67
19)	L4	AR1242-A	4.285	3.493	3.063	2.819	2.709	2.606	3.162	E5	20.06
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9984									
		Response Ratio = 0.00000 + 274535.60014 *A									
20)	L4	AR1242-B	5.916	4.733	4.150	3.902	3.734	3.547	4.330	E5	20.29
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9982									
		Response Ratio = 0.00000 + 375910.48276 *A									
21)	L4	AR1242-C	5.381	4.377	3.813	3.660	3.582	3.435	4.041	E5	18.13
22)	L4	AR1242-D	1.037	0.847	0.809	0.778	0.771	0.746	0.831	E6	12.81
23)	L4	AR1242-E	5.221	4.260	3.895	3.772	3.789	3.705	4.107	E5	14.13
24)	L4	AR1242-F	4.592	3.827	3.396	3.311	3.272	3.265	3.610	E5	14.55
25)	L5	AR1248-A	6.784	5.493	4.575	4.603	4.593	4.428	5.079	E5	18.08

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICC1833
Lab FileID: MM85660.D

26)	L5	AR1248-B	7.407	6.210	5.486	5.389	5.337	5.194	5.837	E5	14.52
27)	L5	AR1248-C	5.527	4.731	3.694	3.875	4.035	3.923	4.298	E5	16.29
28)	L5	AR1248-D	1.100	0.879	0.823	0.815	0.789	0.774	0.863	E6	14.07
29)	L5	AR1248-E	5.306	4.440	3.937	3.888	3.879	3.890	4.223	E5	13.57
30)	L5	AR1248-F	4.284	3.681	3.028	3.010	3.069	3.094	3.361	E5	15.43
31)	L6	AR1254-A	1.094	0.886	0.831	0.803	0.810	0.785	0.868	E6	13.35
32)	L6	AR1254-B	9.627	7.517	6.987	6.914	6.849	6.762	7.442	E5	14.82
33)	L6	AR1254-C	1.240	0.999	0.952	0.940	0.937	0.944	1.002	E6	11.84
34)	L6	AR1254-D	8.709	6.881	6.508	6.338	6.409	6.472	6.886	E5	13.25
35)	L6	AR1254-E	5.531	4.537	4.311	4.307	4.393	4.249	4.555	E5	10.73
36)	L6	AR1254-F	9.061	7.406	6.956	6.928	6.948	6.881	7.363	E5	11.59
37)	L7	AR1260-A	8.968	7.384	6.653	6.840	6.657	6.606	7.185	E5	12.81
38)	L7	AR1260-B	1.053	0.871	0.785	0.798	0.795	0.794	0.849	E6	12.30
39)	L7	AR1260-C	9.196	8.039	7.519	7.665	7.484	7.382	7.881	E5	8.68
40)	L7	AR1260-D	7.233	6.024	5.568	5.667	5.520	5.602	5.936	E5	11.13
41)	L7	AR1260-E	1.452	1.251	1.234	1.250	1.262	1.311	1.293	E6	6.33
42)	L7	AR1260-F	9.512	7.833	7.540	7.595	7.595	7.672	7.958	E5	9.65
43)	L9	AR1262-A	7.771	6.122	5.754	5.714	5.566	5.465	6.065	E5	14.26
44)	L9	AR1262-B	8.803	7.047	6.302	6.364	6.242	6.178	6.823	E5	14.96
45)	L9	AR1262-C	1.081	0.869	0.814	0.813	0.819	0.800	0.866	E6	12.49
46)	L9	AR1262-D	9.234	7.636	7.134	7.207	7.092	7.171	7.579	E5	11.01
47)	L9	AR1262-E	1.651	1.431	1.398	1.389	1.411	1.504	1.464	E6	6.85
48)	L9	AR1262-F	1.080	0.877	0.871	0.859	0.856	0.877	0.903	E6	9.66
49)	L8	AR1268-A	3.941	3.395	3.046	2.922	2.939	2.922	3.194	E5	12.78
50)	L8	AR1268-B	4.643	4.048	3.516	3.500	3.487	3.412	3.768	E5	12.93
51)	L8	AR1268-C	1.679	1.482	1.415	1.471	1.472	1.603	1.520	E6	6.52
52)	L8	AR1268-D	1.500	1.291	1.296	1.300	1.283	1.322	1.332	E6	6.26
53)	L8	AR1268-E	1.169	1.028	1.000	1.021	0.993	1.015	1.038	E6	6.32
54)	L8	AR1268-F	5.098	4.185	3.995	3.980	4.013	4.036	4.218	E5	10.38
55)	S	Decachlorobiphenyl	7.223	6.103	5.716	5.649	5.678	5.669	6.006	E6	10.32

(#) = Out of Range

8082-DOD-1833.m Wed Oct 18 08:50:37 2023

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85663.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85663.D\ECD1A.ch Vial: 7
Signal #2 : C:\msdchem\2\DATA\GMM1833_101723\MM85663.D\ECD2B.ch
Acq On : 17 Oct 2023 12:37 pm Operator: eduardom
Sample : icv1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A	400.000	356.398	10.9	92	0.00	3.75- 3.86
3	L1	AR1016-B	400.000	359.880	10.0	96	0.00	3.99- 4.09
4	L1	AR1016-C	400.000	366.031	8.5	93	0.00	4.11- 4.21
5	L1	AR1016-D	400.000	386.592	3.4	97	0.00	4.31- 4.41
6	L1	AR1016-E	400.000	378.634	5.3	96	0.00	4.41- 4.51
7	L1	AR1016-F	400.000	371.299	7.2	95	0.00	4.61- 4.71
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	400.000	358.953	10.3	92	0.00	5.37- 5.47

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85663.D

38	L7	AR1260-B	400.000	349.226	12.7	91	0.00	5.56-	5.66
39	L7	AR1260-C	400.000	365.766	8.6	93	0.00	5.74-	5.84
40	L7	AR1260-D	400.000	364.417	8.9	95	0.00	5.96-	6.05
41	L7	AR1260-E	400.000	363.293	9.2	93	0.00	6.18-	6.28
42	L7	AR1260-F	400.000	380.355	4.9	98	0.00	6.38-	6.48
43	L9	AR1262-A		----------NA----------					
44	L9	AR1262-B		----------NA----------					
45	L9	AR1262-C		----------NA----------					
46	L9	AR1262-D		----------NA----------					
47	L9	AR1262-E		----------NA----------					
48	L9	AR1262-F		----------NA----------					
49	L8	AR1268-A		----------NA----------					
50	L8	AR1268-B		----------NA----------					
51	L8	AR1268-C		----------NA----------					
52	L8	AR1268-D		----------NA----------					
53	L8	AR1268-E		----------NA----------					
54	L8	AR1268-F		----------NA----------					
55	S	Decachlorobiphenyl		----------NA----------					

***** Signal #2 *****

1	S	Tetrachloro-m-xylene		----------NA----------					
2	L1	AR1016-A	400.000	339.784	15.1	91	0.00	3.83-	3.93
3	L1	AR1016-B	400.000	347.087	13.2	94	0.00	4.06-	4.16
4	L1	AR1016-C	400.000	363.258	9.2	98	0.00	4.20-	4.30
5	L1	AR1016-D	400.000	369.165	7.7	96	0.00	4.38-	4.49
6	L1	AR1016-E	400.000	367.108	8.2	97	0.00	4.51-	4.61
7	L1	AR1016-F	400.000	358.069	10.5	95	0.00	4.70-	4.80

			Amount	Calc.	%Drift	
8	L2	AR1221-A		----------NA----------		
9	L2	AR1221-B		----------NA----------		
10	L2	AR1221-C		----------NA----------		
11	L2	AR1221-D		----------NA----------		
12	L2	AR1221-E		----------NA----------		

			Amount	Calc.	%Drift	
13	L3	AR1232-A		----------NA----------		
14	L3	AR1232-B		----------NA----------		
15	L3	AR1232-C		----------NA----------		
16	L3	AR1232-D		----------NA----------		
17	L3	AR1232-E		----------NA----------		
18	L3	AR1232-F		----------NA----------		

			Amount	Calc.	%Drift	
19	L4	AR1242-A		----------NA----------		
20	L4	AR1242-B		----------NA----------		

			Amount	Calc.	%Drift	
21	L4	AR1242-C		----------NA----------		
22	L4	AR1242-D		----------NA----------		
23	L4	AR1242-E		----------NA----------		
24	L4	AR1242-F		----------NA----------		
25	L5	AR1248-A		----------NA----------		
26	L5	AR1248-B		----------NA----------		
27	L5	AR1248-C		----------NA----------		
28	L5	AR1248-D		----------NA----------		
29	L5	AR1248-E		----------NA----------		
30	L5	AR1248-F		----------NA----------		
31	L6	AR1254-A		----------NA----------		

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85663.D

32	L6	AR1254-B			----------NA----------			
33	L6	AR1254-C			----------NA----------			
34	L6	AR1254-D			----------NA----------			
35	L6	AR1254-E			----------NA----------			
36	L6	AR1254-F			----------NA----------			
37	L7	AR1260-A	400.000	347.823	13.0	91	0.00	5.46- 5.56
38	L7	AR1260-B	400.000	347.672	13.1	92	0.00	5.60- 5.70
39	L7	AR1260-C	400.000	366.048	8.5	94	0.00	5.84- 5.93
40	L7	AR1260-D	400.000	352.824	11.8	92	0.00	6.06- 6.16
41	L7	AR1260-E	400.000	366.401	8.4	95	0.00	6.24- 6.34
42	L7	AR1260-F	400.000	375.234	6.2	98	0.00	6.50- 6.60
43	L9	AR1262-A			----------NA----------			
44	L9	AR1262-B			----------NA----------			
45	L9	AR1262-C			----------NA----------			
46	L9	AR1262-D			----------NA----------			
47	L9	AR1262-E			----------NA----------			
48	L9	AR1262-F			----------NA----------			
49	L8	AR1268-A			----------NA----------			
50	L8	AR1268-B			----------NA----------			
51	L8	AR1268-C			----------NA----------			
52	L8	AR1268-D			----------NA----------			
53	L8	AR1268-E			----------NA----------			
54	L8	AR1268-F			----------NA----------			
55	S	Decachlorobiphenyl			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Wed Oct 18 08:49:20 2023

11.6.2

11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85670.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85670.D\ECD1A.ch Vial: 14
Signal #2 : C:\msdchem\2\DATA\GMM1833_101723\MM85670.D\ECD2B.ch
Acq On : 17 Oct 2023 1:59 pm Operator: eduardom
Sample : icv1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	----------	NA	----------			
2 L1	AR1016-A	----------	NA	----------			
3 L1	AR1016-B	----------	NA	----------			
4 L1	AR1016-C	----------	NA	----------			
5 L1	AR1016-D	----------	NA	----------			
6 L1	AR1016-E	----------	NA	----------			
7 L1	AR1016-F	----------	NA	----------			
		Amount	Calc.	%Drift			
8 L2	AR1221-A	400.000	389.577	2.6	94	0.00	3.08- 3.18
		Amount	Calc.	%Drift			
9 L2	AR1221-B	400.000	339.930	15.0	95	0.00	3.38- 3.48
10 L2	AR1221-C	400.000	373.371	6.7	97	0.00	3.64- 3.74
11 L2	AR1221-D	400.000	374.868	6.3	98	0.00	3.70- 3.80
12 L2	AR1221-E	400.000	382.036	4.5	100	0.00	3.75- 3.86
13 L3	AR1232-A	----------	NA	----------			
14 L3	AR1232-B	----------	NA	----------			
15 L3	AR1232-C	----------	NA	----------			
16 L3	AR1232-D	----------	NA	----------			
17 L3	AR1232-E	----------	NA	----------			
18 L3	AR1232-F	----------	NA	----------			
19 L4	AR1242-A	----------	NA	----------			
20 L4	AR1242-B	----------	NA	----------			
21 L4	AR1242-C	----------	NA	----------			
22 L4	AR1242-D	----------	NA	----------			
23 L4	AR1242-E	----------	NA	----------			
24 L4	AR1242-F	----------	NA	----------			
25 L5	AR1248-A	----------	NA	----------			
26 L5	AR1248-B	----------	NA	----------			
27 L5	AR1248-C	----------	NA	----------			
28 L5	AR1248-D	----------	NA	----------			
29 L5	AR1248-E	----------	NA	----------			
30 L5	AR1248-F	----------	NA	----------			
31 L6	AR1254-A	400.000	395.069	1.2	102	0.00	4.87- 4.96
32 L6	AR1254-B	400.000	398.918	0.3	103	0.00	5.02- 5.12
33 L6	AR1254-C	400.000	395.185	1.2	103	0.00	5.26- 5.36
34 L6	AR1254-D	400.000	397.322	0.7	102	0.00	5.46- 5.56
35 L6	AR1254-E	400.000	395.023	1.2	101	0.00	5.64- 5.74
36 L6	AR1254-F	400.000	362.540	9.4	94	0.00	5.75- 5.84
37 L7	AR1260-A	----------	NA	----------			

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85670.D

38	L7	AR1260-B			----------NA----------					
39	L7	AR1260-C			----------NA----------					
40	L7	AR1260-D			----------NA----------					
41	L7	AR1260-E			----------NA----------					
42	L7	AR1260-F			----------NA----------					
43	L9	AR1262-A			----------NA----------					
44	L9	AR1262-B			----------NA----------					
45	L9	AR1262-C			----------NA----------					
46	L9	AR1262-D			----------NA----------					
47	L9	AR1262-E			----------NA----------					
48	L9	AR1262-F			----------NA----------					
49	L8	AR1268-A			----------NA----------					
50	L8	AR1268-B			----------NA----------					
51	L8	AR1268-C			----------NA----------					
52	L8	AR1268-D			----------NA----------					
53	L8	AR1268-E			----------NA----------					
54	L8	AR1268-F			----------NA----------					
55	S	Decachlorobiphenyl			----------NA----------					
*****		Signal #2 *****								
1	S	Tetrachloro-m-xylene			----------NA----------					
2	L1	AR1016-A			----------NA----------					
3	L1	AR1016-B			----------NA----------					
4	L1	AR1016-C			----------NA----------					
5	L1	AR1016-D			----------NA----------					
6	L1	AR1016-E			----------NA----------					
7	L1	AR1016-F			----------NA----------					
			Amount	Calc.	%Drift					
8	L2	AR1221-A	400.000	390.347	2.4	95	0.00	3.13-	3.23	
9	L2	AR1221-B	400.000	450.787	-12.7	101	0.00	3.45-	3.55	
10	L2	AR1221-C	400.000	417.260	-4.3	102	0.00	3.70-	3.80	
11	L2	AR1221-D	400.000	409.394	-2.3	98	0.00	3.77-	3.87	
12	L2	AR1221-E	400.000	414.832	-3.7	100	0.00	3.83-	3.93	
			Amount	Calc.	%Drift					
13	L3	AR1232-A			----------NA----------					
14	L3	AR1232-B			----------NA----------					
15	L3	AR1232-C			----------NA----------					
16	L3	AR1232-D			----------NA----------					
17	L3	AR1232-E			----------NA----------					
18	L3	AR1232-F			----------NA----------					
			Amount	Calc.	%Drift					
19	L4	AR1242-A			----------NA----------					
20	L4	AR1242-B			----------NA----------					
			Amount	Calc.	%Drift					
21	L4	AR1242-C			----------NA----------					
22	L4	AR1242-D			----------NA----------					
23	L4	AR1242-E			----------NA----------					
24	L4	AR1242-F			----------NA----------					
25	L5	AR1248-A			----------NA----------					
26	L5	AR1248-B			----------NA----------					
27	L5	AR1248-C			----------NA----------					
28	L5	AR1248-D			----------NA----------					
29	L5	AR1248-E			----------NA----------					
30	L5	AR1248-F			----------NA----------					
31	L6	AR1254-A	400.000	376.650	5.8	102	0.00	4.96-	5.06	

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85670.D

32	L6	AR1254-B	400.000	370.556	7.4	100	0.00	5.07- 5.17
33	L6	AR1254-C	400.000	382.809	4.3	102	0.00	5.36- 5.46
34	L6	AR1254-D	400.000	384.454	3.9	104	0.00	5.53- 5.63
35	L6	AR1254-E	400.000	387.897	3.0	103	0.00	5.76- 5.86
36	L6	AR1254-F	400.000	359.120	10.2	95	0.00	5.84- 5.94
37	L7	AR1260-A	----------	NA	----------			
38	L7	AR1260-B	----------	NA	----------			
39	L7	AR1260-C	----------	NA	----------			
40	L7	AR1260-D	----------	NA	----------			
41	L7	AR1260-E	----------	NA	----------			
42	L7	AR1260-F	----------	NA	----------			
43	L9	AR1262-A	----------	NA	----------			
44	L9	AR1262-B	----------	NA	----------			
45	L9	AR1262-C	----------	NA	----------			
46	L9	AR1262-D	----------	NA	----------			
47	L9	AR1262-E	----------	NA	----------			
48	L9	AR1262-F	----------	NA	----------			
49	L8	AR1268-A	----------	NA	----------			
50	L8	AR1268-B	----------	NA	----------			
51	L8	AR1268-C	----------	NA	----------			
52	L8	AR1268-D	----------	NA	----------			
53	L8	AR1268-E	----------	NA	----------			
54	L8	AR1268-F	----------	NA	----------			
55	S	Decachlorobiphenyl	----------	NA	----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Wed Oct 18 08:49:23 2023

11.6.3

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Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85677.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85677.D\ECD1A.ch Vial: 21
Signal #2 : C:\msdchem\2\DATA\GMM1833_101723\MM85677.D\ECD2B.ch
Acq On : 17 Oct 2023 3:20 pm Operator: eduardom
Sample : icv1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A	400.000	400.238	-0.1	105	0.00	3.75- 3.86
14	L3	AR1232-B	400.000	349.177	12.7	92	0.00	3.99- 4.09
15	L3	AR1232-C	400.000	360.444	9.9	95	0.00	4.11- 4.21
16	L3	AR1232-D	400.000	369.298	7.7	93	0.00	4.31- 4.41
17	L3	AR1232-E	400.000	362.295	9.4	92	0.00	4.41- 4.51
18	L3	AR1232-F	400.000	345.575	13.6	90	0.00	4.61- 4.71
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85677.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A	400.000	363.437	9.1	93	0.00	5.80-	5.91
50	L8	AR1268-B	400.000	374.446	6.4	94	0.00	5.97-	6.07
51	L8	AR1268-C	400.000	373.850	6.5	97	0.00	6.38-	6.48
52	L8	AR1268-D	400.000	373.478	6.6	95	0.00	6.43-	6.53
53	L8	AR1268-E	400.000	383.133	4.2	98	0.00	6.57-	6.67
54	L8	AR1268-F	400.000	378.860	5.3	97	0.00	6.83-	6.93
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A	400.000	396.504	0.9	110	0.00	3.83-	3.93
14	L3	AR1232-B	400.000	356.942	10.8	100	0.00	4.06-	4.16
15	L3	AR1232-C	400.000	356.503	10.9	98	0.00	4.20-	4.30
16	L3	AR1232-D	400.000	363.558	9.1	96	0.00	4.38-	4.49
17	L3	AR1232-E	400.000	360.232	9.9	97	0.00	4.51-	4.61
18	L3	AR1232-F	400.000	338.415	15.4	94	0.00	4.70-	4.80
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85677.D

32	L6	AR1254-B			----------NA----------			
33	L6	AR1254-C			----------NA----------			
34	L6	AR1254-D			----------NA----------			
35	L6	AR1254-E			----------NA----------			
36	L6	AR1254-F			----------NA----------			
37	L7	AR1260-A			----------NA----------			
38	L7	AR1260-B			----------NA----------			
39	L7	AR1260-C			----------NA----------			
40	L7	AR1260-D			----------NA----------			
41	L7	AR1260-E			----------NA----------			
42	L7	AR1260-F			----------NA----------			
43	L9	AR1262-A			----------NA----------			
44	L9	AR1262-B			----------NA----------			
45	L9	AR1262-C			----------NA----------			
46	L9	AR1262-D			----------NA----------			
47	L9	AR1262-E			----------NA----------			
48	L9	AR1262-F			----------NA----------			
49	L8	AR1268-A	400.000	357.624	10.6	98	0.00	5.87- 5.97
50	L8	AR1268-B	400.000	371.152	7.2	100	0.00	6.06- 6.16
51	L8	AR1268-C	400.000	380.590	4.9	98	0.00	6.45- 6.55
52	L8	AR1268-D	400.000	382.632	4.3	98	0.00	6.50- 6.60
53	L8	AR1268-E	400.000	389.016	2.7	99	0.00	6.67- 6.77
54	L8	AR1268-F	400.000	365.669	8.6	97	0.00	6.92- 7.02
55	S	Decachlorobiphenyl			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Wed Oct 18 08:49:25 2023

11.6.4

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Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85684.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85684.D\ECD1A.ch Vial: 28
Signal #2 : C:\msdchem\2\DATA\GMM1833_101723\MM85684.D\ECD2B.ch
Acq On : 17 Oct 2023 4:41 pm Operator: eduardom
Sample : icv1833-400 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A	400.000	366.779	8.3	98	0.00	3.76- 3.86
20	L4	AR1242-B	400.000	361.263	9.7	97	0.00	3.99- 4.09
21	L4	AR1242-C	400.000	362.408	9.4	96	0.00	4.11- 4.21
22	L4	AR1242-D	400.000	379.802	5.0	97	0.00	4.31- 4.41
23	L4	AR1242-E	400.000	383.728	4.1	100	0.00	4.41- 4.51
24	L4	AR1242-F	400.000	392.489	1.9	103	0.00	4.61- 4.71
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85684.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A	400.000	383.637	4.1	101	0.00	5.37-	5.47
44	L9	AR1262-B	400.000	383.998	4.0	101	0.00	5.56-	5.66
45	L9	AR1262-C	400.000	387.567	3.1	101	0.00	5.36-	5.91
46	L9	AR1262-D	400.000	383.907	4.0	99	0.00	5.96-	6.06
47	L9	AR1262-E	400.000	389.285	2.7	100	0.00	6.18-	6.28
48	L9	AR1262-F	400.000	372.326	6.9	98	0.00	6.38-	6.48
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				

			Amount	Calc.	%Drift				
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				

			Amount	Calc.	%Drift				
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				

			Amount	Calc.	%Drift				
19	L4	AR1242-A	400.000	403.734	-0.9	98	0.00	3.83-	3.93
20	L4	AR1242-B	400.000	394.692	1.3	95	0.00	4.06-	4.16

			Amount	Calc.	%Drift				
21	L4	AR1242-C	400.000	347.399	13.2	96	0.00	4.20-	4.30
22	L4	AR1242-D	400.000	364.047	9.0	97	0.00	4.39-	4.49
23	L4	AR1242-E	400.000	363.673	9.1	99	0.00	4.51-	4.61
24	L4	AR1242-F	400.000	367.600	8.1	100	0.00	4.70-	4.80
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85684.D

32	L6	AR1254-B			----------NA----------				
33	L6	AR1254-C			----------NA----------				
34	L6	AR1254-D			----------NA----------				
35	L6	AR1254-E			----------NA----------				
36	L6	AR1254-F			----------NA----------				
37	L7	AR1260-A			----------NA----------				
38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A	400.000	374.001	6.5	99	0.00	5.46-	5.56
44	L9	AR1262-B	400.000	371.764	7.1	100	0.00	5.60-	5.70
45	L9	AR1262-C	400.000	374.686	6.3	100	0.00	5.87-	5.97
46	L9	AR1262-D	400.000	375.155	6.2	99	0.00	6.06-	6.16
47	L9	AR1262-E	400.000	380.021	5.0	100	0.00	6.24-	6.34
48	L9	AR1262-F	400.000	376.509	5.9	99	0.00	6.50-	6.60
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Wed Oct 18 08:49:27 2023

11.6.5

11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85691.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85691.D\ECD1A.ch Vial: 35
Signal #2 : C:\msdchem\2\DATA\GMM1833_101723\MM85691.D\ECD2B.ch
Acq On : 17 Oct 2023 6:03 pm Operator: eduardom
Sample : icv1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A	400.000	395.284	1.2	104	0.00	4.48- 4.58
26	L5	AR1248-B	400.000	390.860	2.3	101	0.00	4.61- 4.71
27	L5	AR1248-C	400.000	393.089	1.7	101	0.00	4.70- 4.80
28	L5	AR1248-D	400.000	392.345	1.9	100	0.00	4.88- 4.98
29	L5	AR1248-E	400.000	388.678	2.8	102	0.00	5.01- 5.11
30	L5	AR1248-F	400.000	389.711	2.6	99	0.00	5.26- 5.36
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85691.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A	400.000	376.276	5.9	104	0.00	4.55-	4.65
26	L5	AR1248-B	400.000	375.711	6.1	102	0.00	4.70-	4.80
27	L5	AR1248-C	400.000	389.106	2.7	108	0.00	4.81-	4.91
28	L5	AR1248-D	400.000	383.435	4.1	102	0.00	4.96-	5.06
29	L5	AR1248-E	400.000	369.911	7.5	100	0.00	5.11-	5.21
30	L5	AR1248-F	400.000	383.555	4.1	107	0.00	5.36-	5.46
31	L6	AR1254-A			----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1833-ICV1833
Lab FileID: MM85691.D

32	L6	AR1254-B	----------NA----------
33	L6	AR1254-C	----------NA----------
34	L6	AR1254-D	----------NA----------
35	L6	AR1254-E	----------NA----------
36	L6	AR1254-F	----------NA----------
37	L7	AR1260-A	----------NA----------
38	L7	AR1260-B	----------NA----------
39	L7	AR1260-C	----------NA----------
40	L7	AR1260-D	----------NA----------
41	L7	AR1260-E	----------NA----------
42	L7	AR1260-F	----------NA----------
43	L9	AR1262-A	----------NA----------
44	L9	AR1262-B	----------NA----------
45	L9	AR1262-C	----------NA----------
46	L9	AR1262-D	----------NA----------
47	L9	AR1262-E	----------NA----------
48	L9	AR1262-F	----------NA----------
49	L8	AR1268-A	----------NA----------
50	L8	AR1268-B	----------NA----------
51	L8	AR1268-C	----------NA----------
52	L8	AR1268-D	----------NA----------
53	L8	AR1268-E	----------NA----------
54	L8	AR1268-F	----------NA----------
55	S	Decachlorobiphenyl	----------NA----------

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Wed Oct 18 08:49:29 2023

11.6.6

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85901.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85901.D\ECD1A.ch Vial: 1
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85901.D\ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm Operator: eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	41.455	-3.6	103	0.00	3.46- 3.56
2	L1	AR1016-A	400.000	404.508	-1.1	104	0.00	3.74- 3.84
3	L1	AR1016-B	400.000	406.285	-1.6	109	0.00	3.97- 4.07
4	L1	AR1016-C	400.000	405.987	-1.5	103	0.00	4.10- 4.20
5	L1	AR1016-D	400.000	422.928	-5.7	106	0.00	4.29- 4.39
6	L1	AR1016-E	400.000	430.033	-7.5	109	0.00	4.40- 4.50
7	L1	AR1016-F	400.000	423.882	-6.0	108	0.00	4.60- 4.70
			Amount	Calc.	%Drift			
8	L2	AR1221-A			NA			
			Amount	Calc.	%Drift			
9	L2	AR1221-B			NA			
10	L2	AR1221-C			NA			
11	L2	AR1221-D			NA			
12	L2	AR1221-E			NA			
13	L3	AR1232-A			NA			
14	L3	AR1232-B			NA			
15	L3	AR1232-C			NA			
16	L3	AR1232-D			NA			
17	L3	AR1232-E			NA			
18	L3	AR1232-F			NA			
19	L4	AR1242-A			NA			
20	L4	AR1242-B			NA			
21	L4	AR1242-C			NA			
22	L4	AR1242-D			NA			
23	L4	AR1242-E			NA			
24	L4	AR1242-F			NA			
25	L5	AR1248-A			NA			
26	L5	AR1248-B			NA			
27	L5	AR1248-C			NA			
28	L5	AR1248-D			NA			
29	L5	AR1248-E			NA			
30	L5	AR1248-F			NA			
31	L6	AR1254-A			NA			
32	L6	AR1254-B			NA			
33	L6	AR1254-C			NA			
34	L6	AR1254-D			NA			
35	L6	AR1254-E			NA			
36	L6	AR1254-F			NA			
37	L7	AR1260-A	400.000	442.628	-10.7	114	0.00	5.36- 5.46

11.6.7

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85901.D

38	L7	AR1260-B	400.000	418.140	-4.5	109	0.00	5.54- 5.64
39	L7	AR1260-C	400.000	432.273	-8.1	110	0.00	5.73- 5.83
40	L7	AR1260-D	400.000	423.471	-5.9	110	0.00	5.94- 6.04
41	L7	AR1260-E	400.000	423.775	-5.9	109	0.00	6.16- 6.26
42	L7	AR1260-F	400.000	432.145	-8.0	112	0.00	6.36- 6.46
43	L9	AR1262-A		----------NA----------				
44	L9	AR1262-B		----------NA----------				
45	L9	AR1262-C		----------NA----------				
46	L9	AR1262-D		----------NA----------				
47	L9	AR1262-E		----------NA----------				
48	L9	AR1262-F		----------NA----------				
49	L8	AR1268-A		----------NA----------				
50	L8	AR1268-B		----------NA----------				
51	L8	AR1268-C		----------NA----------				
52	L8	AR1268-D		----------NA----------				
53	L8	AR1268-E		----------NA----------				
54	L8	AR1268-F		----------NA----------				
55	S	Decachlorobiphenyl	40.000	39.990	0.0	106	0.00	7.25- 7.35

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	48.533	-21.3#	122	0.00	3.49- 3.59
2	L1	AR1016-A	400.000	442.999	-10.7	119	0.00	3.81- 3.91
3	L1	AR1016-B	400.000	443.391	-10.8	121	0.00	4.04- 4.14
4	L1	AR1016-C	400.000	446.437	-11.6	120	0.00	4.18- 4.28
5	L1	AR1016-D	400.000	469.100	-17.3	122	0.00	4.37- 4.47
6	L1	AR1016-E	400.000	473.481	-18.4	126	0.00	4.49- 4.59
7	L1	AR1016-F	400.000	469.193	-17.3	125	0.00	4.68- 4.78

			Amount	Calc.	%Drift			
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				

			Amount	Calc.	%Drift			
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				

			Amount	Calc.	%Drift			
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				

			Amount	Calc.	%Drift			
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85901.D

32	L6	AR1254-B			----------NA----------				
33	L6	AR1254-C			----------NA----------				
34	L6	AR1254-D			----------NA----------				
35	L6	AR1254-E			----------NA----------				
36	L6	AR1254-F			----------NA----------				
37	L7	AR1260-A	400.000	468.005	-17.0	123	0.00	5.44-	5.54
38	L7	AR1260-B	400.000	471.828	-18.0	125	0.00	5.58-	5.68
39	L7	AR1260-C	400.000	480.203	-20.1#	123	0.00	5.82-	5.92
40	L7	AR1260-D	400.000	472.285	-18.1	124	0.00	6.04-	6.14
41	L7	AR1260-E	400.000	492.222	-23.1#	127	0.00	6.22-	6.32
42	L7	AR1260-F	400.000	475.723	-18.9	125	0.00	6.48-	6.58
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl	40.000	47.020	-17.6	125	0.00	7.39-	7.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:19:58 2023

11.6.7

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85902.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85902.D\ECD1A.ch Vial: 2
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85902.D\ECD2B.ch
Acq On : 6 Nov 2023 4:27 pm Operator: eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A	400.000	403.447	-0.9	97	0.00	3.06- 3.16
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B	400.000	355.878	11.0	100	0.00	3.37- 3.47
10	L2	AR1221-C	400.000	370.803	7.3	96	0.00	3.63- 3.73
11	L2	AR1221-D	400.000	367.812	8.0	96	0.00	3.69- 3.79
12	L2	AR1221-E	400.000	375.834	6.0	99	0.00	3.74- 3.84
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A	400.000	380.719	4.8	99	0.00	4.85- 4.95
32	L6	AR1254-B	400.000	388.756	2.8	100	0.00	5.00- 5.10
33	L6	AR1254-C	400.000	388.766	2.8	101	0.00	5.24- 5.34
34	L6	AR1254-D	400.000	387.588	3.1	100	0.00	5.44- 5.54
35	L6	AR1254-E	400.000	389.391	2.7	99	0.00	5.62- 5.72
36	L6	AR1254-F	400.000	380.091	5.0	99	0.00	5.73- 5.83
37	L7	AR1260-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85902.D

38	L7	AR1260-B			----------NA----------					
39	L7	AR1260-C			----------NA----------					
40	L7	AR1260-D			----------NA----------					
41	L7	AR1260-E			----------NA----------					
42	L7	AR1260-F			----------NA----------					
43	L9	AR1262-A			----------NA----------					
44	L9	AR1262-B			----------NA----------					
45	L9	AR1262-C			----------NA----------					
46	L9	AR1262-D			----------NA----------					
47	L9	AR1262-E			----------NA----------					
48	L9	AR1262-F			----------NA----------					
49	L8	AR1268-A			----------NA----------					
50	L8	AR1268-B			----------NA----------					
51	L8	AR1268-C			----------NA----------					
52	L8	AR1268-D			----------NA----------					
53	L8	AR1268-E			----------NA----------					
54	L8	AR1268-F			----------NA----------					
55	S	Decachlorobiphenyl			----------NA----------					
*****		Signal #2 *****								
1	S	Tetrachloro-m-xylene			----------NA----------					
2	L1	AR1016-A			----------NA----------					
3	L1	AR1016-B			----------NA----------					
4	L1	AR1016-C			----------NA----------					
5	L1	AR1016-D			----------NA----------					
6	L1	AR1016-E			----------NA----------					
7	L1	AR1016-F			----------NA----------					
		----------	Amount	Calc.	%Drift	----------				
8	L2	AR1221-A	400.000	453.070	-13.3	110	0.00	3.12-	3.22	
9	L2	AR1221-B	400.000	508.743	-27.2#	114	0.00	3.43-	3.53	
10	L2	AR1221-C	400.000	469.145	-17.3	114	0.00	3.68-	3.78	
11	L2	AR1221-D	400.000	473.447	-18.4	113	0.00	3.75-	3.85	
12	L2	AR1221-E	400.000	461.785	-15.4	111	0.00	3.81-	3.91	
		----------	Amount	Calc.	%Drift	----------				
13	L3	AR1232-A			----------NA----------					
14	L3	AR1232-B			----------NA----------					
15	L3	AR1232-C			----------NA----------					
16	L3	AR1232-D			----------NA----------					
17	L3	AR1232-E			----------NA----------					
18	L3	AR1232-F			----------NA----------					
		----------	Amount	Calc.	%Drift	----------				
19	L4	AR1242-A			----------NA----------					
20	L4	AR1242-B			----------NA----------					
		----------	Amount	Calc.	%Drift	----------				
21	L4	AR1242-C			----------NA----------					
22	L4	AR1242-D			----------NA----------					
23	L4	AR1242-E			----------NA----------					
24	L4	AR1242-F			----------NA----------					
25	L5	AR1248-A			----------NA----------					
26	L5	AR1248-B			----------NA----------					
27	L5	AR1248-C			----------NA----------					
28	L5	AR1248-D			----------NA----------					
29	L5	AR1248-E			----------NA----------					
30	L5	AR1248-F			----------NA----------					
31	L6	AR1254-A	400.000	434.959	-8.7	118	0.00	4.94-	5.04	

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85902.D

32	L6	AR1254-B	400.000	435.544	-8.9	117	0.00	5.05- 5.15
33	L6	AR1254-C	400.000	445.525	-11.4	119	0.00	5.34- 5.44
34	L6	AR1254-D	400.000	431.296	-7.8	117	0.00	5.51- 5.61
35	L6	AR1254-E	400.000	444.454	-11.1	118	0.00	5.74- 5.84
36	L6	AR1254-F	400.000	435.342	-8.8	116	0.00	5.81- 5.91
37	L7	AR1260-A	----------NA----------					
38	L7	AR1260-B	----------NA----------					
39	L7	AR1260-C	----------NA----------					
40	L7	AR1260-D	----------NA----------					
41	L7	AR1260-E	----------NA----------					
42	L7	AR1260-F	----------NA----------					
43	L9	AR1262-A	----------NA----------					
44	L9	AR1262-B	----------NA----------					
45	L9	AR1262-C	----------NA----------					
46	L9	AR1262-D	----------NA----------					
47	L9	AR1262-E	----------NA----------					
48	L9	AR1262-F	----------NA----------					
49	L8	AR1268-A	----------NA----------					
50	L8	AR1268-B	----------NA----------					
51	L8	AR1268-C	----------NA----------					
52	L8	AR1268-D	----------NA----------					
53	L8	AR1268-E	----------NA----------					
54	L8	AR1268-F	----------NA----------					
55	S	Decachlorobiphenyl	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:00 2023

11.6.8

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85903.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85903.D\ECD1A.ch Vial: 3
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85903.D\ECD2B.ch
Acq On : 6 Nov 2023 4:39 pm Operator: eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A	400.000	381.105	4.7	100	0.00	3.74- 3.84
14	L3	AR1232-B	400.000	376.473	5.9	99	0.00	3.97- 4.07
15	L3	AR1232-C	400.000	379.170	5.2	100	0.00	4.10- 4.20
16	L3	AR1232-D	400.000	388.244	2.9	98	0.00	4.29- 4.39
17	L3	AR1232-E	400.000	384.647	3.8	97	0.00	4.40- 4.50
18	L3	AR1232-F	400.000	389.446	2.6	101	0.00	4.60- 4.70
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85903.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A	400.000	378.924	5.3	97	0.00	5.79-	5.89
50	L8	AR1268-B	400.000	381.971	4.5	96	0.00	5.95-	6.05
51	L8	AR1268-C	400.000	372.827	6.8	97	0.00	6.36-	6.46
52	L8	AR1268-D	400.000	378.052	5.5	96	0.00	6.41-	6.51
53	L8	AR1268-E	400.000	393.898	1.5	101	0.00	6.54-	6.64
54	L8	AR1268-F	400.000	386.197	3.5	99	0.00	6.81-	6.91
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A	400.000	416.038	-4.0	115	0.00	3.81-	3.91
14	L3	AR1232-B	400.000	414.598	-3.6	116	0.00	4.04-	4.14
15	L3	AR1232-C	400.000	415.734	-3.9	114	0.00	4.18-	4.28
16	L3	AR1232-D	400.000	431.202	-7.8	114	0.00	4.37-	4.47
17	L3	AR1232-E	400.000	439.771	-9.9	118	0.00	4.49-	4.59
18	L3	AR1232-F	400.000	430.895	-7.7	120	0.00	4.68-	4.78
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85903.D

32	L6	AR1254-B			----------NA----------				
33	L6	AR1254-C			----------NA----------				
34	L6	AR1254-D			----------NA----------				
35	L6	AR1254-E			----------NA----------				
36	L6	AR1254-F			----------NA----------				
37	L7	AR1260-A			----------NA----------				
38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A	400.000	425.866	-6.5	116	0.00	5.85-	5.95
50	L8	AR1268-B	400.000	435.164	-8.8	117	0.00	6.04-	6.14
51	L8	AR1268-C	400.000	436.731	-9.2	113	0.00	6.43-	6.53
52	L8	AR1268-D	400.000	437.159	-9.3	112	0.00	6.48-	6.58
53	L8	AR1268-E	400.000	438.614	-9.7	111	0.00	6.64-	6.74
54	L8	AR1268-F	400.000	423.929	-6.0	112	0.00	6.89-	6.99
55	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:02 2023

11.6.9 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85904.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85904.D\ECD1A.ch Vial: 4
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85904.D\ECD2B.ch
Acq On : 6 Nov 2023 4:50 pm Operator: eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------			
2	L1	AR1016-A			----------NA----------			
3	L1	AR1016-B			----------NA----------			
4	L1	AR1016-C			----------NA----------			
5	L1	AR1016-D			----------NA----------			
6	L1	AR1016-E			----------NA----------			
7	L1	AR1016-F			----------NA----------			
		----------	Amount	Calc.	%Drift ----------			
8	L2	AR1221-A			----------NA----------			
		----------	Amount	Calc.	%Drift ----------			
9	L2	AR1221-B			----------NA----------			
10	L2	AR1221-C			----------NA----------			
11	L2	AR1221-D			----------NA----------			
12	L2	AR1221-E			----------NA----------			
13	L3	AR1232-A			----------NA----------			
14	L3	AR1232-B			----------NA----------			
15	L3	AR1232-C			----------NA----------			
16	L3	AR1232-D			----------NA----------			
17	L3	AR1232-E			----------NA----------			
18	L3	AR1232-F			----------NA----------			
19	L4	AR1242-A	400.000	386.521	3.4	103	0.00	3.74- 3.84
20	L4	AR1242-B	400.000	378.388	5.4	102	0.00	3.97- 4.07
21	L4	AR1242-C	400.000	382.514	4.4	101	0.00	4.10- 4.20
22	L4	AR1242-D	400.000	395.955	1.0	101	0.00	4.29- 4.39
23	L4	AR1242-E	400.000	396.946	0.8	103	0.00	4.39- 4.49
24	L4	AR1242-F	400.000	383.964	4.0	101	0.00	4.60- 4.70
25	L5	AR1248-A			----------NA----------			
26	L5	AR1248-B			----------NA----------			
27	L5	AR1248-C			----------NA----------			
28	L5	AR1248-D			----------NA----------			
29	L5	AR1248-E			----------NA----------			
30	L5	AR1248-F			----------NA----------			
31	L6	AR1254-A			----------NA----------			
32	L6	AR1254-B			----------NA----------			
33	L6	AR1254-C			----------NA----------			
34	L6	AR1254-D			----------NA----------			
35	L6	AR1254-E			----------NA----------			
36	L6	AR1254-F			----------NA----------			
37	L7	AR1260-A			----------NA----------			

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85904.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A	400.000	393.978	1.5	103	0.00	5.36-	5.46
44	L9	AR1262-B	400.000	384.112	4.0	101	0.00	5.54-	5.64
45	L9	AR1262-C	400.000	402.000	-0.5	105	0.00	5.34-	5.89
46	L9	AR1262-D	400.000	409.098	-2.3	105	0.00	5.94-	6.04
47	L9	AR1262-E	400.000	386.444	3.4	99	0.00	6.16-	6.26
48	L9	AR1262-F	400.000	383.099	4.2	101	0.00	6.36-	6.46
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				

			Amount	Calc.	%Drift				
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				

			Amount	Calc.	%Drift				
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				

			Amount	Calc.	%Drift				
19	L4	AR1242-A	400.000	468.966	-17.2	114	0.00	3.81-	3.91
20	L4	AR1242-B	400.000	461.087	-15.3	111	0.00	4.04-	4.14

			Amount	Calc.	%Drift				
21	L4	AR1242-C	400.000	422.015	-5.5	116	0.00	4.18-	4.28
22	L4	AR1242-D	400.000	433.277	-8.3	116	0.00	4.37-	4.47
23	L4	AR1242-E	400.000	431.636	-7.9	117	0.00	4.49-	4.59
24	L4	AR1242-F	400.000	427.116	-6.8	116	0.00	4.68-	4.78
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85904.D

32	L6	AR1254-B			----------NA----------				
33	L6	AR1254-C			----------NA----------				
34	L6	AR1254-D			----------NA----------				
35	L6	AR1254-E			----------NA----------				
36	L6	AR1254-F			----------NA----------				
37	L7	AR1260-A			----------NA----------				
38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A	400.000	429.069	-7.3	114	0.00	5.44-	5.54
44	L9	AR1262-B	400.000	422.613	-5.7	113	0.00	5.58-	5.68
45	L9	AR1262-C	400.000	436.190	-9.0	116	0.00	5.85-	5.95
46	L9	AR1262-D	400.000	445.713	-11.4	117	0.00	6.03-	6.13
47	L9	AR1262-E	400.000	446.956	-11.7	118	0.00	6.22-	6.32
48	L9	AR1262-F	400.000	434.763	-8.7	114	0.00	6.48-	6.58
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:04 2023

11.6.10

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85905.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85905.D\ECD1A.ch Vial: 5
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85905.D\ECD2B.ch
Acq On : 6 Nov 2023 5:02 pm Operator: eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			NA			
2	L1	AR1016-A			NA			
3	L1	AR1016-B			NA			
4	L1	AR1016-C			NA			
5	L1	AR1016-D			NA			
6	L1	AR1016-E			NA			
7	L1	AR1016-F			NA			
		----------	Amount	Calc.	%Drift			----------
8	L2	AR1221-A			NA			
		----------	Amount	Calc.	%Drift			----------
9	L2	AR1221-B			NA			
10	L2	AR1221-C			NA			
11	L2	AR1221-D			NA			
12	L2	AR1221-E			NA			
13	L3	AR1232-A			NA			
14	L3	AR1232-B			NA			
15	L3	AR1232-C			NA			
16	L3	AR1232-D			NA			
17	L3	AR1232-E			NA			
18	L3	AR1232-F			NA			
19	L4	AR1242-A			NA			
20	L4	AR1242-B			NA			
21	L4	AR1242-C			NA			
22	L4	AR1242-D			NA			
23	L4	AR1242-E			NA			
24	L4	AR1242-F			NA			
25	L5	AR1248-A	400.000	393.364	1.7	104	0.00	4.47- 4.57
26	L5	AR1248-B	400.000	387.412	3.1	100	0.00	4.59- 4.69
27	L5	AR1248-C	400.000	399.636	0.1	102	0.00	4.69- 4.79
28	L5	AR1248-D	400.000	398.550	0.4	102	0.00	4.87- 4.97
29	L5	AR1248-E	400.000	396.348	0.9	104	0.00	4.99- 5.09
30	L5	AR1248-F	400.000	394.388	1.4	100	0.00	5.24- 5.34
31	L6	AR1254-A			NA			
32	L6	AR1254-B			NA			
33	L6	AR1254-C			NA			
34	L6	AR1254-D			NA			
35	L6	AR1254-E			NA			
36	L6	AR1254-F			NA			
37	L7	AR1260-A			NA			

11.6.11

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85905.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A	400.000	426.883	-6.7	118	0.00	4.53-	4.63
26	L5	AR1248-B	400.000	429.130	-7.3	116	0.00	4.68-	4.78
27	L5	AR1248-C	400.000	441.332	-10.3	122	0.00	4.79-	4.89
28	L5	AR1248-D	400.000	431.782	-7.9	114	0.00	4.94-	5.04
29	L5	AR1248-E	400.000	441.620	-10.4	120	0.00	5.09-	5.19
30	L5	AR1248-F	400.000	438.336	-9.6	122	0.00	5.34-	5.44
31	L6	AR1254-A			----------NA----------				

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85905.D

32	L6	AR1254-B	----------NA----------
33	L6	AR1254-C	----------NA----------
34	L6	AR1254-D	----------NA----------
35	L6	AR1254-E	----------NA----------
36	L6	AR1254-F	----------NA----------
37	L7	AR1260-A	----------NA----------
38	L7	AR1260-B	----------NA----------
39	L7	AR1260-C	----------NA----------
40	L7	AR1260-D	----------NA----------
41	L7	AR1260-E	----------NA----------
42	L7	AR1260-F	----------NA----------
43	L9	AR1262-A	----------NA----------
44	L9	AR1262-B	----------NA----------
45	L9	AR1262-C	----------NA----------
46	L9	AR1262-D	----------NA----------
47	L9	AR1262-E	----------NA----------
48	L9	AR1262-F	----------NA----------
49	L8	AR1268-A	----------NA----------
50	L8	AR1268-B	----------NA----------
51	L8	AR1268-C	----------NA----------
52	L8	AR1268-D	----------NA----------
53	L8	AR1268-E	----------NA----------
54	L8	AR1268-F	----------NA----------
55	S	Decachlorobiphenyl	----------NA----------

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:06 2023

11.6.11

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85916.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85916.D\ECD1A.ch Vial: 1
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85916.D\ECD2B.ch
Acq On : 6 Nov 2023 7:10 pm Operator: eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	43.992	-10.0	109	0.00	3.46- 3.56
2	L1	AR1016-A	400.000	417.864	-4.5	108	0.00	3.74- 3.84
3	L1	AR1016-B	400.000	418.948	-4.7	112	0.00	3.97- 4.07
4	L1	AR1016-C	400.000	433.975	-8.5	110	0.00	4.10- 4.20
5	L1	AR1016-D	400.000	438.180	-9.5	110	0.00	4.29- 4.39
6	L1	AR1016-E	400.000	449.486	-12.4	114	0.00	4.40- 4.50
7	L1	AR1016-F	400.000	445.350	-11.3	114	0.00	4.60- 4.70
			Amount	Calc.	%Drift			
8	L2	AR1221-A	----------NA----------					
			Amount	Calc.	%Drift			
9	L2	AR1221-B	----------NA----------					
10	L2	AR1221-C	----------NA----------					
11	L2	AR1221-D	----------NA----------					
12	L2	AR1221-E	----------NA----------					
13	L3	AR1232-A	----------NA----------					
14	L3	AR1232-B	----------NA----------					
15	L3	AR1232-C	----------NA----------					
16	L3	AR1232-D	----------NA----------					
17	L3	AR1232-E	----------NA----------					
18	L3	AR1232-F	----------NA----------					
19	L4	AR1242-A	----------NA----------					
20	L4	AR1242-B	----------NA----------					
21	L4	AR1242-C	----------NA----------					
22	L4	AR1242-D	----------NA----------					
23	L4	AR1242-E	----------NA----------					
24	L4	AR1242-F	----------NA----------					
25	L5	AR1248-A	----------NA----------					
26	L5	AR1248-B	----------NA----------					
27	L5	AR1248-C	----------NA----------					
28	L5	AR1248-D	----------NA----------					
29	L5	AR1248-E	----------NA----------					
30	L5	AR1248-F	----------NA----------					
31	L6	AR1254-A	----------NA----------					
32	L6	AR1254-B	----------NA----------					
33	L6	AR1254-C	----------NA----------					
34	L6	AR1254-D	----------NA----------					
35	L6	AR1254-E	----------NA----------					
36	L6	AR1254-F	----------NA----------					
37	L7	AR1260-A	400.000	453.143	-13.3	117	0.00	5.36- 5.46

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85916.D

38	L7	AR1260-B	400.000	445.412	-11.4	116	0.00	5.54-	5.64
39	L7	AR1260-C	400.000	441.104	-10.3	113	0.00	5.73-	5.83
40	L7	AR1260-D	400.000	453.743	-13.4	118	0.00	5.94-	6.04
41	L7	AR1260-E	400.000	453.175	-13.3	116	0.00	6.16-	6.26
42	L7	AR1260-F	400.000	452.515	-13.1	117	0.00	6.36-	6.46
43	L9	AR1262-A		----------NA----------					
44	L9	AR1262-B		----------NA----------					
45	L9	AR1262-C		----------NA----------					
46	L9	AR1262-D		----------NA----------					
47	L9	AR1262-E		----------NA----------					
48	L9	AR1262-F		----------NA----------					
49	L8	AR1268-A		----------NA----------					
50	L8	AR1268-B		----------NA----------					
51	L8	AR1268-C		----------NA----------					
52	L8	AR1268-D		----------NA----------					
53	L8	AR1268-E		----------NA----------					
54	L8	AR1268-F		----------NA----------					
55	S	Decachlorobiphenyl	40.000	43.490	-8.7	116	0.00	7.25-	7.35

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	50.174	-25.4#	126	0.00	3.49-	3.59
2	L1	AR1016-A	400.000	448.307	-12.1	121	0.00	3.81-	3.91
3	L1	AR1016-B	400.000	447.649	-11.9	122	0.00	4.04-	4.14
4	L1	AR1016-C	400.000	467.366	-16.8	126	0.00	4.18-	4.28
5	L1	AR1016-D	400.000	488.078	-22.0#	127	0.00	4.37-	4.47
6	L1	AR1016-E	400.000	483.959	-21.0#	128	0.00	4.49-	4.59
7	L1	AR1016-F	400.000	492.172	-23.0#	131	0.00	4.68-	4.78

			Amount	Calc.	%Drift			
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				

			Amount	Calc.	%Drift			
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				

			Amount	Calc.	%Drift			
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				

			Amount	Calc.	%Drift			
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85916.D

32	L6	AR1254-B			----------NA----------				
33	L6	AR1254-C			----------NA----------				
34	L6	AR1254-D			----------NA----------				
35	L6	AR1254-E			----------NA----------				
36	L6	AR1254-F			----------NA----------				
37	L7	AR1260-A	400.000	487.090	-21.8#	128	0.00	5.44-	5.54
38	L7	AR1260-B	400.000	492.144	-23.0#	131	0.00	5.58-	5.68
39	L7	AR1260-C	400.000	495.815	-24.0#	127	0.00	5.82-	5.92
40	L7	AR1260-D	400.000	494.551	-23.6#	129	0.00	6.04-	6.14
41	L7	AR1260-E	400.000	507.338	-26.8#	131	0.00	6.22-	6.32
42	L7	AR1260-F	400.000	521.576	-30.4#	137	0.00	6.48-	6.58
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl	40.000	47.614	-19.0	127	0.00	7.39-	7.49

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:08 2023

11.6.12

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85917.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85917.D\ECD1A.ch Vial: 2
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85917.D\ECD2B.ch
Acq On : 6 Nov 2023 7:22 pm Operator: eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	----------	NA	----------		
2	L1	AR1016-A	----------	NA	----------		
3	L1	AR1016-B	----------	NA	----------		
4	L1	AR1016-C	----------	NA	----------		
5	L1	AR1016-D	----------	NA	----------		
6	L1	AR1016-E	----------	NA	----------		
7	L1	AR1016-F	----------	NA	----------		
			Amount	Calc.	%Drift		
8	L2	AR1221-A	400.000	414.299	-3.6	100 0.00	3.06- 3.16
			Amount	Calc.	%Drift		
9	L2	AR1221-B	400.000	353.715	11.6	99 0.00	3.37- 3.47
10	L2	AR1221-C	400.000	385.643	3.6	100 0.00	3.63- 3.73
11	L2	AR1221-D	400.000	376.630	5.8	99 0.00	3.69- 3.79
12	L2	AR1221-E	400.000	383.815	4.0	101 0.00	3.74- 3.84
13	L3	AR1232-A	----------	NA	----------		
14	L3	AR1232-B	----------	NA	----------		
15	L3	AR1232-C	----------	NA	----------		
16	L3	AR1232-D	----------	NA	----------		
17	L3	AR1232-E	----------	NA	----------		
18	L3	AR1232-F	----------	NA	----------		
19	L4	AR1242-A	----------	NA	----------		
20	L4	AR1242-B	----------	NA	----------		
21	L4	AR1242-C	----------	NA	----------		
22	L4	AR1242-D	----------	NA	----------		
23	L4	AR1242-E	----------	NA	----------		
24	L4	AR1242-F	----------	NA	----------		
25	L5	AR1248-A	----------	NA	----------		
26	L5	AR1248-B	----------	NA	----------		
27	L5	AR1248-C	----------	NA	----------		
28	L5	AR1248-D	----------	NA	----------		
29	L5	AR1248-E	----------	NA	----------		
30	L5	AR1248-F	----------	NA	----------		
31	L6	AR1254-A	400.000	388.987	2.8	101 0.00	4.85- 4.95
32	L6	AR1254-B	400.000	394.569	1.4	102 0.00	5.00- 5.10
33	L6	AR1254-C	400.000	401.362	-0.3	105 0.00	5.24- 5.34
34	L6	AR1254-D	400.000	408.640	-2.2	105 0.00	5.44- 5.54
35	L6	AR1254-E	400.000	409.075	-2.3	104 0.00	5.62- 5.72
36	L6	AR1254-F	400.000	403.401	-0.9	105 0.00	5.73- 5.83
37	L7	AR1260-A	----------	NA	----------		

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85917.D

38	L7	AR1260-B				----------NA----------					
39	L7	AR1260-C				----------NA----------					
40	L7	AR1260-D				----------NA----------					
41	L7	AR1260-E				----------NA----------					
42	L7	AR1260-F				----------NA----------					
43	L9	AR1262-A				----------NA----------					
44	L9	AR1262-B				----------NA----------					
45	L9	AR1262-C				----------NA----------					
46	L9	AR1262-D				----------NA----------					
47	L9	AR1262-E				----------NA----------					
48	L9	AR1262-F				----------NA----------					
49	L8	AR1268-A				----------NA----------					
50	L8	AR1268-B				----------NA----------					
51	L8	AR1268-C				----------NA----------					
52	L8	AR1268-D				----------NA----------					
53	L8	AR1268-E				----------NA----------					
54	L8	AR1268-F				----------NA----------					
55	S	Decachlorobiphenyl				----------NA----------					
*****		Signal #2 *****									
1	S	Tetrachloro-m-xylene				----------NA----------					
2	L1	AR1016-A				----------NA----------					
3	L1	AR1016-B				----------NA----------					
4	L1	AR1016-C				----------NA----------					
5	L1	AR1016-D				----------NA----------					
6	L1	AR1016-E				----------NA----------					
7	L1	AR1016-F				----------NA----------					
		----------	Amount	Calc.		%Drift		----------			
8	L2	AR1221-A	400.000	460.329		-15.1	112	0.00		3.12-	3.22
9	L2	AR1221-B	400.000	514.729		-28.7#	115	0.00		3.43-	3.53
10	L2	AR1221-C	400.000	477.923		-19.5	116	0.00		3.68-	3.78
11	L2	AR1221-D	400.000	480.591		-20.1#	115	0.00		3.75-	3.85
12	L2	AR1221-E	400.000	478.018		-19.5	115	0.00		3.81-	3.91
		----------	Amount	Calc.		%Drift		----------			
13	L3	AR1232-A				----------NA----------					
14	L3	AR1232-B				----------NA----------					
15	L3	AR1232-C				----------NA----------					
16	L3	AR1232-D				----------NA----------					
17	L3	AR1232-E				----------NA----------					
18	L3	AR1232-F				----------NA----------					
		----------	Amount	Calc.		%Drift		----------			
19	L4	AR1242-A				----------NA----------					
20	L4	AR1242-B				----------NA----------					
		----------	Amount	Calc.		%Drift		----------			
21	L4	AR1242-C				----------NA----------					
22	L4	AR1242-D				----------NA----------					
23	L4	AR1242-E				----------NA----------					
24	L4	AR1242-F				----------NA----------					
25	L5	AR1248-A				----------NA----------					
26	L5	AR1248-B				----------NA----------					
27	L5	AR1248-C				----------NA----------					
28	L5	AR1248-D				----------NA----------					
29	L5	AR1248-E				----------NA----------					
30	L5	AR1248-F				----------NA----------					
31	L6	AR1254-A	400.000	444.399		-11.1	120	0.00		4.94-	5.04

11.6.13

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85917.D

32	L6	AR1254-B	400.000	453.065	-13.3	122	0.00	5.05- 5.15
33	L6	AR1254-C	400.000	454.531	-13.6	121	0.00	5.34- 5.44
34	L6	AR1254-D	400.000	460.735	-15.2	125	0.00	5.51- 5.61
35	L6	AR1254-E	400.000	466.796	-16.7	123	0.00	5.74- 5.84
36	L6	AR1254-F	400.000	465.039	-16.3	124	0.00	5.81- 5.91
37	L7	AR1260-A	----------NA----------					
38	L7	AR1260-B	----------NA----------					
39	L7	AR1260-C	----------NA----------					
40	L7	AR1260-D	----------NA----------					
41	L7	AR1260-E	----------NA----------					
42	L7	AR1260-F	----------NA----------					
43	L9	AR1262-A	----------NA----------					
44	L9	AR1262-B	----------NA----------					
45	L9	AR1262-C	----------NA----------					
46	L9	AR1262-D	----------NA----------					
47	L9	AR1262-E	----------NA----------					
48	L9	AR1262-F	----------NA----------					
49	L8	AR1268-A	----------NA----------					
50	L8	AR1268-B	----------NA----------					
51	L8	AR1268-C	----------NA----------					
52	L8	AR1268-D	----------NA----------					
53	L8	AR1268-E	----------NA----------					
54	L8	AR1268-F	----------NA----------					
55	S	Decachlorobiphenyl	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:10 2023

11.6.13

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85918.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85918.D\ECD1A.ch Vial: 3
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85918.D\ECD2B.ch
Acq On : 6 Nov 2023 7:33 pm Operator: eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A	400.000	382.800	4.3	100	0.00	3.74- 3.84
14	L3	AR1232-B	400.000	379.607	5.1	100	0.00	3.97- 4.07
15	L3	AR1232-C	400.000	386.474	3.4	102	0.00	4.10- 4.20
16	L3	AR1232-D	400.000	400.817	-0.2	101	0.00	4.29- 4.39
17	L3	AR1232-E	400.000	391.133	2.2	99	0.00	4.40- 4.50
18	L3	AR1232-F	400.000	394.281	1.4	102	0.00	4.60- 4.70
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85918.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A	400.000	390.678	2.3	100	0.00	5.79-	5.89
50	L8	AR1268-B	400.000	410.404	-2.6	103	0.00	5.95-	6.05
51	L8	AR1268-C	400.000	403.829	-1.0	105	0.00	6.36-	6.46
52	L8	AR1268-D	400.000	411.256	-2.8	105	0.00	6.41-	6.51
53	L8	AR1268-E	400.000	413.847	-3.5	106	0.00	6.54-	6.64
54	L8	AR1268-F	400.000	416.753	-4.2	106	0.00	6.81-	6.91
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A	400.000	419.619	-4.9	116	0.00	3.81-	3.91
14	L3	AR1232-B	400.000	427.495	-6.9	119	0.00	4.04-	4.14
15	L3	AR1232-C	400.000	435.986	-9.0	120	0.00	4.18-	4.28
16	L3	AR1232-D	400.000	446.969	-11.7	118	0.00	4.37-	4.47
17	L3	AR1232-E	400.000	447.192	-11.8	120	0.00	4.49-	4.59
18	L3	AR1232-F	400.000	444.765	-11.2	123	0.00	4.68-	4.78
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85918.D

32	L6	AR1254-B			----------NA----------			
33	L6	AR1254-C			----------NA----------			
34	L6	AR1254-D			----------NA----------			
35	L6	AR1254-E			----------NA----------			
36	L6	AR1254-F			----------NA----------			
37	L7	AR1260-A			----------NA----------			
38	L7	AR1260-B			----------NA----------			
39	L7	AR1260-C			----------NA----------			
40	L7	AR1260-D			----------NA----------			
41	L7	AR1260-E			----------NA----------			
42	L7	AR1260-F			----------NA----------			
43	L9	AR1262-A			----------NA----------			
44	L9	AR1262-B			----------NA----------			
45	L9	AR1262-C			----------NA----------			
46	L9	AR1262-D			----------NA----------			
47	L9	AR1262-E			----------NA----------			
48	L9	AR1262-F			----------NA----------			
49	L8	AR1268-A	400.000	440.541	-10.1	120	0.00	5.85- 5.95
50	L8	AR1268-B	400.000	447.398	-11.8	120	0.00	6.04- 6.14
51	L8	AR1268-C	400.000	457.511	-14.4	118	0.00	6.43- 6.53
52	L8	AR1268-D	400.000	458.537	-14.6	117	0.00	6.48- 6.58
53	L8	AR1268-E	400.000	458.998	-14.7	117	0.00	6.64- 6.74
54	L8	AR1268-F	400.000	447.361	-11.8	119	0.00	6.89- 6.99
55	S	Decachlorobiphenyl			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:12 2023

11.6.14

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85919.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85919.D\ECD1A.ch Vial: 4
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85919.D\ECD2B.ch
Acq On : 6 Nov 2023 7:45 pm Operator: eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A	400.000	387.951	3.0	103	0.00	3.74- 3.84
20	L4	AR1242-B	400.000	382.185	4.5	103	0.00	3.97- 4.07
21	L4	AR1242-C	400.000	391.596	2.1	103	0.00	4.10- 4.20
22	L4	AR1242-D	400.000	409.676	-2.4	105	0.00	4.29- 4.39
23	L4	AR1242-E	400.000	409.896	-2.5	107	0.00	4.39- 4.49
24	L4	AR1242-F	400.000	403.028	-0.8	106	0.00	4.60- 4.70
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85919.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A	400.000	412.912	-3.2	108	0.00	5.36-	5.46
44	L9	AR1262-B	400.000	408.509	-2.1	107	0.00	5.54-	5.64
45	L9	AR1262-C	400.000	414.839	-3.7	109	0.00	5.34-	5.89
46	L9	AR1262-D	400.000	409.929	-2.5	105	0.00	5.94-	6.04
47	L9	AR1262-E	400.000	419.868	-5.0	108	0.00	6.16-	6.26
48	L9	AR1262-F	400.000	405.352	-1.3	107	0.00	6.36-	6.46
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				

			Amount	Calc.	%Drift				
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				

			Amount	Calc.	%Drift				
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				

			Amount	Calc.	%Drift				
19	L4	AR1242-A	400.000	474.128	-18.5	115	0.00	3.81-	3.91
20	L4	AR1242-B	400.000	479.039	-19.8	115	0.00	4.04-	4.14

			Amount	Calc.	%Drift				
21	L4	AR1242-C	400.000	428.295	-7.1	118	0.00	4.18-	4.28
22	L4	AR1242-D	400.000	448.068	-12.0	120	0.00	4.37-	4.47
23	L4	AR1242-E	400.000	449.460	-12.4	122	0.00	4.49-	4.59
24	L4	AR1242-F	400.000	442.552	-10.6	121	0.00	4.68-	4.78
25	L5	AR1248-A			----------NA----------				
26	L5	AR1248-B			----------NA----------				
27	L5	AR1248-C			----------NA----------				
28	L5	AR1248-D			----------NA----------				
29	L5	AR1248-E			----------NA----------				
30	L5	AR1248-F			----------NA----------				
31	L6	AR1254-A			----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85919.D

32	L6	AR1254-B			----------NA----------			
33	L6	AR1254-C			----------NA----------			
34	L6	AR1254-D			----------NA----------			
35	L6	AR1254-E			----------NA----------			
36	L6	AR1254-F			----------NA----------			
37	L7	AR1260-A			----------NA----------			
38	L7	AR1260-B			----------NA----------			
39	L7	AR1260-C			----------NA----------			
40	L7	AR1260-D			----------NA----------			
41	L7	AR1260-E			----------NA----------			
42	L7	AR1260-F			----------NA----------			
43	L9	AR1262-A	400.000	443.809	-11.0	118	0.00	5.44- 5.54
44	L9	AR1262-B	400.000	447.802	-12.0	120	0.00	5.58- 5.68
45	L9	AR1262-C	400.000	445.810	-11.5	119	0.00	5.85- 5.95
46	L9	AR1262-D	400.000	458.958	-14.7	121	0.00	6.03- 6.13
47	L9	AR1262-E	400.000	450.675	-12.7	119	0.00	6.22- 6.32
48	L9	AR1262-F	400.000	469.644	-17.4	123	0.00	6.48- 6.58
49	L8	AR1268-A			----------NA----------			
50	L8	AR1268-B			----------NA----------			
51	L8	AR1268-C			----------NA----------			
52	L8	AR1268-D			----------NA----------			
53	L8	AR1268-E			----------NA----------			
54	L8	AR1268-F			----------NA----------			
55	S	Decachlorobiphenyl			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:14 2023

11.6.15 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85920.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\2\DATA\GM...23\MM85920.D\ECD1A.ch Vial: 5
Signal #2 : C:\msdchem\2\DATA\GMM1839_110623\MM85920.D\ECD2B.ch
Acq On : 6 Nov 2023 7:57 pm Operator: eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\2\MET...\8082-DOD-1833.m (ChemStation Integrator)
Title : PCBs by 8082a
Last Update : Wed Oct 18 08:33:12 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A		----------NA----------				
3	L1	AR1016-B		----------NA----------				
4	L1	AR1016-C		----------NA----------				
5	L1	AR1016-D		----------NA----------				
6	L1	AR1016-E		----------NA----------				
7	L1	AR1016-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
8	L2	AR1221-A		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A	400.000	387.555	3.1	102	0.00	4.47- 4.57
26	L5	AR1248-B	400.000	396.211	0.9	102	0.00	4.59- 4.69
27	L5	AR1248-C	400.000	403.069	-0.8	103	0.00	4.69- 4.79
28	L5	AR1248-D	400.000	408.736	-2.2	104	0.00	4.87- 4.97
29	L5	AR1248-E	400.000	392.122	2.0	103	0.00	4.99- 5.09
30	L5	AR1248-F	400.000	406.131	-1.5	103	0.00	5.24- 5.34
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A		----------NA----------				

11.6.16
11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85920.D

38	L7	AR1260-B			----------NA----------				
39	L7	AR1260-C			----------NA----------				
40	L7	AR1260-D			----------NA----------				
41	L7	AR1260-E			----------NA----------				
42	L7	AR1260-F			----------NA----------				
43	L9	AR1262-A			----------NA----------				
44	L9	AR1262-B			----------NA----------				
45	L9	AR1262-C			----------NA----------				
46	L9	AR1262-D			----------NA----------				
47	L9	AR1262-E			----------NA----------				
48	L9	AR1262-F			----------NA----------				
49	L8	AR1268-A			----------NA----------				
50	L8	AR1268-B			----------NA----------				
51	L8	AR1268-C			----------NA----------				
52	L8	AR1268-D			----------NA----------				
53	L8	AR1268-E			----------NA----------				
54	L8	AR1268-F			----------NA----------				
55	S	Decachlorobiphenyl			----------NA----------				
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene			----------NA----------				
2	L1	AR1016-A			----------NA----------				
3	L1	AR1016-B			----------NA----------				
4	L1	AR1016-C			----------NA----------				
5	L1	AR1016-D			----------NA----------				
6	L1	AR1016-E			----------NA----------				
7	L1	AR1016-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
8	L2	AR1221-A			----------NA----------				
9	L2	AR1221-B			----------NA----------				
10	L2	AR1221-C			----------NA----------				
11	L2	AR1221-D			----------NA----------				
12	L2	AR1221-E			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
13	L3	AR1232-A			----------NA----------				
14	L3	AR1232-B			----------NA----------				
15	L3	AR1232-C			----------NA----------				
16	L3	AR1232-D			----------NA----------				
17	L3	AR1232-E			----------NA----------				
18	L3	AR1232-F			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
19	L4	AR1242-A			----------NA----------				
20	L4	AR1242-B			----------NA----------				
		----------	Amount	Calc.	%Drift	----------			
21	L4	AR1242-C			----------NA----------				
22	L4	AR1242-D			----------NA----------				
23	L4	AR1242-E			----------NA----------				
24	L4	AR1242-F			----------NA----------				
25	L5	AR1248-A	400.000	431.944	-8.0	119	0.00	4.53-	4.63
26	L5	AR1248-B	400.000	444.395	-11.1	120	0.00	4.68-	4.78
27	L5	AR1248-C	400.000	435.185	-8.8	121	0.00	4.79-	4.89
28	L5	AR1248-D	400.000	433.786	-8.4	115	0.00	4.94-	5.04
29	L5	AR1248-E	400.000	446.508	-11.6	121	0.00	5.09-	5.19
30	L5	AR1248-F	400.000	434.502	-8.6	121	0.00	5.34-	5.44
31	L6	AR1254-A			----------NA----------				

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GMM1839-CC1833
Lab FileID: MM85920.D

32	L6	AR1254-B	----------NA----------
33	L6	AR1254-C	----------NA----------
34	L6	AR1254-D	----------NA----------
35	L6	AR1254-E	----------NA----------
36	L6	AR1254-F	----------NA----------
37	L7	AR1260-A	----------NA----------
38	L7	AR1260-B	----------NA----------
39	L7	AR1260-C	----------NA----------
40	L7	AR1260-D	----------NA----------
41	L7	AR1260-E	----------NA----------
42	L7	AR1260-F	----------NA----------
43	L9	AR1262-A	----------NA----------
44	L9	AR1262-B	----------NA----------
45	L9	AR1262-C	----------NA----------
46	L9	AR1262-D	----------NA----------
47	L9	AR1262-E	----------NA----------
48	L9	AR1262-F	----------NA----------
49	L8	AR1268-A	----------NA----------
50	L8	AR1268-B	----------NA----------
51	L8	AR1268-C	----------NA----------
52	L8	AR1268-D	----------NA----------
53	L8	AR1268-E	----------NA----------
54	L8	AR1268-F	----------NA----------
55	S	Decachlorobiphenyl	----------NA----------

(#) = Out of Range SPCC's out = 0 CCC's out = 0
MM85688.D 8082-DOD-1833.m Tue Nov 07 10:20:16 2023

11.6.16

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Sample: GST4174-ICC4174
Lab FileID: ST170840.D

Response Factor Report ECD 3

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Oct 31 15:06:09 2023
Response via : Initial Calibration

Calibration Files
2 =ST170853.D 5 =ST170854.D 20 =ST170855.D 40 =ST170856.D
60 =ST170857.D 80 =ST170858.D 120 =ST170843.D

Compound	2	5	20	40	60	80	120	Avg		%RSD
1)S Tetrachloro-m-xyl	1.628	1.431	1.333	1.372	1.345	1.346	1.315	1.396	E5	7.80
2) alpha-BHC	2.344	2.065	1.971	2.034	2.032	2.009	2.062	2.074	E5	5.95
3) gamma-BHC (Lindan	1.959	1.759	1.690	1.763	1.772	1.812	1.858	1.802	E5	4.78
4) beta-BHC	9.627	8.645	8.054	8.267	8.071	8.146	8.174	8.426	E4	6.72
5) delta-BHC	2.240	1.981	1.965	2.024	2.019	2.053	2.027	2.044	E5	4.46
6) Heptachlor	2.264	1.707	1.584	1.615	1.617	1.619	1.648	1.722	E5	14.06
7) Aldrin	1.937	1.729	1.718	1.721	1.699	1.709	1.735	1.750	E5	4.77
8) Heptachlor Epoxid	2.065	1.786	1.739	1.738	1.702	1.719	1.710	1.780	E5	7.22
9) gamma-Chlordane	1.938	1.702	1.635	1.694	1.657	1.684	1.710	1.717	E5	5.87
10) alpha-Chlordane	1.590	1.489	1.510	1.605	1.557	1.600	1.627	1.568	E5	3.30
11) 4,4'-DDE	1.976	1.750	1.697	1.764	1.751	1.757	1.771	1.781	E5	5.03
12) Endosulfan I	1.619	1.455	1.442	1.497	1.465	1.477	1.473	1.490	E5	4.01
13) Dieldrin	2.083	1.831	1.796	1.810	1.818	1.818	1.815	1.853	E5	5.51
14) Endrin	1.998	1.798	1.732	1.781	1.753	1.771	1.712	1.792	E5	5.33
15) 4,4'-DDD	1.722	1.626	1.492	1.549	1.525	1.545	1.540	1.571	E5	4.96
16) Endosulfan II	1.850	1.660	1.580	1.601	1.531	1.574	1.562	1.623	E5	6.65
17) 4,4'-DDT	0.378	0.436	0.818	1.095	1.177	1.247	1.315	0.924	E5	41.89
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965										
Response Ratio = 0.00000 + 86199.61177 *A + 413.99730 *A^2										
18) Endrin Aldehyde	1.418	1.243	1.183	1.221	1.201	1.191	1.205	1.237	E5	6.62
19) Methoxychlor	4.184	4.268	5.610	6.237	6.349	6.625	6.744	5.717	E4	18.91
20) Endosulfan Sulfat	1.767	1.512	1.402	1.499	1.455	1.452	1.451	1.505	E5	8.01
21) Endrin Ketone	1.289	1.299	1.384	1.447	1.455	1.496	1.508	1.411	E5	6.33
22)L1Chlordane-A	7.148	6.087	5.533	5.560	5.431	5.487		5.875	E3	11.37
23)L1Chlordane-B	1.125	0.979	0.937	0.959	0.969	0.963		0.989	E4	6.91
24)L1Chlordane-C	6.012	5.076	4.731	4.595	4.615	4.453		4.914	E3	11.76
25)L1Chlordane-D	2.726	2.328	2.206	2.234	2.209	2.204		2.318	E4	8.87
26)L1Chlordane-E	2.726	2.297	2.206	2.215	2.180	2.175		2.300	E4	9.29
27)L1Chlordane-F	2.421	2.627	4.003	4.660	4.881	5.074		3.944	E3	29.40
---- Linear regr., Force(0,0) ---- Coefficient = 0.9962										
Response Ratio = 0.00000 + 4778.38073 *A										
28)L2Toxaphene-A	1.985	2.101	1.810	1.960	1.895	2.066		1.970	E4	5.47
29)L2Toxaphene-B	2.896	2.455	2.487	2.468	2.100	2.396		2.467	E4	10.33
30)L2Toxaphene-C	5.798	5.538	5.652	5.557	5.502	5.668		5.619	E4	1.94
31)L2Toxaphene-D	3.358	3.694	4.005	3.921	3.974	4.002		3.826	E4	6.72
32)L2Toxaphene-E	1.371	1.646	1.710	1.925	1.881	1.799		1.722	E4	11.66
33)S Decachlorobipheny	1.075	0.960	0.924	0.941	0.938	0.950	0.936	0.961	E5	5.39

Signal #2

1)S Tetrachloro-m-xyl	3.074	2.753	2.784	2.855	2.877	2.816	2.771	2.847	E4	3.85
2) alpha-BHC	3.479	3.587	4.042	4.337	4.289	4.361	4.278	4.053	E4	9.17
3) gamma-BHC (Lindan	3.803	3.511	3.758	4.039	3.992	4.055	4.037	3.885	E4	5.25
4) beta-BHC	2.025	1.787	1.760	1.826	1.818	1.849	1.834	1.843	E4	4.66
5) delta-BHC	3.676	3.592	4.063	4.320	4.382	4.387	4.313	4.105	E4	8.29

Initial Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICC4174
Lab FileID: ST170840.D

6)	Heptachlor	3.728	3.446	3.618	3.885	3.842	3.904	3.896	3.760	E4	4.62
7)	Aldrin	3.658	3.498	3.884	4.169	4.172	4.242	4.161	3.969	E4	7.41
8)	Heptachlor Epoxid	4.439	3.974	4.092	4.205	4.181	4.223	4.230	4.192	E4	3.39
9)	gamma-Chlordane	4.270	3.853	4.025	4.282	4.215	4.256	4.185	4.155	E4	3.83
10)	alpha-Chlordane	4.456	3.972	4.077	4.222	4.162	4.190	4.096	4.168	E4	3.65
11)	4,4'-DDE	4.035	3.860	4.243	4.449	4.408	4.398	4.335	4.247	E4	5.19
12)	Endosulfan I	4.068	3.673	3.820	3.982	3.985	3.972	3.952	3.922	E4	3.37
13)	Dieldrin	4.359	4.095	4.406	4.587	4.608	4.585	4.551	4.456	E4	4.18
14)	Endrin	3.967	3.714	4.043	4.246	4.178	4.196	4.126	4.067	E4	4.49
15)	4,4'-DDD	3.358	3.237	3.565	3.760	3.701	3.684	3.675	3.569	E4	5.52
16)	Endosulfan II	4.151	3.812	3.917	3.974	4.011	3.965	3.869	3.957	E4	2.75
17)	4,4'-DDT	1.249	1.564	2.625	3.185	3.337	3.485	3.594	2.720	E4	35.06

---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976
Response Ratio = 0.00000 + 26820.40965 *A + 84.58054 *A^2

18)	Endrin Aldehyde	3.266	3.016	2.974	3.071	3.016	3.044	2.985	3.053	E4	3.26
19)	Methoxychlor	1.392	1.368	1.638	1.778	1.770	1.812	1.804	1.652	E4	11.78
20)	Endosulfan Sulfat	3.839	3.495	3.635	3.682	3.643	3.681	3.622	3.657	E4	2.80
21)	Endrin Ketone	3.411	3.224	3.554	3.904	3.756	3.768	3.773	3.627	E4	6.65
22)	L1Chlordane-A	1.271	1.093	1.108	1.148	1.200	1.192		1.169	E3	5.63
23)	L1Chlordane-B	2.069	1.826	1.940	2.037	2.106	2.099		2.013	E3	5.44
24)	L1Chlordane-C	1.552	1.337	1.234	1.234	1.236	1.201		1.299	E3	10.18
25)	L1Chlordane-D	5.155	4.708	4.782	4.824	4.789	4.735		4.832	E3	3.38
26)	L1Chlordane-E	4.451	3.968	3.998	4.048	4.062	4.001		4.088	E3	4.43
27)	L1Chlordane-F	0.888	0.870	1.079	1.270	1.331	1.378		1.136	E3	19.69
28)	L2Toxaphene-A	6.198	5.781	5.527	5.553	5.599	5.345		5.667	E3	5.21
29)	L2Toxaphene-B	0.996	0.963	0.962	1.054	1.019	0.937		0.988	E4	4.38
30)	L2Toxaphene-C	8.413	8.121	8.617	8.519	8.799	8.224		8.449	E3	2.97
31)	L2Toxaphene-D	6.702	7.753	8.837	9.333	9.752	9.672		8.675	E3	13.98
32)	L2Toxaphene-E	0.677	0.777	0.909	0.998	1.020	1.012		0.899	E4	15.86
33)	S Decachlorobipheny	3.347	2.835	2.561	2.531	2.511	2.472	2.443	2.671	E4	12.15

(#) = Out of Range

GST4174_083123DOD.M Tue Oct 31 15:37:48 2023

11.6.17 11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170844.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST170844.D\ECD1A.CH Vial: 11
Signal #2 : C:\msdchem\1\DATA\GST4174_103123\ST170844.D\ECD2B.CH
Acq On : 31 Oct 2023 11:26 am Operator: eduardom
Sample : icv4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Oct 31 15:06:09 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC	20.000	19.030	4.8	100	0.00	3.67- 3.87
3		gamma-BHC (Lindane)	20.000	19.034	4.8	101	0.00	3.90- 4.10
4		beta-BHC	20.000	18.594	7.0	97	0.00	4.05- 4.25
5		delta-BHC	20.000	18.269	8.7	95	0.00	4.22- 4.42
6		Heptachlor	20.000	17.964	10.2	98	0.00	4.31- 4.51
7		Aldrin	20.000	19.020	4.9	97	0.00	4.55- 4.75
8		Heptachlor Epoxide	20.000	18.481	7.6	95	0.00	4.85- 5.05
9		gamma-Chlordane	20.000	18.889	5.6	99	0.00	5.03- 5.23
10		alpha-Chlordane	20.000	20.220	-1.1	105	0.00	5.09- 5.29
11		4,4'-DDE	20.000	19.354	3.2	102	0.00	5.23- 5.43
12		Endosulfan I	20.000	18.582	7.1	96	0.00	5.11- 5.31
13		Dieldrin	20.000	18.828	5.9	97	0.00	5.31- 5.51
14		Endrin	20.000	18.902	5.5	98	0.00	5.46- 5.66
15		4,4'-DDD	20.000	18.786	6.1	99	0.00	5.59- 5.79
16		Endosulfan II	20.000	19.531	2.3	100	0.00	5.63- 5.83
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	20.000	17.323	13.4	99	0.00	5.82- 6.01
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	20.000	20.228	-1.1	106	0.00	5.72- 5.92
19		Methoxychlor	20.000	19.816	0.9	101	0.00	6.18- 6.38
20		Endosulfan Sulfate	20.000	18.792	6.0	101	0.00	5.89- 6.09
21		Endrin Ketone	20.000	19.144	4.3	98	0.00	6.22- 6.42
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A		----------NA----------				
29	L2	Toxaphene-B		----------NA----------				
30	L2	Toxaphene-C		----------NA----------				
31	L2	Toxaphene-D		----------NA----------				
32	L2	Toxaphene-E		----------NA----------				
33	S	Decachlorobiphenyl		----------NA----------				

11.6.18 11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170844.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC	20.000	19.314	3.4	97	0.00	3.69- 3.89
3		gamma-BHC (Lindane)	20.000	19.004	5.0	98	0.00	3.95- 4.15
4		beta-BHC	20.000	19.088	4.6	100	0.00	4.17- 4.37
5		delta-BHC	20.000	19.258	3.7	97	0.00	4.35- 4.55
6		Heptachlor	20.000	19.557	2.2	102	0.00	4.22- 4.42
7		Aldrin	20.000	19.851	0.7	101	0.00	4.44- 4.64
8		Heptachlor Epoxide	20.000	18.757	6.2	96	0.00	4.81- 5.01
9		gamma-Chlordane	20.000	19.551	2.2	101	0.00	5.00- 5.20
10		alpha-Chlordane	20.000	19.423	2.9	99	0.00	5.04- 5.24
11		4,4'-DDE	20.000	18.895	5.5	95	0.00	5.18- 5.38
12		Endosulfan I	20.000	19.031	4.8	98	0.00	5.09- 5.29
13		Dieldrin	20.000	19.631	1.8	99	0.00	5.28- 5.48
14		Endrin	20.000	19.057	4.7	96	0.00	5.48- 5.68
15		4,4'-DDD	20.000	19.614	1.9	98	0.00	5.59- 5.79
16		Endosulfan II	20.000	19.429	2.9	98	0.00	5.70- 5.90
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	20.000	17.613	11.9	95	0.00	5.77- 5.97
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	20.000	20.468	-2.3	105	0.00	5.83- 6.03
19		Methoxychlor	20.000	19.594	2.0	99	0.00	6.20- 6.40
20		Endosulfan Sulfate	20.000	19.275	3.6	97	0.00	5.99- 6.19
21		Endrin Ketone	20.000	18.883	5.6	96	0.00	6.38- 6.58
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	L2	Toxaphene-A		----------NA----------				
29	L2	Toxaphene-B		----------NA----------				
30	L2	Toxaphene-C		----------NA----------				
31	L2	Toxaphene-D		----------NA----------				
32	L2	Toxaphene-E		----------NA----------				
33	S	Decachlorobiphenyl		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Tue Oct 31 15:37:24 2023

11.6.18 11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170852.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST170852.D\ECD1A.CH Vial: 18
Signal #2 : C:\msdchem\1\DATA\GST4174_103123\ST170852.D\ECD2B.CH
Acq On : 31 Oct 2023 1:26 pm Operator: eduardom
Sample : icv4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Oct 31 15:06:09 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC		----------NA----------				
3		gamma-BHC (Lindane)		----------NA----------				
4		beta-BHC		----------NA----------				
5		delta-BHC		----------NA----------				
6		Heptachlor		----------NA----------				
7		Aldrin		----------NA----------				
8		Heptachlor Epoxide		----------NA----------				
9		gamma-Chlordane		----------NA----------				
10		alpha-Chlordane		----------NA----------				
11		4,4'-DDE		----------NA----------				
12		Endosulfan I		----------NA----------				
13		Dieldrin		----------NA----------				
14		Endrin		----------NA----------				
15		4,4'-DDD		----------NA----------				
16		Endosulfan II		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde		----------NA----------				
19		Methoxychlor		----------NA----------				
20		Endosulfan Sulfate		----------NA----------				
21		Endrin Ketone		----------NA----------				
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A	500.000	505.242	-1.0	110	0.00	5.23- 5.43
29	L2	Toxaphene-B	500.000	500.375	-0.1	99	0.00	5.59- 5.79
30	L2	Toxaphene-C	500.000	486.447	2.7	97	0.00	5.65- 5.85
31	L2	Toxaphene-D	500.000	529.504	-5.9	101	0.00	5.81- 6.01
32	L2	Toxaphene-E	500.000	547.292	-9.5	110	0.00	6.17- 6.37
33	S	Decachlorobiphenyl		----------NA----------				

11.6.19

11

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170852.D

***** Signal #2 *****

			Amount	Calc.	%Drift		
1	S	Tetrachloro-m-xylene		NA			
2		alpha-BHC		NA			
3		gamma-BHC (Lindane)		NA			
4		beta-BHC		NA			
5		delta-BHC		NA			
6		Heptachlor		NA			
7		Aldrin		NA			
8		Heptachlor Epoxide		NA			
9		gamma-Chlordane		NA			
10		alpha-Chlordane		NA			
11		4,4'-DDE		NA			
12		Endosulfan I		NA			
13		Dieldrin		NA			
14		Endrin		NA			
15		4,4'-DDD		NA			
16		Endosulfan II		NA			
17		4,4'-DDT		NA			
18		Endrin Aldehyde		NA			
19		Methoxychlor		NA			
20		Endosulfan Sulfate		NA			
21		Endrin Ketone		NA			
22	L1	Chlordane-A		NA			
23	L1	Chlordane-B		NA			
24	L1	Chlordane-C		NA			
25	L1	Chlordane-D		NA			
26	L1	Chlordane-E		NA			
27	L1	Chlordane-F		NA			
28	L2	Toxaphene-A	500.000 483.302	3.3	99	0.00	5.25- 5.45
29	L2	Toxaphene-B	500.000 486.372	2.7	100	0.00	5.66- 5.86
30	L2	Toxaphene-C	500.000 493.986	1.2	97	0.00	5.72- 5.92
31	L2	Toxaphene-D	500.000 523.637	-4.7	103	0.00	5.91- 6.11
32	L2	Toxaphene-E	500.000 543.117	-8.6	107	0.00	6.29- 6.49
33	S	Decachlorobiphenyl		NA			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Tue Oct 31 15:37:26 2023

11.6.19

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170859.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST170859.D\ECD1A.CH Vial: 25
Signal #2 : C:\msdchem\1\DATA\GST4174_103123\ST170859.D\ECD2B.CH
Acq On : 31 Oct 2023 3:10 pm Operator: eduardom
Sample : icv4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Oct 31 15:06:09 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC		----------NA----------				
3		gamma-BHC (Lindane)		----------NA----------				
4		beta-BHC		----------NA----------				
5		delta-BHC		----------NA----------				
6		Heptachlor		----------NA----------				
7		Aldrin		----------NA----------				
8		Heptachlor Epoxide		----------NA----------				
9		gamma-Chlordane		----------NA----------				
10		alpha-Chlordane		----------NA----------				
11		4,4'-DDE		----------NA----------				
12		Endosulfan I		----------NA----------				
13		Dieldrin		----------NA----------				
14		Endrin		----------NA----------				
15		4,4'-DDD		----------NA----------				
16		Endosulfan II		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde		----------NA----------				
19		Methoxychlor		----------NA----------				
20		Endosulfan Sulfate		----------NA----------				
21		Endrin Ketone		----------NA----------				
22	L1	Chlordane-A	200.000	177.922	11.0	94	0.01	4.15- 4.35
23	L1	Chlordane-B	200.000	121.131	39.4#	64	0.01	4.30- 4.50
24	L1	Chlordane-C	200.000	255.112	-27.6#	132	0.01	4.53- 4.73
25	L1	Chlordane-D	200.000	200.031	-0.0	105	0.01	5.02- 5.22
26	L1	Chlordane-E	200.000	207.845	-3.9	108	0.01	5.08- 5.28
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F	200.000	243.571	-21.8#	145	0.01	5.67- 5.87
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A		----------NA----------				
29	L2	Toxaphene-B		----------NA----------				
30	L2	Toxaphene-C		----------NA----------				
31	L2	Toxaphene-D		----------NA----------				
32	L2	Toxaphene-E		----------NA----------				
33	S	Decachlorobiphenyl		----------NA----------				

Initial Calibration Verification

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4174-ICV4174
Lab FileID: ST170859.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------			
2		alpha-BHC			----------NA----------			
3		gamma-BHC (Lindane)			----------NA----------			
4		beta-BHC			----------NA----------			
5		delta-BHC			----------NA----------			
6		Heptachlor			----------NA----------			
7		Aldrin			----------NA----------			
8		Heptachlor Epoxide			----------NA----------			
9		gamma-Chlordane			----------NA----------			
10		alpha-Chlordane			----------NA----------			
11		4,4'-DDE			----------NA----------			
12		Endosulfan I			----------NA----------			
13		Dieldrin			----------NA----------			
14		Endrin			----------NA----------			
15		4,4'-DDD			----------NA----------			
16		Endosulfan II			----------NA----------			
			Amount	Calc.	%Drift			
17		4,4'-DDT			----------NA----------			
			Amount	Calc.	%Drift			
18		Endrin Aldehyde			----------NA----------			
19		Methoxychlor			----------NA----------			
20		Endosulfan Sulfate			----------NA----------			
21		Endrin Ketone			----------NA----------			
22	L1	Chlordane-A	200.000	180.822	9.6	95	0.00	4.08- 4.28
23	L1	Chlordane-B	200.000	110.677	44.7#	57	0.00	4.21- 4.41
24	L1	Chlordane-C	200.000	251.095	-25.5#	132	0.00	4.52- 4.72
25	L1	Chlordane-D	200.000	195.686	2.2	99	0.00	5.00- 5.20
26	L1	Chlordane-E	200.000	209.077	-4.5	107	0.00	5.04- 5.24
27	L1	Chlordane-F	200.000	286.498	-43.2#	151	0.00	5.70- 5.90
28	L2	Toxaphene-A			----------NA----------			
29	L2	Toxaphene-B			----------NA----------			
30	L2	Toxaphene-C			----------NA----------			
31	L2	Toxaphene-D			----------NA----------			
32	L2	Toxaphene-E			----------NA----------			
33	S	Decachlorobiphenyl			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Tue Oct 31 15:37:28 2023

11.6.20

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171210.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171210.D\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171210.D\ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm Operator: eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	40.375	-0.9	103	0.00	3.35- 3.55
2		alpha-BHC	40.000	41.396	-3.5	106	0.00	3.67- 3.87
3		gamma-BHC (Lindane)	40.000	42.080	-5.2	108	0.00	3.91- 4.11
4		beta-BHC	40.000	38.747	3.1	99	0.00	4.06- 4.26
5		delta-BHC	40.000	38.065	4.8	96	0.00	4.23- 4.43
6		Heptachlor	40.000	38.101	4.7	102	0.00	4.32- 4.52
7		Aldrin	40.000	40.945	-2.4	104	0.00	4.55- 4.75
8		Heptachlor Epoxide	40.000	37.720	5.7	97	0.00	4.85- 5.05
9		gamma-Chlordane	40.000	37.784	5.5	96	0.00	5.04- 5.24
10		alpha-Chlordane	40.000	40.498	-1.2	99	0.00	5.09- 5.29
11		4,4'-DDE	40.000	36.218	9.5	91	0.00	5.23- 5.43
12		Endosulfan I	40.000	41.075	-2.7	102	0.00	5.12- 5.32
13		Dieldrin	40.000	37.670	5.8	96	0.00	5.31- 5.51
14		Endrin	40.000	34.972	12.6	88	0.00	5.47- 5.67
15		4,4'-DDD	40.000	35.371	11.6	90	0.00	5.60- 5.80
16		Endosulfan II	40.000	36.926	7.7	94	0.00	5.63- 5.83
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	40.000	43.033	-7.6	102	0.00	5.82- 6.02
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	40.000	37.489	6.3	95	0.00	5.72- 5.92
19		Methoxychlor	40.000	44.836	-12.1	103	0.00	6.18- 6.38
20		Endosulfan Sulfate	40.000	37.598	6.0	94	0.00	5.89- 6.09
21		Endrin Ketone	40.000	42.208	-5.5	103	0.00	6.23- 6.43
22	L1	Chlordane-A	----------NA----------					
23	L1	Chlordane-B	----------NA----------					
24	L1	Chlordane-C	----------NA----------					
25	L1	Chlordane-D	----------NA----------					
26	L1	Chlordane-E	----------NA----------					
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F	----------NA----------					
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A	----------NA----------					
29	L2	Toxaphene-B	----------NA----------					
30	L2	Toxaphene-C	----------NA----------					
31	L2	Toxaphene-D	----------NA----------					
32	L2	Toxaphene-E	----------NA----------					
33	S	Decachlorobiphenyl	40.000	53.991	-35.0#	138	0.00	7.31- 7.51

11.6.21 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171210.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	39.579	1.1	99	0.00	3.29-	3.49
2		alpha-BHC	40.000	43.625	-9.1	102	0.00	3.70-	3.90
3		gamma-BHC (Lindane)	40.000	41.774	-4.4	100	0.00	3.96-	4.16
4		beta-BHC	40.000	41.264	-3.2	104	0.00	4.18-	4.38
5		delta-BHC	40.000	42.602	-6.5	101	0.00	4.36-	4.56
6		Heptachlor	40.000	41.857	-4.6	101	0.00	4.23-	4.43
7		Aldrin	40.000	44.043	-10.1	105	0.00	4.44-	4.64
8		Heptachlor Epoxide	40.000	41.409	-3.5	103	0.00	4.81-	5.01
9		gamma-Chlordane	40.000	41.805	-4.5	101	0.00	5.00-	5.20
10		alpha-Chlordane	40.000	40.624	-1.6	100	0.00	5.05-	5.25
11		4,4'-DDE	40.000	39.872	0.3	95	0.00	5.19-	5.39
12		Endosulfan I	40.000	41.353	-3.4	102	0.00	5.09-	5.29
13		Dieldrin	40.000	40.731	-1.8	99	0.00	5.29-	5.49
14		Endrin	40.000	40.044	-0.1	96	0.00	5.49-	5.69
15		4,4'-DDD	40.000	39.507	1.2	94	0.00	5.59-	5.79
16		Endosulfan II	40.000	39.315	1.7	98	0.00	5.70-	5.90
		----------	Amount	Calc.	%Drift	----------			
17		4,4'-DDT	40.000	42.013	-5.0	100	0.00	5.78-	5.98
		----------	Amount	Calc.	%Drift	----------			
18		Endrin Aldehyde	40.000	38.979	2.6	97	0.00	5.83-	6.03
19		Methoxychlor	40.000	42.824	-7.1	99	0.00	6.20-	6.40
20		Endosulfan Sulfate	40.000	39.617	1.0	98	0.00	6.00-	6.20
21		Endrin Ketone	40.000	41.641	-4.1	97	0.00	6.38-	6.58
22	L1	Chlordane-A		----------NA----------					
23	L1	Chlordane-B		----------NA----------					
24	L1	Chlordane-C		----------NA----------					
25	L1	Chlordane-D		----------NA----------					
26	L1	Chlordane-E		----------NA----------					
27	L1	Chlordane-F		----------NA----------					
28	L2	Toxaphene-A		----------NA----------					
29	L2	Toxaphene-B		----------NA----------					
30	L2	Toxaphene-C		----------NA----------					
31	L2	Toxaphene-D		----------NA----------					
32	L2	Toxaphene-E		----------NA----------					
33	S	Decachlorobiphenyl	40.000	51.027	-27.6#	135	0.00	7.28-	7.48

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170856.D GST4174_083123DOD.M Wed Nov 15 10:33:40 2023

11.6.21 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171211.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171211.D\ECD1A.CH Vial: 5
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171211.D\ECD2B.CH
Acq On : 10 Nov 2023 3:19 pm Operator: eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------		
2		alpha-BHC			----------NA----------		
3		gamma-BHC (Lindane)			----------NA----------		
4		beta-BHC			----------NA----------		
5		delta-BHC			----------NA----------		
6		Heptachlor			----------NA----------		
7		Aldrin			----------NA----------		
8		Heptachlor Epoxide			----------NA----------		
9		gamma-Chlordane			----------NA----------		
10		alpha-Chlordane			----------NA----------		
11		4,4'-DDE			----------NA----------		
12		Endosulfan I			----------NA----------		
13		Dieldrin			----------NA----------		
14		Endrin			----------NA----------		
15		4,4'-DDD			----------NA----------		
16		Endosulfan II			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde			----------NA----------		
19		Methoxychlor			----------NA----------		
20		Endosulfan Sulfate			----------NA----------		
21		Endrin Ketone			----------NA----------		
22	L1	Chlordane-A	200.000	198.533	0.7 105	0.00	4.16- 4.36
23	L1	Chlordane-B	200.000	191.109	4.4 101	0.00	4.32- 4.52
24	L1	Chlordane-C	200.000	199.776	0.1 104	0.00	4.54- 4.74
25	L1	Chlordane-D	200.000	190.291	4.9 100	0.00	5.04- 5.24
26	L1	Chlordane-E	200.000	194.475	2.8 101	0.00	5.09- 5.29
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F	200.000	172.793	13.6 103	0.00	5.68- 5.88
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A			----------NA----------		
29	L2	Toxaphene-B			----------NA----------		
30	L2	Toxaphene-C			----------NA----------		
31	L2	Toxaphene-D			----------NA----------		
32	L2	Toxaphene-E			----------NA----------		
33	S	Decachlorobiphenyl			----------NA----------		

11.6.22
11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171211.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2		alpha-BHC			----------NA----------				
3		gamma-BHC (Lindane)			----------NA----------				
4		beta-BHC			----------NA----------				
5		delta-BHC			----------NA----------				
6		Heptachlor			----------NA----------				
7		Aldrin			----------NA----------				
8		Heptachlor Epoxide			----------NA----------				
9		gamma-Chlordane			----------NA----------				
10		alpha-Chlordane			----------NA----------				
11		4,4'-DDE			----------NA----------				
12		Endosulfan I			----------NA----------				
13		Dieldrin			----------NA----------				
14		Endrin			----------NA----------				
15		4,4'-DDD			----------NA----------				
16		Endosulfan II			----------NA----------				
			Amount	Calc.	%Drift				
17		4,4'-DDT			----------NA----------				
			Amount	Calc.	%Drift				
18		Endrin Aldehyde			----------NA----------				
19		Methoxychlor			----------NA----------				
20		Endosulfan Sulfate			----------NA----------				
21		Endrin Ketone			----------NA----------				
22	L1	Chlordane-A	200.000	201.735	-0.9	106	0.00	4.09-	4.29
23	L1	Chlordane-B	200.000	204.375	-2.2	106	0.00	4.22-	4.42
24	L1	Chlordane-C	200.000	204.468	-2.2	108	0.00	4.53-	4.73
25	L1	Chlordane-D	200.000	209.491	-4.7	106	0.00	5.00-	5.20
26	L1	Chlordane-E	200.000	209.827	-4.9	107	0.00	5.05-	5.25
27	L1	Chlordane-F	200.000	206.770	-3.4	109	0.00	5.71-	5.91
28	L2	Toxaphene-A			----------NA----------				
29	L2	Toxaphene-B			----------NA----------				
30	L2	Toxaphene-C			----------NA----------				
31	L2	Toxaphene-D			----------NA----------				
32	L2	Toxaphene-E			----------NA----------				
33	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 15 10:33:10 2023

11.6.22

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171212.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171212.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171212.D\ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm Operator: eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------		
2		alpha-BHC			----------NA----------		
3		gamma-BHC (Lindane)			----------NA----------		
4		beta-BHC			----------NA----------		
5		delta-BHC			----------NA----------		
6		Heptachlor			----------NA----------		
7		Aldrin			----------NA----------		
8		Heptachlor Epoxide			----------NA----------		
9		gamma-Chlordane			----------NA----------		
10		alpha-Chlordane			----------NA----------		
11		4,4'-DDE			----------NA----------		
12		Endosulfan I			----------NA----------		
13		Dieldrin			----------NA----------		
14		Endrin			----------NA----------		
15		4,4'-DDD			----------NA----------		
16		Endosulfan II			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde			----------NA----------		
19		Methoxychlor			----------NA----------		
20		Endosulfan Sulfate			----------NA----------		
21		Endrin Ketone			----------NA----------		
22	L1	Chlordane-A			----------NA----------		
23	L1	Chlordane-B			----------NA----------		
24	L1	Chlordane-C			----------NA----------		
25	L1	Chlordane-D			----------NA----------		
26	L1	Chlordane-E			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A	500.000	487.319	2.5	106 0.00	5.25- 5.45
29	L2	Toxaphene-B	500.000	495.844	0.8	98 0.00	5.60- 5.80
30	L2	Toxaphene-C	500.000	510.893	-2.2	102 0.00	5.66- 5.86
31	L2	Toxaphene-D	500.000	545.317	-9.1	104 0.00	5.82- 6.02
32	L2	Toxaphene-E	500.000	549.607	-9.9	111 0.00	6.18- 6.38
33	S	Decachlorobiphenyl			----------NA----------		

11.6.23
11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171212.D

***** Signal #2 *****

			Amount	Calc.	%Drift			
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC		----------NA----------				
3		gamma-BHC (Lindane)		----------NA----------				
4		beta-BHC		----------NA----------				
5		delta-BHC		----------NA----------				
6		Heptachlor		----------NA----------				
7		Aldrin		----------NA----------				
8		Heptachlor Epoxide		----------NA----------				
9		gamma-Chlordane		----------NA----------				
10		alpha-Chlordane		----------NA----------				
11		4,4'-DDE		----------NA----------				
12		Endosulfan I		----------NA----------				
13		Dieldrin		----------NA----------				
14		Endrin		----------NA----------				
15		4,4'-DDD		----------NA----------				
16		Endosulfan II		----------NA----------				
			Amount	Calc.	%Drift			
17		4,4'-DDT		----------NA----------				
			Amount	Calc.	%Drift			
18		Endrin Aldehyde		----------NA----------				
19		Methoxychlor		----------NA----------				
20		Endosulfan Sulfate		----------NA----------				
21		Endrin Ketone		----------NA----------				
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	L2	Toxaphene-A	500.000	525.395	-5.1	108	0.00	5.26- 5.46
29	L2	Toxaphene-B	500.000	513.670	-2.7	106	0.00	5.67- 5.87
30	L2	Toxaphene-C	500.000	488.983	2.2	96	0.00	5.73- 5.93
31	L2	Toxaphene-D	500.000	521.806	-4.4	102	0.00	5.92- 6.12
32	L2	Toxaphene-E	500.000	535.611	-7.1	106	0.00	6.30- 6.50
33	S	Decachlorobiphenyl		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 15 10:33:12 2023

11.6.23

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171222.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171222.D\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171222.D\ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm Operator: eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	48.375	-20.9#	123	0.00	3.35- 3.55
2		alpha-BHC	40.000	49.477	-23.7#	126	0.00	3.67- 3.87
3		gamma-BHC (Lindane)	40.000	48.825	-22.1#	125	0.00	3.91- 4.11
4		beta-BHC	40.000	51.265	-28.2#	131	0.00	4.06- 4.26
5		delta-BHC	40.000	39.660	0.9	100	0.00	4.23- 4.43
6		Heptachlor	40.000	46.002	-15.0	123	0.00	4.32- 4.52
7		Aldrin	40.000	45.085	-12.7	115	0.00	4.55- 4.75
8		Heptachlor Epoxide	40.000	43.001	-7.5	110	0.00	4.85- 5.05
9		gamma-Chlordane	40.000	44.227	-10.6	112	0.00	5.04- 5.24
10		alpha-Chlordane	40.000	45.844	-14.6	112	0.00	5.09- 5.29
11		4,4'-DDE	40.000	43.102	-7.8	109	0.00	5.23- 5.43
12		Endosulfan I	40.000	46.480	-16.2	116	0.00	5.12- 5.32
13		Dieldrin	40.000	43.023	-7.6	110	0.00	5.31- 5.51
14		Endrin	40.000	42.699	-6.7	107	0.00	5.47- 5.67
15		4,4'-DDD	40.000	40.889	-2.2	104	0.00	5.60- 5.80
16		Endosulfan II	40.000	41.221	-3.1	104	0.00	5.63- 5.83
		---------- Amount	Calc.	%Drift	----------			
17		4,4'-DDT	40.000	46.703	-16.8	113	0.00	5.82- 6.02
		---------- Amount	Calc.	%Drift	----------			
18		Endrin Aldehyde	40.000	42.026	-5.1	106	0.00	5.72- 5.92
19		Methoxychlor	40.000	46.706	-16.8	107	0.00	6.18- 6.38
20		Endosulfan Sulfate	40.000	37.710	5.7	95	0.00	5.89- 6.09
21		Endrin Ketone	40.000	30.917	22.7#	75	0.00	6.23- 6.43
22	L1	Chlordane-A	----------NA----------					
23	L1	Chlordane-B	----------NA----------					
24	L1	Chlordane-C	----------NA----------					
25	L1	Chlordane-D	----------NA----------					
26	L1	Chlordane-E	----------NA----------					
		---------- Amount	Calc.	%Drift	----------			
27	L1	Chlordane-F	----------NA----------					
		---------- Amount	Calc.	%Drift	----------			
28	L2	Toxaphene-A	----------NA----------					
29	L2	Toxaphene-B	----------NA----------					
30	L2	Toxaphene-C	----------NA----------					
31	L2	Toxaphene-D	----------NA----------					
32	L2	Toxaphene-E	----------NA----------					
33	S	Decachlorobiphenyl	40.000	59.504	-48.8#	152	0.00	7.31- 7.51

11.6.24 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171222.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	45.440	-13.6	113	0.00	3.29-	3.49
2		alpha-BHC	40.000	48.607	-21.5#	114	0.00	3.70-	3.90
3		gamma-BHC (Lindane)	40.000	45.680	-14.2	110	0.00	3.96-	4.16
4		beta-BHC	40.000	46.376	-15.9	117	0.00	4.18-	4.38
5		delta-BHC	40.000	37.890	5.3	90	0.00	4.36-	4.56
6		Heptachlor	40.000	44.284	-10.7	107	0.00	4.23-	4.43
7		Aldrin	40.000	44.057	-10.1	105	0.00	4.44-	4.64
8		Heptachlor Epoxide	40.000	41.178	-2.9	103	0.00	4.81-	5.01
9		gamma-Chlordane	40.000	41.352	-3.4	100	0.00	5.00-	5.20
10		alpha-Chlordane	40.000	40.015	-0.0	99	0.00	5.05-	5.25
11		4,4'-DDE	40.000	41.020	-2.6	98	0.00	5.19-	5.39
12		Endosulfan I	40.000	39.733	0.7	98	0.00	5.09-	5.29
13		Dieldrin	40.000	39.684	0.8	96	0.00	5.29-	5.49
14		Endrin	40.000	41.157	-2.9	99	0.00	5.49-	5.69
15		4,4'-DDD	40.000	41.060	-2.7	97	0.00	5.59-	5.79
16		Endosulfan II	40.000	38.172	4.6	95	0.00	5.70-	5.90
		----------	Amount	Calc.	%Drift	----------			
17		4,4'-DDT	40.000	33.943	15.1	79	0.00	5.78-	5.98
		----------	Amount	Calc.	%Drift	----------			
18		Endrin Aldehyde	40.000	37.841	5.4	94	0.00	5.83-	6.03
19		Methoxychlor	40.000	37.189	7.0	86	0.00	6.20-	6.40
20		Endosulfan Sulfate	40.000	33.373	16.6	83	0.00	6.00-	6.20
21		Endrin Ketone	40.000	26.115	34.7#	61	0.00	6.38-	6.58
22	L1	Chlordane-A	----------NA----------						
23	L1	Chlordane-B	----------NA----------						
24	L1	Chlordane-C	----------NA----------						
25	L1	Chlordane-D	----------NA----------						
26	L1	Chlordane-E	----------NA----------						
27	L1	Chlordane-F	----------NA----------						
28	L2	Toxaphene-A	----------NA----------						
29	L2	Toxaphene-B	----------NA----------						
30	L2	Toxaphene-C	----------NA----------						
31	L2	Toxaphene-D	----------NA----------						
32	L2	Toxaphene-E	----------NA----------						
33	S	Decachlorobiphenyl	40.000	51.291	-28.2#	135	0.00	7.28-	7.48

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170856.D GST4174_083123DOD.M Wed Nov 15 10:33:42 2023

11.6.24 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171223.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171223.D\ECD1A.CH Vial: 5
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171223.D\ECD2B.CH
Acq On : 10 Nov 2023 6:17 pm Operator: eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------			
2		alpha-BHC			----------NA----------			
3		gamma-BHC (Lindane)			----------NA----------			
4		beta-BHC			----------NA----------			
5		delta-BHC			----------NA----------			
6		Heptachlor			----------NA----------			
7		Aldrin			----------NA----------			
8		Heptachlor Epoxide			----------NA----------			
9		gamma-Chlordane			----------NA----------			
10		alpha-Chlordane			----------NA----------			
11		4,4'-DDE			----------NA----------			
12		Endosulfan I			----------NA----------			
13		Dieldrin			----------NA----------			
14		Endrin			----------NA----------			
15		4,4'-DDD			----------NA----------			
16		Endosulfan II			----------NA----------			
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT			----------NA----------			
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde			----------NA----------			
19		Methoxychlor			----------NA----------			
20		Endosulfan Sulfate			----------NA----------			
21		Endrin Ketone			----------NA----------			
22	L1	Chlordane-A	200.000	226.387	-13.2	120	0.00	4.16- 4.36
23	L1	Chlordane-B	200.000	223.880	-11.9	118	0.00	4.32- 4.52
24	L1	Chlordane-C	200.000	223.625	-11.8	116	0.00	4.54- 4.74
25	L1	Chlordane-D	200.000	214.783	-7.4	113	0.00	5.04- 5.24
26	L1	Chlordane-E	200.000	203.162	-1.6	106	0.00	5.09- 5.29
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F	200.000	210.519	-5.3	126	0.00	5.68- 5.88
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A			----------NA----------			
29	L2	Toxaphene-B			----------NA----------			
30	L2	Toxaphene-C			----------NA----------			
31	L2	Toxaphene-D			----------NA----------			
32	L2	Toxaphene-E			----------NA----------			
33	S	Decachlorobiphenyl			----------NA----------			

11.6.25
11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171223.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2		alpha-BHC			----------NA----------				
3		gamma-BHC (Lindane)			----------NA----------				
4		beta-BHC			----------NA----------				
5		delta-BHC			----------NA----------				
6		Heptachlor			----------NA----------				
7		Aldrin			----------NA----------				
8		Heptachlor Epoxide			----------NA----------				
9		gamma-Chlordane			----------NA----------				
10		alpha-Chlordane			----------NA----------				
11		4,4'-DDE			----------NA----------				
12		Endosulfan I			----------NA----------				
13		Dieldrin			----------NA----------				
14		Endrin			----------NA----------				
15		4,4'-DDD			----------NA----------				
16		Endosulfan II			----------NA----------				
			Amount	Calc.	%Drift				
17		4,4'-DDT			----------NA----------				
			Amount	Calc.	%Drift				
18		Endrin Aldehyde			----------NA----------				
19		Methoxychlor			----------NA----------				
20		Endosulfan Sulfate			----------NA----------				
21		Endrin Ketone			----------NA----------				
22	L1	Chlordane-A	200.000	191.947	4.0	101	0.00	4.09-	4.29
23	L1	Chlordane-B	200.000	208.960	-4.5	108	0.00	4.22-	4.42
24	L1	Chlordane-C	200.000	200.858	-0.4	106	0.00	4.53-	4.73
25	L1	Chlordane-D	200.000	205.409	-2.7	104	0.00	5.00-	5.20
26	L1	Chlordane-E	200.000	203.754	-1.9	104	0.00	5.05-	5.25
27	L1	Chlordane-F	200.000	173.843	13.1	91	0.00	5.71-	5.91
28	L2	Toxaphene-A			----------NA----------				
29	L2	Toxaphene-B			----------NA----------				
30	L2	Toxaphene-C			----------NA----------				
31	L2	Toxaphene-D			----------NA----------				
32	L2	Toxaphene-E			----------NA----------				
33	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 15 10:33:14 2023

11.6.25 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171224.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171224.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\GST4180_111023\ST171224.D\ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm Operator: eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Wed Nov 15 08:52:54 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------		
2		alpha-BHC			----------NA----------		
3		gamma-BHC (Lindane)			----------NA----------		
4		beta-BHC			----------NA----------		
5		delta-BHC			----------NA----------		
6		Heptachlor			----------NA----------		
7		Aldrin			----------NA----------		
8		Heptachlor Epoxide			----------NA----------		
9		gamma-Chlordane			----------NA----------		
10		alpha-Chlordane			----------NA----------		
11		4,4'-DDE			----------NA----------		
12		Endosulfan I			----------NA----------		
13		Dieldrin			----------NA----------		
14		Endrin			----------NA----------		
15		4,4'-DDD			----------NA----------		
16		Endosulfan II			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde			----------NA----------		
19		Methoxychlor			----------NA----------		
20		Endosulfan Sulfate			----------NA----------		
21		Endrin Ketone			----------NA----------		
22	L1	Chlordane-A			----------NA----------		
23	L1	Chlordane-B			----------NA----------		
24	L1	Chlordane-C			----------NA----------		
25	L1	Chlordane-D			----------NA----------		
26	L1	Chlordane-E			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A	500.000	603.839	-20.8#	131 0.00	5.25- 5.45
29	L2	Toxaphene-B	500.000	513.604	-2.7	102 0.00	5.60- 5.80
30	L2	Toxaphene-C	500.000	582.964	-16.6	116 0.00	5.66- 5.86
31	L2	Toxaphene-D	500.000	575.788	-15.2	110 0.00	5.82- 6.02
32	L2	Toxaphene-E	500.000	597.078	-19.4	120 0.00	6.18- 6.38
33	S	Decachlorobiphenyl			----------NA----------		

11.6.26
11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4180-CC4174
Lab FileID: ST171224.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			----------NA----------				
2		alpha-BHC			----------NA----------				
3		gamma-BHC (Lindane)			----------NA----------				
4		beta-BHC			----------NA----------				
5		delta-BHC			----------NA----------				
6		Heptachlor			----------NA----------				
7		Aldrin			----------NA----------				
8		Heptachlor Epoxide			----------NA----------				
9		gamma-Chlordane			----------NA----------				
10		alpha-Chlordane			----------NA----------				
11		4,4'-DDE			----------NA----------				
12		Endosulfan I			----------NA----------				
13		Dieldrin			----------NA----------				
14		Endrin			----------NA----------				
15		4,4'-DDD			----------NA----------				
16		Endosulfan II			----------NA----------				
			Amount	Calc.	%Drift				
17		4,4'-DDT			----------NA----------				
			Amount	Calc.	%Drift				
18		Endrin Aldehyde			----------NA----------				
19		Methoxychlor			----------NA----------				
20		Endosulfan Sulfate			----------NA----------				
21		Endrin Ketone			----------NA----------				
22	L1	Chlordane-A			----------NA----------				
23	L1	Chlordane-B			----------NA----------				
24	L1	Chlordane-C			----------NA----------				
25	L1	Chlordane-D			----------NA----------				
26	L1	Chlordane-E			----------NA----------				
27	L1	Chlordane-F			----------NA----------				
28	L2	Toxaphene-A	500.000	603.336	-20.7#	124	0.00	5.26-	5.46
29	L2	Toxaphene-B	500.000	474.055	5.2	97	0.00	5.67-	5.87
30	L2	Toxaphene-C	500.000	482.057	3.6	95	0.00	5.73-	5.93
31	L2	Toxaphene-D	500.000	475.472	4.9	93	0.00	5.92-	6.12
32	L2	Toxaphene-E	500.000	445.601	10.9	88	0.00	6.30-	6.50
33	S	Decachlorobiphenyl			----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 15 10:33:16 2023

11.6.26

11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171458.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171458.D\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171458.D\ECD2B.CH
Acq On : 21 Nov 2023 10:45 am Operator: williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	42.928	-7.3	109	0.00	3.33- 3.53
2		alpha-BHC	40.000	41.546	-3.9	106	0.00	3.65- 3.85
3		gamma-BHC (Lindane)	40.000	42.370	-5.9	108	0.00	3.89- 4.09
4		beta-BHC	40.000	40.845	-2.1	104	0.00	4.04- 4.24
5		delta-BHC	40.000	38.384	4.0	97	0.00	4.21- 4.41
6		Heptachlor	40.000	39.613	1.0	106	0.00	4.30- 4.50
7		Aldrin	40.000	38.298	4.3	97	0.00	4.53- 4.73
8		Heptachlor Epoxide	40.000	36.824	7.9	94	0.00	4.84- 5.04
9		gamma-Chlordane	40.000	36.894	7.8	93	0.00	5.02- 5.22
10		alpha-Chlordane	40.000	37.296	6.8	91	0.03	5.07- 5.27
11		4,4'-DDE	40.000	38.428	3.9	97	0.00	5.22- 5.42
12		Endosulfan I	40.000	39.266	1.8	98	0.00	5.10- 5.30
13		Dieldrin	40.000	37.187	7.0	95	0.00	5.30- 5.50
14		Endrin	40.000	37.262	6.8	94	0.00	5.45- 5.65
15		4,4'-DDD	40.000	39.701	0.7	101	0.03	5.58- 5.78
16		Endosulfan II	40.000	38.442	3.9	97	0.00	5.61- 5.81
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	40.000	49.609	-24.0#	121	0.00	5.80- 6.00
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	40.000	38.408	4.0	97	0.00	5.71- 5.91
19		Methoxychlor	40.000	52.468	-31.2#	120	0.00	6.16- 6.36
20		Endosulfan Sulfate	40.000	40.629	-1.6	102	0.00	5.87- 6.07
21		Endrin Ketone	40.000	44.987	-12.5	110	0.00	6.21- 6.41
22	L1	Chlordane-A	----------NA----------					
23	L1	Chlordane-B	----------NA----------					
24	L1	Chlordane-C	----------NA----------					
25	L1	Chlordane-D	----------NA----------					
26	L1	Chlordane-E	----------NA----------					
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F	----------NA----------					
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A	----------NA----------					
29	L2	Toxaphene-B	----------NA----------					
30	L2	Toxaphene-C	----------NA----------					
31	L2	Toxaphene-D	----------NA----------					
32	L2	Toxaphene-E	----------NA----------					
33	S	Decachlorobiphenyl	40.000	46.137	-15.3	118	0.00	7.29- 7.49

11.6.27 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171458.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	42.376	-5.9	106	0.00	3.27-	3.47
2		alpha-BHC	40.000	42.955	-7.4	100	0.00	3.68-	3.88
3		gamma-BHC (Lindane)	40.000	40.393	-1.0	97	0.00	3.94-	4.14
4		beta-BHC	40.000	38.853	2.9	98	0.00	4.16-	4.36
5		delta-BHC	40.000	42.223	-5.6	100	0.00	4.34-	4.54
6		Heptachlor	40.000	41.942	-4.9	101	0.00	4.21-	4.41
7		Aldrin	40.000	40.466	-1.2	96	0.00	4.42-	4.62
8		Heptachlor Epoxide	40.000	38.031	4.9	95	0.00	4.80-	5.00
9		gamma-Chlordane	40.000	38.026	4.9	92	0.00	4.99-	5.18
10		alpha-Chlordane	40.000	37.958	5.1	94	0.00	5.03-	5.23
11		4,4'-DDE	40.000	39.892	0.3	95	0.00	5.17-	5.37
12		Endosulfan I	40.000	37.606	6.0	93	0.00	5.07-	5.27
13		Dieldrin	40.000	38.908	2.7	94	0.00	5.27-	5.47
14		Endrin	40.000	38.928	2.7	93	0.00	5.47-	5.67
15		4,4'-DDD	40.000	41.036	-2.6	97	0.00	5.58-	5.78
16		Endosulfan II	40.000	39.600	1.0	99	0.00	5.69-	5.89
		---------- Amount	Calc.	%Drift	----------				
17		4,4'-DDT	40.000	43.593	-9.0	104	0.00	5.76-	5.96
		---------- Amount	Calc.	%Drift	----------				
18		Endrin Aldehyde	40.000	39.876	0.3	99	0.00	5.82-	6.02
19		Methoxychlor	40.000	47.171	-17.9	110	0.00	6.19-	6.39
20		Endosulfan Sulfate	40.000	41.119	-2.8	102	0.00	5.98-	6.18
21		Endrin Ketone	40.000	44.315	-10.8	103	0.00	6.37-	6.57
22	L1	Chlordane-A	----------NA----------						
23	L1	Chlordane-B	----------NA----------						
24	L1	Chlordane-C	----------NA----------						
25	L1	Chlordane-D	----------NA----------						
26	L1	Chlordane-E	----------NA----------						
27	L1	Chlordane-F	----------NA----------						
28	L2	Toxaphene-A	----------NA----------						
29	L2	Toxaphene-B	----------NA----------						
30	L2	Toxaphene-C	----------NA----------						
31	L2	Toxaphene-D	----------NA----------						
32	L2	Toxaphene-E	----------NA----------						
33	S	Decachlorobiphenyl	40.000	42.986	-7.5	113	0.00	7.26-	7.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170856.D GST4174_083123DOD.M Wed Nov 22 10:15:39 2023

11.6.27 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171459.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171459.D\ECD1A.CH Vial: 5
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171459.D\ECD2B.CH
Acq On : 21 Nov 2023 10:59 am Operator: williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------			
2		alpha-BHC			----------NA----------			
3		gamma-BHC (Lindane)			----------NA----------			
4		beta-BHC			----------NA----------			
5		delta-BHC			----------NA----------			
6		Heptachlor			----------NA----------			
7		Aldrin			----------NA----------			
8		Heptachlor Epoxide			----------NA----------			
9		gamma-Chlordane			----------NA----------			
10		alpha-Chlordane			----------NA----------			
11		4,4'-DDE			----------NA----------			
12		Endosulfan I			----------NA----------			
13		Dieldrin			----------NA----------			
14		Endrin			----------NA----------			
15		4,4'-DDD			----------NA----------			
16		Endosulfan II			----------NA----------			
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT			----------NA----------			
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde			----------NA----------			
19		Methoxychlor			----------NA----------			
20		Endosulfan Sulfate			----------NA----------			
21		Endrin Ketone			----------NA----------			
22	L1	Chlordane-A	200.000	166.878	16.6	89	0.00	4.15- 4.35
23	L1	Chlordane-B	200.000	183.990	8.0	97	0.00	4.30- 4.50
24	L1	Chlordane-C	200.000	175.704	12.1	91	0.00	4.52- 4.72
25	L1	Chlordane-D	200.000	160.775	19.6	84	0.00	5.02- 5.22
26	L1	Chlordane-E	200.000	146.722	26.6#	76	0.00	5.08- 5.28
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F	200.000	163.325	18.3	97	0.00	5.66- 5.86
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A			----------NA----------			
29	L2	Toxaphene-B			----------NA----------			
30	L2	Toxaphene-C			----------NA----------			
31	L2	Toxaphene-D			----------NA----------			
32	L2	Toxaphene-E			----------NA----------			
33	S	Decachlorobiphenyl			----------NA----------			

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171459.D

***** Signal #2 *****

			Amount	Calc.	%Drift		
1	S	Tetrachloro-m-xylene		NA			
2		alpha-BHC		NA			
3		gamma-BHC (Lindane)		NA			
4		beta-BHC		NA			
5		delta-BHC		NA			
6		Heptachlor		NA			
7		Aldrin		NA			
8		Heptachlor Epoxide		NA			
9		gamma-Chlordane		NA			
10		alpha-Chlordane		NA			
11		4,4'-DDE		NA			
12		Endosulfan I		NA			
13		Dieldrin		NA			
14		Endrin		NA			
15		4,4'-DDD		NA			
16		Endosulfan II		NA			
17		4,4'-DDT		NA			
18		Endrin Aldehyde		NA			
19		Methoxychlor		NA			
20		Endosulfan Sulfate		NA			
21		Endrin Ketone		NA			
22	L1	Chlordane-A	200.000	151.833	24.1#	80	0.00	4.07- 4.27
23	L1	Chlordane-B	200.000	174.769	12.6	91	0.00	4.21- 4.41
24	L1	Chlordane-C	200.000	162.226	18.9	85	0.00	4.51- 4.71
25	L1	Chlordane-D	200.000	151.107	24.4#	76	0.01	4.99- 5.19
26	L1	Chlordane-E	200.000	163.656	18.2	84	0.00	5.03- 5.23
27	L1	Chlordane-F	200.000	168.431	15.8	89	0.00	5.69- 5.89
28	L2	Toxaphene-A		NA			
29	L2	Toxaphene-B		NA			
30	L2	Toxaphene-C		NA			
31	L2	Toxaphene-D		NA			
32	L2	Toxaphene-E		NA			
33	S	Decachlorobiphenyl		NA			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 22 12:29:17 2023

11.6.28 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171460.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171460.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171460.D\ECD2B.CH
Acq On : 21 Nov 2023 11:14 am Operator: williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------		
2		alpha-BHC			----------NA----------		
3		gamma-BHC (Lindane)			----------NA----------		
4		beta-BHC			----------NA----------		
5		delta-BHC			----------NA----------		
6		Heptachlor			----------NA----------		
7		Aldrin			----------NA----------		
8		Heptachlor Epoxide			----------NA----------		
9		gamma-Chlordane			----------NA----------		
10		alpha-Chlordane			----------NA----------		
11		4,4'-DDE			----------NA----------		
12		Endosulfan I			----------NA----------		
13		Dieldrin			----------NA----------		
14		Endrin			----------NA----------		
15		4,4'-DDD			----------NA----------		
16		Endosulfan II			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde			----------NA----------		
19		Methoxychlor			----------NA----------		
20		Endosulfan Sulfate			----------NA----------		
21		Endrin Ketone			----------NA----------		
22	L1	Chlordane-A			----------NA----------		
23	L1	Chlordane-B			----------NA----------		
24	L1	Chlordane-C			----------NA----------		
25	L1	Chlordane-D			----------NA----------		
26	L1	Chlordane-E			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A	500.000	439.923	12.0	96 0.00	5.23- 5.43
29	L2	Toxaphene-B	500.000	588.577	-17.7	117 0.00	5.58- 5.78
30	L2	Toxaphene-C	500.000	476.870	4.6	95 0.00	5.65- 5.85
31	L2	Toxaphene-D	500.000	526.887	-5.4	101 0.00	5.81- 6.01
32	L2	Toxaphene-E	500.000	540.795	-8.2	109 0.00	6.16- 6.36
33	S	Decachlorobiphenyl			----------NA----------		

11.6.29 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171460.D

***** Signal #2 *****

			Amount	Calc.	%Drift			
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC		----------NA----------				
3		gamma-BHC (Lindane)		----------NA----------				
4		beta-BHC		----------NA----------				
5		delta-BHC		----------NA----------				
6		Heptachlor		----------NA----------				
7		Aldrin		----------NA----------				
8		Heptachlor Epoxide		----------NA----------				
9		gamma-Chlordane		----------NA----------				
10		alpha-Chlordane		----------NA----------				
11		4,4'-DDE		----------NA----------				
12		Endosulfan I		----------NA----------				
13		Dieldrin		----------NA----------				
14		Endrin		----------NA----------				
15		4,4'-DDD		----------NA----------				
16		Endosulfan II		----------NA----------				
			Amount	Calc.	%Drift			
17		4,4'-DDT		----------NA----------				
			Amount	Calc.	%Drift			
18		Endrin Aldehyde		----------NA----------				
19		Methoxychlor		----------NA----------				
20		Endosulfan Sulfate		----------NA----------				
21		Endrin Ketone		----------NA----------				
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	L2	Toxaphene-A	500.000	420.765	15.8	86	0.00	5.24- 5.44
29	L2	Toxaphene-B	500.000	458.867	8.2	94	0.00	5.65- 5.85
30	L2	Toxaphene-C	500.000	440.954	11.8	86	0.00	5.71- 5.91
31	L2	Toxaphene-D	500.000	484.887	3.0	95	0.00	5.90- 6.10
32	L2	Toxaphene-E	500.000	543.739	-8.7	108	0.00	6.28- 6.48
33	S	Decachlorobiphenyl		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 22 12:29:19 2023

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171466.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171466.D\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171466.D\ECD2B.CH
Acq On : 21 Nov 2023 12:43 pm Operator: williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	42.609	-6.5	108	0.00	3.33- 3.53
2		alpha-BHC	40.000	42.860	-7.1	109	0.00	3.65- 3.85
3		gamma-BHC (Lindane)	40.000	43.828	-9.6	112	0.00	3.89- 4.09
4		beta-BHC	40.000	42.488	-6.2	108	0.00	4.04- 4.24
5		delta-BHC	40.000	40.408	-1.0	102	0.00	4.21- 4.41
6		Heptachlor	40.000	40.306	-0.8	107	0.00	4.30- 4.50
7		Aldrin	40.000	40.643	-1.6	103	0.00	4.53- 4.73
8		Heptachlor Epoxide	40.000	38.833	2.9	99	0.00	4.84- 5.04
9		gamma-Chlordane	40.000	39.723	0.7	101	0.00	5.02- 5.22
10		alpha-Chlordane	40.000	38.794	3.0	95	0.03	5.07- 5.27
11		4,4'-DDE	40.000	38.895	2.8	98	0.00	5.22- 5.42
12		Endosulfan I	40.000	40.842	-2.1	102	0.00	5.10- 5.30
13		Dieldrin	40.000	39.513	1.2	101	0.00	5.30- 5.50
14		Endrin	40.000	40.000	0.0	101	0.00	5.45- 5.65
15		4,4'-DDD	40.000	40.401	-1.0	102	0.00	5.58- 5.78
16		Endosulfan II	40.000	40.362	-0.9	102	0.00	5.61- 5.81
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	40.000	49.890	-24.7#	122	0.00	5.80- 6.00
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	40.000	42.192	-5.5	107	0.00	5.71- 5.91
19		Methoxychlor	40.000	55.490	-38.7#	127	0.00	6.16- 6.36
20		Endosulfan Sulfate	40.000	43.709	-9.3	110	0.00	5.87- 6.07
21		Endrin Ketone	40.000	49.370	-23.4#	120	0.00	6.21- 6.41
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
27	L1	Chlordane-F		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
28	L2	Toxaphene-A		----------NA----------				
29	L2	Toxaphene-B		----------NA----------				
30	L2	Toxaphene-C		----------NA----------				
31	L2	Toxaphene-D		----------NA----------				
32	L2	Toxaphene-E		----------NA----------				
33	S	Decachlorobiphenyl	40.000	48.467	-21.2#	124	0.00	7.29- 7.49

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171466.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	41.946	-4.9	105	0.00	3.27-	3.47
2		alpha-BHC	40.000	43.346	-8.4	101	0.00	3.68-	3.88
3		gamma-BHC (Lindane)	40.000	41.711	-4.3	100	0.00	3.94-	4.14
4		beta-BHC	40.000	41.195	-3.0	104	0.00	4.16-	4.36
5		delta-BHC	40.000	41.847	-4.6	99	0.00	4.34-	4.54
6		Heptachlor	40.000	42.382	-6.0	103	0.00	4.21-	4.41
7		Aldrin	40.000	40.811	-2.0	97	0.00	4.42-	4.62
8		Heptachlor Epoxide	40.000	38.809	3.0	97	0.00	4.80-	5.00
9		gamma-Chlordane	40.000	39.461	1.3	96	0.00	4.99-	5.18
10		alpha-Chlordane	40.000	38.754	3.1	96	0.00	5.03-	5.23
11		4,4'-DDE	40.000	39.121	2.2	93	0.00	5.17-	5.37
12		Endosulfan I	40.000	38.561	3.6	95	0.00	5.07-	5.27
13		Dieldrin	40.000	39.790	0.5	97	0.00	5.27-	5.47
14		Endrin	40.000	39.577	1.1	95	0.00	5.47-	5.67
15		4,4'-DDD	40.000	41.609	-4.0	99	0.00	5.58-	5.78
16		Endosulfan II	40.000	39.884	0.3	99	0.00	5.69-	5.89

			Amount	Calc.	%Drift				
17		4,4'-DDT	40.000	44.226	-10.6	106	0.00	5.76-	5.96

			Amount	Calc.	%Drift				
18		Endrin Aldehyde	40.000	40.182	-0.5	100	0.00	5.82-	6.02
19		Methoxychlor	40.000	48.342	-20.9#	112	0.00	6.19-	6.39
20		Endosulfan Sulfate	40.000	42.148	-5.4	105	0.00	5.98-	6.18
21		Endrin Ketone	40.000	46.120	-15.3	107	0.00	6.37-	6.57
22	L1	Chlordane-A		----------NA----------					
23	L1	Chlordane-B		----------NA----------					
24	L1	Chlordane-C		----------NA----------					
25	L1	Chlordane-D		----------NA----------					
26	L1	Chlordane-E		----------NA----------					
27	L1	Chlordane-F		----------NA----------					
28	L2	Toxaphene-A		----------NA----------					
29	L2	Toxaphene-B		----------NA----------					
30	L2	Toxaphene-C		----------NA----------					
31	L2	Toxaphene-D		----------NA----------					
32	L2	Toxaphene-E		----------NA----------					
33	S	Decachlorobiphenyl	40.000	44.603	-11.5	118	0.00	7.26-	7.46

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170856.D GST4174_083123DOD.M Wed Nov 22 10:15:41 2023

11.6.30 11

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171467.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171467.D\ECD1A.CH Vial: 5
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171467.D\ECD2B.CH
Acq On : 21 Nov 2023 12:58 pm Operator: williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene			----------NA----------		
2		alpha-BHC			----------NA----------		
3		gamma-BHC (Lindane)			----------NA----------		
4		beta-BHC			----------NA----------		
5		delta-BHC			----------NA----------		
6		Heptachlor			----------NA----------		
7		Aldrin			----------NA----------		
8		Heptachlor Epoxide			----------NA----------		
9		gamma-Chlordane			----------NA----------		
10		alpha-Chlordane			----------NA----------		
11		4,4'-DDE			----------NA----------		
12		Endosulfan I			----------NA----------		
13		Dieldrin			----------NA----------		
14		Endrin			----------NA----------		
15		4,4'-DDD			----------NA----------		
16		Endosulfan II			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT			----------NA----------		
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde			----------NA----------		
19		Methoxychlor			----------NA----------		
20		Endosulfan Sulfate			----------NA----------		
21		Endrin Ketone			----------NA----------		
22	L1	Chlordane-A	200.000	179.850	10.1	95 0.00	4.15- 4.35
23	L1	Chlordane-B	200.000	186.666	6.7	98 0.00	4.30- 4.50
24	L1	Chlordane-C	200.000	179.506	10.2	93 0.00	4.52- 4.72
25	L1	Chlordane-D	200.000	180.448	9.8	95 0.00	5.02- 5.22
26	L1	Chlordane-E	200.000	166.299	16.9	87 0.00	5.08- 5.28
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F	200.000	179.548	10.2	107 0.00	5.66- 5.86
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A			----------NA----------		
29	L2	Toxaphene-B			----------NA----------		
30	L2	Toxaphene-C			----------NA----------		
31	L2	Toxaphene-D			----------NA----------		
32	L2	Toxaphene-E			----------NA----------		
33	S	Decachlorobiphenyl			----------NA----------		

11.6.31

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Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171467.D

***** Signal #2 *****

			Amount	Calc.	%Drift			
1	S	Tetrachloro-m-xylene		----------NA----------				
2		alpha-BHC		----------NA----------				
3		gamma-BHC (Lindane)		----------NA----------				
4		beta-BHC		----------NA----------				
5		delta-BHC		----------NA----------				
6		Heptachlor		----------NA----------				
7		Aldrin		----------NA----------				
8		Heptachlor Epoxide		----------NA----------				
9		gamma-Chlordane		----------NA----------				
10		alpha-Chlordane		----------NA----------				
11		4,4'-DDE		----------NA----------				
12		Endosulfan I		----------NA----------				
13		Dieldrin		----------NA----------				
14		Endrin		----------NA----------				
15		4,4'-DDD		----------NA----------				
16		Endosulfan II		----------NA----------				
			Amount	Calc.	%Drift			
17		4,4'-DDT		----------NA----------				
			Amount	Calc.	%Drift			
18		Endrin Aldehyde		----------NA----------				
19		Methoxychlor		----------NA----------				
20		Endosulfan Sulfate		----------NA----------				
21		Endrin Ketone		----------NA----------				
22	L1	Chlordane-A	200.000	168.513	15.7	89	0.00	4.07- 4.27
23	L1	Chlordane-B	200.000	179.544	10.2	93	0.00	4.21- 4.41
24	L1	Chlordane-C	200.000	168.205	15.9	89	0.00	4.51- 4.71
25	L1	Chlordane-D	200.000	173.047	13.5	87	0.00	4.99- 5.19
26	L1	Chlordane-E	200.000	176.456	11.8	90	0.00	5.03- 5.23
27	L1	Chlordane-F	200.000	178.975	10.5	94	0.00	5.69- 5.89
28	L2	Toxaphene-A		----------NA----------				
29	L2	Toxaphene-B		----------NA----------				
30	L2	Toxaphene-C		----------NA----------				
31	L2	Toxaphene-D		----------NA----------				
32	L2	Toxaphene-E		----------NA----------				
33	S	Decachlorobiphenyl		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 22 12:29:21 2023

11.6.31

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171468.D

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\GS...3\ST171468.D\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\DATA\GST4185_112123\ST171468.D\ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm Operator: williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\msdchem\1\MET...4174_083123DOD.M (Chemstation Integrator)
Title : Pesticides by 8081B
Last Update : Tue Nov 21 15:49:05 2023
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area% Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------			
2		alpha-BHC		----------NA----------			
3		gamma-BHC (Lindane)		----------NA----------			
4		beta-BHC		----------NA----------			
5		delta-BHC		----------NA----------			
6		Heptachlor		----------NA----------			
7		Aldrin		----------NA----------			
8		Heptachlor Epoxide		----------NA----------			
9		gamma-Chlordane		----------NA----------			
10		alpha-Chlordane		----------NA----------			
11		4,4'-DDE		----------NA----------			
12		Endosulfan I		----------NA----------			
13		Dieldrin		----------NA----------			
14		Endrin		----------NA----------			
15		4,4'-DDD		----------NA----------			
16		Endosulfan II		----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
17		4,4'-DDT		----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
18		Endrin Aldehyde		----------NA----------			
19		Methoxychlor		----------NA----------			
20		Endosulfan Sulfate		----------NA----------			
21		Endrin Ketone		----------NA----------			
22	L1	Chlordane-A		----------NA----------			
23	L1	Chlordane-B		----------NA----------			
24	L1	Chlordane-C		----------NA----------			
25	L1	Chlordane-D		----------NA----------			
26	L1	Chlordane-E		----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
27	L1	Chlordane-F		----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
28	L2	Toxaphene-A	500.000	514.300	-2.9	112 0.00	5.23- 5.43
29	L2	Toxaphene-B	500.000	498.592	0.3	99 0.00	5.58- 5.78
30	L2	Toxaphene-C	500.000	492.210	1.6	98 0.00	5.65- 5.85
31	L2	Toxaphene-D	500.000	525.102	-5.0	100 0.00	5.81- 6.01
32	L2	Toxaphene-E	500.000	607.639	-21.5#	122 0.00	6.16- 6.36
33	S	Decachlorobiphenyl		----------NA----------			

Continuing Calibration Summary

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Sample: GST4185-CC4174
Lab FileID: ST171468.D

***** Signal #2 *****

1	S	Tetrachloro-m-xylene			NA			
2		alpha-BHC			NA			
3		gamma-BHC (Lindane)			NA			
4		beta-BHC			NA			
5		delta-BHC			NA			
6		Heptachlor			NA			
7		Aldrin			NA			
8		Heptachlor Epoxide			NA			
9		gamma-Chlordane			NA			
10		alpha-Chlordane			NA			
11		4,4'-DDE			NA			
12		Endosulfan I			NA			
13		Dieldrin			NA			
14		Endrin			NA			
15		4,4'-DDD			NA			
16		Endosulfan II			NA			
			Amount	Calc.	%Drift			
17		4,4'-DDT			NA			
			Amount	Calc.	%Drift			
18		Endrin Aldehyde			NA			
19		Methoxychlor			NA			
20		Endosulfan Sulfate			NA			
21		Endrin Ketone			NA			
22	L1	Chlordane-A			NA			
23	L1	Chlordane-B			NA			
24	L1	Chlordane-C			NA			
25	L1	Chlordane-D			NA			
26	L1	Chlordane-E			NA			
27	L1	Chlordane-F			NA			
28	L2	Toxaphene-A	500.000	448.877	10.2	92	0.00	5.24- 5.44
29	L2	Toxaphene-B	500.000	480.260	3.9	99	0.00	5.65- 5.85
30	L2	Toxaphene-C	500.000	459.924	8.0	90	0.00	5.71- 5.91
31	L2	Toxaphene-D	500.000	508.328	-1.7	100	0.00	5.90- 6.10
32	L2	Toxaphene-E	500.000	557.267	-11.5	110	0.00	6.28- 6.48
33	S	Decachlorobiphenyl			NA			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
ST170855.D GST4174_083123DOD.M Wed Nov 22 12:29:23 2023

11.6.32

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Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GMM1833 **Method:** SW846 8082A **Instrument ID:** GCMM

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GMM1833-IC1833	MM85657.D	10/17/23 11:27	n/a	Initial cal 20
GMM1833-IC1833	MM85658.D	10/17/23 11:39	n/a	Initial cal 50
GMM1833-IC1833	MM85659.D	10/17/23 11:51	n/a	Initial cal 200
GMM1833-ICC1833	MM85660.D	10/17/23 12:02	n/a	Initial cal 400
GMM1833-IC1833	MM85661.D	10/17/23 12:14	n/a	Initial cal 600
GMM1833-IC1833	MM85662.D	10/17/23 12:25	n/a	Initial cal 1000
GMM1833-ICV1833	MM85663.D	10/17/23 12:37	n/a	Initial cal verification 400
GMM1833-IC1833	MM85664.D	10/17/23 12:49	n/a	Initial cal 20
GMM1833-IC1833	MM85665.D	10/17/23 13:00	n/a	Initial cal 50
GMM1833-IC1833	MM85666.D	10/17/23 13:12	n/a	Initial cal 200
GMM1833-IC1833	MM85667.D	10/17/23 13:24	n/a	Initial cal 400
GMM1833-IC1833	MM85668.D	10/17/23 13:35	n/a	Initial cal 600
GMM1833-IC1833	MM85669.D	10/17/23 13:47	n/a	Initial cal 1000
GMM1833-ICV1833	MM85670.D	10/17/23 13:59	n/a	Initial cal verification 400
GMM1833-IC1833	MM85671.D	10/17/23 14:10	n/a	Initial cal 20
GMM1833-IC1833	MM85672.D	10/17/23 14:22	n/a	Initial cal 50
GMM1833-IC1833	MM85673.D	10/17/23 14:33	n/a	Initial cal 200
GMM1833-IC1833	MM85674.D	10/17/23 14:45	n/a	Initial cal 400
GMM1833-IC1833	MM85675.D	10/17/23 14:57	n/a	Initial cal 600
GMM1833-IC1833	MM85676.D	10/17/23 15:08	n/a	Initial cal 1000
GMM1833-ICV1833	MM85677.D	10/17/23 15:20	n/a	Initial cal verification 400
GMM1833-IC1833	MM85678.D	10/17/23 15:31	n/a	Initial cal 20
GMM1833-IC1833	MM85679.D	10/17/23 15:43	n/a	Initial cal 50
GMM1833-IC1833	MM85680.D	10/17/23 15:55	n/a	Initial cal 200
GMM1833-IC1833	MM85681.D	10/17/23 16:06	n/a	Initial cal 400
GMM1833-IC1833	MM85682.D	10/17/23 16:18	n/a	Initial cal 600
GMM1833-IC1833	MM85683.D	10/17/23 16:30	n/a	Initial cal 1000
GMM1833-ICV1833	MM85684.D	10/17/23 16:41	n/a	Initial cal verification 400
GMM1833-IC1833	MM85685.D	10/17/23 16:53	n/a	Initial cal 20
GMM1833-IC1833	MM85686.D	10/17/23 17:05	n/a	Initial cal 50
GMM1833-IC1833	MM85687.D	10/17/23 17:16	n/a	Initial cal 200
GMM1833-IC1833	MM85688.D	10/17/23 17:28	n/a	Initial cal 400
GMM1833-IC1833	MM85689.D	10/17/23 17:39	n/a	Initial cal 600
GMM1833-IC1833	MM85690.D	10/17/23 17:51	n/a	Initial cal 1000
GMM1833-ICV1833	MM85691.D	10/17/23 18:03	n/a	Initial cal verification 400

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GMM1839 **Method:** SW846 8082A **Instrument ID:** GCMM

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GMM1839-CC1833	MM85901.D	11/06/23 16:15	n/a	Continuing cal 400
GMM1839-CC1833	MM85902.D	11/06/23 16:27	n/a	Continuing cal 400
GMM1839-CC1833	MM85903.D	11/06/23 16:39	n/a	Continuing cal 400
GMM1839-CC1833	MM85904.D	11/06/23 16:50	n/a	Continuing cal 400
GMM1839-CC1833	MM85905.D	11/06/23 17:02	n/a	Continuing cal 400
OP99917-BS	MM85906.D	11/06/23 17:14	OP99917	Blank Spike
OP99917-MB	MM85907.D	11/06/23 17:25	OP99917	Method Blank
ZZZZZZ	MM85908.D	11/06/23 17:37	OP99917	(unrelated sample)
ZZZZZZ	MM85909.D	11/06/23 17:48	OP99917	(unrelated sample)
ZZZZZZ	MM85910.D	11/06/23 18:00	OP99917	(unrelated sample)
ZZZZZZ	MM85911.D	11/06/23 18:12	OP99917	(unrelated sample)
ZZZZZZ	MM85912.D	11/06/23 18:23	OP99917	(unrelated sample)
ZZZZZZ	MM85913.D	11/06/23 18:35	OP99917	(unrelated sample)
ZZZZZZ	MM85914.D	11/06/23 18:47	OP99917	(unrelated sample)
FC10955-1A	MM85915.D	11/06/23 18:58	OP99917	EFFLUENT
GMM1839-CC1833	MM85916.D	11/06/23 19:10	n/a	Continuing cal 400
GMM1839-CC1833	MM85917.D	11/06/23 19:22	n/a	Continuing cal 400
GMM1839-CC1833	MM85918.D	11/06/23 19:33	n/a	Continuing cal 400
GMM1839-CC1833	MM85919.D	11/06/23 19:45	n/a	Continuing cal 400
GMM1839-CC1833	MM85920.D	11/06/23 19:57	n/a	Continuing cal 400
OP99921-BS	MM85921.D	11/06/23 20:08	OP99921	Blank Spike
OP99921-MB	MM85922.D	11/06/23 20:20	OP99921	Method Blank
OP99921-MS	MM85923.D	11/06/23 20:32	OP99921	Matrix Spike
OP99921-MSD	MM85924.D	11/06/23 20:43	OP99921	Matrix Spike Duplicate
FC10886-1	MM85925.D	11/06/23 20:55	OP99921	(used for QC only; not part of job FC10955)
ZZZZZZ	MM85926.D	11/06/23 21:06	OP99921	(unrelated sample)
ZZZZZZ	MM85927.D	11/06/23 21:18	OP99921	(unrelated sample)
ZZZZZZ	MM85928.D	11/06/23 21:30	OP99921	(unrelated sample)
ZZZZZZ	MM85929.D	11/06/23 21:41	OP99921	(unrelated sample)
ZZZZZZ	MM85930.D	11/06/23 21:53	OP99921	(unrelated sample)
GMM1839-CC1833	MM85931.D	11/06/23 22:05	n/a	Continuing cal 400
ZZZZZZ	MM85932.D	11/06/23 22:16	OP99921	(unrelated sample)
ZZZZZZ	MM85933.D	11/06/23 22:28	OP99921	(unrelated sample)
GMM1839-CC1833	MM85934.D	11/06/23 22:39	n/a	Continuing cal 400
OP99879-BS	MM85935.D	11/06/23 22:51	OP99879	Blank Spike
OP99879-MB	MM85936.D	11/06/23 23:03	OP99879	Method Blank
OP99879-MS	MM85937.D	11/06/23 23:14	OP99879	Matrix Spike
OP99879-MSD	MM85938.D	11/06/23 23:26	OP99879	Matrix Spike Duplicate
FC10859-2	MM85939.D	11/06/23 23:38	OP99879	(used for QC only; not part of job FC10955)
ZZZZZZ	MM85940.D	11/06/23 23:49	OP99879	(unrelated sample)
GMM1839-CC1833	MM85941.D	11/07/23 00:01	n/a	Continuing cal 400
ZZZZZZ	MM85942.D	11/07/23 00:13	OP99879	(unrelated sample)
ZZZZZZ	MM85943.D	11/07/23 00:24	OP99879	(unrelated sample)
ZZZZZZ	MM85944.D	11/07/23 00:36	OP99879	(unrelated sample)
ZZZZZZ	MM85945.D	11/07/23 00:47	OP99879	(unrelated sample)
ZZZZZZ	MM85946.D	11/07/23 00:59	OP99879	(unrelated sample)

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GMM1839	**Method:** SW846 8082A	**Instrument ID:** GCMM

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
ZZZZZZ	MM85947.D	11/07/23 01:11	OP99879	(unrelated sample)
ZZZZZZ	MM85948.D	11/07/23 01:22	OP99879	(unrelated sample)
ZZZZZZ	MM85949.D	11/07/23 01:34	OP99879	(unrelated sample)
ZZZZZZ	MM85950.D	11/07/23 01:46	OP99879	(unrelated sample)
GMM1839-ECC1833	MM85951.D	11/07/23 01:57	n/a	Ending cal 400

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GST4174 **Method:** SW846 8081B **Instrument ID:** GCST

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GST4174-DDT	ST170836.D	10/31/23 09:28	n/a	DDT/Endrin Breakdown Check
GST4174-IC4174	ST170837.D	10/31/23 09:42	n/a	Initial cal 2
GST4174-IC4174	ST170838.D	10/31/23 09:57	n/a	Initial cal 5
GST4174-IC4174	ST170839.D	10/31/23 10:12	n/a	Initial cal 20
GST4174-ICC4174	ST170840.D	10/31/23 10:27	n/a	Initial cal 40
GST4174-IC4174	ST170841.D	10/31/23 10:42	n/a	Initial cal 60
GST4174-IC4174	ST170842.D	10/31/23 10:57	n/a	Initial cal 80
GST4174-IC4174	ST170843.D	10/31/23 11:12	n/a	Initial cal 120
GST4174-ICV4174	ST170844.D	10/31/23 11:26	n/a	Initial cal verification 20
GST4174-IC4174	ST170846.D	10/31/23 11:56	n/a	Initial cal 100
GST4174-IC4174	ST170847.D	10/31/23 12:11	n/a	Initial cal 200
GST4174-IC4174	ST170848.D	10/31/23 12:26	n/a	Initial cal 500
GST4174-IC4174	ST170849.D	10/31/23 12:41	n/a	Initial cal 750
GST4174-IC4174	ST170850.D	10/31/23 12:56	n/a	Initial cal 1000
GST4174-IC4174	ST170851.D	10/31/23 13:11	n/a	Initial cal 2000
GST4174-ICV4174	ST170852.D	10/31/23 13:26	n/a	Initial cal verification 500
GST4174-IC4174	ST170853.D	10/31/23 13:41	n/a	Initial cal 20
GST4174-IC4174	ST170854.D	10/31/23 13:56	n/a	Initial cal 50
GST4174-IC4174	ST170855.D	10/31/23 14:10	n/a	Initial cal 200
GST4174-IC4174	ST170856.D	10/31/23 14:25	n/a	Initial cal 400
GST4174-IC4174	ST170857.D	10/31/23 14:40	n/a	Initial cal 600
GST4174-IC4174	ST170858.D	10/31/23 14:55	n/a	Initial cal 1000
GST4174-ICV4174	ST170859.D	10/31/23 15:10	n/a	Initial cal verification 200

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GST4180 **Method:** SW846 8081B **Instrument ID:** GCST

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GST4180-DDT	ST171209.D	11/10/23 14:49	n/a	DDT/Endrin Breakdown Check
GST4180-CC4174	ST171210.D	11/10/23 15:04	n/a	Continuing cal 40
GST4180-CC4174	ST171211.D	11/10/23 15:19	n/a	Continuing cal 200
GST4180-CC4174	ST171212.D	11/10/23 15:33	n/a	Continuing cal 500
OP99916-BS	ST171213.D	11/10/23 15:48	OP99916	Blank Spike
OP99916-BS2	ST171214.D	11/10/23 16:03	OP99916	Blank Spike
OP99916-MB	ST171215.D	11/10/23 16:18	OP99916	Method Blank
ZZZZZZ	ST171216.D	11/10/23 16:33	OP99916	(unrelated sample)
ZZZZZZ	ST171217.D	11/10/23 16:48	OP99916	(unrelated sample)
ZZZZZZ	ST171219.D	11/10/23 17:18	OP99916	(unrelated sample)
GST4180-CC4174	ST171222.D	11/10/23 18:02	n/a	Continuing cal 40
GST4180-CC4174	ST171223.D	11/10/23 18:17	n/a	Continuing cal 200
GST4180-CC4174	ST171224.D	11/10/23 18:32	n/a	Continuing cal 500
ZZZZZZ	ST171229.D	11/10/23 19:46	OP99913	(unrelated sample)
ZZZZZZ	ST171230.D	11/10/23 20:01	OP99913	(unrelated sample)
ZZZZZZ	ST171231.D	11/10/23 20:16	OP99913	(unrelated sample)
ZZZZZZ	ST171232.D	11/10/23 20:31	OP99913	(unrelated sample)
GST4180-CC4174	ST171233.D	11/10/23 20:46	n/a	Continuing cal 40
ZZZZZZ	ST171234.D	11/10/23 21:01	OP99942	(unrelated sample)
ZZZZZZ	ST171235.D	11/10/23 21:16	OP99942	(unrelated sample)
ZZZZZZ	ST171236.D	11/10/23 21:30	OP99942	(unrelated sample)
ZZZZZZ	ST171237.D	11/10/23 21:45	OP99942	(unrelated sample)
ZZZZZZ	ST171238.D	11/10/23 22:00	OP99942	(unrelated sample)
GST4180-CC4174	ST171239.D	11/10/23 22:15	n/a	Continuing cal 40
OP11-BS	ST171240.D	11/10/23 22:30	OP11	Blank Spike
OP11-BS2	ST171241.D	11/10/23 22:45	OP11	Blank Spike
OP11-MB	ST171242.D	11/10/23 23:00	OP11	Method Blank
OP11-MS	ST171243.D	11/10/23 23:14	OP11	Matrix Spike
OP11-MSD	ST171244.D	11/10/23 23:29	OP11	Matrix Spike Duplicate
ZZZZZZ	ST171245.D	11/10/23 23:44	OP11	(unrelated sample)
LA95227-1	ST171246.D	11/10/23 23:59	OP11	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171247.D	11/11/23 00:14	OP11	(unrelated sample)
ZZZZZZ	ST171248.D	11/11/23 00:29	OP11	(unrelated sample)
ZZZZZZ	ST171249.D	11/11/23 00:44	OP11	(unrelated sample)
GST4180-CC4174	ST171250.D	11/11/23 00:58	n/a	Continuing cal 40
ZZZZZZ	ST171251.D	11/11/23 01:13	OP11	(unrelated sample)
ZZZZZZ	ST171252.D	11/11/23 01:28	OP11	(unrelated sample)
ZZZZZZ	ST171253.D	11/11/23 01:43	OP11	(unrelated sample)
GST4180-ECC4174	ST171254.D	11/11/23 01:58	n/a	Ending cal 40

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GST4185 **Method:** SW846 8081B **Instrument ID:** GCST

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GST4185-DDT	ST171457.D	11/21/23 10:30	n/a	DDT/Endrin Breakdown Check
GST4185-CC4174	ST171458.D	11/21/23 10:45	n/a	Continuing cal 40
GST4185-CC4174	ST171459.D	11/21/23 10:59	n/a	Continuing cal 200
GST4185-CC4174	ST171460.D	11/21/23 11:14	n/a	Continuing cal 500
ZZZZZZ	ST171461.D	11/21/23 11:29	OP99916	(unrelated sample)
ZZZZZZ	ST171462.D	11/21/23 11:44	OP99916	(unrelated sample)
FC10955-1A	ST171463.D	11/21/23 11:59	OP99916	EFFLUENT
ZZZZZZ	ST171464.D	11/21/23 12:13	OP99857	(unrelated sample)
ZZZZZZ	ST171465.D	11/21/23 12:28	OP99857	(unrelated sample)
GST4185-CC4174	ST171466.D	11/21/23 12:43	n/a	Continuing cal 40
GST4185-CC4174	ST171467.D	11/21/23 12:58	n/a	Continuing cal 200
GST4185-CC4174	ST171468.D	11/21/23 13:13	n/a	Continuing cal 500
OP45-MB	ST171469.D	11/21/23 13:28	OP45	Method Blank
FC10972-1	ST171470.D	11/21/23 13:42	OP45	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171471.D	11/21/23 13:57	OP45	(unrelated sample)
ZZZZZZ	ST171472.D	11/21/23 14:12	OP45	(unrelated sample)
ZZZZZZ	ST171473.D	11/21/23 14:27	OP45	(unrelated sample)
ZZZZZZ	ST171474.D	11/21/23 14:42	OP45	(unrelated sample)
ZZZZZZ	ST171475.D	11/21/23 14:56	OP45	(unrelated sample)
ZZZZZZ	ST171476.D	11/21/23 15:11	OP45	(unrelated sample)
ZZZZZZ	ST171477.D	11/21/23 15:26	OP45	(unrelated sample)
ZZZZZZ	ST171478.D	11/21/23 15:41	OP45	(unrelated sample)
GST4185-CC4174	ST171479.D	11/21/23 15:56	n/a	Continuing cal 40
ZZZZZZ	ST171480.D	11/21/23 16:11	OP45	(unrelated sample)
OP48-MB	ST171481.D	11/21/23 16:25	OP48	Method Blank
FC10972-14	ST171482.D	11/21/23 16:40	OP48	(used for QC only; not part of job FC10955)
ZZZZZZ	ST171483.D	11/21/23 16:55	OP48	(unrelated sample)
ZZZZZZ	ST171484.D	11/21/23 17:10	OP48	(unrelated sample)
ZZZZZZ	ST171485.D	11/21/23 17:25	OP48	(unrelated sample)
ZZZZZZ	ST171487.D	11/21/23 17:54	OP48	(unrelated sample)
ZZZZZZ	ST171488.D	11/21/23 18:09	OP48	(unrelated sample)
ZZZZZZ	ST171489.D	11/21/23 18:24	OP48	(unrelated sample)
GST4185-CC4174	ST171490.D	11/21/23 18:39	n/a	Continuing cal 40
ZZZZZZ	ST171491.D	11/21/23 18:54	OP48	(unrelated sample)
ZZZZZZ	ST171492.D	11/21/23 19:09	OP48	(unrelated sample)
ZZZZZZ	ST171493.D	11/21/23 19:23	OP48	(unrelated sample)
ZZZZZZ	ST171494.D	11/21/23 19:38	OP48	(unrelated sample)
ZZZZZZ	ST171495.D	11/21/23 19:53	OP48	(unrelated sample)
ZZZZZZ	ST171496.D	11/21/23 20:08	OP48	(unrelated sample)
GST4185-CC4174	ST171497.D	11/21/23 20:23	n/a	Continuing cal 40
GST4185-CC4174	ST171498.D	11/21/23 20:37	n/a	Continuing cal 200
GST4185-CC4174	ST171499.D	11/21/23 20:52	n/a	Continuing cal 500
GST4185-DDT	ST171500.D	11/21/23 21:07	n/a	DDT/Endrin Breakdown Check
ZZZZZZ	ST171501.D	11/21/23 21:22	OP199	(unrelated sample)
ZZZZZZ	ST171502.D	11/21/23 21:37	OP199	(unrelated sample)
ZZZZZZ	ST171503.D	11/21/23 21:51	OP199	(unrelated sample)

Run Sequence Report

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Run ID: GST4185	**Method:** SW846 8081B	**Instrument ID:** GCST

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
ZZZZZZ	ST171504.D	11/21/23 22:06	OP199	(unrelated sample)
ZZZZZZ	ST171505.D	11/21/23 22:21	OP199	(unrelated sample)
ZZZZZZ	ST171506.D	11/21/23 22:36	OP199	(unrelated sample)
ZZZZZZ	ST171507.D	11/21/23 22:51	OP199	(unrelated sample)
ZZZZZZ	ST171508.D	11/21/23 23:05	OP199	(unrelated sample)
ZZZZZZ	ST171509.D	11/21/23 23:20	OP199	(unrelated sample)
ZZZZZZ	ST171510.D	11/21/23 23:35	OP199	(unrelated sample)
GST4185-CC4174	ST171511.D	11/21/23 23:50	n/a	Continuing cal 40
ZZZZZZ	ST171512.D	11/22/23 00:04	OP199	(unrelated sample)
ZZZZZZ	ST171513.D	11/22/23 00:19	OP199	(unrelated sample)
ZZZZZZ	ST171514.D	11/22/23 00:34	OP199	(unrelated sample)
GST4185-ECC4174	ST171515.D	11/22/23 00:49	n/a	Ending cal 40

GC/LC Semi-volatiles

Raw Data

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/20/23 16:31

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85915.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 6:58 pm
Operator : eduardom
Sample : FC10955-1 Inst : ECD 9
Misc : OP99917,GMM1839,880,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 09:19:22 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.508	3.543	239.9E6	1232.7E6	47.789	52.469
Spiked Amount	50.000	Range 38 - 127	Recovery =		95.58%	104.94%
55) S Decachlor...	7.296	7.440	25087890	119.9E6	18.160m	19.966m
Spiked Amount	50.000	Range 25 - 137	Recovery =		36.32%	39.93%
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

12.1.1

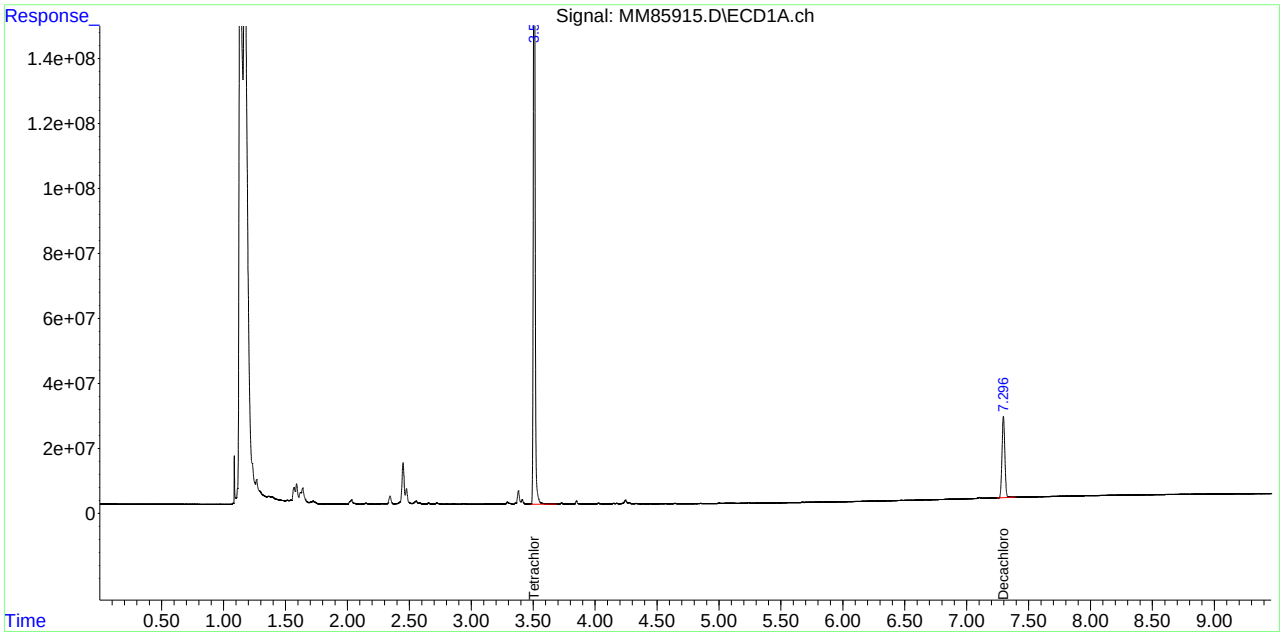
12

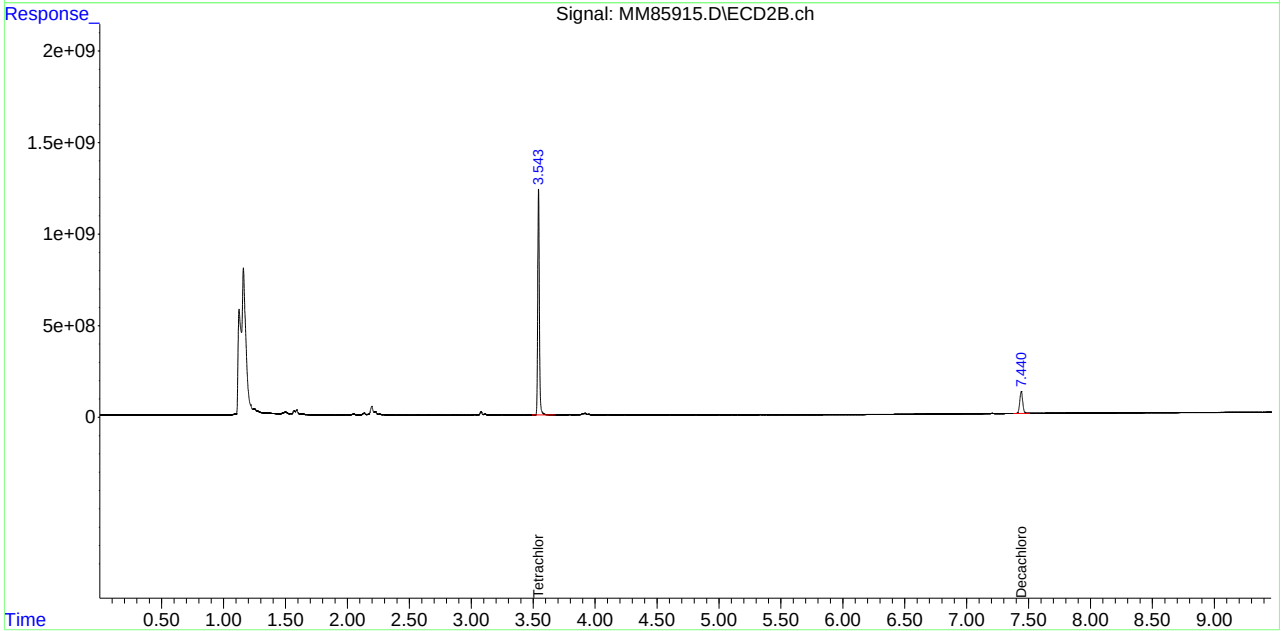
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85915.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 6:58 pm
Operator : eduardom
Sample : FC10955-1 Inst : ECD 9
Misc : OP99917,GMM1839,880,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 09:19:22 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: FC10955-1A
Lab FileID: MM85915.D
Injection Time: 11/06/23 18:58
Method: EPA 608.3
Analyst approved: 11/20/23 16:30 Naresh Jiawan
Supervisor approved: 11/20/23 16:31 Naresh Jiawan

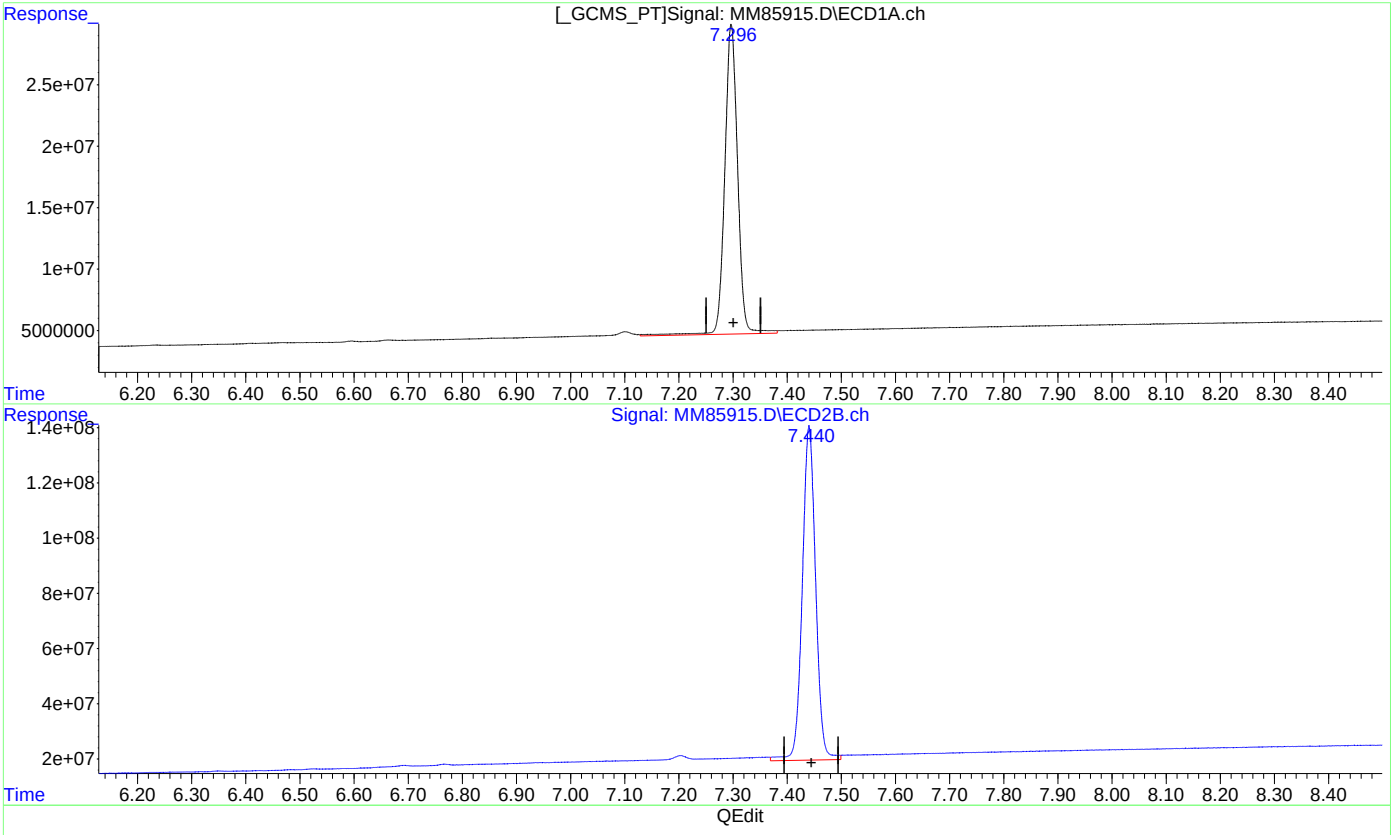
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.30	Poorly defined baseline
Decachlorobiphenyl	2051-24-3	2	7.44	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85915.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 6:58 pm
Operator : eduardom
Sample : FC10955-1 Inst : ECD 9
Misc : OP99917,GMM1839,880,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 08:26:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.297min 18.211 ppb

response 25158439

(55) Decachlorobiphenyl #2 (S)

7.441min 20.158 ppb

response 121075126

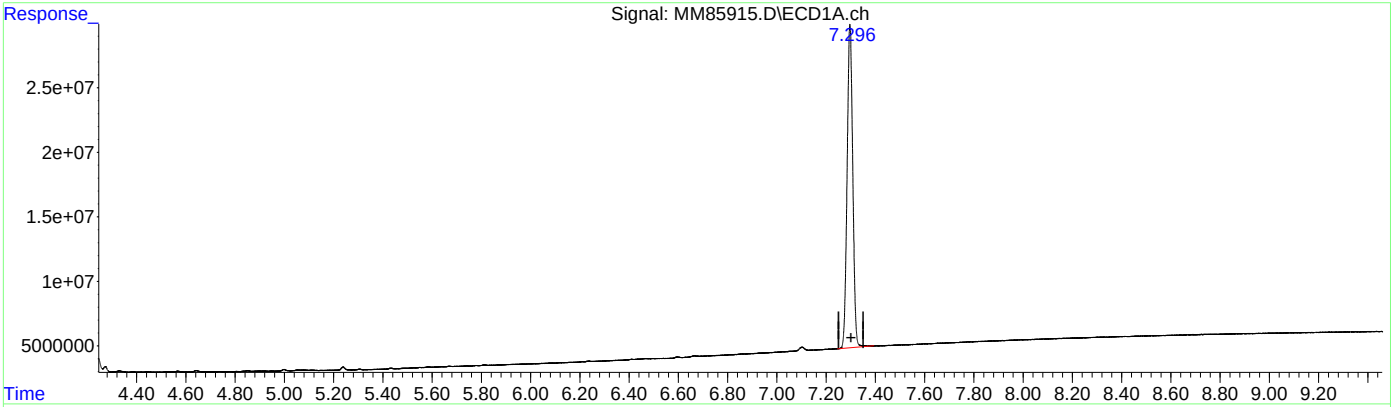
(+) = Expected Retention Time

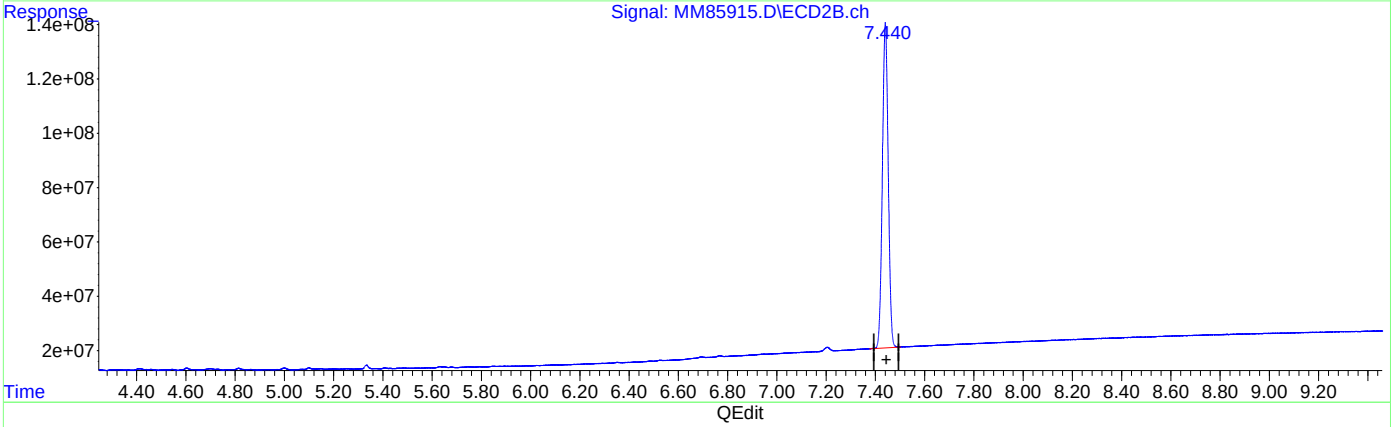
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85915.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 6:58 pm
Operator : eduardom
Sample : FC10955-1 Inst : ECD 9
Misc : OP99917,GMM1839,880,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 07 08:26:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.296min 18.160 ppb m

response 25087890

(55) Decachlorobiphenyl #2 (S)

7.440min 19.966 ppb m

response 119924792

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
11/22/23 12:28

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171463.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:59 am
Operator : williamh
Sample : FC10955-1A Inst : ECD 3
Misc : OP99916,GST4185,880,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 15:45:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.427	3.368	6204762	1267573	44.456m	44.520
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	88.91%	89.04%
33) S	Decachlor...	7.390	7.361	2024727	518274	21.077	19.401
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	42.15%	38.80%
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171463.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:59 am
Operator : williamh
Sample : FC10955-1A Inst : ECD 3
Misc : OP99916,GST4185,880,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 15:45:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

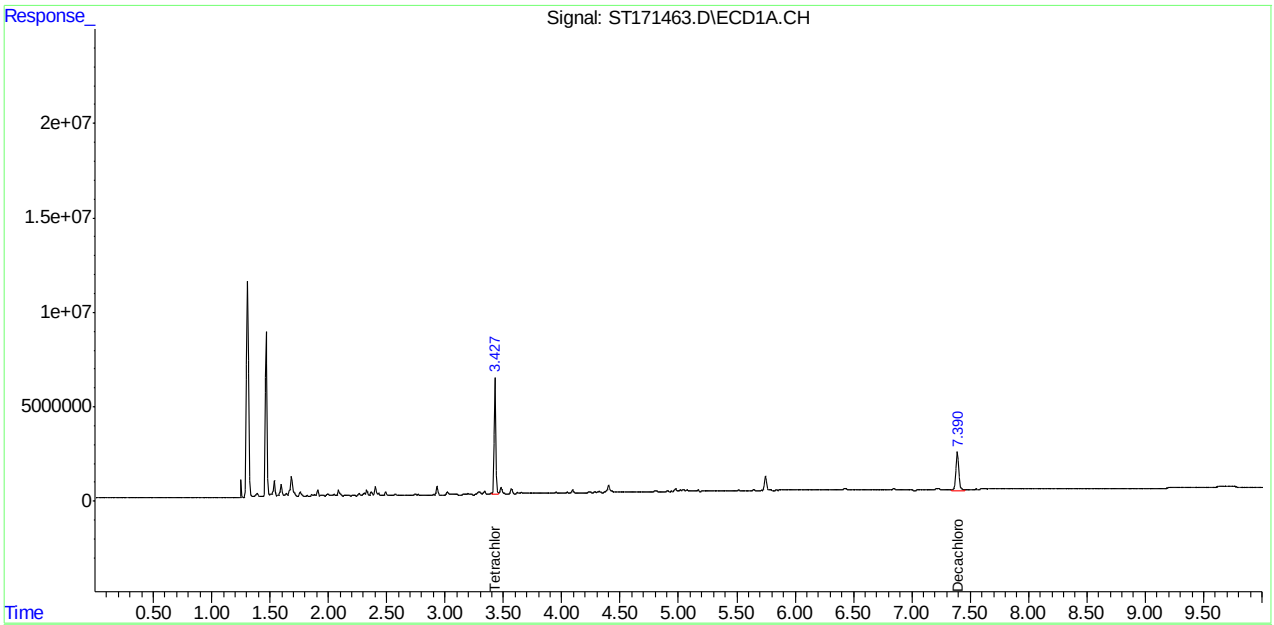
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

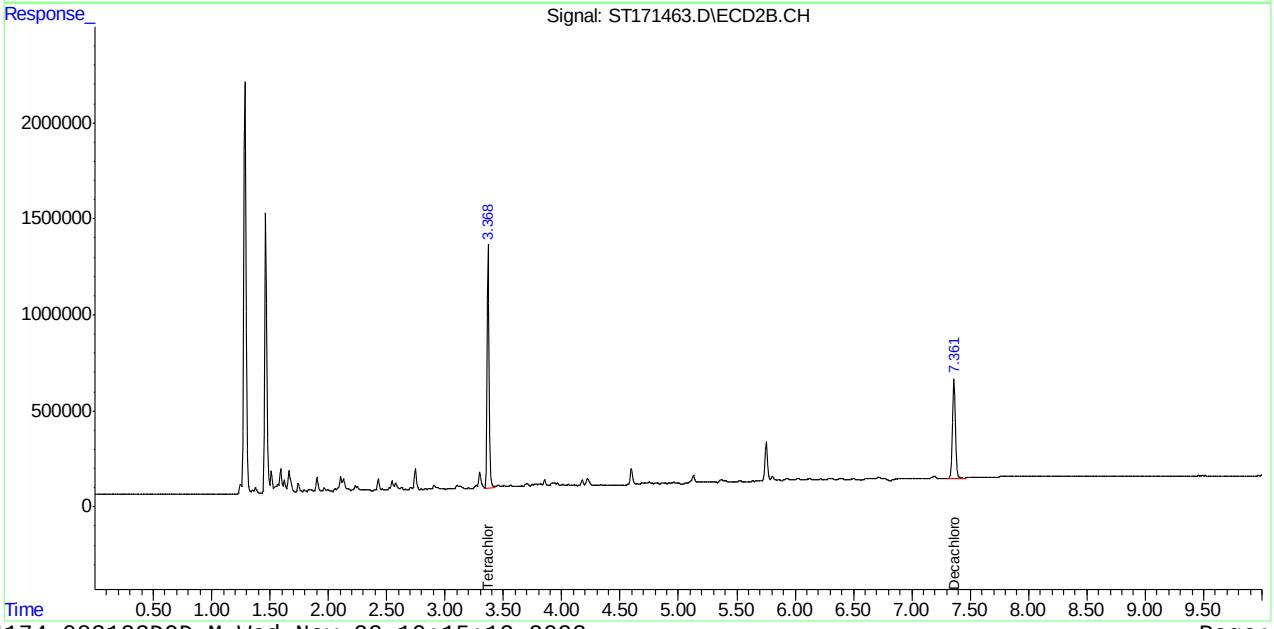
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171463.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:59 am
Operator : williamh
Sample : FC10955-1A Inst : ECD 3
Misc : OP99916,GST4185,880,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 15:45:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: FC10955-1A
Lab FileID: ST171463.D
Injection Time: 11/21/23 11:59

Method: EPA 608.3
Analyst approved: 11/22/23 10:32 William Hustedde
Supervisor approved: 11/22/23 12:28 Naresh Jiawan

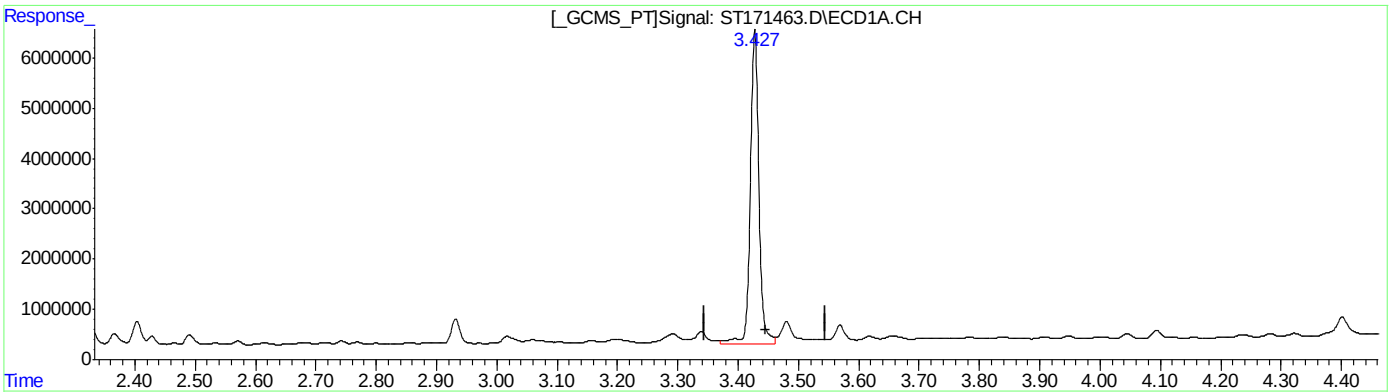
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.43	Poor instrument integration

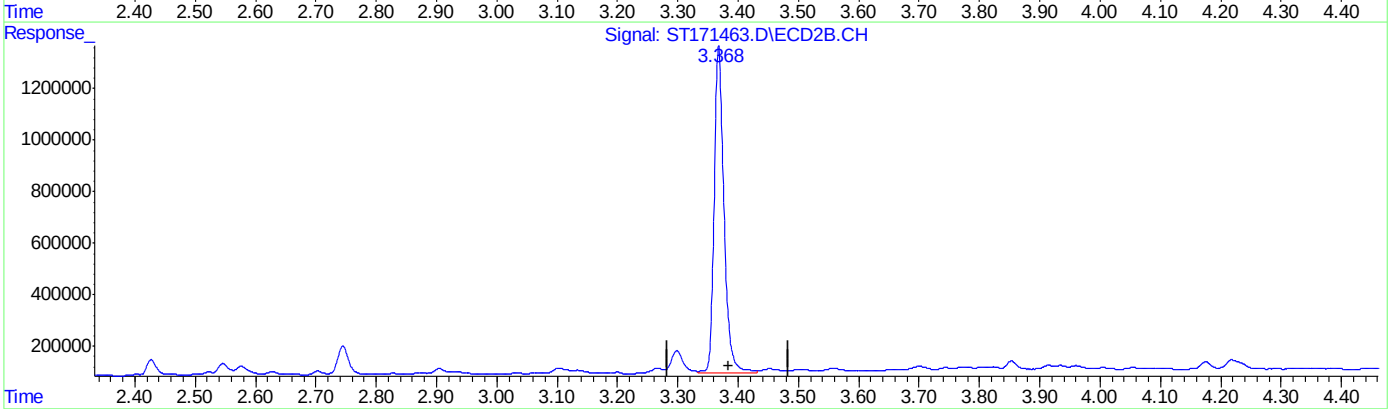
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171463.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:59 am
Operator : williamh
Sample : FC10955-1A Inst : ECD 3
Misc : OP99916,GST4185,880,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 21 15:43:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(1) Tetrachloro-m-xylene (S)

3.428min 44.793 PPB

response 6251768

(1) Tetrachloro-m-xylene #2 (S)

3.368min 44.520 PPB

response 1267573

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 13:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171215.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:18 pm
Operator : eduardom
Sample : OP99916-MB Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 13:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.448	3.388	6586671	1303479	47.193	45.781
	Spiked Amount	50.000	Range 42 - 127		Recovery =	94.39%	91.56%
33) S	Decachlor...	7.408	7.379	4800831	1275324	49.975m	47.741
	Spiked Amount	50.000	Range 27 - 127		Recovery =	99.95%	95.48%
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171215.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:18 pm
Operator : eduardom
Sample : OP99916-MB Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 13:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

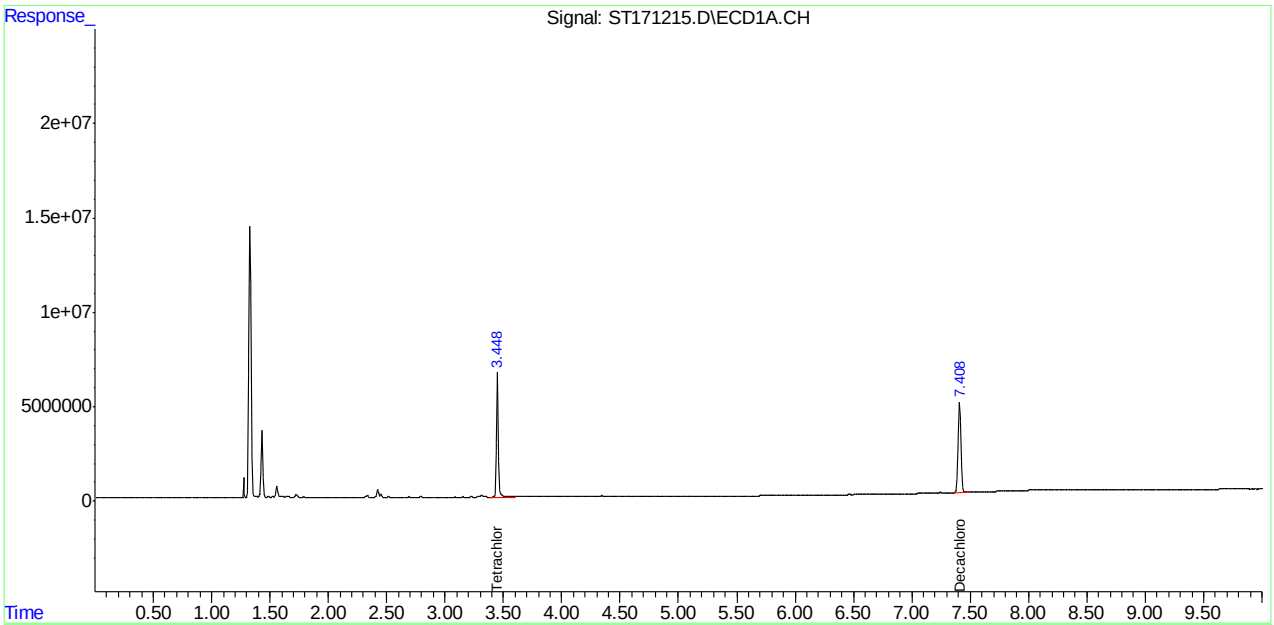
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

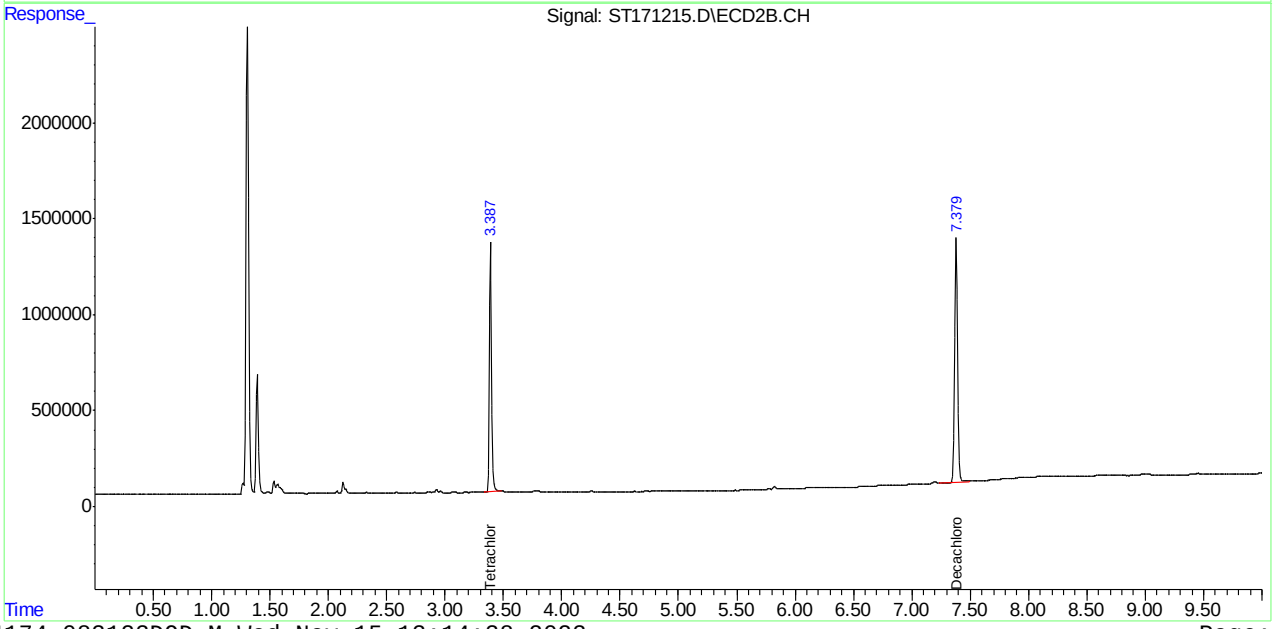
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171215.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:18 pm
Operator : eduardom
Sample : OP99916-MB Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 13:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: OP99916-MB
Lab FileID: ST171215.D
Injection Time: 11/10/23 16:18
Method: EPA 608.3
Analyst approved: 11/15/23 13:19 Eduardo Melendez
Supervisor approved: 11/15/23 13:59 William Hustedde

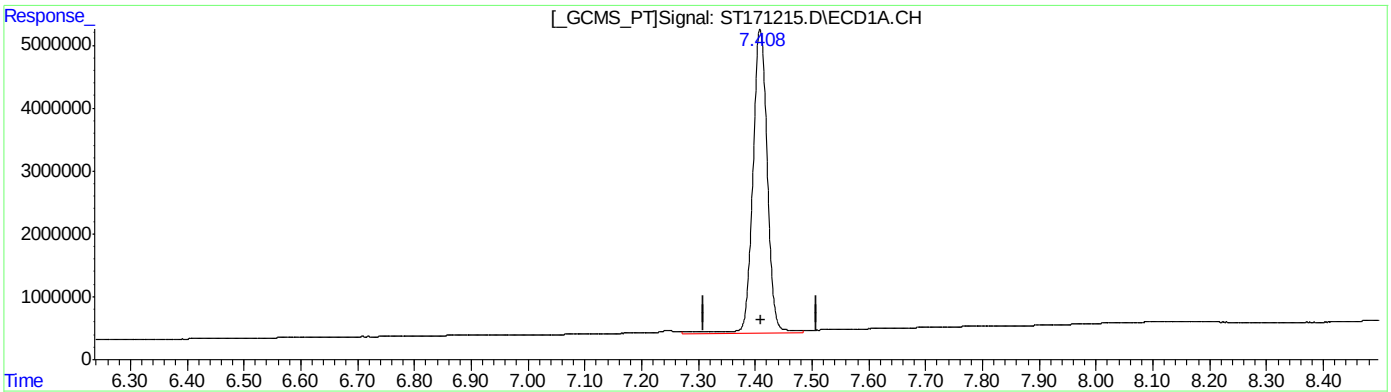
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.41	Poor instrument integration

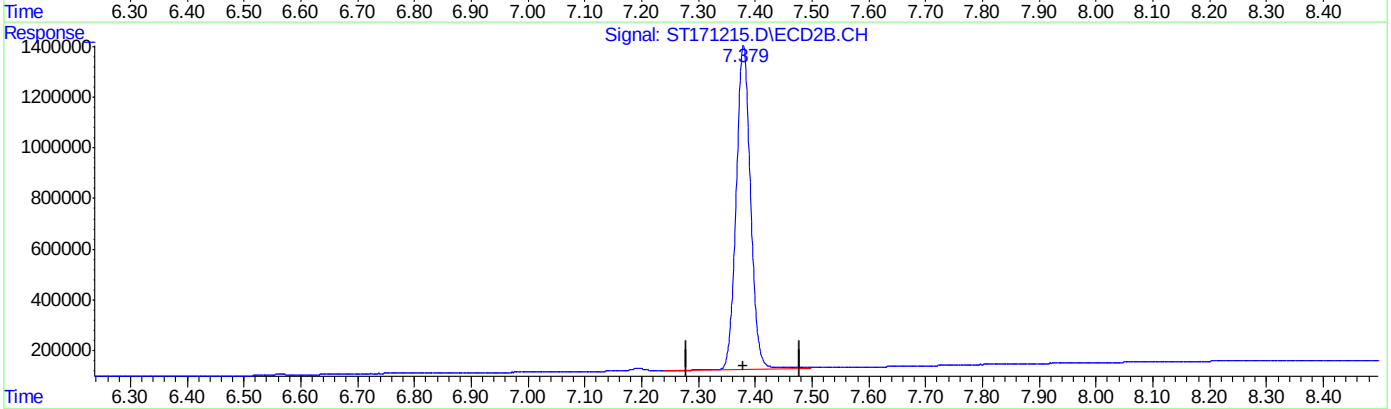
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171215.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:18 pm
Operator : eduardom
Sample : OP99916-MB Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 08:53:12 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.409min 50.472 ppb

response 4848620

(33) Decachlorobiphenyl #2 (S)

7.379min 47.741 ppb

response 1275324

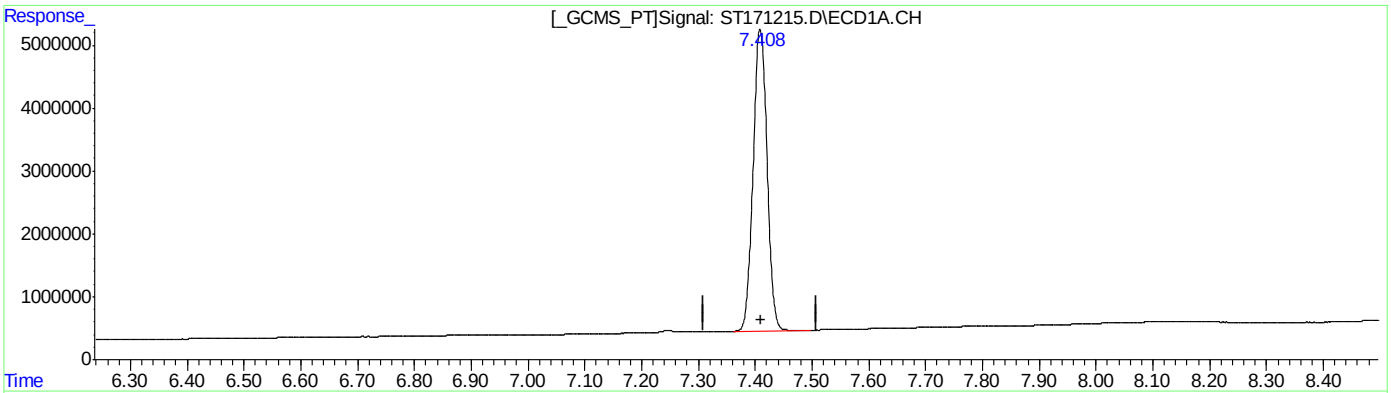
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171215.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:18 pm
Operator : eduardom
Sample : OP99916-MB Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 08:53:12 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(33) Decachlorobiphenyl (S)

7.408min 49.975 ppb m

response 4800831

(33) Decachlorobiphenyl #2 (S)

7.379min 47.741 ppb

response 1275324

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/07/23 15:05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85907.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:25 pm
Operator : eduardom
Sample : OP99917-MB Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 09:00:57 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.508	3.543	246.7E6	1259.0E6	49.146	53.589
Spiked Amount	50.000	Range 38 - 127	Recovery	=	98.29%	107.18%
55) S Decachlor...	7.298	7.442	63828067	303.7E6	46.202m	50.570m
Spiked Amount	50.000	Range 25 - 137	Recovery	=	92.40%	101.14%
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

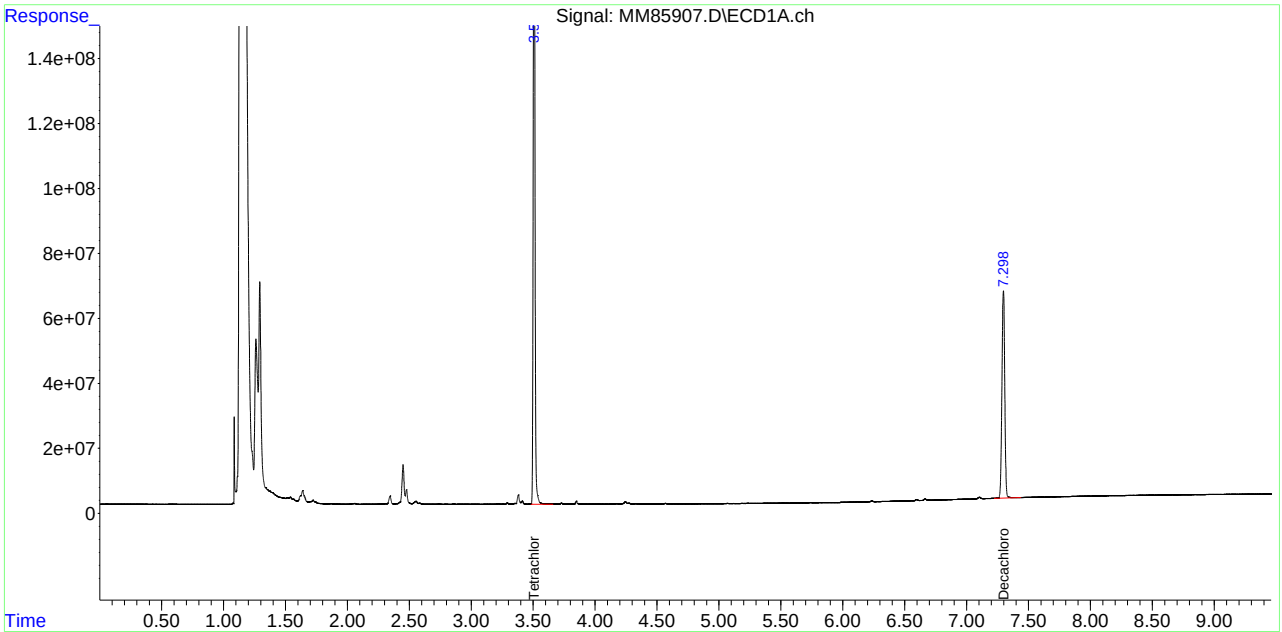
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

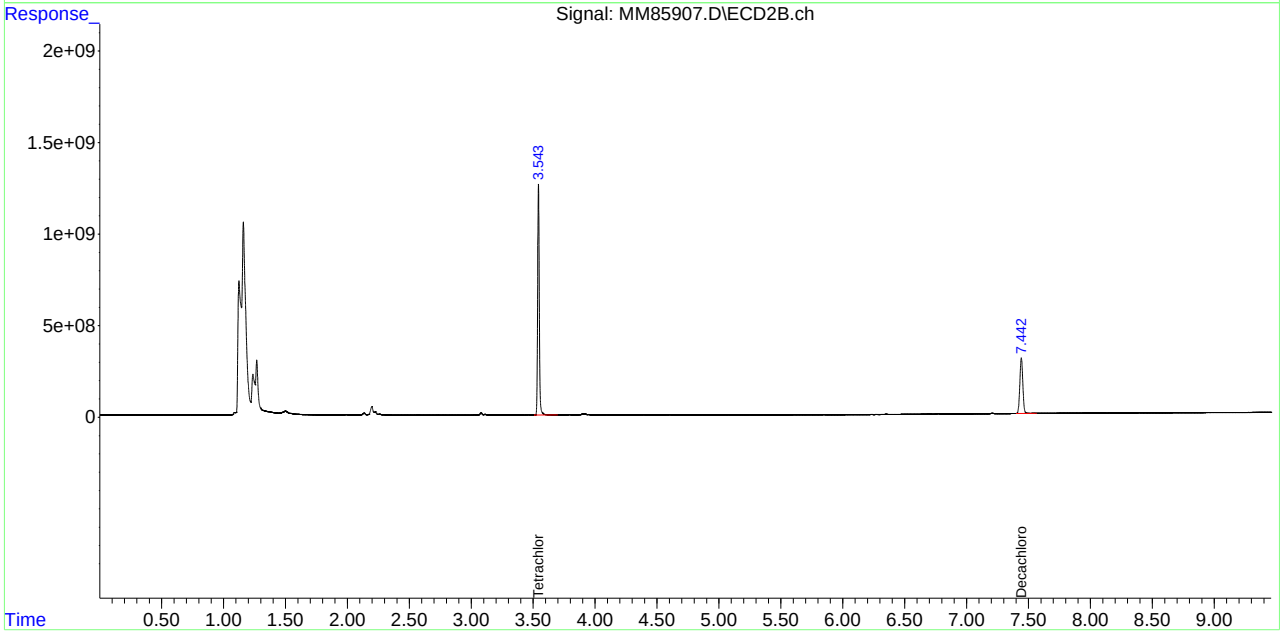
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85907.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:25 pm
Operator : eduardom
Sample : OP99917-MB Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 09:00:57 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: OP99917-MB
Lab FileID: MM85907.D
Injection Time: 11/06/23 17:25
Method: EPA 608.3
Analyst approved: 11/07/23 13:34 Eduardo Melendez
Supervisor approved: 11/07/23 15:05 William Hustedde

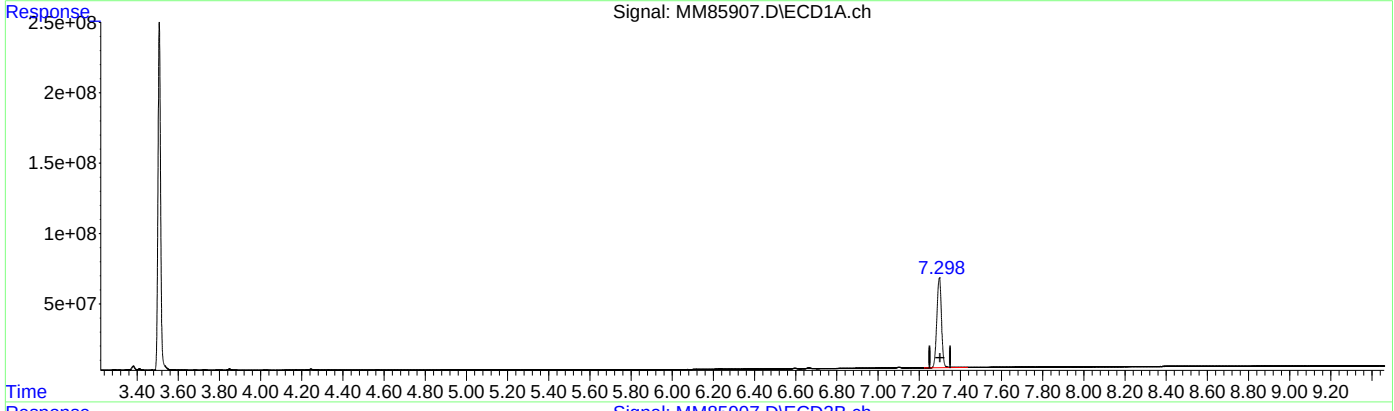
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.30	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.44	Poor instrument integration

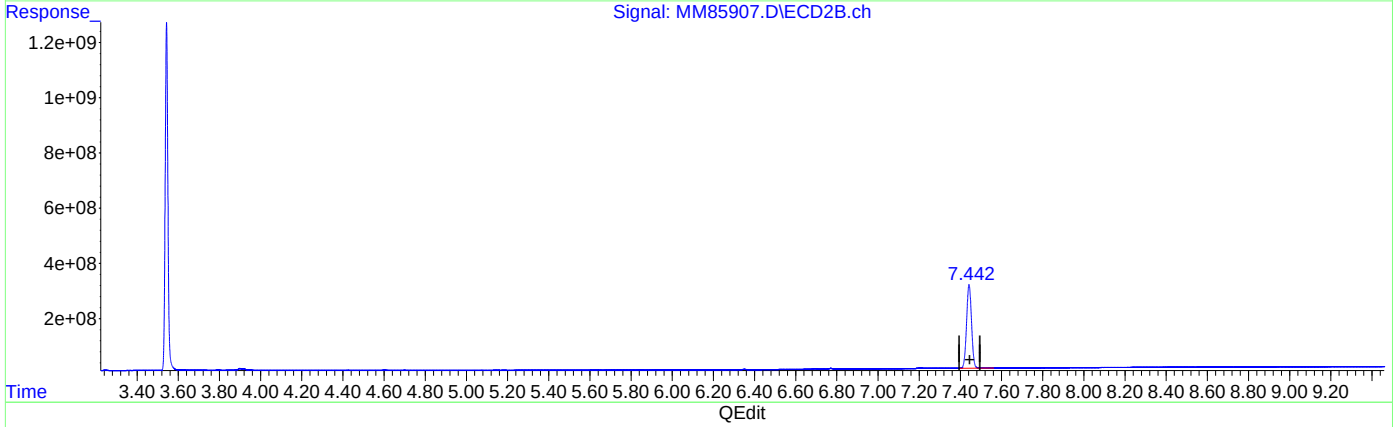
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85907.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:25 pm
Operator : eduardom
Sample : OP99917-MB Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 07 08:26:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.298min 46.202 ppb m

response 63828067

(55) Decachlorobiphenyl #2 (S)

7.442min 50.570 ppb m

response 303745247

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 13:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171213.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:48 pm
Operator : eduardom
Sample : OP99916-BS Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:57:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.447	3.387	6836471	1350556	48.982	47.435
		Spiked Amount	50.000	Range 42 - 127		Recovery =	97.96%	94.87%
33)	S	Decachlor...	7.408	7.380	5105505	1323297	53.146m	49.537
		Spiked Amount	50.000	Range 27 - 127		Recovery =	106.29%	99.07%
		Target Compounds						
2)		alpha-BHC	3.773	3.795	10690800	2176195	51.552	53.691
3)		gamma-BHC...	4.008	4.056	9497072	2024402	52.705	52.109
4)		beta-BHC	4.159	4.279	4213448	881965	50.003	47.866
5)		delta-BHC	4.326	4.460	9946254	2144082	48.660	52.236
6)		Heptachlor	4.417	4.325	8584733	1943365	49.858	51.690
7)		Aldrin	4.651	4.541	8347319	2037289	47.699	51.329
8)		Heptachlo...	4.954	4.915	8438422	2028613	47.407	48.391
9)		gamma-Chl...	5.135	5.102	8316523	2121213	48.430	51.048
10)		alpha-Chl...	5.190	5.149	8088777	2069810	51.574	49.661
11)		4,4'-DDE	5.334	5.285	8300947	2048459	46.614	48.234
12)		Endosulfa...	5.218	5.192	7786837	1917000	52.270	48.882
13)		Dieldrin	5.413	5.387	8791883	2203622	47.446	49.457
14)		Endrin	5.570	5.590	8169299	1975046	45.584	48.561
15)		4,4'-DDD	5.699	5.693	7112792	1768297	45.267	49.551
16)		Endosulfa...	5.731	5.804	7375915	1861556	45.452	47.047
17)		4,4'-DDT	5.919	5.879	5757214	1555875	53.198	50.096
18)		Endrin Al...	5.824	5.934	5544752	1389520	44.809	45.511
19)		Methoxychlor	6.281	6.304	3297849	877072	57.688	53.102
20)		Endosulfa...	5.991	6.098	6978891	1739067	46.359	47.557
21)		Endrin Ke...	6.328	6.483	7150751	1787641	50.670	49.284
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171213.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:48 pm
Operator : eduardom
Sample : OP99916-BS Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:57:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

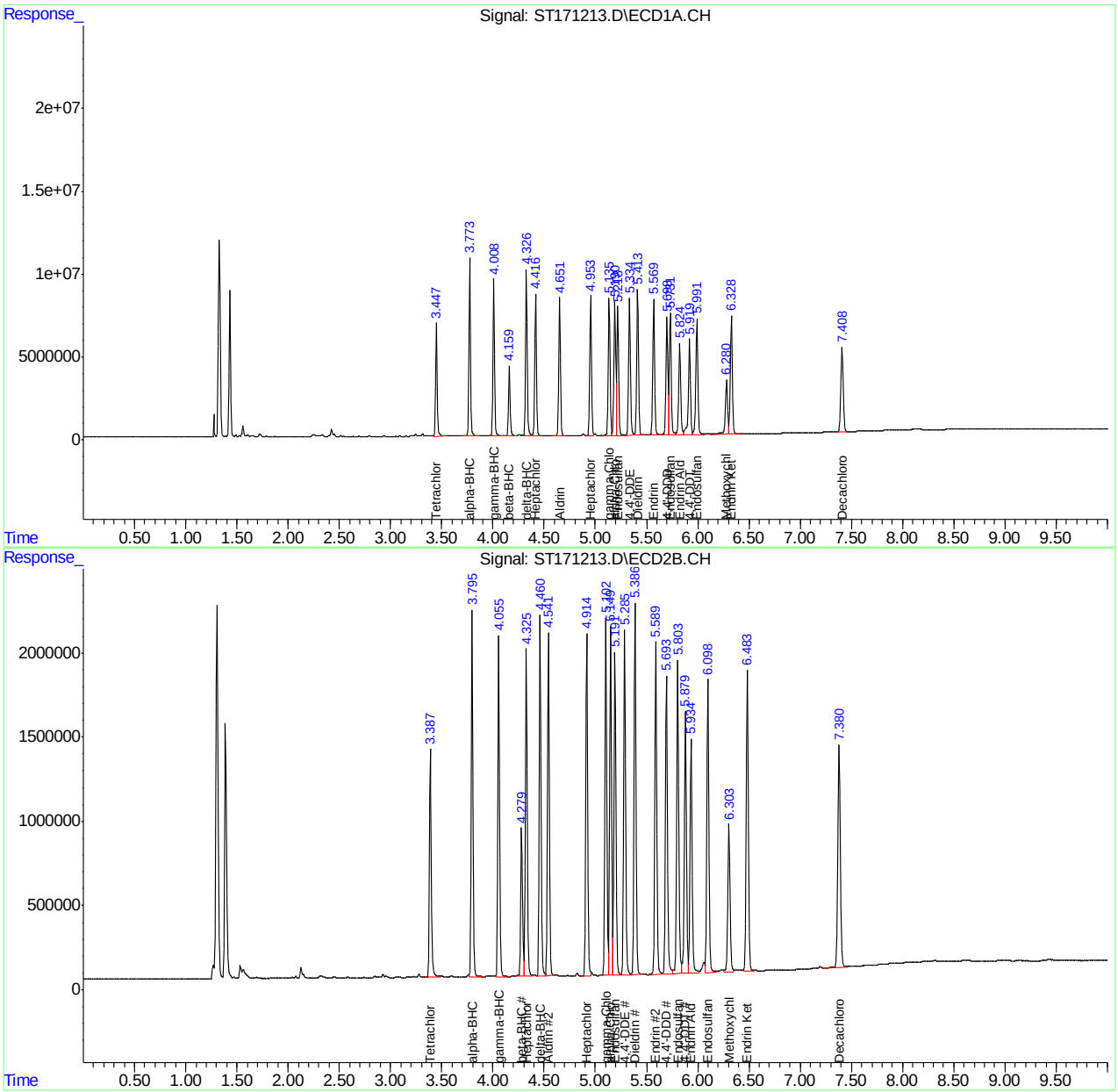
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171213.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:48 pm
Operator : eduardom
Sample : OP99916-BS Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:57:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



12.3.1 12

FC10955

Manual Integration Approval Summary

Sample Number: OP99916-BS
Lab FileID: ST171213.D
Injection Time: 11/10/23 15:48
Method: EPA 608.3
Analyst approved: 11/15/23 13:19 Eduardo Melendez
Supervisor approved: 11/15/23 13:59 William Hustedde

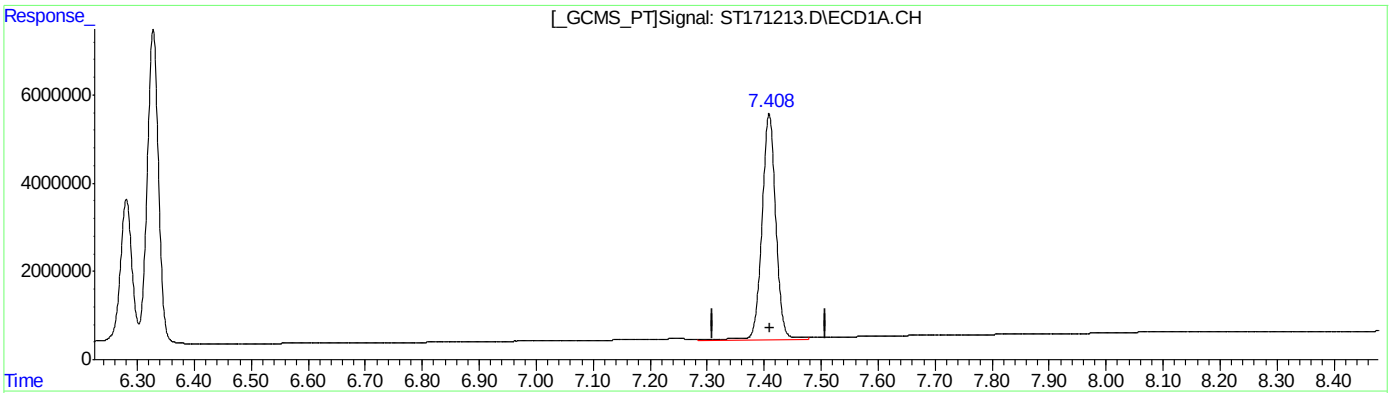
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.41	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171213.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:48 pm
Operator : eduardom
Sample : OP99916-BS Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:57:09 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.409min 53.588 ppb
response 5147914

(33) Decachlorobiphenyl #2 (S)
7.380min 49.537 ppb
response 1323297

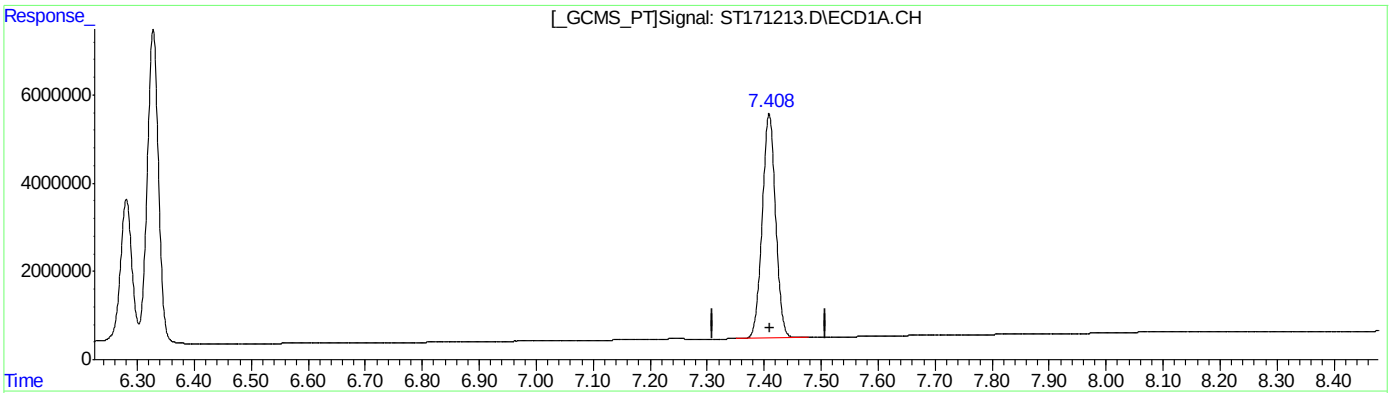
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171213.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:48 pm
Operator : eduardom
Sample : OP99916-BS Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:57:09 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.408min 53.146 ppb m
response 5105505

(33) Decachlorobiphenyl #2 (S)
7.380min 49.537 ppb
response 1323297

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 13:59

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 13:02:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.448	3.388	6147154	1219570	44.043	42.834
		Spiked Amount	50.000	Range	42 - 127	Recovery	= 88.09%	85.67%
33)	S	Decachlor...	7.409	7.379	4721498	1229604	49.149	46.030
		Spiked Amount	50.000	Range	27 - 127	Recovery	= 98.30%	92.06%
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.266	4.191	1263903	246932	215.149m	211.279
23)	L1	Chlordane-B	4.417	4.325	1401340	270044	141.716m	134.156
24)	L1	Chlordane-C	4.641	4.628	1340076	351932	272.732m	270.912m
25)	L1	Chlordane-D	5.136	5.103	5013508	1042231	216.309m	215.696m
26)	L1	Chlordane-E	5.194	5.148	5247621	918229	228.182m	224.626m
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			14266449	2829367	1074.088	1056.669
		Average Chlordane-A					214.818	211.334
28)	L2	Toxaphene-A	5.351	5.356	12259205	3097467	622.407m	546.534m
29)	L2	Toxaphene-B	5.699	5.767	14291829	3732275	579.375m	377.630m
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	5.925	6.020	18097816	4564482	473.071m	526.185m
32)	L2	Toxaphene-E	6.281	6.399	8991598	4259584	522.197m	474.012m
		Sum Toxaphene-A			53640448	15653808	2197.050	1924.362
		Average Toxaphene-A					549.263	481.090

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 13:02:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

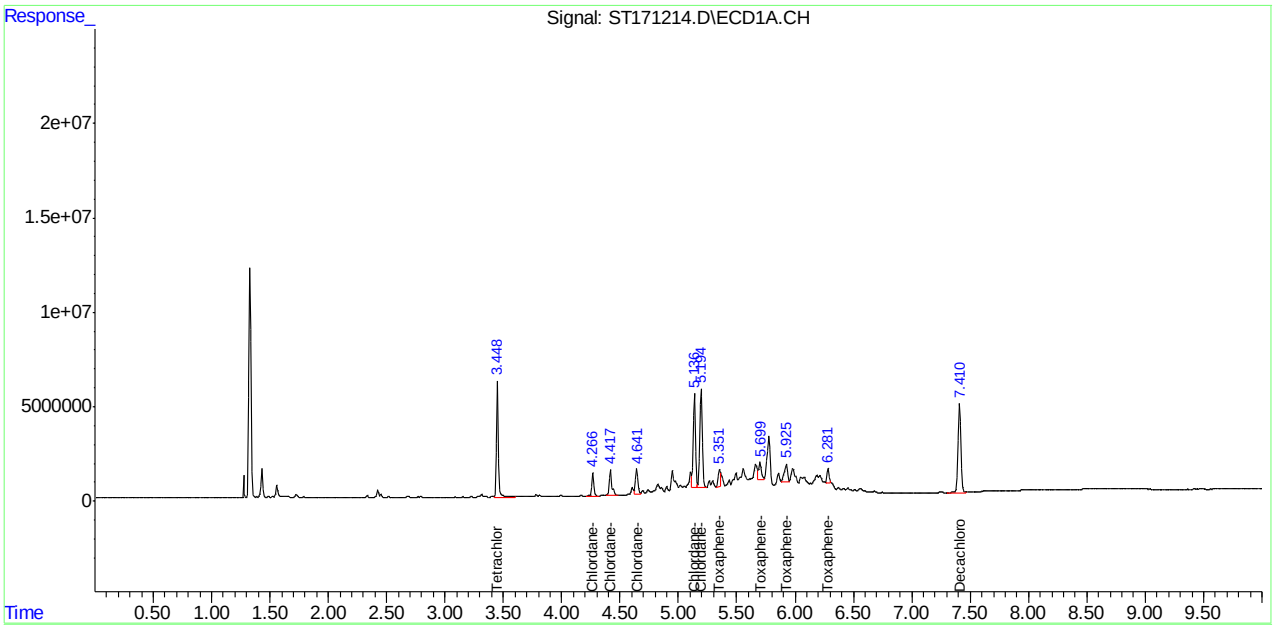
12.3.2
12

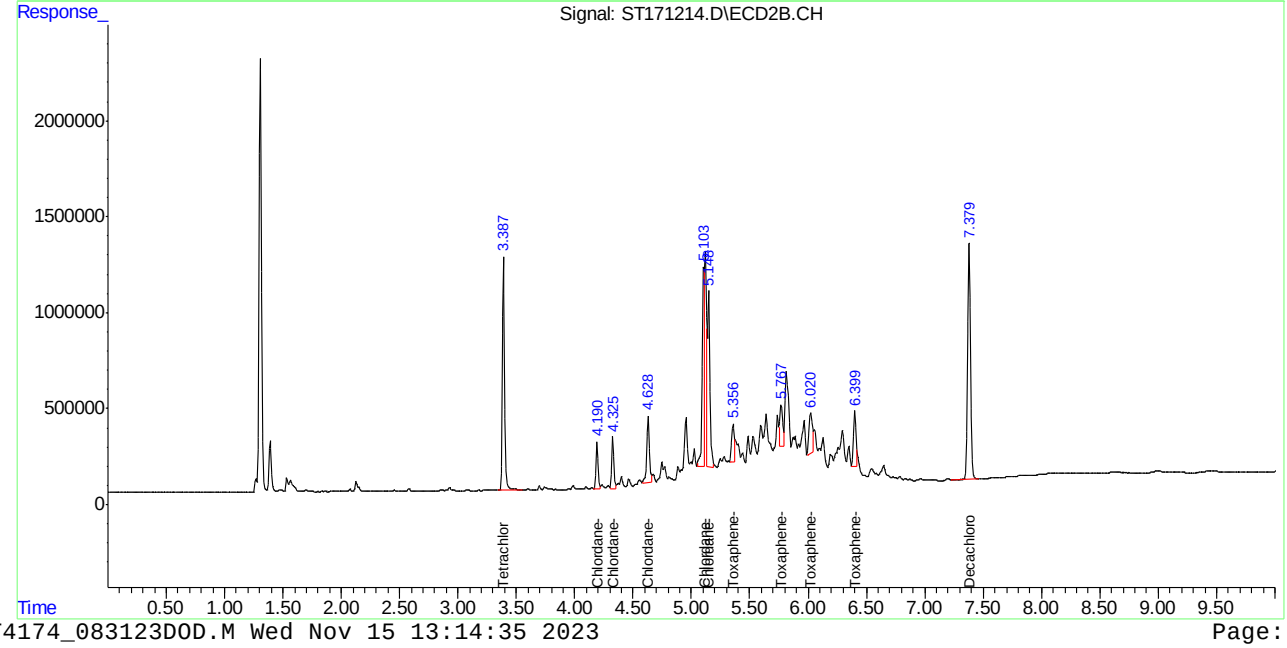
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 13:02:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: OP99916-BS2 **Method:** EPA 608.3
Lab FileID: ST171214.D **Analyst approved:** 11/15/23 13:19 Eduardo Melendez
Injection Time: 11/10/23 16:03 **Supervisor approved:** 11/15/23 13:59 William Hustedde

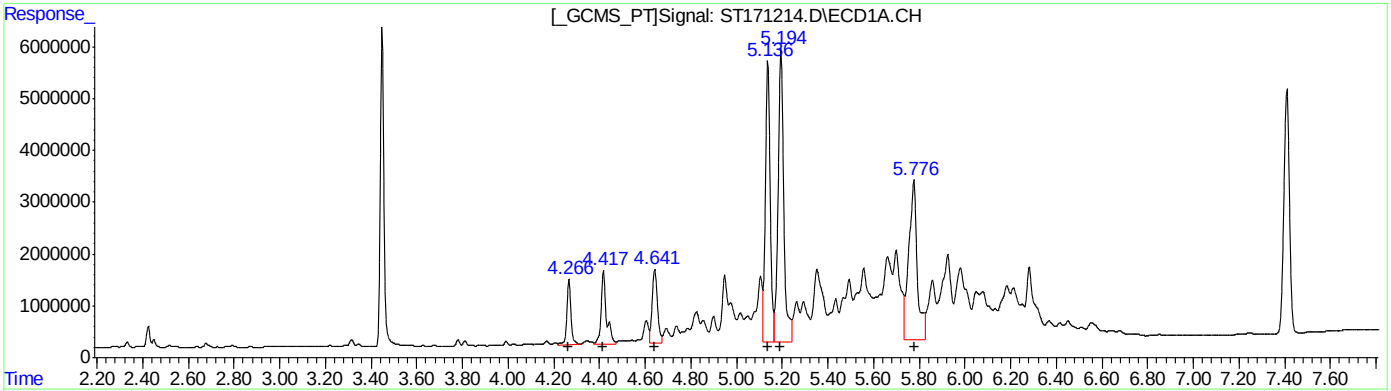
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-A		1	4.27	Poor instrument integration
Chlordane-B		1	4.42	Poor instrument integration
Chlordane-C		2	4.63	Poor instrument integration
Chlordane-C		1	4.64	Poor instrument integration
Chlordane-D		2	5.10	Poor instrument integration
Chlordane-D		1	5.14	Poor instrument integration
Chlordane-E		2	5.15	Poor instrument integration
Chlordane-E		1	5.19	Poor instrument integration
Toxaphene-A		1	5.35	Poor instrument integration
Toxaphene-A		2	5.36	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-B		2	5.77	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 08:53:10 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(22) Chlordane-A (L1)

R.T.	Response	Conc
4.27	1270760	216.32
4.42	1425733	144.18
4.64	1436843	292.43
5.14	5398100	232.90
5.19	5636995	245.11
5.78	3076699	643.88

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.19	246932	211.28
4.33	270044	134.16
4.63	374544	288.32
5.10	1143720	236.70
5.15	1016805	248.74
5.81	586867	516.70

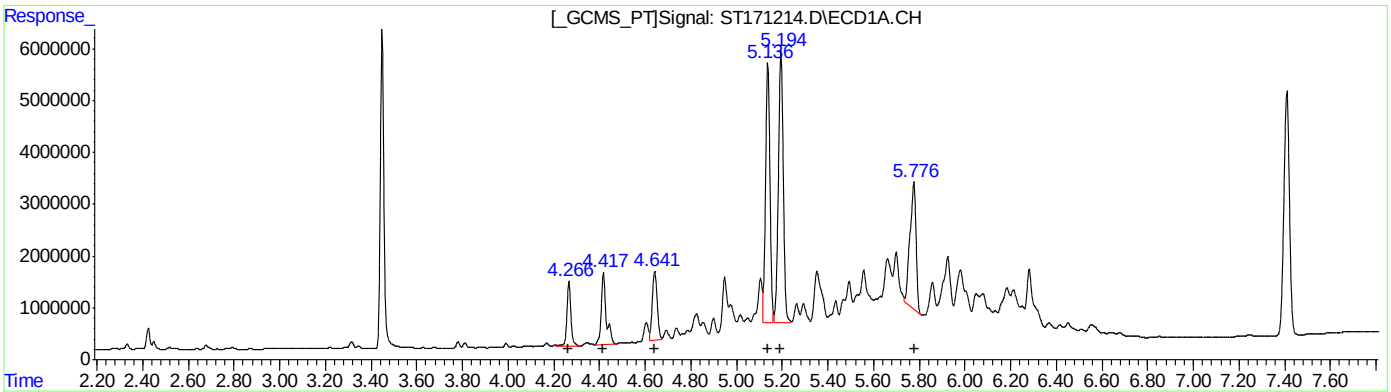
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 08:53:10 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.27	1283903	215.15
4.42	1401340	141.72
4.64	1340076	272.73
5.14	5013508	216.31
5.19	5247621	228.18
5.78	2455540	513.89

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.19	246932	211.28
4.33	270044	134.16
4.63	351932	270.91
5.10	1042231	215.70
5.15	918229	224.63
5.81	396941	349.49

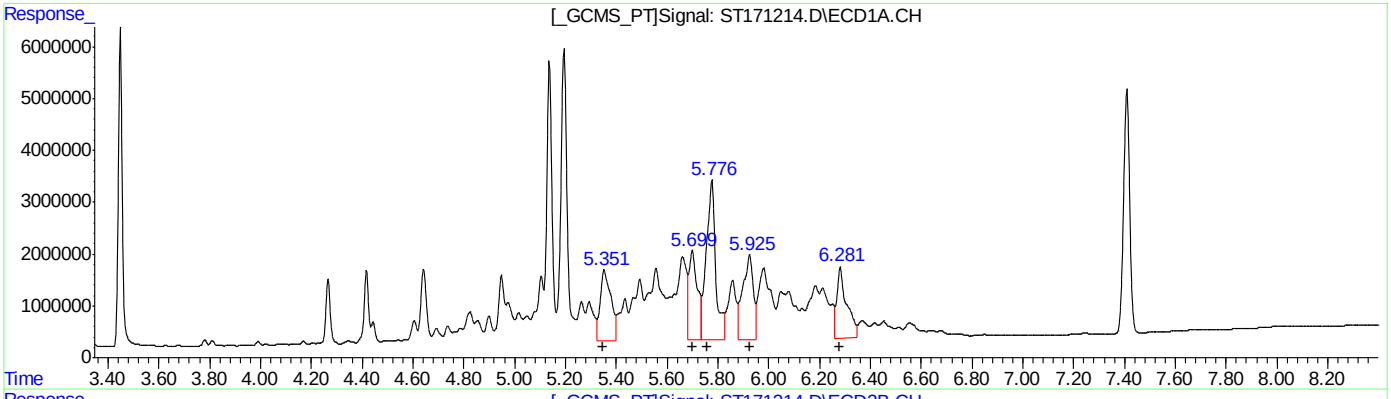
(+) = Expected Retention Time

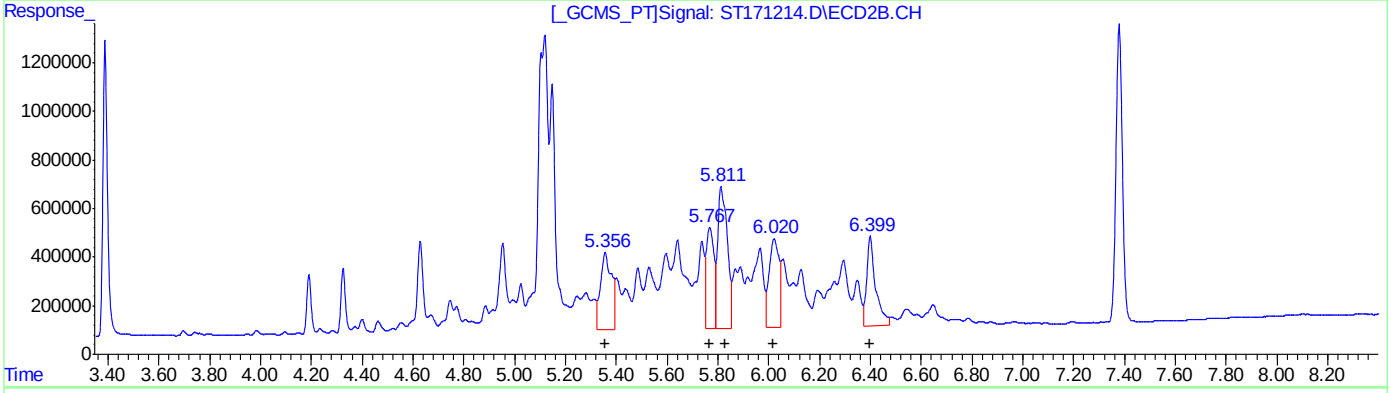
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 08:53:10 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	40691288	2065.92
5.70	40239197	1631.25
5.78	78564365	1398.15
5.92	47109955	1231.44
6.28	37082892	2153.63

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	9516694	1679.18
5.77	8828414	893.26
5.81	15473623	1831.42
6.02	9956319	1147.75
6.40	9163317	1019.71

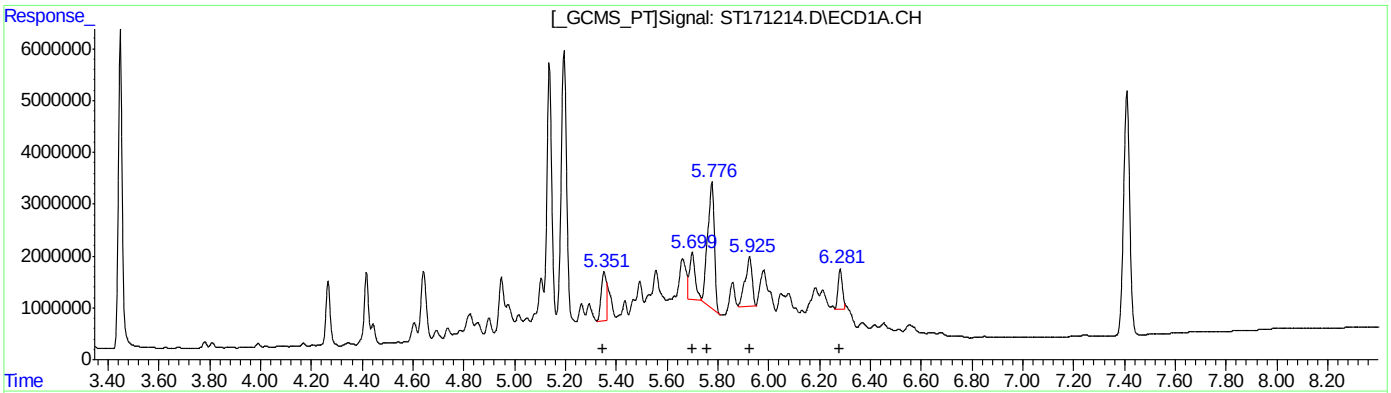
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171214.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 4:03 pm
Operator : eduardom
Sample : OP99916-BS2 Inst : ECD 3
Misc : OP99916,GST4180,1000,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 08:53:10 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	12259205	622.41
5.70	14291829	579.38
5.78	44389627	789.97
5.92	18097816	473.07
6.28	8991598	522.20

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	3097467	546.53
5.77	3732275	377.63
5.81	8154260	965.12
6.02	4564482	526.19
6.40	4259584	474.01

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85906.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:14 pm
Operator : eduardom
Sample : OP99917-BS Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 08:58:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.508	3.543	216.6E6	1167.8E6	43.156	49.709
Spiked Amount	50.000 Range	38 - 127	Recovery	=	86.31%	99.42%
55) S Decachlor...	7.299	7.442	60155138	279.7E6	43.543	46.567
Spiked Amount	50.000 Range	25 - 137	Recovery	=	87.09%	93.13%
Target Compounds						
2) L1 AR1016-A	3.790	3.859	27855178	137.2E6	337.698	365.011
3) L1 AR1016-B	4.024	4.092	40251906	198.9E6	364.449	399.891
4) L1 AR1016-C	4.147	4.234	38741580	191.0E6	372.607	408.553
5) L1 AR1016-D	4.341	4.416	85555285	405.7E6	380.129	411.639
6) L1 AR1016-E	4.445	4.544	40062092	208.0E6	383.276	425.519
7) L1 AR1016-F	4.645	4.732	35341499	179.1E6	385.068	422.761
Sum AR1016-A			267.8E6	1319.9E6	2223.227	2433.374
Average AR1016-A					370.538	405.562
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
37) L7 AR1260-A	5.405	5.485	58911985	274.9E6	374.322	382.648
38) L7 AR1260-B	5.589	5.626	67359819	334.4E6	359.291	393.724
39) L7 AR1260-C	5.775	5.864	74452939	332.5E6	372.702	421.947
40) L7 AR1260-D	5.987	6.085	47486643	232.3E6	355.827	391.384
41) L7 AR1260-E	6.211	6.267	103.6E6	501.2E6	353.182	387.569
42) L7 AR1260-F	6.408	6.526	58635968	320.1E6	357.159	402.294
Sum AR1260-A			410.4E6	1995.5E6	2172.484	2379.566
Average AR1260-A					362.081	396.594
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85906.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:14 pm
Operator : eduardom
Sample : OP99917-BS Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 08:58:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

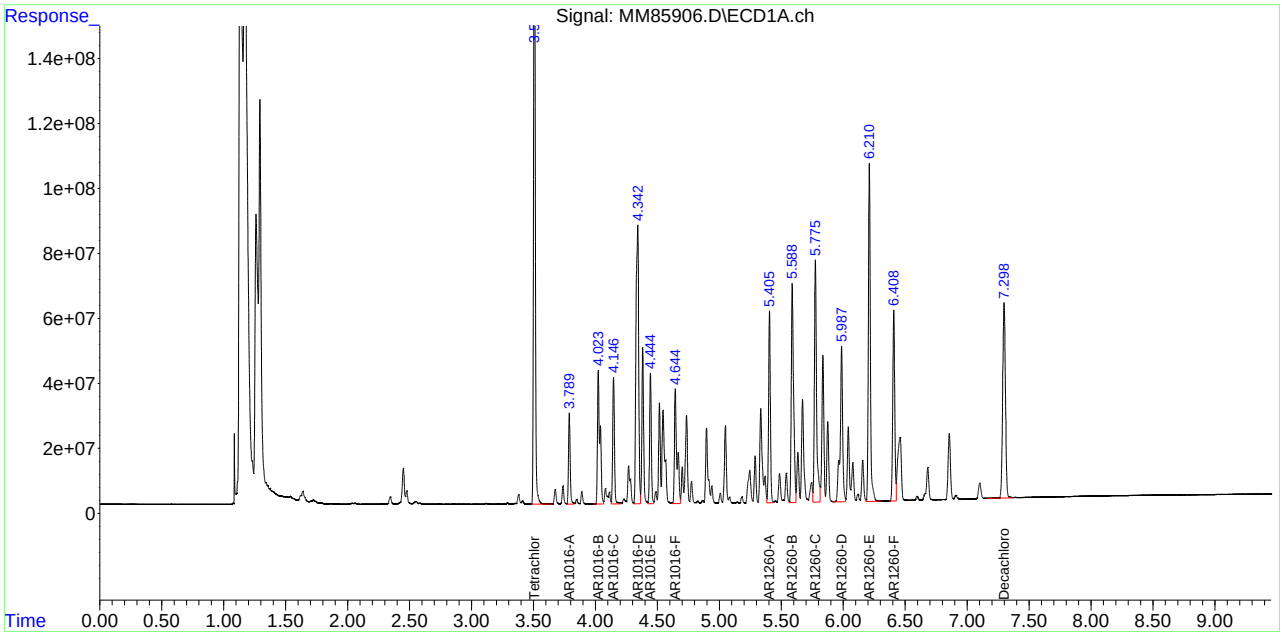
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

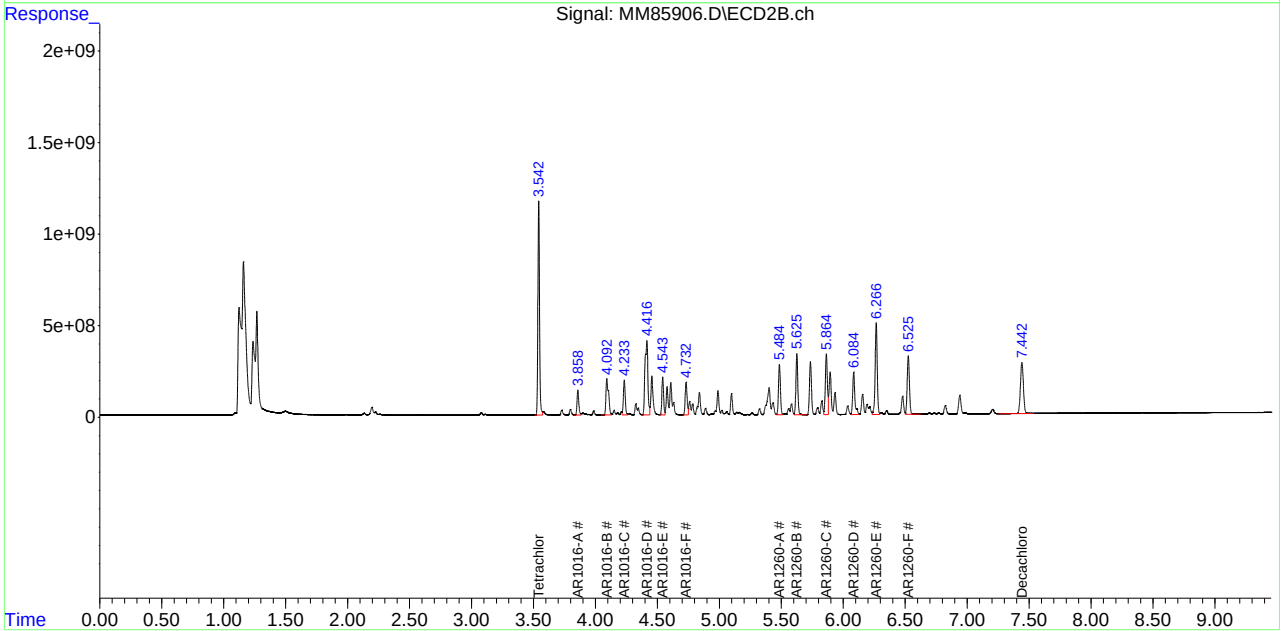
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85906.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:14 pm
Operator : eduardom
Sample : OP99917-BS Inst : ECD 9
Misc : OP99917,GMM1839,1000,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 07 08:58:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:41:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	5.329	5.278	265362	54670	1.559m	1.853m
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	5.566	5.584	7700255	1834039	46.644m	63.054m
15)		4,4'-DDD	5.697	5.690	147585	24233	1.014	0.951
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	5.916	5.875	4652049	1361105	39.979m	54.284m
18)		Endrin Al...	5.816	5.927	69485	6274	0.615m	0.270m#
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	6.327	6.480	17613	5142	0.117m	0.175m#
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:41:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

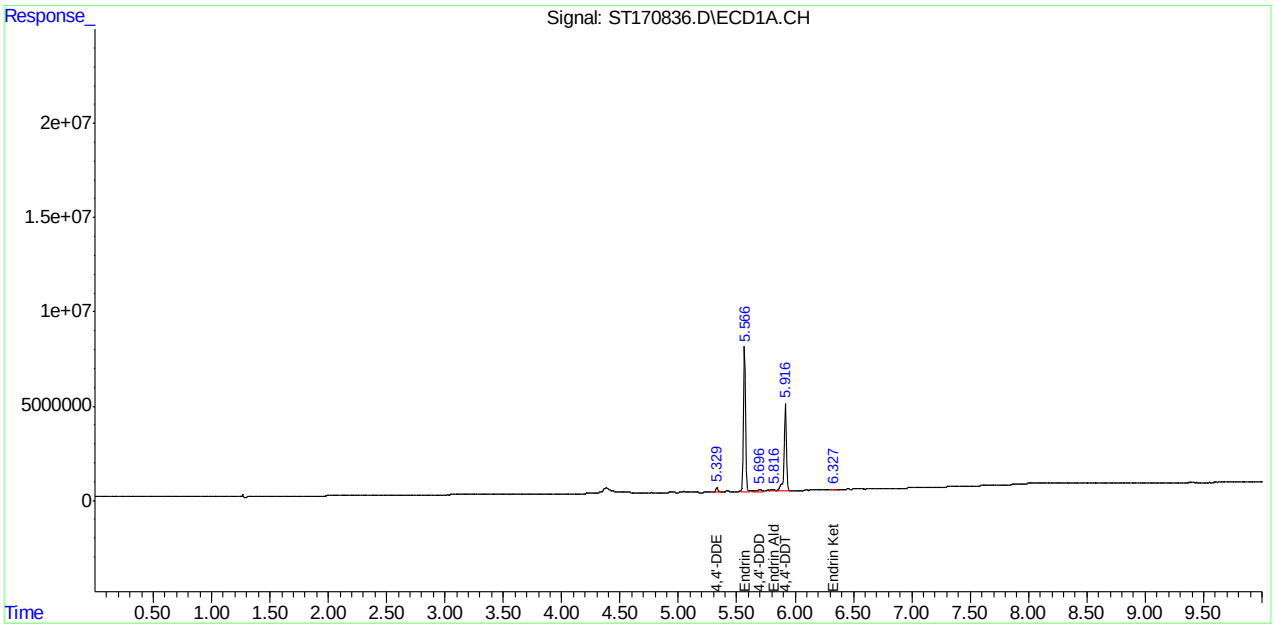
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

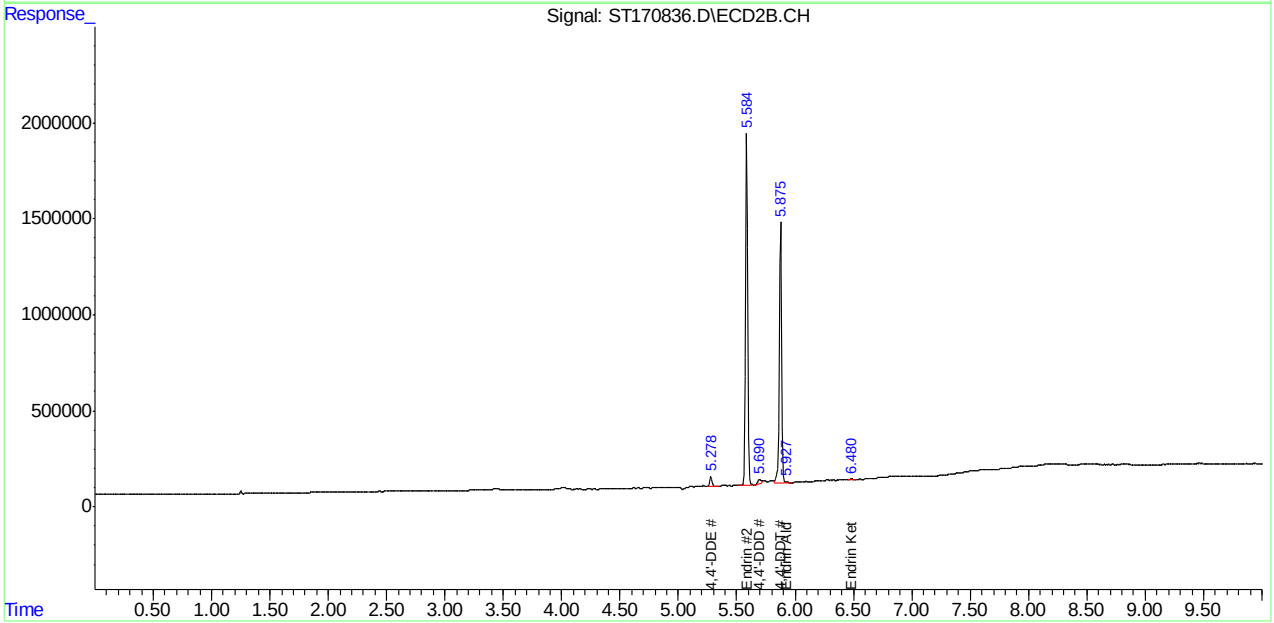
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:41:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-DDT
Lab FileID: ST170836.D
Injection Time: 10/31/23 09:28
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

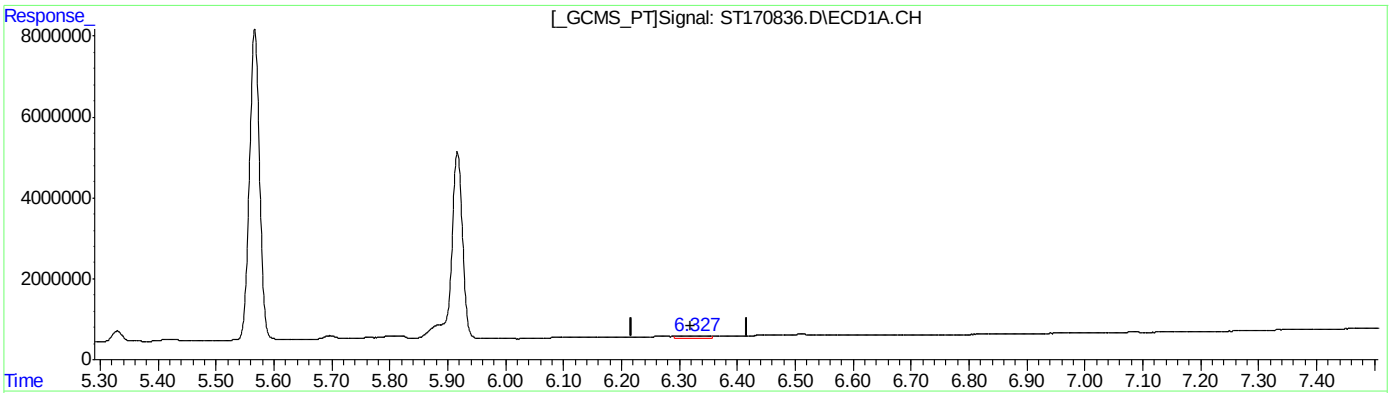
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	2	5.28	Poor instrument integration
4,4'-DDE	72-55-9	1	5.33	Poor instrument integration
Endrin	72-20-8	1	5.57	Poor instrument integration
Endrin	72-20-8	2	5.58	Poor instrument integration
Endrin aldehyde	7421-93-4	1	5.82	Poor instrument integration
4,4'-DDT	50-29-3	2	5.87	Poor instrument integration
4,4'-DDT	50-29-3	1	5.92	Poor instrument integration
Endrin aldehyde	7421-93-4	2	5.93	Poor instrument integration
Endrin ketone	53494-70-5	1	6.33	Poor instrument integration
Endrin ketone	53494-70-5	2	6.48	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(21) Endrin Ketone ( )
6.326min 0.444 PPB
response 66511

(21) Endrin Ketone #2 ( )
6.479min 0.176 PPB
response 5188

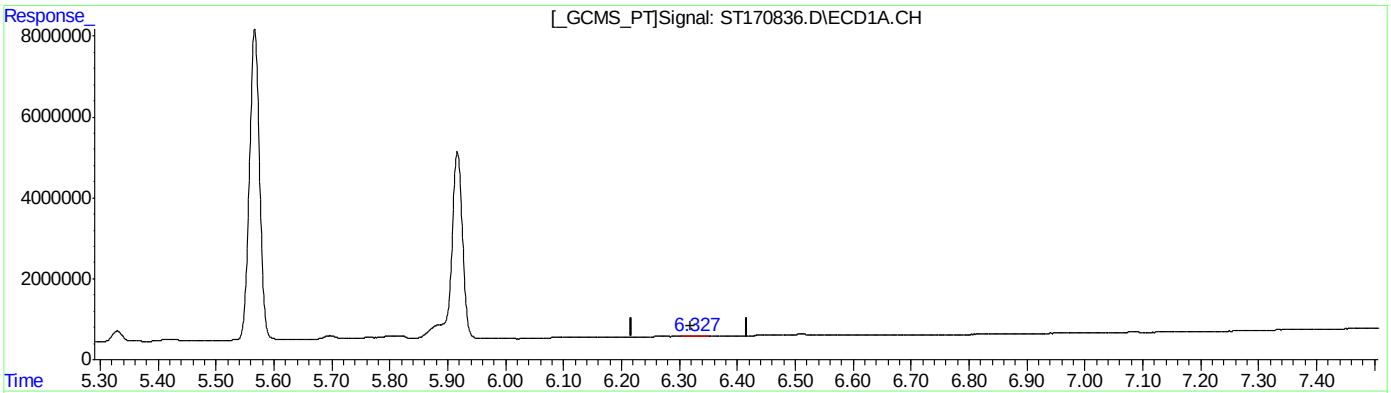
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 09:40:05 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(21) Endrin Ketone ( )
6.327min 0.117 PPB m
response 17613

(21) Endrin Ketone #2 ( )
6.480min 0.175 PPB m
response 5142

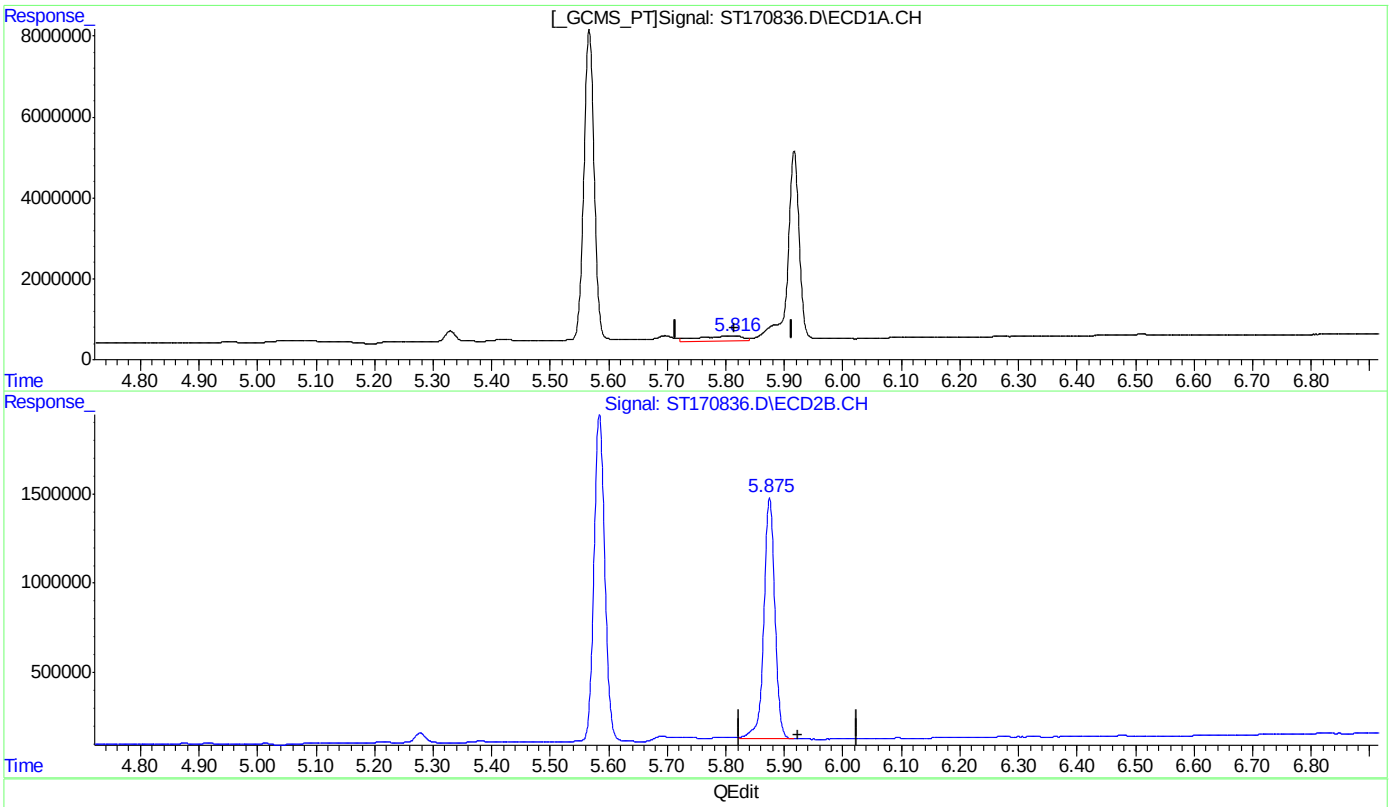
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )

5.812min 1.155 PPB

response 130440

(18) Endrin Aldehyde #2 ( )

5.875min 58.253 PPB

response 1353792

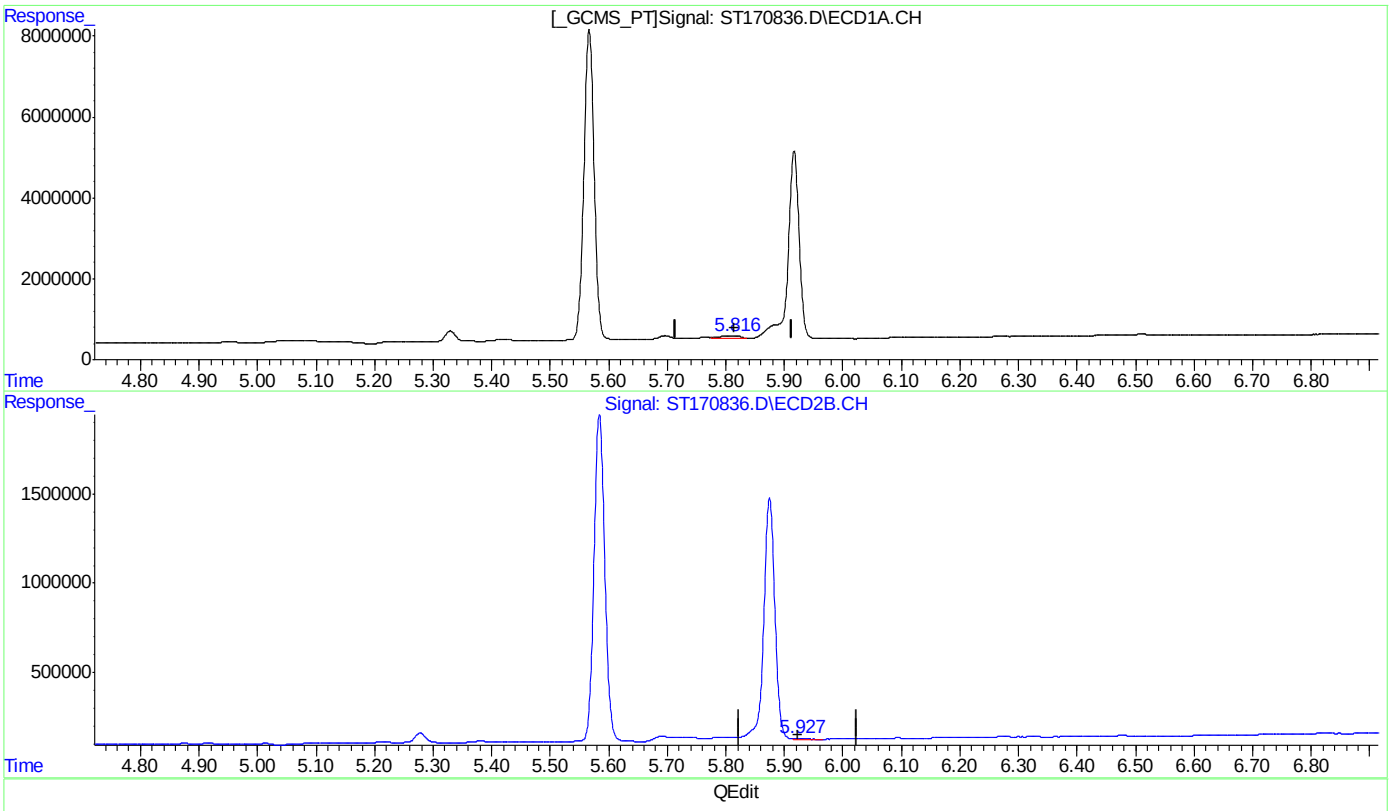
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )

5.816min 0.615 PPB m

response 69485

(18) Endrin Aldehyde #2 ( )

5.927min 0.270 PPB m

response 6274

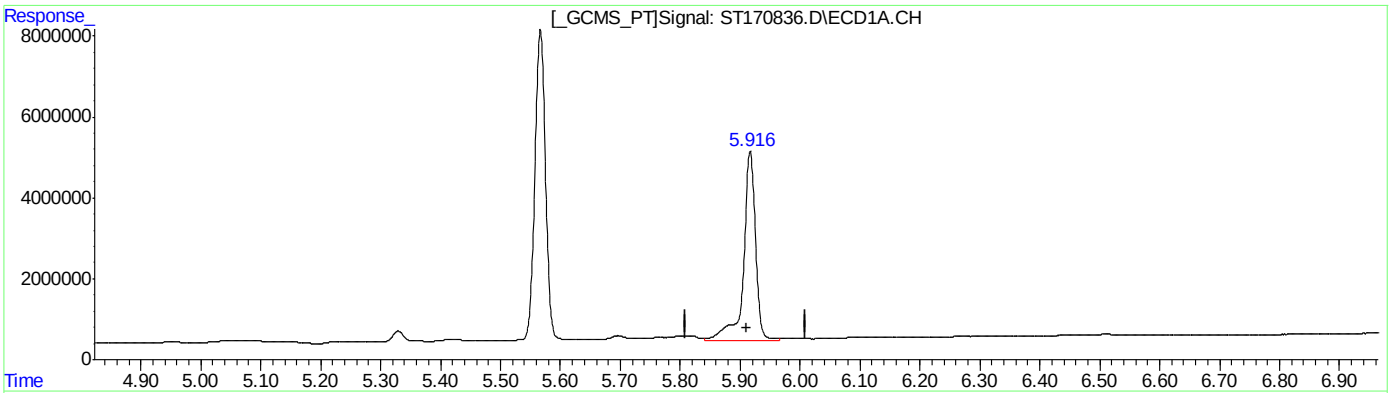
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(17) 4,4'-DDT

5.917min 40.012 ppb

response 4656166

(17) 4,4'-DDT #2

5.875min 53.992 ppb

response 1353792

(+) = Expected Retention Time

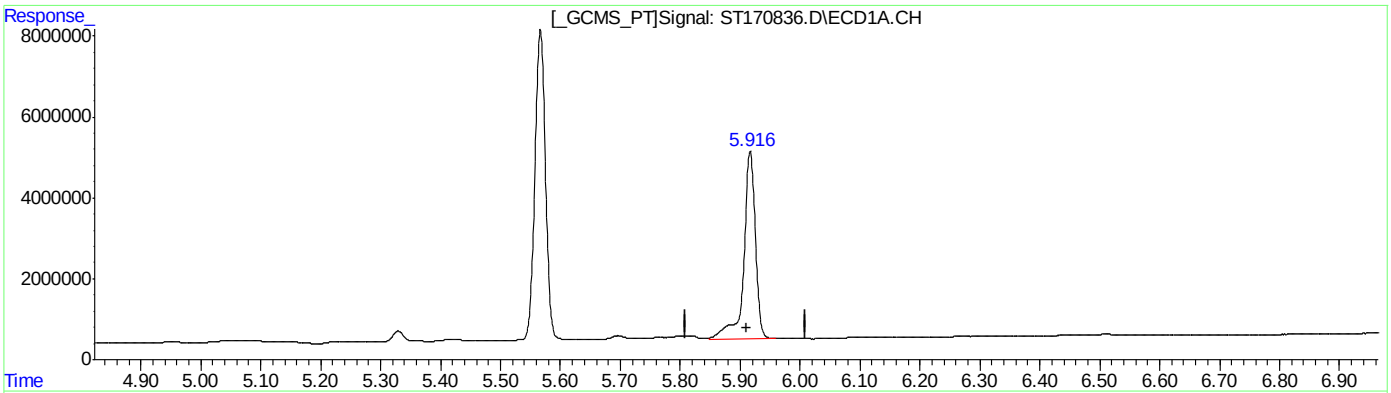
GST4134_082123DOD.M Tue Oct 31 09:40:46 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(17) 4,4'-DDT

5.916min 39.979 ppb m

response 4652049

(17) 4,4'-DDT #2

5.875min 54.284 ppb m

response 1361105

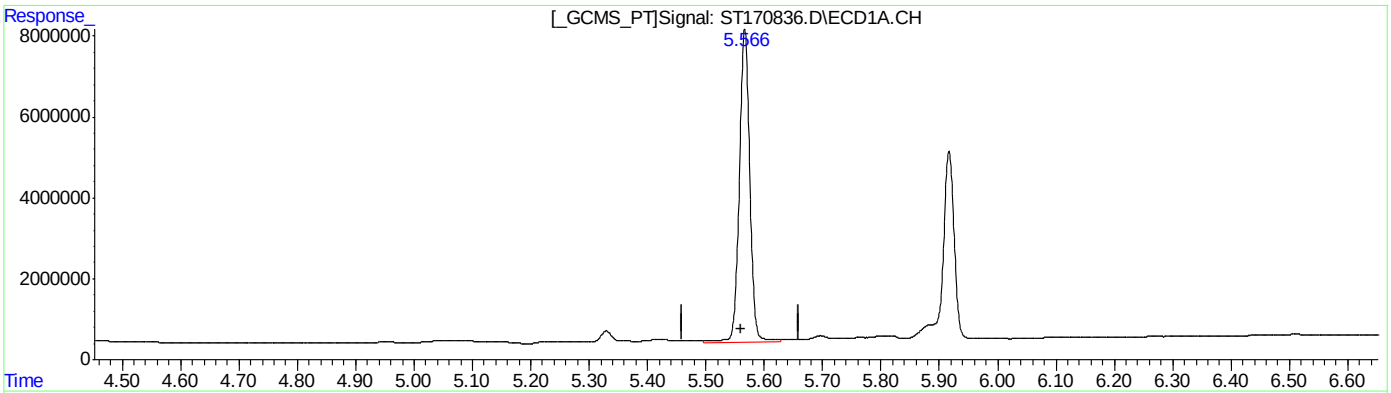
(+) = Expected Retention Time

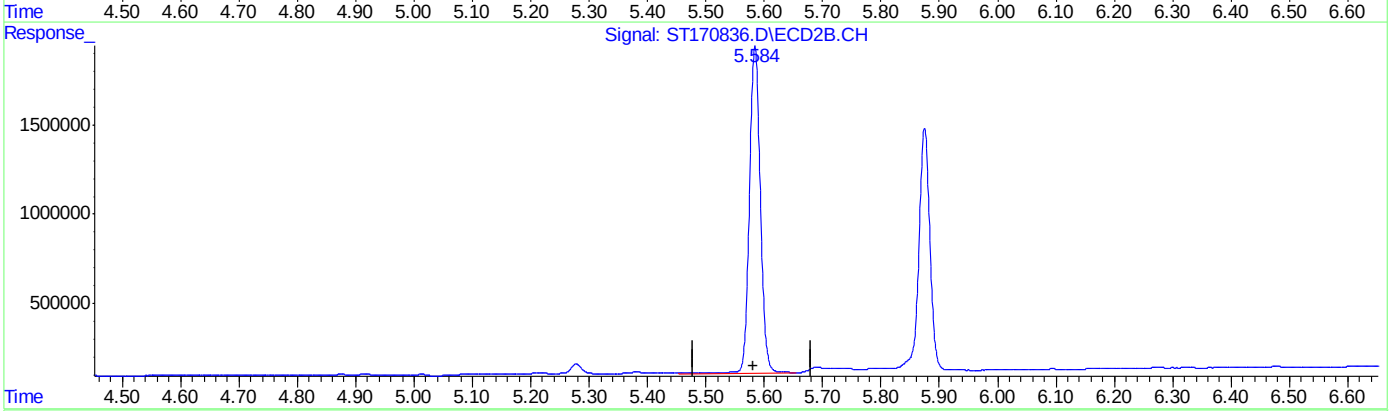
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )

5.567min 46.776 PPB

response 7722087

(14) Endrin #2 ( )

5.584min 63.182 PPB

response 1837760

(+) = Expected Retention Time

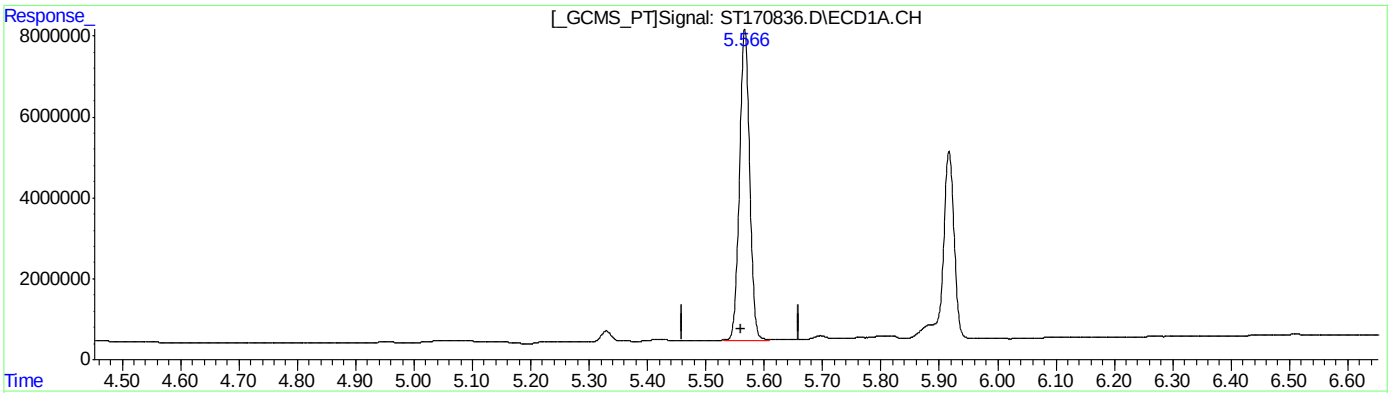
GST4134_082123DOD.M Tue Oct 31 09:41:09 2023 Page: 1

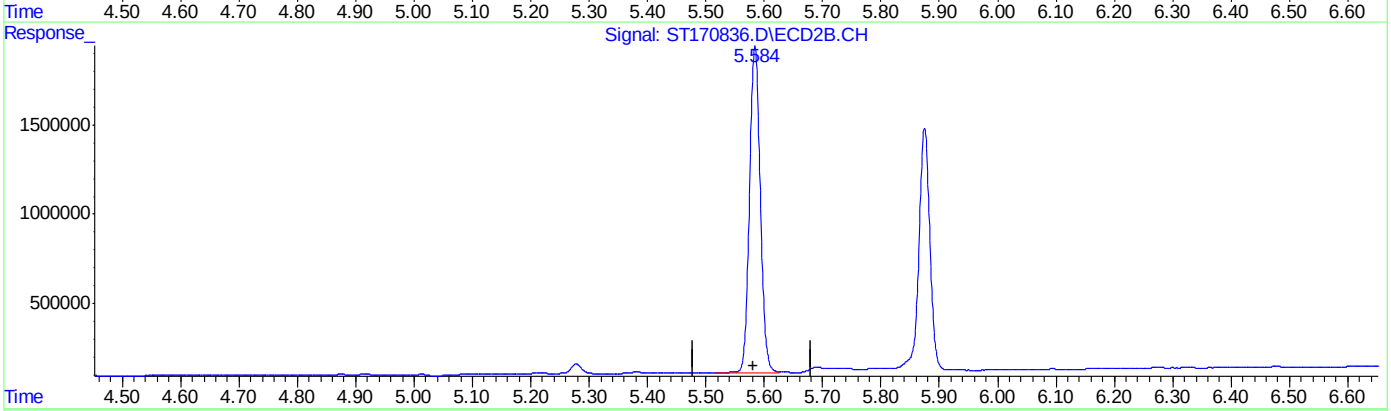
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )

5.566min 46.644 PPB m

response 7700255

(14) Endrin #2 ( )

5.584min 63.054 PPB m

response 1834039

(+) = Expected Retention Time

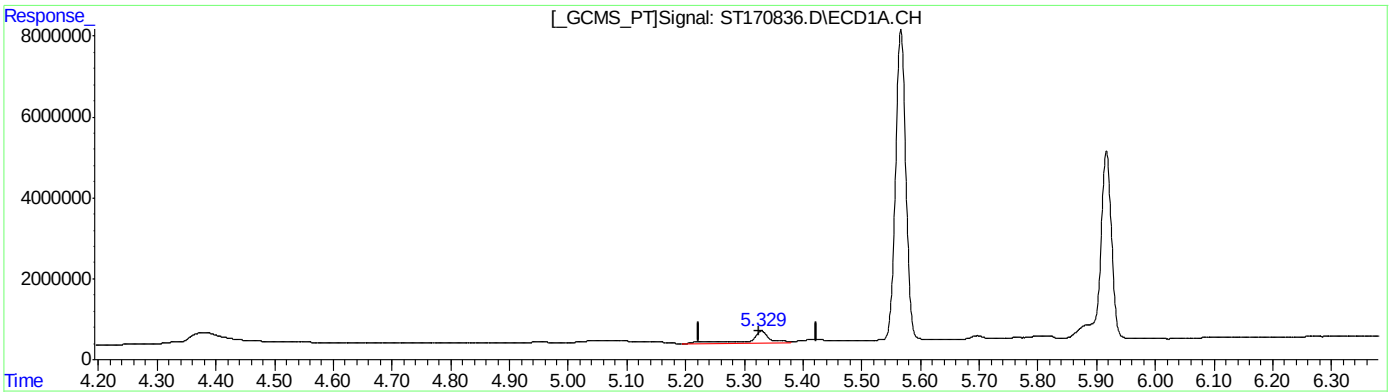
GST4134_082123DOD.M Tue Oct 31 09:41:27 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(11) 4,4'-DDE
5.329min 1.823 ppb
response 310148

(11) 4,4'-DDE #2
5.278min 2.085 ppb
response 61529

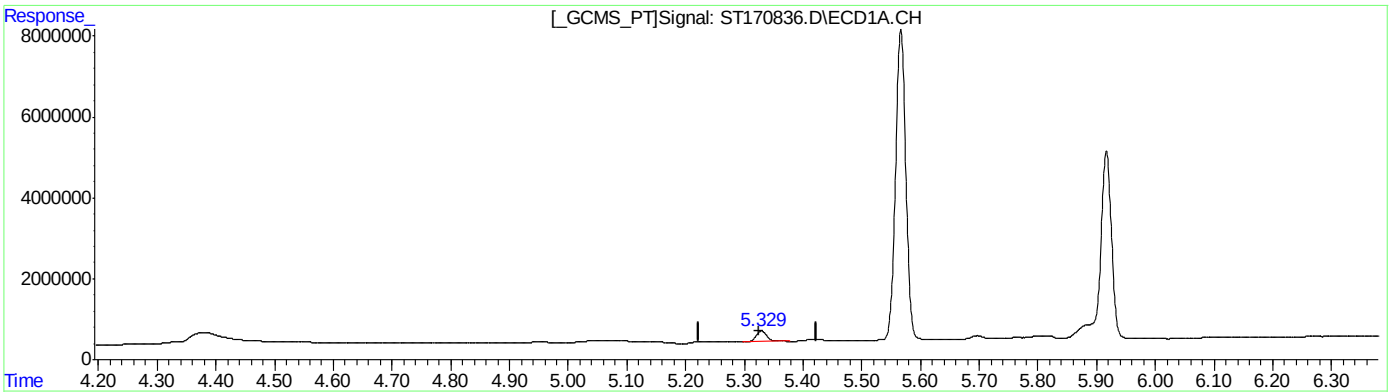
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 09:41:32 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170836.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:28 am
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 31 09:39:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(11) 4,4'-DDE

5.329min 1.559 ppb m

response 265362

(11) 4,4'-DDE #2

5.278min 1.853 ppb m

response 54670

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 15:01:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 50.000	Range 42 - 127		Recovery =		0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 50.000	Range 27 - 127		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	5.333	5.283	324264	60995	1.821	1.436
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	5.569	5.588	7568880	1884579	42.234	46.336
15)	4,4'-DDD	5.700	5.694	68284	18659	0.435m	0.523m
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	5.919	5.878	4871933	1398686	46.247m	45.594
18)	Endrin Al...	5.823	5.932	106457	28482	0.860m	0.933
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	6.328	6.481	117742	19482	0.834m	0.537m
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 15:01:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
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Quant Time: Nov 10 15:01:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
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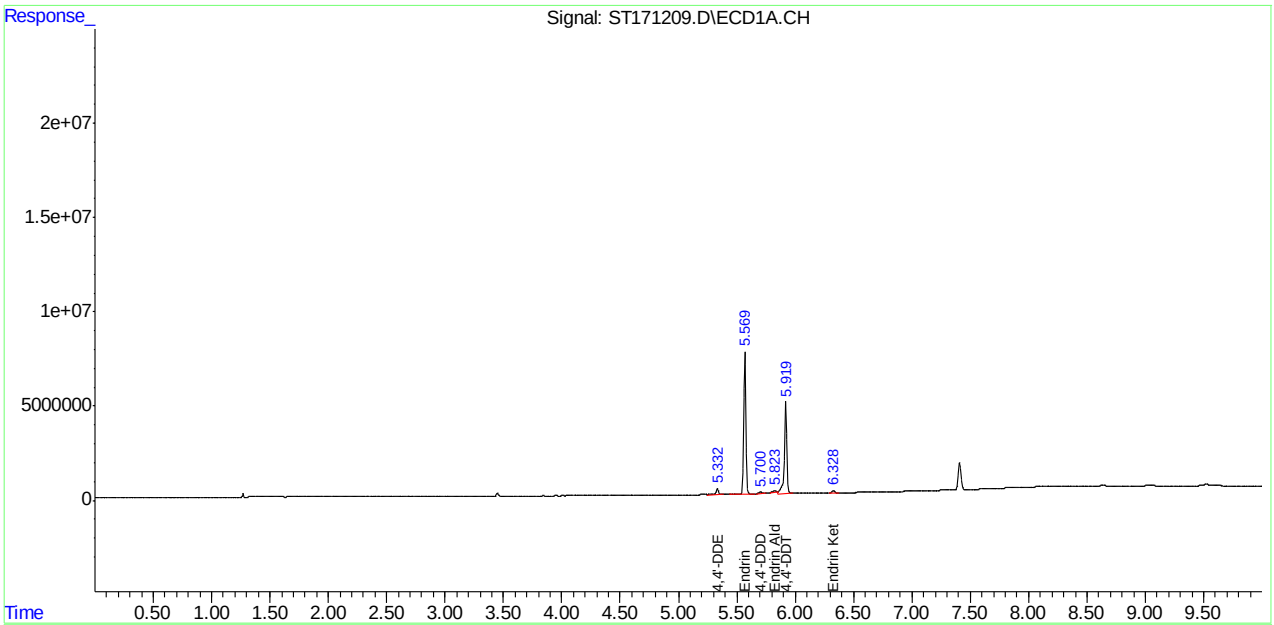
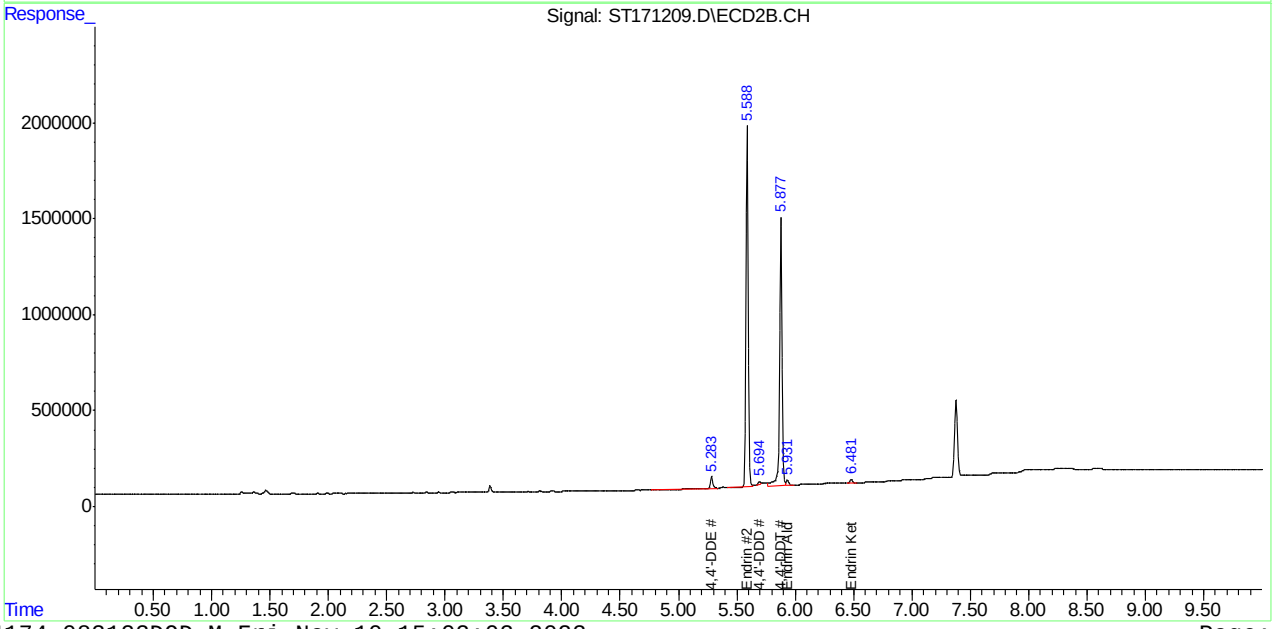
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4180-DDT
Lab FileID: ST171209.D
Injection Time: 11/10/23 14:49
Method: SW846 8081B
Analyst approved: 11/15/23 11:20 Eduardo Melendez
Supervisor approved: 11/15/23 12:51 William Hustedde

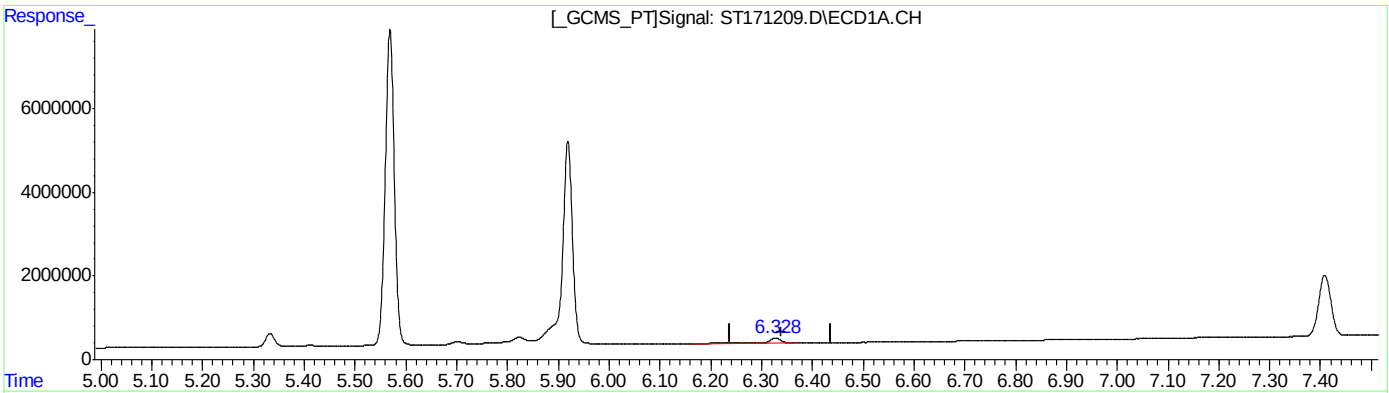
Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDD	72-54-8	2	5.69	Poor instrument integration
4,4'-DDD	72-54-8	1	5.70	Poor instrument integration
Endrin aldehyde	7421-93-4	1	5.82	Poor instrument integration
4,4'-DDT	50-29-3	1	5.92	Poor instrument integration
Endrin ketone	53494-70-5	1	6.33	Poor instrument integration
Endrin ketone	53494-70-5	2	6.48	Poor instrument integration

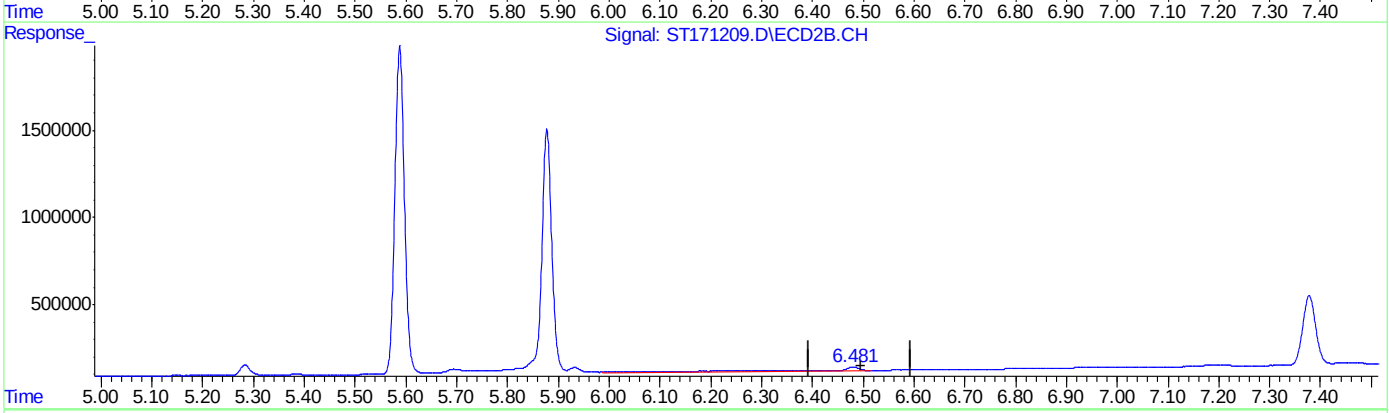
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.328min 0.848 PPB
response 119624

(21) Endrin Ketone #2 ( )
6.481min 0.549 PPB
response 19909

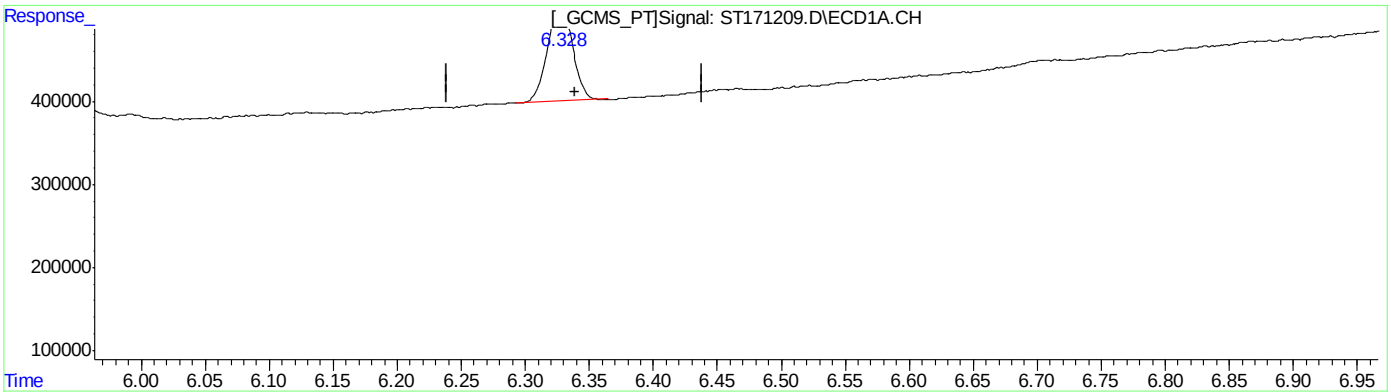
(+) = Expected Retention Time

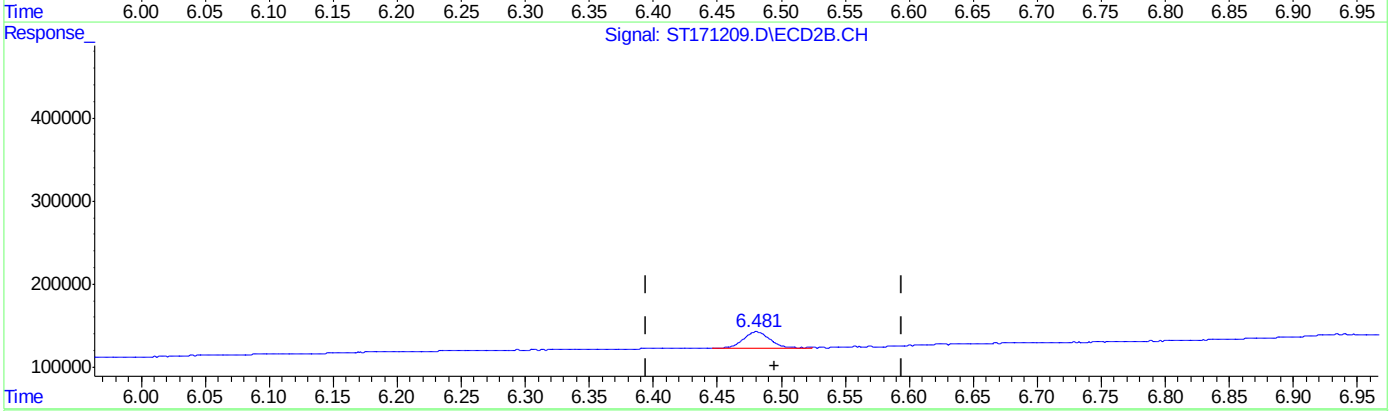
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.328min 0.834 PPB m
response 117742

(21) Endrin Ketone #2 ( )
6.481min 0.537 PPB m
response 19482

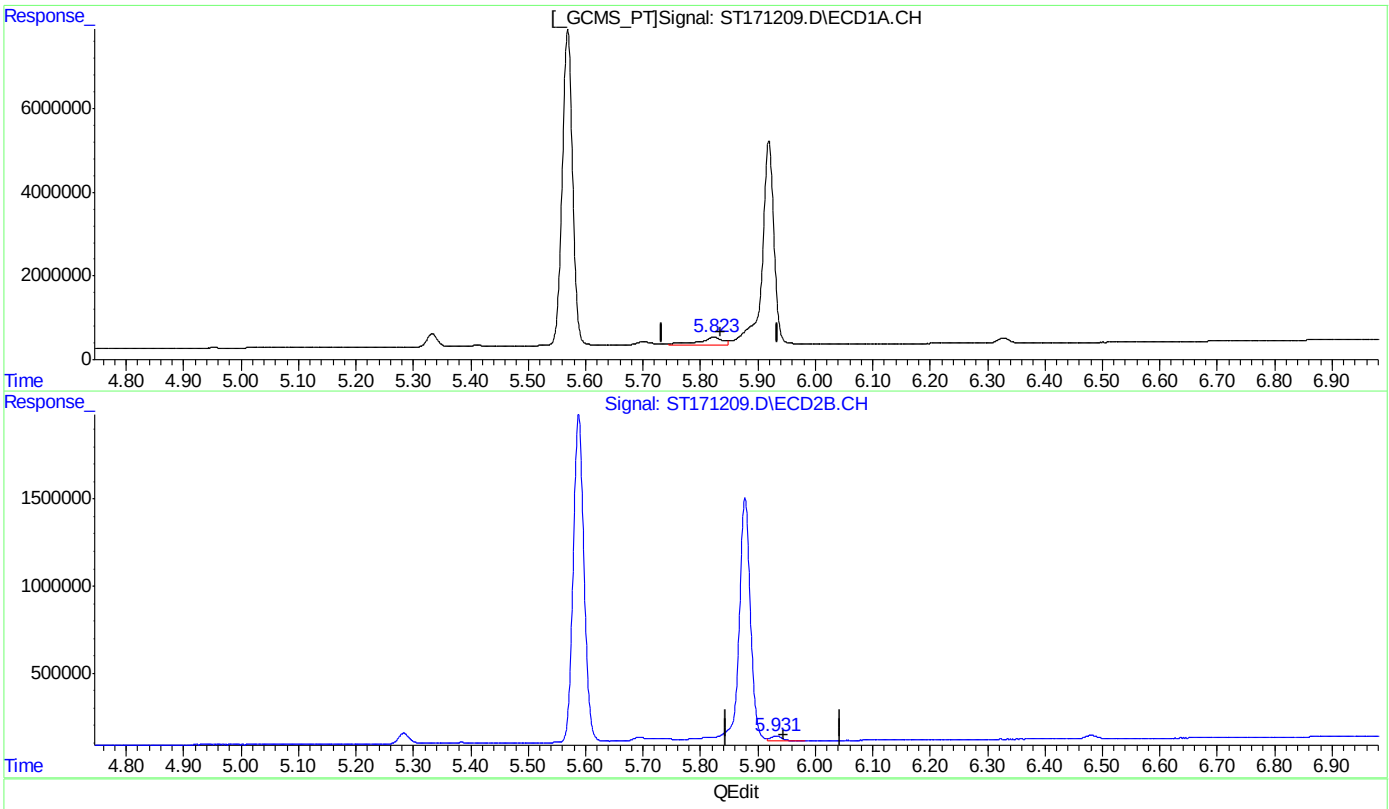
(+) = Expected Retention Time
GST4174_083123DOD.M Fri Nov 10 15:00:57 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )

5.824min 1.502 PPB

response 185905

(18) Endrin Aldehyde #2 ( )

5.932min 0.933 PPB

response 28482

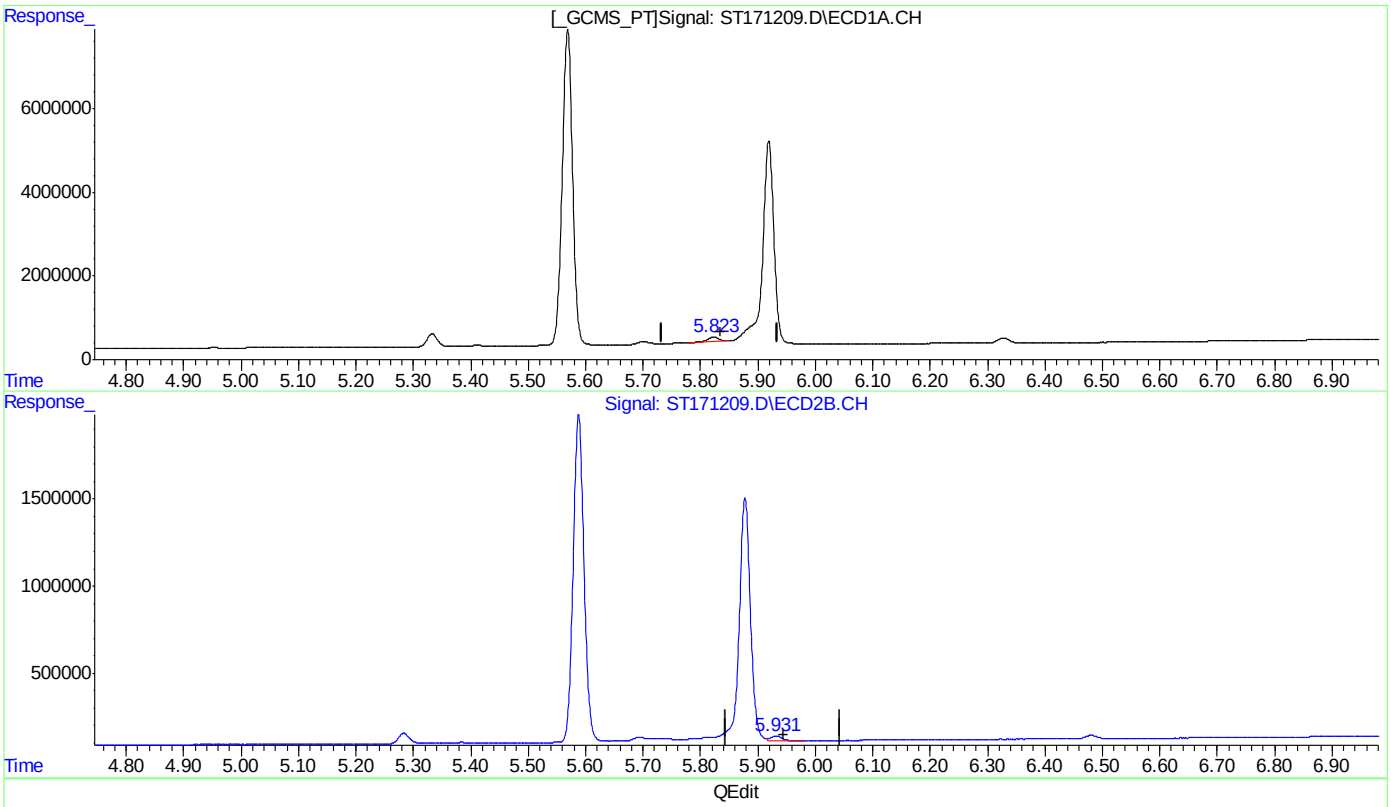
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )

5.823min 0.860 PPB m

response 106457

(18) Endrin Aldehyde #2 ( )

5.932min 0.933 PPB

response 28482

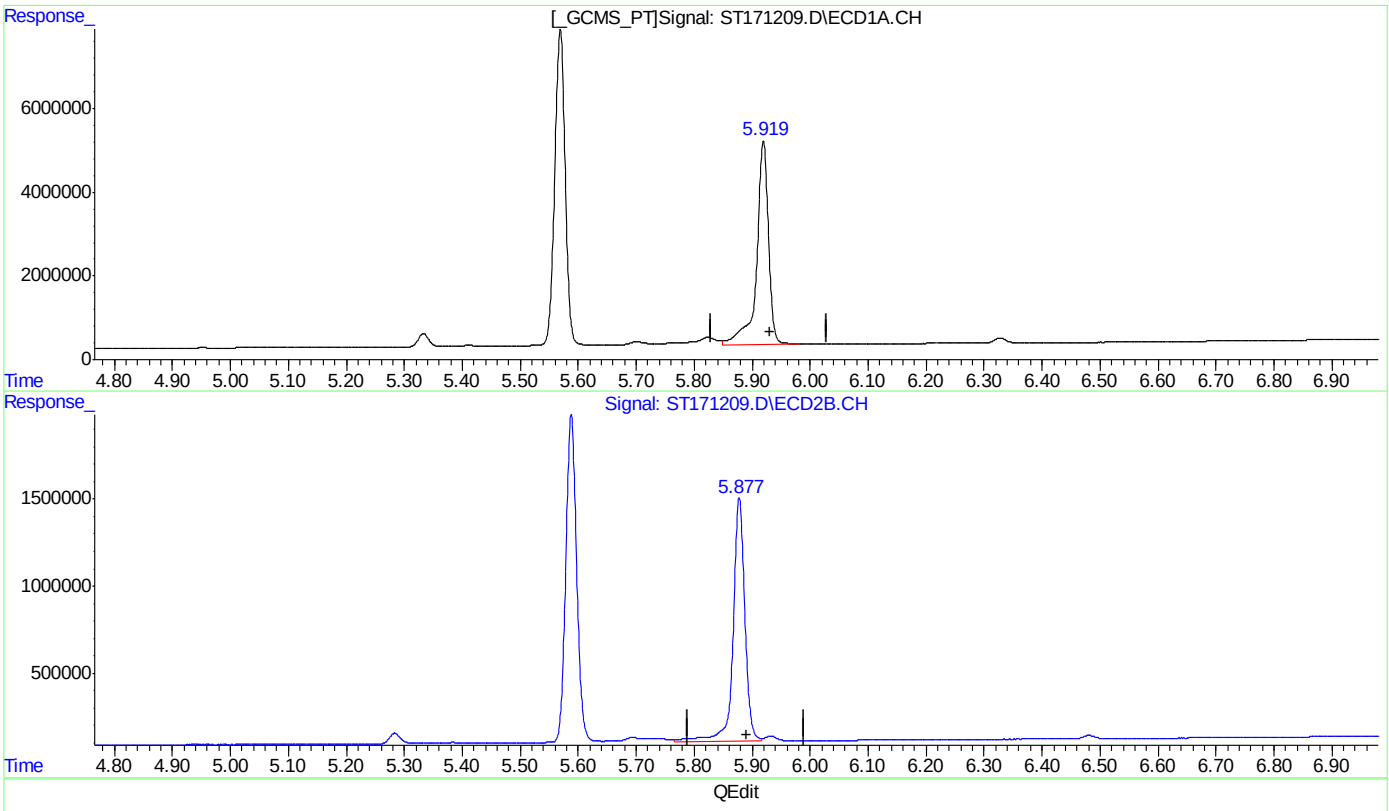
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT

5.919min 46.215 ppb

response 4867899

(17) 4,4'-DDT #2

5.878min 45.594 ppb

response 1398686

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
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Quant Time: Nov 10 14:59:40 2023
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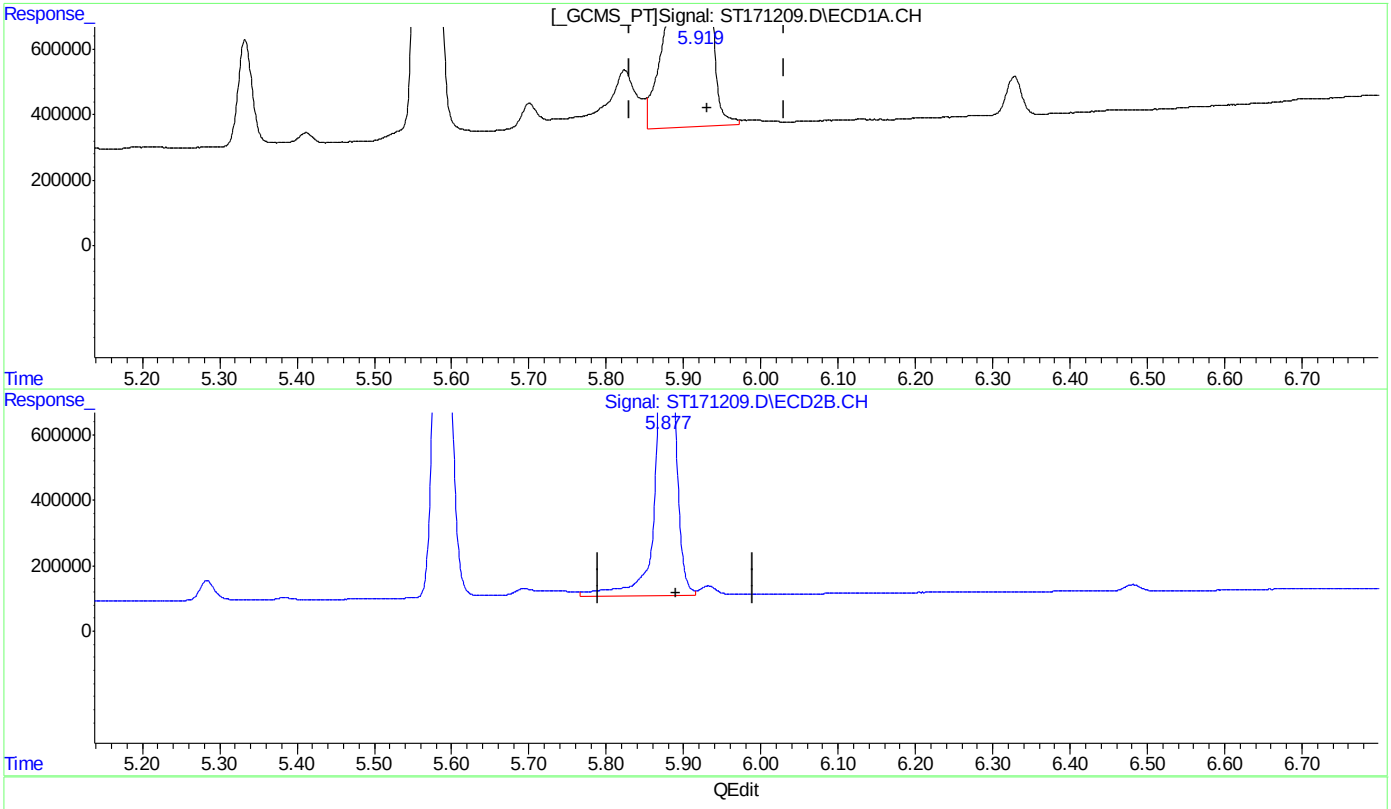
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT

5.919min 46.247 ppb m

response 4871933

(17) 4,4'-DDT #2

5.878min 45.594 ppb

response 1398686

(+) = Expected Retention Time

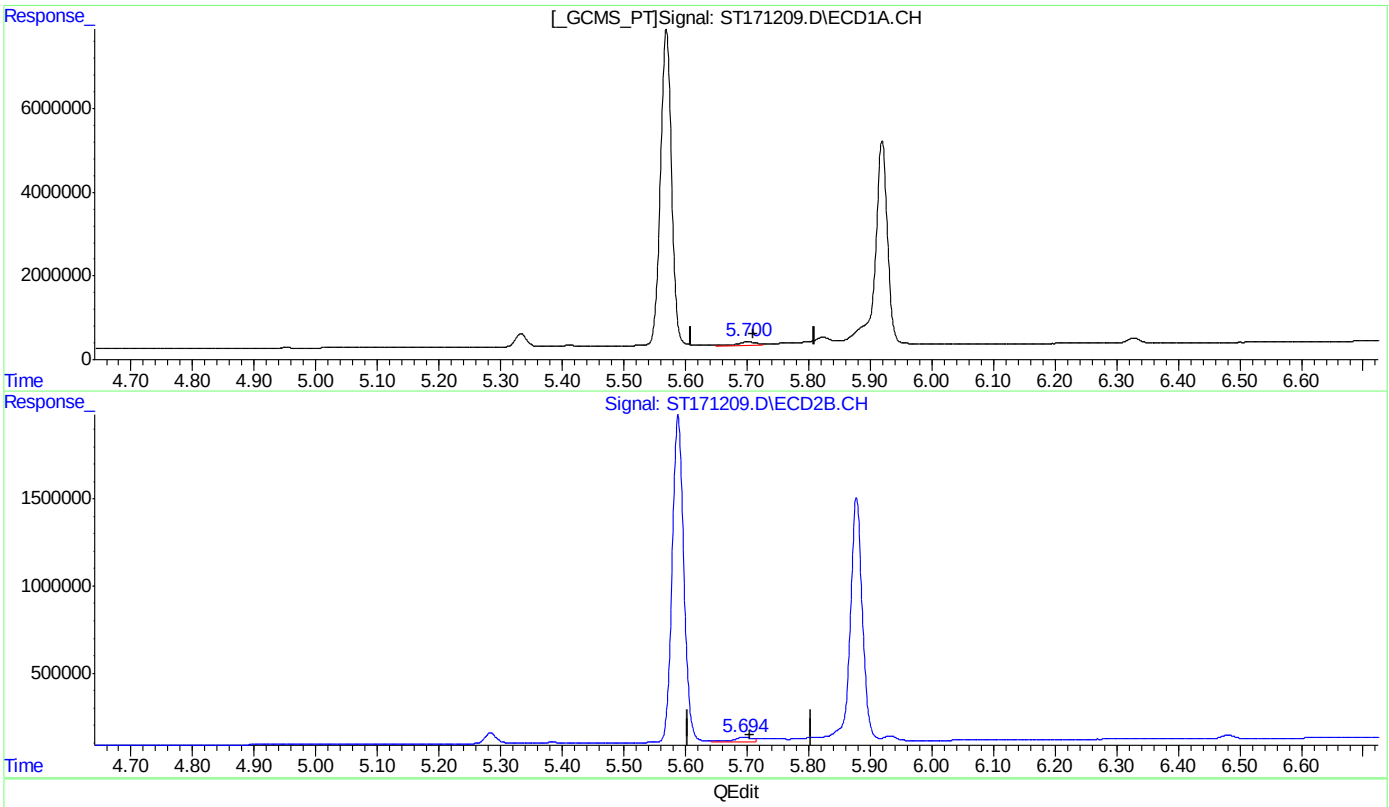
GST4174_083123DOD.M Fri Nov 10 15:01:24 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(15) 4,4'-DDD ( )
5.701min 0.608 PPB
response 95588

(15) 4,4'-DDD #2 ( )
5.694min 0.753 PPB
response 26877

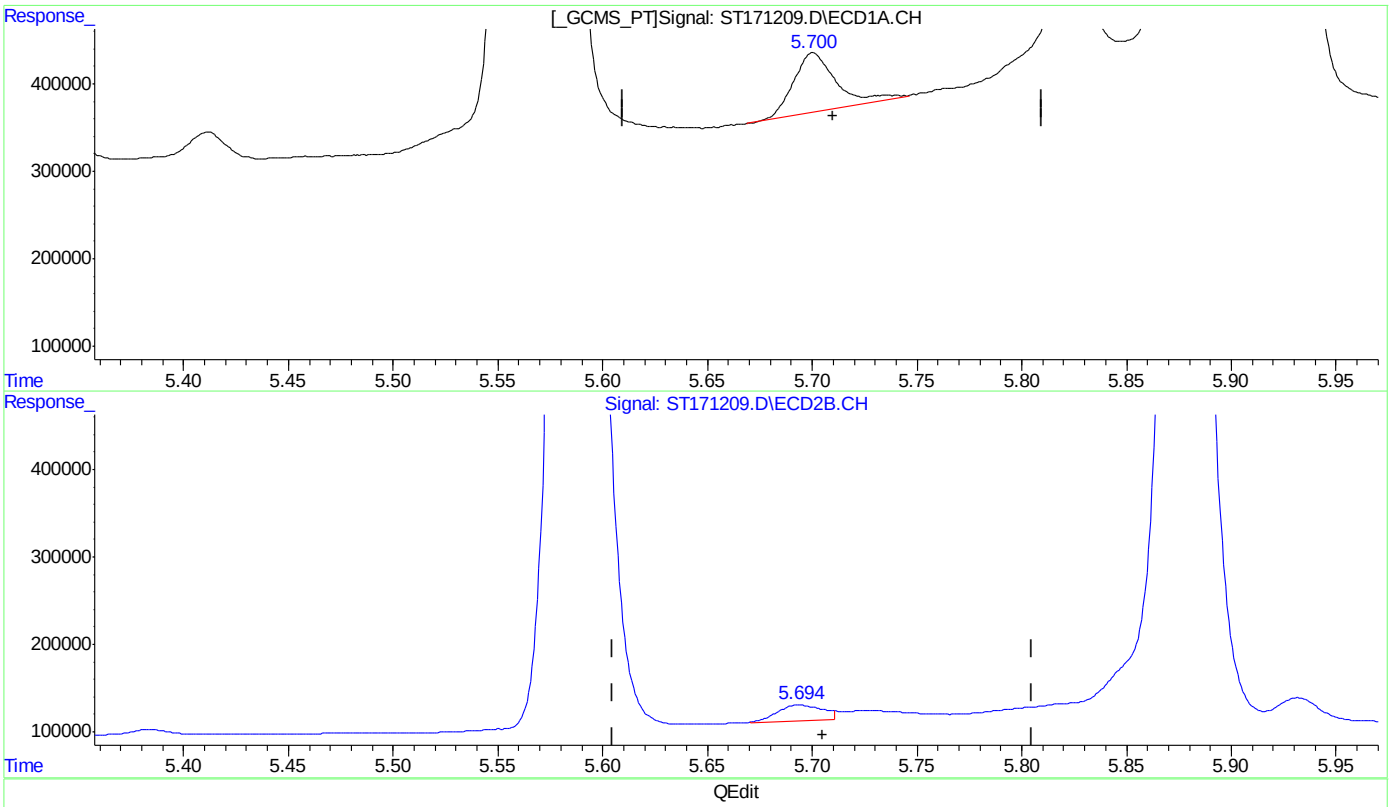
(+) = Expected Retention Time
GST4174_083123DOD.M Fri Nov 10 15:01:27 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171209.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 2:49 pm
Operator : eduardom
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 10 14:59:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.700min 0.435 PPB m

response 68284

(15) 4,4'-DDD #2 ( )

5.694min 0.523 PPB m

response 18659

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 11/22/23 12:28

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:36:55 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	5.314	5.266	244445	50107	1.373m	1.180m
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	5.553	5.572	7165020	1688367	39.980m	41.512
15)		4,4'-DDD	5.681	5.676	102731	23280	0.654m	0.652m
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	5.902	5.863	5482373	1350388	51.073m	44.191m
18)		Endrin Al...	5.801	5.916	44029	5023	0.356m	0.165m#
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	6.311	6.466	28825	5415	0.204m	0.149m
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:36:55 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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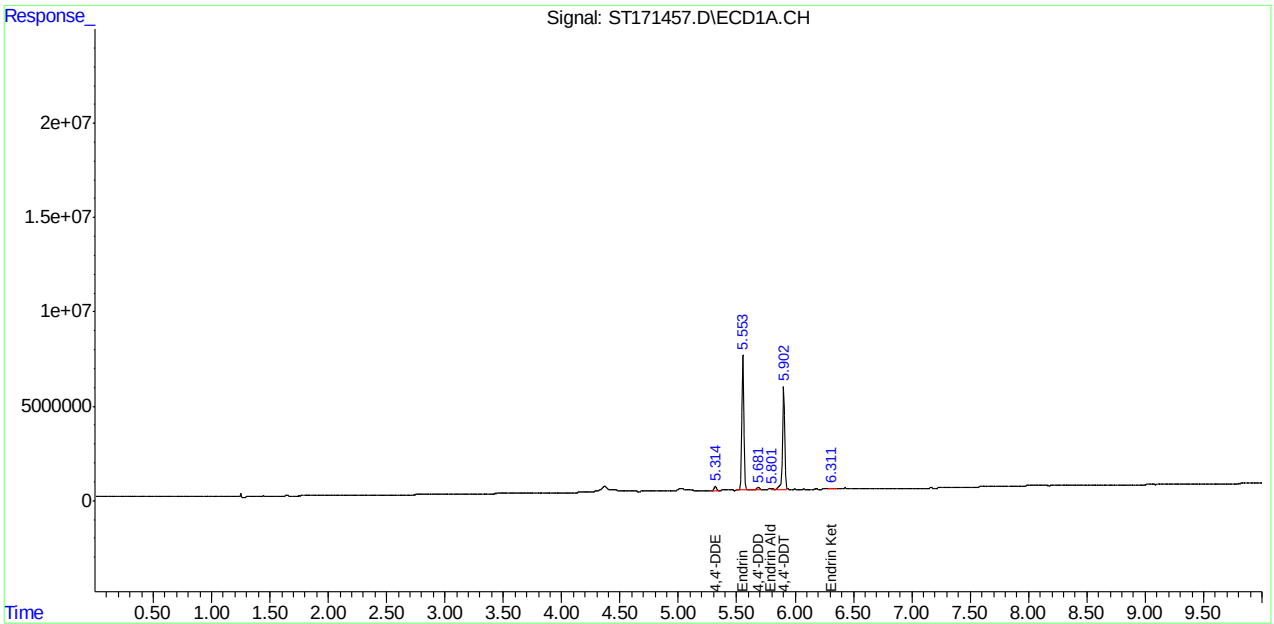
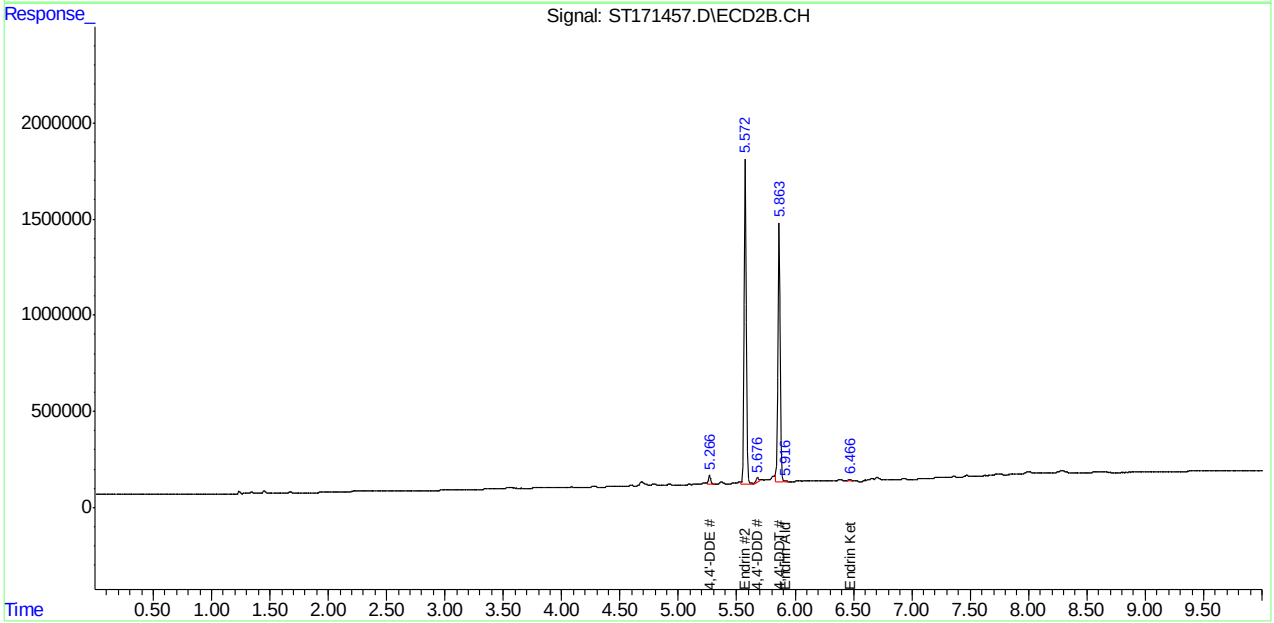
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4185-DDT
Lab FileID: ST171457.D
Injection Time: 11/21/23 10:30
Method: SW846 8081B
Analyst approved: 11/22/23 10:32 William Hustedde
Supervisor approved: 11/22/23 12:28 Naresh Jiawan

Parameter	CAS	Sig#	R.T. (min.)	Reason
4,4'-DDE	72-55-9	2	5.27	Poor instrument integration
4,4'-DDE	72-55-9	1	5.31	Poor instrument integration
Endrin	72-20-8	1	5.55	Poor instrument integration
4,4'-DDD	72-54-8	1	5.68	Poor instrument integration
4,4'-DDD	72-54-8	2	5.68	Poor instrument integration
Endrin aldehyde	7421-93-4	1	5.80	Poor instrument integration
4,4'-DDT	50-29-3	2	5.86	Poor instrument integration
4,4'-DDT	50-29-3	1	5.90	Poor instrument integration
Endrin aldehyde	7421-93-4	2	5.92	Poor instrument integration
Endrin ketone	53494-70-5	1	6.31	Poor instrument integration
Endrin ketone	53494-70-5	2	6.47	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:35:11 2023
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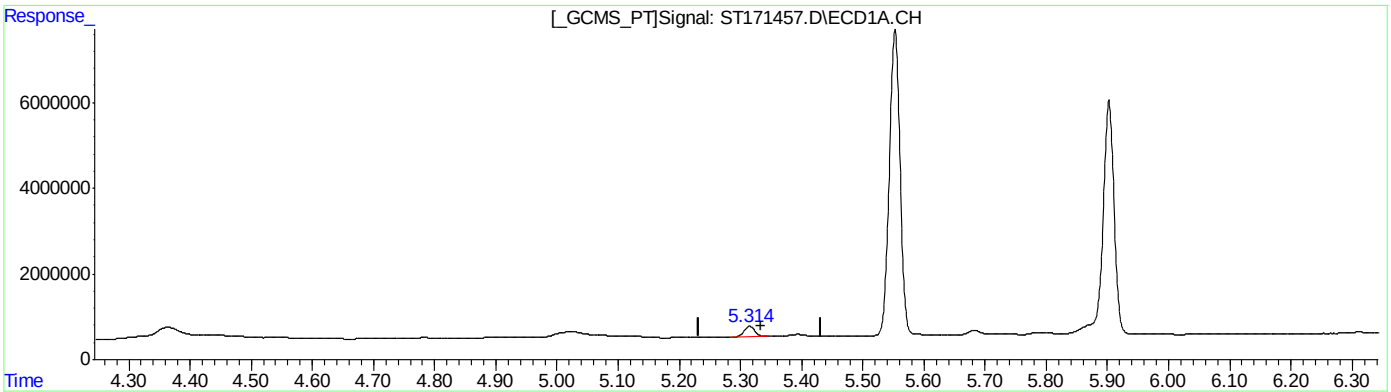
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(11) 4,4'-DDE

5.314min 1.373 ppb m

response 244445

(11) 4,4'-DDE #2

5.266min 1.180 ppb m

response 50107

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Sample : DDT Inst : ECD 3
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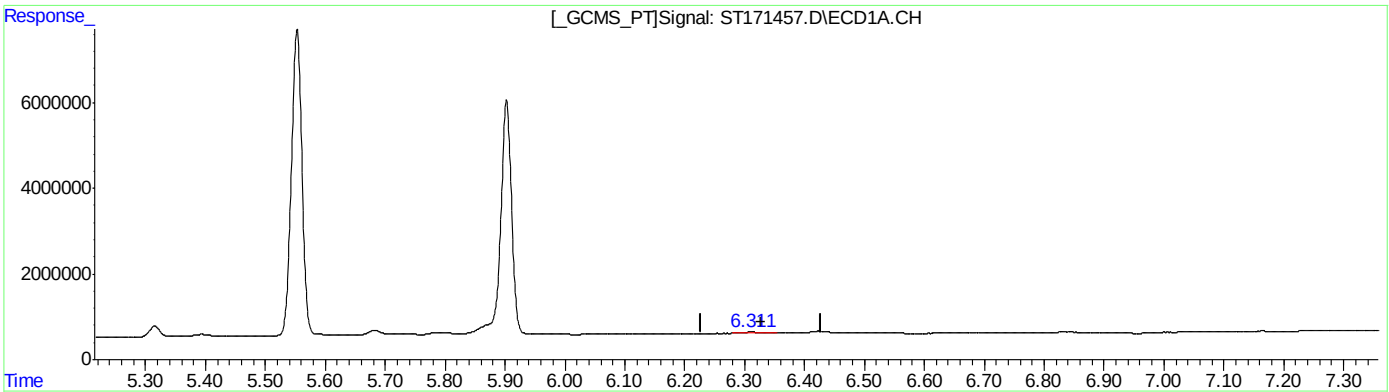
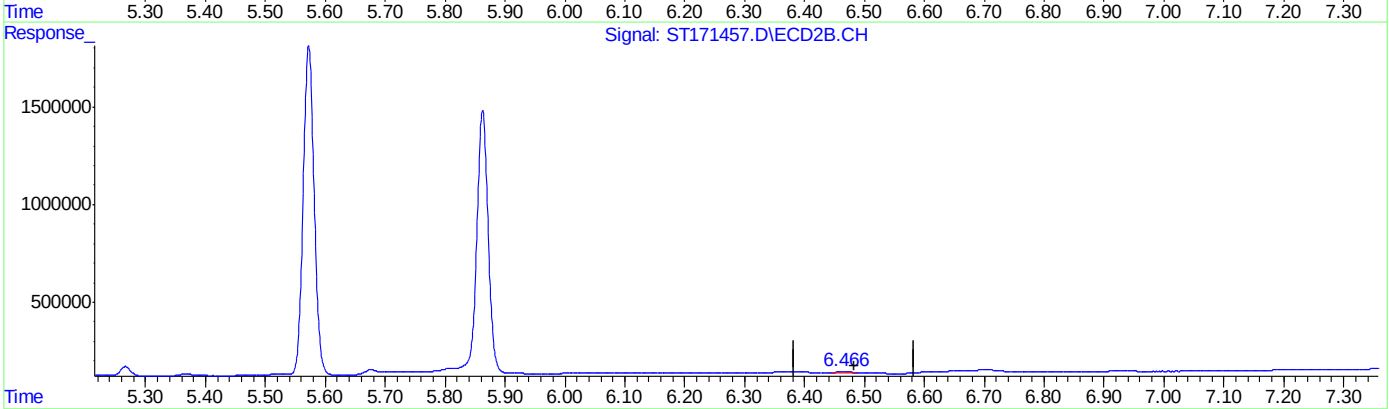
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.311min 0.204 PPB m
response 28825

(21) Endrin Ketone #2 ( )
6.466min 0.149 PPB m
response 5415

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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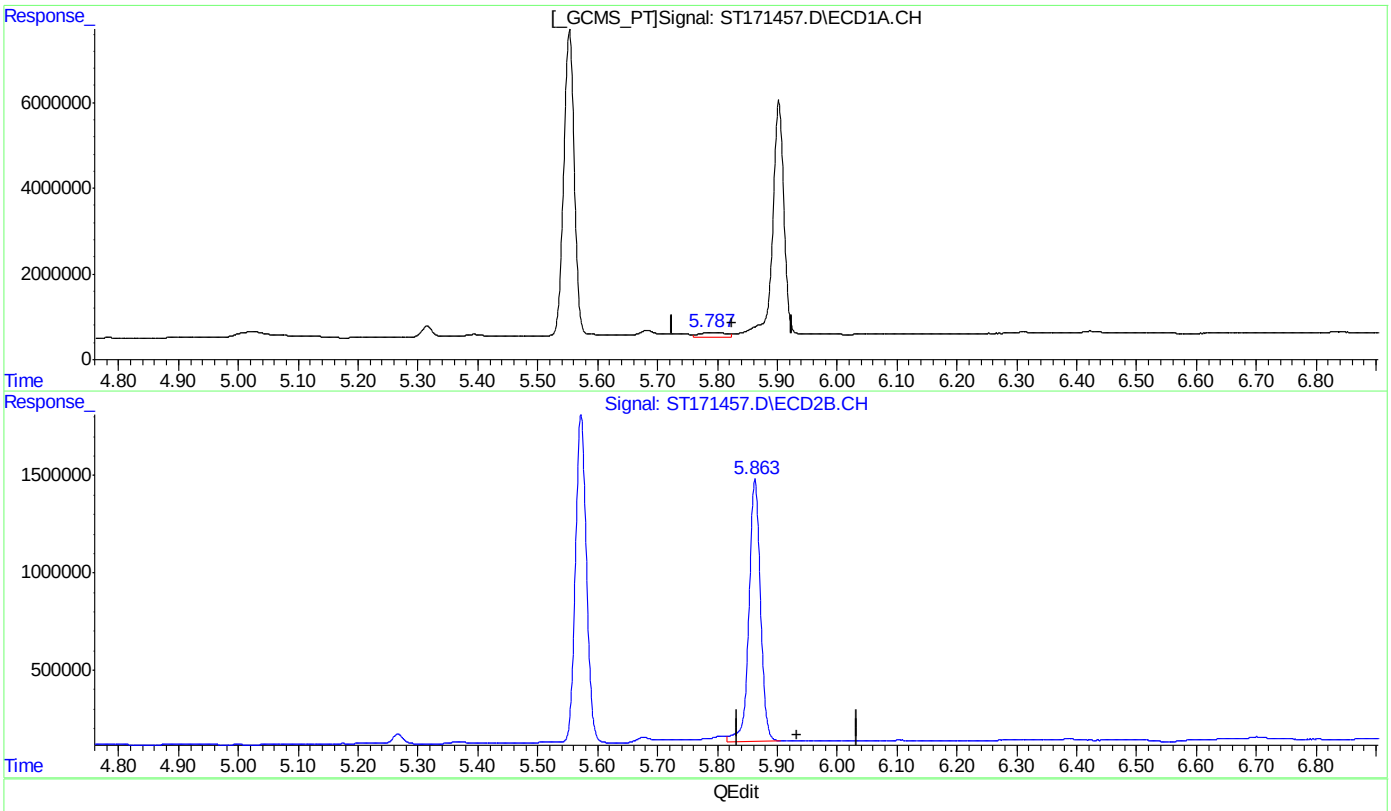
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )

5.788min 0.996 PPB

response 123239

(18) Endrin Aldehyde #2 ( )

5.863min 44.060 PPB

response 1345233

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
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Sample : DDT Inst : ECD 3
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Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
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Volume Inj. : 2ul
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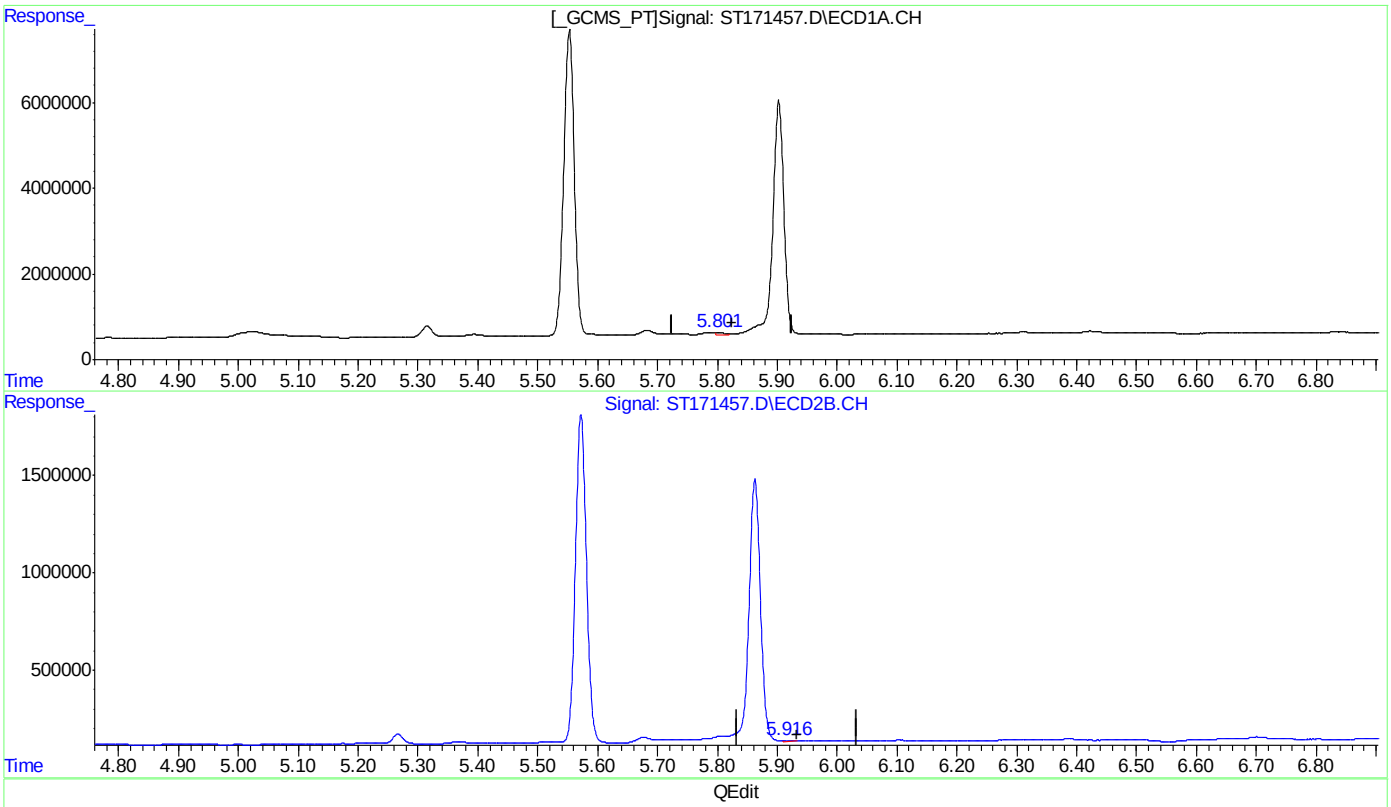

QEdit

(18) Endrin Aldehyde ( )

5.801min 0.356 PPB m

response 44029

(18) Endrin Aldehyde #2 ( )

5.916min 0.165 PPB m

response 5023

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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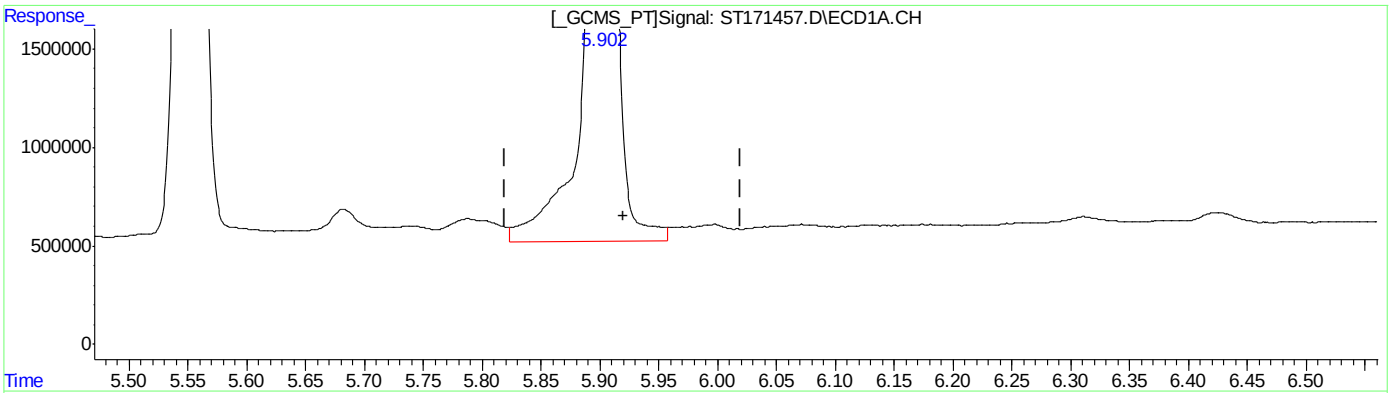

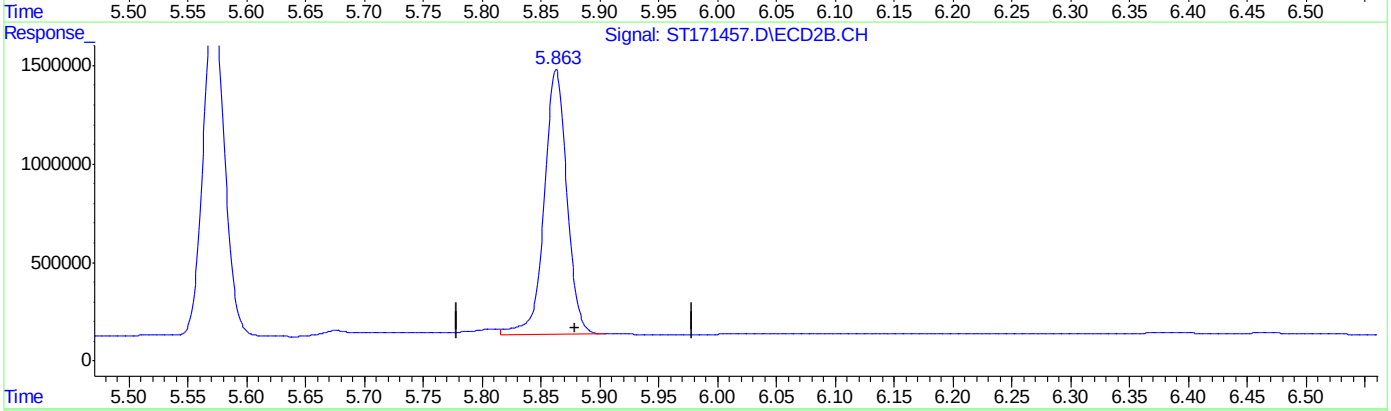

QEdit

(17) 4,4'-DDT

5.903min 51.349 ppb

response 5517841

(17) 4,4'-DDT #2

5.863min 44.040 ppb

response 1345233

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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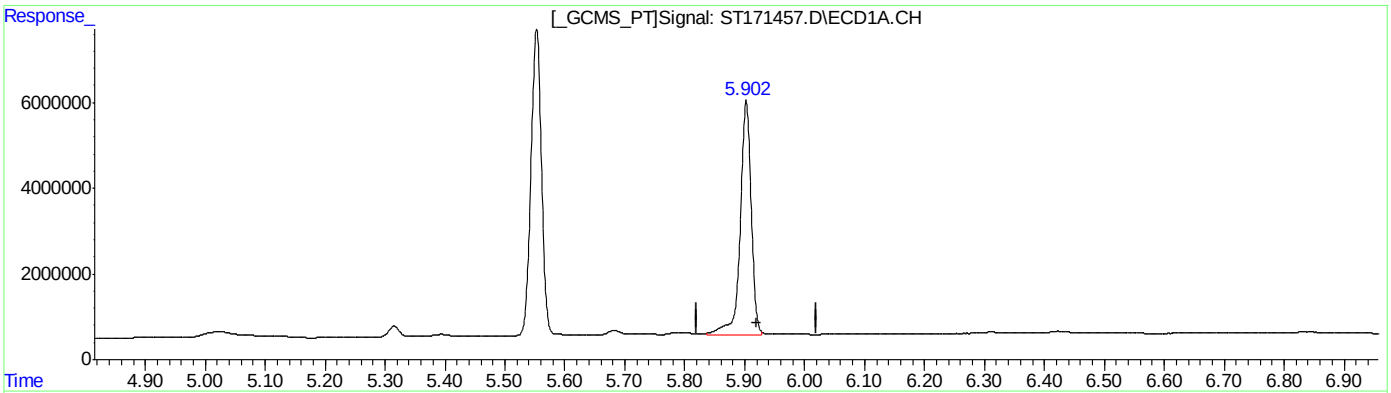
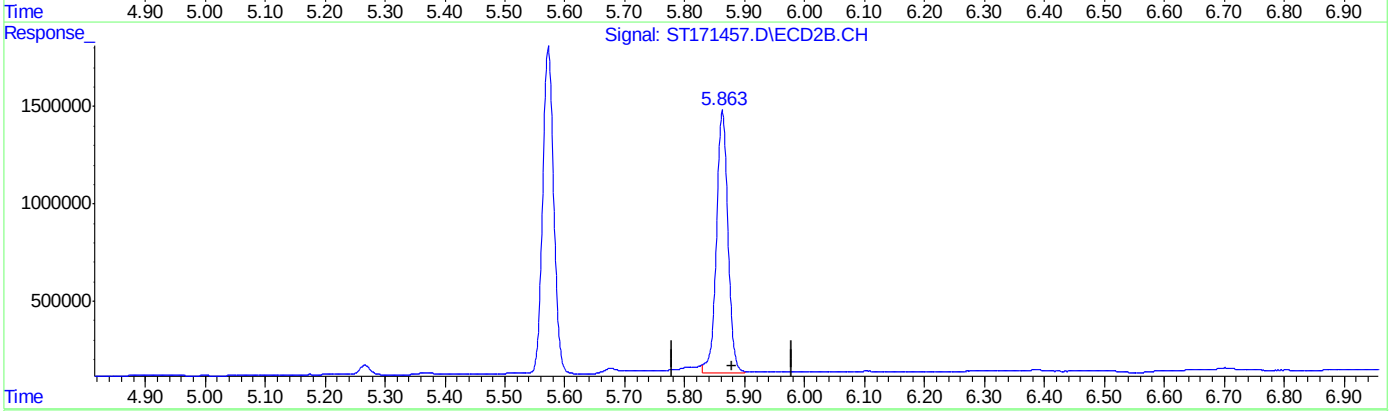
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(17) 4,4'-DDT

5.902min 51.073 ppb m

response 5482373

(17) 4,4'-DDT #2

5.863min 44.191 ppb m

response 1350388

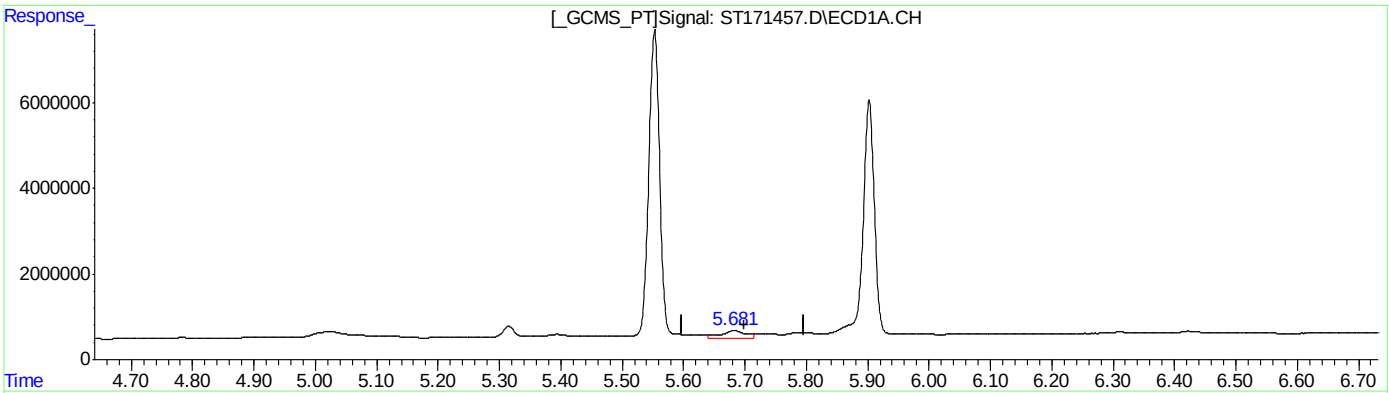
(+) = Expected Retention Time

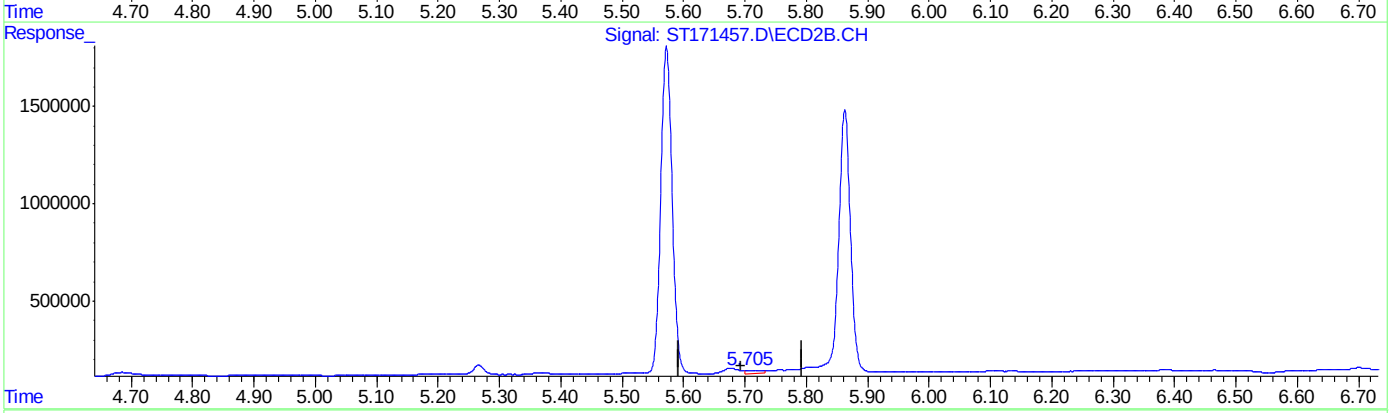
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:35:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )
5.682min 1.155 PPB
response 181414

(15) 4,4'-DDD #2 ( )
5.706min 0.453 PPB
response 16180

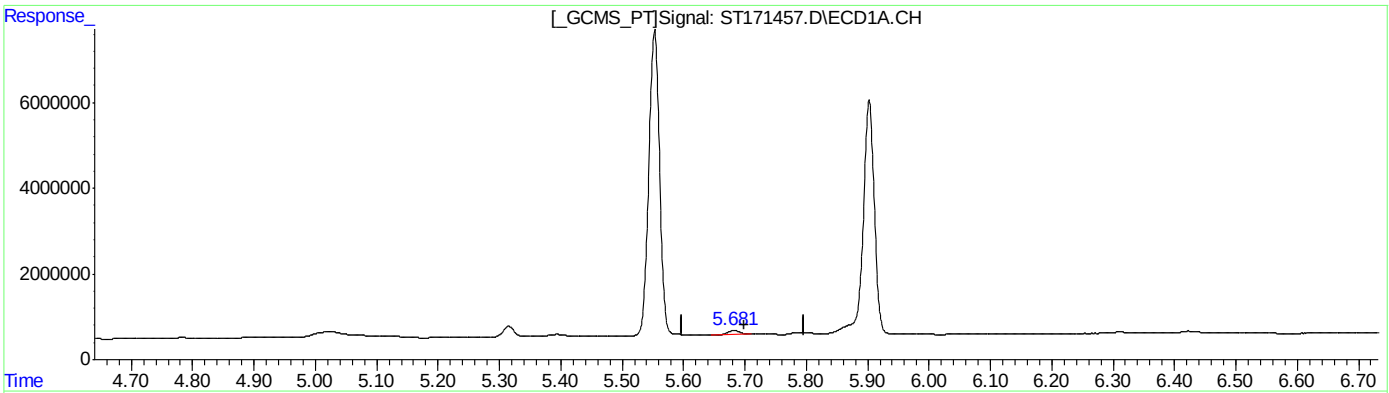
(+) = Expected Retention Time

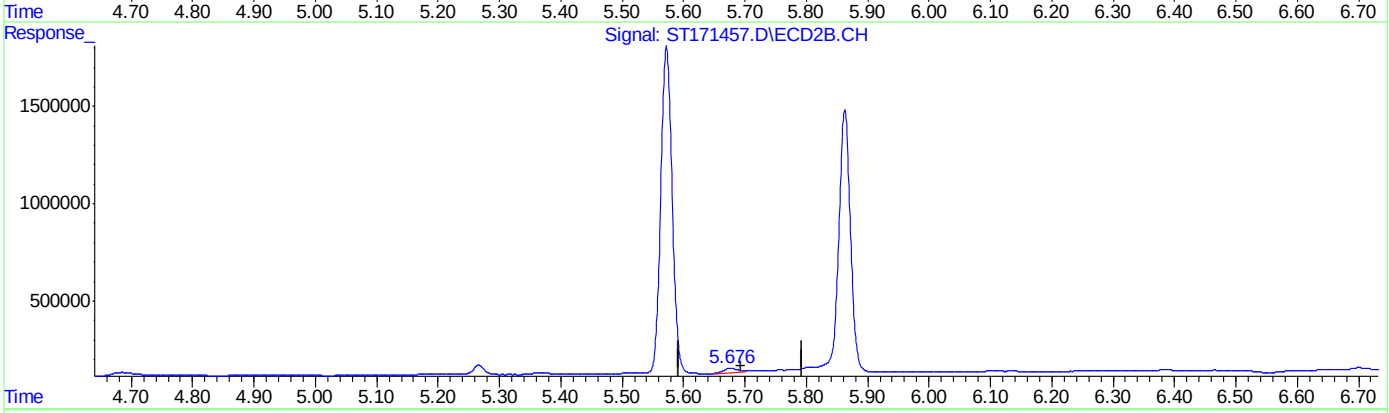
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:35:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )
5.681min 0.654 PPB m
response 102731

(15) 4,4'-DDD #2 ( )
5.676min 0.652 PPB m
response 23280

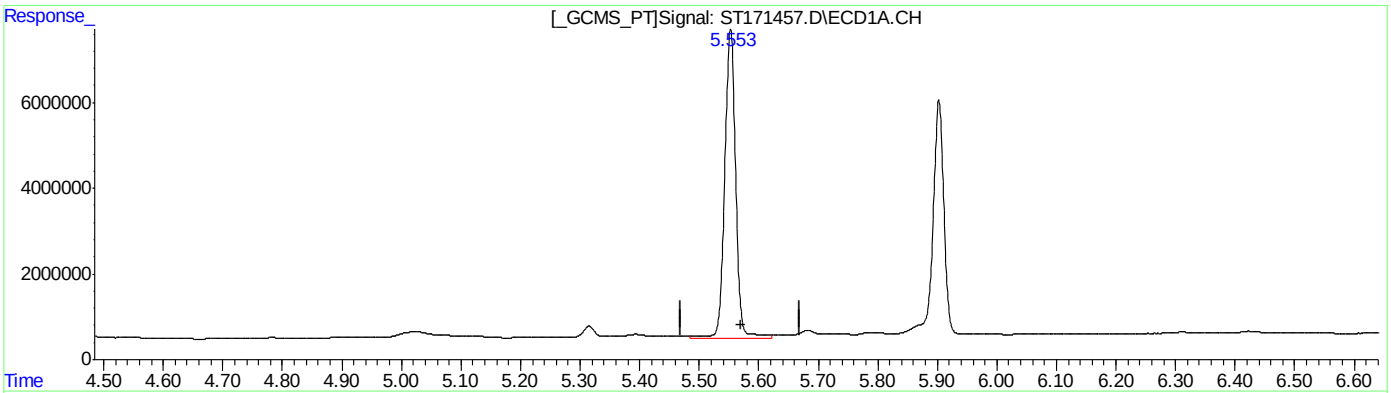
(+) = Expected Retention Time

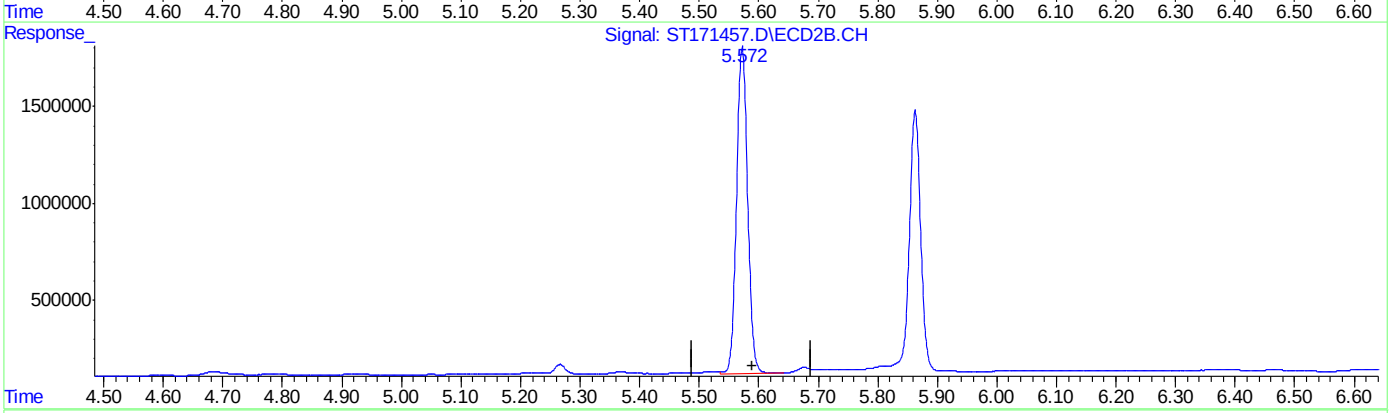
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:35:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )
5.553min 40.153 PPB
response 7195893

(14) Endrin #2 ( )
5.572min 41.512 PPB
response 1688367

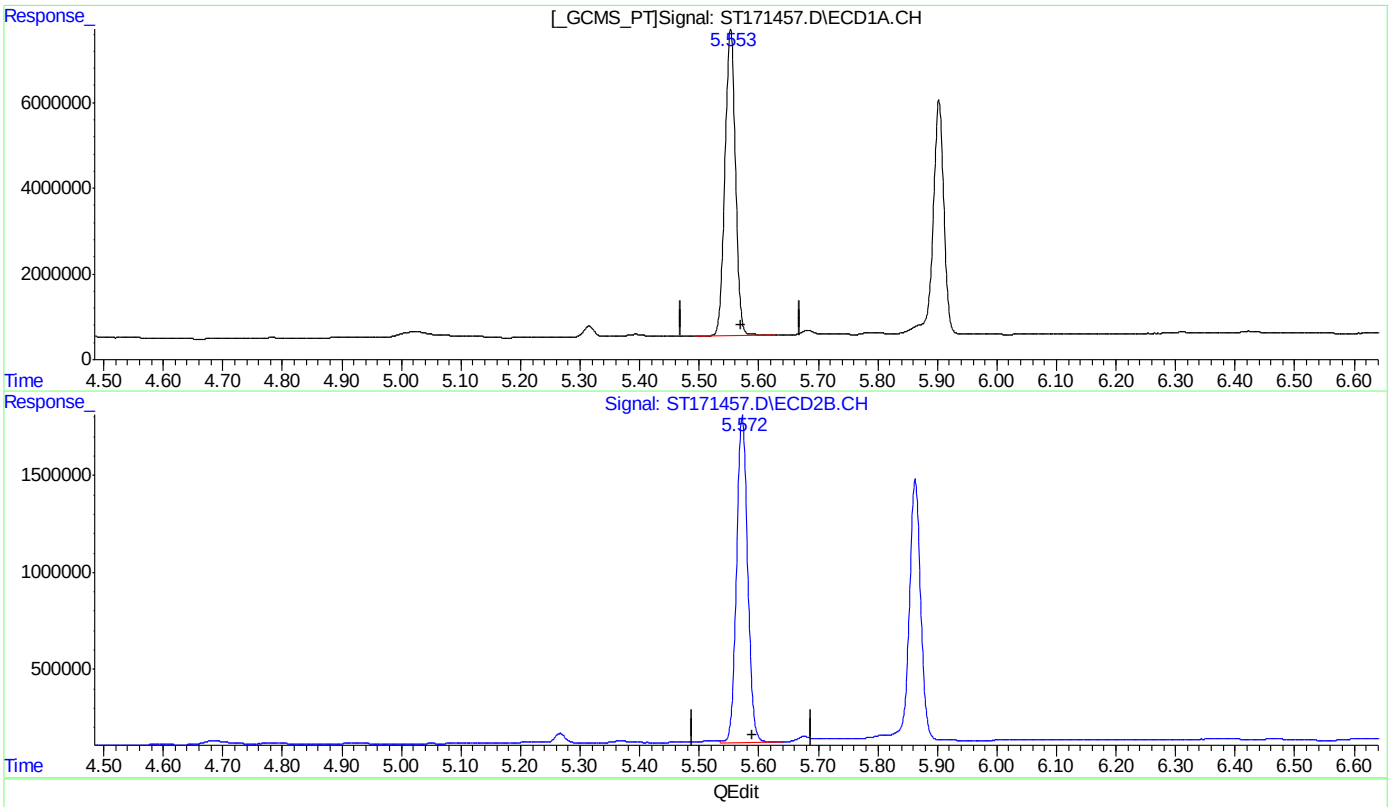
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Nov 21 15:36:32 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:30 am
Operator : williamh
Sample : DDT Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 21 15:35:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(14) Endrin ( )
5.553min 39.980 PPB m
response 7165020

(14) Endrin #2 ( )
5.572min 41.512 PPB
response 1688367

(+) = Expected Retention Time
GST4174_083123DOD.M Tue Nov 21 15:36:38 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171457.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Misc : OP96969,GST4185,250,,,5,1,Water
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Volume Inj. : 2ul
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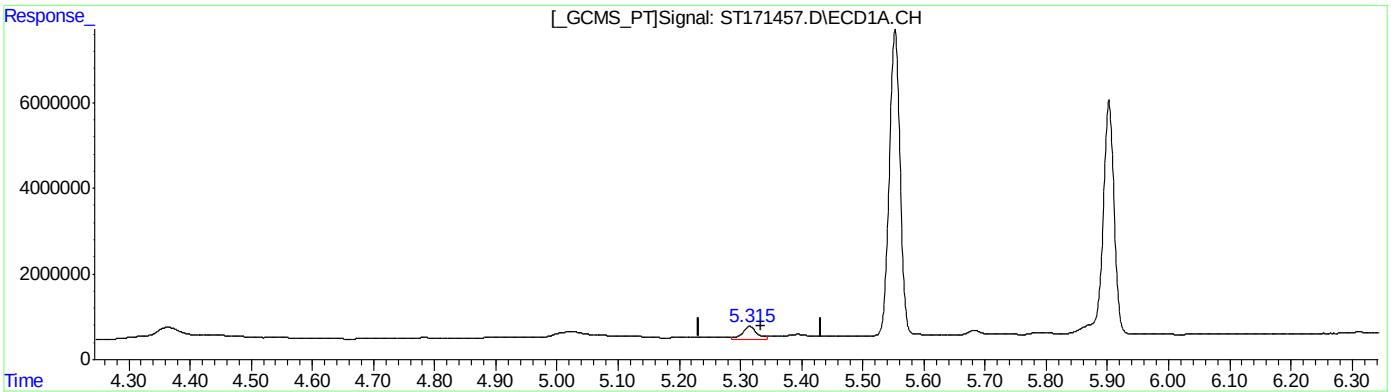
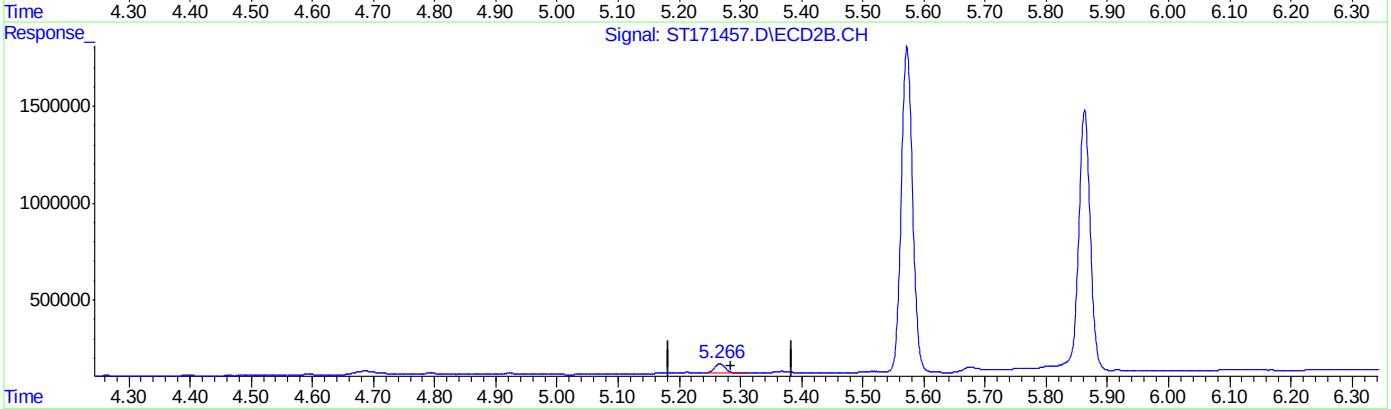
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(11) 4,4'-DDE
5.315min 1.728 ppb
response 307792

(11) 4,4'-DDE #2
5.266min 1.107 ppb
response 47029

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:35:22 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.524	3.560	11367961	53039015	2.300	2.359m
Spiked Amount	50.000 Range	44 - 126	Recovery	=	4.60%#	4.72%#
55) S Decachlor...	7.327	7.475	3322552	14445576	2.480	2.560m
Spiked Amount	50.000 Range	41 - 145	Recovery	=	4.96%#	5.12%#
Target Compounds						
2) L1 AR1016-A	3.805	3.877	2021313	9878121	24.741	27.204
3) L1 AR1016-B	4.039	4.111	2759311	13209478	25.166	27.829
4) L1 AR1016-C	4.163	4.253	2475222	11923803	24.201	26.553
5) L1 AR1016-D	4.357	4.435	5077307	23821891	22.946	25.668
6) L1 AR1016-E	4.462	4.563	2356010	11884282	22.723	26.186
7) L1 AR1016-F	4.663	4.752	2161315	10493057	23.493	26.597
Sum AR1016-A			16850477	81210633	143.270	160.037
Average AR1016-A					23.878	26.673
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
37) L7 AR1260-A	5.424	5.506	3666181	17935787	23.626	26.703
38) L7 AR1260-B	5.608	5.646	4264061	21051835	23.243	26.442
39) L7 AR1260-C	5.796	5.885	4473938	18392137	23.038	24.947
40) L7 AR1260-D	6.007	6.106	2980545	14465519	23.145	26.144
41) L7 AR1260-E	6.231	6.288	6535499	29033622	23.150m	24.123
42) L7 AR1260-F	6.429	6.547	3738564	19023896	23.400m	25.530
Sum AR1260-A			25658788	119.9E6	139.602	153.889
Average AR1260-A					23.267	25.648
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:35:22 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:35:22 2023
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Quant Title : PCBs by 8082a
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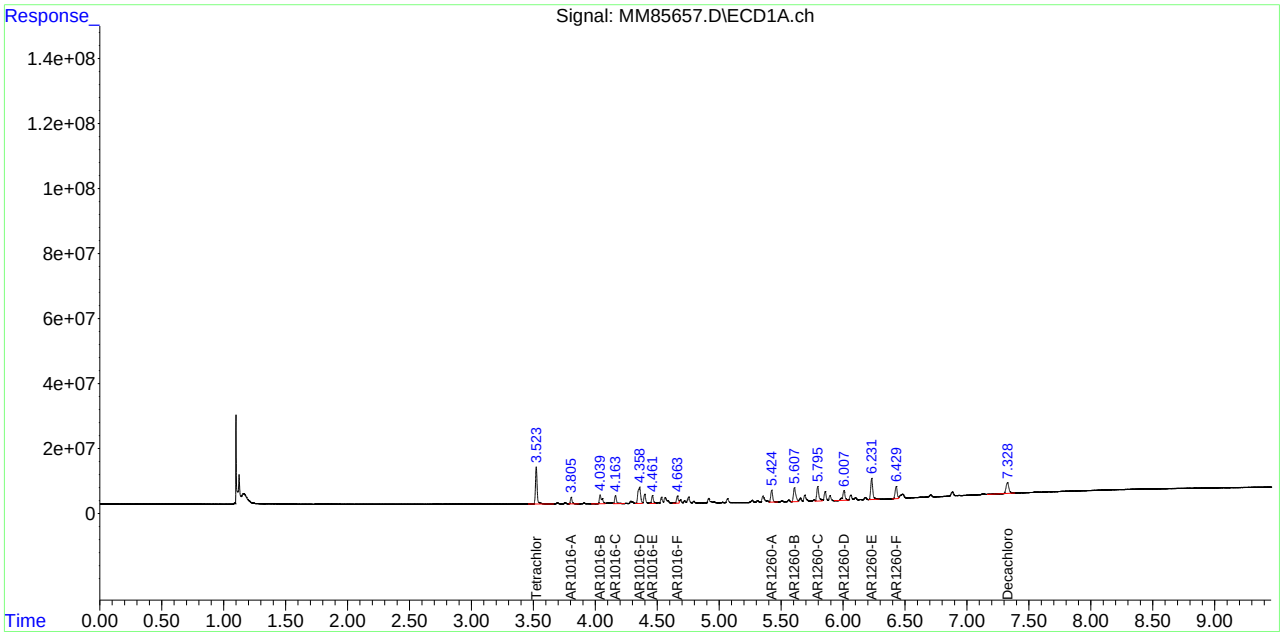
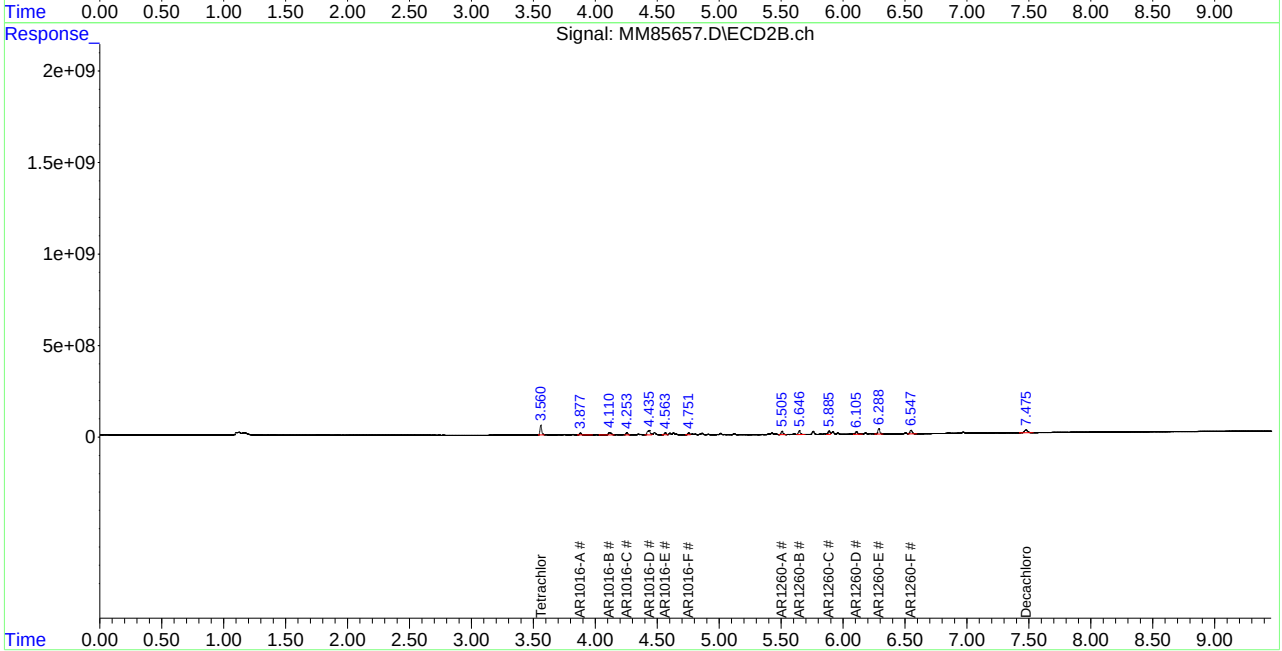
Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.1 12
657 of 1492
SGS
FC10955

Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85657.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 11:27	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

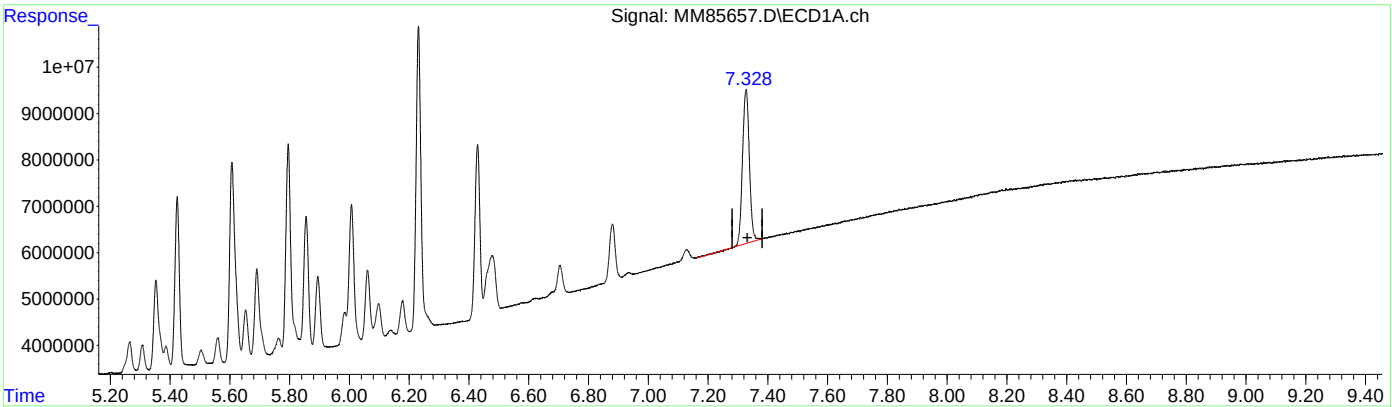
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
AR1260-E		1	6.23	Poor instrument integration
AR1260-F		1	6.43	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.48	Poor instrument integration

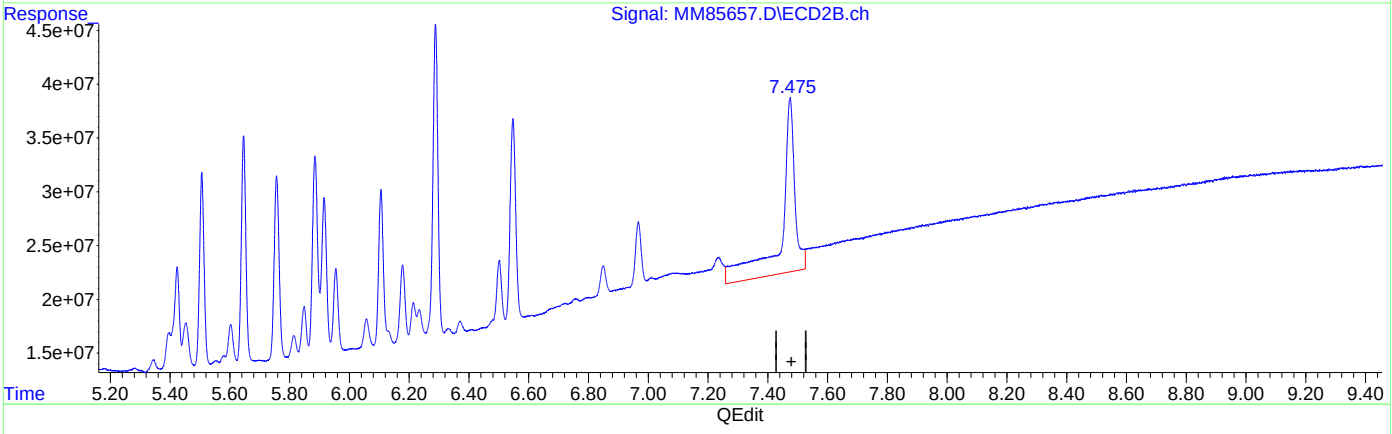
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:34:05 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.327min 2.480 ppb

response 3322552

(55) Decachlorobiphenyl #2 (S)

7.475min 2.874 ppb

response 16220625

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
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Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
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Quant Title : PCBs by 8082a
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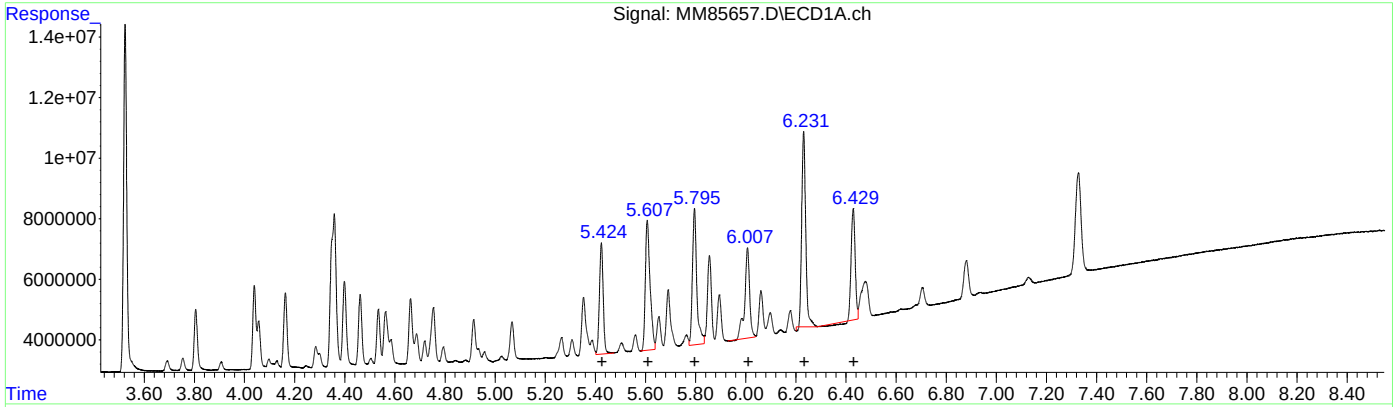
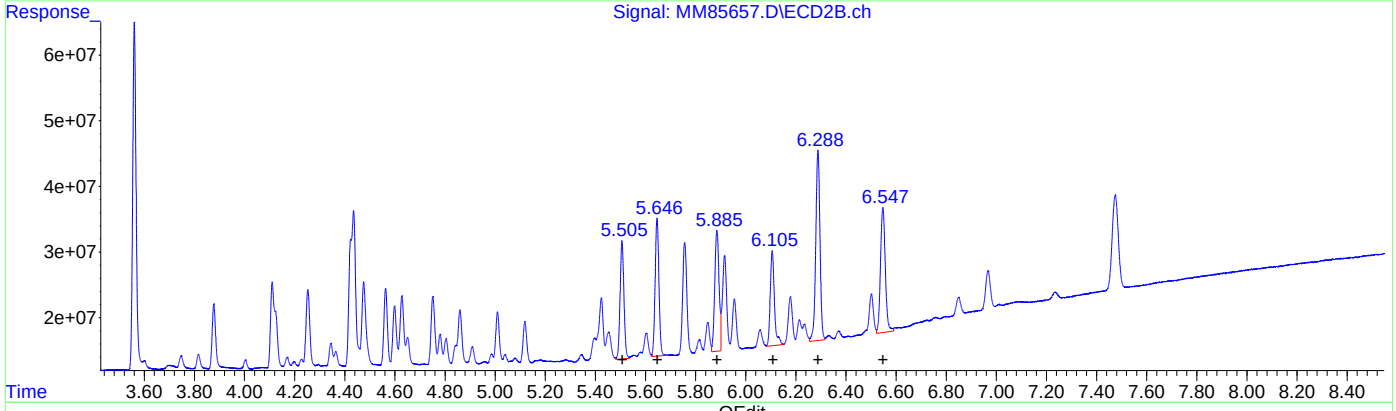
Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(37) AR1260-A (L7)

R.T.	Response	Conc
5.42	3666181	23.63
5.61	4264061	23.24
5.80	4473938	23.04
6.01	2980545	23.15
6.23	6525818	23.12
6.43	3652364	22.86

(37) AR1260-A #2 (L7)

R.T.	Response	Conc
5.51	17935787	26.70
5.65	21051835	26.44
5.89	18392137	24.95
6.11	14465519	26.14
6.29	29033622	24.12
6.55	19023896	25.53

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:34:05 2023
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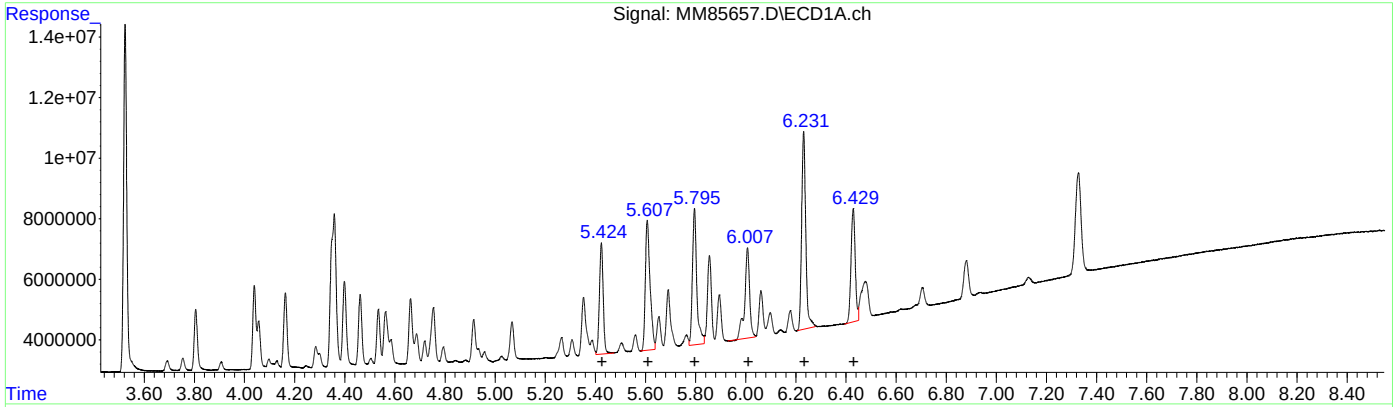
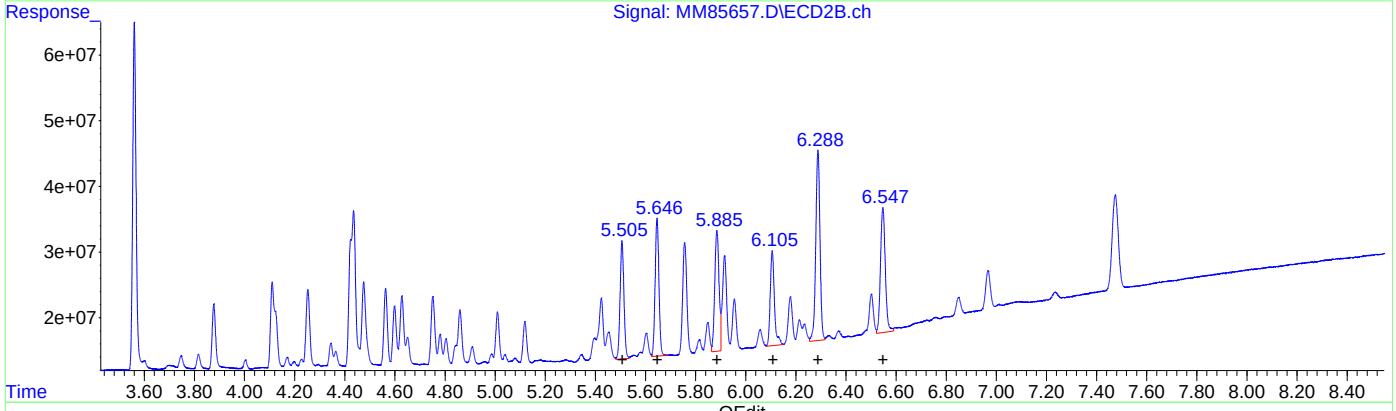
Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(37) AR1260-A #2 (L7)

R.T.	Response	Conc
5.42	3666181	23.63
5.61	4264061	23.24
5.80	4473938	23.04
6.01	2980545	23.15
6.23	6535499	23.15
6.43	3738564	23.40

(37) AR1260-A #2 (L7)

R.T.	Response	Conc
5.51	17935787	26.70
5.65	21051835	26.44
5.89	18392137	24.95
6.11	14465519	26.14
6.29	29033622	24.12
6.55	19023896	25.53

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:34:05 2023
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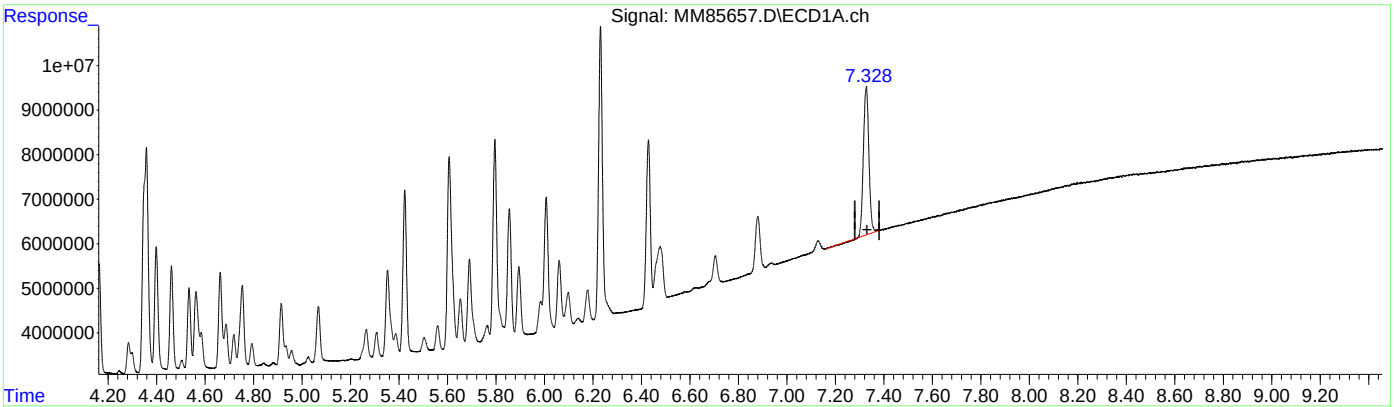
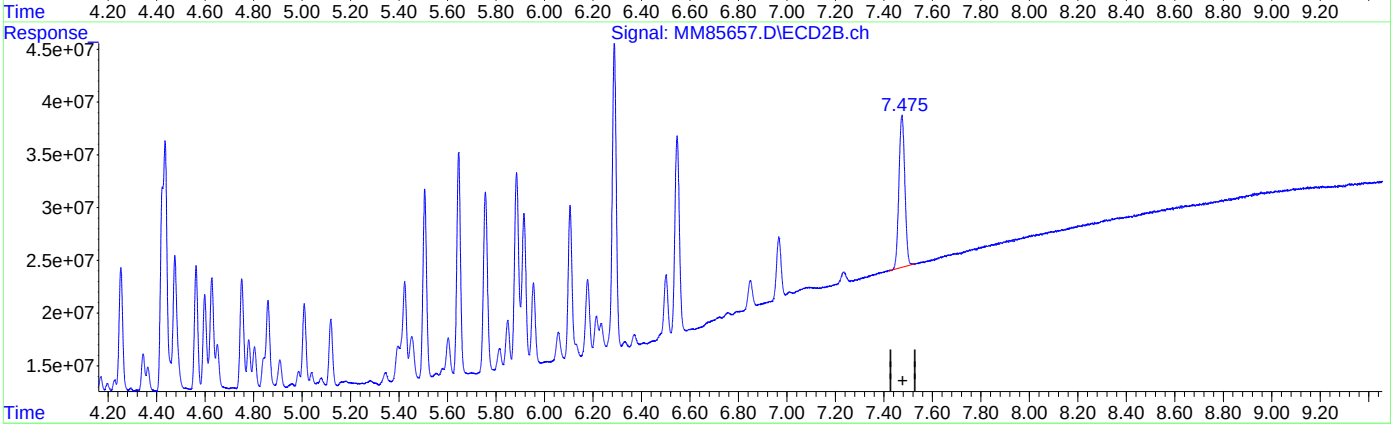
Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.327min 2.480 ppb

response 3322552

(55) Decachlorobiphenyl #2 (S)

7.475min 2.560 ppb m

response 14445576

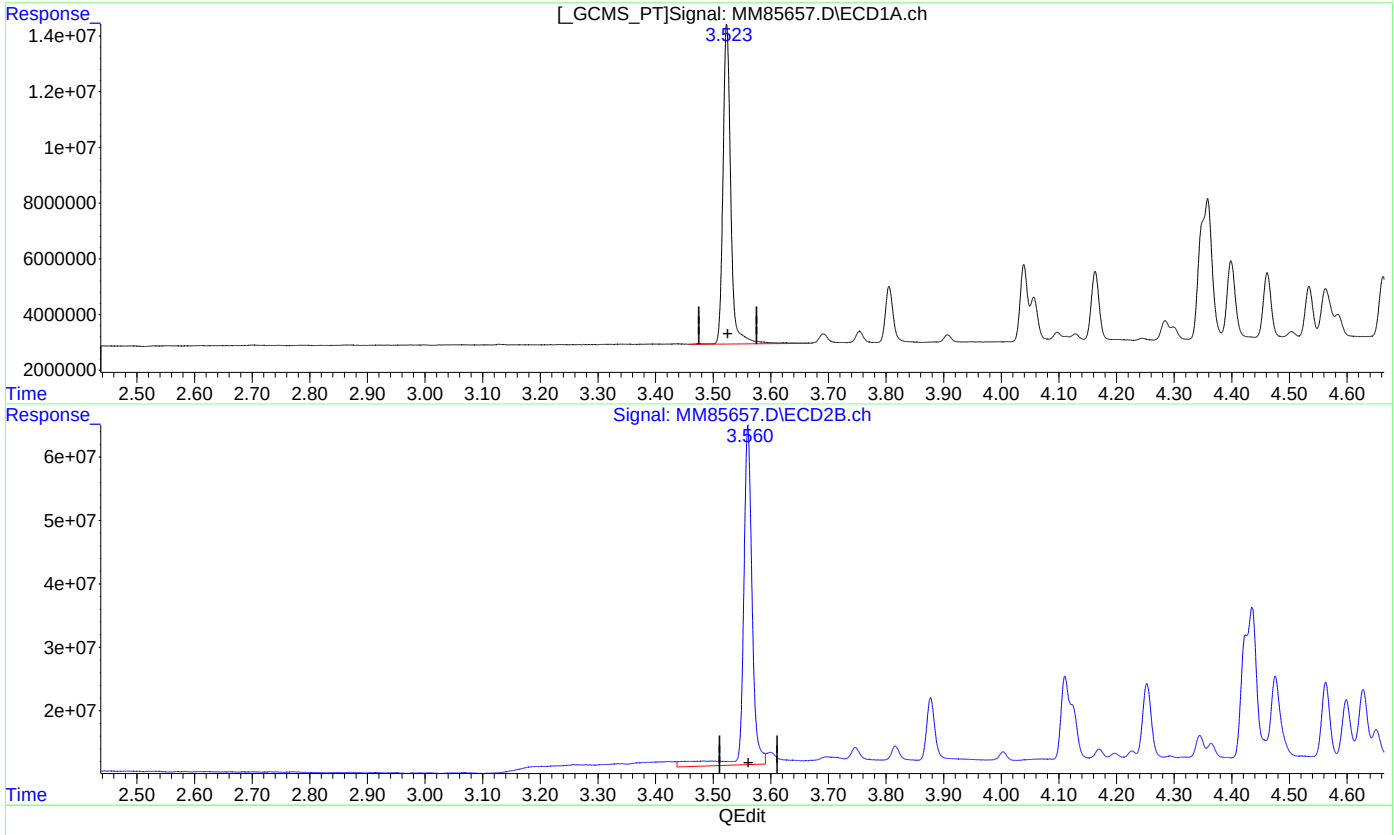
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:34:05 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 2.300 PPB

response 11367961

(1) Tetrachloro-m-xylene #2 (S)

3.560min 2.373 PPB

response 53366448

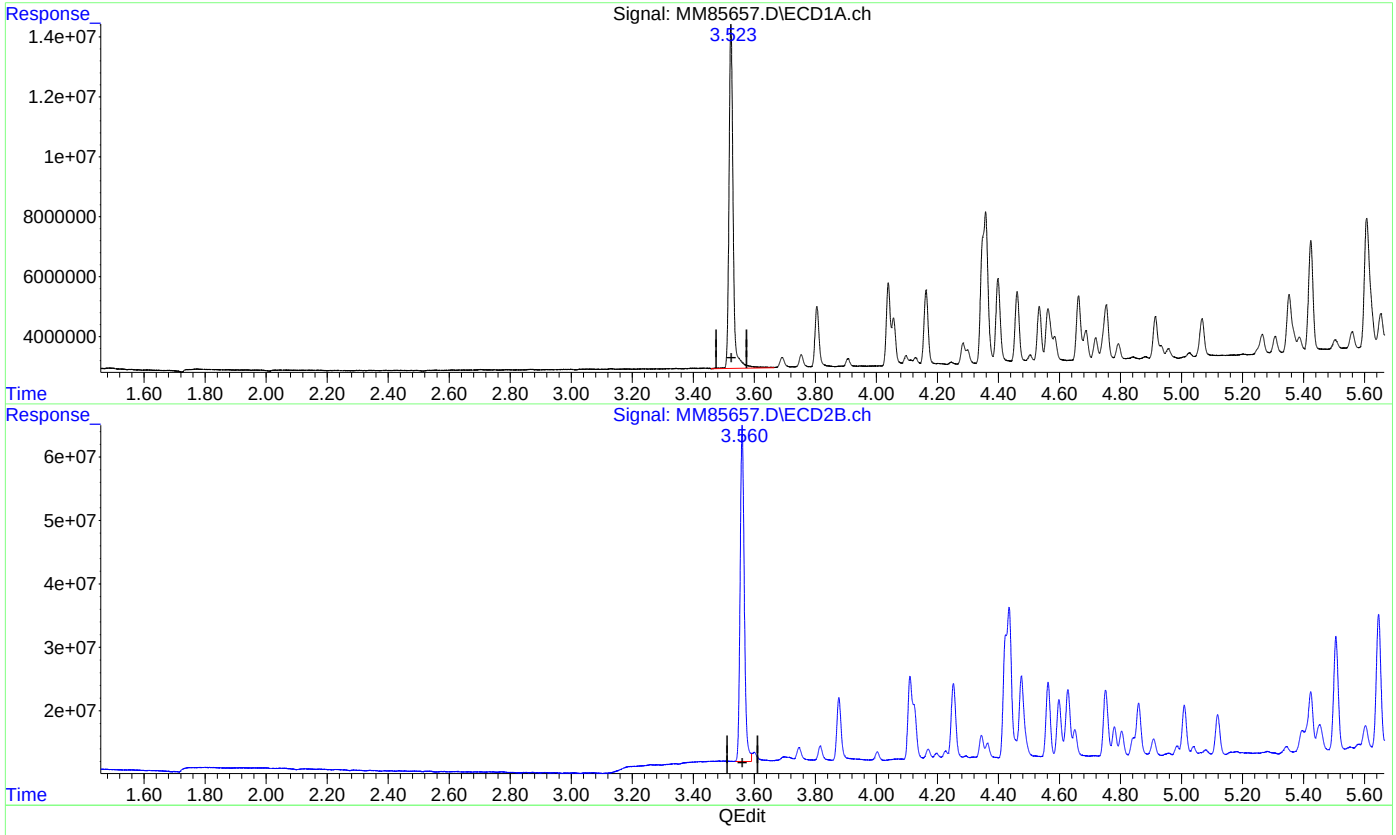
(+) = Expected Retention Time
8082-DOD-1833.m Tue Oct 17 17:35:18 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85657.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:27 am
Operator : eduardom
Sample : ic1833-20 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 17 17:34:05 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 2.300 PPB

response 11367961

(1) Tetrachloro-m-xylene #2 (S)

3.560min 2.359 PPB m

response 53039015

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:38:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.523	3.560	25996001	119.9E6	5.259	5.332m
	Spiked Amount	50.000 Range	44 - 126	Recovery	=	10.52%#	10.66%#
55) S	Decachlor...	7.325	7.476	7040461	30517227	5.254m	5.407
	Spiked Amount	50.000 Range	41 - 145	Recovery	=	10.51%#	10.81%#
	Target Compounds						
2) L1	AR1016-A	3.805	3.878	4331144	20819462	53.014	57.336
3) L1	AR1016-B	4.039	4.111	5852736	27430935	53.378	57.790
4) L1	AR1016-C	4.162	4.253	5336758	25881098	52.180	57.634
5) L1	AR1016-D	4.357	4.435	11247328	51025834	50.829	54.979
6) L1	AR1016-E	4.461	4.564	5256327	25767093	50.696	56.775
7) L1	AR1016-F	4.662	4.753	4656312	22444643	50.612	56.892
	Sum AR1016-A			36680604	173.4E6	310.710	341.406
	Average AR1016-A					51.785	56.901
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
37) L7	AR1260-A	5.423	5.507	8091126	36921570	52.141	54.969
38) L7	AR1260-B	5.606	5.647	9599603	43555372	52.326	54.708
39) L7	AR1260-C	5.794	5.886	10094357	40193333	51.980	54.517
40) L7	AR1260-D	6.005	6.107	6763070	30122054	52.518	54.440
41) L7	AR1260-E	6.229	6.289	14926875	62551394	52.873m	51.972
42) L7	AR1260-F	6.427	6.548	8449058	39164892	52.883	52.560
	Sum AR1260-A			57924089	252.5E6	314.722	323.166
	Average AR1260-A					52.454	53.861
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:38:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

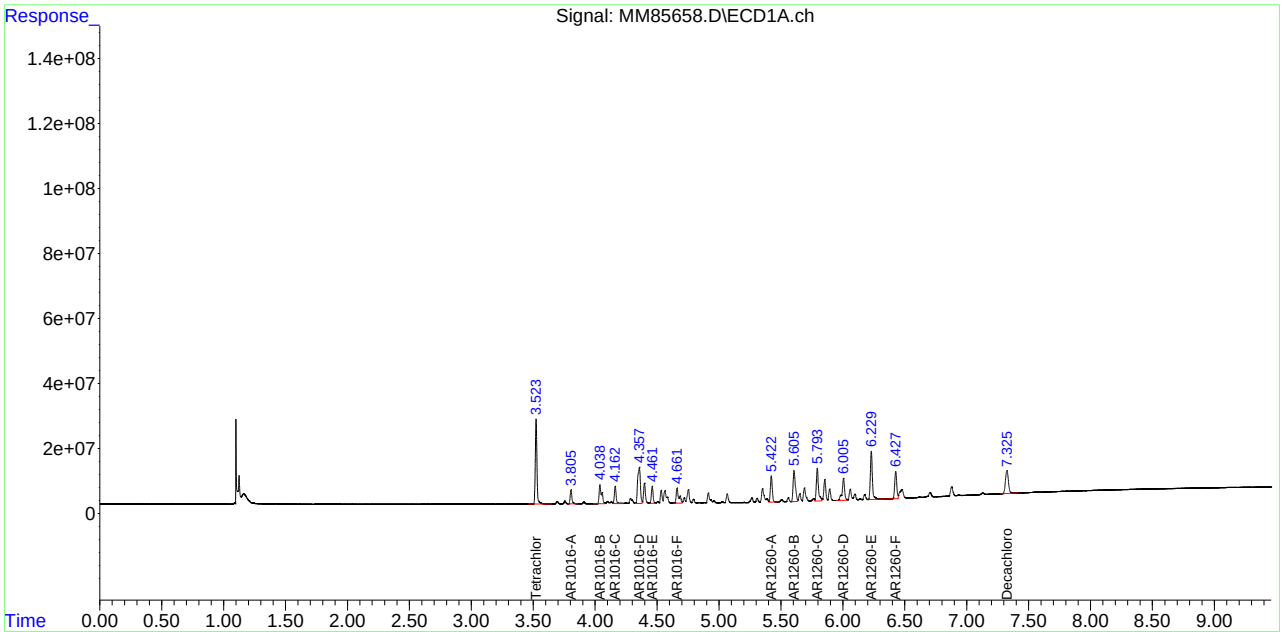
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

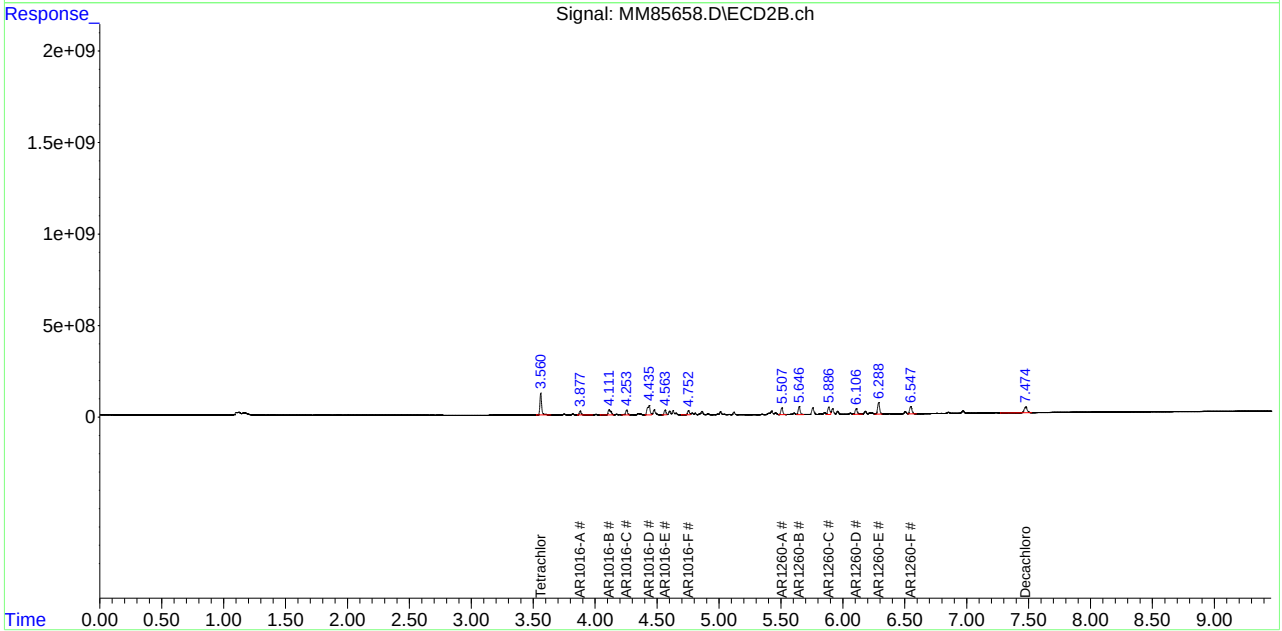
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:38:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85658.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 11:39 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

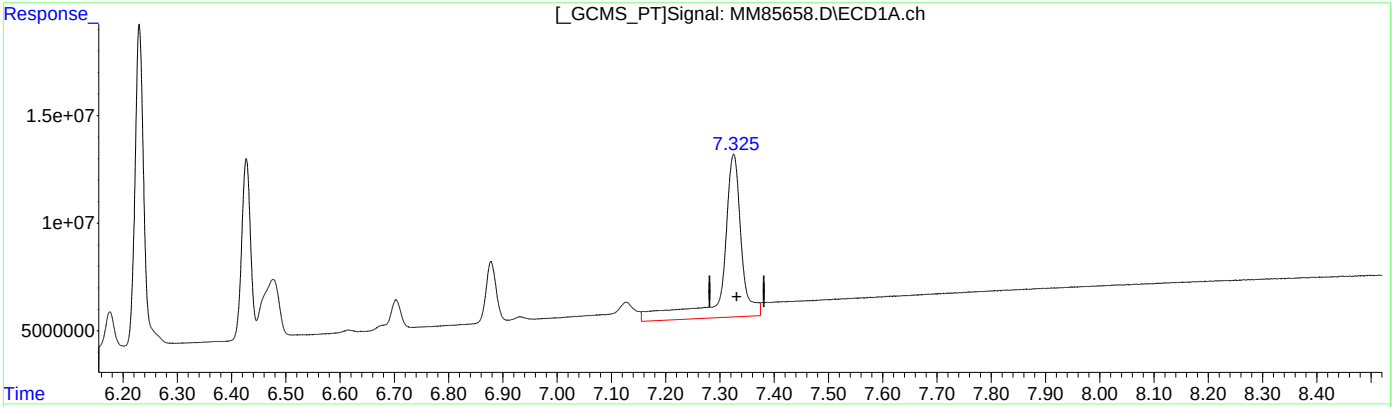
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
AR1260-E		1	6.23	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.33	Poor instrument integration

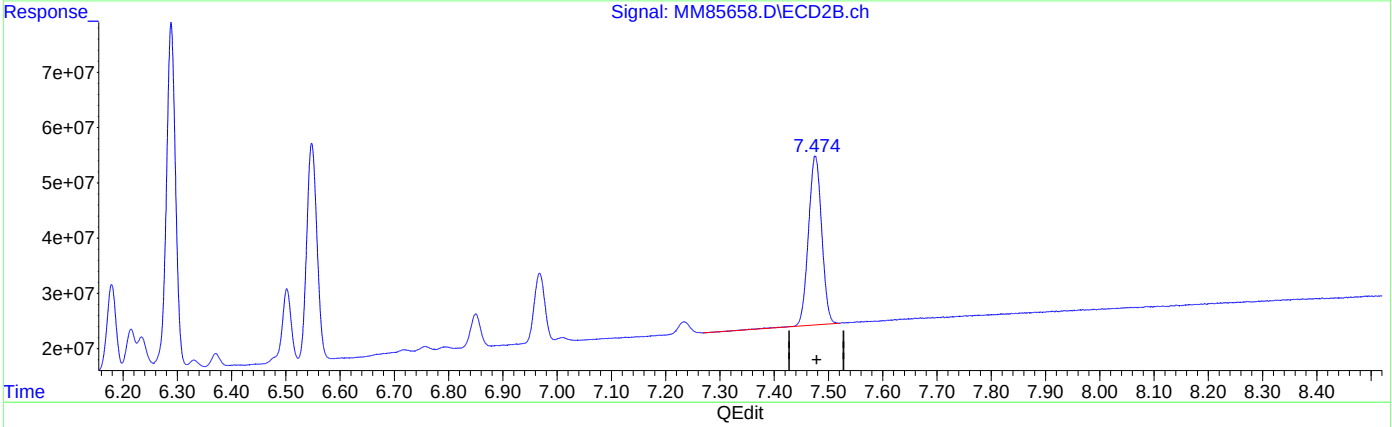
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:35:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.325min 5.634 ppb

response 7549211

(55) Decachlorobiphenyl #2 (S)

7.476min 5.407 ppb

response 30517227

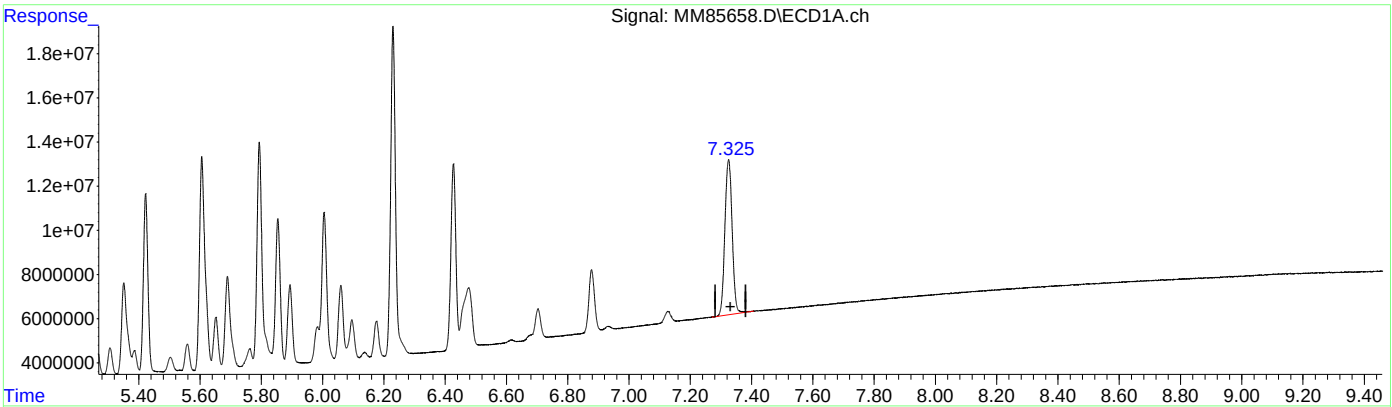
(+) = Expected Retention Time

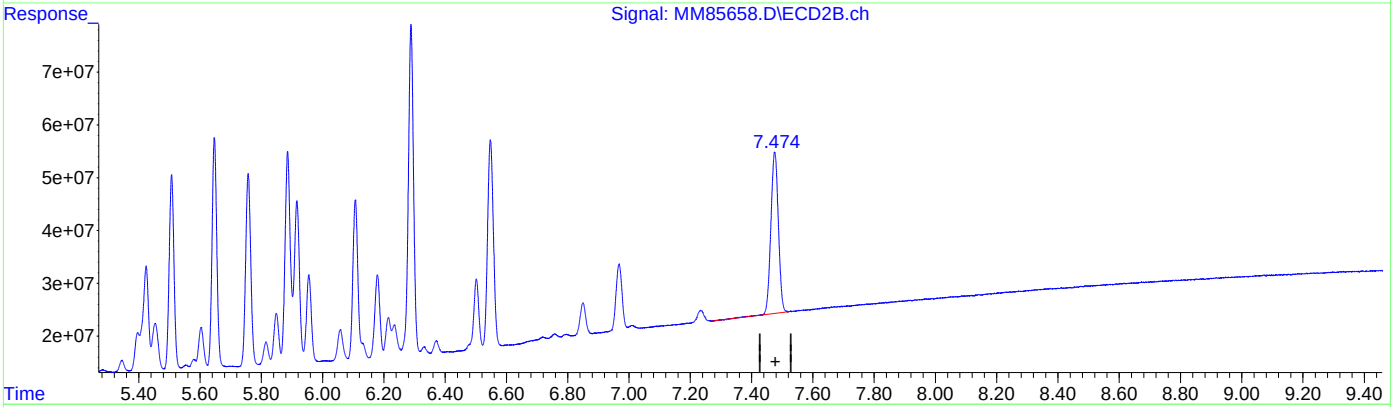
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:35:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.325min 5.254 ppb m

response 7040461

(55) Decachlorobiphenyl #2 (S)

7.476min 5.407 ppb

response 30517227

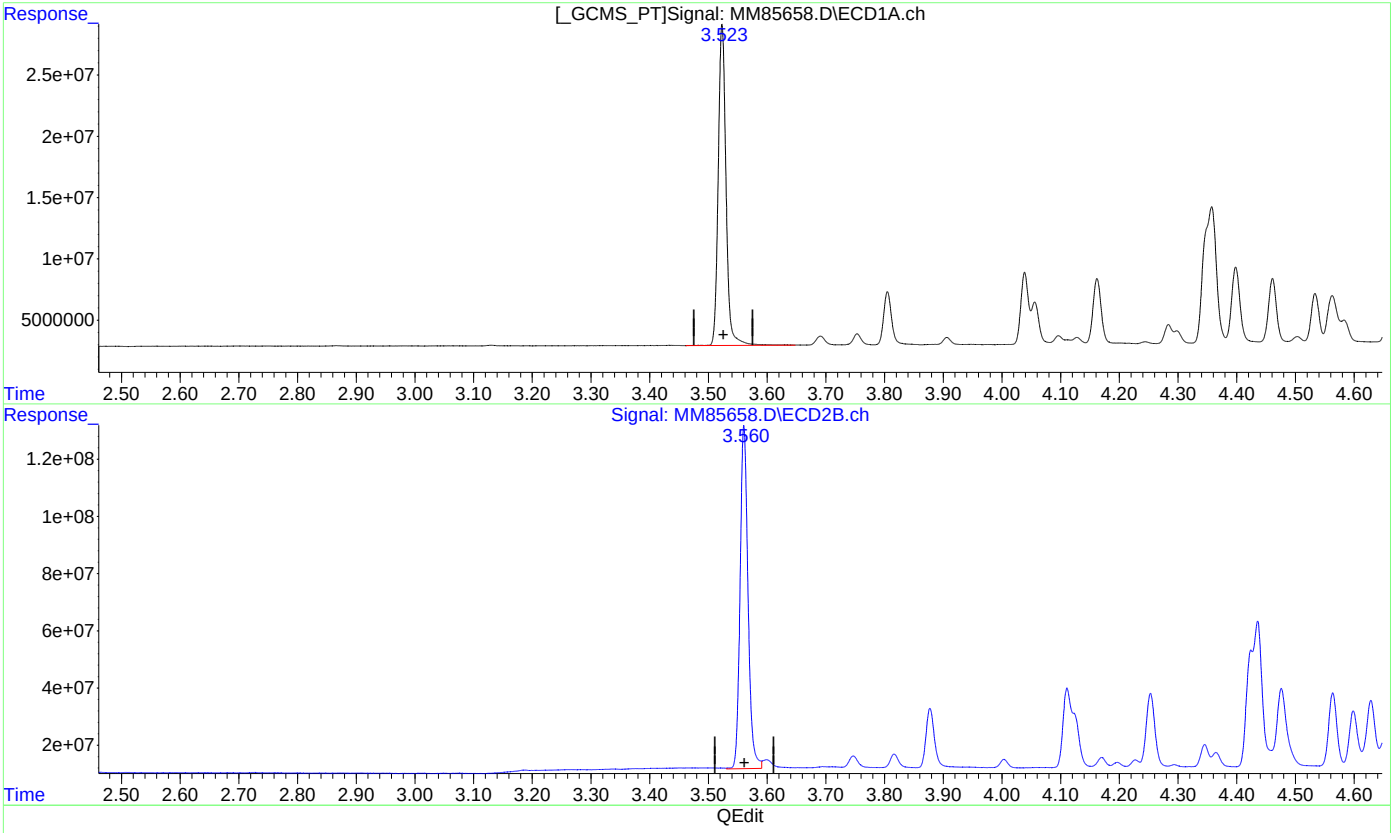
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:35:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.523min 5.259 PPB

response 25996001

(1) Tetrachloro-m-xylene #2 (S)

3.561min 5.323 PPB

response 119693884

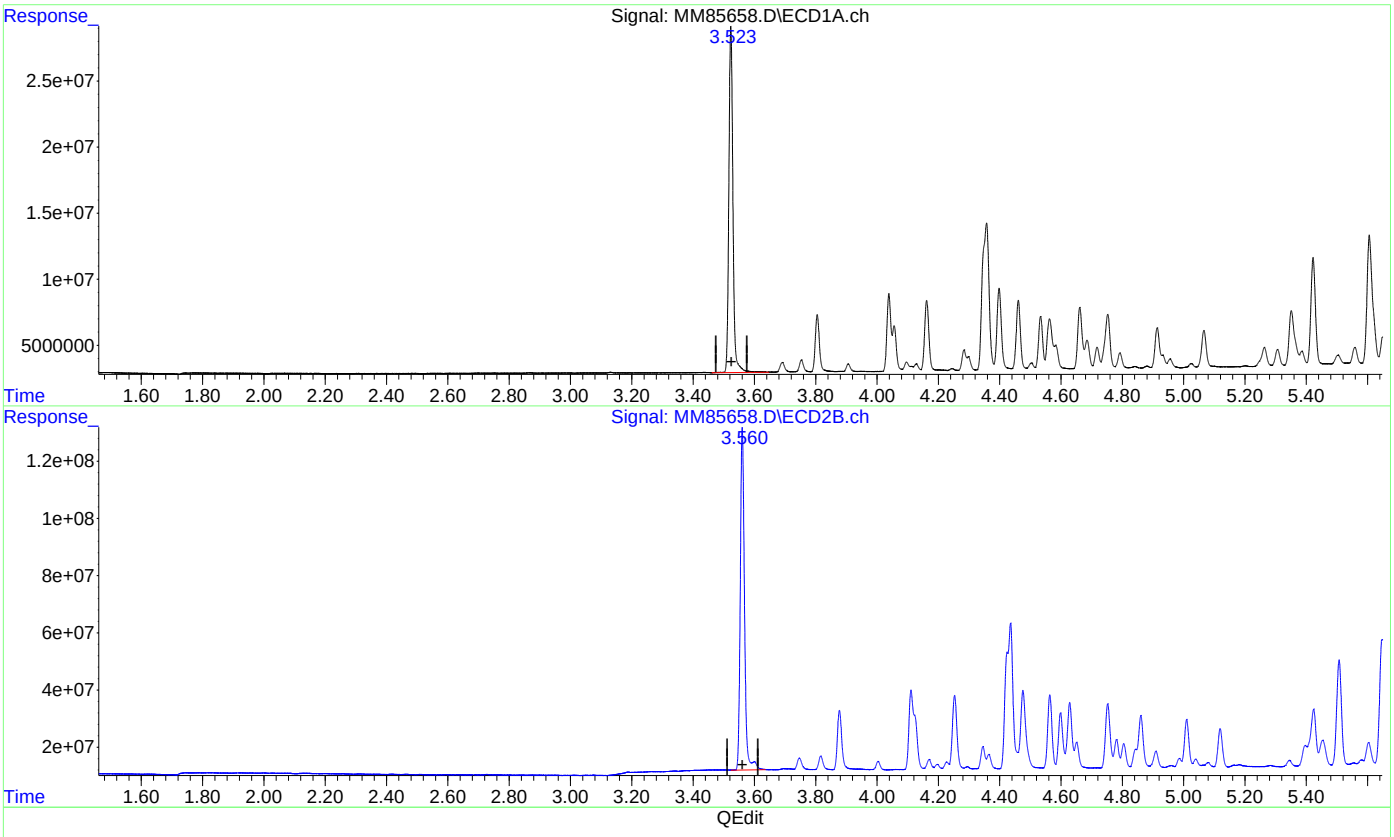
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:35:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.523min 5.259 PPB

response 25996001

(1) Tetrachloro-m-xylene #2 (S)

3.560min 5.332 PPB m

response 119882778

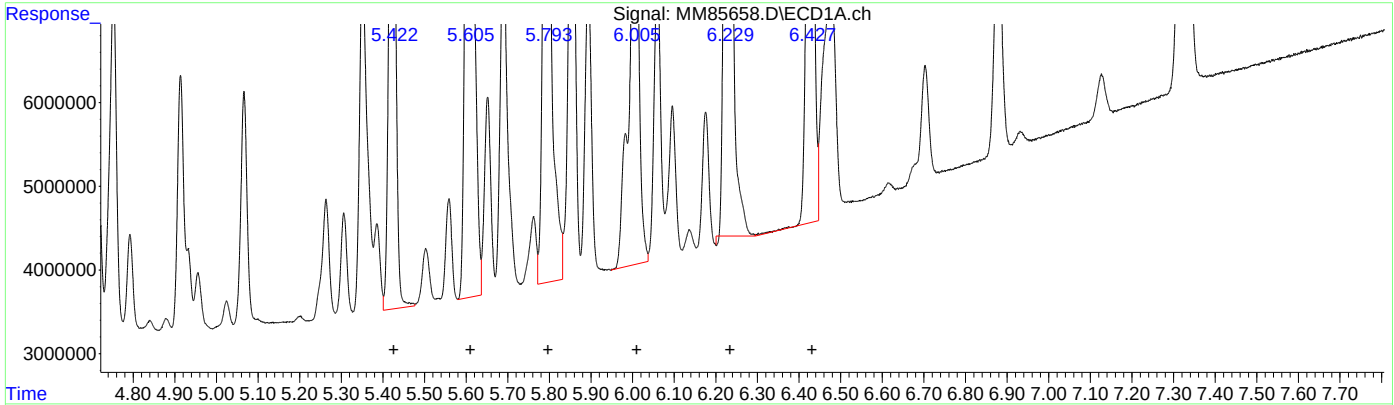
(+) = Expected Retention Time

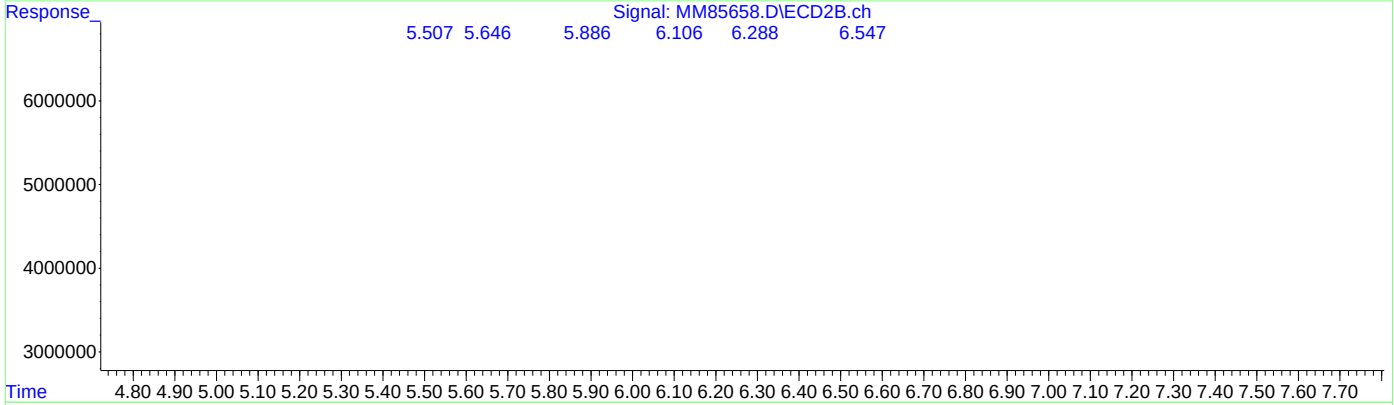
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85658.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:39 am
Operator : eduardom
Sample : ic1833-50 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 17 17:36:58 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(37) AR1260-A (L7)

R.T.	Response	Conc
5.42	8091126	52.14
5.61	9599603	52.33
5.79	10094357	51.98
6.01	6763070	52.52
6.23	14780707	52.36
6.43	8449058	52.88

(37) AR1260-A #2 (L7)

R.T.	Response	Conc
5.51	36921570	54.97
5.65	43555372	54.71
5.89	40193333	54.52
6.11	30122054	54.44
6.29	62551394	51.97
6.55	39164892	52.56

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:56 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.524	3.560	101.0E6	456.1E6	20.436	20.282m
Spiked Amount	50.000 Range	44 - 126	Recovery	=	40.87%#	40.56%#
55) S Decachlor...	7.325	7.475	26695317	114.3E6	19.922m	20.257m
Spiked Amount	50.000 Range	41 - 145	Recovery	=	39.84%#	40.51%#
Target Compounds						
2) L1 AR1016-A	3.805	3.877	16058841	70424594	196.563	193.948
3) L1 AR1016-B	4.039	4.111	21631875	95787746	197.288	201.799
4) L1 AR1016-C	4.162	4.253	20280232	88370176	198.290	196.788
5) L1 AR1016-D	4.356	4.435	42084908	189.6E6	190.192	204.327
6) L1 AR1016-E	4.461	4.564	19937997	93421996	192.299	205.847
7) L1 AR1016-F	4.662	4.752	17595951	79456201	191.260	201.403
Sum AR1016-A			137.6E6	617.1E6	1165.892	1204.111
Average AR1016-A					194.315	200.685
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
37) L7 AR1260-A	5.423	5.507	29774717	133.1E6	191.876	198.098
38) L7 AR1260-B	5.607	5.647	35728111	157.0E6	194.750	197.212
39) L7 AR1260-C	5.794	5.885	38488588	150.4E6	198.194	203.981
40) L7 AR1260-D	6.006	6.107	26502974	111.4E6	205.806	201.249
41) L7 AR1260-E	6.230	6.289	56652728	246.8E6	200.673	205.092
42) L7 AR1260-F	6.427	6.548	31410945	150.8E6	196.602	202.363
Sum AR1260-A			218.6E6	949.4E6	1187.901	1207.995
Average AR1260-A					197.984	201.332
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:56 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

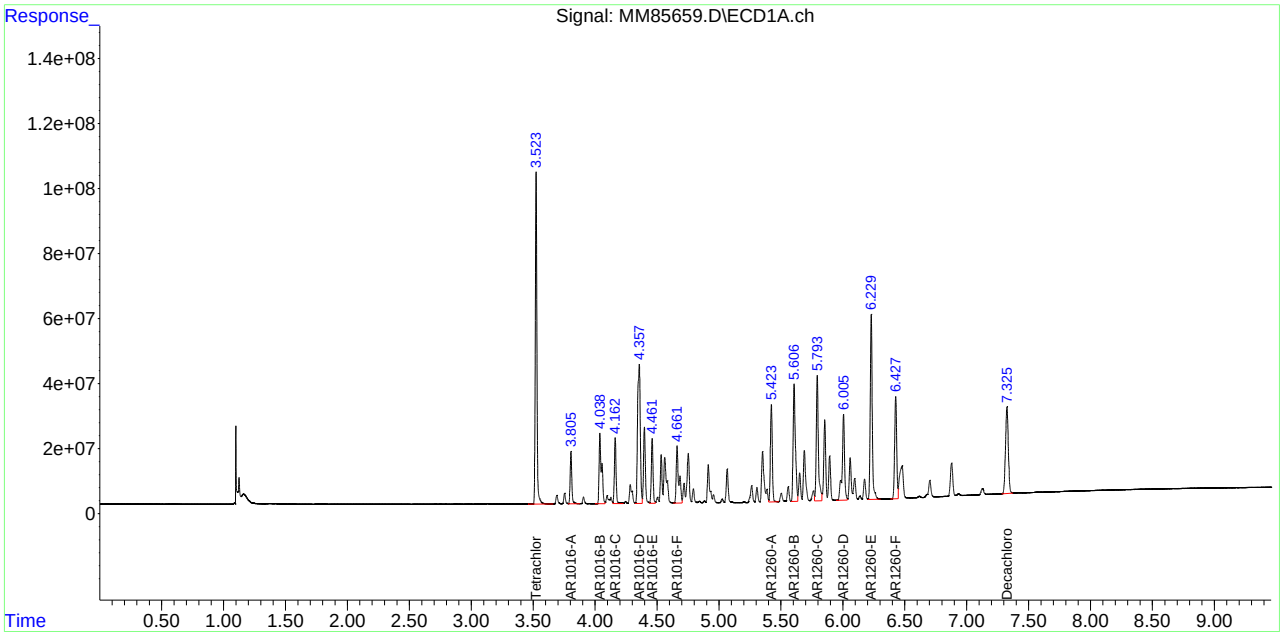
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

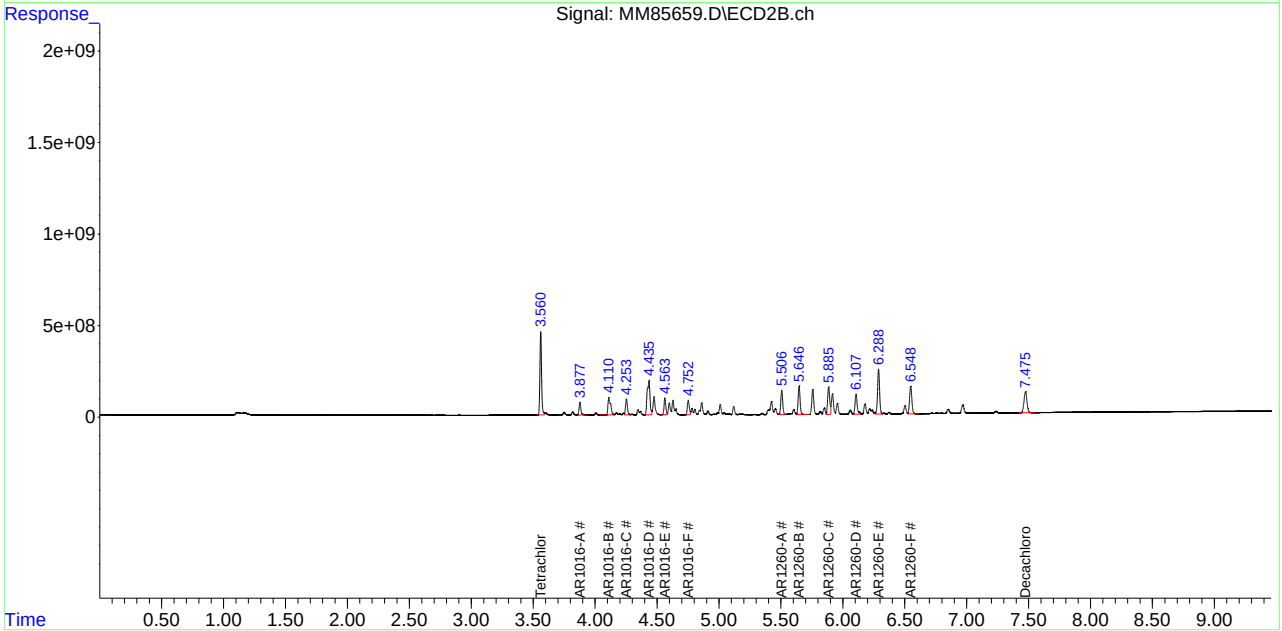
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:56 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85659.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 11:51 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

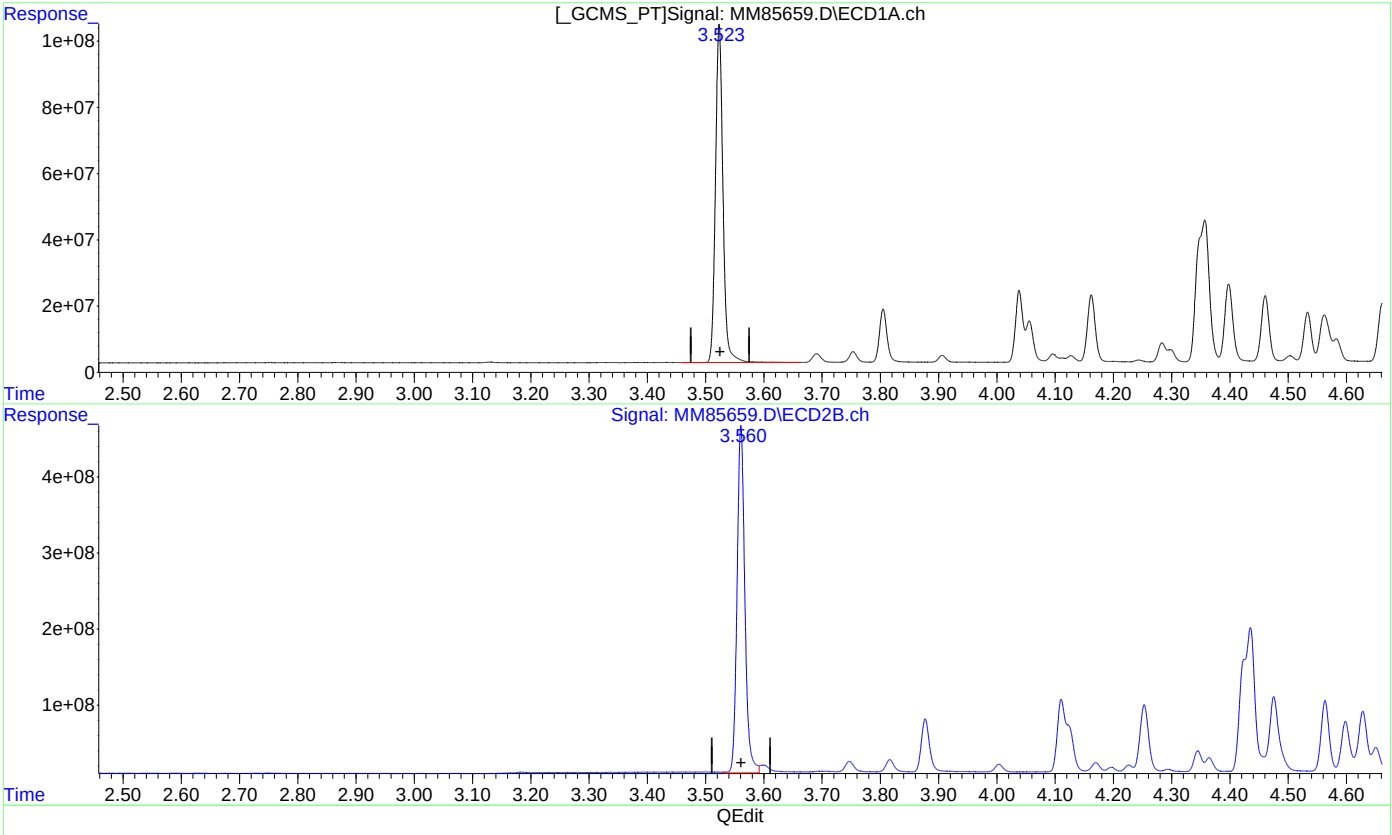
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.33	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.47	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:11 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 20.436 PPB

response 101016441

(1) Tetrachloro-m-xylene #2 (S)

3.561min 20.274 PPB

response 455881148

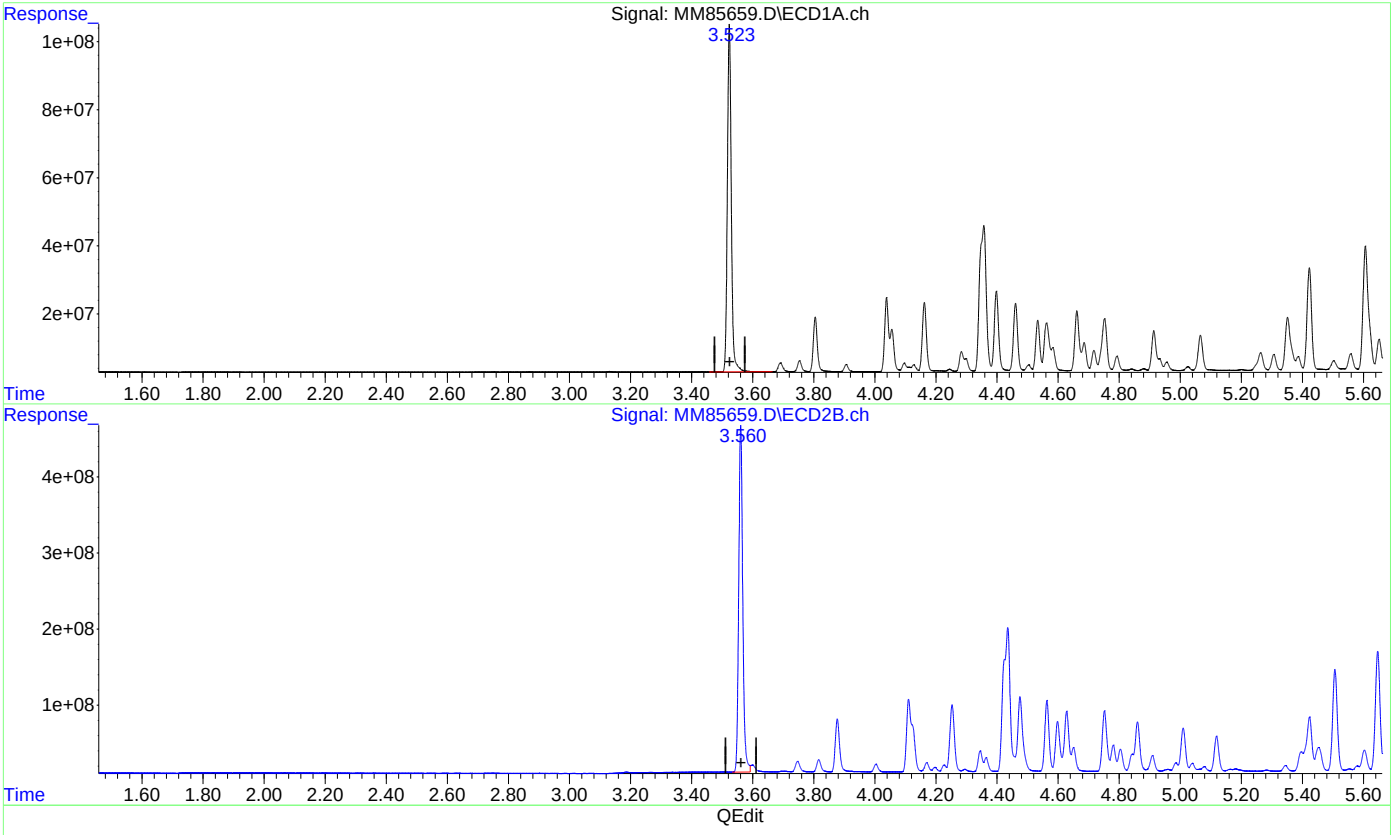
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:11 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 20.436 PPB

response 101016441

(1) Tetrachloro-m-xylene #2 (S)

3.560min 20.282 PPB m

response 456060402

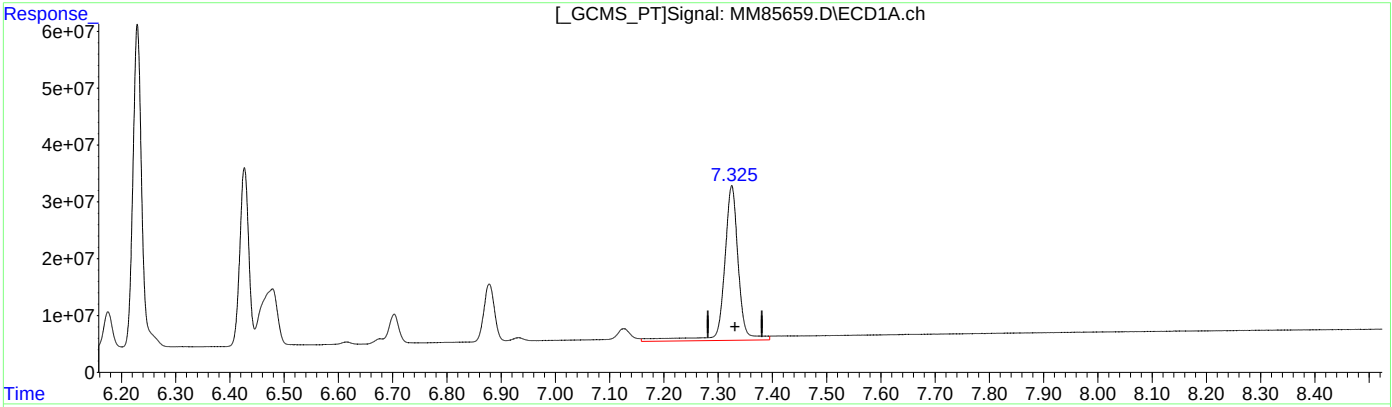
(+) = Expected Retention Time

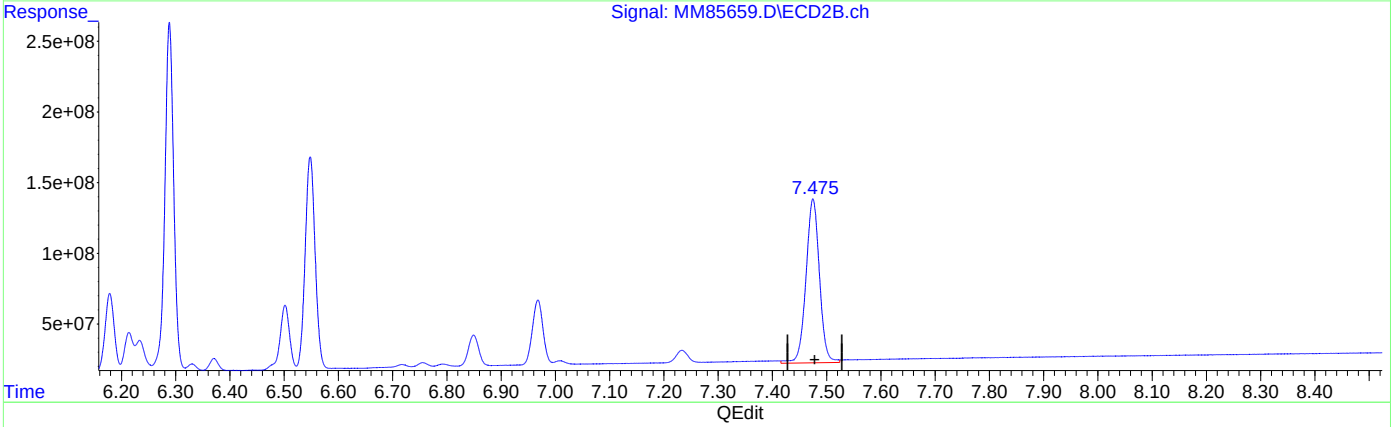
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:11 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.325min 20.319 ppb

response 27226587

(55) Decachlorobiphenyl #2 (S)

7.475min 20.552 ppb

response 115993597

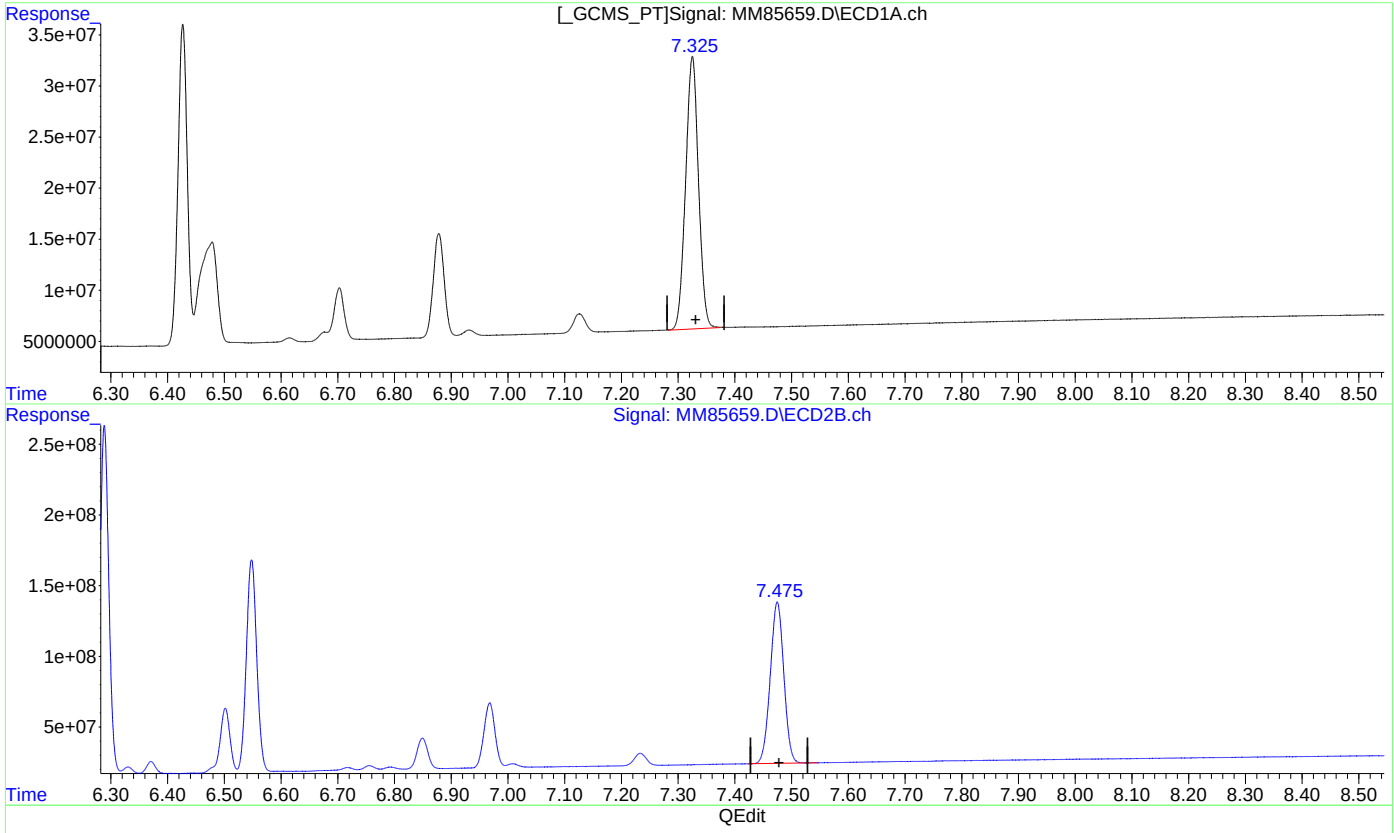
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85659.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 11:51 am
Operator : eduardom
Sample : ic1833-200 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 17 17:37:11 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.325min 19.922 ppb m

response 26695317

(55) Decachlorobiphenyl #2 (S)

7.475min 20.257 ppb m

response 114329656

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:39:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.524	3.561	202.0E6	936.0E6	40.870	41.625m
Spiked Amount	50.000 Range	44 - 126	Recovery	=	81.74%	83.25%
55) S Decachlor...	7.325	7.475	52011528	225.9E6	38.815m	40.035m
Spiked Amount	50.000 Range	41 - 145	Recovery	=	77.63%	80.07%
Target Compounds						
2) L1 AR1016-A	3.805	3.877	32055172	139.8E6	392.362	385.090
3) L1 AR1016-B	4.039	4.111	41249270	183.0E6	376.204	385.550
4) L1 AR1016-C	4.162	4.253	40862487	173.4E6	399.533	386.181
5) L1 AR1016-D	4.357	4.435	89771108	379.7E6	405.697	409.105
6) L1 AR1016-E	4.461	4.563	41355463	184.2E6	398.866	405.880
7) L1 AR1016-F	4.662	4.752	35924337	159.6E6	390.481	404.449
Sum AR1016-A			281.2E6	1219.7E6	2363.143	2376.254
Average AR1016-A					393.857	396.042
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
37) L7 AR1260-A	5.423	5.506	61085971	273.6E6	393.653	407.333
38) L7 AR1260-B	5.607	5.646	71846256	319.4E6	391.626	401.170
39) L7 AR1260-C	5.794	5.885	78181389	306.6E6	402.589	415.841
40) L7 AR1260-D	6.005	6.107	51251228	226.7E6	397.986	409.710
41) L7 AR1260-E	6.230	6.289	114.1E6	500.0E6	404.331	415.439
42) L7 AR1260-F	6.427	6.548	63600898	303.8E6	398.080	407.704
Sum AR1260-A			440.1E6	1930.1E6	2388.265	2457.197
Average AR1260-A					398.044	409.533
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:39:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

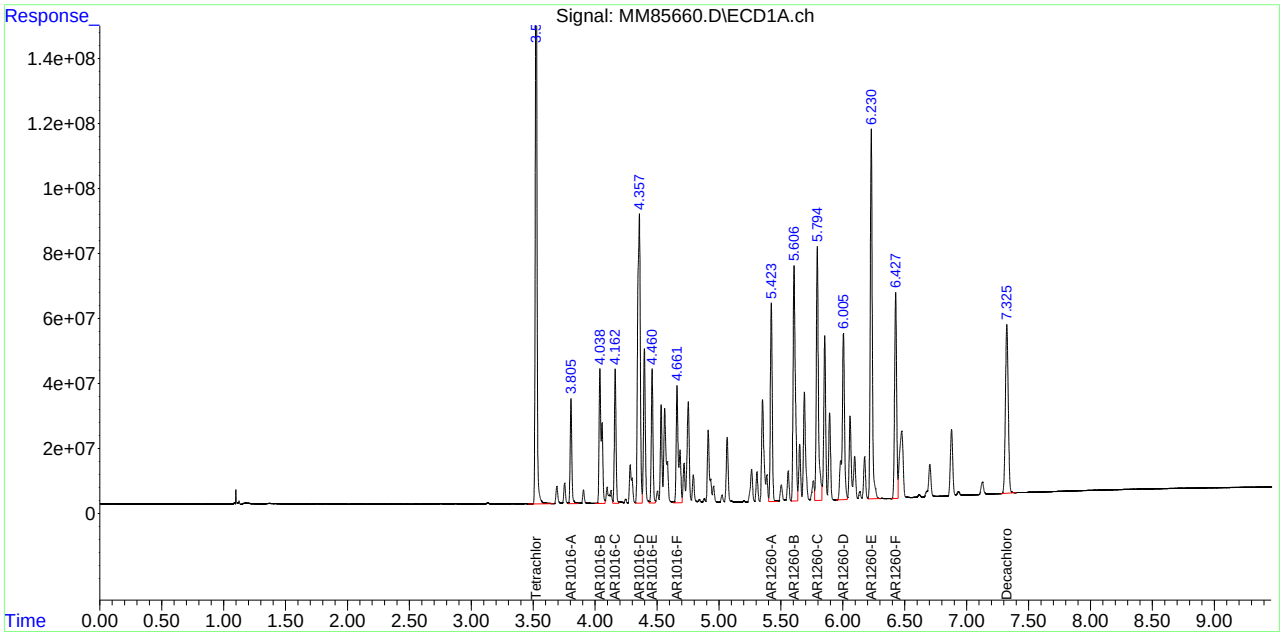
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

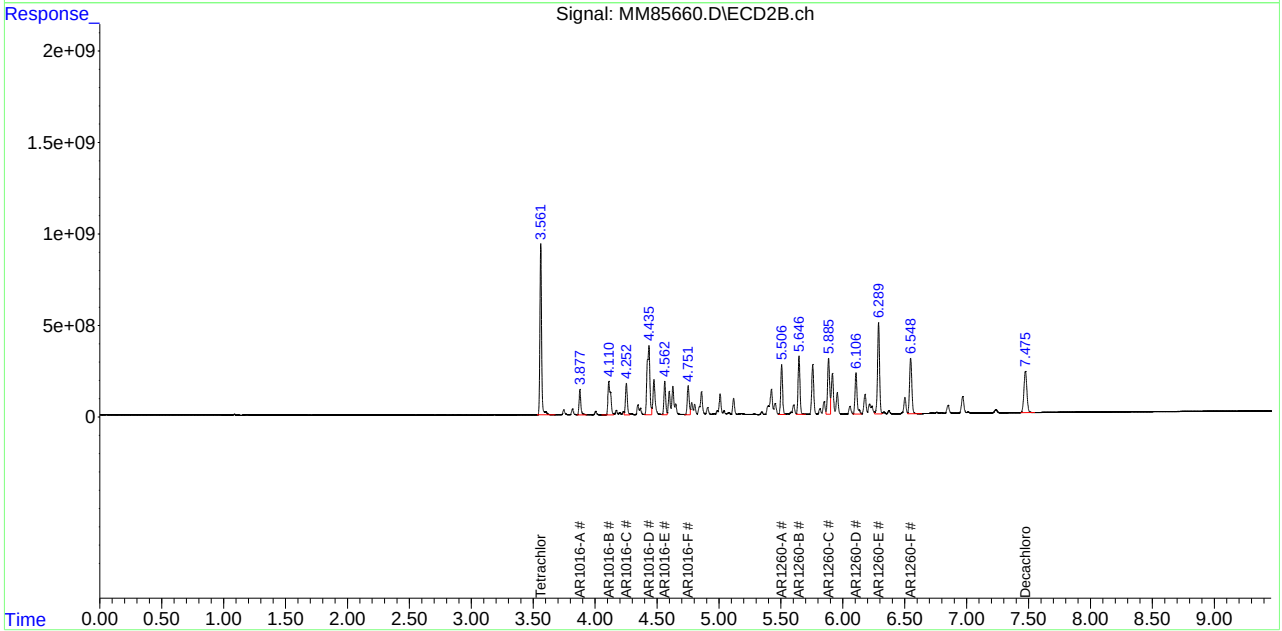
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:39:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number:	GMM1833-ICC1833	**Method:**	SW846 8082A
Lab FileID:	MM85660.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 12:02	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

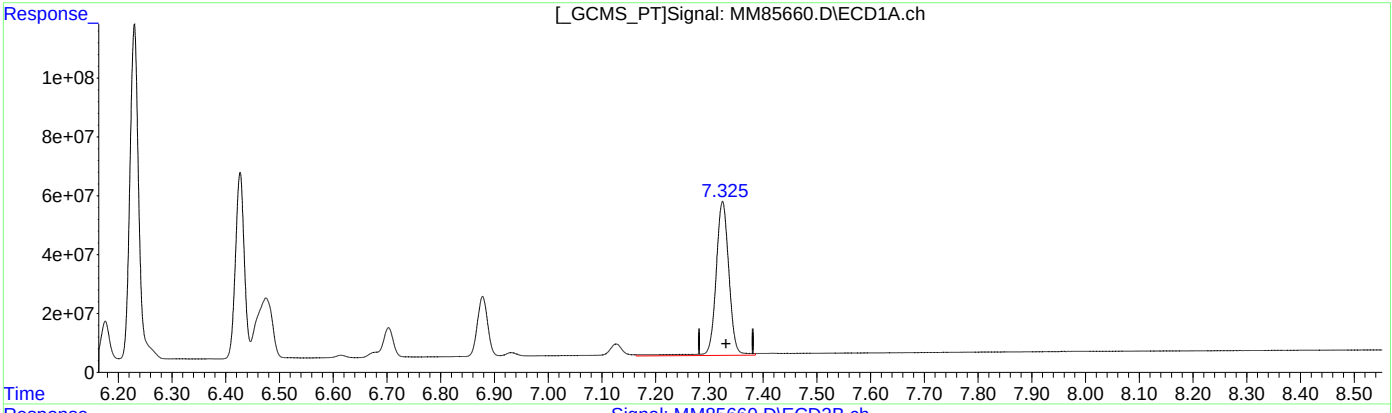
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.32	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.47	Poor instrument integration

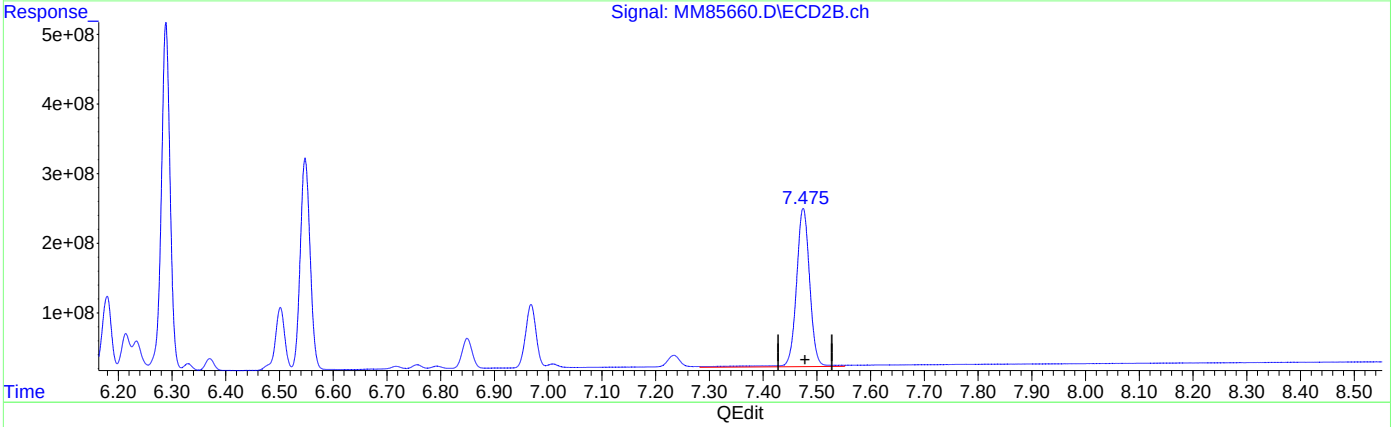
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:38:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.325min 39.058 ppb

response 52337330

(55) Decachlorobiphenyl #2 (S)

7.475min 40.303 ppb

response 227465098

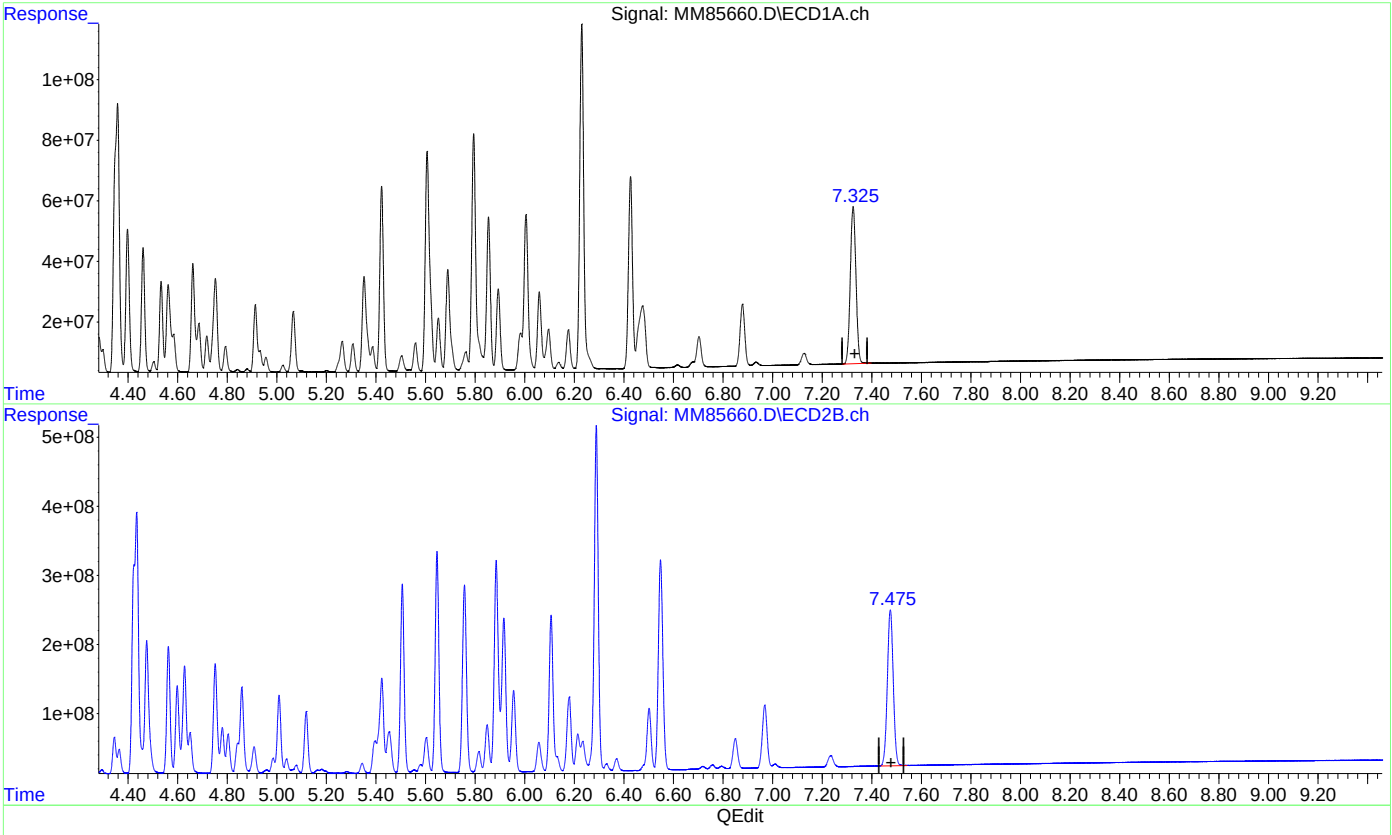
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:38:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.325min 38.815 ppb m

response 52011528

(55) Decachlorobiphenyl #2 (S)

7.475min 40.035 ppb m

response 225948626

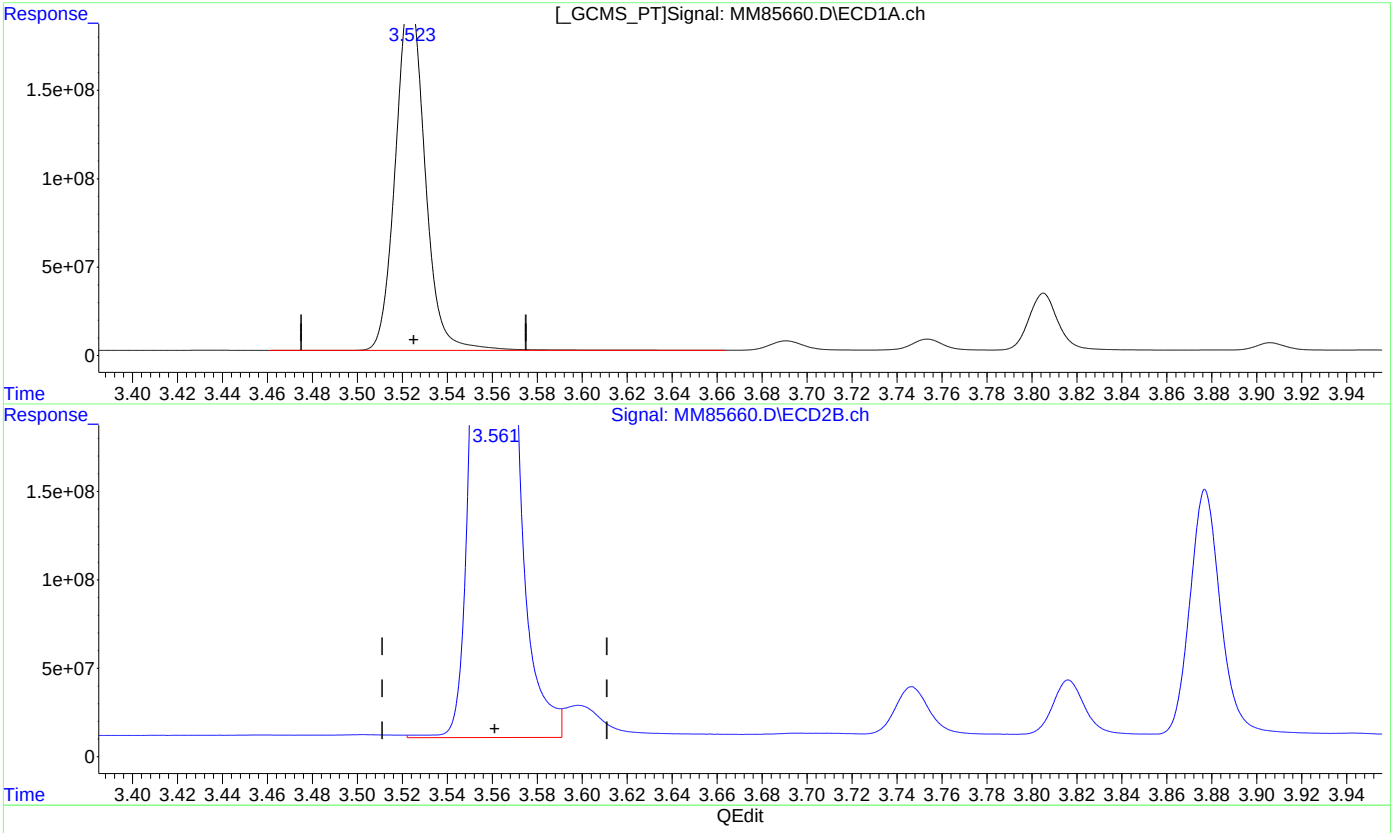
(+) = Expected Retention Time
8082-DOD-1833.m Tue Oct 17 17:39:13 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:38:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 40.870 PPB

response 202024675

(1) Tetrachloro-m-xylene #2 (S)

3.561min 41.608 PPB

response 935589335

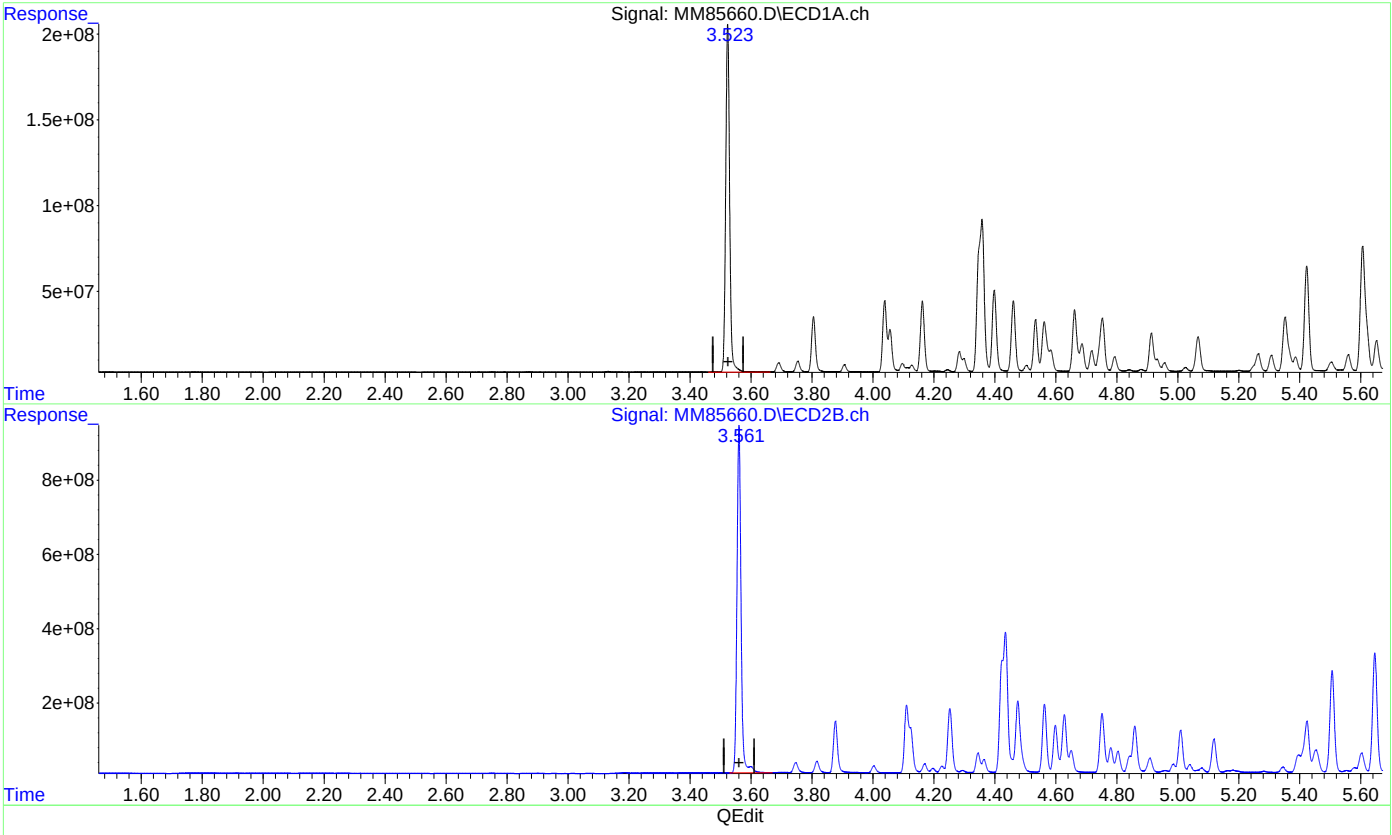
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85660.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:02 pm
Operator : eduardom
Sample : icc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 17 17:38:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 40.870 PPB

response 202024675

(1) Tetrachloro-m-xylene #2 (S)

3.561min 41.625 PPB m

response 935975672

(+) = Expected Retention Time
8082-DOD-1833.m Tue Oct 17 17:39:26 2023 Page: 1

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:40:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
1) S Tetrachlo...	3.524	3.561	276.5E6	1370.9E6	55.931	60.970m
Spiked Amount	50.000 Range	44 - 126	Recovery	=	111.86%	121.94%
55) S Decachlor...	7.326	7.474	77601238	340.7E6	57.912m	60.368m
Spiked Amount	50.000 Range	41 - 145	Recovery	=	115.82%	120.74%
Target Compounds						
2) L1 AR1016-A	3.805	3.877	44169750	197.1E6	540.647	542.839
3) L1 AR1016-B	4.039	4.111	59744323	257.5E6	544.883	542.435
4) L1 AR1016-C	4.162	4.253	57443972	251.9E6	561.659	560.986
5) L1 AR1016-D	4.357	4.435	134.0E6	544.8E6	605.439	587.045
6) L1 AR1016-E	4.461	4.563	61326871	270.3E6	591.487	595.653
7) L1 AR1016-F	4.662	4.752	51455849	235.0E6	559.302	595.756
Sum AR1016-A			408.1E6	1756.7E6	3403.417	3424.715
Average AR1016-A					567.236	570.786
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
37) L7 AR1260-A	5.423	5.507	88600807	399.4E6	570.966	594.617
38) L7 AR1260-B	5.607	5.647	107.9E6	476.7E6	587.897	598.796
39) L7 AR1260-C	5.794	5.886	114.8E6	449.0E6	590.950	609.039
40) L7 AR1260-D	6.006	6.107	76348010	331.2E6	592.873	598.598
41) L7 AR1260-E	6.230	6.289	171.8E6	757.1E6	608.548	629.057
42) L7 AR1260-F	6.427	6.548	93874146	455.7E6	587.561	611.520
Sum AR1260-A			653.2E6	2869.1E6	3538.795	3641.628
Average AR1260-A					589.799	606.938
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:40:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

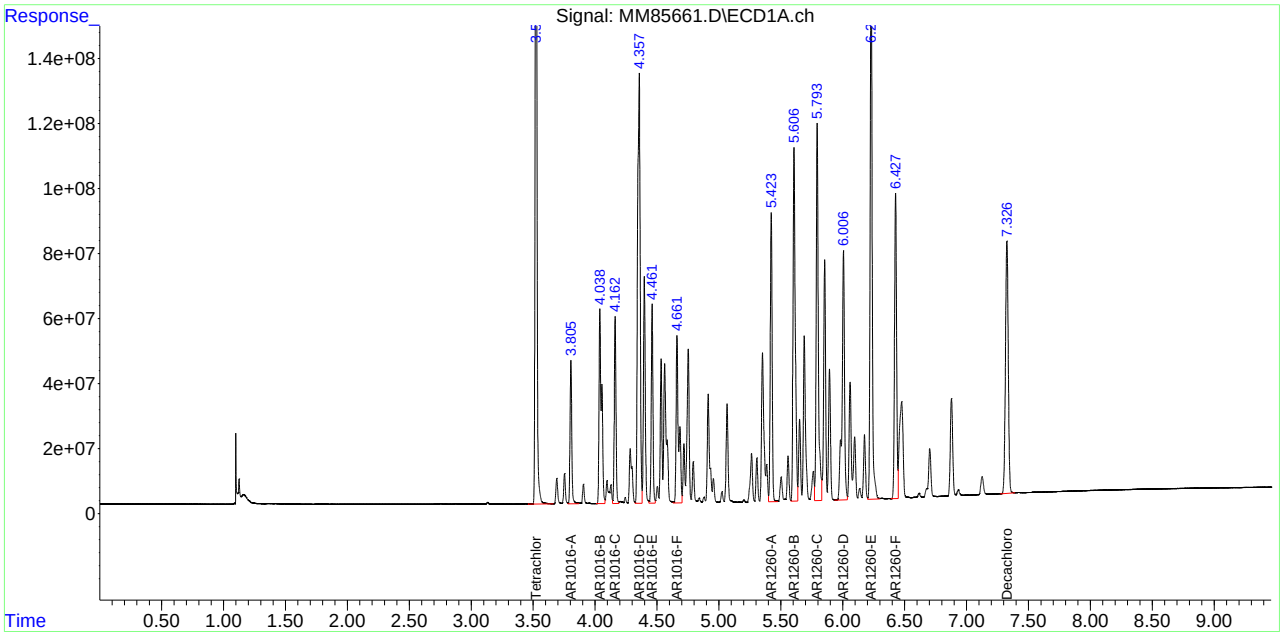
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

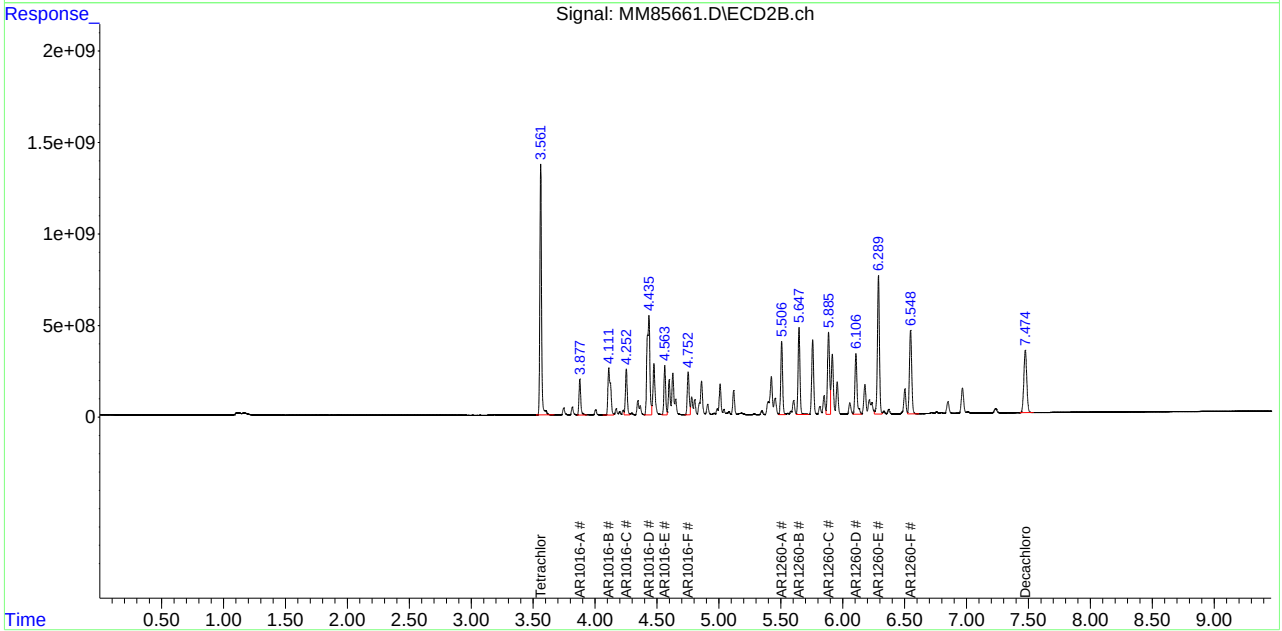
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:40:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





SGS FC10955

12.5.5 12

Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85661.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 12:14	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

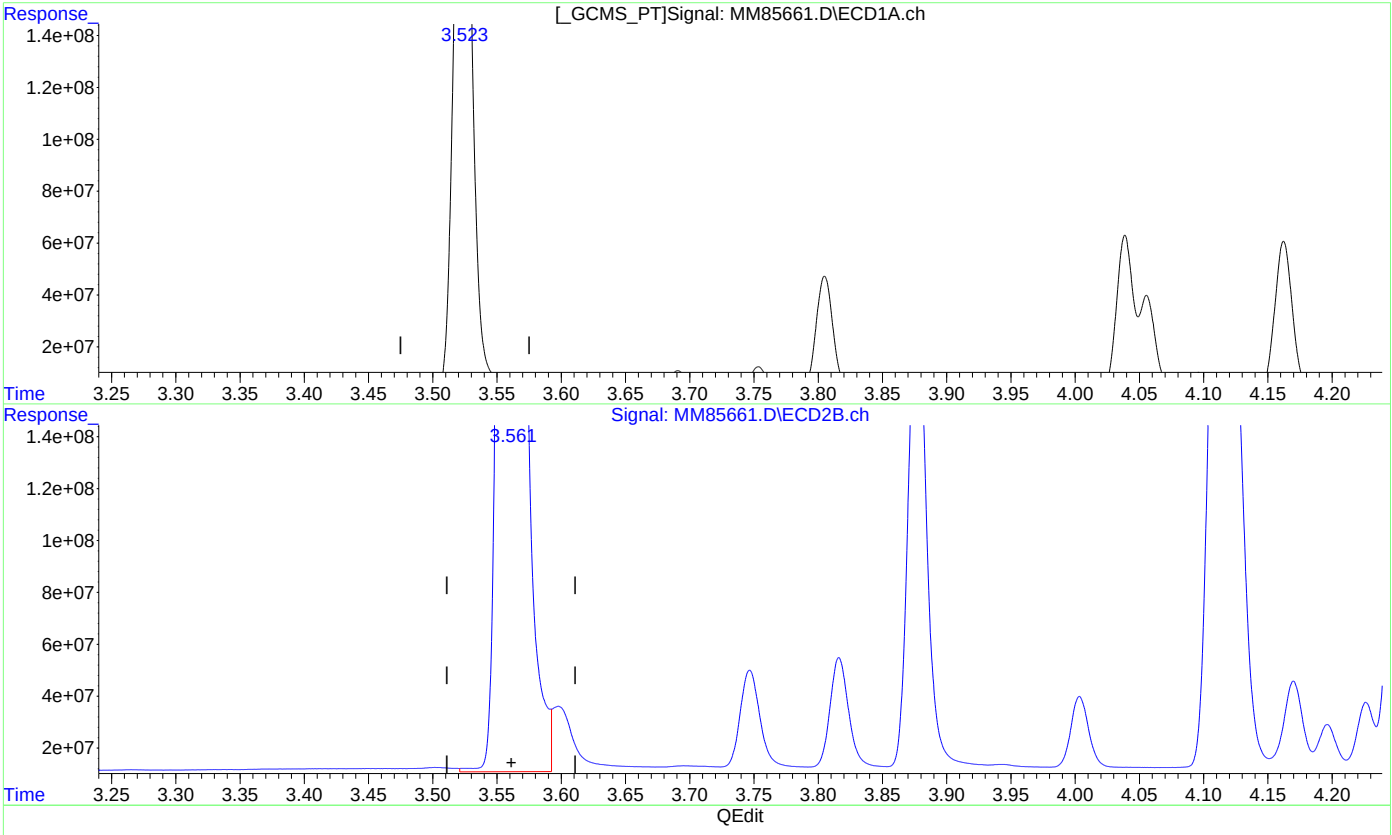
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.33	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.47	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:39:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 55.931 PPB

response 276469843

(1) Tetrachloro-m-xylene #2 (S)

3.561min 60.935 PPB

response 1370161584

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:39:33 2023
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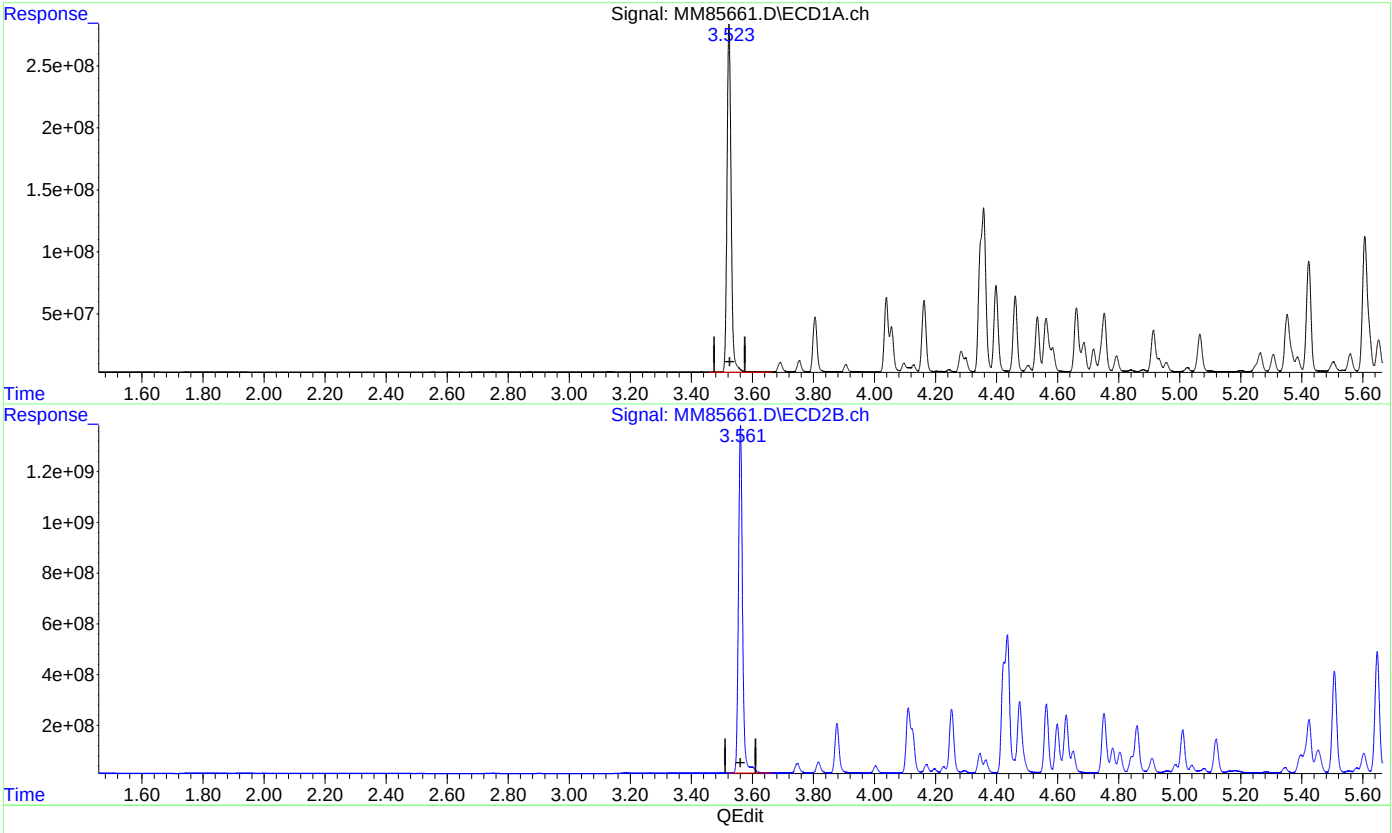
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 55.931 PPB

response 276469843

(1) Tetrachloro-m-xylene #2 (S)

3.561min 60.970 PPB m

response 1370946441

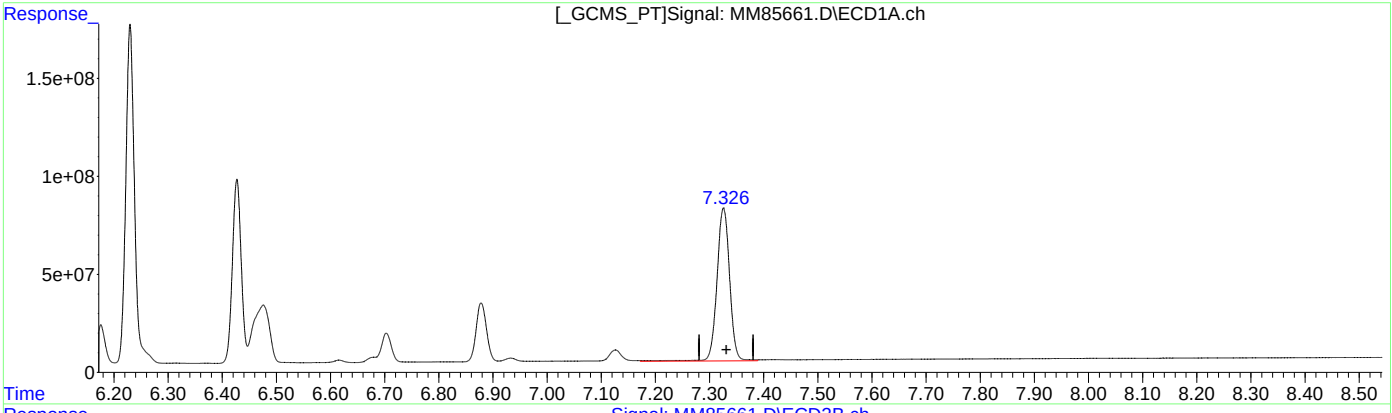
(+) = Expected Retention Time

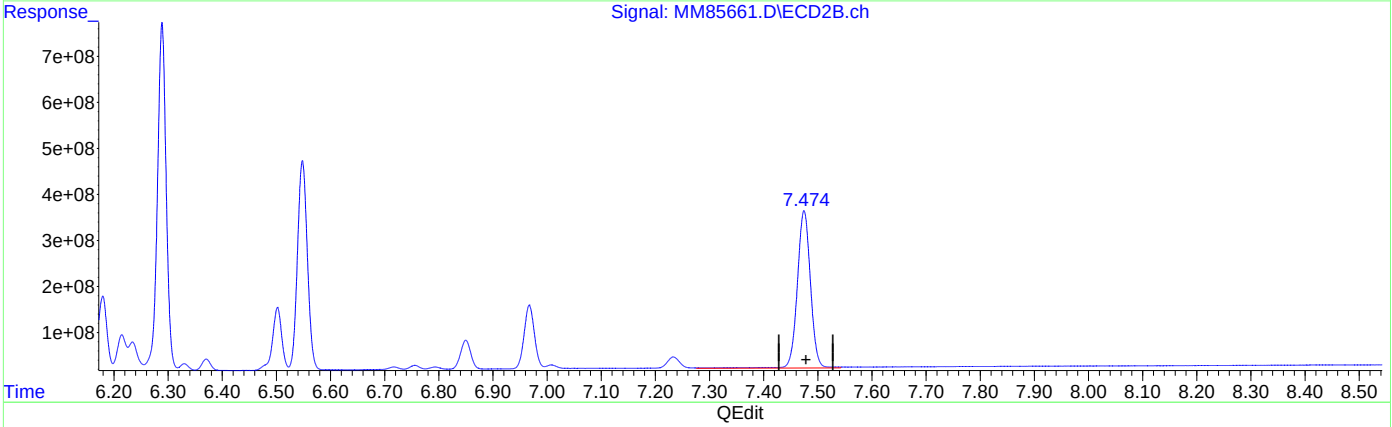
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:39:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.326min 58.165 ppb

response 77939398

(55) Decachlorobiphenyl #2 (S)

7.475min 60.573 ppb

response 341862277

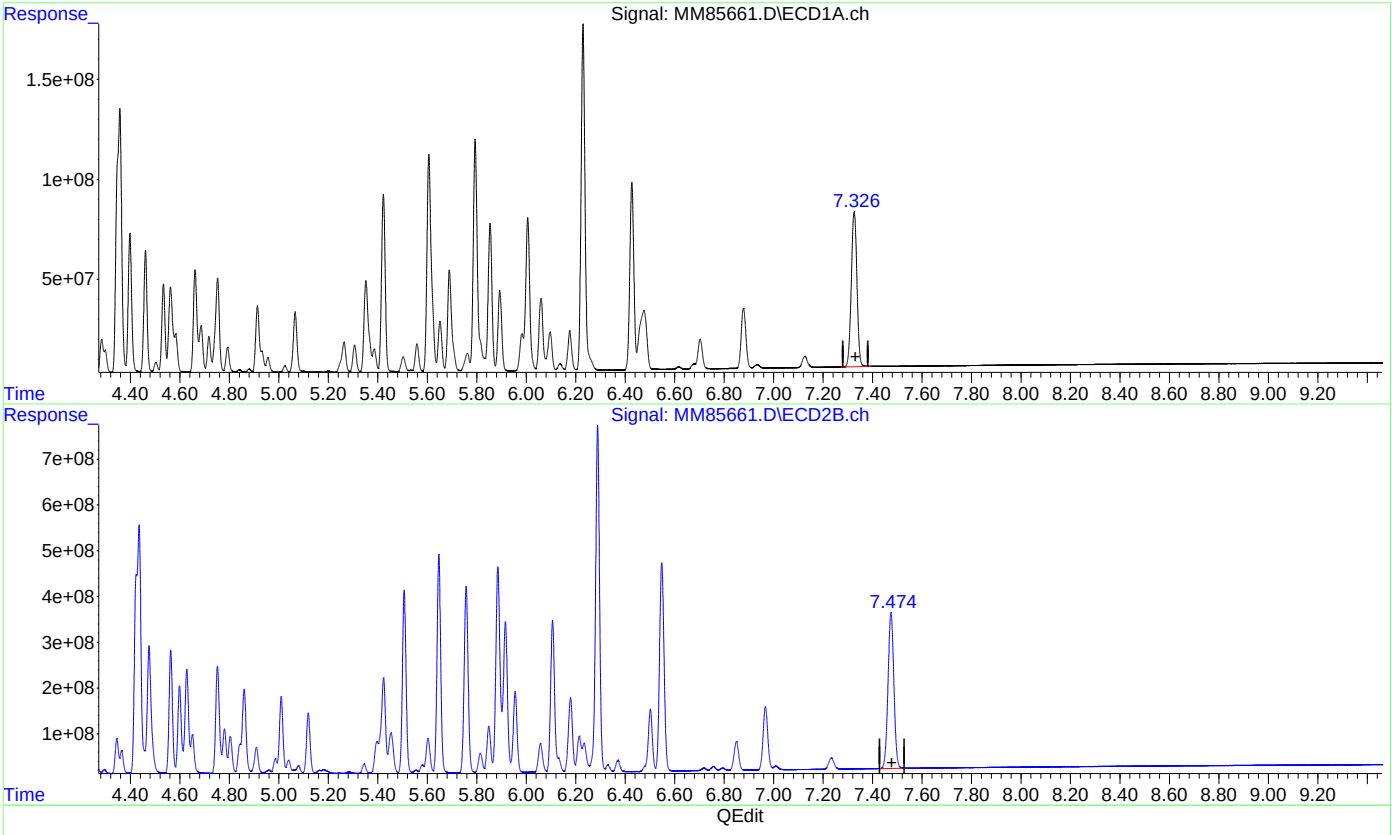
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85661.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:14 pm
Operator : eduardom
Sample : ic1833-600 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 17 17:39:33 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.326min 57.912 ppb m

response 77601238

(55) Decachlorobiphenyl #2 (S)

7.474min 60.368 ppb m

response 340705213

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:42:19 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.524	3.558	452.2E6	2141.5E6	91.488	95.239m
	Spiked Amount	50.000 Range	44 - 126	Recovery	=	182.98%#	190.48%#
55) S	Decachlor...	7.325	7.475	129.1E6	566.9E6	96.361m	100.440m
	Spiked Amount	50.000 Range	41 - 145	Recovery	=	192.72%#	200.88%#
	Target Compounds						
2) L1	AR1016-A	3.805	3.877	73175198	314.6E6	895.679	866.483
3) L1	AR1016-B	4.039	4.110	96798814	410.2E6	882.829	864.268
4) L1	AR1016-C	4.163	4.253	94053167	395.3E6	919.605	880.165
5) L1	AR1016-D	4.357	4.435	213.5E6	896.1E6	964.715	965.541
6) L1	AR1016-E	4.461	4.563	98935898	445.6E6	954.220	981.821
7) L1	AR1016-F	4.662	4.752	85936443	380.5E6	934.091	964.452
	Sum AR1016-A			662.4E6	2842.3E6	5551.139	5522.730
	Average AR1016-A					925.190	920.455
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
37) L7	AR1260-A	5.423	5.507	149.9E6	660.6E6	966.064	983.533
38) L7	AR1260-B	5.607	5.647	181.7E6	793.9E6	990.265	997.223
39) L7	AR1260-C	5.794	5.886	193.8E6	738.2E6	998.184	1001.342
40) L7	AR1260-D	6.006	6.107	128.5E6	560.2E6	998.220	1012.423
41) L7	AR1260-E	6.230	6.290	279.4E6	1310.6E6	989.646	1088.949
42) L7	AR1260-F	6.427	6.548	156.6E6	767.2E6	980.269	1029.577
	Sum AR1260-A			1090.0E6	4830.8E6	5922.649	6113.047
	Average AR1260-A					987.108	1018.841
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:42:19 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:42:19 2023
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Volume Inj. : 2ul
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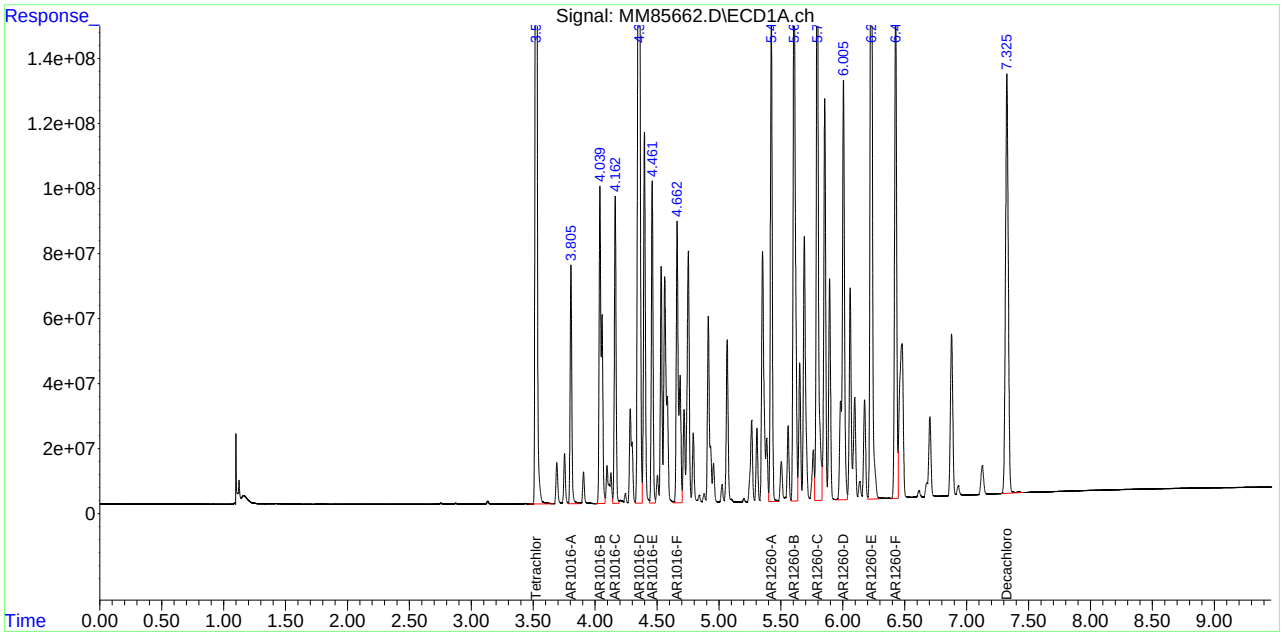
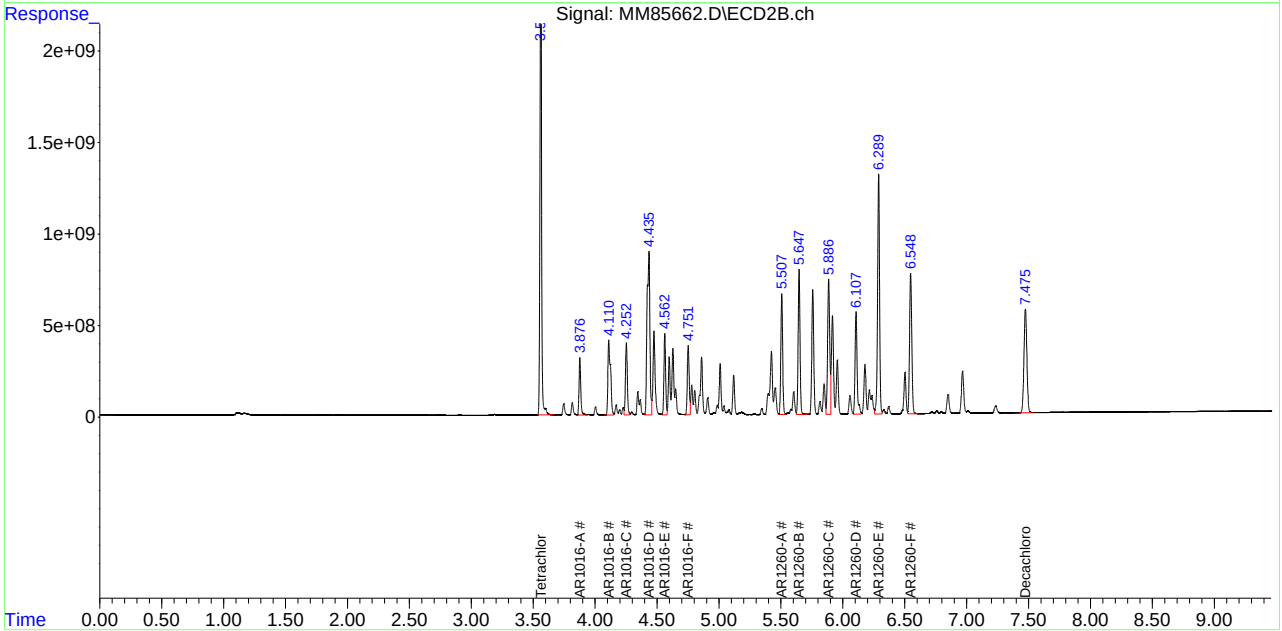
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85662.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 12:25	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

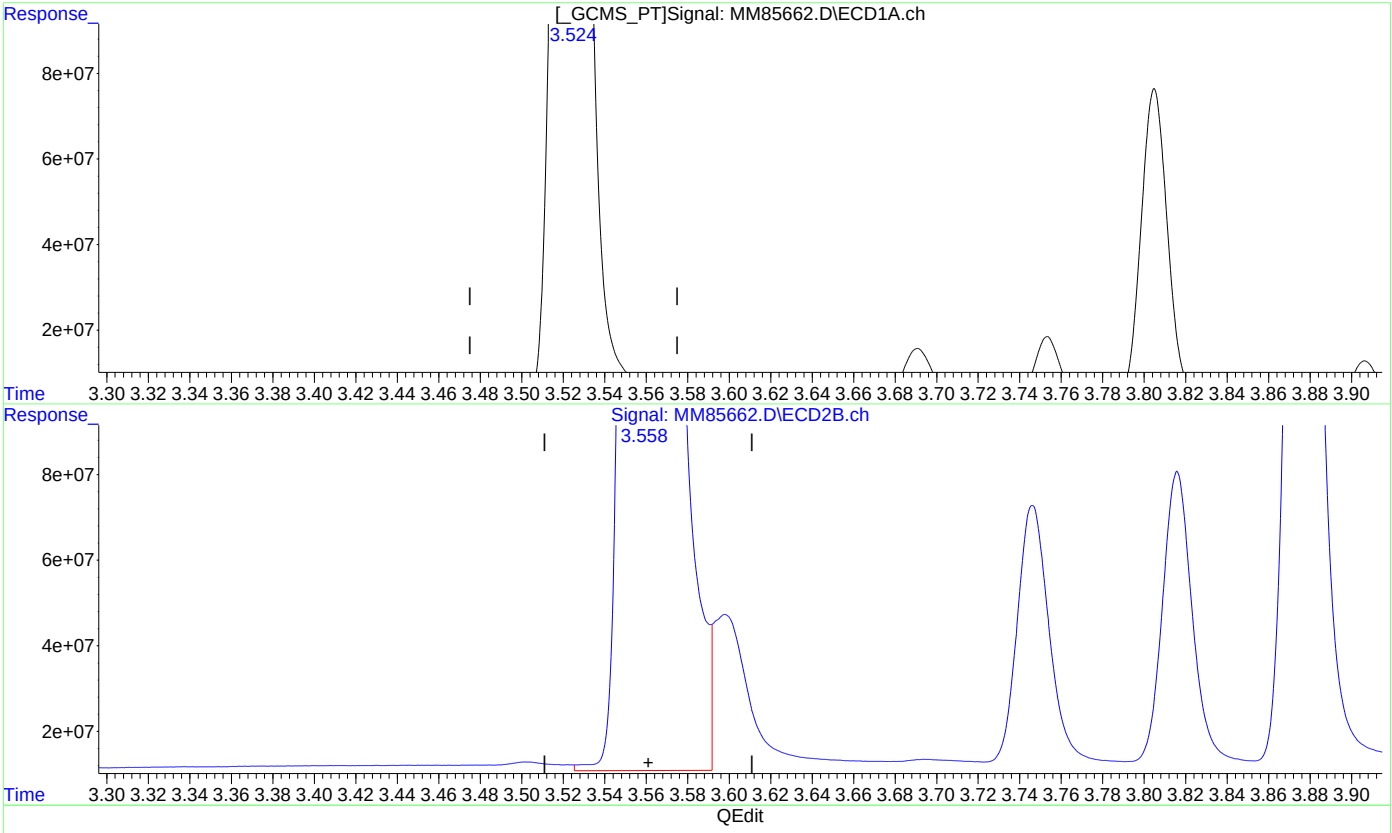
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.56	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.32	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.47	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:40:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 91.488 PPB

response 452234304

(1) Tetrachloro-m-xylene #2 (S)

3.562min 95.021 PPB

response 2136610369

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:40:23 2023
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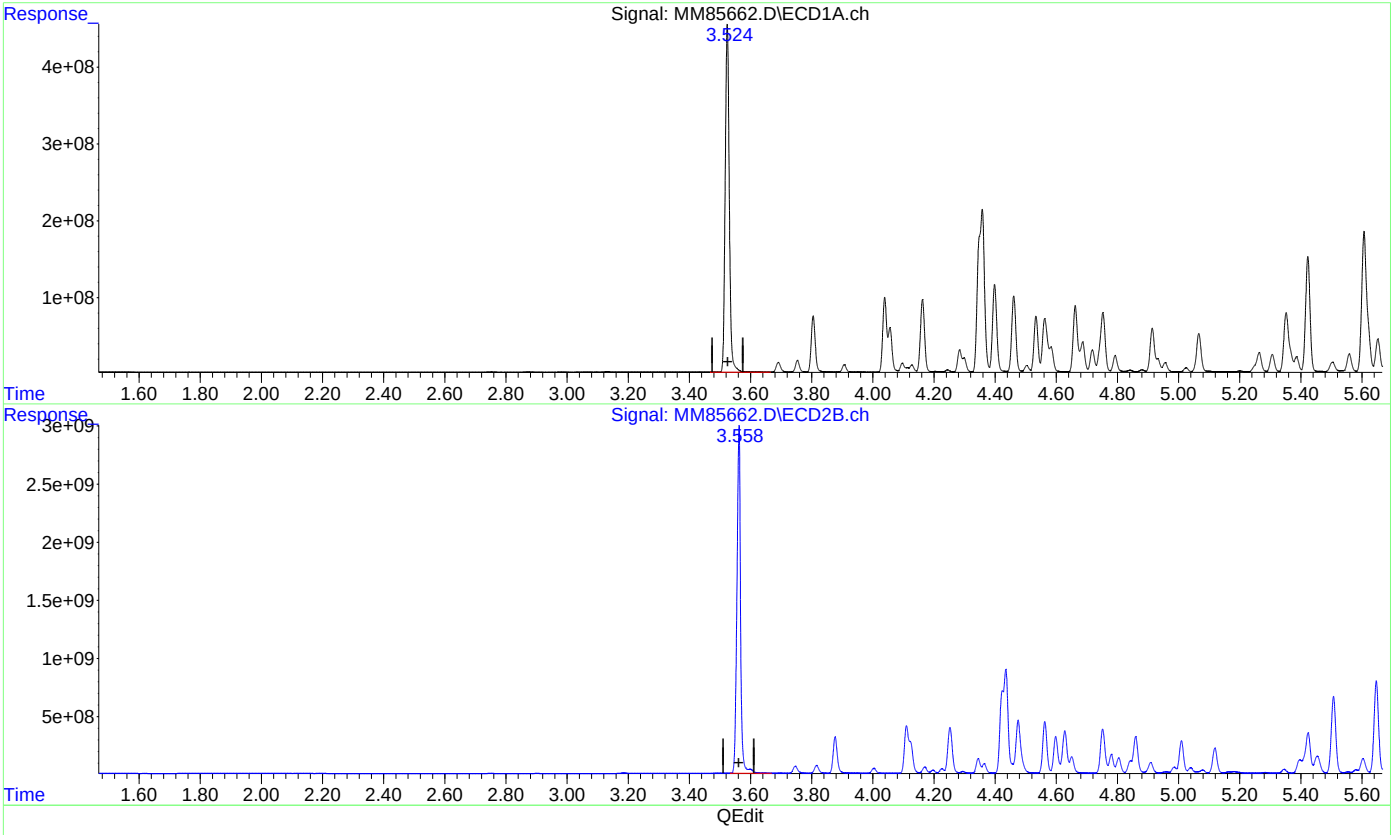
Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.524min 91.488 PPB

response 452234304

(1) Tetrachloro-m-xylene #2 (S)

3.558min 95.239 PPB m

response 2141526739

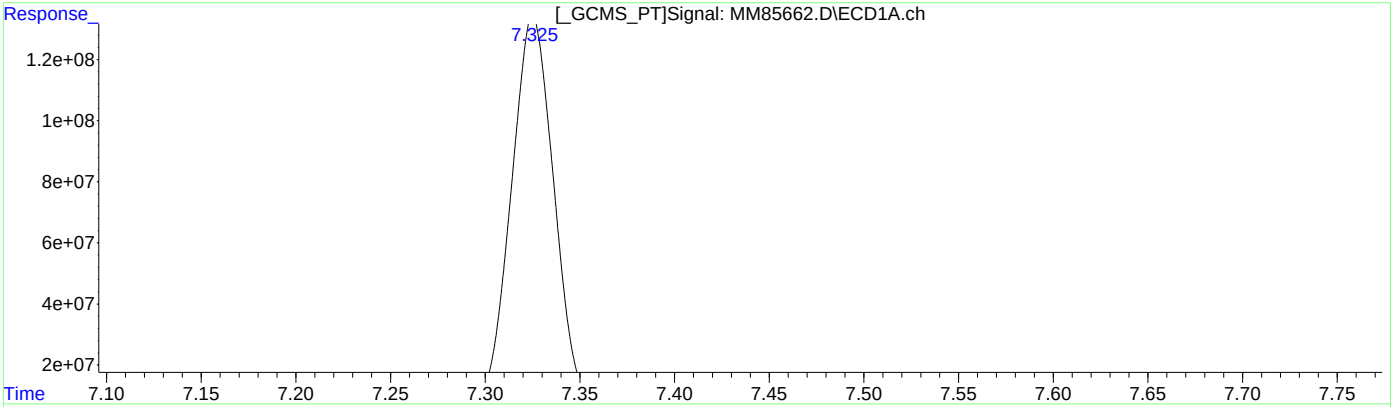
(+) = Expected Retention Time

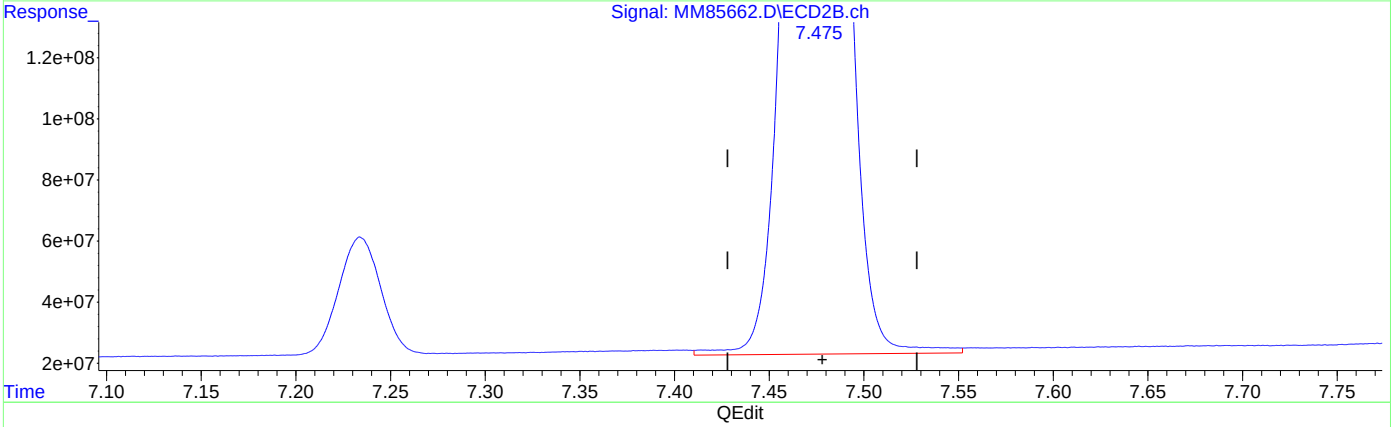
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:40:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(55) Decachlorobiphenyl (S)

7.325min 96.422 ppb

response 129202852

(55) Decachlorobiphenyl #2 (S)

7.475min 100.762 ppb

response 568684876

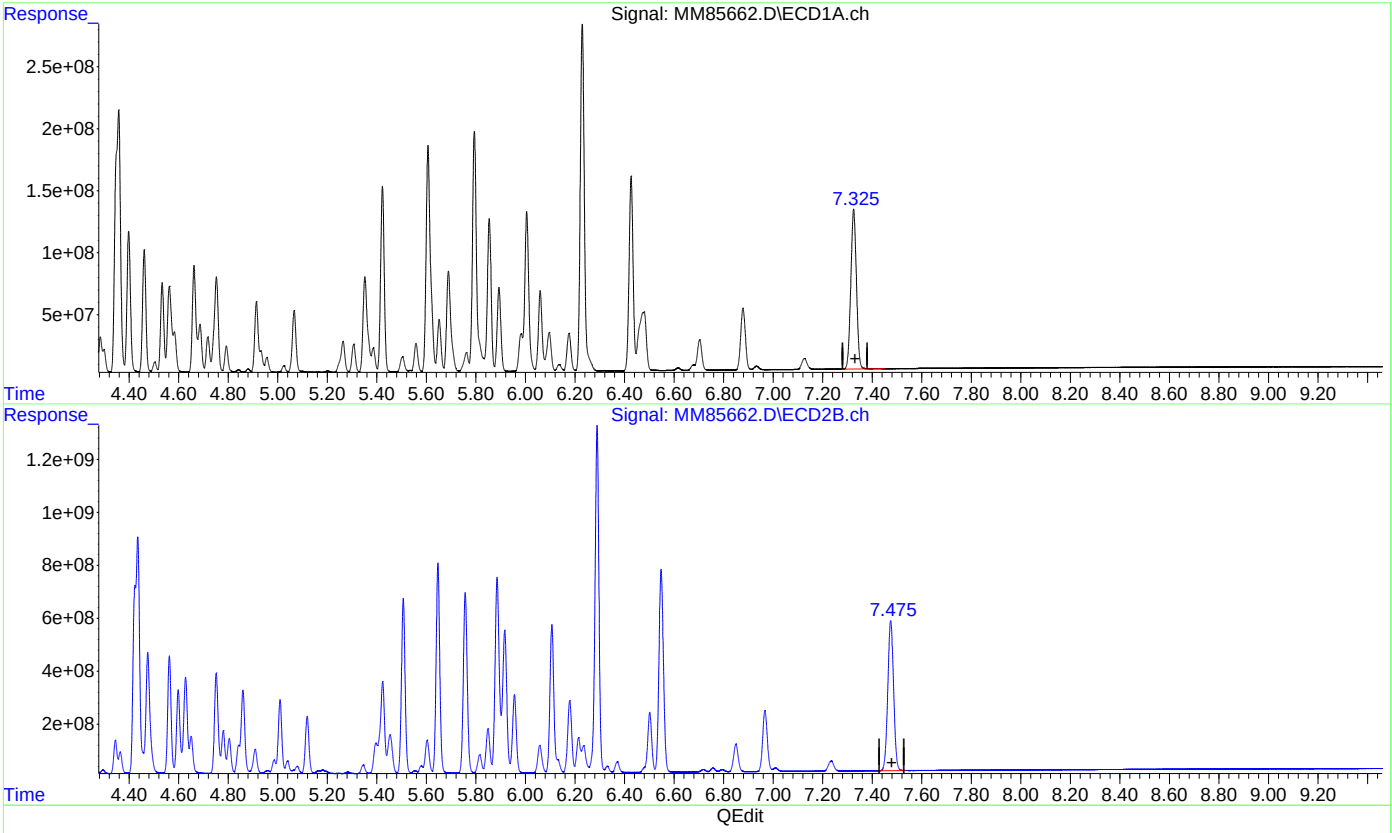
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85662.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:25 pm
Operator : eduardom
Sample : ic1833-1000 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 17 17:40:23 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.325min 96.361 ppb m

response 129121972

(55) Decachlorobiphenyl #2 (S)

7.475min 100.440 ppb m

response 566863529

(+) = Expected Retention Time

MM85664.D

Manual Integrations APPROVED (compounds with "m" flag)

Naresh Jiawan 10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85664.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:49 pm
Operator : eduardom
Sample : ic1833-20 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 17 17:43:25 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.130	3.184	940863	4319925	29.805	34.579m
9)	L2 AR1221-B	3.434	3.500	286385	1322689	27.041	29.343m
10)	L2 AR1221-C	3.692	3.747	1122125	6351627	25.142m	30.678m
11)	L2 AR1221-D	3.754	3.816	854800	4434156	26.526m	30.321m
12)	L2 AR1221-E	3.804	3.877	2962497	14842732	25.393m	30.120m
	Sum AR1221-A			6166670	31271128	133.907	155.041
	Average AR1221-A					26.781	31.008
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.915	5.010	3338355	21885890	25.099	28.352
32)	L6 AR1254-B	5.065	5.119	4421263	19253598	25.518	29.668
33)	L6 AR1254-C	5.307	5.411	5194874	24793154	24.639	27.776
34)	L6 AR1254-D	5.505	5.580	3698845	17417075	23.843	29.384
35)	L6 AR1254-E	5.687	5.809	2698964	11062825	24.440	27.439
36)	L6 AR1254-F	5.795	5.886	3959335	18121240	24.675	27.619
	Sum AR1254-A			23311636	112.5E6	148.214	170.236
	Average AR1254-A					24.702	28.373
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

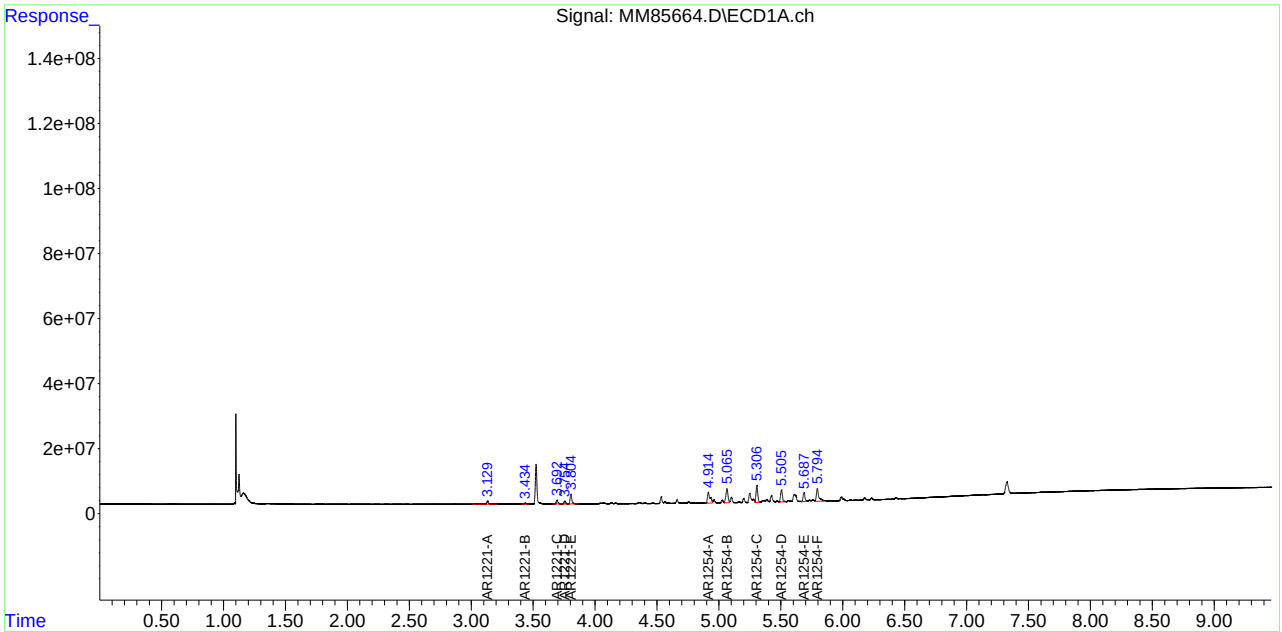
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

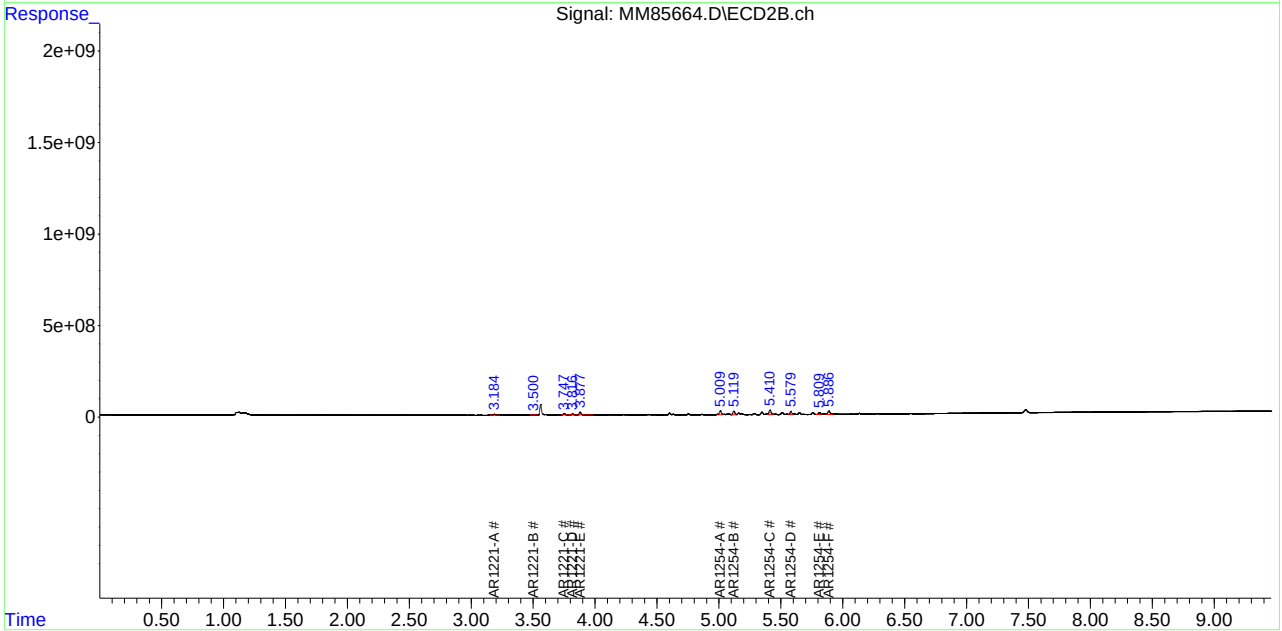
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85664.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:49 pm
Operator : eduardom
Sample : ic1833-20 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 17 17:43:25 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85664.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 12:49 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

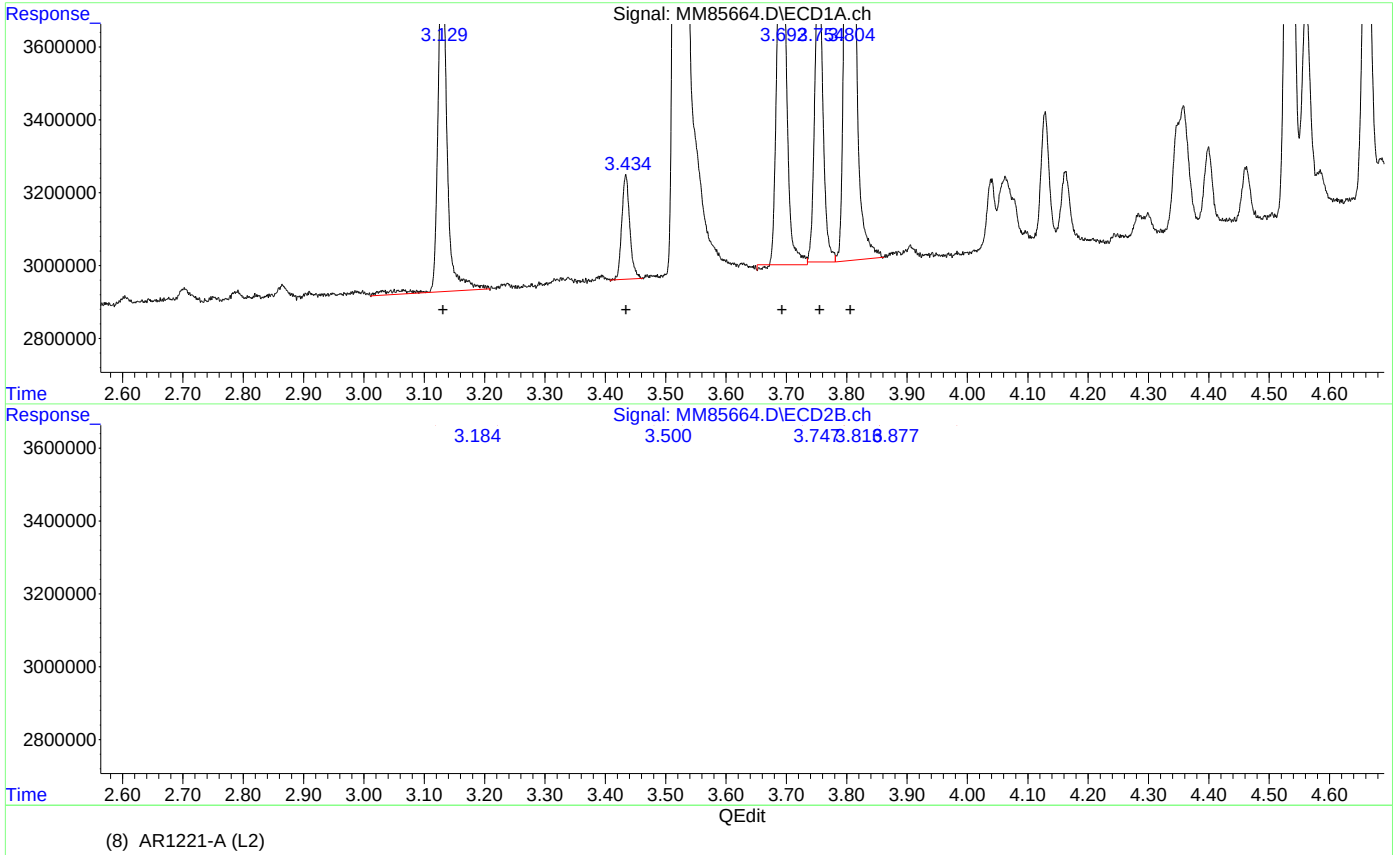
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-A		2	3.18	Poor instrument integration
AR1221-B		2	3.50	Poor instrument integration
AR1221-C		1	3.69	Poor instrument integration
AR1221-D		1	3.75	Poor instrument integration
AR1221-C		2	3.75	Poor instrument integration
AR1221-E		1	3.80	Poor instrument integration
AR1221-D		2	3.82	Poor instrument integration
AR1221-E		2	3.88	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85664.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:49 pm
Operator : eduardom
Sample : ic1833-20 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 17 17:42:30 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(8) AR1221-A (L2)

R.T.	Response	Conc
3.13	940863	29.80
3.43	286385	27.04
3.69	1121315	25.12
3.75	849394	26.36
3.81	2955995	25.34

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	4939987	39.54
3.50	2317442	51.41
3.75	6783327	32.76
3.82	4723546	32.30
3.88	15029256	30.50

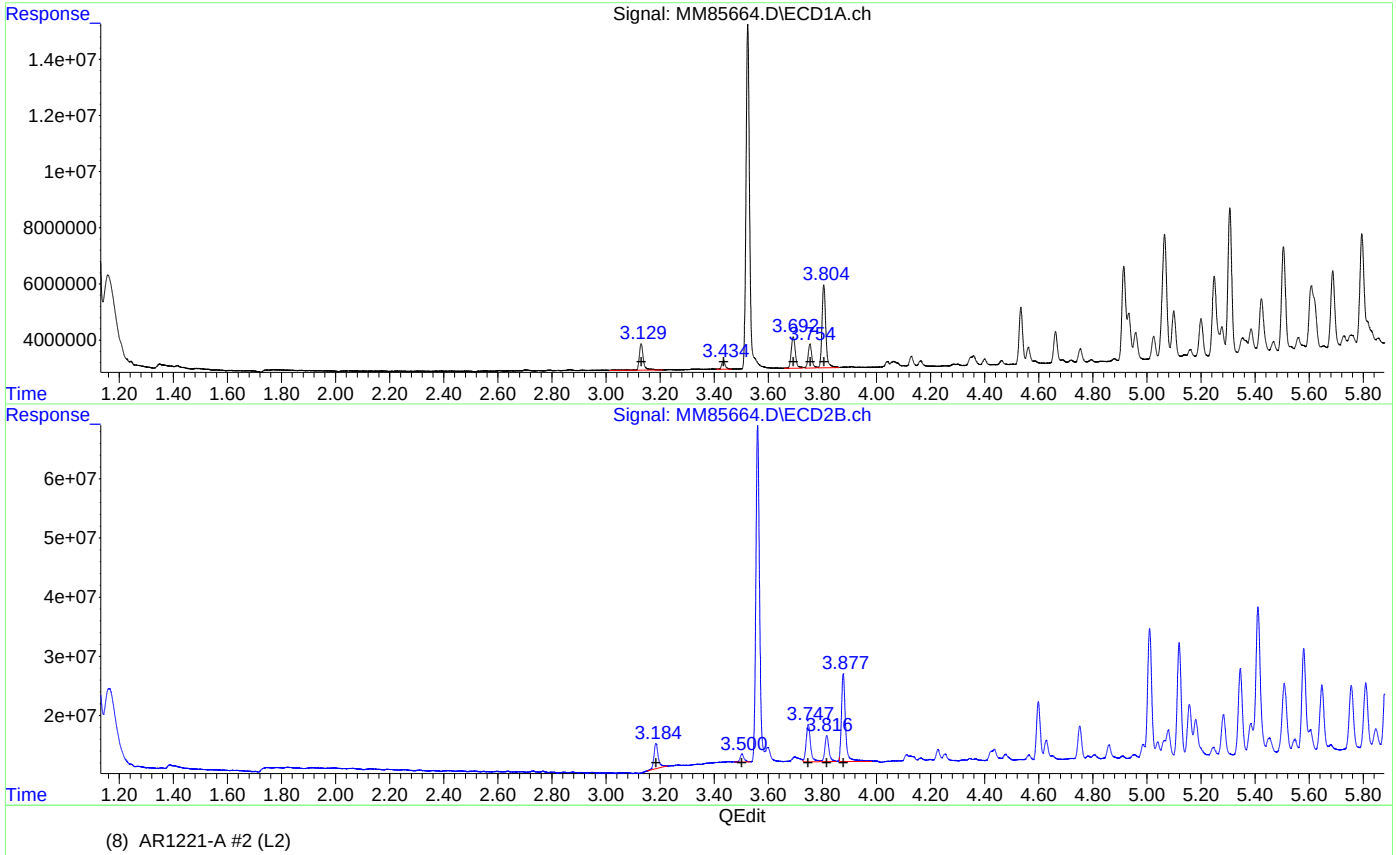
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85664.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:49 pm
Operator : eduardom
Sample : ic1833-20 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 17 17:42:30 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.13	940863	29.80
3.43	286385	27.04
3.69	1122125	25.14
3.75	854800	26.53
3.80	2962497	25.39

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	4319925	34.58
3.50	1322689	29.34
3.75	6351627	30.68
3.82	4434156	30.32
3.88	14842732	30.12

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85665.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:00 pm
Operator : eduardom
Sample : ic1833-50 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 17 17:46:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.130	3.184	1884964	8030281	59.712	64.278m
9)	L2 AR1221-B	3.434	3.502	613764	2811524	57.952	62.372m
10)	L2 AR1221-C	3.692	3.747	2376591	12513466	53.249m	60.439m
11)	L2 AR1221-D	3.753	3.816	1728093	8813986	53.626m	60.271m
12)	L2 AR1221-E	3.805	3.877	6372725	29568851	54.624m	60.003m
	Sum AR1221-A			12976137	61738108	279.163	307.363
	Average AR1221-A					55.833	61.473
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.915	5.009	6964481	44287969	52.361	57.373
32)	L6 AR1254-B	5.066	5.119	9071521	37582840	52.358	57.911
33)	L6 AR1254-C	5.307	5.410	11389744	49946311	54.021	55.954
34)	L6 AR1254-D	5.505	5.580	7895541	34407097	50.896	58.047
35)	L6 AR1254-E	5.687	5.809	5737946	22682953	51.959	56.260
36)	L6 AR1254-F	5.794	5.886	8510589	37030407	53.038	56.438
	Sum AR1254-A			49569821	225.9E6	314.633	341.983
	Average AR1254-A					52.439	56.997
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

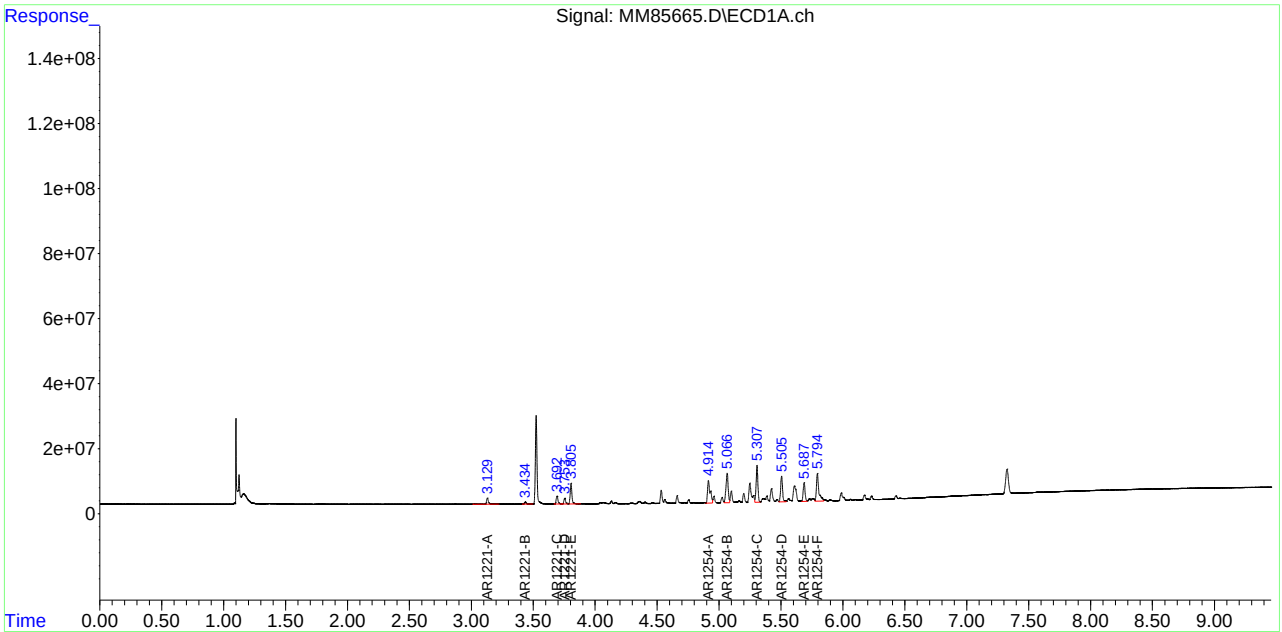
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

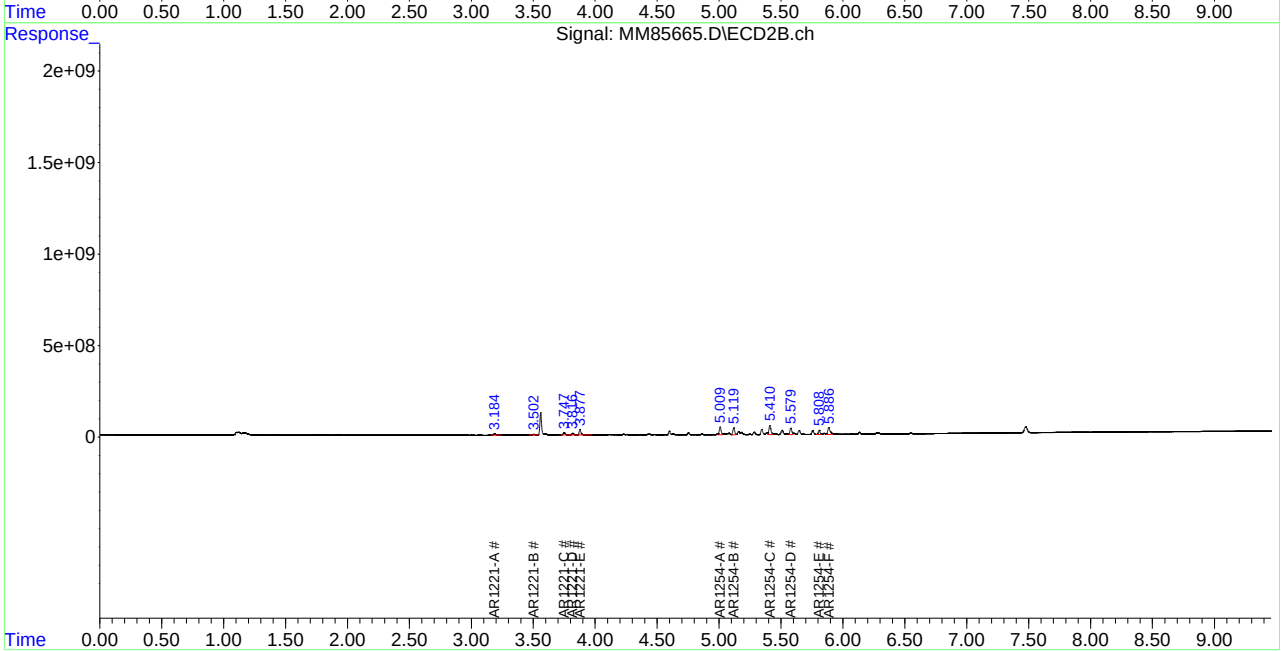
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85665.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:00 pm
Operator : eduardom
Sample : ic1833-50 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 17 17:46:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85665.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 13:00 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

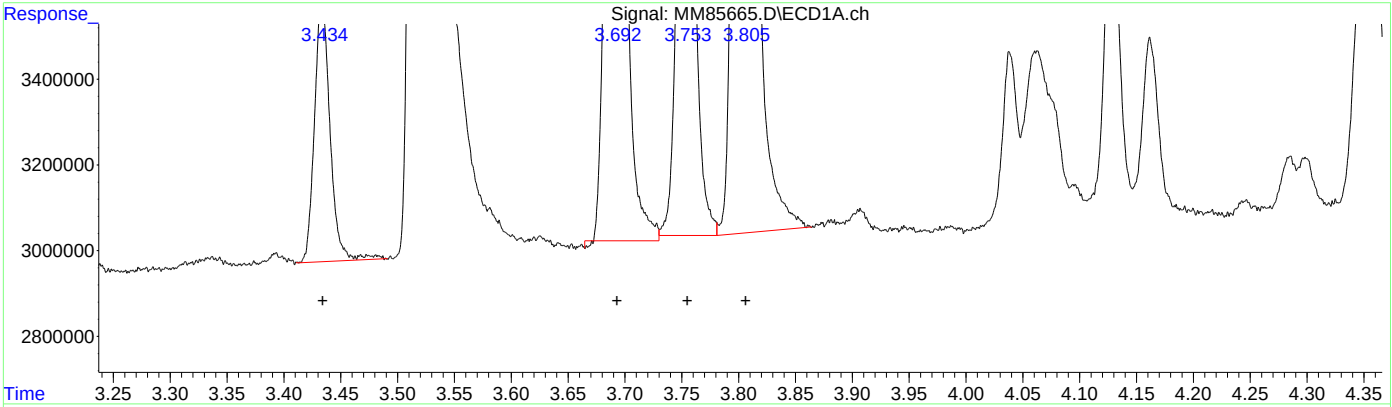
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-A		2	3.18	Poor instrument integration
AR1221-B		2	3.50	Poor instrument integration
AR1221-C		1	3.69	Poor instrument integration
AR1221-D		1	3.75	Poor instrument integration
AR1221-C		2	3.75	Poor instrument integration
AR1221-E		1	3.80	Poor instrument integration
AR1221-D		2	3.82	Poor instrument integration
AR1221-E		2	3.88	Poor instrument integration

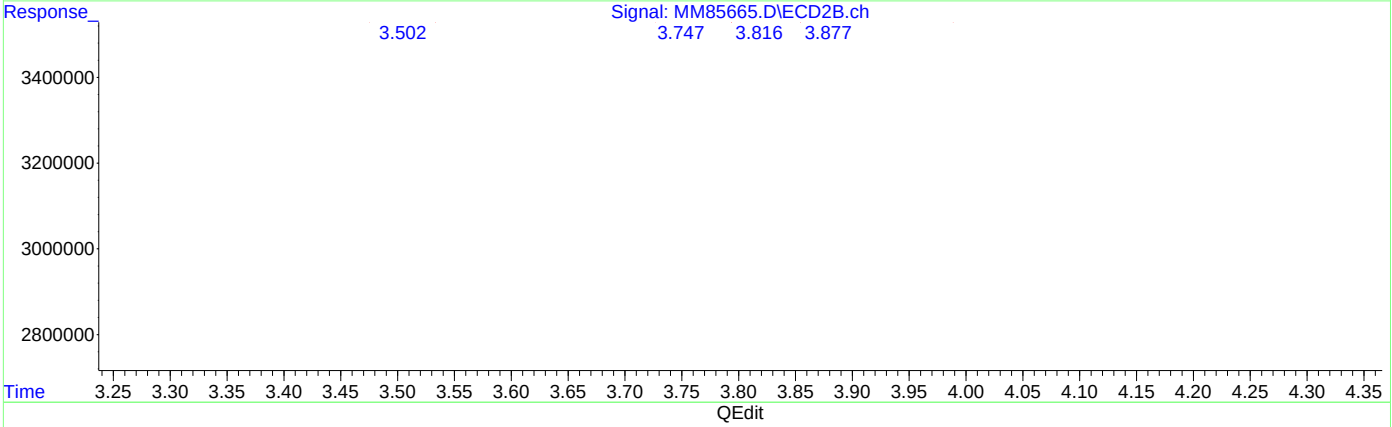
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85665.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:00 pm
Operator : eduardom
Sample : ic1833-50 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 17 17:43:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





(8) AR1221-A (L2)

R.T.	Response	Conc
3.13	1884964	59.71
3.43	613764	57.95
3.69	2364725	52.98
3.75	1707574	52.99
3.81	6292488	53.94

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	8740721	69.97
3.50	4060808	90.09
3.75	13427550	64.85
3.82	9586058	65.55
3.88	30261191	61.41

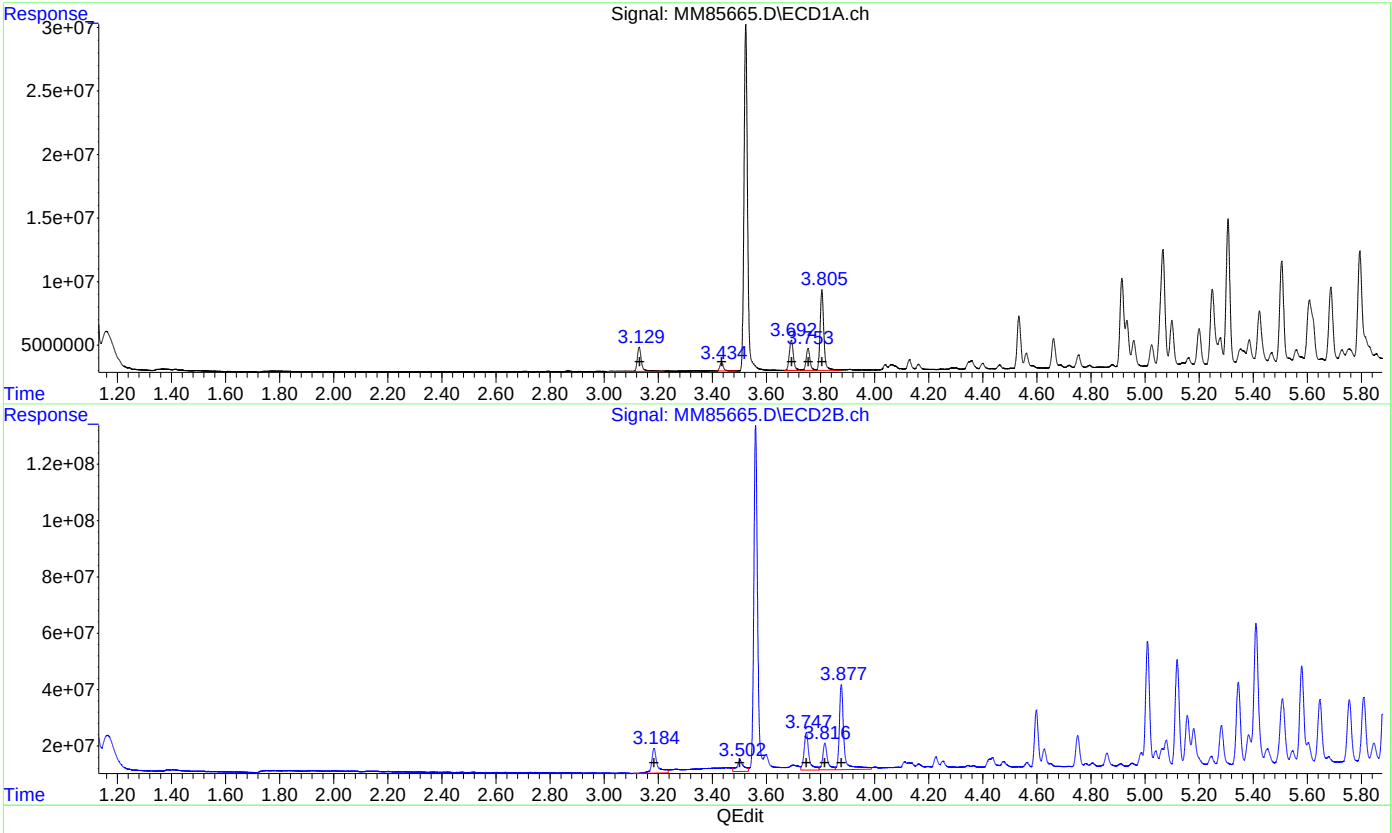
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85665.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:00 pm
Operator : eduardom
Sample : ic1833-50 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 17 17:43:29 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.13	1884964	59.71
3.43	613764	57.95
3.69	2376591	53.25
3.75	1728093	53.63
3.80	6372725	54.62

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	8740721	69.97
3.50	4060808	90.09
3.75	13427550	64.85
3.82	9586058	65.55
3.88	30261191	61.41

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85666.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:12 pm
Operator : eduardom
Sample : ic1833-200 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 17 17:47:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.130	3.184	6340204	25351000	200.845	202.922m
9)	L2 AR1221-B	3.434	3.501	2143042	9009290	202.348	199.865m
10)	L2 AR1221-C	3.692	3.747	9132164	42439585	204.611	204.980m
11)	L2 AR1221-D	3.754	3.816	6468894	30147015	200.743	206.148m
12)	L2 AR1221-E	3.805	3.877	23917894	103.5E6	205.013	209.990m
	Sum AR1221-A			48002198	210.4E6	1013.560	1023.905
	Average AR1221-A					202.712	204.781
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.914	5.010	27008920	166.3E6	203.061	215.402
32)	L6 AR1254-B	5.065	5.119	35814211	139.7E6	206.709	215.324
33)	L6 AR1254-C	5.307	5.411	45483209	190.4E6	215.724	213.248
34)	L6 AR1254-D	5.505	5.580	32493346	130.2E6	209.457	219.587
35)	L6 AR1254-E	5.687	5.809	23932345	86221547	216.716	213.854
36)	L6 AR1254-F	5.794	5.886	34281688	139.1E6	213.643	212.020
	Sum AR1254-A			199.0E6	851.9E6	1265.310	1289.437
	Average AR1254-A					210.885	214.906
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

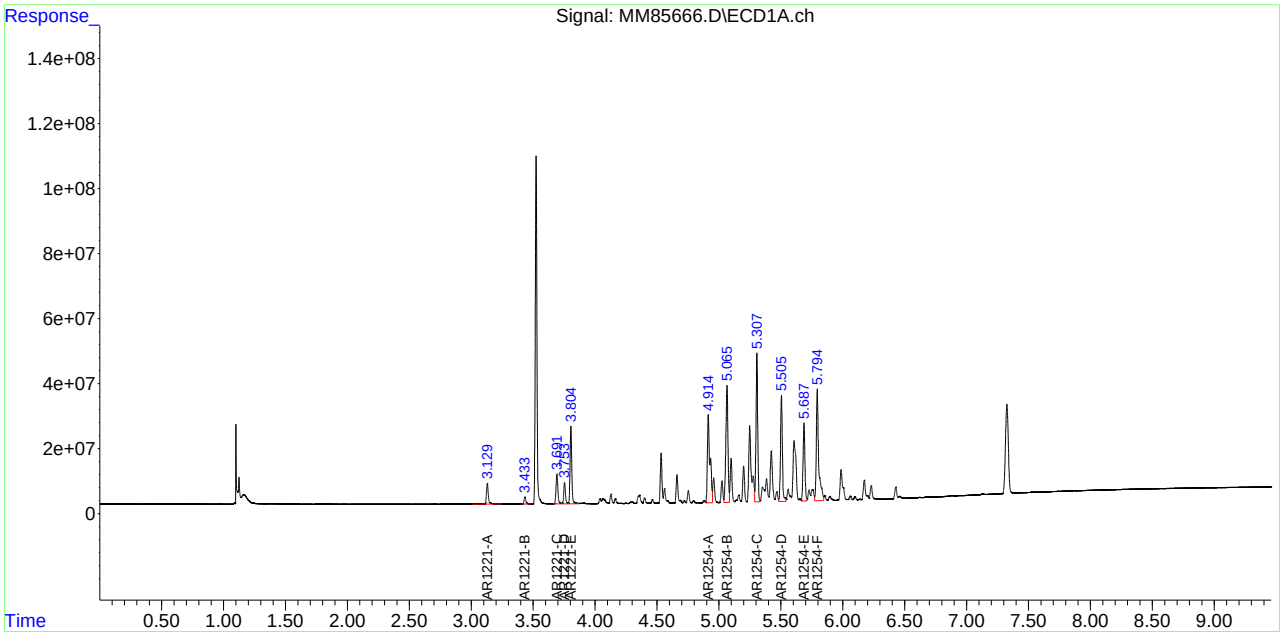
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

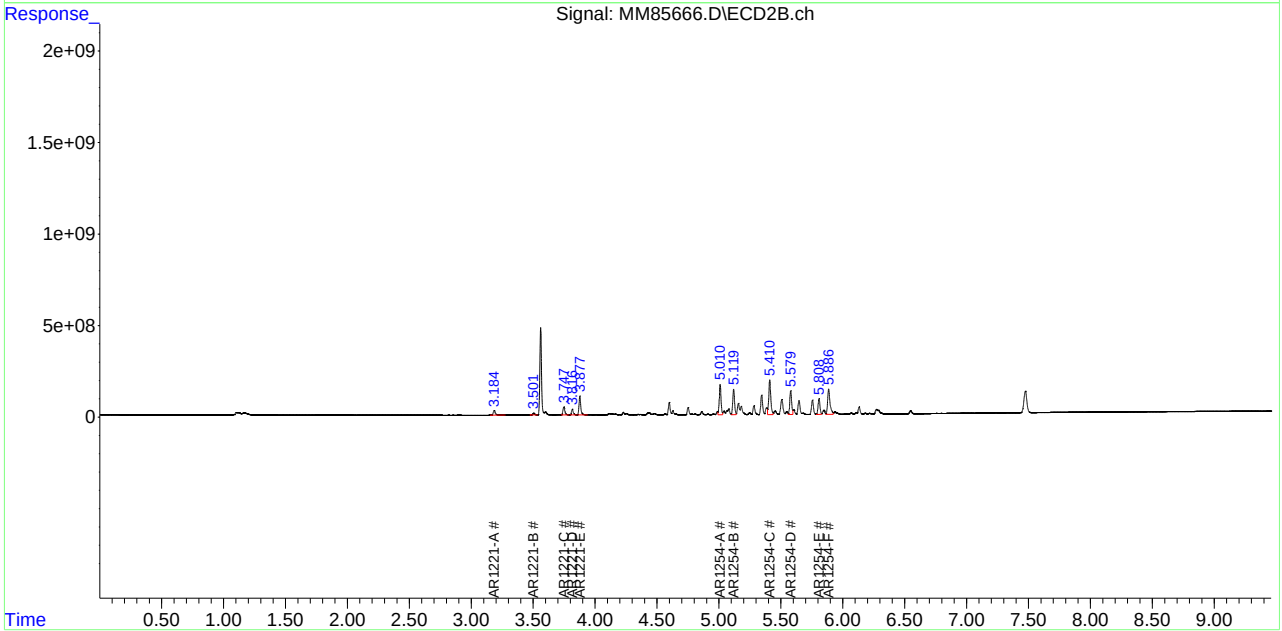
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85666.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:12 pm
Operator : eduardom
Sample : ic1833-200 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 17 17:47:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





SGS FC10955

12.5.9 12

Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85666.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 13:12 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

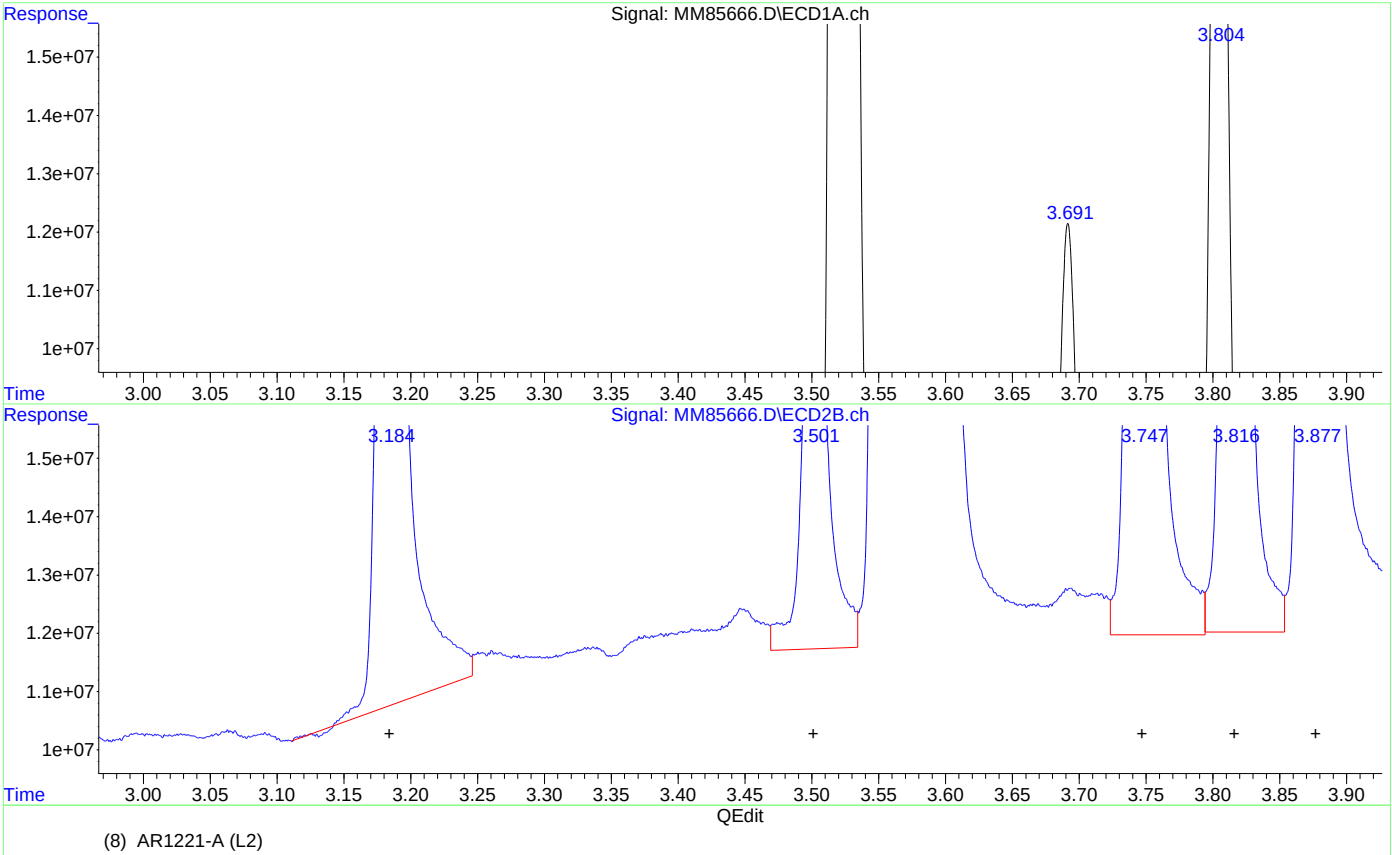
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1221-A		2	3.18	Poor instrument integration
AR1221-B		2	3.50	Poor instrument integration
AR1221-C		2	3.75	Poor instrument integration
AR1221-D		2	3.82	Poor instrument integration
AR1221-E		2	3.88	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85666.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:12 pm
Operator : eduardom
Sample : ic1833-200 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 17 17:46:35 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(8) AR1221-A (L2)

R.T.	Response	Conc
3.13	6340204	200.85
3.43	2143042	202.35
3.69	9132164	204.61
3.75	6468894	200.74
3.80	23917894	205.01

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	25523762	204.31
3.50	9424050	209.07
3.75	42928193	207.34
3.82	30613185	209.34
3.88	103618869	210.27

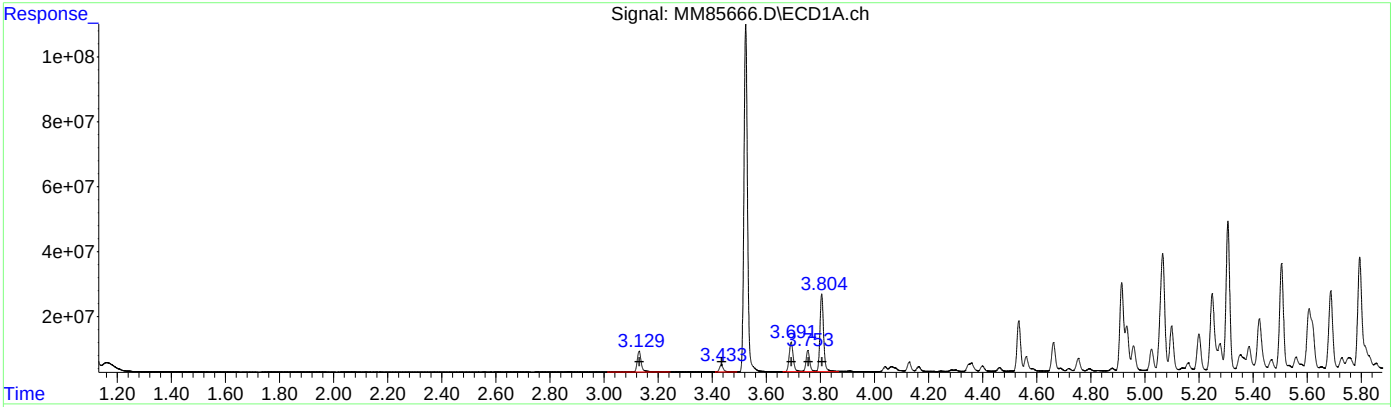
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85666.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:12 pm
Operator : eduardom
Sample : ic1833-200 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 17 17:46:35 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.13	6340204	200.85
3.43	2143042	202.35
3.69	9132164	204.61
3.75	6468894	200.74
3.80	23917894	205.01

(8) AR1221-A #2 (L2)

R.T.	Response	Conc
3.18	25351000	202.92
3.50	9009290	199.87
3.75	42439585	204.98
3.82	30147015	206.15
3.88	103480836	209.99

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85667.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:24 pm
Operator : eduardom
Sample : ic1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 17 17:49:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.129	3.184	11766428	44102994	372.738	353.023
9)	L2 AR1221-B	3.433	3.502	3869812	16494979	365.390	365.931
10)	L2 AR1221-C	3.692	3.748	18036436	81098212	404.116	391.698
11)	L2 AR1221-D	3.754	3.816	12980510	56945726	402.812	389.399
12)	L2 AR1221-E	3.805	3.877	46353782	194.0E6	397.323	393.717
	Sum AR1221-A			93006967	392.7E6	1942.379	1893.768
	Average AR1221-A					388.476	378.754
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.915	5.010	54439450	321.4E6	409.293	416.343
32)	L6 AR1254-B	5.066	5.119	71975738	276.5E6	415.422	426.127
33)	L6 AR1254-C	5.307	5.411	88248395	376.0E6	418.557	421.251
34)	L6 AR1254-D	5.507	5.580	63541127	253.5E6	409.595	427.728
35)	L6 AR1254-E	5.688	5.810	47702655	172.3E6	431.964	427.283
36)	L6 AR1254-F	5.795	5.886	66902360	277.1E6	416.935	422.340
	Sum AR1254-A			392.8E6	1676.9E6	2501.765	2541.072
	Average AR1254-A					416.961	423.512
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

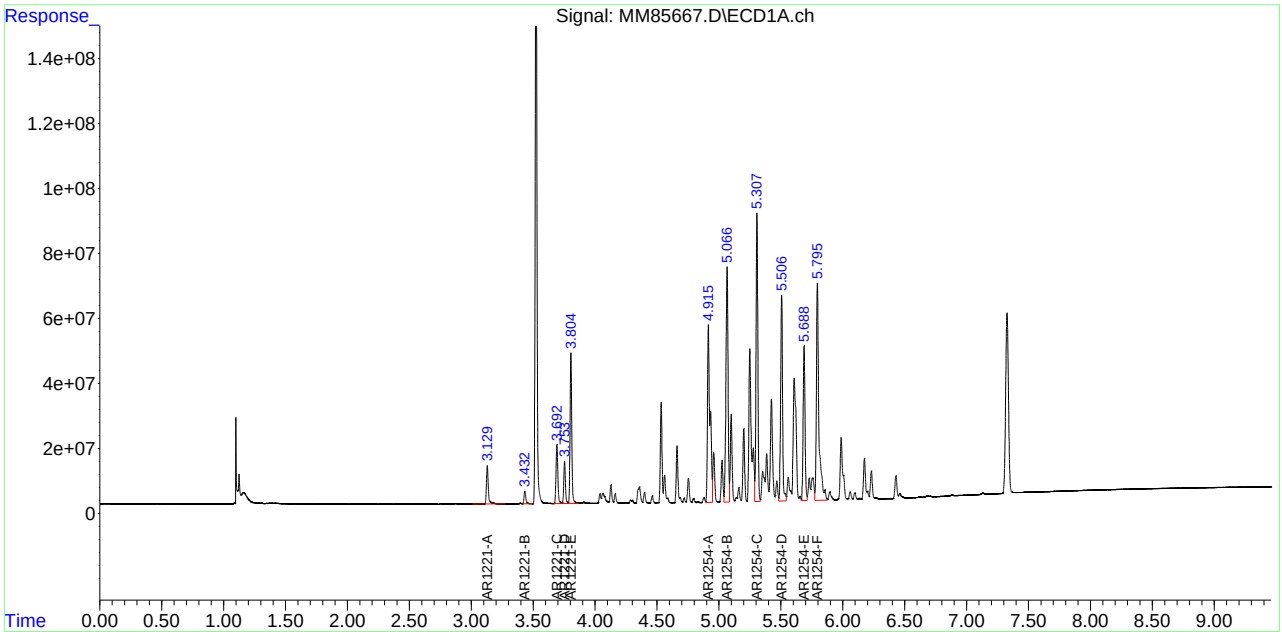
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

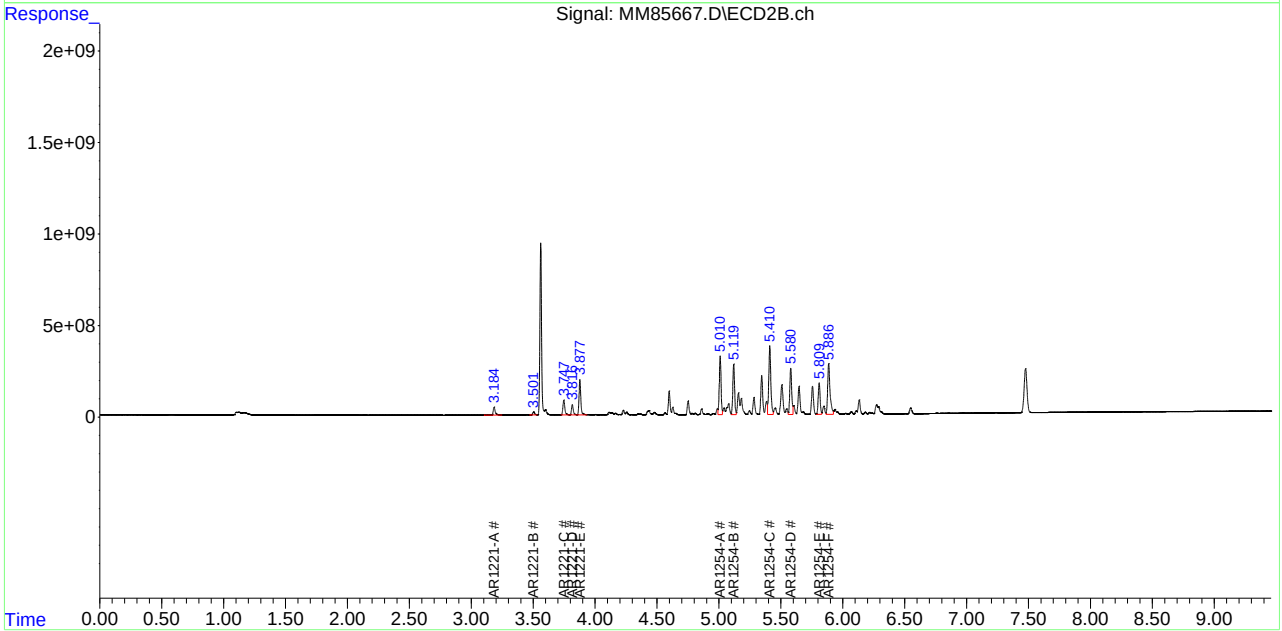
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85667.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:24 pm
Operator : eduardom
Sample : ic1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 17 17:49:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85668.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:35 pm
Operator : eduardom
Sample : ic1833-600 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 17 17:49:53 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
8) L2 AR1221-A	3.130	3.184	16652604	62527405	527.523	500.501
9) L2 AR1221-B	3.434	3.501	5539236	23662302	523.019	524.933
10) L2 AR1221-C	3.692	3.747	26088431	119.0E6	584.525	574.542
11) L2 AR1221-D	3.754	3.816	18740911	81509527	581.569	557.368
12) L2 AR1221-E	3.805	3.877	67340032	278.1E6	577.207	564.323
Sum AR1221-A			134.4E6	564.7E6	2793.843	2721.668
Average AR1221-A					558.769	544.334
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
31) L6 AR1254-A	4.915	5.010	79616175	486.0E6	598.579	629.608
32) L6 AR1254-B	5.067	5.119	104.5E6	410.9E6	603.260	633.207
33) L6 AR1254-C	5.308	5.411	130.9E6	562.3E6	620.679	629.965
34) L6 AR1254-D	5.507	5.580	92572229	384.5E6	596.734	648.714
35) L6 AR1254-E	5.688	5.809	72325514	263.6E6	654.933	653.749
36) L6 AR1254-F	5.796	5.886	98529440	416.9E6	614.035	635.408
Sum AR1254-A			578.4E6	2524.3E6	3688.219	3830.652
Average AR1254-A					614.703	638.442
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

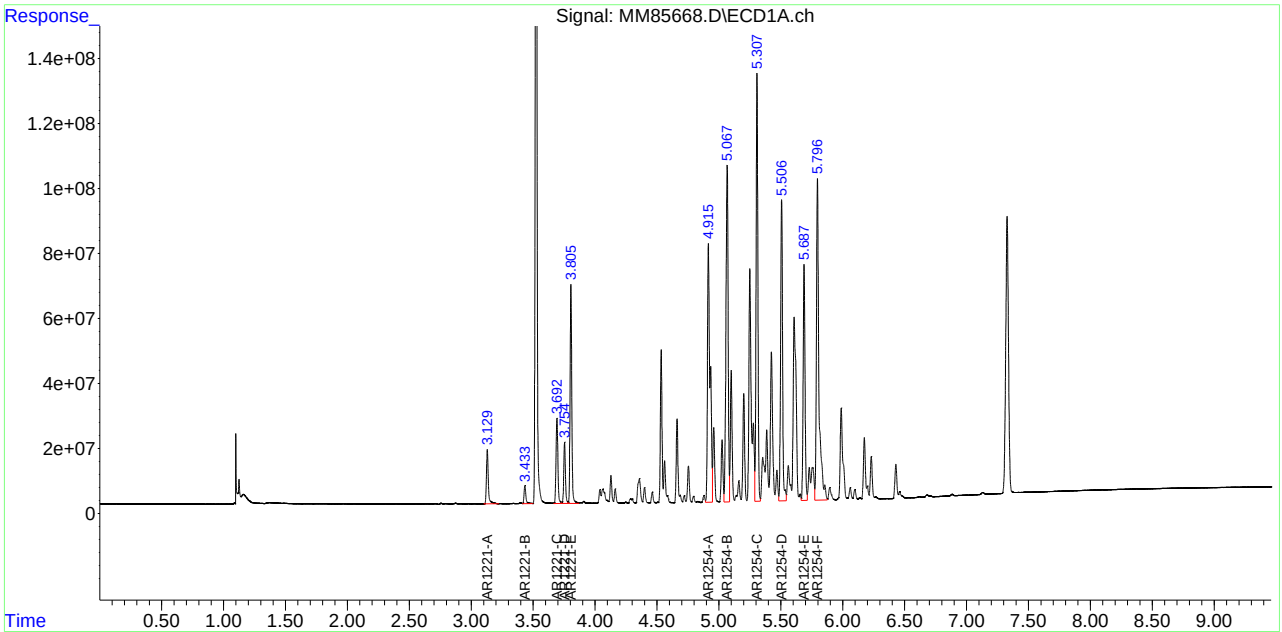
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

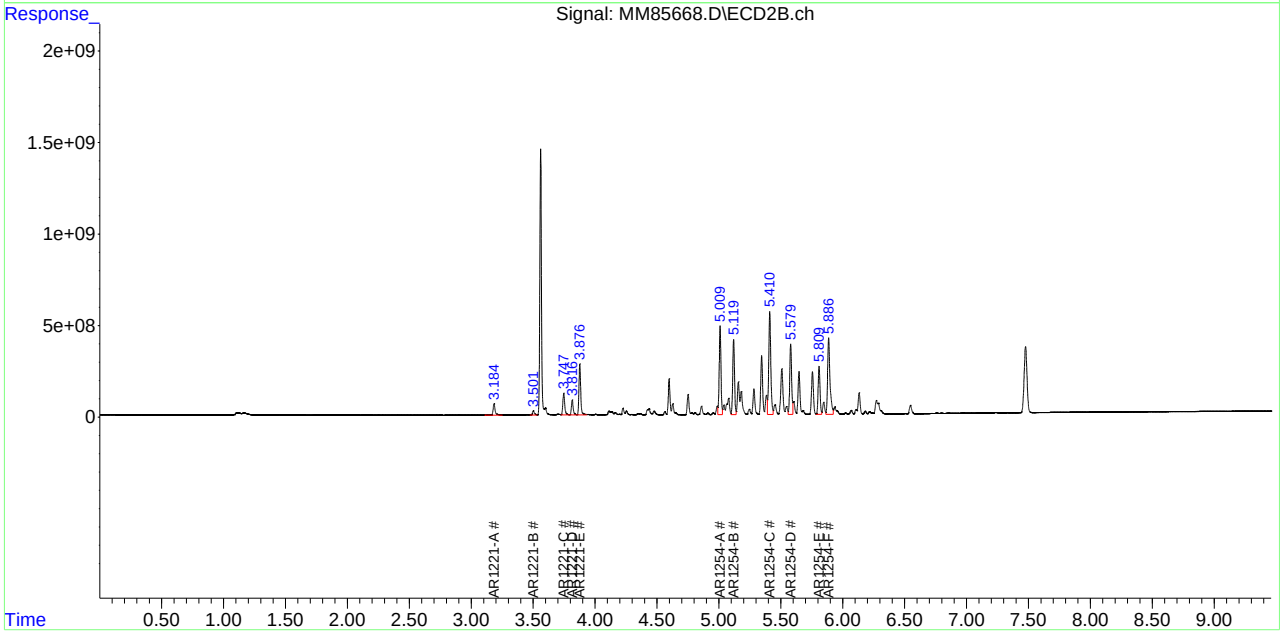
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85668.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:35 pm
Operator : eduardom
Sample : ic1833-600 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 17 17:49:53 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85669.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:47 pm
Operator : eduardom
Sample : ic1833-1000 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 17 17:51:08 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.129	3.184	26832392	98503248	849.999	788.471
9)	L2 AR1221-B	3.433	3.502	8789508	35011335	829.912	776.705
10)	L2 AR1221-C	3.692	3.748	43590381	187.2E6	976.666	904.308
11)	L2 AR1221-D	3.754	3.816	30488264	127.1E6	946.113	869.415
12)	L2 AR1221-E	3.805	3.877	107.8E6	439.2E6	923.900	891.249
	Sum AR1221-A			217.5E6	887.1E6	4526.589	4230.148
Average	AR1221-A					905.318	846.030
	Sum AR1232-A			0	0	N.D.	N.D.
Average	AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.915	5.010	136.4E6	785.3E6	1025.534	1017.251
32)	L6 AR1254-B	5.066	5.119	176.9E6	676.2E6	1020.793	1041.878
33)	L6 AR1254-C	5.308	5.411	228.2E6	944.0E6	1082.255	1057.529
34)	L6 AR1254-D	5.506	5.580	161.0E6	647.2E6	1037.823	1091.847
35)	L6 AR1254-E	5.688	5.809	120.3E6	424.9E6	1089.659	1053.903
36)	L6 AR1254-F	5.795	5.887	173.2E6	688.1E6	1079.326	1048.771
	Sum AR1254-A			996.0E6	4165.6E6	6335.390	6311.180
Average	AR1254-A					1055.898	1051.863
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
Average	AR1268-A					0.000	0.000

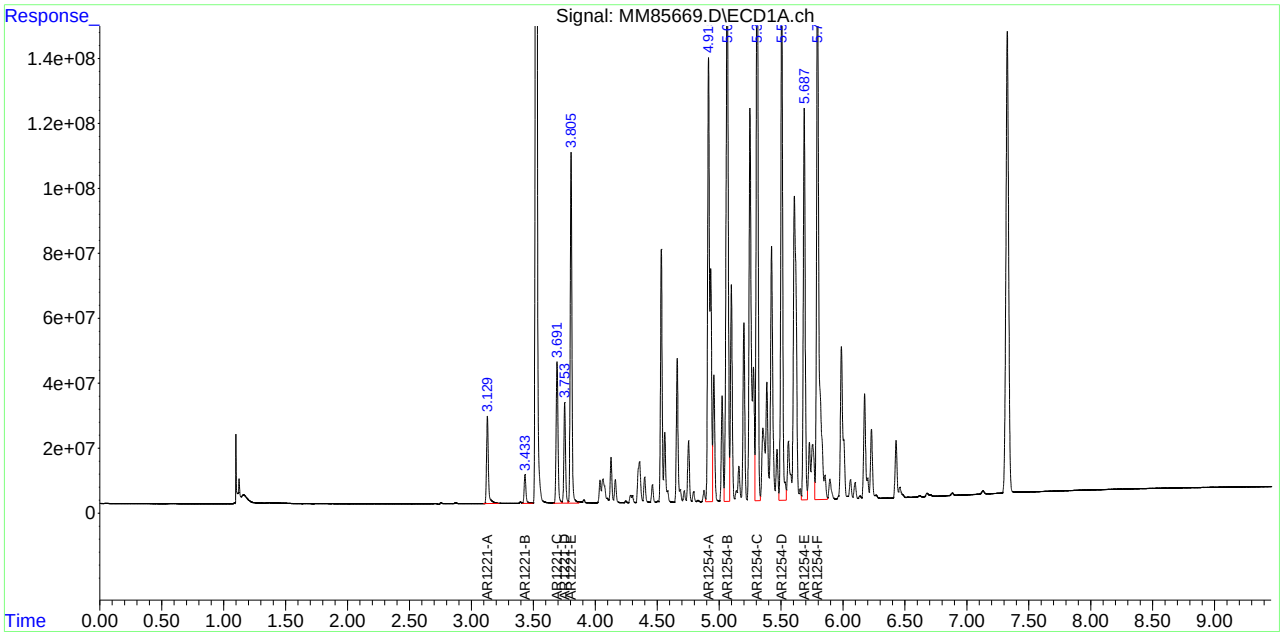
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

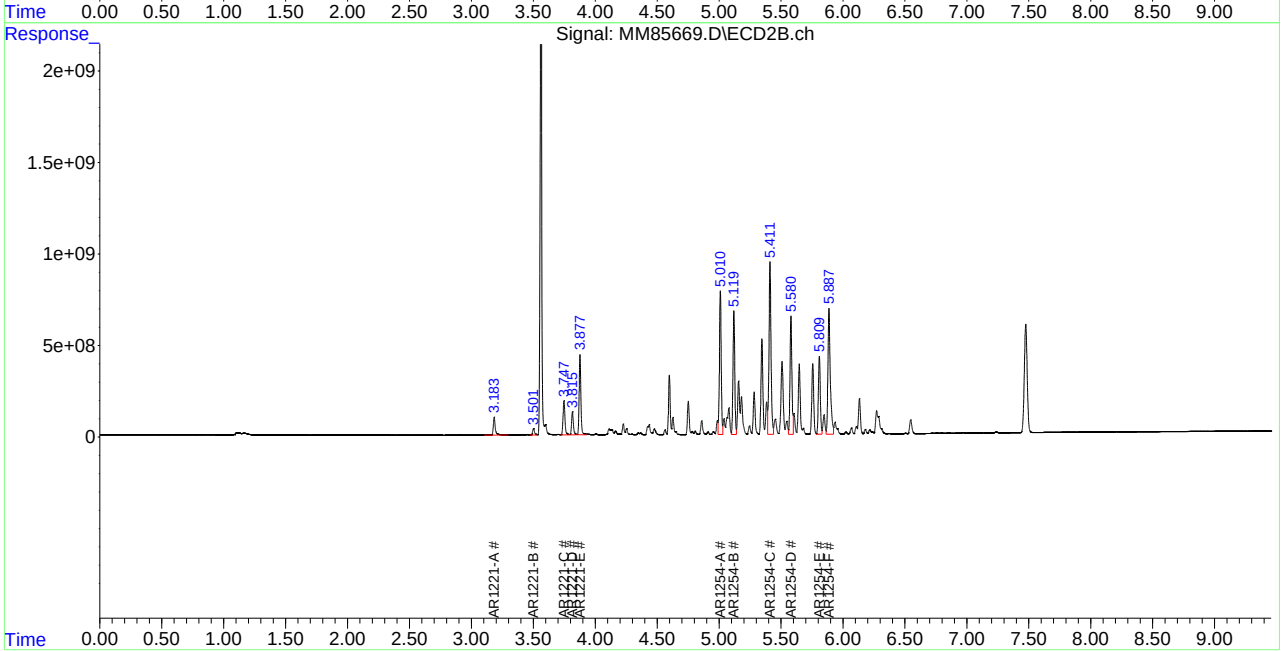
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85669.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:47 pm
Operator : eduardom
Sample : ic1833-1000 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 17 17:51:08 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:52:44 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
13)	L3 AR1232-A	3.806	3.876	2205807	10505564	24.542	28.323m
14)	L3 AR1232-B	4.039	4.110	1322069	6302808	26.005	29.650m
15)	L3 AR1232-C	4.163	4.252	1232869	6003273	26.105	29.478m
16)	L3 AR1232-D	4.357	4.434	2372715	11168664	23.377	26.810m
17)	L3 AR1232-E	4.462	4.562	1104810	5508117	23.871	26.949m
18)	L3 AR1232-F	4.663	4.751	981638	4931244	25.253	29.265m
	Sum AR1232-A			9219906	44419669	149.152	170.475
	Average AR1232-A					24.859	28.412
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
49)	L8 AR1268-A	5.855	5.917	1671041	7881790	25.242	28.286
50)	L8 AR1268-B	6.023	6.107	1911085	9286973	25.114	28.469
51)	L8 AR1268-C	6.426	6.501	8126014	33573684	25.436m	25.217m
52)	L8 AR1268-D	6.482	6.550	6742954	29999206	25.441m	25.313m
53)	L8 AR1268-E	6.616	6.717	5446564	23374931	24.942m	24.994m
54)	L8 AR1268-F	6.879	6.968	2140287	10196776	24.434	26.998m
	Sum AR1268-A			26037946	114.3E6	150.609	159.278
	Average AR1268-A					25.101	26.546

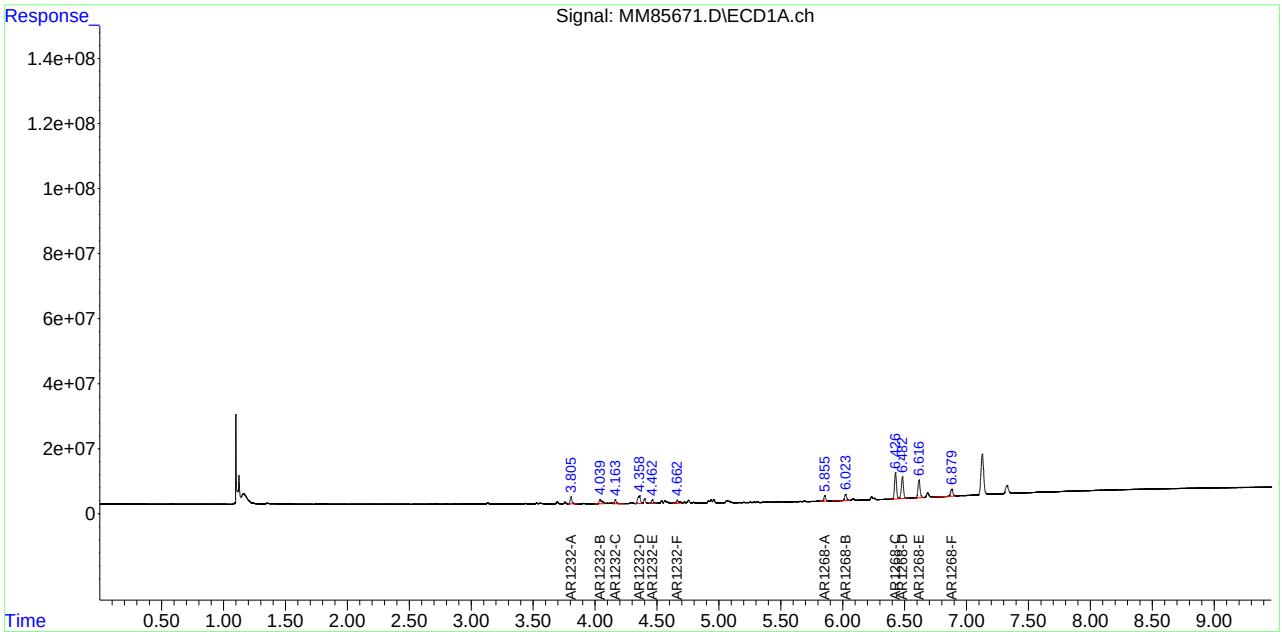
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

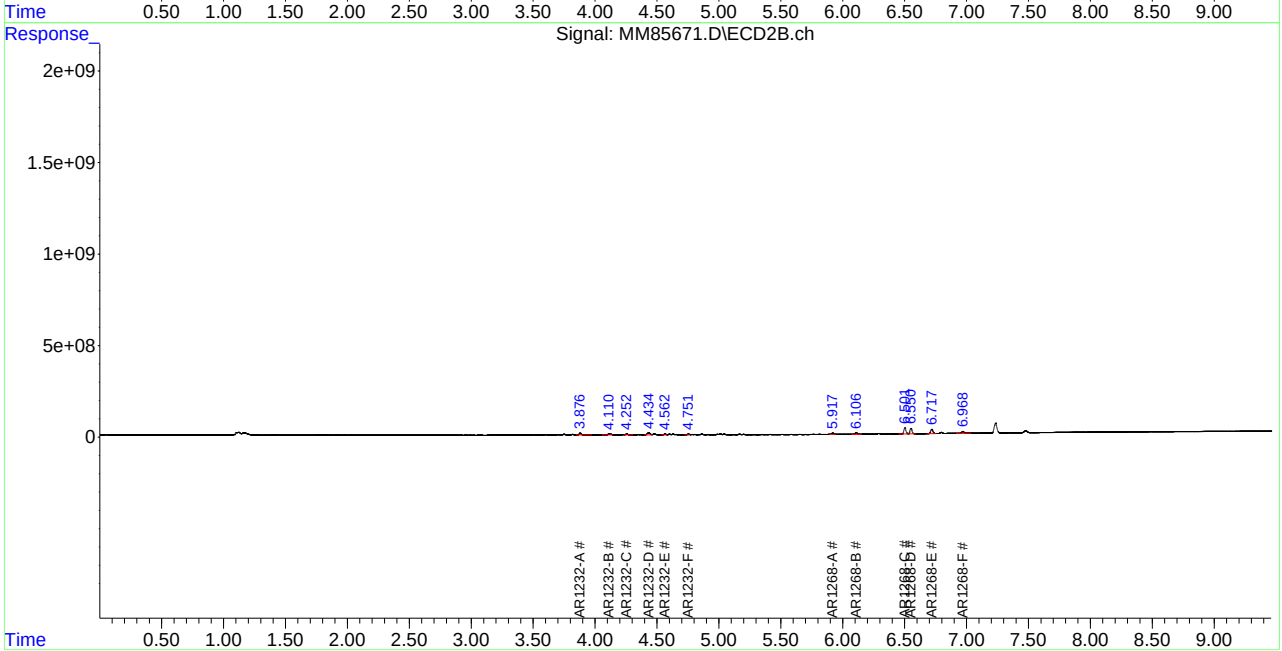
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:52:44 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.13 12

FC10955

Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85671.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 14:10 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

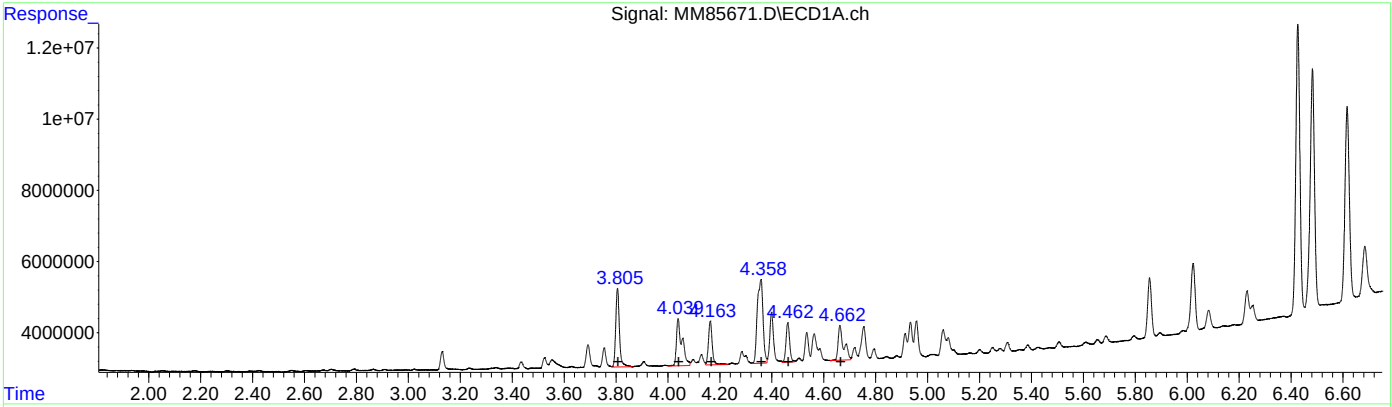
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		2	3.88	Poor instrument integration
AR1232-B		2	4.11	Poor instrument integration
AR1232-C		2	4.25	Poor instrument integration
AR1232-D		2	4.43	Poor instrument integration
AR1232-E		2	4.56	Poor instrument integration
AR1232-F		2	4.75	Poor instrument integration
AR1268-C		1	6.43	Poor instrument integration
AR1268-D		1	6.48	Poor instrument integration
AR1268-C		2	6.50	Poor instrument integration
AR1268-D		2	6.55	Poor instrument integration
AR1268-E		1	6.62	Poor instrument integration
AR1268-E		2	6.72	Poor instrument integration
AR1268-F		2	6.97	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:51:20 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(13) AR1232-A (L3)

R.T.	Response	Conc
3.81	2205807	24.54
4.04	1322069	26.00
4.16	1232869	26.10
4.36	2372715	23.38
4.46	1104810	23.87
4.66	981638	25.25

(13) AR1232-A #2 (L3)

R.T.	Response	Conc
3.88	11523307	31.07
4.11	7132838	33.55
4.25	6628980	32.55
4.43	11651379	27.97
4.56	6003901	29.38
4.75	5139189	30.50

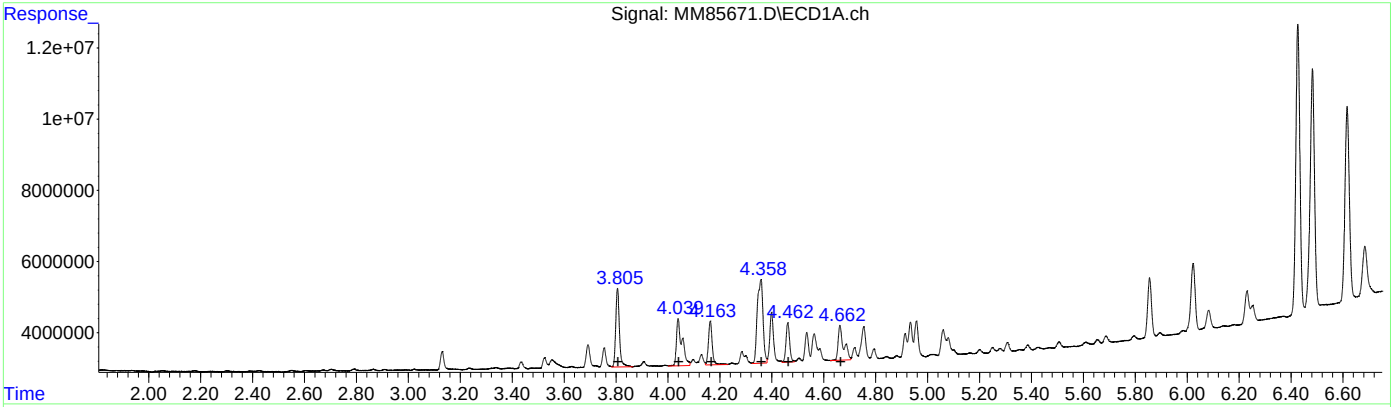
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:51:20 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(13) AR1232-A #2 (L3)

R.T.	Response	Conc
3.81	2205807	24.54
4.04	1322069	26.00
4.16	1232869	26.10
4.36	2372715	23.38
4.46	1104810	23.87
4.66	981638	25.25

(13) AR1232-A #2 (L3)

R.T.	Response	Conc
3.88	10505564	28.32
4.11	6302808	29.65
4.25	6003273	29.48
4.43	11168664	26.81
4.56	5508117	26.95
4.75	4931244	29.26

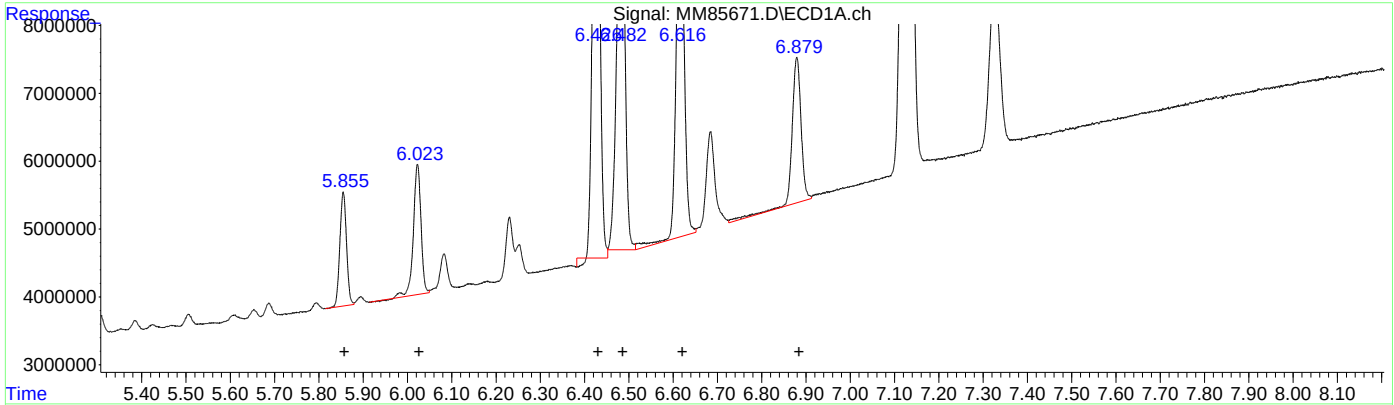
(+) = Expected Retention Time

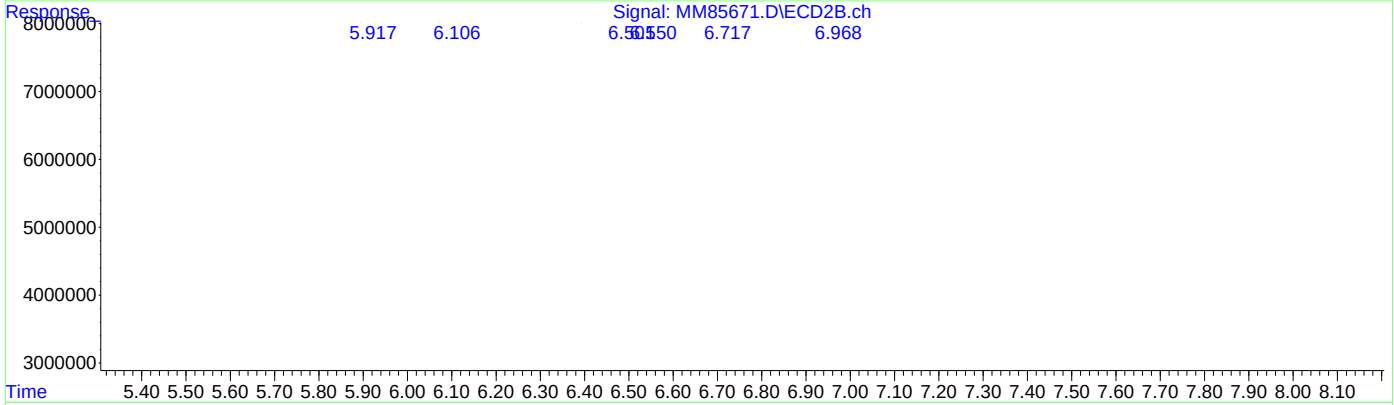
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:51:20 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(49) AR1268-A (L8)

R.T.	Response	Conc
5.86	1671041	25.24
6.02	1911085	25.11
6.43	8149262	25.51
6.48	6749544	25.47
6.62	5457505	24.99
6.88	2140287	24.43

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.92	7881790	28.29
6.11	9286973	28.47
6.50	33854057	25.43
6.55	30254236	25.53
6.72	24170014	25.84
6.97	11520442	30.50

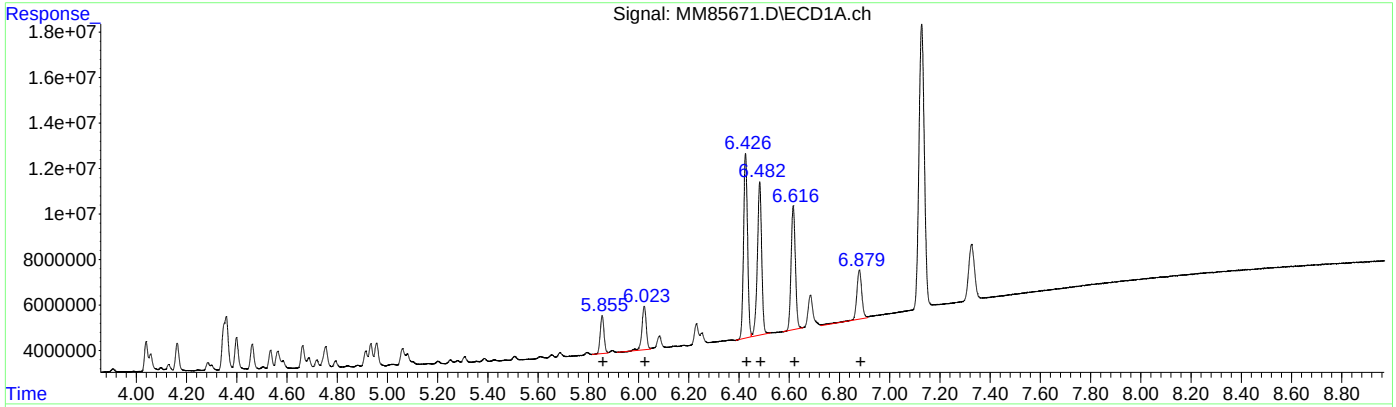
(+) = Expected Retention Time

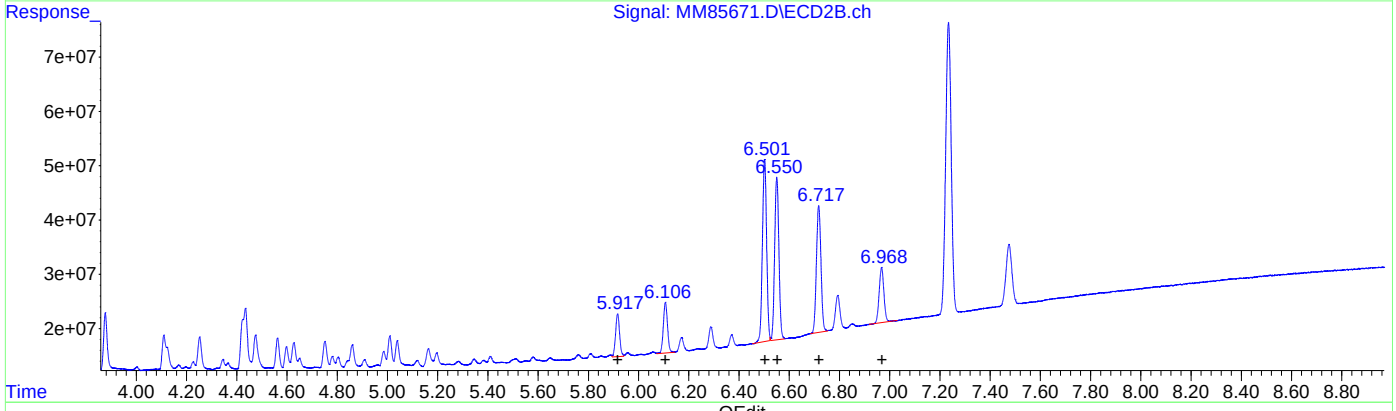
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85671.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic1833-20 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 17 17:51:20 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.86	1671041	25.24
6.02	1911085	25.11
6.43	8126014	25.44
6.48	6742954	25.44
6.62	5446564	24.94
6.88	2140287	24.43

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.92	7881790	28.29
6.11	9286973	28.47
6.50	33573684	25.22
6.55	29999206	25.31
6.72	23374931	24.99
6.97	10196776	27.00

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85672.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:22 pm
Operator : eduardom
Sample : ic1833-50 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 17 17:56:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
13) L3	AR1232-A	3.805	3.876	4699233	22186950	52.283	59.817m
14) L3	AR1232-B	4.039	4.110	2776848	12955443	54.620	60.946m
15) L3	AR1232-C	4.163	4.252	2576944	12077189	54.564	59.302m
16) L3	AR1232-D	4.357	4.435	5001005	23525334	49.272	56.472m
17) L3	AR1232-E	4.462	4.562	2394575	11564486	51.739	56.581m
18) L3	AR1232-F	4.663	4.751	2098622	10299752	53.987	61.124m
	Sum AR1232-A			19547228	92609153	316.466	354.241
Average	AR1232-A					52.744	59.040
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
49) L8	AR1268-A	5.855	5.916	3557377	16976372	53.735	60.924
50) L8	AR1268-B	6.023	6.107	4170960	20237680	54.812	62.039
51) L8	AR1268-C	6.426	6.502	17799472	74110748	55.716m	55.664m
52) L8	AR1268-D	6.483	6.551	14312901	64532774	54.002m	54.453m
53) L8	AR1268-E	6.616	6.718	11729693	51390620	53.715m	54.951m
54) L8	AR1268-F	6.880	6.968	4613020	20923366	52.663	55.399m
	Sum AR1268-A			56183422	248.2E6	324.644	343.430
Average	AR1268-A					54.107	57.238

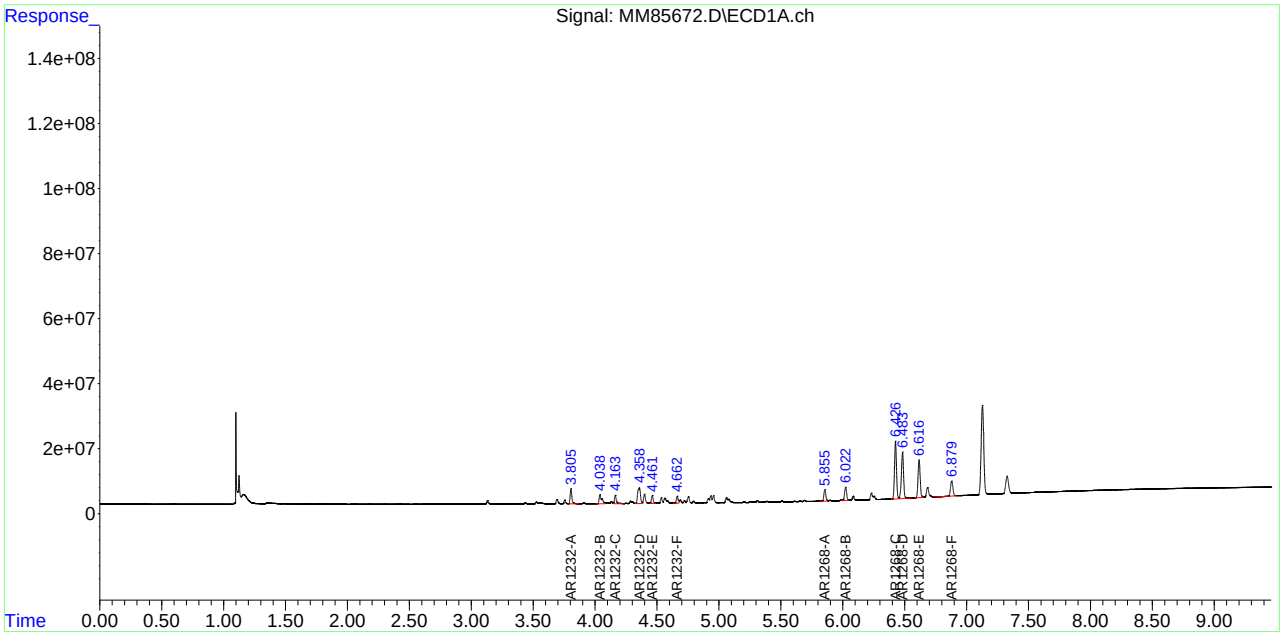
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

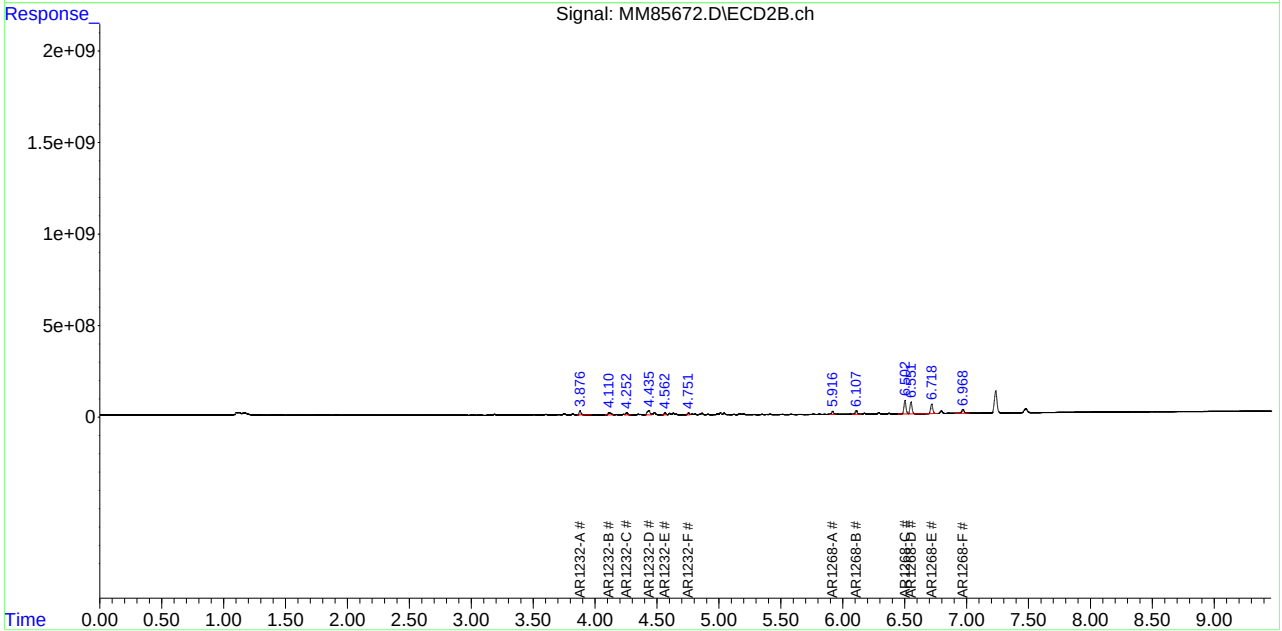
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85672.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:22 pm
Operator : eduardom
Sample : ic1833-50 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 17 17:56:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





SGS FC10955

12.5.14 12

Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85672.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 14:22 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

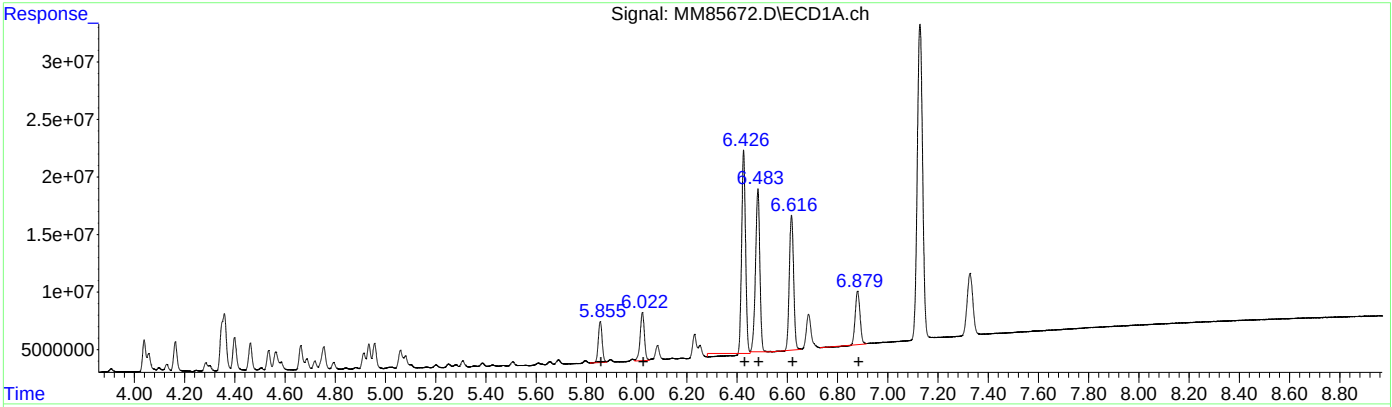
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1232-A		2	3.88	Poor instrument integration
AR1232-B		2	4.11	Poor instrument integration
AR1232-C		2	4.25	Poor instrument integration
AR1232-D		2	4.44	Poor instrument integration
AR1232-E		2	4.56	Poor instrument integration
AR1232-F		2	4.75	Poor instrument integration
AR1268-C		1	6.43	Poor instrument integration
AR1268-D		1	6.48	Poor instrument integration
AR1268-C		2	6.50	Poor instrument integration
AR1268-D		2	6.55	Poor instrument integration
AR1268-E		1	6.62	Poor instrument integration
AR1268-E		2	6.72	Poor instrument integration
AR1268-F		2	6.97	Poor instrument integration

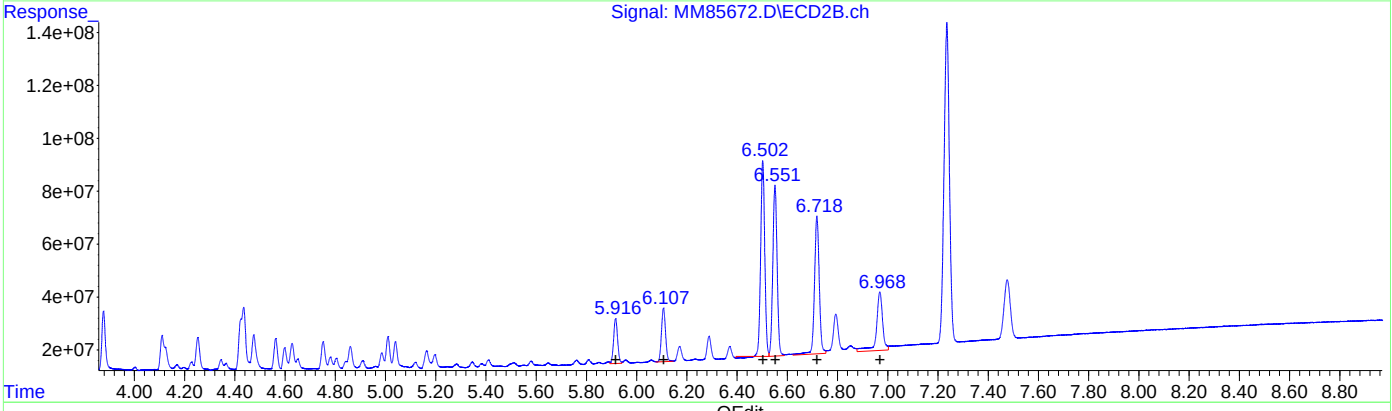
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85672.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:22 pm
Operator : eduardom
Sample : ic1833-50 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 17 17:52:48 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(49) AR1268-A (L8)

R.T.	Response	Conc
5.86	3557377	53.74
6.02	4170960	54.81
6.43	17544672	54.92
6.48	14351520	54.15
6.62	11710765	53.63
6.88	4613020	52.66

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.92	16976372	60.92
6.11	20237680	62.04
6.50	74196703	55.73
6.55	64511867	54.44
6.72	52042024	55.65
6.97	22117221	58.56

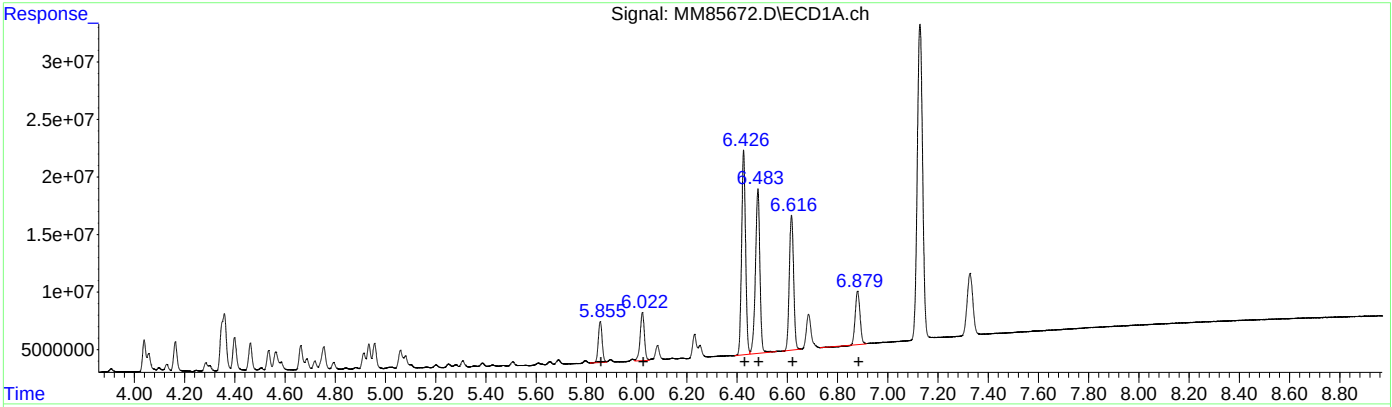
(+) = Expected Retention Time

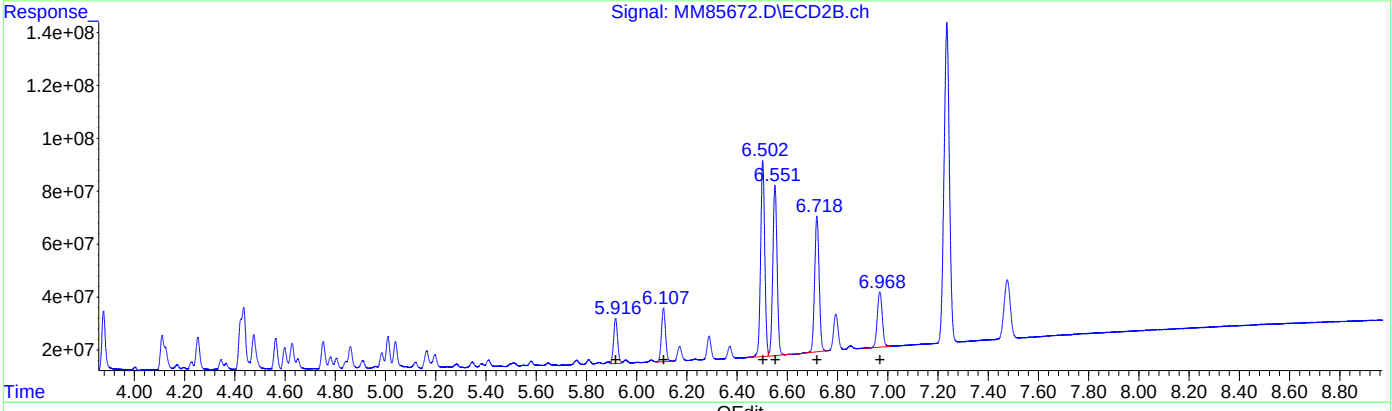
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85672.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:22 pm
Operator : eduardom
Sample : ic1833-50 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 17 17:52:48 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.86	3557377	53.74
6.02	4170960	54.81
6.43	17799472	55.72
6.48	14312901	54.00
6.62	11729693	53.71
6.88	4613020	52.66

(49) AR1268-A #2 (L8)

R.T.	Response	Conc
5.92	16976372	60.92
6.11	20237680	62.04
6.50	74110748	55.66
6.55	64532774	54.45
6.72	51390620	54.95
6.97	20923366	55.40

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85673.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:33 pm
Operator : eduardom
Sample : ic1833-200 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 17 17:58:40 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
13) L3	AR1232-A	3.806	3.877	17576294	75172534	195.553	202.667
14) L3	AR1232-B	4.039	4.110	10250915	44510557	201.634	209.389
15) L3	AR1232-C	4.163	4.253	9559330	42263553	202.410	207.525
16) L3	AR1232-D	4.357	4.435	20716122	86205052	204.102	206.933
17) L3	AR1232-E	4.462	4.563	9412109	42329485	203.366	207.104
18) L3	AR1232-F	4.663	4.752	7855784	36758289	202.091	218.142
	Sum AR1232-A			75370553	327.2E6	1209.155	1251.760
Average	AR1232-A					201.526	208.627
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
49) L8	AR1268-A	5.856	5.917	14118110	60913967	213.259	218.606
50) L8	AR1268-B	6.023	6.108	15587892	70317804	204.848	215.559
51) L8	AR1268-C	6.427	6.503	65407747	283.0E6	204.741	212.537
52) L8	AR1268-D	6.483	6.551	55357170	259.1E6	208.859	218.640
53) L8	AR1268-E	6.617	6.718	47988139	199.9E6	219.755	213.750
54) L8	AR1268-F	6.881	6.968	18116744	79895819	206.825	211.541
	Sum AR1268-A			216.6E6	953.1E6	1258.287	1290.633
Average	AR1268-A					209.715	215.106

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

8082-DOD-1833.m Wed Oct 18 08:47:45 2023 Page: 1

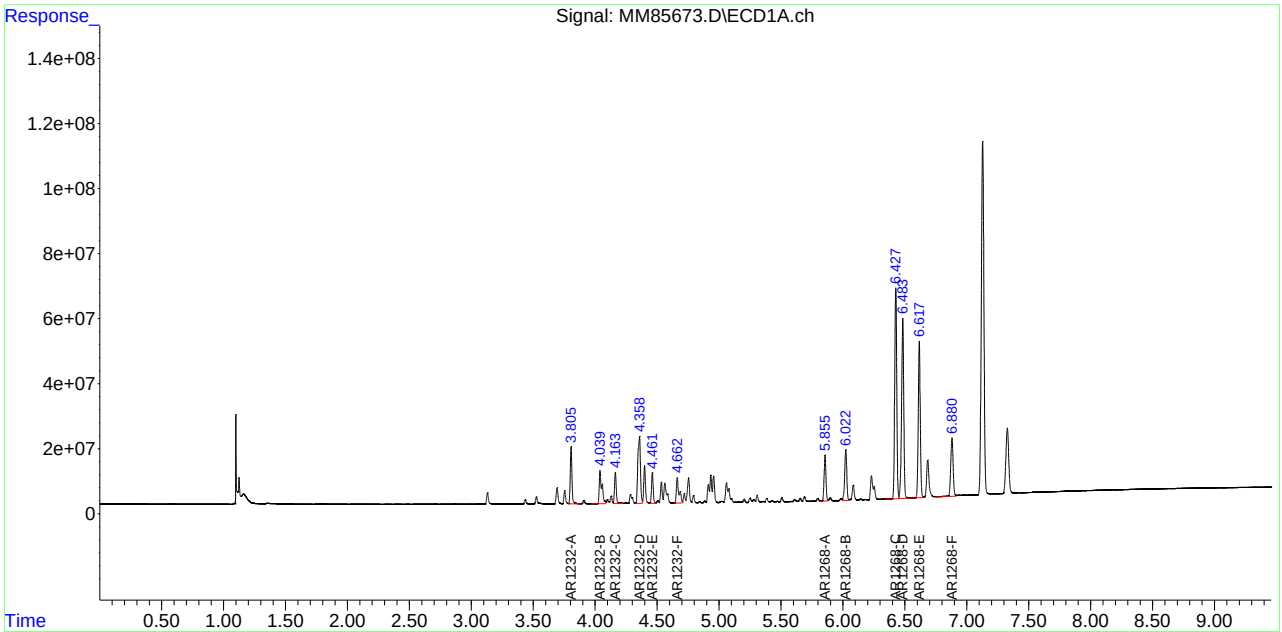
12.5.15 12

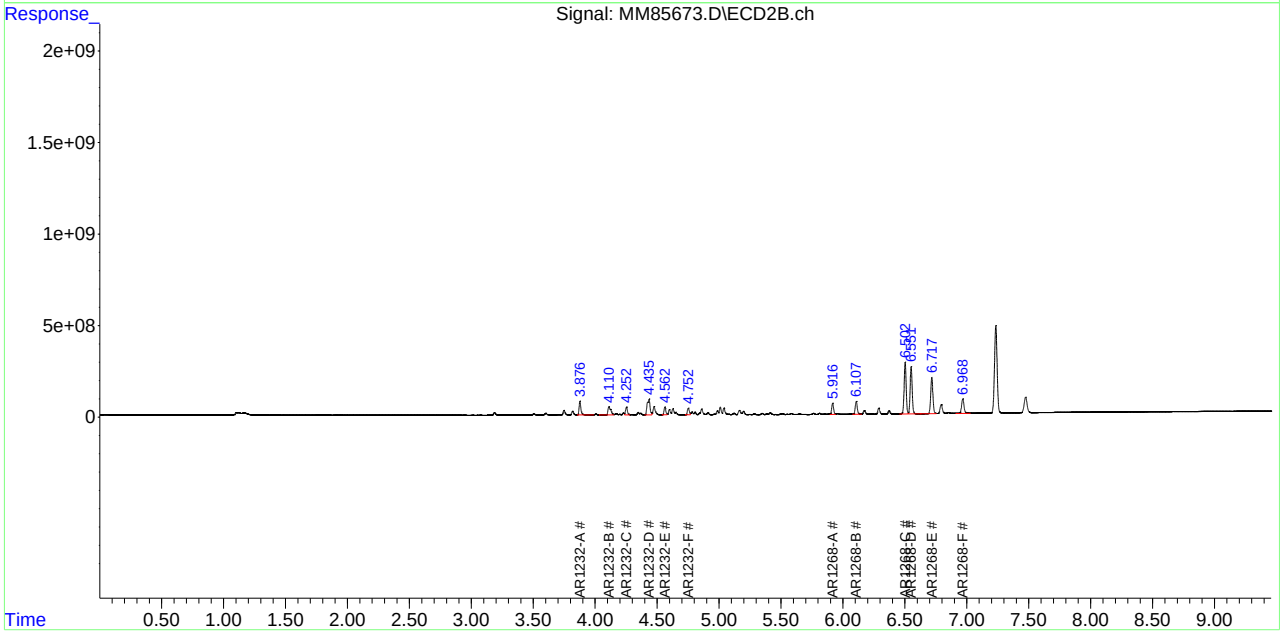
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85673.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:33 pm
Operator : eduardom
Sample : ic1833-200 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 17 17:58:40 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85674.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:45 pm
Operator : eduardom
Sample : ic1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 17 17:59:03 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
13)	L3 AR1232-A	3.805	3.877	34287804	143.1E6	381.484	385.674
14)	L3 AR1232-B	4.039	4.111	20068978	84303386	394.754	396.585
15)	L3 AR1232-C	4.163	4.253	19015881	82025792	402.643	402.767
16)	L3 AR1232-D	4.357	4.435	41326848	171.5E6	407.166	411.694
17)	L3 AR1232-E	4.462	4.563	18976604	82991062	410.024	406.047
18)	L3 AR1232-F	4.663	4.752	15766536	69096209	405.595	410.052
	Sum AR1232-A			149.4E6	633.0E6	2401.667	2412.820
Average	AR1232-A					400.278	402.137
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
49)	L8 AR1268-A	5.855	5.917	27874891	116.9E6	421.060	419.486
50)	L8 AR1268-B	6.023	6.107	32119030	140.0E6	422.091	429.144
51)	L8 AR1268-C	6.427	6.502	133.3E6	588.4E6	417.401	441.979
52)	L8 AR1268-D	6.483	6.551	112.2E6	520.0E6	423.241	438.752
53)	L8 AR1268-E	6.617	6.719	92772279	408.2E6	424.839	436.517
54)	L8 AR1268-F	6.879	6.968	36329021	159.2E6	414.741	421.558
	Sum AR1268-A			434.6E6	1932.7E6	2523.372	2587.436
Average	AR1268-A					420.562	431.239

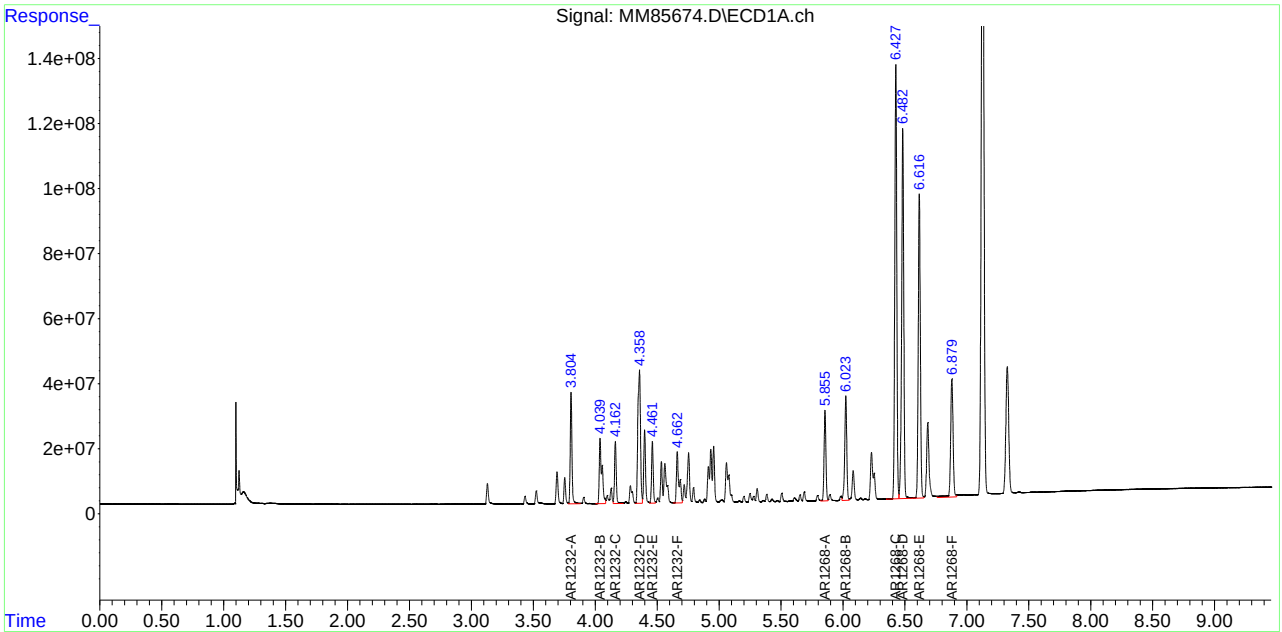
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

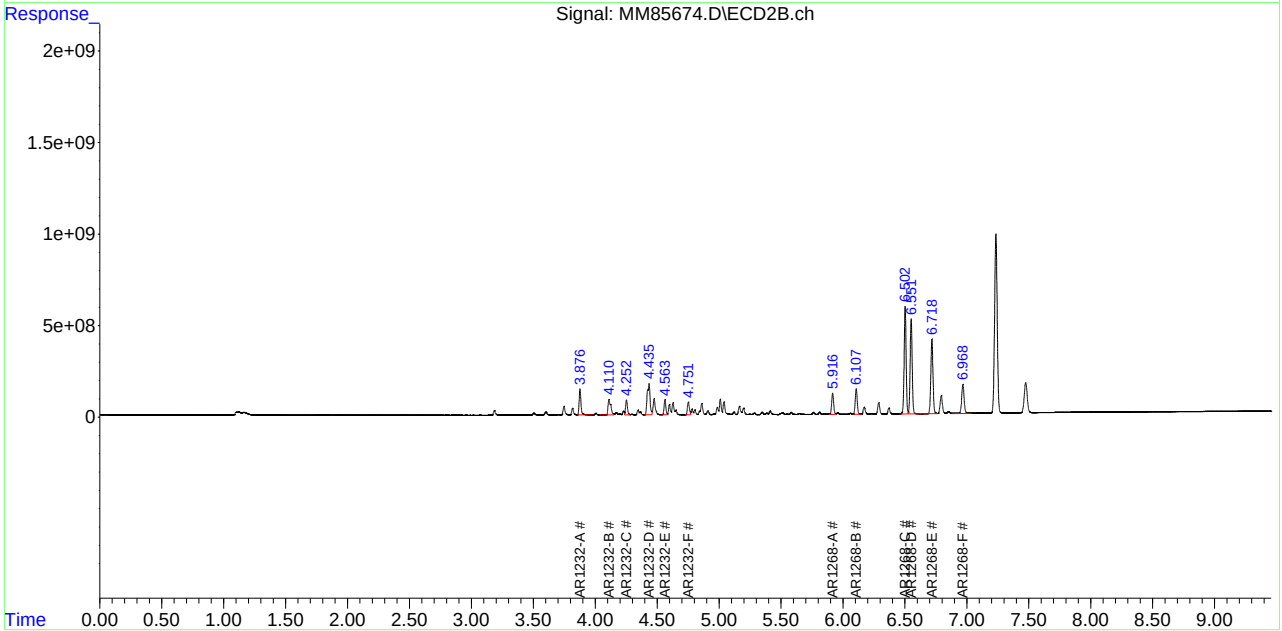
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85674.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:45 pm
Operator : eduardom
Sample : ic1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 17 17:59:03 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.16 12
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85675.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:57 pm
Operator : eduardom
Sample : ic1833-600 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 17 18:00:35 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
13) L3 AR1232-A	3.805	3.877	48999667	208.9E6	545.167	563.224
14) L3 AR1232-B	4.039	4.110	28353915	123.6E6	557.718	581.308
15) L3 AR1232-C	4.163	4.252	27776958	118.2E6	588.151	580.164
16) L3 AR1232-D	4.357	4.435	59588154	253.8E6	587.083	609.163
17) L3 AR1232-E	4.462	4.563	27328345	122.3E6	590.479	598.546
18) L3 AR1232-F	4.663	4.752	23172858	103.4E6	596.123	613.592
Sum AR1232-A			215.2E6	930.1E6	3464.721	3545.996
Average AR1232-A					577.454	590.999
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
49) L8 AR1268-A	5.855	5.916	39605695	176.4E6	598.258	632.949
50) L8 AR1268-B	6.023	6.107	45133409	209.2E6	593.118	641.312
51) L8 AR1268-C	6.426	6.501	196.6E6	883.0E6	615.410	663.245
52) L8 AR1268-D	6.482	6.550	161.0E6	769.7E6	607.287	649.496
53) L8 AR1268-E	6.616	6.717	136.1E6	596.1E6	623.029	637.344
54) L8 AR1268-F	6.879	6.967	51138617	240.8E6	583.811	637.547
Sum AR1268-A			629.5E6	2875.2E6	3620.913	3861.892
Average AR1268-A					603.485	643.649

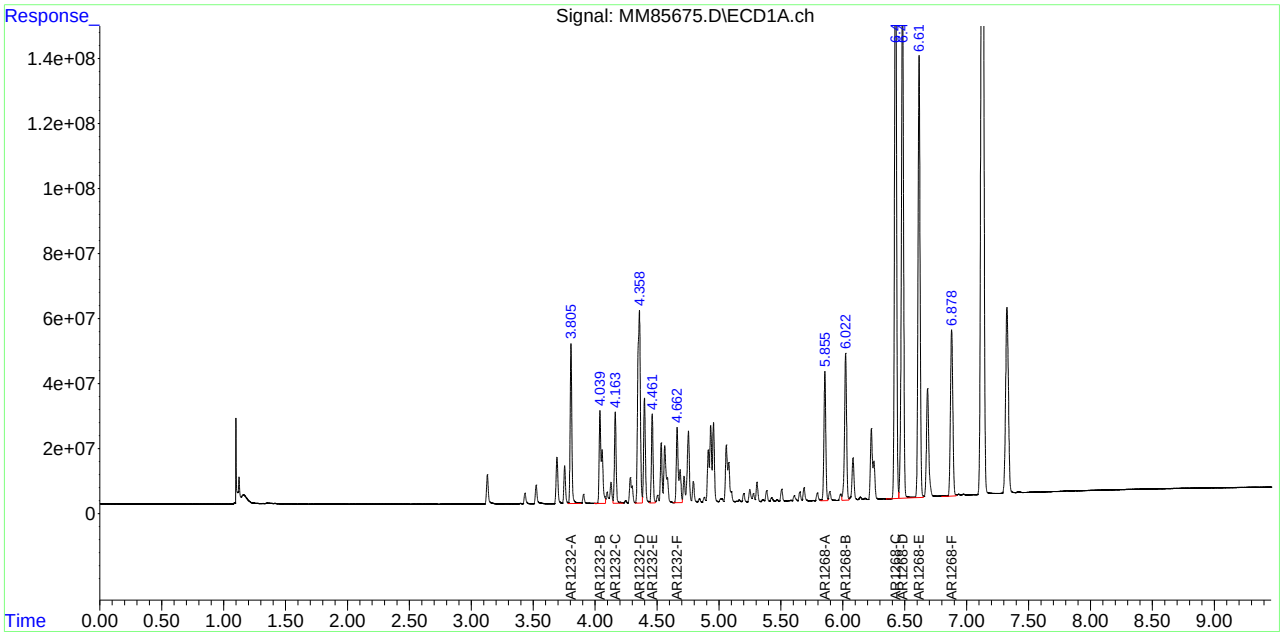
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

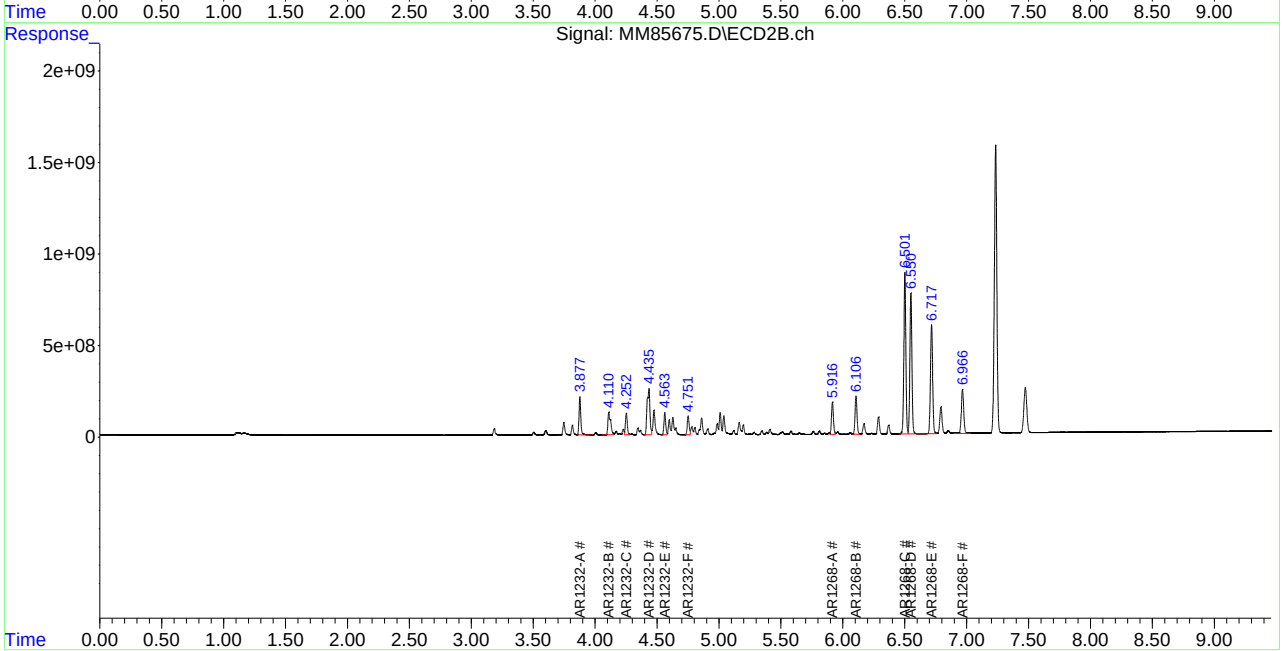
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85675.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 2:57 pm
Operator : eduardom
Sample : ic1833-600 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 17 18:00:35 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.17 12
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85676.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:08 pm
Operator : eduardom
Sample : ic1833-1000 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 17 18:01:02 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
13) L3	AR1232-A	3.805	3.877	79247087	330.5E6	881.699	891.124
14) L3	AR1232-B	4.039	4.110	45840867	199.4E6	901.684	937.828
15) L3	AR1232-C	4.163	4.252	45011779	199.2E6	953.081	978.053
16) L3	AR1232-D	4.357	4.435	98882373	412.4E6	974.223	989.901
17) L3	AR1232-E	4.461	4.563	44662150	206.6E6	965.007	1010.668
18) L3	AR1232-F	4.662	4.751	37520048	169.2E6	965.206	1004.416
	Sum AR1232-A			351.2E6	1517.3E6	5640.900	5811.989
Average	AR1232-A					940.150	968.665
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
49) L8	AR1268-A	5.855	5.916	65956415	292.2E6	996.295	1048.618
50) L8	AR1268-B	6.022	6.107	72975677	341.2E6	959.006	1045.920
51) L8	AR1268-C	6.426	6.502	323.8E6	1602.5E6	1013.557	1203.634
52) L8	AR1268-D	6.482	6.551	265.9E6	1322.1E6	1003.159	1115.580
53) L8	AR1268-E	6.616	6.717	218.7E6	1015.2E6	1001.462	1085.504
54) L8	AR1268-F	6.879	6.967	90431105	403.6E6	1032.383	1068.588
	Sum AR1268-A			1037.7E6	4976.7E6	6005.863	6567.844
Average	AR1268-A					1000.977	1094.641

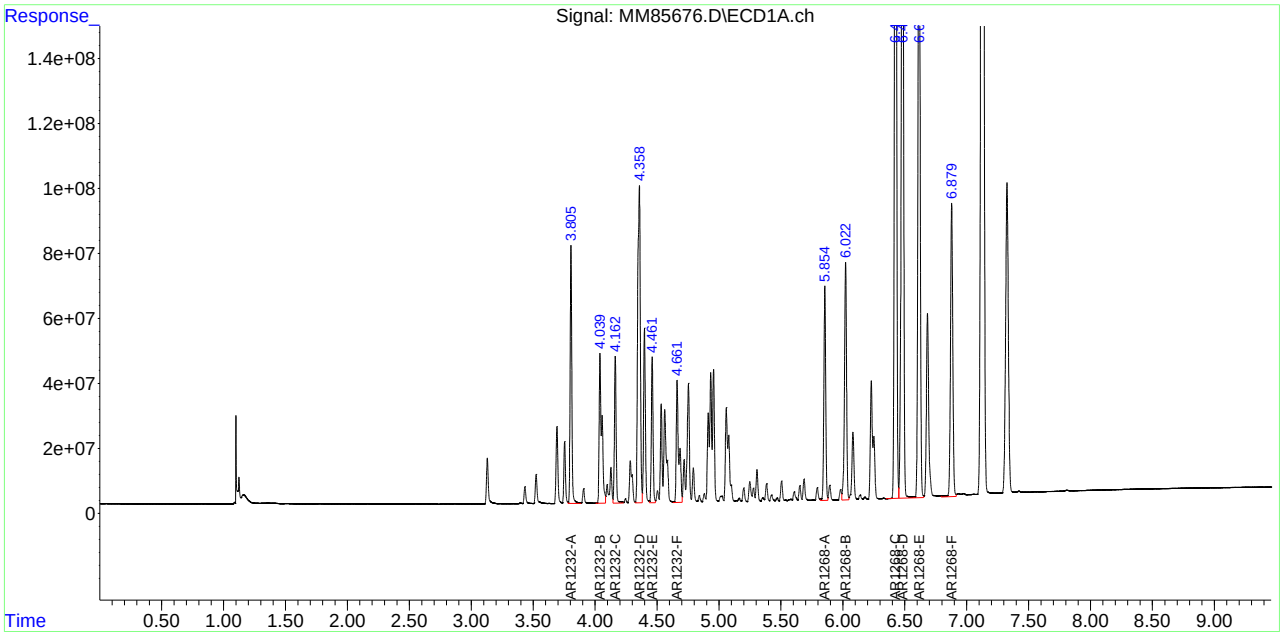
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

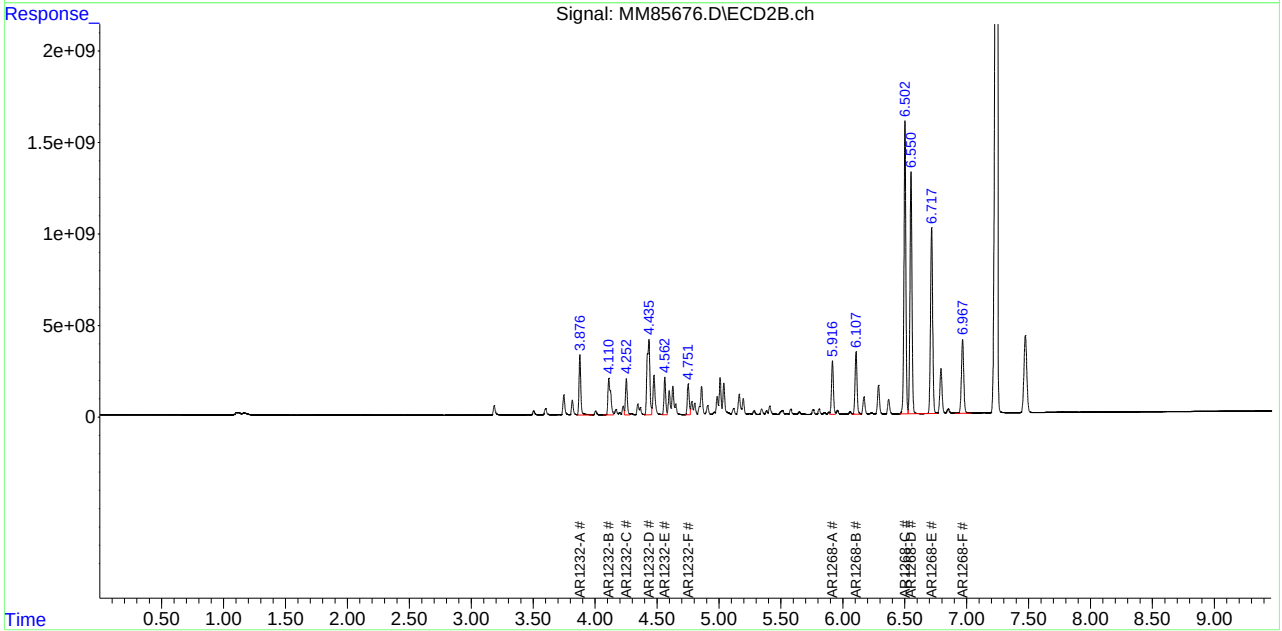
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85676.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:08 pm
Operator : eduardom
Sample : ic1833-1000 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 17 18:01:02 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85678.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:31 pm
Operator : eduardom
Sample : ic1833-20 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 17 18:02:14 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
19)	L4 AR1242-A	3.806	3.877	1733465	8569646	25.173	29.164m
20)	L4 AR1242-B	4.039	4.110	2431825	11832024	25.762	30.018m
21)	L4 AR1242-C	4.163	4.253	2213264	10762576	25.184	29.290m
22)	L4 AR1242-D	4.357	4.435	4340716	20732995	22.605	27.555
23)	L4 AR1242-E	4.461	4.563	2074213	10442831	23.733	27.853
24)	L4 AR1242-F	4.663	4.752	1850138	9183110	24.644	28.660
	Sum AR1242-A			14643620	71523184	147.101	172.539
	Average AR1242-A					24.517	28.756
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
43)	L9 AR1262-A	5.423	5.507	3189318	15542519	25.285	29.404
44)	L9 AR1262-B	5.607	5.647	3671285	17606255	25.166	29.760
45)	L9 AR1262-C	5.855	5.916	4588173	21625097	25.147	28.455
46)	L9 AR1262-D	6.006	6.106	3630408	18468308	23.791	27.499
47)	L9 AR1262-E	6.230	6.288	7649772	33010187	24.010m	25.500
48)	L9 AR1262-F	6.427	6.549	4825953	21608899	25.513	27.093
	Sum AR1262-A			27554909	127.9E6	148.913	167.710
	Average AR1262-A					24.819	27.952
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

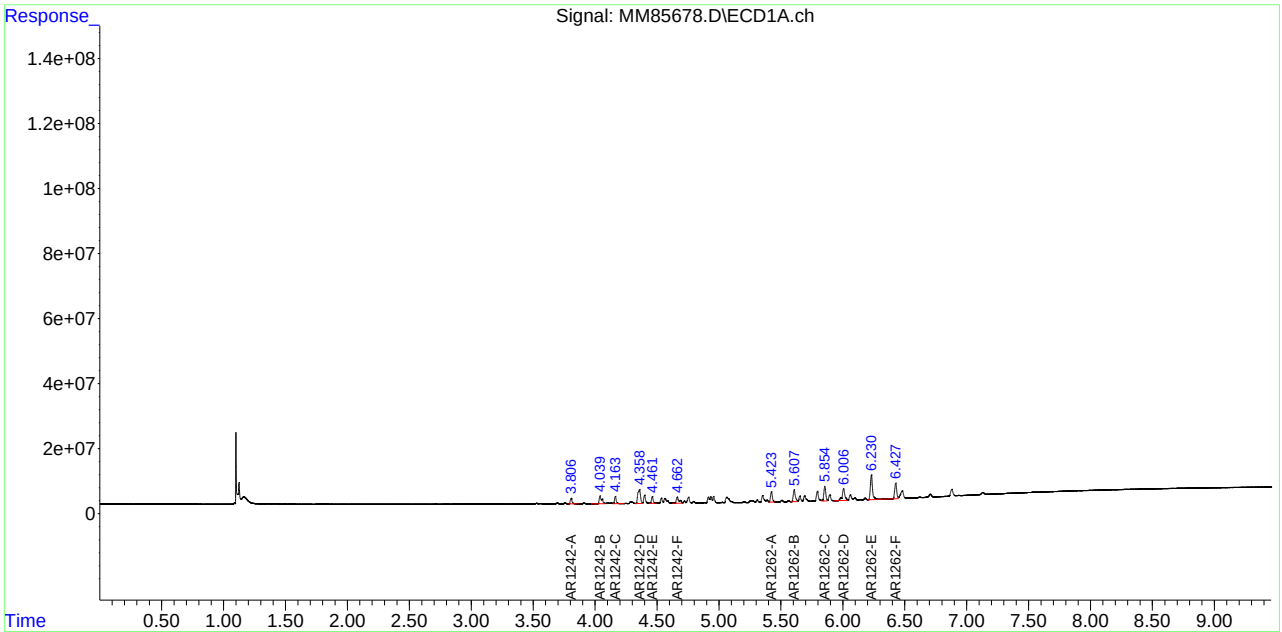
12.5.19 12

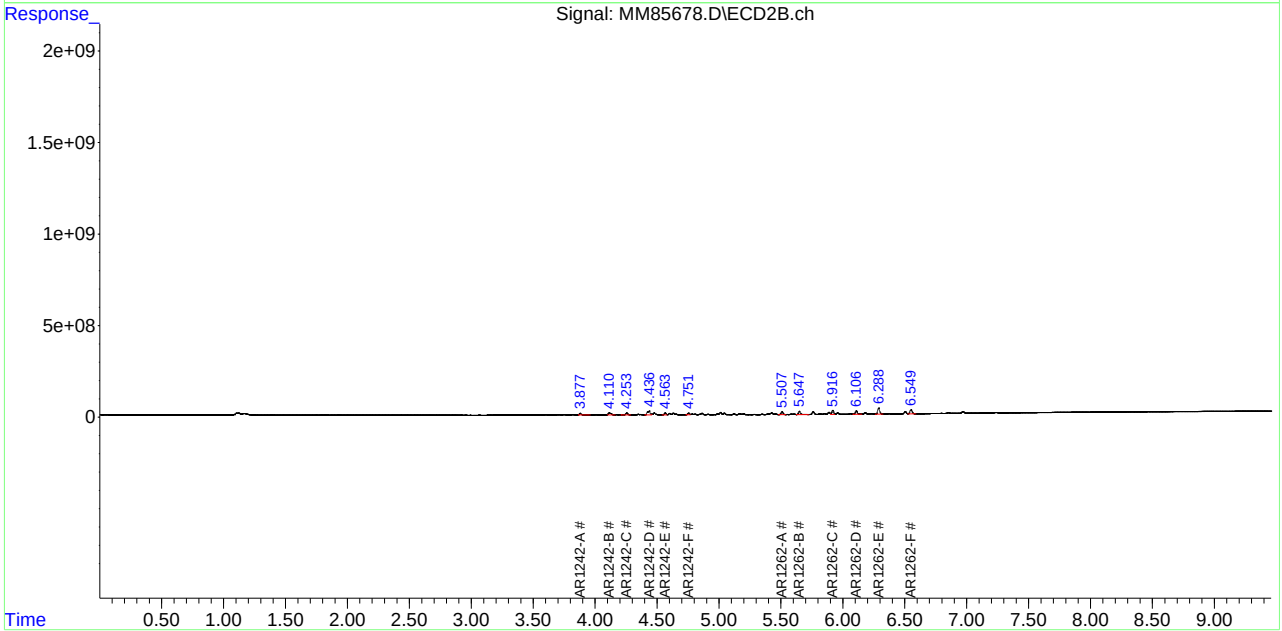
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85678.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:31 pm
Operator : eduardom
Sample : ic1833-20 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 17 18:02:14 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.19 12
748 of 1492
SGS
FC10955

Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85678.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 15:31	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

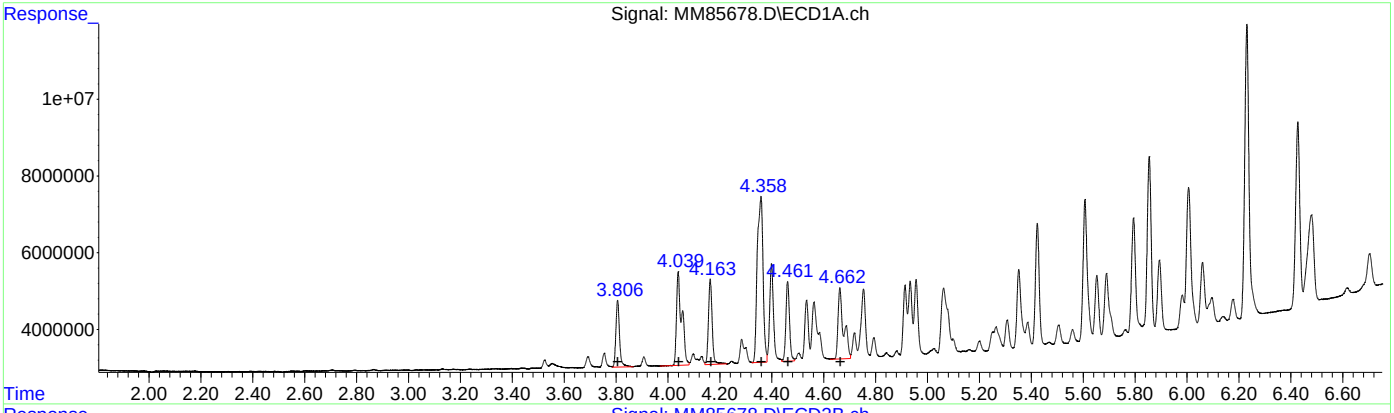
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1242-A		2	3.88	Poor instrument integration
AR1242-B		2	4.11	Poor instrument integration
AR1242-C		2	4.25	Poor instrument integration
AR1262-E		1	6.23	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85678.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:31 pm
Operator : eduardom
Sample : ic1833-20 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 17 18:01:25 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(19) AR1242-A #2 (L4)

R.T.	Response	Conc
3.81	1733465	25.17
4.04	2431825	25.76
4.16	2213264	25.18
4.36	4340716	22.61
4.46	2074213	23.73
4.66	1850138	24.64

(19) AR1242-A #2 (L4)

R.T.	Response	Conc
3.88	8569646	29.16
4.11	11832024	30.02
4.25	10762576	29.29
4.43	20732995	27.56
4.56	10442831	27.85
4.75	9183110	28.66

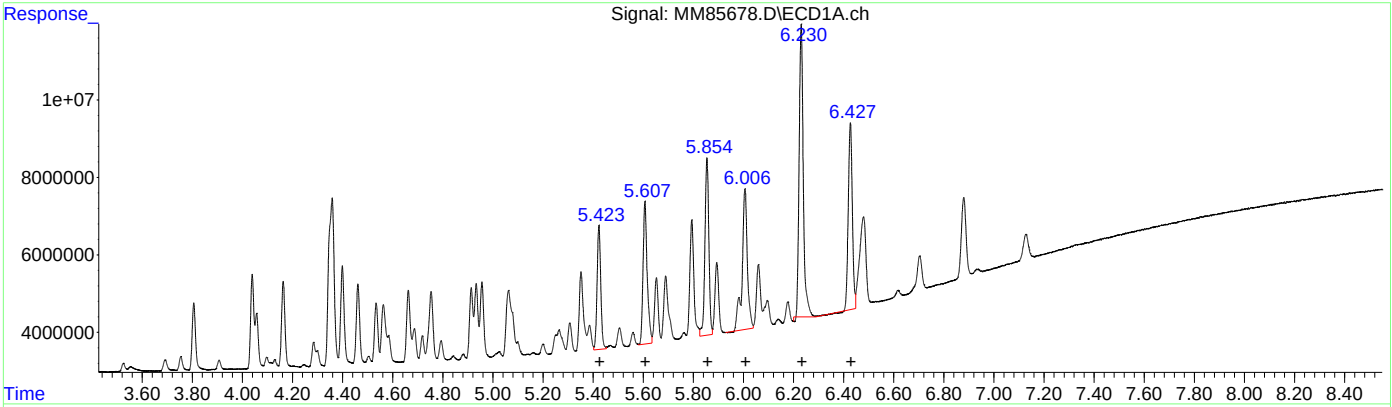
(+) = Expected Retention Time

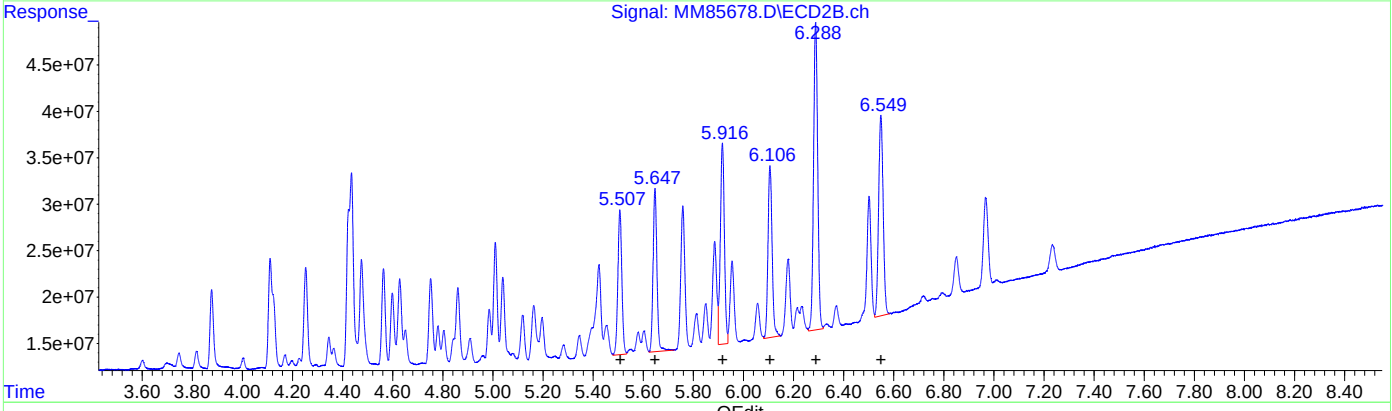
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85678.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:31 pm
Operator : eduardom
Sample : ic1833-20 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 17 18:01:25 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(43) AR1262-A (L9)

R.T.	Response	Conc
5.42	3189318	25.29
5.61	3671285	25.17
5.85	4588173	25.15
6.01	3630408	23.79
6.23	7665900	24.06
6.43	4825953	25.51

(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.51	15542519	29.40
5.65	17606255	29.76
5.92	21625097	28.46
6.11	18468308	27.50
6.29	33010187	25.50
6.55	21608899	27.09

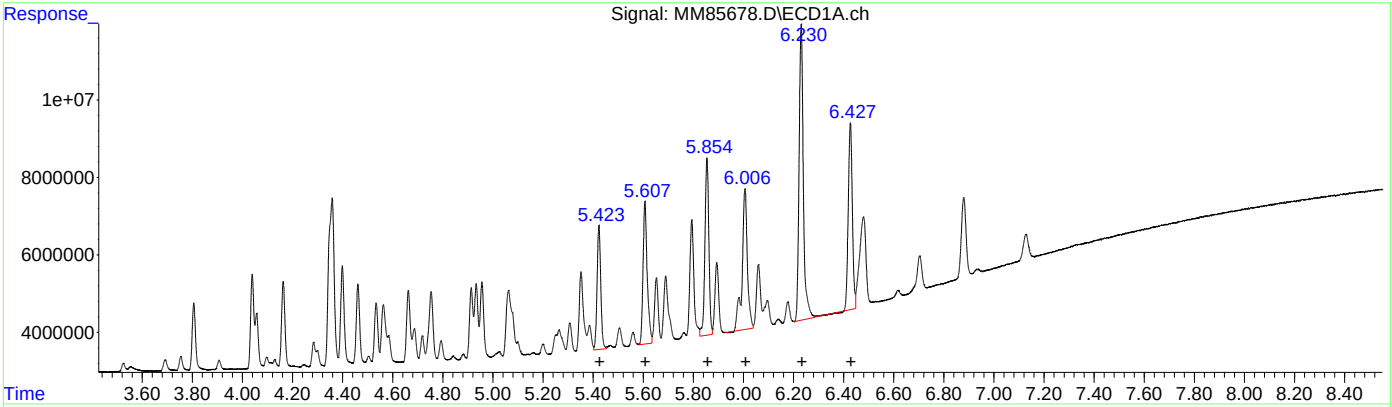
(+) = Expected Retention Time

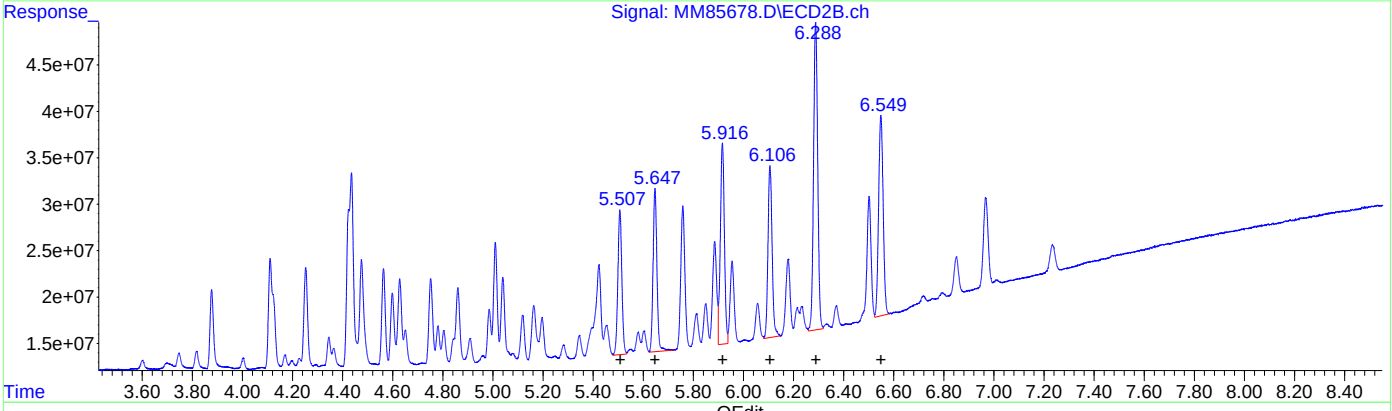
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85678.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:31 pm
Operator : eduardom
Sample : ic1833-20 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 17 18:01:25 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.42	3189318	25.29
5.61	3671285	25.17
5.85	4588173	25.15
6.01	3630408	23.79
6.23	7649772	24.01
6.43	4825953	25.51

(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.51	15542519	29.40
5.65	17606255	29.76
5.92	21625097	28.46
6.11	18468308	27.50
6.29	33010187	25.50
6.55	21608899	27.09

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:05:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
19)	L4 AR1242-A	3.806	3.877	3554698	17465540	51.621	59.438m
20)	L4 AR1242-B	4.040	4.110	4763496	23664587	50.463	60.038m
21)	L4 AR1242-C	4.163	4.252	4450347	21885842	50.639	59.561m
22)	L4 AR1242-D	4.357	4.435	9245251	42326528	48.147	56.254m
23)	L4 AR1242-E	4.462	4.562	4181231	21300517	47.841	56.812m
24)	L4 AR1242-F	4.663	4.751	3860198	19135276	51.417	59.719m
	Sum AR1242-A			30055222	145.8E6	300.129	351.821
	Average AR1242-A					50.021	58.637
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
43)	L9 AR1262-A	5.423	5.507	6443303	30609167	51.084	57.908
44)	L9 AR1262-B	5.607	5.647	7267138	35234546	49.815	59.557
45)	L9 AR1262-C	5.855	5.916	9547308	43473566	52.328	57.204
46)	L9 AR1262-D	6.006	6.107	7863032	38182452	51.529	56.852
47)	L9 AR1262-E	6.229	6.289	15872174	71537107	49.817m	55.261
48)	L9 AR1262-F	6.427	6.548	9974402	43859784	52.731m	54.990
	Sum AR1262-A			56967357	262.9E6	307.304	341.773
	Average AR1262-A					51.217	56.962
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

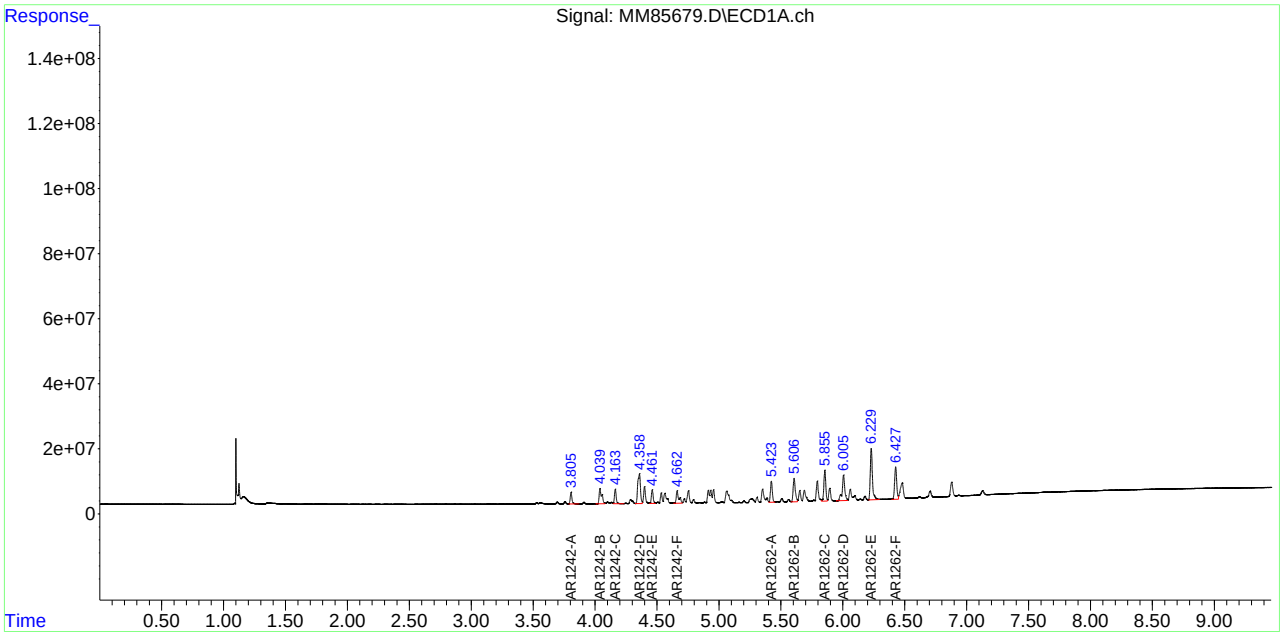
12.5.20 12

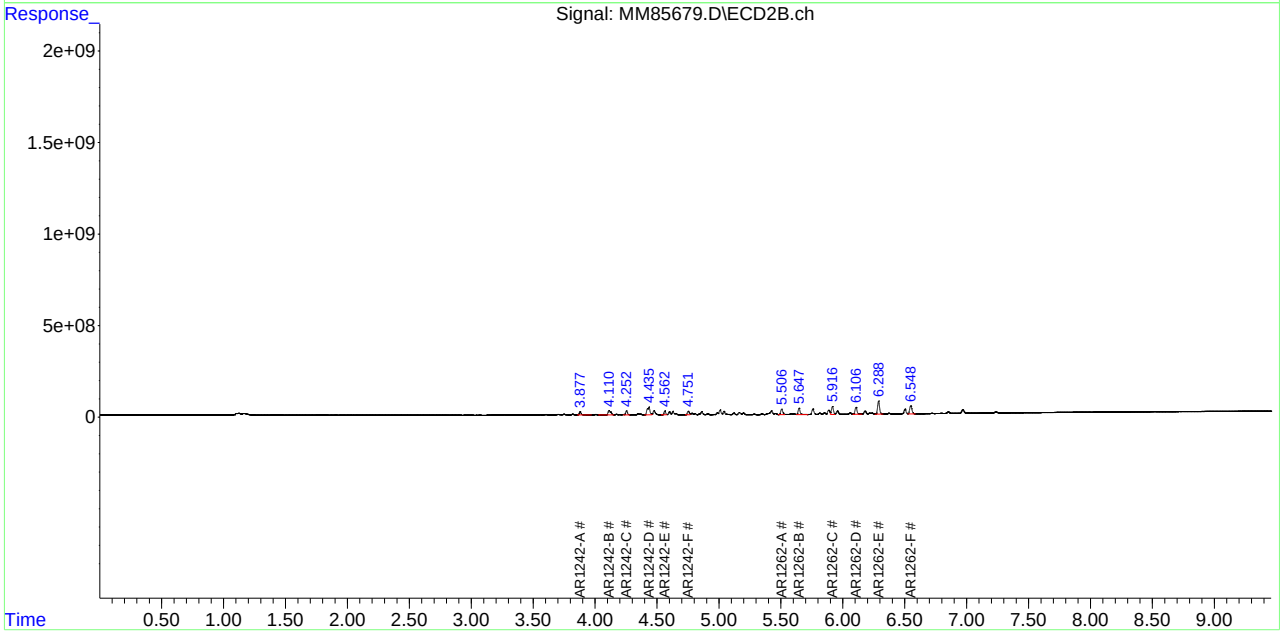
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:05:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.20 12
SGS
FC10955

Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85679.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 15:43 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

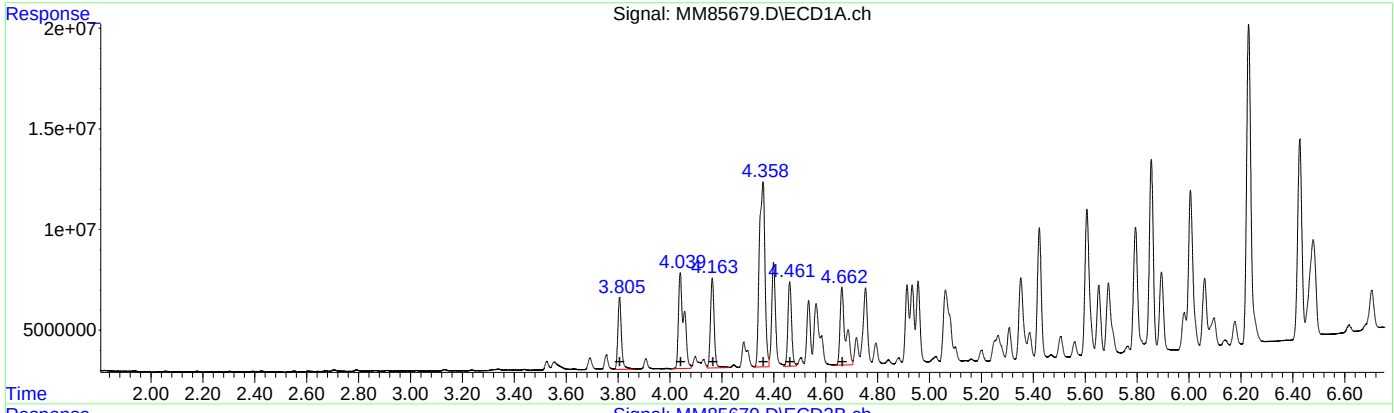
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1242-A		2	3.88	Poor instrument integration
AR1242-B		2	4.11	Poor instrument integration
AR1242-C		2	4.25	Poor instrument integration
AR1242-D		2	4.43	Poor instrument integration
AR1242-E		2	4.56	Poor instrument integration
AR1242-F		2	4.75	Poor instrument integration
AR1262-E		1	6.23	Poor instrument integration
AR1262-F		1	6.43	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:02:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(19) AR1242-A (L4)

R.T.	Response	Conc
3.81	3554698	51.62
4.04	4763496	50.46
4.16	4450347	50.64
4.36	9245251	48.15
4.46	4181231	47.84
4.66	3860198	51.42

(19) AR1242-A #2 (L4)

R.T.	Response	Conc
3.88	18418766	62.68
4.11	24349333	61.78
4.25	22497765	61.23
4.43	42721517	56.78
4.56	21666192	57.79
4.75	19368141	60.45

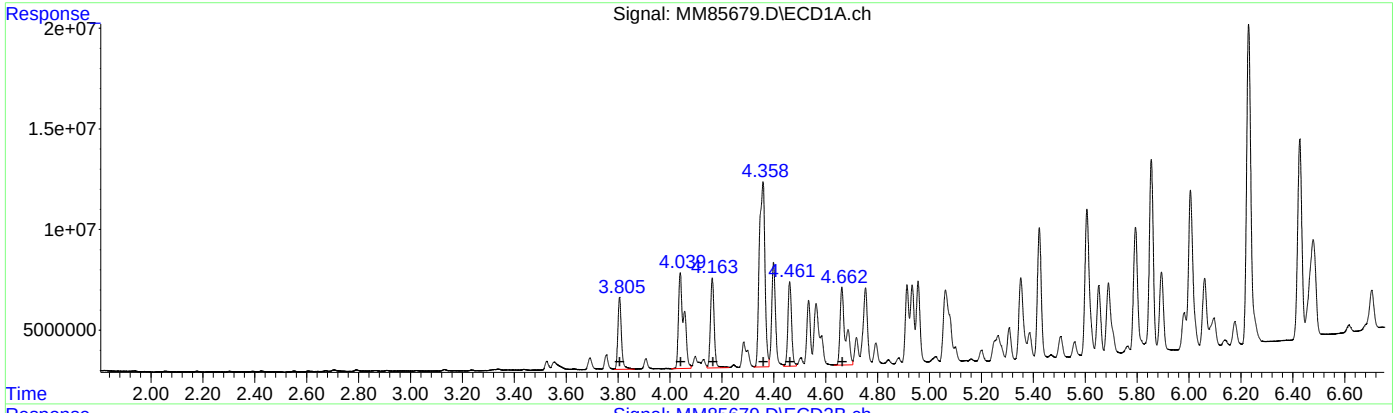
(+) = Expected Retention Time

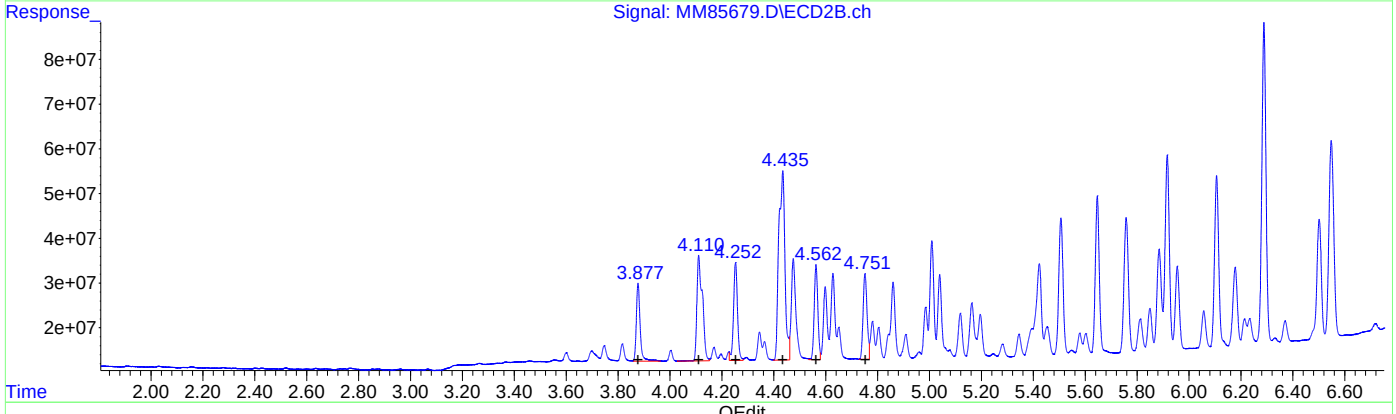
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:02:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(19) AR1242-A #2 (L4)

R.T.	Response	Conc
3.81	3554698	51.62
4.04	4763496	50.46
4.16	4450347	50.64
4.36	9245251	48.15
4.46	4181231	47.84
4.66	3860198	51.42

(19) AR1242-A #2 (L4)

R.T.	Response	Conc
3.88	17465540	59.44
4.11	23664587	60.04
4.25	21885842	59.56
4.43	42326528	56.25
4.56	21300517	56.81
4.75	19135276	59.72

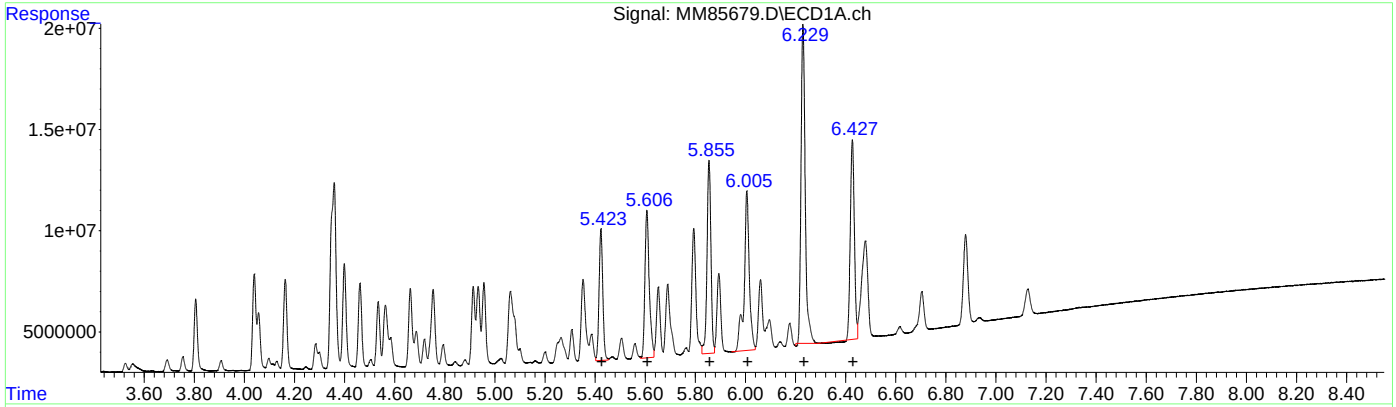
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:02:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(43) AR1262-A (L9)

R.T.	Response	Conc
5.42	6443303	51.08
5.61	7267138	49.81
5.85	9547308	52.33
6.01	7863032	51.53
6.23	15723365	49.35
6.43	9848144	52.06

(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.51	30609167	57.91
5.65	35234546	59.56
5.92	43473566	57.20
6.11	38182452	56.85
6.29	71537107	55.26
6.55	43859784	54.99

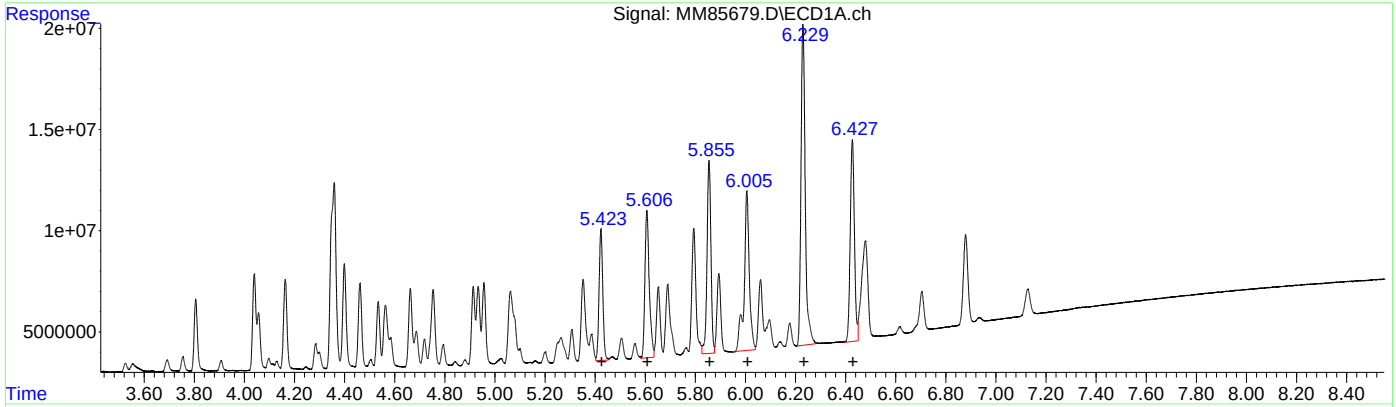
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85679.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:43 pm
Operator : eduardom
Sample : ic1833-50 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 17 18:02:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.42	6443303	51.08
5.61	7267138	49.81
5.85	9547308	52.33
6.01	7863032	51.53
6.23	15872174	49.82
6.43	9974402	52.73

(43) AR1262-A #2 (L9)

R.T.	Response	Conc
5.51	30609167	57.91
5.65	35234546	59.56
5.92	43473566	57.20
6.11	38182452	56.85
6.29	71537107	55.26
6.55	43859784	54.99

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85680.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:55 pm
Operator : eduardom
Sample : ic1833-200 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 17 18:05:31 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
Average	AR1232-A					0.000	0.000
19)	L4 AR1242-A	3.806	3.877	13271881	61259029	192.735	208.473
20)	L4 AR1242-B	4.039	4.111	18287046	82992924	193.726	210.558
21)	L4 AR1242-C	4.163	4.253	17071569	76258951	194.251	207.533
22)	L4 AR1242-D	4.357	4.435	36805242	161.8E6	191.673	215.092
23)	L4 AR1242-E	4.462	4.563	17064781	77903574	195.254	207.781
24)	L4 AR1242-F	4.663	4.752	14684058	67920983	195.590	211.974
	Sum AR1242-A			117.2E6	528.2E6	1163.229	1261.410
Average	AR1242-A					193.871	210.235
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
43)	L9 AR1262-A	5.423	5.507	24320173	115.1E6	192.815	217.712
44)	L9 AR1262-B	5.607	5.647	28703233	126.0E6	196.755	213.047
45)	L9 AR1262-C	5.855	5.917	36283973	162.7E6	198.868	214.108
46)	L9 AR1262-D	6.007	6.107	30535379	142.7E6	200.108	212.455
47)	L9 AR1262-E	6.230	6.289	61754322	279.6E6	193.826	215.995
48)	L9 AR1262-F	6.427	6.549	38241072	174.1E6	202.168	218.294
	Sum AR1262-A			219.8E6	1000.2E6	1184.541	1291.612
Average	AR1262-A					197.423	215.269
	Sum AR1268-A			0	0	N.D.	N.D.
Average	AR1268-A					0.000	0.000

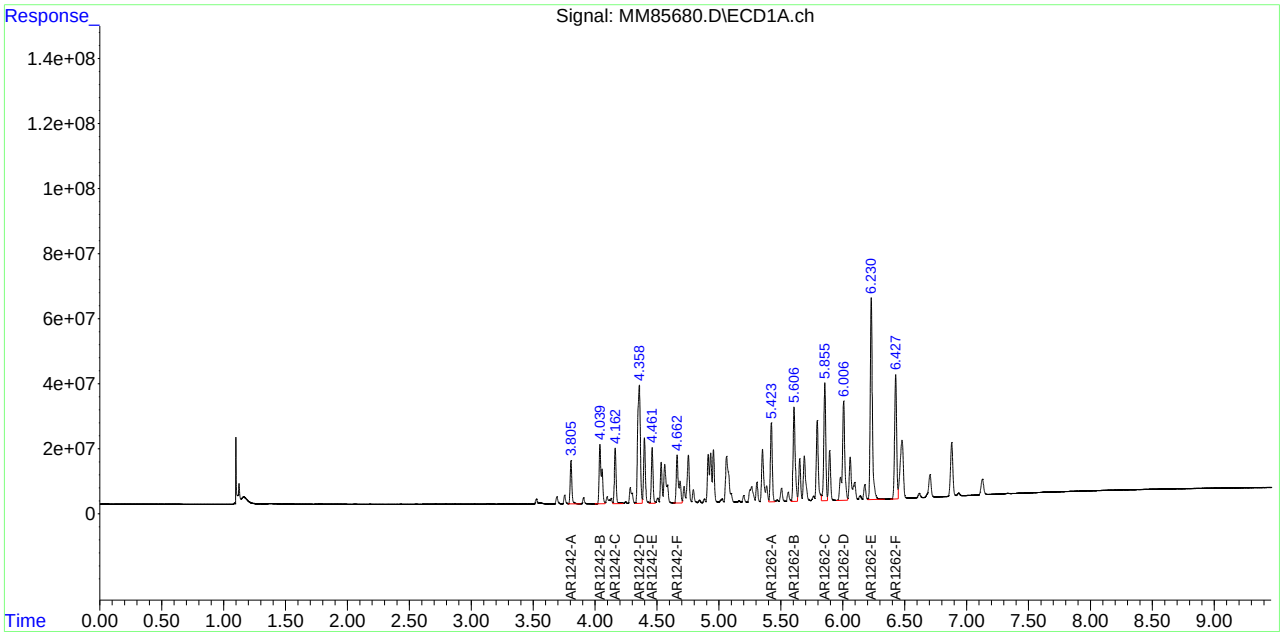
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

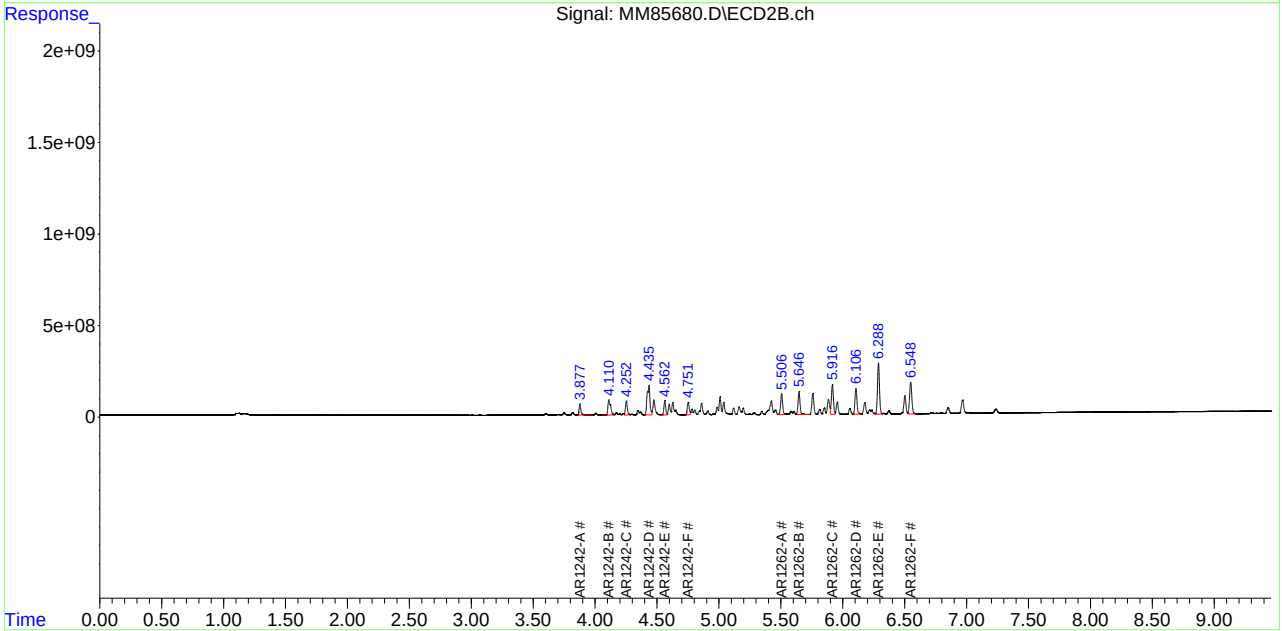
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85680.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:55 pm
Operator : eduardom
Sample : ic1833-200 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 17 18:05:31 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.21 12

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85681.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:06 pm
Operator : eduardom
Sample : ic1833-400 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 17 18:08:01 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.806	3.877	25847724	112.8E6	375.362	383.770
20) L4 AR1242-B	4.040	4.111	35175174	156.1E6	372.632	395.997
21) L4 AR1242-C	4.163	4.253	33584267	146.4E6	382.143	398.444
22) L4 AR1242-D	4.357	4.436	73266845	311.3E6	381.557	413.677
23) L4 AR1242-E	4.462	4.564	33461656	150.9E6	382.866	402.440
24) L4 AR1242-F	4.663	4.752	29478055	132.5E6	392.644	413.377
Sum AR1242-A			230.8E6	1009.9E6	2287.203	2407.703
Average AR1242-A					381.201	401.284
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.424	5.507	49332290	228.6E6	391.116	432.417
44) L9 AR1262-B	5.608	5.647	56975121	254.5E6	390.554	430.253
45) L9 AR1262-C	5.855	5.918	73763824	325.4E6	404.291	428.143
46) L9 AR1262-D	6.007	6.108	61121600	288.3E6	400.549	429.249
47) L9 AR1262-E	6.231	6.290	128.2E6	555.7E6	402.381	429.300
48) L9 AR1262-F	6.428	6.550	75997351	343.6E6	401.773	430.780
Sum AR1262-A			445.4E6	1996.1E6	2390.664	2580.142
Average AR1262-A					398.444	430.024
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

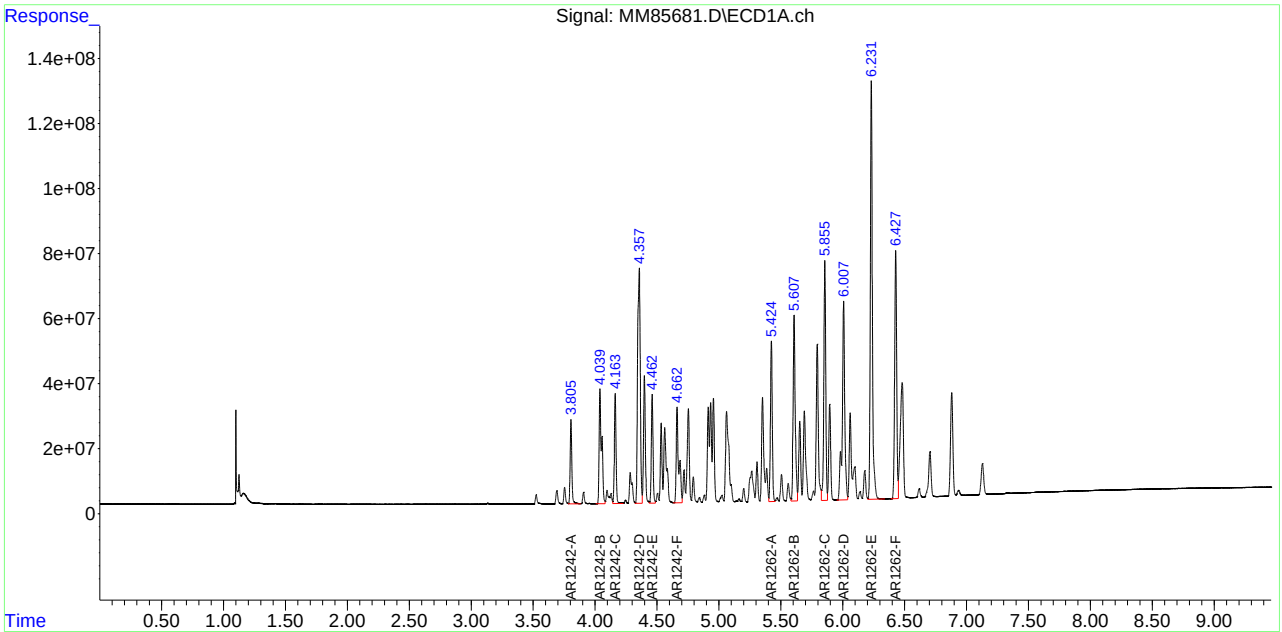
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

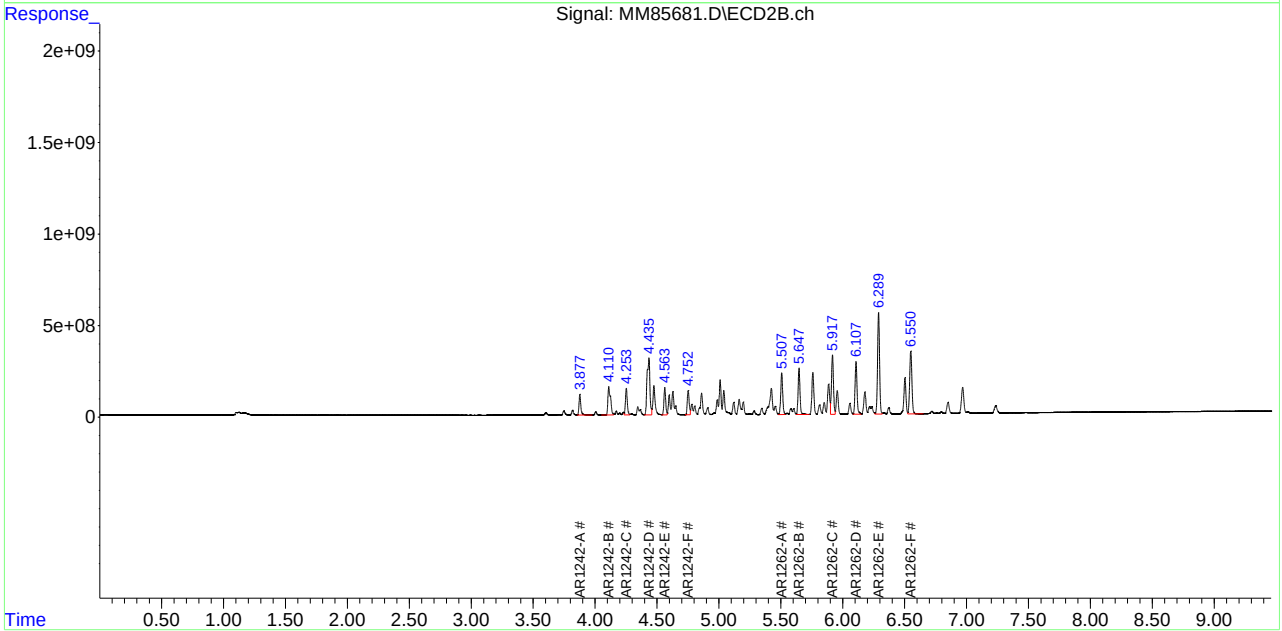
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85681.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:06 pm
Operator : eduardom
Sample : ic1833-400 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 17 18:08:01 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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12.5.22 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85682.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:18 pm
Operator : eduardom
Sample : ic1833-600 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 17 18:08:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.805	3.877	37692475	162.5E6	547.372	553.126
20) L4 AR1242-B	4.039	4.111	51628053	224.0E6	546.927	568.388
21) L4 AR1242-C	4.163	4.253	50193052	214.9E6	571.128	584.814
22) L4 AR1242-D	4.357	4.435	108.2E6	462.6E6	563.394	614.806
23) L4 AR1242-E	4.461	4.563	49766312	227.3E6	569.423	606.359
24) L4 AR1242-F	4.663	4.752	44588892	196.3E6	593.918	612.643
Sum AR1242-A			342.1E6	1487.7E6	3392.162	3540.136
Average AR1242-A					565.360	590.023
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.424	5.508	72062837	334.0E6	571.327	631.850
44) L9 AR1262-B	5.607	5.647	85365173	374.5E6	585.162	633.084
45) L9 AR1262-C	5.855	5.917	109.4E6	491.2E6	599.681	646.403
46) L9 AR1262-D	6.007	6.108	89795632	425.5E6	588.459	633.574
47) L9 AR1262-E	6.231	6.290	191.7E6	846.4E6	601.797	653.845
48) L9 AR1262-F	6.428	6.551	114.5E6	513.5E6	605.472	643.806
Sum AR1262-A			662.9E6	2985.2E6	3551.898	3842.563
Average AR1262-A					591.983	640.427
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

8082-DOD-1833.m Wed Oct 18 08:48:21 2023 Page: 1

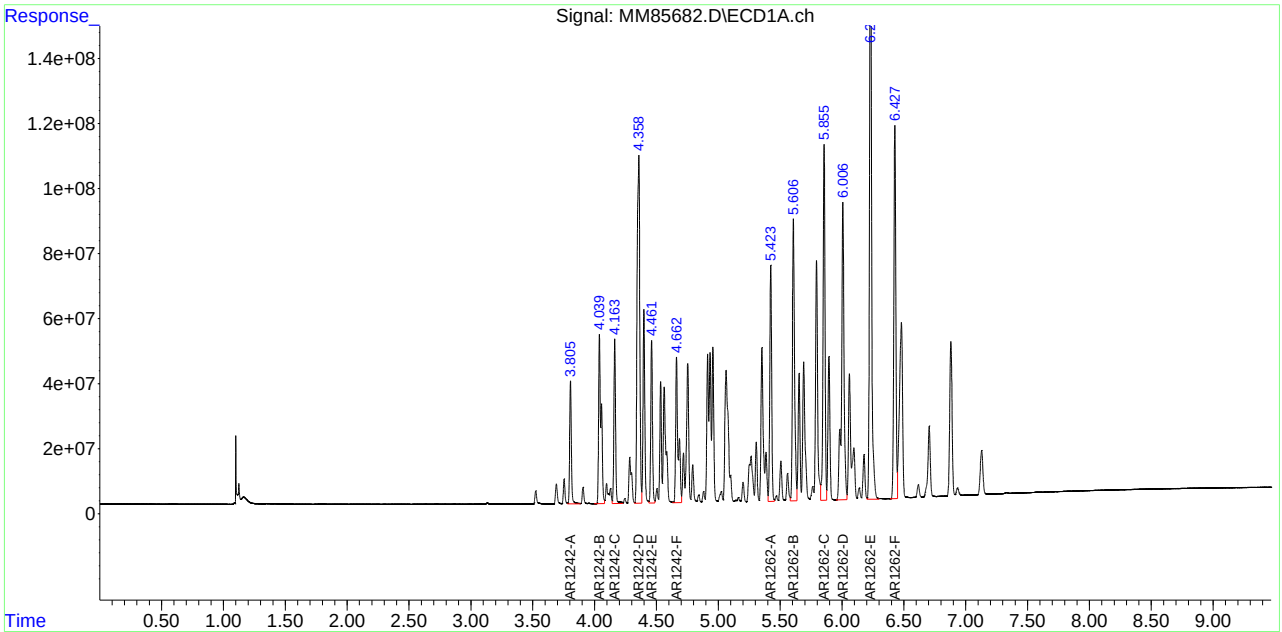
12.5.23 12

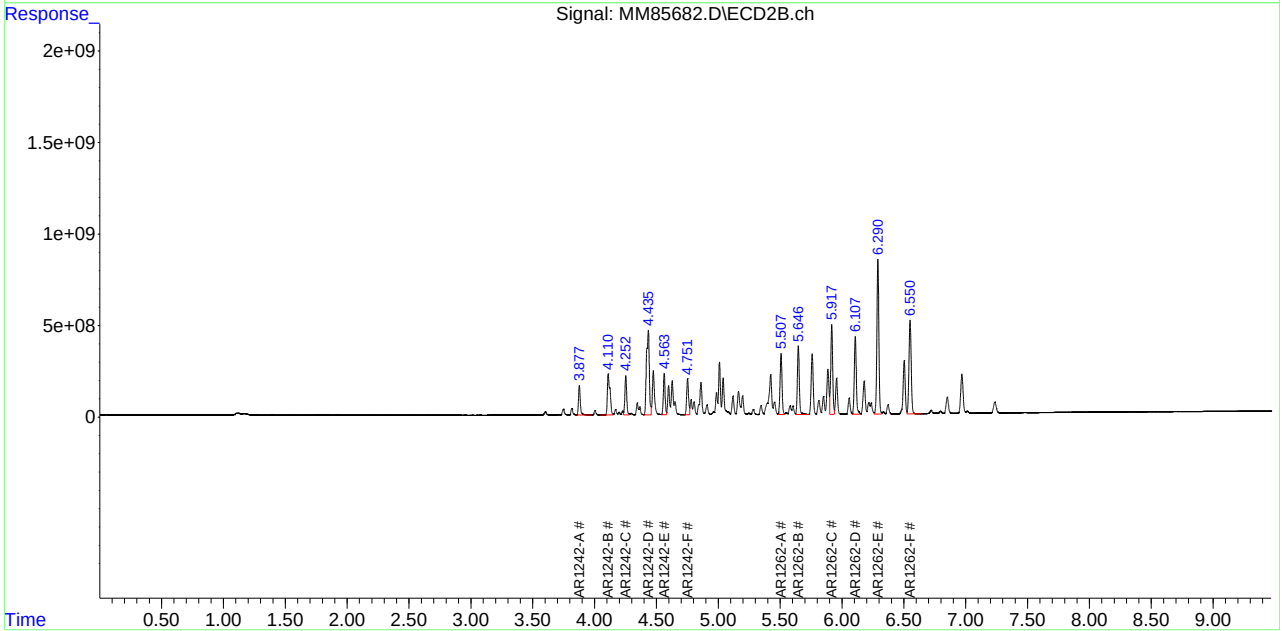
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85682.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:18 pm
Operator : eduardom
Sample : ic1833-600 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 17 18:08:28 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.23 12
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85683.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:30 pm
Operator : eduardom
Sample : ic1833-1000 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 17 18:09:01 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.805	3.877	60943289	260.6E6	885.021	886.851
20) L4 AR1242-B	4.039	4.111	84296186	354.7E6	893.000	899.912
21) L4 AR1242-C	4.163	4.253	79275870	343.5E6	902.051	934.712
22) L4 AR1242-D	4.357	4.435	176.7E6	745.7E6	920.038	991.037
23) L4 AR1242-E	4.461	4.564	84047476	370.5E6	961.667	988.219
24) L4 AR1242-F	4.662	4.752	73090469	326.5E6	973.555	1018.870
Sum AR1242-A			558.3E6	2401.4E6	5535.332	5719.601
Average AR1242-A					922.555	953.267
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.424	5.507	122.2E6	546.5E6	968.554	1033.876
44) L9 AR1262-B	5.607	5.647	141.9E6	617.8E6	973.034	1044.224
45) L9 AR1262-C	5.855	5.917	189.7E6	799.5E6	1039.783	1052.051
46) L9 AR1262-D	6.006	6.107	147.5E6	717.1E6	966.858	1067.765
47) L9 AR1262-E	6.230	6.290	328.8E6	1504.3E6	1032.058	1162.053
48) L9 AR1262-F	6.427	6.550	192.9E6	876.7E6	1019.933	1099.243
Sum AR1262-A			1123.1E6	5062.0E6	6000.220	6459.212
Average AR1262-A					1000.037	1076.535
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

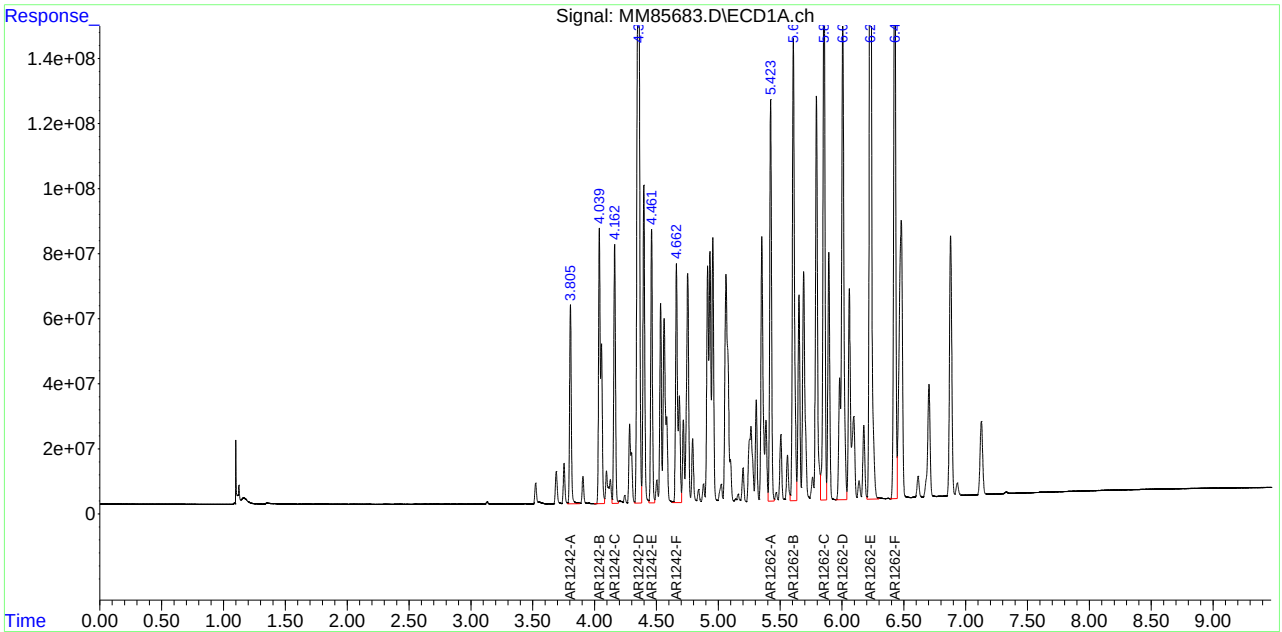
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

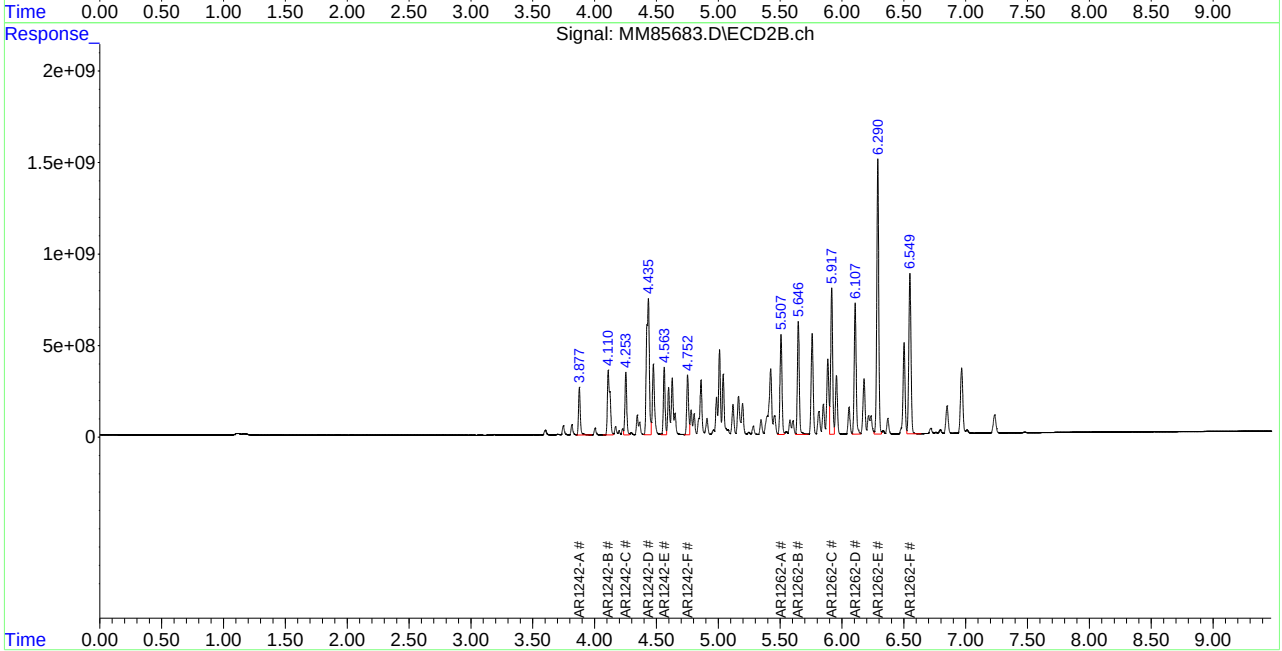
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85683.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:30 pm
Operator : eduardom
Sample : ic1833-1000 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 17 18:09:01 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85685.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:53 pm
Operator : eduardom
Sample : ic1833-20 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 17 18:09:47 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.535	4.599	2791442	13567143	25.412	30.524
26) L5 AR1248-B	4.663	4.752	3080426	14814601	23.977	28.068
27) L5 AR1248-C	4.754	4.859	2401686	11053699	24.071	28.400
28) L5 AR1248-D	4.934	5.010	3574805	22000312	24.087m	28.639
29) L5 AR1248-E	5.060	5.163	2855068	10611933	25.471m	28.485
30) L5 AR1248-F	5.308	5.411	1745536	8568342	24.436	29.281
Sum AR1248-A			16448963	80616030	147.454	173.397
Average AR1248-A					24.576	28.899
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

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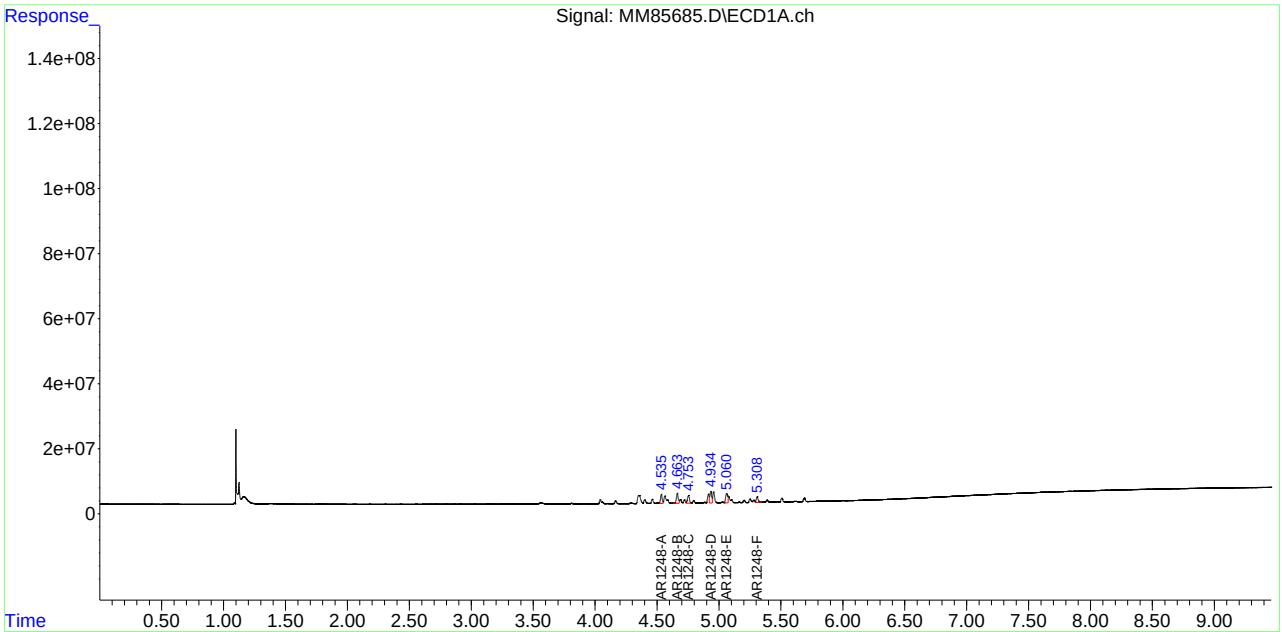
12

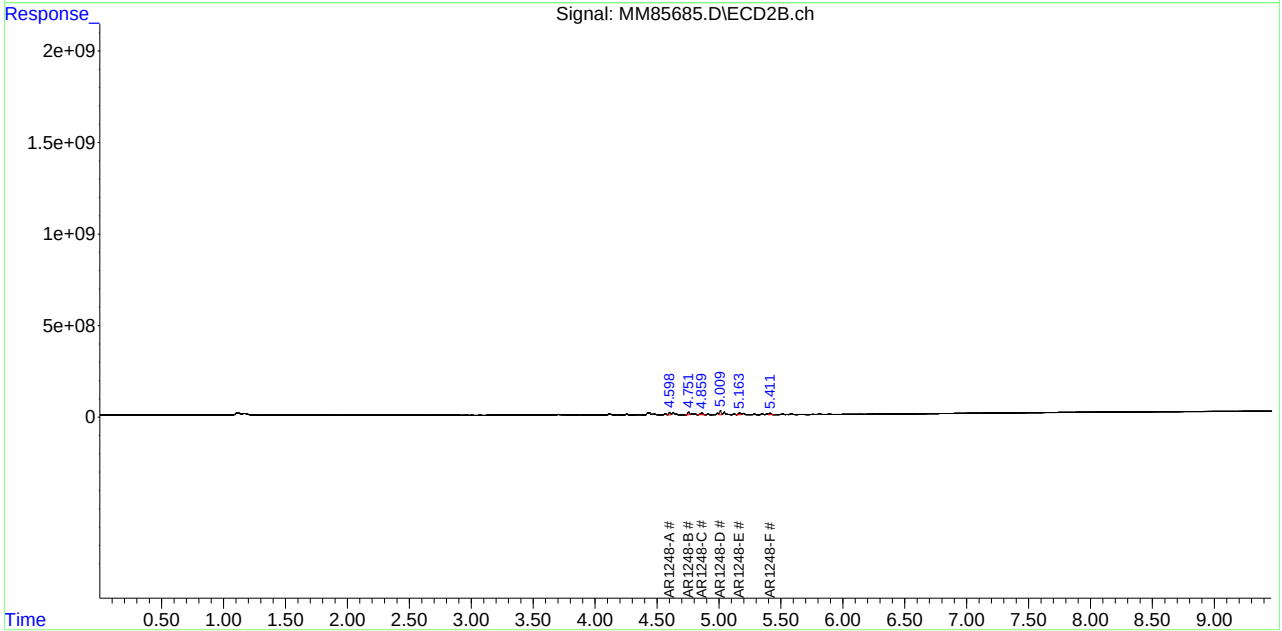
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85685.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:53 pm
Operator : eduardom
Sample : ic1833-20 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 17 18:09:47 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85685.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 16:53	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

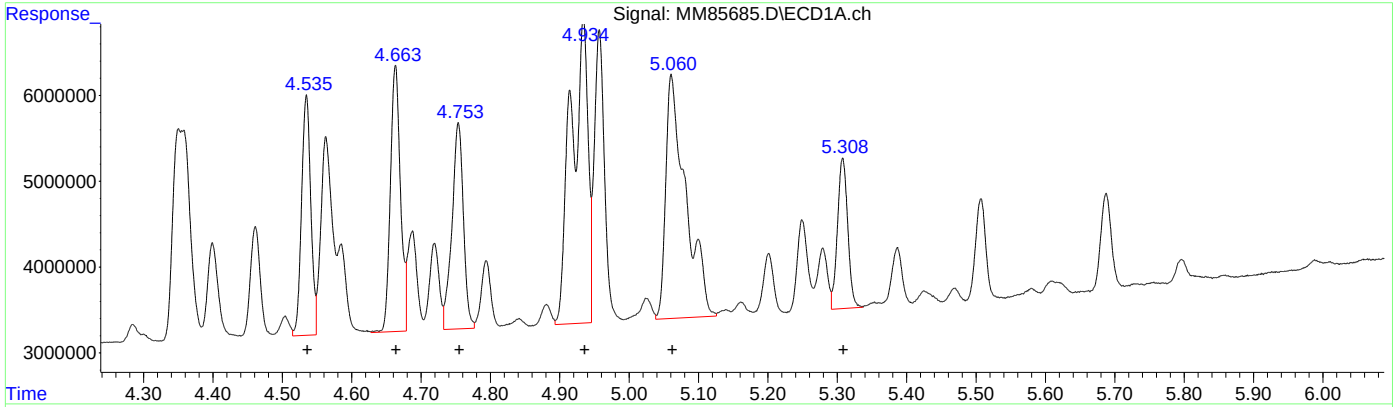
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-D		1	4.93	Poor instrument integration
AR1248-E		1	5.06	Poor instrument integration

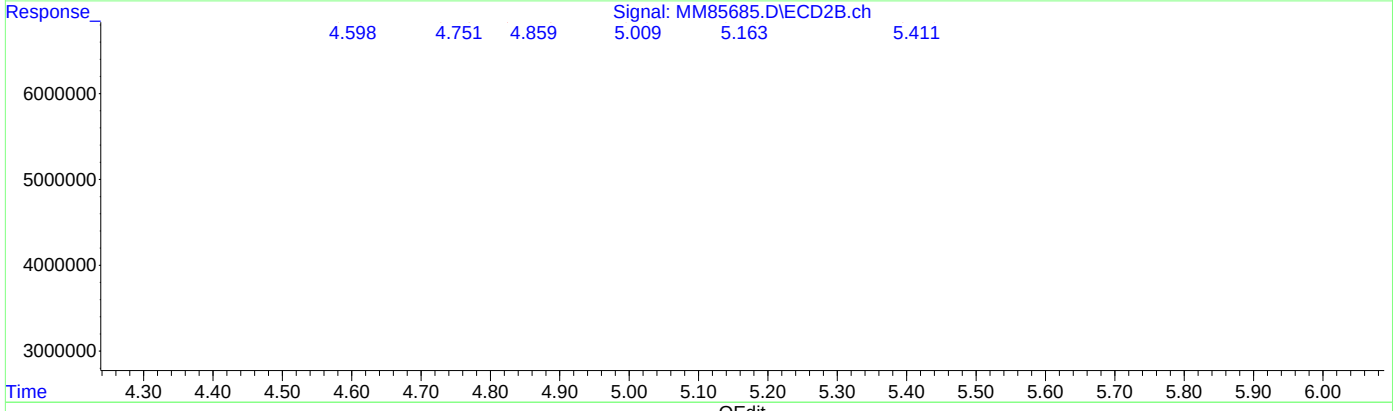
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85685.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:53 pm
Operator : eduardom
Sample : ic1833-20 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 17 18:09:05 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(25) AR1248-A (L5)

R.T.	Response	Conc
4.53	2791442	25.41
4.66	3080426	23.98
4.75	2401686	24.07
4.93	3558083	23.97
5.06	2810214	25.07
5.31	1745536	24.44

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	13567143	30.52
4.75	14814601	28.07
4.86	11053699	28.40
5.01	22000312	28.64
5.16	10611933	28.48
5.41	8568342	29.28

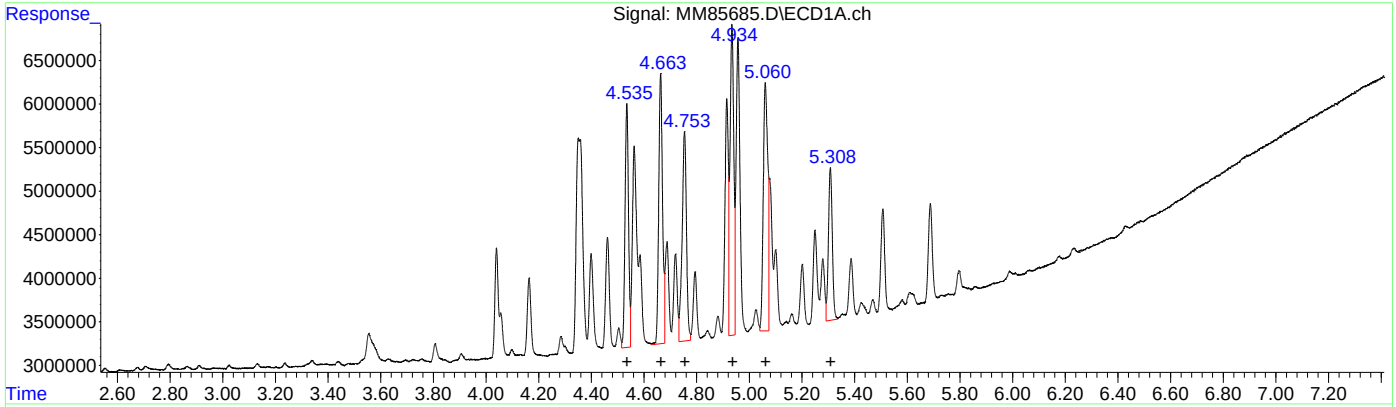
(+) = Expected Retention Time

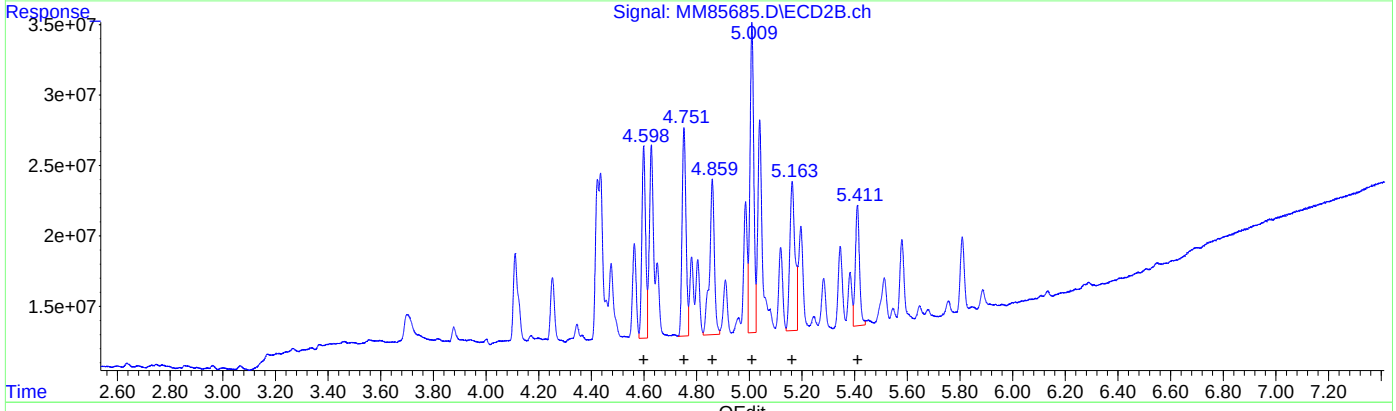
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85685.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:53 pm
Operator : eduardom
Sample : ic1833-20 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 17 18:09:05 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.53	2791442	25.41
4.66	3080426	23.98
4.75	2401686	24.07
4.93	3574805	24.09
5.06	2855068	25.47
5.31	1745536	24.44

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	13567143	30.52
4.75	14814601	28.07
4.86	11053699	28.40
5.01	22000312	28.64
5.16	10611933	28.48
5.41	8568342	29.28

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85686.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:05 pm
Operator : eduardom
Sample : ic1833-50 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 17 18:10:41 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.535	4.598	5783534	27463073	52.651	61.787
26) L5 AR1248-B	4.662	4.751	6606308	31051804	51.421m	58.831
27) L5 AR1248-C	4.754	4.859	5057302	23656763	50.688	60.781
28) L5 AR1248-D	4.934	5.010	7516144	43970451	50.643m	57.239
29) L5 AR1248-E	5.060	5.163	6024157	22198311	53.744m	59.585
30) L5 AR1248-F	5.307	5.410	3648136	18405163	51.071	62.897
Sum AR1248-A			34635581	166.7E6	310.218	361.121
Average AR1248-A					51.703	60.187
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

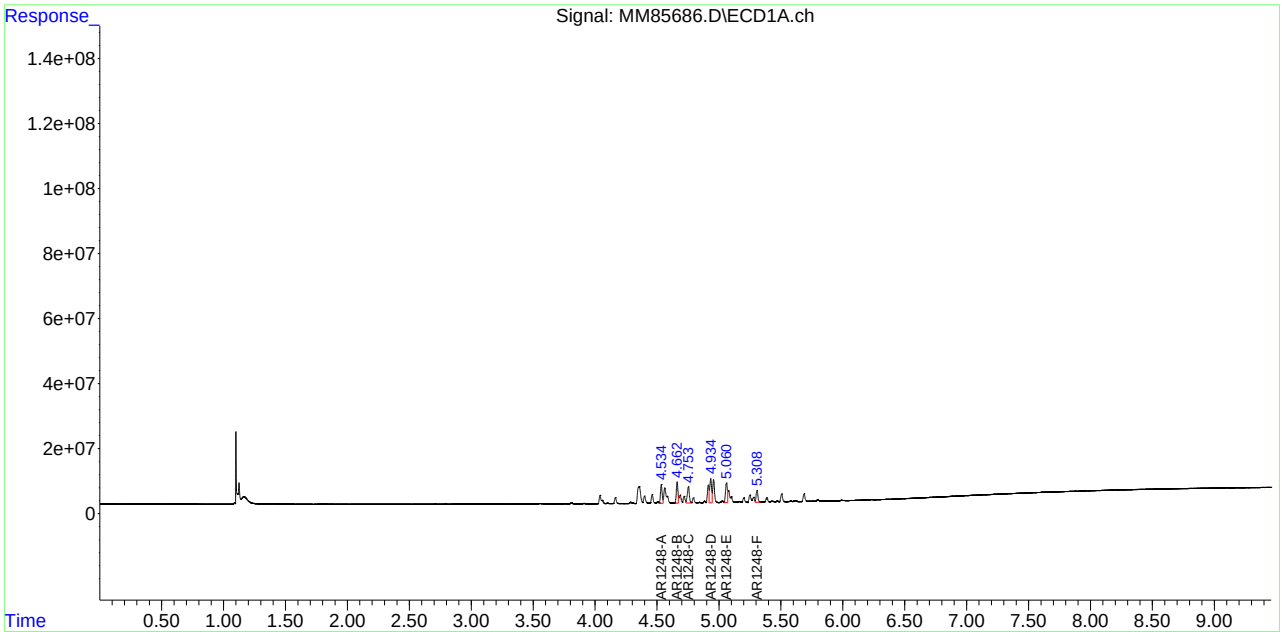
12.5.26
12

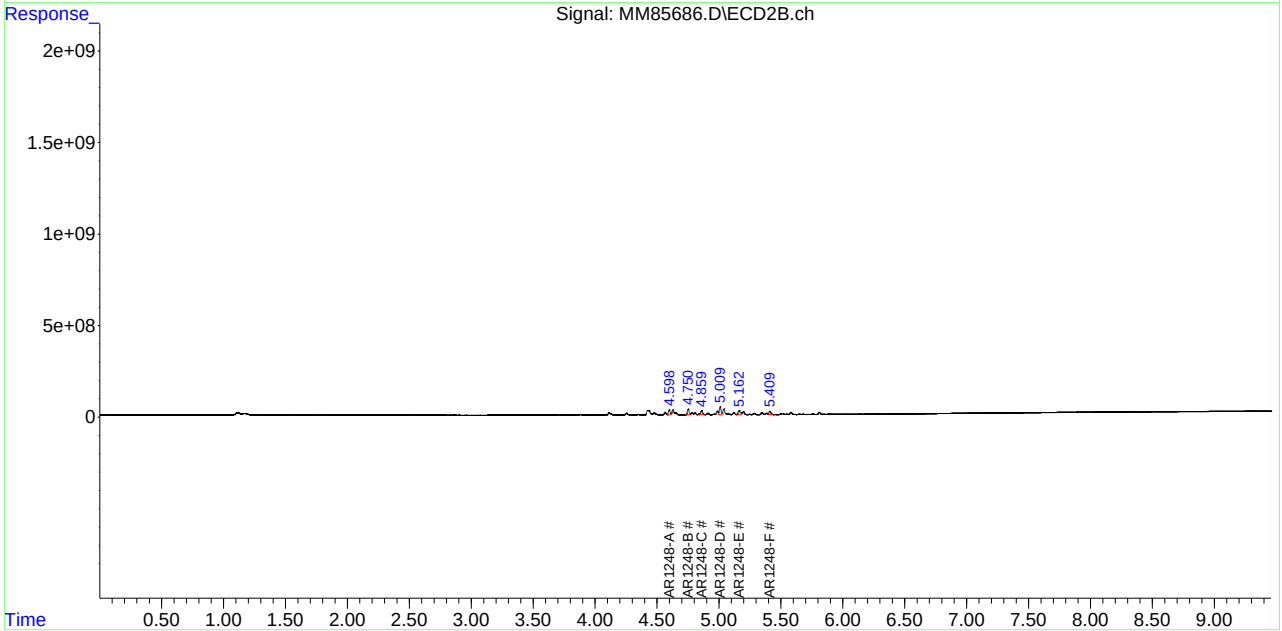
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85686.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:05 pm
Operator : eduardom
Sample : ic1833-50 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 17 18:10:41 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number:	GMM1833-IC1833	**Method:**	SW846 8082A
Lab FileID:	MM85686.D	**Analyst approved:**	10/18/23 10:04 Eduardo Melendez
Injection Time:	10/17/23 17:05	**Supervisor approved:**	10/19/23 17:25 Naresh Jiawan

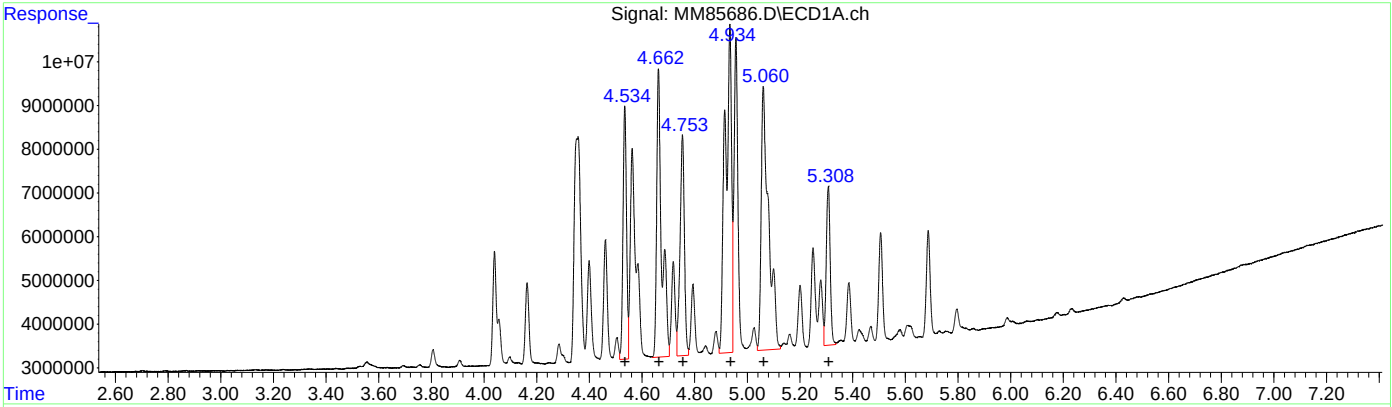
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-B		1	4.66	Poor instrument integration
AR1248-D		1	4.93	Poor instrument integration
AR1248-E		1	5.06	Poor instrument integration

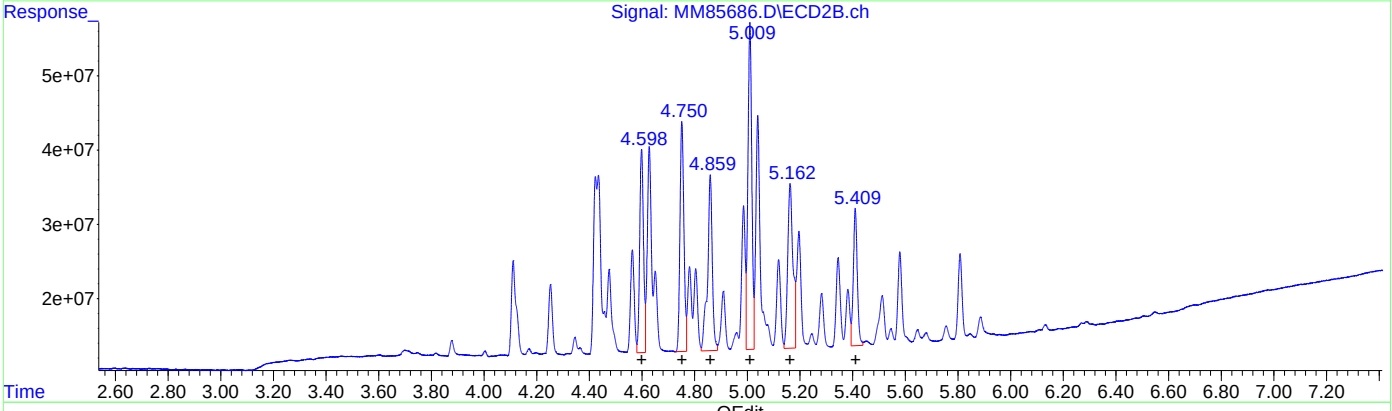
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85686.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:05 pm
Operator : eduardom
Sample : ic1833-50 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 17 18:09:53 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(25) AR1248-A (L5)

R.T.	Response	Conc
4.53	5783534	52.65
4.66	6598111	51.36
4.75	5057302	50.69
4.93	7513106	50.62
5.06	5986033	53.40
5.31	3648136	51.07

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	27463073	61.79
4.75	31051804	58.83
4.86	23656763	60.78
5.01	43970451	57.24
5.16	22198311	59.59
5.41	18405163	62.90

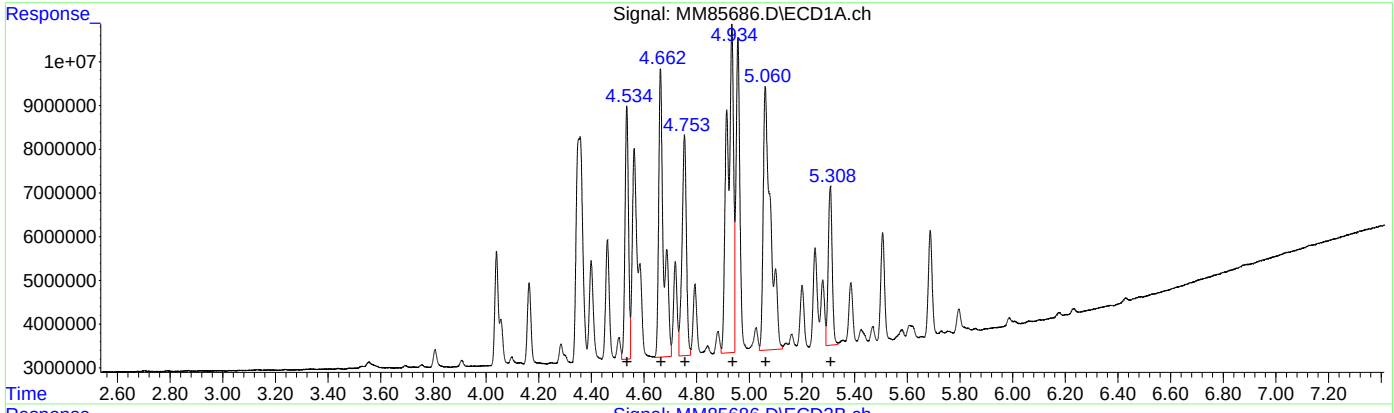
(+) = Expected Retention Time

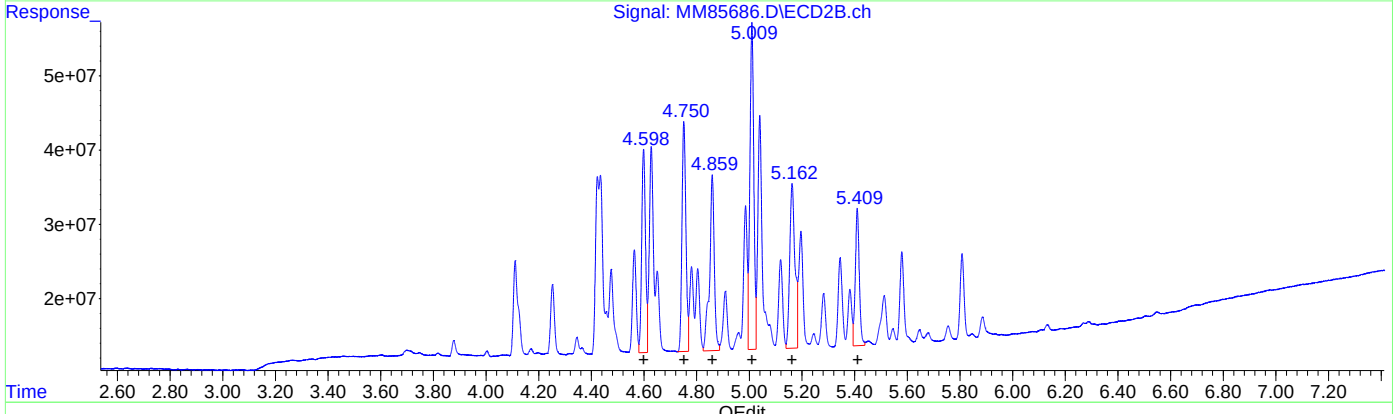
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85686.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:05 pm
Operator : eduardom
Sample : ic1833-50 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 17 18:09:53 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(25) AR1248-A (L5)

R.T.	Response	Conc
4.53	5783534	52.65
4.66	6598111	51.36
4.75	5057302	50.69
4.93	7513106	50.62
5.06	5986033	53.40
5.31	3648136	51.07

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	27463073	61.79
4.75	31051804	58.83
4.86	23656763	60.78
5.01	43970451	57.24
5.16	22198311	59.59
5.41	18405163	62.90

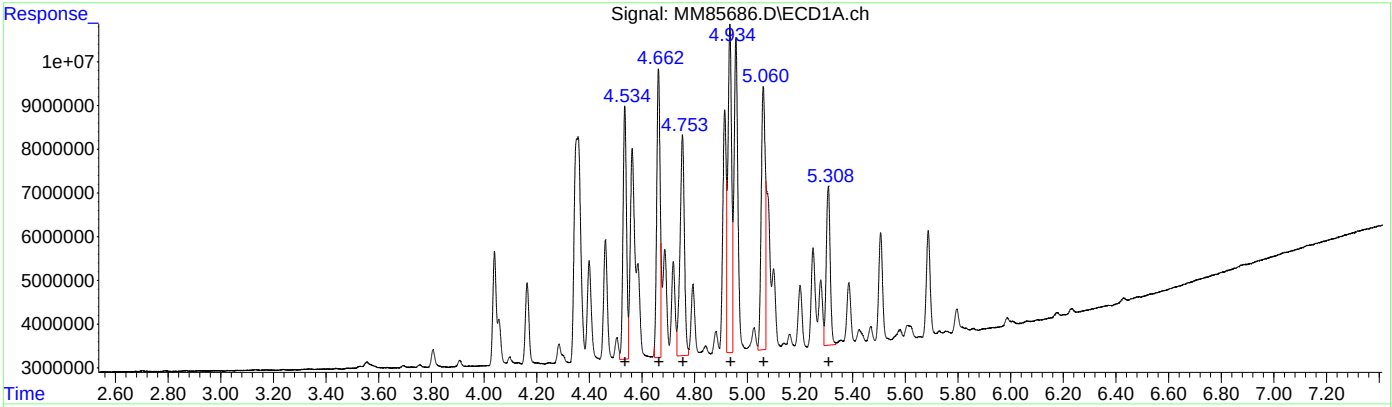
(+) = Expected Retention Time

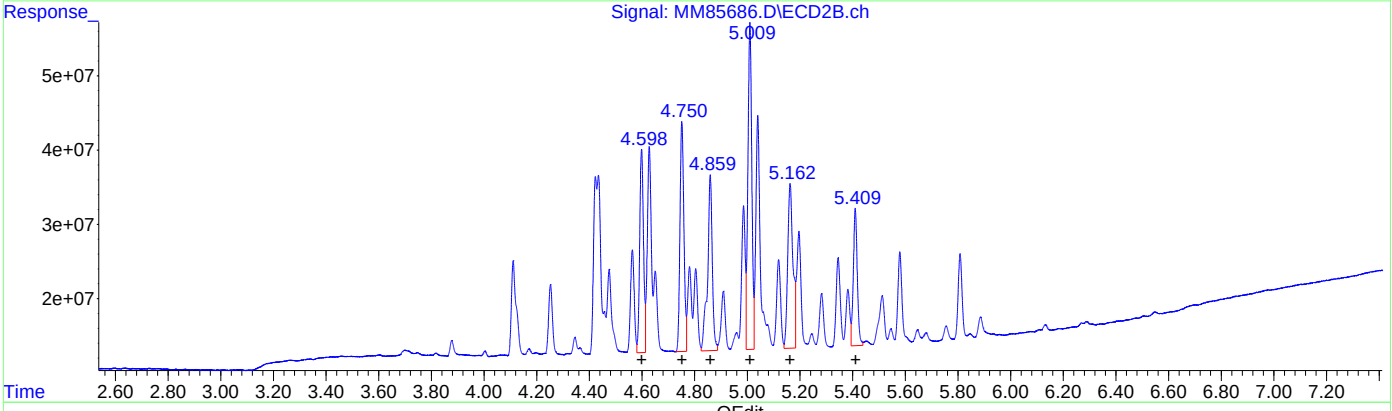
Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85686.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:05 pm
Operator : eduardom
Sample : ic1833-50 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 17 18:09:53 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.53	5783534	52.65
4.66	6606308	51.42
4.75	5057302	50.69
4.93	7516144	50.64
5.06	6024157	53.74
5.31	3648136	51.07

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	27463073	61.79
4.75	31051804	58.83
4.86	23656763	60.78
5.01	43970451	57.24
5.16	22198311	59.59
5.41	18405163	62.90

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85687.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:16 pm
Operator : eduardom
Sample : ic1833-200 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 17 18:11:41 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.534	4.599	21567887	91496501	196.344	205.851
26) L5 AR1248-B	4.662	4.751	24107558	109.7E6	187.645m	207.889
27) L5 AR1248-C	4.753	4.859	19510684	73885241	195.549	189.833
28) L5 AR1248-D	4.934	5.010	27976475	164.6E6	188.502m	214.325
29) L5 AR1248-E	5.059	5.163	22592199	78749276	201.556m	211.380
30) L5 AR1248-F	5.307	5.410	14014569	60567678	196.193	206.981
Sum AR1248-A			129.8E6	579.1E6	1165.789	1236.259
Average AR1248-A					194.298	206.043
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

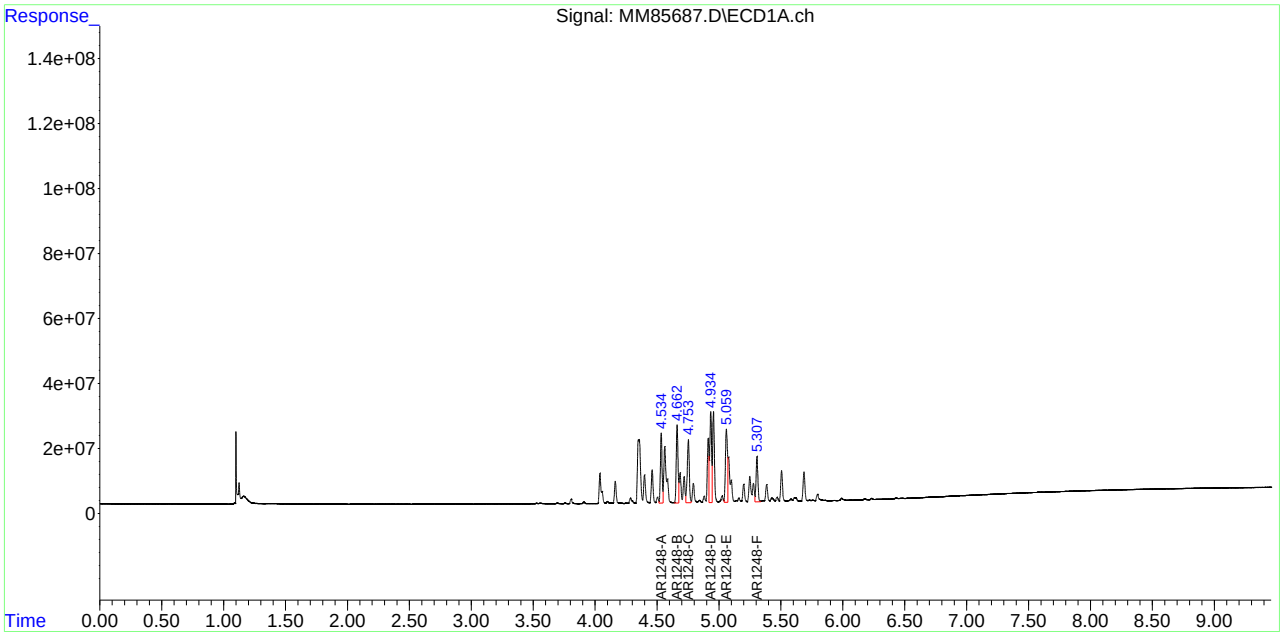
12.5.27
12

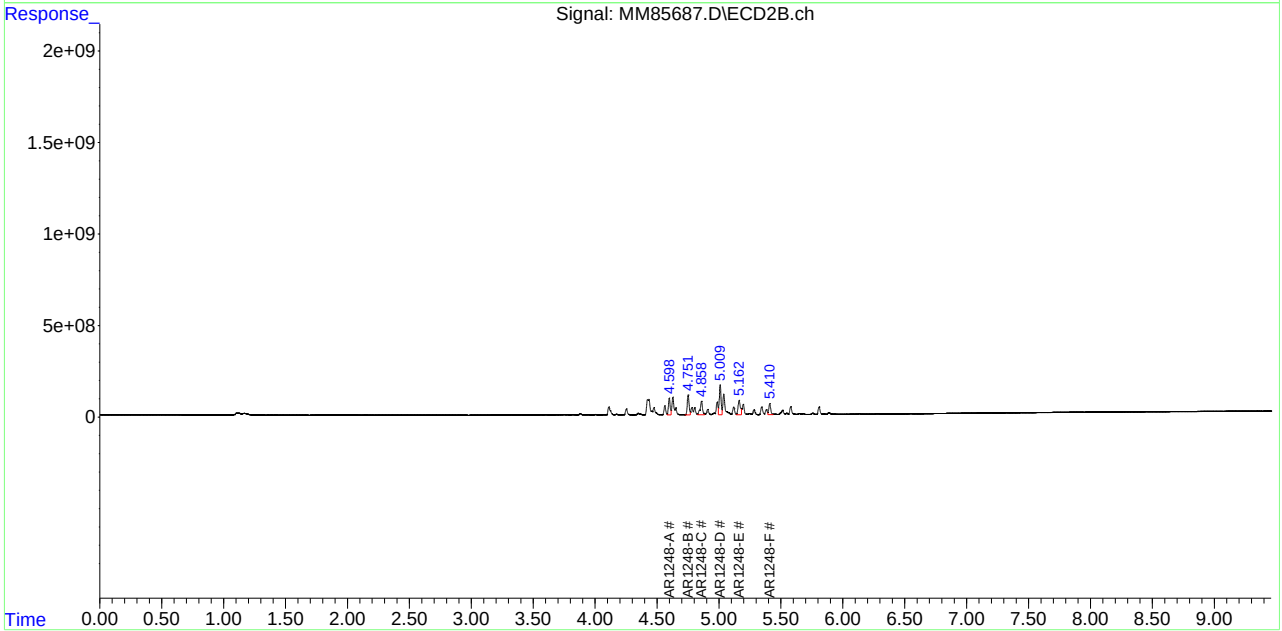
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85687.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:16 pm
Operator : eduardom
Sample : ic1833-200 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 17 18:11:41 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85687.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 17:16 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

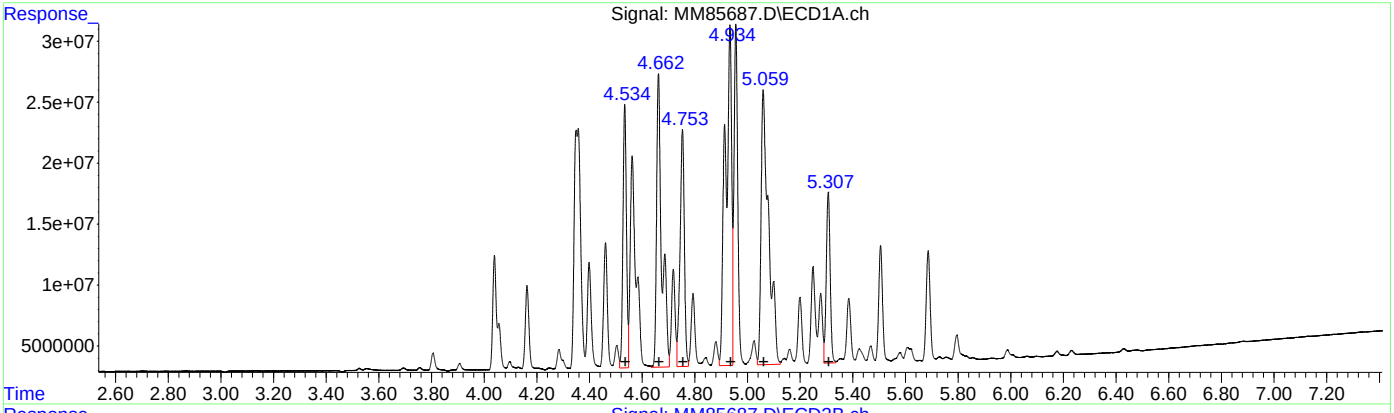
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-B		1	4.66	Poor instrument integration
AR1248-D		1	4.93	Poor instrument integration
AR1248-E		1	5.06	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85687.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:16 pm
Operator : eduardom
Sample : ic1833-200 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 17 18:10:47 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(25) AR1248-A (L5)

R.T.	Response	Conc
4.53	21567887	196.34
4.66	24054542	187.23
4.75	19510684	195.55
4.93	28040653	188.93
5.06	22258883	198.58
5.31	14014569	196.19

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	91496501	205.85
4.75	109725575	207.89
4.86	73885241	189.83
5.01	164642625	214.32
5.16	78749276	211.38
5.41	60567678	206.98

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/19/23 17:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85688.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:28 pm
Operator : eduardom
Sample : ic1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 17 18:12:34 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.534	4.599	43174257	184.1E6	393.038	414.245
26) L5 AR1248-B	4.663	4.752	50396985	215.6E6	392.273	408.442
27) L5 AR1248-C	4.753	4.860	40100177	155.0E6	401.910	398.193
28) L5 AR1248-D	4.934	5.010	59269662	326.0E6	399.353m	424.372
29) L5 AR1248-E	5.060	5.163	45913099	155.5E6	409.612m	417.481
30) L5 AR1248-F	5.308	5.410	29211588	120.4E6	408.940	411.409
Sum AR1248-A			268.1E6	1156.6E6	2405.127	2474.142
Average AR1248-A					400.854	412.357
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

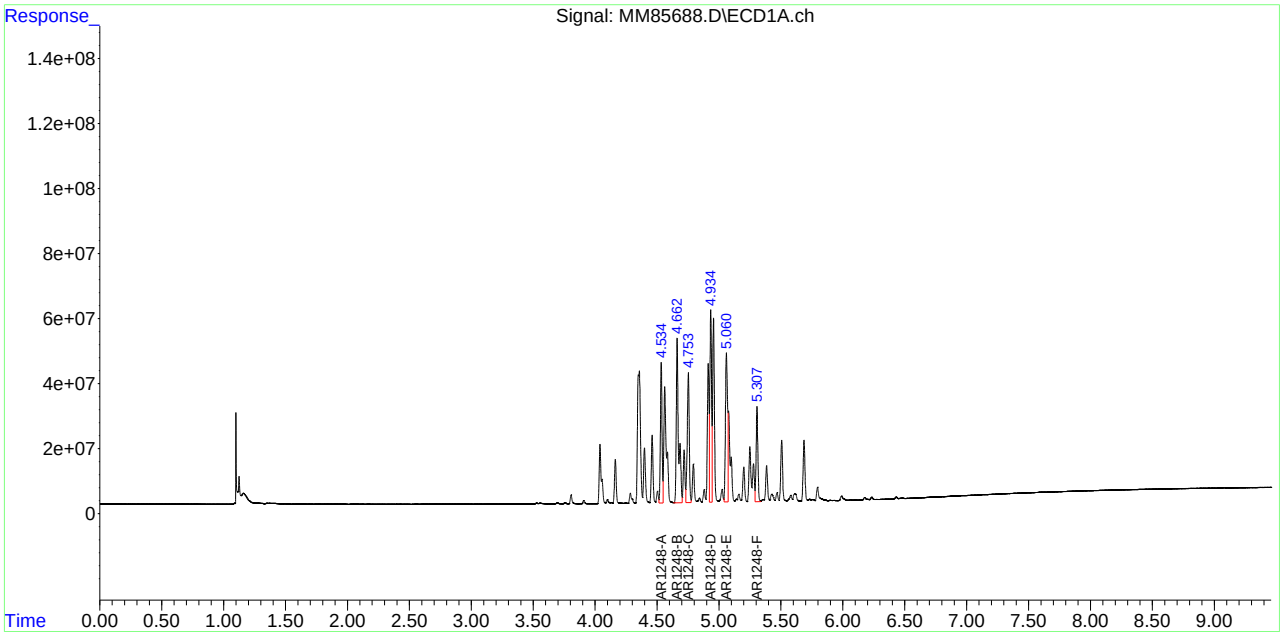
12.5.28 12

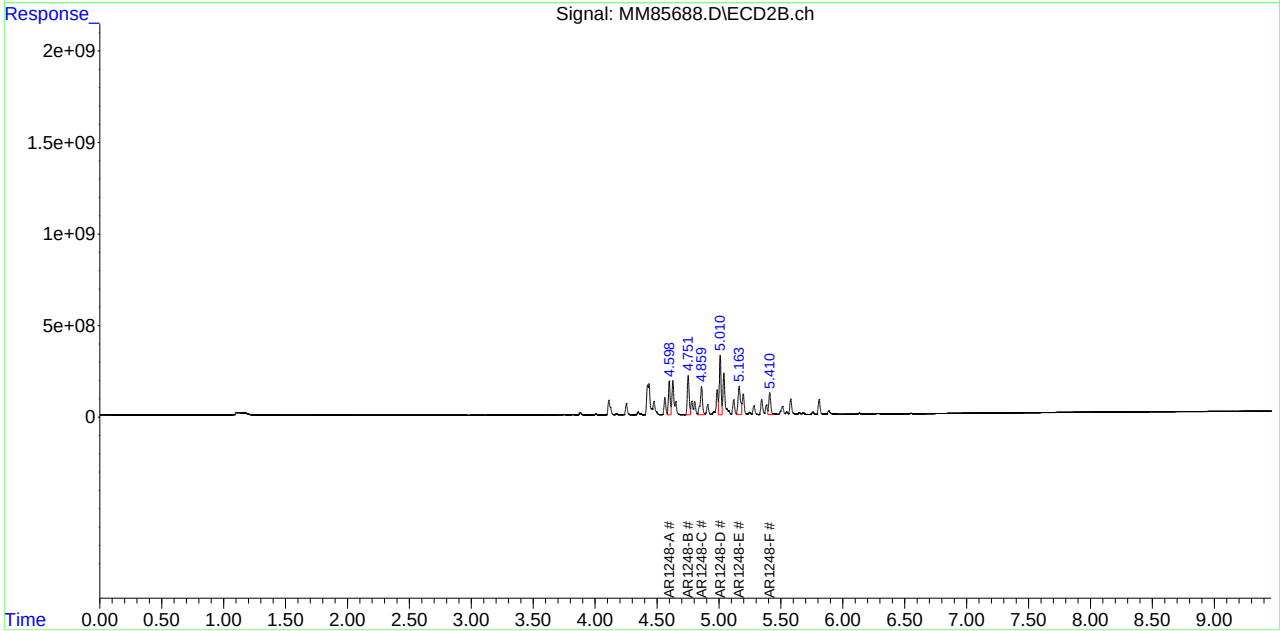
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85688.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:28 pm
Operator : eduardom
Sample : ic1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 17 18:12:34 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GMM1833-IC1833 **Method:** SW846 8082A
Lab FileID: MM85688.D **Analyst approved:** 10/18/23 10:04 Eduardo Melendez
Injection Time: 10/17/23 17:28 **Supervisor approved:** 10/19/23 17:25 Naresh Jiawan

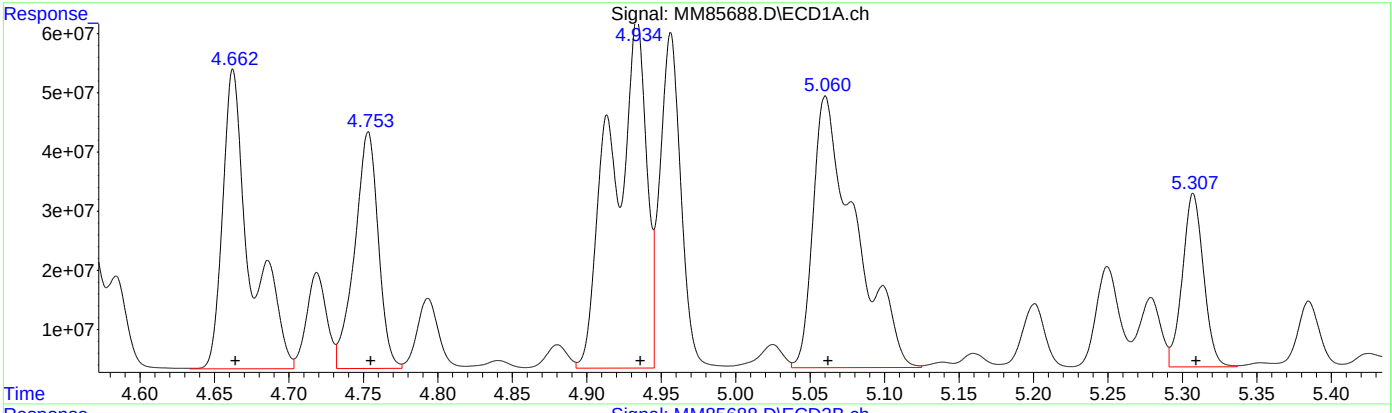
Parameter	CAS	Sig#	R.T. (min.)	Reason
AR1248-D		1	4.93	Poor instrument integration
AR1248-E		1	5.06	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85688.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:28 pm
Operator : eduardom
Sample : ic1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 17 18:11:46 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(25) AR1248-A (L5)

R.T.	Response	Conc
4.53	43174257	393.04
4.66	50396985	392.27
4.75	40100177	401.91
4.93	59203612	398.91
5.06	45611675	406.92
5.31	29211588	408.94

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	184123108	414.25
4.75	215579469	408.44
4.86	154981135	398.19
5.01	325998863	424.37
5.16	155531741	417.48
5.41	120388586	411.41

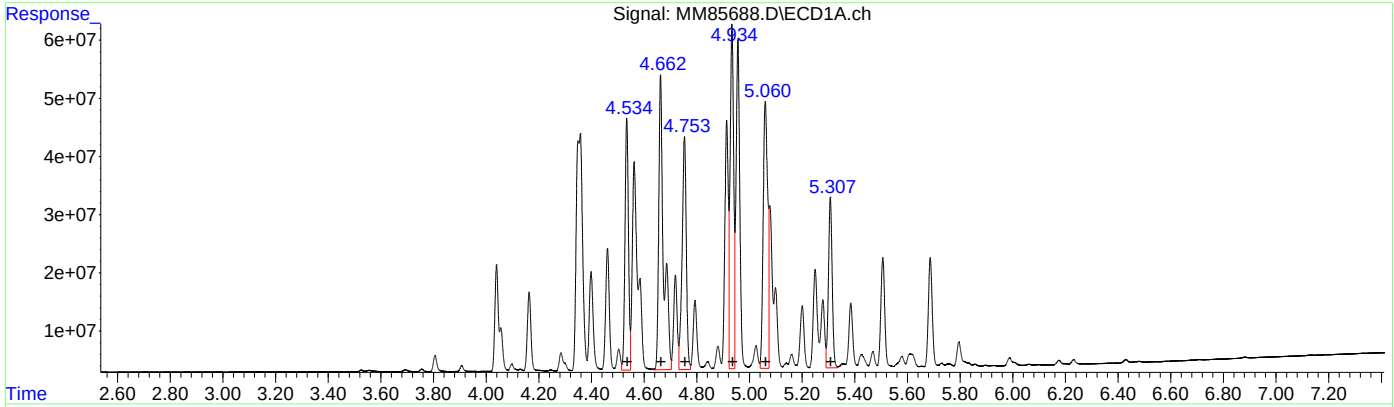
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85688.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:28 pm
Operator : eduardom
Sample : ic1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 17 18:11:46 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.53	43174257	393.04
4.66	50396985	392.27
4.75	40100177	401.91
4.93	59269662	399.35
5.06	45913099	409.61
5.31	29211588	408.94

(25) AR1248-A #2 (L5)

R.T.	Response	Conc
4.60	184123108	414.25
4.75	215579469	408.44
4.86	154981135	398.19
5.01	325998863	424.37
5.16	155531741	417.48
5.41	120388586	411.41

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85689.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:39 pm
Operator : eduardom
Sample : ic1833-600 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 17 18:12:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
Average	AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
25)	L5 AR1248-A	4.534	4.599	63050329	275.6E6	573.981	619.956
26)	L5 AR1248-B	4.662	4.752	73660830	320.2E6	573.351	606.722
27)	L5 AR1248-C	4.753	4.859	58642087	242.1E6	587.749	622.048
28)	L5 AR1248-D	4.933	5.010	86924635	473.3E6	585.689	616.142
29)	L5 AR1248-E	5.060	5.162	68227758	232.8E6	608.692	624.764
30)	L5 AR1248-F	5.307	5.410	42522187	184.2E6	595.278	629.347
	Sum AR1248-A			393.0E6	1728.1E6	3524.740	3718.979
Average	AR1248-A					587.457	619.830
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
Average	AR1268-A					0.000	0.000

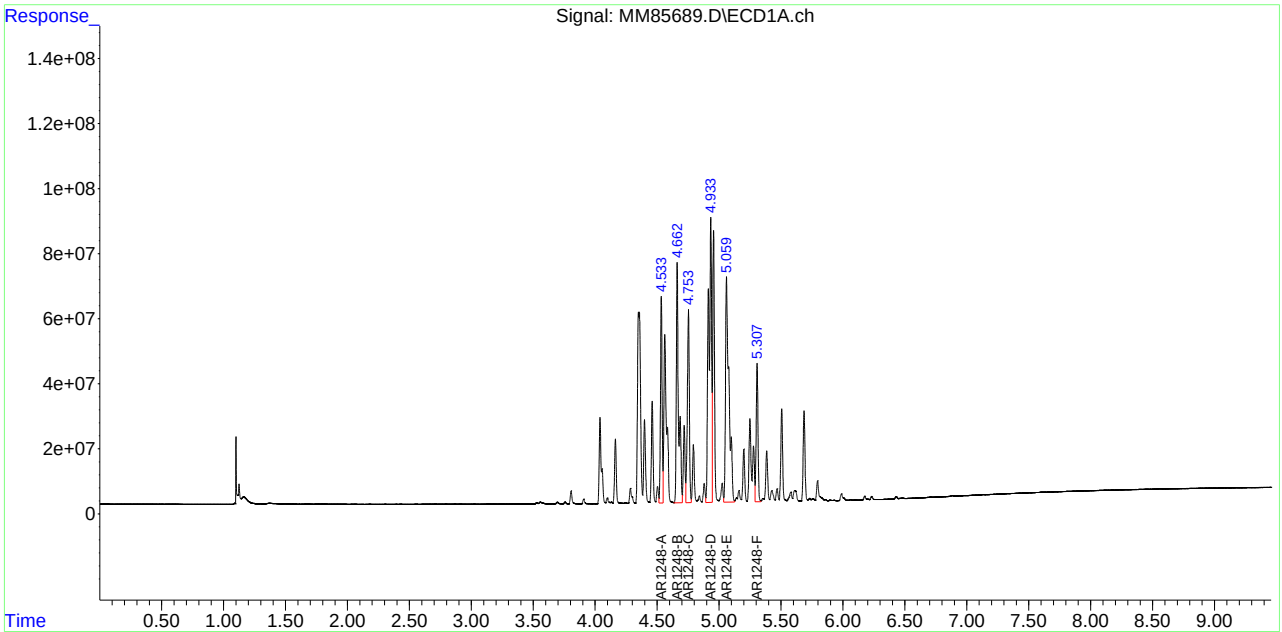
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

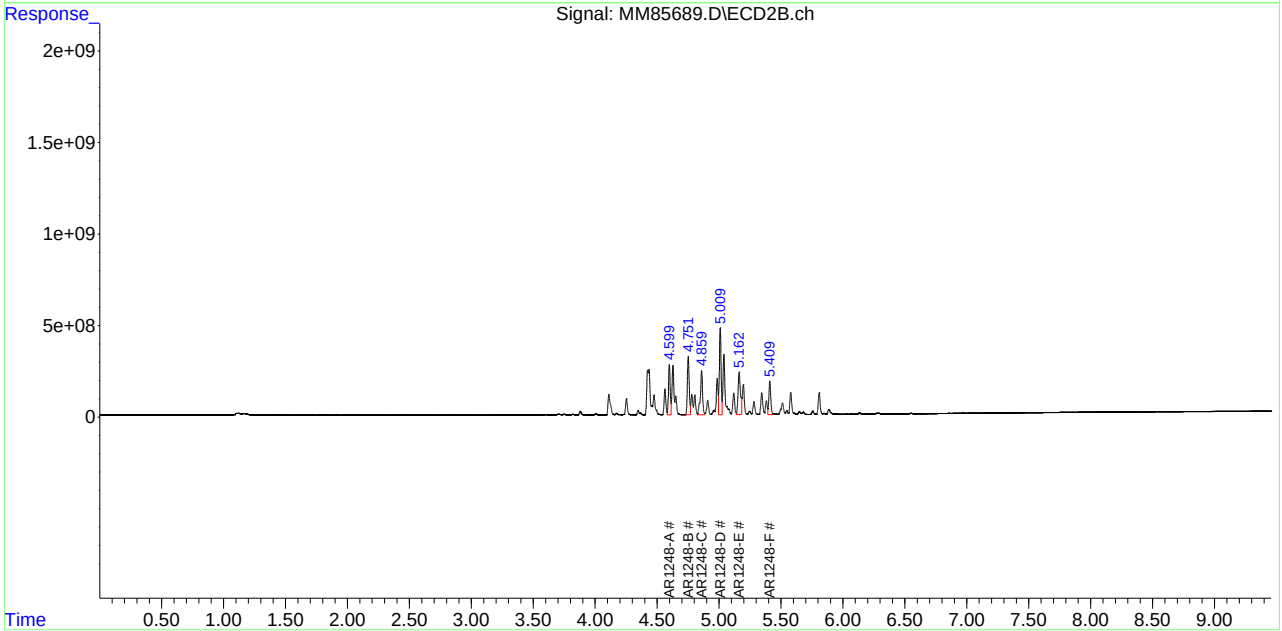
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85689.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:39 pm
Operator : eduardom
Sample : ic1833-600 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 17 18:12:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85690.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:51 pm
Operator : eduardom
Sample : ic1833-1000 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 17 18:13:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.534	4.599	106.1E6	442.8E6	965.719	996.145
26) L5 AR1248-B	4.663	4.752	123.5E6	519.4E6	961.036	983.999
27) L5 AR1248-C	4.754	4.859	98952935	392.3E6	991.771	1007.943
28) L5 AR1248-D	4.934	5.010	145.2E6	773.8E6	978.222	1007.244
29) L5 AR1248-E	5.061	5.163	116.0E6	389.0E6	1034.818	1044.152
30) L5 AR1248-F	5.307	5.411	71323516	309.4E6	998.474	1057.343
Sum AR1248-A			661.0E6	2826.6E6	5930.040	6096.825
Average AR1248-A					988.340	1016.138
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

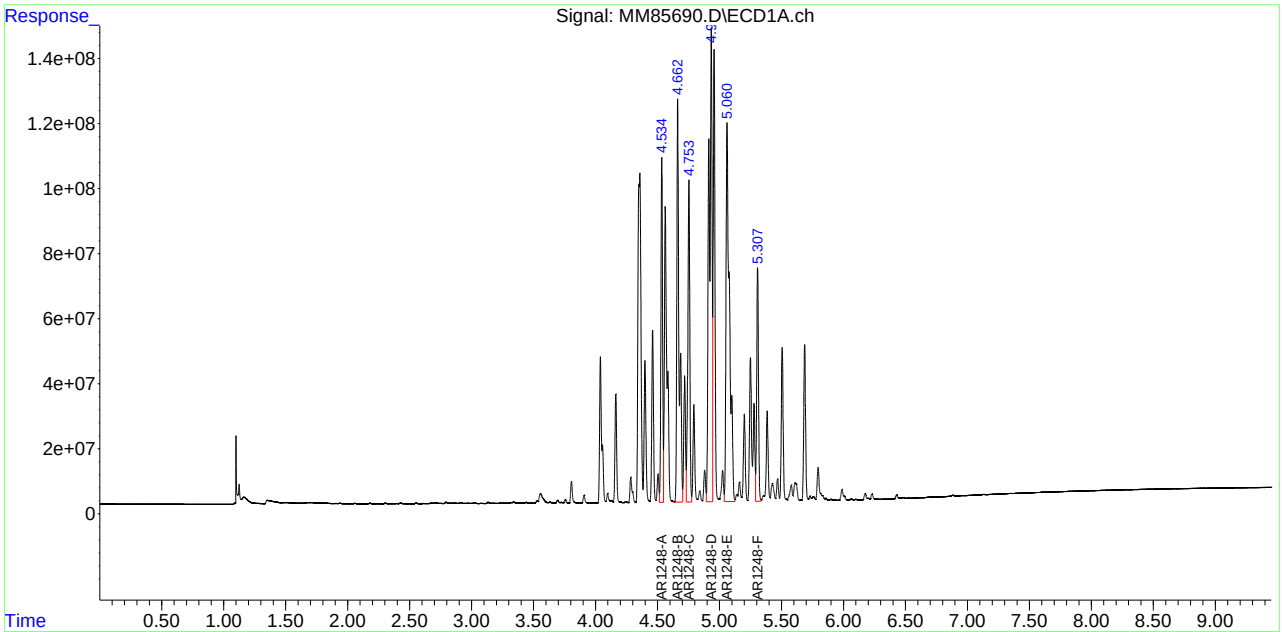
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

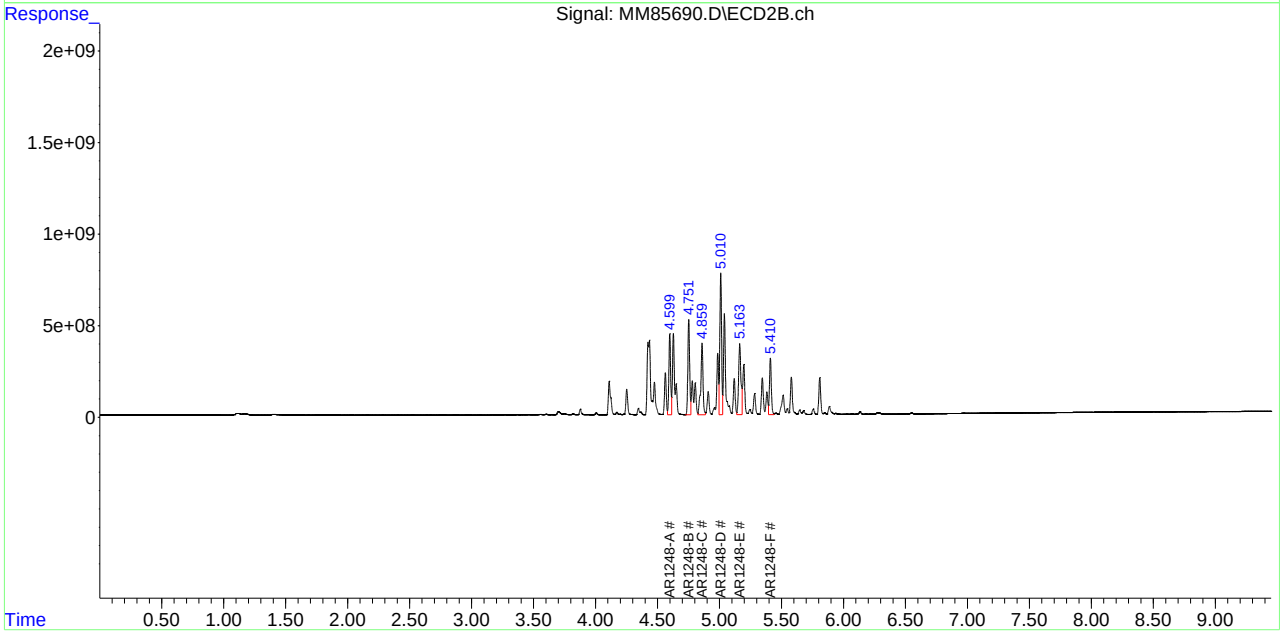
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85690.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 5:51 pm
Operator : eduardom
Sample : ic1833-1000 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 17 18:13:16 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Oct 16 11:22:58 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85663.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:37 pm
Operator : eduardom
Sample : icv1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 18 08:36:43 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
2)	L1 AR1016-A	3.805	3.877	29397618	127.7E6	356.398	339.784
3)	L1 AR1016-B	4.039	4.111	39747323	172.7E6	359.880	347.087
4)	L1 AR1016-C	4.162	4.253	38057830	169.8E6	366.031	363.258
5)	L1 AR1016-D	4.357	4.435	87010036	363.8E6	386.592	369.165
6)	L1 AR1016-E	4.461	4.563	39576864	179.5E6	378.634	367.108
7)	L1 AR1016-F	4.662	4.752	34077702	151.7E6	371.299	358.069
	Sum AR1016-A			267.9E6	1165.2E6	2218.833	2144.472
	Average AR1016-A					369.806	357.412
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
37)	L7 AR1260-A	5.422	5.507	56493097	249.9E6	358.953	347.823
38)	L7 AR1260-B	5.607	5.647	65472838	295.3E6	349.226	347.672
39)	L7 AR1260-C	5.794	5.886	73067259	288.5E6	365.766	366.048
40)	L7 AR1260-D	6.006	6.107	48632937	209.4E6	364.417	352.824
41)	L7 AR1260-E	6.230	6.289	106.5E6	473.8E6	363.293	366.401
42)	L7 AR1260-F	6.427	6.548	62444226	298.6E6	380.355	375.234
	Sum AR1260-A			412.7E6	1815.5E6	2182.010	2156.002
	Average AR1260-A					363.668	359.334
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

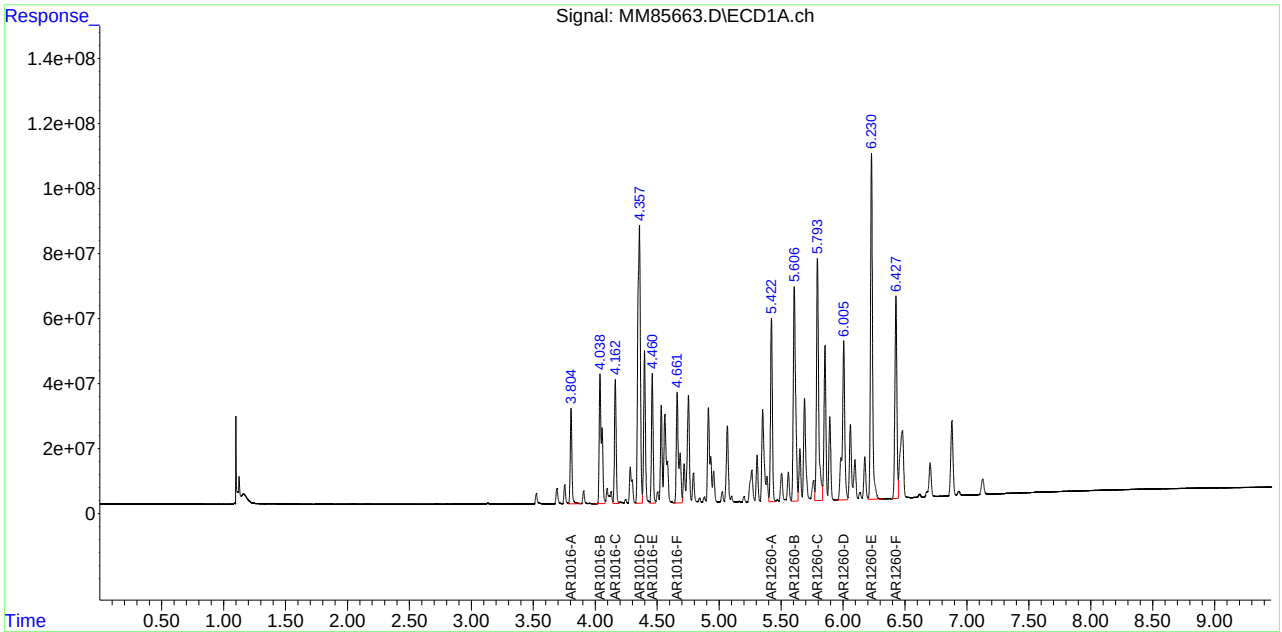
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

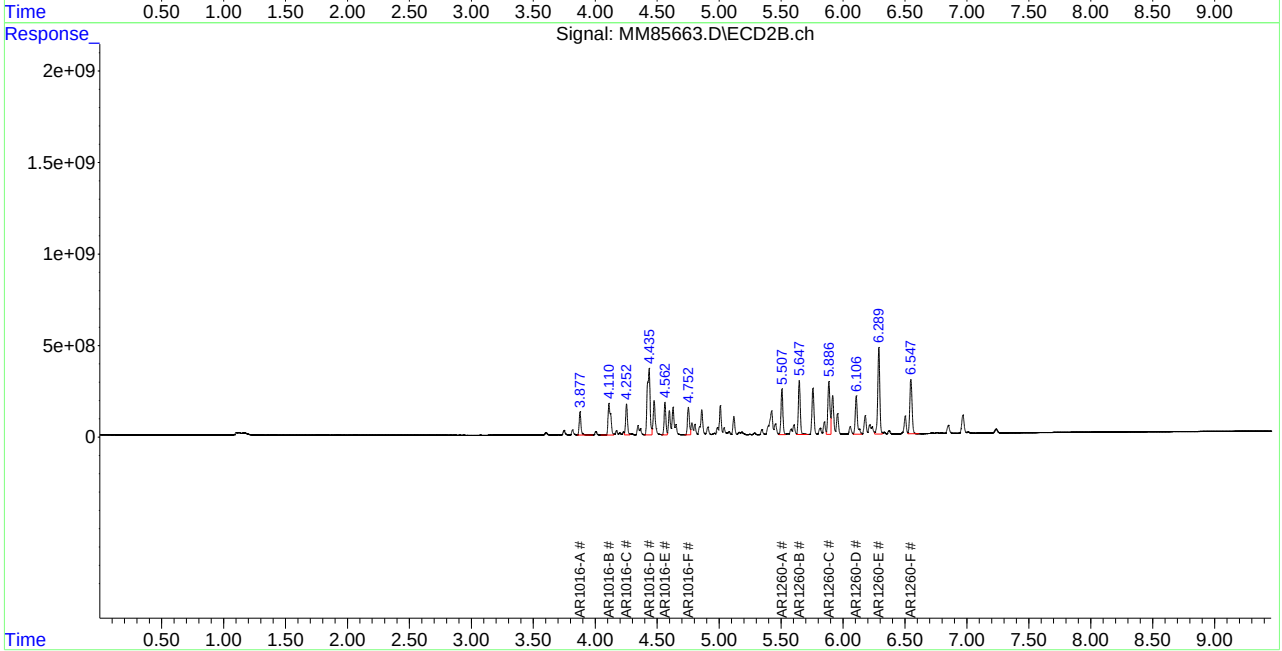
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85663.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 12:37 pm
Operator : eduardom
Sample : icv1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 18 08:36:43 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85670.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:59 pm
Operator : eduardom
Sample : icv1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 18 08:40:37 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
	Average AR1016-A					0.000	0.000
8)	L2 AR1221-A	3.130	3.185	11055324	41757688	389.577	390.347
9)	L2 AR1221-B	3.434	3.502	3682909	16664222	339.930	450.787
10)	L2 AR1221-C	3.692	3.748	17514921	82457110	373.371	417.260
11)	L2 AR1221-D	3.754	3.817	12734312	55726983	374.868	409.394
12)	L2 AR1221-E	3.805	3.878	46549402	193.6E6	382.036	414.832
	Sum AR1221-A			91536868	390.2E6	1859.783	2082.621
	Average AR1221-A					371.957	416.524
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
31)	L6 AR1254-A	4.915	5.010	55734355	327.1E6	395.069	376.650
32)	L6 AR1254-B	5.066	5.119	73970442	275.8E6	398.918	370.556
33)	L6 AR1254-C	5.307	5.411	91015321	383.5E6	395.185	382.809
34)	L6 AR1254-D	5.506	5.580	64860112	264.7E6	397.322	384.454
35)	L6 AR1254-E	5.688	5.809	48028323	176.7E6	395.023	387.897
36)	L6 AR1254-F	5.795	5.886	63097110	264.4E6	362.540	359.120
	Sum AR1254-A			396.7E6	1692.2E6	2344.058	2261.486
	Average AR1254-A					390.676	376.914
	Sum AR1260-A			0	0	N.D.	N.D.
	Average AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

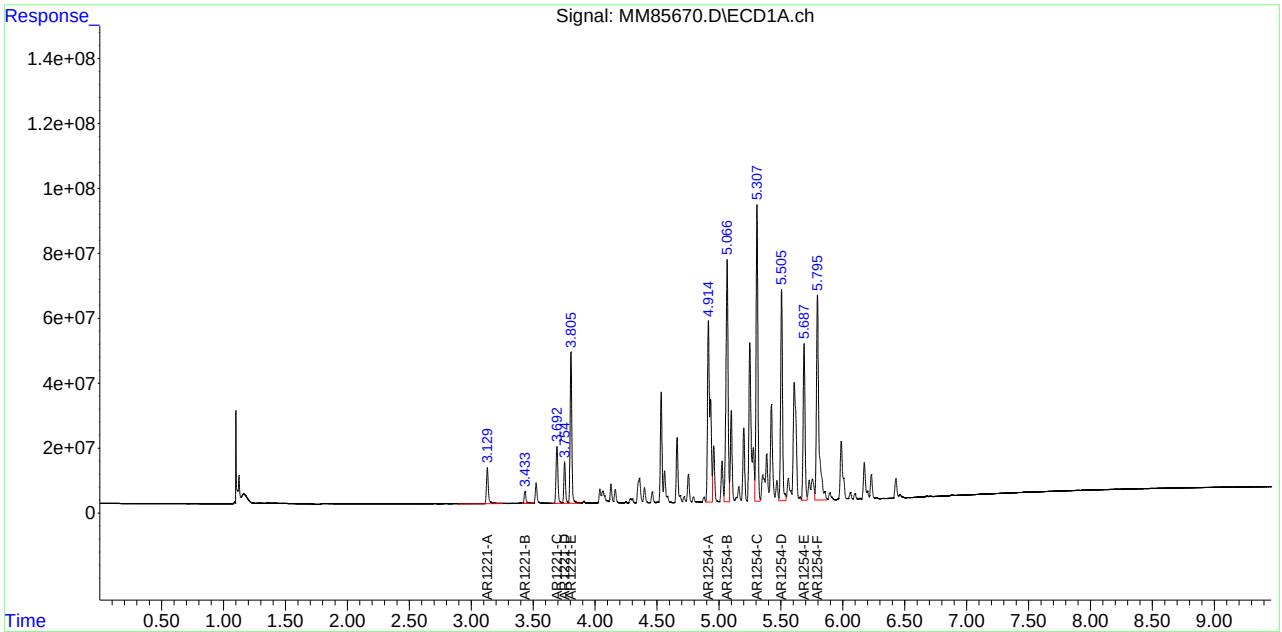
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

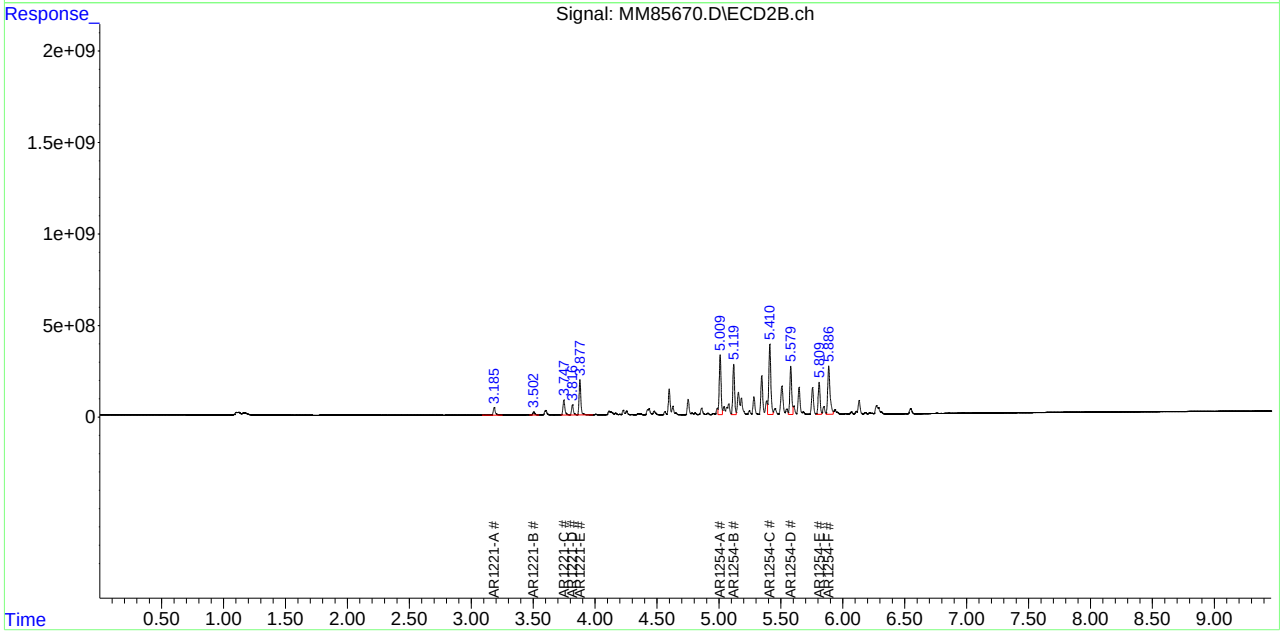
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85670.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 1:59 pm
Operator : eduardom
Sample : icv1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 18 08:40:37 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85677.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:20 pm
Operator : eduardom
Sample : icv1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 18 08:42:45 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
13) L3 AR1232-A	3.805	3.877	35940633	157.4E6	400.238	396.504
14) L3 AR1232-B	4.039	4.111	18399591	84052083	349.177	356.942
15) L3 AR1232-C	4.163	4.253	18011703	80462615	360.444	356.503
16) L3 AR1232-D	4.357	4.435	38391528	165.1E6	369.298	363.558
17) L3 AR1232-E	4.462	4.563	17380689	80228573	362.295	360.232
18) L3 AR1232-F	4.663	4.752	14162308	64900190	345.575	338.415
Sum AR1232-A			142.3E6	632.1E6	2187.026	2172.155
Average AR1232-A					364.504	362.026
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
49) L8 AR1268-A	5.855	5.917	25861166	114.2E6	363.437	357.624
50) L8 AR1268-B	6.023	6.107	30293194	139.8E6	374.446	371.152
51) L8 AR1268-C	6.426	6.502	129.2E6	578.6E6	373.850	380.590
52) L8 AR1268-D	6.483	6.551	106.7E6	509.6E6	373.478	382.632
53) L8 AR1268-E	6.616	6.718	90945270	403.6E6	383.133	389.016
54) L8 AR1268-F	6.879	6.968	35129404	154.2E6	378.860	365.669
Sum AR1268-A			418.2E6	1900.1E6	2247.204	2246.684
Average AR1268-A					374.534	374.447

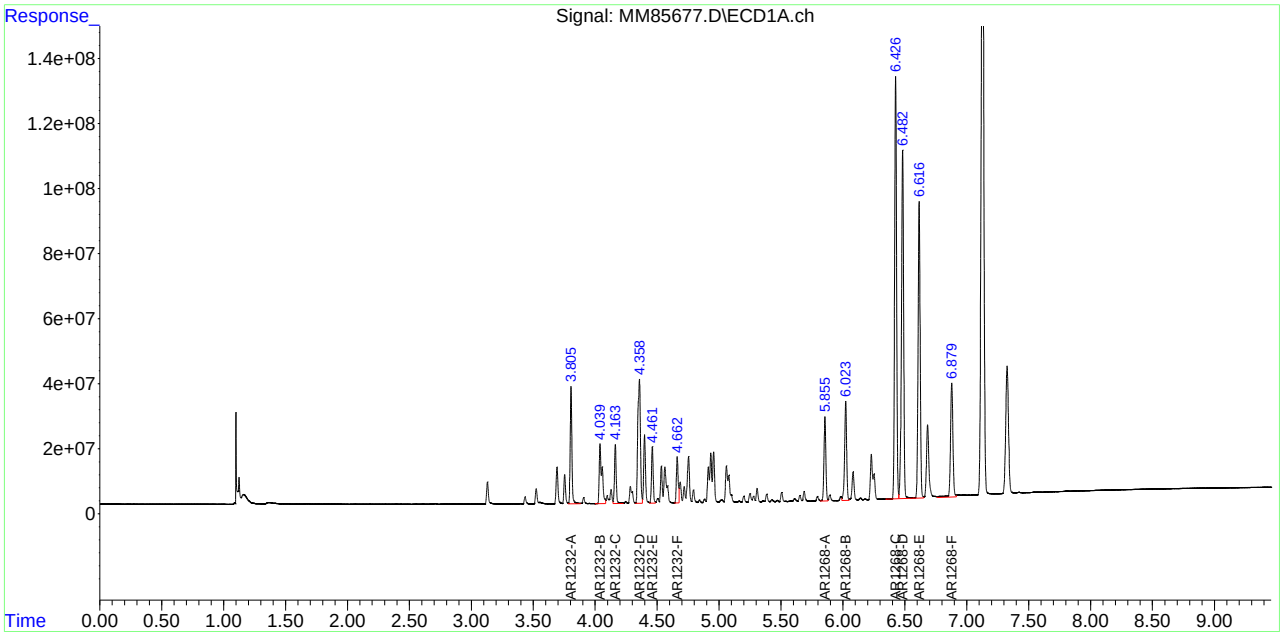
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

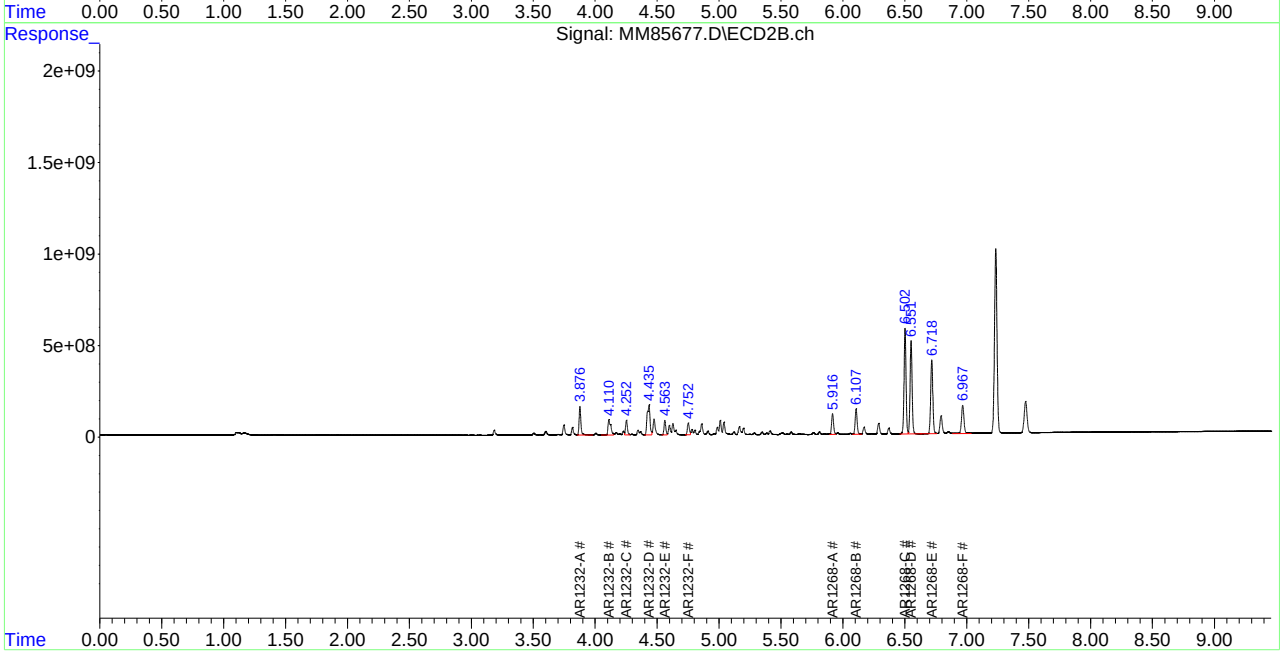
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85677.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 3:20 pm
Operator : eduardom
Sample : icv1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 18 08:42:45 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85684.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:41 pm
Operator : eduardom
Sample : icv1833-400 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 18 08:45:06 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.805	3.877	25216639	110.8E6	366.779	403.734
20) L4 AR1242-B	4.040	4.111	34113925	148.4E6	361.263	394.692
21) L4 AR1242-C	4.163	4.253	32128645	140.4E6	362.408	347.399
22) L4 AR1242-D	4.357	4.436	71282828	302.6E6	379.802	364.047
23) L4 AR1242-E	4.462	4.563	33467791	149.4E6	383.728	363.673
24) L4 AR1242-F	4.663	4.752	30367641	132.7E6	392.489	367.600
Sum AR1242-A			226.6E6	984.3E6	2246.469	2241.144
Average AR1242-A					374.411	373.524
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.424	5.507	49587209	226.8E6	383.637	374.001
44) L9 AR1262-B	5.608	5.647	57541116	253.6E6	383.998	371.764
45) L9 AR1262-C	5.855	5.917	74816614	324.5E6	387.567	374.686
46) L9 AR1262-D	6.007	6.107	60238702	284.3E6	383.907	375.155
47) L9 AR1262-E	6.231	6.289	128.3E6	556.3E6	389.285	380.021
48) L9 AR1262-F	6.427	6.550	74824394	340.1E6	372.326	376.509
Sum AR1262-A			445.3E6	1985.7E6	2300.719	2252.137
Average AR1262-A					383.453	375.356
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

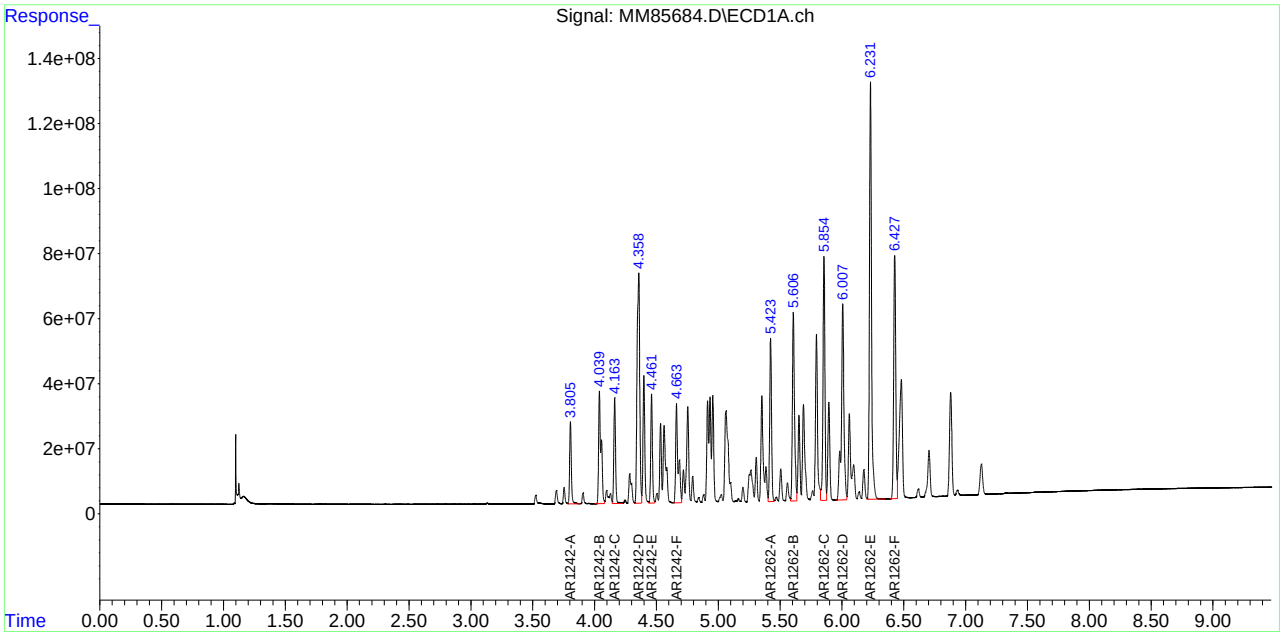
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

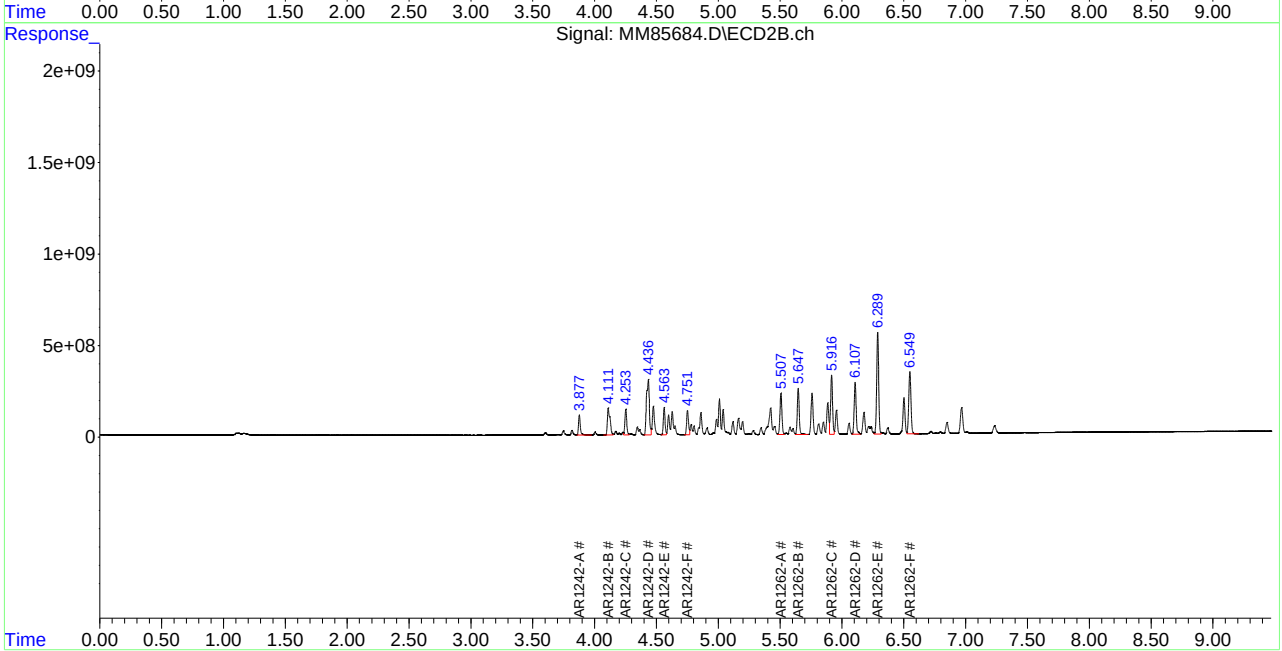
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85684.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 4:41 pm
Operator : eduardom
Sample : icv1833-400 1242/1268 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 18 08:45:06 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85691.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 6:03 pm
Operator : eduardom
Sample : icv1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 18 08:45:42 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.534	4.598	44942693	191.1E6	395.284	376.276
26) L5 AR1248-B	4.662	4.752	50741003	219.3E6	390.860	375.711
27) L5 AR1248-C	4.753	4.859	40339099	167.2E6	393.089	389.106
28) L5 AR1248-D	4.933	5.010	59320966	331.0E6	392.345	383.435
29) L5 AR1248-E	5.060	5.163	46685765	156.2E6	388.678	369.911
30) L5 AR1248-F	5.307	5.410	28938304	128.9E6	389.711	383.555
Sum AR1248-A			271.0E6	1193.8E6	2349.967	2277.993
Average AR1248-A					391.661	379.666
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

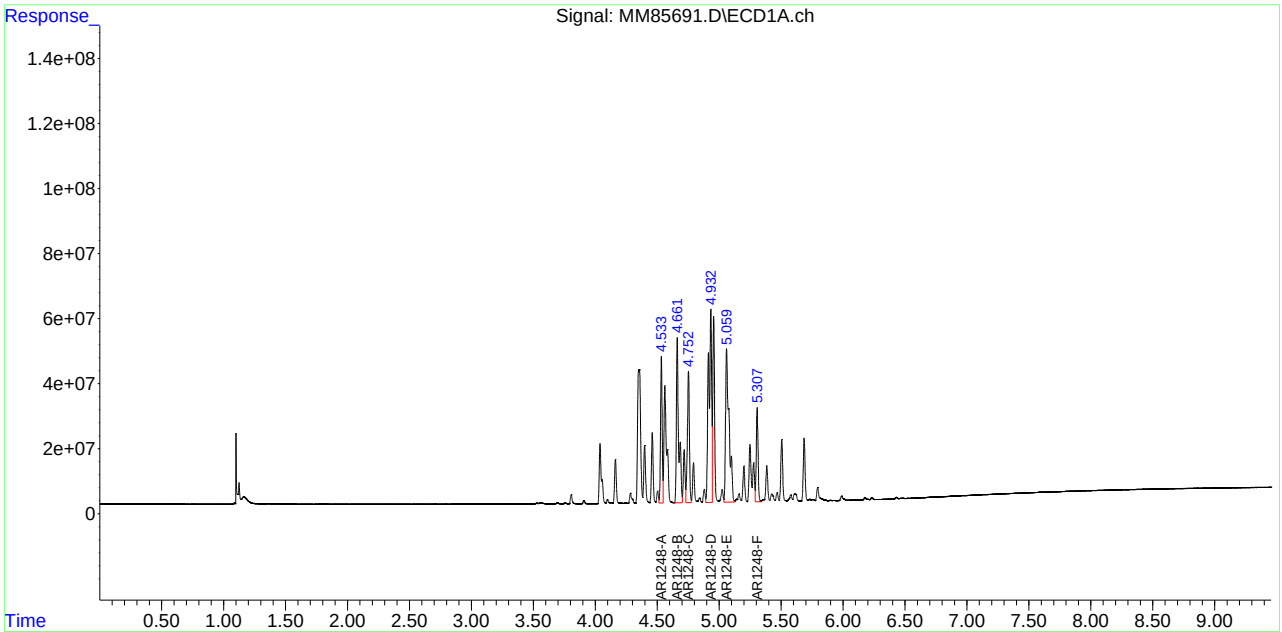
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

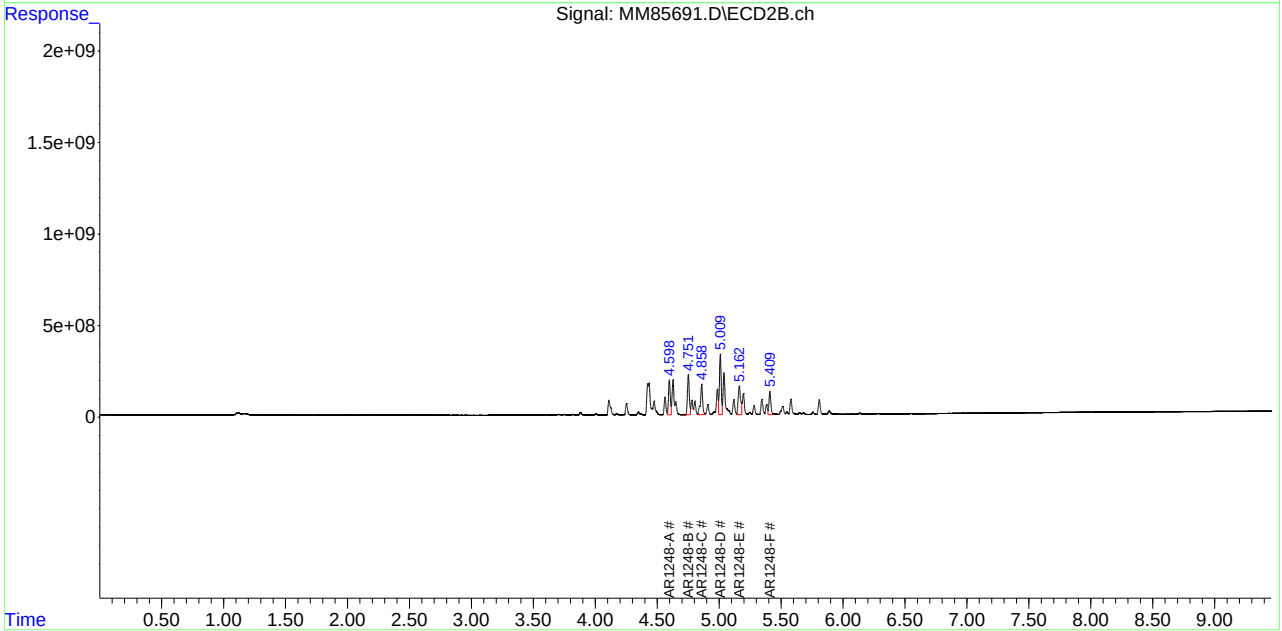
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1833_101723\
Data File : MM85691.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 17 Oct 2023 6:03 pm
Operator : eduardom
Sample : icv1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1833,15,,,5,1,Soil
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 18 08:45:42 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/07/23 15:05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85901.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 16:36:12 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:35:00 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.509	3.543	208.1E6	1140.2E6	41.455	48.533
	Spiked Amount	50.000	Range 44 - 126	Recovery	=	82.91%	97.07%
55) S	Decachlor...	7.301	7.445	55245960	282.4E6	39.990m	47.020m
	Spiked Amount	50.000	Range 41 - 145	Recovery	=	79.98%	94.04%
	Target Compounds						
2) L1	AR1016-A	3.790	3.860	33365980	166.5E6	404.508	442.999
3) L1	AR1016-B	4.024	4.093	44872498	220.6E6	406.285	443.391
4) L1	AR1016-C	4.148	4.235	42212303	208.7E6	405.987	446.437
5) L1	AR1016-D	4.341	4.417	95188035	462.3E6	422.928	469.100
6) L1	AR1016-E	4.446	4.545	44949393	231.5E6	430.033	473.481
7) L1	AR1016-F	4.646	4.733	38903795	198.8E6	423.882	469.193
	Sum AR1016-A			299.5E6	1488.3E6	2493.622	2744.602
	Average AR1016-A					415.604	457.434
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
37) L7	AR1260-A	5.407	5.487	69662164	336.2E6	442.628	468.005
38) L7	AR1260-B	5.590	5.627	78392815	400.7E6	418.140	471.828
39) L7	AR1260-C	5.777	5.865	86353103	378.4E6	432.273	480.203
40) L7	AR1260-D	5.989	6.086	56514013	280.3E6	423.471	472.285
41) L7	AR1260-E	6.213	6.268	124.3E6	636.6E6	423.775	492.222
42) L7	AR1260-F	6.410	6.527	70946609	378.6E6	432.145	475.723
	Sum AR1260-A			486.2E6	2410.9E6	2572.432	2860.266
	Average AR1260-A					428.739	476.711
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85901.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 16:36:12 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:35:00 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

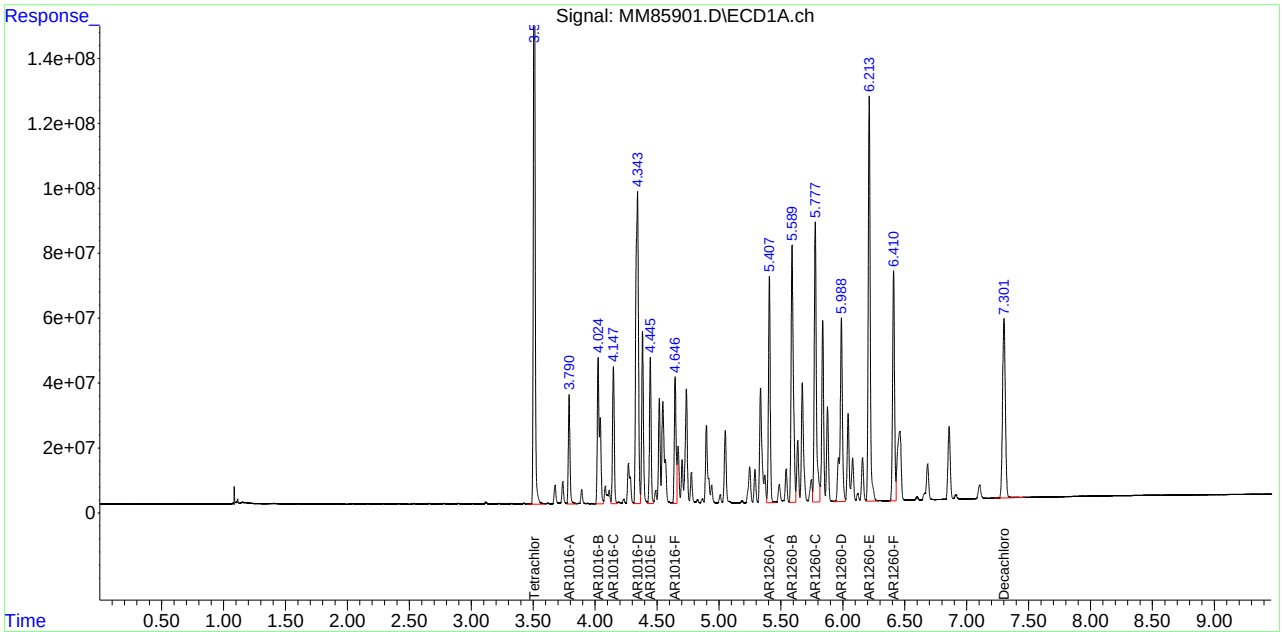
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

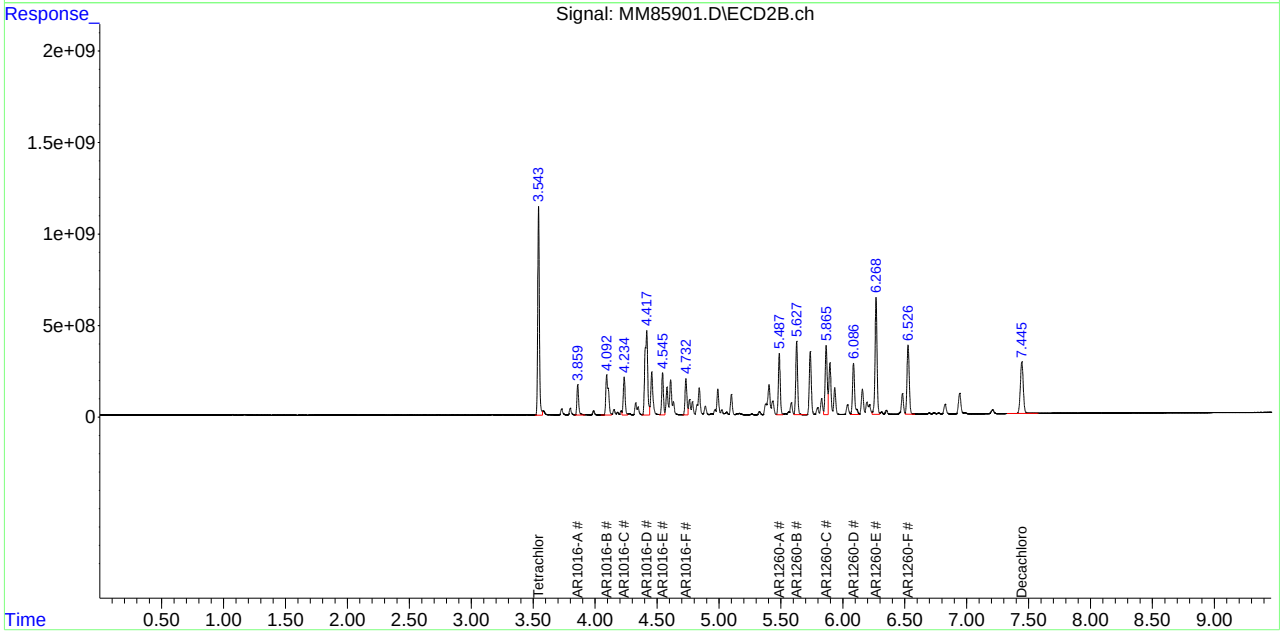
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85901.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 16:36:12 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:35:00 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





FC10955

12.5.36 12

Manual Integration Approval Summary

Sample Number:	GMM1839-CC1833	**Method:**	SW846 8082A
Lab FileID:	MM85901.D	**Analyst approved:**	11/07/23 13:34 Eduardo Melendez
Injection Time:	11/06/23 16:15	**Supervisor approved:**	11/07/23 15:05 William Hustedde

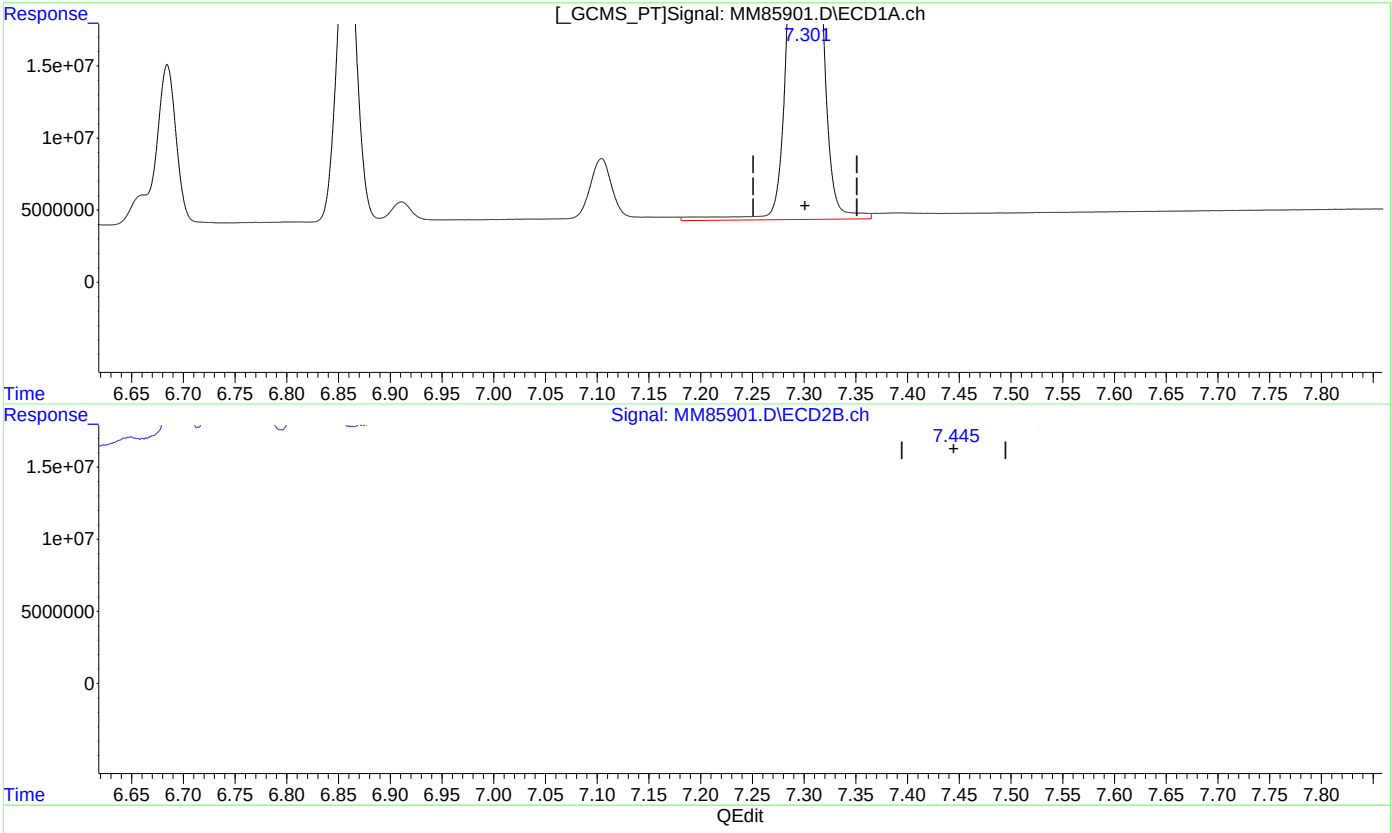
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.30	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.44	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85901.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 16:35:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:35:00 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.301min 40.176 ppb

response 55502801

(55) Decachlorobiphenyl #2 (S)

7.445min 47.083 ppb

response 282797938

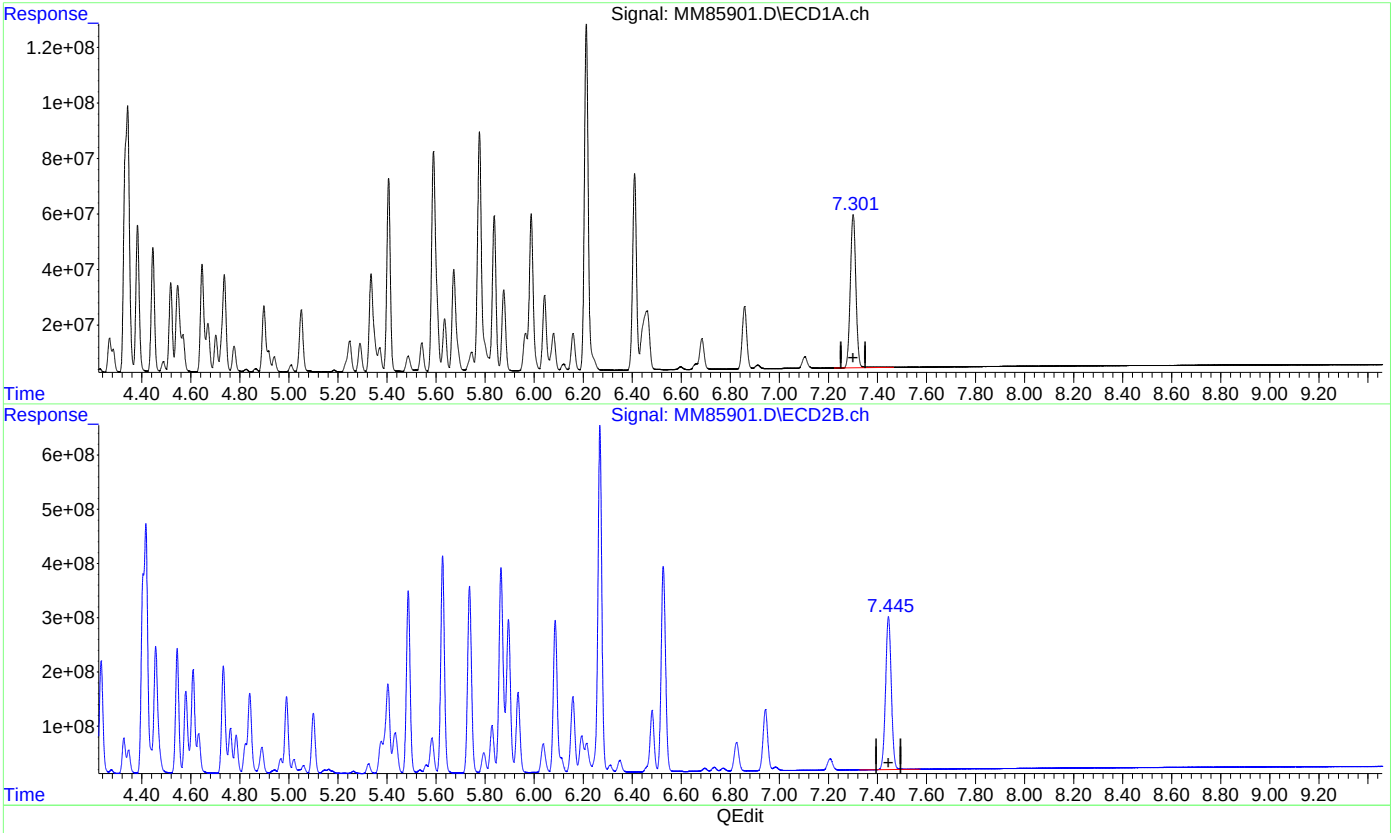
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85901.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:15 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 06 16:35:04 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:35:00 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(55) Decachlorobiphenyl (S)

7.301min 39.990 ppb m

response 55245960

(55) Decachlorobiphenyl #2 (S)

7.445min 47.020 ppb m

response 282422411

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85902.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:27 pm
Operator : eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 16:42:59 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:39:52 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
	Target Compounds							
	Sum AR1016-A			0	0	N.D.	N.D.	
Average	AR1016-A					0.000	0.000	
8) L2	AR1221-A	3.114	3.167	11448906	48467499	403.447	453.070	
9) L2	AR1221-B	3.418	3.484	3855696	18806675	355.878	508.743	#
10) L2	AR1221-C	3.677	3.730	17394451	92710427	370.803	469.145	
11) L2	AR1221-D	3.739	3.799	12494603	64445855	367.812	473.447	
12) L2	AR1221-E	3.790	3.859	45793730	215.5E6	375.834	461.785	
	Sum AR1221-A			90987385	439.9E6	1873.774	2366.190	
Average	AR1221-A					374.755	473.238	
	Sum AR1232-A			0	0	N.D.	N.D.	
Average	AR1232-A					0.000	0.000	
	Sum AR1242-A			0	0	N.D.	N.D.	
Average	AR1242-A					0.000	0.000	
	Sum AR1248-A			0	0	N.D.	N.D.	
Average	AR1248-A					0.000	0.000	
31) L6	AR1254-A	4.899	4.990	53709880	377.7E6	380.719	434.959	
32) L6	AR1254-B	5.048	5.099	72086100	324.2E6	388.756	435.544	
33) L6	AR1254-C	5.289	5.390	89537032	446.4E6	388.766	445.525	
34) L6	AR1254-D	5.488	5.559	63271051	297.0E6	387.588	431.296	
35) L6	AR1254-E	5.669	5.788	47343563	202.4E6	389.391	444.454	
36) L6	AR1254-F	5.777	5.865	66151603	320.6E6	380.091	435.342	
	Sum AR1254-A			392.1E6	1968.2E6	2315.311	2627.121	
Average	AR1254-A					385.885	437.853	
	Sum AR1260-A			0	0	N.D.	N.D.	
Average	AR1260-A					0.000	0.000	
	Sum AR1262-A			0	0	N.D.	N.D.	
Average	AR1262-A					0.000	0.000	
	Sum AR1268-A			0	0	N.D.	N.D.	
Average	AR1268-A					0.000	0.000	

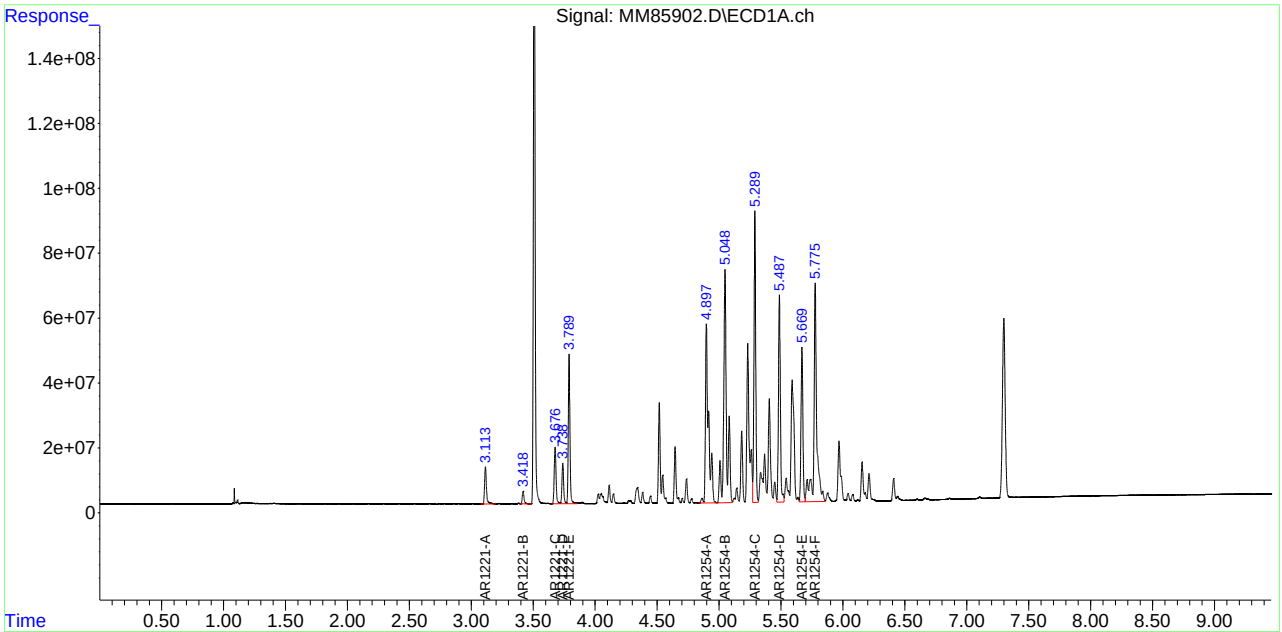
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

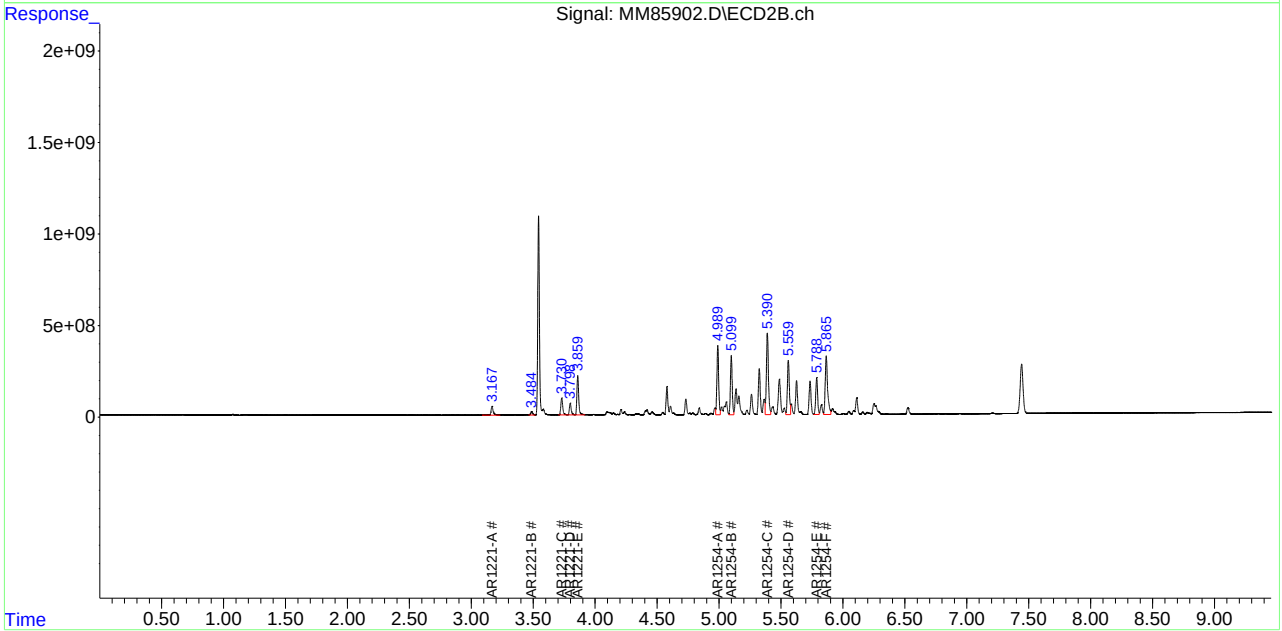
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85902.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:27 pm
Operator : eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 06 16:42:59 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:39:52 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85903.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:39 pm
Operator : eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 16:54:32 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:53:10 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
13) L3 AR1232-A	3.790	3.859	34222534	165.1E6	381.105	416.038
14) L3 AR1232-B	4.024	4.093	19837910	97628846	376.473	414.598
15) L3 AR1232-C	4.147	4.234	18947480	93831165	379.170	415.734
16) L3 AR1232-D	4.341	4.416	40361120	195.8E6	388.244	431.202
17) L3 AR1232-E	4.445	4.544	18453011	97943023	384.647	439.771
18) L3 AR1232-F	4.646	4.733	15960232	82635796	389.446	430.895
Sum AR1232-A			147.8E6	732.9E6	2299.085	2548.240
Average AR1232-A					383.181	424.707
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
49) L8 AR1268-A	5.837	5.895	26963156	136.0E6	378.924	425.866
50) L8 AR1268-B	6.004	6.085	30901978	164.0E6	381.971	435.164
51) L8 AR1268-C	6.408	6.480	128.9E6	663.9E6	372.827	436.731
52) L8 AR1268-D	6.463	6.529	108.0E6	582.2E6	378.052	437.159
53) L8 AR1268-E	6.595	6.694	93500548	455.1E6	393.898	438.614
54) L8 AR1268-F	6.857	6.942	35809659	178.8E6	386.197	423.929
Sum AR1268-A			424.1E6	2180.0E6	2291.869	2597.463
Average AR1268-A					381.978	432.911

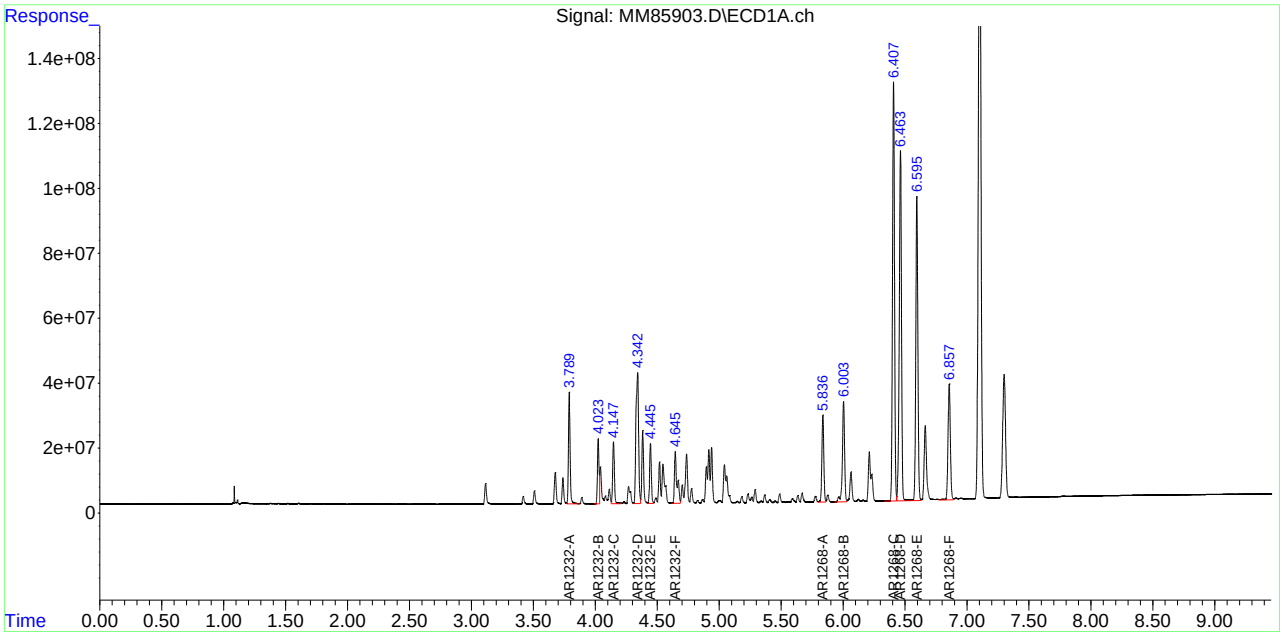
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

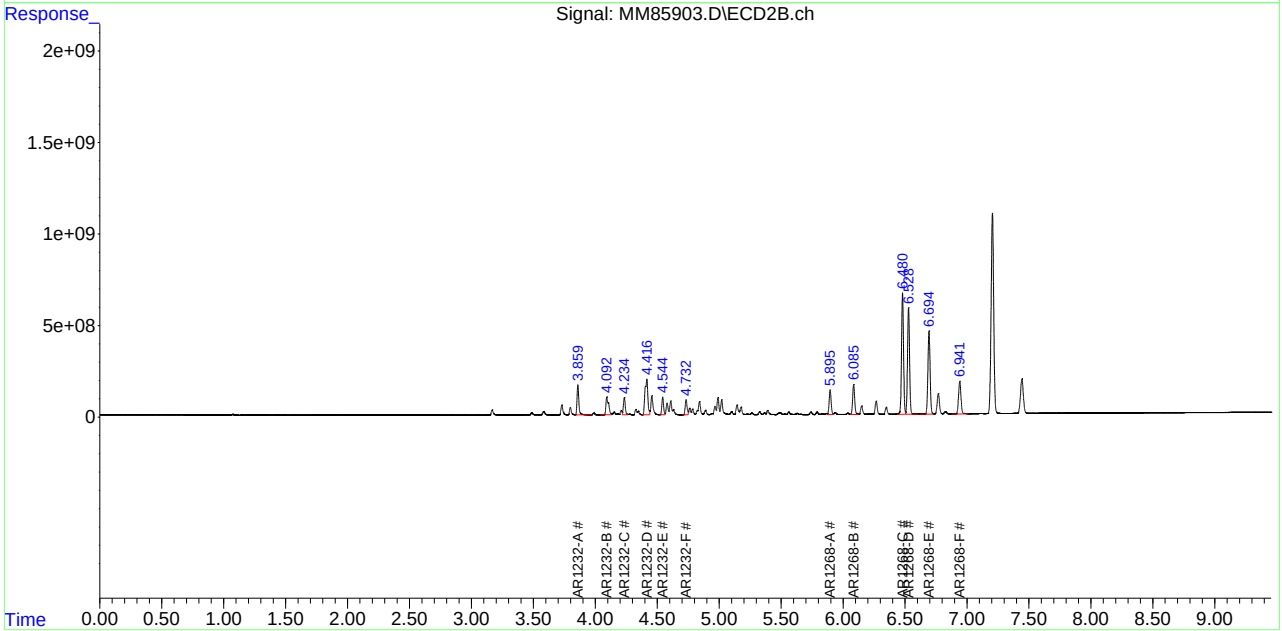
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85903.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:39 pm
Operator : eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 06 16:54:32 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 16:53:10 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.38 12
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85904.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:50 pm
Operator : eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 06 17:02:30 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 17:01:23 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.790	3.859	26573944	128.7E6	386.521	468.966
20) L4 AR1242-B	4.024	4.093	35731018	173.3E6	378.388	461.087
21) L4 AR1242-C	4.147	4.234	33911140	170.5E6	382.514	422.015
22) L4 AR1242-D	4.341	4.417	74314509	360.1E6	395.955	433.277
23) L4 AR1242-E	4.445	4.544	34620606	177.3E6	396.946	431.636
24) L4 AR1242-F	4.646	4.733	29708059	154.2E6	383.964	427.116
Sum AR1242-A			234.9E6	1164.2E6	2324.288	2644.096
Average AR1242-A					387.381	440.683
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.406	5.486	50923911	260.2E6	393.978	429.069
44) L9 AR1262-B	5.589	5.627	57558245	288.3E6	384.112	422.613
45) L9 AR1262-C	5.837	5.896	77602686	377.7E6	402.000	436.190
46) L9 AR1262-D	5.987	6.085	64191455	337.8E6	409.098	445.713
47) L9 AR1262-E	6.212	6.267	127.4E6	654.3E6	386.444	446.956
48) L9 AR1262-F	6.408	6.527	76989420	392.7E6	383.099	434.763
Sum AR1262-A			454.6E6	2311.2E6	2358.730	2615.303
Average AR1262-A					393.122	435.884
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

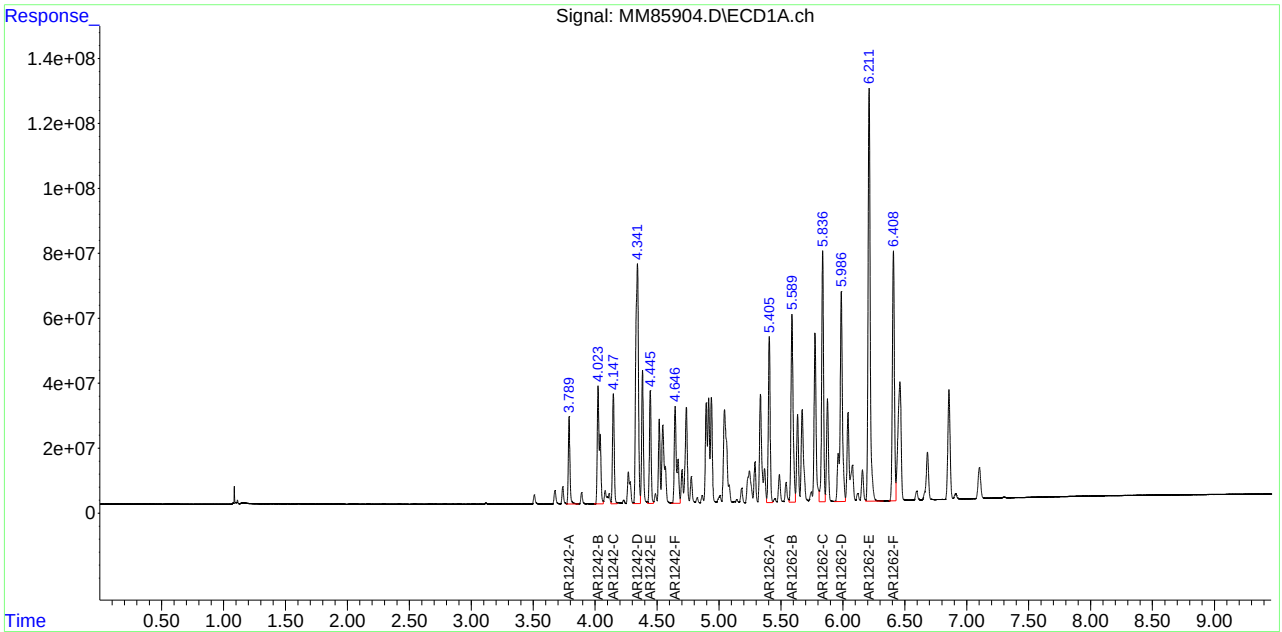
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

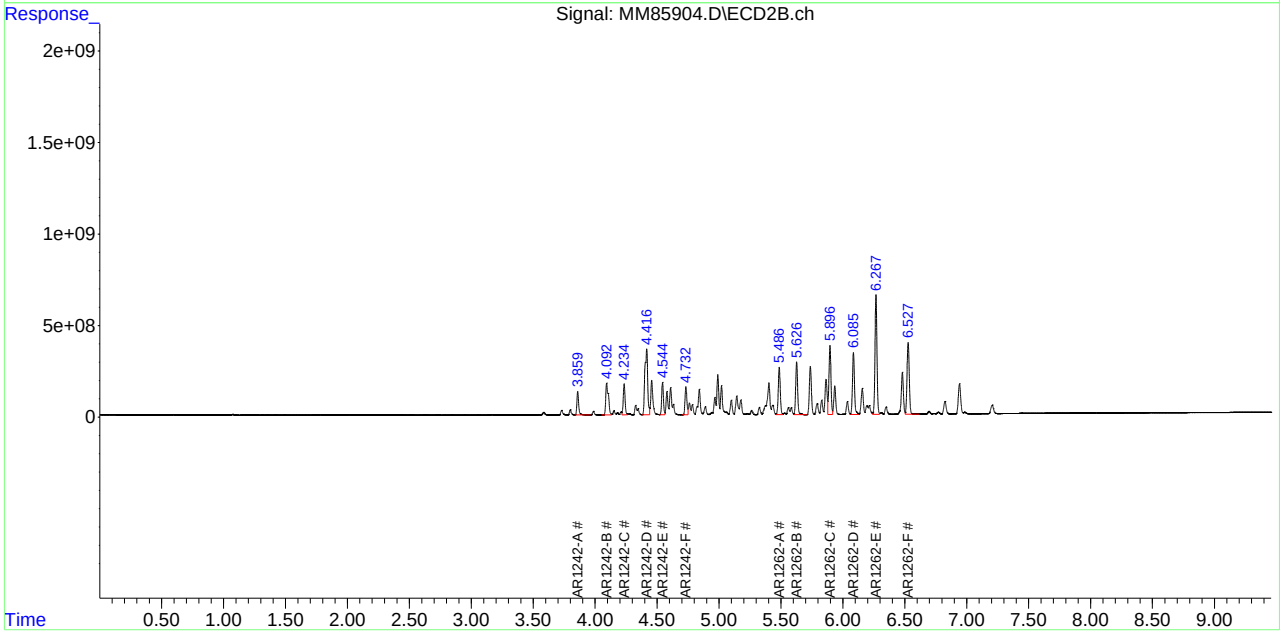
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85904.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 4:50 pm
Operator : eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 06 17:02:30 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 17:01:23 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85905.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:02 pm
Operator : eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 06 17:15:42 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 17:14:44 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.518	4.579	44724365	216.8E6	393.364	426.883
26) L5 AR1248-B	4.645	4.732	50293385	250.5E6	387.412	429.130
27) L5 AR1248-C	4.736	4.840	41010860	189.7E6	399.636	441.332
28) L5 AR1248-D	4.916	4.990	60259243	372.8E6	398.550	431.782
29) L5 AR1248-E	5.043	5.143	47606992	186.5E6	396.348	441.620
30) L5 AR1248-F	5.289	5.390	29285586	147.3E6	394.388	438.336
Sum AR1248-A			273.2E6	1363.6E6	2369.696	2609.084
Average AR1248-A					394.949	434.847
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

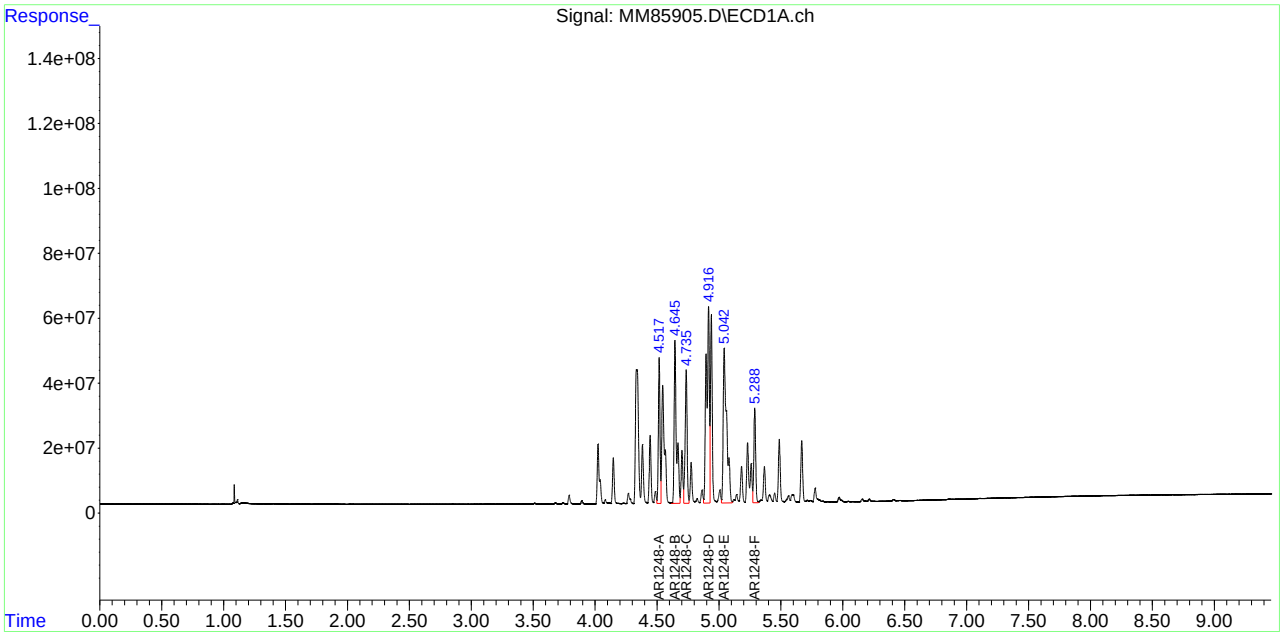
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

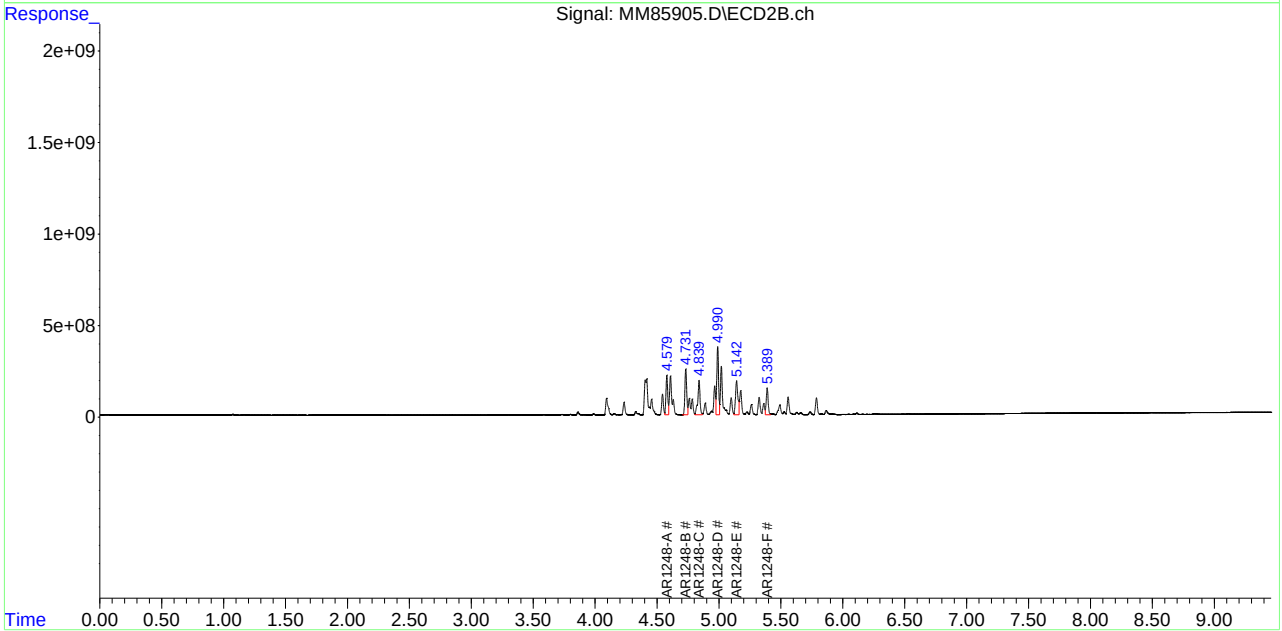
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85905.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 5:02 pm
Operator : eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 06 17:15:42 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Mon Nov 06 17:14:44 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85916.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:10 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 08:50:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	3.508	3.543	220.8E6	1178.8E6	43.992	50.174
	Spiked Amount	50.000 Range	44 - 126	Recovery	=	87.98%	100.35%
55) S	Decachlor...	7.297	7.441	60082071	286.0E6	43.490	47.614
	Spiked Amount	50.000 Range	41 - 145	Recovery	=	86.98%	95.23%
	Target Compounds						
2) L1	AR1016-A	3.790	3.859	34467677	168.5E6	417.864	448.307
3) L1	AR1016-B	4.023	4.093	46271097	222.7E6	418.948	447.649
4) L1	AR1016-C	4.147	4.234	45122306	218.4E6	433.975	467.366
5) L1	AR1016-D	4.340	4.416	98620762	481.0E6	438.180	488.078
6) L1	AR1016-E	4.445	4.544	46982717	236.6E6	449.486	483.959
7) L1	AR1016-F	4.645	4.732	40874099	208.5E6	445.350	492.172
	Sum AR1016-A			312.3E6	1535.8E6	2603.802	2827.530
	Average AR1016-A					433.967	471.255
	Sum AR1221-A			0	0	N.D.	N.D.
	Average AR1221-A					0.000	0.000
	Sum AR1232-A			0	0	N.D.	N.D.
	Average AR1232-A					0.000	0.000
	Sum AR1242-A			0	0	N.D.	N.D.
	Average AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
	Average AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
	Average AR1254-A					0.000	0.000
37) L7	AR1260-A	5.404	5.485	71317090	350.0E6	453.143	487.090
38) L7	AR1260-B	5.588	5.625	83505677	418.0E6	445.412	492.144
39) L7	AR1260-C	5.774	5.863	88117332	390.7E6	441.104	495.815
40) L7	AR1260-D	5.986	6.084	60553921	293.6E6	453.743	494.551
41) L7	AR1260-E	6.211	6.266	132.9E6	656.1E6	453.175	507.338
42) L7	AR1260-F	6.407	6.524	74290956	415.1E6	452.515	521.576
	Sum AR1260-A			510.7E6	2523.4E6	2699.093	2998.513
	Average AR1260-A					449.849	499.752
	Sum AR1262-A			0	0	N.D.	N.D.
	Average AR1262-A					0.000	0.000
	Sum AR1268-A			0	0	N.D.	N.D.
	Average AR1268-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85916.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:10 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 08:50:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

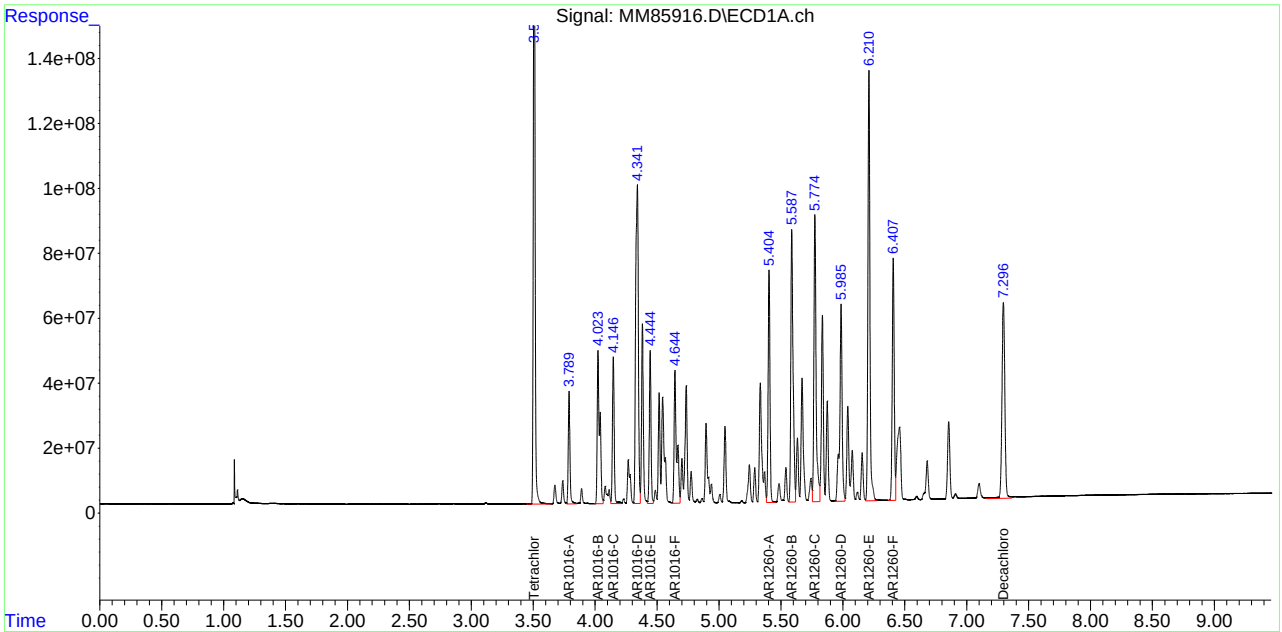
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

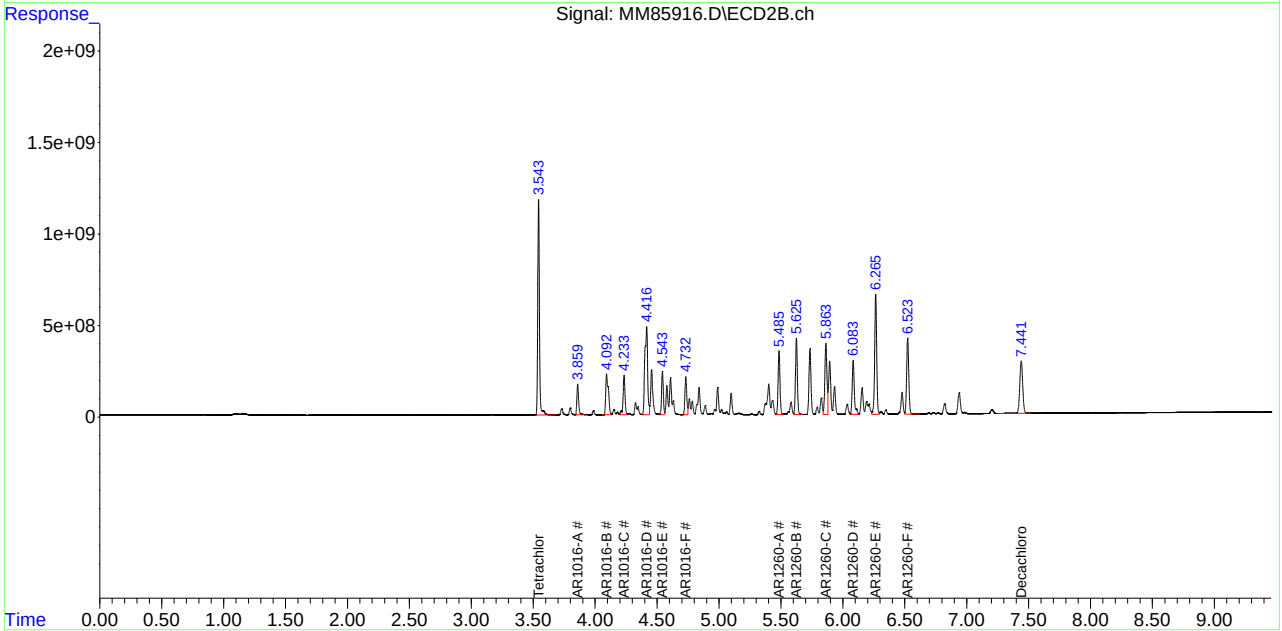
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85916.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:10 pm
Operator : eduardom
Sample : cc1833-400 1016/1260 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 07 08:50:36 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85917.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:22 pm
Operator : eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 08:53:21 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
	System Monitoring Compounds							
	Target Compounds							
	Sum AR1016-A			0	0	N.D.	N.D.	
	Average AR1016-A					0.000	0.000	
8)	L2 AR1221-A	3.114	3.167	11756858	49244038	414.299	460.329	
9)	L2 AR1221-B	3.418	3.484	3832264	19027932	353.715	514.729	#
10)	L2 AR1221-C	3.677	3.730	18090588	94445053	385.643	477.923	
11)	L2 AR1221-D	3.739	3.799	12794148	65418358	376.630	480.591	
12)	L2 AR1221-E	3.790	3.859	46766138	223.0E6	383.815	478.018	
	Sum AR1221-A			93239995	451.2E6	1914.102	2411.590	
	Average AR1221-A					382.820	482.318	
	Sum AR1232-A			0	0	N.D.	N.D.	
	Average AR1232-A					0.000	0.000	
	Sum AR1242-A			0	0	N.D.	N.D.	
	Average AR1242-A					0.000	0.000	
	Sum AR1248-A			0	0	N.D.	N.D.	
	Average AR1248-A					0.000	0.000	
31)	L6 AR1254-A	4.897	4.989	54876336	385.9E6	388.987	444.399	
32)	L6 AR1254-B	5.048	5.099	73164117	337.2E6	394.569	453.065	
33)	L6 AR1254-C	5.289	5.389	92437951	455.4E6	401.362	454.531	
34)	L6 AR1254-D	5.487	5.558	66707648	317.3E6	408.640	460.735	
35)	L6 AR1254-E	5.669	5.787	49736726	212.6E6	409.075	466.796	
36)	L6 AR1254-F	5.776	5.865	70208639	342.4E6	403.401	465.039	
	Sum AR1254-A			407.1E6	2050.8E6	2406.034	2744.565	
	Average AR1254-A					401.006	457.428	
	Sum AR1260-A			0	0	N.D.	N.D.	
	Average AR1260-A					0.000	0.000	
	Sum AR1262-A			0	0	N.D.	N.D.	
	Average AR1262-A					0.000	0.000	
	Sum AR1268-A			0	0	N.D.	N.D.	
	Average AR1268-A					0.000	0.000	

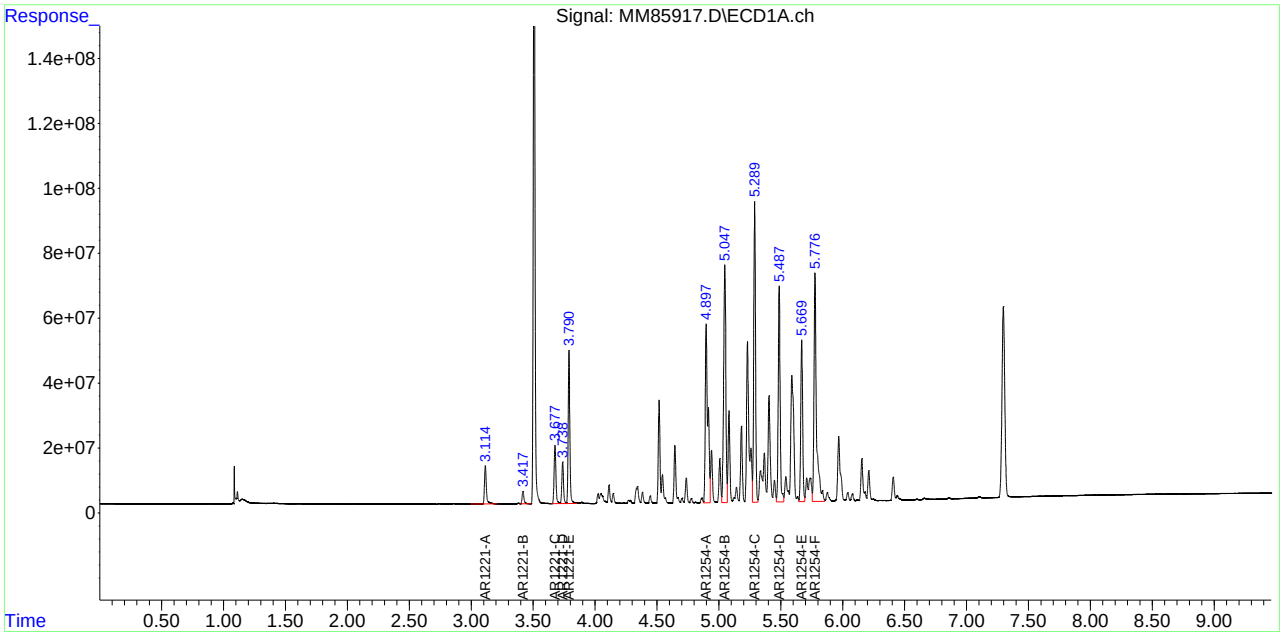
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

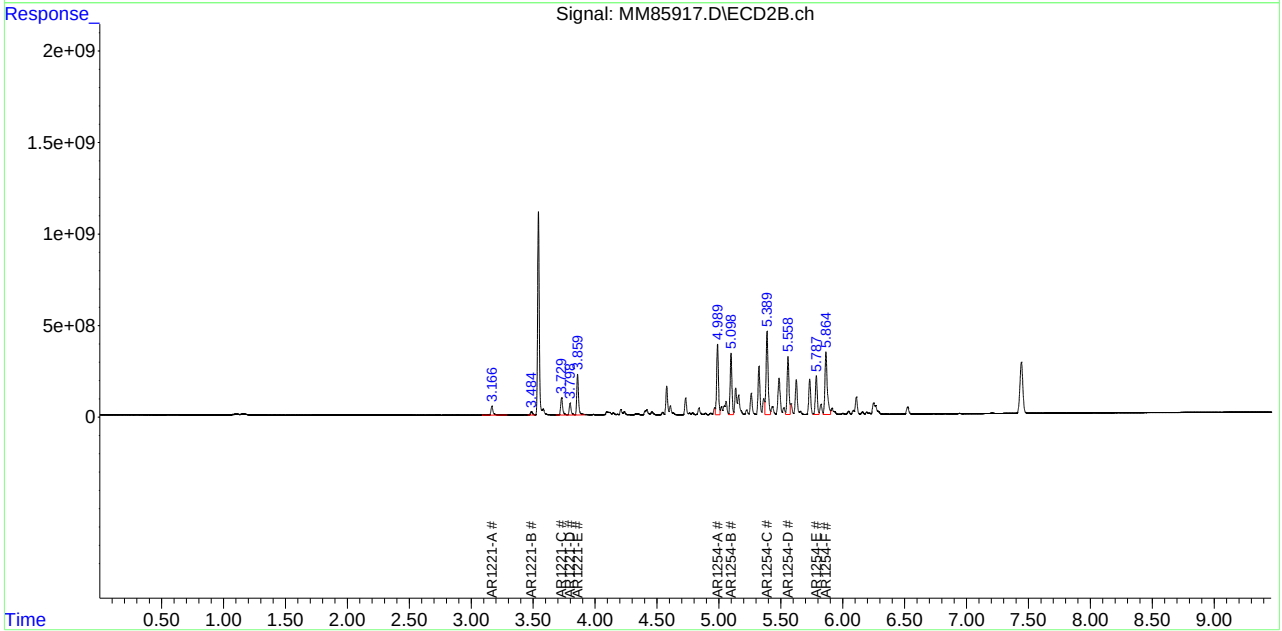
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85917.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:22 pm
Operator : eduardom
Sample : cc1833-400 1221/1254 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 07 08:53:21 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85918.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:33 pm
Operator : eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 08:54:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
	Target Compounds						
	Sum AR1016-A			0	0	N.D.	N.D.
Average	AR1016-A					0.000	0.000
	Sum AR1221-A			0	0	N.D.	N.D.
Average	AR1221-A					0.000	0.000
13)	L3 AR1232-A	3.790	3.859	34374750	166.5E6	382.800	419.619
14)	L3 AR1232-B	4.024	4.093	20003064	100.7E6	379.607	427.495
15)	L3 AR1232-C	4.147	4.234	19312437	98401855	386.474	435.986
16)	L3 AR1232-D	4.341	4.417	41668226	202.9E6	400.817	446.969
17)	L3 AR1232-E	4.445	4.544	18764200	99595773	391.133	447.192
18)	L3 AR1232-F	4.646	4.732	16158366	85295806	394.281	444.765
	Sum AR1232-A			150.3E6	753.4E6	2335.112	2622.026
Average	AR1232-A					389.185	437.004
	Sum AR1242-A			0	0	N.D.	N.D.
Average	AR1242-A					0.000	0.000
	Sum AR1248-A			0	0	N.D.	N.D.
Average	AR1248-A					0.000	0.000
	Sum AR1254-A			0	0	N.D.	N.D.
Average	AR1254-A					0.000	0.000
	Sum AR1260-A			0	0	N.D.	N.D.
Average	AR1260-A					0.000	0.000
	Sum AR1262-A			0	0	N.D.	N.D.
Average	AR1262-A					0.000	0.000
49)	L8 AR1268-A	5.836	5.895	27799565	140.7E6	390.678	440.541
50)	L8 AR1268-B	6.003	6.085	33202299	168.6E6	410.404	447.398
51)	L8 AR1268-C	6.406	6.479	139.6E6	695.5E6	403.829	457.511
52)	L8 AR1268-D	6.462	6.527	117.5E6	610.7E6	411.256	458.537
53)	L8 AR1268-E	6.594	6.692	98235896	476.2E6	413.847	458.998
54)	L8 AR1268-F	6.856	6.940	38642920	188.7E6	416.753	447.361
	Sum AR1268-A			455.0E6	2280.4E6	2446.767	2710.346
Average	AR1268-A					407.794	451.724

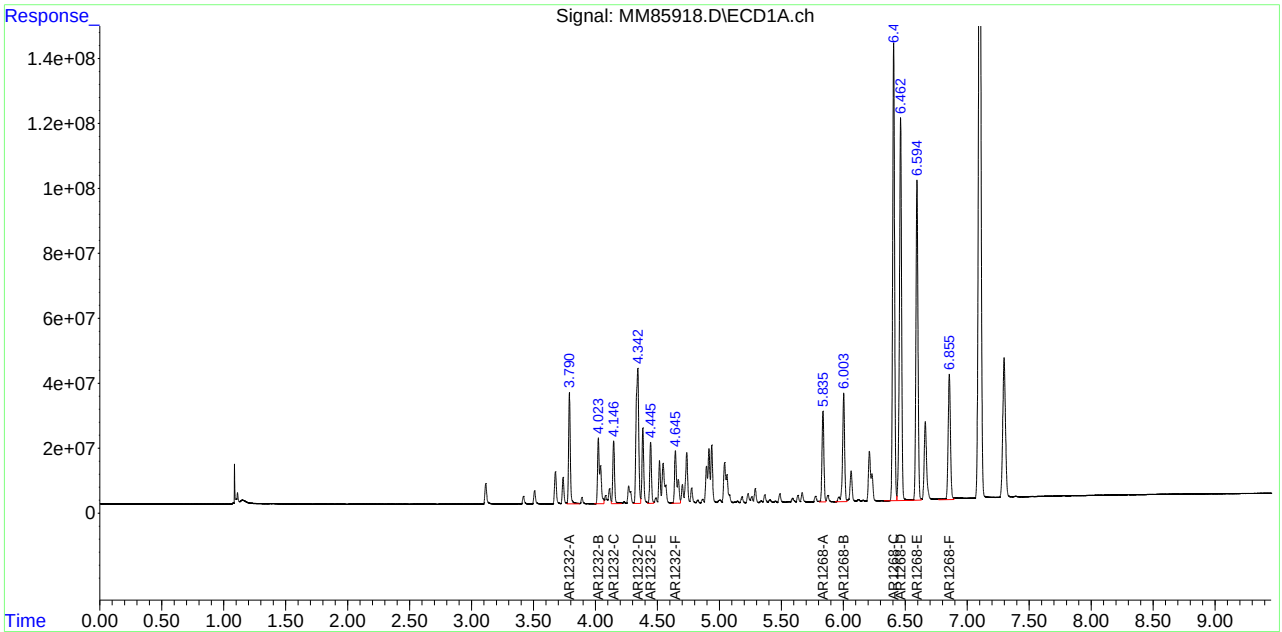
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

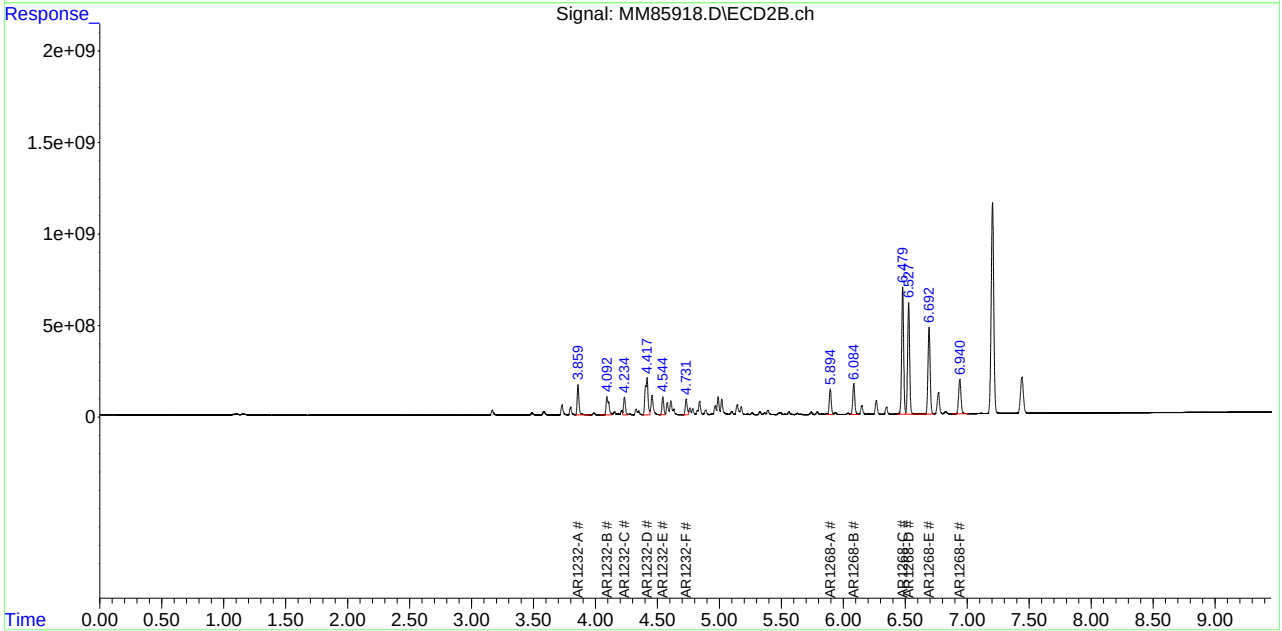
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85918.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:33 pm
Operator : eduardom
Sample : cc1833-400 1232/1268 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 07 08:54:54 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





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12.5.43 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85919.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:45 pm
Operator : eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 08:57:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
19) L4 AR1242-A	3.790	3.859	26672297	130.2E6	387.951	474.128
20) L4 AR1242-B	4.024	4.093	36089544	180.1E6	382.185	479.039
21) L4 AR1242-C	4.147	4.234	34716298	173.1E6	391.596	428.295
22) L4 AR1242-D	4.341	4.416	76889783	372.4E6	409.676	448.068
23) L4 AR1242-E	4.445	4.544	35750124	184.6E6	409.896	449.460
24) L4 AR1242-F	4.645	4.732	31183077	159.8E6	403.028	442.552
Sum AR1242-A			241.3E6	1200.1E6	2384.333	2721.543
Average AR1242-A					397.389	453.590
Sum AR1248-A			0	0	N.D.	N.D.
Average AR1248-A					0.000	0.000
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
43) L9 AR1262-A	5.405	5.485	53371260	269.2E6	412.912	443.809
44) L9 AR1262-B	5.588	5.626	61214117	305.5E6	408.509	447.802
45) L9 AR1262-C	5.836	5.894	80081140	386.1E6	414.839	445.810
46) L9 AR1262-D	5.987	6.084	64321818	347.9E6	409.929	458.958
47) L9 AR1262-E	6.211	6.267	138.4E6	659.8E6	419.868	450.675
48) L9 AR1262-F	6.407	6.526	81461490	424.2E6	405.352	469.644
Sum AR1262-A			478.8E6	2392.6E6	2471.409	2716.698
Average AR1262-A					411.901	452.783
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

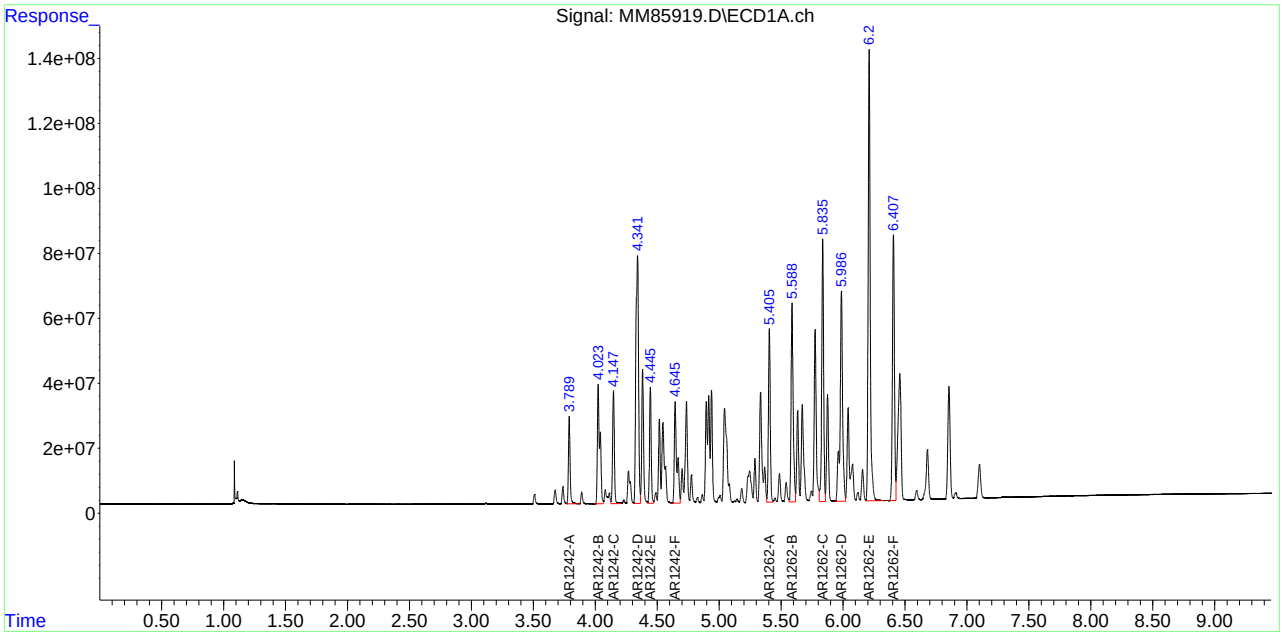
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

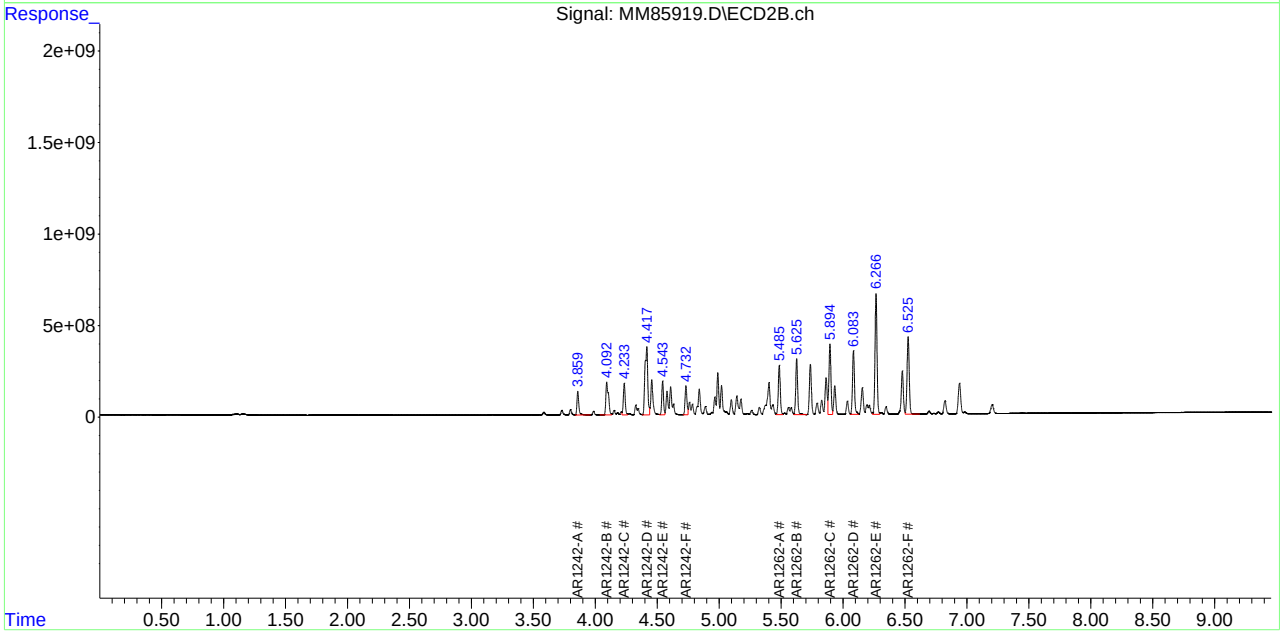
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85919.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:45 pm
Operator : eduardom
Sample : cc1833-400 1242/1262 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 07 08:57:18 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85920.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:57 pm
Operator : eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 08:57:43 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
System Monitoring Compounds						
Target Compounds						
Sum AR1016-A			0	0	N.D.	N.D.
Average AR1016-A					0.000	0.000
Sum AR1221-A			0	0	N.D.	N.D.
Average AR1221-A					0.000	0.000
Sum AR1232-A			0	0	N.D.	N.D.
Average AR1232-A					0.000	0.000
Sum AR1242-A			0	0	N.D.	N.D.
Average AR1242-A					0.000	0.000
25) L5 AR1248-A	4.517	4.579	44063905	219.4E6	387.555	431.944
26) L5 AR1248-B	4.645	4.732	51435781	259.4E6	396.211	444.395
27) L5 AR1248-C	4.736	4.840	41363254	187.0E6	403.069	435.185
28) L5 AR1248-D	4.916	4.990	61799231	374.5E6	408.736	433.786
29) L5 AR1248-E	5.043	5.143	47099386	188.6E6	392.122	446.508
30) L5 AR1248-F	5.289	5.389	30157629	146.0E6	406.131	434.502
Sum AR1248-A			275.9E6	1375.0E6	2393.825	2626.319
Average AR1248-A					398.971	437.720
Sum AR1254-A			0	0	N.D.	N.D.
Average AR1254-A					0.000	0.000
Sum AR1260-A			0	0	N.D.	N.D.
Average AR1260-A					0.000	0.000
Sum AR1262-A			0	0	N.D.	N.D.
Average AR1262-A					0.000	0.000
Sum AR1268-A			0	0	N.D.	N.D.
Average AR1268-A					0.000	0.000

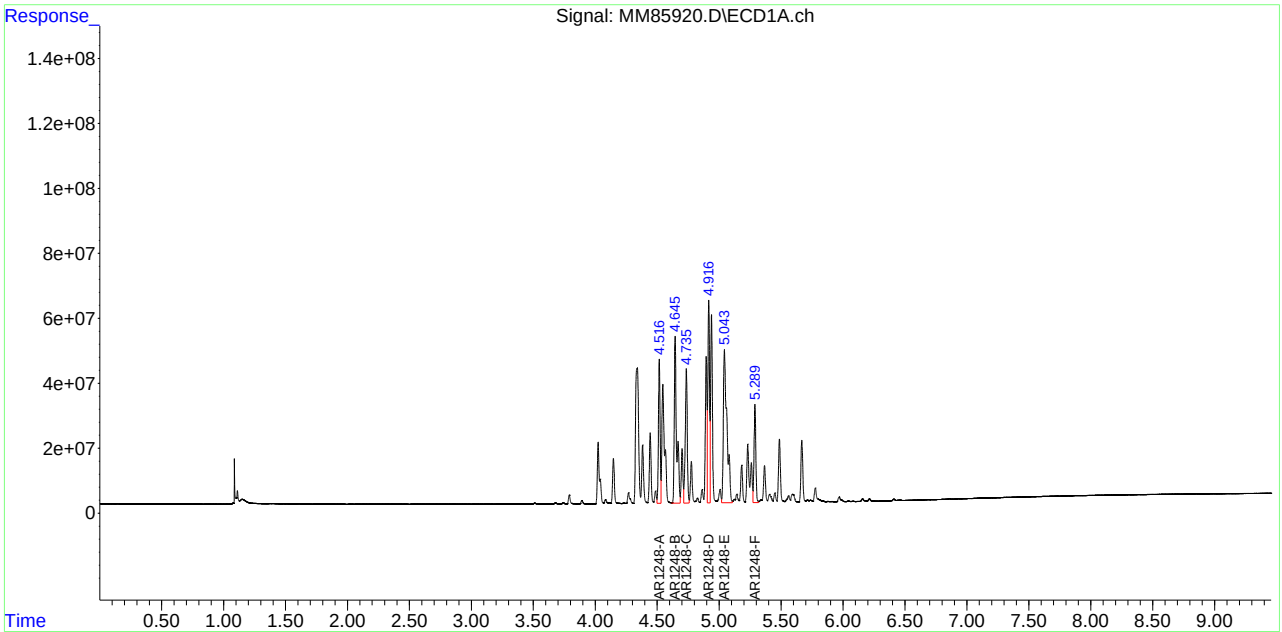
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

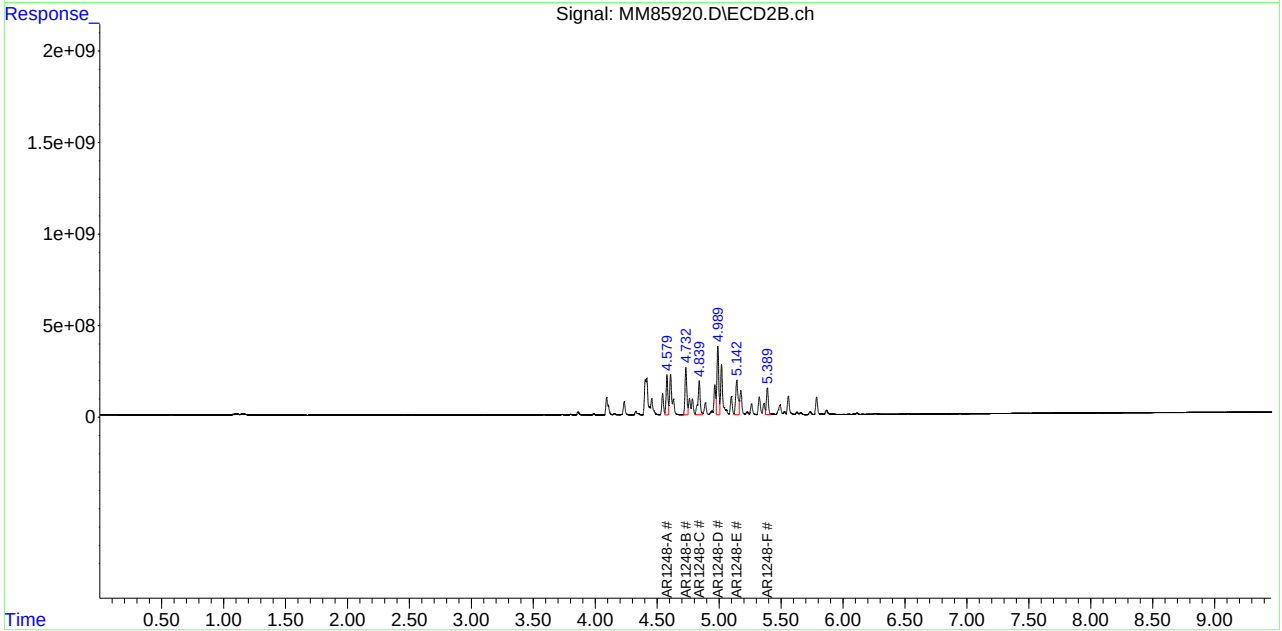
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\DATA\GMM1839_110623\
Data File : MM85920.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 6 Nov 2023 7:57 pm
Operator : eduardom
Sample : cc1833-400 1248 Inst : ECD 9
Misc : OP98767,GMM1839,15.0,,,5,1,Soil
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 07 08:57:43 2023
Quant Method : C:\msdchem\2\METHODS\8082-DOD-1833.m
Quant Title : PCBs by 8082a
QLast Update : Wed Oct 18 08:33:12 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : Multiresidue-1 Signal #2 Phase: Multiresidue-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:58:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.440	3.379	325527	61479	2.337m	2.164m
		Spiked Amount	50.000	Range 42 - 127		Recovery =	4.67%#	4.33%#
33)	S	Decachlor...	7.403	7.373	215080	66934	2.094m	2.491m
		Spiked Amount	50.000	Range 27 - 127		Recovery =	4.19%#	4.98%#
		Target Compounds						
2)		alpha-BHC	3.766	3.788	468795	69571	2.258m	1.716
3)		gamma-BHC...	4.001	4.049	391709	76058	2.171m	1.958
4)		beta-BHC	4.153	4.273	192545	40497	2.285	2.198
5)		delta-BHC	4.319	4.453	447929	73522	2.169m	1.791
6)		Heptachlor	4.409	4.318	452806	74556	2.573m	1.983
7)		Aldrin	4.644	4.534	387459	73166	2.185m	1.843
8)		Heptachlo...	4.948	4.909	412956	88779	2.316m	2.118
9)		gamma-Chl...	5.129	5.095	387540	85402	2.255m	2.032m
10)		alpha-Chl...	5.183	5.143	317985	89128	2.018m	2.116m
11)		4,4'-DDE	5.327	5.278	395250	80705	2.215m	1.884m
12)		Endosulfa...	5.213	5.185	323826	81367	2.169m	2.056m
13)		Dieldrin	5.407	5.380	416687	87174	2.241m	1.942m
14)		Endrin	5.564	5.583	399644	79340	2.218m	1.934m
15)		4,4'-DDD	5.693	5.687	344428	67170	2.147m	1.852m
16)		Endosulfa...	5.725	5.797	370057	83012	2.260m	2.072m
17)		4,4'-DDT	5.915	5.873	75568	24984	0.631m	0.742m
18)		Endrin Al...	5.818	5.928	283565	65326	2.270m	2.122m
19)		Methoxychlor	6.274	6.298	83674	27831	1.376m	1.649m
20)		Endosulfa...	5.986	6.092	353309	76787	2.340m	2.080m
21)		Endrin Ke...	6.322	6.477	257859	68227	1.785m	1.871m
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:58:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

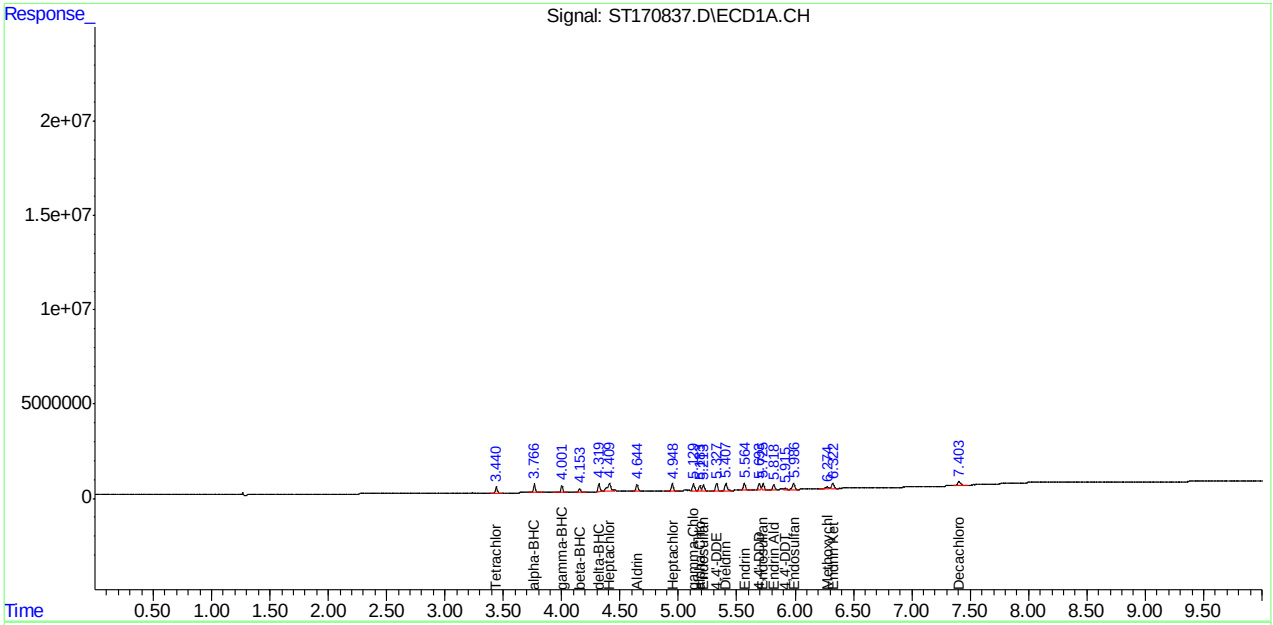
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

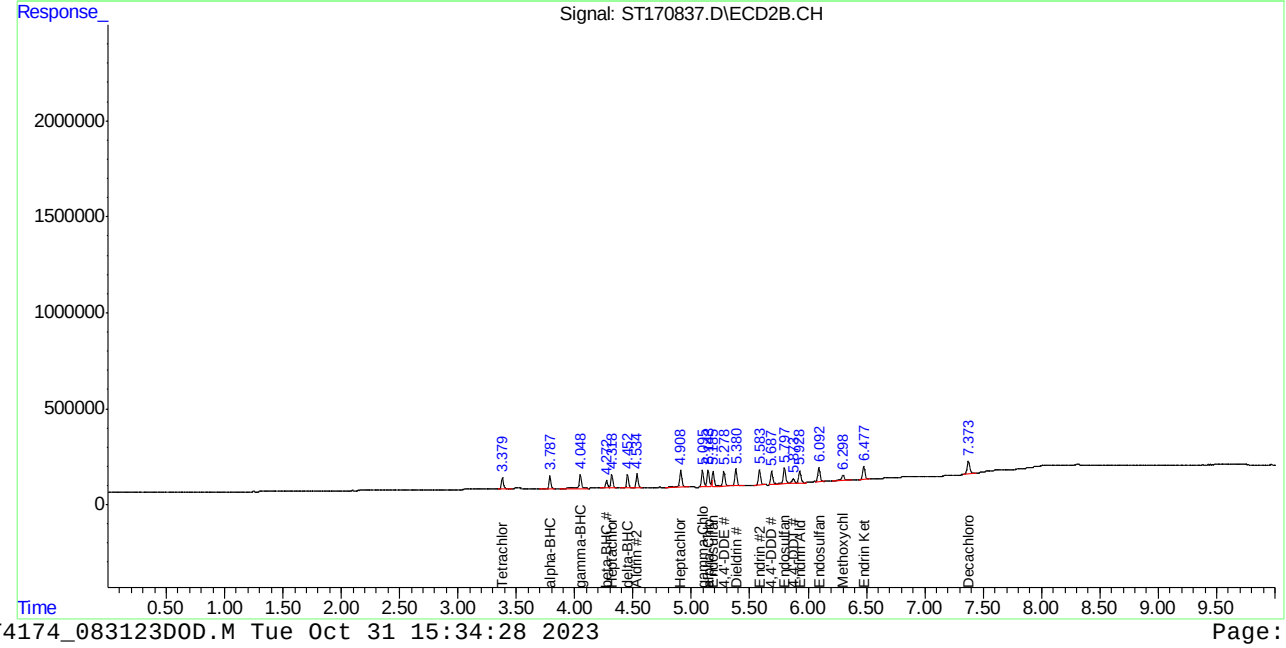
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:58:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170837.D
Injection Time: 10/31/23 09:42
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

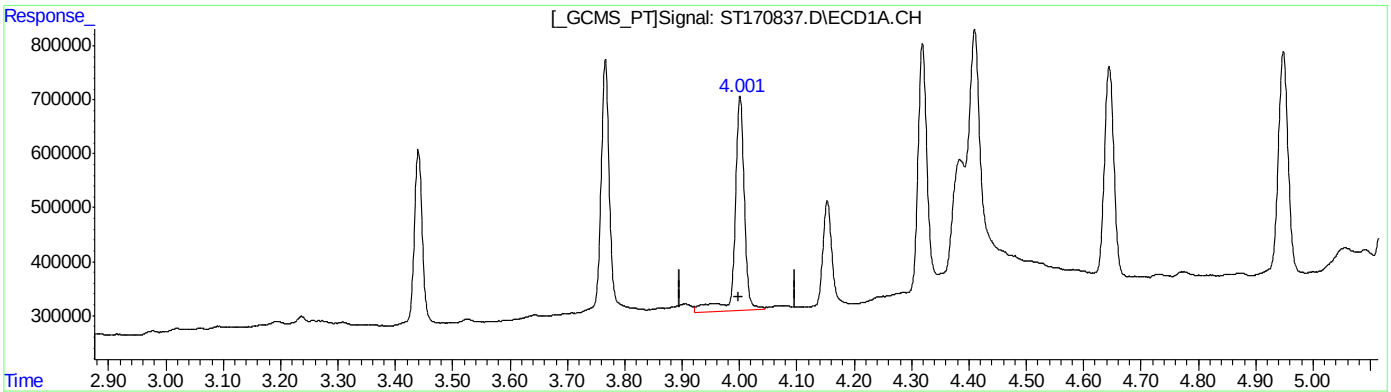
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	2	3.38	Poor instrument integration
Tetrachloro-m-xylene	877-09-8	1	3.44	Poor instrument integration
alpha-BHC	319-84-6	1	3.77	Poor instrument integration
gamma-BHC (Lindane)	58-89-9	1	4.00	Poor instrument integration
delta-BHC	319-86-8	1	4.32	Poor instrument integration
Heptachlor	76-44-8	1	4.41	Poor instrument integration
Aldrin	309-00-2	1	4.64	Poor instrument integration
Heptachlor epoxide	1024-57-3	1	4.95	Poor instrument integration
gamma-Chlordane	5103-74-2	2	5.10	Poor instrument integration
gamma-Chlordane	5103-74-2	1	5.13	Poor instrument integration
alpha-Chlordane	5103-71-9	2	5.14	Poor instrument integration
alpha-Chlordane	5103-71-9	1	5.18	Poor instrument integration
Endosulfan-I	959-98-8	2	5.19	Poor instrument integration
Endosulfan-I	959-98-8	1	5.21	Poor instrument integration
4,4'-DDE	72-55-9	2	5.28	Poor instrument integration
4,4'-DDE	72-55-9	1	5.33	Poor instrument integration
Dieldrin	60-57-1	2	5.38	Poor instrument integration
Dieldrin	60-57-1	1	5.41	Poor instrument integration
Endrin	72-20-8	1	5.56	Poor instrument integration
Endrin	72-20-8	2	5.58	Poor instrument integration
4,4'-DDD	72-54-8	1	5.69	Poor instrument integration
4,4'-DDD	72-54-8	2	5.69	Poor instrument integration
Endosulfan-II	33213-65-9	1	5.72	Poor instrument integration
Endosulfan-II	33213-65-9	2	5.80	Poor instrument integration
Endrin aldehyde	7421-93-4	1	5.82	Poor instrument integration
4,4'-DDT	50-29-3	2	5.87	Poor instrument integration
4,4'-DDT	50-29-3	1	5.91	Poor instrument integration
Endrin aldehyde	7421-93-4	2	5.93	Poor instrument integration
Endosulfan sulfate	1031-07-8	1	5.99	Poor instrument integration
Endosulfan sulfate	1031-07-8	2	6.09	Poor instrument integration
Methoxychlor	72-43-5	1	6.27	Poor instrument integration
Methoxychlor	72-43-5	2	6.30	Poor instrument integration
Endrin ketone	53494-70-5	1	6.32	Poor instrument integration
Endrin ketone	53494-70-5	2	6.48	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.37	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(3) gamma-BHC (Lindane) ( )
4.001min 2.132 PPB
response 394594

(3) gamma-BHC (Lindane) #2 ( )
4.049min 2.896 PPB
response 76058

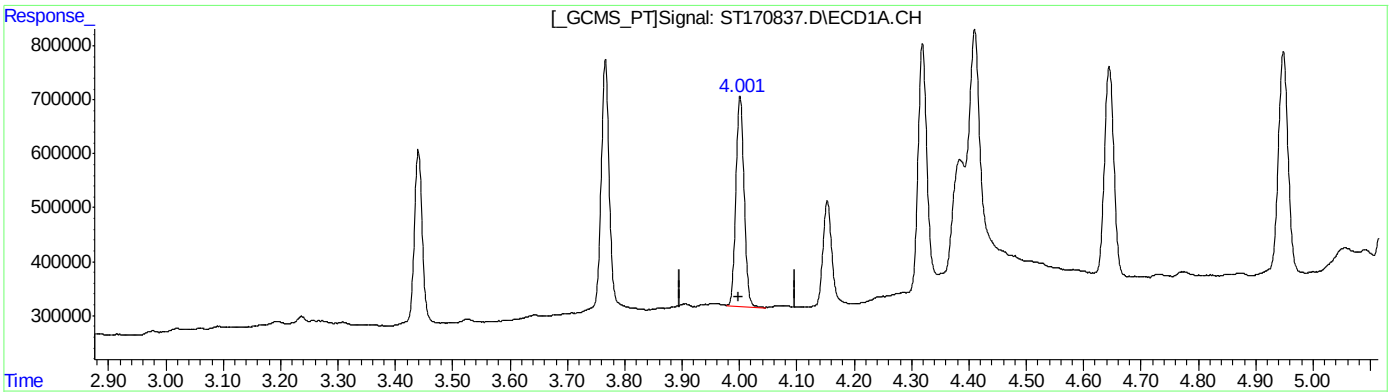
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(3) gamma-BHC (Lindane) ( )
4.001min 2.110 PPB m
response 390431

(3) gamma-BHC (Lindane) #2 ( )
4.048min 2.763 PPB m
response 72564

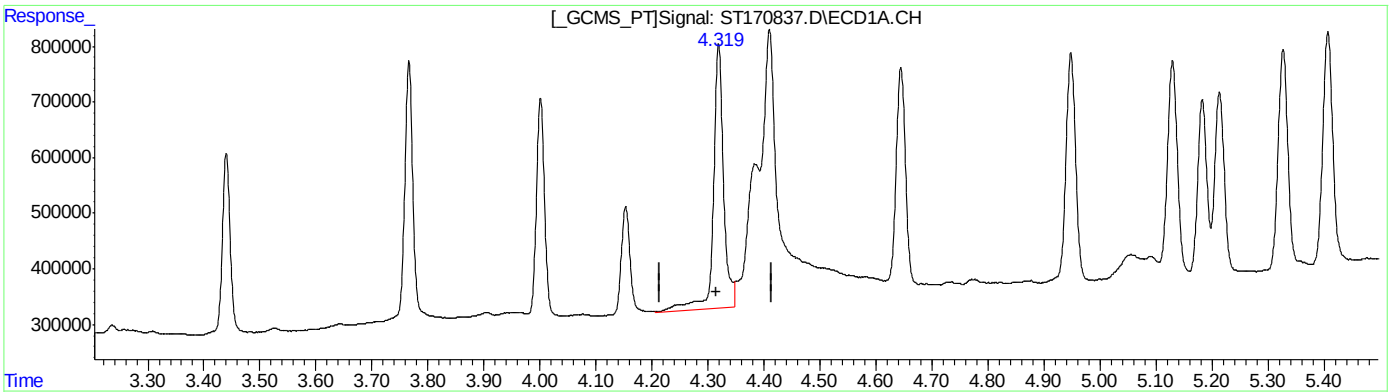
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(5) delta-BHC ( )
4.319min 2.407 PPB
response 473891

(5) delta-BHC #2 ( )
4.453min 2.608 PPB
response 73522

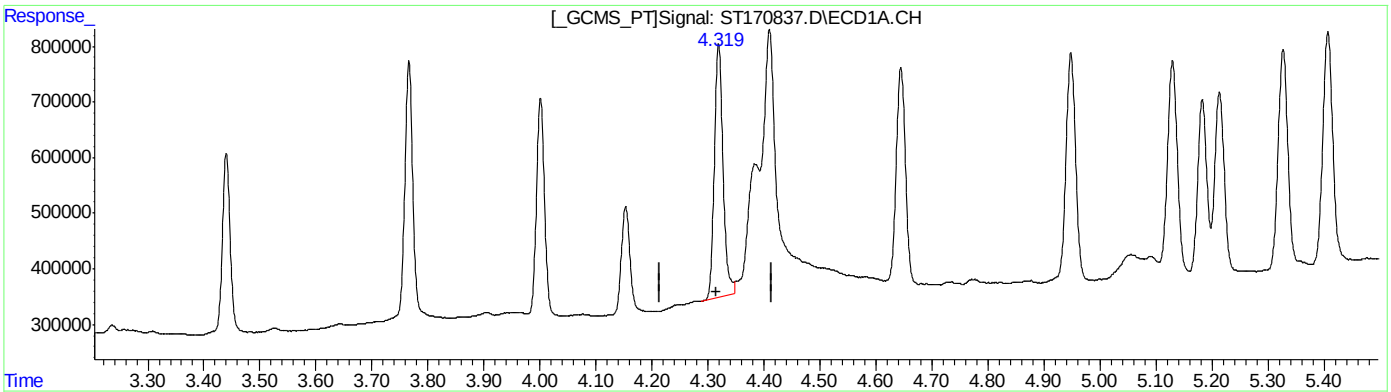
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(5) delta-BHC ( )
4.319min 2.315 PPB m
response 455770

(5) delta-BHC #2 ( )
4.453min 2.608 PPB
response 73522

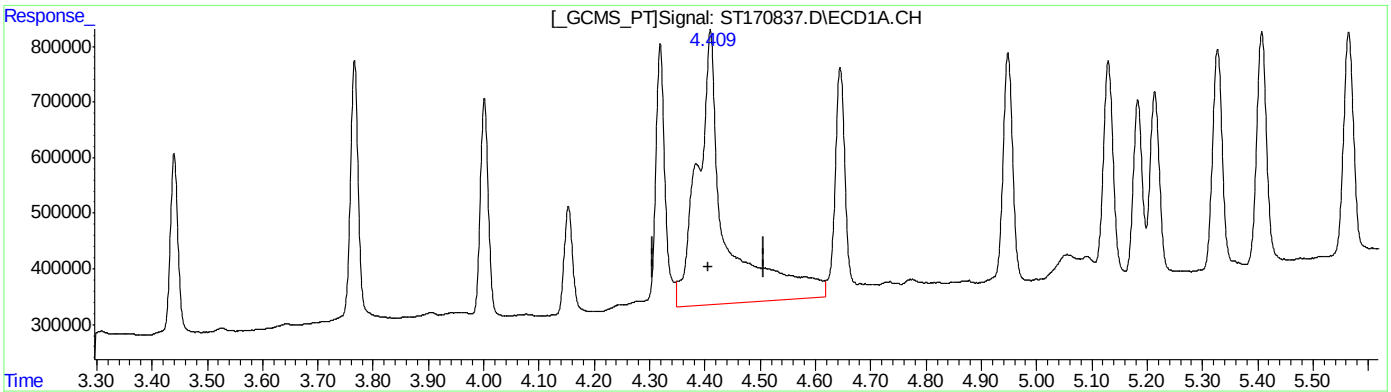
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:54:12 2023 Page: 1

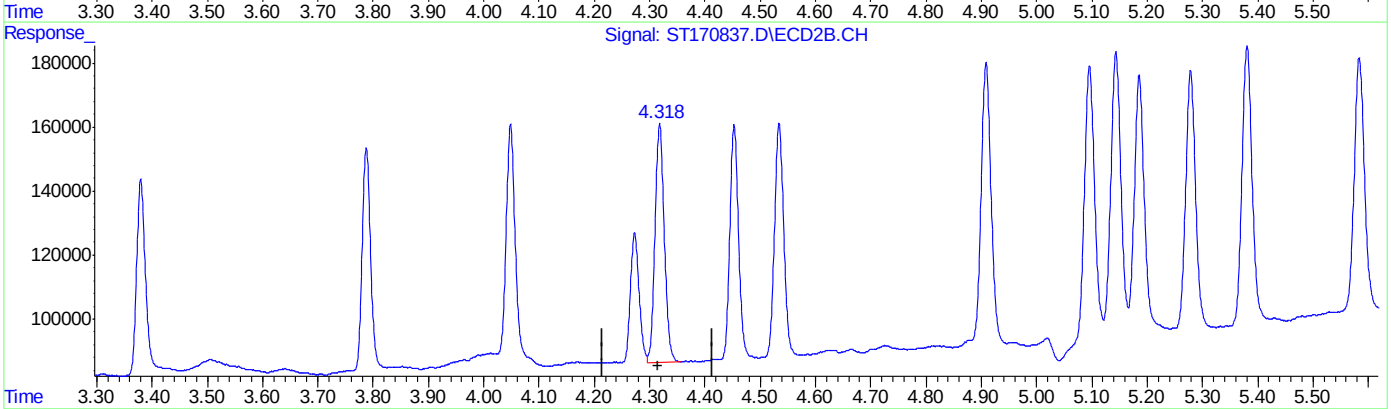
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )

4.409min 2.937 PPB

response 493030

(6) Heptachlor #2 ( )

4.318min 2.903 PPB

response 74556

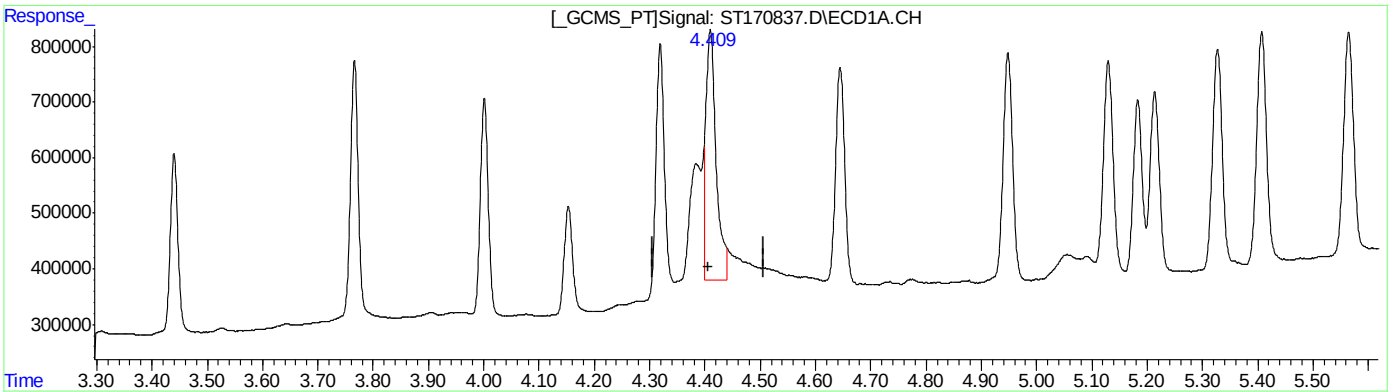
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(6) Heptachlor ( )

4.409min 2.692 PPB m

response 451831

(6) Heptachlor #2 ( )

4.318min 2.903 PPB

response 74556

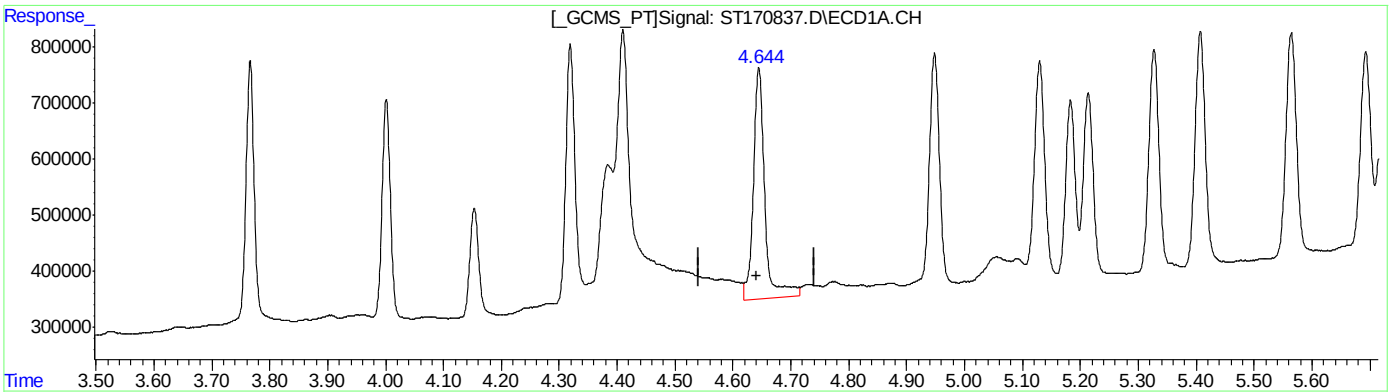
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(7) Aldrin ( )
4.645min 2.324 PPB
response 410859

(7) Aldrin #2 ( )
4.534min 2.581 PPB
response 73166

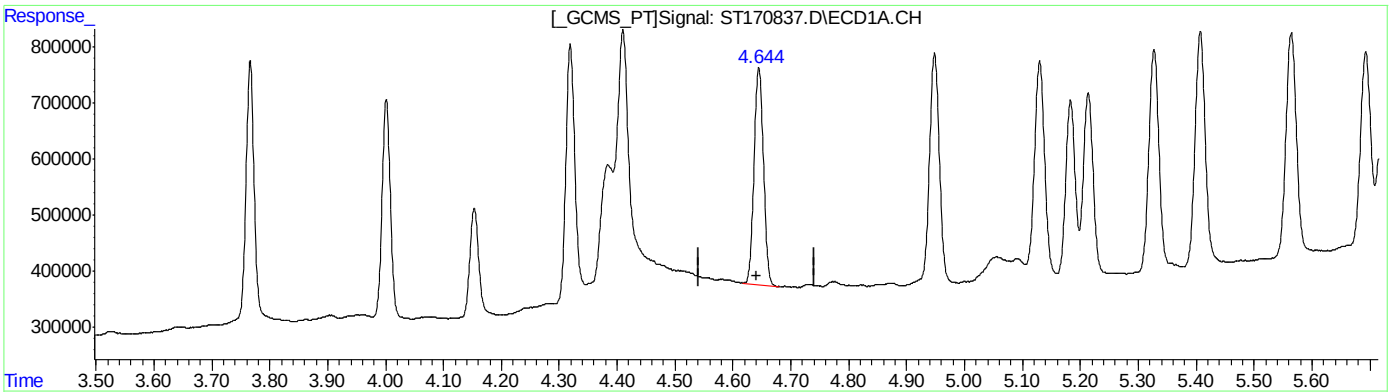
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(7) Aldrin ( )
4.644min 2.195 PPB m
response 388092

(7) Aldrin #2 ( )
4.534min 2.581 PPB
response 73166

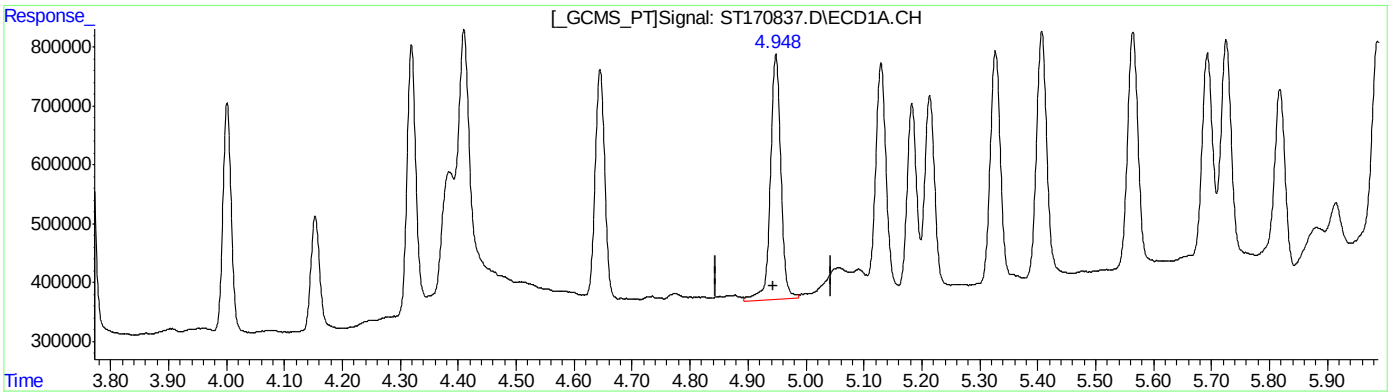
(+) = Expected Retention Time

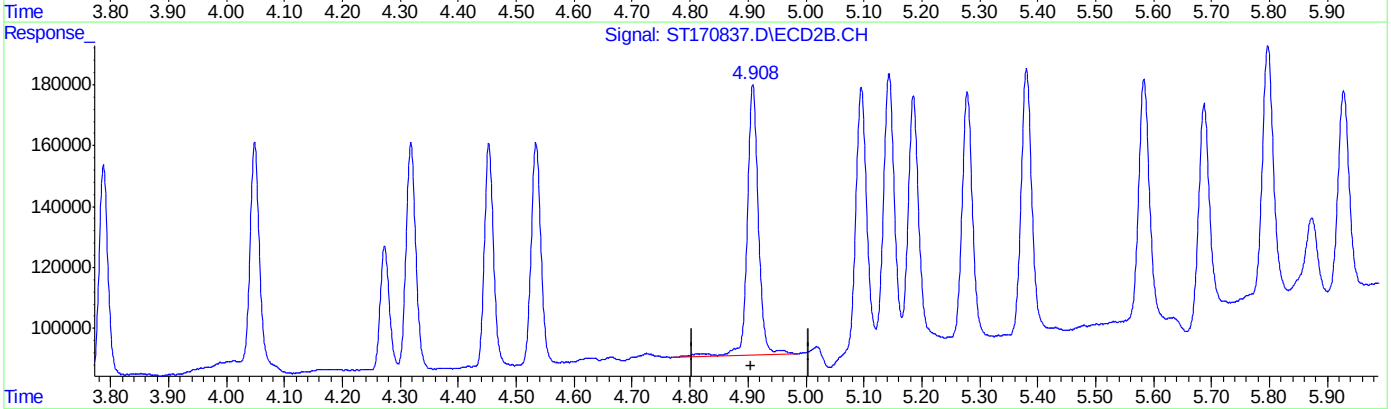
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(8) Heptachlor Epoxide ( )
4.948min 2.462 PPB
response 417333

(8) Heptachlor Epoxide #2 ( )
4.909min 2.977 PPB
response 88779

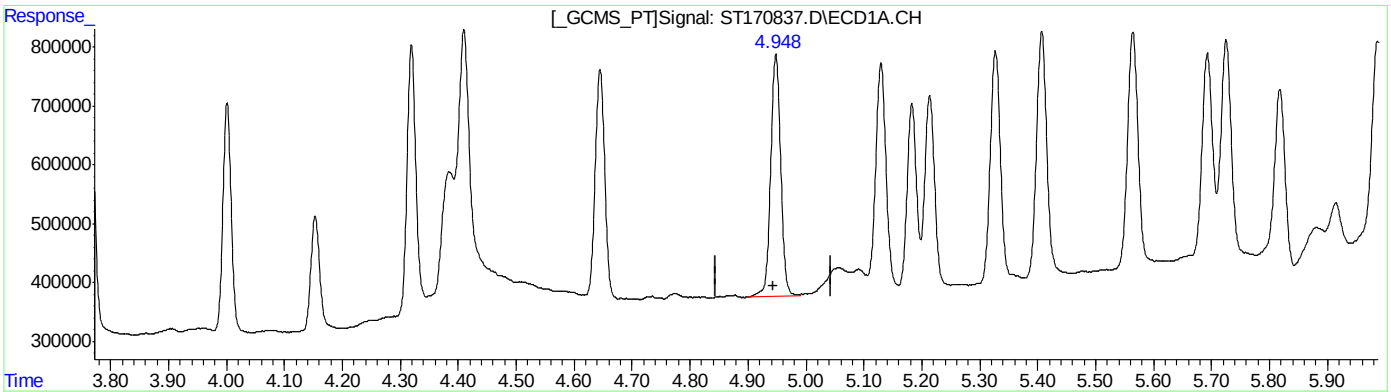
(+) = Expected Retention Time

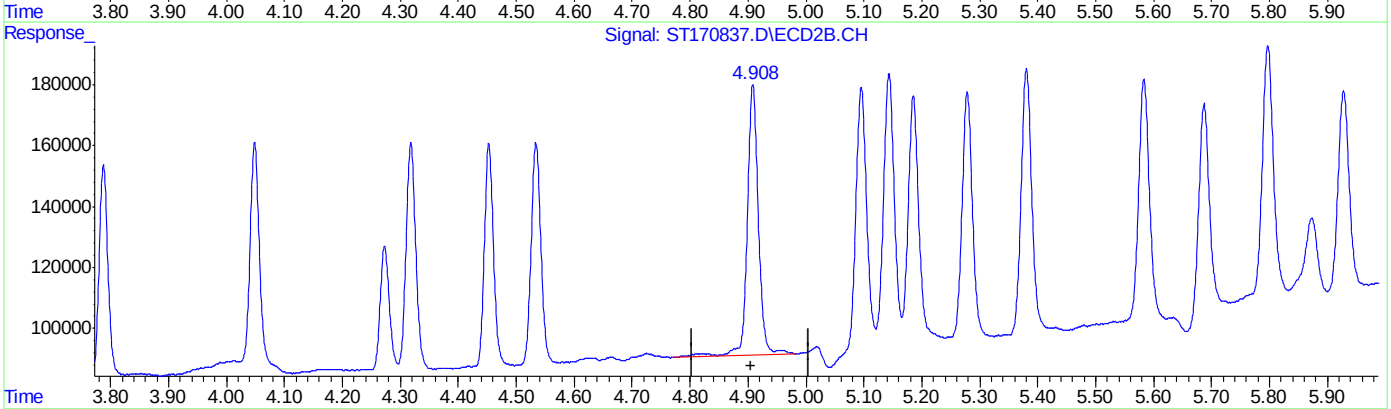
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(8) Heptachlor Epoxide ( )

4.948min 2.438 PPB m

response 413327

(8) Heptachlor Epoxide #2 ( )

4.909min 2.977 PPB

response 88779

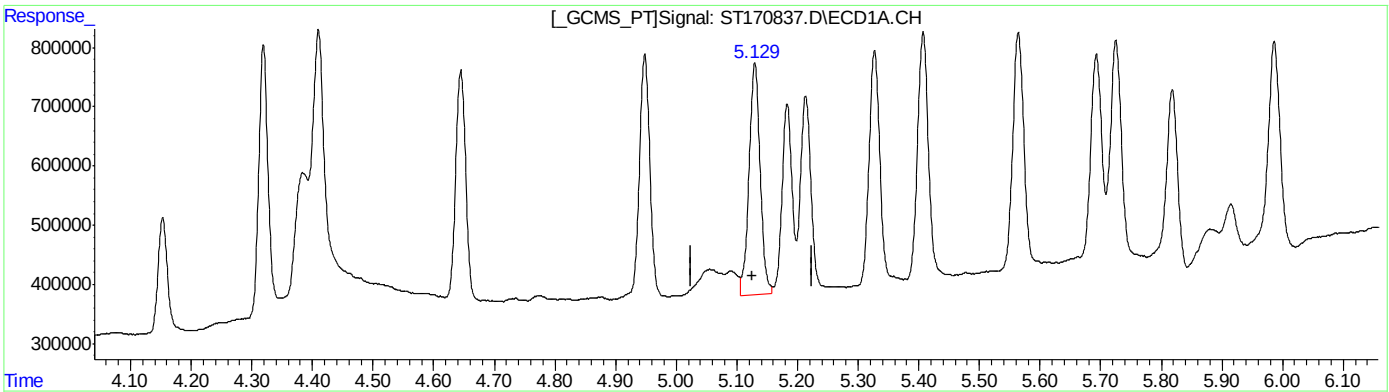
(+) = Expected Retention Time

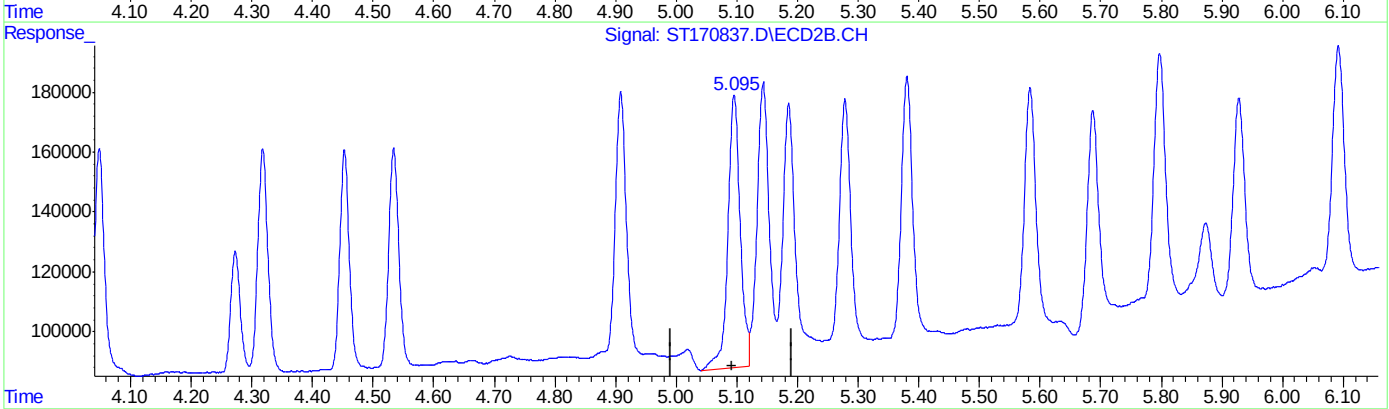
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(9) gamma-Chlordane

5.130min 2.326 PPB

response 389449

(9) gamma-Chlordane #2

5.096min 3.012 PPB

response 90920

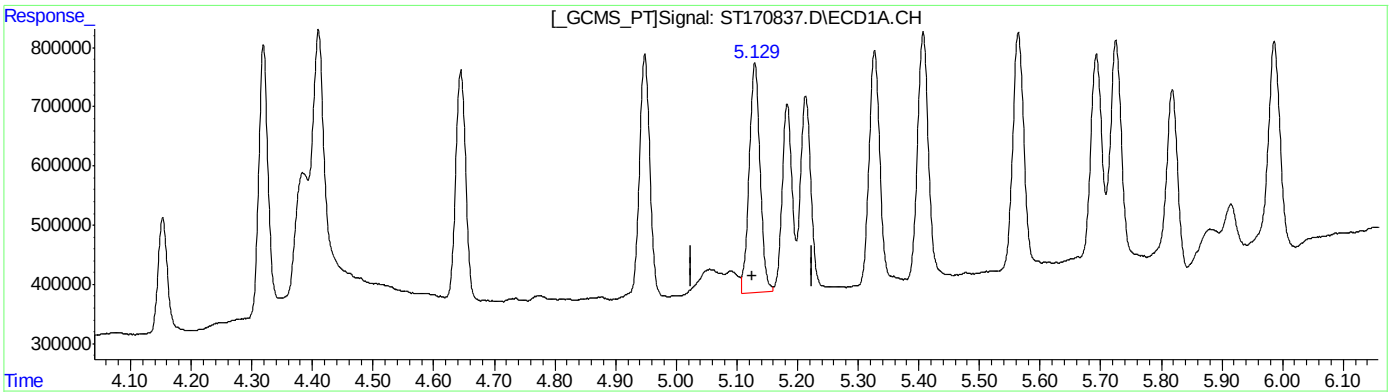
(+) = Expected Retention Time

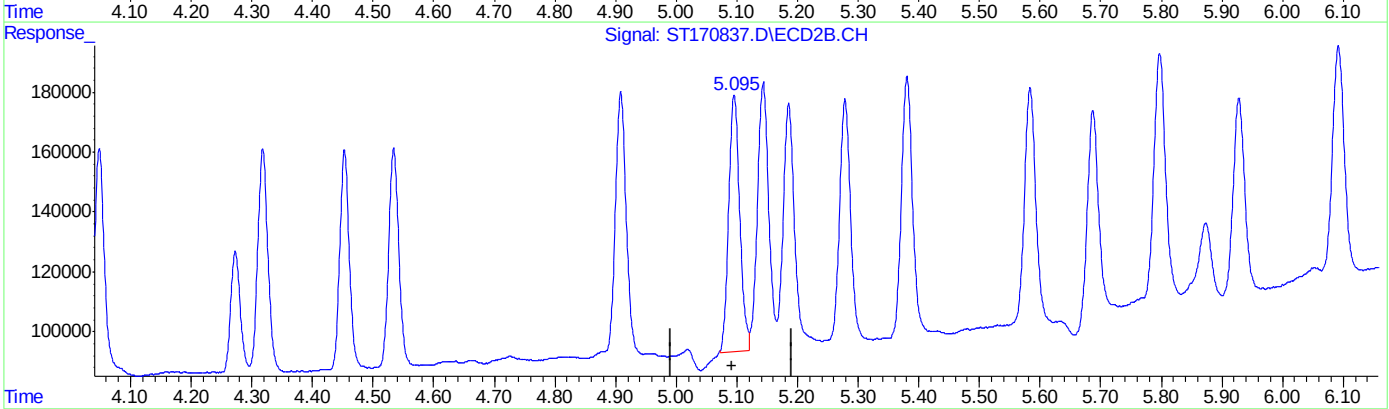
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(9) gamma-Chlordane

5.129min 2.316 PPB m

response 387768

(9) gamma-Chlordane #2

5.095min 2.840 PPB m

response 85731

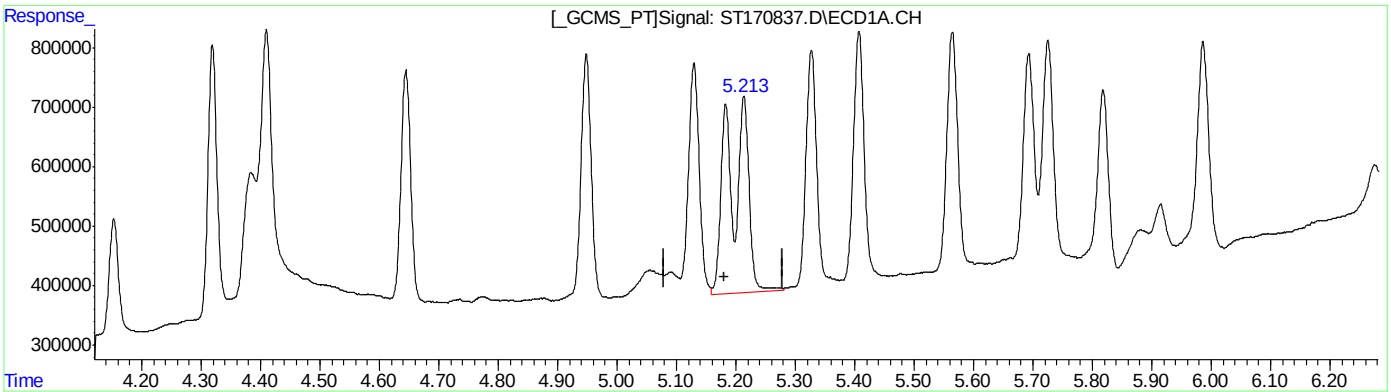
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.214min 2.008 PPB
response 328178

(10) alpha-Chlordane #2
5.144min 3.136 PPB
response 94614

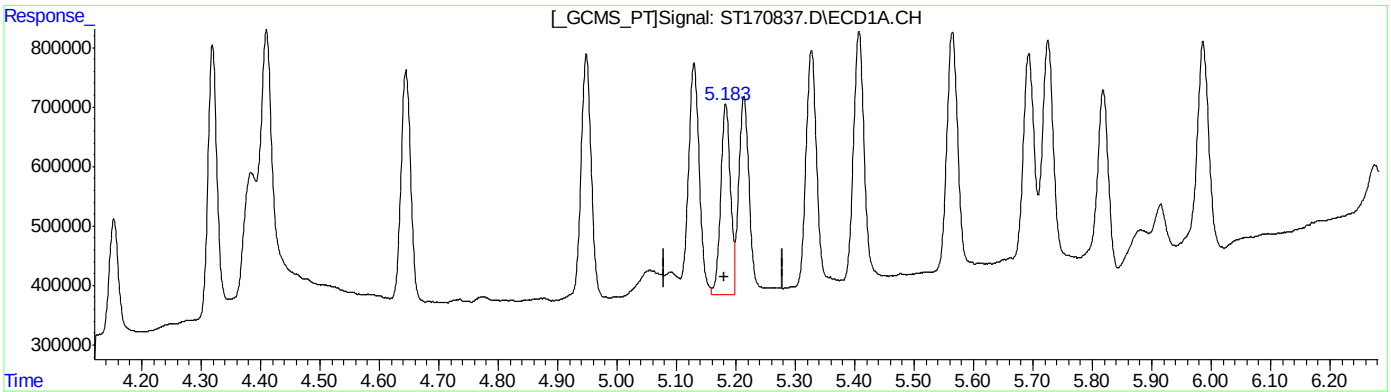
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:55:02 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.183min 1.956 PPB m
response 319684

(10) alpha-Chlordane #2
5.143min 2.938 PPB m
response 88635

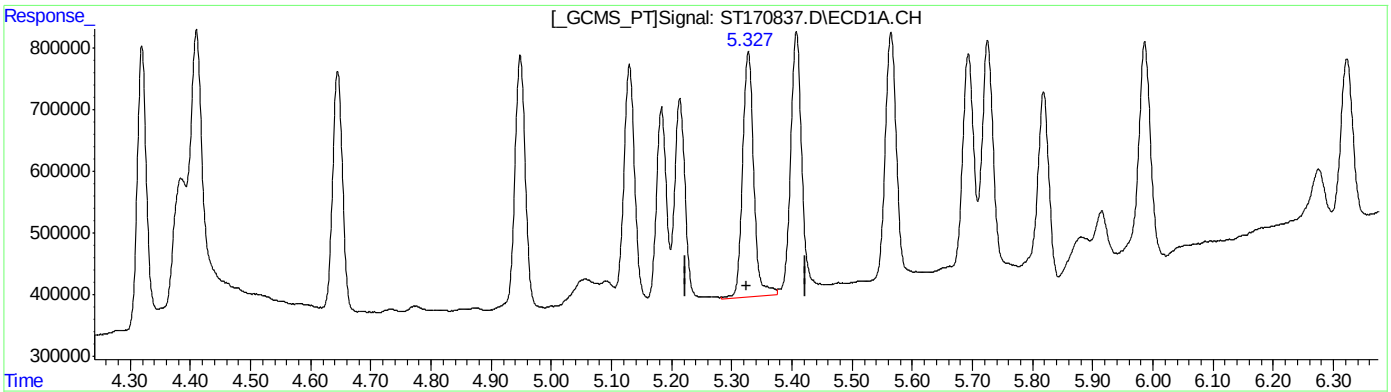
(+) = Expected Retention Time

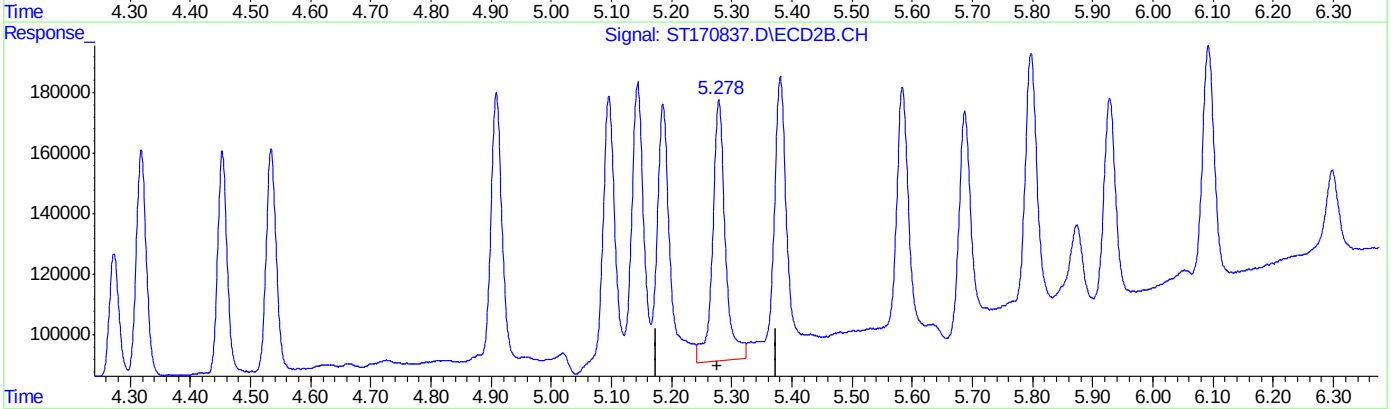
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(11) 4,4'-DDE
5.327min 2.350 ppb
response 399861

(11) 4,4'-DDE #2
5.279min 2.912 ppb
response 85922

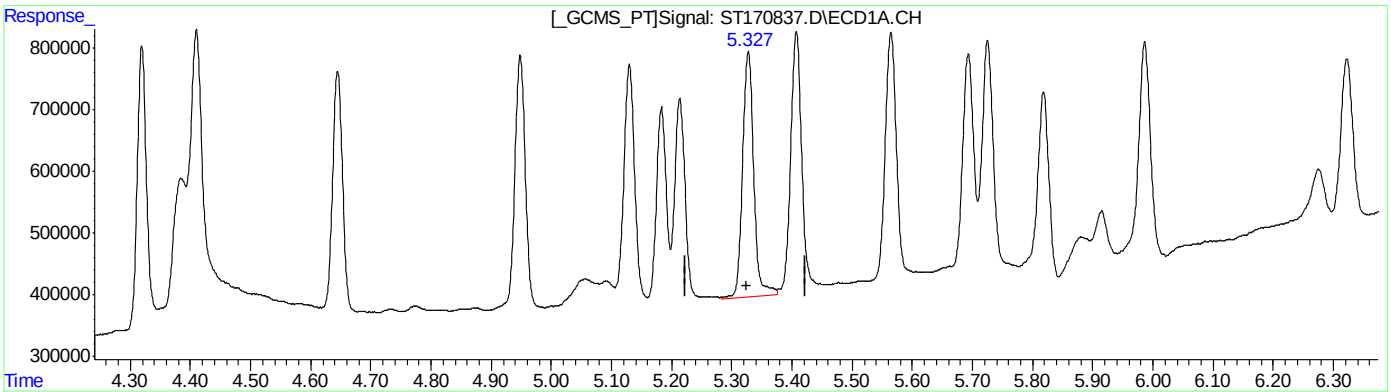
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:55:16 2023 Page: 1

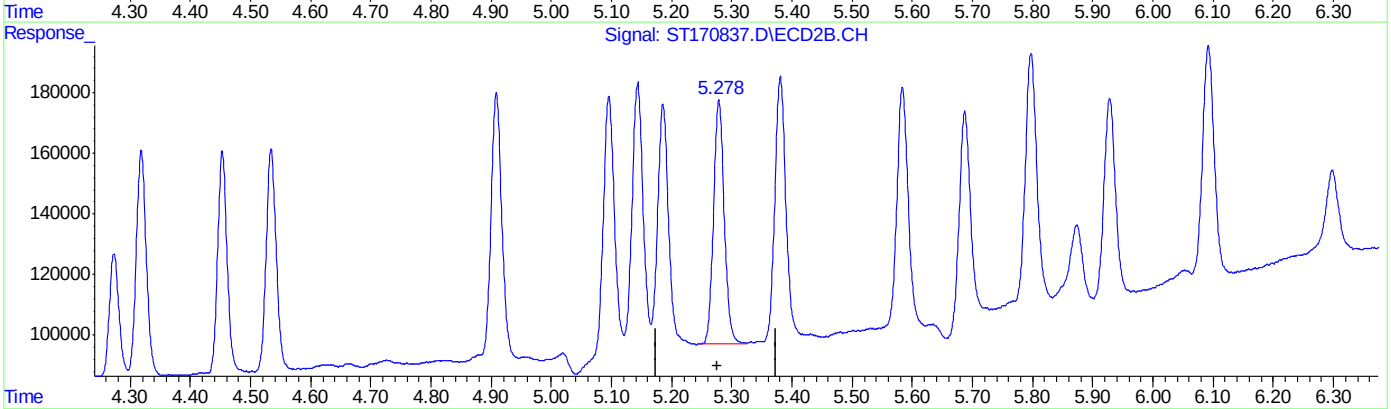
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(11) 4,4'-DDE
5.327min 2.350 ppb
response 399861

(11) 4,4'-DDE #2
5.278min 2.735 ppb m
response 80710

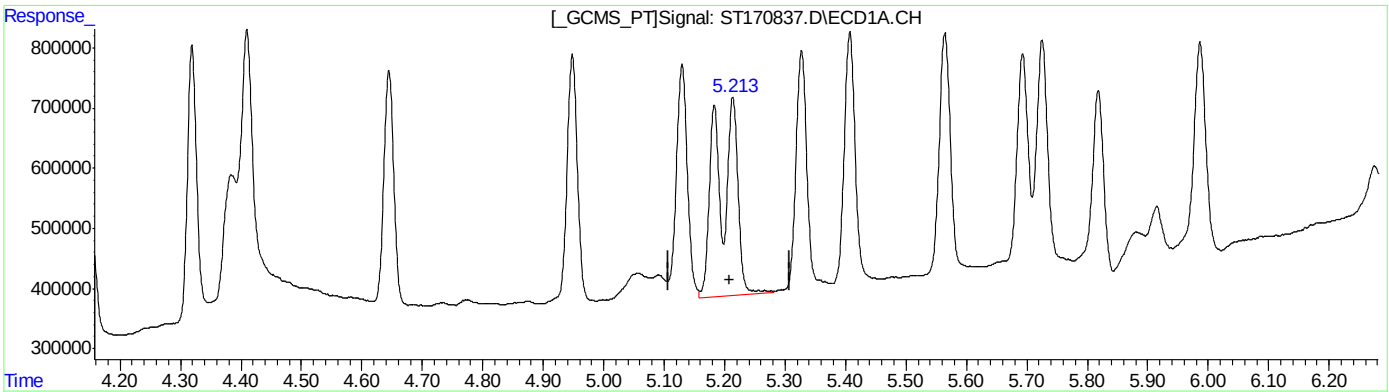
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.214min 2.222 PPB
response 328178

(12) Endosulfan I #2 ( )
5.186min 3.071 PPB
response 86499

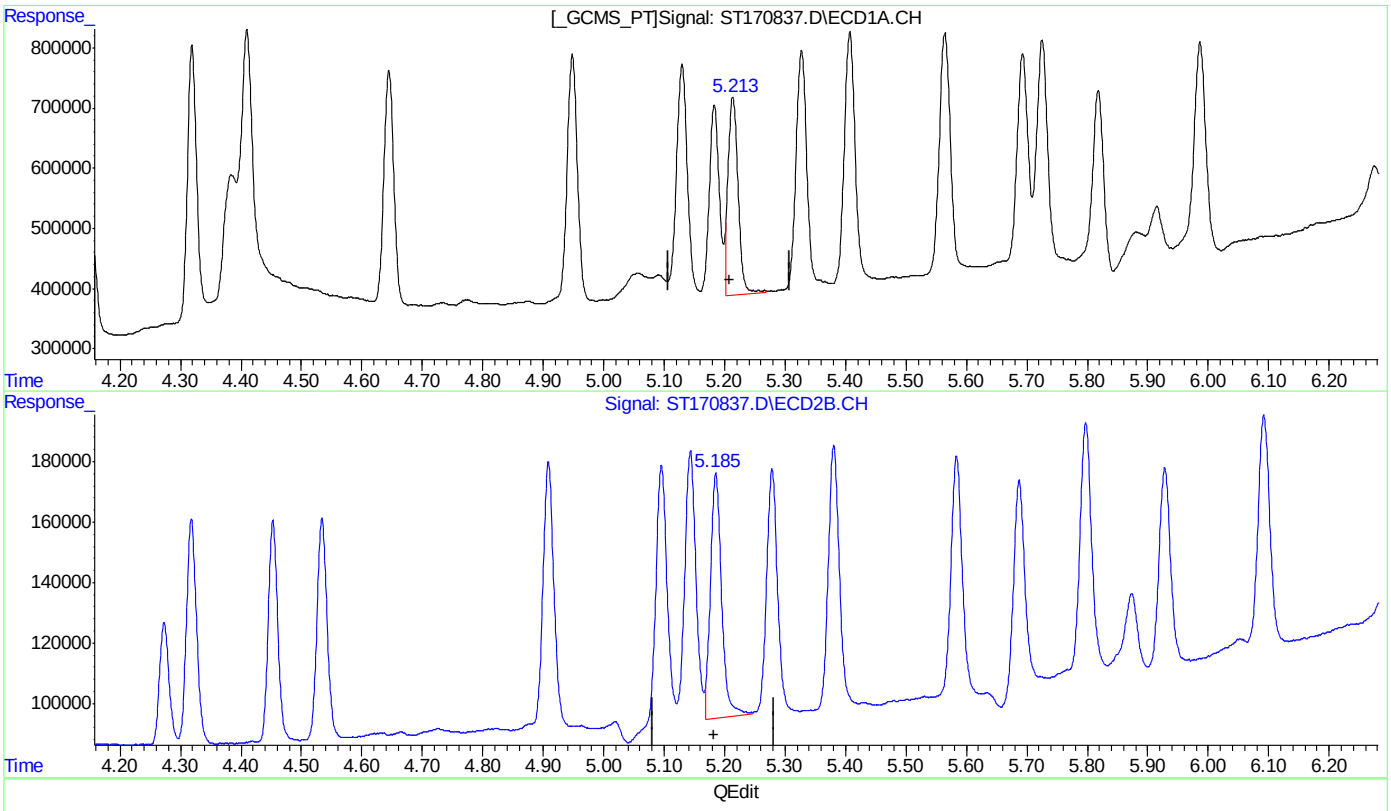
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.213min 2.229 PPB m
response 329215

(12) Endosulfan I #2 ( )
5.185min 2.883 PPB m
response 81217

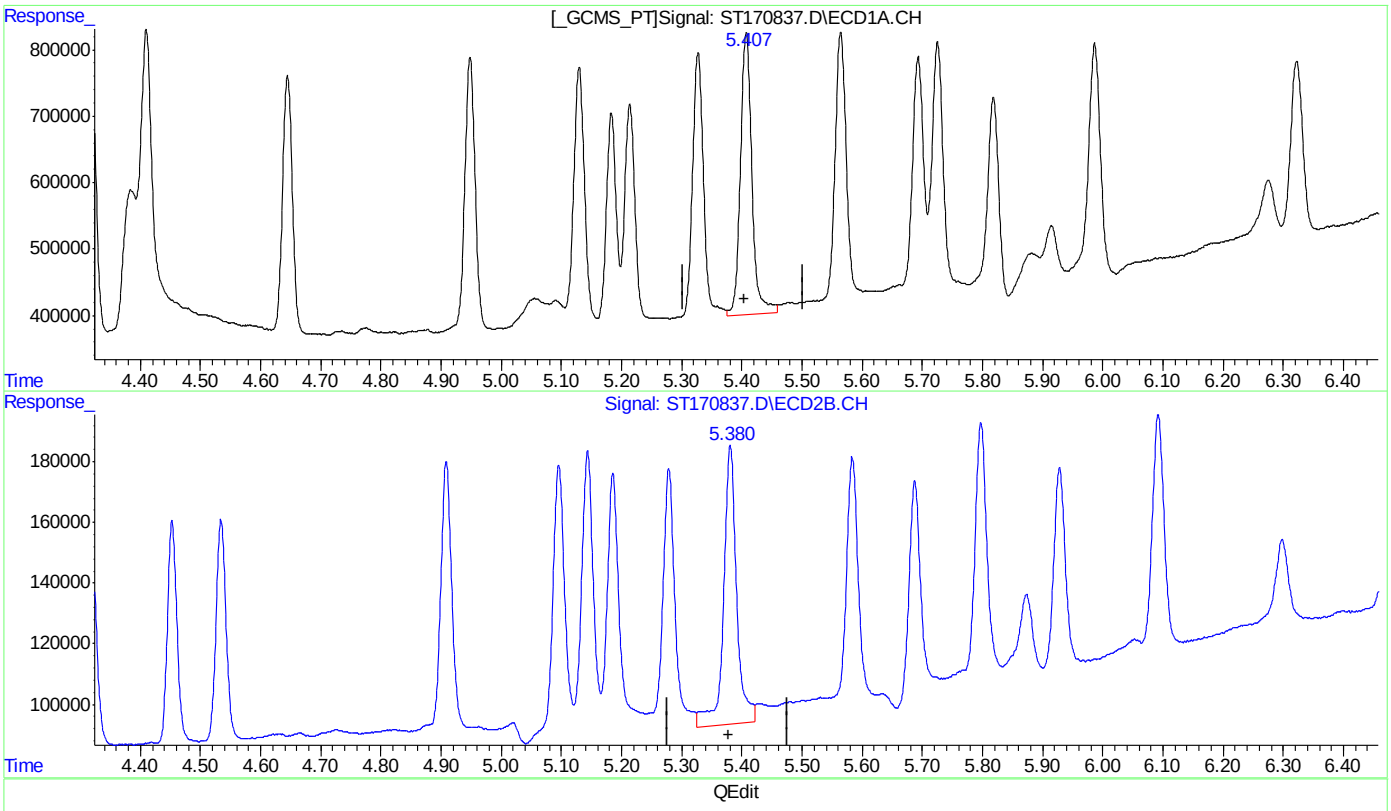
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(13) Dieldrin ( )

5.407min 2.424 PPB

response 426073

(13) Dieldrin #2 ( )

5.381min 2.952 PPB

response 91778

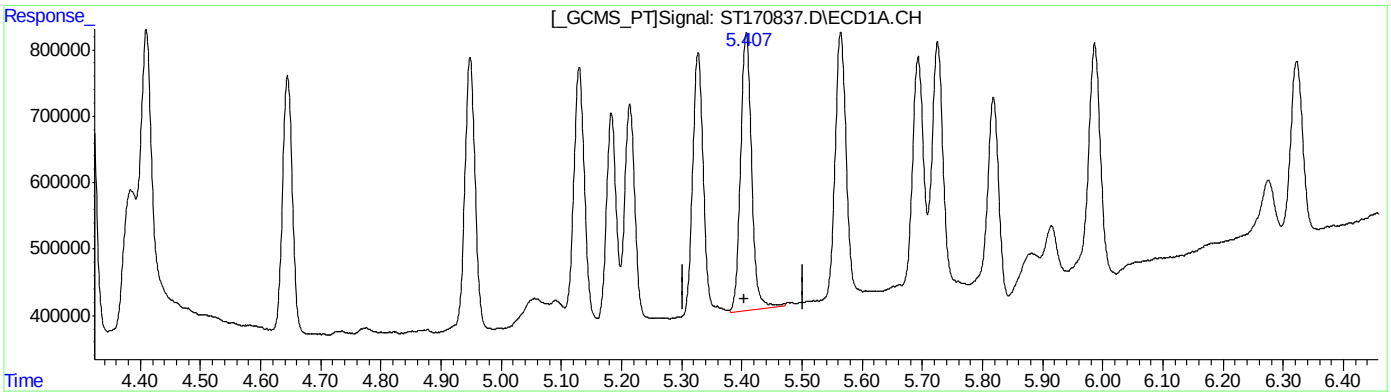
(+) = Expected Retention Time

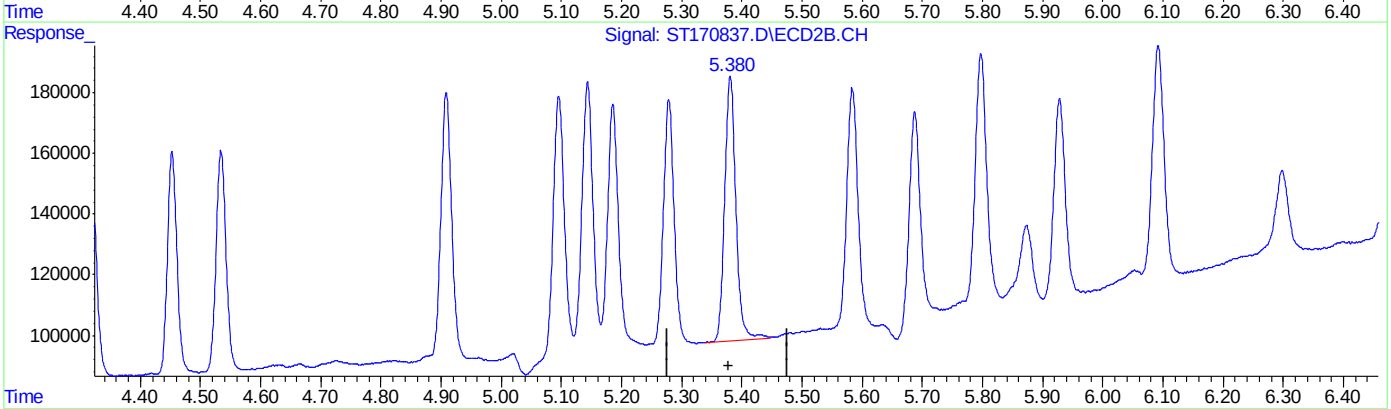
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(13) Dieldrin ( )
5.407min 2.385 PPB m
response 419099

(13) Dieldrin #2 ( )
5.380min 2.804 PPB m
response 87181

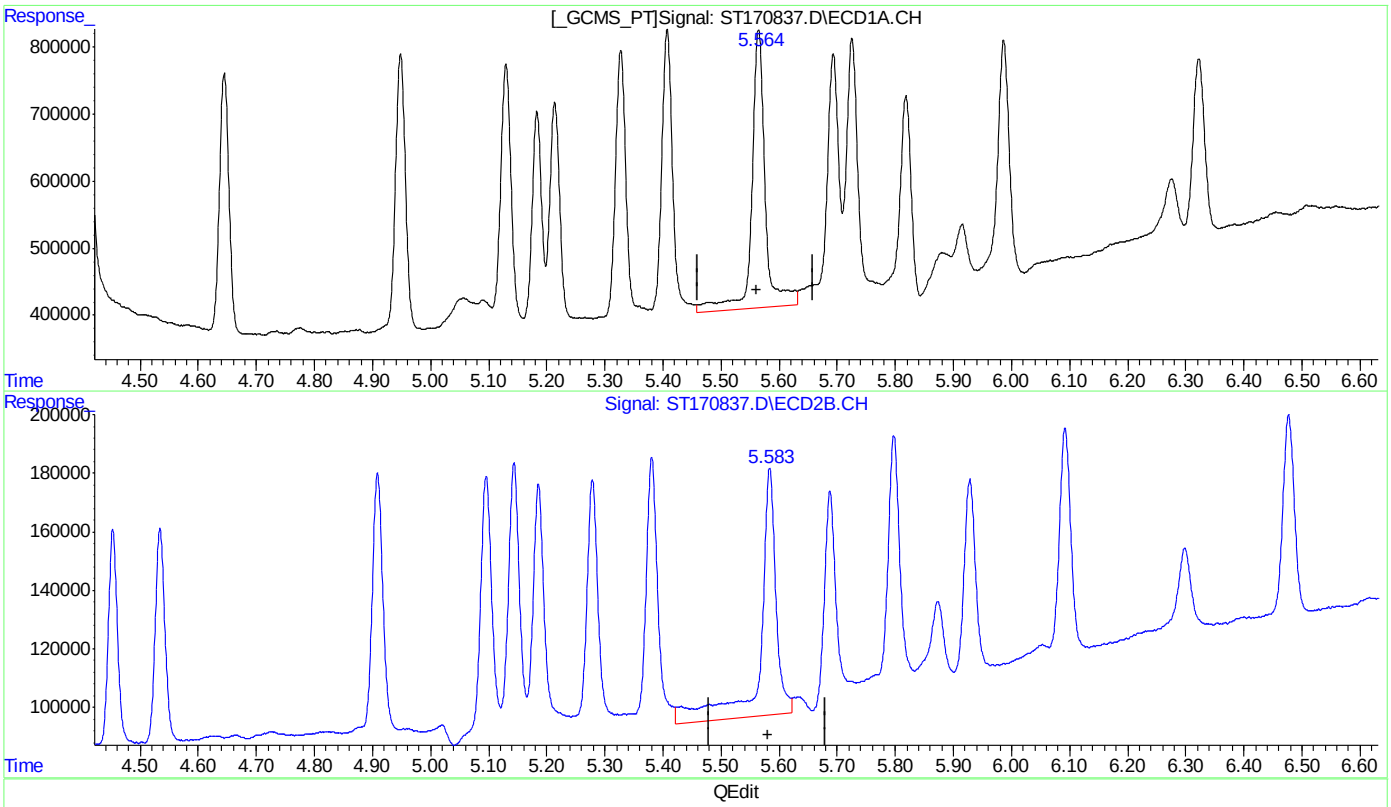
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:55:51 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(14) Endrin ( )

5.565min 2.504 PPB

response 413320

(14) Endrin #2 ( )

5.584min 2.896 PPB

response 84223

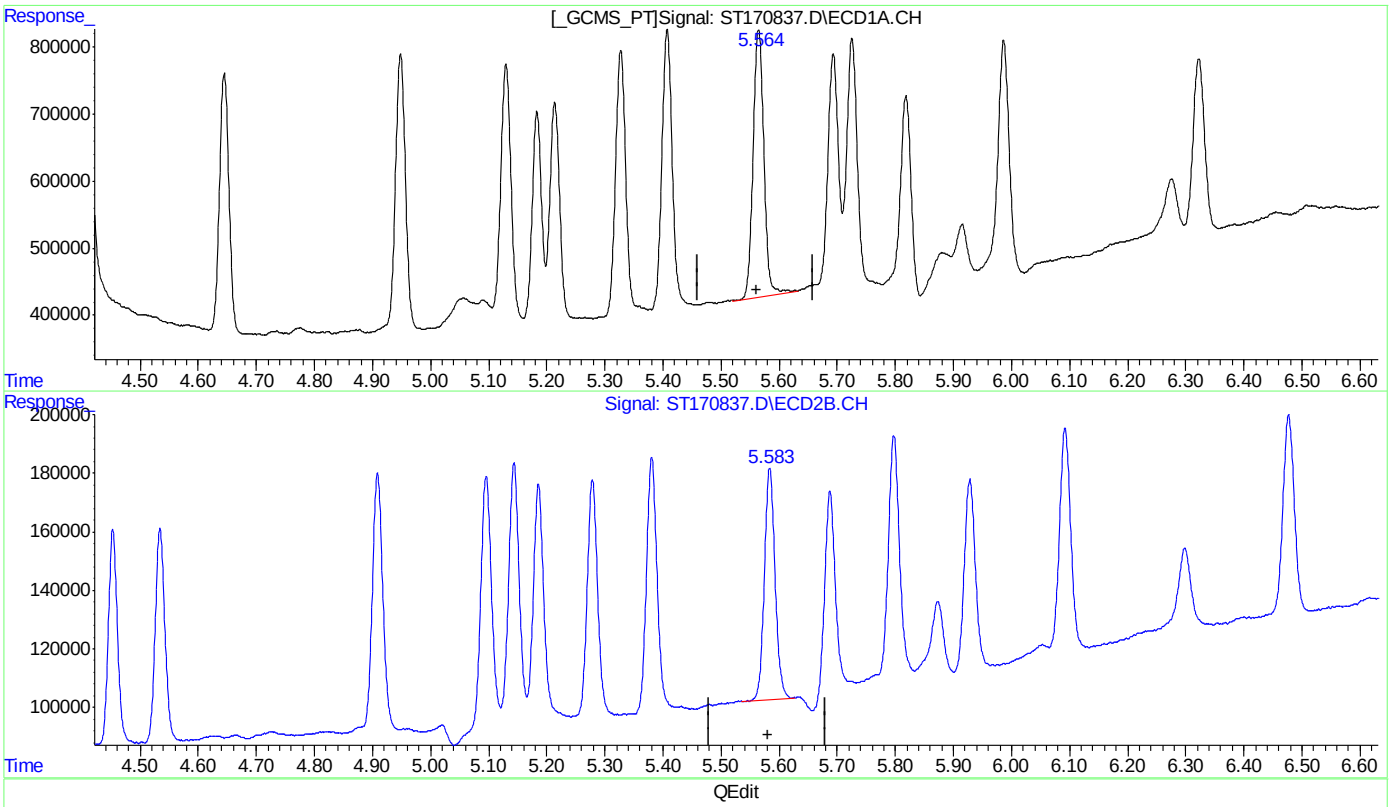
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(14) Endrin ( )

5.564min 2.418 PPB m

response 399187

(14) Endrin #2 ( )

5.583min 2.726 PPB m

response 79300

(+) = Expected Retention Time

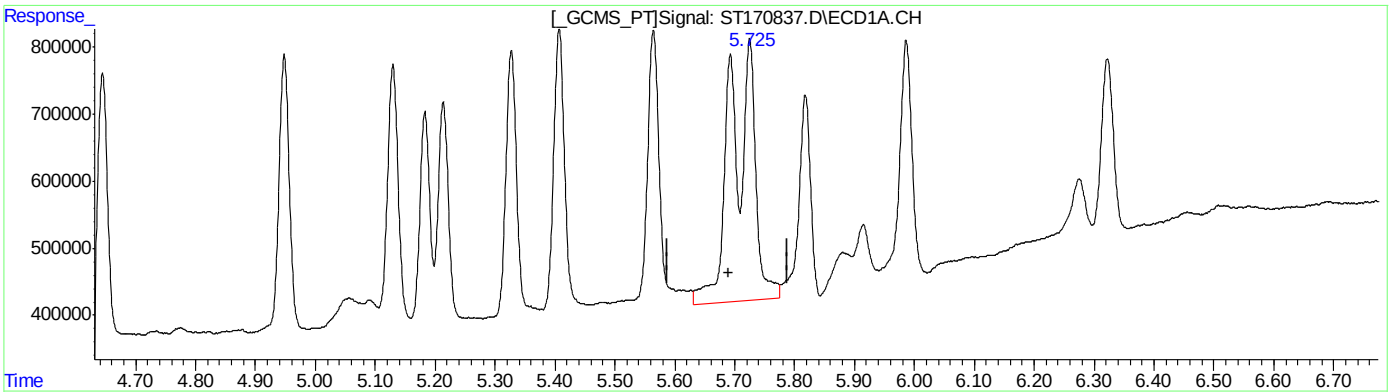
GST4134_082123DOD.M Tue Oct 31 10:56:03 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.725min 2.686 PPB

response 390857

(15) 4,4'-DDD #2 ( )

5.687min 2.900 PPB

response 73851

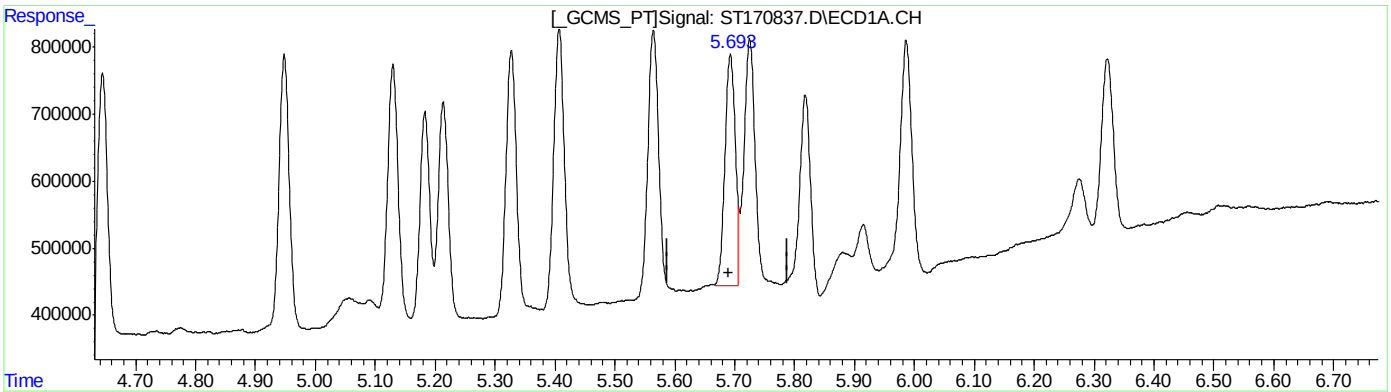
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.693min 2.376 PPB m

response 345824

(15) 4,4'-DDD #2 ( )

5.687min 2.691 PPB m

response 68533

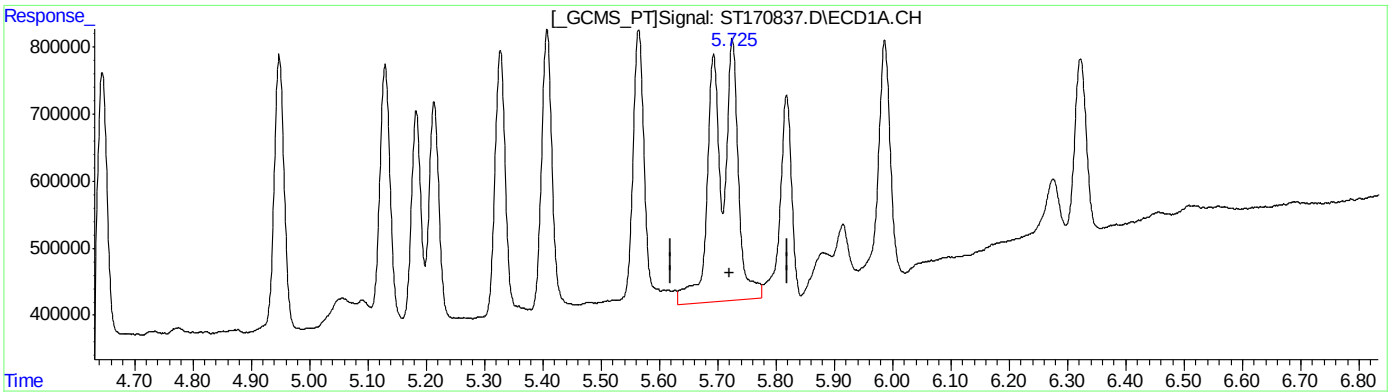
(+) = Expected Retention Time

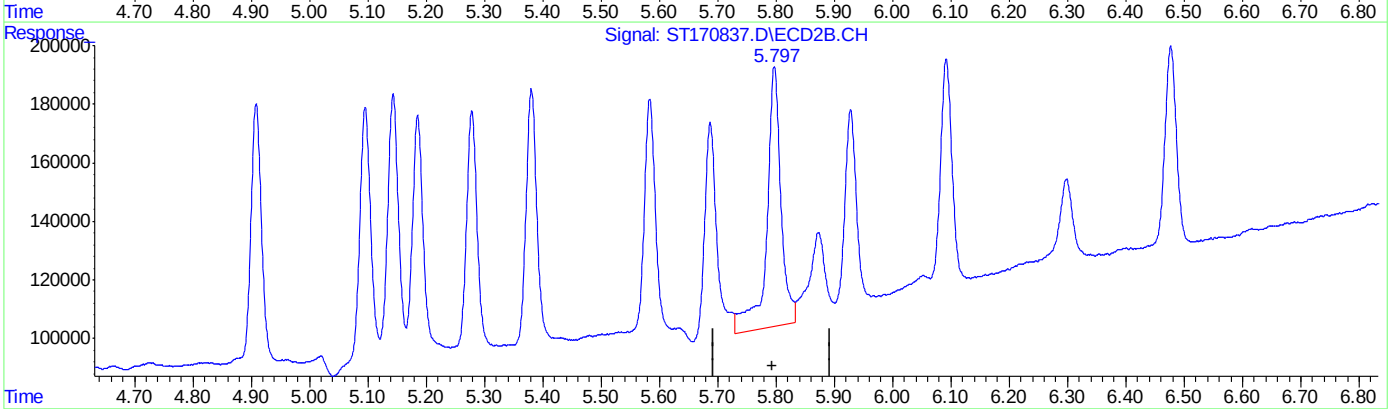
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(16) Endosulfan II ( )

5.725min 2.563 PPB

response 390857

(16) Endosulfan II #2 ( )

5.797min 3.037 PPB

response 88643

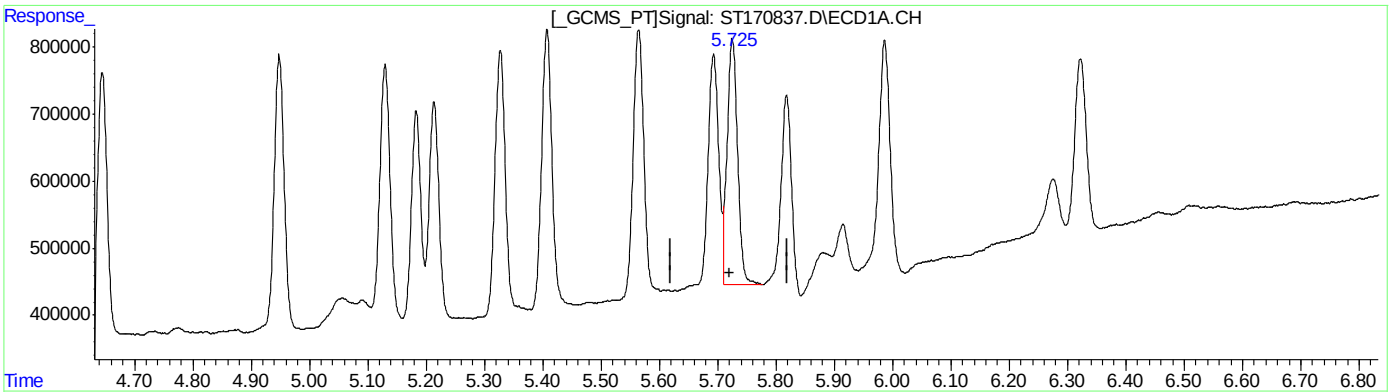
(+) = Expected Retention Time

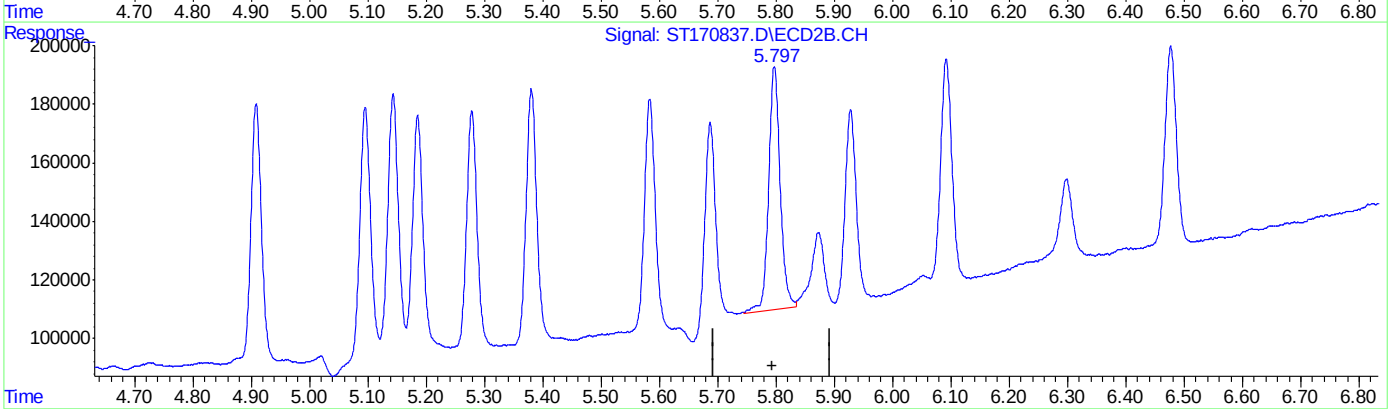
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(16) Endosulfan II ( )

5.725min 2.414 PPB m

response 368063

(16) Endosulfan II #2 ( )

5.797min 2.846 PPB m

response 83077

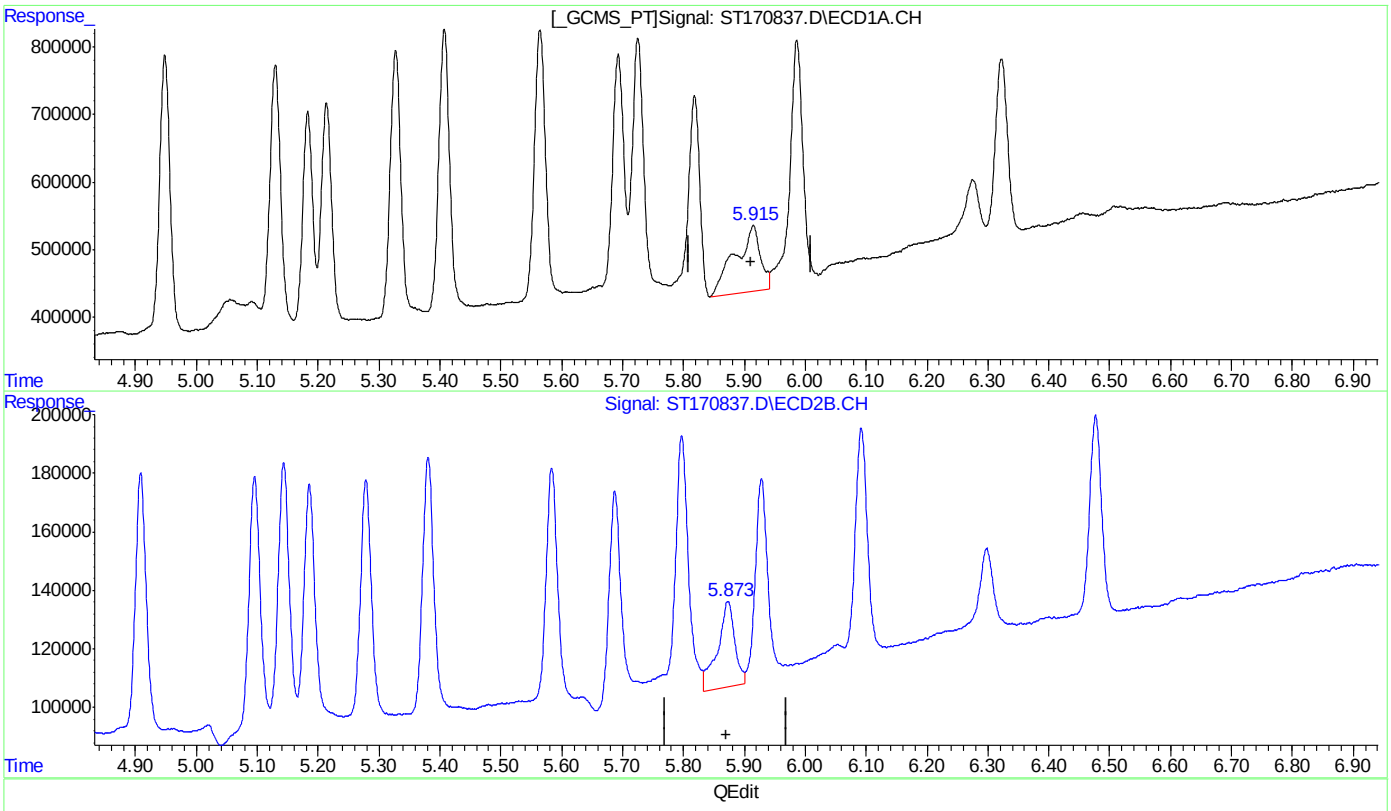
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.914min 0.910 ppb
response 98275

(17) 4,4'-DDT #2
5.873min 1.167 ppb
response 29266

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
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Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
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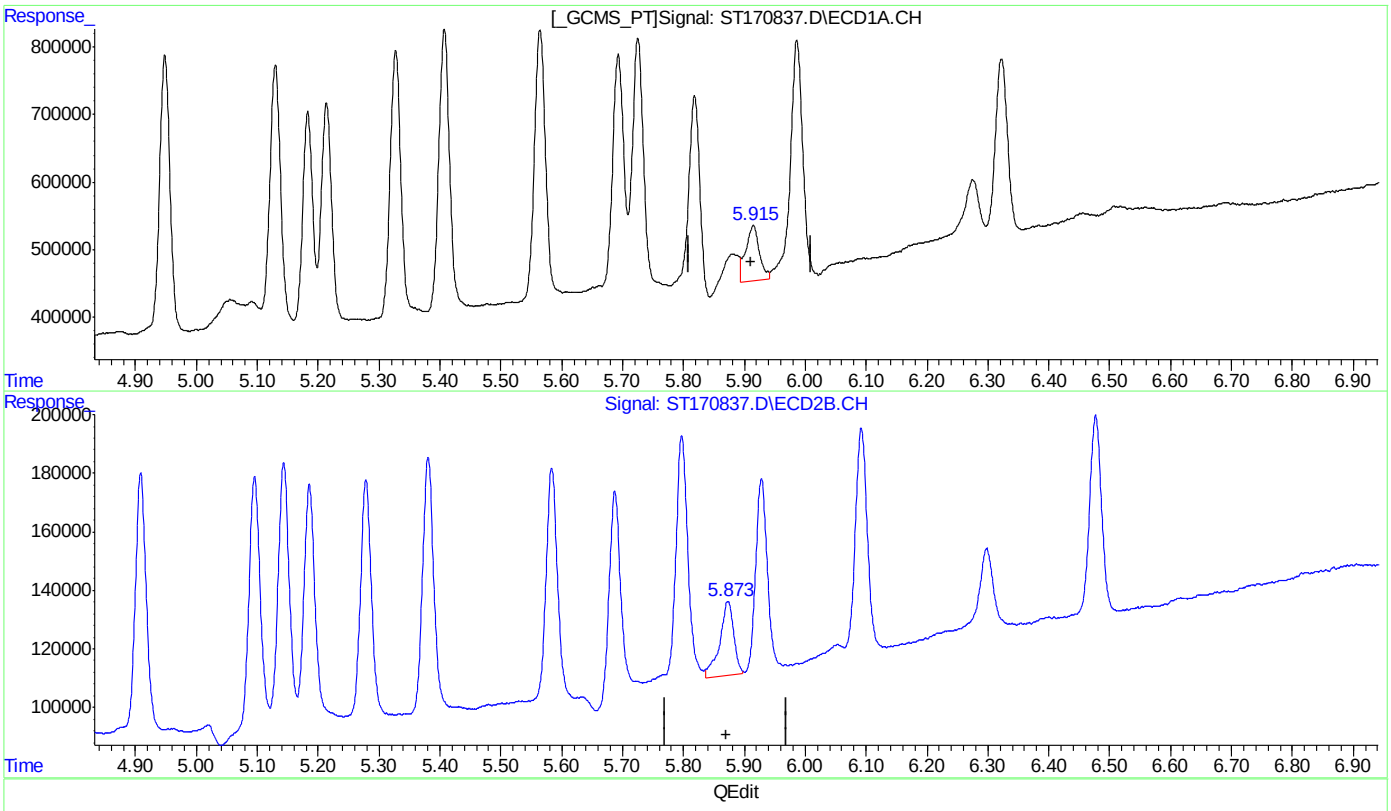
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT

5.915min 0.774 ppb m

response 83635

(17) 4,4'-DDT #2

5.873min 1.006 ppb m

response 25222

(+) = Expected Retention Time

GST4134_082123DOD.M Tue Oct 31 10:56:39 2023 Page: 1

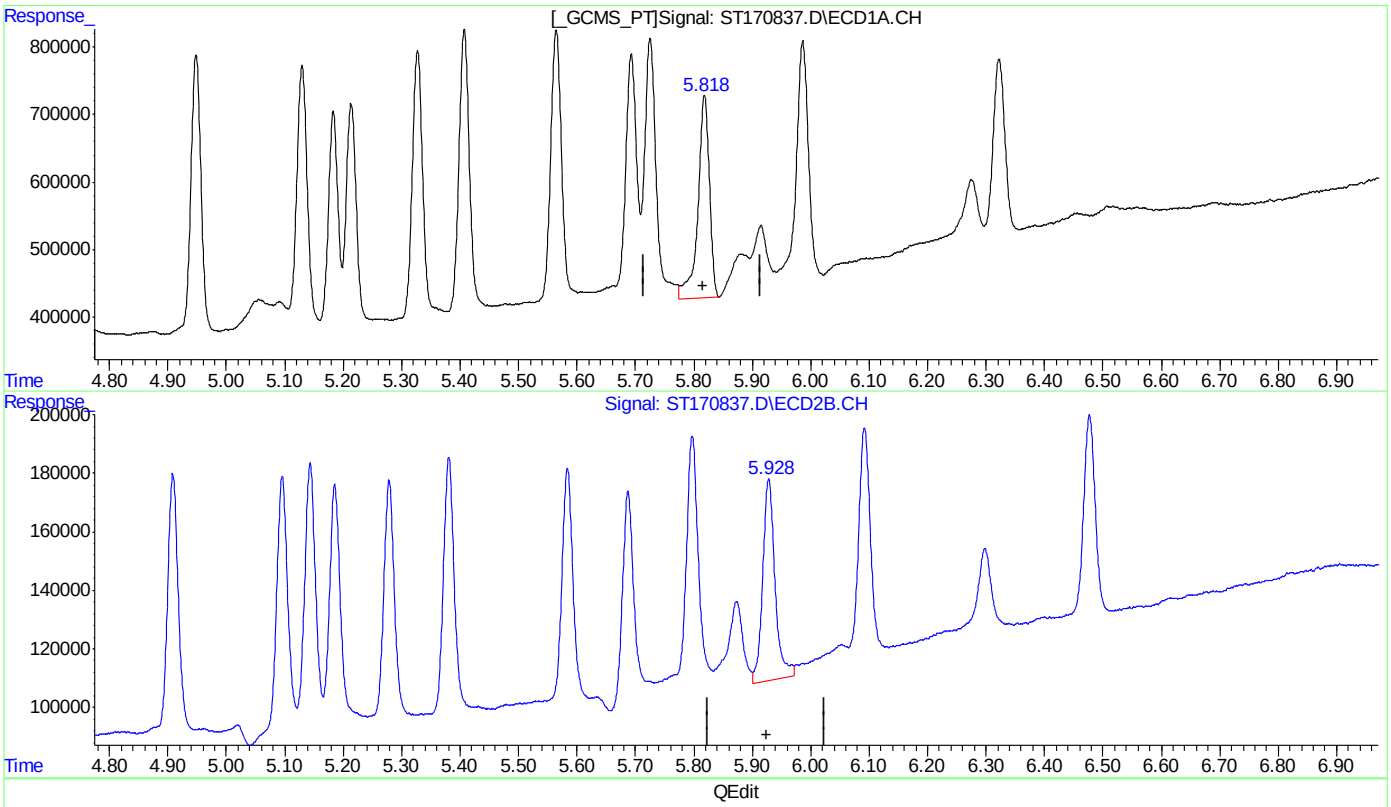
12.5.46.29 12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.818min 2.660 PPB
response 300285

(18) Endrin Aldehyde #2 ( )
5.928min 2.965 PPB
response 68907

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
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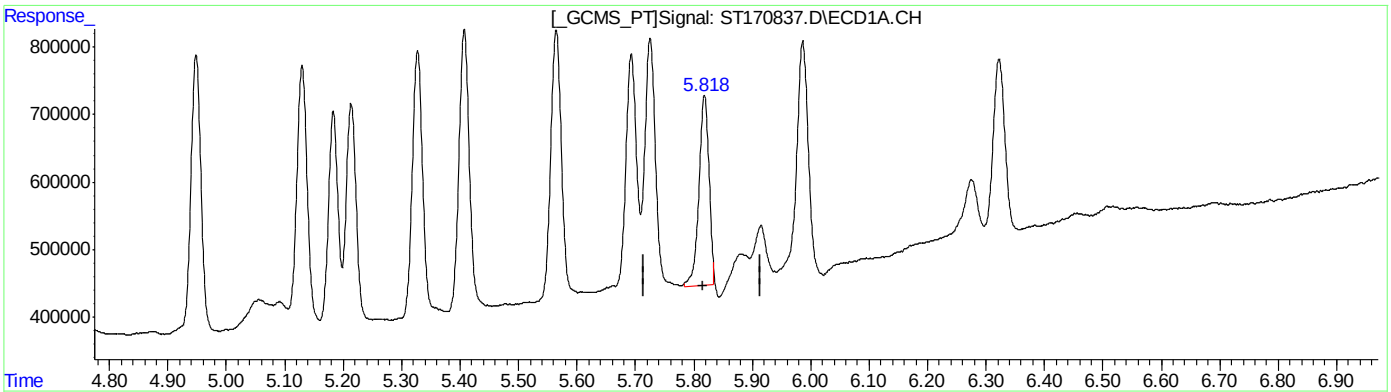
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.818min 2.491 PPB m
response 281240

(18) Endrin Aldehyde #2 ( )
5.928min 2.816 PPB m
response 65447

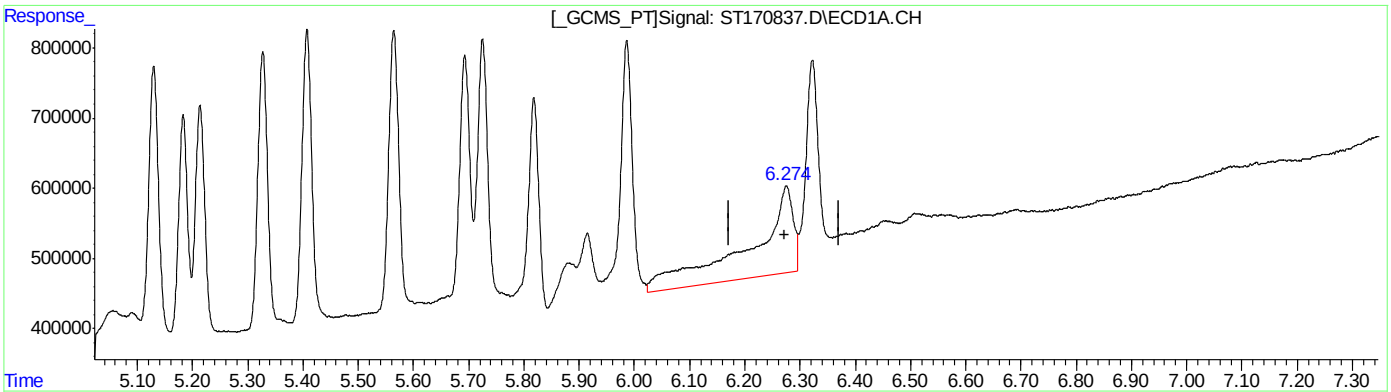
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(19) Methoxychlor
6.275min 1.898 ppb
response 123445

(19) Methoxychlor #2
6.298min 2.350 ppb
response 31169

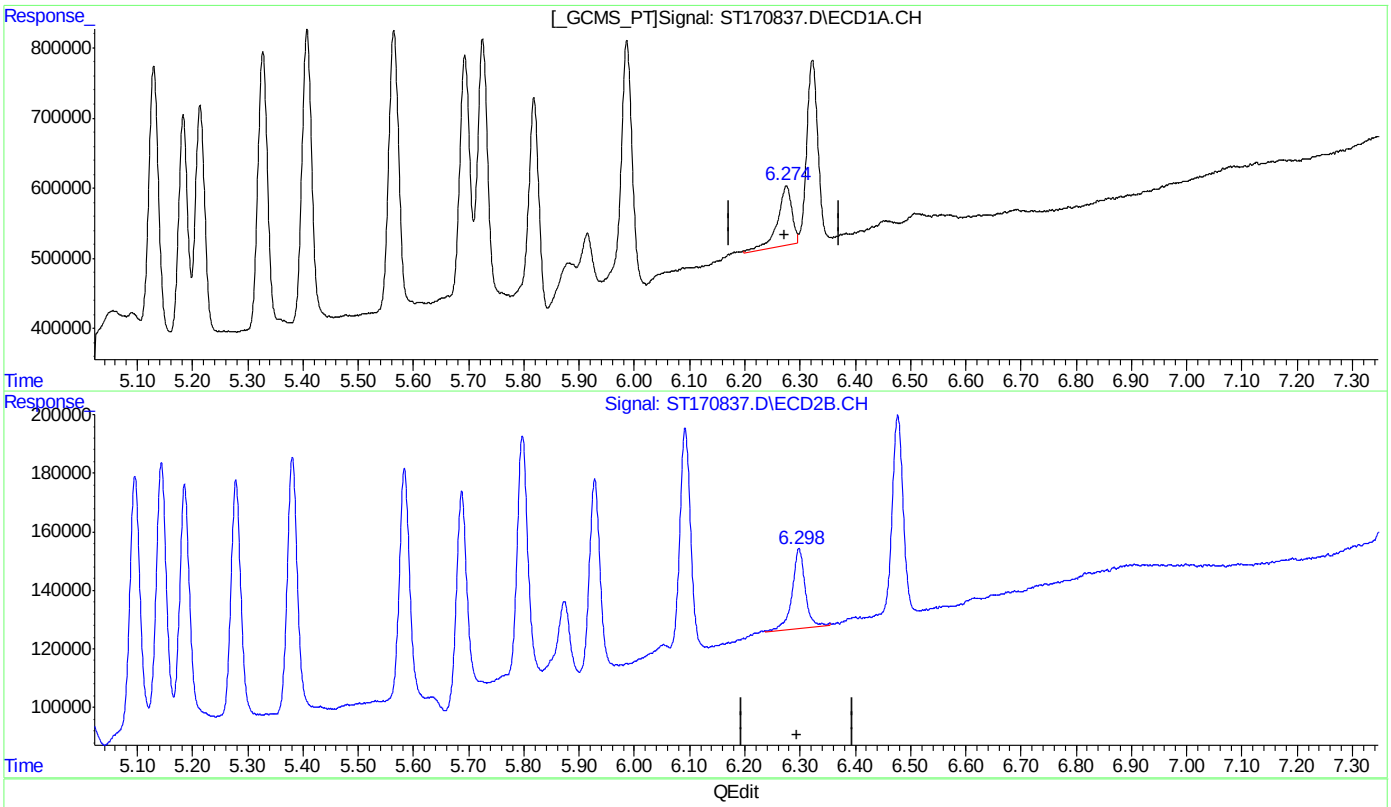
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(19) Methoxychlor
6.274min 1.305 ppb m
response 84900

(19) Methoxychlor #2
6.298min 2.062 ppb m
response 27349

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
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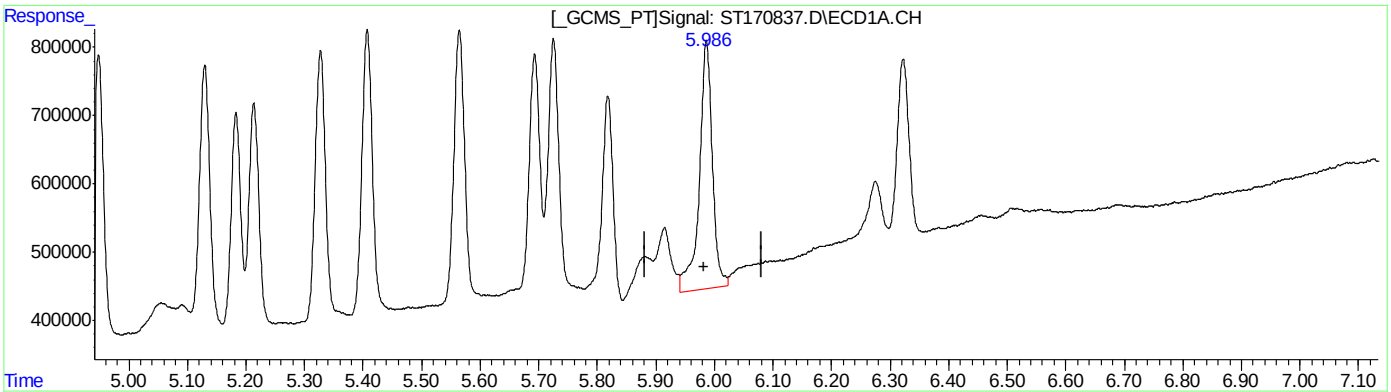
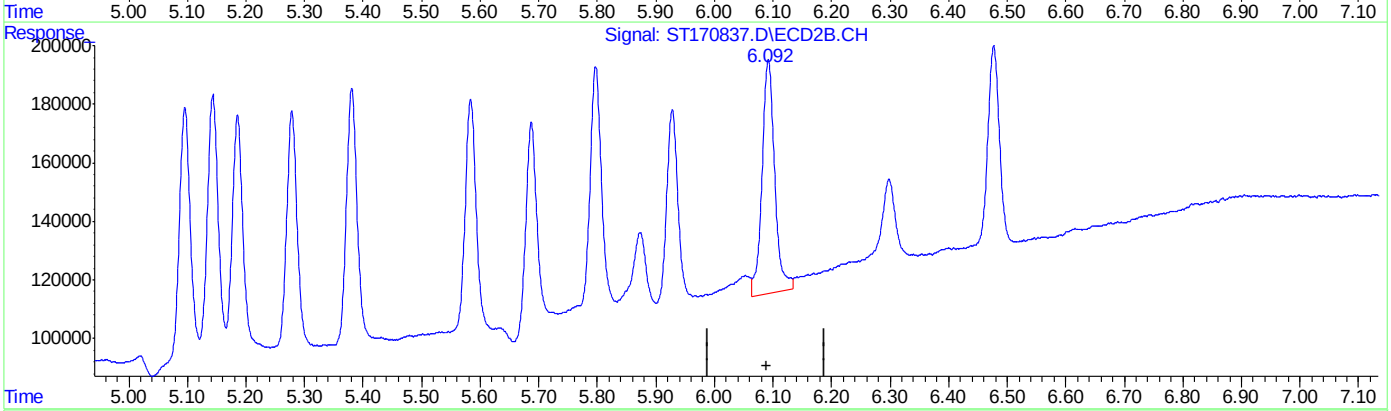
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.987min 2.464 PPB

response 359672

(20) Endosulfan Sulfate #2 ( )

6.092min 2.906 PPB

response 80202

(+) = Expected Retention Time

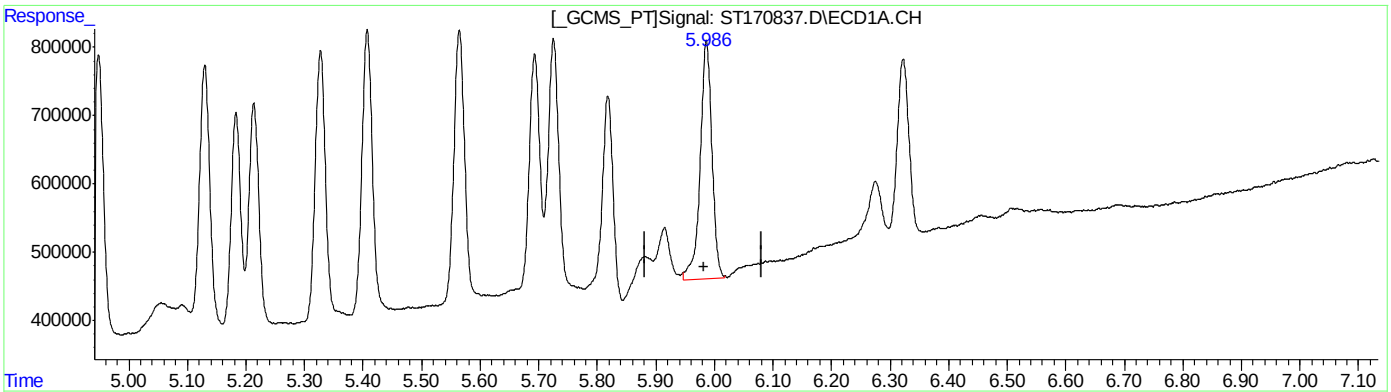
12.5.46.34 12

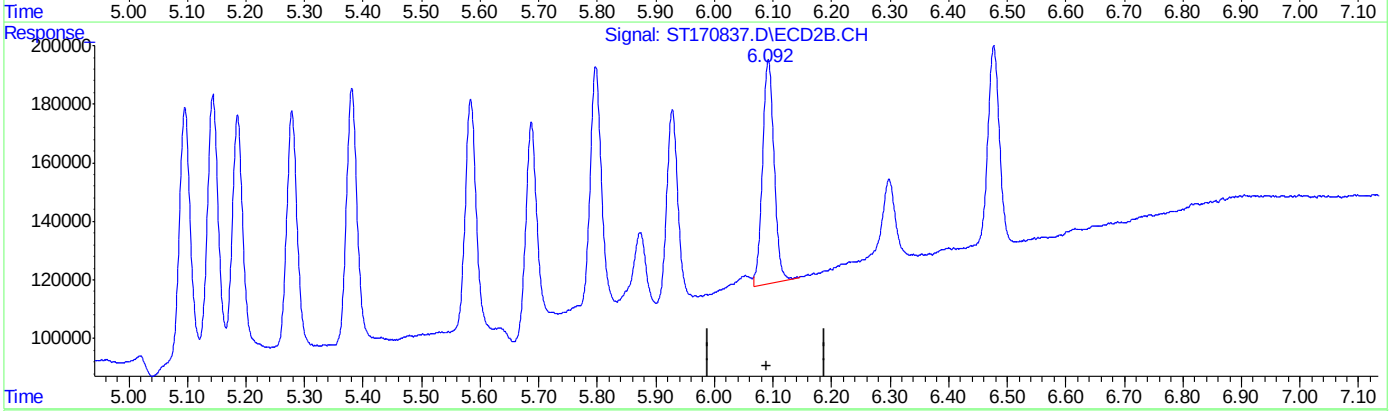
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 2.399 PPB m

response 350203

(20) Endosulfan Sulfate #2 ( )

6.092min 2.786 PPB m

response 76879

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
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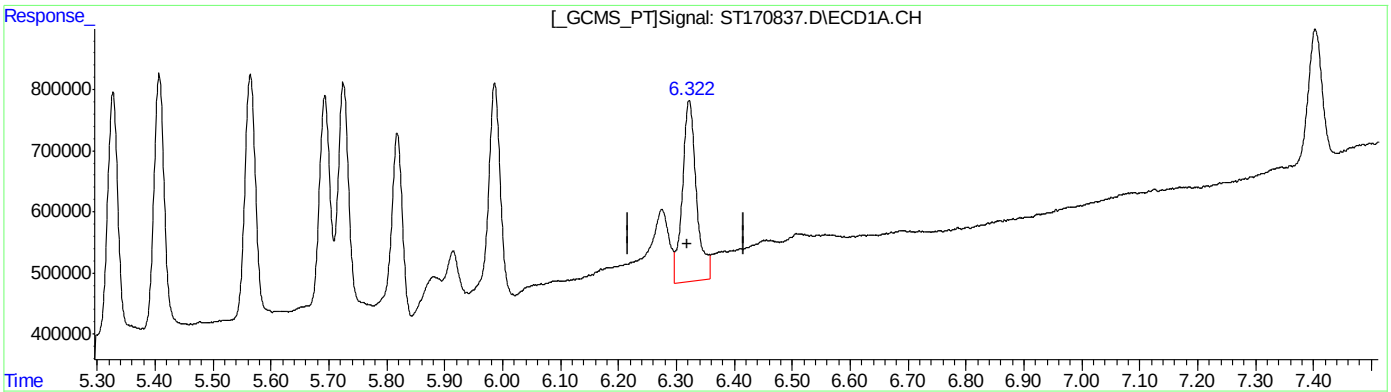
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(21) Endrin Ketone ( )
6.323min 1.979 PPB
response 296685

(21) Endrin Ketone #2 ( )
6.477min 2.381 PPB
response 70021

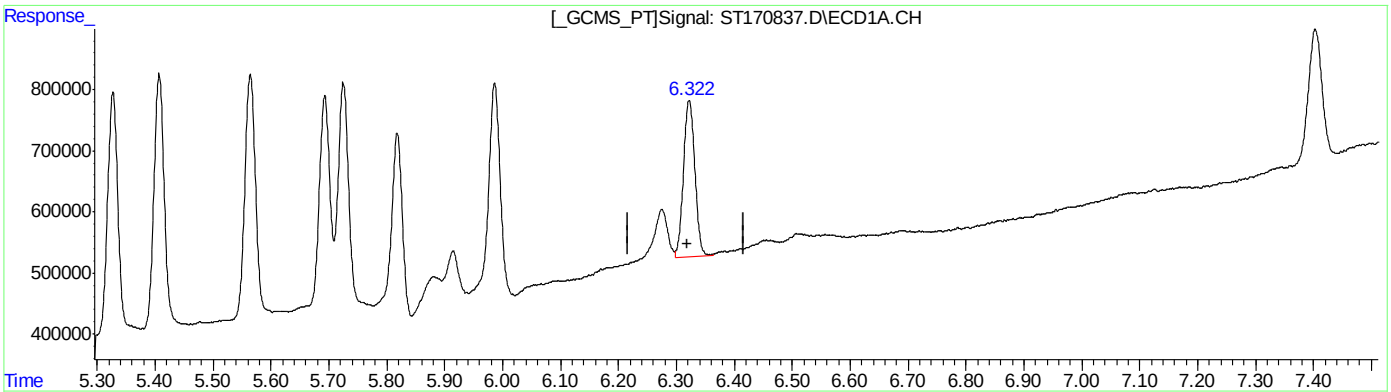
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:57:20 2023 Page: 1

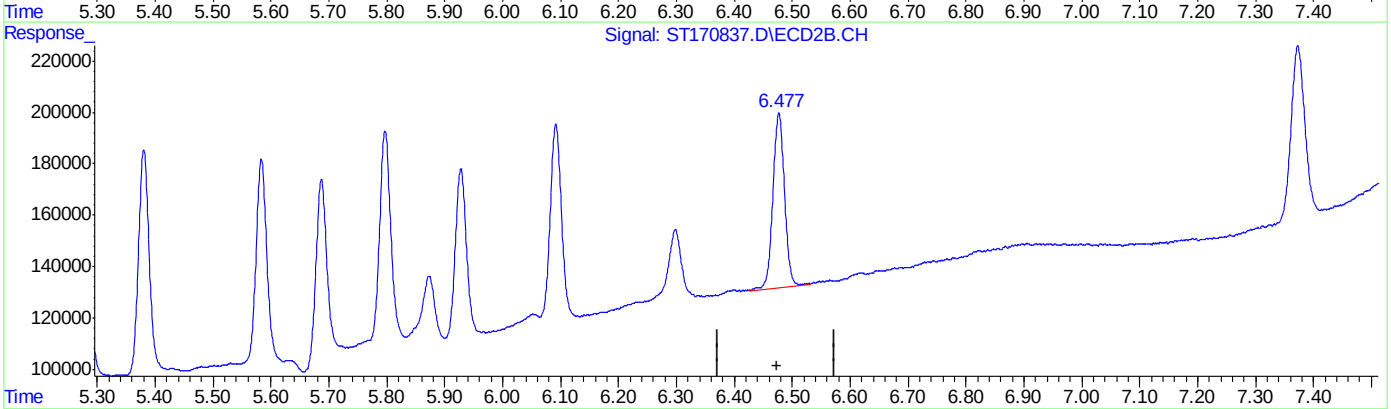
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.322min 1.707 PPB m
response 255952

(21) Endrin Ketone #2 ( )
6.477min 2.328 PPB m
response 68453

(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 10:57:30 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
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Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
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Quant Time: Oct 31 10:53:20 2023
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Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
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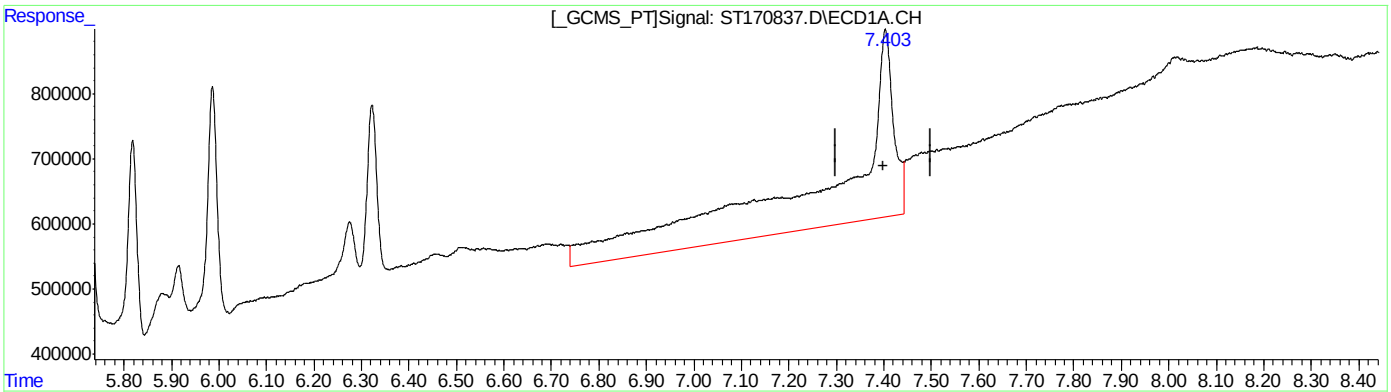
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(33) Decachlorobiphenyl (S)

7.404min 2.886 ppb

response 286272

(33) Decachlorobiphenyl #2 (S)

7.373min 2.950 ppb

response 69082

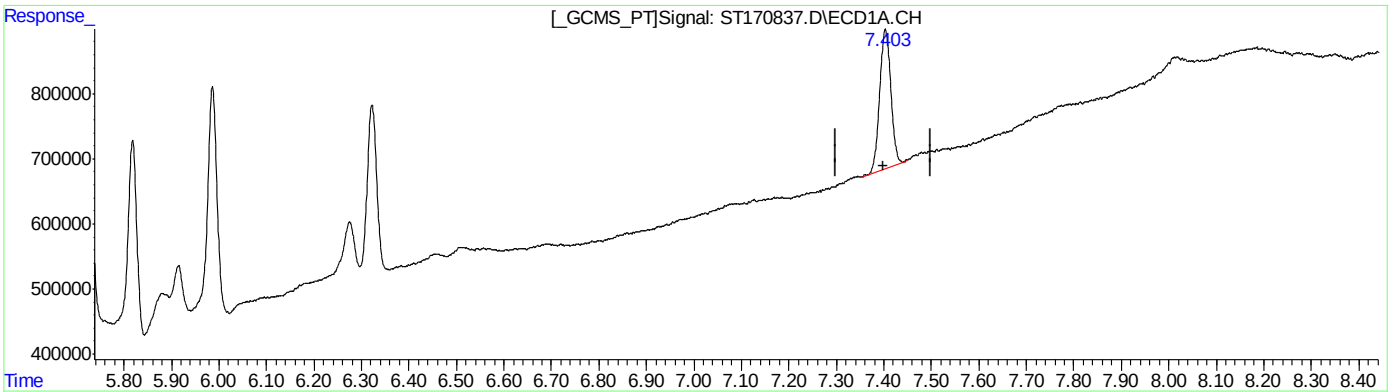
(+) = Expected Retention Time

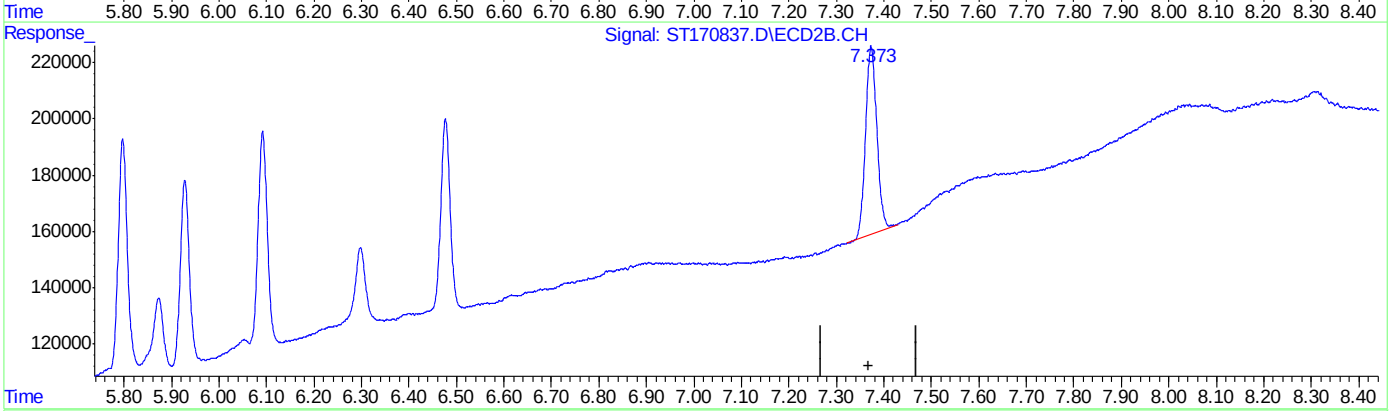
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 10:53:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.403min 2.169 ppb m

response 215145

(33) Decachlorobiphenyl #2 (S)

7.373min 2.865 ppb m

response 67087

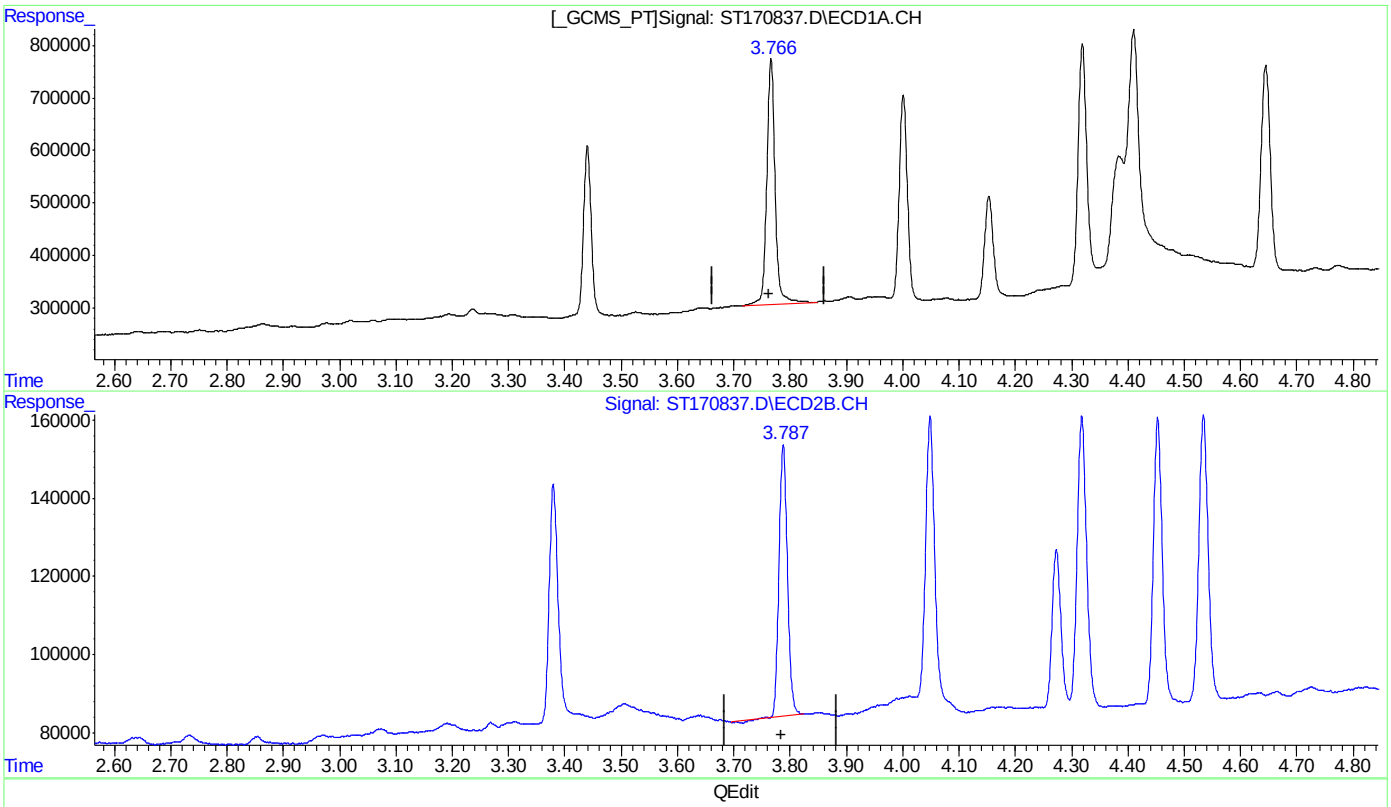
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:23:23 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(2) alpha-BHC ( )
3.766min 0.000 PPB m
response 468848

(2) alpha-BHC #2 ( )
3.788min 0.000 PPB
response 69571

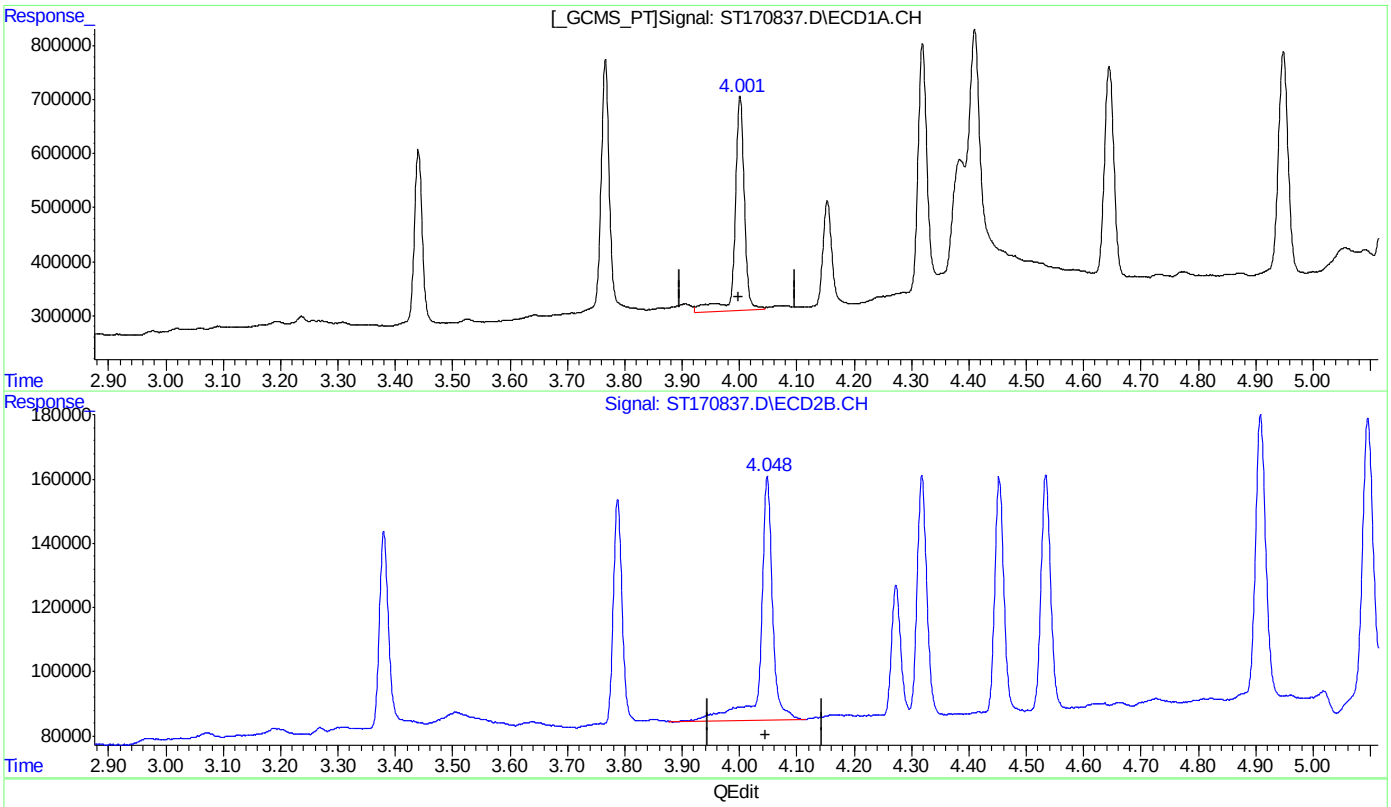
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:23:23 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(3) gamma-BHC (Lindane) ( )
4.001min 0.000 PPB
response 394594

(3) gamma-BHC (Lindane) #2 ( )
4.049min 0.000 PPB
response 76058

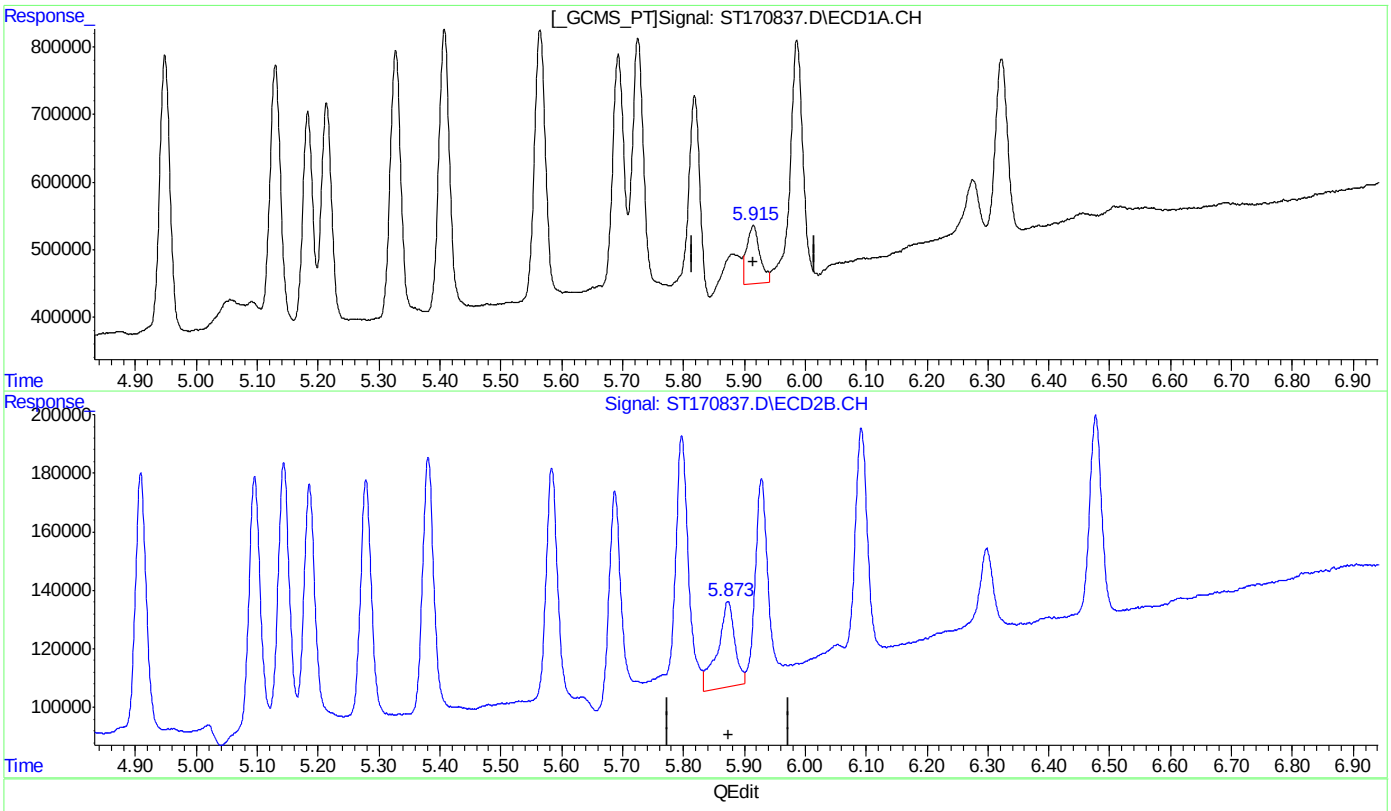
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:40:14 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 0.726 ppb m
response 86982

(17) 4,4'-DDT #2
5.873min 0.869 ppb
response 29266

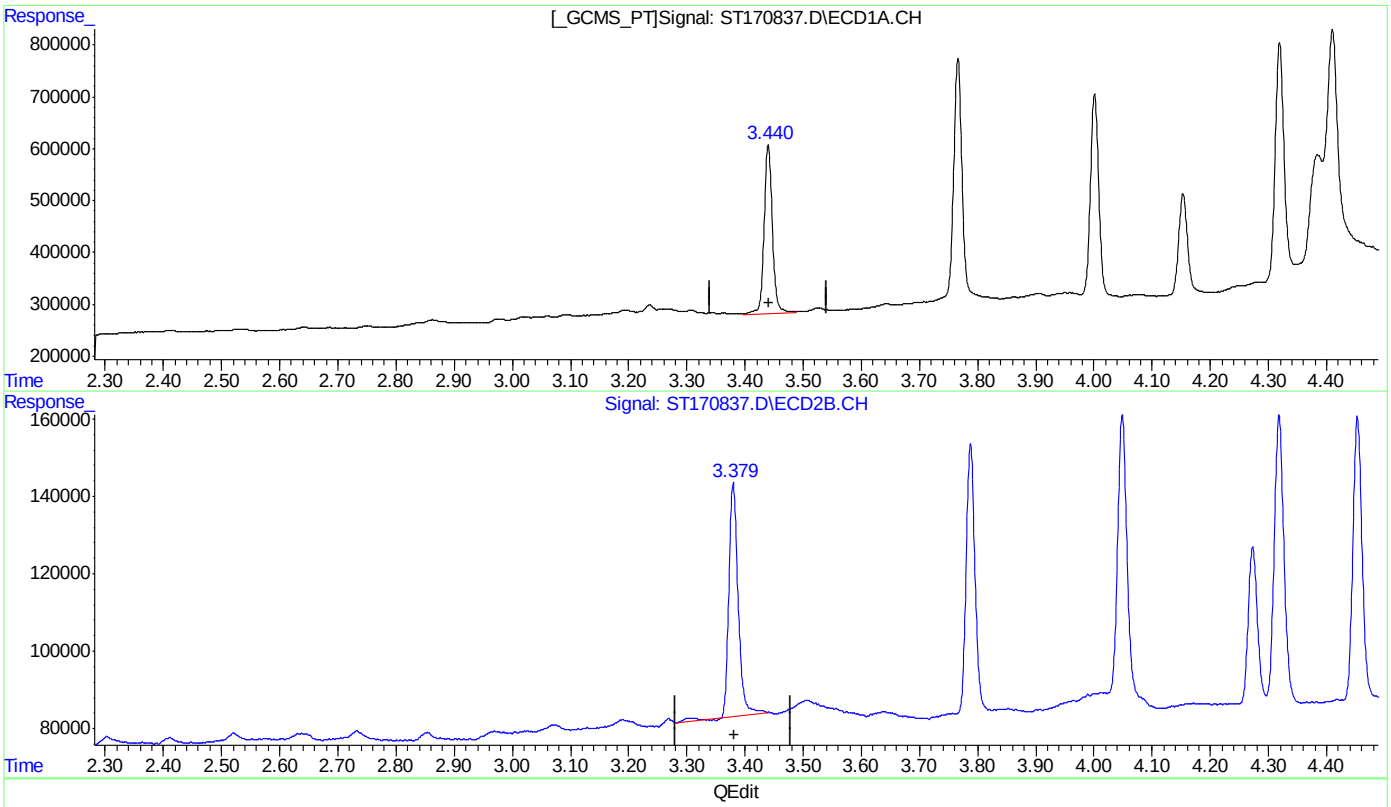
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(1) Tetrachloro-m-xylene (S)

3.440min 2.311 PPB

response 321953

(1) Tetrachloro-m-xylene #2 (S)

3.380min 2.132 PPB

response 60547

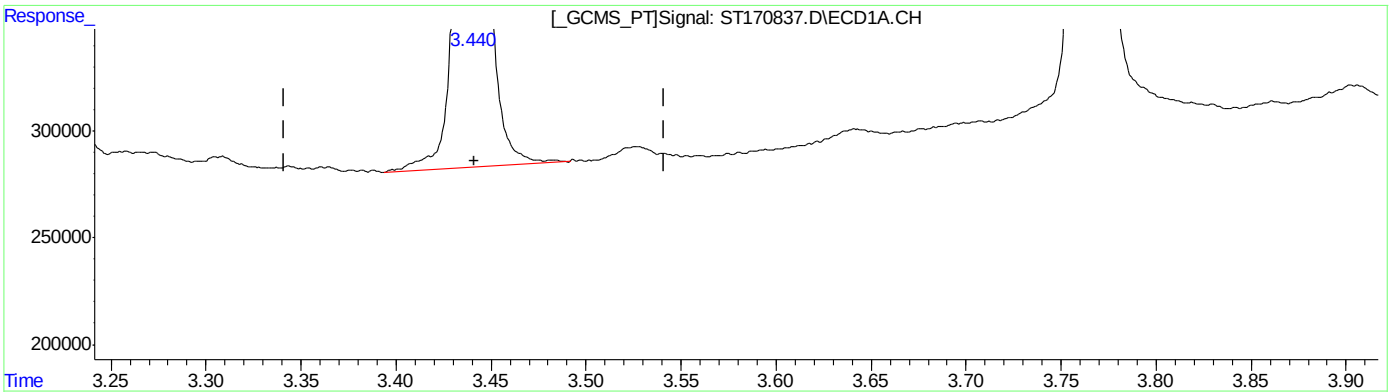
(+) = Expected Retention Time

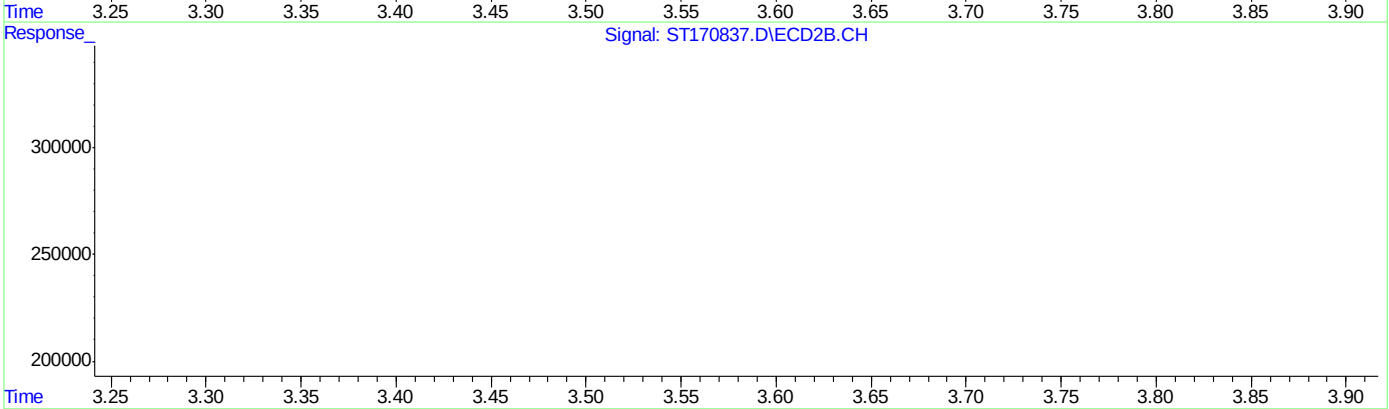
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(1) Tetrachloro-m-xylene (S)

3.440min 2.337 PPB m

response 325527

(1) Tetrachloro-m-xylene #2 (S)

3.379min 2.164 PPB m

response 61479

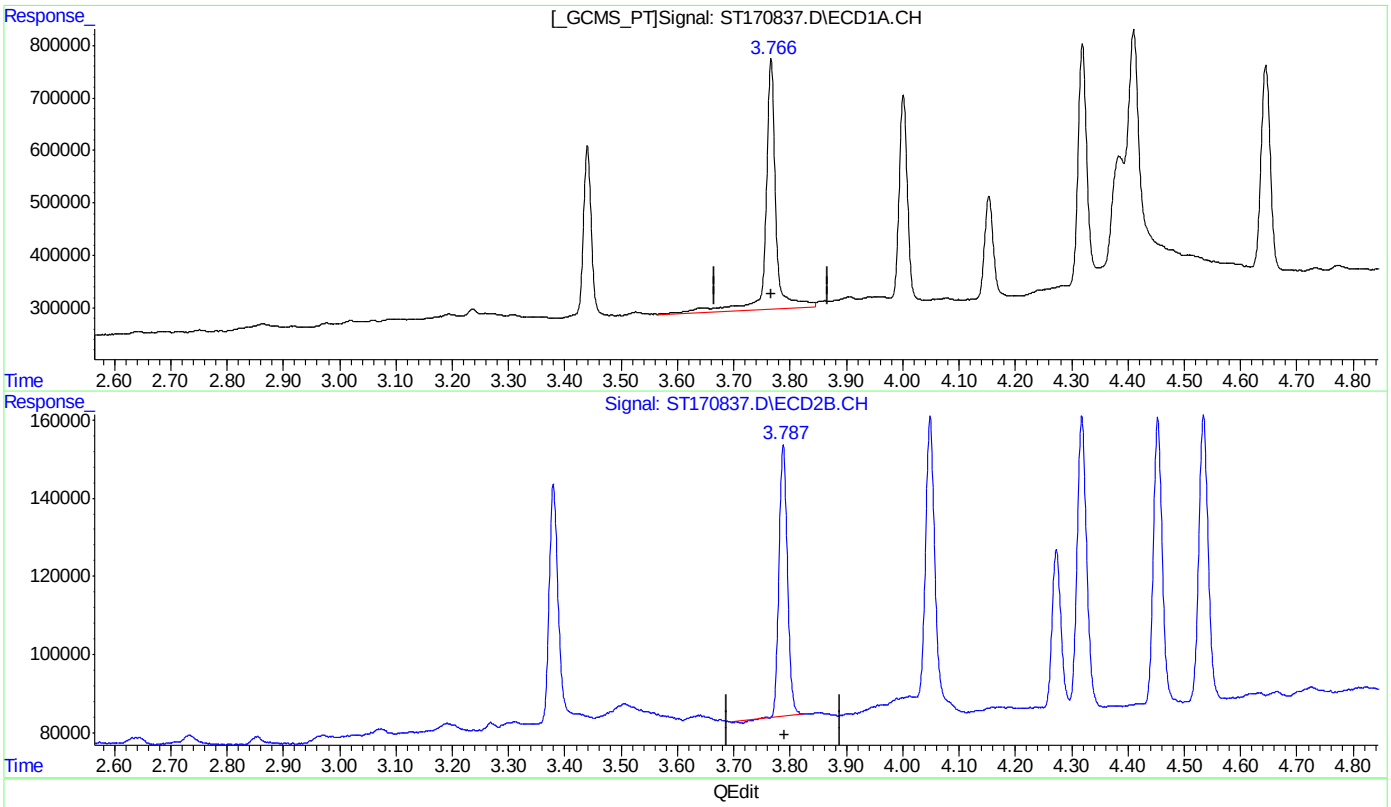
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(2) alpha-BHC ( )
3.766min 2.275 PPB
response 472304

(2) alpha-BHC #2 ( )
3.788min 1.716 PPB
response 69571

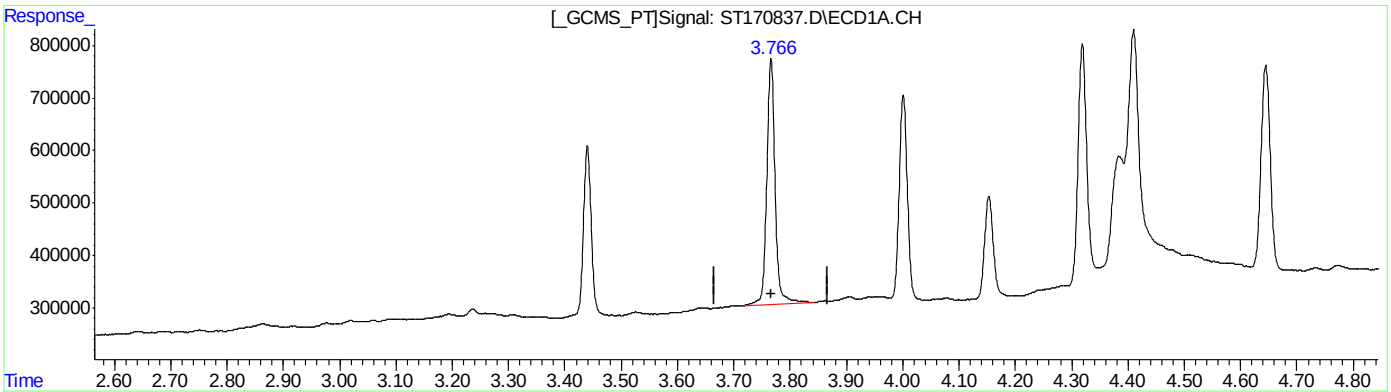
(+) = Expected Retention Time

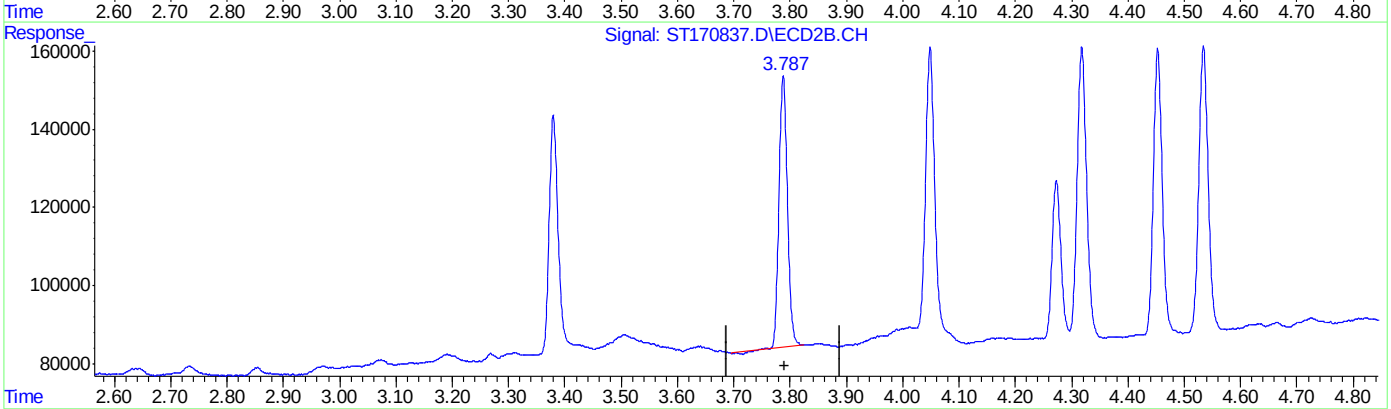
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(2) alpha-BHC ( )
3.766min 2.258 PPB m
response 468795

(2) alpha-BHC #2 ( )
3.788min 1.716 PPB
response 69571

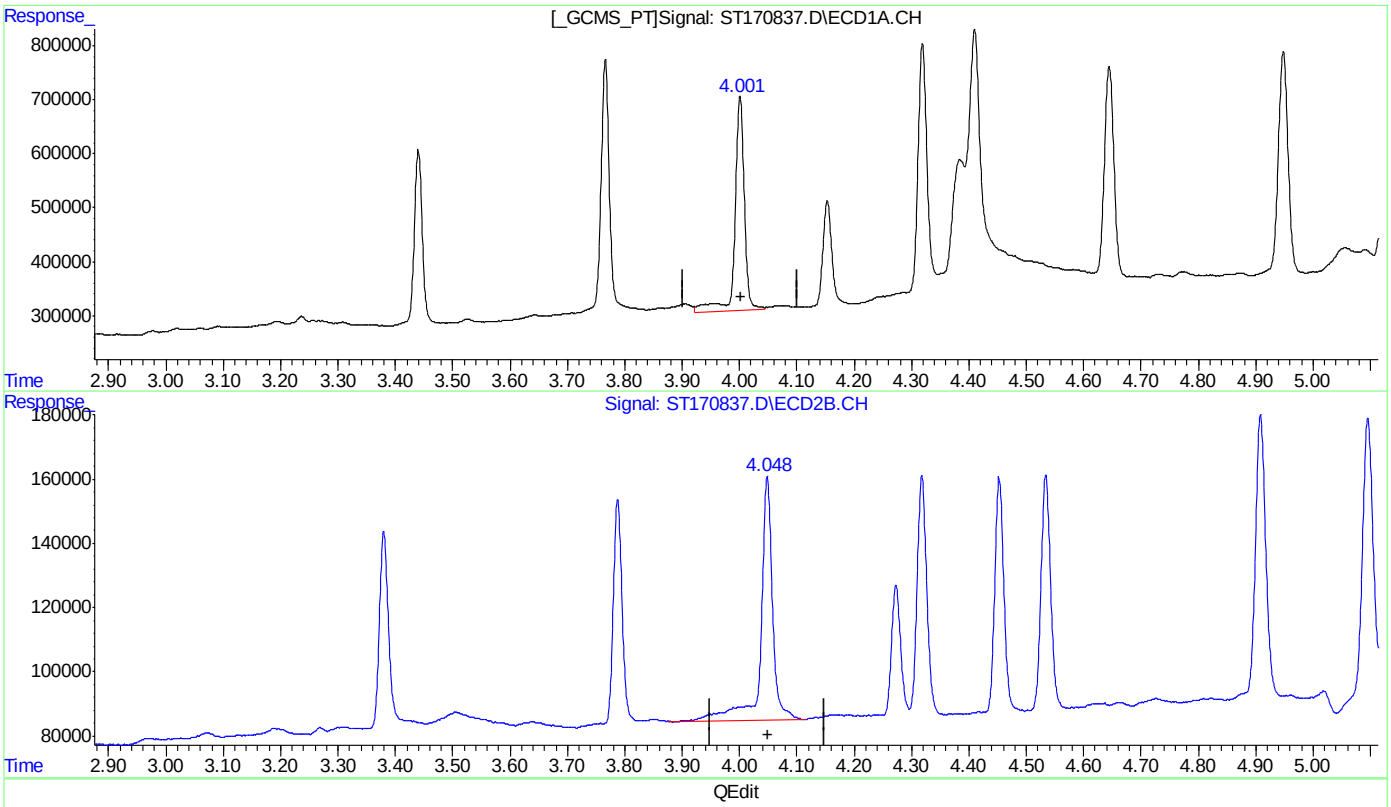
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(3) gamma-BHC (Lindane) ( )
4.001min 2.187 PPB
response 394594

(3) gamma-BHC (Lindane) #2 ( )
4.049min 1.958 PPB
response 76058

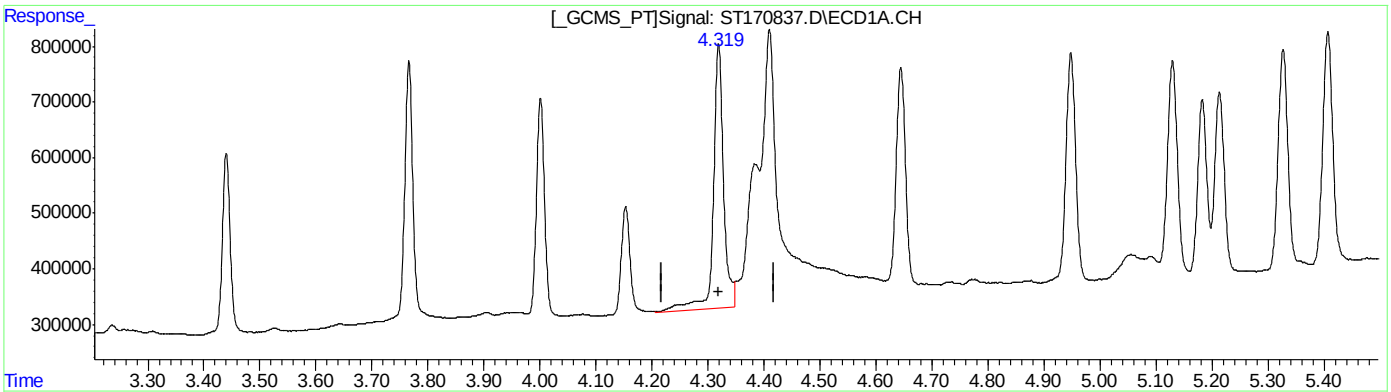
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(5) delta-BHC ( )

4.319min 2.295 PPB

response 473891

(5) delta-BHC #2 ( )

4.453min 1.791 PPB

response 73522

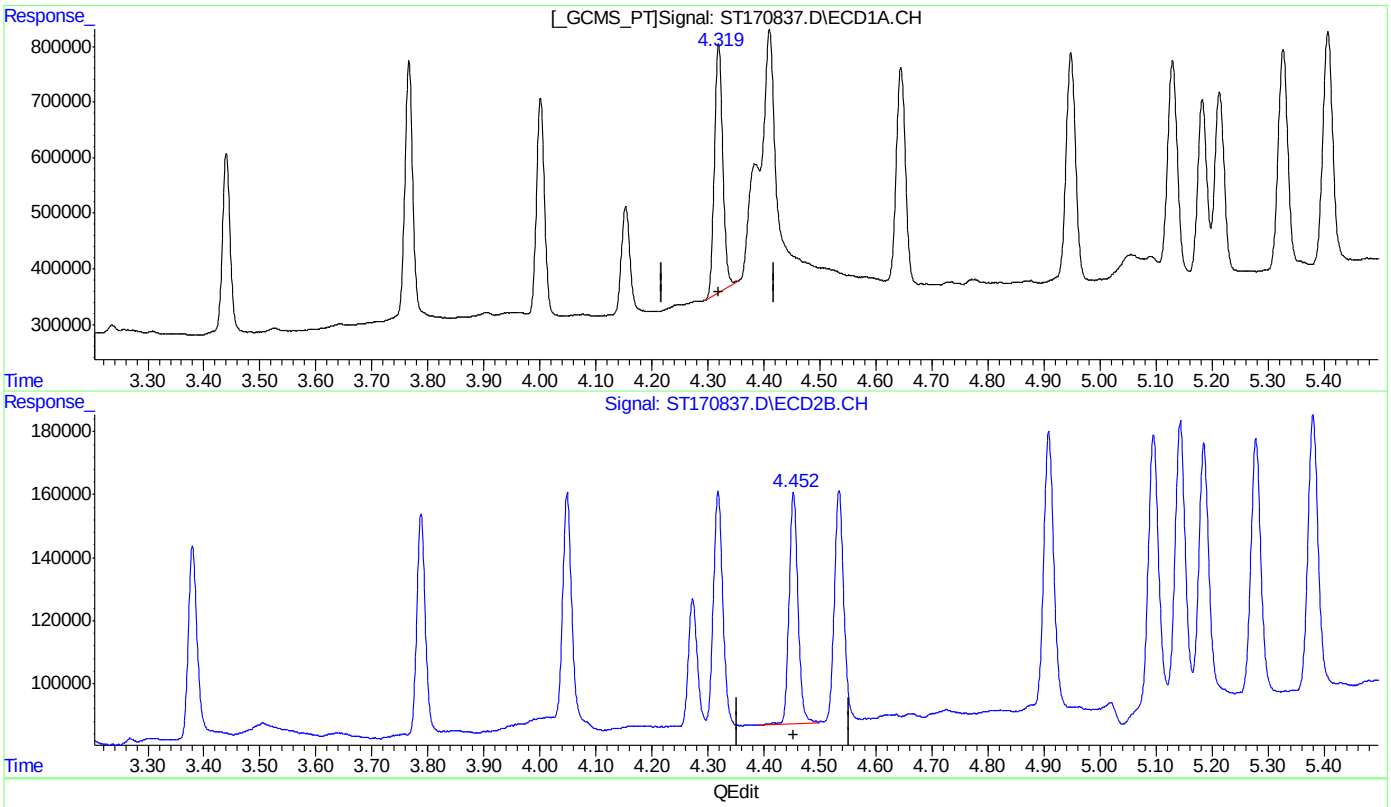
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(5) delta-BHC ( )
4.319min 2.169 PPB m
response 447929

(5) delta-BHC #2 ( )
4.453min 1.791 PPB
response 73522

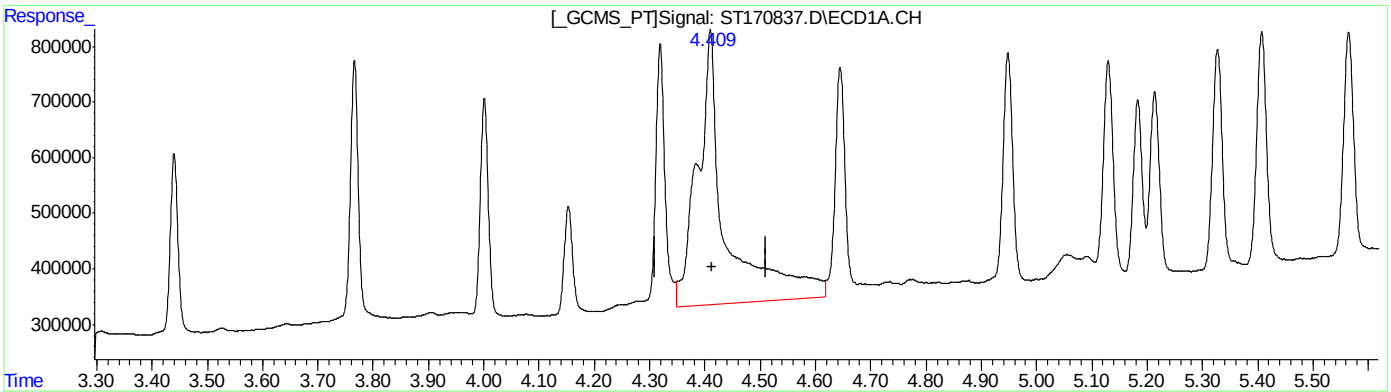
(+) = Expected Retention Time

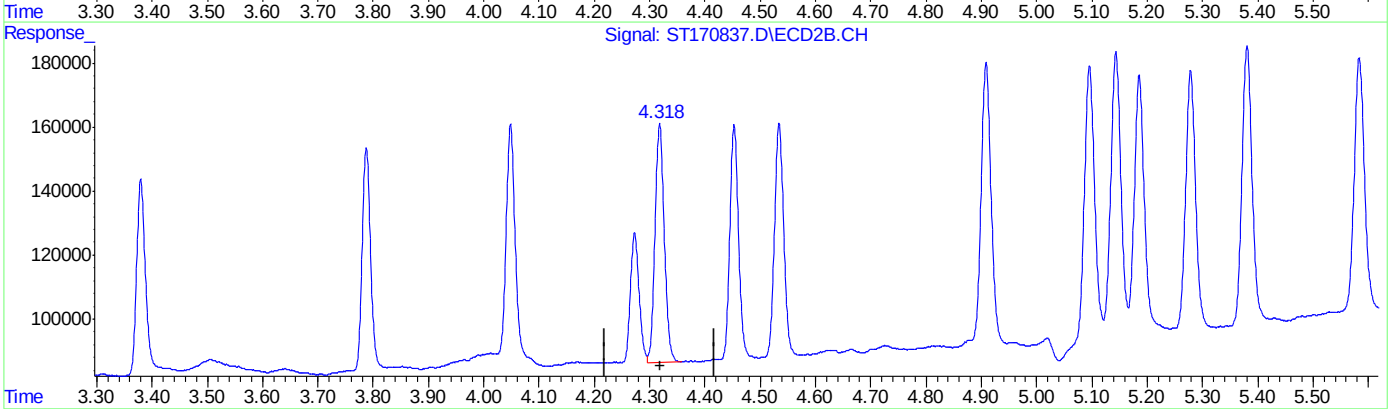
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )

4.409min 2.802 PPB

response 493030

(6) Heptachlor #2 ( )

4.318min 1.983 PPB

response 74556

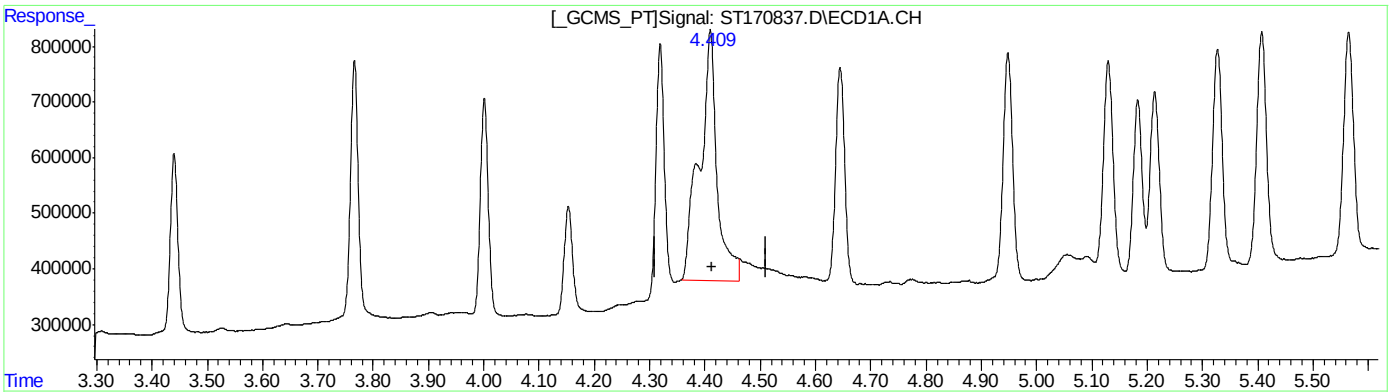
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(6) Heptachlor ( )

4.409min 2.573 PPB m

response 452806

(6) Heptachlor #2 ( )

4.318min 1.983 PPB

response 74556

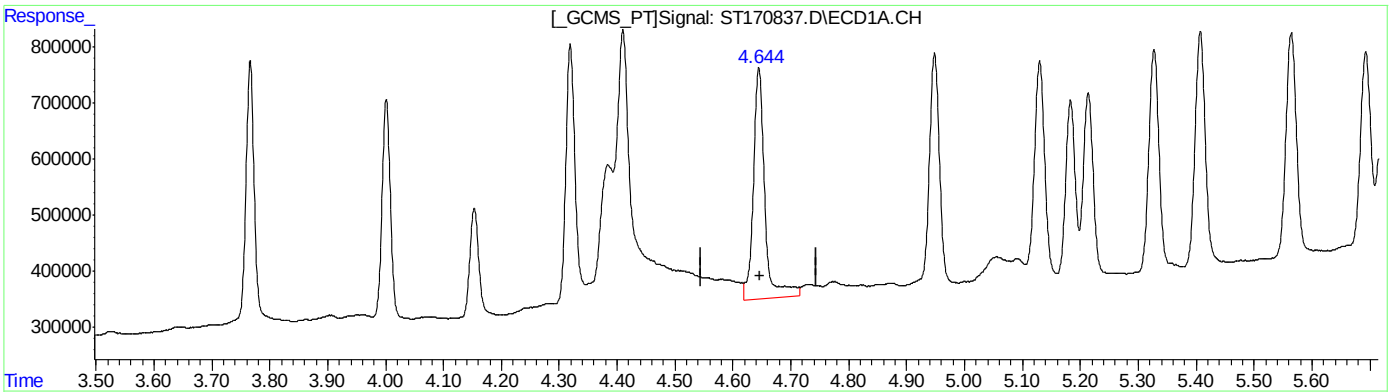
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(7) Aldrin ( )
4.645min 2.317 PPB
response 410859

(7) Aldrin #2 ( )
4.534min 1.843 PPB
response 73166

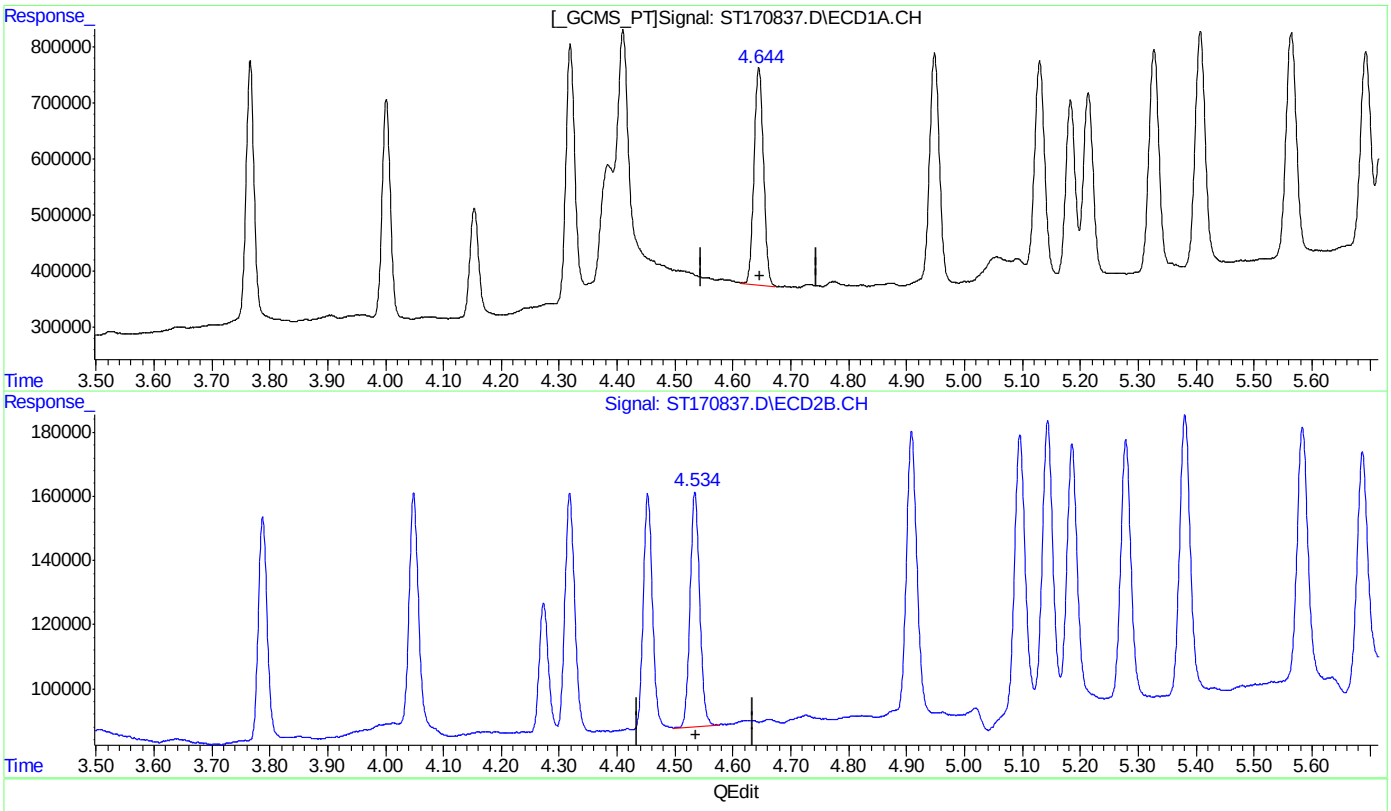
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(7) Aldrin ( )
4.644min 2.185 PPB m
response 387459

(7) Aldrin #2 ( )
4.534min 1.843 PPB
response 73166

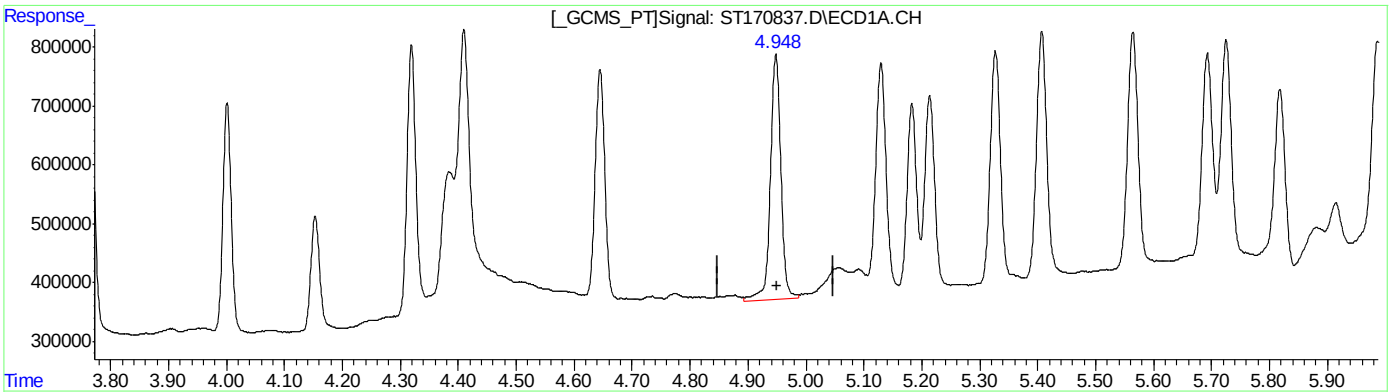
(+) = Expected Retention Time

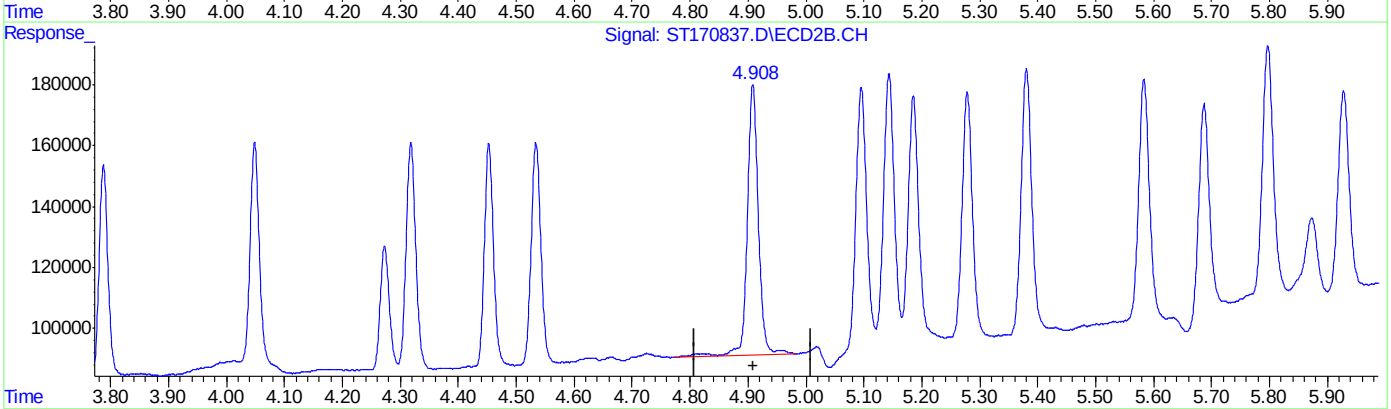
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(8) Heptachlor Epoxide ( )
4.948min 2.340 PPB
response 417333

(8) Heptachlor Epoxide #2 ( )
4.909min 2.118 PPB
response 88779

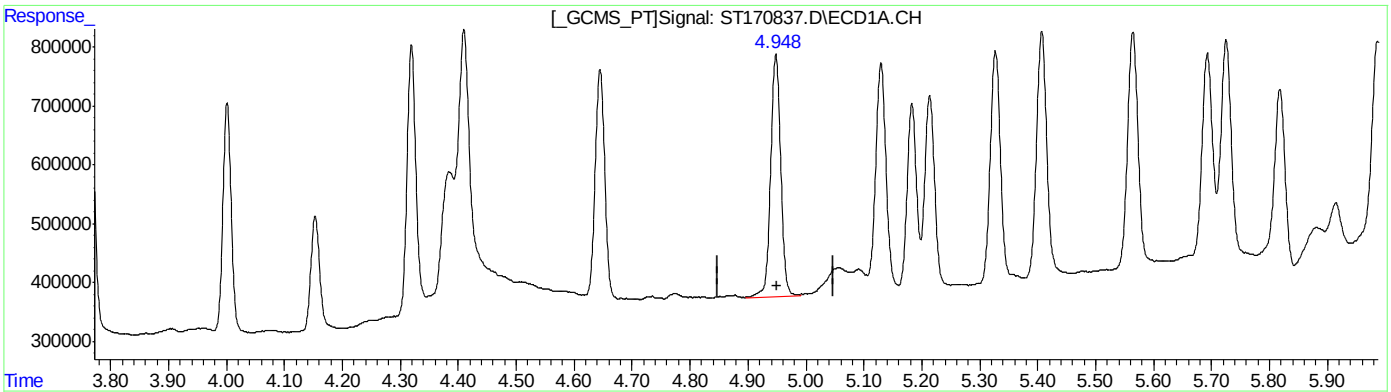
(+) = Expected Retention Time

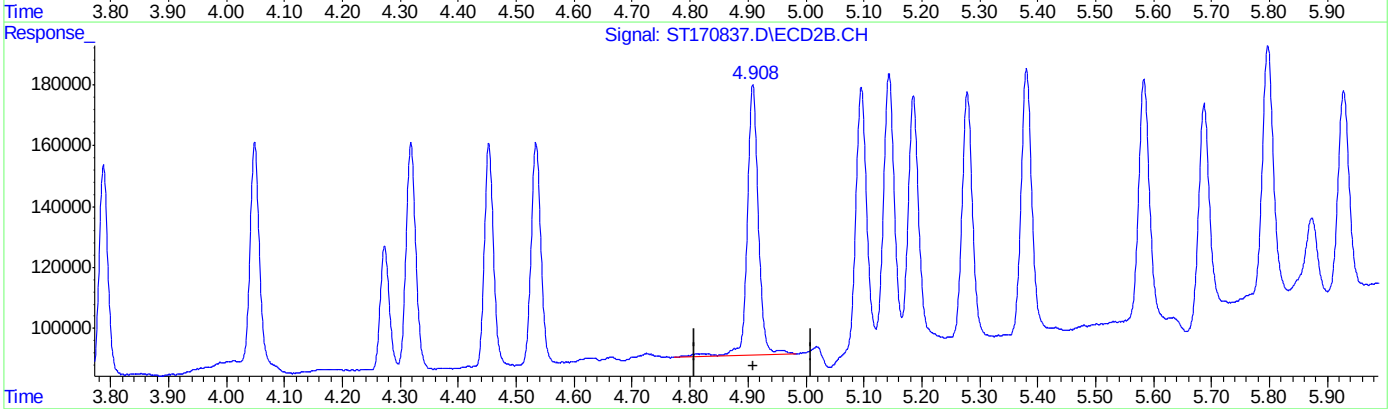
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(8) Heptachlor Epoxide ( )

4.948min 2.316 PPB m

response 412956

(8) Heptachlor Epoxide #2 ( )

4.909min 2.118 PPB

response 88779

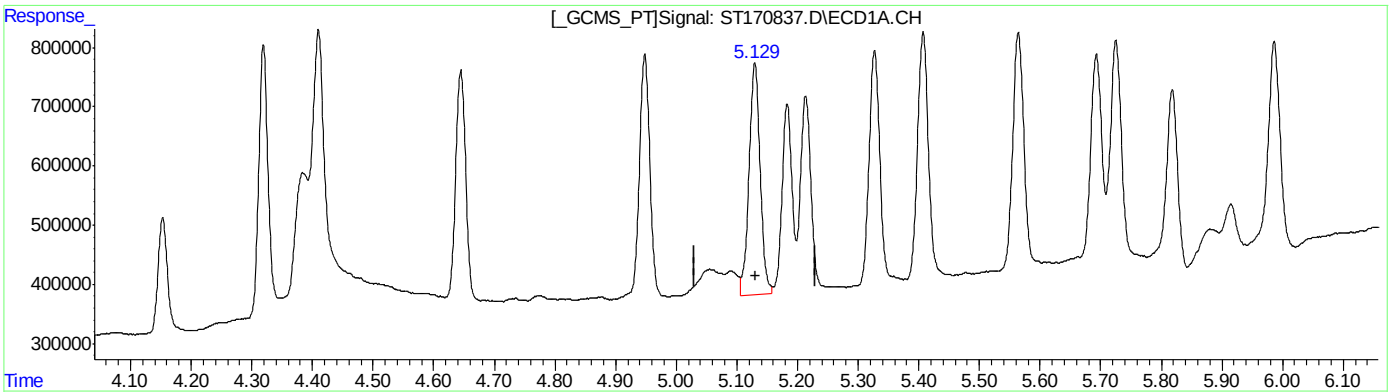
(+) = Expected Retention Time

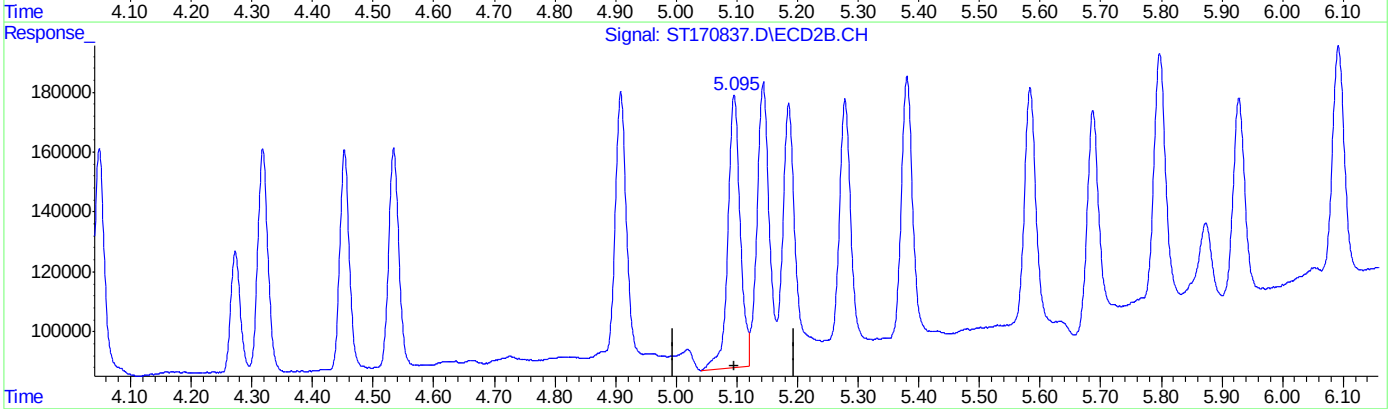
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(9) gamma-Chlordane

5.130min 2.266 PPB

response 389449

(9) gamma-Chlordane #2

5.096min 2.164 PPB

response 90920

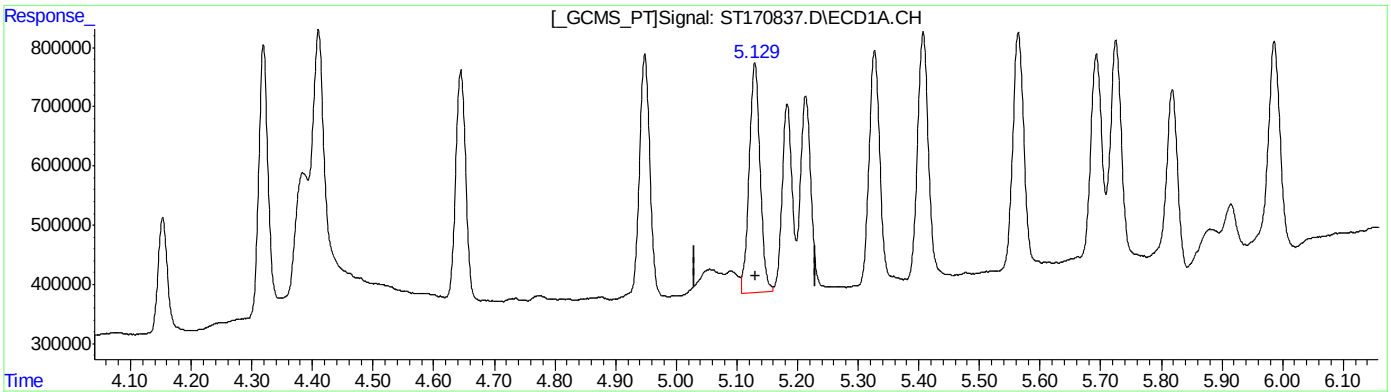
(+) = Expected Retention Time

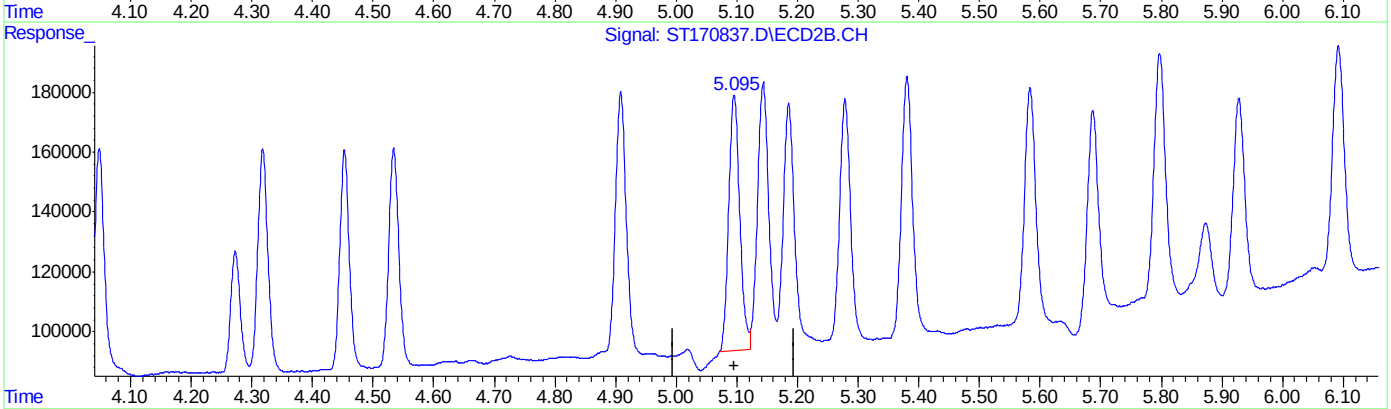
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(9) gamma-Chlordane
5.129min 2.255 PPB m
response 387540

(9) gamma-Chlordane #2
5.095min 2.032 PPB m
response 85402

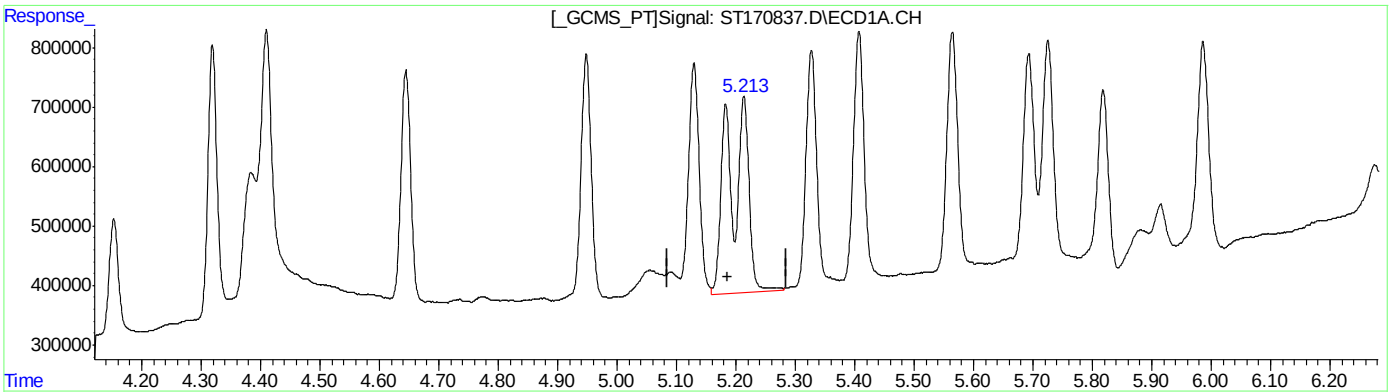
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.214min 2.083 PPB
response 328178

(10) alpha-Chlordane #2
5.144min 2.247 PPB
response 94614

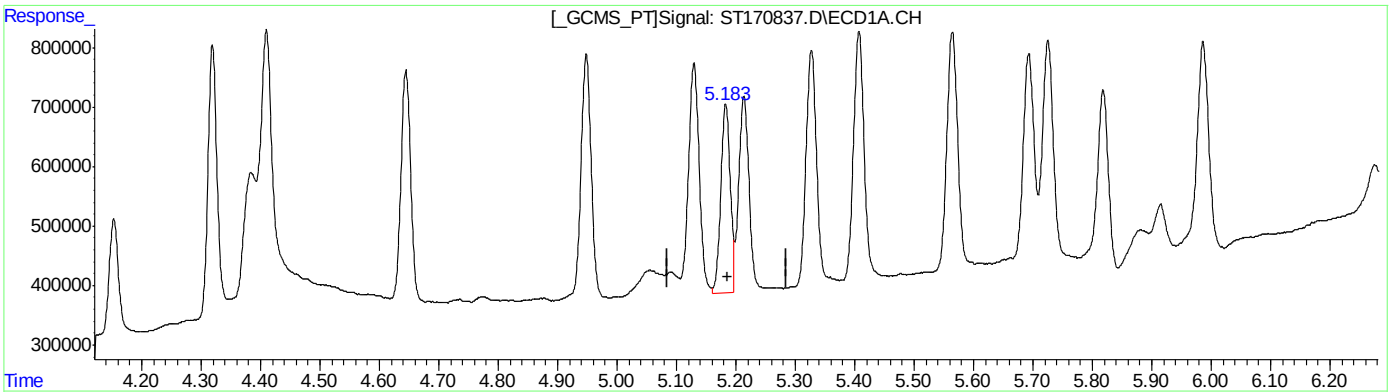
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.183min 2.018 PPB m
response 317985

(10) alpha-Chlordane #2
5.143min 2.116 PPB m
response 89128

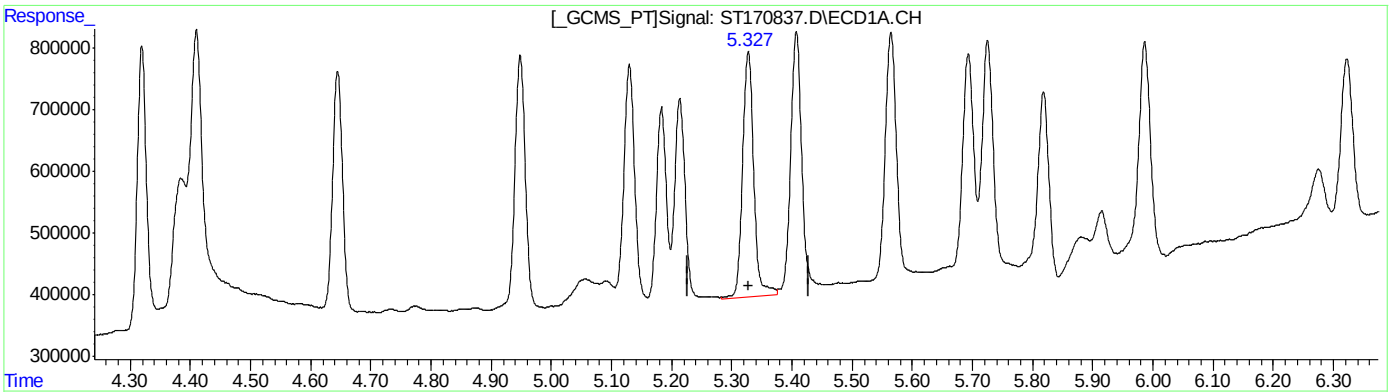
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:55:31 2023 Page: 1

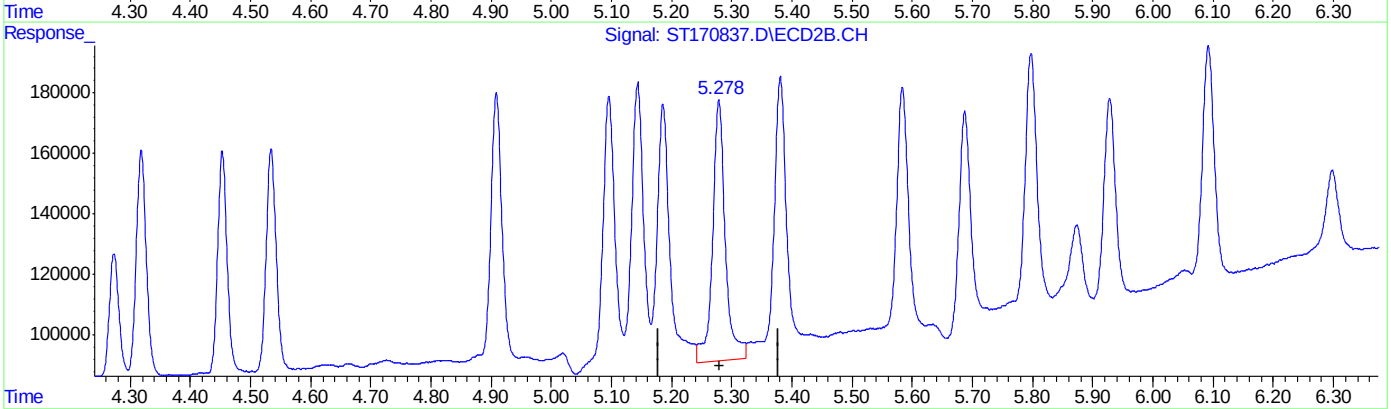
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(11) 4,4'-DDE
5.327min 2.241 ppb
response 399861

(11) 4,4'-DDE #2
5.279min 2.006 ppb
response 85922

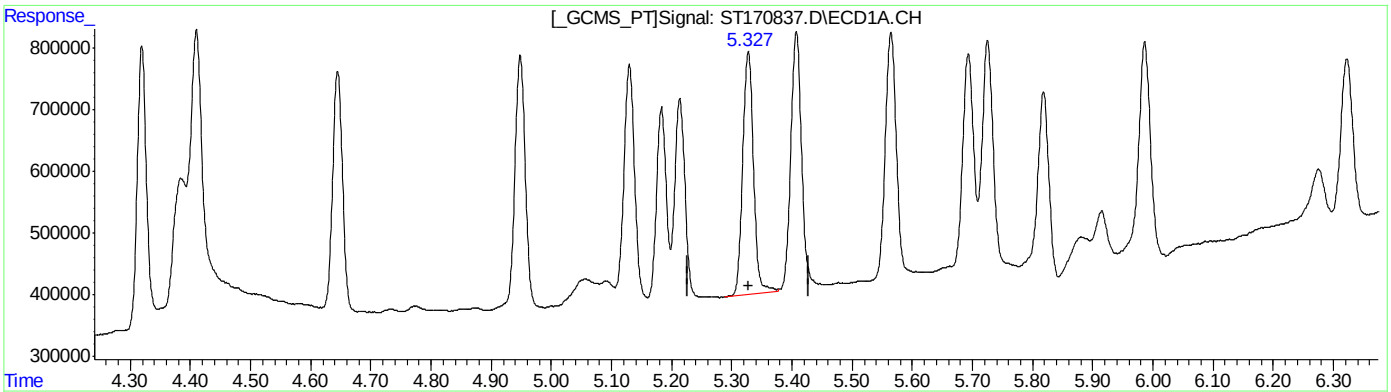
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(11) 4,4'-DDE

5.327min 2.215 PPB m

response 395250

(11) 4,4'-DDE #2

5.278min 1.884 PPB m

response 80705

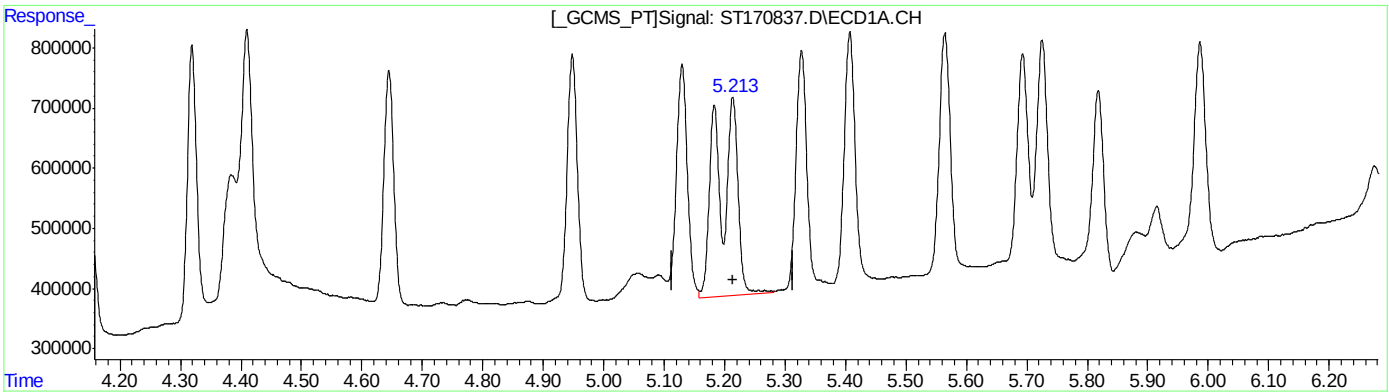
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.214min 2.198 PPB
response 328178

(12) Endosulfan I #2 ( )
5.186min 2.185 PPB
response 86499

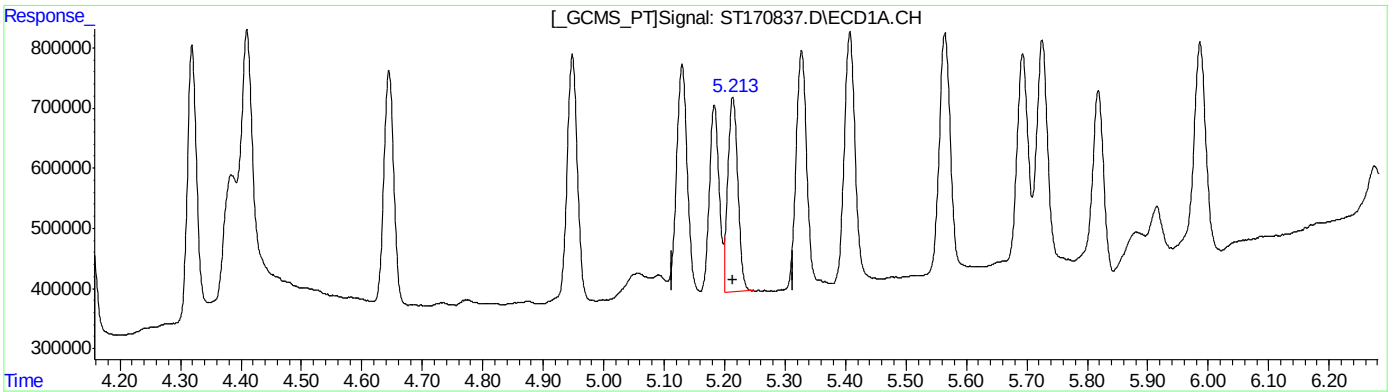
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.213min 2.169 PPB m
response 323826

(12) Endosulfan I #2 ( )
5.185min 2.056 PPB m
response 81367

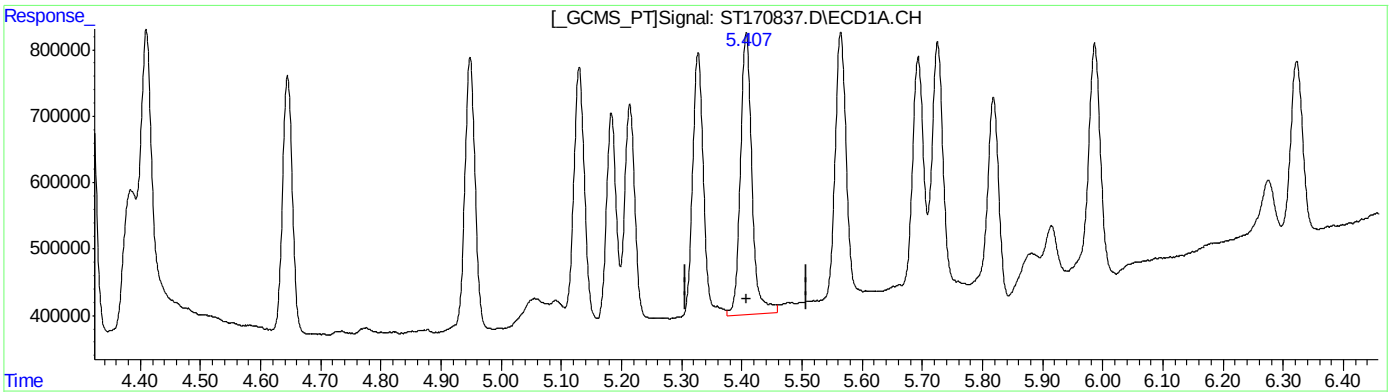
(+) = Expected Retention Time

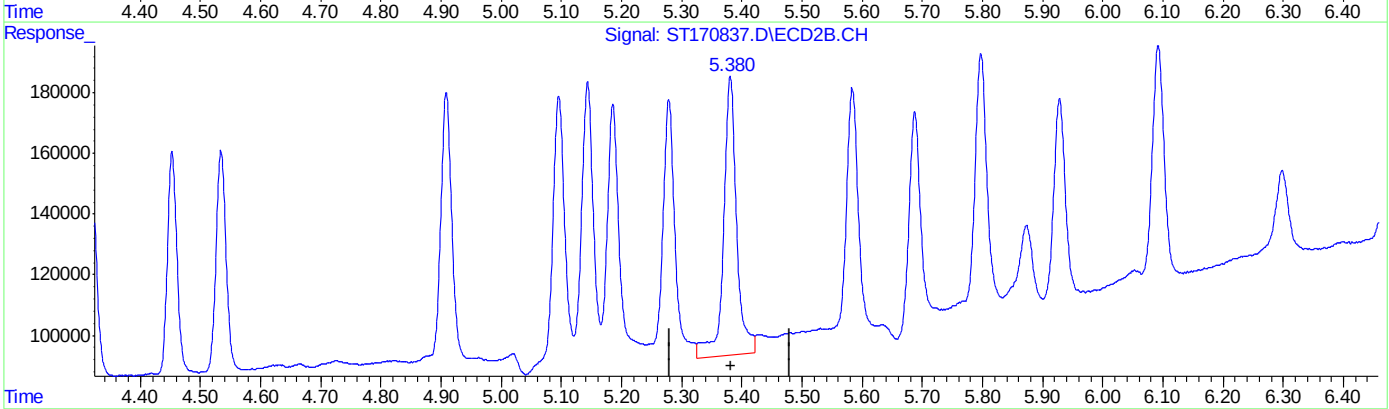
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(13) Dieldrin ( )
5.407min 2.291 PPB
response 426073

(13) Dieldrin #2 ( )
5.381min 2.045 PPB
response 91778

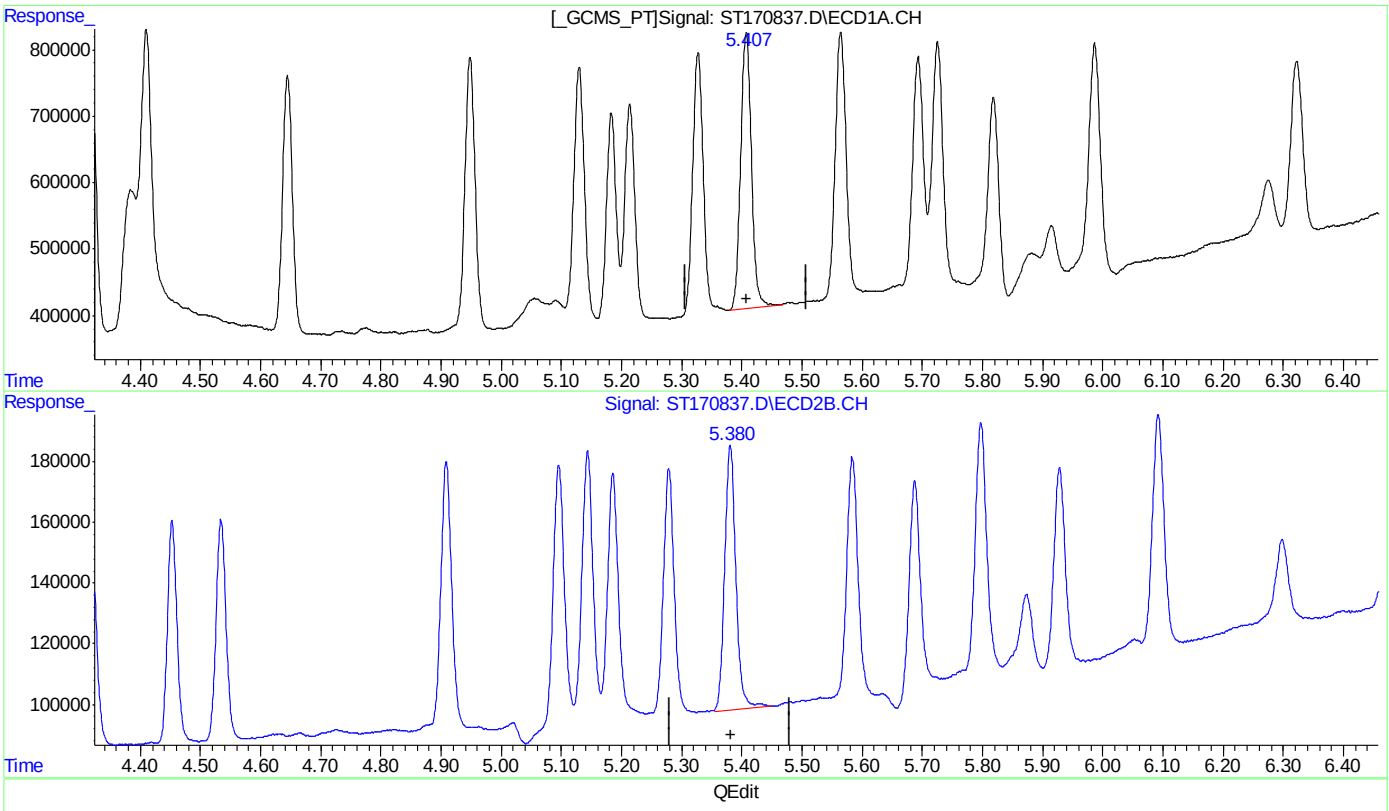
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:56:05 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(13) Dieldrin ( )

5.407min 2.241 PPB m

response 416687

(13) Dieldrin #2 ( )

5.380min 1.942 PPB m

response 87174

(+) = Expected Retention Time

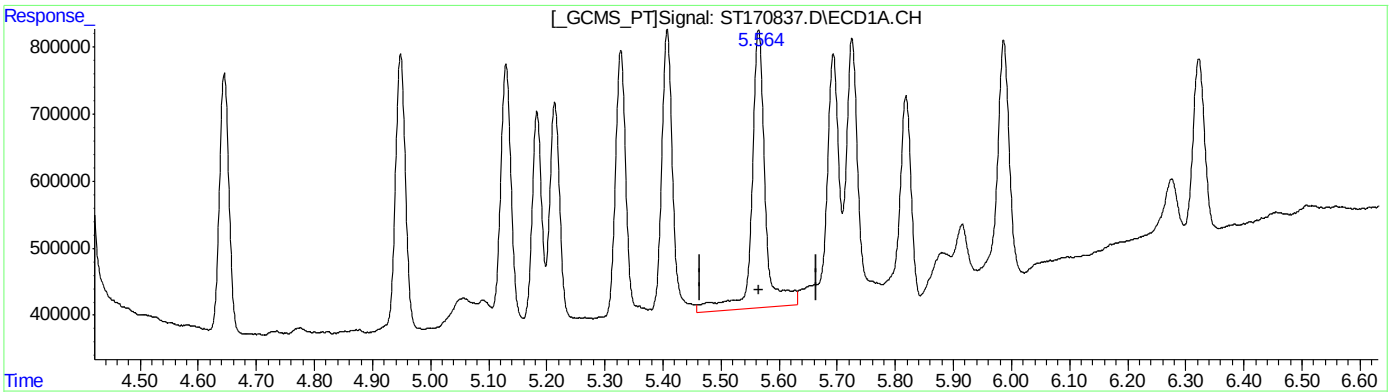
GST4174_083123DOD.M Tue Oct 31 11:56:13 2023 Page: 1

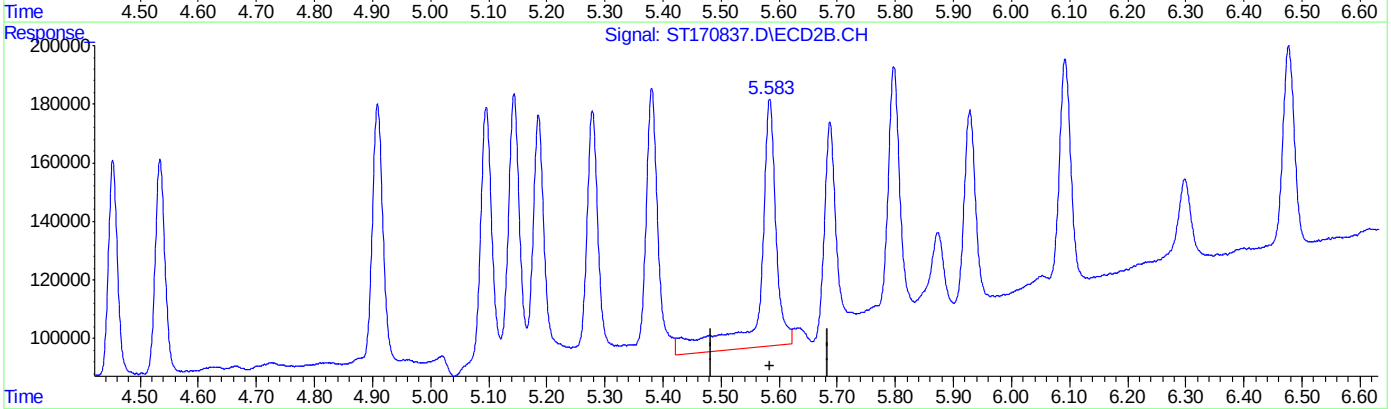
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )

5.565min 2.294 PPB

response 413320

(14) Endrin #2 ( )

5.584min 2.053 PPB

response 84223

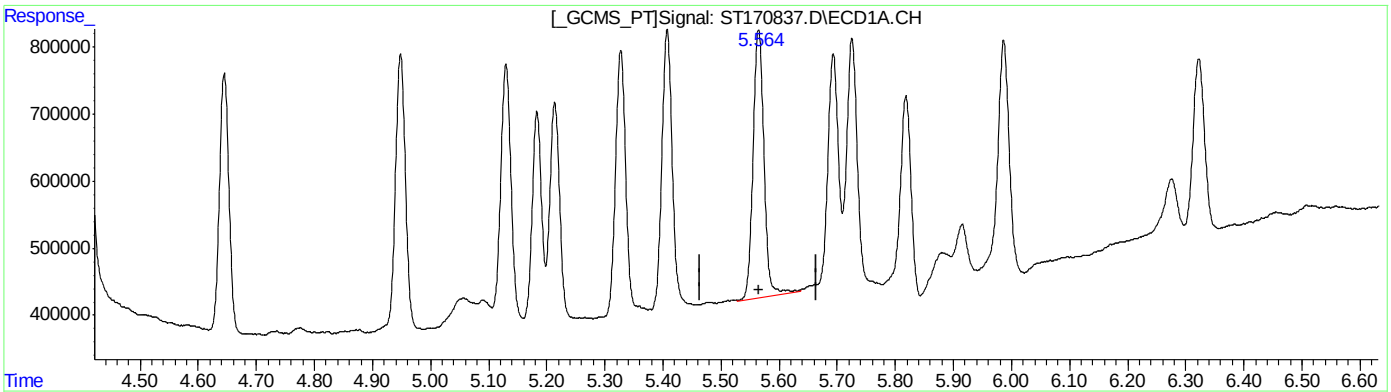
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(14) Endrin ( )

5.564min 2.218 PPB m

response 399644

(14) Endrin #2 ( )

5.583min 1.934 PPB m

response 79340

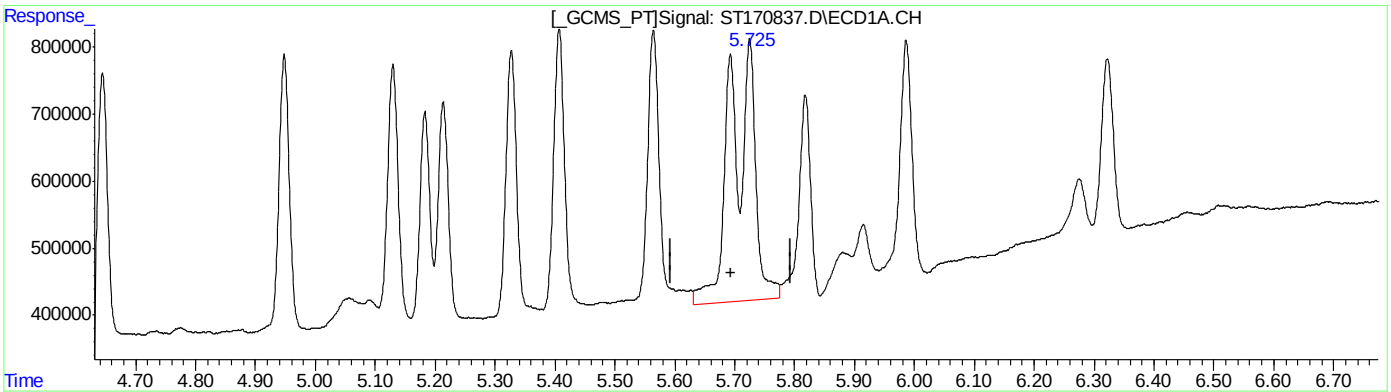
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.725min 2.436 PPB

response 390857

(15) 4,4'-DDD #2 ( )

5.687min 2.036 PPB

response 73851

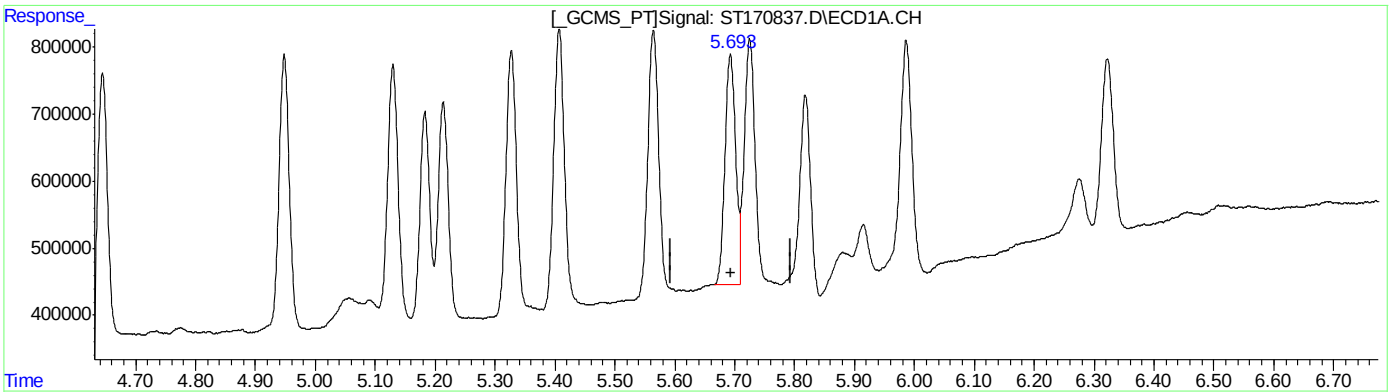
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.693min 2.147 PPB m

response 344428

(15) 4,4'-DDD #2 ( )

5.687min 1.852 PPB m

response 67170

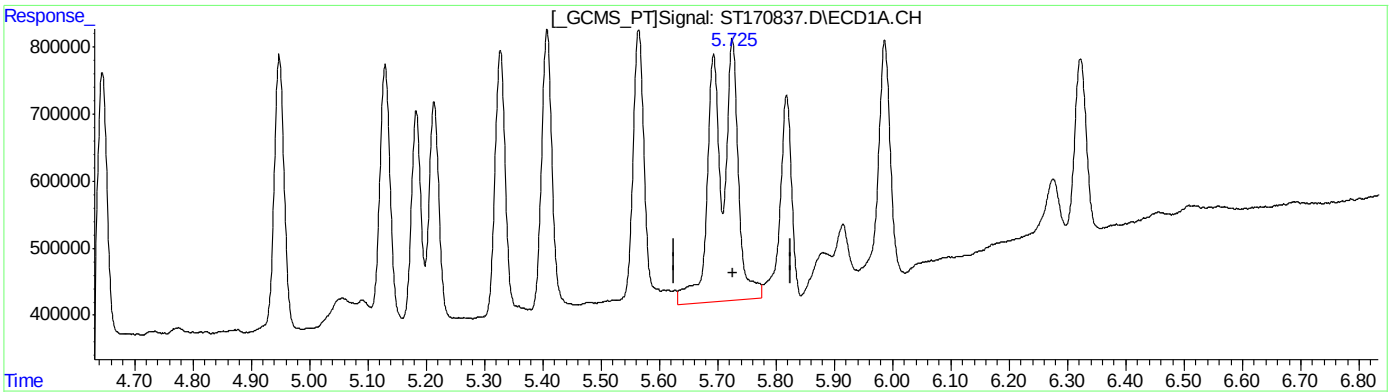
(+) = Expected Retention Time

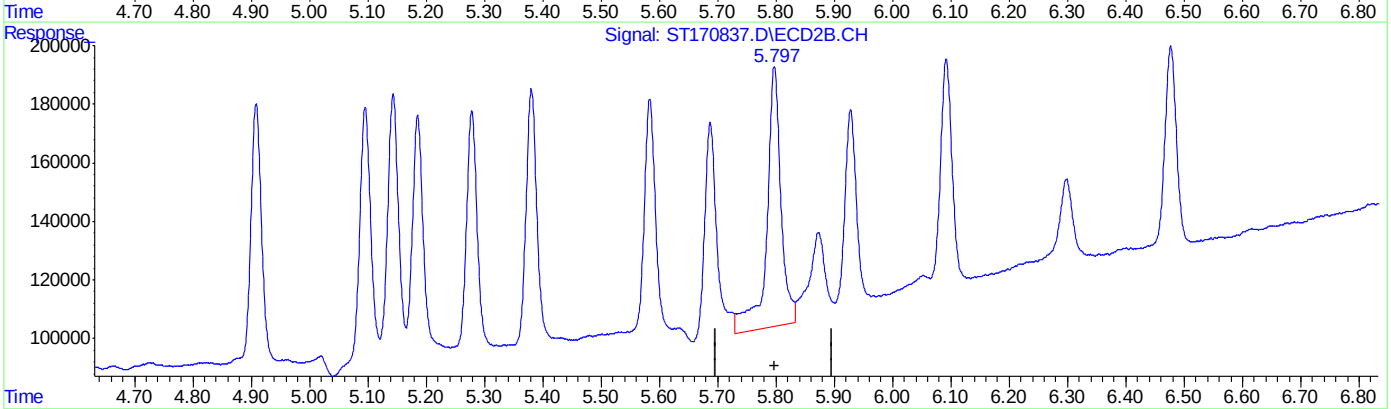
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(16) Endosulfan II ( )

5.725min 2.387 PPB

response 390857

(16) Endosulfan II #2 ( )

5.797min 2.212 PPB

response 88643

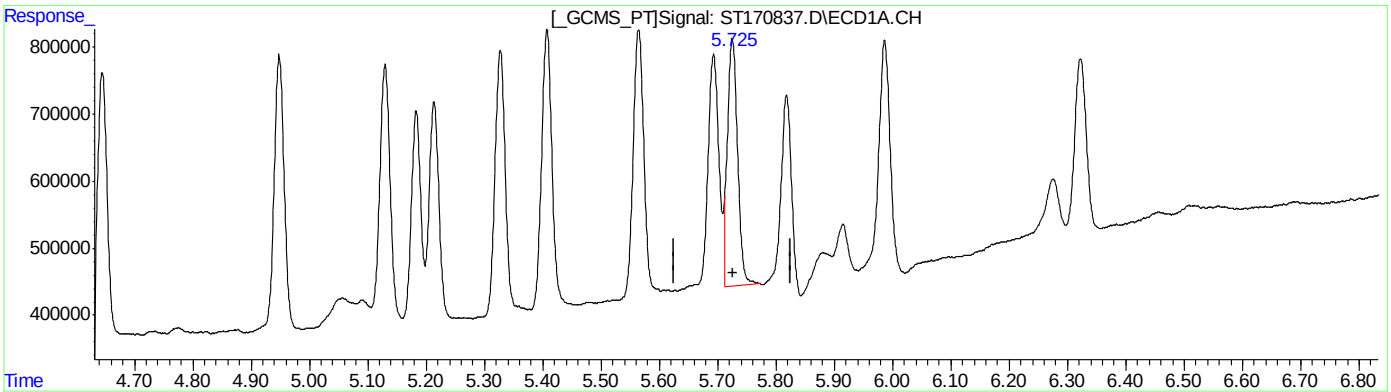
(+) = Expected Retention Time

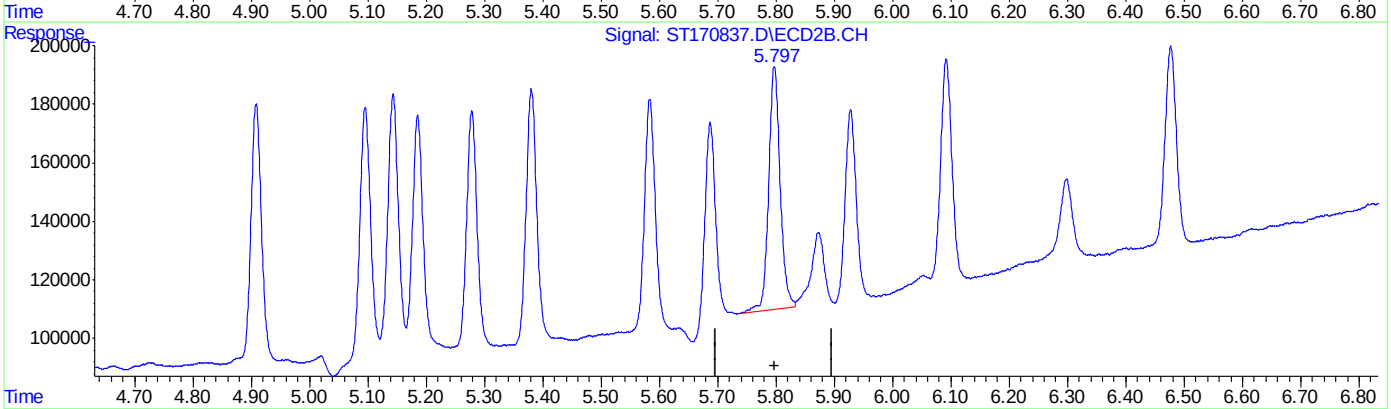
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(16) Endosulfan II ( )

5.725min 2.260 PPB m

response 370057

(16) Endosulfan II #2 ( )

5.797min 2.072 PPB m

response 83012

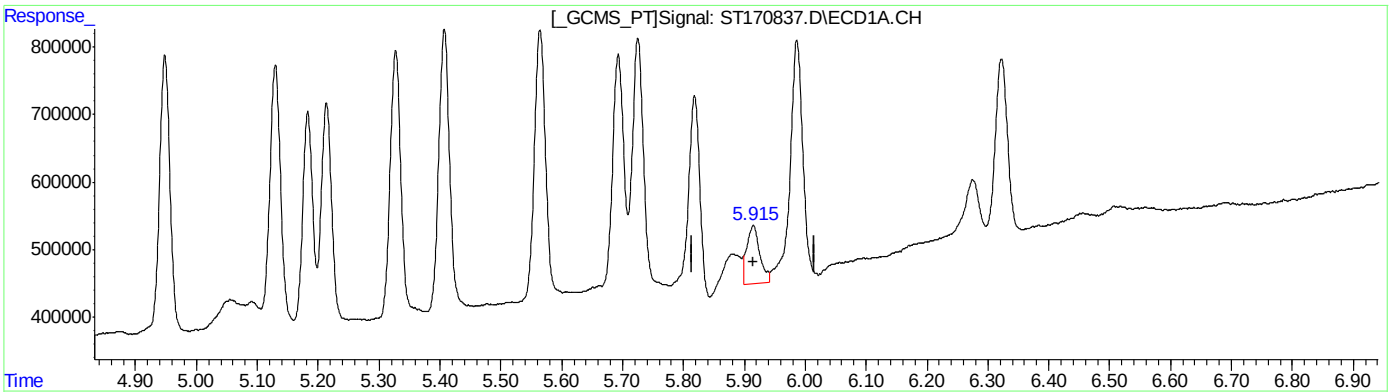
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 0.726 ppb m
response 86982

(17) 4,4'-DDT #2
5.873min 0.869 ppb
response 29266

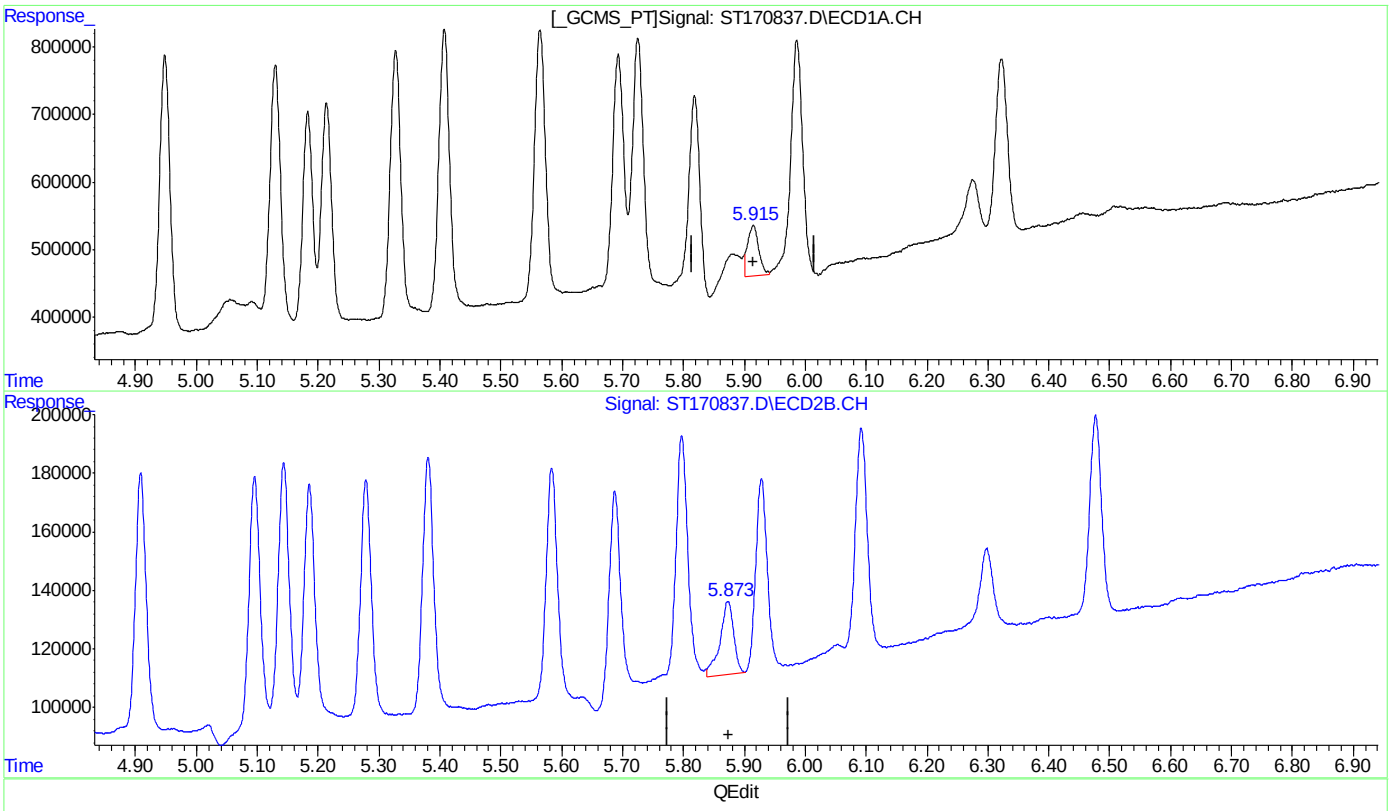
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 0.631 ppb m
response 75568

(17) 4,4'-DDT #2
5.873min 0.742 ppb m
response 24984

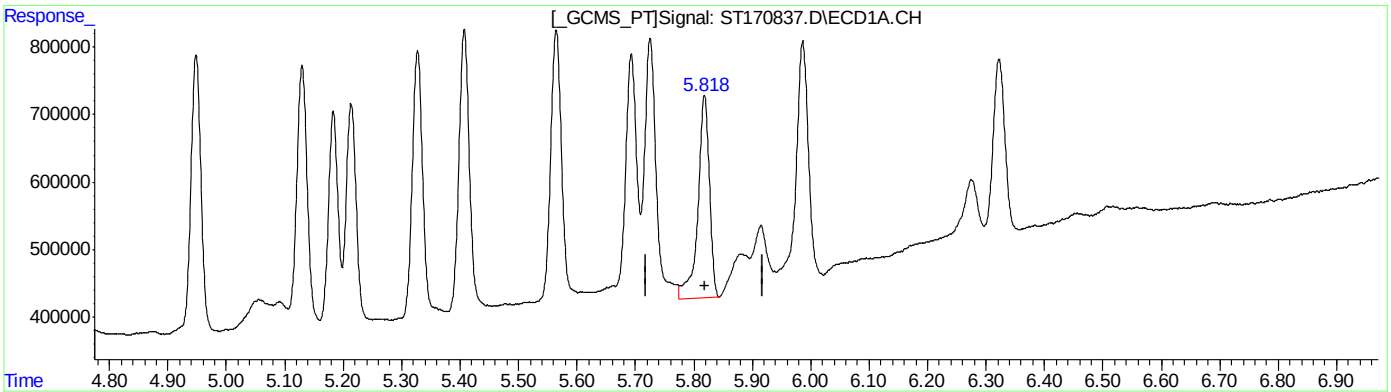
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.818min 2.403 PPB
response 300285

(18) Endrin Aldehyde #2 ( )
5.928min 2.238 PPB
response 68907

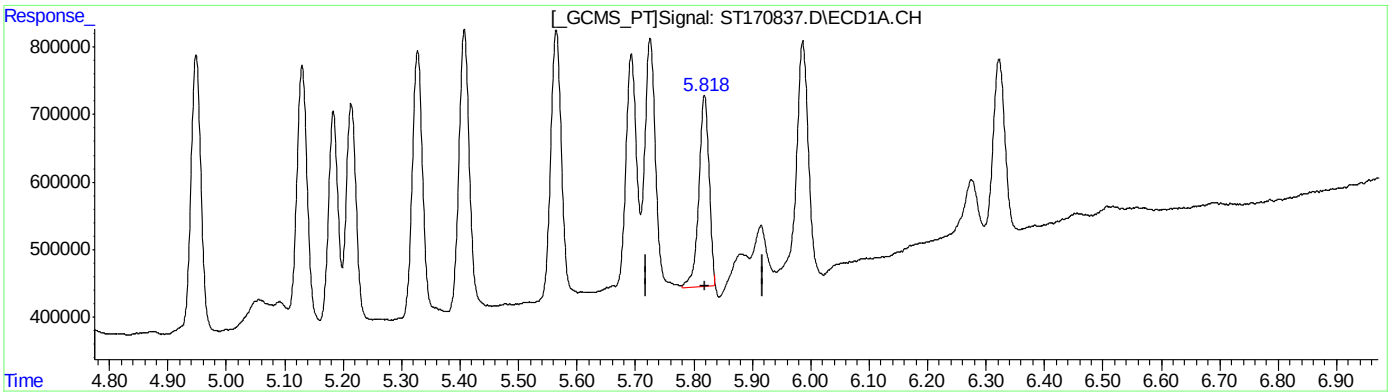
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:57:15 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.818min 2.270 PPB m
response 283565

(18) Endrin Aldehyde #2 ( )
5.928min 2.122 PPB m
response 65326

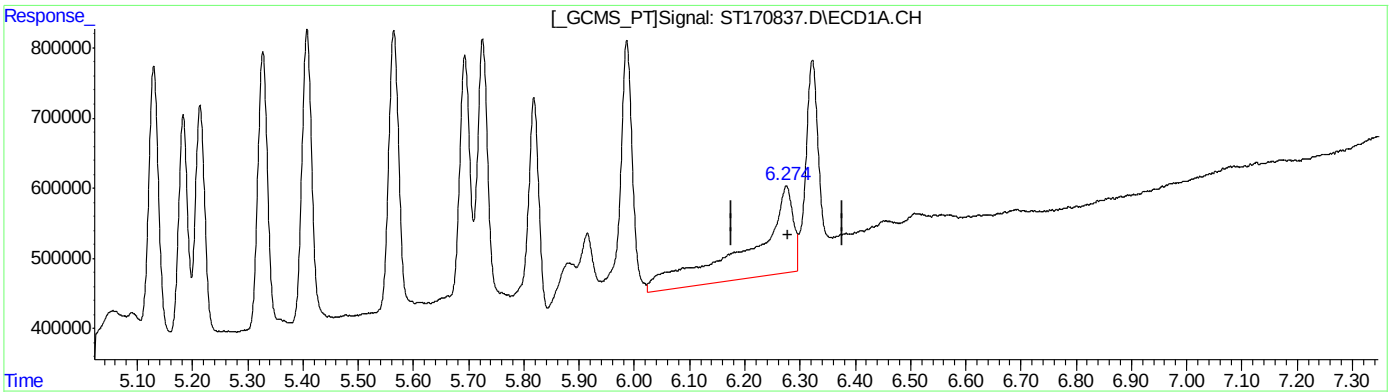
(+) = Expected Retention Time

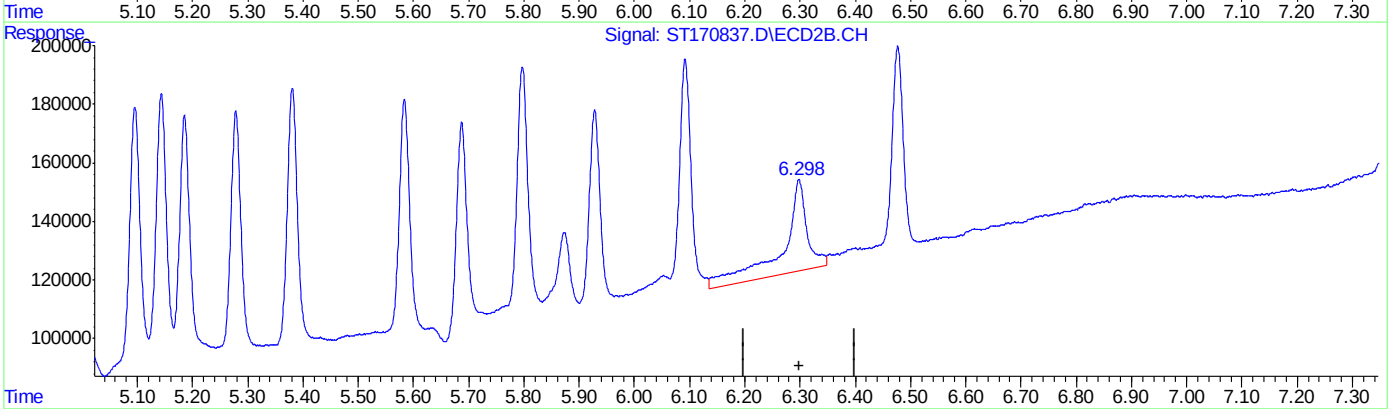
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(19) Methoxychlor
6.275min 2.030 ppb
response 123445

(19) Methoxychlor #2
6.298min 1.847 ppb
response 31169

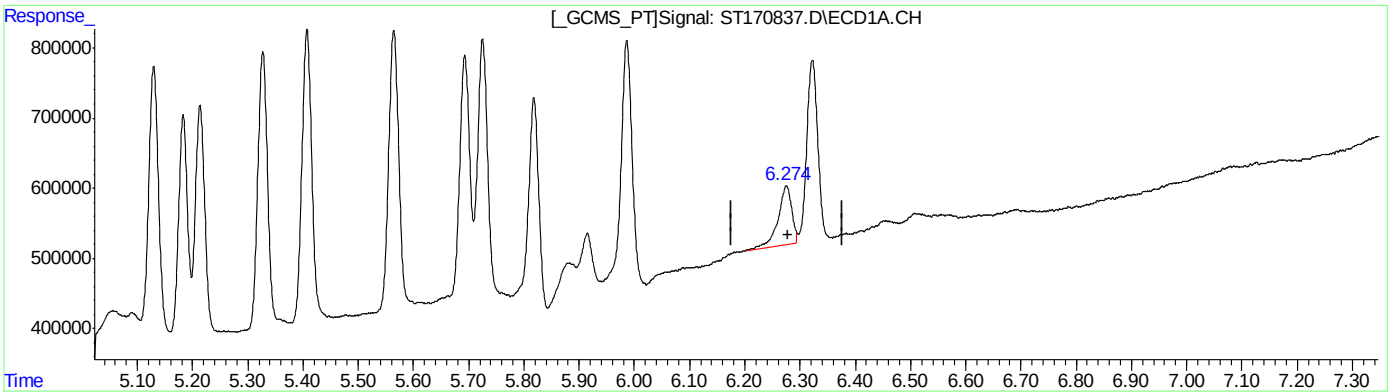
(+) = Expected Retention Time

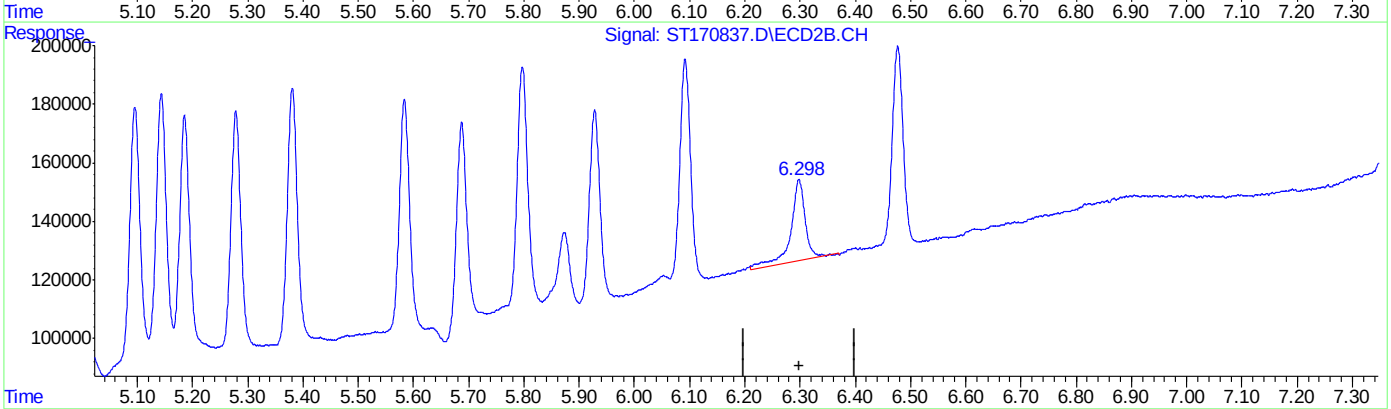
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(19) Methoxychlor
6.274min 1.376 ppb m
response 83674

(19) Methoxychlor #2
6.298min 1.649 ppb m
response 27831

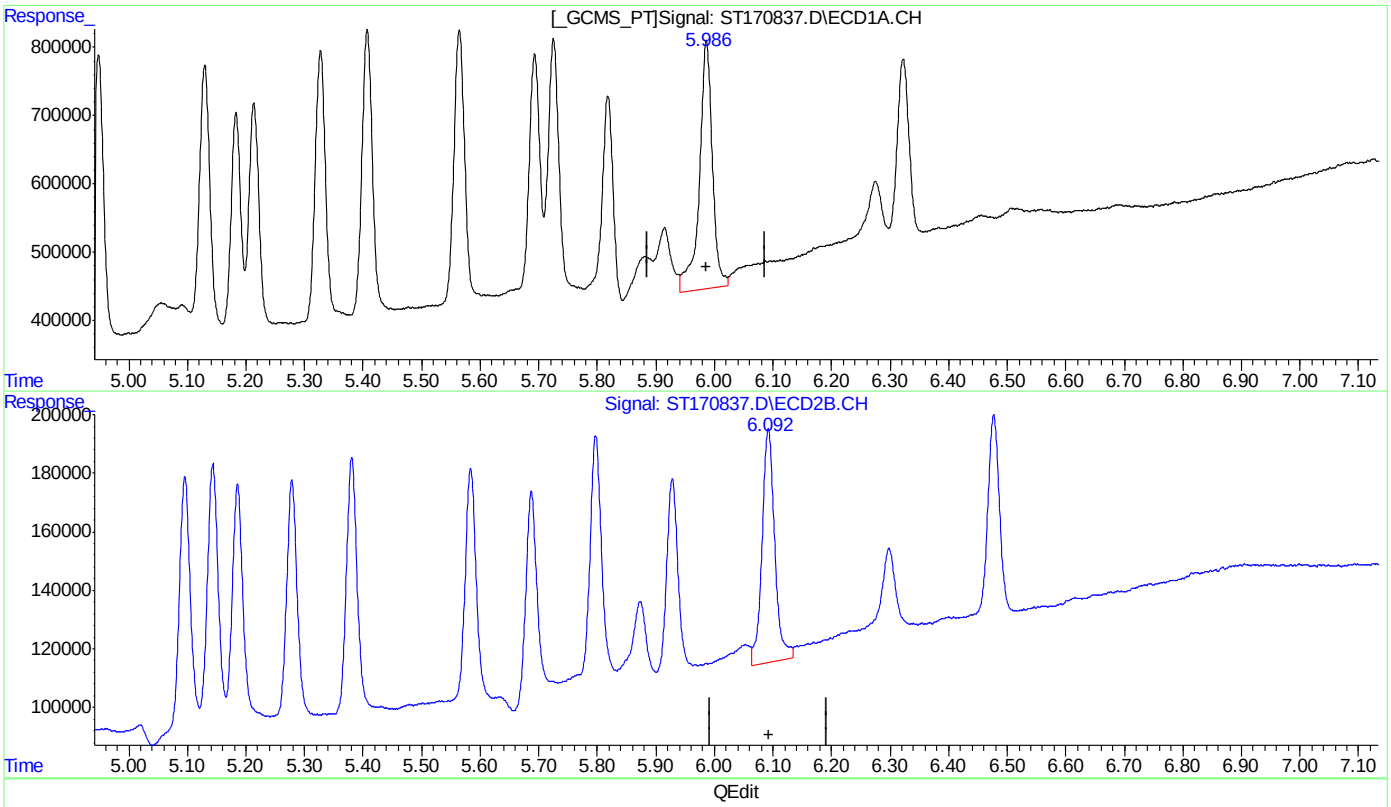
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(20) Endosulfan Sulfate ( )

5.987min 2.382 PPB

response 359672

(20) Endosulfan Sulfate #2 ( )

6.092min 2.173 PPB

response 80202

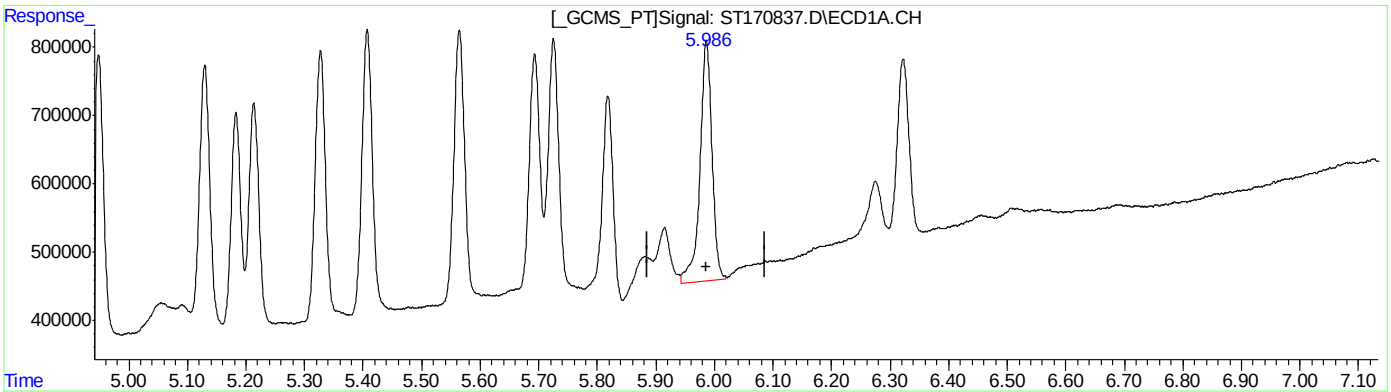
(+) = Expected Retention Time

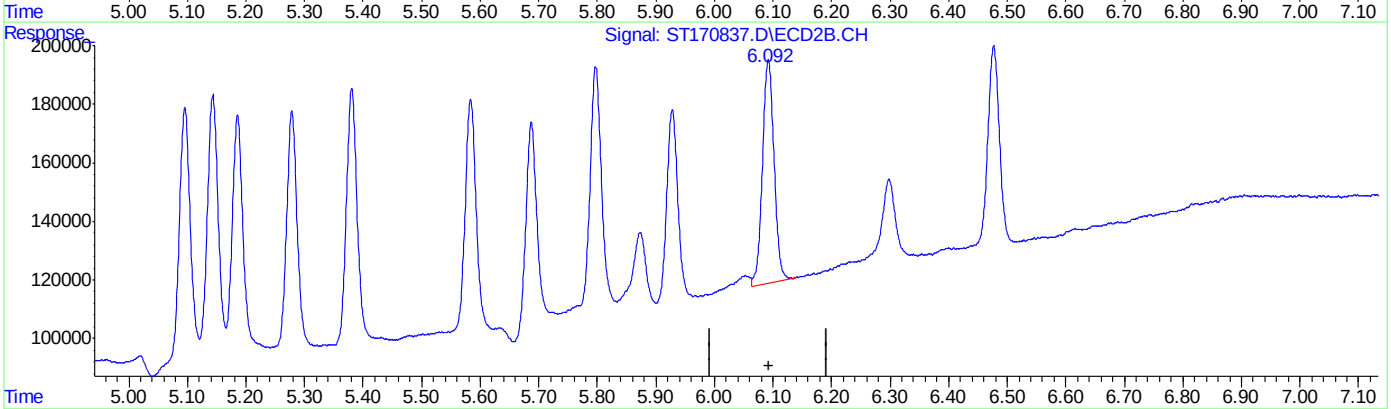
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 2.340 PPB m

response 353309

(20) Endosulfan Sulfate #2 ( )

6.092min 2.080 PPB m

response 76787

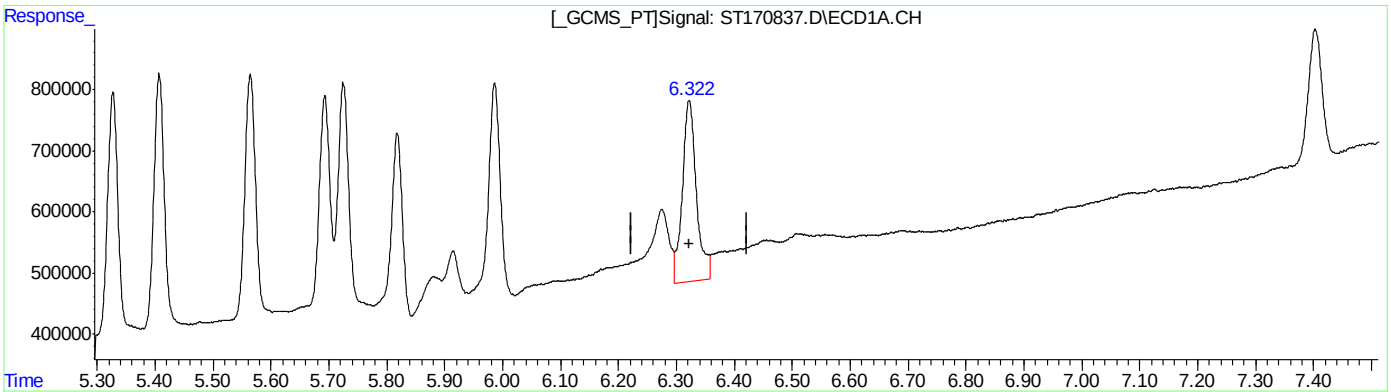
(+) = Expected Retention Time

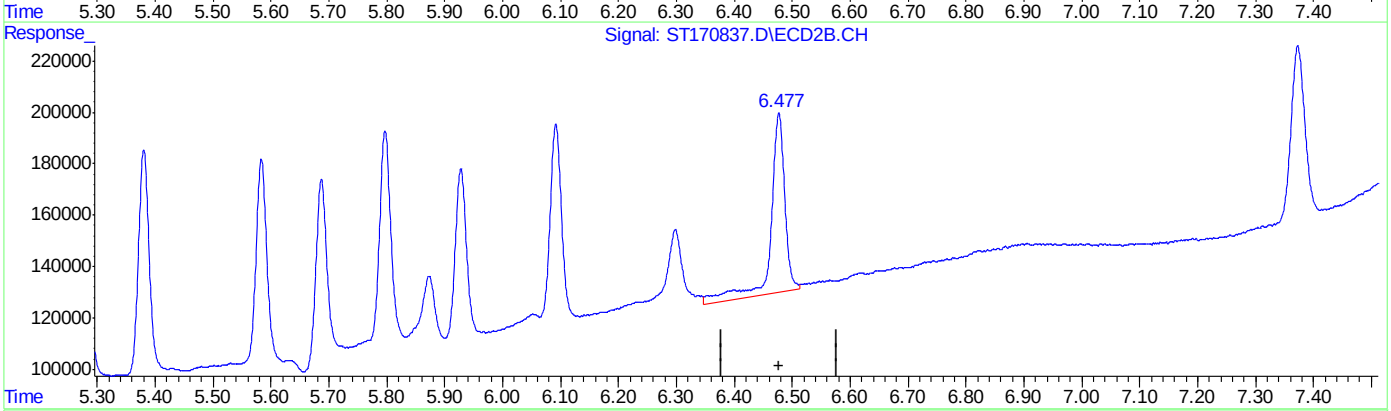
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.323min 2.054 PPB
response 296685

(21) Endrin Ketone #2 ( )
6.477min 1.920 PPB
response 70021

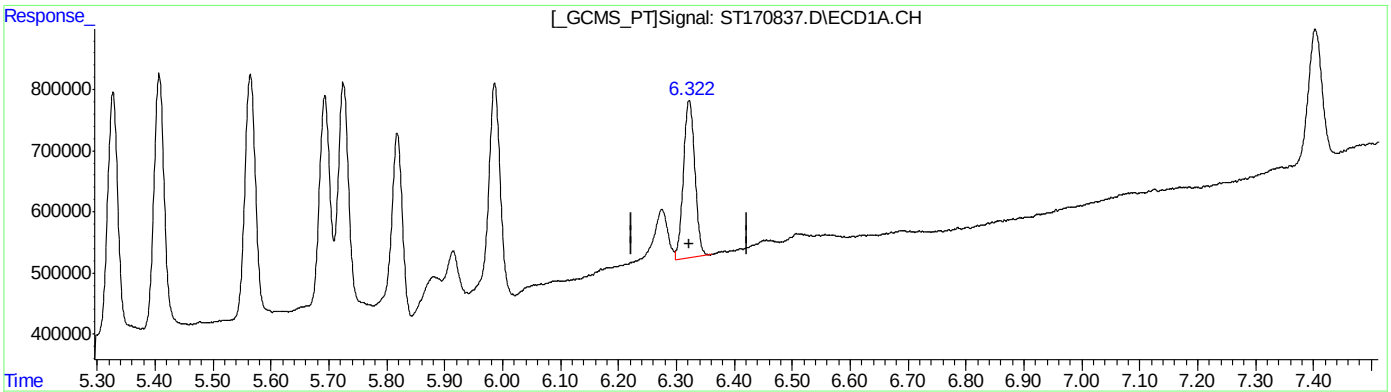
(+) = Expected Retention Time

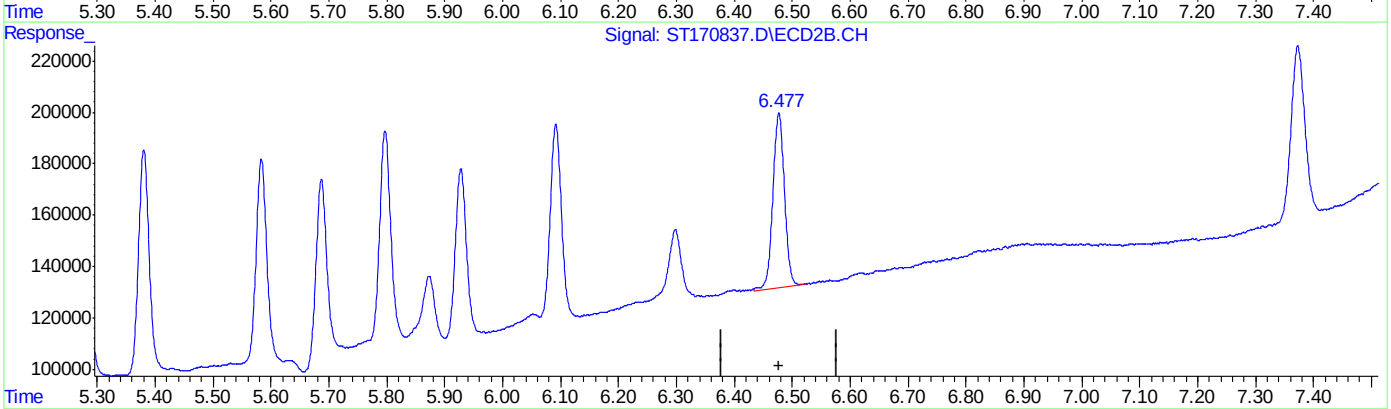
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.322min 1.785 PPB m
response 257859

(21) Endrin Ketone #2 ( )
6.477min 1.871 PPB m
response 68227

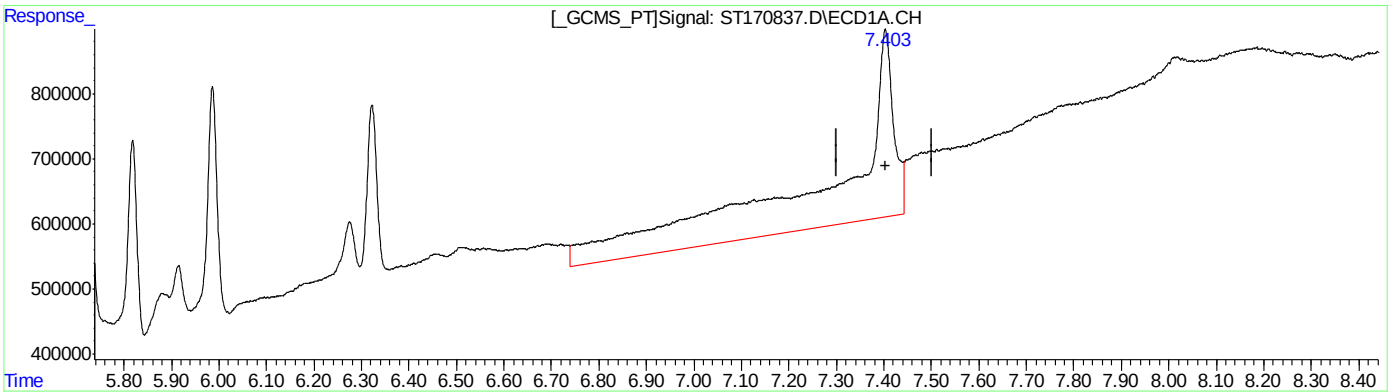
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:58:17 2023 Page: 1

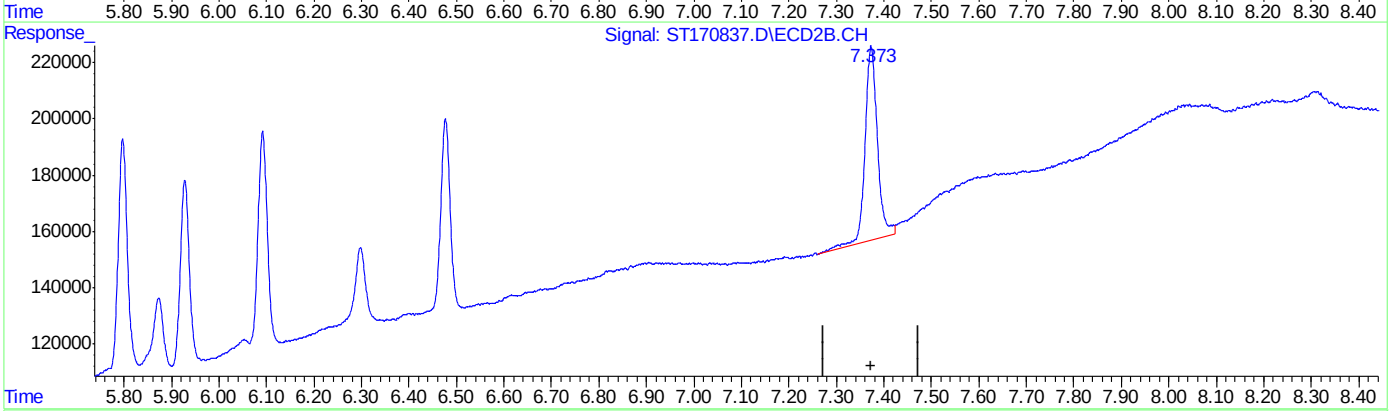
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.404min 2.788 ppb

response 286272

(33) Decachlorobiphenyl #2 (S)

7.373min 2.571 ppb

response 69082

(+) = Expected Retention Time

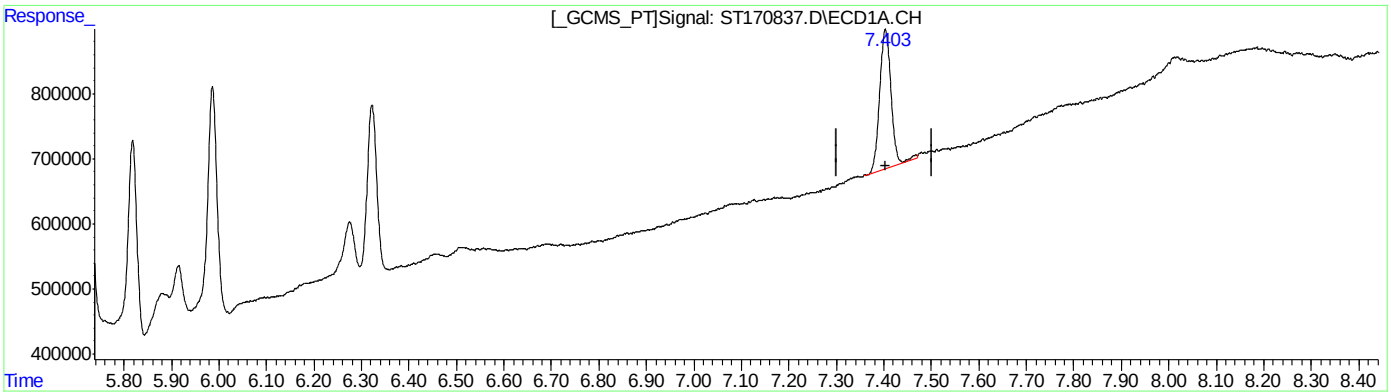
12.5.46.82

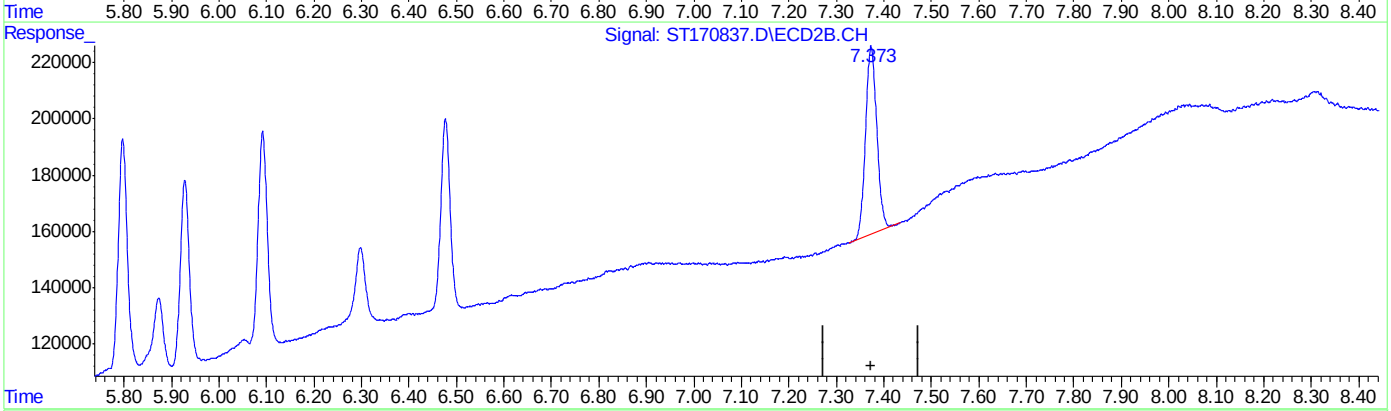
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170837.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:42 am
Operator : eduardom
Sample : ic4174-2 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 31 11:48:57 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)
7.403min 2.094 ppb m
response 215080

(33) Decachlorobiphenyl #2 (S)
7.373min 2.491 ppb m
response 66934

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 12:01:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.441	3.380	715515	137645	5.136	4.846
		Spiked Amount	50.000	Range 42 - 127		Recovery =	10.27%#	9.69%#
33)	S	Decachlor...	7.403	7.374	479989	141755	4.674m	5.275m
		Spiked Amount	50.000	Range 27 - 127		Recovery =	9.35%#	10.55%#
		Target Compounds						
2)		alpha-BHC	3.767	3.788	1032702	179369	4.974	4.425
3)		gamma-BHC...	4.002	4.049	879724	175574	4.876	4.519
4)		beta-BHC	4.154	4.273	432233	89332	5.130	4.848
5)		delta-BHC	4.319	4.454	990548	179580	4.797m	4.375
6)		Heptachlor	4.411	4.319	853265	172282	4.849m	4.582
7)		Aldrin	4.645	4.535	864590	174883	4.877m	4.406
8)		Heptachlo...	4.949	4.909	893082	198702	5.009	4.740
9)		gamma-Chl...	5.130	5.095	851229	192662	4.953	4.585m
10)		alpha-Chl...	5.184	5.143	744521	198580	4.725	4.715m
11)		4,4'-DDE	5.328	5.279	874918	193010	4.904	4.505
12)		Endosulfa...	5.214	5.186	727627	183647	4.874	4.639
13)		Dieldrin	5.408	5.381	915732	204732	4.924	4.561
14)		Endrin	5.564	5.585	898903	185702	4.989	4.527
15)		4,4'-DDD	5.694	5.687	813169	161847	5.068	4.463m
16)		Endosulfa...	5.726	5.797	830010	190579	5.068	4.757m
17)		4,4'-DDT	5.915	5.874	217809	78196	1.819	2.322m
18)		Endrin Al...	5.819	5.928	621422	150791	4.974	4.898
19)		Methoxychlor	6.276	6.298	213392	68405	3.510m	4.054m
20)		Endosulfa...	5.986	6.092	756008	174730	5.007	4.734m
21)		Endrin Ke...	6.323	6.478	649536	161223	4.497m	4.422m
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 12:01:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
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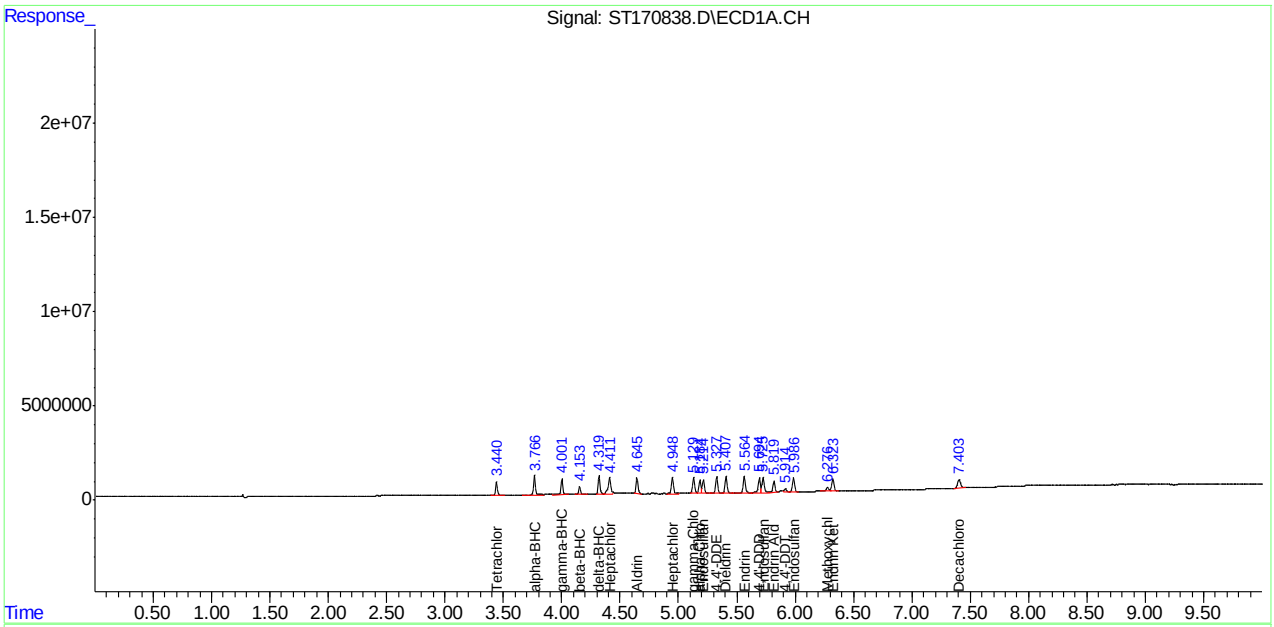
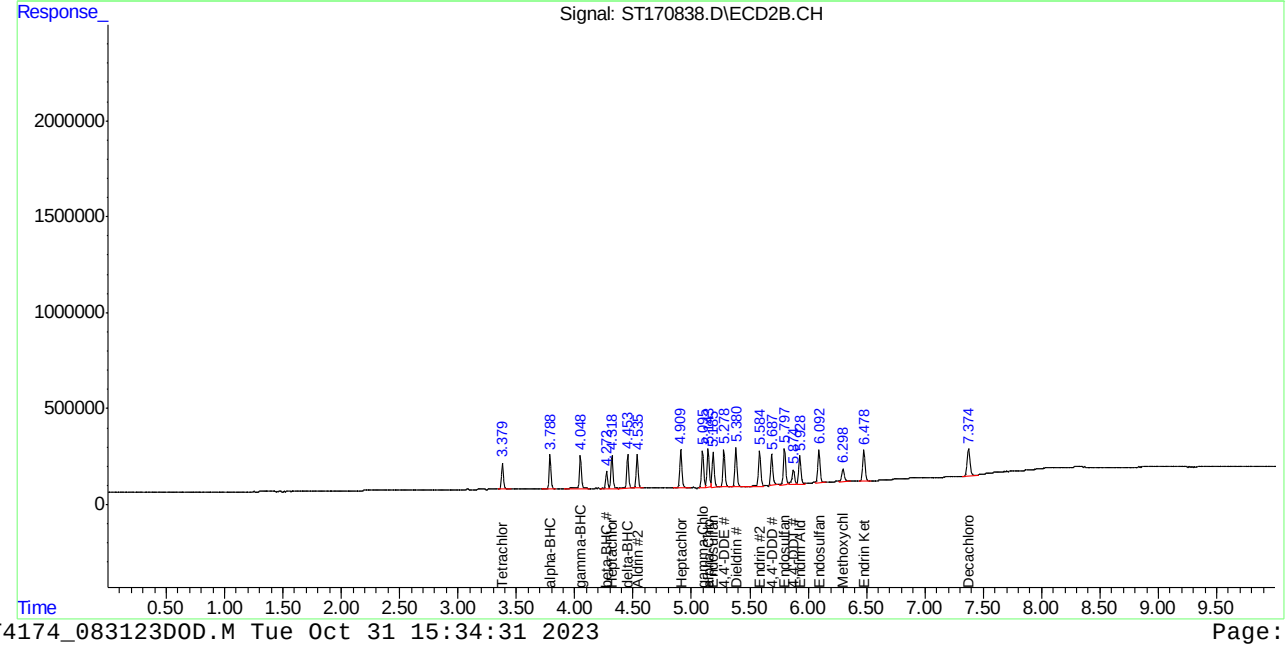
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170838.D
Injection Time: 10/31/23 09:57
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

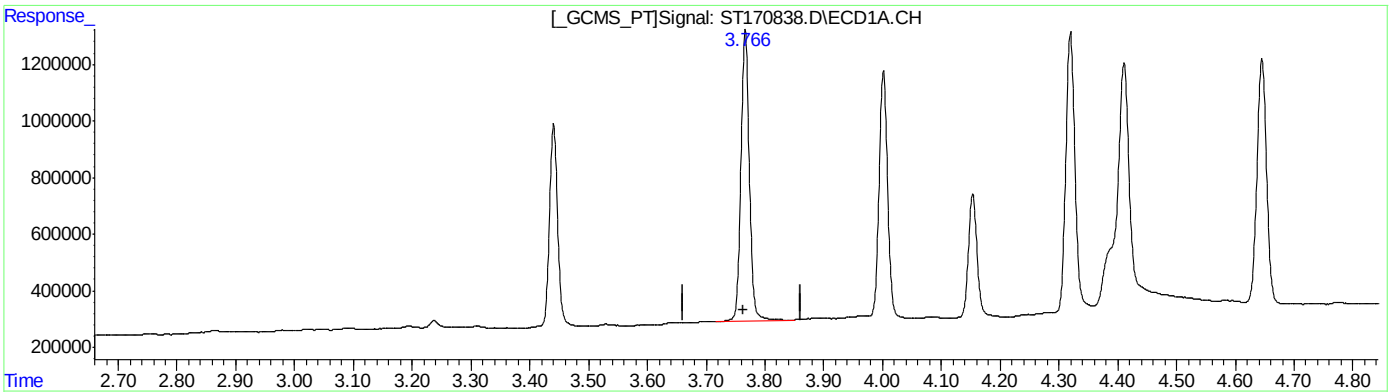
Parameter	CAS	Sig#	R.T. (min.)	Reason
delta-BHC	319-86-8	1	4.32	Poor instrument integration
Heptachlor	76-44-8	1	4.41	Poor instrument integration
Aldrin	309-00-2	1	4.64	Poor instrument integration
gamma-Chlordane	5103-74-2	2	5.10	Poor instrument integration
alpha-Chlordane	5103-71-9	2	5.14	Poor instrument integration
4,4'-DDD	72-54-8	2	5.69	Poor instrument integration
Endosulfan-II	33213-65-9	2	5.80	Poor instrument integration
4,4'-DDT	50-29-3	2	5.87	Poor instrument integration
Endosulfan sulfate	1031-07-8	2	6.09	Poor instrument integration
Methoxychlor	72-43-5	1	6.28	Poor instrument integration
Methoxychlor	72-43-5	2	6.30	Poor instrument integration
Endrin ketone	53494-70-5	1	6.32	Poor instrument integration
Endrin ketone	53494-70-5	2	6.48	Poor instrument integration
Decachlorobiphenyl	2051-24-3	2	7.37	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

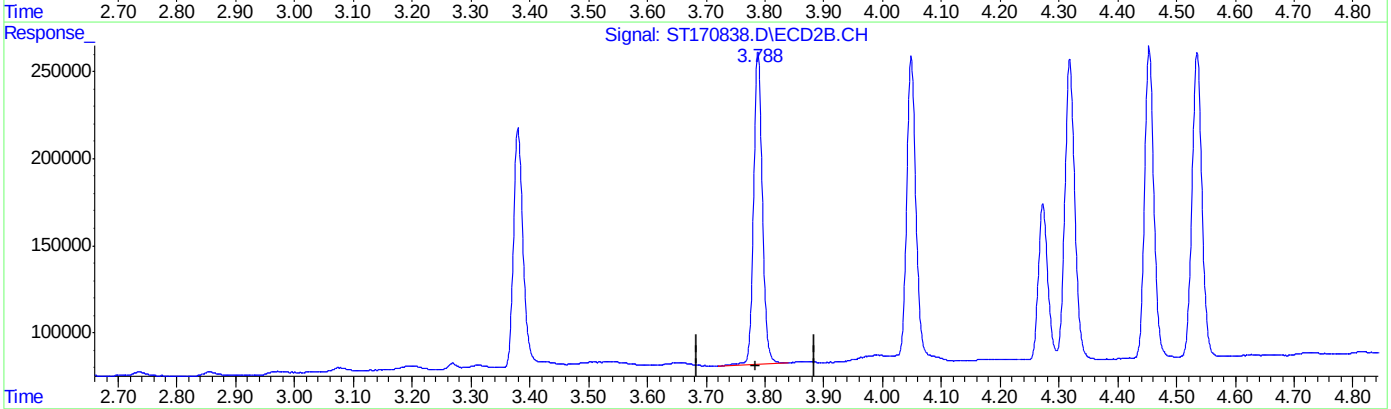
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(2) alpha-BHC ( )
3.766min 4.950 PPB m
response 1034436

(2) alpha-BHC #2 ( )
3.788min 6.479 PPB
response 179369

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
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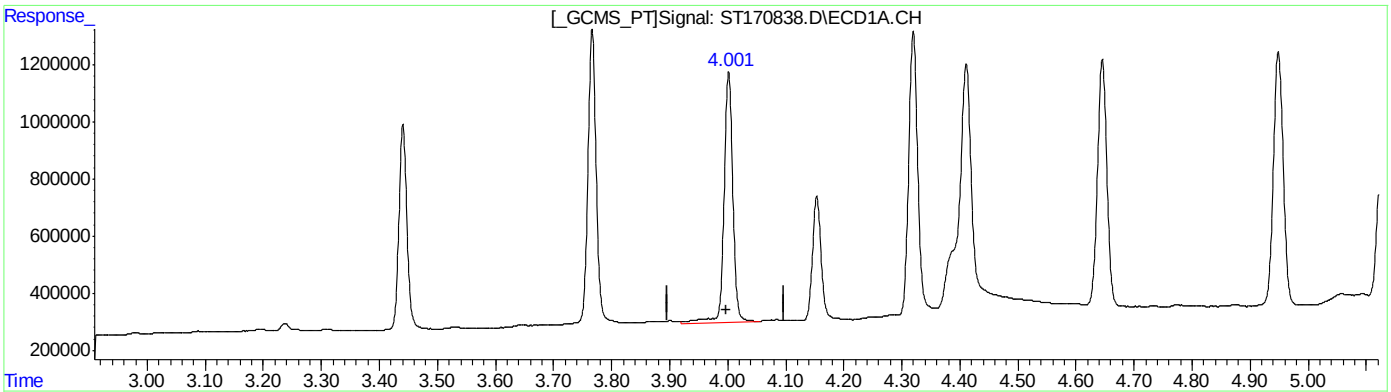
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(3) gamma-BHC (Lindane) ( )

4.002min 4.754 PPB

response 879724

(3) gamma-BHC (Lindane) #2 ( )

4.049min 6.685 PPB

response 175574

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
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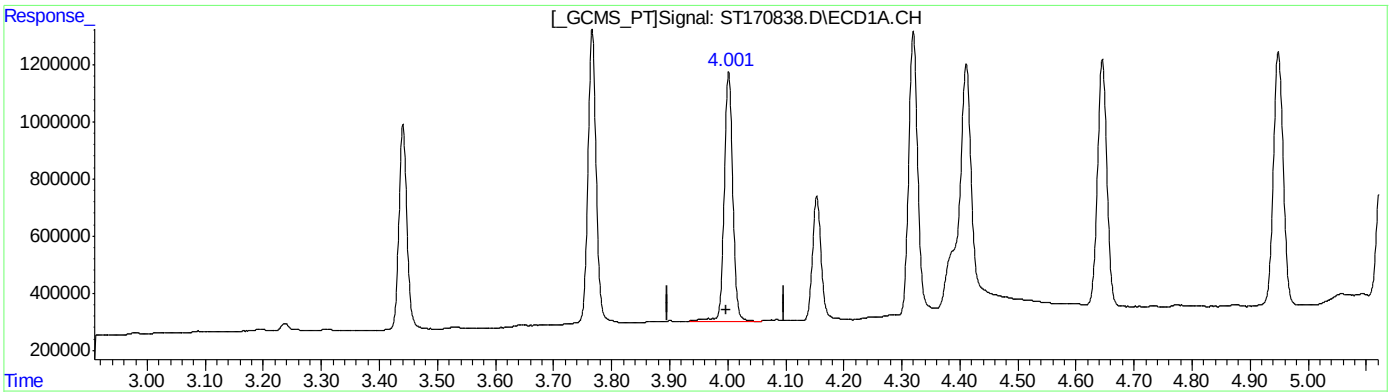
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(3) gamma-BHC (Lindane) ( )

4.001min 4.734 PPB m

response 876081

(3) gamma-BHC (Lindane) #2 ( )

4.049min 6.685 PPB

response 175574

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
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Sample : ic4174-5 Pest Inst : ECD 3
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Volume Inj. : 2ul
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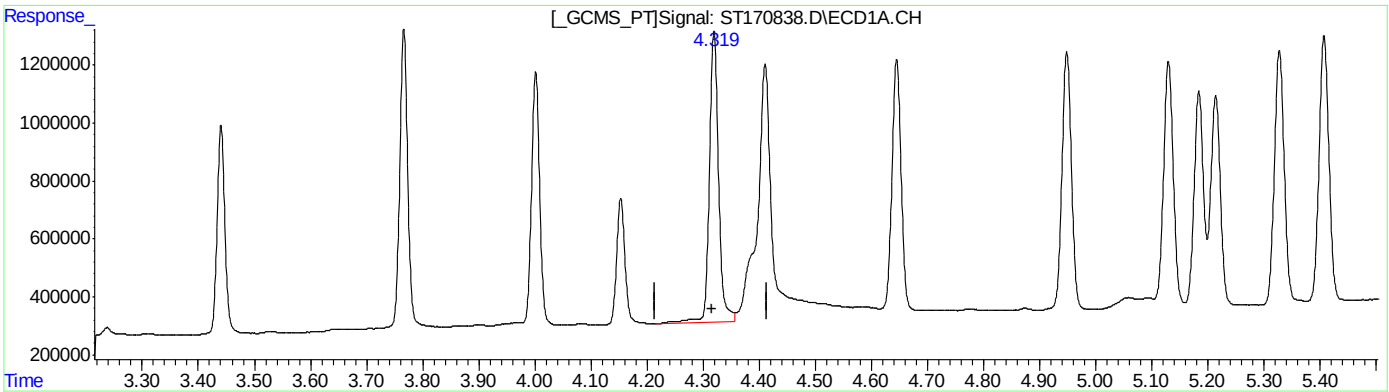
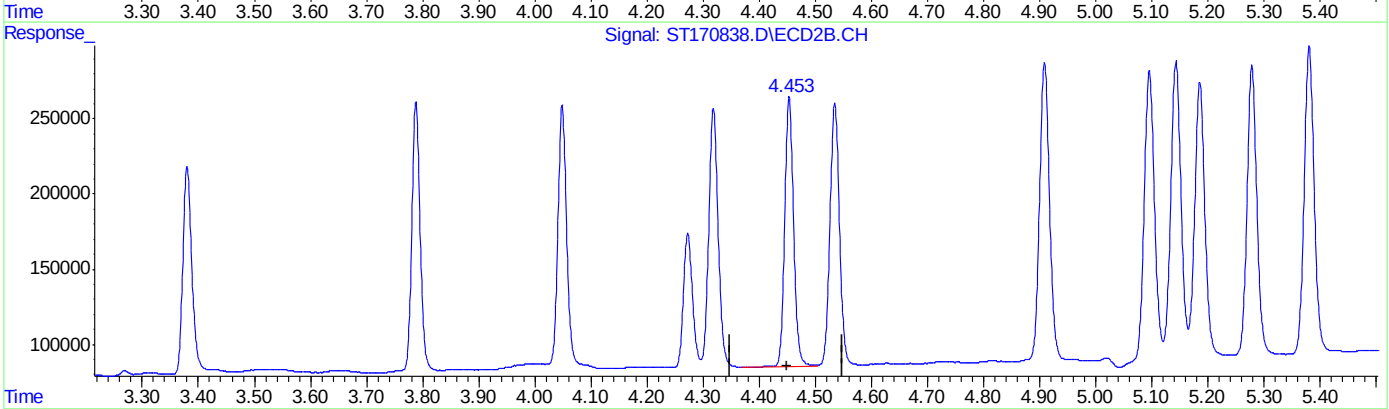
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(5) delta-BHC ( )
4.320min 5.076 PPB
response 999161

(5) delta-BHC #2 ( )
4.454min 6.369 PPB
response 179580

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
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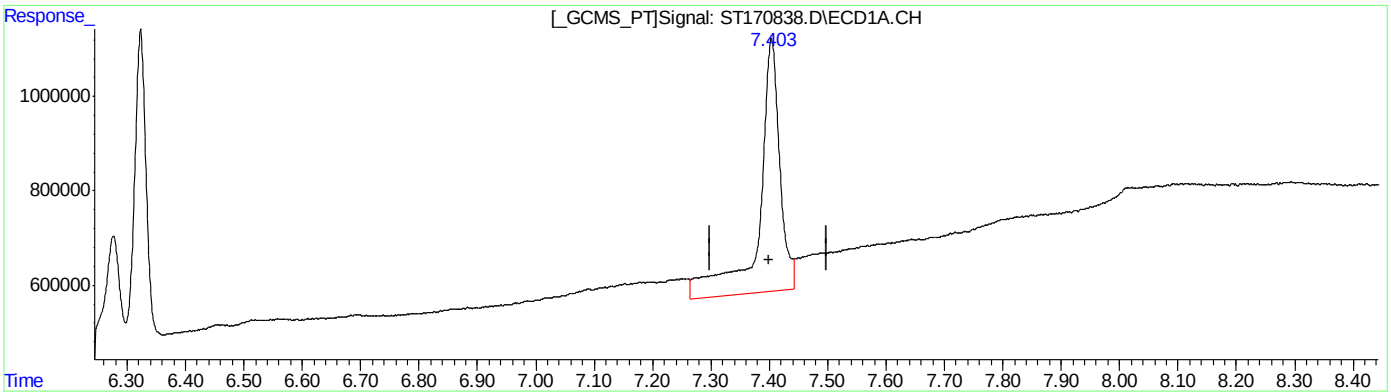
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(33) Decachlorobiphenyl (S)

7.404min 5.384 ppb

response 534006

(33) Decachlorobiphenyl #2 (S)

7.374min 6.059 ppb

response 141883

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
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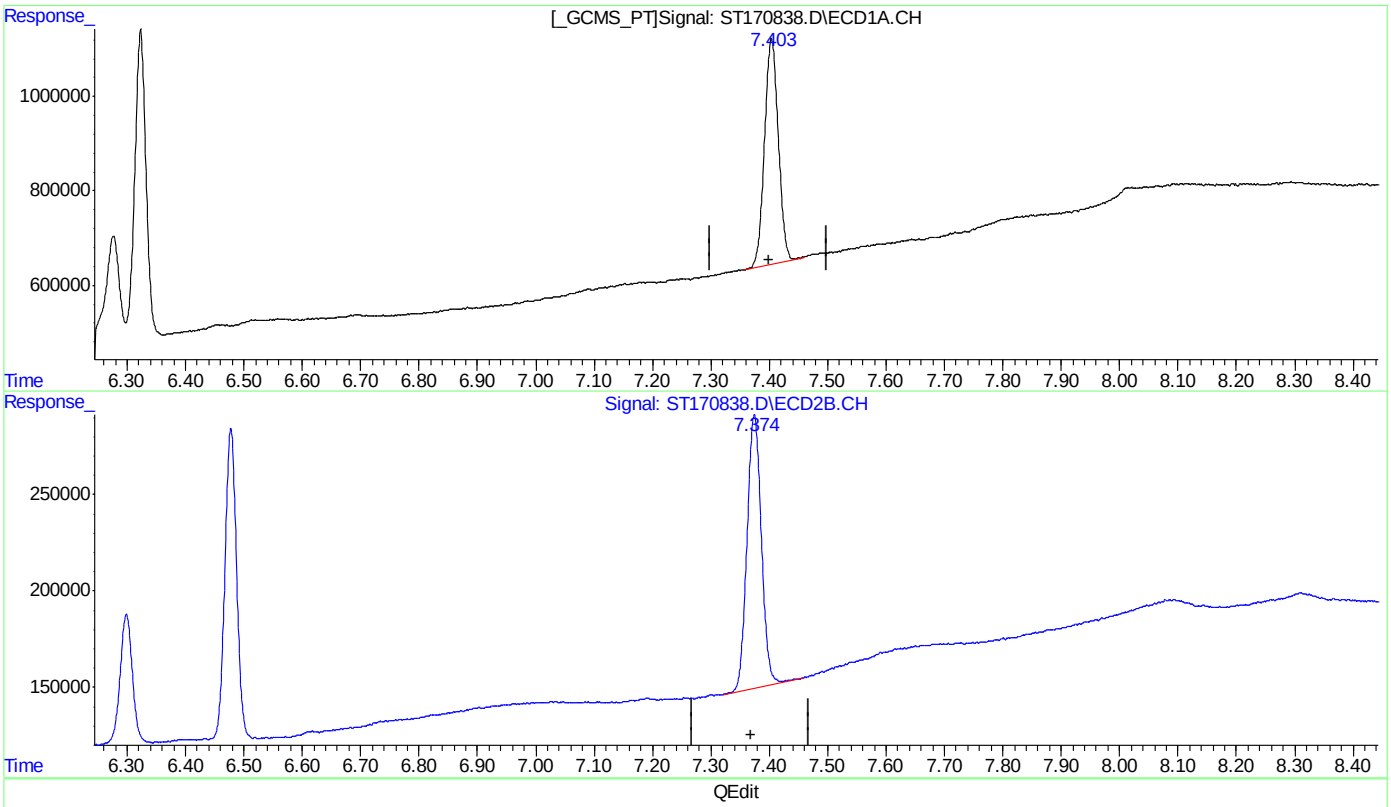
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)

7.403min 4.846 ppb m

response 480623

(33) Decachlorobiphenyl #2 (S)

7.374min 6.069 ppb m

response 142116

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Misc : OP96969,GST4174,250,,,5,1,Water
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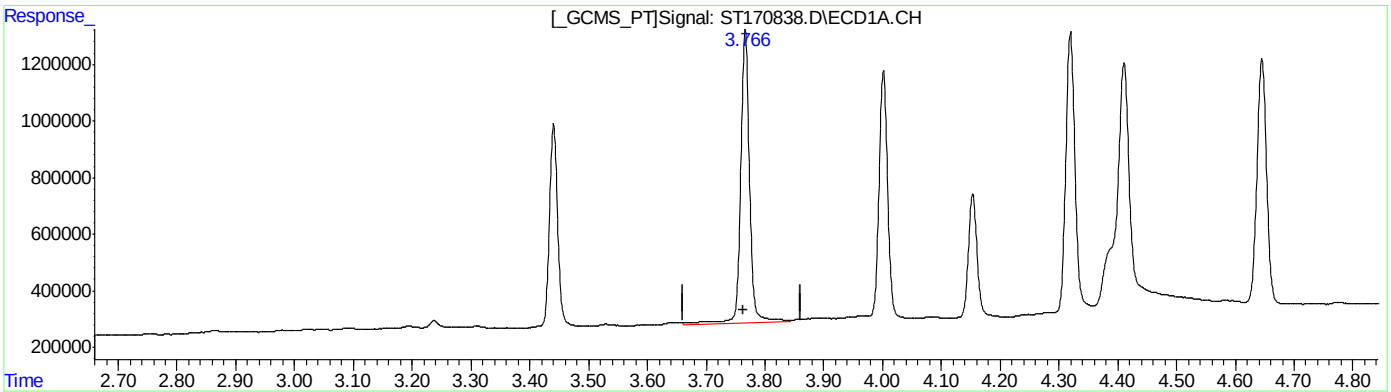

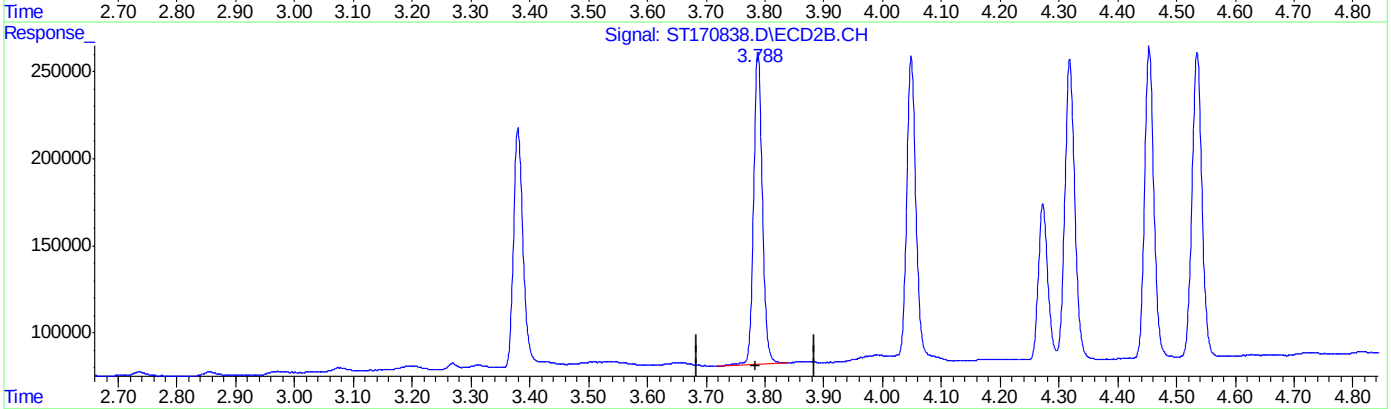

QEdit

(2) alpha-BHC ( )
3.767min 4.942 PPB
response 1032702

(2) alpha-BHC #2 ( )
3.788min 6.479 PPB
response 179369

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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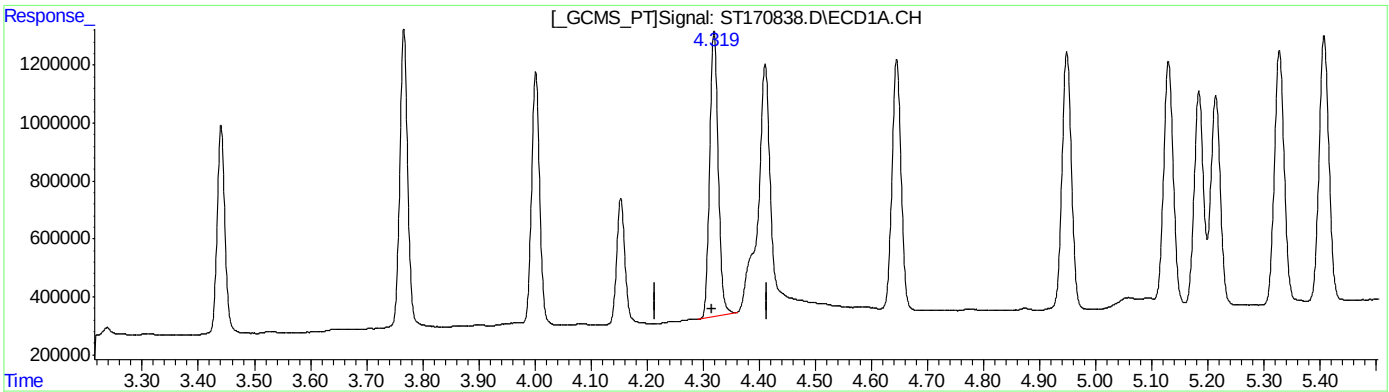

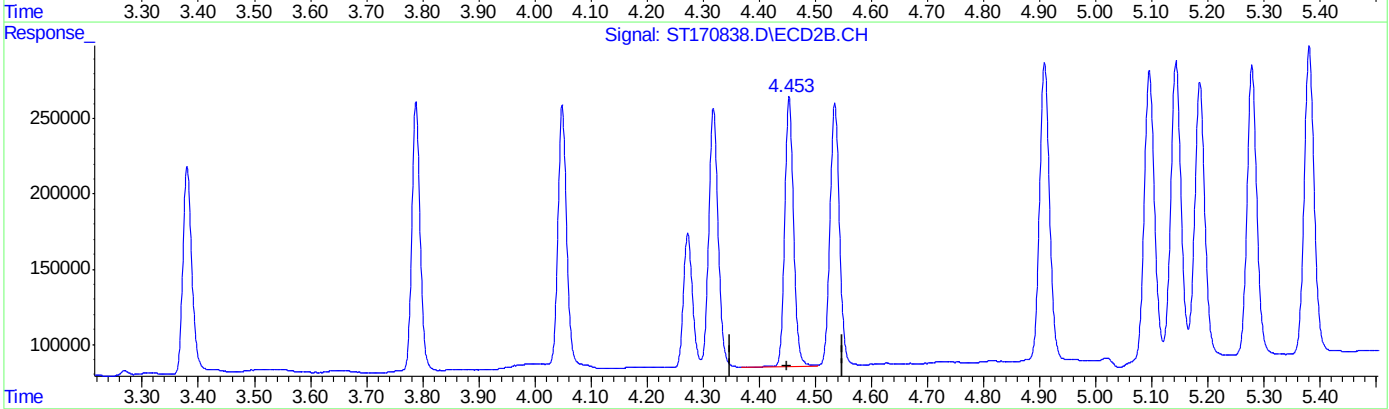

QEdit

(5) delta-BHC ( )
4.319min 5.008 PPB m
response 985868

(5) delta-BHC #2 ( )
4.454min 6.369 PPB
response 179580

(+) = Expected Retention Time

12.5.47.9 12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
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Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

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Volume Inj. : 2ul
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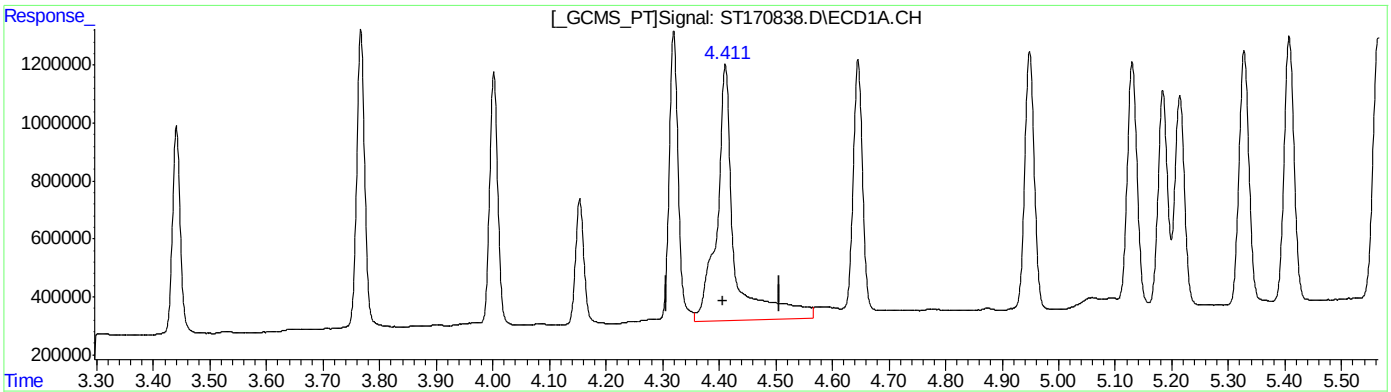
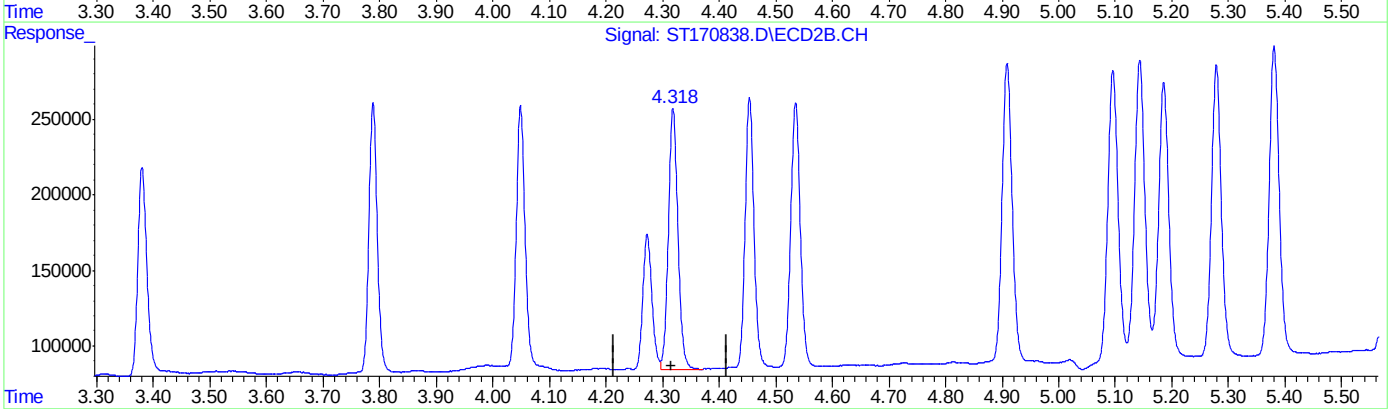
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )
4.411min 5.276 PPB
response 885563

(6) Heptachlor #2 ( )
4.319min 6.709 PPB
response 172282

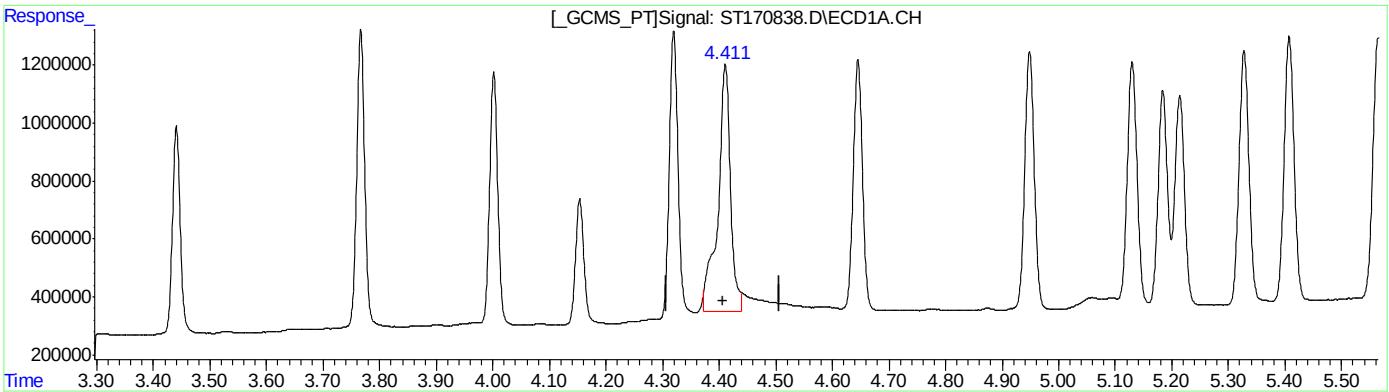
(+) = Expected Retention Time

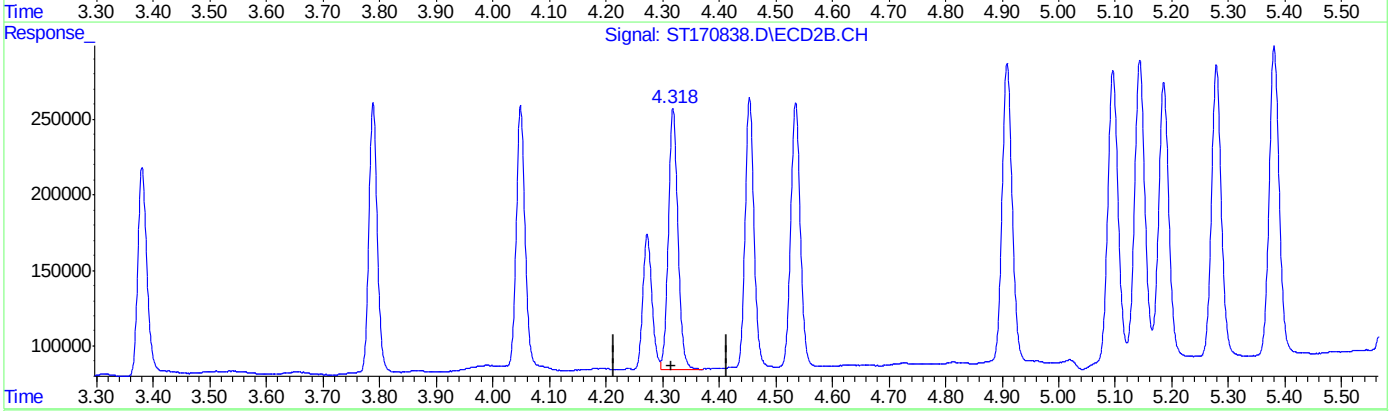
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )

4.411min 5.092 PPB m

response 854629

(6) Heptachlor #2 ( )

4.319min 6.709 PPB

response 172282

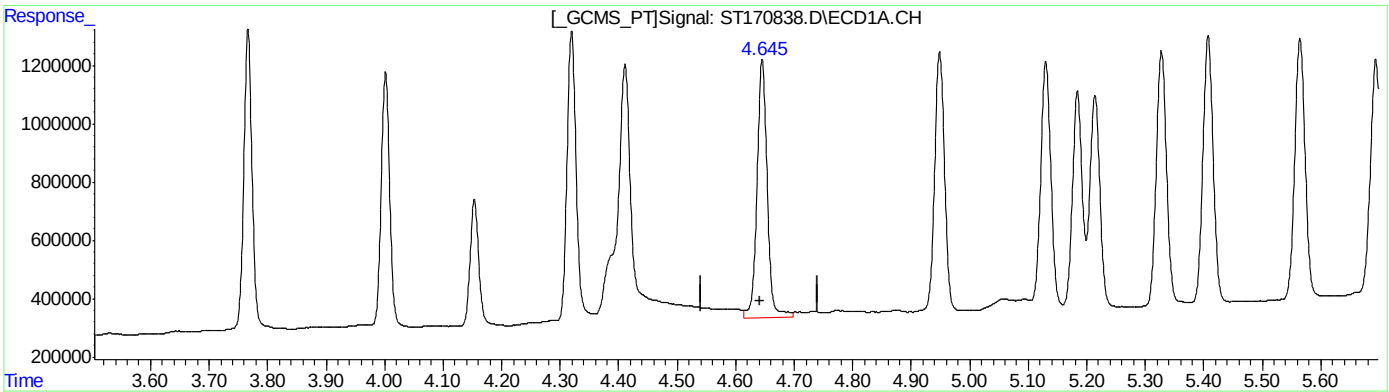
(+) = Expected Retention Time

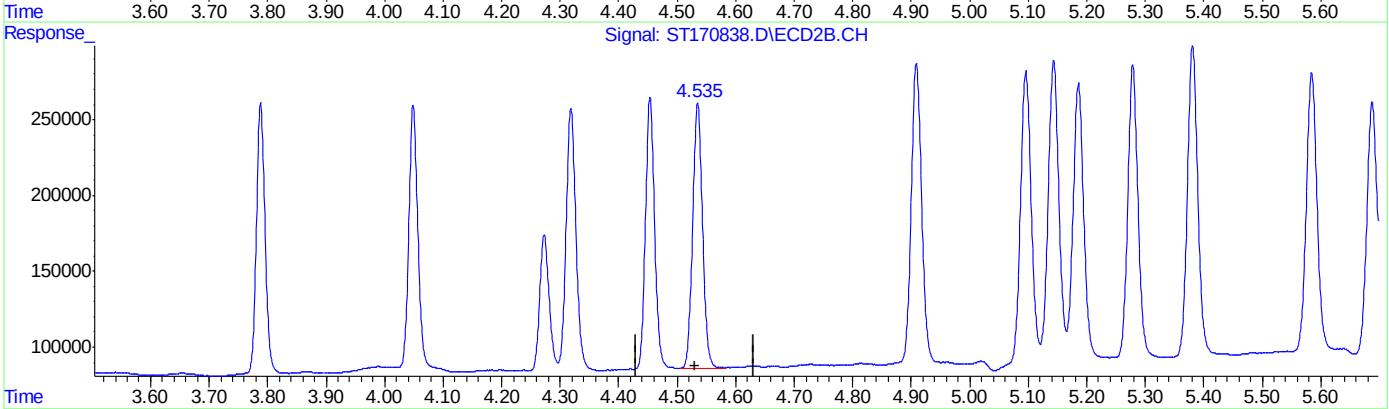
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(7) Aldrin ( )
4.645min 5.012 PPB
response 886250

(7) Aldrin #2 ( )
4.535min 6.170 PPB
response 174883

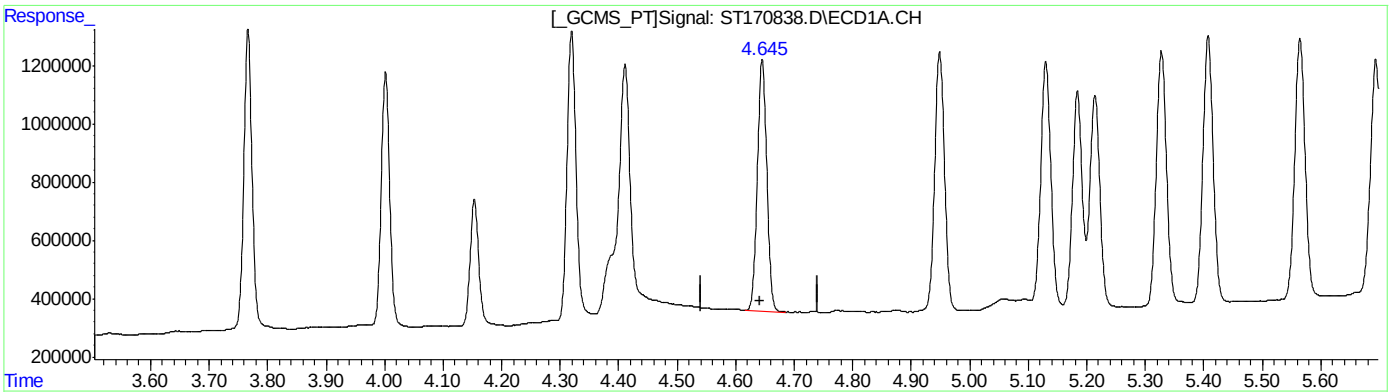
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(7) Aldrin ( )

4.645min 4.891 PPB m

response 864867

(7) Aldrin #2 ( )

4.535min 6.170 PPB

response 174883

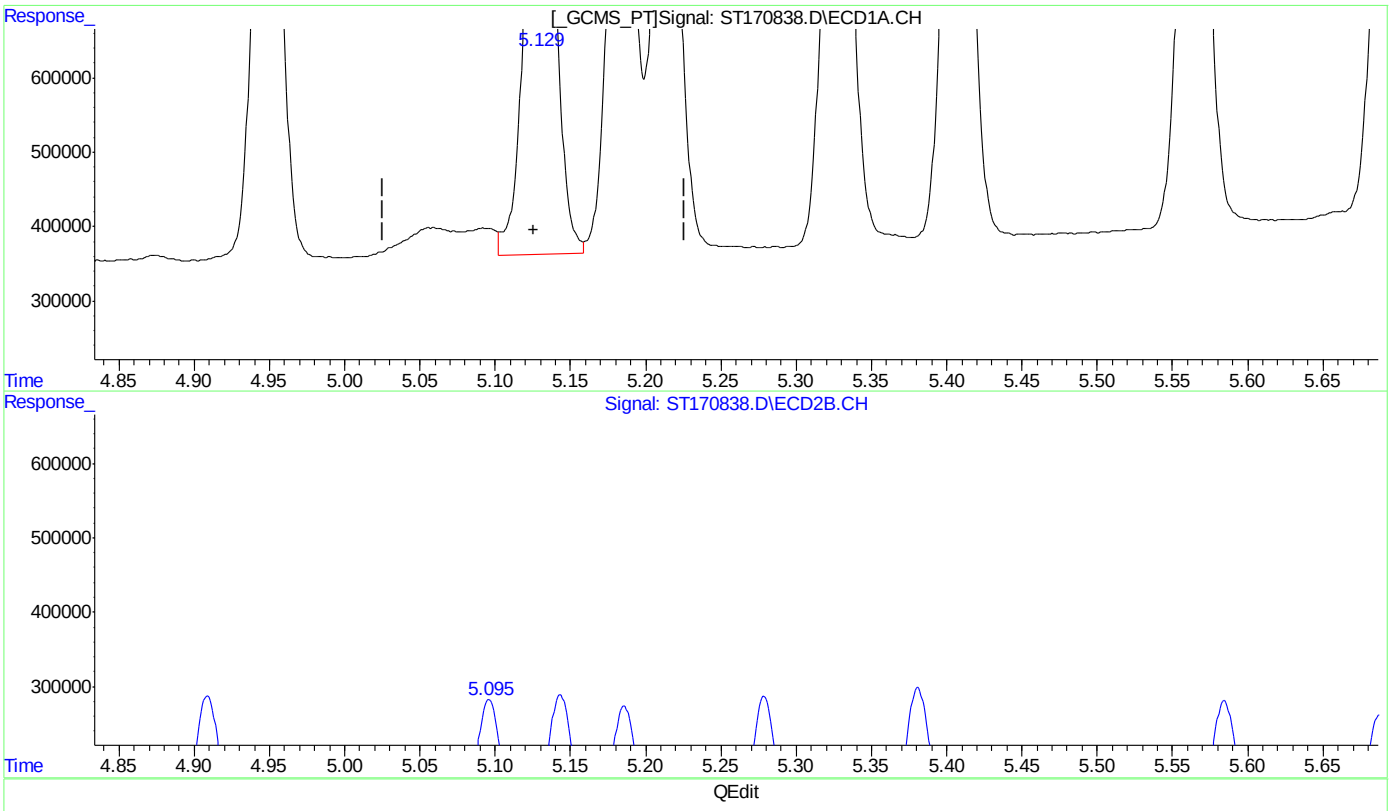
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(9) gamma-Chlordane

5.130min 5.084 PPB

response 851229

(9) gamma-Chlordane #2

5.096min 6.466 PPB

response 195175

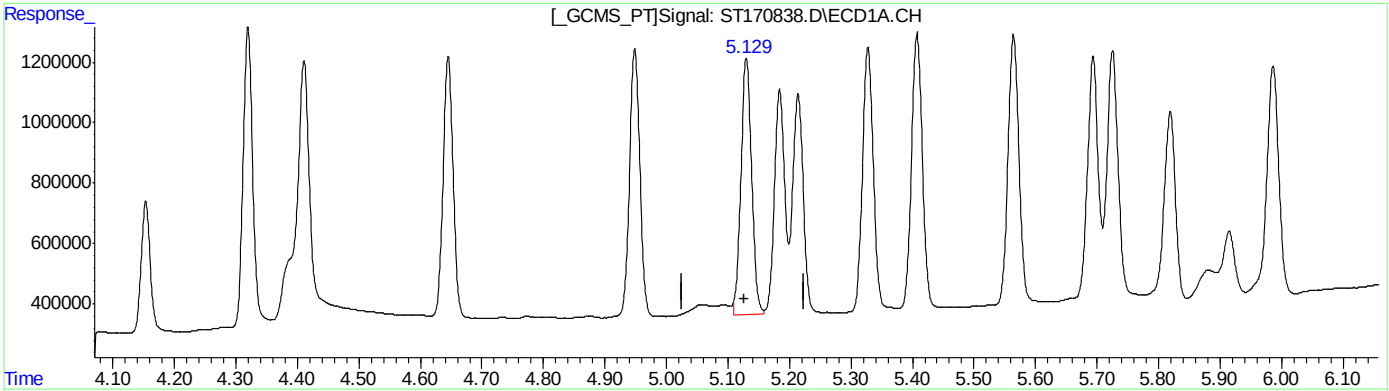
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(9) gamma-Chlordane

5.129min 5.074 PPB m

response 849483

(9) gamma-Chlordane #2

5.095min 6.377 PPB m

response 192477

(+) = Expected Retention Time

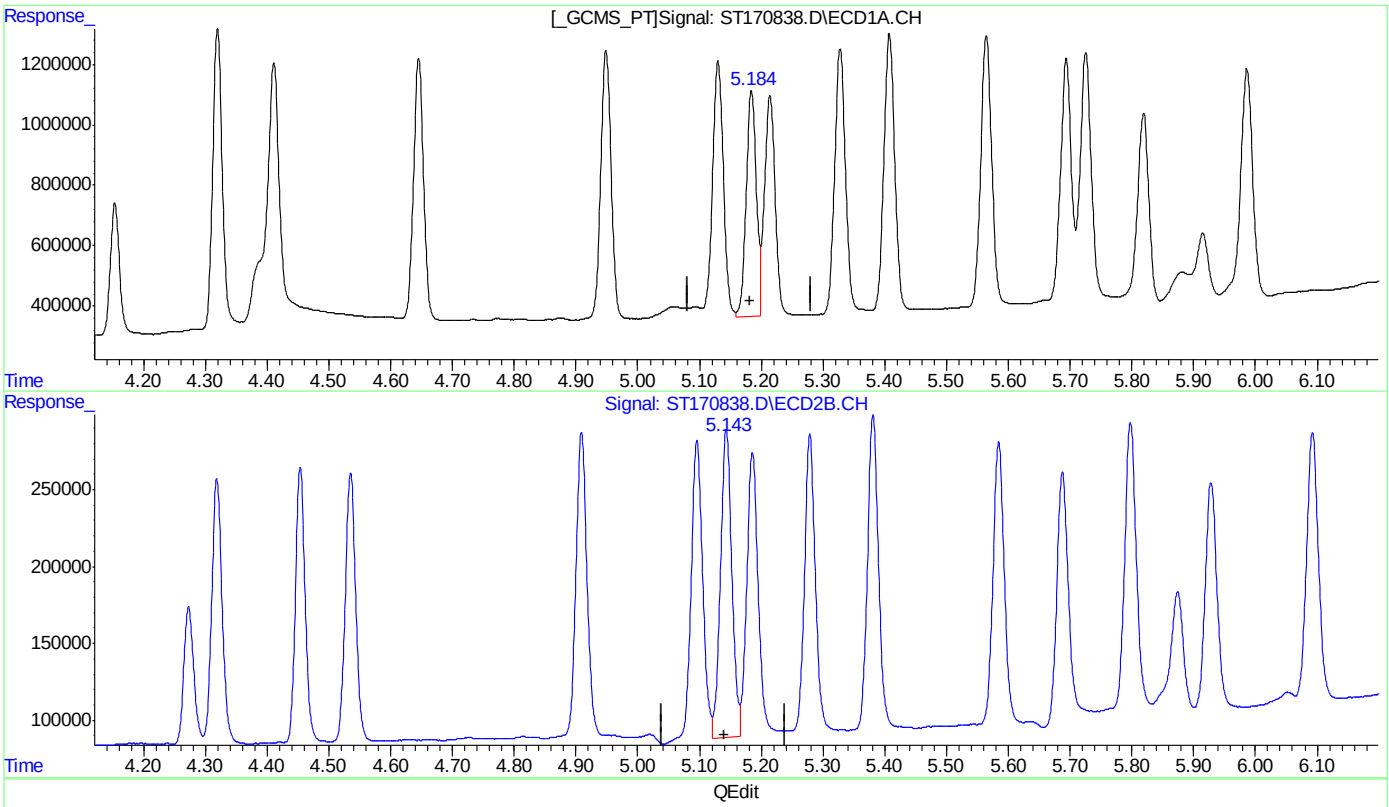
12.5.47.15

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(10) alpha-Chlordane
5.184min 4.555 PPB
response 744521

(10) alpha-Chlordane #2
5.143min 6.634 PPB
response 200173

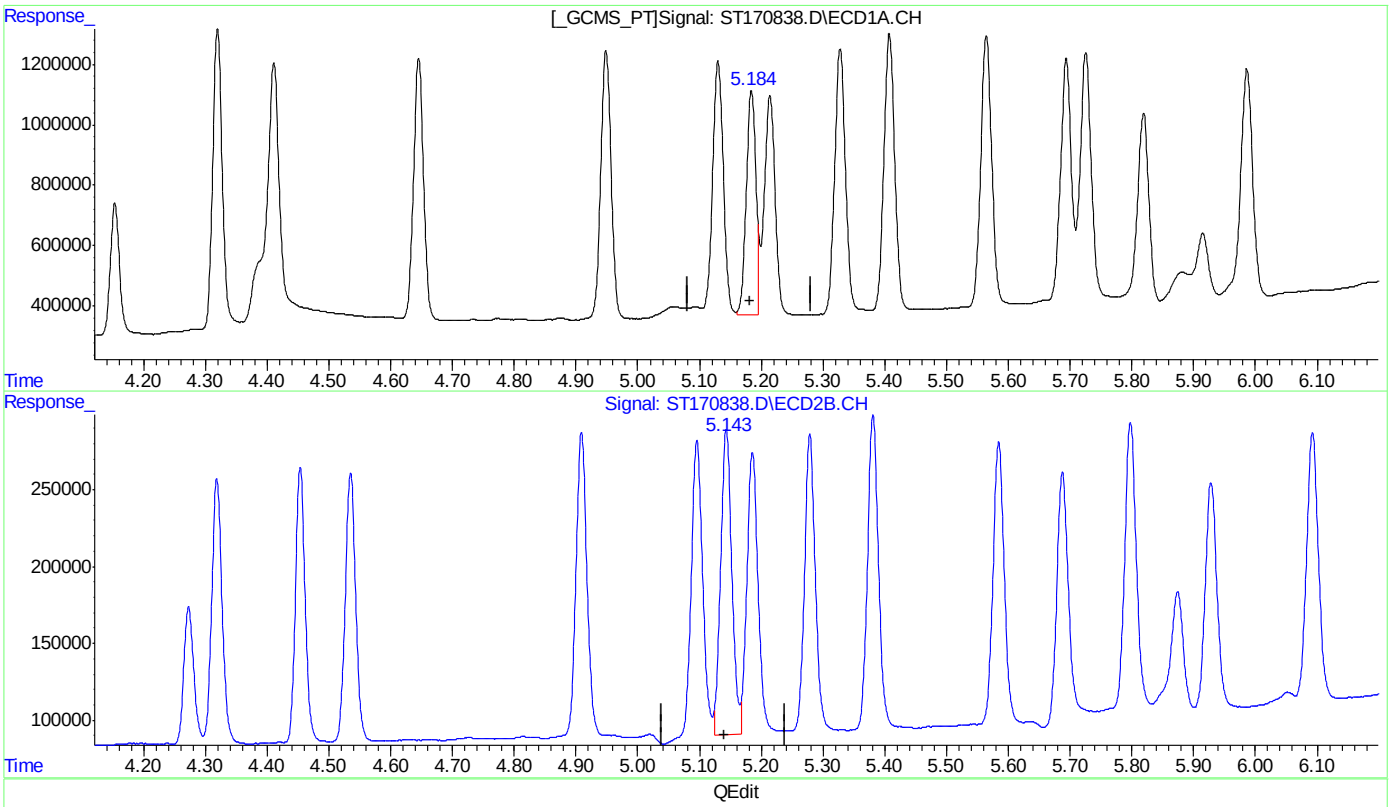
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(10) alpha-Chlordane
5.184min 4.553 PPB m
response 744063

(10) alpha-Chlordane #2
5.143min 6.591 PPB m
response 198876

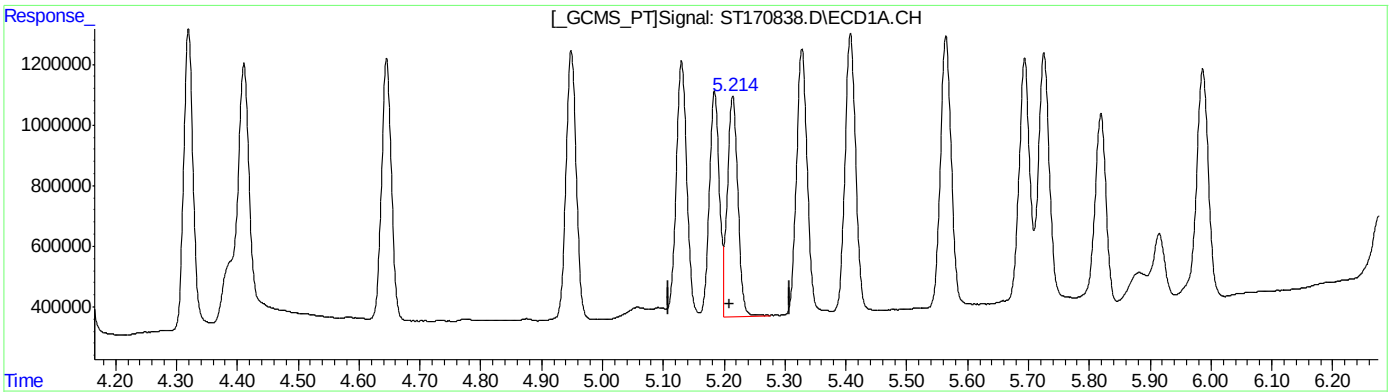
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.214min 4.927 PPB
response 727627

(12) Endosulfan I #2 ( )
5.186min 6.519 PPB
response 183647

(+) = Expected Retention Time

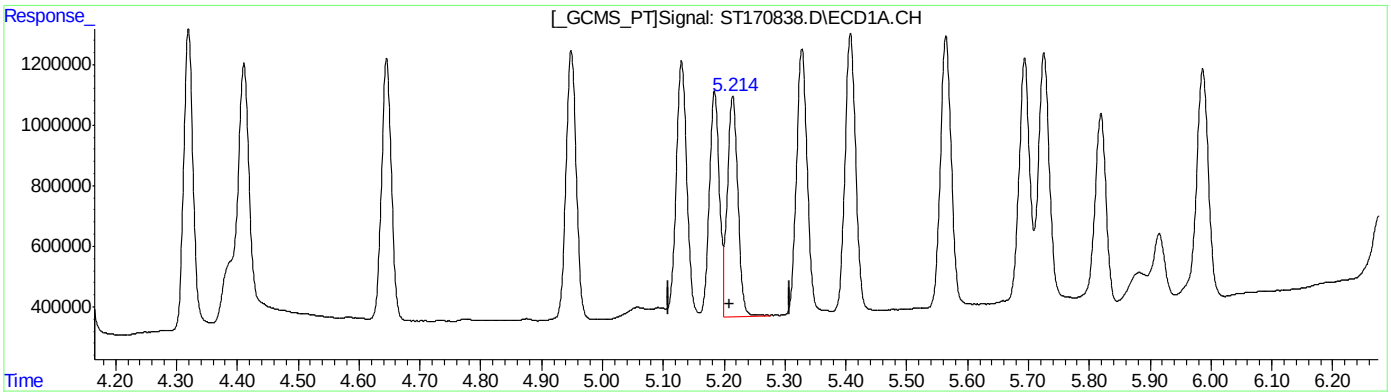
12.5.47.18

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.214min 4.927 PPB
response 727627

(12) Endosulfan I #2 ( )
5.185min 6.469 PPB m
response 182243

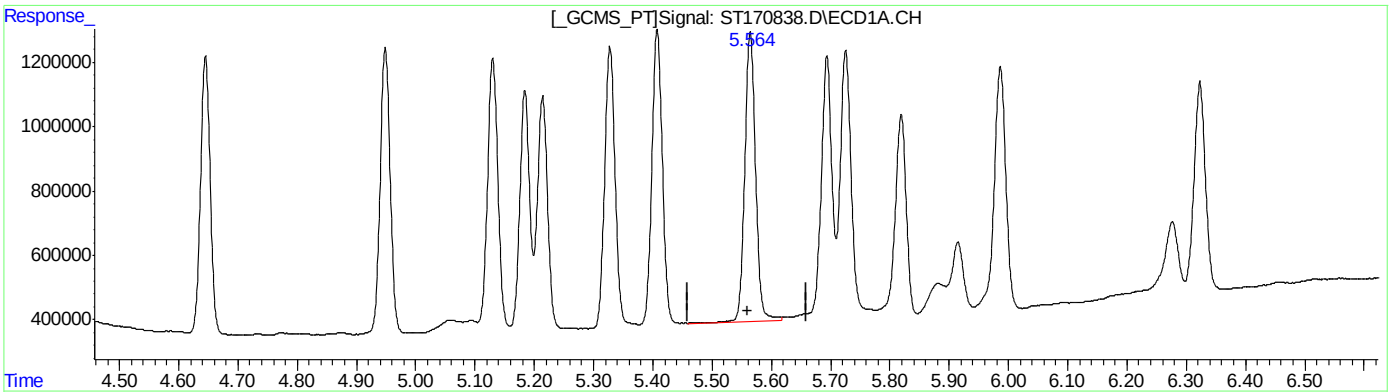
(+) = Expected Retention Time

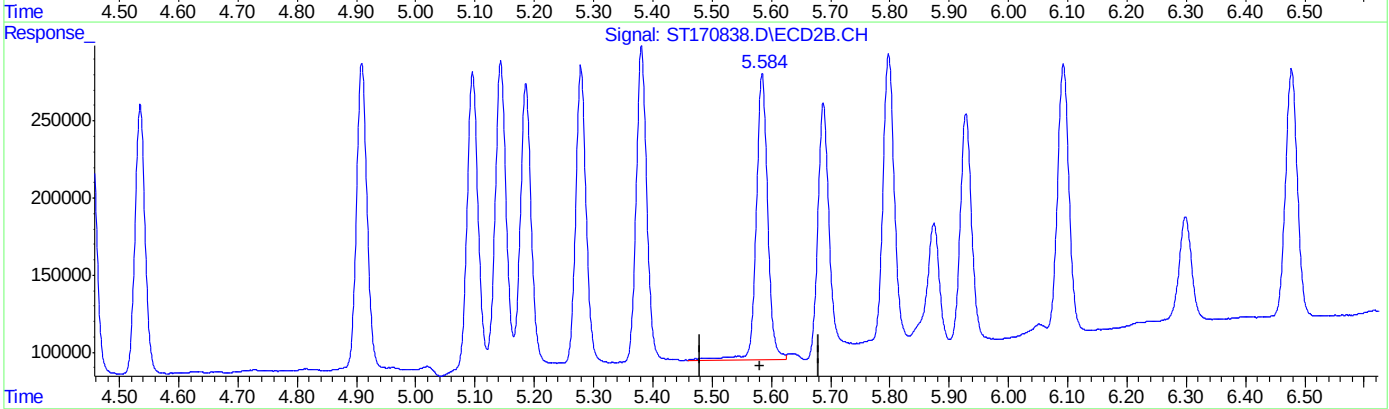
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )
5.564min 5.445 PPB
response 898903

(14) Endrin #2 ( )
5.585min 6.384 PPB
response 185702

(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 11:03:15 2023 Page: 1

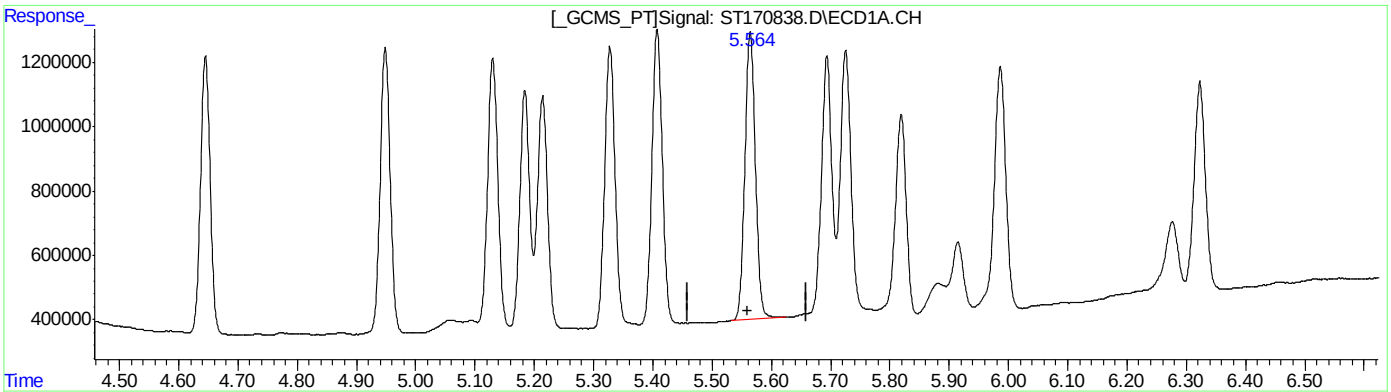
12.5.47.20
12

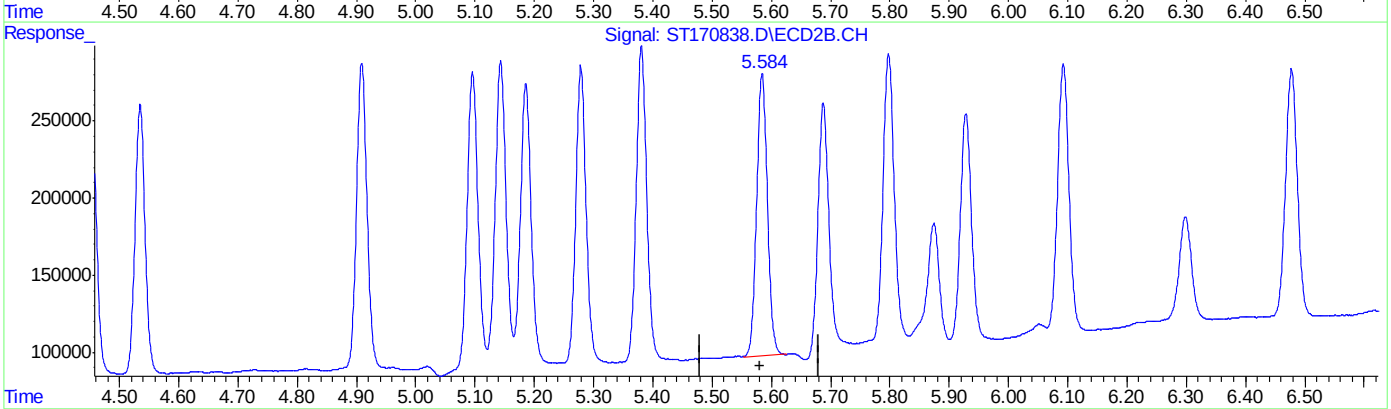
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(14) Endrin ( )
5.564min 5.424 PPB m
response 895452

(14) Endrin #2 ( )
5.584min 6.299 PPB m
response 183215

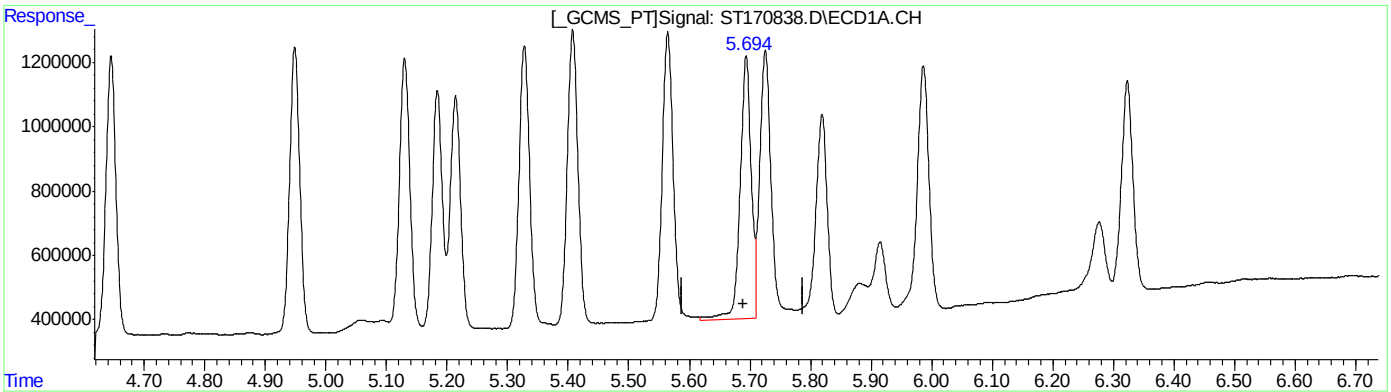
(+) = Expected Retention Time

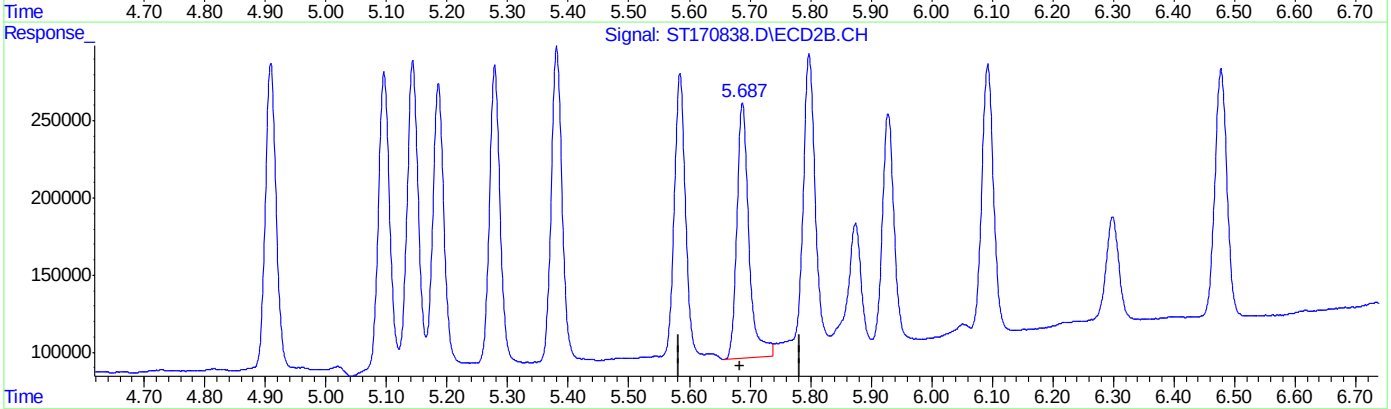
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )

5.694min 5.588 PPB

response 813169

(15) 4,4'-DDD #2 ( )

5.688min 6.493 PPB

response 165374

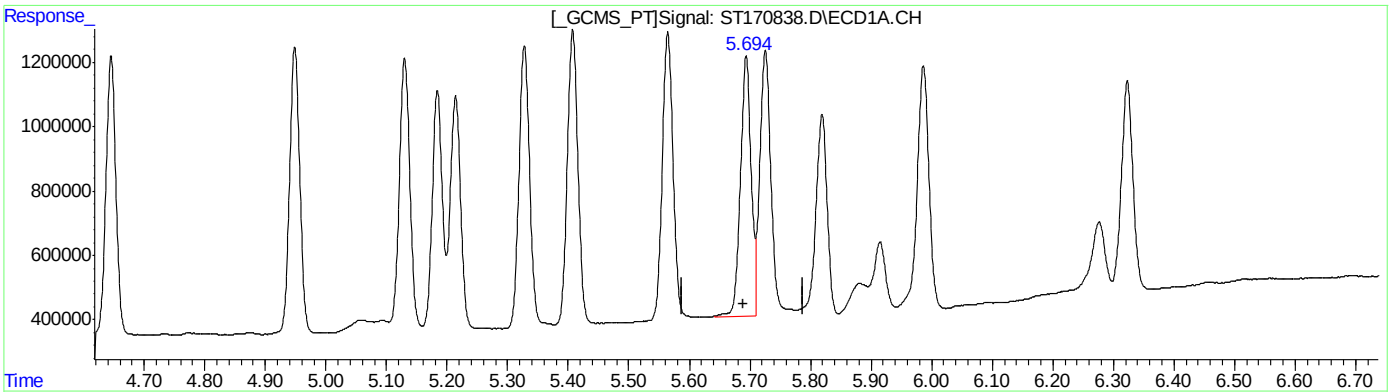
(+) = Expected Retention Time

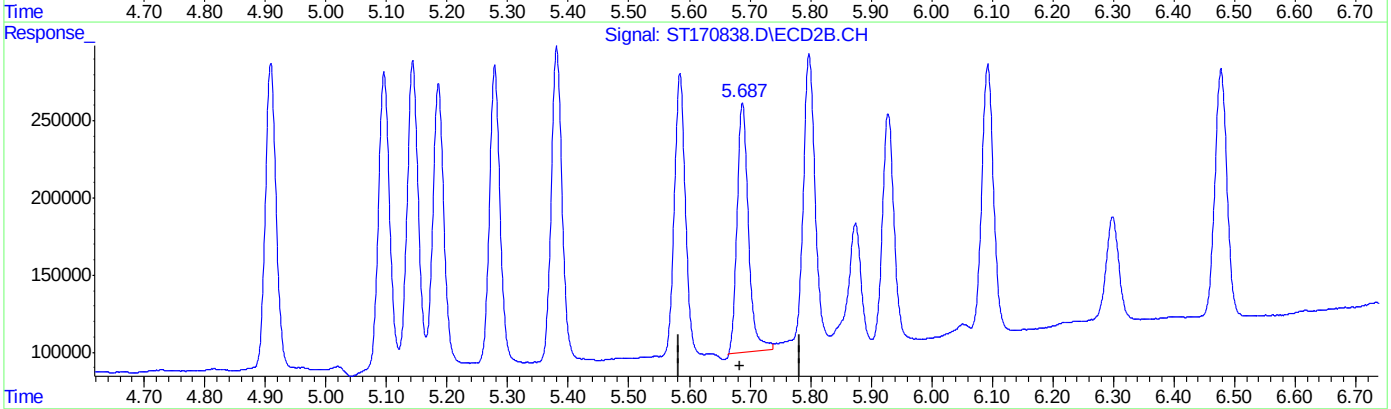
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )

5.694min 5.572 PPB m

response 810849

(15) 4,4'-DDD #2 ( )

5.687min 6.353 PPB m

response 161811

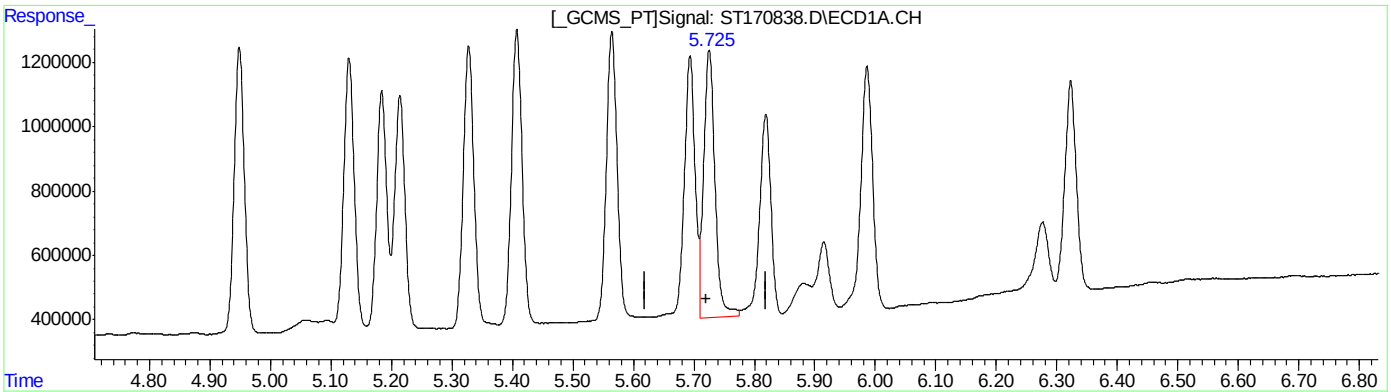
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )

5.726min 5.444 PPB

response 830010

(16) Endosulfan II #2 ( )

5.798min 6.643 PPB

response 193904

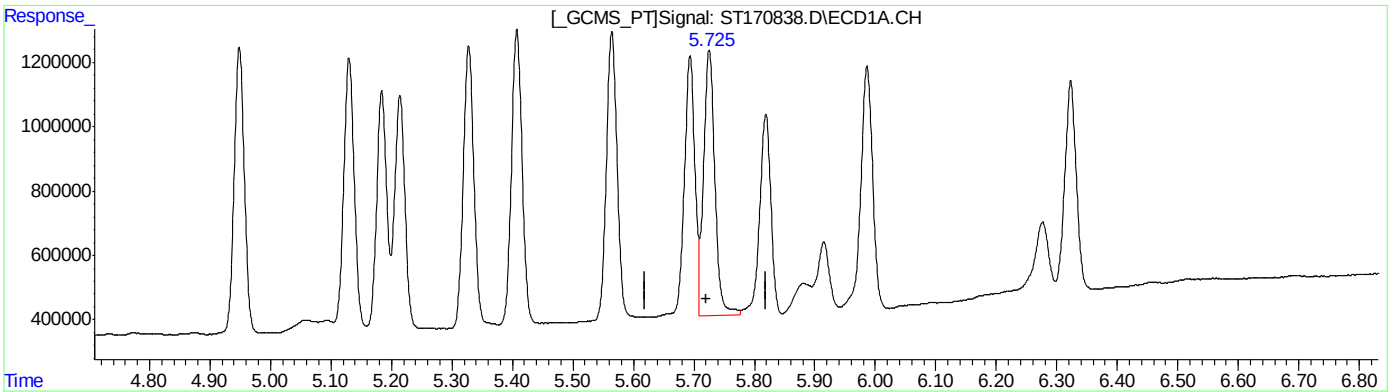
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )

5.725min 5.410 PPB m

response 824849

(16) Endosulfan II #2 ( )

5.797min 6.532 PPB m

response 190662

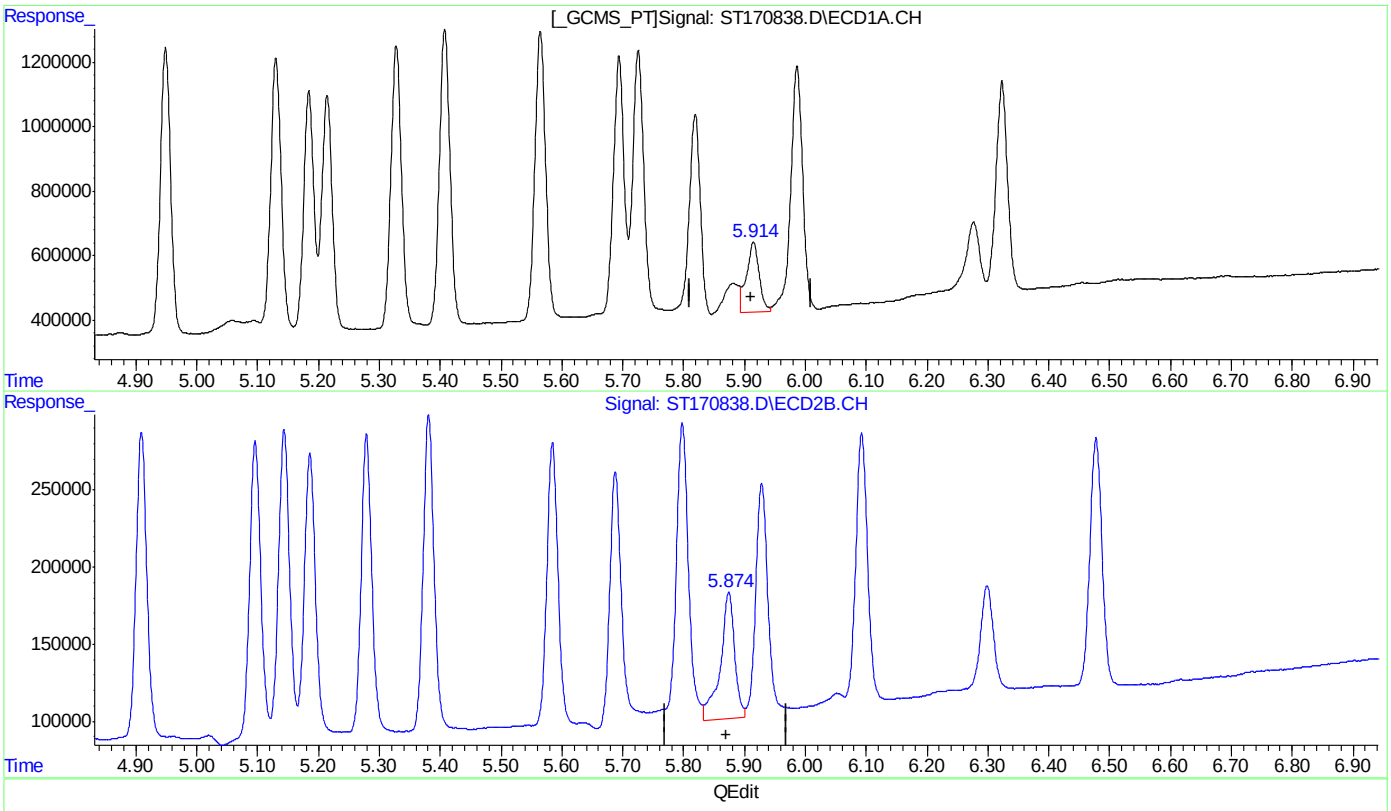
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 2.012 ppb
response 217809

(17) 4,4'-DDT #2
5.874min 3.258 ppb
response 81696

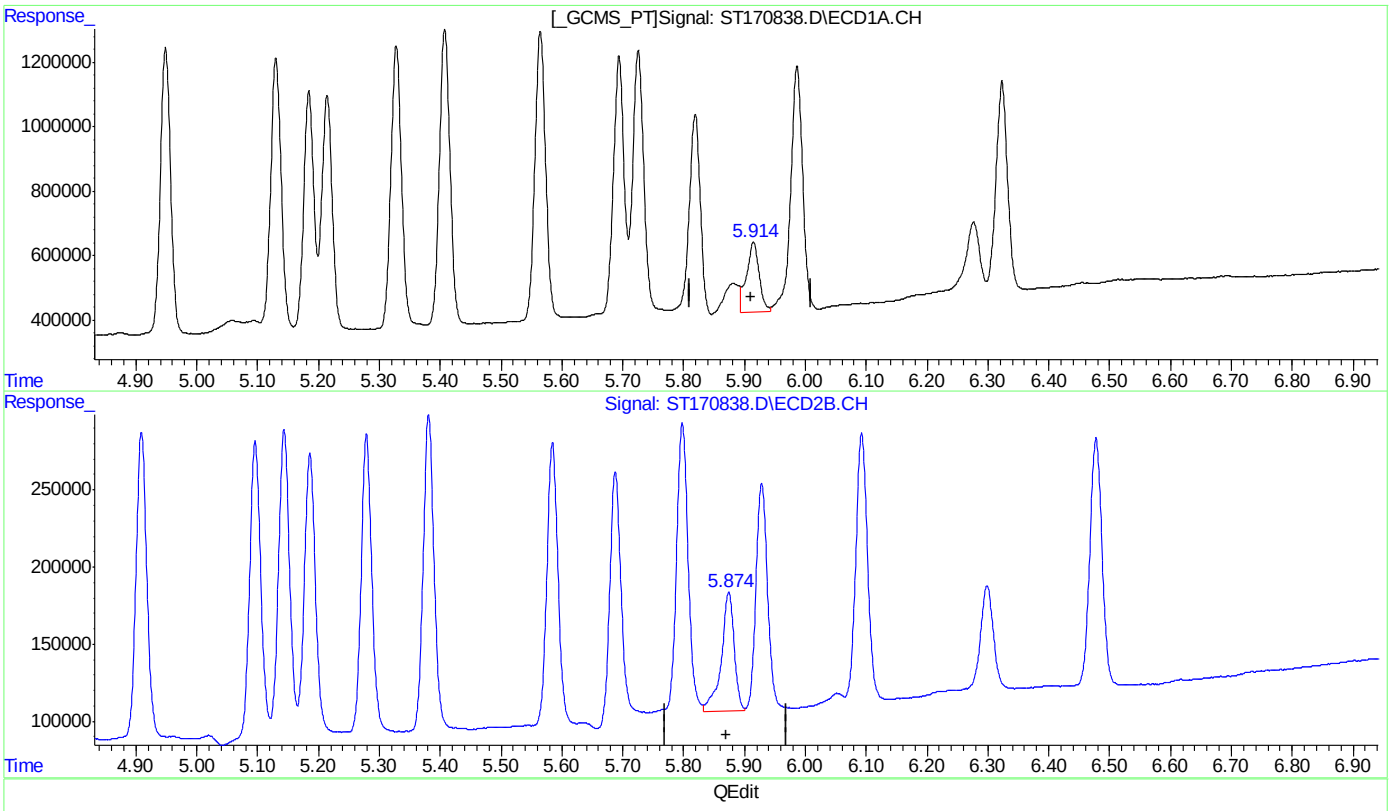
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 2.012 ppb
response 217809

(17) 4,4'-DDT #2
5.874min 3.066 ppb m
response 76886

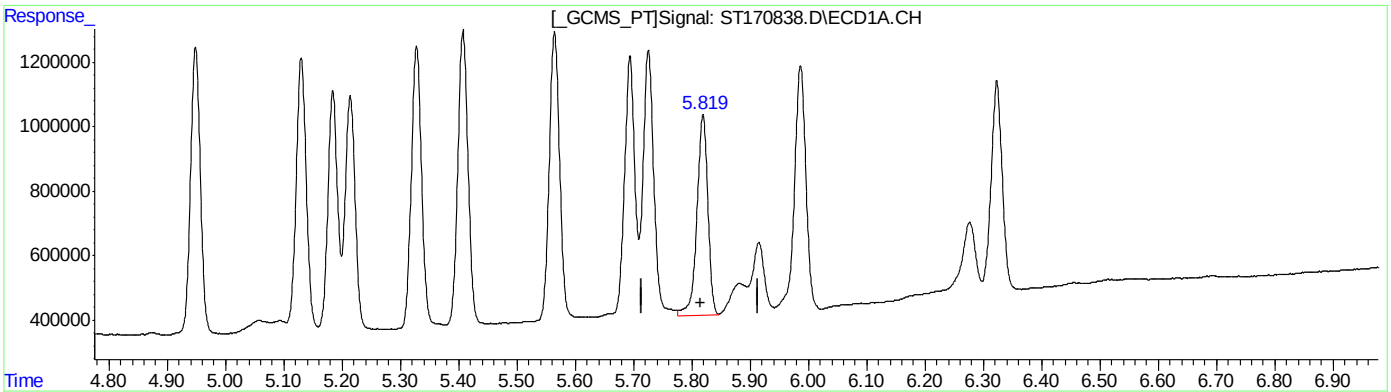
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 11:04:10 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.819min 5.504 PPB
response 621422

(18) Endrin Aldehyde #2 ( )
5.928min 6.488 PPB
response 150791

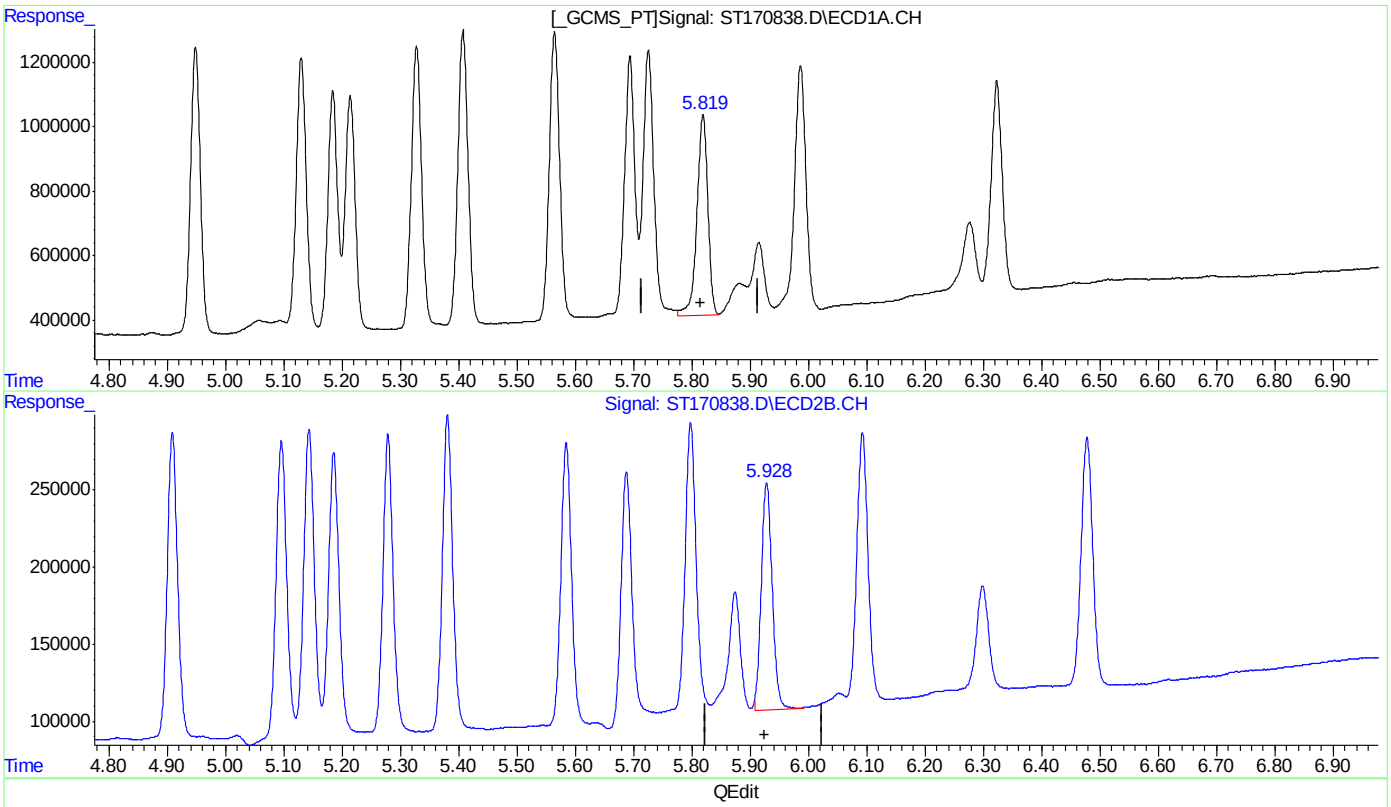
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(18) Endrin Aldehyde ( )
5.819min 5.504 PPB
response 621422

(18) Endrin Aldehyde #2 ( )
5.928min 6.327 PPB m
response 147038

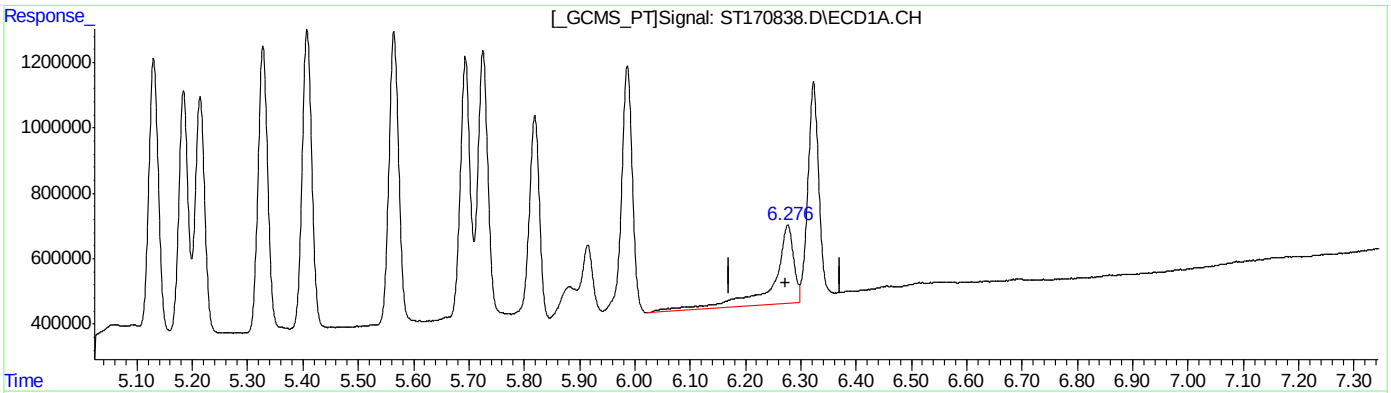
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 11:04:20 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(19) Methoxychlor
6.277min 3.707 ppb
response 241122

(19) Methoxychlor #2
6.299min 5.474 ppb
response 72593

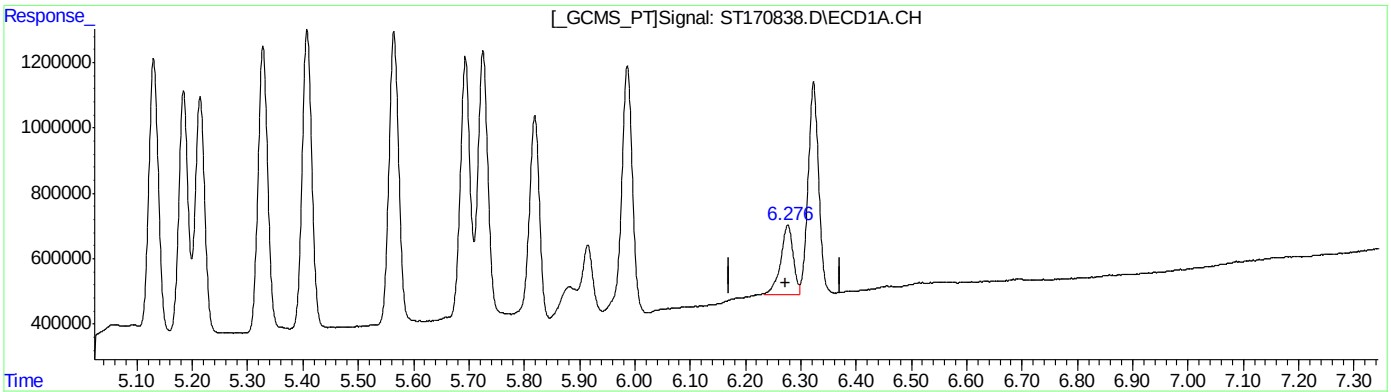
(+) = Expected Retention Time

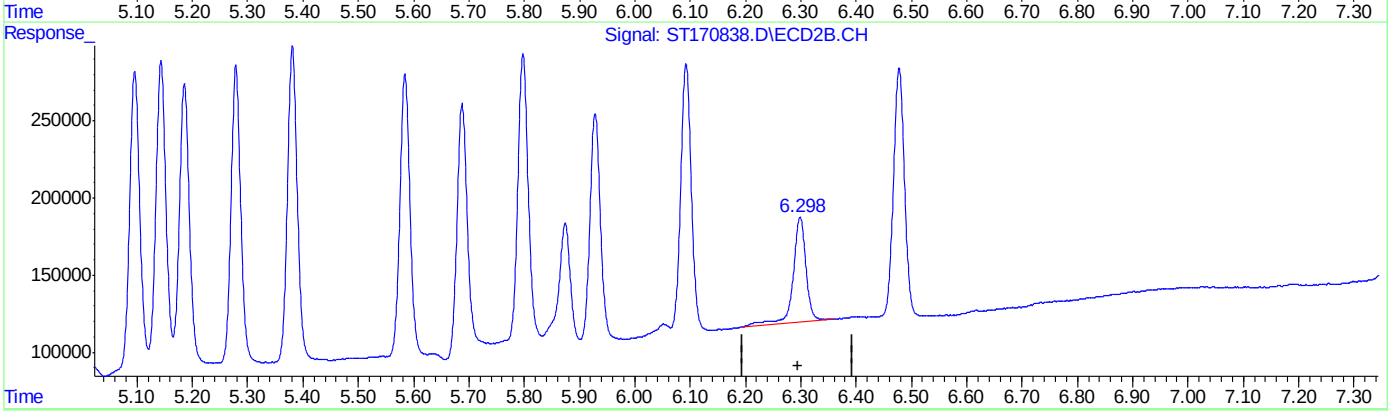
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(19) Methoxychlor
6.276min 3.281 ppb m
response 213382

(19) Methoxychlor #2
6.298min 5.158 ppb m
response 68413

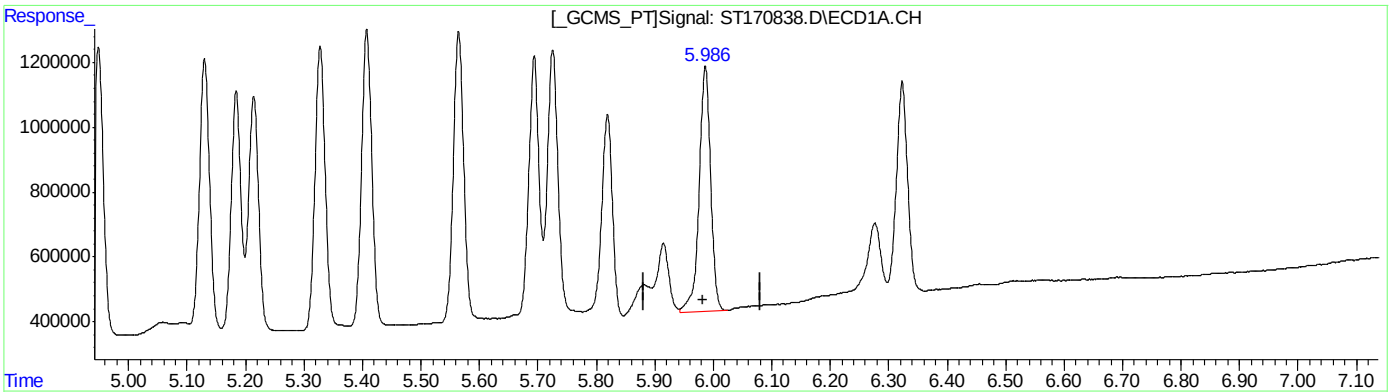
(+) = Expected Retention Time

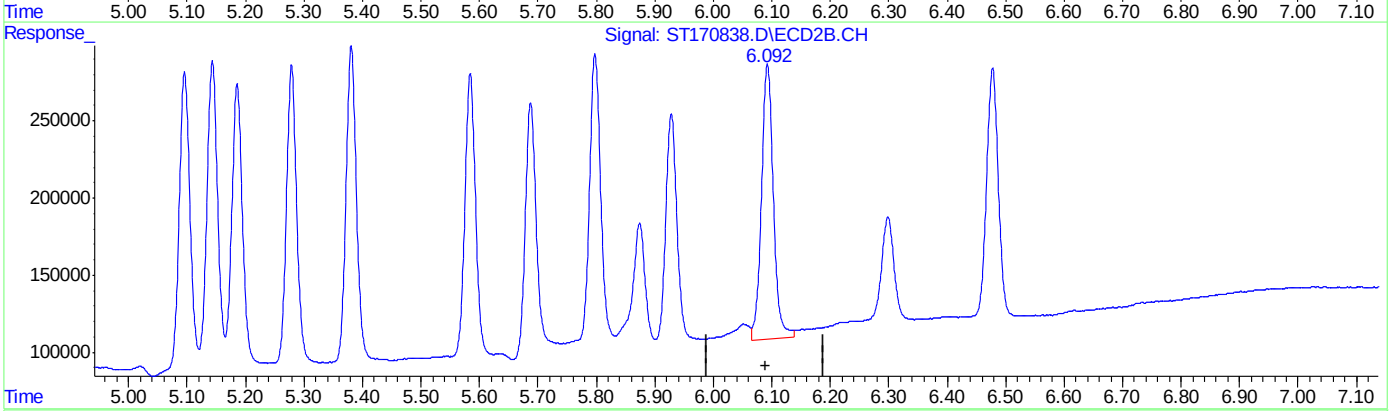
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 5.179 PPB

response 756008

(20) Endosulfan Sulfate #2 ( )

6.093min 6.457 PPB

response 178180

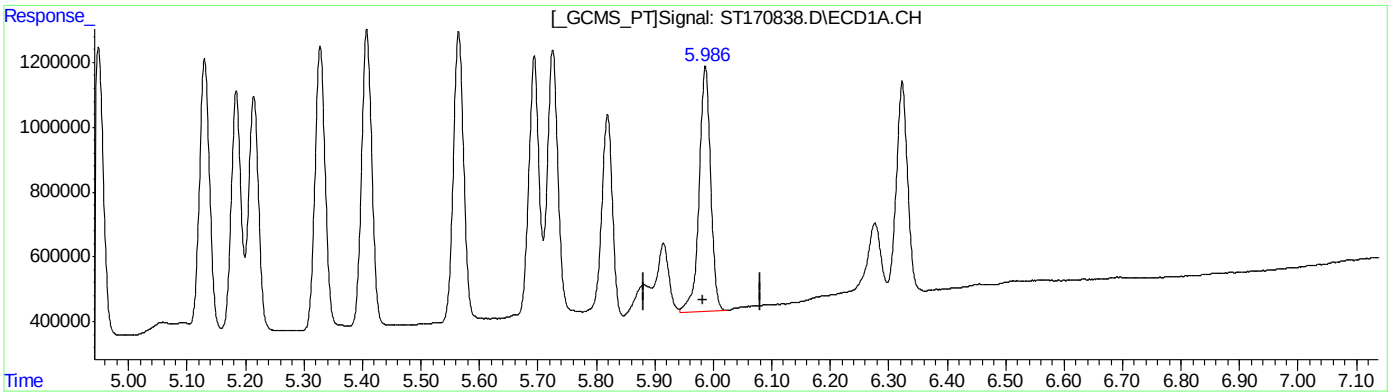
(+) = Expected Retention Time

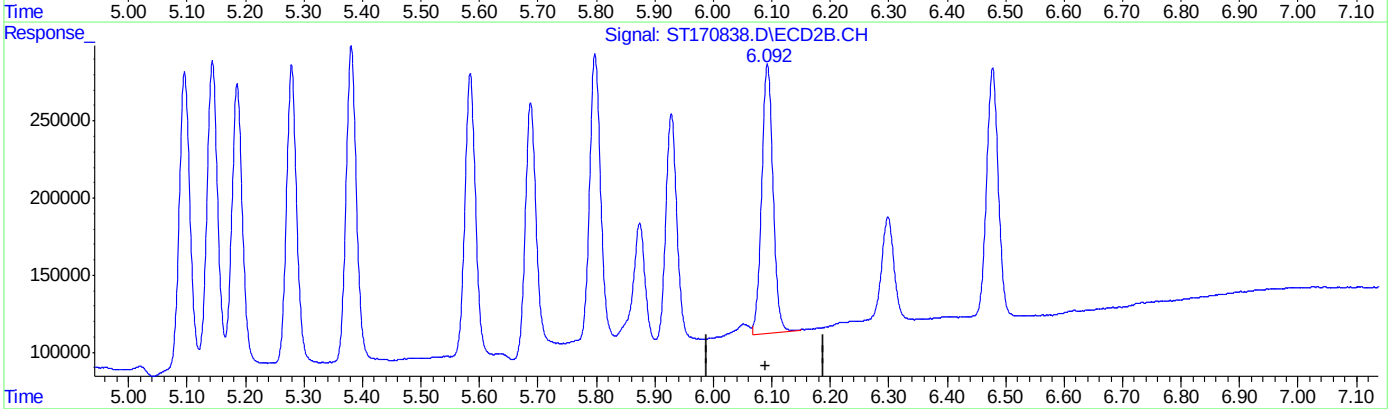
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 5.179 PPB

response 756008

(20) Endosulfan Sulfate #2 ( )

6.092min 6.346 PPB m

response 175122

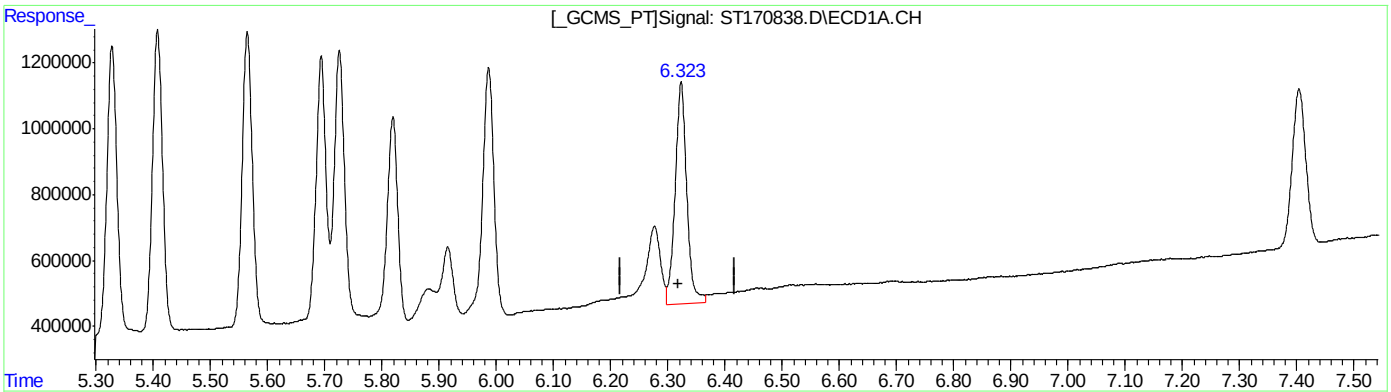
(+) = Expected Retention Time

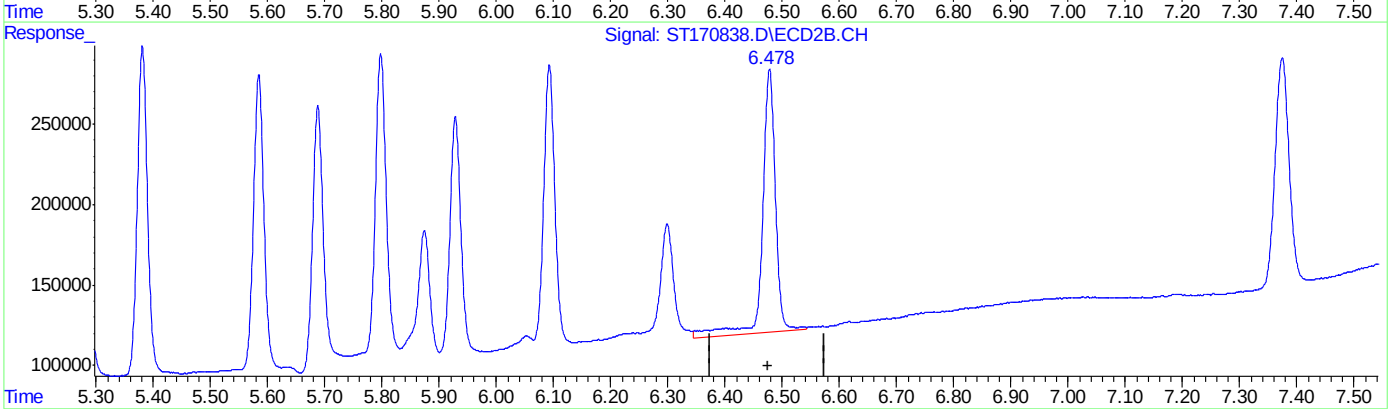
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.323min 4.462 PPB
response 669021

(21) Endrin Ketone #2 ( )
6.478min 5.556 PPB
response 163396

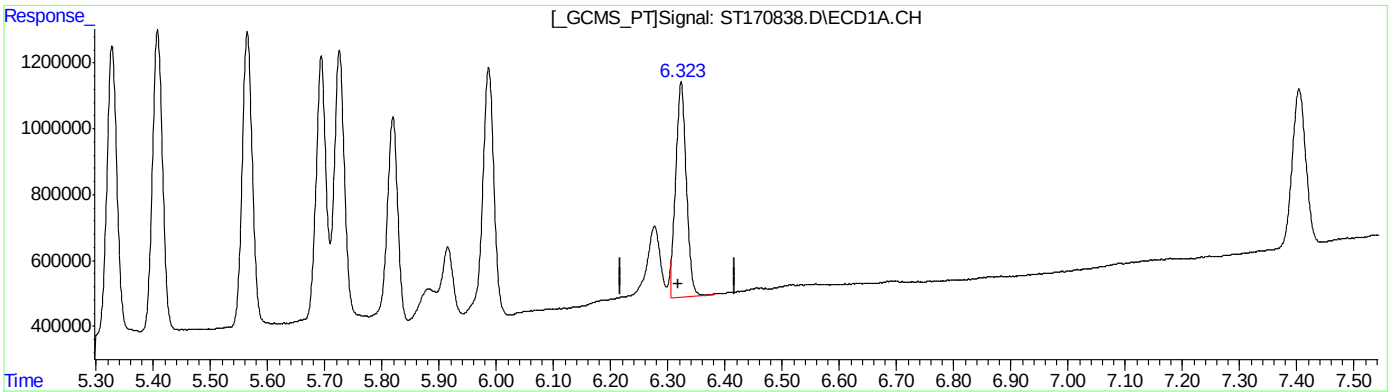
(+) = Expected Retention Time
GST4134_082123DOD.M Tue Oct 31 11:04:45 2023 Page: 1

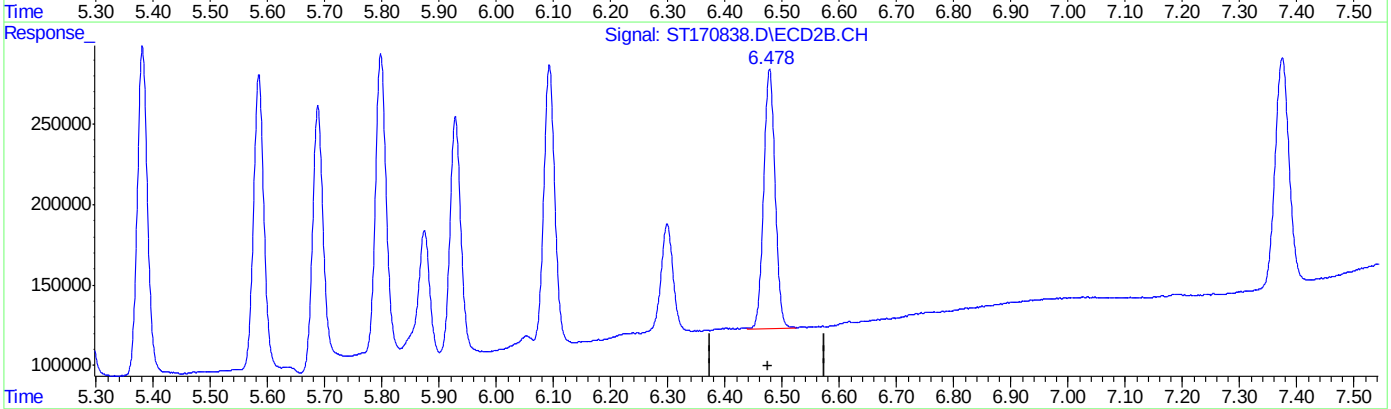
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:01:02 2023
Quant Method : C:\msdchem\1\METHODS\GST4134_082123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.323min 4.376 PPB m
response 656196

(21) Endrin Ketone #2 ( )
6.478min 5.487 PPB m
response 161366

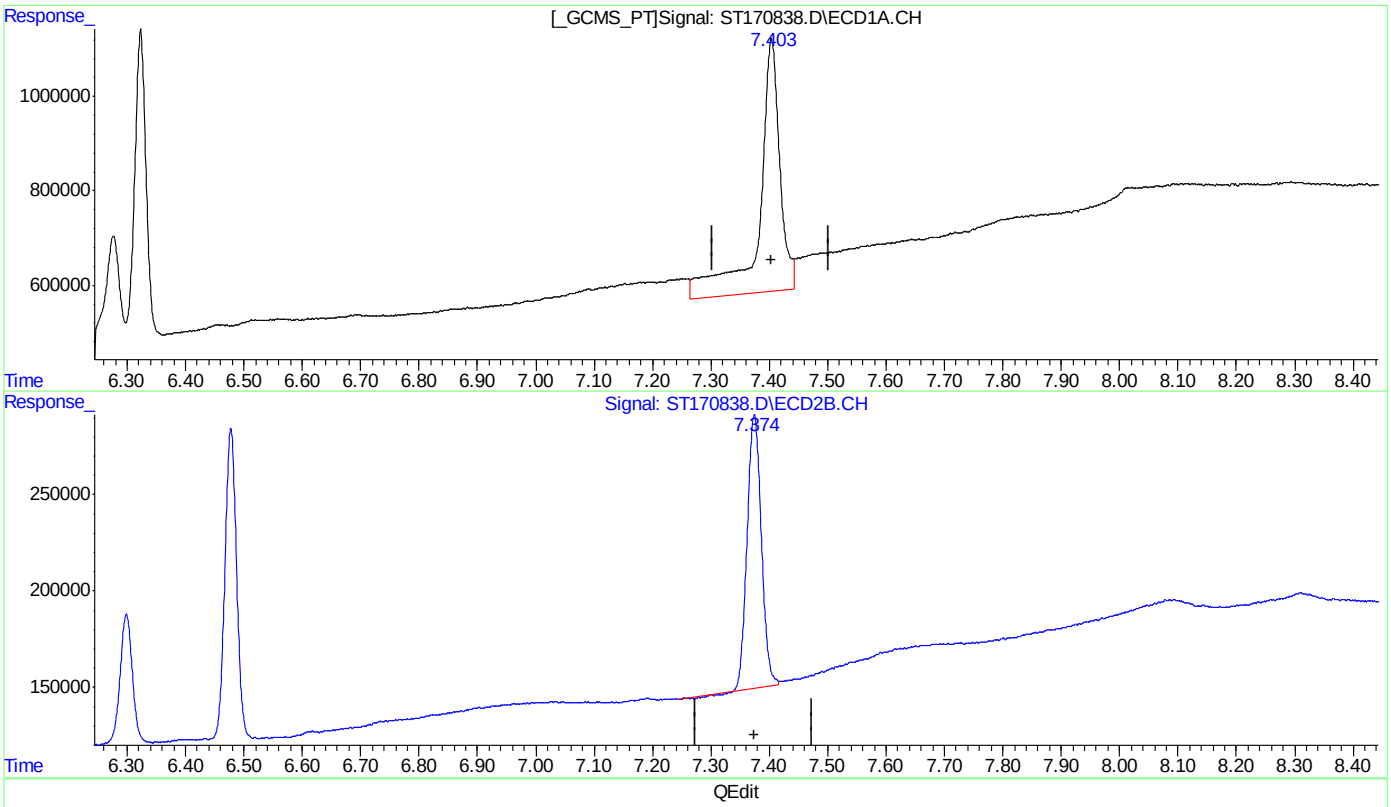
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.404min 5.200 ppb
response 534006

(33) Decachlorobiphenyl #2 (S)
7.374min 5.280 ppb
response 141883

(+) = Expected Retention Time

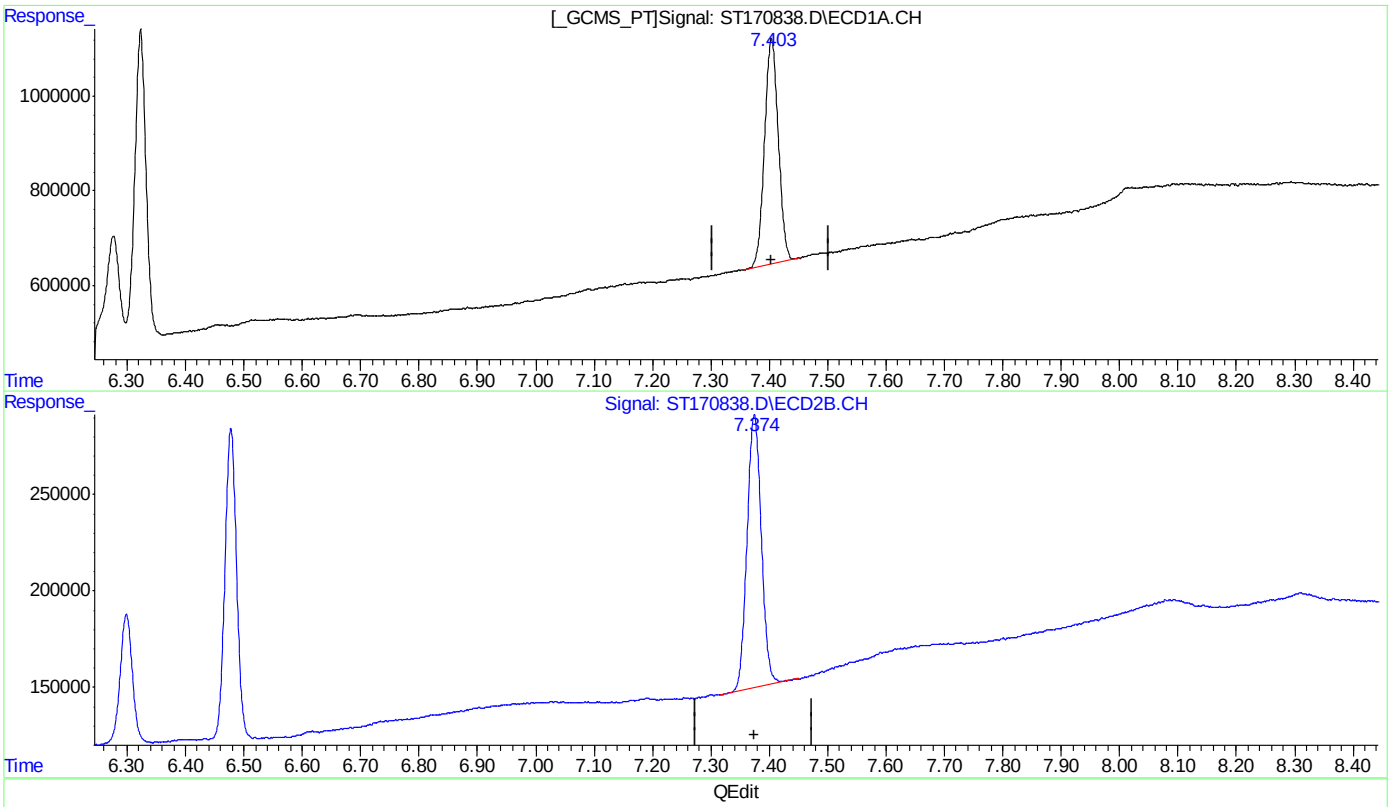
12.5.47.36 12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)

7.403min 4.674 ppb m

response 479989

(33) Decachlorobiphenyl #2 (S)

7.374min 5.275 ppb m

response 141755

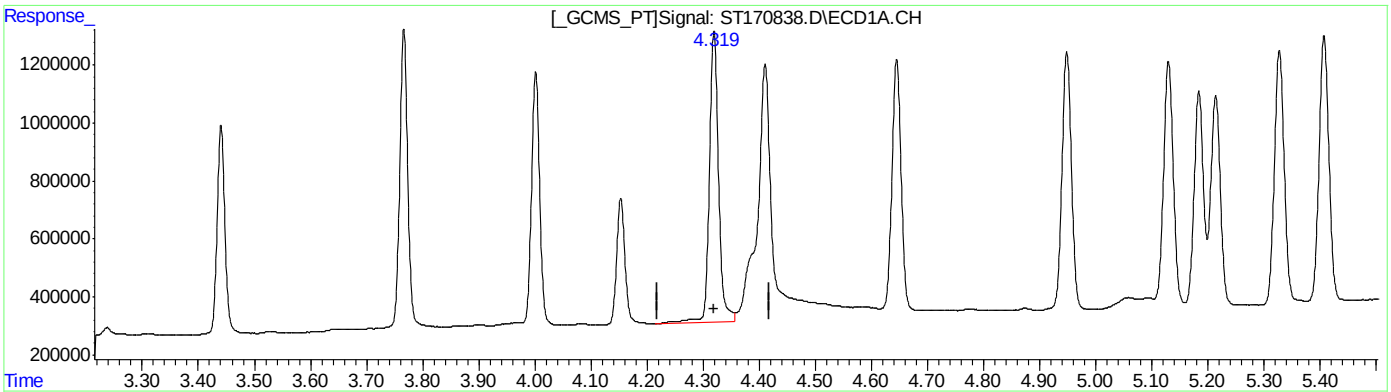
(+) = Expected Retention Time

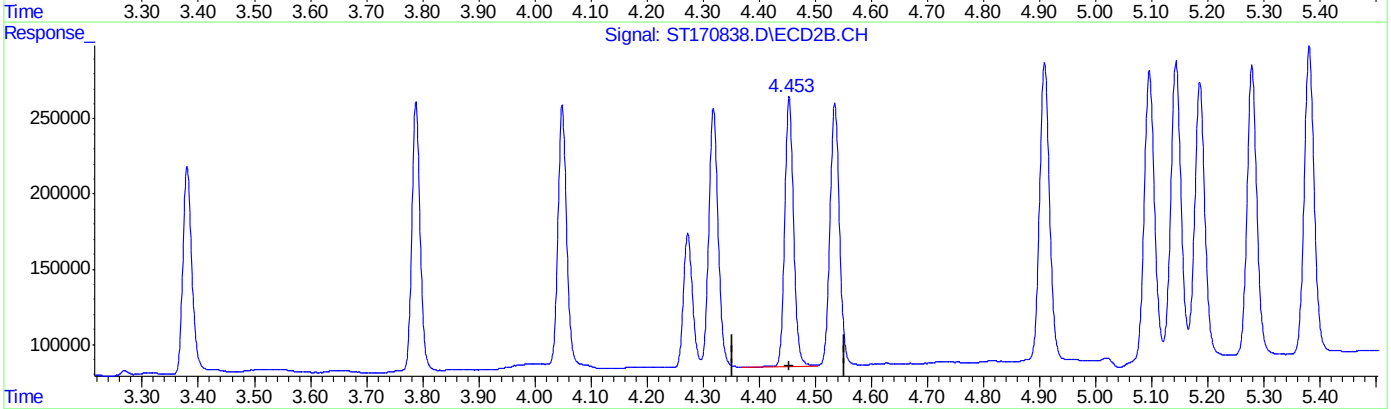
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(5) delta-BHC ( )
4.320min 4.838 PPB
response 999161

(5) delta-BHC #2 ( )
4.454min 4.375 PPB
response 179580

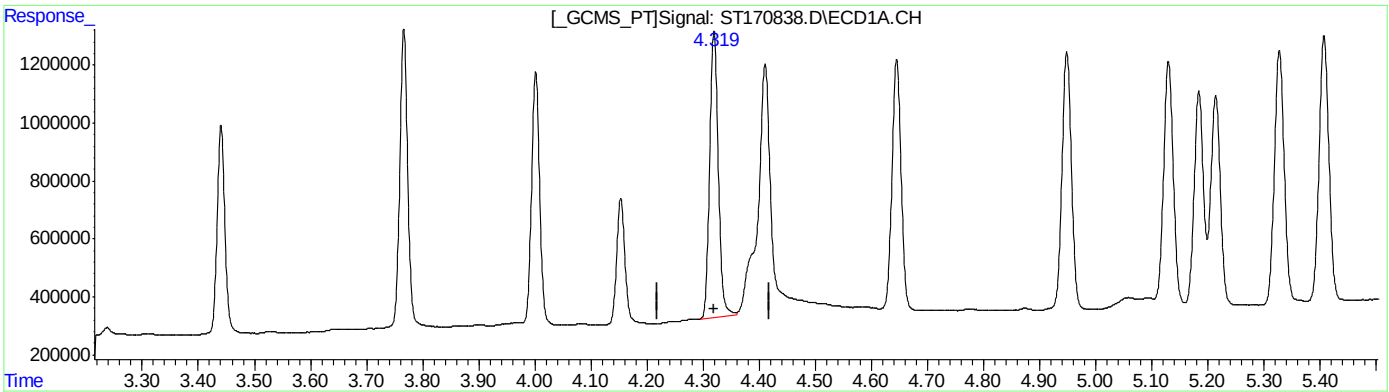
(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:59:03 2023 Page: 1

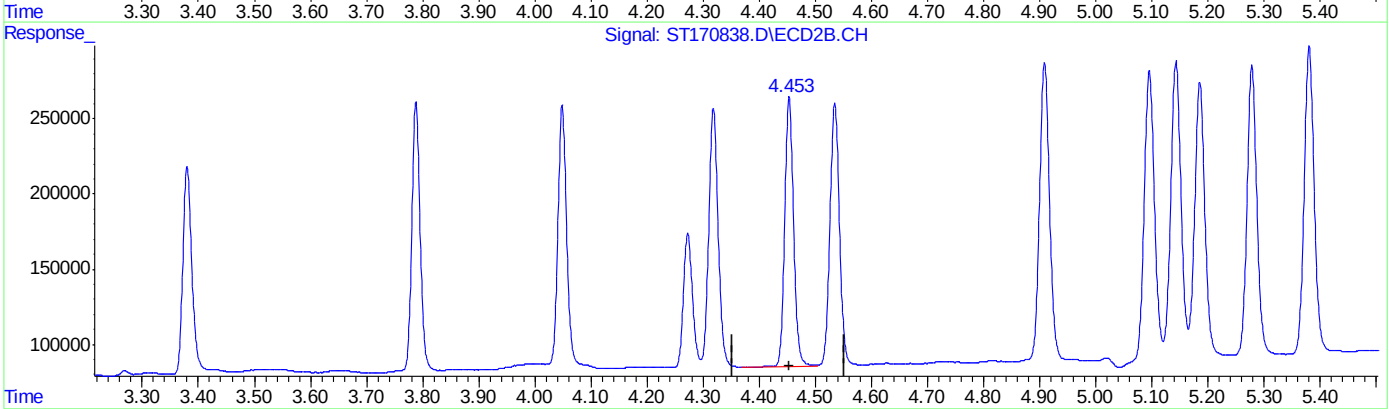
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(5) delta-BHC ( )
4.319min 4.797 PPB m
response 990548

(5) delta-BHC #2 ( )
4.454min 4.375 PPB
response 179580

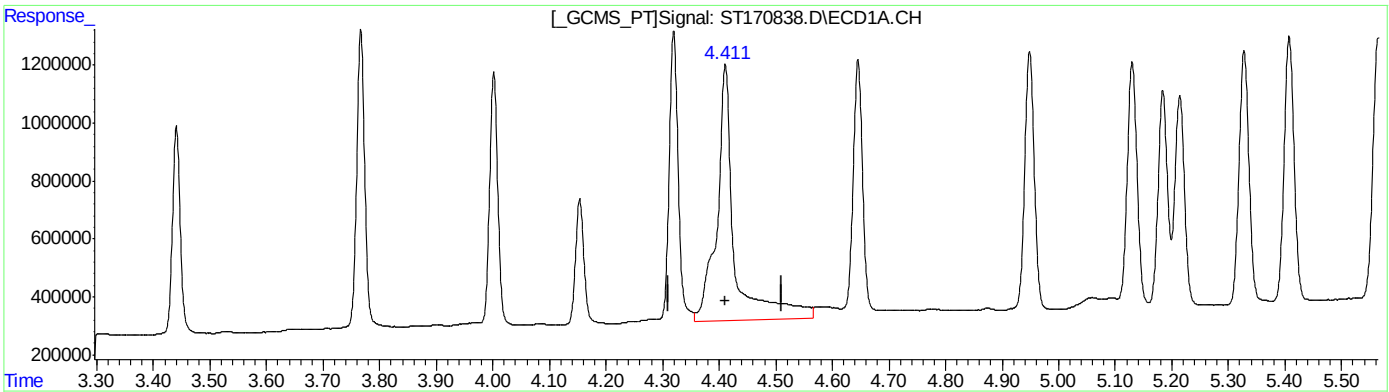
(+) = Expected Retention Time

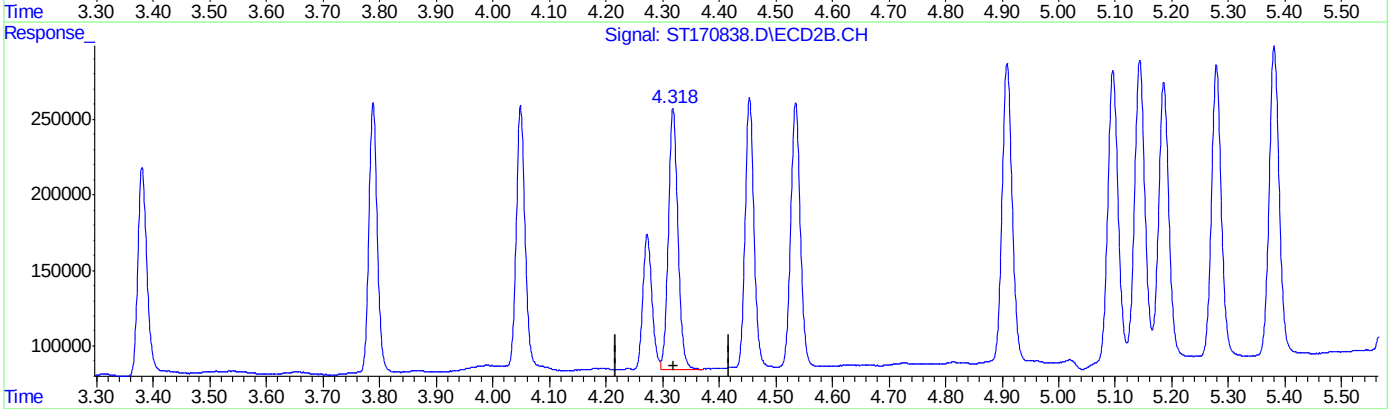
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )

4.411min 5.032 PPB

response 885563

(6) Heptachlor #2 ( )

4.319min 4.582 PPB

response 172282

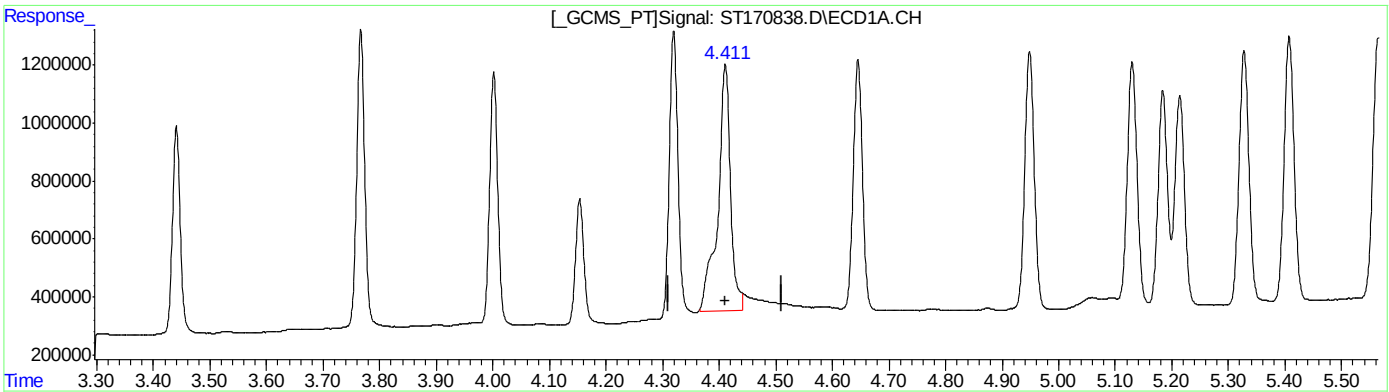
(+) = Expected Retention Time

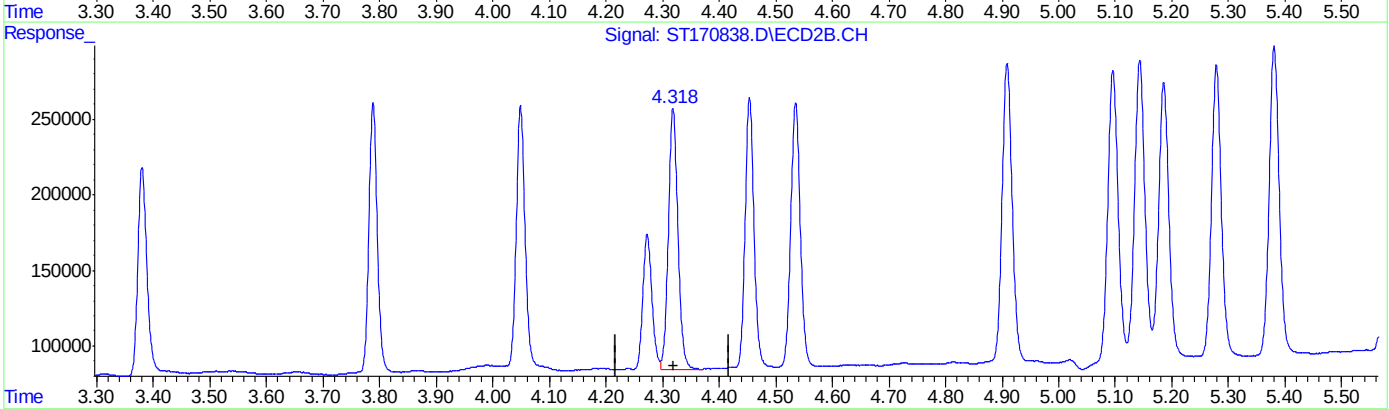
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(6) Heptachlor ( )

4.411min 4.849 PPB m

response 853265

(6) Heptachlor #2 ( )

4.319min 4.582 PPB

response 172282

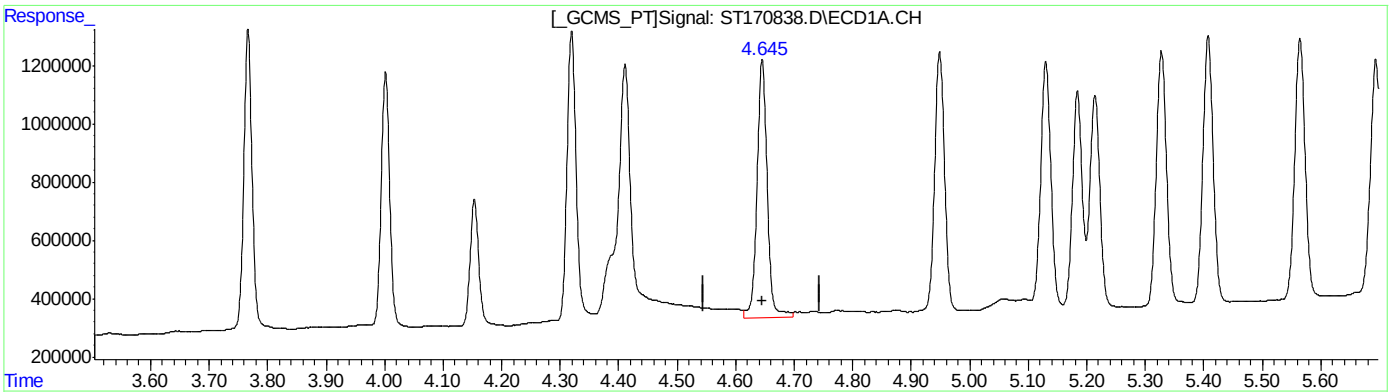
(+) = Expected Retention Time

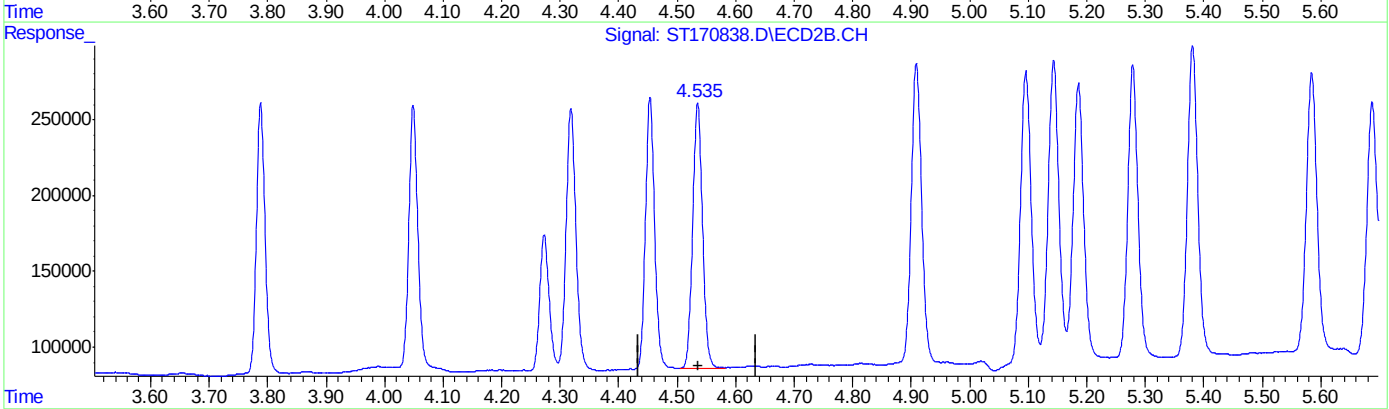
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(7) Aldrin ( )
4.645min 4.999 PPB
response 886250

(7) Aldrin #2 ( )
4.535min 4.406 PPB
response 174883

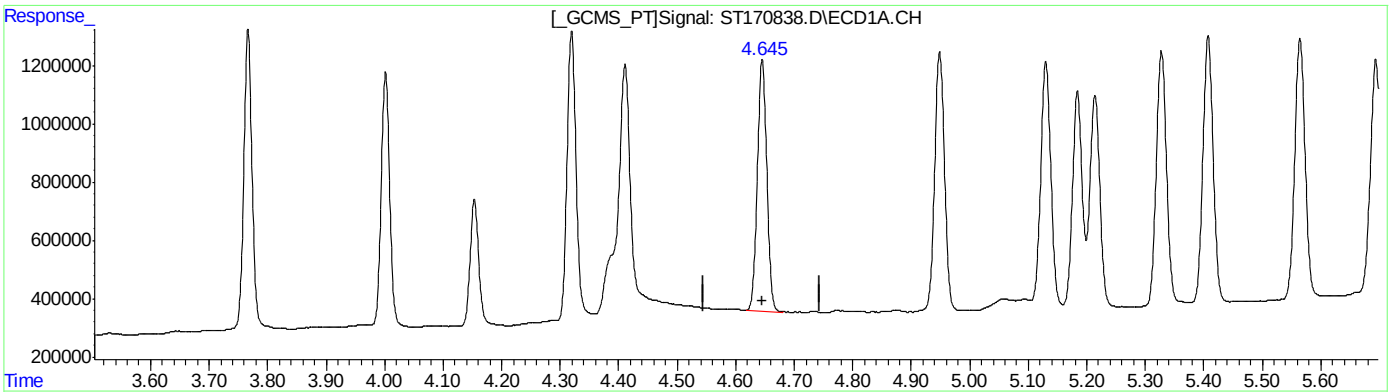
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(7) Aldrin ( )

4.645min 4.877 PPB m

response 864590

(7) Aldrin #2 ( )

4.535min 4.406 PPB

response 174883

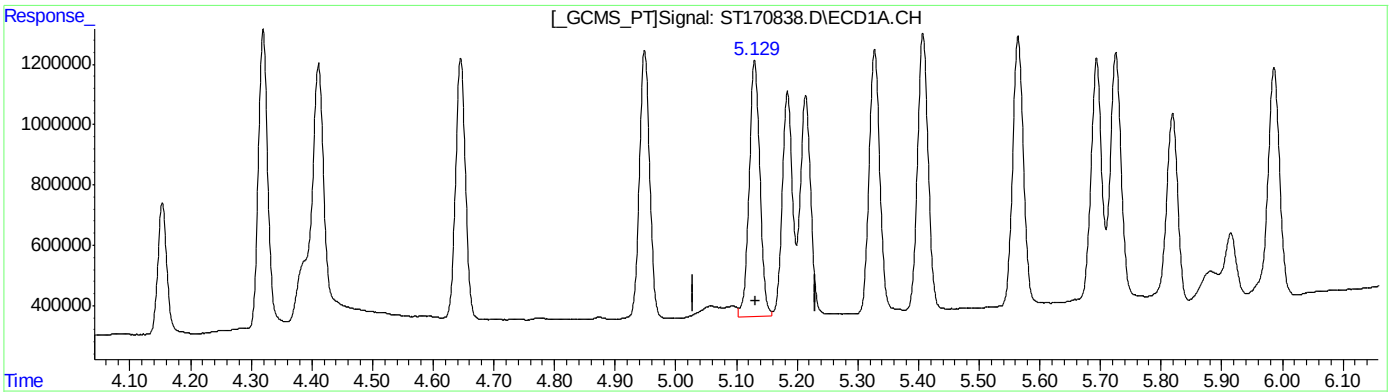
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(9) gamma-Chlordane

5.130min 4.953 PPB

response 851229

(9) gamma-Chlordane #2

5.096min 4.645 PPB

response 195175

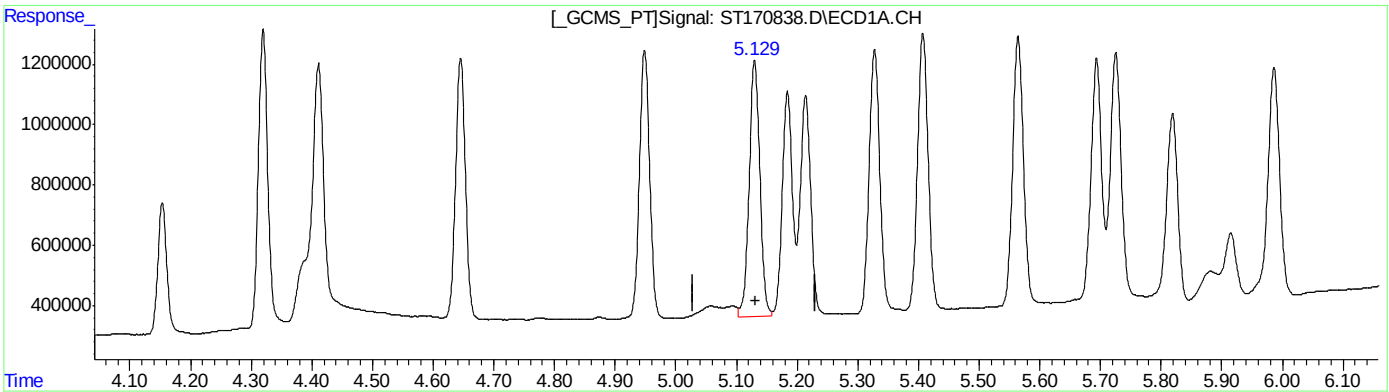
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(9) gamma-Chlordane

5.130min 4.953 PPB

response 851229

(9) gamma-Chlordane #2

5.095min 4.585 PPB m

response 192662

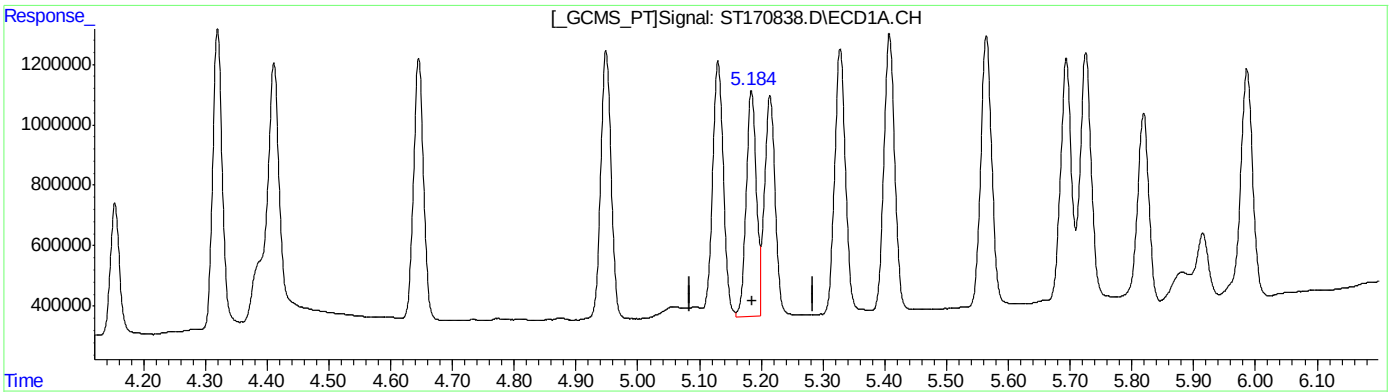
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(10) alpha-Chlordane
5.184min 4.725 PPB
response 744521

(10) alpha-Chlordane #2
5.143min 4.753 PPB
response 200173

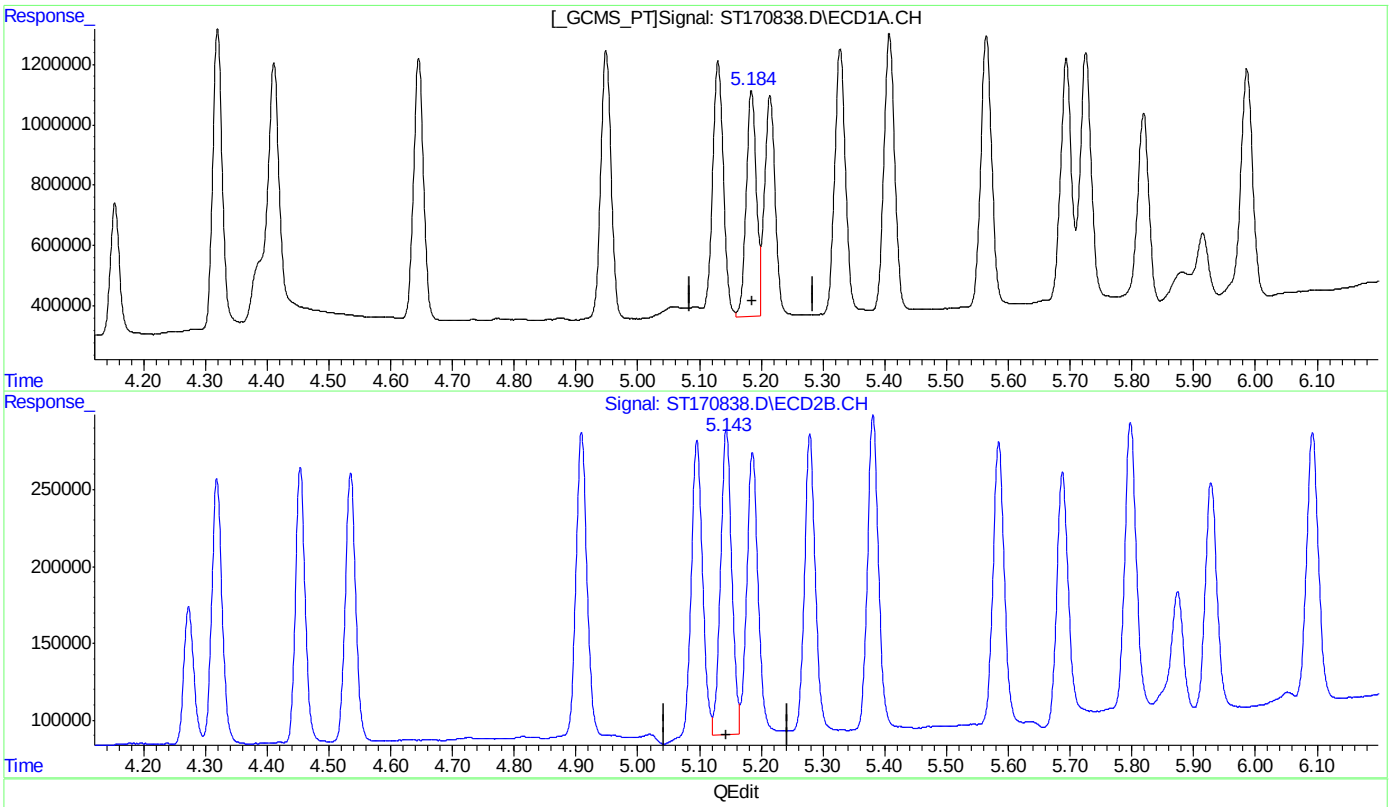
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(10) alpha-Chlordane
5.184min 4.725 PPB
response 744521

(10) alpha-Chlordane #2
5.143min 4.715 PPB m
response 198580

(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 12:00:15 2023 Page: 1

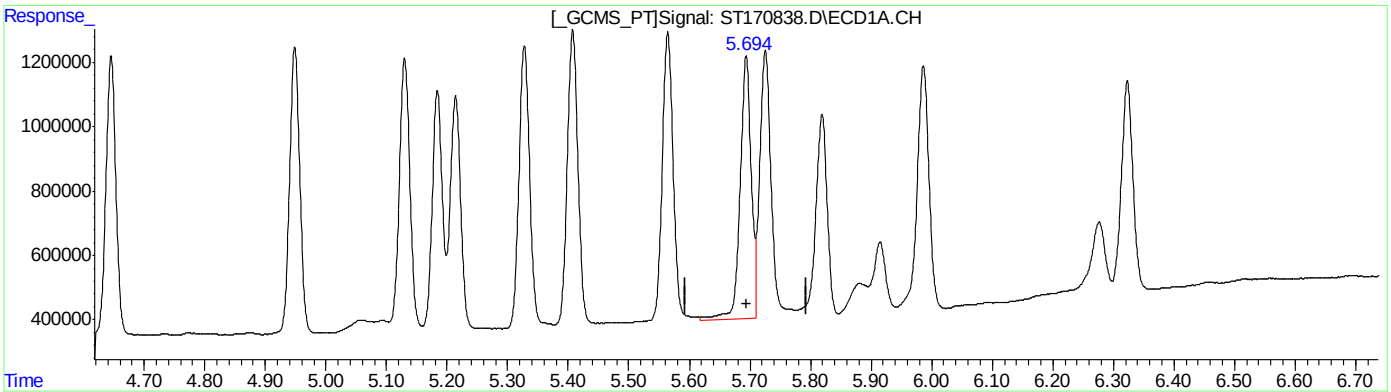
12.5.47.47
12

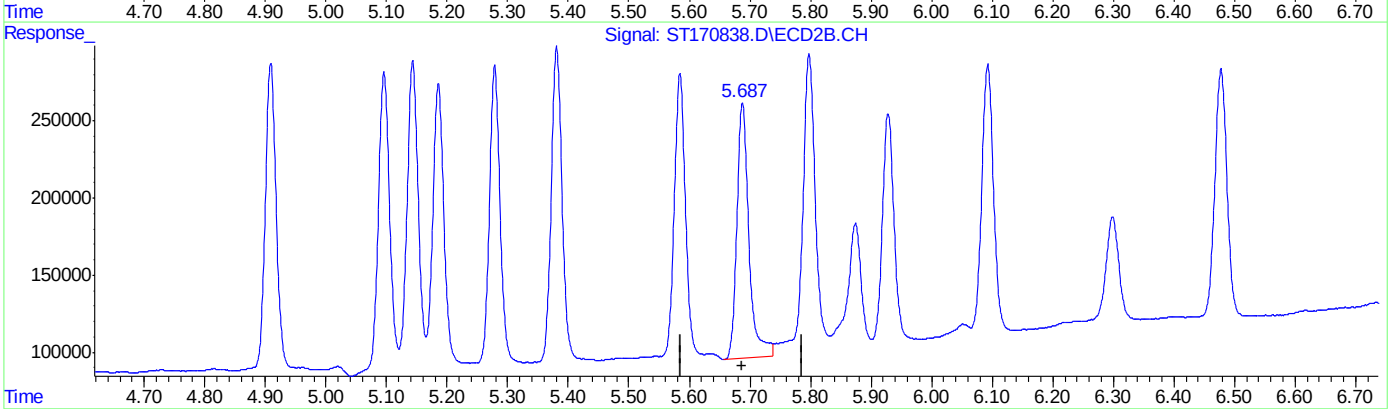
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )

5.694min 5.068 PPB

response 813169

(15) 4,4'-DDD #2 ( )

5.688min 4.560 PPB

response 165374

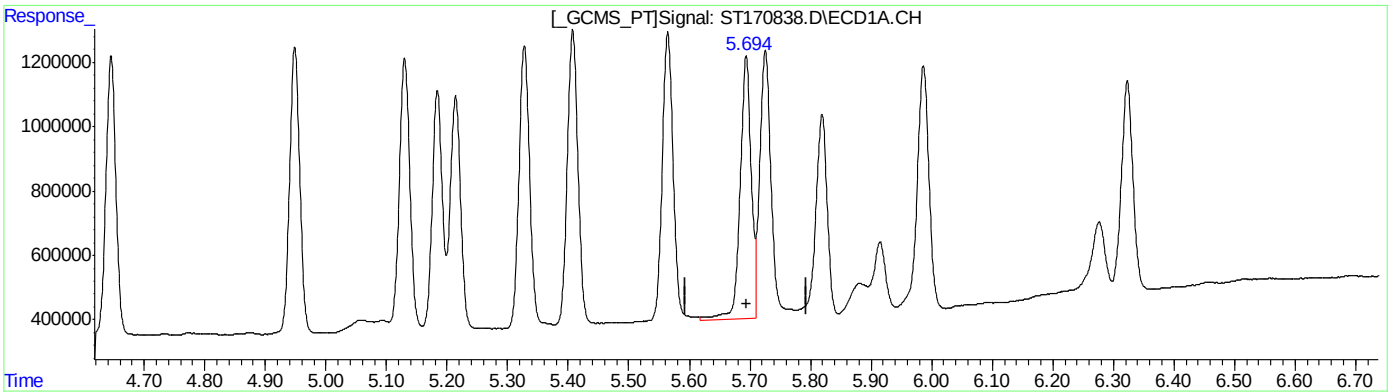
(+) = Expected Retention Time

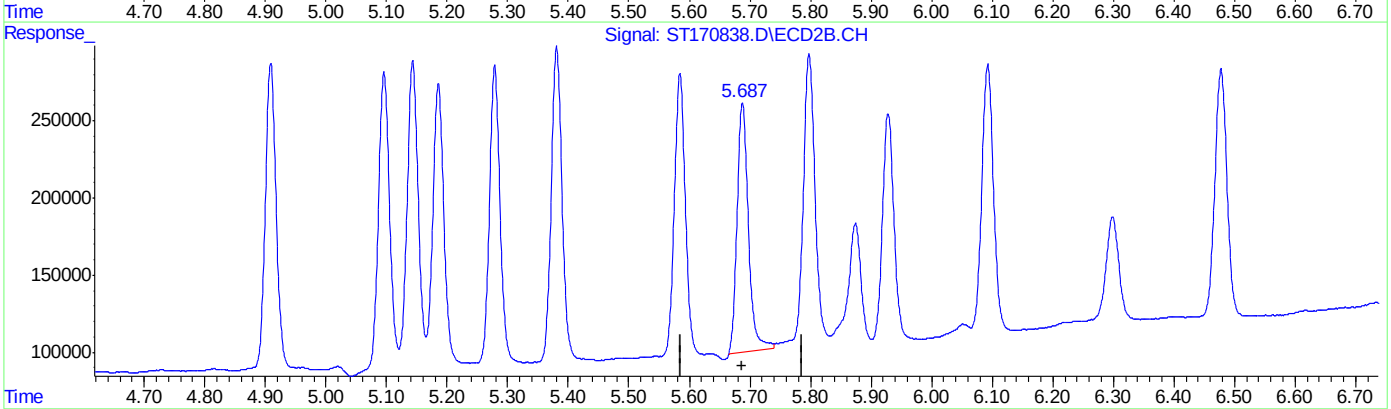
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )

5.694min 5.068 PPB

response 813169

(15) 4,4'-DDD #2 ( )

5.687min 4.463 PPB m

response 161847

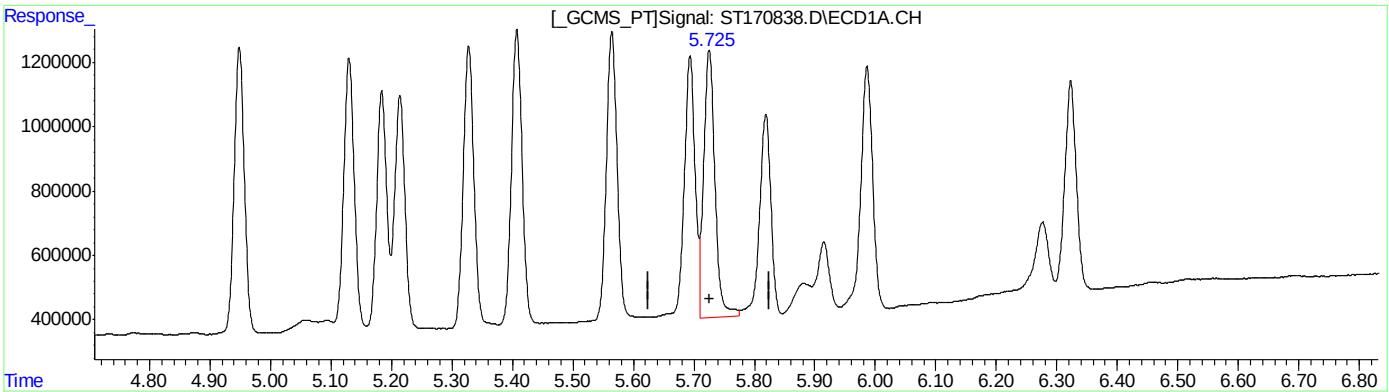
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )

5.726min 5.068 PPB

response 830010

(16) Endosulfan II #2 ( )

5.798min 4.840 PPB

response 193904

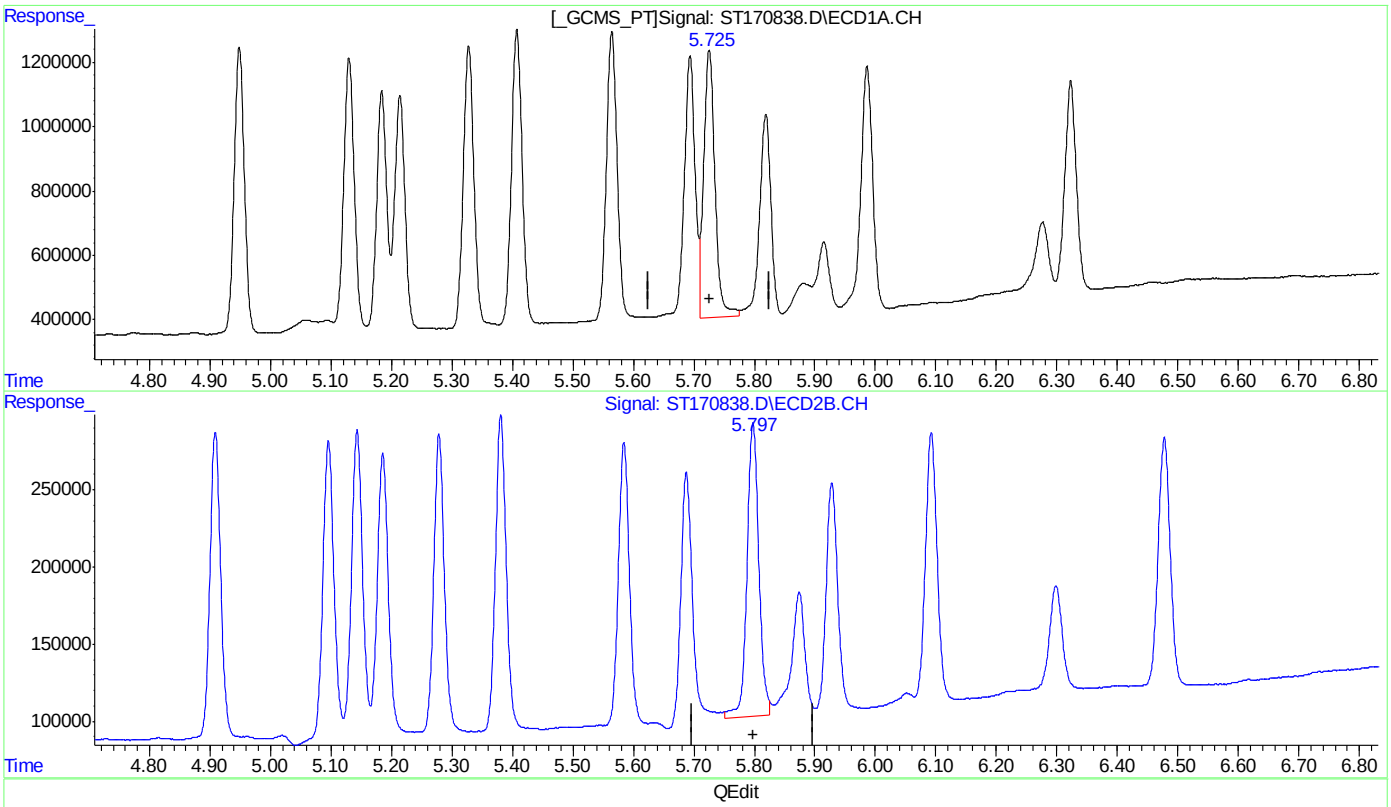
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )

5.726min 5.068 PPB

response 830010

(16) Endosulfan II #2 ( )

5.797min 4.757 PPB m

response 190579

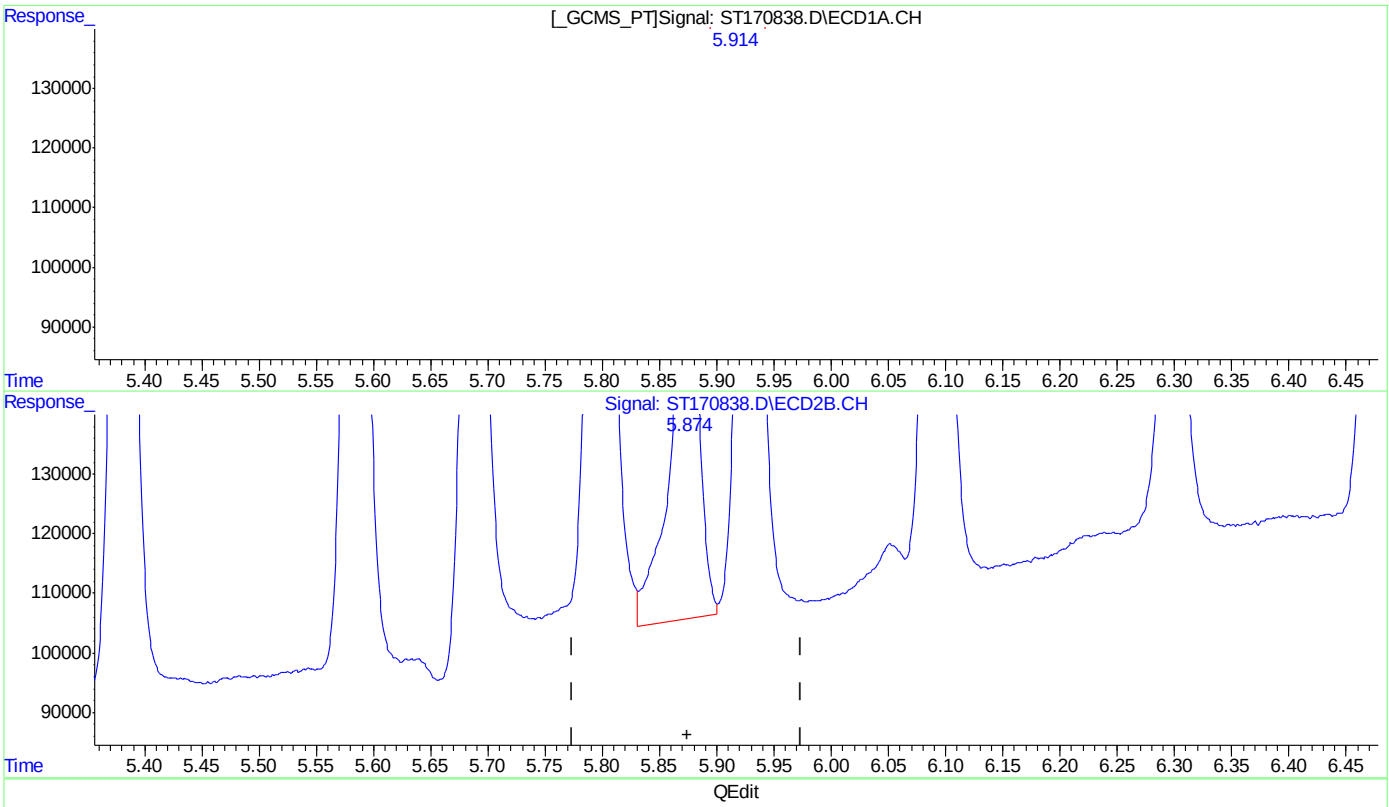
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(17) 4,4'-DDT
5.915min 1.819 ppb
response 217809

(17) 4,4'-DDT #2
5.874min 2.322 ppb m
response 78196

(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 12:00:55 2023 Page: 1

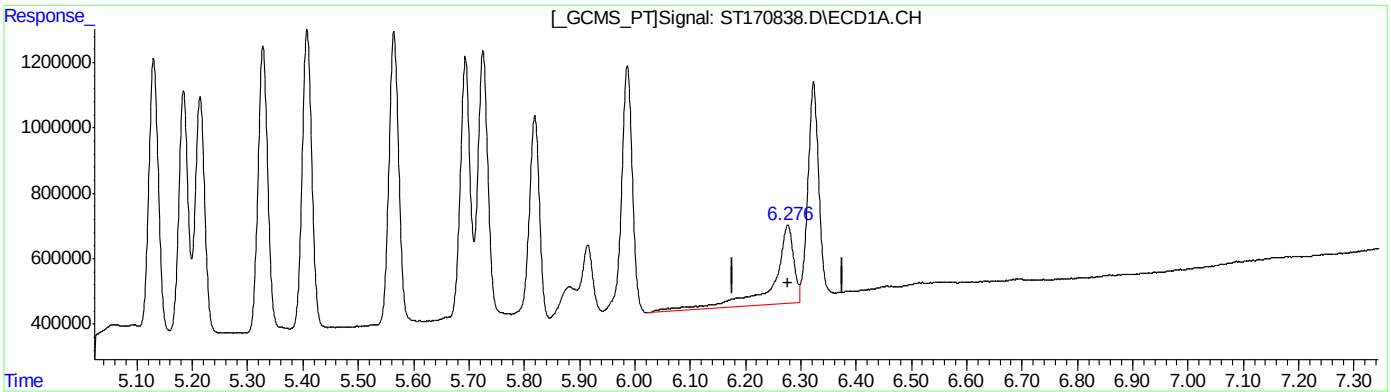
12.5.47.52
12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(19) Methoxychlor
6.277min 3.966 ppb
response 241122

(19) Methoxychlor #2
6.299min 4.302 ppb
response 72593

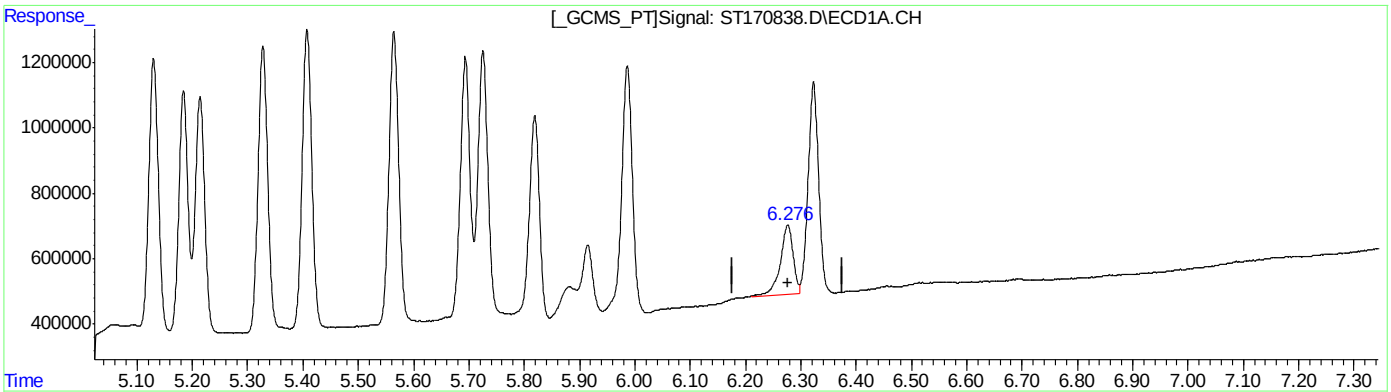
(+) = Expected Retention Time

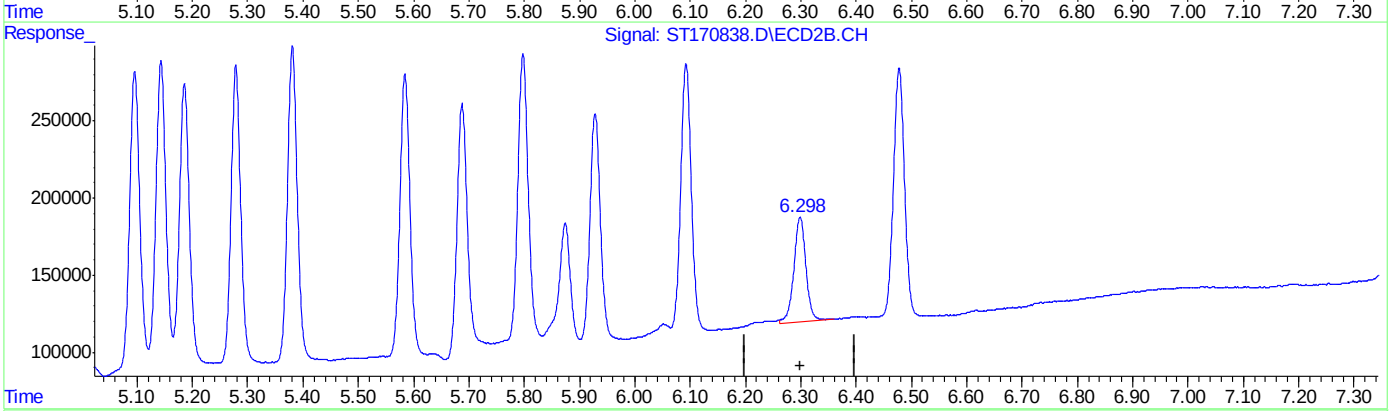
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(19) Methoxychlor
6.276min 3.510 ppb m
response 213392

(19) Methoxychlor #2
6.298min 4.054 ppb m
response 68405

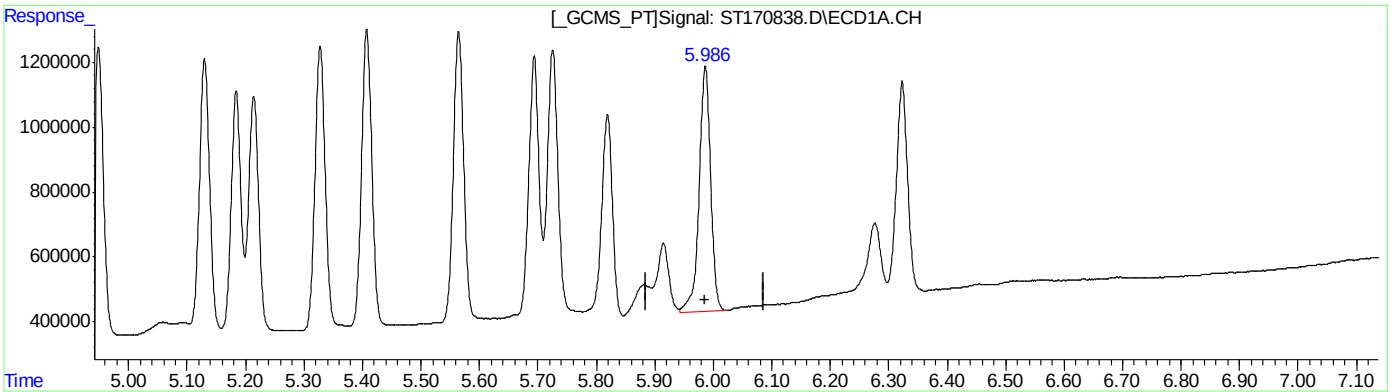
(+) = Expected Retention Time

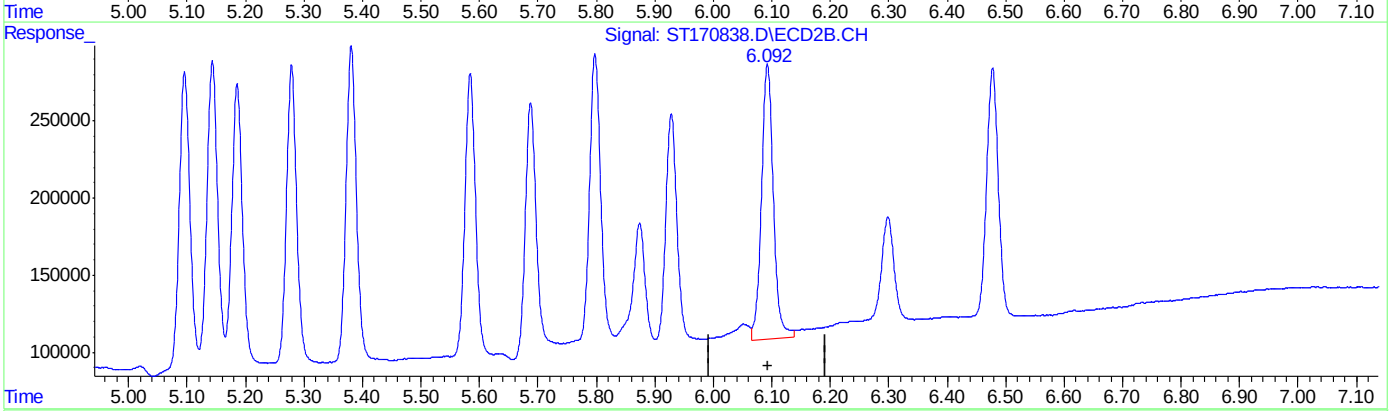
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 5.007 PPB

response 756008

(20) Endosulfan Sulfate #2 ( )

6.093min 4.827 PPB

response 178180

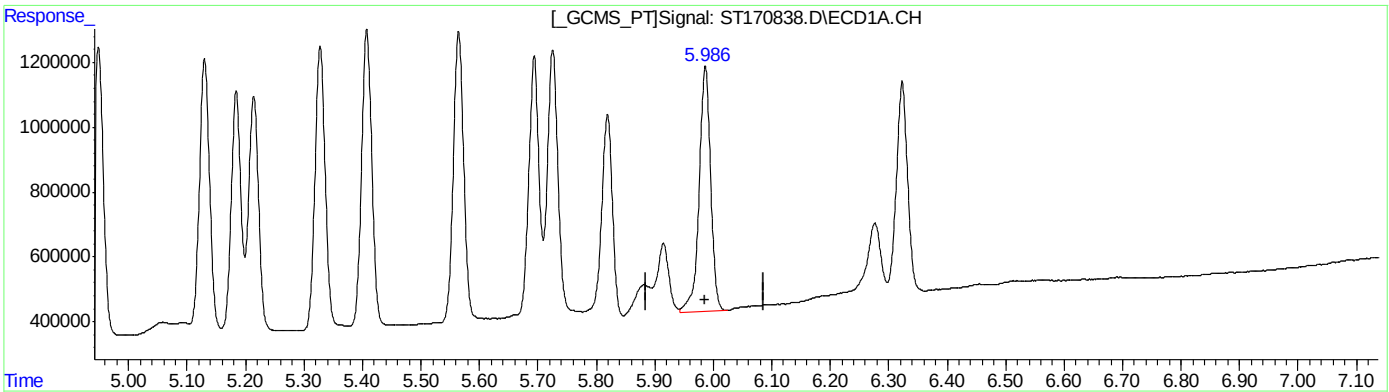
(+) = Expected Retention Time

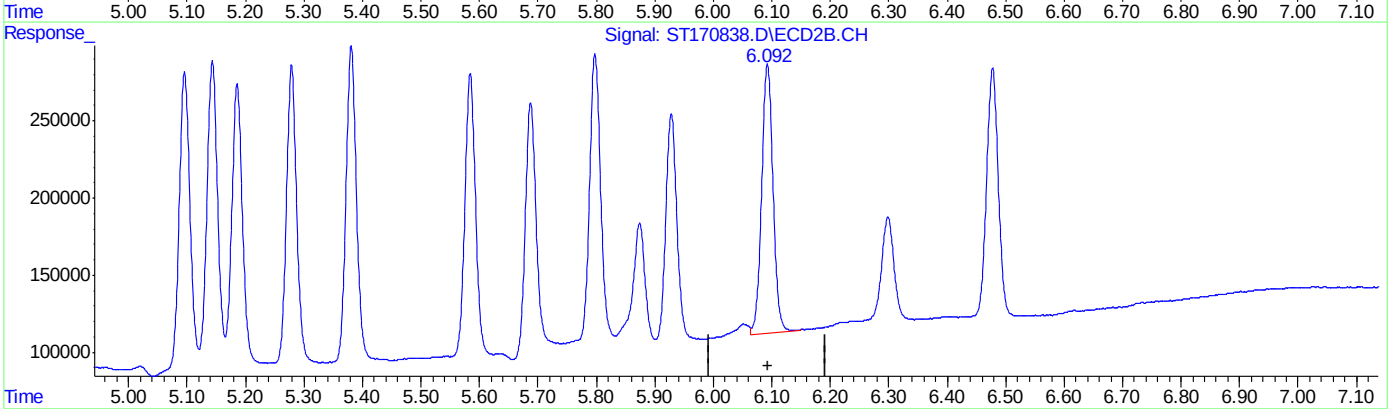
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(20) Endosulfan Sulfate ( )

5.986min 5.007 PPB

response 756008

(20) Endosulfan Sulfate #2 ( )

6.092min 4.734 PPB m

response 174730

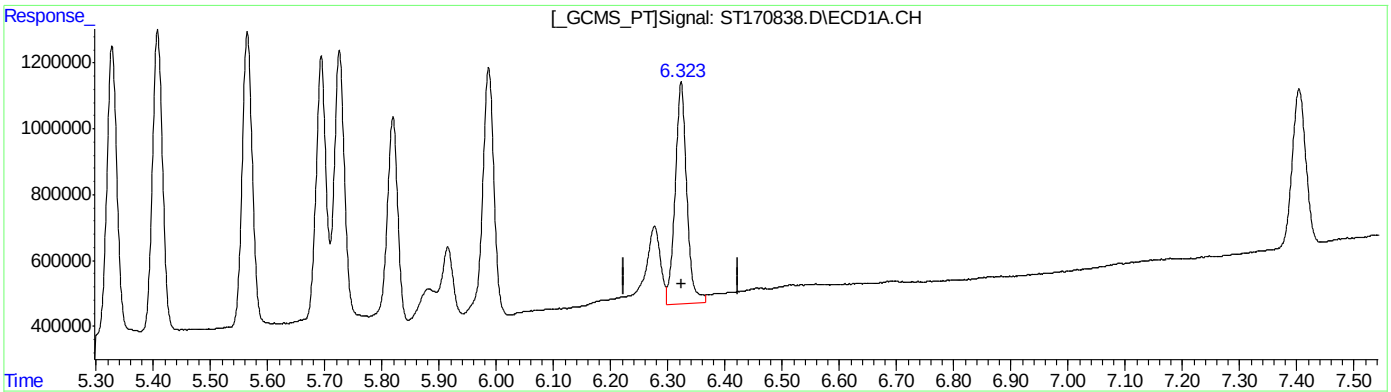
(+) = Expected Retention Time

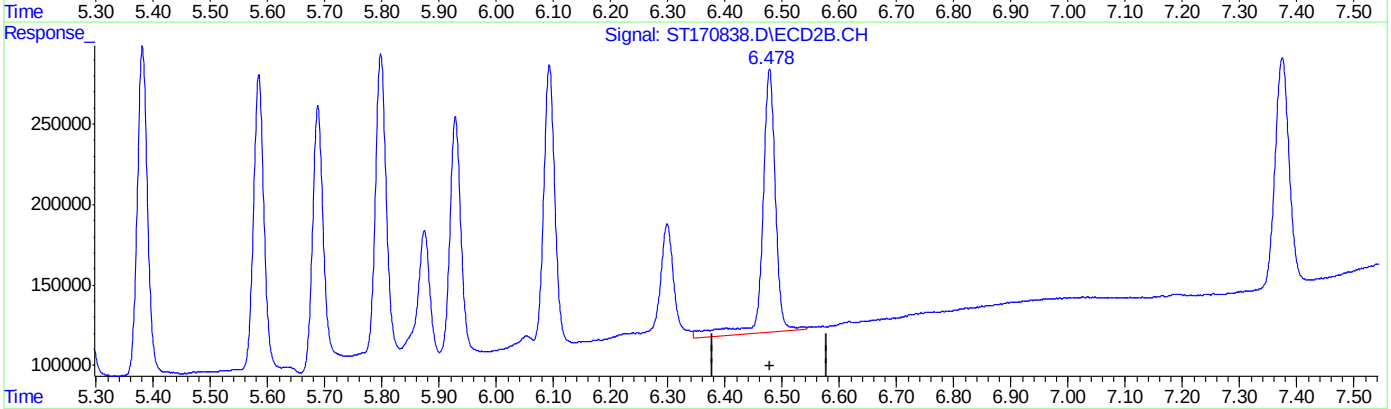
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.323min 4.631 PPB
response 669021

(21) Endrin Ketone #2 ( )
6.478min 4.481 PPB
response 163396

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170838.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 9:57 am
Operator : eduardom
Sample : ic4174-5 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 31 11:40:28 2023
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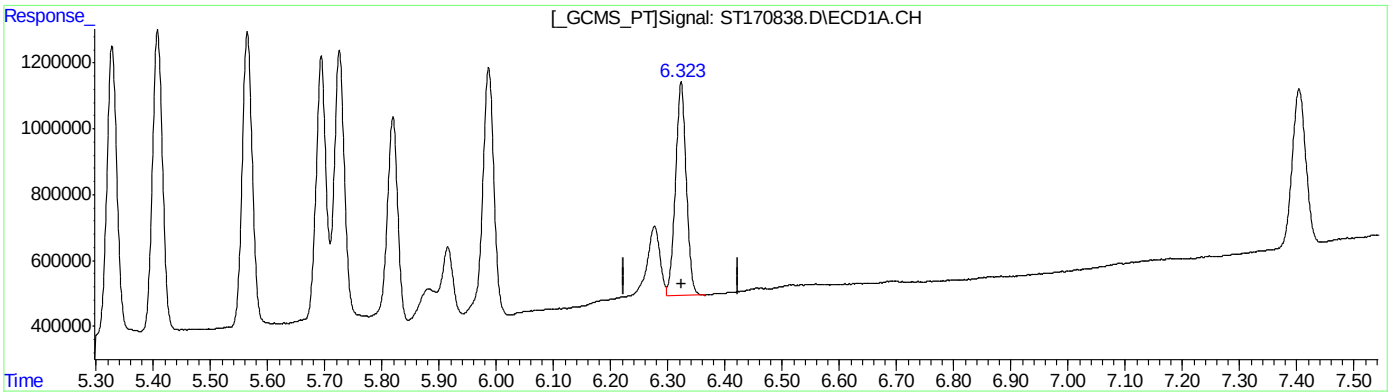
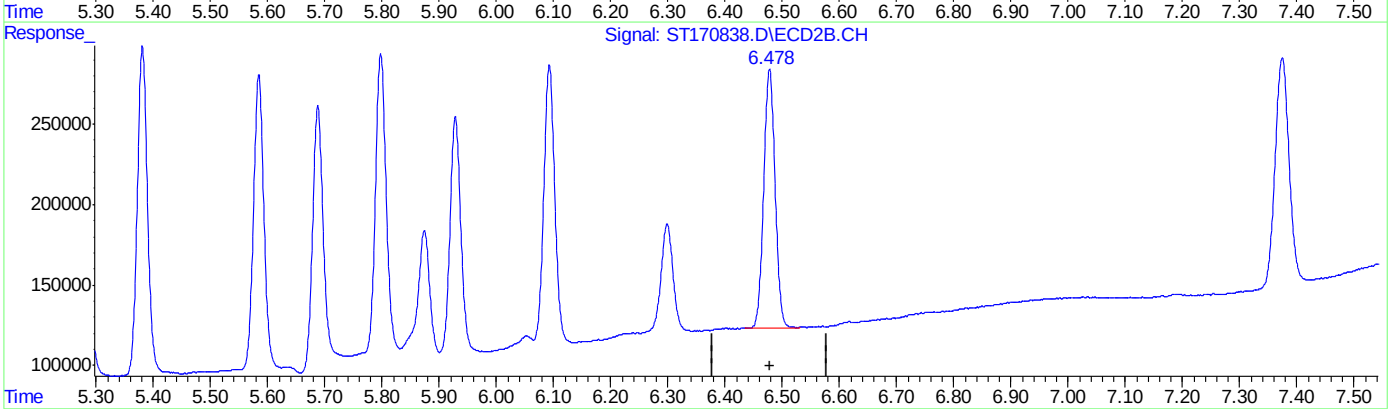
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 11:24:28 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(21) Endrin Ketone ( )
6.323min 4.497 PPB m
response 649536

(21) Endrin Ketone #2 ( )
6.478min 4.422 PPB m
response 161223

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1)	S Tetrachlo...	3.441	3.380	2665134	556826	18.454	28.020 #
	Spiked Amount	50.000	Range 42 - 127	Recovery =		36.91%#	56.04%
33)	S Decachlor...	7.403	7.374	1848404	512167	18.636m	21.872
	Spiked Amount	50.000	Range 27 - 127	Recovery =		37.27%	43.74%
	Target Compounds						
2)	alpha-BHC	3.767	3.789	3941024	808395	18.859	29.198 #
3)	gamma-BHC...	4.002	4.050	3380561	751537	18.268	28.617 #
4)	beta-BHC	4.154	4.273	1610801	351943	19.122	26.017
5)	delta-BHC	4.320	4.454	3929587	812509	19.962	28.818 #
6)	Heptachlor	4.411	4.319	3167398	723620	18.870	28.180 #
7)	Aldrin	4.646	4.535	3436599	776727	19.435	27.404 #
8)	Heptachlo...	4.949	4.909	3478341	818487	20.520	27.448
9)	gamma-Chl...	5.130	5.097	3269502	805091	19.527	26.673
10)	alpha-Chl...	5.184	5.143	3020553	815432	18.482m	27.025 #
11)	4,4'-DDE	5.328	5.279	3393196	848635	19.941	28.763 #
12)	Endosulfa...	5.213	5.186	2883316	764032	19.525m	27.122
13)	Dieldrin	5.408	5.381	3592533	881113	20.441	28.344
14)	Endrin	5.565	5.585	3463664	808530	20.981	27.797
15)	4,4'-DDD	5.693	5.688	2983526	713094	20.502m	27.997
16)	Endosulfa...	5.726	5.798	3160756	783378	20.730m	26.839
17)	4,4'-DDT	5.915	5.875	1636603	524915	14.747	20.935 #
18)	Endrin Al...	5.819	5.929	2365689	594751	20.954	25.592
19)	Methoxychlor	6.277	6.299	1122012	327665	17.250	24.707 #
20)	Endosulfa...	5.987	6.093	2803799	726972	19.207	26.343
21)	Endrin Ke...	6.323	6.478	2768653	710727	18.464	24.168
22)	L1 Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1 Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1 Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1 Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1 Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1 Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28)	L2 Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2 Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2 Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2 Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2 Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
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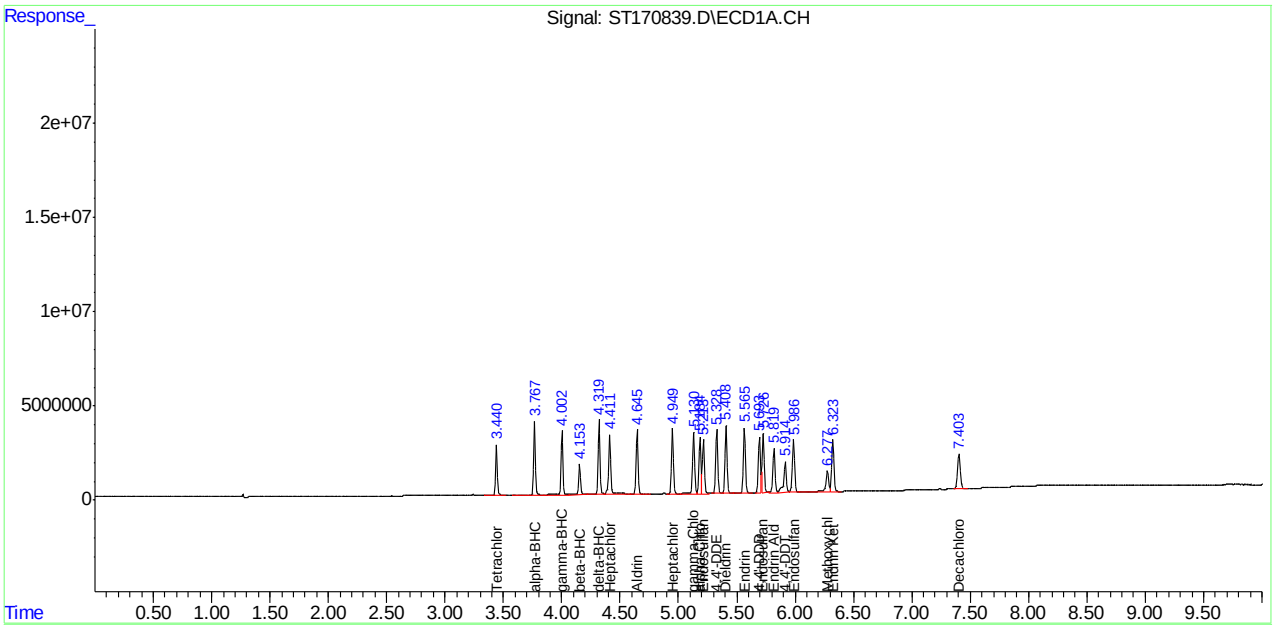
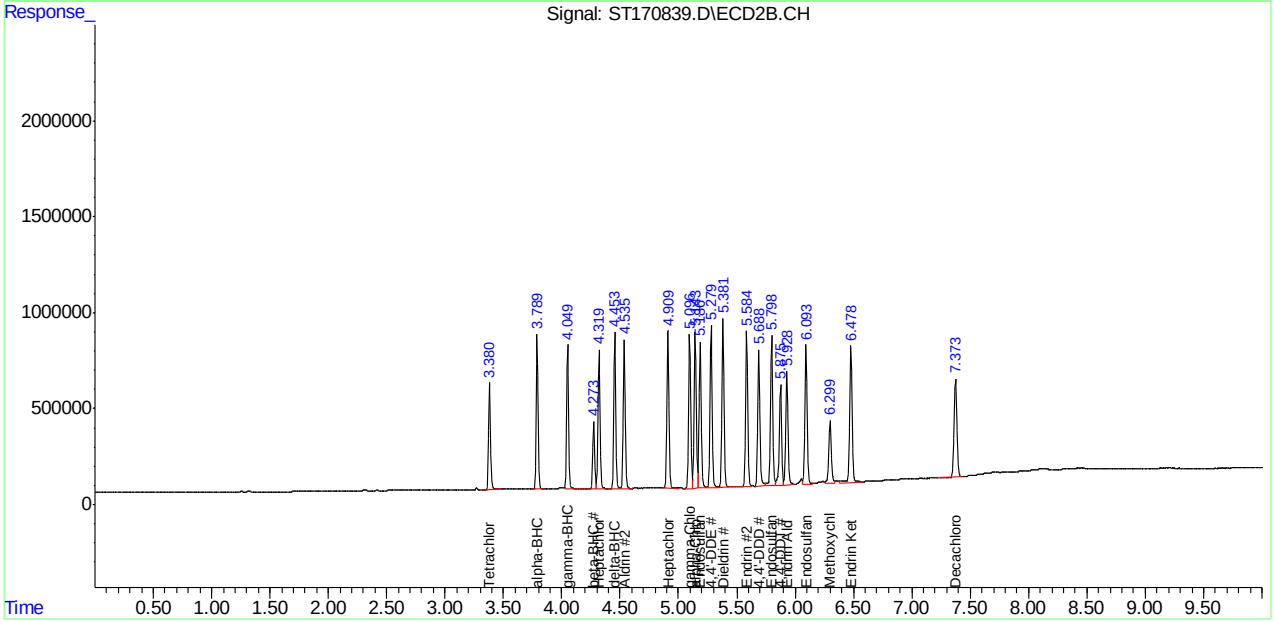
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170839.D
Injection Time: 10/31/23 10:12
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

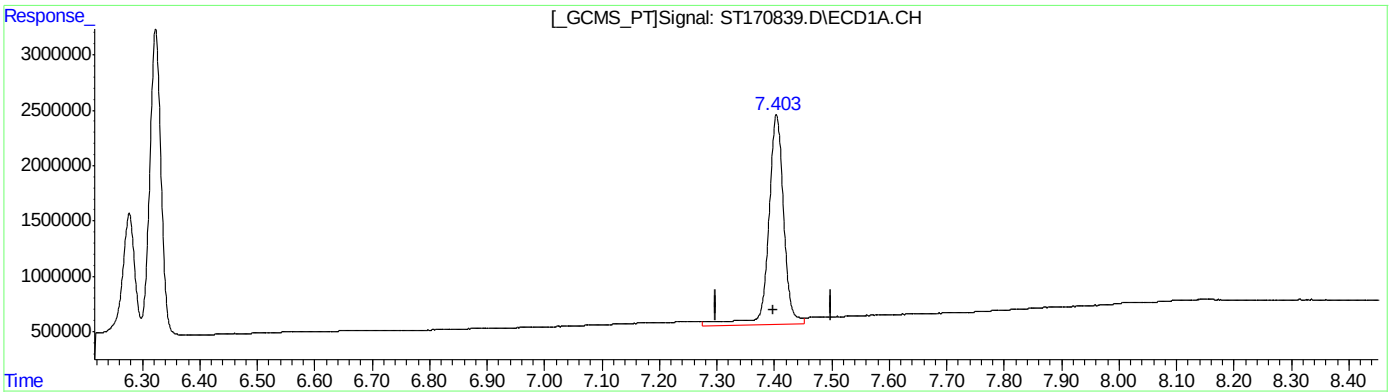
Parameter	CAS	Sig#	R.T. (min.)	Reason
alpha-Chlordane	5103-71-9	1	5.18	Poor instrument integration
Endosulfan-I	959-98-8	1	5.21	Poor instrument integration
4,4'-DDD	72-54-8	1	5.69	Poor instrument integration
Endosulfan-II	33213-65-9	1	5.73	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.404min 18.979 ppb
response 1882373

(33) Decachlorobiphenyl #2 (S)
7.374min 21.872 ppb
response 512167

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
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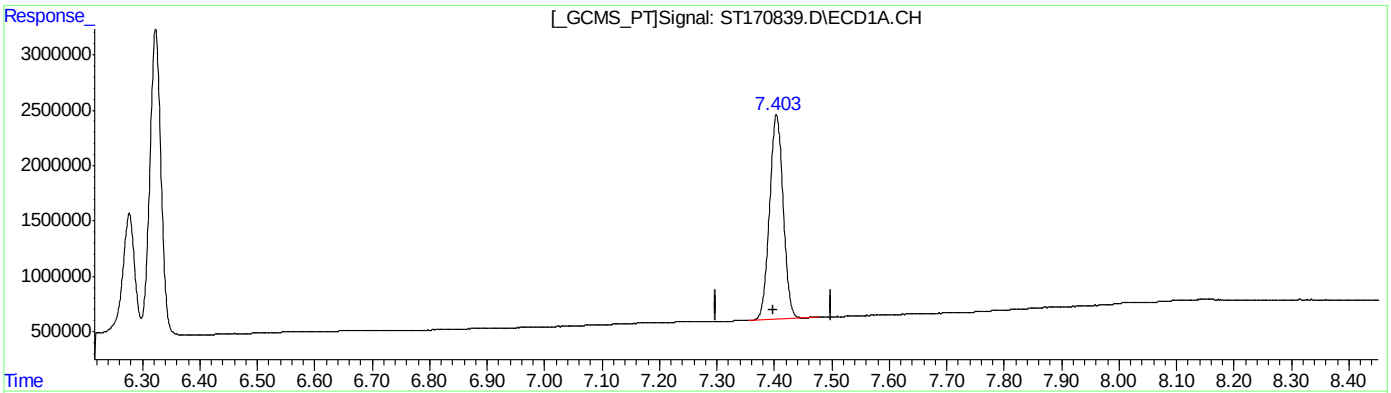
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.403min 18.636 ppb m
response 1848404

(33) Decachlorobiphenyl #2 (S)
7.374min 21.872 ppb
response 512167

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
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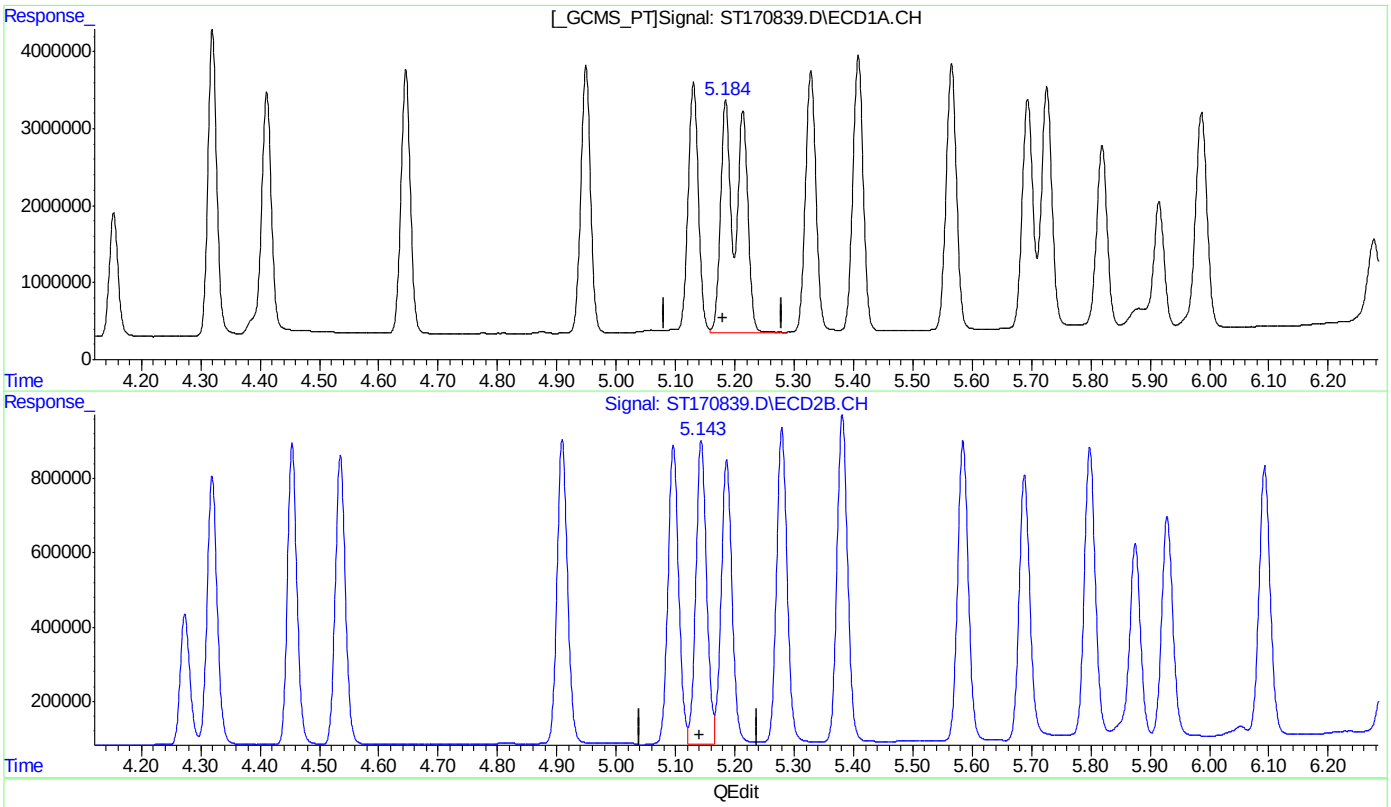
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.185min 18.394 PPB
response 3006303

(10) alpha-Chlordane #2
5.143min 27.025 PPB
response 815432

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
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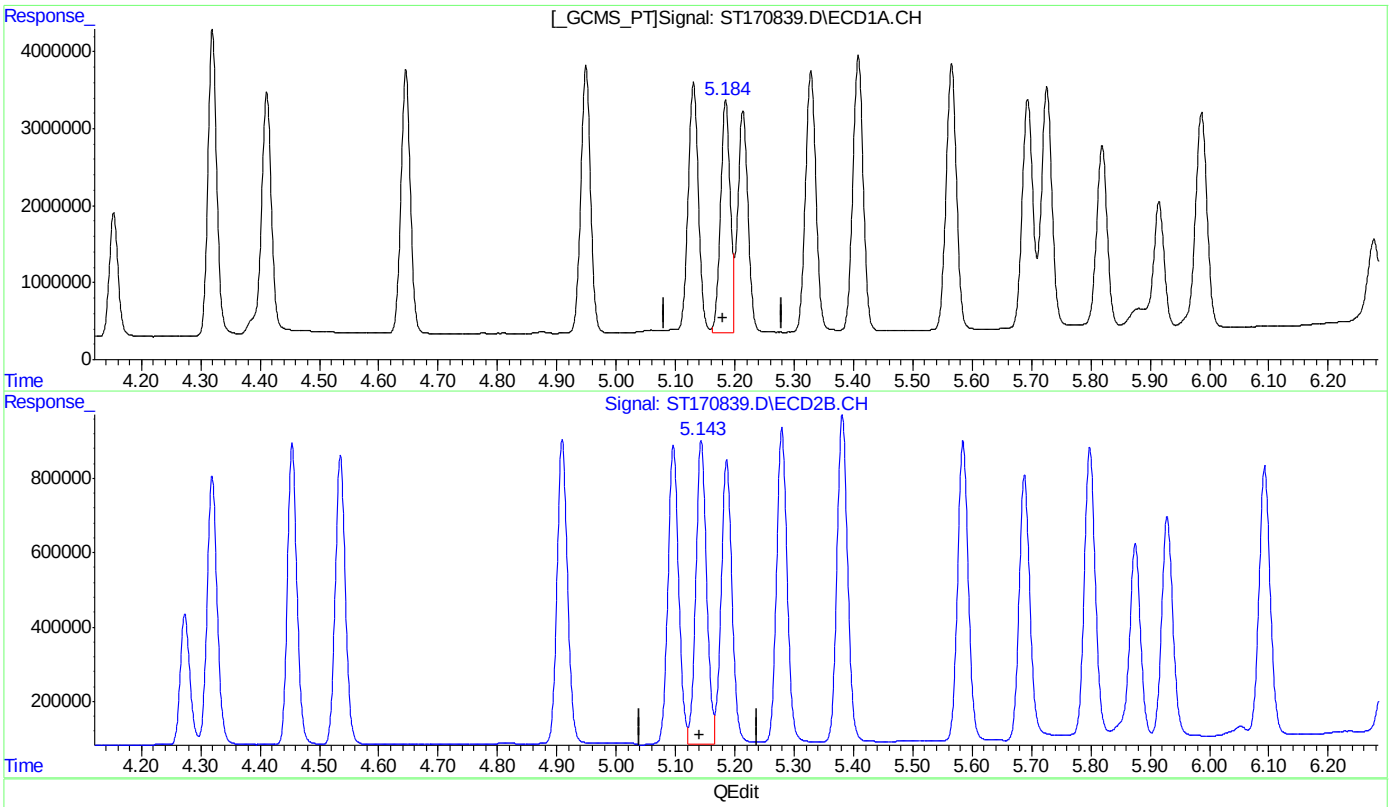
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(10) alpha-Chlordane
5.184min 18.482 PPB m
response 3020553

(10) alpha-Chlordane #2
5.143min 27.025 PPB
response 815432

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Sample : ic4174-20 Pest Inst : ECD 3
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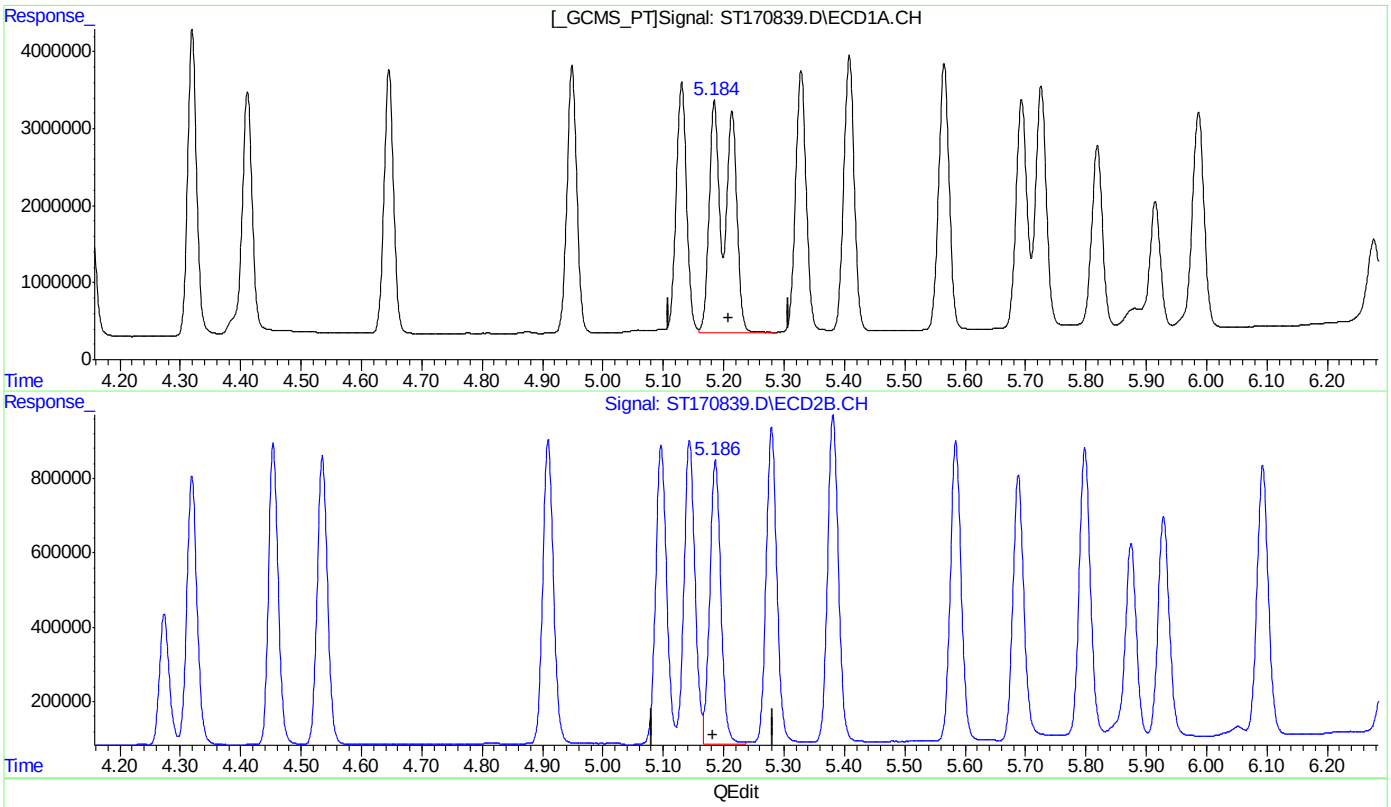

(12) Endosulfan I ( )
5.185min 20.358 PPB
response 3006303

(12) Endosulfan I #2 ( )
5.186min 27.122 PPB
response 764032

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

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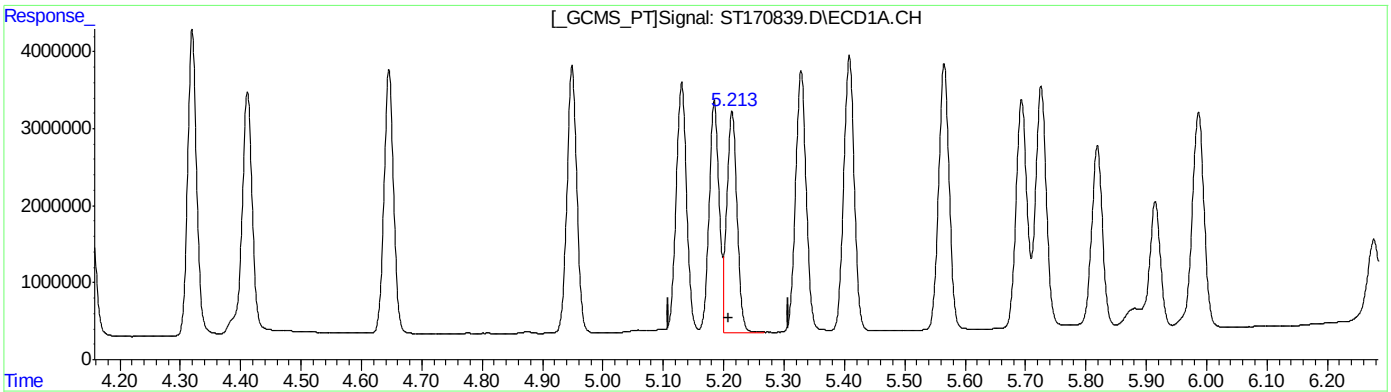
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(12) Endosulfan I ( )
5.213min 19.525 PPB m
response 2883316

(12) Endosulfan I #2 ( )
5.186min 27.122 PPB
response 764032

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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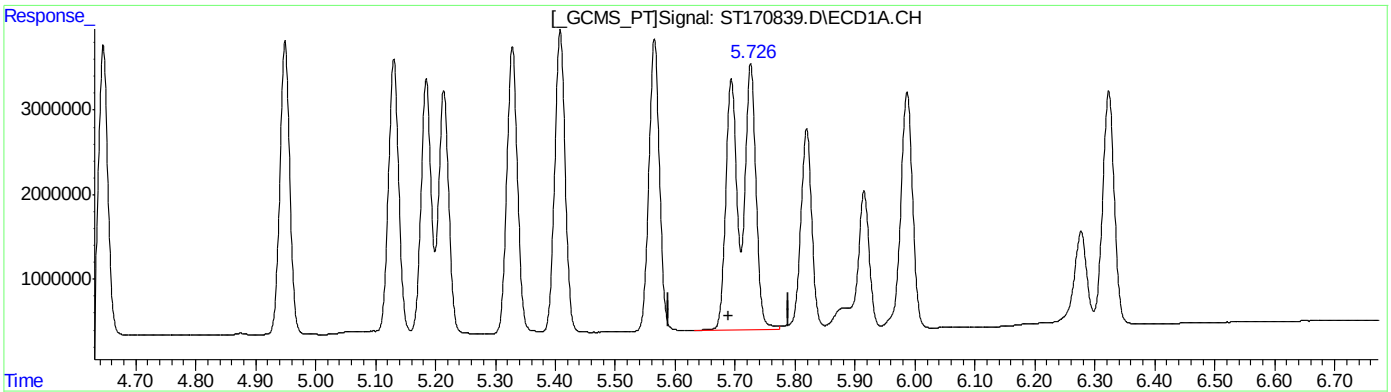
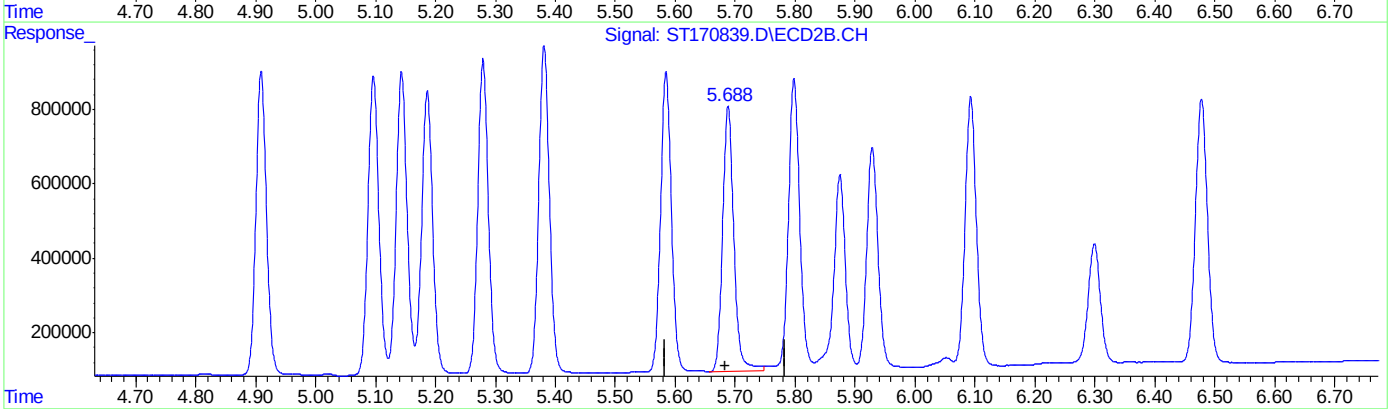
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(15) 4,4'-DDD ( )
5.726min 21.634 PPB
response 3148191

(15) 4,4'-DDD #2 ( )
5.688min 27.997 PPB
response 713094

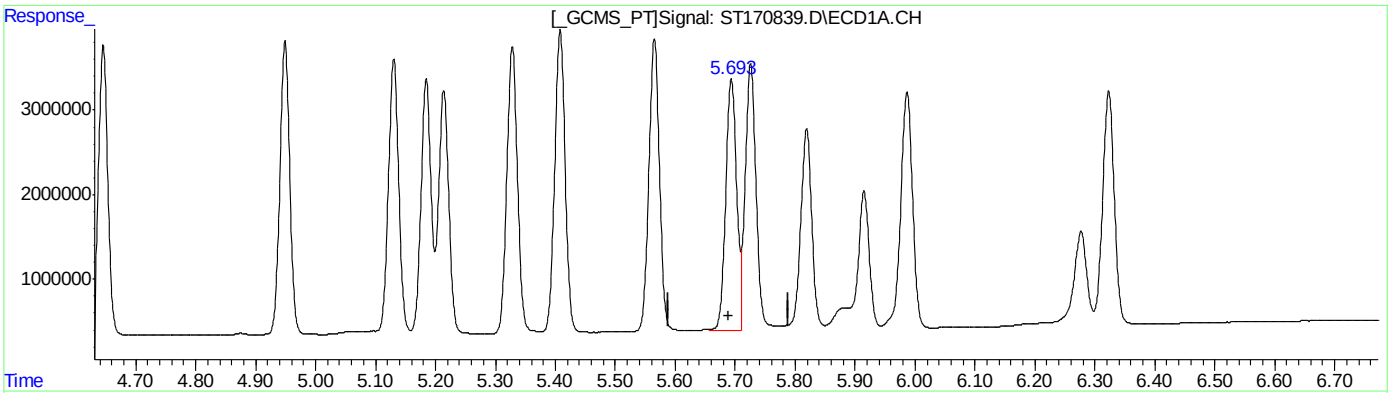
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(15) 4,4'-DDD ( )

5.693min 20.502 PPB m

response 2983526

(15) 4,4'-DDD #2 ( )

5.688min 27.997 PPB

response 713094

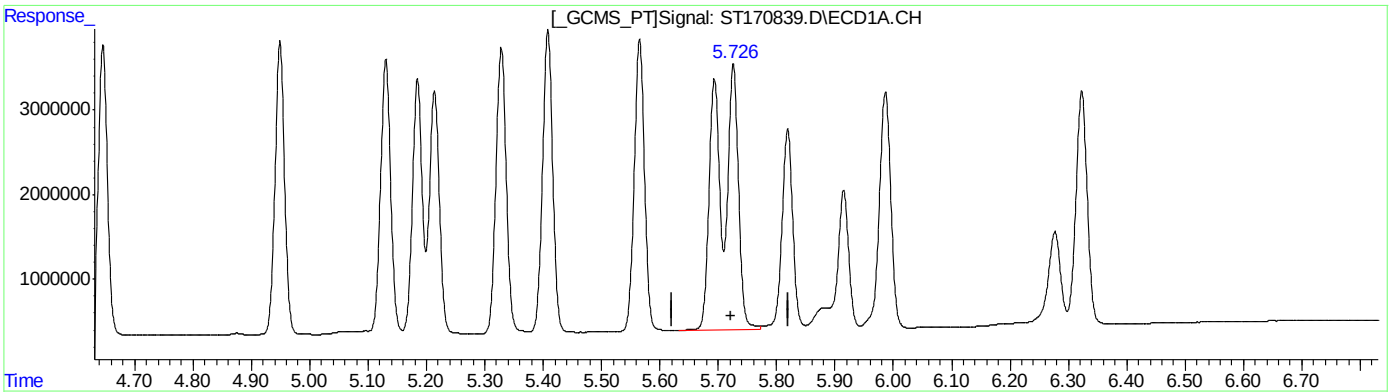
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )
5.726min 20.648 PPB
response 3148191

(16) Endosulfan II #2 ( )
5.798min 26.839 PPB
response 783378

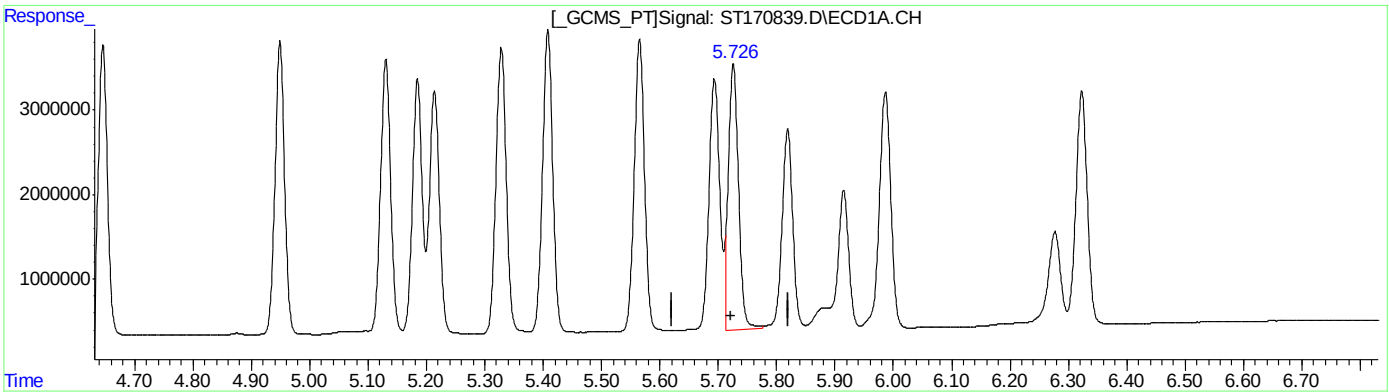
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170839.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:12 am
Operator : eduardom
Sample : ic4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 31 11:19:06 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(16) Endosulfan II ( )

5.726min 20.730 PPB m

response 3160756

(16) Endosulfan II #2 ( )

5.798min 26.839 PPB

response 783378

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170840.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:27 am
Operator : eduardom
Sample : icc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 31 11:20:23 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.441	3.381	5488787	1142054	38.006	57.469 #
		Spiked Amount	50.000	Range 42 - 127		Recovery =	76.01%	114.94%
33)	S	Decachlor...	7.403	7.374	3764708	1012367	37.957m	43.233
		Spiked Amount	50.000	Range 27 - 127		Recovery =	75.91%	86.47%
		Target Compounds						
2)		alpha-BHC	3.767	3.789	8135095	1734796	38.929	62.658 #
3)		gamma-BHC...	4.002	4.050	7052035	1615719	38.108	61.523 #
4)		beta-BHC	4.153	4.273	3306816	730379	39.255	53.992
5)		delta-BHC	4.320	4.454	8097235	1728033	41.134	61.289 #
6)		Heptachlor	4.411	4.319	6459976	1553875	38.486	60.512 #
7)		Aldrin	4.646	4.535	6885586	1667791	38.940	58.841 #
8)		Heptachlo...	4.949	4.909	6952737	1682195	41.016	56.412
9)		gamma-Chl...	5.131	5.096	6776917	1712796	40.476	56.746 #
10)		alpha-Chl...	5.185	5.143	6421141	1688953	39.289	55.976 #
11)		4,4'-DDE	5.328	5.279	7055815	1779528	41.465	60.313 #
12)		Endosulfa...	5.214	5.186	5989307	1592949	40.558	56.547
13)		Dieldrin	5.408	5.381	7238481	1834902	41.187	59.025 #
14)		Endrin	5.565	5.584	7124416	1698561	43.156	58.396
15)		4,4'-DDD	5.694	5.688	6195295	1504091	42.573	59.053
16)		Endosulfa...	5.726	5.798	6405732	1589545	42.013	54.458
17)		4,4'-DDT	5.915	5.875	4379765	1273975	37.791	50.809
18)		Endrin Al...	5.819	5.929	4883113	1228542	43.251	52.863
19)		Methoxychlor	6.277	6.299	2494877	711099	38.357	53.618
20)		Endosulfa...	5.987	6.093	5995300	1472877	41.071	53.371
21)		Endrin Ke...	6.323	6.478	5786384	1561626	38.589	53.103
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170840.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:27 am
Operator : eduardom
Sample : icc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 31 11:20:23 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

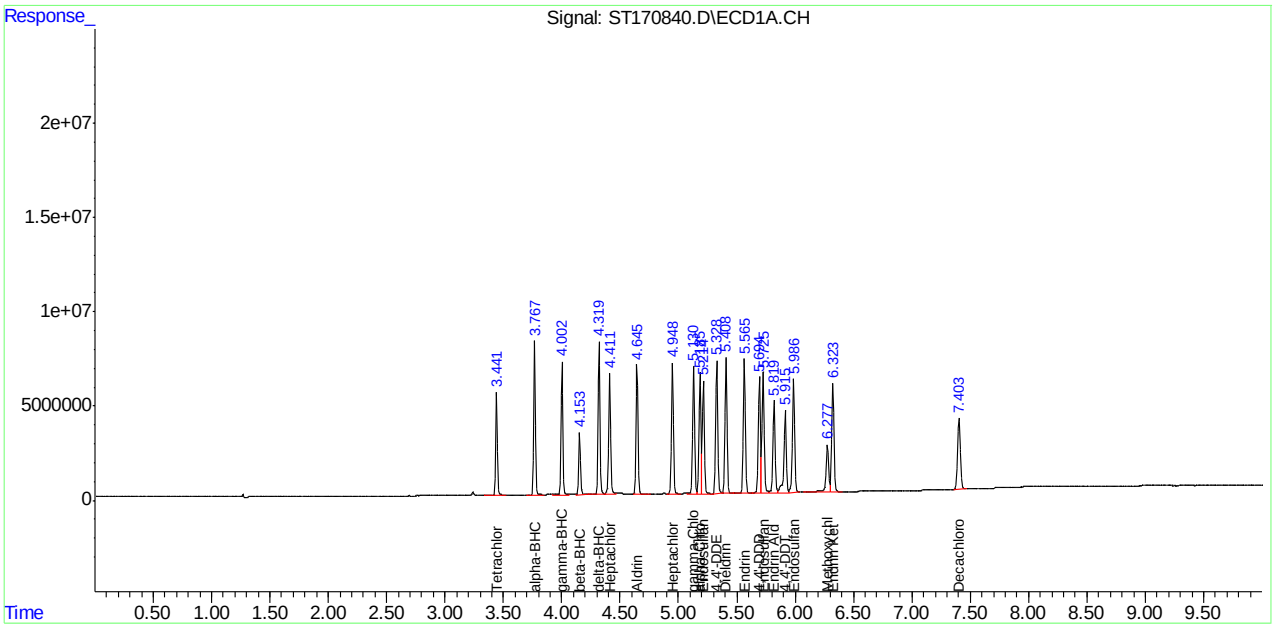
12.5.49 12

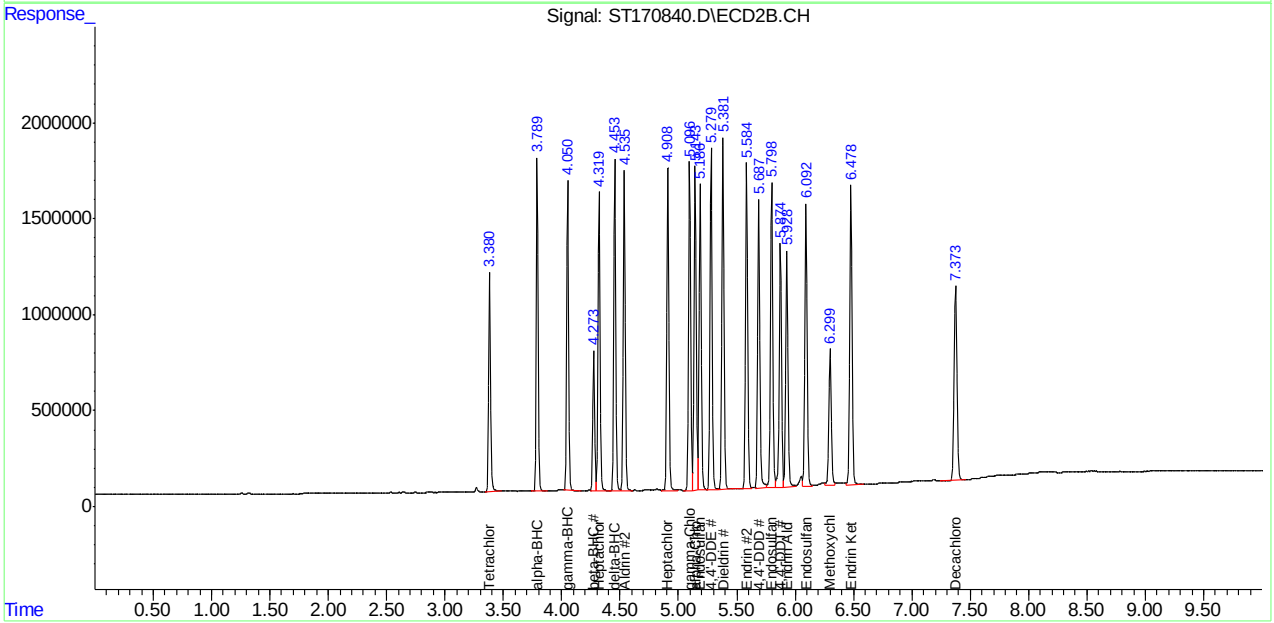
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170840.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:27 am
Operator : eduardom
Sample : icc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 31 11:20:23 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number:	GST4174-ICC4174	**Method:**	SW846 8081B
Lab FileID:	ST170840.D	**Analyst approved:**	10/31/23 16:40 Eduardo Melendez
Injection Time:	10/31/23 10:27	**Supervisor approved:**	10/31/23 17:17 Naresh Jiawan

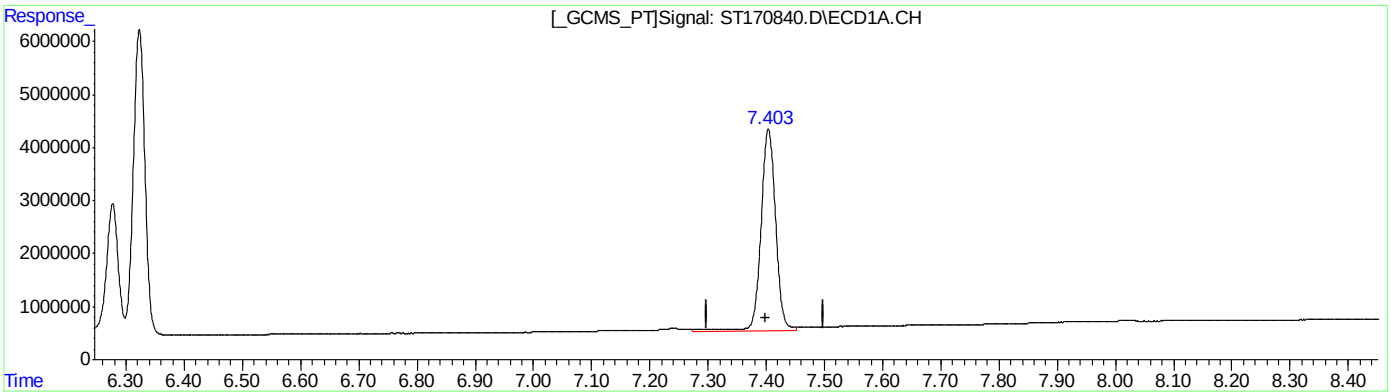
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

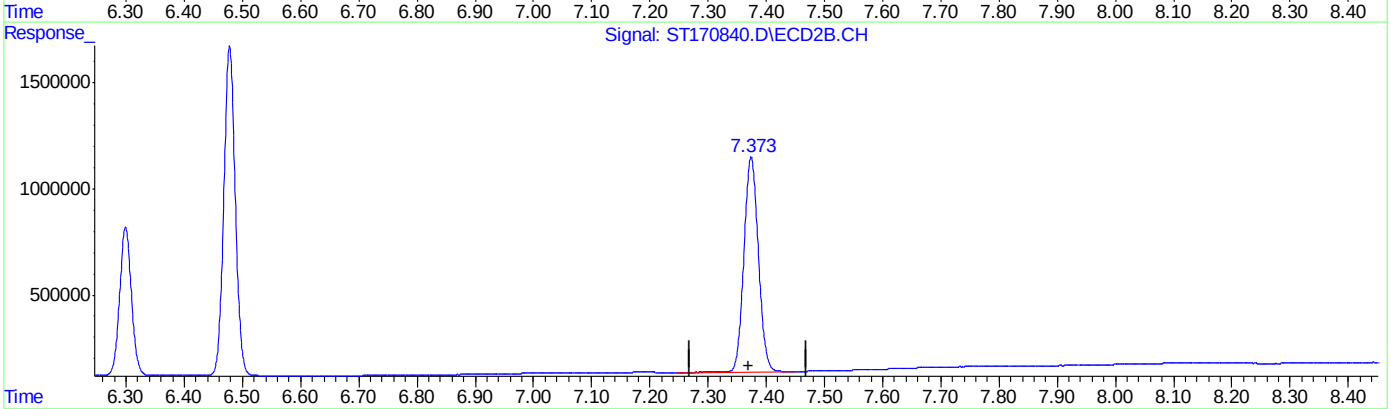
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170840.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:27 am
Operator : eduardom
Sample : icc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 31 11:20:12 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.404min 38.072 ppb

response 3776089

(33) Decachlorobiphenyl #2 (S)

7.374min 43.233 ppb

response 1012367

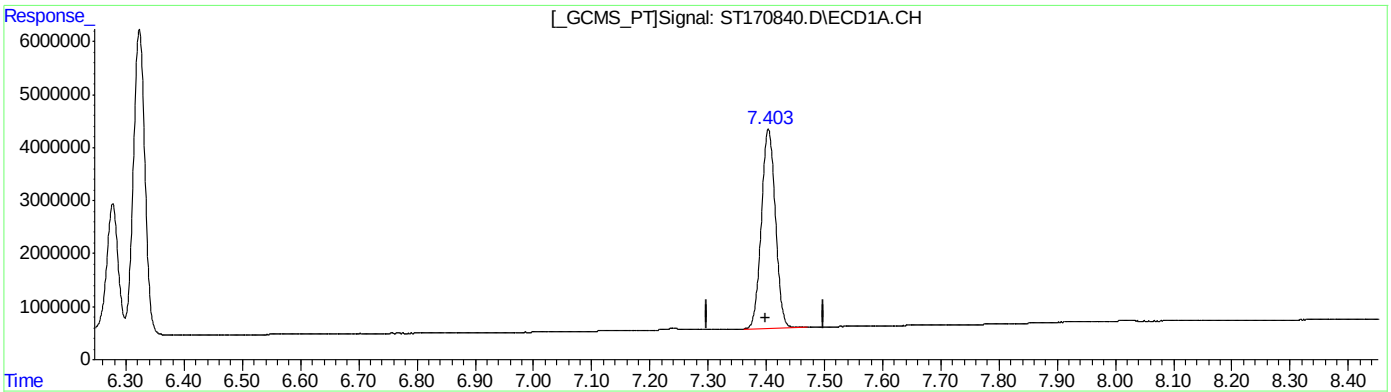
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170840.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:27 am
Operator : eduardom
Sample : icc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 31 11:20:12 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.403min 37.957 ppb m
response 3764708

(33) Decachlorobiphenyl #2 (S)
7.374min 43.233 ppb
response 1012367

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:42 am
Operator : eduardom
Sample : ic4174-60 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 31 11:21:05 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB	
		System Monitoring Compounds							
1)	S	Tetrachlo...	3.441	3.381	8072831	1726287	55.899m	86.868	#
		Spiked Amount	50.000	Range	42 - 127	Recovery	= 111.80%	173.74%#	
33)	S	Decachlor...	7.404	7.375	5627906	1506432	56.743m	64.333	
		Spiked Amount	50.000	Range	27 - 127	Recovery	= 113.49%	128.67%#	
		Target Compounds							
2)		alpha-BHC	3.768	3.790	12190331	2573182	58.334	92.939	#
3)		gamma-BHC...	4.003	4.050	10632671	2395296	57.458	91.207	#
4)		beta-BHC	4.154	4.273	4842597	1090942	57.486	80.647	#
5)		delta-BHC	4.320	4.454	12112681	2629288	61.532	93.255	#
6)		Heptachlor	4.412	4.319	9701318	2305127	57.797	89.768	#
7)		Aldrin	4.646	4.535	10196868	2502934	57.666	88.305	#
8)		Heptachlo...	4.949	4.909	10214450	2508638	60.258	84.127	
9)		gamma-Chl...	5.131	5.096	9944668	2529101	59.395	83.790	#
10)		alpha-Chl...	5.185	5.144	9342044	2497397	57.161	82.769	#
11)		4,4'-DDE	5.328	5.279	10505009	2644557	61.735	89.631	#
12)		Endosulfa...	5.214	5.186	8789961	2390919	59.524	84.873	#
13)		Dieldrin	5.408	5.381	10906948	2764687	62.060	88.935	#
14)		Endrin	5.565	5.585	10518418	2506603	63.715	86.176	
15)		4,4'-DDD	5.694	5.688	9150466	2220358	62.881	87.175	
16)		Endosulfa...	5.726	5.798	9185620	2406737	60.245	82.456	
17)		4,4'-DDT	5.915	5.874	7062145	2002188	58.681	79.851	
18)		Endrin Al...	5.819	5.929	7208790	1809421	63.851	77.858	
19)		Methoxychlor	6.277	6.299	3809453	1061935	58.568	80.072	
20)		Endosulfa...	5.987	6.093	8731457	2185552	59.815	79.195	
21)		Endrin Ke...	6.323	6.478	8732766	2253861	58.238	76.643	
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d	
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d	
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d	
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d	
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d	
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d	
		Sum Chlordane-A			0	0	N.D.	N.D.	
		Average Chlordane-A					0.000	0.000	
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d	
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d	
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d	
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d	
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d	
		Sum Toxaphene-A			0	0	N.D.	N.D.	
		Average Toxaphene-A					0.000	0.000	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:42 am
Operator : eduardom
Sample : ic4174-60 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 31 11:21:05 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

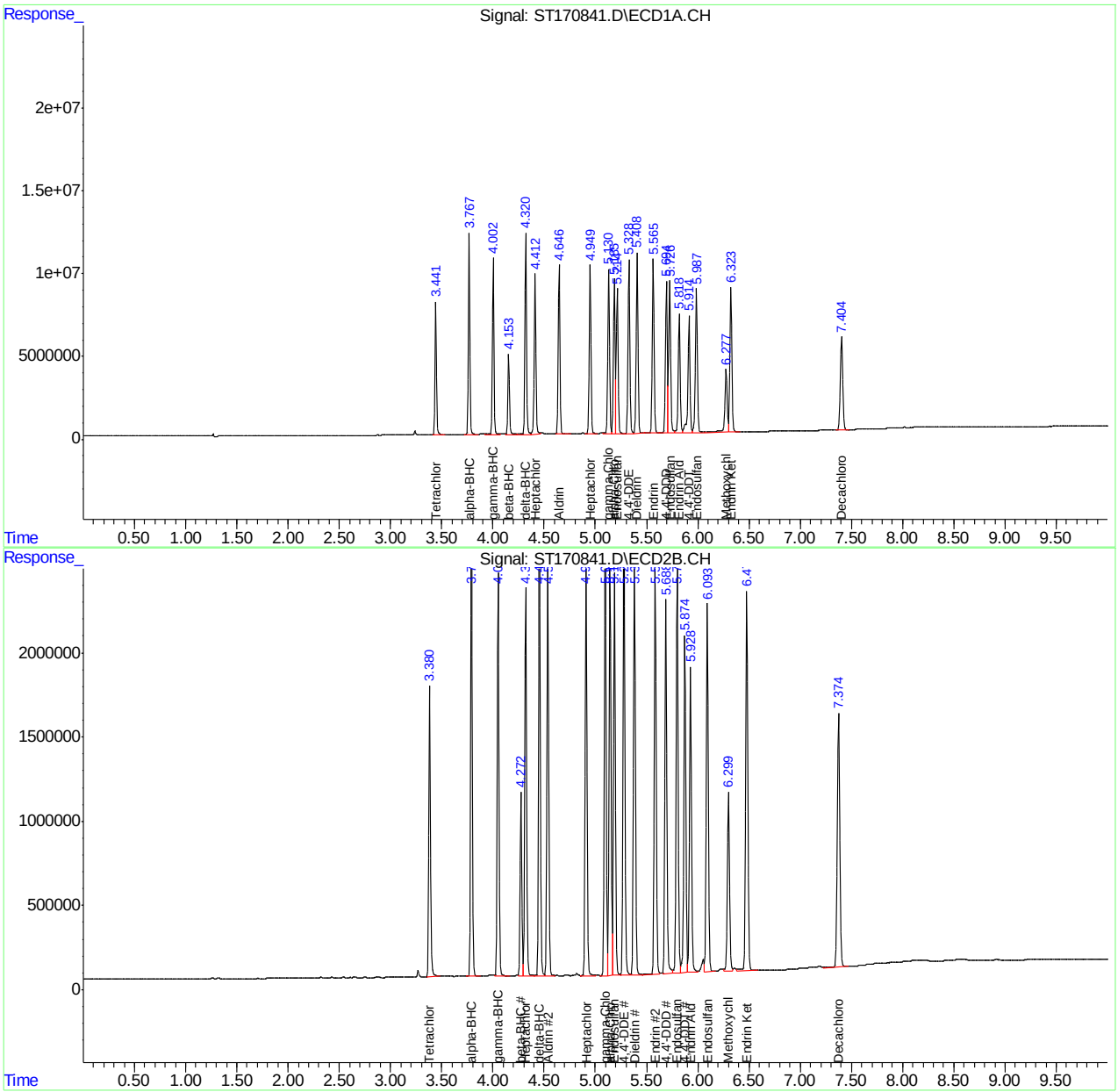
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:42 am
Operator : eduardom
Sample : ic4174-60 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 31 11:21:05 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



Manual Integration Approval Summary

Sample Number:	GST4174-IC4174	**Method:**	SW846 8081B
Lab FileID:	ST170841.D	**Analyst approved:**	10/31/23 16:40 Eduardo Melendez
Injection Time:	10/31/23 10:42	**Supervisor approved:**	10/31/23 17:17 Naresh Jiawan

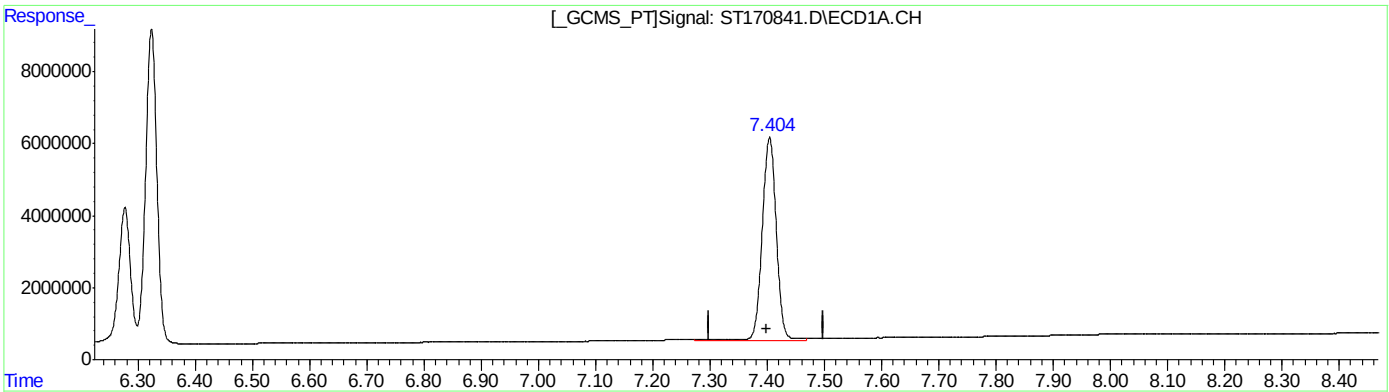
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.44	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

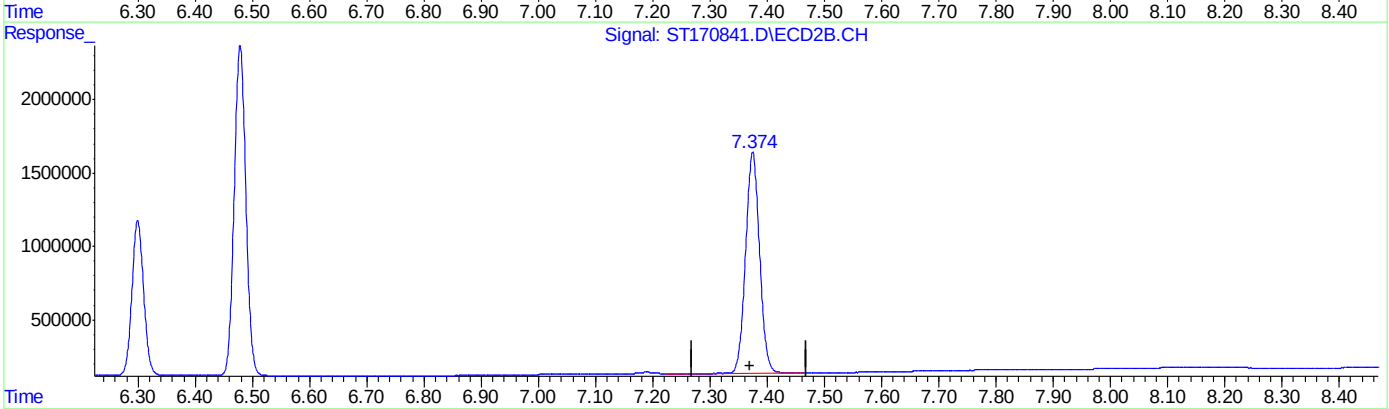
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:42 am
Operator : eduardom
Sample : ic4174-60 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 31 11:20:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)
7.404min 57.066 ppb
response 5659950

(33) Decachlorobiphenyl #2 (S)
7.375min 64.333 ppb
response 1506432

(+) = Expected Retention Time

12.5.50.2 12

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
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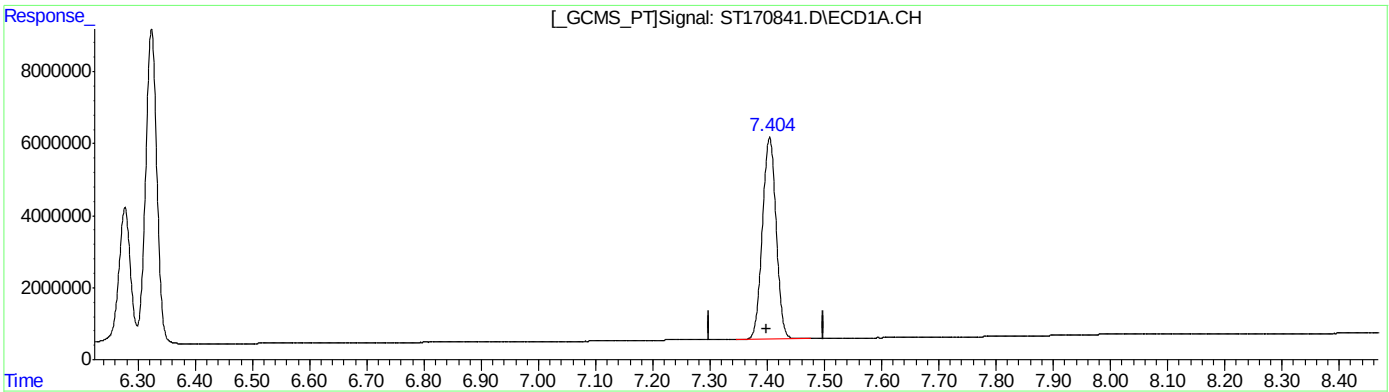

QEdit

(33) Decachlorobiphenyl (S)

7.404min 56.743 ppb m

response 5627906

(33) Decachlorobiphenyl #2 (S)

7.375min 64.333 ppb

response 1506432

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
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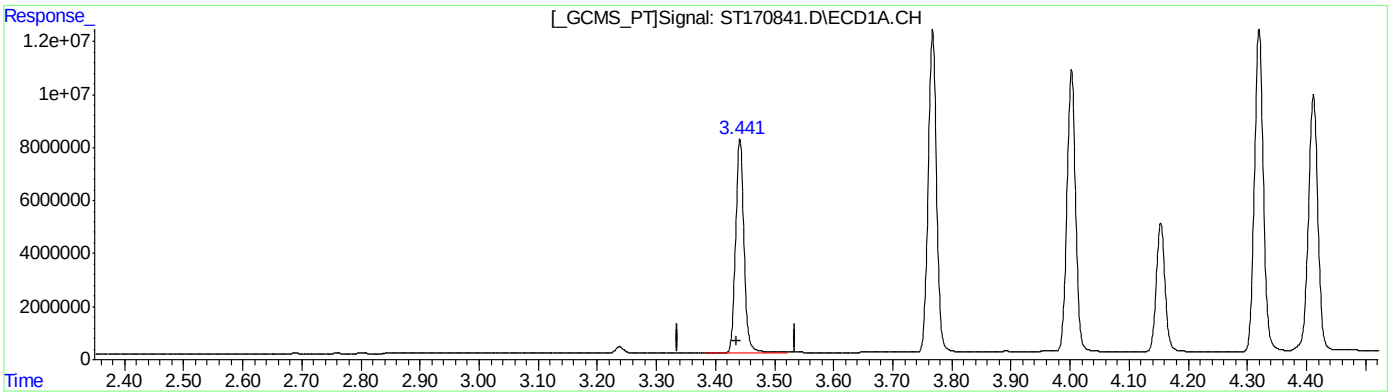

QEdit

(1) Tetrachloro-m-xylene (S)
3.441min 55.853 PPB
response 8066199

(1) Tetrachloro-m-xylene #2 (S)
3.381min 86.868 PPB
response 1726287

(+) = Expected Retention Time
GST4174_083123DOD.M Tue Oct 31 11:20:59 2023 Page: 1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170841.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
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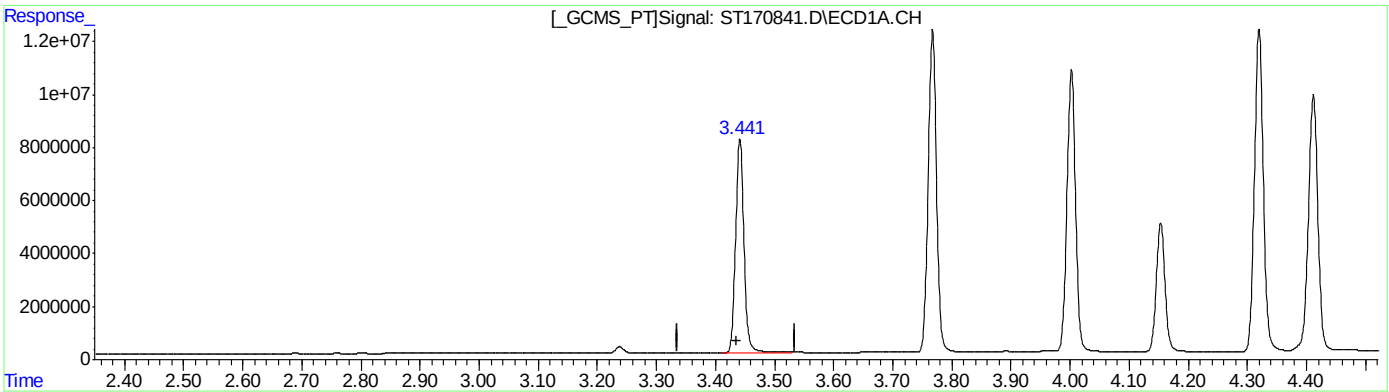

QEdit

(1) Tetrachloro-m-xylene (S)

3.441min 55.899 PPB m

response 8072831

(1) Tetrachloro-m-xylene #2 (S)

3.381min 86.868 PPB

response 1726287

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170842.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:57 am
Operator : eduardom
Sample : ic4174-80 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 31 11:21:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.441	3.381	10764404	2253158	74.537m	113.381 #
		Spiked Amount	50.000	Range	42 - 127	Recovery	= 149.07%#	226.76%#
33)	S	Decachlor...	7.404	7.375	7596699	1977777	76.593m	84.462
		Spiked Amount	50.000	Range	27 - 127	Recovery	= 153.19%#	168.92%#
		Target Compounds						
2)		alpha-BHC	3.768	3.790	16074771	3488716	76.922	126.007 #
3)		gamma-BHC...	4.003	4.050	14495176	3243704	78.330	123.512 #
4)		beta-BHC	4.154	4.274	6516964	1478978	77.362	109.332 #
5)		delta-BHC	4.320	4.454	16424023	3509441	83.434	124.471 #
6)		Heptachlor	4.412	4.320	12953261	3122930	77.171	121.615 #
7)		Aldrin	4.646	4.536	13675608	3393790	77.339	119.736 #
8)		Heptachlo...	4.949	4.910	13751955	3378653	81.126	113.303
9)		gamma-Chl...	5.131	5.097	13473152	3405031	80.469	112.810 #
10)		alpha-Chl...	5.185	5.144	12802861	3351650	78.336	111.081 #
11)		4,4'-DDE	5.329	5.279	14058543	3518265	82.618	119.244 #
12)		Endosulfa...	5.214	5.186	11816955	3177428	80.022	112.793 #
13)		Dieldrin	5.409	5.382	14543167	3667694	82.750	117.983 #
14)		Endrin	5.565	5.584	14168301	3357007	85.824	115.413
15)		4,4'-DDD	5.694	5.688	12359917	2947177	84.935	115.712
16)		Endosulfa...	5.726	5.799	12595767	3171886	82.611	108.670
17)		4,4'-DDT	5.915	5.874	9972796	2788237	79.868	111.200
18)		Endrin Al...	5.819	5.929	9526175	2435351	84.377	104.792
19)		Methoxychlor	6.277	6.299	5300073	1449615	81.486	109.304
20)		Endosulfa...	5.987	6.093	11619573	2945130	79.600	106.719
21)		Endrin Ke...	6.323	6.478	11968921	3014390	79.819	102.505
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170842.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 10:57 am
Operator : eduardom
Sample : ic4174-80 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 31 11:21:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
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Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

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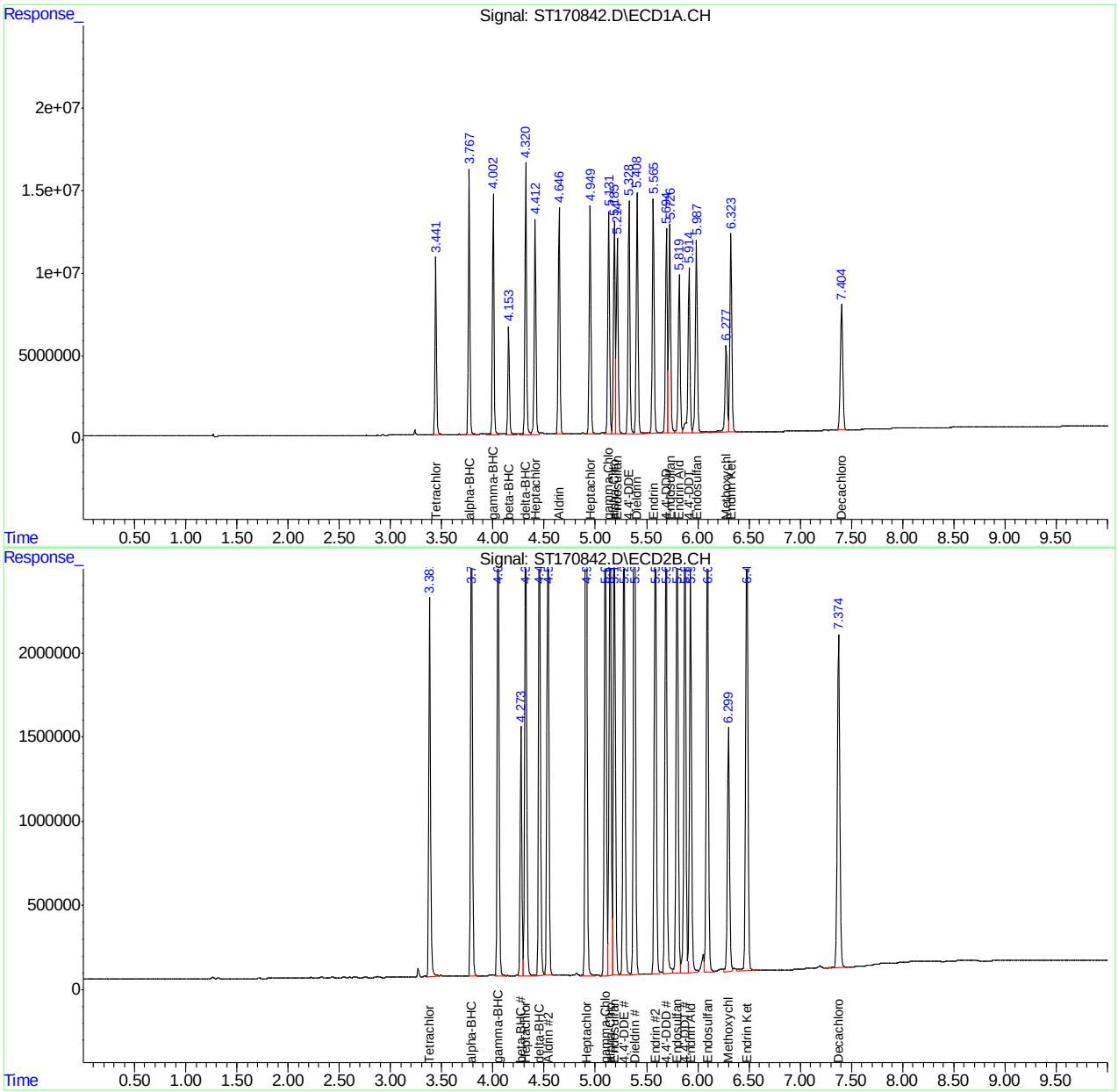

FC10955

Manual Integration Approval Summary

Sample Number:	GST4174-IC4174	**Method:**	SW846 8081B
Lab FileID:	ST170842.D	**Analyst approved:**	10/31/23 16:40 Eduardo Melendez
Injection Time:	10/31/23 10:57	**Supervisor approved:**	10/31/23 17:17 Naresh Jiawan

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrachloro-m-xylene	877-09-8	1	3.44	Poor instrument integration
Decachlorobiphenyl	2051-24-3	1	7.40	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170842.D
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Acq On : 31 Oct 2023 10:57 am
Operator : eduardom
Sample : ic4174-80 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 9 Sample Multiplier: 1

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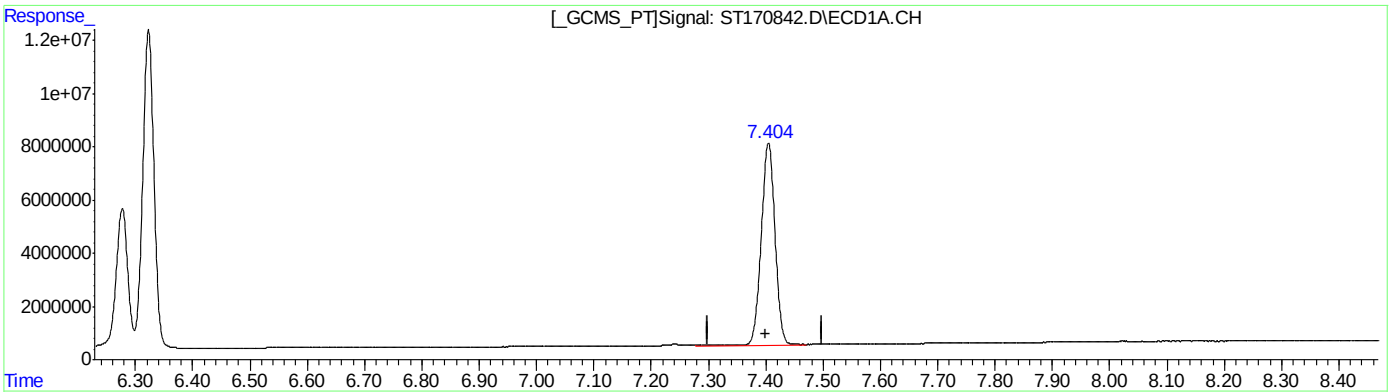

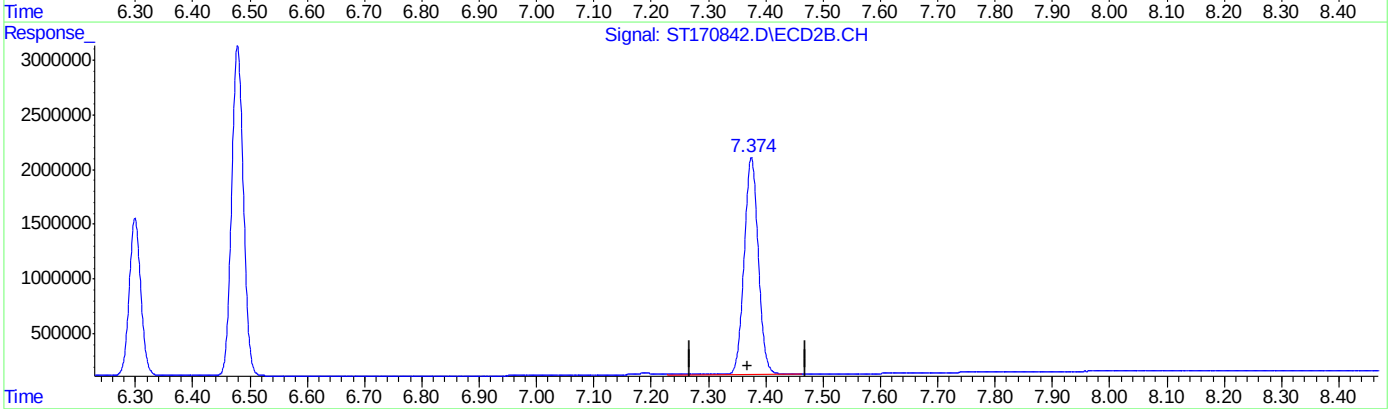

QEdit

(33) Decachlorobiphenyl (S)

7.405min 76.920 ppb

response 7629168

(33) Decachlorobiphenyl #2 (S)

7.375min 84.462 ppb

response 1977777

(+) = Expected Retention Time

Quantitation Report (Qedit)

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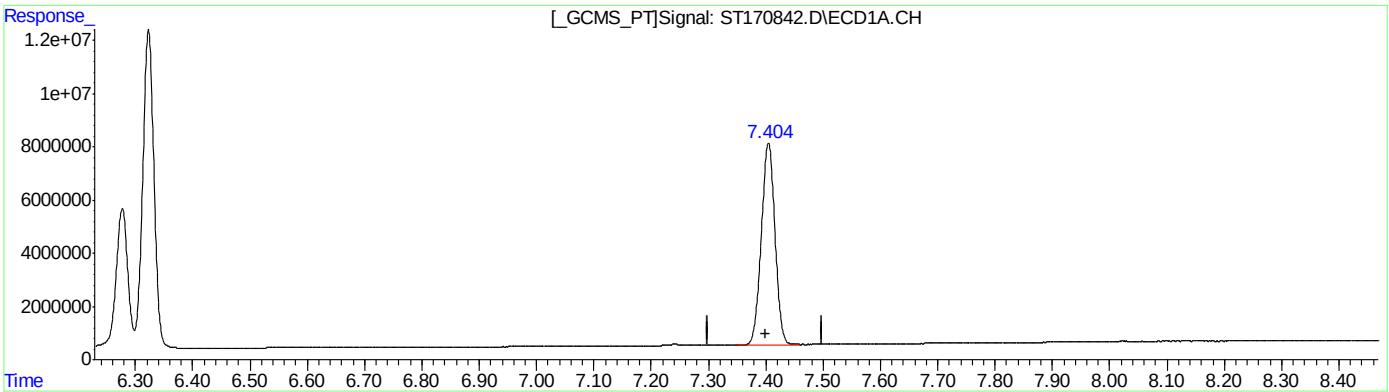

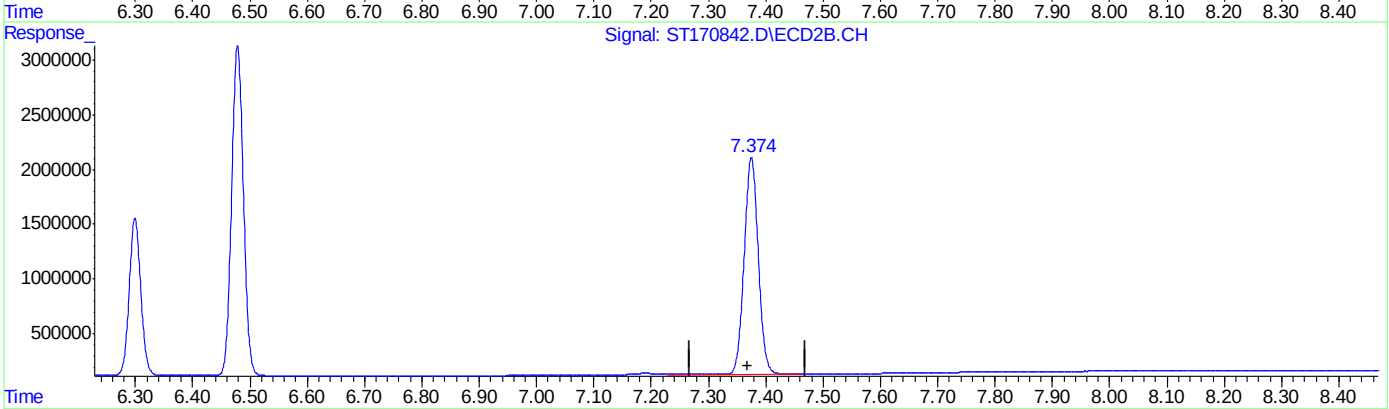

QEdit

(33) Decachlorobiphenyl (S)

7.404min 76.593 ppb m

response 7596699

(33) Decachlorobiphenyl #2 (S)

7.375min 84.462 ppb

response 1977777

(+) = Expected Retention Time

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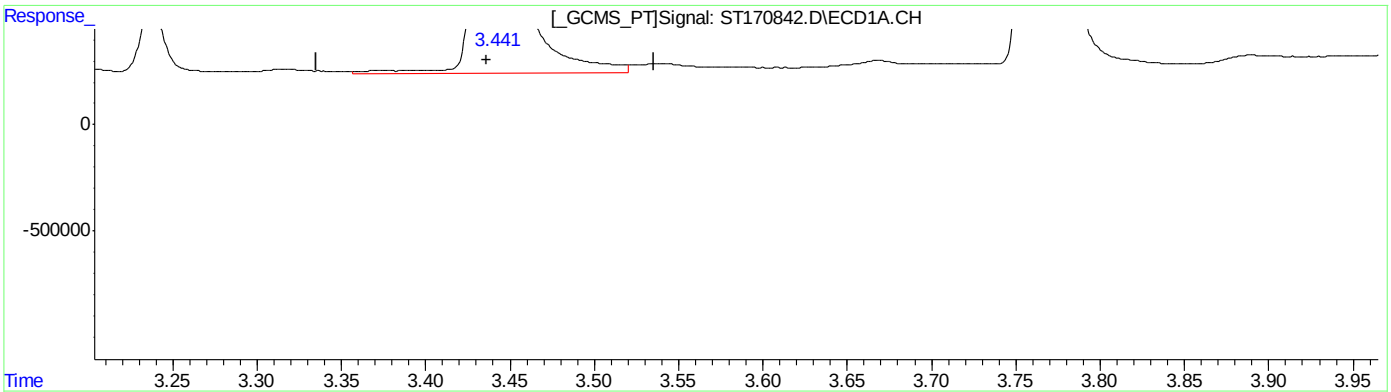

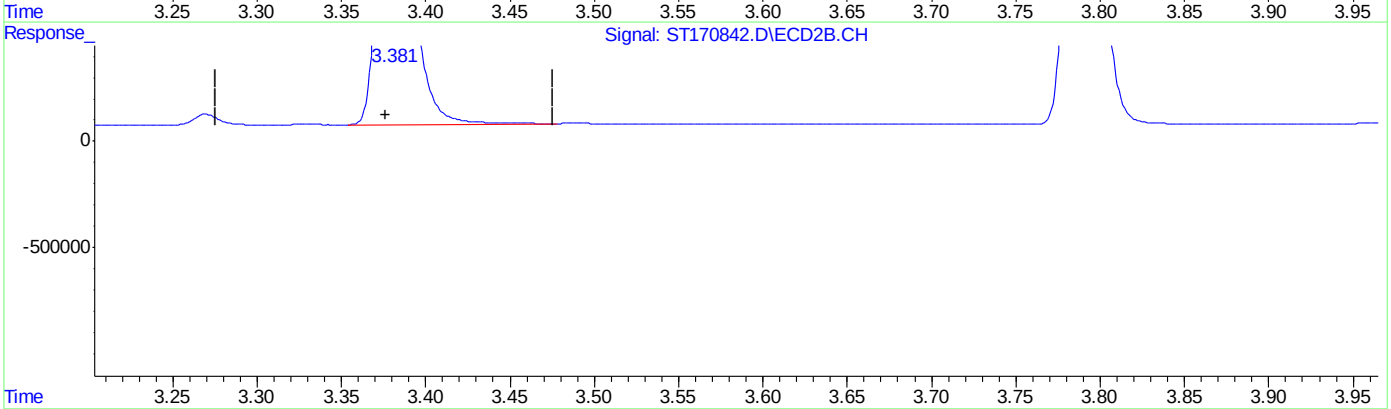

QEdit

(1) Tetrachloro-m-xylene (S)

3.442min 74.426 PPB

response 10748387

(1) Tetrachloro-m-xylene #2 (S)

3.381min 113.381 PPB

response 2253158

(+) = Expected Retention Time

Quantitation Report (Qedit)

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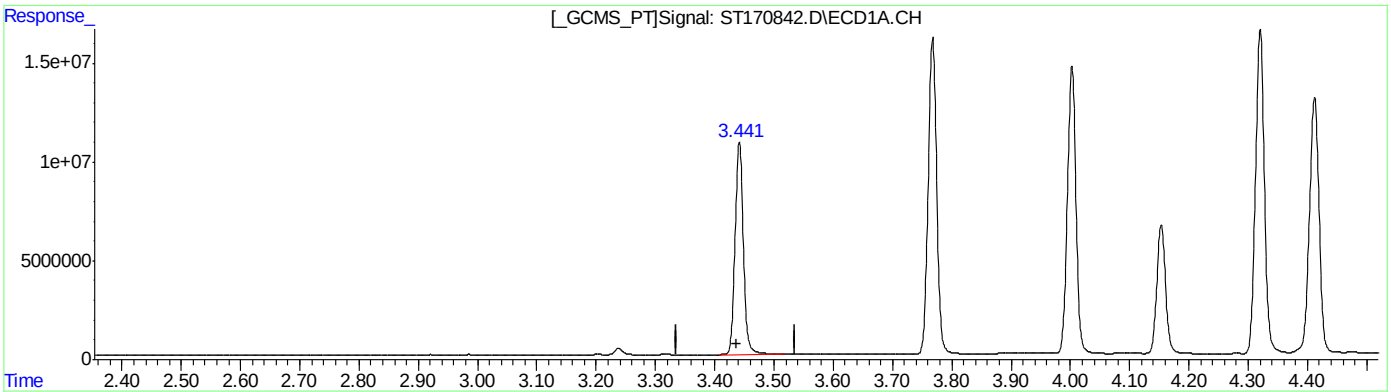

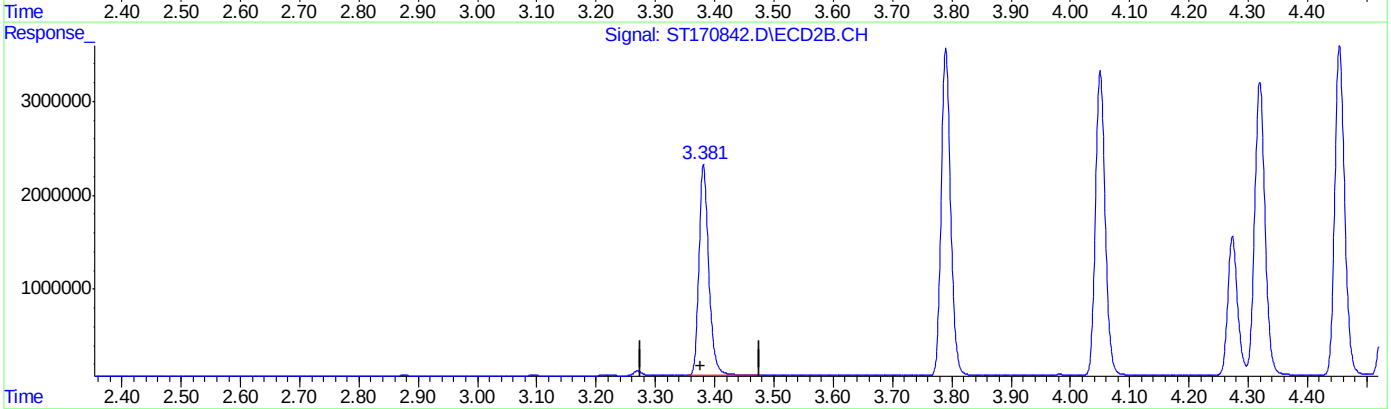

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(1) Tetrachloro-m-xylene (S)

3.441min 74.537 PPB m

response 10764404

(1) Tetrachloro-m-xylene #2 (S)

3.381min 113.381 PPB

response 2253158

(+) = Expected Retention Time

ST170843.D

Manual Integrations APPROVED (compounds with "m" flag)

Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170843.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:12 am
Operator : eduardom
Sample : ic4174-120 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 31 11:22:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.442	3.381	15785612	3324831	109.305	167.309 #
		Spiked Amount	50.000	Range 42 - 127		Recovery =	218.61%#	334.62%#
33)	S	Decachlor...	7.406	7.375	11234502	2931404	113.270m	125.187
		Spiked Amount	50.000	Range 27 - 127		Recovery =	226.54%#	250.37%#
		Target Compounds						
2)		alpha-BHC	3.768	3.790	24740409	5133136	118.389	185.401 #
3)		gamma-BHC...	4.003	4.050	22299998	4843920	120.507	184.445 #
4)		beta-BHC	4.154	4.273	9808882	2200768	116.439	162.689
5)		delta-BHC	4.320	4.454	24318505	5175278	123.538	183.555 #
6)		Heptachlor	4.412	4.320	19771405	4674863	117.791	182.051 #
7)		Aldrin	4.646	4.536	20818922	4993010	117.736	176.157 #
8)		Heptachlo...	4.949	4.910	20522001	5075503	121.065	170.206 #
9)		gamma-Chl...	5.131	5.097	20519182	5022108	122.552	166.385
10)		alpha-Chl...	5.185	5.144	19522060	4914810	119.449	162.888
11)		4,4'-DDE	5.329	5.280	21249347	5202547	124.876	176.329 #
12)		Endosulfa...	5.214	5.187	17671404	4741804	119.667	168.325 #
13)		Dieldrin	5.408	5.382	21775049	5461260	123.900	175.678 #
14)		Endrin	5.565	5.585	20542901	4951463	124.437	170.229
15)		4,4'-DDD	5.694	5.688	18480002	4409998	126.992	173.145
16)		Endosulfa...	5.726	5.798	18743995	4642587	122.934	159.056
17)		4,4'-DDT	5.915	5.875	15784121	4313158	118.573	172.017 #
18)		Endrin Al...	5.820	5.929	14465279	3582192	128.124	154.140
19)		Methoxychlor	6.277	6.300	8092497	2164972	124.418	163.243
20)		Endosulfa...	5.987	6.094	17409433	4346905	119.263	157.514
21)		Endrin Ke...	6.324	6.479	18092738	4527434	120.658	153.956
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170843.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:12 am
Operator : eduardom
Sample : ic4174-120 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 31 11:22:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

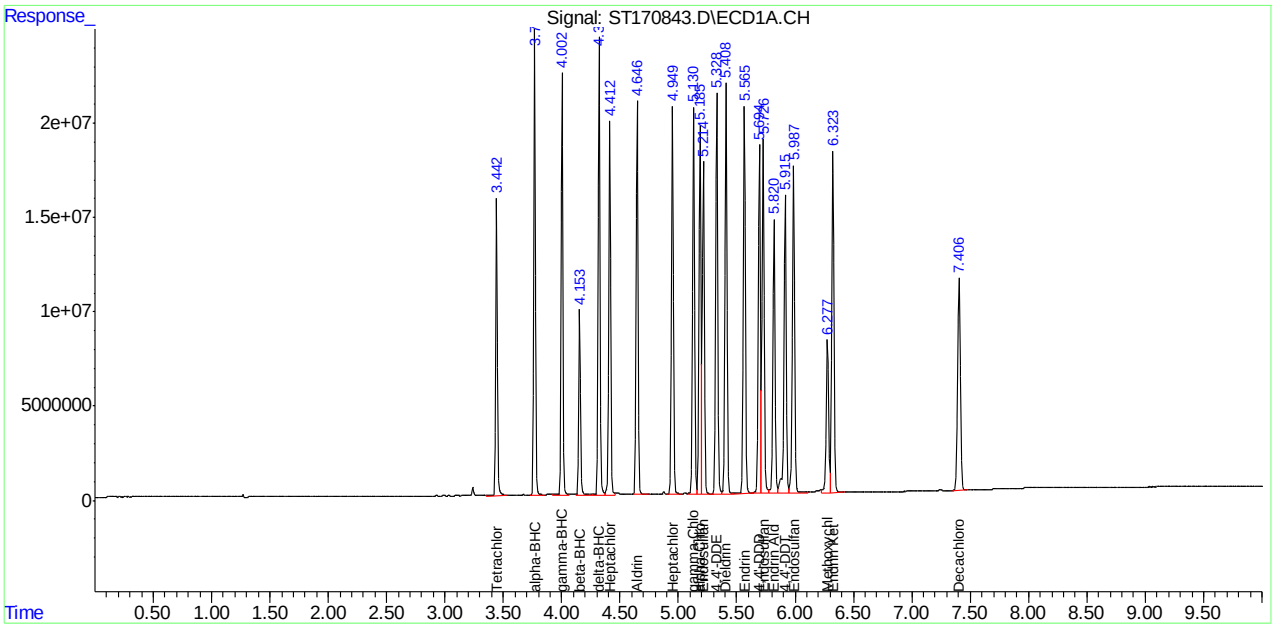
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

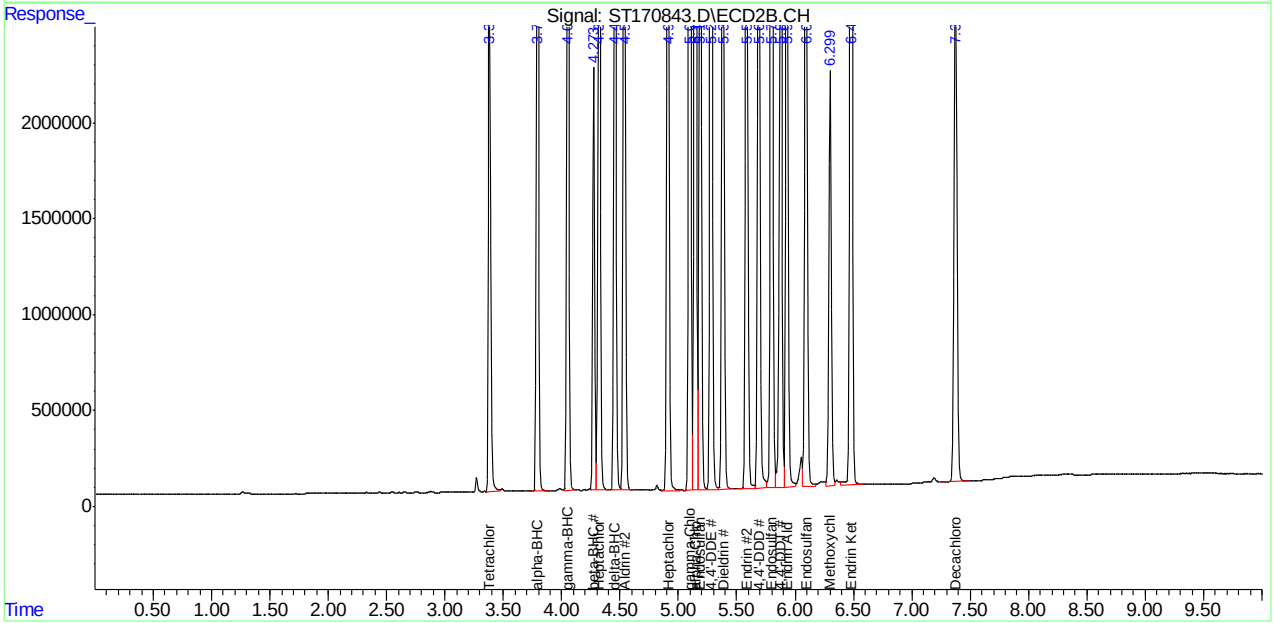
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170843.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:12 am
Operator : eduardom
Sample : ic4174-120 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 31 11:22:40 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





12.5.52 12
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FC10955

Manual Integration Approval Summary

Sample Number:	GST4174-IC4174	**Method:**	SW846 8081B
Lab FileID:	ST170843.D	**Analyst approved:**	10/31/23 16:40 Eduardo Melendez
Injection Time:	10/31/23 11:12	**Supervisor approved:**	10/31/23 17:17 Naresh Jiawan

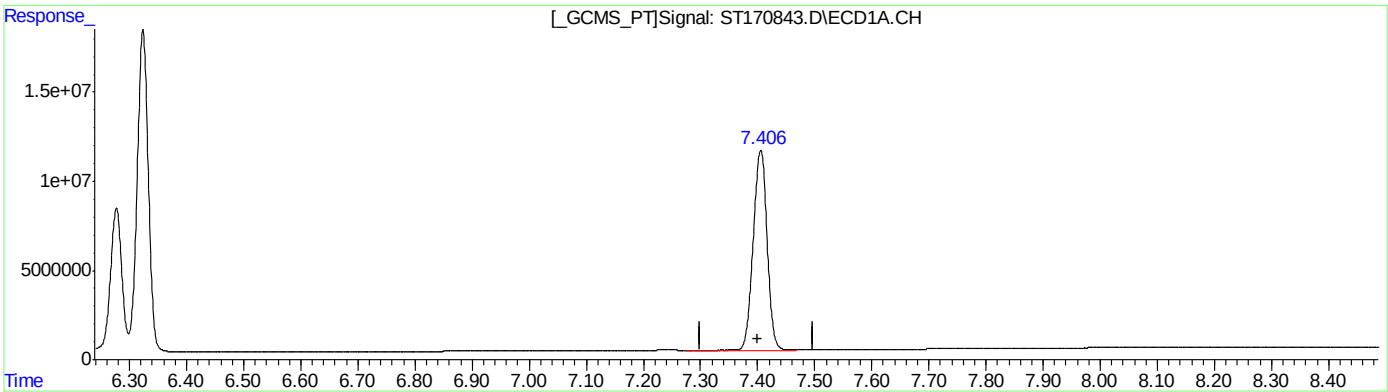
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.41	Poor instrument integration

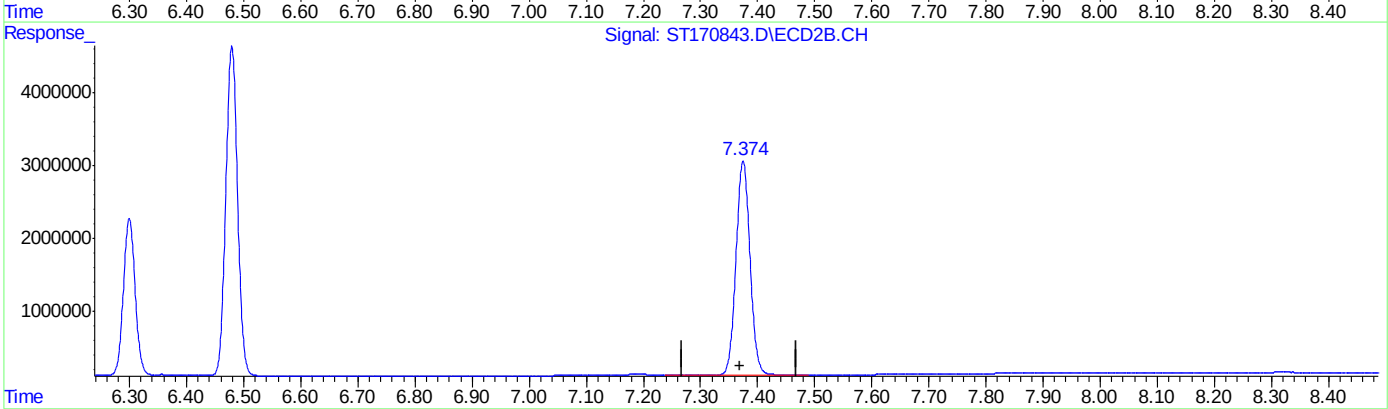
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170843.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:12 am
Operator : eduardom
Sample : ic4174-120 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 31 11:22:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.406min 113.363 ppb

response 11243715

(33) Decachlorobiphenyl #2 (S)

7.375min 125.187 ppb

response 2931404

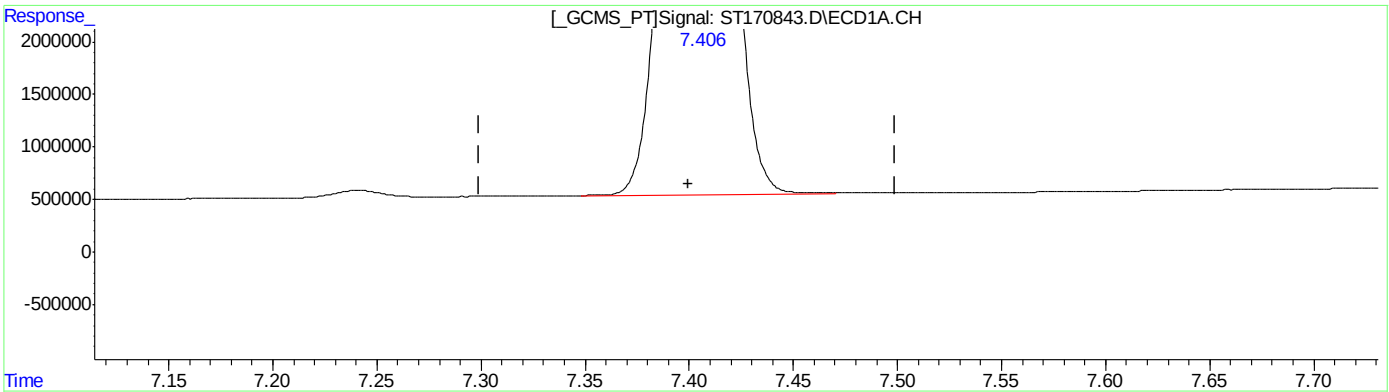
(+) = Expected Retention Time

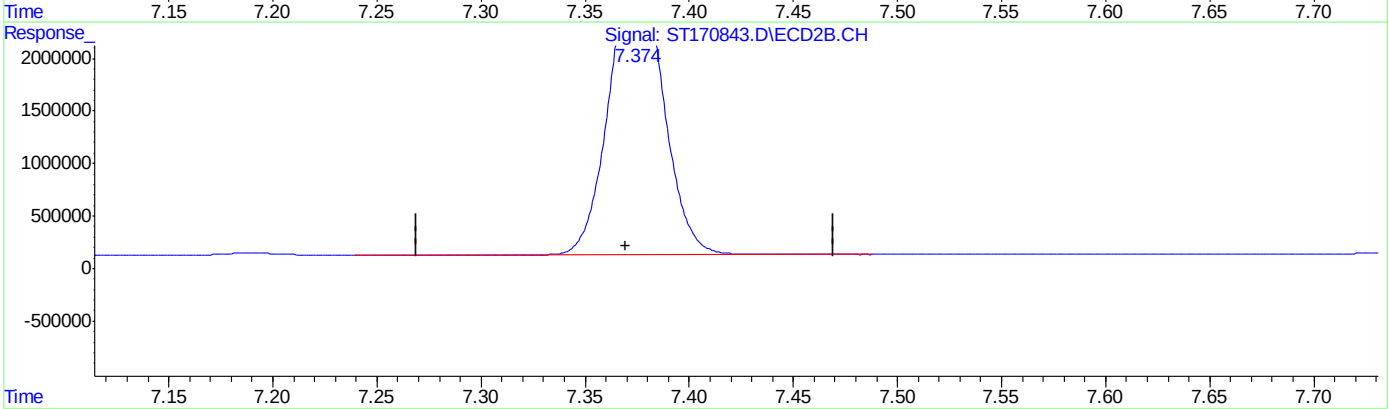
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170843.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:12 am
Operator : eduardom
Sample : ic4174-120 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 31 11:22:11 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Oct 26 13:25:14 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.406min 113.270 ppb m

response 11234502

(33) Decachlorobiphenyl #2 (S)

7.375min 125.187 ppb

response 2931404

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170846.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:56 am
Operator : eduardom
Sample : ic4174-100 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 31 13:40:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.345	5.354	1985216	619838	37.699m	46.525m
29) L2	Toxaphene-B	5.698	5.765	2895938	995726	36.087m	67.678m#
30) L2	Toxaphene-C	5.758	5.825	5797779	841326	70.968m	57.184m
31) L2	Toxaphene-D	5.923	6.013	3357651	670159	152.673m	315.434m#
32) L2	Toxaphene-E	6.278	6.394	1370986	676529	27.719m	54.338m#
	Sum Toxaphene-A			15407570	3803578	325.145	541.159
	Average Toxaphene-A					65.029	108.232

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170846.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:56 am
Operator : eduardom
Sample : ic4174-100 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 31 13:40:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

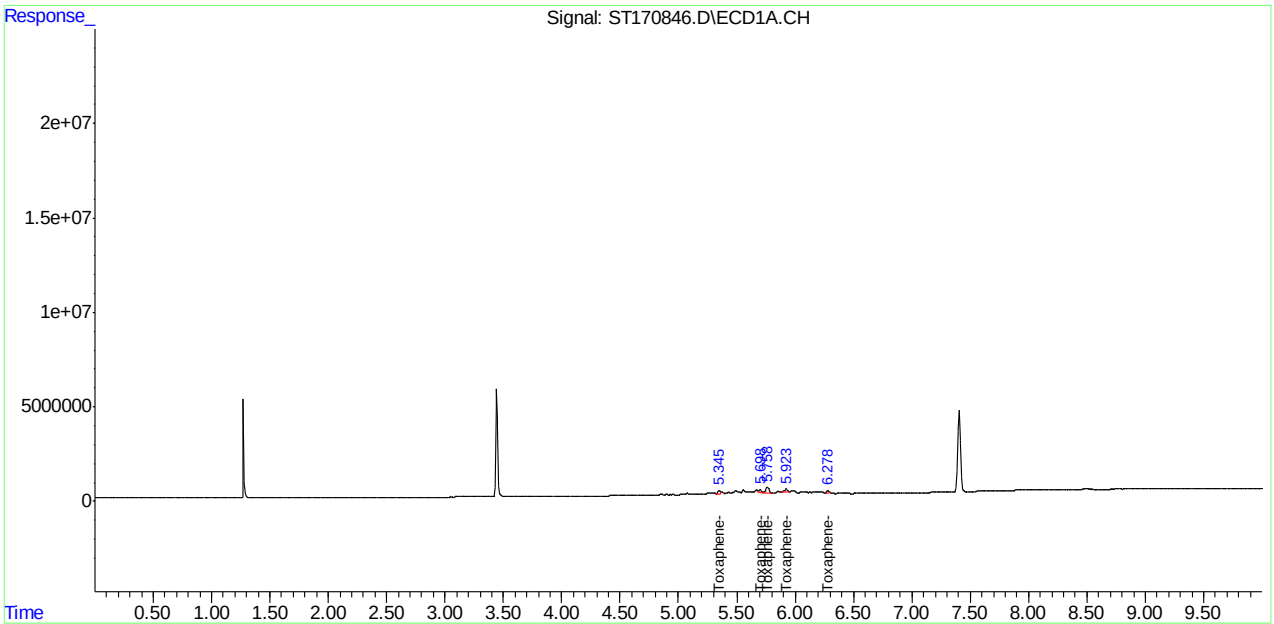
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

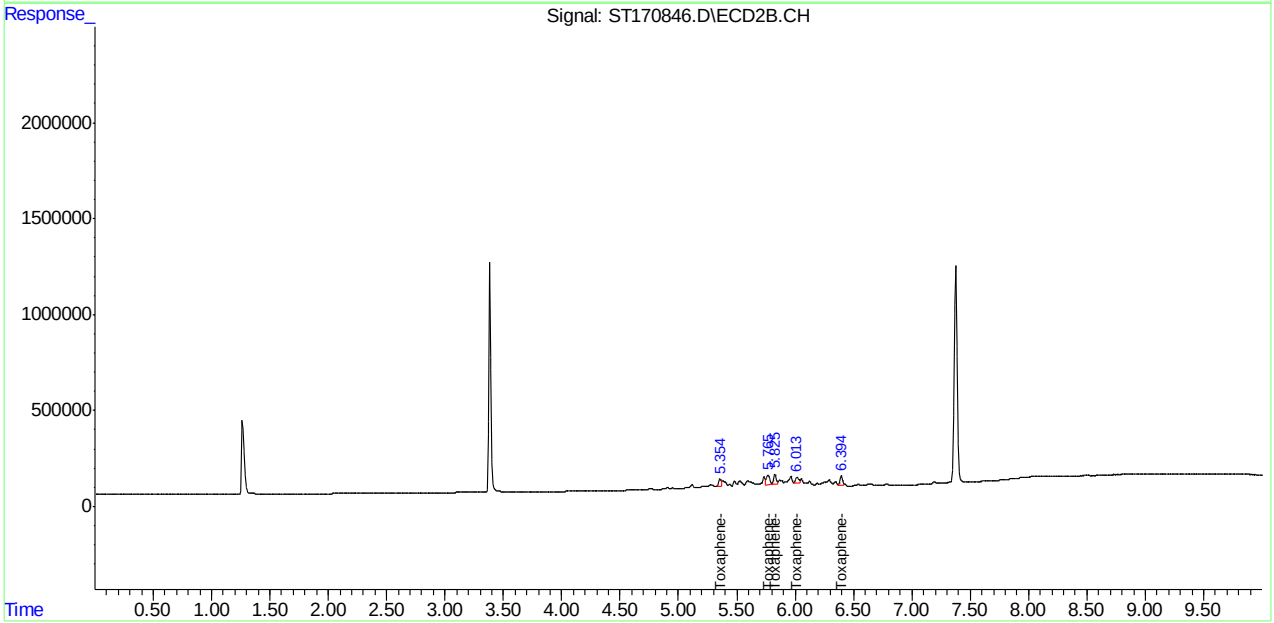
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170846.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:56 am
Operator : eduardom
Sample : ic4174-100 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 31 13:40:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170846.D
Injection Time: 10/31/23 11:56
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

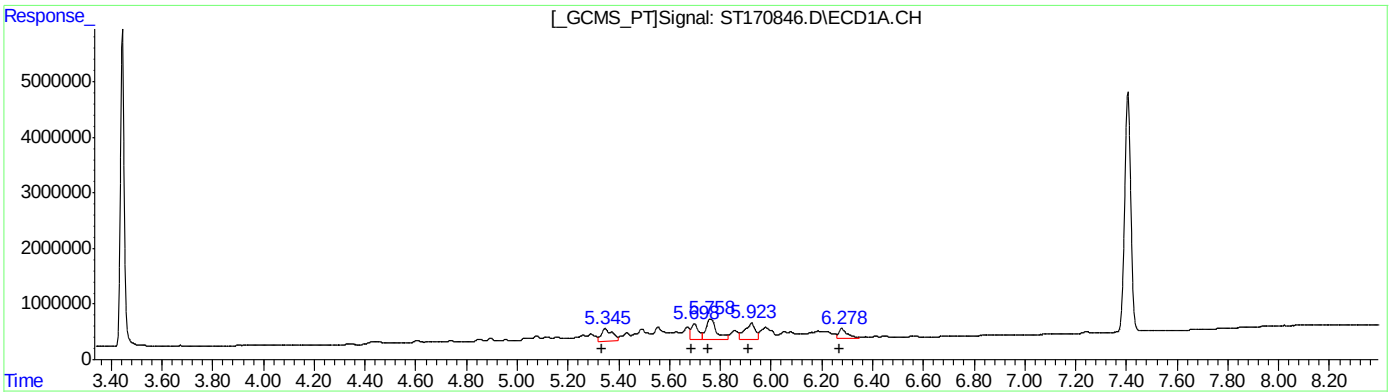
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.77	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.01	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.39	Poor instrument integration

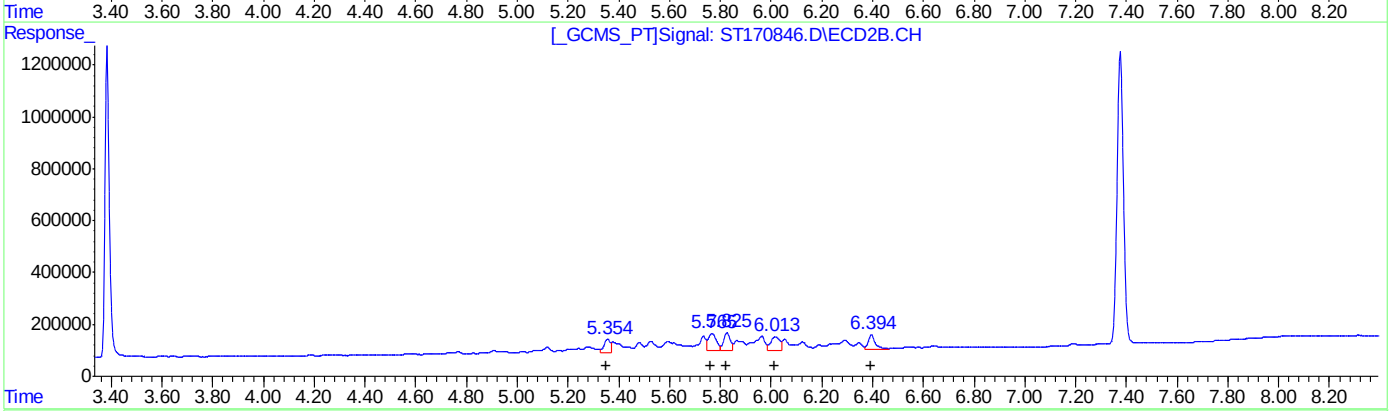
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170846.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:56 am
Operator : eduardom
Sample : ic4174-100 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 31 13:39:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	6625225	125.81
5.70	6076725	75.72
5.76	10969610	134.27
5.92	8186357	372.24
6.28	3945981	79.78

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	858120	64.41
5.77	1528993	103.92
5.83	1303835	88.62
6.01	1267045	596.38
6.39	1037089	83.30

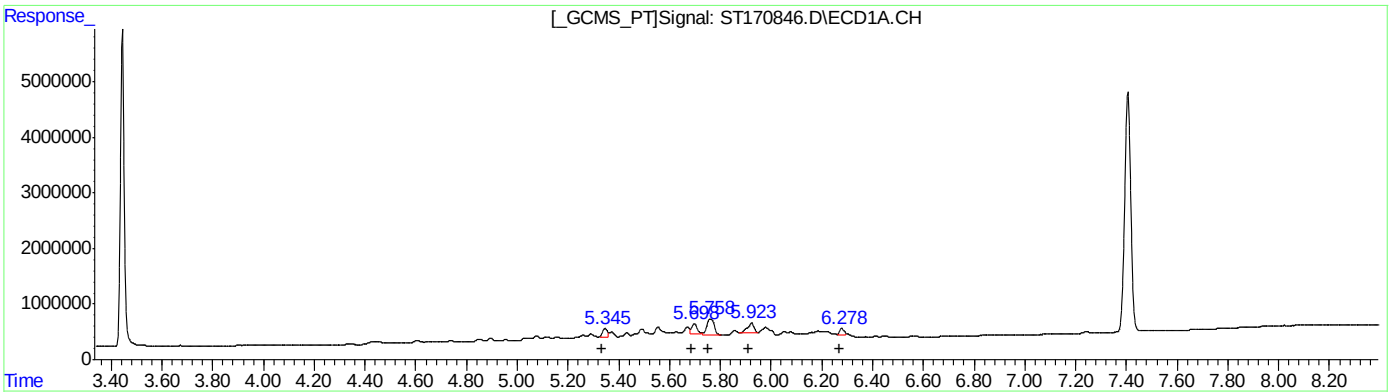
(+) = Expected Retention Time

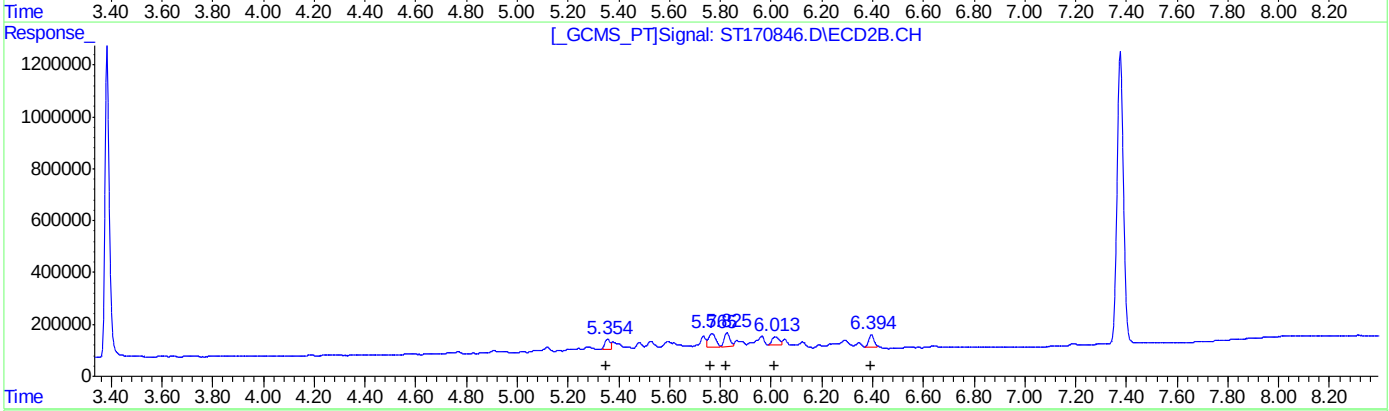
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170846.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:56 am
Operator : eduardom
Sample : ic4174-100 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 31 13:39:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	1985216	37.70
5.70	2895938	36.09
5.76	5797779	70.97
5.92	3357651	152.67
6.28	1370986	27.72

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	619838	46.52
5.77	995726	67.68
5.83	841326	57.18
6.01	670159	315.43
6.39	676529	54.34

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan
10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170847.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:11 pm
Operator : eduardom
Sample : ic4174-200 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 31 13:41:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:40:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.344	5.354	4202801	1156294	113.969m	122.118m
29) L2	Toxaphene-B	5.697	5.766	4909275	1925049	122.412m	158.834m
30) L2	Toxaphene-C	5.761	5.825	11076404	1624183	197.579m	143.126m
31) L2	Toxaphene-D	5.922	6.016	7387364	1550666	298.935m	379.480m
32) L2	Toxaphene-E	6.278	6.395	3291255	1553673	144.927m	157.563m
	Sum Toxaphene-A			30867099	7809865	877.822	961.121
	Average Toxaphene-A					175.564	192.224

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170847.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:11 pm
Operator : eduardom
Sample : ic4174-200 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 31 13:41:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:40:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

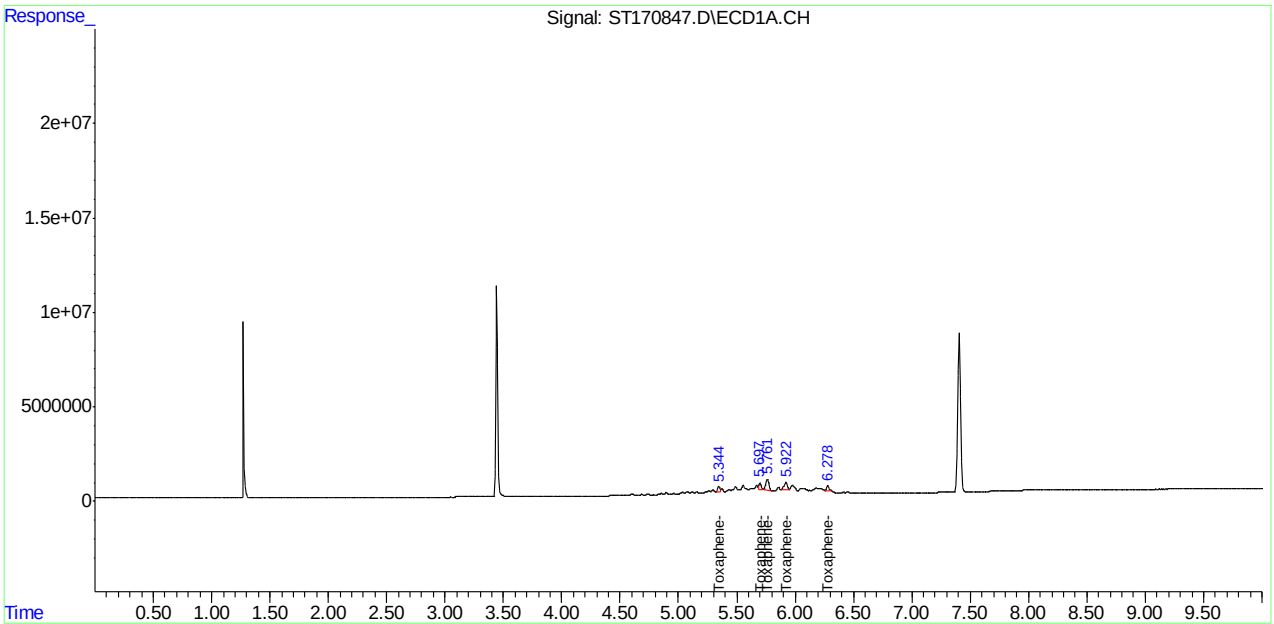
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

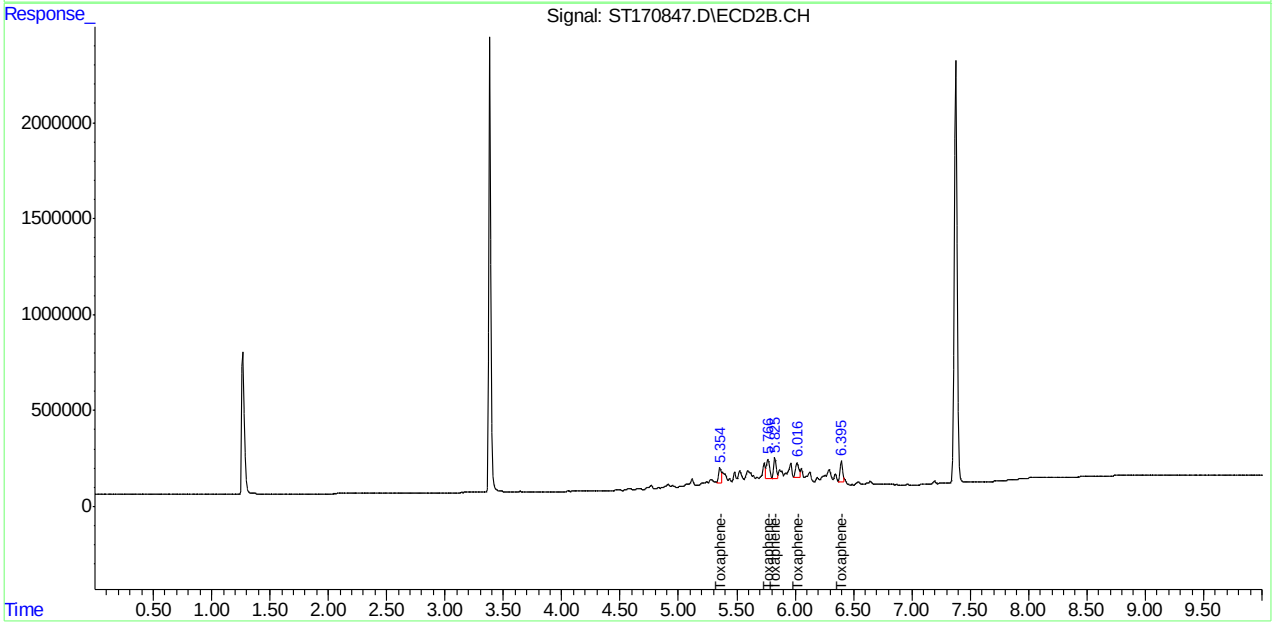
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170847.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:11 pm
Operator : eduardom
Sample : ic4174-200 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 31 13:41:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:40:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174 **Method:** SW846 8081B
Lab FileID: ST170847.D **Analyst approved:** 10/31/23 16:40 Eduardo Melendez
Injection Time: 10/31/23 12:11 **Supervisor approved:** 10/31/23 17:17 Naresh Jiawan

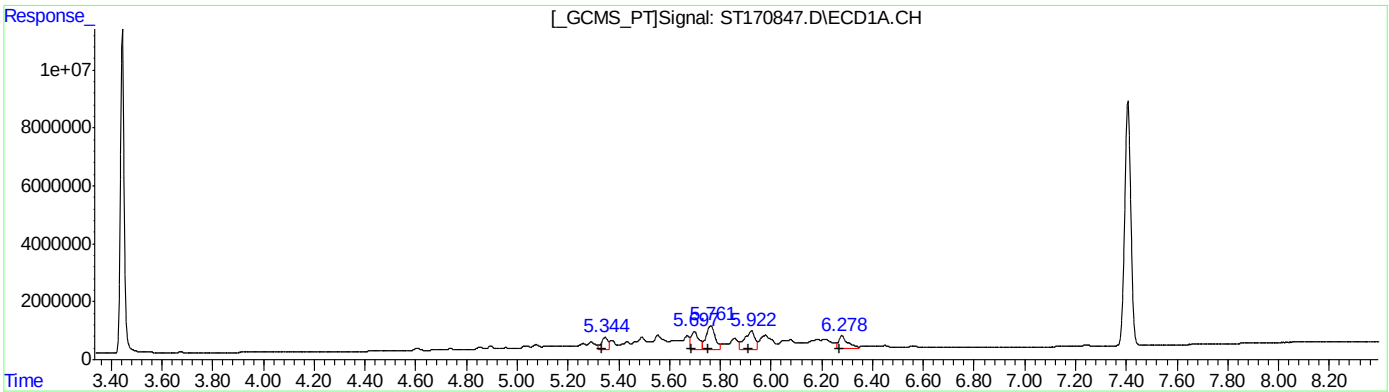
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.77	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

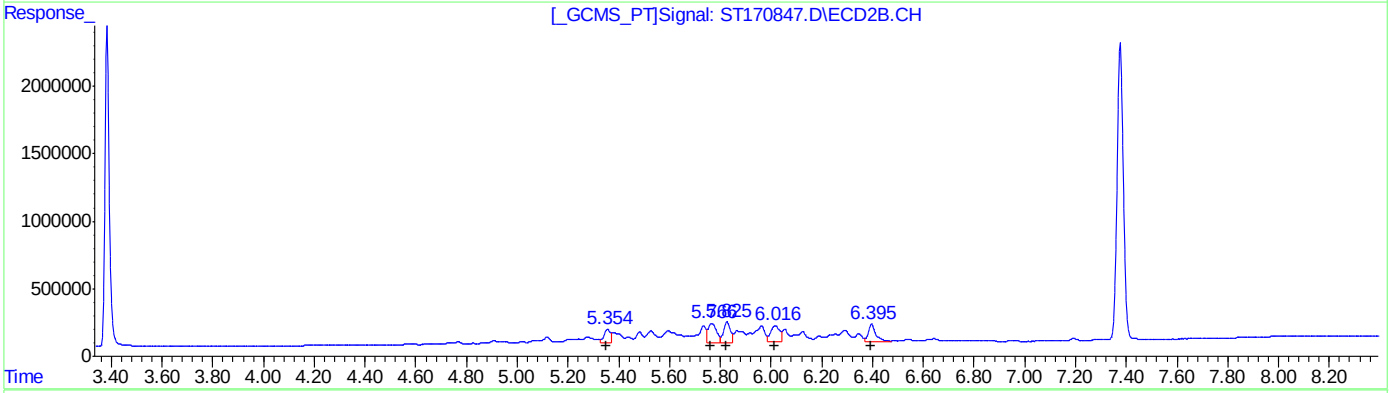
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170847.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:11 pm
Operator : eduardom
Sample : ic4174-200 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 31 13:40:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:40:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	8005674	217.09
5.70	13177331	328.57
5.76	20520030	366.03
5.92	17819299	721.07
6.28	10985766	483.75

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	1786049	188.63
5.77	3325190	274.36
5.83	2832646	249.62
6.02	2973404	727.65
6.40	2537481	257.33

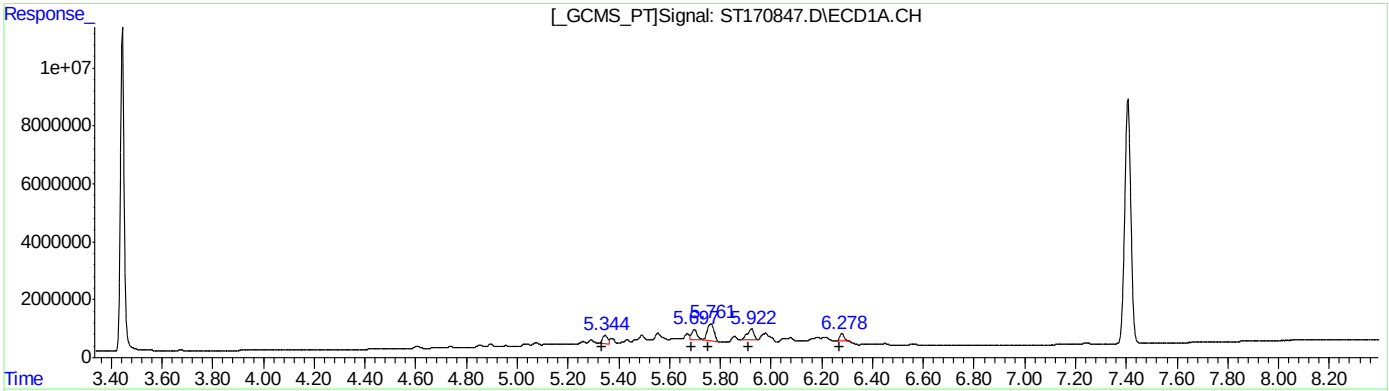
(+) = Expected Retention Time

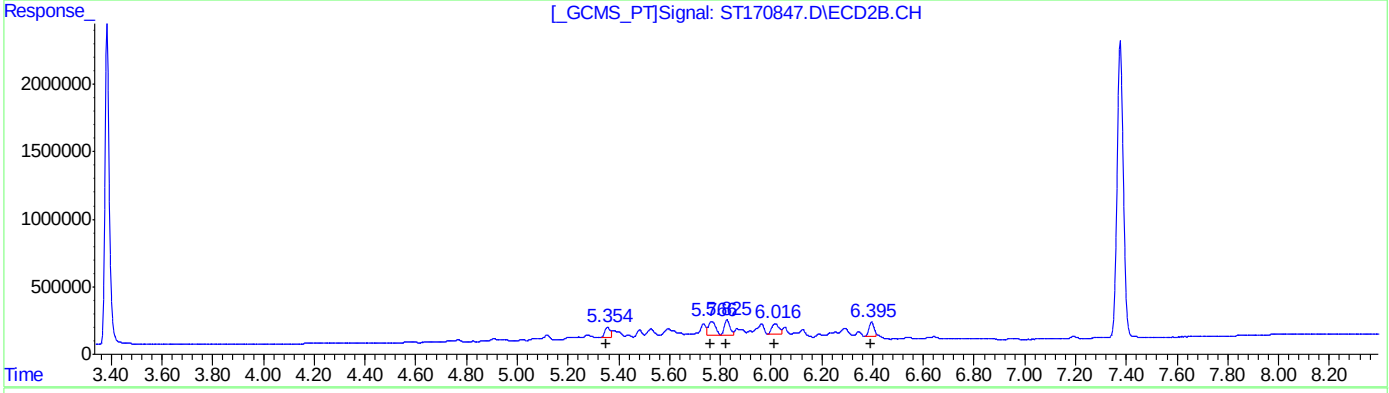
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170847.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:11 pm
Operator : eduardom
Sample : ic4174-200 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 31 13:40:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:40:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	4202801	113.97
5.70	4909275	122.41
5.76	11076404	197.58
5.92	7387364	298.94
6.28	3291255	144.93

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	1156294	122.12
5.77	1925049	158.83
5.83	1624183	143.13
6.02	1550666	379.48
6.40	1553673	157.56

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170848.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:26 pm
Operator : eduardom
Sample : ic4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 31 13:42:37 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.345	5.354	9048729	2763727	442.847m	461.396m
29) L2	Toxaphene-B	5.696	5.763	12433205	4810133	464.743m	491.268m
30) L2	Toxaphene-C	5.760	5.825	28261972	4308677	498.624m	521.184m
31) L2	Toxaphene-D	5.922	6.015	20023969	4418697	567.948m	611.376m
32) L2	Toxaphene-E	6.278	6.395	8549027	4545127	566.796m	625.462m
	Sum Toxaphene-A			78316902	20846362	2540.959	2710.687
	Average Toxaphene-A					508.192	542.137

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170848.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:26 pm
Operator : eduardom
Sample : ic4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 31 13:42:37 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170848.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:26 pm
Operator : eduardom
Sample : ic4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 31 13:42:37 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
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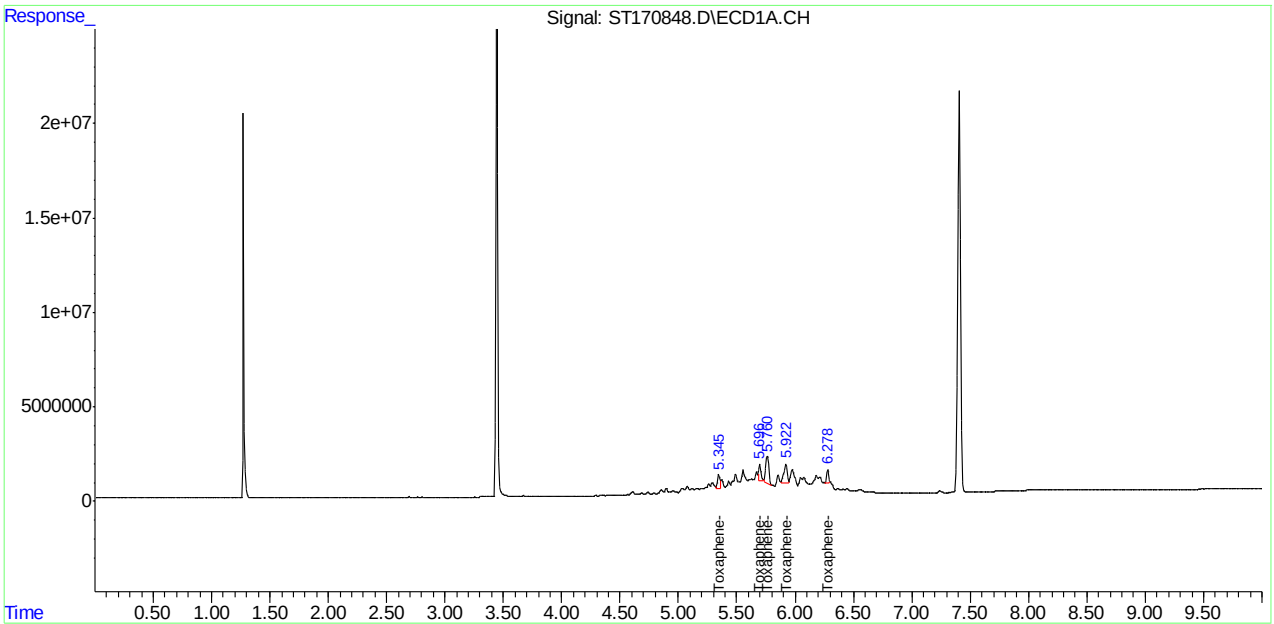
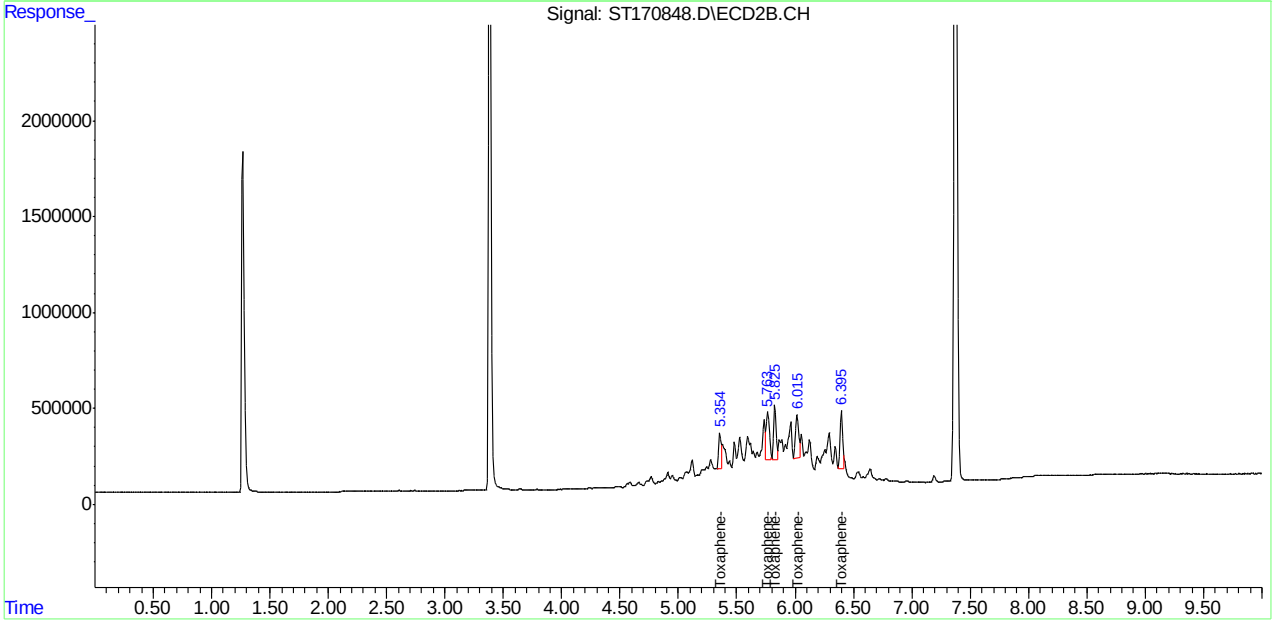
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174 **Method:** SW846 8081B
Lab FileID: ST170848.D **Analyst approved:** 10/31/23 16:40 Eduardo Melendez
Injection Time: 10/31/23 12:26 **Supervisor approved:** 10/31/23 17:17 Naresh Jiawan

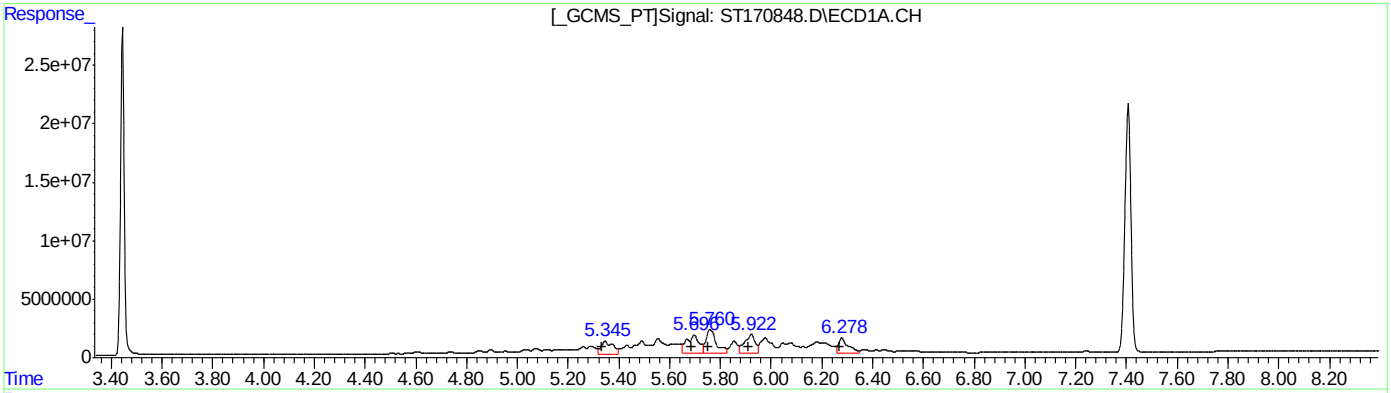
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.76	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.01	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

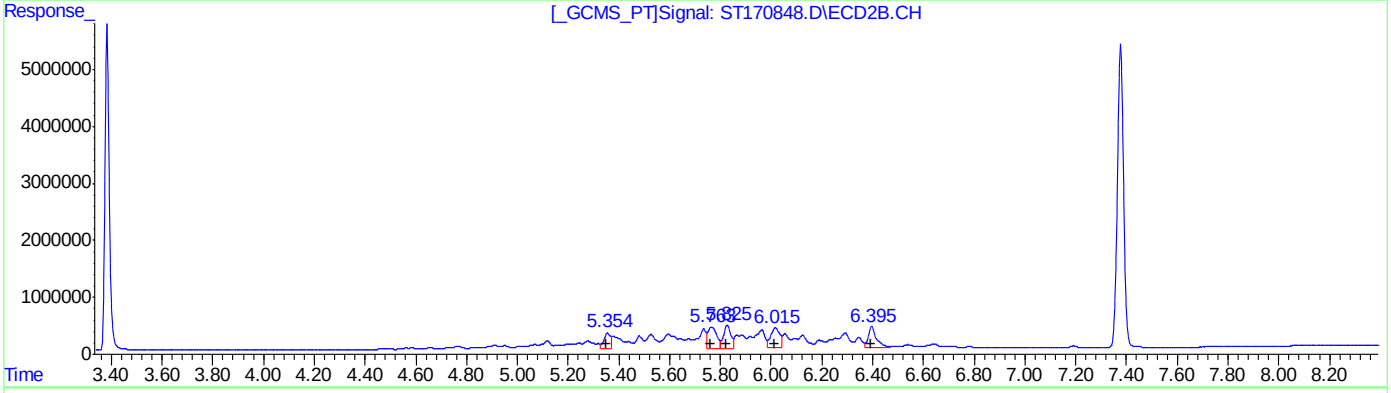
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170848.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:26 pm
Operator : eduardom
Sample : ic4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 31 13:41:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	33757153	1652.08
5.70	54623974	2041.80
5.76	58097090	1025.00
5.92	46683885	1324.12
6.28	33813584	2241.82

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	4835303	807.24
5.76	9098971	929.30
5.83	7936450	960.01
6.02	8781392	1215.00
6.40	8486094	1167.78

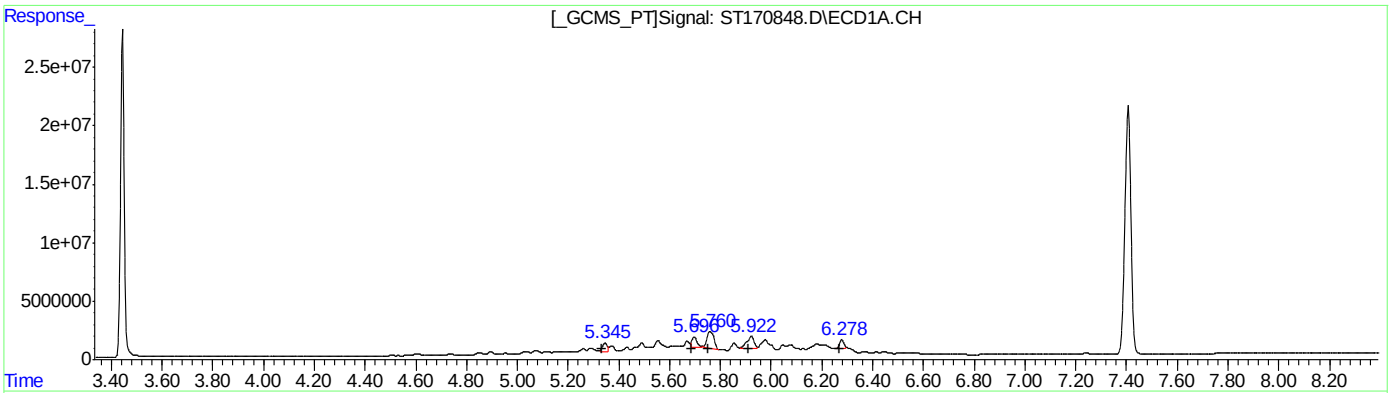
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170848.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:26 pm
Operator : eduardom
Sample : ic4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 31 13:41:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	9048729	442.85
5.70	12433205	464.74
5.76	28261972	498.62
5.92	20023969	567.95
6.28	8549027	566.80

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	2763727	461.40
5.76	4810133	491.27
5.83	4308677	521.18
6.01	4418697	611.38
6.40	4545127	625.46

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170849.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:41 pm
Operator : eduardom
Sample : ic4174-750 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 31 13:44:21 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.344	5.354	14699526	4164866	719.398m	695.312m
29) L2	Toxaphene-B	5.696	5.764	18506897	7906043	691.772m	807.460m
30) L2	Toxaphene-C	5.759	5.826	41675357	6389556	735.276m	772.891m
31) L2	Toxaphene-D	5.922	6.015	29407374	6999430	834.094m	968.450m
32) L2	Toxaphene-E	6.278	6.395	14435765	7481677	957.084m	1029.566m
	Sum Toxaphene-A			118.7E6	32941571	3937.624	4273.677
	Average Toxaphene-A					787.525	854.735

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170849.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:41 pm
Operator : eduardom
Sample : ic4174-750 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 31 13:44:21 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

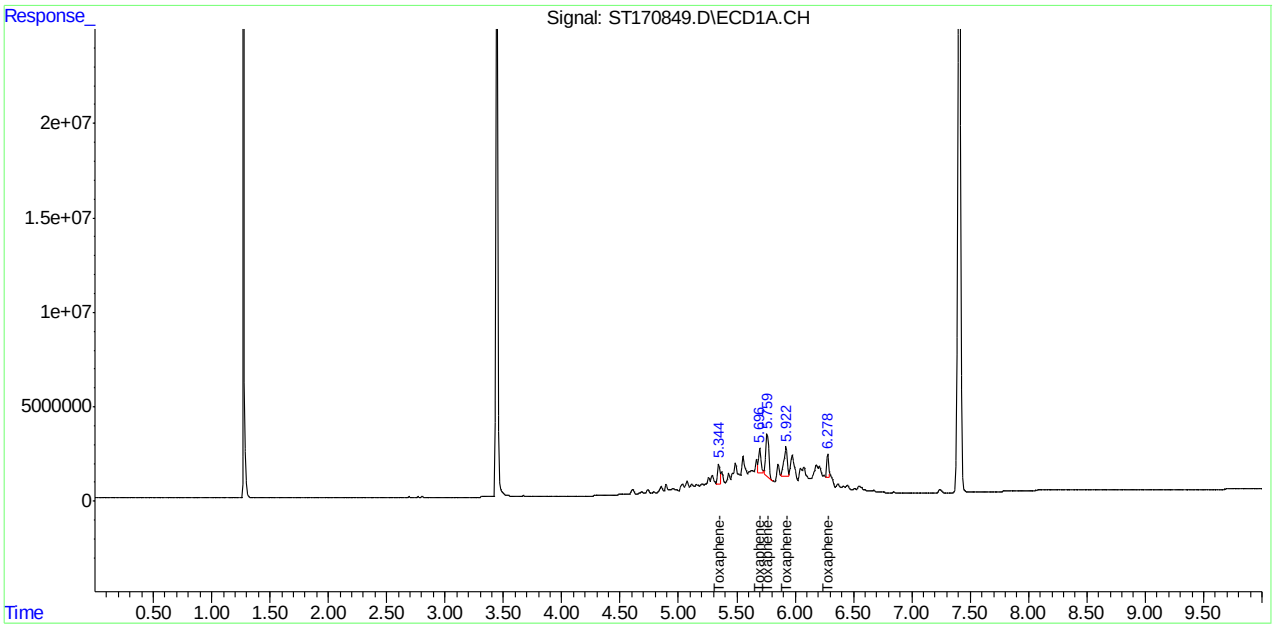
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

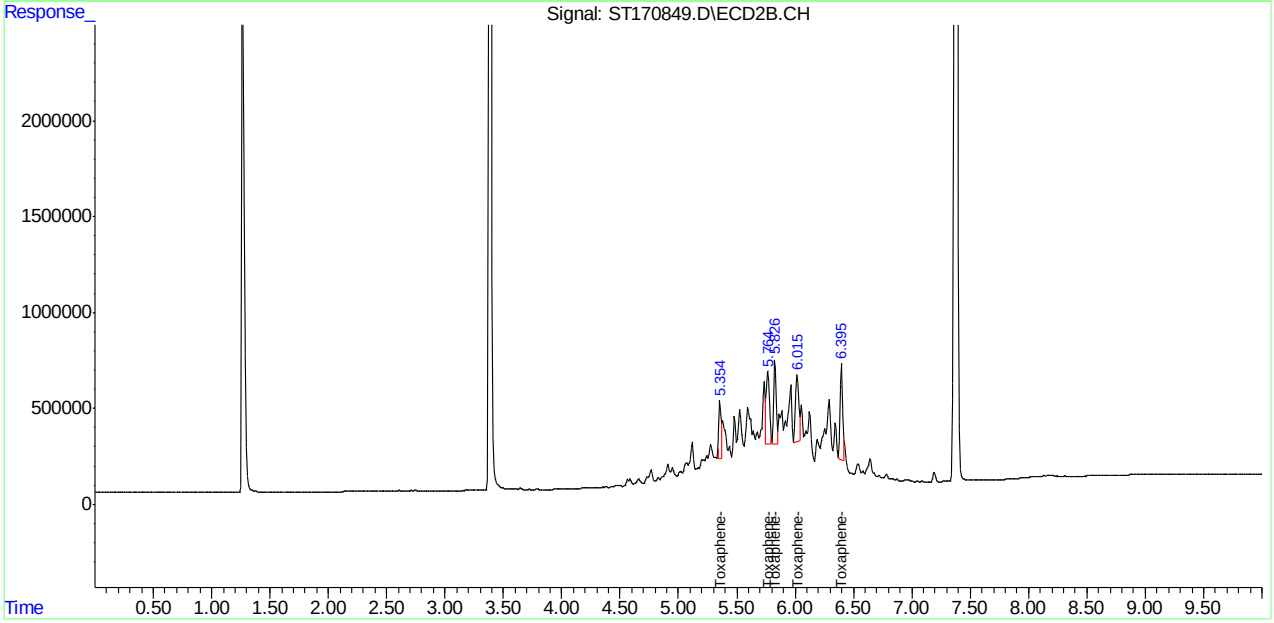
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170849.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:41 pm
Operator : eduardom
Sample : ic4174-750 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 31 13:44:21 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170849.D
Injection Time: 10/31/23 12:41
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

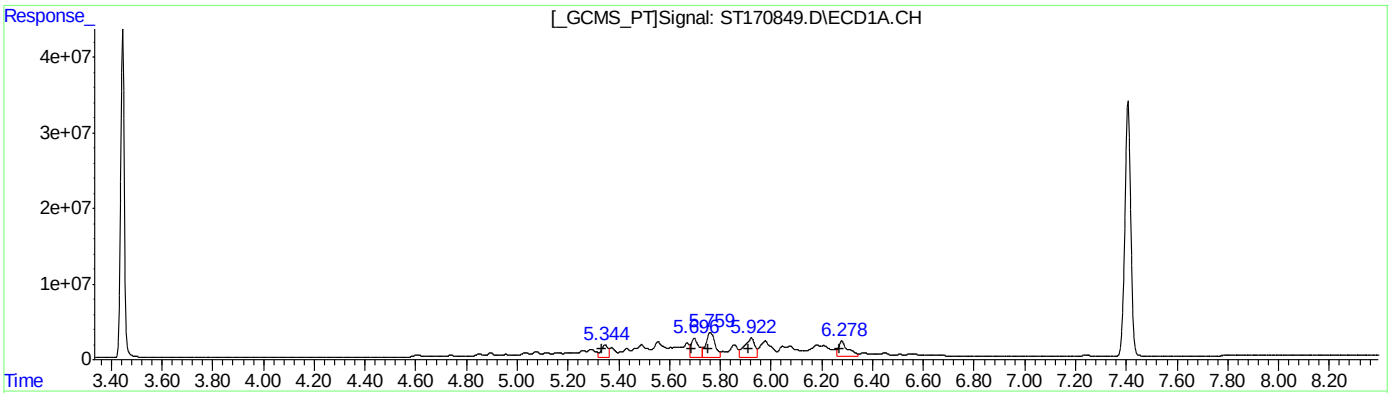
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.76	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.39	Poor instrument integration

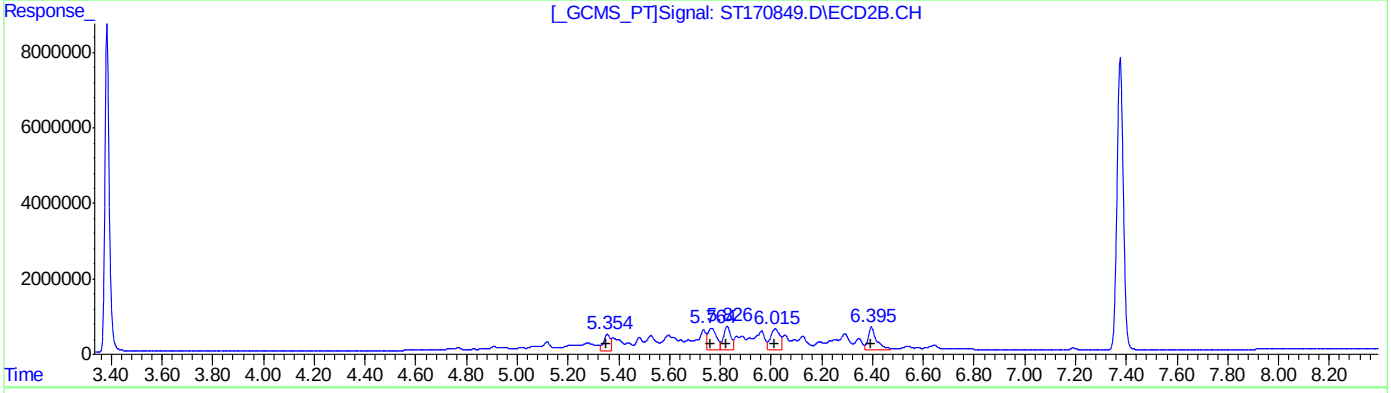
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170849.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:41 pm
Operator : eduardom
Sample : ic4174-750 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 31 13:42:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.34	29613512	1449.29
5.70	54541878	2038.73
5.76	80270248	1416.20
5.92	72094290	2044.84
6.28	55985255	3711.79

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	7521213	1255.64
5.76	14368138	1467.45
5.83	12613069	1525.70
6.02	14308915	1979.80
6.40	14490670	1994.08

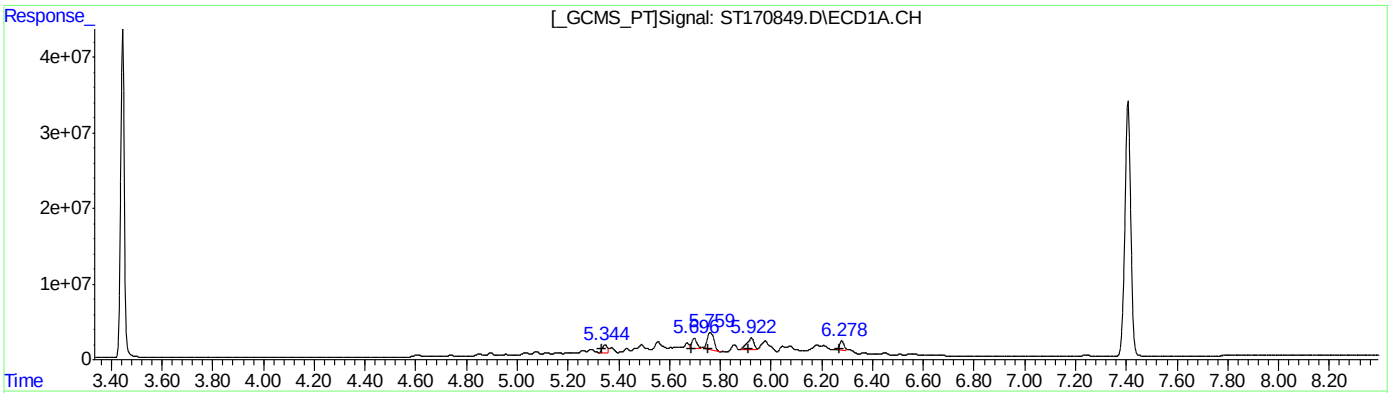
(+) = Expected Retention Time

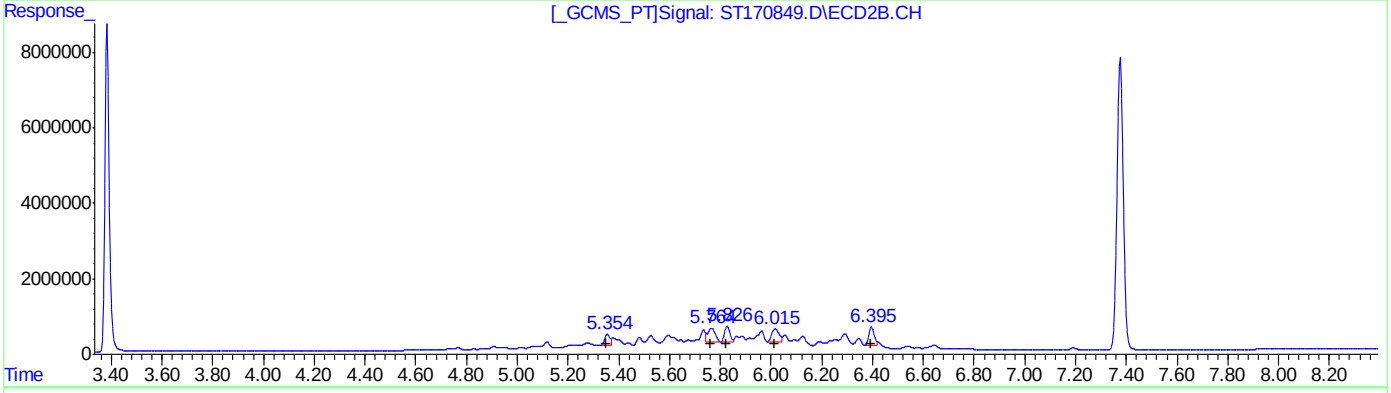
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170849.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:41 pm
Operator : eduardom
Sample : ic4174-750 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 31 13:42:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:41:48 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	14699526	719.40
5.70	18506897	691.77
5.76	41675357	735.28
5.92	29407374	834.09
6.28	14435765	957.08

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	4164866	695.31
5.76	7906043	807.46
5.83	6389556	772.89
6.02	6999430	968.45
6.39	7481677	1029.57

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:48:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.344	5.354	18954037	5599342	964.359m	959.487m
29) L2	Toxaphene-B	5.697	5.763	20998708	10189686	803.807m	1046.786m
30) L2	Toxaphene-C	5.761	5.826	55022011	8799138	971.641m	1049.535m
31) L2	Toxaphene-D	5.921	6.015	39740495	9751584	1078.330m	1255.983m
32) L2	Toxaphene-E	6.279	6.395	18807746	10200727	1193.784m	1295.390m
	Sum Toxaphene-A			153.5E6	44540478	5011.921	5607.181
	Average Toxaphene-A					1002.384	1121.436

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:48:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:48:20 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
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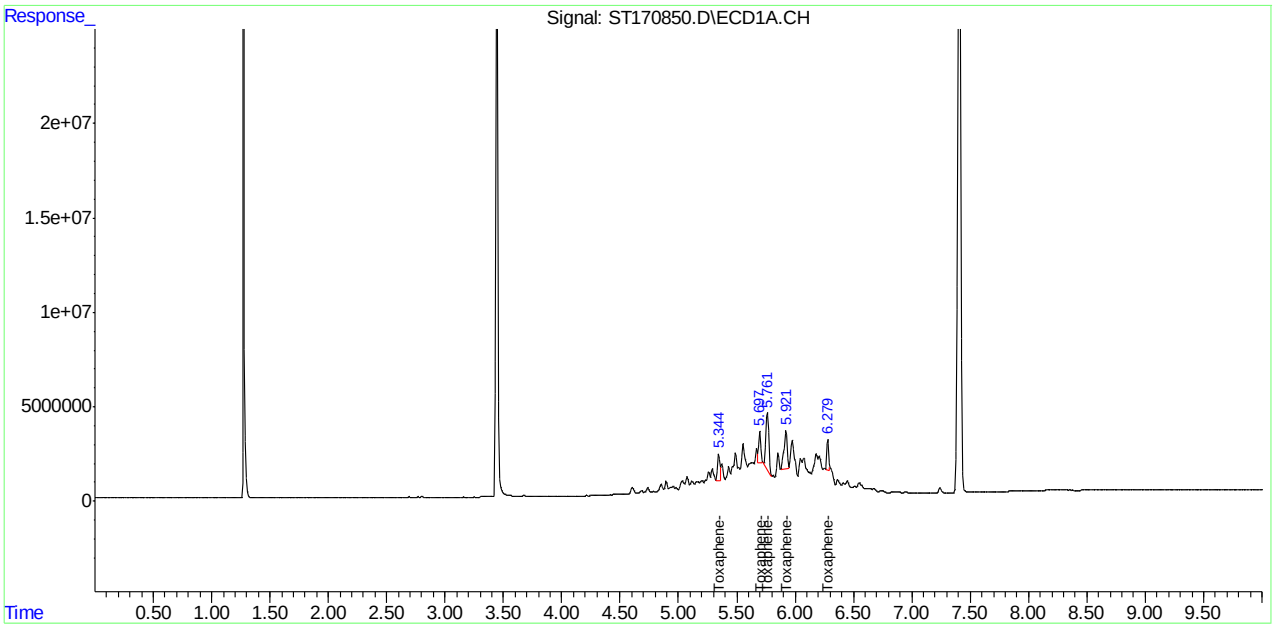
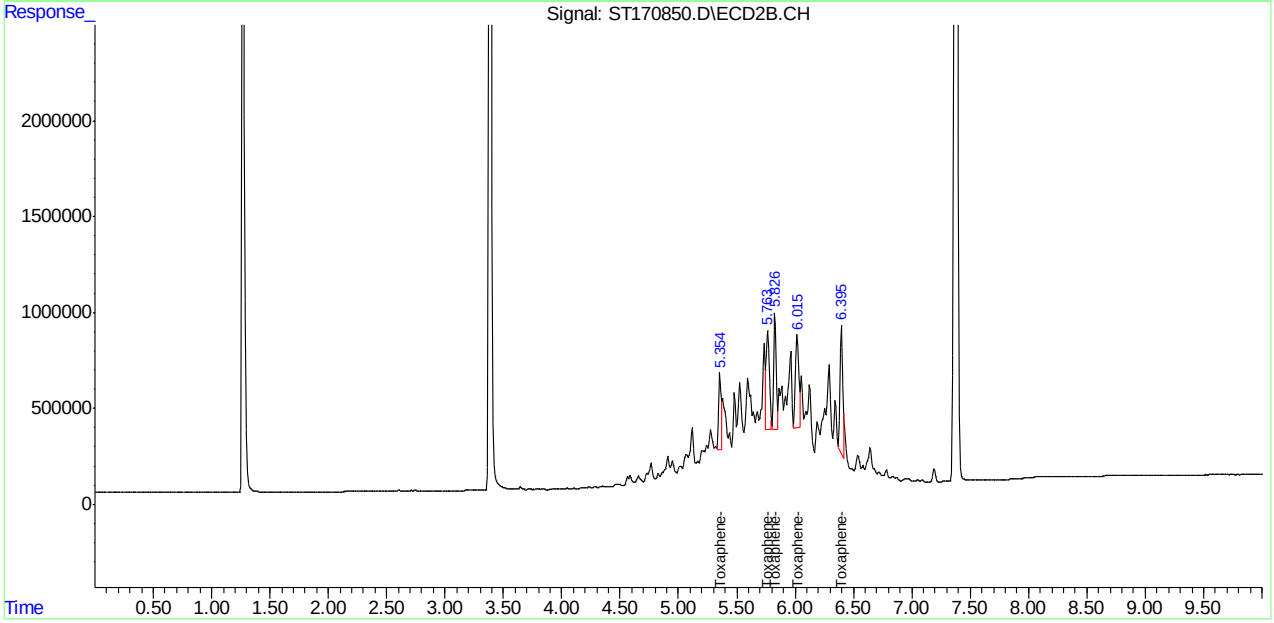
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170850.D
Injection Time: 10/31/23 12:56
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

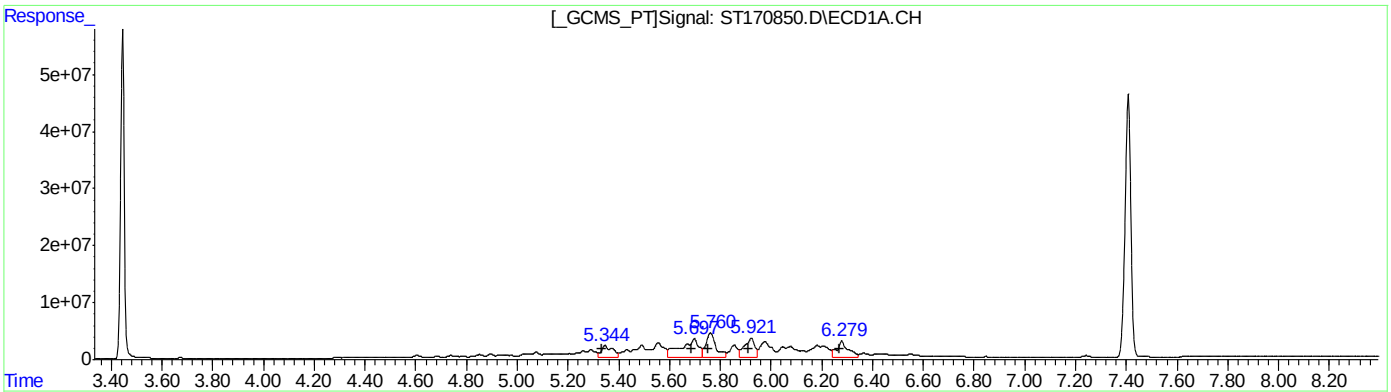
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.76	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

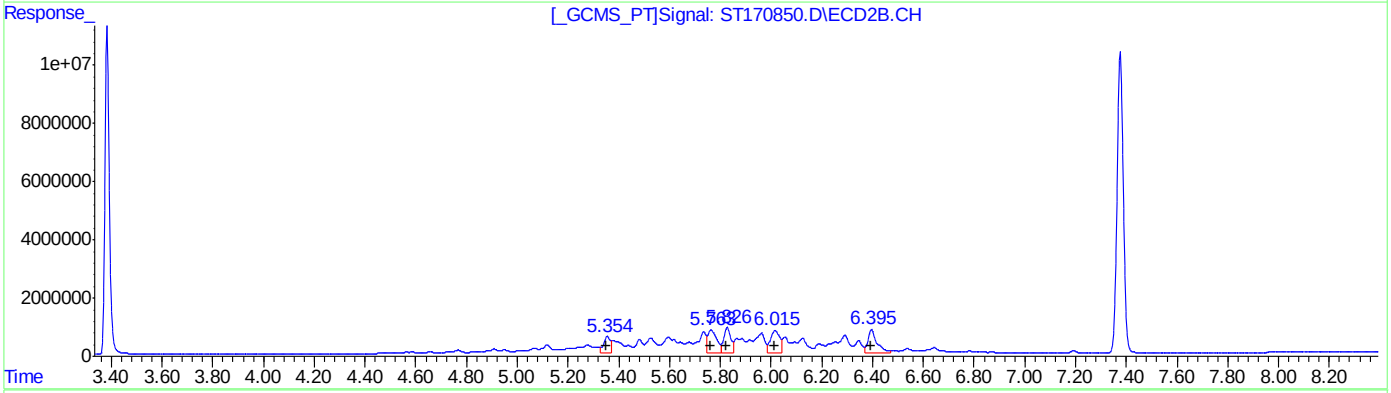
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:44:27 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	67859132	3452.59
5.70	163393047	6254.51
5.76	124225923	2193.72
5.92	96680045	2623.34
6.28	91728295	5822.27

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	10105345	1731.62
5.76	19699831	2023.76
5.83	17074630	2036.61
6.02	19667507	2533.13
6.40	20246015	2571.04

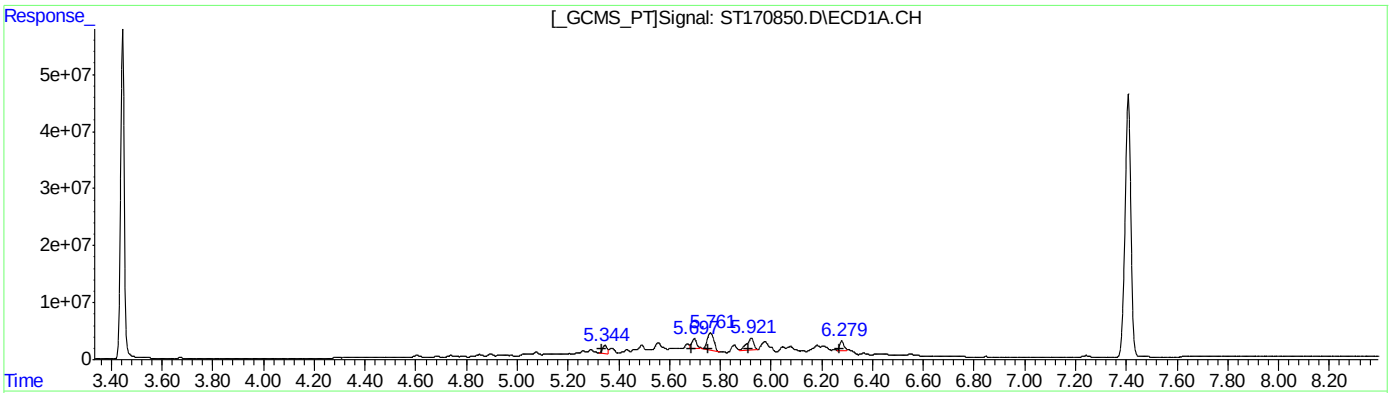
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:44:27 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	18954037	964.36
5.70	20998708	803.81
5.76	55022011	971.64
5.92	39740495	1078.33
6.28	18807746	1193.78

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	5599342	959.49
5.76	10189686	1046.79
5.83	8799138	1049.54
6.02	9751584	1255.98
6.40	12576871	1597.14

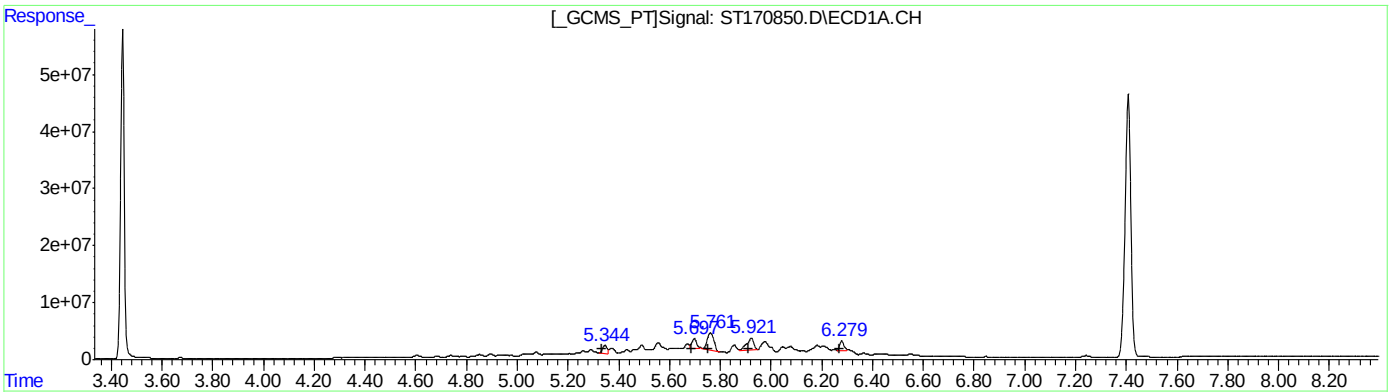
(+) = Expected Retention Time

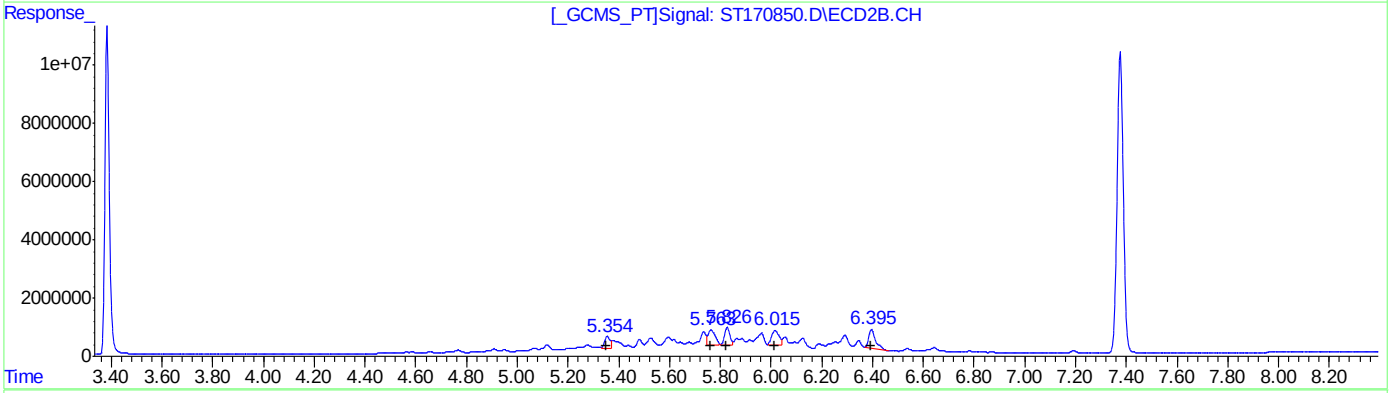
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:45:14 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.34	18954037	964.36
5.70	20998708	803.81
5.76	55022011	971.64
5.92	39740495	1078.33
6.28	18807746	1193.78

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	5599342	959.49
5.76	10189686	1046.79
5.83	8799138	1049.54
6.02	9751584	1255.98
6.40	12576871	1597.14

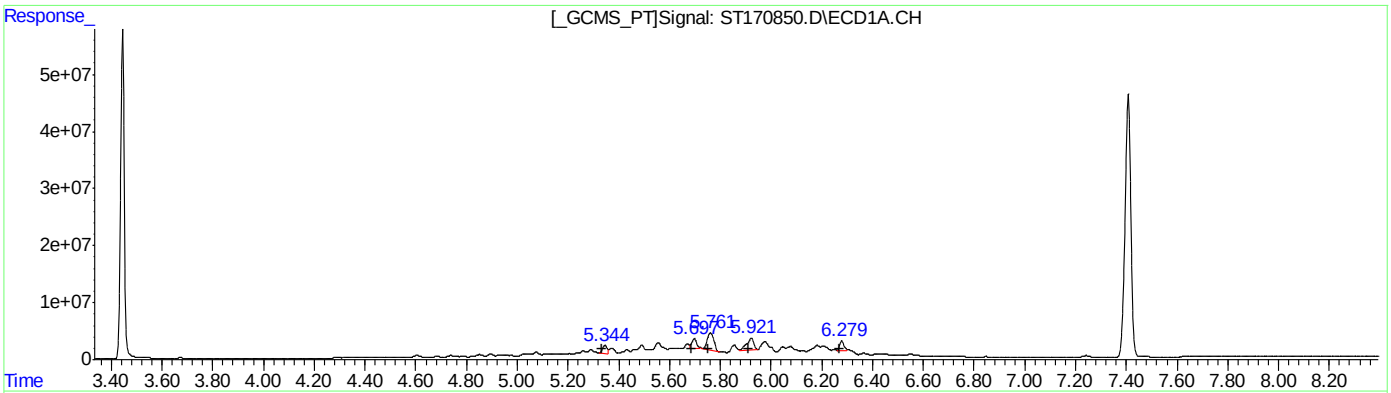
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170850.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 12:56 pm
Operator : eduardom
Sample : ic4174-1000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 31 13:45:14 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:42:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	18954037	964.36
5.70	20998708	803.81
5.76	55022011	971.64
5.92	39740495	1078.33
6.28	18807746	1193.78

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	5599342	959.49
5.76	10189686	1046.79
5.83	8799138	1049.54
6.02	9751584	1255.98
6.40	10200727	1295.39

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170851.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:11 pm
Operator : eduardom
Sample : ic4174-2000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 31 13:46:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:45:38 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.345	5.354	41323125	10690031	2118.764m	1864.987m
29) L2	Toxaphene-B	5.697	5.762	47918369	18733272	1931.464m	1875.809m
30) L2	Toxaphene-C	5.761	5.827	113.4E6	16447705	2020.745m	1936.387m
31) L2	Toxaphene-D	5.922	6.016	80049491	19343103	2111.995m	2282.293m
32) L2	Toxaphene-E	6.278	6.396	35986117	20234349	2108.900m	2190.986m
	Sum Toxaphene-A			318.6E6	85448459	10291.869	10150.462
	Average Toxaphene-A					2058.374	2030.092

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170851.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:11 pm
Operator : eduardom
Sample : ic4174-2000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 31 13:46:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:45:38 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

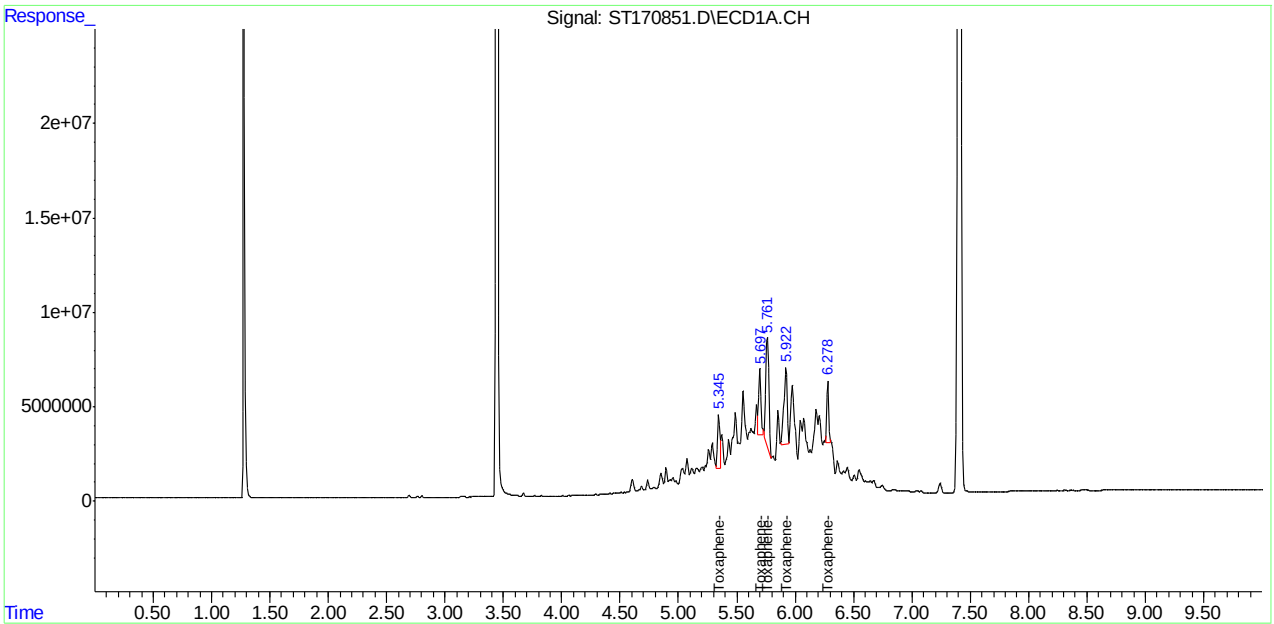
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

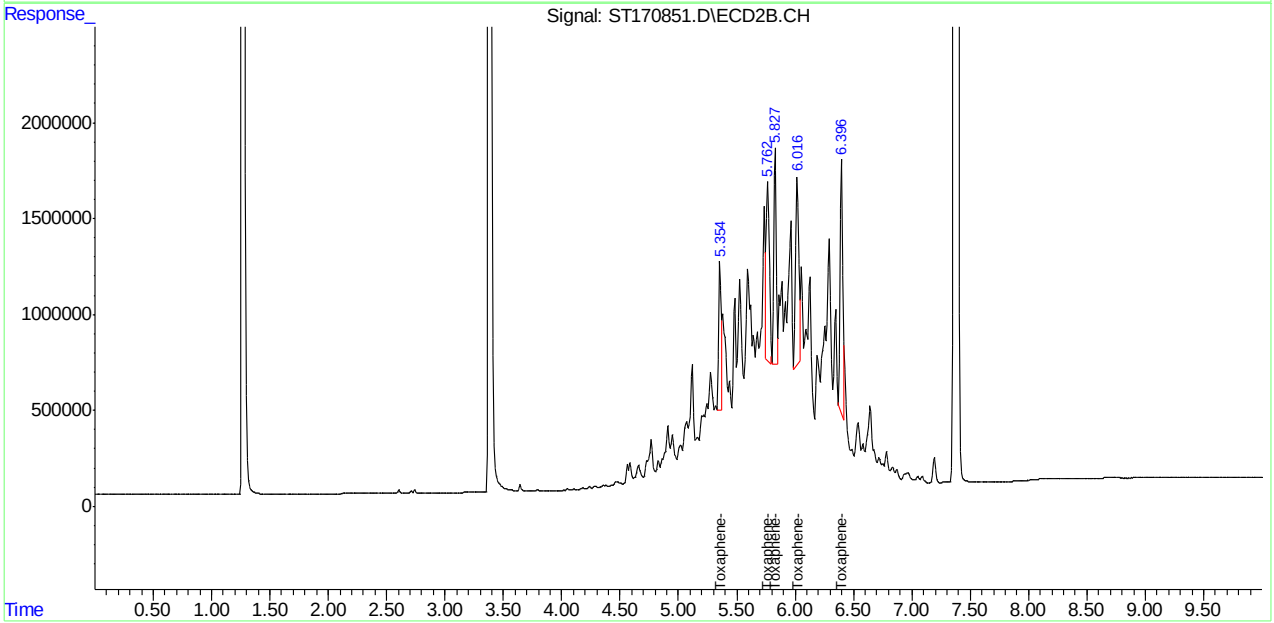
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170851.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:11 pm
Operator : eduardom
Sample : ic4174-2000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 31 13:46:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:45:38 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170851.D
Injection Time: 10/31/23 13:11
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

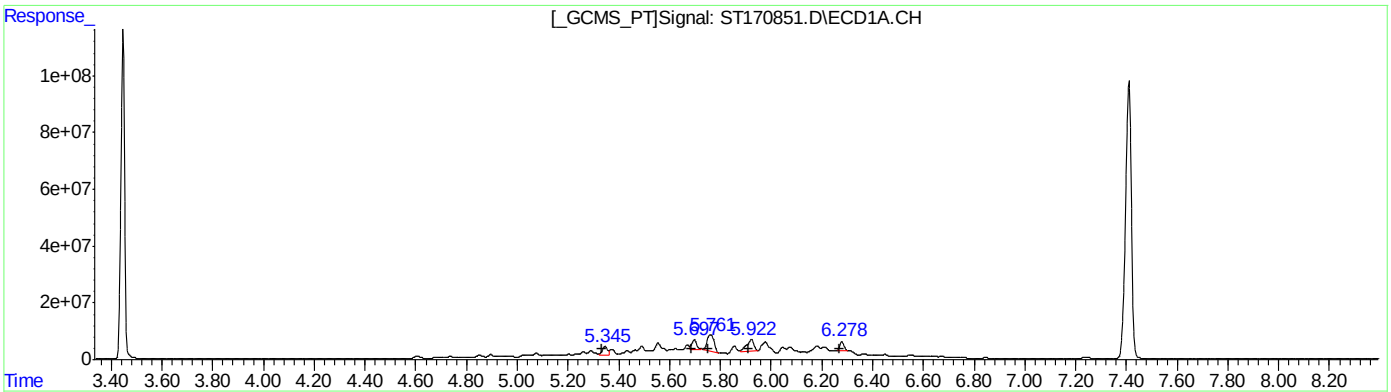
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.76	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

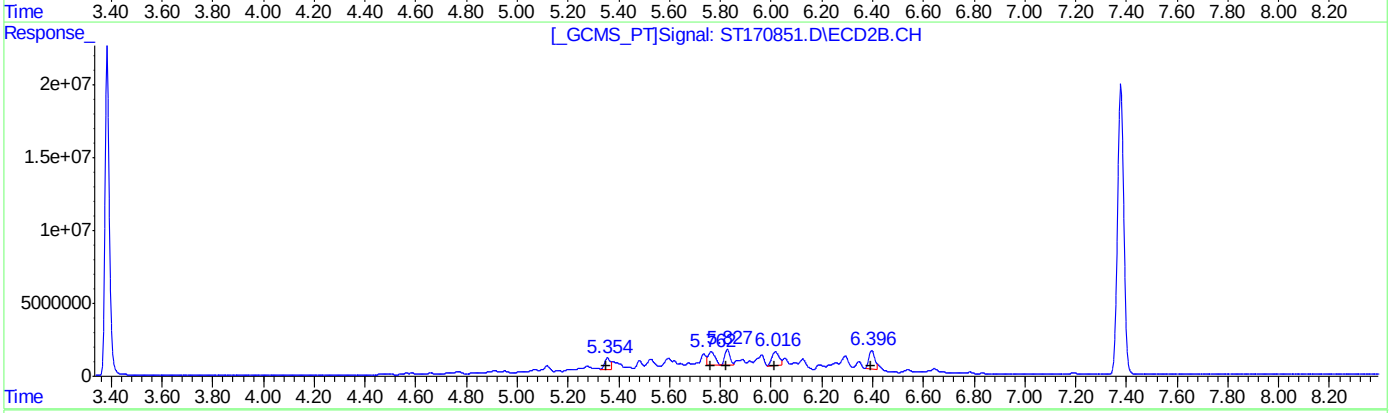
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170851.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:11 pm
Operator : eduardom
Sample : ic4174-2000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 31 13:45:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:45:38 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	41323125	2118.76
5.70	47918369	1931.46
5.76	113352837	2020.74
5.92	80049491	2111.99
6.28	35986117	2108.90

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	10690031	1864.99
5.76	18733272	1875.81
5.83	16447705	1936.39
6.02	19343103	2282.29
6.40	20234349	2190.99

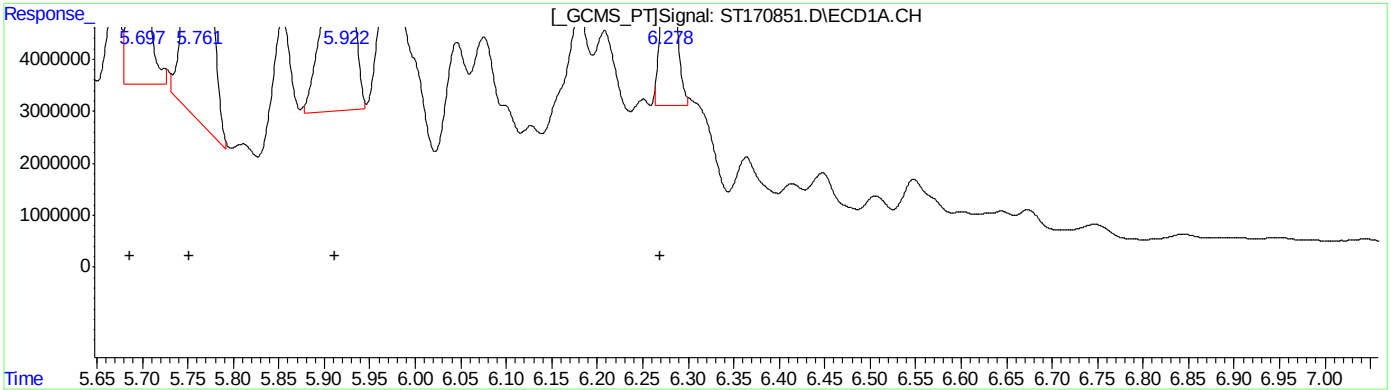
(+) = Expected Retention Time

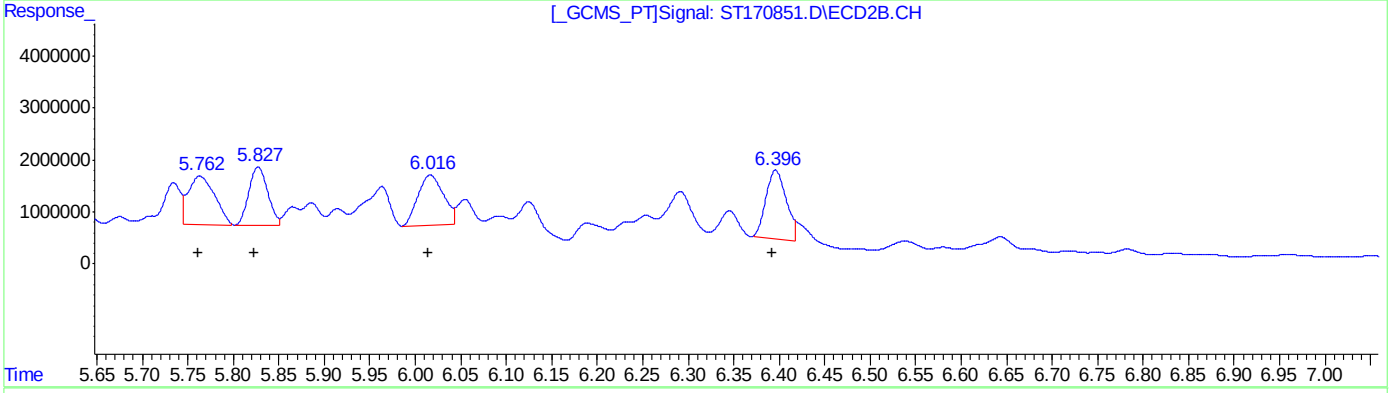
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170851.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:11 pm
Operator : eduardom
Sample : ic4174-2000 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 31 13:46:32 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:45:38 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

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5.34	41323125	2118.76
5.70	47918369	1931.46
5.76	113352837	2020.74
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5.83	16447705	1936.39
6.02	19343103	2282.29
6.40	20234349	2190.99

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170853.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:41 pm
Operator : eduardom
Sample : ic4174-20 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 31 14:01:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.263	4.186	142962	25412	6.546m	13.335m#
23)	L1	Chlordane-B	4.413	4.321	225097	41386	10.627m	11.539m
24)	L1	Chlordane-C	4.639	4.626	120236	31040	6.284m	8.675
25)	L1	Chlordane-D	5.133	5.101	545242	103097	29.879m	24.403
26)	L1	Chlordane-E	5.191	5.145	545294	89010	34.844m	20.382 #
27)	L1	Chlordane-F	5.778	5.808	48429	17753	2.680m	4.273 #
		Sum Chlordane-A			1627261	307698	90.860	82.606
		Average Chlordane-A					15.143	13.768
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170853.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:41 pm
Operator : eduardom
Sample : ic4174-20 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 31 14:01:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

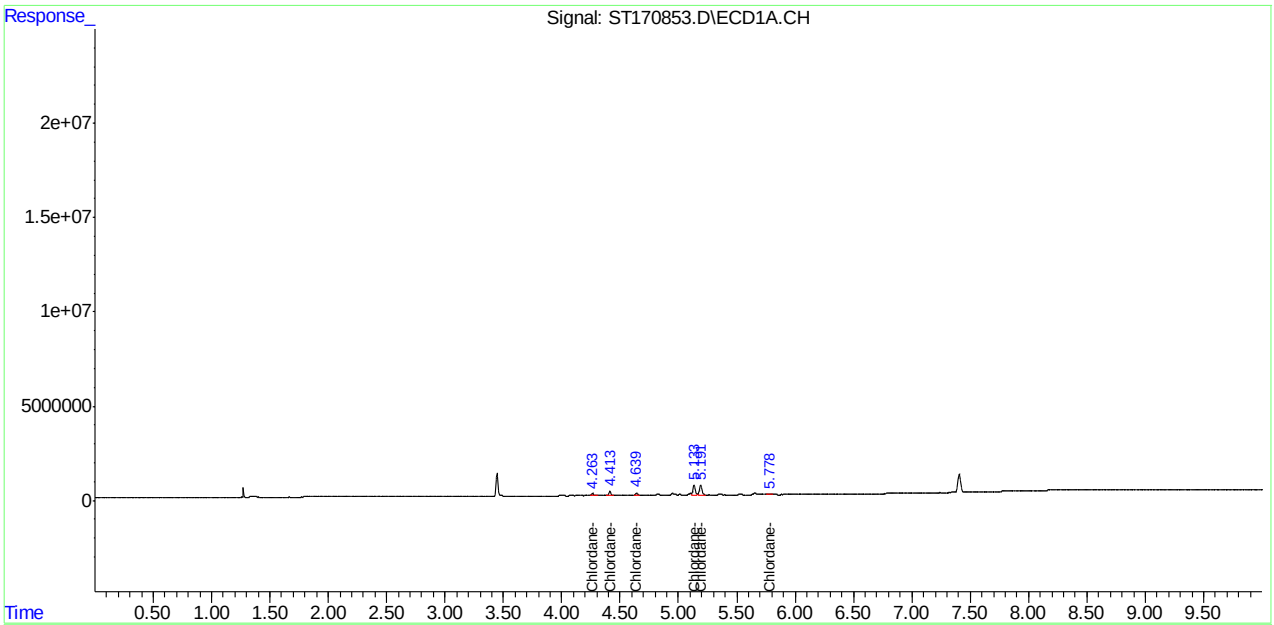
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

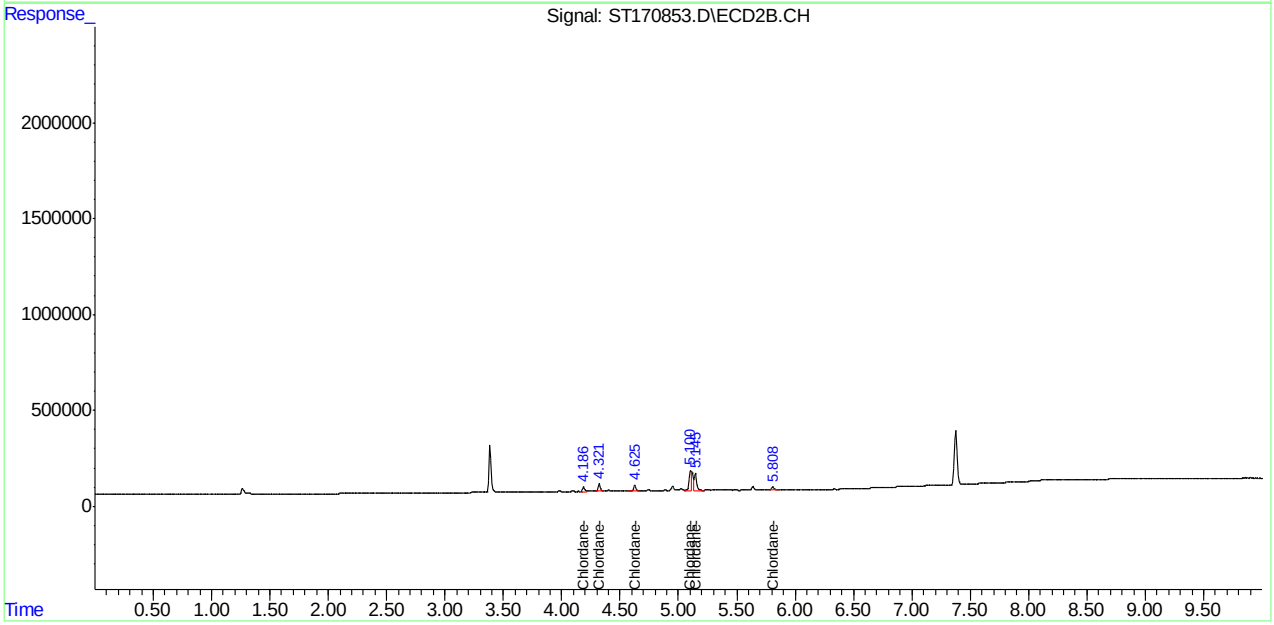
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170853.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:41 pm
Operator : eduardom
Sample : ic4174-20 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 31 14:01:59 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174
Lab FileID: ST170853.D
Injection Time: 10/31/23 13:41
Method: SW846 8081B
Analyst approved: 10/31/23 16:40 Eduardo Melendez
Supervisor approved: 10/31/23 17:17 Naresh Jiawan

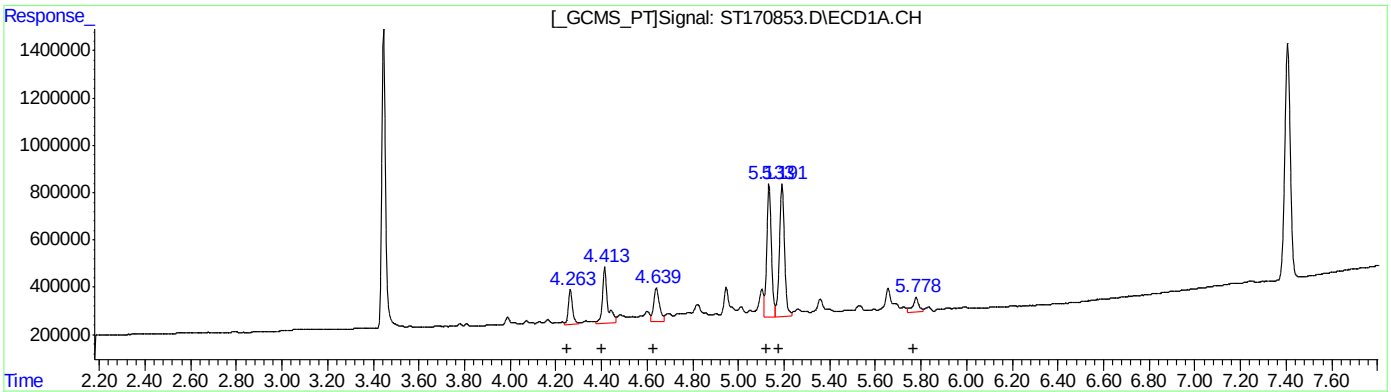
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-A		2	4.19	Poor instrument integration
Chlordane-A		1	4.26	Poor instrument integration
Chlordane-B		2	4.32	Poor instrument integration
Chlordane-B		1	4.41	Poor instrument integration
Chlordane-C		1	4.64	Poor instrument integration
Chlordane-D		1	5.13	Poor instrument integration
Chlordane-E		1	5.19	Poor instrument integration
Chlordane-F		1	5.78	Poor instrument integration

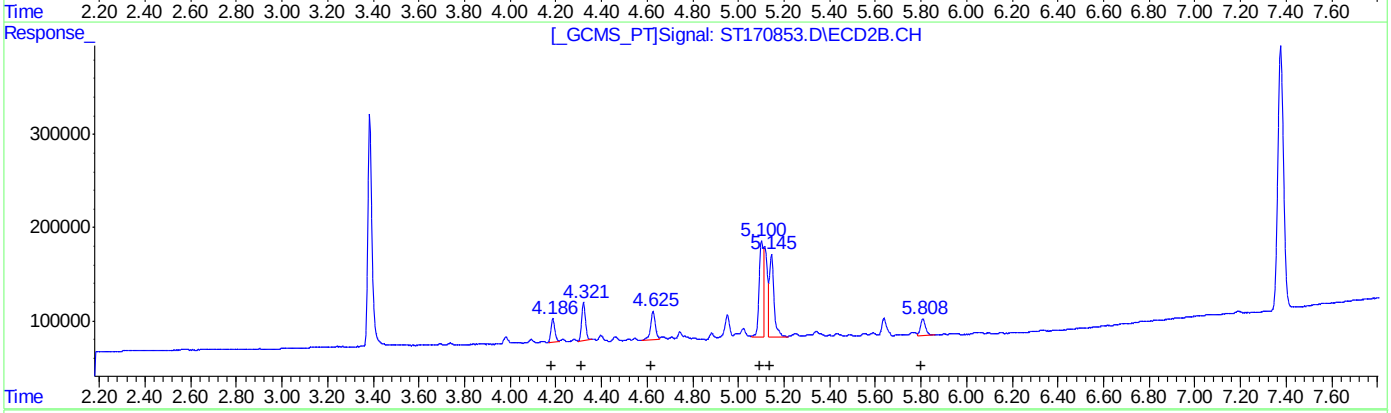
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170853.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:41 pm
Operator : eduardom
Sample : ic4174-20 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 31 14:00:53 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(22) Chlordane-A (L1)

R.T.	Response	Conc
4.26	148417	6.80
4.41	237728	11.22
4.64	140957	7.37
5.13	559619	30.67
5.19	561971	35.91
5.78	61063	3.38

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.19	25029	13.13
4.32	40657	11.34
4.63	31040	8.68
5.10	103097	24.40
5.15	89010	20.38
5.81	17753	4.27

(+) = Expected Retention Time

ST170854.D

Manual Integrations APPROVED (compounds with "m" flag)

Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170854.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:56 pm
Operator : eduardom
Sample : ic4174-50 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 31 14:49:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:48:37 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.263	4.187	304371	54665	22.437m	35.761 #
23)	L1	Chlordane-B	4.414	4.322	489264	91312	33.782m	33.115
24)	L1	Chlordane-C	4.641	4.626	253787	66865	21.383m	26.483
25)	L1	Chlordane-D	5.134	5.101	1164167	235407	52.574m	51.976m
26)	L1	Chlordane-E	5.191	5.145	1148255	198388	54.478m	46.933m
27)	L1	Chlordane-F	5.778	5.808	131370	43486	13.813m	18.250
		Sum Chlordane-A			3491214	690124	198.467	212.518
		Average Chlordane-A					33.078	35.420
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170854.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:56 pm
Operator : eduardom
Sample : ic4174-50 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 31 14:49:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:48:37 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

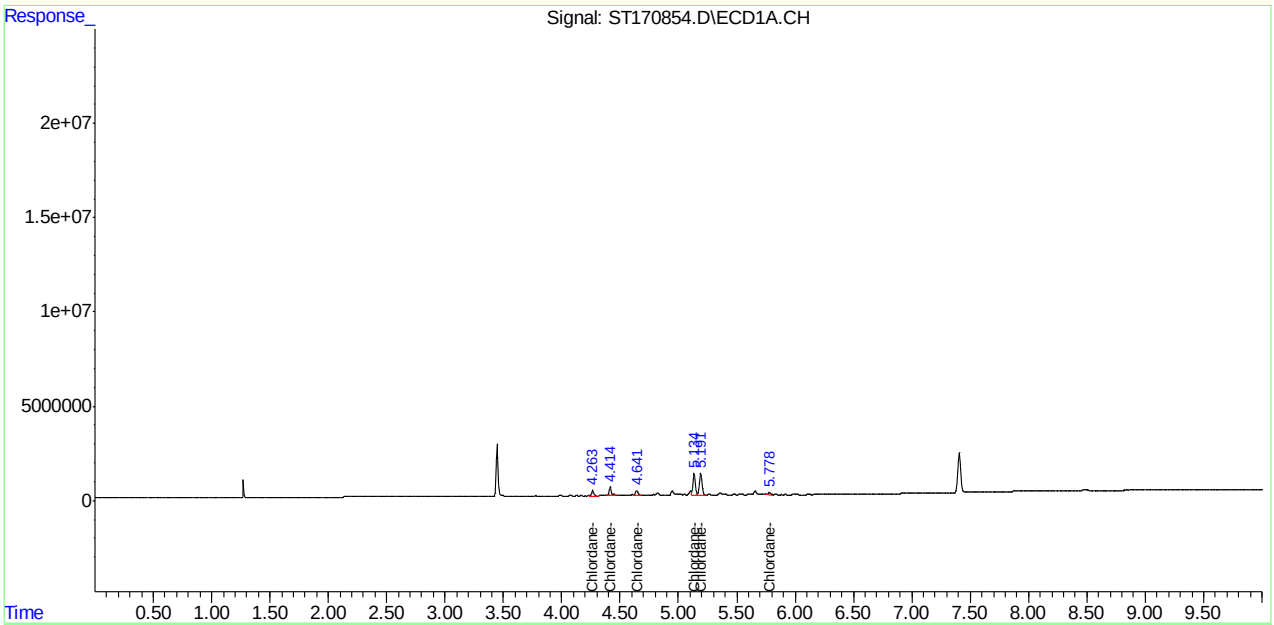
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

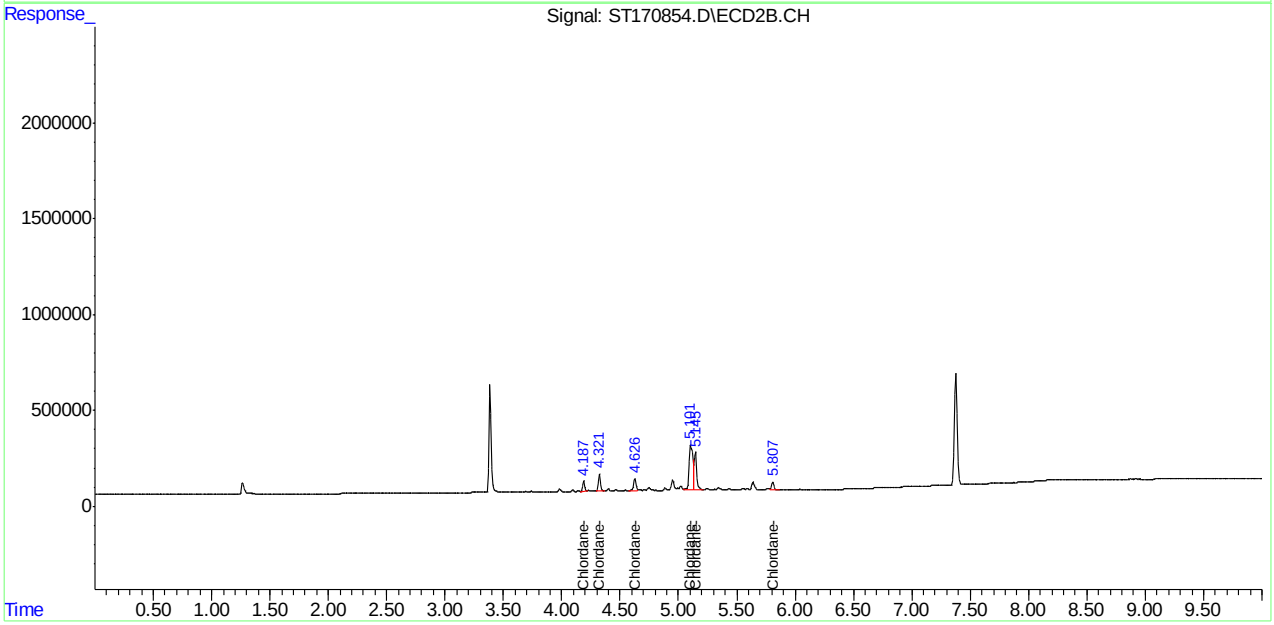
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170854.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:56 pm
Operator : eduardom
Sample : ic4174-50 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 31 14:49:46 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:48:37 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-IC4174 **Method:** SW846 8081B
Lab FileID: ST170854.D **Analyst approved:** 10/31/23 16:40 Eduardo Melendez
Injection Time: 10/31/23 13:56 **Supervisor approved:** 10/31/23 17:17 Naresh Jiawan

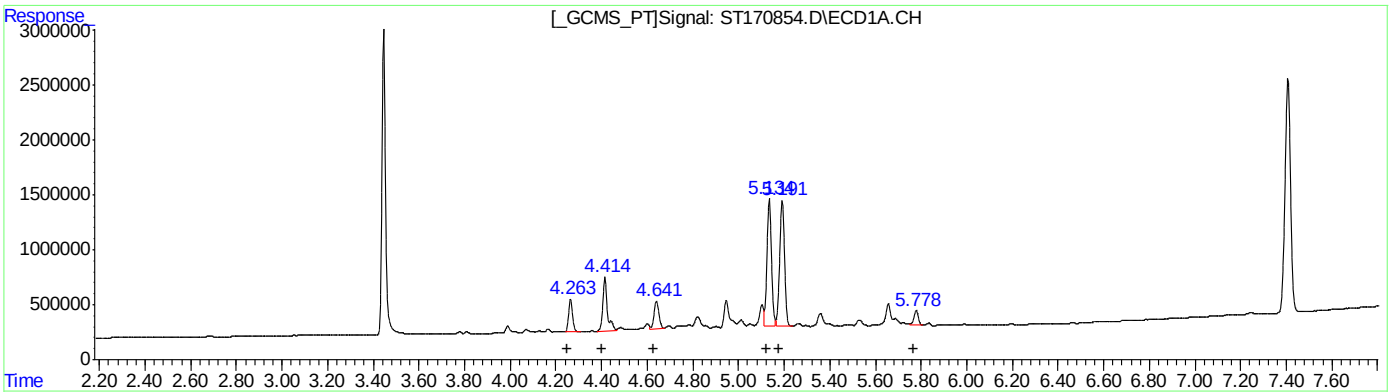
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chlordane-A		1	4.26	Poor instrument integration
Chlordane-B		1	4.41	Poor instrument integration
Chlordane-C		1	4.64	Poor instrument integration
Chlordane-D		2	5.10	Poor instrument integration
Chlordane-D		1	5.13	Poor instrument integration
Chlordane-E		2	5.14	Poor instrument integration
Chlordane-E		1	5.19	Poor instrument integration
Chlordane-F		1	5.78	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170854.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:56 pm
Operator : eduardom
Sample : ic4174-50 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 31 14:48:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:48:37 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.26	304371	22.44
4.41	489264	33.78
4.64	253787	21.38
5.13	1164167	52.57
5.19	1148255	54.48
5.78	131370	13.81

(22) Chlordane-A #2 (L1)

R.T.	Response	Conc
4.19	54665	35.76
4.32	91312	33.11
4.63	66865	26.48
5.10	235407	51.98
5.14	198388	46.93
5.81	43486	18.25

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170855.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 31 14:50:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:49:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.264	4.187	1106516	221667	167.204	187.542
23)	L1	Chlordane-B	4.414	4.322	1874819	387990	178.214	199.197
24)	L1	Chlordane-C	4.640	4.626	946135	246896	170.666	170.904
25)	L1	Chlordane-D	5.135	5.101	4411380	956324	174.551	193.922
26)	L1	Chlordane-E	5.191	5.145	4411912	799637	175.669	189.977
27)	L1	Chlordane-F	5.778	5.808	800520	215854	317.109	245.656
		Sum Chlordane-A			13551282	2828368	1183.413	1187.197
		Average Chlordane-A					197.235	197.866
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170855.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 31 14:50:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:49:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

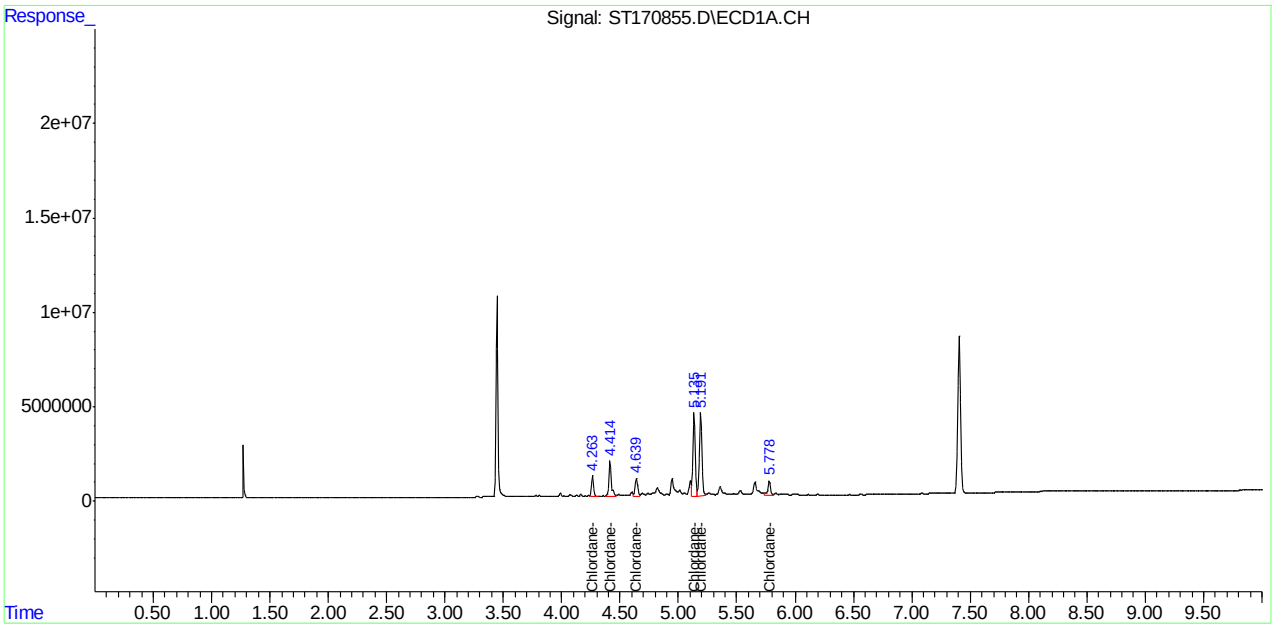
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

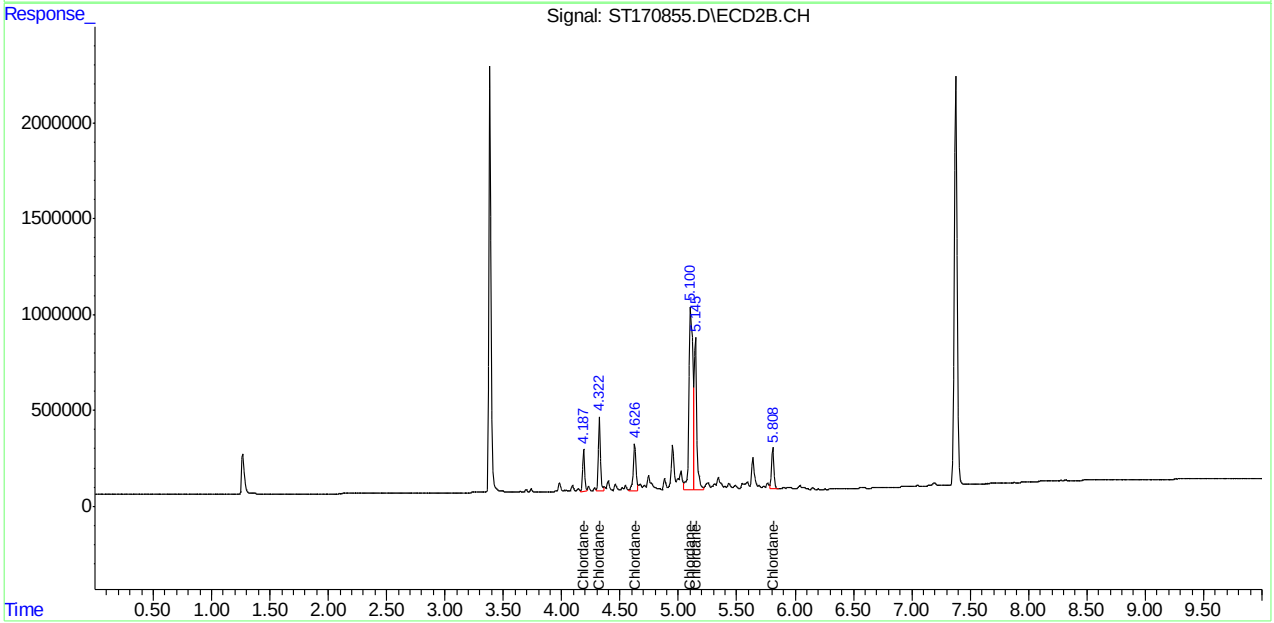
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170855.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:10 pm
Operator : eduardom
Sample : ic4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 31 14:50:15 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:49:50 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170856.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:25 pm
Operator : eduardom
Sample : ic4174-400 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 31 14:50:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:50:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	4.263	4.188	2224186	459243	355.526	396.783
23) L1	Chlordane-B	4.414	4.322	3835233	814908	378.300	418.941
24) L1	Chlordane-C	4.640	4.626	1837888	493641	348.564	359.118
25) L1	Chlordane-D	5.134	5.101	8936131	1929402	369.250	395.245
26) L1	Chlordane-E	5.191	5.146	8859632	1619134	367.674	391.207
27) L1	Chlordane-F	5.778	5.808	1864112	507854	617.838	537.103
	Sum Chlordane-A			27557183	5824183	2437.152	2498.396
	Average Chlordane-A					406.192	416.399
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170856.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:25 pm
Operator : eduardom
Sample : ic4174-400 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 31 14:50:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:50:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

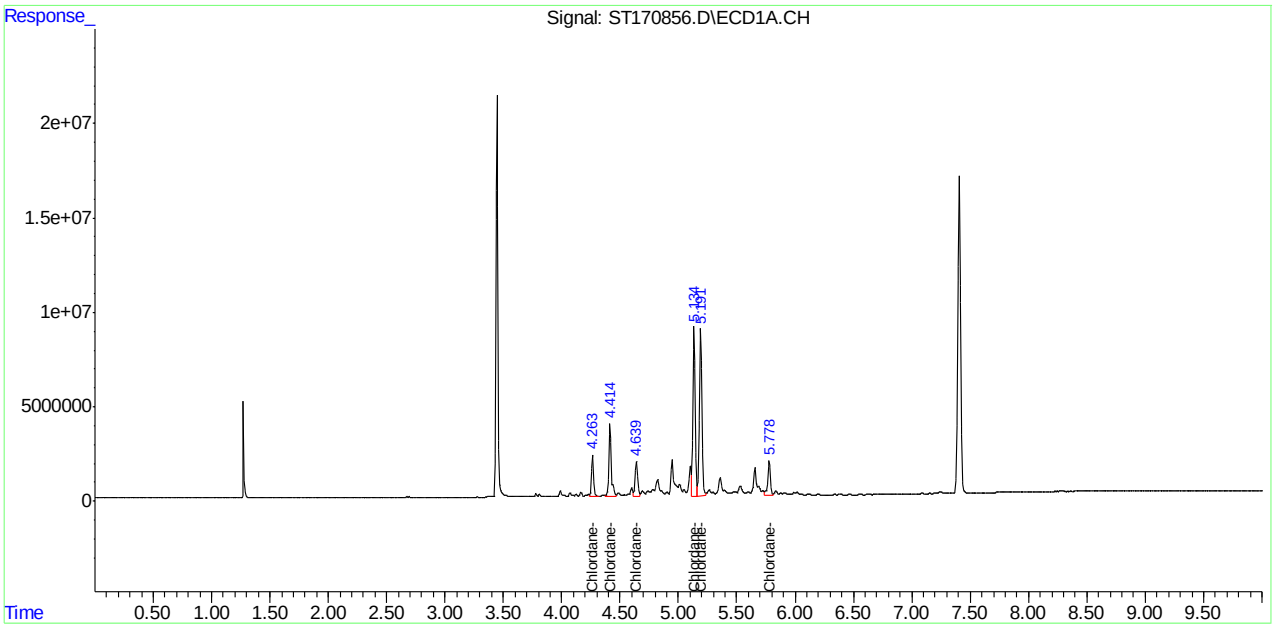
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

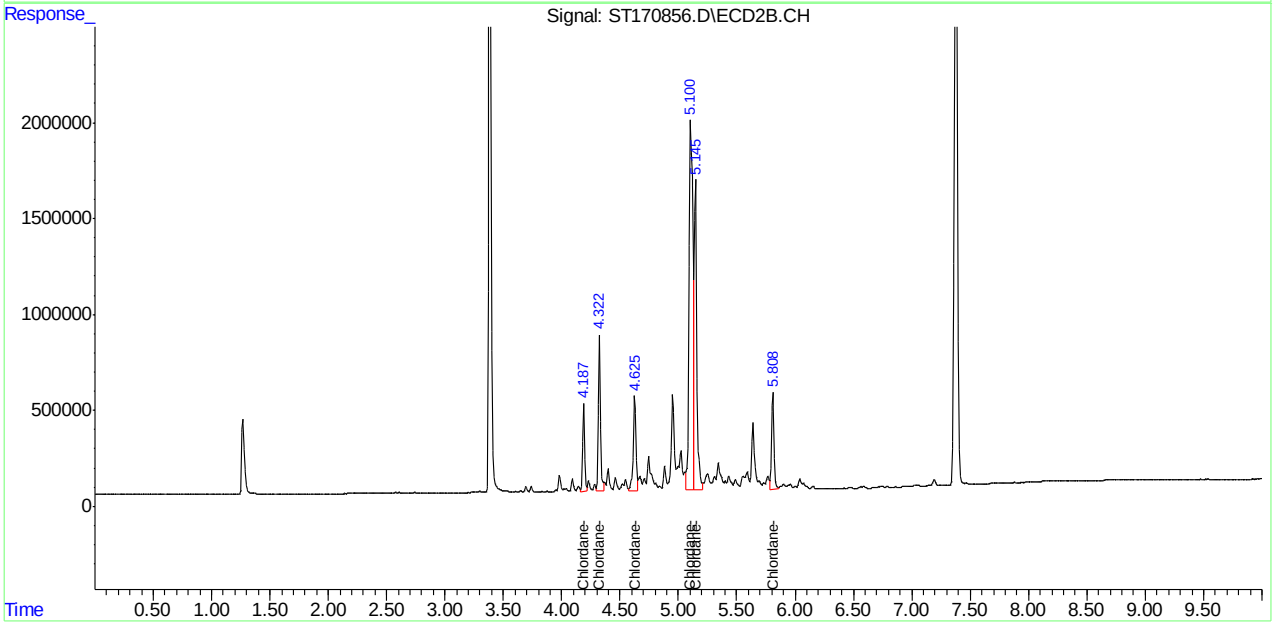
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170856.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:25 pm
Operator : eduardom
Sample : ic4174-400 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 31 14:50:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:50:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170857.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:40 pm
Operator : eduardom
Sample : ic4174-600 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 31 14:52:17 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:51:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.264	4.188	3258760	719992	535.791	623.322
23)	L1	Chlordane-B	4.414	4.322	5816160	1263399	581.583	641.909
24)	L1	Chlordane-C	4.639	4.626	2768907	741507	542.579	553.582
25)	L1	Chlordane-D	5.135	5.100	13251884	2873323	558.311	590.365
26)	L1	Chlordane-E	5.191	5.145	13079368	2437061	553.985	592.084
27)	L1	Chlordane-F	5.778	5.808	2928546	798388	854.318	777.726
		Sum Chlordane-A			41103624	8833671	3626.566	3778.988
		Average Chlordane-A					604.428	629.831
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170857.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:40 pm
Operator : eduardom
Sample : ic4174-600 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 31 14:52:17 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:51:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

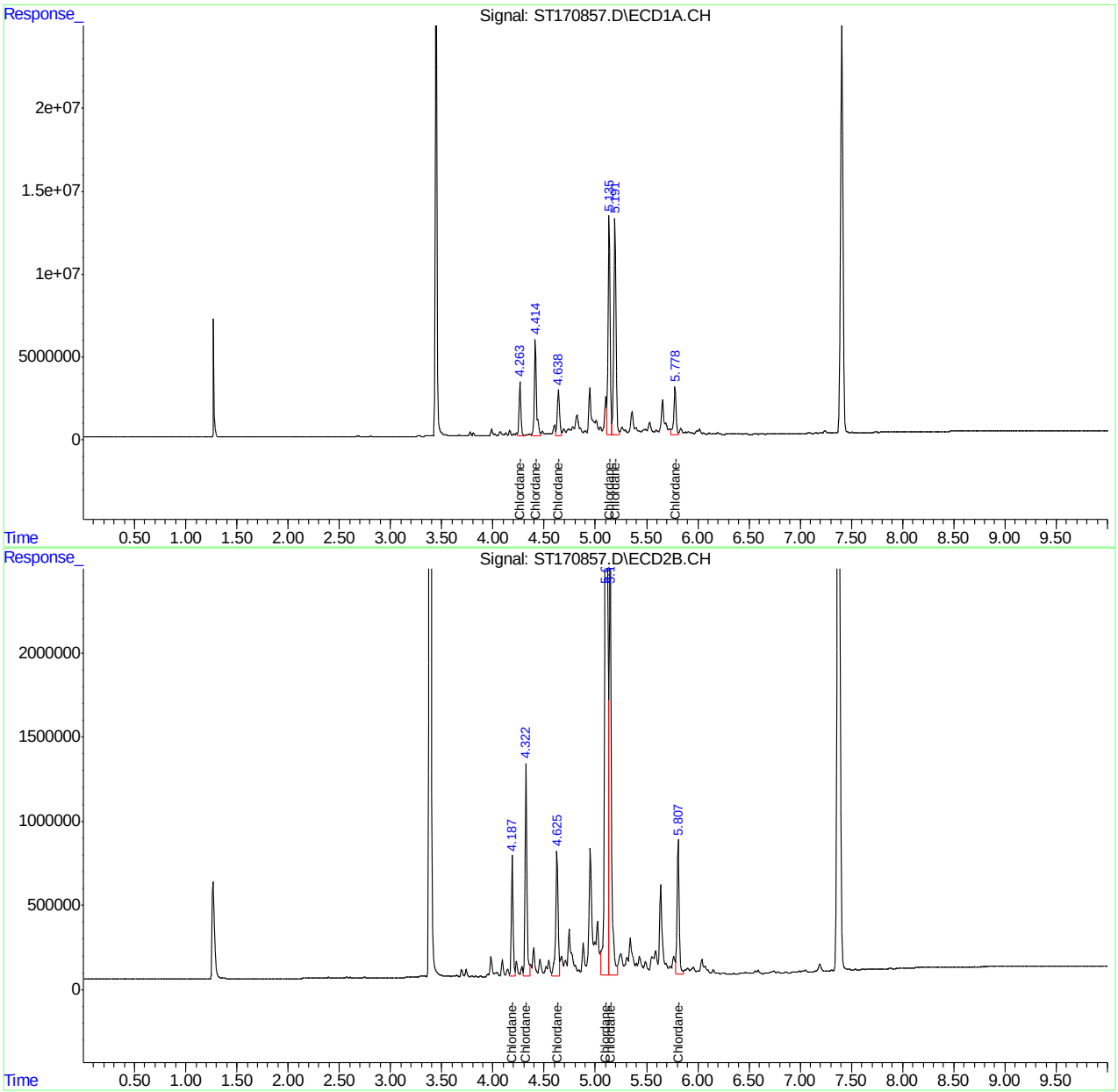
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170857.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:40 pm
Operator : eduardom
Sample : ic4174-600 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 31 14:52:17 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:51:30 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170858.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:55 pm
Operator : eduardom
Sample : ic4174-1000 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 31 15:05:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:52:23 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	4.263	4.187	5487365	1192153	921.941	1024.126
23) L1	Chlordane-B	4.414	4.322	9634138	2099009	969.309	1051.773
24) L1	Chlordane-C	4.639	4.625	4453391	1200648	889.689	910.447
25) L1	Chlordane-D	5.134	5.101	22036157	4734699	941.481	975.945
26) L1	Chlordane-E	5.191	5.145	21747969	4000786	935.498	974.563
27) L1	Chlordane-F	5.778	5.808	5073948	1377817	1364.503	1267.094
	Sum Chlordane-A			68432968	14605113	6022.423	6203.949
	Average Chlordane-A					1003.737	1033.992
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170858.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:55 pm
Operator : eduardom
Sample : ic4174-1000 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 31 15:05:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:52:23 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

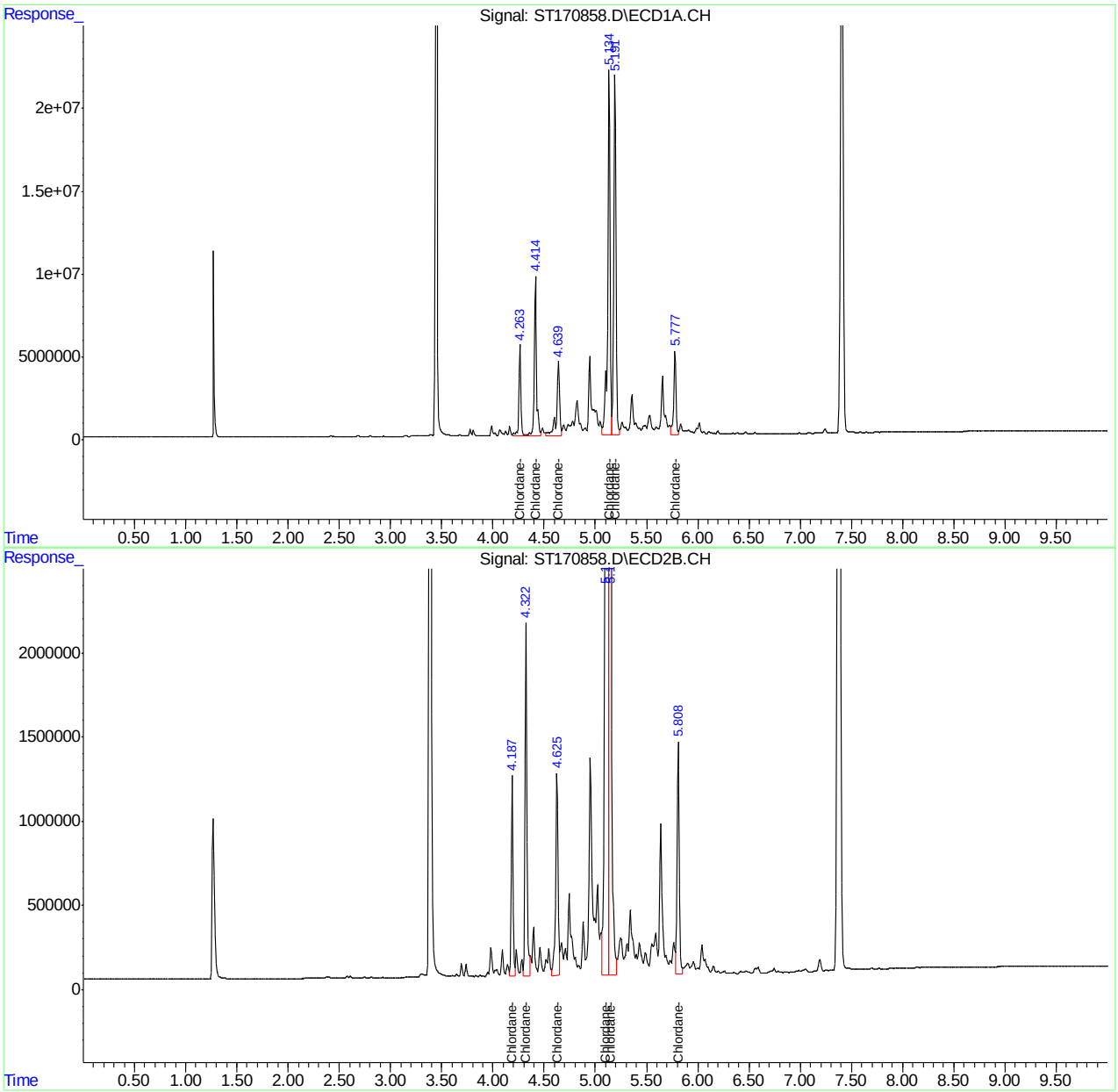
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170858.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 2:55 pm
Operator : eduardom
Sample : ic4174-1000 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 31 15:05:47 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 14:52:23 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170844.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:26 am
Operator : eduardom
Sample : icv4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 31 12:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	3.769	3.791	3946451	782806	19.030	19.314
3)	gamma-BHC...	4.004	4.051	3429837	738297	19.034	19.004
4)	beta-BHC	4.156	4.276	1566800	351718	18.594	19.088
5)	delta-BHC	4.322	4.456	3734249	790467	18.269	19.258
6)	Heptachlor	4.413	4.321	3093039	735289	17.964	19.557
7)	Aldrin	4.647	4.537	3328433	787903	19.020	19.851
8)	Heptachlo...	4.951	4.911	3289640	786309	18.481	18.757
9)	gamma-Chl...	5.132	5.098	3243605	812418	18.889	19.551
10)	alpha-Chl...	5.186	5.145	3171361	809544	20.220	19.423
11)	4,4'-DDE	5.330	5.281	3446570	802453	19.354	18.895
12)	Endosulfa...	5.215	5.188	2768227	746357	18.582	19.031
13)	Dieldrin	5.410	5.383	3488872	874706	18.828	19.631
14)	Endrin	5.566	5.585	3387479	775099	18.902	19.057
15)	4,4'-DDD	5.696	5.690	2951840	699960	18.786	19.614
16)	Endosulfa...	5.727	5.800	3169481	768788	19.531	19.429
17)	4,4'-DDT	5.917	5.876	1617461	498625	17.323	17.613
18)	Endrin Al...	5.821	5.930	2503054	624939	20.228	20.468
19)	Methoxychlor	6.279	6.301	1132829	323623	19.816	19.594
20)	Endosulfa...	5.989	6.094	2828995	704842	18.792	19.275
21)	Endrin Ke...	6.324	6.480	2701702	684946	19.144	18.883
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Toxaphene-A			0	0	N.D.	N.D.
	Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170844.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:26 am
Operator : eduardom
Sample : icv4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 31 12:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

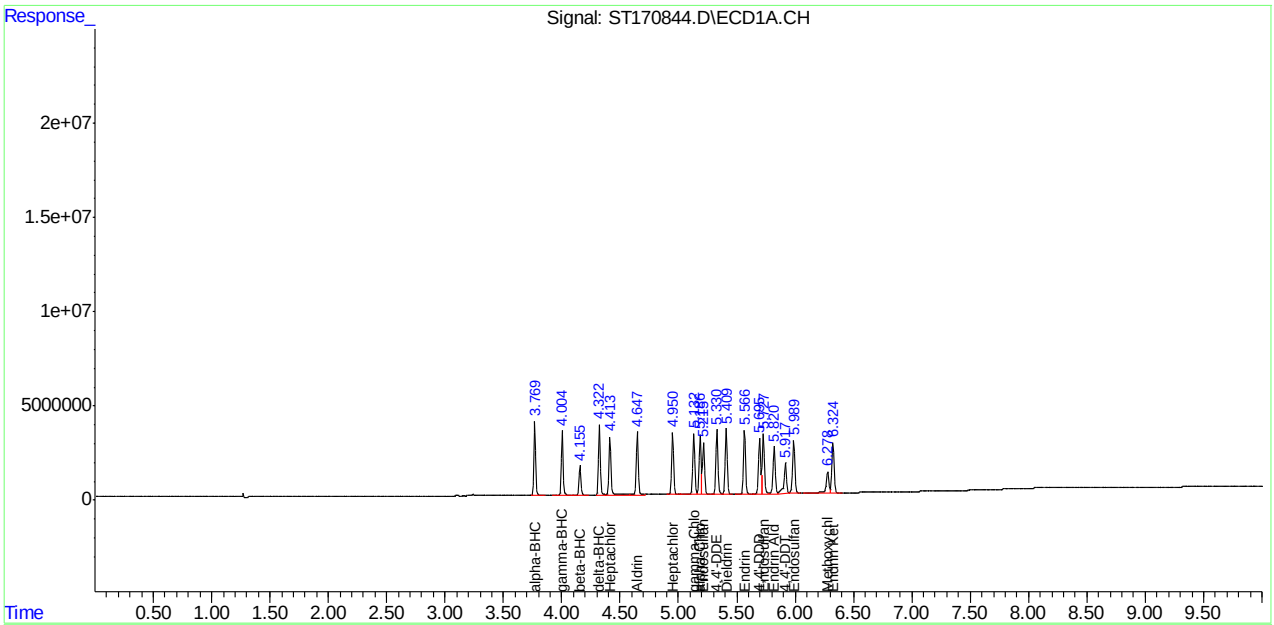
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

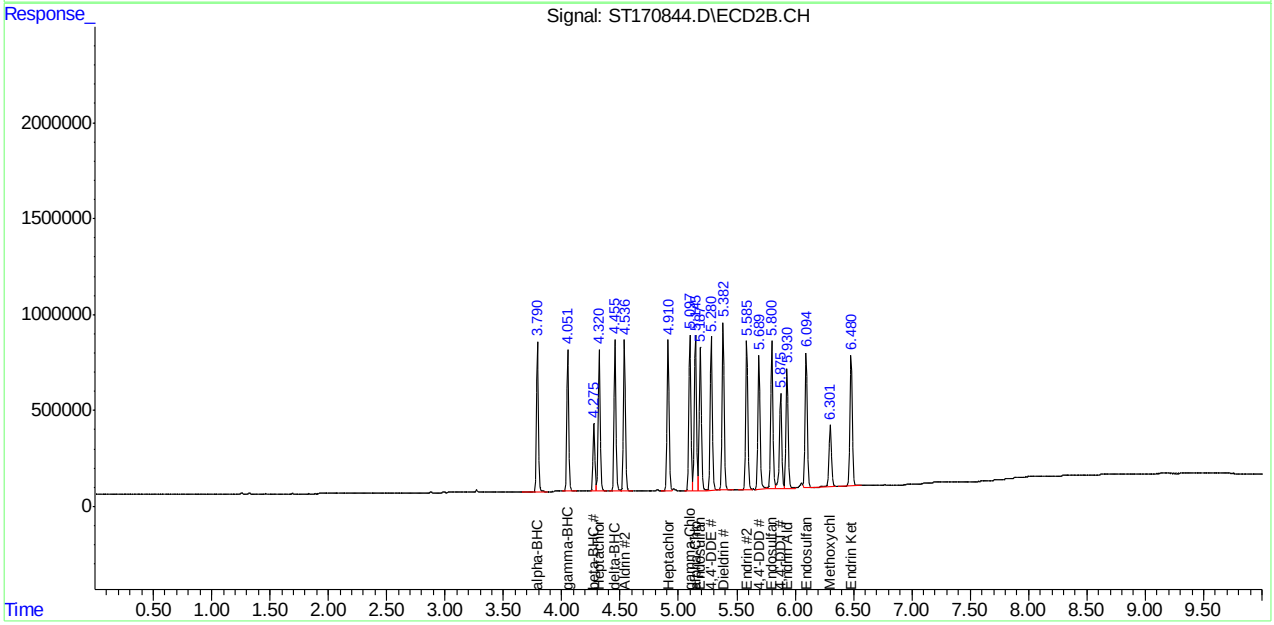
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170844.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 11:26 am
Operator : eduardom
Sample : icv4174-20 Pest Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 31 12:02:51 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 12:02:03 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 10/31/23 17:17

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170852.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:26 pm
Operator : eduardom
Sample : icv4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 31 13:49:48 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.344	5.355	9951468	2739100	505.242m	483.302m
29) L2	Toxaphene-B	5.697	5.764	12343073	4807015	500.375m	486.372m
30) L2	Toxaphene-C	5.759	5.827	27334205	4173683	486.447m	493.986m
31) L2	Toxaphene-D	5.922	6.016	20256743	4542381	529.504m	523.637m
32) L2	Toxaphene-E	6.278	6.395	9423699	4880572	547.292m	543.117m
	Sum Toxaphene-A			79309189	21142752	2568.860	2530.414
	Average Toxaphene-A					513.772	506.083

12.5.66 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170852.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:26 pm
Operator : eduardom
Sample : icv4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 31 13:49:48 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

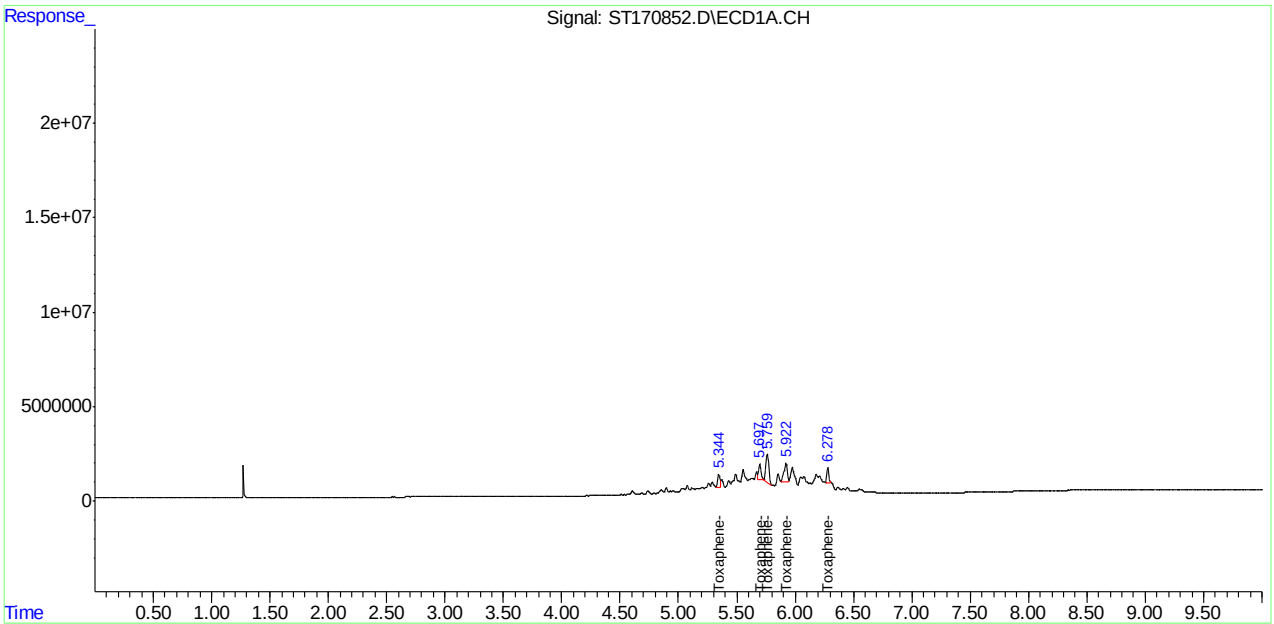
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

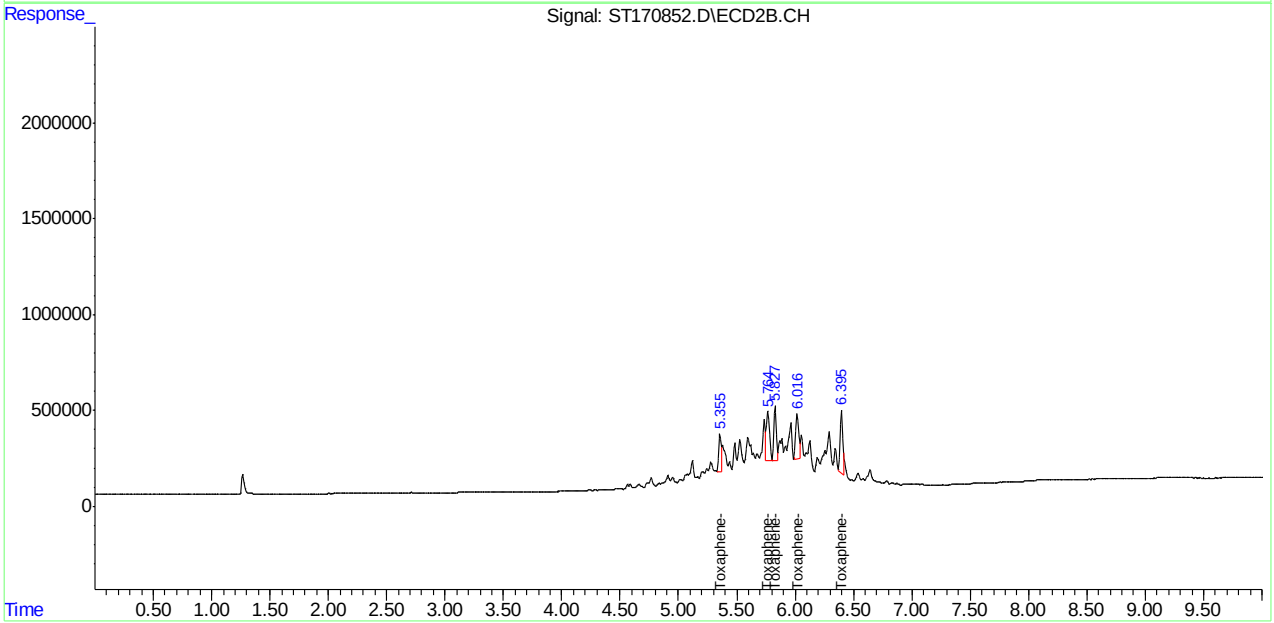
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170852.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 1:26 pm
Operator : eduardom
Sample : icv4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 31 13:49:48 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 13:48:36 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4174-ICV4174 **Method:** SW846 8081B
Lab FileID: ST170852.D **Analyst approved:** 10/31/23 16:40 Eduardo Melendez
Injection Time: 10/31/23 13:26 **Supervisor approved:** 10/31/23 17:17 Naresh Jiawan

Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.34	Poor instrument integration
Toxaphene-A		2	5.35	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.76	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170859.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 3:10 pm
Operator : eduardom
Sample : icv4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 31 15:20:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 15:06:09 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.263	4.188	1045208	211336	177.922	180.822
23)	L1	Chlordane-B	4.414	4.323	1197779	222783	121.131	110.677
24)	L1	Chlordane-C	4.639	4.627	1253499	326188	255.112	251.095
25)	L1	Chlordane-D	5.135	5.101	4636227	945543	200.031	195.686
26)	L1	Chlordane-E	5.192	5.145	4779920	854667	207.845	209.077
27)	L1	Chlordane-F	5.779	5.808	1163876	325401	243.571	286.498
		Sum Chlordane-A			14076510	2885919	1205.611	1233.855
		Average Chlordane-A					200.935	205.643
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170859.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 3:10 pm
Operator : eduardom
Sample : icv4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 31 15:20:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 15:06:09 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

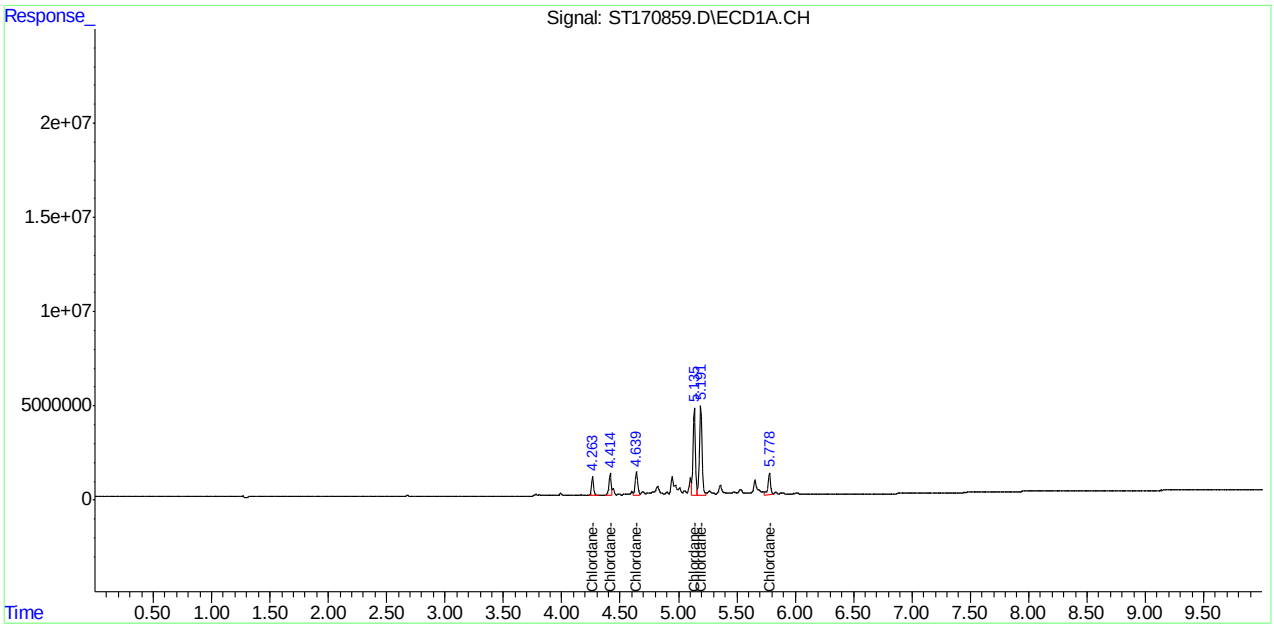
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

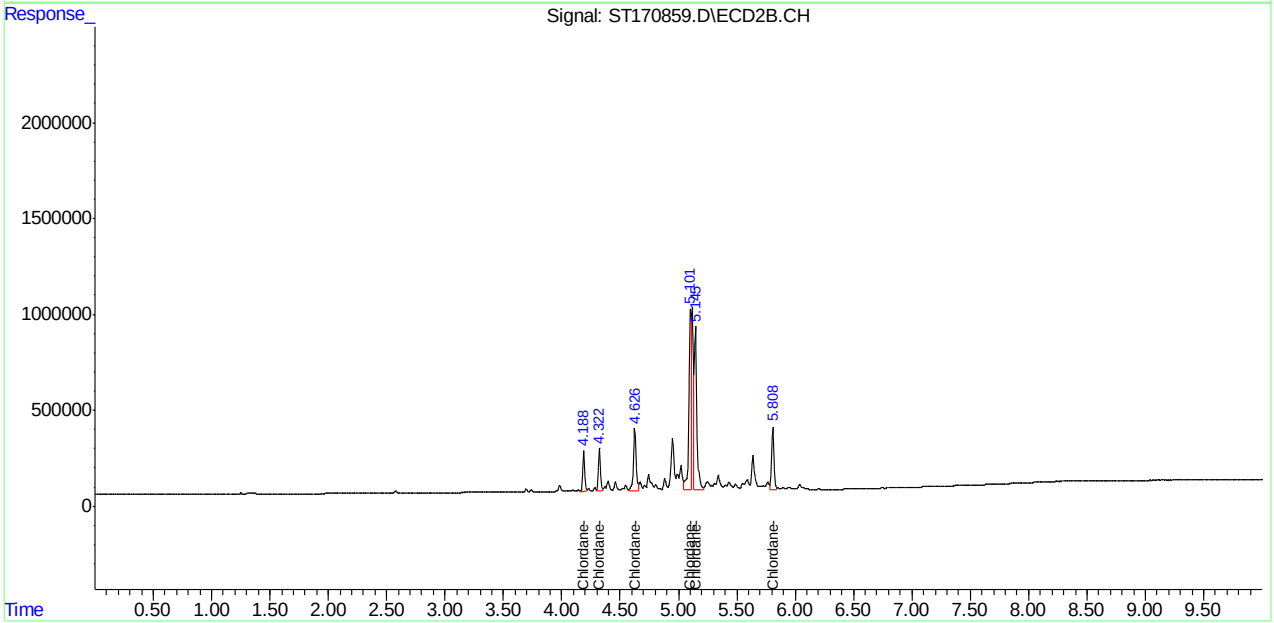
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4174_103123\
Data File : ST170859.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 31 Oct 2023 3:10 pm
Operator : eduardom
Sample : icv4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4174,250,,,5,1,Water
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 31 15:20:44 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Oct 31 15:06:09 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED
(compounds with "m" flag)
William Hustedde
11/15/23 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171210.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 10 15:38:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.448	3.387	5635208	1126902	40.375	39.579
		Spiked Amount	50.000	Range 42 - 127		Recovery =	80.75%	79.16%
33)	S	Decachlor...	7.410	7.380	5186590	1363103	53.991m	51.027
		Spiked Amount	50.000	Range 27 - 127		Recovery =	107.98%	102.05%
		Target Compounds						
2)		alpha-BHC	3.774	3.796	8584611	1768176	41.396	43.625
3)		gamma-BHC...	4.008	4.056	7582517	1622897	42.080	41.774
4)		beta-BHC	4.160	4.280	3264957	760319	38.747	41.264
5)		delta-BHC	4.327	4.461	7780602	1748628	38.065	42.602
6)		Heptachlor	4.417	4.326	6560322	1573658	38.101	41.857
7)		Aldrin	4.651	4.541	7165387	1748101	40.945	44.043
8)		Heptachlo...	4.955	4.915	6714129	1735910	37.720	41.409
9)		gamma-Chl...	5.136	5.102	6488379	1737157	37.784	41.805
10)		alpha-Chl...	5.191	5.149	6351735	1693145	40.498	40.624
11)		4,4'-DDE	5.334	5.286	6449704	1693314	36.218	39.872
12)		Endosulfa...	5.220	5.192	6119097	1621749	41.075	41.353
13)		Dieldrin	5.414	5.387	6980310	1814858	37.670	40.731
14)		Endrin	5.570	5.590	6267406	1628648	34.972	40.044
15)		4,4'-DDD	5.700	5.694	5557900	1409886	35.371	39.507
16)		Endosulfa...	5.732	5.804	5992330	1555622	36.926	39.315
17)		4,4'-DDT	5.920	5.880	4476084	1276097	43.033	42.013
18)		Endrin Al...	5.825	5.935	4638927	1190103	37.489	38.979
19)		Methoxychlor	6.282	6.304	2563154	707313	44.836	42.824
20)		Endosulfa...	5.992	6.098	5659945	1448687	37.598	39.617
21)		Endrin Ke...	6.329	6.483	5956554	1510407	42.208	41.641
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171210.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 10 15:38:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

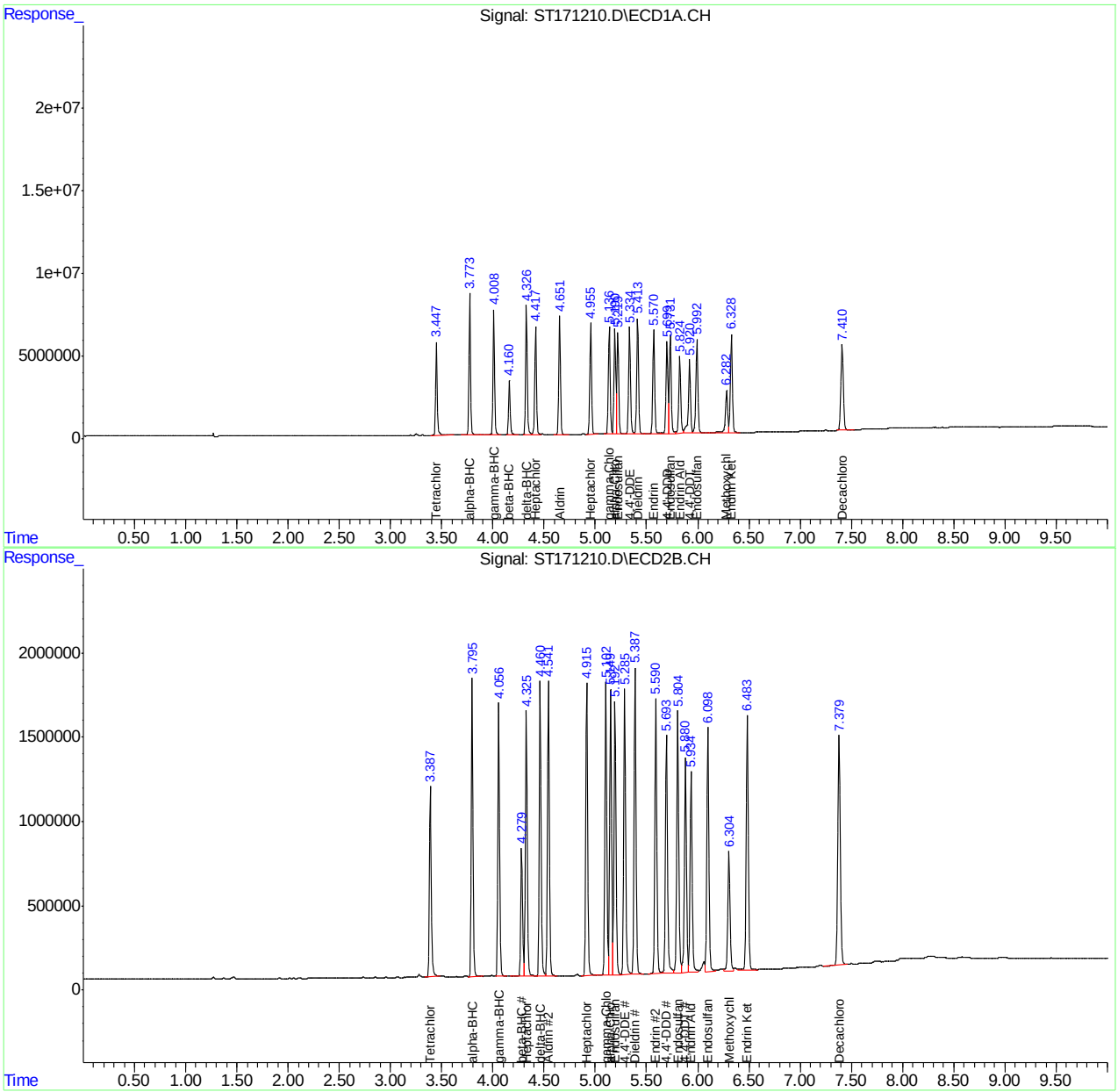
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171210.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 10 15:38:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



SGS FC10955

Manual Integration Approval Summary

Sample Number:	GST4180-CC4174	**Method:**	SW846 8081B
Lab FileID:	ST171210.D	**Analyst approved:**	11/15/23 11:20 Eduardo Melendez
Injection Time:	11/10/23 15:04	**Supervisor approved:**	11/15/23 12:51 William Hustedde

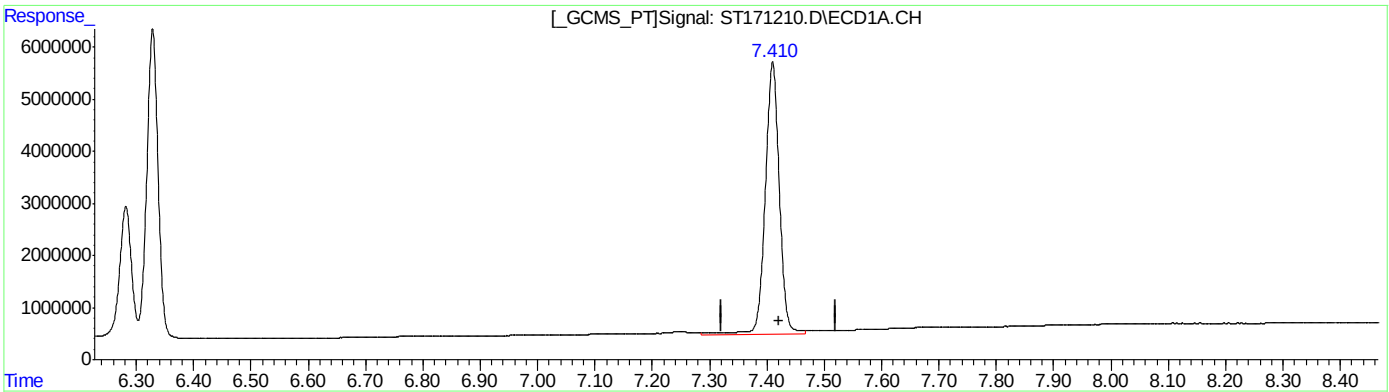
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.41	Poor instrument integration

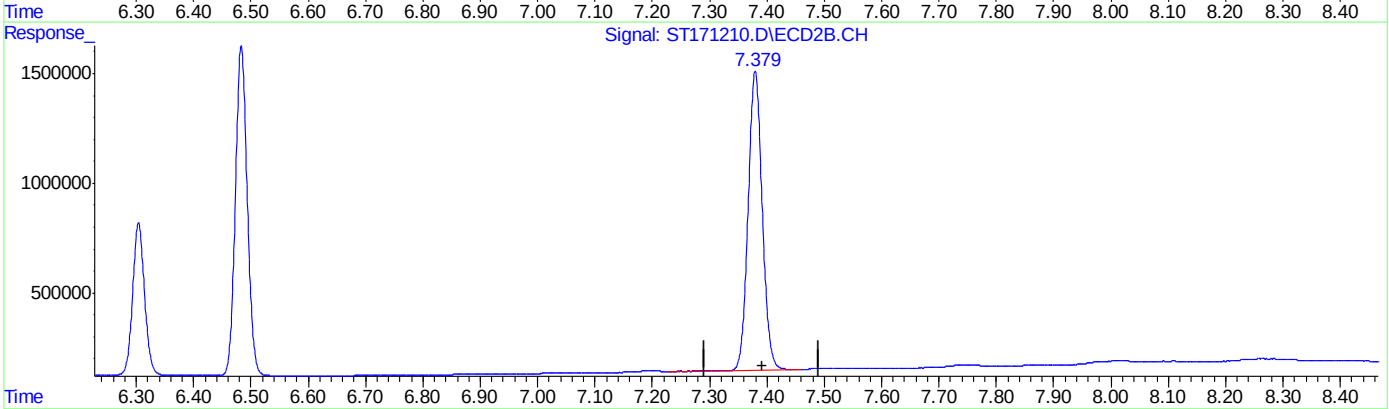
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171210.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 10 15:38:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.410min 54.269 ppb

response 5213353

(33) Decachlorobiphenyl #2 (S)

7.380min 51.027 ppb

response 1363103

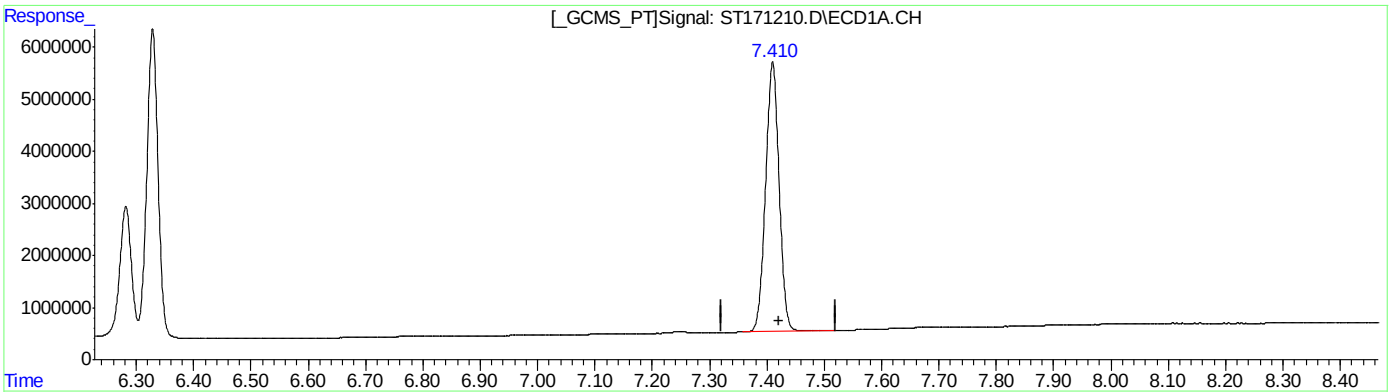
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171210.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:04 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 10 15:38:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



(33) Decachlorobiphenyl (S)
7.410min 53.991 ppb m
response 5186590

(33) Decachlorobiphenyl #2 (S)
7.380min 51.027 ppb
response 1363103

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171211.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:19 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 10 15:39:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.266	4.190	1166291	235778	198.533	201.735
23)	L1	Chlordane-B	4.416	4.325	1889754	411387	191.109	204.375
24)	L1	Chlordane-C	4.642	4.628	981606	265617	199.776	204.468
25)	L1	Chlordane-D	5.137	5.104	4410476	1012251	190.291	209.491
26)	L1	Chlordane-E	5.194	5.148	4472441	857733	194.475	209.827
27)	L1	Chlordane-F	5.781	5.810	825672	234847	172.793	206.770
		Sum Chlordane-A			13746239	3017613	1146.977	1236.666
		Average Chlordane-A					191.163	206.111
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171211.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:19 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 10 15:39:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

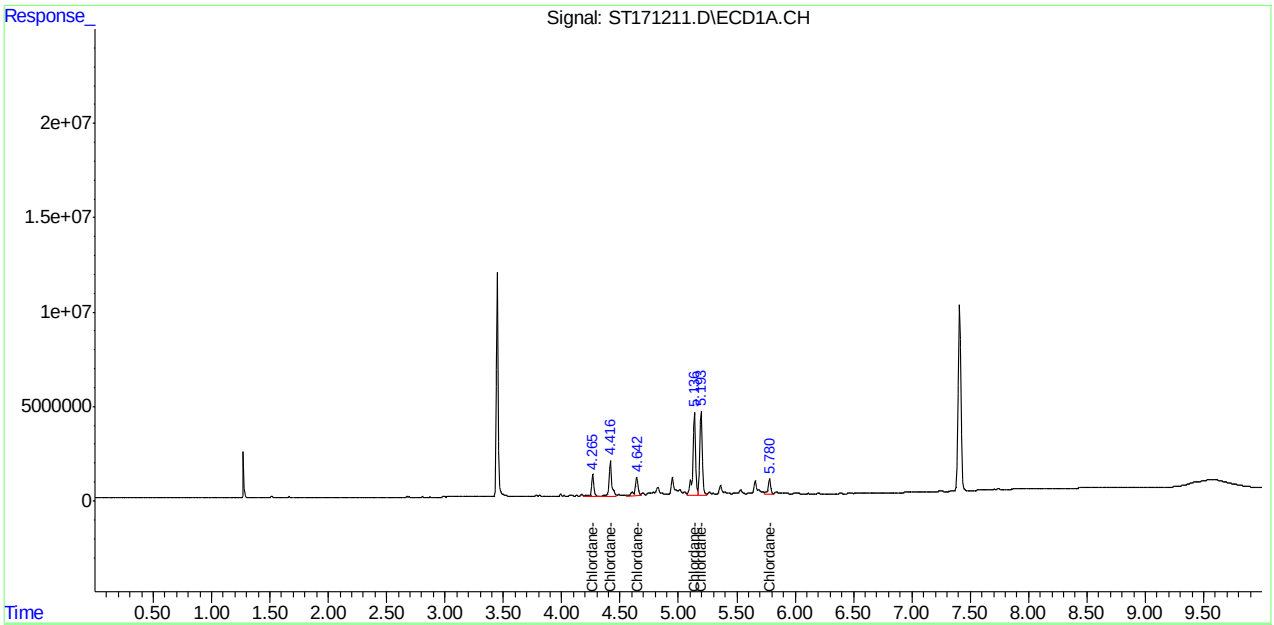
12.5.69
12

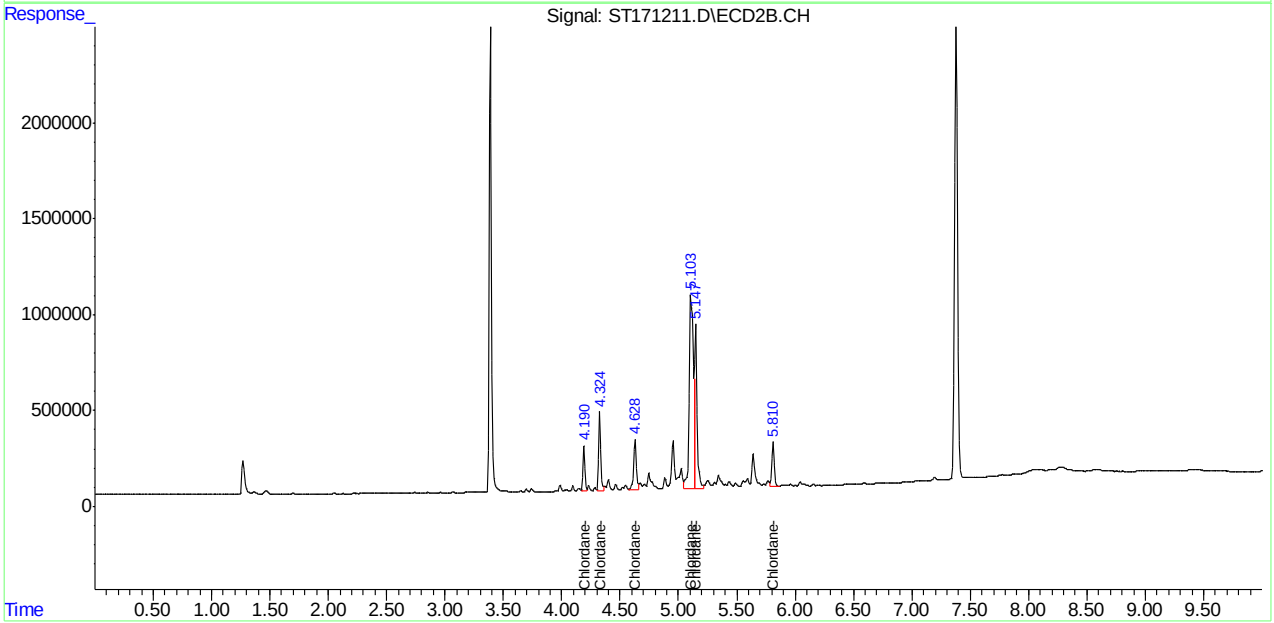
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171211.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:19 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 10 15:39:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171212.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 10 16:27:55 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.347	5.357	9598442	2977663	487.319m	525.395m
29) L2	Toxaphene-B	5.700	5.767	12231303	5076815	495.844m	513.670m
30) L2	Toxaphene-C	5.762	5.829	28707866	4131414	510.893m	488.983m
31) L2	Toxaphene-D	5.925	6.019	20861683	4526497	545.317m	521.806m
32) L2	Toxaphene-E	6.281	6.399	9463556	4813127	549.607m	535.611m
	Sum Toxaphene-A			80862851	21525516	2588.979	2585.467
	Average Toxaphene-A					517.796	517.093

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171212.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 10 16:27:55 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

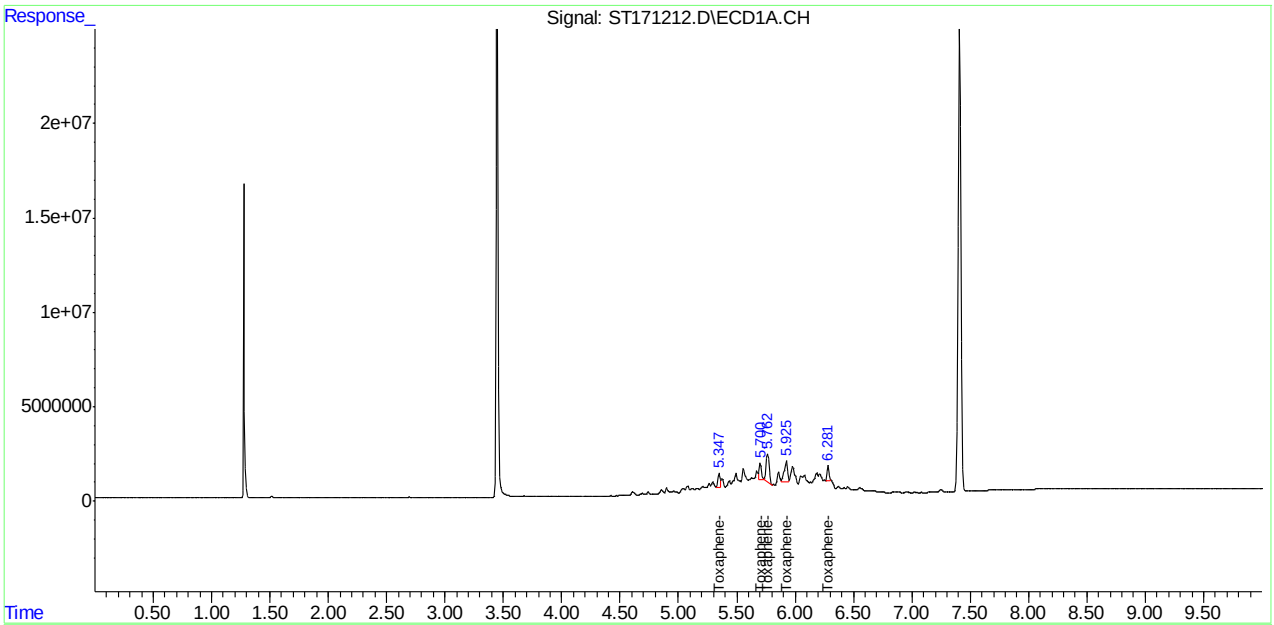
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

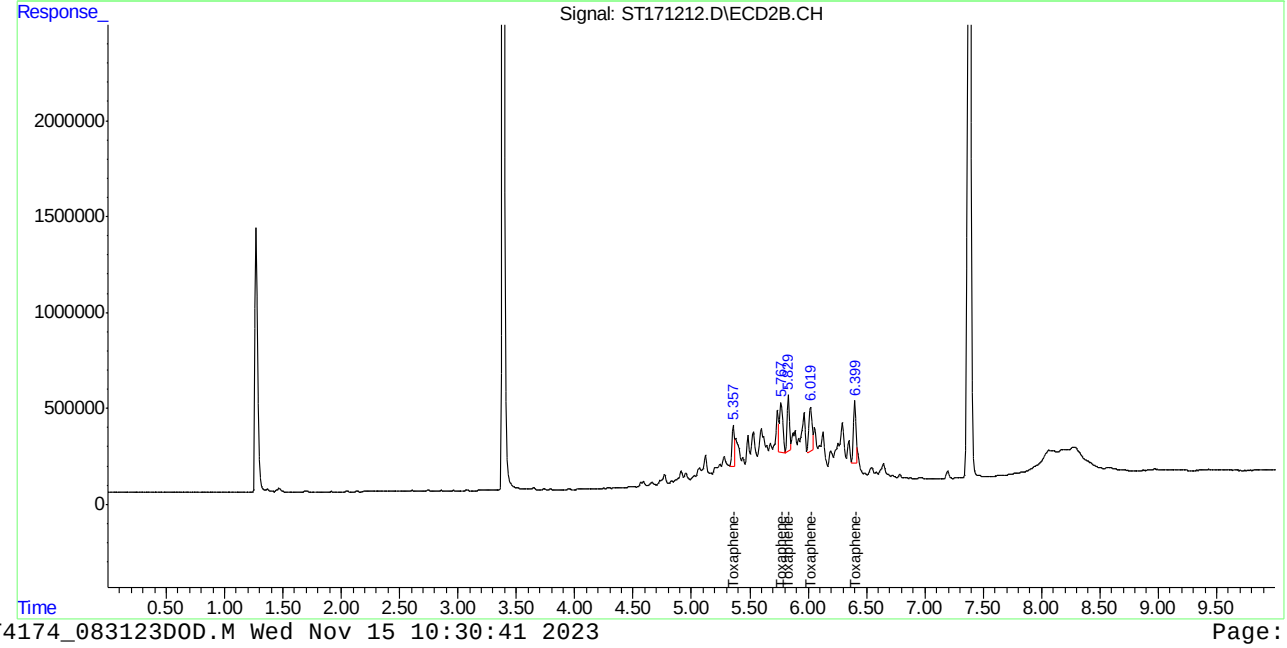
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171212.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 10 16:27:55 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4180-CC4174 **Method:** SW846 8081B
Lab FileID: ST171212.D **Analyst approved:** 11/15/23 11:20 Eduardo Melendez
Injection Time: 11/10/23 15:33 **Supervisor approved:** 11/15/23 12:51 William Hustedde

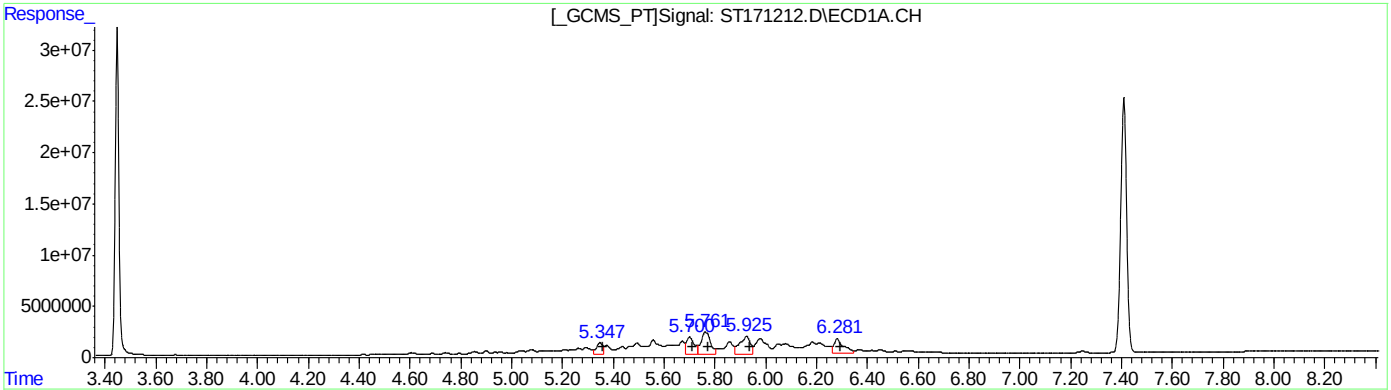
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.35	Poor instrument integration
Toxaphene-A		2	5.36	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.77	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.92	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171212.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 10 16:27:08 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	20239794	1027.59
5.70	37549096	1522.20
5.76	54190918	964.40
5.92	49640803	1297.59
6.28	39757793	2308.98

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	5241853	924.90
5.77	10320610	1044.24
5.83	8921697	1055.95
6.02	10025318	1155.70
6.40	10222333	1137.56

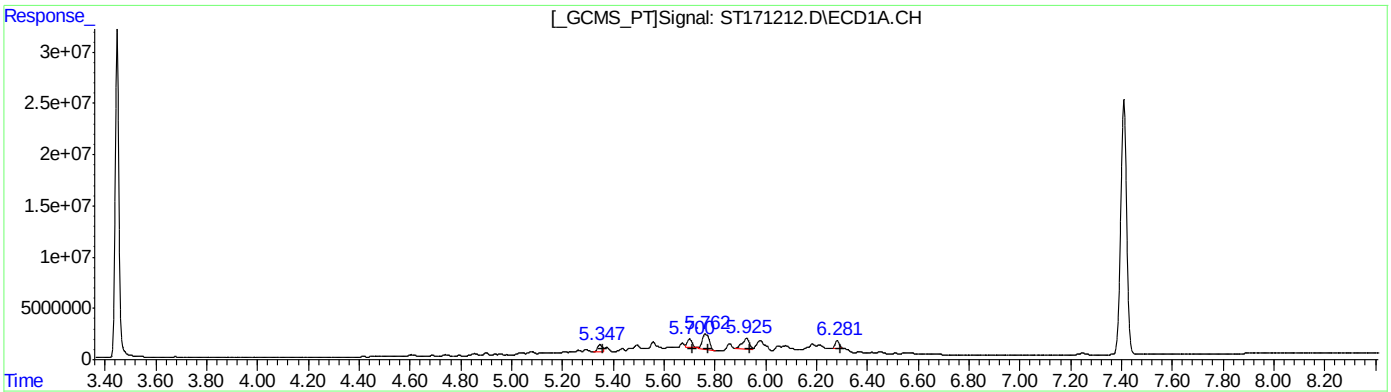
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171212.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 3:33 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 10 16:27:08 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Thu Nov 09 16:29:01 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	9598442	487.32
5.70	12231303	495.84
5.76	28707866	510.89
5.92	20861683	545.32
6.28	9463556	549.61

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	2977663	525.40
5.77	5076815	513.67
5.83	4131414	488.98
6.02	4526497	521.81
6.40	4813127	535.61

(+) = Expected Retention Time

Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171222.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 09:04:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.447	3.386	6751651	1293759	48.375	45.440
		Spiked Amount	50.000	Range 42 - 127		Recovery =	96.75%	90.88%
33)	S	Decachlor...	7.409	7.379	5716194	1370149	59.504m	51.291
		Spiked Amount	50.000	Range 27 - 127		Recovery =	119.01%	102.58%
		Target Compounds						
2)		alpha-BHC	3.773	3.795	10260394	1970119	49.477	48.607
3)		gamma-BHC...	4.008	4.055	8798019	1774647	48.825	45.680
4)		beta-BHC	4.159	4.278	4319726	854519	51.265	46.376
5)		delta-BHC	4.325	4.459	8106654	1555206	39.660	37.890
6)		Heptachlor	4.417	4.325	7920786	1664900	46.002	44.284
7)		Aldrin	4.652	4.541	7889804	1748687	45.085	44.057
8)		Heptachlo...	4.954	4.914	7654156	1726226	43.001	41.178
9)		gamma-Chl...	5.135	5.102	7594892	1718326	44.227	41.352
10)		alpha-Chl...	5.190	5.148	7190110	1667782	45.844	40.015
11)		4,4'-DDE	5.333	5.283	7675529	1742068	43.102	41.020
12)		Endosulfa...	5.219	5.191	6924192	1558206	46.480	39.733
13)		Dieldrin	5.413	5.386	7972195	1768175	43.023	39.684
14)		Endrin	5.570	5.589	7652204	1673914	42.699	41.157
15)		4,4'-DDD	5.698	5.692	6424924	1465292	40.889	41.060
16)		Endosulfa...	5.731	5.803	6689250	1510382	41.221	38.172
17)		4,4'-DDT	5.919	5.879	4928837	1007824	46.703	33.943
18)		Endrin Al...	5.824	5.933	5200439	1155341	42.026	37.841
19)		Methoxychlor	6.281	6.303	2670033	614252	46.706	37.189
20)		Endosulfa...	5.991	6.098	5676898	1220378	37.710	33.373
21)		Endrin Ke...	6.327	6.483	4363072	947255	30.917	26.115
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171222.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 09:04:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

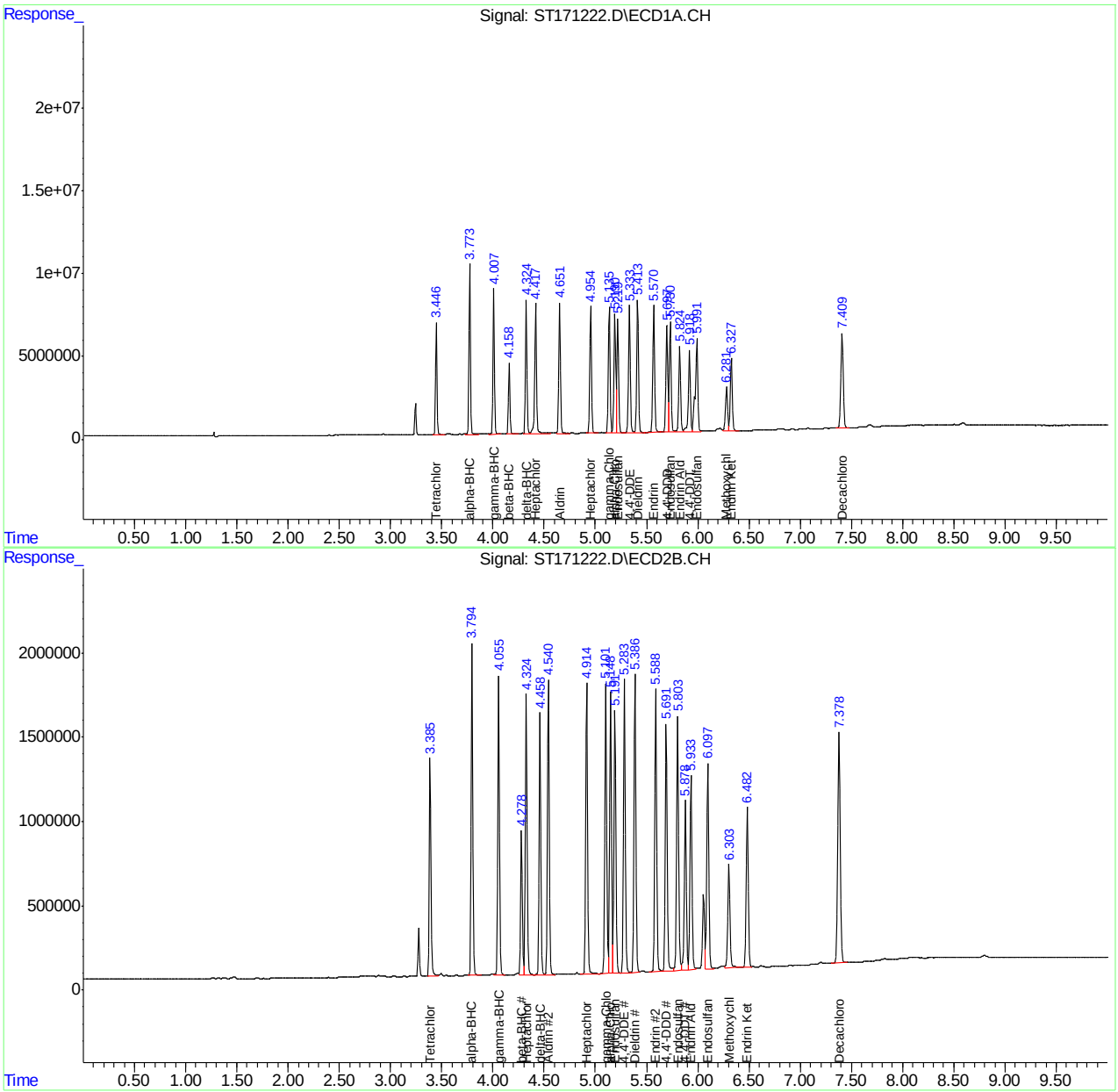
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171222.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 09:04:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



SGS FC10955

Manual Integration Approval Summary

Sample Number: GST4180-CC4174
Lab FileID: ST171222.D
Injection Time: 11/10/23 18:02
Method: SW846 8081B
Analyst approved: 11/15/23 11:20 Eduardo Melendez
Supervisor approved: 11/15/23 12:51 William Hustedde

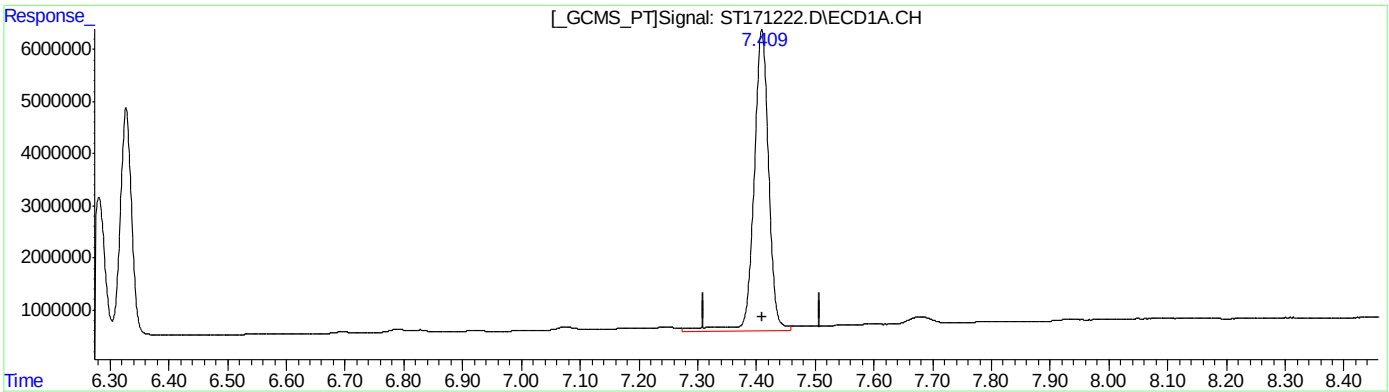
Parameter	CAS	Sig#	R.T. (min.)	Reason
Decachlorobiphenyl	2051-24-3	1	7.41	Poor instrument integration

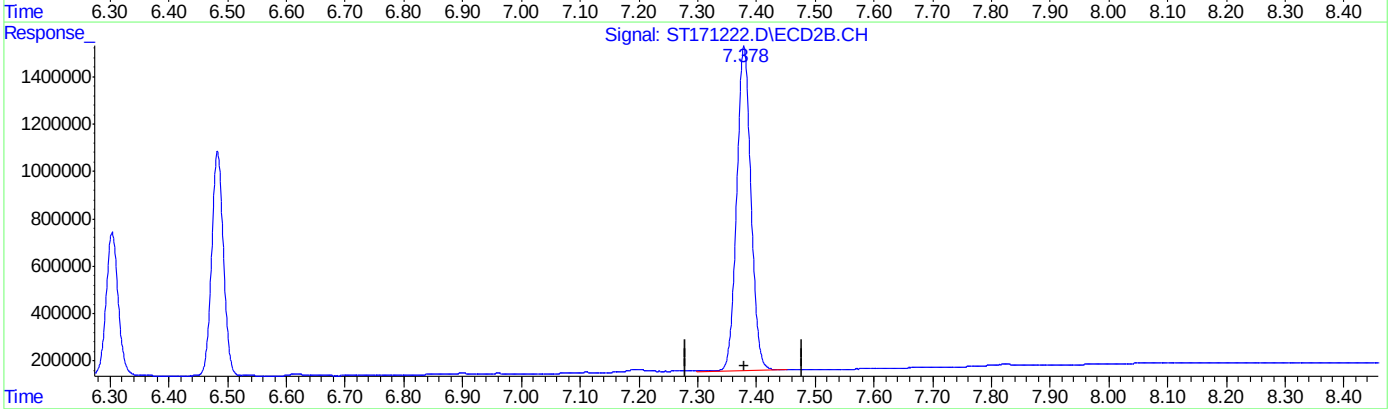
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171222.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 08:53:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.409min 60.234 ppb

response 5786384

(33) Decachlorobiphenyl #2 (S)

7.379min 51.291 ppb

response 1370149

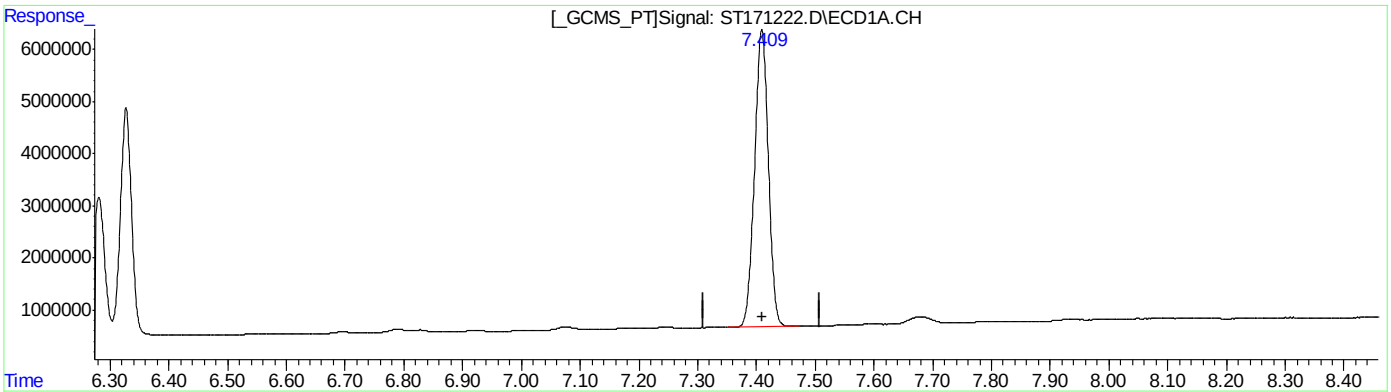
(+) = Expected Retention Time

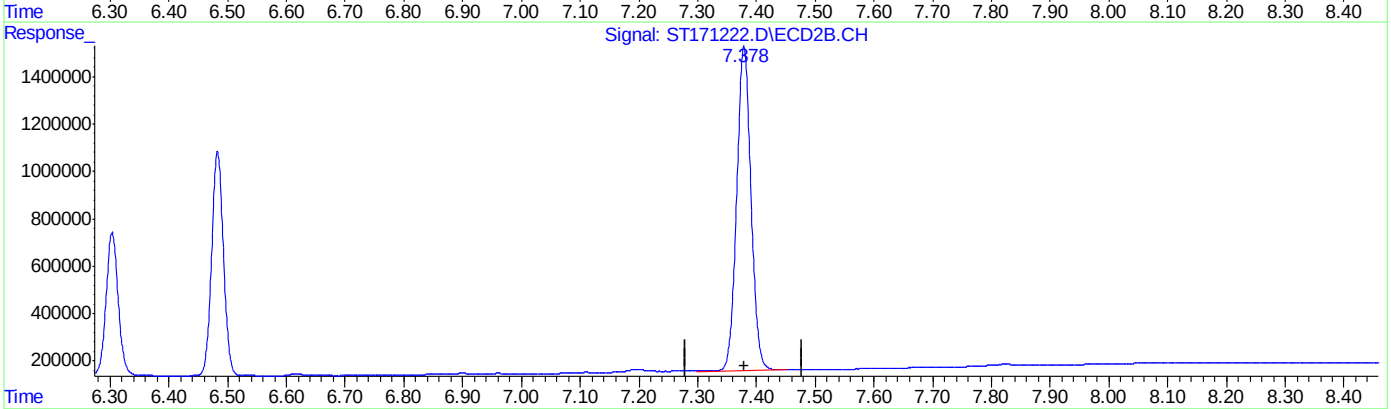
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171222.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:02 pm
Operator : eduardom
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 15 08:53:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(33) Decachlorobiphenyl (S)

7.409min 59.504 ppb m

response 5716194

(33) Decachlorobiphenyl #2 (S)

7.379min 51.291 ppb

response 1370149

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171223.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:17 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 09:31:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 50.000	Range 42 - 127		Recovery =		0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 50.000	Range 27 - 127		Recovery =		0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	4.265	4.189	1329919	224338	226.387	191.947
23) L1	Chlordane-B	4.416	4.324	2213804	420617	223.880	208.960
24) L1	Chlordane-C	4.641	4.627	1098790	260927	223.625	200.858
25) L1	Chlordane-D	5.136	5.103	4978137	992525	214.783	205.409
26) L1	Chlordane-E	5.193	5.147	4672239	832907	203.162	203.754
27) L1	Chlordane-F	5.780	5.810	1005938	197449	210.519	173.843
Sum	Chlordane-A			15298826	2928763	1302.356	1184.771
Average	Chlordane-A					217.059	197.462
28) L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29) L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30) L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31) L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32) L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
Sum	Toxaphene-A			0	0	N.D.	N.D.
Average	Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171223.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:17 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 09:31:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

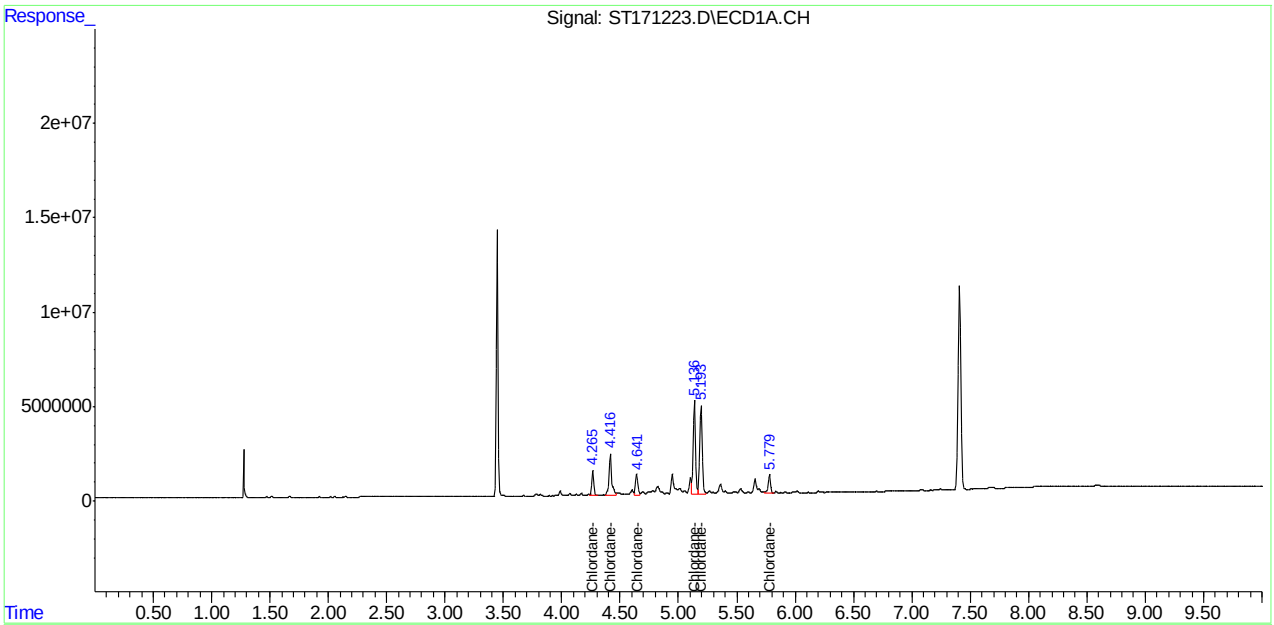
12.5.72
12

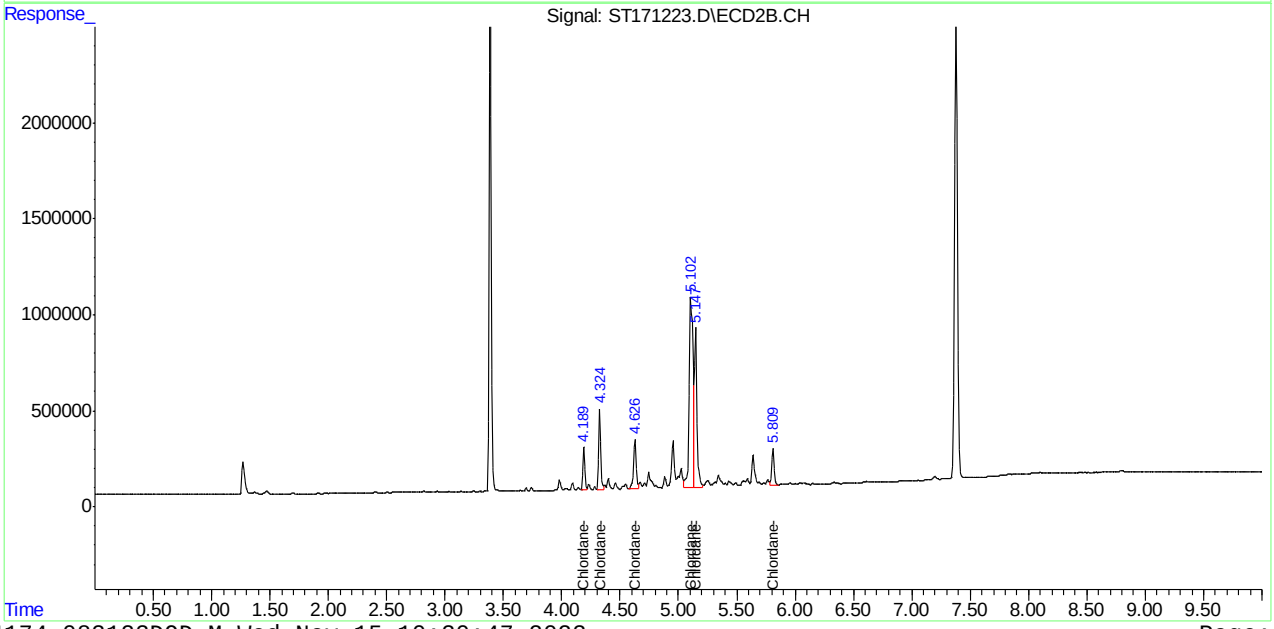
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171223.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:17 pm
Operator : eduardom
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 09:31:41 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
William Hustedde 11/15/23 12:51

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171224.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 09:34:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.347	5.356	11893474	3419388	603.839m	603.336m
29) L2	Toxaphene-B	5.700	5.767	12669412	4685283	513.604m	474.055m
30) L2	Toxaphene-C	5.763	5.828	32757680	4072893	582.964m	482.057m
31) L2	Toxaphene-D	5.925	6.018	22027371	4124565	575.788m	475.472m
32) L2	Toxaphene-E	6.280	6.398	10280960	4004271	597.078m	445.601m
	Sum Toxaphene-A			89628897	20306400	2873.274	2480.521
	Average Toxaphene-A					574.655	496.104

12.5.73 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171224.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 09:34:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

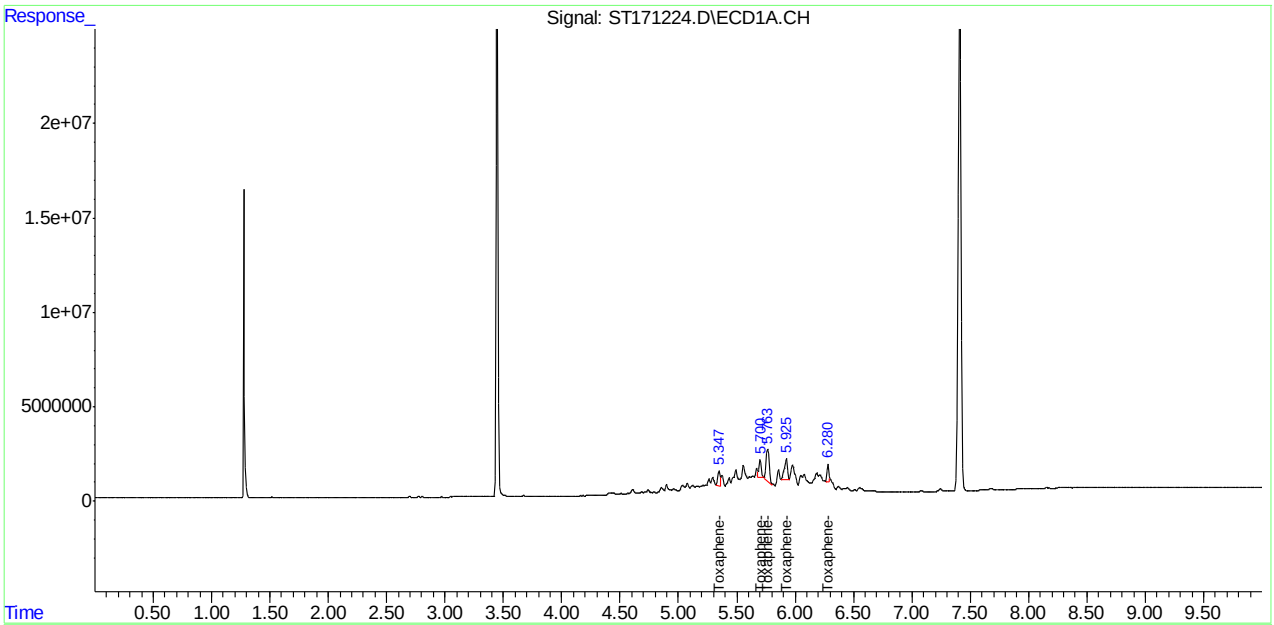
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

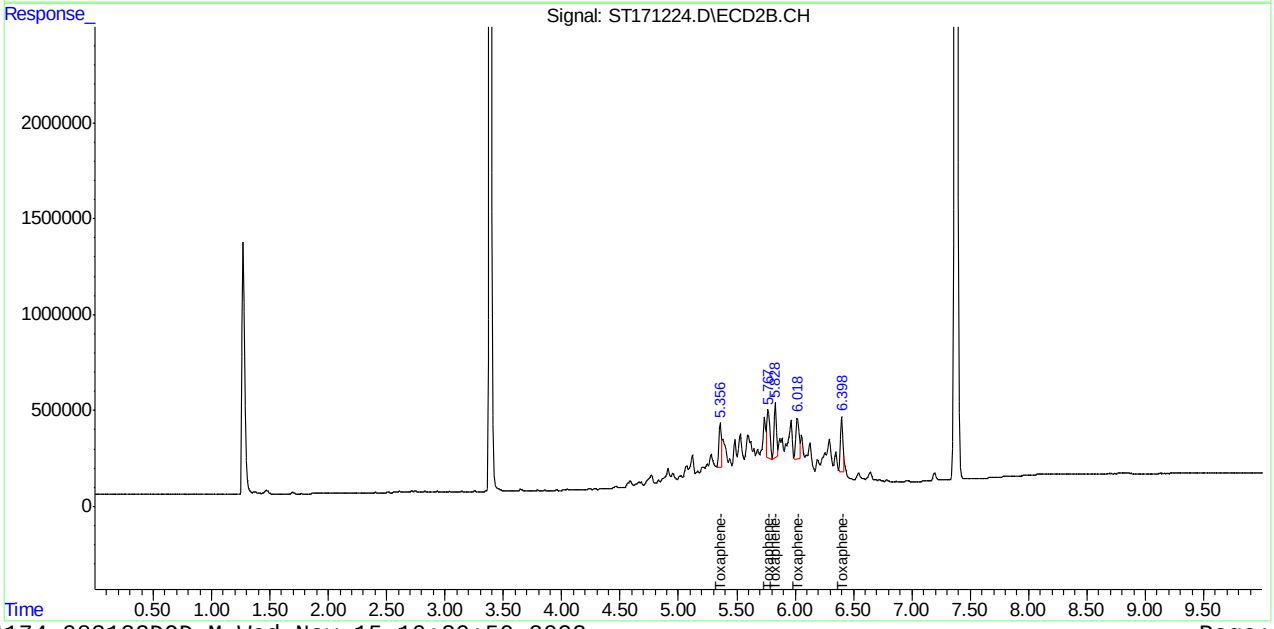
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171224.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 09:34:50 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4180-CC4174
Lab FileID: ST171224.D
Injection Time: 11/10/23 18:32
Method: SW846 8081B
Analyst approved: 11/15/23 11:20 Eduardo Melendez
Supervisor approved: 11/15/23 12:51 William Hustedde

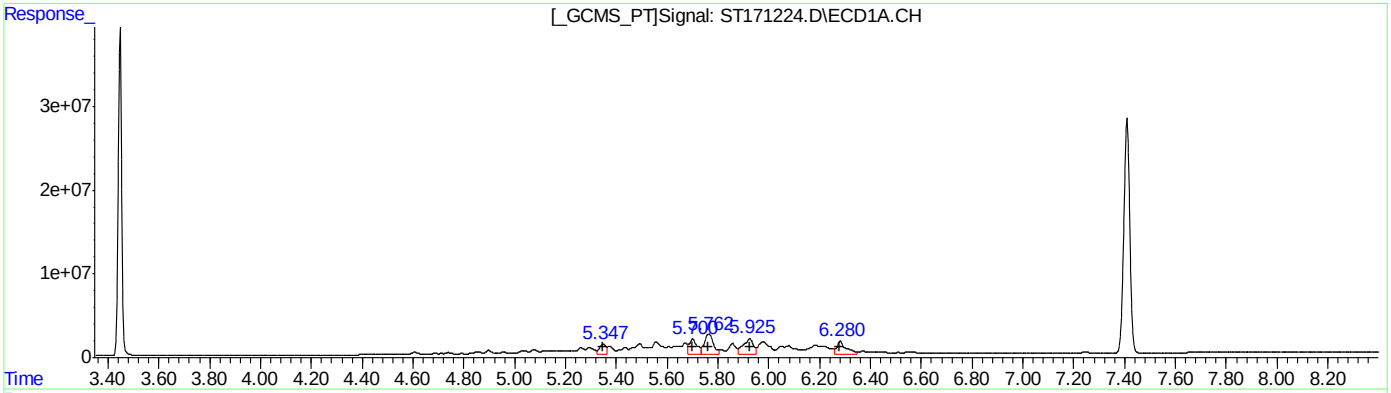
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.35	Poor instrument integration
Toxaphene-A		2	5.36	Poor instrument integration
Toxaphene-B		1	5.70	Poor instrument integration
Toxaphene-C		1	5.76	Poor instrument integration
Toxaphene-B		2	5.77	Poor instrument integration
Toxaphene-C		2	5.83	Poor instrument integration
Toxaphene-D		1	5.93	Poor instrument integration
Toxaphene-D		2	6.02	Poor instrument integration
Toxaphene-E		1	6.28	Poor instrument integration
Toxaphene-E		2	6.40	Poor instrument integration

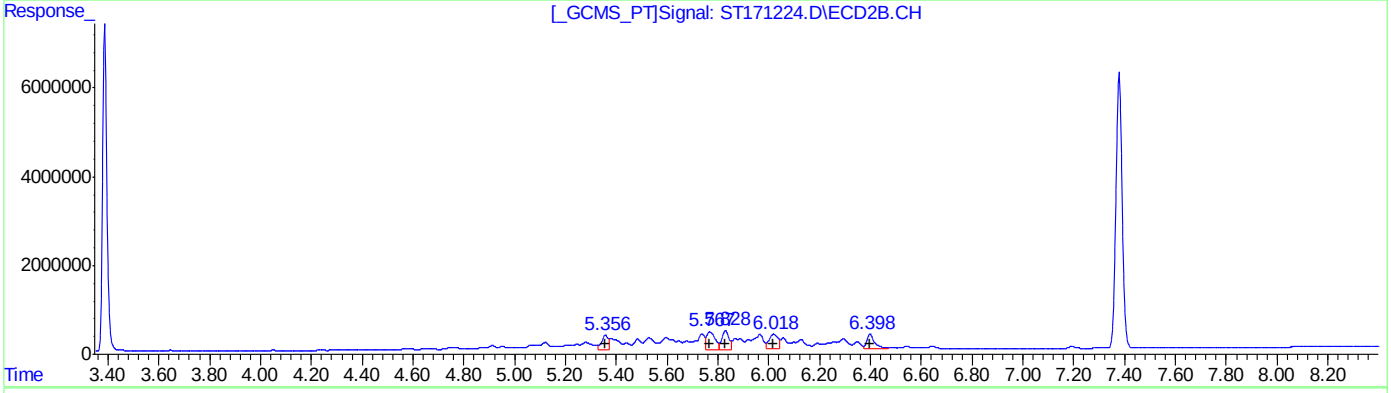
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171224.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 08:53:30 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.35	23146477	1175.16
5.70	39063987	1583.61
5.76	60235994	1071.98
5.92	52446441	1370.93
6.28	38350697	2227.26

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	5993686	1057.56
5.77	9383140	949.38
5.83	8173283	967.37
6.02	8573093	988.29
6.40	7410972	824.70

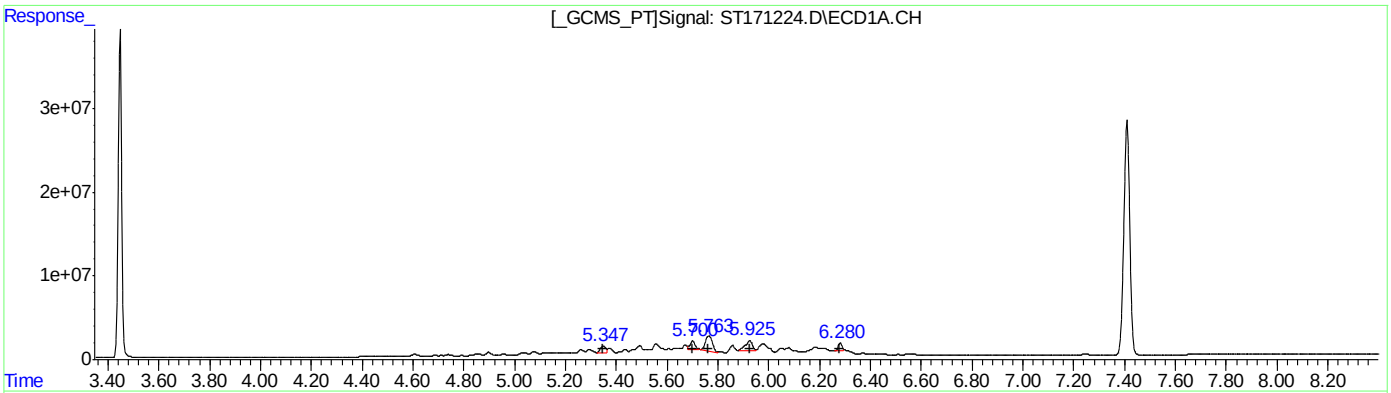
(+) = Expected Retention Time

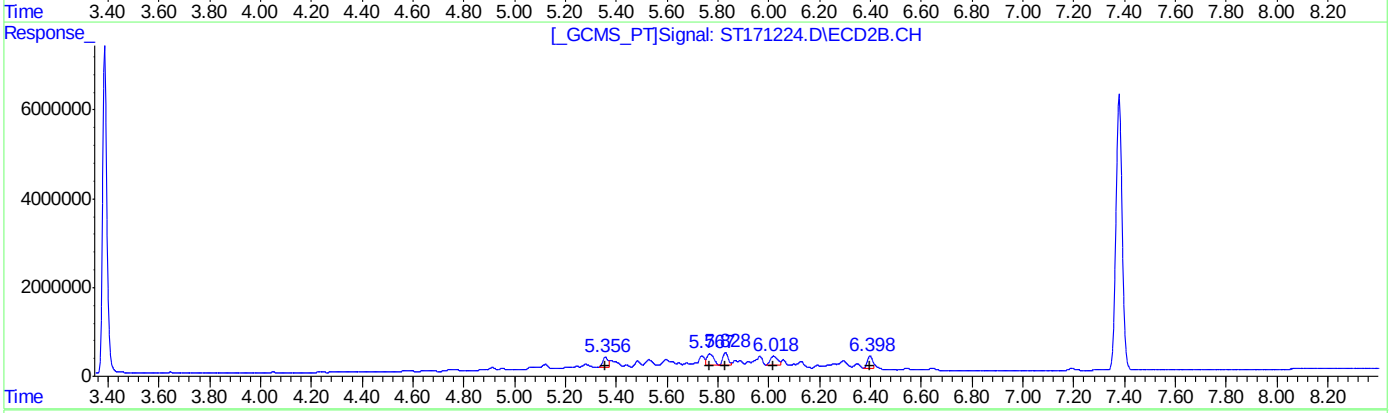
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4180_111023\
Data File : ST171224.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 10 Nov 2023 6:32 pm
Operator : eduardom
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4180,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 08:53:30 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Wed Nov 15 08:52:54 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.35	11893474	603.84
5.70	12669412	513.60
5.76	32757680	582.96
5.93	22027371	575.79
6.28	10280960	597.08

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	3419388	603.34
5.77	4685283	474.06
5.83	4072893	482.06
6.02	4124565	475.47
6.40	4004271	445.60

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171458.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:45 am
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:58:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.427	3.367	5991410	1206517	42.928	42.376
		Spiked Amount	50.000	Range 42 - 127		Recovery =	85.86%	84.75%
33)	S	Decachlor...	7.390	7.361	4432188	1148287	46.137	42.986
		Spiked Amount	50.000	Range 27 - 127		Recovery =	92.27%	85.97%
		Target Compounds						
2)		alpha-BHC	3.754	3.777	8615772	1741028	41.546	42.955
3)		gamma-BHC...	3.989	4.037	7634786	1569263	42.370	40.393
4)		beta-BHC	4.140	4.261	3441749	715903	40.845	38.853
5)		delta-BHC	4.306	4.442	7845851	1733067	38.384	42.223
6)		Heptachlor	4.398	4.307	6820670	1576861	39.613	41.942
7)		Aldrin	4.632	4.523	6702167	1606135	38.298	40.466
8)		Heptachlo...	4.936	4.897	6554691	1594287	36.824	38.031
9)		gamma-Chl...	5.118	5.084	6335526	1580128	36.894	38.026
10)		alpha-Chl...	5.201	5.132	5849532	1582026	37.296	37.958
11)		4,4'-DDE	5.315	5.267	6843328	1694194	38.428	39.892
12)		Endosulfa...	5.201	5.174	5849532	1474811	39.266	37.606
13)		Dieldrin	5.395	5.370	6890836	1733624	37.187	38.908
14)		Endrin	5.553	5.572	6677848	1583251	37.262	38.928
15)		4,4'-DDD	5.713	5.676	6238280	1464431	39.701	41.036
16)		Endosulfa...	5.713	5.787	6238280	1566914	38.442	39.600
17)		4,4'-DDT	5.903	5.863	5295115	1329898	49.609	43.593
18)		Endrin Al...	5.807	5.917	4752742	1217483	38.408	39.876
19)		Methoxychlor	6.264	6.287	2999421	779112	52.468	47.171
20)		Endosulfa...	5.974	6.081	6116299	1503638	40.629	41.119
21)		Endrin Ke...	6.310	6.466	6348693	1607399	44.987	44.315
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171458.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:45 am
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:58:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

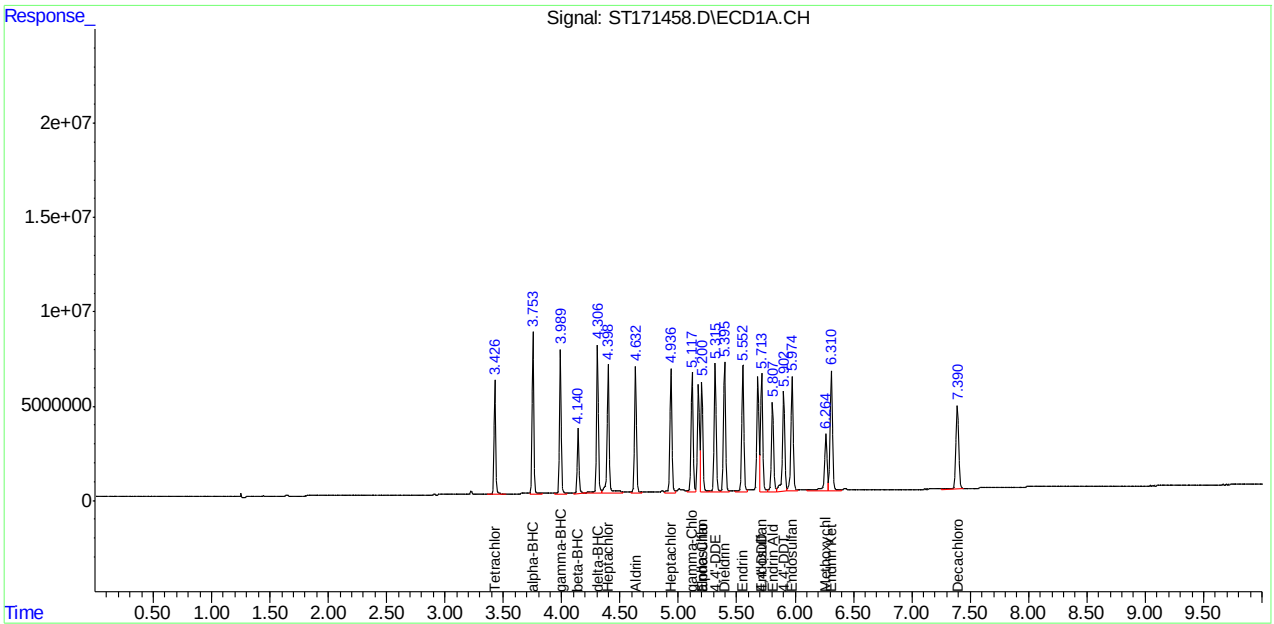
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

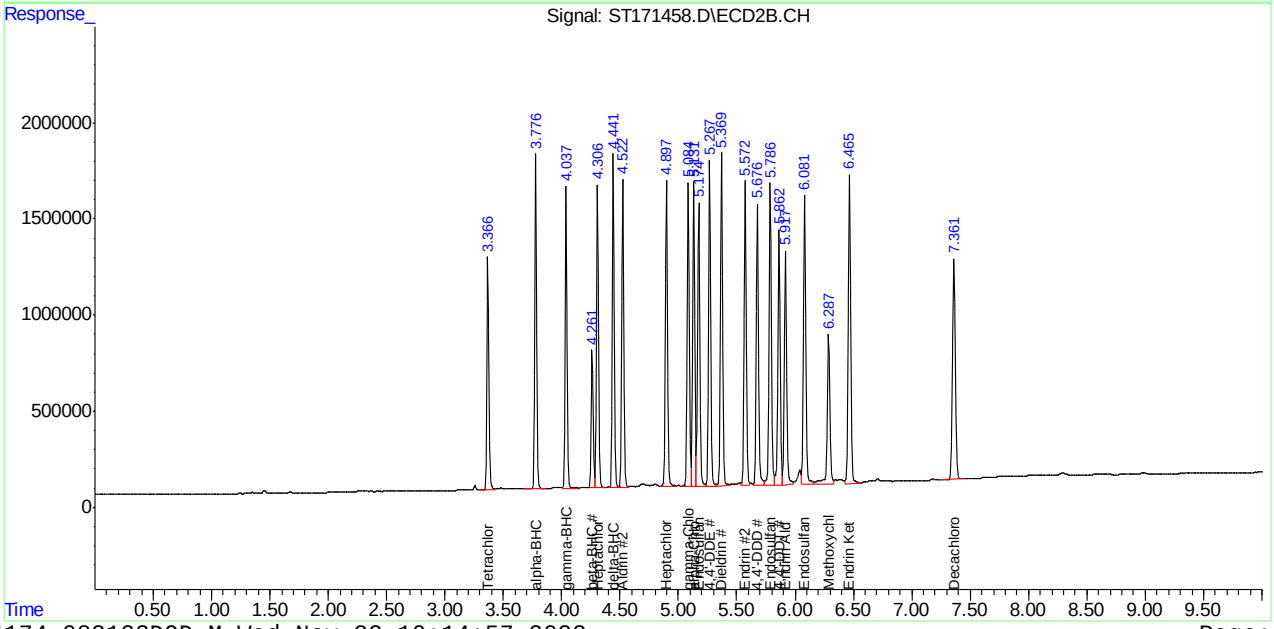
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171458.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:45 am
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 10:58:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171459.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:59 am
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:37:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.247	4.172	980332	177455	166.878	151.833
23)	L1	Chlordane-B	4.398	4.307	1819356	351795	183.990	174.769
24)	L1	Chlordane-C	4.623	4.610	863328	210742	175.704	162.226
25)	L1	Chlordane-D	5.119	5.101	3726372	730143	160.775	151.107
26)	L1	Chlordane-E	5.175	5.130	3374256	668994	146.722	163.656
27)	L1	Chlordane-F	5.763	5.793	780430	191302	163.325	168.431
		Sum Chlordane-A			11544073	2330430	997.395	972.023
		Average Chlordane-A					166.233	162.004
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

SGS FC10955

12.5.75 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171459.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:59 am
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:37:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

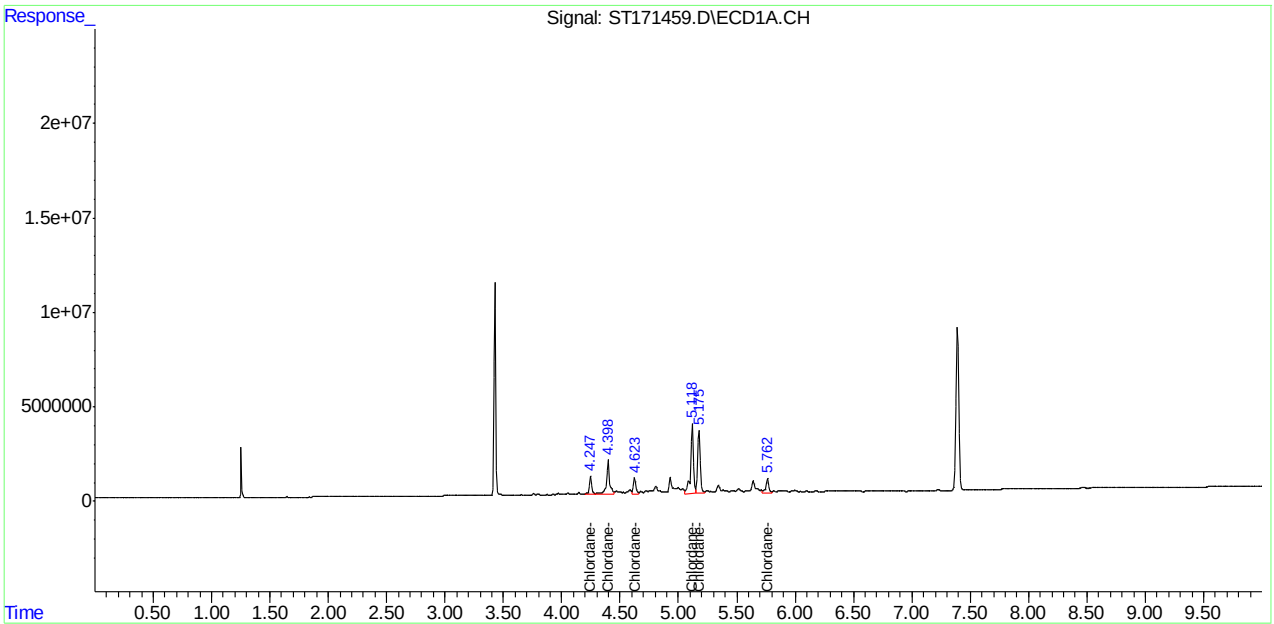
12.5.75
12

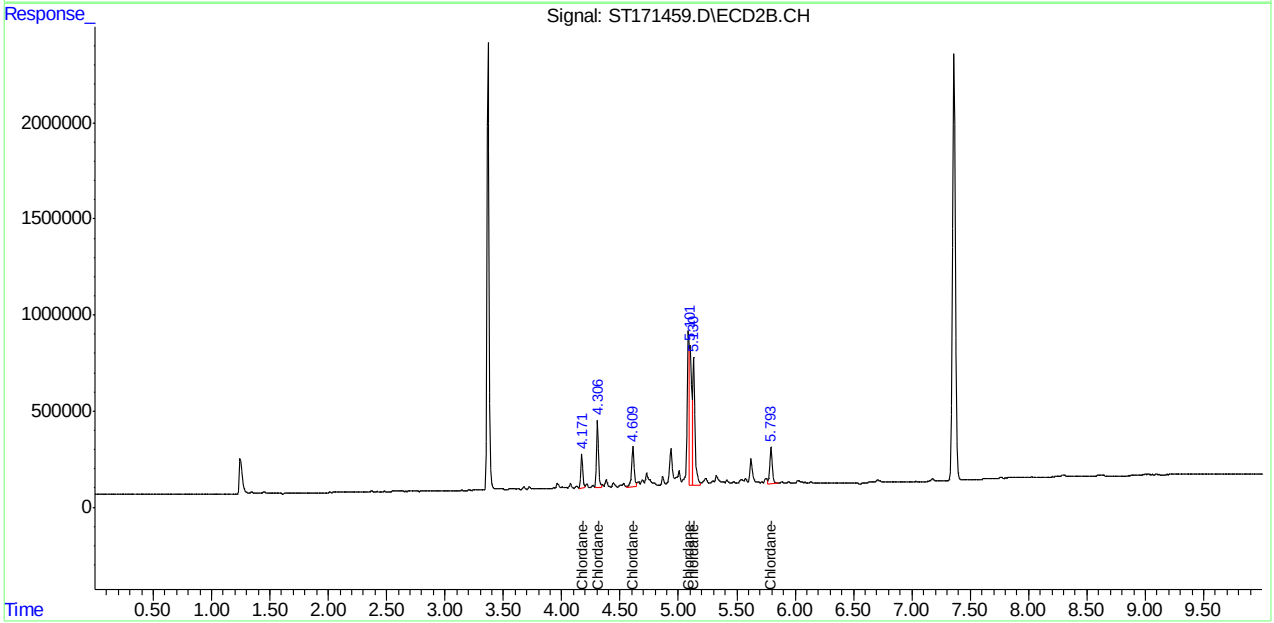
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171459.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 10:59 am
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:37:38 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 11/22/23 12:28

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171460.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:14 am
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:38:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

	Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
	System Monitoring Compounds						
1) S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	42 - 127	Recovery	=	0.00%#	0.00%#
33) S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount	50.000 Range	27 - 127	Recovery	=	0.00%#	0.00%#
	Target Compounds						
2)	alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)	gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)	beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)	delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)	Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)	Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)	Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)	gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)	alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)	4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)	Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)	Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)	4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)	4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)	Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)	Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)	Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)	Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22) L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23) L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24) L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25) L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26) L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27) L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
	Sum Chlordane-A			0	0	N.D.	N.D.
	Average Chlordane-A					0.000	0.000
28) L2	Toxaphene-A	5.330	5.341	8664910	2384676	439.923m	420.765m
29) L2	Toxaphene-B	5.683	5.751	14518806	4535172	588.577m	458.867m
30) L2	Toxaphene-C	5.746	5.814	26796080	3725617	476.870m	440.954m
31) L2	Toxaphene-D	5.908	6.003	20156600	4206233	526.887m	484.887m
32) L2	Toxaphene-E	6.264	6.381	9311823	4886167	540.795m	543.739m
	Sum Toxaphene-A			79448221	19737865	2573.051	2349.213
	Average Toxaphene-A					514.610	469.843

12.5.76 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171460.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:14 am
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:38:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

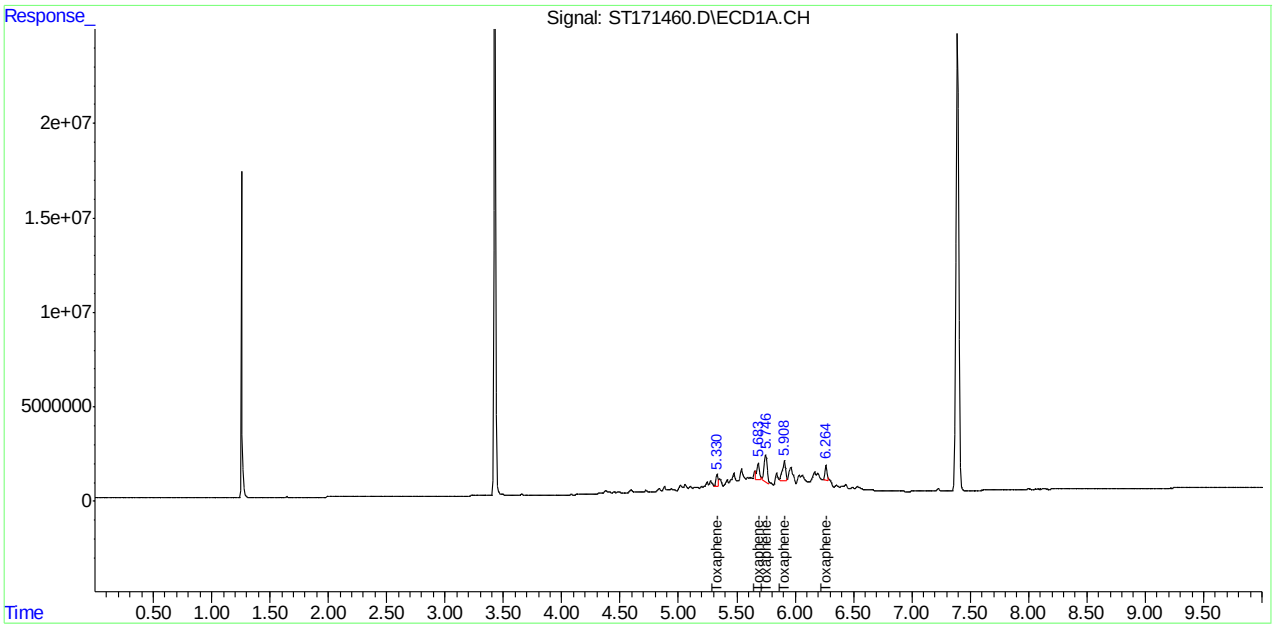
12.5.76
12

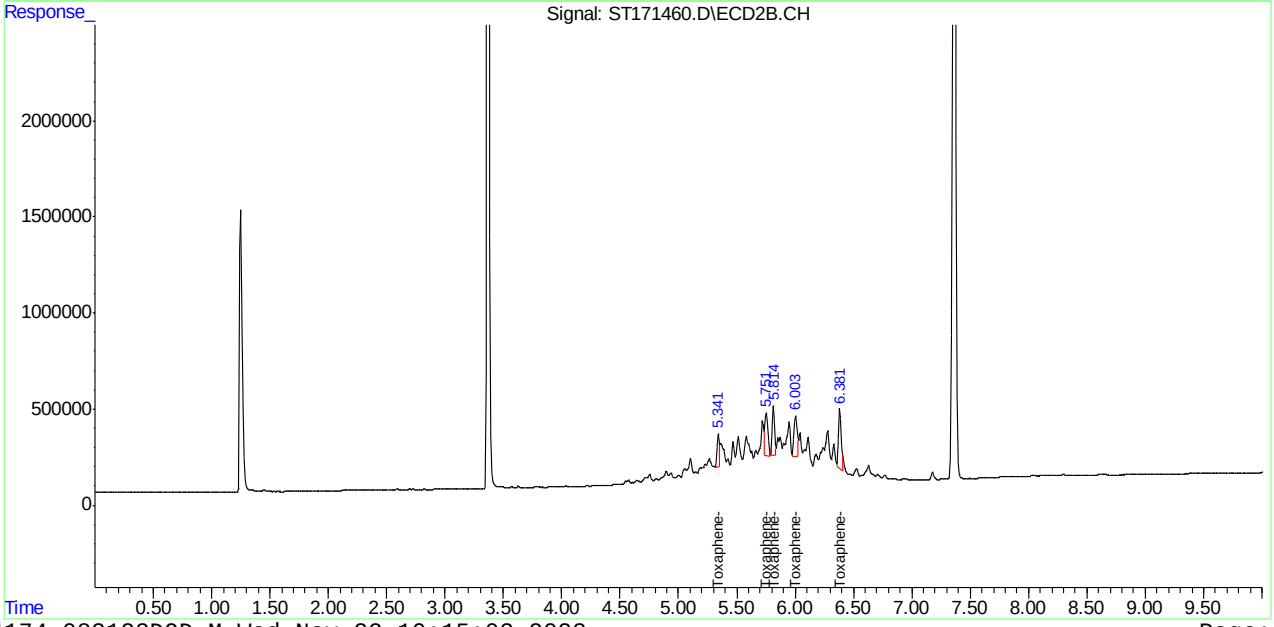
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171460.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:14 am
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:38:33 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4185-CC4174 **Method:** SW846 8081B
Lab FileID: ST171460.D **Analyst approved:** 11/22/23 10:32 William Hustedde
Injection Time: 11/21/23 11:14 **Supervisor approved:** 11/22/23 12:28 Naresh Jiawan

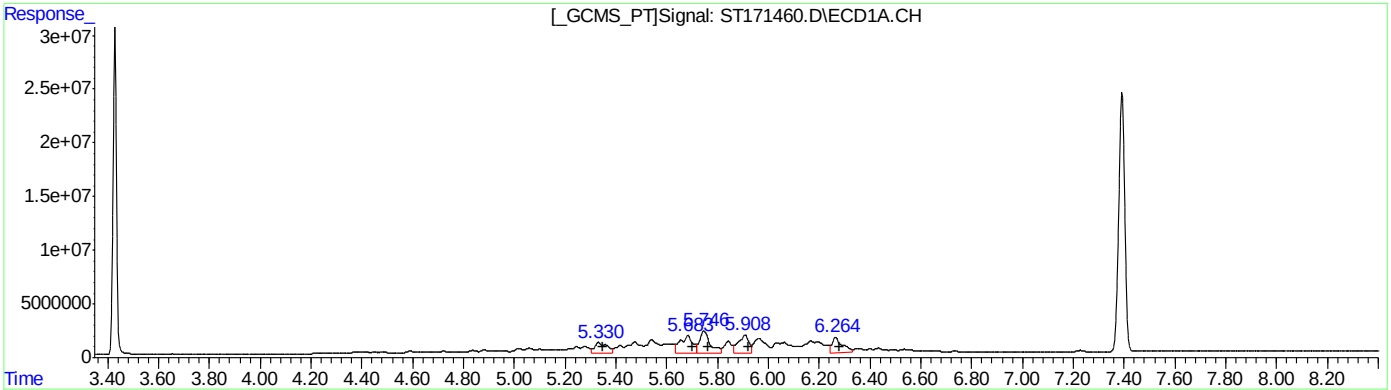
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.33	Poor instrument integration
Toxaphene-A		2	5.34	Poor instrument integration
Toxaphene-B		1	5.68	Poor instrument integration
Toxaphene-C		1	5.75	Poor instrument integration
Toxaphene-B		2	5.75	Poor instrument integration
Toxaphene-C		2	5.81	Poor instrument integration
Toxaphene-D		1	5.91	Poor instrument integration
Toxaphene-D		2	6.00	Poor instrument integration
Toxaphene-E		1	6.26	Poor instrument integration
Toxaphene-E		2	6.38	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171460.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:14 am
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:37:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.33	32649802	1657.65
5.68	54887875	2225.10
5.75	58732808	1045.22
5.91	48452691	1266.54
6.26	39565171	2297.79

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.36	5326805	939.89
5.75	8578281	867.95
5.81	7597369	899.20
6.00	8433330	972.18
6.38	8503693	946.30

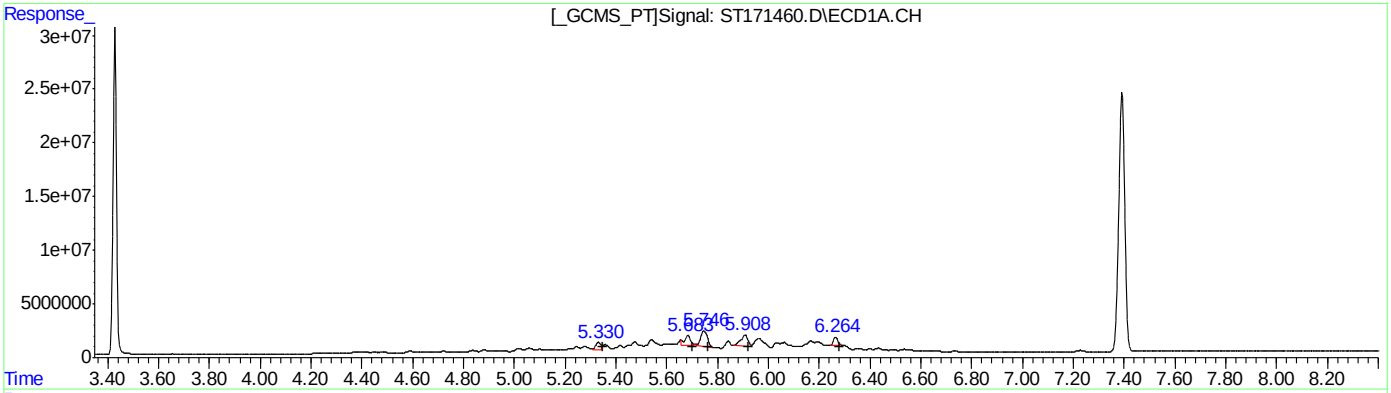
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171460.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 11:14 am
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:37:43 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.33	8664910	439.92
5.68	14518806	588.58
5.75	26796080	476.87
5.91	20156600	526.89
6.26	9311823	540.79

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	2384676	420.77
5.75	4535172	458.87
5.81	3725617	440.95
6.00	4206233	484.89
6.38	4886167	543.74

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171466.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:43 pm
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 15:20:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	3.428	3.369	5946945	1194300	42.609	41.946
		Spiked Amount	50.000	Range 42 - 127		Recovery =	85.22%	83.89%
33)	S	Decachlor...	7.391	7.361	4656019	1191503	48.467	44.603
		Spiked Amount	50.000	Range 27 - 127		Recovery =	96.93%	89.21%
		Target Compounds						
2)		alpha-BHC	3.755	3.778	8888232	1756875	42.860	43.346
3)		gamma-BHC...	3.990	4.038	7897570	1620461	43.828	41.711
4)		beta-BHC	4.142	4.262	3580179	759055	42.488	41.195
5)		delta-BHC	4.308	4.443	8259557	1717621	40.408	41.847
6)		Heptachlor	4.399	4.308	6940144	1593409	40.306	42.382
7)		Aldrin	4.634	4.524	7112516	1619828	40.643	40.811
8)		Heptachlo...	4.937	4.898	6912115	1626905	38.833	38.809
9)		gamma-Chl...	5.119	5.085	6821308	1639743	39.723	39.461
10)		alpha-Chl...	5.202	5.133	6084358	1615208	38.794	38.754
11)		4,4'-DDE	5.317	5.269	6926432	1661441	38.895	39.121
12)		Endosulfa...	5.202	5.175	6084358	1512250	40.842	38.561
13)		Dieldrin	5.396	5.370	7321723	1772930	39.513	39.790
14)		Endrin	5.553	5.573	7168615	1609678	40.000	39.577
15)		4,4'-DDD	5.683	5.678	6348294	1484890	40.401	41.609
16)		Endosulfa...	5.715	5.788	6549947	1578140	40.362	39.884
17)		4,4'-DDT	5.903	5.864	5330972	1351609	49.890	44.226
18)		Endrin Al...	5.808	5.918	5220963	1226834	42.192	40.182
19)		Methoxychlor	6.265	6.288	3172208	798464	55.490	48.342
20)		Endosulfa...	5.975	6.082	6579971	1541248	43.709	42.148
21)		Endrin Ke...	6.311	6.467	6967282	1672886	49.370	46.120
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171466.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:43 pm
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 15:20:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

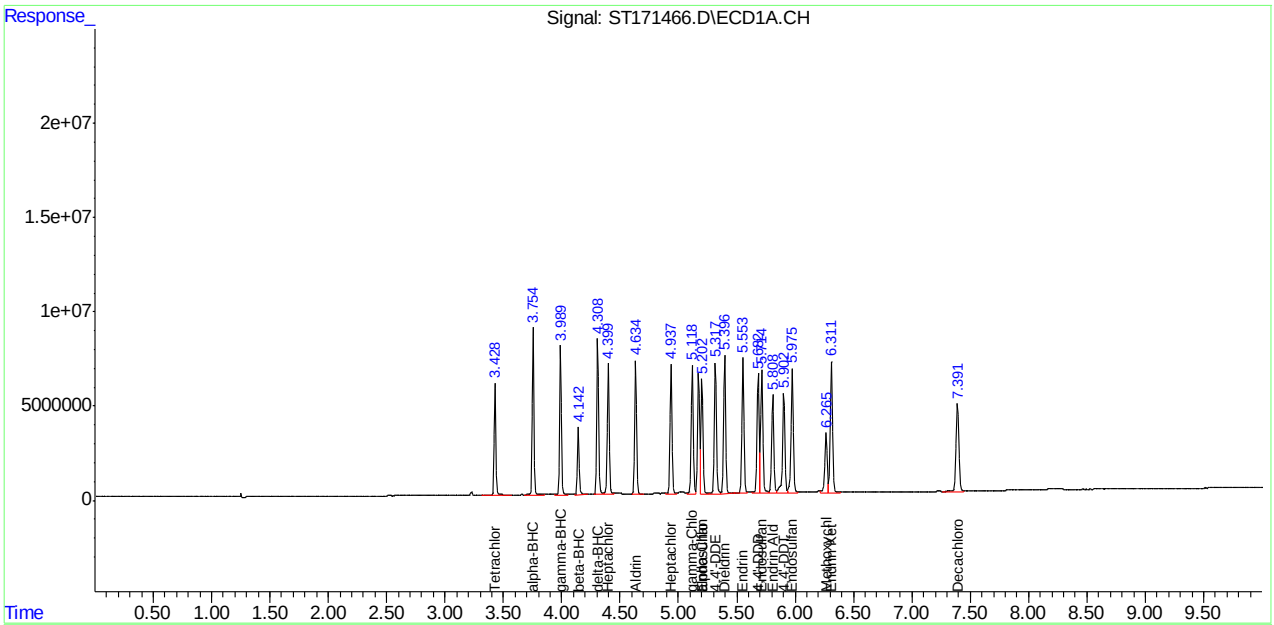
12.5.77
12

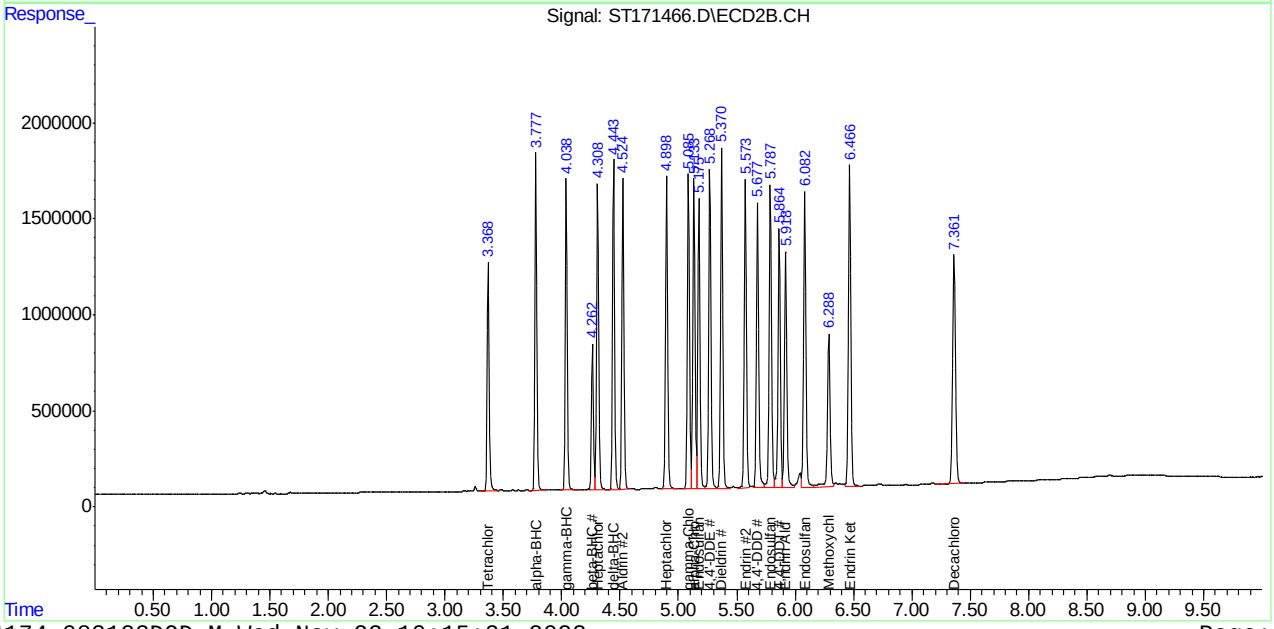
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171466.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:43 pm
Operator : williamh
Sample : cc4174-40 Pest Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 21 15:20:31 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171467.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:58 pm
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:35:03 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	4.248	4.173	1056537	196950	179.850	168.513
23)	L1	Chlordane-B	4.399	4.308	1845820	361406	186.666	179.544
24)	L1	Chlordane-C	4.625	4.612	882006	218509	179.506	168.205
25)	L1	Chlordane-D	5.120	5.087	4182348	836152	180.448	173.047
26)	L1	Chlordane-E	5.177	5.132	3824480	721316	166.299	176.456
27)	L1	Chlordane-F	5.764	5.794	857948	203277	179.548	178.975
		Sum Chlordane-A			12649140	2537610	1072.318	1044.739
		Average Chlordane-A					178.720	174.123
28)	L2	Toxaphene-A	0.000	0.000	0	0	N.D. d	N.D. d
29)	L2	Toxaphene-B	0.000	0.000	0	0	N.D. d	N.D. d
30)	L2	Toxaphene-C	0.000	0.000	0	0	N.D. d	N.D. d
31)	L2	Toxaphene-D	0.000	0.000	0	0	N.D. d	N.D. d
32)	L2	Toxaphene-E	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Toxaphene-A			0	0	N.D.	N.D.
		Average Toxaphene-A					0.000	0.000

SGS FC10955

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171467.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:58 pm
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:35:03 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

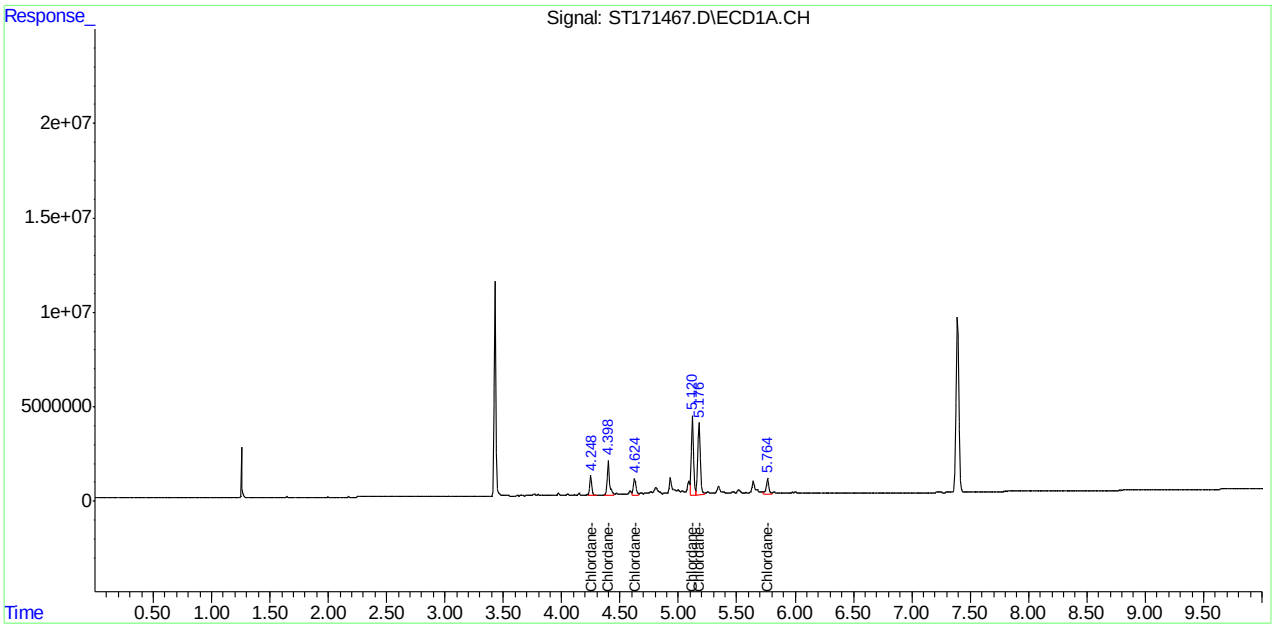
12.5.78
12

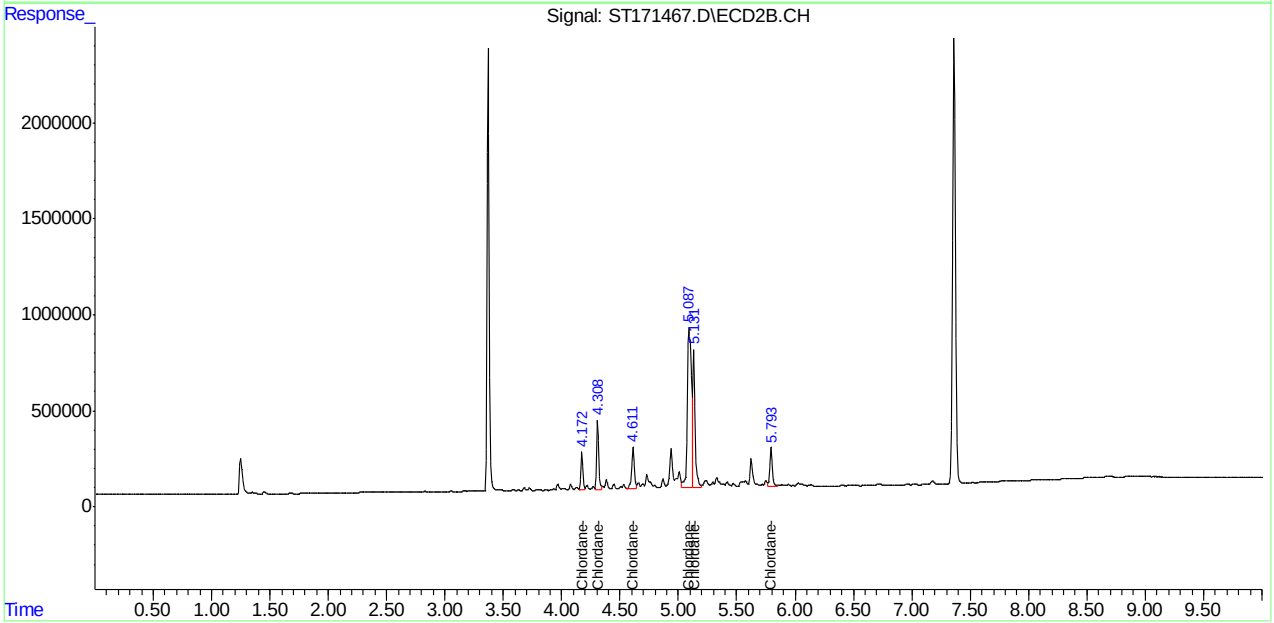
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171467.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 12:58 pm
Operator : williamh
Sample : cc4174-200 Chl Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 21 15:35:03 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Fri Nov 17 15:38:07 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integrations APPROVED (compounds with "m" flag)
Naresh Jiawan 11/22/23 12:28

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171468.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:54:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Nov 21 15:49:05 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

		Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB
		System Monitoring Compounds						
1)	S	Tetrachlo...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 42 - 127	Recovery	=	0.00%#	0.00%#
33)	S	Decachlor...	0.000	0.000	0	0	N.D. d	N.D. d
		Spiked Amount	50.000	Range 27 - 127	Recovery	=	0.00%#	0.00%#
		Target Compounds						
2)		alpha-BHC	0.000	0.000	0	0	N.D. d	N.D. d
3)		gamma-BHC...	0.000	0.000	0	0	N.D. d	N.D. d
4)		beta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
5)		delta-BHC	0.000	0.000	0	0	N.D. d	N.D. d
6)		Heptachlor	0.000	0.000	0	0	N.D. d	N.D. d
7)		Aldrin	0.000	0.000	0	0	N.D. d	N.D. d
8)		Heptachlo...	0.000	0.000	0	0	N.D. d	N.D. d
9)		gamma-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
10)		alpha-Chl...	0.000	0.000	0	0	N.D. d	N.D. d
11)		4,4'-DDE	0.000	0.000	0	0	N.D. d	N.D. d
12)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
13)		Dieldrin	0.000	0.000	0	0	N.D. d	N.D. d
14)		Endrin	0.000	0.000	0	0	N.D. d	N.D. d
15)		4,4'-DDD	0.000	0.000	0	0	N.D. d	N.D. d
16)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
17)		4,4'-DDT	0.000	0.000	0	0	N.D. d	N.D. d
18)		Endrin Al...	0.000	0.000	0	0	N.D. d	N.D. d
19)		Methoxychlor	0.000	0.000	0	0	N.D. d	N.D. d
20)		Endosulfa...	0.000	0.000	0	0	N.D. d	N.D. d
21)		Endrin Ke...	0.000	0.000	0	0	N.D. d	N.D. d
22)	L1	Chlordane-A	0.000	0.000	0	0	N.D. d	N.D. d
23)	L1	Chlordane-B	0.000	0.000	0	0	N.D. d	N.D. d
24)	L1	Chlordane-C	0.000	0.000	0	0	N.D. d	N.D. d
25)	L1	Chlordane-D	0.000	0.000	0	0	N.D. d	N.D. d
26)	L1	Chlordane-E	0.000	0.000	0	0	N.D. d	N.D. d
27)	L1	Chlordane-F	0.000	0.000	0	0	N.D. d	N.D. d
		Sum Chlordane-A			0	0	N.D.	N.D.
		Average Chlordane-A					0.000	0.000
28)	L2	Toxaphene-A	5.331	5.341	10129866	2543999	514.300m	448.877m
29)	L2	Toxaphene-B	5.683	5.751	12299089	4746612	498.592m	480.260m
30)	L2	Toxaphene-C	5.746	5.813	27658038	3885894	492.210m	459.924m
31)	L2	Toxaphene-D	5.908	6.003	20088330	4409581	525.102m	508.328m
32)	L2	Toxaphene-E	6.265	6.382	10462804	5007729	607.639m	557.267m
		Sum Toxaphene-A			80638127	20593815	2637.842	2454.657
		Average Toxaphene-A					527.568	490.931

12.5.79 12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171468.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:54:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Nov 21 15:49:05 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID

Compound	RT#1	RT#2	Resp#1	Resp#2	PPB	PPB

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 40% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171468.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:54:26 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
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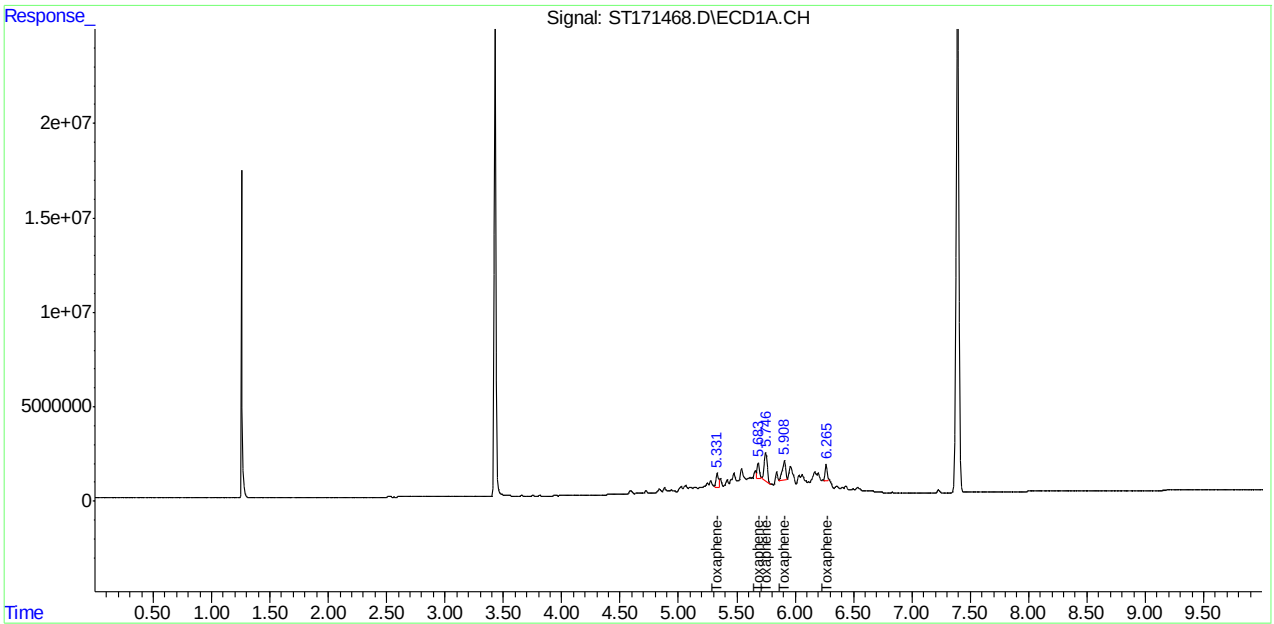
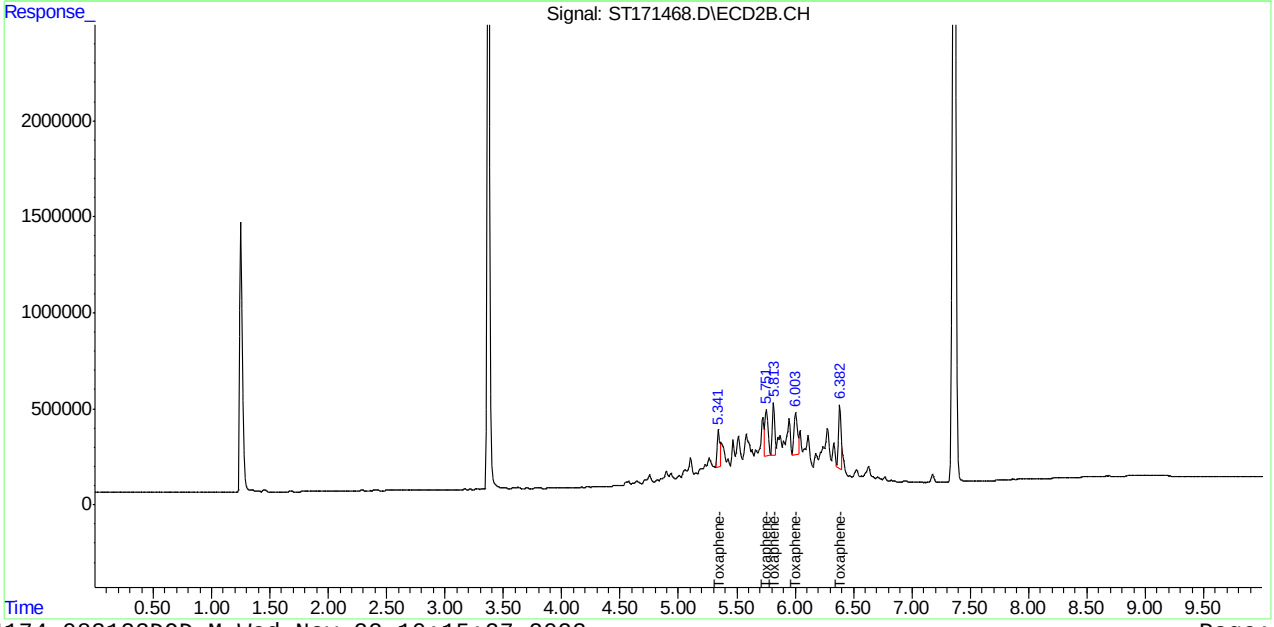
Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID





Manual Integration Approval Summary

Sample Number: GST4185-CC4174
Lab FileID: ST171468.D
Injection Time: 11/21/23 13:13
Method: SW846 8081B
Analyst approved: 11/22/23 10:32 William Hustedde
Supervisor approved: 11/22/23 12:28 Naresh Jiawan

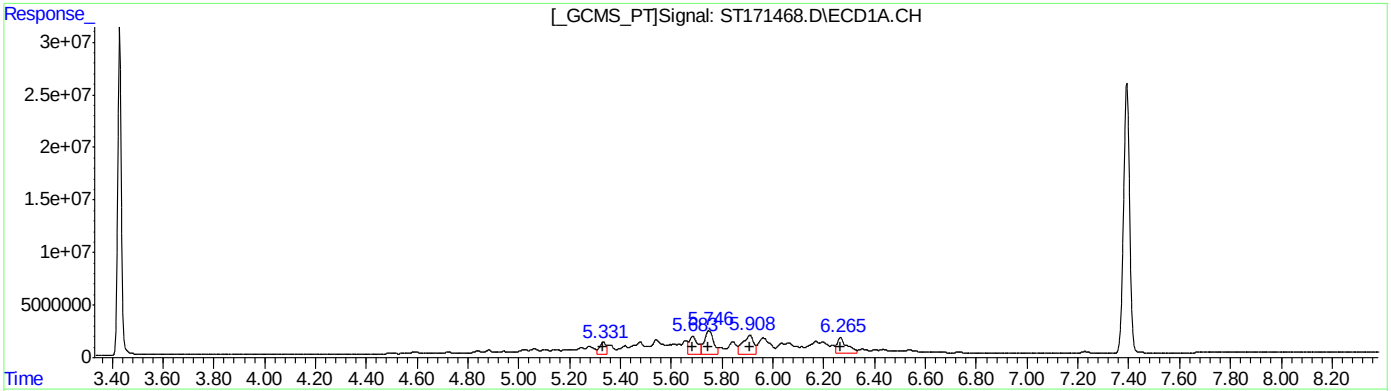
Parameter	CAS	Sig#	R.T. (min.)	Reason
Toxaphene-A		1	5.33	Poor instrument integration
Toxaphene-A		2	5.34	Poor instrument integration
Toxaphene-B		1	5.68	Poor instrument integration
Toxaphene-C		1	5.75	Poor instrument integration
Toxaphene-B		2	5.75	Poor instrument integration
Toxaphene-C		2	5.81	Poor instrument integration
Toxaphene-D		1	5.91	Poor instrument integration
Toxaphene-D		2	6.00	Poor instrument integration
Toxaphene-E		1	6.26	Poor instrument integration
Toxaphene-E		2	6.38	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171468.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:53:48 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Nov 21 15:49:05 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A (L2)

R.T.	Response	Conc
5.33	20395600	1035.50
5.68	38722674	1569.78
5.75	55558508	988.73
5.91	52293438	1366.93
6.27	42408196	2462.90

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	4930374	869.94
5.75	9657588	977.15
5.81	8505364	1006.67
6.00	9552272	1101.17
6.38	10071386	1120.76

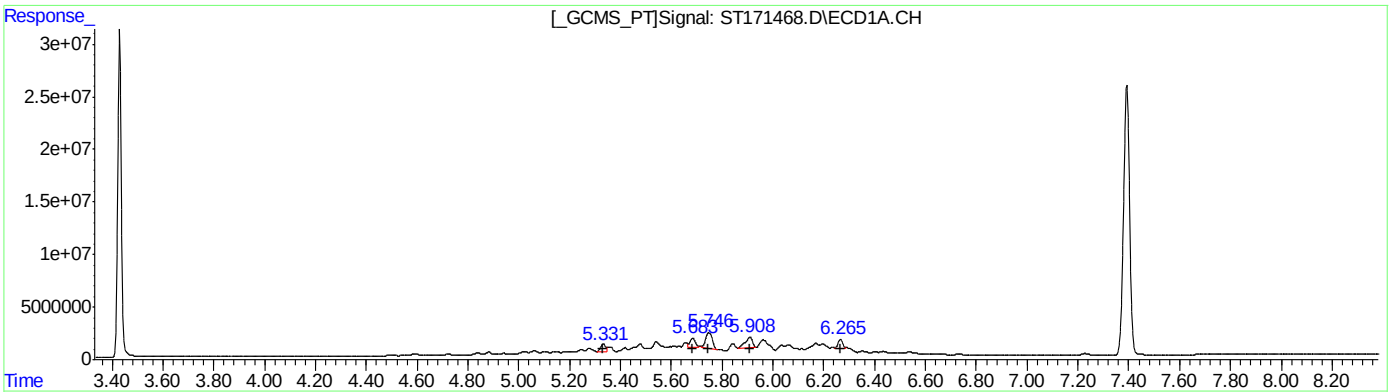
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\GST4185_112123\
Data File : ST171468.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 21 Nov 2023 1:13 pm
Operator : williamh
Sample : cc4174-500 Tox Inst : ECD 3
Misc : OP96969,GST4185,250,,,5,1,Water
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 21 15:53:48 2023
Quant Method : C:\msdchem\1\METHODS\GST4174_083123DOD.M
Quant Title : Pesticides by 8081B
QLast Update : Tue Nov 21 15:49:05 2023
Response via : Initial Calibration

Volume Inj. : 2ul
Signal #1 Phase : MR-1 Signal #2 Phase: MR-2
Signal #1 Info : 0.53mm ID Signal #2 Info : 0.53mm ID



QEdit

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.33	10129866	514.30
5.68	12299089	498.59
5.75	27658038	492.21
5.91	20088330	525.10
6.26	10462804	607.64

(28) Toxaphene-A #2 (L2)

R.T.	Response	Conc
5.34	2543999	448.88
5.75	4746612	480.26
5.81	3885894	459.92
6.00	4409581	508.33
6.38	5007729	557.27

(+) = Expected Retention Time

SGS-ORLANDO **GC ECD09-MM** **ANALYSIS LOG**

DATE	10/17/2023	**METHODS**	8082A/608	**IC/ICC STD LOT**	S6969,S6970,S6971,S6972,S6973
COLUMN TYPE	MR1/MR2	**ACQ. METHOD**	PCB_HY	**ICV STD LOT**	S6979,S6980,S6981,S6982,S6983
AMOUNT INJ	2ul	**PROC. METHOD**	8082-DOD-1821.m	**SOLVENT**	Hexane 221551
INSTRUMENT	GMM	**CALIB. DATE**	8/23/2023	**SIGNAL 1**	380
ANALYST	EM	**RUN BATCH**	GMM1833	**SIGNAL 2**	1360

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
MM85657	1	ic1833-20 1016/1260	8082	2/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85658	2	ic1833-50 1016/1260	8082	5/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85659	3	ic1833-200 1016/1260	8082	20/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85660	4	icc1833-400 1016/1260	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85661	5	ic1833-600 1016/1260	8082	60/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85662	6	ic1833-1000 1016/1260	8082	100/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85663	7	icv1833-400 1016/1260	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	Pass
MM85664	8	ic1833-20 1221/1254	8082	2/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85665	9	ic1833-50 1221/1254	8082	5/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85666	10	ic1833-200 1221/1254	8082	20/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85667	11	ic1833-400 1221/1254	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85668	12	ic1833-600 1221/1254	8082	60/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85669	13	ic1833-1000 1221/1254	8082	100/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85670	14	icv1833-400 1221/1254	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	Pass
MM85671	15	ic1833-20 1232/1268	8082	2/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85672	16	ic1833-50 1232/1268	8082	5/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85673	17	ic1833-200 1232/1268	8082	20/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85674	18	ic1833-400 1232/1268	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85675	19	ic1833-600 1232/1268	8082	60/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85676	20	ic1833-1000 1232/1268	8082	100/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85677	21	icv1833-400 1232/1268	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	Pass

MM85678	22	ic1833-20 1242/1268	8082	2/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85679	23	ic1833-50 1242/1268	8082	5/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85680	24	ic1833-200 1242/1268	8082	20/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85681	25	ic1833-400 1242/1268	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85682	26	ic1833-600 1242/1268	8082	60/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85683	27	ic1833-1000 1242/1268	8082	100/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85684	28	icv1833-400 1242/1268	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	Pass
MM85685	29	ic1833-20 1248	8082	2/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85686	30	ic1833-50 1248	8082	5/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85687	31	ic1833-200 1248	8082	20/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85688	32	ic1833-400 1248	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85689	33	ic1833-600 1248	8082	60/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85690	34	ic1833-1000 1248	8082	100/1000	OP98767,GMM1833,15,,,5,1,Soil	\
MM85691	35	icv1833-400 1248	8082	40/1000	OP98767,GMM1833,15,,,5,1,Soil	Pass

SGS-ORLANDO **GC ECD09-MM** **ANALYSIS LOG**

DATE	11/6//2023	**METHODS**	8082A/608	**IC/ICC STD LOT**	S6969,S6970,S6971,S6972,S6973
COLUMN TYPE	MR1/MR2	**ACQ. METHOD**	PCB_HY	**ICV STD LOT**	S6979,S6980,S6981,S6982,S6983
AMOUNT INJ	2ul	**PROC. METHOD**	8082-DOD-1821.m	**SOLVENT**	Hexane 221551
INSTRUMENT	GMM	**CALIB. DATE**	8/23/2023	**SIGNAL 1**	380
ANALYST	EM	**RUN BATCH**	GMM1839	**SIGNAL 2**	1360

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
MM85898	99	cond std	8082	1	OP98767,GMM1839,15,,,5,1,Soil	
MM85899	99	cond std	8082	1	OP98767,GMM1839,15,,,5,1,Soil	
MM85900	100	ccb	8082	1	OP98767,GMM1839,15,,,5,1,Soil	
MM85901	1	cc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85902	2	cc1833-400 1221/1254	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85903	3	cc1833-400 1232/1268	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85904	4	cc1833-400 1242/1262	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85905	5	cc1833-400 1248	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85906	6	OP99917-BS	8082	1	OP99917,GMM1839,1000,,,5,1,Wate	Pass
MM85907	7	OP99917-MB	8082	1	OP99917,GMM1839,1000,,,5,1,Wate	Pass
MM85908	8	FC10838-1	8082	1	OP99917,GMM1839,1020,,,5,1,Wate	ND
MM85909	8	FC10838-1	8082	1	OP99917,GMM1839,1020,,,5,1,Wate	ND
MM85910	9	FC10927-1	8082	10	OP99917,GMM1839,1050,,,5,10,Wate	ND
MM85911	10	FC10953-1	8082	20	OP99917,GMM1839,1050,,,5,20,Wate	1260
MM85912	11	FC10953-2	8082	1	OP99917,GMM1839,1050,,,5,1,Wate	1260
MM85913	12	FC10953-3	8082	1	OP99917,GMM1839,1050,,,5,1,Wate	1260
MM85914	13	FC10914-2	8082	1	OP99917,GMM1839,1050,,,5,1,Wate	ND
MM85915	14	FC10955-1	8082	1	OP99917,GMM1839,880,,,5,1,Water	ND
MM85916	1	cc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1260 S2 FH
MM85917	2	cc1833-400 1221/1254	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1221 S2 FH
MM85918	3	cc1833-400 1232/1268	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass

MM85919	4	cc1833-400 1242/1262	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85920	5	cc1833-400 1248	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	Pass
MM85921	15	OP99921-BS	8082	1	OP99921,GMM1839,250,,,5,1,Water	Pass
MM85922	16	OP99921-MB	8082	1	OP99921,GMM1839,250,,,5,1,Water	Pass
MM85923	17	OP99921-MS	8082	1	OP99921,GMM1839,120,,,5,1,Water	Pass
MM85924	18	OP99921-MSD	8082	1	OP99921,GMM1839,120,,,5,1,Water	Pass
MM85925	19	FC10886-1	8082	1	OP99921,GMM1839,230,,,5,1,Water	ND
MM85926	20	FC10886-2	8082	1	OP99921,GMM1839,220,,,5,1,Water	\
MM85927	21	FC10913-15	8082	1	OP99921,GMM1839,220,,,5,1,Water	\
MM85928	22	FC10913-19	8082	1	OP99921,GMM1839,250,,,5,1,Water	\
MM85929	23	FC10913-21	8082	1	OP99921,GMM1839,240,,,5,1,Water	\
MM85930	24	FC10913-23	8082	1	OP99921,GMM1839,100,,,5,1,Water	\
MM85931	1	cc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1260 S2 FH
MM85932	25	FC10947-2	8082	1	OP99921,GMM1839,260,,,5,1,Water	ND
MM85933	26	FC10963-23	8082	1	OP99921,GMM1839,250,,,5,1,Water	ND
MM85934	1	cc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1260 S2 FH
MM85935	27	OP99879-BS	8082	1	OP99879,GMM1839,15,,,5,1,Soil	Pass
MM85936	28	OP99879-MB	8082	1	OP99921,GMM1839,15,,,5,1,Soil	Pass
MM85937	29	OP99879-MS	8082	1	OP99921,GMM1839,15,,,5,1,Soil	Pass
MM85938	30	OP99879-MSD	8082	1	OP99921,GMM1839,15.3,,,5,1,Soil	Pass
MM85939	31	FC10859-2	8082	1	OP99921,GMM1839,14.9,,,5,1,Soil	\
MM85940	32	FC10859-3	8082	1	OP99921,GMM1839,14.8,,,5,1,Soil	\
MM85941	1	cc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1260 S2 FH
MM85942	33	FC10908-1	8082	1	OP99921,GMM1839,15,,,5,1,Soil	ND
MM85943	34	FC10908-3	8082	1	OP99921,GMM1839,15.1,,,5,1,Soil	ND
MM85944	35	FC10908-5	8082	1	OP99921,GMM1839,15.1,,,5,1,Soil	ND
MM85945	36	FC10908-7	8082	1	OP99921,GMM1839,14.8,,,5,1,Soil	ND
MM85946	37	FC10908-8	8082	1	OP99921,GMM1839,14.9,,,5,1,Soil	ND

MM85947	38	FC10908-9	8082	1	OP99921,GMM1839,15.4,,,5,1,Soil	ND
MM85948	39	FC10908-10	8082	1	OP99921,GMM1839,14.7,,,5,1,Soil	ND
MM85949	40	FC10908-11	8082	1	OP99921,GMM1839,14.5,,,5,1,Soil	ND
MM85950	41	FC10908-12	8082	1	OP99921,GMM1839,15.2,,,5,1,Soil	ND
MM85951	1	ecc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	S2 FH
MM85952	42	E7440 8081/8082 Surr 50 PPB	8082	1	OP98767,GMM1839,15,,,5,1,Soil	TCMX Pass/DCB High,RR on GST
MM85953	1	ecc1833-400 1016/1260	8082	40/1000	OP98767,GMM1839,15,,,5,1,Soil	1260 S2 FH

DATE	10/31/2023	**METHODS**	8081	**IC/ICC STD LOT**	S6966,S6967,S6968
COLUMN TYPE	MR1/MR2	**ACQ. METHOD**	PEST_ACQ	**ICV STD LOT**	S6974,S67030,S6976
AMOUNT INJ	4 uL	**PROC. METHOD**	GST4174_083123DOD.M	**SOLVENT**	Hexane
INSTRUMENT	GST	**CALIB. DATE**	10/31/2023	**SIGNAL 1**	
ANALYST	EM	**RUN BATCH**	GST4174	**SIGNAL 2**	

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
ST170832	1	cond std	8081	1	OP96969,GST4174,250,,,5,1,Water	
ST170833	1	cond std	8081	1	OP96969,GST4174,250,,,5,1,Water	
ST170834	1	cond std	8081	1	OP96969,GST4174,250,,,5,1,Water	
ST170835	2	ccb	8081	1	OP96969,GST4174,250,,,5,1,Water	
ST170836	3	DDT	8081	100/1000	OP96969,GST4174,250,,,5,1,Water	Pass
ST170837	4	ic4174-2 Pest	8081	2/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170838	5	ic4174-5 Pest	8081	5/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170839	6	ic4174-20 Pest	8081	20/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170840	7	icc4174-40 Pest	8081	40/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170841	8	ic4174-60 Pest	8081	60/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170842	9	ic4174-80 Pest	8081	80/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170843	10	ic4174-120 Pest	8081	120/1000	OP96969,GST4174,250,,,5,1,Water	\
ST170844	11	icv4174-20 Pest	8081	20/1000	OP96969,GST4174,250,,,5,1,Water	Pass
ST170845	4	ic4174-2 Pest	8081	2/1000	OP96969,GST4174,250,,,5,1,Water	Do Not Report
ST170846	12	ic4174-100 Tox	8081	10/500	OP96969,GST4174,250,,,5,1,Water	\
ST170847	13	ic4174-200 Tox	8081	20/500	OP96969,GST4174,250,,,5,1,Water	\
ST170848	14	ic4174-500 Tox	8081	50/500	OP96969,GST4174,250,,,5,1,Water	\
ST170849	15	ic4174-750 Tox	8081	75/500	OP96969,GST4174,250,,,5,1,Water	\
ST170850	16	ic4174-1000 Tox	8081	100/500	OP96969,GST4174,250,,,5,1,Water	\
ST170851	17	ic4174-2000 Tox	8081	200/500	OP96969,GST4174,250,,,5,1,Water	\
ST170852	18	icv4174-500 Tox	8081	50/500	OP96969,GST4174,250,,,5,1,Water	Pass
ST170853	19	ic4174-20 Chl	8081	2/500	OP96969,GST4174,250,,,5,1,Water	\
ST170854	20	ic4174-50 Chl	8081	5/500	OP96969,GST4174,250,,,5,1,Water	\
ST170855	21	ic4174-200 Chl	8081	20/500	OP96969,GST4174,250,,,5,1,Water	\
ST170856	22	ic4174-400 Chl	8081	40/500	OP96969,GST4174,250,,,5,1,Water	\
ST170857	23	ic4174-600 Chl	8081	60/500	OP96969,GST4174,250,,,5,1,Water	\
ST170858	24	ic4174-1000 Chl	8081	100/500	OP96969,GST4174,250,,,5,1,Water	\
ST170859	25	icv4174-200 Chl	8081	20/500	OP96969,GST4174,250,,,5,1,Water	Pass

DATE	11/10/2023	**METHODS**	8081	**IC/ICC STD LOT**	S6966,S6967,S6968
COLUMN TYPE	MR1/MR2	**ACQ. METHOD**	PEST_ACQ	**ICV STD LOT**	S6974,S67030,S6976
AMOUNT INJ	4 uL	**PROC. METHOD**	GST4174_083123DOD.M	**SOLVENT**	Hexane
INSTRUMENT	GST	**CALIB. DATE**	10/31/2023	**SIGNAL 1**	
ANALYST	EM	**RUN BATCH**	GST4180	**SIGNAL 2**	

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
ST171206	1	cond std	8081	1	OP96969,GST4180,250,,,5,1,Water	
ST171207	1	cond std	8081	1	OP96969,GST4180,250,,,5,1,Water	
ST171208	2	ccb	8081	1	OP96969,GST4180,250,,,5,1,Water	
ST171209	3	DDT	8081	100/1000	OP96969,GST4180,250,,,5,1,Water	Pass
ST171210	4	cc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	Pass
ST171211	5	cc4174-200 Chl	8081	20/500	OP96969,GST4180,250,,,5,1,Water	Pass
ST171212	6	cc4174-500 Tox	8081	50/500	OP96969,GST4180,250,,,5,1,Water	Pass
ST171213	7	OP99916-BS	8081	1	OP99916,GST4180,1000,,,5,1,Water	Pass
ST171214	8	OP99916-BS2	8081	1	OP99916,GST4180,1000,,,5,1,Water	RRCCV-EK
ST171215	9	OP99916-MB	8081	1	OP99916,GST4180,1000,,,5,1,Water	RRCCV-EK
ST171216	10	FC10838-1	8081	1	OP99916,GST4180,1020,,,5,1,Water	ND
ST171217	10	FC10838-1	8081	1	OP99916,GST4180,1020,,,5,1,Water	CF
ST171218	11	FC10927-1	8081	1	OP99916,GST4180,1050,,,5,1,Water	RR100x
ST171219	12	FC10953-2	8081	1	OP99916,GST4180,1050,,,5,1,Water	\
ST171220	13	FC10914-2	8081	1	OP99916,GST4180,1050,,,5,1,Water	RRCCV-EK
ST171221	14	FC10955-1	8081	1	OP99916,GST4180,880,,,5,1,Water	RRCCV-EK
ST171222	4	cc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	S1 FH A,G,B/S1 FL EK/S2 FH A/S2 FL EK
ST171223	5	cc4174-200 Chl	8081	20/500	OP96969,GST4180,250,,,5,1,Water	Pass
ST171224	6	cc4174-500 Tox	8081	50/500	OP96969,GST4180,250,,,5,1,Water	Pass
ST171225	15	FC10860-36	8081	1	OP99912,GST4180,14.9,,,5,1,Soil	DNR
ST171226	16	FC10860-37	8081	1	OP99912,GST4180,15.4,,,5,1,Soil	DNR
ST171227	17	FC10860-38	8081	1	OP99912,GST4180,14.5,,,5,1,Soil	\
ST171228	18	FC10860-39	8081	1	OP99912,GST4180,15.3,,,5,1,Soil	DNR
ST171229	19	FC10860-40	8081	1	OP99912,GST4180,15,,,5,1,Soil	\
ST171230	20	FC10860-41	8081	1	OP99912,GST4180,15.4,,,5,1,Soil	\
ST171231	21	FC10860-42	8081	1	OP99912,GST4180,15,,,5,1,Soil	\
ST171232	22	FC10860-43	8081	1	OP99912,GST4180,15.3,,,5,1,Soil	\
ST171233	4	cc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	S1 FH A,G,B,D,MDT/S2 FH A,G,B,D,H
ST171234	23	LA95142-1	8081	1	OP99942,GST4180,15.1,,,5,1,Soil	ND
ST171235	24	LA95142-3	8081	1	OP99942,GST4180,15.2,,,5,1,Soil	ND
ST171236	25	LA95142-7	8081	1	OP99942,GST4180,15,,,5,1,Soil	\

ST171237	26	LA95142-8	8081	1	OP99942,GST4180,15.3,,,5,1,Soil	ND
ST171238	27	LA95142-9	8081	1	OP99942,GST4180,15,,,5,1,Soil	ND
ST171239	4	cc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	1 FH A,G,B,AC,DDT,MDT/S2 FH A,G,B,D,H,A
ST171240	28	OP11-BS	8081	1	OP11,GST4180,15,,,5,1,Soil	Pass
ST171241	29	OP11-BS2	8081	1	OP11,GST4180,15,,,5,1,Soil	Pass
ST171242	30	OP11-MB	8081	1	OP11,GST4180,15,,,5,1,Soil	Pass
ST171243	31	OP11-MS	8081	1	OP11,GST4180,15,,,5,1,Soil	Pass
ST171244	32	OP11-MSD	8081	1	OP11,GST4180,14.3,,,5,1,Soil	Pass
ST171245	33	LA95241-1	8081	1	OP11,GST4180,15,,,5,1,Soil	\
ST171246	34	LA95227-1	8081	1	OP11,GST4180,14.7,,,5,1,Soil	ND
ST171247	35	LA95227-3	8081	1	OP11,GST4180,14.5,,,5,1,Soil	\
ST171248	36	LA95227-5	8081	1	OP11,GST4180,15.2,,,5,1,Soil	\
ST171249	37	LA95227-7	8081	1	OP11,GST4180,14.5,,,5,1,Soil	\
ST171250	4	cc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	,G,B,D,H,Ald,GC,AC,E1,MDT/S2 FH A,G,B,D,H
ST171251	38	LA95229-1	8081	1	OP11,GST4180,15.3,,,5,1,Soil	\
ST171252	39	LA95229-3	8081	1	OP11,GST4180,14.4,,,5,1,Soil	\
ST171253	40	LA95229-5	8081	1	OP11,GST4180,14.5,,,5,1,Soil	ND
ST171254	4	ecc4174-40 Pest	8081	40/1000	OP96969,GST4180,250,,,5,1,Water	S1 FH A,G,B,D,H,Ald,E1/S2 FH A,G,B,D,H,Ald

Instrument Run Log GST4185 page 1 of 2

Run Sequence: GST4185

DATE	11/21/2023	**METHODS**	8081	**IC/ICC STD LOT**	S6966,S6967,S6968
COLUMN TYPE	MR1/MR2	**ACQ. METHOD**	PEST_ACQ	**ICV STD LOT**	S6974,S67030,S6976
AMOUNT INJ	4 uL	**PROC. METHOD**	GST4174_083123DOD.M	**SOLVENT**	Hexane
INSTRUMENT	GST	**CALIB. DATE**	10/31/2023	**SIGNAL 1**	
ANALYST	EM / WFH	**RUN BATCH**	GST4185	**SIGNAL 2**	

DATA FILE	ALS	SAMPLE NAME	METHOD	DF	MISC. INFO	COMMENTS
ST171454	1	cond std	8081	1	OP96969,GST4185,250,,,5,1,Water	
ST171455	1	cond std	8081	1	OP96969,GST4185,250,,,5,1,Water	
ST171456	2	ccb	8081	1	OP96969,GST4185,250,,,5,1,Water	
ST171457	3	DDT	8081	100/1000	OP96969,GST4185,250,,,5,1,Water	Pass
ST171458	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	S1 FH DDT,MDT
ST171459	5	cc4174-200 Chl	8081	20/500	OP96969,GST4185,250,,,5,1,Water	Pass
ST171460	6	cc4174-500 Tox	8081	50/500	OP96969,GST4185,250,,,5,1,Water	Pass
ST171461	7	FC10927-1	8081	5/500	OP99916,GST4185,1050,,,5,100,Wate	ND
ST171462	8	FC10914-2	8081	1	OP99916,GST4185,1050,,,5,1,Water	\
ST171463	9	FC10955-1A	8081	1	OP99916,GST4185,880,,,5,1,Water	ND
ST171464	10	FC10805-29	8081	100/500	OP99857,GST4185,15,,,5,5,Soil	\
ST171465	11	FC10805-31	8081	100/500	OP99857,GST4185,14.9,,,5,5,Soil	cf, H hit did not confirm
ST171466	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	S1 FH DDT,MDT,EK/S2 FH MDT
ST171467	5	cc4174-200 Chl	8081	20/500	OP96969,GST4185,250,,,5,1,Water	Pass
ST171468	6	cc4174-500 Tox	8081	50/500	OP96969,GST4185,250,,,5,1,Water	Pass
ST171469	12	op45-MB	8081	1	OP45,GST4185,15,,,5,1,Soil	\
ST171470	13	FC10972-1	8081	1	OP45,GST4185,14.8,,,5,1,Soil	report
ST171471	14	FC10972-2	8081	1	OP45,GST4185,14.7,,,5,1,Soil	report
ST171472	15	FC10972-9	8081	1	OP45,GST4185,14.6,,,5,1,Soil	report
ST171473	16	FC10972-10	8081	1	OP45,GST4185,14.9,,,5,1,Soil	report
ST171474	17	FC10972-11	8081	1	OP45,GST4185,14.6,,,5,1,Soil	report
ST171475	18	FC10972-12	8081	1	OP45,GST4185,14.6,,,5,1,Soil	report
ST171476	19	FC10972-13	8081	1	OP45,GST4185,15.2,,,5,1,Soil	report
ST171477	20	FC10972-15	8081	1	OP45,GST4185,14.7,,,5,1,Soil	report
ST171478	21	FC10972-18	8081	1	OP45,GST4185,15.6,,,5,1,Soil	report
ST171479	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	DDT-FHS1
ST171480	22	FC10972-22	8081	1	OP45,GST4185,15.3,,,5,1,Soil	report
ST171481	23	op48-MB	8081	1	OP48,GST4185,15,,,5,1,Soil	\
ST171482	24	FC10972-14	8081	1	OP48,GST4185,14.6,,,5,1,Soil	report
ST171483	25	FC10972-26	8081	1	OP48,GST4185,14.6,,,5,1,Soil	report
ST171484	26	FC10972-28	8081	1	OP48,GST4185,14.5,,,5,1,Soil	report

ST171485	27	FC10972-29	8081	1	OP48,GST4185,15,,,5,1,Soil	report
ST171486	28	FC10972-29,10	8081	1	OP48,GST4185,15,,,5,1,Soil	DNR
ST171487	29	FC10972-31	8081	1	OP48,GST4185,14.3,,,5,1,Soil	report
ST171488	30	FC10972-32	8081	1	OP48,GST4185,14.9,,,5,1,Soil	report
ST171489	31	FC10972-34	8081	1	OP48,GST4185,15.7,,,5,1,Soil	report
ST171490	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	DDT-FHS1
ST171491	32	FC10972-35	8081	1	OP48,GST4185,15.5,,,5,1,Soil	report
ST171492	33	FC10972-36	8081	1	OP48,GST4185,15.4,,,5,1,Soil	report
ST171493	34	FC10972-37	8081	1	OP48,GST4185,14.5,,,5,1,Soil	report
ST171494	35	FC10972-38	8081	1	OP48,GST4185,15.7,,,5,1,Soil	report
ST171495	36	FC10972-39	8081	1	OP48,GST4185,14.4,,,5,1,Soil	report
ST171496	37	FC10972-39,10	8081	10	OP48,GST4185,14.4,,,5,10,Soil	report
ST171497	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	DDT-FHS1
ST171498	5	cc4174-200 Chl	8081	20/500	OP96969,GST4185,250,,,5,1,Water	pass
ST171499	6	cc4174-500 Tox	8081	50/500	OP96969,GST4185,250,,,5,1,Water	pass
ST171500	3	DDT	8081	100/1000	OP96969,GST4185,250,,,5,1,Water	pass
ST171501	38	FC11164-18	8081	100/500	OP199,GST4185,14.6,,,5,5,Soil	combine
ST171502	39	FC11164-19	8081	100/500	OP199,GST4185,14.8,,,5,5,Soil	combine
ST171503	40	FC11164-20	8081	100/500	OP199,GST4185,15.2,,,5,5,Soil	combine
ST171504	41	FC11164-21	8081	100/500	OP199,GST4185,15.1,,,5,5,Soil	combine
ST171505	42	FC11164-25	8081	100/500	OP199,GST4185,14.9,,,5,5,Soil	combine
ST171506	43	FC11164-26	8081	100/500	OP199,GST4185,14.7,,,5,5,Soil	combine
ST171507	44	FC11164-28	8081	100/500	OP199,GST4185,15.1,,,5,5,Soil	combine
ST171508	45	FC11164-30	8081	100/500	OP199,GST4185,14.8,,,5,5,Soil	combine
ST171509	46	FC11164-31	8081	100/500	OP199,GST4185,15.2,,,5,5,Soil	combine
ST171510	47	FC11164-32	8081	100/500	OP199,GST4185,14.7,,,5,5,Soil	combine
ST171511	4	cc4174-40 Pest	8081	20/500	OP96969,GST4185,250,,,5,1,Water	MDT,EK-FHS1
ST171512	48	FC11164-33	8081	50/500	OP199,GST4185,15,,,5,10,Soil	combine
ST171513	49	FC11164-43	8081	100/500	OP199,GST4185,14.7,,,5,5,Soil	combine
ST171514	50	FC11164-46	8081	100/500	OP199,GST4185,15.1,,,5,5,Soil	combine
ST171515	4	ecc4174-40 Pest	8081	20/500	OP199,GST4185,15,,,5,1,Soil	MDT,EK-FHS1

SGS - ORLANDO

LIQUID SAMPLE PREP REPORT

Date/Time Started: 11/6/2023 8:10 {mm/dd/yy 24:00}

Date/Time Finished: 11-6-23 10:30 {mm/dd/yy 24:00}

Prep Method: 3510C ✓ 3580A

Analytical Method: 608PEST

Batch#: OP99916 Ext. By: JC,VK Conc. By: AM Vialed By: AM

Sample ID	Bottle Number	Amount Extracted (ml)	Initial pH	Adjusted pH	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP99916-MB	-	1000	6	N/A	0.5		5ml	
OP99916-BS	-	1000	6	N/A	0.5	0.5		
OP99916-BS2	-	1000	6	N/A	0.5	0.5		
FC10838-1	14	1020						
fc10927-1	14	1050						
fc10953-2	8	1050						
fc10914-2	1	1050						
fc10955-1	8	880						
			AM 11-6-23					
MS					0.5	0.5		JC 11/06/23
MSD					0.5	0.5		
DUP					0.5			

Comments:

Surr ID: E7412 K Conc: 500ppb Exp. Date: 3-15-24 Inj. By: AC Ver. By: AM

Spk ID#1: E7414 A Conc: 500ppb Exp. Date: 1-31-24 Inj. By: AC Ver. By: AM

Spk ID#2: E7402 C Conc: 2.5-5.0ppm Exp. Date: 1-31-24 Inj. By: AC Ver. By: AM

Initial Bath Temp (Therm ID): TH14 Exchange Bath/N-Evap Temp (Therm ID): TH17

Observed Temp °C: 45c Observed Temp °C: 55c Corr. Temp °C: 55c

CH2CL2 Lot#	226057	Hexane Lot #		H2SO4 Lot#	X
CH3CN Lot #	X	Methanol Lot #	X	Acetone Lot#	X
Syr Filter Lot#	X	pH Paper #	205423	NaOH Lot #	X

Copper Lot # _____ If Sulfur Cleaning is performed in Extractions (3660B)

Relinquished By: AM Date: 11-6-23

Accepted By: MJ M Date: 11-6-23

608PESTaq_rev 02232021_SH

SGS - ORLANDO

LIQUID SAMPLE PREP REPORT

Date/Time: 11/6/2023 8:15 (mm/dd/yy 24:00) Started:

Date/Time: 11-6-23 10:30 (mm/dd/yy 24:00) Finished:

Prep Method: 3510C ✓ 3580A

Analytical Method: 608PCB

Batch#: OP99917 Ext. By: JC,VK Conc. By: QM Vialed By: QM

Sample ID	Bottle Number	Amount Extracted (ml)	Initial pH	Adjusted pH	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP99917-MB	-	1000	6	N/A	0.5		5ml	
OP99917-BS	-	1000	6	N/A	0.5	0.5		
FC10838-1	14	1020						
fc10927-1	14	1050						
fc10953-1	4	1050						
fc10953-2	8	1050						
fc10953-3	4	1050						
fc10914-2	1	1050						
fc10955-1	8	880						
MS-MS					0.5	0.5		JC 11/06/23
MSD					0.5	0.5		
DUP					0.5			

QM 11-6-23

Comments:

Surr ID: E7412K Conc: 500 ppb Exp. Date: 3-15-24 Inj. By: JC Ver. By: M

Spk ID: E7391S Conc: 4000 ppb Exp. Date: 2-3-24 Inj. By: JC Ver. By: M

Initial Bath Temp (Therm ID): TW#14 Observed Temp °C: 45°C

Exchange Bath/N-Evap Temp (Therm ID): TW#17 Observed Temp °C: 55°C Corr. Temp °C: 55°C

CH2CL2 Lot#	226057	Hexane Lot #		H2SO4 Lot#	
CH3CN Lot #	X	Methanol Lot #	X	Acetone Lot#	X
Syr Filter Lot#	X	pH Paper #	205423	NaoH #	N/A
Sulfur and Acid Clenaing (3660B)		Initials:		Copper Lot #	

Relinquished By: QM Date: 11-6-23

Accepted By: M Tan Date: 11-6-23

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:19	MA19813-STD1	1		STDA
11:23	MA19813-STD2	1		STDB
11:26	MA19813-STD3	1		STDC
11:30	MA19813-STD4	1		STDD
11:33	MA19813-STD5	1		STDE
11:37	MA19813-STD6	1		STDF
11:40	MA19813-STD7	1		STDG
11:43	MA19813-HSTD1	1		
11:46	MA19813-HSTD2	1		
11:49	MA19813-ICV1	1		
11:53	MA19813-ICB1	1		
11:56	MA19813-CRIA1	1		
11:59	MA19813-ICSA1	1		
12:03	MA19813-ICSAB1	1		
12:06	MA19813-CCV1	1		
12:09	MA19813-CCV2	1		
12:12	MA19813-CCB1	1		
12:34	MA19813-CRIA2	1		
12:38	MP43092-MB1	5		
12:41	MP43092-B1	5		
12:44	FC10941-1	10		(sample used for QC only; not part of login FC10955)
12:47	MP43092-D1	10		
12:51	MP43092-SD1	50		
12:54	MP43092-S1	10		
12:57	MP43092-S2	10		
13:00	MP43092-PS1	10		
13:03	ZZZZZZ	10		
13:06	MA19813-CCV3	1		
13:10	MA19813-CCV4	1		
13:13	MA19813-CCB2	1		
13:16	MP43089-MB1	2		
13:20	MP43089-B1	2		
13:23	FC10954-1	2		(sample used for QC only; not part of login FC10955)

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:26	MP43089-D1	2		
13:29	MP43089-SD1	10		
13:32	MP43089-S1	2		
13:35	MP43089-S2	2		
13:39	MP43089-PS1	2		
13:42	ZZZZZZ	2		
13:45	ZZZZZZ	2		
13:48	MA19813-CCV5	1		
13:51	MA19813-CCV6	1		
13:54	MA19813-CCB3	1		
13:58	FC10955-1	2		
14:01	FC10941-1	100		(sample used for QC only; not part of login FC10955)
14:04	MP43092-D1	100		
14:08	MP43092-S1	100		
14:11	MP43092-S2	100		
14:14	MP43092-PS1	100		
14:18	ZZZZZZ	50		
14:21	FC10954-1	20		(sample used for QC only; not part of login FC10955)
14:24	MP43089-D1	20		
14:28	MP43089-S1	20		
14:31	MA19813-CCV7	1		
14:34	MA19813-CCV8	1		
14:37	MA19813-CCB4	1		
14:41	MP43089-S2	20		
---------->	Last reportable sample/prep for job FC10955			
14:44	MP43089-PS1	20		
14:47	ZZZZZZ	10		
14:51	ZZZZZZ	50		
14:54	MA19813-CCV9	1		
14:57	MA19813-CCV10	1		
15:00	MA19813-CCB5	1		
---------->	Last reportable CCB for job FC10955			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Element: Dilution	As	
11:43	MA19813-HSTD1	1		
11:46	MA19813-HSTD2	1	X	
11:49	MA19813-ICV1	1	X	
11:53	MA19813-ICB1	1	X	
11:56	MA19813-CRIA1	1	X	
11:59	MA19813-ICSA1	1	X	
12:03	MA19813-ICSAB1	1	X	
12:06	MA19813-CCV1	1		
12:09	MA19813-CCV2	1	X	
12:12	MA19813-CCB1	1	X	
12:34	MA19813-CRIA2	1		
12:38	MP43092-MB1	5	X	
12:41	MP43092-B1	5	X	
12:44	FC10941-1	10	X	(a)
12:47	MP43092-D1	10	X	
12:51	MP43092-SD1	50	X	
12:54	MP43092-S1	10	X	
12:57	MP43092-S2	10	X	
13:00	MP43092-PS1	10		
13:03	ZZZZZZ	10		
13:06	MA19813-CCV3	1		
13:10	MA19813-CCV4	1	X	
13:13	MA19813-CCB2	1	X	
13:16	MP43089-MB1	2	X	
13:20	MP43089-B1	2	X	
13:23	FC10954-1	2		(a)
13:26	MP43089-D1	2		
13:29	MP43089-SD1	10		
13:32	MP43089-S1	2		
13:35	MP43089-S2	2		
13:39	MP43089-PS1	2		
13:42	ZZZZZZ	2		
13:45	ZZZZZZ	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Element: Dilution	As	
13:48	MA19813-CCV5	1		
13:51	MA19813-CCV6	1	X	
13:54	MA19813-CCB3	1	X	
13:58	FC10955-1	2	X	
14:01	FC10941-1	100		(a)
14:04	MP43092-D1	100		
14:08	MP43092-S1	100		
14:11	MP43092-S2	100		
14:14	MP43092-PS1	100		
14:18	ZZZZZZ	50		
14:21	FC10954-1	20	X	(a)
14:24	MP43089-D1	20	X	
14:28	MP43089-S1	20	X	
14:31	MA19813-CCV7	1		
14:34	MA19813-CCV8	1	X	
14:37	MA19813-CCB4	1	X	
14:41	MP43089-S2	20	X	
14:44	MP43089-PS1	20		
14:47	ZZZZZZ	10		
14:51	ZZZZZZ	50		
14:54	MA19813-CCV9	1		
14:57	MA19813-CCV10	1	X	
15:00	MA19813-CCB5	1	X	

(a) Sample used for QC only; not part of login FC10955.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
11:19	MA19813-STD1	100	100	100	100	100	100	100
11:23	MA19813-STD2	102.5	99.1	100.5	99.7	98.8	100.9	99.8
11:26	MA19813-STD3	99.6	100.3	100.5	100	100.4	100.9	101.4
11:30	MA19813-STD4	99.3	102.3	103.2	102.1	101.8	101.6	100.3
11:33	MA19813-STD5	102.8	102.7	103.4	103.1	99.9	102.3	100.3
11:37	MA19813-STD6	103.7	100.6	100.5	100.1	96.8	99.5	97.1
11:40	MA19813-STD7	96.1	96.8	97.6	96	92.7	98.4	92.8
11:43	MA19813-HSTD1	97.2	97.6	97.7	96.6	93.5	98.4	97.6
11:46	MA19813-HSTD2	95.7	94.5	95.8	94.3	90.9	96.2	92.8
11:49	MA19813-ICV1	104.6	95.8	95.9	95.4	91.5	97.2	95.3
11:53	MA19813-ICB1	101.6	97.5	98.1	97.8	97.2	100.1	100.7
11:56	MA19813-CRIA1	98.8	99.2	99.4	98.5	97.4	100.2	101.7
11:59	MA19813-ICSA1	86.9	93.9	92.8	88	85.4	93.7	86.5
12:03	MA19813-ICSAB1	86.2	93	92.6	88.3	84.6	93.4	86
12:06	MA19813-CCV1	97	95.9	96.7	96.2	94.8	99.9	99.2
12:09	MA19813-CCV2	97	94.4	96	95.3	91.8	97	97.3
12:12	MA19813-CCB1	100.4	94.8	95.9	95.6	94.1	100.2	101.3
12:34	MA19813-CRIA2	107.1	97	97.3	96.7	97.6	100.5	102.8
12:38	MP43092-MB1	103.3	98.5	98.3	97.1	96.7	101.3	103.9
12:41	MP43092-B1	98.9	97.4	96.2	95.1	94.1	100.2	98.4
12:44	FC10941-1	109.2	122	98.1	92	89.4	96.9	93.9
12:47	MP43092-D1	104.8	117.8	97.1	90.3	87.9	97	93.5
12:51	MP43092-SD1	102	101.9	98.9	96.7	97.4	99.7	100
12:54	MP43092-S1	116.4	121	96.9	90.6	88.3	96.6	94
12:57	MP43092-S2	94.7	118.5	99.1	92.9	89.6	97.2	93.5
13:00	MP43092-PS1	108.7	123.1	101.4	95.1	92.3	99.4	95.1
13:03	ZZZZZZ	91	117.1	96.6	90.8	87.9	95.7	92.2
13:06	MA19813-CCV3	98.4	99.6	101.2	99.9	101.4	101.8	100
13:10	MA19813-CCV4	99.3	98.9	100.1	99.1	96.5	102.2	99.3
13:13	MA19813-CCB2	103.5	100.6	101	100.7	103	102.9	103.2
13:16	MP43089-MB1	102.4	104.7	103.1	102.3	105.8	103.5	105.6
13:20	MP43089-B1	103.7	102.4	100.7	100	98.3	103	99.2
13:23	FC10954-1	95.3	96.3	97	94.8	92.3	98.3	97.4

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
13:26	MP43089-D1	98.7	97.4	97.7	95.6	94.2	100.7	98.1
13:29	MP43089-SD1	104.9	100.7	102	101.1	101.8	104.8	103.6
13:32	MP43089-S1	97.5	99.4	100	96.8	93.9	101.9	96.7
13:35	MP43089-S2	96	95.8	97.8	94.7	91.8	99.4	94.2
13:39	MP43089-PS1	No results reported for the elements associated with this internal standard.						
13:42	ZZZZZZ	98.3	96.9	98.2	96	93.3	101.2	98.8
13:45	ZZZZZZ	97.8	97.7	98.4	96.4	94.7	101.8	100.8
13:48	MA19813-CCV5	104.6	104.5	105.4	104.9	105.6	107	104.6
13:51	MA19813-CCV6	102.7	102.2	103.4	101.7	102.7	103.8	102.2
13:54	MA19813-CCB3	109.2	101.8	102.6	101.5	104.4	104.6	105.3
13:58	FC10955-1	102.5	94.8	93.7	93.2	91.9	100.6	99.4
14:01	FC10941-1	104.6	104.8	103.2	101.9	102.1	106.7	106.6
14:04	MP43092-D1	113.1	109.7	108.3	107	108.3	108.2	108.3
14:08	MP43092-S1	106.8	108.6	105.8	104.7	104.9	106.3	105.2
14:11	MP43092-S2	105.7	107.4	105.3	103.8	105.1	106.2	106.2
14:14	MP43092-PS1	110.3	109.3	107.8	105.7	108.2	107.9	106.3
14:18	ZZZZZZ	106.7	109.7	105.5	103.1	103.8	105.4	104.7
14:21	FC10954-1	108.9	103.4	104.2	103.7	105.3	105.6	104.1
14:24	MP43089-D1	105.8	103.9	105.5	104.4	106.6	107	105.6
14:28	MP43089-S1	105.8	104	104.5	104	105.3	105.7	104.6
14:31	MA19813-CCV7	103.4	104.6	105.4	104	104.8	106.6	104.3
14:34	MA19813-CCV8	104.1	102.5	102.5	101.7	101	103.8	101.9
14:37	MA19813-CCB4	106.4	103	104.1	103.5	107.6	105.8	105.6
14:41	MP43089-S2	106.8	103.1	103.3	102.1	104.7	105.4	105.1
14:44	MP43089-PS1	No results reported for the elements associated with this internal standard.						
14:47	ZZZZZZ	101.9	101.6	102.9	102.3	104.5	104.3	103.8
14:51	ZZZZZZ	104.2	102.5	103.1	102.7	104.4	105.4	105.7
14:54	MA19813-CCV9	108.6	105	104.8	104.5	104.3	106.2	103.9
14:57	MA19813-CCV10	105.3	102.2	102.1	100.9	103.9	104	101.3
15:00	MA19813-CCB5	106.8	103.2	103.1	102.4	106.5	105.9	105

! = Outside limits.

LEGEND:			CCV/CCB
Istd#	Parameter	Limits	Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19813
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7

Istd#7	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19813 Units: ug/l

Time: / Sample ID:			11:53 ICB1		12:12 CCB1		13:13 CCB2		13:54 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4								
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0450	<1.0	0.00900	<1.0	0.0330	<1.0	0.0620	<1.0
Barium	1.0	.1								
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2								
Chromium	1.0	.1	anr							
Cobalt	1.0	.1								
Copper	5.0	.1	anr							
Iron	100	7.9								
Lead	1.0	.1	anr							
Magnesium	100	5.2								
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	2.0	.1	anr							
Potassium	100	6.6								
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8								
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1								
Titanium	2.0	.3								
Vanadium	1.0	.1								
Zinc	5.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19813 Units: ug/l

Time: / Sample ID:			14:37 CCB4		15:00 CCB5	
Metal	RL	IDL	raw	final	raw	final
Aluminum	100	4.4				
Antimony	1.0	.1	anr			
Arsenic	1.0	.1	0.0200	<1.0	0.0220	<1.0
Barium	1.0	.1				
Beryllium	1.0	.1	anr			
Cadmium	1.0	.1	anr			
Calcium	100	7.2				
Chromium	1.0	.1	anr			
Cobalt	1.0	.1				
Copper	5.0	.1	anr			
Iron	100	7.9				
Lead	1.0	.1	anr			
Magnesium	100	5.2				
Manganese	1.0	.1	anr			
Molybdenum	1.0	.1				
Nickel	2.0	.1	anr			
Potassium	100	6.6				
Selenium	1.0	.11	anr			
Silver	1.0	.1	anr			
Sodium	100	4.8				
Strontium	1.0	.1				
Thallium	1.0	.1	anr			
Tin	1.0	.1				
Titanium	2.0	.3				
Vanadium	1.0	.1				
Zinc	5.0	.29	anr			

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		11:49			12:06			12:09	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	106	106.0				100	101	101.0
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		13:06			13:10			13:48	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	103	103.0			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		13:51			14:31			14:34	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	100	102	102.0				100	103	103.0
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver									
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		14:54			14:57	
Sample ID:	CCV	CCV9		CCV	CCV10	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	103	103.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19813 Units: ug/l

Time:		11:43			11:46	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	201	100.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19813 Units: ug/l

Time:			11:56		12:34	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100				
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	0.977	97.7		
Barium	1.0	1.0				
Beryllium	1.0	1.0	anr			
Cadmium	1.0	1.0	anr			
Calcium	100	100				
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0				
Copper	1.0	1.0				
Iron	100	100				
Lead	1.0	1.0	anr			
Magnesium	100	100				
Manganese	1.0	1.0	anr			
Molybdenum	1.0	1.0				
Nickel	1.0	1.0	anr			
Potassium	100	100				
Selenium	1.0	1.0	anr			
Silver	1.0	1.0	anr			
Sodium	100	100				
Strontium	1.0	1.0				
Thallium	1.0	1.0	anr			
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0				
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA110723M1.CSV Date Analyzed: 11/07/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19813 Units: ug/l

Time:			11:59		12:03	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	97900H	97.9	101000HH	101.0
Antimony			0.107		0.101	
Arsenic		20	0.0900		20.2	101.0
Barium			0.341		0.325	
Beryllium			0.0280		0.0300	
Cadmium		20	0.856		20.3	101.5
Calcium	100000	100000	99000H	99.0	103000HH	103.0
Chromium		20	1.40*(a)		20.2	101.0
Cobalt		20	0.676		20.0	100.0
Copper		20	-0.0380		18.3	91.5
Iron	100000	100000	97600H	97.6	101000HH	101.0
Lead			0.211		0.214	
Magnesium	100000	100000	98200H	98.2	103000HH	103.0
Manganese		20	0.363		20.2	101.0
Molybdenum	2000	2000	2110HH	105.5	2160HH	108.0
Nickel		20	0.441		19.2	96.0
Potassium	100000	100000	98600H	98.6	103000HH	103.0
Selenium			0.101		0.0600	
Silver		20	0.0240		19.0	95.0
Sodium	100000	100000	98700H	98.7	103000HH	103.0
Strontium			0.745		0.755	
Thallium			0.0140		0.0110	
Tin			0.140		0.109	
Titanium	2000	2000	2050HH	102.5	2120HH	106.0
Vanadium			-0.295		-0.257	
Zinc		20	0.882		21.6	108.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:25	MA19821-STD1	1		STDA
10:31	MA19821-STD2	1		STDB
10:35	MA19821-STD3	1		STDC
10:39	MA19821-STD4	1		STDD
10:44	MA19821-STD5	1		STDE
10:48	MA19821-STD6	1		STDF
10:52	MA19821-STD7	1		STDG
11:01	MA19821-CRIA1	1		
11:08	MA19821-HSTD1	1		
11:19	MA19821-ICV1	1		
11:29	MA19821-ICB1	1		
11:39	MA19821-ICSA1	1		
11:46	MA19821-ICSAB1	1		
11:54	MA19821-CCV1	1		
12:04	MA19821-CCB1	1		
12:14	MP43102-MB1	1		
12:19	MP43102-B1	1		
12:24	FC10906-1L	1		(sample used for QC only; not part of login FC10955)
12:29	MP43102-D1	1		
12:35	MP43102-SD1	5		
12:40	MP43102-S1	1		
12:45	MP43102-S2	1		
12:50	ZZZZZZ	1		
12:55	ZZZZZZ	1		
13:00	MA19821-CCV2	1		
13:05	MA19821-CCB2	1		
13:10	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:26	MP43102-MB2	1		
13:31	MP43102-B2	1		
13:36	MP43103-MB1	1		
13:41	MP43103-B1	1		
13:46	FC10929-16	1		(sample used for QC only; not part of login FC10955)

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:51	MP43103-D1	1		
13:56	MP43103-SD1	5		
14:01	MA19821-CCV3	1		
14:06	MA19821-CCB3	1		
14:11	MP43103-PS1	1		
14:16	MP43103-S1	1		
14:21	MP43103-S2	1		
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	5		
14:42	ZZZZZZ	5		
14:47	ZZZZZZ	5		
14:52	ZZZZZZ	5		
14:57	ZZZZZZ	5		
15:03	MA19821-CCV4	1		
15:08	MA19821-CCB4	1		
15:14	ZZZZZZ	5		
15:19	ZZZZZZ	1		
15:24	ZZZZZZ	100		
15:29	ZZZZZZ	5		
15:34	MA19821-CCV5	1		
15:39	MA19821-CCB5	1		
16:07	MP43108-B1	1		
16:12	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:28	ZZZZZZ	1		
16:33	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:48	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:58	MA19821-CCV6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:03	MA19821-CCB6	1		
17:08	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:23	ZZZZZZ	1		
17:29	ZZZZZZ	1		
17:34	ZZZZZZ	1		
17:39	ZZZZZZ	1		
17:44	FC10955-1A	1		
17:49	ZZZZZZ	1		
17:54	ZZZZZZ	1		
18:00	MA19821-CCV7	1		
18:05	MA19821-CCB7	1		
18:10	FC10963-23	1		(sample used for QC only; not part of login FC10955)
18:15	MP43108-D1	1		
18:21	MP43108-SD1	5		
18:26	MP43108-PS1	1		
18:31	MP43108-S1	1		
18:36	MP43108-S2	1		
---------->	Last reportable sample/prep for job FC10955			
18:42	MA19821-CCV8	1		
18:47	MA19821-CCB8	1		
---------->	Last reportable CCB for job FC10955			

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g	
11:01	MA19821-CRIA1	1	X	X	X	X	X	X	X	X	X	
11:08	MA19821-HSTD1	1	X	X	X	X	X	X	X	X	X	
11:19	MA19821-ICV1	1	X	X	X	X	X	X	X	X	X	
11:29	MA19821-ICB1	1	X	X	X	X	X	X	X	X	X	
11:39	MA19821-ICSA1	1	X	X	X	X	X	X	X	X	X	
11:46	MA19821-ICSAB1	1	X	X	X	X	X	X	X	X	X	
11:54	MA19821-CCV1	1	X	X	X	X	X	X	X	X	X	
12:04	MA19821-CCB1	1	X	X	X	X	X	X	X	X	X	
12:14	MP43102-MB1	1	X	X	X		X			X	X	
12:19	MP43102-B1	1	X	X	X		X			X	X	
12:24	FC10906-1L	1					X					(a)
12:29	MP43102-D1	1	X	X	X		X			X	X	
12:35	MP43102-SD1	5	X	X	X		X			X	X	
12:40	MP43102-S1	1	X	X	X		X			X	X	
12:45	MP43102-S2	1	X	X	X		X			X	X	
12:50	ZZZZZZ	1										
12:55	ZZZZZZ	1										
13:00	MA19821-CCV2	1	X	X	X	X	X	X	X	X	X	
13:05	MA19821-CCB2	1	X	X	X	X	X	X	X	X	X	
13:10	ZZZZZZ	1										
13:20	ZZZZZZ	1										
13:26	MP43102-MB2	1	X	X	X		X			X	X	
13:31	MP43102-B2	1	X	X	X		X			X	X	
13:36	MP43103-MB1	1	X	X	X	X	X			X	X	
13:41	MP43103-B1	1	X	X	X	X	X			X	X	
13:46	FC10929-16	1	X	X	X		X			X	X	(a)
13:51	MP43103-D1	1	X	X	X	X	X			X	X	
13:56	MP43103-SD1	5	X	X	X	X	X			X	X	
14:01	MA19821-CCV3	1	X	X	X	X	X	X	X	X	X	
14:06	MA19821-CCB3	1	X	X	X	X	X	X	X	X	X	
14:11	MP43103-PS1	1	X	X	X	X	X			X	X	
14:16	MP43103-S1	1	X	X	X	X	X			X	X	
14:21	MP43103-S2	1	X	X	X	X	X			X	X	
		Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g
14:26	ZZZZZZ	1									
14:31	ZZZZZZ	1									
14:36	ZZZZZZ	5									
14:42	ZZZZZZ	5									
14:47	ZZZZZZ	5									
14:52	ZZZZZZ	5									
14:57	ZZZZZZ	5									
15:03	MA19821-CCV4	1	X	X	X	X	X	X	X	X	X
15:08	MA19821-CCB4	1	X	X	X	X	X	X	X	X	X
15:14	ZZZZZZ	5									
15:19	ZZZZZZ	1									
15:24	ZZZZZZ	100									
15:29	ZZZZZZ	5									
15:34	MA19821-CCV5	1	X	X	X	X	X	X	X	X	X
15:39	MA19821-CCB5	1	X	X	X	X	X	X	X	X	X
16:07	MP43108-B1	1	X	X	X	X	X	X	X	X	X
16:12	ZZZZZZ	1									
16:17	ZZZZZZ	1									
16:23	ZZZZZZ	1									
16:28	ZZZZZZ	1									
16:33	ZZZZZZ	1									
16:38	ZZZZZZ	1									
16:43	ZZZZZZ	1									
16:48	ZZZZZZ	1									
16:53	ZZZZZZ	1									
16:58	MA19821-CCV6	1	X	X	X	X	X	X	X	X	X
17:03	MA19821-CCB6	1	X	X	X	X	X	X	X	X	X
17:08	ZZZZZZ	1									
17:13	ZZZZZZ	1									
17:18	ZZZZZZ	1									
17:23	ZZZZZZ	1									
17:29	ZZZZZZ	1									
17:34	ZZZZZZ	1									
		Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g	
17:39	ZZZZZZ	1										
17:44	FC10955-1A	1	X	X	X	X	X	X		X	X	
17:49	ZZZZZZ	1										
17:54	ZZZZZZ	1										
18:00	MA19821-CCV7	1	X	X	X	X	X	X	X	X	X	
18:05	MA19821-CCB7	1	X	X	X	X	X	X	X	X	X	
18:10	FC10963-23	1	X	X	X		X			X	X	(a)
18:15	MP43108-D1	1	X	X	X	X	X	X	X	X	X	
18:21	MP43108-SD1	5	X	X	X	X	X	X	X	X	X	
18:26	MP43108-PS1	1	X	X	X	X	X	X	X	X	X	
18:31	MP43108-S1	1	X	X	X	X	X	X	X	X	X	
18:36	MP43108-S2	1	X	X	X	X	X	X	X	X	X	
18:42	MA19821-CCV8	1	X	X	X	X	X	X	X	X	X	
18:47	MA19821-CCB8	1	X	X	X	X	X	X	X	X	X	

(a) Sample used for QC only; not part of login FC10955.

Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:25	MA19821-STD1	8239	45520	9153	3198
10:31	MA19821-STD2	8166	44891	9117	3135
10:35	MA19821-STD3	8241	45628	9260	3123
10:39	MA19821-STD4	8196	45129	9194	3047
10:44	MA19821-STD5	8045	44467	9152	2912
10:48	MA19821-STD6	7880	44131	9115	2743
10:52	MA19821-STD7	7571	42914	9055	2505
11:01	MA19821-CRIA1	8156	45074	9168	3140
11:08	MA19821-HSTD1	7547	42384	9007	2487
11:19	MA19821-ICV1	7862	43767	9101	2738
11:29	MA19821-ICB1	8188 R	45093 R	9138 R	3187 R
11:39	MA19821-ICSA1	7280	39697	8817	2051
11:46	MA19821-ICSAB1	7307	39594	8813	2257
11:54	MA19821-CCV1	7791	43454	9009	2717
12:04	MA19821-CCB1	8143	45040	9146	3175
12:14	MP43102-MB1	8305	46031	9365	3238
12:19	MP43102-B1	8046	44839	9300	2865
12:24	FC10906-1L	8002	44472	9334	2951
12:29	MP43102-D1	8075	44729	9393	2969
12:35	MP43102-SD1	8217	45547	9451	3135
12:40	MP43102-S1	7955	43857	9339	2753
12:45	MP43102-S2	7951	43929	9266	2753
12:50	ZZZZZZ	8011	44443	9370	2947
12:55	ZZZZZZ	8080	44775	9390	3027
13:00	MA19821-CCV2	7919	43921	9265	2764
13:05	MA19821-CCB2	8315	45874	9356	3235
13:10	ZZZZZZ	8146	45269	9481	3086
13:20	ZZZZZZ	11797 !a	66041 !a	13852 !a	3002
13:26	MP43102-MB2	8082	44959	9452	3021
13:31	MP43102-B2	7987	44129	9429	2779
13:36	MP43103-MB1	8437	47897	9636	3282
13:41	MP43103-B1	8159	45974	9458	2891
13:46	FC10929-16	8955	49465	10282	2983

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:51	MP43103-D1	8867	48839	10131	2975
13:56	MP43103-SD1	8525	47196	9722	3166
14:01	MA19821-CCV3	7950	44802	9344	2762
14:06	MA19821-CCB3	8302	46414	9401	3211
14:11	MP43103-PS1	8946	49316	10281	2940
14:16	MP43103-S1	8707	48296	10137	2756
14:21	MP43103-S2	8709	48334	10177	2747
14:26	ZZZZZZ	9000	50323	10176	3200
14:31	ZZZZZZ	8954	50015	10129	3201
14:36	ZZZZZZ	8949	49937	10545	2781
14:42	ZZZZZZ	9275	51533	10669	2934
14:47	ZZZZZZ	9365	52247	10889	2898
14:52	ZZZZZZ	9332	52095	10728	2890
14:57	ZZZZZZ	9290	51819	10658	2881
15:03	MA19821-CCV4	7990	45036	9379	2772
15:08	MA19821-CCB4	8344	46816	9452	3222
15:14	ZZZZZZ	9494	52967	10897	2825
15:19	ZZZZZZ	8436	47972	9655	3213
15:24	ZZZZZZ	8301	46521	9420	3197
15:29	ZZZZZZ	8986	50666	10226	3154
15:34	MA19821-CCV5	7985	45138	9332	2765
15:39	MA19821-CCB5	8363	47080	9403	3229
16:07	MP43108-B1	8112	45731	9306	2835
16:12	ZZZZZZ	8038	45476	9243	2931
16:17	ZZZZZZ	7997	45640	9250	2920
16:23	ZZZZZZ	8010	45710	9397	2922
16:28	ZZZZZZ	8028	45896	9351	2920
16:33	ZZZZZZ	8344	47556	9516	3113
16:38	ZZZZZZ	8776	49267	9918	3061
16:43	ZZZZZZ	8543	48164	9700	2957
16:48	ZZZZZZ	8362	47492	9804	3201
16:53	ZZZZZZ	8299	47379	9728	3120
16:58	MA19821-CCV6	8001	45704	9240	2759

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19821
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:03	MA19821-CCB6	8306	47375	9318	3203
17:08	ZZZZZZ	8267	47335	9419	3111
17:13	ZZZZZZ	8451	48281	9771	2999
17:18	ZZZZZZ	8267	47473	9352	3155
17:23	ZZZZZZ	7994	45933	9372	2878
17:29	ZZZZZZ	8199	47192	9313	3028
17:34	ZZZZZZ	8179	46934	9296	3023
17:39	ZZZZZZ	8133	46973	9347	3024
17:44	FC10955-1A	8156	46962	9326	3052
17:49	ZZZZZZ	8194	47030	9288	2985
17:54	ZZZZZZ	8168	47022	9252	2995
18:00	MA19821-CCV7	7947	45983	9186	2750
18:05	MA19821-CCB7	8275	47667	9377	3204
18:10	FC10963-23	8812	50594	10385	2630
18:15	MP43108-D1	8847	50883	10415	2625
18:21	MP43108-SD1	8467	48261	9620	3021
18:26	MP43108-PS1	8795	50246	10352	2607
18:31	MP43108-S1	8723	50293	10353	2474
18:36	MP43108-S2	8750	50050	10365	2488
18:42	MA19821-CCV8	7984	45915	9170	2754
18:47	MA19821-CCB8	8339	47437	9264	3206

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID:			11:29 ICB1		12:04 CCB1		13:05 CCB2		14:06 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14								
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.00	<200	-0.100	<200	0.00	<200	0.200	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	0.00	<4.0	0.00	<4.0	0.00	<4.0	0.00	<4.0
Calcium	5000	50								
Chromium	10	.5	-0.300	<10	0.00	<10	-0.100	<10	-0.200	<10
Cobalt	50	.2	anr							
Copper	25	1	0.200	<25	0.00	<25	0.200	<25	-0.300	<25
Iron	300	15	anr							
Lead	20	1	-0.200	<20	-0.300	<20	0.100	<20	-0.200	<20
Lithium	20	.5								
Magnesium	5000	35	-3.10	<5000	13.0	<5000	-10.3	<5000	-2.00	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15	0.00	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	-0.700	<20	-0.600	<20	1.50	<20	-1.10	<20
Silver	10	.5	0.00	<10	0.100	<10	0.100	<10	0.00	<10
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID:			15:08 CCB4		15:39 CCB5		17:03 CCB6		18:05 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14								
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.100	<200	0.100	<200	0.00	<200	0.00	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	0.00	<4.0	0.00	<4.0	0.00	<4.0	0.00	<4.0
Calcium	5000	50								
Chromium	10	.5	-0.400	<10	-0.100	<10	0.00	<10	-0.100	<10
Cobalt	50	.2	anr							
Copper	25	1	-0.500	<25	-0.200	<25	-0.800	<25	-0.800	<25
Iron	300	15	anr							
Lead	20	1	-0.400	<20	-0.200	<20	-0.300	<20	0.00	<20
Lithium	20	.5								
Magnesium	5000	35	-6.30	<5000	-6.90	<5000	-12.5	<5000	0.800	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.00	<15	0.00	<15
Molybdenum	50	.3	anr							
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	-0.400	<20	0.300	<20	0.900	<20	0.200	<20
Silver	10	.5	0.400	<10	0.100	<10	0.100	<10	0.200	<10
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5	anr							
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19821 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	18:47 CCB8 raw	final
Aluminum	200	14		
Antimony	20	1	anr	
Arsenic	10	1.3	anr	
Barium	200	.5	0.200	<200
Beryllium	5.0	.1	anr	
Boron	100	5		
Cadmium	4.0	.1	0.100	<4.0
Calcium	5000	50		
Chromium	10	.5	-0.200	<10
Cobalt	50	.2	anr	
Copper	25	1	-0.400	<25
Iron	300	15	anr	
Lead	20	1	0.00	<20
Lithium	20	.5		
Magnesium	5000	35	-0.200	<5000
Manganese	15	.25	0.00	<15
Molybdenum	50	.3	anr	
Nickel	40	.4	anr	
Potassium	10000	100		
Selenium	20	2	-1.80	<20
Silver	10	.5	-0.400	<10
Sodium	10000	250	anr	
Strontium	10	.25		
Thallium	10	1	anr	
Tin	50	.5		
Titanium	10	.5		
Vanadium	50	.5	anr	
Zinc	20	3	anr	

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		11:19			11:54			13:00	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	2000	2050	102.5	2000	2040	102.0	2000	2060	103.0
Beryllium	anr								
Boron									
Cadmium	2000	2060	103.0	2000	2040	102.0	2000	2040	102.0
Calcium									
Chromium	2000	2060	103.0	2000	2050	102.5	2000	2050	102.5
Cobalt	anr								
Copper	2000	2050	102.5	2000	2040	102.0	2000	2080	104.0
Iron	anr								
Lead	2000	2010	100.5	2000	1990	99.5	2000	1990	99.5
Lithium									
Magnesium	40000	41300	103.3	40000	41100	102.8	40000	40900	102.3
Manganese	2000	2050	102.5	2000	2040	102.0	2000	2050	102.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	2000	2030	101.5	2000	2020	101.0	2000	2040	102.0
Silver	250	254	101.6	250	250	100.0	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		14:01			15:03			15:34	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	2000	2030	101.5	2000	2030	101.5	2000	2020	101.0
Beryllium	anr								
Boron									
Cadmium	2000	2010	100.5	2000	2010	100.5	2000	1990	99.5
Calcium									
Chromium	2000	2030	101.5	2000	2010	100.5	2000	2010	100.5
Cobalt	anr								
Copper	2000	2020	101.0	2000	1980	99.0	2000	1960	98.0
Iron	anr								
Lead	2000	2010	100.5	2000	2020	101.0	2000	2030	101.5
Lithium									
Magnesium	40000	39900	99.8	40000	39600	99.0	40000	39400	98.5
Manganese	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	2000	2010	100.5	2000	2000	100.0	2000	1980	99.0
Silver	250	251	100.4	250	251	100.4	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19821 Units: ug/l

Time:		16:58			18:00			18:42	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	2000	1980	99.0	2000	1980	99.0	2000	1980	99.0
Beryllium	anr								
Boron									
Cadmium	2000	1960	98.0	2000	1970	98.5	2000	1960	98.0
Calcium									
Chromium	2000	2000	100.0	2000	1970	98.5	2000	1990	99.5
Cobalt	anr								
Copper	2000	1930	96.5	2000	1890	94.5	2000	1900	95.0
Iron	anr								
Lead	2000	2050	102.5	2000	2050	102.5	2000	2060	103.0
Lithium									
Magnesium	40000	39200	98.0	40000	38800	97.0	40000	39000	97.5
Manganese	2000	1950	97.5	2000	1910	95.5	2000	1940	97.0
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	2000	1950	97.5	2000	1950	97.5	2000	1950	97.5
Silver	250	251	100.4	250	251	100.4	250	251	100.4
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19821 Units: ug/l

Time:		11:08	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	4000	3950	98.8
Beryllium	anr		
Boron			
Cadmium	4000	4020	100.5
Calcium			
Chromium	4000	4040	101.0
Cobalt	anr		
Copper	4000	4080	102.0
Iron	anr		
Lead	4000	4150	103.8
Lithium			
Magnesium	80000	79600	99.5
Manganese	4000	3980	99.5
Molybdenum	anr		
Nickel	anr		
Potassium			
Selenium	4000	4040	101.0
Silver	500	503	100.6
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19821 Units: ug/l

Time:			11:01	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200		
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	199	99.5
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	5.10	102.0
Calcium	2000	1000		
Chromium	20	10	9.90	99.0
Cobalt	100	50	anr	
Copper	50	25	25.3	101.2
Iron	600	300	anr	
Lead	10	5.0	4.50	90.0
Lithium	18	9.0		
Magnesium	10000	5000	5010	100.2
Manganese	30	15	15.3	102.0
Molybdenum	100	50	anr	
Nickel	80	40	anr	
Potassium	20000	10000		
Selenium	20	10	8.00	80.0
Silver	20	10	9.40	94.0
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50		
Titanium	20	10		
Vanadium	100	50	anr	
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SA110823M1.ICP Date Analyzed: 11/08/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19821 Units: ug/l

Time:			11:39		11:46	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	500000	100.0	502000	100.4
Antimony		1000	1.90		1000	100.0
Arsenic		1000	0.500		996	99.6
Barium		500	-0.500		483	96.6
Beryllium		500	0.00		493	98.6
Boron		1000	-89.4		939	93.9
Cadmium		1000	0.500		950	95.0
Calcium	500000	500000	470000	94.0	479000	95.8
Chromium		500	0.400		490	98.0
Cobalt		500	0.400		457	91.4
Copper		500	1.00		532	106.4
Iron	500000	200000	467000	93.4	187000	93.5
Lead		1000	0.400		1060	106.0
Lithium		1000	0.00		533	53.3
Magnesium	500000	500000	502000	100.4	514000	102.8
Manganese		500	-0.900		510	102.0
Molybdenum		1000	-0.300		897	89.7
Nickel		1000	0.00		884	88.4
Potassium			3.00		19.5	
Selenium		1000	0.00		926	92.6
Silver		1000	0.00		1070	107.0
Sodium			249		261	
Strontium		1000	0.00		1010	101.0
Thallium		1000	0.00		991	99.1
Tin		1000	-0.600		890	89.0
Titanium		1000	-1.80		1020	102.0
Vanadium		500	1.00		511	102.2
Zinc		1000	1.00		922	92.2

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:38	MA19824-STD1	1		STDA
09:43	MA19824-STD2	1		STDB
09:47	MA19824-STD3	1		STDC
09:51	MA19824-STD4	1		STDD
09:55	MA19824-STD5	1		STDE
09:58	MA19824-STD6	1		STDF
10:02	MA19824-STD7	1		STDG
10:14	MA19824-CRIA1	1		
10:20	MA19824-CRIA2	1		
10:29	MA19824-HSTD1	1		
10:36	MA19824-ICV1	1		
10:44	MA19824-ICB1	1		
10:49	MA19824-ICSA1	1		
10:58	MA19824-ICSAB1	1		
11:07	MA19824-CCV1	1		
11:15	MA19824-CCB1	1		
11:22	MP43108-MB1	1		
11:27	FC10955-1A	2		
---------->	Last reportable sample/prep for job FC10955			
11:32	MP43112-MB1	1		
11:37	MP43112-B1	1		
11:42	FC10973-1L	1		(sample used for QC only; not part of login FC10955)
11:47	MP43112-D1	1		
11:52	MP43112-SD1	5		
11:57	MP43112-S1	1		
12:02	MP43112-S2	1		
12:07	ZZZZZZ	1		
12:12	MA19824-CCV2	1		
12:16	MA19824-CCB2	1		
---------->	Last reportable CCB for job FC10955			
12:21	ZZZZZZ	1		
12:26	MP43112-MB2	1		
12:32	MP43112-B2	1		
12:36	MP43106-MB1	1		
12:41	MP43106-B1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:46	FC10990-1	1		(sample used for QC only; not part of login FC10955)
12:51	MP43106-D1	1		
12:56	MP43106-SD1	5		
13:01	MP43106-PS1	1		
13:06	MP43106-S1	1		
13:11	MA19824-CCV3	1		
13:15	MA19824-CCB3	1		
13:21	MP43106-S2	1		
13:25	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:55	ZZZZZZ	1		
14:00	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:11	MA19824-CCV4	1		
14:15	MA19824-CCB4	1		
14:20	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:41	MP43111-MB1	1		
14:46	MP43111-B1	1		
14:51	FC10966-24	1		(sample used for QC only; not part of login FC10955)
14:56	MP43111-D1	1		
15:01	MP43111-SD1	5		
15:06	MP43111-PS1	1		
15:21	MA19824-CCV5	1		
15:27	MA19824-CCB5	1		
16:06	MA19824-CCV6	1		
16:18	MA19824-CCB6	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:23	MP43111-S1	1		
16:27	MP43111-S2	1		
16:32	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:47	ZZZZZZ	1		
16:52	ZZZZZZ	1		
16:58	ZZZZZZ	5		
17:03	ZZZZZZ	5		
17:08	ZZZZZZ	5		
17:13	MA19824-CCV7	1		
17:18	MA19824-CCB7	1		
17:23	ZZZZZZ	5		
17:28	ZZZZZZ	5		
17:33	ZZZZZZ	5		
17:39	ZZZZZZ	5		
17:44	ZZZZZZ	5		
17:55	ZZZZZZ	5		
18:00	ZZZZZZ	5		
18:05	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:15	MA19824-CCV8	1		
18:20	MA19824-CCB8	1		
18:25	ZZZZZZ	1		
18:30	ZZZZZZ	20		
18:35	ZZZZZZ	100		
18:40	ZZZZZZ	100		
18:45	ZZZZZZ	100		
18:50	ZZZZZZ	20		
18:55	ZZZZZZ	5		
19:00	ZZZZZZ	10		
19:05	ZZZZZZ	10		
19:10	MA19824-CCV9	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:15	MA19824-CCB9	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Dilution	Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g	
10:14	MA19824-CRIA1	1									X		
10:20	MA19824-CRIA2	1		X	X	X	X	X	X	X		X	
10:29	MA19824-HSTD1	1		X	X	X	X	X	X	X	X	X	
10:36	MA19824-ICV1	1		X	X	X	X	X	X	X	X	X	
10:44	MA19824-ICB1	1		X	X	X	X	X	X	X	X	X	
10:49	MA19824-ICSA1	1		X	X	X	X	X	X	X	X	X	
10:58	MA19824-ICSAB1	1		X	X	X	X	X	X	X	X	X	
11:07	MA19824-CCV1	1		X	X	X	X	X	X	X	X	X	
11:15	MA19824-CCB1	1		X	X	X	X	X	X	X	X	X	
11:22	MP43108-MB1	1		X	X	X	X	X	X	X	X	X	
11:27	FC10955-1A	2								X			
11:32	MP43112-MB1	1		X	X	X		X			X	X	
11:37	MP43112-B1	1		X	X	X		X			X	X	
11:42	FC10973-1L	1		X	X	X		X			X	X	(a)
11:47	MP43112-D1	1		X	X	X		X			X	X	
11:52	MP43112-SD1	5		X	X	X		X			X	X	
11:57	MP43112-S1	1		X	X	X		X			X	X	
12:02	MP43112-S2	1		X	X	X		X			X	X	
12:07	ZZZZZZ	1											
12:12	MA19824-CCV2	1		X	X	X	X	X	X	X	X	X	
12:16	MA19824-CCB2	1		X	X	X	X	X	X	X	X	X	
12:21	ZZZZZZ	1											
12:26	MP43112-MB2	1		X	X	X		X			X	X	
12:32	MP43112-B2	1		X	X	X		X			X	X	
12:36	MP43106-MB1	1		X	X	X	X	X	X		X	X	
12:41	MP43106-B1	1		X	X	X	X	X	X		X	X	
12:46	FC10990-1	1						X					(a)
12:51	MP43106-D1	1						X					
12:56	MP43106-SD1	5						X					
13:01	MP43106-PS1	1						X					
13:06	MP43106-S1	1						X					
13:11	MA19824-CCV3	1		X	X	X	X	X	X	X	X	X	
13:15	MA19824-CCB3	1		X	X	X	X	X	X	X	X	X	
			Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g	
13:21	MP43106-S2	1					X					
13:25	ZZZZZZ	1										
13:30	ZZZZZZ	1										
13:35	ZZZZZZ	1										
13:40	ZZZZZZ	1										
13:45	ZZZZZZ	1										
13:50	ZZZZZZ	1										
13:55	ZZZZZZ	1										
14:00	ZZZZZZ	1										
14:06	ZZZZZZ	1										
14:11	MA19824-CCV4	1	X	X	X	X	X	X	X	X	X	
14:15	MA19824-CCB4	1	X	X	X	X	X	X	X	X	X	
14:20	ZZZZZZ	1										
14:26	ZZZZZZ	1										
14:31	ZZZZZZ	1										
14:36	ZZZZZZ	1										
14:41	MP43111-MB1	1	X	X	X	X	X	X	X	X	X	
14:46	MP43111-B1	1	X	X	X	X	X	X	X	X	X	
14:51	FC10966-24	1					X					(a)
14:56	MP43111-D1	1	X	X	X	X	X	X	X	X	X	
15:01	MP43111-SD1	5	X	X	X	X	X	X	X	X	X	
15:06	MP43111-PS1	1	X	X	X	X	X	X	X	X	X	
15:21	MA19824-CCV5	1	X	X	X	X	X	X	X	X	X	
15:27	MA19824-CCB5	1	X	X	X	X	X	X	X	X	X	
16:06	MA19824-CCV6	1	X	X	X	X	X	X	X	X	X	
16:18	MA19824-CCB6	1	X	X	X	X	X	X	X	X	X	
16:23	MP43111-S1	1	X	X	X	X	X	X	X	X	X	
16:27	MP43111-S2	1	X	X	X	X	X	X	X	X	X	
16:32	ZZZZZZ	1										
16:37	ZZZZZZ	1										
16:42	ZZZZZZ	1										
16:47	ZZZZZZ	1										
16:52	ZZZZZZ	1										
		Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Element: / Dilution	B a	C d	C r	C u	P b	M g	M n	S e	A g
16:58	ZZZZZZ	5									
17:03	ZZZZZZ	5									
17:08	ZZZZZZ	5									
17:13	MA19824-CCV7	1	X	X	X	X	X	X	X	X	X
17:18	MA19824-CCB7	1	X	X	X	X	X	X	X	X	X
17:23	ZZZZZZ	5									
17:28	ZZZZZZ	5									
17:33	ZZZZZZ	5									
17:39	ZZZZZZ	5									
17:44	ZZZZZZ	5									
17:55	ZZZZZZ	5									
18:00	ZZZZZZ	5									
18:05	ZZZZZZ	1									
18:10	ZZZZZZ	1									
18:15	MA19824-CCV8	1	X	X	X	X	X	X	X	X	X
18:20	MA19824-CCB8	1	X	X	X	X	X	X	X	X	X
18:25	ZZZZZZ	1									
18:30	ZZZZZZ	20									
18:35	ZZZZZZ	100									
18:40	ZZZZZZ	100									
18:45	ZZZZZZ	100									
18:50	ZZZZZZ	20									
18:55	ZZZZZZ	5									
19:00	ZZZZZZ	10									
19:05	ZZZZZZ	10									
19:10	MA19824-CCV9	1	X	X	X	X	X	X	X	X	X
19:15	MA19824-CCB9	1	X	X	X	X	X	X	X	X	X

(a) Sample used for QC only; not part of login FC10955.

Element:	B a	C d	C r	C u	P b	M g	M n	S e	A g

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:38	MA19824-STD1	2190	20503	4034	852
09:43	MA19824-STD2	2168	19932	4073	806
09:47	MA19824-STD3	2121	19808	4013	787
09:51	MA19824-STD4	2125	19837	4051	772
09:55	MA19824-STD5	2106	19390	4063	746
09:58	MA19824-STD6	2033	18912	3978	703
10:02	MA19824-STD7	1952	18264	3945	659
10:14	MA19824-CRIA1	2124			
10:20	MA19824-CRIA2	2165	20095	4065	803
10:29	MA19824-HSTD1	1948	18335	4032	656
10:36	MA19824-ICV1	2048	19057	4010	704
10:44	MA19824-ICB1	2153 R	20270 R	4061 R	836 R
10:49	MA19824-ICSA1	1797	16599	3855	630
10:58	MA19824-ICSAB1	1831	16894	3842	600
11:07	MA19824-CCV1	2024	19133	4018	699
11:15	MA19824-CCB1	2168	20362	3998	842
11:22	MP43108-MB1	2167	20525	4081	836
11:27	FC10955-1A	2109	19876	4084	782
11:32	MP43112-MB1	2167	21067	4100	839
11:37	MP43112-B1	2039	19169	4040	712
11:42	FC10973-1L	2118	20292	4066	794
11:47	MP43112-D1	2107	19985	4033	791
11:52	MP43112-SD1	2163	20627	4064	831
11:57	MP43112-S1	2017	18914	4016	700
12:02	MP43112-S2	1987	18752	3999	689
12:07	ZZZZZZ	2120	20231	4052	801
12:12	MA19824-CCV2	1996	18946	3909	694
12:16	MA19824-CCB2	2138	20077	4005	833
12:21	ZZZZZZ	2091	19952	4052	788
12:26	MP43112-MB2	2132	20577	4034	827
12:32	MP43112-B2	2016	18978	3973	706
12:36	MP43106-MB1	2138	20635	4080	833
12:41	MP43106-B1	2008	19079	3955	702

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
12:46	FC10990-1	3052 !a	28227 !a	5961 !a	755
12:51	MP43106-D1	2975 !a	27539 !a	5811 !a	761
12:56	MP43106-SD1	2370	22319	4552	811
13:01	MP43106-PS1	2992 !a	27957 !a	5904 !a	741
13:06	MP43106-S1	3058 !a	28203 !a	6169 !a	689
13:11	MA19824-CCV3	2021	19247	4001	700
13:15	MA19824-CCB3	2138	20379	4014	832
13:21	MP43106-S2	2780 !a	25737 !a	5595 !a	682
13:25	ZZZZZZ	2573	24560	5008	781
13:30	ZZZZZZ	6416 !a	60630 !a	12834 !a	747
13:35	ZZZZZZ	2379	22449	4710	775
13:40	ZZZZZZ	2624	24148	5311	748
13:45	ZZZZZZ	3594 !a	33553 !a	7214 !a	752
13:50	ZZZZZZ	2291	21670	4610	760
13:55	ZZZZZZ	4633 !a	42510 !a	9520 !a	712
14:00	ZZZZZZ	4195 !a	38614 !a	8867 !a	695
14:06	ZZZZZZ	2067	20117	4189	783
14:11	MA19824-CCV4	2023	19402	4071	706
14:15	MA19824-CCB4	2140	20675	4167	835
14:20	ZZZZZZ	2053	20011	4202	782
14:26	ZZZZZZ	2048	19744	4140	772
14:31	ZZZZZZ	2049	19945	4170	778
14:36	ZZZZZZ	2047	20007	4203	775
14:41	MP43111-MB1	2176	21178	4180	846
14:46	MP43111-B1	2019	19325	4064	709
14:51	FC10966-24	2030	19363	4110	729
14:56	MP43111-D1	2028	19390	4088	730
15:01	MP43111-SD1	2127	20558	4165	803
15:06	MP43111-PS1	2012	19217	4066	711
15:21	MA19824-CCV5	2037	19725	3993	711
15:27	MA19824-CCB5	2175	20746	4107	853
16:06	MA19824-CCV6	2036	19518	4058	712
16:18	MA19824-CCB6	2156	20847	4134	850

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:23	MP43111-S1	1953	18754	3987	672
16:27	MP43111-S2	1988	19055	4083	683
16:32	ZZZZZZ	2018	19322	4105	721
16:37	ZZZZZZ	1981	18985	4050	698
16:42	ZZZZZZ	2001	19443	4048	717
16:47	ZZZZZZ	2019	19557	4089	728
16:52	ZZZZZZ	2129	20759	4116	804
16:58	ZZZZZZ	1958	19014	3983	698
17:03	ZZZZZZ	1895	17963	4007	659
17:08	ZZZZZZ	1872	18128	3953	642
17:13	MA19824-CCV7	2009	19543	3990	704
17:18	MA19824-CCB7	2140	20885	4127	843
17:23	ZZZZZZ	1828	17328	3951	617
17:28	ZZZZZZ	1629	15301	3932	527
17:33	ZZZZZZ	1708	16202	4051	564
17:39	ZZZZZZ	1859	17591	4133	632
17:44	ZZZZZZ	1498	14241	3756	474 !a
17:55	ZZZZZZ	1794	17091	4155	606
18:00	ZZZZZZ	1538	14653	4016	489
18:05	ZZZZZZ	2065	20225	4192	771
18:10	ZZZZZZ	2062	20039	4202	767
18:15	MA19824-CCV8	2012	19640	4144	709
18:20	MA19824-CCB8	2151	21183	4086	852
18:25	ZZZZZZ	2108	20586	4154	800
18:30	ZZZZZZ	2092	19983	4091	773
18:35	ZZZZZZ	2100	20762	4146	802
18:40	ZZZZZZ	2109	20350	4048	797
18:45	ZZZZZZ	2082	20032	4153	781
18:50	ZZZZZZ	2395	23284	4595	833
18:55	ZZZZZZ	2473	23562	4670	815
19:00	ZZZZZZ	2457	23219	4703	800
19:05	ZZZZZZ	2393	22560	4601	801
19:10	MA19824-CCV9	2040	19443	4017	715

INTERNAL STANDARD SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19824
Parameters: Ba,Cd,Cr,Cu,Pb,Mg,Mn,Se,Ag

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
19:15	MA19824-CCB9	2156	20757	4084	849

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19824 Units: ug/l

Time: / Sample ID:			10:44 ICB1		11:15 CCB1		12:16 CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	14						
Antimony	20	1	anr					
Arsenic	10	1.3	anr					
Barium	200	.5	0.00	<200	0.00	<200	0.100	<200
Beryllium	5.0	.1	anr					
Boron	100	5						
Cadmium	4.0	.1	-0.100	<4.0	-0.100	<4.0	-0.100	<4.0
Calcium	5000	50	anr					
Chromium	10	.5	-0.200	<10	-0.200	<10	-0.100	<10
Cobalt	50	.2	anr					
Copper	25	1	-0.100	<25	0.800	<25	0.300	<25
Iron	300	15	anr					
Lead	20	1	-0.700	<20	-0.700	<20	-0.300	<20
Lithium	20	.5						
Magnesium	5000	35	10.3	<5000	-8.90	<5000	-5.30	<5000
Manganese	15	.25	-0.100	<15	0.00	<15	0.100	<15
Molybdenum	50	.3	anr					
Nickel	40	.4	anr					
Potassium	10000	100						
Selenium	20	2	-2.20	<20	-3.20	<20	-1.70	<20
Silver	10	.5	0.00	<10	0.100	<10	0.00	<10
Sodium	10000	250	anr					
Strontium	10	.25						
Thallium	10	1	anr					
Tin	50	.5						
Titanium	10	.5						
Vanadium	50	.5	anr					
Zinc	20	3	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19824 Units: ug/l

Time:		10:36			11:07			12:12	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	2000	2070	103.5	2000	1990	99.5	2000	2080	104.0
Beryllium	anr								
Boron									
Cadmium	2000	2060	103.0	2000	2030	101.5	2000	2060	103.0
Calcium	anr								
Chromium	2000	2070	103.5	2000	1990	99.5	2000	2010	100.5
Cobalt	anr								
Copper	2000	2060	103.0	2000	1990	99.5	2000	2050	102.5
Iron	anr								
Lead	2000	2070	103.5	2000	2030	101.5	2000	2050	102.5
Lithium									
Magnesium	40000	41500	103.8	40000	39900	99.8	40000	41700	104.3
Manganese	2000	2070	103.5	2000	2000	100.0	2000	2030	101.5
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	2000	2050	102.5	2000	2010	100.5	2000	2060	103.0
Silver	250	253	101.2	250	248	99.2	250	254	101.6
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19824 Units: ug/l

Time:		10:29	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	4000	3980	99.5
Beryllium	anr		
Boron			
Cadmium	4000	4020	100.5
Calcium	anr		
Chromium	4000	4040	101.0
Cobalt	anr		
Copper	4000	4040	101.0
Iron	anr		
Lead	4000	4070	101.8
Lithium			
Magnesium	80000	79400	99.3
Manganese	4000	4000	100.0
Molybdenum	anr		
Nickel	anr		
Potassium			
Selenium	4000	4080	102.0
Silver	500	500	100.0
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19824 Units: ug/l

Time:			10:14		10:20	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	400	200				
Antimony	10	5.0				
Arsenic	20	10				
Barium	400	200			200	100.0
Beryllium	10	5.0				
Boron	100	50				
Cadmium	10	5.0			5.10	102.0
Calcium	2000	1000				
Chromium	20	10			9.80	98.0
Cobalt	100	50				
Copper	50	25			25.0	100.0
Iron	600	300				
Lead	10	5.0			4.60	92.0
Lithium	18	9.0				
Magnesium	10000	5000			5050	101.0
Manganese	30	15			15.3	102.0
Molybdenum	100	50				
Nickel	80	40				
Potassium	20000	10000				
Selenium	20	10	8.40	84.0		
Silver	20	10			9.30	93.0
Sodium	20000	10000				
Strontium	20	10				
Thallium	20	10				
Tin	100	50				
Titanium	20	10				
Vanadium	100	50				
Zinc	40	20				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB111023M1.ICP Date Analyzed: 11/09/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19824 Units: ug/l

Time:			10:49		10:58	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	513000	102.6	510000	102.0
Antimony		1000	1.20		1030	103.0
Arsenic		1000	-2.00		1020	102.0
Barium		500	0.300		484	96.8
Beryllium		500	0.00		493	98.6
Boron		1000	0.700		1020	102.0
Cadmium		1000	0.100		953	95.3
Calcium	500000	500000	472000	94.4	475000	95.0
Chromium		500	0.300		481	96.2
Cobalt		500	0.400		463	92.6
Copper		500	0.00		537	107.4
Iron	500000	200000	466000	93.2	188000	94.0
Lead		1000	0.00		947	94.7
Lithium		1000	0.00		542	54.2
Magnesium	500000	500000	522000	104.4	530000	106.0
Manganese		500	0.00		501	100.2
Molybdenum		1000	-0.900		912	91.2
Nickel		1000	-0.400		894	89.4
Potassium			17.5		50.8	
Selenium		1000	0.100		942	94.2
Silver		1000	-0.700		1030	103.0
Sodium			289		299	
Strontium		1000	-0.400		1010	101.0
Thallium		1000	-0.400		918	91.8
Tin		1000	-0.800		884	88.4
Titanium		1000	-0.100		1010	101.0
Vanadium		500	0.00		511	102.2
Zinc		1000	1.10		923	92.3

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:32	MA19829-STD1	1		STD1
13:33	MA19829-STD2	1		STD2
13:34	MA19829-STD3	1		STD3
13:36	MA19829-STD4	1		STD4
13:37	MA19829-STD5	1		STD5
13:39	MA19829-STD6	1		STD6
13:41	MA19829-HSTD1	1		
13:43	MA19829-ICV1	1		
13:44	MA19829-ICB1	1		
13:46	MA19829-CRI1	1		
13:47	MA19829-CCV1	1		
13:49	MA19829-CCB1	1		
13:51	MP43131-MB1	1		
13:52	MP43131-B1	1		
13:53	FC10972-43	1		(sample used for QC only; not part of login FC10955)
13:55	MP43131-D1	1		
13:56	MP43131-SD1	5		
13:58	MP43131-S1	1		
13:59	MP43131-S2	1		
14:00	ZZZZZZ	1		
14:02	ZZZZZZ	1		
14:03	ZZZZZZ	1		
14:05	MA19829-CCV2	1		
14:06	MA19829-CCB2	1		
14:08	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:18	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:20	ZZZZZZ	1		
14:21	MA19829-CCV3	1		
14:22	MA19829-CCB3	1		
14:24	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:31	FC10955-1A	1		
---------->	Last reportable sample/prep for job FC10955			
14:32	MP43132-MB1	1		
14:33	MP43132-B1	1		
14:34	FC10972-53	1		(sample used for QC only; not part of login FC10955)
14:36	MP43132-D1	1		
14:37	MA19829-CCV4	1		
14:39	MA19829-CCB4	1		
14:40	MP43132-SD1	5		
14:42	MP43132-S1	1		
14:43	MP43132-S2	1		
14:45	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:48	ZZZZZZ	1		
14:49	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:54	MA19829-CCV5	1		
14:56	MA19829-CCB5	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:04	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:05	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:09	ZZZZZZ	1		
15:11	MA19829-CCV6	1		
15:12	MA19829-CCB6	1		
15:14	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:16	MP43133-MB1	1		
15:18	MP43133-B1	1		
15:19	FC11067-1	1		(sample used for QC only; not part of login FC10955)
15:21	MP43133-D1	1		
15:22	MP43133-SD1	5		
15:23	MP43133-S1	1		
15:25	MP43133-S2	1		
15:26	ZZZZZZ	1		
15:28	MA19829-CCV7	1		
15:29	MA19829-CCB7	1		
15:31	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:44	MA19829-CCV8	1		
15:46	MA19829-CCB8	1		
15:47	ZZZZZZ	1		
15:49	ZZZZZZ	1		
15:50	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:51	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:55	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:58	MA19829-CRI2	1		
15:59	MA19829-CCV9	1		
16:00	MA19829-CCB9	1		

----------> Last reportable CCB for job FC10955
Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
13:41	MA19829-HSTD1	1	X	
13:43	MA19829-ICV1	1	X	
13:44	MA19829-ICB1	1	X	
13:46	MA19829-CRI1	1	X	
13:47	MA19829-CCV1	1	X	
13:49	MA19829-CCB1	1	X	
13:51	MP43131-MB1	1	X	
13:52	MP43131-B1	1	X	
13:53	FC10972-43	1	X	(a)
13:55	MP43131-D1	1	X	
13:56	MP43131-SD1	5	X	
13:58	MP43131-S1	1	X	
13:59	MP43131-S2	1	X	
14:00	ZZZZZZ	1		
14:02	ZZZZZZ	1		
14:03	ZZZZZZ	1		
14:05	MA19829-CCV2	1	X	
14:06	MA19829-CCB2	1	X	
14:08	ZZZZZZ	1		
14:09	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:12	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:17	ZZZZZZ	1		
14:18	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	MA19829-CCV3	1	X	
14:22	MA19829-CCB3	1	X	
14:24	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:27	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
14:28	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:31	FC10955-1A	1	X	
14:32	MP43132-MB1	1	X	
14:33	MP43132-B1	1	X	
14:34	FC10972-53	1	X	(a)
14:36	MP43132-D1	1	X	
14:37	MA19829-CCV4	1	X	
14:39	MA19829-CCB4	1	X	
14:40	MP43132-SD1	5	X	
14:42	MP43132-S1	1	X	
14:43	MP43132-S2	1	X	
14:45	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:48	ZZZZZZ	1		
14:49	ZZZZZZ	1		
14:50	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:53	ZZZZZZ	1		
14:54	MA19829-CCV5	1	X	
14:56	MA19829-CCB5	1	X	
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:00	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:04	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:09	ZZZZZZ	1		
15:11	MA19829-CCV6	1	X	
15:12	MA19829-CCB6	1	X	
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
15:14	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:16	MP43133-MB1	1	X	
15:18	MP43133-B1	1	X	
15:19	FC11067-1	1	X	(a)
15:21	MP43133-D1	1	X	
15:22	MP43133-SD1	5	X	
15:23	MP43133-S1	1	X	
15:25	MP43133-S2	1	X	
15:26	ZZZZZZ	1		
15:28	MA19829-CCV7	1	X	
15:29	MA19829-CCB7	1	X	
15:31	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:39	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:42	ZZZZZZ	1		
15:43	ZZZZZZ	1		
15:44	MA19829-CCV8	1	X	
15:46	MA19829-CCB8	1	X	
15:47	ZZZZZZ	1		
15:49	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:55	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:58	MA19829-CRI2	1	X	
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
Analyst: ST Run ID: MA19829
Parameters: Hg

Time	Sample Description	Dilution	Element: Hg
15:59	MA19829-CCV9	1	X
16:00	MA19829-CCB9	1	X

(a) Sample used for QC only; not part of login FC10955.

Element: Hg

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA19829 Units: ug/l

Time:			13:44		13:49		14:06		14:22	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	-0.00800	<0.50	-0.00270	<0.50	-0.00370	<0.50	-0.00470	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA19829 Units: ug/l

Time: / Sample ID:			14:39 CCB4		14:56 CCB5		15:12 CCB6		15:29 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.50	.03	-0.00310	<0.50	-0.00210	<0.50	-0.00100	<0.50	-0.00420	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA19829 Units: ug/l

Time:			15:46		16:00	
Sample ID:			CCB8		CCB9	
Metal	RL	IDL	raw	final	raw	final
Mercury	0.50	.03	0.00150	<0.50	0.0240	<0.50

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA19829 Units: ug/l

Time:		13:43			13:47			14:05	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.94	98.0	3	2.92	97.3	3	3.01	100.3

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA19829 Units: ug/l

Time:		14:21			14:37			14:54	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.01	100.3	3	2.95	98.3	3	3.02	100.7

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA19829 Units: ug/l

Time:		15:11			15:28			15:44	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.99	99.7	3.0	3.00	100.0	3	2.97	99.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA19829 Units: ug/l

Time:		15:59	
Sample ID:	CCV	CCV9	
Metal	True	Results	% Rec
Mercury	3	2.89	96.3

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 95 to 105 % Recovery Run ID: MA19829 Units: ug/l

Time:		13:41	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Mercury	6	6.25	104.2

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: H51113W1.CSV Date Analyzed: 11/13/23 Methods: SW846 7470A
QC Limits: 80 to 120 % Recovery Run ID: MA19829 Units: ug/l

Time:			13:46		15:58	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.196	98.0	0.162	81.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	0.23	<2.0
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	10	.2	1		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	50		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	4.0	.2	.4		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	50		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	4.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	10	.58	1.7		

Associated samples MP43089: FC10955-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			11/04/23					11/04/23	
Metal	FC10954-1 Original	DUP	RPD	QC Limits	FC10954-1 Original	MS	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	1860	1900	2.1	0-20	1860	2090	200	115.0	80-120
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP43089: FC10955-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	FC10954-1 Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	1860	2090	200	115.0	0.0	20
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP43089: FC10955-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	205	200	102.5	80-120
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP43089: FC10955-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43089
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 11/04/23

Metal	Original	%DIF	QC Limits
Aluminum			
Antimony			
Arsenic			
Barium			
Beryllium			
Cadmium			
Calcium			
Chromium			
Cobalt			
Copper			
Iron			
Lead			
Magnesium			
Manganese			
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver			
Sodium			
Strontium			
Thallium			
Tin			
Titanium			
Vanadium			
Zinc			

Associated samples MP43089: FC10955-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1	-0.10	<200
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2	-0.10	<5.0
Calcium	1000	50	50		
Chromium	10	.5	1	-0.20	<10
Cobalt	50	.2	.2		
Copper	25	1	1	0.0	<25
Iron	300	15	17		
Lead	5.0	1	1.1	-0.30	<5.0
Lithium	10	.5	1.3		
Magnesium	5000	35	35	8.4	<5000
Manganese	15	.25	1	0.0	<15
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9	-2.5	<10
Silver	10	.5	.7	0.20	<10
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4		

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date:		11/08/23				11/08/23		
Metal	FC10963-23 Original	DUP	RPD	QC Limits	FC10963-23 Original	MS	Spikelot MPFLICP5 % Rec	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	526	540	2.6	0-20	526	700	200 87.0	80-120
Beryllium	anr							
Boron								
Cadmium	1.5	1.4	6.9	0-20	1.5	160	200 79.3N(a)	80-120
Calcium								
Chromium	114	116	1.7	0-20	114	284	200 85.0	80-120
Cobalt	anr							
Copper	149	153	2.6	0-20	149	317	200 84.0	80-120
Iron	anr							
Lead	60.4	63.6	5.2	0-20	60.4	268	200 103.8	80-120
Lithium								
Magnesium	83000	85900	3.4	0-20	83000	122000	45000 86.7	80-120
Manganese	2220	2280	2.7	0-20	2220	2410	200 95.0	80-120
Molybdenum	anr							
Nickel	anr							
Potassium								
Selenium	4.8	4.8	0.0	0-20	4.8	141	200 68.1N(a)	80-120
Silver	0.0	0.0	NC	0-20	0.0	179	200 89.5	80-120
Sodium	anr							
Strontium								
Thallium	anr							
Tin								
Titanium								
Vanadium	anr							
Zinc	anr							

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	FC10963-23 Original	MSD	Spikelot MPFLICP5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	526	693	200	83.5	1.0	20
Beryllium	anr					
Boron						
Cadmium	1.5	158	200	78.3N(a)	1.3	20
Calcium						
Chromium	114	282	200	84.0	0.7	20
Cobalt	anr					
Copper	149	314	200	82.5	1.0	20
Iron	anr					
Lead	60.4	263	200	101.3	1.9	20
Lithium						
Magnesium	83000	120000	45000	82.2	1.7	20
Manganese	2220	2390	200	85.0	0.8	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	4.8	135	200	65.1N(a)	4.3	20
Silver	0.0	177	200	88.5	1.1	20
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	BSP Result	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	188	200	94.0	80-120
Beryllium	anr			
Boron				
Cadmium	186	200	93.0	80-120
Calcium				
Chromium	195	200	97.5	80-120
Cobalt	anr			
Copper	189	200	94.5	80-120
Iron	anr			
Lead	184	200	92.0	80-120
Lithium				
Magnesium	41600	45000	92.4	80-120
Manganese	183	200	91.5	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	182	200	91.0	80-120
Silver	192	200	96.0	80-120
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	FC10963-23 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	526	562	6.9	0-10
Beryllium	anr			
Boron				
Cadmium	1.50	1.20	20.0 (a)	0-10
Calcium				
Chromium	114	125	9.7	0-10
Cobalt	anr			
Copper	149	155	4.2	0-10
Iron	anr			
Lead	60.4	45.2	25.2*(b)	0-10
Lithium				
Magnesium	83000	91900	10.7*(b)	0-10
Manganese	2220	2430	9.5	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	4.80	0.00	100.0(a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43108
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 11/08/23

Metal	Sample ml	Final ml	FC10963-23 Raw	FC10963-23 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	9.8	10	525.8	515.284	733.7	0.2	12.5	250	87.4	80-120
Beryllium										
Boron										
Cadmium	9.8	10	1.5	1.47	43.5	0.2	2.5	50	84.1	80-120
Calcium										
Chromium	9.8	10	113.5	111.23	156.7	0.2	2.5	50	90.9	80-120
Cobalt										
Copper	9.8	10	149	146.02	232.9	0.2	5	100	86.9	80-120
Iron										
Lead	9.8	10	60.4	59.192	112.3	0.2	2.5	50	106.2	80-120
Lithium										
Magnesium	9.8	10	83020	81359.6	86260	0.2	250	5000	98.0	80-120
Manganese	9.8	10	2216	2171.68	2211	0.2	2.5	50	78.6*(a)	80-120
Molybdenum										
Nickel										
Potassium										
Selenium	9.8	10	4.8	4.704	86.5	0.2	5	100	81.8	80-120
Silver	9.8	10			46.4	0.2	2.5	50	92.8	80-120
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP43108: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43131 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/23

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.50	.03	.03	-0.0045	<0.50

Associated samples MP43131: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43131
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 11/13/23 11/13/23

Metal	FC10972-43 Original	DUP	RPD	QC Limits	FC10972-43 Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.9	3	96.7	80-120

Associated samples MP43131: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43131 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/23

Metal	FC10972-43 Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	0.0	20

Associated samples MP43131: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43131
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 11/13/23

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	2.8	3	93.3	80-120

Associated samples MP43131: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43131 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/23

Metal	FC10972-43 Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP43131: FC10955-1A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19813

Instrument Detection Limits

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: LEEMANHG5 **Effective Date:** 10/01/12

Analyte	IDL ug/l
Mercury	.03

The above applies to the following instrument runs:
MA19829

Instrument Detection Limits

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19821

Instrument Detection Limits

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19824

Instrument Linear Ranges

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19813

Instrument Linear Ranges

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE1 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19821

Instrument Linear Ranges

Job Number: FC10955
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19824

Metals Analysis

Raw Data

Quantitation Report

File Name	001_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:12
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	640.02	4.266E-03	Pulse	0.50	3
As			1		ug/l	---	70.67	4.711E-04	Pulse	1.00	3
Mo			1		ug/l	---	466.67	2.092E-03	Pulse	0.50	3
Pb			1		ug/l	---	1,098.71	3.156E-04	Pulse	1.00	3
Be			1		ug/l	---	1.50	5.886E-06	Pulse	2.00	3
Ag			1		ug/l	---	80.67	5.202E-05	Pulse	0.50	3
Ba			1		ug/l	---	40.00	2.566E-05	Pulse	0.50	3
Tl			1		ug/l	---	206.67	5.942E-05	Pulse	0.50	3
Sn			1		ug/l	---	760.02	4.896E-04	Pulse	0.30	3
Sr			1		ug/l	---	250.00	1.610E-04	Pulse	0.50	3
Ca			1		ug/l	---	108.00	4.230E-04	Pulse	0.50	3
Ti			1		ug/l	---	135.39	5.374E-04	Pulse	0.50	3
Na			1		ug/l	---	13,606.30	5.326E-02	Pulse	1.00	3
Mg			1		ug/l	---	1,257.38	4.920E-03	Pulse	1.00	3
K			1		ug/l	---	44,794.05	1.753E-01	Pulse	1.00	3
V			1		ug/l	---	3,855.76	1.509E-02	Pulse	0.50	3
Mn			1		ug/l	---	214.00	1.426E-03	Pulse	0.50	3
Fe			1		ug/l	---	46,445.58	3.097E-01	Pulse	0.50	3
Co			1		ug/l	---	80.67	5.375E-04	Pulse	0.50	3
Ni			1		ug/l	---	219.33	1.460E-03	Pulse	0.50	3
Cu			1		ug/l	---	4,744.64	3.161E-02	Pulse	0.50	3
Zn			1		ug/l	---	1,553.74	6.964E-03	Pulse	1.00	3
Cd			1		ug/l	---	5.33	2.394E-05	Pulse	0.50	3
Al			1		ug/l	---	967.03	3.781E-03	Pulse	1.00	3
Se			1		ug/l	---	16.11	7.221E-05	Pulse	3.00	3
Sb			1		ug/l	---	110.33	4.946E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,481,816.17	1.03		Analog	0.50	3
1	Sc		255,494.34	1.29		Pulse	0.30	3
1	Ge		150,089.02	0.55		Pulse	0.30	3
1	In		1,553,419.03	1.87		Analog	0.30	3
1	Tb		4,582,722.83	0.86		Analog	0.50	3
1	Lu		3,768,008.50	0.85		Analog	0.50	3
1	Ge		223,087.68	0.27		Pulse	0.30	3
1	Li		3,509.23	0.15		Pulse	0.30	3

Quantitation Report

File Name	002_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:16
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	367.34	2.454E-03	Pulse	0.50	3
As			1		ug/l	---	55.00	3.675E-04	Pulse	1.00	3
Mo			1		ug/l	---	56.67	2.524E-04	Pulse	0.50	3
Pb			1		ug/l	---	933.36	2.626E-04	Pulse	1.00	3
Be			1		ug/l	---	0.17	6.467E-07	Pulse	2.00	3
Ag			1		ug/l	---	82.67	5.321E-05	Pulse	0.50	3
Ba			1		ug/l	---	44.67	2.862E-05	Pulse	0.50	3
Tl			1		ug/l	---	72.67	2.041E-05	Pulse	0.50	3
Sn			1		ug/l	---	253.34	1.633E-04	Pulse	0.30	3
Sr			1		ug/l	---	236.00	1.518E-04	Pulse	0.50	3
Ca			1		ug/l	---	87.33	3.388E-04	Pulse	0.50	3
Ti			1		ug/l	---	4.67	1.811E-05	Pulse	0.50	3
Na			1		ug/l	---	13,386.15	5.192E-02	Pulse	1.00	3
Mg			1		ug/l	---	960.03	3.724E-03	Pulse	1.00	3
K			1		ug/l	---	44,408.43	1.723E-01	Pulse	1.00	3
V			1		ug/l	---	3,935.11	1.526E-02	Pulse	0.50	3
Mn			1		ug/l	---	200.67	1.341E-03	Pulse	0.50	3
Fe			1		ug/l	---	6,923.35	4.625E-02	Pulse	0.50	3
Co			1		ug/l	---	68.67	4.592E-04	Pulse	0.50	3
Ni			1		ug/l	---	187.33	1.251E-03	Pulse	0.50	3
Cu			1		ug/l	---	4,233.85	2.828E-02	Pulse	0.50	3
Zn			1		ug/l	---	695.35	3.098E-03	Pulse	1.00	3
Cd			1		ug/l	---	0.67	2.969E-06	Pulse	0.50	3
Al			1		ug/l	---	391.00	1.517E-03	Pulse	1.00	3
Se			1		ug/l	---	16.00	7.128E-05	Pulse	3.00	3
Sb			1		ug/l	---	51.00	2.272E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,555,729.92	0.96		Analog	0.50	3
1	Sc		257,803.06	0.08		Pulse	0.30	3
1	Ge		149,684.38	0.48		Pulse	0.30	3
1	In		1,554,865.25	2.81		Analog	0.30	3
1	Tb		4,591,503.33	0.33		Analog	0.50	3
1	Lu		3,738,307.58	0.50		Analog	0.50	3
1	Ge		224,460.25	0.18		Pulse	0.30	3
1	Li		3,602.59	3.19		Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:19
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	346.00	2.276E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	55.67	3.663E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	42.00	1.839E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	936.36	2.581E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.33	5.127E-06	Pulse	2.00	3
Ag			1	0.000	ug/l	---	66.67	4.146E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	34.00	2.116E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	58.67	1.618E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	214.45	1.343E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	236.67	1.479E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	90.67	3.485E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	4.00	1.538E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	13,462.87	5.176E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	988.36	3.800E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	44,708.49	1.719E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	3,861.09	1.484E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	232.00	1.529E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	6,868.66	4.522E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	76.67	5.051E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	164.67	1.084E-03	Pulse	0.50	3
Cu			1	0.000	ug/l	---	4,404.55	2.900E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	704.68	3.086E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	4.67	2.043E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	329.67	1.267E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	17.67	7.738E-05	Pulse	3.00	3
Sb			1	0.000	ug/l	---	47.00	2.058E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,628,934.75	0.90	100.0	Analog	0.50	3
1	Sc		260,114.39	0.09	100.0	Pulse	0.30	3
1	Ge		151,895.11	0.94	100.0	Pulse	0.30	3
1	In		1,603,263.72	3.30	100.0	Analog	0.30	3
1	Tb		4,762,521.00	0.79	100.0	Analog	0.50	3
1	Lu		3,861,967.00	1.24	100.0	Analog	0.50	3
1	Ge		228,360.29	0.18	100.0	Pulse	0.30	3
1	Li		3,542.58	3.72	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:23
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.483	ug/l	1.65	4,409.21	2.889E-02	Pulse	0.50	3
As			1	0.467	ug/l	12.56	521.01	3.413E-03	Pulse	1.00	3
Mo			1	0.452	ug/l	0.54	2,016.79	8.860E-03	Pulse	0.50	3
Pb			1	0.472	ug/l	1.79	13,541.04	3.739E-03	Pulse	1.00	3
Be			1	0.452	ug/l	3.35	48.67	1.888E-04	Pulse	2.00	3
Ag			1	0.470	ug/l	1.90	7,288.89	4.603E-03	Pulse	0.50	3
Ba			1	0.465	ug/l	5.84	1,090.04	6.884E-04	Pulse	0.50	3
Tl			1	0.465	ug/l	0.78	18,048.81	4.984E-03	Pulse	0.50	3
Sn			1	0.428	ug/l	4.09	2,451.30	1.548E-03	Pulse	0.30	3
Sr			1	0.457	ug/l	2.27	2,919.58	1.843E-03	Pulse	0.50	3
Ca			1	50.978	ug/l	2.41	1,791.43	6.950E-03	Pulse	0.50	3
Ti			1	0.425	ug/l	28.80	94.67	3.670E-04	Pulse	0.50	3
Na			1	49.261	ug/l	0.54	95,656.29	3.711E-01	Pulse	1.00	3
Mg			1	49.625	ug/l	1.25	42,640.98	1.654E-01	Pulse	1.00	3
K			1	48.595	ug/l	0.37	76,010.62	2.949E-01	Pulse	1.00	3
V			1	0.467	ug/l	3.38	6,914.67	2.683E-02	Pulse	0.50	3
Mn			1	0.475	ug/l	1.92	2,606.86	1.708E-02	Pulse	0.50	3
Fe			1	49.355	ug/l	0.87	352,060.89	2.307E+00	Pulse	0.50	3
Co			1	0.492	ug/l	0.53	6,313.12	4.136E-02	Pulse	0.50	3
Ni			1	0.501	ug/l	2.98	1,826.10	1.196E-02	Pulse	0.50	3
Cu			1	0.500	ug/l	6.49	8,800.86	5.766E-02	Pulse	0.50	3
Zn			1	0.618	ug/l	1.01	1,714.08	7.530E-03	Pulse	1.00	3
Cd			1	0.475	ug/l	4.84	1,174.04	5.159E-03	Pulse	0.50	3
Al			1	51.479	ug/l	1.11	18,451.16	7.158E-02	Pulse	1.00	3
Se			1	0.483	ug/l	8.04	62.33	2.739E-04	Pulse	3.00	3
Sb			1	0.471	ug/l	1.87	3,289.66	1.445E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,621,756.00	0.74	99.8	Analog	0.50	3
1	Sc		257,763.34	0.35	99.1	Pulse	0.30	3
1	Ge		152,636.65	0.14	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,583,801.19	0.76	98.8	Analog	0.30	3
1	Tb		4,806,113.67	1.46	100.9	Analog	0.50	3
1	Lu		3,909,128.08	1.28	101.2	Analog	0.50	3
1	Ge		227,627.89	0.91	99.7	Pulse	0.30	3
1	Li		3,632.60	2.90	102.5	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:26
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.007	ug/l	1.28	8,810.83	5.773E-02	Pulse	0.50	3
As			1	1.024	ug/l	2.26	1,076.70	7.054E-03	Pulse	1.00	3
Mo			1	0.956	ug/l	3.61	4,233.86	1.854E-02	Pulse	0.50	3
Pb			1	0.971	ug/l	1.14	27,284.11	7.413E-03	Pulse	1.00	3
Be			1	0.946	ug/l	3.56	101.67	3.895E-04	Pulse	2.00	3
Ag			1	0.968	ug/l	0.94	15,189.34	9.438E-03	Pulse	0.50	3
Ba			1	0.927	ug/l	3.76	2,176.15	1.352E-03	Pulse	0.50	3
Tl			1	0.955	ug/l	1.95	37,589.15	1.021E-02	Pulse	0.50	3
Sn			1	0.914	ug/l	5.17	5,071.89	3.152E-03	Pulse	0.30	3
Sr			1	0.926	ug/l	1.92	5,766.30	3.583E-03	Pulse	0.50	3
Ca			1	96.326	ug/l	0.78	3,346.32	1.282E-02	Pulse	0.50	3
Ti			1	0.903	ug/l	16.73	198.67	7.614E-04	Pulse	0.50	3
Na			1	98.868	ug/l	0.47	180,782.55	6.927E-01	Pulse	1.00	3
Mg			1	102.209	ug/l	0.24	87,872.10	3.367E-01	Pulse	1.00	3
K			1	99.928	ug/l	1.00	110,874.65	4.248E-01	Pulse	1.00	3
V			1	0.891	ug/l	2.68	9,835.36	3.769E-02	Pulse	0.50	3
Mn			1	0.988	ug/l	0.42	5,173.42	3.389E-02	Pulse	0.50	3
Fe			1	102.694	ug/l	0.37	725,046.77	4.750E+00	Pulse	0.50	3
Co			1	1.015	ug/l	1.90	12,958.67	8.491E-02	Pulse	0.50	3
Ni			1	1.041	ug/l	1.31	3,616.38	2.369E-02	Pulse	0.50	3
Cu			1	1.033	ug/l	1.77	13,467.73	8.824E-02	Pulse	0.50	3
Zn			1	0.995	ug/l	4.22	2,337.82	1.024E-02	Pulse	1.00	3
Cd			1	0.991	ug/l	1.42	2,453.52	1.074E-02	Pulse	0.50	3
Al			1	96.872	ug/l	0.69	34,864.29	1.336E-01	Pulse	1.00	3
Se			1	1.066	ug/l	6.24	116.67	5.110E-04	Pulse	3.00	3
Sb			1	0.985	ug/l	1.86	6,857.71	3.003E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,680,747.42	0.92	101.4	Analog	0.50	3
1	Sc		260,990.36	0.29	100.3	Pulse	0.30	3
1	Ge		152,632.60	0.66	100.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,609,258.13	0.41	100.4	Analog	0.30	3
1	Tb		4,803,244.17	0.31	100.9	Analog	0.50	3
1	Lu		3,908,748.67	1.02	101.2	Analog	0.50	3
1	Ge		228,369.04	0.94	100.0	Pulse	0.30	3
1	Li		3,529.24	3.34	99.6	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:30
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.290	ug/l	0.86	89,128.72	5.687E-01	Pulse	0.50	3
As			1	10.445	ug/l	0.95	10,745.25	6.855E-02	Pulse	1.00	3
Mo			1	10.056	ug/l	0.72	45,069.78	1.933E-01	Pulse	0.50	3
Pb			1	10.487	ug/l	2.35	282,268.08	7.757E-02	Pulse	1.00	3
Be			1	10.498	ug/l	2.86	1,135.70	4.269E-03	Pulse	2.00	3
Ag			1	10.218	ug/l	2.03	161,901.77	9.922E-02	Pulse	0.50	3
Ba			1	9.996	ug/l	2.11	23,462.88	1.438E-02	Pulse	0.50	3
Tl			1	10.379	ug/l	2.10	403,357.24	1.108E-01	Pulse	0.50	3
Sn			1	9.891	ug/l	2.74	53,494.14	3.279E-02	Pulse	0.30	3
Sr			1	9.962	ug/l	2.46	60,523.36	3.709E-02	Pulse	0.50	3
Ca			1	1046.773	ug/l	0.93	36,155.67	1.359E-01	Pulse	0.50	3
Ti			1	10.323	ug/l	0.96	2,274.15	8.548E-03	Pulse	0.50	3
Na			1	1057.698	ug/l	1.17	1,838,114.54	6.908E+00	Analog	1.00	3
Mg			1	1071.920	ug/l	0.19	929,887.34	3.495E+00	Pulse	1.00	3
K			1	1045.473	ug/l	0.65	749,827.00	2.818E+00	Pulse	1.00	3
V			1	10.027	ug/l	0.40	72,365.39	2.720E-01	Pulse	0.50	3
Mn			1	10.407	ug/l	1.41	53,682.55	3.425E-01	Pulse	0.50	3
Fe			1	1065.709	ug/l	0.35	7,660,199.67	4.887E+01	Analog	0.50	3
Co			1	10.562	ug/l	0.91	137,681.49	8.784E-01	Pulse	0.50	3
Ni			1	10.711	ug/l	1.11	36,651.14	2.338E-01	Pulse	0.50	3
Cu			1	10.820	ug/l	1.95	101,766.52	6.493E-01	Pulse	0.50	3
Zn			1	10.800	ug/l	0.87	18,824.19	8.075E-02	Pulse	1.00	3
Cd			1	10.530	ug/l	1.26	26,574.40	1.140E-01	Pulse	0.50	3
Al			1	1025.269	ug/l	0.50	372,943.42	1.402E+00	Pulse	1.00	3
Se			1	10.407	ug/l	0.96	1,005.25	4.312E-03	Pulse	3.00	3
Sb			1	10.192	ug/l	1.18	71,979.27	3.088E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,639,880.75	2.29	100.3	Analog	0.50	3
1	Sc		266,063.44	0.26	102.3	Pulse	0.30	3
1	Ge		156,738.94	0.62	103.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,631,910.77	1.05	101.8	Analog	0.30	3
1	Tb		4,836,508.50	0.82	101.6	Analog	0.50	3
1	Lu		3,905,797.00	2.87	101.1	Analog	0.50	3
1	Ge		233,127.38	0.77	102.1	Pulse	0.30	3
1	Li		3,518.13	3.15	99.3	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:33
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	48.213	ug/l	0.64	417,014.77	2.656E+00	Pulse	0.50	3
As			1	49.018	ug/l	0.56	50,302.97	3.204E-01	Pulse	1.00	3
Mo			1	47.326	ug/l	0.48	214,031.91	9.092E-01	Pulse	0.50	3
Pb			1	49.195	ug/l	0.96	1,320,878.79	3.629E-01	Pulse	1.00	3
Be			1	49.054	ug/l	2.07	5,320.75	1.993E-02	Pulse	2.00	3
Ag			1	48.795	ug/l	1.28	758,219.38	4.737E-01	Pulse	0.50	3
Ba			1	47.606	ug/l	1.76	109,494.58	6.840E-02	Pulse	0.50	3
Tl			1	48.542	ug/l	1.26	1,886,497.00	5.184E-01	Analog	0.50	3
Sn			1	47.738	ug/l	2.03	252,456.88	1.577E-01	Pulse	0.30	3
Sr			1	47.709	ug/l	1.91	283,443.71	1.771E-01	Pulse	0.50	3
Ca			1	4907.131	ug/l	0.26	169,763.41	6.358E-01	Pulse	0.50	3
Ti			1	47.227	ug/l	1.56	10,426.34	3.905E-02	Pulse	0.50	3
Na			1	4885.160	ug/l	0.96	8,470,371.33	3.172E+01	Analog	1.00	3
Mg			1	4986.084	ug/l	1.10	4,337,185.50	1.624E+01	Analog	1.00	3
K			1	4996.090	ug/l	1.23	3,422,632.50	1.282E+01	Analog	1.00	3
V			1	48.186	ug/l	0.75	333,926.90	1.251E+00	Pulse	0.50	3
Mn			1	49.075	ug/l	0.24	252,697.12	1.609E+00	Pulse	0.50	3
Fe			1	4907.636	ug/l	0.55	35,310,090.67	2.249E+02	Analog	0.50	3
Co			1	49.355	ug/l	1.10	644,161.12	4.103E+00	Pulse	0.50	3
Ni			1	49.838	ug/l	0.92	170,200.36	1.084E+00	Pulse	0.50	3
Cu			1	49.955	ug/l	0.55	454,209.61	2.893E+00	Pulse	0.50	3
Zn			1	49.357	ug/l	0.54	84,281.80	3.580E-01	Pulse	1.00	3
Cd			1	48.675	ug/l	1.07	124,027.95	5.269E-01	Pulse	0.50	3
Al			1	5002.585	ug/l	1.44	1,824,870.12	6.834E+00	Analog	1.00	3
Se			1	48.889	ug/l	0.37	4,701.29	1.997E-02	Pulse	3.00	3
Sb			1	47.877	ug/l	0.36	341,257.02	1.450E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,639,450.17	0.82	100.3	Analog	0.50	3
1	Sc		267,025.20	0.46	102.7	Pulse	0.30	3
1	Ge		157,008.77	0.68	103.4	Pulse	0.30	3
1	In		1,600,909.73	1.21	99.9	Analog	0.30	3
1	Tb		4,871,689.33	1.06	102.3	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,985,193.00	1.11	103.2	Analog	0.50	3
1	Ge		235,409.51	0.16	103.1	Pulse	0.30	3
1	Li		3,642.60	6.13	102.8	Pulse	0.30	3

Quantitation Report

File Name	008CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:37
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.805	ug/l	1.27	847,293.73	5.551E+00	Pulse	0.50	3
As			1	101.072	ug/l	0.99	100,777.86	6.602E-01	Pulse	1.00	3
Mo			1	99.252	ug/l	0.23	435,669.98	1.907E+00	Pulse	0.50	3
Pb			1	101.269	ug/l	1.10	2,631,274.92	7.469E-01	Analog	1.00	3
Be			1	99.760	ug/l	0.93	10,598.31	4.052E-02	Pulse	2.00	3
Ag			1	100.581	ug/l	1.44	1,514,272.00	9.763E-01	Pulse	0.50	3
Ba			1	99.655	ug/l	1.37	222,054.60	1.432E-01	Pulse	0.50	3
Tl			1	101.634	ug/l	1.71	3,823,420.08	1.085E+00	Analog	0.50	3
Sn			1	99.510	ug/l	1.23	509,707.90	3.286E-01	Pulse	0.30	3
Sr			1	99.420	ug/l	0.60	572,128.31	3.689E-01	Pulse	0.50	3
Ca			1	9967.358	ug/l	0.16	337,668.56	1.291E+00	Pulse	0.50	3
Ti			1	99.521	ug/l	1.43	21,516.73	8.227E-02	Pulse	0.50	3
Na			1	9993.279	ug/l	0.67	16,957,588.00	6.483E+01	Analog	1.00	3
Mg			1	10085.282	ug/l	0.71	8,592,383.67	3.285E+01	Analog	1.00	3
K			1	10023.871	ug/l	0.63	6,681,402.67	2.554E+01	Analog	1.00	3
V			1	100.170	ug/l	0.14	675,781.54	2.584E+00	Pulse	0.50	3
Mn			1	101.389	ug/l	1.49	507,299.66	3.324E+00	Pulse	0.50	3
Fe			1	10177.978	ug/l	0.81	71,192,504.00	4.664E+02	Analog	0.50	3
Co			1	101.840	ug/l	0.95	1,292,204.29	8.465E+00	Pulse	0.50	3
Ni			1	102.295	ug/l	1.01	339,478.04	2.224E+00	Pulse	0.50	3
Cu			1	102.902	ug/l	0.69	904,962.87	5.928E+00	Pulse	0.50	3
Zn			1	101.438	ug/l	0.50	167,392.26	7.325E-01	Pulse	1.00	3
Cd			1	100.435	ug/l	0.39	248,413.61	1.087E+00	Pulse	0.50	3
Al			1	10083.957	ug/l	1.34	3,602,776.58	1.378E+01	Analog	1.00	3
Se			1	101.188	ug/l	0.59	9,426.60	4.125E-02	Pulse	3.00	3
Sb			1	99.770	ug/l	0.60	690,229.16	3.021E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,523,555.33	1.82	97.1	Analog	0.50	3
1	Sc		261,555.99	0.63	100.6	Pulse	0.30	3
1	Ge		152,655.24	1.06	100.5	Pulse	0.30	3
1	In		1,551,184.94	1.30	96.8	Mix	0.30	3
1	Tb		4,739,025.67	1.63	99.5	Analog	0.50	3
1	Lu		3,889,405.67	1.20	100.7	Analog	0.50	3
1	Ge		228,511.72	0.62	100.1	Pulse	0.30	3
1	Li		3,673.71	5.82	103.7	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:40
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.030	ug/l	1.76	1,632,108.54	1.101E+01	Analog	0.50	3
As			1	199.687	ug/l	0.89	193,260.76	1.304E+00	Pulse	1.00	3
Mo			1	201.040	ug/l	0.53	846,594.13	3.862E+00	Pulse	0.50	3
Pb			1	199.543	ug/l	0.52	4,955,262.17	1.471E+00	Analog	1.00	3
Be			1	200.332	ug/l	0.51	20,493.26	8.137E-02	Pulse	2.00	3
Ag			1	128.619	ug/l	0.69	1,856,155.21	1.248E+00	Analog	0.50	3
Ba			1	200.772	ug/l	0.72	428,771.85	2.884E-01	Pulse	0.50	3
Tl			1	199.529	ug/l	0.71	7,175,378.17	2.131E+00	Analog	0.50	3
Sn			1	200.816	ug/l	0.55	985,735.17	6.630E-01	Pulse	0.30	3
Sr			1	200.865	ug/l	0.12	1,107,699.63	7.451E-01	Pulse	0.50	3
Ca			1	20037.215	ug/l	1.45	653,498.63	2.595E+00	Pulse	0.50	3
Ti			1	200.917	ug/l	0.59	41,827.12	1.661E-01	Pulse	0.50	3
Na			1	20029.193	ug/l	2.41	32,708,729.33	1.299E+02	Analog	1.00	3
Mg			1	19957.232	ug/l	1.91	16,369,341.00	6.500E+01	Analog	1.00	3
K			1	19986.772	ug/l	1.13	12,784,742.33	5.076E+01	Analog	1.00	3
V			1	200.368	ug/l	0.95	1,297,853.42	5.153E+00	Pulse	0.50	3
Mn			1	199.517	ug/l	0.88	969,067.86	6.539E+00	Pulse	0.50	3
Fe			1	19930.805	ug/l	1.39	135,341,242.67	9.132E+02	Analog	0.50	3
Co			1	199.213	ug/l	1.12	2,454,130.92	1.656E+01	Analog	0.50	3
Ni			1	198.857	ug/l	1.05	640,584.77	4.322E+00	Pulse	0.50	3
Cu			1	198.519	ug/l	1.78	1,690,938.21	1.141E+01	Analog	0.50	3
Zn			1	199.401	ug/l	0.73	315,038.24	1.437E+00	Pulse	1.00	3
Cd			1	200.088	ug/l	0.99	474,787.32	2.166E+00	Pulse	0.50	3
Al			1	19956.124	ug/l	0.88	6,865,423.67	2.726E+01	Analog	1.00	3
Se			1	199.663	ug/l	0.61	17,828.46	8.132E-02	Pulse	3.00	3
Sb			1	200.636	ug/l	0.84	1,331,642.04	6.074E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,367,665.58	1.20	92.8	Analog	0.50	3
1	Sc		251,878.48	1.71	96.8	Pulse	0.30	3
1	Ge		148,216.02	1.16	97.6	Pulse	0.30	3
1	In		1,486,702.44	0.73	92.7	Pulse	0.30	3
1	Tb		4,686,358.17	1.12	98.4	Analog	0.50	3
1	Lu		3,832,230.50	0.96	99.2	Analog	0.50	3
1	Ge		219,241.54	1.16	96.0	Pulse	0.30	3
1	Li		3,405.89	0.48	96.1	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:43
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.362	ug/l	2.01	811,844.69	5.471E+00	Pulse	0.50	3
As			1	99.822	ug/l	1.15	96,753.78	6.520E-01	Pulse	1.00	3
Mo			1	99.284	ug/l	1.48	420,742.67	1.907E+00	Pulse	0.50	3
Pb			1	98.840	ug/l	3.16	2,581,102.25	7.289E-01	Analog	1.00	3
Be			1	100.294	ug/l	0.81	10,340.50	4.074E-02	Pulse	2.00	3
Ag			1	100.628	ug/l	0.52	1,463,960.50	9.768E-01	Pulse	0.50	3
Ba			1	99.692	ug/l	0.80	214,654.09	1.432E-01	Pulse	0.50	3
Tl			1	98.879	ug/l	3.00	3,738,663.83	1.056E+00	Analog	0.50	3
Sn			1	99.251	ug/l	0.71	491,253.21	3.278E-01	Pulse	0.30	3
Sr			1	98.983	ug/l	0.64	550,395.58	3.672E-01	Pulse	0.50	3
Ca			1	9893.600	ug/l	0.81	325,273.81	1.281E+00	Pulse	0.50	3
Ti			1	98.939	ug/l	1.36	20,760.51	8.179E-02	Pulse	0.50	3
Na			1	10012.229	ug/l	0.53	16,488,481.67	6.496E+01	Analog	1.00	3
Mg			1	10021.349	ug/l	1.89	8,285,835.33	3.264E+01	Analog	1.00	3
K			1	9990.244	ug/l	0.62	6,462,504.17	2.546E+01	Analog	1.00	3
V			1	98.900	ug/l	1.56	647,538.54	2.551E+00	Pulse	0.50	3
Mn			1	99.734	ug/l	1.59	485,104.27	3.269E+00	Pulse	0.50	3
Fe			1	9978.033	ug/l	1.39	67,842,469.33	4.572E+02	Analog	0.50	3
Co			1	100.237	ug/l	1.50	1,236,344.41	8.332E+00	Pulse	0.50	3
Ni			1	100.741	ug/l	2.03	324,978.96	2.190E+00	Pulse	0.50	3
Cu			1	100.391	ug/l	1.54	858,310.96	5.784E+00	Pulse	0.50	3
Zn			1	100.972	ug/l	2.00	160,863.26	7.292E-01	Pulse	1.00	3
Cd			1	101.413	ug/l	1.99	242,156.36	1.098E+00	Pulse	0.50	3
Al			1	10030.539	ug/l	1.28	3,478,063.00	1.370E+01	Analog	1.00	3
Se			1	101.159	ug/l	1.66	9,098.10	4.124E-02	Pulse	3.00	3
Sb			1	100.233	ug/l	1.97	669,459.21	3.035E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,542,498.08	2.58	97.6	Analog	0.50	3
1	Sc		253,840.52	0.66	97.6	Pulse	0.30	3
1	Ge		148,393.99	0.74	97.7	Pulse	0.30	3
1	In		1,498,779.00	0.12	93.5	Pulse	0.30	3
1	Tb		4,684,172.33	0.43	98.4	Analog	0.50	3
1	Lu		3,866,035.92	0.73	100.1	Analog	0.50	3
1	Ge		220,629.65	0.86	96.6	Pulse	0.30	3
1	Li		3,442.56	7.21	97.2	Pulse	0.30	3

Quantitation Report

File Name 011HSTD.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:46
Sample Name HSTD
Sample Type HSTD
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	199.419	ug/l	2.91	1,598,062.21	1.098E+01	Analog	0.50	3
As			1	200.721	ug/l	1.51	190,796.62	1.311E+00	Pulse	1.00	3
Mo			1	204.232	ug/l	0.70	844,826.87	3.923E+00	Pulse	0.50	3
Pb			1	202.488	ug/l	0.79	5,025,659.83	1.493E+00	Analog	1.00	3
Be			1	206.361	ug/l	1.29	20,599.21	8.381E-02	Pulse	2.00	3
Ag			1	124.473	ug/l	2.20	1,760,674.71	1.208E+00	Analog	0.50	3
Ba			1	203.574	ug/l	1.33	426,171.54	2.924E-01	Pulse	0.50	3
Tl			1	203.876	ug/l	0.28	7,328,028.33	2.177E+00	Analog	0.50	3
Sn			1	203.129	ug/l	1.35	977,368.57	6.707E-01	Pulse	0.30	3
Sr			1	202.262	ug/l	1.27	1,093,312.25	7.502E-01	Pulse	0.50	3
Ca			1	20322.428	ug/l	1.53	646,815.29	2.632E+00	Pulse	0.50	3
Ti			1	202.815	ug/l	0.96	41,201.13	1.676E-01	Pulse	0.50	3
Na			1	20428.490	ug/l	1.42	32,559,501.33	1.325E+02	Analog	1.00	3
Mg			1	20367.215	ug/l	2.46	16,302,816.00	6.634E+01	Analog	1.00	3
K			1	20233.868	ug/l	1.92	12,629,158.33	5.139E+01	Analog	1.00	3
V			1	202.680	ug/l	1.70	1,281,042.54	5.213E+00	Pulse	0.50	3
Mn			1	201.701	ug/l	1.59	962,209.33	6.610E+00	Pulse	0.50	3
Fe			1	20076.717	ug/l	1.54	133,904,109.33	9.199E+02	Analog	0.50	3
Co			1	203.129	ug/l	1.97	2,457,781.08	1.688E+01	Analog	0.50	3
Ni			1	199.315	ug/l	1.63	630,605.46	4.332E+00	Pulse	0.50	3
Cu			1	200.672	ug/l	1.22	1,678,954.42	1.153E+01	Analog	0.50	3
Zn			1	201.353	ug/l	0.96	312,489.68	1.451E+00	Pulse	1.00	3
Cd			1	202.589	ug/l	0.94	472,232.09	2.193E+00	Pulse	0.50	3
Al			1	20266.238	ug/l	2.74	6,803,025.00	2.768E+01	Analog	1.00	3
Se			1	200.989	ug/l	0.33	17,629.37	8.186E-02	Pulse	3.00	3
Sb			1	203.340	ug/l	0.88	1,325,740.84	6.156E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,365,900.50	0.35	92.8	Analog	0.50	3
1	Sc		245,786.76	0.92	94.5	Pulse	0.30	3
1	Ge		145,577.63	1.02	95.8	Pulse	0.30	3
1	In		1,457,308.87	0.37	90.9	Pulse	0.30	3
1	Tb		4,581,023.00	0.89	96.2	Analog	0.50	3
1	Lu		3,766,200.75	1.53	97.5	Analog	0.50	3
1	Ge		215,355.80	0.36	94.3	Pulse	0.30	3
1	Li		3,390.32	4.13	95.7	Pulse	0.30	3

Quantitation Report

File Name	012_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:49
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	106.092	ug/l	0.73	850,689.88	5.842E+00	Pulse	0.50	3
As			1	105.782	ug/l	0.77	100,615.71	6.909E-01	Pulse	1.00	3
Mo			1	108.056	ug/l	2.02	452,097.21	2.076E+00	Pulse	0.50	3
Pb			1	106.755	ug/l	2.85	2,722,719.42	7.873E-01	Analog	1.00	3
Be			1	106.553	ug/l	2.40	10,776.91	4.328E-02	Pulse	2.00	3
Ag			1	50.808	ug/l	1.01	723,756.92	4.932E-01	Pulse	0.50	3
Ba			1	102.213	ug/l	1.41	215,486.59	1.468E-01	Pulse	0.50	3
Tl			1	105.035	ug/l	2.12	3,879,190.33	1.122E+00	Analog	0.50	3
Sn			1	102.814	ug/l	1.82	498,249.27	3.395E-01	Pulse	0.30	3
Sr			1	108.608	ug/l	1.41	591,289.67	4.029E-01	Pulse	0.50	3
Ca			1	10479.699	ug/l	2.58	337,976.71	1.357E+00	Pulse	0.50	3
Ti			1	110.922	ug/l	3.06	22,829.64	9.169E-02	Pulse	0.50	3
Na			1	10384.768	ug/l	2.21	16,776,255.33	6.737E+01	Analog	1.00	3
Mg			1	11087.025	ug/l	2.86	8,992,370.00	3.611E+01	Analog	1.00	3
K			1	10399.903	ug/l	2.02	6,597,965.17	2.650E+01	Analog	1.00	3
V			1	105.787	ug/l	2.80	679,183.73	2.728E+00	Pulse	0.50	3
Mn			1	106.121	ug/l	0.58	506,542.51	3.479E+00	Pulse	0.50	3
Fe			1	10617.426	ug/l	0.36	70,843,104.00	4.865E+02	Analog	0.50	3
Co			1	107.001	ug/l	0.55	1,295,179.25	8.894E+00	Pulse	0.50	3
Ni			1	105.819	ug/l	0.72	335,003.98	2.301E+00	Pulse	0.50	3
Cu			1	107.815	ug/l	0.46	904,295.33	6.210E+00	Pulse	0.50	3
Zn			1	104.149	ug/l	2.20	163,800.00	7.520E-01	Pulse	1.00	3
Cd			1	105.588	ug/l	2.32	248,928.81	1.143E+00	Pulse	0.50	3
Al			1	10548.779	ug/l	2.90	3,587,917.58	1.441E+01	Analog	1.00	3
Se			1	101.153	ug/l	1.68	8,982.15	4.124E-02	Pulse	3.00	3
Sb			1	105.013	ug/l	1.82	692,500.14	3.179E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,459,053.33	1.15	95.3	Analog	0.50	3
1	Sc		249,070.35	1.71	95.8	Pulse	0.30	3
1	Ge		145,615.52	0.60	95.9	Pulse	0.30	3
1	In		1,467,521.50	0.56	91.5	Pulse	0.30	3
1	Tb		4,631,256.00	1.22	97.2	Analog	0.50	3
1	Lu		3,811,464.42	2.22	98.7	Analog	0.50	3
1	Ge		217,835.78	0.90	95.4	Pulse	0.30	3
1	Li		3,704.83	4.49	104.6	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 11:53
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.030	ug/l	65.90	583.35	3.920E-03	Pulse	0.50	3
As			1	0.045	ug/l	36.32	98.67	6.627E-04	Pulse	1.00	3
Mo			1	0.239	ug/l	30.14	1,064.04	4.768E-03	Pulse	0.50	3
Pb			1	0.043	ug/l	41.42	2,106.81	5.757E-04	Pulse	1.00	3
Be			1	0.050	ug/l	32.54	6.50	2.559E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	60.06	274.67	1.753E-04	Pulse	0.50	3
Ba			1	0.027	ug/l	50.85	93.33	5.964E-05	Pulse	0.50	3
Tl			1	0.052	ug/l	8.40	2,096.14	5.735E-04	Pulse	0.50	3
Sn			1	0.157	ug/l	16.99	1,015.59	6.528E-04	Pulse	0.30	3
Sr			1	0.023	ug/l	50.40	366.01	2.343E-04	Pulse	0.50	3
Ca			1	2.502	ug/l	15.04	170.67	6.726E-04	Pulse	0.50	3
Ti			1	0.035	ug/l	147.65	11.33	4.452E-05	Pulse	0.50	3
Na			1	3.395	ug/l	40.44	18,722.92	7.377E-02	Pulse	1.00	3
Mg			1	2.948	ug/l	57.29	3,404.69	1.340E-02	Pulse	1.00	3
K			1	4.381	ug/l	25.55	46,423.39	1.830E-01	Pulse	1.00	3
V			1	-0.334	ug/l	-7.30	1,592.08	6.273E-03	Pulse	0.50	3
Mn			1	0.030	ug/l	58.94	373.34	2.509E-03	Pulse	0.50	3
Fe			1	3.552	ug/l	44.13	30,937.40	2.080E-01	Pulse	0.50	3
Co			1	0.036	ug/l	40.81	517.34	3.477E-03	Pulse	0.50	3
Ni			1	0.024	ug/l	78.19	240.00	1.613E-03	Pulse	0.50	3
Cu			1	-0.018	ug/l	-168.39	4,163.16	2.795E-02	Pulse	0.50	3
Zn			1	0.022	ug/l	214.62	724.02	3.243E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	28.49	80.00	3.582E-04	Pulse	0.50	3
Al			1	2.965	ug/l	49.77	1,350.39	5.317E-03	Pulse	1.00	3
Se			1	0.072	ug/l	17.32	23.78	1.065E-04	Pulse	3.00	3
Sb			1	0.081	ug/l	1.82	590.68	2.646E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,654,981.00	1.46	100.7	Analog	0.50	3
1	Sc		253,715.17	0.63	97.5	Pulse	0.30	3
1	Ge		148,965.16	0.78	98.1	Pulse	0.30	3
1	In		1,558,281.60	2.02	97.2	Analog	0.30	3
1	Tb		4,765,950.00	0.23	100.1	Analog	0.50	3
1	Lu		3,906,535.00	1.49	101.2	Analog	0.50	3
1	Ge		223,278.64	0.62	97.8	Pulse	0.30	3
1	Li		3,598.14	4.87	101.6	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:56
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.965	ug/l	1.95	8,361.28	5.537E-02	Pulse	0.50	3
As			1	0.977	ug/l	2.44	1,018.70	6.746E-03	Pulse	1.00	3
Mo			1	1.000	ug/l	3.94	4,360.56	1.939E-02	Pulse	0.50	3
Pb			1	0.958	ug/l	0.34	27,029.66	7.321E-03	Pulse	1.00	3
Be			1	1.042	ug/l	6.61	110.50	4.283E-04	Pulse	2.00	3
Ag			1	0.975	ug/l	1.15	14,852.37	9.508E-03	Pulse	0.50	3
Ba			1	0.929	ug/l	1.92	2,117.47	1.356E-03	Pulse	0.50	3
Tl			1	0.939	ug/l	1.41	37,096.65	1.005E-02	Pulse	0.50	3
Sn			1	0.994	ug/l	5.12	5,334.20	3.416E-03	Pulse	0.30	3
Sr			1	0.919	ug/l	4.45	5,552.89	3.556E-03	Pulse	0.50	3
Ca			1	100.108	ug/l	4.01	3,435.01	1.331E-02	Pulse	0.50	3
Ti			1	0.948	ug/l	13.29	206.00	7.986E-04	Pulse	0.50	3
Na			1	98.569	ug/l	0.24	178,233.17	6.907E-01	Pulse	1.00	3
Mg			1	100.305	ug/l	0.79	85,276.19	3.305E-01	Pulse	1.00	3
K			1	99.394	ug/l	1.14	109,266.19	4.235E-01	Pulse	1.00	3
V			1	0.591	ug/l	5.59	7,737.67	2.999E-02	Pulse	0.50	3
Mn			1	0.993	ug/l	5.15	5,145.42	3.407E-02	Pulse	0.50	3
Fe			1	101.147	ug/l	0.82	706,577.94	4.679E+00	Pulse	0.50	3
Co			1	0.990	ug/l	1.18	12,498.35	8.278E-02	Pulse	0.50	3
Ni			1	0.993	ug/l	1.27	3,422.34	2.266E-02	Pulse	0.50	3
Cu			1	0.989	ug/l	2.85	12,939.34	8.570E-02	Pulse	0.50	3
Zn			1	1.034	ug/l	1.45	2,365.83	1.052E-02	Pulse	1.00	3
Cd			1	0.974	ug/l	5.53	2,376.84	1.057E-02	Pulse	0.50	3
Al			1	95.078	ug/l	0.53	33,836.73	1.311E-01	Pulse	1.00	3
Se			1	0.989	ug/l	10.53	107.89	4.797E-04	Pulse	3.00	3
Sb			1	0.976	ug/l	2.14	6,688.65	2.974E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,692,263.75	0.39	101.7	Analog	0.50	3
1	Sc		258,034.72	0.77	99.2	Pulse	0.30	3
1	Ge		150,997.56	0.49	99.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,562,278.72	1.81	97.4	Analog	0.30	3
1	Tb		4,773,315.67	0.47	100.2	Analog	0.50	3
1	Lu		3,939,476.00	1.76	102.0	Analog	0.50	3
1	Ge		224,919.04	0.42	98.5	Pulse	0.30	3
1	Li		3,499.23	4.51	98.8	Pulse	0.30	3

Quantitation Report

File Name 015ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 11:59
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.402	ug/l	2.00	11,198.14	7.947E-02	Pulse	0.50	3
As			1	0.090	ug/l	26.94	134.00	9.516E-04	Pulse	1.00	3
Mo			1	2105.235	ug/l	0.51	8,125,665.00	4.044E+01	Analog	0.50	3
Pb			1	0.211	ug/l	0.52	5,700.69	1.817E-03	Pulse	1.00	3
Be			1	0.028	ug/l	49.80	4.00	1.643E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	4.08	380.68	2.780E-04	Pulse	0.50	3
Ba			1	0.341	ug/l	3.69	699.35	5.109E-04	Pulse	0.50	3
Tl			1	0.014	ug/l	13.52	526.01	1.676E-04	Pulse	0.50	3
Sn			1	0.140	ug/l	22.40	817.80	5.959E-04	Pulse	0.30	3
Sr			1	0.745	ug/l	0.17	3,987.14	2.912E-03	Pulse	0.50	3
Ca			1	98965.478	ug/l	1.58	3,130,507.83	1.282E+01	Analog	0.50	3
Ti			1	2045.086	ug/l	2.03	412,842.27	1.690E+00	Pulse	0.50	3
Na			1	98737.168	ug/l	1.63	156,349,952.00	6.401E+02	Analog	1.00	3
Mg			1	98244.977	ug/l	2.41	78,159,146.67	3.200E+02	Analog	1.00	3
K			1	98629.971	ug/l	1.57	61,022,832.00	2.498E+02	Analog	1.00	3
V			1	-0.295	ug/l	-1.57	1,776.09	7.270E-03	Pulse	0.50	3
Mn			1	0.363	ug/l	1.48	1,892.11	1.343E-02	Pulse	0.50	3
Fe			1	97596.028	ug/l	1.33	630,204,480.00	4.472E+03	Analog	0.50	3
Co			1	0.676	ug/l	2.47	7,991.79	5.671E-02	Pulse	0.50	3
Ni			1	0.441	ug/l	7.42	1,502.73	1.067E-02	Pulse	0.50	3
Cu			1	-0.038	ug/l	-73.41	3,773.75	2.680E-02	Pulse	0.50	3
Zn			1	0.882	ug/l	7.68	1,893.77	9.427E-03	Pulse	1.00	3
Cd			1	0.856	ug/l	7.02	1,868.11	9.291E-03	Pulse	0.50	3
Al			1	97888.689	ug/l	2.49	32,659,246.67	1.337E+02	Analog	1.00	3
Se			1	0.101	ug/l	19.81	23.78	1.183E-04	Pulse	3.00	3
Sb			1	0.107	ug/l	7.72	694.68	3.455E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,137,738.00	0.64	86.5	Analog	0.50	3
1	Sc		244,282.51	1.56	93.9	Pulse	0.30	3
1	Ge		140,935.59	1.96	92.8	Pulse	0.30	3
1	In		1,369,226.02	2.13	85.4	Pulse	0.30	3
1	Tb		4,462,365.67	0.54	93.7	Analog	0.50	3
1	Lu		3,702,026.33	1.47	95.9	Analog	0.50	3
1	Ge		200,941.58	1.38	88.0	Pulse	0.30	3
1	Li		3,080.27	7.58	86.9	Pulse	0.30	3

Quantitation Report

File Name	016ICSB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:03
Sample Name	ICSAB
Sample Type	ICSAB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.230	ug/l	1.56	156,902.17	1.116E+00	Pulse	0.50	3
As			1	20.161	ug/l	1.07	18,557.99	1.320E-01	Pulse	1.00	3
Mo			1	2163.681	ug/l	1.61	8,376,521.33	4.156E+01	Analog	0.50	3
Pb			1	0.214	ug/l	4.15	5,734.37	1.838E-03	Pulse	1.00	3
Be			1	0.030	ug/l	11.46	4.17	1.724E-05	Pulse	2.00	3
Ag			1	18.986	ug/l	2.13	249,949.97	1.843E-01	Pulse	0.50	3
Ba			1	0.325	ug/l	17.75	661.35	4.881E-04	Pulse	0.50	3
Tl			1	0.011	ug/l	6.16	429.34	1.376E-04	Pulse	0.50	3
Sn			1	0.109	ug/l	20.91	670.02	4.941E-04	Pulse	0.30	3
Sr			1	0.755	ug/l	2.53	3,995.80	2.946E-03	Pulse	0.50	3
Ca			1	102920.594	ug/l	0.97	3,222,820.58	1.333E+01	Analog	0.50	3
Ti			1	2117.279	ug/l	2.96	423,093.53	1.750E+00	Pulse	0.50	3
Na			1	102716.754	ug/l	1.58	161,019,605.33	6.659E+02	Analog	1.00	3
Mg			1	102647.169	ug/l	2.97	80,831,698.67	3.343E+02	Analog	1.00	3
K			1	102898.439	ug/l	2.64	63,018,010.67	2.606E+02	Analog	1.00	3
V			1	-0.257	ug/l	-10.12	1,996.78	8.262E-03	Pulse	0.50	3
Mn			1	20.166	ug/l	1.16	93,123.17	6.623E-01	Pulse	0.50	3
Fe			1	100570.928	ug/l	0.95	647,888,682.67	4.608E+03	Analog	0.50	3
Co			1	19.981	ug/l	1.43	233,611.44	1.661E+00	Pulse	0.50	3
Ni			1	19.192	ug/l	0.99	58,794.80	4.181E-01	Pulse	0.50	3
Cu			1	18.347	ug/l	0.79	151,968.17	1.081E+00	Pulse	0.50	3
Zn			1	21.564	ug/l	0.26	31,878.20	1.582E-01	Pulse	1.00	3
Cd			1	20.268	ug/l	1.07	44,221.04	2.194E-01	Pulse	0.50	3
Al			1	101407.377	ug/l	3.56	33,490,009.33	1.385E+02	Analog	1.00	3
Se			1	0.060	ug/l	65.22	20.56	1.019E-04	Pulse	3.00	3
Sb			1	0.101	ug/l	9.05	661.01	3.278E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,121,346.17	1.08	86.0	Analog	0.50	3
1	Sc		241,824.42	1.10	93.0	Pulse	0.30	3
1	Ge		140,603.88	1.24	92.6	Pulse	0.30	3
1	In		1,356,121.99	0.86	84.6	Pulse	0.30	3
1	Tb		4,447,852.00	1.09	93.4	Analog	0.50	3
1	Lu		3,634,932.00	0.57	94.1	Analog	0.50	3
1	Ge		201,561.81	1.14	88.3	Pulse	0.30	3
1	Li		3,052.49	2.90	86.2	Pulse	0.30	3

Quantitation Report

File Name 017CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:06
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.790	ug/l	1.33	403,039.86	2.743E+00	Pulse	0.50	3
As			1	50.695	ug/l	0.37	48,684.51	3.313E-01	Pulse	1.00	3
Mo			1	51.794	ug/l	1.03	218,631.69	9.950E-01	Pulse	0.50	3
Pb			1	50.428	ug/l	2.22	1,339,203.08	3.720E-01	Pulse	1.00	3
Be			1	52.268	ug/l	0.71	5,294.58	2.123E-02	Pulse	2.00	3
Ag			1	50.899	ug/l	2.55	751,006.21	4.941E-01	Pulse	0.50	3
Ba			1	49.536	ug/l	3.61	108,169.44	7.118E-02	Pulse	0.50	3
Tl			1	51.129	ug/l	1.91	1,965,465.09	5.460E-01	Analog	0.50	3
Sn			1	49.577	ug/l	3.14	248,945.17	1.638E-01	Pulse	0.30	3
Sr			1	48.811	ug/l	2.79	275,363.45	1.812E-01	Pulse	0.50	3
Ca			1	5074.335	ug/l	1.67	163,918.93	6.574E-01	Pulse	0.50	3
Ti			1	50.784	ug/l	1.56	10,469.03	4.199E-02	Pulse	0.50	3
Na			1	5141.803	ug/l	1.90	8,323,968.50	3.338E+01	Analog	1.00	3
Mg			1	5147.704	ug/l	1.54	4,181,250.33	1.677E+01	Analog	1.00	3
K			1	5192.474	ug/l	0.73	3,320,078.67	1.332E+01	Analog	1.00	3
V			1	49.734	ug/l	1.66	321,711.10	1.290E+00	Pulse	0.50	3
Mn			1	50.367	ug/l	0.98	242,715.67	1.652E+00	Pulse	0.50	3
Fe			1	5128.507	ug/l	0.88	34,532,332.00	2.350E+02	Analog	0.50	3
Co			1	50.888	ug/l	0.02	621,599.81	4.230E+00	Pulse	0.50	3
Ni			1	51.298	ug/l	0.43	163,955.85	1.116E+00	Pulse	0.50	3
Cu			1	51.744	ug/l	0.82	440,154.53	2.995E+00	Pulse	0.50	3
Zn			1	51.445	ug/l	1.32	81,965.52	3.730E-01	Pulse	1.00	3
Cd			1	51.732	ug/l	0.88	123,038.79	5.600E-01	Pulse	0.50	3
Al			1	5140.237	ug/l	1.45	1,750,965.58	7.022E+00	Analog	1.00	3
Se			1	50.940	ug/l	0.57	4,571.59	2.081E-02	Pulse	3.00	3
Sb			1	50.862	ug/l	1.56	338,377.64	1.540E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,600,294.75	1.31	99.2	Analog	0.50	3
1	Sc		249,354.19	0.76	95.9	Pulse	0.30	3
1	Ge		146,939.62	0.67	96.7	Pulse	0.30	3
1	In		1,520,578.59	2.26	94.8	Mix	0.30	3
1	Tb		4,756,771.67	0.40	99.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,861,988.08	1.19	100.0	Analog	0.50	3
1	Ge		219,731.43	0.32	96.2	Pulse	0.30	3
1	Li		3,437.00	2.67	97.0	Pulse	0.30	3

Quantitation Report

File Name	018_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:09
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.142	ug/l	0.78	803,857.29	5.514E+00	Pulse	0.50	3
As			1	101.387	ug/l	0.45	96,539.66	6.623E-01	Pulse	1.00	3
Mo			1	101.341	ug/l	2.16	423,758.38	1.947E+00	Pulse	0.50	3
Pb			1	101.819	ug/l	2.24	2,650,623.75	7.509E-01	Analog	1.00	3
Be			1	102.981	ug/l	1.78	10,268.13	4.183E-02	Pulse	2.00	3
Ag			1	102.918	ug/l	0.73	1,471,000.00	9.990E-01	Pulse	0.50	3
Ba			1	102.305	ug/l	1.29	216,408.32	1.470E-01	Pulse	0.50	3
Tl			1	100.401	ug/l	1.13	3,785,054.25	1.072E+00	Analog	0.50	3
Sn			1	102.029	ug/l	1.23	496,142.60	3.369E-01	Pulse	0.30	3
Sr			1	100.666	ug/l	0.65	549,923.63	3.735E-01	Pulse	0.50	3
Ca			1	10126.262	ug/l	1.64	321,960.31	1.312E+00	Pulse	0.50	3
Ti			1	101.391	ug/l	1.39	20,574.30	8.381E-02	Pulse	0.50	3
Na			1	10256.905	ug/l	2.51	16,334,097.67	6.654E+01	Analog	1.00	3
Mg			1	10259.401	ug/l	2.05	8,203,512.67	3.342E+01	Analog	1.00	3
K			1	10272.586	ug/l	1.44	6,425,594.33	2.617E+01	Analog	1.00	3
V			1	101.282	ug/l	1.96	641,226.44	2.612E+00	Pulse	0.50	3
Mn			1	101.377	ug/l	0.89	484,432.66	3.323E+00	Pulse	0.50	3
Fe			1	10107.581	ug/l	0.58	67,514,762.67	4.631E+02	Analog	0.50	3
Co			1	101.768	ug/l	0.65	1,233,178.25	8.459E+00	Pulse	0.50	3
Ni			1	101.770	ug/l	0.56	322,535.74	2.213E+00	Pulse	0.50	3
Cu			1	102.213	ug/l	0.86	858,464.04	5.889E+00	Pulse	0.50	3
Zn			1	102.159	ug/l	1.78	160,594.05	7.377E-01	Pulse	1.00	3
Cd			1	102.830	ug/l	2.11	242,292.39	1.113E+00	Pulse	0.50	3
Al			1	10113.420	ug/l	1.96	3,391,359.58	1.382E+01	Analog	1.00	3
Se			1	101.591	ug/l	1.50	9,015.83	4.142E-02	Pulse	3.00	3
Sb			1	102.012	ug/l	1.98	672,320.36	3.088E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,530,701.92	1.78	97.3	Analog	0.50	3
1	Sc		245,493.24	0.69	94.4	Pulse	0.30	3
1	Ge		145,772.49	0.46	96.0	Pulse	0.30	3
1	In		1,472,478.20	0.52	91.8	Pulse	0.30	3
1	Tb		4,620,575.50	1.17	97.0	Analog	0.50	3
1	Lu		3,833,759.00	1.00	99.3	Analog	0.50	3
1	Ge		217,714.32	1.11	95.3	Pulse	0.30	3
1	Li		3,434.78	5.68	97.0	Pulse	0.30	3

Quantitation Report

File Name	019_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:12
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.021	ug/l	66.17	504.01	3.457E-03	Pulse	0.50	3
As			1	0.009	ug/l	46.26	61.67	4.231E-04	Pulse	1.00	3
Mo			1	0.400	ug/l	36.68	1,716.10	7.874E-03	Pulse	0.50	3
Pb			1	0.027	ug/l	47.60	1,688.10	4.587E-04	Pulse	1.00	3
Be			1	0.026	ug/l	62.04	3.83	1.552E-05	Pulse	2.00	3
Ag			1	0.021	ug/l	33.42	362.67	2.408E-04	Pulse	0.50	3
Ba			1	0.021	ug/l	69.11	77.33	5.136E-05	Pulse	0.50	3
Tl			1	0.021	ug/l	20.47	900.69	2.446E-04	Pulse	0.50	3
Sn			1	0.174	ug/l	29.03	1,070.04	7.087E-04	Pulse	0.30	3
Sr			1	0.024	ug/l	57.08	356.67	2.367E-04	Pulse	0.50	3
Ca			1	3.754	ug/l	36.73	206.00	8.347E-04	Pulse	0.50	3
Ti			1	0.109	ug/l	39.47	26.00	1.055E-04	Pulse	0.50	3
Na			1	6.994	ug/l	17.34	23,950.10	9.710E-02	Pulse	1.00	3
Mg			1	4.104	ug/l	27.57	4,236.17	1.717E-02	Pulse	1.00	3
K			1	5.698	ug/l	22.62	45,943.89	1.863E-01	Pulse	1.00	3
V			1	-0.296	ug/l	-3.93	1,790.10	7.258E-03	Pulse	0.50	3
Mn			1	0.026	ug/l	22.85	348.67	2.392E-03	Pulse	0.50	3
Fe			1	4.972	ug/l	17.52	39,793.75	2.730E-01	Pulse	0.50	3
Co			1	0.022	ug/l	54.91	334.67	2.295E-03	Pulse	0.50	3
Ni			1	0.013	ug/l	153.13	200.67	1.376E-03	Pulse	0.50	3
Cu			1	0.005	ug/l	216.43	4,270.53	2.930E-02	Pulse	0.50	3
Zn			1	0.079	ug/l	27.46	797.69	3.655E-03	Pulse	1.00	3
Cd			1	0.018	ug/l	58.57	46.67	2.135E-04	Pulse	0.50	3
Al			1	3.638	ug/l	26.74	1,539.07	6.237E-03	Pulse	1.00	3
Se			1	0.114	ug/l	14.43	27.00	1.237E-04	Pulse	3.00	3
Sb			1	0.061	ug/l	6.10	449.01	2.058E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,675,473.67	1.52	101.3	Analog	0.50	3
1	Sc		246,599.86	0.58	94.8	Pulse	0.30	3
1	Ge		145,743.31	0.14	95.9	Pulse	0.30	3
1	In		1,508,730.25	0.95	94.1	Mix	0.30	3
1	Tb		4,772,745.83	1.02	100.2	Analog	0.50	3
1	Lu		3,927,301.00	1.21	101.7	Analog	0.50	3
1	Ge		218,248.54	0.94	95.6	Pulse	0.30	3
1	Li		3,555.91	3.14	100.4	Pulse	0.30	3

Quantitation Report

File Name 020LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:34
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	5.120	ug/l	0.62	42,008.46	2.841E-01	Pulse	0.50	3
As			1	5.111	ug/l	3.27	4,987.71	3.373E-02	Pulse	1.00	3
Mo			1	5.127	ug/l	1.57	21,782.23	9.865E-02	Pulse	0.50	3
Pb			1	4.967	ug/l	1.81	137,489.15	3.687E-02	Pulse	1.00	3
Be			1	5.631	ug/l	1.07	578.34	2.292E-03	Pulse	2.00	3
Ag			1	5.102	ug/l	2.72	77,532.34	4.957E-02	Pulse	0.50	3
Ba			1	4.976	ug/l	2.47	11,215.07	7.168E-03	Pulse	0.50	3
Tl			1	4.905	ug/l	1.41	195,356.65	5.239E-02	Pulse	0.50	3
Sn			1	4.920	ug/l	2.61	25,615.82	1.638E-02	Pulse	0.30	3
Sr			1	4.862	ug/l	2.01	28,440.30	1.818E-02	Pulse	0.50	3
Ca			1	576.935	ug/l	2.49	18,938.52	7.505E-02	Pulse	0.50	3
Ti			1	4.875	ug/l	6.65	1,020.37	4.044E-03	Pulse	0.50	3
Na			1	523.953	ug/l	0.43	870,125.27	3.448E+00	Pulse	1.00	3
Mg			1	534.787	ug/l	1.08	440,459.83	1.746E+00	Pulse	1.00	3
K			1	516.978	ug/l	0.73	373,565.93	1.480E+00	Pulse	1.00	3
V			1	4.799	ug/l	1.14	34,795.86	1.379E-01	Pulse	0.50	3
Mn			1	5.112	ug/l	2.29	24,990.57	1.690E-01	Pulse	0.50	3
Fe			1	537.437	ug/l	1.40	3,647,583.08	2.467E+01	Analog	0.50	3
Co			1	5.287	ug/l	1.78	65,058.01	4.400E-01	Pulse	0.50	3
Ni			1	5.293	ug/l	3.62	17,165.55	1.161E-01	Pulse	0.50	3
Cu			1	5.437	ug/l	1.34	50,378.21	3.407E-01	Pulse	0.50	3
Zn			1	5.428	ug/l	1.10	9,300.42	4.212E-02	Pulse	1.00	3
Cd			1	5.303	ug/l	1.20	12,678.01	5.742E-02	Pulse	0.50	3
Al			1	501.330	ug/l	1.30	173,110.26	6.860E-01	Pulse	1.00	3
Se			1	5.217	ug/l	3.49	485.78	2.200E-03	Pulse	3.00	3
Sb			1	5.172	ug/l	2.45	34,617.76	1.568E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,728,792.92	0.22	102.8	Analog	0.50	3
1	Sc		252,331.02	0.36	97.0	Pulse	0.30	3
1	Ge		147,856.83	0.34	97.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,564,845.81	2.46	97.6	Analog	0.30	3
1	Tb		4,786,140.67	0.39	100.5	Analog	0.50	3
1	Lu		3,935,301.75	0.49	101.9	Analog	0.50	3
1	Ge		220,800.36	0.42	96.7	Pulse	0.30	3
1	Li		3,792.62	5.23	107.1	Pulse	0.30	3

Quantitation Report

File Name	021_MB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:38
Sample Name	MP43092-MB1
Sample Type	MB
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.810	ug/l	6.70	1,670.75	1.120E-02	Pulse	0.50	3
As			1	0.375	ug/l	49.68	128.00	8.564E-04	Pulse	1.00	3
Mo			1	0.317	ug/l	42.43	310.67	1.403E-03	Pulse	0.50	3
Pb			1	0.017	ug/l	43.08	1,067.04	2.832E-04	Pulse	1.00	3
Be			1	0.017	ug/l	212.08	1.67	6.478E-06	Pulse	2.00	3
Ag			1	0.021	ug/l	8.78	127.33	8.228E-05	Pulse	0.50	3
Ba			1	0.059	ug/l	32.91	59.33	3.821E-05	Pulse	0.50	3
Tl			1	0.026	ug/l	22.05	268.67	7.112E-05	Pulse	0.50	3
Sn			1	22.805	ug/l	6.41	23,492.76	1.519E-02	Pulse	0.30	3
Sr			1	0.343	ug/l	5.68	623.35	4.025E-04	Pulse	0.50	3
Ca			1	372.924	ug/l	3.39	2,562.85	1.001E-02	Pulse	0.50	3
Ti			1	0.520	ug/l	30.62	26.00	1.013E-04	Pulse	0.50	3
Na			1	12.084	ug/l	5.32	17,271.00	6.742E-02	Pulse	1.00	3
Mg			1	6.240	ug/l	6.44	2,015.45	7.864E-03	Pulse	1.00	3
K			1	35.619	ug/l	10.44	48,648.79	1.899E-01	Pulse	1.00	3
V			1	1.728	ug/l	6.86	6,071.03	2.370E-02	Pulse	0.50	3
Mn			1	0.247	ug/l	18.38	469.34	3.144E-03	Pulse	0.50	3
Fe			1	8.848	ug/l	0.13	18,850.51	1.263E-01	Pulse	0.50	3
Co			1	0.027	ug/l	43.62	141.33	9.472E-04	Pulse	0.50	3
Ni			1	0.307	ug/l	6.73	360.67	2.417E-03	Pulse	0.50	3
Cu			1	0.701	ug/l	18.02	5,526.21	3.703E-02	Pulse	0.50	3
Zn			1	2.921	ug/l	6.47	1,616.08	7.286E-03	Pulse	1.00	3
Cd			1	0.011	ug/l	108.91	10.00	4.502E-05	Pulse	0.50	3
Al			1	7.711	ug/l	6.89	864.02	3.374E-03	Pulse	1.00	3
Se			1	-0.028	ug/l	-285.39	16.67	7.511E-05	Pulse	3.00	3
Sb			1	0.028	ug/l	19.58	83.67	3.772E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,769,035.42	2.04	103.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		256,187.45	1.61	98.5	Pulse	0.30	3
1	Ge		149,255.63	0.84	98.3	Pulse	0.30	3
1	In		1,549,697.93	4.94	96.7	Mix	0.30	3
1	Tb		4,822,347.17	1.28	101.3	Analog	0.50	3
1	Lu		3,940,403.67	0.89	102.0	Analog	0.50	3
1	Ge		221,838.06	0.81	97.1	Pulse	0.30	3
1	Li		3,658.15	4.10	103.3	Pulse	0.30	3

Quantitation Report

File Name	022_BSP.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:41
Sample Name	MP43092-B1
Sample Type	BSP
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	525.054	ug/l	3.80	844,488.63	5.782E+00	Pulse	0.50	3
As			1	529.341	ug/l	3.40	100,997.85	6.915E-01	Pulse	1.00	3
Mo			1	571.884	ug/l	2.59	476,916.78	2.197E+00	Pulse	0.50	3
Pb			1	521.015	ug/l	4.40	2,742,598.17	7.685E-01	Analog	1.00	3
Be			1	541.847	ug/l	4.77	11,142.79	4.402E-02	Pulse	2.00	3
Ag			1	244.599	ug/l	6.19	714,708.31	4.749E-01	Pulse	0.50	3
Ba			1	508.183	ug/l	6.16	219,759.55	1.460E-01	Pulse	0.50	3
Tl			1	501.556	ug/l	4.36	3,823,008.00	1.071E+00	Analog	0.50	3
Sn			1	526.233	ug/l	6.65	523,016.61	3.476E-01	Pulse	0.30	3
Sr			1	527.198	ug/l	6.60	588,650.17	3.912E-01	Pulse	0.50	3
Ca			1	50932.670	ug/l	4.21	334,012.63	1.319E+00	Pulse	0.50	3
Ti			1	523.848	ug/l	4.92	21,921.86	8.661E-02	Pulse	0.50	3
Na			1	52437.545	ug/l	2.41	17,230,779.33	6.804E+01	Analog	1.00	3
Mg			1	52104.202	ug/l	4.80	8,592,120.00	3.394E+01	Analog	1.00	3
K			1	51223.347	ug/l	4.32	6,608,428.00	2.610E+01	Analog	1.00	3
V			1	513.421	ug/l	4.73	670,336.48	2.648E+00	Pulse	0.50	3
Mn			1	523.202	ug/l	3.41	500,968.22	3.430E+00	Pulse	0.50	3
Fe			1	52475.175	ug/l	3.61	70,234,328.00	4.809E+02	Analog	0.50	3
Co			1	531.103	ug/l	3.33	1,289,592.34	8.830E+00	Pulse	0.50	3
Ni			1	524.950	ug/l	3.35	333,373.61	2.283E+00	Pulse	0.50	3
Cu			1	533.224	ug/l	3.24	897,226.94	6.143E+00	Pulse	0.50	3
Zn			1	512.882	ug/l	2.72	160,789.23	7.407E-01	Pulse	1.00	3
Cd			1	526.243	ug/l	2.57	247,292.18	1.139E+00	Pulse	0.50	3
Al			1	50715.807	ug/l	4.74	3,507,368.25	1.386E+01	Analog	1.00	3
Se			1	485.020	ug/l	1.82	8,585.62	3.955E-02	Pulse	3.00	3
Sb			1	530.870	ug/l	2.68	697,766.36	3.214E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,571,891.50	2.92	98.4	Analog	0.50	3
1	Sc		253,374.75	3.05	97.4	Pulse	0.30	3
1	Ge		146,121.17	2.05	96.2	Pulse	0.30	3
1	In		1,508,358.86	5.33	94.1	Mix	0.30	3
1	Tb		4,769,938.50	2.97	100.2	Analog	0.50	3
1	Lu		3,906,218.75	1.97	101.1	Analog	0.50	3
1	Ge		217,123.04	1.40	95.1	Pulse	0.30	3
1	Li		3,503.68	0.33	98.9	Pulse	0.30	3

Quantitation Report

File Name	023SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:44
Sample Name	FC10941-1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	782.508	ug/l	2.11	642,089.48	4.309E+00	Pulse	0.50	3
As			1	422.089	ug/l	2.05	41,111.89	2.759E-01	Pulse	1.00	3
Mo			1	26.149	ug/l	4.44	10,579.23	5.041E-02	Pulse	0.50	3
Pb			1	342.592	ug/l	3.07	861,591.67	2.528E-01	Pulse	1.00	3
Be			1	13.472	ug/l	2.90	175.33	5.523E-04	Pulse	2.00	3
Ag			1	1.182	ug/l	0.98	1,704.09	1.189E-03	Pulse	0.50	3
Ba			1	1365.862	ug/l	2.35	281,243.92	1.962E-01	Pulse	0.50	3
Tl			1	6.655	ug/l	2.17	24,275.64	7.123E-03	Pulse	0.50	3
Sn			1	58.079	ug/l	1.35	27,675.63	1.931E-02	Pulse	0.30	3
Sr			1	310.373	ug/l	1.82	165,205.31	1.153E-01	Pulse	0.50	3
Ca			1	86734.445	ug/l	1.94	356,475.68	1.123E+00	Pulse	0.50	3
Ti			1	10067.589	ug/l	1.98	264,019.84	8.321E-01	Pulse	0.50	3
Na			1	2112.891	ug/l	0.85	451,086.82	1.421E+00	Pulse	1.00	3
Mg			1	68330.486	ug/l	2.22	7,062,422.83	2.226E+01	Analog	1.00	3
K			1	40757.722	ug/l	1.24	3,328,279.92	1.049E+01	Analog	1.00	3
V			1	1832.221	ug/l	0.98	1,495,762.12	4.714E+00	Analog	0.50	3
Mn			1	7907.338	ug/l	1.38	3,860,768.92	2.591E+01	Analog	0.50	3
Fe			1	1028212.075	ug/l	1.81	701,933,781.33	4.711E+03	Analog	0.50	3
Co			1	265.458	ug/l	1.88	328,838.51	2.207E+00	Pulse	0.50	3
Ni			1	1109.618	ug/l	1.51	359,436.73	2.412E+00	Pulse	0.50	3
Cu			1	5320.303	ug/l	2.01	4,549,009.17	3.053E+01	Analog	0.50	3
Zn			1	1168.670	ug/l	2.31	177,068.43	8.435E-01	Pulse	1.00	3
Cd			1	2.242	ug/l	11.65	514.68	2.448E-03	Pulse	0.50	3
Al			1	489021.703	ug/l	2.12	21,194,918.00	6.680E+01	Analog	1.00	3
Se			1	30.672	ug/l	9.03	278.12	1.325E-03	Pulse	3.00	3
Sb			1	4.304	ug/l	2.35	2,779.56	1.324E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,409,221.25	2.09	93.9	Analog	0.50	3
1	Sc		317,368.66	1.74	122.0	Pulse	0.30	3
1	Ge		149,020.33	1.25	98.1	Pulse	0.30	3
1	In		1,433,665.74	1.48	89.4	Pulse	0.30	3
1	Tb		4,617,198.17	0.67	96.9	Analog	0.50	3
1	Lu		3,803,453.17	2.04	98.5	Analog	0.50	3
1	Ge		209,981.16	1.85	92.0	Pulse	0.30	3
1	Li		3,868.20	1.83	109.2	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:47
Sample Name MP43092-D1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	725.502	ug/l	2.57	588,851.21	3.996E+00	Pulse	0.50	3
As			1	398.174	ug/l	2.14	38,364.46	2.603E-01	Pulse	1.00	3
Mo			1	25.286	ug/l	1.19	10,054.92	4.875E-02	Pulse	0.50	3
Pb			1	331.064	ug/l	3.15	828,686.38	2.443E-01	Pulse	1.00	3
Be			1	13.780	ug/l	11.50	172.83	5.648E-04	Pulse	2.00	3
Ag			1	1.044	ug/l	3.56	1,487.41	1.055E-03	Pulse	0.50	3
Ba			1	1269.607	ug/l	1.92	257,089.48	1.824E-01	Pulse	0.50	3
Tl			1	7.198	ug/l	4.23	26,121.86	7.703E-03	Pulse	0.50	3
Sn			1	57.338	ug/l	3.02	26,866.58	1.906E-02	Pulse	0.30	3
Sr			1	269.459	ug/l	1.87	141,066.41	1.001E-01	Pulse	0.50	3
Ca			1	62627.913	ug/l	2.28	248,452.06	8.113E-01	Pulse	0.50	3
Ti			1	10277.233	ug/l	2.52	260,114.60	8.494E-01	Pulse	0.50	3
Na			1	2104.959	ug/l	1.81	433,753.24	1.416E+00	Pulse	1.00	3
Mg			1	56824.244	ug/l	1.51	5,669,298.67	1.851E+01	Analog	1.00	3
K			1	39584.071	ug/l	0.98	3,121,491.33	1.019E+01	Analog	1.00	3
V			1	1806.049	ug/l	2.06	1,422,937.29	4.646E+00	Analog	0.50	3
Mn			1	7786.357	ug/l	2.17	3,760,214.17	2.551E+01	Analog	0.50	3
Fe			1	970031.137	ug/l	2.04	655,045,290.67	4.444E+03	Analog	0.50	3
Co			1	255.303	ug/l	2.06	312,829.12	2.123E+00	Pulse	0.50	3
Ni			1	859.610	ug/l	2.31	275,452.29	1.869E+00	Pulse	0.50	3
Cu			1	2611.451	ug/l	3.20	2,210,522.58	1.500E+01	Analog	0.50	3
Zn			1	1316.081	ug/l	1.85	195,827.05	9.495E-01	Pulse	1.00	3
Cd			1	2.275	ug/l	12.41	512.01	2.483E-03	Pulse	0.50	3
Al			1	535448.655	ug/l	2.97	22,396,222.67	7.314E+01	Analog	1.00	3
Se			1	29.260	ug/l	7.48	261.67	1.268E-03	Pulse	3.00	3
Sb			1	3.799	ug/l	2.02	2,414.51	1.171E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,393,238.33	2.30	93.5	Analog	0.50	3
1	Sc		306,307.75	1.55	117.8	Pulse	0.30	3
1	Ge		147,416.36	1.72	97.1	Pulse	0.30	3
1	In		1,409,795.78	1.34	87.9	Pulse	0.30	3
1	Tb		4,619,570.67	1.30	97.0	Analog	0.50	3
1	Lu		3,754,162.83	1.05	97.2	Analog	0.50	3
1	Ge		206,267.98	1.08	90.3	Pulse	0.30	3
1	Li		3,712.60	4.77	104.8	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:51
Sample Name MP43092-SD1
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	800.344	ug/l	1.19	132,670.21	8.833E-01	Pulse	0.50	3
As			1	436.061	ug/l	1.60	8,605.76	5.730E-02	Pulse	1.00	3
Mo			1	25.007	ug/l	1.50	2,162.14	9.790E-03	Pulse	0.50	3
Pb			1	336.957	ug/l	2.93	181,233.13	4.994E-02	Pulse	1.00	3
Be			1	19.808	ug/l	19.33	44.00	1.660E-04	Pulse	2.00	3
Ag			1	1.058	ug/l	6.86	385.34	2.469E-04	Pulse	0.50	3
Ba			1	1323.583	ug/l	3.37	59,388.88	3.805E-02	Pulse	0.50	3
Tl			1	6.287	ug/l	1.28	4,932.11	1.359E-03	Pulse	0.50	3
Sn			1	53.131	ug/l	5.83	5,684.32	3.642E-03	Pulse	0.30	3
Sr			1	296.344	ug/l	3.10	34,543.77	2.213E-02	Pulse	0.50	3
Ca			1	107631.809	ug/l	1.19	73,970.80	2.791E-01	Pulse	0.50	3
Ti			1	12333.720	ug/l	0.80	54,039.11	2.039E-01	Pulse	0.50	3
Na			1	2530.544	ug/l	0.76	100,676.18	3.798E-01	Pulse	1.00	3
Mg			1	85970.056	ug/l	2.27	1,485,241.75	5.604E+00	Analog	1.00	3
K			1	48310.139	ug/l	0.57	693,763.92	2.618E+00	Pulse	1.00	3
V			1	2197.170	ug/l	1.27	302,617.19	1.142E+00	Pulse	0.50	3
Mn			1	8098.169	ug/l	0.54	797,255.00	5.308E+00	Pulse	0.50	3
Fe			1	1082910.555	ug/l	1.32	149,044,218.67	9.924E+02	Analog	0.50	3
Co			1	275.744	ug/l	1.10	68,923.64	4.589E-01	Pulse	0.50	3
Ni			1	1176.886	ug/l	0.79	76,984.10	5.126E-01	Pulse	0.50	3
Cu			1	5687.101	ug/l	0.51	983,749.94	6.550E+00	Pulse	0.50	3
Zn			1	1209.482	ug/l	1.19	39,098.40	1.770E-01	Pulse	1.00	3
Cd			1	2.472	ug/l	15.43	122.67	5.555E-04	Pulse	0.50	3
Al			1	607785.969	ug/l	1.77	4,401,039.17	1.660E+01	Analog	1.00	3
Se			1	28.700	ug/l	6.94	68.66	3.109E-04	Pulse	3.00	3
Sb			1	3.838	ug/l	7.03	558.68	2.529E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,630,183.33	1.85	100.0	Analog	0.50	3
1	Sc		265,042.80	0.05	101.9	Pulse	0.30	3
1	Ge		150,191.06	0.53	98.9	Pulse	0.30	3
1	In		1,561,932.16	2.71	97.4	Mix	0.30	3
1	Tb		4,750,110.50	0.29	99.7	Analog	0.50	3
1	Lu		3,923,242.58	0.73	101.6	Analog	0.50	3
1	Ge		220,843.46	0.26	96.7	Pulse	0.30	3
1	Li		3,614.81	1.31	102.0	Pulse	0.30	3

Quantitation Report

File Name 026SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 12:54
Sample Name MP43092-S1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1535.715	ug/l	2.19	1,243,868.25	8.455E+00	Pulse	0.50	3
As			1	904.259	ug/l	1.78	86,899.76	5.907E-01	Pulse	1.00	3
Mo			1	524.881	ug/l	1.46	208,495.86	1.008E+00	Pulse	0.50	3
Pb			1	831.003	ug/l	3.47	2,090,171.96	6.129E-01	Analog	1.00	3
Be			1	427.889	ug/l	0.57	5,472.13	1.738E-02	Pulse	2.00	3
Ag			1	241.561	ug/l	1.94	331,844.20	2.345E-01	Pulse	0.50	3
Ba			1	2072.359	ug/l	2.42	421,243.91	2.977E-01	Pulse	0.50	3
Tl			1	526.219	ug/l	3.40	1,916,128.71	5.619E-01	Analog	0.50	3
Sn			1	573.179	ug/l	2.43	267,922.29	1.893E-01	Pulse	0.30	3
Sr			1	819.464	ug/l	2.32	430,233.02	3.041E-01	Pulse	0.50	3
Ca			1	107424.255	ug/l	1.99	437,952.35	1.391E+00	Pulse	0.50	3
Ti			1	12521.054	ug/l	2.59	325,723.49	1.035E+00	Pulse	0.50	3
Na			1	43451.849	ug/l	2.17	8,883,394.00	2.822E+01	Analog	1.00	3
Mg			1	127137.569	ug/l	2.56	13,034,394.33	4.141E+01	Analog	1.00	3
K			1	115745.592	ug/l	0.77	9,277,094.00	2.947E+01	Analog	1.00	3
V			1	2518.540	ug/l	1.56	2,037,742.04	6.474E+00	Analog	0.50	3
Mn			1	7924.348	ug/l	3.08	3,819,752.67	2.597E+01	Analog	0.50	3
Fe			1	1005409.378	ug/l	1.79	677,685,248.00	4.607E+03	Analog	0.50	3
Co			1	763.500	ug/l	1.26	933,691.96	6.347E+00	Pulse	0.50	3
Ni			1	1479.828	ug/l	1.74	473,229.79	3.217E+00	Pulse	0.50	3
Cu			1	2641.135	ug/l	1.96	2,231,970.08	1.517E+01	Analog	0.50	3
Zn			1	2088.017	ug/l	2.26	311,089.54	1.505E+00	Pulse	1.00	3
Cd			1	523.749	ug/l	2.94	117,206.97	5.669E-01	Pulse	0.50	3
Al			1	586564.766	ug/l	2.88	25,217,592.00	8.012E+01	Analog	1.00	3
Se			1	496.100	ug/l	1.96	4,189.94	2.026E-02	Pulse	3.00	3
Sb			1	211.602	ug/l	2.32	132,490.26	6.408E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,410,232.83	0.98	94.0	Analog	0.50	3
1	Sc		314,812.64	1.15	121.0	Pulse	0.30	3
1	Ge		147,120.25	0.42	96.9	Pulse	0.30	3
1	In		1,415,312.86	1.44	88.3	Pulse	0.30	3
1	Tb		4,600,322.83	1.22	96.6	Analog	0.50	3
1	Lu		3,756,355.42	1.88	97.3	Analog	0.50	3
1	Ge		206,798.22	1.34	90.6	Pulse	0.30	3
1	Li		4,123.81	0.69	116.4	Pulse	0.30	3

Quantitation Report

File Name	027SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 12:57
Sample Name	MP43092-S2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1077.971	ug/l	2.64	892,961.46	5.936E+00	Pulse	0.50	3
As			1	821.346	ug/l	2.15	80,723.97	5.366E-01	Pulse	1.00	3
Mo			1	487.683	ug/l	2.92	198,639.34	9.369E-01	Pulse	0.50	3
Pb			1	861.132	ug/l	2.21	2,155,511.58	6.351E-01	Analog	1.00	3
Be			1	431.392	ug/l	2.98	5,400.11	1.753E-02	Pulse	2.00	3
Ag			1	239.301	ug/l	1.99	333,776.39	2.323E-01	Pulse	0.50	3
Ba			1	1838.897	ug/l	2.58	379,524.54	2.642E-01	Pulse	0.50	3
Tl			1	520.157	ug/l	2.61	1,885,097.79	5.555E-01	Analog	0.50	3
Sn			1	552.881	ug/l	2.56	262,406.07	1.826E-01	Pulse	0.30	3
Sr			1	1064.513	ug/l	2.48	567,393.17	3.949E-01	Pulse	0.50	3
Ca			1	420030.280	ug/l	2.48	1,676,116.58	5.439E+00	Analog	0.50	3
Ti			1	9554.568	ug/l	2.97	243,328.73	7.897E-01	Pulse	0.50	3
Na			1	43279.275	ug/l	2.44	8,661,661.67	2.811E+01	Analog	1.00	3
Mg			1	139902.467	ug/l	2.86	14,041,795.67	4.557E+01	Analog	1.00	3
K			1	78045.811	ug/l	1.34	6,141,350.67	1.993E+01	Analog	1.00	3
V			1	2040.207	ug/l	3.58	1,616,660.91	5.247E+00	Analog	0.50	3
Mn			1	10341.930	ug/l	2.08	5,098,108.17	3.389E+01	Analog	0.50	3
Fe			1	986261.706	ug/l	2.13	679,821,077.33	4.519E+03	Analog	0.50	3
Co			1	811.572	ug/l	2.40	1,014,910.83	6.746E+00	Pulse	0.50	3
Ni			1	1241.226	ug/l	2.70	405,924.17	2.698E+00	Pulse	0.50	3
Cu			1	3386.117	ug/l	2.38	2,924,873.92	1.944E+01	Analog	0.50	3
Zn			1	1721.361	ug/l	2.24	263,111.87	1.241E+00	Pulse	1.00	3
Cd			1	517.860	ug/l	2.48	118,848.12	5.605E-01	Pulse	0.50	3
Al			1	545761.478	ug/l	3.32	22,969,851.33	7.455E+01	Analog	1.00	3
Se			1	492.159	ug/l	1.86	4,262.62	2.010E-02	Pulse	3.00	3
Sb			1	165.278	ug/l	2.42	106,131.61	5.006E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,394,271.42	1.20	93.5	Analog	0.50	3
1	Sc		308,220.64	1.43	118.5	Pulse	0.30	3
1	Ge		150,462.15	0.90	99.1	Pulse	0.30	3
1	In		1,436,877.58	0.79	89.6	Pulse	0.30	3
1	Tb		4,628,510.83	1.37	97.2	Analog	0.50	3
1	Lu		3,801,703.42	1.64	98.4	Analog	0.50	3
1	Ge		212,049.53	0.77	92.9	Pulse	0.30	3
1	Li		3,355.88	1.27	94.7	Pulse	0.30	3

Quantitation Report

File Name	028SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:00
Sample Name	MP43092-PS1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	773.639	ug/l	1.94	656,181.94	4.261E+00	Pulse	0.50	3
As			1	425.109	ug/l	1.55	42,799.49	2.779E-01	Pulse	1.00	3
Mo			1	36.042	ug/l	1.91	15,065.17	6.941E-02	Pulse	0.50	3
Pb			1	351.732	ug/l	3.69	895,457.60	2.596E-01	Pulse	1.00	3
Be			1	21.325	ug/l	2.72	279.00	8.712E-04	Pulse	2.00	3
Ag			1	4.178	ug/l	0.56	6,061.74	4.097E-03	Pulse	0.50	3
Ba			1	1358.320	ug/l	3.36	288,517.47	1.951E-01	Pulse	0.50	3
Tl			1	16.906	ug/l	2.96	62,344.18	1.807E-02	Pulse	0.50	3
Sn			1	66.638	ug/l	4.49	32,716.71	2.213E-02	Pulse	0.30	3
Sr			1	316.863	ug/l	3.35	173,966.53	1.177E-01	Pulse	0.50	3
Ca			1	88057.776	ug/l	2.49	365,248.29	1.141E+00	Pulse	0.50	3
Ti			1	10093.803	ug/l	2.99	267,131.79	8.343E-01	Pulse	0.50	3
Na			1	2939.126	ug/l	1.38	626,785.08	1.957E+00	Pulse	1.00	3
Mg			1	68792.311	ug/l	2.24	7,176,134.00	2.241E+01	Analog	1.00	3
K			1	41968.849	ug/l	1.80	3,457,118.58	1.080E+01	Analog	1.00	3
V			1	1857.549	ug/l	3.39	1,530,070.04	4.778E+00	Analog	0.50	3
Mn			1	7873.195	ug/l	1.55	3,973,284.00	2.580E+01	Analog	0.50	3
Fe			1	1014465.535	ug/l	1.58	715,863,978.67	4.648E+03	Analog	0.50	3
Co			1	271.724	ug/l	1.79	347,920.51	2.259E+00	Pulse	0.50	3
Ni			1	1105.119	ug/l	1.91	370,012.35	2.403E+00	Pulse	0.50	3
Cu			1	5281.069	ug/l	1.40	4,667,758.50	3.031E+01	Analog	0.50	3
Zn			1	1158.356	ug/l	1.28	181,474.09	8.361E-01	Pulse	1.00	3
Cd			1	13.130	ug/l	6.06	3,088.29	1.423E-02	Pulse	0.50	3
Al			1	494407.438	ug/l	2.59	21,625,361.33	6.753E+01	Analog	1.00	3
Se			1	42.555	ug/l	6.44	392.56	1.809E-03	Pulse	3.00	3
Sb			1	13.962	ug/l	0.81	9,220.15	4.248E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,451,863.75	2.47	95.1	Analog	0.50	3
1	Sc		320,310.28	1.66	123.1	Pulse	0.30	3
1	Ge		154,032.18	1.15	101.4	Pulse	0.30	3
1	In		1,479,589.35	3.11	92.3	Mix	0.30	3
1	Tb		4,734,799.33	1.48	99.4	Analog	0.50	3
1	Lu		3,878,927.75	1.13	100.4	Analog	0.50	3
1	Ge		217,065.58	0.88	95.1	Pulse	0.30	3
1	Li		3,849.31	3.45	108.7	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:03
Sample Name FC10941-2
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	651.944	ug/l	2.04	526,899.31	3.591E+00	Pulse	0.50	3
As			1	92.954	ug/l	2.40	8,957.93	6.105E-02	Pulse	1.00	3
Mo			1	32.019	ug/l	3.58	12,791.37	6.168E-02	Pulse	0.50	3
Pb			1	312.808	ug/l	3.37	772,456.12	2.309E-01	Pulse	1.00	3
Be			1	9.636	ug/l	1.72	120.83	3.965E-04	Pulse	2.00	3
Ag			1	2.528	ug/l	4.12	3,517.04	2.495E-03	Pulse	0.50	3
Ba			1	947.770	ug/l	1.72	191,938.14	1.362E-01	Pulse	0.50	3
Tl			1	3.375	ug/l	3.48	12,112.59	3.620E-03	Pulse	0.50	3
Sn			1	50.196	ug/l	0.92	23,549.51	1.670E-02	Pulse	0.30	3
Sr			1	138.103	ug/l	1.39	72,407.93	5.136E-02	Pulse	0.50	3
Ca			1	29112.583	ug/l	2.42	114,922.02	3.773E-01	Pulse	0.50	3
Ti			1	5040.075	ug/l	2.84	126,871.97	4.166E-01	Pulse	0.50	3
Na			1	5850.619	ug/l	1.73	1,171,331.21	3.844E+00	Mix	1.00	3
Mg			1	21965.970	ug/l	2.99	2,179,943.83	7.158E+00	Analog	1.00	3
K			1	10535.220	ug/l	1.46	864,701.67	2.839E+00	Pulse	1.00	3
V			1	3458.783	ug/l	1.39	2,706,588.33	8.885E+00	Analog	0.50	3
Mn			1	4148.286	ug/l	0.75	1,995,196.25	1.359E+01	Analog	0.50	3
Fe			1	1043903.029	ug/l	1.24	701,895,189.33	4.783E+03	Analog	0.50	3
Co			1	148.990	ug/l	1.32	181,808.71	1.239E+00	Pulse	0.50	3
Ni			1	342.491	ug/l	2.56	109,359.05	7.453E-01	Pulse	0.50	3
Cu			1	1186.379	ug/l	1.79	1,002,330.12	6.831E+00	Pulse	0.50	3
Zn			1	927.984	ug/l	1.33	139,054.16	6.704E-01	Pulse	1.00	3
Cd			1	0.988	ug/l	5.56	226.00	1.090E-03	Pulse	0.50	3
Al			1	606933.617	ug/l	3.10	25,247,368.67	8.290E+01	Analog	1.00	3
Se			1	22.114	ug/l	8.74	202.67	9.772E-04	Pulse	3.00	3
Sb			1	3.919	ug/l	3.75	2,502.85	1.207E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,347,571.33	2.36	92.2	Analog	0.50	3
1	Sc		304,692.45	2.44	117.1	Pulse	0.30	3
1	Ge		146,774.02	1.87	96.6	Pulse	0.30	3
1	In		1,409,889.66	1.52	87.9	Pulse	0.30	3
1	Tb		4,556,823.33	1.22	95.7	Analog	0.50	3
1	Lu		3,764,566.92	1.56	97.5	Analog	0.50	3
1	Ge		207,439.41	1.35	90.8	Pulse	0.30	3
1	Li		3,224.74	1.29	91.0	Pulse	0.30	3

Quantitation Report

File Name 030CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:06
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.150	ug/l	0.64	424,756.04	2.763E+00	Pulse	0.50	3
As			1	50.609	ug/l	0.86	50,850.50	3.308E-01	Pulse	1.00	3
Mo			1	50.354	ug/l	0.77	220,639.20	9.673E-01	Pulse	0.50	3
Pb			1	50.630	ug/l	1.68	1,354,916.33	3.735E-01	Pulse	1.00	3
Be			1	52.376	ug/l	0.46	5,514.14	2.128E-02	Pulse	2.00	3
Ag			1	49.239	ug/l	1.67	777,234.79	4.780E-01	Pulse	0.50	3
Ba			1	48.124	ug/l	1.28	112,448.43	6.915E-02	Pulse	0.50	3
Tl			1	52.728	ug/l	0.20	2,042,785.21	5.631E-01	Analog	0.50	3
Sn			1	47.760	ug/l	1.30	256,600.35	1.578E-01	Pulse	0.30	3
Sr			1	47.891	ug/l	1.42	289,055.81	1.778E-01	Pulse	0.50	3
Ca			1	5070.944	ug/l	1.22	170,261.74	6.570E-01	Pulse	0.50	3
Ti			1	50.041	ug/l	2.08	10,722.51	4.137E-02	Pulse	0.50	3
Na			1	5127.887	ug/l	0.64	8,628,559.67	3.329E+01	Analog	1.00	3
Mg			1	5186.503	ug/l	1.86	4,378,714.17	1.690E+01	Analog	1.00	3
K			1	5229.203	ug/l	1.58	3,474,852.25	1.341E+01	Analog	1.00	3
V			1	50.375	ug/l	1.54	338,644.76	1.307E+00	Pulse	0.50	3
Mn			1	50.653	ug/l	0.14	255,387.26	1.661E+00	Pulse	0.50	3
Fe			1	5168.927	ug/l	0.60	36,417,134.67	2.369E+02	Analog	0.50	3
Co			1	51.064	ug/l	0.35	652,645.27	4.245E+00	Pulse	0.50	3
Ni			1	51.868	ug/l	0.89	173,452.97	1.128E+00	Pulse	0.50	3
Cu			1	51.928	ug/l	0.24	462,165.22	3.006E+00	Pulse	0.50	3
Zn			1	51.795	ug/l	1.55	85,658.03	3.756E-01	Pulse	1.00	3
Cd			1	51.708	ug/l	1.96	127,659.42	5.597E-01	Pulse	0.50	3
Al			1	5214.277	ug/l	1.24	1,846,142.54	7.124E+00	Analog	1.00	3
Se			1	51.305	ug/l	1.52	4,779.31	2.095E-02	Pulse	3.00	3
Sb			1	50.686	ug/l	1.52	350,034.55	1.535E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,627,804.75	1.15	100.0	Analog	0.50	3
1	Sc		259,164.63	0.22	99.6	Pulse	0.30	3
1	Ge		153,743.08	1.05	101.2	Pulse	0.30	3
1	In		1,626,479.80	2.28	101.4	Analog	0.30	3
1	Tb		4,846,940.33	0.60	101.8	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,992,982.92	0.37	103.4	Analog	0.50	3
1	Ge		228,087.40	0.13	99.9	Pulse	0.30	3
1	Li		3,485.90	4.66	98.4	Pulse	0.30	3

Quantitation Report

File Name	031_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:10
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	100.736	ug/l	1.52	843,055.96	5.547E+00	Pulse	0.50	3
As			1	102.686	ug/l	1.01	101,943.40	6.707E-01	Pulse	1.00	3
Mo			1	102.317	ug/l	1.27	444,748.64	1.965E+00	Pulse	0.50	3
Pb			1	102.605	ug/l	2.77	2,726,764.42	7.567E-01	Analog	1.00	3
Be			1	104.507	ug/l	1.56	10,916.32	4.245E-02	Pulse	2.00	3
Ag			1	103.035	ug/l	3.14	1,547,563.42	1.000E+00	Analog	0.50	3
Ba			1	100.956	ug/l	2.07	224,442.37	1.450E-01	Pulse	0.50	3
Tl			1	102.424	ug/l	2.41	3,941,662.33	1.094E+00	Analog	0.50	3
Sn			1	100.592	ug/l	2.12	514,073.58	3.322E-01	Pulse	0.30	3
Sr			1	100.338	ug/l	2.03	576,069.17	3.723E-01	Pulse	0.50	3
Ca			1	10193.759	ug/l	1.30	339,548.22	1.320E+00	Pulse	0.50	3
Ti			1	102.811	ug/l	1.23	21,857.11	8.499E-02	Pulse	0.50	3
Na			1	10354.120	ug/l	0.65	17,276,462.67	6.717E+01	Analog	1.00	3
Mg			1	10423.420	ug/l	1.62	8,731,314.33	3.395E+01	Analog	1.00	3
K			1	10419.118	ug/l	0.99	6,826,856.83	2.655E+01	Analog	1.00	3
V			1	102.103	ug/l	1.79	677,175.25	2.633E+00	Pulse	0.50	3
Mn			1	101.649	ug/l	1.59	506,407.10	3.332E+00	Pulse	0.50	3
Fe			1	10315.345	ug/l	1.76	71,835,648.00	4.727E+02	Analog	0.50	3
Co			1	102.127	ug/l	1.40	1,290,228.17	8.489E+00	Pulse	0.50	3
Ni			1	102.498	ug/l	1.35	338,677.78	2.228E+00	Pulse	0.50	3
Cu			1	103.167	ug/l	1.17	903,346.33	5.944E+00	Pulse	0.50	3
Zn			1	102.937	ug/l	1.76	168,198.45	7.433E-01	Pulse	1.00	3
Cd			1	102.799	ug/l	1.92	251,777.62	1.113E+00	Pulse	0.50	3
Al			1	10190.592	ug/l	1.62	3,579,953.58	1.392E+01	Analog	1.00	3
Se			1	101.561	ug/l	1.81	9,368.91	4.140E-02	Pulse	3.00	3
Sb			1	102.117	ug/l	1.89	699,573.81	3.092E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,604,621.50	1.80	99.3	Analog	0.50	3
1	Sc		257,198.99	1.23	98.9	Pulse	0.30	3
1	Ge		151,994.98	0.81	100.1	Pulse	0.30	3
1	In		1,547,837.75	1.61	96.5	Mix	0.30	3
1	Tb		4,867,286.50	1.22	102.2	Analog	0.50	3
1	Lu		3,953,664.33	1.55	102.4	Analog	0.50	3
1	Ge		226,308.91	1.12	99.1	Pulse	0.30	3
1	Li		3,518.13	3.27	99.3	Pulse	0.30	3

Quantitation Report

File Name	032_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.043	ug/l	39.06	708.02	4.618E-03	Pulse	0.50	3
As			1	0.033	ug/l	120.27	89.33	5.832E-04	Pulse	1.00	3
Mo			1	0.264	ug/l	31.32	1,206.05	5.248E-03	Pulse	0.50	3
Pb			1	0.058	ug/l	31.12	2,557.21	6.828E-04	Pulse	1.00	3
Be			1	0.072	ug/l	7.07	9.00	3.440E-05	Pulse	2.00	3
Ag			1	0.042	ug/l	50.99	750.02	4.525E-04	Pulse	0.50	3
Ba			1	0.037	ug/l	36.10	122.67	7.412E-05	Pulse	0.50	3
Tl			1	0.037	ug/l	31.04	1,529.41	4.083E-04	Pulse	0.50	3
Sn			1	0.186	ug/l	7.90	1,233.39	7.472E-04	Pulse	0.30	3
Sr			1	0.038	ug/l	48.76	480.68	2.905E-04	Pulse	0.50	3
Ca			1	3.682	ug/l	62.40	216.00	8.254E-04	Pulse	0.50	3
Ti			1	0.068	ug/l	51.81	18.67	7.136E-05	Pulse	0.50	3
Na			1	3.196	ug/l	47.57	18,968.45	7.248E-02	Pulse	1.00	3
Mg			1	3.734	ug/l	43.44	4,177.51	1.596E-02	Pulse	1.00	3
K			1	5.276	ug/l	25.03	48,476.32	1.852E-01	Pulse	1.00	3
V			1	-0.280	ug/l	-2.68	2,004.12	7.658E-03	Pulse	0.50	3
Mn			1	0.046	ug/l	44.35	466.67	3.044E-03	Pulse	0.50	3
Fe			1	5.978	ug/l	25.08	48,927.49	3.191E-01	Pulse	0.50	3
Co			1	0.043	ug/l	32.58	622.01	4.058E-03	Pulse	0.50	3
Ni			1	0.030	ug/l	78.26	267.33	1.743E-03	Pulse	0.50	3
Cu			1	0.075	ug/l	43.19	5,104.08	3.329E-02	Pulse	0.50	3
Zn			1	0.092	ug/l	67.10	862.69	3.750E-03	Pulse	1.00	3
Cd			1	0.032	ug/l	28.54	85.33	3.709E-04	Pulse	0.50	3
Al			1	4.340	ug/l	32.68	1,883.44	7.196E-03	Pulse	1.00	3
Se			1	0.071	ug/l	65.69	24.44	1.062E-04	Pulse	3.00	3
Sb			1	0.079	ug/l	10.84	596.01	2.591E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,743,968.58	0.30	103.2	Analog	0.50	3
1	Sc		261,712.49	0.51	100.6	Pulse	0.30	3
1	Ge		153,356.34	0.53	101.0	Pulse	0.30	3
1	In		1,651,574.83	1.17	103.0	Analog	0.30	3
1	Tb		4,901,679.83	0.81	102.9	Analog	0.50	3
1	Lu		3,996,461.42	0.25	103.5	Analog	0.50	3
1	Ge		230,002.20	0.42	100.7	Pulse	0.30	3
1	Li		3,665.94	4.25	103.5	Pulse	0.30	3

Quantitation Report

File Name	033_MB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:16
Sample Name	MP43089-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.224	ug/l	6.12	1,319.39	8.427E-03	Pulse	0.50	3
As			1	0.227	ug/l	18.78	173.00	1.106E-03	Pulse	1.00	3
Mo			1	0.215	ug/l	40.82	522.68	2.247E-03	Pulse	0.50	3
Pb			1	0.066	ug/l	2.76	1,926.79	5.029E-04	Pulse	1.00	3
Be			1	0.050	ug/l	52.99	4.17	1.519E-05	Pulse	2.00	3
Ag			1	0.014	ug/l	13.36	188.67	1.114E-04	Pulse	0.50	3
Ba			1	0.012	ug/l	73.86	50.00	2.951E-05	Pulse	0.50	3
Tl			1	0.012	ug/l	12.51	299.34	7.801E-05	Pulse	0.50	3
Sn			1	0.481	ug/l	17.29	1,572.30	9.284E-04	Pulse	0.30	3
Sr			1	0.176	ug/l	13.98	803.35	4.744E-04	Pulse	0.50	3
Ca			1	156.476	ug/l	5.60	2,850.24	1.048E-02	Pulse	0.50	3
Ti			1	0.129	ug/l	86.17	18.67	6.874E-05	Pulse	0.50	3
Na			1	4.025	ug/l	14.52	17,634.01	6.480E-02	Pulse	1.00	3
Mg			1	0.924	ug/l	8.75	1,443.39	5.304E-03	Pulse	1.00	3
K			1	14.869	ug/l	28.05	51,892.59	1.907E-01	Pulse	1.00	3
V			1	1.145	ug/l	2.98	8,037.14	2.953E-02	Pulse	0.50	3
Mn			1	0.114	ug/l	10.58	531.34	3.395E-03	Pulse	0.50	3
Fe			1	6.942	ug/l	7.59	31,959.54	2.042E-01	Pulse	0.50	3
Co			1	0.008	ug/l	19.49	132.00	8.430E-04	Pulse	0.50	3
Ni			1	0.015	ug/l	22.53	194.67	1.244E-03	Pulse	0.50	3
Cu			1	0.772	ug/l	12.86	7,998.47	5.113E-02	Pulse	0.50	3
Zn			1	0.753	ug/l	7.48	1,353.72	5.794E-03	Pulse	1.00	3
Cd			1	0.001	ug/l	328.55	6.00	2.568E-05	Pulse	0.50	3
Al			1	7.334	ug/l	58.89	1,699.79	6.277E-03	Pulse	1.00	3
Se			1	0.012	ug/l	290.48	18.67	7.992E-05	Pulse	3.00	3
Sb			1	0.048	ug/l	13.24	217.00	9.302E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,830,835.92	2.66	105.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		272,269.92	3.18	104.7	Pulse	0.30	3
1	Ge		156,542.13	1.68	103.1	Pulse	0.30	3
1	In		1,696,396.04	2.81	105.8	Analog	0.30	3
1	Tb		4,928,200.17	2.70	103.5	Analog	0.50	3
1	Lu		4,021,380.67	3.13	104.1	Analog	0.50	3
1	Ge		233,545.93	1.68	102.3	Pulse	0.30	3
1	Li		3,628.14	4.73	102.4	Pulse	0.30	3

Quantitation Report

File Name	034_BSP.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:20
Sample Name	MP43089-B1
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	203.519	ug/l	4.37	856,569.58	5.603E+00	Pulse	0.50	3
As			1	204.629	ug/l	4.04	102,170.76	6.683E-01	Pulse	1.00	3
Mo			1	219.842	ug/l	3.89	481,933.19	2.111E+00	Pulse	0.50	3
Pb			1	201.880	ug/l	6.46	2,674,233.83	7.444E-01	Analog	1.00	3
Be			1	207.164	ug/l	5.76	11,184.65	4.207E-02	Pulse	2.00	3
Ag			1	100.577	ug/l	9.15	765,581.52	4.882E-01	Pulse	0.50	3
Ba			1	197.766	ug/l	9.32	222,766.05	1.421E-01	Pulse	0.50	3
Tl			1	194.567	ug/l	6.12	3,732,385.17	1.039E+00	Analog	0.50	3
Sn			1	194.193	ug/l	9.92	502,657.83	3.207E-01	Pulse	0.30	3
Sr			1	204.046	ug/l	9.02	593,661.96	3.785E-01	Pulse	0.50	3
Ca			1	19592.122	ug/l	5.27	337,360.80	1.269E+00	Pulse	0.50	3
Ti			1	207.893	ug/l	5.43	22,844.99	8.593E-02	Pulse	0.50	3
Na			1	19858.808	ug/l	3.94	17,136,037.33	6.442E+01	Analog	1.00	3
Mg			1	19910.486	ug/l	5.42	8,621,766.67	3.243E+01	Analog	1.00	3
K			1	19742.490	ug/l	3.95	6,692,189.67	2.516E+01	Analog	1.00	3
V			1	199.896	ug/l	5.59	685,379.12	2.578E+00	Pulse	0.50	3
Mn			1	204.925	ug/l	4.11	513,461.33	3.359E+00	Pulse	0.50	3
Fe			1	20236.726	ug/l	4.56	70,871,226.67	4.636E+02	Analog	0.50	3
Co			1	207.046	ug/l	4.67	1,315,364.42	8.605E+00	Pulse	0.50	3
Ni			1	204.151	ug/l	4.06	339,265.77	2.219E+00	Pulse	0.50	3
Cu			1	206.544	ug/l	4.63	909,448.00	5.950E+00	Pulse	0.50	3
Zn			1	193.818	ug/l	3.81	159,770.75	7.000E-01	Pulse	1.00	3
Cd			1	199.023	ug/l	4.00	245,842.57	1.077E+00	Pulse	0.50	3
Al			1	19225.210	ug/l	5.64	3,490,943.50	1.313E+01	Analog	1.00	3
Se			1	183.797	ug/l	3.70	8,553.50	3.747E-02	Pulse	3.00	3
Sb			1	201.454	ug/l	4.02	696,037.75	3.050E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,600,165.58	5.07	99.2	Analog	0.50	3
1	Sc		266,352.06	5.02	102.4	Pulse	0.30	3
1	Ge		153,028.02	3.63	100.7	Pulse	0.30	3
1	In		1,576,728.17	8.79	98.3	Mix	0.30	3
1	Tb		4,904,228.33	3.37	103.0	Analog	0.50	3
1	Lu		4,019,335.67	3.21	104.1	Analog	0.50	3
1	Ge		228,432.46	3.16	100.0	Pulse	0.30	3
1	Li		3,673.72	4.10	103.7	Pulse	0.30	3

Quantitation Report

File Name	035SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:23
Sample Name	FC10954-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.657	ug/l	3.92	3,000.26	2.036E-02	Pulse	0.50	3
As			1	1738.825	ug/l	2.93	836,341.89	5.676E+00	Pulse	1.00	3
Mo			1	1.735	ug/l	5.19	3,644.39	1.685E-02	Pulse	0.50	3
Pb			1	0.198	ug/l	23.23	3,506.40	9.878E-04	Pulse	1.00	3
Be			1	0.132	ug/l	31.22	8.00	3.186E-05	Pulse	2.00	3
Ag			1	0.065	ug/l	28.12	533.35	3.589E-04	Pulse	0.50	3
Ba			1	53.483	ug/l	5.76	56,732.54	3.843E-02	Pulse	0.50	3
Tl			1	0.162	ug/l	13.65	3,130.32	8.827E-04	Pulse	0.50	3
Sn			1	0.578	ug/l	5.68	1,607.86	1.088E-03	Pulse	0.30	3
Sr			1	427.463	ug/l	6.51	1,169,948.96	7.928E-01	Pulse	0.50	3
Ca			1	52291.555	ug/l	4.17	847,445.73	3.386E+00	Pulse	0.50	3
Ti			1	0.509	ug/l	22.99	56.67	2.255E-04	Pulse	0.50	3
Na			1	17132.171	ug/l	3.11	13,913,781.67	5.558E+01	Analog	1.00	3
Mg			1	7938.363	ug/l	2.37	3,237,432.67	1.293E+01	Analog	1.00	3
K			1	8907.407	ug/l	3.24	2,864,991.92	1.145E+01	Analog	1.00	3
V			1	0.827	ug/l	15.89	6,373.14	2.545E-02	Pulse	0.50	3
Mn			1	2291.702	ug/l	3.74	5,531,491.50	3.755E+01	Analog	0.50	3
Fe			1	75769.478	ug/l	2.41	255,769,381.33	1.736E+03	Analog	0.50	3
Co			1	20.220	ug/l	3.33	123,888.04	8.409E-01	Pulse	0.50	3
Ni			1	8.498	ug/l	3.13	13,763.28	9.341E-02	Pulse	0.50	3
Cu			1	0.931	ug/l	11.34	8,201.89	5.567E-02	Pulse	0.50	3
Zn			1	2.877	ug/l	2.47	2,907.57	1.343E-02	Pulse	1.00	3
Cd			1	0.119	ug/l	49.82	145.33	6.669E-04	Pulse	0.50	3
Al			1	18.080	ug/l	25.45	3,420.33	1.362E-02	Pulse	1.00	3
Se			1	0.181	ug/l	76.39	24.78	1.141E-04	Pulse	3.00	3
Sb			1	0.244	ug/l	12.84	845.02	3.898E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,536,341.67	3.50	97.4	Analog	0.50	3
1	Sc		250,460.89	2.61	96.3	Pulse	0.30	3
1	Ge		147,389.32	1.74	97.0	Pulse	0.30	3
1	In		1,479,025.18	5.10	92.3	Mix	0.30	3
1	Tb		4,682,887.83	3.59	98.3	Analog	0.50	3
1	Lu		3,880,076.75	2.84	100.5	Analog	0.50	3
1	Ge		216,474.32	2.33	94.8	Pulse	0.30	3
1	Li		3,376.99	4.82	95.3	Pulse	0.30	3

Quantitation Report

File Name	036SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:26
Sample Name	MP43089-D1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.519	ug/l	5.35	2,455.51	1.655E-02	Pulse	0.50	3
As			1	1779.931	ug/l	2.78	862,172.56	5.810E+00	Pulse	1.00	3
Mo			1	1.496	ug/l	1.27	3,176.97	1.455E-02	Pulse	0.50	3
Pb			1	0.054	ug/l	5.95	1,629.75	4.576E-04	Pulse	1.00	3
Be			1	0.040	ug/l	87.98	3.33	1.317E-05	Pulse	2.00	3
Ag			1	0.007	ug/l	64.96	111.33	7.463E-05	Pulse	0.50	3
Ba			1	53.627	ug/l	8.31	58,005.50	3.854E-02	Pulse	0.50	3
Tl			1	0.016	ug/l	21.97	366.00	1.028E-04	Pulse	0.50	3
Sn			1	0.365	ug/l	14.64	1,107.82	7.370E-04	Pulse	0.30	3
Sr			1	432.249	ug/l	7.93	1,206,844.04	8.017E-01	Pulse	0.50	3
Ca			1	53182.710	ug/l	4.26	871,991.42	3.444E+00	Pulse	0.50	3
Ti			1	0.422	ug/l	16.04	48.00	1.899E-04	Pulse	0.50	3
Na			1	17493.899	ug/l	4.56	14,370,958.33	5.675E+01	Analog	1.00	3
Mg			1	7996.696	ug/l	3.68	3,298,938.83	1.303E+01	Analog	1.00	3
K			1	9011.685	ug/l	4.16	2,931,685.50	1.158E+01	Analog	1.00	3
V			1	0.740	ug/l	14.10	6,161.07	2.433E-02	Pulse	0.50	3
Mn			1	2353.918	ug/l	2.98	5,722,285.50	3.856E+01	Analog	0.50	3
Fe			1	77270.656	ug/l	3.32	262,658,181.33	1.770E+03	Analog	0.50	3
Co			1	20.472	ug/l	2.84	126,321.46	8.513E-01	Pulse	0.50	3
Ni			1	8.632	ug/l	2.57	14,077.53	9.487E-02	Pulse	0.50	3
Cu			1	1.162	ug/l	5.58	9,243.73	6.230E-02	Pulse	0.50	3
Zn			1	2.606	ug/l	6.00	2,718.21	1.246E-02	Pulse	1.00	3
Cd			1	0.014	ug/l	34.65	20.67	9.446E-05	Pulse	0.50	3
Al			1	11.290	ug/l	4.78	2,275.48	8.978E-03	Pulse	1.00	3
Se			1	0.041	ug/l	111.45	18.67	8.564E-05	Pulse	3.00	3
Sb			1	0.089	ug/l	16.84	339.67	1.559E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,560,601.17	1.75	98.1	Analog	0.50	3
1	Sc		253,432.06	2.94	97.4	Pulse	0.30	3
1	Ge		148,420.10	1.30	97.7	Pulse	0.30	3
1	In		1,510,984.21	6.95	94.2	Mix	0.30	3
1	Tb		4,796,251.50	2.21	100.7	Analog	0.50	3
1	Lu		3,891,397.92	2.47	100.8	Analog	0.50	3
1	Ge		218,411.18	2.95	95.6	Pulse	0.30	3
1	Li		3,495.90	1.18	98.7	Pulse	0.30	3

Quantitation Report

File Name	037SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:29
Sample Name	MP43089-SD1
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.410	ug/l	12.35	702.02	4.532E-03	Pulse	0.50	3
As			1	1807.155	ug/l	1.42	182,829.25	1.180E+00	Pulse	1.00	3
Mo			1	1.492	ug/l	8.13	704.02	3.049E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	69.22	1,053.04	2.802E-04	Pulse	1.00	3
Be			1	0.124	ug/l	21.97	2.67	1.018E-05	Pulse	2.00	3
Ag			1	0.023	ug/l	23.05	104.67	6.415E-05	Pulse	0.50	3
Ba			1	51.037	ug/l	1.65	11,996.93	7.352E-03	Pulse	0.50	3
Tl			1	0.024	ug/l	5.37	157.33	4.186E-05	Pulse	0.50	3
Sn			1	0.305	ug/l	19.91	383.34	2.350E-04	Pulse	0.30	3
Sr			1	410.534	ug/l	2.25	248,660.03	1.524E-01	Pulse	0.50	3
Ca			1	53102.879	ug/l	1.38	180,191.75	6.880E-01	Pulse	0.50	3
Ti			1	0.800	ug/l	13.78	21.33	8.147E-05	Pulse	0.50	3
Na			1	17552.915	ug/l	0.90	2,993,858.83	1.143E+01	Analog	1.00	3
Mg			1	7910.665	ug/l	0.63	675,816.54	2.580E+00	Pulse	1.00	3
K			1	8750.035	ug/l	0.21	625,123.96	2.387E+00	Pulse	1.00	3
V			1	-2.520	ug/l	-5.59	2,195.47	8.382E-03	Pulse	0.50	3
Mn			1	2285.212	ug/l	1.76	1,160,186.83	7.489E+00	Pulse	0.50	3
Fe			1	77080.479	ug/l	0.85	54,719,989.33	3.532E+02	Analog	0.50	3
Co			1	20.334	ug/l	0.50	26,263.12	1.695E-01	Pulse	0.50	3
Ni			1	8.667	ug/l	0.87	3,085.61	1.992E-02	Pulse	0.50	3
Cu			1	0.978	ug/l	14.16	5,360.81	3.460E-02	Pulse	0.50	3
Zn			1	3.349	ug/l	9.12	1,268.38	5.494E-03	Pulse	1.00	3
Cd			1	-0.006	ug/l	-84.50	3.33	1.445E-05	Pulse	0.50	3
Al			1	7.780	ug/l	6.98	610.34	2.330E-03	Pulse	1.00	3
Se			1	0.038	ug/l	622.54	18.22	7.894E-05	Pulse	3.00	3
Sb			1	0.120	ug/l	16.10	131.67	5.703E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,759,047.42	0.97	103.6	Analog	0.50	3
1	Sc		261,920.13	0.44	100.7	Pulse	0.30	3
1	Ge		154,928.63	0.54	102.0	Pulse	0.30	3
1	In		1,631,948.30	1.18	101.8	Analog	0.30	3
1	Tb		4,988,875.67	1.30	104.8	Analog	0.50	3
1	Lu		4,009,658.92	1.44	103.8	Analog	0.50	3
1	Ge		230,866.07	0.45	101.1	Pulse	0.30	3
1	Li		3,717.06	5.12	104.9	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:32
Sample Name	MP43089-S1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	204.398	ug/l	4.25	854,373.79	5.628E+00	Pulse	0.50	3
As			1	1914.376	ug/l	3.44	948,907.81	6.249E+00	Pulse	1.00	3
Mo			1	228.435	ug/l	3.69	484,917.03	2.194E+00	Pulse	0.50	3
Pb			1	210.640	ug/l	2.76	2,723,335.92	7.767E-01	Analog	1.00	3
Be			1	210.233	ug/l	4.49	11,028.88	4.270E-02	Pulse	2.00	3
Ag			1	103.500	ug/l	6.92	754,048.06	5.023E-01	Pulse	0.50	3
Ba			1	255.645	ug/l	7.50	275,562.34	1.836E-01	Pulse	0.50	3
Tl			1	200.479	ug/l	3.25	3,752,793.50	1.070E+00	Analog	0.50	3
Sn			1	203.504	ug/l	7.70	504,218.80	3.360E-01	Pulse	0.30	3
Sr			1	661.717	ug/l	7.60	1,841,534.21	1.227E+00	Analog	0.50	3
Ca			1	70821.266	ug/l	4.77	1,184,397.71	4.586E+00	Pulse	0.50	3
Ti			1	209.481	ug/l	4.86	22,364.41	8.658E-02	Pulse	0.50	3
Na			1	36922.392	ug/l	4.55	30,929,277.33	1.197E+02	Analog	1.00	3
Mg			1	27610.307	ug/l	5.67	11,611,200.33	4.497E+01	Analog	1.00	3
K			1	28498.795	ug/l	3.56	9,363,868.33	3.624E+01	Analog	1.00	3
V			1	204.670	ug/l	4.75	681,679.54	2.639E+00	Pulse	0.50	3
Mn			1	2431.721	ug/l	3.74	6,048,897.50	3.984E+01	Analog	0.50	3
Fe			1	94147.180	ug/l	3.96	327,461,045.33	2.157E+03	Analog	0.50	3
Co			1	228.771	ug/l	3.66	1,444,007.79	9.508E+00	Analog	0.50	3
Ni			1	208.568	ug/l	3.40	344,260.16	2.267E+00	Pulse	0.50	3
Cu			1	204.014	ug/l	4.33	892,235.52	5.877E+00	Pulse	0.50	3
Zn			1	198.009	ug/l	3.34	158,047.72	7.150E-01	Pulse	1.00	3
Cd			1	202.709	ug/l	3.26	242,490.06	1.097E+00	Pulse	0.50	3
Al			1	19628.181	ug/l	4.58	3,462,917.92	1.341E+01	Analog	1.00	3
Se			1	185.814	ug/l	2.88	8,374.30	3.788E-02	Pulse	3.00	3
Sb			1	206.573	ug/l	3.45	691,174.42	3.127E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,507,841.58	2.62	96.7	Analog	0.50	3
1	Sc		258,640.28	4.30	99.4	Pulse	0.30	3
1	Ge		151,952.97	3.15	100.0	Pulse	0.30	3
1	In		1,505,604.87	6.58	93.9	Mix	0.30	3
1	Tb		4,853,788.17	2.78	101.9	Analog	0.50	3
1	Lu		3,933,478.08	3.28	101.9	Analog	0.50	3
1	Ge		221,158.34	2.57	96.8	Pulse	0.30	3
1	Li		3,453.67	6.95	97.5	Pulse	0.30	3

Quantitation Report

File Name	039SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:35
Sample Name	MP43089-S2
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	205.984	ug/l	2.48	841,904.13	5.671E+00	Pulse	0.50	3
As			1	1915.722	ug/l	2.03	928,407.52	6.254E+00	Pulse	1.00	3
Mo			1	231.510	ug/l	1.88	480,633.99	2.224E+00	Pulse	0.50	3
Pb			1	212.293	ug/l	3.78	2,675,282.92	7.828E-01	Analog	1.00	3
Be			1	214.223	ug/l	2.15	10,839.94	4.351E-02	Pulse	2.00	3
Ag			1	105.291	ug/l	5.34	751,130.14	5.110E-01	Pulse	0.50	3
Ba			1	258.658	ug/l	6.06	273,011.29	1.858E-01	Pulse	0.50	3
Tl			1	208.152	ug/l	2.64	3,798,815.17	1.111E+00	Analog	0.50	3
Sn			1	207.307	ug/l	5.77	503,049.08	3.423E-01	Pulse	0.30	3
Sr			1	668.065	ug/l	5.65	1,820,857.46	1.239E+00	Analog	0.50	3
Ca			1	72268.470	ug/l	2.50	1,165,834.67	4.679E+00	Pulse	0.50	3
Ti			1	213.601	ug/l	2.45	21,995.94	8.828E-02	Pulse	0.50	3
Na			1	37609.163	ug/l	3.13	30,381,236.00	1.220E+02	Analog	1.00	3
Mg			1	28414.673	ug/l	3.90	11,526,848.00	4.628E+01	Analog	1.00	3
K			1	29249.915	ug/l	3.44	9,264,506.33	3.719E+01	Analog	1.00	3
V			1	208.502	ug/l	2.58	669,777.92	2.688E+00	Pulse	0.50	3
Mn			1	2444.302	ug/l	1.37	5,945,607.17	4.004E+01	Analog	0.50	3
Fe			1	94344.490	ug/l	1.28	320,901,205.33	2.161E+03	Analog	0.50	3
Co			1	226.610	ug/l	2.17	1,398,210.63	9.418E+00	Pulse	0.50	3
Ni			1	210.509	ug/l	2.29	339,704.26	2.288E+00	Pulse	0.50	3
Cu			1	205.823	ug/l	2.59	880,148.52	5.929E+00	Pulse	0.50	3
Zn			1	199.418	ug/l	2.27	155,651.01	7.201E-01	Pulse	1.00	3
Cd			1	206.236	ug/l	2.72	241,237.73	1.116E+00	Pulse	0.50	3
Al			1	20299.866	ug/l	3.61	3,453,775.25	1.387E+01	Analog	1.00	3
Se			1	186.810	ug/l	2.47	8,231.68	3.808E-02	Pulse	3.00	3
Sb			1	209.518	ug/l	2.90	685,483.08	3.172E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,419,015.33	1.79	94.2	Analog	0.50	3
1	Sc		249,251.48	2.59	95.8	Pulse	0.30	3
1	Ge		148,497.30	1.94	97.8	Pulse	0.30	3
1	In		1,472,495.05	5.13	91.8	Mix	0.30	3
1	Tb		4,734,861.33	2.49	99.4	Analog	0.50	3
1	Lu		3,850,519.42	1.63	99.7	Analog	0.50	3
1	Ge		216,215.71	2.13	94.7	Pulse	0.30	3
1	Li		3,399.22	3.61	96.0	Pulse	0.30	3

Quantitation Report

File Name	040SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:39
Sample Name	MP43089-PS1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	22.638	ug/l	5.91	92,629.62	6.253E-01	Pulse	0.50	3
As			1	1768.731	ug/l	3.99	855,615.67	5.774E+00	Pulse	1.00	3
Mo			1	24.889	ug/l	3.31	51,772.21	2.392E-01	Pulse	0.50	3
Pb			1	22.384	ug/l	2.89	292,118.52	8.277E-02	Pulse	1.00	3
Be			1	23.531	ug/l	3.13	1,204.04	4.784E-03	Pulse	2.00	3
Ag			1	6.223	ug/l	6.62	45,177.30	3.024E-02	Pulse	0.50	3
Ba			1	74.891	ug/l	7.64	80,346.61	5.381E-02	Pulse	0.50	3
Tl			1	21.363	ug/l	3.12	402,600.51	1.141E-01	Pulse	0.50	3
Sn			1	21.784	ug/l	8.50	53,871.98	3.609E-02	Pulse	0.30	3
Sr			1	449.149	ug/l	7.74	1,243,783.21	8.330E-01	Pulse	0.50	3
Ca			1	54545.256	ug/l	3.78	888,878.39	3.532E+00	Pulse	0.50	3
Ti			1	23.590	ug/l	8.79	2,455.51	9.764E-03	Pulse	0.50	3
Na			1	19477.481	ug/l	4.50	15,900,026.33	6.318E+01	Analog	1.00	3
Mg			1	10057.633	ug/l	3.55	4,123,212.17	1.638E+01	Analog	1.00	3
K			1	11030.942	ug/l	3.41	3,557,146.17	1.413E+01	Analog	1.00	3
V			1	23.290	ug/l	3.23	78,905.72	3.135E-01	Pulse	0.50	3
Mn			1	2299.386	ug/l	4.34	5,582,077.67	3.767E+01	Analog	0.50	3
Fe			1	78163.095	ug/l	4.63	265,322,517.33	1.791E+03	Analog	0.50	3
Co			1	42.824	ug/l	3.98	263,813.70	1.780E+00	Pulse	0.50	3
Ni			1	30.893	ug/l	3.86	49,902.12	3.367E-01	Pulse	0.50	3
Cu			1	23.902	ug/l	4.47	105,823.82	7.142E-01	Pulse	0.50	3
Zn			1	26.153	ug/l	3.33	21,020.94	9.712E-02	Pulse	1.00	3
Cd			1	22.366	ug/l	4.50	26,198.51	1.211E-01	Pulse	0.50	3
Al			1	2140.729	ug/l	4.33	368,241.41	1.463E+00	Pulse	1.00	3
Se			1	20.519	ug/l	2.28	920.58	4.252E-03	Pulse	3.00	3
Sb			1	21.261	ug/l	4.00	69,690.95	3.220E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,530,206.83	1.51	97.3	Analog	0.50	3
1	Sc		251,848.32	2.71	96.8	Pulse	0.30	3
1	Ge		148,294.02	2.68	97.6	Pulse	0.30	3
1	In		1,498,172.86	6.52	93.4	Mix	0.30	3
1	Tb		4,797,007.83	2.30	100.7	Analog	0.50	3
1	Lu		3,894,201.75	3.14	100.8	Analog	0.50	3
1	Ge		216,539.34	2.21	94.8	Pulse	0.30	3
1	Li		3,439.23	2.79	97.1	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:42
Sample Name FC10954-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.371	ug/l	4.37	1,862.77	1.250E-02	Pulse	0.50	3
As			1	556.981	ug/l	2.69	271,057.04	1.818E+00	Pulse	1.00	3
Mo			1	1.186	ug/l	5.15	2,534.86	1.157E-02	Pulse	0.50	3
Pb			1	0.078	ug/l	4.12	1,959.79	5.467E-04	Pulse	1.00	3
Be			1	0.086	ug/l	18.67	5.67	2.251E-05	Pulse	2.00	3
Ag			1	0.016	ug/l	28.26	175.33	1.169E-04	Pulse	0.50	3
Ba			1	56.344	ug/l	6.78	60,403.27	4.049E-02	Pulse	0.50	3
Tl			1	0.057	ug/l	8.78	1,147.38	3.204E-04	Pulse	0.50	3
Sn			1	0.425	ug/l	18.65	1,244.50	8.356E-04	Pulse	0.30	3
Sr			1	345.797	ug/l	6.85	956,767.19	6.414E-01	Pulse	0.50	3
Ca			1	39575.277	ug/l	3.78	645,310.27	2.563E+00	Pulse	0.50	3
Ti			1	0.361	ug/l	32.42	41.33	1.647E-04	Pulse	0.50	3
Na			1	17691.464	ug/l	5.77	14,447,778.67	5.740E+01	Analog	1.00	3
Mg			1	7010.376	ug/l	2.39	2,876,585.75	1.142E+01	Analog	1.00	3
K			1	9450.912	ug/l	2.92	3,055,941.33	1.213E+01	Analog	1.00	3
V			1	0.385	ug/l	10.70	4,986.70	1.979E-02	Pulse	0.50	3
Mn			1	1898.425	ug/l	3.97	4,635,342.17	3.110E+01	Analog	0.50	3
Fe			1	50217.473	ug/l	3.17	171,477,168.00	1.150E+03	Analog	0.50	3
Co			1	8.728	ug/l	2.14	54,150.89	3.633E-01	Pulse	0.50	3
Ni			1	2.387	ug/l	5.92	4,027.13	2.702E-02	Pulse	0.50	3
Cu			1	0.952	ug/l	12.41	8,387.31	5.629E-02	Pulse	0.50	3
Zn			1	2.993	ug/l	7.80	3,032.26	1.385E-02	Pulse	1.00	3
Cd			1	0.013	ug/l	35.36	19.33	8.846E-05	Pulse	0.50	3
Al			1	5.837	ug/l	6.67	1,325.05	5.254E-03	Pulse	1.00	3
Se			1	-0.039	ug/l	-133.25	15.22	6.944E-05	Pulse	3.00	3
Sb			1	0.097	ug/l	7.00	365.34	1.667E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,586,399.83	2.90	98.8	Analog	0.50	3
1	Sc		251,997.02	2.82	96.9	Pulse	0.30	3
1	Ge		149,104.54	1.75	98.2	Pulse	0.30	3
1	In		1,495,909.80	6.02	93.3	Mix	0.30	3
1	Tb		4,818,244.67	2.60	101.2	Analog	0.50	3
1	Lu		3,942,617.33	2.89	102.1	Analog	0.50	3
1	Ge		219,130.65	1.70	96.0	Pulse	0.30	3
1	Li		3,482.56	6.10	98.3	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 13:45
Sample Name FC10954-3
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.409	ug/l	6.06	2,023.46	1.354E-02	Pulse	0.50	3
As			1	5512.236	ug/l	2.96	2,688,251.50	1.799E+01	Analog	1.00	3
Mo			1	1.899	ug/l	3.67	4,053.82	1.842E-02	Pulse	0.50	3
Pb			1	0.019	ug/l	22.62	1,198.05	3.274E-04	Pulse	1.00	3
Be			1	0.097	ug/l	32.04	6.33	2.482E-05	Pulse	2.00	3
Ag			1	0.008	ug/l	15.70	123.33	8.156E-05	Pulse	0.50	3
Ba			1	29.176	ug/l	7.53	31,719.63	2.098E-02	Pulse	0.50	3
Tl			1	0.014	ug/l	22.03	328.67	8.995E-05	Pulse	0.50	3
Sn			1	0.331	ug/l	9.59	1,028.93	6.804E-04	Pulse	0.30	3
Sr			1	336.417	ug/l	7.34	943,650.92	6.240E-01	Pulse	0.50	3
Ca			1	46748.643	ug/l	3.56	768,990.50	3.027E+00	Pulse	0.50	3
Ti			1	0.261	ug/l	30.43	31.33	1.232E-04	Pulse	0.50	3
Na			1	10284.098	ug/l	4.02	8,480,452.33	3.339E+01	Analog	1.00	3
Mg			1	5887.713	ug/l	3.37	2,436,836.50	9.592E+00	Analog	1.00	3
K			1	6035.633	ug/l	3.23	1,984,402.29	7.811E+00	Analog	1.00	3
V			1	0.423	ug/l	15.00	5,149.41	2.027E-02	Pulse	0.50	3
Mn			1	3067.088	ug/l	2.92	7,507,313.50	5.025E+01	Analog	0.50	3
Fe			1	77106.554	ug/l	2.84	263,918,848.00	1.766E+03	Analog	0.50	3
Co			1	27.341	ug/l	2.61	169,854.46	1.137E+00	Pulse	0.50	3
Ni			1	12.518	ug/l	3.93	20,479.64	1.371E-01	Pulse	0.50	3
Cu			1	0.916	ug/l	5.04	8,257.93	5.527E-02	Pulse	0.50	3
Zn			1	4.771	ug/l	1.01	4,454.56	2.024E-02	Pulse	1.00	3
Cd			1	0.002	ug/l	143.31	7.33	3.310E-05	Pulse	0.50	3
Al			1	3.400	ug/l	2.26	912.69	3.590E-03	Pulse	1.00	3
Se			1	0.031	ug/l	74.84	18.44	8.375E-05	Pulse	3.00	3
Sb			1	0.160	ug/l	6.20	580.34	2.635E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,658,080.75	2.19	100.8	Analog	0.50	3
1	Sc		254,223.35	3.10	97.7	Pulse	0.30	3
1	Ge		149,461.15	2.00	98.4	Pulse	0.30	3
1	In		1,517,507.47	6.94	94.7	Mix	0.30	3
1	Tb		4,850,265.83	2.69	101.8	Analog	0.50	3
1	Lu		3,971,109.92	2.71	102.8	Analog	0.50	3
1	Ge		220,079.98	1.81	96.4	Pulse	0.30	3
1	Li		3,465.90	1.49	97.8	Pulse	0.30	3

Quantitation Report

File Name	043CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:48
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.771	ug/l	1.05	447,868.94	2.797E+00	Pulse	0.50	3
As			1	52.078	ug/l	0.39	54,500.24	3.404E-01	Pulse	1.00	3
Mo			1	50.198	ug/l	0.43	231,114.28	9.643E-01	Pulse	0.50	3
Pb			1	50.317	ug/l	0.67	1,408,976.63	3.712E-01	Pulse	1.00	3
Be			1	52.219	ug/l	1.33	5,768.22	2.121E-02	Pulse	2.00	3
Ag			1	49.696	ug/l	1.49	816,653.64	4.824E-01	Pulse	0.50	3
Ba			1	47.910	ug/l	2.15	116,534.45	6.884E-02	Pulse	0.50	3
Tl			1	52.058	ug/l	1.24	2,109,836.00	5.559E-01	Analog	0.50	3
Sn			1	47.648	ug/l	1.94	266,490.44	1.574E-01	Pulse	0.30	3
Sr			1	47.684	ug/l	2.03	299,607.68	1.770E-01	Pulse	0.50	3
Ca			1	5109.417	ug/l	1.20	180,007.77	6.620E-01	Pulse	0.50	3
Ti			1	49.907	ug/l	1.73	11,220.82	4.126E-02	Pulse	0.50	3
Na			1	5290.238	ug/l	0.84	9,339,691.67	3.435E+01	Analog	1.00	3
Mg			1	5262.273	ug/l	1.19	4,661,641.50	1.714E+01	Analog	1.00	3
K			1	5351.272	ug/l	0.25	3,730,080.25	1.372E+01	Analog	1.00	3
V			1	50.578	ug/l	0.91	356,752.00	1.312E+00	Pulse	0.50	3
Mn			1	51.389	ug/l	0.39	269,863.93	1.685E+00	Pulse	0.50	3
Fe			1	5194.275	ug/l	0.86	38,117,164.00	2.380E+02	Analog	0.50	3
Co			1	51.742	ug/l	1.30	688,769.23	4.301E+00	Pulse	0.50	3
Ni			1	52.421	ug/l	0.99	182,586.78	1.140E+00	Pulse	0.50	3
Cu			1	52.562	ug/l	1.08	487,177.40	3.042E+00	Pulse	0.50	3
Zn			1	51.729	ug/l	1.06	89,890.48	3.751E-01	Pulse	1.00	3
Cd			1	51.556	ug/l	1.67	133,739.52	5.581E-01	Pulse	0.50	3
Al			1	5205.862	ug/l	2.52	1,934,049.71	7.112E+00	Analog	1.00	3
Se			1	50.745	ug/l	0.70	4,967.14	2.073E-02	Pulse	3.00	3
Sb			1	50.229	ug/l	0.85	364,476.03	1.521E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,795,479.83	0.88	104.6	Analog	0.50	3
1	Sc		271,928.30	0.27	104.5	Pulse	0.30	3
1	Ge		160,129.68	0.67	105.4	Pulse	0.30	3
1	In		1,692,914.31	0.42	105.6	Analog	0.30	3
1	Tb		5,093,920.83	0.71	107.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,190,175.92	0.29	108.5	Analog	0.50	3
1	Ge		239,655.03	0.64	104.9	Pulse	0.30	3
1	Li		3,704.83	3.71	104.6	Pulse	0.30	3

Quantitation Report

File Name	044_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:51
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.114	ug/l	2.03	874,227.54	5.568E+00	Pulse	0.50	3
As			1	102.095	ug/l	1.19	104,712.35	6.669E-01	Pulse	1.00	3
Mo			1	102.488	ug/l	0.75	457,277.63	1.969E+00	Pulse	0.50	3
Pb			1	103.037	ug/l	2.00	2,818,522.58	7.599E-01	Analog	1.00	3
Be			1	105.596	ug/l	1.56	11,401.94	4.289E-02	Pulse	2.00	3
Ag			1	102.595	ug/l	1.08	1,638,990.67	9.959E-01	Analog	0.50	3
Ba			1	96.882	ug/l	1.54	229,058.37	1.392E-01	Pulse	0.50	3
Tl			1	102.482	ug/l	1.79	4,059,145.50	1.094E+00	Analog	0.50	3
Sn			1	96.770	ug/l	1.36	525,954.11	3.196E-01	Pulse	0.30	3
Sr			1	96.447	ug/l	1.09	588,896.23	3.578E-01	Pulse	0.50	3
Ca			1	10143.728	ug/l	0.57	349,290.59	1.314E+00	Pulse	0.50	3
Ti			1	101.797	ug/l	0.84	22,371.73	8.415E-02	Pulse	0.50	3
Na			1	10402.852	ug/l	0.47	17,942,646.00	6.749E+01	Analog	1.00	3
Mg			1	10384.942	ug/l	1.49	8,992,650.00	3.383E+01	Analog	1.00	3
K			1	10483.972	ug/l	0.08	7,101,013.50	2.671E+01	Analog	1.00	3
V			1	101.528	ug/l	1.49	696,114.48	2.619E+00	Pulse	0.50	3
Mn			1	101.423	ug/l	1.64	522,013.36	3.325E+00	Pulse	0.50	3
Fe			1	10257.080	ug/l	1.58	73,796,890.67	4.700E+02	Analog	0.50	3
Co			1	102.169	ug/l	1.53	1,333,502.50	8.493E+00	Pulse	0.50	3
Ni			1	102.844	ug/l	1.30	351,075.51	2.236E+00	Pulse	0.50	3
Cu			1	103.038	ug/l	1.39	932,095.94	5.936E+00	Pulse	0.50	3
Zn			1	103.242	ug/l	1.35	173,161.06	7.455E-01	Pulse	1.00	3
Cd			1	102.532	ug/l	1.80	257,768.59	1.110E+00	Pulse	0.50	3
Al			1	10275.548	ug/l	2.30	3,731,564.75	1.404E+01	Analog	1.00	3
Se			1	100.752	ug/l	0.86	9,540.55	4.107E-02	Pulse	3.00	3
Sb			1	101.566	ug/l	1.41	714,218.58	3.075E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,709,172.25	0.40	102.2	Analog	0.50	3
1	Sc		265,863.73	0.94	102.2	Pulse	0.30	3
1	Ge		157,030.18	1.00	103.4	Pulse	0.30	3
1	In		1,645,859.17	0.80	102.7	Analog	0.30	3
1	Tb		4,945,718.00	0.69	103.8	Analog	0.50	3
1	Lu		4,054,806.58	0.61	105.0	Analog	0.50	3
1	Ge		232,279.86	0.64	101.7	Pulse	0.30	3
1	Li		3,637.04	0.97	102.7	Pulse	0.30	3

Quantitation Report

File Name	045_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:54
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.043	ug/l	51.30	722.68	4.634E-03	Pulse	0.50	3
As			1	0.062	ug/l	21.75	120.00	7.697E-04	Pulse	1.00	3
Mo			1	0.255	ug/l	30.14	1,178.71	5.086E-03	Pulse	0.50	3
Pb			1	0.053	ug/l	34.62	2,469.87	6.473E-04	Pulse	1.00	3
Be			1	0.077	ug/l	46.25	9.67	3.655E-05	Pulse	2.00	3
Ag			1	0.042	ug/l	42.69	743.36	4.455E-04	Pulse	0.50	3
Ba			1	0.045	ug/l	43.54	142.67	8.551E-05	Pulse	0.50	3
Tl			1	0.040	ug/l	26.68	1,680.77	4.406E-04	Pulse	0.50	3
Sn			1	0.201	ug/l	19.38	1,337.84	7.990E-04	Pulse	0.30	3
Sr			1	0.031	ug/l	43.00	440.01	2.632E-04	Pulse	0.50	3
Ca			1	4.679	ug/l	21.48	252.67	9.544E-04	Pulse	0.50	3
Ti			1	0.027	ug/l	33.74	10.00	3.779E-05	Pulse	0.50	3
Na			1	3.919	ug/l	44.53	20,425.69	7.717E-02	Pulse	1.00	3
Mg			1	4.024	ug/l	43.38	4,474.59	1.690E-02	Pulse	1.00	3
K			1	5.252	ug/l	37.05	49,010.74	1.852E-01	Pulse	1.00	3
V			1	-0.270	ug/l	-10.27	2,093.46	7.909E-03	Pulse	0.50	3
Mn			1	0.081	ug/l	22.54	652.68	4.186E-03	Pulse	0.50	3
Fe			1	6.073	ug/l	29.94	50,447.53	3.235E-01	Pulse	0.50	3
Co			1	0.043	ug/l	38.91	632.01	4.052E-03	Pulse	0.50	3
Ni			1	0.030	ug/l	51.80	269.33	1.727E-03	Pulse	0.50	3
Cu			1	0.091	ug/l	56.67	5,336.15	3.423E-02	Pulse	0.50	3
Zn			1	0.117	ug/l	42.17	911.02	3.929E-03	Pulse	1.00	3
Cd			1	0.039	ug/l	44.33	102.67	4.426E-04	Pulse	0.50	3
Al			1	4.715	ug/l	36.46	2,039.83	7.708E-03	Pulse	1.00	3
Se			1	0.125	ug/l	49.83	29.78	1.284E-04	Pulse	3.00	3
Sb			1	0.085	ug/l	13.74	643.35	2.774E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,821,676.75	1.10	105.3	Analog	0.50	3
1	Sc		264,672.76	0.39	101.8	Pulse	0.30	3
1	Ge		155,884.83	0.26	102.6	Pulse	0.30	3
1	In		1,673,401.95	1.44	104.4	Analog	0.30	3
1	Tb		4,980,784.83	1.75	104.6	Analog	0.50	3
1	Lu		4,073,390.58	0.93	105.5	Analog	0.50	3
1	Ge		231,852.25	0.25	101.5	Pulse	0.30	3
1	Li		3,867.09	2.41	109.2	Pulse	0.30	3

Quantitation Report

File Name	046SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 13:58
Sample Name	FC10955-1
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.076	ug/l	3.20	4,536.58	3.189E-02	Pulse	0.50	3
As			1	4.995	ug/l	2.99	2,371.83	1.667E-02	Pulse	1.00	3
Mo			1	0.280	ug/l	30.93	608.01	2.869E-03	Pulse	0.50	3
Pb			1	0.637	ug/l	3.68	9,397.09	2.607E-03	Pulse	1.00	3
Be			1	0.019	ug/l	218.56	2.17	8.978E-06	Pulse	2.00	3
Ag			1	0.024	ug/l	11.00	233.33	1.589E-04	Pulse	0.50	3
Ba			1	3.480	ug/l	5.25	3,705.08	2.521E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	11.19	254.00	7.043E-05	Pulse	0.50	3
Sn			1	0.659	ug/l	12.41	1,792.33	1.222E-03	Pulse	0.30	3
Sr			1	295.483	ug/l	5.77	805,417.00	5.481E-01	Pulse	0.50	3
Ca			1	42567.855	ug/l	3.89	679,334.27	2.756E+00	Pulse	0.50	3
Ti			1	0.279	ug/l	37.56	32.00	1.305E-04	Pulse	0.50	3
Na			1	15248.688	ug/l	3.26	12,196,105.67	4.948E+01	Analog	1.00	3
Mg			1	6767.400	ug/l	3.59	2,717,294.42	1.102E+01	Analog	1.00	3
K			1	29218.891	ug/l	2.69	9,158,965.67	3.715E+01	Analog	1.00	3
V			1	0.598	ug/l	12.47	5,546.87	2.251E-02	Pulse	0.50	3
Mn			1	6754.702	ug/l	4.09	15,738,632.33	1.107E+02	Analog	0.50	3
Fe			1	90.536	ug/l	4.95	301,355.03	2.119E+00	Pulse	0.50	3
Co			1	0.115	ug/l	4.24	752.02	5.280E-03	Pulse	0.50	3
Ni			1	15.457	ug/l	3.78	24,042.02	1.690E-01	Pulse	0.50	3
Cu			1	7.610	ug/l	6.11	35,138.90	2.471E-01	Pulse	0.50	3
Zn			1	12.848	ug/l	4.09	10,484.74	4.928E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	368.23	4.67	2.196E-05	Pulse	0.50	3
Al			1	3.614	ug/l	3.67	921.02	3.736E-03	Pulse	1.00	3
Se			1	0.049	ug/l	134.12	18.55	8.732E-05	Pulse	3.00	3
Sb			1	0.086	ug/l	14.60	321.00	1.511E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,607,990.25	3.77	99.4	Analog	0.50	3
1	Sc		246,682.72	3.50	94.8	Pulse	0.30	3
1	Ge		142,370.69	3.77	93.7	Pulse	0.30	3
1	In		1,472,689.49	5.48	91.9	Mix	0.30	3
1	Tb		4,793,143.67	3.39	100.6	Analog	0.50	3
1	Lu		3,842,012.67	2.38	99.5	Analog	0.50	3
1	Ge		212,879.93	2.48	93.2	Pulse	0.30	3
1	Li		3,632.60	4.50	102.5	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:01
Sample Name FC10941-1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	804.022	ug/l	2.27	69,739.31	4.448E-01	Pulse	0.50	3
As			1	452.288	ug/l	2.00	4,687.29	2.989E-02	Pulse	1.00	3
Mo			1	25.190	ug/l	5.78	1,168.71	5.022E-03	Pulse	0.50	3
Pb			1	324.887	ug/l	1.03	93,617.10	2.421E-02	Pulse	1.00	3
Be			1	19.366	ug/l	9.30	22.83	8.378E-05	Pulse	2.00	3
Ag			1	1.233	ug/l	10.12	264.00	1.611E-04	Pulse	0.50	3
Ba			1	1281.522	ug/l	0.78	30,156.79	1.843E-02	Pulse	0.50	3
Tl			1	6.022	ug/l	3.47	2,548.88	6.593E-04	Pulse	0.50	3
Sn			1	57.086	ug/l	4.29	3,301.45	2.019E-03	Pulse	0.30	3
Sr			1	302.342	ug/l	0.51	18,592.60	1.136E-02	Pulse	0.50	3
Ca			1	113063.887	ug/l	1.17	40,027.06	1.468E-01	Pulse	0.50	3
Ti			1	12380.777	ug/l	1.29	27,914.02	1.023E-01	Pulse	0.50	3
Na			1	3063.159	ug/l	3.51	68,247.62	2.503E-01	Pulse	1.00	3
Mg			1	86563.603	ug/l	1.35	770,027.46	2.823E+00	Pulse	1.00	3
K			1	50171.965	ug/l	1.04	393,255.29	1.442E+00	Pulse	1.00	3
V			1	2209.055	ug/l	2.34	158,585.16	5.814E-01	Pulse	0.50	3
Mn			1	8272.593	ug/l	1.72	425,210.77	2.712E+00	Pulse	0.50	3
Fe			1	1088036.991	ug/l	1.99	78,167,698.67	4.986E+02	Analog	0.50	3
Co			1	277.165	ug/l	2.40	36,200.25	2.309E-01	Pulse	0.50	3
Ni			1	1180.144	ug/l	2.65	40,376.41	2.575E-01	Pulse	0.50	3
Cu			1	5749.580	ug/l	2.17	521,386.50	3.325E+00	Pulse	0.50	3
Zn			1	1344.289	ug/l	1.17	23,223.32	9.976E-02	Pulse	1.00	3
Cd			1	2.432	ug/l	13.42	66.00	2.837E-04	Pulse	0.50	3
Al			1	635140.725	ug/l	0.03	2,366,282.33	8.677E+00	Analog	1.00	3
Se			1	31.582	ug/l	18.75	48.00	2.059E-04	Pulse	3.00	3
Sb			1	4.173	ug/l	8.08	342.33	1.469E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,867,053.08	1.90	106.6	Analog	0.50	3
1	Sc		272,716.06	1.72	104.8	Pulse	0.30	3
1	Ge		156,769.13	1.55	103.2	Pulse	0.30	3
1	In		1,636,530.91	2.74	102.1	Analog	0.30	3
1	Tb		5,080,443.17	1.35	106.7	Analog	0.50	3
1	Lu		4,104,444.83	1.43	106.3	Analog	0.50	3
1	Ge		232,794.84	2.11	101.9	Pulse	0.30	3
1	Li		3,704.83	1.23	104.6	Pulse	0.30	3

Quantitation Report

File Name	048SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:04
Sample Name	MP43092-D1
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	771.818	ug/l	0.92	70,235.18	4.271E-01	Pulse	0.50	3
As			1	425.573	ug/l	1.37	4,628.94	2.815E-02	Pulse	1.00	3
Mo			1	24.829	ug/l	3.81	1,210.05	4.953E-03	Pulse	0.50	3
Pb			1	323.565	ug/l	1.35	94,802.50	2.411E-02	Pulse	1.00	3
Be			1	16.009	ug/l	33.34	20.00	7.015E-05	Pulse	2.00	3
Ag			1	0.942	ug/l	20.48	230.67	1.329E-04	Pulse	0.50	3
Ba			1	1199.734	ug/l	0.95	29,967.15	1.725E-02	Pulse	0.50	3
Tl			1	7.165	ug/l	3.16	3,071.64	7.813E-04	Pulse	0.50	3
Sn			1	52.354	ug/l	1.76	3,234.77	1.863E-03	Pulse	0.30	3
Sr			1	263.327	ug/l	2.72	17,215.13	9.913E-03	Pulse	0.50	3
Ca			1	84039.617	ug/l	1.10	31,160.53	1.092E-01	Pulse	0.50	3
Ti			1	12979.478	ug/l	0.98	30,623.01	1.073E-01	Pulse	0.50	3
Na			1	2638.743	ug/l	0.86	63,598.30	2.228E-01	Pulse	1.00	3
Mg			1	72838.768	ug/l	1.23	678,201.56	2.376E+00	Pulse	1.00	3
K			1	48858.864	ug/l	1.00	402,054.00	1.409E+00	Pulse	1.00	3
V			1	2227.229	ug/l	1.83	167,260.82	5.860E-01	Pulse	0.50	3
Mn			1	8258.619	ug/l	1.71	445,221.52	2.707E+00	Pulse	0.50	3
Fe			1	1053878.663	ug/l	2.06	79,410,485.33	4.829E+02	Analog	0.50	3
Co			1	277.164	ug/l	1.43	37,966.49	2.309E-01	Pulse	0.50	3
Ni			1	958.110	ug/l	2.48	34,413.42	2.093E-01	Pulse	0.50	3
Cu			1	2864.429	ug/l	2.02	274,813.15	1.671E+00	Pulse	0.50	3
Zn			1	1510.384	ug/l	1.69	27,290.35	1.117E-01	Pulse	1.00	3
Cd			1	2.432	ug/l	24.88	69.33	2.837E-04	Pulse	0.50	3
Al			1	701396.892	ug/l	2.86	2,734,681.50	9.582E+00	Analog	1.00	3
Se			1	30.710	ug/l	14.16	49.44	2.023E-04	Pulse	3.00	3
Sb			1	3.615	ug/l	12.41	317.67	1.300E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,931,705.67	0.48	108.3	Analog	0.50	3
1	Sc		285,434.11	0.54	109.7	Pulse	0.30	3
1	Ge		164,449.90	0.57	108.3	Pulse	0.30	3
1	In		1,736,923.61	1.29	108.3	Analog	0.30	3
1	Tb		5,154,005.67	0.66	108.2	Analog	0.50	3
1	Lu		4,221,873.00	0.42	109.3	Analog	0.50	3
1	Ge		244,315.19	0.36	107.0	Pulse	0.30	3
1	Li		4,006.00	4.58	113.1	Pulse	0.30	3

Quantitation Report

File Name 049SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:08
Sample Name MP43092-S1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1639.608	ug/l	1.17	145,446.74	9.048E-01	Pulse	0.50	3
As			1	964.130	ug/l	1.51	10,180.25	6.331E-02	Pulse	1.00	3
Mo			1	507.301	ug/l	3.33	23,355.61	9.762E-02	Pulse	0.50	3
Pb			1	822.412	ug/l	0.62	232,353.54	6.089E-02	Pulse	1.00	3
Be			1	572.326	ug/l	1.79	658.51	2.330E-03	Pulse	2.00	3
Ag			1	241.389	ug/l	1.66	39,450.74	2.347E-02	Pulse	0.50	3
Ba			1	1980.753	ug/l	0.83	47,862.07	2.847E-02	Pulse	0.50	3
Tl			1	494.824	ug/l	0.49	201,702.95	5.286E-02	Pulse	0.50	3
Sn			1	549.978	ug/l	1.82	30,740.89	1.829E-02	Pulse	0.30	3
Sr			1	799.103	ug/l	0.83	50,064.18	2.978E-02	Pulse	0.50	3
Ca			1	140924.378	ug/l	1.42	51,660.08	1.828E-01	Pulse	0.50	3
Ti			1	15954.684	ug/l	0.92	37,264.63	1.319E-01	Pulse	0.50	3
Na			1	55449.788	ug/l	0.84	1,030,342.25	3.646E+00	Pulse	1.00	3
Mg			1	170162.884	ug/l	2.47	1,566,952.54	5.546E+00	Analog	1.00	3
K			1	146683.732	ug/l	0.79	1,097,731.04	3.885E+00	Pulse	1.00	3
V			1	3109.058	ug/l	1.84	229,470.43	8.122E-01	Pulse	0.50	3
Mn			1	8311.186	ug/l	0.74	437,985.41	2.725E+00	Pulse	0.50	3
Fe			1	1080346.651	ug/l	0.23	79,585,456.00	4.950E+02	Analog	0.50	3
Co			1	826.405	ug/l	1.48	110,487.17	6.874E-01	Pulse	0.50	3
Ni			1	1617.405	ug/l	1.35	56,664.67	3.525E-01	Pulse	0.50	3
Cu			1	2912.180	ug/l	1.50	273,007.41	1.699E+00	Pulse	0.50	3
Zn			1	2330.007	ug/l	1.27	40,802.85	1.706E-01	Pulse	1.00	3
Cd			1	533.449	ug/l	0.69	13,811.54	5.776E-02	Pulse	0.50	3
Al			1	778941.571	ug/l	1.53	3,006,409.42	1.064E+01	Analog	1.00	3
Se			1	509.922	ug/l	3.59	514.67	2.152E-03	Pulse	3.00	3
Sb			1	207.976	ug/l	0.70	15,105.65	6.317E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,816,295.25	2.59	105.2	Analog	0.50	3
1	Sc		282,594.66	2.64	108.6	Pulse	0.30	3
1	Ge		160,770.29	2.89	105.8	Pulse	0.30	3
1	In		1,681,223.65	2.86	104.9	Analog	0.30	3
1	Tb		5,061,713.17	3.40	106.3	Analog	0.50	3
1	Lu		4,104,139.25	3.35	106.3	Analog	0.50	3
1	Ge		239,140.14	2.29	104.7	Pulse	0.30	3
1	Li		3,784.84	8.24	106.8	Pulse	0.30	3

Quantitation Report

File Name	050SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:11
Sample Name	MP43092-S2
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1149.633	ug/l	1.72	101,592.98	6.351E-01	Pulse	0.50	3
As			1	894.445	ug/l	1.16	9,400.83	5.876E-02	Pulse	1.00	3
Mo			1	478.360	ug/l	0.82	21,828.93	9.206E-02	Pulse	0.50	3
Pb			1	830.850	ug/l	1.57	237,007.18	6.151E-02	Pulse	1.00	3
Be			1	540.842	ug/l	2.72	615.18	2.202E-03	Pulse	2.00	3
Ag			1	239.564	ug/l	1.80	39,228.87	2.329E-02	Pulse	0.50	3
Ba			1	1759.974	ug/l	3.01	42,605.43	2.530E-02	Pulse	0.50	3
Tl			1	490.508	ug/l	2.25	201,867.03	5.240E-02	Pulse	0.50	3
Sn			1	534.508	ug/l	2.12	29,940.55	1.778E-02	Pulse	0.30	3
Sr			1	1031.446	ug/l	0.86	64,671.40	3.840E-02	Pulse	0.50	3
Ca			1	506223.594	ug/l	1.07	183,274.35	6.558E-01	Pulse	0.50	3
Ti			1	11804.928	ug/l	1.59	27,267.77	9.758E-02	Pulse	0.50	3
Na			1	53671.468	ug/l	0.76	986,759.94	3.531E+00	Pulse	1.00	3
Mg			1	184130.934	ug/l	1.20	1,676,898.67	6.001E+00	Analog	1.00	3
K			1	96599.982	ug/l	0.80	731,332.67	2.617E+00	Pulse	1.00	3
V			1	2455.956	ug/l	1.60	180,145.89	6.447E-01	Pulse	0.50	3
Mn			1	10937.102	ug/l	1.95	573,494.92	3.585E+00	Pulse	0.50	3
Fe			1	1066479.673	ug/l	1.87	78,172,957.33	4.887E+02	Analog	0.50	3
Co			1	883.228	ug/l	1.55	117,523.00	7.346E-01	Pulse	0.50	3
Ni			1	1380.172	ug/l	1.61	48,151.36	3.010E-01	Pulse	0.50	3
Cu			1	3811.116	ug/l	1.88	354,161.19	2.214E+00	Pulse	0.50	3
Zn			1	1974.156	ug/l	0.16	34,393.47	1.451E-01	Pulse	1.00	3
Cd			1	543.035	ug/l	0.89	13,942.32	5.880E-02	Pulse	0.50	3
Al			1	707536.009	ug/l	1.80	2,700,897.42	9.666E+00	Analog	1.00	3
Se			1	529.664	ug/l	1.94	529.34	2.233E-03	Pulse	3.00	3
Sb			1	167.655	ug/l	1.98	12,082.59	5.096E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,853,524.08	1.45	106.2	Analog	0.50	3
1	Sc		279,463.02	0.93	107.4	Pulse	0.30	3
1	Ge		159,992.06	1.13	105.3	Pulse	0.30	3
1	In		1,684,284.13	1.23	105.1	Analog	0.30	3
1	Tb		5,057,093.00	0.72	106.2	Analog	0.50	3
1	Lu		4,120,794.08	0.68	106.7	Analog	0.50	3
1	Ge		237,113.90	0.83	103.8	Pulse	0.30	3
1	Li		3,745.95	1.21	105.7	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:14
Sample Name MP43092-PS1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	823.048	ug/l	1.57	74,579.68	4.553E-01	Pulse	0.50	3
As			1	460.069	ug/l	1.52	4,980.04	3.040E-02	Pulse	1.00	3
Mo			1	37.214	ug/l	2.97	1,770.10	7.332E-03	Pulse	0.50	3
Pb			1	342.823	ug/l	0.36	98,523.33	2.553E-02	Pulse	1.00	3
Be			1	27.896	ug/l	10.21	33.67	1.184E-04	Pulse	2.00	3
Ag			1	4.306	ug/l	5.73	797.35	4.594E-04	Pulse	0.50	3
Ba			1	1283.462	ug/l	0.47	32,030.21	1.846E-02	Pulse	0.50	3
Tl			1	16.677	ug/l	1.76	6,934.18	1.797E-03	Pulse	0.50	3
Sn			1	64.296	ug/l	3.65	3,916.03	2.257E-03	Pulse	0.30	3
Sr			1	301.551	ug/l	1.28	19,663.65	1.133E-02	Pulse	0.50	3
Ca			1	117167.083	ug/l	1.03	43,226.30	1.521E-01	Pulse	0.50	3
Ti			1	12741.925	ug/l	1.05	29,939.86	1.053E-01	Pulse	0.50	3
Na			1	3674.232	ug/l	0.23	82,421.56	2.899E-01	Pulse	1.00	3
Mg			1	88259.184	ug/l	1.48	818,187.92	2.878E+00	Pulse	1.00	3
K			1	51193.460	ug/l	0.91	417,211.95	1.468E+00	Pulse	1.00	3
V			1	2252.857	ug/l	1.33	168,446.76	5.926E-01	Pulse	0.50	3
Mn			1	8199.365	ug/l	1.41	440,307.57	2.688E+00	Pulse	0.50	3
Fe			1	1102279.157	ug/l	1.16	82,733,906.67	5.051E+02	Analog	0.50	3
Co			1	293.286	ug/l	1.97	40,013.52	2.443E-01	Pulse	0.50	3
Ni			1	1192.188	ug/l	1.12	42,613.51	2.601E-01	Pulse	0.50	3
Cu			1	5790.661	ug/l	1.38	548,545.77	3.349E+00	Pulse	0.50	3
Zn			1	1355.304	ug/l	1.28	24,275.04	1.005E-01	Pulse	1.00	3
Cd			1	12.336	ug/l	8.87	327.34	1.356E-03	Pulse	0.50	3
Al			1	636943.793	ug/l	1.85	2,473,400.92	8.701E+00	Analog	1.00	3
Se			1	43.300	ug/l	13.73	61.22	2.536E-04	Pulse	3.00	3
Sb			1	14.380	ug/l	2.98	1,100.71	4.559E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,858,830.25	0.99	106.3	Analog	0.50	3
1	Sc		284,268.71	0.46	109.3	Pulse	0.30	3
1	Ge		163,811.71	0.56	107.8	Pulse	0.30	3
1	In		1,735,389.44	0.48	108.2	Analog	0.30	3
1	Tb		5,136,405.00	0.63	107.9	Analog	0.50	3
1	Lu		4,161,946.75	0.83	107.8	Analog	0.50	3
1	Ge		241,429.29	0.20	105.7	Pulse	0.30	3
1	Li		3,905.98	0.81	110.3	Pulse	0.30	3

Quantitation Report

File Name	052SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:18
Sample Name	FC10941-2
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	650.129	ug/l	1.88	115,002.29	7.180E-01	Pulse	0.50	3
As			1	94.442	ug/l	1.83	2,033.79	1.270E-02	Pulse	1.00	3
Mo			1	30.045	ug/l	4.27	2,758.89	1.173E-02	Pulse	0.50	3
Pb			1	286.144	ug/l	1.53	161,211.35	4.245E-02	Pulse	1.00	3
Be			1	12.234	ug/l	8.24	29.83	1.045E-04	Pulse	2.00	3
Ag			1	2.321	ug/l	7.22	818.69	4.920E-04	Pulse	0.50	3
Ba			1	857.307	ug/l	1.81	41,024.17	2.465E-02	Pulse	0.50	3
Tl			1	3.196	ug/l	2.46	2,653.56	6.988E-04	Pulse	0.50	3
Sn			1	45.103	ug/l	1.98	5,179.70	3.112E-03	Pulse	0.30	3
Sr			1	128.664	ug/l	1.44	16,128.74	9.691E-03	Pulse	0.50	3
Ca			1	36347.795	ug/l	2.89	26,955.86	9.448E-02	Pulse	0.50	3
Ti			1	5879.607	ug/l	1.24	27,737.76	9.720E-02	Pulse	0.50	3
Na			1	6513.458	ug/l	0.90	255,748.28	8.962E-01	Pulse	1.00	3
Mg			1	25238.108	ug/l	1.13	470,194.63	1.648E+00	Pulse	1.00	3
K			1	12227.724	ug/l	0.80	225,695.89	7.909E-01	Pulse	1.00	3
V			1	3961.758	ug/l	1.61	584,043.71	2.047E+00	Pulse	0.50	3
Mn			1	4019.808	ug/l	1.49	422,185.41	2.636E+00	Pulse	0.50	3
Fe			1	1059335.693	ug/l	1.85	155,492,266.67	9.708E+02	Analog	0.50	3
Co			1	149.702	ug/l	2.85	39,937.38	2.494E-01	Pulse	0.50	3
Ni			1	348.245	ug/l	1.83	24,415.85	1.524E-01	Pulse	0.50	3
Cu			1	1231.879	ug/l	1.96	230,885.52	1.441E+00	Pulse	0.50	3
Zn			1	979.841	ug/l	1.02	33,890.55	1.440E-01	Pulse	1.00	3
Cd			1	0.928	ug/l	26.61	52.00	2.213E-04	Pulse	0.50	3
Al			1	710803.202	ug/l	1.55	5,541,047.50	1.942E+01	Analog	1.00	3
Se			1	20.945	ug/l	2.25	58.33	2.478E-04	Pulse	3.00	3
Sb			1	3.531	ug/l	6.69	551.68	2.344E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,798,181.33	1.38	104.7	Analog	0.50	3
1	Sc		285,376.02	1.28	109.7	Pulse	0.30	3
1	Ge		160,208.54	1.80	105.5	Pulse	0.30	3
1	In		1,664,459.00	1.07	103.8	Analog	0.30	3
1	Tb		5,019,705.33	1.40	105.4	Analog	0.50	3
1	Lu		4,139,272.83	1.19	107.2	Analog	0.50	3
1	Ge		235,351.09	1.12	103.1	Pulse	0.30	3
1	Li		3,779.29	3.57	106.7	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:21
Sample Name FC10954-1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.582	ug/l	14.55	614.01	3.879E-03	Pulse	0.50	3
As			1	1860.022	ug/l	1.01	96,179.37	6.075E-01	Pulse	1.00	3
Mo			1	1.515	ug/l	3.57	388.01	1.639E-03	Pulse	0.50	3
Pb			1	0.180	ug/l	30.68	1,226.38	3.246E-04	Pulse	1.00	3
Be			1	0.022	ug/l	413.70	1.50	5.579E-06	Pulse	2.00	3
Ag			1	0.020	ug/l	85.59	86.67	5.126E-05	Pulse	0.50	3
Ba			1	50.816	ug/l	1.29	6,199.82	3.671E-03	Pulse	0.50	3
Tl			1	0.021	ug/l	13.08	103.33	2.734E-05	Pulse	0.50	3
Sn			1	3.552	ug/l	10.13	1,217.83	7.207E-04	Pulse	0.30	3
Sr			1	418.074	ug/l	2.02	131,162.94	7.767E-02	Pulse	0.50	3
Ca			1	54509.190	ug/l	0.94	95,026.85	3.533E-01	Pulse	0.50	3
Ti			1	2.568	ug/l	53.28	32.67	1.215E-04	Pulse	0.50	3
Na			1	17999.450	ug/l	2.68	1,583,381.42	5.886E+00	Analog	1.00	3
Mg			1	8016.029	ug/l	0.75	352,173.72	1.309E+00	Pulse	1.00	3
K			1	8905.943	ug/l	0.52	349,438.22	1.299E+00	Pulse	1.00	3
V			1	-3.803	ug/l	-12.42	2,681.54	9.967E-03	Pulse	0.50	3
Mn			1	2332.439	ug/l	0.51	605,176.54	3.823E+00	Pulse	0.50	3
Fe			1	78688.165	ug/l	0.96	28,545,786.00	1.803E+02	Analog	0.50	3
Co			1	20.679	ug/l	3.62	13,685.22	8.644E-02	Pulse	0.50	3
Ni			1	8.481	ug/l	5.14	1,630.75	1.030E-02	Pulse	0.50	3
Cu			1	5.703	ug/l	4.62	7,178.12	4.534E-02	Pulse	0.50	3
Zn			1	27.189	ug/l	2.75	3,045.93	1.286E-02	Pulse	1.00	3
Cd			1	0.014	ug/l	63.13	6.67	2.815E-05	Pulse	0.50	3
Al			1	101.663	ug/l	28.31	2,207.81	8.211E-03	Pulse	1.00	3
Se			1	-0.504	ug/l	-78.38	15.89	6.712E-05	Pulse	3.00	3
Sb			1	0.049	ug/l	69.83	66.33	2.801E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,778,108.50	1.15	104.1	Analog	0.50	3
1	Sc		268,999.75	0.29	103.4	Pulse	0.30	3
1	Ge		158,315.45	0.57	104.2	Pulse	0.30	3
1	In		1,688,864.34	1.26	105.3	Analog	0.30	3
1	Tb		5,027,309.33	1.53	105.6	Analog	0.50	3
1	Lu		4,104,339.33	0.91	106.3	Analog	0.50	3
1	Ge		236,809.95	0.45	103.7	Pulse	0.30	3
1	Li		3,858.20	3.73	108.9	Pulse	0.30	3

Quantitation Report

File Name	054SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:24
Sample Name	MP43089-D1
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.605	ug/l	30.47	631.35	3.940E-03	Pulse	0.50	3
As			1	1896.548	ug/l	0.61	99,250.08	6.194E-01	Pulse	1.00	3
Mo			1	1.360	ug/l	10.74	355.34	1.490E-03	Pulse	0.50	3
Pb			1	0.210	ug/l	15.96	1,285.40	3.353E-04	Pulse	1.00	3
Be			1	-0.131	ug/l	-39.88	0.67	2.465E-06	Pulse	2.00	3
Ag			1	0.026	ug/l	41.15	92.67	5.419E-05	Pulse	0.50	3
Ba			1	51.724	ug/l	2.57	6,382.55	3.736E-03	Pulse	0.50	3
Tl			1	0.010	ug/l	30.05	82.00	2.139E-05	Pulse	0.50	3
Sn			1	1.116	ug/l	14.47	544.46	3.185E-04	Pulse	0.30	3
Sr			1	423.719	ug/l	1.86	134,479.61	7.872E-02	Pulse	0.50	3
Ca			1	56861.537	ug/l	1.15	99,621.01	3.685E-01	Pulse	0.50	3
Ti			1	1.896	ug/l	5.70	25.33	9.371E-05	Pulse	0.50	3
Na			1	18286.377	ug/l	0.90	1,616,392.96	5.979E+00	Analog	1.00	3
Mg			1	8211.911	ug/l	1.22	362,558.68	1.341E+00	Pulse	1.00	3
K			1	9136.549	ug/l	0.89	359,080.43	1.328E+00	Pulse	1.00	3
V			1	-2.389	ug/l	-31.31	3,184.29	1.178E-02	Pulse	0.50	3
Mn			1	2387.860	ug/l	0.22	627,028.21	3.913E+00	Pulse	0.50	3
Fe			1	80402.812	ug/l	0.81	29,519,448.00	1.842E+02	Analog	0.50	3
Co			1	21.403	ug/l	1.39	14,333.05	8.945E-02	Pulse	0.50	3
Ni			1	8.783	ug/l	1.77	1,702.75	1.063E-02	Pulse	0.50	3
Cu			1	5.988	ug/l	3.96	7,396.21	4.616E-02	Pulse	0.50	3
Zn			1	28.046	ug/l	0.64	3,140.95	1.317E-02	Pulse	1.00	3
Cd			1	-0.007	ug/l	-231.50	4.00	1.679E-05	Pulse	0.50	3
Al			1	43.368	ug/l	2.41	1,143.37	4.229E-03	Pulse	1.00	3
Se			1	0.113	ug/l	324.06	19.00	7.967E-05	Pulse	3.00	3
Sb			1	0.048	ug/l	13.32	66.33	2.781E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,833,408.25	0.43	105.6	Analog	0.50	3
1	Sc		270,354.76	0.45	103.9	Pulse	0.30	3
1	Ge		160,225.05	0.29	105.5	Pulse	0.30	3
1	In		1,708,712.36	1.64	106.6	Analog	0.30	3
1	Tb		5,097,329.00	0.57	107.0	Analog	0.50	3
1	Lu		4,131,904.42	0.93	107.0	Analog	0.50	3
1	Ge		238,495.98	0.45	104.4	Pulse	0.30	3
1	Li		3,749.28	4.85	105.8	Pulse	0.30	3

Quantitation Report

File Name 055SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:28
Sample Name MP43089-S1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	213.883	ug/l	1.19	93,823.59	5.909E-01	Pulse	0.50	3
As			1	2086.971	ug/l	0.83	108,220.78	6.816E-01	Pulse	1.00	3
Mo			1	226.569	ug/l	0.86	51,725.40	2.178E-01	Pulse	0.50	3
Pb			1	207.991	ug/l	1.43	291,951.95	7.693E-02	Pulse	1.00	3
Be			1	218.901	ug/l	2.65	1,204.37	4.450E-03	Pulse	2.00	3
Ag			1	103.493	ug/l	3.22	84,806.60	5.027E-02	Pulse	0.50	3
Ba			1	252.097	ug/l	2.77	30,582.88	1.813E-02	Pulse	0.50	3
Tl			1	198.000	ug/l	1.19	401,275.54	1.057E-01	Pulse	0.50	3
Sn			1	200.996	ug/l	2.42	56,210.57	3.331E-02	Pulse	0.30	3
Sr			1	626.522	ug/l	1.86	196,272.32	1.163E-01	Pulse	0.50	3
Ca			1	75326.292	ug/l	1.45	132,081.49	4.880E-01	Pulse	0.50	3
Ti			1	214.225	ug/l	6.10	2,400.17	8.868E-03	Pulse	0.50	3
Na			1	38984.830	ug/l	1.06	3,433,831.08	1.269E+01	Analog	1.00	3
Mg			1	30555.572	ug/l	1.66	1,347,679.58	4.980E+00	Analog	1.00	3
K			1	29735.465	ug/l	0.94	1,065,029.50	3.935E+00	Pulse	1.00	3
V			1	209.055	ug/l	1.57	76,563.73	2.829E-01	Pulse	0.50	3
Mn			1	2548.392	ug/l	0.76	663,103.44	4.176E+00	Pulse	0.50	3
Fe			1	100816.147	ug/l	0.71	36,676,474.67	2.310E+02	Analog	0.50	3
Co			1	240.558	ug/l	0.45	158,815.25	1.000E+00	Pulse	0.50	3
Ni			1	226.351	ug/l	0.37	39,218.52	2.470E-01	Pulse	0.50	3
Cu			1	230.020	ug/l	1.20	109,297.01	6.884E-01	Pulse	0.50	3
Zn			1	243.266	ug/l	0.49	21,507.53	9.055E-02	Pulse	1.00	3
Cd			1	217.439	ug/l	0.24	27,954.58	1.177E-01	Pulse	0.50	3
Al			1	20245.984	ug/l	1.70	374,559.34	1.384E+00	Pulse	1.00	3
Se			1	204.398	ug/l	2.72	1,006.14	4.236E-03	Pulse	3.00	3
Sb			1	215.429	ug/l	0.20	77,500.78	3.263E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,795,135.42	0.41	104.6	Analog	0.50	3
1	Sc		270,639.63	0.18	104.0	Pulse	0.30	3
1	Ge		158,772.32	0.76	104.5	Pulse	0.30	3
1	In		1,687,684.34	1.78	105.3	Analog	0.30	3
1	Tb		5,033,431.67	1.37	105.7	Analog	0.50	3
1	Lu		4,080,600.75	1.73	105.7	Analog	0.50	3
1	Ge		237,513.01	0.54	104.0	Pulse	0.30	3
1	Li		3,749.29	2.47	105.8	Pulse	0.30	3

Quantitation Report

File Name 056CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:31
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.361	ug/l	2.36	444,072.97	2.774E+00	Pulse	0.50	3
As			1	51.217	ug/l	2.05	53,580.12	3.347E-01	Pulse	1.00	3
Mo			1	50.594	ug/l	0.38	230,846.79	9.720E-01	Pulse	0.50	3
Pb			1	49.715	ug/l	2.37	1,388,351.29	3.668E-01	Pulse	1.00	3
Be			1	51.796	ug/l	2.05	5,725.53	2.104E-02	Pulse	2.00	3
Ag			1	49.400	ug/l	4.08	804,921.36	4.795E-01	Pulse	0.50	3
Ba			1	48.054	ug/l	4.21	115,891.51	6.905E-02	Pulse	0.50	3
Tl			1	51.858	ug/l	1.22	2,096,523.25	5.538E-01	Analog	0.50	3
Sn			1	47.940	ug/l	3.57	265,899.76	1.584E-01	Pulse	0.30	3
Sr			1	48.331	ug/l	3.84	301,120.01	1.794E-01	Pulse	0.50	3
Ca			1	5078.634	ug/l	0.93	179,047.20	6.580E-01	Pulse	0.50	3
Ti			1	50.694	ug/l	3.29	11,404.94	4.191E-02	Pulse	0.50	3
Na			1	5172.903	ug/l	0.18	9,139,581.33	3.359E+01	Analog	1.00	3
Mg			1	5239.929	ug/l	1.74	4,645,004.17	1.707E+01	Analog	1.00	3
K			1	5273.324	ug/l	0.25	3,679,114.83	1.352E+01	Analog	1.00	3
V			1	50.518	ug/l	1.05	356,575.04	1.310E+00	Pulse	0.50	3
Mn			1	50.955	ug/l	2.18	267,484.78	1.671E+00	Pulse	0.50	3
Fe			1	5192.628	ug/l	1.95	38,089,922.67	2.380E+02	Analog	0.50	3
Co			1	51.430	ug/l	1.86	684,367.25	4.275E+00	Pulse	0.50	3
Ni			1	51.941	ug/l	2.10	180,843.14	1.130E+00	Pulse	0.50	3
Cu			1	52.153	ug/l	2.27	483,238.44	3.019E+00	Pulse	0.50	3
Zn			1	51.817	ug/l	0.74	89,236.27	3.757E-01	Pulse	1.00	3
Cd			1	51.274	ug/l	1.49	131,816.93	5.550E-01	Pulse	0.50	3
Al			1	5150.398	ug/l	1.49	1,914,696.33	7.036E+00	Analog	1.00	3
Se			1	51.655	ug/l	1.62	5,010.71	2.110E-02	Pulse	3.00	3
Sb			1	50.379	ug/l	0.97	362,287.01	1.525E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,786,105.33	1.41	104.3	Analog	0.50	3
1	Sc		272,125.75	0.33	104.6	Pulse	0.30	3
1	Ge		160,091.74	0.98	105.4	Pulse	0.30	3
1	In		1,680,016.18	3.34	104.8	Analog	0.30	3
1	Tb		5,076,713.67	0.47	106.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,145,913.58	1.85	107.4	Analog	0.50	3
1	Ge		237,508.00	0.62	104.0	Pulse	0.30	3
1	Li		3,661.48	0.92	103.4	Pulse	0.30	3

Quantitation Report

File Name	057_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:34
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.468	ug/l	0.83	869,763.12	5.587E+00	Pulse	0.50	3
As			1	102.793	ug/l	0.39	104,520.27	6.714E-01	Pulse	1.00	3
Mo			1	101.822	ug/l	0.55	454,072.90	1.956E+00	Pulse	0.50	3
Pb			1	102.598	ug/l	3.40	2,797,410.75	7.567E-01	Analog	1.00	3
Be			1	103.358	ug/l	0.79	11,187.98	4.198E-02	Pulse	2.00	3
Ag			1	103.441	ug/l	0.66	1,625,110.25	1.004E+00	Analog	0.50	3
Ba			1	98.693	ug/l	0.70	229,475.76	1.418E-01	Pulse	0.50	3
Tl			1	102.464	ug/l	1.35	4,046,696.67	1.094E+00	Analog	0.50	3
Sn			1	98.139	ug/l	1.03	524,554.42	3.241E-01	Pulse	0.30	3
Sr			1	98.999	ug/l	0.82	594,450.79	3.673E-01	Pulse	0.50	3
Ca			1	10243.786	ug/l	1.05	353,579.09	1.327E+00	Pulse	0.50	3
Ti			1	101.616	ug/l	2.77	22,382.42	8.400E-02	Pulse	0.50	3
Na			1	10252.813	ug/l	1.51	17,725,944.00	6.652E+01	Analog	1.00	3
Mg			1	10355.913	ug/l	1.36	8,989,166.00	3.373E+01	Analog	1.00	3
K			1	10556.815	ug/l	1.40	7,166,896.17	2.689E+01	Analog	1.00	3
V			1	101.442	ug/l	1.57	697,214.50	2.616E+00	Pulse	0.50	3
Mn			1	102.140	ug/l	0.43	521,193.56	3.348E+00	Pulse	0.50	3
Fe			1	10428.726	ug/l	0.91	74,386,469.33	4.779E+02	Analog	0.50	3
Co			1	103.108	ug/l	0.44	1,334,180.75	8.571E+00	Pulse	0.50	3
Ni			1	102.931	ug/l	0.66	348,349.54	2.238E+00	Pulse	0.50	3
Cu			1	103.619	ug/l	0.54	929,255.65	5.970E+00	Pulse	0.50	3
Zn			1	103.205	ug/l	1.03	173,012.27	7.453E-01	Pulse	1.00	3
Cd			1	102.430	ug/l	1.19	257,388.93	1.109E+00	Pulse	0.50	3
Al			1	10249.846	ug/l	0.87	3,731,371.08	1.400E+01	Analog	1.00	3
Se			1	102.314	ug/l	1.37	9,683.07	4.171E-02	Pulse	3.00	3
Sb			1	101.558	ug/l	1.05	713,816.21	3.075E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,699,227.25	2.62	101.9	Analog	0.50	3
1	Sc		266,511.11	1.08	102.5	Pulse	0.30	3
1	Ge		155,666.27	0.16	102.5	Pulse	0.30	3
1	In		1,618,512.50	0.74	101.0	Analog	0.30	3
1	Tb		4,945,003.17	0.55	103.8	Analog	0.50	3
1	Lu		4,027,800.25	0.86	104.3	Analog	0.50	3
1	Ge		232,156.09	0.20	101.7	Pulse	0.30	3
1	Li		3,689.27	3.63	104.1	Pulse	0.30	3

Quantitation Report

File Name	058_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:37
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	59.01	505.34	3.198E-03	Pulse	0.50	3
As			1	0.020	ug/l	37.48	78.67	4.979E-04	Pulse	1.00	3
Mo			1	0.225	ug/l	28.20	1,064.04	4.500E-03	Pulse	0.50	3
Pb			1	0.030	ug/l	40.29	1,841.78	4.800E-04	Pulse	1.00	3
Be			1	0.052	ug/l	32.27	7.00	2.613E-05	Pulse	2.00	3
Ag			1	0.022	ug/l	33.45	436.67	2.525E-04	Pulse	0.50	3
Ba			1	0.013	ug/l	49.10	69.33	4.012E-05	Pulse	0.50	3
Tl			1	0.022	ug/l	10.66	949.37	2.476E-04	Pulse	0.50	3
Sn			1	0.175	ug/l	18.11	1,224.50	7.107E-04	Pulse	0.30	3
Sr			1	0.015	ug/l	43.76	354.01	2.051E-04	Pulse	0.50	3
Ca			1	2.098	ug/l	87.54	166.00	6.203E-04	Pulse	0.50	3
Ti			1	0.042	ug/l	12.17	13.33	4.975E-05	Pulse	0.50	3
Na			1	1.613	ug/l	66.28	16,664.99	6.222E-02	Pulse	1.00	3
Mg			1	1.689	ug/l	67.80	2,488.86	9.301E-03	Pulse	1.00	3
K			1	4.365	ug/l	38.17	49,015.73	1.829E-01	Pulse	1.00	3
V			1	-0.277	ug/l	-2.84	2,073.46	7.738E-03	Pulse	0.50	3
Mn			1	0.042	ug/l	17.06	461.34	2.919E-03	Pulse	0.50	3
Fe			1	3.911	ug/l	26.56	35,451.84	2.244E-01	Pulse	0.50	3
Co			1	0.022	ug/l	54.33	371.34	2.351E-03	Pulse	0.50	3
Ni			1	0.007	ug/l	204.08	194.00	1.228E-03	Pulse	0.50	3
Cu			1	0.038	ug/l	51.33	4,928.03	3.118E-02	Pulse	0.50	3
Zn			1	0.082	ug/l	54.75	867.36	3.672E-03	Pulse	1.00	3
Cd			1	0.016	ug/l	58.70	46.00	1.949E-04	Pulse	0.50	3
Al			1	2.743	ug/l	42.56	1,342.06	5.014E-03	Pulse	1.00	3
Se			1	0.030	ug/l	92.49	21.11	8.939E-05	Pulse	3.00	3
Sb			1	0.060	ug/l	6.49	477.34	2.021E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,831,653.92	2.11	105.6	Analog	0.50	3
1	Sc		267,976.71	0.82	103.0	Pulse	0.30	3
1	Ge		158,050.44	0.76	104.1	Pulse	0.30	3
1	In		1,724,703.37	1.73	107.6	Analog	0.30	3
1	Tb		5,039,916.67	1.12	105.8	Analog	0.50	3
1	Lu		4,115,481.42	1.51	106.6	Analog	0.50	3
1	Ge		236,259.85	0.47	103.5	Pulse	0.30	3
1	Li		3,768.18	2.44	106.4	Pulse	0.30	3

Quantitation Report

File Name	059SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:41
Sample Name	MP43089-S2
Sample Type	Sample
Comment	
Prep Dilution	20.000
Auto Dilution	N/A
Total Dilution	20.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	216.511	ug/l	0.99	93,871.19	5.981E-01	Pulse	0.50	3
As			1	2092.961	ug/l	0.87	107,275.88	6.835E-01	Pulse	1.00	3
Mo			1	230.463	ug/l	0.73	51,653.13	2.215E-01	Pulse	0.50	3
Pb			1	206.855	ug/l	2.72	291,727.10	7.651E-02	Pulse	1.00	3
Be			1	226.726	ug/l	2.22	1,235.71	4.609E-03	Pulse	2.00	3
Ag			1	105.236	ug/l	2.09	85,773.39	5.111E-02	Pulse	0.50	3
Ba			1	252.390	ug/l	2.95	30,450.63	1.815E-02	Pulse	0.50	3
Tl			1	196.874	ug/l	2.22	400,885.81	1.051E-01	Pulse	0.50	3
Sn			1	201.950	ug/l	3.56	56,149.17	3.347E-02	Pulse	0.30	3
Sr			1	627.964	ug/l	2.58	195,635.78	1.166E-01	Pulse	0.50	3
Ca			1	75829.480	ug/l	1.97	131,723.43	4.913E-01	Pulse	0.50	3
Ti			1	233.459	ug/l	3.70	2,592.19	9.663E-03	Pulse	0.50	3
Na			1	39828.687	ug/l	2.40	3,474,912.42	1.296E+01	Analog	1.00	3
Mg			1	30837.046	ug/l	2.41	1,347,318.08	5.026E+00	Analog	1.00	3
K			1	30228.530	ug/l	1.46	1,071,870.29	3.998E+00	Pulse	1.00	3
V			1	210.143	ug/l	1.91	76,224.26	2.843E-01	Pulse	0.50	3
Mn			1	2566.125	ug/l	1.14	659,992.00	4.205E+00	Pulse	0.50	3
Fe			1	101551.760	ug/l	0.45	36,519,140.00	2.327E+02	Analog	0.50	3
Co			1	241.021	ug/l	1.20	157,282.44	1.002E+00	Pulse	0.50	3
Ni			1	229.829	ug/l	0.97	39,360.18	2.508E-01	Pulse	0.50	3
Cu			1	230.752	ug/l	1.12	108,358.63	6.905E-01	Pulse	0.50	3
Zn			1	250.199	ug/l	0.75	21,696.75	9.305E-02	Pulse	1.00	3
Cd			1	217.525	ug/l	1.65	27,455.13	1.177E-01	Pulse	0.50	3
Al			1	20543.719	ug/l	2.62	376,480.90	1.404E+00	Pulse	1.00	3
Se			1	211.440	ug/l	2.16	1,021.14	4.379E-03	Pulse	3.00	3
Sb			1	220.268	ug/l	0.93	77,793.79	3.336E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,813,992.00	1.54	105.1	Analog	0.50	3
1	Sc		268,169.06	1.73	103.1	Pulse	0.30	3
1	Ge		156,947.38	0.99	103.3	Pulse	0.30	3
1	In		1,678,462.30	1.85	104.7	Analog	0.30	3
1	Tb		5,018,130.83	0.34	105.4	Analog	0.50	3
1	Lu		4,107,153.83	0.38	106.3	Analog	0.50	3
1	Ge		233,184.90	0.51	102.1	Pulse	0.30	3
1	Li		3,784.85	4.32	106.8	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:44
Sample Name MP43089-PS1
Sample Type Sample
Comment
Prep Dilution 20.000
Auto Dilution N/A
Total Dilution 20.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	11.358	ug/l	4.01	5,286.79	3.353E-02	Pulse	0.50	3
As			1	1834.480	ug/l	0.55	94,475.98	5.992E-01	Pulse	1.00	3
Mo			1	13.085	ug/l	7.68	3,002.27	1.275E-02	Pulse	0.50	3
Pb			1	10.600	ug/l	2.72	15,923.22	4.165E-03	Pulse	1.00	3
Be			1	11.468	ug/l	7.97	63.83	2.380E-04	Pulse	2.00	3
Ag			1	2.923	ug/l	4.16	2,456.18	1.460E-03	Pulse	0.50	3
Ba			1	60.201	ug/l	2.22	7,306.93	4.345E-03	Pulse	0.50	3
Tl			1	9.992	ug/l	1.12	20,457.70	5.351E-03	Pulse	0.50	3
Sn			1	12.268	ug/l	12.06	3,629.30	2.159E-03	Pulse	0.30	3
Sr			1	415.977	ug/l	1.13	129,975.43	7.728E-02	Pulse	0.50	3
Ca			1	54642.544	ug/l	1.30	94,945.50	3.541E-01	Pulse	0.50	3
Ti			1	12.190	ug/l	21.93	139.33	5.191E-04	Pulse	0.50	3
Na			1	18824.407	ug/l	0.87	1,649,828.88	6.153E+00	Analog	1.00	3
Mg			1	8956.157	ug/l	1.14	392,059.41	1.462E+00	Pulse	1.00	3
K			1	9798.368	ug/l	0.74	378,579.36	1.412E+00	Pulse	1.00	3
V			1	6.183	ug/l	3.28	6,105.71	2.277E-02	Pulse	0.50	3
Mn			1	2300.365	ug/l	1.23	594,437.98	3.770E+00	Pulse	0.50	3
Fe			1	78476.793	ug/l	1.11	28,353,396.00	1.798E+02	Analog	0.50	3
Co			1	31.904	ug/l	0.76	20,986.21	1.331E-01	Pulse	0.50	3
Ni			1	20.075	ug/l	3.90	3,609.71	2.290E-02	Pulse	0.50	3
Cu			1	17.724	ug/l	3.18	12,582.42	7.980E-02	Pulse	0.50	3
Zn			1	39.057	ug/l	0.48	4,034.46	1.713E-02	Pulse	1.00	3
Cd			1	11.092	ug/l	1.99	1,418.73	6.023E-03	Pulse	0.50	3
Al			1	1089.384	ug/l	1.70	20,287.06	7.567E-02	Pulse	1.00	3
Se			1	10.939	ug/l	25.23	70.67	2.999E-04	Pulse	3.00	3
Sb			1	10.397	ug/l	3.05	3,754.75	1.594E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,823,118.92	0.63	105.4	Analog	0.50	3
1	Sc		268,128.59	0.71	103.1	Pulse	0.30	3
1	Ge		157,679.78	0.57	103.8	Pulse	0.30	3
1	In		1,681,952.36	0.88	104.9	Analog	0.30	3
1	Tb		5,039,948.00	0.55	105.8	Analog	0.50	3
1	Lu		4,125,537.67	0.13	106.8	Analog	0.50	3
1	Ge		235,527.37	0.57	103.1	Pulse	0.30	3
1	Li		3,741.51	4.06	105.6	Pulse	0.30	3

Quantitation Report

File Name	061SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:47
Sample Name	FC10954-2
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.437	ug/l	4.56	731.35	4.680E-03	Pulse	0.50	3
As			1	585.577	ug/l	1.23	59,801.77	3.827E-01	Pulse	1.00	3
Mo			1	1.347	ug/l	12.02	647.35	2.771E-03	Pulse	0.50	3
Pb			1	0.128	ug/l	18.28	1,329.39	3.527E-04	Pulse	1.00	3
Be			1	-0.018	ug/l	-382.28	1.17	4.392E-06	Pulse	2.00	3
Ag			1	0.037	ug/l	18.03	129.33	7.722E-05	Pulse	0.50	3
Ba			1	52.826	ug/l	3.25	12,738.82	7.609E-03	Pulse	0.50	3
Tl			1	0.049	ug/l	9.29	260.00	6.899E-05	Pulse	0.50	3
Sn			1	0.681	ug/l	6.82	601.13	3.591E-04	Pulse	0.30	3
Sr			1	328.892	ug/l	2.28	204,458.76	1.221E-01	Pulse	0.50	3
Ca			1	41076.019	ug/l	2.45	140,601.65	5.322E-01	Pulse	0.50	3
Ti			1	1.006	ug/l	40.36	26.00	9.853E-05	Pulse	0.50	3
Na			1	17899.945	ug/l	1.00	3,079,575.67	1.166E+01	Analog	1.00	3
Mg			1	6880.098	ug/l	2.33	592,970.71	2.245E+00	Pulse	1.00	3
K			1	9369.777	ug/l	2.22	671,971.15	2.544E+00	Pulse	1.00	3
V			1	-1.464	ug/l	-13.32	2,931.58	1.109E-02	Pulse	0.50	3
Mn			1	1889.897	ug/l	0.66	967,996.55	6.194E+00	Pulse	0.50	3
Fe			1	51449.675	ug/l	1.19	36,848,298.67	2.358E+02	Analog	0.50	3
Co			1	8.768	ug/l	1.06	11,469.68	7.339E-02	Pulse	0.50	3
Ni			1	2.483	ug/l	5.33	1,012.70	6.480E-03	Pulse	0.50	3
Cu			1	3.363	ug/l	5.61	7,544.93	4.828E-02	Pulse	0.50	3
Zn			1	14.681	ug/l	0.64	3,187.29	1.364E-02	Pulse	1.00	3
Cd			1	-0.014	ug/l	-33.63	1.33	5.713E-06	Pulse	0.50	3
Al			1	13.925	ug/l	8.39	837.69	3.169E-03	Pulse	1.00	3
Se			1	0.097	ug/l	220.60	19.00	8.133E-05	Pulse	3.00	3
Sb			1	0.105	ug/l	21.94	122.33	5.235E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,768,400.42	1.17	103.8	Analog	0.50	3
1	Sc		264,239.42	1.54	101.6	Pulse	0.30	3
1	Ge		156,285.94	0.63	102.9	Pulse	0.30	3
1	In		1,674,629.62	1.58	104.5	Analog	0.30	3
1	Tb		4,968,001.17	1.42	104.3	Analog	0.50	3
1	Lu		4,042,167.83	1.50	104.7	Analog	0.50	3
1	Ge		233,616.01	0.23	102.3	Pulse	0.30	3
1	Li		3,609.25	6.88	101.9	Pulse	0.30	3

Quantitation Report

File Name	062SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 14:51
Sample Name	FC10954-3
Sample Type	Sample
Comment	
Prep Dilution	50.000
Auto Dilution	N/A
Total Dilution	50.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.264	ug/l	80.05	402.01	2.567E-03	Pulse	0.50	3
As			1	5888.915	ug/l	1.22	120,404.22	7.693E-01	Pulse	1.00	3
Mo			1	2.480	ug/l	18.27	266.67	1.137E-03	Pulse	0.50	3
Pb			1	0.353	ug/l	12.27	1,189.38	3.102E-04	Pulse	1.00	3
Be			1	0.525	ug/l	117.39	2.50	9.389E-06	Pulse	2.00	3
Ag			1	0.072	ug/l	63.30	92.67	5.537E-05	Pulse	0.50	3
Ba			1	28.134	ug/l	1.61	1,388.06	8.294E-04	Pulse	0.50	3
Tl			1	0.037	ug/l	67.39	92.67	2.418E-05	Pulse	0.50	3
Sn			1	1.136	ug/l	44.06	350.01	2.093E-04	Pulse	0.30	3
Sr			1	339.527	ug/l	2.48	42,388.82	2.533E-02	Pulse	0.50	3
Ca			1	51017.035	ug/l	0.81	35,330.72	1.325E-01	Pulse	0.50	3
Ti			1	3.755	ug/l	24.56	20.67	7.744E-05	Pulse	0.50	3
Na			1	10417.745	ug/l	0.44	374,038.19	1.402E+00	Pulse	1.00	3
Mg			1	5948.148	ug/l	0.15	104,350.21	3.913E-01	Pulse	1.00	3
K			1	6199.514	ug/l	1.57	129,540.04	4.857E-01	Pulse	1.00	3
V			1	-14.613	ug/l	-2.30	1,960.11	7.349E-03	Pulse	0.50	3
Mn			1	3200.166	ug/l	1.09	328,469.59	2.099E+00	Pulse	0.50	3
Fe			1	82516.590	ug/l	1.23	11,843,029.67	7.566E+01	Analog	0.50	3
Co			1	28.700	ug/l	0.74	7,546.93	4.821E-02	Pulse	0.50	3
Ni			1	12.483	ug/l	10.30	1,019.37	6.509E-03	Pulse	0.50	3
Cu			1	16.378	ug/l	7.50	7,477.58	4.778E-02	Pulse	0.50	3
Zn			1	68.448	ug/l	2.13	3,032.93	1.293E-02	Pulse	1.00	3
Cd			1	-0.042	ug/l	-54.33	2.67	1.137E-05	Pulse	0.50	3
Al			1	40.746	ug/l	20.78	634.68	2.381E-03	Pulse	1.00	3
Se			1	0.795	ug/l	45.70	19.67	8.385E-05	Pulse	3.00	3
Sb			1	0.212	ug/l	13.41	78.33	3.340E-04	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,834,624.50	0.43	105.7	Analog	0.50	3
1	Sc		266,705.08	0.81	102.5	Pulse	0.30	3
1	Ge		156,528.00	0.92	103.1	Pulse	0.30	3
1	In		1,673,745.70	1.35	104.4	Analog	0.30	3
1	Tb		5,019,032.17	0.28	105.4	Analog	0.50	3
1	Lu		4,116,282.58	0.19	106.6	Analog	0.50	3
1	Ge		234,562.37	0.14	102.7	Pulse	0.30	3
1	Li		3,690.39	3.46	104.2	Pulse	0.30	3

Quantitation Report

File Name 063CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:54
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	50.696	ug/l	1.39	444,376.98	2.793E+00	Pulse	0.50	3
As			1	51.860	ug/l	1.42	53,929.49	3.389E-01	Pulse	1.00	3
Mo			1	50.057	ug/l	0.69	229,388.81	9.616E-01	Pulse	0.50	3
Pb			1	49.270	ug/l	1.41	1,369,923.42	3.635E-01	Pulse	1.00	3
Be			1	51.245	ug/l	0.45	5,687.86	2.082E-02	Pulse	2.00	3
Ag			1	49.473	ug/l	3.00	802,967.52	4.802E-01	Pulse	0.50	3
Ba			1	48.531	ug/l	3.48	116,583.46	6.973E-02	Pulse	0.50	3
Tl			1	52.216	ug/l	1.86	2,101,473.12	5.576E-01	Analog	0.50	3
Sn			1	47.980	ug/l	3.34	265,031.78	1.585E-01	Pulse	0.30	3
Sr			1	48.518	ug/l	3.52	301,068.67	1.801E-01	Pulse	0.50	3
Ca			1	5097.375	ug/l	1.07	180,443.31	6.604E-01	Pulse	0.50	3
Ti			1	49.270	ug/l	2.37	11,130.75	4.074E-02	Pulse	0.50	3
Na			1	5154.156	ug/l	0.53	9,143,372.33	3.346E+01	Analog	1.00	3
Mg			1	5202.750	ug/l	1.45	4,630,916.33	1.695E+01	Analog	1.00	3
K			1	5333.881	ug/l	0.44	3,735,900.33	1.367E+01	Analog	1.00	3
V			1	50.031	ug/l	0.88	354,624.99	1.298E+00	Pulse	0.50	3
Mn			1	51.176	ug/l	1.11	267,047.84	1.678E+00	Pulse	0.50	3
Fe			1	5239.220	ug/l	1.42	38,202,376.00	2.401E+02	Analog	0.50	3
Co			1	51.577	ug/l	1.02	682,224.69	4.288E+00	Pulse	0.50	3
Ni			1	51.931	ug/l	1.01	179,733.73	1.130E+00	Pulse	0.50	3
Cu			1	52.377	ug/l	0.84	482,416.81	3.032E+00	Pulse	0.50	3
Zn			1	51.698	ug/l	0.71	89,417.51	3.749E-01	Pulse	1.00	3
Cd			1	50.840	ug/l	1.32	131,266.27	5.503E-01	Pulse	0.50	3
Al			1	5181.900	ug/l	0.74	1,934,293.92	7.079E+00	Analog	1.00	3
Se			1	51.787	ug/l	1.90	5,044.72	2.115E-02	Pulse	3.00	3
Sb			1	50.208	ug/l	1.03	362,624.02	1.520E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,768,873.92	0.44	103.9	Analog	0.50	3
1	Sc		273,229.11	0.35	105.0	Pulse	0.30	3
1	Ge		159,122.13	0.42	104.8	Pulse	0.30	3
1	In		1,672,767.37	2.33	104.3	Analog	0.30	3
1	Tb		5,056,782.17	1.95	106.2	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		4,150,962.83	0.53	107.5	Analog	0.50	3
1	Ge		238,540.27	0.79	104.5	Pulse	0.30	3
1	Li		3,845.97	6.65	108.6	Pulse	0.30	3

Quantitation Report

File Name 064_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File
Method Path
Acq Time 2023-11-07 14:57
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-11-07 11:41
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	101.184	ug/l	1.59	863,916.77	5.572E+00	Pulse	0.50	3
As			1	103.003	ug/l	1.34	104,323.09	6.728E-01	Pulse	1.00	3
Mo			1	101.751	ug/l	1.57	450,516.06	1.955E+00	Pulse	0.50	3
Pb			1	101.902	ug/l	0.77	2,763,169.17	7.515E-01	Analog	1.00	3
Be			1	104.480	ug/l	1.89	11,277.87	4.244E-02	Pulse	2.00	3
Ag			1	100.531	ug/l	2.93	1,624,594.13	9.758E-01	Analog	0.50	3
Ba			1	95.217	ug/l	3.12	227,726.30	1.368E-01	Pulse	0.50	3
Tl			1	101.277	ug/l	0.87	3,976,428.00	1.082E+00	Analog	0.50	3
Sn			1	94.375	ug/l	3.27	518,850.86	3.117E-01	Pulse	0.30	3
Sr			1	95.402	ug/l	3.04	589,249.08	3.540E-01	Pulse	0.50	3
Ca			1	10195.999	ug/l	1.77	350,949.56	1.321E+00	Pulse	0.50	3
Ti			1	102.992	ug/l	2.46	22,624.03	8.514E-02	Pulse	0.50	3
Na			1	10342.977	ug/l	1.18	17,833,580.00	6.710E+01	Analog	1.00	3
Mg			1	10419.484	ug/l	2.05	9,019,172.00	3.394E+01	Analog	1.00	3
K			1	10488.382	ug/l	0.89	7,102,634.83	2.672E+01	Analog	1.00	3
V			1	101.052	ug/l	1.56	692,644.35	2.606E+00	Pulse	0.50	3
Mn			1	102.332	ug/l	1.42	520,122.92	3.354E+00	Pulse	0.50	3
Fe			1	10439.741	ug/l	1.46	74,173,090.67	4.784E+02	Analog	0.50	3
Co			1	102.769	ug/l	1.78	1,324,557.58	8.543E+00	Pulse	0.50	3
Ni			1	103.040	ug/l	1.75	347,342.59	2.240E+00	Pulse	0.50	3
Cu			1	103.102	ug/l	1.04	921,036.27	5.940E+00	Pulse	0.50	3
Zn			1	103.333	ug/l	1.65	171,988.94	7.462E-01	Pulse	1.00	3
Cd			1	102.601	ug/l	1.91	255,971.82	1.111E+00	Pulse	0.50	3
Al			1	10359.688	ug/l	2.14	3,760,667.92	1.415E+01	Analog	1.00	3
Se			1	102.363	ug/l	1.88	9,618.37	4.173E-02	Pulse	3.00	3
Sb			1	101.678	ug/l	1.83	709,539.90	3.078E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,676,829.67	0.50	101.3	Analog	0.50	3
1	Sc		265,794.10	1.45	102.2	Pulse	0.30	3
1	Ge		155,068.81	0.88	102.1	Pulse	0.30	3
1	In		1,665,618.16	2.50	103.9	Analog	0.30	3
1	Tb		4,953,011.17	0.58	104.0	Analog	0.50	3
1	Lu		4,038,278.08	0.44	104.6	Analog	0.50	3
1	Ge		230,525.78	1.23	100.9	Pulse	0.30	3
1	Li		3,731.50	4.73	105.3	Pulse	0.30	3

Quantitation Report

File Name	065_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Method File	
Method Path	
Acq Time	2023-11-07 15:00
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-11-07 11:41
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.017	ug/l	87.71	506.68	3.236E-03	Pulse	0.50	3
As			1	0.022	ug/l	74.61	80.00	5.108E-04	Pulse	1.00	3
Mo			1	0.256	ug/l	30.72	1,194.71	5.106E-03	Pulse	0.50	3
Pb			1	0.031	ug/l	54.03	1,869.79	4.899E-04	Pulse	1.00	3
Be			1	0.038	ug/l	55.62	5.50	2.051E-05	Pulse	2.00	3
Ag			1	0.024	ug/l	47.91	460.68	2.713E-04	Pulse	0.50	3
Ba			1	0.020	ug/l	44.77	84.67	4.978E-05	Pulse	0.50	3
Tl			1	0.023	ug/l	23.67	998.70	2.617E-04	Pulse	0.50	3
Sn			1	0.170	ug/l	20.42	1,186.72	6.943E-04	Pulse	0.30	3
Sr			1	0.016	ug/l	67.85	354.00	2.080E-04	Pulse	0.50	3
Ca			1	1.377	ug/l	50.92	141.33	5.269E-04	Pulse	0.50	3
Ti			1	0.030	ug/l	127.63	10.67	3.983E-05	Pulse	0.50	3
Na			1	1.377	ug/l	81.93	16,280.52	6.068E-02	Pulse	1.00	3
Mg			1	1.817	ug/l	63.76	2,606.87	9.719E-03	Pulse	1.00	3
K			1	3.941	ug/l	39.70	48,792.53	1.819E-01	Pulse	1.00	3
V			1	-0.284	ug/l	-0.85	2,029.45	7.564E-03	Pulse	0.50	3
Mn			1	0.036	ug/l	38.14	423.34	2.703E-03	Pulse	0.50	3
Fe			1	3.497	ug/l	31.34	32,169.80	2.054E-01	Pulse	0.50	3
Co			1	0.021	ug/l	68.86	349.34	2.232E-03	Pulse	0.50	3
Ni			1	0.002	ug/l	711.51	176.67	1.128E-03	Pulse	0.50	3
Cu			1	0.031	ug/l	125.21	4,819.33	3.076E-02	Pulse	0.50	3
Zn			1	0.089	ug/l	57.53	871.02	3.726E-03	Pulse	1.00	3
Cd			1	0.021	ug/l	72.36	58.00	2.485E-04	Pulse	0.50	3
Al			1	2.526	ug/l	47.89	1,265.38	4.718E-03	Pulse	1.00	3
Se			1	0.079	ug/l	34.92	25.56	1.093E-04	Pulse	3.00	3
Sb			1	0.064	ug/l	3.25	500.01	2.139E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,811,591.83	1.11	105.0	Analog	0.50	3
1	Sc		268,314.04	0.37	103.2	Pulse	0.30	3
1	Ge		156,674.02	0.38	103.1	Pulse	0.30	3
1	In		1,707,192.61	2.50	106.5	Analog	0.30	3
1	Tb		5,042,858.83	0.25	105.9	Analog	0.50	3
1	Lu		4,078,650.67	0.85	105.6	Analog	0.50	3
1	Ge		233,786.95	0.46	102.4	Pulse	0.30	3
1	Li		3,783.73	3.26	106.8	Pulse	0.30	3

US EPA Tune Check Report

Operator Name	admin
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\2023\xa110723m1.b
Acq. Date-Time	2023-11-07 11:05:14
Report Comment	---
Instrument Name	ICP-MS JP12151709

[2]

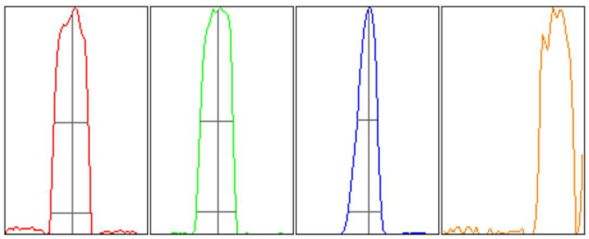
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59	1.00	1323	13232.42	5000.00		3.498	5.000
89	1.00	1247	12471.79	5000.00		3.752	5.000
205	1.00	3849	38494.56	5000.00		2.466	5.000
78		2	17.00			131.936	

Mass	RSD% (Flag)	Background	Background (Required)	Background (Flag)
59		0.000	2.000	
89		0.200	2.000	
205		0.300	2.000	
78		0.100	5.000	

Integration Time [sec]	0.1
Oxide	156 / 140 0.495 %
Doubly Charged	70 / 140 1.293 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	1346.55	58.95	58.90 - 59.10	
89	1208.97	88.95	88.90 - 89.10	
205	3925.67	205.05	204.90 - 205.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.72	0.849	0.900	
89	0.69	0.840	0.900	
205	0.43	0.706	0.900	
78				

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	1.09 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.1 V	Deflect	2.0 V
Extract 2	-110.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-60 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.3 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	190 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9989	QP Bias	-15.0 V
Mass Offset	128	Axis Offset	0.12		

Hardware Settings

Torch

Torch H	-0.2 mm	Torch V	0.2 mm

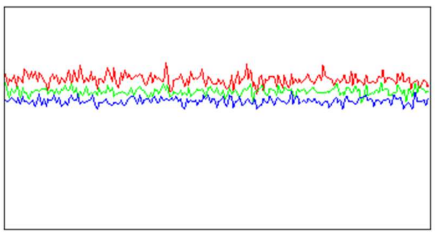
EM

Discriminator	4.5 mV	Analog HV	1777 V	Pulse HV	1716 V

Performance Report

Operator Name	admin
Acq. Date-Time	2023-11-07 10:53:11
Instrument Name	ICP-MS JP12151709
Sample Introduction	ISIS
Nebulizer Type	MicroMist
Ion Lens Model	x-Lens
Tune Parameters	Standard Tune

Sensitivity



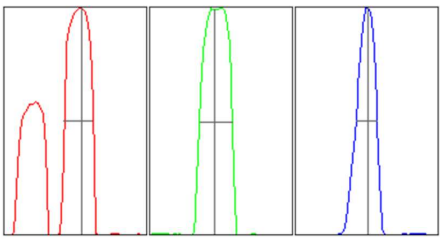
Mass	Range	Count	RSD%	Background
7	2000	1355	3.681	0.250
89	5000	3112	2.721	0.950
205	5000	2895	2.745	4.350

Sampling Period [sec]	0.311
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.180 %
Doubly Charged	70 / 140 9.585 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
7	1346.03	7.15	0.61	0.72
89	3096.84	88.90	0.69	0.85
205	2952.34	205.05	0.45	0.72

Integration Time [sec]	0.1
Acquisition Time [sec]	22.74

Tune Parameters

Plasma Parameters

RF Power	1550 W	Option Gas	---	Makeup Gas	0.00 L/min
RF Matching	1.60 V	Nebulizer Pump	0.10 rps	Auxiliary Gas	0.90 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C	Plasma Gas	15.0 L/min
Nebulizer Gas	0.99 L/min				

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.0 V	Deflect	13.6 V
Extract 2	-155.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-80 V	Cell Exit	-50 V		

Performance Report

Cell Parameters					
Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	170 V		
QP Parameters					
QP Bias	-3.0 V				
Hardware Settings					
Torch					
Torch H	-0.2 mm	Torch H (Hot)	---	Torch H (Cool)	---
Torch V	0.2 mm	Torch V (Hot)	---	Torch V (Cool)	---
Plasma Correction					
Nebulizer Gas Offset	-0.06 L/min	Makeup Gas (Hot)	---	Makeup Gas (Cool)	---
		Sample Depth (Hot)	---		
Resolution/Axis					
Mass Gain	124	Axis Gain	0.9989		
Mass Offset	128	Axis Offset	0.12		
EM					
Discriminator	4.5 mV	Analog HV	1777 V	Pulse HV	1716 V

Performance Report

Meter

Name	Value	Unit
Nebulizer Gas	0.99	L/min
MU./Dil. Gas	0.00	L/min
Plasma Gas	14.98	L/min
Aux Gas	0.90	L/min
Ar Gas Tank Press	5.50E+2	kPa
+5V (Press Gage)	5.0	V
Ar AMFC Temp	30.4	°C
Nebulizer Gas(DP)	5.97E+0	kPa
MU./Dil. Gas(DP)	-4.63E-2	kPa
Aux Gas(DP)	1.25E+1	kPa
Plasma Gas(DP)	1.14E+1	kPa
Nebulizer Gas(BP)	2.84E+2	kPa
MU./Dil. Gas(BP)	0.00E+0	kPa
Aux Gas(BP)	5.56E+1	kPa
Plasma Gas(BP)	4.24E+1	kPa
S/C Temp (H)	17.9	°C
S/C Temp (L)	2.0	°C
Peltier Voltage	3.3	V
IF/BK Press	2.87E+2	Pa
Analyzer Press	1.60E-4	Pa
IG HV	179	V
IG Emission	5.00	µA
TMP Revolution	100.0	%
TMP Rev (RAW)	100.6	%
TMP Current	3.46	A
PWR AMP Drain I	0.4	A
PWR AMP Bias	2.84	V
OctP RF (Avg)	172.8	V
OctP RF Set	3.3	V
OctP FET Bias Set	3.31	V
OctP RF(+)	168.0	V
OctP RF(-)	176.9	V
OctP Bias	-7.9	V
Cell Temp.	65.0	°C
Cell Heater Volt.	4.2	V
+U Voltage	10.4	V

Name	Value	Unit
-U Voltage	-16.6	V
V Voltage	45.7	V
QPRF Fader	0.0	V
Pickup Temp	55.0	°C
PWR Amp Temp	0.1	V
+600V	618.1	V
-120V	-134.0	V
-720V	-742.2	V
Prefilter Bias	-5.01	V
Pickup Heater I	0.08	A
QP PS +48V	47.9	V
QP PS +48V I	0.00	A
Analog HV	-1715	V
Pulse HV	1738	V
EM Gate	-47.4	V
Pulse Gate	353.0	V
EM Entrance	0.2	V
Analog -5V	-5.1	V
Analog +15V	14.7	V
Analog -15V	-14.5	V
Analog +5V	5.2	V
Shunt C Pos	1.3	V
Drain Volt.(max)	60.5	V
RF PS +48V	47.5	V
Forward Power	1550	W
Reflected Power	0	W
Plasma Freq.	26.76	MHz
Drain I 1	11.23	A
Drain I 2	10.64	A
Drain I 3	10.93	A
Drain I 4	10.94	A
Temp Sensor	2.8	V
Driver I	6.89	A
Igniter	0.0	V
Driver Voltage Set	7.1	V
Unbalance Current	0.36	A

Name	Value	Unit
PWM Threshold Set	0.2	V
Driver Voltage	5.8	V
PWM Threshold	0.2	V
Phase Detector	0.0	mV
H2 Gas	0.10	mL/min
He Gas	0.04	mL/min
H2 Gas Press	1.70E+0	kPa
He Gas Press	0.00E+0	kPa
ORS AMFC Temp	27.4	°C
Atmospheric Press	1.00E+2	kPa
Extract 1	-0.1	V
Extract 2	-156.0	V
Omega Bias	-80.1	V
Omega Lens	7.9	V
Cell Entrance	-30.1	V
Cell Exit	-50.2	V
Deflect	13.8	V
Plate Bias	-40.0	V
HV+530V	526	V
HV+240V	240	V
HV-360V	-359	V
Inlet Temp	28.9	°C
Internal Temp	35.4	°C
+24V	23.6	V
Water Temp	20.6	°C
Water RF/WC/IF	1.42	L/min

Performance Report History

Sensitivity

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-07 10:53:11	1355	3112	2895
2023-11-07 10:29:48	1500	3330	3404
2023-11-04 10:36:04	1532	3281	2981
2023-11-04 10:12:21	1731	3335	3152
2023-11-03 09:55:39	1621	3363	3436
2023-11-02 09:43:00	1591	3465	3262
2023-11-01 10:06:30	1702	3703	3566
2023-10-31 10:32:51	1896	3355	3399
2023-10-31 09:58:22	1634	3228	3571
2023-10-24 10:16:51	1999	3899	4119
2023-10-21 11:00:25	1707	4137	3864
2023-10-20 10:03:57	1787	4064	4106
2023-10-19 11:34:00	1779	3893	3812
2023-10-14 11:26:08	1377	4157	3891
2023-10-13 10:06:23	1366	4273	3584
2023-10-13 09:54:29	1429	4292	3641
2023-10-12 10:40:18	1515	5359	4809
2023-10-11 09:58:46	2050	5072	5025
2023-10-10 10:59:48	1624	4657	4676
2023-10-10 10:47:06	1902	4861	4881
2023-10-09 15:47:58	2367	5470	5775
2023-10-09 15:34:05	1969	3952	3641
2023-10-09 15:25:44	2218	4669	4364
2023-10-09 15:19:50	2080	4354	4087
2023-10-09 14:53:07	1948	4201	3879
2023-10-09 13:19:49	171	78	51
2023-10-09 13:14:00	340	246	180
2023-10-09 09:47:20	2821	4673	5008
2023-10-04 16:49:35	1014	792	945
2023-10-04 15:55:18	1890	2107	2413
2023-10-04 15:15:29	573	209	219
2023-09-21 10:00:54	1658	3131	3442
2023-09-19 11:19:40	2218	3287	3248
2023-09-16 10:28:46	1711	3573	3553
2023-09-14 11:00:11	1721	3210	3387
2023-09-09 10:05:04	1722	3568	3729
2023-09-07 09:53:49	2309	4081	4428
2023-09-02 10:39:33	2248	4065	4257
2023-09-01 09:34:24	1949	3868	4111
2023-08-31 09:25:36	1996	4315	4809
2023-08-31 09:18:43	1985	4296	4816

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-08-29 10:05:32	2240	4135	4129
2023-08-26 10:39:41	2021	4299	4209
2023-08-25 13:19:27	2396	4661	4638
2023-08-25 10:13:41	2316	4944	5010
2023-08-25 10:00:19	2496	4915	4756
2023-08-24 10:22:50	2511	4818	4583
2023-08-24 09:27:33	2424	5025	4351
2023-08-23 10:20:39	2574	5640	5183
2023-08-23 10:00:27	2462	5279	4587
2023-08-22 09:46:34	3016	5876	4894
2023-08-19 10:32:30	2657	4462	4107
2023-08-08 13:40:43	2000	4283	3815
2023-08-08 12:53:37	334	678	620
2023-08-08 11:20:33	743	1157	1099
2023-08-07 14:06:05	2460	4533	4712

Background

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-07 10:53:11	0.250	0.950	4.350
2023-11-07 10:29:48	0.050	1.200	3.450
2023-11-04 10:36:04	0.300	1.200	5.700
2023-11-04 10:12:21	0.550	1.550	4.300
2023-11-03 09:55:39	0.250	1.050	4.700
2023-11-02 09:43:00	0.200	0.900	5.150
2023-11-01 10:06:30	0.150	0.900	3.450
2023-10-31 10:32:51	0.000	0.850	4.050
2023-10-31 09:58:22	0.150	1.150	3.250
2023-10-24 10:16:51	0.550	1.200	3.900
2023-10-21 11:00:25	0.250	1.250	5.300
2023-10-20 10:03:57	0.050	0.750	3.150
2023-10-19 11:34:00	0.350	0.600	3.750
2023-10-14 11:26:08	0.300	1.000	5.350
2023-10-13 10:06:23	0.250	1.800	5.950
2023-10-13 09:54:29	0.300	2.150	4.150
2023-10-12 10:40:18	0.050	1.000	5.700
2023-10-11 09:58:46	0.200	1.000	5.250
2023-10-10 10:59:48	0.200	1.650	5.400
2023-10-10 10:47:06	0.250	1.200	4.950
2023-10-09 15:47:58	0.000	1.000	4.500
2023-10-09 15:34:05	1.050	1.250	4.150

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-09 15:25:44	0.300	1.250	4.150
2023-10-09 15:19:50	0.400	1.050	4.750
2023-10-09 14:53:07	0.500	1.350	4.950
2023-10-09 13:19:49	0.350	0.750	4.650
2023-10-09 13:14:00	0.950	0.850	3.750
2023-10-09 09:47:20	0.150	0.950	5.700
2023-10-04 16:49:35	0.150	0.700	2.150
2023-10-04 15:55:18	0.100	0.700	3.500
2023-10-04 15:15:29	0.300	0.200	2.200
2023-09-21 10:00:54	0.000	0.550	3.250
2023-09-19 11:19:40	0.300	0.850	3.200
2023-09-16 10:28:46	0.350	1.000	4.000
2023-09-14 11:00:11	0.100	1.200	4.300
2023-09-09 10:05:04	0.400	1.200	4.550
2023-09-07 09:53:49	0.450	0.950	3.600
2023-09-02 10:39:33	0.300	0.600	4.500
2023-09-01 09:34:24	0.150	0.650	3.400
2023-08-31 09:25:36	0.250	1.300	3.300
2023-08-31 09:18:43	0.400	0.550	4.000
2023-08-29 10:05:32	0.050	1.650	2.650
2023-08-26 10:39:41	0.200	1.250	4.000
2023-08-25 13:19:27	0.200	1.100	4.400
2023-08-25 10:13:41	0.300	1.000	4.550
2023-08-25 10:00:19	0.050	1.100	3.950
2023-08-24 10:22:50	0.350	1.400	3.100
2023-08-24 09:27:33	0.500	0.750	4.900
2023-08-23 10:20:39	0.200	1.250	3.850
2023-08-23 10:00:27	0.250	0.850	5.300
2023-08-22 09:46:34	0.250	1.800	5.400
2023-08-19 10:32:30	0.050	1.150	3.950
2023-08-08 13:40:43	0.200	1.200	4.800
2023-08-08 12:53:37	0.150	0.350	1.500
2023-08-08 11:20:33	0.100	0.350	1.400
2023-08-07 14:06:05	0.050	0.750	3.850

Tune Parameters

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-07 10:53:11	0.0 V	-155.0 V	-80 V
2023-11-07 10:29:48	0.0 V	-160.0 V	-80 V
2023-11-04 10:36:04	0.0 V	-165.0 V	-80 V

Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-04 10:12:21	0.0 V	-175.0 V	-90 V
2023-11-03 09:55:39	0.0 V	-170.0 V	-90 V
2023-11-02 09:43:00	0.0 V	-180.0 V	-90 V
2023-11-01 10:06:30	0.0 V	-160.0 V	-90 V
2023-10-31 10:32:51	0.0 V	-175.0 V	-90 V
2023-10-31 09:58:22	0.0 V	-175.0 V	-90 V
2023-10-24 10:16:51	0.0 V	-190.0 V	-100 V
2023-10-21 11:00:25	0.0 V	-185.0 V	-90 V
2023-10-20 10:03:57	0.0 V	-175.0 V	-90 V
2023-10-19 11:34:00	0.0 V	-185.0 V	-90 V
2023-10-14 11:26:08	0.0 V	-195.0 V	-100 V
2023-10-13 10:06:23	0.0 V	-195.0 V	-100 V
2023-10-13 09:54:29	0.0 V	-200.0 V	-100 V
2023-10-12 10:40:18	0.0 V	-195.0 V	-100 V
2023-10-11 09:58:46	0.0 V	-200.0 V	-100 V
2023-10-10 10:59:48	0.0 V	-200.0 V	-110 V
2023-10-10 10:47:06	0.0 V	-200.0 V	-100 V
2023-10-09 15:47:58	0.0 V	-200.0 V	-100 V
2023-10-09 15:34:05	0.0 V	-195.0 V	-100 V
2023-10-09 15:25:44	0.0 V	-195.0 V	-100 V
2023-10-09 15:19:50	0.0 V	-195.0 V	-100 V
2023-10-09 14:53:07	0.0 V	-195.0 V	-100 V
2023-10-09 13:19:49	0.0 V	-200.0 V	-110 V
2023-10-09 13:14:00	0.0 V	-200.0 V	-110 V
2023-10-09 09:47:20	0.0 V	-200.0 V	-110 V
2023-10-04 16:49:35	0.0 V	-160.0 V	-100 V
2023-10-04 15:55:18	0.0 V	-165.0 V	-100 V
2023-10-04 15:15:29	0.0 V	-170.0 V	-100 V
2023-09-21 10:00:54	0.0 V	-150.0 V	-90 V
2023-09-19 11:19:40	0.0 V	-155.0 V	-90 V
2023-09-16 10:28:46	0.0 V	-160.0 V	-100 V
2023-09-14 11:00:11	0.0 V	-165.0 V	-100 V
2023-09-09 10:05:04	0.0 V	-155.0 V	-100 V
2023-09-07 09:53:49	0.0 V	-165.0 V	-100 V
2023-09-02 10:39:33	0.0 V	-170.0 V	-110 V
2023-09-01 09:34:24	0.0 V	-175.0 V	-110 V
2023-08-31 09:25:36	0.0 V	-180.0 V	-110 V
2023-08-31 09:18:43	0.0 V	-180.0 V	-110 V
2023-08-29 10:05:32	0.0 V	-170.0 V	-110 V
2023-08-26 10:39:41	0.0 V	-180.0 V	-110 V
2023-08-25 13:19:27	0.0 V	-175.0 V	-110 V

Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-08-25 10:13:41	0.0 V	-175.0 V	-110 V
2023-08-25 10:00:19	0.0 V	-180.0 V	-110 V
2023-08-24 10:22:50	0.0 V	-185.0 V	-110 V
2023-08-24 09:27:33	0.0 V	-190.0 V	-110 V
2023-08-23 10:20:39	0.0 V	-170.0 V	-100 V
2023-08-23 10:00:27	0.0 V	-175.0 V	-100 V
2023-08-22 09:46:34	0.0 V	-175.0 V	-100 V
2023-08-19 10:32:30	0.0 V	-170.0 V	-100 V
2023-08-08 13:40:43	0.0 V	-155.0 V	-90 V
2023-08-08 12:53:37	0.0 V	-140.0 V	-90 V
2023-08-08 11:20:33	0.0 V	-175.0 V	-100 V
2023-08-07 14:06:05	0.0 V	-160.0 V	-100 V

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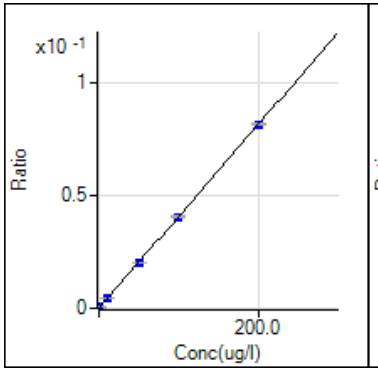
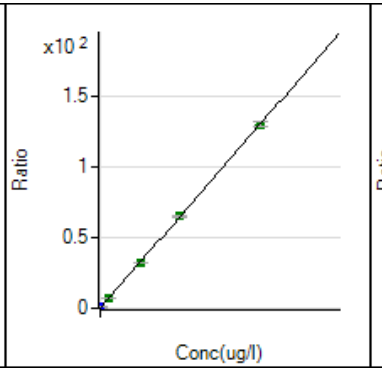
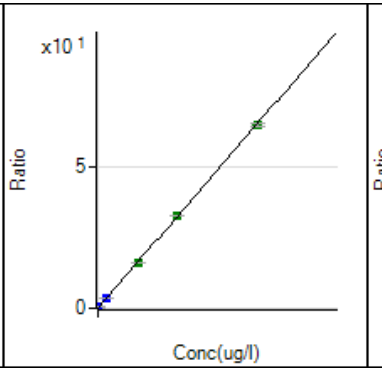


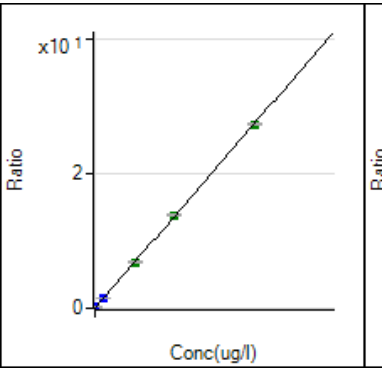
9 Be [2]
ISTD: 45 Sc
y = 4.061E-4 x + 5.127E-6
R 1.0000
DL 0.01643
BEC 0.01262



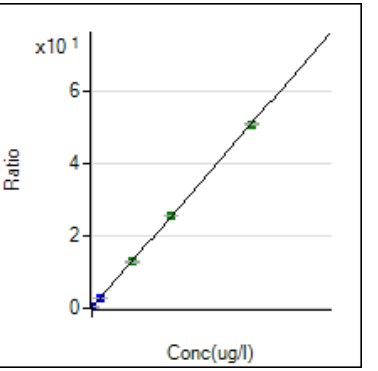
23 Na [2]
ISTD: 45 Sc
y = 6.483E-3 x + 5.176E-2
R 1.0000
DL 0.1155
BEC 7.984



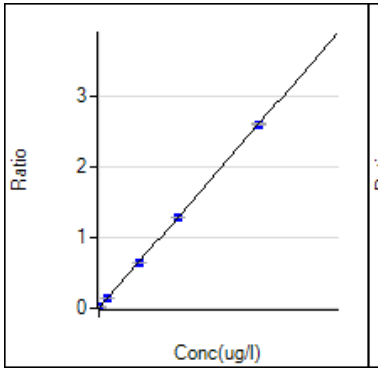
24 Mg [2]
ISTD: 45 Sc
y = 3.257E-3 x + 3.800E-3
R 1.0000
DL 0.0768
BEC 1.167



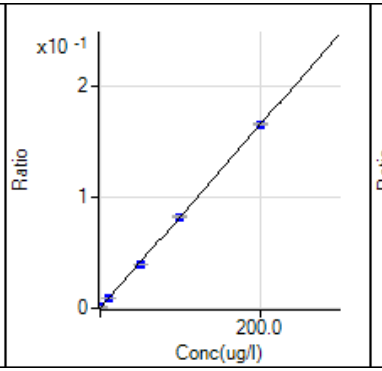
27 Al [2]
ISTD: 45 Sc
y = 1.366E-3 x + 1.267E-3
R 1.0000
DL 0.04504
BEC 0.9279



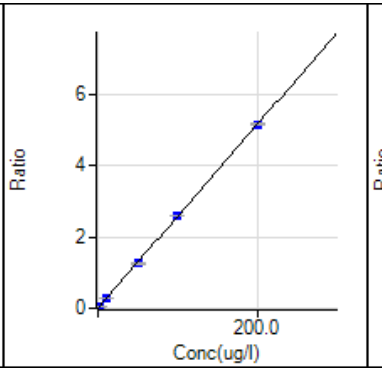
39 K [2]
ISTD: 45 Sc
y = 2.531E-3 x + 1.719E-1
R 1.0000
DL 1.295
BEC 67.9



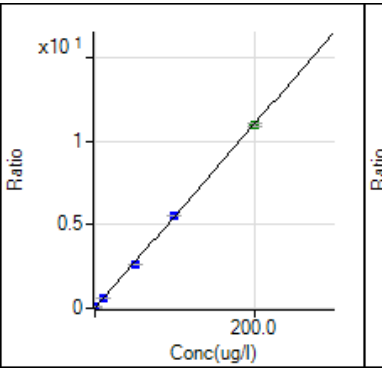
44 Ca [2]
ISTD: 45 Sc
y = 1.295E-4 x + 3.485E-4
R 1.0000
DL 0.8368
BEC 2.692



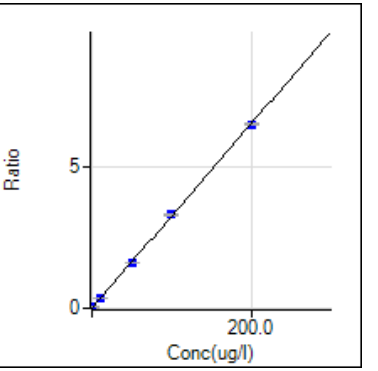
47 Ti [2]
ISTD: 45 Sc
y = 8.265E-4 x + 1.538E-5
R 0.9999
DL 0.07385
BEC 0.0186



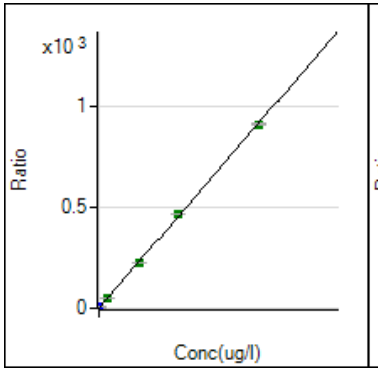
51 V [2]
ISTD: 45 Sc
y = 2.564E-2 x + 1.484E-2
R 1.0000
DL 0.04393
BEC 0.5788



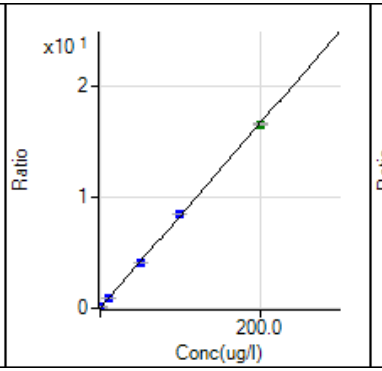
52 Cr [2]
ISTD: 72 Ge
y = 5.504E-2 x + 2.276E-3
R 0.9999
DL 0.0188
BEC 0.04135



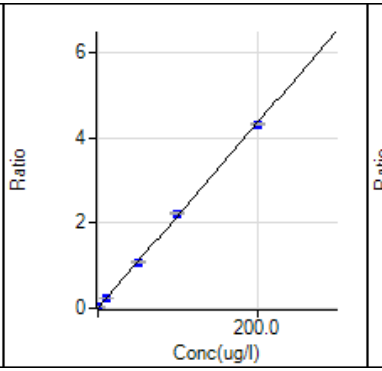
55 Mn [2]
ISTD: 72 Ge
y = 3.276E-2 x + 1.529E-3
R 1.0000
DL 0.01794
BEC 0.04665



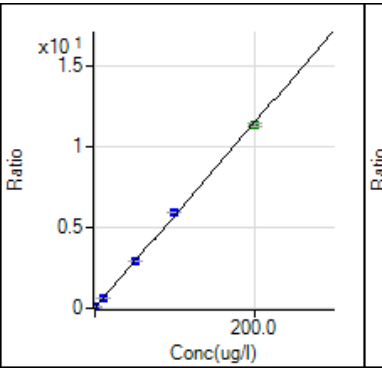
56 Fe [2]
ISTD: 72 Ge
y = 4.582E-2 x + 4.522E-2
R 0.9999
DL 0.05705
BEC 0.987



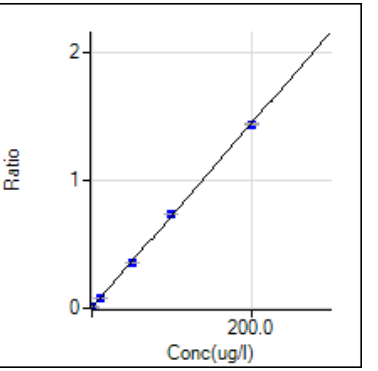
59 Co [2]
ISTD: 72 Ge
y = 8.312E-2 x + 5.051E-4
R 0.9999
DL 0.002148
BEC 0.006077



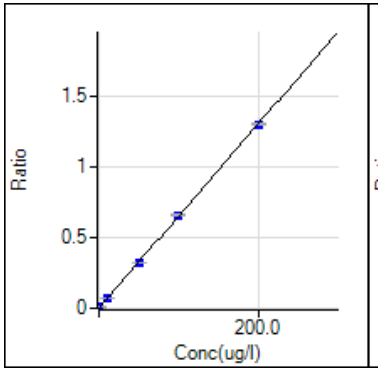
60 Ni [2]
ISTD: 72 Ge
y = 2.173E-2 x + 1.084E-3
R 0.9999
DL 0.005466
BEC 0.04988



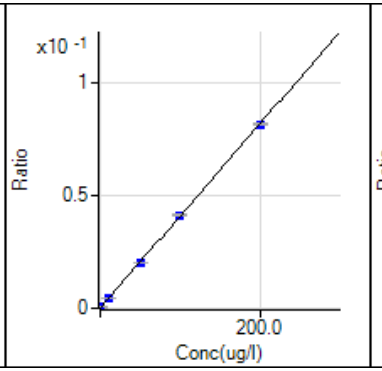
63 Cu [2]
ISTD: 72 Ge
y = 5.733E-2 x + 2.900E-2
R 0.9998
DL 0.006894
BEC 0.5058



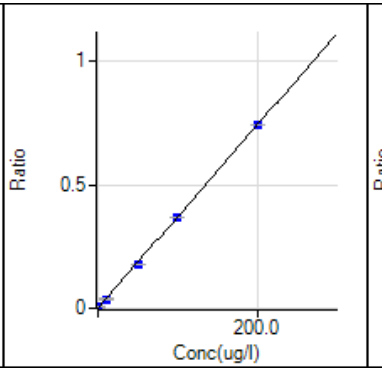
66 Zn [2]
ISTD: 74 Ge
y = 7.191E-3 x + 3.086E-3
R 1.0000
DL 0.05086
BEC 0.4291



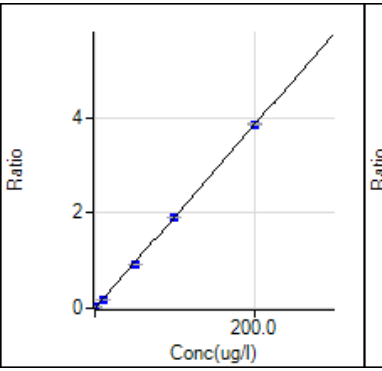
75 As [2]
ISTD: 72 Ge
y = 6.528E-3 x + 3.663E-4
R 1.0000
DL 0.01633
BEC 0.0561



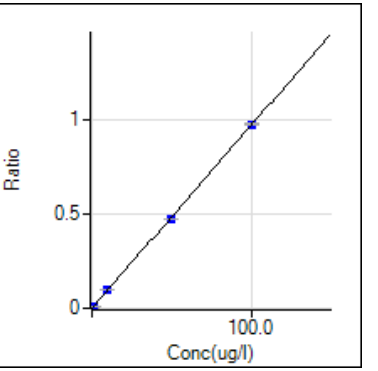
78 Se [2]
ISTD: 74 Ge
y = 4.069E-4 x + 7.738E-5
R 1.0000
DL 0.09306
BEC 0.1902



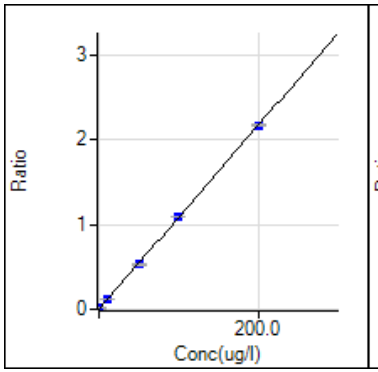
88 Sr [2]
ISTD: 115 In
y = 3.709E-3 x + 1.479E-4
R 0.9999
DL 0.01232
BEC 0.03988



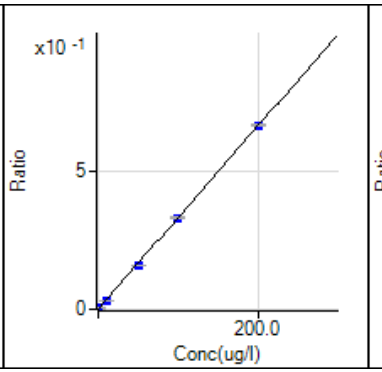
95 Mo [2]
ISTD: 74 Ge
y = 1.921E-2 x + 1.839E-4
R 0.9999
DL 0.01366
BEC 0.009572



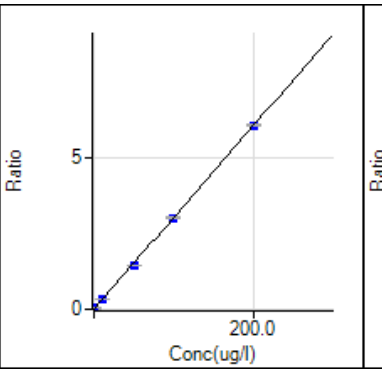
107 Ag [2]
ISTD: 115 In
y = 9.706E-3 x + 4.146E-5
R 0.9999
DL 0.00441
BEC 0.004272



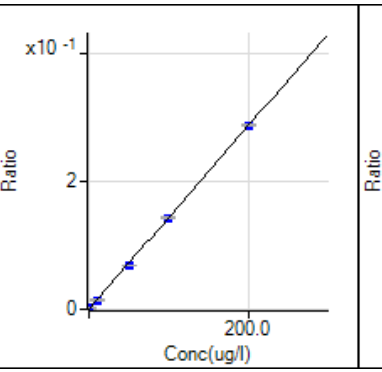
111 Cd [2]
ISTD: 74 Ge
y = 1.082E-2 x + 2.043E-5
R 1.0000
DL 0.007802
BEC 0.001887



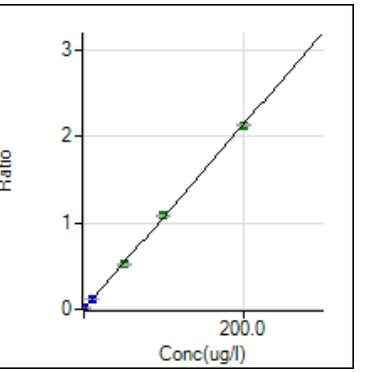
118 Sn [2]
ISTD: 115 In
y = 3.301E-3 x + 1.343E-4
R 0.9999
DL 0.02473
BEC 0.04069



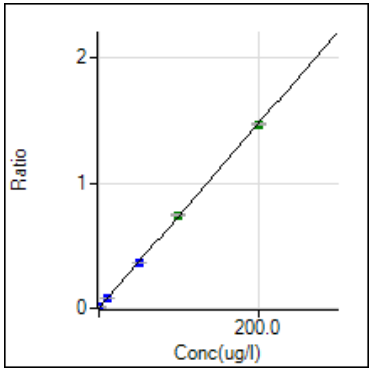
121 Sb [2]
ISTD: 74 Ge
y = 3.027E-2 x + 2.058E-4
R 0.9999
DL 0.005673
BEC 0.006799



137 Ba [2]
ISTD: 115 In
y = 1.436E-3 x + 2.116E-5
R 0.9999
DL 0.00807
BEC 0.01473



205 Tl [2]
ISTD: 209 Bi
y = 1.068E-2 x + 1.618E-5
R 0.9999
DL 0.000663
BEC 0.001515



208 Pb [2]
ISTD: 209 Bi
y = 7.372E-3 x + 2.581E-4
R 1.0000
DL 0.00249
BEC 0.035

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/8/2023 10:25:01 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0004**	**.0010**	**-.0003**	**.0031**	**.0018**	**-.0012**	**.0015**	**-.0008**	**-.0005**
Stddev	.0003	.0012	.0000	.0003	.0016	.0003	.0006	.0003	.0003
%RSD	66.76	120.4	7.406	11.32	85.27	24.16	39.81	36.71	55.68
#1	-.0002	.0023	-.0003	.0035	.0007	-.0013	.0022	-.0011	-.0007
#2	-.0003	-.0001	-.0003	.0029	.0036	-.0009	.0012	-.0005	-.0002
#3	-.0007	.0009	-.0003	.0029	.0012	-.0014	.0011	-.0008	-.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0082**	**.0000**	**.0020**	**.0051**	**.0001**	**.0005**	**.0004**	**.0159**
Stddev	.0001	.0003	.000	.0008	.0013	.0005	.0002	.0001	.0019
%RSD	72.32	4.092	938.4	41.45	26.44	558.2	32.70	40.19	11.84
#1	.0001	.0082	.0002	.0011	.0066	-.0004	.0004	.0005	.0179
#2	.0003	.0079	.0002	.0023	.0048	.0001	.0007	.0004	.0154
#3	.0001	.0086	-.0005	.0026	.0039	.0005	.0004	.0002	.0142

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0007**	**-.0038**	**.0004**	**-.0004**	**.0042**	**.0002**	**-.0004**	**.0015**	**-.0007**
Stddev	.0002	.0001	.0003	.0002	.0002	.0001	.0003	.0003	.0003
%RSD	22.63	2.678	82.40	55.20	4.559	50.79	75.60	20.14	45.32
#1	-.0009	-.0039	.0006	-.0006	.0041	.0003	-.0007	.0018	-.0005
#2	-.0006	-.0037	.0004	-.0002	.0040	.0001	-.0001	.0012	-.0006
#3	-.0006	-.0038	.0000	-.0006	.0044	.0003	-.0005	.0014	-.0011

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0008**
Stddev	.0003	.0000
%RSD	97.84	1.492
#1	.0000	.0008
#2	-.0002	.0008
#3	-.0006	.0008

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/8/2023 10:25:01 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3198.1**	**8238.8**	**45520.**	**9153.4**
Stddev	9.5	21.6	118.	6.3
%RSD	.29585	.26171	.25885	.06931
#1	3194.2	8230.1	45457.	9158.3
#2	3208.9	8263.4	45656.	9155.8
#3	3191.3	8223.0	45448.	9146.2

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/8/2023 10:31:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0061**	**.0357**	**.0009**	**.0183**	**1.840**	**.0756**	**.4553**	**.0243**	**.1402**
Stddev	.0001	.0007	.0001	.0003	.003	.0006	.0005	.0002	.0003
%RSD	1.870	1.901	13.65	1.635	.1577	.7415	.1089	.8371	.1829
#1	.0062	.0362	.0010	.0180	1.842	.0752	.4548	.0245	.1402
#2	.0061	.0349	.0009	.0185	1.840	.0753	.4552	.0241	.1400
#3	.0060	.0358	.0008	.0184	1.836	.0762	.4558	.0243	.1405

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0082**	**.0322**	**.0866**	**.7649**	**.0183**	**.2714**	**.0618**	**.0458**	**2.130**
Stddev	.0002	.0002	.0008	.0026	.0026	.0002	.0000	.0000	.008
%RSD	1.847	.6587	.9463	.3384	14.14	.0594	.0321	.0676	.3931
#1	.0083	.0321	.0858	.7666	.0213	.2713	.0618	.0458	2.132
#2	.0082	.0324	.0865	.7619	.0165	.2716	.0618	.0459	2.120
#3	.0080	.0320	.0874	.7662	.0172	.2713	.0618	.0458	2.137

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0663**	**.0016**	**.0013**	**.0004**	**.0195**	**.1458**	**.0261**	**.0016**	**.0556**
Stddev	.0002	.0005	.0001	.0001	.0000	.0011	.0001	.0003	.0000
%RSD	.2307	33.90	9.951	20.37	.1301	.7787	.2509	20.10	.0359
#1	.0662	.0012	.0011	.0004	.0195	.1464	.0260	.0018	.0557
#2	.0665	.0013	.0013	.0003	.0195	.1445	.0260	.0012	.0556
#3	.0662	.0022	.0014	.0003	.0195	.1465	.0261	.0018	.0556

Elem	Zn2062
Units	Cts/S
Avg	**.0646**
Stddev	.0001
%RSD	.1964
#1	.0647
#2	.0646
#3	.0644

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/8/2023 10:31:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3134.9**	**8165.9**	**44891.**	**9117.2**
Stddev	9.5	22.6	91.	40.1
%RSD	.30186	.27703	.20286	.43963
#1	3132.1	8152.4	44989.	9145.0
#2	3127.2	8153.3	44810.	9135.3
#3	3145.5	8192.0	44874.	9071.2

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/8/2023 10:35:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0207**	**.8365**	**.0287**	**.0865**	**2.257**	**3.694**	**2.272**	**1.218**	**.6914**
Stddev	.0002	.0010	.0001	.0007	.005	.004	.002	.001	.0006
%RSD	.9469	.1217	.1940	.7937	.2227	.0981	.0872	.1038	.0892
#1	.0209	.8357	.0286	.0857	2.258	3.697	2.272	1.217	.6916
#2	.0207	.8362	.0286	.0870	2.262	3.690	2.275	1.219	.6907
#3	.0205	.8376	.0287	.0868	2.252	3.695	2.271	1.220	.6919

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2008**	**.2385**	**1.419**	**.3859**	**.4248**	**.2720**	**1.004**	**.2295**	**1.147**
Stddev	.0004	.0007	.001	.0009	.0048	.0005	.001	.0000	.005
%RSD	.1929	.3077	.0408	.2395	1.122	.1897	.1225	.0118	.4046
#1	.2004	.2377	1.419	.3856	.4295	.2719	1.002	.2295	1.150
#2	.2008	.2392	1.419	.3852	.4249	.2726	1.004	.2295	1.148
#3	.2012	.2386	1.418	.3870	.4200	.2716	1.004	.2295	1.142

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4093**	**.2938**	**.0458**	**.0218**	**.0981**	**.0946**	**3.530**	**.5737**	**.0677**
Stddev	.0005	.0007	.0001	.0002	.0002	.0002	.004	.0010	.0007
%RSD	.1183	.2272	.1262	.7823	.1619	.2304	.1155	.1741	1.045
#1	.4089	.2938	.0457	.0217	.0983	.0948	3.534	.5733	.0684
#2	.4092	.2931	.0458	.0218	.0979	.0946	3.525	.5730	.0670
#3	.4098	.2944	.0458	.0220	.0981	.0943	3.530	.5748	.0675

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2739**	**.7678**
Stddev	.0012	.0007
%RSD	.4375	.0894
#1	.2726	.7673
#2	.2743	.7686
#3	.2749	.7676

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/8/2023 10:35:23 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3123.2**	**8240.7**	**45628.**	**9260.3**
Stddev	1.9	4.5	64.	48.1
%RSD	.06060	.05510	.14016	.51955
#1	3121.1	8242.4	45702.	9206.7
#2	3124.9	8235.6	45593.	9274.6
#3	3123.5	8244.2	45589.	9299.7

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/8/2023 10:39:44 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0419**	**1.674**	**.0583**	**.1716**	**4.542**	**7.474**	**4.562**	**2.459**	**1.384**
Stddev	.0002	.004	.0002	.0003	.006	.014	.011	.002	.001
%RSD	.3666	.2201	.3011	.1807	.1288	.1848	.2426	.0942	.0448
#1	.0421	1.670	.0583	.1713	4.539	7.464	4.555	2.457	1.383
#2	.0419	1.674	.0585	.1717	4.538	7.490	4.556	2.458	1.385
#3	.0418	1.677	.0581	.1718	4.549	7.469	4.575	2.461	1.384

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4038**	**.4704**	**2.842**	**.7737**	**.8580**	**.5474**	**2.028**	**.4628**	**2.319**
Stddev	.0004	.0015	.002	.0025	.0042	.0007	.003	.0004	.006
%RSD	.0919	.3253	.0848	.3277	.4952	.1252	.1671	.0882	.2821
#1	.4033	.4694	2.841	.7712	.8601	.5482	2.025	.4626	2.320
#2	.4039	.4722	2.845	.7736	.8607	.5472	2.030	.4633	2.324
#3	.4041	.4696	2.840	.7763	.8531	.5469	2.031	.4626	2.311

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8164**	**.6034**	**.0919**	**.0446**	**.1943**	**.1892**	**7.157**	**1.158**	**.1373**
Stddev	.0003	.0018	.0003	.0001	.0002	.0004	.017	.001	.0002
%RSD	.0428	.3030	.3550	.1230	.1282	.1932	.2309	.1242	.1779
#1	.8162	.6017	.0923	.0446	.1944	.1894	7.155	1.157	.1374
#2	.8168	.6054	.0917	.0447	.1940	.1888	7.174	1.158	.1370
#3	.8162	.6032	.0918	.0446	.1944	.1894	7.141	1.159	.1375

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.5522**	**1.535**
Stddev	.0016	.002
%RSD	.2865	.1058
#1	.5505	1.533
#2	.5523	1.535
#3	.5537	1.536

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/8/2023 10:39:44 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3047.0**	**8196.3**	**45129.**	**9193.6**
Stddev	6.2	7.7	234.	16.8
%RSD	.20270	.09401	.51825	.18313
#1	3053.9	8204.3	45352.	9199.5
#2	3042.1	8188.9	44885.	9206.7
#3	3045.0	8195.6	45149.	9174.6

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/8/2023 10:44:28 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0816**	**3.383**	**.1208**	**.3556**	**9.405**	**15.51**	**9.193**	**5.031**	**2.822**
Stddev	.0001	.001	.0003	.0031	.015	.03	.006	.004	.003
%RSD	.1540	.0388	.2683	.8726	.1615	.1923	.0675	.0891	.0973
#1	.0815	3.383	.1209	.3524	9.418	15.53	9.200	5.029	2.819
#2	.0817	3.381	.1210	.3586	9.408	15.52	9.190	5.028	2.822
#3	.0817	3.383	.1204	.3559	9.388	15.47	9.190	5.037	2.825

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8254**	**.9581**	**5.781**	**1.566**	**1.761**	**1.098**	**4.153**	**.9440**	**4.749**
Stddev	.0013	.0015	.010	.004	.008	.002	.005	.0006	.010
%RSD	.1534	.1517	.1807	.2269	.4401	.1758	.1192	.0593	.2120
#1	.8240	.9578	5.785	1.568	1.769	1.099	4.148	.9434	4.760
#2	.8260	.9596	5.789	1.567	1.758	1.100	4.153	.9442	4.741
#3	.8263	.9567	5.769	1.562	1.755	1.096	4.158	.9445	4.747

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.661**	**1.258**	**.1882**	**.0918**	**.3650**	**.3856**	**14.87**	**2.389**	**.2861**
Stddev	.003	.001	.0004	.0001	.0003	.0004	.01	.003	.0009
%RSD	.1782	.0853	.1910	.0635	.0711	.0998	.0455	.1085	.3092
#1	1.657	1.257	.1883	.0919	.3650	.3853	14.87	2.389	.2858
#2	1.661	1.259	.1885	.0918	.3648	.3854	14.88	2.387	.2871
#3	1.663	1.259	.1878	.0917	.3653	.3861	14.87	2.392	.2854

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.133**	**3.149**
Stddev	.003	.004
%RSD	.2381	.1148
#1	1.131	3.145
#2	1.133	3.151
#3	1.136	3.152

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/8/2023 10:44:28 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2911.9**	**8044.9**	**44467.**	**9152.1**
Stddev	8.9	31.2	196.	25.8
%RSD	.30493	.38832	.44088	.28202
#1	2922.1	8080.8	44627.	9148.7
#2	2905.7	8029.9	44526.	9179.5
#3	2908.0	8023.9	44249.	9128.2

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/8/2023 10:48:48 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1643**	**6.797**	**.2454**	**.7268**	**18.98**	**31.29**	**18.50**	**10.09**	**5.656**
Stddev	.0006	.003	.0004	.0021	.03	.02	.03	.01	.006
%RSD	.3591	.0506	.1698	.2957	.1633	.0741	.1764	.0718	.1103
#1	.1638	6.799	.2455	.7271	18.99	31.30	18.54	10.10	5.657
#2	.1641	6.799	.2458	.7246	18.95	31.30	18.47	10.09	5.661
#3	.1650	6.793	.2450	.7288	19.01	31.26	18.50	10.08	5.649

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.644**	**1.921**	**11.62**	**3.144**	**3.543**	**2.198**	**8.167**	**1.908**	**9.598**
Stddev	.002	.006	.01	.004	.002	.006	.034	.001	.025
%RSD	.1427	.3297	.1185	.1179	.0480	.2973	.4141	.0757	.2587
#1	1.647	1.927	11.62	3.147	3.542	2.204	8.157	1.908	9.571
#2	1.642	1.915	11.63	3.140	3.542	2.198	8.139	1.909	9.621
#3	1.644	1.922	11.60	3.144	3.545	2.191	8.204	1.906	9.601

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.315**	**2.595**	**.3795**	**.1861**	**.7342**	**.7672**	**30.02**	**4.791**	**.5863**
Stddev	.005	.011	.0001	.0004	.0004	.0016	.04	.005	.0016
%RSD	.1400	.4129	.0325	.2188	.0585	.2097	.1323	.1097	.2685
#1	3.318	2.599	.3796	.1864	.7343	.7679	30.01	4.786	.5875
#2	3.318	2.603	.3794	.1861	.7345	.7683	30.07	4.796	.5869
#3	3.310	2.583	.3795	.1856	.7337	.7653	29.99	4.792	.5845

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**2.274**	**6.318**
Stddev	.003	.013
%RSD	.1173	.2028
#1	2.271	6.325
#2	2.276	6.325
#3	2.275	6.303

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/8/2023 10:48:48 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2743.2**	**7879.6**	**44131.**	**9115.4**
Stddev	6.7	8.0	76.	20.4
%RSD	.24469	.10178	.17186	.22420
#1	2738.1	7873.4	44155.	9106.4
#2	2740.7	7876.7	44191.	9101.0
#3	2750.8	7888.6	44046.	9138.8

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/8/2023 10:52:53 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3306**	**13.18**	**.4919**	**1.387**	**37.32**	**60.78**	**35.53**	**19.83**	**11.13**
Stddev	.0007	.00	.0003	.009	.24	.99	.21	.01	.00
%RSD	.2228	.0282	.0664	.6457	.6494	1.630	.6033	.0658	.0350
#1	.3299	13.18	.4922	1.376	37.60	60.45	35.77	19.83	11.12
#2	.3314	13.18	.4920	1.392	37.17	59.99	35.38	19.85	11.13
#3	.3306	13.18	.4915	1.391	37.19	61.89	35.43	19.83	11.13

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.217**	**3.793**	**22.23**	**6.116**	**6.954**	**4.215**	**15.90**	**3.770**	**18.42**
Stddev	.005	.011	.03	.010	.009	.013	.05	.003	.03
%RSD	.1544	.2834	.1259	.1593	.1323	.3044	.2976	.0687	.1446
#1	3.211	3.797	22.26	6.119	6.955	4.230	15.87	3.768	18.41
#2	3.220	3.781	22.22	6.105	6.944	4.205	15.95	3.773	18.39
#3	3.220	3.802	22.20	6.124	6.963	4.210	15.87	3.770	18.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.522**	**5.362**	**.7486**	**.3710**	**1.056**	**1.496**	**57.71**	**9.388**	**1.189**
Stddev	.003	.013	.0007	.0005	.001	.001	.37	.042	.004
%RSD	.0428	.2477	.0926	.1398	.0479	.0815	.6468	.4420	.3653
#1	6.523	5.358	.7493	.3715	1.055	1.495	58.09	9.345	1.191
#2	6.524	5.377	.7486	.3710	1.056	1.497	57.34	9.390	1.193
#3	6.519	5.351	.7479	.3705	1.056	1.496	57.69	9.428	1.185

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**4.476**	**12.40**
Stddev	.007	.02
%RSD	.1571	.1309
#1	4.470	12.40
#2	4.484	12.42
#3	4.474	12.39

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/8/2023 10:52:53 Type: Cal
Method: 60102007_COMBO_102422(v701) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2505.4**	**7570.6**	**42914.**	**9055.4**
Stddev	6.9	6.7	142.	63.3
%RSD	.27568	.08895	.33085	.69871
#1	2507.7	7573.4	43035.	8982.9
#2	2497.7	7562.9	42758.	9084.3
#3	2510.9	7575.5	42950.	9099.1

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/8/2023 11:01:22 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**.2114**	**.0104**	F **.0539**	**.1985**	**.0050**	**1.007**	**.0051**	**.0504**
Stddev	.0003	.0045	.0006	.0004	.0006	.0000	.003	.0000	.0001
%RSD	3.002	2.117	5.769	.7467	.3263	.9900	.3243	.5596	.1851
#1	.0097	.2101	.0103	.0534	.1979	.0049	1.003	.0051	.0503
#2	.0096	.2163	.0111	.0540	.1992	.0050	1.009	.0052	.0505
#3	.0091	.2076	.0099	.0542	.1983	.0050	1.009	.0051	.0503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0099**	**.0253**	**.3015**	**9.864**	**.0088**	**5.014**	**.0153**	**.0487**	**9.018**
Stddev	.0002	.0001	.0011	.030	.0028	.025	.0001	.0003	.044
%RSD	2.008	.4503	.3702	.3073	31.51	.4997	.3758	.5803	.4852
#1	.0101	.0253	.3003	9.845	.0110	4.995	.0153	.0490	8.969
#2	.0098	.0252	.3017	9.898	.0057	5.004	.0154	.0487	9.034
#3	.0098	.0254	.3025	9.847	.0096	5.042	.0153	.0484	9.052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0412**	**.0045**	F **.0060**	F **.0080**	**.0192**	**.0510**	**.0099**	**.0104**	**.0099**
Stddev	.0002	.0005	.0005	.0011	.0003	.0005	.0001	.0003	.0011
%RSD	.3768	10.23	7.767	13.16	1.491	1.026	.7250	2.555	11.08
#1	.0414	.0045	.0060	.0092	.0190	.0515	.0100	.0105	.0107
#2	.0411	.0040	.0056	.0077	.0195	.0511	.0099	.0106	.0103
#3	.0412	.0049	.0065	.0071	.0191	.0505	.0100	.0101	.0086
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			.0050	.0100					
Range			20.00%	-20.00%					

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/8/2023 11:01:22 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0502**	**.0205**
Stddev	.0002	.0000
%RSD	.3289	.0916
#1	.0502	.0205
#2	.0500	.0205
#3	.0503	.0205
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3139.8**	**8156.1**	**45074.**	**9168.2**
Stddev	.5	2.8	238.	52.1
%RSD	.01566	.03391	.52876	.56865
#1	3139.6	8153.4	45046.	9181.6
#2	3140.3	8156.0	44851.	9212.3
#3	3139.4	8158.9	45325.	9110.6

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/8/2023 11:08:40 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5032**	**80.19**	**4.079**	**3.931**	**3.949**	**3.960**	**78.91**	**4.017**	**4.004**
Stddev	.0009	.16	.005	.016	.031	.030	.44	.003	.005
%RSD	.1780	.2028	.1283	.4175	.7896	.7540	.5611	.0738	.1231
#1	.5022	80.36	4.079	3.916	3.944	3.978	79.23	4.015	3.998
#2	.5039	80.16	4.084	3.929	3.983	3.976	79.10	4.020	4.008
#3	.5036	80.04	4.073	3.949	3.921	3.925	78.41	4.015	4.004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.036**	**4.077**	**79.86**	**79.96**	**4.069**	**79.63**	**3.977**	**4.035**	**82.05**
Stddev	.009	.007	.12	.09	.006	.12	.042	.003	.19
%RSD	.2276	.1778	.1492	.1119	.1580	.1500	1.060	.0798	.2274
#1	4.031	4.081	79.96	80.00	4.075	79.53	3.963	4.032	82.23
#2	4.047	4.081	79.88	80.02	4.069	79.76	4.024	4.038	82.06
#3	4.031	4.069	79.73	79.86	4.062	79.59	3.943	4.036	81.86
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.001**	**4.148**	**4.046**	**4.037**	**3.384**	**3.977**	**4.075**	**4.007**	**4.117**
Stddev	.005	.006	.010	.004	.003	.004	.018	.031	.010
%RSD	.1152	.1339	.2406	.0976	.0768	.0988	.4506	.7710	.2423
#1	3.996	4.142	4.035	4.033	3.382	3.973	4.059	4.040	4.112
#2	4.005	4.149	4.050	4.041	3.387	3.980	4.095	4.004	4.129
#3	4.001	4.153	4.053	4.036	3.383	3.980	4.071	3.978	4.111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/8/2023 11:08:40 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**3.998**	**4.015**
Stddev	.007	.003
%RSD	.1769	.0624
#1	3.990	4.013
#2	4.000	4.018
#3	4.004	4.014
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2486.5**	**7547.4**	**42384.**	**9006.7**
Stddev	3.2	5.7	202.	24.0
%RSD	.13022	.07545	.47768	.26665
#1	2484.0	7540.8	42560.	8996.1
#2	2490.2	7550.6	42163.	8989.8
#3	2485.5	7550.8	42430.	9034.2

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/8/2023 11:19:41 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536**	**40.76**	**2.041**	**1.986**	**2.046**	**2.055**	**40.98**	**2.055**	**2.034**
Stddev	.0007	.13	.009	.025	.003	.007	.09	.007	.006
%RSD	.2790	.3071	.4360	1.284	.1556	.3220	.2074	.3213	.2774
#1	.2530	40.62	2.049	2.015	2.048	2.048	40.95	2.059	2.037
#2	.2544	40.83	2.042	1.970	2.042	2.054	40.91	2.058	2.037
#3	.2535	40.84	2.031	1.973	2.047	2.061	41.08	2.047	2.027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060**	**2.046**	**40.72**	**40.51**	F **2.736**	**41.29**	**2.047**	**2.004**	**40.38**
Stddev	.004	.005	.16	.12	.010	.20	.012	.006	.27
%RSD	.2093	.2584	.4033	.3068	.3712	.4770	.5893	.3197	.6769
#1	2.057	2.040	40.54	40.42	2.728	41.07	2.054	2.009	40.11
#2	2.059	2.046	40.76	40.47	2.733	41.38	2.054	2.006	40.37
#3	2.065	2.051	40.86	40.65	2.748	41.43	2.033	1.996	40.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					2.000				
Range					10.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.038**	**2.008**	**2.045**	**2.025**	**1.389**	**2.003**	**2.071**	**2.066**	**2.045**
Stddev	.006	.002	.009	.007	.003	.005	.008	.003	.002
%RSD	.3114	.1070	.4151	.3726	.1983	.2292	.3813	.1512	.0911
#1	2.042	2.005	2.049	2.028	1.391	2.007	2.064	2.064	2.043
#2	2.041	2.008	2.050	2.031	1.391	2.004	2.071	2.064	2.045
#3	2.031	2.009	2.035	2.017	1.386	1.998	2.079	2.070	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/8/2023 11:19:41 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.053**	**2.041**
Stddev	.005	.007
%RSD	.2630	.3560
#1	2.050	2.046
#2	2.049	2.045
#3	2.059	2.033
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2737.6**	**7861.5**	**43767.**	**9101.1**
Stddev	2.7	28.5	177.	79.1
%RSD	.09827	.36295	.40336	.86946
#1	2739.7	7847.5	43570.	9192.2
#2	2734.6	7842.6	43911.	9049.2
#3	2738.5	7894.3	43822.	9062.0

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/8/2023 11:29:51 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0055**	**.0007**	F **.0041**	**.0000**	**.0000**	**-.0009**	**.0000**	**-.0001**
Stddev	.000	.0020	.0012	.0010	.0002	.0000	.0004	.000	.0000
%RSD	1758.	35.78	171.0	24.40	552.8	64.00	51.77	1231.	41.42
#1	-.0002	.0047	.0017	.0036	.0002	.0000	-.0004	.0000	-.0001
#2	-.0002	.0041	.0009	.0052	-.0001	.0001	-.0013	.0000	-.0002
#3	.0003	.0078	-.0006	.0034	.0001	.0001	-.0008	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0002**	**.0008**	**.0066**	**.0005**	**-.0031**	**.0000**	**.0001**	**-.0436**
Stddev	.0003	.0003	.0003	.0250	.0011	.0098	.000	.0001	.0192
%RSD	110.4	215.3	40.81	380.5	215.1	317.3	392.7	104.2	43.93
#1	-.0006	-.0001	.0006	-.0213	.0006	.0050	.0000	.0002	-.0248
#2	.0000	.0000	.0007	.0141	-.0006	-.0140	.0000	.0000	-.0431
#3	-.0003	.0005	.0012	.0269	.0015	-.0002	.0000	.0001	-.0631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	F **.0020**	**-.0007**	**.0007**	**-.0003**	**.0000**	**.0002**	**-.0005**
Stddev	.0001	.0006	.0014	.0015	.0001	.0003	.000	.0001	.0010
%RSD	158.9	274.9	70.68	202.9	20.90	106.5	147.8	40.59	189.1
#1	-.0002	-.0001	.0004	-.0020	.0006	-.0004	.0000	.0003	.0003
#2	-.0002	-.0009	.0028	-.0012	.0008	.0001	.0000	.0001	-.0016
#3	.0001	.0003	.0029	.0009	.0006	-.0004	.0000	.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0020						
Low Limit			-.0020						

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/8/2023 11:29:51 Type: QC
Method: 60102007_COMBO_102422(v701) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0000**
Stddev	.0002	.0000
%RSD	115.3	931.2
#1	.0000	.0000
#2	-.0001	.0000
#3	-.0004	.0000
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3187.1**	**8187.8**	**45093.**	**9137.5**
Stddev	7.0	8.4	87.	63.7
%RSD	.21903	.10238	.19284	.69701
#1	3190.8	8187.6	45113.	9095.5
#2	3191.4	8196.3	44998.	9210.8
#3	3179.1	8179.6	45168.	9106.1

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/8/2023 11:39:04 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**499.7**	**.0005**	F **-.0894**	**-.0005**	**.0000**	**470.2**	**.0005**
Stddev	.0008	3.5	.0007	.0048	.0002	.0000	10.5	.0002
%RSD	5468.	.7028	137.1	5.358	37.49	8.071	2.239	39.69
#1	.0009	496.1	.0009	-.0945	-.0003	.0000	479.5	.0003
#2	-.0003	499.9	-.0003	-.0888	-.0006	.0000	472.3	.0006
#3	-.0005	503.1	.0009	-.0850	-.0006	.0000	458.7	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0004**	**.0010**	F **466.9**	**.0030**	**.0000**	**501.8**	**-.0009**
Stddev	.0001	.0001	.0002	5.4	.0145	.002	.7	.0000
%RSD	36.42	15.68	19.27	1.161	479.7	3292.	.1416	4.280
#1	.0003	.0005	.0009	473.0	.0090	.0000	501.1	-.0008
#2	.0005	.0003	.0008	464.7	-.0135	.0014	501.7	-.0009
#3	.0004	.0004	.0012	462.9	.0136	-.0016	502.5	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass
High Limit				240.0				
Low Limit				160.0				

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.2485**	**.0000**	**.0004**	**.0019**	**.0000**	**.0771**	**-.0006**
Stddev	.0001	.0072	.0003	.0004	.0016	.0020	.0009	.0005
%RSD	51.22	2.896	1574.	94.70	86.72	170200.	1.210	85.81
#1	-.0002	.2452	.0003	.0001	.0001	-.0001	.0782	-.0004
#2	-.0004	.2436	-.0001	.0003	.0034	-.0020	.0764	-.0002
#3	-.0002	.2568	-.0002	.0009	.0022	.0021	.0767	-.0011
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/8/2023 11:39:04 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0018**	**.0000**	**.0010**	**.0010**
Stddev	.0001	.0001	.002	.0004	.0002
%RSD	228.5	7.857	7309.	39.28	16.55
#1	.0002	-.0017	-.0026	.0007	.0012
#2	.0000	-.0019	.0015	.0014	.0009
#3	.0000	-.0018	.0010	.0009	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2051.1**	**7280.2**	**39697.**	**8817.3**
Stddev	6.3	9.9	74.	13.8
%RSD	.30536	.13654	.18521	.15682
#1	2046.5	7274.0	39679.	8804.3
#2	2058.2	7291.7	39777.	8815.7
#3	2048.6	7274.9	39633.	8831.9

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/8/2023 11:46:41 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.066**	**502.1**	**.9964**	**.9385**	**.4834**	**.4928**	**479.2**	**.9498**	**.4572**
Stddev	.003	5.4	.0016	.0075	.0002	.0005	9.3	.0012	.0003
%RSD	.3198	1.081	.1603	.8023	.0314	.1046	1.933	.1276	.0744
#1	1.063	507.9	.9979	.9301	.4833	.4934	488.1	.9508	.4573
#2	1.066	501.2	.9947	.9445	.4836	.4926	479.9	.9485	.4569
#3	1.070	497.2	.9967	.9409	.4834	.4924	469.6	.9501	.4575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4898**	**.5319**	**187.1**	**.0195**	F **.5333**	**514.0**	**.5095**	**.8974**	**.2614**
Stddev	.0007	.0022	1.2	.0304	.0021	1.9	.0015	.0011	.0092
%RSD	.1509	.4058	.6613	155.7	.3874	.3662	.2998	.1266	3.525
#1	.4890	.5337	188.5	.0342	.5339	516.0	.5080	.8985	.2701
#2	.4900	.5295	186.6	-.0154	.5350	513.5	.5096	.8962	.2518
#3	.4905	.5325	186.2	.0397	.5310	512.4	.5110	.8975	.2624
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8837**	**1.064**	**1.002**	**.9264**	**.0487**	**.8899**	**1.010**	**1.021**	**.9905**
Stddev	.0008	.002	.002	.0048	.0010	.0009	.003	.002	.0012
%RSD	.0928	.1379	.2370	.5221	1.963	.1015	.2845	.2164	.1247
#1	.8846	1.064	1.002	.9258	.0492	.8908	1.013	1.019	.9902
#2	.8834	1.063	1.005	.9219	.0476	.8890	1.010	1.021	.9894
#3	.8831	1.066	.9999	.9315	.0493	.8900	1.007	1.024	.9918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/8/2023 11:46:41 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5114**	**.9219**
Stddev	.0018	.0004
%RSD	.3431	.0451
#1	.5105	.9223
#2	.5102	.9220
#3	.5134	.9215
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2256.7**	**7307.1**	**39594.**	**8812.5**
Stddev	5.4	10.5	95.	71.0
%RSD	.23741	.14425	.23965	.80518
#1	2250.5	7296.6	39699.	8731.2
#2	2260.0	7306.9	39567.	8862.1
#3	2259.7	7317.7	39515.	8844.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 11:54:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2502**	**41.05**	**2.033**	**2.053**	**2.042**	**2.048**	**40.97**	**2.040**	**2.036**
Stddev	.0002	.04	.002	.013	.004	.002	.04	.001	.001
%RSD	.0726	.1035	.1042	.6456	.1806	.1102	.0857	.0657	.0223
#1	.2500	41.00	2.033	2.068	2.043	2.047	40.97	2.042	2.036
#2	.2504	41.09	2.031	2.048	2.044	2.051	41.01	2.040	2.037
#3	.2502	41.05	2.035	2.043	2.037	2.047	40.94	2.039	2.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.040**	**41.06**	**41.05**	**2.053**	**41.12**	**2.040**	**2.040**	**42.08**
Stddev	.003	.005	.05	.07	.006	.06	.008	.001	.04
%RSD	.1365	.2588	.1305	.1609	.2916	.1526	.3783	.0359	.0916
#1	2.050	2.036	41.01	41.04	2.051	41.07	2.044	2.040	42.09
#2	2.055	2.046	41.12	41.11	2.060	41.19	2.031	2.040	42.12
#3	2.051	2.038	41.06	40.98	2.048	41.10	2.045	2.041	42.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.025**	**1.994**	**2.029**	**2.023**	**2.347**	**2.038**	**2.078**	**2.038**	**2.005**
Stddev	.001	.003	.001	.004	.002	.002	.003	.003	.001
%RSD	.0397	.1480	.0314	.2093	.0834	.0892	.1564	.1226	.0567
#1	2.025	1.991	2.028	2.028	2.345	2.036	2.079	2.036	2.005
#2	2.026	1.997	2.029	2.023	2.347	2.040	2.081	2.041	2.003
#3	2.024	1.995	2.030	2.019	2.349	2.038	2.075	2.039	2.006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 11:54:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.035**	**2.048**
Stddev	.005	.001
%RSD	.2417	.0698
#1	2.031	2.050
#2	2.040	2.047
#3	2.034	2.047
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2716.5**	**7791.3**	**43454.**	**9009.1**
Stddev	5.3	12.0	40.	50.1
%RSD	.19330	.15395	.09300	.55612
#1	2715.4	7787.2	43448.	9064.1
#2	2722.2	7804.8	43496.	8997.0
#3	2711.9	7781.9	43416.	8966.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 12:04:42 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0070**	**.0011**	F **-.0039**	**-.0001**	**.0001**	**.0004**	**.0000**
Stddev	.0003	.0070	.0002	.0016	.0001	.0001	.0016	.0000
%RSD	232.4	99.58	17.04	41.74	139.7	95.98	432.8	116.0
#1	.0004	.0090	.0010	-.0024	-.0001	.0001	.0021	.0000
#2	.0002	.0128	.0011	-.0038	.0000	.0000	-.0002	.0000
#3	-.0002	-.0007	.0013	-.0057	-.0002	.0000	-.0009	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0000**	**.0022**	**-.0108**	**.0002**	**.0130**	**.0000**
Stddev	.000	.000	.000	.0019	.0367	.0005	.0042	.0001
%RSD	154.0	233.7	133.9	86.89	337.9	248.4	32.18	4082.
#1	.0000	.0000	.0000	.0004	.0260	.0002	.0135	-.0001
#2	.0000	-.0001	-.0001	.0020	-.0473	-.0003	.0169	.0000
#3	.0000	.0000	-.0001	.0041	-.0113	.0006	.0086	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0535**	**-.0002**	**-.0003**	**.0007**	**-.0006**	**.0006**	**.0001**
Stddev	.0001	.0045	.0002	.0006	.0010	.0008	.0005	.0002
%RSD	42.23	8.358	109.9	207.5	142.7	131.0	76.97	190.4
#1	-.0001	-.0536	-.0001	-.0006	.0019	-.0015	.0008	-.0001
#2	-.0002	-.0490	-.0001	-.0006	-.0001	-.0001	.0001	.0002
#3	-.0002	-.0579	-.0005	.0004	.0005	-.0002	.0010	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 12:04:42 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0005**	**-.0001**	**.0001**
Stddev	.0000	.0000	.0016	.0001	.0001
%RSD	43.99	21.86	356.4	132.1	44.58
#1	.0002	.0002	.0013	.0000	.0002
#2	.0001	.0002	-.0018	-.0002	.0001
#3	.0001	.0002	-.0009	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3174.7**	**8143.4**	**45040.**	**9145.7**
Stddev	1.4	18.6	191.	132.6
%RSD	.04378	.22902	.42491	1.4503
#1	3173.2	8139.0	45177.	9186.6
#2	3175.1	8127.3	45122.	8997.5
#3	3175.9	8163.8	44822.	9253.1

Zoom In Zoom Out

Sample Name: DI CHECK Acquired: 11/8/2023 12:09:45 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0098**	**.0009**	F **-.0052**	**-.0002**	**.0000**	**.0065**	**.0000**
Stddev	.0004	.0033	.0004	.0007	.0001	.0001	.0009	.0000
%RSD	437.5	33.13	46.14	12.62	50.83	419.1	14.56	142.6
#1	-.0004	.0078	.0007	-.0047	-.0001	.0000	.0054	.0000
#2	-.0002	.0081	.0006	-.0059	-.0002	.0001	.0068	.0000
#3	.0004	.0136	.0013	-.0049	-.0004	-.0001	.0072	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0001**	**.0006**	**-.0522**	**-.0024**	**.0037**	**.0000**
Stddev	.0000	.0001	.0001	.0003	.0454	.0025	.0072	.000
%RSD	162.2	60.88	89.95	44.34	87.00	101.9	196.4	113.2
#1	.0000	-.0001	.0002	.0005	-.0980	-.0053	-.0021	.0000
#2	.0000	-.0002	.0000	.0009	-.0071	-.0006	.0118	.0000
#3	.0001	-.0004	.0001	.0004	-.0515	-.0014	.0014	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0477**	**-.0001**	**.0001**	**.0004**	**.0008**	**-.0012**	**-.0001**
Stddev	.0001	.0218	.0000	.0002	.0011	.0004	.0003	.0002
%RSD	181.4	45.78	18.65	456.0	271.7	54.05	28.16	156.2
#1	.0001	-.0503	-.0001	-.0001	-.0001	.0013	-.0014	-.0003
#2	-.0001	-.0681	-.0001	.0003	-.0003	.0008	-.0015	.0001
#3	-.0001	-.0247	-.0001	-.0001	.0016	.0004	-.0008	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: DI CHECK Acquired: 11/8/2023 12:09:45 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0006**	**-.0001**	**.0003**
Stddev	.0001	.0001	.0009	.0001	.0001
%RSD	113.7	35.82	153.4	73.39	50.33
#1	.0000	.0001	.0003	-.0001	.0005
#2	.0001	.0002	-.0015	-.0001	.0002
#3	.0001	.0002	-.0007	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3206.0**	**8106.0**	**44836.**	**9095.6**
Stddev	5.2	12.8	69.	17.1
%RSD	.16311	.15844	.15471	.18797
#1	3212.0	8118.9	44906.	9091.7
#2	3202.7	8093.2	44767.	9114.4
#3	3203.2	8105.9	44834.	9080.9

Zoom In Zoom Out

Sample Name: MP43102-MB1 Acquired: 11/8/2023 12:14:49 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0033**	**-.0009**	F **-.0054**	**-.0001**	**.0000**	**.0049**	**.0000**
Stddev	.0004	.0050	.0005	.0017	.0001	.0000	.0006	.000
%RSD	618.5	149.1	53.32	31.34	51.93	82.46	11.76	93.81
#1	.0003	.0083	-.0014	-.0070	-.0001	.0000	.0052	.0000
#2	-.0001	.0034	-.0004	-.0056	-.0002	.0000	.0043	.0000
#3	-.0004	-.0017	-.0011	-.0037	-.0001	.0000	.0053	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0001**	**.0002**	**.0011**	**-.0347**	**-.0005**	**-.0013**	**.0000**
Stddev	.0001	.0003	.0003	.0006	.0319	.0007	.0092	.000
%RSD	79.16	239.2	169.9	52.51	91.90	133.6	690.8	219.4
#1	-.0001	-.0004	.0004	.0015	-.0526	.0003	-.0018	.0000
#2	-.0001	.0001	.0003	.0013	-.0536	-.0010	.0081	-.0001
#3	.0000	-.0001	-.0002	.0004	.0021	-.0009	-.0103	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0537**	**.0000**	**-.0003**	**.0022**	**.0009**	**.0012**	**.0000**
Stddev	.0002	.0039	.0002	.0001	.0002	.0017	.0002	.0001
%RSD	102.1	7.240	1287.	47.95	10.46	188.1	18.39	7572.
#1	-.0002	-.0496	.0002	-.0004	.0020	.0028	.0009	-.0001
#2	-.0002	-.0574	-.0001	-.0003	.0021	-.0002	.0013	-.0001
#3	.0000	-.0540	.0000	-.0002	.0025	.0000	.0013	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP43102-MB1 Acquired: 11/8/2023 12:14:49 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**-.0020**	**.0001**	**.0003**
Stddev	.0001	.0001	.0014	.0002	.0000
%RSD	246.1	78.18	69.40	351.1	10.22
#1	.0000	.0000	-.0026	-.0001	.0004
#2	.0001	.0001	-.0030	.0003	.0003
#3	.0000	.0002	-.0004	-.0001	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3237.9**	**8305.2**	**46031.**	**9365.3**
Stddev	11.4	22.9	74.	60.5
%RSD	.35091	.27548	.16109	.64596
#1	3236.7	8296.4	46047.	9380.8
#2	3249.8	8331.2	45950.	9298.6
#3	3227.2	8288.1	46095.	9416.6

Zoom In Zoom Out

Sample Name: MP43102-B1 Acquired: 11/8/2023 12:19:52 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1943**	**24.11**	**.1952**	**.4603**	**.1944**	**.1945**	**43.86**	**.1917**	**.1915**
Stddev	.0003	.07	.0005	.0034	.0005	.0006	.15	.0001	.0002
%RSD	.1480	.3013	.2598	.7306	.2503	.2941	.3358	.0482	.0868
#1	.1945	24.15	.1951	.4637	.1939	.1948	43.76	.1917	.1914
#2	.1940	24.16	.1947	.4570	.1948	.1949	44.03	.1918	.1917
#3	.1945	24.03	.1957	.4601	.1946	.1939	43.78	.1917	.1915
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1989**	**.1956**	**43.42**	**43.24**	**.5153**	**43.02**	**.1934**	**.6680**	**41.01**
Stddev	.0002	.0003	.12	.11	.0008	.20	.0010	.0004	.28
%RSD	.1150	.1530	.2765	.2549	.1589	.4655	.4933	.0569	.6943
#1	.1992	.1959	43.44	43.18	.5154	42.86	.1943	.6683	41.13
#2	.1987	.1953	43.54	43.36	.5161	43.24	.1937	.6675	41.21
#3	.1989	.1956	43.30	43.16	.5145	42.94	.1924	.6681	40.69
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1923**	**.1792**	**.1968**	**.1885**	**.5218**	**.4893**	**.5121**	**.4984**	**.1851**
Stddev	.0001	.0007	.0004	.0014	.0009	.0014	.0022	.0014	.0022
%RSD	.0751	.3674	.2054	.7679	.1807	.2773	.4319	.2773	1.167
#1	.1922	.1792	.1969	.1869	.5216	.4884	.5133	.4996	.1845
#2	.1923	.1786	.1963	.1897	.5229	.4909	.5135	.4986	.1833
#3	.1924	.1799	.1971	.1889	.5210	.4887	.5096	.4969	.1875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43102-B1 Acquired: 11/8/2023 12:19:52 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1971**	**.1929**
Stddev	.0006	.0001
%RSD	.3147	.0378
#1	.1978	.1928
#2	.1970	.1929
#3	.1965	.1930
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2865.4**	**8045.7**	**44839.**	**9299.6**
Stddev	1.6	12.6	243.	87.7
%RSD	.05729	.15628	.54224	.94335
#1	2867.0	8060.1	45024.	9376.6
#2	2865.5	8039.5	44930.	9204.1
#3	2863.7	8037.3	44564.	9318.2

Zoom In Zoom Out

Sample Name: FC10906-1L Acquired: 11/8/2023 12:24:46 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0537**	**-.0002**	**.0287**	**.0098**	**.0000**	**38.19**	**.0000**	**.0000**
Stddev	.0001	.0065	.0008	.0016	.0003	.0000	.07	.0001	.0001
%RSD	152.2	12.05	407.2	5.445	3.291	36.81	.1873	162.4	4895.
#1	.0000	.0493	.0003	.0304	.0094	.0001	38.16	.0000	.0000
#2	-.0002	.0507	-.0011	.0282	.0099	.0001	38.14	.0000	.0000
#3	.0000	.0612	.0002	.0274	.0100	.0000	38.27	.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0006**	**.0078**	**.0847**	**.0003**	**.4860**	**.0037**	**.0002**	F **125.1**
Stddev	.0001	.0002	.0018	.0164	.0009	.0056	.0000	.0001	1.9
%RSD	54.97	36.49	22.77	19.41	274.3	1.155	.6015	46.61	1.535
#1	.0002	.0006	.0095	.0697	.0013	.4878	.0037	.0001	122.9
#2	.0001	.0008	.0079	.1023	-.0005	.4797	.0037	.0003	125.8
#3	.0001	.0004	.0060	.0821	.0002	.4906	.0037	.0001	126.5

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0005**	**.0014**	**.0007**	**.0683**	**.0002**	**.1547**	**.0025**	**-.0023**
Stddev	.000	.0004	.0006	.0005	.0018	.0004	.0001	.0004	.0009
%RSD	743.1	84.33	42.03	71.95	2.597	214.5	.0424	15.20	37.83
#1	-.0001	-.0006	.0014	.0004	.0694	.0004	.1548	.0028	-.0026
#2	.0000	-.0009	.0008	.0004	.0693	-.0003	.1547	.0025	-.0030
#3	.0001	-.0001	.0021	.0012	.0663	.0005	.1547	.0021	-.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0027**
Stddev	.0002	.0000
%RSD	39.31	1.781
#1	.0003	.0028
#2	.0003	.0027
#3	.0006	.0028

Zoom In Zoom Out

Sample Name: FC10906-1L Acquired: 11/8/2023 12:24:46 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2950.9**	**8001.8**	**44472.**	**9334.4**
Stddev	4.5	1.7	116.	66.1
%RSD	.15106	.02149	.26135	.70852
#1	2953.2	8000.7	44495.	9402.2
#2	2953.7	8001.0	44575.	9331.1
#3	2945.7	8003.8	44346.	9270.0

Zoom In Zoom Out

Sample Name: MP43102-D1 Acquired: 11/8/2023 12:29:56 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0583**	**-.0001**	**.0262**	**.0098**	**.0000**	**37.74**	**.0000**	**.0000**
Stddev	.0002	.0021	.0002	.0015	.0001	.0000	.04	.0000	.000
%RSD	1868.	3.655	339.2	5.902	.9126	35.13	.0950	126.1	218.5
#1	-.0001	.0561	-.0003	.0280	.0099	.0000	37.78	.0000	.0000
#2	.0003	.0585	.0000	.0256	.0099	.0000	37.71	.0000	-.0001
#3	-.0001	.0603	.0001	.0251	.0097	.0000	37.74	.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0003**	**.0073**	**.1334**	**.0032**	**.4806**	**.0036**	**.0000**	F **124.2**
Stddev	.0001	.0003	.0005	.0248	.0011	.0168	.0001	.0002	1.2
%RSD	77.34	78.87	6.640	18.56	32.63	3.502	1.480	394.8	.9280
#1	.0000	.0001	.0078	.1317	.0042	.4880	.0036	-.0001	124.3
#2	.0002	.0002	.0068	.1590	.0021	.4613	.0037	.0002	123.0
#3	.0001	.0006	.0074	.1096	.0034	.4924	.0036	.0001	125.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0008**	**.0017**	**.0646**	**.0001**	**.1529**	**.0025**	**-.0027**
Stddev	.0001	.0010	.0010	.0006	.0005	.0003	.0003	.0004	.0014
%RSD	450.0	709.4	126.9	35.48	.8212	395.0	.1709	15.17	50.79
#1	.0002	-.0005	-.0001	.0024	.0648	.0005	.1532	.0023	-.0012
#2	.0000	-.0003	.0006	.0012	.0650	-.0001	.1528	.0029	-.0039
#3	-.0001	.0012	.0020	.0016	.0640	-.0001	.1528	.0022	-.0032

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0029**
Stddev	.0002	.0000
%RSD	62.20	1.519
#1	.0002	.0029
#2	.0007	.0028
#3	.0003	.0029

Zoom In Zoom Out

Sample Name: MP43102-D1 Acquired: 11/8/2023 12:29:56 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2969.3**	**8074.5**	**44729.**	**9392.6**
Stddev	4.7	5.3	168.	17.3
%RSD	.15745	.06571	.37502	.18454
#1	2965.4	8072.3	44921.	9379.4
#2	2974.5	8080.5	44615.	9386.1
#3	2968.0	8070.6	44649.	9412.2

Zoom In Zoom Out

Sample Name: MP43102-SD1 Acquired: 11/8/2023 12:35:06 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**.1024**	**.0039**	**-.0046**	**.0086**	**.0001**	**37.26**	**-.0001**	**.0001**
Stddev	.0024	.0175	.0018	.0095	.0001	.0001	.06	.0002	.0005
%RSD	313.5	17.10	45.36	206.9	1.519	98.65	.1557	191.0	504.3
#1	.0020	.1146	.0045	.0064	.0087	.0001	37.28	-.0001	.0001
#2	-.0025	.0824	.0053	-.0107	.0086	.0000	37.31	.0001	-.0004
#3	-.0019	.1103	.0019	-.0096	.0084	.0001	37.20	-.0002	.0006

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0005**	**.0052**	**.0254**	**.0029**	**.4992**	**.0035**	**-.0007**	**124.8**
Stddev	.0002	.0005	.0104	.1060	.0116	.0251	.0002	.0004	.1
%RSD	2179.	105.6	199.6	417.1	397.3	5.021	5.168	51.87	.0895
#1	-.0002	.0003	.0171	.1103	.0135	.5280	.0033	-.0003	124.8
#2	.0003	.0010	-.0021	-.0934	-.0096	.4824	.0035	-.0009	124.7
#3	.0000	.0001	.0006	.0593	.0049	.4872	.0037	-.0009	124.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0030**	**.0081**	**-.0005**	**.0697**	**.0005**	**.1527**	**.0045**	**-.0046**
Stddev	.0010	.0024	.0027	.0139	.0016	.0009	.0002	.0005	.0044
%RSD	100.1	80.13	33.24	2849.	2.303	172.2	.1339	10.41	96.23
#1	.0000	.0010	.0080	.0032	.0685	.0000	.1529	.0040	-.0003
#2	-.0010	.0023	.0054	.0112	.0716	.0000	.1526	.0044	-.0092
#3	-.0019	.0056	.0108	-.0159	.0692	.0016	.1525	.0050	-.0043

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0035**
Stddev	.0010	.0006
%RSD	97.36	16.49
#1	.0006	.0039
#2	.0021	.0037
#3	.0003	.0028

Zoom In Zoom Out

Sample Name: MP43102-SD1 Acquired: 11/8/2023 12:35:06 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3135.3**	**8217.1**	**45547.**	**9451.3**
Stddev	9.0	20.5	251.	41.8
%RSD	.28732	.24976	.55039	.44252
#1	3126.1	8199.8	45794.	9404.6
#2	3135.7	8211.9	45554.	9485.2
#3	3144.1	8239.8	45293.	9464.2

Zoom In Zoom Out

Sample Name: MP43102-S1 Acquired: 11/8/2023 12:40:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1970**	**24.25**	**.1991**	**.4940**	**.2023**	**.1965**	**80.07**	**.1916**	**.1899**
Stddev	.0004	.05	.0006	.0094	.0002	.0002	.16	.0001	.0001
%RSD	.1963	.2243	.3129	1.911	.0870	.0931	.1988	.0511	.0665
#1	.1968	24.21	.1996	.5020	.2025	.1963	79.90	.1916	.1898
#2	.1975	24.22	.1984	.4964	.2022	.1966	80.09	.1916	.1900
#3	.1968	24.31	.1995	.4836	.2023	.1965	80.22	.1914	.1900

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2004**	**.1988**	**43.50**	**43.56**	F **.5227**	**43.26**	**.1948**	**.6705**	F **166.1**
Stddev	.0008	.0011	.10	.08	.0019	.18	.0001	.0005	1.3
%RSD	.4086	.5315	.2317	.1830	.3630	.4258	.0341	.0754	.7955
#1	.1995	.1979	43.41	43.51	.5215	43.12	.1948	.6707	165.2
#2	.2009	.1986	43.48	43.51	.5217	43.18	.1949	.6709	165.5
#3	.2009	.1999	43.61	43.65	.5249	43.47	.1947	.6700	167.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1904**	**.1829**	**.1983**	**.1935**	**.5892**	**.4844**	**.6720**	**.4980**	**.1849**
Stddev	.0003	.0005	.0012	.0012	.0013	.0010	.0008	.0002	.0014
%RSD	.1573	.2706	.6169	.6398	.2230	.2031	.1162	.0396	.7520
#1	.1907	.1823	.1979	.1923	.5903	.4840	.6713	.4978	.1833
#2	.1904	.1832	.1974	.1935	.5877	.4837	.6719	.4979	.1858
#3	.1901	.1831	.1997	.1948	.5894	.4855	.6728	.4982	.1857

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1984**	**.1963**
Stddev	.0002	.0001
%RSD	.0900	.0736
#1	.1983	.1962
#2	.1982	.1964
#3	.1986	.1963

Zoom In Zoom Out

Sample Name: MP43102-S1 Acquired: 11/8/2023 12:40:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2752.5**	**7955.0**	**43857.**	**9338.9**
Stddev	6.6	7.2	144.	89.0
%RSD	.23826	.09059	.32839	.95340
#1	2750.3	7959.4	43847.	9419.2
#2	2747.3	7946.7	43718.	9354.3
#3	2759.9	7958.9	44006.	9243.1

Zoom In Zoom Out

Sample Name: MP43102-S2 Acquired: 11/8/2023 12:45:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1951**	**24.21**	**.1976**	**.4891**	**.2016**	**.1962**	**79.91**	**.1903**	**.1886**
Stddev	.0006	.01	.0010	.0001	.0002	.0005	1.70	.0002	.0002
%RSD	.3169	.0621	.5080	.0215	.0842	.2437	2.123	.1217	.1235
#1	.1957	24.22	.1987	.4892	.2017	.1957	78.32	.1903	.1886
#2	.1950	24.19	.1970	.4892	.2014	.1962	81.69	.1901	.1884
#3	.1945	24.21	.1970	.4890	.2018	.1967	79.72	.1905	.1889

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1995**	**.1978**	**43.46**	**43.47**	F **.5237**	**43.29**	**.1935**	**.6660**	F **166.9**
Stddev	.0001	.0006	.04	.03	.0015	.13	.0003	.0010	2.7
%RSD	.0331	.2931	.0960	.0581	.2885	.3063	.1597	.1462	1.626
#1	.1995	.1984	43.45	43.50	.5232	43.25	.1934	.6668	169.9
#2	.1994	.1977	43.42	43.48	.5224	43.18	.1939	.6649	166.3
#3	.1996	.1973	43.50	43.45	.5253	43.44	.1933	.6663	164.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1893**	**.1806**	**.1974**	**.1919**	**.5847**	**.4811**	**.6720**	**.4952**	**.1840**
Stddev	.0003	.0004	.0013	.0028	.0004	.0008	.0011	.0005	.0005
%RSD	.1711	.2002	.6664	1.479	.0742	.1667	.1600	.1071	.2883
#1	.1893	.1807	.1961	.1951	.5844	.4803	.6712	.4949	.1834
#2	.1889	.1802	.1973	.1910	.5844	.4810	.6715	.4958	.1843
#3	.1896	.1809	.1987	.1896	.5852	.4819	.6732	.4949	.1842

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1961**	**.1946**
Stddev	.0003	.0003
%RSD	.1746	.1448
#1	.1962	.1947
#2	.1965	.1942
#3	.1958	.1948

Zoom In Zoom Out

Sample Name: MP43102-S2 Acquired: 11/8/2023 12:45:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2752.5**	**7950.8**	**43929.**	**9265.8**
Stddev	5.4	10.7	201.	17.5
%RSD	.19698	.13514	.45856	.18859
#1	2749.7	7956.2	44142.	9267.4
#2	2758.7	7957.8	43741.	9282.3
#3	2749.0	7938.4	43903.	9247.5

Zoom In Zoom Out

Sample Name: FC10890-17 Acquired: 11/8/2023 12:50:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0175**	**.0000**	**-.0017**	**.0426**	**.0000**	**54.26**	**.0000**	**.0055**
Stddev	.0000	.0070	.0010	.0005	.0001	.0000	.18	.0000	.0001
%RSD	12.39	39.92	2613.	31.56	.2904	579.2	.3261	261.1	1.949
#1	.0004	.0096	-.0001	-.0019	.0427	.0000	54.37	.0000	.0056
#2	.0003	.0229	.0012	-.0011	.0426	.0000	54.35	.0000	.0054
#3	.0004	.0201	-.0009	-.0020	.0425	.0000	54.05	.0000	.0056

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0061**	**.2871**	**.0026**	**2.058**	**1.023**	**.0002**	F **119.6**
Stddev	.0001	.0002	.0004	.0227	.0009	.021	.002	.0000	1.3
%RSD	3822.	172.7	6.100	7.906	32.81	1.001	.1417	13.26	1.067
#1	.0001	-.0001	.0064	.2811	.0018	2.064	1.025	.0002	119.5
#2	-.0001	.0002	.0057	.2679	.0025	2.074	1.024	.0002	118.4
#3	-.0001	.0003	.0060	.3121	.0035	2.035	1.022	.0002	120.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021**	**-.0010**	**.0010**	**.0010**	**.0872**	**.0004**	**.1214**	**.0013**	**-.0013**
Stddev	.0001	.0002	.0008	.0006	.0004	.0004	.0006	.0001	.0001
%RSD	4.507	16.97	79.60	61.39	.4492	108.8	.4981	6.197	10.09
#1	.0022	-.0009	.0014	.0005	.0868	.0000	.1220	.0013	-.0012
#2	.0020	-.0012	.0001	.0008	.0875	.0003	.1215	.0013	-.0014
#3	.0021	-.0009	.0014	.0016	.0872	.0007	.1208	.0014	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0024**
Stddev	.0002	.0000
%RSD	220.0	1.912
#1	-.0002	.0024
#2	.0003	.0024
#3	.0002	.0024

Zoom In Zoom Out

Sample Name: FC10890-17 Acquired: 11/8/2023 12:50:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2947.0**	**8011.2**	**44443.**	**9370.2**
Stddev	5.7	14.4	165.	24.6
%RSD	.19338	.17945	.37101	.26208
#1	2942.6	8013.5	44491.	9348.7
#2	2953.4	8024.3	44259.	9397.0
#3	2945.0	7995.8	44578.	9364.8

Zoom In Zoom Out

Sample Name: FC10904-1L Acquired: 11/8/2023 12:55:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0105**	**.0047**	**.0343**	**.0269**	**.0000**	**2.081**	**.0000**	**.0003**
Stddev	.0002	.0092	.0007	.0018	.0002	.0000	.003	.000	.0001
%RSD	186.2	87.34	15.14	5.280	.7668	78.85	.1461	66.61	20.85
#1	.0000	.0211	.0045	.0356	.0270	.0000	2.083	.0000	.0004
#2	.0000	.0050	.0041	.0323	.0270	.0000	2.077	-.0001	.0004
#3	-.0003	.0054	.0055	.0351	.0266	.0000	2.082	.0000	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0005**	**.0033**	**4.303**	**.0066**	**2.021**	**.0356**	**.0004**	F **116.8**
Stddev	.0000	.0001	.0019	.013	.0011	.016	.0001	.0001	1.1
%RSD	14.32	24.55	58.21	.2965	17.26	.7944	.2567	24.02	.9646
#1	-.0003	.0005	.0019	4.318	.0052	2.005	.0357	.0003	115.5
#2	-.0002	.0005	.0024	4.296	.0073	2.022	.0356	.0004	117.5
#3	-.0003	.0007	.0054	4.295	.0071	2.037	.0355	.0005	117.4

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035**	**.0000**	**.0011**	**.0002**	**.2909**	**.0000**	**.0642**	**.0003**	**-.0010**
Stddev	.0002	.000	.0005	.0003	.0007	.0002	.0003	.0000	.0006
%RSD	4.398	432.1	49.14	143.0	.2574	944.7	.4515	5.868	54.32
#1	.0037	.0000	.0007	.0001	.2900	.0001	.0644	.0003	-.0012
#2	.0034	.0000	.0009	-.0001	.2912	-.0002	.0643	.0004	-.0016
#3	.0035	.0000	.0017	.0005	.2914	.0001	.0639	.0003	-.0004

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0027**
Stddev	.0000	.0000
%RSD	3.453	.6963
#1	.0009	.0028
#2	.0009	.0028
#3	.0009	.0027

Zoom In Zoom Out

Sample Name: FC10904-1L Acquired: 11/8/2023 12:55:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3027.2**	**8080.0**	**44775.**	**9390.2**
Stddev	6.3	14.2	48.	11.3
%RSD	.20863	.17636	.10787	.12037
#1	3021.9	8072.0	44829.	9401.4
#2	3025.7	8071.6	44735.	9378.8
#3	3034.2	8096.5	44761.	9390.5

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 13:00:50 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2513**	**40.81**	**2.027**	**2.067**	**2.059**	**2.042**	**41.02**	**2.042**	**2.038**
Stddev	.0000	.08	.003	.015	.003	.005	.05	.003	.002
%RSD	.0063	.1959	.1388	.7419	.1569	.2452	.1311	.1613	.1202
#1	.2513	40.76	2.024	2.065	2.062	2.037	41.07	2.043	2.038
#2	.2513	40.90	2.029	2.053	2.056	2.047	40.96	2.045	2.040
#3	.2513	40.78	2.028	2.084	2.060	2.042	41.04	2.039	2.035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.083**	**40.69**	**41.05**	**2.053**	**40.87**	**2.054**	**2.041**	**42.18**
Stddev	.003	.004	.13	.05	.007	.13	.004	.002	.24
%RSD	.1561	.2038	.3147	.1300	.3198	.3219	.2164	.1122	.5598
#1	2.052	2.078	40.60	40.99	2.047	40.80	2.052	2.041	42.06
#2	2.052	2.087	40.84	41.10	2.060	41.02	2.059	2.044	42.46
#3	2.058	2.084	40.64	41.05	2.053	40.78	2.051	2.040	42.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.018**	**1.986**	**2.033**	**2.042**	**2.363**	**2.039**	**2.082**	**2.045**	**2.002**
Stddev	.002	.003	.004	.001	.003	.002	.008	.007	.007
%RSD	.0746	.1671	.2136	.0235	.1168	.1108	.3958	.3648	.3278
#1	2.016	1.989	2.028	2.043	2.362	2.038	2.075	2.044	1.998
#2	2.019	1.985	2.037	2.042	2.366	2.042	2.091	2.038	2.009
#3	2.017	1.983	2.033	2.042	2.361	2.037	2.079	2.053	1.998
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 13:00:50 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.049**	**2.032**
Stddev	.009	.002
%RSD	.4543	.0969
#1	2.043	2.032
#2	2.045	2.034
#3	2.060	2.030
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2764.3**	**7918.7**	**43921.**	**9264.6**
Stddev	7.0	.5	255.	42.1
%RSD	.25214	.00660	.58029	.45426
#1	2758.4	7918.2	44054.	9238.6
#2	2762.4	7918.8	44082.	9242.0
#3	2772.0	7919.2	43627.	9313.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 13:05:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0054**	**.0006**	F **-.0015**	**.0000**	**.0001**	**.0011**	**.0000**
Stddev	.0002	.0043	.0005	.0007	.000	.0000	.0032	.0000
%RSD	171.5	79.38	72.20	44.95	386.1	62.47	286.7	76.51
#1	.0003	.0046	.0002	-.0009	-.0001	.0001	-.0025	.0000
#2	-.0001	.0016	.0006	-.0022	-.0001	.0000	.0022	.0001
#3	.0002	.0101	.0011	-.0014	.0001	.0000	.0036	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0002**	**.0020**	**-.0019**	**.0001**	**-.0103**	**.0001**
Stddev	.0002	.0002	.0004	.0002	.0539	.0002	.0146	.0000
%RSD	257.8	234.9	248.5	11.16	2877.	166.3	141.9	33.85
#1	-.0001	-.0002	-.0003	.0018	.0213	-.0001	-.0230	.0000
#2	.0003	.0002	.0003	.0023	-.0635	.0004	-.0137	.0001
#3	.0000	-.0002	.0005	.0020	.0365	.0002	.0057	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0391**	**-.0001**	**.0001**	**.0013**	**.0015**	**.0009**	**.0001**
Stddev	.0002	.0028	.0001	.0003	.0011	.0021	.0005	.0001
%RSD	94.63	7.184	86.52	195.2	87.63	141.8	57.78	113.6
#1	.0004	-.0366	-.0001	-.0001	.0007	.0037	.0005	.0000
#2	.0000	-.0386	.0000	.0001	.0006	-.0003	.0015	.0002
#3	.0003	-.0422	-.0002	.0004	.0026	.0009	.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 13:05:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0001**	**-.0001**	**.0003**
Stddev	.0001	.0000	.0013	.0000	.0000
%RSD	117.4	30.20	1543.	43.18	6.652
#1	.0001	.0001	.0013	-.0001	.0003
#2	.0000	.0001	-.0013	-.0001	.0003
#3	.0002	.0001	.0002	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3235.0**	**8315.1**	**45874.**	**9355.5**
Stddev	1.4	4.9	117.	6.7
%RSD	.04416	.05907	.25466	.07197
#1	3236.4	8311.6	45765.	9349.0
#2	3233.5	8320.7	45860.	9362.4
#3	3235.1	8312.9	45997.	9355.1

Zoom In Zoom Out

Sample Name: FC10959-1L Acquired: 11/8/2023 13:10:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0091**	**-.0002**	**.2141**	**.0077**	**.0000**	**4.289**	**-.0001**	**.0003**
Stddev	.0004	.0088	.0009	.0022	.0002	.0000	.004	.0000	.0001
%RSD	154.3	97.42	526.5	1.014	2.623	52.22	.1061	59.97	24.96
#1	-.0002	-.0011	-.0006	.2162	.0075	.0001	4.291	.0000	.0003
#2	.0003	.0133	-.0008	.2142	.0078	.0000	4.283	-.0001	.0002
#3	.0007	.0149	.0008	.2118	.0079	.0000	4.291	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0010**	**.0107**	**1.269**	**.0013**	**.7351**	**.1629**	**.0000**	**69.69**
Stddev	.0002	.0000	.0006	.052	.0010	.0025	.0004	.0001	.12
%RSD	40.50	4.861	5.729	4.085	72.90	.3467	.2491	133.1	.1687
#1	.0007	.0010	.0101	1.224	.0005	.7326	.1634	.0001	69.56
#2	.0003	.0010	.0113	1.325	.0010	.7377	.1628	.0000	69.80
#3	.0007	.0009	.0107	1.257	.0024	.7348	.1626	.0000	69.70

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**-.0004**	**.0017**	**-.0002**	**.6197**	**.0000**	**.0378**	**.0006**	**-.0005**
Stddev	.0000	.0003	.0009	.0006	.0016	.0001	.0002	.0001	.0009
%RSD	1.908	74.20	54.15	261.0	.2567	267.4	.4120	12.34	166.3
#1	.0022	-.0004	.0017	-.0009	.6210	.0001	.0376	.0006	-.0005
#2	.0022	-.0001	.0008	.0001	.6179	.0001	.0379	.0005	-.0014
#3	.0023	-.0007	.0027	.0001	.6201	-.0001	.0378	.0006	.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0092**
Stddev	.0001	.0000
%RSD	138.5	.2230
#1	.0000	.0092
#2	-.0002	.0092
#3	-.0001	.0092

Zoom In Zoom Out

Sample Name: FC10959-1L Acquired: 11/8/2023 13:10:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3086.1**	**8146.0**	**45269.**	**9481.3**
Stddev	4.2	11.9	166.	48.0
%RSD	.13757	.14548	.36701	.50674
#1	3090.3	8156.6	45094.	9506.3
#2	3086.0	8148.1	45286.	9511.8
#3	3081.8	8133.2	45425.	9426.0

Zoom In Zoom Out

Sample Name: CCV CHECK Acquired: 11/8/2023 13:15:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2528**	**39.40**	**1.986**	**1.883**	**2.009**	**1.999**	**39.45**	**1.997**	**1.993**
Stddev	.0008	.08	.003	.012	.007	.002	.06	.002	.002
%RSD	.3295	.2022	.1579	.6163	.3376	.1038	.1416	.1180	.0865
#1	.2524	39.48	1.990	1.870	2.002	2.000	39.39	1.999	1.994
#2	.2537	39.39	1.985	1.893	2.011	1.999	39.47	1.998	1.994
#3	.2522	39.32	1.984	1.888	2.015	1.996	39.50	1.994	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.007**	**2.020**	**39.39**	**39.51**	**1.983**	**39.29**	**2.006**	**1.985**	**40.41**
Stddev	.004	.011	.10	.09	.005	.11	.022	.002	.15
%RSD	.1803	.5552	.2436	.2220	.2345	.2826	1.100	.1224	.3754
#1	2.009	2.026	39.48	39.46	1.986	39.38	2.014	1.988	40.54
#2	2.010	2.027	39.40	39.61	1.986	39.32	2.023	1.985	40.45
#3	2.003	2.007	39.29	39.45	1.978	39.17	1.981	1.983	40.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.988**	**1.950**	**1.958**	**1.988**	**1.735**	**1.986**	**2.005**	**1.978**	**1.980**
Stddev	.003	.006	.001	.001	.003	.002	.005	.002	.009
%RSD	.1234	.2995	.0398	.0574	.1503	.0981	.2604	.1211	.4725
#1	1.991	1.944	1.958	1.989	1.738	1.987	2.009	1.978	1.974
#2	1.989	1.952	1.959	1.989	1.733	1.986	2.007	1.980	1.975
#3	1.986	1.955	1.958	1.987	1.734	1.984	1.999	1.976	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV CHECK Acquired: 11/8/2023 13:15:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.983**	**1.987**
Stddev	.006	.002
%RSD	.2820	.1094
#1	1.983	1.988
#2	1.988	1.989
#3	1.977	1.985
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2767.4**	**7920.2**	**44049.**	**9205.1**
Stddev	5.8	20.8	173.	23.3
%RSD	.20963	.26310	.39284	.25346
#1	2772.6	7909.9	44119.	9180.5
#2	2761.2	7906.5	43852.	9226.9
#3	2768.5	7944.2	44177.	9208.1

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 13:20:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0361**	**.0007**	**.0176**	**.1485**	**.0001**	**5.495**	**.0000**	**.0001**
Stddev	.0002	.0027	.0007	.0015	.0003	.0000	.010	.0000	.0000
%RSD	48.15	7.380	98.69	8.674	.2355	10.81	.1773	77.43	74.18
#1	.0002	.0349	.0015	.0192	.1488	.0000	5.503	.0000	.0000
#2	.0006	.0391	.0002	.0176	.1481	.0001	5.484	.0000	.0000
#3	.0004	.0342	.0005	.0161	.1487	.0001	5.498	.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0203**	**.0459**	**.0365**	**.0005**	**.2283**	**.0042**	**.0009**	**78.95**
Stddev	.000	.0002	.0007	.0045	.0007	.0058	.0000	.0001	.72
%RSD	1966.	.9252	1.600	12.40	137.3	2.557	.7635	8.059	.9167
#1	.0001	.0201	.0466	.0414	.0010	.2340	.0042	.0009	79.78
#2	-.0002	.0205	.0452	.0356	-.0003	.2223	.0042	.0008	78.41
#3	.0000	.0203	.0458	.0325	.0009	.2287	.0041	.0009	78.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0264**	**.0014**	**.0028**	**.0022**	**.0674**	**.0002**	**.0728**	**.0003**	**-.0028**
Stddev	.0000	.0001	.0006	.0014	.0010	.0001	.0004	.0001	.0010
%RSD	.0926	7.820	20.78	65.58	1.485	85.42	.4853	24.35	35.28
#1	.0264	.0013	.0032	.0008	.0669	.0003	.0729	.0003	-.0026
#2	.0264	.0015	.0021	.0021	.0668	.0000	.0724	.0002	-.0019
#3	.0263	.0014	.0030	.0037	.0686	.0002	.0731	.0003	-.0038

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.1583**
Stddev	.0000	.0003
%RSD	19.04	.1979
#1	.0002	.1584
#2	.0002	.1580
#3	.0002	.1586

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 13:20:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3001.6**	**11797.**	**66041.**	**13852.**
Stddev	1.2	10.	125.	43.
%RSD	.04083	.08639	.18859	.31113
#1	3001.4	11785.	66027.	13829.
#2	3000.6	11802.	65925.	13826.
#3	3003.0	11803.	66172.	13902.

Zoom In Zoom Out

Sample Name: MP43102-MB2 Acquired: 11/8/2023 13:26:09 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0112**	**.0008**	**-.0029**	**.0000**	**.0001**	**.0066**	**.0000**	**.0000**
Stddev	.0003	.0082	.0005	.0008	.000	.0001	.0019	.000	.0001
%RSD	149.1	72.87	55.80	25.73	109.7	112.4	29.14	11.85	1257.
#1	-.0001	.0069	.0004	-.0033	.0000	.0000	.0088	-.0001	.0001
#2	.0006	.0206	.0013	-.0021	-.0001	.0001	.0054	.0000	.0000
#3	.0001	.0060	.0007	-.0034	.0000	.0000	.0055	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0040**	**.0111**	**.0021**	**.0028**	**.0001**	**.0001**	F **120.7**
Stddev	.0001	.0003	.0011	.0376	.0002	.0051	.0000	.0001	.8
%RSD	90.10	383.2	27.38	338.4	10.95	185.4	24.46	160.1	.6500
#1	.0002	.0003	.0032	.0478	.0022	-.0010	.0001	-.0001	121.3
#2	.0000	.0003	.0035	-.0274	.0018	.0007	.0001	.0001	119.8
#3	.0002	-.0003	.0052	.0130	.0022	.0086	.0001	.0001	121.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit									2.500
Low Limit									-2.500

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	F **.0027**	**.0013**	**.0151**	**.0000**	**.0001**	**.0001**	**-.0022**
Stddev	.000	.0004	.0005	.0014	.0006	.000	.0001	.0001	.0003
%RSD	53.95	462.4	18.04	109.4	4.112	2910.	61.93	35.40	11.88
#1	-.0001	.0004	.0028	.0024	.0157	.0004	.0002	.0002	-.0020
#2	-.0001	-.0002	.0021	-.0003	.0151	-.0003	.0000	.0001	-.0021
#3	.0000	-.0004	.0031	.0019	.0144	-.0002	.0001	.0001	-.0025
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0025						
Low Limit			-.0025						

Zoom In Zoom Out

Sample Name: MP43102-MB2 Acquired: 11/8/2023 13:26:09 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0011**
Stddev	.0003	.0001
%RSD	136.4	5.693
#1	.0001	.0011
#2	-.0003	.0011
#3	-.0004	.0010
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3020.8**	**8082.0**	**44959.**	**9451.9**
Stddev	5.2	11.6	245.	35.3
%RSD	.17265	.14352	.54524	.37345
#1	3014.8	8070.1	44992.	9484.2
#2	3023.4	8082.7	44699.	9414.3
#3	3024.2	8093.2	45186.	9457.3

Zoom In Zoom Out

Sample Name: MP43102-B2 Acquired: 11/8/2023 13:31:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1990**	**24.33**	**.1998**	**.4772**	**.1967**	**.1961**	**44.04**	**.1935**	**.1926**
Stddev	.0010	.05	.0018	.0020	.0005	.0003	.08	.0003	.0002
%RSD	.5272	.2040	.9206	.4092	.2320	.1455	.1841	.1565	.1009
#1	.1980	24.38	.2004	.4750	.1971	.1964	44.14	.1933	.1925
#2	.1989	24.29	.2013	.4788	.1967	.1959	43.99	.1933	.1925
#3	.2001	24.31	.1978	.4779	.1962	.1961	44.00	.1938	.1928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2012**	**.1969**	**43.47**	**43.69**	**.5200**	**42.78**	**.1954**	**.6735**	F **160.7**
Stddev	.0004	.0008	.10	.09	.0010	.01	.0007	.0016	1.3
%RSD	.1967	.3918	.2279	.1965	.2002	.0337	.3575	.2386	.8289
#1	.2008	.1960	43.59	43.74	.5211	42.77	.1951	.6731	159.5
#2	.2012	.1973	43.42	43.74	.5190	42.77	.1949	.6721	160.4
#3	.2015	.1974	43.41	43.59	.5200	42.79	.1962	.6753	162.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value									45.00
Range									20.00%

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1946**	**.1839**	**.2019**	**.1931**	**.5402**	**.4909**	**.5159**	**.5065**	**.1875**
Stddev	.0003	.0003	.0005	.0025	.0009	.0005	.0006	.0006	.0007
%RSD	.1543	.1736	.2322	1.295	.1712	.1038	.1142	.1191	.3762
#1	.1942	.1838	.2013	.1954	.5392	.4913	.5165	.5060	.1868
#2	.1947	.1836	.2022	.1936	.5404	.4910	.5154	.5064	.1877
#3	.1948	.1842	.2020	.1905	.5410	.4903	.5157	.5072	.1881
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43102-B2 Acquired: 11/8/2023 13:31:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2007**	**.1960**
Stddev	.0005	.0003
%RSD	.2540	.1734
#1	.2001	.1957
#2	.2009	.1963
#3	.2011	.1961
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2779.3**	**7986.5**	**44129.**	**9429.2**
Stddev	2.3	9.3	219.	20.2
%RSD	.08389	.11685	.49527	.21406
#1	2777.9	7995.8	44134.	9449.4
#2	2782.0	7977.1	44345.	9409.0
#3	2777.9	7986.6	43908.	9429.4

Zoom In Zoom Out

Sample Name: MP43103-MB1 Acquired: 11/8/2023 13:36:23 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0220**	**-.0007**	**-.0035**	**.0000**	**.0000**	**.0184**	**.0000**	**-.0001**
Stddev	.0002	.0028	.0017	.0016	.000	.000	.0018	.000	.0001
%RSD	132.9	12.91	243.5	45.05	199.6	169.2	9.608	243.7	168.6
#1	.0000	.0245	.0007	-.0026	.0000	.0000	.0202	-.0001	-.0002
#2	-.0001	.0226	-.0003	-.0026	-.0001	.0000	.0184	.0000	.0000
#3	-.0003	.0189	-.0026	-.0054	.0000	-.0001	.0166	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0003**	**.0258**	**.0379**	F **.0053**	**-.0003**	**.0003**	**.0002**	**.0067**
Stddev	.0002	.0001	.0008	.0253	.0009	.0008	.0000	.0001	.0062
%RSD	40.50	36.66	3.225	66.81	17.01	249.5	7.770	46.31	93.07
#1	.0003	-.0002	.0267	.0671	.0061	-.0012	.0002	.0002	.0118
#2	.0006	-.0004	.0256	.0237	.0043	.0002	.0003	.0002	-.0002
#3	.0003	-.0003	.0250	.0228	.0054	.0000	.0003	.0001	.0084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0050				
Low Limit					-.0050				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0003**	**.0022**	**-.0002**	**.0057**	**.0213**	**.0001**	**.0003**	**-.0021**
Stddev	.0001	.0006	.0016	.0017	.0002	.0001	.0001	.0001	.0010
%RSD	17.27	198.7	72.12	900.2	3.116	.6501	145.4	18.97	46.53
#1	.0003	-.0003	.0028	.0014	.0059	.0214	.0000	.0003	-.0011
#2	.0004	.0003	.0004	-.0001	.0055	.0214	.0001	.0003	-.0021
#3	.0003	.0009	.0035	-.0019	.0057	.0212	.0001	.0002	-.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43103-MB1 Acquired: 11/8/2023 13:36:23 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0014**
Stddev	.0002	.0000
%RSD	1833.	2.076
#1	-.0002	.0014
#2	-.0001	.0014
#3	.0003	.0015
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3281.9**	**8436.5**	**47897.**	**9635.6**
Stddev	4.6	7.6	274.	8.4
%RSD	.13959	.09060	.57305	.08711
#1	3279.9	8427.7	48090.	9639.6
#2	3287.2	8441.8	48019.	9641.2
#3	3278.7	8439.9	47583.	9625.9

Zoom In Zoom Out

Sample Name: MP43103-B1 Acquired: 11/8/2023 13:41:25 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1869**	**23.49**	**.1888**	**.4355**	**.1885**	**.1888**	**42.25**	**.1846**	**.1854**
Stddev	.0005	.03	.0018	.0016	.0006	.0005	.08	.0002	.0003
%RSD	.2631	.1444	.9502	.3750	.3110	.2506	.1811	.0985	.1692
#1	.1872	23.49	.1894	.4343	.1892	.1887	42.34	.1844	.1851
#2	.1863	23.46	.1868	.4374	.1880	.1884	42.18	.1847	.1853
#3	.1872	23.53	.1902	.4349	.1884	.1894	42.24	.1846	.1857
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1918**	**.1869**	**42.03**	**41.79**	**.5024**	**41.12**	**.1864**	**.6457**	**39.54**
Stddev	.0005	.0008	.04	.06	.0022	.13	.0005	.0005	.05
%RSD	.2628	.4299	.0868	.1315	.4456	.3219	.2759	.0822	.1187
#1	.1913	.1860	42.03	41.76	.5038	41.18	.1859	.6451	39.50
#2	.1923	.1875	41.99	41.75	.4998	40.97	.1869	.6461	39.59
#3	.1919	.1871	42.06	41.85	.5035	41.21	.1863	.6460	39.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1881**	**.1757**	**.1919**	**.1773**	**.5000**	**.4865**	**.4959**	**.4813**	**.1818**
Stddev	.0002	.0004	.0010	.0016	.0004	.0006	.0005	.0005	.0018
%RSD	.1022	.2411	.5423	.8776	.0772	.1197	.1089	.1065	.9710
#1	.1883	.1761	.1909	.1788	.4996	.4861	.4953	.4809	.1808
#2	.1880	.1757	.1929	.1757	.5000	.4863	.4964	.4819	.1808
#3	.1881	.1753	.1917	.1774	.5004	.4872	.4960	.4810	.1839
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43103-B1 Acquired: 11/8/2023 13:41:25 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1896**	**.1889**
Stddev	.0013	.0002
%RSD	.6947	.1121
#1	.1881	.1887
#2	.1905	.1889
#3	.1902	.1891
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2890.5**	**8158.7**	**45974.**	**9458.2**
Stddev	4.3	5.6	125.	77.5
%RSD	.15016	.06921	.27088	.81980
#1	2886.6	8153.2	46084.	9392.0
#2	2889.6	8164.5	45999.	9543.5
#3	2895.1	8158.4	45839.	9439.0

Zoom In Zoom Out

Sample Name: FC10929-16 Acquired: 11/8/2023 13:46:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**99.88**	**.0109**	**-.0072**	**.2609**	**.0008**	**62.86**	**-.0001**	**.0043**
Stddev	.0004	.26	.0004	.0007	.0003	.0001	1.14	.0000	.0000
%RSD	79.95	.2641	3.959	9.799	.1007	6.697	1.808	23.86	.5081
#1	.0003	99.92	.0109	-.0065	.2611	.0008	61.55	-.0001	.0043
#2	.0010	99.59	.0114	-.0071	.2606	.0008	63.52	-.0001	.0042
#3	.0002	100.1	.0105	-.0079	.2611	.0009	63.50	-.0001	.0042

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012**	**.0208**	**25.89**	**1.229**	**.0364**	**13.24**	**.1569**	**.0081**	**.3060**
Stddev	.0003	.0003	.11	.034	.0018	.06	.0004	.0002	.0124
%RSD	.3328	1.416	.4387	2.786	5.074	.4532	.2540	2.026	4.055
#1	.1016	.0205	25.89	1.190	.0369	13.22	.1564	.0080	.3031
#2	.1010	.0210	25.78	1.254	.0379	13.18	.1571	.0080	.2953
#3	.1010	.0210	26.01	1.244	.0343	13.30	.1571	.0083	.3196

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0340**	**.0834**	**.0034**	**-.0028**	**6.370**	**.0218**	**.2288**	**1.096**	**-.0033**
Stddev	.0001	.0009	.0006	.0016	.004	.0001	.0008	.009	.0007
%RSD	.3896	1.101	16.43	57.67	.0575	.6582	.3354	.7923	21.27
#1	.0341	.0823	.0029	-.0010	6.366	.0218	.2288	1.089	-.0030
#2	.0339	.0840	.0040	-.0040	6.372	.0219	.2280	1.106	-.0041
#3	.0342	.0838	.0033	-.0034	6.371	.0216	.2295	1.093	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0707**	**.0496**
Stddev	.0003	.0001
%RSD	.4322	.1344
#1	.0704	.0495
#2	.0710	.0496
#3	.0707	.0496

Zoom In Zoom Out

Sample Name: FC10929-16 Acquired: 11/8/2023 13:46:20 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2983.0**	**8954.7**	**49465.**	**10282.**
Stddev	7.5	10.6	188.	47.
%RSD	.25029	.11838	.38096	.45780
#1	2991.1	8956.8	49621.	10275.
#2	2976.3	8943.2	49256.	10332.
#3	2981.8	8964.1	49518.	10239.

Zoom In Zoom Out

Sample Name: MP43103-D1 Acquired: 11/8/2023 13:51:29 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**85.42**	**.0096**	**-.0079**	**.2216**	**.0006**	**83.99**	**-.0001**	**.0038**
Stddev	.0003	.15	.0005	.0014	.0011	.0000	.59	.0000	.0001
%RSD	266.0	.1737	5.245	17.33	.4764	1.226	.6970	44.45	2.112
#1	.0000	85.58	.0094	-.0094	.2221	.0006	84.25	.0000	.0038
#2	-.0005	85.38	.0101	-.0074	.2224	.0006	84.40	-.0001	.0038
#3	.0001	85.30	.0092	-.0068	.2204	.0006	83.32	-.0001	.0037

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0871**	**.0182**	**22.00**	**1.142**	**.0340**	**15.01**	**.1472**	**.0075**	**.2954**
Stddev	.0002	.0002	.04	.033	.0003	.04	.0004	.0000	.0091
%RSD	.2260	1.272	.1759	2.924	.8811	.2418	.2688	.5078	3.073
#1	.0872	.0184	22.04	1.105	.0336	15.03	.1467	.0075	.3015
#2	.0869	.0180	21.96	1.169	.0342	15.03	.1474	.0075	.2850
#3	.0872	.0182	21.99	1.151	.0340	14.97	.1474	.0075	.2997

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0295**	**.0657**	**.0029**	**-.0025**	**5.375**	**.0215**	**.1983**	**.9850**	**-.0027**
Stddev	.0000	.0003	.0011	.0018	.003	.0003	.0004	.0024	.0008
%RSD	.1193	.4552	36.04	70.63	.0619	1.243	.2009	.2425	29.19
#1	.0295	.0658	.0026	-.0039	5.378	.0215	.1987	.9834	-.0019
#2	.0295	.0660	.0021	-.0031	5.372	.0217	.1983	.9838	-.0026
#3	.0294	.0654	.0041	-.0005	5.376	.0212	.1979	.9877	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0619**	**.0475**
Stddev	.0003	.0001
%RSD	.5000	.1346
#1	.0616	.0474
#2	.0622	.0475
#3	.0620	.0474

Zoom In Zoom Out

Sample Name: MP43103-D1 Acquired: 11/8/2023 13:51:29 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2975.2**	**8866.6**	**48839.**	**10131.**
Stddev	9.1	12.0	235.	111.
%RSD	.30600	.13550	.48088	1.0968
#1	2966.8	8853.2	48654.	10096.
#2	2974.0	8870.3	49103.	10042.
#3	2984.9	8876.4	48759.	10255.

Zoom In Zoom Out

Sample Name: MP43103-SD1 Acquired: 11/8/2023 13:56:36 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**100.2**	**.0122**	**-.0353**	**.2628**	**.0010**	**63.46**	**-.0002**	**.0043**
Stddev	.0015	.3	.0042	.0028	.0004	.0002	.04	.0002	.0005
%RSD	185.6	.2543	34.86	7.966	.1623	16.35	.0613	115.0	10.92
#1	.0009	100.3	.0083	-.0326	.2625	.0008	63.51	-.0003	.0045
#2	-.0020	99.94	.0167	-.0352	.2633	.0011	63.44	-.0003	.0038
#3	-.0013	100.4	.0114	-.0382	.2626	.0011	63.44	.0001	.0046

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1012**	**.0195**	**26.33**	**1.032**	**.0437**	**13.48**	**.1604**	**.0076**	**.0180**
Stddev	.0017	.0018	.01	.106	.0057	.01	.0004	.0005	.0036
%RSD	1.721	9.167	.0488	10.24	13.02	.0778	.2200	6.849	19.98
#1	.1006	.0215	26.34	1.140	.0469	13.48	.1604	.0071	.0145
#2	.1031	.0189	26.32	.9285	.0470	13.47	.1608	.0077	.0217
#3	.0998	.0181	26.34	1.027	.0371	13.49	.1600	.0082	.0179

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0350**	**.0762**	**.0025**	**-.0102**	**6.502**	**.0229**	**.2301**	**1.087**	**-.0066**
Stddev	.0004	.0019	.0034	.0055	.052	.0021	.0002	.011	.0027
%RSD	1.217	2.484	139.5	53.91	.8030	9.310	.1005	.9730	41.01
#1	.0355	.0781	-.0013	-.0133	6.551	.0205	.2302	1.075	-.0080
#2	.0347	.0743	.0034	-.0038	6.509	.0238	.2299	1.095	-.0083
#3	.0348	.0762	.0053	-.0134	6.447	.0245	.2303	1.091	-.0035

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0712**	**.0526**
Stddev	.0017	.0001
%RSD	2.457	.2403
#1	.0716	.0526
#2	.0692	.0525
#3	.0726	.0527

Zoom In Zoom Out

Sample Name: MP43103-SD1 Acquired: 11/8/2023 13:56:36 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3165.7**	**8524.7**	**47196.**	**9722.0**
Stddev	6.0	3.4	32.	40.9
%RSD	.18884	.03947	.06844	.42031
#1	3172.3	8523.9	47167.	9677.3
#2	3164.0	8528.4	47190.	9731.5
#3	3160.7	8521.8	47230.	9757.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 14:01:34 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2512**	**40.95**	**2.032**	**2.042**	**2.029**	**2.024**	**40.36**	**2.013**	**2.022**
Stddev	.0003	.05	.002	.009	.001	.004	.03	.004	.003
%RSD	.1144	.1263	.0967	.4225	.0638	.1885	.0747	.2002	.1309
#1	.2510	40.89	2.031	2.052	2.031	2.023	40.33	2.014	2.023
#2	.2515	40.98	2.031	2.035	2.028	2.020	40.34	2.009	2.019
#3	.2512	40.97	2.034	2.040	2.029	2.028	40.39	2.017	2.024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.026**	**2.018**	**40.49**	**40.56**	**2.036**	**39.91**	**2.000**	**2.019**	**41.39**
Stddev	.010	.005	.06	.06	.003	.08	.007	.003	.11
%RSD	.5027	.2741	.1592	.1368	.1500	.2070	.3434	.1686	.2539
#1	2.016	2.012	40.43	40.56	2.035	39.83	1.996	2.021	41.35
#2	2.036	2.023	40.48	40.51	2.034	39.91	2.008	2.015	41.31
#3	2.024	2.019	40.56	40.62	2.040	40.00	1.997	2.020	41.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.035**	**2.010**	**2.053**	**2.013**	**2.330**	**2.030**	**2.056**	**2.016**	**2.031**
Stddev	.003	.003	.001	.006	.001	.003	.007	.006	.003
%RSD	.1319	.1367	.0371	.3052	.0387	.1260	.3597	.3004	.1342
#1	2.035	2.010	2.054	2.015	2.329	2.030	2.059	2.013	2.028
#2	2.032	2.008	2.053	2.006	2.331	2.027	2.048	2.023	2.034
#3	2.037	2.013	2.052	2.018	2.329	2.032	2.061	2.012	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 14:01:34 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.000**	**2.026**
Stddev	.006	.004
%RSD	.2825	.2065
#1	1.994	2.028
#2	2.005	2.021
#3	2.000	2.029
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2761.8**	**7950.2**	**44802.**	**9343.6**
Stddev	5.5	11.1	188.	19.1
%RSD	.19773	.13979	.42065	.20412
#1	2764.5	7949.6	44999.	9361.6
#2	2765.4	7961.6	44623.	9323.6
#3	2755.5	7939.4	44784.	9345.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 14:06:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0061**	**-.0001**	F **-.0012**	**.0002**	**.0000**	**.0016**	**.0000**
Stddev	.0001	.0088	.0005	.0013	.0001	.0000	.0007	.0000
%RSD	210.3	144.8	848.5	108.3	34.34	90.47	42.35	23.19
#1	.0000	.0155	-.0006	-.0002	.0001	.0000	.0009	.0000
#2	.0001	-.0020	.0001	-.0006	.0001	.0001	.0017	.0001
#3	.0000	.0048	.0004	-.0026	.0002	.0001	.0022	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**-.0003**	**.0010**	**-.0207**	**-.0009**	**-.0020**	**.0000**
Stddev	.0001	.0001	.0001	.0007	.0046	.0007	.0078	.000
%RSD	152.7	52.56	35.95	71.96	22.44	73.32	395.6	576.1
#1	.0000	-.0001	-.0004	.0004	-.0259	-.0003	-.0098	.0000
#2	.0001	-.0002	-.0002	.0007	-.0191	-.0017	.0059	.0000
#3	.0001	-.0003	-.0003	.0017	-.0170	-.0007	-.0020	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0499**	**-.0002**	**-.0002**	**.0016**	**-.0011**	**.0015**	**.0001**
Stddev	.0000	.0104	.0001	.0002	.0005	.0015	.0002	.0002
%RSD	15.96	20.90	54.59	122.4	29.50	141.8	13.29	209.3
#1	.0004	-.0616	-.0001	.0000	.0020	-.0018	.0017	.0000
#2	.0003	-.0415	-.0003	-.0002	.0018	.0007	.0013	.0000
#3	.0003	-.0466	-.0002	-.0003	.0011	-.0020	.0016	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 14:06:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0004**	**-.0002**	**.0002**
Stddev	.0000	.0000	.0006	.0001	.0000
%RSD	264.8	33.02	167.4	56.61	24.02
#1	.0000	.0001	.0011	-.0002	.0002
#2	.0001	.0002	.0002	-.0003	.0002
#3	.0000	.0001	-.0001	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3211.1**	**8302.4**	**46414.**	**9401.4**
Stddev	8.1	13.7	110.	33.6
%RSD	.25265	.16560	.23592	.35748
#1	3220.3	8314.0	46500.	9379.1
#2	3205.0	8287.2	46452.	9440.0
#3	3208.1	8305.9	46291.	9384.9

Zoom In Zoom Out

Sample Name: MP43103-PS1 Acquired: 11/8/2023 14:11:42 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0469**	**100.2**	**.1027**	**-.0077**	**.4849**	**.0476**	**65.47**	**.0451**	**.0493**
Stddev	.0001	.2	.0004	.0004	.0016	.0001	.35	.0000	.0001
%RSD	.2202	.1661	.4311	4.961	.3340	.3068	.5407	.0266	.2601
#1	.0468	100.0	.1025	-.0081	.4842	.0474	65.10	.0451	.0493
#2	.0470	100.3	.1024	-.0076	.4837	.0476	65.80	.0451	.0495
#3	.0470	100.2	.1032	-.0074	.4867	.0477	65.51	.0451	.0492

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1451**	**.1139**	**28.01**	**10.19**	**.0355**	**17.49**	**.1979**	**.0928**	**8.763**
Stddev	.0003	.0002	.06	.01	.0024	.03	.0002	.0001	.026
%RSD	.1769	.1649	.2003	.1039	6.815	.1739	.0840	.1075	.2990
#1	.1452	.1141	27.96	10.18	.0372	17.46	.1977	.0928	8.734
#2	.1453	.1137	28.07	10.20	.0328	17.52	.1980	.0927	8.783
#3	.1448	.1139	28.01	10.18	.0366	17.50	.1980	.0929	8.773

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1251**	**.1316**	**.0951**	**.0831**	**6.100**	**.0675**	**.2703**	**1.148**	**.0946**
Stddev	.0000	.0003	.0024	.0017	.016	.0003	.0008	.010	.0020
%RSD	.0216	.2027	2.521	2.033	.2557	.4885	.2871	.8535	2.136
#1	.1252	.1319	.0967	.0813	6.103	.0679	.2695	1.139	.0967
#2	.1251	.1314	.0963	.0832	6.114	.0672	.2711	1.148	.0944
#3	.1251	.1316	.0924	.0847	6.083	.0675	.2703	1.158	.0927

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1145**	**.2719**
Stddev	.0001	.0002
%RSD	.0596	.0886
#1	.1145	.2720
#2	.1146	.2720
#3	.1146	.2716

Zoom In Zoom Out

Sample Name: MP43103-PS1 Acquired: 11/8/2023 14:11:42 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2939.7**	**8945.5**	**49316.**	**10281.**
Stddev	2.8	19.2	90.	16.
%RSD	.09560	.21517	.18157	.15676
#1	2936.9	8930.6	49299.	10263.
#2	2939.8	8938.8	49412.	10288.
#3	2942.5	8967.2	49235.	10293.

Zoom In Zoom Out

Sample Name: MP43103-S1 Acquired: 11/8/2023 14:16:47 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1790	125.7	.1747	.3849	.4305	.1770	106.3	.1677	.1728
Stddev	.0006	.1	.0007	.0026	.0009	.0001	.8	.0002	.0002
%RSD	.3135	.1123	.4010	.6641	.1984	.0738	.7338	.1057	.0869
#1	.1787	125.9	.1754	.3824	.4314	.1769	106.2	.1676	.1727
#2	.1786	125.8	.1748	.3850	.4297	.1772	107.1	.1679	.1729
#3	.1797	125.6	.1740	.3875	.4304	.1769	105.6	.1676	.1726

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2749	.1968	65.31	40.38	F .5148	50.56	.3369	.5814	37.29
Stddev	.0007	.0005	.11	.02	.0015	.03	.0010	.0007	.18
%RSD	.2601	.2677	.1695	.0598	.2949	.0645	.2894	.1179	.4780
#1	.2755	.1969	65.41	40.37	.5136	50.54	.3379	.5810	37.18
#2	.2751	.1973	65.33	40.41	.5143	50.55	.3359	.5822	37.49
#3	.2741	.1962	65.19	40.37	.5165	50.60	.3369	.5810	37.19

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2083	.2623	.0956	.1555	5.333	.4384	.6995	1.216	.1812
Stddev	.0002	.0003	.0007	.0029	.005	.0007	.0009	.005	.0006
%RSD	.0844	.1283	.7299	1.855	.0988	.1508	.1309	.4209	.3526
#1	.2082	.2623	.0951	.1570	5.327	.4378	.6986	1.221	.1809
#2	.2085	.2620	.0964	.1573	5.338	.4391	.7004	1.211	.1819
#3	.2082	.2626	.0953	.1522	5.334	.4383	.6994	1.215	.1807

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.2496	.2289
Stddev	.0007	.0003
%RSD	.2624	.1505
#1	.2504	.2290
#2	.2492	.2292
#3	.2494	.2285

Zoom In Zoom Out

Sample Name: MP43103-S1 Acquired: 11/8/2023 14:16:47 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2755.5	8707.3	48296.	10137.
Stddev	4.5	14.7	111.	48.
%RSD	.16469	.16826	.23019	.47059
#1	2756.4	8700.2	48168.	10097.
#2	2750.6	8697.6	48351.	10124.
#3	2759.5	8724.2	48368.	10189.

Zoom In Zoom Out

Sample Name: MP43103-S2 Acquired: 11/8/2023 14:21:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1782	121.9	.1789	.3896	.4380	.1774	105.5	.1677	.1726
Stddev	.0003	.3	.0013	.0035	.0006	.0003	1.4	.0001	.0002
%RSD	.1884	.2273	.7416	.9024	.1419	.1439	1.323	.0708	.1067
#1	.1780	122.1	.1786	.3860	.4387	.1775	106.5	.1677	.1727
#2	.1786	121.9	.1777	.3899	.4376	.1776	106.1	.1675	.1724
#3	.1782	121.6	.1803	.3930	.4377	.1771	103.9	.1678	.1726

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2734	.1965	69.49	40.40	F .5182	51.93	.3362	.5800	37.48
Stddev	.0001	.0007	.19	.10	.0013	.15	.0009	.0008	.07
%RSD	.0380	.3693	.2717	.2502	.2454	.2965	.2690	.1459	.1959
#1	.2735	.1973	69.70	40.51	.5176	52.10	.3369	.5799	37.53
#2	.2733	.1965	69.44	40.31	.5197	51.87	.3366	.5792	37.51
#3	.2733	.1958	69.34	40.39	.5174	51.80	.3352	.5809	37.40

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2062	.2589	.0953	.1561	6.181	.4402	.7183	1.257	.1835
Stddev	.0003	.0008	.0008	.0015	.007	.0004	.0014	.007	.0006
%RSD	.1326	.3160	.8871	.9589	.1123	.0891	.1905	.5426	.3491
#1	.2065	.2583	.0944	.1552	6.180	.4407	.7198	1.264	.1841
#2	.2059	.2598	.0961	.1579	6.189	.4399	.7174	1.255	.1828
#3	.2063	.2587	.0953	.1553	6.175	.4401	.7175	1.251	.1835

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.2535	.2290
Stddev	.0007	.0005
%RSD	.2835	.2122
#1	.2544	.2290
#2	.2533	.2286
#3	.2530	.2295

Zoom In Zoom Out

Sample Name: MP43103-S2 Acquired: 11/8/2023 14:21:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2746.8	8708.9	48334.	10177.
Stddev	9.2	20.9	86.	51.
%RSD	.33494	.24024	.17749	.49748
#1	2748.6	8703.0	48384.	10120.
#2	2754.9	8732.1	48235.	10194.
#3	2736.8	8691.5	48383.	10217.

Zoom In Zoom Out

Sample Name: FC10929-17 Acquired: 11/8/2023 14:26:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**39.80**	**.0075**	**-.0083**	**.1010**	**.0004**	**3.415**	**-.0002**	**.0026**
Stddev	.0003	.05	.0005	.0002	.0000	.0000	.003	.0001	.0001
%RSD	133.2	.1199	6.155	2.825	.0461	11.39	.0794	53.71	4.341
#1	-.0001	39.81	.0071	-.0084	.1009	.0004	3.414	-.0002	.0025
#2	.0003	39.84	.0081	-.0085	.1010	.0004	3.413	-.0003	.0026
#3	.0004	39.75	.0074	-.0081	.1010	.0004	3.418	-.0001	.0027

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0349**	**.0097**	**19.23**	**.7023**	**.0194**	**1.415**	**.1041**	**.0027**	**-.0055**
Stddev	.0002	.0002	.04	.0327	.0017	.001	.0002	.0002	.0084
%RSD	.5393	2.453	.2334	4.658	8.497	.0951	.1956	6.118	152.1
#1	.0346	.0095	19.25	.7373	.0213	1.417	.1041	.0028	-.0085
#2	.0349	.0096	19.27	.6970	.0183	1.415	.1043	.0025	-.0120
#3	.0350	.0100	19.18	.6725	.0186	1.414	.1039	.0028	.0040

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0144**	**.0279**	**.0016**	**-.0001**	**4.739**	**.0205**	**.0575**	**.7838**	**-.0023**
Stddev	.0001	.0003	.0009	.0013	.008	.0002	.0000	.0018	.0008
%RSD	.7465	1.152	56.85	1116.	.1670	1.078	.0644	.2325	33.87
#1	.0144	.0283	.0009	.0014	4.744	.0207	.0575	.7820	-.0014
#2	.0145	.0277	.0012	-.0009	4.730	.0204	.0575	.7856	-.0029
#3	.0143	.0277	.0026	-.0008	4.743	.0203	.0575	.7838	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0464**	**.0322**
Stddev	.0002	.0000
%RSD	.4531	.0906
#1	.0465	.0322
#2	.0466	.0322
#3	.0462	.0322

Zoom In Zoom Out

Sample Name: FC10929-17 Acquired: 11/8/2023 14:26:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3200.4**	**8999.6**	**50323.**	**10176.**
Stddev	4.5	13.4	262.	16.
%RSD	.14141	.14879	.52086	.15767
#1	3195.3	8984.9	50021.	10185.
#2	3201.6	9002.7	50462.	10186.
#3	3204.1	9011.1	50486.	10158.

Zoom In Zoom Out

Sample Name: FC10929-18 Acquired: 11/8/2023 14:31:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**43.56**	**.0062**	**-.0079**	**.1558**	**.0004**	**.8223**	**-.0002**	**.0023**
Stddev	.0002	.22	.0002	.0013	.0007	.0000	.0031	.0001	.0001
%RSD	81.90	.5065	3.825	15.93	.4306	9.795	.3809	23.41	3.375
#1	-.0003	43.41	.0064	-.0073	.1556	.0004	.8197	-.0002	.0024
#2	.0000	43.45	.0063	-.0070	.1552	.0004	.8214	-.0002	.0023
#3	-.0004	43.81	.0060	-.0093	.1565	.0005	.8258	-.0003	.0023

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0352**	**.0092**	**13.64**	**.6022**	**.0191**	**1.241**	**.0707**	**.0010**	**-.0153**
Stddev	.0002	.0002	.06	.0424	.0008	.016	.0001	.0003	.0160
%RSD	.6259	1.983	.4280	7.043	4.025	1.304	.1066	25.84	105.0
#1	.0350	.0091	13.60	.5946	.0187	1.238	.0706	.0010	-.0323
#2	.0354	.0094	13.61	.5641	.0200	1.227	.0708	.0012	-.0132
#3	.0353	.0091	13.71	.6479	.0187	1.258	.0707	.0007	-.0004

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0158**	**.0393**	**.0019**	**.0006**	**5.382**	**.0200**	**.1851**	**.7917**	**-.0015**
Stddev	.0001	.0005	.0002	.0027	.003	.0001	.0010	.0034	.0006
%RSD	.7749	1.170	8.159	458.6	.0600	.6708	.5290	.4320	44.29
#1	.0157	.0391	.0021	.0017	5.378	.0201	.1846	.7923	-.0018
#2	.0159	.0398	.0018	-.0025	5.384	.0199	.1846	.7948	-.0007
#3	.0158	.0389	.0019	.0025	5.384	.0201	.1863	.7880	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0368**	**.0275**
Stddev	.0002	.0000
%RSD	.4677	.1641
#1	.0367	.0275
#2	.0370	.0275
#3	.0367	.0276

Zoom In Zoom Out

Sample Name: FC10929-18 Acquired: 11/8/2023 14:31:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3200.5**	**8954.4**	**50015.**	**10129.**
Stddev	10.4	25.4	250.	28.
%RSD	.32533	.28337	.50055	.27322
#1	3188.6	8926.4	50000.	10160.
#2	3208.1	8975.8	49772.	10106.
#3	3204.7	8961.1	50272.	10121.

Zoom In Zoom Out

Sample Name: FC10963-24 Acquired: 11/8/2023 14:36:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**199.4**	**.3091**	**-.0473**	**1.742**	**.0123**	**937.4**	**.0055**	**.2066**
Stddev	.0021	.8	.0052	.0043	.008	.0002	14.8	.0002	.0003
%RSD	395.8	.4033	1.684	9.135	.4453	1.527	1.575	3.261	.1417
#1	.0002	198.9	.3048	-.0478	1.734	.0124	953.9	.0055	.2066
#2	-.0014	199.0	.3075	-.0427	1.740	.0121	925.5	.0054	.2068
#3	.0027	200.3	.3149	-.0513	1.750	.0125	932.7	.0057	.2062

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3409**	**.4993**	**513.0**	**31.67**	**.2795**	**141.5**	**8.768**	**.1129**	**1.302**
Stddev	.0021	.0031	1.7	.15	.0090	.8	.070	.0006	.019
%RSD	.6200	.6285	.3292	.4871	3.236	.5617	.7990	.5012	1.446
#1	.3385	.4958	511.8	31.65	.2826	140.6	8.833	.1127	1.309
#2	.3423	.5002	512.2	31.83	.2865	141.7	8.693	.1124	1.280
#3	.3419	.5019	514.9	31.52	.2693	142.1	8.777	.1135	1.316

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5895**	**.4404**	**.0099**	**.0091**	**5.181**	**.0265**	**.6480**	**1.498**	**.0093**
Stddev	.0006	.0090	.0074	.0124	.026	.0012	.0041	.002	.0040
%RSD	.1087	2.041	75.36	137.0	.5006	4.477	.6343	.1252	43.21
#1	.5889	.4340	.0036	.0208	5.164	.0257	.6442	1.496	.0086
#2	.5894	.4507	.0079	-.0040	5.211	.0259	.6474	1.500	.0056
#3	.5902	.4366	.0181	.0104	5.169	.0278	.6524	1.498	.0135

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5165**	**1.713**
Stddev	.0008	.004
%RSD	.1487	.2152
#1	.5159	1.714
#2	.5164	1.717
#3	.5174	1.709

Zoom In Zoom Out

Sample Name: FC10963-24 Acquired: 11/8/2023 14:36:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2781.0**	**8949.0**	**49937.**	**10545.**
Stddev	5.7	19.2	251.	42.
%RSD	.20511	.21503	.50289	.39656
#1	2784.8	8946.3	49986.	10500.
#2	2774.4	8931.3	50160.	10583.
#3	2783.7	8969.5	49665.	10553.

Zoom In Zoom Out

Sample Name: FC10958-1 Acquired: 11/8/2023 14:42:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0057**	**308.2**	**.0863**	F **-.0861**	**2.882**	**.0060**	**103.0**	**-.0019**
Stddev	.0014	.0	.0040	.0046	.004	.0002	.0	.0002
%RSD	24.51	.0076	4.632	5.343	.1315	2.593	.0097	8.724
#1	.0064	308.2	.0902	-.0913	2.878	.0062	103.0	-.0021
#2	.0041	308.2	.0865	-.0826	2.883	.0059	103.0	-.0017
#3	.0066	308.2	.0822	-.0843	2.885	.0060	103.0	-.0018

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2599**	**1.219**	**.3666**	**451.5**	**20.29**	**.2409**	**141.9**	**9.981**
Stddev	.0000	.002	.0024	.2	.23	.0042	.4	.042
%RSD	.0134	.1699	.6627	.0466	1.150	1.734	.3050	.4198
#1	.2598	1.216	.3650	451.7	20.16	.2363	142.4	9.942
#2	.2599	1.219	.3655	451.3	20.55	.2418	141.8	10.03
#3	.2599	1.220	.3694	451.4	20.14	.2445	141.6	9.976

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0027**	**5.113**	**1.711**	**.0817**	**.0299**	**.0028**	**8.109**	**.0338**
Stddev	.0001	.031	.002	.0027	.0039	.0083	.025	.0010
%RSD	3.499	.6011	.1256	3.353	12.92	299.3	.3079	2.872
#1	.0027	5.117	1.709	.0814	.0258	.0108	8.136	.0328
#2	.0026	5.141	1.710	.0791	.0304	-.0058	8.105	.0348
#3	.0028	5.080	1.713	.0845	.0335	.0033	8.087	.0337

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4745**	F **22.19**	**.0012**	**.9259**	**.7901**
Stddev	.0004	.11	.0027	.0041	.0006
%RSD	.0779	.4774	224.7	.4444	.0752
#1	.4741	22.23	.0008	.9213	.7894
#2	.4749	22.27	-.0013	.9292	.7905
#3	.4745	22.07	.0041	.9273	.7904

Zoom In Zoom Out

Sample Name: FC10958-1 Acquired: 11/8/2023 14:42:08 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2933.8**	**9274.8**	**51533.**	**10669.**
Stddev	8.8	19.0	143.	83.
%RSD	.30090	.20534	.27669	.77880
#1	2934.8	9267.2	51670.	10574.
#2	2942.1	9296.4	51545.	10725.
#3	2924.5	9260.6	51385.	10710.

Zoom In Zoom Out

Sample Name: FC10958-2 Acquired: 11/8/2023 14:47:23 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070**	**335.5**	**.0985**	F **-.0858**	**3.980**	**.0070**	**111.3**	**-.0020**
Stddev	.0008	.3	.0026	.0080	.007	.0001	.3	.0001
%RSD	11.50	.0859	2.600	9.351	.1658	1.840	.3095	3.736
#1	.0080	335.4	.1009	-.0941	3.979	.0072	111.3	-.0020
#2	.0064	335.8	.0958	-.0780	3.987	.0070	111.6	-.0019
#3	.0068	335.3	.0989	-.0854	3.974	.0069	110.9	-.0020

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3306**	**1.312**	**.4252**	**496.0**	**23.38**	**.2558**	**166.6**	**12.69**
Stddev	.0014	.002	.0014	.2	.04	.0036	.2	.01
%RSD	.4181	.1708	.3231	.0418	.1748	1.406	.1394	.0991
#1	.3292	1.314	.4254	495.9	23.41	.2521	166.5	12.70
#2	.3319	1.309	.4237	495.8	23.33	.2562	166.9	12.69
#3	.3306	1.311	.4264	496.2	23.39	.2593	166.4	12.68

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**6.155**	**1.926**	**.1055**	**.0262**	**.0092**	**6.438**	**.0334**
Stddev	.0001	.055	.006	.0027	.0025	.0050	.020	.0014
%RSD	10.34	.8953	.3080	2.531	9.703	53.92	.3066	4.103
#1	.0011	6.097	1.921	.1030	.0268	.0076	6.434	.0320
#2	.0013	6.163	1.933	.1083	.0284	.0052	6.460	.0334
#3	.0013	6.206	1.925	.1053	.0234	.0148	6.421	.0348

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5579**	F **21.73**	**.0041**	**1.009**	**.8826**
Stddev	.0003	.14	.0042	.003	.0027
%RSD	.0528	.6261	100.8	.2969	.3069
#1	.5582	21.88	.0084	1.006	.8805
#2	.5576	21.61	.0000	1.009	.8857
#3	.5578	21.72	.0040	1.012	.8818

Zoom In Zoom Out

Sample Name: FC10958-2 Acquired: 11/8/2023 14:47:23 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2897.5**	**9365.0**	**52247.**	**10889.**
Stddev	5.8	23.8	100.	72.
%RSD	.20058	.25438	.19146	.66480
#1	2903.6	9386.6	52230.	10851.
#2	2892.0	9339.4	52355.	10843.
#3	2897.0	9369.1	52157.	10972.

Zoom In Zoom Out

Sample Name: FC10958-3 Acquired: 11/8/2023 14:52:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**311.9**	**.0879**	F **-.1206**	**3.265**	**.0078**	**104.0**	**-.0016**
Stddev	.0022	.7	.0018	.0026	.007	.0001	.3	.0001
%RSD	44.33	.2112	2.095	2.169	.2167	1.238	.3273	7.674
#1	.0062	311.4	.0873	-.1191	3.258	.0078	103.7	-.0015
#2	.0061	312.6	.0899	-.1236	3.272	.0080	104.4	-.0015
#3	.0024	311.6	.0864	-.1190	3.266	.0078	104.0	-.0017

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2931**	**1.295**	**.4389**	**484.4**	**21.39**	**.2470**	**179.1**	**12.78**
Stddev	.0008	.002	.0009	1.1	.17	.0014	.3	.07
%RSD	.2639	.1710	.2105	.2247	.8139	.5775	.1573	.5745
#1	.2940	1.294	.4388	483.4	21.30	.2476	178.8	12.84
#2	.2925	1.298	.4399	485.6	21.60	.2480	179.4	12.70
#3	.2928	1.295	.4380	484.2	21.29	.2453	179.2	12.80

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0008**	**7.404**	**2.094**	**.1577**	**.0212**	**.0131**	**3.660**	**.0278**
Stddev	.0004	.102	.001	.0031	.0014	.0011	.006	.0013
%RSD	56.67	1.380	.0448	1.975	6.550	8.408	.1605	4.830
#1	-.0009	7.340	2.094	.1603	.0213	.0132	3.665	.0273
#2	-.0011	7.522	2.093	.1586	.0225	.0142	3.662	.0293
#3	-.0003	7.351	2.094	.1542	.0198	.0120	3.653	.0267

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4889**	**16.32**	**.0124**	**.8446**	**.9257**
Stddev	.0003	.15	.0059	.0033	.0007
%RSD	.0706	.9255	47.82	.3913	.0778
#1	.4887	16.24	.0057	.8453	.9259
#2	.4893	16.49	.0147	.8410	.9249
#3	.4887	16.22	.0168	.8475	.9263

Zoom In Zoom Out

Sample Name: FC10958-3 Acquired: 11/8/2023 14:52:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2890.3**	**9332.3**	**52095.**	**10728.**
Stddev	3.7	13.0	114.	63.
%RSD	.12798	.13970	.21808	.59155
#1	2889.3	9331.1	52113.	10751.
#2	2894.4	9345.8	52199.	10656.
#3	2887.2	9319.8	51974.	10777.

Zoom In Zoom Out

Sample Name: FC10958-4 Acquired: 11/8/2023 14:57:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087**	**315.1**	**.1173**	F **-.1054**	**4.525**	**.0069**	**113.5**	**-.0027**
Stddev	.0020	1.1	.0016	.0075	.022	.0003	.6	.0001
%RSD	23.24	.3524	1.364	7.111	.4811	4.358	.5482	4.592
#1	.0108	314.1	.1189	-.1021	4.503	.0066	112.8	-.0026
#2	.0084	315.0	.1157	-.1002	4.547	.0072	114.0	-.0028
#3	.0068	316.3	.1171	-.1140	4.526	.0070	113.6	-.0027

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2973**	**1.203**	**.3982**	**526.6**	**21.53**	**.2535**	**163.3**	F **20.54**
Stddev	.0012	.004	.0012	1.8	.26	.0016	1.1	.09
%RSD	.3869	.3111	.3002	.3381	1.217	.6324	.6494	.4517
#1	.2966	1.200	.3994	525.1	21.26	.2532	162.2	20.62
#2	.2986	1.201	.3970	526.2	21.56	.2522	163.5	20.56
#3	.2967	1.207	.3981	528.6	21.78	.2553	164.3	20.43

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0044**	**4.951**	**1.959**	**.0623**	**.0319**	**.0133**	**4.534**	**.0312**
Stddev	.0007	.019	.002	.0023	.0019	.0067	.014	.0009
%RSD	15.15	.3781	.1135	3.772	5.998	50.34	.3152	3.026
#1	.0040	4.972	1.960	.0607	.0298	.0077	4.550	.0321
#2	.0052	4.947	1.960	.0650	.0335	.0115	4.523	.0302
#3	.0041	4.935	1.956	.0611	.0323	.0207	4.528	.0312

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4785**	F **24.41**	**.0158**	**1.010**	**.8873**
Stddev	.0015	.08	.0040	.006	.0012
%RSD	.3197	.3464	25.45	.5500	.1312
#1	.4773	24.43	.0169	1.012	.8872
#2	.4781	24.32	.0192	1.003	.8885
#3	.4802	24.49	.0114	1.013	.8862

Zoom In Zoom Out

Sample Name: FC10958-4 Acquired: 11/8/2023 14:57:55 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2880.7**	**9290.3**	**51819.**	**10658.**
Stddev	5.1	12.8	282.	79.
%RSD	.17828	.13819	.54363	.74571
#1	2881.0	9283.2	52008.	10750.
#2	2875.4	9282.6	51953.	10608.
#3	2885.7	9305.1	51495.	10616.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:03:10 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2506**	**41.04**	**2.035**	**2.030**	**2.030**	**2.015**	**40.28**	**2.005**	**2.019**
Stddev	.0006	.10	.004	.014	.001	.004	.02	.000	.001
%RSD	.2445	.2558	.1711	.6942	.0702	.1933	.0596	.0135	.0243
#1	.2500	41.12	2.039	2.020	2.028	2.018	40.26	2.005	2.020
#2	.2508	41.07	2.035	2.025	2.030	2.018	40.30	2.006	2.020
#3	.2511	40.92	2.032	2.046	2.030	2.011	40.29	2.006	2.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.014**	**1.981**	**40.30**	**40.65**	**2.032**	**39.60**	**2.003**	**2.009**	**41.10**
Stddev	.003	.001	.09	.09	.003	.02	.004	.001	.18
%RSD	.1557	.0695	.2174	.2258	.1312	.0544	.1757	.0298	.4353
#1	2.013	1.980	40.35	40.56	2.031	39.58	2.007	2.009	41.05
#2	2.012	1.981	40.36	40.74	2.035	39.62	2.000	2.009	41.30
#3	2.017	1.982	40.20	40.65	2.030	39.60	2.004	2.008	40.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**2.016**	**2.060**	**2.001**	**2.323**	**2.026**	**2.052**	**2.015**	**2.038**
Stddev	.001	.002	.005	.003	.002	.002	.004	.001	.003
%RSD	.0562	.0936	.2297	.1498	.0944	.0812	.2092	.0455	.1226
#1	2.042	2.014	2.065	2.004	2.325	2.026	2.053	2.015	2.037
#2	2.040	2.018	2.055	1.999	2.324	2.025	2.055	2.014	2.041
#3	2.040	2.017	2.061	1.999	2.321	2.028	2.047	2.015	2.037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:03:10 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.992**	**2.024**
Stddev	.003	.001
%RSD	.1565	.0510
#1	1.995	2.023
#2	1.989	2.023
#3	1.993	2.025
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2771.9**	**7989.7**	**45036.**	**9379.3**
Stddev	6.1	8.8	86.	43.9
%RSD	.21922	.10963	.19086	.46852
#1	2778.7	7999.7	44950.	9352.0
#2	2766.9	7985.5	45037.	9355.8
#3	2770.2	7983.8	45122.	9430.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:08:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0022**	**.0004**	F **-.0039**	**.0001**	**.0000**	**-.0003**	**.0000**
Stddev	.0004	.0046	.0010	.0015	.0001	.0000	.0013	.0000
%RSD	105.9	206.5	234.0	38.07	170.9	5.879	431.6	307.9
#1	.0000	.0075	-.0001	-.0026	.0000	.0000	-.0008	.0000
#2	.0007	.0003	.0016	-.0055	.0002	.0000	.0011	.0000
#3	.0004	-.0011	-.0002	-.0036	.0000	.0000	-.0013	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0004**	**-.0005**	**.0009**	**-.0153**	**.0001**	**-.0063**	**.0000**
Stddev	.0000	.0002	.0003	.0015	.0089	.0009	.0088	.0000
%RSD	108.6	41.00	59.63	171.4	58.25	1484.	140.9	122.1
#1	.0000	-.0003	-.0002	.0025	-.0209	.0009	-.0015	.0001
#2	.0000	-.0006	-.0008	.0003	-.0200	-.0009	-.0008	.0000
#3	.0001	-.0003	-.0005	-.0003	-.0050	.0002	-.0164	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0545**	**-.0001**	**-.0004**	**.0012**	**-.0004**	**.0011**	**.0001**
Stddev	.0001	.0098	.0001	.0003	.0007	.0012	.0007	.0001
%RSD	103.6	17.89	206.0	71.75	60.66	310.1	61.29	91.37
#1	.0000	-.0587	.0000	-.0006	.0016	-.0016	.0006	.0002
#2	.0001	-.0615	.0000	-.0001	.0016	-.0001	.0009	.0001
#3	.0002	-.0434	-.0002	-.0005	.0004	.0007	.0019	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:08:57 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0009**	**.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0000
%RSD	84.83	55.08	24.12	374.1	18.94
#1	.0000	.0002	-.0007	-.0001	.0001
#2	.0001	.0003	-.0011	.0003	.0002
#3	.0001	.0001	-.0008	.0000	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3222.2**	**8344.3**	**46816.**	**9451.6**
Stddev	4.3	16.9	62.	65.8
%RSD	.13401	.20274	.13225	.69580
#1	3218.6	8328.6	46865.	9511.9
#2	3227.0	8362.2	46837.	9461.4
#3	3220.9	8342.1	46747.	9381.4

Zoom In Zoom Out

Sample Name: FC10958-5 Acquired: 11/8/2023 15:14:00 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**387.9**	**.1154**	F **-.1066**	**3.594**	**.0073**	**128.4**	**-.0037**
Stddev	.0009	1.2	.0016	.0102	.016	.0002	.4	.0004
%RSD	17.03	.2991	1.387	9.596	.4375	2.166	.3299	10.85
#1	.0045	389.2	.1147	-.1061	3.609	.0071	128.8	-.0039
#2	.0056	387.5	.1172	-.0967	3.597	.0072	128.5	-.0032
#3	.0064	387.0	.1142	-.1171	3.577	.0074	128.0	-.0039

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3315**	**1.533**	**.4835**	**606.3**	**29.89**	**.3408**	**229.6**	**10.43**
Stddev	.0010	.003	.0007	7.5	.18	.0078	.7	.04
%RSD	.3067	.2118	.1506	1.245	.6167	2.300	.2907	.3385
#1	.3323	1.533	.4838	609.6	30.01	.3491	230.3	10.42
#2	.3303	1.536	.4841	597.6	29.68	.3398	228.9	10.47
#3	.3317	1.529	.4827	611.6	29.98	.3335	229.5	10.40

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**4.497**	**2.288**	**.1147**	**.0351**	**.0110**	**5.753**	**.0317**
Stddev	.0001	.036	.000	.0034	.0019	.0049	.009	.0008
%RSD	13.53	.8091	.0122	2.973	5.311	45.16	.1632	2.409
#1	.0008	4.512	2.288	.1154	.0356	.0164	5.764	.0317
#2	.0008	4.455	2.288	.1177	.0368	.0067	5.751	.0324
#3	.0006	4.523	2.288	.1110	.0331	.0099	5.745	.0309

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.5590**	F **28.03**	**.0043**	**1.064**	**1.118**
Stddev	.0011	.15	.0036	.003	.003
%RSD	.1997	.5409	83.36	.3078	.2623
#1	.5589	28.09	.0083	1.067	1.122
#2	.5580	28.15	.0012	1.064	1.118
#3	.5602	27.86	.0035	1.060	1.116

Zoom In Zoom Out

Sample Name: FC10958-5 Acquired: 11/8/2023 15:14:00 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2825.4**	**9493.8**	**52967.**	**10897.**
Stddev	9.1	28.6	93.	45.
%RSD	.32314	.30157	.17512	.41479
#1	2816.1	9468.4	53074.	10924.
#2	2825.7	9488.1	52911.	10923.
#3	2834.3	9524.8	52916.	10845.

Zoom In Zoom Out

Sample Name: FC10959-1 Acquired: 11/8/2023 15:19:24 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017**	**.0135**	**1.039**	F **-.0126**	**.0169**	**.0000**	**2.359**	**-.0002**
Stddev	.0003	.0080	.002	.0005	.0002	.000	.004	.0001
%RSD	15.76	59.39	.1788	3.758	.9207	104900.	.1709	27.37
#1	.0019	.0227	1.041	-.0132	.0168	.0000	2.357	-.0003
#2	.0016	.0076	1.038	-.0125	.0171	.0000	2.356	-.0002
#3	.0014	.0103	1.038	-.0122	.0170	.0000	2.363	-.0002

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0031**	**-.0003**	**25.28**	**.6847**	**.0023**	**.1381**	F **9.669**
Stddev	.0001	.0001	.0003	.09	.0389	.0018	.0019	.147
%RSD	1.029	3.378	106.8	.3473	5.686	77.95	1.354	1.525
#1	.0063	.0030	.0000	25.36	.7129	.0039	.1381	9.794
#2	.0062	.0032	-.0006	25.31	.7010	.0004	.1399	9.506
#3	.0063	.0032	-.0003	25.19	.6403	.0026	.1362	9.707

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.3518**	**.0009**	F **-.0061**	**.0011**	**.0063**	**.4211**	**.0203**
Stddev	.0001	.0040	.0002	.0004	.0008	.0015	.0006	.0004
%RSD	54.89	1.148	23.99	6.809	71.58	23.07	.1395	2.017
#1	.0001	.3479	.0009	-.0061	.0004	.0050	.4217	.0202
#2	.0002	.3560	.0010	-.0057	.0019	.0062	.4212	.0199
#3	.0001	.3516	.0006	-.0066	.0010	.0079	.4205	.0207

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0342**	**.0006**	**.0092**	**-.0005**	**.0022**
Stddev	.0001	.0002	.0016	.0000	.0000
%RSD	.3124	24.14	16.98	7.834	1.168
#1	.0342	.0007	.0084	-.0005	.0021
#2	.0343	.0005	.0111	-.0006	.0022
#3	.0341	.0007	.0083	-.0005	.0021

Zoom In Zoom Out

Sample Name: FC10959-1 Acquired: 11/8/2023 15:19:24 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3212.9**	**8435.7**	**47972.**	**9655.0**
Stddev	6.0	9.4	428.	47.5
%RSD	.18523	.11172	.89177	.49211
#1	3215.5	8433.6	47676.	9608.8
#2	3206.1	8427.5	48463.	9652.5
#3	3217.0	8446.0	47778.	9703.7

Zoom In Zoom Out

Sample Name: FC10714-11F Acquired: 11/8/2023 15:24:32 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0027**	**.6906**	**.0221**	**-.1295**	**.2727**	**.0011**	**253.7**	**-.0002**	**-.0107**
Stddev	.0192	.3440	.0708	.0392	.0192	.0039	.5	.0011	.0014
%RSD	713.7	49.82	320.6	30.26	7.030	340.1	.1828	511.8	12.93
#1	-.0199	.7481	.0302	-.1070	.2879	-.0028	254.1	-.0013	-.0092
#2	.0181	.3214	-.0524	-.1068	.2792	.0013	253.2	.0009	-.0118
#3	-.0062	1.002	.0885	-.1748	.2512	.0050	253.9	-.0003	-.0113

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0331**	**-.0401**	**5.679**	**45.12**	**.0027**	**207.0**	**3.326**	**-.0154**	**1478.**
Stddev	.0191	.0094	.034	1.66	.1396	1.3	.013	.0106	5.
%RSD	57.73	23.44	.6001	3.671	5165.	.6271	.4012	68.49	.3680
#1	-.0439	-.0474	5.674	46.22	.1482	206.0	3.329	-.0203	1471.
#2	-.0110	-.0295	5.648	43.22	-.0101	208.5	3.338	-.0033	1481.
#3	-.0444	-.0434	5.716	45.94	-.1300	206.6	3.312	-.0227	1480.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0004**	**.1001**	**-.1980**	**12.40**	**-.0416**	**2.247**	**.0429**	**-.1399**
Stddev	.0137	.0054	.0428	.1517	.05	.0040	.011	.0051	.0363
%RSD	478.1	1322.	42.74	76.61	.3703	9.721	.4788	11.80	25.95
#1	.0145	-.0057	.0582	-.3645	12.44	-.0459	2.236	.0483	-.1804
#2	-.0123	.0044	.1437	-.1617	12.40	-.0379	2.248	.0421	-.1290
#3	.0064	.0025	.0986	-.0678	12.35	-.0411	2.258	.0383	-.1103

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0131**	**.0189**
Stddev	.0095	.0026
%RSD	72.19	13.85
#1	-.0108	.0206
#2	-.0236	.0203
#3	-.0050	.0159

Zoom In Zoom Out

Sample Name: FC10714-11F Acquired: 11/8/2023 15:24:32 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3197.1**	**8300.8**	**46521.**	**9419.7**
Stddev	14.2	22.0	124.	55.6
%RSD	.44408	.26534	.26674	.59076
#1	3213.4	8325.8	46627.	9479.8
#2	3188.2	8284.3	46384.	9409.5
#3	3189.5	8292.3	46550.	9369.9

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 15:29:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0703**	**.0003**	**-.0097**	**.1883**	**.0002**	**7.386**	**-.0001**	**.0000**
Stddev	.0016	.0571	.0033	.0040	.0009	.0002	.013	.0002	.0005
%RSD	210.2	81.27	994.2	41.10	.4911	79.52	.1698	265.0	1807.
#1	.0025	.1235	.0040	-.0067	.1878	.0004	7.388	-.0003	.0003
#2	.0004	.0773	-.0005	-.0081	.1894	.0002	7.373	.0001	-.0005
#3	-.0006	.0100	-.0025	-.0142	.1878	.0000	7.398	.0000	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**.0235**	**.0553**	**.0191**	**-.0138**	**.2894**	**.0053**	**.0000**	**100.6**
Stddev	.0016	.0011	.0023	.1337	.0052	.0317	.0001	.0008	.3
%RSD	322.5	4.798	4.248	699.6	38.07	10.94	1.859	116000.	.3039
#1	-.0005	.0223	.0528	.1246	-.0141	.3258	.0052	.0009	100.4
#2	-.0022	.0239	.0556	-.1313	-.0188	.2746	.0053	-.0004	100.6
#3	.0011	.0244	.0574	.0640	-.0084	.2679	.0054	-.0005	101.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0338**	**.0006**	**.0069**	**.0016**	**.0923**	**.0008**	**.0936**	**.0006**	**-.0028**
Stddev	.0006	.0013	.0026	.0091	.0038	.0013	.0008	.0004	.0026
%RSD	1.747	217.1	37.30	562.3	4.111	164.3	.8323	69.14	92.37
#1	.0331	.0016	.0070	-.0024	.0930	.0021	.0930	.0004	.0000
#2	.0343	-.0008	.0043	-.0048	.0882	-.0005	.0933	.0002	-.0032
#3	.0339	.0009	.0095	.0121	.0957	.0009	.0945	.0010	-.0051

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0011**	**.2042**
Stddev	.0006	.0001
%RSD	53.03	.0734
#1	-.0016	.2043
#2	-.0005	.2043
#3	-.0011	.2040

Zoom In Zoom Out

Sample Name: FC10483-2R Acquired: 11/8/2023 15:29:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3153.8**	**8986.0**	**50666.**	**10226.**
Stddev	1.3	6.1	71.	69.
%RSD	.03978	.06780	.14027	.67849
#1	3152.7	8989.4	50690.	10298.
#2	3155.2	8989.6	50722.	10221.
#3	3153.6	8978.9	50586.	10160.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:34:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**41.20**	**2.034**	**2.015**	**2.023**	**2.013**	**40.19**	**1.991**	**2.015**
Stddev	.0005	.17	.004	.004	.009	.009	.20	.004	.003
%RSD	.2078	.4049	.1913	.2000	.4406	.4347	.4956	.1976	.1235
#1	.2502	41.12	2.036	2.019	2.023	2.011	40.10	1.995	2.017
#2	.2512	41.39	2.037	2.011	2.032	2.022	40.42	1.991	2.016
#3	.2509	41.08	2.030	2.015	2.015	2.005	40.05	1.987	2.012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**1.962**	**40.33**	**40.53**	**2.031**	**39.44**	**1.991**	**2.001**	**40.95**
Stddev	.003	.002	.21	.22	.011	.35	.005	.003	.25
%RSD	.1656	.0801	.5298	.5362	.5430	.8997	.2613	.1311	.6106
#1	2.003	1.961	40.25	40.45	2.029	39.24	1.997	2.003	40.81
#2	2.010	1.961	40.57	40.78	2.043	39.85	1.989	2.002	41.24
#3	2.005	1.964	40.16	40.36	2.021	39.24	1.988	1.998	40.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**2.026**	**2.061**	**1.982**	**2.308**	**2.026**	**2.045**	**2.006**	**2.047**
Stddev	.002	.003	.004	.005	.002	.003	.009	.004	.001
%RSD	.0851	.1444	.1762	.2620	.1006	.1359	.4223	.1979	.0555
#1	2.042	2.025	2.064	1.988	2.311	2.027	2.053	2.004	2.047
#2	2.042	2.029	2.062	1.980	2.308	2.028	2.036	2.010	2.047
#3	2.039	2.024	2.057	1.978	2.306	2.023	2.045	2.003	2.045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 15:34:38 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.980**	**2.023**
Stddev	.009	.004
%RSD	.4331	.1831
#1	1.977	2.026
#2	1.990	2.026
#3	1.973	2.019
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2764.7**	**7985.1**	**45138.**	**9331.7**
Stddev	3.5	11.5	120.	86.7
%RSD	.12641	.14443	.26501	.92924
#1	2764.3	7981.9	45193.	9376.4
#2	2761.4	7975.5	45000.	9231.7
#3	2768.3	7997.9	45220.	9386.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:39:48 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0053**	**-.0001**	F **-.0033**	**.0001**	**.0001**	**.0003**	**.0000**
Stddev	.0003	.0036	.0009	.0023	.0002	.0000	.0013	.0000
%RSD	223.8	66.73	783.8	71.75	143.1	13.61	510.3	225.3
#1	.0002	.0052	-.0001	-.0060	.0000	.0001	-.0012	.0000
#2	.0003	.0090	.0008	-.0019	.0003	.0001	.0013	.0001
#3	-.0002	.0019	-.0010	-.0019	.0001	.0001	.0006	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**-.0002**	**.0012**	**.0013**	**.0004**	**-.0069**	**.0000**
Stddev	.0000	.0001	.0005	.0008	.0564	.0022	.0069	.0000
%RSD	141.8	43.13	210.1	69.85	4491.	500.4	101.0	48.17
#1	.0000	-.0002	.0002	.0008	.0323	.0029	-.0010	.0000
#2	.0001	-.0002	-.0007	.0006	-.0639	-.0013	-.0145	.0001
#3	.0000	-.0001	-.0002	.0022	.0353	-.0003	-.0051	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0665**	**-.0002**	**-.0002**	**.0017**	**.0003**	**.0013**	**.0001**
Stddev	.0000	.0088	.0001	.0004	.0006	.0011	.0001	.0001
%RSD	15.89	13.21	71.03	170.4	34.23	327.1	5.895	134.3
#1	.0003	-.0688	-.0003	-.0004	.0010	-.0005	.0014	.0002
#2	.0002	-.0739	-.0002	.0002	.0020	.0016	.0014	.0000
#3	.0002	-.0568	.0000	-.0004	.0020	.0000	.0012	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 15:39:48 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0005**	**.0000**	**.0002**
Stddev	.0001	.0001	.0011	.000	.0001
%RSD	121.0	32.21	226.6	1513.	29.73
#1	.0001	.0003	.0006	-.0001	.0002
#2	.0000	.0002	-.0016	-.0001	.0002
#3	.0002	.0002	-.0004	.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3229.0**	**8362.7**	**47080.**	**9402.8**
Stddev	7.0	16.3	118.	33.7
%RSD	.21717	.19445	.25161	.35852
#1	3229.1	8360.5	47031.	9366.5
#2	3236.0	8380.0	47215.	9409.0
#3	3222.0	8347.7	46994.	9433.1

Zoom In Zoom Out

Sample Name: MP43108-B1 Acquired: 11/8/2023 16:07:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1922**	**24.07**	**.1952**	**.4302**	**.1881**	**.1934**	**42.11**	**.1862**	**.1874**
Stddev	.0005	.06	.0004	.0045	.0004	.0005	.04	.0002	.0003
%RSD	.2494	.2318	.2057	1.036	.2227	.2542	.0959	.1226	.1781
#1	.1927	24.02	.1955	.4271	.1881	.1928	42.14	.1860	.1871
#2	.1917	24.13	.1948	.4353	.1886	.1937	42.14	.1864	.1878
#3	.1923	24.08	.1953	.4281	.1878	.1936	42.07	.1863	.1873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1952**	**.1887**	**42.97**	**42.19**	**.5156**	**41.59**	**.1826**	**.6540**	**41.03**
Stddev	.0002	.0007	.07	.06	.0041	.08	.0002	.0010	.13
%RSD	.1006	.3591	.1665	.1339	.8028	.1924	.1184	.1604	.3284
#1	.1951	.1879	42.90	42.24	.5162	41.51	.1828	.6529	40.89
#2	.1951	.1890	42.99	42.22	.5193	41.58	.1826	.6541	41.16
#3	.1955	.1892	43.04	42.13	.5111	41.67	.1824	.6550	41.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1917**	**.1836**	**.1984**	**.1819**	**.5081**	**.4829**	**.5151**	**.4793**	**.1887**
Stddev	.0002	.0012	.0008	.0007	.0004	.0009	.0013	.0005	.0017
%RSD	.1152	.6517	.3917	.4065	.0715	.1774	.2581	.1050	.9052
#1	.1915	.1849	.1992	.1828	.5084	.4824	.5138	.4788	.1891
#2	.1916	.1835	.1977	.1817	.5082	.4838	.5165	.4798	.1903
#3	.1919	.1825	.1983	.1813	.5077	.4823	.5150	.4793	.1869
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43108-B1 Acquired: 11/8/2023 16:07:51 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1869**	**.1907**
Stddev	.0006	.0003
%RSD	.3077	.1474
#1	.1875	.1906
#2	.1870	.1911
#3	.1864	.1905
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2834.8**	**8112.1**	**45731.**	**9306.0**
Stddev	3.6	10.6	168.	66.4
%RSD	.12534	.13084	.36793	.71324
#1	2832.4	8121.1	45563.	9257.0
#2	2838.9	8114.7	45729.	9381.6
#3	2833.1	8100.4	45900.	9279.6

Zoom In Zoom Out

Sample Name: FC10999-1 Acquired: 11/8/2023 16:12:48 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.3211**	**.0039**	**.1114**	**.0321**	**.0000**	**96.17**	**.0000**	**.0001**
Stddev	.0005	.0051	.0010	.0015	.0001	.0000	.25	.000	.0000
%RSD	97.63	1.594	26.24	1.343	.3098	45.11	.2596	107.7	21.45
#1	.0009	.3175	.0044	.1105	.0320	.0000	96.18	-.0001	.0002
#2	.0008	.3188	.0047	.1131	.0322	.0001	95.91	.0000	.0001
#3	-.0001	.3269	.0028	.1105	.0322	.0001	96.41	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0008**	**.2367**	**3.186**	**.0041**	**14.85**	**.0194**	**.0028**	**69.82**
Stddev	.0002	.0003	.0018	.016	.0025	.06	.0002	.0001	.07
%RSD	36.61	34.34	.7530	.5099	61.17	.4342	.9596	2.214	.0950
#1	.0008	-.0005	.2385	3.196	.0070	14.90	.0195	.0029	69.86
#2	.0004	-.0008	.2349	3.167	.0021	14.86	.0196	.0028	69.86
#3	.0006	-.0010	.2366	3.194	.0033	14.78	.0192	.0028	69.75

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0009**	**.0016**	**-.0017**	**3.270**	**.0006**	**.9018**	**.0069**	**-.0016**
Stddev	.0001	.0001	.0010	.0018	.009	.0006	.0020	.0012	.0014
%RSD	46.63	17.02	62.13	110.8	.2807	100.6	.2198	17.01	92.49
#1	.0002	-.0009	.0007	-.0024	3.274	.0009	.9038	.0075	-.0004
#2	.0002	-.0010	.0027	.0004	3.276	-.0001	.9017	.0076	-.0032
#3	.0004	-.0007	.0015	-.0031	3.259	.0009	.8998	.0055	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0019**	**.0143**
Stddev	.0001	.0000
%RSD	7.512	.3469
#1	.0020	.0143
#2	.0018	.0142
#3	.0018	.0143

Zoom In Zoom Out

Sample Name: FC10999-1 Acquired: 11/8/2023 16:12:48 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2930.6**	**8038.4**	**45476.**	**9242.6**
Stddev	6.9	25.9	215.	20.8
%RSD	.23540	.32166	.47267	.22528
#1	2934.1	8055.4	45268.	9239.6
#2	2935.1	8051.2	45461.	9264.7
#3	2922.7	8008.7	45698.	9223.4

Zoom In Zoom Out

Sample Name: FC10999-2 Acquired: 11/8/2023 16:17:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.3746**	**.0034**	**.1268**	**.0306**	**.0000**	**92.15**	**.0000**	**.0002**
Stddev	.0003	.0068	.0004	.0008	.0001	.0000	.45	.000	.0001
%RSD	199.9	1.817	11.18	.6080	.3275	1180.	.4847	62.52	41.29
#1	.0000	.3753	.0037	.1277	.0305	.0000	91.83	.0000	.0002
#2	.0005	.3675	.0036	.1263	.0306	.0000	91.97	-.0001	.0002
#3	-.0001	.3811	.0030	.1264	.0307	.0000	92.66	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**-.0006**	**.1336**	**3.828**	**.0059**	**16.44**	**.0234**	**.0030**	**78.76**
Stddev	.0001	.0003	.0005	.024	.0015	.07	.0000	.0001	.44
%RSD	14.47	53.28	.3369	.6252	24.85	.4489	.1678	2.996	.5552
#1	.0009	-.0006	.1341	3.846	.0073	16.50	.0234	.0030	79.10
#2	.0007	-.0008	.1335	3.801	.0044	16.47	.0234	.0030	78.91
#3	.0009	-.0002	.1332	3.837	.0058	16.36	.0234	.0031	78.27

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0010**	**.0015**	**-.0007**	**3.081**	**.0004**	**.8917**	**.0122**	**-.0013**
Stddev	.0002	.0003	.0005	.0019	.010	.0003	.0019	.0003	.0018
%RSD	142.2	26.48	33.11	259.3	.3261	76.30	.2107	2.510	136.0
#1	.0001	-.0013	.0012	-.0007	3.091	.0003	.8932	.0119	.0007
#2	.0003	-.0008	.0012	.0011	3.071	.0002	.8923	.0125	-.0021
#3	.0000	-.0009	.0021	-.0026	3.082	.0007	.8896	.0123	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0015**	**.0142**
Stddev	.0001	.0001
%RSD	10.12	.5908
#1	.0015	.0142
#2	.0016	.0141
#3	.0013	.0143

Zoom In Zoom Out

Sample Name: FC10999-2 Acquired: 11/8/2023 16:17:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2920.4**	**7997.4**	**45640.**	**9250.0**
Stddev	4.6	21.6	86.	80.3
%RSD	.15617	.27049	.18791	.86785
#1	2915.6	7976.0	45541.	9188.2
#2	2920.7	7996.8	45689.	9221.0
#3	2924.7	8019.3	45690.	9340.7

Zoom In Zoom Out

Sample Name: FC10999-1A Acquired: 11/8/2023 16:23:09 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.2674**	**.0030**	**.1163**	**.0333**	**.0001**	**95.79**	**-.0001**	**.0002**
Stddev	.0004	.0122	.0010	.0018	.0005	.0000	1.35	.0001	.0001
%RSD	278.7	4.572	34.26	1.573	1.527	67.19	1.404	93.92	35.64
#1	.0005	.2748	.0018	.1157	.0338	.0001	94.25	.0000	.0002
#2	-.0002	.2533	.0034	.1148	.0328	.0001	96.37	-.0001	.0003
#3	.0001	.2742	.0037	.1183	.0333	.0000	96.75	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0006**	**.2131**	**3.258**	**.0039**	**14.94**	**.0200**	**.0026**	**69.61**
Stddev	.0000	.0002	.0032	.044	.0007	.10	.0001	.0000	.31
%RSD	5.049	37.19	1.506	1.355	17.17	.6627	.2803	1.585	.4491
#1	.0006	-.0009	.2167	3.303	.0039	14.87	.0200	.0027	69.25
#2	.0006	-.0005	.2104	3.215	.0032	14.91	.0200	.0026	69.78
#3	.0006	-.0005	.2123	3.254	.0046	15.06	.0201	.0026	69.81

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0015**	**.0014**	**-.0011**	**3.225**	**.0004**	**.9068**	**.0059**	**-.0028**
Stddev	.0001	.0002	.0008	.0028	.008	.0001	.0026	.0001	.0015
%RSD	46.18	10.75	55.50	249.4	.2371	22.46	.2818	.9831	55.80
#1	.0002	-.0013	.0006	-.0012	3.220	.0003	.9039	.0058	-.0042
#2	.0002	-.0017	.0022	.0017	3.233	.0005	.9080	.0059	-.0011
#3	.0004	-.0015	.0015	-.0039	3.220	.0004	.9086	.0059	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0019**	**.0014**
Stddev	.0000	.0000
%RSD	1.741	2.367
#1	.0019	.0014
#2	.0019	.0014
#3	.0019	.0014

Zoom In Zoom Out

Sample Name: FC10999-1A Acquired: 11/8/2023 16:23:09 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2922.3**	**8009.7**	**45710.**	**9397.2**
Stddev	6.2	22.7	97.	53.1
%RSD	.21054	.28324	.21116	.56550
#1	2917.1	8018.6	45687.	9433.6
#2	2929.1	8026.6	45816.	9421.9
#3	2920.7	7983.9	45627.	9336.3

Zoom In Zoom Out

Sample Name: FC10999-2A Acquired: 11/8/2023 16:28:19 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.5099**	**.0031**	**.1281**	**.0308**	**.0001**	**91.22**	**.0000**	**.0002**
Stddev	.0001	.0154	.0005	.0014	.0003	.0000	.95	.000	.0001
%RSD	40.51	3.013	16.63	1.098	.9739	56.15	1.045	207.1	42.18
#1	.0002	.4953	.0036	.1276	.0305	.0001	91.57	.0001	.0002
#2	.0001	.5084	.0029	.1269	.0311	.0001	91.95	-.0001	.0001
#3	.0003	.5259	.0027	.1296	.0309	.0000	90.14	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0009**	**.1552**	**3.872**	**.0075**	**16.55**	**.0233**	**.0032**	**78.68**
Stddev	.0001	.0004	.0016	.031	.0014	.03	.0001	.0001	.16
%RSD	8.976	43.45	1.001	.8002	19.26	.1860	.3502	4.271	.2014
#1	.0011	-.0013	.1560	3.846	.0084	16.54	.0234	.0031	78.51
#2	.0010	-.0007	.1534	3.907	.0082	16.58	.0233	.0033	78.83
#3	.0011	-.0007	.1563	3.863	.0058	16.52	.0234	.0030	78.70

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0009**	**.0017**	**-.0012**	**3.191**	**.0003**	**.9009**	**.0132**	**-.0015**
Stddev	.0000	.0002	.0015	.0017	.014	.0001	.0013	.0003	.0004
%RSD	14.63	19.35	87.06	135.2	.4270	26.85	.1452	2.123	30.21
#1	.0002	-.0008	.0033	-.0024	3.193	.0003	.8994	.0134	-.0010
#2	.0002	-.0012	.0013	-.0020	3.203	.0004	.9017	.0129	-.0018
#3	.0003	-.0009	.0005	.0007	3.176	.0004	.9016	.0132	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0013**	**.0015**
Stddev	.0000	.0000
%RSD	2.443	2.802
#1	.0013	.0015
#2	.0013	.0015
#3	.0014	.0014

Zoom In Zoom Out

Sample Name: FC10999-2A Acquired: 11/8/2023 16:28:19 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2920.2**	**8028.4**	**45896.**	**9351.2**
Stddev	4.4	3.1	95.	63.6
%RSD	.15203	.03858	.20795	.68065
#1	2925.3	8031.6	45793.	9285.5
#2	2917.2	8028.4	45982.	9355.5
#3	2918.2	8025.4	45914.	9412.6

Zoom In Zoom Out

Sample Name: FC11006-4 Acquired: 11/8/2023 16:33:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.8022**	**.0001**	**.0161**	**.0136**	**.0000**	**14.82**	**.0000**	**.0002**
Stddev	.0002	.0097	.0007	.0019	.0003	.0000	.02	.000	.0001
%RSD	301.0	1.214	1053.	11.99	2.139	197.7	.1249	483.9	63.99
#1	.0002	.7958	-.0004	.0158	.0138	.0000	14.84	.0000	.0003
#2	-.0003	.7973	-.0003	.0182	.0136	.0000	14.81	.0001	.0001
#3	-.0001	.8134	.0009	.0144	.0133	.0000	14.82	-.0001	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**-.0008**	**.2243**	**.6404**	**.0021**	**6.717**	**.0158**	**.0009**	**41.39**
Stddev	.0002	.0001	.0024	.0306	.0019	.018	.0001	.0001	.12
%RSD	32.71	12.46	1.091	4.786	87.27	.2709	.6652	9.611	.2885
#1	.0008	-.0008	.2266	.6070	.0028	6.704	.0158	.0008	41.47
#2	.0004	-.0008	.2217	.6470	.0000	6.709	.0159	.0010	41.25
#3	.0006	-.0007	.2247	.6672	.0036	6.738	.0157	.0009	41.43

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.0003**	**.0016**	**-.0005**	**1.724**	**.0000**	**.0288**	**.0135**	**-.0022**
Stddev	.0000	.0002	.0007	.0010	.007	.000	.0001	.0010	.0006
%RSD	1.653	71.41	47.38	209.2	.4169	287.1	.2953	7.469	26.41
#1	.0025	.0001	.0014	.0006	1.722	.0001	.0287	.0147	-.0015
#2	.0025	.0005	.0009	-.0012	1.732	-.0001	.0289	.0130	-.0025
#3	.0026	.0004	.0024	-.0008	1.718	-.0001	.0288	.0130	-.0025

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0011**	**.0040**
Stddev	.0000	.0000
%RSD	3.695	.8452
#1	.0012	.0040
#2	.0011	.0040
#3	.0011	.0040

Zoom In Zoom Out

Sample Name: FC11006-4 Acquired: 11/8/2023 16:33:31 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3112.6**	**8343.6**	**47556.**	**9516.0**
Stddev	4.1	11.5	299.	47.3
%RSD	.13045	.13759	.62789	.49689
#1	3116.9	8356.5	47284.	9475.8
#2	3112.0	8339.7	47508.	9568.1
#3	3108.9	8334.6	47876.	9504.0

Zoom In Zoom Out

Sample Name: FC11006-5 Acquired: 11/8/2023 16:38:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**29.15**	**.0026**	**.0154**	**.1177**	**.0008**	**15.98**	**-.0001**	**.0007**
Stddev	.0001	.04	.0000	.0011	.0006	.0000	.03	.0000	.0000
%RSD	55.26	.1527	1.864	7.442	.5258	5.559	.1671	27.04	5.270
#1	.0000	29.11	.0025	.0149	.1171	.0008	15.95	.0000	.0006
#2	-.0002	29.19	.0025	.0167	.1183	.0008	16.00	-.0001	.0007
#3	-.0001	29.13	.0026	.0146	.1176	.0008	15.98	-.0001	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0355**	**-.0003**	**2.287**	**2.412**	**.0048**	**4.020**	**.0195**	**.0007**	**28.23**
Stddev	.0004	.0003	.006	.067	.0019	.017	.0000	.0001	.20
%RSD	1.101	82.13	.2733	2.788	39.15	.4186	.2386	12.46	.7158
#1	.0350	-.0002	2.280	2.338	.0069	4.015	.0195	.0007	28.02
#2	.0357	-.0001	2.289	2.428	.0037	4.039	.0195	.0007	28.42
#3	.0357	-.0007	2.291	2.470	.0037	4.007	.0196	.0008	28.24

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**.0096**	**.0012**	**-.0011**	**8.697**	**.0004**	**.1756**	**.2722**	**-.0016**
Stddev	.0001	.0002	.0013	.0024	.008	.0001	.0008	.0019	.0002
%RSD	2.057	1.984	114.2	225.6	.0949	28.56	.4375	.6947	12.38
#1	.0037	.0095	.0010	-.0011	8.704	.0005	.1749	.2700	-.0014
#2	.0039	.0098	.0026	-.0034	8.699	.0004	.1764	.2736	-.0018
#3	.0038	.0096	-.0001	.0014	8.687	.0003	.1754	.2730	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0093**	**.0084**
Stddev	.0003	.0001
%RSD	2.992	.8755
#1	.0090	.0085
#2	.0092	.0085
#3	.0096	.0084

Zoom In Zoom Out

Sample Name: FC11006-5 Acquired: 11/8/2023 16:38:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3061.1**	**8775.7**	**49267.**	**9917.9**
Stddev	4.4	18.4	202.	33.4
%RSD	.14394	.20962	.41012	.33644
#1	3056.2	8757.2	49464.	9883.8
#2	3062.5	8794.0	49277.	9950.4
#3	3064.6	8775.9	49060.	9919.5

Zoom In Zoom Out

Sample Name: FC11006-6 Acquired: 11/8/2023 16:43:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**20.63**	**.0021**	**.0254**	**.1202**	**.0003**	**59.45**	**.0000**	**.0009**
Stddev	.0003	.06	.0005	.0012	.0002	.0000	.13	.0000	.0001
%RSD	3794.	.2796	26.77	4.576	.1648	1.547	.2110	352.2	11.18
#1	.0003	20.57	.0015	.0259	.1202	.0003	59.33	.0000	.0010
#2	-.0003	20.64	.0026	.0241	.1200	.0003	59.44	.0000	.0008
#3	.0001	20.68	.0021	.0262	.1204	.0003	59.58	.0000	.0010

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0202**	**-.0006**	**1.951**	**15.34**	**.0077**	**13.32**	**.0300**	**.0010**	**29.70**
Stddev	.0001	.0002	.010	.03	.0018	.07	.0001	.0001	.10
%RSD	.3389	39.55	.5172	.1829	22.98	.5046	.4040	14.60	.3519
#1	.0203	-.0005	1.939	15.31	.0093	13.25	.0301	.0010	29.59
#2	.0202	-.0004	1.955	15.34	.0058	13.33	.0300	.0011	29.69
#3	.0201	-.0008	1.958	15.37	.0080	13.38	.0299	.0008	29.80

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0062**	**.0069**	**.0028**	**-.0025**	**7.506**	**.0006**	**.2631**	**.2562**	**-.0024**
Stddev	.0001	.0006	.0012	.0010	.035	.0005	.0016	.0059	.0008
%RSD	.9092	9.228	44.42	39.07	.4708	85.50	.6008	2.289	34.54
#1	.0062	.0062	.0034	-.0028	7.540	.0001	.2623	.2622	-.0015
#2	.0063	.0071	.0014	-.0032	7.507	.0005	.2620	.2561	-.0032
#3	.0061	.0075	.0036	-.0014	7.470	.0011	.2649	.2504	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0070**	**.0087**
Stddev	.0002	.0000
%RSD	2.523	.4359
#1	.0070	.0087
#2	.0071	.0087
#3	.0068	.0087

Zoom In Zoom Out

Sample Name: FC11006-6 Acquired: 11/8/2023 16:43:34 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2956.8**	**8543.3**	**48164.**	**9700.1**
Stddev	4.6	10.8	66.	72.9
%RSD	.15439	.12652	.13696	.75182
#1	2961.1	8551.4	48131.	9757.5
#2	2957.3	8547.5	48240.	9724.9
#3	2952.1	8531.0	48121.	9618.1

Zoom In Zoom Out

Sample Name: FC11006-7 Acquired: 11/8/2023 16:48:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.2388**	**-.0007**	**.0168**	**.0061**	**.0000**	**6.930**	**-.0001**	**.0002**
Stddev	.0002	.0193	.0013	.0016	.0004	.0000	.618	.0000	.0001
%RSD	225.9	8.084	181.9	9.728	6.635	62.88	8.923	16.78	32.51
#1	.0001	.2508	-.0007	.0149	.0062	.0000	7.288	-.0001	.0003
#2	-.0003	.2165	.0006	.0176	.0056	.0000	6.216	-.0001	.0002
#3	.0000	.2490	-.0019	.0179	.0064	.0001	7.286	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0008**	**1.705**	**.6090**	**-.0010**	**1.018**	**.0268**	**.0014**	**6.657**
Stddev	.0002	.0004	.157	.0367	.0007	.095	.0000	.0001	.601
%RSD	121.9	52.99	9.211	6.021	74.89	9.347	.1127	7.830	9.034
#1	-.0001	-.0013	1.801	.6316	-.0018	1.070	.0268	.0014	7.014
#2	.0003	-.0005	1.524	.5667	-.0006	.9082	.0269	.0013	5.963
#3	.0002	-.0006	1.790	.6287	-.0005	1.076	.0268	.0015	6.995

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0037**	**-.0002**	**.0023**	**.0029**	**1.126**	**.0003**	**.0124**	**.0030**	**-.0017**
Stddev	.0001	.0004	.0009	.0012	.003	.0003	.0011	.0001	.0008
%RSD	3.666	212.1	38.54	39.90	.2254	93.52	8.899	1.968	50.75
#1	.0037	-.0006	.0034	.0036	1.123	.0006	.0131	.0030	-.0022
#2	.0039	-.0002	.0019	.0035	1.127	.0002	.0111	.0031	-.0007
#3	.0036	.0002	.0017	.0016	1.128	.0001	.0130	.0030	-.0021

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0009**	**.0112**
Stddev	.0003	.0001
%RSD	31.78	.4925
#1	.0006	.0111
#2	.0012	.0111
#3	.0010	.0112

Zoom In Zoom Out

Sample Name: FC11006-7 Acquired: 11/8/2023 16:48:35 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3201.1**	**8361.8**	**47492.**	**9804.1**
Stddev	1.0	5.5	168.	797.4
%RSD	.03123	.06533	.35340	8.1330
#1	3201.2	8365.8	47679.	9321.2
#2	3202.0	8364.0	47445.	10724.
#3	3200.0	8355.6	47353.	9366.6

Zoom In Zoom Out

Sample Name: FC10789-11 Acquired: 11/8/2023 16:53:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0850**	**.0000**	**.0057**	**.0128**	**.0000**	**31.66**	**-.0001**	**.0001**
Stddev	.0005	.0142	.001	.0028	.0009	.0000	2.24	.0000	.0001
%RSD	934.5	16.69	1747.	49.06	7.104	117.9	7.080	47.80	144.0
#1	.0007	.0808	.0005	.0027	.0133	.0000	32.86	-.0001	.0001
#2	-.0004	.0733	-.0007	.0064	.0118	.0000	29.08	.0000	.0000
#3	-.0001	.1007	.0001	.0082	.0133	.0000	33.05	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0006**	**.0554**	**.7097**	**-.0008**	**6.070**	**.0007**	**.0028**	**8.593**
Stddev	.0001	.0004	.0052	.0783	.0032	.403	.0000	.0002	.550
%RSD	55.92	73.31	9.311	11.04	401.5	6.632	2.259	5.436	6.404
#1	.0001	.0001	.0576	.7678	.0016	6.266	.0007	.0029	8.889
#2	.0002	.0009	.0495	.6206	-.0045	5.607	.0008	.0028	7.958
#3	.0004	.0008	.0591	.7408	.0004	6.338	.0007	.0026	8.932

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0000**	**.0023**	**.0001**	**1.983**	**.0004**	**.0653**	**.0026**	**-.0019**
Stddev	.0001	.0005	.0007	.0008	.001	.0001	.0044	.0001	.0013
%RSD	10.57	1526.	29.97	1305.	.0633	34.49	6.731	2.990	65.67
#1	.0008	.0000	.0026	.0010	1.983	.0004	.0677	.0026	-.0026
#2	.0009	.0006	.0027	.0000	1.981	.0005	.0602	.0027	-.0005
#3	.0008	-.0005	.0015	-.0007	1.984	.0003	.0679	.0025	-.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.0078**
Stddev	.0001	.0001
%RSD	10.85	.8981
#1	.0007	.0077
#2	.0008	.0078
#3	.0007	.0078

Zoom In Zoom Out

Sample Name: FC10789-11 Acquired: 11/8/2023 16:53:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3119.9**	**8298.8**	**47379.**	**9727.8**
Stddev	4.8	14.8	247.	614.3
%RSD	.15481	.17824	.52056	6.3147
#1	3116.2	8282.8	47611.	9439.0
#2	3118.2	8301.8	47407.	10433.
#3	3125.4	8311.9	47120.	9311.0

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 16:58:40 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2507**	**41.74**	**2.056**	**1.942**	**1.983**	**2.016**	**39.58**	**1.964**	**2.003**
Stddev	.0005	.18	.004	.005	.007	.009	.15	.002	.002
%RSD	.2016	.4260	.1811	.2849	.3310	.4644	.3772	.1167	.1117
#1	.2507	41.78	2.059	1.937	1.983	2.018	39.62	1.967	2.005
#2	.2513	41.90	2.058	1.940	1.990	2.025	39.70	1.963	2.001
#3	.2502	41.55	2.052	1.948	1.977	2.006	39.41	1.963	2.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.001**	**1.929**	**40.67**	**40.29**	**2.040**	**39.15**	**1.946**	**1.989**	**41.28**
Stddev	.004	.008	.17	.16	.014	.17	.018	.002	.32
%RSD	.1944	.4281	.4113	.4035	.6795	.4436	.9376	.0845	.7718
#1	1.997	1.921	40.68	40.30	2.046	39.21	1.934	1.991	41.35
#2	2.005	1.938	40.83	40.45	2.050	39.29	1.967	1.989	41.56
#3	2.003	1.928	40.49	40.12	2.024	38.96	1.937	1.988	40.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.042**	**2.052**	**2.076**	**1.954**	**2.283**	**2.020**	**2.056**	**1.957**	**2.065**
Stddev	.002	.006	.001	.002	.002	.002	.009	.003	.004
%RSD	.1152	.2834	.0627	.0793	.0751	.0821	.4476	.1643	.2172
#1	2.045	2.056	2.076	1.956	2.285	2.022	2.050	1.954	2.067
#2	2.040	2.054	2.077	1.955	2.282	2.020	2.067	1.958	2.068
#3	2.042	2.045	2.074	1.953	2.282	2.019	2.051	1.960	2.060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 16:58:40 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.927**	**2.039**
Stddev	.006	.003
%RSD	.3045	.1490
#1	1.920	2.042
#2	1.929	2.037
#3	1.931	2.037
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2758.7**	**8001.1**	**45704.**	**9240.3**
Stddev	2.6	10.2	72.	44.9
%RSD	.09374	.12764	.15818	.48556
#1	2756.4	7997.5	45769.	9215.7
#2	2758.1	8012.6	45626.	9213.0
#3	2761.5	7993.2	45717.	9292.0

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 17:03:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0040**	**-.0003**	F **-.0024**	**.0000**	**.0001**	**-.0010**	**.0000**
Stddev	.0003	.0033	.0009	.0015	.000	.0000	.0004	.0000
%RSD	298.4	81.84	273.2	62.26	460.4	41.46	35.64	784.3
#1	.0005	.0038	.0000	-.0034	-.0002	.0001	-.0009	.0000
#2	-.0002	.0008	-.0013	-.0031	.0001	.0001	-.0008	.0000
#3	.0001	.0074	.0004	-.0007	.0000	.0001	-.0014	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**-.0008**	**.0009**	**-.0083**	**.0002**	**-.0125**	**.0000**
Stddev	.0001	.000	.0003	.0011	.0351	.0025	.0049	.000
%RSD	295.2	311.7	41.98	120.4	420.2	1033.	39.39	298.1
#1	.0000	.0000	-.0011	.0003	.0143	.0031	-.0073	.0000
#2	.0001	.0000	-.0008	.0021	.0094	-.0006	-.0131	.0000
#3	-.0001	-.0001	-.0005	.0002	-.0487	-.0018	-.0170	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0619**	**-.0001**	**-.0003**	**.0010**	**.0009**	**.0010**	**-.0001**
Stddev	.0000	.0086	.0001	.0001	.0006	.0017	.0004	.0002
%RSD	26.37	13.92	40.27	37.83	58.73	194.4	36.78	242.4
#1	.0001	-.0691	-.0002	-.0003	.0009	.0027	.0007	.0001
#2	.0002	-.0643	-.0001	-.0002	.0016	.0004	.0010	.0000
#3	.0001	-.0524	-.0001	-.0004	.0005	-.0006	.0014	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 17:03:47 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0003**	**.0000**	**.0001**
Stddev	.0001	.0001	.0011	.000	.0000
%RSD	79.66	128.6	358.4	412.2	16.80
#1	.0002	.0001	.0006	.0001	.0001
#2	.0000	.0000	.0000	.0000	.0002
#3	.0000	.0001	-.0015	-.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3202.8**	**8306.0**	**47375.**	**9318.2**
Stddev	1.7	15.4	179.	27.3
%RSD	.05307	.18561	.37810	.29287
#1	3204.7	8313.9	47322.	9287.5
#2	3201.9	8288.3	47575.	9339.6
#3	3201.7	8315.9	47229.	9327.7

Zoom In Zoom Out

Sample Name: FC10789-13 Acquired: 11/8/2023 17:08:51 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1797**	**.0010**	**.0096**	**.0148**	**.0000**	**33.77**	**.0000**	**.0001**
Stddev	.0002	.0106	.0010	.0002	.0001	.0000	.14	.000	.0000
%RSD	102.9	5.905	100.2	2.371	.8094	175.3	.4055	197.4	21.25
#1	.0004	.1781	.0007	.0097	.0146	.0000	33.78	-.0001	.0001
#2	.0001	.1910	.0002	.0093	.0148	.0000	33.64	.0000	.0002
#3	.0000	.1699	.0021	.0097	.0149	.0000	33.91	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0017**	**.1496**	**.6769**	**.0028**	**6.572**	**.0020**	**.0026**	**13.75**
Stddev	.0001	.0002	.0014	.0072	.0014	.031	.0001	.0001	.04
%RSD	14.32	14.06	.9499	1.063	49.72	.4760	3.237	2.392	.3095
#1	.0006	.0018	.1480	.6690	.0030	6.544	.0021	.0025	13.70
#2	.0004	.0019	.1507	.6788	.0040	6.566	.0021	.0026	13.78
#3	.0006	.0014	.1500	.6830	.0013	6.605	.0020	.0026	13.77

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012**	**-.0001**	**.0017**	**-.0004**	**2.247**	**.0005**	**.0788**	**.0051**	**-.0014**
Stddev	.0001	.0006	.0001	.0011	.002	.0003	.0002	.0002	.0009
%RSD	10.03	830.4	7.041	316.6	.0937	52.37	.2826	4.689	63.46
#1	.0011	.0005	.0016	-.0002	2.249	.0004	.0785	.0049	-.0014
#2	.0013	-.0007	.0018	.0007	2.245	.0008	.0789	.0052	-.0005
#3	.0012	.0000	.0017	-.0016	2.246	.0003	.0790	.0053	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.0070**
Stddev	.0002	.0000
%RSD	25.92	.3701
#1	.0010	.0071
#2	.0008	.0070
#3	.0006	.0070

Zoom In Zoom Out

Sample Name: FC10789-13 Acquired: 11/8/2023 17:08:51 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3111.4**	**8267.0**	**47335.**	**9418.5**
Stddev	1.5	15.3	31.	52.8
%RSD	.04745	.18563	.06573	.56099
#1	3110.1	8270.7	47369.	9414.4
#2	3111.2	8280.1	47331.	9473.2
#3	3113.0	8250.1	47307.	9367.8

Zoom In Zoom Out

Sample Name: FC10918-1 Acquired: 11/8/2023 17:13:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.9408**	**.0029**	F **37.44**	**.0031**	**.0010**	**11.13**	**.0000**	**.0089**
Stddev	.0003	.0063	.0003	.12	.0001	.0000	.02	.000	.0001
%RSD	89.76	.6676	8.929	.3150	3.296	4.359	.2060	35.53	.9915
#1	.0002	.9342	.0029	37.34	.0031	.0009	11.11	.0000	.0089
#2	.0001	.9415	.0027	37.40	.0030	.0010	11.14	-.0001	.0088
#3	.0008	.9467	.0032	37.57	.0032	.0010	11.15	.0000	.0089

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**.0291**	**4.807**	**.6392**	**.0073**	**1.113**	**.0670**	**.0089**	F **92.16**
Stddev	.0001	.0003	.010	.0364	.0002	.002	.0002	.0002	.36
%RSD	2.689	1.128	.2049	5.693	3.307	.1479	.2318	2.181	.3885
#1	.0049	.0294	4.797	.6639	.0075	1.112	.0671	.0090	91.84
#2	.0050	.0292	4.807	.6563	.0070	1.112	.0668	.0090	92.55
#3	.0048	.0288	4.816	.5974	.0074	1.115	.0671	.0086	92.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0090**	**-.0001**	**.0014**	**-.0020**	**3.410**	**.0011**	**.1385**	**.0248**	**-.0009**
Stddev	.0001	.0003	.0005	.0012	.003	.0001	.0003	.0003	.0003
%RSD	.9427	240.7	39.80	60.24	.0791	7.153	.1996	1.138	27.38
#1	.0090	.0002	.0016	-.0033	3.408	.0010	.1382	.0246	-.0007
#2	.0091	-.0002	.0007	-.0014	3.413	.0012	.1388	.0251	-.0010
#3	.0089	-.0003	.0017	-.0012	3.410	.0010	.1384	.0246	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.1192**
Stddev	.0001	.0002
%RSD	16.40	.1870
#1	.0006	.1190
#2	.0009	.1194
#3	.0008	.1194

Zoom In Zoom Out

Sample Name: FC10918-1 Acquired: 11/8/2023 17:13:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2999.0**	**8450.6**	**48281.**	**9771.2**
Stddev	2.5	13.4	77.	12.6
%RSD	.08306	.15844	.15903	.12897
#1	2999.3	8448.7	48193.	9756.7
#2	3001.3	8464.8	48324.	9779.2
#3	2996.4	8438.2	48327.	9777.8

Zoom In Zoom Out

Sample Name: FC10918-2 Acquired: 11/8/2023 17:18:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0090**	**.0004**	**.3053**	**.0033**	**.0000**	**9.961**	**.0000**	**.0003**
Stddev	.0003	.0036	.0007	.0031	.0001	.0000	.023	.000	.0001
%RSD	62.03	40.16	172.9	1.003	4.039	389.7	.2270	94.71	45.53
#1	.0005	.0131	.0006	.3085	.0033	.0000	9.986	.0000	.0004
#2	.0002	.0061	-.0004	.3051	.0034	.0000	9.941	-.0001	.0003
#3	.0008	.0079	.0010	.3024	.0031	.0000	9.956	.0000	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0026**	**.0306**	**1.706**	**.0000**	**1.087**	**.0006**	**.0061**	**15.75**
Stddev	.0001	.0003	.0012	.007	.0008	.003	.0000	.0001	.02
%RSD	33.26	11.61	4.025	.4172	1831.	.2441	4.920	1.394	.1207
#1	.0004	.0030	.0320	1.699	.0007	1.085	.0006	.0061	15.76
#2	.0004	.0025	.0296	1.705	-.0009	1.090	.0006	.0060	15.76
#3	.0002	.0024	.0303	1.714	.0003	1.086	.0006	.0062	15.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0100**	**-.0002**	**.0016**	**-.0004**	**1.174**	**.0004**	**.1655**	**.0009**	**-.0023**
Stddev	.0002	.0004	.0003	.0011	.001	.0002	.0002	.0002	.0009
%RSD	1.923	193.7	18.68	289.3	.0782	64.28	.1414	28.79	37.78
#1	.0098	-.0002	.0019	.0007	1.175	.0003	.1657	.0011	-.0033
#2	.0101	-.0006	.0015	-.0015	1.174	.0002	.1655	.0008	-.0019
#3	.0101	.0002	.0013	-.0004	1.174	.0006	.1653	.0007	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0200**
Stddev	.000	.0001
%RSD	360.9	.6391
#1	.0000	.0199
#2	.0001	.0199
#3	-.0002	.0201

Zoom In Zoom Out

Sample Name: FC10918-2 Acquired: 11/8/2023 17:18:53 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3155.4**	**8266.5**	**47473.**	**9351.5**
Stddev	10.9	19.4	81.	32.1
%RSD	.34578	.23501	.17037	.34300
#1	3166.8	8285.6	47384.	9388.2
#2	3154.1	8267.1	47543.	9329.0
#3	3145.1	8246.8	47490.	9337.4

Zoom In Zoom Out

Sample Name: FC10918-3 Acquired: 11/8/2023 17:23:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0718**	**.0014**	F **.8906**	**.0105**	**.0000**	**37.08**	**-.0001**	**.0002**
Stddev	.0003	.0019	.0005	.0027	.0000	.000	.05	.0000	.0001
%RSD	152.2	2.682	33.72	.3059	.1493	606.2	.1396	28.03	33.80
#1	-.0001	.0701	.0013	.8880	.0105	.0000	37.14	-.0001	.0003
#2	.0002	.0715	.0020	.8934	.0105	.0000	37.05	-.0001	.0002
#3	.0005	.0739	.0010	.8905	.0105	.0000	37.04	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0078**	**.7665**	**4.990**	**.0074**	**2.852**	**.0384**	**.0009**	F **169.5**
Stddev	.0002	.0001	.0039	.038	.0009	.008	.0002	.0000	2.9
%RSD	68.01	1.872	.5134	.7529	12.20	.2938	.4691	3.674	1.713
#1	.0002	.0079	.7679	4.975	.0068	2.862	.0385	.0009	172.9
#2	.0002	.0076	.7621	5.033	.0085	2.846	.0382	.0009	167.6
#3	.0005	.0079	.7696	4.962	.0070	2.849	.0384	.0008	168.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**-.0007**	**.0018**	**-.0003**	**2.599**	**.0005**	**.2836**	**.0026**	**-.0008**
Stddev	.0000	.0003	.0009	.0003	.009	.0002	.0005	.0003	.0013
%RSD	5.087	44.61	48.13	99.57	.3496	35.37	.1668	11.67	153.7
#1	.0008	-.0009	.0011	-.0003	2.593	.0005	.2841	.0026	.0001
#2	.0008	-.0004	.0028	.0000	2.594	.0007	.2832	.0023	-.0023
#3	.0008	-.0009	.0015	-.0007	2.609	.0004	.2834	.0029	-.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0275**
Stddev	.0002	.0001
%RSD	23.26	.4889
#1	.0008	.0274
#2	.0009	.0275
#3	.0012	.0277

Zoom In Zoom Out

Sample Name: FC10918-3 Acquired: 11/8/2023 17:23:57 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2878.4**	**7993.6**	**45933.**	**9372.2**
Stddev	11.3	34.8	270.	48.7
%RSD	.39266	.43516	.58882	.51919
#1	2881.7	8003.6	45846.	9359.4
#2	2887.6	8022.3	46236.	9426.0
#3	2865.8	7954.9	45716.	9331.2

Zoom In Zoom Out

Sample Name: FC10925-1 Acquired: 11/8/2023 17:29:07 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0185**	**.0098**	**.0401**	**.5127**	**.0000**	**69.03**	**-.0002**	**.0002**
Stddev	.0002	.0155	.0012	.0015	.0012	.000	1.17	.0001	.0001
%RSD	49.34	84.03	12.03	3.628	.2399	555.9	1.691	36.16	47.39
#1	.0006	.0343	.0099	.0418	.5139	.0000	70.29	-.0002	.0002
#2	.0005	.0180	.0086	.0393	.5128	.0000	68.81	-.0001	.0002
#3	.0002	.0032	.0109	.0393	.5115	.0000	67.98	-.0002	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0012**	**11.02**	**2.505**	**.0127**	**9.896**	**1.509**	**.0016**	**11.32**
Stddev	.0001	.0003	.06	.044	.0026	.056	.013	.0001	.05
%RSD	20.00	24.35	.5696	1.746	20.38	.5702	.8872	9.161	.4705
#1	.0004	-.0013	11.04	2.527	.0142	9.919	1.500	.0015	11.34
#2	.0003	-.0009	11.07	2.533	.0097	9.936	1.524	.0017	11.35
#3	.0005	-.0015	10.95	2.455	.0141	9.831	1.503	.0017	11.25

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0040**	**.0016**	**-.0012**	**10.86**	**.0003**	**.3076**	**.0011**	**-.0003**
Stddev	.0002	.0003	.0018	.0013	.01	.0002	.0017	.0002	.0009
%RSD	85.95	6.915	112.4	111.4	.1005	61.81	.5545	13.47	355.5
#1	.0003	-.0043	.0032	-.0024	10.86	.0001	.3085	.0013	.0002
#2	.0000	-.0039	.0021	-.0014	10.85	.0004	.3087	.0010	.0003
#3	.0003	-.0038	-.0004	.0002	10.87	.0005	.3057	.0010	-.0013

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0006**
Stddev	.0002	.0000
%RSD	70.29	5.277
#1	.0001	.0007
#2	.0005	.0007
#3	.0002	.0006

Zoom In Zoom Out

Sample Name: FC10925-1 Acquired: 11/8/2023 17:29:07 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3028.4**	**8199.2**	**47192.**	**9313.1**
Stddev	1.2	6.4	332.	72.8
%RSD	.04092	.07784	.70403	.78173
#1	3029.5	8205.6	47552.	9240.7
#2	3027.1	8199.1	46897.	9312.2
#3	3028.5	8192.8	47126.	9386.3

Zoom In Zoom Out

Sample Name: FC10925-2 Acquired: 11/8/2023 17:34:27 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0164**	**.0075**	**.0330**	**.4707**	**.0000**	**69.49**	**-.0001**	**.0001**
Stddev	.0001	.0133	.0005	.0017	.0011	.0000	.93	.0000	.0001
%RSD	61.19	81.19	6.237	5.058	.2439	199.2	1.343	20.92	51.30
#1	.0004	.0104	.0070	.0316	.4719	.0001	68.59	-.0001	.0000
#2	.0002	.0316	.0076	.0325	.4697	.0000	70.45	-.0001	.0001
#3	.0001	.0071	.0080	.0348	.4703	.0000	69.41	-.0002	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0011**	**8.472**	**2.544**	**.0122**	**9.983**	**1.210**	**.0016**	**11.37**
Stddev	.0002	.0002	.039	.004	.0014	.015	.003	.0002	.06
%RSD	39.30	16.17	.4622	.1427	11.72	.1487	.2341	13.02	.5644
#1	.0006	-.0012	8.512	2.549	.0136	9.971	1.207	.0018	11.44
#2	.0003	-.0012	8.434	2.542	.0107	9.979	1.210	.0016	11.31
#3	.0004	-.0009	8.469	2.542	.0122	10.000	1.213	.0014	11.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0035**	**.0017**	**.0002**	**10.76**	**.0003**	**.3077**	**.0011**	**-.0013**
Stddev	.0001	.0004	.0011	.0006	.01	.0002	.0017	.0001	.0006
%RSD	77.89	11.20	63.19	319.3	.0689	71.26	.5397	8.249	46.49
#1	.0002	-.0031	.0013	-.0002	10.76	.0001	.3095	.0012	-.0006
#2	.0000	-.0034	.0029	-.0001	10.76	.0005	.3063	.0011	-.0014
#3	.0001	-.0039	.0009	.0009	10.75	.0003	.3072	.0010	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0007**
Stddev	.0001	.0000
%RSD	33.36	5.844
#1	.0003	.0007
#2	.0002	.0007
#3	.0004	.0007

Zoom In Zoom Out

Sample Name: FC10925-2 Acquired: 11/8/2023 17:34:27 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3022.9**	**8178.7**	**46934.**	**9295.8**
Stddev	7.1	8.8	103.	44.0
%RSD	.23404	.10743	.21850	.47372
#1	3031.0	8188.1	47021.	9328.7
#2	3020.1	8177.4	46960.	9312.9
#3	3017.7	8170.7	46821.	9245.8

Zoom In Zoom Out

Sample Name: FC10945-1 Acquired: 11/8/2023 17:39:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.2031**	**.0021**	**.4228**	**.2202**	**.0000**	**18.68**	**.0001**	**.0004**
Stddev	.0003	.0097	.0009	.0021	.0006	.0000	.04	.0000	.0001
%RSD	1657.	4.769	44.85	.4936	.2887	323.5	.2368	9.796	14.62
#1	.0003	.1925	.0014	.4208	.2195	.0000	18.63	.0001	.0004
#2	-.0003	.2056	.0031	.4250	.2203	.0000	18.71	.0001	.0004
#3	.0001	.2114	.0017	.4224	.2207	.0000	18.71	.0001	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0256**	**.0434**	**3.282**	**12.24**	**.0045**	**8.132**	**.1092**	**.0041**	**52.91**
Stddev	.0002	.0004	.012	.03	.0016	.014	.0007	.0000	.08
%RSD	.7261	1.002	.3509	.2524	34.76	.1721	.6070	.9054	.1519
#1	.0254	.0430	3.269	12.20	.0048	8.117	.1087	.0040	53.01
#2	.0256	.0432	3.284	12.25	.0059	8.145	.1090	.0041	52.85
#3	.0258	.0438	3.292	12.26	.0028	8.132	.1100	.0041	52.89

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0140**	**.0003**	**.0022**	**-.0005**	**1.185**	**.0256**	**.1943**	**.0111**	**-.0014**
Stddev	.0002	.0004	.0007	.0017	.002	.0001	.0004	.0001	.0008
%RSD	1.523	136.8	32.88	311.2	.1258	.2446	.2092	1.321	53.45
#1	.0140	.0008	.0016	-.0001	1.184	.0256	.1945	.0110	-.0012
#2	.0138	.0002	.0020	-.0024	1.184	.0257	.1939	.0111	-.0008
#3	.0142	.0000	.0030	.0009	1.187	.0256	.1946	.0113	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0889**
Stddev	.0000	.0000
%RSD	2.100	.0242
#1	.0009	.0889
#2	.0010	.0890
#3	.0010	.0889

Zoom In Zoom Out

Sample Name: FC10945-1 Acquired: 11/8/2023 17:39:37 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3023.9**	**8133.3**	**46973.**	**9347.2**
Stddev	5.3	6.7	354.	14.2
%RSD	.17496	.08270	.75266	.15192
#1	3029.7	8136.0	47308.	9355.9
#2	3022.4	8125.6	47008.	9330.8
#3	3019.4	8138.2	46603.	9354.9

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/8/2023 17:44:38 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0027**	**.0052**	**.1025**	**.0025**	**.0000**	**40.26**	**-.0001**	**.0000**
Stddev	.0003	.0061	.0012	.0009	.0002	.0000	.05	.0000	.0001
%RSD	39.70	223.8	23.32	.8670	7.852	159.5	.1246	19.39	649.9
#1	.0004	.0070	.0060	.1015	.0026	.0001	40.24	-.0001	.0000
#2	.0011	.0054	.0038	.1028	.0023	.0001	40.32	-.0001	.0001
#3	.0009	-.0043	.0058	.1032	.0027	.0000	40.23	-.0001	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0044**	**.0800**	**26.92**	**.0031**	**5.767**	F **5.680**	**-.0001**	**12.71**
Stddev	.0002	.0003	.0018	.05	.0009	.031	.087	.0001	.08
%RSD	8.943	7.135	2.282	.1969	28.60	.5360	1.537	86.18	.6023
#1	.0021	.0044	.0820	26.92	.0027	5.743	5.779	-.0001	12.66
#2	.0020	.0048	.0784	26.97	.0041	5.802	5.645	.0000	12.80
#3	.0024	.0041	.0796	26.87	.0025	5.756	5.615	-.0002	12.67

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0145**	**.0000**	**.0018**	**-.0003**	**5.902**	**.0001**	**.2844**	**.0010**	**.0047**
Stddev	.0001	.001	.0002	.0011	.004	.0003	.0009	.0001	.0013
%RSD	.4174	1151.	10.54	322.4	.0720	258.3	.3019	10.96	28.23
#1	.0145	-.0005	.0018	.0009	5.907	.0000	.2839	.0010	.0032
#2	.0144	.0000	.0017	-.0008	5.899	.0004	.2854	.0012	.0059
#3	.0145	.0004	.0021	-.0011	5.900	-.0001	.2838	.0010	.0049

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0120**
Stddev	.0000	.0001
%RSD	29.65	.4747
#1	-.0002	.0120
#2	-.0002	.0121
#3	-.0001	.0120

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/8/2023 17:44:38 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3051.8**	**8155.9**	**46962.**	**9325.9**
Stddev	1.1	8.5	149.	48.6
%RSD	.03500	.10378	.31817	.52082
#1	3052.2	8165.5	46824.	9269.8
#2	3050.6	8152.6	46940.	9353.5
#3	3052.6	8149.5	47121.	9354.4

Zoom In Zoom Out

Sample Name: FC10954-1A Acquired: 11/8/2023 17:49:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0147**	**1.704**	**.0982**	**.0505**	**.0000**	**48.86**	**-.0005**
Stddev	.0005	.0064	.006	.0012	.0003	.0000	.23	.0001
%RSD	210.3	43.69	.3354	1.186	.5013	20.62	.4685	17.33
#1	-.0001	.0118	1.708	.0974	.0504	.0000	48.69	-.0005
#2	.0008	.0102	1.697	.0975	.0503	.0000	48.77	-.0005
#3	.0000	.0221	1.706	.0995	.0508	.0000	49.12	-.0007

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0178**	**.0016**	**-.0008**	**70.26**	**7.954**	**.0015**	**6.737**	**2.021**
Stddev	.0001	.0001	.0003	.39	.013	.0006	.047	.009
%RSD	.7910	6.720	33.69	.5599	.1678	42.58	.6989	.4229
#1	.0176	.0015	-.0011	70.01	7.968	.0017	6.686	2.013
#2	.0179	.0017	-.0005	70.05	7.942	.0019	6.746	2.030
#3	.0179	.0016	-.0009	70.71	7.951	.0007	6.779	2.019

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**14.48**	**.0069**	F **-.0196**	**.0019**	**.0020**	**7.357**	**.0001**
Stddev	.0001	.09	.0001	.0006	.0001	.0012	.007	.0003
%RSD	21.35	.6470	1.261	2.882	7.254	60.32	.0892	279.1
#1	.0005	14.45	.0069	-.0202	.0020	.0030	7.359	-.0002
#2	.0007	14.41	.0070	-.0191	.0017	.0007	7.349	.0001
#3	.0004	14.59	.0068	-.0195	.0020	.0022	7.362	.0003

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.4017**	**.0011**	**.0021**	**.0007**	**.0011**
Stddev	.0027	.0001	.0002	.0001	.0000
%RSD	.6629	5.331	9.710	12.49	2.590
#1	.4003	.0011	.0022	.0007	.0010
#2	.3999	.0011	.0021	.0007	.0011
#3	.4047	.0012	.0018	.0006	.0011

Zoom In Zoom Out

Sample Name: FC10954-1A Acquired: 11/8/2023 17:49:49 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2984.7**	**8193.9**	**47030.**	**9288.2**
Stddev	8.9	5.4	105.	63.2
%RSD	.29802	.06639	.22266	.68020
#1	2994.7	8195.3	47086.	9356.9
#2	2981.6	8198.6	47095.	9232.7
#3	2977.7	8187.9	46909.	9275.0

Zoom In Zoom Out

Sample Name: FC10954-2A Acquired: 11/8/2023 17:54:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0317**	**.5673**	**.0911**	**.0552**	**.0000**	**37.57**	**-.0004**
Stddev	.0002	.0030	.0011	.0018	.0003	.0001	.07	.0000
%RSD	383.4	9.533	.1872	1.991	.5252	349.0	.1899	1.349
#1	-.0002	.0283	.5660	.0925	.0552	.0001	37.49	-.0004
#2	.0003	.0341	.5677	.0917	.0555	.0000	37.58	-.0004
#3	.0001	.0326	.5680	.0890	.0549	-.0001	37.63	-.0004

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079**	**.0008**	**-.0009**	**47.74**	**8.726**	**.0039**	**6.041**	**1.703**
Stddev	.0000	.0000	.0003	.12	.011	.0013	.042	.004
%RSD	.4837	3.251	35.32	.2513	.1224	32.73	.7026	.2329
#1	.0079	.0008	-.0010	47.70	8.721	.0038	6.015	1.702
#2	.0079	.0008	-.0006	47.64	8.718	.0026	6.019	1.700
#3	.0078	.0008	-.0013	47.87	8.738	.0052	6.090	1.708

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**15.11**	**.0011**	F **-.0137**	**.0016**	**.0028**	**5.828**	**.0002**
Stddev	.0001	.09	.0001	.0005	.0003	.0005	.003	.0003
%RSD	27.86	.5876	12.10	3.908	17.12	17.17	.0456	139.5
#1	.0006	15.11	.0010	-.0133	.0013	.0031	5.828	.0006
#2	.0003	15.02	.0013	-.0135	.0018	.0031	5.831	.0000
#3	.0005	15.19	.0010	-.0143	.0017	.0023	5.826	.0000

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.3363**	**.0011**	**.0004**	**.0005**	**.0025**
Stddev	.0010	.0001	.0014	.0003	.0000
%RSD	.2899	8.488	320.0	75.54	.5796
#1	.3362	.0010	.0010	.0008	.0025
#2	.3354	.0011	.0014	.0005	.0025
#3	.3374	.0012	-.0011	.0001	.0025

Zoom In Zoom Out

Sample Name: FC10954-2A Acquired: 11/8/2023 17:54:58 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2995.1**	**8168.4**	**47022.**	**9252.4**
Stddev	5.5	9.7	152.	40.9
%RSD	.18467	.11906	.32254	.44180
#1	3001.1	8179.4	47185.	9277.7
#2	2994.1	8160.7	46995.	9274.2
#3	2990.2	8165.2	46885.	9205.2

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:00:05 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2510**	**41.88**	**2.052**	**1.949**	**1.979**	**2.008**	**39.45**	**1.965**	**2.004**
Stddev	.0009	.15	.002	.006	.002	.010	.05	.003	.001
%RSD	.3669	.3652	.0911	.3246	.1124	.5042	.1234	.1417	.0610
#1	.2503	41.98	2.050	1.942	1.980	2.014	39.45	1.962	2.003
#2	.2508	41.70	2.053	1.951	1.977	1.997	39.40	1.968	2.005
#3	.2521	41.95	2.053	1.954	1.981	2.014	39.50	1.966	2.003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.972**	**1.885**	**40.47**	**40.18**	**2.039**	**38.78**	**1.914**	**1.984**	**40.67**
Stddev	.007	.009	.18	.14	.011	.13	.016	.002	.28
%RSD	.3707	.4577	.4521	.3435	.5322	.3477	.8377	.1009	.6802
#1	1.973	1.885	40.57	40.24	2.046	38.83	1.927	1.982	40.84
#2	1.964	1.876	40.26	40.02	2.027	38.62	1.896	1.986	40.35
#3	1.978	1.894	40.58	40.28	2.044	38.88	1.919	1.983	40.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.058**	**2.051**	**2.092**	**1.952**	**2.284**	**2.028**	**2.040**	**1.955**	**2.070**
Stddev	.001	.006	.002	.002	.004	.001	.015	.006	.002
%RSD	.0221	.2728	.0877	.1208	.1786	.0414	.7363	.3261	.1176
#1	2.058	2.056	2.090	1.950	2.279	2.028	2.051	1.950	2.073
#2	2.059	2.045	2.094	1.952	2.286	2.028	2.045	1.951	2.068
#3	2.058	2.052	2.092	1.954	2.286	2.027	2.022	1.962	2.070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:00:05 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.907**	**2.034**
Stddev	.007	.001
%RSD	.3577	.0518
#1	1.904	2.034
#2	1.902	2.034
#3	1.914	2.032
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2749.8**	**7947.0**	**45983.**	**9186.0**
Stddev	4.0	7.5	250.	21.5
%RSD	.14489	.09477	.54292	.23370
#1	2749.1	7955.6	45972.	9169.7
#2	2754.1	7943.6	46237.	9178.1
#3	2746.2	7941.8	45738.	9210.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:05:12 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0024**	**.0008**	F **.0015**	**.0000**	**.0001**	**-.0008**	**.0000**	**.0001**
Stddev	.0001	.0091	.0010	.0014	.0001	.0000	.0007	.0000	.0002
%RSD	64.34	371.2	121.5	91.86	282.9	44.82	91.88	21.28	171.7
#1	.0002	-.0024	.0009	.0011	.0001	.0000	-.0010	.0000	.0003
#2	.0001	.0129	.0018	.0031	.0000	.0001	.0000	.0000	.0000
#3	.0003	-.0032	-.0002	.0004	.0000	.0001	-.0015	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0008**	**.0008**	**-.0061**	**-.0001**	**.0008**	**.0000**	**.0002**	**-.0519**
Stddev	.0003	.0002	.0011	.0033	.0012	.0040	.0000	.0000	.0014
%RSD	226.3	26.78	135.0	53.57	837.3	518.5	19.51	27.33	2.695
#1	-.0003	-.0007	.0017	-.0098	.0003	.0042	.0000	.0002	-.0506
#2	.0002	-.0007	-.0004	-.0033	.0008	.0018	.0000	.0002	-.0518
#3	-.0003	-.0011	.0012	-.0054	-.0015	-.0036	.0000	.0001	-.0534
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	F **.0021**	**.0002**	**.0010**	**.0002**	**.0002**	**.0001**	**-.0008**
Stddev	.0001	.0001	.0024	.0008	.0008	.0000	.0000	.0002	.0011
%RSD	152.0	144.4	109.6	405.0	80.29	27.30	25.05	138.8	135.7
#1	.0000	.0001	.0041	.0004	.0004	.0002	.0001	-.0001	.0000
#2	.0000	.0001	-.0005	-.0007	.0006	.0001	.0002	.0002	-.0003
#3	-.0002	.0000	.0028	.0009	.0018	.0001	.0001	.0002	-.0021
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.0020						
Low Limit			-.0020						

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:05:12 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0001**
Stddev	.0001	.0000
%RSD	169.6	43.33
#1	.0000	.0001
#2	.0000	.0001
#3	.0001	.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3203.6**	**8274.5**	**47667.**	**9376.5**
Stddev	3.6	5.4	399.	94.0
%RSD	.11303	.06521	.83734	1.0020
#1	3200.9	8276.5	48087.	9273.4
#2	3202.0	8268.4	47622.	9398.7
#3	3207.7	8278.6	47293.	9457.4

Zoom In Zoom Out

Sample Name: FC10963-23 Acquired: 11/8/2023 18:10:16 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**47.86**	**.0805**	**.0443**	**.5258**	**.0031**	**192.5**	**.0015**	**.0657**
Stddev	.0003	.12	.0006	.0024	.0007	.0000	3.2	.0001	.0001
%RSD	67.29	.2477	.7982	5.400	.1377	.0567	1.668	5.739	.1714
#1	-.0003	47.99	.0808	.0441	.5251	.0031	192.6	.0015	.0656
#2	-.0008	47.83	.0810	.0468	.5259	.0031	189.2	.0015	.0659
#3	-.0002	47.76	.0798	.0421	.5265	.0031	195.6	.0014	.0657

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1135**	**.1490**	**158.0**	**14.14**	**.1446**	**83.02**	**2.216**	**.0483**	**15.14**
Stddev	.0006	.0004	1.6	.05	.0011	.20	.011	.0001	.02
%RSD	.5156	.2590	.9830	.3805	.7682	.2391	.4901	.2440	.1082
#1	.1128	.1492	156.6	14.08	.1452	82.93	2.206	.0484	15.15
#2	.1138	.1486	157.7	14.16	.1434	82.88	2.227	.0483	15.15
#3	.1138	.1493	159.6	14.19	.1453	83.24	2.214	.0482	15.12

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1878**	**.0604**	**.0016**	**.0048**	**35.89**	**.0026**	**1.237**	**.2054**	**.0021**
Stddev	.0002	.0009	.0004	.0022	.02	.0001	.002	.0009	.0020
%RSD	.1151	1.431	22.75	45.54	.0619	3.931	.1187	.4367	93.39
#1	.1880	.0600	.0018	.0073	35.88	.0025	1.236	.2044	.0017
#2	.1876	.0614	.0018	.0032	35.88	.0027	1.239	.2055	.0004
#3	.1879	.0598	.0012	.0039	35.92	.0025	1.236	.2062	.0043

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1041**	**.5369**
Stddev	.0003	.0005
%RSD	.2980	.1020
#1	.1038	.5365
#2	.1041	.5366
#3	.1044	.5375

Zoom In Zoom Out

Sample Name: FC10963-23 Acquired: 11/8/2023 18:10:16 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2629.6**	**8811.6**	**50594.**	**10385.**
Stddev	4.4	7.6	218.	49.
%RSD	.16706	.08656	.43175	.47224
#1	2624.6	8803.4	50844.	10388.
#2	2631.6	8812.8	50496.	10433.
#3	2632.7	8818.6	50441.	10335.

Zoom In Zoom Out

Sample Name: MP43108-D1 Acquired: 11/8/2023 18:15:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**48.76**	**.0794**	**.0365**	**.5402**	**.0032**	**198.6**	**.0014**	**.0675**
Stddev	.0003	.08	.0002	.0025	.0016	.0000	.6	.0001	.0001
%RSD	159.5	.1571	.2866	6.901	.3045	.5067	.3193	8.664	.1376
#1	-.0004	48.78	.0794	.0344	.5418	.0032	198.8	.0013	.0675
#2	.0002	48.82	.0791	.0358	.5385	.0032	199.1	.0015	.0676
#3	-.0004	48.67	.0796	.0393	.5402	.0032	197.9	.0015	.0675

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1164**	**.1532**	**164.1**	**14.32**	**.1457**	**85.88**	**2.277**	**.0477**	**15.85**
Stddev	.0004	.0006	1.2	.03	.0003	.22	.011	.0000	.03
%RSD	.3065	.4111	.7268	.1840	.2122	.2524	.4889	.0479	.1651
#1	.1162	.1527	165.5	14.35	.1454	86.02	2.290	.0476	15.86
#2	.1168	.1531	163.2	14.30	.1456	85.99	2.271	.0477	15.87
#3	.1162	.1539	163.6	14.31	.1460	85.63	2.270	.0477	15.82

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1933**	**.0636**	**.0013**	**.0048**	**37.78**	**.0027**	**1.287**	**.1981**	**.0024**
Stddev	.0004	.0002	.0014	.0028	.02	.0003	.001	.0004	.0006
%RSD	.2309	.2590	107.7	58.64	.0542	9.332	.0827	.1892	27.32
#1	.1938	.0634	.0022	.0042	37.79	.0029	1.287	.1976	.0027
#2	.1931	.0637	-.0003	.0023	37.76	.0025	1.287	.1982	.0028
#3	.1930	.0635	.0019	.0078	37.80	.0028	1.285	.1983	.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1045**	**.5513**
Stddev	.0001	.0009
%RSD	.0634	.1610
#1	.1045	.5513
#2	.1044	.5504
#3	.1045	.5522

Zoom In Zoom Out

Sample Name: MP43108-D1 Acquired: 11/8/2023 18:15:40 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2624.5**	**8847.2**	**50883.**	**10415.**
Stddev	1.6	15.9	64.	56.
%RSD	.06020	.17963	.12524	.53522
#1	2624.9	8829.4	50956.	10405.
#2	2625.8	8859.9	50855.	10365.
#3	2622.7	8852.5	50838.	10475.

Zoom In Zoom Out

Sample Name: MP43108-SD1 Acquired: 11/8/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**51.66**	**.0879**	**.0184**	**.5622**	**.0034**	**212.3**	**.0012**	**.0730**
Stddev	.0020	.12	.0021	.0100	.0031	.0002	.4	.0001	.0002
%RSD	479.2	.2295	2.366	54.38	.5551	6.114	.1702	7.794	.2591
#1	.0004	51.77	.0890	.0068	.5612	.0036	212.6	.0012	.0732
#2	.0010	51.54	.0855	.0244	.5597	.0032	211.9	.0011	.0728
#3	-.0026	51.68	.0892	.0238	.5657	.0033	212.3	.0013	.0729

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1245**	**.1553**	**177.8**	**15.18**	**.1609**	**91.89**	**2.427**	**.0513**	**15.76**
Stddev	.0003	.0022	.5	.12	.0117	.24	.006	.0006	.04
%RSD	.2042	1.429	.3057	.8061	7.289	.2657	.2373	1.222	.2282
#1	.1243	.1573	178.3	15.08	.1744	92.16	2.432	.0510	15.79
#2	.1245	.1529	177.2	15.31	.1549	91.70	2.429	.0521	15.72
#3	.1248	.1556	177.8	15.14	.1534	91.79	2.420	.0510	15.76

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2092**	**.0452**	**.0024**	**-.0026**	**38.51**	**.0031**	**1.322**	**.2236**	**-.0031**
Stddev	.0010	.0026	.0046	.0147	.09	.0025	.003	.0006	.0023
%RSD	.4916	5.642	190.7	555.1	.2320	77.98	.2606	.2893	72.91
#1	.2099	.0423	.0049	-.0186	38.43	.0055	1.325	.2242	-.0026
#2	.2080	.0463	-.0029	.0004	38.49	.0033	1.318	.2237	-.0011
#3	.2096	.0470	.0052	.0103	38.61	.0006	1.323	.2229	-.0055

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1113**	**.6043**
Stddev	.0007	.0008
%RSD	.6342	.1247
#1	.1107	.6042
#2	.1112	.6036
#3	.1121	.6051

Zoom In Zoom Out

Sample Name: MP43108-SD1 Acquired: 11/8/2023 18:21:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3020.6**	**8467.0**	**48261.**	**9619.6**
Stddev	9.0	28.5	124.	22.0
%RSD	.29810	.33675	.25643	.22847
#1	3030.0	8484.8	48169.	9618.1
#2	3019.7	8482.1	48213.	9642.3
#3	3012.0	8434.1	48402.	9598.4

Zoom In Zoom Out

Sample Name: MP43108-PS1 Acquired: 11/8/2023 18:26:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0464**	**49.63**	**.1716**	**.0340**	**.7337**	**.0482**	**191.2**	**.0435**	**.1068**
Stddev	.0003	.14	.0008	.0039	.0010	.0001	3.2	.0000	.0000
%RSD	.5982	.2788	.4591	11.47	.1420	.1859	1.658	.0498	.0373
#1	.0461	49.63	.1721	.0385	.7344	.0481	188.1	.0435	.1068
#2	.0467	49.77	.1707	.0319	.7342	.0483	194.4	.0435	.1068
#3	.0465	49.49	.1720	.0316	.7325	.0481	190.9	.0436	.1069

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1567**	**.2329**	**159.3**	**22.72**	**.1416**	**86.26**	**2.211**	**.1288**	**23.45**
Stddev	.0002	.0007	.6	.06	.0001	.25	.018	.0002	.16
%RSD	.1027	.2990	.3681	.2782	.0899	.2896	.7898	.1238	.6905
#1	.1565	.2328	158.9	22.71	.1417	86.32	2.227	.1287	23.57
#2	.1567	.2336	159.0	22.79	.1416	86.47	2.212	.1290	23.51
#3	.1568	.2322	160.0	22.66	.1415	85.98	2.193	.1289	23.26

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2726**	**.1123**	**.0964**	**.0865**	**35.33**	**.0464**	**1.272**	**.2875**	**.1044**
Stddev	.0006	.0007	.0015	.0010	.04	.0001	.006	.0005	.0034
%RSD	.2206	.6677	1.529	1.160	.1156	.2605	.4554	.1608	3.227
#1	.2732	.1129	.0948	.0877	35.32	.0463	1.275	.2871	.1009
#2	.2720	.1114	.0977	.0862	35.30	.0465	1.275	.2880	.1048
#3	.2726	.1125	.0966	.0858	35.38	.0463	1.265	.2874	.1076

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.1444**	**.7428**
Stddev	.0010	.0004
%RSD	.7266	.0574
#1	.1448	.7432
#2	.1452	.7424
#3	.1432	.7428

Zoom In Zoom Out

Sample Name: MP43108-PS1 Acquired: 11/8/2023 18:26:04 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2607.1**	**8794.5**	**50246.**	**10352.**
Stddev	2.9	9.1	106.	33.
%RSD	.11252	.10402	.21177	.31731
#1	2607.3	8784.3	50350.	10384.
#2	2609.9	8801.8	50137.	10318.
#3	2604.1	8797.5	50250.	10354.

Zoom In Zoom Out

Sample Name: MP43108-S1 Acquired: 11/8/2023 18:31:26 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1794**	**71.85**	**.2545**	**.4405**	**.6996**	**.1750**	**233.3**	**.1599**	**.2275**
Stddev	.0002	.12	.0011	.0048	.0010	.0004	2.4	.0001	.0002
%RSD	.1130	.1609	.4459	1.093	.1383	.2407	1.017	.0931	.0857
#1	.1796	71.84	.2550	.4460	.6986	.1751	233.9	.1600	.2277
#2	.1792	71.97	.2532	.4375	.7006	.1753	230.7	.1597	.2274
#3	.1794	71.74	.2553	.4379	.6996	.1745	235.4	.1599	.2273

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2840**	**.3167**	**198.7**	**51.41**	F **.6183**	**122.0**	**2.406**	**.5653**	**52.07**
Stddev	.0002	.0014	1.0	.05	.0028	.2	.018	.0005	.21
%RSD	.0579	.4550	.5268	.1042	.4516	.1284	.7415	.0910	.3980
#1	.2841	.3154	199.4	51.39	.6181	122.1	2.426	.5659	52.10
#2	.2838	.3163	199.3	51.47	.6212	122.1	2.392	.5651	52.26
#3	.2840	.3183	197.5	51.37	.6156	121.8	2.401	.5650	51.85

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3580**	**.2676**	**.0878**	**.1405**	**39.53**	**.3525**	**1.745**	**.5955**	**.1076**
Stddev	.0003	.0007	.0019	.0007	.04	.0003	.005	.0012	.0011
%RSD	.0918	.2713	2.217	.5028	.1001	.0833	.2876	.1962	1.026
#1	.3577	.2668	.0862	.1405	39.58	.3527	1.746	.5967	.1063
#2	.3581	.2682	.0872	.1398	39.51	.3522	1.750	.5956	.1082
#3	.3583	.2678	.0900	.1412	39.51	.3527	1.740	.5943	.1082

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2650**	**.7195**
Stddev	.0011	.0007
%RSD	.4201	.1042
#1	.2663	.7203
#2	.2643	.7188
#3	.2646	.7195

Zoom In Zoom Out

Sample Name: MP43108-S1 Acquired: 11/8/2023 18:31:26 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2473.6**	**8723.3**	**50293.**	**10353.**
Stddev	4.1	13.1	242.	30.
%RSD	.16465	.15021	.48047	.29055
#1	2468.9	8708.3	50037.	10388.
#2	2475.6	8732.5	50517.	10340.
#3	2476.3	8729.1	50324.	10333.

Zoom In Zoom Out

Sample Name: MP43108-S2 Acquired: 11/8/2023 18:36:50 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1773**	**71.22**	**.2453**	**.4382**	**.6932**	**.1722**	**230.9**	**.1581**	**.2252**
Stddev	.0000	.40	.0008	.0058	.0027	.0007	1.7	.0001	.0002
%RSD	.0181	.5578	.3283	1.328	.3847	.4230	.7147	.0854	.0901
#1	.1773	71.57	.2461	.4324	.6959	.1729	231.9	.1580	.2251
#2	.1773	71.31	.2454	.4440	.6930	.1722	229.0	.1583	.2254
#3	.1773	70.79	.2445	.4383	.6906	.1715	231.8	.1582	.2251

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2821**	**.3138**	**194.7**	**50.75**	F **.6118**	**120.2**	**2.394**	**.5545**	**51.14**
Stddev	.0007	.0009	.7	.23	.0046	.3	.009	.0004	.32
%RSD	.2407	.2949	.3786	.4508	.7545	.2647	.3665	.0776	.6293
#1	.2814	.3147	195.1	50.97	.6164	120.6	2.385	.5545	51.39
#2	.2827	.3128	195.0	50.77	.6117	120.0	2.402	.5549	51.26
#3	.2822	.3138	193.8	50.51	.6072	120.0	2.395	.5541	50.78

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3537**	**.2626**	**.0870**	**.1350**	**39.21**	**.3427**	**1.730**	**.5955**	**.1099**
Stddev	.0006	.0004	.0003	.0008	.02	.0003	.015	.0012	.0010
%RSD	.1658	.1535	.3937	.5846	.0591	.0835	.8610	.2028	.8777
#1	.3530	.2623	.0872	.1354	39.20	.3428	1.723	.5964	.1089
#2	.3542	.2631	.0872	.1341	39.24	.3423	1.720	.5941	.1109
#3	.3538	.2626	.0866	.1355	39.19	.3429	1.747	.5960	.1097

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2648**	**.7038**
Stddev	.0003	.0007
%RSD	.1189	.1017
#1	.2649	.7037
#2	.2645	.7045
#3	.2651	.7031

Zoom In Zoom Out

Sample Name: MP43108-S2 Acquired: 11/8/2023 18:36:50 Type: Unk
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2488.3**	**8749.5**	**50050.**	**10365.**
Stddev	2.4	9.3	284.	86.
%RSD	.09821	.10582	.56839	.83262
#1	2485.9	8739.4	50325.	10276.
#2	2488.1	8751.4	50069.	10448.
#3	2490.8	8757.7	49757.	10371.

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:42:13 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2508**	**41.91**	**2.060**	**1.934**	**1.983**	**2.007**	**39.50**	**1.960**	**2.005**
Stddev	.0009	.07	.004	.012	.001	.001	.03	.001	.000
%RSD	.3710	.1698	.1721	.6232	.0464	.0373	.0778	.0371	.0219
#1	.2510	41.85	2.059	1.941	1.983	2.007	39.49	1.959	2.005
#2	.2498	41.90	2.057	1.939	1.982	2.006	39.47	1.960	2.004
#3	.2516	41.99	2.064	1.920	1.983	2.008	39.53	1.960	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.993**	**1.903**	**40.53**	**40.31**	**2.036**	**38.96**	**1.942**	**1.983**	**40.85**
Stddev	.003	.004	.03	.05	.003	.11	.017	.001	.12
%RSD	.1718	.2385	.0691	.1165	.1640	.2868	.8598	.0704	.3009
#1	1.993	1.907	40.49	40.31	2.036	39.02	1.948	1.983	40.77
#2	1.989	1.898	40.54	40.26	2.033	38.83	1.923	1.982	40.78
#3	1.996	1.906	40.54	40.35	2.040	39.02	1.955	1.984	40.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.052**	**2.061**	**2.084**	**1.946**	**2.281**	**2.023**	**2.037**	**1.950**	**2.069**
Stddev	.001	.006	.003	.002	.002	.001	.033	.003	.004
%RSD	.0278	.3000	.1328	.0872	.0948	.0413	1.608	.1443	.1713
#1	2.051	2.068	2.081	1.948	2.279	2.022	2.001	1.949	2.068
#2	2.053	2.061	2.083	1.946	2.280	2.023	2.065	1.948	2.073
#3	2.052	2.055	2.087	1.944	2.283	2.024	2.045	1.953	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/8/2023 18:42:13 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.912**	**2.042**
Stddev	.004	.001
%RSD	.2017	.0244
#1	1.910	2.042
#2	1.910	2.043
#3	1.917	2.042
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2753.8**	**7984.3**	**45915.**	**9170.1**
Stddev	6.8	16.4	139.	58.3
%RSD	.24759	.20512	.30288	.63571
#1	2752.0	7995.8	45962.	9218.3
#2	2748.1	7965.5	46024.	9186.6
#3	2761.3	7991.5	45758.	9105.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:47:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0060**	**-.0001**	**-.0006**	**.0002**	**.0001**	**.0009**	**.0001**	**.0000**
Stddev	.0002	.0032	.0004	.0010	.0004	.0000	.0012	.0000	.0001
%RSD	62.85	52.60	286.0	170.2	184.3	19.24	125.7	38.17	1116.
#1	-.0006	.0056	-.0006	-.0005	.0006	.0001	.0000	.0001	.0002
#2	-.0003	.0093	.0001	.0004	.0001	.0001	.0022	.0001	.0000
#3	-.0001	.0031	.0001	-.0016	-.0001	.0001	.0005	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0004**	**.0025**	**.0180**	F **.0039**	**-.0002**	**.0000**	**.0003**	**-.0586**
Stddev	.0001	.0000	.0014	.0214	.0001	.0067	.0000	.0001	.0087
%RSD	68.17	7.490	54.90	119.0	2.738	2936.	61.09	37.87	14.79
#1	-.0001	-.0005	.0031	.0312	.0037	.0073	.0000	.0002	-.0510
#2	-.0002	-.0005	.0010	-.0067	.0039	-.0054	.0000	.0003	-.0567
#3	-.0003	-.0004	.0036	.0294	.0039	-.0026	.0000	.0004	-.0680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					.0010				
Low Limit					-.0010				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0011**	**-.0018**	**.0014**	**.0001**	**.0001**	**.0002**	**-.0006**
Stddev	.0002	.0008	.0001	.0017	.0007	.0002	.0000	.0001	.0001
%RSD	164.9	5055.	6.073	98.44	49.71	207.0	14.13	37.49	21.08
#1	-.0001	.0001	.0010	-.0001	.0012	.0000	.0001	.0001	-.0005
#2	.0001	-.0008	.0011	-.0017	.0022	.0004	.0001	.0002	-.0007
#3	-.0003	.0008	.0011	-.0036	.0009	.0000	.0001	.0002	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/8/2023 18:47:20 Type: QC
Method: 60102007_COMBO_102422(v702) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE01: : :
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**.0001**
Stddev	.0001	.0000
%RSD	134.2	36.15
#1	.0000	.0001
#2	.0001	.0001
#3	.0001	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3206.4**	**8339.1**	**47437.**	**9263.8**
Stddev	.8	5.2	99.	18.0
%RSD	.02628	.06198	.20917	.19424
#1	3207.4	8334.3	47327.	9276.6
#2	3205.8	8344.5	47463.	9243.2
#3	3206.0	8338.4	47520.	9271.6

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000043	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000070	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.001297	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000029	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000089	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000060	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000016	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	0.000007	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000030	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	0.000004	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000001	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000040	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
			Fe	0.000291	0.000000	No
			Mo	-0.002189	0.000000	No
			Cu	0.000467	0.000000	No
			Ti	0.000036	0.000000	No
			Si	0.000182	0.000000	No
			Ca	0.000012	0.000000	No
			Cr	-0.000260	0.000000	No
			Mg	0.000002	0.000000	No
Sb 206.833 {463}	☒	11	Fe	0.000019	0.000000	No
			Cr	0.011486	0.000000	No
			Mo	-0.002538	0.000000	No
			V	-0.002735	0.000000	No
			Sn	-0.008695	0.000000	No
			Ti	0.000278	0.000000	No
			Ca	0.000001	0.000000	No
			Ni	-0.000818	0.000000	No
			Al	0.000005	0.000000	No
			Mn	-0.000133	0.000000	No
			Mg	-0.000002	0.000000	No
Se 196.090 {472}	☒	12	Fe	-0.000054	0.000000	No
			Ca	0.000006	0.000000	No
			Mn	0.000331	0.000000	No
			Mo	0.000111	0.000000	No
			Al	0.000001	0.000000	No
			V	0.000000	0.000000	No
			Zn	0.000000	0.000000	No
			Sr	-0.000111	0.000000	No
			As	0.000125	0.000000	No
			Cd	-0.000250	0.000000	No
			Mg	0.000002	0.000000	No
			Cr	-0.000326	0.000000	No
Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
Sr 407.771 { 83}	☒	2	Ca	-0.000009	0.000000	No
			Al	0.000012	0.000000	No
Ti 334.941 {101}	☒	1	Ca	-0.000006	0.000000	No
Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
			Fe	-0.000043	0.000000	No
			Al	0.000000	0.000000	No
			Ba	-0.000051	0.000000	No
			Ti	-0.000648	0.000000	No
			Sb	0.000167	0.000000	No
			Ca	0.000001	0.000000	No
			Cr	0.000340	0.000000	No
			Mg	-0.000002	0.000000	No
			V	0.000015	0.000000	No
V 292.402 {115}	☒	5	Fe	0.000010	0.000000	No
			Cr	-0.003634	0.000000	No
			Mo	-0.009536	0.000000	No
			Ti	0.000303	0.000000	No
			Mn	-0.000333	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
			Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000006	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000398	0.698819	0.000000	1.000000
Al 396.152 { 85}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001031	0.166544	0.000000	1.000000
As 189.042 {478}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000305	0.122343	0.000000	1.000000
B 249.773 {135}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.003071	0.340828	0.000000	1.000000
Ba 455.403 { 74}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001720	9.344939	0.000000	1.000000
Be 313.042 {108}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.001182	15.325199	0.000000	1.000000
Ca 317.933 {106}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001541	0.451948	0.000000	1.000000
Cd 226.502 {449}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000783	4.979372	0.000000	1.000000
Co 228.616 {447}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000475	2.794917	0.000000	1.000000
Cr 267.716 {126}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000188	0.811923	0.000000	1.000000
Cu 324.754 {104}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.008227	0.947530	0.000000	1.000000
Fe 259.940 {130}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000040	0.283129	0.000000	1.000000
In 230.606 {446}*	11/8/2023 11:46:00	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.002005	0.077198	0.000000	1.000000
Li 670.784 { 50}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.005088	1.742898	0.000000	1.000000
Mg 279.079 {121}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000099	0.053759	0.000000	1.000000
Mn 257.610 {131}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000534	4.031864	0.000000	1.000000
Mo 202.030 {467}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000360	0.943381	0.000000	1.000000
Na 589.592 { 57}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.015776	0.231903	0.000000	1.000000
Ni 231.604 {445}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000675	1.642129	0.000000	1.000000
Pb 220.353 {453}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.003797	1.297473	0.000000	1.000000
Sb 206.833 {463}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000353	0.187909	0.000000	1.000000
Se 196.090 {472}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000430	0.092651	0.000000	1.000000
Si 212.412 {459}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.004225	0.313081	0.000000	1.000000
Sn 189.989 {477}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000218	0.378237	0.000000	1.000000
Sr 407.771 { 83}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000415	14.617256	0.000000	1.000000
Ti 334.941 {101}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.001513	2.360725	0.000000	1.000000
Tl 190.856 {477}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000740	0.291999	0.000000	1.000000
V 292.402 {115}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	-0.000279	1.138731	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	11/8/2023 11:46:00	11/8/2023 10:57:11	Linear	1/Conc	0.000798	3.118625	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999959	0.000022	0.000410	0.001367	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999903	0.000483	0.008294	0.027648	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999881	0.000020	0.001019	0.003397	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999695	0.000202	0.001580	0.005266	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999919	0.005608	0.000199	0.000662	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999876	0.001774	0.000043	0.000143	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999831	0.003880	0.001778	0.005926	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999954	0.000352	0.000047	0.000156	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999966	0.000537	0.000095	0.000317	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999936	0.000096	0.000249	0.000829	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999955	0.000147	0.000336	0.001121	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999796	0.001460	0.001411	0.004704	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999924	0.001018	0.029216	0.097387	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999915	0.000224	0.001433	0.004777	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999797	0.001143	0.010359	0.034530	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999868	0.000836	0.000043	0.000142	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999955	0.000208	0.000149	0.000495	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999578	0.007226	0.009703	0.032345	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999965	0.000287	0.000164	0.000546	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999440	0.000322	0.000482	0.001605	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999946	0.000014	0.001210	0.004034	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999930	0.000011	0.002099	0.006998	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.986473	0.002801	0.000526	0.001752	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999918	0.000113	0.000338	0.001128	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999810	0.002970	0.000077	0.000256	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999926	0.000299	0.000121	0.000402	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999702	0.000074	0.000988	0.003293	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999954	0.000252	0.000243	0.000809	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999951	0.000454	0.000055	0.000182	OK.	1.000000	0.000000	1	0

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/9/2023 9:38:32 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0004**	**.0015**	**-.0007**	**.0056**	**.0083**	**.0006**	**.0053**	**-.0001**	**-.0006**
Stddev	.0001	.0016	.0001	.0004	.0004	.0005	.0005	.0003	.0001
%RSD	22.24	102.7	21.42	7.099	4.532	80.90	8.669	259.4	14.89
#1	-.0004	-.0003	-.0006	.0061	.0082	.0009	.0047	-.0004	-.0007
#2	-.0004	.0024	-.0008	.0053	.0087	.0008	.0054	-.0003	-.0005
#3	-.0005	.0025	-.0006	.0054	.0080	.0000	.0056	.0002	-.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0002**	**.0034**	**.0002**	**.0058**	**-.0027**	**-.0007**	**.0003**	**.0012**	**.0195**
Stddev	.0002	.0001	.0003	.0022	.0002	.0003	.0001	.0001	.0008
%RSD	127.7	4.380	161.9	36.89	8.652	49.76	38.15	12.49	4.142
#1	.0001	.0034	.0001	.0064	-.0026	-.0009	.0004	.0013	.0199
#2	.0000	.0032	.0005	.0035	-.0027	-.0009	.0002	.0013	.0200
#3	.0004	.0035	-.0001	.0077	-.0030	-.0003	.0003	.0010	.0185

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0009**	**-.0022**	**.0009**	**.0001**	**.0072**	**.0004**	**-.0007**	**.0009**	**-.0017**
Stddev	.0002	.0001	.0001	.0002	.0001	.0001	.0008	.0002	.0007
%RSD	16.71	3.639	13.50	355.5	1.089	25.59	107.4	23.96	42.07
#1	-.0009	-.0021	.0010	-.0001	.0072	.0004	.0000	.0010	-.0012
#2	-.0008	-.0022	.0009	.0003	.0071	.0003	-.0015	.0011	-.0013
#3	-.0011	-.0023	.0008	.0000	.0072	.0005	-.0005	.0007	-.0025

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0003**	**.0011**
Stddev	.0001	.0001
%RSD	39.30	5.417
#1	-.0004	.0011
#2	-.0002	.0011
#3	-.0002	.0012

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 11/9/2023 9:38:32 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**851.67**	**2190.2**	**20503.**	**4034.2**
Stddev	4.79	9.4	86.	26.8
%RSD	.56274	.42803	.41829	.66553
#1	856.17	2199.2	20598.	4041.4
#2	852.22	2190.9	20478.	4004.5
#3	846.63	2180.5	20432.	4056.8

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/9/2023 9:43:15 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0059**	**.0419**	**.0012**	**.0281**	**3.544**	**.0578**	**.3391**	**.0263**	**.1379**
Stddev	.0003	.0014	.0002	.0004	.007	.0003	.0018	.0003	.0006
%RSD	4.878	3.221	17.61	1.298	.2042	.5208	.5172	1.218	.4268
#1	.0062	.0435	.0011	.0284	3.536	.0582	.3383	.0263	.1378
#2	.0058	.0409	.0011	.0277	3.550	.0577	.3411	.0266	.1385
#3	.0056	.0415	.0015	.0281	3.547	.0576	.3378	.0260	.1374

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0046**	**.0315**	**.0588**	**1.542**	**.0216**	**.1515**	**.0553**	**.0642**	**5.451**
Stddev	.0002	.0001	.0005	.004	.0038	.0006	.0002	.0003	.011
%RSD	3.880	.3291	.8966	.2489	17.71	.4193	.2957	.5419	.2062
#1	.0048	.0316	.0586	1.538	.0207	.1522	.0555	.0642	5.438
#2	.0047	.0314	.0594	1.546	.0258	.1510	.0553	.0646	5.458
#3	.0045	.0315	.0584	1.543	.0183	.1513	.0552	.0639	5.458

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0603**	**.0049**	**.0020**	**.0013**	**.0236**	**.2301**	**.0244**	**.0043**	**.0452**
Stddev	.0007	.0009	.0003	.0001	.0001	.0007	.0002	.0007	.0001
%RSD	1.152	18.40	14.67	7.395	.6348	.2897	.8179	15.64	.2837
#1	.0611	.0055	.0024	.0012	.0237	.2304	.0246	.0048	.0451
#2	.0599	.0039	.0018	.0014	.0237	.2293	.0242	.0044	.0453
#3	.0599	.0053	.0019	.0013	.0235	.2306	.0245	.0035	.0452

Elem	Zn2062
Units	Cts/S
Avg	**.0538**
Stddev	.0004
%RSD	.7930
#1	.0542
#2	.0534
#3	.0536

◀ Zoom In ▶ Zoom Out

Sample Name: STDB Acquired: 11/9/2023 9:43:15 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**805.62**	**2167.6**	**19932.**	**4073.1**
Stddev	.45	3.6	122.	9.6
%RSD	.05643	.16706	.61226	.23647
#1	805.88	2168.5	19854.	4078.7
#2	805.10	2163.7	19870.	4062.0
#3	805.89	2170.8	20073.	4078.6

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/9/2023 9:47:11 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0191**	**1.060**	**.0443**	**.1325**	**4.441**	**2.879**	**1.724**	**1.335**	**.7072**
Stddev	.0000	.003	.0004	.0014	.021	.015	.005	.009	.0045
%RSD	.2572	.2861	.9683	1.041	.4738	.5169	.2984	.6480	.6360
#1	.0191	1.057	.0444	.1331	4.417	2.863	1.721	1.339	.7087
#2	.0192	1.063	.0446	.1309	4.458	2.891	1.730	1.341	.7107
#3	.0191	1.061	.0438	.1335	4.447	2.884	1.721	1.325	.7021

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1176**	**.2830**	**.9864**	**.7991**	**.7255**	**.1557**	**.9194**	**.3285**	**3.069**
Stddev	.0002	.0010	.0083	.0019	.0030	.0010	.0012	.0020	.017
%RSD	.1660	.3631	.8462	.2394	.4104	.6687	.1315	.6067	.5625
#1	.1176	.2822	.9769	.7974	.7237	.1546	.9180	.3296	3.050
#2	.1175	.2826	.9902	.7987	.7289	.1567	.9201	.3298	3.084
#3	.1179	.2841	.9922	.8011	.7239	.1560	.9202	.3262	3.071

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3827**	**.3584**	**.0765**	**.0381**	**.1454**	**.1191**	**5.814**	**.5706**	**.1409**
Stddev	.0029	.0019	.0008	.0004	.0005	.0009	.017	.0027	.0022
%RSD	.7641	.5415	1.087	1.180	.3534	.7784	.2851	.4722	1.588
#1	.3851	.3586	.0769	.0382	.1454	.1193	5.795	.5675	.1395
#2	.3835	.3602	.0770	.0385	.1460	.1198	5.827	.5717	.1435
#3	.3794	.3563	.0755	.0376	.1449	.1180	5.819	.5725	.1397

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2254**	**.6505**
Stddev	.0006	.0043
%RSD	.2804	.6639
#1	.2247	.6530
#2	.2254	.6529
#3	.2260	.6455

Zoom In Zoom Out

Sample Name: STDC Acquired: 11/9/2023 9:47:11 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**786.82**	**2120.8**	**19808.**	**4012.8**
Stddev	3.45	9.9	47.	23.2
%RSD	.43910	.46538	.23658	.57791
#1	787.82	2116.5	19861.	4037.8
#2	782.97	2113.8	19790.	3992.1
#3	789.66	2132.1	19773.	4008.4

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/9/2023 9:51:14 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0381**	**2.093**	**.0897**	**.2604**	**8.788**	**5.700**	**3.385**	**2.627**	**1.393**
Stddev	.0001	.009	.0006	.0011	.031	.021	.014	.005	.003
%RSD	.3535	.4128	.7007	.4272	.3574	.3776	.4158	.1936	.1888
#1	.0380	2.094	.0895	.2608	8.767	5.696	3.379	2.624	1.391
#2	.0382	2.084	.0891	.2613	8.773	5.680	3.375	2.633	1.393
#3	.0382	2.102	.0903	.2592	8.824	5.723	3.401	2.625	1.396

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2327**	**.5521**	**1.950**	**1.593**	**1.440**	**.3079**	**1.798**	**.6510**	**6.056**
Stddev	.0018	.0006	.004	.003	.005	.0006	.008	.0010	.020
%RSD	.7621	.1069	.2009	.2041	.3808	.1891	.4284	.1524	.3292
#1	.2319	.5525	1.952	1.591	1.439	.3082	1.794	.6507	6.042
#2	.2347	.5523	1.946	1.591	1.435	.3082	1.807	.6503	6.049
#3	.2314	.5514	1.953	1.597	1.446	.3072	1.793	.6522	6.079

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7502**	**.7191**	**.1507**	**.0765**	**.2817**	**.2330**	**11.43**	**1.121**	**.2812**
Stddev	.0021	.0029	.0004	.0002	.0003	.0006	.04	.003	.0011
%RSD	.2862	.3966	.2651	.2320	.1208	.2702	.3398	.2556	.3819
#1	.7488	.7167	.1508	.0764	.2816	.2330	11.42	1.118	.2818
#2	.7527	.7223	.1503	.0766	.2821	.2336	11.40	1.124	.2818
#3	.7490	.7184	.1511	.0763	.2815	.2323	11.48	1.122	.2800

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4481**	**1.282**
Stddev	.0018	.005
%RSD	.4070	.3655
#1	.4460	1.278
#2	.4494	1.287
#3	.4488	1.282

Zoom In Zoom Out

Sample Name: STDD Acquired: 11/9/2023 9:51:14 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**771.81**	**2125.0**	**19837.**	**4050.9**
Stddev	1.03	1.8	60.	16.1
%RSD	.13356	.08670	.30246	.39699
#1	772.97	2126.9	19906.	4044.4
#2	771.02	2124.7	19800.	4069.2
#3	771.42	2123.3	19805.	4039.0

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/9/2023 9:55:07 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0754	4.057	.1799	.4990	17.67	11.45	6.534	5.193	2.736
Stddev	.0002	.014	.0004	.0033	.03	.03	.026	.007	.005
%RSD	.2010	.3422	.2050	.6541	.1633	.2667	.3928	.1353	.1672
#1	.0752	4.041	.1801	.4981	17.64	11.42	6.507	5.201	2.740
#2	.0754	4.066	.1801	.4963	17.70	11.48	6.558	5.189	2.736
#3	.0755	4.064	.1794	.5027	17.68	11.45	6.538	5.188	2.731

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.4692	1.101	3.808	3.090	2.871	.5951	3.602	1.285	11.72
Stddev	.0015	.002	.014	.010	.009	.0014	.005	.001	.01
%RSD	.3277	.1356	.3719	.3277	.3205	.2426	.1429	.0866	.0689
#1	.4701	1.100	3.792	3.080	2.861	.5936	3.608	1.285	11.71
#2	.4700	1.103	3.810	3.100	2.879	.5965	3.601	1.286	11.73
#3	.4674	1.101	3.820	3.090	2.873	.5951	3.598	1.284	11.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.475	1.445	.2977	.1522	.3953	.4549	22.71	2.224	.5569
Stddev	.003	.003	.0014	.0008	.0012	.0009	.05	.001	.0027
%RSD	.2005	.1826	.4572	.5515	.2934	.2055	.2286	.0631	.4860
#1	1.478	1.443	.2979	.1518	.3964	.4559	22.65	2.222	.5539
#2	1.472	1.445	.2963	.1532	.3955	.4540	22.75	2.224	.5574
#3	1.474	1.448	.2990	.1516	.3941	.4547	22.72	2.224	.5593

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	.8930	2.531
Stddev	.0022	.004
%RSD	.2467	.1780
#1	.8947	2.536
#2	.8905	2.531
#3	.8939	2.527

Zoom In Zoom Out

Sample Name: STDE Acquired: 11/9/2023 9:55:07 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	745.92	2105.7	19390.	4062.5
Stddev	2.68	.9	28.	16.6
%RSD	.35920	.04119	.14636	.40825
#1	748.82	2106.2	19379.	4064.6
#2	745.38	2106.2	19422.	4045.0
#3	743.55	2104.7	19369.	4078.0

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/9/2023 9:58:45 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1524	8.248	.3711	1.027	35.96	23.13	13.18	10.51	5.521
Stddev	.0013	.065	.0005	.002	.29	.23	.10	.01	.002
%RSD	.8237	.7849	.1431	.1654	.8170	.9973	.7700	.0917	.0438
#1	.1516	8.221	.3718	1.028	35.84	23.02	13.15	10.51	5.522
#2	.1539	8.322	.3709	1.029	36.30	23.40	13.29	10.52	5.522
#3	.1519	8.201	.3708	1.026	35.75	22.98	13.10	10.50	5.518

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.9473	2.224	7.649	6.330	5.885	1.209	7.211	2.620	23.90
Stddev	.0010	.006	.093	.050	.040	.014	.004	.001	.22
%RSD	.1047	.2745	1.218	.7939	.6786	1.125	.0486	.0333	.9172
#1	.9484	2.219	7.594	6.310	5.871	1.199	7.213	2.619	23.81
#2	.9467	2.230	7.757	6.387	5.930	1.224	7.214	2.621	24.15
#3	.9466	2.221	7.597	6.293	5.854	1.203	7.207	2.619	23.75

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.955	2.969	.6123	.3117	.8042	.9183	46.10	4.510	1.123
Stddev	.003	.006	.0015	.0006	.0019	.0014	.43	.003	.004
%RSD	.0840	.1983	.2414	.1977	.2345	.1498	.9269	.0640	.3460
#1	2.957	2.968	.6106	.3111	.8030	.9191	45.91	4.512	1.121
#2	2.956	2.976	.6131	.3123	.8063	.9190	46.59	4.512	1.127
#3	2.952	2.965	.6132	.3119	.8031	.9167	45.81	4.507	1.120

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	1.796	5.133
Stddev	.005	.007
%RSD	.2986	.1385
#1	1.790	5.140
#2	1.800	5.131
#3	1.798	5.126

Zoom In Zoom Out

Sample Name: STDF Acquired: 11/9/2023 9:58:45 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	702.75	2032.9	18912.	3978.2
Stddev	1.10	2.3	31.	33.1
%RSD	.15705	.11323	.16496	.83262
#1	703.72	2034.9	18902.	4000.2
#2	701.55	2030.3	18947.	3940.1
#3	702.97	2033.4	18887.	3994.4

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/9/2023 10:02:41 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.3057	16.64	.7583	2.107	72.29	45.98	26.37	20.74	10.91
Stddev	.0027	.05	.0051	.015	.30	.19	.07	.12	.06
%RSD	.8920	.2865	.6762	.7133	.4129	.4113	.2555	.5749	.5812
#1	.3086	16.58	.7528	2.092	71.98	45.77	26.29	20.61	10.85
#2	.3053	16.66	.7592	2.107	72.32	46.14	26.43	20.77	10.93
#3	.3032	16.67	.7629	2.122	72.58	46.02	26.38	20.85	10.97

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.885	4.476	15.22	12.85	12.07	2.414	14.26	5.230	48.09
Stddev	.024	.029	.08	.05	.04	.014	.14	.029	.20
%RSD	1.278	.6543	.5014	.3866	.3081	.5720	1.000	.5621	.4155
#1	1.912	4.499	15.14	12.79	12.03	2.400	14.41	5.199	47.87
#2	1.873	4.487	15.28	12.86	12.07	2.428	14.23	5.235	48.24
#3	1.868	4.443	15.26	12.89	12.11	2.415	14.13	5.257	48.17

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.815	5.943	1.248	.6291	1.512	1.813	92.02	9.080	2.203
Stddev	.033	.025	.006	.0040	.006	.010	.49	.066	.009
%RSD	.5596	.4115	.4704	.6281	.4280	.5294	.5359	.7232	.4056
#1	5.779	5.915	1.242	.6254	1.506	1.802	92.43	9.136	2.193
#2	5.825	5.955	1.248	.6286	1.511	1.814	92.15	9.097	2.209
#3	5.842	5.958	1.254	.6332	1.519	1.821	91.47	9.008	2.206

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	3.600	10.13
Stddev	.032	.06
%RSD	.8927	.6228
#1	3.633	10.07
#2	3.599	10.15
#3	3.568	10.19

Zoom In Zoom Out

Sample Name: STDG Acquired: 11/9/2023 10:02:41 Type: Cal
Method: 60102007_COMBO_10242022(v374) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	658.95	1952.2	18264.	3944.9
Stddev	2.37	10.5	203.	23.5
%RSD	.35994	.53752	1.1138	.59636
#1	661.69	1963.7	18029.	3961.7
#2	657.42	1949.8	18377.	3918.0
#3	657.75	1943.1	18384.	3955.0

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:14:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Se1960
Units	ppm
Avg	.0084
Stddev	.0015
%RSD	17.83
#1	.0079
#2	.0101
#3	.0072
Check ?	Chk Pass
Value	
Range	

Int. Std.	Y_2243
Units	Cts/S
Avg	2124.3
Stddev	4.1
%RSD	.19316
#1	2120.0
#2	2124.5
#3	2128.2

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:20:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093	.1940	.0102	F .0428	.1997	.0050	1.033	.0051	.0510
Stddev	.0002	.0062	.0003	.0003	.0004	.0000	.004	.0000	.0002
%RSD	2.184	3.213	3.014	.6569	.2065	.3354	.3624	.4782	.3827
#1	.0091	.1957	.0106	.0427	.1994	.0050	1.036	.0051	.0508
#2	.0094	.1993	.0100	.0431	.1996	.0050	1.028	.0051	.0512
#3	.0095	.1871	.0101	.0425	.2002	.0050	1.034	.0050	.0509
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098	.0250	.3125	9.927	.0100	5.049	.0153	.0489	9.182
Stddev	.0002	.0001	.0060	.010	.0006	.049	.0001	.0003	.021
%RSD	2.088	.5604	1.921	.1004	6.480	.9791	.4174	.5808	.2322
#1	.0100	.0251	.3172	9.919	.0102	5.059	.0153	.0488	9.191
#2	.0098	.0249	.3057	9.924	.0093	4.995	.0154	.0492	9.157
#3	.0096	.0251	.3146	9.938	.0106	5.092	.0153	.0487	9.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Si2124	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0415	.0046	.0044	.0314	.0514	.0100	.0103	.0102	.0497
Stddev	.0001	.0002	.0009	.0003	.0004	.0001	.0000	.0008	.0002
%RSD	.2776	4.657	19.78	.9122	.8522	.5473	.1861	7.448	.4791
#1	.0413	.0048	.0043	.0317	.0518	.0101	.0103	.0102	.0500
#2	.0415	.0044	.0053	.0311	.0514	.0100	.0103	.0094	.0497
#3	.0415	.0046	.0036	.0313	.0510	.0100	.0103	.0109	.0495
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 11/9/2023 10:20:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Zn2062
Units	ppm
Avg	**.0205**
Stddev	.0002
%RSD	.7615
#1	.0206
#2	.0206
#3	.0204
Check ?	Chk Pass
Value	
Range	

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**803.21**	**2165.3**	**20095.**	**4065.1**
Stddev	5.57	9.6	53.	11.6
%RSD	.69321	.44495	.26289	.28509
#1	809.22	2174.3	20092.	4067.5
#2	802.16	2166.4	20044.	4075.4
#3	798.24	2155.2	20149.	4052.6

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/9/2023 10:29:40 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5002**	**79.81**	**4.103**	**4.147**	**3.980**	**3.981**	**79.40**	**4.017**	**4.011**
Stddev	.0077	.39	.021	.018	.060	.020	.45	.024	.023
%RSD	1.541	.4853	.5167	.4343	1.514	.4969	.5690	.5924	.5684
#1	.4921	80.24	4.125	4.141	4.033	4.002	79.92	4.043	4.037
#2	.5074	79.67	4.102	4.167	3.915	3.977	79.16	4.009	4.003
#3	.5012	79.51	4.083	4.133	3.991	3.963	79.12	3.997	3.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.035**	**4.038**	**79.27**	**80.58**	**4.041**	**79.35**	**4.001**	**4.048**	**80.29**
Stddev	.074	.073	.64	.50	.020	.64	.063	.023	.48
%RSD	1.824	1.814	.8026	.6253	.4981	.8091	1.569	.5715	.6040
#1	3.970	3.959	79.98	81.13	4.063	80.08	3.942	4.073	80.84
#2	4.115	4.104	79.11	80.45	4.034	79.11	4.067	4.044	80.15
#3	4.022	4.052	78.74	80.15	4.025	78.87	3.996	4.028	79.90
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.990**	**4.073**	**4.078**	**4.082**	**3.784**	**4.008**	**3.951**	**4.049**	**3.992**
Stddev	.022	.012	.020	.021	.021	.023	.035	.058	.007
%RSD	.5579	.2932	.4891	.5115	.5485	.5828	.8985	1.422	.1785
#1	4.016	4.087	4.099	4.106	3.808	4.035	3.974	3.986	3.994
#2	3.983	4.068	4.076	4.072	3.772	3.995	3.970	4.099	3.997
#3	3.973	4.065	4.060	4.067	3.772	3.994	3.910	4.061	3.984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 11/9/2023 10:29:40 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**4.027**	**4.022**
Stddev	.067	.027
%RSD	1.652	.6659
#1	3.962	4.052
#2	4.095	4.013
#3	4.024	4.001
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**656.06**	**1947.9**	**18335.**	**4031.7**
Stddev	.54	6.4	250.	36.0
%RSD	.08284	.32761	1.3652	.89271
#1	655.97	1941.1	18587.	3990.8
#2	655.56	1948.9	18087.	4058.6
#3	656.64	1953.7	18331.	4045.8

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/9/2023 10:36:45 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2530**	**41.35**	**2.051**	**2.088**	**2.067**	**2.075**	**41.54**	**2.060**	**2.060**
Stddev	.0005	.06	.001	.012	.014	.008	.01	.004	.002
%RSD	.1850	.1525	.0258	.5685	.6553	.3896	.0269	.1845	.1149
#1	.2524	41.34	2.051	2.095	2.057	2.074	41.53	2.065	2.061
#2	.2532	41.29	2.051	2.074	2.060	2.068	41.56	2.057	2.057
#3	.2533	41.41	2.052	2.095	2.082	2.084	41.54	2.059	2.061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.071**	**2.060**	**41.63**	**41.50**	**2.070**	**41.53**	**2.070**	**2.067**	**41.67**
Stddev	.006	.004	.19	.25	.006	.08	.002	.001	.19
%RSD	.2801	.2146	.4657	.6070	.2835	.1913	.0966	.0304	.4452
#1	2.067	2.055	41.51	41.30	2.066	41.56	2.069	2.067	41.63
#2	2.069	2.061	41.52	41.43	2.068	41.44	2.069	2.066	41.51
#3	2.078	2.064	41.85	41.78	2.077	41.59	2.073	2.067	41.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.070**	**2.045**	**2.048**	**2.236**	**2.077**	**2.084**	**2.081**	**2.063**
Stddev	.005	.004	.002	.003	.001	.002	.010	.002	.004
%RSD	.2472	.1875	.1088	.1318	.0281	.0943	.4923	.0943	.1894
#1	2.060	2.073	2.047	2.047	2.236	2.079	2.083	2.084	2.066
#2	2.051	2.066	2.046	2.046	2.236	2.077	2.074	2.080	2.059
#3	2.051	2.072	2.043	2.051	2.237	2.076	2.094	2.080	2.066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 11/9/2023 10:36:45 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.083**	**2.063**
Stddev	.003	.004
%RSD	.1653	.1845
#1	2.083	2.067
#2	2.079	2.060
#3	2.086	2.061
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**703.64**	**2048.3**	**19057.**	**4010.4**
Stddev	2.27	3.1	48.	16.6
%RSD	.32287	.15201	.25395	.41476
#1	703.21	2048.7	19087.	4020.3
#2	706.10	2051.2	19083.	3991.2
#3	701.62	2045.0	19001.	4019.7

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/9/2023 10:44:31 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0055**	**.0003**	F **-.0036**	**.0000**	**.0000**	**-.0028**	**-.0001**
Stddev	.0001	.0075	.0007	.0015	.0001	.0001	.0027	.0000
%RSD	167.6	135.2	218.4	42.05	189.0	192.5	98.09	24.46
#1	.0001	.0011	.0011	-.0045	.0000	.0001	-.0002	-.0001
#2	.0000	-.0137	.0001	-.0044	.0001	.0000	-.0025	-.0002
#3	.0000	-.0040	-.0003	-.0018	.0000	.0001	-.0056	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**-.0001**	**.0027**	**-.0076**	**-.0009**	**.0103**	**-.0001**
Stddev	.0001	.0001	.0001	.0010	.0129	.0010	.0211	.0000
%RSD	106.3	69.10	83.27	38.65	169.8	117.0	205.4	18.84
#1	-.0001	-.0001	.0000	.0020	.0072	.0002	-.0059	-.0001
#2	-.0001	-.0004	-.0002	.0022	-.0135	-.0018	.0026	-.0001
#3	.0000	-.0001	-.0001	.0039	-.0166	-.0009	.0341	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0072**	**.0000**	**-.0007**	**-.0009**	F **-.0022**	**-.0006**	**-.0005**
Stddev	.000	.0045	.000	.0010	.0008	.0004	.0002	.0001
%RSD	659.6	62.36	1893.	132.7	81.47	19.47	38.04	11.85
#1	.0000	-.0021	-.0001	-.0010	-.0017	-.0017	-.0009	-.0006
#2	.0001	-.0092	.0003	-.0015	-.0002	-.0025	-.0004	-.0005
#3	-.0002	-.0103	-.0002	.0003	-.0009	-.0023	-.0005	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: ICB Acquired: 11/9/2023 10:44:31 Type: QC
Method: 60102007_COMBO_10242022(v374) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0003**	**-.0001**	**-.0001**
Stddev	.000	.0001	.0018	.0001	.0000
%RSD	16.12	305.9	534.5	138.8	28.50
#1	-.0001	-.0001	-.0017	.0000	-.0001
#2	.0000	.0000	.0010	-.0001	-.0001
#3	.0000	.0002	.0017	-.0002	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.66**	**2153.4**	**20270.**	**4060.7**
Stddev	.68	6.7	45.	26.6
%RSD	.08194	.31213	.22075	.65590
#1	835.24	2159.1	20303.	4090.1
#2	836.45	2155.2	20287.	4038.2
#3	835.30	2146.0	20219.	4053.8

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/9/2023 10:49:09 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0007**	**512.7**	**-.0020**	**.0007**	**.0003**	**.0000**	**472.3**	**.0001**	**.0004**
Stddev	.0027	9.3	.0026	.0031	.0002	.000	5.1	.0013	.0001
%RSD	369.8	1.811	130.8	447.1	58.99	52.56	1.079	2267.	30.08
#1	-.0038	505.4	-.0018	.0042	.0001	.0000	467.7	.0014	.0003
#2	.0006	523.1	.0005	-.0008	.0003	.0000	477.8	-.0001	.0005
#3	.0010	509.5	-.0046	-.0013	.0004	.0000	471.4	-.0011	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0000**	F **466.4**	**.0175**	**.0000**	**521.7**	**.0000**	**-.0009**	**.2887**
Stddev	.0001	.001	8.0	.0235	.0009	8.8	.0002	.0003	.0083
%RSD	42.97	2686.	1.724	133.9	15190.	1.688	653.2	32.46	2.876
#1	.0005	-.0014	457.3	.0437	.0004	511.7	-.0001	-.0007	.2808
#2	.0004	.0003	469.6	.0105	.0007	528.5	.0002	-.0007	.2879
#3	.0002	.0009	472.4	-.0016	-.0010	524.7	.0001	-.0012	.2974
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit			240.0						
Low Limit			160.0						

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**.0000**	**.0012**	**.0001**	**.0846**	**-.0008**	**-.0004**	**-.0001**	**-.0004**
Stddev	.0003	.003	.0012	.0012	.0009	.0001	.0001	.0001	.0023
%RSD	63.94	8860.	104.9	1774.	1.081	8.922	25.04	123.7	599.2
#1	-.0006	.0011	.0012	-.0002	.0841	-.0007	-.0003	-.0002	-.0002
#2	-.0006	-.0034	-.0001	-.0010	.0857	-.0008	-.0006	.0000	-.0028
#3	-.0001	.0022	.0024	.0014	.0841	-.0008	-.0004	.0000	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 11/9/2023 10:49:09 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0011**
Stddev	.000	.0002
%RSD	2726.	20.19
#1	.0002	.0008
#2	-.0001	.0011
#3	-.0002	.0013
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**629.56**	**1797.1**	**16599.**	**3854.6**
Stddev	1.91	2.3	115.	54.1
%RSD	.30313	.12943	.69124	1.4042
#1	627.37	1794.5	16480.	3914.2
#2	630.51	1797.7	16709.	3808.4
#3	630.82	1799.1	16608.	3841.3

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/9/2023 10:58:04 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.026**	**509.7**	**1.018**	**1.018**	**.4844**	**.4933**	**475.2**	**.9534**	**.4633**
Stddev	.006	5.1	.005	.008	.0010	.0006	4.9	.0021	.0009
%RSD	.5849	.9926	.4498	.7513	.2012	.1228	1.028	.2191	.1983
#1	1.019	514.8	1.013	1.009	.4854	.4934	480.6	.9513	.4622
#2	1.027	504.7	1.020	1.023	.4835	.4939	471.1	.9554	.4640
#3	1.031	509.6	1.022	1.021	.4842	.4927	473.9	.9535	.4636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4814**	**.5372**	**188.3**	**.0508**	F **.5421**	**530.3**	**.5013**	**.9123**	**.2993**
Stddev	.0060	.0039	.9	.0128	.0017	2.4	.0041	.0024	.0030
%RSD	1.238	.7174	.4779	25.31	.3050	.4528	.8253	.2626	.9918
#1	.4745	.5356	189.3	.0652	.5437	533.0	.4967	.9097	.2970
#2	.4854	.5344	187.5	.0407	.5404	528.5	.5024	.9128	.2982
#3	.4841	.5416	188.0	.0464	.5423	529.4	.5048	.9144	.3027
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8935**	**.9472**	**1.026**	**.9415**	**.0424**	**.8838**	**1.007**	**1.012**	**.9180**
Stddev	.0026	.0028	.007	.0037	.0013	.0027	.001	.006	.0040
%RSD	.2919	.2978	.6912	.3878	3.010	.3068	.1209	.5811	.4407
#1	.8905	.9442	1.018	.9376	.0436	.8822	1.007	1.006	.9217
#2	.8945	.9477	1.028	.9448	.0426	.8869	1.008	1.012	.9137
#3	.8954	.9498	1.031	.9421	.0411	.8823	1.006	1.018	.9186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 11/9/2023 10:58:04 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5107**	**.9232**
Stddev	.0035	.0021
%RSD	.6913	.2327
#1	.5068	.9220
#2	.5115	.9257
#3	.5137	.9220
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**599.89**	**1831.4**	**16894.**	**3841.5**
Stddev	1.96	5.7	148.	24.7
%RSD	.32639	.31009	.87866	.64406
#1	600.54	1837.9	17063.	3813.7
#2	601.43	1828.6	16833.	3861.0
#3	597.69	1827.6	16786.	3849.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 11:07:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2476**	**39.50**	**2.015**	**1.992**	**1.994**	**2.000**	**39.65**	**2.031**	**2.030**
Stddev	.0005	.38	.027	.041	.021	.019	.27	.030	.032
%RSD	.2112	.9639	1.361	2.056	1.029	.9325	.6913	1.474	1.576
#1	.2474	39.28	1.983	1.945	1.978	1.989	39.48	1.997	1.993
#2	.2482	39.94	2.030	2.023	2.017	2.022	39.97	2.050	2.049
#3	.2473	39.29	2.031	2.007	1.988	1.990	39.50	2.047	2.048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.994**	**1.991**	**40.04**	**39.72**	**1.962**	**39.88**	**2.001**	**2.027**	**39.86**
Stddev	.017	.006	.36	.34	.018	.47	.009	.030	.41
%RSD	.8299	.3041	.8877	.8445	.9280	1.167	.4635	1.467	1.039
#1	1.997	1.984	39.83	39.43	1.949	39.63	2.005	1.993	39.62
#2	2.008	1.993	40.45	40.09	1.983	40.42	2.008	2.044	40.34
#3	1.976	1.995	39.85	39.64	1.955	39.60	1.990	2.044	39.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.032**	**2.031**	**2.000**	**2.014**	**2.006**	**2.029**	**1.989**	**1.999**	**2.034**
Stddev	.033	.033	.033	.038	.033	.030	.023	.004	.027
%RSD	1.643	1.634	1.632	1.897	1.622	1.482	1.160	.2031	1.322
#1	1.994	1.993	1.963	1.970	1.969	1.994	1.976	2.001	2.003
#2	2.051	2.057	2.020	2.039	2.026	2.045	2.016	1.994	2.052
#3	2.052	2.042	2.019	2.032	2.024	2.048	1.976	2.002	2.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 11:07:42 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.993**	**2.032**
Stddev	.004	.030
%RSD	.1896	1.472
#1	1.992	1.997
#2	1.997	2.052
#3	1.989	2.045
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**699.13**	**2024.4**	**19133.**	**4017.9**
Stddev	11.05	30.3	48.	24.5
%RSD	1.5807	1.4959	.25255	.60875
#1	711.71	2059.3	19102.	4019.1
#2	691.00	2005.8	19110.	3992.9
#3	694.68	2008.0	19189.	4041.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 11:15:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0016**	**-.0001**	F **-.0054**	**.0000**	**.0000**	**-.0035**	**-.0001**
Stddev	.0004	.0032	.0010	.0015	.000	.000	.0011	.0001
%RSD	303.8	202.1	1124.	27.16	1041.	231.5	31.85	74.92
#1	-.0003	-.0010	-.0008	-.0071	.0000	.0000	-.0031	.0000
#2	.0003	-.0051	.0010	-.0044	.0001	-.0001	-.0048	-.0001
#3	.0004	.0013	-.0004	-.0048	-.0001	.0000	-.0027	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0008**	**.0024**	**-.0057**	**.0001**	**-.0089**	**.0000**
Stddev	.000	.0004	.0002	.0006	.0154	.0006	.0074	.000
%RSD	112.7	153.5	29.63	25.94	268.5	849.2	83.28	88.19
#1	-.0001	.0000	.0007	.0021	.0041	-.0005	-.0171	-.0001
#2	.0000	.0000	.0006	.0032	.0022	.0007	-.0027	.0000
#3	.0000	-.0007	.0010	.0021	-.0235	.0000	-.0068	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0044**	**-.0001**	**-.0007**	**-.0016**	F **-.0032**	**-.0001**	**-.0004**
Stddev	.0001	.0015	.0002	.0006	.0003	.0007	.0007	.0002
%RSD	79.35	34.08	272.2	74.40	21.49	22.70	656.3	45.00
#1	.0000	.0048	.0000	-.0008	-.0017	-.0024	-.0005	-.0004
#2	-.0001	.0056	.0001	-.0013	-.0012	-.0036	-.0004	-.0002
#3	-.0001	.0027	-.0002	-.0002	-.0018	-.0036	.0007	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 11:15:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0000**	**.0001**	**-.0001**	**.0002**
Stddev	.0001	.0001	.0002	.0002	.0000
%RSD	168.7	380.5	318.2	188.1	19.78
#1	.0000	.0000	.0000	-.0003	.0002
#2	.0000	.0000	-.0001	.0001	.0002
#3	-.0002	.0001	.0003	-.0001	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**841.77**	**2167.8**	**20362.**	**3997.7**
Stddev	9.26	22.7	131.	26.4
%RSD	1.0999	1.0476	.64306	.66055
#1	831.34	2143.4	20251.	3990.5
#2	849.01	2188.3	20329.	4026.9
#3	844.96	2171.8	20506.	3975.6

Zoom In Zoom Out

Sample Name: MP43108-MB1 Acquired: 11/9/2023 11:22:18 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0007**	**.0005**	F **-.0064**	**-.0001**	**-.0001**	**.0067**	**-.0001**
Stddev	.0002	.0028	.0014	.0008	.0001	.0000	.0012	.0000
%RSD	134.6	411.6	270.1	12.92	100.4	46.11	18.19	18.58
#1	.0004	.0039	-.0009	-.0069	-.0001	-.0001	.0079	-.0001
#2	.0001	-.0014	.0018	-.0069	-.0001	.0000	.0067	-.0001
#3	.0000	-.0004	.0007	-.0055	.0000	-.0001	.0054	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0000**	**.0012**	**-.0096**	**.0005**	**.0084**	**.0000**
Stddev	.0001	.0004	.000	.0016	.0163	.0006	.0144	.0001
%RSD	174.9	172.0	791.3	130.9	169.8	127.5	172.8	197.5
#1	.0000	.0000	.0001	.0030	-.0250	-.0001	.0248	.0000
#2	-.0002	-.0006	-.0002	.0003	.0075	.0012	-.0020	.0000
#3	.0000	.0000	.0001	.0003	-.0113	.0004	.0022	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0047**	**.0000**	**-.0003**	**-.0004**	**-.0025**	**.0017**	**-.0002**
Stddev	.0001	.0044	.000	.0001	.0003	.0021	.0001	.0004
%RSD	39.40	92.44	2189.	41.09	69.09	84.39	8.822	188.8
#1	-.0003	.0097	-.0002	-.0002	-.0004	-.0050	.0018	.0002
#2	-.0004	.0013	.0001	-.0003	-.0001	-.0010	.0015	-.0002
#3	-.0002	.0033	.0001	-.0004	-.0007	-.0017	.0017	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP43108-MB1 Acquired: 11/9/2023 11:22:18 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**-.0001**	**-.0002**	**.0007**
Stddev	.000	.0001	.0009	.0000	.0000
%RSD	228.9	319.7	594.9	19.66	4.148
#1	.0000	.0000	-.0011	-.0002	.0007
#2	.0000	.0000	.0001	-.0002	.0008
#3	.0000	.0001	.0006	-.0003	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**835.53**	**2166.7**	**20525.**	**4081.3**
Stddev	4.47	11.4	301.	22.3
%RSD	.53528	.52707	1.4668	.54561
#1	833.75	2166.8	20872.	4075.9
#2	832.23	2155.2	20330.	4062.2
#3	840.62	2178.1	20374.	4105.8

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/9/2023 11:27:25 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0041**	**.0048**	**.0921**	**.0025**	**.0000**	**43.42**	**-.0002**	**-.0003**
Stddev	.0005	.0111	.0006	.0013	.0001	.000	.02	.0001	.0001
%RSD	117.3	268.6	12.80	1.377	5.217	251.1	.0402	52.61	21.53
#1	.0008	.0069	.0042	.0934	.0026	-.0001	43.40	-.0001	-.0002
#2	-.0001	-.0081	.0048	.0909	.0024	.0000	43.44	-.0002	-.0003
#3	.0007	.0137	.0055	.0919	.0025	.0000	43.42	-.0003	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0022**	**.0060**	**.0850**	**28.07**	**.0013**	**6.271**	**6.337**	**-.0007**	**13.37**
Stddev	.0002	.0004	.0041	.16	.0015	.047	.045	.0002	.08
%RSD	9.075	7.144	4.824	.5641	116.2	.7469	.7154	26.74	.5988
#1	.0020	.0057	.0894	27.89	.0029	6.219	6.337	-.0005	13.28
#2	.0024	.0065	.0812	28.14	.0010	6.287	6.292	-.0009	13.41
#3	.0021	.0059	.0844	28.18	-.0001	6.309	6.382	-.0007	13.42

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0148**	**.0000**	**-.0015**	**-.0018**	**7.068**	**-.0007**	**.2986**	**.0015**	**.0066**
Stddev	.0004	.0005	.0014	.0048	.015	.0006	.0015	.0002	.0024
%RSD	2.425	5439.	92.85	271.7	.2121	98.62	.5025	12.91	36.95
#1	.0151	-.0005	.0001	.0036	7.085	-.0013	.2969	.0015	.0072
#2	.0150	.0004	-.0024	-.0031	7.058	.0000	.2992	.0017	.0039
#3	.0144	.0001	-.0022	-.0058	7.061	-.0007	.2997	.0013	.0086

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0001**	**.0126**
Stddev	.0003	.0001
%RSD	284.9	.8128
#1	.0002	.0125
#2	-.0002	.0125
#3	-.0003	.0127

Zoom In Zoom Out

Sample Name: FC10955-1A Acquired: 11/9/2023 11:27:25 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**781.52**	**2108.6**	**19876.**	**4083.8**
Stddev	2.33	4.4	108.	17.6
%RSD	.29829	.20997	.54260	.43101
#1	781.04	2106.1	19908.	4063.9
#2	784.05	2113.7	19964.	4090.1
#3	779.46	2106.0	19756.	4097.3

Zoom In Zoom Out

Sample Name: MP43112-MB1 Acquired: 11/9/2023 11:32:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0062**	**-.0005**	F **-.0061**	**.0010**	**.0000**	**.0044**	**-.0001**
Stddev	.0001	.0058	.0005	.0016	.0001	.000	.0014	.0000
%RSD	25.45	94.71	105.0	26.79	7.597	83.88	32.79	24.39
#1	.0003	.0005	-.0009	-.0043	.0011	-.0001	.0029	-.0002
#2	.0002	-.0084	-.0005	-.0072	.0009	.0000	.0045	-.0001
#3	.0002	-.0105	.0000	-.0069	.0010	.0000	.0058	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0050				
Low Limit				-.0050				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0002**	**.0000**	**.0020**	**.0320**	**.0003**	**.0076**	**.0001**
Stddev	.0001	.0004	.000	.0011	.0139	.0011	.0057	.0000
%RSD	34.96	170.9	4135.	53.21	43.55	375.3	75.46	22.00
#1	-.0003	-.0006	.0001	.0030	.0466	.0000	.0142	.0001
#2	-.0002	.0001	-.0001	.0020	.0307	.0016	.0046	.0001
#3	-.0002	-.0002	.0000	.0009	.0188	-.0006	.0039	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0843**	**-.0002**	**.0001**	**-.0014**	**-.0015**	**.0024**	**-.0003**
Stddev	.0001	.0010	.0002	.0004	.0012	.0013	.0007	.0001
%RSD	103.9	1.202	77.72	382.5	84.36	87.51	28.71	40.06
#1	-.0002	.0851	-.0002	.0005	.0000	-.0014	.0031	-.0003
#2	-.0002	.0832	-.0001	-.0004	-.0022	-.0002	.0017	-.0004
#3	.0000	.0847	-.0004	.0003	-.0019	-.0028	.0025	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: MP43112-MB1 Acquired: 11/9/2023 11:32:25 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0006**	**-.0017**	**-.0003**	**.0004**
Stddev	.000	.0001	.0003	.0003	.0001
%RSD	58.67	15.98	14.39	97.76	13.80
#1	.0000	.0004	-.0016	.0000	.0004
#2	.0000	.0006	-.0016	-.0003	.0004
#3	.0000	.0006	-.0020	-.0005	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**838.59**	**2166.5**	**21067.**	**4099.7**
Stddev	2.10	1.7	78.	29.5
%RSD	.25079	.08065	.36948	.72023
#1	840.18	2168.0	21154.	4120.5
#2	836.20	2167.0	21006.	4065.9
#3	839.38	2164.6	21040.	4112.8

Zoom In Zoom Out

Sample Name: MP43112-B1 Acquired: 11/9/2023 11:37:30 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1861**	**24.13**	**.1969**	**.4943**	**.1991**	**.2004**	**43.93**	**.1973**	**.1962**
Stddev	.0009	.05	.0019	.0023	.0009	.0006	.18	.0002	.0002
%RSD	.4868	.1900	.9567	.4708	.4273	.2973	.4050	.0836	.1052
#1	.1872	24.18	.1953	.4961	.2001	.2009	43.89	.1971	.1961
#2	.1854	24.13	.1965	.4917	.1985	.2005	44.13	.1974	.1962
#3	.1858	24.08	.1990	.4952	.1988	.1997	43.78	.1974	.1965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1974**	**.1980**	**44.16**	**43.44**	**.5190**	**43.63**	**.1971**	**.6870**	**40.84**
Stddev	.0007	.0002	.12	.19	.0018	.18	.0005	.0008	.11
%RSD	.3519	.1058	.2609	.4404	.3541	.4227	.2417	.1217	.2806
#1	.1969	.1982	44.18	43.58	.5209	43.67	.1975	.6862	40.97
#2	.1982	.1978	44.26	43.52	.5189	43.79	.1966	.6878	40.81
#3	.1971	.1979	44.04	43.22	.5172	43.43	.1970	.6870	40.74
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1967**	**.1946**	**.2011**	**.1916**	**.5877**	**.4988**	**.5217**	**.5143**	**.1943**
Stddev	.0003	.0020	.0015	.0010	.0010	.0005	.0021	.0010	.0013
%RSD	.1419	1.014	.7638	.5261	.1640	.1011	.4053	.1876	.6571
#1	.1971	.1969	.2011	.1922	.5875	.4990	.5240	.5153	.1931
#2	.1966	.1935	.2026	.1922	.5887	.4991	.5211	.5134	.1941
#3	.1966	.1934	.1995	.1904	.5868	.4982	.5199	.5141	.1957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43112-B1 Acquired: 11/9/2023 11:37:30 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2014**	**.1961**
Stddev	.0004	.0003
%RSD	.2125	.1594
#1	.2019	.1964
#2	.2012	.1958
#3	.2010	.1960
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**712.24**	**2039.4**	**19169.**	**4040.1**
Stddev	1.45	3.3	19.	24.9
%RSD	.20429	.16349	.10069	.61646
#1	710.60	2042.3	19151.	4054.9
#2	712.78	2035.8	19166.	4011.3
#3	713.36	2040.1	19190.	4054.0

Zoom In Zoom Out

Sample Name: FC10973-1L Acquired: 11/9/2023 11:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0077**	**.0005**	**.0135**	**.0185**	**.0000**	**7.956**	**-.0001**	**-.0001**
Stddev	.0002	.0040	.0010	.0006	.0003	.000	.027	.0001	.0001
%RSD	58.63	51.63	201.9	4.460	1.687	218.5	.3368	52.11	57.75
#1	.0007	-.0121	.0016	.0140	.0183	.0000	7.930	-.0001	-.0001
#2	.0003	-.0068	-.0004	.0128	.0184	-.0001	7.954	-.0002	-.0002
#3	.0002	-.0043	.0003	.0136	.0189	.0000	7.984	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0060**	**.7683**	**.0011**	**5.989**	**.0490**	**.0008**	**12.58**
Stddev	.0002	.0001	.0013	.0021	.0012	.053	.0003	.0001	.10
%RSD	11090.	58.58	21.82	.2682	112.5	.8841	.6875	14.52	.8331
#1	.0002	.0001	.0052	.7674	.0014	5.929	.0492	.0009	12.49
#2	.0000	.0002	.0075	.7706	-.0003	6.011	.0486	.0007	12.56
#3	-.0002	.0002	.0052	.7668	.0021	6.028	.0491	.0007	12.69

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0006**	**-.0003**	**-.0034**	**1.369**	**.0001**	**.0511**	**.0002**	**-.0005**
Stddev	.0001	.0002	.0012	.0020	.005	.0004	.0002	.0001	.0007
%RSD	32.93	42.78	350.4	58.17	.3355	536.3	.4293	23.06	133.5
#1	-.0003	-.0005	.0004	-.0054	1.363	.0004	.0509	.0003	-.0007
#2	-.0002	-.0004	.0003	-.0015	1.370	.0002	.0510	.0002	.0002
#3	-.0002	-.0008	-.0017	-.0032	1.372	-.0003	.0513	.0003	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0013**	**.0007**
Stddev	.0001	.0001
%RSD	10.25	7.851
#1	.0013	.0006
#2	.0014	.0008
#3	.0011	.0007

Zoom In Zoom Out

Sample Name: FC10973-1L Acquired: 11/9/2023 11:42:18 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**793.82**	**2117.9**	**20292.**	**4066.1**
Stddev	.92	4.1	117.	24.7
%RSD	.11581	.19433	.57887	.60750
#1	794.35	2122.2	20199.	4082.3
#2	794.35	2114.0	20424.	4078.3
#3	792.76	2117.5	20254.	4037.6

Zoom In Zoom Out

Sample Name: MP43112-D1 Acquired: 11/9/2023 11:47:19 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0004**	**.0000**	**.0127**	**.0190**	**.0000**	**8.142**	**-.0001**	**-.0001**
Stddev	.0006	.0079	.0008	.0014	.0000	.000	.014	.0000	.0001
%RSD	183.7	2005.	4116.	10.62	.2233	492.7	.1697	30.30	138.5
#1	.0007	-.0088	-.0006	.0116	.0190	-.0001	8.127	-.0001	-.0001
#2	.0007	.0047	-.0003	.0123	.0190	.0000	8.153	-.0002	.0000
#3	-.0004	.0053	.0009	.0142	.0189	.0000	8.147	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0002**	**.0038**	**.7602**	**.0011**	**6.098**	**.0504**	**.0007**	**12.84**
Stddev	.0002	.0002	.0012	.0053	.0011	.014	.0002	.0001	.03
%RSD	43.50	94.72	31.28	.7025	96.49	.2339	.4602	9.298	.2308
#1	.0002	.0003	.0027	.7617	.0015	6.087	.0503	.0007	12.82
#2	.0005	.0003	.0036	.7647	-.0001	6.093	.0503	.0007	12.82
#3	.0005	.0000	.0051	.7543	.0019	6.114	.0507	.0006	12.87

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0007**	**.0001**	**.0012**	**1.400**	**-.0002**	**.0524**	**.0004**	**-.0011**
Stddev	.0002	.0005	.0002	.0012	.003	.0002	.0002	.0001	.0010
%RSD	172.2	78.31	286.7	104.9	.1767	124.6	.4714	15.66	96.46
#1	-.0001	-.0011	-.0001	.0002	1.399	-.0005	.0526	.0004	-.0003
#2	.0001	-.0008	.0003	.0008	1.399	.0000	.0521	.0004	-.0006
#3	-.0004	-.0001	.0000	.0025	1.403	-.0001	.0524	.0003	-.0022

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0015**	**.0009**
Stddev	.0003	.0000
%RSD	16.60	5.668
#1	.0016	.0009
#2	.0012	.0008
#3	.0017	.0009

Zoom In Zoom Out

Sample Name: MP43112-D1 Acquired: 11/9/2023 11:47:19 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**791.10**	**2107.2**	**19985.**	**4032.7**
Stddev	1.50	3.3	122.	13.1
%RSD	.18926	.15552	.60952	.32545
#1	792.38	2108.1	20125.	4028.7
#2	791.48	2109.9	19904.	4022.0
#3	789.46	2103.6	19927.	4047.3

Zoom In Zoom Out

Sample Name: MP43112-SD1 Acquired: 11/9/2023 11:52:21 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0220**	**-.0031**	**-.0214**	**.0176**	**.0001**	**8.054**	**-.0004**	**-.0006**
Stddev	.0023	.0425	.0064	.0026	.0003	.0002	.025	.0002	.0006
%RSD	1559.	192.9	207.0	11.94	1.588	242.1	.3134	63.80	95.39
#1	.0021	-.0027	-.0074	-.0229	.0173	-.0002	8.042	-.0002	.0000
#2	.0007	.0073	.0042	-.0184	.0176	.0002	8.038	-.0007	-.0011
#3	-.0024	-.0707	-.0061	-.0228	.0179	.0003	8.083	-.0003	-.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0013**	**.0002**	**-.0011**	**.6752**	**-.0034**	**5.736**	**.0476**	**-.0015**	**12.16**
Stddev	.0005	.0008	.0058	.0255	.0053	.103	.0002	.0003	.03
%RSD	38.80	499.1	525.7	3.774	156.4	1.789	.3705	21.25	.2680
#1	-.0018	-.0005	-.0059	.6738	-.0078	5.849	.0477	-.0017	12.13
#2	-.0014	.0011	-.0027	.7014	.0024	5.709	.0478	-.0011	12.16
#3	-.0008	.0000	.0053	.6505	-.0047	5.650	.0474	-.0017	12.20

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0004**	**-.0020**	**-.0095**	**-.0057**	**1.330**	**-.0030**	**.0494**	**.0006**	**.0001**
Stddev	.0003	.0007	.0013	.0112	.004	.0017	.0003	.0005	.0052
%RSD	82.14	35.33	13.52	196.4	.3387	58.81	.5673	74.90	8333.
#1	-.0003	-.0028	-.0107	-.0100	1.327	-.0010	.0492	.0006	-.0060
#2	-.0007	-.0015	-.0082	.0070	1.327	-.0040	.0494	.0011	.0031
#3	-.0001	-.0016	-.0096	-.0142	1.335	-.0039	.0497	.0002	.0031

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0010**
Stddev	.0008	.0004
%RSD	839.8	36.44
#1	-.0006	.0014
#2	-.0001	.0007
#3	.0009	.0010

Zoom In Zoom Out

Sample Name: MP43112-SD1 Acquired: 11/9/2023 11:52:21 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**831.08**	**2163.1**	**20627.**	**4063.8**
Stddev	3.72	10.2	24.	9.2
%RSD	.44723	.47368	.11637	.22650
#1	835.13	2174.7	20630.	4067.8
#2	830.30	2159.6	20602.	4070.3
#3	827.82	2155.2	20650.	4053.2

Zoom In Zoom Out

Sample Name: MP43112-S1 Acquired: 11/9/2023 11:57:24 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1901**	**24.54**	**.2014**	F **.5261**	**.2201**	**.2036**	**52.41**	**.1986**	**.1978**
Stddev	.0016	.04	.0017	.0039	.0007	.0007	.16	.0002	.0005
%RSD	.8187	.1679	.8221	.7417	.2983	.3672	.3011	.0939	.2517
#1	.1896	24.56	.1997	.5254	.2205	.2038	52.52	.1984	.1973
#2	.1918	24.49	.2030	.5226	.2194	.2027	52.23	.1987	.1983
#3	.1888	24.56	.2014	.5303	.2205	.2041	52.48	.1987	.1979

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1990**	**.2018**	**44.75**	**44.76**	F **.5310**	**50.14**	**.2471**	**.6941**	**54.09**
Stddev	.0008	.0013	.02	.09	.0004	.03	.0008	.0007	.14
%RSD	.4260	.6402	.0452	.2104	.0723	.0554	.3264	.1067	.2506
#1	.1983	.2020	44.73	44.74	.5313	50.15	.2462	.6935	54.09
#2	.2000	.2029	44.75	44.68	.5305	50.17	.2477	.6949	53.95
#3	.1988	.2004	44.77	44.86	.5311	50.11	.2475	.6939	54.22

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1979**	**.1971**	**.2044**	**.1934**	**1.998**	**.5031**	**.5826**	**.5215**	**.1987**
Stddev	.0002	.0003	.0010	.0031	.003	.0011	.0021	.0010	.0026
%RSD	.1228	.1616	.5110	1.590	.1480	.2185	.3660	.1962	1.320
#1	.1982	.1967	.2033	.1912	1.995	.5019	.5829	.5204	.2016
#2	.1978	.1974	.2045	.1969	2.001	.5036	.5803	.5225	.1980
#3	.1977	.1972	.2053	.1921	1.998	.5039	.5846	.5216	.1965

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2052**	**.1983**
Stddev	.0010	.0001
%RSD	.5107	.0722
#1	.2042	.1985
#2	.2063	.1982
#3	.2051	.1983

Zoom In Zoom Out

Sample Name: MP43112-S1 Acquired: 11/9/2023 11:57:24 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**699.76**	**2016.7**	**18914.**	**4016.4**
Stddev	.24	.3	67.	2.9
%RSD	.03459	.01610	.35614	.07127
#1	699.48	2017.0	18991.	4017.9
#2	699.88	2016.4	18886.	4013.1
#3	699.92	2016.8	18866.	4018.2

Zoom In Zoom Out

Sample Name: MP43112-S2 Acquired: 11/9/2023 12:02:12 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1925**	**24.51**	**.2035**	F **.5309**	**.2199**	**.2042**	**52.41**	**.2015**	**.2003**
Stddev	.0010	.17	.0025	.0017	.0011	.0012	.26	.0003	.0004
%RSD	.5245	.6760	1.212	.3239	.5174	.5918	.4987	.1633	.2179
#1	.1915	24.49	.2041	.5301	.2200	.2041	52.47	.2014	.2000
#2	.1936	24.35	.2008	.5329	.2188	.2031	52.12	.2018	.2008
#3	.1925	24.68	.2056	.5297	.2210	.2055	52.64	.2012	.2001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2006**	**.2038**	**44.87**	**44.83**	F **.5283**	**50.43**	**.2498**	**.7025**	**54.06**
Stddev	.0015	.0009	.23	.18	.0024	.30	.0008	.0006	.28
%RSD	.7335	.4602	.5101	.4084	.4593	.5978	.3208	.0788	.5220
#1	.1994	.2028	44.99	44.80	.5292	50.53	.2490	.7020	54.02
#2	.2023	.2047	44.61	44.67	.5256	50.09	.2506	.7031	53.80
#3	.2002	.2040	45.02	45.03	.5302	50.67	.2498	.7025	54.36

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2006**	**.2002**	**.2082**	**.1975**	**2.032**	**.5083**	**.5808**	**.5259**	**.2012**
Stddev	.0004	.0008	.0015	.0026	.004	.0023	.0040	.0015	.0003
%RSD	.2058	.3778	.7143	1.309	.2167	.4548	.6873	.2842	.1584
#1	.2007	.1994	.2073	.1945	2.029	.5095	.5791	.5242	.2010
#2	.2001	.2003	.2099	.1992	2.037	.5099	.5780	.5269	.2011
#3	.2009	.2009	.2073	.1987	2.029	.5057	.5854	.5267	.2016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2081**	**.2007**
Stddev	.0007	.0001
%RSD	.3353	.0363
#1	.2076	.2006
#2	.2089	.2006
#3	.2079	.2007

Zoom In Zoom Out

Sample Name: MP43112-S2 Acquired: 11/9/2023 12:02:12 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**689.29**	**1986.9**	**18752.**	**3999.1**
Stddev	1.73	2.4	55.	34.2
%RSD	.25133	.12017	.29486	.85454
#1	691.01	1989.4	18809.	3981.2
#2	689.32	1984.6	18699.	4038.5
#3	687.55	1986.8	18749.	3977.5

Zoom In Zoom Out

Sample Name: FC10973-2L Acquired: 11/9/2023 12:07:00 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0003**	**-.0004**	**.0304**	**.0122**	**.0000**	**7.204**	**-.0001**	**-.0002**
Stddev	.0003	.0053	.0001	.0007	.0001	.000	.018	.0001	.0001
%RSD	115.2	1650.	26.74	2.282	.5657	140.6	.2565	35.57	31.65
#1	.0003	-.0063	-.0005	.0312	.0123	-.0001	7.223	-.0001	-.0002
#2	.0005	.0039	-.0004	.0298	.0122	.0000	7.186	-.0002	-.0002
#3	-.0001	.0014	-.0003	.0303	.0122	.0000	7.203	-.0002	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0002**	**.0212**	**.9096**	**.0024**	**2.672**	**.0039**	**.0015**	**10.58**
Stddev	.0001	.0002	.0010	.0076	.0009	.011	.0000	.0002	.00
%RSD	8.400	108.9	4.811	.8392	37.83	.4186	.2805	16.17	.0424
#1	.0016	.0004	.0200	.9126	.0033	2.670	.0039	.0017	10.58
#2	.0015	.0002	.0220	.9153	.0016	2.662	.0039	.0016	10.58
#3	.0017	.0000	.0215	.9010	.0021	2.684	.0038	.0012	10.58

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**-.0008**	**-.0031**	**1.045**	**-.0002**	**.0391**	**.0004**	**-.0013**
Stddev	.0001	.0002	.0007	.0011	.003	.0001	.0000	.0001	.0013
%RSD	41.66	85.38	94.01	34.11	.2766	71.02	.1215	28.09	97.03
#1	-.0003	.0004	-.0004	-.0020	1.042	-.0001	.0391	.0004	-.0029
#2	-.0001	.0002	-.0003	-.0032	1.047	-.0001	.0391	.0006	-.0006
#3	-.0002	.0000	-.0016	-.0041	1.045	-.0003	.0392	.0003	-.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0018**	**.0007**
Stddev	.0001	.0000
%RSD	4.557	7.037
#1	.0019	.0007
#2	.0017	.0006
#3	.0018	.0007

Zoom In Zoom Out

Sample Name: FC10973-2L Acquired: 11/9/2023 12:07:00 Type: Unk
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**801.15**	**2119.5**	**20231.**	**4052.1**
Stddev	.42	1.6	57.	12.9
%RSD	.05304	.07560	.28036	.31747
#1	800.68	2121.1	20215.	4037.8
#2	801.24	2119.3	20183.	4062.6
#3	801.52	2118.0	20293.	4055.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 12:12:03 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2543**	**41.08**	**2.052**	**2.041**	**2.075**	**2.086**	**41.05**	**2.062**	**2.070**
Stddev	.0019	.15	.011	.010	.014	.007	.12	.001	.002
%RSD	.7428	.3662	.5142	.4853	.6700	.3348	.2849	.0587	.1057
#1	.2550	40.90	2.042	2.031	2.059	2.078	40.92	2.062	2.068
#2	.2557	41.16	2.050	2.051	2.086	2.091	41.10	2.061	2.070
#3	.2521	41.17	2.063	2.041	2.080	2.089	41.13	2.063	2.072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.012**	**2.052**	**41.71**	**41.20**	**2.040**	**41.65**	**2.032**	**2.065**	**41.55**
Stddev	.009	.003	.23	.22	.012	.08	.009	.004	.16
%RSD	.4258	.1461	.5616	.5230	.5714	.1938	.4291	.2055	.3809
#1	2.016	2.053	41.44	40.96	2.027	41.58	2.038	2.063	41.37
#2	2.018	2.054	41.84	41.30	2.046	41.74	2.036	2.063	41.66
#3	2.002	2.048	41.85	41.35	2.048	41.62	2.022	2.070	41.63
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.073**	**2.053**	**2.053**	**2.062**	**2.056**	**2.070**	**2.077**	**2.044**	**2.079**
Stddev	.005	.007	.008	.008	.008	.003	.007	.002	.004
%RSD	.2398	.3224	.4029	.4040	.4032	.1608	.3607	.0927	.2092
#1	2.070	2.056	2.049	2.061	2.054	2.069	2.069	2.044	2.079
#2	2.071	2.057	2.047	2.054	2.049	2.067	2.079	2.046	2.083
#3	2.079	2.045	2.062	2.071	2.065	2.073	2.083	2.042	2.075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 11/9/2023 12:12:03 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.031**	**2.055**
Stddev	.009	.001
%RSD	.4375	.0554
#1	2.040	2.054
#2	2.032	2.056
#3	2.022	2.054
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**693.95**	**1996.2**	**18946.**	**3908.9**
Stddev	1.00	4.6	34.	23.2
%RSD	.14389	.23062	.17725	.59391
#1	693.32	1998.5	18929.	3907.2
#2	693.43	1999.2	18923.	3933.0
#3	695.10	1990.9	18984.	3886.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 12:16:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0030**	**.0007**	F **-.0025**	**.0001**	**.0002**	**.0020**	**-.0001**
Stddev	.0002	.0021	.0016	.0002	.0000	.0000	.0012	.0000
%RSD	1042.	69.13	248.4	8.339	21.26	16.18	58.19	55.21
#1	.0000	-.0035	.0019	-.0023	.0001	.0002	.0011	.0000
#2	.0003	-.0048	-.0012	-.0028	.0001	.0002	.0016	.0000
#3	-.0002	-.0007	.0013	-.0025	.0001	.0002	.0034	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0003**	**.0065**	**-.0133**	**-.0003**	**-.0053**	**.0001**
Stddev	.0002	.0002	.0001	.0006	.0236	.0018	.0023	.0000
%RSD	185.5	130.7	49.17	9.441	177.4	690.1	42.41	33.67
#1	-.0001	-.0002	.0001	.0064	.0106	.0009	-.0027	.0001
#2	.0002	.0001	.0003	.0060	-.0366	.0006	-.0068	.0001
#3	.0001	-.0003	.0004	.0072	-.0140	-.0023	-.0065	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0018**	**.0000**	**-.0003**	**-.0007**	**-.0017**	**-.0005**	**-.0001**
Stddev	.0003	.0056	.0002	.0006	.0006	.0013	.0003	.0002
%RSD	203.9	311.2	1121.	192.0	75.07	75.96	67.49	230.0
#1	.0002	.0043	-.0001	-.0002	-.0014	-.0002	-.0007	-.0002
#2	.0003	-.0067	.0002	.0002	-.0004	-.0022	-.0001	-.0002
#3	-.0002	-.0031	-.0001	-.0010	-.0005	-.0025	-.0007	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 11/9/2023 12:16:46 Type: QC
Method: 60102007_COMBO_10242022(v375) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0002**	**.0005**	**.0000**	**.0000**
Stddev	.0000	.0000	.0004	.000	.000
%RSD	29.24	14.31	78.70	729.2	572.3
#1	.0002	.0002	.0001	.0001	.0000
#2	.0001	.0002	.0005	.0002	-.0001
#3	.0001	.0002	.0010	-.0004	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**833.11**	**2138.0**	**20077.**	**4005.1**
Stddev	1.33	9.8	167.	20.4
%RSD	.15936	.45765	.83142	.50913
#1	833.08	2126.7	20109.	4028.4
#2	831.80	2143.4	20225.	3990.9
#3	834.45	2143.8	19896.	3995.9

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000269	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000031	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000907	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000031	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000625	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000116	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000003	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000011	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	-0.000123	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000024	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	-0.000003	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000003	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000024	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	-0.000008	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000043	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000007	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.000441	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000058	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000006	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000008	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000035	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000015	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

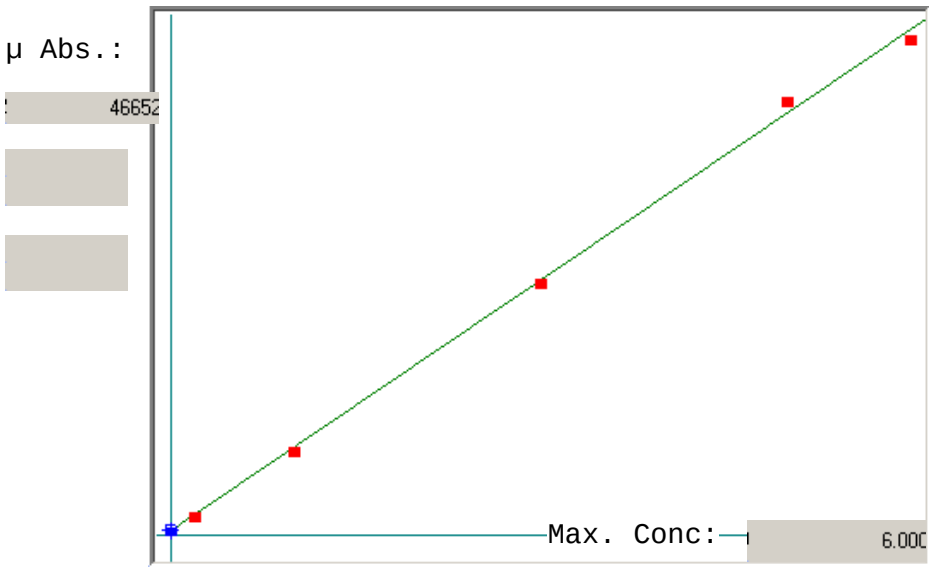
	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000010	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	11/9/2023 10:57:38	11/9/2023 10:06:05	Curvilin	1/Conc	-0.000427	0.671531	0.001315	1.000000
Al 396.152 { 85}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001543	0.206591	0.000000	1.000000
As 189.042 {478}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000664	0.186807	0.000000	1.000000
B 249.773 {135}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005592	0.506372	0.000000	1.000000
Ba 455.403 { 74}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.008120	17.934006	0.000000	1.000000
Be 313.042 {108}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000612	11.497762	0.000000	1.000000
Ca 317.933 {106}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005273	0.330110	0.000000	1.000000
Cd 226.502 {449}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000127	5.201735	0.000000	1.000000
Co 228.616 {447}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000603	2.742349	0.000000	1.000000
Cr 267.716 {126}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000171	0.471124	0.000000	1.000000
Cu 324.754 {104}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.003374	1.115476	0.000000	1.000000
Fe 259.940 {130}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000172	0.191085	0.000000	1.000000
In 230.606 {446}*	11/9/2023 10:57:38	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.005806	0.158587	0.000000	1.000000
Li 670.784 { 50}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.002753	2.966915	0.000000	1.000000
Mg 279.079 {121}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000673	0.030231	0.000000	1.000000
Mn 257.610 {131}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000293	3.585812	0.000000	1.000000
Mo 202.030 {467}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001192	1.304103	0.000000	1.000000
Na 589.592 { 57}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.019310	0.595035	0.000000	1.000000
Ni 231.604 {445}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000923	1.468402	0.000000	1.000000
Pb 220.353 {453}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.002168	1.475005	0.000000	1.000000
Sb 206.833 {463}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000918	0.307355	0.000000	1.000000
Se 196.090 {472}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000068	0.155901	0.000000	1.000000
Si 212.412 {459}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.007220	0.400338	0.000000	1.000000
Sn 189.989 {477}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000422	0.456194	0.000000	1.000000
Sr 407.771 { 83}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000703	22.975224	0.000000	1.000000
Ti 334.941 {101}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.000923	2.258676	0.000000	1.000000
Tl 190.856 {477}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.001655	0.554741	0.000000	1.000000
V 292.402 {115}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	-0.000270	0.910327	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	11/9/2023 10:57:38	11/9/2023 10:06:05	Linear	1/Conc	0.001130	2.545464	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999980	0.000016	0.000471	0.001570	Warnin	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999953	0.000417	0.007542	0.025140	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999802	0.000039	0.001238	0.004126	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999728	0.000281	0.001773	0.005911	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999952	0.008251	0.000130	0.000433	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999992	0.000341	0.000063	0.000210	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999945	0.001620	0.002545	0.008482	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999972	0.000286	0.000066	0.000220	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999962	0.000557	0.000135	0.000449	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999988	0.000024	0.000379	0.001265	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999975	0.000130	0.000253	0.000842	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999964	0.000415	0.002206	0.007353	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999887	0.002556	0.022172	0.073905	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999820	0.000556	0.001130	0.003766	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999953	0.000310	0.018198	0.060661	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999975	0.000326	0.000048	0.000159	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999977	0.000208	0.000180	0.000599	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999712	0.015322	0.005432	0.018106	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999915	0.000400	0.000251	0.000836	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999933	0.000126	0.000720	0.002400	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999833	0.000041	0.001198	0.003993	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999894	0.000024	0.002238	0.007459	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.992285	0.002693	0.000645	0.002149	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999943	0.000113	0.000426	0.001421	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999986	0.001253	0.000061	0.000204	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999973	0.000174	0.000127	0.000422	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999941	0.000063	0.001211	0.004036	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999996	0.000057	0.000285	0.000949	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999974	0.000270	0.000101	0.000336	OK.	1.000000	0.000000	1	0

Hg7470/EPA245.1 HG5

Linear



A= 0.0000e+000

B= 1.2722e-004

C= -4.7102e-002

Rho= 0.9994200

Accept= Accepted

Accepted Date=

11/13/23 13:41

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
blank	0.000	0.027	0.027	585	0.000	585				
0.2ppb	0.200	0.198	-0.002	1927	0.0 %	1927				
1.0ppb	1.000	0.962	-0.038	7931	0.0 %	7931				
3.0ppb	3.000	2.975	-0.025	23759	0.0 %	23759				
5.0ppb	5.000	5.149	0.149	40848	0.0 %	40848				
6.0ppb	6.000	5.888	-0.112	46652	0.0 %	46652				

h51113w1

Method: Hg7470/EPA245.1 HG5 Operator: Admin Date of Analysis: 13 Nov 2023 11:46:27

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
blank - 1	13 Nov 2023 13:32:17	S		-	585	1.000	1.000
0.2ppb - 1	13 Nov 2023 13:33:33	S		-	1927	1.000	1.000
1.0ppb - 1	13 Nov 2023 13:34:54	S		-	7931	1.000	1.000
3.0ppb - 1	13 Nov 2023 13:36:20	S		-	23759	1.000	1.000
5.0ppb - 1	13 Nov 2023 13:37:55	S		-	40848	1.000	1.000
6.0ppb - 1	13 Nov 2023 13:39:37	S		-	46652	1.000	1.000
HSTD - 1	13 Nov 2023 13:41:22	C		104.2% 6.2545	49534	1.000	1.000
ICV - 1	13 Nov 2023 13:43:10	C		98.0% 2.9388	23471	1.000	1.000
ICB - 1	13 Nov 2023 13:44:57	C		-0.0080	307	1.000	1.000
CRI - 1	13 Nov 2023 13:46:38	C		98.1% 0.1961	1912	1.000	1.000
CCV - 1	13 Nov 2023 13:47:59	C		97.3% 2.9191	23316	1.000	1.000
CCB - 1	13 Nov 2023 13:49:24	C		-0.0027	349	1.000	1.000
MP43131-MB1 - 1	13 Nov 2023 13:51:07	U		-0.0045	335	1.000	1.000
MP43131-B1 - 1	13 Nov 2023 13:52:25	U		2.8372	22672	1.000	1.000
FC10972-43 - 1	13 Nov 2023 13:53:43	U		0.0034	397	1.000	1.000
MP43131-D1 - 1	13 Nov 2023 13:55:23	U		0.0019	385	1.000	1.000
MP43131-SD1 - 1	13 Nov 2023 13:56:42	U		-0.2610	-40	1.000	5.000
MP43131-S1 - 1	13 Nov 2023 13:58:01	U		2.8940	23119	1.000	1.000
MP43131-S2 - 1	13 Nov 2023 13:59:16	U		2.9000	23166	1.000	1.000
FC10972-40 - 1	13 Nov 2023 14:00:58	U		0.0244	562	1.000	1.000
FC10972-41 - 1	13 Nov 2023 14:02:40	U		-0.0024	351	1.000	1.000
FC10972-42 - 1	13 Nov 2023 14:03:59	U		-0.0144	257	1.000	1.000
CCV - 1	13 Nov 2023 14:05:19	C		100.4% 3.0129	24053	1.000	1.000
CCB - 1	13 Nov 2023 14:06:37	C		-0.0037	341	1.000	1.000
FC10972-44 - 1	13 Nov 2023 14:08:19	U		-0.0211	204	1.000	1.000
FC10972-45 - 1	13 Nov 2023 14:09:39	U		-0.0236	185	1.000	1.000
FC10972-46 - 1	13 Nov 2023 14:10:59	U		-0.0280	150	1.000	1.000
FC10972-47 - 1	13 Nov 2023 14:12:17	U		-0.0273	156	1.000	1.000
FC10972-48 - 1	13 Nov 2023 14:13:35	U		-0.0248	175	1.000	1.000
FC10972-49 - 1	13 Nov 2023 14:14:53	U		-0.0279	151	1.000	1.000
FC10972-50 - 1	13 Nov 2023 14:16:11	U		-0.0242	180	1.000	1.000
FC10972-51 - 1	13 Nov 2023 14:17:28	U		-0.0162	243	1.000	1.000
FC10972-52 - 1	13 Nov 2023 14:18:46	U		-0.0170	237	1.000	1.000
FC10972-54 - 1	13 Nov 2023 14:20:04	U		0.0211	536	1.000	1.000
CCV - 1	13 Nov 2023 14:21:23	C		100.3% 3.0101	24031	1.000	1.000
CCB - 1	13 Nov 2023 14:22:41	C		-0.0047	333	1.000	1.000
FC10972-55 - 1	13 Nov 2023 14:24:23	U		-0.0056	326	1.000	1.000
FC10972-56 - 1	13 Nov 2023 14:25:42	U		-0.0065	319	1.000	1.000
FC10972-57 - 1	13 Nov 2023 14:27:02	U		-0.0063	321	1.000	1.000
FC10918-3 - 1	13 Nov 2023 14:28:23	U		0.0180	512	1.000	1.000
FC10945-1 - 1	13 Nov 2023 14:29:43	U		0.0300	606	1.000	1.000
FC10955-1A - 1	13 Nov 2023 14:31:02	U		0.0026	391	1.000	1.000
MP43132-MB1 - 1	13 Nov 2023 14:32:21	U		-0.0135	264	1.000	1.000
MP43132-B1 - 1	13 Nov 2023 14:33:39	U		2.8396	22691	1.000	1.000
FC10972-53 - 1	13 Nov 2023 14:34:57	U		0.0468	738	1.000	1.000
MP43132-D1 - 1	13 Nov 2023 14:36:38	U		0.0486	752	1.000	1.000
CCV - 1	13 Nov 2023 14:37:59	C		98.4% 2.9515	23571	1.000	1.000
CCB - 1	13 Nov 2023 14:39:18	C		-0.0031	346	1.000	1.000
MP43132-SD1 - 1	13 Nov 2023 14:40:59	U		-0.1973	60	1.000	5.000
MP43132-S1 - 1	13 Nov 2023 14:42:18	U		2.8616	22864	1.000	1.000
MP43132-S2 - 1	13 Nov 2023 14:43:36	U		2.8800	23009	1.000	1.000
FC10972-58 - 1	13 Nov 2023 14:45:18	U		0.0056	414	1.000	1.000
FC10972-59 - 1	13 Nov 2023 14:46:59	U		-0.0016	358	1.000	1.000
FC10972-60 - 1	13 Nov 2023 14:48:19	U		0.0019	385	1.000	1.000
FC10972-61 - 1	13 Nov 2023 14:49:40	U		0.0082	435	1.000	1.000
FC10972-62 - 1	13 Nov 2023 14:50:59	U		0.0096	446	1.000	1.000
FC10972-63 - 1	13 Nov 2023 14:52:18	U		0.0063	420	1.000	1.000
FC10972-64 - 1	13 Nov 2023 14:53:37	U		0.0037	399	1.000	1.000
CCV - 1	13 Nov 2023 14:54:56	C		100.7% 3.0204	24112	1.000	1.000
CCB - 1	13 Nov 2023 14:56:15	C		-0.0021	354	1.000	1.000
FC10972-65 - 1	13 Nov 2023 14:57:56	U		0.0006	375	1.000	1.000
FC10972-66 - 1	13 Nov 2023 14:59:15	U		0.0002	372	1.000	1.000
FC10972-67 - 1	13 Nov 2023 15:00:34	U		0.0103	451	1.000	1.000
FC10972-68 - 1	13 Nov 2023 15:01:53	U		0.0011	379	1.000	1.000
FC10972-69 - 1	13 Nov 2023 15:03:13	U		0.0031	395	1.000	1.000
FC10973-1 - 1	13 Nov 2023 15:04:32	U		-0.0078	309	1.000	1.000
FC10973-2 - 1	13 Nov 2023 15:05:52	U		0.0017	384	1.000	1.000
FC10973-3 - 1	13 Nov 2023 15:07:12	U		-0.0049	332	1.000	1.000
FC10987-1 - 1	13 Nov 2023 15:08:33	U		-0.0044	336	1.000	1.000

h51113w1

Method: Hg7470/EPA245.1 HG5 Operator: Admin Date of Analysis: 13 Nov 2023 11:46:27

Sample ID	Date	Type	Units	Conc.	µ Abs.	Wt.	Vol.
FC10987-2 - 1	13 Nov 2023 15:09:52	U		-0.0074	312	1.000	1.000
CCV - 1	13 Nov 2023 15:11:10	C		99.8% 2.9940	23905	1.000	1.000
CCB - 1	13 Nov 2023 15:12:29	C		-0.0010	362	1.000	1.000
FC10987-3 - 1	13 Nov 2023 15:14:10	U		-0.0070	315	1.000	1.000
FC10987-4 - 1	13 Nov 2023 15:15:29	U		0.0031	395	1.000	1.000
MP43133-MB1 - 1	13 Nov 2023 15:16:48	U		-0.0061	322	1.000	1.000
MP43133-B1 - 1	13 Nov 2023 15:18:07	U		2.7939	22332	1.000	1.000
FC11067-1 - 1	13 Nov 2023 15:19:26	U		-0.0056	326	1.000	1.000
MP43133-D1 - 1	13 Nov 2023 15:21:07	U		-0.0097	294	1.000	1.000
MP43133-SD1 - 1	13 Nov 2023 15:22:26	U		-0.2584	-36	1.000	5.000
MP43133-S1 - 1	13 Nov 2023 15:23:46	U		2.7767	22197	1.000	1.000
MP43133-S2 - 1	13 Nov 2023 15:25:03	U		2.7491	21980	1.000	1.000
FC11067-2 - 1	13 Nov 2023 15:26:46	U		-0.0047	333	1.000	1.000
CCV - 1	13 Nov 2023 15:28:29	C		100.0% 3.0013	23962	1.000	1.000
CCB - 1	13 Nov 2023 15:29:47	C		-0.0042	337	1.000	1.000
FC10987-5 - 1	13 Nov 2023 15:31:28	U		-0.0116	279	1.000	1.000
FC10987-6 - 1	13 Nov 2023 15:32:49	U		-0.0065	319	1.000	1.000
FC11142-1 - 1	13 Nov 2023 15:34:08	U		-0.0158	246	1.000	1.000
FC11142-2 - 1	13 Nov 2023 15:35:26	U		-0.0195	217	1.000	1.000
FC11142-3 - 1	13 Nov 2023 15:36:46	U		-0.0200	213	1.000	1.000
FC11142-4 - 1	13 Nov 2023 15:38:05	U		-0.0175	233	1.000	1.000
FC11142-5 - 1	13 Nov 2023 15:39:25	U		-0.0264	163	1.000	1.000
FC11142-6 - 1	13 Nov 2023 15:40:44	U		-0.0204	210	1.000	1.000
FC11068-1 - 1	13 Nov 2023 15:42:04	U		-0.0159	245	1.000	1.000
FC11068-2 - 1	13 Nov 2023 15:43:23	U		-0.0152	251	1.000	1.000
CCV - 1	13 Nov 2023 15:44:43	C		99.1% 2.9730	23740	1.000	1.000
CCB - 1	13 Nov 2023 15:46:01	C		0.0015	382	1.000	1.000
FC11068-3 - 1	13 Nov 2023 15:47:42	U		-0.0133	266	1.000	1.000
FC10988-1 - 1	13 Nov 2023 15:49:02	U		-0.0406	51	1.000	1.000
FC10988-2 - 1	13 Nov 2023 15:50:22	U		-0.0528	-45	1.000	1.000
FC10988-3 - 1	13 Nov 2023 15:51:39	U		-0.0345	99	1.000	1.000
FC10988-4 - 1	13 Nov 2023 15:52:56	U		-0.0457	11	1.000	1.000
FC10988-5 - 1	13 Nov 2023 15:54:13	U		0.0085	437	1.000	1.000
FC10988-6 - 1	13 Nov 2023 15:55:30	U		-0.0904	-340	1.000	1.000
FC10988-7 - 1	13 Nov 2023 15:56:50	U		-0.0302	133	1.000	1.000
CRI - 1	13 Nov 2023 15:58:07	U		0.1622	1645	1.000	1.000
CCV - 1	13 Nov 2023 15:59:24	C		96.4% 2.8921	23104	1.000	1.000
CCB - 1	13 Nov 2023 16:00:48	C		0.0240	559	1.000	1.000

SGS Orlando

Date:	11/04/23
Time	14:13

[24hr]

Analysts Name:	Adam K
MP Batch ID:	43089
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1382	0.05	MU45274
Conc. HCl (B)	24003593	ACC1396	0.2	KU15244
NA	NA	MET7395	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	97	**Corr. Factor**	0.5	**Corrected Observed Temp. C**	97.5
pH Paper Lot Number	230320			**Filter Lot Number**		306067223		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	50	50	NA	
	NA	Spike Blank(SB)	50	50	NA	
	7	Matrix Spike(MS)	50	50	Y	
	7	Matrix Spike Dup(MSD)	50	50	Y	
	7	Duplicate(DUP)	50	50	Y	
1(QC) C	7	FC10954-1	50	50	Y	
2	7	FC10954-2	50	50	Y	
3	7	FC10954-3	50	50	Y	
4	6	FC10955-1	50	50	Y	
5						
6						
7						
8						
9						
10						
11						
12						
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14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A **Used for SB, MS, MSD**
B **For reagent volumes used refer to SOP MET 103, current verion**
C **Parent sample used to prepare MS, MSD, DUP**
D **Additional matrix QC**

SGS Orlando

Date:	11/08/23
Time [24hr]	12:18

Analysts Name:	Thomas F
MP Batch ID:	MP43108
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1399	1	KU15244
Conc. HCl (B)	24003593	ACC1396	0.25	KU15244
NA	NA	MET7472	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	**96**	**Corr. Factor**	**0.5**	**Corrected Observed Temp. C**	96.5
pH Paper Lot Number	**230320**			**Filter Lot Number**		**306067223**		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	**50**	**50**	NA	
	NA	Spike Blank(SB)	**50**	**50**	NA	
	7	Matrix Spike(MS)	**50**	**50**	Y	
	7	Matrix Spike Dup(MSD)	**50**	**50**	Y	
	7	Duplicate(DUP)	**50**	**50**	Y	
1(QC) C	7	FC10963-23	**50**	**50**	Y	
2	6	FC10999-1	**50**	**50**	Y	
3	6	FC10999-2	**50**	**50**	Y	
4	7	FC10999-1A	**50**	**50**	Y	
5	7	FC10999-2A	**50**	**50**	Y	
6	9	FC11006-4	**50**	**50**	Y	
7	9	FC11006-5	**50**	**50**	Y	
8	9	FC11006-6	**50**	**50**	Y	
9	9	FC11006-7	**50**	**50**	Y	
10	2	FC10789-11	**50**	**50**	Y	
11	2	FC10789-13	**50**	**50**	Y	
12	7	FC10918-1	**50**	**50**	Y	
13	7	FC10918-2	**50**	**50**	Y	
14	7	FC10918-3	**50**	**50**	Y	
15	4	FC10925-1	**50**	**50**	Y	
16	5	FC10925-2	**50**	**50**	Y	
17	7	FC10945-1	**50**	**50**	Y	
18	6	FC10955-1A	**50**	**50**	Y	
19	7	FC10954-1	**50**	**50**	Y	
20	7	FC10954-2	**50**	**50**	Y	
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A **Used for SB, MS, MSD**
B **For reagent volumes used refer to SOP MET 103, current verion**
C **Parent sample used to prepare MS, MSD, DUP**
D **Additional matrix QC**

Mercury Aqueous Digestion Logbook
Rev.3 07/08/2021
DM

SGS Orlando

Date/Time Started	11/13/2023 10:10
Date/Time Ended	11/13/2023 12:10

Analysts Name:	Sydney Talsma		
MP Batch ID:	43131		
Method	SW846-7470A	Matrix	Water

Reagent (A)	Lot Number	MET Number/Spiking Solution ID		Pipette Number
Concentrated HNO3 (A)	24002372	7468	10 ppm int.	SU41341
H2SO4 (A)	231050	7469	10 ppm 2nd (ICV)	KU15244
KMnO4 (A)	MET 7466	7470	100 ppb Curve	
K2S2O8 (A)	MET 7467	7471	100 ppb 2nd (ICV)	
SnCl (A)	10241377			
Hydroxylamine HCl (A)	MET 7468			

HotBlock I.D.	10	Therm. ID	213	Temp. C	98	Corr. Factor	-1	Corrected Observed Temp. C	97
pH Paper Lot Number	230320	Filter Lot Number		306067223		Digestion Tube Lot#		576691-4388	

(D)	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	STD1 CAL BLANK	50.00	50	NA	
0.1ml (B)	NA	STD2	50.00	50	NA	
0.5ml (B)	NA	STD3	50.00	50	NA	
1.5ml (B)	NA	STD4	50.00	50	NA	
2.5ml (B)	NA	STD5	50.00	50	NA	
3.0ml (B)	NA	STD6	50.00	50	NA	
1.5ml (F)	NA	ICV	50.00	50	NA	
	NA	ICB	50.00	50	NA	
0.1ml (B)	NA	CRI	50.00	50	NA	
	NA	Method Blank	50.00	50	NA	
1.5ml (F)	NA	Blank Spk	50.00	50	NA	
1.5ml (F)	2	Matrix Spk	50.00	50	Y	
1.5ml (F)	2	Mat Spk Dup	50.00	50	Y	
	2	Duplicate	50.00	50	Y	
1 QC [C]	2	FC10972-43	50.00	50	Y	
2	1	FC10972-40	50.00	50	Y	
3	1	FC10972-41	50.00	50	Y	
4	1	FC10972-42	50.00	50	Y	
5	1	FC10972-44	50.00	50	Y	
6	1	FC10972-45	50.00	50	Y	
7	1	FC10972-46	50.00	50	Y	
8	1	FC10972-47	50.00	50	Y	
9	1	FC10972-48	50.00	50	Y	
10	1	FC10972-49	50.00	50	Y	
11	1	FC10972-50	50.00	50	Y	
12	1	FC10972-51	50.00	50	Y	
13	1	FC10972-52	50.00	50	Y	
14	1	FC10972-54	50.00	50	Y	
15	1	FC10972-55	50.00	50	Y	
16	1	FC10972-56	50.00	50	Y	
17	1	FC10972-57	50.00	50	Y	
18	7	FC10918-3	50.00	50	Y	
19	7	FC10945-1	50.00	50	Y	
20	6	FC10955-1A	50.00	50	Y	
21 [E]						
22 [E]						
23 [E]						
24 [E]						

Protected Worksheet

A For reagent volumes used consult SOP MET 106 current revision
B Amount of 100 ppb standard added (100ppb standard prepared from 10 ppm intermediate)
C Parent sample used to prepare MS,MSD,DUP (matrix QC)
D Bottle number
E Additional Matrix QC
F Amount of 100 ppb 2nd source standard used (100 ppb 2nd source standard prepared from 10ppm intermediate 2nd)

14.5.3
14

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP39351/GN95829	0.50	0.0	mg/l	10	10.1	101.0	90-110%
Chloride	GP39351/GN95829	2.0	0.0	mg/l	50	51.4	102.8	90-110%
Fluoride	GP39351/GN95829	0.20	0.0	mg/l	2.5	2.57	102.8	90-110%
Nitrogen, Nitrate	GP39351/GN95829	0.10	0.0	mg/l	2.5	2.49	99.6	90-110%
Nitrogen, Nitrite	GP39351/GN95829	0.10	0.0	mg/l	2.5	2.63	105.2	90-110%
Sulfate	GP39351/GN95829	2.0	0.0	mg/l	50	49.5	99.0	90-110%

Associated Samples:
Batch GP39351: FC10955-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP39351/GN95829	FC10931-3	mg/l	0.0	10	8.7	87.0N(a)	90-110%
Chloride	GP39351/GN95829	FC10931-3	mg/l	367	50	349	-36.0(b)	90-110%
Fluoride	GP39351/GN95829	FC10931-3	mg/l	0.0	2.5	2.0	80.0N(a)	90-110%
Nitrogen, Nitrate	GP39351/GN95829	FC10931-3	mg/l	1.7	2.5	3.5	72.0N(a)	90-110%
Nitrogen, Nitrite	GP39351/GN95829	FC10931-3	mg/l	0.0	2.5	2.2	88.0N(a)	90-110%
Sulfate	GP39351/GN95829	FC10931-3	mg/l	28.2	50	67.1	77.8N(a)	90-110%

Associated Samples:
Batch GP39351: FC10955-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP39351/GN95829	FC10931-3	mg/l	0.0	10	8.6	1.2	15%
Chloride	GP39351/GN95829	FC10931-3	mg/l	367	50	347	0.6	15%
Fluoride	GP39351/GN95829	FC10931-3	mg/l	0.0	2.5	2.0	0.0	15%
Nitrogen, Nitrate	GP39351/GN95829	FC10931-3	mg/l	1.7	2.5	3.4	2.9	15%
Nitrogen, Nitrite	GP39351/GN95829	FC10931-3	mg/l	0.0	2.5	2.2	0.0	15%
Sulfate	GP39351/GN95829	FC10931-3	mg/l	28.2	50	66.4	1.0	15%

Associated Samples:
Batch GP39351: FC10955-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023110401.CSV Date Analyzed: 11/04/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN95829
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:29	GN95829-STD1	1		STDA
16:49	GN95829-STD2	1		STDB
17:10	GN95829-STD3	1		STDC
17:30	GN95829-STD4	1		STDD
17:51	GN95829-STD5	1		STDE
18:11	GN95829-STD6	1		STDF
18:32	GN95829-STD7	1		STDG
18:52	GN95829-STD8	1		STDH
19:13	GN95829-STD9	1		STDI
19:34	GN95829-STD10	1		STDJ
19:54	GN95829-STD11	1		STDK
20:15	GN95829-ICV1	1		
20:35	GN95829-ICB1	1		
20:56	GN95829-CRI1	1		
21:16	GN95829-CCV1	1		
21:37	GN95829-CCB1	1		
21:57	GP39351-MB1	1		
22:18	GP39351-B1	1		
22:39	ZZZZZZ	1		
22:59	ZZZZZZ	1		
23:20	FC10931-3	10		(sample used for QC only; not part of login FC10955)
23:40	GP39351-S1	10		
00:00	GP39351-S2	10		
00:21	ZZZZZZ	5		
00:41	ZZZZZZ	10		
01:01	ZZZZZZ	10		
01:03	ZZZZZZ	10		
01:21	GN95829-CCV2	1		
01:23	ZZZZZZ	10		
01:42	GN95829-CCB2	1		
01:43	ZZZZZZ	10		
02:03	ZZZZZZ	10		
02:24	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023110401.CSV Date Analyzed: 11/04/23 Methods: EPA 300/SW846 9056A
Analyst: JB Run ID: GN95829
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
02:44	ZZZZZZ	10		
03:04	FC10927-1	50		(sample used for QC only; not part of login FC10955)
03:25	GP39351-S3	50		
03:45	GP39351-S4	50		
04:05	FC10955-1A	1		
04:26	GN95829-CCV3	1		
04:46	GN95829-CCB3	1		
05:07	ZZZZZZ	1		
05:28	GN95829-CCV4	1		
05:48	GN95829-CCB4	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC10955
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023110401.CSV Date Analyzed: 11/04/23 Methods: EPA 300/SW846 9056A
Run ID: GN95829 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN95829-ICV1	Chloride	49.5	2.0	0.80	50	99.0	90-110
GN95829-ICV1	Sulfate	47.2	2.0	0.60	50	94.4	90-110
GN95829-ICB1	Chloride	0.80 U	2.0	0.80			
GN95829-ICB1	Sulfate	0.60 U	2.0	0.60			
GN95829-CRI1	Chloride	1.09	2.0	0.80	1	109.0	50-150
GN95829-CRI1	Sulfate	0.819	2.0	0.60	1	81.9	50-150
GN95829-CCV1	Chloride	50.7	2.0	0.80	50	101.4	90-110
GN95829-CCV1	Sulfate	51.2	2.0	0.60	50	102.4	90-110
GN95829-CCB1	Chloride	0.80 U	2.0	0.80			
GN95829-CCB1	Sulfate	0.60 U	2.0	0.60			
GN95829-CCV2	Chloride	51.5	2.0	0.80	50	103.0	90-110
GN95829-CCV2	Sulfate	49.6	2.0	0.60	50	99.2	90-110
GN95829-CCB2	Chloride	0.80 U	2.0	0.80			
GN95829-CCB2	Sulfate	0.60 U	2.0	0.60			
GN95829-CCV3	Chloride	51.0	2.0	0.80	50	102.0	90-110
GN95829-CCV3	Sulfate	49.1	2.0	0.60	50	98.2	90-110
GN95829-CCB3	Chloride	0.80 U	2.0	0.80			
GN95829-CCB3	Sulfate	0.60 U	2.0	0.60			
GN95829-CCV4	Chloride	51.0	2.0	0.80	50	102.0	90-110
GN95829-CCV4	Sulfate	49.1	2.0	0.60	50	98.2	90-110
GN95829-CCB4	Chloride	0.80 U	2.0	0.80			
GN95829-CCB4	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK LOT #	STOCK VENDOR	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
1ºNO2	NO2	WC2131	Ricca	2/1/2024	1000	2.5	25	100	11/2/2023	JR	IC015210	11/3/2023
1ºNO3	NO3	WC2088	Ricca	10/1/2024	1000	2.5	25	100	11/2/2023	JR	IC015211	11/3/2023
2ºNO2	NO2	WC2126	Absolute	8/1/2026	1000	2.5	25	100	11/2/2023	JR	IC015212	11/3/2023
2ºNO3	NO3	WC2092	Absolute	2/17/2026	1000	2.5	25	100	11/2/202 3	JR	IC015213	11/3/2023
CCV	NO2/NO3	IC015210/1	REF	11/3/2023	100	5	200	2.5	11/2/2023	JR	IC015214	11/3/2023
CCV	SO4	WC2073	Ricca	6/1/2024	1000	10	200	50	11/2/2023	JR	IC015214	11/3/2023
CCV	Cl	WC2117	Ricca	4/1/2025	1000	10	200	50	11/2/2023	JR	IC015214	11/3/2023
CCV	F	WC2032	Ricca	6/1/2024	1000	0.5	200	2.5	11/2/2023	JR	IC015214	11/3/2023
CCV	Br	WC2092	Fisher	10/1/2024	1000	2	200	10	11/2/2023	JR	IC015214	11/3/2023
B1	NO2/NO3	IC015212/3	REF	11/3/2023	100	2.5	100	2.5	11/2/2023	JR	IC015215	11/3/2023
B1	SO4	GN35856	REF	11/23/2023	1000	5	100	50	11/2/2023	JR	IC015215	11/3/2023
B1	Cl	GN35855	REF	11/23/2023	1000	5	100	50	11/2/2023	JR	IC015215	11/3/2023
B1	F	WC1893	LabChem	12/28/2023	1000	0.25	100	2.5	11/2/2023	JR	IC015215	11/3/2023
B1	Br	GN35857	REF	11/23/2023	1000	1	100	10	11/2/2023	JR	IC015215	11/3/2023
1ºNO2	NO2	WC2131	Ricca	2/1/2024	1000	2.5	25	100	11/4/2023	JR	IC015216	11/5/2023
1ºNO3	NO3	WC2088	Ricca	10/1/2024	1000	2.5	25	100	11/4/2023	JR	IC015217	11/5/2023
2ºNO2	NO2	WC2126	Absolute	8/1/2026	1000	2.5	25	100	11/4/2023	JR	IC015218	11/5/2023
2ºNO3	NO3	WC2097	Absolute	6/2/2026	1000	2.5	25	100	11/4/2023	JR	IC015219	11/5/2023
CCV	NO2/NO3	IC015216/7	REF	11/5/2023	100	5	200	2.5	11/4/2023	JR	IC015220	11/5/2023
CCV	SO4	WC2073	Ricca	6/1/2024	1000	10	200	50	11/4/2023	JR	IC015220	11/5/2023
CCV	Cl	WC2117	Ricca	4/1/2025	1000	10	200	50	11/4/2023	JR	IC015220	11/5/2023
CCV	F	WC2032	Ricca	6/1/2024	1000	0.5	200	2.5	11/4/2023	JR	IC015220	11/5/2023
CCV	Br	WC2092	Fisher	10/1/2024	1000	2	200	10	11/4/2023	JR	IC015220	11/5/2023
B1	NO2/NO3	IC015218/9	REF	11/5/2023	100	2.5	100	2.5	11/4/2023	JR	IC015221	11/5/2023
B1	SO4	GN35856	REF	11/23/2023	1000	5	100	50	11/4/2023	JR	IC015221	11/5/2023
B1	Cl	GN35855	REF	11/23/2023	1000	5	100	50	11/4/2023	JR	IC015221	11/5/2023
B1	F	WC1893	LabChem	12/28/2023	1000	0.25	100	2.5	11/4/2023	JR	IC015221	11/5/2023
B1	Br	GN35857	REF	11/23/2023	1000	1	100	10	11/4/2023	JR	IC015221	11/5/2023
Std 10	NO2/NO3	IC015216/7	REF	11/5/2023	100	5	200	2.5	11/4/2023	JR	IC015222	11/5/2023
Std 10	SO4	WC2073	Ricca	6/1/2024	1000	10	200	50	11/4/2023	JR	IC015222	11/5/2023
Std 10	Cl	WC2117	Ricca	4/1/2025	1000	10	200	50	11/4/2023	JR	IC015222	11/5/2023
Std 10	F	WC2032	Ricca	6/1/2024	1000	0.5	200	2.5	11/4/2023	JR	IC015222	11/5/2023
Std 10	Br	WC2092	Fisher	10/1/2024	1000	2	200	10	11/4/2023	JR	IC015222	11/5/2023

Method: EPA300.0 / SW846 9056A (circle one)

Date:	11/4/2023 14:26	**Prep Batchs:**	39351	**Vial lot#**	730782-G23541	**ICAL:**	IC015222
Analyst:	**JR**	**Analytical Batch:**	95829	**Eluent lot#**	GN35474	**ICV:**	IC015221
Instrument:	**#4**	**Calibration Date:**	11/4/2023	**Suppressor regen. lot#**	GN36084	**CCV:**	IC015220
Inst. File Name:	42023110401.csv	**Pump pressure:**	8.83MPa	**Filter lot#**	---	**QC:**	IC015221

Sample#						**Ions Needed**						**Results OK or Dilution Needed**						**Comments**
Rinse	Bot#	Matrix	Scon	DF	Filter (y/n)	F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br	NO3	SO4	Scon Meter: Scon 7
Std A	---	AQ	---	1	N													Calibration
Std B	---	AQ	---	1	N													
Std C	---	AQ	---	1	N													
Std D	---	AQ	---	1	N													
Std E	---	AQ	---	1	N													
Std F	---	AQ	---	1	N													
Std G	---	AQ	---	1	N													
Std H	---	AQ	---	1	N													
Std I	---	AQ	---	1	N													
Std J	---	AQ	---	1	N													
Std K	---	AQ	---	1	N													
ICV	---	AQ	---	1	N													
ICB	---	AQ	---	1	N													
CRI	---	AQ	---	1	N													
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							
MB1	---	AQ	---	1	N	X	X	X	X	X	X							
B1	---	AQ	---	1	N	X	X	X	X	X	X							
FC10931-1	1	AQ	32uS	1	N		X											
FC10931-2	1	AQ	237uS	1	N		X											
FC10931-3	1	AQ	1051uS	10	N		X											
FC10931-3S1	1	AQ	1051uS	10	N	X	X	X	X	X	X							
FC10931-3S2	1	AQ	1051uS	10	N	X	X	X	X	X	X							
FC10931-4	1	AQ	941uS	5	N		X											
FC10931-5	1	AQ	1171uS	10	N		X											
FC10931-6	1	AQ	1689uS	10	N		X											
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							

Method: EPA300.0 / SW846 9056A (circle one)

Date:	11/4/2023 14:26	**Prep Batchs:**	39351	**Vial lot#**	730782-G23541	**ICAL:**	IC015222
Analyst:	**JR**	**Analytical Batch:**	95829	**Eluent lot#**	GN35474	**ICV:**	IC015221
Instrument:	**#4**	**Calibration Date:**	11/4/2023	**Suppressor regen. lot#**	GN36084	**CCV:**	IC015220
Inst. File Name:	42023110401.csv	**Pump pressure:**	8.83MPa	**Filter lot#**	---	**QC:**	IC015221

Sample#						**Ions Needed**						**Results OK or Dilution Needed**						**Comments**
	Bot#	Matrix	Scon	DF	Filter (y/n)	F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br	NO3	SO4	Scon Meter: Scon 7
FC10931-7	1	AQ	1255uS	10	N		X											Calibration
FC10931-8	1	AQ	1026uS	10	N		X											
FC10931-9	1	AQ	1010uS	10	N		X											
FC10931-10	1	AQ	2042uS	10	N		X											
FC10931-11	1	AQ	778uS	5	N		X											
FC10931-12	1	AQ	1712uS	10	N		X											
FC10927-1	10	AQ	5mS	50	N	X												
FC10927-1S3	10	AQ	5mS	50	N	X	X	X	X	X	X							
FC10927-1S4	10	AQ	5mS	50	N	X	X	X	X	X	X							
FC10955-1A	5	AQ	458uS	1	N		X				X							
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							
FC10917-1	1	AQ	---	1	N	X	X	X	X	X	X							
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							

Sample data

Ident	STDK	
Sample type	Standard 10	
Determination start	2023-11-04 19:54:36 UTC-4	
Method	SGS In-Vial Anions191003A	
Operator	JR	

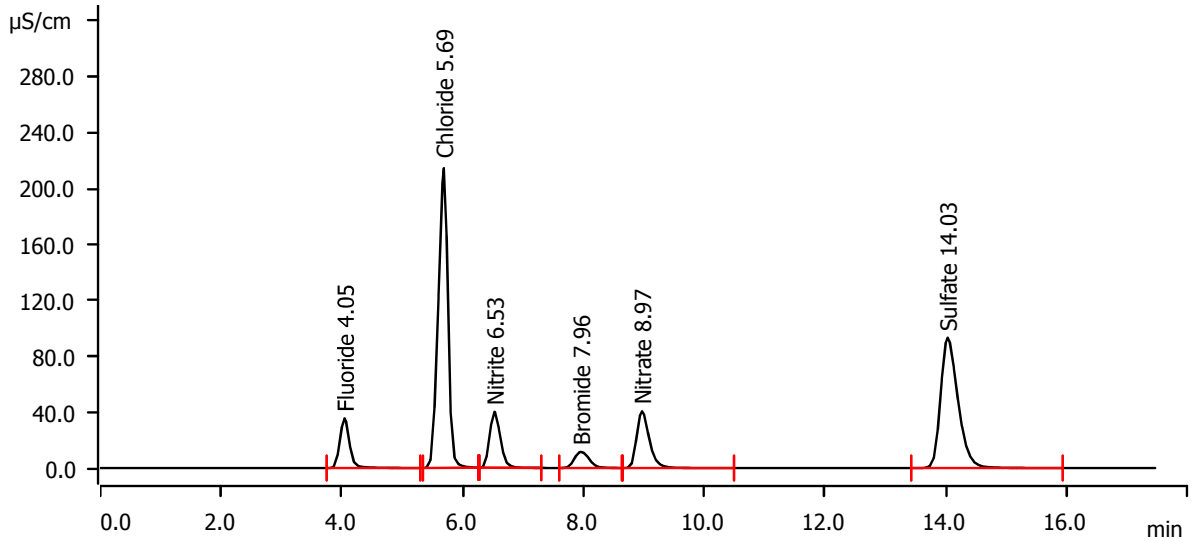
Anions

Data source	Conductivity detector 1 (930 Compact IC Flex 1)	
Channel	Conductivity	
Recording time	17.5	min
Integration	Automatically	
Column type	Metrosep A Supp 5 - 150/4.0	
Eluent composition	not defined	
Flow	0.700	mL/min
Maximum flow monitored	yes	
Pressure	8.77	MPa
Maximum pressure monitored	yes	
Temperature	30.0	°C

Pressure

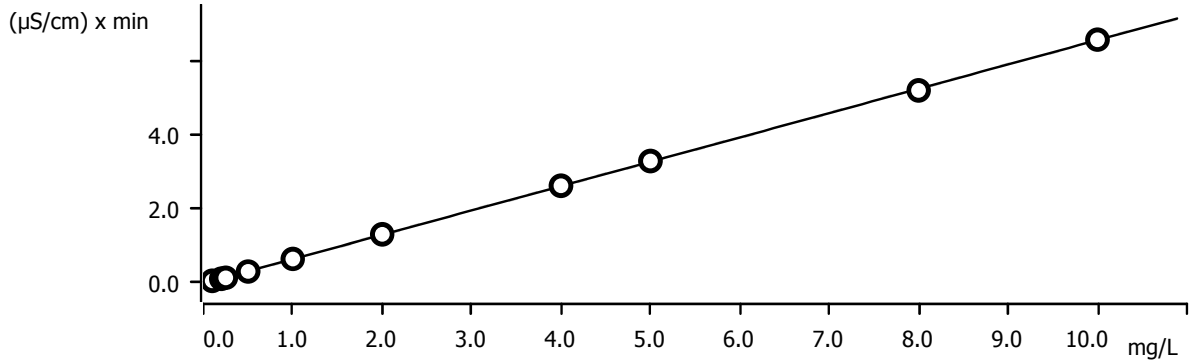
Data source	Pump (930 Compact IC Flex 1)	
Channel	System pressure	
Recording time	17.5	min
Integration	Automatically	
Flow	-----	mL/min
Maximum flow monitored	no	
Pressure	-----	MPa
Maximum pressure monitored	no	
Temperature	-----	℃

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration mg/L	Component name
1	4.045	6.5555	35.328	10.017	Fluoride
2	5.690	39.4142	212.973	101.926	Chloride
3	6.528	8.2280	39.717	10.021	Nitrite
4	7.957	3.2572	11.504	20.836	Bromide
5	8.972	9.7787	40.284	10.320	Nitrate
6	14.032	30.9120	92.607	102.018	Sulfate

Fluoride (Anions)



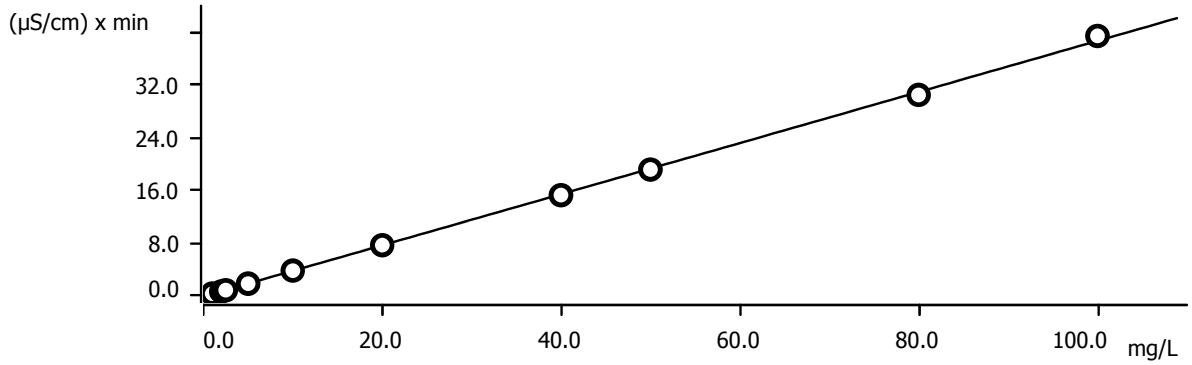
Function: . . . . . *A = - 0.0156127 + 0.0328000× Q*

Relative standard deviation . . . . . *0.945428 %*

Correlation coefficient *0.999970*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0558	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1119	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1379	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.3075	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6452	STDF	2023-11-04 18:11:54 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.3099	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.6192	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.2836	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	5.1885	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	6.5555	STDK	2023-11-04 19:54:36 UTC-4

Chloride (Anions)



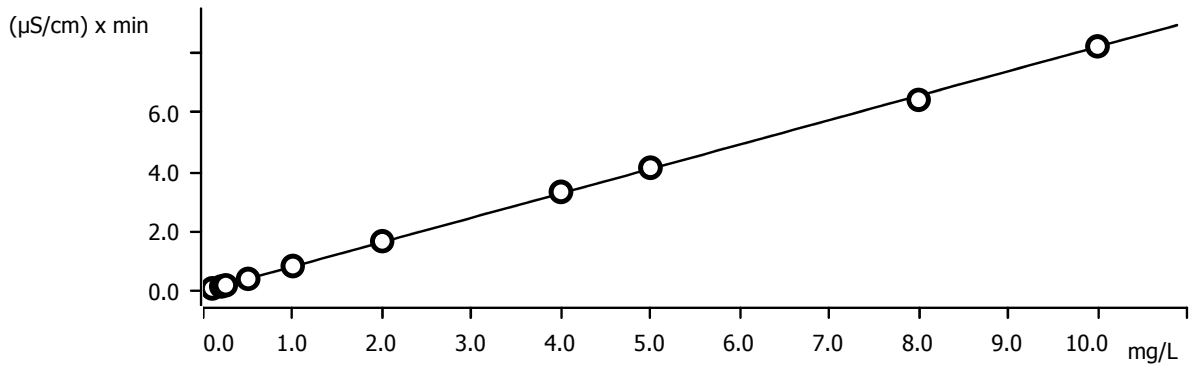
Function: . . . . . *A = - 0.0777424 + 0.0193728× Q*

Relative standard deviation . . . . . *2.648380 %*

Correlation coefficient *0.999768*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.3361	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.6702	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.8615	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.8525	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.8367	STDF	2023-11-04 18:11:54 UTC-4
Standard 6	1	20.000	20.0	1.0	1.0	7.6876	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	15.2671	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	19.1556	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	30.4740	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	39.4142	STDK	2023-11-04 19:54:36 UTC-4

Nitrite (Anions)



Function: . . . . . *A = - 0.0168247 + 0.0411382× Q*

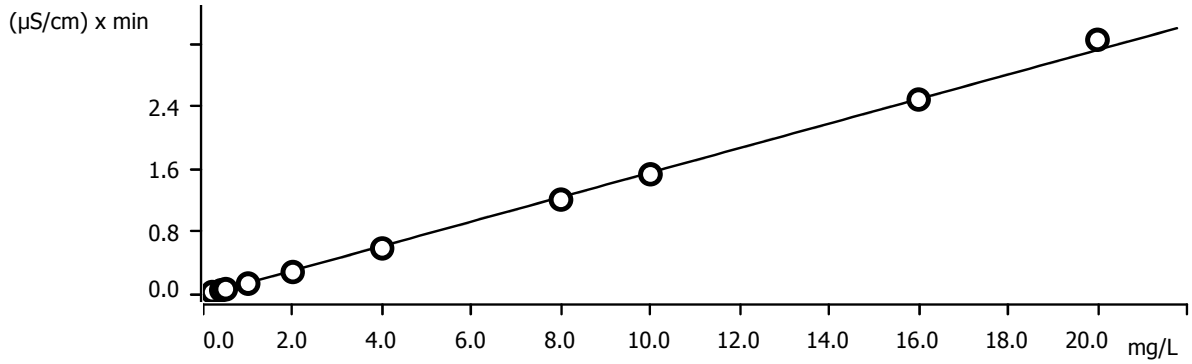
Relative standard deviation . . . . . *2.250132 %*

Correlation coefficient *0.999829*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0713	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1392	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1776	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.3919	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.8249	STDF	2023-11-04 18:11:54 UTC-4

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.6634	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	3.3247	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	4.1397	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	6.4251	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	8.2280	STDK	2023-11-04 19:54:36 UTC-4

Bromide (Anions)



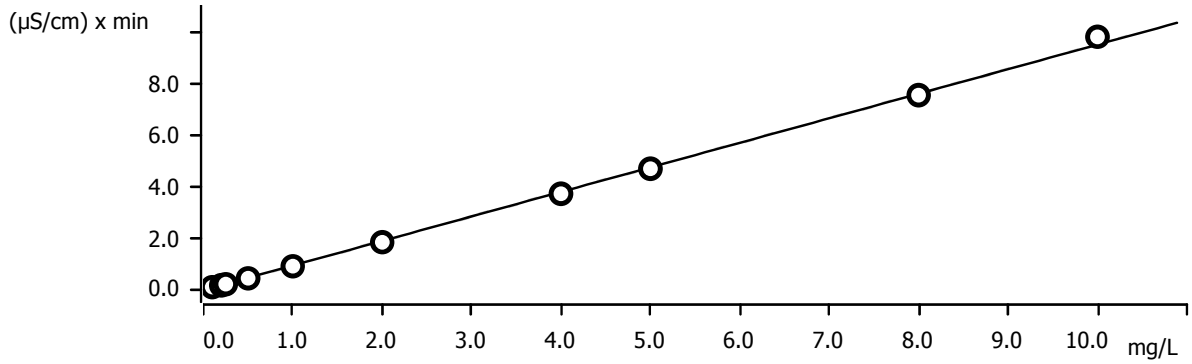
Function: . . . . . *A = - 0.0116438 + 7.84435E-3× Q*

Relative standard deviation . . . . . *5.224989 %*

Correlation coefficient *0.999139*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	0.200	20.0	1.0	1.0	0.0265	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	0.400	20.0	1.0	1.0	0.0505	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	0.500	20.0	1.0	1.0	0.0638	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	1.000	20.0	1.0	1.0	0.1350	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	2.000	20.0	1.0	1.0	0.2836	STDF	2023-11-04 18:11:54 UTC-4
Standard 6	1	4.000	20.0	1.0	1.0	0.5864	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	8.000	20.0	1.0	1.0	1.2097	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	10.000	20.0	1.0	1.0	1.5339	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	16.000	20.0	1.0	1.0	2.4915	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	20.000	20.0	1.0	1.0	3.2572	STDK	2023-11-04 19:54:36 UTC-4

Nitrate (Anions)



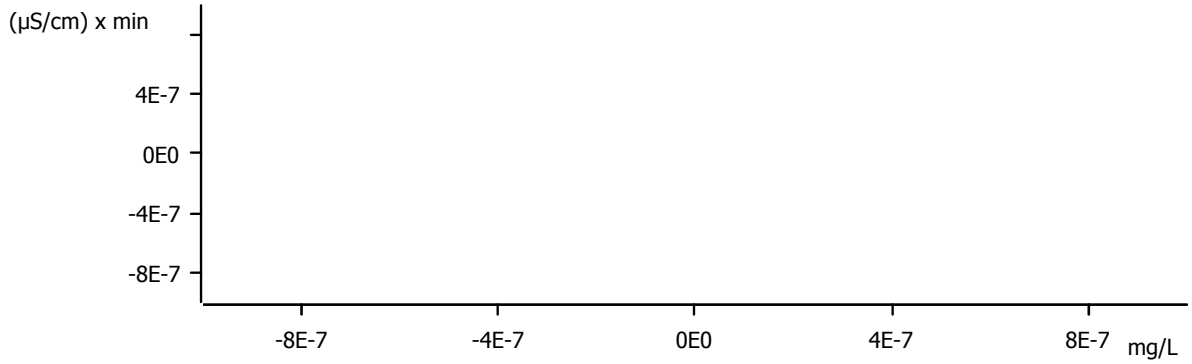
Function: . . . . . *A = - 0.0334144 + 0.0475380× Q*

Relative standard deviation . . . . . *3.985443 %*

Correlation coefficient *0.999491*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0790	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1514	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1922	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.4201	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.8861	STDF	2023-11-04 18:11:54 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.8201	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	3.6959	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	4.6674	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	7.5163	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	9.7787	STDK	2023-11-04 19:54:36 UTC-4

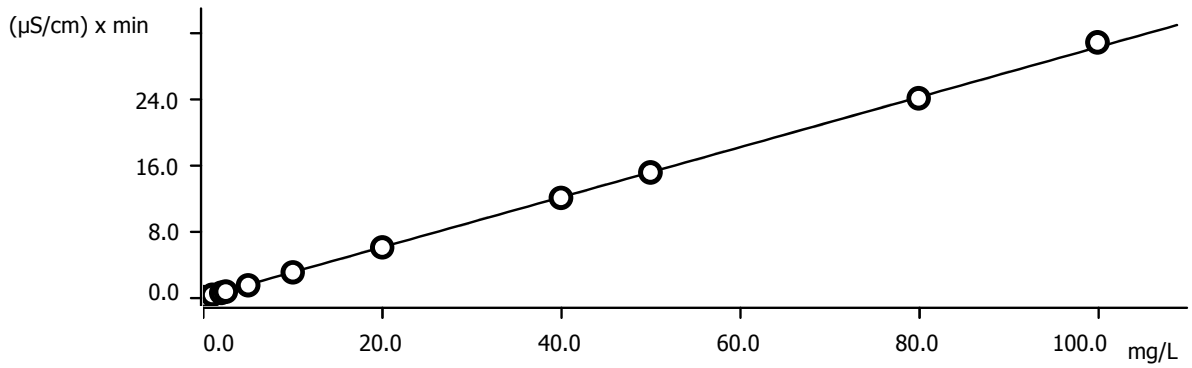
Phosphate (Anions)



Function: . . . . . .
Relative standard deviation . . . . . *invalid %*
Correlation coefficient . . . . . *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-11-04 18:11:54 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-11-04 19:54:36 UTC-4

Sulfate (Anions)



Function: . . . . . *A = 1.04017E-3 + 0.0151498× Q*
Relative standard deviation . . . . . *2.522317 %*
Correlation coefficient *0.999818*

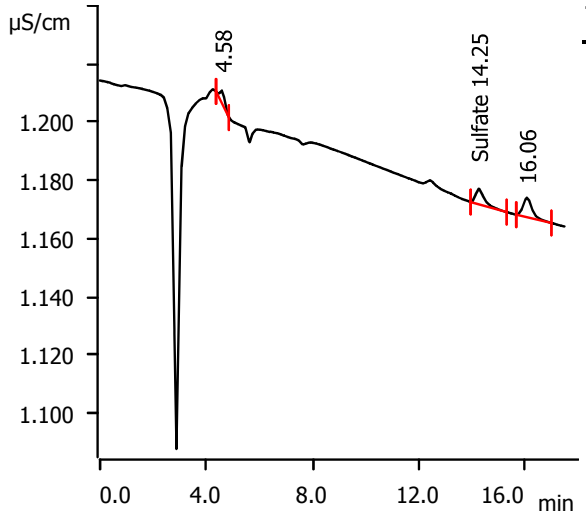
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	0.0020	STDA	2023-11-04 16:29:10 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.2706	STDB	2023-11-04 16:49:40 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.5281	STDC	2023-11-04 17:10:15 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.6630	STDD	2023-11-04 17:30:49 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.4392	STDE	2023-11-04 17:51:21 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.0047	STDF	2023-11-04 18:11:54 UTC-4

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	6.0323	STDG	2023-11-04 18:32:26 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	12.0393	STDH	2023-11-04 18:52:58 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	15.1281	STDI	2023-11-04 19:13:31 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	24.1201	STDJ	2023-11-04 19:34:04 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	30.9120	STDK	2023-11-04 19:54:36 UTC-4

Sample data

Ident . . . . . STDA
Sample type . . . . . Standard 100
Determination start 2023-11-04 16:29:10
Dilution factor 1.00

Anions

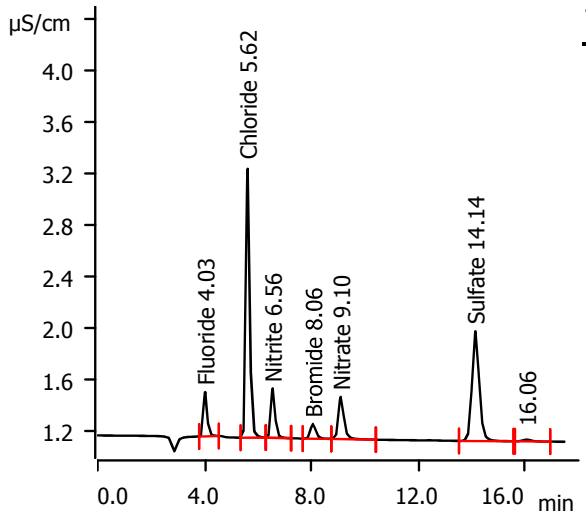


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
14.25	Sulfate	0.0020	0.003	0.003

Sample data

Ident . . . . . STDB
Sample type . . . . . Standard 1
Determination start 2023-11-04 16:49:40
Dilution factor 1.00

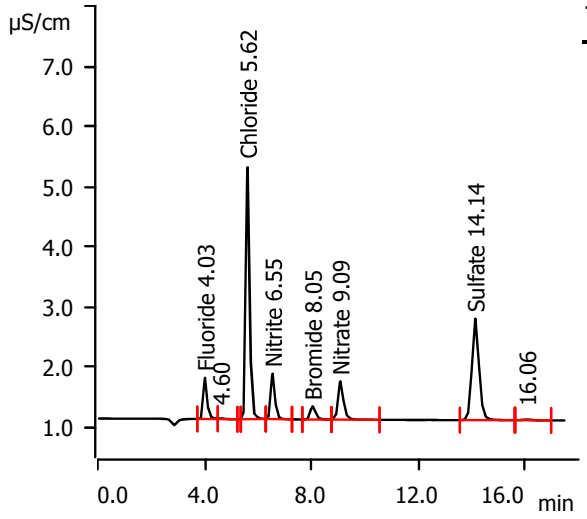
Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0558	0.109	0.109
5.62	Chloride	0.3361	1.068	1.068
6.56	Nitrite	0.0713	0.107	0.107
8.06	Bromide	0.0265	0.243	0.243
9.10	Nitrate	0.0790	0.118	0.118
14.14	Sulfate	0.2706	0.890	0.890

Sample data

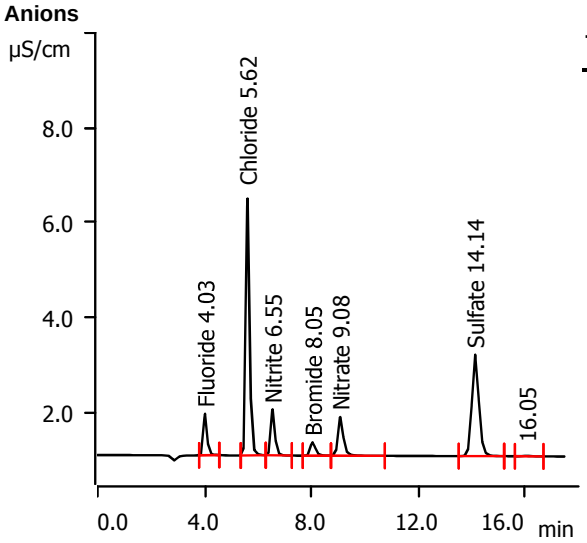
Ident . . . . . STDC
Sample type . . . . . Standard 2
Determination start 2023-11-04 17:10:15
Dilution factor 1.00



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.1119	0.194	0.194
5.62	Chloride	0.6702	1.930	1.930
6.55	Nitrite	0.1392	0.190	0.190
8.05	Bromide	0.0505	0.396	0.396
9.09	Nitrate	0.1514	0.194	0.194
14.14	Sulfate	0.5281	1.740	1.740

Sample data

Ident . . . . . STDD
Sample type . . . . . Standard 3
Determination start 2023-11-04 17:30:49
Dilution factor 1.00

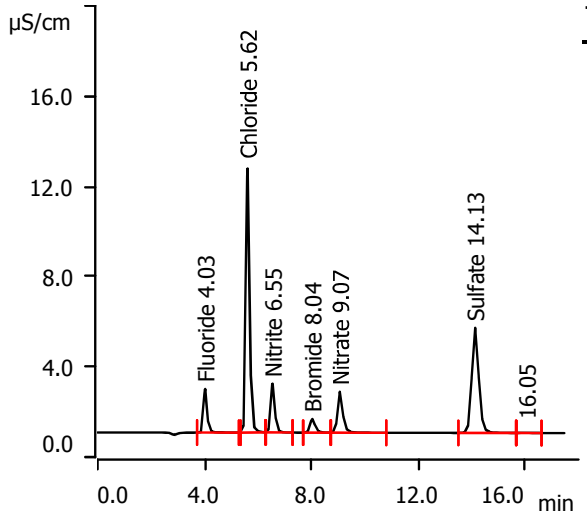


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.1379	0.234	0.234
5.62	Chloride	0.8615	2.424	2.424
6.55	Nitrite	0.1776	0.236	0.236
8.05	Bromide	0.0638	0.481	0.481
9.08	Nitrate	0.1922	0.237	0.237
14.14	Sulfate	0.6630	2.185	2.185

Sample data

Ident . . . . . STDE
Sample type . . . . . Standard 4
Determination start 2023-11-04 17:51:21
Dilution factor 1.00

Anions

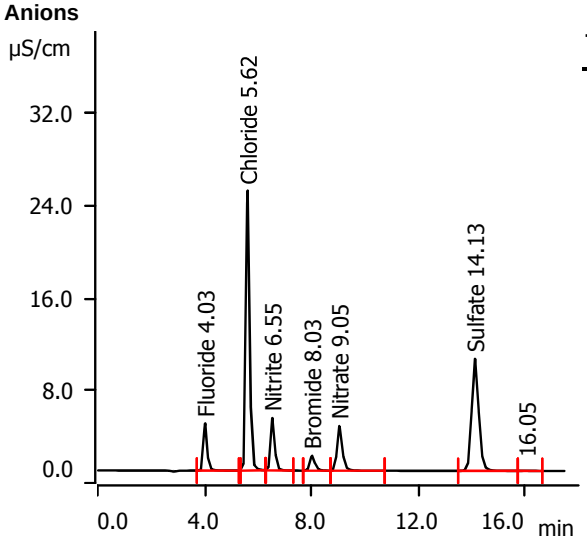


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.3075	0.493	0.493
5.62	Chloride	1.8525	4.982	4.982
6.55	Nitrite	0.3919	0.497	0.497
8.04	Bromide	0.1350	0.934	0.934
9.07	Nitrate	0.4201	0.477	0.477
14.13	Sulfate	1.4392	4.746	4.746

Sample data

Ident . . . . . STDF
Sample type . . . . . Standard 5
Determination start 2023-11-04 18:11:54
Dilution factor 1.00

Anions

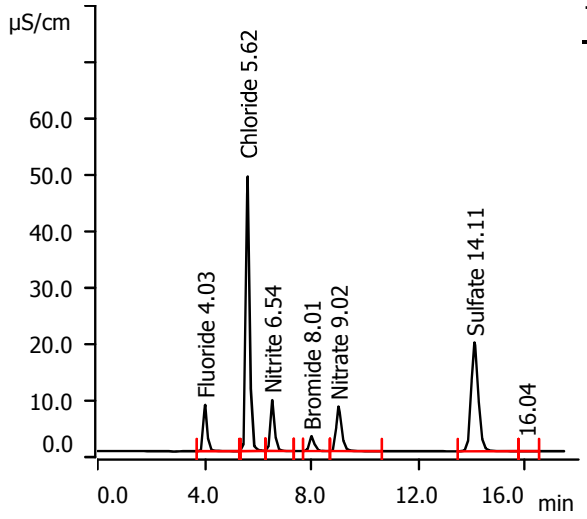


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.6452	1.007	1.007
5.62	Chloride	3.8367	10.103	10.103
6.55	Nitrite	0.8249	1.023	1.023
8.03	Bromide	0.2836	1.882	1.882
9.05	Nitrate	0.8861	0.967	0.967
14.13	Sulfate	3.0047	9.913	9.913

Sample data

Ident . . . . . STDG
Sample type . . . . . Standard 6
Determination start 2023-11-04 18:32:26
Dilution factor 1.00

Anions

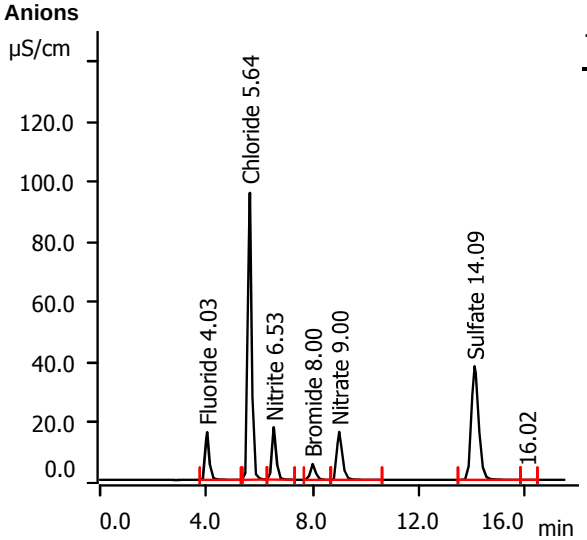


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	1.3099	2.021	2.021
5.62	Chloride	7.6876	20.042	20.042
6.54	Nitrite	1.6634	2.042	2.042
8.01	Bromide	0.5864	3.812	3.812
9.02	Nitrate	1.8201	1.950	1.950
14.11	Sulfate	6.0323	19.906	19.906

Sample data

Ident . . . . . STDH
Sample type . . . . . Standard 7
Determination start 2023-11-04 18:52:58
Dilution factor 1.00

Anions

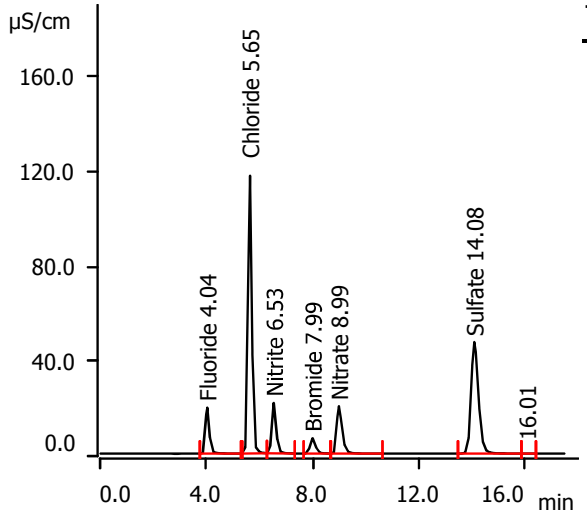


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	2.6192	4.016	4.016
5.64	Chloride	15.2671	39.604	39.604
6.53	Nitrite	3.3247	4.061	4.061
8.00	Bromide	1.2097	7.785	7.785
9.00	Nitrate	3.6959	3.923	3.923
14.09	Sulfate	12.0393	39.731	39.731

Sample data

Ident . . . . . STDI
Sample type . . . . . Standard 8
Determination start 2023-11-04 19:13:31
Dilution factor 1.00

Anions

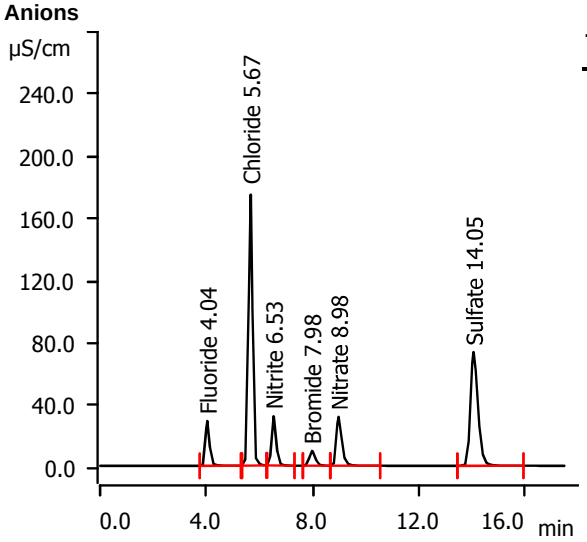


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.04	Fluoride	3.2836	5.029	5.029
5.65	Chloride	19.1556	49.640	49.640
6.53	Nitrite	4.1397	5.052	5.052
7.99	Bromide	1.5339	9.851	9.851
8.99	Nitrate	4.6674	4.944	4.944
14.08	Sulfate	15.1281	49.925	49.925

Sample data

Ident . . . . . STDJ
Sample type . . . . . Standard 9
Determination start 2023-11-04 19:34:04
Dilution factor 1.00

Anions

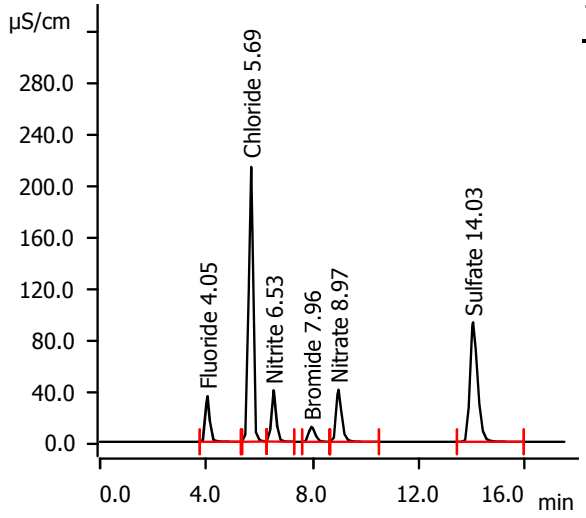


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.04	Fluoride	5.1885	7.933	7.933
5.67	Chloride	30.4740	78.852	78.852
6.53	Nitrite	6.4251	7.830	7.830
7.98	Bromide	2.4915	15.955	15.955
8.98	Nitrate	7.5163	7.941	7.941
14.05	Sulfate	24.1201	79.602	79.602

Sample data

Ident . . . . . STDK
Sample type . . . . . Standard 10
Determination start 2023-11-04 19:54:36
Dilution factor 1.00

Anions

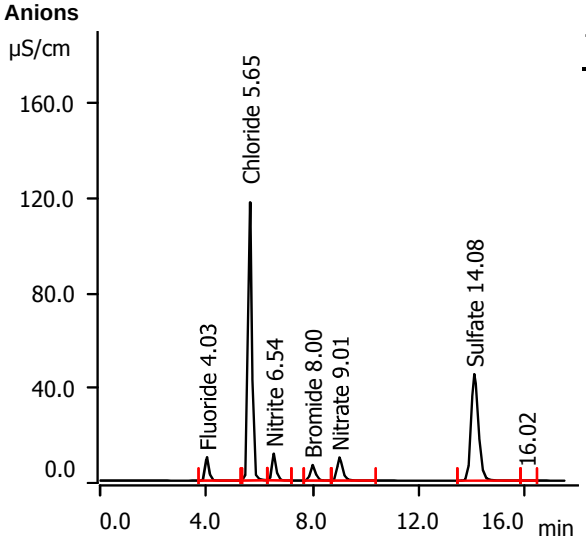


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.05	Fluoride	6.5555	10.017	10.017
5.69	Chloride	39.4142	101.926	101.926
6.53	Nitrite	8.2280	10.021	10.021
7.96	Bromide	3.2572	20.836	20.836
8.97	Nitrate	9.7787	10.320	10.320
14.03	Sulfate	30.9120	102.018	102.018

Sample data

Ident ICV
Sample type . . . . . Sample
Determination start 2023-11-04 20:15:08
Dilution factor 1.00

Anions

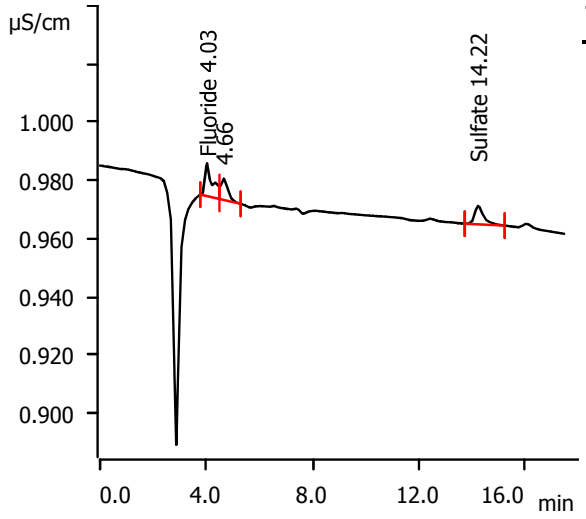


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	1.5815	2.435	2.435
5.65	Chloride	19.0878	49.465	49.465
6.54	Nitrite	2.0761	2.544	2.544
8.00	Bromide	1.5083	9.688	9.688
9.01	Nitrate	2.2441	2.395	2.395
14.08	Sulfate	14.2943	47.173	47.173

Sample data

Ident . . . . . ICB
Sample type . . . . . Sample
Determination start 2023-11-04 20:35:41
Dilution factor 1.00

Anions

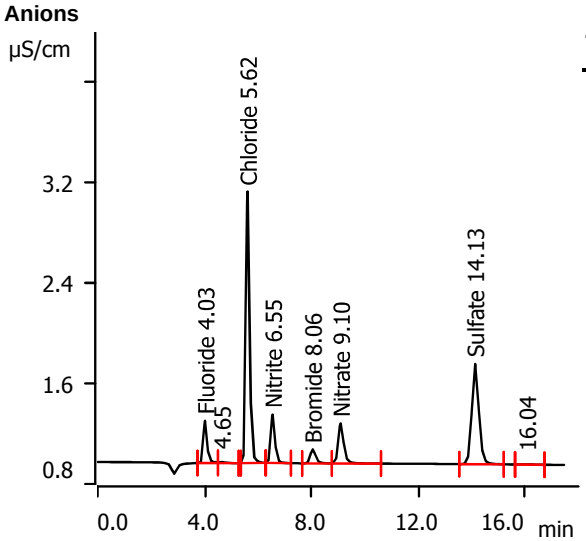


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0036	0.029	0.029
14.22	Sulfate	0.0025	0.005	0.005

Sample data

Ident . . . . . CRI
Sample type . . . . . Sample
Determination start 2023-11-04 20:56:13
Dilution factor 1.00

Anions

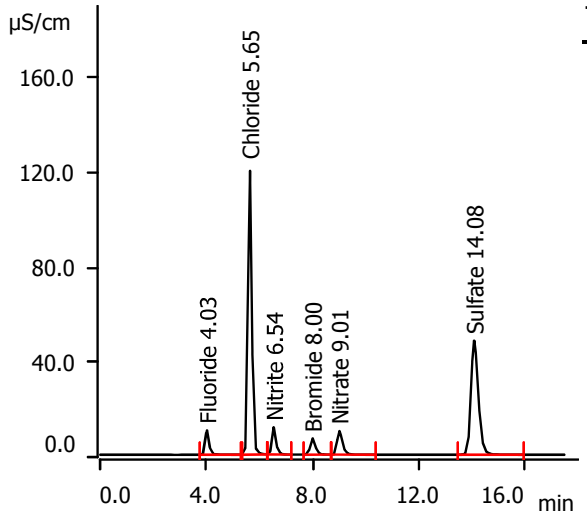


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0556	0.109	0.109
5.62	Chloride	0.3449	1.091	1.091
6.55	Nitrite	0.0716	0.107	0.107
8.06	Bromide	0.0265	0.243	0.243
9.10	Nitrate	0.0779	0.117	0.117
14.13	Sulfate	0.2491	0.819	0.819

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-11-04 21:16:45
Dilution factor 1.00

Anions

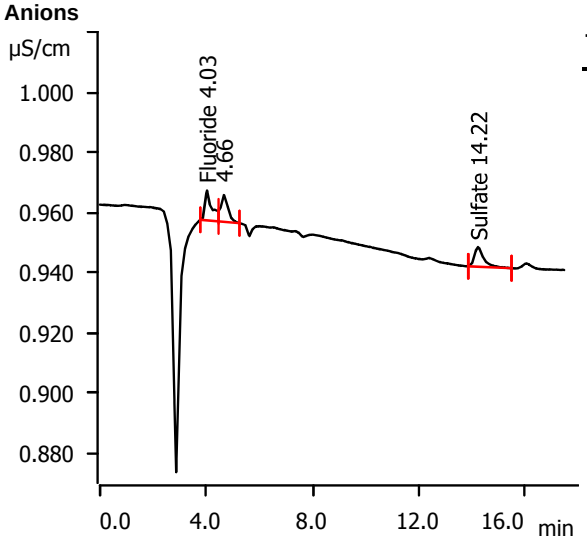


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	1.7165	2.640	2.640
5.65	Chloride	19.5809	50.738	50.738
6.54	Nitrite	2.1242	2.602	2.602
8.00	Bromide	1.5937	10.233	10.233
9.01	Nitrate	2.3063	2.461	2.461
14.08	Sulfate	15.5207	51.221	51.221

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-11-04 21:37:25
Dilution factor 1.00

Anions

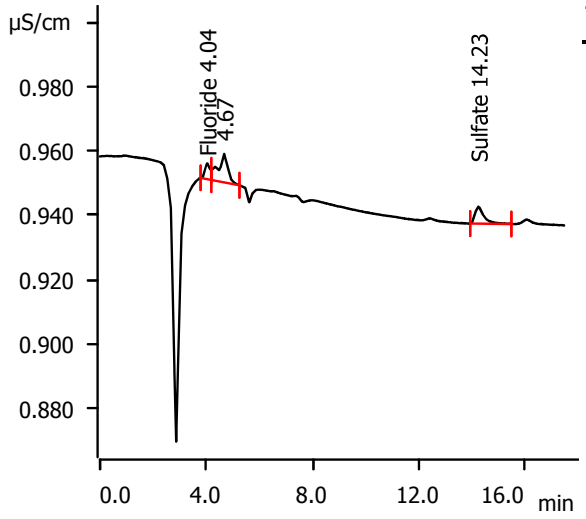


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0029	0.028	0.028
14.22	Sulfate	0.0026	0.005	0.005

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-11-04 21:57:56
Dilution factor 1.00

Anions

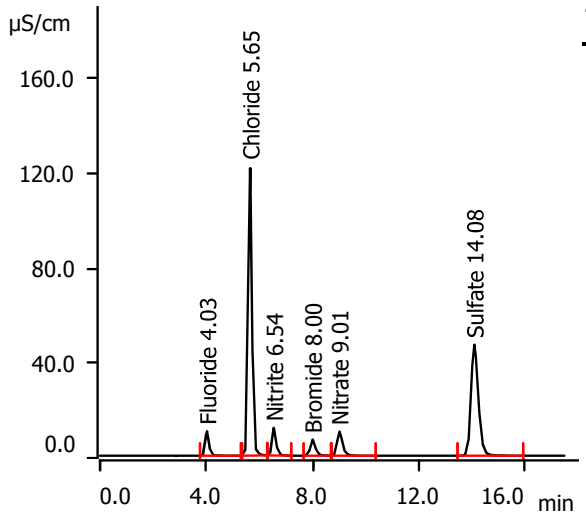


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.04	Fluoride	0.0010	0.025	0.025
14.23	Sulfate	0.0021	0.003	0.003

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-11-04 22:18:36
Dilution factor 1.00

Anions

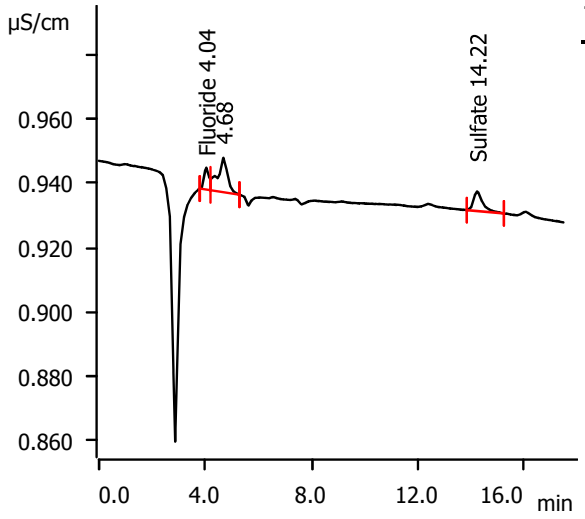


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	1.6688	2.568	2.568
5.65	Chloride	19.8265	51.372	51.372
6.54	Nitrite	2.1503	2.634	2.634
8.00	Bromide	1.5653	10.052	10.052
9.01	Nitrate	2.3308	2.487	2.487
14.08	Sulfate	14.9851	49.453	49.453

Sample data

Ident FC10931-1
Sample type . . . . . Sample
Determination start 2023-11-04 22:39:07
Dilution factor 1.00

Anions

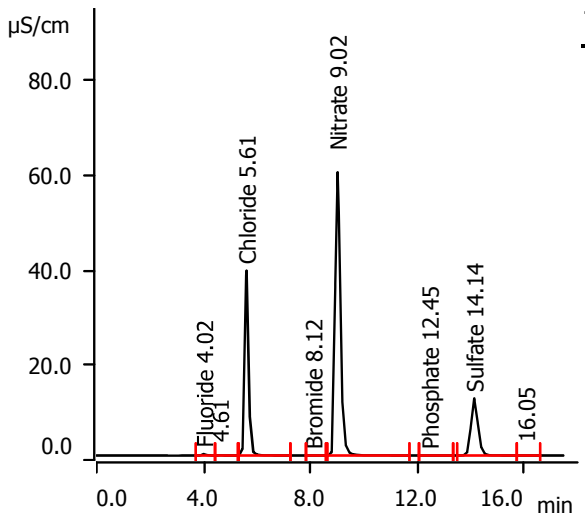


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.04	Fluoride	0.0014	0.026	0.026
14.22	Sulfate	0.0024	0.005	0.005

Sample data

Ident FC10931-2
Sample type . . . . . Sample
Determination start 2023-11-04 22:59:38
Dilution factor 1.00

Anions

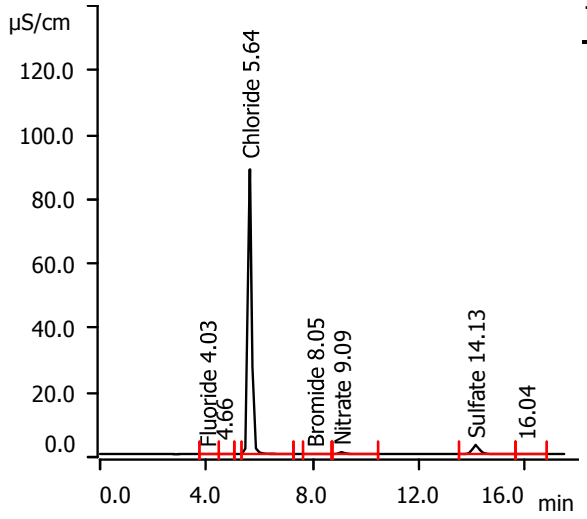


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0548	0.107	0.107
5.61	Chloride	6.3042	16.471	16.471
8.12	Bromide	0.0015	0.084	0.084
9.02	Nitrate	13.6442	14.386	14.386
12.45	Phosphate	0.0026	invalid	invalid
14.14	Sulfate	3.6857	12.161	12.161

Sample data

Ident FC10931-3
Sample type . . . . . Sample
Determination start 2023-11-04 23:20:10
Dilution factor 10.00

Anions

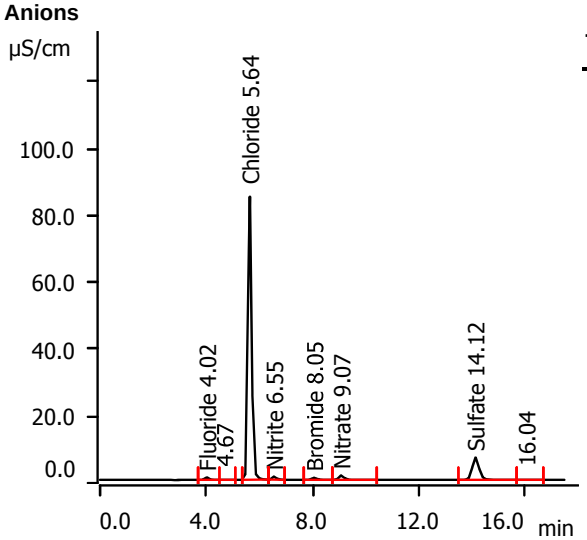


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0050	0.031	0.314
5.64	Chloride	14.1383	36.691	366.908
8.05	Bromide	0.0012	0.082	0.816
9.09	Nitrate	0.1277	0.169	1.695
14.13	Sulfate	0.8545	2.817	28.168

Sample data

Ident FC10931-3S1
Sample type . . . . . Sample
Determination start 2023-11-04 23:40:27
Dilution factor 10.00

Anions

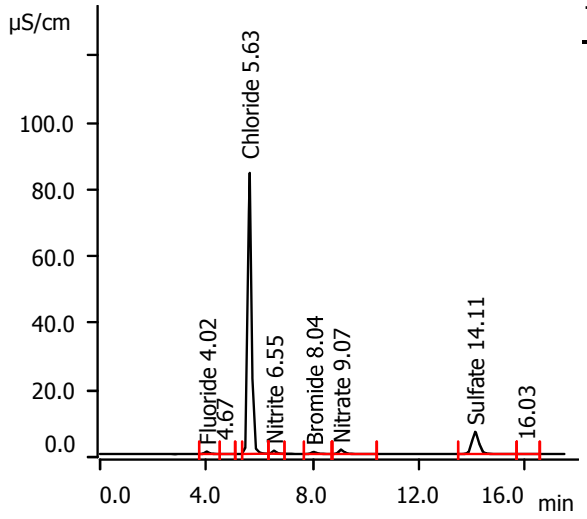


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.1145	0.198	1.984
5.64	Chloride	13.4614	34.944	349.436
6.55	Nitrite	0.1622	0.218	2.175
8.05	Bromide	0.1245	0.868	8.681
9.07	Nitrate	0.2950	0.345	3.454
14.12	Sulfate	2.0347	6.712	67.120

Sample data

Ident FC10931-3S2
Sample type . . . . . Sample
Determination start 2023-11-05 00:00:44
Dilution factor 10.00

Anions

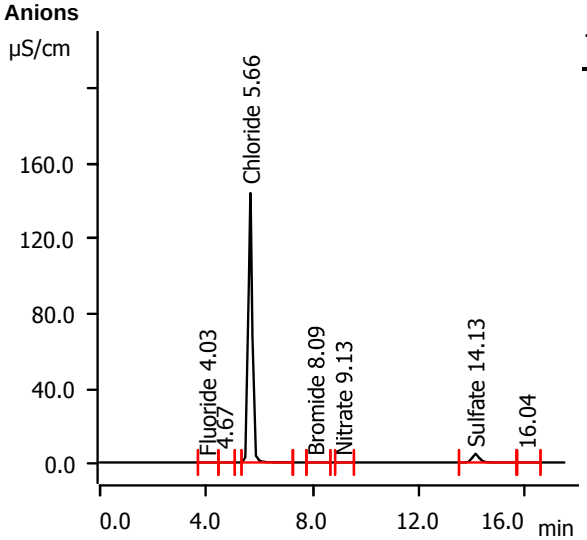


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.1141	0.198	1.978
5.63	Chloride	13.3490	34.654	346.535
6.55	Nitrite	0.1611	0.216	2.162
8.04	Bromide	0.1233	0.860	8.602
9.07	Nitrate	0.2922	0.342	3.424
14.11	Sulfate	2.0137	6.642	66.424

Sample data

Ident FC10931-4
Sample type . . . . . Sample
Determination start 2023-11-05 00:21:02
Dilution factor 5.00

Anions

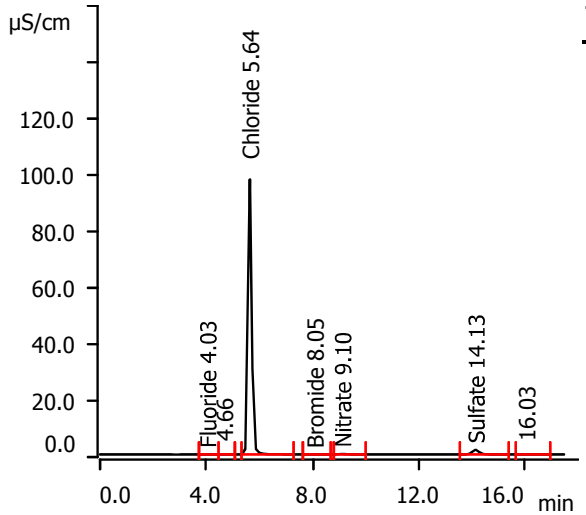


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0052	0.032	0.158
5.66	Chloride	24.0708	62.326	311.629
8.09	Bromide	0.0023	0.089	0.444
9.13	Nitrate	0.0016	0.037	0.184
14.13	Sulfate	1.3967	4.606	23.031

Sample data

Ident FC10931-5
Sample type . . . . . Sample
Determination start 2023-11-05 00:41:19
Dilution factor 10.00

Anions

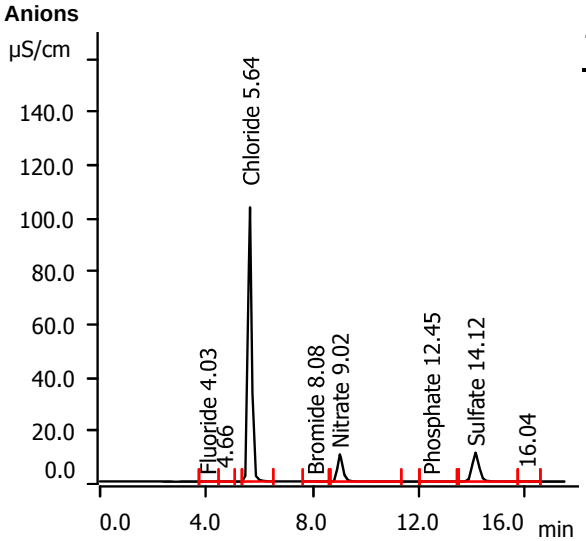


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0043	0.030	0.303
5.64	Chloride	15.6788	40.667	406.665
8.05	Bromide	0.0013	0.083	0.826
9.10	Nitrate	0.0418	0.079	0.791
14.13	Sulfate	0.5013	1.651	16.510

Sample data

Ident FC10931-6
Sample type . . . . . Sample
Determination start 2023-11-05 01:01:37
Dilution factor 10.00

Anions

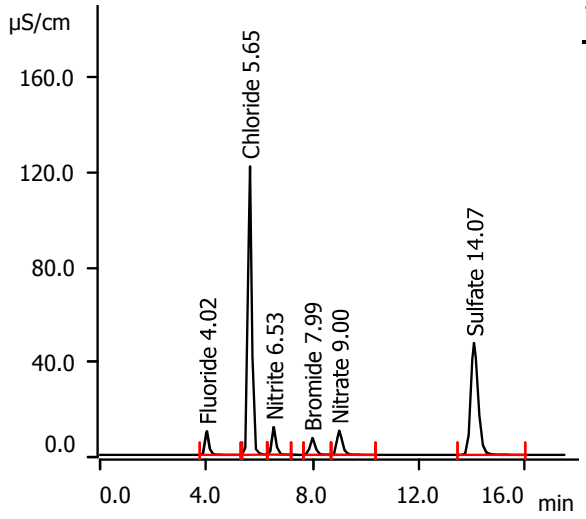


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0063	0.033	0.334
5.64	Chloride	16.6239	43.106	431.058
8.08	Bromide	0.0020	0.087	0.870
9.02	Nitrate	2.2966	2.451	24.507
12.45	Phosphate	0.0055	invalid	invalid
14.12	Sulfate	3.3291	10.984	109.838

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-11-05 01:21:56
Dilution factor 1.00

Anions

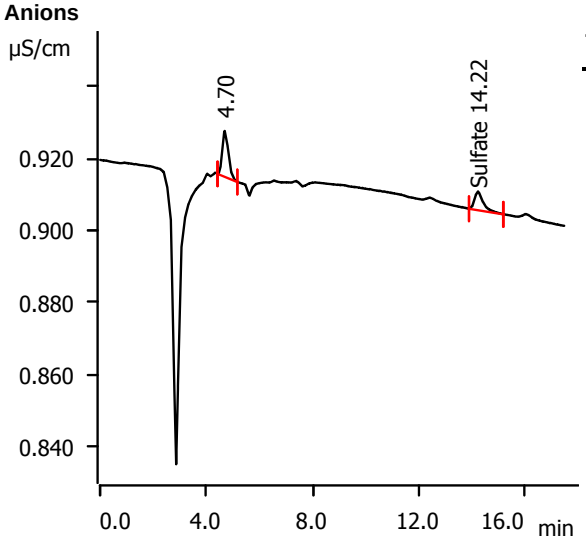


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.5858	2.441	2.441
5.65	Chloride	19.8883	51.531	51.531
6.53	Nitrite	2.1441	2.626	2.626
7.99	Bromide	1.6168	10.380	10.380
9.00	Nitrate	2.3412	2.498	2.498
14.07	Sulfate	15.0363	49.622	49.622

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-11-05 01:42:32
Dilution factor 1.00

Anions

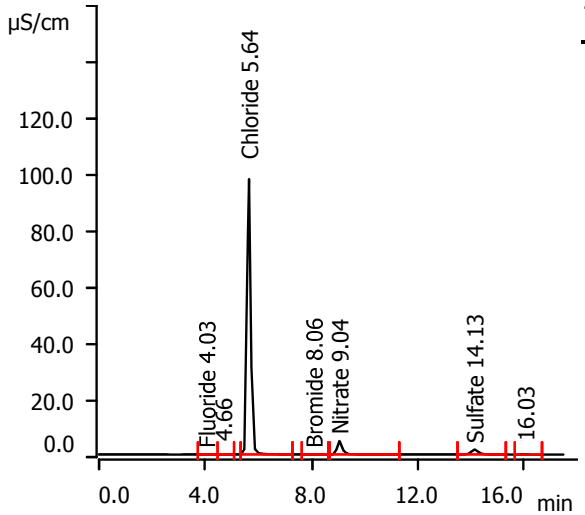


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
14.22	Sulfate	0.0019	0.003	0.003

Sample data

Ident FC10931-7
Sample type . . . . . Sample
Determination start 2023-11-05 01:03:05
Dilution factor 10.00

Anions

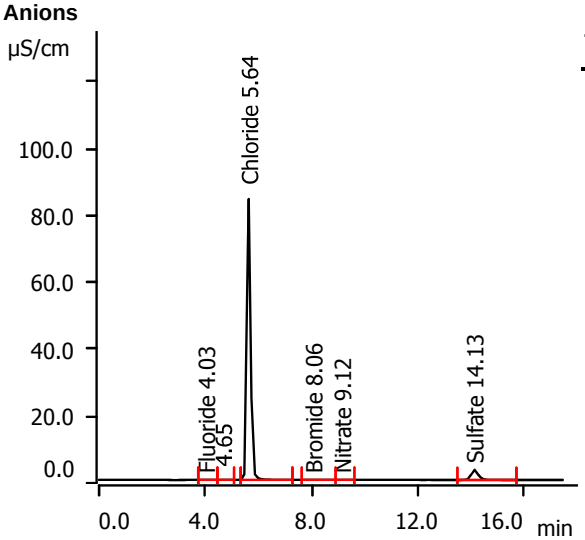


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0054	0.032	0.321
5.64	Chloride	15.6313	40.544	405.440
8.06	Bromide	0.0014	0.083	0.834
9.04	Nitrate	1.0590	1.149	11.490
14.13	Sulfate	0.5396	1.777	17.774

Sample data

Ident FC10931-8
Sample type . . . . . Sample
Determination start 2023-11-05 01:23:24
Dilution factor 10.00

Anions

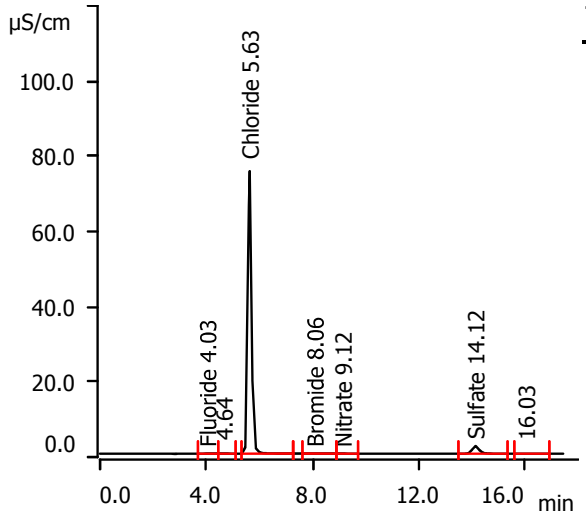


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0088	0.037	0.373
5.64	Chloride	13.4262	34.853	348.529
8.06	Bromide	0.0015	0.084	0.838
9.12	Nitrate	0.0012	0.036	0.364
14.13	Sulfate	0.9175	3.025	30.246

Sample data

Ident FC10931-9
Sample type . . . . . Sample
Determination start 2023-11-05 01:43:41
Dilution factor 10.00

Anions

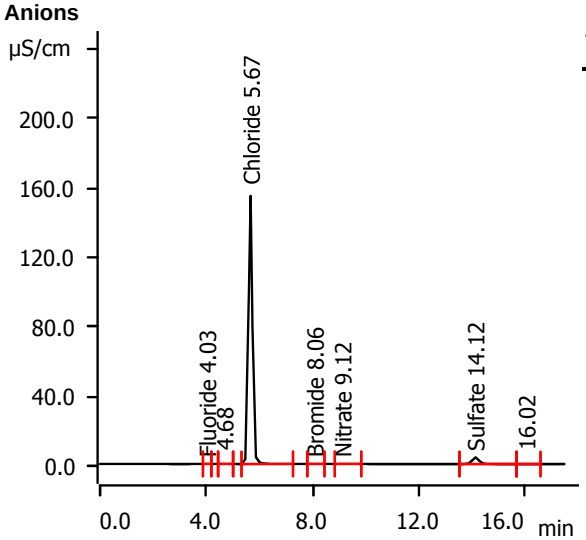


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0074	0.035	0.351
5.63	Chloride	11.9358	31.006	310.062
8.06	Bromide	0.0018	0.086	0.856
9.12	Nitrate	0.0016	0.037	0.369
14.12	Sulfate	0.6122	2.017	20.170

Sample data

Ident FC10931-10
Sample type . . . . . Sample
Determination start 2023-11-05 02:03:58
Dilution factor 10.00

Anions

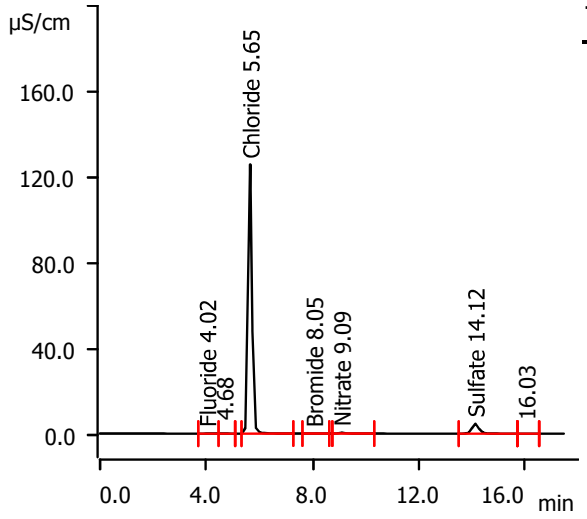


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0025	0.028	0.277
5.67	Chloride	26.1780	67.764	677.643
8.06	Bromide	0.0008	0.080	0.796
9.12	Nitrate	0.0116	0.047	0.473
14.12	Sulfate	1.1661	3.845	38.452

Sample data

Ident FC10931-11
Sample type . . . . . Sample
Determination start 2023-11-05 02:24:16
Dilution factor 5.00

Anions

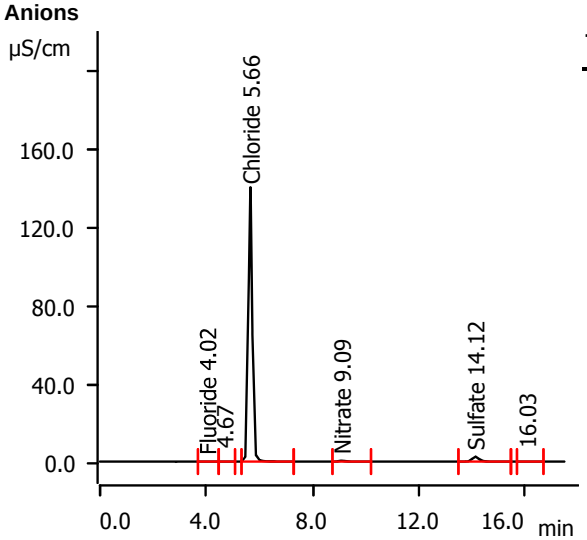


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0082	0.036	0.182
5.65	Chloride	20.5969	53.360	266.800
8.05	Bromide	0.0017	0.085	0.425
9.09	Nitrate	0.0963	0.136	0.682
14.12	Sulfate	1.3841	4.565	22.823

Sample data

Ident FC10931-12
Sample type . . . . . Sample
Determination start 2023-11-05 02:44:33
Dilution factor 10.00

Anions

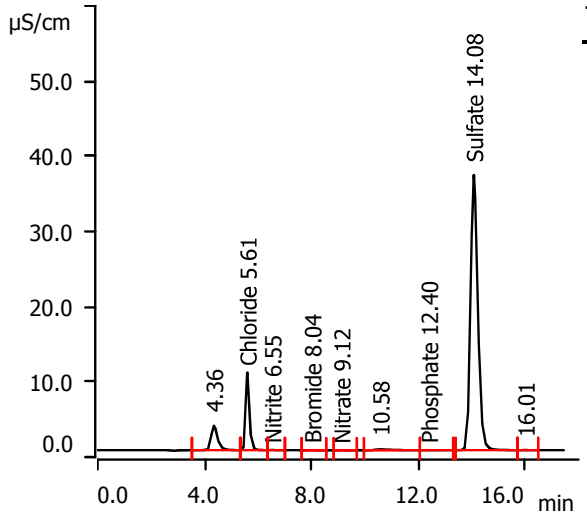


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0069	0.034	0.343
5.66	Chloride	23.2739	60.269	602.691
9.09	Nitrate	0.1060	0.147	1.466
14.12	Sulfate	0.7577	2.497	24.973

Sample data

Ident FC10927-1
Sample type . . . . . Sample
Determination start 2023-11-05 03:04:50
Dilution factor 50.00

Anions

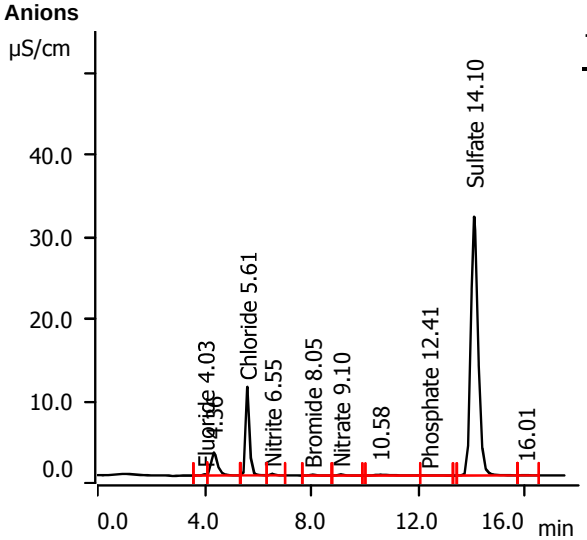


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
5.61	Chloride	1.6330	4.415	220.769
6.55	Nitrite	0.0059	0.028	1.379
8.04	Bromide	0.0014	0.083	4.157
9.12	Nitrate	0.0035	0.039	1.939
12.40	Phosphate	0.0117	invalid	invalid
14.08	Sulfate	11.5803	38.216	1910.789

Sample data

Ident FC10927-1S3
Sample type . . . . . Sample
Determination start 2023-11-05 03:25:10
Dilution factor 50.00

Anions

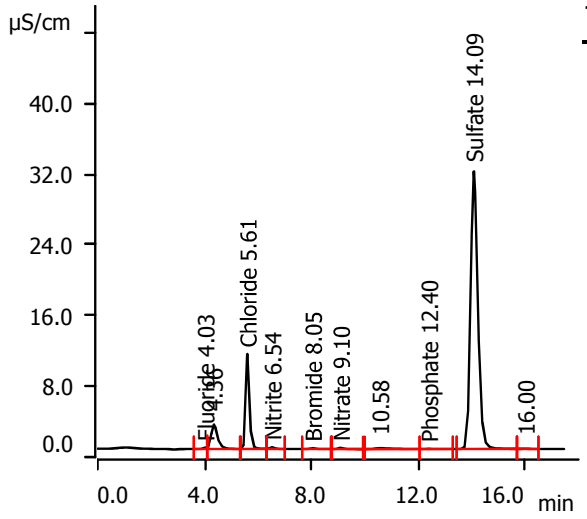


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0241	0.061	3.030
5.61	Chloride	1.7191	4.638	231.877
6.55	Nitrite	0.0351	0.063	3.153
8.05	Bromide	0.0243	0.229	11.467
9.10	Nitrate	0.0362	0.073	3.660
12.41	Phosphate	0.0099	invalid	invalid
14.10	Sulfate	9.9522	32.843	1642.133

Sample data

Ident FC10927-1S4
Sample type . . . . . Sample
Determination start 2023-11-05 03:45:28
Dilution factor 50.00

Anions

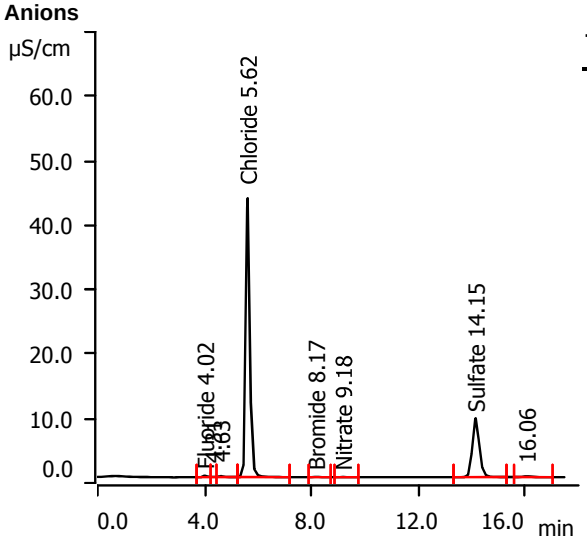


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	0.0243	0.061	3.042
5.61	Chloride	1.7046	4.600	230.000
6.54	Nitrite	0.0343	0.062	3.104
8.05	Bromide	0.0241	0.228	11.387
9.10	Nitrate	0.0367	0.074	3.687
12.40	Phosphate	0.0099	invalid	invalid
14.09	Sulfate	9.9110	32.707	1635.337

Sample data

Ident FC10955-1A
Sample type . . . . . Sample
Determination start 2023-11-05 04:05:46
Dilution factor 1.00

Anions

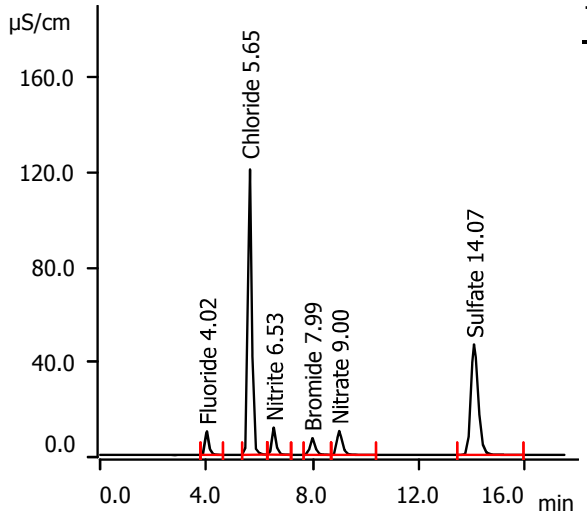


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0432	0.090	0.090
5.62	Chloride	7.4992	19.556	19.556
8.17	Bromide	0.0104	0.140	0.140
9.18	Nitrate	0.0049	0.040	0.040
14.15	Sulfate	2.7760	9.158	9.158

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-11-05 04:26:25
Dilution factor 1.00

Anions

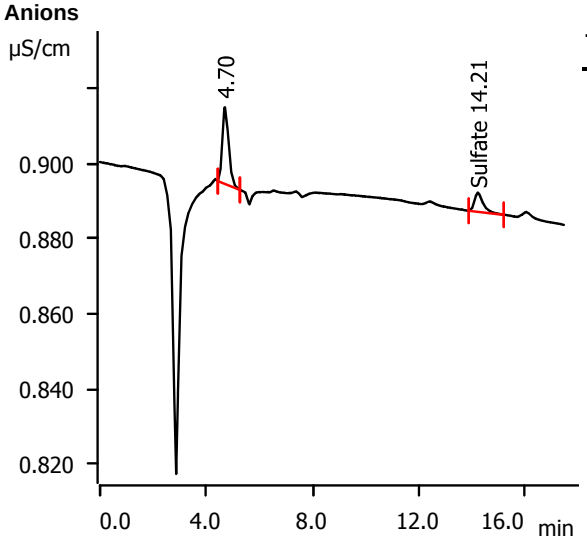


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.5503	2.387	2.387
5.65	Chloride	19.6668	50.960	50.960
6.53	Nitrite	2.1054	2.579	2.579
7.99	Bromide	1.5957	10.245	10.245
9.00	Nitrate	2.3116	2.467	2.467
14.07	Sulfate	14.8701	49.074	49.074

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-11-05 04:46:58
Dilution factor 1.00

Anions

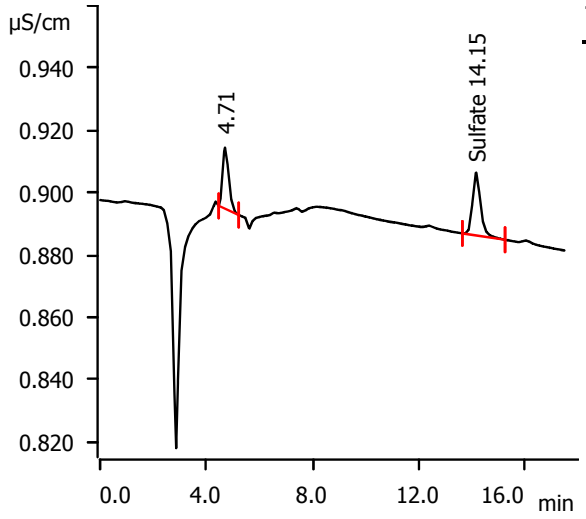


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
14.21	Sulfate	0.0019	0.003	0.003

Sample data

Ident FC10917-1
Sample type . . . . . Sample
Determination start 2023-11-05 05:07:30
Dilution factor 1.00

Anions

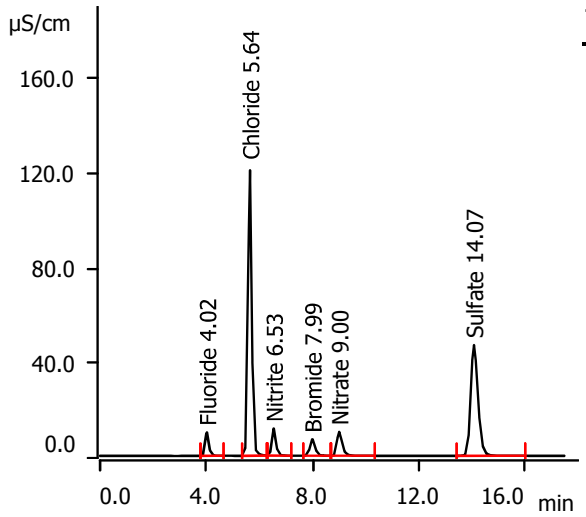


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
14.15	Sulfate	0.0071	0.020	0.020

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-11-05 05:28:04
Dilution factor 1.00

Anions

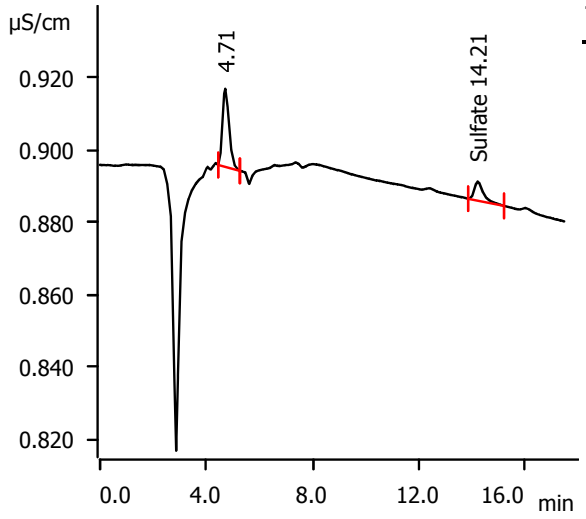


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.5511	2.388	2.388
5.64	Chloride	19.6746	50.980	50.980
6.53	Nitrite	2.1085	2.583	2.583
7.99	Bromide	1.5947	10.239	10.239
9.00	Nitrate	2.3109	2.466	2.466
14.07	Sulfate	14.8925	49.147	49.147

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-11-05 05:48:38
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
14.21	Sulfate	0.0021	0.003	0.003

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

DIRECT SUB FAH

E

WW

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : TF-09123-110

PAGE 1 OF 1

SGS - ORLANDO Quote #

SKIFF # FC10955

Client / Reporting Information

Company Name: Sovereign Consulting
Address: 9 Payson Rd ste 150
City: Foxboro State: MA Zip: 02035
Project Contact: Steve Passafaro Email: spassafaro@
Phone #: 508 339 3200 sovcon.com
Sampler(s) Name(s) (Printed)
Sampler 1: Joe Rogers Sampler 2:

Project Information

Project Name: SHL ATP
Street
City State
Project #
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	ASMS 6020	Ba Cd Cr Cu Pb Mg Mn Se Ag Hg	MET SW864 6010	CHL	XNO3 * SO4	V624 SL1	P608 PCB	P608 PE STTCL	PGC+CHL	AB625 SL	PHC1664	LAB USE ONLY
1	Effluent	11-3-23	1215	JR	AQ	14		6	6		x	x				+	+	+	+	+	+	+	+	+	+	+	G19

Initial Assessment 2AEA
Label Verification

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

Turnaround Time (Business days)

10 Day (Business) Approved By: / Date:
7 Day
5 Day rush As only
3 Day RUSH
2 Day RUSH
1 Day RUSH
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [x] FULLT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

See QAPP

* XNO3 direct sub to Dayton

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature] SOVCON	11-3-23 330	2 [signature] (SC)	3 [signature]	11/3/23 16:55	4 [signature]
5 [signature]	11/3/23 19:20	6 Brandon Malloy	7 Brandon Malloy	11/3/23 22:45	8 [signature]

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

4.7
IR-40

FC10955: Chain of Custody
Page 1 of 2
SGS Dayton, NJ

17.1

17

SGS Sample Receipt Summary

Job Number: FC10955 **Client:** TF-09123-110 **Project:** SHL ATP

Date / Time Received: 11/3/2023 10:45:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (4.7);

Cooler Temps (Corrected) °C: Cooler 1: (4.4);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun 40		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

QC Evaluation: DOD QSM5.x Limits

Job Number: FC10955
Account: SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA
Collected: 11/03/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits found for methods in this job.

* Sample used for QC is not from job FC10955

General Chemistry

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate + Nitrite	GP50359/GN47942	0.10	0.0	mg/l	2	1.94	97.0	90-110%
Nitrogen, Nitrite	GN47884	0.010	0.0	mg/l	0.04	0.039	97.5	90-110%

Associated Samples:
Batch GN47884: FC10955-1
Batch GP50359: FC10955-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrate + Nitrite	GP50359/GN47942	JD76126-3	mg/l	3.1	3.1	0.0	0-20%

Associated Samples:
Batch GP50359: FC10955-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP50359/GN47942	JD76126-3	mg/l	3.1	2	4.4	65.0N(a)	90-110%
Nitrogen, Nitrite	GN47884	FC10955-1	mg/l	0.036	0.04	0.075	97.5	22-140%

Associated Samples:
Batch GN47884: FC10955-1
Batch GP50359: FC10955-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrite	GN47884	FC10955-1	mg/l	0.036	0.04	0.075	0.0	20%

Associated Samples:
Batch GN47884: FC10955-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: E110623W1.NO32 Date Analyzed: 11/06/23 Methods: EPA 353.2/LACHAT
Analyst: SS Run ID: GN47942
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:43	GN47942-STD1	1		STDA
21:44	GN47942-STD2	1		STDB
21:45	GN47942-STD3	1		STDC
21:46	GN47942-STD4	1		STDD
21:48	GN47942-STD5	1		STDE
21:49	GN47942-STD6	1		STDF
21:50	GN47942-STD7	1		STDG
21:51	GN47942-STD8	1		STDH
21:53	GN47942-ICV1	1		
21:54	GN47942-ICB1	1		
21:55	GN47942-CCV1	1		
21:56	GN47942-CCB1	1		
21:57	ZZZZZZ	1		
21:58	ZZZZZZ	1		
21:59	ZZZZZZ	1		
22:00	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:03	ZZZZZZ	1		
22:04	ZZZZZZ	1		
22:05	ZZZZZZ	1		
22:06	GP50302-MB1	1		
22:07	GP50302-B1	1		
22:08	GN47942-CCV2	1		
22:09	GN47942-CCB2	1		
22:10	GP50302-S1	1		
22:11	GP50302-D1	1		
22:12	JD75930-1	1		(sample used for QC only; not part of login FC10955)
22:13	ZZZZZZ	1		
22:14	ZZZZZZ	1		
22:15	ZZZZZZ	1		
22:17	ZZZZZZ	1		
22:18	ZZZZZZ	1		
22:19	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: E110623W1.NO32 Date Analyzed: 11/06/23 Methods: EPA 353.2/LACHAT
Analyst: SS Run ID: GN47942
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:20	ZZZZZZ	1		
22:25	GN47942-CCV3	1		
22:26	GN47942-CCB3	1		
22:27	ZZZZZZ	4		
22:28	GP50359-MB1	1		
22:31	GP50359-S1	1		
22:32	GP50359-S2	1		
22:33	GP50359-D1	1		
22:34	GN47942-CCV4	1		
22:35	GN47942-CCB4	1		
22:36	JD76126-3	1		(sample used for QC only; not part of login FC10955)
22:37	JD75997-1	1		(sample used for QC only; not part of login FC10955)
22:39	ZZZZZZ	1		
22:41	ZZZZZZ	1		
22:42	FC10955-1	1		
22:43	ZZZZZZ	1		
22:44	ZZZZZZ	1		
22:46	ZZZZZZ	1		
22:47	GN47942-CCV5	1		
22:48	GN47942-CCB5	1		
22:49	ZZZZZZ	1		
22:50	ZZZZZZ	1		
22:51	ZZZZZZ	1		
22:52	ZZZZZZ	1		
22:53	ZZZZZZ	1		
22:54	ZZZZZZ	1		
22:55	ZZZZZZ	1		
22:56	ZZZZZZ	1		
22:57	ZZZZZZ	1		
22:58	ZZZZZZ	1		
23:04	GN47942-CCV6	1		
23:05	GN47942-CCB6	1		
23:19	GN47942-CCV7	1		

18:5 18
SGS 1470 of 1492
FC10955

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: E110623W1.NO32 Date Analyzed: 11/06/23 Methods: EPA 353.2/LACHAT
Analyst: SS Run ID: GN47942
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
23:20	GN47942-CCB7	1		
23:21	ZZZZZZ	1		
23:22	ZZZZZZ	1		
23:24	ZZZZZZ	2		
23:25	GP50302-S1	2		
23:26	GP50359-B1	1		
23:28	GN47942-CCV8	1		
23:29	GN47942-CCB8	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC10955
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: E110623W1.NO32 Date Analyzed: 11/06/23 Methods: EPA 353.2/LACHAT
Run ID: GN47942 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN47942-ICV1	Nitrogen, Nitrate + Nitrite	1.90	0.10	0.090	2	95.0	90-110
GN47942-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV1	Nitrogen, Nitrate + Nitrite	2.29	0.10	0.090	2.5	91.6	90-110
GN47942-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV2	Nitrogen, Nitrate + Nitrite	2.42	0.10	0.090	2.5	96.8	90-110
GN47942-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV3	Nitrogen, Nitrate + Nitrite	2.37	0.10	0.090	2.5	94.8	90-110
GN47942-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV4	Nitrogen, Nitrate + Nitrite	2.74	0.10	0.090	2.5	109.6	90-110
GN47942-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV5	Nitrogen, Nitrate + Nitrite	2.73	0.10	0.090	2.5	109.2	90-110
GN47942-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV6	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN47942-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV7	Nitrogen, Nitrate + Nitrite	2.73	0.10	0.090	2.5	109.2	90-110
GN47942-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN47942-CCV8	Nitrogen, Nitrate + Nitrite	2.43	0.10	0.090	2.5	97.2	90-110
GN47942-CCB8	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

(SGS Dayton, NJ)

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN47884
GP Batch ID:
Date: 11/4/2023
Instrument ID: Pipet II GLASS PIPETTE CLASS A

Original Calibration Information — Calibration Date: 10/17/2023

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.032	0.084	0.171	0.252	0.339	0.684	
Actual Value:	#DIV/0!	0.010	0.025	0.050	0.074	0.100	0.200	
% RE:	#DIV/0!	1.50	-0.19	-0.95	1.14	0.42	-0.20	

Continuing Calibration Check Standards Data: 11/4/2023

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.032	0.677
Recovery:	0.0%	98.5%	99.2%
Actual Value:		0.010	0.198

Correlation Coeff. = 0.99997
Slope = 0.29227
Intercept = 0.00050

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	11:31	50	50	1	0.325	NA	0.095	0.095	NA	mg/l	NA	
	CCV	11:45	50	50	1	0.322	NA	0.095	0.095	NA	mg/l	NA	
	CCB	11:45	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
	GN47884-MB1	11:45	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	
	GN47884-B1	11:45	50	50	1	0.133	0.000	0.039	0.039	0.010	mg/l	1	
2	GN47884-S1	11:45	50	50	1	0.441	0.187	0.075	0.075	0.010	mg/l	1	
2	GN47884-MSD1	11:45	50	50	1	0.441	0.187	0.075	0.075	0.010	mg/l	1	
2	FC10955-1	11:45	50	50	1	0.308	0.187	0.036	0.036	0.010	mg/l	1	Y
10	JD76126-3	15:20	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	y
		15:20	50	50	1								
		15:20	50	50	1								
		15:20	50	50	1								
		15:20	50	50	1								
	CCVA	15:20	50	50	1	0.662	NA	0.194	0.194	NA	mg/l	NA	
	CCB	15:20	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCV		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCVA		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	

11/6/23

Analyst: _____ Date: _____ QC Reviewer: _____ Date: _____

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: mg/l / mg/kg

Analyst: MK
GNBatch ID: GN47884
GPBatch ID:
Date: 11/9/23

Preparation Batch QC Summary Units = mg/L

Method Blank ID: GN47884-MB1 Date: 11/9/23 Result: <DL DL: 0.01 <DL:
Spike Blank ID: -B1 Date: ↓ Result: 0.039 Spike: 0.04 %Rec.: 97.5%
MS ID: -S1 Samp. Result: 0.036 MS Result: 0.075 Spike: 0.04 %Rec:
MSDUP ID: -MSD1 Samp. Result: 0.036 MSDUP Result: 0.075 Spike: 0.04 %Rec: 97.5%
MSDUP ID: MSDUP Result: MS Result: %RPD:

Method Blank ID: Date: Result: DL: <DL:
Spike Blank ID: Date: Result: Spike: 0.04 %Rec.:
MS ID: Samp. Result: MS Result: Spike: 0.04 %Rec:
MSDUP ID: Samp. Result: MSDUP Result: Spike: 0.04 %Rec:
MSDUP ID: MSDUP Result: MS Result: %RPD:

Analysis Batch QC Summary Units =
ICV (Ext): 11/9/23 Result: 0.095 TV: 0.1 %Rec: 95%

CCV : Result: 0.095 TV: 0.1 %Rec.: 95%
CCVA : Result: 0.194 TV: 0.2 %Rec.: 97%
CCV : Result: TV: 0.1 %Rec.:
CCVA : Result: TV: 0.2 %Rec.:
CCV : Result: TV: 0.1 %Rec.:
CCVA : Result: TV: 0.2 %Rec.:

CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:

Reagent Reference Numbers:
QC------BS/MS/MSD------2 ML OF 1 PPM NO2 STD -- 50 ML DI/H2O/SAMPLE ---- TV 0.04 MG/L
MS/MSD SAMPLE NO --- QC1 =
QC2 =

* SIGN SAMPLE FILTERED IN LAB

Analyst: Date:

Comments:

Form: GN032-01
Rev. Date:9/4/09]

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock (STD)	ERA LOT #261221M XP: 12/14/2023
External Check (ICV)	ERA LOT #240722M XP: 8/26/2024
Spiking Solution Source STD	ERA LOT #261221M XP: 12/14/2023
NO2 Color Reagent	GNE10-72626-NO2 XP 11/9/2023
NH4OH	FISHER 193136 XP 2/20/2027

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:11/4/2023

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: _____

GN or GP Number: _____

Standard	Manufacturer/Lot Number	Concentration	Expiration Date
1000 mg/l Nitrite Standard	ERA LOT# 261221M	1000 PPM	12/14/2023
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 240722M	1000 PPM	8/6/2024

Standard Description	Lot or Tracking #	Initial Volume	Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
10 PPM NO2 STANDARD	GNE11-72938-NO2	1.0 ml	1000 mg/l Nitrite Standard	A	DI water	100 ml	10 mg/l	11/4/2023	MK	11/4/2023
1 PPM NO2 STANDARD	GNE11-72940-NO2	10.0 ml	10 PPM NO2 STANDARD	A	DI water	100 ml	1 mg/L	11/4/2023	MRP	11/4/2023
10 PPM NO2 EXTERNAL	GNE11-72939-NO2	1.0 ml	Nitrite Standard (ICV)	A	DI water	100 ml	10 mg/l	11/4/2023	MK	11/4/2023
1 PPM NO2 EXTERNAL	GNE11-72941-NO2	10.0 ml	10 PPM NO2 EXTERNAL	A	DI water	100 ml	1 mg/l	11/4/2023	MK	11/4/2023

Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
0.2 mg/L (high)	GNE11-72940-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	11/4/2023	MK	11/4/2023
0.1 mg/L		10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L			
0.075 mg/L		7.5 ml	1.0 mg/L	A	DI water	100 ml	0.075 mg/L			
0.05 mg/L		5.0 ml	1.0 mg/L	A	DI water	100 ml	0.05 mg/L			
0.025 mg/L		2.5 ml	1.0 mg/L	A	DI water	100 ml	0.025 mg/L			
0.01 mg/L (low)	GNE11-72940-NO2	1.0 ml	1.0 mg/L	A	DI water	100 ml	0.01 mg/L	11/4/2023	MK	11/4/2023
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	11/4/2023	MK	11/4/2023
CCV	GNE11-72940-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	11/4/2023	MK	11/4/2023
CCVA	GNE11-72940-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	11/4/2023	MK	11/4/2023
ICV	GNE11-72941-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	11/4/2023	MK	11/4/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: E110623W1.NO32 Date Analyzed: 11/06/23 Methods: EPA 353.2/LACHAT
Analyst: SS Run ID: GN47942

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: SS Date 11/6/23

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 11/7/23

Author: Chemistry

Date : 11/6/2023

Original Run Filename: OM_11-6-2023_09-42-49PM.OMN Created: 11/6/2023 9:42:49 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_11-6-2023_09-42-49PM.OMN Last Modified: 11/6/2023 11:32:27 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

GN47942
e110623w1.no32

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF	
STDA	1	1	5.00	11/6/2023@9:43:39 PM		
STDB	1	2	4.00	11/6/2023@9:44:45 PM		
STDC	1	3	2.50	11/6/2023@9:45:50 PM		
STDD	1	4	1.00	11/6/2023@9:46:55 PM		
STDE	1	5	0.500	11/6/2023@9:48:00 PM		
STDF	1	6	0.200	11/6/2023@9:49:05 PM		
STDG	1	7	0.100	11/6/2023@9:50:09 PM		
STDH	1	8	0.00	11/6/2023@9:51:14 PM		
EFFCHK	1	9	1.94	11/6/2023@9:52:19 PM		97%
	Known Conc:		2.00			
ICV	1	10	1.90	11/6/2023@9:53:23 PM		95%
	Known Conc:		2.00			
ICB	1	11	0.0312	11/6/2023@9:54:27 PM		
	Known Conc:		0.00			
CCV	1	12	2.29	11/6/2023@9:55:32 PM		91.6%
	Known Conc:		2.50			
CCB	1	13	0.0309	11/6/2023@9:56:36 PM		
	Known Conc:		0.00			
JD75949-6	1	14	1.65	11/6/2023@9:57:40 PM		
JD75949-7	1	15	1.06	11/6/2023@9:58:43 PM		
JD75949-8	1	16	0.0366	11/6/2023@9:59:49 PM		
JD75813-1	1	17	0.548	11/6/2023@10:00:54 PM		
JD75813-2	1	18	5.11	11/6/2023@10:01:59 PM		out of range
JD75813-5	1	19	0.129	11/6/2023@10:03:04 PM		
JD75813-6	1	20	0.0894	11/6/2023@10:04:09 PM		
JD75905-1	1	21	0.168	11/6/2023@10:05:14 PM		
GP50302-MB1	1	22	0.0428	11/6/2023@10:06:18 PM		
GP50302-B1	1	23	1.84	11/6/2023@10:07:23 PM		92%
CCV	1	12	2.42	11/6/2023@10:08:27 PM		96.8%
	Known Conc:		2.50			
CCB	1	13	0.0316	11/6/2023@10:09:31 PM		
	Known Conc:		0.00			
GP50302-S1	1	24	5.49	11/6/2023@10:10:36 PM		out of range
GP50302-D1	1	25	3.93	11/6/2023@10:11:40 PM		
JD75930-1	1	26	3.87	11/6/2023@10:12:45 PM		
JD76009-1F	1	27	0.0471	11/6/2023@10:13:49 PM		
JD76009-2F	1	28	0.0640	11/6/2023@10:14:53 PM		
JD76009-3F	1	29	0.0747	11/6/2023@10:15:57 PM		
JD76009-4F	1	30	0.0878	11/6/2023@10:17:00 PM		
JD76009-5F	1	31	0.103	11/6/2023@10:18:06 PM		
JD76009-6F	1	32	0.0995	11/6/2023@10:19:11 PM		
JD76009-7F	1	33	0.121	11/6/2023@10:20:16 PM		
CONF	1	12	2.11	11/6/2023@10:21:20 PM		wrong injection
	Known Conc:		2.50			
CONF	1	13	0.0329	11/6/2023@10:22:24 PM		
	Known Conc:		0.00			
CONF	1	34	2.04	11/6/2023@10:23:30 PM	4.00	
	Calibration:		Table/Fig. : 1			
CONF	1	35	0.0326	11/6/2023@10:24:34 PM		
CCV	1	12	2.37	11/6/2023@10:25:39 PM		94.8%
	Known Conc:		100			
CCB	1	13	0.0314	11/6/2023@10:26:43 PM		
	Known Conc:		100			
JD75949-3	1	34	2.09	11/6/2023@10:27:48 PM	4.00	5 mLs sample, 15mL DI H2O
GP50359-MB1	1	35	0.0323	11/6/2023@10:28:53 PM		
CONF	1	36	1.45	11/6/2023@10:29:58 PM		wrong injection
GP50359-S1	1	37	4.35	11/6/2023@10:31:02 PM		
GP50359-S2	1	38	2.38	11/6/2023@10:32:07 PM		
GP50359-D1	1	39	3.06	11/6/2023@10:33:12 PM		
CCV	1	12	2.74	11/6/2023@10:34:16 PM		109.6%

19.2
19

Author: Chemistry

Date : 11/6/2023

	Known Conc:		2.50		
CCB	1	13	0.0350	11/6/2023@10:35:20 PM	
	Known Conc:		0.00		
JD76126-3	1	40	3.09	11/6/2023@10:36:24 PM	
JD75997-1	1	41	0.855	11/6/2023@10:37:29 PM	
CONF	1	36	1.52	11/6/2023@10:38:33 PM	
JD76113-1	1	42	0.0354	11/6/2023@10:39:37 PM	
CONF	1	36	2.63	11/6/2023@10:40:41 PM	
JD76113-3	1	43	0.0307	11/6/2023@10:41:45 PM	
FC10955-1	1	44	0.103	11/6/2023@10:42:49 PM	
LA95130-1	1	45	1.15	11/6/2023@10:43:53 PM	
LA95153-1	1	46	0.0636	11/6/2023@10:44:58 PM	
LA95153-2	1	47	0.0314	11/6/2023@10:46:04 PM	
CCV	1	12	2.73	11/6/2023@10:47:08 PM	
	Known Conc:		2.50		
CCB	1	13	0.0342	11/6/2023@10:48:12 PM	
	Known Conc:		0.00		
LA95153-3	1	48	0.0247	11/6/2023@10:49:18 PM	
LA95153-4	1	49	0.452	11/6/2023@10:50:23 PM	
LA95153-5	1	50	0.0315	11/6/2023@10:51:28 PM	
LA95153-6	1	51	0.0457	11/6/2023@10:52:33 PM	
LA95153-7	1	52	0.0304	11/6/2023@10:53:37 PM	
LA95153-8	1	53	0.0328	11/6/2023@10:54:42 PM	
LA95153-9	1	54	0.0486	11/6/2023@10:55:47 PM	
JD76010-1F	1	55	0.0550	11/6/2023@10:56:51 PM	
JD76010-2F	1	56	0.0606	11/6/2023@10:57:55 PM	
JD76010-3F	1	57	0.0614	11/6/2023@10:58:59 PM	
CONF	1	12	3.31	11/6/2023@11:00:04 PM	
	Known Conc:		2.50		
CONF	1	13	0.0309	11/6/2023@11:01:08 PM	
	Known Conc:		0.00		
CONF	1	58	0.0707	11/6/2023@11:02:12 PM	
CONF	1	59	0.0645	11/6/2023@11:03:16 PM	
CCV	1	12	2.53	11/6/2023@11:04:20 PM	
	Known Conc:		100		
CCB	1	13	0.0323	11/6/2023@11:05:24 PM	
	Known Conc:		100		
CONF	1	58	0.0691	11/6/2023@11:06:28 PM	
CONF	1	59	0.0646	11/6/2023@11:07:32 PM	
CONF	1	60	1.91	11/6/2023@11:08:36 PM	2.00
CONF	1	61	1.95	11/6/2023@11:09:41 PM	2.00
CONF	1	12	1.93	11/6/2023@11:12:18 PM	
	Known Conc:		2.50		
CONF	1	13	0.0334	11/6/2023@11:13:22 PM	
	Known Conc:		0.00		

wrong injection

wrong injection

109.2%

wrong injection

101.2%

wrong injection

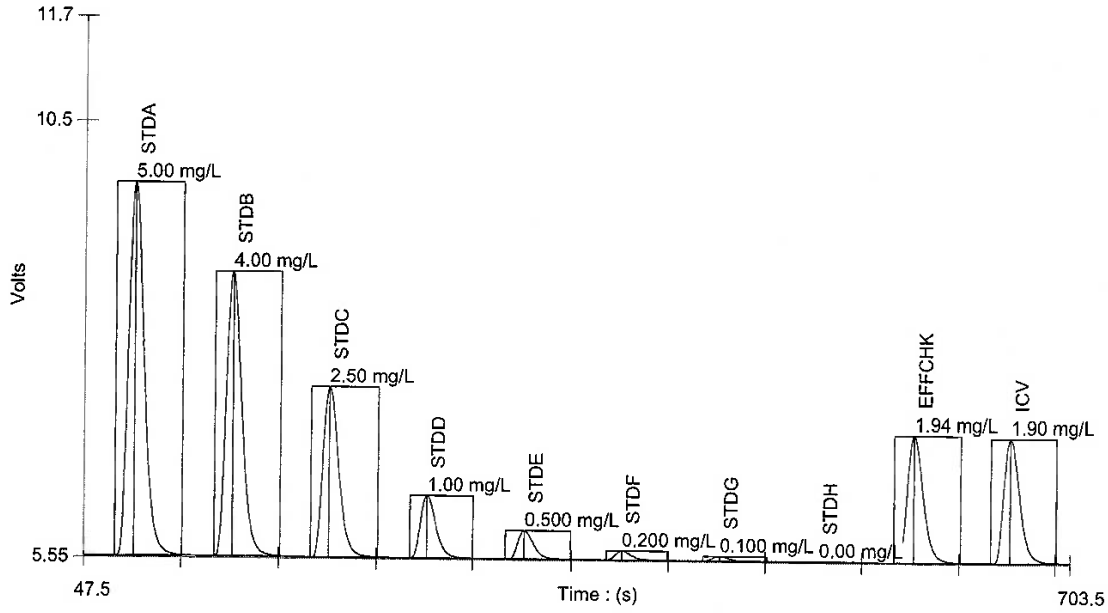
19.2

19

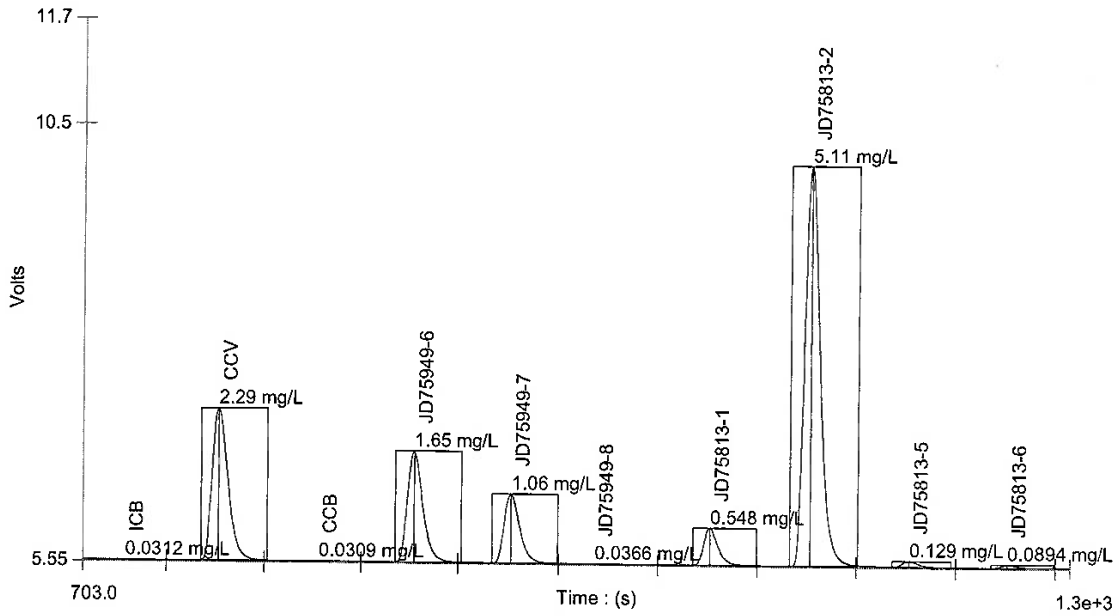
Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 1 / 9



Channel 1 - Set: 2 / 9

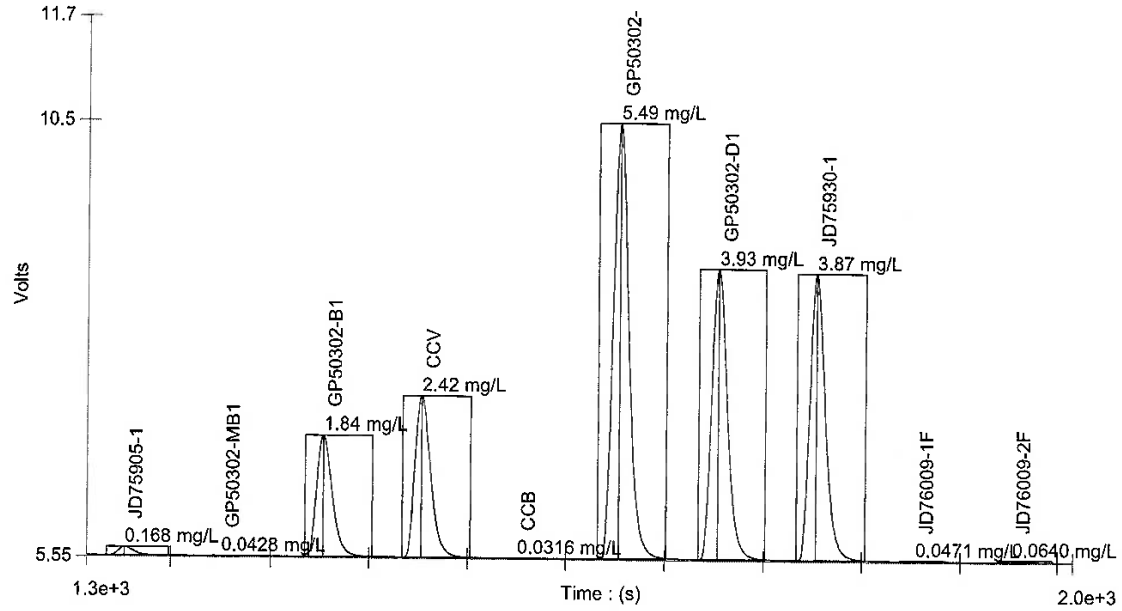


SGS FC10955

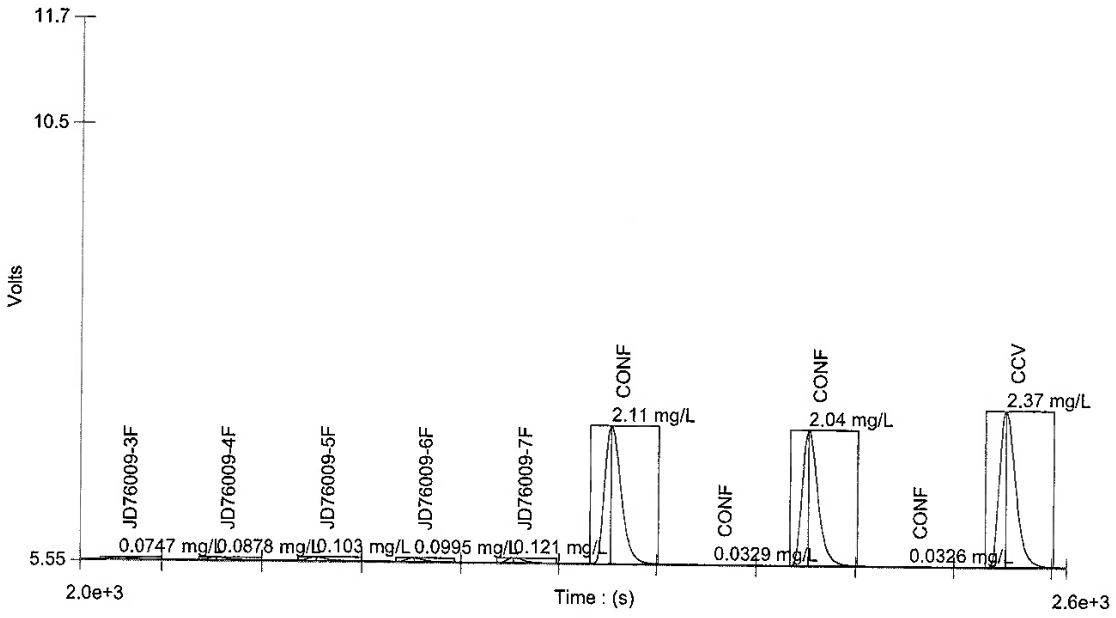
Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 3 / 9



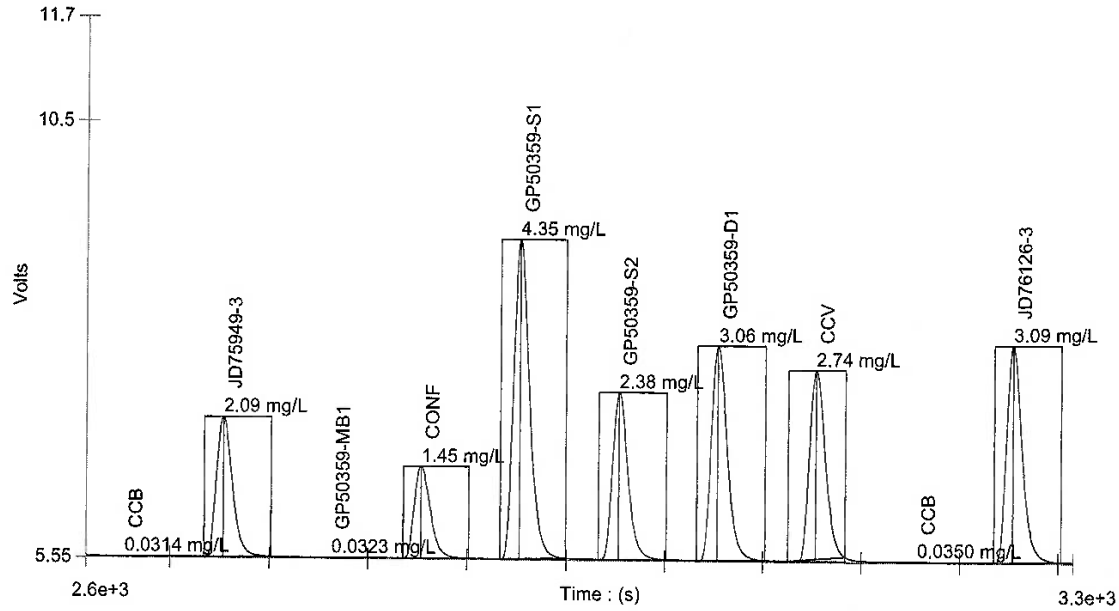
Channel 1 - Set: 4 / 9



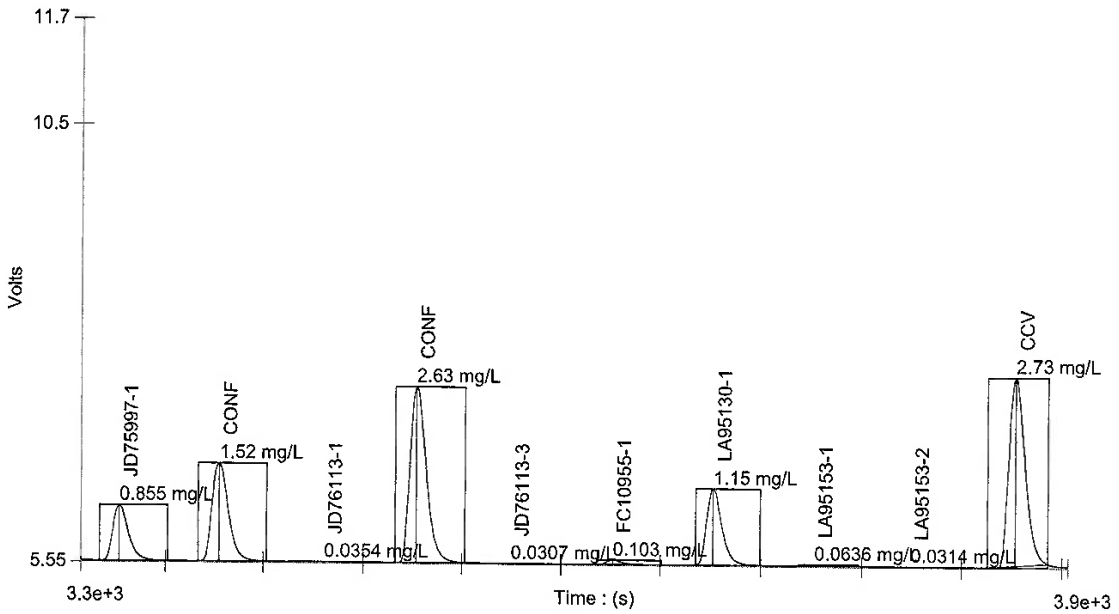
Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 5 / 9



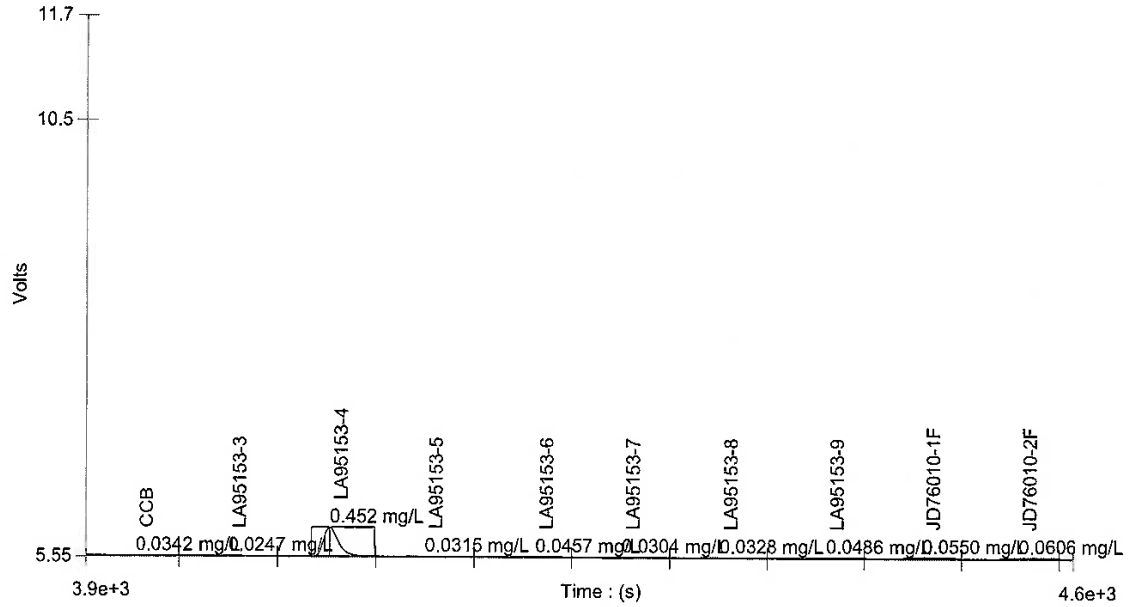
Channel 1 - Set: 6 / 9



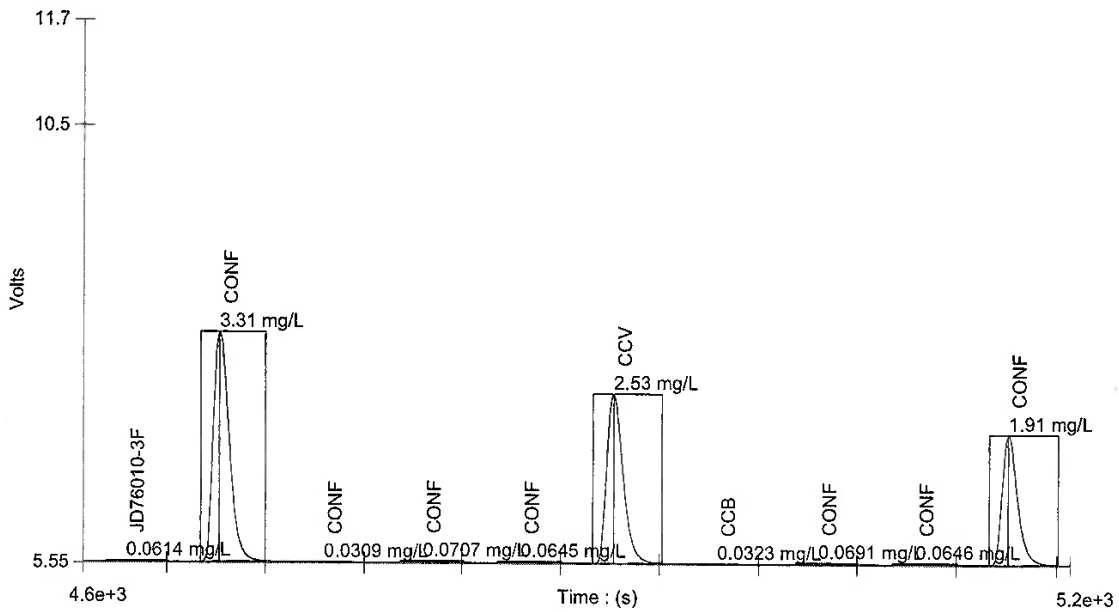
Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 7 / 9



Channel 1 - Set: 8 / 9



SGS FC10955

Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 9 / 9

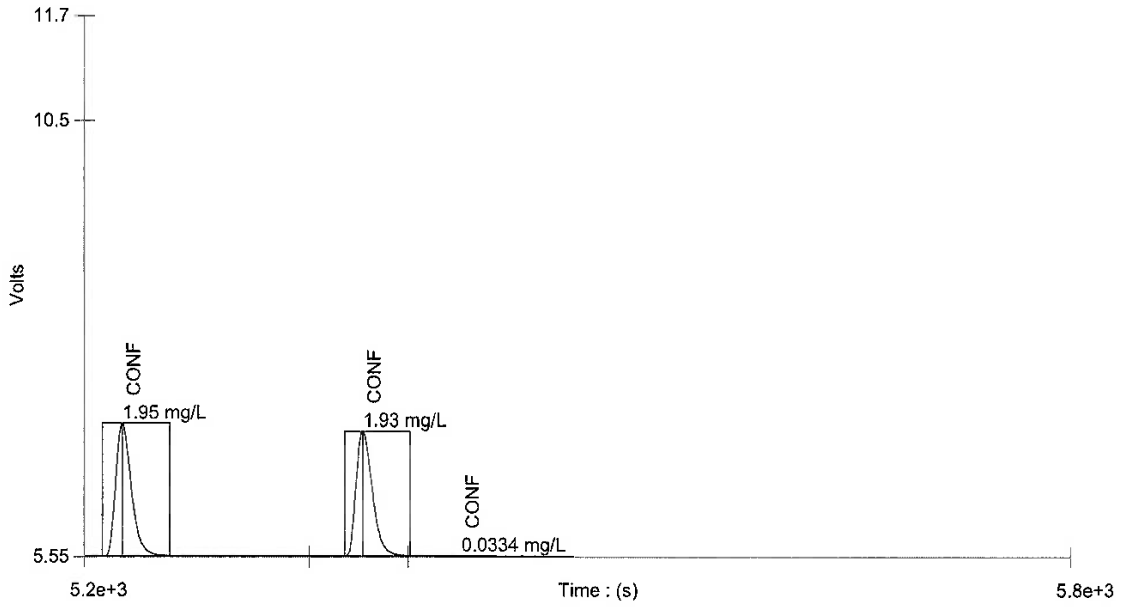


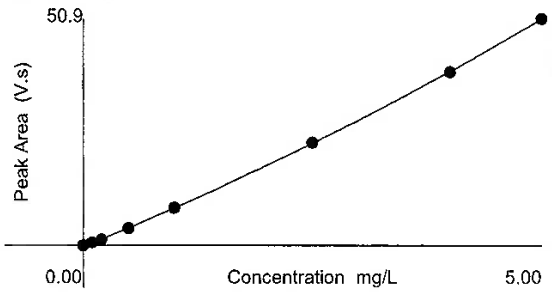
Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	50.9	4.26	0.0	-0.1	5.00	11/6/2023	9:43:39 PM
2	4.00	1	39.0	3.25	0.0	0.3	4.00	11/6/2023	9:44:45 PM
3	2.50	1	23.1	1.93	0.0	-0.7	2.51	11/6/2023	9:45:50 PM
4	1.00	1	8.44	0.710	0.0	0.2	0.986	11/6/2023	9:46:55 PM
5	0.500	1	3.85	0.324	0.0	3.8	0.477	11/6/2023	9:48:00 PM
6	0.200	1	1.24	0.103	0.0	13.4	0.180	11/6/2023	9:49:05 PM
7	0.100	1	0.650	0.0522	0.0	-11.4	0.112	11/6/2023	9:50:09 PM
8	0.00	1	-0.0434	-2.61e-3			0.0325	11/6/2023	9:51:14 PM

0%

12%

Figure : 1 (NO32)



Area = 0.382 * Conc^2 + 8.32 * Conc - 0.253
Conc = - 3.55e-4 * Area^2 + 0.115 * Area + 0.0375
Correlation Coefficient (r) = 0.99997

Weighting : None

19.2

19

Author: Chemistry

Date : 11/6/2023

Original Run Filename: OM_11-6-2023_11-15-44PM.OMN Created: 11/6/2023 11:15:44 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_11-6-2023_11-15-44PM.OMN Last Modified: 11/6/2023 11:33:11 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

GN47942

Sample	Rep.	Cup No.	Channel 1 NO32 (mg/L)	Detection Time	MDF
CONF	1	12	2.17	11/6/2023@11:16:33 PM	
	Known Conc:		100		
CONF	1	13	0.0317	11/6/2023@11:17:37 PM	
	Known Conc:		100		
	Calibration:		Table/Fig. : 1		
CONF	1	58	0.0751	11/6/2023@11:18:42 PM	
CCV	1	12	2.73	11/6/2023@11:19:45 PM	
	Known Conc:		100		
CCB	1	13	0.0313	11/6/2023@11:20:49 PM	
	Known Conc:		100		
JD76010-4F	1	58	0.0727	11/6/2023@11:21:54 PM	
JD76010-5F	1	59	0.0682	11/6/2023@11:22:58 PM	
JD75813-2	1	60	1.75	11/6/2023@11:24:02 PM	2.00
GP50302-S1	1	61	1.77	11/6/2023@11:25:07 PM	2.00
GP50359-B1	1	36	1.94	11/6/2023@11:26:12 PM	
CCV	1	12	2.43	11/6/2023@11:28:48 PM	
	Known Conc:		2.50		
CCB	1	13	0.0350	11/6/2023@11:29:52 PM	
	Known Conc:		0.00		

wrong injection

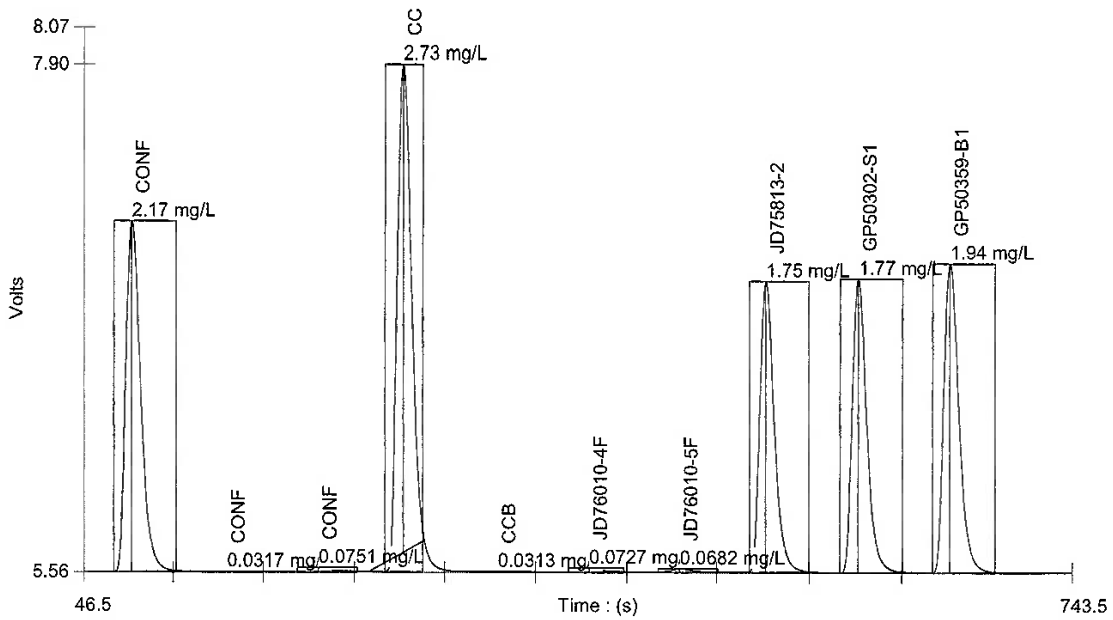
109.2%

5 mL sample, 5 mL DI H2O

97%

92.2%

Channel 1 - Set: 1 / 2



19.2

19

Author: Chemistry

Date : 11/6/2023

Channel 1 - Set: 2 / 2

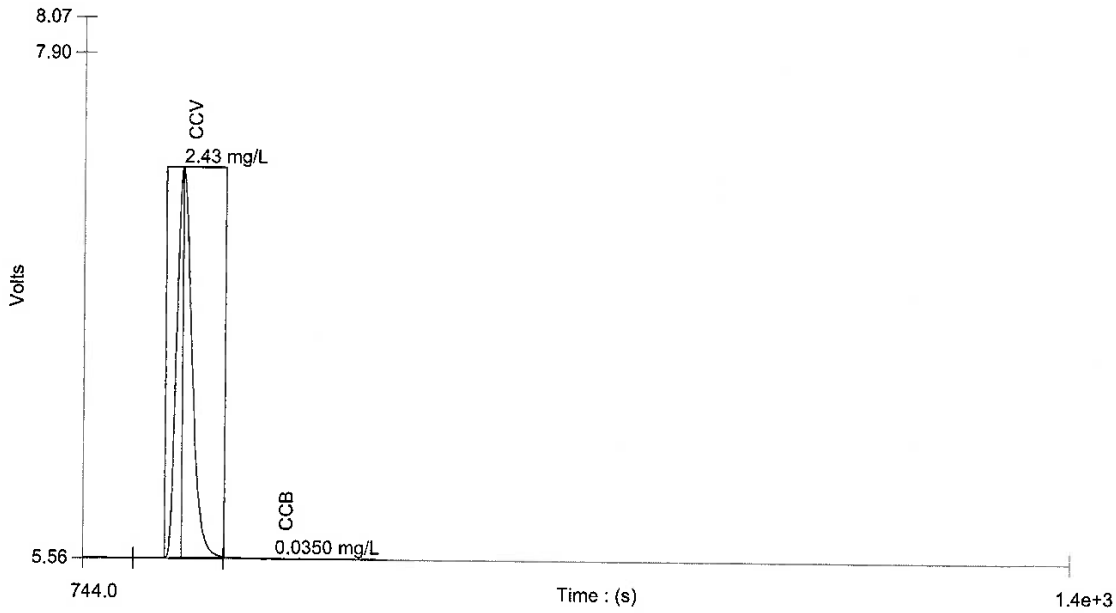
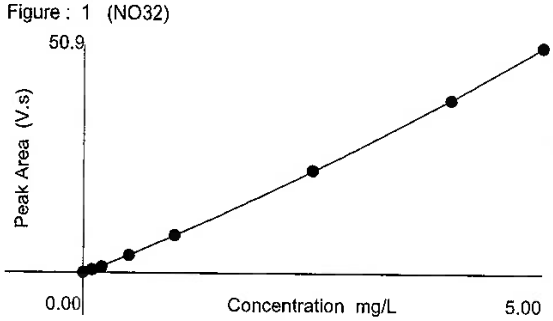


Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	50.9	4.26	0.0	-0.1	5.00	11/6/2023	9:43:39 PM
2	4.00	1	39.0	3.25	0.0	0.3	4.00	11/6/2023	9:44:45 PM
3	2.50	1	23.1	1.93	0.0	-0.7	2.51	11/6/2023	9:45:50 PM
4	1.00	1	8.44	0.710	0.0	0.2	0.986	11/6/2023	9:46:55 PM
5	0.500	1	3.85	0.324	0.0	3.8	0.477	11/6/2023	9:48:00 PM
6	0.200	1	1.24	0.103	0.0	13.4	0.180	11/6/2023	9:49:05 PM
7	0.100	1	0.650	0.0522	0.0	-11.4	0.112	11/6/2023	9:50:09 PM
8	0.00	1	-0.0434	-2.61e-3			0.0325	11/6/2023	9:51:14 PM

Figure : 1 (NO32)



Area = 0.382 * Conc^2 + 8.32 * Conc - 0.253
Conc = - 3.55e-4 * Area^2 + 0.115 * Area + 0.0375
Correlation Coefficient (r) = 0.99997

Weighting : None

SGS Dayton Analyst:__SS_

Prep Date: 11/6/2023 Pipette ID: 52 and 57B

Batch ID: GP50359 pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
GP50359-MB1				Y	
GP50359-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP50359-S1	0.5ML OF 100PPM	50MLS	JD76126-3	Y	
GP50359-S2	0.5ML OF 100PPM	50MLS	JD75997-1	Y	
GP50359-D1				Y	
JD76126-3				Y	
JD75997-1				Y	
JD76113-1				Y	
JD76113-3				Y	
FC10955-1				Y	
LA95130-1				Y	
LA95153-1				Y	
LA95153-2				Y	
LA95153-3				Y	
LA95153-4				Y	
LA95153-5				Y	
LA95153-6				Y	
LA95153-7				Y	
LA95153-8				Y	
LA95153-9				Y	
JD76010-1F				Y	
JD76010-2F				Y	
JD76010-3F				Y	
JD76010-4F				Y	
JD76010-5F				Y	

Form GN319-04 Aqueous Reviewer: _____

Rev date: 03/06/2023 Date: _____

19.2

19

SGS Dayton

Analyst: SS

Prep Date: 11/6/2023

Pipette ID: 52 and 57B

Batch ID: GP50302

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
GP50302-MB1				Y	
GP50302-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP50302-S1	0.5ML OF 100PPM	50MLS	JD75930-1	Y	
GP50302-D1				Y	
JD75930-1				Y	
JD76009-1F				Y	
JD76009-2F				Y	
JD76009-3F				Y	
JD76009-4F				Y	
JD76009-5F				Y	
JD76009-6F				Y	
JD76009-7F				Y	

11/7/23

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

19.2

19

SGS Dayton Analyst: SS

Prep Date: 11/6/2023

Batch ID: GP50299

Pipette ID: 52 and 57B

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume	SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A	9.1	
JD75949-6			Y	
JD75949-7			Y	
JD75949-8			Y	
JD75813-1			Y	
JD75813-2			Y	
JD75813-5			Y	
JD75813-6			Y	
JD75905-1			Y	

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO32

GN/GP number: GN47942

Analyst: SS

Date: 11/6/2023

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 intermediate	GNE12-72667-NO32	1000	10	52	Carrier	100 ml	100	11/25/2023	NO32-100-102523
100 ppm NO2 Intermediate	GNE12-72665-NO32	1000	10	52	Carrier	100 ml	100	11/25/2023	NO2-100-102523
100 ppm NO3 External	GNE12-72666-NO32	1000	10	52	Carrier	100 ml	100	11/25/2023	NO32E-100-102523

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-102523	100 mg/l	5.0	52	Carrier	100 ml	5.0	11/6/2023	STDA-103023
4.0 mg/l NO3	NO32-100-102523	100 mg/l	4.0	52	Carrier	100 ml	4.0	11/6/2023	STDB-103023
2.5 mg/l NO3	NO32-100-102523	100 mg/l	2.5	52	Carrier	100 ml	2.5	11/6/2023	STDC-103023
1.0 mg/l NO3	NO32-100-102523	100 mg/l	1.0	52	Carrier	100 ml	1.0	11/6/2023	STDD-103023
0.5 mg/l NO3	NO32-100-102523	100 mg/l	0.5	52	Carrier	100 ml	0.5	11/6/2023	STDE-103023
0.2 mg/l NO3	NO32-100-102523	100 mg/l	0.2	52	Carrier	100 ml	0.2	11/6/2023	STDF-103023
0.1 mg/l NO3	NO32-100-102523	100 mg/l	0.1	52	Carrier	100 ml	0.1	11/6/2023	STDG-103023
Effcheck 2.0	NO2-100-102523	100 mg/l	2.0	52	Carrier	100 ml	2.0	11/6/2023	EFFcheck-103023
ICV	NO32E-100-102523	100 mg/l	2.0	52	Carrier	100 ml	2.0	11/6/2023	ICV-103023

*If Class A glass pipettes are used, enter an A.

Form: GN205-03
Rev. Date:03/22/2022

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Ammonium Chloride Buffer Solution	GNE5-71268-NO32	11/24/2023
Sulfanilamide Color Reagent	GNE9-72503-NO32	11/10/2023
1:1 NH4OH	GNE6-71503-NO3	12/16/2023
Carrier Solution	GNE8-72026-NO32	2/9/2024
Nitrate Stock Solution	GNE6-71424-NO32	12/12/2023
1000 ppm Nitrite Solution	GNE6-71425-NO32	12/12/2023
Nitrate External Stock Solution	GNE6-71426-NO32	12/12/2023

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

Sovereign Consulting

Shepley's Hill (SHL); Devens, MA

AC001.J01

SGS Job Number: FC11636

Sampling Date: 12/01/23

Report to:

Sovereign Consulting
9 Payson Rd Suite 150
Foxborough, MA 02035
spassafaro@sovcon.com

ATTN: Steve Passafaro

Total number of pages in report: **498**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Norm Farmer
Technical Director

Client Service contact: Evita Martinez 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AL, AK, AR, CT, IA, KY, MA, MI. MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

December 14, 2023

Steve Passafaro
Sovereign Consulting
9 Payson Rd
Suite 150
Foxborough, MA 02035

RE: SGS North America Inc. - Orlando job FC11636 Reissue

Dear Steve,

The final report for job number FC1636 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

The metal data has been revised.

SGS North America Inc. - Orlando apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS North America Inc. - Orlando

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SGS North America Inc.

Sample Summary

Sovereign Consulting

Job No: FC11636

Shepley's Hill (SHL); Devens, MA
Project No: AC001.J01

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FC11636-1	12/01/23	08:00	JR	12/02/23	AQ	Water	EFFLUENT
FC11636-1A	12/01/23	08:00	JR	12/02/23	AQ	Water	EFFLUENT
FC11636-1B	12/01/23	08:00	JR	12/02/23	AQ	Water	EFFLUENT
FC11636-2	12/01/23	08:30	JR	12/02/23	AQ	Water	INFLUENT EW-01
FC11636-2A	12/01/23	08:30	JR	12/02/23	AQ	Water	INFLUENT EW-01
FC11636-3	12/01/23	08:40	JR	12/02/23	AQ	Water	INFLUENT EW-03
FC11636-3A	12/01/23	08:40	JR	12/02/23	AQ	Water	INFLUENT EW-03
FC11636-4	12/01/23	08:50	JR	12/02/23	AQ	Water	INFLUENT EW-04
FC11636-4A	12/01/23	08:50	JR	12/02/23	AQ	Water	INFLUENT EW-04

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Sovereign Consulting **Job No:** FC11636

Site: Shepley's Hill (SHL); Devens, MA **Report Revised Date:** 12/14/2023 1:29:03

On 12/02/2023, 4 Sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC11636 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method SW846 6010D

Matrix: AQ **Batch ID:** MP43235

Sample(s) FC11600-3DUP, FC11600-3MSD, FC11600-3SDL, FC11600-3PS were used as the QC samples for metals.

Matrix Spike Recovery(s) for Manganese, Barium, Iron, Magnesium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Matrix Spike Duplicate Recovery(s) for Barium, Iron, Magnesium, Manganese are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

RPD(s) for Serial Dilution for Barium, Iron, Magnesium, Manganese are outside control limits for sample MP43235-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MP43235-S1 for Iron: Spike recovery indicates possible matrix interference.

MP43235-S1 for Barium: Spike recovery indicates possible matrix interference.

MP43235-S1 for Magnesium: Spike recovery indicates possible matrix interference.

MP43235-SD1 for Iron: Serial dilution indicates possible matrix interference.

MP43235-SD1 for Magnesium: Serial dilution indicates possible matrix interference.

MP43235-SD1 for Manganese: Serial dilution indicates possible matrix interference.

MP43235-PS1 for Manganese: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP43235-PS1 for Barium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP43235-PS1 for Iron: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP43235-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Metals Analysis By Method SW846 6020B

Matrix: AQ **Batch ID:** MP43236

Sample(s) FC10213-5RMS, FC10213-5RMSD, FC10213-5RPS, FC10213-5RSDL, FC10213-5RDUP were used as the QC samples for metals.

RPD(s) for Duplicate for Arsenic are outside control limits for sample MP43236-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Arsenic are outside control limits for sample MP43236-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

FC11636-1 for Arsenic: Analyte detected in the associated MB.

MP43236-MB1 for Arsenic: All associated samples with results >MDL "B" coded.

General Chemistry By Method EPA 300/SW846 9056A

Matrix: AQ **Batch ID:** GP39462

Sample(s) FC11759-4MSD, FC11759-4MS were used as the QC samples for Chloride, Sulfate.

Matrix Spike Recovery(s) for Chloride, Sulfate are outside control limits. Spike amount low relative to the sample amount and/or possible matrix interference. Refer to lab control or spike blank for recovery information.

Matrix: AQ **Batch ID:** R61729

FC11636-1A for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** N:GP50833

FC11636-1A for Nitrogen, Nitrate + Nitrite: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** N: R207368

FC11636-1A for Nitrogen, Nitrate: Analysis performed at SGS Dayton, NJ.

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** N:GN48800 custody

FC11636-1A for Nitrogen, Nitrite: Analysis performed at SGS Dayton, NJ.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative revised by:

_____

Kim Benham, Client Services *(Signature on File)*

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Orlando, FL	**Job No:**	FC11636
Site:	SCMAW: Shepley's Hill (SHL); Devens, MA	**Report Date**	12/5/2023 11:01:13 A

On 12/02/2023, 1 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 1.5 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of FC11636 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

General Chemistry By Method EPA 353.2/LACHAT

Matrix: AQ **Batch ID:** GP50833

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD77893-1DUP, JD77893-1MS were used as the QC samples for the Nitrogen, Nitrate + Nitrite analysis.

General Chemistry By Method EPA353.2/SM4500NO2B

Matrix: AQ **Batch ID:** R207368

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- FC11636-1A for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM4500NO2 B-11

Matrix: AQ **Batch ID:** GN48800

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD77893-1MS, JD77893-1MSD were used as the QC samples for the Nitrogen, Nitrite analysis.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: FC11636
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 12/01/23

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC11636-1	**EFFLUENT**					
Arsenic [a]		30.9 B	2.0	0.80	ug/l	SW846 6020B
FC11636-1A	**EFFLUENT**					
Nitrogen, Nitrite [b]		0.0050 J	0.010	0.0050	mg/l	SM4500NO2 B-11
FC11636-1B	**EFFLUENT**					
Barium		15.6 J	200	5.0	ug/l	SW846 6010D
Magnesium		5820	5000	100	ug/l	SW846 6010D
Manganese		11600	75	10	ug/l	SW846 6010D
Chloride		24.8	2.0	1.0	mg/l	EPA 300/SW846 9056A
Sulfate		4.1	2.0	1.0	mg/l	EPA 300/SW846 9056A
FC11636-2	**INFLUENT EW-01**					
Arsenic		1850	50	20	ug/l	SW846 6020B
FC11636-2A	**INFLUENT EW-01**					
Iron		73700	300	50	ug/l	SW846 6010D
Manganese		2400	15	2.0	ug/l	SW846 6010D
FC11636-3	**INFLUENT EW-03**					
Arsenic		1700	50	20	ug/l	SW846 6020B
FC11636-3A	**INFLUENT EW-03**					
Iron		69000	300	50	ug/l	SW846 6010D
Manganese		2260	15	2.0	ug/l	SW846 6010D
FC11636-4	**INFLUENT EW-04**					
Arsenic		4700	100	40	ug/l	SW846 6020B
FC11636-4A	**INFLUENT EW-04**					
Iron		66200	300	50	ug/l	SW846 6010D
Manganese		3320	15	2.0	ug/l	SW846 6010D

(a) Analyte detected in the associated MB.
(b) Analysis performed at SGS Dayton, NJ.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC11636-1	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic [a]	30.9 B	2.0	0.80	0.21	ug/l	2	12/04/23	12/05/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19883
(2) Prep QC Batch: MP43236

(a) Analyte detected in the associated MB.

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC11636-1A	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate [a]	0.10 U	0.11	0.10	0.093	mg/l	1	12/04/23 18:55	ANJ	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite [b]	0.095 U	0.10	0.095	0.090	mg/l	1	12/04/23 18:55	ANJ	EPA 353.2/LACHAT
Nitrogen, Nitrate + Nitrite [c]	0.11 U	0.12	0.11	0.096	mg/l	1	12/04/23 18:55	ANJ	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	0.0050 J	0.010	0.0050	0.0030	mg/l	1	12/02/23 10:25	ANJ	SM4500NO2 B-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite) Analysis performed at SGS Dayton, NJ.
(b) Analysis performed at SGS Dayton, NJ.
(c) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC11636-1B	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Barium	15.6 J	200	5.0	1.0	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]
Magnesium	5820	5000	100	35	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	11600	75	10	5.0	ug/l	5	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19885
(2) Prep QC Batch: MP43235

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	EFFLUENT		
Lab Sample ID:	FC11636-1B	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chloride	24.8	2.0	1.0	0.80	mg/l	1	12/09/23 02:01	JR	EPA 300/SW846 9056A
Sulfate	4.1	2.0	1.0	0.60	mg/l	1	12/09/23 02:01	JR	EPA 300/SW846 9056A

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-01
Lab Sample ID: FC11636-2
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 12/01/23
Date Received: 12/02/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1850	50	20	5.3	ug/l	50	12/04/23	12/13/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19901
(2) Prep QC Batch: MP43236

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-01
Lab Sample ID: FC11636-2A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 12/01/23
Date Received: 12/02/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	73700	300	50	17	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2400	15	2.0	1.0	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19885
(2) Prep QC Batch: MP43235

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-03		
Lab Sample ID:	FC11636-3	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	1700	50	20	5.3	ug/l	50	12/04/23	12/13/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19901
(2) Prep QC Batch: MP43236

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-03
Lab Sample ID: FC11636-3A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 12/01/23
Date Received: 12/02/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	69000	300	50	17	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	2260	15	2.0	1.0	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19885
(2) Prep QC Batch: MP43235

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	INFLUENT EW-04		
Lab Sample ID:	FC11636-4	**Date Sampled:**	12/01/23
Matrix:	AQ - Water	**Date Received:**	12/02/23
		Percent Solids:	n/a
Project:	Shepley's Hill (SHL); Devens, MA		

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4700	100	40	11	ug/l	100	12/04/23	12/13/23	JC	SW846 6020B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19901
(2) Prep QC Batch: MP43236

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: INFLUENT EW-04
Lab Sample ID: FC11636-4A
Matrix: AQ - Water
Project: Shepley's Hill (SHL); Devens, MA

Date Sampled: 12/01/23
Date Received: 12/02/23
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	66200	300	50	17	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]
Manganese	3320	15	2.0	1.0	ug/l	1	12/04/23	12/06/23	LM	SW846 6010D [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA19885
(2) Prep QC Batch: MP43235

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

SGS North America Inc - Orlando

Chain of Custody

FC11636

SGS - ORLANDO JOB # : PAGE 1 OF 1

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO Quote # | SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	CONTAINER INFORMATION: OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C	LAB USE ONLY
1	Effluent	12/1/23	8:00	JWR	W	4		x			x	x				X	X	X	X	X		
2	Influent EW-01	12/1/23	8:30	JWR	W	1					x					X					X	
3	Influent EW-03	12/1/23	8:40	JWR	W	1					x					X					X	
4	Influent EW-04	12/1/23	8:50	JWR	W	1					x					X					X	

INITIAL ASSESSMENT

LABEL VERIFICATION

1.6 IRH

Turnaround Time (Business days)

X 10 Day (Business) Approved By: / Date:
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

12/1 SGS Service Center Northborough, MA

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1	Sovcon	12/1/23 1345	2 Sovcon	3 Sovcon	12-1-23 14:58	4
5		12/1/23	6 Fedex	7		8 12/2/23 915

Lab Use Only : Cooler Temperature (s) Celsius (corrected): CS. 0333

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

PLEASE SEND FL. JN TO DAYTON Direct Sub Nitrate 353.2 to NJ

SGS North America Inc - Orlando
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.sgs.com

FC11636

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF #

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNAC	DI WATER	MEOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C						LAB USE ONLY
	Effluent	12/1/23	8:00	JWR	w	4		x			x	x				X	X	X	X	X							
	Influent EW-01	12/1/23	8:30	JWR	w	1					x					X					X						
	Influent EW-03	12/1/23	8:40	JWR	w	1					x					X					X						
	Influent EW-04	12/1/23	8:50	JWR	w	1					x					X					X						

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid

Turnaround Time (Business days)

X 10 Day (Business)
7 Day
X 5 Day - Arsenic Only
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Approved By: / Date:
Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples
12/1 SGS Service Center Northborough, MA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Sovcon	12/1/23 1345	2 Sovcon	3 Sovcon	12-1-23 14:38	4
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius (corrected):

http://www.sgs.com/en/terms-and-conditions

ATP - SGS COC - Revised 02-07-22.xlsx Rev 031318

5.1 5

FC11636: Chain of Custody
Page 2 of 3

SGS - Orlando Sample Receipt Summary

Job Number: fc11636 **Client:** SOVEREIGN CONSULTING **Project:** SHEPLEY'S HILL (SHL), DEVENS,MA

Date / Time Received: 12/2/2023 9:15:00 AM **Delivery Method:** FEDEX **Airbill #'s:** 645598223229

Cooler Temps (Raw Measured) °C: Cooler 1: (1.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.0);

Cooler Information	Y	or	N
1. Custody Seals Present:	☑		☐
2. Custody Seals Intact:	☑		☐
3. Temp criteria achieved:	☑		☐
4. Cooler temp verification:	IR Gun		
5. Cooler media:	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑

	W	or	S	N/A
3. Type of TB Received	☐		☐	☐

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles:	☑		☐	
2. Samples presented properly	☑		☐	
3. Suffiient volume/containers recv'd for analysis	☑		☐	
4. Condition of sample:	Intact			
5. Sample recv'd within HT	☑		☐	
6. Dates/Times/IDs on COC match sample label	☐		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☐
11. % Solids Jar Received?	☐		☐	☐
12. Residual Chlorine Present?	☐		☐	☐

Misc Information

Number of Encores: 25 Gram 5 Gram

Number of Lab Filtered Metals:

Test Strip Lot #s: pH 0-3: 226422 pH 10-12: Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #

Comments

Sample Receipt Summary 112723 EK Technician: ZANEB Date: 12/2/2023 10:28:16 AM Reviewer: Date:

QC Evaluation: DOD QSM5.x Limits

Job Number: FC11636
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 12/01/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP43235	SW846 6010D						
MP43235-B1	7440-39-3	Barium	BSP	REC	102	%	88-113
MP43235-B1	7439-89-6	Iron	BSP	REC	92.4	%	87-115
MP43235-B1	7439-95-4	Magnesium	BSP	REC	92.7	%	85-113
MP43235-B1	7439-96-5	Manganese	BSP	REC	99.5	%	90-114
MP43235-S1*	7440-39-3	Barium	MS	REC	70.6 [a]	%	88-113
MP43235-S1*	7439-89-6	Iron	MS	REC	59.6 [a]	%	87-115
MP43235-S1*	7439-95-4	Magnesium	MS	REC	63.6 [a]	%	85-113
MP43235-S1*	7439-96-5	Manganese	MS	REC	35 [b]	%	90-114
MP43235-S2*	7440-39-3	Barium	MSD	REC	69.6 [a]	%	88-113
MP43235-S2*	7440-39-3	Barium	MSD	RPD	1.3	%	20
MP43235-S2*	7439-89-6	Iron	MSD	REC	60.9 [a]	%	87-115
MP43235-S2*	7439-89-6	Iron	MSD	RPD	1.1	%	20
MP43235-S2*	7439-95-4	Magnesium	MSD	REC	60.9 [a]	%	85-113
MP43235-S2*	7439-95-4	Magnesium	MSD	RPD	1.8	%	20
MP43235-S2*	7439-96-5	Manganese	MSD	REC	50 [b]	%	90-114
MP43235-S2*	7439-96-5	Manganese	MSD	RPD	2.3	%	20
MP43235-D1*	7440-39-3	Barium	DUP	RPD	1.5	%	20
MP43235-D1*	7439-89-6	Iron	DUP	RPD	.7	%	20
MP43235-D1*	7439-95-4	Magnesium	DUP	RPD	1.3	%	20
MP43235-D1*	7439-96-5	Manganese	DUP	RPD	.8	%	20
MP43236	SW846 6020B						
MP43236-B1	7440-38-2	Arsenic	BSP	REC	97	%	84-116
MP43236-S1*	7440-38-2	Arsenic	MS	REC	97.3	%	84-116
MP43236-S2*	7440-38-2	Arsenic	MSD	REC	96.3	%	84-116
MP43236-S2*	7440-38-2	Arsenic	MSD	RPD	1	%	20
MP43236-D1*	7440-38-2	Arsenic	DUP	RPD	29.3 [c]	%	20
GP39462	EPA 300/SW846 9056A						
GP39462-B1	16887-00-6	Chloride	BSP	REC	98.2	%	87-111
GP39462-B1	14808-79-8	Sulfate	BSP	REC	97.6	%	87-112
GP39462-S1*	16887-00-6	Chloride	MS	REC	-240 [b]	%	87-111
GP39462-S1*	14808-79-8	Sulfate	MS	REC	60 [a]	%	87-112
GP39462-S2*	16887-00-6	Chloride	MSD	RPD	1.9	%	15
GP39462-S2*	16887-00-6	Chloride	MSD	REC	-380 [b]	%	87-111
GP39462-S2*	14808-79-8	Sulfate	MSD	RPD	2.3	%	15
GP39462-S2*	14808-79-8	Sulfate	MSD	REC	50	%	87-112

(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery

* Sample used for QC is not from job FC11636

QC Evaluation: DOD QSM5.x Limits

Job Number: FC11636
Account: Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA
Collected: 12/01/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

information.
(c) RPD acceptable due to low duplicate and sample concentrations.

* Sample used for QC is not from job FC11636

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:18	MA19883-STD1	1		STDA
10:22	MA19883-STD2	1		STDB
10:25	MA19883-STD3	1		STDC
10:29	MA19883-STD4	1		STDD
10:32	MA19883-STD5	1		STDE
10:36	MA19883-STD6	1		STDF
10:39	MA19883-STD7	1		STDG
10:42	MA19883-HSTD1	1		
10:46	MA19883-HSTD2	1		
10:49	MA19883-ICV1	1		
10:52	MA19883-ICB1	1		
10:55	MA19883-CRIA1	1		
10:59	MA19883-CRIA2	1		
11:02	MA19883-ICSA1	1		
11:05	MA19883-ICSAB1	1		
11:08	MA19883-CCV1	1		
11:12	MA19883-CCV2	1		
11:15	MA19883-CCB1	1		
11:18	MP43234-MB1	5		
11:22	MP43234-B1	5		
11:25	FC11518-1	5		(sample used for QC only; not part of login FC11636)
11:28	MP43234-D1	5		
11:31	MP43234-SD1	25		
11:35	MP43234-S1	5		
11:38	MP43234-S2	5		
11:41	MP43234-PS1	5		
11:44	ZZZZZZ	5		
11:47	ZZZZZZ	5		
11:50	MA19883-CCV3	1		
11:54	MA19883-CCV4	1		
11:57	MA19883-CCB2	1		
12:00	ZZZZZZ	5		
12:03	ZZZZZZ	5		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:07	ZZZZZZ	5		
12:10	ZZZZZZ	5		
12:13	ZZZZZZ	5		
12:16	ZZZZZZ	5		
12:19	ZZZZZZ	5		
12:23	ZZZZZZ	5		
12:26	ZZZZZZ	5		
12:29	ZZZZZZ	10		
12:32	MA19883-CCV5	1		
12:35	MA19883-CCV6	1		
12:38	MA19883-CCB3	1		
12:42	ZZZZZZ	10		
12:45	ZZZZZZ	10		
12:48	ZZZZZZ	10		
12:51	ZZZZZZ	10		
12:54	ZZZZZZ	10		
12:58	ZZZZZZ	10		
13:01	ZZZZZZ	10		
13:07	MP43236-B1	2		
13:10	FC10213-5R	2		(sample used for QC only; not part of login FC11636)
13:14	MA19883-CCV7	1		
13:17	MA19883-CCV8	1		
13:20	MA19883-CCB4	1		
13:34	MP43236-D1	2		
13:37	MP43236-SD1	10		
13:41	MP43236-S1	2		
13:44	MP43236-S2	2		
13:47	MP43236-PS1	2		
13:50	ZZZZZZ	2		
13:53	ZZZZZZ	2		
13:57	ZZZZZZ	2		
14:00	ZZZZZZ	2		
14:03	ZZZZZZ	2		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:07	MA19883-CCV9	1		
14:10	MA19883-CCV10	1		
14:13	MA19883-CCB5	1		
14:16	ZZZZZZ	2		
14:20	FC11636-1	2		
14:23	FC11636-2	2		
14:26	FC11636-3	2		
14:30	FC11636-4	2		
14:33	MP43236-MB1	2		
---------->	Last reportable sample/prep for job FC11636			
14:55	MA19883-CCV11	1		
14:58	MA19883-CCV12	1		
15:01	MA19883-CCB6	1		
---------->	Last reportable CCB for job FC11636			
15:45	MA19883-CCV13	1		
15:48	MA19883-CCV14	1		
15:52	MA19883-CCB7	1		
15:55	FC11518-1	25		(sample used for QC only; not part of login FC11636)
15:59	MP43234-D1	25		
16:02	MP43234-S1	25		
16:05	MP43234-S2	25		
16:08	MP43234-PS1	25		
16:12	ZZZZZZ	25		
16:15	ZZZZZZ	25		
16:18	ZZZZZZ	50		
16:22	ZZZZZZ	50		
16:25	ZZZZZZ	25		
16:28	MA19883-CCV15	1		
16:32	MA19883-CCV16	1		
16:35	MA19883-CCB8	1		
16:38	ZZZZZZ	25		
16:42	ZZZZZZ	100		
16:45	ZZZZZZ	100		
16:48	ZZZZZZ	25		
16:52	ZZZZZZ	25		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:55	ZZZZZZ	200		
16:58	ZZZZZZ	500		
17:02	ZZZZZZ	500		
17:05	ZZZZZZ	100		
17:08	ZZZZZZ	50		
17:12	MA19883-CCV17	1		
17:15	MA19883-CCV18	1		
17:18	MA19883-CCB9	1		
17:21	ZZZZZZ	100		
17:25	ZZZZZZ	100		
17:28	ZZZZZZ	100		
17:32	ZZZZZZ	500		
17:35	MA19883-CCV19	1		
17:38	MA19883-CCV20	1		
17:41	MA19883-CCB10	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Element: Dilution	As	
10:42	MA19883-HSTD1	1		
10:46	MA19883-HSTD2	1	X	
10:49	MA19883-ICV1	1	X	
10:52	MA19883-ICB1	1	X	
10:55	MA19883-CRIA1	1	X	
10:59	MA19883-CRIA2	1		
11:02	MA19883-ICSA1	1	X	
11:05	MA19883-ICSAB1	1	X	
11:08	MA19883-CCV1	1		
11:12	MA19883-CCV2	1	X	
11:15	MA19883-CCB1	1	X	
11:18	MP43234-MB1	5	X	
11:22	MP43234-B1	5	X	
11:25	FC11518-1	5	X	(a)
11:28	MP43234-D1	5	X	
11:31	MP43234-SD1	25	X	
11:35	MP43234-S1	5	X	
11:38	MP43234-S2	5	X	
11:41	MP43234-PS1	5	X	
11:44	ZZZZZZ	5		
11:47	ZZZZZZ	5		
11:50	MA19883-CCV3	1		
11:54	MA19883-CCV4	1	X	
11:57	MA19883-CCB2	1	X	
12:00	ZZZZZZ	5		
12:03	ZZZZZZ	5		
12:07	ZZZZZZ	5		
12:10	ZZZZZZ	5		
12:13	ZZZZZZ	5		
12:16	ZZZZZZ	5		
12:19	ZZZZZZ	5		
12:23	ZZZZZZ	5		
12:26	ZZZZZZ	5		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Element: Dilution	As	
12:29	ZZZZZZ	10		
12:32	MA19883-CCV5	1		
12:35	MA19883-CCV6	1	X	
12:38	MA19883-CCB3	1	X	
12:42	ZZZZZZ	10		
12:45	ZZZZZZ	10		
12:48	ZZZZZZ	10		
12:51	ZZZZZZ	10		
12:54	ZZZZZZ	10		
12:58	ZZZZZZ	10		
13:01	ZZZZZZ	10		
13:07	MP43236-B1	2	X	
13:10	FC10213-5R	2	X	(a)
13:14	MA19883-CCV7	1		
13:17	MA19883-CCV8	1	X	
13:20	MA19883-CCB4	1	X	
13:34	MP43236-D1	2	X	
13:37	MP43236-SD1	10	X	
13:41	MP43236-S1	2	X	
13:44	MP43236-S2	2	X	
13:47	MP43236-PS1	2	X	
13:50	ZZZZZZ	2		
13:53	ZZZZZZ	2		
13:57	ZZZZZZ	2		
14:00	ZZZZZZ	2		
14:03	ZZZZZZ	2		
14:07	MA19883-CCV9	1		
14:10	MA19883-CCV10	1	X	
14:13	MA19883-CCB5	1	X	
14:16	ZZZZZZ	2		
14:20	FC11636-1	2	X	
14:23	FC11636-2	2		
14:26	FC11636-3	2		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Element: Dilution	As
14:30	FC11636-4	2	
14:33	MP43236-MB1	2	X
14:55	MA19883-CCV11	1	
14:58	MA19883-CCV12	1	X
15:01	MA19883-CCB6	1	X
15:45	MA19883-CCV13	1	
15:48	MA19883-CCV14	1	X
15:52	MA19883-CCB7	1	X
15:55	FC11518-1	25	(a)
15:59	MP43234-D1	25	
16:02	MP43234-S1	25	
16:05	MP43234-S2	25	
16:08	MP43234-PS1	25	
16:12	ZZZZZZ	25	
16:15	ZZZZZZ	25	
16:18	ZZZZZZ	50	
16:22	ZZZZZZ	50	
16:25	ZZZZZZ	25	
16:28	MA19883-CCV15	1	
16:32	MA19883-CCV16	1	X
16:35	MA19883-CCB8	1	X
16:38	ZZZZZZ	25	
16:42	ZZZZZZ	100	
16:45	ZZZZZZ	100	
16:48	ZZZZZZ	25	
16:52	ZZZZZZ	25	
16:55	ZZZZZZ	200	
16:58	ZZZZZZ	500	
17:02	ZZZZZZ	500	
17:05	ZZZZZZ	100	
17:08	ZZZZZZ	50	
17:12	MA19883-CCV17	1	
17:15	MA19883-CCV18	1	X
		Element:	As

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Element: Dilution	As
17:18	MA19883-CCB9	1	X
17:21	ZZZZZZ	100	
17:25	ZZZZZZ	100	
17:28	ZZZZZZ	100	
17:32	ZZZZZZ	500	
17:35	MA19883-CCV19	1	
17:38	MA19883-CCV20	1	X
17:41	MA19883-CCB10	1	X

(a) Sample used for QC only; not part of login FC11636.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
10:18	MA19883-STD1	100	100	100	100	100	100	100
10:22	MA19883-STD2	103.9	102	102.3	101.4	101.3	101.3	101.3
10:25	MA19883-STD3	100.5	102.4	103	101.5	101.6	101.3	100.2
10:29	MA19883-STD4	95.3	104.1	103.5	101.7	102.2	101.3	100.5
10:32	MA19883-STD5	99.3	103.2	102.3	101.4	100	100.1	97.2
10:36	MA19883-STD6	99.9	101.5	101.2	100.3	98.1	98.9	97.7
10:39	MA19883-STD7	93.8	100.5	99.3	97.4	95.7	98.1	93.1
10:42	MA19883-HSTD1	98.2	101.2	99.7	98.4	96.5	99.1	93.8
10:46	MA19883-HSTD2	97.5	100	99.9	97.7	95.3	98.9	92.7
10:49	MA19883-ICV1	105.8	103.6	102.6	100.1	98.2	100.4	96.6
10:52	MA19883-ICB1	100.1	101.3	101.7	100.1	99.4	100.4	99.4
10:55	MA19883-CRIA1	104	105.1	103.9	102.5	102.5	103.3	102.3
10:59	MA19883-CRIA2	108.8	105.1	104.4	103.1	102.8	103	102.6
11:02	MA19883-ICSA1	95.1	105.6	103.6	98.3	94.7	100.3	89.2
11:05	MA19883-ICSAB1	103.1	113.4	111.2	105.2	100.7	106.1	93.9
11:08	MA19883-CCV1	113.4	116.4	115.7	113.9	110.6	112	105.4
11:12	MA19883-CCV2	105	115.2	112.8	111.6	108.3	110.1	103.7
11:15	MA19883-CCB1	102.2	112.3	112.2	111.9	109.5	110	106.1
11:18	MP43234-MB1	106.4	116.7	114.9	112.6	110.4	112.1	111.1
11:22	MP43234-B1	108.1	117.8	113.3	111.9	108.6	111.7	103.7
11:25	FC11518-1	106.7	138.1 !	119.6	113.2	109.6	112.4	106.2
11:28	MP43234-D1	110.5	133 !	116.8	111.1	107.5	111.2	103.5
11:31	MP43234-SD1	105.5	119.5	114.8	113.6	111.2	111.9	108.5
11:35	MP43234-S1	108.2	140.3 !	118.9	111.5	107.5	111.1	102.6
11:38	MP43234-S2	107.5	137.6 !	120.4	115.2	109.5	113.6	103.4
11:41	MP43234-PS1	113.6	138.1 !	120.3	114.4	110.1	113.4	106.9
11:44	ZZZZZZ	103.6	137.3 !	117.1	111	107.6	112.9	104.1
11:47	ZZZZZZ	112	127	116.5	111	108.2	110.9	105.7
11:50	MA19883-CCV3	116.8	117.7	119.3	117.3	113.5	114.4	109.2
11:54	MA19883-CCV4	108.3	117.9	116.5	114.6	110.5	112	107.4
11:57	MA19883-CCB2	106.5	109.8	110.9	109.8	105.9	105.6	105.1
12:00	ZZZZZZ	103.5	145.4 !	118.8	111.9	107.5	111.5	105.5
12:03	ZZZZZZ	105.8	158.6 !	119.1	111.1	106.9	110.9	103.3

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
12:07	ZZZZZZ	103.8	140.4 !	117.4	110.8	107.5	111.1	102.6
12:10	ZZZZZZ	104.9	131.5 !	116	109.2	105.9	109.9	102.3
12:13	ZZZZZZ	113.7	147 !	119.9	114.5	110.2	114.4	105.9
12:16	ZZZZZZ	110.3	136.5 !	118.4	112.4	108.2	112.4	105.6
12:19	ZZZZZZ	109.6	131.2 !	115.7	111	106.9	111.1	103.7
12:23	ZZZZZZ	105.5	139.1 !	116.4	109.6	105	109.6	101.7
12:26	ZZZZZZ	111.3	141.6 !	123.7	112.6	106.8	112.5	101.9
12:29	ZZZZZZ	105.4	128.7	132.3 !	120.8	127.1	115.4	114.8
12:32	MA19883-CCV5	113.8	120.8	120.2	119	114.4	116.4	109.8
12:35	MA19883-CCV6	115.5	119.4	118.6	115.5	112.1	114	108.1
12:38	MA19883-CCB3	111.7	118.4	117.7	116.1	113.7	114.2	111.2
12:42	ZZZZZZ	100.3	129	132.2 !	120.9	127.3	115.3	117.7
12:45	ZZZZZZ	112.1	129.4	127.2	119.2	117.9	116.6	113.1
12:48	ZZZZZZ	110.3	130.7 !	126.7	121.9	118.6	117.8	116.2
12:51	ZZZZZZ	100.6	112.5	107.4	104.6	102.2	107.8	102.6
12:54	ZZZZZZ	106	114.7	111.5	108.1	105.2	111.4	105.1
12:58	ZZZZZZ	100.5	115.7	110.8	107.9	106.4	111.7	106.7
13:01	ZZZZZZ	108.1	138.6 !	137.8 !	127.1	123.4	121.7	116.6
13:07	MP43236-B1	115.5	132.9 !	129.2	127.2	120.8	123.3	117.3
13:10	FC10213-5R	125.6	131.3 !	128.7	127.5	123.3	125.4	120.5
13:14	MA19883-CCV7	108.1	126.7	125.9	125.2	120	123.9	116.1
13:17	MA19883-CCV8	114.1	124.3	123.1	120.2	118	120.6	112.8
13:20	MA19883-CCB4	115.4	121.8	122	120.5	116.9	118.8	113.8
13:34	MP43236-D1	116.8	122.6	119.1	118.5	114.7	118.7	119.5
13:37	MP43236-SD1	114.3	117.9	116.9	115.6	113.3	116.3	114.6
13:41	MP43236-S1	113	124.3	119.9	117.5	113	119.4	111.7
13:44	MP43236-S2	111.1	124.1	120.5	118.8	113.6	119.2	110.6
13:47	MP43236-PS1	122.5	120.7	118.2	116.1	113	117.7	113.6
13:50	ZZZZZZ	109.9	122	120.8	119	114.8	118.8	112.7
13:53	ZZZZZZ	119.6	127.8	124.5	123.1	118.8	120	117.1
13:57	ZZZZZZ	113.2	122.4	118.2	116.5	111.7	119.1	112.1
14:00	ZZZZZZ	107.2	117.7	114.2	111.8	108.7	118.5	109.4
14:03	ZZZZZZ	112.9	121.3	116.5	116.1	112.2	119.7	111.1

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:07	MA19883-CCV9	112.7	119.1	120	117	114.1	117.7	112.8
14:10	MA19883-CCV10	104.9	120.9	119.4	118.4	114	117.7	111.2
14:13	MA19883-CCB5	117.2	117.8	117.8	115.9	115	116.3	113.8
14:16	ZZZZZZ	108.9	117	114.1	111.8	108.8	117.4	111.2
14:20	FC11636-1	106.5	115.1	112.2	111	109.1	117	109.9
14:23	FC11636-2	112.5	120.2	117.9	115	111.7	118.5	111.3
14:26	FC11636-3	111.8	121.3	120.7	116.5	113.1	119.6	112.1
14:30	FC11636-4	109.5	121.4	120.9	117.9	113.2	119.5	113.2
14:33	MP43236-MB1	112.7	120.4	118	116.4	114.7	118.9	116.2
14:55	MA19883-CCV11	115.1	123.9	123.5	120.7	115.8	119.1	113.3
14:58	MA19883-CCV12	103.7	112.4	113.9	111.2	106.5	110.7	105.1
15:01	MA19883-CCB6	110.6	119.7	118	117.3	114.8	117.1	113.6
15:45	MA19883-CCV13	93.5	92.3	93.9	92.1	92.8	94.9	92.4
15:48	MA19883-CCV14	92	91.4	92.3	90.4	90.9	93.5	92.2
15:52	MA19883-CCB7	94.8	90.9	92.8	92.2	93	93.5	95.7
15:55	FC11518-1	101.6	100.9	98.4	97	96.9	97.8	98
15:59	MP43234-D1	98.8	99.4	98	96.1	95.7	96.6	96.4
16:02	MP43234-S1	95.2	98	95.3	93.7	93.7	95.7	94.3
16:05	MP43234-S2	97.2	96.3	96	93.7	93.4	95.5	94.5
16:08	MP43234-PS1	99.8	97.4	96	94	95	95.8	95.2
16:12	ZZZZZZ	94.7	97.4	95.1	92.8	94.2	95.5	95.7
16:15	ZZZZZZ	95.3	94.4	94.5	93.5	94.2	95.8	95.3
16:18	ZZZZZZ	96.3	95.3	93.6	93.2	93.5	94.6	95.7
16:22	ZZZZZZ	98.4	97.5	95.3	93.8	93.5	95	95.1
16:25	ZZZZZZ	95.2	97	95.1	93.5	93.7	95.7	95.1
16:28	MA19883-CCV15	93.2	94.5	96	95.2	95	94.2	94.2
16:32	MA19883-CCV16	96.5	92.4	93.2	92	91.3	93.7	91.3
16:35	MA19883-CCB8	95.5	91.6	93.8	91.7	93.3	95.5	95.1
16:38	ZZZZZZ	95.2	98.9	97.6	95.6	95.4	96	96.6
16:42	ZZZZZZ	99.9	99	98.6	98.4	97.9	96.9	98.6
16:45	ZZZZZZ	101.4	97.1	98.2	96.7	96.6	96.3	97.9
16:48	ZZZZZZ	98.6	100.5	98.1	96.7	97.5	98.2	97.1
16:52	ZZZZZZ	95.9	97.1	94.2	92.1	92.7	94.3	94.2

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19883
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:55	ZZZZZZ	96.4	93.5	95.1	94.1	93.7	94.8	94.5
16:58	ZZZZZZ	96.7	93.7	95.1	94.4	95	95.3	97.7
17:02	ZZZZZZ	94.2	93.3	95.8	95.1	95.1	95	97
17:05	ZZZZZZ	96.4	96.9	97.4	96.5	97	97.1	97.3
17:08	ZZZZZZ	101.4	98	98.8	97.8	97.8	98	100.5
17:12	MA19883-CCV17	93.9	98.5	99.6	98.6	97.9	98.7	96.2
17:15	MA19883-CCV18	94.3	95.1	95.6	94.3	93.8	95.9	93.9
17:18	MA19883-CCB9	97.3	93.8	95	94	94.7	95.9	95.5
17:21	ZZZZZZ	94.6	91	92.2	90.8	91.8	94	95.3
17:25	ZZZZZZ	95.8	91.4	92.8	92.1	93.1	95.6	97.6
17:28	ZZZZZZ	91.6	91.8	92.8	92	93.2	95.1	96.8
17:32	ZZZZZZ	97.7	95.1	97	95.3	96.3	96.6	98.4
17:35	MA19883-CCV19	98.7	98.1	99.6	98.8	97.7	98.2	96.3
17:38	MA19883-CCV20	93.8	94.6	95.6	94.2	93.7	95.4	93.4
17:41	MA19883-CCB10	102.7	93.9	94.7	94.1	94.9	96	96.5

! = Outside limits.

LEGEND: Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %
Istd#6	Terbium	70-130 %	70-130 %
Istd#7	Bismuth	70-130 %	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19883 Units: ug/l

Time: / Sample ID:			10:52 ICB1		11:15 CCB1		11:57 CCB2		12:38 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr							
Antimony	1.0	.1	anr							
Arsenic	1.0	.1	0.0390	<1.0	0.0400	<1.0	0.0350	<1.0	0.0360	<1.0
Barium	1.0	.1	anr							
Beryllium	1.0	.1	anr							
Cadmium	1.0	.1	anr							
Calcium	100	7.2	anr							
Chromium	1.0	.1	anr							
Cobalt	1.0	.1	anr							
Copper	5.0	.1	anr							
Iron	100	7.9	anr							
Lead	1.0	.1	anr							
Magnesium	100	5.2	anr							
Manganese	1.0	.1	anr							
Molybdenum	1.0	.1								
Nickel	2.0	.1	anr							
Potassium	100	6.6	anr							
Selenium	1.0	.11	anr							
Silver	1.0	.1	anr							
Sodium	100	4.8	anr							
Strontium	1.0	.1								
Thallium	1.0	.1	anr							
Tin	1.0	.1	anr							
Titanium	2.0	.3								
Vanadium	1.0	.1	anr							
Zinc	5.0	.29	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19883 Units: ug/l

Time: / Sample ID:			13:20 CCB4		14:13 CCB5		15:01 CCB6	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr					
Antimony	1.0	.1	anr					
Arsenic	1.0	.1	0.0290	<1.0	0.0430	<1.0	0.0580	<1.0
Barium	1.0	.1	anr					
Beryllium	1.0	.1	anr					
Cadmium	1.0	.1	anr					
Calcium	100	7.2	anr					
Chromium	1.0	.1	anr					
Cobalt	1.0	.1	anr					
Copper	5.0	.1	anr					
Iron	100	7.9	anr					
Lead	1.0	.1	anr					
Magnesium	100	5.2	anr					
Manganese	1.0	.1	anr					
Molybdenum	1.0	.1						
Nickel	2.0	.1	anr					
Potassium	100	6.6	anr					
Selenium	1.0	.11	anr					
Silver	1.0	.1	anr					
Sodium	100	4.8	anr					
Strontium	1.0	.1						
Thallium	1.0	.1	anr					
Tin	1.0	.1	anr					
Titanium	2.0	.3						
Vanadium	1.0	.1	anr					
Zinc	5.0	.29	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		10:49			11:08			11:12	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	102	102.0				100	96.6	96.6
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		11:50			11:54			12:32	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	96.9	96.9			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		12:35			13:14			13:17	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	97.7	97.7				100	96.6	96.6
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver									
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		14:07			14:10			14:55	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic				100	96.2	96.2			
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		14:58	
Sample ID:	CCV	CCV12	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	100	103	103.0
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	anr		
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver			
Sodium	anr		
Strontium			
Thallium	anr		
Tin	anr		
Titanium			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19883 Units: ug/l

Time:		10:42			10:46	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	197	98.5
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19883 Units: ug/l

Time:			10:55		10:59	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100	anr			
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	0.957	95.7		
Barium	1.0	1.0	anr			
Beryllium	1.0	1.0	anr			
Cadmium	1.0	1.0	anr			
Calcium	100	100	anr			
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0	anr			
Copper	1.0	1.0				
Iron	100	100	anr			
Lead	1.0	1.0	anr			
Magnesium	100	100	anr			
Manganese	1.0	1.0	anr			
Molybdenum	1.0	1.0				
Nickel	1.0	1.0	anr			
Potassium	100	100	anr			
Selenium	1.0	1.0	anr			
Silver	1.0	1.0	anr			
Sodium	100	100	anr			
Strontium	1.0	1.0				
Thallium	1.0	1.0	anr			
Tin	1.0	1.0	anr			
Titanium	1.0	1.0				
Vanadium	1.0	1.0	anr			
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA120523M1.CSV Date Analyzed: 12/05/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19883 Units: ug/l

Time:			11:02		11:05	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	94900	94.9	94700	94.7
Antimony			0.102		0.0950	
Arsenic		20	0.0970		20.6	103.0
Barium			0.340		0.356	
Beryllium			0.0320		0.0620	
Cadmium		20	0.714		19.3	96.5
Calcium	100000	100000	96300	96.3	95600	95.6
Chromium		20	1.48*(a)		20.8	104.0
Cobalt		20	0.695		20.3	101.5
Copper		20	-0.138		18.8	94.0
Iron	100000	100000	99100	99.1	98700	98.7
Lead			0.219		0.209	
Magnesium	100000	100000	97000	97.0	96800	96.8
Manganese		20	0.402		20.5	102.5
Molybdenum	2000	2000	2010HH	100.5	2010HH	100.5
Nickel		20	0.508		19.6	98.0
Potassium	100000	100000	97300	97.3	98100	98.1
Selenium			0.0990		0.0320	
Silver		20	0.0220		18.7	93.5
Sodium	100000	100000	98300	98.3	97900	97.9
Strontium			0.741		0.743	
Thallium			0.0200		0.0390	
Tin			0.103		0.0720	
Titanium	2000	2000	2030HH	101.5	2020HH	101.0
Vanadium			-0.00800		-0.0290	
Zinc		20	2.77		21.8	109.0

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:48	MA19885-STD1	1		STDA
09:56	MA19885-STD2	1		STDC
10:00	MA19885-STD3	1		STDD
10:03	MA19885-STD4	1		STDE
10:07	MA19885-STD5	1		STDF
10:11	MA19885-STD6	1		STDG
10:30	MA19885-STD7	1		STDB
10:37	MA19885-CRIA1	1		
10:41	MA19885-HSTD1	1		
10:52	MA19885-ICV1	1		
11:00	MA19885-ICB1	1		
11:04	MA19885-ICSA1	1		
11:15	MA19885-ICSAB1	1		
11:22	MA19885-CCV1	1		
11:29	MA19885-CCB1	1		
11:36	MP43233-MB1	1		
11:41	MP43233-B1	1		
11:46	FC11393-2A	20		(sample used for QC only; not part of login FC11636)
11:51	MP43233-D1	20		
11:56	MP43233-D2	20		
12:01	MP43233-SD1	100		
12:06	MP43233-PS1	20		
12:11	MP43233-S1	20		
12:16	MP43233-S2	20		
12:21	ZZZZZZ	20		
12:26	MA19885-CCV2	1		
12:31	MA19885-CCB2	1		
12:36	ZZZZZZ	20		
12:41	ZZZZZZ	20		
12:46	ZZZZZZ	20		
12:51	ZZZZZZ	20		
12:56	ZZZZZZ	20		
13:01	ZZZZZZ	20		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:06	ZZZZZZ	1		
13:11	ZZZZZZ	5		
13:16	ZZZZZZ	5		
13:21	ZZZZZZ	5		
13:26	MA19885-CCV3	1		
13:31	MA19885-CCB3	1		
13:36	ZZZZZZ	5		
13:41	ZZZZZZ	5		
13:46	ZZZZZZ	5		
13:51	ZZZZZZ	1		
13:56	ZZZZZZ	1		
14:01	ZZZZZZ	1		
14:06	MP43240-MB1	1		
14:11	MP43240-B1	1		
14:16	FC11662-1	1		(sample used for QC only; not part of login FC11636)
14:21	MP43240-D1	1		
14:27	MA19885-CCV4	1		
14:41	MA19885-CCB4	1		
14:46	MP43240-SD1	5		
14:51	MP43240-PS1	1		
14:56	MP43240-S1	1		
15:01	MP43240-S2	1		
15:06	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:16	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:31	ZZZZZZ	1		
15:36	MA19885-CCV5	1		
15:41	MA19885-CCB5	1		
15:46	ZZZZZZ	1		
15:51	ZZZZZZ	1		
15:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:01	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:11	ZZZZZZ	1		
16:16	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:32	MP43235-MB1	1		
16:37	MA19885-CCV6	1		
16:41	MA19885-CCB6	1		
16:47	MP43235-B1	1		
16:51	FC11600-3	1		(sample used for QC only; not part of login FC11636)
16:57	MP43235-D1	1		
17:02	MP43235-SD1	5		
17:07	MP43235-PS1	1		
17:12	MP43235-S1	1		
17:18	MP43235-S2	1		
17:23	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:33	ZZZZZZ	10		
17:38	MA19885-CCV7	1		
17:43	MA19885-CCB7	1		
17:48	ZZZZZZ	10		
17:53	ZZZZZZ	1		
17:58	ZZZZZZ	5		
18:03	ZZZZZZ	1		
18:08	ZZZZZZ	1		
18:13	ZZZZZZ	5		
18:18	ZZZZZZ	5		
18:24	ZZZZZZ	5		
18:29	ZZZZZZ	5		
18:34	ZZZZZZ	5		
18:39	MA19885-CCV8	1		
18:44	MA19885-CCB8	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:49	ZZZZZZ	5		
18:54	ZZZZZZ	1		
18:59	FC11636-1B	1		
19:05	FC11636-2A	1		
19:10	FC11636-3A	1		
19:15	FC11636-4A	1		
19:20	ZZZZZZ	100		
19:25	ZZZZZZ	100		
19:30	ZZZZZZ	100		
19:35	ZZZZZZ	100		
19:40	MA19885-CCV9	1		
19:45	MA19885-CCB9	1		
19:50	ZZZZZZ	20		
19:55	ZZZZZZ	100		
20:00	ZZZZZZ	10		
20:05	FC11600-3	20		(sample used for QC only; not part of login FC11636)
20:10	MP43235-D1	20		
20:15	MP43235-S1	20		
20:21	MP43235-S2	20		
20:26	MP43235-PS1	20		
20:31	MP43235-SD1	100		
20:36	ZZZZZZ	5		
20:41	MA19885-CCV10	1		
20:46	MA19885-CCB10	1		
20:51	FC11636-1B	5		
---------->	Last reportable sample/prep for job FC11636			
20:56	ZZZZZZ	2		
21:01	ZZZZZZ	1		
21:06	MP43241-MB1	1		
21:11	MP43241-B1	1		
21:16	FC11630-1	1		(sample used for QC only; not part of login FC11636)
21:21	MP43241-D1	1		
21:26	MP43241-SD1	5		
21:31	MP43241-S1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Dilution Factor	PS Recov	Comments
21:36	MP43241-S2	1		
21:41	MA19885-CCV11	1		
21:46	MA19885-CCB11	1		
---------->	Last reportable CCB for job FC11636			
21:51	ZZZZZZ	1		
21:56	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:06	MP43241-MB2	1		
22:11	MP43241-B2	1		
22:16	MA19885-CCV12	1		
22:21	MA19885-CCB12	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
10:37	MA19885-CRIA1	1	X	X	X	X	
10:41	MA19885-HSTD1	1	X	X	X	X	
10:52	MA19885-ICV1	1	X	X	X	X	
11:00	MA19885-ICB1	1	X	X	X	X	
11:04	MA19885-ICSA1	1	X	X	X	X	
11:15	MA19885-ICSAB1	1	X	X	X	X	
11:22	MA19885-CCV1	1	X	X	X	X	
11:29	MA19885-CCB1	1	X	X	X	X	
11:36	MP43233-MB1	1	X	X	X	X	
11:41	MP43233-B1	1	X	X	X	X	
11:46	FC11393-2A	20	X	X	X	X	(a)
11:51	MP43233-D1	20	X	X	X	X	
11:56	MP43233-D2	20	X	X	X	X	
12:01	MP43233-SD1	100	X	X	X	X	
12:06	MP43233-PS1	20	X	X	X	X	
12:11	MP43233-S1	20	X	X	X	X	
12:16	MP43233-S2	20	X	X	X	X	
12:21	ZZZZZZ	20					
12:26	MA19885-CCV2	1	X	X	X	X	
12:31	MA19885-CCB2	1	X	X	X	X	
12:36	ZZZZZZ	20					
12:41	ZZZZZZ	20					
12:46	ZZZZZZ	20					
12:51	ZZZZZZ	20					
12:56	ZZZZZZ	20					
13:01	ZZZZZZ	20					
13:06	ZZZZZZ	1					
13:11	ZZZZZZ	5					
13:16	ZZZZZZ	5					
13:21	ZZZZZZ	5					
13:26	MA19885-CCV3	1	X	X	X	X	
13:31	MA19885-CCB3	1	X	X	X	X	
13:36	ZZZZZZ	5					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
13:41	ZZZZZZ	5					
13:46	ZZZZZZ	5					
13:51	ZZZZZZ	1					
13:56	ZZZZZZ	1					
14:01	ZZZZZZ	1					
14:06	MP43240-MB1	1	X	X	X		
14:11	MP43240-B1	1	X	X	X		
14:16	FC11662-1	1					(a)
14:21	MP43240-D1	1	X	X	X		
14:27	MA19885-CCV4	1	X	X	X	X	
14:41	MA19885-CCB4	1	X	X	X	X	
14:46	MP43240-SD1	5	X	X	X		
14:51	MP43240-PS1	1	X	X	X		
14:56	MP43240-S1	1	X	X	X		
15:01	MP43240-S2	1	X	X	X		
15:06	ZZZZZZ	1					
15:11	ZZZZZZ	1					
15:16	ZZZZZZ	1					
15:21	ZZZZZZ	1					
15:26	ZZZZZZ	1					
15:31	ZZZZZZ	1					
15:36	MA19885-CCV5	1	X	X	X	X	
15:41	MA19885-CCB5	1	X	X	X	X	
15:46	ZZZZZZ	1					
15:51	ZZZZZZ	1					
15:56	ZZZZZZ	1					
16:01	ZZZZZZ	1					
16:06	ZZZZZZ	1					
16:11	ZZZZZZ	1					
16:16	ZZZZZZ	1					
16:22	ZZZZZZ	1					
16:27	ZZZZZZ	1					
16:32	MP43235-MB1	1	X	X	X	X	
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
16:37	MA19885-CCV6	1	X	X	X	X	
16:41	MA19885-CCB6	1	X	X	X	X	
16:47	MP43235-B1	1	X	X	X	X	
16:51	FC11600-3	1		X			(a)
16:57	MP43235-D1	1	X	X	X	X	
17:02	MP43235-SD1	5	X	X	X	X	
17:07	MP43235-PS1	1	X	X	X	X	
17:12	MP43235-S1	1	X	X	X	X	
17:18	MP43235-S2	1	X	X	X	X	
17:23	ZZZZZZ	1					
17:28	ZZZZZZ	1					
17:33	ZZZZZZ	10					
17:38	MA19885-CCV7	1	X	X	X	X	
17:43	MA19885-CCB7	1	X	X	X	X	
17:48	ZZZZZZ	10					
17:53	ZZZZZZ	1					
17:58	ZZZZZZ	5					
18:03	ZZZZZZ	1					
18:08	ZZZZZZ	1					
18:13	ZZZZZZ	5					
18:18	ZZZZZZ	5					
18:24	ZZZZZZ	5					
18:29	ZZZZZZ	5					
18:34	ZZZZZZ	5					
18:39	MA19885-CCV8	1	X	X	X	X	
18:44	MA19885-CCB8	1	X	X	X	X	
18:49	ZZZZZZ	5					
18:54	ZZZZZZ	1					
18:59	FC11636-1B	1	X		X		
19:05	FC11636-2A	1		X		X	
19:10	FC11636-3A	1		X		X	
19:15	FC11636-4A	1		X		X	
19:20	ZZZZZZ	100					
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n	
19:25	ZZZZZZ	100					
19:30	ZZZZZZ	100					
19:35	ZZZZZZ	100					
19:40	MA19885-CCV9	1	X	X	X	X	
19:45	MA19885-CCB9	1	X	X	X	X	
19:50	ZZZZZZ	20					
19:55	ZZZZZZ	100					
20:00	ZZZZZZ	10					
20:05	FC11600-3	20					(a)
20:10	MP43235-D1	20					
20:15	MP43235-S1	20					
20:21	MP43235-S2	20					
20:26	MP43235-PS1	20					
20:31	MP43235-SD1	100					
20:36	ZZZZZZ	5					
20:41	MA19885-CCV10	1	X	X	X	X	
20:46	MA19885-CCB10	1	X	X	X	X	
20:51	FC11636-1B	5				X	
20:56	ZZZZZZ	2					
21:01	ZZZZZZ	1					
21:06	MP43241-MB1	1	X				
21:11	MP43241-B1	1	X				
21:16	FC11630-1	1	X				(a)
21:21	MP43241-D1	1	X				
21:26	MP43241-SD1	5	X				
21:31	MP43241-S1	1	X				
21:36	MP43241-S2	1	X				
21:41	MA19885-CCV11	1	X	X	X	X	
21:46	MA19885-CCB11	1	X	X	X	X	
21:51	ZZZZZZ	1					
21:56	ZZZZZZ	1					
22:01	ZZZZZZ	1					
22:06	MP43241-MB2	1	X				
		Element:	B a	F e	M g	M n	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Element: Dilution	B a	F e	M g	M n
22:11	MP43241-B2	1	X			
22:16	MA19885-CCV12	1	X	X	X	X
22:21	MA19885-CCB12	1	X	X	X	X

(a) Sample used for QC only; not part of login FC11636.

Element:	B a	F e	M g	M n

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
09:48	MA19885-STD1	1145	13860	4153	524
09:56	MA19885-STD2	1127	13743	4295	490
10:00	MA19885-STD3	1111	13648	4172	477
10:03	MA19885-STD4	1090	13458	4130	458
10:07	MA19885-STD5	1057	13022	4042	434
10:11	MA19885-STD6	1003	12335	3960	400
10:30	MA19885-STD7	1134	13727	4160	493
10:37	MA19885-CRIA1	1110	13531	4007	492
10:41	MA19885-HSTD1	1011	12220	3904	402
10:52	MA19885-ICV1	1065	12892	4141	437
11:00	MA19885-ICB1	1117 R	13852 R	4157 R	515 R
11:04	MA19885-ICSA1	912	11391	3866	380
11:15	MA19885-ICSAB1	923	11112	3830	364
11:22	MA19885-CCV1	1049	12846	4120	431
11:29	MA19885-CCB1	1124	13962	4215	515
11:36	MP43233-MB1	1075	13667	4103	507
11:41	MP43233-B1	1031	12706	4011	438
11:46	FC11393-2A	1117	13679	4157	489
11:51	MP43233-D1	1138	13876	4349	490
11:56	MP43233-D2	1134	14058	4353	488
12:01	MP43233-SD1	1128	14171	4235	509
12:06	MP43233-PS1	1109	13907	4167	483
12:11	MP43233-S1	1105	13682	4152	482
12:16	MP43233-S2	1115	13571	4189	487
12:21	ZZZZZZ	1129	13758	4337	489
12:26	MA19885-CCV2	1058	13097	4238	433
12:31	MA19885-CCB2	1119	14027	4220	513
12:36	ZZZZZZ	1130	14177	4222	494
12:41	ZZZZZZ	1139	14046	4262	494
12:46	ZZZZZZ	1125	13840	4237	487
12:51	ZZZZZZ	1126	13798	4277	488
12:56	ZZZZZZ	1138	14072	4396	486
13:01	ZZZZZZ	1141	14248	4396	487

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:06	ZZZZZZ	1096	14047	4284	471
13:11	ZZZZZZ	1201	14396	4580	467
13:16	ZZZZZZ	1237	15063	4671	469
13:21	ZZZZZZ	1169	13923	4458	474
13:26	MA19885-CCV3	1043	12913	4124	432
13:31	MA19885-CCB3	1117	14085	4232	513
13:36	ZZZZZZ	1194	14616	4651	466
13:41	ZZZZZZ	1138	13914	4377	472
13:46	ZZZZZZ	1173	14496	4520	463
13:51	ZZZZZZ	1019	12694	4074	436
13:56	ZZZZZZ	997	12558	4053	430
14:01	ZZZZZZ	1028	12776	4166	435
14:06	MP43240-MB1	1098	14064	4225	507
14:11	MP43240-B1	1031	12922	4060	435
14:16	FC11662-1	915	11520	3838	373
14:21	MP43240-D1	929	11633	3945	374
14:27	MA19885-CCV4	1042	13106	4148	432
14:41	MA19885-CCB4	1107	13778	4146	516
14:46	MP43240-SD1	1034	12904	4126	442
14:51	MP43240-PS1	918	11602	3883	371
14:56	MP43240-S1	917	11457	3893	359
15:01	MP43240-S2	934	11608	4003	363
15:06	ZZZZZZ	913	11623	3974	369
15:11	ZZZZZZ	1023	13240	4103	455
15:16	ZZZZZZ	1047	13324	4129	472
15:21	ZZZZZZ	1035	13088	4066	468
15:26	ZZZZZZ	1044	13078	4198	467
15:31	ZZZZZZ	1011	12891	4164	440
15:36	MA19885-CCV5	1038	13134	4280	429
15:41	MA19885-CCB5	1090	14107	4187	511
15:46	ZZZZZZ	1019	13152	4075	462
15:51	ZZZZZZ	1032	13149	4101	464
15:56	ZZZZZZ	1019	12838	4123	452

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
16:01	ZZZZZZ	1044	13231	4237	459
16:06	ZZZZZZ	1031	13162	4275	451
16:11	ZZZZZZ	1047	13414	4173	466
16:16	ZZZZZZ	1031	13201	4233	447
16:22	ZZZZZZ	1029	13318	4129	463
16:27	ZZZZZZ	1023	13025	4076	456
16:32	MP43235-MB1	1082	13588	4127	514
16:37	MA19885-CCV6	1046	12842	4138	439
16:41	MA19885-CCB6	1108	13842	4280	515
16:47	MP43235-B1	1017	12822	4154	431
16:51	FC11600-3	1258	15755	5439	341
16:57	MP43235-D1	1264	15669	5453	347
17:02	MP43235-SD1	1102	13612	4467	423
17:07	MP43235-PS1	1265	15877	5648	342
17:12	MP43235-S1	1248	15893	5482	342
17:18	MP43235-S2	1270	16115	5636	339
17:23	ZZZZZZ	1047	13484	4197	466
17:28	ZZZZZZ	1041	13253	4079	467
17:33	ZZZZZZ	1304	15419	5053	420
17:38	MA19885-CCV7	1033	12694	4038	436
17:43	MA19885-CCB7	1105	13594	4076	523
17:48	ZZZZZZ	1261	14963	4916	426
17:53	ZZZZZZ	985	12288	4001	415
17:58	ZZZZZZ	1219	15066	4621	511
18:03	ZZZZZZ	1009	12368	4148	414
18:08	ZZZZZZ	1048	13323	4197	460
18:13	ZZZZZZ	972	12250	3949	405
18:18	ZZZZZZ	962	12111	3956	405
18:24	ZZZZZZ	950	11783	3924	393
18:29	ZZZZZZ	957	11697	4054	386
18:34	ZZZZZZ	1000	12686	4108	422
18:39	MA19885-CCV8	1036	13032	4125	434
18:44	MA19885-CCB8	1109	13875	4157	525

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:49	ZZZZZZ	955	11714	3928	395
18:54	ZZZZZZ	1053	12944	4158	466
18:59	FC11636-1B	1064	13259	4204	467
19:05	FC11636-2A	1063	13404	4230	467
19:10	FC11636-3A	1051	13365	4128	468
19:15	FC11636-4A	1064	13317	4106	480
19:20	ZZZZZZ	1095	13449	4052	503
19:25	ZZZZZZ	1098	13389	4126	505
19:30	ZZZZZZ	1101	13604	4276	494
19:35	ZZZZZZ	1101	13762	4243	492
19:40	MA19885-CCV9	1048	13134	4085	438
19:45	MA19885-CCB9	1111	13778	4088	524
19:50	ZZZZZZ	1057	12922	4001	473
19:55	ZZZZZZ	1094	13206	4120	497
20:00	ZZZZZZ	1297	15813	4886	514
20:05	FC11600-3	1101	13692	4273	466
20:10	MP43235-D1	1089	13583	4157	468
20:15	MP43235-S1	1087	13238	4137	467
20:21	MP43235-S2	1085	13203	4111	467
20:26	MP43235-PS1	1096	13177	4183	469
20:31	MP43235-SD1	1119	13663	4276	503
20:36	ZZZZZZ	1074	13552	4183	474
20:41	MA19885-CCV10	1043	12971	4052	435
20:46	MA19885-CCB10	1110	13695	4047	524
20:51	FC11636-1B	1092	13422	4060	506
20:56	ZZZZZZ	712	8468	3314	253 !a
21:01	ZZZZZZ	1045	12954	4192	458
21:06	MP43241-MB1	1122	14199	4281	518
21:11	MP43241-B1	1036	13012	4044	440
21:16	FC11630-1	1090	13683	4089	510
21:21	MP43241-D1	1094	13538	4074	511
21:26	MP43241-SD1	1120	13575	4140	523
21:31	MP43241-S1	1048	12734	4191	437

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
Analyst: LM Run ID: MA19885
Parameters: Ba,Fe,Mg,Mn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
21:36	MP43241-S2	1047	13048	4129	437
21:41	MA19885-CCV11	1053	13090	4062	437
21:46	MA19885-CCB11	1116	13686	4095	524
21:51	ZZZZZZ	1079	13454	4092	505
21:56	ZZZZZZ	1094	13292	4172	501
22:01	ZZZZZZ	2298 !a	27924 !a	9029 !a	455
22:06	MP43241-MB2	1122	14171	4219	518
22:11	MP43241-B2	1042	13021	4016	442
22:16	MA19885-CCV12	1053	12860	4039	440
22:21	MA19885-CCB12	1118	13591	4077	527

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3600)	60-125 %
Istd#3	Yttrium (3710)	60-125 %
Istd#4	Indium	60-125 %

(a) No sample results reported from this internal standard.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19885 Units: ug/l

Time: / Sample ID:			11:00 ICB1		11:29 CCB1		12:31 CCB2		13:31 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.100	<200	0.00	<200	0.00	<200 (a)	0.100	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.800	<300	1.60	<300	2.50	<300 (a)	3.10	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	7.10	<5000	2.90	<5000	7.80	<5000(a)	10.2	<5000
Manganese	15	.25	0.00	<15	0.00	<15	0.100	<15 (a)	0.100	<15
Molybdenum	50	.3								
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5								
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested
(a) Sample dilution required due to difficult matrix.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19885 Units: ug/l

Time: / Sample ID:			14:41 CCB4		15:41 CCB5		16:41 CCB6		17:43 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.00	<200	0.200	<200	0.100	<200	0.100	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	0.00	<300	3.50	<300	3.20	<300	0.600	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	2.80	<5000	6.00	<5000	6.90	<5000	-1.70	<5000
Manganese	15	.25	0.00	<15	0.100	<15	0.100	<15	0.00	<15
Molybdenum	50	.3								
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5								
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA19885 Units: ug/l

Time: / Sample ID:			18:44 CCB8		19:45 CCB9		20:46 CCB10		21:46 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	14	anr							
Antimony	20	1	anr							
Arsenic	10	1.3	anr							
Barium	200	.5	0.100	<200	0.100	<200	0.100	<200	0.100	<200
Beryllium	5.0	.1	anr							
Boron	100	5								
Cadmium	4.0	.1	anr							
Calcium	5000	50	anr							
Chromium	10	.5	anr							
Cobalt	50	.2	anr							
Copper	25	1	anr							
Iron	300	15	3.40	<300	2.80	<300	1.60	<300	2.30	<300
Lead	20	1	anr							
Lithium	20	.5								
Magnesium	5000	35	10.7	<5000	1.20	<5000	6.30	<5000	5.50	<5000
Manganese	15	.25	0.00	<15	0.100	<15	0.100	<15	0.100	<15
Molybdenum	50	.3								
Nickel	40	.4	anr							
Potassium	10000	100								
Selenium	20	2	anr							
Silver	10	.5	anr							
Sodium	10000	250	anr							
Strontium	10	.25								
Thallium	10	1	anr							
Tin	50	.5								
Titanium	10	.5								
Vanadium	50	.5								
Zinc	20	3	anr							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19885 Units: ug/l

Time:		10:52			11:22			12:26	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2070	103.5	2000	1990	99.5	2000	1980	99.0
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	41400	103.5	40000	39800	99.5	40000	39200	98.0
Lead	anr								
Lithium									
Magnesium	40000	40800	102.0	40000	39300	98.3	40000	37900	94.8
Manganese	2000	2120	106.0	2000	2020	101.0	2000	1980	99.0
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19885 Units: ug/l

Time:		13:26			14:27			15:36	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39600	99.0	40000	39500	98.8	40000	38900	97.3
Lead	anr								
Lithium									
Magnesium	40000	39300	98.3	40000	39200	98.0	40000	37700	94.3
Manganese	2000	2000	100.0	2000	1970	98.5	2000	1960	98.0
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19885 Units: ug/l

Time:		16:37			17:38			18:39	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2000	100.0	2000	2040	102.0	2000	2060	103.0
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39300	98.3	40000	40000	100.0	40000	39600	99.0
Lead	anr								
Lithium									
Magnesium	40000	39600	99.0	40000	40600	101.5	40000	39900	99.8
Manganese	2000	2000	100.0	2000	2040	102.0	2000	2010	100.5
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA19885 Units: ug/l

Time:		19:40			20:41			21:41	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	2000	2060	103.0	2000	2060	103.0	2000	2060	103.0
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	40000	39900	99.8	40000	40300	100.8	40000	39900	99.8
Lead	anr								
Lithium									
Magnesium	40000	40600	101.5	40000	40800	102.0	40000	40600	101.5
Manganese	2000	2000	100.0	2000	2030	101.5	2000	2030	101.5
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA19885 Units: ug/l

Time:		10:41	
Sample ID:	HSTD	HSTD1	
Metal	True	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	4000	3950	98.8
Beryllium	anr		
Boron			
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	80000	79300	99.1
Lead	anr		
Lithium			
Magnesium	80000	81900	102.4
Manganese	4000	4020	100.5
Molybdenum			
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium	anr		
Strontium			
Thallium	anr		
Tin			
Titanium			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: CRI 70-130% CRIA 70-130% Run ID: MA19885 Units: ug/l

Time:			10:37	
Sample ID:	CRI	CRIA	CRIA1	
Metal	True	True	Results	% Rec
Aluminum	400	200	anr	
Antimony	10	5.0	anr	
Arsenic	20	10	anr	
Barium	400	200	202	101.0
Beryllium	10	5.0	anr	
Boron	100	50		
Cadmium	10	5.0	anr	
Calcium	2000	1000	anr	
Chromium	20	10	anr	
Cobalt	100	50	anr	
Copper	50	25	anr	
Iron	600	300	311	103.7
Lead	10	5.0	anr	
Lithium	18	9.0		
Magnesium	10000	5000	5080	101.6
Manganese	30	15	15.3	102.0
Molybdenum	100	50		
Nickel	80	40	anr	
Potassium	20000	10000		
Selenium	20	10	anr	
Silver	20	10	anr	
Sodium	20000	10000	anr	
Strontium	20	10		
Thallium	20	10	anr	
Tin	100	50		
Titanium	20	10		
Vanadium	100	50		
Zinc	40	20	anr	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: SB120623M1.ICP Date Analyzed: 12/06/23 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA19885 Units: ug/l

Time:			11:04		11:15	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	527000	105.4	518000	103.6
Antimony		1000	0.00		1060	106.0
Arsenic		1000	-0.200		1040	104.0
Barium		500	-0.500		495	99.0
Beryllium		500	0.00		506	101.2
Boron		1000	82.3		1060	106.0
Cadmium		1000	0.800		954	95.4
Calcium	500000	500000	468000	93.6	479000	95.8
Chromium		500	-0.100		514	102.8
Cobalt		500	-0.300		463	92.6
Copper		500	-1.20		587	117.4
Iron	500000	200000	448000	89.6	186000	93.0
Lead		1000	0.00		924	92.4
Lithium		1000	0.300		551	55.1
Magnesium	500000	500000	541000	108.2	559000	111.8
Manganese		500	0.900		519	103.8
Molybdenum		1000	-0.900		914	91.4
Nickel		1000	0.600		909	90.9
Potassium			-27.9		2.00	
Selenium		1000	0.00		964	96.4
Silver		1000	0.600		971	97.1
Sodium			270		287	
Strontium		1000	-0.800		1040	104.0
Thallium		1000	0.00		923	92.3
Tin		1000	0.00		886	88.6
Titanium		1000	0.00		1060	106.0
Vanadium		500	-0.600		538	107.6
Zinc		1000	1.90		913	91.3

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:53	MA19901-STD1	1		STD1
14:57	MA19901-STD2	1		STDB
15:00	MA19901-STD3	1		STDC
15:04	MA19901-STD4	1		STDD
15:07	MA19901-STD5	1		STDE
15:11	MA19901-STD6	1		STDF
15:14	MA19901-STD7	1		STDG
15:17	MA19901-HSTD1	1		
15:20	MA19901-HSTD2	1		
15:23	MA19901-ICV1	1		
15:26	MA19901-ICB1	1		
15:30	MA19901-CRIA1	1		
15:33	MA19901-CRIA2	1		
15:37	MA19901-ICSA1	1		
15:40	MA19901-ICSAB1	1		
15:43	MA19901-CCV1	1		
15:46	MA19901-CCV2	1		
15:49	MA19901-CCB1	1		
15:56	MP43260-B1	2		
15:59	MP43251-D1	100		
16:03	FC11636-2	50		
16:07	FC11636-3	50		
16:10	FC11636-4	100		
---------->	Last reportable sample/prep for job FC11636			
16:14	MP43267-MB1	2		
16:17	MP43267-B1	2		
16:20	FC11757-9	100		(sample used for QC only; not part of login FC11636)
16:24	MP43267-D1	100		
16:27	MA19901-CCV3	1		
16:30	MA19901-CCV4	1		
16:33	MA19901-CCB2	1		
---------->	Last reportable CCB for job FC11636			
16:37	MP43267-SD1	500		
16:40	MP43267-S1	100		
16:43	MP43267-S2	100		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:47	MP43267-PS1	100		
16:50	ZZZZZZ	100		
16:54	ZZZZZZ	100		
16:57	ZZZZZZ	100		
17:00	ZZZZZZ	100		
17:04	ZZZZZZ	100		
17:07	ZZZZZZ	100		
17:10	MA19901-CCV5	1		
17:13	MA19901-CCV6	1		
17:17	MA19901-CCB3	1		
17:20	ZZZZZZ	100		
17:23	ZZZZZZ	100		
17:27	ZZZZZZ	100		
17:30	ZZZZZZ	100		
17:33	ZZZZZZ	100		
17:37	ZZZZZZ	100		
17:40	ZZZZZZ	100		
17:43	ZZZZZZ	100		
17:47	ZZZZZZ	100		
17:50	ZZZZZZ	10		
17:53	MA19901-CCV7	1		
17:57	MA19901-CCV8	1		
18:00	MA19901-CCB4	1		
18:03	ZZZZZZ	10		
18:07	ZZZZZZ	10		
18:10	ZZZZZZ	2		
18:13	MA19901-CCV9	1		
18:16	MA19901-CCV10	1		
18:19	MA19901-CCB5	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Element: Dilution	As	
15:17	MA19901-HSTD1	1		
15:20	MA19901-HSTD2	1	X	
15:23	MA19901-ICV1	1	X	
15:26	MA19901-ICB1	1	X	
15:30	MA19901-CRIA1	1	X	
15:33	MA19901-CRIA2	1		
15:37	MA19901-ICSA1	1	X	
15:40	MA19901-ICSAB1	1	X	
15:43	MA19901-CCV1	1		
15:46	MA19901-CCV2	1	X	
15:49	MA19901-CCB1	1	X	
15:56	MP43260-B1	2		
15:59	MP43251-D1	100		
16:03	FC11636-2	50	X	
16:07	FC11636-3	50	X	
16:10	FC11636-4	100	X	
16:14	MP43267-MB1	2	X	
16:17	MP43267-B1	2	X	
16:20	FC11757-9	100		(a)
16:24	MP43267-D1	100	X	
16:27	MA19901-CCV3	1		
16:30	MA19901-CCV4	1	X	
16:33	MA19901-CCB2	1	X	
16:37	MP43267-SD1	500	X	
16:40	MP43267-S1	100	X	
16:43	MP43267-S2	100	X	
16:47	MP43267-PS1	100	X	
16:50	ZZZZZZ	100		
16:54	ZZZZZZ	100		
16:57	ZZZZZZ	100		
17:00	ZZZZZZ	100		
17:04	ZZZZZZ	100		
17:07	ZZZZZZ	100		
		Element:	As	

REPORTED ELEMENTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Element: Dilution	As
17:10	MA19901-CCV5	1	
17:13	MA19901-CCV6	1	X
17:17	MA19901-CCB3	1	X
17:20	ZZZZZZ	100	
17:23	ZZZZZZ	100	
17:27	ZZZZZZ	100	
17:30	ZZZZZZ	100	
17:33	ZZZZZZ	100	
17:37	ZZZZZZ	100	
17:40	ZZZZZZ	100	
17:43	ZZZZZZ	100	
17:47	ZZZZZZ	100	
17:50	ZZZZZZ	10	
17:53	MA19901-CCV7	1	
17:57	MA19901-CCV8	1	X
18:00	MA19901-CCB4	1	X
18:03	ZZZZZZ	10	
18:07	ZZZZZZ	10	
18:10	ZZZZZZ	2	
18:13	MA19901-CCV9	1	
18:16	MA19901-CCV10	1	X
18:19	MA19901-CCB5	1	X

(a) Sample used for QC only; not part of login FC11636.

Element: As

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
14:53	MA19901-STD1	100	100	100	100	100	100	100
14:57	MA19901-STD2	100.6	101.4	101	101.7	101.2	99.5	101
15:00	MA19901-STD3	99.8	102.9	102.5	102.1	102.2	100	102.2
15:04	MA19901-STD4	94.2	102.9	102.2	101.8	102.3	100.4	99.5
15:07	MA19901-STD5	95.8	102.4	101.8	101.5	99.3	96.8	96.8
15:11	MA19901-STD6	93.7	106.3	104.8	103.1	100.4	97.4	94.7
15:14	MA19901-STD7	87.2	106.6	103.7	102.5	98.5	94.7	89.7
15:17	MA19901-HSTD1	90	106.1	104.7	102.7	98.9	94.5	91.1
15:20	MA19901-HSTD2	87.6	106.5	103.1	101.7	97.3	93.1	88.6
15:23	MA19901-ICV1	97.4	106	101.5	100.3	97.3	93.6	90.9
15:26	MA19901-ICB1	94.2	105.3	102.5	102.1	100.2	94.2	94.2
15:30	MA19901-CRIA1	93.2	106.8	104.8	104.4	102.2	96.1	96.5
15:33	MA19901-CRIA2	93	108.3	106.7	106.4	103.7	96.7	97.2
15:37	MA19901-ICSA1	76.7	105.3	103.2	97.8	91.8	87.7	78.6
15:40	MA19901-ICSAB1	76.7	104.8	102.9	97	89.5	83.7	75.9
15:43	MA19901-CCV1	84.4	106.1	106.4	106.2	98	90.4	87
15:46	MA19901-CCV2	83.2	106.8	107.5	106.5	98	92.4	88
15:49	MA19901-CCB1	84.3	106.5	108.2	106.1	100.3	91.7	90.4
15:56	MP43260-B1	83.3	105.1	104.1	103.7	95.6	92.3	89.9
15:59	MP43251-D1	88.5	111.7	110.7	110.4	103.5	96.1	96.7
16:03	FC11636-2	89.7	112.5	112.3	111.4	105	97.5	96.9
16:07	FC11636-3	90.5	113.6	112.2	111.7	106.3	97.6	98.1
16:10	FC11636-4	89.6	113.2	112.7	112.8	107.1	99.4	98.1
16:14	MP43267-MB1	91	112.4	109.1	107.8	103.6	96.5	97
16:17	MP43267-B1	89	112.2	108.9	107.4	100.8	95.7	90.3
16:20	FC11757-9	90.2	114.5	114.4	113.9	107.4	99.1	99.4
16:24	MP43267-D1	90	116	114.7	115.1	109.2	99.6	98.1
16:27	MA19901-CCV3	88	112.9	113.3	112.5	105.3	97.2	93.6
16:30	MA19901-CCV4	86.8	113.4	111.8	110.2	103.6	96.2	91.1
16:33	MA19901-CCB2	89.1	115	112.4	111.8	107.5	97.7	97.2
16:37	MP43267-SD1	94	114.4	113.4	113.7	107.7	98.9	98.6
16:40	MP43267-S1	90.3	116.4	114.8	113.9	108.7	98.7	98.7
16:43	MP43267-S2	90.6	116.4	116.2	115.3	110	99.7	98.7

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
16:47	MP43267-PS1	89.7	114.7	113.4	113.1	107.1	97.6	97
16:50	ZZZZZZ	89.4	118.7	116.1	115.4	108.7	98.8	95.7
16:54	ZZZZZZ	85.3	120.5	118.5	117.2	110.9	101.4	96.8
16:57	ZZZZZZ	85.7	122.7	118.9	118.6	110.8	100.9	94.8
17:00	ZZZZZZ	90.3	122.1	119.5	118.6	112.4	101.9	100
17:04	ZZZZZZ	90.7	115.4	114.1	113.3	108	97.7	98.5
17:07	ZZZZZZ	89	114.6	112.8	112.3	107.1	97.7	96.5
17:10	MA19901-CCV5	86.9	113.6	112.4	110.2	106.5	97.1	95.6
17:13	MA19901-CCV6	86.8	112.9	111.5	109.6	104.4	96.1	94.8
17:17	MA19901-CCB3	87.2	113.7	112.3	112.3	107.9	98	97.3
17:20	ZZZZZZ	84.9	118.6	116	115.1	107.1	98	92.6
17:23	ZZZZZZ	93.1	122.6	119.9	119.3	112.9	101.2	99.5
17:27	ZZZZZZ	89.2	118.7	117.5	115.8	112.3	101.5	100.9
17:30	ZZZZZZ	91.4	118.3	115.8	116	111.6	100.6	101.7
17:33	ZZZZZZ	89.6	116.5	114.7	114.6	110.6	100.6	100.6
17:37	ZZZZZZ	88	116.2	114.6	114.9	111.1	100.1	102.8
17:40	ZZZZZZ	86.4	116.2	114.8	114.3	110.2	99.9	99.2
17:43	ZZZZZZ	89.6	117.8	117.1	116.2	111.1	99.9	99.3
17:47	ZZZZZZ	88.1	118.8	117.5	116.8	112.8	101.1	101.1
17:50	ZZZZZZ	83.5	119.2	115.7	115.1	107.1	98.4	93.3
17:53	MA19901-CCV7	86.4	117.4	116.3	115.4	110.3	100.3	97.9
17:57	MA19901-CCV8	85.1	115.9	113.6	113.5	107.5	97.8	95.2
18:00	MA19901-CCB4	90.1	115.4	114	113	110.2	99.2	101.6
18:03	ZZZZZZ	84.2	114.2	112.5	112	105.4	96.3	94.7
18:07	ZZZZZZ	84	118	116.3	114.2	106.7	99.2	93.5
18:10	ZZZZZZ	89.6	113.8	112.7	111.6	107.1	98.1	98.8
18:13	MA19901-CCV9	84.3	115.4	115.9	115	109.6	97.8	98.3
18:16	MA19901-CCV10	86.8	114.7	114.7	113.5	107.4	95.9	95.4
18:19	MA19901-CCB5	88.9	117.5	116.3	115.5	111.6	100	100.9

! = Outside limits.

Istd#	Parameter	Limits	CCV/CCB Limits
Istd#1	Lithium	70-130 %	70-130 %
Istd#2	Scandium	70-130 %	70-130 %
Istd#3	Germanium (72-2)	70-130 %	70-130 %
Istd#4	Germanium (74-2)	70-130 %	70-130 %
Istd#5	Indium	70-130 %	70-130 %

INTERNAL STANDARD SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
Analyst: JC Run ID: MA19901
Parameters: As

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4	Istd#5	Istd#6	Istd#7
Istd#7	Terbium		70-130 %	70-130 %				
Istd#7	Bismuth		70-130 %	70-130 %				

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: result < RL Run ID: MA19901 Units: ug/l

Time: / Sample ID:			15:26 ICB1		15:49 CCB1		16:33 CCB2	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	100	4.4	anr					
Antimony	1.0	.1	anr					
Arsenic	1.0	.1	0.0650	<1.0	0.0360	<1.0	0.0420	<1.0
Barium	1.0	.1	anr					
Beryllium	1.0	.1	anr					
Cadmium	1.0	.1	anr					
Calcium	100	7.2						
Chromium	1.0	.1	anr					
Cobalt	1.0	.1	anr					
Copper	5.0	.1	anr					
Iron	100	7.9	anr					
Lead	1.0	.1	anr					
Magnesium	100	5.2						
Manganese	1.0	.1						
Molybdenum	1.0	.1						
Nickel	2.0	.1	anr					
Potassium	100	6.6						
Selenium	1.0	.11	anr					
Silver	1.0	.1	anr					
Sodium	100	4.8	anr					
Strontium	1.0	.1						
Thallium	1.0	.1	anr					
Tin	1.0	.1						
Titanium	2.0	.3						
Vanadium	1.0	.1	anr					
Zinc	5.0	.29	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19901 Units: ug/l

Time:		15:23			15:43			15:46	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	100	104	104.0				100	97.7	97.7
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19901 Units: ug/l

Time:		16:27			16:30	
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				100	97.9	97.9
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: 90 to 110 % Recovery Run ID: MA19901 Units: ug/l

Time:		15:17			15:20	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic				200	198	99.0
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: CRI 70-130% CRIA 80-120% Run ID: MA19901 Units: ug/l

Time:			15:30		15:33	
Sample ID:	CRI	CRIA	CRIA1		CRIA2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100	100	anr			
Antimony	1.0	1.0	anr			
Arsenic	1.0	1.0	1.04	104.0		
Barium	1.0	1.0	anr			
Beryllium	1.0	1.0	anr			
Cadmium	1.0	1.0	anr			
Calcium	100	100				
Chromium	1.0	1.0	anr			
Cobalt	1.0	1.0	anr			
Copper	1.0	1.0				
Iron	100	100	anr			
Lead	1.0	1.0	anr			
Magnesium	100	100				
Manganese	1.0	1.0				
Molybdenum	1.0	1.0				
Nickel	1.0	1.0	anr			
Potassium	100	100				
Selenium	1.0	1.0	anr			
Silver	1.0	1.0	anr			
Sodium	100	100	anr			
Strontium	1.0	1.0				
Thallium	1.0	1.0	anr			
Tin	1.0	1.0				
Titanium	1.0	1.0				
Vanadium	1.0	1.0	anr			
Zinc	1.0	1.0				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: XA121323M1.CSV Date Analyzed: 12/13/23 Methods: SW846 6020B
QC Limits: 80 to 120 % Recovery Run ID: MA19901 Units: ug/l

Time:			15:37		15:40	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	100000	100000	95100	95.1	92100	92.1
Antimony			0.107		0.0950	
Arsenic		20	0.104		19.6	98.0
Barium			0.315		0.337	
Beryllium			0.0150		0.00500	
Cadmium		20	0.846		18.7	93.5
Calcium	100000	100000	94300	94.3	93000	93.0
Chromium		20	1.43*(a)		19.6	98.0
Cobalt		20	0.662		19.1	95.5
Copper		20	0.268		17.6	88.0
Iron	100000	100000	93600	93.6	91600	91.6
Lead			0.241		0.213	
Magnesium	100000	100000	96100	96.1	93400	93.4
Manganese		20	0.700		19.3	96.5
Molybdenum	2000	2000	1990	99.5	1930	96.5
Nickel		20	0.442		18.2	91.0
Potassium	100000	100000	98600	98.6	97100	97.1
Selenium			0.123		0.122	
Silver		20	0.0220		18.1	90.5
Sodium	100000	100000	96100	96.1	96400	96.4
Strontium			0.753		0.730	
Thallium			0.0120		0.0100	
Tin			0.150		0.118	
Titanium	2000	2000	2030	101.5	2000	100.0
Vanadium			0.00100		0.0190	
Zinc		20	1.34		19.7	98.5

(*) Outside of QC limits
(anr) Analyte not requested
(a) Trace level contamination.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 12/04/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1	0.0	<200
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2		
Calcium	1000	50	50		
Chromium	10	.5	1		
Cobalt	50	.2	.2		
Copper	25	1	1		
Iron	300	15	17	0.70	<300
Lead	5.0	1	1.1		
Lithium	10	.5	1.3		
Magnesium	5000	35	35	10.9	<5000
Manganese	15	.25	1	0.0	<15
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9		
Silver	10	.5	.7		
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4		

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date:			12/04/23					12/04/23	
Metal	FC11600-3 Original	DUP	RPD	QC Limits	FC11600-3 Original	MS	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	13.8	13.6	1.5	0-20	13.8	155	200	70.6N(a)	80-120
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	28800	28600	0.7	0-20	28800	56200	46000	59.6N(a)	80-120
Lead	anr								
Lithium									
Magnesium	38000	37500	1.3	0-20	38000	66600	45000	63.6N(a)	80-120
Manganese	1220	1230	0.8	0-20	1220	1290	200	35.0 (b)	80-120
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium									
Zinc	anr								

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 12/04/23

Metal	FC11600-3 Original	MSD	Spikelot MPFLICP5	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	13.8	153	200	69.6N(a)	1.3	20
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	28800	56800	46000	60.9N(a)	1.1	20
Lead	anr					
Lithium						
Magnesium	38000	65400	45000	60.9N(a)	1.8	20
Manganese	1220	1320	200	50.0 (b)	2.3	20
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 12/04/23

Metal	BSP Result	Spikelot MPFLICP5	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	204	200	102.0	80-120
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	42500	46000	92.4	80-120
Lead	anr			
Lithium				
Magnesium	41700	45000	92.7	80-120
Manganese	199	200	99.5	80-120
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235 Methods: SW846 6010D
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 12/04/23

Metal	FC11600-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	13.8	16.3	18.1 (a)	0-10
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	28800	37000	28.3*(b)	0-10
Lead	anr			
Lithium				
Magnesium	38000	45800	20.6*(b)	0-10
Manganese	1220	1600	30.9*(b)	0-10
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43235
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 12/04/23

Metal	Sample ml	Final ml	FC11600-3 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium	9.8	10	13.8	13.524	198	0.2	12.5	250	73.8*(a)	80-120
Beryllium										
Boron										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	28830	28253.4	29980	0.2	150	3000	57.6*(a)	80-120
Lead										
Lithium										
Magnesium	9.8	10	38000	37240	38680	0.2	250	5000	28.8*(a)	80-120
Manganese	9.8	10	1222	1197.56	1232	0.2	2.5	50	68.9*(a)	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP43235: FC11636-1B, FC11636-2A, FC11636-3A, FC11636-4A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 12/04/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.7	22		
Antimony	2.0	.2	.2		
Arsenic	2.0	.2	.21	1.3	* (a)
Barium	2.0	.2	.2		
Beryllium	2.0	.2	.2		
Cadmium	2.0	.2	.2		
Calcium	200	14	36		
Chromium	2.0	.2	.2		
Cobalt	2.0	.2	.2		
Copper	10	.2	1		
Iron	200	16	23		
Lead	2.0	.2	.2		
Magnesium	200	10	50		
Manganese	2.0	.2	.2		
Molybdenum	2.0	.2	.39		
Nickel	4.0	.2	.4		
Potassium	200	13	75		
Selenium	2.0	.22	.22		
Silver	2.0	.2	.2		
Sodium	200	9.6	50		
Strontium	2.0	.2	.2		
Thallium	2.0	.2	.2		
Tin	2.0	.2	.2		
Titanium	4.0	.61	.88		
Vanadium	2.0	.2	.24		
Zinc	10	.58	1.7		

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) All associated samples with results >MDL "B" coded.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date:			12/04/23					12/04/23	
Metal	FC10213-5R Original	DUP	RPD	QC Limits	FC10213-5R Original	MS	Spikelot MPICPMS1 % Rec		QC Limits
Aluminum									
Antimony	anr								
Arsenic	0.47	0.35	29.3 (a)	0-20	0.47	195	200	97.3	80-120
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236 Methods: SW846 6020B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 12/04/23

Metal	FC10213-5R Original	MSD	Spikelot MPICPMS1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	0.47	193	200	96.3	1.0	20
Barium	anr					
Beryllium						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 12/04/23

Metal	BSP Result	Spikelot MPICPMS1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	194	200	97.0	80-120
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 12/04/23

Metal	FC10213-5R Original	SDL 2:10	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	0.466	0.00	100.0(a)	0-10
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

QC Batch ID: MP43236
Matrix Type: AQUEOUS

Methods: SW846 6020B
Units: ug/l

Prep Date: 12/04/23

Metal	Sample ml	Final ml	FC10213-5R Raw	FC10213-5R Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	9.8	10	.466	.45668	21.9	0.4	0.5	20	107.2	80-120
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP43236: FC11636-1, FC11636-2, FC11636-3, FC11636-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Instrument Detection Limits

Job Number: FC11636
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	IDL ug/l
Aluminum	4.35
Antimony	.1
Arsenic	.1
Arsenic	.1
Barium	.1
Beryllium	.1
Boron	.5
Cadmium	.1
Cadmium	.1
Calcium	7.2
Calcium	7.2
Chromium	.1
Chromium	.1
Cobalt	.1
Cobalt	.1
Copper	.1
Copper	.1
Iron	7.9
Iron	7.9
Lead	.1
Magnesium	5.2
Manganese	.1
Manganese	.1
Molybdenum	.1
Nickel	.1
Nickel	.1
Potassium	6.57
Selenium	.11
Selenium	.11
Silver	.1
Sodium	4.8
Strontium	.1
Thallium	.1
Tin	.1
Tin	.1
Titanium	.303
Vanadium	.1
Vanadium	.1
Zinc	.29
Zinc	.29

The above applies to the following instrument runs:
MA19883,MA19901

Instrument Detection Limits

Job Number: FC11636
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	IDL ug/l
Aluminum	14
Antimony	1
Arsenic	1.3
Barium	.5
Beryllium	.1
Boron	5
Cadmium	.1
Calcium	50
Chromium	.5
Cobalt	.2
Copper	1
Iron	15
Lead	1
Lithium	.5
Magnesium	35
Manganese	.25
Molybdenum	.3
Nickel	.4
Potassium	100
Selenium	2
Silicon	5
Silver	.5
Sodium	250
Strontium	.25
Sulfur	5
Thallium	1
Tin	.5
Titanium	.5
Vanadium	.5
Zinc	3

The above applies to the following instrument runs:
MA19885

Instrument Linear Ranges

Job Number: FC11636
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: AGICPMS1 **Effective Date:** 05/21/16

Analyte	Linear Range ug/l
Aluminum	100000
Antimony	1000
Arsenic	1000
Arsenic	1000
Barium	1000
Beryllium	1000
Cadmium	1000
Cadmium	1000
Calcium	100000
Calcium	100000
Chromium	1000
Chromium	1000
Cobalt	1000
Cobalt	1000
Copper	1000
Copper	1000
Iron	100000
Iron	100000
Lead	1000
Magnesium	100000
Manganese	1000
Manganese	1000
Molybdenum	1000
Nickel	1000
Nickel	1000
Potassium	100000
Selenium	1000
Selenium	1000
Silver	100
Sodium	100000
Strontium	1000
Thallium	1000
Tin	1000
Tin	1000
Titanium	1000
Vanadium	1000
Vanadium	1000
Zinc	1000
Zinc	1000

The above applies to the following instrument runs:
MA19883,MA19901

Instrument Linear Ranges

Job Number: FC11636
Account: SCMAW Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Instrument ID: SSTRACE2 **Effective Date:** 09/01/22

Analyte	Linear Range ug/l
Aluminum	500000
Antimony	10000
Arsenic	10000
Barium	10000
Beryllium	10000
Boron	10000
Cadmium	10000
Calcium	500000
Chromium	10000
Cobalt	10000
Copper	10000
Iron	500000
Lead	10000
Lithium	10000
Magnesium	500000
Manganese	10000
Molybdenum	10000
Nickel	10000
Potassium	80000
Selenium	10000
Silver	1000
Sodium	80000
Strontium	10000
Sulfur	10000
Thallium	10000
Tin	10000
Titanium	10000
Vanadium	10000
Zinc	10000

The above applies to the following instrument runs:
MA19885

Metals Analysis

Raw Data

Quantitation Report

File Name 001_Blk.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:11
Sample Name Blank
Sample Type Blank
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib N/A
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	540.68	3.866E-03	Pulse	0.50	3
As			1		ug/l	---	56.33	4.026E-04	Pulse	1.00	3
Mo			1		ug/l	---	546.68	3.908E-03	Pulse	0.50	3
Pb			1		ug/l	---	3,781.45	1.526E-03	Pulse	1.00	3
Be			1		ug/l	---	1.50	6.586E-04	Pulse	2.00	3
Ag			1		ug/l	---	40.67	3.907E-05	Pulse	0.50	3
Ba			1		ug/l	---	120.00	1.153E-04	Pulse	0.50	3
Tl			1		ug/l	---	1,586.75	6.404E-04	Pulse	0.50	3
Sn			1		ug/l	---	1,082.27	1.040E-03	Pulse	0.30	3
Sr			1		ug/l	---	338.00	3.247E-04	Pulse	0.50	3
Ca			1		ug/l	---	96.00	6.414E-04	Pulse	0.50	3
Ti			1		ug/l	---	20.00	1.340E-04	Pulse	0.50	3
Na			1		ug/l	---	6,614.85	4.420E-02	Pulse	1.00	3
Mg			1		ug/l	---	337.33	2.254E-03	Pulse	1.00	3
K			1		ug/l	---	30,133.31	2.013E-01	Pulse	1.00	3
V			1		ug/l	---	1,639.42	1.761E-02	Pulse	0.50	3
Mn			1		ug/l	---	245.33	1.754E-03	Pulse	0.50	3
Fe			1		ug/l	---	52,557.45	3.758E-01	Pulse	0.50	3
Co			1		ug/l	---	73.33	5.243E-04	Pulse	0.50	3
Ni			1		ug/l	---	135.33	9.675E-04	Pulse	0.50	3
Cu			1		ug/l	---	5,924.99	4.236E-02	Pulse	0.50	3
Zn			1		ug/l	---	1,173.04	8.387E-03	Pulse	1.00	3
Cd			1		ug/l	---	28.00	2.002E-04	Pulse	0.50	3
Al			1		ug/l	---	567.68	3.794E-03	Pulse	1.00	3
Se			1		ug/l	---	27.33	1.954E-04	Pulse	3.00	3
Sb			1		ug/l	---	2,254.15	1.612E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,478,527.08	1.57		Analog	0.50	3
1	Sc		149,672.46	0.39		Pulse	0.30	3
1	Ge		93,081.12	0.66		Pulse	0.30	3
1	In		1,041,067.11	0.21		Pulse	0.30	3
1	Tb		3,237,057.17	0.64		Analog	0.50	3
1	Lu		2,674,888.67	0.53		Analog	0.50	3
1	Ge		139,866.56	0.23		Pulse	0.30	3
1	Li		2,277.93	1.22		Pulse	0.30	3

Quantitation Report

File Name	002_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:15
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	403.34	2.898E-03	Pulse	0.50	3
As			1		ug/l	---	50.33	3.613E-04	Pulse	1.00	3
Mo			1		ug/l	---	386.67	2.775E-03	Pulse	0.50	3
Pb			1		ug/l	---	3,745.11	1.515E-03	Pulse	1.00	3
Be			1		ug/l	---	0.67	2.909E-04	Pulse	2.00	3
Ag			1		ug/l	---	42.00	4.050E-05	Pulse	0.50	3
Ba			1		ug/l	---	101.33	9.777E-05	Pulse	0.50	3
Tl			1		ug/l	---	1,469.41	5.946E-04	Pulse	0.50	3
Sn			1		ug/l	---	723.35	6.978E-04	Pulse	0.30	3
Sr			1		ug/l	---	321.33	3.100E-04	Pulse	0.50	3
Ca			1		ug/l	---	86.67	5.795E-04	Pulse	0.50	3
Ti			1		ug/l	---	9.33	6.250E-05	Pulse	0.50	3
Na			1		ug/l	---	6,653.53	4.450E-02	Pulse	1.00	3
Mg			1		ug/l	---	303.33	2.029E-03	Pulse	1.00	3
K			1		ug/l	---	30,278.88	2.025E-01	Pulse	1.00	3
V			1		ug/l	---	1,684.75	1.810E-02	Pulse	0.50	3
Mn			1		ug/l	---	208.67	1.498E-03	Pulse	0.50	3
Fe			1		ug/l	---	12,916.64	9.276E-02	Pulse	0.50	3
Co			1		ug/l	---	72.00	5.172E-04	Pulse	0.50	3
Ni			1		ug/l	---	108.67	7.801E-04	Pulse	0.50	3
Cu			1		ug/l	---	5,684.25	4.082E-02	Pulse	0.50	3
Zn			1		ug/l	---	1,032.03	7.412E-03	Pulse	1.00	3
Cd			1		ug/l	---	32.67	2.348E-04	Pulse	0.50	3
Al			1		ug/l	---	353.34	2.364E-03	Pulse	1.00	3
Se			1		ug/l	---	27.45	1.972E-04	Pulse	3.00	3
Sb			1		ug/l	---	2,157.14	1.549E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,471,244.75	0.08		Analog	0.50	3
1	Sc		149,493.48	0.34		Pulse	0.30	3
1	Ge		93,074.50	0.56		Pulse	0.30	3
1	In		1,036,440.27	0.20		Pulse	0.30	3
1	Tb		3,233,942.83	1.52		Analog	0.50	3
1	Lu		2,658,639.42	1.00		Analog	0.50	3
1	Ge		139,244.00	0.70		Pulse	0.30	3
1	Li		2,313.49	1.75		Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:18
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	460.01	3.260E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	54.33	3.852E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	328.00	2.325E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	3,832.80	1.440E-03	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.67	2.998E-04	Pulse	2.00	3
Ag			1	0.000	ug/l	---	32.00	3.061E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	108.67	1.040E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	---	1,440.07	5.411E-04	Pulse	0.50	3
Sn			1	0.000	ug/l	---	703.35	6.731E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	352.01	3.368E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	109.33	7.312E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	12.00	8.018E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	6,978.45	4.672E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	301.00	2.014E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	30,469.52	2.039E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,640.75	1.750E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	254.67	1.805E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	11,410.96	8.089E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	77.33	5.485E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	113.33	8.040E-04	Pulse	0.50	3
Cu			1	0.000	ug/l	---	5,767.61	4.088E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	1,039.70	7.369E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	40.67	2.887E-04	Pulse	0.50	3
Al			1	0.000	ug/l	---	378.34	2.533E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	27.89	1.976E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	2,102.80	1.490E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,661,548.00	0.84	100.0	Analog	0.50	3
1	Sc		149,426.09	0.60	100.0	Pulse	0.30	3
1	Ge		93,740.14	0.37	100.0	Pulse	0.30	3
1	In		1,045,041.55	0.16	100.0	Pulse	0.30	3
1	Tb		3,435,755.50	1.14	100.0	Analog	0.50	3
1	Lu		2,856,188.17	0.42	100.0	Analog	0.50	3
1	Ge		141,089.38	0.71	100.0	Pulse	0.30	3
1	Li		2,237.92	3.21	100.0	Pulse	0.30	3

Quantitation Report

File Name	004CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:22
Sample Name	CALSTD-2
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.493	ug/l	2.00	3,180.29	2.223E-02	Pulse	0.50	3
As			1	0.484	ug/l	1.55	387.34	2.707E-03	Pulse	1.00	3
Mo			1	0.486	ug/l	3.87	1,848.77	1.292E-02	Pulse	0.50	3
Pb			1	0.492	ug/l	2.77	14,301.04	5.307E-03	Pulse	1.00	3
Be			1	0.365	ug/l	15.24	28.00	1.205E-02	Pulse	2.00	3
Ag			1	0.487	ug/l	0.79	5,410.20	5.109E-03	Pulse	0.50	3
Ba			1	0.478	ug/l	4.87	949.36	8.965E-04	Pulse	0.50	3
Tl			1	0.489	ug/l	2.79	16,163.49	5.998E-03	Pulse	0.50	3
Sn			1	0.471	ug/l	9.62	2,510.20	2.371E-03	Pulse	0.30	3
Sr			1	0.502	ug/l	2.54	2,437.51	2.302E-03	Pulse	0.50	3
Ca			1	56.844	ug/l	4.29	1,346.05	8.831E-03	Pulse	0.50	3
Ti			1	0.464	ug/l	16.91	76.00	4.983E-04	Pulse	0.50	3
Na			1	53.902	ug/l	1.15	64,227.44	4.213E-01	Pulse	1.00	3
Mg			1	50.293	ug/l	1.20	28,090.47	1.843E-01	Pulse	1.00	3
K			1	51.222	ug/l	1.94	52,943.90	3.473E-01	Pulse	1.00	3
V			1	0.563	ug/l	3.55	4,138.48	4.316E-02	Pulse	0.50	3
Mn			1	0.489	ug/l	3.95	1,879.44	1.314E-02	Pulse	0.50	3
Fe			1	50.783	ug/l	1.39	251,594.96	1.759E+00	Pulse	0.50	3
Co			1	0.494	ug/l	3.25	4,306.53	3.010E-02	Pulse	0.50	3
Ni			1	0.515	ug/l	3.78	1,263.38	8.830E-03	Pulse	0.50	3
Cu			1	0.343	ug/l	7.39	7,854.40	5.490E-02	Pulse	0.50	3
Zn			1	0.549	ug/l	2.26	1,660.75	1.161E-02	Pulse	1.00	3
Cd			1	0.505	ug/l	9.04	955.70	6.682E-03	Pulse	0.50	3
Al			1	49.639	ug/l	1.68	11,661.33	7.650E-02	Pulse	1.00	3
Se			1	0.508	ug/l	30.92	59.78	4.175E-04	Pulse	3.00	3
Sb			1	0.490	ug/l	6.13	4,644.97	3.247E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,695,303.67	1.50	101.3	Analog	0.50	3
1	Sc		152,438.53	0.47	102.0	Pulse	0.30	3
1	Ge		95,878.15	0.16	102.3	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,058,905.55	0.46	101.3	Pulse	0.30	3
1	Tb		3,479,581.00	0.64	101.3	Analog	0.50	3
1	Lu		2,862,705.00	0.49	100.2	Analog	0.50	3
1	Ge		143,079.35	1.05	101.4	Pulse	0.30	3
1	Li		2,325.72	1.15	103.9	Pulse	0.30	3

Quantitation Report

File Name	005CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:25
Sample Name	CALSTD-3
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.009	ug/l	2.60	6,029.02	4.211E-02	Pulse	0.50	3
As			1	1.019	ug/l	3.66	754.69	5.271E-03	Pulse	1.00	3
Mo			1	0.944	ug/l	4.10	3,280.99	2.291E-02	Pulse	0.50	3
Pb			1	0.989	ug/l	0.80	24,582.09	9.213E-03	Pulse	1.00	3
Be			1	0.892	ug/l	9.13	65.50	2.906E-02	Pulse	2.00	3
Ag			1	0.981	ug/l	0.94	10,879.44	1.025E-02	Pulse	0.50	3
Ba			1	0.992	ug/l	1.55	1,854.11	1.747E-03	Pulse	0.50	3
Tl			1	0.980	ug/l	0.45	30,645.14	1.149E-02	Pulse	0.50	3
Sn			1	0.898	ug/l	2.98	4,149.41	3.909E-03	Pulse	0.30	3
Sr			1	0.994	ug/l	1.74	4,487.92	4.228E-03	Pulse	0.50	3
Ca			1	113.269	ug/l	3.58	2,580.86	1.687E-02	Pulse	0.50	3
Ti			1	0.872	ug/l	29.24	132.67	8.656E-04	Pulse	0.50	3
Na			1	101.429	ug/l	1.22	114,987.31	7.517E-01	Pulse	1.00	3
Mg			1	100.328	ug/l	1.07	55,928.25	3.656E-01	Pulse	1.00	3
K			1	103.045	ug/l	1.62	75,327.83	4.924E-01	Pulse	1.00	3
V			1	1.049	ug/l	1.32	6,303.78	6.530E-02	Pulse	0.50	3
Mn			1	1.073	ug/l	3.60	3,823.09	2.670E-02	Pulse	0.50	3
Fe			1	104.985	ug/l	1.09	508,210.14	3.549E+00	Pulse	0.50	3
Co			1	1.002	ug/l	2.33	8,653.43	6.044E-02	Pulse	0.50	3
Ni			1	1.050	ug/l	4.79	2,458.18	1.717E-02	Pulse	0.50	3
Cu			1	0.928	ug/l	1.93	11,291.56	7.886E-02	Pulse	0.50	3
Zn			1	1.421	ug/l	5.82	2,625.20	1.834E-02	Pulse	1.00	3
Cd			1	1.041	ug/l	3.65	1,928.12	1.347E-02	Pulse	0.50	3
Al			1	100.893	ug/l	1.95	23,384.68	1.529E-01	Pulse	1.00	3
Se			1	0.980	ug/l	2.73	89.00	6.215E-04	Pulse	3.00	3
Sb			1	0.985	ug/l	0.33	7,195.18	5.025E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,668,113.17	0.74	100.2	Analog	0.50	3
1	Sc		152,989.82	1.10	102.4	Pulse	0.30	3
1	Ge		96,543.89	1.12	103.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,061,455.72	0.24	101.6	Pulse	0.30	3
1	Tb		3,480,599.50	0.60	101.3	Analog	0.50	3
1	Lu		2,863,848.58	1.05	100.3	Analog	0.50	3
1	Ge		143,194.28	0.77	101.5	Pulse	0.30	3
1	Li		2,250.15	2.91	100.5	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:29
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.923	ug/l	1.26	55,292.45	3.852E-01	Pulse	0.50	3
As			1	9.759	ug/l	1.44	6,771.63	4.717E-02	Pulse	1.00	3
Mo			1	9.663	ug/l	1.13	30,588.66	2.131E-01	Pulse	0.50	3
Pb			1	9.892	ug/l	1.07	211,676.77	7.916E-02	Pulse	1.00	3
Be			1	10.381	ug/l	1.36	714.35	3.348E-01	Pulse	2.00	3
Ag			1	10.011	ug/l	0.38	111,485.35	1.043E-01	Pulse	0.50	3
Ba			1	9.675	ug/l	0.31	17,233.43	1.613E-02	Pulse	0.50	3
Tl			1	9.668	ug/l	0.80	290,125.90	1.085E-01	Pulse	0.50	3
Sn			1	9.788	ug/l	1.03	38,388.33	3.593E-02	Pulse	0.30	3
Sr			1	9.796	ug/l	1.09	41,316.92	3.867E-02	Pulse	0.50	3
Ca			1	1003.500	ug/l	0.55	22,352.34	1.437E-01	Pulse	0.50	3
Ti			1	10.283	ug/l	2.77	1,452.73	9.342E-03	Pulse	0.50	3
Na			1	1004.507	ug/l	1.20	1,092,979.12	7.028E+00	Pulse	1.00	3
Mg			1	1002.332	ug/l	1.28	565,200.67	3.634E+00	Pulse	1.00	3
K			1	983.210	ug/l	1.37	459,786.00	2.957E+00	Pulse	1.00	3
V			1	9.861	ug/l	0.37	45,277.54	4.667E-01	Pulse	0.50	3
Mn			1	10.057	ug/l	0.38	33,739.39	2.350E-01	Pulse	0.50	3
Fe			1	1012.332	ug/l	1.00	4,812,365.00	3.353E+01	Analog	0.50	3
Co			1	10.077	ug/l	0.17	86,552.09	6.029E-01	Pulse	0.50	3
Ni			1	10.369	ug/l	1.31	23,315.75	1.624E-01	Pulse	0.50	3
Cu			1	10.309	ug/l	0.13	66,419.36	4.627E-01	Pulse	0.50	3
Zn			1	11.332	ug/l	1.37	13,607.16	9.479E-02	Pulse	1.00	3
Cd			1	10.131	ug/l	0.49	18,447.19	1.285E-01	Pulse	0.50	3
Al			1	991.973	ug/l	1.51	230,258.87	1.481E+00	Pulse	1.00	3
Se			1	10.023	ug/l	2.49	650.57	4.532E-03	Pulse	3.00	3
Sb			1	9.850	ug/l	0.67	52,880.65	3.684E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,674,102.67	0.31	100.5	Analog	0.50	3
1	Sc		155,525.38	0.94	104.1	Pulse	0.30	3
1	Ge		97,014.20	0.51	103.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,068,386.87	0.40	102.2	Pulse	0.30	3
1	Tb		3,480,599.50	0.41	101.3	Analog	0.50	3
1	Lu		2,864,344.92	1.35	100.3	Analog	0.50	3
1	Ge		143,547.72	0.47	101.7	Pulse	0.30	3
1	Li		2,133.47	1.92	95.3	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:32
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.364	ug/l	0.61	272,174.74	1.903E+00	Pulse	0.50	3
As			1	49.481	ug/l	0.43	33,978.24	2.376E-01	Pulse	1.00	3
Mo			1	48.368	ug/l	1.00	151,197.64	1.057E+00	Pulse	0.50	3
Pb			1	50.663	ug/l	0.87	1,033,288.50	3.995E-01	Pulse	1.00	3
Be			1	48.299	ug/l	1.09	3,457.65	1.557E+00	Pulse	2.00	3
Ag			1	50.339	ug/l	0.44	548,033.87	5.246E-01	Pulse	0.50	3
Ba			1	48.866	ug/l	0.14	84,669.45	8.105E-02	Pulse	0.50	3
Tl			1	49.810	ug/l	1.12	1,439,984.75	5.567E-01	Pulse	0.50	3
Sn			1	49.252	ug/l	0.38	186,049.61	1.781E-01	Pulse	0.30	3
Sr			1	49.594	ug/l	0.29	203,103.65	1.944E-01	Pulse	0.50	3
Ca			1	4966.631	ug/l	1.29	109,214.61	7.085E-01	Pulse	0.50	3
Ti			1	48.945	ug/l	2.70	6,809.29	4.416E-02	Pulse	0.50	3
Na			1	5005.927	ug/l	0.83	5,370,806.17	3.484E+01	Analog	1.00	3
Mg			1	5076.525	ug/l	0.81	2,836,536.33	1.840E+01	Analog	1.00	3
K			1	5063.724	ug/l	1.12	2,216,959.17	1.438E+01	Analog	1.00	3
V			1	49.292	ug/l	0.61	216,985.11	2.263E+00	Pulse	0.50	3
Mn			1	49.833	ug/l	0.93	165,531.30	1.158E+00	Pulse	0.50	3
Fe			1	4970.380	ug/l	0.23	23,493,058.00	1.643E+02	Analog	0.50	3
Co			1	49.621	ug/l	0.26	424,270.37	2.967E+00	Pulse	0.50	3
Ni			1	50.514	ug/l	0.44	112,708.16	7.882E-01	Pulse	0.50	3
Cu			1	50.830	ug/l	0.29	303,274.36	2.121E+00	Pulse	0.50	3
Zn			1	50.885	ug/l	1.09	57,193.96	4.000E-01	Pulse	1.00	3
Cd			1	50.085	ug/l	0.59	90,684.10	6.341E-01	Pulse	0.50	3
Al			1	4963.125	ug/l	0.68	1,140,493.37	7.398E+00	Pulse	1.00	3
Se			1	50.182	ug/l	0.94	3,131.39	2.190E-02	Pulse	3.00	3
Sb			1	49.302	ug/l	0.22	255,135.66	1.784E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,586,769.08	1.13	97.2	Analog	0.50	3
1	Sc		154,164.94	0.54	103.2	Pulse	0.30	3
1	Ge		95,889.18	0.57	102.3	Pulse	0.30	3
1	In		1,044,687.81	0.30	100.0	Pulse	0.30	3
1	Tb		3,440,646.25	1.12	100.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		2,850,167.67	1.12	99.8	Analog	0.50	3
1	Ge		143,001.09	0.09	101.4	Pulse	0.30	3
1	Li		2,221.25	1.36	99.3	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:36
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	98.390	ug/l	1.36	536,392.77	3.790E+00	Pulse	0.50	3
As			1	98.938	ug/l	1.31	67,179.83	4.747E-01	Pulse	1.00	3
Mo			1	97.500	ug/l	1.20	301,283.13	2.129E+00	Pulse	0.50	3
Pb			1	99.090	ug/l	1.16	2,028,864.08	7.799E-01	Analog	1.00	3
Be			1	95.693	ug/l	8.93	6,859.91	3.084E+00	Pulse	2.00	3
Ag			1	99.829	ug/l	0.35	1,066,645.08	1.040E+00	Pulse	0.50	3
Ba			1	98.779	ug/l	0.31	167,870.74	1.637E-01	Pulse	0.50	3
Tl			1	97.849	ug/l	1.19	2,843,500.00	1.093E+00	Analog	0.50	3
Sn			1	98.821	ug/l	0.68	365,666.41	3.566E-01	Pulse	0.30	3
Sr			1	98.923	ug/l	0.42	397,264.34	3.875E-01	Pulse	0.50	3
Ca			1	9917.108	ug/l	0.57	214,416.28	1.414E+00	Pulse	0.50	3
Ti			1	100.465	ug/l	1.62	13,734.53	9.057E-02	Pulse	0.50	3
Na			1	9980.314	ug/l	0.69	10,526,224.33	6.941E+01	Analog	1.00	3
Mg			1	9977.141	ug/l	0.14	5,483,517.17	3.616E+01	Analog	1.00	3
K			1	9966.394	ug/l	0.25	4,262,416.83	2.811E+01	Analog	1.00	3
V			1	98.615	ug/l	0.45	427,976.86	4.510E+00	Pulse	0.50	3
Mn			1	98.426	ug/l	1.26	323,297.82	2.285E+00	Pulse	0.50	3
Fe			1	9831.211	ug/l	1.64	45,973,113.33	3.249E+02	Analog	0.50	3
Co			1	97.976	ug/l	1.41	828,926.88	5.858E+00	Pulse	0.50	3
Ni			1	99.417	ug/l	1.36	219,406.45	1.550E+00	Pulse	0.50	3
Cu			1	99.725	ug/l	1.36	583,253.19	4.122E+00	Pulse	0.50	3
Zn			1	100.304	ug/l	1.76	110,551.65	7.812E-01	Pulse	1.00	3
Cd			1	98.861	ug/l	1.88	177,086.71	1.251E+00	Pulse	0.50	3
Al			1	10167.079	ug/l	2.31	2,297,817.58	1.515E+01	Analog	1.00	3
Se			1	99.516	ug/l	1.03	6,118.05	4.323E-02	Pulse	3.00	3
Sb			1	98.140	ug/l	1.24	500,504.98	3.537E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,601,354.75	0.50	97.7	Analog	0.50	3
1	Sc		151,651.95	0.25	101.5	Pulse	0.30	3
1	Ge		94,901.79	0.57	101.2	Pulse	0.30	3
1	In		1,025,329.37	0.67	98.1	Pulse	0.30	3
1	Tb		3,399,165.33	0.95	98.9	Analog	0.50	3
1	Lu		2,788,959.17	2.50	97.6	Analog	0.50	3
1	Ge		141,531.64	1.37	100.3	Pulse	0.30	3
1	Li		2,234.59	7.76	99.9	Pulse	0.30	3

Quantitation Report

File Name	009CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:39
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.968	ug/l	0.46	1,063,941.71	7.739E+00	Pulse	0.50	3
As			1	200.673	ug/l	0.56	132,322.02	9.625E-01	Pulse	1.00	3
Mo			1	201.675	ug/l	0.81	605,086.06	4.401E+00	Pulse	0.50	3
Pb			1	200.294	ug/l	2.45	3,904,395.83	1.575E+00	Analog	1.00	3
Be			1	202.560	ug/l	4.58	13,688.62	6.528E+00	Pulse	2.00	3
Ag			1	194.266	ug/l	1.19	2,024,806.71	2.024E+00	Analog	0.50	3
Ba			1	200.911	ug/l	0.65	332,970.55	3.329E-01	Pulse	0.50	3
Tl			1	201.140	ug/l	1.45	5,568,944.67	2.246E+00	Analog	0.50	3
Sn			1	200.788	ug/l	0.70	724,096.31	7.240E-01	Pulse	0.30	3
Sr			1	200.650	ug/l	0.55	785,718.29	7.856E-01	Pulse	0.50	3
Ca			1	20049.530	ug/l	0.61	429,253.26	2.858E+00	Pulse	0.50	3
Ti			1	200.018	ug/l	1.65	27,071.41	1.802E-01	Pulse	0.50	3
Na			1	20008.119	ug/l	1.43	20,894,242.67	1.391E+02	Analog	1.00	3
Mg			1	19992.179	ug/l	1.24	10,882,800.33	7.245E+01	Analog	1.00	3
K			1	20001.693	ug/l	0.64	8,442,003.67	5.620E+01	Analog	1.00	3
V			1	200.876	ug/l	1.52	853,586.13	9.168E+00	Pulse	0.50	3
Mn			1	200.825	ug/l	0.60	640,590.73	4.659E+00	Pulse	0.50	3
Fe			1	20091.156	ug/l	0.33	91,266,064.00	6.638E+02	Analog	0.50	3
Co			1	201.103	ug/l	0.77	1,652,875.67	1.202E+01	Analog	0.50	3
Ni			1	200.144	ug/l	0.72	429,008.93	3.120E+00	Pulse	0.50	3
Cu			1	199.915	ug/l	0.38	1,130,273.63	8.221E+00	Pulse	0.50	3
Zn			1	199.558	ug/l	0.56	212,683.86	1.547E+00	Pulse	1.00	3
Cd			1	200.541	ug/l	0.51	348,969.21	2.538E+00	Pulse	0.50	3
Al			1	19926.077	ug/l	1.56	4,460,165.67	2.969E+01	Analog	1.00	3
Se			1	200.195	ug/l	0.99	11,928.77	8.677E-02	Pulse	3.00	3
Sb			1	201.112	ug/l	0.35	994,282.83	7.232E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,479,110.33	0.54	93.1	Analog	0.50	3
1	Sc		150,211.46	0.58	100.5	Pulse	0.30	3
1	Ge		93,116.96	1.41	99.3	Pulse	0.30	3
1	In		1,000,217.77	0.34	95.7	Pulse	0.30	3
1	Tb		3,369,025.33	1.58	98.1	Analog	0.50	3
1	Lu		2,804,992.33	0.93	98.2	Analog	0.50	3
1	Ge		137,484.81	0.46	97.4	Pulse	0.30	3
1	Li		2,099.02	3.47	93.8	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:42
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.521	ug/l	0.96	532,516.26	3.834E+00	Pulse	0.50	3
As			1	99.242	ug/l	0.61	66,138.34	4.762E-01	Pulse	1.00	3
Mo			1	98.875	ug/l	0.56	299,862.83	2.159E+00	Pulse	0.50	3
Pb			1	103.680	ug/l	3.82	2,036,066.84	8.160E-01	Analog	1.00	3
Be			1	97.624	ug/l	2.15	6,913.43	3.146E+00	Pulse	2.00	3
Ag			1	100.812	ug/l	1.35	1,059,144.94	1.051E+00	Pulse	0.50	3
Ba			1	98.618	ug/l	1.44	164,799.85	1.635E-01	Pulse	0.50	3
Tl			1	101.586	ug/l	3.08	2,831,964.00	1.135E+00	Analog	0.50	3
Sn			1	99.750	ug/l	1.52	362,944.34	3.600E-01	Pulse	0.30	3
Sr			1	99.442	ug/l	1.35	392,679.42	3.895E-01	Pulse	0.50	3
Ca			1	9895.556	ug/l	0.13	213,421.90	1.411E+00	Pulse	0.50	3
Ti			1	99.010	ug/l	2.14	13,501.69	8.926E-02	Pulse	0.50	3
Na			1	10056.352	ug/l	0.84	10,579,944.67	6.994E+01	Analog	1.00	3
Mg			1	9983.492	ug/l	0.81	5,473,531.50	3.618E+01	Analog	1.00	3
K			1	10086.754	ug/l	0.24	4,302,820.67	2.844E+01	Analog	1.00	3
V			1	99.311	ug/l	1.87	424,255.47	4.541E+00	Pulse	0.50	3
Mn			1	99.736	ug/l	0.58	321,532.21	2.315E+00	Pulse	0.50	3
Fe			1	9959.610	ug/l	0.65	45,710,909.33	3.291E+02	Analog	0.50	3
Co			1	98.933	ug/l	0.79	821,538.00	5.915E+00	Pulse	0.50	3
Ni			1	100.372	ug/l	0.72	217,409.49	1.565E+00	Pulse	0.50	3
Cu			1	100.965	ug/l	0.92	579,508.83	4.172E+00	Pulse	0.50	3
Zn			1	100.793	ug/l	0.66	109,032.91	7.850E-01	Pulse	1.00	3
Cd			1	99.247	ug/l	0.84	174,490.91	1.256E+00	Pulse	0.50	3
Al			1	10084.015	ug/l	2.61	2,273,458.08	1.503E+01	Analog	1.00	3
Se			1	99.001	ug/l	0.83	5,973.34	4.301E-02	Pulse	3.00	3
Sb			1	98.744	ug/l	0.80	494,244.69	3.558E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,496,703.92	2.42	93.8	Analog	0.50	3
1	Sc		151,275.92	0.43	101.2	Pulse	0.30	3
1	Ge		93,426.34	0.99	99.7	Pulse	0.30	3
1	In		1,008,195.79	0.48	96.5	Pulse	0.30	3
1	Tb		3,404,660.75	1.03	99.1	Analog	0.50	3
1	Lu		2,806,675.42	0.69	98.3	Analog	0.50	3
1	Ge		138,891.42	0.75	98.4	Pulse	0.30	3
1	Li		2,197.92	1.88	98.2	Pulse	0.30	3

Quantitation Report

File Name 011HSTD.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:46
Sample Name HSTD
Sample Type HSTD
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	197.052	ug/l	1.19	1,045,822.35	7.588E+00	Pulse	0.50	3
As			1	196.943	ug/l	0.50	130,184.98	9.446E-01	Pulse	1.00	3
Mo			1	197.572	ug/l	0.56	594,255.10	4.312E+00	Pulse	0.50	3
Pb			1	199.521	ug/l	0.95	3,872,689.67	1.569E+00	Analog	1.00	3
Be			1	193.691	ug/l	1.69	13,620.74	6.242E+00	Pulse	2.00	3
Ag			1	193.638	ug/l	1.93	2,009,457.50	2.018E+00	Analog	0.50	3
Ba			1	196.954	ug/l	0.28	325,004.80	3.263E-01	Pulse	0.50	3
Tl			1	197.651	ug/l	1.15	5,448,659.83	2.207E+00	Analog	0.50	3
Sn			1	197.455	ug/l	0.80	709,043.50	7.119E-01	Pulse	0.30	3
Sr			1	198.116	ug/l	0.46	772,466.42	7.756E-01	Pulse	0.50	3
Ca			1	19748.476	ug/l	1.74	420,470.07	2.815E+00	Pulse	0.50	3
Ti			1	198.144	ug/l	1.86	26,671.51	1.785E-01	Pulse	0.50	3
Na			1	20035.437	ug/l	1.05	20,807,750.00	1.393E+02	Analog	1.00	3
Mg			1	19729.021	ug/l	1.95	10,680,115.67	7.150E+01	Analog	1.00	3
K			1	20063.179	ug/l	1.38	8,420,938.33	5.637E+01	Analog	1.00	3
V			1	196.651	ug/l	1.23	840,187.27	8.976E+00	Pulse	0.50	3
Mn			1	197.376	ug/l	0.98	631,152.21	4.579E+00	Pulse	0.50	3
Fe			1	19708.884	ug/l	1.28	89,749,789.33	6.512E+02	Analog	0.50	3
Co			1	199.858	ug/l	0.75	1,646,732.50	1.195E+01	Analog	0.50	3
Ni			1	196.777	ug/l	1.36	422,846.87	3.068E+00	Pulse	0.50	3
Cu			1	198.304	ug/l	0.72	1,123,978.04	8.155E+00	Pulse	0.50	3
Zn			1	196.766	ug/l	1.19	210,245.30	1.525E+00	Pulse	1.00	3
Cd			1	195.738	ug/l	1.28	341,456.17	2.477E+00	Pulse	0.50	3
Al			1	19929.665	ug/l	1.44	4,436,487.50	2.970E+01	Analog	1.00	3
Se			1	196.489	ug/l	0.98	11,737.75	8.516E-02	Pulse	3.00	3
Sb			1	196.288	ug/l	1.10	972,901.12	7.059E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,468,410.00	0.77	92.7	Analog	0.50	3
1	Sc		149,387.89	0.95	100.0	Pulse	0.30	3
1	Ge		93,608.40	0.96	99.9	Pulse	0.30	3
1	In		995,886.11	0.78	95.3	Pulse	0.30	3
1	Tb		3,398,104.42	0.10	98.9	Analog	0.50	3
1	Lu		2,805,380.75	0.09	98.2	Analog	0.50	3
1	Ge		137,821.78	0.67	97.7	Pulse	0.30	3
1	Li		2,182.36	1.23	97.5	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:49
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.861	ug/l	2.25	559,439.96	3.962E+00	Pulse	0.50	3
As			1	101.854	ug/l	1.89	68,999.14	4.887E-01	Pulse	1.00	3
Mo			1	104.174	ug/l	1.94	321,124.59	2.275E+00	Pulse	0.50	3
Pb			1	103.666	ug/l	2.03	2,097,531.75	8.159E-01	Analog	1.00	3
Be			1	93.993	ug/l	1.78	7,168.70	3.029E+00	Pulse	2.00	3
Ag			1	48.746	ug/l	1.13	521,487.74	5.080E-01	Pulse	0.50	3
Ba			1	97.373	ug/l	1.55	165,683.67	1.614E-01	Pulse	0.50	3
Tl			1	102.815	ug/l	1.53	2,952,703.75	1.149E+00	Analog	0.50	3
Sn			1	98.372	ug/l	1.95	364,456.66	3.550E-01	Pulse	0.30	3
Sr			1	104.912	ug/l	1.29	421,811.11	4.109E-01	Pulse	0.50	3
Ca			1	10119.080	ug/l	2.14	223,399.56	1.443E+00	Pulse	0.50	3
Ti			1	107.655	ug/l	2.68	15,026.88	9.704E-02	Pulse	0.50	3
Na			1	10108.816	ug/l	1.57	10,887,286.67	7.030E+01	Analog	1.00	3
Mg			1	10708.544	ug/l	2.67	6,009,911.17	3.881E+01	Analog	1.00	3
K			1	10116.082	ug/l	1.43	4,417,531.00	2.853E+01	Analog	1.00	3
V			1	101.717	ug/l	1.02	447,219.20	4.651E+00	Pulse	0.50	3
Mn			1	102.260	ug/l	1.92	335,093.04	2.373E+00	Pulse	0.50	3
Fe			1	10099.113	ug/l	2.27	47,116,806.67	3.337E+02	Analog	0.50	3
Co			1	102.175	ug/l	1.98	862,450.10	6.109E+00	Pulse	0.50	3
Ni			1	102.472	ug/l	2.14	225,616.25	1.598E+00	Pulse	0.50	3
Cu			1	104.040	ug/l	1.67	606,831.65	4.298E+00	Pulse	0.50	3
Zn			1	101.099	ug/l	2.20	111,164.23	7.874E-01	Pulse	1.00	3
Cd			1	101.116	ug/l	2.63	180,706.18	1.280E+00	Pulse	0.50	3
Al			1	10303.308	ug/l	1.68	2,377,841.33	1.536E+01	Analog	1.00	3
Se			1	97.909	ug/l	1.10	6,005.23	4.254E-02	Pulse	3.00	3
Sb			1	100.442	ug/l	2.01	510,996.15	3.619E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,570,898.25	0.58	96.6	Analog	0.50	3
1	Sc		154,863.69	0.83	103.6	Pulse	0.30	3
1	Ge		96,150.70	0.93	102.6	Pulse	0.30	3
1	In		1,026,562.46	0.21	98.2	Pulse	0.30	3
1	Tb		3,450,204.83	0.99	100.4	Analog	0.50	3
1	Lu		2,842,517.92	0.51	99.5	Analog	0.50	3
1	Ge		141,194.71	1.32	100.1	Pulse	0.30	3
1	Li		2,366.83	1.29	105.8	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 10:52
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.042	ug/l	25.35	690.69	4.893E-03	Pulse	0.50	3
As			1	0.039	ug/l	54.76	81.00	5.737E-04	Pulse	1.00	3
Mo			1	0.257	ug/l	32.19	1,120.04	7.933E-03	Pulse	0.50	3
Pb			1	0.066	ug/l	14.93	5,188.18	1.962E-03	Pulse	1.00	3
Be			1	0.072	ug/l	21.39	5.83	2.631E-03	Pulse	2.00	3
Ag			1	0.033	ug/l	36.52	385.34	3.711E-04	Pulse	0.50	3
Ba			1	0.048	ug/l	13.62	191.33	1.842E-04	Pulse	0.50	3
Tl			1	0.124	ug/l	9.72	5,096.16	1.929E-03	Pulse	0.50	3
Sn			1	0.198	ug/l	27.34	1,439.52	1.385E-03	Pulse	0.30	3
Sr			1	0.042	ug/l	25.09	522.68	5.032E-04	Pulse	0.50	3
Ca			1	4.851	ug/l	34.11	215.33	1.422E-03	Pulse	0.50	3
Ti			1	0.028	ug/l	104.90	16.00	1.058E-04	Pulse	0.50	3
Na			1	5.091	ug/l	20.59	12,430.51	8.210E-02	Pulse	1.00	3
Mg			1	5.005	ug/l	20.66	3,051.93	2.015E-02	Pulse	1.00	3
K			1	5.772	ug/l	14.27	33,311.43	2.201E-01	Pulse	1.00	3
V			1	-0.034	ug/l	-31.84	1,519.40	1.595E-02	Pulse	0.50	3
Mn			1	0.072	ug/l	38.25	491.34	3.481E-03	Pulse	0.50	3
Fe			1	5.462	ug/l	10.99	36,891.69	2.613E-01	Pulse	0.50	3
Co			1	0.047	ug/l	18.11	474.68	3.362E-03	Pulse	0.50	3
Ni			1	0.059	ug/l	13.76	242.67	1.719E-03	Pulse	0.50	3
Cu			1	0.010	ug/l	312.09	5,828.30	4.129E-02	Pulse	0.50	3
Zn			1	0.002	ug/l	4910.97	1,042.03	7.383E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	45.85	96.67	6.851E-04	Pulse	0.50	3
Al			1	4.397	ug/l	17.55	1,375.39	9.084E-03	Pulse	1.00	3
Se			1	0.083	ug/l	50.53	33.00	2.337E-04	Pulse	3.00	3
Sb			1	0.108	ug/l	27.70	2,649.55	1.877E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,644,465.33	1.90	99.4	Analog	0.50	3
1	Sc		151,363.05	0.53	101.3	Pulse	0.30	3
1	Ge		95,287.25	0.11	101.7	Pulse	0.30	3
1	In		1,038,846.90	0.20	99.4	Pulse	0.30	3
1	Tb		3,451,170.33	0.54	100.4	Analog	0.50	3
1	Lu		2,857,191.58	0.33	100.0	Analog	0.50	3
1	Ge		141,163.06	0.47	100.1	Pulse	0.30	3
1	Li		2,240.15	8.27	100.1	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:55
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.991	ug/l	2.34	5,988.34	4.140E-02	Pulse	0.50	3
As			1	0.957	ug/l	0.95	719.02	4.972E-03	Pulse	1.00	3
Mo			1	1.039	ug/l	4.19	3,615.72	2.500E-02	Pulse	0.50	3
Pb			1	0.973	ug/l	2.01	24,723.64	9.082E-03	Pulse	1.00	3
Be			1	1.069	ug/l	11.04	80.33	3.474E-02	Pulse	2.00	3
Ag			1	0.969	ug/l	2.35	10,846.76	1.013E-02	Pulse	0.50	3
Ba			1	0.957	ug/l	5.96	1,809.44	1.690E-03	Pulse	0.50	3
Tl			1	0.975	ug/l	0.91	31,110.68	1.143E-02	Pulse	0.50	3
Sn			1	1.021	ug/l	4.10	4,659.55	4.350E-03	Pulse	0.30	3
Sr			1	1.014	ug/l	2.85	4,613.29	4.307E-03	Pulse	0.50	3
Ca			1	137.369	ug/l	1.10	3,188.29	2.031E-02	Pulse	0.50	3
Ti			1	0.825	ug/l	10.13	129.33	8.237E-04	Pulse	0.50	3
Na			1	103.428	ug/l	1.59	120,193.78	7.656E-01	Pulse	1.00	3
Mg			1	101.219	ug/l	1.58	57,906.61	3.688E-01	Pulse	1.00	3
K			1	101.639	ug/l	1.43	76,693.41	4.885E-01	Pulse	1.00	3
V			1	0.927	ug/l	3.60	5,814.95	5.973E-02	Pulse	0.50	3
Mn			1	1.019	ug/l	4.29	3,679.06	2.544E-02	Pulse	0.50	3
Fe			1	101.590	ug/l	0.95	497,101.56	3.437E+00	Pulse	0.50	3
Co			1	1.008	ug/l	2.45	8,791.50	6.079E-02	Pulse	0.50	3
Ni			1	1.024	ug/l	5.21	2,424.84	1.677E-02	Pulse	0.50	3
Cu			1	0.861	ug/l	1.33	11,006.05	7.610E-02	Pulse	0.50	3
Zn			1	1.236	ug/l	1.46	2,445.17	1.691E-02	Pulse	1.00	3
Cd			1	0.966	ug/l	5.12	1,810.10	1.252E-02	Pulse	0.50	3
Al			1	98.103	ug/l	2.68	23,347.32	1.487E-01	Pulse	1.00	3
Se			1	0.992	ug/l	14.31	90.67	6.267E-04	Pulse	3.00	3
Sb			1	0.992	ug/l	5.13	7,303.23	5.049E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,722,560.58	0.74	102.3	Analog	0.50	3
1	Sc		157,014.65	0.84	105.1	Pulse	0.30	3
1	Ge		97,359.46	0.39	103.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,071,147.32	0.46	102.5	Pulse	0.30	3
1	Tb		3,547,849.58	0.64	103.3	Analog	0.50	3
1	Lu		2,925,154.17	1.84	102.4	Analog	0.50	3
1	Ge		144,624.05	0.51	102.5	Pulse	0.30	3
1	Li		2,327.94	9.35	104.0	Pulse	0.30	3

Quantitation Report

File Name 015LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 10:59
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	4.813	ug/l	3.24	27,418.71	1.885E-01	Pulse	0.50	3
As			1	4.733	ug/l	2.71	3,356.65	2.308E-02	Pulse	1.00	3
Mo			1	4.729	ug/l	2.83	15,342.73	1.055E-01	Pulse	0.50	3
Pb			1	4.647	ug/l	0.74	103,578.84	3.795E-02	Pulse	1.00	3
Be			1	4.382	ug/l	7.32	344.00	1.415E-01	Pulse	2.00	3
Ag			1	4.858	ug/l	0.60	54,441.02	5.065E-02	Pulse	0.50	3
Ba			1	4.641	ug/l	1.54	8,374.76	7.792E-03	Pulse	0.50	3
Tl			1	4.554	ug/l	0.53	140,288.40	5.140E-02	Pulse	0.50	3
Sn			1	4.659	ug/l	1.33	18,762.55	1.746E-02	Pulse	0.30	3
Sr			1	4.688	ug/l	2.48	20,079.45	1.868E-02	Pulse	0.50	3
Ca			1	490.740	ug/l	2.60	11,094.06	7.066E-02	Pulse	0.50	3
Ti			1	4.480	ug/l	2.84	646.01	4.115E-03	Pulse	0.50	3
Na			1	494.286	ug/l	0.27	546,685.98	3.482E+00	Pulse	1.00	3
Mg			1	491.773	ug/l	0.81	280,118.69	1.784E+00	Pulse	1.00	3
K			1	483.061	ug/l	0.57	244,344.80	1.556E+00	Pulse	1.00	3
V			1	4.685	ug/l	1.00	22,594.72	2.309E-01	Pulse	0.50	3
Mn			1	4.838	ug/l	3.83	16,584.29	1.140E-01	Pulse	0.50	3
Fe			1	501.432	ug/l	2.89	2,421,320.75	1.665E+01	Analog	0.50	3
Co			1	4.870	ug/l	1.83	42,427.69	2.917E-01	Pulse	0.50	3
Ni			1	4.965	ug/l	2.03	11,373.61	7.819E-02	Pulse	0.50	3
Cu			1	4.938	ug/l	0.99	35,337.28	2.429E-01	Pulse	0.50	3
Zn			1	5.038	ug/l	2.71	6,725.60	4.624E-02	Pulse	1.00	3
Cd			1	4.966	ug/l	2.32	9,183.80	6.314E-02	Pulse	0.50	3
Al			1	486.331	ug/l	1.11	114,173.95	7.272E-01	Pulse	1.00	3
Se			1	4.818	ug/l	7.11	331.78	2.281E-03	Pulse	3.00	3
Sb			1	4.743	ug/l	1.20	26,924.38	1.851E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,729,546.50	0.65	102.6	Analog	0.50	3
1	Sc		157,000.02	0.25	105.1	Pulse	0.30	3
1	Ge		97,843.28	0.25	104.4	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,074,778.43	0.24	102.8	Pulse	0.30	3
1	Tb		3,538,715.17	0.37	103.0	Analog	0.50	3
1	Lu		2,921,690.83	0.65	102.3	Analog	0.50	3
1	Ge		145,458.89	0.20	103.1	Pulse	0.30	3
1	Li		2,434.62	3.70	108.8	Pulse	0.30	3

Quantitation Report

File Name 016ICSA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:02
Sample Name ICSA
Sample Type ICSA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.477	ug/l	5.22	8,341.28	6.010E-02	Pulse	0.50	3
As			1	0.097	ug/l	5.88	118.00	8.506E-04	Pulse	1.00	3
Mo			1	2013.446	ug/l	2.36	6,094,178.50	4.392E+01	Analog	0.50	3
Pb			1	0.219	ug/l	2.16	7,514.10	3.164E-03	Pulse	1.00	3
Be			1	0.032	ug/l	18.29	2.83	1.337E-03	Pulse	2.00	3
Ag			1	0.022	ug/l	7.08	252.00	2.547E-04	Pulse	0.50	3
Ba			1	0.340	ug/l	9.09	660.01	6.674E-04	Pulse	0.50	3
Tl			1	0.020	ug/l	4.25	1,802.11	7.588E-04	Pulse	0.50	3
Sn			1	0.103	ug/l	30.87	1,033.37	1.045E-03	Pulse	0.30	3
Sr			1	0.741	ug/l	2.65	3,204.30	3.239E-03	Pulse	0.50	3
Ca			1	96250.252	ug/l	1.19	2,164,060.83	1.372E+01	Analog	0.50	3
Ti			1	2032.606	ug/l	3.20	288,881.96	1.831E+00	Pulse	0.50	3
Na			1	98266.475	ug/l	2.06	107,770,725.33	6.830E+02	Analog	1.00	3
Mg			1	97047.852	ug/l	2.36	55,493,613.33	3.517E+02	Analog	1.00	3
K			1	97317.627	ug/l	1.48	43,018,308.00	2.727E+02	Analog	1.00	3
V			1	-0.008	ug/l	-72.65	1,664.75	1.714E-02	Pulse	0.50	3
Mn			1	0.402	ug/l	1.86	1,544.74	1.113E-02	Pulse	0.50	3
Fe			1	99119.141	ug/l	3.48	454,410,005.33	3.275E+03	Analog	0.50	3
Co			1	0.695	ug/l	5.31	5,843.63	4.211E-02	Pulse	0.50	3
Ni			1	0.508	ug/l	5.33	1,211.38	8.730E-03	Pulse	0.50	3
Cu			1	-0.138	ug/l	-15.90	4,890.69	3.525E-02	Pulse	0.50	3
Zn			1	2.766	ug/l	4.42	3,983.11	2.871E-02	Pulse	1.00	3
Cd			1	0.714	ug/l	5.77	1,292.72	9.320E-03	Pulse	0.50	3
Al			1	94949.599	ug/l	3.12	22,326,004.67	1.415E+02	Analog	1.00	3
Se			1	0.099	ug/l	64.09	33.33	2.402E-04	Pulse	3.00	3
Sb			1	0.102	ug/l	14.83	2,576.86	1.857E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,375,021.75	1.34	89.2	Analog	0.50	3
1	Sc		157,757.04	1.84	105.6	Pulse	0.30	3
1	Ge		97,119.16	1.82	103.6	Pulse	0.30	3
1	In		989,272.22	1.38	94.7	Pulse	0.30	3
1	Tb		3,447,711.75	2.17	100.3	Analog	0.50	3
1	Lu		2,851,332.92	1.53	99.8	Analog	0.50	3
1	Ge		138,740.13	0.93	98.3	Pulse	0.30	3
1	Li		2,129.02	5.55	95.1	Pulse	0.30	3

Quantitation Report

File Name 017ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:05
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	20.847	ug/l	1.71	119,622.03	8.057E-01	Pulse	0.50	3
As			1	20.649	ug/l	2.41	14,757.45	9.938E-02	Pulse	1.00	3
Mo			1	2011.626	ug/l	2.24	6,514,658.00	4.388E+01	Analog	0.50	3
Pb			1	0.209	ug/l	2.80	7,704.85	3.084E-03	Pulse	1.00	3
Be			1	0.062	ug/l	37.38	5.33	2.307E-03	Pulse	2.00	3
Ag			1	18.721	ug/l	1.87	205,268.54	1.951E-01	Pulse	0.50	3
Ba			1	0.356	ug/l	7.73	730.02	6.940E-04	Pulse	0.50	3
Tl			1	0.039	ug/l	5.27	2,430.86	9.729E-04	Pulse	0.50	3
Sn			1	0.072	ug/l	14.33	981.15	9.327E-04	Pulse	0.30	3
Sr			1	0.743	ug/l	5.39	3,414.34	3.245E-03	Pulse	0.50	3
Ca			1	95602.754	ug/l	1.33	2,309,588.58	1.362E+01	Analog	0.50	3
Ti			1	2020.384	ug/l	2.48	308,548.29	1.820E+00	Pulse	0.50	3
Na			1	97946.503	ug/l	0.25	115,399,389.33	6.808E+02	Analog	1.00	3
Mg			1	96812.596	ug/l	1.59	59,479,412.00	3.508E+02	Analog	1.00	3
K			1	98093.958	ug/l	1.20	46,592,525.33	2.748E+02	Analog	1.00	3
V			1	-0.029	ug/l	-42.30	1,686.75	1.617E-02	Pulse	0.50	3
Mn			1	20.519	ug/l	2.58	70,926.92	4.777E-01	Pulse	0.50	3
Fe			1	98749.054	ug/l	1.99	484,404,565.33	3.262E+03	Analog	0.50	3
Co			1	20.270	ug/l	2.09	179,985.33	1.212E+00	Pulse	0.50	3
Ni			1	19.591	ug/l	2.63	45,455.80	3.062E-01	Pulse	0.50	3
Cu			1	18.758	ug/l	1.71	120,029.56	8.084E-01	Pulse	0.50	3
Zn			1	21.806	ug/l	2.77	26,070.22	1.756E-01	Pulse	1.00	3
Cd			1	19.331	ug/l	2.99	36,368.85	2.449E-01	Pulse	0.50	3
Al			1	94680.110	ug/l	2.06	23,920,448.00	1.411E+02	Analog	1.00	3
Se			1	0.032	ug/l	162.94	31.44	2.117E-04	Pulse	3.00	3
Sb			1	0.095	ug/l	2.66	2,718.22	1.831E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,499,140.42	3.04	93.9	Analog	0.50	3
1	Sc		169,508.59	1.68	113.4	Pulse	0.30	3
1	Ge		104,272.79	2.53	111.2	Pulse	0.30	3
1	In		1,051,941.07	1.14	100.7	Pulse	0.30	3
1	Tb		3,645,865.42	1.08	106.1	Analog	0.50	3
1	Lu		2,984,711.75	0.48	104.5	Analog	0.50	3
1	Ge		148,455.51	2.06	105.2	Pulse	0.30	3
1	Li		2,307.94	1.60	103.1	Pulse	0.30	3

Quantitation Report

File Name	018CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 11:08
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.726	ug/l	0.75	295,833.64	1.840E+00	Pulse	0.50	3
As			1	47.391	ug/l	0.36	36,585.71	2.276E-01	Pulse	1.00	3
Mo			1	48.550	ug/l	1.15	170,603.95	1.061E+00	Pulse	0.50	3
Pb			1	48.206	ug/l	0.61	1,066,420.87	3.802E-01	Pulse	1.00	3
Be			1	46.257	ug/l	5.95	3,774.88	1.491E+00	Pulse	2.00	3
Ag			1	48.791	ug/l	0.19	587,593.65	5.085E-01	Pulse	0.50	3
Ba			1	46.743	ug/l	0.30	89,598.59	7.753E-02	Pulse	0.50	3
Tl			1	47.846	ug/l	0.39	1,500,104.67	5.348E-01	Pulse	0.50	3
Sn			1	47.553	ug/l	0.50	198,734.20	1.720E-01	Pulse	0.30	3
Sr			1	47.467	ug/l	0.44	215,055.00	1.861E-01	Pulse	0.50	3
Ca			1	4776.157	ug/l	0.03	118,483.03	6.813E-01	Pulse	0.50	3
Ti			1	48.033	ug/l	2.58	7,538.24	4.334E-02	Pulse	0.50	3
Na			1	4918.256	ug/l	0.83	5,952,334.83	3.423E+01	Analog	1.00	3
Mg			1	4929.670	ug/l	0.51	3,107,067.67	1.787E+01	Analog	1.00	3
K			1	4967.059	ug/l	1.35	2,453,618.75	1.411E+01	Analog	1.00	3
V			1	47.230	ug/l	0.68	235,327.22	2.169E+00	Pulse	0.50	3
Mn			1	47.613	ug/l	1.41	177,799.56	1.106E+00	Pulse	0.50	3
Fe			1	4852.645	ug/l	0.82	25,783,924.67	1.604E+02	Analog	0.50	3
Co			1	47.826	ug/l	1.08	459,686.69	2.860E+00	Pulse	0.50	3
Ni			1	48.617	ug/l	1.14	121,942.99	7.586E-01	Pulse	0.50	3
Cu			1	49.110	ug/l	0.95	329,602.98	2.050E+00	Pulse	0.50	3
Zn			1	47.916	ug/l	0.85	60,612.41	3.770E-01	Pulse	1.00	3
Cd			1	47.163	ug/l	0.81	95,997.24	5.972E-01	Pulse	0.50	3
Al			1	4629.055	ug/l	0.06	1,199,973.96	6.900E+00	Pulse	1.00	3
Se			1	47.751	ug/l	0.66	3,351.21	2.085E-02	Pulse	3.00	3
Sb			1	46.295	ug/l	0.69	269,461.88	1.676E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,805,062.17	0.60	105.4	Analog	0.50	3
1	Sc		173,902.76	0.72	116.4	Pulse	0.30	3
1	Ge		108,497.56	0.74	115.7	Pulse	0.30	3
1	In		1,155,626.31	0.49	110.6	Pulse	0.30	3
1	Tb		3,848,665.67	0.21	112.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,093,555.50	0.94	108.3	Analog	0.50	3
1	Ge		160,755.27	0.67	113.9	Pulse	0.30	3
1	Li		2,537.97	6.08	113.4	Pulse	0.30	3

Quantitation Report

File Name 019_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:12
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.191	ug/l	2.05	589,471.50	3.744E+00	Pulse	0.50	3
As			1	96.600	ug/l	1.65	72,972.79	4.635E-01	Pulse	1.00	3
Mo			1	97.058	ug/l	1.17	333,662.52	2.119E+00	Pulse	0.50	3
Pb			1	101.382	ug/l	2.75	2,202,753.17	7.980E-01	Analog	1.00	3
Be			1	99.248	ug/l	1.28	7,515.66	3.199E+00	Pulse	2.00	3
Ag			1	99.201	ug/l	0.44	1,169,463.21	1.034E+00	Pulse	0.50	3
Ba			1	95.978	ug/l	1.09	179,972.90	1.591E-01	Pulse	0.50	3
Tl			1	100.123	ug/l	1.27	3,087,896.67	1.119E+00	Analog	0.50	3
Sn			1	96.812	ug/l	1.16	395,268.26	3.494E-01	Pulse	0.30	3
Sr			1	96.599	ug/l	0.90	428,036.08	3.784E-01	Pulse	0.50	3
Ca			1	9589.468	ug/l	0.47	235,341.29	1.367E+00	Pulse	0.50	3
Ti			1	95.431	ug/l	0.61	14,809.37	8.603E-02	Pulse	0.50	3
Na			1	9797.344	ug/l	1.53	11,729,380.33	6.814E+01	Analog	1.00	3
Mg			1	9758.384	ug/l	2.07	6,087,719.00	3.537E+01	Analog	1.00	3
K			1	9840.816	ug/l	0.45	4,777,572.17	2.775E+01	Analog	1.00	3
V			1	97.356	ug/l	1.70	470,941.98	4.452E+00	Pulse	0.50	3
Mn			1	96.833	ug/l	1.81	353,851.20	2.248E+00	Pulse	0.50	3
Fe			1	9762.163	ug/l	1.10	50,787,834.67	3.226E+02	Analog	0.50	3
Co			1	96.736	ug/l	1.31	910,528.90	5.783E+00	Pulse	0.50	3
Ni			1	97.935	ug/l	1.48	240,455.11	1.527E+00	Pulse	0.50	3
Cu			1	98.949	ug/l	1.42	643,881.54	4.090E+00	Pulse	0.50	3
Zn			1	97.816	ug/l	1.44	119,972.69	7.620E-01	Pulse	1.00	3
Cd			1	96.187	ug/l	1.52	191,695.32	1.218E+00	Pulse	0.50	3
Al			1	9618.780	ug/l	1.55	2,467,635.83	1.434E+01	Analog	1.00	3
Se			1	95.409	ug/l	1.56	6,526.42	4.145E-02	Pulse	3.00	3
Sb			1	95.178	ug/l	1.53	540,080.12	3.430E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,761,187.50	1.90	103.7	Analog	0.50	3
1	Sc		172,132.66	0.34	115.2	Pulse	0.30	3
1	Ge		105,776.79	0.41	112.8	Pulse	0.30	3
1	In		1,131,274.64	0.43	108.3	Pulse	0.30	3
1	Tb		3,782,052.25	0.99	110.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,093,566.33	1.05	108.3	Analog	0.50	3
1	Ge		157,441.42	0.36	111.6	Pulse	0.30	3
1	Li		2,350.16	2.77	105.0	Pulse	0.30	3

Quantitation Report

File Name	020_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 11:15
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.032	ug/l	63.86	710.02	4.501E-03	Pulse	0.50	3
As			1	0.040	ug/l	33.90	91.33	5.786E-04	Pulse	1.00	3
Mo			1	0.433	ug/l	27.43	1,860.11	1.178E-02	Pulse	0.50	3
Pb			1	0.052	ug/l	38.39	5,224.53	1.850E-03	Pulse	1.00	3
Be			1	0.054	ug/l	81.81	4.67	2.043E-03	Pulse	2.00	3
Ag			1	0.044	ug/l	42.32	557.35	4.873E-04	Pulse	0.50	3
Ba			1	0.048	ug/l	51.88	210.00	1.835E-04	Pulse	0.50	3
Tl			1	0.052	ug/l	31.26	3,156.33	1.117E-03	Pulse	0.50	3
Sn			1	0.222	ug/l	17.70	1,685.65	1.473E-03	Pulse	0.30	3
Sr			1	0.038	ug/l	17.08	556.01	4.860E-04	Pulse	0.50	3
Ca			1	2.544	ug/l	114.16	183.33	1.094E-03	Pulse	0.50	3
Ti			1	0.105	ug/l	69.76	29.33	1.750E-04	Pulse	0.50	3
Na			1	10.343	ug/l	26.30	19,889.11	1.186E-01	Pulse	1.00	3
Mg			1	5.286	ug/l	42.28	3,549.05	2.117E-02	Pulse	1.00	3
K			1	6.681	ug/l	42.42	37,339.50	2.226E-01	Pulse	1.00	3
V			1	-0.021	ug/l	-74.06	1,742.09	1.657E-02	Pulse	0.50	3
Mn			1	0.035	ug/l	75.65	411.34	2.609E-03	Pulse	0.50	3
Fe			1	6.851	ug/l	27.31	48,453.85	3.072E-01	Pulse	0.50	3
Co			1	0.047	ug/l	49.27	532.01	3.376E-03	Pulse	0.50	3
Ni			1	0.041	ug/l	59.37	228.67	1.450E-03	Pulse	0.50	3
Cu			1	-0.011	ug/l	-284.13	6,379.15	4.042E-02	Pulse	0.50	3
Zn			1	-0.014	ug/l	-294.00	1,145.71	7.259E-03	Pulse	1.00	3
Cd			1	0.044	ug/l	26.98	134.00	8.496E-04	Pulse	0.50	3
Al			1	5.019	ug/l	46.43	1,678.42	1.001E-02	Pulse	1.00	3
Se			1	0.075	ug/l	27.42	36.33	2.302E-04	Pulse	3.00	3
Sb			1	0.101	ug/l	13.42	2,922.92	1.852E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,822,620.83	1.35	106.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		167,736.53	0.32	112.3	Pulse	0.30	3
1	Ge		105,136.56	1.48	112.2	Pulse	0.30	3
1	In		1,144,235.37	0.26	109.5	Pulse	0.30	3
1	Tb		3,780,535.17	1.43	110.0	Analog	0.50	3
1	Lu		3,075,968.75	0.74	107.7	Analog	0.50	3
1	Ge		157,835.78	0.60	111.9	Pulse	0.30	3
1	Li		2,286.81	0.39	102.2	Pulse	0.30	3

Quantitation Report

File Name 021_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:18
Sample Name MP43234-MB1
Sample Type MB
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2.626	ug/l	2.86	3,728.40	2.347E-02	Pulse	0.50	3
As			1	0.346	ug/l	26.85	114.00	7.174E-04	Pulse	1.00	3
Mo			1	1.898	ug/l	23.58	1,683.42	1.061E-02	Pulse	0.50	3
Pb			1	0.205	ug/l	12.24	5,211.19	1.762E-03	Pulse	1.00	3
Be			1	0.191	ug/l	68.84	3.67	1.530E-03	Pulse	2.00	3
Ag			1	0.064	ug/l	4.16	190.00	1.647E-04	Pulse	0.50	3
Ba			1	0.175	ug/l	19.82	186.67	1.619E-04	Pulse	0.50	3
Tl			1	0.019	ug/l	60.58	1,726.10	5.836E-04	Pulse	0.50	3
Sn			1	22.283	ug/l	2.34	19,293.09	1.673E-02	Pulse	0.30	3
Sr			1	0.420	ug/l	11.63	767.35	6.653E-04	Pulse	0.50	3
Ca			1	399.118	ug/l	2.37	2,110.80	1.211E-02	Pulse	0.50	3
Ti			1	0.829	ug/l	28.56	40.00	2.296E-04	Pulse	0.50	3
Na			1	58.702	ug/l	9.68	22,369.11	1.283E-01	Pulse	1.00	3
Mg			1	11.382	ug/l	4.17	1,789.42	1.026E-02	Pulse	1.00	3
K			1	56.151	ug/l	11.22	41,036.64	2.354E-01	Pulse	1.00	3
V			1	3.591	ug/l	1.26	5,408.82	5.022E-02	Pulse	0.50	3
Mn			1	0.716	ug/l	9.42	814.02	5.126E-03	Pulse	0.50	3
Fe			1	43.419	ug/l	3.49	58,413.16	3.678E-01	Pulse	0.50	3
Co			1	0.090	ug/l	5.55	258.00	1.624E-03	Pulse	0.50	3
Ni			1	1.747	ug/l	9.49	992.70	6.249E-03	Pulse	0.50	3
Cu			1	2.692	ug/l	5.51	9,993.47	6.291E-02	Pulse	0.50	3
Zn			1	6.797	ug/l	2.85	2,836.56	1.786E-02	Pulse	1.00	3
Cd			1	-0.011	ug/l	-173.22	41.33	2.600E-04	Pulse	0.50	3
Al			1	11.324	ug/l	2.53	1,030.03	5.907E-03	Pulse	1.00	3
Se			1	0.424	ug/l	50.31	37.22	2.343E-04	Pulse	3.00	3
Sb			1	0.144	ug/l	10.56	2,531.19	1.593E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,958,019.75	1.36	111.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		174,369.58	0.62	116.7	Pulse	0.30	3
1	Ge		107,691.62	0.67	114.9	Pulse	0.30	3
1	In		1,153,465.40	0.33	110.4	Pulse	0.30	3
1	Tb		3,851,912.08	0.62	112.1	Analog	0.50	3
1	Lu		3,103,384.67	2.15	108.7	Analog	0.50	3
1	Ge		158,849.76	0.69	112.6	Pulse	0.30	3
1	Li		2,380.17	3.18	106.4	Pulse	0.30	3

Quantitation Report

File Name 022_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:22
Sample Name MP43234-B1
Sample Type BSP
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	518.950	ug/l	2.80	631,092.27	3.998E+00	Pulse	0.50	3
As			1	512.264	ug/l	2.13	77,593.20	4.916E-01	Pulse	1.00	3
Mo			1	552.769	ug/l	2.05	381,001.68	2.414E+00	Pulse	0.50	3
Pb			1	523.827	ug/l	4.33	2,274,720.67	8.245E-01	Analog	1.00	3
Be			1	514.662	ug/l	6.93	8,001.20	3.317E+00	Pulse	2.00	3
Ag			1	231.808	ug/l	2.31	548,449.71	4.831E-01	Pulse	0.50	3
Ba			1	499.706	ug/l	2.72	188,035.63	1.657E-01	Pulse	0.50	3
Tl			1	499.964	ug/l	3.64	3,082,017.75	1.117E+00	Analog	0.50	3
Sn			1	519.719	ug/l	2.65	425,783.88	3.751E-01	Pulse	0.30	3
Sr			1	524.131	ug/l	2.72	466,039.84	4.106E-01	Pulse	0.50	3
Ca			1	49873.654	ug/l	4.26	250,167.78	1.422E+00	Pulse	0.50	3
Ti			1	513.243	ug/l	2.68	16,281.96	9.253E-02	Pulse	0.50	3
Na			1	50588.846	ug/l	3.62	12,379,562.00	7.037E+01	Analog	1.00	3
Mg			1	51022.534	ug/l	2.62	6,507,342.00	3.698E+01	Analog	1.00	3
K			1	50864.625	ug/l	4.63	5,045,782.50	2.868E+01	Analog	1.00	3
V			1	516.963	ug/l	2.58	501,824.40	4.727E+00	Pulse	0.50	3
Mn			1	512.445	ug/l	2.26	375,477.96	2.379E+00	Pulse	0.50	3
Fe			1	51844.977	ug/l	1.99	54,084,690.67	3.426E+02	Analog	0.50	3
Co			1	513.631	ug/l	2.43	969,413.75	6.142E+00	Pulse	0.50	3
Ni			1	514.695	ug/l	2.36	253,394.31	1.605E+00	Pulse	0.50	3
Cu			1	520.712	ug/l	2.42	679,092.71	4.302E+00	Pulse	0.50	3
Zn			1	498.023	ug/l	2.49	122,462.09	7.758E-01	Pulse	1.00	3
Cd			1	493.892	ug/l	2.24	197,372.51	1.250E+00	Pulse	0.50	3
Al			1	49461.554	ug/l	3.66	2,593,721.33	1.474E+01	Analog	1.00	3
Se			1	470.808	ug/l	1.36	6,458.50	4.092E-02	Pulse	3.00	3
Sb			1	496.428	ug/l	2.53	564,749.96	3.578E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,760,711.50	2.45	103.7	Analog	0.50	3
1	Sc		176,028.86	2.34	117.8	Pulse	0.30	3
1	Ge		106,161.51	0.62	113.3	Pulse	0.30	3
1	In		1,135,333.46	1.05	108.6	Pulse	0.30	3
1	Tb		3,838,343.25	1.62	111.7	Analog	0.50	3
1	Lu		3,115,868.08	2.29	109.1	Analog	0.50	3
1	Ge		157,860.02	0.73	111.9	Pulse	0.30	3
1	Li		2,420.17	7.61	108.1	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:25
Sample Name FC11518-1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	347.813	ug/l	2.88	428,217.71	2.681E+00	Pulse	0.50	3
As			1	326.967	ug/l	2.24	50,144.53	3.139E-01	Pulse	1.00	3
Mo			1	47.723	ug/l	2.27	33,627.54	2.105E-01	Pulse	0.50	3
Pb			1	113.610	ug/l	0.88	508,507.26	1.800E-01	Pulse	1.00	3
Be			1	3.936	ug/l	16.82	61.33	2.567E-02	Pulse	2.00	3
Ag			1	0.280	ug/l	10.06	704.69	6.148E-04	Pulse	0.50	3
Ba			1	2445.952	ug/l	2.65	928,012.85	8.104E-01	Pulse	0.50	3
Tl			1	2.580	ug/l	2.67	17,807.21	6.303E-03	Pulse	0.50	3
Sn			1	30.663	ug/l	1.88	26,068.76	2.276E-02	Pulse	0.30	3
Sr			1	134.018	ug/l	2.25	120,501.39	1.052E-01	Pulse	0.50	3
Ca			1	7868.708	ug/l	1.41	46,426.81	2.250E-01	Pulse	0.50	3
Ti			1	1390.068	ug/l	2.43	51,682.97	2.505E-01	Pulse	0.50	3
Na			1	6676.566	ug/l	0.98	1,924,787.42	9.327E+00	Analog	1.00	3
Mg			1	21923.291	ug/l	2.65	3,278,932.33	1.589E+01	Analog	1.00	3
K			1	16503.810	ug/l	0.88	1,949,082.25	9.445E+00	Analog	1.00	3
V			1	505.429	ug/l	2.59	518,063.19	4.622E+00	Pulse	0.50	3
Mn			1	919.997	ug/l	2.24	681,976.87	4.269E+00	Pulse	0.50	3
Fe			1	287369.798	ug/l	2.20	303,328,682.67	1.899E+03	Analog	0.50	3
Co			1	38.322	ug/l	2.81	73,276.61	4.587E-01	Pulse	0.50	3
Ni			1	59.535	ug/l	2.44	29,775.22	1.864E-01	Pulse	0.50	3
Cu			1	163.361	ug/l	2.70	220,086.69	1.378E+00	Pulse	0.50	3
Zn			1	162.193	ug/l	2.55	41,155.30	2.576E-01	Pulse	1.00	3
Cd			1	0.378	ug/l	27.88	199.33	1.246E-03	Pulse	0.50	3
Al			1	139891.000	ug/l	2.95	8,602,212.67	4.169E+01	Analog	1.00	3
Se			1	16.164	ug/l	8.88	254.78	1.596E-03	Pulse	3.00	3
Sb			1	6.683	ug/l	1.99	10,043.27	6.287E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,825,953.17	2.22	106.2	Analog	0.50	3
1	Sc		206,374.99	1.28	138.1	Pulse	0.30	3
1	Ge		112,092.88	0.74	119.6	Pulse	0.30	3
1	In		1,145,332.49	1.20	109.6	Pulse	0.30	3
1	Tb		3,860,176.42	1.69	112.4	Analog	0.50	3
1	Lu		3,145,787.17	2.59	110.1	Analog	0.50	3
1	Ge		159,772.04	1.19	113.2	Pulse	0.30	3
1	Li		2,386.83	1.96	106.7	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:28
Sample Name MP43234-D1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	397.579	ug/l	3.23	480,197.64	3.064E+00	Pulse	0.50	3
As			1	384.410	ug/l	2.25	57,835.66	3.690E-01	Pulse	1.00	3
Mo			1	56.418	ug/l	2.62	38,940.51	2.484E-01	Pulse	0.50	3
Pb			1	116.145	ug/l	4.30	506,195.71	1.839E-01	Pulse	1.00	3
Be			1	3.341	ug/l	3.32	54.00	2.183E-02	Pulse	2.00	3
Ag			1	0.242	ug/l	2.96	600.68	5.347E-04	Pulse	0.50	3
Ba			1	2198.620	ug/l	2.54	817,922.00	7.285E-01	Pulse	0.50	3
Tl			1	1.960	ug/l	3.85	13,535.05	4.917E-03	Pulse	0.50	3
Sn			1	30.979	ug/l	5.42	25,807.19	2.299E-02	Pulse	0.30	3
Sr			1	132.378	ug/l	2.30	116,710.81	1.039E-01	Pulse	0.50	3
Ca			1	8232.028	ug/l	3.91	46,746.94	2.353E-01	Pulse	0.50	3
Ti			1	1274.159	ug/l	1.65	45,620.86	2.296E-01	Pulse	0.50	3
Na			1	6556.520	ug/l	2.21	1,819,988.34	9.160E+00	Analog	1.00	3
Mg			1	21062.823	ug/l	2.72	3,033,275.25	1.527E+01	Analog	1.00	3
K			1	15864.437	ug/l	3.13	1,805,567.83	9.087E+00	Analog	1.00	3
V			1	558.690	ug/l	2.72	558,793.29	5.108E+00	Pulse	0.50	3
Mn			1	936.747	ug/l	2.83	681,307.04	4.347E+00	Pulse	0.50	3
Fe			1	318481.271	ug/l	2.46	329,847,093.33	2.104E+03	Analog	0.50	3
Co			1	37.191	ug/l	2.88	69,778.16	4.452E-01	Pulse	0.50	3
Ni			1	62.776	ug/l	2.35	30,800.30	1.965E-01	Pulse	0.50	3
Cu			1	162.744	ug/l	2.79	215,159.47	1.373E+00	Pulse	0.50	3
Zn			1	151.353	ug/l	2.42	37,761.54	2.409E-01	Pulse	1.00	3
Cd			1	0.339	ug/l	14.93	180.00	1.147E-03	Pulse	0.50	3
Al			1	143801.278	ug/l	3.19	8,513,847.67	4.286E+01	Analog	1.00	3
Se			1	17.394	ug/l	6.67	266.67	1.702E-03	Pulse	3.00	3
Sb			1	7.155	ug/l	3.13	10,385.82	6.626E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,754,268.17	2.92	103.5	Analog	0.50	3
1	Sc		198,736.69	1.99	133.0	Pulse	0.30	3
1	Ge		109,445.53	2.06	116.8	Pulse	0.30	3
1	In		1,123,100.51	1.73	107.5	Pulse	0.30	3
1	Tb		3,822,207.08	3.05	111.2	Analog	0.50	3
1	Lu		3,120,777.25	2.39	109.3	Analog	0.50	3
1	Ge		156,790.50	1.89	111.1	Pulse	0.30	3
1	Li		2,472.40	4.45	110.5	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:31
Sample Name MP43234-SD1
Sample Type Sample
Comment
Prep Dilution 25.000
Auto Dilution N/A
Total Dilution 25.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	345.608	ug/l	1.91	85,805.60	5.354E-01	Pulse	0.50	3
As			1	328.456	ug/l	1.20	10,156.57	6.337E-02	Pulse	1.00	3
Mo			1	46.828	ug/l	0.80	6,920.06	4.318E-02	Pulse	0.50	3
Pb			1	115.617	ug/l	1.69	109,049.13	3.777E-02	Pulse	1.00	3
Be			1	4.265	ug/l	4.22	13.67	5.797E-03	Pulse	2.00	3
Ag			1	0.395	ug/l	15.38	226.67	1.951E-04	Pulse	0.50	3
Ba			1	2449.927	ug/l	1.11	188,718.25	1.624E-01	Pulse	0.50	3
Tl			1	2.430	ug/l	2.40	4,696.04	1.627E-03	Pulse	0.50	3
Sn			1	30.077	ug/l	5.44	5,815.47	5.007E-03	Pulse	0.30	3
Sr			1	132.156	ug/l	3.59	24,424.27	2.102E-02	Pulse	0.50	3
Ca			1	10068.038	ug/l	1.30	10,374.97	5.812E-02	Pulse	0.50	3
Ti			1	1591.113	ug/l	1.35	10,247.57	5.740E-02	Pulse	0.50	3
Na			1	7462.343	ug/l	1.41	378,681.92	2.121E+00	Pulse	1.00	3
Mg			1	24666.961	ug/l	1.78	638,663.81	3.578E+00	Pulse	1.00	3
K			1	18088.633	ug/l	1.55	398,017.28	2.230E+00	Pulse	1.00	3
V			1	519.992	ug/l	2.26	103,850.68	9.650E-01	Pulse	0.50	3
Mn			1	914.835	ug/l	0.62	136,304.74	8.505E-01	Pulse	0.50	3
Fe			1	287505.214	ug/l	1.06	60,902,605.33	3.800E+02	Analog	0.50	3
Co			1	38.701	ug/l	2.23	14,920.21	9.309E-02	Pulse	0.50	3
Ni			1	59.005	ug/l	4.45	6,025.70	3.759E-02	Pulse	0.50	3
Cu			1	175.130	ug/l	0.78	52,490.93	3.275E-01	Pulse	0.50	3
Zn			1	182.559	ug/l	2.27	10,210.24	6.371E-02	Pulse	1.00	3
Cd			1	0.457	ug/l	23.98	83.33	5.203E-04	Pulse	0.50	3
Al			1	166305.325	ug/l	1.73	1,769,948.75	9.915E+00	Analog	1.00	3
Se			1	14.621	ug/l	13.51	72.22	4.505E-04	Pulse	3.00	3
Sb			1	7.308	ug/l	9.98	4,070.49	2.540E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,887,198.25	1.27	108.5	Analog	0.50	3
1	Sc		178,522.42	0.44	119.5	Pulse	0.30	3
1	Ge		107,628.79	0.75	114.8	Pulse	0.30	3
1	In		1,161,810.61	0.99	111.2	Pulse	0.30	3
1	Tb		3,845,546.67	0.52	111.9	Analog	0.50	3
1	Lu		3,158,292.08	0.63	110.6	Analog	0.50	3
1	Ge		160,260.47	0.76	113.6	Pulse	0.30	3
1	Li		2,361.28	5.99	105.5	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 11:35
Sample Name	MP43234-S1
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1083.788	ug/l	3.15	1,312,279.46	8.346E+00	Pulse	0.50	3
As			1	874.899	ug/l	2.57	131,961.19	8.393E-01	Pulse	1.00	3
Mo			1	587.917	ug/l	2.76	403,608.60	2.567E+00	Pulse	0.50	3
Pb			1	647.541	ug/l	4.53	2,780,016.25	1.019E+00	Analog	1.00	3
Be			1	500.116	ug/l	9.22	7,770.10	3.224E+00	Pulse	2.00	3
Ag			1	228.573	ug/l	2.84	535,284.25	4.764E-01	Pulse	0.50	3
Ba			1	3289.680	ug/l	3.46	1,224,575.00	1.090E+00	Pulse	0.50	3
Tl			1	486.519	ug/l	5.12	2,965,548.58	1.087E+00	Analog	0.50	3
Sn			1	514.785	ug/l	3.75	417,432.71	3.715E-01	Pulse	0.30	3
Sr			1	698.830	ug/l	3.31	614,907.91	5.473E-01	Pulse	0.50	3
Ca			1	50457.626	ug/l	2.77	301,471.89	1.439E+00	Pulse	0.50	3
Ti			1	1914.443	ug/l	3.29	72,276.07	3.449E-01	Pulse	0.50	3
Na			1	49958.858	ug/l	2.26	14,561,428.00	6.949E+01	Analog	1.00	3
Mg			1	67295.767	ug/l	2.57	10,220,826.67	4.878E+01	Analog	1.00	3
K			1	61675.754	ug/l	2.23	7,279,267.50	3.474E+01	Analog	1.00	3
V			1	1093.313	ug/l	3.67	1,111,800.63	9.978E+00	Pulse	0.50	3
Mn			1	1723.088	ug/l	2.92	1,256,930.38	7.994E+00	Pulse	0.50	3
Fe			1	419400.510	ug/l	2.69	435,722,357.33	2.771E+03	Analog	0.50	3
Co			1	546.476	ug/l	3.39	1,027,333.98	6.534E+00	Pulse	0.50	3
Ni			1	584.228	ug/l	3.00	286,479.59	1.822E+00	Pulse	0.50	3
Cu			1	719.159	ug/l	2.83	931,797.06	5.926E+00	Pulse	0.50	3
Zn			1	675.937	ug/l	2.88	165,149.28	1.050E+00	Pulse	1.00	3
Cd			1	482.241	ug/l	3.26	191,956.01	1.221E+00	Pulse	0.50	3
Al			1	261583.870	ug/l	3.38	16,335,027.33	7.796E+01	Analog	1.00	3
Se			1	457.918	ug/l	2.19	6,257.99	3.980E-02	Pulse	3.00	3
Sb			1	176.423	ug/l	2.66	201,431.70	1.281E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,730,398.92	2.46	102.6	Analog	0.50	3
1	Sc		209,577.25	1.02	140.3	Pulse	0.30	3
1	Ge		111,462.26	1.69	118.9	Pulse	0.30	3
1	In		1,123,919.40	1.53	107.5	Pulse	0.30	3
1	Tb		3,816,987.42	1.46	111.1	Analog	0.50	3
1	Lu		3,131,059.67	1.64	109.6	Analog	0.50	3
1	Ge		157,254.52	0.98	111.5	Pulse	0.30	3
1	Li		2,421.28	7.33	108.2	Pulse	0.30	3

Quantitation Report

File Name 027SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:38
Sample Name MP43234-S2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	872.416	ug/l	3.16	1,091,999.75	6.719E+00	Pulse	0.50	3
As			1	807.430	ug/l	2.36	125,889.77	7.746E-01	Pulse	1.00	3
Mo			1	555.635	ug/l	2.77	394,308.48	2.426E+00	Pulse	0.50	3
Pb			1	626.119	ug/l	3.00	2,711,757.25	9.853E-01	Analog	1.00	3
Be			1	515.620	ug/l	2.61	7,993.86	3.324E+00	Pulse	2.00	3
Ag			1	231.008	ug/l	2.79	550,852.10	4.815E-01	Pulse	0.50	3
Ba			1	2747.699	ug/l	3.07	1,041,537.25	9.104E-01	Pulse	0.50	3
Tl			1	497.672	ug/l	4.44	3,058,901.42	1.112E+00	Analog	0.50	3
Sn			1	518.462	ug/l	3.04	428,100.24	3.742E-01	Pulse	0.30	3
Sr			1	656.657	ug/l	2.78	588,387.52	5.143E-01	Pulse	0.50	3
Ca			1	49402.683	ug/l	3.69	289,463.04	1.409E+00	Pulse	0.50	3
Ti			1	1751.331	ug/l	3.50	64,845.51	3.156E-01	Pulse	0.50	3
Na			1	49132.260	ug/l	2.13	14,046,505.33	6.834E+01	Analog	1.00	3
Mg			1	63152.392	ug/l	3.41	9,406,406.33	4.577E+01	Analog	1.00	3
K			1	57732.016	ug/l	2.62	6,685,518.00	3.253E+01	Analog	1.00	3
V			1	972.545	ug/l	2.43	1,002,012.23	8.878E+00	Pulse	0.50	3
Mn			1	1353.020	ug/l	2.74	1,020,270.37	6.278E+00	Pulse	0.50	3
Fe			1	331743.825	ug/l	2.79	356,254,240.00	2.192E+03	Analog	0.50	3
Co			1	531.765	ug/l	2.69	1,033,370.48	6.358E+00	Pulse	0.50	3
Ni			1	555.223	ug/l	2.68	281,432.39	1.732E+00	Pulse	0.50	3
Cu			1	652.239	ug/l	2.26	874,168.85	5.379E+00	Pulse	0.50	3
Zn			1	629.594	ug/l	2.51	159,086.18	9.789E-01	Pulse	1.00	3
Cd			1	480.845	ug/l	2.47	197,850.68	1.217E+00	Pulse	0.50	3
Al			1	212331.861	ug/l	3.28	13,004,199.67	6.328E+01	Analog	1.00	3
Se			1	460.441	ug/l	2.30	6,504.30	4.002E-02	Pulse	3.00	3
Sb			1	188.678	ug/l	2.84	222,504.79	1.369E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,753,260.75	2.91	103.4	Analog	0.50	3
1	Sc		205,596.28	2.18	137.6	Pulse	0.30	3
1	Ge		112,874.51	0.61	120.4	Pulse	0.30	3
1	In		1,144,376.90	1.37	109.5	Pulse	0.30	3
1	Tb		3,901,996.83	1.52	113.6	Analog	0.50	3
1	Lu		3,152,357.92	2.04	110.4	Analog	0.50	3
1	Ge		162,546.91	0.87	115.2	Pulse	0.30	3
1	Li		2,405.72	1.21	107.5	Pulse	0.30	3

Quantitation Report

File Name 028SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:41
Sample Name MP43234-PS1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	400.556	ug/l	2.64	498,014.35	3.087E+00	Pulse	0.50	3
As			1	385.298	ug/l	2.21	59,668.34	3.698E-01	Pulse	1.00	3
Mo			1	101.761	ug/l	2.90	71,992.42	4.462E-01	Pulse	0.50	3
Pb			1	167.657	ug/l	2.60	753,627.48	2.649E-01	Pulse	1.00	3
Be			1	56.124	ug/l	5.39	918.69	3.620E-01	Pulse	2.00	3
Ag			1	19.386	ug/l	4.52	46,486.80	4.043E-02	Pulse	0.50	3
Ba			1	2525.784	ug/l	2.44	962,385.06	8.369E-01	Pulse	0.50	3
Tl			1	53.062	ug/l	2.78	338,685.87	1.190E-01	Pulse	0.50	3
Sn			1	81.796	ug/l	3.62	68,533.85	5.960E-02	Pulse	0.30	3
Sr			1	190.165	ug/l	3.04	171,536.85	1.492E-01	Pulse	0.50	3
Ca			1	12437.847	ug/l	2.57	73,290.07	3.552E-01	Pulse	0.50	3
Ti			1	1444.276	ug/l	3.29	53,693.42	2.602E-01	Pulse	0.50	3
Na			1	11201.879	ug/l	2.38	3,222,846.00	1.562E+01	Analog	1.00	3
Mg			1	26676.476	ug/l	2.01	3,990,116.83	1.934E+01	Analog	1.00	3
K			1	21246.367	ug/l	3.31	2,496,930.33	1.210E+01	Analog	1.00	3
V			1	558.920	ug/l	2.23	576,173.67	5.110E+00	Pulse	0.50	3
Mn			1	968.423	ug/l	1.88	725,060.02	4.494E+00	Pulse	0.50	3
Fe			1	293451.852	ug/l	2.42	312,837,184.00	1.939E+03	Analog	0.50	3
Co			1	92.528	ug/l	2.14	178,585.59	1.107E+00	Pulse	0.50	3
Ni			1	113.856	ug/l	2.88	57,391.55	3.557E-01	Pulse	0.50	3
Cu			1	219.210	ug/l	2.32	296,035.84	1.835E+00	Pulse	0.50	3
Zn			1	220.253	ug/l	1.89	56,023.63	3.472E-01	Pulse	1.00	3
Cd			1	52.388	ug/l	3.16	21,439.29	1.329E-01	Pulse	0.50	3
Al			1	145605.065	ug/l	3.50	8,953,057.33	4.340E+01	Analog	1.00	3
Se			1	66.445	ug/l	3.42	958.92	5.944E-03	Pulse	3.00	3
Sb			1	55.283	ug/l	2.74	66,418.10	4.117E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,845,836.83	1.57	106.9	Analog	0.50	3
1	Sc		206,396.79	1.79	138.1	Pulse	0.30	3
1	Ge		112,785.99	1.49	120.3	Pulse	0.30	3
1	In		1,150,282.00	1.62	110.1	Pulse	0.30	3
1	Tb		3,895,536.00	1.57	113.4	Analog	0.50	3
1	Lu		3,175,069.67	1.62	111.2	Analog	0.50	3
1	Ge		161,371.82	1.36	114.4	Pulse	0.30	3
1	Li		2,541.30	4.11	113.6	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:44
Sample Name FC11518-2
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	310.989	ug/l	2.00	375,557.46	2.397E+00	Pulse	0.50	3
As			1	305.891	ug/l	1.95	46,008.79	2.937E-01	Pulse	1.00	3
Mo			1	33.637	ug/l	1.99	23,351.57	1.491E-01	Pulse	0.50	3
Pb			1	130.948	ug/l	3.46	573,929.35	2.072E-01	Pulse	1.00	3
Be			1	4.374	ug/l	8.08	66.00	2.849E-02	Pulse	2.00	3
Ag			1	0.263	ug/l	10.03	650.02	5.778E-04	Pulse	0.50	3
Ba			1	361.231	ug/l	1.85	134,705.49	1.198E-01	Pulse	0.50	3
Tl			1	2.341	ug/l	2.44	15,984.64	5.770E-03	Pulse	0.50	3
Sn			1	31.776	ug/l	1.31	26,504.96	2.357E-02	Pulse	0.30	3
Sr			1	146.164	ug/l	2.45	129,031.98	1.147E-01	Pulse	0.50	3
Ca			1	6205.912	ug/l	1.94	36,426.90	1.776E-01	Pulse	0.50	3
Ti			1	1165.999	ug/l	1.57	43,098.12	2.101E-01	Pulse	0.50	3
Na			1	9691.852	ug/l	1.40	2,772,831.75	1.352E+01	Analog	1.00	3
Mg			1	25889.448	ug/l	2.31	3,849,096.75	1.877E+01	Analog	1.00	3
K			1	20292.672	ug/l	0.53	2,372,420.58	1.157E+01	Analog	1.00	3
V			1	446.599	ug/l	2.55	448,662.35	4.086E+00	Pulse	0.50	3
Mn			1	1006.804	ug/l	1.68	731,879.25	4.672E+00	Pulse	0.50	3
Fe			1	282204.329	ug/l	2.36	292,118,016.00	1.865E+03	Analog	0.50	3
Co			1	37.107	ug/l	1.84	69,587.47	4.442E-01	Pulse	0.50	3
Ni			1	52.245	ug/l	0.75	25,640.90	1.637E-01	Pulse	0.50	3
Cu			1	153.823	ug/l	1.85	203,613.53	1.300E+00	Pulse	0.50	3
Zn			1	214.221	ug/l	2.36	52,936.62	3.379E-01	Pulse	1.00	3
Cd			1	0.643	ug/l	14.60	300.00	1.916E-03	Pulse	0.50	3
Al			1	157007.161	ug/l	1.46	9,597,897.33	4.679E+01	Analog	1.00	3
Se			1	11.903	ug/l	4.33	192.22	1.227E-03	Pulse	3.00	3
Sb			1	5.134	ug/l	2.20	8,106.92	5.175E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,771,051.83	1.80	104.1	Analog	0.50	3
1	Sc		205,112.31	0.32	137.3	Pulse	0.30	3
1	Ge		109,812.28	1.12	117.1	Pulse	0.30	3
1	In		1,124,760.58	0.85	107.6	Pulse	0.30	3
1	Tb		3,877,861.58	2.69	112.9	Analog	0.50	3
1	Lu		3,130,930.08	1.94	109.6	Analog	0.50	3
1	Ge		156,665.04	0.46	111.0	Pulse	0.30	3
1	Li		2,319.04	4.33	103.6	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:47
Sample Name FC11518-3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	187.886	ug/l	2.02	226,944.32	1.450E+00	Pulse	0.50	3
As			1	350.314	ug/l	1.94	52,647.04	3.363E-01	Pulse	1.00	3
Mo			1	14.084	ug/l	1.90	9,982.87	6.377E-02	Pulse	0.50	3
Pb			1	117.558	ug/l	2.74	523,535.41	1.862E-01	Pulse	1.00	3
Be			1	3.665	ug/l	3.28	60.00	2.392E-02	Pulse	2.00	3
Ag			1	0.334	ug/l	2.06	821.35	7.262E-04	Pulse	0.50	3
Ba			1	2921.753	ug/l	2.12	1,094,788.33	9.681E-01	Pulse	0.50	3
Tl			1	1.794	ug/l	4.41	12,785.12	4.547E-03	Pulse	0.50	3
Sn			1	29.348	ug/l	1.99	24,673.27	2.182E-02	Pulse	0.30	3
Sr			1	95.918	ug/l	2.23	85,281.13	7.541E-02	Pulse	0.50	3
Ca			1	5932.742	ug/l	1.65	32,221.69	1.698E-01	Pulse	0.50	3
Ti			1	2053.719	ug/l	1.64	70,214.44	3.700E-01	Pulse	0.50	3
Na			1	5168.706	ug/l	0.54	1,372,249.34	7.231E+00	Analog	1.00	3
Mg			1	18498.440	ug/l	2.45	2,544,404.58	1.341E+01	Analog	1.00	3
K			1	19206.208	ug/l	1.10	2,079,372.83	1.096E+01	Analog	1.00	3
V			1	565.167	ug/l	2.04	564,088.10	5.167E+00	Pulse	0.50	3
Mn			1	1322.825	ug/l	1.97	960,875.54	6.138E+00	Pulse	0.50	3
Fe			1	248799.190	ug/l	2.25	257,370,725.33	1.644E+03	Analog	0.50	3
Co			1	31.182	ug/l	1.89	58,451.62	3.734E-01	Pulse	0.50	3
Ni			1	40.255	ug/l	1.27	19,772.19	1.263E-01	Pulse	0.50	3
Cu			1	85.318	ug/l	1.94	115,709.95	7.391E-01	Pulse	0.50	3
Zn			1	171.605	ug/l	2.19	42,608.34	2.722E-01	Pulse	1.00	3
Cd			1	0.120	ug/l	50.24	92.67	5.919E-04	Pulse	0.50	3
Al			1	124851.485	ug/l	1.50	7,060,782.00	3.721E+01	Analog	1.00	3
Se			1	11.470	ug/l	4.67	186.22	1.190E-03	Pulse	3.00	3
Sb			1	6.919	ug/l	1.35	10,108.31	6.457E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,812,989.00	1.35	105.7	Analog	0.50	3
1	Sc		189,761.02	0.47	127.0	Pulse	0.30	3
1	Ge		109,196.22	1.25	116.5	Pulse	0.30	3
1	In		1,131,077.21	1.00	108.2	Pulse	0.30	3
1	Tb		3,810,844.92	1.13	110.9	Analog	0.50	3
1	Lu		3,131,145.92	0.61	109.6	Analog	0.50	3
1	Ge		156,559.44	0.36	111.0	Pulse	0.30	3
1	Li		2,505.74	4.58	112.0	Pulse	0.30	3

Quantitation Report

File Name	031CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 11:50
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.700	ug/l	0.91	304,394.73	1.839E+00	Pulse	0.50	3
As			1	47.333	ug/l	0.62	37,617.20	2.273E-01	Pulse	1.00	3
Mo			1	46.683	ug/l	0.42	168,896.88	1.021E+00	Pulse	0.50	3
Pb			1	47.773	ug/l	1.57	1,094,415.84	3.768E-01	Pulse	1.00	3
Be			1	46.135	ug/l	8.35	3,874.23	1.487E+00	Pulse	2.00	3
Ag			1	48.884	ug/l	0.33	604,125.19	5.094E-01	Pulse	0.50	3
Ba			1	46.969	ug/l	0.57	92,384.18	7.791E-02	Pulse	0.50	3
Tl			1	47.599	ug/l	1.88	1,545,269.17	5.320E-01	Pulse	0.50	3
Sn			1	47.411	ug/l	0.37	203,327.61	1.715E-01	Pulse	0.30	3
Sr			1	47.412	ug/l	0.94	220,431.90	1.859E-01	Pulse	0.50	3
Ca			1	4788.037	ug/l	0.57	120,103.30	6.830E-01	Pulse	0.50	3
Ti			1	48.549	ug/l	1.46	7,702.98	4.381E-02	Pulse	0.50	3
Na			1	4827.910	ug/l	1.55	5,907,839.83	3.360E+01	Analog	1.00	3
Mg			1	4937.746	ug/l	1.70	3,146,643.50	1.790E+01	Analog	1.00	3
K			1	4933.749	ug/l	2.94	2,464,251.42	1.402E+01	Analog	1.00	3
V			1	47.079	ug/l	1.00	241,838.93	2.162E+00	Pulse	0.50	3
Mn			1	47.380	ug/l	0.28	182,150.84	1.101E+00	Pulse	0.50	3
Fe			1	4816.405	ug/l	0.39	26,346,433.33	1.592E+02	Analog	0.50	3
Co			1	47.774	ug/l	0.85	472,732.96	2.856E+00	Pulse	0.50	3
Ni			1	48.557	ug/l	0.94	125,389.04	7.577E-01	Pulse	0.50	3
Cu			1	49.083	ug/l	0.94	339,146.84	2.049E+00	Pulse	0.50	3
Zn			1	48.160	ug/l	1.03	62,712.26	3.789E-01	Pulse	1.00	3
Cd			1	46.909	ug/l	0.44	98,292.72	5.939E-01	Pulse	0.50	3
Al			1	4621.239	ug/l	0.74	1,211,287.33	6.889E+00	Pulse	1.00	3
Se			1	46.126	ug/l	0.45	3,333.53	2.014E-02	Pulse	3.00	3
Sb			1	46.234	ug/l	0.76	277,046.97	1.674E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,905,421.25	2.57	109.2	Analog	0.50	3
1	Sc		175,850.01	1.55	117.7	Pulse	0.30	3
1	Ge		111,864.68	1.81	119.3	Pulse	0.30	3
1	In		1,185,912.11	1.28	113.5	Pulse	0.30	3
1	Tb		3,930,322.67	1.38	114.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,210,998.50	0.20	112.4	Analog	0.50	3
1	Ge		165,491.35	0.60	117.3	Pulse	0.30	3
1	Li		2,614.64	6.48	116.8	Pulse	0.30	3

Quantitation Report

File Name 032_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 11:54
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.319	ug/l	2.41	606,129.00	3.749E+00	Pulse	0.50	3
As			1	96.925	ug/l	1.95	75,191.31	4.651E-01	Pulse	1.00	3
Mo			1	96.312	ug/l	1.21	340,035.58	2.103E+00	Pulse	0.50	3
Pb			1	98.977	ug/l	2.14	2,225,369.17	7.791E-01	Analog	1.00	3
Be			1	99.209	ug/l	0.45	7,748.76	3.197E+00	Pulse	2.00	3
Ag			1	99.678	ug/l	0.51	1,199,488.92	1.039E+00	Pulse	0.50	3
Ba			1	95.924	ug/l	0.84	183,607.14	1.590E-01	Pulse	0.50	3
Tl			1	97.998	ug/l	1.93	3,127,218.92	1.095E+00	Analog	0.50	3
Sn			1	96.705	ug/l	1.19	403,046.17	3.490E-01	Pulse	0.30	3
Sr			1	96.882	ug/l	0.47	438,207.37	3.795E-01	Pulse	0.50	3
Ca			1	9597.298	ug/l	1.44	241,029.43	1.368E+00	Pulse	0.50	3
Ti			1	95.590	ug/l	1.19	15,181.68	8.618E-02	Pulse	0.50	3
Na			1	9770.118	ug/l	0.99	11,969,729.67	6.795E+01	Analog	1.00	3
Mg			1	9772.042	ug/l	0.91	6,238,602.50	3.542E+01	Analog	1.00	3
K			1	9792.362	ug/l	1.16	4,865,202.00	2.762E+01	Analog	1.00	3
V			1	97.224	ug/l	1.60	485,352.01	4.446E+00	Pulse	0.50	3
Mn			1	96.639	ug/l	1.89	362,654.88	2.243E+00	Pulse	0.50	3
Fe			1	9731.614	ug/l	2.02	51,991,502.67	3.216E+02	Analog	0.50	3
Co			1	97.011	ug/l	1.94	937,701.31	5.800E+00	Pulse	0.50	3
Ni			1	98.279	ug/l	1.66	247,801.79	1.533E+00	Pulse	0.50	3
Cu			1	99.058	ug/l	1.97	661,938.06	4.094E+00	Pulse	0.50	3
Zn			1	97.173	ug/l	2.26	122,397.92	7.571E-01	Pulse	1.00	3
Cd			1	95.638	ug/l	1.79	195,735.40	1.211E+00	Pulse	0.50	3
Al			1	9636.240	ug/l	3.16	2,529,598.08	1.436E+01	Analog	1.00	3
Se			1	94.369	ug/l	1.43	6,629.68	4.100E-02	Pulse	3.00	3
Sb			1	94.688	ug/l	2.08	551,772.67	3.413E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,857,262.17	2.07	107.4	Analog	0.50	3
1	Sc		176,160.47	0.60	117.9	Pulse	0.30	3
1	Ge		109,165.88	0.85	116.5	Pulse	0.30	3
1	In		1,154,775.61	0.40	110.5	Pulse	0.30	3
1	Tb		3,848,283.83	1.40	112.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,176,849.92	1.89	111.2	Analog	0.50	3
1	Ge		161,698.10	1.10	114.6	Pulse	0.30	3
1	Li		2,423.50	0.28	108.3	Pulse	0.30	3

Quantitation Report

File Name	033_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 11:57
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.022	ug/l	41.80	637.35	4.126E-03	Pulse	0.50	3
As			1	0.035	ug/l	87.82	84.33	5.528E-04	Pulse	1.00	3
Mo			1	0.332	ug/l	31.38	1,494.74	9.564E-03	Pulse	0.50	3
Pb			1	0.053	ug/l	27.97	5,165.18	1.854E-03	Pulse	1.00	3
Be			1	0.032	ug/l	24.65	3.17	1.345E-03	Pulse	2.00	3
Ag			1	0.036	ug/l	41.72	438.67	4.060E-04	Pulse	0.50	3
Ba			1	0.043	ug/l	72.13	190.00	1.754E-04	Pulse	0.50	3
Tl			1	0.051	ug/l	31.41	3,073.64	1.111E-03	Pulse	0.50	3
Sn			1	0.201	ug/l	1.97	1,548.97	1.399E-03	Pulse	0.30	3
Sr			1	0.039	ug/l	44.75	539.34	4.907E-04	Pulse	0.50	3
Ca			1	2.188	ug/l	72.98	168.67	1.043E-03	Pulse	0.50	3
Ti			1	0.061	ug/l	49.84	22.00	1.352E-04	Pulse	0.50	3
Na			1	4.620	ug/l	52.52	12,738.73	7.883E-02	Pulse	1.00	3
Mg			1	3.962	ug/l	32.62	2,632.19	1.637E-02	Pulse	1.00	3
K			1	9.864	ug/l	106.63	37,638.07	2.315E-01	Pulse	1.00	3
V			1	0.007	ug/l	499.97	1,840.76	1.781E-02	Pulse	0.50	3
Mn			1	0.045	ug/l	22.12	438.01	2.840E-03	Pulse	0.50	3
Fe			1	6.407	ug/l	23.25	44,870.40	2.926E-01	Pulse	0.50	3
Co			1	0.042	ug/l	17.62	472.01	3.074E-03	Pulse	0.50	3
Ni			1	0.052	ug/l	40.83	247.33	1.616E-03	Pulse	0.50	3
Cu			1	0.042	ug/l	145.05	6,577.89	4.262E-02	Pulse	0.50	3
Zn			1	-0.007	ug/l	-825.38	1,129.71	7.318E-03	Pulse	1.00	3
Cd			1	0.027	ug/l	32.36	96.00	6.261E-04	Pulse	0.50	3
Al			1	4.820	ug/l	39.78	1,560.45	9.715E-03	Pulse	1.00	3
Se			1	0.032	ug/l	120.66	32.67	2.115E-04	Pulse	3.00	3
Sb			1	0.074	ug/l	3.04	2,717.89	1.754E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,797,378.83	10.17	105.1	Analog	0.50	3
1	Sc		164,039.14	10.65	109.8	Pulse	0.30	3
1	Ge		103,927.09	9.47	110.9	Pulse	0.30	3
1	In		1,106,731.31	11.06	105.9	Pulse	0.30	3
1	Tb		3,627,108.83	11.29	105.6	Analog	0.50	3
1	Lu		2,982,402.83	10.62	104.4	Analog	0.50	3
1	Ge		154,894.71	8.97	109.8	Pulse	0.30	3
1	Li		2,382.39	9.47	106.5	Pulse	0.30	3

Quantitation Report

File Name 034SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:00
Sample Name FC11518-4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	337.897	ug/l	1.76	411,071.49	2.604E+00	Pulse	0.50	3
As			1	322.969	ug/l	1.82	48,938.53	3.101E-01	Pulse	1.00	3
Mo			1	14.172	ug/l	1.99	10,125.62	6.415E-02	Pulse	0.50	3
Pb			1	162.131	ug/l	1.19	719,711.60	2.562E-01	Pulse	1.00	3
Be			1	3.707	ug/l	20.93	55.67	2.419E-02	Pulse	2.00	3
Ag			1	0.477	ug/l	4.90	1,150.71	1.024E-03	Pulse	0.50	3
Ba			1	1369.596	ug/l	0.72	509,714.66	4.538E-01	Pulse	0.50	3
Tl			1	4.008	ug/l	1.42	26,666.74	9.493E-03	Pulse	0.50	3
Sn			1	36.046	ug/l	2.08	29,922.75	2.664E-02	Pulse	0.30	3
Sr			1	169.729	ug/l	0.60	149,579.14	1.332E-01	Pulse	0.50	3
Ca			1	12984.265	ug/l	0.88	80,529.71	3.708E-01	Pulse	0.50	3
Ti			1	2721.597	ug/l	0.15	106,498.08	4.903E-01	Pulse	0.50	3
Na			1	5593.566	ug/l	3.02	1,698,951.96	7.822E+00	Analog	1.00	3
Mg			1	31391.450	ug/l	1.38	4,942,071.50	2.275E+01	Analog	1.00	3
K			1	22710.488	ug/l	0.88	2,806,221.33	1.292E+01	Analog	1.00	3
V			1	771.633	ug/l	1.50	784,807.33	7.048E+00	Pulse	0.50	3
Mn			1	1316.609	ug/l	0.88	964,253.69	6.109E+00	Pulse	0.50	3
Fe			1	426466.651	ug/l	0.67	444,800,288.00	2.818E+03	Analog	0.50	3
Co			1	38.580	ug/l	1.40	72,893.03	4.618E-01	Pulse	0.50	3
Ni			1	61.989	ug/l	1.58	30,627.96	1.940E-01	Pulse	0.50	3
Cu			1	157.090	ug/l	1.64	209,365.74	1.326E+00	Pulse	0.50	3
Zn			1	245.664	ug/l	1.12	60,997.68	3.864E-01	Pulse	1.00	3
Cd			1	0.672	ug/l	11.28	314.00	1.991E-03	Pulse	0.50	3
Al			1	225000.593	ug/l	0.92	14,564,322.33	6.706E+01	Analog	1.00	3
Se			1	29.249	ug/l	7.76	430.34	2.727E-03	Pulse	3.00	3
Sb			1	5.116	ug/l	4.65	8,146.94	5.162E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,809,169.50	0.61	105.5	Analog	0.50	3
1	Sc		217,191.40	0.30	145.4	Pulse	0.30	3
1	Ge		111,371.73	1.31	118.8	Pulse	0.30	3
1	In		1,123,135.09	0.34	107.5	Pulse	0.30	3
1	Tb		3,829,845.50	0.61	111.5	Analog	0.50	3
1	Lu		3,134,210.08	0.51	109.7	Analog	0.50	3
1	Ge		157,855.09	1.11	111.9	Pulse	0.30	3
1	Li		2,315.71	4.70	103.5	Pulse	0.30	3

Quantitation Report

File Name 035SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:03
Sample Name FC11518-5
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	457.870	ug/l	2.52	553,084.85	3.528E+00	Pulse	0.50	3
As			1	189.110	ug/l	1.96	28,487.70	1.817E-01	Pulse	1.00	3
Mo			1	14.880	ug/l	3.27	10,540.53	6.724E-02	Pulse	0.50	3
Pb			1	193.826	ug/l	2.75	841,092.56	3.060E-01	Pulse	1.00	3
Be			1	6.321	ug/l	10.04	96.83	4.104E-02	Pulse	2.00	3
Ag			1	0.670	ug/l	0.66	1,595.41	1.428E-03	Pulse	0.50	3
Ba			1	4844.737	ug/l	2.24	1,793,771.21	1.605E+00	Analog	0.50	3
Tl			1	4.143	ug/l	2.77	26,921.17	9.794E-03	Pulse	0.50	3
Sn			1	37.620	ug/l	1.39	31,041.37	2.778E-02	Pulse	0.30	3
Sr			1	303.366	ug/l	1.92	265,721.13	2.378E-01	Pulse	0.50	3
Ca			1	16242.020	ug/l	1.39	109,876.57	4.636E-01	Pulse	0.50	3
Ti			1	2666.331	ug/l	1.54	113,850.88	4.804E-01	Pulse	0.50	3
Na			1	16081.454	ug/l	0.72	5,308,846.67	2.240E+01	Analog	1.00	3
Mg			1	33735.215	ug/l	2.42	5,795,278.00	2.445E+01	Analog	1.00	3
K			1	21800.376	ug/l	1.59	2,941,320.25	1.241E+01	Analog	1.00	3
V			1	909.007	ug/l	1.77	926,416.77	8.299E+00	Pulse	0.50	3
Mn			1	1034.529	ug/l	2.01	752,573.25	4.800E+00	Pulse	0.50	3
Fe			1	491823.451	ug/l	2.86	509,455,712.00	3.250E+03	Analog	0.50	3
Co			1	41.781	ug/l	2.59	78,398.01	5.001E-01	Pulse	0.50	3
Ni			1	84.446	ug/l	2.95	41,395.37	2.641E-01	Pulse	0.50	3
Cu			1	293.578	ug/l	2.68	383,057.22	2.443E+00	Pulse	0.50	3
Zn			1	292.119	ug/l	2.21	71,819.48	4.581E-01	Pulse	1.00	3
Cd			1	0.229	ug/l	3.33	136.00	8.674E-04	Pulse	0.50	3
Al			1	290497.646	ug/l	1.89	20,518,418.67	8.658E+01	Analog	1.00	3
Se			1	26.725	ug/l	4.99	393.34	2.509E-03	Pulse	3.00	3
Sb			1	2.845	ug/l	0.36	5,537.90	3.532E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,749,275.08	1.19	103.3	Analog	0.50	3
1	Sc		236,998.20	0.05	158.6	Pulse	0.30	3
1	Ge		111,625.61	0.58	119.1	Pulse	0.30	3
1	In		1,117,571.20	0.23	106.9	Pulse	0.30	3
1	Tb		3,811,173.75	0.83	110.9	Analog	0.50	3
1	Lu		3,138,428.83	0.93	109.9	Analog	0.50	3
1	Ge		156,781.08	0.46	111.1	Pulse	0.30	3
1	Li		2,366.83	4.98	105.8	Pulse	0.30	3

Quantitation Report

File Name 036SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:07
Sample Name FC11518-6
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	263.324	ug/l	2.75	317,303.81	2.030E+00	Pulse	0.50	3
As			1	444.568	ug/l	1.95	66,682.66	4.267E-01	Pulse	1.00	3
Mo			1	16.065	ug/l	3.01	11,315.00	7.241E-02	Pulse	0.50	3
Pb			1	133.051	ug/l	1.77	574,903.19	2.105E-01	Pulse	1.00	3
Be			1	3.310	ug/l	9.90	50.17	2.163E-02	Pulse	2.00	3
Ag			1	0.197	ug/l	4.08	495.34	4.408E-04	Pulse	0.50	3
Ba			1	2233.732	ug/l	1.97	831,690.02	7.401E-01	Pulse	0.50	3
Tl			1	1.681	ug/l	2.44	11,731.65	4.296E-03	Pulse	0.50	3
Sn			1	31.102	ug/l	1.85	25,936.25	2.308E-02	Pulse	0.30	3
Sr			1	165.271	ug/l	2.92	145,726.74	1.297E-01	Pulse	0.50	3
Ca			1	7902.218	ug/l	3.67	47,395.20	2.259E-01	Pulse	0.50	3
Ti			1	1169.564	ug/l	1.56	44,220.09	2.108E-01	Pulse	0.50	3
Na			1	13219.810	ug/l	1.70	3,865,273.17	1.842E+01	Analog	1.00	3
Mg			1	22910.934	ug/l	2.41	3,484,150.17	1.661E+01	Analog	1.00	3
K			1	12364.448	ug/l	2.56	1,495,231.04	7.127E+00	Analog	1.00	3
V			1	763.672	ug/l	2.26	767,570.06	6.975E+00	Pulse	0.50	3
Mn			1	595.855	ug/l	2.52	432,219.32	2.766E+00	Pulse	0.50	3
Fe			1	347475.809	ug/l	2.86	358,803,392.00	2.296E+03	Analog	0.50	3
Co			1	23.205	ug/l	3.17	43,440.86	2.780E-01	Pulse	0.50	3
Ni			1	36.209	ug/l	3.17	17,768.11	1.137E-01	Pulse	0.50	3
Cu			1	197.600	ug/l	2.28	259,121.85	1.658E+00	Pulse	0.50	3
Zn			1	160.357	ug/l	1.77	39,826.31	2.548E-01	Pulse	1.00	3
Cd			1	0.055	ug/l	15.14	66.67	4.267E-04	Pulse	0.50	3
Al			1	162338.486	ug/l	2.32	10,150,588.00	4.838E+01	Analog	1.00	3
Se			1	29.870	ug/l	1.57	434.67	2.781E-03	Pulse	3.00	3
Sb			1	4.263	ug/l	4.31	7,111.14	4.550E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,731,184.92	0.30	102.6	Analog	0.50	3
1	Sc		209,839.40	1.40	140.4	Pulse	0.30	3
1	Ge		110,066.00	1.34	117.4	Pulse	0.30	3
1	In		1,123,891.03	1.11	107.5	Pulse	0.30	3
1	Tb		3,817,210.25	0.11	111.1	Analog	0.50	3
1	Lu		3,123,722.75	0.71	109.4	Analog	0.50	3
1	Ge		156,324.44	1.71	110.8	Pulse	0.30	3
1	Li		2,323.49	2.87	103.8	Pulse	0.30	3

Quantitation Report

File Name 037SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:10
Sample Name FC11606-1
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	172.804	ug/l	6.11	205,019.04	1.334E+00	Pulse	0.50	3
As			1	215.006	ug/l	6.03	31,753.53	2.065E-01	Pulse	1.00	3
Mo			1	8.407	ug/l	9.19	5,991.05	3.900E-02	Pulse	0.50	3
Pb			1	138.993	ug/l	6.21	597,624.11	2.198E-01	Pulse	1.00	3
Be			1	3.096	ug/l	4.55	47.50	2.025E-02	Pulse	2.00	3
Ag			1	0.393	ug/l	3.81	938.70	8.491E-04	Pulse	0.50	3
Ba			1	814.278	ug/l	6.28	298,024.27	2.699E-01	Pulse	0.50	3
Tl			1	2.593	ug/l	7.50	17,205.88	6.331E-03	Pulse	0.50	3
Sn			1	29.357	ug/l	6.40	24,100.26	2.182E-02	Pulse	0.30	3
Sr			1	313.476	ug/l	6.22	271,326.85	2.457E-01	Pulse	0.50	3
Ca			1	21474.168	ug/l	5.18	120,231.67	6.127E-01	Pulse	0.50	3
Ti			1	1030.276	ug/l	6.02	36,425.68	1.857E-01	Pulse	0.50	3
Na			1	7404.888	ug/l	5.18	2,028,884.67	1.034E+01	Analog	1.00	3
Mg			1	34548.914	ug/l	4.57	4,914,688.50	2.504E+01	Analog	1.00	3
K			1	17208.445	ug/l	4.12	1,931,243.75	9.839E+00	Analog	1.00	3
V			1	396.089	ug/l	6.65	393,381.75	3.626E+00	Pulse	0.50	3
Mn			1	747.331	ug/l	6.45	533,143.28	3.468E+00	Pulse	0.50	3
Fe			1	382048.632	ug/l	6.46	388,051,029.33	2.524E+03	Analog	0.50	3
Co			1	22.837	ug/l	6.67	42,054.83	2.736E-01	Pulse	0.50	3
Ni			1	33.530	ug/l	7.77	16,184.63	1.053E-01	Pulse	0.50	3
Cu			1	186.200	ug/l	6.85	240,507.37	1.565E+00	Pulse	0.50	3
Zn			1	170.964	ug/l	6.10	41,691.21	2.712E-01	Pulse	1.00	3
Cd			1	0.073	ug/l	38.30	72.67	4.731E-04	Pulse	0.50	3
Al			1	181225.591	ug/l	5.27	10,598,156.00	5.401E+01	Analog	1.00	3
Se			1	12.893	ug/l	9.63	201.67	1.313E-03	Pulse	3.00	3
Sb			1	3.862	ug/l	7.88	6,554.59	4.262E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,723,501.67	4.54	102.3	Analog	0.50	3
1	Sc		196,461.81	3.55	131.5	Pulse	0.30	3
1	Ge		108,713.11	4.79	116.0	Pulse	0.30	3
1	In		1,106,361.76	4.43	105.9	Pulse	0.30	3
1	Tb		3,775,962.83	3.94	109.9	Analog	0.50	3
1	Lu		3,063,722.83	5.53	107.3	Analog	0.50	3
1	Ge		154,022.14	4.60	109.2	Pulse	0.30	3
1	Li		2,347.93	3.52	104.9	Pulse	0.30	3

Quantitation Report

File Name	038SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 12:13
Sample Name	FC11606-2
Sample Type	Sample
Comment	
Prep Dilution	5.000
Auto Dilution	N/A
Total Dilution	5.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	180.746	ug/l	2.16	225,363.38	1.395E+00	Pulse	0.50	3
As			1	145.344	ug/l	2.03	22,581.60	1.397E-01	Pulse	1.00	3
Mo			1	5.716	ug/l	3.42	4,404.57	2.726E-02	Pulse	0.50	3
Pb			1	120.468	ug/l	1.99	537,721.77	1.907E-01	Pulse	1.00	3
Be			1	2.980	ug/l	4.90	49.67	1.951E-02	Pulse	2.00	3
Ag			1	0.374	ug/l	8.99	932.03	8.091E-04	Pulse	0.50	3
Ba			1	9944.132	ug/l	2.78	3,795,239.17	3.294E+00	Analog	0.50	3
Tl			1	2.661	ug/l	3.94	18,274.40	6.482E-03	Pulse	0.50	3
Sn			1	27.251	ug/l	0.89	23,393.76	2.031E-02	Pulse	0.30	3
Sr			1	278.935	ug/l	1.91	251,896.04	2.187E-01	Pulse	0.50	3
Ca			1	12412.386	ug/l	2.42	77,847.50	3.545E-01	Pulse	0.50	3
Ti			1	1068.164	ug/l	2.43	42,274.89	1.925E-01	Pulse	0.50	3
Na			1	7857.178	ug/l	1.93	2,408,972.67	1.097E+01	Analog	1.00	3
Mg			1	42499.629	ug/l	1.97	6,765,542.17	3.081E+01	Analog	1.00	3
K			1	21553.806	ug/l	1.09	2,695,373.42	1.227E+01	Analog	1.00	3
V			1	379.030	ug/l	2.79	390,062.04	3.471E+00	Pulse	0.50	3
Mn			1	853.900	ug/l	1.96	640,320.67	3.963E+00	Pulse	0.50	3
Fe			1	258662.214	ug/l	1.49	276,187,360.00	1.709E+03	Analog	0.50	3
Co			1	43.308	ug/l	2.16	83,757.83	5.183E-01	Pulse	0.50	3
Ni			1	59.619	ug/l	1.91	30,161.85	1.867E-01	Pulse	0.50	3
Cu			1	141.887	ug/l	2.34	194,233.92	1.202E+00	Pulse	0.50	3
Zn			1	208.559	ug/l	3.10	53,189.43	3.292E-01	Pulse	1.00	3
Cd			1	0.072	ug/l	72.40	76.00	4.705E-04	Pulse	0.50	3
Al			1	177735.262	ug/l	2.85	11,633,176.33	5.297E+01	Analog	1.00	3
Se			1	8.216	ug/l	1.72	146.78	9.082E-04	Pulse	3.00	3
Sb			1	2.505	ug/l	4.79	5,313.49	3.288E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,819,498.75	0.69	105.9	Analog	0.50	3
1	Sc		219,634.25	0.60	147.0	Pulse	0.30	3
1	Ge		112,409.28	1.14	119.9	Pulse	0.30	3
1	In		1,152,121.69	0.60	110.2	Pulse	0.30	3
1	Tb		3,930,810.75	1.52	114.4	Analog	0.50	3
1	Lu		3,220,309.75	1.58	112.7	Analog	0.50	3
1	Ge		161,602.03	0.80	114.5	Pulse	0.30	3
1	Li		2,544.64	3.81	113.7	Pulse	0.30	3

Quantitation Report

File Name 039SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:16
Sample Name FC11606-3
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	329.613	ug/l	2.61	402,958.81	2.541E+00	Pulse	0.50	3
As			1	308.719	ug/l	2.14	47,011.04	2.964E-01	Pulse	1.00	3
Mo			1	15.557	ug/l	3.63	11,131.58	7.019E-02	Pulse	0.50	3
Pb			1	164.309	ug/l	3.23	729,415.54	2.596E-01	Pulse	1.00	3
Be			1	4.386	ug/l	10.39	70.50	2.857E-02	Pulse	2.00	3
Ag			1	0.194	ug/l	1.12	490.68	4.341E-04	Pulse	0.50	3
Ba			1	12379.145	ug/l	1.06	4,635,412.33	4.101E+00	Analog	0.50	3
Tl			1	3.745	ug/l	3.19	25,020.78	8.905E-03	Pulse	0.50	3
Sn			1	33.718	ug/l	3.80	28,213.18	2.496E-02	Pulse	0.30	3
Sr			1	207.064	ug/l	1.84	183,547.77	1.624E-01	Pulse	0.50	3
Ca			1	9248.546	ug/l	1.71	53,897.76	2.643E-01	Pulse	0.50	3
Ti			1	3263.420	ug/l	2.31	119,889.93	5.879E-01	Pulse	0.50	3
Na			1	15894.651	ug/l	1.52	4,515,000.00	2.214E+01	Analog	1.00	3
Mg			1	36521.533	ug/l	1.21	5,398,395.33	2.647E+01	Analog	1.00	3
K			1	24863.748	ug/l	0.83	2,880,762.25	1.413E+01	Analog	1.00	3
V			1	835.630	ug/l	1.30	847,234.06	7.631E+00	Pulse	0.50	3
Mn			1	1453.530	ug/l	1.95	1,069,656.63	6.744E+00	Pulse	0.50	3
Fe			1	386768.543	ug/l	2.00	405,339,392.00	2.556E+03	Analog	0.50	3
Co			1	38.847	ug/l	1.51	73,756.50	4.650E-01	Pulse	0.50	3
Ni			1	73.250	ug/l	3.12	36,343.21	2.292E-01	Pulse	0.50	3
Cu			1	189.554	ug/l	1.68	252,532.59	1.592E+00	Pulse	0.50	3
Zn			1	262.472	ug/l	2.32	65,404.75	4.124E-01	Pulse	1.00	3
Cd			1	0.105	ug/l	39.91	88.00	5.543E-04	Pulse	0.50	3
Al			1	264627.617	ug/l	2.69	16,081,132.67	7.887E+01	Analog	1.00	3
Se			1	23.172	ug/l	0.88	349.22	2.202E-03	Pulse	3.00	3
Sb			1	5.511	ug/l	3.38	8,637.18	5.446E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,810,741.58	1.96	105.6	Analog	0.50	3
1	Sc		203,942.99	1.08	136.5	Pulse	0.30	3
1	Ge		111,029.44	0.68	118.4	Pulse	0.30	3
1	In		1,130,306.17	0.66	108.2	Pulse	0.30	3
1	Tb		3,863,359.08	2.26	112.4	Analog	0.50	3
1	Lu		3,144,330.58	1.79	110.1	Analog	0.50	3
1	Ge		158,625.12	0.81	112.4	Pulse	0.30	3
1	Li		2,467.96	5.37	110.3	Pulse	0.30	3

Quantitation Report

File Name 040SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:19
Sample Name FC11606-4
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	263.893	ug/l	2.10	318,757.35	2.035E+00	Pulse	0.50	3
As			1	279.339	ug/l	0.90	42,022.32	2.682E-01	Pulse	1.00	3
Mo			1	24.905	ug/l	2.85	17,383.30	1.110E-01	Pulse	0.50	3
Pb			1	136.825	ug/l	2.22	596,988.85	2.164E-01	Pulse	1.00	3
Be			1	3.671	ug/l	18.36	58.67	2.396E-02	Pulse	2.00	3
Ag			1	0.123	ug/l	3.48	320.00	2.863E-04	Pulse	0.50	3
Ba			1	532.464	ug/l	0.86	197,267.99	1.765E-01	Pulse	0.50	3
Tl			1	2.483	ug/l	3.06	16,786.80	6.086E-03	Pulse	0.50	3
Sn			1	31.340	ug/l	2.62	25,986.38	2.325E-02	Pulse	0.30	3
Sr			1	140.863	ug/l	1.78	123,593.90	1.106E-01	Pulse	0.50	3
Ca			1	6774.853	ug/l	2.19	38,004.07	1.938E-01	Pulse	0.50	3
Ti			1	2151.975	ug/l	2.30	76,031.02	3.877E-01	Pulse	0.50	3
Na			1	16317.091	ug/l	1.20	4,457,004.67	2.273E+01	Analog	1.00	3
Mg			1	27504.663	ug/l	2.90	3,909,515.33	1.994E+01	Analog	1.00	3
K			1	13008.020	ug/l	0.21	1,468,422.92	7.488E+00	Analog	1.00	3
V			1	531.850	ug/l	2.21	527,338.96	4.863E+00	Pulse	0.50	3
Mn			1	1162.188	ug/l	1.89	844,791.90	5.393E+00	Pulse	0.50	3
Fe			1	268227.088	ug/l	1.48	277,660,224.00	1.772E+03	Analog	0.50	3
Co			1	29.914	ug/l	2.35	56,113.51	3.582E-01	Pulse	0.50	3
Ni			1	45.211	ug/l	1.25	22,206.36	1.417E-01	Pulse	0.50	3
Cu			1	165.012	ug/l	1.91	217,960.67	1.391E+00	Pulse	0.50	3
Zn			1	188.634	ug/l	1.13	46,754.26	2.984E-01	Pulse	1.00	3
Cd			1	0.128	ug/l	29.42	96.00	6.131E-04	Pulse	0.50	3
Al			1	152344.024	ug/l	2.03	8,903,573.33	4.540E+01	Analog	1.00	3
Se			1	12.410	ug/l	6.52	199.11	1.271E-03	Pulse	3.00	3
Sb			1	4.497	ug/l	1.15	7,391.60	4.718E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,758,818.42	1.34	103.7	Analog	0.50	3
1	Sc		196,115.74	0.92	131.2	Pulse	0.30	3
1	Ge		108,454.88	1.13	115.7	Pulse	0.30	3
1	In		1,117,668.15	0.42	106.9	Pulse	0.30	3
1	Tb		3,818,631.92	0.75	111.1	Analog	0.50	3
1	Lu		3,142,787.67	1.00	110.0	Analog	0.50	3
1	Ge		156,672.57	0.76	111.0	Pulse	0.30	3
1	Li		2,452.40	2.83	109.6	Pulse	0.30	3

Quantitation Report

File Name 041SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:23
Sample Name FC11606-5
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	273.312	ug/l	1.87	325,916.96	2.107E+00	Pulse	0.50	3
As			1	354.077	ug/l	1.12	52,568.80	3.399E-01	Pulse	1.00	3
Mo			1	9.250	ug/l	0.83	6,600.60	4.268E-02	Pulse	0.50	3
Pb			1	127.262	ug/l	3.63	544,821.75	2.014E-01	Pulse	1.00	3
Be			1	8.876	ug/l	9.21	135.50	5.751E-02	Pulse	2.00	3
Ag			1	0.169	ug/l	10.24	419.34	3.823E-04	Pulse	0.50	3
Ba			1	862.644	ug/l	2.31	313,580.45	2.859E-01	Pulse	0.50	3
Tl			1	3.079	ug/l	2.79	20,065.20	7.417E-03	Pulse	0.50	3
Sn			1	34.792	ug/l	3.02	28,231.01	2.574E-02	Pulse	0.30	3
Sr			1	220.015	ug/l	1.98	189,251.28	1.725E-01	Pulse	0.50	3
Ca			1	8926.242	ug/l	1.40	53,027.29	2.551E-01	Pulse	0.50	3
Ti			1	1961.083	ug/l	1.82	73,441.63	3.533E-01	Pulse	0.50	3
Na			1	22342.950	ug/l	1.49	6,465,263.83	3.110E+01	Analog	1.00	3
Mg			1	57181.200	ug/l	2.50	8,614,245.67	4.145E+01	Analog	1.00	3
K			1	33684.836	ug/l	2.92	3,962,473.75	1.907E+01	Analog	1.00	3
V			1	950.943	ug/l	2.08	946,936.54	8.681E+00	Pulse	0.50	3
Mn			1	1664.163	ug/l	1.71	1,194,160.46	7.721E+00	Pulse	0.50	3
Fe			1	364504.833	ug/l	3.08	372,509,706.67	2.408E+03	Analog	0.50	3
Co			1	64.461	ug/l	1.48	119,283.90	7.712E-01	Pulse	0.50	3
Ni			1	92.886	ug/l	1.31	44,909.05	2.904E-01	Pulse	0.50	3
Cu			1	190.473	ug/l	1.63	247,409.27	1.600E+00	Pulse	0.50	3
Zn			1	452.867	ug/l	1.38	109,217.06	7.062E-01	Pulse	1.00	3
Cd			1	0.199	ug/l	13.09	122.67	7.932E-04	Pulse	0.50	3
Al			1	191361.344	ug/l	2.54	11,853,689.00	5.703E+01	Analog	1.00	3
Se			1	15.035	ug/l	7.54	231.67	1.498E-03	Pulse	3.00	3
Sb			1	4.875	ug/l	0.46	7,716.41	4.989E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,706,563.00	2.61	101.7	Analog	0.50	3
1	Sc		207,858.29	0.52	139.1	Pulse	0.30	3
1	Ge		109,086.54	0.95	116.4	Pulse	0.30	3
1	In		1,096,977.07	0.72	105.0	Pulse	0.30	3
1	Tb		3,765,650.83	1.14	109.6	Analog	0.50	3
1	Lu		3,078,493.50	2.33	107.8	Analog	0.50	3
1	Ge		154,663.27	0.15	109.6	Pulse	0.30	3
1	Li		2,360.16	2.84	105.5	Pulse	0.30	3

Quantitation Report

File Name 042SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:26
Sample Name FC11606-6
Sample Type Sample
Comment
Prep Dilution 5.000
Auto Dilution N/A
Total Dilution 5.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	294.540	ug/l	2.61	360,921.85	2.271E+00	Pulse	0.50	3
As			1	494.490	ug/l	2.07	75,423.32	4.745E-01	Pulse	1.00	3
Mo			1	117.453	ug/l	1.73	81,804.64	5.147E-01	Pulse	0.50	3
Pb			1	413.462	ug/l	3.73	1,765,039.42	6.511E-01	Analog	1.00	3
Be			1	20.504	ug/l	5.01	329.67	1.325E-01	Pulse	2.00	3
Ag			1	0.767	ug/l	6.37	1,818.77	1.630E-03	Pulse	0.50	3
Ba			1	2788.548	ug/l	2.67	1,031,053.90	9.239E-01	Pulse	0.50	3
Tl			1	4.338	ug/l	4.89	27,726.56	1.023E-02	Pulse	0.50	3
Sn			1	39.844	ug/l	3.02	32,783.53	2.938E-02	Pulse	0.30	3
Sr			1	3357.137	ug/l	2.60	2,932,515.92	2.628E+00	Analog	0.50	3
Ca			1	74837.291	ug/l	1.87	451,559.56	2.134E+00	Pulse	0.50	3
Ti			1	8592.843	ug/l	1.82	327,625.23	1.548E+00	Pulse	0.50	3
Na			1	4353.086	ug/l	1.01	1,290,352.75	6.098E+00	Analog	1.00	3
Mg			1	77365.536	ug/l	1.66	11,867,749.67	5.608E+01	Analog	1.00	3
K			1	47862.552	ug/l	0.91	5,715,079.67	2.700E+01	Analog	1.00	3
V			1	766.667	ug/l	2.61	811,656.58	7.002E+00	Pulse	0.50	3
Mn			1	33162.160	ug/l	0.99	24,447,909.33	1.538E+02	Analog	0.50	3
Fe			1	615253.648	ug/l	2.31	646,160,490.67	4.065E+03	Analog	0.50	3
Co			1	235.765	ug/l	1.86	448,117.03	2.819E+00	Pulse	0.50	3
Ni			1	285.513	ug/l	2.06	141,596.89	8.909E-01	Pulse	0.50	3
Cu			1	407.355	ug/l	2.06	536,368.64	3.375E+00	Pulse	0.50	3
Zn			1	1613.799	ug/l	2.05	396,963.96	2.498E+00	Pulse	1.00	3
Cd			1	52.596	ug/l	0.71	21,203.69	1.334E-01	Pulse	0.50	3
Al			1	193835.131	ug/l	2.03	12,226,816.33	5.777E+01	Analog	1.00	3
Se			1	17.789	ug/l	4.56	275.89	1.736E-03	Pulse	3.00	3
Sb			1	8.902	ug/l	1.35	12,523.90	7.880E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,711,434.17	0.95	101.9	Analog	0.50	3
1	Sc		211,628.92	0.92	141.6	Pulse	0.30	3
1	Ge		115,912.40	1.47	123.7	Pulse	0.30	3
1	In		1,116,008.81	0.63	106.8	Pulse	0.30	3
1	Tb		3,866,637.25	0.80	112.5	Analog	0.50	3
1	Lu		3,114,131.00	0.96	109.0	Analog	0.50	3
1	Ge		158,925.75	0.85	112.6	Pulse	0.30	3
1	Li		2,491.29	4.35	111.3	Pulse	0.30	3

Quantitation Report

File Name 043SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:29
Sample Name FC11606-7
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	2724.166	ug/l	1.28	1,788,055.63	1.049E+01	Analog	0.50	3
As			1	1430.633	ug/l	2.02	116,987.70	6.863E-01	Pulse	1.00	3
Mo			1	155.564	ug/l	1.94	58,238.99	3.416E-01	Pulse	0.50	3
Pb			1	61294.780	ug/l	3.42	147,045,653.33	4.816E+01	Analog	1.00	3
Be			1	3.071	ug/l	35.60	24.00	1.020E-02	Pulse	2.00	3
Ag			1	252.238	ug/l	0.97	349,236.48	2.629E-01	Pulse	0.50	3
Ba			1	13211.601	ug/l	0.74	2,907,465.67	2.189E+00	Analog	0.50	3
Tl			1	1.419	ug/l	3.70	6,490.00	2.125E-03	Pulse	0.50	3
Sn			1	23523.191	ug/l	2.82	11,258,556.78	8.474E+00	Analog	0.30	3
Sr			1	1874.294	ug/l	1.75	974,906.73	7.338E-01	Pulse	0.50	3
Ca			1	276462.049	ug/l	2.58	757,775.21	3.940E+00	Pulse	0.50	3
Ti			1	3838.674	ug/l	4.92	66,498.81	3.458E-01	Pulse	0.50	3
Na			1	12594.077	ug/l	3.46	1,692,258.21	8.800E+00	Analog	1.00	3
Mg			1	38088.905	ug/l	2.95	2,654,930.42	1.381E+01	Analog	1.00	3
K			1	21644.591	ug/l	1.96	1,204,671.25	6.264E+00	Pulse	1.00	3
V			1	357.013	ug/l	1.10	203,800.58	1.644E+00	Pulse	0.50	3
Mn			1	33979.863	ug/l	1.70	13,434,688.33	7.881E+01	Analog	0.50	3
Fe			1	1539095.378	ug/l	1.95	866,799,082.67	5.085E+03	Analog	0.50	3
Co			1	295.300	ug/l	2.47	301,022.75	1.766E+00	Pulse	0.50	3
Ni			1	1652.779	ug/l	2.18	439,295.88	2.577E+00	Pulse	0.50	3
Cu			1	20308.166	ug/l	2.85	14,172,477.33	8.314E+01	Analog	0.50	3
Zn			1	96664.330	ug/l	2.64	12,714,390.33	7.459E+01	Analog	1.00	3
Cd			1	228.327	ug/l	1.33	49,309.31	2.893E-01	Pulse	0.50	3
Al			1	118780.550	ug/l	4.16	3,404,082.67	1.770E+01	Analog	1.00	3
Se			1	7.729	ug/l	2.25	90.67	5.318E-04	Pulse	3.00	3
Sb			1	682.507	ug/l	2.27	420,060.38	2.464E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,054,581.58	1.81	114.8	Analog	0.50	3
1	Sc		192,349.59	0.95	128.7	Pulse	0.30	3
1	Ge		123,974.09	1.11	132.3	Pulse	0.30	3
1	In		1,328,491.99	0.35	127.1	Pulse	0.30	3
1	Tb		3,964,154.67	1.93	115.4	Analog	0.50	3
1	Lu		3,248,675.25	1.57	113.7	Analog	0.50	3
1	Ge		170,477.84	0.36	120.8	Pulse	0.30	3
1	Li		2,357.94	1.65	105.4	Pulse	0.30	3

Quantitation Report

File Name 044CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:32
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.155	ug/l	1.88	305,269.80	1.818E+00	Pulse	0.50	3
As			1	46.817	ug/l	1.31	37,747.79	2.248E-01	Pulse	1.00	3
Mo			1	46.482	ug/l	1.24	170,603.48	1.016E+00	Pulse	0.50	3
Pb			1	49.206	ug/l	1.21	1,134,109.08	3.880E-01	Pulse	1.00	3
Be			1	46.727	ug/l	2.17	3,832.39	1.506E+00	Pulse	2.00	3
Ag			1	49.143	ug/l	1.03	612,091.56	5.121E-01	Pulse	0.50	3
Ba			1	46.919	ug/l	1.06	93,014.21	7.782E-02	Pulse	0.50	3
Tl			1	47.158	ug/l	1.56	1,540,554.62	5.271E-01	Pulse	0.50	3
Sn			1	48.224	ug/l	1.46	208,425.35	1.744E-01	Pulse	0.30	3
Sr			1	47.520	ug/l	1.35	222,664.25	1.863E-01	Pulse	0.50	3
Ca			1	4683.883	ug/l	0.93	120,594.73	6.682E-01	Pulse	0.50	3
Ti			1	47.744	ug/l	2.09	7,775.68	4.308E-02	Pulse	0.50	3
Na			1	4808.824	ug/l	0.99	6,040,392.67	3.347E+01	Analog	1.00	3
Mg			1	4813.132	ug/l	1.22	3,148,573.83	1.744E+01	Analog	1.00	3
K			1	4924.177	ug/l	0.60	2,525,009.00	1.399E+01	Analog	1.00	3
V			1	46.974	ug/l	0.65	243,134.32	2.157E+00	Pulse	0.50	3
Mn			1	47.650	ug/l	1.21	185,843.31	1.107E+00	Pulse	0.50	3
Fe			1	4795.616	ug/l	1.02	26,612,682.00	1.585E+02	Analog	0.50	3
Co			1	47.451	ug/l	1.78	476,333.39	2.837E+00	Pulse	0.50	3
Ni			1	48.311	ug/l	1.44	126,559.81	7.538E-01	Pulse	0.50	3
Cu			1	49.268	ug/l	1.44	345,326.84	2.057E+00	Pulse	0.50	3
Zn			1	49.493	ug/l	0.93	65,345.22	3.892E-01	Pulse	1.00	3
Cd			1	46.455	ug/l	1.55	98,756.07	5.882E-01	Pulse	0.50	3
Al			1	4496.424	ug/l	1.47	1,209,734.09	6.703E+00	Pulse	1.00	3
Se			1	46.298	ug/l	0.75	3,394.55	2.022E-02	Pulse	3.00	3
Sb			1	45.696	ug/l	1.56	277,813.96	1.655E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,923,101.75	1.69	109.8	Analog	0.50	3
1	Sc		180,485.50	0.54	120.8	Pulse	0.30	3
1	Ge		112,699.77	0.70	120.2	Pulse	0.30	3
1	In		1,195,201.10	0.10	114.4	Pulse	0.30	3
1	Tb		3,997,657.58	0.97	116.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,230,182.08	0.68	113.1	Analog	0.50	3
1	Ge		167,895.52	0.58	119.0	Pulse	0.30	3
1	Li		2,545.74	3.27	113.8	Pulse	0.30	3

Quantitation Report

File Name	045_CCV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 12:35
Sample Name	CCV
Sample Type	CCV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.883	ug/l	1.74	614,625.46	3.771E+00	Pulse	0.50	3
As			1	97.699	ug/l	1.01	76,408.75	4.688E-01	Pulse	1.00	3
Mo			1	97.026	ug/l	1.10	345,329.17	2.119E+00	Pulse	0.50	3
Pb			1	100.409	ug/l	1.08	2,274,217.58	7.903E-01	Analog	1.00	3
Be			1	92.539	ug/l	2.92	7,702.57	2.982E+00	Pulse	2.00	3
Ag			1	99.205	ug/l	0.68	1,211,092.41	1.034E+00	Pulse	0.50	3
Ba			1	95.970	ug/l	1.30	186,349.44	1.591E-01	Pulse	0.50	3
Tl			1	98.938	ug/l	0.20	3,180,639.33	1.105E+00	Analog	0.50	3
Sn			1	97.023	ug/l	1.44	410,213.53	3.502E-01	Pulse	0.30	3
Sr			1	96.777	ug/l	0.93	444,065.78	3.791E-01	Pulse	0.50	3
Ca			1	9623.396	ug/l	2.23	244,641.65	1.372E+00	Pulse	0.50	3
Ti			1	95.933	ug/l	3.82	15,420.54	8.649E-02	Pulse	0.50	3
Na			1	9738.328	ug/l	1.93	12,076,912.00	6.773E+01	Analog	1.00	3
Mg			1	9706.552	ug/l	3.07	6,271,955.67	3.518E+01	Analog	1.00	3
K			1	9871.259	ug/l	0.97	4,964,705.67	2.784E+01	Analog	1.00	3
V			1	96.719	ug/l	1.36	491,716.13	4.423E+00	Pulse	0.50	3
Mn			1	97.931	ug/l	1.48	370,496.65	2.273E+00	Pulse	0.50	3
Fe			1	9938.482	ug/l	1.64	53,529,700.00	3.284E+02	Analog	0.50	3
Co			1	97.590	ug/l	1.20	950,993.40	5.834E+00	Pulse	0.50	3
Ni			1	98.558	ug/l	1.36	250,525.81	1.537E+00	Pulse	0.50	3
Cu			1	99.511	ug/l	1.16	670,356.58	4.113E+00	Pulse	0.50	3
Zn			1	98.086	ug/l	1.47	124,546.12	7.641E-01	Pulse	1.00	3
Cd			1	96.610	ug/l	0.85	199,335.67	1.223E+00	Pulse	0.50	3
Al			1	9636.418	ug/l	3.06	2,560,608.67	1.436E+01	Analog	1.00	3
Se			1	96.295	ug/l	1.17	6,819.30	4.184E-02	Pulse	3.00	3
Sb			1	95.010	ug/l	1.27	558,166.13	3.424E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,877,732.50	0.64	108.1	Analog	0.50	3
1	Sc		178,344.09	1.43	119.4	Pulse	0.30	3
1	Ge		111,168.15	0.60	118.6	Pulse	0.30	3
1	In		1,171,515.06	0.51	112.1	Pulse	0.30	3
1	Tb		3,916,191.67	1.63	114.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,172,059.42	1.00	111.1	Analog	0.50	3
1	Ge		162,999.68	0.35	115.5	Pulse	0.30	3
1	Li		2,584.64	4.11	115.5	Pulse	0.30	3

Quantitation Report

File Name	046_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 12:38
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.023	ug/l	86.12	676.01	4.129E-03	Pulse	0.50	3
As			1	0.036	ug/l	75.80	91.33	5.578E-04	Pulse	1.00	3
Mo			1	0.290	ug/l	35.39	1,418.06	8.644E-03	Pulse	0.50	3
Pb			1	0.375	ug/l	10.27	12,969.91	4.386E-03	Pulse	1.00	3
Be			1	0.032	ug/l	66.97	3.33	1.324E-03	Pulse	2.00	3
Ag			1	0.036	ug/l	29.39	482.68	4.065E-04	Pulse	0.50	3
Ba			1	0.027	ug/l	27.57	176.00	1.482E-04	Pulse	0.50	3
Tl			1	0.049	ug/l	16.28	3,219.67	1.089E-03	Pulse	0.50	3
Sn			1	0.302	ug/l	28.54	2,090.14	1.759E-03	Pulse	0.30	3
Sr			1	0.034	ug/l	14.70	558.01	4.698E-04	Pulse	0.50	3
Ca			1	1.584	ug/l	13.17	169.33	9.568E-04	Pulse	0.50	3
Ti			1	0.062	ug/l	42.55	24.00	1.358E-04	Pulse	0.50	3
Na			1	2.926	ug/l	35.62	11,868.82	6.705E-02	Pulse	1.00	3
Mg			1	3.585	ug/l	21.69	2,656.53	1.500E-02	Pulse	1.00	3
K			1	4.927	ug/l	14.65	38,523.57	2.177E-01	Pulse	1.00	3
V			1	-0.062	ug/l	-16.52	1,618.75	1.467E-02	Pulse	0.50	3
Mn			1	0.100	ug/l	12.74	674.68	4.119E-03	Pulse	0.50	3
Fe			1	6.990	ug/l	9.80	51,069.31	3.118E-01	Pulse	0.50	3
Co			1	0.035	ug/l	29.50	427.34	2.612E-03	Pulse	0.50	3
Ni			1	0.032	ug/l	50.39	212.67	1.299E-03	Pulse	0.50	3
Cu			1	-0.007	ug/l	-111.61	6,650.58	4.059E-02	Pulse	0.50	3
Zn			1	0.113	ug/l	45.99	1,349.72	8.240E-03	Pulse	1.00	3
Cd			1	0.020	ug/l	52.84	88.00	5.379E-04	Pulse	0.50	3
Al			1	3.747	ug/l	18.47	1,436.73	8.116E-03	Pulse	1.00	3
Se			1	-0.019	ug/l	-33.78	31.00	1.892E-04	Pulse	3.00	3
Sb			1	0.073	ug/l	8.52	2,870.25	1.752E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,958,661.92	1.44	111.2	Analog	0.50	3
1	Sc		176,948.30	0.77	118.4	Pulse	0.30	3
1	Ge		110,339.77	0.70	117.7	Pulse	0.30	3
1	In		1,187,794.05	0.36	113.7	Pulse	0.30	3
1	Tb		3,924,402.92	0.78	114.2	Analog	0.50	3
1	Lu		3,253,077.17	1.08	113.9	Analog	0.50	3
1	Ge		163,842.84	0.94	116.1	Pulse	0.30	3
1	Li		2,500.18	3.29	111.7	Pulse	0.30	3

Quantitation Report

File Name 047SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:42
Sample Name FC11606-8
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1247.632	ug/l	2.33	819,819.21	4.806E+00	Pulse	0.50	3
As			1	1269.544	ug/l	2.08	103,897.57	6.090E-01	Pulse	1.00	3
Mo			1	136.613	ug/l	0.96	51,227.25	3.003E-01	Pulse	0.50	3
Pb			1	84063.563	ug/l	2.11	206,806,933.33	6.605E+01	Analog	1.00	3
Be			1	5.215	ug/l	10.15	38.50	1.711E-02	Pulse	2.00	3
Ag			1	328.714	ug/l	1.75	455,671.22	3.426E-01	Pulse	0.50	3
Ba			1	17780.916	ug/l	0.81	3,917,534.50	2.945E+00	Analog	0.50	3
Tl			1	1.131	ug/l	3.12	5,648.35	1.804E-03	Pulse	0.50	3
Sn			1	22068.793	ug/l	0.31	10,573,976.80	7.950E+00	Analog	0.30	3
Sr			1	1852.119	ug/l	1.90	964,560.33	7.251E-01	Pulse	0.50	3
Ca			1	294718.752	ug/l	2.00	809,903.02	4.200E+00	Pulse	0.50	3
Ti			1	4933.385	ug/l	2.56	85,694.96	4.444E-01	Pulse	0.50	3
Na			1	19814.794	ug/l	2.52	2,664,391.08	1.382E+01	Analog	1.00	3
Mg			1	40779.338	ug/l	0.95	2,849,625.00	1.478E+01	Analog	1.00	3
K			1	38304.256	ug/l	1.11	2,106,906.96	1.093E+01	Analog	1.00	3
V			1	389.015	ug/l	2.09	221,860.77	1.790E+00	Pulse	0.50	3
Mn			1	12424.701	ug/l	2.05	4,915,820.83	2.882E+01	Analog	0.50	3
Fe			1	1323098.507	ug/l	1.22	745,627,754.67	4.371E+03	Analog	0.50	3
Co			1	237.240	ug/l	1.29	242,029.94	1.419E+00	Pulse	0.50	3
Ni			1	1243.103	ug/l	1.59	330,671.62	1.938E+00	Pulse	0.50	3
Cu			1	37385.458	ug/l	2.10	26,106,132.67	1.530E+02	Analog	0.50	3
Zn			1	42231.923	ug/l	1.37	5,558,974.00	3.259E+01	Analog	1.00	3
Cd			1	425.453	ug/l	1.83	91,906.70	5.387E-01	Pulse	0.50	3
Al			1	180034.234	ug/l	2.11	5,173,122.83	2.683E+01	Analog	1.00	3
Se			1	10.553	ug/l	13.92	111.55	6.540E-04	Pulse	3.00	3
Sb			1	857.203	ug/l	1.78	527,316.29	3.091E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,131,447.92	0.49	117.7	Analog	0.50	3
1	Sc		192,791.95	0.98	129.0	Pulse	0.30	3
1	Ge		123,949.63	1.35	132.2	Pulse	0.30	3
1	In		1,329,981.33	1.15	127.3	Pulse	0.30	3
1	Tb		3,960,346.00	1.90	115.3	Analog	0.50	3
1	Lu		3,257,576.50	0.86	114.1	Analog	0.50	3
1	Ge		170,570.98	1.79	120.9	Pulse	0.30	3
1	Li		2,244.59	5.08	100.3	Pulse	0.30	3

Quantitation Report

File Name 048SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:45
Sample Name FC11606-9
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	286.749	ug/l	1.87	186,234.45	1.107E+00	Pulse	0.50	3
As			1	499.991	ug/l	1.29	40,393.23	2.401E-01	Pulse	1.00	3
Mo			1	25.227	ug/l	2.28	9,648.01	5.735E-02	Pulse	0.50	3
Pb			1	3432.068	ug/l	3.17	8,119,896.17	2.698E+00	Analog	1.00	3
Be			1	3.829	ug/l	4.36	31.67	1.264E-02	Pulse	2.00	3
Ag			1	6.336	ug/l	0.32	8,175.95	6.633E-03	Pulse	0.50	3
Ba			1	3139.237	ug/l	1.24	641,018.56	5.201E-01	Pulse	0.50	3
Tl			1	1.543	ug/l	5.95	6,812.80	2.264E-03	Pulse	0.50	3
Sn			1	5658.742	ug/l	2.76	2,512,981.01	2.039E+00	Analog	0.30	3
Sr			1	315.085	ug/l	1.59	152,384.24	1.236E-01	Pulse	0.50	3
Ca			1	37463.051	ug/l	2.31	103,350.12	5.346E-01	Pulse	0.50	3
Ti			1	1817.120	ug/l	2.93	31,655.47	1.637E-01	Pulse	0.50	3
Na			1	4003.099	ug/l	1.89	546,949.41	2.829E+00	Pulse	1.00	3
Mg			1	28197.705	ug/l	2.92	1,975,840.29	1.022E+01	Analog	1.00	3
K			1	16099.834	ug/l	1.65	910,924.79	4.711E+00	Pulse	1.00	3
V			1	478.575	ug/l	1.23	262,124.08	2.198E+00	Pulse	0.50	3
Mn			1	5554.154	ug/l	0.65	2,167,556.25	1.288E+01	Analog	0.50	3
Fe			1	806043.598	ug/l	1.48	448,016,330.67	2.663E+03	Analog	0.50	3
Co			1	93.100	ug/l	1.06	93,729.68	5.571E-01	Pulse	0.50	3
Ni			1	214.024	ug/l	1.99	56,258.09	3.344E-01	Pulse	0.50	3
Cu			1	1377.643	ug/l	1.24	955,272.81	5.678E+00	Pulse	0.50	3
Zn			1	6410.506	ug/l	1.34	833,318.64	4.953E+00	Pulse	1.00	3
Cd			1	5.856	ug/l	2.87	1,295.39	7.699E-03	Pulse	0.50	3
Al			1	128334.842	ug/l	2.95	3,697,564.75	1.913E+01	Analog	1.00	3
Se			1	9.408	ug/l	10.04	101.67	6.044E-04	Pulse	3.00	3
Sb			1	14.595	ug/l	1.93	11,319.41	6.728E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,011,194.08	2.27	113.1	Analog	0.50	3
1	Sc		193,382.91	1.74	129.4	Pulse	0.30	3
1	Ge		119,283.40	0.51	127.2	Pulse	0.30	3
1	In		1,232,552.42	0.67	117.9	Pulse	0.30	3
1	Tb		4,007,513.25	0.89	116.6	Analog	0.50	3
1	Lu		3,279,500.58	1.62	114.8	Analog	0.50	3
1	Ge		168,249.00	0.65	119.2	Pulse	0.30	3
1	Li		2,509.07	6.98	112.1	Pulse	0.30	3

Quantitation Report

File Name	049SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 12:48
Sample Name	FC11606-10
Sample Type	Sample
Comment	
Prep Dilution	10.000
Auto Dilution	N/A
Total Dilution	10.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	248.408	ug/l	1.28	165,011.64	9.594E-01	Pulse	0.50	3
As			1	188.521	ug/l	2.90	15,610.83	9.077E-02	Pulse	1.00	3
Mo			1	15.520	ug/l	4.88	6,221.80	3.618E-02	Pulse	0.50	3
Pb			1	4362.205	ug/l	1.30	10,607,628.00	3.429E+00	Analog	1.00	3
Be			1	2.457	ug/l	29.75	20.33	8.219E-03	Pulse	2.00	3
Ag			1	14.412	ug/l	2.19	18,650.72	1.505E-02	Pulse	0.50	3
Ba			1	1869.211	ug/l	1.84	383,874.45	3.097E-01	Pulse	0.50	3
Tl			1	1.440	ug/l	4.18	6,648.73	2.149E-03	Pulse	0.50	3
Sn			1	2376.390	ug/l	2.52	1,061,746.76	8.567E-01	Pulse	0.30	3
Sr			1	208.852	ug/l	1.40	101,716.12	8.207E-02	Pulse	0.50	3
Ca			1	30996.978	ug/l	1.59	86,402.30	4.424E-01	Pulse	0.50	3
Ti			1	1027.304	ug/l	1.26	18,085.67	9.261E-02	Pulse	0.50	3
Na			1	6085.590	ug/l	1.07	835,128.54	4.276E+00	Pulse	1.00	3
Mg			1	28994.845	ug/l	3.26	2,052,372.04	1.051E+01	Analog	1.00	3
K			1	12758.635	ug/l	0.88	737,412.19	3.776E+00	Pulse	1.00	3
V			1	217.210	ug/l	2.51	119,544.35	1.007E+00	Pulse	0.50	3
Mn			1	2694.357	ug/l	1.81	1,075,065.00	6.251E+00	Pulse	0.50	3
Fe			1	400754.255	ug/l	1.62	227,726,042.67	1.324E+03	Analog	0.50	3
Co			1	54.542	ug/l	1.88	56,173.06	3.266E-01	Pulse	0.50	3
Ni			1	154.663	ug/l	1.70	41,601.15	2.419E-01	Pulse	0.50	3
Cu			1	1966.936	ug/l	1.72	1,391,306.46	8.089E+00	Pulse	0.50	3
Zn			1	6878.511	ug/l	1.75	914,009.27	5.314E+00	Pulse	1.00	3
Cd			1	11.234	ug/l	4.09	2,494.86	1.451E-02	Pulse	0.50	3
Al			1	102402.828	ug/l	2.21	2,980,428.58	1.526E+01	Analog	1.00	3
Se			1	5.110	ug/l	14.33	72.00	4.186E-04	Pulse	3.00	3
Sb			1	13.650	ug/l	1.94	10,988.52	6.389E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,094,005.58	0.58	116.2	Analog	0.50	3
1	Sc		195,297.09	0.29	130.7	Pulse	0.30	3
1	Ge		118,731.80	0.77	126.7	Pulse	0.30	3
1	In		1,239,493.49	0.83	118.6	Pulse	0.30	3
1	Tb		4,047,752.92	0.16	117.8	Analog	0.50	3
1	Lu		3,270,156.83	0.58	114.5	Analog	0.50	3
1	Ge		171,998.96	0.33	121.9	Pulse	0.30	3
1	Li		2,467.95	1.92	110.3	Pulse	0.30	3

Quantitation Report

File Name 050SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:51
Sample Name FC11606-11
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	385.887	ug/l	1.50	219,680.01	1.489E+00	Pulse	0.50	3
As			1	123.321	ug/l	2.46	8,781.84	5.951E-02	Pulse	1.00	3
Mo			1	15.225	ug/l	1.46	5,243.47	3.553E-02	Pulse	0.50	3
Pb			1	4335.730	ug/l	3.72	9,298,382.67	3.408E+00	Analog	1.00	3
Be			1	4.284	ug/l	12.17	31.83	1.411E-02	Pulse	2.00	3
Ag			1	4.133	ug/l	1.75	4,631.30	4.337E-03	Pulse	0.50	3
Ba			1	10251.222	ug/l	1.75	1,813,295.04	1.698E+00	Analog	0.50	3
Tl			1	2.115	ug/l	4.92	7,919.31	2.902E-03	Pulse	0.50	3
Sn			1	135.754	ug/l	4.23	52,934.81	4.957E-02	Pulse	0.30	3
Sr			1	2523.320	ug/l	1.80	1,054,767.52	9.878E-01	Pulse	0.50	3
Ca			1	836074.866	ug/l	2.08	2,001,917.58	1.191E+01	Analog	0.50	3
Ti			1	4771.094	ug/l	4.04	72,211.61	4.298E-01	Pulse	0.50	3
Na			1	2208.792	ug/l	1.25	265,800.68	1.582E+00	Pulse	1.00	3
Mg			1	55623.084	ug/l	3.97	3,387,047.17	2.016E+01	Analog	1.00	3
K			1	25082.082	ug/l	1.31	1,214,200.25	7.226E+00	Pulse	1.00	3
V			1	582.164	ug/l	1.13	268,751.92	2.669E+00	Pulse	0.50	3
Mn			1	4285.011	ug/l	3.16	1,466,934.00	9.940E+00	Analog	0.50	3
Fe			1	273314.975	ug/l	2.20	133,264,880.00	9.030E+02	Analog	0.50	3
Co			1	69.899	ug/l	2.47	61,749.16	4.184E-01	Pulse	0.50	3
Ni			1	158.968	ug/l	0.90	36,684.50	2.486E-01	Pulse	0.50	3
Cu			1	411.050	ug/l	1.60	254,250.18	1.723E+00	Pulse	0.50	3
Zn			1	8796.409	ug/l	1.72	1,002,619.62	6.794E+00	Pulse	1.00	3
Cd			1	17.220	ug/l	4.06	3,258.32	2.208E-02	Pulse	0.50	3
Al			1	165567.078	ug/l	2.07	4,145,813.75	2.467E+01	Analog	1.00	3
Se			1	10.579	ug/l	5.55	96.67	6.551E-04	Pulse	3.00	3
Sb			1	24.074	ug/l	2.35	14,948.51	1.013E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,730,144.33	2.35	102.6	Analog	0.50	3
1	Sc		168,040.56	0.73	112.5	Pulse	0.30	3
1	Ge		100,677.73	1.42	107.4	Pulse	0.30	3
1	In		1,067,792.70	0.21	102.2	Pulse	0.30	3
1	Tb		3,702,082.17	0.63	107.8	Analog	0.50	3
1	Lu		3,023,618.50	0.82	105.9	Analog	0.50	3
1	Ge		147,573.48	0.45	104.6	Pulse	0.30	3
1	Li		2,251.26	3.18	100.6	Pulse	0.30	3

Quantitation Report

File Name 051SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:54
Sample Name FC11606-12
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	347.608	ug/l	1.25	204,519.85	1.341E+00	Pulse	0.50	3
As			1	128.166	ug/l	1.11	9,428.50	6.183E-02	Pulse	1.00	3
Mo			1	18.818	ug/l	0.92	6,613.27	4.337E-02	Pulse	0.50	3
Pb			1	4072.466	ug/l	3.87	8,948,057.33	3.201E+00	Analog	1.00	3
Be			1	5.172	ug/l	10.07	40.33	1.697E-02	Pulse	2.00	3
Ag			1	4.692	ug/l	1.64	5,409.53	4.920E-03	Pulse	0.50	3
Ba			1	10438.974	ug/l	1.84	1,901,384.29	1.729E+00	Analog	0.50	3
Tl			1	2.154	ug/l	1.34	8,240.14	2.946E-03	Pulse	0.50	3
Sn			1	228.124	ug/l	1.95	91,094.34	8.285E-02	Pulse	0.30	3
Sr			1	4064.663	ug/l	3.10	1,749,251.79	1.591E+00	Analog	0.50	3
Ca			1	758983.836	ug/l	2.32	1,854,166.04	1.082E+01	Analog	0.50	3
Ti			1	4851.273	ug/l	1.59	74,923.32	4.370E-01	Pulse	0.50	3
Na			1	2179.667	ug/l	0.39	267,709.90	1.562E+00	Pulse	1.00	3
Mg			1	54765.344	ug/l	1.51	3,402,905.17	1.985E+01	Analog	1.00	3
K			1	25238.505	ug/l	0.54	1,246,274.00	7.270E+00	Pulse	1.00	3
V			1	595.054	ug/l	1.45	285,041.59	2.728E+00	Pulse	0.50	3
Mn			1	3747.383	ug/l	1.00	1,325,536.08	8.693E+00	Pulse	0.50	3
Fe			1	244229.361	ug/l	1.79	123,049,165.33	8.069E+02	Analog	0.50	3
Co			1	72.882	ug/l	1.79	66,521.96	4.362E-01	Pulse	0.50	3
Ni			1	196.767	ug/l	1.48	46,890.80	3.075E-01	Pulse	0.50	3
Cu			1	459.852	ug/l	1.39	293,161.97	1.923E+00	Pulse	0.50	3
Zn			1	11367.183	ug/l	1.38	1,338,420.79	8.777E+00	Pulse	1.00	3
Cd			1	26.605	ug/l	1.79	5,178.12	3.396E-02	Pulse	0.50	3
Al			1	156562.764	ug/l	1.33	3,999,741.17	2.333E+01	Analog	1.00	3
Se			1	12.499	ug/l	8.65	112.56	7.381E-04	Pulse	3.00	3
Sb			1	14.969	ug/l	1.50	10,463.53	6.862E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,797,301.33	2.64	105.1	Analog	0.50	3
1	Sc		171,432.83	0.57	114.7	Pulse	0.30	3
1	Ge		104,484.84	0.76	111.5	Pulse	0.30	3
1	In		1,099,571.48	0.46	105.2	Pulse	0.30	3
1	Tb		3,827,373.67	2.05	111.4	Analog	0.50	3
1	Lu		3,098,054.75	2.94	108.5	Analog	0.50	3
1	Ge		152,484.67	0.34	108.1	Pulse	0.30	3
1	Li		2,372.38	6.20	106.0	Pulse	0.30	3

Quantitation Report

File Name 052SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 12:58
Sample Name FC11606-13
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	439.203	ug/l	1.96	257,957.29	1.694E+00	Pulse	0.50	3
As			1	106.722	ug/l	1.06	7,851.07	5.155E-02	Pulse	1.00	3
Mo			1	17.841	ug/l	3.58	6,280.48	4.124E-02	Pulse	0.50	3
Pb			1	6051.536	ug/l	1.98	13,507,683.67	4.756E+00	Analog	1.00	3
Be			1	4.773	ug/l	25.05	35.17	1.568E-02	Pulse	2.00	3
Ag			1	4.144	ug/l	4.19	4,834.02	4.349E-03	Pulse	0.50	3
Ba			1	10086.851	ug/l	3.08	1,857,410.66	1.671E+00	Analog	0.50	3
Tl			1	1.873	ug/l	5.21	7,476.44	2.632E-03	Pulse	0.50	3
Sn			1	234.103	ug/l	2.31	94,489.31	8.500E-02	Pulse	0.30	3
Sr			1	4480.685	ug/l	1.88	1,949,585.50	1.754E+00	Analog	0.50	3
Ca			1	838657.895	ug/l	2.88	2,066,272.75	1.195E+01	Analog	0.50	3
Ti			1	4741.333	ug/l	0.95	73,852.58	4.271E-01	Pulse	0.50	3
Na			1	2366.123	ug/l	1.04	292,414.85	1.691E+00	Pulse	1.00	3
Mg			1	55855.456	ug/l	1.79	3,500,105.92	2.024E+01	Analog	1.00	3
K			1	20267.105	ug/l	0.77	1,016,346.10	5.878E+00	Pulse	1.00	3
V			1	538.287	ug/l	2.19	256,401.69	2.470E+00	Pulse	0.50	3
Mn			1	5118.903	ug/l	1.48	1,808,341.96	1.187E+01	Analog	0.50	3
Fe			1	287529.795	ug/l	0.90	144,682,272.00	9.500E+02	Analog	0.50	3
Co			1	78.768	ug/l	1.93	71,795.98	4.714E-01	Pulse	0.50	3
Ni			1	193.467	ug/l	2.14	46,048.53	3.024E-01	Pulse	0.50	3
Cu			1	600.515	ug/l	1.14	380,459.56	2.498E+00	Pulse	0.50	3
Zn			1	14891.147	ug/l	2.28	1,750,797.58	1.150E+01	Analog	1.00	3
Cd			1	151.954	ug/l	2.65	29,331.56	1.926E-01	Pulse	0.50	3
Al			1	268217.766	ug/l	2.11	6,910,538.83	3.997E+01	Analog	1.00	3
Se			1	9.922	ug/l	12.47	95.45	6.267E-04	Pulse	3.00	3
Sb			1	142.039	ug/l	1.98	79,898.36	5.246E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,840,334.50	0.74	106.7	Analog	0.50	3
1	Sc		172,911.11	0.65	115.7	Pulse	0.30	3
1	Ge		103,834.29	1.08	110.8	Pulse	0.30	3
1	In		1,111,717.35	0.58	106.4	Pulse	0.30	3
1	Tb		3,838,672.17	0.48	111.7	Analog	0.50	3
1	Lu		3,154,375.58	2.84	110.4	Analog	0.50	3
1	Ge		152,301.73	0.30	107.9	Pulse	0.30	3
1	Li		2,250.15	3.86	100.5	Pulse	0.30	3

Quantitation Report

File Name 053SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:01
Sample Name FC11606-14
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1289.573	ug/l	2.24	890,413.71	4.967E+00	Pulse	0.50	3
As			1	298.587	ug/l	1.60	25,730.52	1.435E-01	Pulse	1.00	3
Mo			1	96.594	ug/l	0.59	38,188.17	2.130E-01	Pulse	0.50	3
Pb			1	32702.023	ug/l	0.95	79,745,384.00	2.569E+01	Analog	1.00	3
Be			1	4.232	ug/l	19.51	33.67	1.394E-02	Pulse	2.00	3
Ag			1	88.505	ug/l	2.08	118,953.87	9.226E-02	Pulse	0.50	3
Ba			1	15698.222	ug/l	2.77	3,352,777.17	2.600E+00	Analog	0.50	3
Tl			1	1.773	ug/l	3.22	7,821.93	2.520E-03	Pulse	0.50	3
Sn			1	1344.394	ug/l	2.80	625,254.77	4.850E-01	Pulse	0.30	3
Sr			1	1132.953	ug/l	2.54	572,082.56	4.437E-01	Pulse	0.50	3
Ca			1	215421.483	ug/l	2.39	635,788.69	3.070E+00	Pulse	0.50	3
Ti			1	5182.661	ug/l	2.48	96,675.42	4.669E-01	Pulse	0.50	3
Na			1	13791.775	ug/l	1.93	1,994,569.67	9.632E+00	Analog	1.00	3
Mg			1	34940.143	ug/l	2.36	2,622,359.08	1.266E+01	Analog	1.00	3
K			1	37767.637	ug/l	1.86	2,231,775.33	1.078E+01	Analog	1.00	3
V			1	586.928	ug/l	1.57	347,726.97	2.691E+00	Pulse	0.50	3
Mn			1	11789.552	ug/l	1.75	4,901,936.67	2.734E+01	Analog	0.50	3
Fe			1	1324891.720	ug/l	1.95	784,698,176.00	4.377E+03	Analog	0.50	3
Co			1	145.560	ug/l	1.58	156,090.93	8.707E-01	Pulse	0.50	3
Ni			1	538.096	ug/l	1.35	150,503.30	8.395E-01	Pulse	0.50	3
Cu			1	48929.343	ug/l	1.51	35,899,489.33	2.003E+02	Analog	0.50	3
Zn			1	35359.315	ug/l	1.67	4,891,735.67	2.729E+01	Analog	1.00	3
Cd			1	103.672	ug/l	0.60	23,573.39	1.315E-01	Pulse	0.50	3
Al			1	244244.678	ug/l	3.37	7,536,434.33	3.640E+01	Analog	1.00	3
Se			1	10.451	ug/l	1.84	116.45	6.496E-04	Pulse	3.00	3
Sb			1	168.580	ug/l	1.70	111,124.30	6.199E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,103,803.42	0.64	116.6	Analog	0.50	3
1	Sc		207,090.78	0.64	138.6	Pulse	0.30	3
1	Ge		129,208.38	0.48	137.8	Pulse	0.30	3
1	In		1,289,460.47	0.62	123.4	Pulse	0.30	3
1	Tb		4,181,627.08	1.17	121.7	Analog	0.50	3
1	Lu		3,417,011.92	0.53	119.6	Analog	0.50	3
1	Ge		179,275.23	0.70	127.1	Pulse	0.30	3
1	Li		2,419.06	2.81	108.1	Pulse	0.30	3

Quantitation Report

File Name	054_MB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 13:04
Sample Name	MP43236-MB1
Sample Type	MB
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name 055_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:07
Sample Name MP43236-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	196.032	ug/l	5.62	676,376.92	3.776E+00	Pulse	0.50	3
As			1	194.113	ug/l	5.25	83,428.66	4.657E-01	Pulse	1.00	3
Mo			1	208.856	ug/l	5.60	408,424.76	2.280E+00	Pulse	0.50	3
Pb			1	190.967	ug/l	6.02	2,342,499.50	7.516E-01	Analog	1.00	3
Be			1	199.446	ug/l	7.47	8,280.98	3.214E+00	Pulse	2.00	3
Ag			1	100.251	ug/l	4.97	658,184.81	5.224E-01	Pulse	0.50	3
Ba			1	187.723	ug/l	5.69	195,987.51	1.556E-01	Pulse	0.50	3
Tl			1	185.168	ug/l	5.51	3,224,132.25	1.034E+00	Analog	0.50	3
Sn			1	189.809	ug/l	6.40	431,404.84	3.425E-01	Pulse	0.30	3
Sr			1	200.802	ug/l	5.67	495,380.31	3.932E-01	Pulse	0.50	3
Ca			1	17985.090	ug/l	5.14	254,160.23	1.282E+00	Pulse	0.50	3
Ti			1	196.219	ug/l	4.48	17,537.80	8.845E-02	Pulse	0.50	3
Na			1	18284.733	ug/l	5.75	12,602,310.33	6.359E+01	Analog	1.00	3
Mg			1	18123.305	ug/l	5.46	6,509,354.00	3.284E+01	Analog	1.00	3
K			1	18433.084	ug/l	4.22	5,157,194.50	2.601E+01	Analog	1.00	3
V			1	194.722	ug/l	5.17	538,485.46	4.453E+00	Pulse	0.50	3
Mn			1	193.734	ug/l	5.28	402,789.34	2.248E+00	Pulse	0.50	3
Fe			1	18959.132	ug/l	5.31	56,121,169.33	3.133E+02	Analog	0.50	3
Co			1	194.748	ug/l	5.37	1,042,883.50	5.822E+00	Pulse	0.50	3
Ni			1	194.997	ug/l	5.74	272,352.07	1.521E+00	Pulse	0.50	3
Cu			1	199.305	ug/l	5.56	737,770.06	4.119E+00	Pulse	0.50	3
Zn			1	185.843	ug/l	5.68	129,735.52	7.243E-01	Pulse	1.00	3
Cd			1	184.123	ug/l	5.77	208,745.88	1.165E+00	Pulse	0.50	3
Al			1	17794.156	ug/l	7.86	2,626,422.00	1.326E+01	Analog	1.00	3
Se			1	174.654	ug/l	4.95	6,801.08	3.796E-02	Pulse	3.00	3
Sb			1	184.315	ug/l	5.52	595,091.42	3.322E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,122,447.17	4.64	117.3	Analog	0.50	3
1	Sc		198,596.84	5.37	132.9	Pulse	0.30	3
1	Ge		121,118.54	4.39	129.2	Pulse	0.30	3
1	In		1,261,985.02	4.75	120.8	Pulse	0.30	3
1	Tb		4,237,419.33	4.82	123.3	Analog	0.50	3
1	Lu		3,452,983.75	5.02	120.9	Analog	0.50	3
1	Ge		179,449.86	4.82	127.2	Pulse	0.30	3
1	Li		2,585.75	7.19	115.5	Pulse	0.30	3

Quantitation Report

File Name 056SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:10
Sample Name FC10213-5R
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.722	ug/l	2.56	6,546.54	3.640E-02	Pulse	0.50	3
As			1	0.466	ug/l	17.70	270.67	1.502E-03	Pulse	1.00	3
Mo			1	0.469	ug/l	11.01	1,336.06	7.437E-03	Pulse	0.50	3
Pb			1	0.693	ug/l	7.26	13,361.92	4.161E-03	Pulse	1.00	3
Be			1	0.333	ug/l	15.50	16.00	5.672E-03	Pulse	2.00	3
Ag			1	0.056	ug/l	32.29	421.34	3.250E-04	Pulse	0.50	3
Ba			1	44.996	ug/l	4.52	48,106.70	3.737E-02	Pulse	0.50	3
Tl			1	0.219	ug/l	16.38	5,669.70	1.764E-03	Pulse	0.50	3
Sn			1	0.937	ug/l	9.19	3,043.65	2.361E-03	Pulse	0.30	3
Sr			1	35.963	ug/l	4.48	91,019.53	7.071E-02	Pulse	0.50	3
Ca			1	4462.806	ug/l	5.12	62,420.09	3.187E-01	Pulse	0.50	3
Ti			1	1.828	ug/l	11.94	177.33	9.032E-04	Pulse	0.50	3
Na			1	6422.309	ug/l	3.90	4,381,772.33	2.236E+01	Analog	1.00	3
Mg			1	2854.674	ug/l	5.05	1,013,519.08	5.175E+00	Pulse	1.00	3
K			1	2118.762	ug/l	4.19	621,038.42	3.170E+00	Pulse	1.00	3
V			1	6.138	ug/l	5.89	18,964.58	1.573E-01	Pulse	0.50	3
Mn			1	5.649	ug/l	3.93	12,104.75	6.732E-02	Pulse	0.50	3
Fe			1	71.549	ug/l	3.47	227,165.28	1.263E+00	Pulse	0.50	3
Co			1	0.257	ug/l	15.81	1,485.40	8.242E-03	Pulse	0.50	3
Ni			1	1.553	ug/l	3.58	2,321.49	1.291E-02	Pulse	0.50	3
Cu			1	1.167	ug/l	1.09	11,651.82	6.477E-02	Pulse	0.50	3
Zn			1	6.509	ug/l	3.05	5,840.62	3.248E-02	Pulse	1.00	3
Cd			1	0.107	ug/l	59.97	174.67	9.640E-04	Pulse	0.50	3
Al			1	59.027	ug/l	7.67	9,127.97	4.651E-02	Pulse	1.00	3
Se			1	0.590	ug/l	14.62	58.56	3.253E-04	Pulse	3.00	3
Sb			1	0.202	ug/l	14.52	3,334.00	1.854E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,208,336.42	3.26	120.5	Analog	0.50	3
1	Sc		196,127.13	4.01	131.3	Pulse	0.30	3
1	Ge		120,652.86	2.53	128.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,288,556.58	3.29	123.3	Pulse	0.30	3
1	Tb		4,309,655.67	2.95	125.4	Analog	0.50	3
1	Lu		3,462,478.50	4.22	121.2	Analog	0.50	3
1	Ge		179,916.22	2.93	127.5	Pulse	0.30	3
1	Li		2,810.22	8.29	125.6	Pulse	0.30	3

Quantitation Report

File Name 057CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:14
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.032	ug/l	1.30	320,315.69	1.814E+00	Pulse	0.50	3
As			1	46.618	ug/l	1.41	39,542.68	2.239E-01	Pulse	1.00	3
Mo			1	46.596	ug/l	0.94	179,918.44	1.019E+00	Pulse	0.50	3
Pb			1	46.849	ug/l	1.73	1,141,380.29	3.695E-01	Pulse	1.00	3
Be			1	51.035	ug/l	6.95	3,967.58	1.645E+00	Pulse	2.00	3
Ag			1	49.051	ug/l	0.47	640,921.92	5.112E-01	Pulse	0.50	3
Ba			1	46.525	ug/l	1.53	96,759.71	7.717E-02	Pulse	0.50	3
Tl			1	47.222	ug/l	0.81	1,630,372.83	5.278E-01	Mix	0.50	3
Sn			1	47.074	ug/l	1.02	213,458.29	1.702E-01	Pulse	0.30	3
Sr			1	47.156	ug/l	0.78	231,800.55	1.849E-01	Pulse	0.50	3
Ca			1	4671.106	ug/l	1.40	126,128.35	6.663E-01	Pulse	0.50	3
Ti			1	46.679	ug/l	2.10	7,973.10	4.212E-02	Pulse	0.50	3
Na			1	4754.629	ug/l	1.25	6,263,694.33	3.309E+01	Analog	1.00	3
Mg			1	4815.644	ug/l	3.59	3,303,717.17	1.745E+01	Analog	1.00	3
K			1	4963.374	ug/l	0.43	2,668,831.00	1.410E+01	Analog	1.00	3
V			1	46.986	ug/l	0.67	254,701.10	2.158E+00	Pulse	0.50	3
Mn			1	46.869	ug/l	1.15	192,308.01	1.089E+00	Pulse	0.50	3
Fe			1	4774.759	ug/l	1.77	27,875,187.33	1.578E+02	Analog	0.50	3
Co			1	47.165	ug/l	1.16	498,094.27	2.820E+00	Pulse	0.50	3
Ni			1	48.106	ug/l	1.16	132,579.28	7.506E-01	Pulse	0.50	3
Cu			1	48.681	ug/l	1.32	359,046.46	2.033E+00	Pulse	0.50	3
Zn			1	47.461	ug/l	1.36	65,976.86	3.735E-01	Pulse	1.00	3
Cd			1	46.445	ug/l	1.26	103,865.63	5.881E-01	Pulse	0.50	3
Al			1	4649.039	ug/l	5.74	1,311,749.29	6.930E+00	Analog	1.00	3
Se			1	45.424	ug/l	2.29	3,504.35	1.984E-02	Pulse	3.00	3
Sb			1	45.620	ug/l	1.28	291,784.80	1.652E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,089,079.00	1.03	116.1	Analog	0.50	3
1	Sc		189,283.47	0.18	126.7	Pulse	0.30	3
1	Ge		118,029.50	0.79	125.9	Pulse	0.30	3
1	In		1,253,825.58	0.16	120.0	Pulse	0.30	3
1	Tb		4,255,730.50	1.28	123.9	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,410,840.25	1.05	119.4	Analog	0.50	3
1	Ge		176,622.24	0.32	125.2	Pulse	0.30	3
1	Li		2,420.17	7.38	108.1	Pulse	0.30	3

Quantitation Report

File Name 058_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:17
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.430	ug/l	4.60	635,616.23	3.753E+00	Pulse	0.50	3
As			1	96.557	ug/l	3.89	78,472.34	4.633E-01	Pulse	1.00	3
Mo			1	96.624	ug/l	4.41	357,310.59	2.110E+00	Pulse	0.50	3
Pb			1	98.900	ug/l	5.80	2,332,276.00	7.784E-01	Analog	1.00	3
Be			1	95.670	ug/l	8.49	7,832.46	3.083E+00	Pulse	2.00	3
Ag			1	97.949	ug/l	8.09	1,252,911.71	1.021E+00	Pulse	0.50	3
Ba			1	94.735	ug/l	7.39	192,823.12	1.570E-01	Pulse	0.50	3
Tl			1	99.085	ug/l	4.45	3,317,707.00	1.107E+00	Analog	0.50	3
Sn			1	95.086	ug/l	8.02	421,290.41	3.432E-01	Pulse	0.30	3
Sr			1	95.683	ug/l	8.11	460,039.93	3.748E-01	Pulse	0.50	3
Ca			1	9561.796	ug/l	7.53	252,214.95	1.363E+00	Pulse	0.50	3
Ti			1	96.193	ug/l	7.41	16,045.07	8.672E-02	Pulse	0.50	3
Na			1	9629.620	ug/l	7.77	12,389,295.00	6.697E+01	Analog	1.00	3
Mg			1	9594.396	ug/l	7.95	6,431,717.00	3.477E+01	Analog	1.00	3
K			1	9788.625	ug/l	8.12	5,106,540.00	2.761E+01	Analog	1.00	3
V			1	96.388	ug/l	4.97	508,023.76	4.408E+00	Pulse	0.50	3
Mn			1	96.508	ug/l	4.87	379,310.89	2.240E+00	Pulse	0.50	3
Fe			1	9853.706	ug/l	5.21	55,132,142.67	3.256E+02	Analog	0.50	3
Co			1	96.978	ug/l	4.23	981,948.23	5.798E+00	Pulse	0.50	3
Ni			1	98.349	ug/l	4.03	259,771.33	1.534E+00	Pulse	0.50	3
Cu			1	98.963	ug/l	4.61	692,677.15	4.090E+00	Pulse	0.50	3
Zn			1	96.442	ug/l	4.05	127,271.09	7.514E-01	Pulse	1.00	3
Cd			1	95.426	ug/l	4.24	204,580.81	1.208E+00	Pulse	0.50	3
Al			1	9419.841	ug/l	8.16	2,596,714.75	1.404E+01	Analog	1.00	3
Se			1	95.847	ug/l	3.36	7,054.51	4.164E-02	Pulse	3.00	3
Sb			1	94.268	ug/l	4.22	575,453.04	3.398E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,001,225.75	4.53	112.8	Analog	0.50	3
1	Sc		185,715.59	7.58	124.3	Pulse	0.30	3
1	Ge		115,419.34	4.66	123.1	Pulse	0.30	3
1	In		1,232,821.79	8.03	118.0	Mix	0.30	3
1	Tb		4,144,761.00	6.17	120.6	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,320,144.33	6.48	116.2	Analog	0.50	3
1	Ge		169,556.30	4.11	120.2	Pulse	0.30	3
1	Li		2,553.53	9.18	114.1	Pulse	0.30	3

Quantitation Report

File Name	059_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 13:20
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.034	ug/l	35.47	774.68	4.556E-03	Pulse	0.50	3
As			1	0.029	ug/l	41.89	89.00	5.234E-04	Pulse	1.00	3
Mo			1	0.266	ug/l	33.92	1,380.73	8.116E-03	Pulse	0.50	3
Pb			1	0.127	ug/l	14.53	7,380.37	2.438E-03	Pulse	1.00	3
Be			1	0.041	ug/l	20.01	4.17	1.610E-03	Pulse	2.00	3
Ag			1	0.048	ug/l	19.97	644.01	5.273E-04	Pulse	0.50	3
Ba			1	0.048	ug/l	19.88	224.67	1.840E-04	Pulse	0.50	3
Tl			1	0.065	ug/l	14.92	3,831.81	1.265E-03	Pulse	0.50	3
Sn			1	0.264	ug/l	35.73	1,982.35	1.623E-03	Pulse	0.30	3
Sr			1	0.045	ug/l	27.33	624.68	5.115E-04	Pulse	0.50	3
Ca			1	2.917	ug/l	44.69	208.67	1.147E-03	Pulse	0.50	3
Ti			1	0.021	ug/l	268.86	18.00	9.880E-05	Pulse	0.50	3
Na			1	4.539	ug/l	27.52	14,241.17	7.827E-02	Pulse	1.00	3
Mg			1	5.270	ug/l	16.64	3,841.41	2.111E-02	Pulse	1.00	3
K			1	4.659	ug/l	18.84	39,485.27	2.170E-01	Pulse	1.00	3
V			1	0.012	ug/l	94.70	2,062.13	1.803E-02	Pulse	0.50	3
Mn			1	0.053	ug/l	29.46	515.34	3.031E-03	Pulse	0.50	3
Fe			1	7.698	ug/l	7.20	57,001.46	3.352E-01	Pulse	0.50	3
Co			1	0.052	ug/l	21.89	620.01	3.647E-03	Pulse	0.50	3
Ni			1	0.057	ug/l	0.58	288.00	1.693E-03	Pulse	0.50	3
Cu			1	0.044	ug/l	20.27	7,262.15	4.270E-02	Pulse	0.50	3
Zn			1	0.068	ug/l	34.63	1,342.05	7.891E-03	Pulse	1.00	3
Cd			1	0.039	ug/l	24.80	133.33	7.840E-04	Pulse	0.50	3
Al			1	5.685	ug/l	17.38	2,002.12	1.100E-02	Pulse	1.00	3
Se			1	0.114	ug/l	80.67	42.00	2.470E-04	Pulse	3.00	3
Sb			1	0.098	ug/l	8.03	3,129.96	1.840E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,028,708.50	1.22	113.8	Analog	0.50	3
1	Sc		182,000.58	0.38	121.8	Pulse	0.30	3
1	Ge		114,360.46	0.48	122.0	Pulse	0.30	3
1	In		1,221,253.60	0.13	116.9	Pulse	0.30	3
1	Tb		4,080,746.75	0.35	118.8	Analog	0.50	3
1	Lu		3,305,783.58	2.70	115.7	Analog	0.50	3
1	Ge		170,066.01	0.30	120.5	Pulse	0.30	3
1	Li		2,582.42	3.71	115.4	Pulse	0.30	3

Quantitation Report

File Name 060SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:34
Sample Name MP43236-D1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.599	ug/l	2.90	5,690.24	3.404E-02	Pulse	0.50	3
As			1	0.353	ug/l	14.90	206.00	1.232E-03	Pulse	1.00	3
Mo			1	0.176	ug/l	20.37	710.02	4.245E-03	Pulse	0.50	3
Pb			1	0.258	ug/l	6.58	7,798.90	2.454E-03	Pulse	1.00	3
Be			1	0.173	ug/l	74.96	8.17	3.092E-03	Pulse	2.00	3
Ag			1	0.021	ug/l	32.41	167.33	1.396E-04	Pulse	0.50	3
Ba			1	45.359	ug/l	4.23	45,103.80	3.767E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	97.52	1,755.44	5.523E-04	Pulse	0.50	3
Sn			1	0.709	ug/l	16.92	2,333.51	1.950E-03	Pulse	0.30	3
Sr			1	36.203	ug/l	3.76	85,226.83	7.117E-02	Pulse	0.50	3
Ca			1	4498.802	ug/l	4.30	58,794.06	3.213E-01	Pulse	0.50	3
Ti			1	1.619	ug/l	20.62	148.00	8.093E-04	Pulse	0.50	3
Na			1	6570.195	ug/l	3.24	4,187,813.17	2.288E+01	Analog	1.00	3
Mg			1	2896.303	ug/l	4.26	960,789.67	5.250E+00	Pulse	1.00	3
K			1	2135.006	ug/l	3.47	584,384.15	3.193E+00	Pulse	1.00	3
V			1	6.510	ug/l	6.63	18,501.45	1.658E-01	Pulse	0.50	3
Mn			1	5.605	ug/l	4.93	11,162.80	6.680E-02	Pulse	0.50	3
Fe			1	61.508	ug/l	3.13	183,369.71	1.097E+00	Pulse	0.50	3
Co			1	0.151	ug/l	0.83	846.69	5.062E-03	Pulse	0.50	3
Ni			1	1.475	ug/l	5.82	2,054.79	1.230E-02	Pulse	0.50	3
Cu			1	0.949	ug/l	7.97	10,082.86	6.030E-02	Pulse	0.50	3
Zn			1	6.358	ug/l	4.82	5,331.47	3.190E-02	Pulse	1.00	3
Cd			1	0.009	ug/l	108.30	57.33	3.434E-04	Pulse	0.50	3
Al			1	49.858	ug/l	5.74	7,259.79	3.968E-02	Pulse	1.00	3
Se			1	0.373	ug/l	31.22	46.56	2.783E-04	Pulse	3.00	3
Sb			1	0.066	ug/l	13.58	2,691.55	1.609E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,179,861.67	3.89	119.5	Analog	0.50	3
1	Sc		183,170.49	3.18	122.6	Pulse	0.30	3
1	Ge		111,689.43	2.17	119.1	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,198,373.56	3.26	114.7	Pulse	0.30	3
1	Tb		4,078,709.83	2.98	118.7	Analog	0.50	3
1	Lu		3,302,676.25	2.89	115.6	Analog	0.50	3
1	Ge		167,255.08	2.74	118.5	Pulse	0.30	3
1	Li		2,614.64	5.40	116.8	Pulse	0.30	3

Quantitation Report

File Name 061SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:37
Sample Name MP43236-SD1
Sample Type Sample
Comment
Prep Dilution 10.000
Auto Dilution N/A
Total Dilution 10.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.862	ug/l	4.17	1,700.09	1.043E-02	Pulse	0.50	3
As			1	0.275	ug/l	69.65	84.33	5.171E-04	Pulse	1.00	3
Mo			1	0.297	ug/l	41.13	484.68	2.973E-03	Pulse	0.50	3
Pb			1	0.528	ug/l	7.90	5,655.34	1.855E-03	Pulse	1.00	3
Be			1	0.310	ug/l	43.81	3.33	1.300E-03	Pulse	2.00	3
Ag			1	0.029	ug/l	11.86	72.67	6.134E-05	Pulse	0.50	3
Ba			1	46.072	ug/l	2.59	9,161.17	7.736E-03	Pulse	0.50	3
Tl			1	0.003	ug/l	259.82	1,658.76	5.440E-04	Pulse	0.50	3
Sn			1	-0.079	ug/l	-263.59	763.35	6.446E-04	Pulse	0.30	3
Sr			1	36.476	ug/l	1.90	17,305.19	1.461E-02	Pulse	0.50	3
Ca			1	5077.489	ug/l	2.48	12,869.23	7.308E-02	Pulse	0.50	3
Ti			1	1.593	ug/l	45.05	39.33	2.237E-04	Pulse	0.50	3
Na			1	6519.026	ug/l	1.21	806,128.94	4.578E+00	Pulse	1.00	3
Mg			1	2921.129	ug/l	2.10	186,775.07	1.061E+00	Pulse	1.00	3
K			1	2127.800	ug/l	1.42	140,821.47	7.996E-01	Pulse	1.00	3
V			1	7.490	ug/l	2.57	5,657.56	5.162E-02	Pulse	0.50	3
Mn			1	5.734	ug/l	4.67	2,462.84	1.510E-02	Pulse	0.50	3
Fe			1	63.189	ug/l	3.92	47,229.39	2.896E-01	Pulse	0.50	3
Co			1	0.172	ug/l	29.25	256.67	1.574E-03	Pulse	0.50	3
Ni			1	1.638	ug/l	8.86	547.34	3.357E-03	Pulse	0.50	3
Cu			1	4.469	ug/l	7.85	9,647.95	5.917E-02	Pulse	0.50	3
Zn			1	12.684	ug/l	2.66	2,797.22	1.716E-02	Pulse	1.00	3
Cd			1	0.004	ug/l	211.95	48.00	2.944E-04	Pulse	0.50	3
Al			1	48.289	ug/l	2.13	1,713.42	9.728E-03	Pulse	1.00	3
Se			1	0.489	ug/l	84.95	35.67	2.188E-04	Pulse	3.00	3
Sb			1	-0.070	ug/l	-80.28	2,389.17	1.465E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,049,057.17	0.72	114.6	Analog	0.50	3
1	Sc		176,116.94	0.96	117.9	Pulse	0.30	3
1	Ge		109,608.66	0.97	116.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,184,390.61	0.48	113.3	Pulse	0.30	3
1	Tb		3,997,477.25	0.82	116.3	Analog	0.50	3
1	Lu		3,216,501.08	0.47	112.6	Analog	0.50	3
1	Ge		163,051.13	0.33	115.6	Pulse	0.30	3
1	Li		2,556.85	1.97	114.3	Pulse	0.30	3

Quantitation Report

File Name 062SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:41
Sample Name MP43236-S1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	199.219	ug/l	5.53	635,589.96	3.837E+00	Pulse	0.50	3
As			1	195.079	ug/l	4.24	77,540.30	4.680E-01	Pulse	1.00	3
Mo			1	211.311	ug/l	5.01	382,135.10	2.307E+00	Pulse	0.50	3
Pb			1	194.370	ug/l	2.17	2,274,553.92	7.650E-01	Analog	1.00	3
Be			1	194.980	ug/l	2.83	7,943.67	3.142E+00	Pulse	2.00	3
Ag			1	99.506	ug/l	4.68	611,894.17	5.185E-01	Pulse	0.50	3
Ba			1	237.180	ug/l	5.06	231,931.14	1.965E-01	Pulse	0.50	3
Tl			1	189.328	ug/l	2.71	3,144,356.50	1.058E+00	Analog	0.50	3
Sn			1	193.907	ug/l	5.08	412,922.87	3.499E-01	Pulse	0.30	3
Sr			1	238.423	ug/l	4.62	550,968.21	4.669E-01	Pulse	0.50	3
Ca			1	22255.809	ug/l	5.51	294,126.09	1.586E+00	Pulse	0.50	3
Ti			1	196.153	ug/l	5.23	16,394.09	8.842E-02	Pulse	0.50	3
Na			1	24391.914	ug/l	5.33	15,724,886.00	8.481E+01	Analog	1.00	3
Mg			1	21119.627	ug/l	5.67	7,095,083.17	3.827E+01	Analog	1.00	3
K			1	20201.300	ug/l	4.78	5,281,886.50	2.848E+01	Analog	1.00	3
V			1	201.330	ug/l	4.25	516,988.71	4.603E+00	Pulse	0.50	3
Mn			1	201.096	ug/l	4.79	386,608.66	2.334E+00	Pulse	0.50	3
Fe			1	19348.619	ug/l	5.63	52,950,910.67	3.197E+02	Analog	0.50	3
Co			1	196.577	ug/l	4.81	973,454.06	5.876E+00	Pulse	0.50	3
Ni			1	196.450	ug/l	4.81	253,763.60	1.532E+00	Pulse	0.50	3
Cu			1	200.074	ug/l	5.10	684,841.25	4.134E+00	Pulse	0.50	3
Zn			1	191.510	ug/l	5.01	123,599.43	7.461E-01	Pulse	1.00	3
Cd			1	187.824	ug/l	4.82	196,937.54	1.189E+00	Pulse	0.50	3
Al			1	17952.724	ug/l	6.29	2,479,802.92	1.338E+01	Analog	1.00	3
Se			1	177.364	ug/l	4.85	6,385.48	3.855E-02	Pulse	3.00	3
Sb			1	189.524	ug/l	4.63	565,834.87	3.416E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,974,006.50	1.55	111.7	Analog	0.50	3
1	Sc		185,701.59	4.38	124.3	Pulse	0.30	3
1	Ge		112,396.29	2.66	119.9	Pulse	0.30	3
1	In		1,181,311.10	3.15	113.0	Pulse	0.30	3
1	Tb		4,102,654.25	2.85	119.4	Analog	0.50	3
1	Lu		3,327,804.83	4.88	116.5	Analog	0.50	3
1	Ge		165,826.40	3.16	117.5	Pulse	0.30	3
1	Li		2,529.07	1.79	113.0	Pulse	0.30	3

Quantitation Report

File Name 063SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:44
Sample Name MP43236-S2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	197.581	ug/l	5.96	637,166.69	3.806E+00	Pulse	0.50	3
As			1	192.748	ug/l	5.20	77,435.17	4.624E-01	Pulse	1.00	3
Mo			1	209.305	ug/l	5.47	382,600.93	2.285E+00	Pulse	0.50	3
Pb			1	198.187	ug/l	3.99	2,292,827.08	7.800E-01	Analog	1.00	3
Be			1	199.115	ug/l	4.75	7,967.52	3.209E+00	Pulse	2.00	3
Ag			1	99.288	ug/l	4.30	613,841.21	5.174E-01	Pulse	0.50	3
Ba			1	237.723	ug/l	4.92	233,700.81	1.970E-01	Pulse	0.50	3
Tl			1	191.302	ug/l	4.47	3,140,851.25	1.069E+00	Analog	0.50	3
Sn			1	192.442	ug/l	5.54	411,937.49	3.473E-01	Pulse	0.30	3
Sr			1	237.794	ug/l	5.26	552,352.69	4.656E-01	Pulse	0.50	3
Ca			1	22424.632	ug/l	5.87	295,851.98	1.598E+00	Pulse	0.50	3
Ti			1	199.046	ug/l	8.87	16,593.84	8.972E-02	Pulse	0.50	3
Na			1	24648.993	ug/l	6.10	15,861,556.00	8.570E+01	Analog	1.00	3
Mg			1	21157.604	ug/l	5.14	7,097,697.50	3.834E+01	Analog	1.00	3
K			1	20530.820	ug/l	5.10	5,358,371.67	2.894E+01	Analog	1.00	3
V			1	200.983	ug/l	4.73	518,618.14	4.595E+00	Pulse	0.50	3
Mn			1	199.403	ug/l	5.75	387,450.29	2.314E+00	Pulse	0.50	3
Fe			1	19077.478	ug/l	5.81	52,774,757.33	3.152E+02	Analog	0.50	3
Co			1	194.074	ug/l	5.84	971,305.62	5.801E+00	Pulse	0.50	3
Ni			1	194.694	ug/l	5.44	254,201.73	1.518E+00	Pulse	0.50	3
Cu			1	197.909	ug/l	5.80	684,781.52	4.090E+00	Pulse	0.50	3
Zn			1	189.462	ug/l	5.97	123,596.41	7.382E-01	Pulse	1.00	3
Cd			1	185.503	ug/l	5.14	196,610.07	1.174E+00	Pulse	0.50	3
Al			1	18085.361	ug/l	6.03	2,494,299.17	1.348E+01	Analog	1.00	3
Se			1	175.025	ug/l	4.84	6,370.47	3.804E-02	Pulse	3.00	3
Sb			1	187.754	ug/l	5.64	566,559.71	3.384E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,942,465.00	3.62	110.6	Analog	0.50	3
1	Sc		185,402.27	4.34	124.1	Pulse	0.30	3
1	Ge		112,952.96	2.63	120.5	Pulse	0.30	3
1	In		1,187,655.72	3.38	113.6	Pulse	0.30	3
1	Tb		4,094,739.92	3.25	119.2	Analog	0.50	3
1	Lu		3,319,766.75	3.14	116.2	Analog	0.50	3
1	Ge		167,673.73	3.81	118.8	Pulse	0.30	3
1	Li		2,485.74	3.28	111.1	Pulse	0.30	3

Quantitation Report

File Name 064SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:47
Sample Name MP43236-PS1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	23.213	ug/l	3.56	73,734.33	4.500E-01	Pulse	0.50	3
As			1	21.900	ug/l	1.27	8,665.12	5.288E-02	Pulse	1.00	3
Mo			1	21.947	ug/l	3.31	39,595.31	2.417E-01	Pulse	0.50	3
Pb			1	20.461	ug/l	3.31	247,342.15	8.182E-02	Pulse	1.00	3
Be			1	20.121	ug/l	3.97	889.19	3.245E-01	Pulse	2.00	3
Ag			1	7.438	ug/l	3.51	45,782.17	3.879E-02	Pulse	0.50	3
Ba			1	66.777	ug/l	4.91	65,394.33	5.541E-02	Pulse	0.50	3
Tl			1	19.571	ug/l	3.74	331,939.75	1.098E-01	Pulse	0.50	3
Sn			1	20.640	ug/l	4.39	44,669.12	3.785E-02	Pulse	0.30	3
Sr			1	57.899	ug/l	4.90	134,095.66	1.136E-01	Pulse	0.50	3
Ca			1	6519.401	ug/l	4.39	83,857.31	4.652E-01	Pulse	0.50	3
Ti			1	22.808	ug/l	7.47	1,864.77	1.035E-02	Pulse	0.50	3
Na			1	8639.225	ug/l	4.54	5,419,902.50	3.007E+01	Analog	1.00	3
Mg			1	5227.468	ug/l	3.58	1,707,912.25	9.474E+00	Analog	1.00	3
K			1	4151.698	ug/l	4.39	1,084,311.96	6.016E+00	Pulse	1.00	3
V			1	28.716	ug/l	4.11	74,382.15	6.716E-01	Pulse	0.50	3
Mn			1	27.510	ug/l	3.48	52,568.73	3.208E-01	Pulse	0.50	3
Fe			1	2244.661	ug/l	4.01	6,088,328.17	3.716E+01	Analog	0.50	3
Co			1	22.082	ug/l	3.48	108,239.86	6.606E-01	Pulse	0.50	3
Ni			1	23.674	ug/l	2.29	30,362.22	1.853E-01	Pulse	0.50	3
Cu			1	23.737	ug/l	2.62	86,274.24	5.265E-01	Pulse	0.50	3
Zn			1	28.311	ug/l	2.29	19,101.81	1.166E-01	Pulse	1.00	3
Cd			1	20.852	ug/l	3.12	21,666.93	1.322E-01	Pulse	0.50	3
Al			1	2006.633	ug/l	5.27	269,888.27	1.498E+00	Pulse	1.00	3
Se			1	20.598	ug/l	3.44	762.24	4.651E-03	Pulse	3.00	3
Sb			1	19.138	ug/l	1.93	58,714.21	3.583E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,024,534.67	2.17	113.6	Analog	0.50	3
1	Sc		180,386.03	2.70	120.7	Pulse	0.30	3
1	Ge		110,792.35	1.26	118.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,181,033.46	2.48	113.0	Pulse	0.30	3
1	Tb		4,043,689.75	3.16	117.7	Analog	0.50	3
1	Lu		3,260,360.08	1.65	114.2	Analog	0.50	3
1	Ge		163,869.51	1.10	116.1	Pulse	0.30	3
1	Li		2,742.43	3.73	122.5	Pulse	0.30	3

Quantitation Report

File Name 065SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 13:50
Sample Name FC10213-6R
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.658	ug/l	4.63	2,673.54	1.592E-02	Pulse	0.50	3
As			1	0.277	ug/l	11.21	176.00	1.048E-03	Pulse	1.00	3
Mo			1	0.073	ug/l	38.20	523.34	3.118E-03	Pulse	0.50	3
Pb			1	0.254	ug/l	3.90	7,305.67	2.436E-03	Pulse	1.00	3
Be			1	0.694	ug/l	6.11	28.17	1.147E-02	Pulse	2.00	3
Ag			1	0.045	ug/l	17.27	316.67	2.636E-04	Pulse	0.50	3
Ba			1	63.975	ug/l	3.46	63,679.74	5.309E-02	Pulse	0.50	3
Tl			1	0.096	ug/l	4.67	3,228.34	1.077E-03	Pulse	0.50	3
Sn			1	0.379	ug/l	14.07	1,626.76	1.356E-03	Pulse	0.30	3
Sr			1	53.027	ug/l	3.52	124,853.68	1.041E-01	Pulse	0.50	3
Ca			1	7286.468	ug/l	3.95	94,772.81	5.199E-01	Pulse	0.50	3
Ti			1	0.391	ug/l	43.44	46.67	2.563E-04	Pulse	0.50	3
Na			1	6024.292	ug/l	1.37	3,825,682.42	2.098E+01	Analog	1.00	3
Mg			1	3967.384	ug/l	4.03	1,310,827.17	7.191E+00	Analog	1.00	3
K			1	2392.060	ug/l	2.73	647,662.62	3.552E+00	Pulse	1.00	3
V			1	3.062	ug/l	5.55	9,877.38	8.725E-02	Pulse	0.50	3
Mn			1	44.855	ug/l	2.86	87,624.77	5.220E-01	Pulse	0.50	3
Fe			1	33.413	ug/l	2.54	106,231.60	6.328E-01	Pulse	0.50	3
Co			1	5.552	ug/l	3.49	27,952.32	1.665E-01	Pulse	0.50	3
Ni			1	3.762	ug/l	3.67	5,056.73	3.012E-02	Pulse	0.50	3
Cu			1	10.638	ug/l	3.39	43,398.83	2.585E-01	Pulse	0.50	3
Zn			1	12.228	ug/l	1.50	9,156.34	5.454E-02	Pulse	1.00	3
Cd			1	0.074	ug/l	30.19	127.33	7.585E-04	Pulse	0.50	3
Al			1	65.567	ug/l	2.34	9,368.37	5.138E-02	Pulse	1.00	3
Se			1	0.066	ug/l	160.66	35.55	2.118E-04	Pulse	3.00	3
Sb			1	0.068	ug/l	30.10	2,708.22	1.613E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,999,314.83	3.16	112.7	Analog	0.50	3
1	Sc		182,358.78	1.37	122.0	Pulse	0.30	3
1	Ge		113,237.93	1.25	120.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,199,809.12	1.37	114.8	Pulse	0.30	3
1	Tb		4,082,094.00	1.35	118.8	Analog	0.50	3
1	Lu		3,252,850.67	0.96	113.9	Analog	0.50	3
1	Ge		167,887.99	0.71	119.0	Pulse	0.30	3
1	Li		2,460.17	5.71	109.9	Pulse	0.30	3

Quantitation Report

File Name	066SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 13:53
Sample Name	FC10186-1R
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.050	ug/l	3.51	4,076.47	2.347E-02	Pulse	0.50	3
As			1	0.212	ug/l	18.01	155.00	8.927E-04	Pulse	1.00	3
Mo			1	0.078	ug/l	26.15	550.68	3.173E-03	Pulse	0.50	3
Pb			1	0.289	ug/l	6.62	8,019.01	2.575E-03	Pulse	1.00	3
Be			1	0.742	ug/l	23.33	32.67	1.226E-02	Pulse	2.00	3
Ag			1	0.020	ug/l	3.75	165.33	1.331E-04	Pulse	0.50	3
Ba			1	200.952	ug/l	4.80	206,520.17	1.665E-01	Pulse	0.50	3
Tl			1	0.036	ug/l	16.56	2,316.18	7.439E-04	Pulse	0.50	3
Sn			1	0.294	ug/l	27.08	1,488.96	1.202E-03	Pulse	0.30	3
Sr			1	107.451	ug/l	4.91	261,144.10	2.106E-01	Pulse	0.50	3
Ca			1	8855.367	ug/l	3.83	120,586.17	6.317E-01	Pulse	0.50	3
Ti			1	0.225	ug/l	22.68	34.67	1.816E-04	Pulse	0.50	3
Na			1	10487.565	ug/l	4.32	6,966,390.67	3.649E+01	Analog	1.00	3
Mg			1	6513.962	ug/l	5.08	2,253,234.08	1.181E+01	Analog	1.00	3
K			1	4930.640	ug/l	5.09	1,356,331.67	7.106E+00	Analog	1.00	3
V			1	3.621	ug/l	13.46	11,655.13	9.997E-02	Pulse	0.50	3
Mn			1	27.064	ug/l	4.40	54,804.65	3.156E-01	Pulse	0.50	3
Fe			1	16.272	ug/l	5.98	60,710.13	3.497E-01	Pulse	0.50	3
Co			1	3.957	ug/l	4.29	20,631.81	1.188E-01	Pulse	0.50	3
Ni			1	6.895	ug/l	5.27	9,469.18	5.454E-02	Pulse	0.50	3
Cu			1	13.677	ug/l	3.99	55,688.56	3.207E-01	Pulse	0.50	3
Zn			1	24.718	ug/l	4.11	17,835.85	1.027E-01	Pulse	1.00	3
Cd			1	0.108	ug/l	19.20	168.67	9.720E-04	Pulse	0.50	3
Al			1	37.270	ug/l	6.73	5,782.91	3.030E-02	Pulse	1.00	3
Se			1	0.028	ug/l	431.23	35.33	2.037E-04	Pulse	3.00	3
Sb			1	0.042	ug/l	16.40	2,720.89	1.566E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,116,026.00	2.60	117.1	Analog	0.50	3
1	Sc		190,974.90	1.65	127.8	Pulse	0.30	3
1	Ge		116,718.01	1.84	124.5	Pulse	0.30	3
1	In		1,241,157.10	2.71	118.8	Pulse	0.30	3
1	Tb		4,122,694.50	2.99	120.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,408,337.17	3.86	119.3	Analog	0.50	3
1	Ge		173,725.00	2.03	123.1	Pulse	0.30	3
1	Li		2,676.87	3.03	119.6	Pulse	0.30	3

Quantitation Report

File Name	067SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 13:57
Sample Name	FC11619-1A
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.822	ug/l	4.84	6,286.46	3.832E-02	Pulse	0.50	3
As			1	1.931	ug/l	3.12	824.35	5.014E-03	Pulse	1.00	3
Mo			1	0.318	ug/l	4.79	951.36	5.795E-03	Pulse	0.50	3
Pb			1	2.992	ug/l	7.70	39,242.40	1.319E-02	Pulse	1.00	3
Be			1	0.145	ug/l	39.07	6.67	2.629E-03	Pulse	2.00	3
Ag			1	0.026	ug/l	23.00	192.67	1.664E-04	Pulse	0.50	3
Ba			1	20.015	ug/l	6.72	19,421.81	1.668E-02	Pulse	0.50	3
Tl			1	0.031	ug/l	18.36	2,125.48	7.138E-04	Pulse	0.50	3
Sn			1	0.745	ug/l	5.48	2,350.18	2.016E-03	Pulse	0.30	3
Sr			1	330.884	ug/l	5.99	754,482.35	6.478E-01	Pulse	0.50	3
Ca			1	89171.862	ug/l	6.62	1,158,534.79	6.354E+00	Pulse	0.50	3
Ti			1	8.358	ug/l	15.44	699.36	3.844E-03	Pulse	0.50	3
Na			1	3438.457	ug/l	4.70	2,189,332.25	1.200E+01	Analog	1.00	3
Mg			1	19825.109	ug/l	6.43	6,550,949.67	3.592E+01	Analog	1.00	3
K			1	872.728	ug/l	6.25	260,091.54	1.426E+00	Pulse	1.00	3
V			1	5.722	ug/l	13.54	16,447.02	1.478E-01	Pulse	0.50	3
Mn			1	146.242	ug/l	4.76	278,455.26	1.698E+00	Pulse	0.50	3
Fe			1	3608.570	ug/l	4.44	9,791,303.67	5.969E+01	Analog	0.50	3
Co			1	2.403	ug/l	5.66	11,867.92	7.238E-02	Pulse	0.50	3
Ni			1	5.085	ug/l	3.11	6,638.57	4.043E-02	Pulse	0.50	3
Cu			1	7.721	ug/l	5.62	32,619.51	1.988E-01	Pulse	0.50	3
Zn			1	10.896	ug/l	6.66	8,100.50	4.940E-02	Pulse	1.00	3
Cd			1	0.018	ug/l	125.64	66.67	4.054E-04	Pulse	0.50	3
Al			1	1040.607	ug/l	6.33	141,845.08	7.778E-01	Pulse	1.00	3
Se			1	0.208	ug/l	57.81	40.00	2.425E-04	Pulse	3.00	3
Sb			1	0.270	ug/l	14.34	3,239.98	1.974E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,982,951.83	6.29	112.1	Analog	0.50	3
1	Sc		182,936.29	7.53	122.4	Pulse	0.30	3
1	Ge		110,819.41	5.49	118.2	Pulse	0.30	3
1	In		1,167,728.84	6.56	111.7	Pulse	0.30	3
1	Tb		4,093,328.92	6.70	119.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,288,099.75	5.94	115.1	Analog	0.50	3
1	Ge		164,317.77	5.73	116.5	Pulse	0.30	3
1	Li		2,533.52	11.58	113.2	Pulse	0.30	3

Quantitation Report

File Name 068SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:00
Sample Name FC11619-2A
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.701	ug/l	8.10	5,672.24	3.599E-02	Pulse	0.50	3
As			1	1.763	ug/l	10.16	726.68	4.610E-03	Pulse	1.00	3
Mo			1	0.309	ug/l	6.66	898.03	5.695E-03	Pulse	0.50	3
Pb			1	2.795	ug/l	7.35	36,081.07	1.242E-02	Pulse	1.00	3
Be			1	0.098	ug/l	34.83	4.50	1.882E-03	Pulse	2.00	3
Ag			1	0.026	ug/l	25.75	186.00	1.639E-04	Pulse	0.50	3
Ba			1	19.870	ug/l	6.54	18,777.79	1.656E-02	Pulse	0.50	3
Tl			1	0.024	ug/l	10.90	1,966.13	6.754E-04	Pulse	0.50	3
Sn			1	5.176	ug/l	4.21	11,341.57	9.995E-03	Pulse	0.30	3
Sr			1	327.824	ug/l	5.91	727,813.56	6.418E-01	Pulse	0.50	3
Ca			1	88552.660	ug/l	6.87	1,107,344.59	6.310E+00	Pulse	0.50	3
Ti			1	12.268	ug/l	21.22	991.40	5.605E-03	Pulse	0.50	3
Na			1	3492.064	ug/l	6.62	2,138,166.67	1.218E+01	Analog	1.00	3
Mg			1	19525.189	ug/l	6.41	6,210,193.17	3.538E+01	Analog	1.00	3
K			1	871.625	ug/l	7.56	249,934.10	1.424E+00	Pulse	1.00	3
V			1	3.902	ug/l	2.70	11,381.59	1.064E-01	Pulse	0.50	3
Mn			1	132.173	ug/l	4.44	241,952.83	1.535E+00	Pulse	0.50	3
Fe			1	3307.879	ug/l	5.69	8,626,534.67	5.472E+01	Analog	0.50	3
Co			1	2.195	ug/l	4.46	10,433.04	6.616E-02	Pulse	0.50	3
Ni			1	4.612	ug/l	3.87	5,794.95	3.675E-02	Pulse	0.50	3
Cu			1	7.033	ug/l	4.63	29,138.24	1.848E-01	Pulse	0.50	3
Zn			1	9.599	ug/l	6.18	6,999.71	4.440E-02	Pulse	1.00	3
Cd			1	0.027	ug/l	56.94	72.67	4.592E-04	Pulse	0.50	3
Al			1	1023.879	ug/l	6.91	134,316.25	7.654E-01	Pulse	1.00	3
Se			1	0.077	ug/l	211.61	33.89	2.144E-04	Pulse	3.00	3
Sb			1	0.255	ug/l	9.09	3,071.95	1.947E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,910,536.08	4.71	109.4	Analog	0.50	3
1	Sc		175,856.59	4.57	117.7	Pulse	0.30	3
1	Ge		107,006.66	2.99	114.2	Pulse	0.30	3
1	In		1,135,668.98	3.66	108.7	Pulse	0.30	3
1	Tb		4,073,012.75	3.24	118.5	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,267,179.08	2.21	114.4	Analog	0.50	3
1	Ge		157,771.88	2.14	111.8	Pulse	0.30	3
1	Li		2,399.05	7.26	107.2	Pulse	0.30	3

Quantitation Report

File Name	069SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:03
Sample Name	FC11619-1AF
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.680	ug/l	9.77	2,673.54	1.634E-02	Pulse	0.50	3
As			1	0.576	ug/l	10.97	288.67	1.765E-03	Pulse	1.00	3
Mo			1	0.162	ug/l	5.43	671.35	4.097E-03	Pulse	0.50	3
Pb			1	0.256	ug/l	2.03	7,231.97	2.446E-03	Pulse	1.00	3
Be			1	0.019	ug/l	180.18	1.50	6.085E-04	Pulse	2.00	3
Ag			1	0.032	ug/l	9.74	230.00	1.963E-04	Pulse	0.50	3
Ba			1	13.849	ug/l	5.43	13,558.78	1.157E-02	Pulse	0.50	3
Tl			1	0.008	ug/l	87.93	1,735.43	5.874E-04	Pulse	0.50	3
Sn			1	0.412	ug/l	18.39	1,657.87	1.415E-03	Pulse	0.30	3
Sr			1	320.727	ug/l	5.90	735,421.75	6.279E-01	Pulse	0.50	3
Ca			1	88020.943	ug/l	6.11	1,135,051.00	6.272E+00	Pulse	0.50	3
Ti			1	0.411	ug/l	22.29	48.00	2.651E-04	Pulse	0.50	3
Na			1	3467.554	ug/l	4.55	2,190,181.25	1.210E+01	Analog	1.00	3
Mg			1	19478.194	ug/l	6.32	6,387,075.17	3.530E+01	Analog	1.00	3
K			1	640.115	ug/l	7.06	199,081.36	1.100E+00	Pulse	1.00	3
V			1	3.062	ug/l	19.28	9,511.23	8.724E-02	Pulse	0.50	3
Mn			1	4.267	ug/l	6.36	8,392.64	5.129E-02	Pulse	0.50	3
Fe			1	88.788	ug/l	5.64	253,253.96	1.548E+00	Pulse	0.50	3
Co			1	0.108	ug/l	4.19	620.68	3.791E-03	Pulse	0.50	3
Ni			1	0.799	ug/l	11.32	1,150.04	7.034E-03	Pulse	0.50	3
Cu			1	1.547	ug/l	8.19	11,875.28	7.254E-02	Pulse	0.50	3
Zn			1	4.063	ug/l	4.32	3,773.07	2.304E-02	Pulse	1.00	3
Cd			1	-0.005	ug/l	-84.61	42.00	2.561E-04	Pulse	0.50	3
Al			1	30.131	ug/l	3.77	4,523.57	2.498E-02	Pulse	1.00	3
Se			1	-0.060	ug/l	-72.01	30.22	1.846E-04	Pulse	3.00	3
Sb			1	0.191	ug/l	15.60	3,002.60	1.834E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,957,267.00	2.46	111.1	Analog	0.50	3
1	Sc		181,213.60	3.39	121.3	Pulse	0.30	3
1	Ge		109,242.22	2.64	116.5	Pulse	0.30	3
1	In		1,172,775.85	3.37	112.2	Pulse	0.30	3
1	Tb		4,111,512.67	4.05	119.7	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,319,550.92	2.88	116.2	Analog	0.50	3
1	Ge		163,815.53	2.92	116.1	Pulse	0.30	3
1	Li		2,526.85	4.29	112.9	Pulse	0.30	3

Quantitation Report

File Name	070CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:07
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.749	ug/l	0.86	304,024.03	1.841E+00	Pulse	0.50	3
As			1	47.114	ug/l	1.47	37,362.32	2.263E-01	Pulse	1.00	3
Mo			1	47.424	ug/l	0.22	171,194.26	1.037E+00	Pulse	0.50	3
Pb			1	46.756	ug/l	0.25	1,106,749.71	3.688E-01	Pulse	1.00	3
Be			1	47.029	ug/l	5.34	3,817.89	1.516E+00	Pulse	2.00	3
Ag			1	48.981	ug/l	0.50	608,464.38	5.104E-01	Pulse	0.50	3
Ba			1	46.749	ug/l	1.41	92,432.49	7.754E-02	Pulse	0.50	3
Tl			1	46.530	ug/l	0.60	1,560,728.21	5.201E-01	Pulse	0.50	3
Sn			1	47.067	ug/l	0.76	202,905.98	1.702E-01	Pulse	0.30	3
Sr			1	47.207	ug/l	0.92	220,617.10	1.851E-01	Pulse	0.50	3
Ca			1	4738.122	ug/l	2.06	120,294.24	6.759E-01	Pulse	0.50	3
Ti			1	46.558	ug/l	2.13	7,477.56	4.201E-02	Pulse	0.50	3
Na			1	4915.361	ug/l	0.76	6,088,867.33	3.421E+01	Analog	1.00	3
Mg			1	4887.122	ug/l	1.91	3,152,475.33	1.771E+01	Analog	1.00	3
K			1	4979.746	ug/l	1.32	2,517,752.83	1.415E+01	Analog	1.00	3
V			1	46.627	ug/l	1.23	240,861.63	2.142E+00	Pulse	0.50	3
Mn			1	47.549	ug/l	1.25	182,396.01	1.105E+00	Pulse	0.50	3
Fe			1	4881.267	ug/l	0.37	26,642,124.00	1.613E+02	Analog	0.50	3
Co			1	47.627	ug/l	1.18	470,237.73	2.848E+00	Pulse	0.50	3
Ni			1	48.589	ug/l	0.94	125,193.09	7.582E-01	Pulse	0.50	3
Cu			1	48.888	ug/l	0.75	337,081.36	2.041E+00	Pulse	0.50	3
Zn			1	47.930	ug/l	1.12	62,279.38	3.772E-01	Pulse	1.00	3
Cd			1	47.651	ug/l	1.05	99,628.20	6.033E-01	Pulse	0.50	3
Al			1	4511.061	ug/l	2.18	1,196,785.00	6.724E+00	Pulse	1.00	3
Se			1	46.429	ug/l	2.65	3,347.76	2.027E-02	Pulse	3.00	3
Sb			1	46.402	ug/l	0.91	277,428.49	1.680E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,001,053.08	1.25	112.8	Analog	0.50	3
1	Sc		177,997.26	0.83	119.1	Pulse	0.30	3
1	Ge		112,477.25	0.72	120.0	Pulse	0.30	3
1	In		1,192,028.95	0.35	114.1	Pulse	0.30	3
1	Tb		4,044,782.50	0.21	117.7	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,294,368.33	0.86	115.3	Analog	0.50	3
1	Ge		165,128.04	0.21	117.0	Pulse	0.30	3
1	Li		2,522.41	4.27	112.7	Pulse	0.30	3

Quantitation Report

File Name 071_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:10
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	97.126	ug/l	2.03	625,129.15	3.742E+00	Pulse	0.50	3
As			1	96.178	ug/l	1.56	77,100.08	4.615E-01	Pulse	1.00	3
Mo			1	96.584	ug/l	0.82	352,356.20	2.109E+00	Pulse	0.50	3
Pb			1	99.206	ug/l	2.48	2,311,454.17	7.809E-01	Analog	1.00	3
Be			1	101.351	ug/l	1.94	7,663.72	3.266E+00	Pulse	2.00	3
Ag			1	99.329	ug/l	0.74	1,233,296.42	1.035E+00	Pulse	0.50	3
Ba			1	95.850	ug/l	1.31	189,297.85	1.589E-01	Pulse	0.50	3
Tl			1	100.509	ug/l	0.92	3,324,207.00	1.123E+00	Analog	0.50	3
Sn			1	96.506	ug/l	1.80	415,012.34	3.483E-01	Pulse	0.30	3
Sr			1	97.206	ug/l	1.28	453,648.50	3.807E-01	Pulse	0.50	3
Ca			1	9646.000	ug/l	1.83	248,438.56	1.375E+00	Pulse	0.50	3
Ti			1	95.032	ug/l	1.91	15,477.26	8.567E-02	Pulse	0.50	3
Na			1	9843.971	ug/l	1.17	12,367,585.67	6.846E+01	Analog	1.00	3
Mg			1	9805.743	ug/l	0.86	6,419,768.50	3.554E+01	Analog	1.00	3
K			1	9866.361	ug/l	0.29	5,026,721.83	2.783E+01	Analog	1.00	3
V			1	97.494	ug/l	1.55	499,121.72	4.459E+00	Pulse	0.50	3
Mn			1	96.629	ug/l	1.39	374,707.89	2.243E+00	Pulse	0.50	3
Fe			1	9792.762	ug/l	2.36	54,063,557.33	3.236E+02	Analog	0.50	3
Co			1	96.742	ug/l	1.78	966,297.77	5.784E+00	Pulse	0.50	3
Ni			1	97.612	ug/l	1.75	254,324.18	1.522E+00	Pulse	0.50	3
Cu			1	98.460	ug/l	2.09	679,936.09	4.070E+00	Pulse	0.50	3
Zn			1	97.075	ug/l	1.35	126,357.02	7.563E-01	Pulse	1.00	3
Cd			1	95.231	ug/l	1.80	201,400.25	1.205E+00	Pulse	0.50	3
Al			1	9467.074	ug/l	1.13	2,548,836.75	1.411E+01	Analog	1.00	3
Se			1	95.414	ug/l	1.39	6,926.12	4.146E-02	Pulse	3.00	3
Sb			1	94.221	ug/l	1.58	567,390.21	3.396E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,960,876.17	1.47	111.2	Analog	0.50	3
1	Sc		180,645.00	0.30	120.9	Pulse	0.30	3
1	Ge		111,949.66	1.30	119.4	Pulse	0.30	3
1	In		1,191,461.38	0.43	114.0	Pulse	0.30	3
1	Tb		4,044,782.42	0.57	117.7	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,317,803.00	0.43	116.2	Analog	0.50	3
1	Ge		167,069.08	0.55	118.4	Pulse	0.30	3
1	Li		2,346.83	2.15	104.9	Pulse	0.30	3

Quantitation Report

File Name	072_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:13
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.030	ug/l	119.18	727.35	4.425E-03	Pulse	0.50	3
As			1	0.043	ug/l	64.28	97.00	5.925E-04	Pulse	1.00	3
Mo			1	0.283	ug/l	17.50	1,384.73	8.494E-03	Pulse	0.50	3
Pb			1	0.070	ug/l	43.01	6,039.17	1.990E-03	Pulse	1.00	3
Be			1	0.049	ug/l	78.00	5.00	1.867E-03	Pulse	2.00	3
Ag			1	0.047	ug/l	68.75	629.35	5.178E-04	Pulse	0.50	3
Ba			1	0.045	ug/l	117.36	214.00	1.783E-04	Pulse	0.50	3
Tl			1	0.059	ug/l	41.43	3,667.12	1.204E-03	Pulse	0.50	3
Sn			1	0.214	ug/l	27.90	1,715.65	1.445E-03	Pulse	0.30	3
Sr			1	0.053	ug/l	60.49	655.35	5.436E-04	Pulse	0.50	3
Ca			1	3.328	ug/l	133.01	215.33	1.205E-03	Pulse	0.50	3
Ti			1	0.030	ug/l	45.02	18.67	1.068E-04	Pulse	0.50	3
Na			1	5.138	ug/l	60.08	14,557.38	8.243E-02	Pulse	1.00	3
Mg			1	5.446	ug/l	64.04	3,886.51	2.175E-02	Pulse	1.00	3
K			1	3.468	ug/l	200.10	37,363.55	2.136E-01	Pulse	1.00	3
V			1	-0.047	ug/l	-76.08	1,693.42	1.534E-02	Pulse	0.50	3
Mn			1	0.039	ug/l	90.94	445.34	2.712E-03	Pulse	0.50	3
Fe			1	7.910	ug/l	37.45	56,271.13	3.422E-01	Pulse	0.50	3
Co			1	0.052	ug/l	60.78	603.35	3.657E-03	Pulse	0.50	3
Ni			1	0.048	ug/l	51.82	254.67	1.559E-03	Pulse	0.50	3
Cu			1	0.034	ug/l	145.18	6,902.02	4.225E-02	Pulse	0.50	3
Zn			1	0.087	ug/l	88.89	1,318.39	8.041E-03	Pulse	1.00	3
Cd			1	0.040	ug/l	94.06	130.67	7.895E-04	Pulse	0.50	3
Al			1	5.778	ug/l	53.67	1,983.79	1.114E-02	Pulse	1.00	3
Se			1	0.066	ug/l	92.52	37.11	2.264E-04	Pulse	3.00	3
Sb			1	0.085	ug/l	12.28	2,939.26	1.796E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,029,727.00	8.15	113.8	Analog	0.50	3
1	Sc		175,956.70	10.39	117.8	Pulse	0.30	3
1	Ge		110,461.39	6.82	117.8	Pulse	0.30	3
1	In		1,201,596.27	12.29	115.0	Mix	0.30	3
1	Tb		3,994,962.92	8.94	116.3	Analog	0.50	3
1	Lu		3,248,793.83	9.86	113.7	Analog	0.50	3
1	Ge		163,531.26	6.91	115.9	Pulse	0.30	3
1	Li		2,622.42	7.79	117.2	Pulse	0.30	3

Quantitation Report

File Name	073SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:16
Sample Name	FC11619-2AF
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.669	ug/l	9.91	2,543.52	1.614E-02	Pulse	0.50	3
As			1	0.538	ug/l	23.50	263.67	1.675E-03	Pulse	1.00	3
Mo			1	0.326	ug/l	27.43	925.36	5.878E-03	Pulse	0.50	3
Pb			1	0.244	ug/l	11.37	7,100.58	2.399E-03	Pulse	1.00	3
Be			1	0.053	ug/l	29.30	2.83	1.153E-03	Pulse	2.00	3
Ag			1	0.029	ug/l	8.03	208.00	1.830E-04	Pulse	0.50	3
Ba			1	13.481	ug/l	4.82	12,806.20	1.127E-02	Pulse	0.50	3
Tl			1	0.014	ug/l	7.69	1,834.78	6.198E-04	Pulse	0.50	3
Sn			1	0.711	ug/l	21.17	2,217.94	1.954E-03	Pulse	0.30	3
Sr			1	319.579	ug/l	5.77	710,796.17	6.257E-01	Pulse	0.50	3
Ca			1	87872.119	ug/l	6.00	1,093,121.62	6.261E+00	Pulse	0.50	3
Ti			1	0.418	ug/l	35.67	46.67	2.684E-04	Pulse	0.50	3
Na			1	3410.448	ug/l	4.48	2,077,889.87	1.190E+01	Analog	1.00	3
Mg			1	19460.126	ug/l	6.29	6,155,590.17	3.526E+01	Analog	1.00	3
K			1	627.820	ug/l	6.84	189,042.98	1.083E+00	Pulse	1.00	3
V			1	2.626	ug/l	14.97	8,257.91	7.732E-02	Pulse	0.50	3
Mn			1	5.064	ug/l	3.76	9,543.22	6.053E-02	Pulse	0.50	3
Fe			1	93.287	ug/l	5.38	255,634.00	1.622E+00	Pulse	0.50	3
Co			1	0.123	ug/l	1.15	668.68	4.239E-03	Pulse	0.50	3
Ni			1	0.621	ug/l	4.58	889.36	5.642E-03	Pulse	0.50	3
Cu			1	1.194	ug/l	7.84	10,297.65	6.531E-02	Pulse	0.50	3
Zn			1	2.367	ug/l	3.94	2,601.52	1.650E-02	Pulse	1.00	3
Cd			1	0.006	ug/l	210.09	51.33	3.242E-04	Pulse	0.50	3
Al			1	34.597	ug/l	7.89	4,941.01	2.831E-02	Pulse	1.00	3
Se			1	0.050	ug/l	207.87	32.89	2.085E-04	Pulse	3.00	3
Sb			1	0.222	ug/l	19.17	2,978.26	1.889E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,960,654.75	3.53	111.2	Analog	0.50	3
1	Sc		174,822.55	3.60	117.0	Pulse	0.30	3
1	Ge		106,989.38	2.94	114.1	Pulse	0.30	3
1	In		1,137,512.66	3.40	108.8	Pulse	0.30	3
1	Tb		4,035,223.83	2.71	117.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,238,436.00	4.86	113.4	Analog	0.50	3
1	Ge		157,740.28	2.50	111.8	Pulse	0.30	3
1	Li		2,436.84	5.96	108.9	Pulse	0.30	3

Quantitation Report

File Name 074SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:20
Sample Name FC11636-1
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.894	ug/l	6.43	3,201.63	2.046E-02	Pulse	0.50	3
As			1	30.946	ug/l	5.81	11,665.83	7.457E-02	Pulse	1.00	3
Mo			1	0.313	ug/l	7.06	897.36	5.733E-03	Pulse	0.50	3
Pb			1	2.904	ug/l	4.06	37,570.42	1.285E-02	Pulse	1.00	3
Be			1	0.038	ug/l	74.79	2.17	9.179E-04	Pulse	2.00	3
Ag			1	0.024	ug/l	19.25	178.00	1.565E-04	Pulse	0.50	3
Ba			1	15.491	ug/l	7.18	14,726.43	1.293E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	55.87	1,676.76	5.733E-04	Pulse	0.50	3
Sn			1	0.305	ug/l	18.10	1,392.29	1.223E-03	Pulse	0.30	3
Sr			1	326.968	ug/l	6.16	728,962.81	6.401E-01	Pulse	0.50	3
Ca			1	44782.754	ug/l	6.41	547,987.36	3.191E+00	Pulse	0.50	3
Ti			1	0.168	ug/l	38.08	26.67	1.557E-04	Pulse	0.50	3
Na			1	16746.999	ug/l	6.13	10,001,425.33	5.824E+01	Analog	1.00	3
Mg			1	6534.388	ug/l	7.17	2,033,071.33	1.184E+01	Analog	1.00	3
K			1	19641.450	ug/l	6.54	4,755,968.33	2.770E+01	Analog	1.00	3
V			1	1.390	ug/l	3.37	5,172.08	4.916E-02	Pulse	0.50	3
Mn			1	11211.372	ug/l	5.84	20,339,843.33	1.300E+02	Analog	0.50	3
Fe			1	103.298	ug/l	5.64	279,626.60	1.787E+00	Pulse	0.50	3
Co			1	15.471	ug/l	6.19	72,429.42	4.630E-01	Pulse	0.50	3
Ni			1	24.817	ug/l	5.12	30,387.58	1.942E-01	Pulse	0.50	3
Cu			1	13.029	ug/l	5.42	48,111.43	3.075E-01	Pulse	0.50	3
Zn			1	33.043	ug/l	4.67	21,100.03	1.348E-01	Pulse	1.00	3
Cd			1	0.004	ug/l	310.81	48.67	3.114E-04	Pulse	0.50	3
Al			1	3.535	ug/l	3.75	888.36	5.166E-03	Pulse	1.00	3
Se			1	0.015	ug/l	842.61	31.44	2.008E-04	Pulse	3.00	3
Sb			1	0.094	ug/l	18.56	2,598.87	1.660E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,925,836.25	2.10	109.9	Analog	0.50	3
1	Sc		171,959.10	3.44	115.1	Pulse	0.30	3
1	Ge		105,210.55	3.04	112.2	Pulse	0.30	3
1	In		1,140,433.60	3.50	109.1	Pulse	0.30	3
1	Tb		4,019,034.58	3.46	117.0	Analog	0.50	3
1	Lu		3,246,808.58	5.25	113.7	Analog	0.50	3
1	Ge		156,618.54	2.86	111.0	Pulse	0.30	3
1	Li		2,383.50	3.64	106.5	Pulse	0.30	3

Quantitation Report

File Name 075SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:23
Sample Name FC11636-2
Sample Type Sample
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.706	ug/l	6.73	2,730.88	1.685E-02	Pulse	0.50	3
As			1	1680.514	ug/l	5.32	652,994.88	4.029E+00	Pulse	1.00	3
Mo			1	1.415	ug/l	2.99	2,881.58	1.776E-02	Pulse	0.50	3
Pb			1	0.323	ug/l	9.18	8,018.34	2.711E-03	Pulse	1.00	3
Be			1	0.060	ug/l	19.56	3.17	1.267E-03	Pulse	2.00	3
Ag			1	0.015	ug/l	18.77	124.67	1.064E-04	Pulse	0.50	3
Ba			1	49.592	ug/l	6.99	47,965.00	4.118E-02	Pulse	0.50	3
Tl			1	0.002	ug/l	408.76	1,632.76	5.525E-04	Pulse	0.50	3
Sn			1	0.313	ug/l	20.51	1,440.07	1.237E-03	Pulse	0.30	3
Sr			1	403.575	ug/l	6.50	920,341.31	7.900E-01	Pulse	0.50	3
Ca			1	48863.483	ug/l	6.98	624,153.31	3.482E+00	Pulse	0.50	3
Ti			1	0.245	ug/l	33.65	34.00	1.904E-04	Pulse	0.50	3
Na			1	14520.405	ug/l	6.08	9,055,537.00	5.051E+01	Analog	1.00	3
Mg			1	7146.749	ug/l	5.92	2,322,245.50	1.295E+01	Analog	1.00	3
K			1	7951.378	ug/l	5.91	2,032,367.17	1.133E+01	Analog	1.00	3
V			1	1.269	ug/l	6.01	5,125.41	4.640E-02	Pulse	0.50	3
Mn			1	2390.895	ug/l	5.33	4,494,040.00	2.773E+01	Analog	0.50	3
Fe			1	75009.617	ug/l	5.85	200,814,757.33	1.239E+03	Analog	0.50	3
Co			1	19.143	ug/l	5.94	92,814.44	5.727E-01	Pulse	0.50	3
Ni			1	7.701	ug/l	5.26	9,860.05	6.082E-02	Pulse	0.50	3
Cu			1	1.645	ug/l	6.99	12,090.09	7.454E-02	Pulse	0.50	3
Zn			1	4.497	ug/l	8.48	4,005.79	2.472E-02	Pulse	1.00	3
Cd			1	0.001	ug/l	1813.14	47.33	2.930E-04	Pulse	0.50	3
Al			1	5.060	ug/l	6.22	1,132.04	6.302E-03	Pulse	1.00	3
Se			1	-0.030	ug/l	-198.21	31.00	1.910E-04	Pulse	3.00	3
Sb			1	0.082	ug/l	24.44	2,657.21	1.637E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,962,426.17	5.48	111.3	Analog	0.50	3
1	Sc		179,629.62	4.65	120.2	Pulse	0.30	3
1	Ge		110,542.55	2.87	117.9	Pulse	0.30	3
1	In		1,167,345.93	4.69	111.7	Pulse	0.30	3
1	Tb		4,071,357.75	3.76	118.5	Analog	0.50	3
1	Lu		3,329,067.17	6.59	116.6	Analog	0.50	3
1	Ge		162,283.30	3.51	115.0	Pulse	0.30	3
1	Li		2,516.85	7.84	112.5	Pulse	0.30	3

Quantitation Report

File Name	076SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:26
Sample Name	FC11636-3
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.692	ug/l	5.02	2,724.22	1.659E-02	Pulse	0.50	3
As			1	1545.504	ug/l	5.30	608,348.29	3.705E+00	Pulse	1.00	3
Mo			1	1.358	ug/l	9.29	2,811.57	1.714E-02	Pulse	0.50	3
Pb			1	0.698	ug/l	7.46	12,461.50	4.184E-03	Pulse	1.00	3
Be			1	0.074	ug/l	83.30	3.83	1.499E-03	Pulse	2.00	3
Ag			1	0.013	ug/l	4.25	113.33	9.591E-05	Pulse	0.50	3
Ba			1	52.653	ug/l	6.26	51,572.82	4.371E-02	Pulse	0.50	3
Tl			1	0.006	ug/l	73.41	1,719.43	5.771E-04	Pulse	0.50	3
Sn			1	0.389	ug/l	25.34	1,620.09	1.374E-03	Pulse	0.30	3
Sr			1	403.062	ug/l	6.04	930,946.79	7.890E-01	Pulse	0.50	3
Ca			1	48353.868	ug/l	5.96	623,619.81	3.446E+00	Pulse	0.50	3
Ti			1	0.408	ug/l	28.20	48.00	2.639E-04	Pulse	0.50	3
Na			1	14281.575	ug/l	5.44	8,991,637.00	4.968E+01	Analog	1.00	3
Mg			1	7092.122	ug/l	6.37	2,325,812.92	1.285E+01	Analog	1.00	3
K			1	8035.236	ug/l	6.45	2,072,300.50	1.145E+01	Analog	1.00	3
V			1	1.252	ug/l	10.22	5,200.10	4.603E-02	Pulse	0.50	3
Mn			1	2297.519	ug/l	5.28	4,375,009.33	2.664E+01	Analog	0.50	3
Fe			1	72072.737	ug/l	6.36	195,430,789.33	1.191E+03	Analog	0.50	3
Co			1	18.380	ug/l	5.14	90,297.12	5.499E-01	Pulse	0.50	3
Ni			1	7.189	ug/l	6.20	9,331.11	5.683E-02	Pulse	0.50	3
Cu			1	1.584	ug/l	9.79	12,035.38	7.328E-02	Pulse	0.50	3
Zn			1	6.634	ug/l	7.17	5,411.83	3.296E-02	Pulse	1.00	3
Cd			1	-0.011	ug/l	-57.44	36.00	2.186E-04	Pulse	0.50	3
Al			1	8.075	ug/l	1.76	1,549.40	8.549E-03	Pulse	1.00	3
Se			1	-0.017	ug/l	-721.24	31.78	1.939E-04	Pulse	3.00	3
Sb			1	0.077	ug/l	25.92	2,676.88	1.629E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,983,549.75	5.07	112.1	Analog	0.50	3
1	Sc		181,299.08	4.48	121.3	Pulse	0.30	3
1	Ge		113,168.94	4.29	120.7	Pulse	0.30	3
1	In		1,182,103.36	4.64	113.1	Pulse	0.30	3
1	Tb		4,107,969.17	4.32	119.6	Analog	0.50	3
1	Lu		3,342,424.58	4.01	117.0	Analog	0.50	3
1	Ge		164,414.86	3.89	116.5	Pulse	0.30	3
1	Li		2,501.29	5.04	111.8	Pulse	0.30	3

Quantitation Report

File Name	077SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:30
Sample Name	FC11636-4
Sample Type	Sample
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.649	ug/l	6.47	2,615.53	1.575E-02	Pulse	0.50	3
As			1	4425.305	ug/l	4.25	1,762,383.17	1.061E+01	Analog	1.00	3
Mo			1	1.698	ug/l	6.88	3,461.69	2.085E-02	Pulse	0.50	3
Pb			1	0.070	ug/l	14.87	5,162.84	1.715E-03	Pulse	1.00	3
Be			1	0.108	ug/l	4.96	5.00	2.043E-03	Pulse	2.00	3
Ag			1	0.010	ug/l	30.81	98.67	8.353E-05	Pulse	0.50	3
Ba			1	24.207	ug/l	6.09	23,800.72	2.015E-02	Pulse	0.50	3
Tl			1	0.004	ug/l	147.71	1,690.10	5.619E-04	Pulse	0.50	3
Sn			1	0.314	ug/l	23.34	1,462.30	1.238E-03	Pulse	0.30	3
Sr			1	285.786	ug/l	6.13	660,773.87	5.595E-01	Pulse	0.50	3
Ca			1	39330.942	ug/l	6.37	507,514.08	2.803E+00	Pulse	0.50	3
Ti			1	0.223	ug/l	102.37	32.67	1.804E-04	Pulse	0.50	3
Na			1	8370.826	ug/l	5.16	5,277,313.50	2.914E+01	Analog	1.00	3
Mg			1	4840.133	ug/l	3.72	1,589,576.42	8.772E+00	Analog	1.00	3
K			1	4660.075	ug/l	5.64	1,218,370.79	6.727E+00	Pulse	1.00	3
V			1	1.059	ug/l	9.21	4,711.96	4.162E-02	Pulse	0.50	3
Mn			1	3308.211	ug/l	5.23	6,372,093.83	3.836E+01	Analog	0.50	3
Fe			1	68308.696	ug/l	5.91	187,394,693.33	1.128E+03	Analog	0.50	3
Co			1	23.246	ug/l	5.90	115,480.13	6.954E-01	Pulse	0.50	3
Ni			1	10.774	ug/l	5.15	14,081.52	8.477E-02	Pulse	0.50	3
Cu			1	0.681	ug/l	15.13	9,106.33	5.481E-02	Pulse	0.50	3
Zn			1	4.643	ug/l	5.28	4,200.50	2.528E-02	Pulse	1.00	3
Cd			1	0.007	ug/l	135.35	54.67	3.300E-04	Pulse	0.50	3
Al			1	3.432	ug/l	13.54	921.35	5.089E-03	Pulse	1.00	3
Se			1	-0.014	ug/l	-463.74	32.33	1.945E-04	Pulse	3.00	3
Sb			1	0.133	ug/l	21.04	2,874.58	1.729E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,013,507.92	5.92	113.2	Analog	0.50	3
1	Sc		181,406.70	4.49	121.4	Pulse	0.30	3
1	Ge		113,345.69	3.55	120.9	Pulse	0.30	3
1	In		1,183,019.64	4.30	113.2	Pulse	0.30	3
1	Tb		4,106,494.58	4.53	119.5	Analog	0.50	3
1	Lu		3,350,635.25	2.59	117.3	Analog	0.50	3
1	Ge		166,295.31	3.49	117.9	Pulse	0.30	3
1	Li		2,450.17	4.14	109.5	Pulse	0.30	3

Quantitation Report

File Name 078_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:33
Sample Name MP43236-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.444	ug/l	4.76	1,938.78	1.181E-02	Pulse	0.50	3
As			1	1.311	ug/l	30.89	581.35	3.527E-03	Pulse	1.00	3
Mo			1	0.023	ug/l	80.34	423.34	2.576E-03	Pulse	0.50	3
Pb			1	0.090	ug/l	1.69	5,540.96	1.792E-03	Pulse	1.00	3
Be			1	0.006	ug/l	396.75	1.00	4.014E-04	Pulse	2.00	3
Ag			1	0.012	ug/l	10.95	109.33	9.105E-05	Pulse	0.50	3
Ba			1	0.054	ug/l	22.93	178.67	1.489E-04	Pulse	0.50	3
Tl			1	-0.003	ug/l	-257.37	1,613.42	5.224E-04	Pulse	0.50	3
Sn			1	0.156	ug/l	32.17	1,144.49	9.547E-04	Pulse	0.30	3
Sr			1	0.195	ug/l	8.30	862.69	7.189E-04	Pulse	0.50	3
Ca			1	145.120	ug/l	3.08	1,992.79	1.107E-02	Pulse	0.50	3
Ti			1	0.127	ug/l	31.85	24.67	1.372E-04	Pulse	0.50	3
Na			1	9.856	ug/l	4.23	14,575.38	8.097E-02	Pulse	1.00	3
Mg			1	2.922	ug/l	7.74	1,316.72	7.309E-03	Pulse	1.00	3
K			1	6.622	ug/l	69.76	38,348.54	2.132E-01	Pulse	1.00	3
V			1	0.964	ug/l	6.51	4,361.87	3.946E-02	Pulse	0.50	3
Mn			1	1.226	ug/l	27.54	2,639.55	1.602E-02	Pulse	0.50	3
Fe			1	32.012	ug/l	18.48	100,345.65	6.097E-01	Pulse	0.50	3
Co			1	0.014	ug/l	8.47	159.33	9.698E-04	Pulse	0.50	3
Ni			1	0.087	ug/l	12.04	244.00	1.486E-03	Pulse	0.50	3
Cu			1	0.755	ug/l	9.07	9,252.41	5.633E-02	Pulse	0.50	3
Zn			1	1.567	ug/l	3.32	2,203.81	1.342E-02	Pulse	1.00	3
Cd			1	-0.002	ug/l	-218.46	45.33	2.761E-04	Pulse	0.50	3
Al			1	1.492	ug/l	14.58	655.68	3.644E-03	Pulse	1.00	3
Se			1	-0.098	ug/l	-58.36	29.00	1.764E-04	Pulse	3.00	3
Sb			1	0.023	ug/l	20.99	2,515.52	1.531E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,092,311.75	2.04	116.2	Analog	0.50	3
1	Sc		179,974.84	2.46	120.4	Pulse	0.30	3
1	Ge		110,592.44	1.72	118.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,199,179.88	2.73	114.7	Pulse	0.30	3
1	Tb		4,084,523.42	3.48	118.9	Analog	0.50	3
1	Lu		3,340,201.92	2.56	116.9	Analog	0.50	3
1	Ge		164,289.83	1.74	116.4	Pulse	0.30	3
1	Li		2,522.40	1.88	112.7	Pulse	0.30	3

Quantitation Report

File Name	079SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:36
Sample Name	FC11518-1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name	080SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:40
Sample Name	MP43234-D1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name	081SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:43
Sample Name	MP43234-S1
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name	082SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:46
Sample Name	MP43234-S2
Sample Type	Sample
Comment	
Prep Dilution	25.000
Auto Dilution	N/A
Total Dilution	25.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

Quantitation Report

File Name	083CCVA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 14:55
Sample Name	CCV (Ag)
Sample Type	CCV_Ag
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.075	ug/l	1.63	322,243.80	1.892E+00	Pulse	0.50	3
As			1	48.598	ug/l	1.46	39,745.11	2.334E-01	Pulse	1.00	3
Mo			1	48.145	ug/l	1.85	179,233.19	1.052E+00	Pulse	0.50	3
Pb			1	47.574	ug/l	1.54	1,131,529.29	3.752E-01	Pulse	1.00	3
Be			1	48.787	ug/l	3.74	4,046.94	1.572E+00	Pulse	2.00	3
Ag			1	50.172	ug/l	0.47	632,912.75	5.229E-01	Pulse	0.50	3
Ba			1	48.379	ug/l	0.45	97,130.36	8.024E-02	Pulse	0.50	3
Tl			1	47.479	ug/l	3.51	1,600,302.12	5.307E-01	Mix	0.50	3
Sn			1	48.729	ug/l	1.07	213,291.82	1.762E-01	Pulse	0.30	3
Sr			1	49.497	ug/l	0.72	234,880.98	1.940E-01	Pulse	0.50	3
Ca			1	4873.573	ug/l	2.17	128,666.56	6.952E-01	Pulse	0.50	3
Ti			1	47.834	ug/l	2.60	7,988.43	4.316E-02	Pulse	0.50	3
Na			1	4907.443	ug/l	1.26	6,321,666.83	3.415E+01	Analog	1.00	3
Mg			1	4956.572	ug/l	1.40	3,325,186.92	1.796E+01	Analog	1.00	3
K			1	5110.617	ug/l	2.23	2,685,860.42	1.451E+01	Analog	1.00	3
V			1	48.479	ug/l	1.57	257,591.49	2.226E+00	Pulse	0.50	3
Mn			1	49.215	ug/l	1.50	194,695.19	1.143E+00	Pulse	0.50	3
Fe			1	5040.747	ug/l	1.58	28,374,296.67	1.666E+02	Analog	0.50	3
Co			1	48.979	ug/l	1.56	498,734.68	2.929E+00	Pulse	0.50	3
Ni			1	49.832	ug/l	1.21	132,416.77	7.775E-01	Pulse	0.50	3
Cu			1	50.131	ug/l	1.53	356,308.17	2.092E+00	Pulse	0.50	3
Zn			1	49.615	ug/l	1.95	66,443.59	3.902E-01	Pulse	1.00	3
Cd			1	48.167	ug/l	1.08	103,865.67	6.099E-01	Pulse	0.50	3
Al			1	4943.072	ug/l	2.40	1,363,688.67	7.368E+00	Analog	1.00	3
Se			1	48.263	ug/l	0.78	3,588.14	2.107E-02	Pulse	3.00	3
Sb			1	47.173	ug/l	1.84	290,831.31	1.708E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,015,810.75	0.58	113.3	Analog	0.50	3
1	Sc		185,110.67	1.20	123.9	Pulse	0.30	3
1	Ge		115,730.36	0.59	123.5	Pulse	0.30	3
1	In		1,210,499.08	0.66	115.8	Pulse	0.30	3
1	Tb		4,090,581.25	1.56	119.1	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,374,587.83	1.03	118.2	Analog	0.50	3
1	Ge		170,313.77	0.61	120.7	Pulse	0.30	3
1	Li		2,576.86	5.22	115.1	Pulse	0.30	3

Quantitation Report

File Name 084_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 14:58
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 13:15
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	103.408	ug/l	12.25	619,885.67	3.984E+00	Pulse	0.50	3
As			1	102.762	ug/l	11.22	76,776.01	4.930E-01	Pulse	1.00	3
Mo			1	103.124	ug/l	12.24	350,374.22	2.252E+00	Pulse	0.50	3
Pb			1	105.145	ug/l	10.44	2,299,302.75	8.275E-01	Analog	1.00	3
Be			1	103.344	ug/l	14.44	7,637.04	3.331E+00	Pulse	2.00	3
Ag			1	106.457	ug/l	14.60	1,220,629.83	1.109E+00	Pulse	0.50	3
Ba			1	103.560	ug/l	14.40	188,894.28	1.716E-01	Pulse	0.50	3
Tl			1	104.367	ug/l	10.25	3,239,972.08	1.166E+00	Analog	0.50	3
Sn			1	103.620	ug/l	14.54	411,472.21	3.739E-01	Pulse	0.30	3
Sr			1	104.879	ug/l	14.33	452,066.15	4.108E-01	Pulse	0.50	3
Ca			1	10500.650	ug/l	15.50	248,199.76	1.497E+00	Pulse	0.50	3
Ti			1	105.520	ug/l	16.30	15,760.17	9.512E-02	Pulse	0.50	3
Na			1	10544.468	ug/l	14.43	12,169,214.67	7.333E+01	Analog	1.00	3
Mg			1	10624.523	ug/l	15.21	6,385,682.33	3.850E+01	Analog	1.00	3
K			1	10885.430	ug/l	14.82	5,089,909.67	3.068E+01	Analog	1.00	3
V			1	102.691	ug/l	13.17	496,849.86	4.695E+00	Pulse	0.50	3
Mn			1	103.109	ug/l	11.73	372,528.96	2.393E+00	Pulse	0.50	3
Fe			1	10549.739	ug/l	11.62	54,270,210.67	3.486E+02	Analog	0.50	3
Co			1	103.059	ug/l	12.10	958,881.29	6.161E+00	Pulse	0.50	3
Ni			1	104.276	ug/l	11.74	253,128.23	1.626E+00	Pulse	0.50	3
Cu			1	104.891	ug/l	11.88	674,448.96	4.333E+00	Pulse	0.50	3
Zn			1	103.736	ug/l	12.02	125,714.64	8.077E-01	Pulse	1.00	3
Cd			1	101.602	ug/l	12.35	200,120.07	1.286E+00	Pulse	0.50	3
Al			1	10417.025	ug/l	16.08	2,572,632.75	1.552E+01	Analog	1.00	3
Se			1	101.923	ug/l	10.13	6,898.78	4.427E-02	Pulse	3.00	3
Sb			1	100.629	ug/l	12.08	564,329.06	3.626E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,796,039.17	8.99	105.1	Analog	0.50	3
1	Sc		167,996.81	12.70	112.4	Pulse	0.30	3
1	Ge		106,789.38	10.46	113.9	Pulse	0.30	3
1	In		1,113,440.62	12.14	106.5	Pulse	0.30	3
1	Tb		3,804,691.75	11.99	110.7	Analog	0.50	3
1	Lu		3,100,784.42	12.79	108.6	Analog	0.50	3
1	Ge		156,859.47	9.79	111.2	Pulse	0.30	3
1	Li		2,321.27	12.67	103.7	Pulse	0.30	3

Quantitation Report

File Name	085_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:01
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.042	ug/l	25.86	804.02	4.859E-03	Pulse	0.50	3
As			1	0.058	ug/l	43.97	109.33	6.609E-04	Pulse	1.00	3
Mo			1	0.271	ug/l	30.48	1,364.06	8.240E-03	Pulse	0.50	3
Pb			1	0.061	ug/l	20.43	5,816.39	1.923E-03	Pulse	1.00	3
Be			1	0.062	ug/l	18.99	5.67	2.284E-03	Pulse	2.00	3
Ag			1	0.037	ug/l	35.86	495.34	4.131E-04	Pulse	0.50	3
Ba			1	0.045	ug/l	32.00	214.00	1.784E-04	Pulse	0.50	3
Tl			1	0.052	ug/l	21.41	3,385.04	1.119E-03	Pulse	0.50	3
Sn			1	0.206	ug/l	22.38	1,698.98	1.416E-03	Pulse	0.30	3
Sr			1	0.031	ug/l	57.72	548.68	4.574E-04	Pulse	0.50	3
Ca			1	1.826	ug/l	96.45	177.33	9.913E-04	Pulse	0.50	3
Ti			1	0.027	ug/l	94.45	18.67	1.043E-04	Pulse	0.50	3
Na			1	3.481	ug/l	42.41	12,674.72	7.091E-02	Pulse	1.00	3
Mg			1	3.797	ug/l	29.90	2,818.56	1.577E-02	Pulse	1.00	3
K			1	3.259	ug/l	38.50	38,090.68	2.130E-01	Pulse	1.00	3
V			1	-0.044	ug/l	-28.56	1,712.09	1.549E-02	Pulse	0.50	3
Mn			1	0.065	ug/l	25.76	548.01	3.312E-03	Pulse	0.50	3
Fe			1	6.413	ug/l	13.72	48,448.49	2.928E-01	Pulse	0.50	3
Co			1	0.042	ug/l	28.33	502.01	3.033E-03	Pulse	0.50	3
Ni			1	0.043	ug/l	57.59	244.67	1.479E-03	Pulse	0.50	3
Cu			1	0.256	ug/l	3.12	8,502.03	5.137E-02	Pulse	0.50	3
Zn			1	0.384	ug/l	15.13	1,710.09	1.033E-02	Pulse	1.00	3
Cd			1	0.033	ug/l	55.22	116.00	7.013E-04	Pulse	0.50	3
Al			1	3.631	ug/l	34.46	1,419.39	7.943E-03	Pulse	1.00	3
Se			1	0.071	ug/l	37.65	37.78	2.282E-04	Pulse	3.00	3
Sb			1	0.082	ug/l	11.57	2,955.59	1.786E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,024,257.92	0.50	113.6	Analog	0.50	3
1	Sc		178,806.04	0.52	119.7	Pulse	0.30	3
1	Ge		110,569.95	0.37	118.0	Pulse	0.30	3
1	In		1,199,712.56	0.19	114.8	Pulse	0.30	3
1	Tb		4,023,978.33	0.43	117.1	Analog	0.50	3
1	Lu		3,300,831.33	1.44	115.6	Analog	0.50	3
1	Ge		165,504.59	0.44	117.3	Pulse	0.30	3
1	Li		2,475.73	2.84	110.6	Pulse	0.30	3

Quantitation Report

File Name	086_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:11
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.016	ug/l	-22.07	447.34	2.654E-03	Pulse	0.50	3
As			1	0.001	ug/l	1411.55	65.33	3.876E-04	Pulse	1.00	3
Mo			1	0.021	ug/l	140.53	469.34	2.784E-03	Pulse	0.50	3
Pb			1	0.005	ug/l	37.04	4,623.67	1.482E-03	Pulse	1.00	3
Be			1	0.003	ug/l	214.20	1.00	3.868E-04	Pulse	2.00	3
Ag			1	0.003	ug/l	27.57	74.00	6.062E-05	Pulse	0.50	3
Ba			1	0.006	ug/l	116.83	140.00	1.147E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-1245.43	1,676.09	5.376E-04	Pulse	0.50	3
Sn			1	-0.026	ug/l	-57.77	708.91	5.808E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	-7566.31	410.68	3.365E-04	Pulse	0.50	3
Ca			1	-0.486	ug/l	-93.36	120.67	6.619E-04	Pulse	0.50	3
Ti			1	-0.004	ug/l	-1126.50	14.00	7.681E-05	Pulse	0.50	3
Na			1	-0.103	ug/l	-38.75	8,384.56	4.600E-02	Pulse	1.00	3
Mg			1	0.324	ug/l	9.02	581.01	3.188E-03	Pulse	1.00	3
K			1	0.948	ug/l	116.65	37,649.43	2.066E-01	Pulse	1.00	3
V			1	-0.104	ug/l	-6.07	1,457.40	1.277E-02	Pulse	0.50	3
Mn			1	0.020	ug/l	37.65	384.01	2.279E-03	Pulse	0.50	3
Fe			1	1.451	ug/l	5.57	21,713.05	1.288E-01	Pulse	0.50	3
Co			1	0.002	ug/l	53.14	116.67	6.921E-04	Pulse	0.50	3
Ni			1	0.009	ug/l	16.94	160.00	9.494E-04	Pulse	0.50	3
Cu			1	0.070	ug/l	16.90	7,375.53	4.376E-02	Pulse	0.50	3
Zn			1	2.033	ug/l	4.87	3,886.09	2.305E-02	Pulse	1.00	3
Cd			1	-0.011	ug/l	-23.35	26.00	1.543E-04	Pulse	0.50	3
Al			1	2.079	ug/l	7.99	1,026.03	5.630E-03	Pulse	1.00	3
Se			1	0.066	ug/l	152.02	38.11	2.261E-04	Pulse	3.00	3
Sb			1	0.002	ug/l	292.18	2,526.86	1.499E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,118,727.25	1.10	117.2	Analog	0.50	3
1	Sc		182,268.92	0.36	122.0	Pulse	0.30	3
1	Ge		114,154.60	0.63	121.8	Pulse	0.30	3
1	In		1,220,311.10	0.48	116.8	Pulse	0.30	3
1	Tb		4,095,991.75	0.48	119.2	Analog	0.50	3
1	Lu		3,345,877.17	1.35	117.1	Analog	0.50	3
1	Ge		168,547.35	0.46	119.5	Pulse	0.30	3
1	Li		2,570.19	2.14	114.8	Pulse	0.30	3

Quantitation Report

File Name	087_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:14
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 13:15
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.010	ug/l	-24.77	492.68	2.878E-03	Pulse	0.50	3
As			1	-0.006	ug/l	-34.61	61.33	3.583E-04	Pulse	1.00	3
Mo			1	0.003	ug/l	282.55	410.01	2.395E-03	Pulse	0.50	3
Pb			1	0.005	ug/l	49.95	4,563.32	1.481E-03	Pulse	1.00	3
Be			1	0.017	ug/l	145.66	2.17	8.467E-04	Pulse	2.00	3
Ag			1	0.004	ug/l	22.24	83.33	6.766E-05	Pulse	0.50	3
Ba			1	0.004	ug/l	173.02	135.33	1.099E-04	Pulse	0.50	3
Tl			1	0.000	ug/l	-977.63	1,666.09	5.407E-04	Pulse	0.50	3
Sn			1	-0.016	ug/l	-58.47	756.69	6.143E-04	Pulse	0.30	3
Sr			1	0.010	ug/l	66.35	462.01	3.752E-04	Pulse	0.50	3
Ca			1	-0.087	ug/l	-453.33	134.00	7.187E-04	Pulse	0.50	3
Ti			1	-0.037	ug/l	-73.82	8.67	4.650E-05	Pulse	0.50	3
Na			1	-0.417	ug/l	-14.73	8,171.80	4.382E-02	Pulse	1.00	3
Mg			1	0.361	ug/l	19.51	619.34	3.322E-03	Pulse	1.00	3
K			1	-0.481	ug/l	-137.60	37,776.34	2.026E-01	Pulse	1.00	3
V			1	-0.097	ug/l	-1.94	1,502.74	1.309E-02	Pulse	0.50	3
Mn			1	0.018	ug/l	29.50	381.34	2.227E-03	Pulse	0.50	3
Fe			1	1.415	ug/l	6.14	21,848.55	1.276E-01	Pulse	0.50	3
Co			1	0.002	ug/l	54.34	117.33	6.853E-04	Pulse	0.50	3
Ni			1	0.017	ug/l	28.04	182.00	1.063E-03	Pulse	0.50	3
Cu			1	0.080	ug/l	25.33	7,562.95	4.417E-02	Pulse	0.50	3
Zn			1	2.089	ug/l	4.54	4,020.12	2.349E-02	Pulse	1.00	3
Cd			1	-0.007	ug/l	-39.79	34.67	2.023E-04	Pulse	0.50	3
Al			1	2.004	ug/l	7.58	1,029.03	5.518E-03	Pulse	1.00	3
Se			1	-0.042	ug/l	-171.63	30.67	1.793E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	-17188.24	2,550.86	1.490E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,081,307.08	1.50	115.8	Analog	0.50	3
1	Sc		186,493.11	0.57	124.8	Pulse	0.30	3
1	Ge		114,780.74	0.71	122.4	Pulse	0.30	3
1	In		1,231,701.65	0.32	117.9	Pulse	0.30	3
1	Tb		4,126,895.58	1.93	120.1	Analog	0.50	3
1	Lu		3,372,764.42	1.05	118.1	Analog	0.50	3
1	Ge		171,197.80	0.70	121.3	Pulse	0.30	3
1	Li		2,535.74	2.61	113.3	Pulse	0.30	3

Quantitation Report

File Name	088CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:18
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 15:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	551.34	3.187E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	57.67	3.335E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	432.01	2.497E-03	Pulse	0.50	3
Pb			1	0.000	ug/l	---	4,461.29	1.515E-03	Pulse	1.00	3
Be			1	0.000	ug/l	---	1.50	5.850E-04	Pulse	2.00	3
Ag			1	0.000	ug/l	---	81.33	6.546E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	124.00	9.976E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	1,625.42	5.519E-04	Pulse	0.50	3
Sn			1	0.000	ug/l	---	705.58	5.678E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	477.34	3.842E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	109.33	5.866E-04	Pulse	0.50	3
Ti			1	0.000	ug/l	---	14.00	7.516E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	8,293.52	4.451E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	608.34	3.265E-03	Pulse	1.00	3
K			1	0.000	ug/l	---	38,478.48	2.065E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,497.40	1.297E-02	Pulse	0.50	3
Mn			1	0.000	ug/l	---	368.01	2.128E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	22,114.18	1.278E-01	Pulse	0.50	3
Co			1	0.000	ug/l	---	117.33	6.783E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	170.00	9.826E-04	Pulse	0.50	3
Cu			1	0.000	ug/l	---	7,555.61	4.368E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	4,018.12	2.323E-02	Pulse	1.00	3
Cd			1	0.000	ug/l	---	36.67	2.120E-04	Pulse	0.50	3
Al			1	0.000	ug/l	---	1,047.70	5.622E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	32.22	1.863E-04	Pulse	3.00	3
Sb			1	0.000	ug/l	---	2,603.21	1.505E-02	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,945,161.17	0.83	100.0	Analog	0.50	3
1	Sc		186,345.94	0.18	100.0	Pulse	0.30	3
1	Ge		115,495.27	0.95	100.0	Pulse	0.30	3
1	In		1,242,696.27	0.29	100.0	Pulse	0.30	3
1	Tb		3,970,733.50	0.59	100.0	Analog	0.50	3
1	Lu		3,183,925.67	0.51	100.0	Analog	0.50	3
1	Ge		172,975.71	0.40	100.0	Pulse	0.30	3
1	Li		2,567.97	1.77	100.0	Pulse	0.30	3

Quantitation Report

File Name 089CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 15:21
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 15:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.534	ug/l	4.86	4,181.16	2.379E-02	Pulse	0.50	3
As			1	0.496	ug/l	2.99	473.68	2.694E-03	Pulse	1.00	3
Mo			1	0.479	ug/l	0.07	2,275.49	1.294E-02	Pulse	0.50	3
Pb			1	0.498	ug/l	1.69	16,117.08	5.415E-03	Pulse	1.00	3
Be			1	0.438	ug/l	12.73	39.83	1.478E-02	Pulse	2.00	3
Ag			1	0.494	ug/l	1.90	6,601.95	5.237E-03	Pulse	0.50	3
Ba			1	0.500	ug/l	5.16	1,166.71	9.255E-04	Pulse	0.50	3
Tl			1	0.474	ug/l	1.00	17,452.16	5.863E-03	Pulse	0.50	3
Sn			1	0.491	ug/l	4.87	2,951.39	2.341E-03	Pulse	0.30	3
Sr			1	0.490	ug/l	3.68	2,941.59	2.333E-03	Pulse	0.50	3
Ca			1	58.579	ug/l	10.46	1,704.09	8.946E-03	Pulse	0.50	3
Ti			1	0.415	ug/l	23.35	85.33	4.480E-04	Pulse	0.50	3
Na			1	53.038	ug/l	0.48	78,297.28	4.111E-01	Pulse	1.00	3
Mg			1	51.080	ug/l	0.78	34,435.42	1.808E-01	Pulse	1.00	3
K			1	52.371	ug/l	0.66	66,765.31	3.505E-01	Pulse	1.00	3
V			1	0.533	ug/l	6.38	4,371.20	3.713E-02	Pulse	0.50	3
Mn			1	0.525	ug/l	2.27	2,508.18	1.427E-02	Pulse	0.50	3
Fe			1	52.946	ug/l	0.39	320,949.88	1.826E+00	Pulse	0.50	3
Co			1	0.502	ug/l	3.48	5,414.83	3.080E-02	Pulse	0.50	3
Ni			1	0.524	ug/l	6.06	1,601.41	9.112E-03	Pulse	0.50	3
Cu			1	0.212	ug/l	10.77	9,195.04	5.231E-02	Pulse	0.50	3
Zn			1	-1.450	ug/l	-4.00	2,159.80	1.228E-02	Pulse	1.00	3
Cd			1	0.495	ug/l	5.63	1,118.04	6.359E-03	Pulse	0.50	3
Al			1	46.860	ug/l	1.47	13,995.62	7.348E-02	Pulse	1.00	3
Se			1	0.524	ug/l	15.68	72.11	4.103E-04	Pulse	3.00	3
Sb			1	0.489	ug/l	3.29	5,654.27	3.216E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,976,624.25	0.31	101.1	Analog	0.50	3
1	Sc		190,476.98	0.22	102.2	Pulse	0.30	3
1	Ge		117,728.96	0.26	101.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,260,808.04	0.48	101.5	Pulse	0.30	3
1	Tb		3,999,828.08	1.53	100.7	Analog	0.50	3
1	Lu		3,229,496.00	0.78	101.4	Analog	0.50	3
1	Ge		175,802.11	0.97	101.6	Pulse	0.30	3
1	Li		2,693.54	0.33	104.9	Pulse	0.30	3

Quantitation Report

File Name 090CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 15:25
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 15:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.974	ug/l	0.68	7,204.78	4.074E-02	Pulse	0.50	3
As			1	1.035	ug/l	4.58	929.36	5.254E-03	Pulse	1.00	3
Mo			1	0.936	ug/l	3.51	4,054.49	2.293E-02	Pulse	0.50	3
Pb			1	0.993	ug/l	1.20	27,835.70	9.294E-03	Pulse	1.00	3
Be			1	0.951	ug/l	11.67	83.17	3.138E-02	Pulse	2.00	3
Ag			1	0.959	ug/l	1.71	12,894.82	1.011E-02	Pulse	0.50	3
Ba			1	0.971	ug/l	3.79	2,173.48	1.705E-03	Pulse	0.50	3
Tl			1	0.972	ug/l	0.84	34,237.70	1.143E-02	Pulse	0.50	3
Sn			1	0.945	ug/l	1.33	5,071.89	3.978E-03	Pulse	0.30	3
Sr			1	0.992	ug/l	1.33	5,517.55	4.327E-03	Pulse	0.50	3
Ca			1	113.993	ug/l	2.63	3,240.97	1.685E-02	Pulse	0.50	3
Ti			1	1.029	ug/l	4.07	192.00	9.984E-04	Pulse	0.50	3
Na			1	100.018	ug/l	0.78	141,491.28	7.357E-01	Pulse	1.00	3
Mg			1	102.759	ug/l	0.09	69,307.28	3.604E-01	Pulse	1.00	3
K			1	103.919	ug/l	0.59	94,671.24	4.923E-01	Pulse	1.00	3
V			1	1.032	ug/l	1.32	7,138.09	5.972E-02	Pulse	0.50	3
Mn			1	1.036	ug/l	3.57	4,613.27	2.608E-02	Pulse	0.50	3
Fe			1	108.675	ug/l	0.62	638,871.29	3.613E+00	Pulse	0.50	3
Co			1	0.989	ug/l	1.79	10,603.81	5.997E-02	Pulse	0.50	3
Ni			1	1.063	ug/l	2.47	3,091.61	1.748E-02	Pulse	0.50	3
Cu			1	0.764	ug/l	1.79	13,222.21	7.477E-02	Pulse	0.50	3
Zn			1	-0.621	ug/l	-4.51	3,278.30	1.854E-02	Pulse	1.00	3
Cd			1	1.021	ug/l	1.59	2,280.16	1.289E-02	Pulse	0.50	3
Al			1	98.134	ug/l	0.97	28,409.00	1.477E-01	Pulse	1.00	3
Se			1	0.991	ug/l	12.64	107.89	6.103E-04	Pulse	3.00	3
Sb			1	0.958	ug/l	1.89	8,592.16	4.859E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,995,166.50	0.31	101.7	Analog	0.50	3
1	Sc		192,313.86	0.23	103.2	Pulse	0.30	3
1	Ge		119,520.32	0.51	103.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,275,137.66	0.39	102.6	Pulse	0.30	3
1	Tb		4,041,219.50	0.31	101.8	Analog	0.50	3
1	Lu		3,272,449.58	1.33	102.8	Analog	0.50	3
1	Ge		176,840.37	0.70	102.2	Pulse	0.30	3
1	Li		2,644.65	4.00	103.0	Pulse	0.30	3

Quantitation Report

File Name 091CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File
Method Path
Acq Time 2023-12-05 15:29
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-05 15:40
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	9.968	ug/l	0.67	69,685.57	3.875E-01	Pulse	0.50	3
As			1	9.933	ug/l	1.12	8,554.39	4.756E-02	Pulse	1.00	3
Mo			1	9.510	ug/l	0.23	37,780.62	2.101E-01	Pulse	0.50	3
Pb			1	10.055	ug/l	2.46	238,833.42	8.029E-02	Pulse	1.00	3
Be			1	9.168	ug/l	7.69	796.69	2.975E-01	Pulse	2.00	3
Ag			1	9.996	ug/l	0.23	134,946.26	1.047E-01	Pulse	0.50	3
Ba			1	9.591	ug/l	0.85	20,542.46	1.595E-02	Pulse	0.50	3
Tl			1	9.862	ug/l	2.21	330,073.88	1.110E-01	Pulse	0.50	3
Sn			1	9.741	ug/l	0.55	46,018.15	3.572E-02	Pulse	0.30	3
Sr			1	9.833	ug/l	0.27	50,837.03	3.946E-02	Pulse	0.50	3
Ca			1	1013.765	ug/l	0.34	28,106.25	1.452E-01	Pulse	0.50	3
Ti			1	10.067	ug/l	1.71	1,762.76	9.110E-03	Pulse	0.50	3
Na			1	1024.169	ug/l	0.90	1,378,290.38	7.123E+00	Analog	1.00	3
Mg			1	1029.702	ug/l	0.74	693,092.02	3.582E+00	Pulse	1.00	3
K			1	1013.982	ug/l	0.61	579,548.60	2.995E+00	Pulse	1.00	3
V			1	9.850	ug/l	0.79	55,651.55	4.594E-01	Pulse	0.50	3
Mn			1	9.963	ug/l	1.13	41,807.42	2.325E-01	Pulse	0.50	3
Fe			1	1008.210	ug/l	1.01	5,837,222.00	3.246E+01	Analog	0.50	3
Co			1	9.991	ug/l	0.18	107,861.18	5.998E-01	Pulse	0.50	3
Ni			1	10.347	ug/l	0.61	29,060.71	1.616E-01	Pulse	0.50	3
Cu			1	10.140	ug/l	1.11	82,104.86	4.565E-01	Pulse	0.50	3
Zn			1	9.266	ug/l	0.71	16,759.82	9.319E-02	Pulse	1.00	3
Cd			1	9.852	ug/l	1.69	22,040.73	1.226E-01	Pulse	0.50	3
Al			1	994.826	ug/l	0.76	279,832.10	1.446E+00	Pulse	1.00	3
Se			1	10.058	ug/l	3.25	807.24	4.489E-03	Pulse	3.00	3
Sb			1	9.641	ug/l	0.42	63,429.79	3.527E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,975,281.92	1.49	101.0	Analog	0.50	3
1	Sc		193,507.30	0.40	103.8	Pulse	0.30	3
1	Ge		121,141.52	0.49	104.9	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,288,339.85	0.19	103.7	Pulse	0.30	3
1	Tb		3,988,920.17	1.18	100.5	Analog	0.50	3
1	Lu		3,239,654.58	0.55	101.8	Analog	0.50	3
1	Ge		179,843.02	0.48	104.0	Pulse	0.30	3
1	Li		2,683.54	4.11	104.5	Pulse	0.30	3

Quantitation Report

File Name	092CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:32
Sample Name	CALSTD-5
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 15:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	47.652	ug/l	0.82	317,290.84	1.840E+00	Pulse	0.50	3
As			1	47.979	ug/l	0.63	39,389.68	2.285E-01	Pulse	1.00	3
Mo			1	46.559	ug/l	0.76	175,658.75	1.019E+00	Pulse	0.50	3
Pb			1	48.427	ug/l	0.83	1,099,246.79	3.809E-01	Pulse	1.00	3
Be			1	48.931	ug/l	4.97	3,944.25	1.585E+00	Pulse	2.00	3
Ag			1	48.373	ug/l	0.39	623,821.67	5.066E-01	Pulse	0.50	3
Ba			1	46.759	ug/l	1.19	95,237.68	7.735E-02	Pulse	0.50	3
Tl			1	47.690	ug/l	0.83	1,542,411.00	5.345E-01	Pulse	0.50	3
Sn			1	47.018	ug/l	0.74	209,621.97	1.702E-01	Pulse	0.30	3
Sr			1	47.399	ug/l	0.87	232,400.80	1.887E-01	Pulse	0.50	3
Ca			1	4817.656	ug/l	0.63	127,810.63	6.880E-01	Pulse	0.50	3
Ti			1	48.520	ug/l	2.12	8,102.49	4.362E-02	Pulse	0.50	3
Na			1	4797.282	ug/l	1.68	6,166,849.33	3.320E+01	Analog	1.00	3
Mg			1	4933.073	ug/l	1.34	3,185,204.42	1.715E+01	Analog	1.00	3
K			1	5033.588	ug/l	0.79	2,609,754.25	1.405E+01	Analog	1.00	3
V			1	48.098	ug/l	0.51	253,678.90	2.193E+00	Pulse	0.50	3
Mn			1	47.908	ug/l	0.53	191,345.38	1.110E+00	Pulse	0.50	3
Fe			1	4803.817	ug/l	0.59	26,581,418.00	1.542E+02	Analog	0.50	3
Co			1	47.641	ug/l	0.50	492,637.92	2.857E+00	Pulse	0.50	3
Ni			1	48.927	ug/l	0.50	131,106.02	7.604E-01	Pulse	0.50	3
Cu			1	48.941	ug/l	0.83	351,087.95	2.036E+00	Pulse	0.50	3
Zn			1	46.736	ug/l	1.25	64,841.40	3.761E-01	Pulse	1.00	3
Cd			1	47.677	ug/l	0.72	102,111.21	5.923E-01	Pulse	0.50	3
Al			1	4894.149	ug/l	0.81	1,317,472.87	7.092E+00	Analog	1.00	3
Se			1	48.115	ug/l	1.19	3,580.25	2.077E-02	Pulse	3.00	3
Sb			1	47.006	ug/l	0.73	286,417.79	1.661E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,885,968.42	0.72	98.0	Analog	0.50	3
1	Sc		185,759.15	0.19	99.7	Pulse	0.30	3
1	Ge		115,683.37	0.34	100.2	Pulse	0.30	3
1	In		1,231,345.16	0.97	99.1	Pulse	0.30	3
1	Tb		3,905,985.42	2.07	98.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,155,563.58	0.94	99.1	Analog	0.50	3
1	Ge		172,416.16	1.22	99.7	Pulse	0.30	3
1	Li		2,491.29	4.04	97.0	Pulse	0.30	3

Quantitation Report

File Name	093CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:35
Sample Name	CALSTD-6
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 15:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.426	ug/l	0.21	632,588.48	3.836E+00	Pulse	0.50	3
As			1	99.556	ug/l	0.26	78,108.98	4.737E-01	Pulse	1.00	3
Mo			1	98.153	ug/l	0.22	353,678.02	2.145E+00	Pulse	0.50	3
Pb			1	100.728	ug/l	0.55	2,186,386.33	7.906E-01	Analog	1.00	3
Be			1	94.610	ug/l	5.41	7,900.49	3.065E+00	Pulse	2.00	3
Ag			1	100.814	ug/l	0.50	1,233,305.79	1.056E+00	Pulse	0.50	3
Ba			1	99.184	ug/l	0.36	191,528.49	1.640E-01	Pulse	0.50	3
Tl			1	101.514	ug/l	1.67	3,144,310.00	1.137E+00	Analog	0.50	3
Sn			1	99.398	ug/l	0.61	419,678.02	3.593E-01	Pulse	0.30	3
Sr			1	99.427	ug/l	0.18	461,991.90	3.955E-01	Pulse	0.50	3
Ca			1	9927.313	ug/l	0.47	253,747.91	1.417E+00	Pulse	0.50	3
Ti			1	99.546	ug/l	2.05	16,011.07	8.941E-02	Pulse	0.50	3
Na			1	9887.595	ug/l	0.31	12,243,304.00	6.838E+01	Analog	1.00	3
Mg			1	9938.703	ug/l	0.43	6,185,289.33	3.454E+01	Analog	1.00	3
K			1	9935.254	ug/l	0.71	4,929,064.83	2.753E+01	Analog	1.00	3
V			1	99.743	ug/l	0.95	505,643.46	4.533E+00	Pulse	0.50	3
Mn			1	99.557	ug/l	0.46	379,896.36	2.304E+00	Pulse	0.50	3
Fe			1	9945.966	ug/l	0.47	52,609,914.67	3.191E+02	Analog	0.50	3
Co			1	98.386	ug/l	0.44	972,845.35	5.900E+00	Pulse	0.50	3
Ni			1	100.196	ug/l	0.68	256,598.18	1.556E+00	Pulse	0.50	3
Cu			1	100.708	ug/l	0.27	683,329.44	4.144E+00	Pulse	0.50	3
Zn			1	100.250	ug/l	0.96	128,639.27	7.802E-01	Pulse	1.00	3
Cd			1	99.303	ug/l	0.75	203,364.60	1.233E+00	Pulse	0.50	3
Al			1	9934.702	ug/l	0.58	2,576,733.00	1.439E+01	Analog	1.00	3
Se			1	99.766	ug/l	0.63	7,067.18	4.286E-02	Pulse	3.00	3
Sb			1	98.603	ug/l	0.61	571,869.85	3.468E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,765,412.08	1.08	93.9	Analog	0.50	3
1	Sc		179,055.08	0.72	96.1	Pulse	0.30	3
1	Ge		111,539.39	0.73	96.6	Pulse	0.30	3
1	In		1,168,155.13	0.40	94.0	Pulse	0.30	3
1	Tb		3,771,511.50	0.66	95.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,078,860.67	0.83	96.7	Analog	0.50	3
1	Ge		164,890.06	0.73	95.3	Pulse	0.30	3
1	Li		2,581.31	3.74	100.5	Pulse	0.30	3

Quantitation Report

File Name	094CALS.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:39
Sample Name	CALSTD-7
Sample Type	CalStd
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 15:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.876	ug/l	1.11	1,221,690.25	7.748E+00	Pulse	0.50	3
As			1	200.730	ug/l	1.06	150,551.52	9.548E-01	Pulse	1.00	3
Mo			1	201.809	ug/l	1.06	694,982.90	4.407E+00	Pulse	0.50	3
Pb			1	200.027	ug/l	1.60	4,176,205.17	1.569E+00	Analog	1.00	3
Be			1	203.004	ug/l	5.21	15,074.01	6.575E+00	Pulse	2.00	3
Ag			1	191.947	ug/l	1.34	2,254,380.25	2.010E+00	Analog	0.50	3
Ba			1	201.239	ug/l	0.19	372,973.20	3.326E-01	Pulse	0.50	3
Tl			1	199.828	ug/l	1.35	5,957,785.83	2.238E+00	Analog	0.50	3
Sn			1	201.060	ug/l	0.49	814,365.47	7.261E-01	Pulse	0.30	3
Sr			1	200.945	ug/l	0.19	895,987.60	7.989E-01	Pulse	0.50	3
Ca			1	20081.150	ug/l	0.78	492,179.07	2.866E+00	Pulse	0.50	3
Ti			1	200.594	ug/l	1.03	30,928.85	1.801E-01	Pulse	0.50	3
Na			1	20105.666	ug/l	0.76	23,869,596.00	1.390E+02	Analog	1.00	3
Mg			1	20045.879	ug/l	0.61	11,963,974.00	6.967E+01	Analog	1.00	3
K			1	20023.251	ug/l	0.73	9,492,143.33	5.527E+01	Analog	1.00	3
V			1	200.611	ug/l	0.52	980,400.71	9.105E+00	Pulse	0.50	3
Mn			1	200.746	ug/l	0.97	732,219.67	4.644E+00	Pulse	0.50	3
Fe			1	20075.601	ug/l	1.85	101,528,240.00	6.439E+02	Analog	0.50	3
Co			1	201.397	ug/l	1.29	1,904,598.12	1.208E+01	Analog	0.50	3
Ni			1	200.153	ug/l	1.36	490,030.42	3.108E+00	Pulse	0.50	3
Cu			1	199.906	ug/l	1.18	1,290,363.29	8.183E+00	Pulse	0.50	3
Zn			1	200.741	ug/l	1.43	242,660.46	1.539E+00	Pulse	1.00	3
Cd			1	200.936	ug/l	1.25	393,486.23	2.495E+00	Pulse	0.50	3
Al			1	20059.388	ug/l	2.17	4,988,509.00	2.905E+01	Analog	1.00	3
Se			1	200.585	ug/l	1.20	13,558.48	8.599E-02	Pulse	3.00	3
Sb			1	201.465	ug/l	1.24	1,114,921.71	7.071E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,662,590.58	0.82	90.4	Analog	0.50	3
1	Sc		171,730.30	0.77	92.2	Pulse	0.30	3
1	Ge		107,679.27	0.58	93.2	Pulse	0.30	3
1	In		1,121,521.20	0.18	90.2	Pulse	0.30	3
1	Tb		3,669,913.67	1.46	92.4	Analog	0.50	3
1	Lu		3,017,724.08	0.82	94.8	Analog	0.50	3
1	Ge		157,694.67	1.01	91.2	Pulse	0.30	3
1	Li		2,296.82	5.42	89.4	Pulse	0.30	3

Quantitation Report

File Name	095_ICV.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Method File	
Method Path	
Acq Time	2023-12-05 15:42
Sample Name	ICV
Sample Type	ICV
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-05 15:40
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	102.523	ug/l	2.89	626,294.33	3.956E+00	Pulse	0.50	3
As			1	101.694	ug/l	2.33	76,608.27	4.839E-01	Pulse	1.00	3
Mo			1	104.999	ug/l	2.59	363,243.48	2.294E+00	Pulse	0.50	3
Pb			1	103.859	ug/l	2.89	2,209,602.25	8.152E-01	Analog	1.00	3
Be			1	91.054	ug/l	5.16	7,698.74	2.950E+00	Pulse	2.00	3
Ag			1	49.090	ug/l	1.24	583,869.39	5.141E-01	Pulse	0.50	3
Ba			1	97.398	ug/l	1.27	182,847.42	1.610E-01	Pulse	0.50	3
Tl			1	102.646	ug/l	2.36	3,116,757.00	1.150E+00	Analog	0.50	3
Sn			1	98.941	ug/l	2.41	406,124.01	3.576E-01	Pulse	0.30	3
Sr			1	104.300	ug/l	1.88	471,129.95	4.149E-01	Pulse	0.50	3
Ca			1	10050.731	ug/l	2.46	248,839.07	1.435E+00	Pulse	0.50	3
Ti			1	105.671	ug/l	5.15	16,458.13	9.491E-02	Pulse	0.50	3
Na			1	9965.741	ug/l	2.11	11,952,914.00	6.892E+01	Analog	1.00	3
Mg			1	10735.060	ug/l	3.07	6,470,642.17	3.731E+01	Analog	1.00	3
K			1	10100.402	ug/l	2.96	4,853,055.00	2.798E+01	Analog	1.00	3
V			1	103.057	ug/l	1.40	502,199.20	4.684E+00	Pulse	0.50	3
Mn			1	102.778	ug/l	2.75	376,560.28	2.378E+00	Pulse	0.50	3
Fe			1	10208.285	ug/l	2.59	51,846,784.00	3.275E+02	Analog	0.50	3
Co			1	101.686	ug/l	2.42	965,457.37	6.098E+00	Pulse	0.50	3
Ni			1	102.853	ug/l	2.97	252,909.26	1.597E+00	Pulse	0.50	3
Cu			1	104.592	ug/l	2.92	681,150.92	4.302E+00	Pulse	0.50	3
Zn			1	101.109	ug/l	2.67	124,547.20	7.867E-01	Pulse	1.00	3
Cd			1	102.213	ug/l	3.06	200,986.31	1.269E+00	Pulse	0.50	3
Al			1	10177.350	ug/l	2.45	2,556,894.50	1.474E+01	Analog	1.00	3
Se			1	99.051	ug/l	2.69	6,737.28	4.255E-02	Pulse	3.00	3
Sb			1	101.634	ug/l	2.79	565,912.06	3.574E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,711,211.58	1.32	92.1	Analog	0.50	3
1	Sc		173,458.30	0.95	93.1	Pulse	0.30	3
1	Ge		107,220.93	0.57	92.8	Pulse	0.30	3
1	In		1,135,618.53	0.23	91.4	Pulse	0.30	3
1	Tb		3,759,640.50	0.37	94.7	Analog	0.50	3
1	Lu		3,044,834.42	1.33	95.6	Analog	0.50	3
1	Ge		158,341.61	0.79	91.5	Pulse	0.30	3
1	Li		2,613.53	4.00	101.8	Pulse	0.30	3

US EPA Tune Check Report

Operator Name	admin
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b
Acq. Date-Time	2023-12-05 10:02:30
Report Comment	---
Instrument Name	ICP-MS JP12151709

[2]

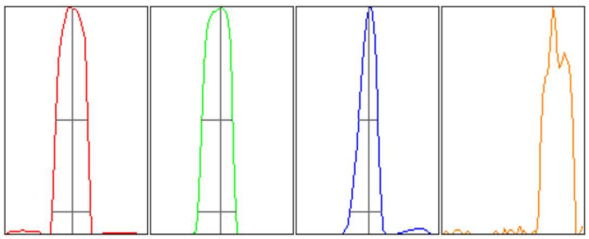
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59	1.00	8318	83175.11	5000.00		2.157	5.000
89	1.00	8227	82270.27	5000.00		2.166	5.000
205	1.00	30020	300199.26	5000.00		1.439	5.000
78		1	9.80			132.789	

Mass	RSD% (Flag)	Background	Background (Required)	Background (Flag)
59		0.000	2.000	
89		0.100	2.000	
205		0.200	2.000	
78		0.000	5.000	

Integration Time [sec]	0.1
Oxide	156 / 140 0.638 %
Doubly Charged	70 / 140 0.803 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	8348.74	58.95	58.90 - 59.10	
89	8197.55	89.00	88.90 - 89.10	
205	31072.26	205.05	204.90 - 205.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.68	0.811	0.900	
89	0.65	0.801	0.900	
205	0.41	0.675	0.900	
78				

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	1.09 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.5 V	Deflect	2.2 V
Extract 2	-110.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-60 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.3 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9990	QP Bias	-15.0 V
Mass Offset	129	Axis Offset	0.11		

Hardware Settings

Torch

Torch H	-0.7 mm	Torch V	0.2 mm

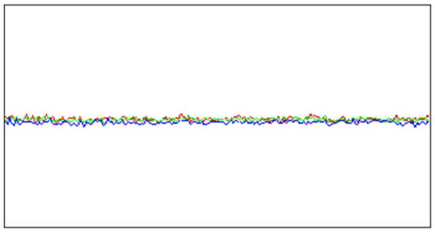
EM

Discriminator	4.5 mV	Analog HV	1774 V	Pulse HV	1713 V

Performance Report

Operator Name	admin
Acq. Date-Time	2023-12-05 09:57:11
Instrument Name	ICP-MS JP12151709
Sample Introduction	ISIS
Nebulizer Type	MicroMist
Ion Lens Model	x-Lens
Tune Parameters	Standard Tune

Sensitivity



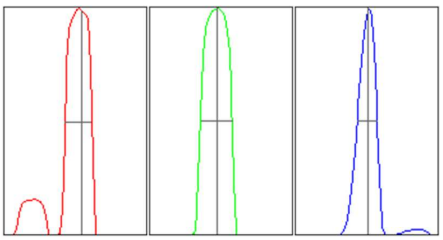
Mass	Range	Count	RSD%	Background
7	20000	9766	1.869	0.350
89	50000	24307	1.393	0.850
205	50000	23645	1.687	3.500

Sampling Period [sec]	0.311
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.460 %
Doubly Charged	70 / 140 1.210 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
7	9952.48	7.15	0.57	0.69
89	24556.73	88.95	0.67	0.81
205	24573.35	205.05	0.42	0.69

Integration Time [sec]	0.1
Acquisition Time [sec]	22.74

Tune Parameters

Plasma Parameters

RF Power	1550 W	Option Gas	---	Makeup Gas	0.00 L/min
RF Matching	1.60 V	Nebulizer Pump	0.10 rps	Auxiliary Gas	0.90 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C	Plasma Gas	15.0 L/min
Nebulizer Gas	0.99 L/min				

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.0 V	Deflect	13.8 V
Extract 2	-150.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-80 V	Cell Exit	-50 V		

Performance Report

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

QP Bias	-3.0 V

Hardware Settings

Torch

Torch H	-0.7 mm	Torch H (Hot)	---	Torch H (Cool)	---
Torch V	0.2 mm	Torch V (Hot)	---	Torch V (Cool)	---

Plasma Correction

Nebulizer Gas Offset	-0.06 L/min	Makeup Gas (Hot)	---	Makeup Gas (Cool)	---
		Sample Depth (Hot)	---		

Resolution/Axis

Mass Gain	124	Axis Gain	0.9990		
Mass Offset	129	Axis Offset	0.11		

EM

Discriminator	4.5 mV	Analog HV	1774 V	Pulse HV	1713 V

Performance Report

Meter

Name	Value	Unit
Nebulizer Gas	0.99	L/min
MU./Dil. Gas	0.00	L/min
Plasma Gas	15.03	L/min
Aux Gas	0.90	L/min
Ar Gas Tank Press	5.75E+2	kPa
+5V (Press Gage)	5.0	V
Ar AMFC Temp	28.9	°C
Nebulizer Gas(DP)	6.37E+0	kPa
MU./Dil. Gas(DP)	-4.63E-2	kPa
Aux Gas(DP)	1.25E+1	kPa
Plasma Gas(DP)	1.14E+1	kPa
Nebulizer Gas(BP)	2.51E+2	kPa
MU./Dil. Gas(BP)	0.00E+0	kPa
Aux Gas(BP)	5.56E+1	kPa
Plasma Gas(BP)	4.29E+1	kPa
S/C Temp (H)	17.9	°C
S/C Temp (L)	2.0	°C
Peltier Voltage	3.3	V
IF/BK Press	2.80E+2	Pa
Analyzer Press	1.39E-4	Pa
IG HV	179	V
IG Emission	5.00	µA
TMP Revolution	100.0	%
TMP Rev (RAW)	100.6	%
TMP Current	3.66	A
PWR AMP Drain I	0.5	A
PWR AMP Bias	3.10	V
OctP RF (Avg)	203.5	V
OctP RF Set	4.0	V
OctP FET Bias Set	3.95	V
OctP RF(+)	197.8	V
OctP RF(-)	208.3	V
OctP Bias	-7.9	V
Cell Temp.	65.0	°C
Cell Heater Volt.	4.2	V
+U Voltage	399.2	V

Name	Value	Unit
-U Voltage	-408.0	V
V Voltage	1747.2	V
QPRF Fader	1.3	V
Pickup Temp	55.0	°C
PWR Amp Temp	0.1	V
+600V	618.3	V
-120V	-133.9	V
-720V	-741.8	V
Prefilter Bias	-5.03	V
Pickup Heater I	0.09	A
QP PS +48V	47.8	V
QP PS +48V I	0.00	A
Analog HV	-1711	V
Pulse HV	1735	V
EM Gate	-46.4	V
Pulse Gate	378.7	V
EM Entrance	0.2	V
Analog -5V	-5.1	V
Analog +15V	14.7	V
Analog -15V	-14.5	V
Analog +5V	5.2	V
Shunt C Pos	1.3	V
Drain Volt.(max)	61.1	V
RF PS +48V	47.6	V
Forward Power	1550	W
Reflected Power	1	W
Plasma Freq.	26.74	MHz
Drain I 1	11.25	A
Drain I 2	10.73	A
Drain I 3	10.95	A
Drain I 4	10.99	A
Temp Sensor	2.8	V
Driver I	6.63	A
Igniter	0.0	V
Driver Voltage Set	7.1	V
Unbalance Current	0.36	A

Name	Value	Unit
PWM Threshold Set	0.2	V
Driver Voltage	5.7	V
PWM Threshold	0.2	V
Phase Detector	2.0	mV
H2 Gas	0.10	mL/min
He Gas	0.04	mL/min
H2 Gas Press	1.63E+0	kPa
He Gas Press	0.00E+0	kPa
ORS AMFC Temp	27.5	°C
Atmospheric Press	1.01E+2	kPa
Extract 1	-0.2	V
Extract 2	-151.0	V
Omega Bias	-80.1	V
Omega Lens	7.9	V
Cell Entrance	-30.2	V
Cell Exit	-50.2	V
Deflect	14.0	V
Plate Bias	-40.0	V
HV+530V	527	V
HV+240V	240	V
HV-360V	-359	V
Inlet Temp	27.6	°C
Internal Temp	33.7	°C
+24V	23.6	V
Water Temp	20.5	°C
Water RF/WC/IF	1.42	L/min

Performance Report History

Sensitivity

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-12-05 09:57:11	9766	24307	23645
2023-12-02 11:14:14	12751	25243	22155
2023-12-02 10:19:23	1356	2514	2216
2023-12-01 09:57:55	1425	2226	2315
2023-11-28 10:41:18	1179	2532	2662
2023-11-21 10:25:48	1166	3117	2869
2023-11-18 10:53:36	1272	2795	2579
2023-11-16 11:46:23	1161	2728	2439
2023-11-16 11:15:26	1304	2796	2720
2023-11-16 10:30:30	1357	2985	2857
2023-11-15 10:05:59	1219	2847	2650
2023-11-14 10:21:12	1602	3056	3082
2023-11-10 11:02:43	1830	3261	3009
2023-11-09 11:53:53	1461	2967	2694
2023-11-09 11:24:42	1772	3299	3051
2023-11-08 09:56:12	1445	3287	2915
2023-11-07 10:53:11	1355	3112	2895
2023-11-07 10:29:48	1500	3330	3404
2023-11-04 10:36:04	1532	3281	2981
2023-11-04 10:12:21	1731	3335	3152
2023-11-03 09:55:39	1621	3363	3436
2023-11-02 09:43:00	1591	3465	3262
2023-11-01 10:06:30	1702	3703	3566
2023-10-31 10:32:51	1896	3355	3399
2023-10-31 09:58:22	1634	3228	3571
2023-10-24 10:16:51	1999	3899	4119
2023-10-21 11:00:25	1707	4137	3864
2023-10-20 10:03:57	1787	4064	4106
2023-10-19 11:34:00	1779	3893	3812
2023-10-14 11:26:08	1377	4157	3891
2023-10-13 10:06:23	1366	4273	3584
2023-10-13 09:54:29	1429	4292	3641
2023-10-12 10:40:18	1515	5359	4809
2023-10-11 09:58:46	2050	5072	5025
2023-10-10 10:59:48	1624	4657	4676
2023-10-10 10:47:06	1902	4861	4881
2023-10-09 15:47:58	2367	5470	5775
2023-10-09 15:34:05	1969	3952	3641
2023-10-09 15:25:44	2218	4669	4364
2023-10-09 15:19:50	2080	4354	4087
2023-10-09 14:53:07	1948	4201	3879

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-09 13:19:49	171	78	51
2023-10-09 13:14:00	340	246	180
2023-10-09 09:47:20	2821	4673	5008
2023-10-04 16:49:35	1014	792	945
2023-10-04 15:55:18	1890	2107	2413
2023-10-04 15:15:29	573	209	219
2023-09-21 10:00:54	1658	3131	3442
2023-09-19 11:19:40	2218	3287	3248
2023-09-16 10:28:46	1711	3573	3553
2023-09-14 11:00:11	1721	3210	3387
2023-09-09 10:05:04	1722	3568	3729
2023-09-07 09:53:49	2309	4081	4428
2023-09-02 10:39:33	2248	4065	4257
2023-09-01 09:34:24	1949	3868	4111
2023-08-31 09:25:36	1996	4315	4809
2023-08-31 09:18:43	1985	4296	4816
2023-08-29 10:05:32	2240	4135	4129
2023-08-26 10:39:41	2021	4299	4209
2023-08-25 13:19:27	2396	4661	4638
2023-08-25 10:13:41	2316	4944	5010
2023-08-25 10:00:19	2496	4915	4756
2023-08-24 10:22:50	2511	4818	4583
2023-08-24 09:27:33	2424	5025	4351
2023-08-23 10:20:39	2574	5640	5183
2023-08-23 10:00:27	2462	5279	4587
2023-08-22 09:46:34	3016	5876	4894
2023-08-19 10:32:30	2657	4462	4107
2023-08-08 13:40:43	2000	4283	3815
2023-08-08 12:53:37	334	678	620
2023-08-08 11:20:33	743	1157	1099
2023-08-07 14:06:05	2460	4533	4712

Background

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-12-05 09:57:11	0.350	0.850	3.500
2023-12-02 11:14:14	0.200	1.150	3.150
2023-12-02 10:19:23	0.550	0.950	4.450
2023-12-01 09:57:55	0.250	1.100	2.850
2023-11-28 10:41:18	0.350	1.100	3.300
2023-11-21 10:25:48	0.100	1.250	4.250

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-11-18 10:53:36	0.200	1.250	3.300
2023-11-16 11:46:23	0.700	1.550	3.400
2023-11-16 11:15:26	0.450	0.700	4.600
2023-11-16 10:30:30	0.450	1.050	3.850
2023-11-15 10:05:59	0.300	0.600	4.250
2023-11-14 10:21:12	0.100	1.350	4.050
2023-11-10 11:02:43	0.350	0.850	4.650
2023-11-09 11:53:53	0.350	0.900	4.800
2023-11-09 11:24:42	0.200	0.950	4.350
2023-11-08 09:56:12	0.150	0.600	3.250
2023-11-07 10:53:11	0.250	0.950	4.350
2023-11-07 10:29:48	0.050	1.200	3.450
2023-11-04 10:36:04	0.300	1.200	5.700
2023-11-04 10:12:21	0.550	1.550	4.300
2023-11-03 09:55:39	0.250	1.050	4.700
2023-11-02 09:43:00	0.200	0.900	5.150
2023-11-01 10:06:30	0.150	0.900	3.450
2023-10-31 10:32:51	0.000	0.850	4.050
2023-10-31 09:58:22	0.150	1.150	3.250
2023-10-24 10:16:51	0.550	1.200	3.900
2023-10-21 11:00:25	0.250	1.250	5.300
2023-10-20 10:03:57	0.050	0.750	3.150
2023-10-19 11:34:00	0.350	0.600	3.750
2023-10-14 11:26:08	0.300	1.000	5.350
2023-10-13 10:06:23	0.250	1.800	5.950
2023-10-13 09:54:29	0.300	2.150	4.150
2023-10-12 10:40:18	0.050	1.000	5.700
2023-10-11 09:58:46	0.200	1.000	5.250
2023-10-10 10:59:48	0.200	1.650	5.400
2023-10-10 10:47:06	0.250	1.200	4.950
2023-10-09 15:47:58	0.000	1.000	4.500
2023-10-09 15:34:05	1.050	1.250	4.150
2023-10-09 15:25:44	0.300	1.250	4.150
2023-10-09 15:19:50	0.400	1.050	4.750
2023-10-09 14:53:07	0.500	1.350	4.950
2023-10-09 13:19:49	0.350	0.750	4.650
2023-10-09 13:14:00	0.950	0.850	3.750
2023-10-09 09:47:20	0.150	0.950	5.700
2023-10-04 16:49:35	0.150	0.700	2.150
2023-10-04 15:55:18	0.100	0.700	3.500
2023-10-04 15:15:29	0.300	0.200	2.200

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-09-21 10:00:54	0.000	0.550	3.250
2023-09-19 11:19:40	0.300	0.850	3.200
2023-09-16 10:28:46	0.350	1.000	4.000
2023-09-14 11:00:11	0.100	1.200	4.300
2023-09-09 10:05:04	0.400	1.200	4.550
2023-09-07 09:53:49	0.450	0.950	3.600
2023-09-02 10:39:33	0.300	0.600	4.500
2023-09-01 09:34:24	0.150	0.650	3.400
2023-08-31 09:25:36	0.250	1.300	3.300
2023-08-31 09:18:43	0.400	0.550	4.000
2023-08-29 10:05:32	0.050	1.650	2.650
2023-08-26 10:39:41	0.200	1.250	4.000
2023-08-25 13:19:27	0.200	1.100	4.400
2023-08-25 10:13:41	0.300	1.000	4.550
2023-08-25 10:00:19	0.050	1.100	3.950
2023-08-24 10:22:50	0.350	1.400	3.100
2023-08-24 09:27:33	0.500	0.750	4.900
2023-08-23 10:20:39	0.200	1.250	3.850
2023-08-23 10:00:27	0.250	0.850	5.300
2023-08-22 09:46:34	0.250	1.800	5.400
2023-08-19 10:32:30	0.050	1.150	3.950
2023-08-08 13:40:43	0.200	1.200	4.800
2023-08-08 12:53:37	0.150	0.350	1.500
2023-08-08 11:20:33	0.100	0.350	1.400
2023-08-07 14:06:05	0.050	0.750	3.850

Tune Parameters

Created Date	Extract 1	Extract 2	Omega Bias
2023-12-05 09:57:11	0.0 V	-150.0 V	-80 V
2023-12-02 11:14:14	0.0 V	-145.0 V	-80 V
2023-12-02 10:19:23	0.0 V	-145.0 V	-80 V
2023-12-01 09:57:55	0.0 V	-155.0 V	-80 V
2023-11-28 10:41:18	0.0 V	-155.0 V	-80 V
2023-11-21 10:25:48	0.0 V	-165.0 V	-90 V
2023-11-18 10:53:36	0.0 V	-170.0 V	-90 V
2023-11-16 11:46:23	0.0 V	-160.0 V	-90 V
2023-11-16 11:15:26	0.0 V	-160.0 V	-90 V
2023-11-16 10:30:30	0.0 V	-155.0 V	-80 V
2023-11-15 10:05:59	0.0 V	-160.0 V	-80 V
2023-11-14 10:21:12	0.0 V	-165.0 V	-90 V

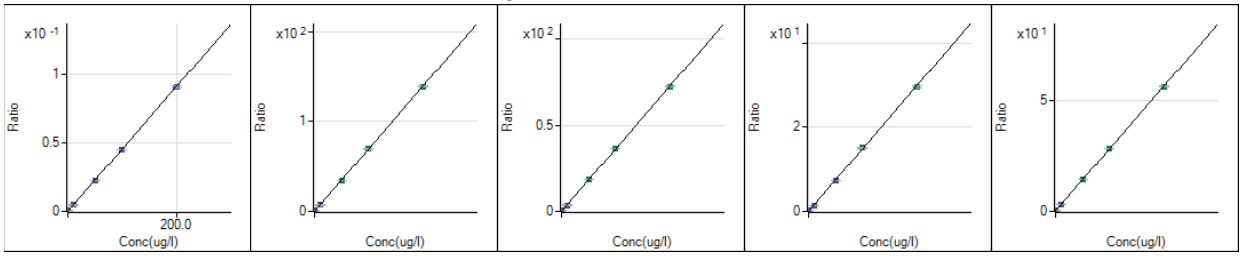
Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-11-10 11:02:43	0.0 V	-175.0 V	-90 V
2023-11-09 11:53:53	0.0 V	-165.0 V	-90 V
2023-11-09 11:24:42	0.0 V	-165.0 V	-80 V
2023-11-08 09:56:12	0.0 V	-155.0 V	-80 V
2023-11-07 10:53:11	0.0 V	-155.0 V	-80 V
2023-11-07 10:29:48	0.0 V	-160.0 V	-80 V
2023-11-04 10:36:04	0.0 V	-165.0 V	-80 V
2023-11-04 10:12:21	0.0 V	-175.0 V	-90 V
2023-11-03 09:55:39	0.0 V	-170.0 V	-90 V
2023-11-02 09:43:00	0.0 V	-180.0 V	-90 V
2023-11-01 10:06:30	0.0 V	-160.0 V	-90 V
2023-10-31 10:32:51	0.0 V	-175.0 V	-90 V
2023-10-31 09:58:22	0.0 V	-175.0 V	-90 V
2023-10-24 10:16:51	0.0 V	-190.0 V	-100 V
2023-10-21 11:00:25	0.0 V	-185.0 V	-90 V
2023-10-20 10:03:57	0.0 V	-175.0 V	-90 V
2023-10-19 11:34:00	0.0 V	-185.0 V	-90 V
2023-10-14 11:26:08	0.0 V	-195.0 V	-100 V
2023-10-13 10:06:23	0.0 V	-195.0 V	-100 V
2023-10-13 09:54:29	0.0 V	-200.0 V	-100 V
2023-10-12 10:40:18	0.0 V	-195.0 V	-100 V
2023-10-11 09:58:46	0.0 V	-200.0 V	-100 V
2023-10-10 10:59:48	0.0 V	-200.0 V	-110 V
2023-10-10 10:47:06	0.0 V	-200.0 V	-100 V
2023-10-09 15:47:58	0.0 V	-200.0 V	-100 V
2023-10-09 15:34:05	0.0 V	-195.0 V	-100 V
2023-10-09 15:25:44	0.0 V	-195.0 V	-100 V
2023-10-09 15:19:50	0.0 V	-195.0 V	-100 V
2023-10-09 14:53:07	0.0 V	-195.0 V	-100 V
2023-10-09 13:19:49	0.0 V	-200.0 V	-110 V
2023-10-09 13:14:00	0.0 V	-200.0 V	-110 V
2023-10-09 09:47:20	0.0 V	-200.0 V	-110 V
2023-10-04 16:49:35	0.0 V	-160.0 V	-100 V
2023-10-04 15:55:18	0.0 V	-165.0 V	-100 V
2023-10-04 15:15:29	0.0 V	-170.0 V	-100 V
2023-09-21 10:00:54	0.0 V	-150.0 V	-90 V
2023-09-19 11:19:40	0.0 V	-155.0 V	-90 V
2023-09-16 10:28:46	0.0 V	-160.0 V	-100 V
2023-09-14 11:00:11	0.0 V	-165.0 V	-100 V
2023-09-09 10:05:04	0.0 V	-155.0 V	-100 V
2023-09-07 09:53:49	0.0 V	-165.0 V	-100 V

Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-09-02 10:39:33	0.0 V	-170.0 V	-110 V
2023-09-01 09:34:24	0.0 V	-175.0 V	-110 V
2023-08-31 09:25:36	0.0 V	-180.0 V	-110 V
2023-08-31 09:18:43	0.0 V	-180.0 V	-110 V
2023-08-29 10:05:32	0.0 V	-170.0 V	-110 V
2023-08-26 10:39:41	0.0 V	-180.0 V	-110 V
2023-08-25 13:19:27	0.0 V	-175.0 V	-110 V
2023-08-25 10:13:41	0.0 V	-175.0 V	-110 V
2023-08-25 10:00:19	0.0 V	-180.0 V	-110 V
2023-08-24 10:22:50	0.0 V	-185.0 V	-110 V
2023-08-24 09:27:33	0.0 V	-190.0 V	-110 V
2023-08-23 10:20:39	0.0 V	-170.0 V	-100 V
2023-08-23 10:00:27	0.0 V	-175.0 V	-100 V
2023-08-22 09:46:34	0.0 V	-175.0 V	-100 V
2023-08-19 10:32:30	0.0 V	-170.0 V	-100 V
2023-08-08 13:40:43	0.0 V	-155.0 V	-90 V
2023-08-08 12:53:37	0.0 V	-140.0 V	-90 V
2023-08-08 11:20:33	0.0 V	-175.0 V	-100 V
2023-08-07 14:06:05	0.0 V	-160.0 V	-100 V

Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\014LCCV.d



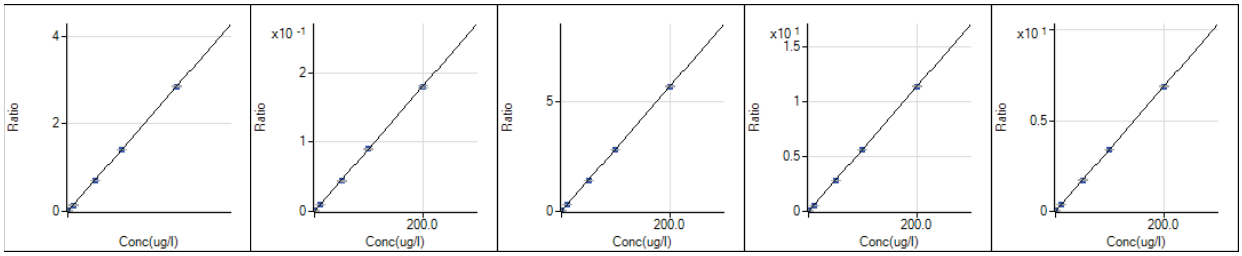
9 Be [2]
ISTD: 45 Sc
y = 4.547E-4 x + 4.454E-6
R 1.0000
DL 0.01254
BEC 0.009797

23 Na [2]
ISTD: 45 Sc
y = 6.950E-3 x + 4.672E-2
R 1.0000
DL 2.117
BEC 6.722

24 Mg [2]
ISTD: 45 Sc
y = 3.624E-3 x + 2.014E-3
R 1.0000
DL 0.0592
BEC 0.5558

27 Al [2]
ISTD: 45 Sc
y = 1.490E-3 x + 2.533E-3
R 0.9999
DL 0.3947
BEC 1.7

39 K [2]
ISTD: 45 Sc
y = 2.800E-3 x + 2.039E-1
R 1.0000
DL 1.555
BEC 72.84



44 Ca [2]
ISTD: 45 Sc
y = 1.425E-4 x + 7.312E-4
R 1.0000
DL 2.795
BEC 5.131

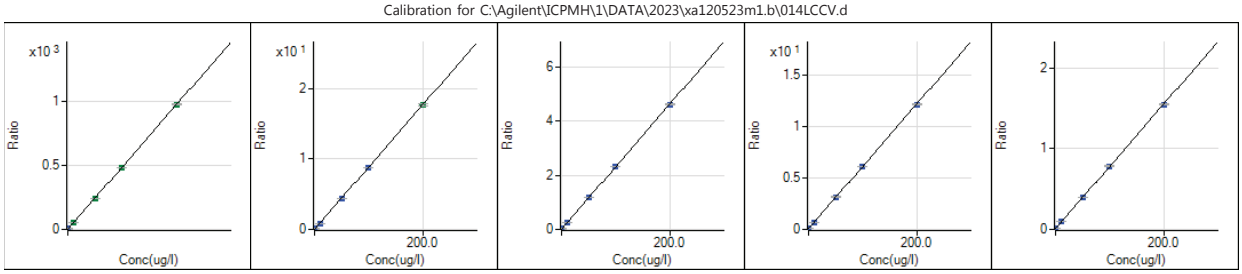
47 Ti [2]
ISTD: 45 Sc
y = 9.007E-4 x + 8.018E-5
R 1.0000
DL 0.1167
BEC 0.08903

51 V [2]
ISTD: 45 Sc
y = 2.829E-2 x + 1.098E-2
R 1.0000
DL 0.06093
BEC 0.3882

52 Cr [2]
ISTD: 72 Ge
y = 5.697E-2 x + 4.906E-3
R 1.0000
DL 0.02347
BEC 0.08613

55 Mn [2]
ISTD: 72 Ge
y = 3.433E-2 x + 2.716E-3
R 1.0000
DL 0.01719
BEC 0.07914

Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\014LCCV.d



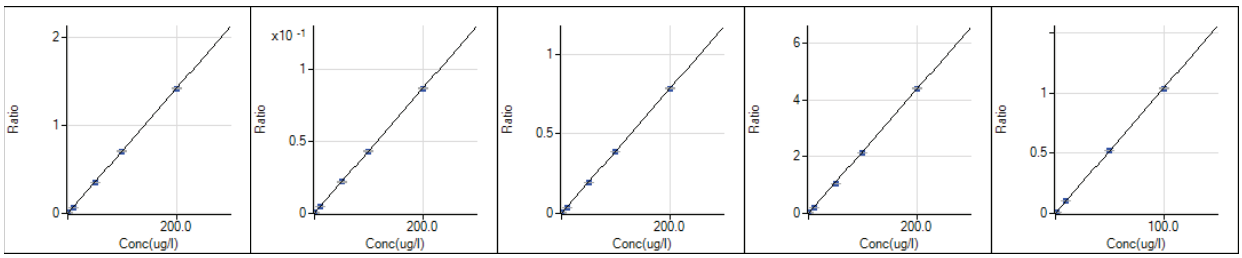
56 Fe [2]
ISTD: 72 Ge
y = 4.890E-2 x + 1.217E-1
R 1.0000
DL 0.1525
BEC 2.49

59 Co [2]
ISTD: 72 Ge
y = 8.848E-2 x + 8.250E-4
R 1.0000
DL 0.004102
BEC 0.009324

60 Ni [2]
ISTD: 72 Ge
y = 2.307E-2 x + 1.209E-3
R 1.0000
DL 0.03454
BEC 0.0524

63 Cu [2]
ISTD: 72 Ge
y = 6.056E-2 x + 6.153E-2
R 1.0000
DL 0.03361
BEC 1.016

66 Zn [2]
ISTD: 74 Ge
y = 7.715E-3 x + 7.369E-3
R 1.0000
DL 0.04692
BEC 0.9552



75 As [2]
ISTD: 72 Ge
y = 7.096E-3 x + 5.800E-4
R 1.0000
DL 0.06613
BEC 0.08174

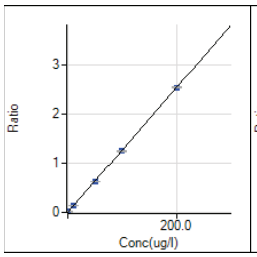
78 Se [2]
ISTD: 74 Ge
y = 4.324E-4 x + 1.976E-4
R 1.0000
DL 0.2273
BEC 0.457

88 Sr [2]
ISTD: 115 In
y = 3.913E-3 x + 3.368E-4
R 1.0000
DL 0.01611
BEC 0.08608

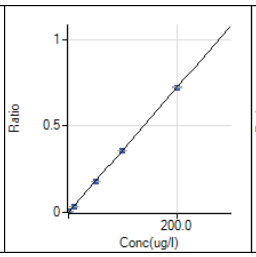
95 Mo [2]
ISTD: 74 Ge
y = 2.181E-2 x + 2.325E-3
R 0.9999
DL 0.0168
BEC 0.1066

107 Ag [2]
ISTD: 115 In
y = 1.042E-2 x + 3.061E-5
R 1.0000
DL 0.003335
BEC 0.002937

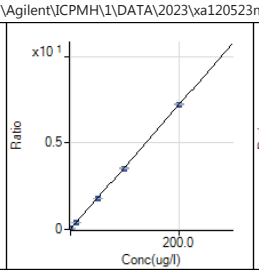
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\014LCCV.d



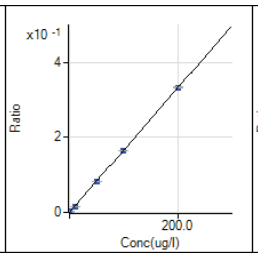
111 Cd [2]
ISTD: 74 Ge
y = 1.266E-2 x + 2.887E-4
R 1.0000
DL 0.02659
BEC 0.02281



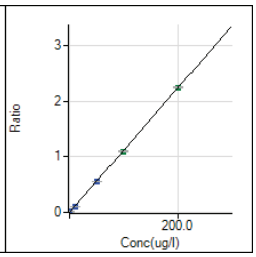
118 Sn [2]
ISTD: 115 In
y = 3.602E-3 x + 6.731E-4
R 1.0000
DL 0.06361
BEC 0.1869



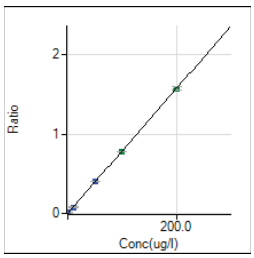
121 Sb [2]
ISTD: 74 Ge
y = 3.589E-2 x + 1.490E-2
R 0.9999
DL 0.02777
BEC 0.4153



137 Ba [2]
ISTD: 115 In
y = 1.656E-3 x + 1.040E-4
R 1.0000
DL 0.005556
BEC 0.06278

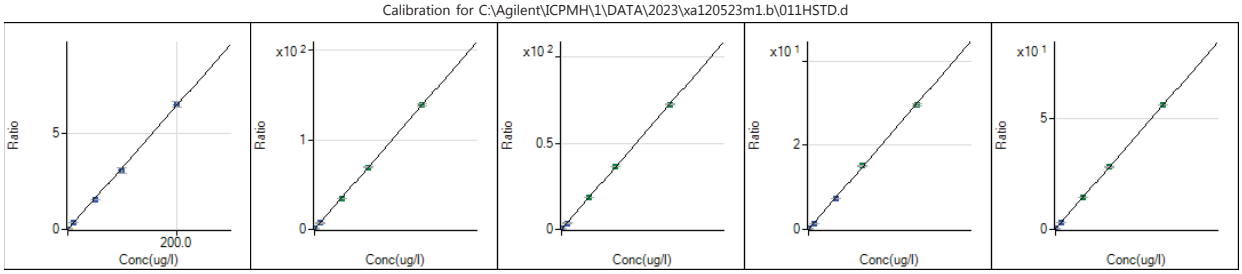


205 Tl [2]
ISTD: 209 Bi
y = 1.117E-2 x + 5.411E-4
R 0.9999
DL 0.00182
BEC 0.04846



208 Pb [2]
ISTD: 209 Bi
y = 7.857E-3 x + 1.440E-3
R 1.0000
DL 0.009606
BEC 0.1833

Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\011HSTD.d



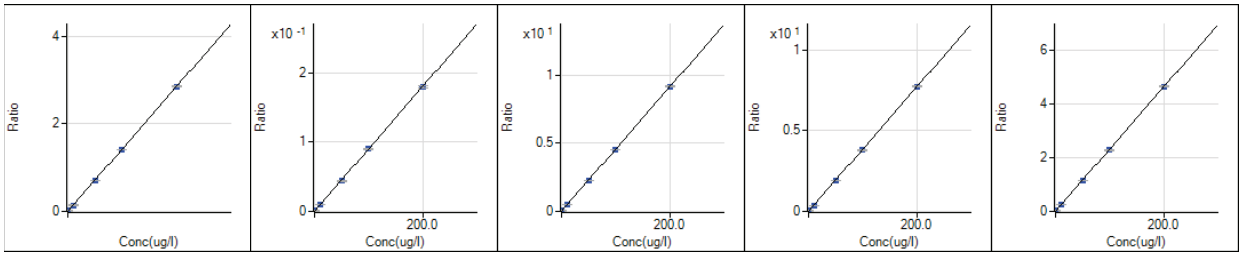
9 Be [2]
ISTD: 6 Li
y = 3.223E-2 x + 2.998E-4
R 0.9996
DL 0.01271
BEC 0.009303

23 Na [2]
ISTD: 45 Sc
y = 6.950E-3 x + 4.672E-2
R 1.0000
DL 2.117
BEC 6.722

24 Mg [2]
ISTD: 45 Sc
y = 3.624E-3 x + 2.014E-3
R 1.0000
DL 0.0592
BEC 0.5558

27 Al [2]
ISTD: 45 Sc
y = 1.490E-3 x + 2.533E-3
R 0.9999
DL 0.3947
BEC 1.7

39 K [2]
ISTD: 45 Sc
y = 2.800E-3 x + 2.039E-1
R 1.0000
DL 1.555
BEC 72.84



44 Ca [2]
ISTD: 45 Sc
y = 1.425E-4 x + 7.312E-4
R 1.0000
DL 2.795
BEC 5.131

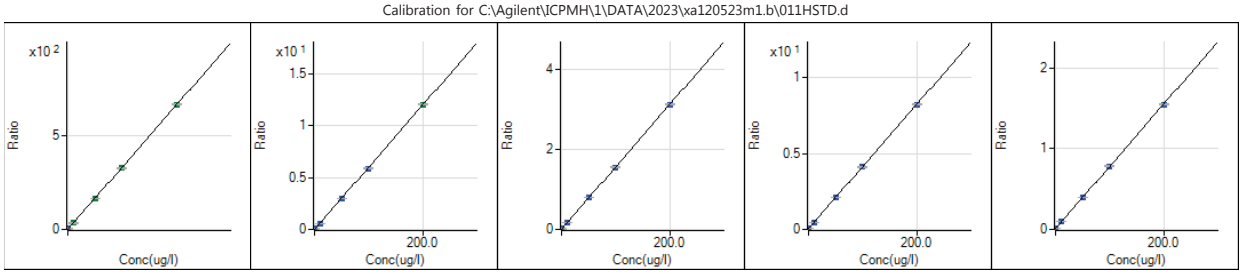
47 Ti [2]
ISTD: 45 Sc
y = 9.007E-4 x + 8.018E-5
R 1.0000
DL 0.1167
BEC 0.08903

51 V [2]
ISTD: 72 Ge
y = 4.555E-2 x + 1.750E-2
R 1.0000
DL 0.05296
BEC 0.3842

52 Cr [2]
ISTD: 74 Ge
y = 3.849E-2 x + 3.260E-3
R 0.9999
DL 0.02265
BEC 0.08468

55 Mn [2]
ISTD: 74 Ge
y = 2.319E-2 x + 1.805E-3
R 1.0000
DL 0.01853
BEC 0.07785

Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\011HSTD.d



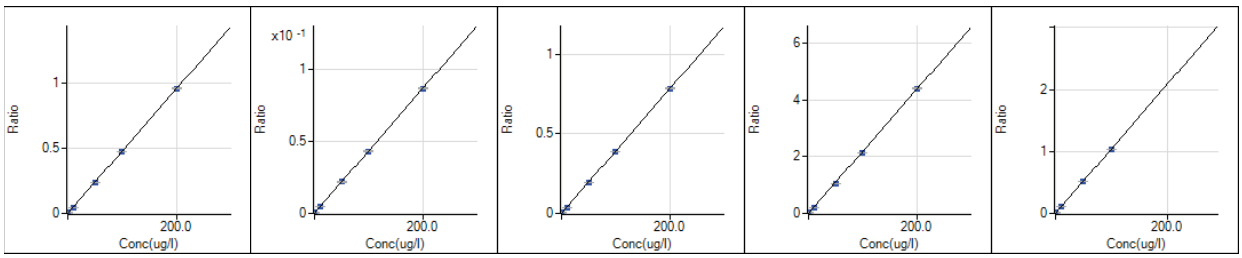
56 Fe [2]
ISTD: 74 Ge
y = 3.304E-2 x + 8.089E-2
R 0.9999
DL 0.201
BEC 2.448

59 Co [2]
ISTD: 74 Ge
y = 5.978E-2 x + 5.485E-4
R 0.9999
DL 0.004233
BEC 0.009175

60 Ni [2]
ISTD: 74 Ge
y = 1.559E-2 x + 8.040E-4
R 1.0000
DL 0.03515
BEC 0.05158

63 Cu [2]
ISTD: 74 Ge
y = 4.092E-2 x + 4.088E-2
R 1.0000
DL 0.05385
BEC 0.9991

66 Zn [2]
ISTD: 74 Ge
y = 7.715E-3 x + 7.369E-3
R 1.0000
DL 0.04692
BEC 0.9552



75 As [2]
ISTD: 74 Ge
y = 4.794E-3 x + 3.852E-4
R 1.0000
DL 0.06425
BEC 0.08034

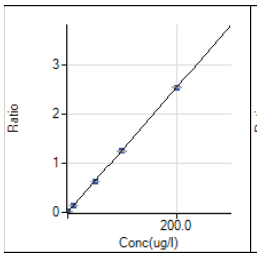
78 Se [2]
ISTD: 74 Ge
y = 4.324E-4 x + 1.976E-4
R 1.0000
DL 0.2273
BEC 0.457

88 Sr [2]
ISTD: 115 In
y = 3.913E-3 x + 3.368E-4
R 1.0000
DL 0.01611
BEC 0.08608

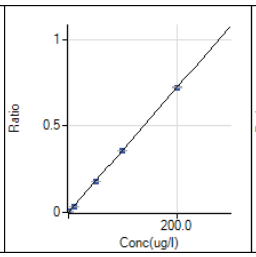
95 Mo [2]
ISTD: 74 Ge
y = 2.181E-2 x + 2.325E-3
R 0.9999
DL 0.0168
BEC 0.1066

107 Ag [2]
ISTD: 115 In
y = 1.042E-2 x + 3.061E-5
R 1.0000
DL 0.003335
BEC 0.002937

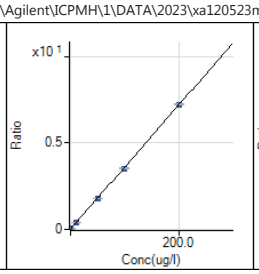
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa120523m1.b\011HSTD.d



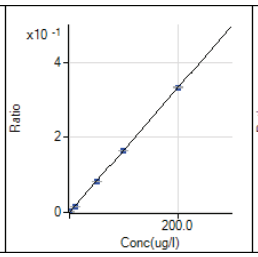
111 Cd [2]
ISTD: 74 Ge
y = 1.266E-2 x + 2.887E-4
R 1.0000
DL 0.02659
BEC 0.02281



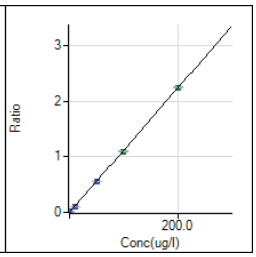
118 Sn [2]
ISTD: 115 In
y = 3.602E-3 x + 6.731E-4
R 1.0000
DL 0.06361
BEC 0.1869



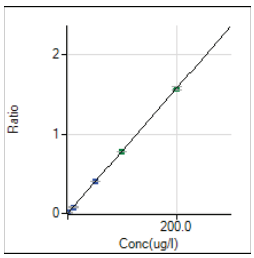
121 Sb [2]
ISTD: 74 Ge
y = 3.589E-2 x + 1.490E-2
R 0.9999
DL 0.02777
BEC 0.4153



137 Ba [2]
ISTD: 115 In
y = 1.656E-3 x + 1.040E-4
R 1.0000
DL 0.005556
BEC 0.06278



205 Tl [2]
ISTD: 209 Bi
y = 1.117E-2 x + 5.411E-4
R 0.9999
DL 0.00182
BEC 0.04846



208 Pb [2]
ISTD: 209 Bi
y = 7.857E-3 x + 1.440E-3
R 1.0000
DL 0.009606
BEC 0.1833

Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 12/6/2023 9:48:19 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0002**	**.0001**	**-.0007**	**.0058**	**.0037**	**.0005**	**.0062**	**-.0007**	**-.0011**
Stddev	.0001	.0014	.0001	.0012	.0005	.0004	.0002	.0001	.0003
%RSD	83.13	1360.	13.18	21.45	13.68	80.31	3.126	21.66	25.29
#1	-.0001	.0015	-.0006	.0064	.0032	.0000	.0062	-.0006	-.0010
#2	-.0003	-.0012	-.0008	.0067	.0042	.0008	.0061	-.0005	-.0014
#3	-.0001	.0000	-.0008	.0044	.0038	.0007	.0064	-.0008	-.0009

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0057**	**.0004**	**.0061**	**.0002**	**-.0005**	**.0002**	**.0015**	**.0176**
Stddev	.0001	.0002	.0001	.0018	.0005	.0009	.0001	.0002	.0016
%RSD	51.56	3.247	29.63	29.70	244.2	159.3	42.35	15.19	8.811
#1	.0001	.0055	.0005	.0082	.0004	-.0011	.0003	.0016	.0173
#2	.0002	.0059	.0003	.0051	-.0004	.0005	.0002	.0013	.0163
#3	.0001	.0057	.0005	.0050	.0007	-.0010	.0001	.0017	.0193

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0012**	**-.0021**	**.0001**	**-.0001**	**.0063**	**.0001**	**-.0015**	**.0007**	**-.0016**
Stddev	.0003	.0004	.0001	.0005	.0002	.0003	.0006	.0001	.0006
%RSD	27.51	17.95	115.7	779.9	3.078	209.5	38.62	14.60	36.75
#1	-.0015	-.0022	.0001	.0003	.0065	-.0001	-.0018	.0008	-.0009
#2	-.0013	-.0017	.0002	-.0006	.0061	.0001	-.0008	.0007	-.0020
#3	-.0008	-.0025	.0000	.0000	.0064	.0004	-.0018	.0006	-.0019

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**-.0007**	**.0011**
Stddev	.0001	.0004
%RSD	16.40	32.13
#1	-.0006	.0009
#2	-.0007	.0009
#3	-.0009	.0015

◀ Zoom In ▶ Zoom Out

Sample Name: STDA Acquired: 12/6/2023 9:48:19 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**524.02**	**1144.8**	**13860.**	**4153.2**
Stddev	2.64	.9	31.	26.3
%RSD	.50420	.07727	.22361	.63374
#1	526.80	1144.4	13884.	4163.7
#2	523.72	1145.9	13870.	4172.6
#3	521.54	1144.2	13825.	4123.2

◀ Zoom In ▶ Zoom Out

Sample Name: STDC Acquired: 12/6/2023 9:56:31 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0214**	**1.081**	**.0473**	**.2866**	**5.304**	**3.055**	**1.323**	**1.297**	**.7703**
Stddev	.0002	.004	.0002	.0020	.008	.011	.007	.001	.0015
%RSD	.9062	.3882	.3781	.6871	.1469	.3646	.5104	.0769	.1996
#1	.0215	1.085	.0474	.2862	5.311	3.068	1.331	1.297	.7693
#2	.0216	1.080	.0471	.2887	5.306	3.048	1.318	1.296	.7696
#3	.0212	1.077	.0474	.2848	5.296	3.050	1.320	1.298	.7721

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1059**	**.3614**	**.8932**	**.7588**	**.9378**	**.1191**	**.8181**	**.3542**	**3.300**
Stddev	.0006	.0009	.0048	.0058	.0007	.0013	.0023	.0003	.013
%RSD	.5365	.2515	.5336	.7695	.0720	1.061	.2813	.0931	.4032
#1	.1057	.3616	.8985	.7656	.9382	.1202	.8197	.3539	3.315
#2	.1053	.3621	.8893	.7555	.9381	.1177	.8155	.3542	3.295
#3	.1065	.3604	.8918	.7554	.9370	.1195	.8192	.3546	3.289

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4264**	**.3109**	**.0952**	**.0417**	**.2566**	**.1125**	**6.878**	**.5997**	**.1268**
Stddev	.0007	.0015	.0002	.0009	.0009	.0003	.026	.0009	.0010
%RSD	.1700	.4974	.2349	2.201	.3375	.2388	.3847	.1551	.7694
#1	.4271	.3103	.0949	.0425	.2576	.1128	6.907	.6006	.1257
#2	.4263	.3097	.0953	.0407	.2560	.1122	6.871	.5999	.1276
#3	.4257	.3126	.0953	.0419	.2561	.1125	6.856	.5988	.1270

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.2246**	**.4967**
Stddev	.0010	.0004
%RSD	.4242	.0841
#1	.2250	.4962
#2	.2235	.4968
#3	.2253	.4970

◀ Zoom In ▶ Zoom Out

Sample Name: STDC Acquired: 12/6/2023 9:56:31 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**489.52**	**1127.2**	**13743.**	**4295.1**
Stddev	.41	2.2	16.	36.5
%RSD	.08458	.19551	.11430	.85057
#1	489.99	1125.0	13726.	4255.6
#2	489.23	1129.4	13747.	4327.6
#3	489.33	1127.1	13757.	4302.3

Zoom In Zoom Out

Sample Name: STDD Acquired: 12/6/2023 10:00:11 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0431**	**2.214**	**.0966**	**.5770**	**10.88**	**6.277**	**2.700**	**2.621**	**1.551**
Stddev	.0003	.005	.0002	.0029	.06	.020	.012	.002	.000
%RSD	.7690	.2313	.2444	.5035	.5634	.3117	.4477	.0806	.0236
#1	.0427	2.219	.0964	.5757	10.87	6.293	2.711	2.619	1.551
#2	.0434	2.208	.0969	.5750	10.82	6.255	2.702	2.621	1.552
#3	.0432	2.214	.0966	.5803	10.94	6.282	2.687	2.623	1.552

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2092**	**.7263**	**1.816**	**1.561**	**1.911**	**.2458**	**1.618**	**.7128**	**6.740**
Stddev	.0006	.0042	.011	.011	.009	.0021	.003	.0008	.044
%RSD	.2984	.5736	.6252	.6953	.4757	.8341	.1548	.1137	.6595
#1	.2096	.7227	1.828	1.563	1.911	.2482	1.615	.7119	6.746
#2	.2095	.7309	1.815	1.550	1.901	.2446	1.620	.7134	6.693
#3	.2085	.7254	1.805	1.571	1.919	.2447	1.619	.7132	6.781

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8601**	**.6318**	**.1908**	**.0838**	**.5110**	**.2258**	**14.05**	**1.215**	**.2568**
Stddev	.0040	.0040	.0012	.0003	.0011	.0007	.05	.003	.0011
%RSD	.4671	.6385	.6352	.4068	.2094	.3004	.3497	.2225	.4448
#1	.8556	.6343	.1894	.0841	.5098	.2251	14.08	1.213	.2555
#2	.8614	.6339	.1915	.0835	.5119	.2260	13.99	1.218	.2577
#3	.8633	.6271	.1916	.0840	.5114	.2264	14.07	1.214	.2571

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.4505**	**.9983**
Stddev	.0023	.0017
%RSD	.5120	.1700
#1	.4484	.9998
#2	.4530	.9965
#3	.4503	.9987

Zoom In Zoom Out

Sample Name: STDD Acquired: 12/6/2023 10:00:11 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**476.62**	**1111.0**	**13648.**	**4171.9**
Stddev	.70	2.2	47.	17.9
%RSD	.14623	.19850	.34095	.42937
#1	475.84	1113.5	13681.	4151.2
#2	476.82	1109.7	13595.	4183.2
#3	477.19	1109.7	13669.	4181.2

Zoom In Zoom Out

Sample Name: STDE Acquired: 12/6/2023 10:03:48 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0854**	**4.432**	**.1905**	**1.063**	**21.38**	**12.32**	**5.338**	**5.097**	**3.009**
Stddev	.0002	.019	.0005	.008	.08	.03	.022	.008	.003
%RSD	.2447	.4385	.2842	.7237	.3794	.2731	.4094	.1553	.1111
#1	.0853	4.418	.1905	1.057	21.29	12.30	5.344	5.106	3.011
#2	.0852	4.423	.1900	1.072	21.42	12.31	5.313	5.091	3.011
#3	.0856	4.454	.1911	1.061	21.44	12.36	5.355	5.093	3.005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4129**	**1.422**	**3.573**	**3.218**	**3.777**	**.5025**	**3.136**	**1.393**	**13.67**
Stddev	.0007	.006	.013	.012	.017	.0021	.004	.002	.04
%RSD	.1670	.3967	.3658	.3684	.4566	.4099	.1405	.1144	.2891
#1	.4122	1.425	3.569	3.207	3.757	.5017	3.135	1.394	13.63
#2	.4136	1.416	3.563	3.216	3.787	.5010	3.141	1.391	13.68
#3	.4128	1.426	3.588	3.231	3.787	.5049	3.132	1.394	13.71

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.689**	**1.242**	**.3718**	**.1655**	**.6264**	**.4431**	**27.80**	**2.406**	**.5152**
Stddev	.001	.003	.0000	.0010	.0008	.0006	.11	.007	.0022
%RSD	.0766	.2204	.0125	.6018	.1325	.1370	.4116	.2822	.4191
#1	1.690	1.245	.3717	.1645	.6273	.4424	27.69	2.402	.5177
#2	1.687	1.242	.3718	.1655	.6259	.4433	27.81	2.403	.5142
#3	1.689	1.240	.3718	.1665	.6259	.4436	27.91	2.414	.5137

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**.8918**	**1.952**
Stddev	.0019	.003
%RSD	.2119	.1725
#1	.8927	1.955
#2	.8896	1.948
#3	.8930	1.952

Zoom In Zoom Out

Sample Name: STDE Acquired: 12/6/2023 10:03:48 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**457.83**	**1090.1**	**13458.**	**4129.9**
Stddev	.50	1.0	30.	20.3
%RSD	.10918	.08822	.22227	.49265
#1	457.26	1091.2	13431.	4129.3
#2	458.09	1089.6	13490.	4150.6
#3	458.15	1089.5	13454.	4109.9

Zoom In Zoom Out

Sample Name: STDF Acquired: 12/6/2023 10:07:25 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1789**	**9.000**	**.3876**	**2.191**	**43.17**	**24.99**	**10.68**	**10.12**	**5.956**
Stddev	.0002	.028	.0012	.009	.17	.12	.03	.01	.012
%RSD	.1294	.3062	.3025	.4018	.4007	.4711	.2441	.1261	.1978
#1	.1788	8.980	.3875	2.181	42.99	24.91	10.67	10.12	5.953
#2	.1787	8.989	.3888	2.198	43.17	24.93	10.66	10.14	5.970
#3	.1791	9.032	.3865	2.194	43.34	25.12	10.71	10.12	5.947

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8434**	**2.911**	**7.115**	**6.697**	**7.652**	**1.039**	**6.274**	**2.787**	**28.04**
Stddev	.0026	.011	.023	.048	.042	.007	.009	.004	.13
%RSD	.3068	.3655	.3192	.7158	.5436	.6811	.1491	.1402	.4577
#1	.8460	2.904	7.099	6.658	7.610	1.033	6.282	2.783	27.91
#2	.8408	2.906	7.105	6.682	7.652	1.037	6.264	2.791	28.04
#3	.8433	2.923	7.141	6.750	7.693	1.046	6.277	2.788	28.16

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.375**	**2.507**	**.7542**	**.3338**	**1.265**	**.8787**	**56.92**	**4.876**	**1.032**
Stddev	.002	.007	.0009	.0008	.001	.0020	.31	.006	.007
%RSD	.0516	.2949	.1128	.2362	.0768	.2245	.5364	.1144	.6708
#1	3.374	2.509	.7545	.3334	1.265	.8767	56.67	4.880	1.038
#2	3.377	2.514	.7548	.3347	1.265	.8807	56.82	4.870	1.032
#3	3.375	2.499	.7532	.3332	1.263	.8786	57.26	4.879	1.024

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**1.821**	**3.852**
Stddev	.005	.013
%RSD	.2673	.3341
#1	1.824	3.842
#2	1.815	3.866
#3	1.824	3.847

Zoom In Zoom Out

Sample Name: STDF Acquired: 12/6/2023 10:07:25 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**433.64**	**1056.7**	**13022.**	**4041.9**
Stddev	.75	.8	23.	18.3
%RSD	.17276	.07736	.17404	.45266
#1	432.99	1056.6	13034.	4046.9
#2	433.48	1055.9	13036.	4057.2
#3	434.46	1057.5	12996.	4021.6

Zoom In Zoom Out

Sample Name: STDG Acquired: 12/6/2023 10:11:16 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.3781**	**18.42**	**.8031**	**4.397**	**85.32**	**50.16**	**21.55**	**20.22**	**11.90**
Stddev	.0022	.08	.0026	.031	1.64	.16	.13	.07	.04
%RSD	.5689	.4217	.3247	.7029	1.924	.3109	.6203	.3615	.3044
#1	.3759	18.34	.8030	4.423	83.57	50.01	21.42	20.17	11.88
#2	.3784	18.49	.8057	4.406	86.83	50.14	21.56	20.31	11.94
#3	.3801	18.43	.8005	4.363	85.56	50.32	21.68	20.19	11.89

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.728**	**6.032**	**14.27**	**13.66**	**15.84**	**2.117**	**12.63**	**5.620**	**56.92**
Stddev	.012	.009	.06	.05	.07	.020	.07	.012	.16
%RSD	.6812	.1461	.4419	.3476	.4389	.9229	.5227	.2189	.2870
#1	1.715	6.022	14.20	13.61	15.82	2.101	12.56	5.612	56.78
#2	1.736	6.038	14.30	13.68	15.92	2.110	12.68	5.634	57.10
#3	1.734	6.036	14.32	13.70	15.79	2.139	12.65	5.614	56.88

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.735**	**5.115**	**1.555**	**.6849**	**1.994**	**1.760**	**114.1**	**9.939**	**2.065**
Stddev	.029	.014	.005	.0024	.007	.004	.7	.034	.006
%RSD	.4303	.2655	.3081	.3530	.3289	.2015	.6395	.3379	.3132
#1	6.717	5.122	1.555	.6853	1.990	1.758	113.3	9.901	2.068
#2	6.768	5.099	1.560	.6870	2.001	1.764	114.6	9.954	2.057
#3	6.719	5.123	1.550	.6823	1.990	1.759	114.4	9.963	2.069

Elem	V_2924	Zn2062
Units	Cts/S	Cts/S
Avg	**3.738**	**7.665**
Stddev	.023	.025
%RSD	.6248	.3327
#1	3.711	7.643
#2	3.756	7.693
#3	3.746	7.660

Zoom In Zoom Out

Sample Name: STDG Acquired: 12/6/2023 10:11:16 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**399.56**	**1002.7**	**12335.**	**3959.8**
Stddev	1.60	3.0	66.	34.5
%RSD	.40083	.30176	.53119	.87245
#1	397.83	1003.3	12410.	3997.6
#2	400.99	999.44	12303.	3951.6
#3	399.86	1005.4	12291.	3930.0

Zoom In Zoom Out

Sample Name: STDB Acquired: 12/6/2023 10:30:06 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0069**	**.0441**	**.0013**	**.0531**	**4.239**	**.0633**	**.2863**	**.0260**	**.1529**
Stddev	.0001	.0008	.0002	.0009	.019	.0006	.0012	.0001	.0016
%RSD	1.940	1.875	15.13	1.639	.4570	.8901	.4267	.4328	1.077
#1	.0068	.0440	.0014	.0521	4.253	.0638	.2873	.0259	.1511
#2	.0069	.0433	.0014	.0534	4.217	.0627	.2867	.0259	.1533
#3	.0071	.0450	.0011	.0537	4.248	.0634	.2850	.0261	.1542

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0044**	**.0408**	**.0555**	**1.570**	**.0355**	**.1253**	**.0486**	**.0678**	**6.210**
Stddev	.0001	.0001	.0003	.007	.0001	.0011	.0003	.0002	.030
%RSD	2.176	.3621	.5529	.4329	.4199	.9046	.6870	.3640	.4859
#1	.0043	.0410	.0553	1.577	.0357	.1265	.0483	.0675	6.239
#2	.0045	.0407	.0558	1.563	.0354	.1242	.0486	.0680	6.179
#3	.0045	.0408	.0554	1.569	.0354	.1252	.0489	.0678	6.213

Elem	Ni2316	Pb2203	Sb2068	Se1960	Sn1899	Sr4077	Ti3349	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0686**	**.0040**	**.0023**	**.0014**	**.0224**	**.2786**	**.0252**	**.0042**	**.0453**
Stddev	.0003	.0009	.0001	.0004	.0001	.0017	.0003	.0007	.0005
%RSD	.4555	21.87	5.717	29.25	.5611	.6277	1.125	17.48	1.017
#1	.0682	.0040	.0022	.0010	.0223	.2798	.0252	.0050	.0452
#2	.0687	.0050	.0024	.0014	.0224	.2794	.0254	.0039	.0449
#3	.0687	.0032	.0023	.0019	.0226	.2766	.0249	.0036	.0458

Elem	Zn2062
Units	Cts/S
Avg	**.0413**
Stddev	.0000
%RSD	.0365
#1	.0413
#2	.0413
#3	.0413

Zoom In Zoom Out

Sample Name: STDB Acquired: 12/6/2023 10:30:06 Type: Cal
Method: 60102007_COMBO_10242022(v408) Mode: IR Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**493.38**	**1133.6**	**13727.**	**4159.5**
Stddev	1.96	7.4	41.	32.5
%RSD	.39799	.65643	.29523	.78165
#1	494.71	1141.4	13757.	4122.0
#2	494.30	1132.8	13744.	4176.5
#3	491.12	1126.6	13681.	4180.0

Zoom In Zoom Out

Sample Name: CRIA Acquired: 12/6/2023 10:37:09 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103**	**.1953**	**.0097**	F **.0441**	**.2015**	**.0051**	**1.041**	**.0051**	**.0520**
Stddev	.0003	.0117	.0003	.0003	.0000	.0000	.004	.0000	.0002
%RSD	2.514	5.980	3.378	.6522	.0123	.3020	.4183	.3714	.3090
#1	.0105	.1871	.0094	.0443	.2015	.0051	1.038	.0051	.0519
#2	.0101	.2036	.0099	.0439	.2014	.0052	1.044	.0051	.0521
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				.0100					
Range				20.00%					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0101**	**.0244**	**.3107**	**10.07**	**.0093**	**5.076**	**.0153**	**.0477**	**9.216**
Stddev	.0001	.0002	.0014	.06	.0001	.075	.0001	.0001	.016
%RSD	1.232	.7069	.4348	.6406	.7821	1.487	.4529	.2672	.1768
#1	.0102	.0245	.3117	10.03	.0092	5.022	.0153	.0478	9.228
#2	.0100	.0243	.3098	10.12	.0093	5.129	.0152	.0476	9.205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0424**	**.0051**	**.0051**	**.0112**	**.0082**	**.0508**	**.0102**	**.0102**	**.0107**
Stddev	.0003	.0003	.0005	.0002	.0003	.0001	.0001	.0001	.0002
%RSD	.7274	4.961	10.63	1.550	3.431	.1190	.5174	.6313	1.747
#1	.0422	.0049	.0047	.0111	.0084	.0508	.0102	.0102	.0108
#2	.0426	.0053	.0054	.0113	.0080	.0507	.0103	.0103	.0106
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CRIA Acquired: 12/6/2023 10:37:09 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0512**	**.0206**
Stddev	.0005	.0004
%RSD	1.004	1.872
#1	.0509	.0203
#2	.0516	.0209
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**492.24**	**1110.0**	**13531.**	**4007.0**
Stddev	.14	1.7	34.	23.3
%RSD	.02801	.15525	.25062	.58070
#1	492.34	1111.3	13555.	4023.4
#2	492.14	1108.8	13507.	3990.5

Zoom In Zoom Out

Sample Name: HSTD Acquired: 12/6/2023 10:41:35 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5024**	**80.56**	**3.967**	**3.902**	**3.954**	**4.005**	**79.71**	**3.943**	**3.932**
Stddev	.0029	.09	.002	.018	.055	.010	.26	.003	.003
%RSD	.5777	.1066	.0422	.4536	1.380	.2513	.3294	.0755	.0699
#1	.5033	80.65	3.967	3.917	3.979	4.015	79.73	3.946	3.932
#2	.4991	80.51	3.969	3.883	3.992	4.003	79.96	3.942	3.934
#3	.5047	80.50	3.966	3.907	3.891	3.995	79.44	3.940	3.928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.128**	**4.047**	**79.29**	**82.70**	**4.011**	**81.94**	**4.016**	**3.943**	**81.22**
Stddev	.059	.006	.19	.31	.010	.45	.041	.002	.22
%RSD	1.423	.1507	.2408	.3806	.2449	.5448	1.008	.0441	.2739
#1	4.136	4.053	79.37	82.98	4.017	82.28	4.031	3.945	81.44
#2	4.065	4.041	79.43	82.36	3.999	82.11	3.970	3.944	80.99
#3	4.182	4.048	79.08	82.76	4.016	81.44	4.047	3.942	81.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.974**	**3.997**	**3.963**	**3.945**	**3.354**	**3.936**	**4.030**	**4.071**	**3.969**
Stddev	.002	.012	.004	.002	.005	.004	.076	.013	.022
%RSD	.0446	.2932	.0978	.0547	.1431	.1139	1.892	.3160	.5542
#1	3.973	3.989	3.963	3.945	3.355	3.938	4.033	4.078	3.943
#2	3.973	3.992	3.966	3.946	3.359	3.931	4.105	4.056	3.984
#3	3.976	4.010	3.959	3.942	3.349	3.940	3.953	4.079	3.978
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: HSTD Acquired: 12/6/2023 10:41:35 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**4.106**	**3.952**
Stddev	.032	.003
%RSD	.7775	.0815
#1	4.114	3.955
#2	4.071	3.951
#3	4.133	3.949
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**402.14**	**1011.2**	**12220.**	**3904.1**
Stddev	1.58	.3	77.	12.1
%RSD	.39370	.02578	.62826	.30934
#1	403.61	1011.3	12207.	3900.6
#2	402.33	1011.4	12303.	3894.1
#3	400.46	1010.9	12151.	3917.5

Zoom In Zoom Out

Sample Name: ICV Acquired: 12/6/2023 10:52:05 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2676**	**41.20**	**2.070**	**2.054**	**2.070**	**2.076**	**41.12**	**2.066**	**2.072**
Stddev	.0008	.05	.008	.015	.010	.004	.21	.003	.007
%RSD	.3046	.1201	.3932	.7345	.4717	.1836	.5226	.1333	.3170
#1	.2677	41.25	2.062	2.042	2.076	2.080	41.36	2.064	2.065
#2	.2684	41.15	2.078	2.050	2.059	2.073	41.08	2.070	2.078
#3	.2668	41.20	2.071	2.071	2.076	2.074	40.93	2.065	2.071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.156**	**2.111**	**41.37**	**41.50**	**2.063**	**40.81**	**2.122**	**2.075**	**41.40**
Stddev	.009	.010	.15	.01	.006	.05	.005	.004	.03
%RSD	.4029	.4929	.3664	.0250	.2694	.1224	.2573	.2054	.0838
#1	2.148	2.116	41.52	41.50	2.064	40.77	2.118	2.071	41.41
#2	2.165	2.118	41.39	41.52	2.057	40.87	2.128	2.079	41.36
#3	2.154	2.099	41.22	41.50	2.068	40.79	2.119	2.074	41.43
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.075**	**2.061**	**2.087**	**2.064**	**2.033**	**2.064**	**2.093**	**2.097**	**2.069**
Stddev	.003	.007	.006	.010	.004	.004	.002	.006	.015
%RSD	.1322	.3478	.2929	.4865	.1971	.1975	.0704	.2899	.7453
#1	2.077	2.053	2.080	2.059	2.028	2.063	2.094	2.102	2.054
#2	2.076	2.067	2.093	2.076	2.034	2.069	2.092	2.099	2.067
#3	2.072	2.063	2.087	2.057	2.035	2.062	2.094	2.090	2.085
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICV Acquired: 12/6/2023 10:52:05 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.146**	**2.059**
Stddev	.006	.004
%RSD	.2785	.1779
#1	2.141	2.055
#2	2.152	2.062
#3	2.145	2.060
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**436.69**	**1064.7**	**12892.**	**4141.3**
Stddev	1.74	3.7	35.	19.2
%RSD	.39807	.34854	.27411	.46379
#1	438.50	1069.0	12906.	4121.7
#2	436.54	1063.0	12852.	4142.2
#3	435.04	1062.2	12919.	4160.1

Zoom In Zoom Out

Sample Name: ICB Acquired: 12/6/2023 11:00:32 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0019**	**-.0004**	F **.0013**	**.0001**	**.0001**	**.0011**	**-.0001**	**.0000**
Stddev	.0001	.0038	.0015	.0008	.0000	.0000	.0025	.0000	.0001
%RSD	109.9	203.6	405.0	67.55	44.62	28.48	234.3	44.74	709.6
#1	-.0002	.0031	-.0019	.0008	.0001	.0001	.0004	-.0001	.0000
#2	.0000	.0050	-.0003	.0007	.0002	.0001	.0038	.0000	.0000
#3	-.0001	-.0024	.0011	.0022	.0001	.0001	-.0010	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0001**	**.0008**	**-.0055**	**.0006**	**.0071**	**.0000**	**-.0001**	**-.0080**
Stddev	.000	.0002	.0032	.0114	.0006	.0154	.0000	.0001	.0035
%RSD	2254.	352.4	386.2	207.2	108.0	216.6	179.8	170.8	43.74
#1	.0003	.0002	-.0027	.0007	.0013	-.0107	.0000	-.0002	-.0075
#2	-.0003	-.0001	.0035	-.0187	.0005	.0159	.0000	-.0001	-.0049
#3	.0000	-.0002	.0017	.0014	.0000	.0160	.0000	.0001	-.0118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	F **.0011**	**.0005**	**-.0019**	**.0015**	**-.0003**	**.0000**	**.0000**	**.0002**
Stddev	.0001	.0007	.0003	.0015	.0003	.0003	.0000	.0001	.0012
%RSD	420.9	64.05	62.81	81.33	20.81	108.7	61.73	234.8	489.3
#1	.0002	.0007	.0007	-.0001	.0018	-.0007	.0000	.0001	.0004
#2	.0000	.0006	.0002	-.0030	.0013	-.0002	.0000	.0001	-.0010
#3	-.0001	.0018	.0005	-.0025	.0013	-.0001	.0000	-.0001	.0013
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0010							
Low Limit		-.0010							

Zoom In Zoom Out

Sample Name: ICB Acquired: 12/6/2023 11:00:32 Type: QC
Method: 60102007_COMBO_10242022(v408) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**-.0003**
Stddev	.0000	.0002
%RSD	17.77	52.37
#1	.0001	-.0002
#2	.0001	-.0005
#3	.0001	-.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**514.95**	**1116.8**	**13852.**	**4157.1**
Stddev	1.97	4.7	65.	29.6
%RSD	.38265	.41788	.47036	.71107
#1	516.14	1118.3	13777.	4128.0
#2	516.04	1120.6	13883.	4156.2
#3	512.68	1111.6	13896.	4187.1

Zoom In Zoom Out

Sample Name: ICSA Acquired: 12/6/2023 11:04:34 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**526.8**	**-.0002**	F **.0823**	**-.0005**	**.0000**	**467.9**	**.0008**	**-.0003**
Stddev	.0008	9.3	.0013	.0026	.0002	.000	5.2	.0012	.0001
%RSD	149.8	1.765	683.2	3.194	42.84	59.34	1.117	140.5	25.84
#1	.0001	532.5	-.0017	.0810	-.0007	.0000	472.2	.0000	-.0003
#2	.0015	531.7	.0008	.0805	-.0004	.0000	469.4	.0003	-.0004
#3	.0001	516.0	.0003	.0853	-.0003	.0000	462.1	.0022	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010					
Low Limit				-.0010					

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0012**	F **448.3**	**-.0279**	**.0003**	**540.5**	**.0009**	**-.0009**	**.2697**
Stddev	.0005	.0004	4.0	.0144	.0004	4.7	.0001	.0005	.0010
%RSD	860.6	31.83	.9012	51.60	113.3	.8627	10.09	57.54	.3786
#1	.0003	-.0011	450.8	-.0276	.0005	544.7	.0010	-.0005	.2697
#2	.0002	-.0008	450.4	-.0425	.0005	541.3	.0010	-.0007	.2687
#3	-.0006	-.0015	443.6	-.0137	-.0001	535.5	.0008	-.0015	.2708
Check ?	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None
High Limit			240.0						
Low Limit			160.0						

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.0000**	**.0000**	**.0000**	**.0745**	**.0000**	**-.0008**	**.0000**	**.0000**
Stddev	.0001	.0014	.004	.001	.0007	.0014	.0001	.0001	.0031
%RSD	14.02	6509.	26220.	2743.	.9762	6536.	10.36	1227.	24270.
#1	.0007	-.0007	-.0039	-.0010	.0750	.0012	-.0008	-.0001	-.0021
#2	.0005	-.0009	-.0001	-.0004	.0737	.0003	-.0008	.0000	-.0014
#3	.0007	.0017	.0039	.0013	.0749	-.0015	-.0007	.0001	.0035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: ICSA Acquired: 12/6/2023 11:04:34 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0006**	**.0019**
Stddev	.0002	.0003
%RSD	39.69	17.84
#1	-.0005	.0022
#2	-.0008	.0015
#3	-.0004	.0019
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**379.65**	**911.74**	**11391.**	**3866.4**
Stddev	.53	4.12	68.	38.5
%RSD	.13944	.45218	.59414	.99594
#1	380.00	915.56	11358.	3832.7
#2	379.04	912.28	11347.	3858.2
#3	379.90	907.37	11469.	3908.4

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 12/6/2023 11:15:06 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9708**	**518.1**	**1.041**	**1.060**	**.4945**	**.5064**	**479.3**	**.9543**	**.4633**
Stddev	.0055	3.5	.005	.009	.0032	.0004	3.6	.0024	.0009
%RSD	.5679	.6722	.5062	.8536	.6505	.0853	.7585	.2483	.1868
#1	.9769	515.2	1.036	1.050	.4908	.5060	482.6	.9532	.4626
#2	.9662	517.1	1.047	1.064	.4965	.5068	475.4	.9527	.4631
#3	.9694	521.9	1.039	1.067	.4962	.5065	479.8	.9571	.4643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5136**	**.5869**	**186.4**	**.0020**	F **.5512**	**558.6**	**.5189**	**.9141**	**.2872**
Stddev	.0041	.0013	.3	.0062	.0021	.9	.0039	.0014	.0029
%RSD	.7967	.2229	.1819	308.6	.3858	.1586	.7499	.1554	1.011
#1	.5182	.5856	186.7	.0077	.5487	559.4	.5228	.9127	.2845
#2	.5104	.5883	186.0	.0029	.5527	557.6	.5151	.9141	.2870
#3	.5122	.5868	186.4	-.0046	.5521	558.7	.5188	.9156	.2903
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Fail	Chk Pass	Chk Pass	Chk Pass	None
Value					1.000				
Range					-20.00%				

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9090**	**.9236**	**1.057**	**.9640**	**.0301**	**.8861**	**1.042**	**1.055**	**.9232**
Stddev	.0029	.0017	.004	.0066	.0014	.0029	.003	.004	.0053
%RSD	.3195	.1809	.4137	.6824	4.530	.3217	.2630	.3425	.5699
#1	.9098	.9248	1.059	.9588	.0287	.8882	1.039	1.059	.9292
#2	.9057	.9245	1.061	.9617	.0315	.8829	1.042	1.052	.9212
#3	.9113	.9217	1.052	.9714	.0301	.8873	1.044	1.053	.9193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None	None	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: ICSAB Acquired: 12/6/2023 11:15:06 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.5380**	**.9133**
Stddev	.0034	.0030
%RSD	.6292	.3266
#1	.5419	.9141
#2	.5365	.9100
#3	.5357	.9159
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**363.70**	**923.46**	**11112.**	**3829.5**
Stddev	.76	1.85	28.	17.6
%RSD	.20895	.19996	.25641	.46012
#1	364.35	925.10	11082.	3818.6
#2	362.86	923.82	11139.	3849.9
#3	363.88	921.46	11114.	3820.1

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 11:22:46 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2565**	**39.71**	**1.988**	**2.032**	**1.993**	**1.981**	**39.39**	**1.990**	**1.995**
Stddev	.0001	.06	.006	.014	.005	.007	.10	.000	.003
%RSD	.0471	.1454	.3044	.6998	.2752	.3485	.2434	.0181	.1493
#1	.2566	39.77	1.983	2.031	1.999	1.985	39.32	1.990	1.996
#2	.2564	39.71	1.987	2.046	1.989	1.973	39.37	1.990	1.997
#3	.2565	39.65	1.995	2.018	1.990	1.985	39.50	1.990	1.991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.041**	**2.010**	**39.75**	**40.12**	**1.988**	**39.30**	**2.020**	**2.000**	**40.10**
Stddev	.002	.007	.12	.24	.010	.21	.004	.004	.21
%RSD	.0852	.3724	.2896	.6096	.5047	.5356	.1854	.1968	.5336
#1	2.043	2.007	39.65	40.37	1.995	39.46	2.017	2.001	40.34
#2	2.039	2.004	39.74	39.89	1.994	39.06	2.019	2.003	39.98
#3	2.040	2.018	39.87	40.10	1.977	39.39	2.024	1.995	39.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.998**	**1.982**	**1.992**	**1.996**	**2.133**	**2.000**	**2.006**	**2.011**	**1.990**
Stddev	.001	.006	.005	.002	.004	.001	.008	.002	.005
%RSD	.0599	.3047	.2544	.0847	.1812	.0709	.4070	.1215	.2622
#1	1.999	1.976	1.988	1.994	2.137	1.999	2.013	2.013	1.990
#2	1.996	1.985	1.998	1.997	2.132	2.001	1.997	2.008	1.985
#3	1.998	1.987	1.991	1.997	2.130	1.999	2.006	2.011	1.995
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 11:22:46 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.025**	**1.979**
Stddev	.005	.002
%RSD	.2291	.1032
#1	2.028	1.979
#2	2.019	1.978
#3	2.027	1.982
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**431.40**	**1049.4**	**12846.**	**4119.7**
Stddev	1.16	1.6	30.	26.1
%RSD	.26838	.15573	.23277	.63297
#1	432.70	1049.8	12876.	4116.6
#2	430.47	1047.6	12846.	4147.1
#3	431.03	1050.8	12817.	4095.3

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 11:29:56 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0008**	**-.0006**	F **-.0010**	**.0000**	**.0000**	**-.0009**	**-.0001**
Stddev	.0005	.0015	.0008	.0004	.0000	.0000	.0015	.0000
%RSD	1594.	181.4	120.6	42.79	83.30	107.3	167.6	61.62
#1	.0000	-.0009	-.0010	-.0007	.0001	.0000	.0008	.0000
#2	.0005	.0019	-.0012	-.0009	.0000	.0000	-.0020	-.0001
#3	-.0004	.0015	.0002	-.0015	.0001	.0000	-.0014	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0001**	**.0016**	**-.0105**	**.0002**	**.0029**	**.0000**
Stddev	.0002	.0005	.0002	.0022	.0173	.0004	.0171	.000
%RSD	253.5	324.8	217.9	144.1	164.3	214.4	582.0	118.5
#1	.0000	.0006	-.0001	-.0010	-.0038	-.0001	-.0111	.0000
#2	-.0001	.0003	-.0002	.0025	.0024	.0006	-.0020	.0000
#3	.0002	-.0004	.0001	.0031	-.0301	.0001	.0219	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0035**	**-.0001**	**-.0003**	**-.0002**	**.0001**	**.0015**	**.0000**
Stddev	.0002	.0008	.0001	.0009	.0005	.0016	.0002	.000
%RSD	91.63	22.70	102.8	328.0	335.3	2265.	15.03	1323.
#1	-.0001	.0042	-.0002	.0003	.0003	-.0017	.0013	.0000
#2	-.0001	.0038	-.0001	.0002	-.0007	.0007	.0018	.0002
#3	-.0004	.0026	.0000	-.0013	-.0001	.0013	.0014	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 11:29:56 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0012**	**.0001**	**-.0002**
Stddev	.0000	.0001	.0011	.0002	.0001
%RSD	581.3	383.0	89.33	171.8	60.08
#1	.0000	.0001	.0017	-.0001	-.0001
#2	.0000	.0000	.0000	.0002	-.0002
#3	.0000	.0000	.0019	.0002	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**514.96**	**1124.0**	**13962.**	**4214.7**
Stddev	1.58	4.4	80.	11.2
%RSD	.30777	.39127	.57141	.26551
#1	516.73	1129.0	14046.	4227.6
#2	513.66	1120.8	13952.	4207.2
#3	514.51	1122.2	13888.	4209.4

Zoom In Zoom Out

Sample Name: MP43233-MB1 Acquired: 12/6/2023 11:36:48 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0119**	**-.0015**	**.0001**	**.0000**	**.0000**	**.0271**	**-.0001**	**-.0002**
Stddev	.0002	.0018	.0011	.0006	.0001	.000	.0001	.0001	.0001
%RSD	1268.	14.95	71.76	491.8	269.5	128.9	.2807	60.93	63.35
#1	.0000	.0104	-.0024	.0005	.0000	-.0001	.0271	-.0001	-.0004
#2	.0002	.0113	-.0003	.0005	.0000	.0000	.0272	.0000	-.0002
#3	-.0001	.0138	-.0018	-.0006	.0001	.0000	.0272	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0003**	**.0133**	**.0160**	**.0004**	**.0067**	**.0003**	**.0001**	**.0131**
Stddev	.0002	.0001	.0024	.0174	.0005	.0044	.0000	.0003	.0005
%RSD	20.49	25.72	18.43	109.0	124.7	65.67	17.16	499.6	3.934
#1	.0011	.0004	.0133	.0331	.0009	.0046	.0002	-.0003	.0130
#2	.0009	.0003	.0108	-.0018	.0001	.0037	.0003	.0002	.0127
#3	.0013	.0002	.0157	.0166	.0001	.0117	.0003	.0003	.0137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0002**	**.0013**	**.0011**	**.0106**	**.0216**	**.0000**	**.0003**	**-.0023**
Stddev	.0002	.0012	.0004	.0003	.0005	.0002	.0000	.0001	.0004
%RSD	198.6	754.8	30.13	28.22	4.755	.8125	172.4	28.16	17.13
#1	.0001	-.0004	.0017	.0014	.0110	.0216	.0000	.0002	-.0027
#2	-.0001	.0011	.0009	.0011	.0100	.0218	.0000	.0003	-.0019
#3	-.0002	-.0012	.0012	.0008	.0108	.0215	.0000	.0003	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43233-MB1 Acquired: 12/6/2023 11:36:48 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0025**
Stddev	.0001	.0001
%RSD	96.64	2.979
#1	-.0001	.0024
#2	-.0001	.0024
#3	.0000	.0025
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**506.53**	**1074.8**	**13667.**	**4103.4**
Stddev	.86	3.3	36.	25.0
%RSD	.16964	.30601	.26476	.60871
#1	506.11	1071.1	13629.	4077.5
#2	505.96	1076.9	13671.	4127.3
#3	507.52	1076.5	13701.	4105.5

Zoom In Zoom Out

Sample Name: MP43223-B1 Acquired: 12/6/2023 11:41:54 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1909**	**23.89**	**.1890**	**.4821**	**.1986**	**.1999**	**42.57**	**.1908**	**.1923**
Stddev	.0014	.06	.0023	.0052	.0011	.0004	.06	.0002	.0009
%RSD	.7364	.2446	1.218	1.077	.5379	.1877	.1480	.1255	.4491
#1	.1898	23.82	.1874	.4764	.1974	.1999	42.59	.1908	.1928
#2	.1905	23.92	.1879	.4866	.1995	.2003	42.62	.1911	.1928
#3	.1925	23.92	.1916	.4834	.1989	.1995	42.50	.1906	.1913
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2037**	**.2003**	**42.82**	**44.34**	**.5035**	**42.77**	**.1973**	**.6538**	**40.76**
Stddev	.0006	.0009	.01	.17	.0027	.06	.0011	.0006	.19
%RSD	.2846	.4455	.0152	.3804	.5445	.1453	.5691	.0976	.4771
#1	.2043	.1993	42.83	44.19	.5003	42.70	.1978	.6545	40.58
#2	.2031	.2005	42.82	44.52	.5052	42.81	.1960	.6532	40.97
#3	.2035	.2010	42.82	44.31	.5048	42.80	.1981	.6536	40.73
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1943**	**.1833**	**.1983**	**.1872**	**.5080**	**.4957**	**.5013**	**.4955**	**.1816**
Stddev	.0003	.0012	.0023	.0007	.0013	.0017	.0015	.0015	.0014
%RSD	.1309	.6811	1.174	.3919	.2594	.3389	.2906	.3014	.7874
#1	.1942	.1836	.2002	.1869	.5090	.4974	.4999	.4939	.1800
#2	.1946	.1843	.1989	.1881	.5065	.4957	.5028	.4968	.1827
#3	.1941	.1819	.1957	.1867	.5086	.4940	.5014	.4959	.1822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43223-B1 Acquired: 12/6/2023 11:41:54 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2044**	**.1910**
Stddev	.0015	.0010
%RSD	.7189	.5498
#1	.2036	.1907
#2	.2035	.1921
#3	.2061	.1901
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**438.40**	**1031.3**	**12706.**	**4011.3**
Stddev	1.00	1.2	25.	8.3
%RSD	.22841	.11347	.19652	.20713
#1	437.43	1030.4	12728.	4002.8
#2	439.43	1032.6	12710.	4011.6
#3	438.33	1031.0	12679.	4019.4

Zoom In Zoom Out

Sample Name: FC11393-2A Acquired: 12/6/2023 11:46:45 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0300**	**213.0**	**.3761**	**.0815**	**.9368**	**.0104**	**318.8**	**-.0092**	**.2399**
Stddev	.0031	.4	.0433	.0278	.0022	.0003	1.7	.0007	.0020
%RSD	10.25	.2036	11.51	34.06	.2322	3.041	.5264	7.258	.8312
#1	.0277	212.6	.3434	.1002	.9349	.0107	320.4	-.0095	.2393
#2	.0288	213.4	.4251	.0947	.9365	.0101	319.1	-.0096	.2383
#3	.0335	212.9	.3596	.0496	.9392	.0103	317.0	-.0084	.2422

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3382**	**2.996**	**640.7**	**33.89**	**.4626**	**138.1**	**10.33**	**.0080**	**1.239**
Stddev	.0040	.016	2.0	.29	.0046	.3	.01	.0049	.035
%RSD	1.182	.5266	.3061	.8620	.9914	.2068	.0788	60.94	2.817
#1	.3338	2.985	642.3	33.55	.4576	138.3	10.32	.0055	1.265
#2	.3393	3.014	641.4	34.08	.4666	137.8	10.34	.0049	1.253
#3	.3415	2.988	638.5	34.02	.4635	138.2	10.33	.0137	1.199

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5812**	**.5210**	**.0059**	**.0414**	**8.191**	**.0354**	**.5066**	**1.720**	**.0387**
Stddev	.0058	.0102	.0101	.0428	.011	.0035	.0026	.013	.0126
%RSD	.9895	1.963	169.9	103.6	.1339	9.797	.5034	.7453	32.59
#1	.5759	.5303	.0153	.0729	8.181	.0344	.5037	1.708	.0325
#2	.5804	.5226	-.0047	-.0074	8.188	.0392	.5083	1.733	.0304
#3	.5873	.5100	.0073	.0586	8.203	.0325	.5079	1.719	.0532

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3665**	**10.32**
Stddev	.0059	.03
%RSD	1.615	.2805
#1	.3678	10.30
#2	.3717	10.31
#3	.3601	10.36

Zoom In Zoom Out

Sample Name: FC11393-2A Acquired: 12/6/2023 11:46:45 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**488.94**	**1116.5**	**13679.**	**4156.8**
Stddev	1.73	1.7	38.	5.9
%RSD	.35351	.15518	.28116	.14247
#1	489.36	1116.9	13718.	4158.1
#2	490.42	1118.0	13642.	4150.4
#3	487.04	1114.6	13678.	4162.0

Zoom In Zoom Out

Sample Name: MP43223-D1 Acquired: 12/6/2023 11:51:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0252**	**255.8**	**.4706**	**.0844**	**1.157**	**.0117**	**270.5**	**-.0173**	**.2923**
Stddev	.0029	.3	.0154	.0119	.005	.0005	1.4	.0026	.0013
%RSD	11.64	.1290	3.271	14.07	.3933	4.066	.5315	15.23	.4412
#1	.0238	255.5	.4533	.0717	1.159	.0122	268.9	-.0143	.2921
#2	.0286	256.2	.4827	.0953	1.152	.0113	270.9	-.0186	.2911
#3	.0232	255.8	.4759	.0864	1.161	.0114	271.8	-.0190	.2936

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4223**	**3.550**	**774.3**	**37.77**	**.5834**	**135.9**	**12.19**	**.0075**	**1.252**
Stddev	.0139	.004	2.9	.10	.0090	.2	.10	.0047	.012
%RSD	3.298	.1121	.3735	.2767	1.538	.1459	.7973	63.08	.9893
#1	.4176	3.545	771.2	37.66	.5931	136.0	12.26	.0040	1.266
#2	.4114	3.550	775.1	37.77	.5754	135.7	12.08	.0129	1.248
#3	.4380	3.553	776.8	37.87	.5818	136.1	12.23	.0056	1.242

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6974**	**.6829**	**-.0082**	**.0051**	**6.021**	**.0244**	**.4858**	**1.799**	**.0109**
Stddev	.0083	.0078	.0186	.0305	.024	.0083	.0009	.008	.0072
%RSD	1.186	1.137	227.5	601.5	.3905	34.01	.1884	.4523	65.98
#1	.6886	.6889	.0132	.0022	5.994	.0337	.4847	1.797	.0165
#2	.7050	.6855	-.0170	.0369	6.032	.0218	.4864	1.792	.0134
#3	.6986	.6741	-.0207	-.0239	6.037	.0177	.4862	1.808	.0028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4239**	**13.66**
Stddev	.0008	.04
%RSD	.1866	.2624
#1	.4237	13.64
#2	.4248	13.70
#3	.4232	13.64

Zoom In Zoom Out

Sample Name: MP43223-D1 Acquired: 12/6/2023 11:51:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**489.78**	**1138.0**	**13876.**	**4348.5**
Stddev	2.44	5.4	38.	22.3
%RSD	.49793	.47801	.27641	.51216
#1	492.09	1144.1	13853.	4373.8
#2	490.03	1136.0	13921.	4339.7
#3	487.23	1133.8	13856.	4332.0

Zoom In Zoom Out

Sample Name: MP43223-D2 Acquired: 12/6/2023 11:56:42 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0199**	**221.6**	**.4991**	**.0302**	**1.057**	**.0111**	**245.0**	**-.0161**	**.2618**
Stddev	.0037	.8	.0164	.0567	.010	.0002	.6	.0014	.0006
%RSD	18.51	.3603	3.285	187.6	.9676	1.800	.2248	8.819	.2393
#1	.0240	221.3	.4807	.0797	1.059	.0112	244.5	-.0146	.2625
#2	.0170	220.9	.5121	-.0317	1.046	.0112	245.6	-.0174	.2616
#3	.0187	222.4	.5045	.0427	1.066	.0109	244.9	-.0162	.2613

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3432**	**3.332**	**691.5**	**33.94**	**.4966**	**124.3**	**10.91**	**.0060**	**1.128**
Stddev	.0118	.005	2.7	.44	.0093	1.1	.09	.0030	.021
%RSD	3.446	.1549	.3873	1.294	1.872	.9115	.7901	49.63	1.891
#1	.3558	3.336	688.4	33.72	.5061	124.5	10.99	.0026	1.127
#2	.3323	3.334	693.1	33.65	.4960	123.1	10.94	.0081	1.107
#3	.3416	3.326	692.9	34.45	.4875	125.4	10.82	.0071	1.149

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6417**	**.7432**	**.0220**	**.0107**	**13.40**	**.0278**	**.4476**	**1.886**	**.0223**
Stddev	.0107	.0182	.0104	.0227	.06	.0015	.0010	.001	.0344
%RSD	1.662	2.455	47.48	212.6	.4755	5.306	.2159	.0351	154.4
#1	.6488	.7259	.0152	-.0042	13.38	.0268	.4470	1.886	.0239
#2	.6468	.7623	.0167	.0368	13.35	.0270	.4471	1.886	-.0129
#3	.6294	.7413	.0340	-.0006	13.47	.0295	.4487	1.885	.0559

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3691**	**11.98**
Stddev	.0030	.03
%RSD	.8201	.2774
#1	.3716	12.02
#2	.3699	11.98
#3	.3657	11.95

Zoom In Zoom Out

Sample Name: MP43223-D2 Acquired: 12/6/2023 11:56:42 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**487.99**	**1133.7**	**14058.**	**4353.1**
Stddev	1.27	1.9	89.	17.4
%RSD	.26067	.16354	.62958	.39859
#1	489.15	1135.0	14013.	4369.8
#2	488.20	1134.5	14002.	4354.3
#3	486.63	1131.6	14160.	4335.2

Zoom In Zoom Out

Sample Name: MP43223-SD1 Acquired: 12/6/2023 12:01:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0121**	**180.5**	**.1391**	**-.2809**	**.8068**	**.0066**	**281.1**	**-.0198**	**.2292**
Stddev	.0364	.7	.0910	.0729	.0034	.0036	1.2	.0045	.0092
%RSD	301.1	.4139	65.43	25.94	.4180	54.73	.4163	22.82	4.025
#1	.0123	181.3	.2300	-.2086	.8030	.0103	280.2	-.0172	.2192
#2	.0484	179.8	.1391	-.3543	.8095	.0064	280.7	-.0171	.2374
#3	-.0244	180.5	.0481	-.2799	.8080	.0031	282.4	-.0250	.2311

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2212**	**2.470**	**554.3**	**27.35**	**.3970**	**115.7**	**8.762**	**-.0298**	**.6741**
Stddev	.0428	.018	1.1	1.42	.0460	1.3	.010	.0081	.2266
%RSD	19.37	.7143	.1921	5.209	11.58	1.132	.1124	27.06	33.62
#1	.2284	2.457	554.0	26.41	.3442	116.8	8.764	-.0335	.7619
#2	.1752	2.464	553.4	26.66	.4279	114.3	8.771	-.0353	.4168
#3	.2599	2.491	555.4	28.99	.4190	116.1	8.752	-.0205	.8437

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4858**	**.4288**	**-.0104**	**.0947**	**7.219**	**-.0230**	**.4225**	**1.438**	**.0184**
Stddev	.0209	.0818	.0436	.4211	.072	.0581	.0021	.012	.2188
%RSD	4.305	19.07	420.8	444.5	.9915	252.4	.5035	.8270	1188.
#1	.4763	.4364	-.0603	.0006	7.272	.0281	.4250	1.425	-.1867
#2	.5097	.5065	.0202	.5549	7.137	-.0110	.4210	1.441	-.0069
#3	.4712	.3435	.0090	-.2713	7.247	-.0862	.4217	1.448	.2488

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3081**	**9.027**
Stddev	.0215	.021
%RSD	6.966	.2324
#1	.2838	9.016
#2	.3244	9.013
#3	.3160	9.051

Zoom In Zoom Out

Sample Name: MP43223-SD1 Acquired: 12/6/2023 12:01:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**508.96**	**1128.3**	**14171.**	**4234.7**
Stddev	.10	4.0	16.	18.8
%RSD	.01870	.35777	.11498	.44359
#1	509.05	1132.5	14183.	4253.6
#2	508.95	1128.0	14177.	4234.5
#3	508.86	1124.5	14152.	4216.0

Zoom In Zoom Out

Sample Name: MP43223-PS1 Acquired: 12/6/2023 12:06:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0831**	**213.0**	**.4897**	**.0524**	**1.204**	**.0624**	**320.4**	**.0429**	**.2930**
Stddev	.0042	.6	.0076	.0104	.010	.0006	1.0	.0022	.0015
%RSD	5.018	.2901	1.548	19.87	.8259	1.021	.3022	5.210	.5032
#1	.0859	212.4	.4820	.0484	1.193	.0619	319.3	.0413	.2944
#2	.0783	213.6	.4899	.0446	1.210	.0631	321.2	.0420	.2931
#3	.0850	213.1	.4972	.0642	1.210	.0623	320.6	.0455	.2915

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3695**	**3.018**	**634.5**	**43.40**	**.4550**	**141.3**	**10.02**	**.0982**	**10.41**
Stddev	.0071	.007	2.3	.16	.0050	.5	.01	.0026	.14
%RSD	1.918	.2369	.3580	.3700	1.106	.3649	.1364	2.631	1.362
#1	.3770	3.026	632.5	43.45	.4492	140.8	10.03	.0965	10.34
#2	.3628	3.013	637.0	43.53	.4583	141.8	10.01	.0968	10.31
#3	.3688	3.015	634.1	43.22	.4576	141.2	10.03	.1011	10.57

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6762**	**.5825**	**.1246**	**.1306**	**8.340**	**.0808**	**.5529**	**1.784**	**.0948**
Stddev	.0041	.0060	.0050	.0359	.008	.0036	.0033	.005	.0091
%RSD	.6113	1.032	4.021	27.48	.0957	4.437	.6052	.2950	9.622
#1	.6747	.5774	.1192	.1222	8.349	.0771	.5500	1.789	.1047
#2	.6731	.5809	.1292	.1699	8.334	.0811	.5565	1.786	.0931
#3	.6809	.5891	.1253	.0996	8.338	.0842	.5521	1.778	.0867

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4011**	**10.57**
Stddev	.0037	.02
%RSD	.9275	.2028
#1	.4054	10.59
#2	.3989	10.55
#3	.3989	10.57

Zoom In Zoom Out

Sample Name: MP43223-PS1 Acquired: 12/6/2023 12:06:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**483.29**	**1109.3**	**13907.**	**4167.4**
Stddev	1.56	3.6	21.	21.3
%RSD	.32211	.32444	.14807	.51063
#1	484.89	1113.3	13905.	4178.4
#2	481.78	1108.2	13929.	4142.9
#3	483.20	1106.4	13887.	4181.0

Zoom In Zoom Out

Sample Name: MP43223-S1 Acquired: 12/6/2023 12:11:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2608**	**237.9**	**.5624**	**.5654**	**1.132**	**.2382**	**244.9**	**.2159**	**.4457**
Stddev	.0013	.7	.0221	.0172	.007	.0012	.9	.0008	.0036
%RSD	.5099	.3034	3.924	3.042	.6355	.5198	.3517	.3580	.8187
#1	.2623	237.7	.5578	.5490	1.137	.2383	245.8	.2158	.4439
#2	.2602	237.3	.5864	.5833	1.123	.2370	244.0	.2168	.4499
#3	.2599	238.7	.5430	.5639	1.135	.2394	245.0	.2153	.4433

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5485**	**4.979**	**647.3**	**81.01**	**1.003**	**159.5**	**9.466**	**.6870**	**47.16**
Stddev	.0048	.034	1.7	.57	.008	1.5	.048	.0023	.25
%RSD	.8817	.6879	.2645	.6998	.7557	.9293	.5035	.3415	.5309
#1	.5533	5.018	647.5	81.18	.9962	160.5	9.520	.6844	47.26
#2	.5436	4.956	645.4	80.38	1.001	157.8	9.450	.6879	46.87
#3	.5486	4.963	648.9	81.48	1.011	160.3	9.428	.6888	47.34

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7804**	**.8526**	**.0496**	**.2110**	**15.34**	**.5656**	**.9634**	**2.207**	**.2308**
Stddev	.0032	.0214	.0150	.0575	15	.0042	.0034	.026	.0178
%RSD	.4056	2.510	30.22	27.27	.9457	.7493	.3577	1.158	7.702
#1	.7806	.8773	.0584	.2746	15.49	.5694	.9641	2.227	.2188
#2	.7835	.8389	.0580	.1625	15.32	.5665	.9597	2.178	.2224
#3	.7772	.8417	.0323	.1960	15.20	.5610	.9665	2.215	.2512

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5840**	**15.52**
Stddev	.0055	.01
%RSD	.9395	.0946
#1	.5902	15.52
#2	.5800	15.50
#3	.5817	15.53

Zoom In Zoom Out

Sample Name: MP43223-S1 Acquired: 12/6/2023 12:11:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**482.43**	**1104.6**	**13682.**	**4152.0**
Stddev	.98	1.8	48.	19.8
%RSD	.20343	.16084	.34791	.47768
#1	483.56	1106.3	13694.	4131.7
#2	481.96	1104.8	13723.	4171.3
#3	481.77	1102.8	13630.	4153.1

Zoom In Zoom Out

Sample Name: MP43223-S2 Acquired: 12/6/2023 12:16:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2391**	**234.8**	**.5733**	**.5224**	**1.102**	**.2222**	**268.6**	**.2029**	**.4410**
Stddev	.0135	1.4	.0025	.0113	.004	.0016	1.4	.0009	.0030
%RSD	5.653	.6133	.4419	2.154	.3421	.7168	.5261	.4323	.6738
#1	.2387	233.2	.5736	.5123	1.099	.2204	267.7	.2024	.4440
#2	.2258	235.5	.5706	.5204	1.107	.2225	268.0	.2024	.4381
#3	.2528	235.8	.5756	.5345	1.101	.2236	270.3	.2039	.4408

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5355**	**2.582**	**631.1**	**78.63**	**.9654**	**159.1**	**9.916**	**.6529**	**44.63**
Stddev	.0025	.017	2.5	.49	.0120	.6	.047	.0059	.31
%RSD	.4580	.6672	.4001	.6177	1.243	.3829	.4717	.9051	.6876
#1	.5338	2.574	628.6	78.08	.9738	159.2	9.864	.6594	44.28
#2	.5344	2.602	631.1	78.83	.9708	158.4	9.954	.6480	44.86
#3	.5383	2.570	633.6	78.98	.9517	159.6	9.930	.6512	44.74

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7562**	**.7588**	**.0272**	**.1823**	**10.45**	**.5297**	**.9763**	**2.026**	**.2224**
Stddev	.0067	.0122	.0337	.0392	.07	.0106	.0035	.003	.0102
%RSD	.8827	1.613	123.8	21.53	.6920	1.993	.3583	.1461	4.572
#1	.7637	.7717	.0470	.1713	10.51	.5199	.9723	2.024	.2275
#2	.7511	.7474	.0463	.1496	10.48	.5284	.9782	2.029	.2291
#3	.7536	.7572	-.0117	.2258	10.37	.5409	.9784	2.024	.2107

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5707**	**8.988**
Stddev	.0089	.018
%RSD	1.563	.1973
#1	.5606	9.001
#2	.5736	8.968
#3	.5777	8.996

Zoom In Zoom Out

Sample Name: MP43223-S2 Acquired: 12/6/2023 12:16:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**486.77**	**1115.4**	**13571.**	**4189.0**
Stddev	.52	4.6	77.	23.2
%RSD	.10691	.41633	.56553	.55317
#1	486.65	1110.7	13607.	4204.3
#2	487.34	1115.5	13483.	4200.4
#3	486.32	1120.0	13624.	4162.3

Zoom In Zoom Out

Sample Name: FC11393-3A Acquired: 12/6/2023 12:21:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0278**	**236.1**	**.4385**	**.0567**	**.8514**	**.0116**	**252.6**	**-.0279**	**.2899**
Stddev	.0074	.9	.0124	.0336	.0059	.0011	.6	.0015	.0021
%RSD	26.78	.3941	2.830	59.27	.6909	9.587	.2426	5.240	.7133
#1	.0312	237.1	.4404	.0843	.8560	.0129	253.0	-.0262	.2887
#2	.0193	235.3	.4498	.0193	.8448	.0107	253.0	-.0285	.2886
#3	.0330	236.0	.4252	.0664	.8535	.0113	251.9	-.0290	.2923

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3797**	**1.212**	**721.9**	**34.75**	**.5876**	**144.4**	**12.07**	**.0074**	**1.472**
Stddev	.0013	.006	2.4	.16	.0107	.2	.03	.0007	.050
%RSD	.3389	.4768	.3282	.4490	1.824	.1629	.2435	8.769	3.405
#1	.3808	1.207	723.4	34.92	.5996	144.7	12.04	.0075	1.517
#2	.3800	1.211	723.1	34.63	.5791	144.3	12.10	.0081	1.418
#3	.3783	1.218	719.2	34.68	.5840	144.3	12.07	.0068	1.480

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6641**	**.5001**	**-.0063**	**.0063**	**5.099**	**.0238**	**.4809**	**1.555**	**.0106**
Stddev	.0023	.0229	.0063	.0465	.027	.0084	.0014	.005	.0450
%RSD	.3433	4.572	99.23	734.6	.5303	35.46	.2975	.3137	426.1
#1	.6615	.4737	-.0132	.0065	5.068	.0258	.4825	1.553	.0625
#2	.6650	.5121	-.0050	.0527	5.113	.0310	.4801	1.551	-.0153
#3	.6657	.5144	-.0009	-.0403	5.115	.0145	.4800	1.560	-.0155

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3827**	**3.918**
Stddev	.0039	.006
%RSD	1.010	.1532
#1	.3829	3.912
#2	.3787	3.924
#3	.3864	3.918

Zoom In Zoom Out

Sample Name: FC11393-3A Acquired: 12/6/2023 12:21:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**489.42**	**1128.6**	**13758.**	**4337.2**
Stddev	1.15	3.3	22.	25.1
%RSD	.23561	.29484	.15988	.57939
#1	490.66	1131.1	13778.	4314.0
#2	489.24	1130.0	13760.	4333.7
#3	488.37	1124.9	13734.	4363.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 12:26:35 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2472**	**38.99**	**1.989**	**2.037**	**1.975**	**1.937**	**38.91**	**1.975**	**1.982**
Stddev	.0009	.13	.010	.002	.013	.010	.16	.004	.004
%RSD	.3707	.3420	.5065	.1143	.6561	.4940	.4034	.2080	.2037
#1	.2463	38.96	1.978	2.034	1.962	1.937	38.87	1.975	1.983
#2	.2481	38.88	1.992	2.038	1.975	1.927	38.77	1.971	1.978
#3	.2472	39.14	1.998	2.039	1.988	1.947	39.08	1.979	1.985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.952**	**1.960**	**39.24**	**38.29**	**1.965**	**37.92**	**1.982**	**1.996**	**39.12**
Stddev	.012	.006	.13	.24	.003	.37	.009	.003	.15
%RSD	.6262	.2991	.3392	.6173	.1573	.9855	.4321	.1449	.3929
#1	1.942	1.961	39.36	38.36	1.962	37.84	1.974	1.995	39.01
#2	1.966	1.954	39.10	38.03	1.967	37.59	1.991	1.994	39.06
#3	1.948	1.965	39.27	38.49	1.967	38.33	1.980	1.999	39.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.953**	**1.982**	**1.983**	**1.990**	**2.111**	**1.983**	**1.944**	**1.956**	**1.960**
Stddev	.005	.003	.001	.011	.005	.002	.008	.003	.012
%RSD	.2485	.1498	.0359	.5391	.2523	.1188	.4169	.1292	.6338
#1	1.952	1.983	1.984	1.985	2.111	1.982	1.943	1.954	1.974
#2	1.949	1.979	1.983	1.982	2.105	1.981	1.937	1.959	1.951
#3	1.958	1.984	1.982	2.002	2.115	1.985	1.953	1.956	1.955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 12:26:35 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.950**	**1.975**
Stddev	.009	.006
%RSD	.4404	.2895
#1	1.942	1.971
#2	1.959	1.974
#3	1.950	1.982
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**432.60**	**1058.2**	**13097.**	**4237.7**
Stddev	1.07	3.8	36.	33.9
%RSD	.24722	.36325	.27534	.80013
#1	432.56	1060.2	13138.	4243.2
#2	433.69	1060.7	13072.	4268.6
#3	431.55	1053.8	13080.	4201.5

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 12:31:18 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0038**	**-.0020**	**-.0009**	**.0000**	**.0001**	**.0010**	**.0000**
Stddev	.0003	.0014	.0022	.0004	.0001	.0000	.0026	.000
%RSD	440.4	37.61	108.3	42.77	319.9	51.10	247.1	78.37
#1	.0000	.0042	.0001	-.0012	-.0001	.0001	-.0019	.0000
#2	-.0003	.0023	-.0018	-.0005	.0000	.0001	.0027	-.0001
#3	.0002	.0051	-.0042	-.0009	.0001	.0000	.0024	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0002**	**-.0002**	**.0025**	**-.0169**	**.0003**	**.0078**	**.0001**
Stddev	.0002	.0003	.0002	.0013	.0084	.0008	.0060	.0000
%RSD	122.3	140.1	98.72	51.55	49.68	265.9	77.45	22.32
#1	.0003	.0000	.0000	.0015	-.0243	.0001	.0137	.0001
#2	.0000	.0005	-.0004	.0040	-.0078	-.0004	.0079	.0001
#3	.0002	.0001	-.0001	.0021	-.0187	.0012	.0017	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**-.0089**	**-.0001**	**-.0006**	**.0003**	F **-.0021**	**.0022**	**-.0002**
Stddev	.0001	.0015	.0001	.0004	.0003	.0034	.0006	.0007
%RSD	34.94	17.33	71.14	71.44	92.37	162.2	26.82	359.4
#1	.0003	-.0072	-.0001	-.0003	.0006	-.0019	.0018	-.0006
#2	.0001	-.0101	-.0001	-.0010	.0002	.0012	.0019	.0006
#3	.0002	-.0093	.0000	-.0003	.0001	-.0056	.0029	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 12:31:18 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0005**	**.0000**	**-.0002**
Stddev	.0000	.0001	.0010	.0002	.0001
%RSD	16.98	148.2	208.3	1462.	71.44
#1	.0000	.0000	.0015	.0002	.0000
#2	.0000	.0000	.0004	.0000	-.0003
#3	.0000	.0002	-.0005	-.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**513.00**	**1118.8**	**14027.**	**4219.9**
Stddev	1.68	4.5	24.	19.9
%RSD	.32766	.40039	.17013	.47200
#1	513.91	1121.6	14010.	4232.3
#2	514.03	1121.1	14017.	4230.4
#3	511.06	1113.6	14054.	4196.9

Zoom In Zoom Out

Sample Name: FC11393-4A Acquired: 12/6/2023 12:36:24 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0381**	**413.3**	**.4093**	**.0707**	**2.586**	**.0193**	**29.34**	**-.0330**	**.3157**
Stddev	.0044	.9	.0352	.0111	.005	.0001	.20	.0013	.0050
%RSD	11.52	.2277	8.606	15.68	.1879	.7587	.6951	3.959	1.569
#1	.0355	413.4	.4477	.0762	2.587	.0195	29.57	-.0344	.3213
#2	.0356	412.3	.4016	.0779	2.590	.0192	29.27	-.0325	.3135
#3	.0431	414.2	.3785	.0579	2.581	.0193	29.18	-.0319	.3122

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4972**	**.8135**	**754.8**	**33.69**	**.6020**	**81.53**	**33.34**	**.0235**	**.6281**
Stddev	.0057	.0011	2.2	.13	.0027	.16	.19	.0029	.0123
%RSD	1.146	.1316	.2937	.3718	.4517	.1976	.5659	12.40	1.957
#1	.4982	.8143	756.7	33.57	.6014	81.49	33.56	.0212	.6243
#2	.5024	.8123	752.3	33.67	.6050	81.71	33.25	.0267	.6418
#3	.4911	.8138	755.4	33.82	.5997	81.39	33.22	.0225	.6181

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5454**	**.8442**	**.0118**	**.0294**	**7.033**	**.0321**	**.1915**	**2.461**	**.0705**
Stddev	.0049	.0274	.0106	.0288	.034	.0070	.0018	.016	.0355
%RSD	.8959	3.246	90.23	97.94	.4822	21.89	.9139	.6583	50.33
#1	.5485	.8588	.0235	.0111	7.068	.0401	.1896	2.477	.1009
#2	.5398	.8126	.0029	.0145	7.001	.0295	.1930	2.462	.0315
#3	.5480	.8612	.0088	.0627	7.029	.0267	.1919	2.445	.0790

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.6951**	**2.306**
Stddev	.0049	.025
%RSD	.7026	1.100
#1	.7000	2.329
#2	.6952	2.311
#3	.6902	2.279

Zoom In Zoom Out

Sample Name: FC11393-4A Acquired: 12/6/2023 12:36:24 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**493.57**	**1129.6**	**14177.**	**4222.3**
Stddev	.53	1.7	24.	17.3
%RSD	.10758	.15454	.16706	.40989
#1	493.37	1130.5	14169.	4204.3
#2	493.18	1130.7	14204.	4223.6
#3	494.18	1127.6	14158.	4238.9

Zoom In Zoom Out

Sample Name: FC11393-5A Acquired: 12/6/2023 12:41:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0364**	**327.6**	**.4544**	**.1051**	**2.020**	**.0190**	**67.29**	**-.0303**	**.3868**
Stddev	.0053	.5	.0182	.0185	.011	.0013	.31	.0002	.0020
%RSD	14.58	.1629	4.010	17.63	.5174	6.831	.4591	.6178	.5176
#1	.0357	327.8	.4637	.1042	2.012	.0178	67.05	-.0301	.3861
#2	.0315	327.0	.4334	.0870	2.017	.0187	67.64	-.0304	.3852
#3	.0421	328.0	.4661	.1241	2.032	.0204	67.18	-.0303	.3890

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4475**	**.6415**	**771.0**	**39.39**	**.6153**	**101.6**	**14.91**	**.0109**	**1.024**
Stddev	.0084	.0043	1.3	.10	.0138	.7	.11	.0015	.025
%RSD	1.880	.6698	.1646	.2511	2.250	.7212	.7309	13.68	2.442
#1	.4570	.6464	769.7	39.50	.5996	100.8	15.04	.0125	1.008
#2	.4409	.6385	772.3	39.32	.6205	102.0	14.85	.0108	1.011
#3	.4447	.6395	771.0	39.35	.6258	102.1	14.85	.0095	1.053

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7998**	**.4830**	**.0066**	**.0264**	**10.53**	**.0185**	**.3144**	**1.770**	**.0157**
Stddev	.0061	.0093	.0128	.0480	.02	.0088	.0014	.005	.0142
%RSD	.7635	1.928	195.6	181.9	.2142	47.45	.4418	.3077	90.40
#1	.7979	.4930	.0144	-.0218	10.54	.0285	.3128	1.774	-.0005
#2	.8066	.4746	.0135	.0267	10.51	.0141	.3154	1.773	.0260
#3	.7948	.4814	-.0082	.0743	10.55	.0127	.3149	1.764	.0216

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4903**	**2.017**
Stddev	.0020	.006
%RSD	.4082	.2960
#1	.4883	2.011
#2	.4923	2.018
#3	.4902	2.023

Zoom In Zoom Out

Sample Name: FC11393-5A Acquired: 12/6/2023 12:41:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**493.62**	**1138.7**	**14046.**	**4261.5**
Stddev	1.34	2.4	47.	20.6
%RSD	.27171	.21360	.33781	.48353
#1	494.90	1141.4	14002.	4272.3
#2	492.22	1138.1	14040.	4237.8
#3	493.74	1136.6	14097.	4274.5

Zoom In Zoom Out

Sample Name: FC11393-6A Acquired: 12/6/2023 12:46:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0394**	**337.4**	**.5262**	**.1162**	**1.803**	**.0181**	**265.4**	**-.0317**	**.3505**
Stddev	.0042	1.2	.0176	.0125	.002	.0009	.7	.0019	.0012
%RSD	10.57	.3702	3.351	10.78	.0909	4.728	.2618	5.924	.3331
#1	.0392	336.0	.5114	.1095	1.802	.0190	264.7	-.0305	.3507
#2	.0436	338.2	.5457	.1307	1.805	.0175	266.0	-.0306	.3492
#3	.0353	338.0	.5215	.1085	1.803	.0177	265.7	-.0338	.3515

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4833**	**.6626**	**826.6**	**43.41**	**.6885**	**127.9**	**15.78**	**.0082**	**1.131**
Stddev	.0052	.0016	3.1	.19	.0264	.7	.08	.0015	.061
%RSD	1.075	.2459	.3790	.4361	3.828	.5822	.5260	18.36	5.407
#1	.4822	.6607	823.1	43.28	.6583	127.9	15.70	.0091	1.179
#2	.4788	.6636	829.0	43.32	.7070	128.7	15.80	.0090	1.062
#3	.4890	.6636	827.7	43.62	.7001	127.2	15.86	.0065	1.151

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8014**	**.4898**	**.0020**	**.0290**	**11.69**	**.0230**	**.5565**	**1.940**	**.0156**
Stddev	.0064	.0050	.0323	.0601	.04	.0108	.0034	.013	.0420
%RSD	.7956	1.022	1626.	207.4	.3714	47.07	.6170	.6754	268.9
#1	.8038	.4848	.0361	.0328	11.71	.0200	.5531	1.931	.0467
#2	.7942	.4899	-.0281	.0871	11.64	.0140	.5599	1.934	-.0322
#3	.8063	.4948	-.0021	-.0329	11.71	.0350	.5566	1.955	.0323

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5169**	**2.103**
Stddev	.0050	.001
%RSD	.9747	.0630
#1	.5130	2.104
#2	.5151	2.102
#3	.5226	2.103

Zoom In Zoom Out

Sample Name: FC11393-6A Acquired: 12/6/2023 12:46:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**487.24**	**1125.0**	**13840.**	**4237.4**
Stddev	2.15	5.4	71.	3.6
%RSD	.44070	.47801	.51105	.08548
#1	485.66	1122.3	13922.	4235.0
#2	489.68	1131.2	13800.	4241.6
#3	486.36	1121.5	13799.	4235.7

Zoom In Zoom Out

Sample Name: FC11393-7A Acquired: 12/6/2023 12:51:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0331**	**309.1**	**.4459**	**.1231**	**1.286**	**.0160**	**234.3**	**-.0344**	**.3297**
Stddev	.0024	.8	.0296	.0352	.007	.0007	.4	.0012	.0025
%RSD	7.133	.2659	6.643	28.60	.5367	4.087	.1704	3.453	.7642
#1	.0304	308.2	.4271	.1440	1.280	.0154	234.7	-.0346	.3323
#2	.0349	309.6	.4307	.0824	1.294	.0167	233.9	-.0356	.3273
#3	.0339	309.6	.4801	.1428	1.285	.0159	234.4	-.0332	.3294

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4553**	**.5605**	**757.0**	**48.42**	**.6783**	**156.9**	**10.72**	**.0084**	**1.258**
Stddev	.0165	.0045	.5	.26	.0017	1.4	.04	.0013	.030
%RSD	3.627	.8110	.0684	.5290	.2510	.9067	.3927	15.57	2.383
#1	.4743	.5634	757.4	48.30	.6798	158.4	10.73	.0071	1.230
#2	.4456	.5629	756.4	48.71	.6765	156.9	10.67	.0098	1.255
#3	.4458	.5553	757.3	48.24	.6785	155.5	10.75	.0084	1.290

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7540**	**.3956**	**-.0132**	**.0202**	**11.33**	**.0321**	**.4827**	**1.794**	**-.0013**
Stddev	.0057	.0249	.0294	.0470	.03	.0078	.0030	.009	.0224
%RSD	.7510	6.297	222.3	232.7	.2573	24.40	.6295	.4841	1675.
#1	.7543	.3673	-.0457	-.0335	11.36	.0403	.4794	1.804	-.0035
#2	.7595	.4052	.0116	.0540	11.31	.0248	.4853	1.793	-.0226
#3	.7482	.4143	-.0056	.0401	11.31	.0311	.4836	1.787	.0220

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4546**	**1.841**
Stddev	.0071	.009
%RSD	1.564	.4711
#1	.4572	1.851
#2	.4466	1.835
#3	.4601	1.836

Zoom In Zoom Out

Sample Name: FC11393-7A Acquired: 12/6/2023 12:51:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**488.41**	**1125.7**	**13798.**	**4276.9**
Stddev	1.65	2.0	9.	7.8
%RSD	.33850	.17644	.06515	.18346
#1	489.91	1124.8	13788.	4268.3
#2	488.67	1128.0	13801.	4278.5
#3	486.64	1124.4	13806.	4283.8

Zoom In Zoom Out

Sample Name: FC11393-8A Acquired: 12/6/2023 12:56:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0227**	**320.8**	**.5315**	**.1178**	**1.283**	**.0168**	**261.8**	**-.0415**	**.3661**
Stddev	.0056	1.0	.0146	.0231	.004	.0002	.7	.0015	.0010
%RSD	24.54	.3139	2.755	19.61	.2837	1.119	.2834	3.635	.2860
#1	.0233	320.0	.5249	.1415	1.280	.0168	260.9	-.0406	.3669
#2	.0280	320.5	.5483	.1166	1.281	.0167	262.3	-.0406	.3649
#3	.0169	322.0	.5214	.0953	1.287	.0170	262.1	-.0432	.3666

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4740**	**.5957**	**839.0**	**51.11**	**.7735**	**160.8**	**12.08**	**.0036**	**1.446**
Stddev	.0059	.0013	2.7	.46	.0070	.5	.03	.0052	.028
%RSD	1.242	.2130	.3265	.8919	.9076	.3338	.2255	142.1	1.941
#1	.4675	.5954	835.9	50.78	.7686	160.4	12.11	-.0023	1.470
#2	.4756	.5971	840.9	50.92	.7703	160.7	12.08	.0062	1.415
#3	.4789	.5947	840.2	51.63	.7815	161.4	12.05	.0070	1.453

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8265**	**.3998**	**-.0113**	**.0747**	**5.701**	**.0302**	**.5570**	**1.715**	**-.0262**
Stddev	.0045	.0305	.0446	.0106	.007	.0019	.0007	.005	.0089
%RSD	.5440	7.617	395.3	14.26	.1252	6.140	.1184	.3187	33.92
#1	.8306	.4296	-.0620	.0693	5.700	.0323	.5577	1.721	-.0347
#2	.8271	.3688	.0216	.0679	5.708	.0292	.5567	1.711	-.0270
#3	.8217	.4011	.0065	.0870	5.694	.0290	.5565	1.713	-.0169

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4748**	**2.025**
Stddev	.0033	.006
%RSD	.6880	.3057
#1	.4785	2.022
#2	.4730	2.021
#3	.4728	2.032

Zoom In Zoom Out

Sample Name: FC11393-8A Acquired: 12/6/2023 12:56:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**485.75**	**1138.0**	**14072.**	**4395.6**
Stddev	1.41	2.7	32.	8.1
%RSD	.29119	.23540	.22608	.18540
#1	487.33	1140.9	14055.	4402.4
#2	485.33	1137.4	14109.	4397.8
#3	484.59	1135.6	14053.	4386.6

Zoom In Zoom Out

Sample Name: FC11393-9A Acquired: 12/6/2023 13:01:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0220**	**246.7**	**.4616**	**.0639**	**.8656**	**.0112**	**194.4**	**-.0422**	**.2832**
Stddev	.0049	1.3	.0274	.0140	.0050	.0006	.8	.0027	.0043
%RSD	22.24	.5287	5.937	21.93	.5778	5.488	.4189	6.298	1.521
#1	.0272	245.2	.4858	.0732	.8638	.0117	193.6	-.0391	.2875
#2	.0175	247.3	.4318	.0706	.8617	.0105	195.2	-.0435	.2832
#3	.0213	247.6	.4671	.0478	.8712	.0114	194.4	-.0440	.2788

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3658**	**.5240**	**723.9**	**36.43**	**.6046**	**140.2**	**9.013**	**.0040**	**1.111**
Stddev	.0035	.0026	4.2	.01	.0039	1.6	.032	.0030	.046
%RSD	.9673	.4891	.5747	.0294	.6422	1.131	.3490	74.42	4.157
#1	.3633	.5258	719.9	36.42	.6090	139.5	9.000	.0011	1.077
#2	.3698	.5252	728.2	36.44	.6021	142.0	8.990	.0071	1.092
#3	.3641	.5211	723.6	36.44	.6026	139.1	9.049	.0040	1.164

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6424**	**.3546**	**-.0033**	**-.0005**	**9.268**	**.0255**	**.3416**	**1.665**	**.0167**
Stddev	.0097	.0038	.0171	.0256	.036	.0022	.0025	.001	.0357
%RSD	1.513	1.082	520.4	5537.	.3901	8.569	.7210	.0563	213.7
#1	.6515	.3513	.0151	.0183	9.307	.0279	.3398	1.665	-.0045
#2	.6435	.3588	-.0187	-.0296	9.236	.0236	.3444	1.666	-.0033
#3	.6322	.3537	-.0062	.0099	9.261	.0250	.3406	1.664	.0580

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3659**	**1.723**
Stddev	.0053	.013
%RSD	1.452	.7491
#1	.3719	1.737
#2	.3617	1.712
#3	.3643	1.720

Zoom In Zoom Out

Sample Name: FC11393-9A Acquired: 12/6/2023 13:01:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**487.10**	**1140.8**	**14248.**	**4396.1**
Stddev	1.43	.3	50.	32.6
%RSD	.29407	.03068	.34949	.74218
#1	487.12	1140.8	14264.	4411.0
#2	488.52	1141.2	14288.	4358.7
#3	485.66	1140.5	14192.	4418.6

Zoom In Zoom Out

Sample Name: FC11639-1 Acquired: 12/6/2023 13:06:28 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**7.890**	**.0013**	**.0000**	**.0647**	**.0002**	**42.90**	**.0429**	**.0012**
Stddev	.0002	.016	.0009	.001	.0004	.0001	.25	.0002	.0001
%RSD	65.86	.2079	65.31	2340.	.5630	30.78	.5752	.5473	8.700
#1	.0001	7.873	.0003	-.0012	.0644	.0002	42.93	.0426	.0011
#2	.0004	7.892	.0018	.0003	.0646	.0001	43.13	.0431	.0012
#3	.0004	7.906	.0019	.0008	.0651	.0002	42.64	.0430	.0013

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0399**	**.0584**	**6.061**	**.2978**	**.0115**	**.7815**	**.0760**	**.0005**	**.0712**
Stddev	.0003	.0004	.014	.0085	.0002	.0164	.0005	.0001	.0024
%RSD	.8054	.6472	.2275	2.843	1.787	2.099	.6489	18.28	3.405
#1	.0400	.0586	6.067	.3075	.0112	.7634	.0766	.0005	.0694
#2	.0396	.0580	6.071	.2931	.0116	.7954	.0758	.0006	.0702
#3	.0402	.0587	6.045	.2927	.0116	.7857	.0757	.0004	.0739

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0211**	**.1459**	**.0070**	**.0015**	**2.308**	**.0222**	**.1742**	**.2214**	**-.0017**
Stddev	.0003	.0011	.0008	.0033	.003	.0002	.0009	.0021	.0012
%RSD	1.275	.7834	10.80	228.2	.1134	.7830	.5220	.9477	71.10
#1	.0208	.1459	.0078	.0052	2.308	.0220	.1736	.2200	-.0028
#2	.0214	.1471	.0066	-.0011	2.310	.0224	.1738	.2239	-.0004
#3	.0211	.1448	.0064	.0003	2.305	.0223	.1753	.2204	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0107**	**.6978**
Stddev	.0002	.0015
%RSD	2.073	.2079
#1	.0108	.6963
#2	.0104	.6992
#3	.0109	.6978

Zoom In Zoom Out

Sample Name: FC11639-1 Acquired: 12/6/2023 13:06:28 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**471.26**	**1095.6**	**14047.**	**4284.4**
Stddev	2.08	2.2	69.	17.5
%RSD	.44222	.20226	.49343	.40797
#1	472.11	1096.7	13969.	4283.4
#2	468.88	1093.0	14102.	4267.4
#3	472.78	1096.9	14069.	4302.3

Zoom In Zoom Out

Sample Name: FC11609-9 Acquired: 12/6/2023 13:11:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0098**	**681.5**	**.0359**	**.0048**	**.5103**	**.0071**	**1.214**	**-.0139**	**.0466**
Stddev	.0010	1.8	.0041	.0011	.0013	.0001	.003	.0007	.0009
%RSD	9.797	.2624	11.30	22.18	.2486	.7998	.2112	5.065	2.035
#1	.0088	680.0	.0362	.0043	.5101	.0071	1.211	-.0131	.0474
#2	.0101	681.1	.0317	.0042	.5116	.0071	1.217	-.0145	.0469
#3	.0107	683.5	.0399	.0061	.5091	.0070	1.214	-.0141	.0456

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1850**	**.0529**	**282.2**	**19.09**	**.3379**	**19.98**	**2.317**	**.0036**	**.2249**
Stddev	.0022	.0002	1.1	.09	.0004	.14	.011	.0010	.0052
%RSD	1.189	.3077	.3770	.4755	.1223	.7118	.4699	26.54	2.314
#1	.1837	.0530	281.1	19.02	.3376	19.82	2.306	.0028	.2194
#2	.1875	.0528	282.3	19.19	.3383	20.07	2.327	.0033	.2298
#3	.1837	.0528	283.2	19.06	.3376	20.06	2.319	.0047	.2254

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0668**	**.1863**	**-.0072**	**-.0017**	**9.475**	**.0559**	**.0531**	**7.389**	**.0101**
Stddev	.0010	.0028	.0025	.0046	.016	.0020	.0001	.005	.0036
%RSD	1.451	1.489	34.20	265.2	.1667	3.599	.2568	.0676	35.67
#1	.0678	.1894	-.0050	.0029	9.490	.0579	.0530	7.393	.0083
#2	.0658	.1842	-.0068	-.0063	9.459	.0558	.0532	7.390	.0077
#3	.0668	.1853	-.0098	-.0018	9.477	.0539	.0530	7.383	.0143

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4921**	**.4865**
Stddev	.0028	.0013
%RSD	.5626	.2708
#1	.4894	.4872
#2	.4920	.4873
#3	.4950	.4850

Zoom In Zoom Out

Sample Name: FC11609-9 Acquired: 12/6/2023 13:11:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**467.11**	**1200.6**	**14396.**	**4580.1**
Stddev	1.40	1.4	41.	22.2
%RSD	.29881	.11391	.28359	.48396
#1	468.21	1201.6	14441.	4605.2
#2	465.54	1201.2	14361.	4563.4
#3	467.57	1199.0	14386.	4571.7

Zoom In Zoom Out

Sample Name: FC11609-10 Acquired: 12/6/2023 13:16:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0060**	**310.7**	**.0067**	**-.0031**	**.7025**	**.0186**	**5.242**	**-.0122**	**.0614**
Stddev	.0022	1.6	.0042	.0079	.0048	.0002	.061	.0004	.0008
%RSD	37.30	.5134	62.39	251.6	.6844	.9917	1.170	3.564	1.272
#1	.0050	312.1	.0027	-.0001	.7077	.0183	5.251	-.0125	.0622
#2	.0044	309.0	.0110	-.0121	.6983	.0187	5.176	-.0117	.0614
#3	.0085	311.1	.0063	.0028	.7014	.0186	5.298	-.0124	.0606

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0513**	**.0368**	**235.3**	**91.38**	**.4516**	**54.53**	**5.580**	**.0009**	**.5170**
Stddev	.0009	.0009	1.3	.52	.0009	.78	.037	.0009	.0102
%RSD	1.739	2.472	.5437	.5676	.2077	1.435	.6641	98.13	1.967
#1	.0505	.0364	235.8	91.88	.4526	55.15	5.543	.0020	.5127
#2	.0510	.0378	233.9	90.85	.4513	53.65	5.617	.0002	.5097
#3	.0522	.0362	236.3	91.41	.4508	54.78	5.580	.0006	.5286

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0167**	**.0825**	**-.0113**	**-.0042**	**7.288**	**.0390**	**.0783**	F **27.68**	**.0253**
Stddev	.0005	.0034	.0043	.0112	.018	.0029	.0002	.09	.0154
%RSD	3.108	4.127	38.41	269.1	.2442	7.434	.3075	.3328	60.69
#1	.0166	.0791	-.0163	-.0098	7.293	.0356	.0784	27.58	.0233
#2	.0172	.0859	-.0085	.0087	7.303	.0408	.0780	27.77	.0111
#3	.0162	.0824	-.0092	-.0114	7.269	.0405	.0784	27.68	.0416

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3341**	**.7061**
Stddev	.0038	.0028
%RSD	1.137	.3989
#1	.3337	.7074
#2	.3380	.7080
#3	.3305	.7029

Zoom In Zoom Out

Sample Name: FC11609-10 Acquired: 12/6/2023 13:16:27 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**468.66**	**1237.4**	**15063.**	**4671.4**
Stddev	1.87	3.3	79.	49.7
%RSD	.39965	.26932	.52604	1.0631
#1	470.68	1238.7	15149.	4634.9
#2	466.98	1233.6	14994.	4728.0
#3	468.32	1239.8	15045.	4651.5

Zoom In Zoom Out

Sample Name: FC11609-11 Acquired: 12/6/2023 13:21:25 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074**	**509.8**	**.0304**	**.0118**	**.5282**	**.0056**	**2.547**	**-.0081**	**.0305**
Stddev	.0014	2.0	.0065	.0081	.0016	.0001	.017	.0007	.0004
%RSD	19.54	.3996	21.41	68.60	.3105	.9626	.6504	8.903	1.248
#1	.0057	508.3	.0229	.0211	.5294	.0057	2.557	-.0074	.0308
#2	.0081	508.9	.0341	.0074	.5263	.0056	2.528	-.0081	.0307
#3	.0083	512.1	.0342	.0068	.5288	.0056	2.555	-.0089	.0301

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1626**	**.0450**	**177.4**	**14.76**	**.3455**	**13.90**	**.8967**	**.0059**	**.2165**
Stddev	.0018	.0007	.9	.11	.0031	.15	.0036	.0006	.0109
%RSD	1.112	1.586	.5278	.7731	.9023	1.045	.3996	10.43	5.056
#1	.1613	.0453	176.9	14.66	.3421	13.90	.8998	.0065	.2040
#2	.1646	.0442	176.8	14.75	.3460	13.76	.8975	.0052	.2214
#3	.1618	.0456	178.5	14.88	.3483	14.05	.8928	.0059	.2241

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0598**	**.1597**	**-.0108**	**.0048**	**9.237**	**.0477**	**.0738**	**6.055**	**.0049**
Stddev	.0004	.0056	.0091	.0067	.034	.0008	.0001	.012	.0048
%RSD	.7212	3.517	85.09	139.1	.3674	1.592	.1429	.2003	98.90
#1	.0594	.1602	-.0207	.0110	9.224	.0472	.0737	6.069	.0007
#2	.0603	.1650	-.0088	-.0023	9.275	.0486	.0738	6.045	.0038
#3	.0597	.1538	-.0027	.0057	9.211	.0473	.0739	6.053	.0102

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4678**	**.3807**
Stddev	.0031	.0008
%RSD	.6652	.1992
#1	.4643	.3815
#2	.4691	.3801
#3	.4701	.3804

Zoom In Zoom Out

Sample Name: FC11609-11 Acquired: 12/6/2023 13:21:25 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**473.80**	**1169.3**	**13923.**	**4457.7**
Stddev	1.00	3.5	23.	33.3
%RSD	.21079	.29810	.16403	.74662
#1	474.39	1172.7	13905.	4451.5
#2	472.65	1165.7	13915.	4493.6
#3	474.37	1169.5	13949.	4427.9

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 13:26:24 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2540**	**39.64**	**1.999**	**2.055**	**2.007**	**1.987**	**39.18**	**1.992**	**1.996**
Stddev	.0015	.13	.007	.009	.011	.002	.11	.002	.003
%RSD	.5850	.3305	.3300	.4638	.5706	.1106	.2839	.1197	.1369
#1	.2555	39.49	1.992	2.046	1.993	1.985	39.30	1.991	1.995
#2	.2526	39.74	2.005	2.065	2.014	1.987	39.10	1.995	1.999
#3	.2540	39.68	1.998	2.053	2.012	1.990	39.13	1.991	1.994
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.003**	**2.010**	**39.56**	**40.44**	**1.986**	**39.26**	**1.996**	**2.008**	**40.29**
Stddev	.007	.010	.10	.10	.013	.20	.008	.003	.19
%RSD	.3478	.5161	.2446	.2392	.6441	.5032	.3803	.1375	.4745
#1	2.010	2.021	39.67	40.38	1.972	39.25	2.000	2.005	40.08
#2	1.996	2.007	39.50	40.39	1.998	39.07	1.987	2.011	40.37
#3	2.003	2.001	39.51	40.55	1.987	39.47	2.000	2.008	40.44
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.003**	**1.970**	**2.003**	**2.015**	**2.145**	**1.998**	**2.012**	**2.006**	**1.993**
Stddev	.006	.003	.002	.007	.005	.002	.004	.004	.010
%RSD	.2971	.1610	.0960	.3624	.2361	.0882	.1992	.1895	.4925
#1	2.006	1.971	2.002	2.008	2.147	1.997	2.007	2.010	2.004
#2	2.007	1.967	2.003	2.022	2.149	2.000	2.015	2.004	1.991
#3	1.996	1.972	2.005	2.016	2.140	1.996	2.013	2.004	1.985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 13:26:24 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.003**	**1.971**
Stddev	.004	.006
%RSD	.2197	.3129
#1	2.007	1.964
#2	1.998	1.975
#3	2.002	1.973
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**431.92**	**1043.2**	**12913.**	**4124.3**
Stddev	1.12	1.2	33.	16.3
%RSD	.25820	.11462	.25599	.39558
#1	431.79	1044.4	12882.	4117.9
#2	433.09	1042.0	12948.	4142.9
#3	430.87	1043.0	12908.	4112.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 13:31:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0037**	**-.0013**	**-.0009**	**.0001**	**.0001**	**.0013**	**.0000**	**.0000**
Stddev	.0003	.0061	.0013	.0008	.0000	.0000	.0002	.000	.0001
%RSD	132.1	166.5	99.23	80.11	24.20	9.898	15.80	894.6	1403.
#1	.0004	-.0031	.0002	-.0007	.0002	.0001	.0014	-.0001	-.0001
#2	.0004	.0089	-.0019	-.0003	.0001	.0001	.0010	.0000	.0001
#3	-.0001	.0053	-.0021	-.0018	.0001	.0001	.0013	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0001**	**.0031**	**.0052**	**.0005**	**.0102**	**.0001**	**.0000**	**-.0118**
Stddev	.0003	.0001	.0005	.0085	.0003	.0089	.0000	.000	.0038
%RSD	515.6	55.13	17.18	163.0	59.51	87.56	33.70	586.8	31.94
#1	.0003	-.0002	.0030	.0079	.0009	.0143	.0001	-.0003	-.0088
#2	-.0002	-.0001	.0026	.0120	.0004	.0000	.0000	.0000	-.0105
#3	.0000	-.0001	.0037	-.0043	.0003	.0163	.0001	.0002	-.0160
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0003**	**.0008**	F **.0021**	**.0022**	**-.0002**	**.0001**	**.0001**	**.0019**
Stddev	.0002	.0003	.0010	.0021	.0001	.0002	.0000	.0000	.0008
%RSD	78.13	115.1	114.5	100.4	2.861	120.1	39.18	33.41	41.39
#1	-.0004	-.0003	-.0002	.0045	.0021	-.0004	.0000	.0001	.0010
#2	-.0001	-.0006	.0009	.0015	.0022	-.0001	.0001	.0001	.0023
#3	-.0002	.0001	.0018	.0003	.0023	.0000	.0001	.0001	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0020					
Low Limit				-.0020					

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 13:31:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0001**	**-.0002**
Stddev	.0002	.0000
%RSD	365.5	4.776
#1	-.0001	-.0002
#2	.0000	-.0001
#3	.0003	-.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**512.83**	**1116.7**	**14085.**	**4232.4**
Stddev	.18	3.0	79.	9.4
%RSD	.03526	.26972	.55851	.22328
#1	512.85	1119.9	14108.	4241.9
#2	512.64	1116.3	14149.	4232.4
#3	513.00	1113.9	13997.	4223.0

Zoom In Zoom Out

Sample Name: FC11609-13 Acquired: 12/6/2023 13:36:14 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0117**	**561.1**	**.0550**	**.0171**	**.7051**	**.0088**	**5.545**	**-.0192**	**.0625**
Stddev	.0013	.7	.0078	.0010	.0043	.0001	.018	.0003	.0009
%RSD	11.39	.1265	14.23	5.855	.6119	1.641	.3312	1.480	1.371
#1	.0127	561.0	.0567	.0169	.7053	.0089	5.544	-.0190	.0634
#2	.0121	561.9	.0618	.0182	.7092	.0086	5.564	-.0190	.0616
#3	.0102	560.5	.0464	.0163	.7006	.0088	5.528	-.0195	.0625

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1939**	**.2087**	**366.3**	**19.60**	**.3140**	**20.53**	**2.013**	**.0083**	**1.196**
Stddev	.0013	.0010	.4	.16	.0022	.23	.009	.0006	.004
%RSD	.6878	.4878	.1168	.8162	.7137	1.119	.4408	6.815	.3510
#1	.1943	.2083	366.7	19.59	.3144	20.28	2.023	.0087	1.197
#2	.1924	.2080	365.8	19.77	.3116	20.72	2.008	.0085	1.191
#3	.1949	.2099	366.2	19.45	.3160	20.60	2.007	.0076	1.199

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0788**	**.2874**	**-.0028**	**.0018**	**9.292**	**.0608**	**.0697**	**6.510**	**.0063**
Stddev	.0007	.0045	.0005	.0101	.006	.0041	.0004	.008	.0047
%RSD	.9014	1.555	18.19	561.4	.0655	6.689	.5651	.1284	74.16
#1	.0784	.2889	-.0032	-.0061	9.288	.0566	.0695	6.501	.0113
#2	.0784	.2824	-.0022	.0132	9.290	.0612	.0702	6.517	.0019
#3	.0796	.2910	-.0028	-.0017	9.299	.0647	.0695	6.511	.0059

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.6098**	**.7920**
Stddev	.0010	.0028
%RSD	.1577	.3564
#1	.6108	.7888
#2	.6097	.7940
#3	.6088	.7934

Zoom In Zoom Out

Sample Name: FC11609-13 Acquired: 12/6/2023 13:36:14 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**465.71**	**1194.0**	**14616.**	**4650.7**
Stddev	.64	3.4	15.	26.8
%RSD	.13764	.28490	.10013	.57519
#1	465.63	1196.8	14625.	4661.7
#2	465.11	1195.1	14625.	4620.2
#3	466.39	1190.2	14599.	4670.2

Zoom In Zoom Out

Sample Name: FC11609-14 Acquired: 12/6/2023 13:41:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**472.2**	**.0356**	**.0044**	**.4330**	**.0046**	**2.344**	**-.0114**	**.0288**
Stddev	.0006	1.3	.0048	.0060	.0011	.0001	.012	.0002	.0008
%RSD	6.266	.2768	13.46	134.2	.2547	2.642	.5298	1.920	2.673
#1	.0101	471.4	.0408	.0074	.4327	.0048	2.337	-.0113	.0296
#2	.0091	471.4	.0314	-.0024	.4321	.0045	2.336	-.0116	.0283
#3	.0090	473.7	.0346	.0084	.4342	.0046	2.358	-.0112	.0283

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1493**	**.0465**	**239.2**	**14.77**	**.2449**	**14.83**	**.8020**	**.0045**	**.1606**
Stddev	.0024	.0007	.8	.08	.0008	.18	.0068	.0015	.0039
%RSD	1.593	1.420	.3508	.5450	.3386	1.212	.8485	32.71	2.412
#1	.1520	.0468	238.3	14.75	.2453	14.63	.8097	.0047	.1625
#2	.1476	.0457	239.1	14.71	.2455	14.97	.7971	.0030	.1633
#3	.1482	.0469	240.0	14.86	.2439	14.90	.7991	.0059	.1562

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0561**	**.1479**	**-.0010**	**.0086**	**8.846**	**.0414**	**.0504**	**5.183**	**.0168**
Stddev	.0014	.0077	.0047	.0150	.010	.0027	.0003	.023	.0073
%RSD	2.425	5.186	468.0	174.8	.1108	6.437	.6882	.4385	43.24
#1	.0547	.1554	-.0056	-.0076	8.851	.0412	.0508	5.206	.0220
#2	.0574	.1401	.0037	.0112	8.835	.0389	.0501	5.160	.0199
#3	.0561	.1483	-.0011	.0221	8.853	.0442	.0504	5.182	.0085

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4937**	**.3427**
Stddev	.0037	.0007
%RSD	.7423	.1897
#1	.4979	.3435
#2	.4922	.3425
#3	.4911	.3422

Zoom In Zoom Out

Sample Name: FC11609-14 Acquired: 12/6/2023 13:41:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**472.16**	**1137.5**	**13914.**	**4376.5**
Stddev	.76	5.5	85.	27.0
%RSD	.16064	.48423	.60919	.61797
#1	472.48	1143.0	13830.	4404.5
#2	472.70	1137.5	13999.	4374.5
#3	471.29	1131.9	13914.	4350.5

Zoom In Zoom Out

Sample Name: FC11637-3 Acquired: 12/6/2023 13:46:14 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0305**	**439.2**	**.0036**	**.0471**	**1.373**	**-.0046**	**33.91**	F **-.0264**
Stddev	.0008	1.9	.0022	.0082	.007	.0001	.23	.0015
%RSD	2.634	.4389	60.49	17.30	.5230	1.135	.6739	5.739
#1	.0309	439.0	.0016	.0564	1.371	-.0045	33.99	-.0274
#2	.0311	437.4	.0060	.0439	1.367	-.0046	33.66	-.0246
#3	.0296	441.3	.0033	.0411	1.381	-.0046	34.09	-.0271

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2976**	**1.431**	**1.173**	**572.4**	**1.817**	**.0105**	**70.22**	**10.76**
Stddev	.0014	.019	.003	3.1	.054	.0013	.50	.07
%RSD	.4627	1.311	.2111	.5376	2.979	12.43	.7170	.6607
#1	.2992	1.443	1.173	573.4	1.877	.0117	70.58	10.82
#2	.2969	1.410	1.171	569.0	1.801	.0107	69.64	10.68
#3	.2968	1.441	1.175	574.8	1.773	.0091	70.43	10.77

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0049**	**9.434**	**1.559**	**.0339**	**-.0181**	**.0024**	**7.822**	**.0230**
Stddev	.0008	.047	.002	.0017	.0089	.0110	.019	.0022
%RSD	16.94	.4928	.1136	5.114	49.13	449.3	.2443	9.369
#1	.0046	9.402	1.558	.0347	-.0088	.0097	7.820	.0232
#2	.0042	9.413	1.557	.0350	-.0190	-.0102	7.804	.0208
#3	.0058	9.487	1.561	.0319	-.0266	.0078	7.842	.0251

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.2160**	F **46.32**	**.0324**	**1.568**	**.7728**
Stddev	.0015	.22	.0043	.010	.0020
%RSD	.7108	.4813	13.24	.6426	.2585
#1	.2154	46.32	.0343	1.578	.7730
#2	.2149	46.09	.0354	1.558	.7707
#3	.2178	46.54	.0275	1.569	.7747

Zoom In Zoom Out

Sample Name: FC11637-3 Acquired: 12/6/2023 13:46:14 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**463.20**	**1172.9**	**14496.**	**4519.6**
Stddev	1.06	2.9	75.	34.7
%RSD	.22872	.24795	.51799	.76783
#1	463.73	1174.1	14465.	4512.3
#2	463.89	1174.9	14581.	4557.3
#3	461.98	1169.5	14441.	4489.0

Zoom In Zoom Out

Sample Name: FC11637-1 Acquired: 12/6/2023 13:51:18 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1306**	**-.0014**	**.0450**	**.0007**	**.0000**	**.6875**	**-.0004**	**.0042**
Stddev	.0003	.0028	.0025	.0011	.0001	.000	.0034	.0001	.0001
%RSD	114.6	2.137	178.6	2.523	11.53	11.50	.4875	25.86	2.093
#1	.0003	.1321	-.0038	.0446	.0007	-.0001	.6901	-.0003	.0043
#2	-.0001	.1274	-.0015	.0463	.0008	.0000	.6837	-.0003	.0041
#3	.0005	.1323	.0011	.0441	.0007	.0000	.6886	-.0005	.0042

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0006**	**6.511**	**1.962**	**.0333**	**2.121**	**.0728**	**.0069**	F **176.4**
Stddev	.0004	.0000	.035	.007	.0003	.022	.0002	.0003	1.4
%RSD	161.4	3.072	.5343	.3760	.8879	1.050	.3322	3.646	.7754
#1	-.0001	.0006	6.487	1.954	.0333	2.114	.0726	.0072	175.0
#2	.0002	.0006	6.495	1.965	.0336	2.146	.0729	.0068	177.8
#3	.0008	.0006	6.551	1.967	.0330	2.103	.0730	.0067	176.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0189**	**-.0004**	**.0002**	**.0017**	**10.82**	**.0025**	**.0040**	**.0038**	**-.0011**
Stddev	.0001	.0001	.0011	.0007	.02	.0003	.0000	.0001	.0015
%RSD	.7087	23.76	441.7	40.32	.1490	10.88	1.151	2.056	138.7
#1	.0189	-.0003	.0003	.0022	10.80	.0022	.0039	.0039	-.0015
#2	.0188	-.0004	.0013	.0020	10.82	.0028	.0040	.0038	-.0023
#3	.0191	-.0005	-.0009	.0009	10.83	.0024	.0040	.0037	.0006

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0076**
Stddev	.0002	.0002
%RSD	161.7	2.052
#1	.0001	.0078
#2	.0004	.0075
#3	-.0001	.0075

Zoom In Zoom Out

Sample Name: FC11637-1 Acquired: 12/6/2023 13:51:18 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**435.77**	**1019.3**	**12694.**	**4074.2**
Stddev	1.16	1.3	29.	18.1
%RSD	.26514	.13100	.23076	.44464
#1	435.75	1019.7	12669.	4067.4
#2	436.94	1020.4	12726.	4094.8
#3	434.63	1017.8	12686.	4060.6

Zoom In Zoom Out

Sample Name: FC11638-1 Acquired: 12/6/2023 13:56:30 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.1045**	**-.0027**	**.1877**	**.0219**	**.0000**	**25.47**	**-.0002**	**.0031**
Stddev	.0005	.0048	.0022	.0019	.0001	.000	.11	.0001	.0002
%RSD	263.3	4.580	81.86	1.001	.6244	98.47	.4504	35.84	5.740
#1	.0007	.1001	-.0052	.1894	.0219	-.0001	25.35	-.0001	.0029
#2	.0001	.1096	-.0020	.1857	.0220	.0000	25.58	-.0003	.0030
#3	-.0002	.1037	-.0009	.1880	.0217	-.0001	25.48	-.0002	.0032

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0008**	**2.749**	**2.439**	**.0047**	**35.78**	**.4043**	**.0009**	F **132.5**
Stddev	.0005	.0001	.011	.011	.0004	.03	.0011	.0001	.3
%RSD	196.5	14.20	.4028	.4480	7.932	.0799	.2819	7.897	.2439
#1	.0008	.0009	2.737	2.445	.0044	35.75	.4048	.0009	132.2
#2	-.0001	.0007	2.751	2.446	.0051	35.81	.4030	.0009	132.8
#3	.0001	.0009	2.758	2.427	.0047	35.78	.4051	.0008	132.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**-.0010**	**.0013**	**.0020**	**8.464**	**.0016**	**.2232**	**.0073**	**-.0019**
Stddev	.0000	.0011	.0010	.0017	.020	.0003	.0002	.0001	.0009
%RSD	2.999	104.7	83.56	86.94	.2404	18.06	.1104	.8065	45.06
#1	.0013	-.0023	.0002	.0039	8.487	.0014	.2234	.0073	-.0011
#2	.0014	-.0002	.0023	.0005	8.458	.0015	.2233	.0073	-.0028
#3	.0013	-.0007	.0013	.0015	8.447	.0019	.2229	.0072	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0441**
Stddev	.0001	.0001
%RSD	110.5	.3180
#1	.0001	.0443
#2	.0002	.0440
#3	.0000	.0440

Zoom In Zoom Out

Sample Name: FC11638-1 Acquired: 12/6/2023 13:56:30 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**429.74**	**996.62**	**12558.**	**4052.8**
Stddev	.56	3.21	44.	15.4
%RSD	.13059	.32216	.35184	.38095
#1	430.34	993.08	12514.	4062.5
#2	429.66	997.43	12602.	4035.0
#3	429.23	999.35	12558.	4060.9

Zoom In Zoom Out

Sample Name: FC11652-1 Acquired: 12/6/2023 14:01:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0081**	**-.0019**	**.0626**	**.0225**	**.0000**	**48.15**	**.0000**	**-.0005**
Stddev	.0001	.0012	.0011	.0006	.0001	.000	.04	.000	.0001
%RSD	79.76	15.28	60.05	.9966	.5034	26.85	.0754	107.4	18.38
#1	.0002	.0076	-.0006	.0632	.0225	.0000	48.18	-.0001	-.0005
#2	.0000	.0095	-.0027	.0620	.0223	.0000	48.11	.0000	-.0004
#3	.0003	.0072	-.0023	.0626	.0226	-.0001	48.16	.0000	-.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0003**	**.0444**	**4.622**	**.0023**	**37.33**	**.0008**	**.0080**	**78.90**
Stddev	.0003	.0002	.0012	.017	.0002	.08	.0000	.0002	.18
%RSD	52.80	76.25	2.775	.3640	9.232	.2155	3.112	2.708	.2278
#1	.0007	.0004	.0445	4.610	.0022	37.27	.0008	.0082	78.74
#2	.0002	.0004	.0456	4.641	.0025	37.30	.0008	.0078	78.88
#3	.0007	.0000	.0431	4.614	.0021	37.42	.0008	.0079	79.10

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**-.0015**	**.0015**	**.0020**	**12.76**	**.0001**	**.3610**	**.0015**	**-.0010**
Stddev	.0003	.0008	.0016	.0013	.04	.0004	.0010	.0002	.0003
%RSD	30.13	51.44	101.0	63.59	.2995	467.7	.2761	10.75	32.62
#1	-.0013	-.0022	.0013	.0034	12.72	-.0002	.3600	.0017	-.0006
#2	-.0007	-.0007	.0032	.0011	12.80	.0006	.3620	.0014	-.0012
#3	-.0009	-.0017	.0001	.0014	12.77	-.0002	.3612	.0014	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0057**	**.0289**
Stddev	.0001	.0001
%RSD	1.440	.2226
#1	.0056	.0290
#2	.0057	.0289
#3	.0057	.0290

Zoom In Zoom Out

Sample Name: FC11652-1 Acquired: 12/6/2023 14:01:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**435.19**	**1028.1**	**12776.**	**4165.5**
Stddev	2.12	5.5	27.	.8
%RSD	.48681	.53825	.21318	.01947
#1	437.62	1034.0	12790.	4164.6
#2	434.21	1023.0	12795.	4166.2
#3	433.75	1027.3	12745.	4165.7

Zoom In Zoom Out

Sample Name: MP43240-MB1 Acquired: 12/6/2023 14:06:44 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0041**	**-.0010**	**-.0030**	**.0000**	**.0000**	**.0554**	**-.0001**	**-.0001**
Stddev	.000	.0033	.0015	.0009	.0001	.000	.0037	.0001	.0001
%RSD	794.8	79.14	144.0	29.67	415.5	215.9	6.632	84.77	226.6
#1	-.0001	.0073	.0003	-.0035	.0001	-.0001	.0512	-.0001	.0000
#2	.0002	.0043	-.0026	-.0035	-.0001	.0000	.0574	-.0001	.0001
#3	-.0003	.0008	-.0008	-.0020	.0000	.0000	.0576	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0004**	**.0004**	**-.0003**	**.0005**	**.0123**	**.0000**	**-.0003**	**.0035**
Stddev	.0002	.0001	.0009	.0044	.0004	.0139	.0000	.0003	.0025
%RSD	164.5	18.33	254.5	1308.	78.87	113.3	23.58	83.71	72.34
#1	.0000	-.0005	-.0007	.0040	.0003	-.0034	.0001	-.0006	.0010
#2	.0003	-.0003	.0010	-.0001	.0002	.0170	.0000	-.0001	.0034
#3	.0000	-.0004	.0008	-.0049	.0009	.0232	.0000	-.0003	.0060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0003**	**.0009**	**.0037**	**.0060**	**.0007**	**.0000**	**.0000**	**-.0014**
Stddev	.0002	.0005	.0003	.0005	.0003	.0001	.0000	.000	.0006
%RSD	57.41	159.7	33.85	13.46	5.336	13.69	37.24	972.8	39.90
#1	-.0002	-.0008	.0012	.0034	.0063	.0007	.0000	.0001	-.0013
#2	-.0005	-.0001	.0006	.0042	.0057	.0006	.0001	.0000	-.0021
#3	-.0003	.0000	.0009	.0034	.0060	.0007	.0000	-.0001	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43240-MB1 Acquired: 12/6/2023 14:06:44 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**.0001**
Stddev	.000	.0000
%RSD	606.2	23.08
#1	-.0002	.0001
#2	.0001	.0001
#3	.0000	.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**506.76**	**1097.6**	**14064.**	**4224.6**
Stddev	2.28	4.0	69.	21.4
%RSD	.44927	.36513	.48808	.50548
#1	506.14	1094.5	13999.	4200.7
#2	509.28	1102.1	14136.	4241.7
#3	504.86	1096.2	14058.	4231.5

Zoom In Zoom Out

Sample Name: MP43240-B1 Acquired: 12/6/2023 14:11:52 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1871**	**23.71**	**.1928**	**.4867**	**.1988**	**.1966**	**42.15**	**.1931**	**.1934**
Stddev	.0007	.04	.0009	.0052	.0008	.0010	.29	.0002	.0005
%RSD	.3855	.1477	.4738	1.060	.3792	.5045	.6902	.1184	.2609
#1	.1863	23.75	.1919	.4861	.1989	.1977	42.49	.1930	.1930
#2	.1876	23.68	.1938	.4819	.1995	.1961	41.98	.1929	.1932
#3	.1874	23.69	.1928	.4922	.1980	.1959	41.98	.1933	.1940
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1943**	**.1959**	**42.33**	**43.93**	**.4955**	**42.72**	**.1931**	**.6505**	**40.68**
Stddev	.0014	.0008	.19	.20	.0012	.31	.0010	.0020	.13
%RSD	.7123	.4116	.4574	.4606	.2476	.7348	.5142	.3019	.3155
#1	.1937	.1950	42.56	44.16	.4960	43.07	.1931	.6516	40.82
#2	.1932	.1966	42.19	43.83	.4941	42.65	.1922	.6482	40.63
#3	.1958	.1961	42.26	43.79	.4964	42.46	.1942	.6516	40.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1949**	**.1897**	**.2029**	**.1902**	**.5068**	**.4801**	**.4908**	**.4826**	**.1910**
Stddev	.0007	.0005	.0018	.0033	.0010	.0009	.0010	.0014	.0026
%RSD	.3592	.2601	.9039	1.728	.1931	.1964	.2050	.2942	1.344
#1	.1947	.1892	.2022	.1940	.5070	.4792	.4920	.4827	.1938
#2	.1943	.1897	.2015	.1880	.5058	.4800	.4902	.4811	.1907
#3	.1957	.1902	.2050	.1887	.5077	.4811	.4903	.4839	.1887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43240-B1 Acquired: 12/6/2023 14:11:52 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.1972**	**.1901**
Stddev	.0011	.0004
%RSD	.5495	.2273
#1	.1965	.1899
#2	.1967	.1906
#3	.1985	.1898
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**435.26**	**1030.6**	**12922.**	**4059.7**
Stddev	1.01	4.9	38.	26.6
%RSD	.23112	.47606	.29437	.65399
#1	435.10	1031.4	12948.	4029.1
#2	436.33	1035.1	12940.	4076.8
#3	434.33	1025.4	12878.	4073.1

Zoom In Zoom Out

Sample Name: FC11662-1 Acquired: 12/6/2023 14:16:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0178**	**-.0001**	**.4015**	**.1271**	**.0000**	**128.2**	**.0000**	**.0002**
Stddev	.0002	.0027	.0010	.0015	.0005	.000	.2	.000	.0001
%RSD	232.1	15.16	874.6	.3753	.3671	92.77	.1451	88.73	38.65
#1	.0000	.0160	-.0010	.4001	.1274	.0000	128.3	.0000	.0002
#2	.0003	.0166	.0009	.4013	.1266	-.0001	127.9	.0000	.0003
#3	-.0001	.0209	-.0002	.4031	.1274	-.0001	128.3	.0000	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0150**	**.6513**	**2.044**	**.0135**	**132.6**	**.7362**	**.0065**	F **544.3**
Stddev	.0005	.0002	.0045	.008	.0004	.7	.0067	.0004	1.9
%RSD	253.3	1.297	.6947	.4018	3.032	.5420	.9037	5.792	.3538
#1	-.0001	.0152	.6499	2.053	.0138	132.3	.7383	.0070	544.6
#2	-.0001	.0148	.6477	2.044	.0137	132.1	.7415	.0064	546.1
#3	.0008	.0149	.6564	2.036	.0131	133.5	.7287	.0063	542.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0048**	**-.0013**	**.0011**	**.0020**	**11.12**	**.0153**	**1.001**	**.0011**	**-.0021**
Stddev	.0001	.0017	.0020	.0011	.05	.0004	.004	.0001	.0011
%RSD	2.764	135.7	182.4	55.00	.4252	2.582	.4358	12.64	51.99
#1	.0047	-.0032	.0022	.0029	11.09	.0155	.9996	.0012	-.0028
#2	.0047	-.0007	.0022	.0008	11.10	.0148	.9972	.0010	-.0008
#3	.0049	.0001	-.0012	.0023	11.18	.0156	1.006	.0010	-.0026

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0046**	**.0514**
Stddev	.0003	.0003
%RSD	7.217	.4971
#1	.0046	.0512
#2	.0048	.0514
#3	.0042	.0517

Zoom In Zoom Out

Sample Name: FC11662-1 Acquired: 12/6/2023 14:16:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**372.51**	**914.50**	**11520.**	**3838.4**
Stddev	1.03	3.39	68.	19.9
%RSD	.27782	.37021	.59289	.51832
#1	371.50	916.45	11487.	3852.0
#2	373.57	916.46	11475.	3847.7
#3	372.45	910.59	11599.	3815.6

Zoom In Zoom Out

Sample Name: MP43240-D1 Acquired: 12/6/2023 14:21:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0160**	**.0009**	**.4027**	**.1252**	**.0000**	**126.7**	**-.0001**	**.0001**
Stddev	.0004	.0060	.0005	.0018	.0001	.000	.7	.0001	.0001
%RSD	3743.	37.73	55.56	.4406	.1047	215.0	.5300	51.08	72.29
#1	.0004	.0168	.0003	.4044	.1252	-.0001	126.0	-.0001	.0000
#2	.0001	.0216	.0013	.4008	.1251	.0000	126.7	-.0001	.0001
#3	-.0005	.0096	.0011	.4030	.1254	.0000	127.3	-.0002	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0151**	**.6443**	**1.992**	**.0131**	**128.4**	**.7336**	**.0062**	F **531.0**
Stddev	.0002	.0003	.0039	.012	.0001	.4	.0027	.0002	8.4
%RSD	389.3	1.777	.6060	.5877	1.058	.2849	.3625	2.554	1.587
#1	.0000	.0154	.6458	1.979	.0130	128.1	.7367	.0063	523.6
#2	-.0001	.0149	.6398	1.999	.0132	128.2	.7319	.0060	529.1
#3	.0003	.0151	.6471	1.999	.0131	128.8	.7323	.0063	540.2

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0046**	**-.0010**	**.0006**	**.0024**	**10.99**	**.0150**	**.9845**	**.0009**	**-.0013**
Stddev	.0002	.0013	.0004	.0019	.01	.0004	.0018	.0000	.0022
%RSD	4.562	133.5	69.15	80.73	.0878	2.805	.1788	5.313	165.4
#1	.0044	.0002	.0004	.0037	10.99	.0145	.9825	.0009	-.0029
#2	.0048	-.0024	.0003	.0002	10.98	.0153	.9853	.0009	.0012
#3	.0046	-.0008	.0011	.0034	11.00	.0152	.9857	.0010	-.0023

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0045**	**.0516**
Stddev	.0003	.0003
%RSD	5.581	.5730
#1	.0043	.0516
#2	.0048	.0512
#3	.0044	.0518

Zoom In Zoom Out

Sample Name: MP43240-D1 Acquired: 12/6/2023 14:21:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**373.83**	**928.57**	**11633.**	**3945.2**
Stddev	.86	.89	31.	21.5
%RSD	.23015	.09624	.26403	.54452
#1	373.45	928.73	11603.	3966.7
#2	374.81	929.37	11664.	3945.0
#3	373.22	927.61	11632.	3923.8

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 14:27:03 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2500**	**39.68**	**2.003**	**2.072**	**2.024**	**1.980**	**39.19**	**2.000**	**2.008**
Stddev	.0018	.16	.005	.012	.006	.007	.25	.005	.004
%RSD	.7096	.3923	.2765	.5832	.2782	.3382	.6328	.2287	.1903
#1	.2480	39.65	2.000	2.062	2.019	1.974	39.29	1.995	2.004
#2	.2507	39.85	2.000	2.068	2.030	1.987	39.37	2.003	2.011
#3	.2513	39.55	2.009	2.085	2.022	1.979	38.91	2.003	2.010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.956**	**2.002**	**39.52**	**40.05**	**2.002**	**39.23**	**1.974**	**2.020**	**40.34**
Stddev	.020	.007	.13	.26	.009	.09	.006	.004	.15
%RSD	.9973	.3549	.3246	.6456	.4487	.2353	.2836	.2238	.3656
#1	1.934	1.994	39.48	39.75	1.996	39.17	1.968	2.015	40.20
#2	1.965	2.008	39.66	40.22	2.013	39.33	1.978	2.022	40.49
#3	1.970	2.004	39.41	40.17	1.998	39.17	1.977	2.023	40.34
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.006**	**1.979**	**2.012**	**2.019**	**2.160**	**2.008**	**1.996**	**1.995**	**2.001**
Stddev	.008	.005	.003	.001	.006	.006	.006	.006	.019
%RSD	.3842	.2657	.1287	.0610	.2693	.3015	.3114	.2954	.9637
#1	1.998	1.980	2.011	2.018	2.154	2.002	1.989	1.988	1.991
#2	2.006	1.984	2.010	2.020	2.159	2.007	2.001	1.996	1.990
#3	2.013	1.973	2.015	2.019	2.166	2.014	1.997	2.000	2.024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 14:27:03 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.972**	**1.982**
Stddev	.014	.004
%RSD	.7236	.1857
#1	1.956	1.980
#2	1.980	1.987
#3	1.981	1.981
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**431.73**	**1042.2**	**13106.**	**4148.2**
Stddev	1.16	4.4	29.	13.2
%RSD	.26827	.42225	.22324	.31739
#1	433.05	1046.4	13140.	4145.0
#2	430.89	1042.6	13088.	4136.8
#3	431.25	1037.7	13090.	4162.6

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 14:41:04 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0021**	**-.0012**	**-.0001**	**.0000**	**.0000**	**.0017**	**.0000**	**.0000**
Stddev	.000	.0039	.0024	.0006	.0000	.000	.0008	.0000	.0000
%RSD	796.8	182.4	199.2	1104.	187.1	99.34	49.69	161.1	457.0
#1	-.0004	-.0015	.0000	.0003	.0000	.0000	.0008	.0000	.0000
#2	.0003	-.0063	-.0040	.0003	.0001	.0000	.0018	.0000	.0000
#3	.0000	.0014	.0003	-.0007	.0000	.0000	.0025	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0003**	**.0000**	**-.0048**	**.0003**	**.0028**	**.0000**	**-.0002**	**.0063**
Stddev	.0001	.0002	.0003	.0127	.0004	.0193	.000	.0002	.0025
%RSD	143.6	64.10	4064.	263.4	106.6	691.9	374.1	92.18	38.92
#1	-.0001	.0002	.0002	-.0119	.0000	.0158	.0000	-.0001	.0063
#2	.0000	.0001	.0002	-.0124	.0007	.0119	.0000	-.0003	.0039
#3	-.0002	.0004	-.0003	.0099	.0003	-.0194	.0000	.0000	.0088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0002**	**.0008**	**-.0002**	**.0020**	**-.0003**	**.0000**	**-.0001**	**.0010**
Stddev	.0002	.0005	.0008	.0019	.0002	.0004	.0000	.0000	.0014
%RSD	251.9	238.4	106.2	915.5	9.779	153.1	33.94	13.82	139.3
#1	.0002	.0007	.0013	-.0022	.0018	.0002	.0000	-.0001	.0026
#2	-.0001	.0002	-.0002	.0001	.0022	-.0003	.0000	-.0001	.0005
#3	-.0003	-.0003	.0012	.0015	.0021	-.0006	.0000	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass		None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 14:41:04 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0003**
Stddev	.0001	.0000
%RSD	1424.	10.63
#1	.0000	-.0003
#2	-.0001	-.0004
#3	.0001	-.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**516.00**	**1106.5**	**13778.**	**4145.8**
Stddev	1.69	.9	28.	18.1
%RSD	.32780	.08023	.20562	.43756
#1	517.07	1107.5	13799.	4147.5
#2	516.87	1106.0	13746.	4163.1
#3	514.05	1106.0	13790.	4126.9

Zoom In Zoom Out

Sample Name: MP43240-SD1 Acquired: 12/6/2023 14:46:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0188**	**-.0100**	**.3525**	**.1189**	**-.0002**	**123.5**	**-.0001**	**.0005**
Stddev	.0007	.0054	.0030	.0044	.0003	.0001	.9	.0005	.0009
%RSD	50.32	28.57	29.88	1.241	.2720	74.55	.7585	437.1	167.1
#1	.0006	.0156	-.0124	.3475	.1186	-.0002	122.4	-.0007	.0016
#2	.0017	.0158	-.0066	.3543	.1187	-.0003	124.0	.0003	.0002
#3	.0020	.0250	-.0111	.3557	.1192	.0000	124.1	.0000	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**.0132**	**.6216**	**1.708**	**.0116**	**118.1**	**.7166**	**.0049**	F **519.9**
Stddev	.0018	.0008	.0088	.061	.0008	.9	.0040	.0012	.7
%RSD	119.6	5.963	1.416	3.547	6.512	.7595	.5616	24.89	.1315
#1	-.0035	.0128	.6126	1.772	.0115	117.1	.7207	.0035	519.2
#2	-.0010	.0128	.6302	1.651	.0108	118.4	.7126	.0057	520.4
#3	.0000	.0141	.6221	1.702	.0123	118.9	.7165	.0055	520.3

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0010**	**.0032**	**-.0050**	**10.28**	**.0142**	**.9250**	**.0035**	**-.0032**
Stddev	.0020	.0105	.0054	.0051	.04	.0010	.0007	.0008	.0058
%RSD	69.04	1028.	170.2	101.8	.3796	6.836	.0796	23.08	180.2
#1	.0035	-.0082	-.0030	-.0077	10.26	.0135	.9259	.0042	.0031
#2	.0045	.0124	.0057	.0009	10.25	.0138	.9244	.0037	-.0045
#3	.0006	-.0012	.0069	-.0082	10.32	.0153	.9248	.0026	-.0082

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0053**	**.0498**
Stddev	.0012	.0009
%RSD	22.14	1.895
#1	.0066	.0488
#2	.0042	.0500
#3	.0052	.0507

Zoom In Zoom Out

Sample Name: MP43240-SD1 Acquired: 12/6/2023 14:46:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**441.81**	**1034.0**	**12904.**	**4125.8**
Stddev	1.74	5.0	51.	28.1
%RSD	.39402	.48050	.39566	.68007
#1	443.06	1038.7	12846.	4157.9
#2	442.55	1034.4	12944.	4113.6
#3	439.82	1028.8	12921.	4105.9

Zoom In Zoom Out

Sample Name: MP43240-PS1 Acquired: 12/6/2023 14:51:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0567**	**2.712**	**.1133**	**.3963**	**.3902**	**.0529**	**129.2**	**.0517**	**.0507**
Stddev	.0009	.005	.0008	.0047	.0017	.0001	1.0	.0001	.0003
%RSD	1.544	.1847	.6935	1.194	.4258	.1532	.7898	.1940	.5176
#1	.0570	2.707	.1124	.3917	.3883	.0529	130.3	.0516	.0506
#2	.0557	2.716	.1137	.3962	.3914	.0530	128.3	.0518	.0506
#3	.0574	2.713	.1137	.4011	.3909	.0528	129.2	.0518	.0510

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0531**	**.1238**	**3.726**	**13.19**	**.0136**	**132.9**	**.7667**	**.1053**	F **538.4**
Stddev	.0004	.0003	.001	.10	.0003	.5	.0053	.0006	6.1
%RSD	.7167	.2714	.0246	.7458	2.242	.3750	.6967	.6003	1.129
#1	.0532	.1242	3.725	13.09	.0140	133.4	.7692	.1046	542.7
#2	.0526	.1238	3.726	13.28	.0136	132.4	.7606	.1053	531.4
#3	.0534	.1236	3.727	13.19	.0134	133.0	.7703	.1059	541.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1060**	**.0481**	**.1150**	**.1076**	**10.87**	**.0654**	**1.028**	**.1072**	**.0916**
Stddev	.0005	.0017	.0038	.0034	.02	.0004	.006	.0005	.0044
%RSD	.5061	3.616	3.273	3.128	.2024	.5929	.5706	.4290	4.819
#1	.1057	.0497	.1190	.1085	10.85	.0651	1.022	.1078	.0865
#2	.1057	.0484	.1146	.1105	10.87	.0652	1.034	.1069	.0942
#3	.1066	.0463	.1115	.1039	10.89	.0658	1.027	.1070	.0940

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0578**	**.3018**
Stddev	.0002	.0006
%RSD	.2811	.2098
#1	.0580	.3015
#2	.0577	.3025
#3	.0578	.3013

Zoom In Zoom Out

Sample Name: MP43240-PS1 Acquired: 12/6/2023 14:51:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**370.91**	**917.98**	**11602.**	**3883.3**
Stddev	1.01	2.44	60.	15.7
%RSD	.27171	.26585	.52137	.40424
#1	371.45	920.52	11613.	3867.7
#2	371.53	917.76	11656.	3899.1
#3	369.74	915.65	11537.	3883.2

Zoom In Zoom Out

Sample Name: MP43240-S1 Acquired: 12/6/2023 14:56:19 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2081**	**24.84**	**.2082**	F **.9415**	**.3250**	**.1983**	**164.3**	**.1862**	**.1834**
Stddev	.0004	.06	.0015	.0027	.0012	.0005	1.0	.0005	.0003
%RSD	.2056	.2446	.7421	.2825	.3685	.2331	.6290	.2492	.1675
#1	.2082	24.80	.2098	.9409	.3237	.1979	164.7	.1859	.1838
#2	.2085	24.82	.2067	.9444	.3252	.1981	163.1	.1867	.1832
#3	.2076	24.91	.2082	.9392	.3261	.1988	165.1	.1860	.1833

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1955**	**.2246**	**42.55**	**49.83**	F **.5458**	**172.2**	**.9003**	**.6528**	F **567.0**
Stddev	.0028	.0003	.17	.52	.0018	.7	.0060	.0004	3.5
%RSD	1.429	.1336	.4078	1.036	.3268	.4153	.6714	.0549	.6178
#1	.1927	.2243	42.51	49.24	.5438	171.5	.8934	.6530	566.6
#2	.1983	.2249	42.39	50.16	.5473	172.3	.9042	.6531	570.7
#3	.1956	.2245	42.74	50.09	.5464	172.9	.9034	.6524	563.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1893**	**.1874**	**.2141**	**.2028**	**11.49**	**.4744**	**1.493**	**.4929**	**.1774**
Stddev	.0004	.0009	.0000	.0018	.03	.0004	.009	.0009	.0023
%RSD	.2148	.4737	.0079	.9015	.2737	.0910	.5957	.1850	1.271
#1	.1897	.1883	.2141	.2010	11.48	.4740	1.483	.4919	.1764
#2	.1893	.1873	.2141	.2029	11.52	.4745	1.498	.4937	.1759
#3	.1889	.1865	.2141	.2046	11.46	.4748	1.499	.4931	.1800

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2059**	**.2303**
Stddev	.0014	.0007
%RSD	.6994	.2854
#1	.2045	.2307
#2	.2074	.2295
#3	.2058	.2306

Zoom In Zoom Out

Sample Name: MP43240-S1 Acquired: 12/6/2023 14:56:19 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**359.31**	**916.89**	**11457.**	**3893.2**
Stddev	.59	1.90	56.	22.5
%RSD	.16354	.20688	.48897	.57697
#1	359.78	918.87	11511.	3908.6
#2	359.49	915.10	11399.	3903.5
#3	358.65	916.70	11461.	3867.4

Zoom In Zoom Out

Sample Name: MP43270-S2 Acquired: 12/6/2023 15:01:21 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2057	24.42	.2033	F .9218	.3197	.1925	162.9	.1836	.1815
Stddev	.0013	.06	.0021	.0028	.0005	.0006	.2	.0004	.0004
%RSD	.6367	.2365	1.015	.3053	.1595	.3106	.1345	.2082	.1934
#1	.2046	24.45	.2037	.9250	.3201	.1932	162.7	.1837	.1816
#2	.2072	24.35	.2011	.9197	.3191	.1920	163.1	.1831	.1811
#3	.2054	24.45	.2052	.9207	.3198	.1925	162.8	.1838	.1817

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1921	.2196	41.95	47.63	F .5380	166.6	.9003	.6446	F 550.7
Stddev	.0013	.0007	.08	.25	.0027	.5	.0034	.0003	6.3
%RSD	.6832	.3000	.1896	.5283	.5092	.2878	.3781	.0536	1.141
#1	.1927	.2191	41.89	47.90	.5406	167.2	.9008	.6449	543.6
#2	.1931	.2204	41.92	47.41	.5351	166.3	.9033	.6443	555.4
#3	.1906	.2195	42.04	47.57	.5382	166.3	.8966	.6446	553.2

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1842	.1874	.2119	.2021	11.30	.4651	1.447	.4797	.1756
Stddev	.0012	.0007	.0006	.0014	.04	.0017	.005	.0020	.0029
%RSD	.6477	.3899	.3047	.6899	.3169	.3613	.3611	.4187	1.664
#1	.1847	.1881	.2116	.2036	11.32	.4662	1.453	.4794	.1783
#2	.1828	.1867	.2127	.2008	11.31	.4659	1.442	.4818	.1725
#3	.1850	.1873	.2116	.2021	11.26	.4632	1.447	.4778	.1762

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.2029	.2299
Stddev	.0008	.0009
%RSD	.4055	.4100
#1	.2027	.2293
#2	.2038	.2294
#3	.2022	.2310

Zoom In Zoom Out

Sample Name: MP43270-S2 Acquired: 12/6/2023 15:01:21 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	362.65	934.02	11608.	4002.6
Stddev	.93	1.63	36.	3.7
%RSD	.25594	.17501	.30693	.09185
#1	361.58	932.84	11635.	4004.5
#2	363.20	933.34	11567.	3998.4
#3	363.16	935.89	11620.	4005.0

Zoom In Zoom Out

Sample Name: FC11662-2 Acquired: 12/6/2023 15:06:22 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001	.0221	-.0019	.4186	.1118	.0000	129.8	-.0001	.0003
Stddev	.0000	.0032	.0009	.0027	.0006	.000	.2	.0002	.0002
%RSD	49.20	14.58	49.63	.6512	.4968	99.51	.1822	165.8	83.05
#1	.0000	.0202	-.0028	.4197	.1120	.0000	129.6	-.0002	.0002
#2	.0001	.0202	-.0018	.4155	.1112	-.0001	130.0	.0001	.0001
#3	.0000	.0258	-.0009	.4206	.1123	.0000	129.9	-.0002	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000	.0290	.6120	2.001	.0125	129.8	.7482	.0068	F 543.3
Stddev	.0001	.0003	.0035	.025	.0005	.6	.0016	.0001	5.3
%RSD	442.3	.9389	.5714	1.223	4.287	.4744	.2102	1.614	.9667
#1	-.0001	.0289	.6093	1.994	.0124	129.2	.7491	.0067	538.8
#2	.0002	.0288	.6108	1.982	.0131	129.6	.7492	.0069	542.1
#3	.0000	.0293	.6159	2.029	.0121	130.4	.7464	.0069	549.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046	.0029	.0012	-.0004	11.36	.0279	.9930	.0010	-.0021
Stddev	.0005	.0004	.0016	.0012	.06	.0005	.0056	.0003	.0018
%RSD	11.52	12.49	136.6	329.1	.5229	1.786	.5608	26.52	88.29
#1	.0044	.0031	.0013	-.0005	11.30	.0284	.9943	.0013	-.0004
#2	.0052	.0032	-.0005	.0009	11.35	.0274	.9868	.0009	-.0040
#3	.0042	.0025	.0028	-.0015	11.42	.0279	.9977	.0008	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	.0043	.1349
Stddev	.0002	.0004
%RSD	4.736	.3194
#1	.0045	.1352
#2	.0041	.1351
#3	.0043	.1344

Zoom In Zoom Out

Sample Name: FC11662-2 Acquired: 12/6/2023 15:06:22 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	369.32	913.18	11623.	3973.6
Stddev	1.57	4.97	23.	19.4
%RSD	.42499	.54425	.19652	.48773
#1	367.99	917.89	11600.	3994.0
#2	371.05	913.66	11646.	3971.4
#3	368.93	907.99	11622.	3955.4

Zoom In Zoom Out

Sample Name: FC11642-3 Acquired: 12/6/2023 15:11:33 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0064**	**.0075**	**.0292**	**.5540**	**.0000**	**67.63**	**-.0005**	**.0000**
Stddev	.0001	.0021	.0009	.0009	.0033	.0001	.44	.0001	.0001
%RSD	14.84	32.19	11.36	2.963	.5935	473.4	.6490	11.07	222.2
#1	.0007	.0084	.0085	.0290	.5558	.0001	68.12	-.0005	-.0001
#2	.0009	.0043	.0069	.0284	.5502	.0000	67.49	-.0004	.0000
#3	.0007	.0065	.0071	.0301	.5560	-.0001	67.28	-.0005	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**9.869**	**2.602**	**.0111**	**9.813**	**1.561**	**.0015**	**13.24**
Stddev	.0005	.0001	.033	.014	.0002	.108	.012	.0003	.09
%RSD	1668.	90.03	.3347	.5256	1.465	1.102	.7810	22.23	.6611
#1	-.0005	.0003	9.904	2.609	.0110	9.919	1.573	.0017	13.28
#2	.0004	.0000	9.838	2.586	.0110	9.703	1.549	.0011	13.15
#3	.0002	.0001	9.866	2.611	.0113	9.818	1.562	.0016	13.31

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0018**	**.0007**	**-.0012**	**11.31**	**.0001**	**.3017**	**.0010**	**.0012**
Stddev	.0002	.0011	.0006	.0010	.06	.0007	.0018	.0001	.0010
%RSD	56.05	61.60	97.01	83.85	.4874	559.7	.6113	9.291	86.36
#1	-.0002	-.0005	.0000	-.0010	11.25	.0005	.3025	.0010	.0005
#2	-.0005	-.0026	.0013	-.0003	11.32	.0005	.2996	.0010	.0007
#3	-.0003	-.0022	.0007	-.0022	11.36	-.0006	.3031	.0011	.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0003**	**.0027**
Stddev	.0001	.0002
%RSD	34.40	6.177
#1	.0004	.0025
#2	.0002	.0029
#3	.0005	.0028

Zoom In Zoom Out

Sample Name: FC11642-3 Acquired: 12/6/2023 15:11:33 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**454.77**	**1022.9**	**13240.**	**4102.6**
Stddev	1.05	5.3	69.	29.3
%RSD	.23077	.51693	.51760	.71337
#1	453.69	1029.0	13173.	4071.2
#2	455.78	1020.6	13310.	4129.1
#3	454.84	1019.2	13238.	4107.5

Zoom In Zoom Out

Sample Name: FC11642-4 Acquired: 12/6/2023 15:16:35 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**1.740**	**-.0015**	**.0117**	**.1016**	**.0000**	**36.22**	**-.0001**	**.0003**
Stddev	.0002	.008	.0008	.0018	.0006	.0001	.19	.0001	.0000
%RSD	86.35	.4783	50.72	15.58	.6219	145.7	.5277	111.6	12.44
#1	.0001	1.747	-.0011	.0096	.1012	.0000	36.34	-.0001	.0003
#2	.0006	1.742	-.0024	.0125	.1023	.0001	36.32	.0000	.0002
#3	.0002	1.730	-.0011	.0129	.1012	.0000	36.00	-.0001	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**.0083**	**1.811**	**4.308**	**.0042**	**4.547**	**.0334**	**.0006**	**15.73**
Stddev	.0002	.0002	.017	.027	.0006	.056	.0001	.0002	.06
%RSD	8.604	2.152	.9455	.6223	13.25	1.226	.2523	27.63	.4025
#1	.0017	.0085	1.819	4.295	.0048	4.558	.0333	.0008	15.71
#2	.0020	.0083	1.822	4.339	.0038	4.596	.0335	.0007	15.80
#3	.0018	.0081	1.791	4.291	.0040	4.486	.0334	.0004	15.68

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0036**	**.0026**	**.0011**	**5.823**	**.0005**	**.1726**	**.0373**	**-.0014**
Stddev	.0002	.0014	.0008	.0015	.013	.0005	.0009	.0010	.0007
%RSD	14.44	38.58	32.74	144.1	.2171	101.4	.5136	2.564	47.30
#1	.0013	.0044	.0022	.0021	5.815	.0009	.1723	.0380	-.0018
#2	.0017	.0020	.0019	-.0007	5.838	.0000	.1736	.0376	-.0006
#3	.0017	.0043	.0035	.0018	5.817	.0004	.1719	.0362	-.0017

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0045**	**.0163**
Stddev	.0001	.0002
%RSD	2.821	1.008
#1	.0044	.0165
#2	.0046	.0162
#3	.0046	.0162

Zoom In Zoom Out

Sample Name: FC11642-4 Acquired: 12/6/2023 15:16:35 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**471.95**	**1047.2**	**13324.**	**4129.1**
Stddev	1.09	1.3	24.	32.1
%RSD	.23009	.12736	.17897	.77752
#1	472.81	1047.5	13350.	4122.6
#2	470.73	1045.7	13319.	4100.7
#3	472.30	1048.3	13303.	4164.0

Zoom In Zoom Out

Sample Name: FC11642-5 Acquired: 12/6/2023 15:21:38 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**1.593**	**-.0006**	**.0115**	**.0998**	**.0001**	**35.75**	**-.0001**	**.0000**
Stddev	.000	.015	.0006	.0004	.0006	.0000	.07	.0000	.0001
%RSD	3485.	.9462	94.94	3.108	.5611	58.33	.1981	28.86	566.7
#1	.0004	1.588	.0000	.0112	.1002	.0000	35.71	-.0001	-.0001
#2	-.0003	1.581	-.0011	.0113	.0991	.0001	35.83	-.0001	.0001
#3	-.0001	1.610	-.0007	.0119	.1000	.0001	35.71	-.0001	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.0094**	**1.663**	**4.002**	**.0035**	**4.368**	**.0290**	**.0008**	**15.12**
Stddev	.0003	.0001	.002	.014	.0002	.024	.0000	.0002	.05
%RSD	10.49	1.206	.1220	.3484	6.583	.5401	.1607	23.51	.3271
#1	.0022	.0092	1.661	4.015	.0033	4.342	.0290	.0010	15.16
#2	.0024	.0094	1.664	3.987	.0037	4.388	.0291	.0007	15.07
#3	.0027	.0095	1.664	4.004	.0034	4.373	.0290	.0008	15.13

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**.0033**	**.0016**	**.0011**	**5.589**	**-.0001**	**.1686**	**.0332**	**-.0010**
Stddev	.0001	.0007	.0016	.0016	.012	.0005	.0006	.0002	.0010
%RSD	9.270	22.58	102.7	138.6	.2199	970.3	.3776	.4835	104.1
#1	.0014	.0024	.0024	.0023	5.601	.0005	.1687	.0334	.0001
#2	.0016	.0035	-.0003	-.0007	5.576	-.0001	.1679	.0331	-.0019
#3	.0016	.0038	.0026	.0017	5.591	-.0005	.1691	.0332	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0042**	**.0177**
Stddev	.0001	.0000
%RSD	3.098	.2044
#1	.0044	.0176
#2	.0042	.0176
#3	.0041	.0177

Zoom In Zoom Out

Sample Name: FC11642-5 Acquired: 12/6/2023 15:21:38 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**468.31**	**1035.3**	**13088.**	**4066.3**
Stddev	2.46	2.4	60.	7.1
%RSD	.52594	.22885	.45720	.17447
#1	470.90	1034.9	13110.	4070.1
#2	468.05	1037.9	13020.	4070.6
#3	465.99	1033.2	13133.	4058.1

Zoom In Zoom Out

Sample Name: FC11642-6 Acquired: 12/6/2023 15:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**1.026**	**-.0006**	**.0168**	**.1701**	**.0000**	**40.58**	**-.0001**	**.0000**
Stddev	.0001	.006	.0012	.0009	.0004	.000	.09	.0001	.0001
%RSD	86.01	.5900	208.9	5.235	.2362	60.46	.2311	44.95	173.1
#1	.0001	1.021	.0005	.0158	.1697	.0000	40.56	-.0002	.0001
#2	.0003	1.033	-.0004	.0176	.1705	.0000	40.69	-.0002	.0000
#3	.0000	1.024	-.0019	.0169	.1700	.0000	40.51	-.0001	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0074**	**1.314**	**3.677**	**.0063**	**5.336**	**.0622**	**.0010**	**14.58**
Stddev	.0001	.0001	.001	.014	.0007	.066	.0001	.0001	.05
%RSD	8.159	2.022	.0596	.3850	10.43	1.229	.2108	9.989	.3216
#1	.0015	.0073	1.313	3.663	.0070	5.274	.0622	.0009	14.54
#2	.0017	.0076	1.314	3.691	.0063	5.404	.0624	.0010	14.63
#3	.0015	.0073	1.313	3.677	.0057	5.330	.0621	.0011	14.56

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0012**	**.0022**	**-.0003**	**6.655**	**.0002**	**.1838**	**.0233**	**-.0004**
Stddev	.0002	.0012	.0009	.0012	.017	.0002	.0004	.0003	.0009
%RSD	17.63	95.55	41.05	373.8	.2577	98.18	.2060	1.089	199.6
#1	.0010	.0026	.0013	.0000	6.665	.0000	.1839	.0234	-.0008
#2	.0010	.0003	.0031	-.0016	6.665	.0004	.1841	.0235	.0005
#3	.0007	.0009	.0023	.0007	6.636	.0001	.1834	.0230	-.0011

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0027**	**.0108**
Stddev	.0001	.0001
%RSD	5.011	.4920
#1	.0027	.0109
#2	.0026	.0108
#3	.0028	.0108

Zoom In Zoom Out

Sample Name: FC11642-6 Acquired: 12/6/2023 15:26:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.73**	**1044.4**	**13078.**	**4197.9**
Stddev	.77	2.0	31.	14.4
%RSD	.16496	.19283	.23593	.34300
#1	466.47	1043.6	13114.	4212.9
#2	467.60	1043.0	13060.	4184.2
#3	466.12	1046.7	13061.	4196.7

Zoom In Zoom Out

Sample Name: FC11646-1 Acquired: 12/6/2023 15:31:45 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0290**	**.0023**	**.0859**	**.0138**	**-.0001**	**92.18**	**-.0001**	**-.0003**
Stddev	.0003	.0065	.0013	.0005	.0001	.0000	.53	.0001	.0001
%RSD	119.1	22.47	57.07	.5772	.7622	25.59	.5718	85.05	50.36
#1	.0002	.0362	.0019	.0860	.0137	-.0001	92.31	-.0001	-.0003
#2	.0006	.0271	.0038	.0854	.0138	-.0001	92.62	-.0001	-.0004
#3	.0000	.0236	.0013	.0864	.0139	-.0001	91.60	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0036**	**.0534**	**15.12**	**.0246**	**3.994**	**.0085**	**.0076**	**44.24**
Stddev	.0003	.0003	.0015	.12	.0005	.009	.0001	.0000	.42
%RSD	46.06	7.102	2.775	.7607	2.081	.2386	.9209	.3841	.9446
#1	.0007	.0038	.0538	15.07	.0244	3.986	.0084	.0077	43.96
#2	.0004	.0038	.0546	15.04	.0242	3.991	.0085	.0076	44.05
#3	.0011	.0033	.0518	15.25	.0252	4.004	.0086	.0076	44.72

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**-.0016**	**.0009**	**.0021**	**7.123**	**.0003**	**.6429**	**.0014**	**-.0009**
Stddev	.0001	.0004	.0010	.0023	.031	.0002	.0018	.0001	.0010
%RSD	33.97	23.62	103.0	107.2	.4398	58.91	.2864	3.728	114.6
#1	.0003	-.0012	.0020	.0015	7.142	.0005	.6421	.0014	-.0017
#2	.0002	-.0020	.0008	.0046	7.141	.0002	.6417	.0014	.0002
#3	.0004	-.0016	.0001	.0002	7.087	.0002	.6451	.0013	-.0012

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0175**	**.0211**
Stddev	.0004	.0001
%RSD	2.550	.3171
#1	.0171	.0211
#2	.0180	.0212
#3	.0175	.0211

Zoom In Zoom Out

Sample Name: FC11646-1 Acquired: 12/6/2023 15:31:45 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**440.06**	**1010.7**	**12891.**	**4163.7**
Stddev	.45	3.7	30.	8.6
%RSD	.10181	.36144	.22888	.20705
#1	439.91	1008.6	12875.	4162.9
#2	439.72	1008.5	12925.	4155.5
#3	440.57	1014.9	12872.	4172.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 15:36:47 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2463**	**39.21**	**2.014**	**2.110**	**2.014**	**1.943**	**38.29**	**1.991**	**2.003**
Stddev	.0003	.21	.004	.022	.013	.005	.17	.002	.002
%RSD	.1419	.5304	.1892	1.033	.6338	.2791	.4316	.1044	.1123
#1	.2460	39.00	2.018	2.091	2.008	1.936	38.11	1.990	2.001
#2	.2467	39.22	2.013	2.106	2.006	1.946	38.43	1.989	2.001
#3	.2463	39.41	2.011	2.134	2.029	1.946	38.33	1.993	2.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.922**	**1.986**	**38.86**	**39.01**	**2.006**	**37.71**	**1.956**	**2.022**	**39.83**
Stddev	.010	.009	.20	.12	.016	.10	.005	.004	.19
%RSD	.5051	.4271	.5097	.3041	.7915	.2534	.2667	.2148	.4755
#1	1.923	1.978	38.64	38.87	1.994	37.64	1.955	2.017	39.68
#2	1.912	1.995	39.03	39.05	2.000	37.82	1.952	2.022	39.78
#3	1.932	1.984	38.90	39.10	2.024	37.67	1.962	2.026	40.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.974**	**1.981**	**2.026**	**2.028**	**2.156**	**1.995**	**1.969**	**1.963**	**1.955**
Stddev	.004	.003	.004	.007	.007	.002	.008	.005	.011
%RSD	.1783	.1701	.1888	.3469	.3430	.1223	.3851	.2393	.5467
#1	1.971	1.984	2.022	2.028	2.147	1.993	1.961	1.959	1.956
#2	1.974	1.981	2.027	2.022	2.158	1.997	1.969	1.968	1.966
#3	1.978	1.978	2.030	2.036	2.161	1.994	1.976	1.962	1.944
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 15:36:47 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**1.935**	**1.965**
Stddev	.003	.006
%RSD	.1737	.2917
#1	1.932	1.971
#2	1.935	1.962
#3	1.939	1.961
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**429.35**	**1038.0**	**13134.**	**4279.9**
Stddev	1.46	4.1	32.	12.2
%RSD	.34010	.39713	.24735	.28532
#1	431.03	1042.6	13171.	4292.4
#2	428.40	1036.9	13111.	4268.0
#3	428.63	1034.6	13120.	4279.4

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 15:41:30 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0044**	**-.0018**	**-.0005**	**.0002**	**.0002**	**.0048**	**.0000**	**.0000**
Stddev	.0004	.0032	.0016	.0005	.0001	.0000	.0002	.000	.0001
%RSD	231.8	71.60	91.86	98.42	27.42	15.29	4.594	890.0	946.2
#1	.0004	.0034	-.0031	-.0010	.0003	.0002	.0046	.0000	.0000
#2	-.0003	.0019	.0000	-.0004	.0002	.0002	.0048	-.0001	.0001
#3	.0004	.0080	-.0022	-.0001	.0001	.0001	.0050	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0035**	**-.0069**	**.0004**	**.0060**	**.0001**	**.0002**	**.0135**
Stddev	.000	.0001	.0018	.0075	.0007	.0048	.0000	.0001	.0028
%RSD	701.3	548.7	51.65	108.7	184.8	80.92	22.84	45.24	21.01
#1	-.0003	-.0001	.0017	-.0033	.0012	.0115	.0001	.0003	.0137
#2	.0002	.0001	.0035	-.0019	-.0002	.0041	.0001	.0001	.0106
#3	.0000	.0000	.0053	-.0156	.0001	.0024	.0001	.0001	.0162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0003**	**.0018**	**.0028**	**-.0004**	**.0002**	**.0001**	**.0010**
Stddev	.0002	.0003	.0009	.0019	.0007	.0008	.0000	.0001	.0016
%RSD	274.9	247.2	288.7	103.4	25.52	189.3	12.55	60.02	154.1
#1	-.0002	-.0002	-.0008	.0026	.0022	-.0014	.0001	.0002	.0021
#2	.0002	.0003	.0009	-.0003	.0026	.0000	.0001	.0001	-.0008
#3	.0002	.0002	.0008	.0032	.0036	.0001	.0002	.0001	.0017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 15:41:30 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0003**
Stddev	.000	.0001
%RSD	1291.	46.08
#1	.0000	-.0005
#2	-.0001	-.0003
#3	.0001	-.0002
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**511.28**	**1090.3**	**14107.**	**4186.5**
Stddev	2.62	3.0	31.	18.8
%RSD	.51253	.27961	.21847	.44815
#1	514.29	1092.6	14125.	4206.0
#2	509.51	1091.4	14125.	4185.1
#3	510.03	1086.8	14072.	4168.5

Zoom In Zoom Out

Sample Name: FC11646-2 Acquired: 12/6/2023 15:46:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0312**	**.0280**	**.0464**	**.0169**	**.0000**	**52.30**	**-.0002**	**-.0002**
Stddev	.0002	.0014	.0016	.0008	.0002	.000	.44	.0000	.0000
%RSD	88.86	4.422	5.862	1.733	.9893	179.9	.8370	13.45	28.54
#1	.0003	.0325	.0273	.0460	.0167	-.0001	52.67	-.0002	-.0002
#2	.0004	.0313	.0299	.0458	.0169	.0000	52.40	-.0002	-.0001
#3	.0000	.0298	.0269	.0473	.0171	.0000	51.81	-.0002	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0020**	**.8227**	**7.597**	**.0011**	**5.170**	**.0068**	**.0025**	**15.41**
Stddev	.0002	.0002	.0050	.057	.0003	.035	.0001	.0002	.14
%RSD	11.77	8.765	.6097	.7495	30.43	.6712	1.060	6.926	.8960
#1	.0013	.0018	.8281	7.533	.0007	5.210	.0067	.0026	15.28
#2	.0011	.0020	.8183	7.619	.0013	5.155	.0069	.0023	15.40
#3	.0014	.0021	.8215	7.641	.0013	5.145	.0069	.0027	15.55

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0015**	**.0002**	**.0007**	**2.980**	**.0009**	**.4063**	**.0016**	**-.0008**
Stddev	.0001	.0001	.0015	.0006	.001	.0002	.0025	.0000	.0011
%RSD	44.24	4.002	619.8	85.70	.0482	25.33	.6180	1.955	128.7
#1	-.0002	-.0015	.0005	.0013	2.979	.0007	.4049	.0016	-.0001
#2	-.0003	-.0014	.0016	.0009	2.981	.0011	.4047	.0016	-.0020
#3	-.0005	-.0015	-.0014	.0000	2.981	.0007	.4092	.0016	-.0003

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0011**	**.0942**
Stddev	.0002	.0005
%RSD	17.87	.5675
#1	.0013	.0936
#2	.0009	.0947
#3	.0011	.0943

Zoom In Zoom Out

Sample Name: FC11646-2 Acquired: 12/6/2023 15:46:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**461.90**	**1018.8**	**13152.**	**4074.8**
Stddev	.90	1.9	42.	20.3
%RSD	.19429	.18755	.32115	.49901
#1	461.00	1016.9	13199.	4062.9
#2	461.91	1020.7	13139.	4063.1
#3	462.79	1018.9	13118.	4098.3

Zoom In Zoom Out

Sample Name: FC11646-3 Acquired: 12/6/2023 15:51:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.1929**	**.0832**	**.0430**	**.0113**	**.0000**	**33.28**	**-.0004**	**-.0002**
Stddev	.0004	.0074	.0008	.0005	.0001	.000	.17	.0000	.0001
%RSD	55.48	3.845	.9223	1.137	.5106	62.40	.5085	9.677	37.71
#1	.0010	.1848	.0825	.0434	.0114	.0000	33.29	-.0004	-.0003
#2	.0009	.1944	.0830	.0432	.0113	.0000	33.44	-.0004	-.0001
#3	.0003	.1994	.0840	.0425	.0113	.0000	33.11	-.0003	-.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024**	**.0005**	**8.324**	**7.591**	**.0002**	**4.969**	**1.556**	**.0037**	**27.63**
Stddev	.0003	.0001	.031	.034	.0006	.045	.009	.0001	.14
%RSD	13.00	11.89	.3725	.4423	321.6	.9078	.5552	3.134	.4960
#1	.0025	.0005	8.314	7.630	-.0003	4.968	1.560	.0036	27.79
#2	.0020	.0006	8.359	7.577	.0008	5.014	1.546	.0038	27.54
#3	.0026	.0004	8.300	7.567	.0000	4.924	1.562	.0037	27.56

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0003**	**.0005**	**.0032**	**2.317**	**.0001**	**.3520**	**.0023**	**.0017**
Stddev	.0002	.0009	.0013	.0005	.007	.0002	.0002	.0001	.0008
%RSD	76.97	370.1	280.4	14.99	.3130	267.1	.0453	3.944	48.84
#1	-.0005	.0003	.0019	.0034	2.308	-.0001	.3519	.0022	.0023
#2	-.0001	.0002	.0001	.0036	2.320	.0003	.3522	.0023	.0007
#3	-.0002	-.0013	-.0006	.0027	2.322	.0001	.3519	.0023	.0021

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0032**	**.0169**
Stddev	.0003	.0001
%RSD	9.039	.5574
#1	.0035	.0170
#2	.0030	.0168
#3	.0030	.0169

Zoom In Zoom Out

Sample Name: FC11646-3 Acquired: 12/6/2023 15:51:41 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**463.60**	**1032.3**	**13149.**	**4101.2**
Stddev	.86	4.6	61.	25.1
%RSD	.18535	.44979	.46334	.61213
#1	463.18	1037.6	13107.	4090.9
#2	463.03	1029.8	13219.	4082.8
#3	464.59	1029.4	13122.	4129.8

Zoom In Zoom Out

Sample Name: FC11646-4 Acquired: 12/6/2023 15:56:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.0344**	**.0203**	**.0425**	**.0341**	**.0000**	**79.18**	**-.0001**	**-.0001**
Stddev	.0002	.0029	.0018	.0010	.0001	.000	.49	.0001	.0002
%RSD	54.19	8.362	8.902	2.261	.3711	50.66	.6128	138.7	111.2
#1	.0002	.0361	.0211	.0414	.0341	.0000	79.63	.0000	-.0001
#2	.0002	.0311	.0216	.0431	.0343	.0000	78.67	.0000	-.0003
#3	.0005	.0360	.0182	.0429	.0341	-.0001	79.25	-.0002	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009**	**.0036**	**1.468**	**17.09**	**.0049**	**3.043**	**.0719**	**.0026**	**17.55**
Stddev	.0004	.0001	.004	.04	.0011	.026	.0004	.0002	.04
%RSD	46.74	3.374	.2516	.2627	21.72	.8641	.6112	8.960	.2154
#1	.0005	.0036	1.472	17.04	.0037	3.073	.0714	.0026	17.51
#2	.0010	.0034	1.465	17.12	.0057	3.030	.0722	.0024	17.56
#3	.0013	.0037	1.469	17.11	.0052	3.026	.0721	.0029	17.58

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0014**	**.0009**	**.0004**	**7.815**	**-.0001**	**.4144**	**.0016**	**-.0005**
Stddev	.0001	.0009	.0021	.0032	.003	.0004	.0009	.0001	.0005
%RSD	31.49	64.89	230.8	815.2	.0402	573.2	.2180	5.345	101.7
#1	-.0004	-.0004	.0014	-.0029	7.815	-.0001	.4134	.0017	.0001
#2	-.0003	-.0021	.0027	.0005	7.812	.0004	.4151	.0015	-.0008
#3	-.0002	-.0018	-.0014	.0035	7.819	-.0004	.4147	.0017	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0089**	**.0241**
Stddev	.0003	.0002
%RSD	3.731	.6924
#1	.0091	.0240
#2	.0091	.0240
#3	.0085	.0243

Zoom In Zoom Out

Sample Name: FC11646-4 Acquired: 12/6/2023 15:56:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**451.64**	**1019.4**	**12838.**	**4123.0**
Stddev	2.55	3.0	10.	20.5
%RSD	.56480	.29319	.07949	.49713
#1	454.41	1022.8	12849.	4105.6
#2	451.14	1018.1	12831.	4145.6
#3	449.38	1017.2	12832.	4117.7

Zoom In Zoom Out

Sample Name: FC11646-5 Acquired: 12/6/2023 16:01:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.1404**	**.0662**	**.0371**	**.0149**	**.0000**	**61.84**	**.0008**	**.0014**
Stddev	.0001	.0021	.0016	.0025	.0000	.000	.39	.0000	.0002
%RSD	31.31	1.497	2.438	6.645	.2064	36.07	.6363	1.630	10.98
#1	.0002	.1421	.0680	.0387	.0150	.0000	62.29	.0008	.0016
#2	.0004	.1380	.0657	.0384	.0150	.0000	61.70	.0008	.0013
#3	.0003	.1410	.0649	.0343	.0149	.0000	61.54	.0008	.0013

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.0039**	**5.241**	**11.91**	**.0008**	**4.801**	**.3450**	**.0124**	**17.39**
Stddev	.0003	.0000	.016	.09	.0003	.037	.0018	.0002	.11
%RSD	10.59	.6564	.3086	.7884	35.29	.7642	.5165	1.831	.6319
#1	.0026	.0039	5.256	11.97	.0006	4.838	.3468	.0123	17.45
#2	.0032	.0039	5.245	11.96	.0012	4.801	.3451	.0123	17.46
#3	.0032	.0039	5.224	11.80	.0007	4.764	.3432	.0127	17.27

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**-.0005**	**.0017**	**-.0013**	**2.462**	**.0009**	**.5676**	**.0062**	**.0005**
Stddev	.0004	.0005	.0003	.0008	.007	.0003	.0024	.0002	.0004
%RSD	52.05	113.6	19.49	66.10	.2844	31.99	.4173	2.808	87.81
#1	.0006	.0000	.0018	-.0007	2.455	.0005	.5699	.0062	.0009
#2	.0011	-.0004	.0019	-.0023	2.469	.0010	.5678	.0061	.0000
#3	.0004	-.0010	.0013	-.0008	2.461	.0010	.5652	.0064	.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0045**	**.0600**
Stddev	.0002	.0000
%RSD	5.317	.0829
#1	.0045	.0599
#2	.0042	.0600
#3	.0047	.0600

Zoom In Zoom Out

Sample Name: FC11646-5 Acquired: 12/6/2023 16:01:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**459.03**	**1043.5**	**13231.**	**4237.3**
Stddev	1.40	2.9	73.	27.9
%RSD	.30417	.28147	.55238	.65868
#1	460.47	1046.9	13150.	4206.5
#2	457.68	1041.5	13291.	4244.5
#3	458.96	1042.1	13253.	4260.9

Zoom In Zoom Out

Sample Name: FC11646-6 Acquired: 12/6/2023 16:06:50 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0496**	**.0711**	**.0514**	**.0142**	**.0000**	**54.52**	**-.0003**	**-.0003**
Stddev	.0002	.0016	.0025	.0011	.0002	.000	.32	.0001	.0001
%RSD	497.0	3.223	3.518	2.161	1.530	39.93	.5891	22.27	38.56
#1	-.0002	.0481	.0714	.0513	.0140	.0000	54.89	-.0002	-.0002
#2	.0002	.0513	.0735	.0525	.0144	.0000	54.34	-.0003	-.0002
#3	.0002	.0493	.0685	.0503	.0143	.0000	54.32	-.0003	-.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0016**	**.0024**	**3.341**	**19.46**	**.0004**	**3.291**	**.0151**	**.0035**	**28.13**
Stddev	.0003	.0002	.016	.19	.0006	.033	.0001	.0001	.32
%RSD	17.33	7.919	.4725	.9762	149.0	.9965	.6507	2.020	1.130
#1	.0016	.0023	3.355	19.25	-.0002	3.321	.0152	.0034	27.77
#2	.0013	.0023	3.345	19.53	.0011	3.256	.0151	.0035	28.23
#3	.0018	.0026	3.324	19.61	.0003	3.295	.0151	.0034	28.39

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0018**	**.0006**	**.0020**	**4.516**	**.0001**	**.3602**	**.0020**	**-.0005**
Stddev	.0002	.0005	.0010	.0016	.019	.0003	.0025	.0000	.0016
%RSD	41.89	25.27	165.7	78.63	.4183	510.3	.6936	1.622	352.6
#1	-.0007	-.0013	.0009	.0010	4.495	.0002	.3573	.0020	.0014
#2	-.0003	-.0022	-.0005	.0038	4.528	.0002	.3614	.0020	-.0014
#3	-.0006	-.0019	.0015	.0011	4.526	-.0003	.3618	.0020	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0020**	**.0303**
Stddev	.0001	.0003
%RSD	4.938	.9704
#1	.0019	.0307
#2	.0020	.0301
#3	.0021	.0302

Zoom In Zoom Out

Sample Name: FC11646-6 Acquired: 12/6/2023 16:06:50 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**451.40**	**1031.4**	**13162.**	**4275.2**
Stddev	1.86	5.4	13.	7.6
%RSD	.41307	.52666	.09972	.17705
#1	453.56	1037.6	13149.	4266.9
#2	450.34	1029.4	13175.	4281.8
#3	450.31	1027.3	13163.	4276.9

Zoom In Zoom Out

Sample Name: FC11646-7 Acquired: 12/6/2023 16:11:53 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0609**	**.0240**	**.0381**	**.0075**	**.0000**	**68.87**	**-.0001**	**-.0004**
Stddev	.0001	.0067	.0004	.0004	.0001	.000	.18	.0001	.0001
%RSD	183.2	10.93	1.487	1.122	1.679	226.1	.2603	60.68	26.19
#1	.0002	.0597	.0238	.0380	.0074	-.0001	68.78	-.0001	-.0005
#2	.0000	.0550	.0244	.0385	.0076	.0000	68.75	.0000	-.0003
#3	.0000	.0681	.0238	.0377	.0076	.0000	69.08	-.0001	-.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0017**	**.1132**	**4.737**	**.0006**	**1.850**	**.0679**	**.0017**	**4.022**
Stddev	.0001	.0002	.0021	.027	.0003	.014	.0004	.0002	.014
%RSD	19.98	11.90	1.877	.5678	41.05	.7775	.5971	10.80	.3380
#1	.0009	.0016	.1111	4.767	.0009	1.856	.0676	.0015	4.031
#2	.0007	.0020	.1131	4.715	.0007	1.833	.0677	.0018	4.007
#3	.0006	.0016	.1153	4.729	.0004	1.860	.0683	.0018	4.030

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0022**	**.0016**	**-.0011**	**9.542**	**.0005**	**.3987**	**.0014**	**.0005**
Stddev	.0001	.0014	.0003	.0012	.006	.0005	.0009	.0001	.0005
%RSD	31.45	62.40	15.88	107.7	.0676	100.8	.2243	8.621	104.1
#1	-.0003	-.0007	.0018	-.0012	9.539	.0009	.3982	.0015	.0004
#2	-.0003	-.0033	.0017	.0001	9.537	.0000	.3983	.0013	.0000
#3	-.0002	-.0027	.0013	-.0023	9.549	.0005	.3998	.0015	.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0091**	**.0182**
Stddev	.0003	.0002
%RSD	3.642	1.035
#1	.0088	.0181
#2	.0092	.0185
#3	.0094	.0181

Zoom In Zoom Out

Sample Name: FC11646-7 Acquired: 12/6/2023 16:11:53 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.40**	**1046.7**	**13414.**	**4172.5**
Stddev	.44	.9	18.	24.4
%RSD	.09516	.08148	.13349	.58560
#1	466.12	1047.0	13422.	4166.4
#2	466.91	1047.4	13427.	4199.4
#3	466.18	1045.7	13394.	4151.7

Zoom In Zoom Out

Sample Name: FC11646-8 Acquired: 12/6/2023 16:16:57 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0676**	**.0108**	**.1323**	**.0163**	**-.0001**	**99.56**	**.0000**	**-.0002**
Stddev	.0003	.0029	.0005	.0026	.0001	.0000	.45	.0000	.0001
%RSD	132.1	4.265	4.885	1.972	.7597	86.17	.4497	120.3	28.55
#1	.0002	.0670	.0103	.1328	.0164	-.0001	100.1	.0000	-.0002
#2	-.0001	.0708	.0109	.1346	.0164	-.0001	99.35	.0000	-.0002
#3	.0005	.0651	.0113	.1295	.0162	.0000	99.25	.0000	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0094**	**.4973**	**1.973**	**.0012**	**6.664**	**.0091**	**.0032**	**22.70**
Stddev	.0003	.0001	.0017	.013	.0005	.092	.0001	.0001	.08
%RSD	11.46	1.083	.3443	.6381	41.90	1.388	.9607	3.781	.3421
#1	.0024	.0095	.4979	1.968	.0017	6.766	.0091	.0031	22.75
#2	.0029	.0095	.4954	1.987	.0013	6.643	.0090	.0031	22.73
#3	.0025	.0093	.4987	1.963	.0007	6.584	.0092	.0034	22.61

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0033**	**-.0011**	**.0015**	**.0007**	**10.24**	**.0003**	**.7831**	**.0024**	**-.0009**
Stddev	.0001	.0013	.0013	.0033	.03	.0002	.0013	.0001	.0010
%RSD	2.437	112.2	87.10	495.8	.3374	77.51	.1702	2.803	109.9
#1	.0034	.0001	.0000	.0012	10.21	.0000	.7822	.0023	.0001
#2	.0032	-.0010	.0022	-.0029	10.23	.0004	.7847	.0024	-.0017
#3	.0032	-.0024	.0023	.0037	10.27	.0004	.7825	.0024	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0153**	**.0237**
Stddev	.0004	.0001
%RSD	2.448	.5406
#1	.0149	.0235
#2	.0156	.0238
#3	.0154	.0236

Zoom In Zoom Out

Sample Name: FC11646-8 Acquired: 12/6/2023 16:16:57 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**447.33**	**1031.3**	**13201.**	**4233.2**
Stddev	1.66	4.8	62.	18.7
%RSD	.37097	.46145	.46722	.44089
#1	449.22	1036.1	13199.	4211.8
#2	446.09	1031.1	13264.	4246.3
#3	446.68	1026.6	13141.	4241.4

Zoom In Zoom Out

Sample Name: FC11646-9 Acquired: 12/6/2023 16:22:00 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.3156**	**.0065**	**.0519**	**.0121**	**.0000**	**96.57**	**-.0001**	**.0003**
Stddev	.0003	.0074	.0014	.0009	.0001	.000	.95	.0001	.0001
%RSD	188.1	2.332	22.12	1.646	.7339	110.2	.9818	87.22	29.11
#1	.0000	.3241	.0049	.0528	.0121	-.0001	97.35	-.0002	.0003
#2	.0005	.3112	.0075	.0511	.0120	.0000	95.52	.0000	.0003
#3	.0000	.3115	.0072	.0519	.0122	.0000	96.83	-.0001	.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020**	**.0163**	**.4074**	**1.350**	**.0010**	**3.144**	**.0585**	**.0039**	**9.974**
Stddev	.0001	.0002	.0019	.010	.0004	.022	.0004	.0001	.052
%RSD	6.266	1.382	.4754	.7365	35.47	.6956	.6841	2.459	.5243
#1	.0022	.0162	.4096	1.349	.0007	3.151	.0581	.0040	10.01
#2	.0019	.0166	.4060	1.341	.0014	3.119	.0589	.0040	9.915
#3	.0020	.0162	.4066	1.361	.0009	3.161	.0585	.0038	9.994

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0058**	**-.0006**	**.0044**	**.0013**	**3.126**	**.0005**	**.4398**	**.0089**	**.0000**
Stddev	.0003	.0003	.0012	.0002	.022	.0006	.0022	.0002	.0016
%RSD	5.223	50.33	28.15	16.81	.6949	129.9	.5079	2.069	4218.
#1	.0058	-.0009	.0058	.0015	3.113	-.0001	.4403	.0087	.0014
#2	.0054	-.0006	.0040	.0011	3.114	.0004	.4373	.0088	-.0017
#3	.0060	-.0003	.0034	.0014	3.151	.0011	.4417	.0091	.0004

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0123**	**.0619**
Stddev	.0002	.0001
%RSD	1.911	.2166
#1	.0123	.0619
#2	.0125	.0620
#3	.0120	.0617

Zoom In Zoom Out

Sample Name: FC11646-9 Acquired: 12/6/2023 16:22:00 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**462.88**	**1029.0**	**13318.**	**4128.5**
Stddev	2.22	8.5	86.	58.1
%RSD	.47960	.82725	.64614	1.4065
#1	465.16	1034.4	13417.	4107.3
#2	462.75	1033.5	13268.	4194.2
#3	460.73	1019.2	13269.	4084.0

Zoom In Zoom Out

Sample Name: FC11646-10 Acquired: 12/6/2023 16:27:04 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003**	**.6466**	**.0116**	**.0408**	**.0260**	**.0000**	**91.80**	**-.0001**	**-.0002**
Stddev	.0001	.0026	.0003	.0008	.0001	.000	.38	.0001	.0001
%RSD	38.53	.3983	2.887	1.873	.5339	83.89	.4104	125.5	31.59
#1	.0002	.6443	.0118	.0406	.0259	.0000	91.84	-.0001	-.0003
#2	.0002	.6461	.0112	.0416	.0259	.0000	91.40	-.0002	-.0002
#3	.0004	.6494	.0118	.0401	.0261	.0000	92.15	.0000	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0009**	**.5090**	**2.122**	**.0006**	**4.355**	**.1092**	**.0037**	**17.00**
Stddev	.0001	.0002	.0017	.012	.0006	.043	.0003	.0002	.11
%RSD	9.717	23.23	.3386	.5772	102.5	.9793	.2593	4.502	.6501
#1	.0013	.0007	.5078	2.112	.0009	4.349	.1091	.0038	16.91
#2	.0014	.0011	.5110	2.118	-.0001	4.316	.1096	.0035	16.96
#3	.0012	.0010	.5082	2.136	.0011	4.400	.1090	.0038	17.12

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**-.0018**	**-.0001**	**.0018**	**5.783**	**.0000**	**.4970**	**.0040**	**-.0004**
Stddev	.0002	.0012	.0008	.0018	.002	.0006	.0027	.0001	.0012
%RSD	74.60	63.94	626.3	101.6	.0353	7775.	.5490	1.645	293.7
#1	-.0002	-.0023	.0002	.0003	5.784	.0000	.4941	.0040	.0002
#2	-.0005	-.0005	.0005	.0039	5.780	.0006	.4974	.0039	.0003
#3	-.0002	-.0026	-.0010	.0013	5.784	-.0006	.4995	.0039	-.0018

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0076**	**.0148**
Stddev	.0002	.0001
%RSD	2.102	.5258
#1	.0075	.0149
#2	.0074	.0149
#3	.0078	.0147

Zoom In Zoom Out

Sample Name: FC11646-10 Acquired: 12/6/2023 16:27:04 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**456.27**	**1022.7**	**13025.**	**4076.3**
Stddev	1.04	.1	50.	24.9
%RSD	.22858	.00508	.38605	.60994
#1	455.25	1022.6	13082.	4092.8
#2	457.34	1022.8	13001.	4088.4
#3	456.21	1022.7	12990.	4047.7

Zoom In Zoom Out

Sample Name: MP43235-MB1 Acquired: 12/6/2023 16:32:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0006**	**-.0026**	**-.0047**	**.0000**	**-.0001**	**.0100**	**.0000**	**-.0002**
Stddev	.000	.0007	.0004	.0004	.000	.0000	.0010	.0000	.0002
%RSD	1681.	112.7	13.81	9.548	11.48	57.48	10.45	177.5	82.44
#1	-.0002	-.0012	-.0026	-.0047	.0000	.0000	.0109	.0000	-.0003
#2	-.0001	.0001	-.0023	-.0051	.0000	-.0001	.0089	.0000	.0000
#3	.0003	-.0007	-.0030	-.0042	.0000	-.0001	.0101	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**.0007**	**-.0120**	**.0001**	**.0109**	**.0000**	**-.0002**	**.0073**
Stddev	.0003	.0002	.0008	.0082	.0001	.0039	.0001	.0001	.0007
%RSD	213.5	45.86	107.1	68.62	141.7	36.33	357.7	54.56	9.791
#1	.0004	.0002	.0007	-.0184	.0001	.0064	.0001	-.0002	.0065
#2	.0002	.0006	.0015	-.0149	.0000	.0121	-.0001	-.0004	.0074
#3	-.0002	.0006	-.0001	-.0027	.0001	.0140	.0000	-.0001	.0079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0002**	**.0004**	**.0008**	**.0052**	**.0001**	**.0000**	**-.0002**	**-.0007**
Stddev	.0001	.0002	.0012	.0039	.0001	.0004	.000	.0000	.0016
%RSD	61.85	114.1	334.8	518.2	1.647	501.4	428.6	18.08	245.9
#1	-.0001	.0004	.0016	.0008	.0052	.0003	.0000	-.0002	.0002
#2	-.0003	-.0001	-.0008	.0047	.0051	.0002	.0000	-.0002	-.0025
#3	-.0003	.0003	.0003	-.0032	.0053	-.0003	.0000	-.0001	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43235-MB1 Acquired: 12/6/2023 16:32:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0002**	**.0006**
Stddev	.0001	.0001
%RSD	65.26	21.42
#1	-.0003	.0006
#2	-.0001	.0007
#3	-.0002	.0004
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**513.51**	**1081.5**	**13588.**	**4126.7**
Stddev	2.03	4.1	27.	41.1
%RSD	.39533	.38274	.19895	.99557
#1	515.60	1083.3	13608.	4153.0
#2	513.39	1084.5	13597.	4147.8
#3	511.55	1076.8	13557.	4079.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 16:37:15 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2627**	**39.87**	**1.975**	**2.061**	**2.004**	**2.001**	**38.58**	**1.979**	**1.988**
Stddev	.0010	.08	.009	.017	.009	.008	.26	.002	.001
%RSD	.3843	.1923	.4477	.8386	.4362	.4005	.6640	.0804	.0462
#1	.2627	39.79	1.972	2.046	1.996	2.006	38.80	1.980	1.988
#2	.2637	39.94	1.969	2.056	2.004	2.005	38.64	1.979	1.988
#3	.2617	39.89	1.985	2.080	2.013	1.992	38.30	1.977	1.987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.063**	**2.058**	**39.31**	**41.87**	**2.008**	**39.56**	**2.004**	**1.992**	**40.97**
Stddev	.012	.006	.14	.15	.016	.49	.004	.001	.04
%RSD	.6002	.2822	.3532	.3561	.7903	1.231	.2050	.0487	.0924
#1	2.075	2.057	39.37	41.95	1.993	40.02	2.008	1.992	40.93
#2	2.051	2.065	39.40	41.97	2.006	39.62	2.000	1.992	41.01
#3	2.062	2.053	39.15	41.70	2.025	39.05	2.004	1.993	40.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**1.931**	**2.004**	**1.996**	**2.156**	**1.990**	**2.057**	**2.035**	**1.984**
Stddev	.009	.003	.005	.003	.003	.001	.003	.005	.013
%RSD	.4422	.1450	.2347	.1373	.1553	.0647	.1672	.2297	.6655
#1	2.033	1.934	2.005	1.999	2.160	1.989	2.054	2.039	1.981
#2	2.024	1.930	1.999	1.993	2.154	1.991	2.061	2.035	1.999
#3	2.015	1.929	2.009	1.995	2.154	1.991	2.056	2.030	1.973
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 16:37:15 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.058**	**1.939**
Stddev	.008	.004
%RSD	.3985	.1929
#1	2.068	1.937
#2	2.053	1.943
#3	2.053	1.936
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**439.46**	**1046.3**	**12842.**	**4137.8**
Stddev	1.36	3.1	21.	33.0
%RSD	.30895	.29561	.16465	.79643
#1	439.78	1045.4	12835.	4109.1
#2	440.63	1049.7	12825.	4130.5
#3	437.97	1043.7	12866.	4173.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 16:41:57 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0009**	**-.0002**	**-.0008**	**.0001**	**.0001**	**.0019**	**.0000**	**.0001**
Stddev	.000	.0024	.0002	.0018	.0000	.0000	.0021	.0000	.0001
%RSD	731.6	261.6	113.3	222.7	19.24	34.91	110.2	52.81	120.7
#1	-.0004	-.0020	-.0001	-.0020	.0002	.0001	.0042	.0001	.0002
#2	.0001	-.0027	-.0005	-.0017	.0001	.0001	.0001	.0000	.0002
#3	.0002	.0019	-.0001	.0012	.0001	.0001	.0013	.0000	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0002**	**.0032**	**-.0071**	**.0006**	**.0069**	**.0001**	**.0001**	**.0000**
Stddev	.0002	.0000	.0007	.0077	.0002	.0156	.0000	.0001	.004
%RSD	1776.	18.84	20.93	109.4	32.64	228.2	24.95	133.9	46560.
#1	-.0001	.0002	.0032	.0011	.0004	.0175	.0001	.0001	-.0017
#2	.0002	.0001	.0025	-.0080	.0008	.0141	.0001	.0002	-.0030
#3	-.0001	.0002	.0038	-.0143	.0007	-.0111	.0001	.0000	.0047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**-.0006**	**.0005**	**.0016**	**.0024**	**-.0002**	**.0001**	**.0001**	**.0015**
Stddev	.0003	.0003	.0016	.0005	.0002	.0004	.0001	.0000	.0012
%RSD	133.3	53.51	331.7	31.80	8.505	252.6	53.81	88.99	82.73
#1	-.0003	-.0002	.0013	.0021	.0024	.0003	.0002	.0000	.0004
#2	-.0005	-.0007	.0014	.0011	.0026	-.0003	.0001	.0001	.0013
#3	.0001	-.0008	-.0013	.0015	.0022	-.0005	.0001	.0000	.0028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 16:41:57 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0004**
Stddev	.000	.0002
%RSD	1188.	58.59
#1	.0000	-.0002
#2	-.0001	-.0006
#3	.0000	-.0003
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**515.43**	**1108.1**	**13842.**	**4279.9**
Stddev	1.78	4.2	44.	5.4
%RSD	.34564	.38043	.31694	.12689
#1	517.00	1103.3	13793.	4284.5
#2	515.80	1110.0	13857.	4274.0
#3	513.49	1111.0	13877.	4281.3

Zoom In Zoom Out

Sample Name: MP43235-B1 Acquired: 12/6/2023 16:47:03 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1925**	**23.69**	**.1986**	**.5101**	**.2036**	**.2001**	**42.00**	**.1978**	**.1983**
Stddev	.0003	.05	.0032	.0034	.0010	.0009	.06	.0003	.0003
%RSD	.1768	.1961	1.630	.6743	.5107	.4455	.1325	.1633	.1600
#1	.1921	23.64	.2014	.5064	.2024	.1993	41.94	.1975	.1981
#2	.1926	23.73	.1951	.5105	.2043	.2011	42.05	.1978	.1983
#3	.1928	23.69	.1994	.5132	.2041	.1999	42.01	.1981	.1987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2017**	**.2032**	**42.51**	**43.93**	**.5128**	**41.68**	**.1986**	**.6707**	**40.95**
Stddev	.0012	.0003	.05	.08	.0012	.23	.0006	.0011	.16
%RSD	.5912	.1269	.1153	.1812	.2413	.5416	.2778	.1641	.3815
#1	.2003	.2030	42.49	43.89	.5118	41.45	.1980	.6697	40.78
#2	.2024	.2031	42.57	44.03	.5142	41.90	.1991	.6719	41.09
#3	.2025	.2035	42.48	43.88	.5125	41.70	.1987	.6706	40.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1987**	**.1927**	**.2084**	**.1980**	**.5156**	**.4860**	**.5001**	**.4915**	**.1905**
Stddev	.0004	.0010	.0014	.0040	.0013	.0004	.0016	.0003	.0033
%RSD	.2134	.5097	.6846	2.039	.2471	.0844	.3130	.0708	1.745
#1	.1983	.1924	.2081	.1934	.5142	.4856	.4995	.4914	.1892
#2	.1986	.1918	.2072	.2009	.5161	.4861	.5019	.4919	.1942
#3	.1992	.1938	.2100	.1997	.5166	.4864	.4990	.4912	.1880
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43235-B1 Acquired: 12/6/2023 16:47:03 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2044**	**.1931**
Stddev	.0009	.0005
%RSD	.4178	.2402
#1	.2038	.1928
#2	.2054	.1930
#3	.2040	.1937
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**430.81**	**1016.9**	**12822.**	**4153.6**
Stddev	1.29	1.1	58.	8.1
%RSD	.30030	.10376	.45361	.19392
#1	431.76	1017.9	12889.	4161.1
#2	431.33	1017.1	12797.	4145.1
#3	429.34	1015.8	12781.	4154.6

Zoom In Zoom Out

Sample Name: FC11600-3 Acquired: 12/6/2023 16:51:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.8265**	**.0000**	**.0346**	**.0138**	**.0005**	**236.2**	**-.0007**	**.0049**
Stddev	.0004	.0095	.0002	.0004	.0001	.0000	.5	.0000	.0002
%RSD	13.66	1.147	481.4	1.194	1.007	4.645	.2233	4.909	4.946
#1	.0034	.8162	.0002	.0346	.0137	.0005	235.8	-.0007	.0047
#2	.0029	.8348	.0001	.0341	.0140	.0005	236.8	-.0007	.0051
#3	.0026	.8284	-.0002	.0349	.0138	.0006	235.9	-.0007	.0048

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4938**	**-.0003**	**28.83**	**9.260**	**.0054**	**38.00**	**1.222**	**.0005**	F **779.4**
Stddev	.0028	.0002	.09	.124	.0003	.10	.005	.0002	1.0
%RSD	.5712	57.68	.3025	1.338	5.455	.2705	.4408	46.88	.1277
#1	.4965	-.0004	28.76	9.117	.0054	38.00	1.227	.0007	779.7
#2	.4938	-.0001	28.80	9.325	.0056	37.90	1.223	.0003	780.1
#3	.4909	-.0004	28.93	9.337	.0051	38.11	1.216	.0004	778.2

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2912**	**-.0030**	**-.0016**	**-.0011**	**1.719**	**-.0003**	**.4473**	**.0000**	**-.0023**
Stddev	.0004	.0016	.0012	.0003	.003	.0004	.0037	.000	.0021
%RSD	.1277	52.58	70.82	28.55	.1862	145.2	.8242	146.9	93.74
#1	.2907	-.0027	-.0028	-.0015	1.720	-.0008	.4431	-.0001	-.0043
#2	.2913	-.0016	-.0016	-.0010	1.715	-.0001	.4484	.0000	-.0001
#3	.2914	-.0047	-.0005	-.0009	1.722	.0000	.4502	.0000	-.0024

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3267**	**.0160**
Stddev	.0016	.0002
%RSD	.4998	1.054
#1	.3270	.0158
#2	.3281	.0161
#3	.3249	.0160

Zoom In Zoom Out

Sample Name: FC11600-3 Acquired: 12/6/2023 16:51:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**341.49**	**1258.1**	**15755.**	**5438.7**
Stddev	.64	2.9	48.	10.6
%RSD	.18676	.22912	.30390	.19549
#1	341.24	1258.5	15764.	5443.4
#2	342.21	1260.8	15703.	5446.1
#3	341.01	1255.1	15797.	5426.5

Zoom In Zoom Out

Sample Name: MP43235-D1 Acquired: 12/6/2023 16:57:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.8255**	**.0005**	**.0346**	**.0136**	**.0005**	**234.2**	**-.0006**	**.0047**
Stddev	.0005	.0019	.0009	.0003	.0001	.0000	1.4	.0000	.0001
%RSD	16.67	.2286	209.6	.7756	.7200	2.555	.5934	5.316	2.166
#1	.0033	.8272	.0009	.0349	.0136	.0005	235.7	-.0006	.0048
#2	.0033	.8235	-.0006	.0344	.0136	.0005	233.1	-.0006	.0047
#3	.0024	.8258	.0010	.0346	.0134	.0005	233.7	-.0006	.0046

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4991**	**-.0001**	**28.60**	**9.230**	**.0051**	**37.46**	**1.229**	**.0003**	F **764.2**
Stddev	.0011	.0003	.03	.032	.0002	.19	.005	.0001	7.0
%RSD	.2232	311.5	.1157	.3490	4.060	.5010	.4073	24.38	.9178
#1	.5003	-.0004	28.63	9.227	.0053	37.60	1.235	.0003	764.8
#2	.4980	.0000	28.61	9.264	.0050	37.54	1.226	.0002	770.9
#3	.4990	.0002	28.57	9.199	.0049	37.25	1.226	.0004	756.9

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2888**	**-.0026**	**-.0022**	**-.0002**	**1.698**	**-.0005**	**.4472**	**-.0001**	**-.0029**
Stddev	.0007	.0008	.0006	.0034	.005	.0005	.0006	.0001	.0047
%RSD	.2464	31.94	27.53	1375.	.2858	97.93	.1245	47.24	162.6
#1	.2886	-.0017	-.0026	.0001	1.694	-.0001	.4477	-.0002	-.0024
#2	.2896	-.0028	-.0024	-.0039	1.703	-.0004	.4473	-.0001	.0015
#3	.2882	-.0034	-.0015	.0030	1.696	-.0010	.4466	-.0001	-.0078

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3290**	**.0156**
Stddev	.0012	.0001
%RSD	.3497	.9176
#1	.3302	.0157
#2	.3279	.0156
#3	.3289	.0154

Zoom In Zoom Out

Sample Name: MP43235-D1 Acquired: 12/6/2023 16:57:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**346.51**	**1264.4**	**15669.**	**5452.5**
Stddev	.57	4.1	15.	15.7
%RSD	.16355	.32779	.09430	.28874
#1	347.16	1268.9	15655.	5445.0
#2	346.24	1260.8	15684.	5441.8
#3	346.13	1263.6	15668.	5470.6

Zoom In Zoom Out

Sample Name: MP43235-SD1 Acquired: 12/6/2023 17:02:29 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038**	**1.001**	**-.0015**	**.0223**	**.0163**	**.0006**	**303.8**	**-.0021**	**.0059**
Stddev	.0017	.012	.0005	.0087	.0002	.0001	.9	.0004	.0002
%RSD	45.14	1.181	35.35	38.92	1.466	25.65	.2995	18.92	2.684
#1	.0058	1.013	-.0020	.0157	.0161	.0005	304.6	-.0024	.0057
#2	.0030	.9890	-.0010	.0321	.0162	.0005	302.8	-.0017	.0060
#3	.0027	1.000	-.0014	.0190	.0166	.0007	304.1	-.0024	.0060

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6361**	**.0004**	**36.98**	**10.24**	**.0050**	**45.83**	**1.599**	**-.0011**	F **1024.**
Stddev	.0017	.0008	.05	.02	.0013	.20	.001	.0008	7.
%RSD	.2599	183.8	.1291	.2335	25.29	.4403	.0587	71.02	.6700
#1	.6342	.0013	36.98	10.25	.0039	45.85	1.599	-.0008	1026.
#2	.6366	-.0003	36.93	10.27	.0047	45.61	1.599	-.0020	1017.
#3	.6373	.0003	37.03	10.22	.0064	46.02	1.598	-.0005	1030.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3787**	**-.0024**	**-.0054**	**-.0039**	**2.043**	**-.0006**	**.5420**	**.0049**	**.0049**
Stddev	.0009	.0086	.0047	.0115	.005	.0031	.0009	.0004	.0107
%RSD	.2358	354.7	87.94	296.4	.2665	520.4	.1731	7.738	216.1
#1	.3795	-.0109	-.0108	-.0143	2.047	-.0008	.5418	.0052	.0056
#2	.3778	.0063	-.0029	-.0058	2.037	.0026	.5431	.0048	.0152
#3	.3789	-.0026	-.0023	.0085	2.045	-.0035	.5412	.0045	-.0060

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4067**	**.0195**
Stddev	.0009	.0011
%RSD	.2130	5.660
#1	.4058	.0184
#2	.4076	.0206
#3	.4066	.0195

Zoom In Zoom Out

Sample Name: MP43235-SD1 Acquired: 12/6/2023 17:02:29 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**422.81**	**1101.7**	**13612.**	**4467.4**
Stddev	.75	2.8	38.	18.2
%RSD	.17777	.25867	.27703	.40779
#1	423.64	1104.9	13622.	4462.7
#2	422.16	1100.2	13644.	4487.5
#3	422.65	1099.8	13571.	4452.0

Zoom In Zoom Out

Sample Name: MP43235-PS1 Acquired: 12/6/2023 17:07:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0437**	**2.692**	**.0831**	**.0330**	**.1980**	**.0366**	**231.0**	**.0341**	**.0389**
Stddev	.0004	.016	.0007	.0019	.0016	.0001	2.8	.0001	.0003
%RSD	.9697	.5990	.8890	5.838	.8312	.2448	1.192	.3469	.6622
#1	.0442	2.681	.0839	.0327	.1968	.0366	234.1	.0340	.0389
#2	.0433	2.685	.0824	.0312	.1973	.0365	228.7	.0341	.0391
#3	.0437	2.711	.0830	.0350	.1999	.0367	230.4	.0343	.0386

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5126**	**.0789**	**29.98**	**16.24**	**.0045**	**38.68**	**1.232**	**.0688**	F **737.0**
Stddev	.0032	.0006	.20	.12	.0003	.33	.006	.0003	4.9
%RSD	.6274	.7921	.6744	.7272	5.983	.8578	.4725	.3893	.6626
#1	.5095	.0788	30.21	16.16	.0043	39.03	1.226	.0688	742.1
#2	.5159	.0795	29.84	16.17	.0048	38.36	1.236	.0691	732.3
#3	.5123	.0782	29.89	16.37	.0045	38.66	1.235	.0686	736.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3458**	**.0469**	**.0797**	**.0857**	**1.674**	**.0331**	**.4605**	**.0739**	**.0887**
Stddev	.0013	.0009	.0019	.0026	.002	.0001	.0024	.0001	.0015
%RSD	.3894	1.954	2.324	2.991	.1063	.3195	.5301	.1401	1.689
#1	.3444	.0461	.0813	.0834	1.672	.0332	.4590	.0739	.0905
#2	.3471	.0479	.0777	.0885	1.676	.0330	.4592	.0739	.0879
#3	.3459	.0466	.0802	.0853	1.673	.0331	.4634	.0737	.0878

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3508**	**.1882**
Stddev	.0016	.0008
%RSD	.4683	.4397
#1	.3493	.1873
#2	.3526	.1884
#3	.3505	.1889

Zoom In Zoom Out

Sample Name: MP43235-PS1 Acquired: 12/6/2023 17:07:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**341.88**	**1264.5**	**15877.**	**5648.0**
Stddev	.81	.5	42.	45.0
%RSD	.23587	.04316	.26406	.79656
#1	341.10	1264.1	15895.	5598.8
#2	342.71	1264.2	15829.	5687.0
#3	341.82	1265.1	15907.	5658.2

Zoom In Zoom Out

Sample Name: MP43235-S1 Acquired: 12/6/2023 17:12:53 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1546**	**18.57**	**.1537**	**.4202**	**.1546**	**.1368**	**251.5**	**.1261**	**.1297**
Stddev	.0005	.06	.0011	.0029	.0007	.0003	.4	.0004	.0004
%RSD	.2985	.3007	.6838	.7011	.4317	.1933	.1434	.3215	.3006
#1	.1543	18.55	.1525	.4209	.1551	.1369	251.4	.1258	.1293
#2	.1544	18.64	.1541	.4227	.1549	.1371	251.9	.1266	.1300
#3	.1551	18.54	.1544	.4169	.1539	.1365	251.2	.1259	.1299

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5930**	**.1482**	**56.17**	**43.05**	**.3854**	**66.56**	**1.287**	**.4453**	F **760.4**
Stddev	.0047	.0002	.21	.25	.0015	.17	.007	.0009	9.8
%RSD	.7863	.1667	.3762	.5871	.3923	.2498	.5225	.2000	1.289
#1	.5981	.1485	55.93	43.33	.3872	66.71	1.295	.4444	758.4
#2	.5890	.1480	56.34	42.97	.3847	66.59	1.283	.4461	751.7
#3	.5918	.1481	56.22	42.84	.3845	66.38	1.284	.4455	771.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3985**	**.1796**	**.1496**	**.1285**	**2.020**	**.3074**	**.7772**	**.3343**	**.1642**
Stddev	.0013	.0028	.0011	.0032	.006	.0020	.0013	.0011	.0029
%RSD	.3364	1.558	.7281	2.527	.3006	.6627	.1658	.3188	1.753
#1	.4000	.1776	.1484	.1296	2.022	.3051	.7780	.3353	.1657
#2	.3981	.1785	.1499	.1311	2.026	.3086	.7779	.3343	.1661
#3	.3974	.1828	.1506	.1249	2.014	.3085	.7757	.3332	.1609

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4425**	**.1415**
Stddev	.0023	.0006
%RSD	.5170	.4289
#1	.4451	.1411
#2	.4414	.1413
#3	.4410	.1422

Zoom In Zoom Out

Sample Name: MP43235-S1 Acquired: 12/6/2023 17:12:53 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**341.89**	**1248.3**	**15893.**	**5481.6**
Stddev	.80	5.0	70.	4.4
%RSD	.23400	.40136	.44343	.07987
#1	342.61	1246.2	15812.	5486.6
#2	341.03	1244.8	15945.	5478.5
#3	342.04	1254.0	15921.	5479.6

Zoom In Zoom Out

Sample Name: MP43235-S2 Acquired: 12/6/2023 17:18:01 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1529**	**18.38**	**.1531**	**.4197**	**.1528**	**.1342**	**259.0**	**.1247**	**.1289**
Stddev	.0005	.06	.0020	.0024	.0007	.0003	.5	.0003	.0002
%RSD	.3460	.3240	1.332	.5814	.4509	.2518	.1738	.2014	.1507
#1	.1523	18.36	.1512	.4175	.1528	.1338	258.8	.1244	.1287
#2	.1534	18.34	.1552	.4192	.1520	.1345	259.5	.1249	.1290
#3	.1530	18.45	.1529	.4223	.1534	.1343	258.7	.1248	.1290

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5999**	**.1475**	**56.75**	**41.55**	**.3865**	**65.38**	**1.319**	**.4450**	F **762.3**
Stddev	.0050	.0002	.27	.11	.0022	.04	.005	.0007	5.8
%RSD	.8378	.1469	.4794	.2685	.5770	.0557	.3451	.1670	.7669
#1	.5981	.1476	56.49	41.61	.3849	65.38	1.317	.4441	764.4
#2	.6056	.1477	56.73	41.62	.3854	65.42	1.325	.4452	755.7
#3	.5961	.1473	57.03	41.42	.3890	65.35	1.317	.4455	766.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3986**	**.1824**	**.1496**	**.1244**	**2.046**	**.3067**	**.7739**	**.3325**	**.1656**
Stddev	.0010	.0019	.0015	.0016	.002	.0011	.0005	.0007	.0015
%RSD	.2573	1.059	.9779	1.311	.1038	.3705	.0636	.2207	.9155
#1	.3977	.1824	.1497	.1234	2.048	.3069	.7733	.3322	.1649
#2	.3984	.1805	.1481	.1263	2.044	.3076	.7739	.3333	.1674
#3	.3997	.1844	.1510	.1236	2.047	.3054	.7743	.3319	.1647

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4467**	**.1413**
Stddev	.0027	.0003
%RSD	.6087	.1985
#1	.4448	.1414
#2	.4498	.1415
#3	.4455	.1410

Zoom In Zoom Out

Sample Name: MP43235-S2 Acquired: 12/6/2023 17:18:01 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**338.87**	**1269.8**	**16115.**	**5635.7**
Stddev	1.39	2.3	43.	20.5
%RSD	.40911	.18349	.26585	.36392
#1	340.47	1271.7	16132.	5651.1
#2	338.12	1270.5	16066.	5612.4
#3	338.02	1267.2	16146.	5643.5

Zoom In Zoom Out

Sample Name: FC11600-1 Acquired: 12/6/2023 17:23:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006**	**.1860**	**.0001**	**.0235**	**.0099**	**.0000**	**30.63**	**-.0006**	**.0001**
Stddev	.0002	.0057	.0009	.0020	.0001	.0000	.16	.0000	.0002
%RSD	27.63	3.090	1379.	8.612	.5807	2982.	.5254	2.767	325.9
#1	.0006	.1924	.0011	.0258	.0099	.0000	30.57	-.0006	.0000
#2	.0005	.1842	-.0003	.0221	.0099	.0000	30.51	-.0006	-.0001
#3	.0008	.1813	-.0006	.0226	.0100	.0000	30.81	-.0006	.0003

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0419**	**.0008**	**11.58**	**2.150**	**.0016**	**.9278**	**.2425**	**.0002**	**34.77**
Stddev	.0001	.0002	.05	.015	.0002	.0131	.0008	.0002	.19
%RSD	.2360	20.76	.4354	.7087	11.68	1.408	.3352	126.1	.5425
#1	.0419	.0009	11.59	2.159	.0015	.9364	.2433	.0000	34.92
#2	.0420	.0006	11.53	2.132	.0018	.9127	.2417	.0004	34.56
#3	.0419	.0008	11.63	2.158	.0015	.9342	.2424	.0001	34.82

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0119**	**-.0003**	**.0004**	**.0021**	**1.987**	**-.0004**	**.0472**	**.0015**	**-.0002**
Stddev	.0001	.0007	.0008	.0010	.006	.0005	.0001	.0001	.0016
%RSD	1.178	237.9	182.1	45.90	.3277	136.1	.2854	4.812	767.6
#1	.0117	-.0010	.0005	.0010	1.985	-.0007	.0473	.0016	.0005
#2	.0119	.0004	-.0004	.0026	1.982	.0002	.0471	.0014	.0009
#3	.0120	-.0004	.0012	.0027	1.995	-.0008	.0471	.0015	-.0020

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0083**	**.0150**
Stddev	.0003	.0001
%RSD	3.145	.4357
#1	.0083	.0149
#2	.0081	.0151
#3	.0086	.0151

Zoom In Zoom Out

Sample Name: FC11600-1 Acquired: 12/6/2023 17:23:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**465.95**	**1047.3**	**13484.**	**4196.8**
Stddev	1.49	3.8	24.	26.7
%RSD	.32058	.36081	.17735	.63725
#1	464.84	1049.1	13509.	4199.7
#2	467.65	1049.9	13481.	4222.0
#3	465.38	1043.0	13462.	4168.8

Zoom In Zoom Out

Sample Name: FC11600-2 Acquired: 12/6/2023 17:28:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.1822**	**-.0012**	**.0227**	**.0099**	**.0000**	**30.19**	**-.0005**	**.0001**
Stddev	.0002	.0045	.0013	.0003	.0000	.000	.19	.0001	.0002
%RSD	29.36	2.474	101.4	1.312	.4790	320.3	.6293	9.892	235.9
#1	.0008	.1804	-.0007	.0224	.0100	.0000	29.98	-.0005	.0002
#2	.0006	.1874	-.0004	.0230	.0099	.0000	30.22	-.0006	-.0001
#3	.0010	.1789	-.0027	.0228	.0099	.0000	30.36	-.0005	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0407**	**.0015**	**11.66**	**2.198**	**.0009**	**.9339**	**.2469**	**-.0001**	**35.80**
Stddev	.0004	.0002	.02	.015	.0005	.0157	.0006	.0003	.19
%RSD	.9922	11.38	.2018	.6957	52.87	1.686	.2631	189.1	.5404
#1	.0409	.0017	11.64	2.206	.0010	.9513	.2475	-.0002	36.02
#2	.0410	.0016	11.65	2.180	.0014	.9207	.2470	-.0004	35.64
#3	.0402	.0013	11.68	2.207	.0004	.9298	.2462	.0001	35.74

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0114**	**.0003**	**.0001**	**.0041**	**1.966**	**-.0002**	**.0474**	**.0015**	**-.0006**
Stddev	.0002	.0012	.0008	.0034	.007	.0006	.0001	.0001	.0019
%RSD	1.830	380.5	1273.	82.48	.3457	281.6	.2166	5.527	326.6
#1	.0114	-.0010	-.0003	.0068	1.965	-.0009	.0474	.0016	.0013
#2	.0111	.0007	-.0005	.0003	1.959	.0000	.0473	.0015	-.0026
#3	.0115	.0013	.0010	.0053	1.973	.0003	.0475	.0014	-.0005

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0083**	**.0150**
Stddev	.0003	.0004
%RSD	3.312	2.427
#1	.0081	.0147
#2	.0083	.0149
#3	.0086	.0154

Zoom In Zoom Out

Sample Name: FC11600-2 Acquired: 12/6/2023 17:28:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.73**	**1040.5**	**13253.**	**4078.8**
Stddev	.87	2.0	55.	16.5
%RSD	.18703	.18934	.41516	.40551
#1	466.87	1042.4	13225.	4090.9
#2	467.53	1040.7	13316.	4085.5
#3	465.80	1038.4	13218.	4059.9

Zoom In Zoom Out

Sample Name: FC11600-4 Acquired: 12/6/2023 17:33:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0094**	**347.7**	**.0049**	**-.0054**	**.0085**	**.0191**	**353.5**	**-.0040**	**.0405**
Stddev	.0024	.4	.0095	.0149	.0009	.0000	2.2	.0005	.0012
%RSD	25.77	.1081	194.3	277.7	10.28	.1026	.6135	12.95	2.957
#1	.0121	347.5	.0155	.0113	.0077	.0191	355.6	-.0044	.0392
#2	.0074	348.1	-.0028	-.0100	.0095	.0191	351.2	-.0034	.0409
#3	.0087	347.4	.0020	-.0174	.0084	.0191	353.6	-.0042	.0414

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.470**	**.0003**	**73.16**	**36.54**	**.0158**	**63.21**	**6.513**	**-.0031**	F **1995.**
Stddev	.016	.0016	.20	.07	.0037	.48	.051	.0011	18.
%RSD	.6447	555.1	.2739	.1979	23.57	.7641	.7859	34.25	.8979
#1	2.480	.0005	73.29	36.57	.0199	63.36	6.566	-.0032	2006.
#2	2.478	.0017	72.93	36.46	.0150	62.67	6.510	-.0020	2004.
#3	2.451	-.0014	73.25	36.59	.0126	63.61	6.464	-.0042	1974.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1606**	**-.0092**	**.0011**	**.0199**	**5.807**	**.0035**	**.7434**	**.0090**	**.0002**
Stddev	.0022	.0097	.0095	.0108	.004	.0047	.0015	.0009	.0218
%RSD	1.357	105.9	878.9	54.04	.0769	135.2	.1983	10.37	9338.
#1	.1594	-.0023	-.0025	.0311	5.811	.0066	.7417	.0099	.0254
#2	.1593	-.0203	.0119	.0190	5.807	.0058	.7445	.0080	-.0126
#3	.1631	-.0049	-.0061	.0096	5.802	-.0019	.7439	.0092	-.0120

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3581**	**.0146**
Stddev	.0041	.0009
%RSD	1.155	5.990
#1	.3607	.0138
#2	.3603	.0145
#3	.3534	.0156

Zoom In Zoom Out

Sample Name: FC11600-4 Acquired: 12/6/2023 17:33:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**420.34**	**1303.9**	**15419.**	**5052.9**
Stddev	1.40	3.2	72.	18.4
%RSD	.33201	.24850	.46670	.36476
#1	419.54	1305.0	15382.	5050.9
#2	421.95	1306.5	15374.	5072.3
#3	419.53	1300.3	15502.	5035.6

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 17:38:23 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2660**	**40.59**	**2.010**	**2.068**	**2.042**	**2.043**	**39.44**	**2.015**	**2.021**
Stddev	.0011	.18	.006	.015	.016	.007	.07	.000	.002
%RSD	.4246	.4428	.2955	.7403	.7891	.3332	.1769	.0097	.1052
#1	.2647	40.51	2.006	2.056	2.034	2.035	39.47	2.016	2.019
#2	.2666	40.45	2.007	2.063	2.032	2.044	39.50	2.015	2.022
#3	.2666	40.79	2.017	2.085	2.061	2.049	39.36	2.015	2.022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.115**	**2.093**	**39.97**	**42.96**	**2.043**	**40.56**	**2.043**	**2.025**	**41.73**
Stddev	.011	.013	.09	.27	.017	.15	.006	.004	.30
%RSD	.5407	.6163	.2248	.6294	.8161	.3627	.2888	.1968	.7298
#1	2.106	2.080	39.87	42.70	2.037	40.39	2.037	2.023	41.50
#2	2.111	2.106	40.03	42.96	2.031	40.61	2.043	2.022	41.60
#3	2.128	2.093	40.01	43.24	2.062	40.67	2.049	2.030	42.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.081**	**1.956**	**2.044**	**2.029**	**2.200**	**2.027**	**2.096**	**2.084**	**2.029**
Stddev	.002	.002	.005	.001	.002	.002	.012	.006	.003
%RSD	.1050	.1000	.2283	.0689	.0765	.1010	.5751	.2944	.1699
#1	2.079	1.955	2.050	2.030	2.199	2.030	2.086	2.077	2.030
#2	2.084	1.959	2.042	2.028	2.199	2.027	2.093	2.090	2.025
#3	2.082	1.955	2.041	2.030	2.202	2.026	2.109	2.085	2.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 17:38:23 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.104**	**1.969**
Stddev	.009	.005
%RSD	.4466	.2711
#1	2.095	1.964
#2	2.105	1.974
#3	2.113	1.971
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**435.94**	**1032.6**	**12694.**	**4037.5**
Stddev	.82	2.8	82.	11.3
%RSD	.18913	.27261	.64765	.27992
#1	436.89	1035.4	12787.	4050.2
#2	435.50	1032.5	12666.	4028.5
#3	435.43	1029.8	12630.	4033.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 17:43:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0033**	**-.0004**	F **-.0012**	**.0001**	**.0000**	**.0034**	**.0000**
Stddev	.0004	.0018	.0014	.0011	.0001	.0000	.0017	.0000
%RSD	250.9	53.65	388.5	86.91	154.2	28.01	49.01	76.91
#1	-.0001	.0026	.0013	-.0013	.0000	.0000	.0033	.0001
#2	.0006	.0021	-.0009	-.0022	.0001	.0000	.0051	.0001
#3	.0000	.0054	-.0015	-.0001	.0001	.0000	.0018	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0006**	**.0006**	**.0011**	**-.0001**	**-.0017**	**.0000**
Stddev	.0001	.0003	.0003	.0018	.0037	.0003	.0064	.0000
%RSD	690.5	625.7	53.26	310.2	320.3	233.7	372.8	18.65
#1	.0000	-.0003	.0009	.0013	-.0014	-.0001	.0054	.0000
#2	.0000	.0000	.0003	.0019	.0053	.0002	-.0069	.0000
#3	.0001	.0004	.0004	-.0015	-.0005	-.0004	-.0037	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0441**	**.0001**	**-.0002**	**.0002**	**.0012**	**.0020**	**.0002**
Stddev	.0002	.0021	.0002	.0008	.0012	.0017	.0006	.0003
%RSD	235.6	4.700	107.8	354.6	764.3	150.8	28.42	143.6
#1	-.0001	.0446	.0000	-.0007	-.0002	.0009	.0014	.0000
#2	.0001	.0459	.0003	.0007	-.0008	-.0005	.0025	.0005
#3	-.0003	.0418	.0002	-.0007	.0015	.0030	.0022	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 17:43:07 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0005**	**-.0001**	**-.0004**
Stddev	.0000	.0001	.0017	.0001	.0000
%RSD	15.70	319.3	332.4	162.6	8.996
#1	.0001	.0000	-.0011	-.0001	-.0004
#2	.0000	.0001	.0003	-.0002	-.0005
#3	.0000	.0000	.0023	.0001	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**523.05**	**1104.8**	**13594.**	**4075.5**
Stddev	1.74	7.6	46.	7.8
%RSD	.33342	.69033	.33812	.19058
#1	525.05	1112.4	13647.	4078.1
#2	521.83	1104.9	13570.	4066.8
#3	522.27	1097.1	13565.	4081.7

Zoom In Zoom Out

Sample Name: FC11600-5 Acquired: 12/6/2023 17:48:15 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**292.6**	**.0080**	**-.0129**	**.0069**	**.0158**	**302.0**	**-.0025**	**.0345**
Stddev	.0021	1.0	.0076	.0057	.0006	.0004	.8	.0004	.0008
%RSD	27.56	.3418	94.15	43.83	9.316	2.692	.2787	14.29	2.358
#1	.0058	292.4	.0164	-.0139	.0068	.0153	301.7	-.0028	.0347
#2	.0071	291.8	.0017	-.0069	.0076	.0159	301.4	-.0027	.0337
#3	.0099	293.7	.0059	-.0181	.0063	.0162	303.0	-.0021	.0353

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.894**	**.0017**	**61.66**	**30.85**	**.0180**	**53.50**	**5.548**	**-.0028**	F **1709.**
Stddev	.010	.0021	.38	.04	.0028	.22	.030	.0015	27.
%RSD	.5343	121.0	.6126	.1366	15.54	.4141	.5345	53.38	1.582
#1	1.888	.0025	61.65	30.89	.0163	53.36	5.555	-.0033	1688.
#2	1.888	-.0006	61.28	30.81	.0212	53.39	5.516	-.0040	1740.
#3	1.905	.0033	62.04	30.84	.0164	53.76	5.574	-.0011	1700.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1317**	**-.0060**	**-.0194**	**.0043**	**4.954**	**-.0084**	**.6340**	**.0090**	**-.0003**
Stddev	.0025	.0116	.0019	.0149	.012	.0058	.0027	.0004	.0050
%RSD	1.874	194.8	9.881	349.5	.2440	68.46	.4223	4.467	1964.
#1	.1311	.0074	-.0197	.0207	4.955	-.0090	.6317	.0085	-.0050
#2	.1345	-.0116	-.0173	-.0086	4.966	-.0024	.6335	.0091	.0049
#3	.1297	-.0137	-.0211	.0008	4.942	-.0138	.6369	.0093	-.0007

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.3169**	**.0119**
Stddev	.0014	.0017
%RSD	.4427	13.85
#1	.3168	.0129
#2	.3156	.0129
#3	.3184	.0100

Zoom In Zoom Out

Sample Name: FC11600-5 Acquired: 12/6/2023 17:48:15 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**425.66**	**1261.1**	**14963.**	**4916.0**
Stddev	1.06	2.7	68.	27.6
%RSD	.24985	.21161	.45740	.56209
#1	425.95	1262.3	14973.	4940.5
#2	426.56	1262.9	15026.	4921.4
#3	424.49	1258.0	14891.	4886.0

Zoom In Zoom Out

Sample Name: FC11600-6 Acquired: 12/6/2023 17:53:25 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.2153**	**-.0007**	**.0372**	**.0372**	**.0000**	**186.8**	**-.0003**	**.0005**
Stddev	.0004	.0006	.0012	.0014	.0001	.000	2.1	.0000	.0001
%RSD	76.30	.2985	177.1	3.738	.3498	253.1	1.116	10.83	27.13
#1	.0002	.2160	.0007	.0364	.0372	.0000	186.3	-.0003	.0006
#2	.0004	.2150	-.0012	.0364	.0373	-.0001	185.1	-.0003	.0004
#3	.0010	.2147	-.0014	.0388	.0371	.0000	189.1	-.0004	.0005

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0040**	**.0007**	**6.039**	**14.61**	**.0009**	**8.231**	**.2609**	**.0012**	F **136.2**
Stddev	.0001	.0002	.029	.02	.0001	.116	.0011	.0002	.9
%RSD	1.550	28.44	.4838	.1380	7.368	1.414	.4253	19.82	.6971
#1	.0039	.0007	6.028	14.61	.0008	8.150	.2616	.0012	135.2
#2	.0039	.0006	6.017	14.59	.0009	8.178	.2597	.0014	136.3
#3	.0040	.0010	6.072	14.63	.0009	8.364	.2616	.0009	137.1

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0031**	**-.0015**	**-.0006**	**.0001**	**1.773**	**.0002**	**.2961**	**.0021**	**-.0023**
Stddev	.0003	.0016	.0014	.0014	.003	.0005	.0006	.0002	.0016
%RSD	8.974	107.4	220.1	1936.	.1703	320.4	.1890	9.175	68.24
#1	.0033	-.0016	-.0004	-.0016	1.771	.0000	.2955	.0019	-.0041
#2	.0028	.0002	.0006	.0010	1.771	-.0003	.2963	.0023	-.0014
#3	.0033	-.0031	-.0021	.0008	1.776	.0008	.2966	.0020	-.0014

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0205**	**.0466**
Stddev	.0002	.0001
%RSD	.7707	.1555
#1	.0205	.0465
#2	.0204	.0466
#3	.0207	.0465

Zoom In Zoom Out

Sample Name: FC11600-6 Acquired: 12/6/2023 17:53:25 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**415.20**	**984.51**	**12288.**	**4000.7**
Stddev	.64	1.65	15.	46.5
%RSD	.15343	.16780	.12195	1.1616
#1	414.53	985.72	12295.	4015.2
#2	415.80	985.18	12298.	4038.2
#3	415.26	982.63	12271.	3948.7

Zoom In Zoom Out

Sample Name: FC11600-7 Acquired: 12/6/2023 17:58:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**.1105**	**-.0072**	**.0028**	**.0264**	**-.0004**	**46.96**	**-.0006**	**.0004**
Stddev	.0011	.0028	.0065	.0034	.0002	.0002	.08	.0003	.0004
%RSD	42.61	2.579	89.52	119.5	.8006	43.65	.1705	52.31	87.29
#1	.0013	.1121	-.0006	.0061	.0262	-.0006	47.01	-.0010	.0001
#2	.0034	.1072	-.0135	.0030	.0265	-.0003	47.00	-.0006	.0004
#3	.0027	.1121	-.0076	-.0006	.0266	-.0004	46.87	-.0003	.0008

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**-.0009**	**1.211**	**4.231**	**.0001**	**2.155**	**.0376**	**-.0015**	**5.091**
Stddev	.0008	.0000	.014	.088	.0013	.079	.0002	.0010	.018
%RSD	26.33	1.683	1.121	2.075	1013.	3.667	.4858	65.77	.3640
#1	.0037	-.0009	1.200	4.131	-.0003	2.064	.0375	-.0024	5.082
#2	.0027	-.0009	1.226	4.290	-.0009	2.196	.0375	-.0005	5.078
#3	.0022	-.0009	1.208	4.274	.0016	2.205	.0378	-.0017	5.112

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025**	**-.0035**	**.0014**	**.0024**	**.8625**	**-.0024**	**.1089**	**.0031**	**.0084**
Stddev	.0009	.0025	.0056	.0148	.0035	.0021	.0004	.0003	.0042
%RSD	33.86	71.56	388.7	625.7	.4081	85.91	.3363	11.07	49.95
#1	.0034	-.0052	-.0034	.0193	.8584	-.0002	.1089	.0027	.0048
#2	.0017	-.0046	.0001	-.0046	.8648	-.0044	.1092	.0034	.0074
#3	.0025	-.0006	.0076	-.0077	.8642	-.0026	.1085	.0032	.0130

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2917**	**.0254**
Stddev	.0017	.0008
%RSD	.5769	2.990
#1	.2930	.0252
#2	.2898	.0263
#3	.2924	.0248

Zoom In Zoom Out

Sample Name: FC11600-7 Acquired: 12/6/2023 17:58:37 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**510.78**	**1219.1**	**15066.**	**4620.6**
Stddev	2.61	8.9	39.	2.5
%RSD	.51169	.72989	.25651	.05445
#1	513.79	1228.3	15079.	4621.9
#2	509.26	1218.5	15096.	4622.2
#3	509.27	1210.6	15022.	4617.7

Zoom In Zoom Out

Sample Name: FC11626-1 Acquired: 12/6/2023 18:03:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**.0789**	**-.0019**	**.0930**	**.0233**	**-.0001**	**59.16**	**-.0002**	**.0195**
Stddev	.0004	.0044	.0012	.0015	.0001	.0000	.11	.0000	.0002
%RSD	12.51	5.591	62.84	1.596	.4920	45.21	.1848	8.075	1.210
#1	.0025	.0826	-.0025	.0945	.0235	.0000	59.12	-.0002	.0194
#2	.0031	.0740	-.0026	.0915	.0232	-.0001	59.08	-.0002	.0198
#3	.0031	.0802	-.0005	.0930	.0233	-.0001	59.29	-.0002	.0194

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0347**	**.0039**	**1.102**	F **305.4**	**.0069**	**17.24**	**.0495**	**.0341**	**61.83**
Stddev	.0003	.0001	.007	1.1	.0005	.08	.0003	.0002	.19
%RSD	.9837	3.475	.6129	.3736	7.588	.4416	.6157	.5502	.3115
#1	.0346	.0038	1.095	306.1	.0070	17.25	.0494	.0340	62.03
#2	.0344	.0040	1.104	306.0	.0073	17.16	.0494	.0343	61.80
#3	.0351	.0040	1.108	304.1	.0063	17.31	.0499	.0340	61.65

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1698**	**-.0028**	**.0020**	**.0032**	**11.85**	**.0006**	**.3060**	**.0052**	**-.0034**
Stddev	.0006	.0007	.0017	.0031	.01	.0002	.0008	.0001	.0006
%RSD	.3599	26.26	87.99	96.73	.1247	38.63	.2517	1.679	16.83
#1	.1697	-.0021	.0040	.0059	11.87	.0003	.3060	.0051	-.0041
#2	.1705	-.0035	.0012	.0039	11.84	.0006	.3068	.0053	-.0033
#3	.1693	-.0028	.0007	-.0002	11.84	.0008	.3052	.0051	-.0030

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**.0338**
Stddev	.0001	.0003
%RSD	15.13	.8622
#1	.0004	.0336
#2	.0004	.0341
#3	.0003	.0337

Zoom In Zoom Out

Sample Name: FC11626-1 Acquired: 12/6/2023 18:03:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**413.57**	**1008.9**	**12368.**	**4147.7**
Stddev	.61	1.3	34.	7.1
%RSD	.14665	.12907	.27742	.17041
#1	412.90	1007.4	12366.	4145.7
#2	414.07	1009.6	12403.	4155.6
#3	413.75	1009.7	12335.	4141.9

Zoom In Zoom Out

Sample Name: FC11626-3 Acquired: 12/6/2023 18:08:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0095**	**.0293**	**-.0011**	F **.8789**	**.0427**	**.0000**	**57.41**	**-.0001**	**.0080**
Stddev	.0001	.0033	.0007	.0071	.0002	.000	.08	.0001	.0002
%RSD	1.323	11.22	59.99	.8046	.4127	68.67	.1383	125.2	1.987
#1	.0096	.0331	-.0017	.8778	.0425	-.0001	57.37	.0000	.0079
#2	.0094	.0270	-.0004	.8724	.0427	-.0001	57.50	-.0001	.0082
#3	.0096	.0279	-.0012	.8864	.0429	.0000	57.35	-.0002	.0080

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**-.0002**	**.1862**	**25.19**	**.0054**	**19.30**	**.0377**	**.0014**	**13.29**
Stddev	.0004	.0002	.0009	.04	.0004	.02	.0003	.0000	.02
%RSD	64.85	99.91	.4826	.1521	7.962	.0950	.7886	2.077	.1474
#1	.0003	-.0003	.1866	25.15	.0050	19.31	.0380	.0014	13.26
#2	.0009	-.0002	.1852	25.21	.0058	19.28	.0374	.0015	13.29
#3	.0004	.0000	.1868	25.22	.0055	19.32	.0376	.0014	13.30

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0021**	**.0021**	**-.0003**	**11.99**	**-.0003**	**.2793**	**.0011**	**-.0001**
Stddev	.0001	.0016	.0013	.0016	.07	.0007	.0007	.0000	.0016
%RSD	19.74	72.94	62.78	523.8	.5601	216.3	.2438	2.291	1901.
#1	.0003	-.0033	.0031	.0014	11.94	-.0006	.2787	.0011	-.0012
#2	.0004	-.0004	.0006	-.0004	11.97	.0005	.2791	.0011	.0018
#3	.0005	-.0028	.0025	-.0019	12.07	-.0009	.2800	.0011	-.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0045**
Stddev	.000	.0001
%RSD	752.2	2.163
#1	-.0002	.0044
#2	.0002	.0045
#3	-.0001	.0046

Zoom In Zoom Out

Sample Name: FC11626-3 Acquired: 12/6/2023 18:08:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**459.50**	**1048.0**	**13323.**	**4197.2**
Stddev	2.44	6.8	15.	1.3
%RSD	.53085	.65169	.11269	.03098
#1	462.29	1053.8	13321.	4195.8
#2	458.42	1049.6	13339.	4198.3
#3	457.78	1040.5	13309.	4197.7

Zoom In Zoom Out

Sample Name: FC11603-1 Acquired: 12/6/2023 18:13:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0263**	**.0263**	F **5.319**	**-.0049**	**-.0001**	**571.9**	**-.0004**	**-.0004**
Stddev	.0017	.0124	.0043	.022	.0003	.0002	2.1	.0005	.0006
%RSD	227.2	47.25	16.32	.4140	5.626	138.9	.3633	107.1	146.0
#1	.0026	.0296	.0305	5.297	-.0052	.0000	571.0	-.0001	-.0010
#2	-.0002	.0126	.0220	5.341	-.0049	.0000	570.3	-.0002	-.0003
#3	-.0003	.0367	.0264	5.318	-.0046	-.0003	574.2	-.0009	.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0033**	**.1841**	**16.19**	**.3202**	**450.9**	**.7372**	**.0104**	F **1369.**
Stddev	.0010	.0007	.0101	.09	.0029	2.1	.0026	.0013	12.
%RSD	475.5	21.44	5.473	.5644	.9057	.4616	.3519	12.51	.8731
#1	.0009	.0030	.1863	16.14	.3171	449.6	.7361	.0115	1376.
#2	-.0009	.0041	.1930	16.12	.3206	449.9	.7353	.0107	1355.
#3	.0006	.0028	.1732	16.29	.3229	453.3	.7401	.0090	1376.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096**	**-.0134**	**.0010**	**-.0003**	**3.950**	**-.0016**	**10.06**	**.0044**	**.0038**
Stddev	.0009	.0068	.0020	.0036	.007	.0028	.04	.0005	.0089
%RSD	9.618	50.87	207.3	1275.	.1752	170.8	.4351	10.22	231.1
#1	.0096	-.0186	.0019	.0002	3.952	.0002	10.05	.0050	-.0059
#2	.0106	-.0158	.0024	-.0041	3.956	-.0002	10.02	.0042	.0115
#3	.0087	-.0057	-.0013	.0030	3.943	-.0048	10.11	.0041	.0059

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.0150**
Stddev	.0001	.0014
%RSD	16.57	9.561
#1	.0006	.0166
#2	.0005	.0140
#3	.0005	.0143

Zoom In Zoom Out

Sample Name: FC11603-1 Acquired: 12/6/2023 18:13:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**404.73**	**972.31**	**12250.**	**3948.9**
Stddev	1.34	2.40	14.	18.0
%RSD	.33131	.24667	.11283	.45605
#1	406.20	975.05	12245.	3955.6
#2	403.58	970.63	12266.	3962.6
#3	404.41	971.24	12239.	3928.5

Zoom In Zoom Out

Sample Name: FC11603-2 Acquired: 12/6/2023 18:18:59 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**.0291**	**.0458**	F **4.733**	**-.0058**	**-.0002**	**577.7**	**-.0007**	**.0012**
Stddev	.0013	.0206	.0069	.031	.0003	.0002	2.8	.0003	.0010
%RSD	116.6	70.83	14.98	.6605	6.063	100.4	.4906	43.10	79.42
#1	.0020	.0117	.0527	4.705	-.0061	-.0001	580.9	-.0010	.0001
#2	-.0004	.0238	.0456	4.767	-.0058	.0000	576.2	-.0005	.0016
#3	.0017	.0519	.0390	4.727	-.0054	-.0003	575.9	-.0005	.0019

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0014**	**.0030**	**1.034**	**19.89**	**.3348**	**467.9**	**.8352**	**.0181**	F **1176.**
Stddev	.0020	.0004	.012	.05	.0031	3.9	.0057	.0008	4.
%RSD	142.6	12.02	1.194	.2394	.9367	.8261	.6856	4.453	.3450
#1	-.0032	.0034	1.047	19.84	.3320	472.1	.8412	.0172	1179.
#2	.0007	.0030	1.022	19.89	.3382	466.8	.8299	.0184	1171.
#3	-.0016	.0027	1.032	19.94	.3342	464.7	.8346	.0187	1177.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0029**	**-.0131**	**-.0065**	**-.0056**	**3.641**	**-.0024**	**12.91**	**.0045**	**.0049**
Stddev	.0012	.0033	.0038	.0180	.009	.0028	.01	.0008	.0088
%RSD	41.02	24.81	58.58	322.8	.2335	116.5	.0810	16.62	181.3
#1	.0043	-.0100	-.0064	.0107	3.632	-.0048	12.90	.0052	-.0038
#2	.0022	-.0128	-.0103	-.0248	3.641	.0007	12.91	.0037	.0138
#3	.0023	-.0165	-.0027	-.0025	3.649	-.0032	12.92	.0046	.0046

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0010**	**.0155**
Stddev	.0014	.0016
%RSD	135.5	10.39
#1	.0003	.0143
#2	.0026	.0147
#3	.0002	.0173

Zoom In Zoom Out

Sample Name: FC11603-2 Acquired: 12/6/2023 18:18:59 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**405.28**	**961.84**	**12111.**	**3956.0**
Stddev	.99	1.71	27.	20.3
%RSD	.24458	.17828	.22248	.51252
#1	406.42	963.54	12081.	3933.3
#2	404.63	961.85	12120.	3972.2
#3	404.78	960.11	12132.	3962.6

Zoom In Zoom Out

Sample Name: FC11603-3 Acquired: 12/6/2023 18:24:11 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0474**	**.0080**	F **6.366**	**-.0042**	**-.0002**	**562.2**	**-.0004**	**.0017**
Stddev	.0026	.0217	.0083	.002	.0004	.0001	3.3	.0003	.0005
%RSD	731.3	45.76	103.3	.0354	8.383	49.69	.5949	68.57	27.51
#1	.0033	.0229	.0020	6.369	-.0046	-.0002	558.5	-.0005	.0019
#2	-.0010	.0642	.0174	6.364	-.0040	-.0003	565.1	-.0001	.0019
#3	-.0013	.0551	.0046	6.365	-.0040	-.0001	563.0	-.0005	.0011

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0057**	**.1769**	**22.83**	**.3921**	**452.1**	**2.967**	**.0229**	F **2008.**
Stddev	.0034	.0010	.0116	.08	.0041	1.0	.018	.0003	2.
%RSD	4210.	17.99	6.571	.3458	1.057	.2312	.6022	1.451	.0997
#1	.0021	.0059	.1884	22.92	.3908	450.9	2.981	.0227	2011.
#2	.0021	.0046	.1772	22.78	.3967	452.5	2.973	.0228	2007.
#3	-.0039	.0066	.1651	22.78	.3888	452.8	2.947	.0233	2008.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1334**	**-.0084**	**-.0052**	**-.0153**	**4.668**	**.0002**	**10.92**	**.0044**	**-.0012**
Stddev	.0003	.0047	.0084	.0234	.023	.0025	.04	.0005	.0130
%RSD	.2410	55.68	160.4	153.5	.5011	1209.	.3737	11.66	1114.
#1	.1332	-.0034	.0044	.0036	4.641	.0009	10.96	.0046	.0130
#2	.1338	-.0127	-.0094	-.0415	4.686	.0023	10.88	.0039	-.0126
#3	.1333	-.0092	-.0106	-.0078	4.677	-.0026	10.93	.0049	-.0039

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0018**	**.0122**
Stddev	.0008	.0011
%RSD	45.55	9.132
#1	.0027	.0129
#2	.0016	.0109
#3	.0011	.0129

Zoom In Zoom Out

Sample Name: FC11603-3 Acquired: 12/6/2023 18:24:11 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**392.57**	**950.02**	**11783.**	**3924.0**
Stddev	1.68	6.86	26.	16.0
%RSD	.42890	.72195	.22059	.40780
#1	394.30	957.71	11757.	3942.0
#2	390.93	944.54	11808.	3918.7
#3	392.49	947.81	11785.	3911.4

Zoom In Zoom Out

Sample Name: FC11603-4 Acquired: 12/6/2023 18:29:24 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0257**	**.0319**	F **4.953**	**.0009**	**.0000**	**584.6**	**.0007**	**.0015**
Stddev	.0007	.0125	.0026	.022	.0002	.000	3.3	.0005	.0008
%RSD	194.4	48.70	8.301	.4414	23.76	2695.	.5704	75.05	52.89
#1	-.0010	.0358	.0342	4.927	.0008	.0000	587.0	.0001	.0015
#2	.0003	.0117	.0324	4.963	.0011	-.0001	586.1	.0009	.0022
#3	-.0003	.0296	.0290	4.967	.0007	.0001	580.8	.0009	.0007

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008**	**.0044**	**.2920**	**17.19**	**.3169**	**282.0**	**1.862**	**.0370**	F **2422.**
Stddev	.0018	.0009	.0078	.12	.0060	1.2	.015	.0013	11.
%RSD	237.3	21.29	2.676	.7006	1.906	.4416	.8002	3.408	.4419
#1	.0005	.0052	.2830	17.20	.3102	283.4	1.845	.0359	2429.
#2	-.0009	.0045	.2974	17.07	.3220	281.1	1.868	.0384	2426.
#3	.0027	.0034	.2955	17.31	.3184	281.4	1.873	.0368	2410.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1450**	**-.0130**	**-.0041**	**-.0096**	**3.953**	**-.0024**	**10.12**	**.0045**	**.0082**
Stddev	.0010	.0048	.0078	.0164	.010	.0030	.06	.0001	.0131
%RSD	.7110	36.62	192.9	170.9	.2418	121.0	.6076	1.610	159.3
#1	.1458	-.0107	.0023	.0047	3.950	-.0051	10.07	.0044	-.0003
#2	.1438	-.0185	-.0017	-.0275	3.964	-.0030	10.11	.0046	.0016
#3	.1453	-.0099	-.0128	-.0060	3.945	.0008	10.19	.0045	.0233

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.0207**
Stddev	.0011	.0015
%RSD	209.2	7.084
#1	-.0007	.0220
#2	.0011	.0191
#3	.0012	.0211

Zoom In Zoom Out

Sample Name: FC11603-4 Acquired: 12/6/2023 18:29:24 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**386.19**	**956.72**	**11697.**	**4054.3**
Stddev	.33	2.91	53.	4.4
%RSD	.08644	.30409	.45418	.10946
#1	386.57	959.24	11757.	4051.7
#2	386.08	953.53	11677.	4059.5
#3	385.93	957.37	11656.	4051.8

Zoom In Zoom Out

Sample Name: FC11603-5 Acquired: 12/6/2023 18:34:36 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0013**	**.0189**	**.0396**	F **2.592**	**.0023**	**-.0001**	**664.4**	**.0000**	**.0003**
Stddev	.0013	.0070	.0032	.003	.0003	.0000	1.6	.0005	.0004
%RSD	102.5	37.17	8.178	.1064	11.70	30.50	.2433	2455.	118.3
#1	.0007	.0268	.0383	2.591	.0024	-.0001	665.9	-.0005	.0006
#2	.0028	.0165	.0372	2.595	.0024	-.0001	664.6	.0000	.0004
#3	.0004	.0134	.0433	2.591	.0020	-.0001	662.7	.0005	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0005**	**.1378**	**16.39**	**.1652**	**160.0**	**.5578**	**.0185**	F **647.6**
Stddev	.0014	.0010	.0059	.06	.0010	.5	.0009	.0021	8.0
%RSD	1072.	197.2	4.286	.3719	.6084	.3155	.1669	11.29	1.231
#1	.0011	.0002	.1446	16.32	.1662	159.5	.5580	.0166	656.8
#2	.0007	.0016	.1350	16.39	.1653	159.9	.5586	.0181	643.0
#3	-.0014	-.0003	.1338	16.44	.1642	160.5	.5568	.0208	643.0

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011**	**-.0119**	**.0004**	**-.0062**	**4.016**	**-.0030**	**10.42**	**.0038**	**-.0013**
Stddev	.0013	.0044	.0032	.0108	.009	.0035	.02	.0005	.0098
%RSD	117.7	36.79	733.9	172.6	.2377	117.8	.1700	12.76	748.7
#1	-.0003	-.0155	-.0029	.0034	4.008	.0008	10.40	.0042	-.0087
#2	.0022	-.0134	.0035	-.0042	4.014	-.0061	10.44	.0040	-.0050
#3	.0015	-.0070	.0007	-.0178	4.027	-.0035	10.43	.0032	.0098

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0024**	**.0178**
Stddev	.0009	.0004
%RSD	38.77	2.232
#1	.0032	.0177
#2	.0014	.0183
#3	.0027	.0175

Zoom In Zoom Out

Sample Name: FC11603-5 Acquired: 12/6/2023 18:34:36 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**421.90**	**999.68**	**12686.**	**4108.4**
Stddev	.39	4.96	40.	6.2
%RSD	.09292	.49572	.31369	.15050
#1	421.49	1004.7	12715.	4114.6
#2	421.95	999.65	12641.	4102.2
#3	422.27	994.74	12703.	4108.3

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 18:39:48 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2579**	**40.39**	**2.021**	**2.091**	**2.055**	**2.021**	**39.19**	**2.019**	**2.028**
Stddev	.0006	.19	.006	.007	.016	.009	.12	.002	.001
%RSD	.2279	.4595	.3175	.3252	.7920	.4513	.3069	.0882	.0603
#1	.2586	40.23	2.026	2.092	2.039	2.013	39.07	2.021	2.029
#2	.2575	40.59	2.014	2.097	2.072	2.031	39.17	2.019	2.027
#3	.2577	40.35	2.023	2.084	2.053	2.020	39.31	2.017	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.024**	**2.057**	**39.62**	**42.04**	**2.049**	**39.88**	**2.007**	**2.037**	**41.58**
Stddev	.008	.004	.07	.34	.020	.21	.008	.002	.39
%RSD	.4075	.2154	.1660	.7991	.9602	.5235	.4065	.1180	.9347
#1	2.025	2.054	39.55	41.86	2.040	39.64	2.009	2.040	41.31
#2	2.015	2.062	39.68	42.43	2.072	40.01	1.998	2.035	42.03
#3	2.032	2.055	39.64	41.84	2.036	39.99	2.014	2.036	41.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.056**	**1.979**	**2.055**	**2.049**	**2.202**	**2.030**	**2.063**	**2.042**	**2.032**
Stddev	.002	.005	.004	.008	.003	.003	.012	.005	.003
%RSD	.0840	.2316	.1933	.3698	.1368	.1283	.5798	.2398	.1267
#1	2.055	1.980	2.051	2.055	2.203	2.033	2.057	2.039	2.030
#2	2.058	1.974	2.057	2.040	2.199	2.028	2.077	2.039	2.035
#3	2.054	1.983	2.058	2.051	2.205	2.028	2.056	2.047	2.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 18:39:48 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.035**	**1.977**
Stddev	.005	.006
%RSD	.2427	.2975
#1	2.039	1.982
#2	2.030	1.978
#3	2.038	1.971
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**433.99**	**1036.3**	**13032.**	**4125.4**
Stddev	1.32	2.2	55.	17.4
%RSD	.30437	.21317	.42030	.42216
#1	434.33	1037.6	13078.	4144.3
#2	435.11	1037.5	13046.	4121.7
#3	432.53	1033.8	12971.	4110.1

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 18:44:32 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0020**	**-.0002**	**-.0001**	**.0001**	**.0001**	**.0025**	**.0000**	**.0000**
Stddev	.0002	.0027	.0009	.0001	.0001	.0001	.0018	.000	.0001
%RSD	100.1	133.8	402.8	127.6	80.65	92.51	73.69	58.08	168.1
#1	-.0004	.0022	-.0012	.0000	.0001	.0002	.0032	.0000	.0000
#2	-.0003	.0046	-.0001	-.0001	.0001	.0001	.0004	-.0001	.0000
#3	.0000	-.0008	.0006	-.0001	.0000	.0000	.0038	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0004**	**.0034**	**-.0052**	**.0000**	**.0107**	**.0000**	**.0001**	**.0371**
Stddev	.0002	.0002	.0036	.0056	.0009	.0083	.0000	.0000	.0050
%RSD	62.30	46.18	108.0	108.6	9981.	77.16	42.04	4.114	13.53
#1	-.0002	.0003	.0066	.0003	-.0003	.0027	.0000	.0002	.0420
#2	-.0004	.0003	.0041	-.0049	.0010	.0103	.0000	.0001	.0319
#3	-.0001	.0006	-.0006	-.0109	-.0007	.0192	.0000	.0002	.0374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**-.0002**	**-.0004**	**.0012**	**.0027**	**-.0005**	**.0001**	**.0000**	**-.0004**
Stddev	.0001	.0009	.0013	.0017	.0003	.0007	.0001	.000	.0015
%RSD	153.0	369.8	369.4	144.5	11.94	136.5	70.98	443.2	384.5
#1	.0002	.0008	.0009	.0008	.0029	-.0008	.0001	.0000	.0013
#2	.0001	-.0007	-.0002	.0031	.0023	-.0010	.0001	-.0001	-.0011
#3	.0000	-.0009	-.0018	-.0003	.0029	.0003	.0000	.0000	-.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 18:44:32 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0004**
Stddev	.000	.0002
%RSD	2226.	40.41
#1	.0001	-.0006
#2	-.0003	-.0003
#3	.0002	-.0004
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**524.61**	**1109.0**	**13875.**	**4156.8**
Stddev	2.21	2.1	64.	8.4
%RSD	.42156	.19033	.45894	.20177
#1	527.06	1110.6	13916.	4149.1
#2	524.00	1109.8	13908.	4165.7
#3	522.77	1106.6	13802.	4155.7

Zoom In Zoom Out

Sample Name: FC11603-6 Acquired: 12/6/2023 18:49:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.0176**	**-.0010**	**1.912**	**-.0002**	**-.0002**	**695.2**	**.0000**	**.0015**
Stddev	.0009	.0148	.0092	.016	.0004	.0002	6.5	.000	.0002
%RSD	194.0	84.03	905.0	.8330	168.4	99.13	.9317	426.2	13.10
#1	.0014	.0060	.0021	1.904	.0002	.0000	688.3	.0001	.0017
#2	.0005	.0126	-.0114	1.903	-.0006	-.0002	696.0	.0000	.0013
#3	-.0005	.0343	.0062	1.931	-.0003	-.0005	701.2	-.0001	.0014

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0080**	**.0045**	**.1445**	**33.08**	**.1934**	**293.8**	**1.088**	**.0277**	F **1819.**
Stddev	.0024	.0001	.0147	.14	.0019	2.7	.005	.0013	2.
%RSD	29.63	1.652	10.19	.4146	.9729	.9233	.4772	4.858	.1199
#1	.0107	.0045	.1289	32.93	.1922	290.7	1.089	.0292	1817.
#2	.0065	.0045	.1464	33.09	.1924	295.6	1.082	.0266	1818.
#3	.0067	.0044	.1582	33.21	.1955	295.0	1.092	.0274	1821.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0745**	**-.0125**	**.0032**	**.0045**	**4.703**	**-.0062**	**13.09**	**.0044**	**-.0107**
Stddev	.0010	.0049	.0062	.0259	.015	.0057	.04	.0005	.0031
%RSD	1.387	39.57	195.4	571.2	.3238	92.24	.3002	10.88	28.77
#1	.0757	-.0104	.0033	-.0018	4.693	-.0019	13.06	.0049	-.0125
#2	.0741	-.0089	.0093	.0330	4.696	-.0040	13.08	.0039	-.0072
#3	.0737	-.0181	-.0031	-.0176	4.721	-.0128	13.13	.0043	-.0125

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.0144**
Stddev	.0008	.0011
%RSD	153.6	7.614
#1	-.0004	.0156
#2	.0010	.0136
#3	.0010	.0140

Zoom In Zoom Out

Sample Name: FC11603-6 Acquired: 12/6/2023 18:49:40 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**395.34**	**954.67**	**11714.**	**3927.5**
Stddev	1.77	3.57	75.	31.2
%RSD	.44731	.37418	.63833	.79551
#1	396.93	958.22	11767.	3963.1
#2	395.66	954.71	11748.	3915.0
#3	393.44	951.07	11629.	3904.5

Zoom In Zoom Out

Sample Name: FC11642-2 Acquired: 12/6/2023 18:54:52 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0028**	**.0059**	**.0283**	**.4868**	**-.0001**	**67.67**	**-.0002**	**.0000**
Stddev	.0001	.0035	.0012	.0009	.0050	.0000	.67	.0000	.000
%RSD	58.55	123.0	19.51	3.045	1.036	81.70	.9959	9.499	193.3
#1	.0001	.0003	.0047	.0286	.4854	.0000	67.58	-.0002	.0000
#2	.0003	.0014	.0070	.0273	.4827	-.0001	67.05	-.0002	.0000
#3	.0002	.0067	.0060	.0290	.4925	.0000	68.38	-.0003	-.0001

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0004**	**6.970**	**2.669**	**.0110**	**9.798**	**1.310**	**.0015**	**13.20**
Stddev	.0003	.0003	.099	.042	.0005	.107	.006	.0001	.16
%RSD	194.5	61.56	1.414	1.561	4.127	1.088	.4252	4.820	1.197
#1	.0006	.0003	6.940	2.656	.0108	9.791	1.311	.0016	13.17
#2	.0000	.0002	6.890	2.636	.0107	9.694	1.304	.0015	13.06
#3	-.0001	.0007	7.080	2.716	.0116	9.907	1.315	.0015	13.37

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0019**	**.0006**	**-.0012**	**11.13**	**-.0002**	**.3039**	**.0011**	**.0007**
Stddev	.0001	.0011	.0020	.0008	.04	.0006	.0039	.0000	.0004
%RSD	16.95	56.37	349.8	72.45	.3583	280.9	1.285	2.980	56.43
#1	-.0004	-.0027	.0022	-.0003	11.15	.0005	.3022	.0011	.0010
#2	-.0004	-.0007	-.0016	-.0020	11.15	-.0007	.3012	.0011	.0003
#3	-.0006	-.0022	.0011	-.0012	11.08	-.0004	.3084	.0012	.0008

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0032**
Stddev	.0004	.0001
%RSD	439.2	4.393
#1	.0005	.0034
#2	-.0003	.0032
#3	.0001	.0031

Zoom In Zoom Out

Sample Name: FC11642-2 Acquired: 12/6/2023 18:54:52 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.44**	**1053.4**	**12944.**	**4158.4**
Stddev	.28	2.8	32.	59.2
%RSD	.06051	.26949	.25023	1.4227
#1	466.70	1051.3	12957.	4191.1
#2	466.14	1052.2	12969.	4194.1
#3	466.47	1056.6	12908.	4090.2

Zoom In Zoom Out

Sample Name: FC11636-1B Acquired: 12/6/2023 18:59:55 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**-.0019**	**.0289**	**.1015**	**.0156**	**.0000**	**45.75**	**-.0001**	**.0157**
Stddev	.0003	.0036	.0012	.0039	.0001	.000	.03	.0001	.0001
%RSD	77.97	195.0	4.124	3.808	.3755	242.8	.0591	161.4	.8071
#1	.0008	.0010	.0303	.1058	.0156	-.0001	45.75	-.0001	.0157
#2	.0001	-.0060	.0280	.0982	.0156	.0000	45.73	.0000	.0155
#3	.0003	-.0006	.0285	.1005	.0157	.0000	45.78	-.0001	.0158

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0123**	**.0967**	**19.91**	**.0017**	**5.821**	F **10.67**	**.0000**	**15.48**
Stddev	.0001	.0003	.0006	.06	.0004	.010	.06	.000	.09
%RSD	36.06	2.325	.5815	.2817	20.93	.1757	.5557	433.0	.5780
#1	.0005	.0121	.0961	19.85	.0014	5.819	10.61	.0000	15.39
#2	.0002	.0126	.0971	19.93	.0017	5.812	10.73	.0000	15.49
#3	.0004	.0123	.0970	19.95	.0021	5.832	10.69	-.0001	15.56

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0247**	**.0023**	**.0018**	**.0001**	**6.266**	**.0004**	**.3369**	**.0009**	**.0083**
Stddev	.0004	.0011	.0006	.0005	.025	.0004	.0015	.0001	.0021
%RSD	1.438	46.18	33.33	558.1	.3961	107.6	.4586	10.54	24.80
#1	.0249	.0034	.0018	.0002	6.291	.0001	.3351	.0010	.0061
#2	.0250	.0013	.0024	-.0004	6.241	.0002	.3375	.0008	.0085
#3	.0243	.0021	.0012	.0005	6.266	.0008	.3380	.0010	.0103

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0012**	**.0324**
Stddev	.0002	.0001
%RSD	17.10	.2281
#1	.0012	.0325
#2	.0010	.0324
#3	.0014	.0324

Zoom In Zoom Out

Sample Name: FC11636-1B Acquired: 12/6/2023 18:59:55 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.87**	**1064.4**	**13259.**	**4204.1**
Stddev	.47	5.0	89.	19.3
%RSD	.09985	.46517	.66878	.45850
#1	467.28	1060.5	13359.	4220.8
#2	466.97	1070.0	13188.	4183.0
#3	466.36	1062.7	13231.	4208.5

Zoom In Zoom Out

Sample Name: FC11636-2A Acquired: 12/6/2023 19:05:07 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**.0063**	**1.805**	**.1402**	**.0560**	**.0000**	**51.67**	**-.0032**	**.0188**
Stddev	.0004	.0040	.011	.0011	.0003	.000	.27	.0001	.0002
%RSD	14.66	62.95	.5814	.8069	.4661	423.3	.5138	2.123	.9285
#1	.0029	.0018	1.815	.1399	.0559	.0000	51.43	-.0031	.0189
#2	.0028	.0079	1.807	.1392	.0559	.0000	51.61	-.0032	.0189
#3	.0022	.0093	1.794	.1414	.0563	-.0001	51.95	-.0032	.0186

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0015**	**73.71**	**8.187**	**.0001**	**6.846**	**2.400**	**.0001**	**13.84**
Stddev	.0006	.0001	.17	.018	.0004	.066	.007	.0001	.01
%RSD	161.5	5.480	.2363	.2209	616.3	.9624	.2931	167.5	.0714
#1	.0000	.0016	73.55	8.178	-.0004	6.789	2.407	.0002	13.85
#2	.0001	.0014	73.70	8.176	.0001	6.831	2.401	-.0001	13.83
#3	.0010	.0015	73.89	8.208	.0005	6.918	2.393	.0002	13.85

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0053**	**.0030**	**.0015**	**.0025**	**7.617**	**-.0004**	**.4204**	**.0009**	**.0000**
Stddev	.0003	.0012	.0003	.0020	.010	.0007	.0004	.0001	.001
%RSD	5.054	40.83	21.07	79.67	.1256	149.2	.0926	5.986	26160.
#1	.0054	.0041	.0015	.0021	7.626	.0003	.4200	.0008	-.0003
#2	.0050	.0032	.0013	.0008	7.607	-.0010	.4203	.0009	.0013
#3	.0055	.0017	.0019	.0047	7.619	-.0006	.4208	.0009	-.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0007**	**.0023**
Stddev	.0002	.0001
%RSD	28.03	3.882
#1	.0005	.0022
#2	.0009	.0024
#3	.0006	.0023

Zoom In Zoom Out

Sample Name: FC11636-2A Acquired: 12/6/2023 19:05:07 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**466.94**	**1063.2**	**13404.**	**4229.7**
Stddev	.30	1.4	28.	16.9
%RSD	.06337	.13008	.20563	.40052
#1	467.13	1063.1	13372.	4247.4
#2	467.09	1064.6	13420.	4228.0
#3	466.60	1061.8	13420.	4213.7

Zoom In Zoom Out

Sample Name: FC11636-3A Acquired: 12/6/2023 19:10:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030**	**.0118**	**1.609**	**.1352**	**.0581**	**.0000**	**49.68**	**-.0027**	**.0178**
Stddev	.0004	.0026	.005	.0019	.0001	.0001	.24	.0001	.0001
%RSD	11.88	22.17	.2871	1.434	.2002	1316.	.4795	4.698	.8272
#1	.0027	.0148	1.607	.1338	.0580	.0000	49.54	-.0028	.0176
#2	.0030	.0108	1.605	.1345	.0582	.0000	49.95	-.0028	.0179
#3	.0034	.0098	1.614	.1374	.0580	-.0001	49.54	-.0026	.0177

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0017**	**68.96**	**8.119**	**.0000**	**6.614**	**2.263**	**.0002**	**13.45**
Stddev	.0002	.0000	.23	.028	.001	.012	.013	.0001	.01
%RSD	52.38	.6881	.3404	.3453	2013.	.1871	.5770	45.49	.0857
#1	.0003	.0017	68.81	8.110	-.0007	6.605	2.249	.0002	13.46
#2	.0002	.0017	69.23	8.097	.0009	6.608	2.267	.0002	13.44
#3	.0006	.0017	68.83	8.151	-.0003	6.628	2.274	.0001	13.44

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0047**	**.0024**	**.0011**	**.0041**	**7.286**	**-.0002**	**.4147**	**.0010**	**.0009**
Stddev	.0003	.0000	.0007	.0022	.020	.0001	.0008	.0001	.0002
%RSD	5.406	.4609	63.77	53.55	.2744	66.06	.1883	5.752	21.73
#1	.0045	.0024	.0020	.0065	7.263	-.0003	.4146	.0009	.0007
#2	.0050	.0024	.0009	.0022	7.293	-.0001	.4155	.0011	.0011
#3	.0047	.0023	.0006	.0035	7.301	-.0003	.4139	.0010	.0010

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0005**	**.0044**
Stddev	.0001	.0003
%RSD	27.61	5.783
#1	.0005	.0046
#2	.0006	.0041
#3	.0004	.0044

Zoom In Zoom Out

Sample Name: FC11636-3A Acquired: 12/6/2023 19:10:10 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**468.17**	**1051.1**	**13365.**	**4127.6**
Stddev	.48	3.3	72.	11.3
%RSD	.10218	.31451	.54055	.27496
#1	467.98	1054.7	13448.	4140.1
#2	468.71	1050.4	13322.	4117.9
#3	467.81	1048.2	13325.	4124.9

Zoom In Zoom Out

Sample Name: FC11636-4A Acquired: 12/6/2023 19:15:11 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0032**	**.0009**	F **4.422**	**.0644**	**.0275**	**.0000**	**40.50**	**-.0023**	**.0231**
Stddev	.0003	.0003	.020	.0014	.0001	.000	.27	.0001	.0002
%RSD	9.531	37.18	.4438	2.204	.3288	238.9	.6711	4.117	.6632
#1	.0035	.0008	4.401	.0632	.0274	.0000	40.40	-.0025	.0232
#2	.0031	.0006	4.426	.0641	.0276	.0000	40.29	-.0023	.0233
#3	.0029	.0013	4.440	.0660	.0276	.0000	40.81	-.0023	.0230

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007**	**.0009**	**66.17**	**5.139**	**.0002**	**4.614**	**3.315**	**.0005**	**8.095**
Stddev	.0004	.0002	.21	.011	.0004	.046	.011	.0001	.003
%RSD	58.89	19.17	.3182	.2041	275.3	.9901	.3405	27.71	.0314
#1	.0004	.0007	65.94	5.135	-.0001	4.645	3.317	.0006	8.097
#2	.0011	.0009	66.24	5.132	.0007	4.562	3.303	.0004	8.097
#3	.0005	.0011	66.34	5.151	-.0001	4.637	3.325	.0004	8.092

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0087**	**.0026**	**.0011**	**.0022**	**6.891**	**-.0003**	**.3020**	**.0009**	**.0017**
Stddev	.0003	.0009	.0012	.0021	.015	.0003	.0011	.0001	.0022
%RSD	3.352	35.49	108.6	92.96	.2103	115.9	.3596	7.154	130.3
#1	.0085	.0022	.0023	.0046	6.880	.0000	.3011	.0008	.0042
#2	.0085	.0020	.0001	.0007	6.908	-.0006	.3032	.0009	.0010
#3	.0090	.0037	.0008	.0014	6.886	-.0002	.3017	.0010	-.0001

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0004**	**-.0007**
Stddev	.0005	.0001
%RSD	117.4	15.91
#1	-.0001	-.0008
#2	.0004	-.0006
#3	.0009	-.0007

Zoom In Zoom Out

Sample Name: FC11636-4A Acquired: 12/6/2023 19:15:11 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**479.79**	**1064.1**	**13317.**	**4106.0**
Stddev	.30	3.5	56.	22.2
%RSD	.06245	.33111	.41953	.53972
#1	479.63	1068.1	13312.	4118.3
#2	479.61	1062.7	13376.	4119.2
#3	480.14	1061.5	13265.	4080.4

Zoom In Zoom Out

Sample Name: FC11603-1 Acquired: 12/6/2023 19:20:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0111**	**-.5973**	**-.0403**	**4.592**	**-.0100**	**-.0060**	**604.2**	**-.0078**	**-.0022**
Stddev	.0185	.5281	.1065	.042	.0040	.0057	15.4	.0047	.0116
%RSD	166.4	88.42	264.0	.9132	39.50	94.60	2.543	60.48	531.8
#1	-.0296	-.0741	.0152	4.547	-.0103	-.0028	621.9	-.0063	-.0013
#2	.0075	-.5876	.0269	4.599	-.0059	-.0126	596.9	-.0040	-.0142
#3	-.0114	-1.130	-.1631	4.630	-.0138	-.0026	593.9	-.0131	.0090

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0749**	**.0495**	**.4841**	**14.37**	**.3384**	**452.3**	**.7973**	**-.0428**	**1406.**
Stddev	.0087	.0080	.1287	1.03	.0440	11.3	.0089	.0159	16.
%RSD	11.65	16.21	26.59	7.206	12.99	2.486	1.111	37.04	1.110
#1	-.0849	.0583	.6216	13.19	.3755	465.2	.8073	-.0456	1424.
#2	-.0686	.0479	.3665	14.80	.3499	446.5	.7943	-.0571	1394.
#3	-.0714	.0424	.4642	15.12	.2899	445.1	.7903	-.0258	1400.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015**	**-.1003**	**-.0266**	**.1439**	**4.121**	**-.0402**	**10.50**	**.0407**	**-.0170**
Stddev	.0178	.0604	.0579	.3808	.042	.0511	.13	.0039	.0869
%RSD	1184.	60.18	217.8	264.6	1.028	127.2	1.226	9.570	511.1
#1	.0171	-.1668	-.0522	.5057	4.093	-.0709	10.65	.0391	.0709
#2	-.0179	-.0490	-.0672	.1793	4.170	.0188	10.43	.0378	-.0191
#3	.0053	-.0851	.0397	-.2533	4.101	-.0686	10.43	.0451	-.1028

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0064**	**-.0176**
Stddev	.0148	.0129
%RSD	231.8	73.50
#1	-.0059	-.0322
#2	-.0215	-.0076
#3	.0082	-.0129

Zoom In Zoom Out

Sample Name: FC11603-1 Acquired: 12/6/2023 19:20:13 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**502.63**	**1095.2**	**13449.**	**4051.5**
Stddev	1.29	3.5	80.	89.1
%RSD	.25744	.32330	.59241	2.1989
#1	503.64	1099.0	13358.	3948.7
#2	503.07	1094.5	13488.	4098.2
#3	501.17	1092.0	13503.	4107.4

Zoom In Zoom Out

Sample Name: FC11603-2 Acquired: 12/6/2023 19:25:20 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0156**	**-.2073**	**.0803**	**3.616**	**-.0119**	**-.0025**	**568.9**	**-.0020**	**.0042**
Stddev	.0320	.2465	.0316	.063	.0055	.0026	3.6	.0034	.0133
%RSD	204.9	118.9	39.40	1.754	45.95	103.3	.6387	173.7	315.8
#1	.0212	-.0246	.1022	3.566	-.0144	-.0004	566.9	-.0056	-.0096
#2	-.0363	-.1095	.0440	3.595	-.0157	-.0054	573.1	-.0015	.0053
#3	-.0317	-.4877	.0945	3.687	-.0056	-.0018	566.7	.0012	.0169

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0547**	**.0629**	**1.099**	**16.79**	**.3516**	**428.4**	**.8253**	**-.0221**	**1107.**
Stddev	.0220	.0050	.053	.47	.0278	4.8	.0053	.0114	4.
%RSD	40.18	8.019	4.789	2.796	7.917	1.132	.6463	51.54	.3401
#1	-.0600	.0686	1.156	16.65	.3788	430.5	.8314	-.0223	1111.
#2	-.0306	.0611	1.087	16.41	.3529	431.8	.8221	-.0107	1105.
#3	-.0736	.0590	1.053	17.31	.3231	422.8	.8223	-.0335	1105.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0076**	**-.0097**	**.0254**	**.0428**	**3.487**	**-.0159**	**12.34**	**.0335**	**.0128**
Stddev	.0093	.0452	.1546	.1893	.105	.0385	.03	.0057	.0490
%RSD	122.6	467.0	609.8	442.0	3.011	242.6	.2799	17.01	383.1
#1	-.0088	-.0055	.1991	.1565	3.527	.0213	12.36	.0310	.0652
#2	.0023	.0333	-.0971	.1478	3.368	-.0555	12.30	.0295	-.0319
#3	-.0162	-.0568	-.0260	-.1757	3.567	-.0134	12.36	.0400	.0051

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0070**	**-.0286**
Stddev	.0346	.0113
%RSD	494.8	39.38
#1	-.0272	-.0174
#2	.0329	-.0284
#3	-.0267	-.0400

Zoom In Zoom Out

Sample Name: FC11603-2 Acquired: 12/6/2023 19:25:20 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**504.95**	**1098.4**	**13389.**	**4125.9**
Stddev	.75	3.4	52.	23.2
%RSD	.14901	.31218	.38845	.56119
#1	505.81	1101.5	13349.	4145.2
#2	504.62	1098.9	13371.	4100.2
#3	504.42	1094.7	13448.	4132.4

Zoom In Zoom Out

Sample Name: FC11603-3 Acquired: 12/6/2023 19:30:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0274**	**.0897**	**-.1173**	**5.426**	**-.0065**	**-.0032**	**574.4**	**-.0100**	**.0011**
Stddev	.0225	.3776	.0253	.076	.0062	.0023	3.5	.0041	.0165
%RSD	82.16	420.9	21.56	1.404	95.95	71.61	.6055	41.34	1551.
#1	.0018	.2273	-.1285	5.361	-.0135	-.0054	578.3	-.0147	-.0179
#2	.0441	-.3374	-.0883	5.408	-.0044	-.0008	571.5	-.0088	.0125
#3	.0362	.3792	-.1350	5.510	-.0015	-.0035	573.5	-.0066	.0086

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0661**	**.0093**	**.3033**	**19.03**	**.3618**	**419.3**	**3.024**	**-.0221**	**1974.**
Stddev	.0086	.0157	.1303	2.03	.0194	2.2	.016	.0156	8.
%RSD	12.96	168.6	42.94	10.65	5.372	.5360	.5112	70.37	.3988
#1	-.0585	-.0023	.3541	21.01	.3395	420.5	3.031	-.0118	1977.
#2	-.0754	.0030	.4005	16.96	.3706	420.7	3.035	-.0146	1965.
#3	-.0645	.0272	.1553	19.13	.3752	416.7	3.007	-.0401	1980.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1291**	**.0123**	**.0902**	**.0748**	**4.639**	**-.0299**	**10.51**	**.0284**	**.0655**
Stddev	.0185	.1160	.1002	.1512	.032	.0154	.03	.0026	.2051
%RSD	14.34	945.6	111.1	202.1	.6853	51.50	.2612	9.079	313.1
#1	.1232	.0077	.0690	.2445	4.674	-.0270	10.52	.0283	-.1368
#2	.1499	.1305	.0023	-.0458	4.612	-.0465	10.48	.0259	.2734
#3	.1143	-.1014	.1992	.0258	4.632	-.0161	10.53	.0311	.0600

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0067**	**-.0150**
Stddev	.0085	.0059
%RSD	126.5	39.39
#1	.0018	-.0093
#2	.0018	-.0147
#3	.0165	-.0211

Zoom In Zoom Out

Sample Name: FC11603-3 Acquired: 12/6/2023 19:30:26 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**493.77**	**1101.0**	**13604.**	**4276.4**
Stddev	1.15	2.5	19.	28.3
%RSD	.23342	.22903	.14318	.66110
#1	494.91	1103.7	13584.	4243.8
#2	493.80	1100.7	13623.	4292.2
#3	492.61	1098.7	13605.	4293.3

Zoom In Zoom Out

Sample Name: FC11603-4 Acquired: 12/6/2023 19:35:33 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0153**	**-.1022**	**-.0922**	**3.830**	**-.0030**	**-.0016**	**587.8**	**-.0111**	**-.0033**
Stddev	.0210	.5054	.2391	.066	.0084	.0040	3.3	.0068	.0064
%RSD	136.8	494.7	259.5	1.725	277.4	244.8	.5605	61.40	193.4
#1	.0079	-.5571	-.1998	3.898	-.0022	.0022	584.7	-.0150	.0040
#2	-.0211	-.1914	.1819	3.826	-.0118	-.0014	591.3	-.0032	-.0079
#3	-.0328	.4419	-.2585	3.766	.0049	-.0058	587.5	-.0150	-.0061

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0550**	**-.0086**	**.3551**	**14.00**	**.2798**	**266.8**	**1.772**	**-.0127**	**2340.**
Stddev	.0226	.0167	.1110	.64	.0387	1.8	.004	.0336	14.
%RSD	41.03	195.3	31.26	4.580	13.83	.6591	.1985	265.5	.5845
#1	-.0705	-.0136	.3563	13.31	.2447	266.8	1.771	.0092	2326.
#2	-.0655	-.0223	.4655	14.11	.3213	268.6	1.769	-.0514	2353.
#3	-.0291	.0101	.2435	14.58	.2734	265.1	1.776	.0042	2342.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1241**	**.0299**	**.0202**	**.1204**	**3.874**	**-.0465**	**9.535**	**.0329**	**.0501**
Stddev	.0244	.0817	.0246	.0705	.037	.0531	.043	.0062	.1503
%RSD	19.69	273.6	121.7	58.55	.9515	114.3	.4519	18.83	300.3
#1	.1332	.0550	.0011	.0753	3.890	.0131	9.511	.0330	-.1079
#2	.0964	.0961	.0115	.0843	3.831	-.0887	9.584	.0267	.0667
#3	.1427	-.0615	.0479	.2017	3.899	-.0639	9.509	.0391	.1913

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0042**	**-.0101**
Stddev	.0083	.0032
%RSD	196.0	31.45
#1	-.0053	-.0100
#2	.0099	-.0070
#3	.0081	-.0133

Zoom In Zoom Out

Sample Name: FC11603-4 Acquired: 12/6/2023 19:35:33 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**491.58**	**1101.4**	**13762.**	**4242.9**
Stddev	2.86	5.6	89.	41.3
%RSD	.58244	.51227	.64458	.97296
#1	494.77	1106.0	13743.	4288.1
#2	490.72	1103.0	13859.	4207.2
#3	489.24	1095.1	13685.	4233.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 19:40:38 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2574**	**40.55**	**2.007**	**2.055**	**2.063**	**2.041**	**39.73**	**2.021**	**2.024**
Stddev	.0016	.15	.010	.014	.013	.009	.05	.004	.004
%RSD	.6289	.3816	.5105	.6592	.6239	.4291	.1246	.1778	.1770
#1	.2556	40.53	1.995	2.041	2.068	2.040	39.74	2.022	2.022
#2	.2587	40.41	2.011	2.057	2.049	2.033	39.68	2.017	2.022
#3	.2580	40.71	2.015	2.068	2.073	2.050	39.78	2.024	2.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.033**	**2.038**	**39.86**	**42.21**	**2.040**	**40.58**	**2.004**	**2.031**	**41.74**
Stddev	.016	.009	.07	.28	.012	.18	.008	.003	.29
%RSD	.7632	.4286	.1742	.6660	.5988	.4376	.3841	.1576	.7063
#1	2.015	2.034	39.91	42.21	2.040	40.65	1.995	2.032	41.79
#2	2.041	2.048	39.78	41.92	2.028	40.37	2.008	2.028	41.42
#3	2.044	2.032	39.88	42.48	2.052	40.71	2.009	2.034	42.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.060**	**1.980**	**2.037**	**2.036**	**2.190**	**2.031**	**2.072**	**2.043**	**2.018**
Stddev	.006	.006	.008	.011	.007	.003	.011	.003	.005
%RSD	.2931	.2823	.4117	.5361	.3096	.1660	.5400	.1255	.2706
#1	2.056	1.982	2.029	2.026	2.184	2.027	2.071	2.040	2.023
#2	2.058	1.974	2.035	2.034	2.189	2.030	2.061	2.045	2.012
#3	2.067	1.985	2.046	2.048	2.197	2.034	2.083	2.043	2.020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 19:40:38 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.035**	**1.991**
Stddev	.013	.005
%RSD	.6306	.2401
#1	2.020	1.995
#2	2.043	1.986
#3	2.042	1.991
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**437.69**	**1047.9**	**13134.**	**4084.5**
Stddev	1.71	5.5	67.	17.5
%RSD	.39049	.52073	.50885	.42879
#1	439.27	1053.2	13210.	4079.1
#2	437.93	1048.3	13085.	4104.0
#3	435.88	1042.3	13106.	4070.2

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 19:45:22 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0028**	**-.0008**	**-.0003**	**.0001**	**.0001**	**.0041**	**.0000**	**.0000**
Stddev	.0002	.0026	.0013	.0015	.0000	.0001	.0027	.0001	.0000
%RSD	234.2	93.44	159.2	457.9	20.59	60.54	65.60	1139.	96.28
#1	-.0001	.0047	-.0020	-.0011	.0001	.0001	.0063	.0001	.0001
#2	.0003	.0038	.0007	.0014	.0001	.0001	.0011	.0000	.0000
#3	.0001	-.0002	-.0012	-.0014	.0001	.0000	.0049	-.0001	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0005**	**.0028**	**-.0184**	**.0003**	**.0012**	**.0001**	**.0000**	**.0050**
Stddev	.000	.0002	.0018	.0109	.0002	.0108	.0000	.0001	.0036
%RSD	437.3	36.28	63.97	59.04	65.29	866.1	59.79	513.5	73.34
#1	-.0003	.0005	.0043	-.0119	.0005	-.0047	.0001	.0001	.0022
#2	.0001	.0003	.0032	-.0124	.0001	-.0053	.0000	.0001	.0036
#3	.0000	.0006	.0008	-.0310	.0002	.0137	.0001	-.0001	.0091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0001**	**.0006**	**.0018**	**.0025**	**-.0003**	**.0001**	**.0001**	**.0016**
Stddev	.000	.0013	.0005	.0023	.0003	.0003	.0000	.0001	.0006
%RSD	331.9	1770.	92.45	126.2	11.25	113.2	35.70	90.05	36.82
#1	-.0002	.0015	.0001	.0018	.0029	-.0004	.0001	.0000	.0011
#2	.0000	-.0011	.0012	-.0005	.0024	-.0004	.0001	.0000	.0015
#3	.0001	-.0002	.0005	.0041	.0023	.0001	.0001	.0001	.0023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 19:45:22 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.0000**	**-.0005**
Stddev	.0002	.0001
%RSD	2010.	12.62
#1	.0002	-.0004
#2	-.0002	-.0005
#3	.0000	-.0005
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**523.76**	**1110.8**	**13778.**	**4087.6**
Stddev	1.30	4.8	7.	31.8
%RSD	.24790	.43166	.05123	.77876
#1	525.25	1113.1	13773.	4121.9
#2	522.83	1113.9	13786.	4082.0
#3	523.21	1105.2	13776.	4059.0

Zoom In Zoom Out

Sample Name: FC11603-5 Acquired: 12/6/2023 19:50:30 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067**	**.0670**	**.0075**	**2.631**	**.0012**	**-.0006**	**746.7**	**-.0007**	**.0015**
Stddev	.0013	.0607	.0276	.019	.0006	.0013	1.6	.0012	.0029
%RSD	19.32	90.66	367.2	.7156	46.96	225.8	.2186	177.2	198.9
#1	.0052	.0862	.0191	2.652	.0018	.0002	746.1	.0002	-.0007
#2	.0073	-.0010	-.0240	2.618	.0010	-.0021	745.4	-.0001	.0048
#3	.0076	.1157	.0274	2.622	.0008	.0002	748.5	-.0021	.0004

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0043**	**.0123**	**.1725**	**18.53**	**.1819**	**184.6**	**.6395**	**.0180**	**731.8**
Stddev	.0027	.0036	.0268	.14	.0121	.2	.0007	.0026	1.2
%RSD	63.49	29.55	15.52	.7298	6.665	.1317	.1037	14.65	.1659
#1	-.0043	.0090	.1906	18.65	.1931	184.7	.6387	.0158	731.9
#2	-.0070	.0162	.1851	18.57	.1836	184.3	.6400	.0209	733.0
#3	-.0015	.0118	.1417	18.38	.1690	184.7	.6396	.0173	730.6

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0017**	**.0082**	**-.0015**	**.0548**	**4.422**	**-.0072**	**12.03**	**.0219**	**.0336**
Stddev	.0027	.0104	.0144	.0225	.020	.0097	.03	.0040	.0464
%RSD	162.5	126.2	985.3	41.10	.4589	135.3	.2198	18.23	138.1
#1	.0008	.0156	-.0165	.0808	4.406	.0009	12.02	.0197	.0256
#2	-.0013	-.0036	-.0002	.0405	4.445	-.0179	12.02	.0195	-.0083
#3	-.0045	.0126	.0123	.0432	4.415	-.0045	12.07	.0265	.0834

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0023**	**.0147**
Stddev	.0027	.0037
%RSD	117.5	25.26
#1	.0054	.0108
#2	.0015	.0182
#3	.0001	.0150

Zoom In Zoom Out

Sample Name: FC11603-5 Acquired: 12/6/2023 19:50:30 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**472.70**	**1056.9**	**12922.**	**4000.6**
Stddev	1.74	6.4	30.	17.6
%RSD	.36784	.60981	.23196	.43931
#1	474.66	1064.2	12956.	4005.7
#2	472.08	1052.2	12910.	4015.1
#3	471.35	1054.2	12900.	3981.1

Zoom In Zoom Out

Sample Name: FC11603-6 Acquired: 12/6/2023 19:55:36 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0303**	**.0770**	**-.0561**	**1.395**	**-.0077**	**-.0017**	**692.0**	**-.0082**	**.0043**
Stddev	.0455	.0513	.0648	.071	.0015	.0039	3.2	.0045	.0143
%RSD	150.2	66.62	115.5	5.100	19.59	229.0	.4580	54.13	333.5
#1	.0371	.0708	-.0704	1.354	-.0063	-.0059	694.0	-.0107	.0021
#2	.0720	.1311	-.1125	1.477	-.0093	.0018	688.3	-.0031	-.0088
#3	-.0182	.0291	.0147	1.353	-.0075	-.0010	693.6	-.0110	.0196

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0365**	**.0666**	**.1409**	**27.80**	**.1653**	**274.9**	**1.079**	**-.0117**	**1749.**
Stddev	.0268	.0076	.0842	1.86	.0410	3.8	.008	.0263	1.
%RSD	73.32	11.46	59.76	6.704	24.78	1.375	.7080	224.7	.0584
#1	-.0071	.0671	.0587	28.77	.1988	274.6	1.087	.0155	1748.
#2	-.0593	.0739	.2270	25.65	.1197	271.3	1.077	-.0369	1750.
#3	-.0431	.0587	.1371	28.97	.1775	278.8	1.072	-.0136	1750.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0569**	**-.0455**	**-.0050**	**.0499**	**4.499**	**-.0075**	**12.63**	**.0425**	**.1249**
Stddev	.0123	.0213	.0803	.3026	.003	.0374	.03	.0058	.1246
%RSD	21.64	46.88	1596.	606.6	.0710	497.8	.2766	13.58	99.75
#1	.0432	-.0497	-.0751	-.0367	4.497	.0355	12.67	.0386	.1854
#2	.0670	-.0224	.0827	.3863	4.502	-.0263	12.60	.0398	-.0184
#3	.0605	-.0643	-.0227	-.2000	4.497	-.0317	12.63	.0491	.2076

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**-.0030**	**-.0112**
Stddev	.0308	.0139
%RSD	1012.	124.7
#1	.0222	-.0253
#2	.0060	-.0108
#3	-.0373	.0026

Zoom In Zoom Out

Sample Name: FC11603-6 Acquired: 12/6/2023 19:55:36 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**496.97**	**1093.7**	**13206.**	**4120.3**
Stddev	2.01	4.3	6.	24.0
%RSD	.40391	.39035	.04581	.58136
#1	498.58	1097.6	13212.	4114.0
#2	497.62	1094.2	13205.	4146.7
#3	494.72	1089.1	13200.	4100.0

Zoom In Zoom Out

Sample Name: FC11609-15 Acquired: 12/6/2023 20:00:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0009**	**43.18**	**-.0056**	**-.0367**	**.5768**	**.0057**	**4.210**	**-.0008**	**.0434**
Stddev	.0025	.04	.0266	.0114	.0010	.0005	.021	.0009	.0010
%RSD	277.7	.0914	474.3	30.96	.1725	9.603	.4979	110.6	2.231
#1	-.0005	43.17	-.0121	-.0497	.5757	.0063	4.211	-.0001	.0423
#2	.0014	43.14	-.0284	-.0285	.5775	.0055	4.231	-.0004	.0437
#3	-.0035	43.22	.0236	-.0318	.5772	.0053	4.189	-.0018	.0441

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0076**	**.0036**	**11.74**	**4.834**	**.0262**	**2.441**	**1.635**	**-.0028**	**11.19**
Stddev	.0023	.0014	.03	.040	.0041	.080	.006	.0009	.04
%RSD	30.06	37.77	.2812	.8178	15.48	3.286	.3571	33.54	.3815
#1	.0051	.0052	11.71	4.789	.0282	2.394	1.640	-.0018	11.24
#2	.0096	.0027	11.75	4.849	.0289	2.395	1.629	-.0030	11.16
#3	.0080	.0030	11.78	4.863	.0215	2.533	1.638	-.0036	11.18

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075**	**.0138**	**-.0021**	**-.0178**	**25.92**	**.0017**	**.1129**	**1.625**	**.0083**
Stddev	.0026	.0076	.0108	.0116	.14	.0023	.0005	.010	.0254
%RSD	35.23	55.12	505.1	64.88	.5367	135.7	.4438	.5938	304.4
#1	.0048	.0100	.0100	-.0173	25.77	.0000	.1123	1.632	-.0041
#2	.0101	.0089	-.0059	-.0296	25.96	.0008	.1133	1.629	-.0084
#3	.0075	.0226	-.0106	-.0065	26.04	.0044	.1130	1.614	.0375

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0354**	**.0344**
Stddev	.0013	.0013
%RSD	3.755	3.833
#1	.0357	.0355
#2	.0339	.0347
#3	.0365	.0329

Zoom In Zoom Out

Sample Name: FC11609-15 Acquired: 12/6/2023 20:00:44 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 10.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**514.07**	**1297.0**	**15813.**	**4885.9**
Stddev	2.83	9.2	94.	14.7
%RSD	.54965	.70638	.59440	.30014
#1	517.23	1306.2	15706.	4902.6
#2	513.19	1296.9	15881.	4880.3
#3	511.78	1287.9	15852.	4874.9

Zoom In Zoom Out

Sample Name: FC11600-3 Acquired: 12/6/2023 20:05:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0055**	**1.186**	**-.0059**	**-.0109**	**.0202**	**-.0002**	**360.1**	**-.0031**	**.0081**
Stddev	.0023	.116	.0214	.0100	.0011	.0006	3.9	.0008	.0005
%RSD	40.90	9.792	365.9	91.95	5.361	266.6	1.075	26.29	6.006
#1	.0067	1.300	.0024	-.0002	.0191	-.0008	364.0	-.0041	.0084
#2	.0069	1.068	.0102	-.0125	.0204	-.0003	356.3	-.0026	.0083
#3	.0029	1.191	-.0302	-.0200	.0213	.0004	359.9	-.0028	.0075

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7215**	**-.0002**	**43.28**	**11.53**	**.0096**	**53.30**	**1.870**	**-.0086**	**1184.**
Stddev	.0067	.0047	.44	.26	.0046	.25	.011	.0018	8.
%RSD	.9274	2309.	1.005	2.266	47.43	.4624	.6018	20.87	.6855
#1	.7292	-.0056	43.58	11.26	.0112	53.37	1.880	-.0080	1183.
#2	.7180	.0026	42.78	11.54	.0131	53.03	1.871	-.0072	1177.
#3	.7173	.0024	43.48	11.78	.0045	53.51	1.857	-.0107	1193.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4523**	**.0037**	**.0095**	**.0572**	**2.372**	**-.0138**	**.6254**	**.0153**	**.0081**
Stddev	.0060	.0163	.0216	.0419	.016	.0127	.0031	.0007	.0239
%RSD	1.336	436.4	226.6	73.25	.6633	92.52	.4924	4.285	293.5
#1	.4458	.0064	.0251	.0099	2.355	-.0256	.6245	.0160	.0356
#2	.4532	-.0137	-.0151	.0898	2.375	-.0154	.6228	.0148	-.0075
#3	.4578	.0185	.0185	.0720	2.386	-.0003	.6288	.0150	-.0037

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4599**	**.0259**
Stddev	.0055	.0030
%RSD	1.206	11.54
#1	.4636	.0289
#2	.4535	.0229
#3	.4625	.0258

Zoom In Zoom Out

Sample Name: FC11600-3 Acquired: 12/6/2023 20:05:47 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**465.68**	**1100.9**	**13692.**	**4273.2**
Stddev	2.80	5.7	29.	44.0
%RSD	.60186	.51636	.21136	1.0293
#1	468.90	1107.4	13660.	4229.6
#2	464.27	1098.8	13700.	4317.5
#3	463.86	1096.6	13717.	4272.4

Zoom In Zoom Out

Sample Name: MP43235-D1 Acquired: 12/6/2023 20:10:51 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0109**	**1.148**	**.0237**	**-.0228**	**.0184**	**.0000**	**362.8**	**-.0037**	**.0064**
Stddev	.0026	.064	.0358	.0055	.0007	.001	2.0	.0020	.0043
%RSD	23.98	5.591	151.0	24.30	3.705	1352.	.5642	54.34	66.79
#1	.0129	1.164	.0596	-.0168	.0191	-.0007	363.7	-.0057	.0098
#2	.0079	1.077	-.0120	-.0239	.0177	.0003	360.4	-.0016	.0077
#3	.0117	1.203	.0235	-.0276	.0183	.0003	364.2	-.0040	.0016

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7429**	**.0057**	**43.66**	**11.74**	**.0125**	**55.12**	**1.878**	**-.0056**	**1217.**
Stddev	.0095	.0017	.09	.21	.0027	.04	.003	.0026	2.
%RSD	1.279	29.40	.2174	1.790	21.93	.0744	.1338	46.22	.1671
#1	.7534	.0075	43.56	11.64	.0121	55.08	1.875	-.0084	1218.
#2	.7406	.0054	43.69	11.60	.0099	55.16	1.880	-.0033	1215.
#3	.7348	.0042	43.75	11.98	.0154	55.12	1.878	-.0050	1219.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4688**	**-.0037**	**.0052**	**.0594**	**2.405**	**.0048**	**.6436**	**.0144**	**.0151**
Stddev	.0101	.0131	.0208	.0128	.015	.0012	.0018	.0021	.0249
%RSD	2.163	355.5	399.4	21.62	.6339	25.40	.2841	14.25	164.8
#1	.4802	.0099	-.0170	.0659	2.422	.0059	.6439	.0130	-.0135
#2	.4608	-.0163	.0242	.0677	2.394	.0051	.6416	.0167	.0313
#3	.4654	-.0047	.0085	.0446	2.398	.0035	.6452	.0134	.0276

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4674**	**.0216**
Stddev	.0117	.0032
%RSD	2.503	14.82
#1	.4772	.0217
#2	.4545	.0183
#3	.4707	.0247

Zoom In Zoom Out

Sample Name: MP43235-D1 Acquired: 12/6/2023 20:10:51 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**467.56**	**1088.7**	**13583.**	**4157.1**
Stddev	1.30	6.0	10.	27.6
%RSD	.27846	.54837	.07519	.66347
#1	467.33	1091.6	13588.	4155.4
#2	468.96	1092.6	13572.	4185.5
#3	466.39	1081.8	13590.	4130.5

Zoom In Zoom Out

Sample Name: MP43235-S1 Acquired: 12/6/2023 20:15:57 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2062**	**25.63**	**.1873**	**.4640**	**.2168**	**.1996**	**389.1**	**.1967**	**.2064**
Stddev	.0097	.17	.0091	.0295	.0010	.0014	.9	.0017	.0025
%RSD	4.716	.6445	4.845	6.353	.4753	.7028	.2282	.8527	1.187
#1	.2052	25.60	.1782	.4660	.2159	.1980	388.9	.1985	.2036
#2	.2163	25.49	.1964	.4336	.2166	.2007	390.1	.1964	.2081
#3	.1969	25.81	.1873	.4924	.2179	.2000	388.3	.1952	.2075

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9509**	**.2108**	**86.11**	**57.81**	**.4993**	**97.19**	**2.042**	**.6481**	**1212.**
Stddev	.0064	.0029	.03	.28	.0055	.55	.005	.0062	3.
%RSD	.6778	1.355	.0381	.4781	1.104	.5674	.2560	.9524	.2466
#1	.9583	.2102	86.14	57.55	.5008	96.80	2.043	.6530	1213.
#2	.9463	.2083	86.10	57.79	.5039	97.82	2.047	.6501	1208.
#3	.9481	.2139	86.08	58.10	.4932	96.95	2.036	.6412	1214.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6556**	**.2070**	**.1968**	**.1974**	**2.824**	**.4974**	**1.133**	**.5160**	**.2221**
Stddev	.0030	.0287	.0138	.0206	.011	.0033	.004	.0031	.0338
%RSD	.4603	13.88	6.991	10.42	.4030	.6541	.3404	.6036	15.23
#1	.6556	.2064	.2000	.2040	2.822	.4937	1.129	.5180	.2429
#2	.6526	.1786	.1818	.1744	2.815	.4987	1.132	.5124	.2404
#3	.6586	.2361	.2088	.2139	2.837	.4998	1.137	.5175	.1831

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.6759**	**.2169**
Stddev	.0045	.0019
%RSD	.6615	.8600
#1	.6811	.2180
#2	.6739	.2148
#3	.6729	.2180

Zoom In Zoom Out

Sample Name: MP43235-S1 Acquired: 12/6/2023 20:15:57 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**467.42**	**1086.6**	**13238.**	**4137.2**
Stddev	.62	4.9	19.	17.6
%RSD	.13217	.45540	.14326	.42547
#1	467.68	1092.1	13228.	4155.2
#2	467.85	1085.1	13259.	4120.1
#3	466.71	1082.5	13225.	4136.2

Zoom In Zoom Out

Sample Name: MP43235-S2 Acquired: 12/6/2023 20:21:00 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2207**	**25.88**	**.1842**	**.4559**	**.2204**	**.2050**	**403.3**	**.2000**	**.2121**
Stddev	.0086	.15	.0256	.0176	.0019	.0010	2.6	.0003	.0011
%RSD	3.882	.5982	13.91	3.861	.8684	.4679	.6405	.1578	.5009
#1	.2258	25.89	.2114	.4751	.2207	.2060	404.2	.2002	.2117
#2	.2108	25.72	.1806	.4406	.2183	.2041	405.4	.2002	.2112
#3	.2255	26.02	.1605	.4521	.2221	.2050	400.4	.1997	.2133

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9986**	**.2140**	**88.30**	**59.07**	**.5067**	**99.61**	**2.122**	**.6545**	**1269.**
Stddev	.0233	.0036	.16	.28	.0168	.37	.017	.0114	2.
%RSD	2.329	1.668	.1782	.4670	3.313	.3708	.8195	1.741	.1546
#1	.9720	.2103	88.43	58.75	.5215	99.54	2.108	.6415	1270.
#2	1.015	.2174	88.34	59.22	.4885	100.0	2.142	.6597	1267.
#3	1.009	.2144	88.12	59.24	.5101	99.28	2.117	.6624	1271.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6742**	**.1931**	**.2047**	**.1630**	**2.914**	**.4933**	**1.174**	**.5291**	**.2067**
Stddev	.0052	.0215	.0172	.0204	.005	.0059	.004	.0029	.0211
%RSD	.7639	11.11	8.395	12.52	.1562	1.191	.3198	.5530	10.22
#1	.6692	.1723	.2134	.1436	2.909	.4985	1.175	.5259	.2041
#2	.6740	.2151	.2157	.1843	2.915	.4945	1.170	.5300	.2289
#3	.6794	.1918	.1849	.1611	2.917	.4869	1.177	.5315	.1869

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.6990**	**.2165**
Stddev	.0061	.0032
%RSD	.8713	1.499
#1	.6982	.2202
#2	.7054	.2147
#3	.6933	.2145

Zoom In Zoom Out

Sample Name: MP43235-S2 Acquired: 12/6/2023 20:21:00 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**467.40**	**1084.5**	**13203.**	**4110.7**
Stddev	2.35	7.6	67.	20.0
%RSD	.50372	.69764	.50773	.48743
#1	470.01	1091.6	13273.	4109.0
#2	465.44	1085.4	13139.	4091.6
#3	466.74	1076.6	13196.	4131.6

Zoom In Zoom Out

Sample Name: MP43235-PS1 Acquired: 12/6/2023 20:26:02 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0630**	**3.729**	**.1136**	**-.0528**	**.2770**	**.0529**	**360.5**	**.0492**	**.0589**
Stddev	.0033	.035	.0029	.0228	.0013	.0010	1.9	.0012	.0015
%RSD	5.245	.9483	2.524	43.20	.4758	1.938	.5330	2.360	2.618
#1	.0599	3.763	.1169	-.0791	.2762	.0537	358.4	.0489	.0593
#2	.0626	3.693	.1122	-.0386	.2763	.0533	361.0	.0482	.0601
#3	.0665	3.731	.1116	-.0406	.2785	.0517	362.2	.0505	.0571

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8404**	**.1131**	**46.45**	**22.47**	**.0122**	**59.08**	**1.973**	**.0891**	**1210.**
Stddev	.0051	.0024	.22	.12	.0068	.79	.006	.0052	6.
%RSD	.6041	2.137	.4676	.5276	55.50	1.334	.2939	5.856	.4861
#1	.8443	.1103	46.20	22.60	.0044	58.65	1.979	.0944	1208.
#2	.8423	.1140	46.62	22.37	.0165	58.61	1.967	.0888	1206.
#3	.8346	.1149	46.53	22.43	.0157	59.99	1.972	.0840	1217.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5649**	**.0527**	**.0969**	**.0987**	**2.367**	**.0455**	**.6992**	**.1245**	**.1245**
Stddev	.0062	.0165	.0309	.0485	.025	.0123	.0010	.0011	.0196
%RSD	1.093	31.28	31.90	49.16	1.055	27.06	.1413	.8717	15.70
#1	.5680	.0462	.0991	.1533	2.350	.0536	.7004	.1252	.1404
#2	.5578	.0714	.0649	.0825	2.395	.0313	.6985	.1251	.1027
#3	.5690	.0404	.1266	.0604	2.354	.0517	.6988	.1233	.1305

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.5431**	**.2796**
Stddev	.0035	.0022
%RSD	.6517	.7737
#1	.5410	.2814
#2	.5411	.2772
#3	.5472	.2803

Zoom In Zoom Out

Sample Name: MP43235-PS1 Acquired: 12/6/2023 20:26:02 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 20.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**469.23**	**1096.0**	**13177.**	**4183.0**
Stddev	2.55	5.8	45.	28.8
%RSD	.54277	.53052	.34289	.68959
#1	472.08	1101.0	13166.	4212.0
#2	468.41	1089.6	13226.	4182.7
#3	467.19	1097.3	13137.	4154.3

Zoom In Zoom Out

Sample Name: MP43235-SD1 Acquired: 12/6/2023 20:31:05 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0067**	**.9357**	**-.0007**	**-.3394**	**.0137**	**.0016**	**357.7**	**-.0144**	**.0120**
Stddev	.0324	.1653	.0380	.1084	.0064	.0024	2.6	.0068	.0017
%RSD	482.9	17.66	5517.	31.93	46.87	153.1	.7299	47.51	13.97
#1	.0144	.9288	-.0180	-.4492	.0065	.0022	357.2	-.0071	.0134
#2	-.0288	.7740	.0429	-.3365	.0157	.0037	355.3	-.0206	.0101
#3	.0345	1.104	-.0270	-.2326	.0189	-.0011	360.5	-.0154	.0125

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7446**	**.0096**	**42.72**	**9.241**	**-.0175**	**51.36**	**1.891**	**-.0508**	**1143.**
Stddev	.0365	.0329	.31	1.168	.0510	1.51	.037	.0146	12.
%RSD	4.908	343.8	.7160	12.64	291.2	2.950	1.941	28.77	1.036
#1	.7622	.0425	42.85	9.156	.0058	53.00	1.932	-.0502	1145.
#2	.7689	-.0233	42.37	8.118	.0177	51.06	1.878	-.0657	1130.
#3	.7025	.0096	42.93	10.45	-.0761	50.01	1.861	-.0365	1154.

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4518**	**-.0564**	**-.0427**	**.0683**	**2.473**	**-.0071**	**.6142**	**.0134**	**.0324**
Stddev	.0252	.0277	.0388	.4522	.049	.0565	.0070	.0117	.1556
%RSD	5.586	49.19	90.88	662.4	1.988	794.7	1.135	87.20	481.1
#1	.4736	-.0304	-.0726	-.4536	2.529	.0512	.6119	.0036	-.1423
#2	.4577	-.0856	.0012	.3148	2.446	-.0616	.6088	.0263	.1564
#3	.4242	-.0531	-.0568	.3436	2.443	-.0109	.6221	.0103	.0829

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.4529**	**-.0147**
Stddev	.0231	.0045
%RSD	5.110	30.47
#1	.4744	-.0124
#2	.4559	-.0199
#3	.4284	-.0119

Zoom In Zoom Out

Sample Name: MP43235-SD1 Acquired: 12/6/2023 20:31:05 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 100.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**502.98**	**1119.1**	**13663.**	**4276.4**
Stddev	1.27	5.1	275.	24.4
%RSD	.25251	.45312	2.0136	.57065
#1	504.04	1121.4	13346.	4269.8
#2	503.34	1122.6	13807.	4303.5
#3	501.57	1113.3	13836.	4256.1

Zoom In Zoom Out

Sample Name: FC11600-6 Acquired: 12/6/2023 20:36:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005**	**.2406**	**-.0035**	**.0155**	**.0376**	**.0000**	**196.6**	**-.0006**	**.0007**
Stddev	.0009	.0071	.0069	.0036	.0004	.0003	1.6	.0004	.0004
%RSD	189.3	2.950	197.4	22.97	1.081	2952.	.8243	64.56	52.39
#1	.0013	.2345	-.0098	.0158	.0380	-.0001	198.1	-.0001	.0003
#2	.0005	.2484	.0038	.0188	.0378	-.0003	194.9	-.0008	.0008
#3	-.0004	.2389	-.0044	.0117	.0372	.0004	196.7	-.0008	.0010

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0018**	**-.0001**	**6.269**	**13.68**	**.0022**	**8.279**	**.2699**	**-.0008**	**135.2**
Stddev	.0024	.0002	.017	.05	.0020	.071	.0010	.0003	.7
%RSD	132.8	129.3	.2732	.3444	88.97	.8608	.3711	30.84	.5412
#1	.0028	-.0003	6.260	13.62	.0043	8.282	.2708	-.0011	134.4
#2	.0035	.0000	6.259	13.70	.0004	8.207	.2688	-.0007	135.5
#3	-.0009	.0000	6.289	13.71	.0020	8.349	.2702	-.0007	135.8

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026**	**-.0090**	**-.0040**	**-.0016**	**1.812**	**-.0002**	**.2933**	**.0066**	**.0086**
Stddev	.0008	.0032	.0017	.0158	.014	.0024	.0007	.0004	.0141
%RSD	32.00	36.20	41.92	1021.	.7659	1040.	.2403	6.137	164.2
#1	.0033	-.0086	-.0049	-.0027	1.796	-.0025	.2925	.0068	.0048
#2	.0028	-.0123	-.0021	.0148	1.817	-.0005	.2935	.0062	.0242
#3	.0017	-.0059	-.0050	-.0168	1.823	.0023	.2938	.0070	-.0032

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0198**	**.0494**
Stddev	.0017	.0006
%RSD	8.389	1.282
#1	.0181	.0497
#2	.0214	.0498
#3	.0200	.0486

Zoom In Zoom Out

Sample Name: FC11600-6 Acquired: 12/6/2023 20:36:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**473.53**	**1073.8**	**13552.**	**4182.7**
Stddev	1.12	9.3	40.	27.8
%RSD	.23557	.86399	.29435	.66514
#1	474.45	1084.5	13530.	4176.5
#2	473.84	1067.9	13598.	4213.0
#3	472.29	1069.1	13528.	4158.4

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 20:41:17 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2618**	**40.82**	**2.023**	**2.051**	**2.062**	**2.050**	**40.13**	**2.034**	**2.036**
Stddev	.0014	.09	.007	.013	.005	.004	.30	.001	.002
%RSD	.5504	.2222	.3688	.6230	.2522	.2129	.7402	.0411	.1184
#1	.2601	40.82	2.019	2.039	2.065	2.055	40.36	2.035	2.035
#2	.2628	40.73	2.032	2.050	2.056	2.047	40.23	2.034	2.035
#3	.2624	40.92	2.019	2.064	2.066	2.047	39.79	2.033	2.039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.065**	**2.075**	**40.25**	**42.56**	**2.046**	**40.78**	**2.025**	**2.043**	**41.90**
Stddev	.012	.008	.04	.18	.010	.24	.010	.003	.11
%RSD	.5999	.3977	.0971	.4117	.4993	.5905	.5037	.1541	.2712
#1	2.055	2.067	40.29	42.43	2.041	41.02	2.016	2.046	41.83
#2	2.060	2.074	40.22	42.50	2.040	40.77	2.023	2.039	41.85
#3	2.079	2.083	40.22	42.76	2.058	40.54	2.036	2.043	42.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.080**	**1.991**	**2.049**	**2.044**	**2.204**	**2.043**	**2.086**	**2.075**	**2.039**
Stddev	.002	.008	.004	.009	.003	.002	.010	.004	.009
%RSD	.1096	.3855	.1842	.4237	.1537	.1137	.4626	.1733	.4157
#1	2.080	1.995	2.051	2.034	2.206	2.043	2.083	2.073	2.040
#2	2.077	1.995	2.045	2.046	2.200	2.046	2.078	2.072	2.047
#3	2.081	1.982	2.051	2.051	2.206	2.041	2.097	2.079	2.030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 20:41:17 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.069**	**2.002**
Stddev	.008	.006
%RSD	.3840	.2802
#1	2.063	2.005
#2	2.065	2.005
#3	2.078	1.995
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**435.30**	**1043.2**	**12971.**	**4052.0**
Stddev	.66	5.0	65.	10.7
%RSD	.15179	.48135	.50147	.26351
#1	435.88	1047.0	13023.	4041.5
#2	435.45	1045.0	12992.	4051.7
#3	434.58	1037.5	12898.	4062.9

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 20:46:01 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0002**	**-.0005**	F **-.0024**	**.0001**	**.0001**	**.0028**	**.0000**
Stddev	.0001	.0037	.0012	.0004	.0000	.0000	.0014	.000
%RSD	73.71	2216.	242.1	15.02	9.957	53.31	50.60	552.5
#1	-.0001	-.0003	-.0019	-.0029	.0001	.0000	.0032	-.0001
#2	.0000	.0041	.0001	-.0023	.0001	.0001	.0013	.0000
#3	-.0002	-.0033	.0002	-.0022	.0001	.0001	.0040	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0002**	**.0005**	**.0016**	**-.0162**	**-.0001**	**.0063**	**.0001**
Stddev	.000	.0002	.0002	.0015	.0143	.0003	.0150	.0000
%RSD	107.8	74.38	40.44	94.77	88.16	472.3	238.9	25.61
#1	.0000	-.0001	.0003	.0024	-.0124	.0001	.0233	.0001
#2	-.0001	-.0004	.0004	.0024	-.0320	.0001	.0010	.0000
#3	.0000	-.0002	.0007	-.0001	-.0042	-.0004	-.0053	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0011**	**.0000**	**-.0001**	**-.0005**	**.0008**	**.0024**	**-.0005**
Stddev	.0000	.0027	.0002	.0009	.0005	.0008	.0003	.0003
%RSD	21.64	245.9	567.0	1039.	111.0	91.77	13.78	72.43
#1	.0001	.0015	.0003	-.0001	-.0001	.0000	.0021	-.0001
#2	.0002	-.0018	-.0001	-.0010	-.0011	.0016	.0025	-.0008
#3	.0001	.0036	-.0001	.0008	-.0002	.0009	.0027	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit								
Low Limit								

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 20:46:01 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0012**	**-.0002**	**-.0003**
Stddev	.0000	.0001	.0011	.0001	.0000
%RSD	14.94	265.3	96.17	30.05	12.89
#1	.0001	.0002	.0006	-.0003	-.0003
#2	.0001	-.0001	.0024	-.0002	-.0003
#3	.0001	.0001	.0004	-.0002	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**524.43**	**1109.8**	**13695.**	**4046.5**
Stddev	1.96	3.7	66.	18.2
%RSD	.37397	.32964	.48188	.44997
#1	526.52	1113.2	13735.	4045.2
#2	524.14	1110.4	13619.	4065.3
#3	522.63	1105.9	13731.	4028.9

Zoom In Zoom Out

Sample Name: FC11636-1B Acquired: 12/6/2023 20:51:09 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014**	**.0054**	**.0297**	**.0861**	**.0159**	**.0000**	**47.47**	**.0000**	**.0158**
Stddev	.0026	.0091	.0037	.0033	.0003	.000	.23	.000	.0005
%RSD	190.6	168.9	12.53	3.823	2.206	173.2	.4923	711.4	3.049
#1	.0029	.0138	.0257	.0844	.0156	.0000	47.54	.0001	.0154
#2	.0029	-.0043	.0303	.0839	.0158	.0000	47.66	.0002	.0156
#3	-.0017	.0066	.0330	.0899	.0163	.0000	47.21	-.0004	.0163

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0015**	**.0148**	**.1021**	**21.03**	**.0030**	**6.247**	**11.63**	**-.0006**	**15.89**
Stddev	.0011	.0009	.0078	.11	.0011	.127	.10	.0011	.11
%RSD	70.54	5.874	7.610	.5299	37.89	2.040	.8763	203.4	.7175
#1	-.0006	.0151	.1102	20.91	.0024	6.102	11.51	-.0005	15.76
#2	-.0027	.0138	.0947	21.13	.0024	6.299	11.68	.0006	15.91
#3	-.0012	.0154	.1013	21.05	.0043	6.341	11.70	-.0017	15.99

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0268**	**.0009**	**-.0032**	**.0067**	**6.445**	**-.0027**	**.3529**	**.0027**	**.0016**
Stddev	.0003	.0009	.0016	.0086	.015	.0017	.0009	.0003	.0045
%RSD	1.139	93.11	51.66	127.8	.2276	61.91	.2633	11.85	287.8
#1	.0269	.0008	-.0046	.0127	6.450	-.0045	.3523	.0027	.0000
#2	.0265	.0001	-.0035	.0104	6.429	-.0022	.3524	.0029	.0066
#3	.0270	.0018	-.0014	-.0031	6.457	-.0013	.3540	.0023	-.0019

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0008**	**.0332**
Stddev	.0007	.0011
%RSD	85.84	3.451
#1	.0005	.0339
#2	.0016	.0318
#3	.0003	.0337

Zoom In Zoom Out

Sample Name: FC11636-1B Acquired: 12/6/2023 20:51:09 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**505.68**	**1092.3**	**13422.**	**4060.2**
Stddev	1.04	1.3	60.	8.5
%RSD	.20472	.11609	.44353	.21004
#1	506.18	1093.8	13488.	4070.0
#2	506.38	1091.7	13404.	4056.1
#3	504.49	1091.4	13373.	4054.5

Zoom In Zoom Out

Sample Name: FC11589-8 Acquired: 12/6/2023 20:56:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0010**	**.0135**	**.0022**	F **7.292**	**-.0126**	**-.0001**	**511.1**	**-.0003**
Stddev	.0013	.0076	.0016	.055	.0004	.0001	4.2	.0000
%RSD	137.2	56.41	69.92	.7574	2.909	48.92	.8133	5.020
#1	-.0009	.0213	.0019	7.306	-.0124	-.0001	510.1	-.0003
#2	-.0023	.0132	.0009	7.231	-.0130	-.0002	515.6	-.0003
#3	.0003	.0061	.0039	7.338	-.0124	-.0001	507.5	-.0003

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
IS Ref	(Y_2243)	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**-.0003**	**.0019**	**.4617**	F **646.6**	**.3222**	F **1778.**	**.0051**
Stddev	.0007	.0010	.0005	.0123	1.5	.0039	15.	.0002
%RSD	753.5	308.1	28.34	2.666	.2326	1.216	.8700	3.196
#1	-.0008	.0007	.0013	.4491	645.2	.3266	1773.	.0050
#2	.0006	-.0006	.0024	.4737	646.5	.3192	1795.	.0053
#3	-.0002	-.0011	.0018	.4622	648.2	.3208	1765.	.0050

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0159**	*****	**.0002**	F **-.0218**	**-.0003**	**-.0098**	**6.322**	**-.0001**
Stddev	.0005	-----	.0006	.0014	.0037	.0041	.027	.0004
%RSD	3.341	-----	291.4	6.474	1067.	41.79	.4331	660.0
#1	.0157	-----	-.0001	-.0235	-.0027	-.0139	6.305	.0004
#2	.0165	-----	.0009	-.0211	-.0022	-.0057	6.308	-.0005
#3	.0155	-----	-.0002	-.0210	.0039	-.0098	6.354	-.0001

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm
Avg	F **12.65**	**-.0046**	**.0001**	**.0008**	**.0115**
Stddev	.11	.0002	.0056	.0007	.0003
%RSD	.8592	4.144	7743.	91.93	2.887
#1	12.57	-.0045	-.0035	.0007	.0112
#2	12.78	-.0045	-.0028	.0001	.0118
#3	12.62	-.0048	.0065	.0016	.0116

Zoom In Zoom Out

Sample Name: FC11589-8 Acquired: 12/6/2023 20:56:12 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 2.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**252.63**	**712.41**	**8467.7**	**3313.9**
Stddev	.64	4.33	62.6	28.1
%RSD	.25172	.60819	.73883	.84907
#1	252.88	715.62	8420.9	3338.1
#2	253.10	714.12	8443.4	3283.0
#3	251.91	707.48	8538.7	3320.5

Zoom In Zoom Out

Sample Name: FC11619-2F Acquired: 12/6/2023 21:01:38 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002**	**.0491**	**-.0017**	**.0072**	**.0133**	**.0000**	**93.90**	**-.0001**	**.0000**
Stddev	.0005	.0035	.0005	.0013	.0000	.000	.44	.0000	.000
%RSD	257.0	7.096	28.06	17.82	.2135	96.64	.4651	32.73	253.5
#1	-.0002	.0508	-.0014	.0082	.0133	.0000	93.65	-.0001	-.0002
#2	.0001	.0451	-.0015	.0058	.0133	.0000	94.40	-.0001	.0001
#3	.0007	.0514	-.0023	.0077	.0132	.0000	93.63	-.0002	.0000

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0007**	**.1053**	**.7611**	**.0010**	**18.77**	**.0049**	**.0002**	**3.844**
Stddev	.0002	.0002	.0017	.0019	.0005	.05	.0001	.0001	.040
%RSD	128.4	29.97	1.622	.2463	47.02	.2570	1.160	45.06	1.050
#1	.0000	.0009	.1064	.7598	.0013	18.83	.0049	.0003	3.890
#2	.0001	.0006	.1034	.7602	.0005	18.73	.0049	.0002	3.828
#3	.0003	.0005	.1063	.7632	.0014	18.76	.0048	.0002	3.814

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**-.0019**	**.0006**	**-.0004**	**2.009**	**.0006**	**.3387**	**.0012**	**-.0010**
Stddev	.0001	.0010	.0004	.0008	.005	.0006	.0005	.0001	.0011
%RSD	842.1	51.35	60.20	217.8	.2486	101.6	.1555	7.984	118.1
#1	.0002	-.0010	.0004	-.0013	2.007	.0002	.3392	.0013	-.0004
#2	-.0001	-.0016	.0004	.0000	2.015	.0003	.3386	.0013	-.0023
#3	.0000	-.0029	.0010	.0001	2.005	.0013	.3381	.0011	-.0002

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**.0010**
Stddev	.0004	.0000
%RSD	228.9	4.190
#1	.0003	.0010
#2	-.0003	.0010
#3	.0004	.0010

Zoom In Zoom Out

Sample Name: FC11619-2F Acquired: 12/6/2023 21:01:38 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**457.71**	**1045.0**	**12954.**	**4192.4**
Stddev	1.43	.8	19.	12.8
%RSD	.31171	.07339	.14748	.30418
#1	458.06	1044.7	12942.	4187.4
#2	458.93	1045.9	12944.	4182.9
#3	456.14	1044.6	12976.	4206.9

Zoom In Zoom Out

Sample Name: MP43241-MB1 Acquired: 12/6/2023 21:06:42 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0019**	**-.0020**	**-.0022**	**.0000**	**.0000**	**.0083**	**-.0002**	**.0000**
Stddev	.0003	.0027	.0012	.0010	.0000	.000	.0006	.0000	.000
%RSD	350.5	137.7	58.49	43.12	89.01	1.378	7.336	15.46	320.6
#1	-.0001	.0046	-.0030	-.0033	.0000	.0000	.0080	-.0002	.0001
#2	.0004	-.0007	-.0007	-.0016	.0000	.0000	.0090	-.0002	-.0001
#3	.0000	.0020	-.0023	-.0018	.0001	.0000	.0080	-.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0000**	**.0004**	**.0176**	**.0005**	**.0031**	**.0000**	**-.0002**	**.2365**
Stddev	.0002	.0000	.0002	.0099	.0003	.0081	.0000	.0001	.0056
%RSD	354.9	118.1	41.08	56.20	53.22	262.5	52.33	35.31	2.376
#1	-.0001	.0001	.0002	.0128	.0002	-.0046	.0000	-.0003	.2409
#2	.0003	.0000	.0006	.0110	.0006	.0023	.0000	-.0001	.2385
#3	.0000	.0000	.0004	.0290	.0007	.0115	.0001	-.0002	.2302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0003**	**.0008**	**.0005**	**.0054**	**-.0003**	**.0000**	**-.0001**	**-.0010**
Stddev	.0000	.0010	.0006	.0019	.0003	.0002	.0000	.0001	.0003
%RSD	26.68	290.1	75.60	379.0	6.252	65.63	1848.	134.5	28.52
#1	-.0001	.0006	.0009	-.0017	.0057	-.0001	.0000	.0000	-.0007
#2	-.0002	.0012	.0015	.0017	.0054	-.0005	.0000	-.0001	-.0013
#3	-.0001	-.0007	.0002	.0014	.0050	-.0004	.0000	-.0002	-.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Zoom In Zoom Out

Sample Name: MP43241-MB1 Acquired: 12/6/2023 21:06:42 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**-.0001**	**.0000**
Stddev	.0000	.0001
%RSD	47.31	406.1
#1	.0000	.0001
#2	-.0001	.0000
#3	-.0001	-.0001
Check ?	Chk Pass	Chk Pass
High Limit		
Low Limit		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**518.00**	**1121.9**	**14199.**	**4281.0**
Stddev	2.71	3.9	87.	23.4
%RSD	.52255	.35019	.60936	.54659
#1	520.91	1126.4	14143.	4299.7
#2	515.55	1120.4	14156.	4288.5
#3	517.54	1119.0	14299.	4254.7

Zoom In Zoom Out

Sample Name: MP43241-B1 Acquired: 12/6/2023 21:11:50 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1894**	**24.06**	**.1934**	**.4842**	**.2002**	**.1980**	**42.55**	**.1940**	**.1944**
Stddev	.0009	.13	.0022	.0012	.0015	.0010	.16	.0004	.0004
%RSD	.4852	.5243	1.156	.2519	.7576	.4938	.3699	.2002	.2190
#1	.1894	23.98	.1943	.4831	.1988	.1972	42.56	.1945	.1947
#2	.1903	24.00	.1949	.4840	.1999	.1979	42.70	.1938	.1939
#3	.1885	24.21	.1908	.4855	.2018	.1991	42.38	.1938	.1946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1983**	**.1987**	**42.28**	**44.74**	**.5058**	**42.69**	**.1950**	**.6584**	**41.16**
Stddev	.0014	.0006	.11	.42	.0031	.11	.0003	.0004	.25
%RSD	.6994	.3251	.2619	.9382	.6190	.2652	.1765	.0595	.6093
#1	.1971	.1991	42.17	44.38	.5044	42.56	.1946	.6580	40.92
#2	.1998	.1990	42.30	44.65	.5037	42.74	.1952	.6586	41.13
#3	.1979	.1979	42.39	45.20	.5094	42.77	.1953	.6587	41.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1965**	**.1876**	**.2017**	**.1911**	**.5102**	**.4835**	**.4997**	**.4916**	**.1906**
Stddev	.0002	.0006	.0022	.0026	.0015	.0017	.0037	.0016	.0011
%RSD	.1234	.3324	1.082	1.358	.2885	.3510	.7451	.3306	.5798
#1	.1963	.1870	.1992	.1881	.5113	.4852	.4974	.4899	.1918
#2	.1963	.1875	.2030	.1930	.5085	.4834	.4977	.4931	.1901
#3	.1968	.1882	.2029	.1921	.5108	.4818	.5040	.4918	.1897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: MP43241-B1 Acquired: 12/6/2023 21:11:50 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**.2016**	**.1901**
Stddev	.0006	.0002
%RSD	.3072	.0879
#1	.2012	.1903
#2	.2023	.1900
#3	.2013	.1900
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**439.61**	**1035.8**	**13012.**	**4043.8**
Stddev	.92	.5	27.	14.6
%RSD	.21019	.04973	.20808	.36175
#1	440.30	1036.4	13037.	4060.6
#2	439.97	1035.6	12983.	4033.9
#3	438.56	1035.4	13016.	4036.9

Zoom In Zoom Out

Sample Name: FC11630-1 Acquired: 12/6/2023 21:16:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0066**	**-.0026**	**.0083**	**.0011**	**.0000**	**8.326**	**-.0001**	**-.0002**
Stddev	.0004	.0029	.0009	.0015	.0001	.000	.035	.0001	.0001
%RSD	278.3	43.17	35.98	17.47	4.470	33.46	.4241	54.20	34.24
#1	.0002	.0034	-.0016	.0088	.0012	-.0001	8.359	-.0001	-.0001
#2	.0000	.0077	-.0028	.0067	.0011	.0000	8.330	.0000	-.0003
#3	-.0006	.0088	-.0034	.0095	.0012	.0000	8.289	-.0001	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0003**	**.0005**	**.0071**	**.1837**	**.0007**	**.5448**	**.0034**	**.0011**	**3.036**
Stddev	.0003	.0001	.0018	.0119	.0009	.0096	.0001	.0003	.006
%RSD	120.4	10.65	25.14	6.502	128.0	1.770	1.480	24.01	.1903
#1	-.0001	.0005	.0051	.1717	.0015	.5522	.0034	.0013	3.034
#2	-.0007	.0005	.0078	.1956	.0009	.5484	.0034	.0013	3.042
#3	.0000	.0006	.0084	.1838	-.0003	.5339	.0034	.0008	3.030

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0000**	**.0002**	**.0031**	**.3882**	**.0008**	**.0817**	**.0005**	**-.0004**
Stddev	.0002	.001	.0005	.0015	.0012	.0003	.0002	.0000	.0007
%RSD	986.1	24710.	347.9	48.25	.3091	44.81	.2683	8.483	170.6
#1	.0000	.0005	-.0004	.0014	.3870	.0009	.0817	.0006	-.0007
#2	.0002	.0004	.0003	.0042	.3894	.0010	.0819	.0005	-.0009
#3	-.0002	-.0009	.0006	.0036	.3881	.0004	.0814	.0005	.0004

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0001**	**.0007**
Stddev	.0001	.0001
%RSD	134.7	13.19
#1	.0000	.0006
#2	.0000	.0007
#3	.0002	.0008

Zoom In Zoom Out

Sample Name: FC11630-1 Acquired: 12/6/2023 21:16:43 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**509.63**	**1090.3**	**13683.**	**4088.9**
Stddev	1.18	3.5	10.	11.4
%RSD	.23166	.32357	.07076	.27830
#1	510.64	1094.2	13674.	4085.1
#2	509.91	1087.3	13681.	4079.8
#3	508.33	1089.4	13693.	4101.6

Zoom In Zoom Out

Sample Name: MP43241-D1 Acquired: 12/6/2023 21:21:48 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0008**	**-.0016**	**.0073**	**.0011**	**.0000**	**8.370**	**-.0001**	**-.0002**
Stddev	.0002	.0024	.0014	.0015	.0000	.000	.091	.0001	.0000
%RSD	257.6	288.8	83.12	21.20	4.135	76.54	1.084	67.98	11.26
#1	-.0001	.0031	-.0032	.0088	.0011	.0000	8.474	.0000	-.0002
#2	.0003	.0012	-.0007	.0057	.0010	-.0001	8.317	-.0001	-.0002
#3	.0000	-.0017	-.0010	.0074	.0011	-.0001	8.317	-.0002	-.0002

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0002**	**.0006**	**.0001**	**.1793**	**.0004**	**.5428**	**.0033**	**.0009**	**3.024**
Stddev	.0002	.0001	.0007	.0090	.0009	.0039	.0001	.0001	.011
%RSD	107.7	22.73	703.5	5.044	191.5	.7155	2.162	11.68	.3547
#1	.0000	.0004	-.0005	.1713	.0005	.5386	.0034	.0009	3.037
#2	-.0001	.0007	-.0001	.1891	.0013	.5463	.0034	.0009	3.017
#3	-.0004	.0006	.0008	.1776	-.0005	.5434	.0033	.0011	3.020

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0013**	**.0011**	**.0021**	**.3909**	**.0002**	**.0823**	**.0005**	**-.0013**
Stddev	.0001	.0011	.0007	.0027	.0043	.0003	.0003	.0000	.0003
%RSD	433.2	87.96	62.33	130.8	1.105	112.9	.3963	6.185	25.40
#1	.0000	.0026	.0014	.0042	.3867	-.0001	.0825	.0005	-.0010
#2	-.0001	.0007	.0015	.0029	.3954	.0004	.0819	.0005	-.0011
#3	.0001	.0005	.0003	-.0010	.3906	.0003	.0824	.0005	-.0016

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0000**	**.0005**
Stddev	.000	.0001
%RSD	567.8	20.31
#1	.0002	.0006
#2	.0000	.0004
#3	-.0002	.0005

Zoom In Zoom Out

Sample Name: MP43241-D1 Acquired: 12/6/2023 21:21:48 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**510.87**	**1093.9**	**13538.**	**4074.2**
Stddev	1.75	5.5	173.	32.7
%RSD	.34354	.50151	1.2803	.80172
#1	512.38	1099.6	13396.	4036.8
#2	511.29	1088.7	13485.	4097.0
#3	508.94	1093.5	13731.	4088.8

Zoom In Zoom Out

Sample Name: MP43241-SD1 Acquired: 12/6/2023 21:26:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0005**	**-.0036**	**-.0031**	**-.0070**	**.0008**	**-.0002**	**8.628**	**-.0002**	**-.0005**
Stddev	.0017	.0121	.0077	.0108	.0003	.0001	.047	.0002	.0005
%RSD	343.5	337.2	247.6	153.5	36.65	76.76	.5454	114.7	101.2
#1	.0012	-.0175	.0038	-.0189	.0004	-.0003	8.625	.0000	.0000
#2	-.0022	.0043	-.0115	-.0041	.0009	.0000	8.677	-.0005	-.0005
#3	-.0005	.0024	-.0017	.0020	.0010	-.0003	8.583	-.0001	-.0009

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0023**	**.0023**	**.0016**	**.1190**	**.0003**	**.5729**	**.0034**	**-.0013**	**3.176**
Stddev	.0004	.0007	.0129	.0223	.0033	.0702	.0001	.0007	.029
%RSD	17.31	28.49	792.0	18.71	1032.	12.25	2.945	51.50	.9194
#1	-.0024	.0019	.0154	.1229	-.0023	.5061	.0033	-.0018	3.181
#2	-.0018	.0020	-.0102	.1390	.0041	.5664	.0035	-.0014	3.202
#3	-.0026	.0030	-.0003	.0950	-.0007	.6460	.0033	-.0006	3.145

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004**	**.0005**	**-.0033**	**.0048**	**.3922**	**-.0026**	**.0793**	**.0004**	**.0061**
Stddev	.0006	.0026	.0010	.0033	.0037	.0015	.0004	.0004	.0112
%RSD	151.0	497.3	29.32	68.40	.9498	58.91	.4675	102.1	183.0
#1	.0005	-.0012	-.0041	.0010	.3965	-.0028	.0791	.0000	.0190
#2	.0010	-.0007	-.0022	.0067	.3898	-.0040	.0798	.0008	.0002
#3	-.0003	.0035	-.0035	.0067	.3903	-.0009	.0791	.0005	-.0009

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.0002**	**-.0007**
Stddev	.0005	.0003
%RSD	249.0	39.81
#1	-.0003	-.0010
#2	.0003	-.0004
#3	.0006	-.0008

Zoom In Zoom Out

Sample Name: MP43241-SD1 Acquired: 12/6/2023 21:26:54 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 5.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**522.63**	**1120.2**	**13575.**	**4139.8**
Stddev	1.12	3.6	40.	29.7
%RSD	.21421	.32494	.29290	.71677
#1	523.88	1116.4	13603.	4154.7
#2	521.73	1120.8	13593.	4105.6
#3	522.28	1123.6	13529.	4159.1

Zoom In Zoom Out

Sample Name: MP43241-S1 Acquired: 12/6/2023 21:31:59 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1957**	**23.88**	**.1961**	**.4912**	**.1967**	**.1931**	**50.36**	**.1930**	**.1936**
Stddev	.0003	.04	.0012	.0037	.0009	.0009	.34	.0004	.0003
%RSD	.1648	.1677	.5979	.7439	.4402	.4665	.6764	.1946	.1514
#1	.1954	23.83	.1963	.4930	.1963	.1920	49.98	.1934	.1937
#2	.1957	23.91	.1971	.4870	.1977	.1937	50.45	.1927	.1933
#3	.1960	23.88	.1948	.4937	.1961	.1935	50.64	.1930	.1939

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2071**	**.2013**	**42.11**	**43.09**	F **.5056**	**41.16**	**.2048**	**.6585**	**42.96**
Stddev	.0005	.0004	.30	.15	.0014	.25	.0011	.0027	.13
%RSD	.2255	.2104	.7187	.3515	.2837	.6145	.5510	.4174	.3132
#1	.2073	.2009	41.78	42.96	.5066	40.87	.2040	.6599	42.94
#2	.2066	.2011	42.18	43.25	.5063	41.32	.2042	.6553	43.10
#3	.2075	.2017	42.38	43.05	.5040	41.29	.2061	.6602	42.83

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1930**	**.1904**	**.2019**	**.1908**	**.8884**	**.4815**	**.5665**	**.4936**	**.1881**
Stddev	.0008	.0009	.0007	.0005	.0044	.0008	.0018	.0007	.0033
%RSD	.4154	.4785	.3275	.2857	.4959	.1601	.3210	.1468	1.740
#1	.1939	.1894	.2020	.1914	.8910	.4820	.5644	.4936	.1916
#2	.1923	.1912	.2024	.1903	.8833	.4818	.5677	.4929	.1851
#3	.1929	.1906	.2011	.1907	.8908	.4806	.5674	.4943	.1877

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2067**	**.1916**
Stddev	.0007	.0003
%RSD	.3305	.1658
#1	.2065	.1912
#2	.2061	.1919
#3	.2074	.1915

Zoom In Zoom Out

Sample Name: MP43241-S1 Acquired: 12/6/2023 21:31:59 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**436.60**	**1048.4**	**12734.**	**4190.6**
Stddev	1.25	5.7	39.	36.0
%RSD	.28568	.54289	.30565	.85949
#1	436.02	1044.1	12733.	4232.0
#2	438.03	1054.9	12773.	4173.3
#3	435.75	1046.3	12696.	4166.6

Zoom In Zoom Out

Sample Name: MP43241-S2 Acquired: 12/6/2023 21:36:50 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(Y_2243)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1886**	**23.84**	**.1948**	**.4909**	**.1993**	**.1945**	**50.94**	**.1933**	**.1942**
Stddev	.0023	.13	.0020	.0058	.0013	.0007	.19	.0001	.0004
%RSD	1.220	.5471	1.006	1.175	.6537	.3570	.3650	.0713	.1834
#1	.1860	23.72	.1945	.4848	.1980	.1942	51.15	.1932	.1939
#2	.1892	23.98	.1969	.4918	.2006	.1953	50.89	.1932	.1946
#3	.1905	23.83	.1930	.4962	.1992	.1940	50.79	.1935	.1941

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
IS Ref	(Y_3600)	(Y_3600)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3600)	(Y_2243)	(Y_3710)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1983**	**.1962**	**42.15**	**43.09**	F **.5064**	**42.10**	**.1998**	**.6633**	**43.16**
Stddev	.0025	.0006	.04	.19	.0042	.24	.0016	.0008	.20
%RSD	1.245	.2978	.1063	.4450	.8392	.5589	.7930	.1274	.4526
#1	.1963	.1956	42.12	42.90	.5019	42.31	.1986	.6632	42.96
#2	.1976	.1968	42.21	43.28	.5103	42.15	.1992	.6626	43.36
#3	.2011	.1963	42.14	43.09	.5072	41.85	.2016	.6642	43.16

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
IS Ref	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1933**	**.1906**	**.2031**	**.1891**	**.8946**	**.4841**	**.5664**	**.4881**	**.1870**
Stddev	.0007	.0010	.0014	.0003	.0012	.0002	.0032	.0017	.0025
%RSD	.3642	.5310	.6735	.1410	.1367	.0409	.5736	.3506	1.345
#1	.1925	.1913	.2046	.1889	.8932	.4843	.5629	.4864	.1841
#2	.1938	.1895	.2022	.1894	.8949	.4839	.5693	.4881	.1881
#3	.1937	.1912	.2023	.1891	.8955	.4841	.5670	.4898	.1887

Elem	V_2924	Zn2062
IS Ref	(Y_3600)	(Y_2243)
Units	ppm	ppm
Avg	**.2000**	**.1921**
Stddev	.0019	.0002
%RSD	.9631	.0950
#1	.1982	.1919
#2	.1998	.1922
#3	.2020	.1923

Zoom In Zoom Out

Sample Name: MP43241-S2 Acquired: 12/6/2023 21:36:50 Type: Unk
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**437.44**	**1046.8**	**13048.**	**4128.9**
Stddev	.78	1.7	77.	19.9
%RSD	.17827	.16717	.59217	.48088
#1	436.60	1048.1	13135.	4109.0
#2	437.58	1047.5	13023.	4129.1
#3	438.14	1044.8	12986.	4148.7

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 21:41:41 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2601**	**40.64**	**2.023**	**2.018**	**2.058**	**2.040**	**40.13**	**2.034**	**2.040**
Stddev	.0006	.13	.009	.004	.008	.009	.22	.003	.003
%RSD	.2489	.3314	.4430	.1801	.3735	.4323	.5490	.1425	.1680
#1	.2608	40.70	2.024	2.015	2.059	2.046	40.39	2.031	2.037
#2	.2595	40.49	2.031	2.017	2.050	2.030	40.03	2.037	2.043
#3	.2600	40.74	2.014	2.022	2.065	2.044	39.98	2.034	2.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576	Mo2020	Na5895
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.054**	**2.051**	**39.92**	**42.05**	**2.040**	**40.56**	**2.028**	**2.044**	**41.66**
Stddev	.004	.012	.13	.30	.004	.25	.004	.002	.23
%RSD	.2018	.5679	.3199	.7104	.1772	.6110	.2025	.1167	.5437
#1	2.054	2.038	40.03	42.14	2.038	40.78	2.033	2.043	41.76
#2	2.049	2.059	39.78	41.72	2.039	40.29	2.025	2.047	41.40
#3	2.058	2.057	39.95	42.30	2.044	40.60	2.026	2.043	41.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3349	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.066**	**2.006**	**2.045**	**2.039**	**2.193**	**2.044**	**2.067**	**2.060**	**2.042**
Stddev	.003	.003	.001	.009	.007	.005	.012	.002	.017
%RSD	.1445	.1523	.0242	.4162	.3171	.2478	.5959	.0976	.8150
#1	2.064	2.005	2.046	2.048	2.185	2.038	2.065	2.059	2.023
#2	2.070	2.009	2.045	2.040	2.197	2.048	2.055	2.062	2.050
#3	2.065	2.003	2.045	2.031	2.197	2.046	2.080	2.059	2.053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Zoom In Zoom Out

Sample Name: CCV Acquired: 12/6/2023 21:41:41 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062
Units	ppm	ppm
Avg	**2.054**	**2.019**
Stddev	.004	.003
%RSD	.2042	.1327
#1	2.052	2.018
#2	2.051	2.022
#3	2.059	2.017
Check ?	Chk Pass	Chk Pass
Value		
Range		

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**437.17**	**1052.9**	**13090.**	**4061.5**
Stddev	1.40	2.4	31.	18.1
%RSD	.32094	.22445	.24005	.44673
#1	438.77	1055.7	13127.	4043.8
#2	436.13	1051.8	13073.	4080.1
#3	436.62	1051.3	13072.	4060.8

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 21:46:26 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2497	Ba4554	Be3130	Ca3179	Cd2265
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000**	**.0003**	**-.0005**	F **-.0017**	**.0001**	**.0001**	**.0030**	**.0001**
Stddev	.001	.0028	.0010	.0006	.0000	.0000	.0011	.0001
%RSD	1333.	891.9	209.7	37.33	36.07	21.69	35.48	67.81
#1	.0005	-.0017	.0002	-.0014	.0001	.0001	.0019	.0001
#2	-.0001	.0035	.0000	-.0023	.0001	.0001	.0040	.0001
#3	-.0005	-.0009	-.0016	-.0012	.0002	.0001	.0032	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				.0010				
Low Limit				-.0010				

Elem	Co2286	Cr2677	Cu3247	Fe2599	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**.0005**	**.0023**	**-.0039**	**.0002**	**.0055**	**.0001**
Stddev	.0001	.0002	.0001	.0015	.0018	.0008	.0081	.0000
%RSD	90.88	269.5	14.65	67.53	46.63	448.8	148.1	47.76
#1	.0002	.0000	.0005	.0015	-.0028	.0011	.0092	.0000
#2	.0001	.0003	.0004	.0040	-.0061	.0000	.0110	.0001
#3	.0000	-.0001	.0006	.0013	-.0029	-.0006	-.0038	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Si2124	Sn1899
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.0001**	**.0310**	**-.0001**	**.0008**	**.0011**	F **.0027**	**.0026**	**.0002**
Stddev	.0001	.0014	.0002	.0003	.0013	.0006	.0004	.0005
%RSD	92.40	4.632	113.3	39.42	120.5	23.78	16.35	315.9
#1	.0000	.0296	-.0003	.0010	.0023	.0032	.0023	-.0001
#2	-.0001	.0308	-.0001	.0004	-.0003	.0020	.0024	-.0002
#3	-.0001	.0325	.0000	.0010	.0013	.0030	.0031	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	None	Chk Pass
High Limit						.0020		
Low Limit						-.0020		

Zoom In Zoom Out

Sample Name: CCB Acquired: 12/6/2023 21:46:26 Type: QC
Method: 60102007_COMBO_10242022(v409) Mode: CONC Corr. Factor: 1.000000
User: admin SSTRACE02: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Zn2062
Units	ppm	ppm	ppm	ppm	ppm
Avg	**.0001**	**.0001**	**-.0003**	**.0003**	**-.0004**
Stddev	.0000	.0001	.0016	.0002	.0000
%RSD	45.85	141.4	507.6	88.00	5.176
#1	.0001	.0002	-.0008	.0003	-.0004
#2	.0001	.0000	-.0016	.0000	-.0005
#3	.0001	.0000	.0015	.0005	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**524.13**	**1116.3**	**13686.**	**4095.2**
Stddev	3.69	3.7	39.	25.9
%RSD	.70484	.32757	.28764	.63216
#1	527.90	1120.5	13721.	4083.1
#2	523.98	1113.9	13693.	4124.9
#3	520.52	1114.4	13643.	4077.6

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	V	-0.005817	0.000000	No
			Fe	-0.000242	0.000000	No
Al 396.152 { 85}	☒	1	Mo	0.040336	0.000000	No
As 189.042 {478}	☒	4	Fe	-0.000038	0.000000	No
			Cr	-0.000653	0.000000	No
			Mo	0.000444	0.000000	No
			Al	0.000001	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000613	0.000000	No
Ba 455.403 { 74}	☒	4	Fe	-0.000031	0.000000	No
			Al	0.000025	0.000000	No
			Ca	0.000016	0.000000	No
			Mg	0.000016	0.000000	No
Be 313.042 {108}	☒	2	V	0.000625	0.000000	No
			Ti	-0.000289	0.000000	No
Ca 317.933 {106}	☒	None				
Cd 226.502 {449}	☒	4	Fe	0.000214	0.000000	No
			Ca	-0.000000	0.000000	No
			Al	-0.000002	0.000000	No
			Ti	0.000103	0.000000	No
Co 228.616 {447}	☒	3	Mo	-0.001220	0.000000	No
			Ti	0.002210	0.000000	No
			Fe	0.000006	0.000000	No
Cr 267.716 {126}	☒	4	Al	0.000003	0.000000	No
			Fe	-0.000012	0.000000	No
			Ca	0.000002	0.000000	No
			Cd	-0.000120	0.000000	No
Cu 324.754 {104}	☒	10	Mo	0.000189	0.000000	No
			Sn	-0.000012	0.000000	No
			V	-0.000158	0.000000	No
			Al	0.000003	0.000000	No
			Mg	0.000003	0.000000	No
			Co	-0.000547	0.000000	No
			Cd	0.000190	0.000000	No
			Fe	-0.000080	0.000000	No
			Ca	0.000001	0.000000	No
			Ti	-0.000268	0.000000	No
Fe 259.940 {130}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	4	Ca	0.000004	0.000000	No
			Fe	0.000023	0.000000	No
			Al	-0.000009	0.000000	No
			Mg	-0.000006	0.000000	No
Mg 279.079 {121}	☒	None				
Mn 257.610 {131}	☒	2	Fe	-0.000001	0.000000	No
			Mg	0.000000	0.000000	No
Mo 202.030 {467}	☒	3	Fe	0.000001	0.000000	No
			Al	-0.000002	0.000000	No
			Ca	-0.000003	0.000000	No
Na 589.592 { 57}	☒	None				
Ni 231.604 {445}	☒	7	Fe	-0.000021	0.000000	No
			Co	0.000112	0.000000	No
			Mo	0.000980	0.000000	No
			Sb	-0.000120	0.000000	No
			Al	0.000003	0.000000	No
			Be	-0.000304	0.000000	No
			Tl	0.000172	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
	Pb 220.353 {453}	☒	9	Al	0.000153	0.000000	No
				Fe	-0.000016	0.000000	No
				Mo	-0.002189	0.000000	No
				Cu	0.000467	0.000000	No
				Ti	0.000036	0.000000	No
				Si	0.000043	0.000000	No
				Ca	0.000012	0.000000	No
				Cr	-0.000260	0.000000	No
				Mg	0.000002	0.000000	No
	Sb 206.833 {463}	☒	11	Fe	0.000010	0.000000	No
				Cr	0.011486	0.000000	No
				Mo	-0.002538	0.000000	No
				V	-0.000441	0.000000	No
				Sn	-0.008695	0.000000	No
				Ti	0.000278	0.000000	No
				Ca	0.000001	0.000000	No
				Ni	-0.000818	0.000000	No
				Al	0.000005	0.000000	No
				Mn	-0.000133	0.000000	No
				Mg	-0.000002	0.000000	No
	Se 196.090 {472}	☒	12	Fe	-0.000050	0.000000	No
				Ca	0.000006	0.000000	No
				Mn	0.000331	0.000000	No
				Mo	0.000111	0.000000	No
				Al	0.000001	0.000000	No
				V	0.000000	0.000000	No
				Zn	0.000000	0.000000	No
				Sr	-0.000111	0.000000	No
				As	0.000125	0.000000	No
				Cd	-0.000250	0.000000	No
				Mg	0.000002	0.000000	No
				Cr	-0.000326	0.000000	No
	Si 212.412 {459}	☒	1	Mo	0.000000	0.000000	No
	Sn 189.989 {477}	☒	1	Fe	0.000009	0.000000	No
	Sr 407.771 { 83}	☒	2	Ca	-0.000006	0.000000	No
				Al	0.000012	0.000000	No
	Ti 334.941 {101}	☒	1	Ca	-0.000003	0.000000	No
	Tl 190.856 {477}	☒	10	Co	0.004099	0.000000	No
				Fe	-0.000024	0.000000	No
				Al	0.000000	0.000000	No
				Ba	-0.000051	0.000000	No
				Ti	-0.000648	0.000000	No
				Sb	0.000167	0.000000	No
				Ca	0.000001	0.000000	No
				Cr	0.000340	0.000000	No
				Mg	-0.000002	0.000000	No
				V	0.000015	0.000000	No
	V 292.402 {115}	☒	5	Fe	0.000016	0.000000	No
				Cr	-0.003634	0.000000	No
				Mo	-0.009536	0.000000	No
				Ti	0.000303	0.000000	No
				Mn	-0.000333	0.000000	No
	Y 224.306 {450}*	☒	None				
	Y 360.073 { 94}*	☒	None				
	Y 371.030 { 91}*	☒	None				
	Zn 206.200 {463}	☒	5	Cr	-0.001305	0.000000	No
				Al	0.000014	0.000000	No

	Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
				Ca	0.000003	0.000000	No
				Fe	-0.000010	0.000000	No
				As	0.001105	0.000000	No

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)
Ag 328.068 {103}	12/6/2023 11:14:26	12/6/2023 10:33:45	Curvilin	1/Conc	-0.000178	0.736612	0.165182	1.000000
Al 396.152 { 85}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000094	0.226284	0.000000	1.000000
As 189.042 {478}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.000724	0.197450	0.000000	1.000000
B 249.773 {135}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.005795	1.080837	0.000000	1.000000
Ba 455.403 { 74}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.003676	21.406086	0.000000	1.000000
Be 313.042 {108}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000524	12.486009	0.000000	1.000000
Ca 317.933 {106}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.006234	0.268232	0.000000	1.000000
Cd 226.502 {449}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.000651	5.057643	0.000000	1.000000
Co 228.616 {447}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.001083	2.990185	0.000000	1.000000
Cr 267.716 {126}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000136	0.425773	0.000000	1.000000
Cu 324.754 {104}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.005691	1.477012	0.000000	1.000000
Fe 259.940 {130}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000431	0.178507	0.000000	1.000000
In 230.606 {446}*	12/6/2023 11:14:26	5/5/2010 12:30:54	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
K 766.490 { 44}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.005911	0.166247	0.000000	1.000000
Li 670.784 { 50}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000218	3.885065	0.000000	1.000000
Mg 279.079 {121}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.000566	0.025946	0.000000	1.000000
Mn 257.610 {131}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000218	3.158400	0.000000	1.000000
Mo 202.030 {467}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.001517	1.400857	0.000000	1.000000
Na 589.592 { 57}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.016950	0.695605	0.000000	1.000000
Ni 231.604 {445}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.001182	1.688646	0.000000	1.000000
Pb 220.353 {453}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.002131	1.265399	0.000000	1.000000
Sb 206.833 {463}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000102	0.383070	0.000000	1.000000
Se 196.090 {472}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.000058	0.169158	0.000000	1.000000
Si 212.412 {459}	12/6/2023 11:14:26	12/6/2023 10:14:53	Linear	1/Conc	0.006535	0.596069	0.000000	1.000000
Sn 189.989 {477}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000124	0.441211	0.000000	1.000000
Sr 407.771 { 83}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.001497	28.350076	0.000000	1.000000
Ti 334.941 {101}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.000733	2.456030	0.000000	1.000000
Tl 190.856 {477}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.001624	0.514858	0.000000	1.000000
V 292.402 {115}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	-0.000737	0.931890	0.000000	1.000000
Y 224.306 {450}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 360.073 { 94}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Y 371.030 { 91}*	<not fit>	<Never Calibrated>	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000
Zn 206.200 {463}	12/6/2023 11:14:26	12/6/2023 10:33:45	Linear	1/Conc	0.001108	1.930380	0.000000	1.000000

	Element, Wavelength and Order	Correlation	Std Error of Est	Predicted MDL	Predicted MQL	Status	Reslope		QC Norm	
							Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	0.999978	0.000020	0.000430	0.001434	Warnin	1.000000	0.000000	1	0
	Al 396.152 { 85}	0.999842	0.000839	0.005364	0.017879	OK.	1.000000	0.000000	1	0
	As 189.042 {478}	0.999802	0.000041	0.001692	0.005641	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	0.999799	0.000512	0.001332	0.004439	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	0.999978	0.006721	0.000085	0.000285	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	0.999976	0.000634	0.000048	0.000160	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	0.999978	0.000838	0.002554	0.008513	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	0.999950	0.000372	0.000089	0.000296	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	0.999923	0.000865	0.000160	0.000532	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	0.999860	0.000074	0.000433	0.001445	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	0.999710	0.000585	0.000195	0.000651	OK.	1.000000	0.000000	1	0
	Fe 259.940 {130}	0.999988	0.000223	0.002020	0.006734	OK.	1.000000	0.000000	1	0
	In 230.606 {446}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	K 766.490 { 44}	0.999384	0.006264	0.016002	0.053340	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	0.999796	0.000776	0.000647	0.002156	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	0.999655	0.000720	0.017626	0.058755	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	0.999950	0.000402	0.000056	0.000186	OK.	1.000000	0.000000	1	0
	Mo 202.030 {467}	0.999973	0.000240	0.000228	0.000759	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	0.999403	0.025792	0.003457	0.011525	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	0.999980	0.000223	0.000283	0.000945	OK.	1.000000	0.000000	1	0
	Pb 220.353 {453}	0.999941	0.000101	0.000962	0.003205	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	0.999831	0.000052	0.001276	0.004253	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	0.999896	0.000025	0.002822	0.009407	OK.	1.000000	0.000000	1	0
	Si 212.412 {459}	0.970742	0.007938	0.000584	0.001948	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	0.999972	0.000078	0.000637	0.002123	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	0.999948	0.003008	0.000039	0.000130	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	0.999917	0.000330	0.000117	0.000391	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	0.999992	0.000021	0.001640	0.005465	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	0.999847	0.000376	0.000282	0.000938	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 360.073 { 94}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	0.000000	0.000000	-1.000000	-1.000000	Warnin	1.000000	0.000000	1	0
	Zn 206.200 {463}	0.999929	0.000340	0.000178	0.000594	OK.	1.000000	0.000000	1	0

Quantitation Report

File Name	001_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 14:46
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	836.69	6.767E-03	Pulse	0.50	3
As			1		ug/l	---	39.33	3.189E-04	Pulse	1.00	3
Mo			1		ug/l	---	120.00	6.433E-04	Pulse	0.50	3
Pb			1		ug/l	---	1,151.04	3.584E-04	Pulse	1.00	3
Be			1		ug/l	---	0.50	6.756E-05	Pulse	2.00	3
Ag			1		ug/l	---	489.34	3.862E-04	Pulse	0.50	3
Ba			1		ug/l	---	44.67	3.526E-05	Pulse	0.50	3
Tl			1		ug/l	---	176.00	5.480E-05	Pulse	0.50	3
Sn			1		ug/l	---	387.78	3.062E-04	Pulse	0.30	3
Sr			1		ug/l	---	315.33	2.499E-04	Pulse	0.50	3
Ca			1		ug/l	---	305.33	1.453E-03	Pulse	0.50	3
Ti			1		ug/l	---	21.33	1.046E-04	Pulse	0.50	3
Na			1		ug/l	---	11,961.60	5.684E-02	Pulse	1.00	3
Mg			1		ug/l	---	614.34	2.908E-03	Pulse	1.00	3
K			1		ug/l	---	35,350.88	1.682E-01	Pulse	1.00	3
V			1		ug/l	---	1,116.04	5.306E-03	Pulse	0.50	3
Mn			1		ug/l	---	610.01	4.934E-03	Pulse	0.50	3
Fe			1		ug/l	---	22,206.32	1.796E-01	Pulse	0.50	3
Co			1		ug/l	---	30.67	2.496E-04	Pulse	0.50	3
Ni			1		ug/l	---	302.00	2.447E-03	Pulse	0.50	3
Cu			1		ug/l	---	5,499.53	4.458E-02	Pulse	0.50	3
Zn			1		ug/l	---	3,368.36	1.803E-02	Pulse	1.00	3
Cd			1		ug/l	---	2.00	1.064E-05	Pulse	0.50	3
Al			1		ug/l	---	968.74	4.614E-03	Pulse	1.00	3
Se			1		ug/l	---	6.78	3.626E-05	Pulse	3.00	3
Sb			1		ug/l	---	102.67	5.520E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,211,762.08	0.47		Analog	0.50	3
1	Sc		210,277.16	3.20		Pulse	0.30	3
1	Ge		123,348.65	1.67		Pulse	0.30	3
1	In		1,264,160.16	2.50		Pulse	0.30	3
1	Tb		4,350,298.83	3.12		Analog	0.50	3
1	Lu		3,304,550.50	2.33		Analog	0.50	3
1	Ge		185,943.15	2.29		Pulse	0.30	3
1	Li		7,405.94	3.20		Pulse	0.30	3

Quantitation Report

File Name	002_Blk.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 14:49
Sample Name	Blank
Sample Type	Blank
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	N/A
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1		ug/l	---	442.68	3.501E-03	Pulse	0.50	3
As			1		ug/l	---	29.00	2.291E-04	Pulse	1.00	3
Mo			1		ug/l	---	34.00	1.792E-04	Pulse	0.50	3
Pb			1		ug/l	---	980.03	2.979E-04	Pulse	1.00	3
Be			1		ug/l	---	0.17	2.323E-05	Pulse	2.00	3
Ag			1		ug/l	---	107.33	8.296E-05	Pulse	0.50	3
Ba			1		ug/l	---	24.67	1.901E-05	Pulse	0.50	3
Tl			1		ug/l	---	108.00	3.282E-05	Pulse	0.50	3
Sn			1		ug/l	---	340.01	2.622E-04	Pulse	0.30	3
Sr			1		ug/l	---	323.33	2.496E-04	Pulse	0.50	3
Ca			1		ug/l	---	282.00	1.306E-03	Pulse	0.50	3
Ti			1		ug/l	---	4.67	2.167E-05	Pulse	0.50	3
Na			1		ug/l	---	7,510.86	3.477E-02	Pulse	1.00	3
Mg			1		ug/l	---	85.00	3.934E-04	Pulse	1.00	3
K			1		ug/l	---	34,133.61	1.580E-01	Pulse	1.00	3
V			1		ug/l	---	1,008.03	4.665E-03	Pulse	0.50	3
Mn			1		ug/l	---	185.33	1.465E-03	Pulse	0.50	3
Fe			1		ug/l	---	4,858.68	3.842E-02	Pulse	0.50	3
Co			1		ug/l	---	21.33	1.684E-04	Pulse	0.50	3
Ni			1		ug/l	---	100.67	7.980E-04	Pulse	0.50	3
Cu			1		ug/l	---	4,745.31	3.753E-02	Pulse	0.50	3
Zn			1		ug/l	---	847.35	4.464E-03	Pulse	1.00	3
Cd			1		ug/l	---	1.33	6.979E-06	Pulse	0.50	3
Al			1		ug/l	---	434.67	2.012E-03	Pulse	1.00	3
Se			1		ug/l	---	6.89	3.628E-05	Pulse	3.00	3
Sb			1		ug/l	---	85.33	4.494E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,290,720.08	1.44		Analog	0.50	3
1	Sc		216,019.07	0.75		Pulse	0.30	3
1	Ge		126,473.75	1.30		Pulse	0.30	3
1	In		1,296,328.66	1.04		Pulse	0.30	3
1	Tb		4,329,653.83	1.24		Analog	0.50	3
1	Lu		3,361,372.67	1.03		Analog	0.50	3
1	Ge		189,791.89	0.83		Pulse	0.30	3
1	Li		7,063.59	1.37		Pulse	0.30	3

Quantitation Report

File Name	003CALB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 14:53
Sample Name	CALSTD-1
Sample Type	CalBlk
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.000	ug/l	---	449.34	3.514E-03	Pulse	0.50	3
As			1	0.000	ug/l	---	36.67	2.868E-04	Pulse	1.00	3
Mo			1	0.000	ug/l	---	21.33	1.114E-04	Pulse	0.50	3
Pb			1	0.000	ug/l	---	1,009.37	3.084E-04	Pulse	1.00	3
Be			1	0.000	ug/l	---	0.33	4.727E-05	Pulse	2.00	3
Ag			1	0.000	ug/l	---	88.00	6.724E-05	Pulse	0.50	3
Ba			1	0.000	ug/l	---	26.67	2.038E-05	Pulse	0.50	3
Tl			1	0.000	ug/l	---	108.67	3.319E-05	Pulse	0.50	3
Sn			1	0.000	ug/l	---	291.12	2.225E-04	Pulse	0.30	3
Sr			1	0.000	ug/l	---	327.33	2.503E-04	Pulse	0.50	3
Ca			1	0.000	ug/l	---	240.00	1.110E-03	Pulse	0.50	3
Ti			1	0.000	ug/l	---	11.33	5.241E-05	Pulse	0.50	3
Na			1	0.000	ug/l	---	7,552.54	3.491E-02	Pulse	1.00	3
Mg			1	0.000	ug/l	---	81.00	3.742E-04	Pulse	1.00	3
K			1	0.000	ug/l	---	34,424.79	1.591E-01	Pulse	1.00	3
V			1	0.000	ug/l	---	1,005.36	4.647E-03	Pulse	0.50	3
Mn			1	0.000	ug/l	---	244.00	1.908E-03	Pulse	0.50	3
Fe			1	0.000	ug/l	---	4,625.27	3.616E-02	Pulse	0.50	3
Co			1	0.000	ug/l	---	24.67	1.930E-04	Pulse	0.50	3
Ni			1	0.000	ug/l	---	87.33	6.828E-04	Pulse	0.50	3
Cu			1	0.000	ug/l	---	4,830.00	3.776E-02	Pulse	0.50	3
Zn			1	0.000	ug/l	---	802.35	4.190E-03	Pulse	1.00	3
Cd			1	0.000	ug/l	---	4.67	2.438E-05	Pulse	0.50	3
Al			1	0.000	ug/l	---	610.01	2.821E-03	Pulse	1.00	3
Se			1	0.000	ug/l	---	5.34	2.787E-05	Pulse	3.00	3
Sb			1	0.000	ug/l	---	77.67	4.056E-04	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,273,031.08	1.73	100.0	Analog	0.50	3
1	Sc		216,349.35	0.84	100.0	Pulse	0.30	3
1	Ge		127,912.61	0.57	100.0	Pulse	0.30	3
1	In		1,308,096.68	0.43	100.0	Pulse	0.30	3
1	Tb		4,421,913.83	0.08	100.0	Analog	0.50	3
1	Lu		3,413,740.67	0.90	100.0	Analog	0.50	3
1	Ge		191,482.14	0.11	100.0	Pulse	0.30	3
1	Li		7,240.32	2.33	100.0	Pulse	0.30	3

Quantitation Report

File Name 004CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 14:57
Sample Name CALSTD-2
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.515	ug/l	1.64	4,681.96	3.626E-02	Pulse	0.50	3
As			1	0.515	ug/l	6.40	502.68	3.893E-03	Pulse	1.00	3
Mo			1	0.510	ug/l	2.92	2,165.47	1.112E-02	Pulse	0.50	3
Pb			1	0.492	ug/l	0.72	13,019.94	3.939E-03	Pulse	1.00	3
Be			1	0.432	ug/l	4.23	82.50	1.133E-02	Pulse	2.00	3
Ag			1	0.508	ug/l	2.59	7,997.20	6.043E-03	Pulse	0.50	3
Ba			1	0.532	ug/l	1.57	964.70	7.290E-04	Pulse	0.50	3
Tl			1	0.496	ug/l	1.44	17,605.65	5.327E-03	Pulse	0.50	3
Sn			1	0.478	ug/l	4.98	2,302.39	1.740E-03	Pulse	0.30	3
Sr			1	0.480	ug/l	8.51	2,529.52	1.912E-03	Pulse	0.50	3
Ca			1	50.520	ug/l	0.94	1,598.74	7.287E-03	Pulse	0.50	3
Ti			1	0.451	ug/l	6.03	94.67	4.315E-04	Pulse	0.50	3
Na			1	53.506	ug/l	0.78	90,138.33	4.109E-01	Pulse	1.00	3
Mg			1	53.448	ug/l	1.63	41,065.79	1.872E-01	Pulse	1.00	3
K			1	49.516	ug/l	1.96	60,371.31	2.752E-01	Pulse	1.00	3
V			1	0.519	ug/l	5.82	4,167.16	1.899E-02	Pulse	0.50	3
Mn			1	0.475	ug/l	1.65	2,255.48	1.747E-02	Pulse	0.50	3
Fe			1	53.165	ug/l	0.34	355,828.42	2.756E+00	Pulse	0.50	3
Co			1	0.532	ug/l	1.64	6,901.34	5.344E-02	Pulse	0.50	3
Ni			1	0.714	ug/l	41.79	2,650.28	2.050E-02	Pulse	0.50	3
Cu			1	0.512	ug/l	3.55	9,784.02	7.577E-02	Pulse	0.50	3
Zn			1	0.377	ug/l	7.00	1,399.72	7.189E-03	Pulse	1.00	3
Cd			1	0.556	ug/l	3.57	1,228.05	6.306E-03	Pulse	0.50	3
Al			1	51.692	ug/l	0.72	15,092.81	6.879E-02	Pulse	1.00	3
Se			1	0.507	ug/l	7.31	43.00	2.209E-04	Pulse	3.00	3
Sb			1	0.508	ug/l	2.85	2,885.92	1.482E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,305,202.25	0.17	101.0	Analog	0.50	3
1	Sc		219,393.17	0.48	101.4	Pulse	0.30	3
1	Ge		129,132.42	0.38	101.0	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,323,350.92	0.49	101.2	Pulse	0.30	3
1	Tb		4,398,624.33	0.15	99.5	Analog	0.50	3
1	Lu		3,425,644.67	0.72	100.3	Analog	0.50	3
1	Ge		194,713.31	0.95	101.7	Pulse	0.30	3
1	Li		7,282.55	0.07	100.6	Pulse	0.30	3

Quantitation Report

File Name 005CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:00
Sample Name CALSTD-3
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.019	ug/l	0.86	8,950.24	6.828E-02	Pulse	0.50	3
As			1	0.967	ug/l	3.31	925.03	7.058E-03	Pulse	1.00	3
Mo			1	0.979	ug/l	2.67	4,151.83	2.123E-02	Pulse	0.50	3
Pb			1	0.988	ug/l	0.53	25,449.79	7.605E-03	Pulse	1.00	3
Be			1	0.944	ug/l	10.74	178.83	2.472E-02	Pulse	2.00	3
Ag			1	1.042	ug/l	1.19	16,470.50	1.232E-02	Pulse	0.50	3
Ba			1	1.010	ug/l	6.61	1,824.77	1.365E-03	Pulse	0.50	3
Tl			1	0.993	ug/l	0.98	35,587.96	1.064E-02	Pulse	0.50	3
Sn			1	0.975	ug/l	6.56	4,432.82	3.315E-03	Pulse	0.30	3
Sr			1	0.964	ug/l	1.14	4,798.67	3.589E-03	Pulse	0.50	3
Ca			1	104.631	ug/l	4.59	3,095.61	1.390E-02	Pulse	0.50	3
Ti			1	0.953	ug/l	11.96	190.00	8.533E-04	Pulse	0.50	3
Na			1	104.171	ug/l	0.47	170,728.79	7.669E-01	Pulse	1.00	3
Mg			1	105.874	ug/l	0.69	82,469.28	3.704E-01	Pulse	1.00	3
K			1	99.104	ug/l	0.39	87,140.25	3.914E-01	Pulse	1.00	3
V			1	1.023	ug/l	2.91	7,328.84	3.292E-02	Pulse	0.50	3
Mn			1	1.003	ug/l	6.28	4,558.59	3.479E-02	Pulse	0.50	3
Fe			1	106.835	ug/l	1.19	721,047.40	5.501E+00	Pulse	0.50	3
Co			1	1.076	ug/l	1.82	14,149.57	1.080E-01	Pulse	0.50	3
Ni			1	1.058	ug/l	0.35	3,939.78	3.005E-02	Pulse	0.50	3
Cu			1	1.034	ug/l	2.97	15,016.95	1.146E-01	Pulse	0.50	3
Zn			1	0.997	ug/l	4.29	2,368.50	1.211E-02	Pulse	1.00	3
Cd			1	1.055	ug/l	2.55	2,334.16	1.194E-02	Pulse	0.50	3
Al			1	102.696	ug/l	1.06	29,807.52	1.339E-01	Pulse	1.00	3
Se			1	0.946	ug/l	22.28	75.89	3.883E-04	Pulse	3.00	3
Sb			1	1.042	ug/l	1.71	5,867.35	3.001E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,346,253.25	0.59	102.2	Analog	0.50	3
1	Sc		222,635.06	0.36	102.9	Pulse	0.30	3
1	Ge		131,093.37	1.25	102.5	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,337,178.25	0.25	102.2	Pulse	0.30	3
1	Tb		4,422,468.33	1.89	100.0	Analog	0.50	3
1	Lu		3,492,149.00	0.15	102.3	Analog	0.50	3
1	Ge		195,537.67	0.94	102.1	Pulse	0.30	3
1	Li		7,229.20	2.26	99.8	Pulse	0.30	3

Quantitation Report

File Name 006CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:04
Sample Name CALSTD-4
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	10.062	ug/l	1.51	84,064.11	6.431E-01	Pulse	0.50	3
As			1	10.033	ug/l	1.66	9,219.39	7.052E-02	Pulse	1.00	3
Mo			1	9.824	ug/l	1.35	41,329.95	2.121E-01	Pulse	0.50	3
Pb			1	9.902	ug/l	1.85	239,209.02	7.343E-02	Pulse	1.00	3
Be			1	9.870	ug/l	3.58	1,759.92	2.580E-01	Pulse	2.00	3
Ag			1	10.077	ug/l	0.58	158,570.38	1.185E-01	Pulse	0.50	3
Ba			1	9.720	ug/l	0.13	17,338.90	1.296E-02	Pulse	0.50	3
Tl			1	9.869	ug/l	1.59	343,527.05	1.055E-01	Pulse	0.50	3
Sn			1	9.823	ug/l	0.67	41,994.65	3.139E-02	Pulse	0.30	3
Sr			1	9.619	ug/l	0.76	44,887.64	3.355E-02	Pulse	0.50	3
Ca			1	987.330	ug/l	0.64	27,128.11	1.218E-01	Pulse	0.50	3
Ti			1	9.849	ug/l	2.64	1,854.77	8.329E-03	Pulse	0.50	3
Na			1	1038.884	ug/l	0.74	1,633,271.59	7.335E+00	Analog	1.00	3
Mg			1	1038.353	ug/l	0.83	808,203.98	3.630E+00	Pulse	1.00	3
K			1	980.605	ug/l	1.01	547,178.33	2.457E+00	Pulse	1.00	3
V			1	10.020	ug/l	1.22	62,695.67	2.816E-01	Pulse	0.50	3
Mn			1	9.982	ug/l	0.86	43,015.55	3.291E-01	Pulse	0.50	3
Fe			1	1018.634	ug/l	1.22	6,815,825.83	5.214E+01	Analog	0.50	3
Co			1	10.300	ug/l	0.15	134,838.18	1.031E+00	Pulse	0.50	3
Ni			1	10.512	ug/l	0.77	38,231.72	2.924E-01	Pulse	0.50	3
Cu			1	10.858	ug/l	1.12	110,315.19	8.439E-01	Pulse	0.50	3
Zn			1	10.708	ug/l	0.88	17,398.08	8.929E-02	Pulse	1.00	3
Cd			1	10.422	ug/l	0.49	22,940.54	1.177E-01	Pulse	0.50	3
Al			1	1034.484	ug/l	0.95	294,607.88	1.323E+00	Pulse	1.00	3
Se			1	10.041	ug/l	2.59	750.91	3.854E-03	Pulse	3.00	3
Sb			1	10.117	ug/l	0.34	56,076.72	2.878E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,258,195.33	1.71	99.5	Analog	0.50	3
1	Sc		222,677.61	0.87	102.9	Pulse	0.30	3
1	Ge		130,732.92	1.10	102.2	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,337,883.04	0.62	102.3	Pulse	0.30	3
1	Tb		4,438,939.50	1.23	100.4	Analog	0.50	3
1	Lu		3,484,003.58	1.85	102.1	Analog	0.50	3
1	Ge		194,862.12	0.71	101.8	Pulse	0.30	3
1	Li		6,823.49	1.20	94.2	Pulse	0.30	3

Quantitation Report

File Name 007CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:07
Sample Name CALSTD-5
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.945	ug/l	0.60	413,622.05	3.178E+00	Pulse	0.50	3
As			1	50.290	ug/l	0.35	45,854.40	3.523E-01	Pulse	1.00	3
Mo			1	49.699	ug/l	0.60	208,463.18	1.073E+00	Pulse	0.50	3
Pb			1	49.895	ug/l	0.98	1,168,957.79	3.688E-01	Pulse	1.00	3
Be			1	48.046	ug/l	2.83	8,706.84	1.256E+00	Pulse	2.00	3
Ag			1	51.032	ug/l	0.38	779,744.17	6.000E-01	Pulse	0.50	3
Ba			1	49.989	ug/l	0.08	86,510.88	6.657E-02	Pulse	0.50	3
Tl			1	50.403	ug/l	1.13	1,706,832.50	5.385E-01	Analog	0.50	3
Sn			1	49.966	ug/l	0.71	206,330.69	1.588E-01	Pulse	0.30	3
Sr			1	49.313	ug/l	0.90	222,223.70	1.710E-01	Pulse	0.50	3
Ca			1	5037.292	ug/l	0.82	136,728.83	6.170E-01	Pulse	0.50	3
Ti			1	50.828	ug/l	2.12	9,477.83	4.277E-02	Pulse	0.50	3
Na			1	5211.187	ug/l	1.05	8,120,414.17	3.665E+01	Analog	1.00	3
Mg			1	5182.649	ug/l	1.25	4,013,188.17	1.811E+01	Analog	1.00	3
K			1	5214.873	ug/l	2.15	2,742,427.50	1.238E+01	Analog	1.00	3
V			1	50.551	ug/l	0.77	310,590.44	1.402E+00	Pulse	0.50	3
Mn			1	50.576	ug/l	0.05	215,987.44	1.659E+00	Pulse	0.50	3
Fe			1	5084.827	ug/l	0.13	33,857,794.67	2.601E+02	Analog	0.50	3
Co			1	51.261	ug/l	0.26	668,014.77	5.132E+00	Pulse	0.50	3
Ni			1	51.795	ug/l	0.61	187,184.09	1.438E+00	Pulse	0.50	3
Cu			1	52.078	ug/l	0.83	508,101.02	3.904E+00	Pulse	0.50	3
Zn			1	51.333	ug/l	0.96	80,107.65	4.121E-01	Pulse	1.00	3
Cd			1	51.422	ug/l	0.59	112,881.80	5.808E-01	Pulse	0.50	3
Al			1	5319.053	ug/l	1.65	1,504,812.17	6.791E+00	Analog	1.00	3
Se			1	50.236	ug/l	1.40	3,726.72	1.917E-02	Pulse	3.00	3
Sb			1	50.802	ug/l	0.56	280,574.56	1.443E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,169,691.92	1.77	96.8	Analog	0.50	3
1	Sc		221,569.92	2.38	102.4	Pulse	0.30	3
1	Ge		130,156.67	2.84	101.8	Pulse	0.30	3
1	In		1,299,585.75	1.90	99.3	Pulse	0.30	3
1	Tb		4,281,915.58	2.95	96.8	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,410,227.08	2.63	99.9	Analog	0.50	3
1	Ge		194,365.30	1.84	101.5	Pulse	0.30	3
1	Li		6,934.66	1.55	95.8	Pulse	0.30	3

Quantitation Report

File Name 008CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:11
Sample Name CALSTD-6
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.090	ug/l	0.93	845,153.25	6.302E+00	Pulse	0.50	3
As			1	100.057	ug/l	0.73	93,968.64	7.007E-01	Pulse	1.00	3
Mo			1	99.828	ug/l	0.56	425,330.79	2.154E+00	Pulse	0.50	3
Pb			1	100.909	ug/l	1.65	2,311,136.17	7.455E-01	Analog	1.00	3
Be			1	98.643	ug/l	1.05	17,488.59	2.578E+00	Pulse	2.00	3
Ag			1	99.476	ug/l	1.18	1,535,182.33	1.169E+00	Analog	0.50	3
Ba			1	100.289	ug/l	0.38	175,290.72	1.335E-01	Pulse	0.50	3
Tl			1	100.828	ug/l	1.07	3,339,189.75	1.077E+00	Analog	0.50	3
Sn			1	100.141	ug/l	0.17	417,380.64	3.179E-01	Pulse	0.30	3
Sr			1	99.597	ug/l	0.29	452,984.54	3.451E-01	Pulse	0.50	3
Ca			1	10027.941	ug/l	0.68	282,110.01	1.227E+00	Pulse	0.50	3
Ti			1	99.850	ug/l	1.79	19,300.25	8.396E-02	Pulse	0.50	3
Na			1	10195.403	ug/l	0.62	16,475,992.00	7.167E+01	Analog	1.00	3
Mg			1	10118.042	ug/l	0.71	8,130,023.00	3.537E+01	Analog	1.00	3
K			1	10059.742	ug/l	0.76	5,456,618.83	2.374E+01	Analog	1.00	3
V			1	100.814	ug/l	0.91	641,565.29	2.791E+00	Pulse	0.50	3
Mn			1	100.045	ug/l	1.02	439,971.86	3.281E+00	Pulse	0.50	3
Fe			1	10092.612	ug/l	1.03	69,237,634.67	5.163E+02	Analog	0.50	3
Co			1	100.952	ug/l	0.96	1,355,518.83	1.011E+01	Pulse	0.50	3
Ni			1	100.893	ug/l	0.81	375,650.90	2.801E+00	Pulse	0.50	3
Cu			1	101.237	ug/l	0.69	1,013,076.06	7.554E+00	Pulse	0.50	3
Zn			1	101.570	ug/l	0.38	160,195.03	8.113E-01	Pulse	1.00	3
Cd			1	102.013	ug/l	0.32	227,477.03	1.152E+00	Pulse	0.50	3
Al			1	10275.882	ug/l	1.46	3,015,355.33	1.312E+01	Analog	1.00	3
Se			1	101.239	ug/l	0.64	7,622.41	3.861E-02	Pulse	3.00	3
Sb			1	101.148	ug/l	0.38	567,362.50	2.874E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,100,186.83	0.50	94.7	Analog	0.50	3
1	Sc		229,883.33	0.53	106.3	Pulse	0.30	3
1	Ge		134,113.12	0.49	104.8	Pulse	0.30	3
1	In		1,312,750.85	0.38	100.4	Pulse	0.30	3
1	Tb		4,305,288.67	1.17	97.4	Analog	0.50	3
1	Lu		3,374,579.25	1.30	98.9	Analog	0.50	3
1	Ge		197,443.70	0.44	103.1	Pulse	0.30	3
1	Li		6,784.59	1.42	93.7	Pulse	0.30	3

Quantitation Report

File Name 009CALS.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:14
Sample Name CALSTD-7
Sample Type CalStd
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	200.466	ug/l	1.22	1,691,119.46	1.275E+01	Analog	0.50	3
As			1	199.898	ug/l	0.20	185,690.70	1.400E+00	Pulse	1.00	3
Mo			1	200.170	ug/l	0.80	847,759.44	4.319E+00	Pulse	0.50	3
Pb			1	199.577	ug/l	0.49	4,328,527.17	1.474E+00	Analog	1.00	3
Be			1	201.174	ug/l	2.70	33,187.23	5.257E+00	Pulse	2.00	3
Ag			1	154.042	ug/l	0.87	2,332,620.00	1.811E+00	Analog	0.50	3
Ba			1	199.872	ug/l	0.47	342,752.29	2.661E-01	Pulse	0.50	3
Tl			1	199.492	ug/l	0.43	6,257,283.67	2.131E+00	Analog	0.50	3
Sn			1	199.947	ug/l	0.58	817,421.16	6.346E-01	Pulse	0.30	3
Sr			1	200.392	ug/l	0.35	893,947.73	6.940E-01	Pulse	0.50	3
Ca			1	19977.316	ug/l	0.50	563,788.29	2.444E+00	Pulse	0.50	3
Ti			1	199.876	ug/l	1.47	38,762.38	1.680E-01	Pulse	0.50	3
Na			1	19847.528	ug/l	1.08	32,181,397.33	1.395E+02	Analog	1.00	3
Mg			1	19893.361	ug/l	0.49	16,041,863.00	6.953E+01	Analog	1.00	3
K			1	19917.386	ug/l	1.22	10,806,138.33	4.684E+01	Analog	1.00	3
V			1	199.454	ug/l	0.82	1,272,832.58	5.517E+00	Pulse	0.50	3
Mn			1	199.834	ug/l	0.84	869,163.71	6.551E+00	Pulse	0.50	3
Fe			1	19931.514	ug/l	0.86	135,265,509.33	1.020E+03	Analog	0.50	3
Co			1	199.193	ug/l	0.48	2,645,998.25	1.994E+01	Analog	0.50	3
Ni			1	199.079	ug/l	0.39	733,202.37	5.526E+00	Pulse	0.50	3
Cu			1	198.819	ug/l	1.57	1,963,399.04	1.480E+01	Analog	0.50	3
Zn			1	198.847	ug/l	0.60	310,962.96	1.584E+00	Pulse	1.00	3
Cd			1	198.616	ug/l	0.23	440,255.17	2.243E+00	Pulse	0.50	3
Al			1	19780.554	ug/l	1.37	5,824,962.67	2.525E+01	Analog	1.00	3
Se			1	199.320	ug/l	0.54	14,912.56	7.598E-02	Pulse	3.00	3
Sb			1	199.219	ug/l	0.33	1,110,753.04	5.659E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,936,330.92	1.86	89.7	Analog	0.50	3
1	Sc		230,713.29	0.59	106.6	Pulse	0.30	3
1	Ge		132,676.98	0.44	103.7	Pulse	0.30	3
1	In		1,288,074.19	0.59	98.5	Pulse	0.30	3
1	Tb		4,186,529.83	1.05	94.7	Analog	0.50	3
1	Lu		3,311,439.42	1.63	97.0	Analog	0.50	3
1	Ge		196,271.10	0.45	102.5	Pulse	0.30	3
1	Li		6,316.64	3.76	87.2	Pulse	0.30	3

Quantitation Report

File Name 010HSAG.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:17
Sample Name HSTD (Ag)
Sample Type HSTD _Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	99.364	ug/l	0.60	846,059.90	6.319E+00	Pulse	0.50	3
As			1	99.697	ug/l	0.47	93,472.03	6.982E-01	Pulse	1.00	3
Mo			1	99.840	ug/l	1.43	423,454.63	2.154E+00	Pulse	0.50	3
Pb			1	101.882	ug/l	1.16	2,243,716.08	7.527E-01	Analog	1.00	3
Be			1	99.409	ug/l	6.18	16,888.54	2.598E+00	Pulse	2.00	3
Ag			1	99.990	ug/l	1.11	1,520,350.42	1.175E+00	Pulse	0.50	3
Ba			1	99.974	ug/l	1.01	172,162.85	1.331E-01	Pulse	0.50	3
Tl			1	100.216	ug/l	0.67	3,191,342.92	1.071E+00	Analog	0.50	3
Sn			1	100.249	ug/l	1.22	411,654.57	3.183E-01	Pulse	0.30	3
Sr			1	100.140	ug/l	1.15	448,728.21	3.469E-01	Pulse	0.50	3
Ca			1	10076.375	ug/l	2.15	282,876.92	1.233E+00	Pulse	0.50	3
Ti			1	99.666	ug/l	2.60	19,224.14	8.381E-02	Pulse	0.50	3
Na			1	10158.123	ug/l	2.11	16,381,513.67	7.141E+01	Analog	1.00	3
Mg			1	10120.921	ug/l	1.72	8,115,806.83	3.538E+01	Analog	1.00	3
K			1	10120.300	ug/l	2.53	5,477,274.50	2.388E+01	Analog	1.00	3
V			1	100.888	ug/l	2.85	640,623.65	2.793E+00	Pulse	0.50	3
Mn			1	100.368	ug/l	0.73	440,647.48	3.291E+00	Pulse	0.50	3
Fe			1	9988.679	ug/l	1.10	68,407,197.33	5.110E+02	Analog	0.50	3
Co			1	100.043	ug/l	0.36	1,341,041.33	1.002E+01	Pulse	0.50	3
Ni			1	100.118	ug/l	0.52	372,133.30	2.780E+00	Pulse	0.50	3
Cu			1	100.531	ug/l	0.37	1,004,336.94	7.502E+00	Pulse	0.50	3
Zn			1	101.574	ug/l	0.79	159,479.49	8.114E-01	Pulse	1.00	3
Cd			1	99.886	ug/l	1.13	221,724.04	1.128E+00	Pulse	0.50	3
Al			1	10063.828	ug/l	2.05	2,947,160.83	1.285E+01	Analog	1.00	3
Se			1	100.232	ug/l	1.34	7,512.80	3.822E-02	Pulse	3.00	3
Sb			1	99.604	ug/l	0.73	556,188.69	2.830E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,981,022.92	0.81	91.1	Analog	0.50	3
1	Sc		229,474.42	2.41	106.1	Pulse	0.30	3
1	Ge		133,883.85	0.38	104.7	Pulse	0.30	3
1	In		1,293,488.94	1.37	98.9	Pulse	0.30	3
1	Tb		4,177,400.25	2.49	94.5	Analog	0.50	3
1	Lu		3,296,926.92	2.21	96.6	Analog	0.50	3
1	Ge		196,561.07	0.78	102.7	Pulse	0.30	3
1	Li		6,515.62	5.57	90.0	Pulse	0.30	3

Quantitation Report

File Name	011HSTD.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 15:20
Sample Name	HSTD
Sample Type	HSTD
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	198.373	ug/l	1.17	1,663,332.33	1.261E+01	Analog	0.50	3
As			1	197.520	ug/l	0.85	182,376.25	1.383E+00	Pulse	1.00	3
Mo			1	196.099	ug/l	1.46	823,830.54	4.232E+00	Pulse	0.50	3
Pb			1	195.795	ug/l	1.71	4,195,416.50	1.446E+00	Analog	1.00	3
Be			1	197.165	ug/l	3.07	32,675.01	5.153E+00	Pulse	2.00	3
Ag			1	148.351	ug/l	1.05	2,219,278.50	1.744E+00	Analog	0.50	3
Ba			1	196.970	ug/l	1.55	333,693.26	2.622E-01	Pulse	0.50	3
Tl			1	195.794	ug/l	1.47	6,067,527.83	2.092E+00	Analog	0.50	3
Sn			1	197.276	ug/l	1.46	796,740.98	6.261E-01	Pulse	0.30	3
Sr			1	198.891	ug/l	1.89	876,512.44	6.888E-01	Pulse	0.50	3
Ca			1	19840.879	ug/l	2.61	559,104.88	2.427E+00	Pulse	0.50	3
Ti			1	196.145	ug/l	3.01	37,982.13	1.649E-01	Pulse	0.50	3
Na			1	19668.062	ug/l	1.73	31,847,056.67	1.382E+02	Analog	1.00	3
Mg			1	19803.954	ug/l	2.20	15,946,795.67	6.922E+01	Analog	1.00	3
K			1	19761.939	ug/l	1.43	10,708,242.67	4.648E+01	Analog	1.00	3
V			1	196.641	ug/l	2.47	1,253,061.96	5.439E+00	Pulse	0.50	3
Mn			1	198.143	ug/l	0.40	856,631.64	6.496E+00	Pulse	0.50	3
Fe			1	19842.068	ug/l	1.25	133,851,680.00	1.015E+03	Analog	0.50	3
Co			1	197.624	ug/l	0.86	2,609,379.83	1.979E+01	Analog	0.50	3
Ni			1	196.394	ug/l	0.47	718,962.79	5.452E+00	Pulse	0.50	3
Cu			1	196.279	ug/l	0.83	1,926,769.16	1.461E+01	Analog	0.50	3
Zn			1	196.909	ug/l	1.48	305,460.92	1.569E+00	Pulse	1.00	3
Cd			1	193.585	ug/l	1.13	425,641.49	2.186E+00	Pulse	0.50	3
Al			1	19545.706	ug/l	2.41	5,747,353.00	2.495E+01	Analog	1.00	3
Se			1	198.542	ug/l	1.64	14,734.53	7.568E-02	Pulse	3.00	3
Sb			1	195.767	ug/l	1.41	1,082,701.04	5.561E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,901,388.17	1.57	88.6	Analog	0.50	3
1	Sc		230,430.57	1.63	106.5	Pulse	0.30	3
1	Ge		131,875.85	0.26	103.1	Pulse	0.30	3
1	In		1,272,556.96	0.57	97.3	Pulse	0.30	3
1	Tb		4,116,148.83	1.05	93.1	Analog	0.50	3
1	Lu		3,241,964.42	2.52	95.0	Analog	0.50	3
1	Ge		194,695.03	0.45	101.7	Pulse	0.30	3
1	Li		6,345.55	3.23	87.6	Pulse	0.30	3

Quantitation Report

File Name 012_ICV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:23
Sample Name ICV
Sample Type ICV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	104.054	ug/l	2.33	859,052.65	6.617E+00	Pulse	0.50	3
As			1	103.950	ug/l	1.93	94,500.47	7.279E-01	Pulse	1.00	3
Mo			1	105.895	ug/l	1.38	438,940.41	2.285E+00	Pulse	0.50	3
Pb			1	101.643	ug/l	3.82	2,232,681.75	7.509E-01	Analog	1.00	3
Be			1	95.845	ug/l	3.11	17,662.75	2.505E+00	Pulse	2.00	3
Ag			1	48.696	ug/l	1.62	728,354.60	5.725E-01	Pulse	0.50	3
Ba			1	98.104	ug/l	1.99	166,174.03	1.306E-01	Pulse	0.50	3
Tl			1	103.741	ug/l	3.00	3,295,113.08	1.108E+00	Analog	0.50	3
Sn			1	99.086	ug/l	2.60	400,206.69	3.146E-01	Pulse	0.30	3
Sr			1	106.278	ug/l	2.02	468,403.54	3.682E-01	Pulse	0.50	3
Ca			1	10212.128	ug/l	2.38	286,459.71	1.250E+00	Pulse	0.50	3
Ti			1	106.140	ug/l	1.85	20,457.48	8.925E-02	Pulse	0.50	3
Na			1	10234.589	ug/l	0.82	16,492,855.00	7.195E+01	Analog	1.00	3
Mg			1	10722.612	ug/l	1.64	8,590,951.00	3.748E+01	Analog	1.00	3
K			1	10112.946	ug/l	1.82	5,469,599.50	2.386E+01	Analog	1.00	3
V			1	102.416	ug/l	1.97	649,883.56	2.835E+00	Pulse	0.50	3
Mn			1	104.756	ug/l	2.12	445,943.39	3.435E+00	Pulse	0.50	3
Fe			1	10409.045	ug/l	3.19	69,116,909.33	5.325E+02	Analog	0.50	3
Co			1	105.568	ug/l	2.35	1,372,107.21	1.057E+01	Pulse	0.50	3
Ni			1	104.559	ug/l	2.08	376,838.86	2.903E+00	Pulse	0.50	3
Cu			1	105.493	ug/l	2.11	1,021,677.69	7.870E+00	Pulse	0.50	3
Zn			1	103.933	ug/l	1.47	159,456.10	8.301E-01	Pulse	1.00	3
Cd			1	102.838	ug/l	1.24	223,095.18	1.161E+00	Pulse	0.50	3
Al			1	10524.886	ug/l	1.89	3,079,782.00	1.344E+01	Analog	1.00	3
Se			1	101.255	ug/l	0.99	7,416.88	3.861E-02	Pulse	3.00	3
Sb			1	102.167	ug/l	1.62	557,533.39	2.903E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,974,262.58	1.57	90.9	Analog	0.50	3
1	Sc		229,243.19	0.77	106.0	Pulse	0.30	3
1	Ge		129,840.83	1.26	101.5	Pulse	0.30	3
1	In		1,272,345.19	1.07	97.3	Pulse	0.30	3
1	Tb		4,139,365.08	2.55	93.6	Analog	0.50	3
1	Lu		3,297,118.50	0.34	96.6	Analog	0.50	3
1	Ge		192,094.19	0.46	100.3	Pulse	0.30	3
1	Li		7,054.68	2.22	97.4	Pulse	0.30	3

Quantitation Report

File Name	013_ICB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 15:26
Sample Name	ICB
Sample Type	ICB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.045	ug/l	24.71	838.02	6.385E-03	Pulse	0.50	3
As			1	0.065	ug/l	12.77	97.00	7.398E-04	Pulse	1.00	3
Mo			1	0.267	ug/l	32.96	1,146.71	5.880E-03	Pulse	0.50	3
Pb			1	0.071	ug/l	25.56	2,559.54	8.301E-04	Pulse	1.00	3
Be			1	0.039	ug/l	39.56	7.33	1.076E-03	Pulse	2.00	3
Ag			1	0.024	ug/l	24.26	451.34	3.442E-04	Pulse	0.50	3
Ba			1	0.039	ug/l	36.97	95.33	7.283E-05	Pulse	0.50	3
Tl			1	0.060	ug/l	11.86	2,084.82	6.761E-04	Pulse	0.50	3
Sn			1	0.233	ug/l	21.35	1,257.84	9.605E-04	Pulse	0.30	3
Sr			1	0.041	ug/l	44.83	512.01	3.906E-04	Pulse	0.50	3
Ca			1	4.258	ug/l	12.08	371.34	1.631E-03	Pulse	0.50	3
Ti			1	-0.003	ug/l	-873.40	11.33	4.986E-05	Pulse	0.50	3
Na			1	4.121	ug/l	22.16	14,548.39	6.386E-02	Pulse	1.00	3
Mg			1	5.033	ug/l	20.89	4,095.14	1.797E-02	Pulse	1.00	3
K			1	8.377	ug/l	23.15	40,702.23	1.788E-01	Pulse	1.00	3
V			1	0.041	ug/l	41.18	1,318.05	5.786E-03	Pulse	0.50	3
Mn			1	0.023	ug/l	57.29	350.01	2.665E-03	Pulse	0.50	3
Fe			1	5.533	ug/l	10.45	41,882.71	3.191E-01	Pulse	0.50	3
Co			1	0.046	ug/l	17.35	626.01	4.766E-03	Pulse	0.50	3
Ni			1	0.049	ug/l	33.91	267.33	2.034E-03	Pulse	0.50	3
Cu			1	0.038	ug/l	69.59	5,320.81	4.056E-02	Pulse	0.50	3
Zn			1	0.008	ug/l	19.66	832.02	4.255E-03	Pulse	1.00	3
Cd			1	0.041	ug/l	18.49	94.67	4.836E-04	Pulse	0.50	3
Al			1	3.190	ug/l	34.22	1,571.07	6.893E-03	Pulse	1.00	3
Se			1	0.182	ug/l	3.48	19.00	9.716E-05	Pulse	3.00	3
Sb			1	0.123	ug/l	11.59	762.35	3.902E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,083,210.00	0.70	94.2	Analog	0.50	3
1	Sc		227,721.14	1.16	105.3	Pulse	0.30	3
1	Ge		131,110.34	1.69	102.5	Pulse	0.30	3
1	In		1,310,368.56	1.08	100.2	Pulse	0.30	3
1	Tb		4,164,526.67	1.77	94.2	Analog	0.50	3
1	Lu		3,264,260.33	1.96	95.6	Analog	0.50	3
1	Ge		195,557.91	1.44	102.1	Pulse	0.30	3
1	Li		6,819.05	0.85	94.2	Pulse	0.30	3

Quantitation Report

File Name 014LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:30
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.020	ug/l	1.66	9,161.67	6.832E-02	Pulse	0.50	3
As			1	1.043	ug/l	3.08	1,017.36	7.584E-03	Pulse	1.00	3
Mo			1	1.074	ug/l	3.63	4,654.64	2.328E-02	Pulse	0.50	3
Pb			1	1.011	ug/l	1.98	24,531.69	7.772E-03	Pulse	1.00	3
Be			1	0.984	ug/l	9.90	173.33	2.576E-02	Pulse	2.00	3
Ag			1	1.021	ug/l	1.35	16,126.19	1.207E-02	Pulse	0.50	3
Ba			1	0.962	ug/l	3.90	1,738.09	1.301E-03	Pulse	0.50	3
Tl			1	0.998	ug/l	2.30	33,768.68	1.070E-02	Pulse	0.50	3
Sn			1	1.044	ug/l	2.01	4,724.00	3.536E-03	Pulse	0.30	3
Sr			1	0.964	ug/l	2.81	4,795.34	3.588E-03	Pulse	0.50	3
Ca			1	101.773	ug/l	1.33	3,130.95	1.355E-02	Pulse	0.50	3
Ti			1	0.941	ug/l	12.17	194.67	8.436E-04	Pulse	0.50	3
Na			1	104.906	ug/l	1.95	178,308.62	7.720E-01	Pulse	1.00	3
Mg			1	105.739	ug/l	2.27	85,442.61	3.700E-01	Pulse	1.00	3
K			1	105.806	ug/l	2.85	94,029.29	4.071E-01	Pulse	1.00	3
V			1	1.014	ug/l	4.00	7,542.25	3.266E-02	Pulse	0.50	3
Mn			1	1.013	ug/l	3.33	4,707.30	3.510E-02	Pulse	0.50	3
Fe			1	106.950	ug/l	1.29	738,417.42	5.507E+00	Pulse	0.50	3
Co			1	1.044	ug/l	0.84	14,038.16	1.047E-01	Pulse	0.50	3
Ni			1	1.067	ug/l	0.79	4,064.47	3.031E-02	Pulse	0.50	3
Cu			1	1.010	ug/l	5.65	15,117.72	1.128E-01	Pulse	0.50	3
Zn			1	0.980	ug/l	4.92	2,394.17	1.197E-02	Pulse	1.00	3
Cd			1	1.043	ug/l	3.22	2,359.51	1.180E-02	Pulse	0.50	3
Al			1	102.520	ug/l	1.47	30,873.27	1.337E-01	Pulse	1.00	3
Se			1	1.076	ug/l	5.46	87.56	4.378E-04	Pulse	3.00	3
Sb			1	1.031	ug/l	1.85	5,935.37	2.968E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,157,366.92	2.13	96.5	Analog	0.50	3
1	Sc		231,023.62	2.12	106.8	Pulse	0.30	3
1	Ge		134,108.97	1.23	104.8	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,336,306.96	1.33	102.2	Pulse	0.30	3
1	Tb		4,250,866.33	1.80	96.1	Analog	0.50	3
1	Lu		3,364,687.58	0.61	98.6	Analog	0.50	3
1	Ge		199,961.39	0.77	104.4	Pulse	0.30	3
1	Li		6,746.80	4.27	93.2	Pulse	0.30	3

Quantitation Report

File Name 015LCCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:33
Sample Name CRIA
Sample Type CRIA
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	5.062	ug/l	0.25	44,386.76	3.252E-01	Pulse	0.50	3
As			1	4.917	ug/l	1.64	4,736.64	3.470E-02	Pulse	1.00	3
Mo			1	4.852	ug/l	0.99	21,349.03	1.048E-01	Pulse	0.50	3
Pb			1	4.905	ug/l	1.21	116,221.65	3.653E-02	Pulse	1.00	3
Be			1	4.914	ug/l	0.80	865.35	1.285E-01	Pulse	2.00	3
Ag			1	4.835	ug/l	1.37	77,167.98	5.691E-02	Pulse	0.50	3
Ba			1	4.863	ug/l	0.55	8,806.98	6.494E-03	Pulse	0.50	3
Tl			1	4.888	ug/l	0.96	166,207.52	5.224E-02	Pulse	0.50	3
Sn			1	4.842	ug/l	0.70	21,135.30	1.559E-02	Pulse	0.30	3
Sr			1	4.834	ug/l	3.84	23,029.71	1.699E-02	Pulse	0.50	3
Ca			1	502.565	ug/l	0.25	14,657.90	6.256E-02	Pulse	0.50	3
Ti			1	4.925	ug/l	1.75	982.03	4.191E-03	Pulse	0.50	3
Na			1	511.231	ug/l	1.35	849,716.75	3.627E+00	Pulse	1.00	3
Mg			1	516.152	ug/l	1.24	422,738.99	1.804E+00	Pulse	1.00	3
K			1	496.048	ug/l	0.90	309,663.69	1.322E+00	Pulse	1.00	3
V			1	5.026	ug/l	0.17	33,632.40	1.435E-01	Pulse	0.50	3
Mn			1	5.028	ug/l	0.91	22,748.30	1.667E-01	Pulse	0.50	3
Fe			1	513.335	ug/l	2.13	3,587,778.33	2.629E+01	Analog	0.50	3
Co			1	5.122	ug/l	1.02	70,002.97	5.130E-01	Pulse	0.50	3
Ni			1	5.193	ug/l	0.83	19,764.17	1.448E-01	Pulse	0.50	3
Cu			1	5.511	ug/l	0.19	60,990.96	4.469E-01	Pulse	0.50	3
Zn			1	5.539	ug/l	1.71	9,821.02	4.821E-02	Pulse	1.00	3
Cd			1	4.974	ug/l	0.44	11,448.48	5.620E-02	Pulse	0.50	3
Al			1	501.827	ug/l	0.96	150,710.54	6.433E-01	Pulse	1.00	3
Se			1	4.831	ug/l	3.22	380.67	1.869E-03	Pulse	3.00	3
Sb			1	4.907	ug/l	0.93	28,475.21	1.398E-01	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,181,614.83	1.53	97.2	Analog	0.50	3
1	Sc		234,304.16	1.50	108.3	Pulse	0.30	3
1	Ge		136,470.07	1.37	106.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,356,084.53	1.04	103.7	Pulse	0.30	3
1	Tb		4,273,821.08	2.67	96.7	Analog	0.50	3
1	Lu		3,408,182.67	1.49	99.8	Analog	0.50	3
1	Ge		203,708.10	0.50	106.4	Pulse	0.30	3
1	Li		6,735.68	1.35	93.0	Pulse	0.30	3

Quantitation Report

File Name	016ICSA.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 15:37
Sample Name	ICSA
Sample Type	ICSA
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	1.428	ug/l	4.08	12,454.31	9.430E-02	Pulse	0.50	3
As			1	0.104	ug/l	9.47	133.67	1.012E-03	Pulse	1.00	3
Mo			1	1988.584	ug/l	0.70	8,039,518.50	4.291E+01	Analog	0.50	3
Pb			1	0.241	ug/l	2.53	5,366.57	2.086E-03	Pulse	1.00	3
Be			1	0.015	ug/l	38.75	2.50	4.503E-04	Pulse	2.00	3
Ag			1	0.022	ug/l	5.21	391.34	3.260E-04	Pulse	0.50	3
Ba			1	0.315	ug/l	5.39	528.01	4.398E-04	Pulse	0.50	3
Tl			1	0.012	ug/l	3.15	416.01	1.616E-04	Pulse	0.50	3
Sn			1	0.150	ug/l	2.88	836.70	6.971E-04	Pulse	0.30	3
Sr			1	0.753	ug/l	0.77	3,427.68	2.856E-03	Pulse	0.50	3
Ca			1	94283.887	ug/l	2.88	2,626,331.50	1.153E+01	Analog	0.50	3
Ti			1	2033.898	ug/l	2.24	389,362.29	1.709E+00	Pulse	0.50	3
Na			1	96106.063	ug/l	1.31	153,837,568.00	6.753E+02	Analog	1.00	3
Mg			1	96072.890	ug/l	1.58	76,493,181.33	3.358E+02	Analog	1.00	3
K			1	98597.650	ug/l	0.50	52,677,434.67	2.312E+02	Analog	1.00	3
V			1	0.001	ug/l	736.93	1,063.37	4.668E-03	Pulse	0.50	3
Mn			1	0.700	ug/l	5.07	3,282.98	2.486E-02	Pulse	0.50	3
Fe			1	93551.533	ug/l	1.49	631,947,477.33	4.785E+03	Analog	0.50	3
Co			1	0.662	ug/l	1.68	8,784.83	6.652E-02	Pulse	0.50	3
Ni			1	0.442	ug/l	3.75	1,712.09	1.296E-02	Pulse	0.50	3
Cu			1	0.268	ug/l	5.11	7,616.97	5.769E-02	Pulse	0.50	3
Zn			1	1.336	ug/l	5.47	2,774.22	1.481E-02	Pulse	1.00	3
Cd			1	0.846	ug/l	7.73	1,794.77	9.581E-03	Pulse	0.50	3
Al			1	95073.006	ug/l	3.49	27,641,886.00	1.213E+02	Analog	1.00	3
Se			1	0.123	ug/l	29.34	14.00	7.468E-05	Pulse	3.00	3
Sb			1	0.107	ug/l	4.41	643.68	3.436E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,573,687.33	3.10	78.6	Analog	0.50	3
1	Sc		227,797.80	0.33	105.3	Pulse	0.30	3
1	Ge		132,052.50	0.79	103.2	Pulse	0.30	3
1	In		1,200,273.36	0.60	91.8	Pulse	0.30	3
1	Tb		3,876,445.50	3.45	87.7	Analog	0.50	3
1	Lu		3,063,064.92	4.13	89.7	Analog	0.50	3
1	Ge		187,353.99	0.63	97.8	Pulse	0.30	3
1	Li		5,553.06	1.26	76.7	Pulse	0.30	3

Quantitation Report

File Name 017ICSB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:40
Sample Name ICSAB
Sample Type ICSAB
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	19.558	ug/l	1.33	164,107.61	1.247E+00	Pulse	0.50	3
As			1	19.614	ug/l	1.36	18,110.52	1.376E-01	Pulse	1.00	3
Mo			1	1934.512	ug/l	1.20	7,749,811.33	4.174E+01	Analog	0.50	3
Pb			1	0.213	ug/l	3.73	4,678.36	1.885E-03	Pulse	1.00	3
Be			1	0.005	ug/l	68.46	1.00	1.799E-04	Pulse	2.00	3
Ag			1	18.067	ug/l	0.63	248,756.96	2.124E-01	Pulse	0.50	3
Ba			1	0.337	ug/l	3.29	549.34	4.692E-04	Pulse	0.50	3
Tl			1	0.010	ug/l	3.14	339.34	1.367E-04	Pulse	0.50	3
Sn			1	0.118	ug/l	21.84	697.80	5.960E-04	Pulse	0.30	3
Sr			1	0.730	ug/l	5.13	3,252.31	2.778E-03	Pulse	0.50	3
Ca			1	93035.716	ug/l	2.74	2,579,051.08	1.138E+01	Analog	0.50	3
Ti			1	2003.332	ug/l	3.11	381,688.14	1.684E+00	Pulse	0.50	3
Na			1	96353.094	ug/l	2.07	153,491,642.67	6.771E+02	Analog	1.00	3
Mg			1	93410.564	ug/l	2.22	74,017,754.67	3.265E+02	Analog	1.00	3
K			1	97147.955	ug/l	2.30	51,656,642.67	2.278E+02	Analog	1.00	3
V			1	0.019	ug/l	106.48	1,170.71	5.162E-03	Pulse	0.50	3
Mn			1	19.277	ug/l	1.09	83,413.21	6.337E-01	Pulse	0.50	3
Fe			1	91626.027	ug/l	1.02	616,912,917.33	4.687E+03	Analog	0.50	3
Co			1	19.144	ug/l	0.86	252,317.38	1.917E+00	Pulse	0.50	3
Ni			1	18.202	ug/l	1.33	66,592.31	5.059E-01	Pulse	0.50	3
Cu			1	17.583	ug/l	0.57	176,804.76	1.343E+00	Pulse	0.50	3
Zn			1	19.738	ug/l	0.52	29,896.81	1.610E-01	Pulse	1.00	3
Cd			1	18.720	ug/l	1.35	39,250.39	2.114E-01	Pulse	0.50	3
Al			1	92078.624	ug/l	2.58	26,642,490.67	1.175E+02	Analog	1.00	3
Se			1	0.122	ug/l	33.68	13.78	7.432E-05	Pulse	3.00	3
Sb			1	0.095	ug/l	9.81	578.68	3.116E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,482,983.58	2.28	75.9	Analog	0.50	3
1	Sc		226,707.87	0.69	104.8	Pulse	0.30	3
1	Ge		131,619.59	1.47	102.9	Pulse	0.30	3
1	In		1,170,907.73	0.10	89.5	Pulse	0.30	3
1	Tb		3,700,764.92	0.44	83.7	Analog	0.50	3
1	Lu		2,926,329.67	0.57	85.7	Analog	0.50	3
1	Ge		185,642.59	1.07	97.0	Pulse	0.30	3
1	Li		5,553.06	2.65	76.7	Pulse	0.30	3

Quantitation Report

File Name 018CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:43
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.094	ug/l	0.93	425,091.93	3.124E+00	Pulse	0.50	3
As			1	49.805	ug/l	0.43	47,474.93	3.489E-01	Pulse	1.00	3
Mo			1	49.151	ug/l	0.76	215,681.97	1.061E+00	Pulse	0.50	3
Pb			1	50.069	ug/l	1.81	1,053,267.96	3.701E-01	Pulse	1.00	3
Be			1	54.339	ug/l	0.46	8,673.83	1.420E+00	Pulse	2.00	3
Ag			1	50.315	ug/l	0.79	758,029.25	5.915E-01	Pulse	0.50	3
Ba			1	49.455	ug/l	0.90	84,394.21	6.586E-02	Pulse	0.50	3
Tl			1	50.619	ug/l	1.48	1,539,088.04	5.408E-01	Pulse	0.50	3
Sn			1	50.263	ug/l	1.57	204,641.79	1.597E-01	Pulse	0.30	3
Sr			1	50.059	ug/l	1.02	222,405.87	1.736E-01	Pulse	0.50	3
Ca			1	4991.451	ug/l	1.47	140,300.08	6.114E-01	Pulse	0.50	3
Ti			1	49.710	ug/l	1.55	9,597.88	4.183E-02	Pulse	0.50	3
Na			1	5178.959	ug/l	1.30	8,358,487.33	3.642E+01	Analog	1.00	3
Mg			1	5142.395	ug/l	0.97	4,124,638.42	1.797E+01	Analog	1.00	3
K			1	5243.808	ug/l	0.67	2,856,875.33	1.245E+01	Analog	1.00	3
V			1	50.588	ug/l	2.09	321,886.97	1.403E+00	Pulse	0.50	3
Mn			1	48.867	ug/l	0.45	218,171.52	1.603E+00	Pulse	0.50	3
Fe			1	4931.439	ug/l	0.97	34,325,342.67	2.523E+02	Analog	0.50	3
Co			1	49.871	ug/l	0.76	679,369.27	4.993E+00	Pulse	0.50	3
Ni			1	49.654	ug/l	0.46	187,616.64	1.379E+00	Pulse	0.50	3
Cu			1	49.854	ug/l	0.47	508,761.02	3.739E+00	Pulse	0.50	3
Zn			1	49.816	ug/l	1.17	81,349.07	4.001E-01	Pulse	1.00	3
Cd			1	48.488	ug/l	1.21	111,350.58	5.476E-01	Pulse	0.50	3
Al			1	5027.016	ug/l	2.19	1,472,865.04	6.419E+00	Analog	1.00	3
Se			1	48.183	ug/l	1.12	3,738.84	1.839E-02	Pulse	3.00	3
Sb			1	48.096	ug/l	0.61	277,881.01	1.367E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,846,316.75	0.57	87.0	Analog	0.50	3
1	Sc		229,483.33	0.62	106.1	Pulse	0.30	3
1	Ge		136,061.10	1.27	106.4	Pulse	0.30	3
1	In		1,281,430.15	0.39	98.0	Pulse	0.30	3
1	Tb		3,999,418.75	0.22	90.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,105,112.00	1.46	91.0	Analog	0.50	3
1	Ge		203,339.54	0.90	106.2	Pulse	0.30	3
1	Li		6,107.68	0.52	84.4	Pulse	0.30	3

Quantitation Report

File Name 019_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:46
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.095	ug/l	1.47	840,681.54	6.112E+00	Pulse	0.50	3
As			1	97.735	ug/l	0.75	94,145.57	6.844E-01	Pulse	1.00	3
Mo			1	95.676	ug/l	0.67	420,859.14	2.065E+00	Pulse	0.50	3
Pb			1	98.847	ug/l	0.94	2,103,071.79	7.303E-01	Analog	1.00	3
Be			1	109.199	ug/l	3.61	17,183.64	2.854E+00	Pulse	2.00	3
Ag			1	99.402	ug/l	0.62	1,498,739.87	1.169E+00	Pulse	0.50	3
Ba			1	98.439	ug/l	0.51	168,099.34	1.311E-01	Pulse	0.50	3
Tl			1	100.827	ug/l	1.17	3,101,759.17	1.077E+00	Analog	0.50	3
Sn			1	100.016	ug/l	1.07	407,270.91	3.175E-01	Pulse	0.30	3
Sr			1	98.812	ug/l	0.97	439,073.00	3.423E-01	Pulse	0.50	3
Ca			1	9694.709	ug/l	1.36	274,242.86	1.186E+00	Pulse	0.50	3
Ti			1	96.469	ug/l	1.66	18,750.32	8.112E-02	Pulse	0.50	3
Na			1	10131.569	ug/l	1.52	16,462,538.67	7.122E+01	Analog	1.00	3
Mg			1	9879.430	ug/l	1.87	7,981,633.33	3.453E+01	Analog	1.00	3
K			1	10040.934	ug/l	1.20	5,476,227.00	2.369E+01	Analog	1.00	3
V			1	100.235	ug/l	1.43	641,396.59	2.775E+00	Pulse	0.50	3
Mn			1	95.030	ug/l	1.00	428,669.49	3.116E+00	Pulse	0.50	3
Fe			1	9509.950	ug/l	0.49	66,915,525.33	4.865E+02	Analog	0.50	3
Co			1	97.300	ug/l	0.67	1,340,010.25	9.742E+00	Pulse	0.50	3
Ni			1	97.232	ug/l	0.86	371,318.59	2.699E+00	Pulse	0.50	3
Cu			1	96.710	ug/l	0.95	992,849.60	7.218E+00	Pulse	0.50	3
Zn			1	96.977	ug/l	1.33	157,945.78	7.748E-01	Pulse	1.00	3
Cd			1	95.417	ug/l	1.10	219,663.80	1.078E+00	Pulse	0.50	3
Al			1	9631.685	ug/l	3.45	2,841,970.42	1.230E+01	Analog	1.00	3
Se			1	94.815	ug/l	1.38	7,370.53	3.616E-02	Pulse	3.00	3
Sb			1	95.881	ug/l	1.29	555,255.96	2.724E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,879,846.58	0.48	88.0	Analog	0.50	3
1	Sc		231,142.47	0.21	106.8	Pulse	0.30	3
1	Ge		137,551.38	0.36	107.5	Pulse	0.30	3
1	In		1,282,523.70	0.42	98.0	Pulse	0.30	3
1	Tb		4,085,716.67	0.41	92.4	Analog	0.50	3
1	Lu		3,118,666.25	1.12	91.4	Analog	0.50	3
1	Ge		203,841.88	0.08	106.5	Pulse	0.30	3
1	Li		6,025.45	3.03	83.2	Pulse	0.30	3

Quantitation Report

File Name	020_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 15:49
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.035	ug/l	48.36	794.69	5.768E-03	Pulse	0.50	3
As			1	0.036	ug/l	41.39	74.33	5.396E-04	Pulse	1.00	3
Mo			1	0.408	ug/l	33.14	1,826.78	8.917E-03	Pulse	0.50	3
Pb			1	0.057	ug/l	21.69	2,145.48	7.268E-04	Pulse	1.00	3
Be			1	0.043	ug/l	30.17	7.00	1.159E-03	Pulse	2.00	3
Ag			1	0.037	ug/l	38.18	654.68	5.038E-04	Pulse	0.50	3
Ba			1	0.031	ug/l	24.58	80.67	6.173E-05	Pulse	0.50	3
Tl			1	0.031	ug/l	40.44	1,078.71	3.677E-04	Pulse	0.50	3
Sn			1	0.257	ug/l	25.66	1,370.07	1.038E-03	Pulse	0.30	3
Sr			1	0.030	ug/l	10.16	466.68	3.554E-04	Pulse	0.50	3
Ca			1	5.602	ug/l	48.89	411.34	1.795E-03	Pulse	0.50	3
Ti			1	0.050	ug/l	103.10	22.00	9.436E-05	Pulse	0.50	3
Na			1	7.409	ug/l	23.91	19,950.40	8.697E-02	Pulse	1.00	3
Mg			1	3.816	ug/l	35.11	3,128.29	1.371E-02	Pulse	1.00	3
K			1	8.988	ug/l	38.13	41,455.92	1.802E-01	Pulse	1.00	3
V			1	0.035	ug/l	77.96	1,290.72	5.624E-03	Pulse	0.50	3
Mn			1	0.024	ug/l	25.64	370.67	2.681E-03	Pulse	0.50	3
Fe			1	4.926	ug/l	18.22	39,719.36	2.881E-01	Pulse	0.50	3
Co			1	0.034	ug/l	26.78	496.01	3.608E-03	Pulse	0.50	3
Ni			1	0.034	ug/l	55.87	222.67	1.622E-03	Pulse	0.50	3
Cu			1	-0.021	ug/l	-92.85	5,002.71	3.619E-02	Pulse	0.50	3
Zn			1	0.149	ug/l	40.65	1,089.70	5.378E-03	Pulse	1.00	3
Cd			1	0.036	ug/l	28.00	86.00	4.261E-04	Pulse	0.50	3
Al			1	2.348	ug/l	54.07	1,329.72	5.817E-03	Pulse	1.00	3
Se			1	0.099	ug/l	18.21	13.33	6.549E-05	Pulse	3.00	3
Sb			1	0.097	ug/l	10.39	644.02	3.162E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,960,296.33	3.78	90.4	Analog	0.50	3
1	Sc		230,364.03	4.44	106.5	Pulse	0.30	3
1	Ge		138,393.96	4.04	108.2	Pulse	0.30	3
1	In		1,311,845.47	4.64	100.3	Pulse	0.30	3
1	Tb		4,056,016.50	5.00	91.7	Analog	0.50	3
1	Lu		3,122,105.42	3.70	91.5	Analog	0.50	3
1	Ge		203,161.68	4.42	106.1	Pulse	0.30	3
1	Li		6,101.03	7.04	84.3	Pulse	0.30	3

Quantitation Report

File Name	021_BSP.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 15:53
Sample Name	bsp test
Sample Type	BSP
Comment	
Prep Dilution	2.000
Auto Dilution	N/A
Total Dilution	2.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	192.529	ug/l	1.04	875,042.83	6.122E+00	Pulse	0.50	3
As			1	200.535	ug/l	0.44	100,355.53	7.022E-01	Pulse	1.00	3
Mo			1	196.323	ug/l	0.64	454,171.45	2.118E+00	Pulse	0.50	3
Pb			1	192.988	ug/l	1.71	2,288,466.25	7.129E-01	Analog	1.00	3
Be			1	210.940	ug/l	1.24	17,745.99	2.756E+00	Pulse	2.00	3
Ag			1	0.011	ug/l	49.31	181.33	1.319E-04	Pulse	0.50	3
Ba			1	192.036	ug/l	1.15	175,675.85	1.278E-01	Pulse	0.50	3
Tl			1	184.489	ug/l	0.38	3,163,230.08	9.854E-01	Analog	0.50	3
Sn			1	185.400	ug/l	1.21	404,448.12	2.943E-01	Pulse	0.30	3
Sr			1	197.761	ug/l	0.63	470,759.86	3.426E-01	Pulse	0.50	3
Ca			1	900.254	ug/l	1.92	13,540.37	5.615E-02	Pulse	0.50	3
Ti			1	195.831	ug/l	1.36	19,856.16	8.234E-02	Pulse	0.50	3
Na			1	4.031	ug/l	6.53	11,833.10	4.907E-02	Pulse	1.00	3
Mg			1	1.562	ug/l	4.99	748.69	3.105E-03	Pulse	1.00	3
K			1	-0.311	ug/l	-367.72	38,286.74	1.588E-01	Pulse	1.00	3
V			1	198.036	ug/l	1.16	661,082.69	2.741E+00	Pulse	0.50	3
Mn			1	191.110	ug/l	0.97	447,865.33	3.134E+00	Pulse	0.50	3
Fe			1	0.657	ug/l	5.98	7,568.94	5.296E-02	Pulse	0.50	3
Co			1	199.714	ug/l	1.48	1,428,949.29	9.998E+00	Analog	0.50	3
Ni			1	197.961	ug/l	0.75	392,754.31	2.748E+00	Pulse	0.50	3
Cu			1	202.156	ug/l	0.49	1,077,974.67	7.542E+00	Pulse	0.50	3
Zn			1	200.790	ug/l	0.70	171,952.67	8.020E-01	Pulse	1.00	3
Cd			1	193.522	ug/l	0.92	234,299.57	1.093E+00	Pulse	0.50	3
Al			1	-1.570	ug/l	-11.59	438.68	1.819E-03	Pulse	1.00	3
Se			1	190.481	ug/l	0.59	7,787.26	3.632E-02	Pulse	3.00	3
Sb			1	168.307	ug/l	1.62	512,613.04	2.391E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,210,003.83	0.51	98.1	Analog	0.50	3
1	Sc		241,154.04	0.24	111.5	Pulse	0.30	3
1	Ge		142,924.34	0.09	111.7	Pulse	0.30	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	In		1,374,151.37	0.38	105.0	Pulse	0.30	3
1	Tb		4,291,013.67	0.98	97.0	Analog	0.50	3
1	Lu		3,252,729.08	1.08	95.3	Analog	0.50	3
1	Ge		214,404.28	0.54	112.0	Pulse	0.30	3
1	Li		6,438.91	1.29	88.9	Pulse	0.30	3

Quantitation Report

File Name 022_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:56
Sample Name MP43260-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	181.049	ug/l	0.78	766,328.10	5.758E+00	Pulse	0.50	3
As			1	182.600	ug/l	1.45	85,098.19	6.394E-01	Pulse	1.00	3
Mo			1	191.707	ug/l	1.78	410,600.14	2.068E+00	Pulse	0.50	3
Pb			1	176.994	ug/l	2.99	1,922,835.54	6.539E-01	Analog	1.00	3
Be			1	209.893	ug/l	2.92	16,527.90	2.743E+00	Pulse	2.00	3
Ag			1	96.640	ug/l	0.98	710,258.98	5.681E-01	Pulse	0.50	3
Ba			1	178.860	ug/l	0.87	148,877.23	1.191E-01	Pulse	0.50	3
Tl			1	172.094	ug/l	3.82	2,703,305.92	9.192E-01	Analog	0.50	3
Sn			1	184.860	ug/l	1.06	366,931.57	2.935E-01	Pulse	0.30	3
Sr			1	187.220	ug/l	0.26	405,516.28	3.243E-01	Pulse	0.50	3
Ca			1	18402.891	ug/l	0.80	256,054.97	1.126E+00	Pulse	0.50	3
Ti			1	184.339	ug/l	0.59	17,623.21	7.751E-02	Pulse	0.50	3
Na			1	19260.785	ug/l	1.42	15,393,299.33	6.770E+01	Analog	1.00	3
Mg			1	18760.671	ug/l	1.17	7,454,685.67	3.279E+01	Analog	1.00	3
K			1	18957.783	ug/l	1.82	5,087,331.17	2.238E+01	Analog	1.00	3
V			1	183.503	ug/l	0.62	577,624.23	2.540E+00	Pulse	0.50	3
Mn			1	176.432	ug/l	1.17	385,049.47	2.893E+00	Pulse	0.50	3
Fe			1	18523.724	ug/l	0.97	63,061,430.67	4.738E+02	Analog	0.50	3
Co			1	182.405	ug/l	1.09	1,215,353.88	9.131E+00	Pulse	0.50	3
Ni			1	179.522	ug/l	1.35	331,678.34	2.492E+00	Pulse	0.50	3
Cu			1	180.169	ug/l	1.07	895,214.62	6.726E+00	Pulse	0.50	3
Zn			1	173.734	ug/l	0.95	137,867.12	6.945E-01	Pulse	1.00	3
Cd			1	172.680	ug/l	1.25	193,568.29	9.751E-01	Pulse	0.50	3
Al			1	17798.792	ug/l	1.58	2,583,090.83	1.136E+01	Analog	1.00	3
Se			1	163.464	ug/l	1.74	6,187.85	3.117E-02	Pulse	3.00	3
Sb			1	180.052	ug/l	0.88	507,725.95	2.558E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,942,178.33	2.48	89.9	Analog	0.50	3
1	Sc		227,371.61	0.23	105.1	Pulse	0.30	3
1	Ge		133,105.85	1.04	104.1	Pulse	0.30	3
1	In		1,250,299.88	0.64	95.6	Pulse	0.30	3
1	Tb		4,079,902.08	0.85	92.3	Analog	0.50	3
1	Lu		3,135,670.33	0.59	91.9	Analog	0.50	3
1	Ge		198,520.09	0.73	103.7	Pulse	0.30	3
1	Li		6,029.88	3.14	83.3	Pulse	0.30	3

Quantitation Report

File Name 023SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 15:59
Sample Name MP43251-D1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	164.308	ug/l	1.65	15,293.15	1.080E-01	Pulse	0.50	3
As			1	170.664	ug/l	6.74	1,732.42	1.223E-02	Pulse	1.00	3
Mo			1	26.941	ug/l	19.79	1,251.38	5.925E-03	Pulse	0.50	3
Pb			1	258.788	ug/l	0.50	61,485.13	1.942E-02	Pulse	1.00	3
Be			1	8.932	ug/l	19.42	15.17	2.382E-03	Pulse	2.00	3
Ag			1	2.779	ug/l	21.21	533.34	3.940E-04	Pulse	0.50	3
Ba			1	413.152	ug/l	1.48	7,474.34	5.520E-03	Pulse	0.50	3
Tl			1	6.007	ug/l	15.26	2,137.48	6.749E-04	Pulse	0.50	3
Sn			1	87.165	ug/l	9.40	4,047.18	2.988E-03	Pulse	0.30	3
Sr			1	150.592	ug/l	1.30	7,398.91	5.464E-03	Pulse	0.50	3
Ca			1	26082.921	ug/l	2.54	7,975.76	3.300E-02	Pulse	0.50	3
Ti			1	3496.532	ug/l	2.37	7,113.42	2.944E-02	Pulse	0.50	3
Na			1	1437.876	ug/l	7.37	32,857.96	1.359E-01	Pulse	1.00	3
Mg			1	13576.506	ug/l	0.13	114,774.55	4.749E-01	Pulse	1.00	3
K			1	13941.925	ug/l	1.54	117,425.85	4.859E-01	Pulse	1.00	3
V			1	555.821	ug/l	2.41	38,245.50	1.583E-01	Pulse	0.50	3
Mn			1	2852.379	ug/l	1.79	132,686.44	9.367E-01	Pulse	0.50	3
Fe			1	245658.389	ug/l	2.07	17,805,465.33	1.257E+02	Analog	0.50	3
Co			1	75.938	ug/l	0.90	10,797.92	7.622E-02	Pulse	0.50	3
Ni			1	264.018	ug/l	1.10	10,477.74	7.396E-02	Pulse	0.50	3
Cu			1	207.897	ug/l	1.56	27,213.90	1.921E-01	Pulse	0.50	3
Zn			1	5674.251	ug/l	1.71	96,171.28	4.551E-01	Pulse	1.00	3
Cd			1	5.285	ug/l	18.12	131.33	6.212E-04	Pulse	0.50	3
Al			1	101710.601	ug/l	1.80	314,381.40	1.301E+00	Pulse	1.00	3
Se			1	28.150	ug/l	6.43	28.56	1.351E-04	Pulse	3.00	3
Sb			1	42.886	ug/l	6.59	2,659.55	1.259E-02	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,166,072.67	0.40	96.7	Analog	0.50	3
1	Sc		241,678.44	0.62	111.7	Pulse	0.30	3
1	Ge		141,661.06	0.72	110.7	Pulse	0.30	3
1	In		1,354,064.50	1.19	103.5	Pulse	0.30	3
1	Tb		4,251,085.83	1.69	96.1	Analog	0.50	3
1	Lu		3,261,779.42	2.43	95.5	Analog	0.50	3
1	Ge		211,319.24	0.40	110.4	Pulse	0.30	3
1	Li		6,406.68	6.55	88.5	Pulse	0.30	3

Quantitation Report

File Name 024SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:03
Sample Name FC11636-2
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.705	ug/l	24.02	633.34	4.410E-03	Pulse	0.50	3
As			1	1851.828	ug/l	1.09	37,275.16	2.595E-01	Pulse	1.00	3
Mo			1	5.522	ug/l	28.62	533.35	2.495E-03	Pulse	0.50	3
Pb			1	0.706	ug/l	13.74	1,309.72	4.127E-04	Pulse	1.00	3
Be			1	0.058	ug/l	258.27	0.50	7.773E-05	Pulse	2.00	3
Ag			1	0.137	ug/l	43.99	136.67	9.952E-05	Pulse	0.50	3
Ba			1	51.534	ug/l	6.14	1,912.11	1.392E-03	Pulse	0.50	3
Tl			1	0.271	ug/l	5.73	289.33	9.119E-05	Pulse	0.50	3
Sn			1	4.261	ug/l	28.72	676.69	4.929E-04	Pulse	0.30	3
Sr			1	425.084	ug/l	2.00	40,765.07	2.968E-02	Pulse	0.50	3
Ca			1	55071.203	ug/l	2.57	33,047.18	1.358E-01	Pulse	0.50	3
Ti			1	1.285	ug/l	41.92	18.00	7.401E-05	Pulse	0.50	3
Na			1	15593.824	ug/l	0.92	541,883.64	2.226E+00	Pulse	1.00	3
Mg			1	7606.454	ug/l	1.71	129,507.89	5.321E-01	Pulse	1.00	3
K			1	8535.630	ug/l	1.62	136,118.80	5.592E-01	Pulse	1.00	3
V			1	3.115	ug/l	13.20	1,550.74	6.369E-03	Pulse	0.50	3
Mn			1	2428.795	ug/l	1.05	228,913.85	1.594E+00	Pulse	0.50	3
Fe			1	77042.298	ug/l	2.42	11,324,395.67	7.885E+01	Analog	0.50	3
Co			1	20.634	ug/l	0.68	5,961.67	4.151E-02	Pulse	0.50	3
Ni			1	8.412	ug/l	9.39	768.69	5.352E-03	Pulse	0.50	3
Cu			1	-2.380	ug/l	-18.26	4,916.02	3.423E-02	Pulse	0.50	3
Zn			1	3.351	ug/l	52.79	1,007.03	4.723E-03	Pulse	1.00	3
Cd			1	0.031	ug/l	341.41	6.67	3.144E-05	Pulse	0.50	3
Al			1	-51.177	ug/l	-13.50	369.00	1.515E-03	Pulse	1.00	3
Se			1	2.961	ug/l	46.18	10.78	5.044E-05	Pulse	3.00	3
Sb			1	5.227	ug/l	21.38	721.02	3.375E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,173,126.42	0.17	96.9	Analog	0.50	3
1	Sc		243,419.10	1.15	112.5	Pulse	0.30	3
1	Ge		143,619.59	0.09	112.3	Pulse	0.30	3
1	In		1,373,351.02	0.33	105.0	Pulse	0.30	3
1	Tb		4,313,090.00	0.65	97.5	Analog	0.50	3
1	Lu		3,300,344.75	0.20	96.7	Analog	0.50	3
1	Ge		213,335.80	1.30	111.4	Pulse	0.30	3
1	Li		6,494.48	1.86	89.7	Pulse	0.30	3

Quantitation Report

File Name 025SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:07
Sample Name FC11636-3
Sample Type Sample
Comment
Prep Dilution 50.000
Auto Dilution N/A
Total Dilution 50.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.704	ug/l	71.80	632.68	4.408E-03	Pulse	0.50	3
As			1	1702.305	ug/l	1.83	34,238.10	2.386E-01	Pulse	1.00	3
Mo			1	4.057	ug/l	24.71	398.01	1.862E-03	Pulse	0.50	3
Pb			1	0.908	ug/l	22.92	1,421.07	4.425E-04	Pulse	1.00	3
Be			1	0.103	ug/l	78.30	0.67	1.013E-04	Pulse	2.00	3
Ag			1	-0.001	ug/l	-4993.41	93.33	6.708E-05	Pulse	0.50	3
Ba			1	55.335	ug/l	4.78	2,078.14	1.494E-03	Pulse	0.50	3
Tl			1	0.144	ug/l	52.15	206.00	6.392E-05	Pulse	0.50	3
Sn			1	3.107	ug/l	43.68	584.46	4.197E-04	Pulse	0.30	3
Sr			1	424.130	ug/l	2.30	41,197.39	2.962E-02	Pulse	0.50	3
Ca			1	54343.163	ug/l	0.97	32,939.62	1.340E-01	Pulse	0.50	3
Ti			1	2.208	ug/l	58.34	22.00	8.951E-05	Pulse	0.50	3
Na			1	15068.287	ug/l	1.22	529,106.76	2.152E+00	Pulse	1.00	3
Mg			1	7238.465	ug/l	1.63	124,475.57	5.064E-01	Pulse	1.00	3
K			1	8260.648	ug/l	0.66	134,302.15	5.463E-01	Pulse	1.00	3
V			1	2.657	ug/l	7.66	1,503.40	6.116E-03	Pulse	0.50	3
Mn			1	2365.303	ug/l	1.09	222,738.67	1.552E+00	Pulse	0.50	3
Fe			1	73694.342	ug/l	0.49	10,822,999.67	7.543E+01	Analog	0.50	3
Co			1	19.667	ug/l	5.09	5,678.25	3.957E-02	Pulse	0.50	3
Ni			1	8.353	ug/l	10.94	763.35	5.320E-03	Pulse	0.50	3
Cu			1	-3.439	ug/l	-14.43	4,685.96	3.266E-02	Pulse	0.50	3
Zn			1	5.167	ug/l	10.12	1,071.36	5.011E-03	Pulse	1.00	3
Cd			1	0.002	ug/l	3729.25	5.33	2.490E-05	Pulse	0.50	3
Al			1	-61.214	ug/l	-3.48	309.33	1.258E-03	Pulse	1.00	3
Se			1	2.066	ug/l	66.79	9.33	4.362E-05	Pulse	3.00	3
Sb			1	3.288	ug/l	14.19	486.01	2.273E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,211,340.58	2.13	98.1	Analog	0.50	3
1	Sc		245,821.00	0.17	113.6	Pulse	0.30	3
1	Ge		143,493.28	0.23	112.2	Pulse	0.30	3
1	In		1,391,077.58	0.98	106.3	Pulse	0.30	3
1	Tb		4,316,185.67	2.01	97.6	Analog	0.50	3
1	Lu		3,362,260.08	0.68	98.5	Analog	0.50	3
1	Ge		213,795.64	1.01	111.7	Pulse	0.30	3
1	Li		6,554.51	1.43	90.5	Pulse	0.30	3

Quantitation Report

File Name	026SMPL.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 16:10
Sample Name	FC11636-4
Sample Type	Sample
Comment	
Prep Dilution	100.000
Auto Dilution	N/A
Total Dilution	100.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	-0.093	ug/l	-604.22	498.01	3.454E-03	Pulse	0.50	3
As			1	4700.471	ug/l	0.53	47,482.26	3.293E-01	Pulse	1.00	3
Mo			1	5.016	ug/l	27.67	258.00	1.194E-03	Pulse	0.50	3
Pb			1	0.359	ug/l	17.70	1,075.37	3.349E-04	Pulse	1.00	3
Be			1	0.312	ug/l	141.99	0.83	1.287E-04	Pulse	2.00	3
Ag			1	0.088	ug/l	11.39	108.67	7.758E-05	Pulse	0.50	3
Ba			1	25.604	ug/l	3.12	506.01	3.612E-04	Pulse	0.50	3
Tl			1	0.087	ug/l	52.77	136.00	4.245E-05	Pulse	0.50	3
Sn			1	3.284	ug/l	97.33	457.79	3.267E-04	Pulse	0.30	3
Sr			1	302.040	ug/l	2.87	14,999.76	1.071E-02	Pulse	0.50	3
Ca			1	46803.444	ug/l	2.15	14,291.61	5.834E-02	Pulse	0.50	3
Ti			1	2.190	ug/l	70.29	17.33	7.081E-05	Pulse	0.50	3
Na			1	9097.834	ug/l	1.22	165,150.02	6.742E-01	Pulse	1.00	3
Mg			1	5097.293	ug/l	2.18	43,734.18	1.785E-01	Pulse	1.00	3
K			1	5241.063	ug/l	1.64	69,076.09	2.820E-01	Pulse	1.00	3
V			1	4.428	ug/l	29.05	1,438.73	5.871E-03	Pulse	0.50	3
Mn			1	3440.462	ug/l	1.25	162,847.18	1.129E+00	Pulse	0.50	3
Fe			1	70836.305	ug/l	1.33	5,229,387.83	3.627E+01	Analog	0.50	3
Co			1	25.368	ug/l	2.64	3,689.72	2.559E-02	Pulse	0.50	3
Ni			1	11.350	ug/l	0.25	552.68	3.833E-03	Pulse	0.50	3
Cu			1	-8.454	ug/l	-12.45	4,539.92	3.149E-02	Pulse	0.50	3
Zn			1	1.306	ug/l	148.08	927.69	4.294E-03	Pulse	1.00	3
Cd			1	-0.079	ug/l	-59.46	3.33	1.542E-05	Pulse	0.50	3
Al			1	-146.803	ug/l	-6.71	232.00	9.473E-04	Pulse	1.00	3
Se			1	4.557	ug/l	95.37	9.78	4.524E-05	Pulse	3.00	3
Sb			1	4.296	ug/l	25.67	351.34	1.626E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,210,405.92	2.77	98.1	Analog	0.50	3
1	Sc		244,984.37	0.70	113.2	Pulse	0.30	3
1	Ge		144,184.34	0.28	112.7	Pulse	0.30	3
1	In		1,400,836.82	0.59	107.1	Pulse	0.30	3
1	Tb		4,397,087.33	0.35	99.4	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,337,249.00	1.09	97.8	Analog	0.50	3
1	Ge		216,029.65	0.33	112.8	Pulse	0.30	3
1	Li		6,487.82	4.44	89.6	Pulse	0.30	3

Quantitation Report

File Name 027_MB.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:14
Sample Name MP43267-MB1
Sample Type MB
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.261	ug/l	3.66	1,648.75	1.181E-02	Pulse	0.50	3
As			1	0.284	ug/l	16.16	179.00	1.282E-03	Pulse	1.00	3
Mo			1	0.112	ug/l	15.41	273.33	1.325E-03	Pulse	0.50	3
Pb			1	0.044	ug/l	14.96	1,495.74	4.706E-04	Pulse	1.00	3
Be			1	0.004	ug/l	216.87	0.67	1.004E-04	Pulse	2.00	3
Ag			1	0.008	ug/l	3.23	154.00	1.137E-04	Pulse	0.50	3
Ba			1	0.016	ug/l	146.60	42.00	3.100E-05	Pulse	0.50	3
Tl			1	0.008	ug/l	9.48	241.33	7.595E-05	Pulse	0.50	3
Sn			1	0.486	ug/l	19.36	1,346.73	9.942E-04	Pulse	0.30	3
Sr			1	0.134	ug/l	20.13	654.02	4.828E-04	Pulse	0.50	3
Ca			1	146.235	ug/l	6.80	2,444.17	1.005E-02	Pulse	0.50	3
Ti			1	0.116	ug/l	110.44	24.67	1.012E-04	Pulse	0.50	3
Na			1	6.111	ug/l	2.39	13,714.72	5.638E-02	Pulse	1.00	3
Mg			1	1.924	ug/l	11.04	909.36	3.736E-03	Pulse	1.00	3
K			1	4.075	ug/l	52.86	39,869.08	1.639E-01	Pulse	1.00	3
V			1	1.092	ug/l	2.64	4,802.65	1.974E-02	Pulse	0.50	3
Mn			1	0.114	ug/l	20.09	526.68	3.776E-03	Pulse	0.50	3
Fe			1	5.278	ug/l	3.96	23,882.45	1.711E-01	Pulse	0.50	3
Co			1	0.009	ug/l	16.58	92.67	6.631E-04	Pulse	0.50	3
Ni			1	0.033	ug/l	4.75	158.67	1.137E-03	Pulse	0.50	3
Cu			1	0.349	ug/l	11.56	7,078.09	5.072E-02	Pulse	0.50	3
Zn			1	1.095	ug/l	6.62	1,762.76	8.541E-03	Pulse	1.00	3
Cd			1	0.005	ug/l	88.74	10.67	5.163E-05	Pulse	0.50	3
Al			1	-0.651	ug/l	-56.08	585.34	2.406E-03	Pulse	1.00	3
Se			1	0.150	ug/l	25.51	11.67	5.651E-05	Pulse	3.00	3
Sb			1	0.269	ug/l	16.32	870.69	4.220E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,176,213.17	2.05	97.0	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Sc		243,264.78	0.78	112.4	Pulse	0.30	3
1	Ge		139,590.77	1.40	109.1	Pulse	0.30	3
1	In		1,354,745.61	0.24	103.6	Pulse	0.30	3
1	Tb		4,267,431.50	1.16	96.5	Analog	0.50	3
1	Lu		3,279,422.42	2.02	96.1	Analog	0.50	3
1	Ge		206,413.59	0.46	107.8	Pulse	0.30	3
1	Li		6,591.19	1.55	91.0	Pulse	0.30	3

Quantitation Report

File Name 028_BSP.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:17
Sample Name MP43267-B1
Sample Type BSP
Comment
Prep Dilution 2.000
Auto Dilution N/A
Total Dilution 2.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	167.685	ug/l	1.91	742,852.44	5.333E+00	Pulse	0.50	3
As			1	169.762	ug/l	1.24	82,808.79	5.945E-01	Pulse	1.00	3
Mo			1	178.729	ug/l	2.19	396,468.82	1.928E+00	Pulse	0.50	3
Pb			1	169.955	ug/l	2.87	1,856,159.42	6.279E-01	Analog	1.00	3
Be			1	187.421	ug/l	0.46	15,776.92	2.449E+00	Pulse	2.00	3
Ag			1	100.673	ug/l	2.77	780,159.02	5.918E-01	Pulse	0.50	3
Ba			1	164.947	ug/l	2.76	144,767.29	1.098E-01	Pulse	0.50	3
Tl			1	164.111	ug/l	1.18	2,591,782.75	8.766E-01	Analog	0.50	3
Sn			1	166.063	ug/l	2.43	347,596.85	2.637E-01	Pulse	0.30	3
Sr			1	173.817	ug/l	2.47	397,000.72	3.011E-01	Pulse	0.50	3
Ca			1	18234.026	ug/l	3.33	270,672.12	1.116E+00	Pulse	0.50	3
Ti			1	166.827	ug/l	4.58	17,013.31	7.015E-02	Pulse	0.50	3
Na			1	18917.545	ug/l	3.19	16,130,382.67	6.650E+01	Analog	1.00	3
Mg			1	18751.806	ug/l	3.98	7,949,075.33	3.277E+01	Analog	1.00	3
K			1	18941.451	ug/l	1.66	5,424,553.50	2.236E+01	Analog	1.00	3
V			1	167.213	ug/l	3.26	561,643.94	2.315E+00	Pulse	0.50	3
Mn			1	166.280	ug/l	1.96	379,821.89	2.727E+00	Pulse	0.50	3
Fe			1	18771.261	ug/l	2.67	66,876,986.67	4.801E+02	Analog	0.50	3
Co			1	169.440	ug/l	1.37	1,181,605.50	8.482E+00	Pulse	0.50	3
Ni			1	165.612	ug/l	1.57	320,254.98	2.299E+00	Pulse	0.50	3
Cu			1	167.898	ug/l	1.55	873,483.83	6.270E+00	Pulse	0.50	3
Zn			1	161.829	ug/l	1.80	133,062.92	6.472E-01	Pulse	1.00	3
Cd			1	160.292	ug/l	1.88	186,095.94	9.051E-01	Pulse	0.50	3
Al			1	18152.289	ug/l	3.39	2,810,480.67	1.159E+01	Analog	1.00	3
Se			1	155.964	ug/l	1.79	6,115.27	2.974E-02	Pulse	3.00	3
Sb			1	163.744	ug/l	2.05	478,220.45	2.326E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,957,024.92	1.71	90.3	Analog	0.50	3
1	Sc		242,688.23	2.22	112.2	Pulse	0.30	3
1	Ge		139,308.42	0.59	108.9	Pulse	0.30	3
1	In		1,318,789.08	2.05	100.8	Pulse	0.30	3
1	Tb		4,233,495.75	1.62	95.7	Analog	0.50	3
1	Lu		3,289,537.50	1.83	96.4	Analog	0.50	3
1	Ge		205,630.27	1.32	107.4	Pulse	0.30	3
1	Li		6,442.25	2.05	89.0	Pulse	0.30	3

Quantitation Report

File Name 029SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:20
Sample Name FC11757-9
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	3.802	ug/l	21.73	868.03	5.930E-03	Pulse	0.50	3
As			1	4.098	ug/l	38.37	84.00	5.736E-04	Pulse	1.00	3
Mo			1	12.439	ug/l	12.67	609.35	2.795E-03	Pulse	0.50	3
Pb			1	4.126	ug/l	34.99	1,994.46	6.131E-04	Pulse	1.00	3
Be			1	4.605	ug/l	16.05	8.17	1.251E-03	Pulse	2.00	3
Ag			1	2.108	ug/l	34.30	442.01	3.151E-04	Pulse	0.50	3
Ba			1	8.740	ug/l	7.56	192.00	1.367E-04	Pulse	0.50	3
Tl			1	4.204	ug/l	22.99	1,568.75	4.822E-04	Pulse	0.50	3
Sn			1	7.631	ug/l	16.65	652.24	4.646E-04	Pulse	0.30	3
Sr			1	1367.604	ug/l	0.90	66,841.51	4.760E-02	Pulse	0.50	3
Ca			1	71270.746	ug/l	1.65	21,854.43	8.825E-02	Pulse	0.50	3
Ti			1	6.559	ug/l	68.16	26.67	1.075E-04	Pulse	0.50	3
Na			1	670829.238	ug/l	1.14	11,681,394.33	4.717E+01	Analog	1.00	3
Mg			1	101098.560	ug/l	1.75	875,140.21	3.534E+00	Pulse	1.00	3
K			1	31971.772	ug/l	1.06	224,978.77	9.085E-01	Pulse	1.00	3
V			1	6.799	ug/l	9.57	1,616.08	6.526E-03	Pulse	0.50	3
Mn			1	5.547	ug/l	19.00	545.34	3.726E-03	Pulse	0.50	3
Fe			1	476.311	ug/l	19.67	40,966.63	2.798E-01	Pulse	0.50	3
Co			1	4.117	ug/l	28.42	632.01	4.315E-03	Pulse	0.50	3
Ni			1	3.510	ug/l	46.37	242.67	1.657E-03	Pulse	0.50	3
Cu			1	-4.342	ug/l	-40.71	5,055.40	3.454E-02	Pulse	0.50	3
Zn			1	44.322	ug/l	10.10	1,681.41	7.712E-03	Pulse	1.00	3
Cd			1	3.866	ug/l	44.52	100.67	4.610E-04	Pulse	0.50	3
Al			1	320.818	ug/l	29.57	1,714.09	6.915E-03	Pulse	1.00	3
Se			1	8.855	ug/l	58.53	13.44	6.162E-05	Pulse	3.00	3
Sb			1	7.382	ug/l	6.42	545.68	2.502E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,253,717.50	0.17	99.4	Analog	0.50	3
1	Sc		247,658.38	0.83	114.5	Pulse	0.30	3
1	Ge		146,358.40	0.45	114.4	Pulse	0.30	3
1	In		1,404,268.83	0.54	107.4	Pulse	0.30	3
1	Tb		4,383,084.17	0.45	99.1	Analog	0.50	3
1	Lu		3,330,062.00	0.41	97.5	Analog	0.50	3
1	Ge		218,047.63	0.55	113.9	Pulse	0.30	3
1	Li		6,530.05	1.74	90.2	Pulse	0.30	3

Quantitation Report

File Name 030SMPL.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:24
Sample Name MP43267-D1
Sample Type Sample
Comment
Prep Dilution 100.000
Auto Dilution N/A
Total Dilution 100.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.222	ug/l	199.01	536.68	3.655E-03	Pulse	0.50	3
As			1	2.809	ug/l	37.23	71.00	4.834E-04	Pulse	1.00	3
Mo			1	5.207	ug/l	25.60	272.00	1.235E-03	Pulse	0.50	3
Pb			1	0.905	ug/l	14.25	1,205.38	3.752E-04	Pulse	1.00	3
Be			1	0.891	ug/l	93.62	1.83	2.802E-04	Pulse	2.00	3
Ag			1	0.372	ug/l	33.40	158.67	1.110E-04	Pulse	0.50	3
Ba			1	3.906	ug/l	22.41	103.33	7.238E-05	Pulse	0.50	3
Tl			1	0.759	ug/l	25.00	367.34	1.143E-04	Pulse	0.50	3
Sn			1	1.133	ug/l	197.59	368.89	2.584E-04	Pulse	0.30	3
Sr			1	1325.998	ug/l	2.14	65,935.49	4.616E-02	Pulse	0.50	3
Ca			1	69157.228	ug/l	3.36	21,488.66	8.567E-02	Pulse	0.50	3
Ti			1	2.310	ug/l	73.58	18.00	7.182E-05	Pulse	0.50	3
Na			1	640993.173	ug/l	2.62	11,306,783.33	4.507E+01	Analog	1.00	3
Mg			1	98144.188	ug/l	2.15	860,605.67	3.431E+00	Pulse	1.00	3
K			1	30917.309	ug/l	1.30	221,700.64	8.837E-01	Pulse	1.00	3
V			1	4.662	ug/l	35.93	1,488.73	5.936E-03	Pulse	0.50	3
Mn			1	-0.014	ug/l	-1108.69	279.33	1.903E-03	Pulse	0.50	3
Fe			1	58.591	ug/l	16.50	9,701.97	6.613E-02	Pulse	0.50	3
Co			1	0.510	ug/l	25.13	103.33	7.034E-04	Pulse	0.50	3
Ni			1	0.305	ug/l	133.15	112.67	7.675E-04	Pulse	0.50	3
Cu			1	-8.115	ug/l	-12.14	4,658.62	3.174E-02	Pulse	0.50	3
Zn			1	14.706	ug/l	31.32	1,181.04	5.359E-03	Pulse	1.00	3
Cd			1	0.239	ug/l	103.00	11.33	5.143E-05	Pulse	0.50	3
Al			1	-70.332	ug/l	-18.00	482.34	1.923E-03	Pulse	1.00	3
Se			1	7.894	ug/l	18.70	12.78	5.796E-05	Pulse	3.00	3
Sb			1	2.821	ug/l	13.49	266.00	1.207E-03	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,212,264.50	0.29	98.1	Analog	0.50	3
1	Sc		250,877.36	0.74	116.0	Pulse	0.30	3
1	Ge		146,775.38	0.92	114.7	Pulse	0.30	3
1	In		1,428,616.30	0.64	109.2	Pulse	0.30	3
1	Tb		4,405,432.67	0.58	99.6	Analog	0.50	3
1	Lu		3,374,227.83	1.23	98.8	Analog	0.50	3
1	Ge		220,450.13	0.61	115.1	Pulse	0.30	3
1	Li		6,513.38	1.67	90.0	Pulse	0.30	3

Quantitation Report

File Name 031CCVA.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:27
Sample Name CCV (Ag)
Sample Type CCV_Ag
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	49.477	ug/l	0.02	456,212.28	3.148E+00	Pulse	0.50	3
As			1	49.967	ug/l	0.29	50,723.83	3.501E-01	Pulse	1.00	3
Mo			1	48.392	ug/l	1.05	224,870.47	1.044E+00	Pulse	0.50	3
Pb			1	50.778	ug/l	1.00	1,149,473.04	3.753E-01	Pulse	1.00	3
Be			1	54.683	ug/l	1.34	9,109.20	1.429E+00	Pulse	2.00	3
Ag			1	50.296	ug/l	1.32	814,735.39	5.913E-01	Pulse	0.50	3
Ba			1	49.599	ug/l	1.46	91,004.10	6.605E-02	Pulse	0.50	3
Tl			1	52.370	ug/l	2.26	1,713,468.33	5.595E-01	Analog	0.50	3
Sn			1	50.206	ug/l	1.00	219,790.21	1.595E-01	Pulse	0.30	3
Sr			1	50.625	ug/l	1.48	241,830.76	1.755E-01	Pulse	0.50	3
Ca			1	5051.864	ug/l	1.29	151,115.99	6.188E-01	Pulse	0.50	3
Ti			1	50.004	ug/l	2.61	10,274.25	4.207E-02	Pulse	0.50	3
Na			1	5171.770	ug/l	1.46	8,882,777.00	3.637E+01	Analog	1.00	3
Mg			1	5125.896	ug/l	1.16	4,375,435.00	1.792E+01	Analog	1.00	3
K			1	5300.910	ug/l	3.13	3,072,446.67	1.258E+01	Analog	1.00	3
V			1	51.123	ug/l	1.29	346,182.45	1.418E+00	Pulse	0.50	3
Mn			1	50.078	ug/l	0.52	238,090.64	1.643E+00	Pulse	0.50	3
Fe			1	5028.724	ug/l	0.86	37,275,778.67	2.573E+02	Analog	0.50	3
Co			1	50.338	ug/l	0.66	730,288.69	5.040E+00	Pulse	0.50	3
Ni			1	50.396	ug/l	0.47	202,781.59	1.399E+00	Pulse	0.50	3
Cu			1	50.250	ug/l	0.39	546,062.00	3.769E+00	Pulse	0.50	3
Zn			1	50.508	ug/l	0.41	87,331.32	4.056E-01	Pulse	1.00	3
Cd			1	48.951	ug/l	1.44	119,043.41	5.529E-01	Pulse	0.50	3
Al			1	5087.002	ug/l	0.14	1,586,354.33	6.495E+00	Analog	1.00	3
Se			1	49.771	ug/l	1.38	4,089.80	1.899E-02	Pulse	3.00	3
Sb			1	48.598	ug/l	0.69	297,339.98	1.381E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,062,863.92	0.52	93.6	Analog	0.50	3
1	Sc		244,234.73	1.21	112.9	Pulse	0.30	3
1	Ge		144,901.19	0.51	113.3	Pulse	0.30	3
1	In		1,377,951.33	1.08	105.3	Pulse	0.30	3
1	Tb		4,299,881.83	1.52	97.2	Analog	0.50	3

Quantitation Report

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Lu		3,332,723.75	2.40	97.6	Analog	0.50	3
1	Ge		215,335.52	0.51	112.5	Pulse	0.30	3
1	Li		6,374.46	0.91	88.0	Pulse	0.30	3

Quantitation Report

File Name 032_CCV.d
File Path C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File
Method Path
Acq Time 2023-12-13 16:30
Sample Name CCV
Sample Type CCV
Comment
Prep Dilution 1.000
Auto Dilution N/A
Total Dilution 1.000
Operator Name admin
Acq Mode Spectrum
Cal Title
Cal Type External Calibration
Last Calib 2023-12-14 08:50
Bkg File
Bkg Mode Count Subtraction except for ISTD
Interference File
FQ Blank File
VIS Fit Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	96.093	ug/l	0.67	874,068.19	6.111E+00	Pulse	0.50	3
As			1	97.942	ug/l	0.87	98,094.41	6.859E-01	Pulse	1.00	3
Mo			1	94.895	ug/l	1.44	431,990.17	2.048E+00	Pulse	0.50	3
Pb			1	100.923	ug/l	1.22	2,222,447.42	7.456E-01	Analog	1.00	3
Be			1	106.550	ug/l	2.71	17,492.75	2.785E+00	Pulse	2.00	3
Ag			1	99.616	ug/l	1.63	1,587,296.21	1.171E+00	Analog	0.50	3
Ba			1	98.050	ug/l	1.04	176,951.65	1.305E-01	Pulse	0.50	3
Tl			1	100.938	ug/l	1.22	3,213,787.58	1.078E+00	Analog	0.50	3
Sn			1	98.230	ug/l	1.15	422,731.02	3.119E-01	Pulse	0.30	3
Sr			1	98.860	ug/l	0.96	464,256.56	3.425E-01	Pulse	0.50	3
Ca			1	9644.641	ug/l	1.41	289,611.03	1.180E+00	Pulse	0.50	3
Ti			1	96.713	ug/l	1.27	19,954.28	8.133E-02	Pulse	0.50	3
Na			1	9758.862	ug/l	0.63	16,834,014.67	6.861E+01	Analog	1.00	3
Mg			1	9683.444	ug/l	3.15	8,303,478.50	3.385E+01	Analog	1.00	3
K			1	10033.796	ug/l	1.68	5,808,942.00	2.368E+01	Analog	1.00	3
V			1	97.896	ug/l	1.56	664,990.21	2.710E+00	Pulse	0.50	3
Mn			1	96.413	ug/l	0.63	452,178.70	3.162E+00	Pulse	0.50	3
Fe			1	9686.810	ug/l	1.04	70,871,400.00	4.955E+02	Analog	0.50	3
Co			1	96.719	ug/l	1.39	1,384,989.00	9.684E+00	Mix	0.50	3
Ni			1	96.781	ug/l	0.70	384,288.09	2.687E+00	Pulse	0.50	3
Cu			1	96.580	ug/l	0.87	1,030,933.25	7.208E+00	Pulse	0.50	3
Zn			1	97.539	ug/l	1.98	164,396.80	7.793E-01	Pulse	1.00	3
Cd			1	95.395	ug/l	1.49	227,279.35	1.077E+00	Pulse	0.50	3
Al			1	9625.207	ug/l	2.05	3,014,656.67	1.229E+01	Analog	1.00	3
Se			1	96.969	ug/l	0.99	7,801.15	3.698E-02	Pulse	3.00	3
Sb			1	95.809	ug/l	1.69	574,192.85	2.722E+00	Pulse	1.00	3

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		2,980,838.17	1.55	91.1	Analog	0.50	3
1	Sc		245,385.35	1.10	113.4	Pulse	0.30	3
1	Ge		143,020.55	0.48	111.8	Pulse	0.30	3
1	In		1,355,522.83	0.97	103.6	Pulse	0.30	3
1	Tb		4,253,417.83	0.81	96.2	Analog	0.50	3
1	Lu		3,309,011.92	1.28	96.9	Analog	0.50	3
1	Ge		210,975.99	0.98	110.2	Pulse	0.30	3
1	Li		6,285.53	3.09	86.8	Pulse	0.30	3

Quantitation Report

File Name	033_CCB.d
File Path	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Method File	
Method Path	
Acq Time	2023-12-13 16:33
Sample Name	CCB
Sample Type	CCB
Comment	
Prep Dilution	1.000
Auto Dilution	N/A
Total Dilution	1.000
Operator Name	admin
Acq Mode	Spectrum
Cal Title	
Cal Type	External Calibration
Last Calib	2023-12-14 08:50
Bkg File	
Bkg Mode	Count Subtraction except for ISTD
Interference File	
FQ Blank File	
VIS Fit	Point to Point

Tune Step	Tune File
1	

FullQuant Table

Element	Mass	ISTD	Tune	Conc	Units	RSD(%)	CPS	Ratio	Det	Time(sec)	Rep
Cr			1	0.030	ug/l	7.20	782.02	5.438E-03	Pulse	0.50	3
As			1	0.042	ug/l	30.98	83.33	5.790E-04	Pulse	1.00	3
Mo			1	0.249	ug/l	32.71	1,176.05	5.493E-03	Pulse	0.50	3
Pb			1	0.050	ug/l	14.08	2,148.82	6.748E-04	Pulse	1.00	3
Be			1	0.022	ug/l	71.89	4.00	6.204E-04	Pulse	2.00	3
Ag			1	0.028	ug/l	28.77	565.35	4.018E-04	Pulse	0.50	3
Ba			1	0.018	ug/l	58.41	62.67	4.453E-05	Pulse	0.50	3
Tl			1	0.027	ug/l	36.51	1,028.71	3.222E-04	Pulse	0.50	3
Sn			1	0.241	ug/l	26.56	1,387.85	9.877E-04	Pulse	0.30	3
Sr			1	0.025	ug/l	30.46	474.01	3.371E-04	Pulse	0.50	3
Ca			1	3.155	ug/l	31.05	372.01	1.496E-03	Pulse	0.50	3
Ti			1	-0.002	ug/l	-1336.24	12.67	5.090E-05	Pulse	0.50	3
Na			1	5.262	ug/l	24.29	17,875.67	7.188E-02	Pulse	1.00	3
Mg			1	2.557	ug/l	26.50	2,315.16	9.311E-03	Pulse	1.00	3
K			1	6.466	ug/l	20.90	43,348.58	1.743E-01	Pulse	1.00	3
V			1	0.033	ug/l	15.43	1,384.73	5.567E-03	Pulse	0.50	3
Mn			1	0.020	ug/l	18.77	368.01	2.558E-03	Pulse	0.50	3
Fe			1	3.270	ug/l	12.63	29,272.69	2.034E-01	Pulse	0.50	3
Co			1	0.025	ug/l	20.40	384.01	2.667E-03	Pulse	0.50	3
Ni			1	0.031	ug/l	26.59	220.67	1.533E-03	Pulse	0.50	3
Cu			1	-0.033	ug/l	-33.81	5,078.07	3.531E-02	Pulse	0.50	3
Zn			1	0.131	ug/l	5.66	1,119.04	5.228E-03	Pulse	1.00	3
Cd			1	0.022	ug/l	72.97	57.33	2.680E-04	Pulse	0.50	3
Al			1	0.892	ug/l	76.81	984.36	3.959E-03	Pulse	1.00	3
Se			1	0.097	ug/l	23.73	13.89	6.490E-05	Pulse	3.00	3
Sb			1	0.091	ug/l	13.10	642.68	3.002E-03	Pulse	1.00	3

Quantitation Report

ISTD Table

Tune	Element	Mass	CPS	RSD(%)	ISTD Recovery%	Det	Time(sec)	Rep
1	Bi		3,182,756.08	1.61	97.2	Analog	0.50	3
1	Sc		248,730.63	0.29	115.0	Pulse	0.30	3
1	Ge		143,809.14	0.96	112.4	Pulse	0.30	3
1	In		1,405,971.23	0.47	107.5	Pulse	0.30	3
1	Tb		4,319,103.50	0.72	97.7	Analog	0.50	3
1	Lu		3,412,590.75	0.53	100.0	Analog	0.50	3
1	Ge		214,056.62	0.33	111.8	Pulse	0.30	3
1	Li		6,452.25	0.96	89.1	Pulse	0.30	3

NOTE: The remaining raw data for this batch is not relevant to this job. As such it has been omitted.

US EPA Tune Check Report

Operator Name	admin
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b
Acq. Date-Time	2023-12-13 14:30:49
Report Comment	---
Instrument Name	ICP-MS JP12151709

[2]

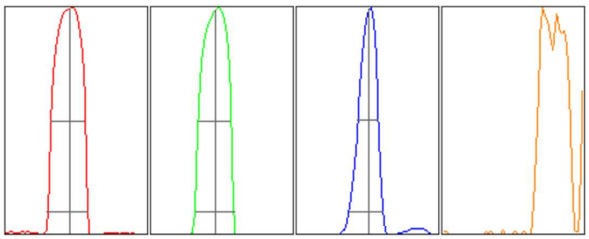
Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59	1.00	11688	116882.29	5000.00		2.226	5.000
89	1.00	8316	83161.83	5000.00		2.240	5.000
205	1.00	29397	293969.52	5000.00		2.016	5.000
78		1	6.40			150.599	

Mass	RSD% (Flag)	Background	Background (Required)	Background (Flag)
59		0.200	2.000	
89		0.300	2.000	
205		0.500	2.000	
78		0.000	5.000	

Integration Time [sec]	0.1
Oxide	156 / 140 0.420 %
Doubly Charged	70 / 140 1.190 %

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
59	12030.61	58.90	58.90 - 59.10	
89	8393.93	88.90	88.90 - 89.10	
205	31024.38	205.05	204.90 - 205.10	
78			-	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
59	0.72	0.862	0.900	
89	0.68	0.834	0.900	
205	0.44	0.714	0.900	
78				

Integration Time [sec] 0.1

US EPA Tune Check Report

Acquisition Time [sec]	29.92
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	1.09 L/min	Makeup Gas	0.00 L/min
RF Power	1550 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.70 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	7.4 V	Deflect	3.0 V
Extract 2	-145.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-75 V	Cell Exit	-70 V		

Cell Parameters

Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	3.0 V
He Flow	4.3 mL/min	OctP Bias	-18.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		

QP Parameters

Mass Gain	124	Axis Gain	0.9995	QP Bias	-15.0 V
Mass Offset	127	Axis Offset	0.02		

Hardware Settings

Torch

Torch H	-0.6 mm	Torch V	-0.1 mm

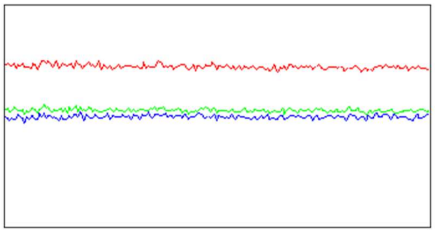
EM

Discriminator	4.5 mV	Analog HV	1799 V	Pulse HV	1727 V

Performance Report

Operator Name	admin
Acq. Date-Time	2023-12-13 14:23:22
Instrument Name	ICP-MS JP12151709
Sample Introduction	ISIS
Nebulizer Type	MicroMist
Ion Lens Model	x-Lens
Tune Parameters	Standard Tune

Sensitivity



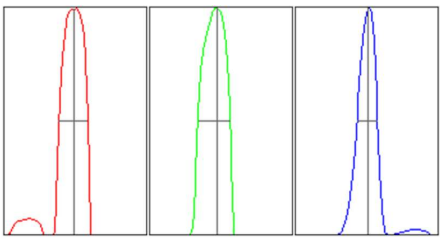
Mass	Range	Count	RSD%	Background
7	50000	36265	1.389	0.100
89	50000	26374	1.533	0.900
205	50000	24915	1.771	5.700

Sampling Period [sec]	0.311
Integration Time [sec]	0.1

Oxide/Doubly Charged Ratio

Oxide	156 / 140 1.013 %
Doubly Charged	70 / 140 1.686 %

Resolution/Axis



Mass	Peak Height	Axis	W-50%	W-10%
7	36168.68	7.00	0.62	0.73
89	26620.37	88.95	0.67	0.83
205	25978.92	205.05	0.43	0.72

Integration Time [sec]	0.1
Acquisition Time [sec]	22.74

Tune Parameters

Plasma Parameters

RF Power	1550 W	Option Gas	---	Makeup Gas	0.00 L/min
RF Matching	1.40 V	Nebulizer Pump	0.10 rps	Auxiliary Gas	0.90 L/min
Sample Depth	8.0 mm	S/C Temp	2 °C	Plasma Gas	15.0 L/min
Nebulizer Gas	1.05 L/min				

Lens Parameters

Extract 1	0.0 V	Omega Lens	8.4 V	Deflect	13.8 V
Extract 2	-200.0 V	Cell Entrance	-30 V	Plate Bias	-40 V
Omega Bias	-90 V	Cell Exit	-50 V		

Performance Report

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	150 V		

QP Parameters

QP Bias	-3.0 V

Hardware Settings

Torch

Torch H	-0.6 mm	Torch H (Hot)	---	Torch H (Cool)	---
Torch V	-0.1 mm	Torch V (Hot)	---	Torch V (Cool)	---

Plasma Correction

Nebulizer Gas Offset	0.00 L/min	Makeup Gas (Hot)	---	Makeup Gas (Cool)	---
		Sample Depth (Hot)	---		

Resolution/Axis

Mass Gain	124	Axis Gain	0.9995		
Mass Offset	127	Axis Offset	0.02		

EM

Discriminator	4.6 mV	Analog HV	1799 V	Pulse HV	1727 V

Performance Report

Meter

Name	Value	Unit
Nebulizer Gas	1.05	L/min
MU./Dil. Gas	0.00	L/min
Plasma Gas	15.02	L/min
Aux Gas	0.90	L/min
Ar Gas Tank Press	5.75E+2	kPa
+5V (Press Gage)	5.0	V
Ar AMFC Temp	31.1	°C
Nebulizer Gas(DP)	6.78E+0	kPa
MU./Dil. Gas(DP)	-1.54E-2	kPa
Aux Gas(DP)	1.27E+1	kPa
Plasma Gas(DP)	1.16E+1	kPa
Nebulizer Gas(BP)	2.75E+2	kPa
MU./Dil. Gas(BP)	-3.09E-1	kPa
Aux Gas(BP)	5.56E+1	kPa
Plasma Gas(BP)	4.14E+1	kPa
S/C Temp (H)	18.1	°C
S/C Temp (L)	1.7	°C
Peltier Voltage	2.8	V
IF/BK Press	3.13E+2	Pa
Analyzer Press	2.39E-4	Pa
IG HV	179	V
IG Emission	5.00	µA
TMP Revolution	100.0	%
TMP Rev (RAW)	100.6	%
TMP Current	4.17	A
PWR AMP Drain I	0.4	A
PWR AMP Bias	2.68	V
OctP RF (Avg)	152.6	V
OctP RF Set	2.9	V
OctP FET Bias Set	2.88	V
OctP RF(+)	148.6	V
OctP RF(-)	155.6	V
OctP Bias	-7.9	V
Cell Temp.	65.0	°C
Cell Heater Volt.	4.3	V
+U Voltage	401.2	V

Name	Value	Unit
-U Voltage	-409.2	V
V Voltage	1750.8	V
QPRF Fader	1.3	V
Pickup Temp	55.0	°C
PWR Amp Temp	0.1	V
+600V	616.2	V
-120V	-134.2	V
-720V	-741.7	V
Prefilter Bias	-5.02	V
Pickup Heater I	0.09	A
QP PS +48V	47.8	V
QP PS +48V I	0.00	A
Analog HV	-1736	V
Pulse HV	1749	V
EM Gate	-45.3	V
Pulse Gate	380.5	V
EM Entrance	0.2	V
Analog -5V	-5.1	V
Analog +15V	14.7	V
Analog -15V	-14.5	V
Analog +5V	5.2	V
Shunt C Pos	1.1	V
Drain Volt.(max)	61.5	V
RF PS +48V	47.6	V
Forward Power	1549	W
Reflected Power	4	W
Plasma Freq.	26.94	MHz
Drain I 1	11.56	A
Drain I 2	11.06	A
Drain I 3	11.28	A
Drain I 4	11.35	A
Temp Sensor	2.7	V
Driver I	6.57	A
Igniter	0.0	V
Driver Voltage Set	7.1	V
Unbalance Current	0.35	A

Name	Value	Unit
PWM Threshold Set	0.2	V
Driver Voltage	5.7	V
PWM Threshold	0.2	V
Phase Detector	0.0	mV
H2 Gas	0.09	mL/min
He Gas	0.04	mL/min
H2 Gas Press	1.51E+0	kPa
He Gas Press	0.00E+0	kPa
ORS AMFC Temp	29.8	°C
Atmospheric Press	1.01E+2	kPa
Extract 1	-0.2	V
Extract 2	-201.1	V
Omega Bias	-90.1	V
Omega Lens	8.1	V
Cell Entrance	-30.1	V
Cell Exit	-50.2	V
Deflect	13.9	V
Plate Bias	-40.0	V
HV+530V	526	V
HV+240V	242	V
HV-360V	-359	V
Inlet Temp	29.2	°C
Internal Temp	35.0	°C
+24V	23.6	V
Water Temp	20.9	°C
Water RF/WC/IF	1.44	L/min

Performance Report History

Sensitivity

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-12-13 14:23:22	36265	26374	24915
2023-12-13 10:20:35	42202	31906	32558
2023-12-12 13:24:51	6073	5407	5337
2023-12-12 13:08:29	6655	6214	6296
2023-12-11 10:21:07	977	1812	1837
2023-12-09 11:17:28	11147	23047	21486
2023-12-08 10:23:40	11399	22151	20412
2023-12-05 09:57:11	9766	24307	23645
2023-12-02 11:14:14	12751	25243	22155
2023-12-02 10:19:23	1356	2514	2216
2023-12-01 09:57:55	1425	2226	2315
2023-11-28 10:41:18	1179	2532	2662
2023-11-21 10:25:48	1166	3117	2869
2023-11-18 10:53:36	1272	2795	2579
2023-11-16 11:46:23	1161	2728	2439
2023-11-16 11:15:26	1304	2796	2720
2023-11-16 10:30:30	1357	2985	2857
2023-11-15 10:05:59	1219	2847	2650
2023-11-14 10:21:12	1602	3056	3082
2023-11-10 11:02:43	1830	3261	3009
2023-11-09 11:53:53	1461	2967	2694
2023-11-09 11:24:42	1772	3299	3051
2023-11-08 09:56:12	1445	3287	2915
2023-11-07 10:53:11	1355	3112	2895
2023-11-07 10:29:48	1500	3330	3404
2023-11-04 10:36:04	1532	3281	2981
2023-11-04 10:12:21	1731	3335	3152
2023-11-03 09:55:39	1621	3363	3436
2023-11-02 09:43:00	1591	3465	3262
2023-11-01 10:06:30	1702	3703	3566
2023-10-31 10:32:51	1896	3355	3399
2023-10-31 09:58:22	1634	3228	3571
2023-10-24 10:16:51	1999	3899	4119
2023-10-21 11:00:25	1707	4137	3864
2023-10-20 10:03:57	1787	4064	4106
2023-10-19 11:34:00	1779	3893	3812
2023-10-14 11:26:08	1377	4157	3891
2023-10-13 10:06:23	1366	4273	3584
2023-10-13 09:54:29	1429	4292	3641
2023-10-12 10:40:18	1515	5359	4809
2023-10-11 09:58:46	2050	5072	5025

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-10 10:59:48	1624	4657	4676
2023-10-10 10:47:06	1902	4861	4881
2023-10-09 15:47:58	2367	5470	5775
2023-10-09 15:34:05	1969	3952	3641
2023-10-09 15:25:44	2218	4669	4364
2023-10-09 15:19:50	2080	4354	4087
2023-10-09 14:53:07	1948	4201	3879
2023-10-09 13:19:49	171	78	51
2023-10-09 13:14:00	340	246	180
2023-10-09 09:47:20	2821	4673	5008
2023-10-04 16:49:35	1014	792	945
2023-10-04 15:55:18	1890	2107	2413
2023-10-04 15:15:29	573	209	219
2023-09-21 10:00:54	1658	3131	3442
2023-09-19 11:19:40	2218	3287	3248
2023-09-16 10:28:46	1711	3573	3553
2023-09-14 11:00:11	1721	3210	3387
2023-09-09 10:05:04	1722	3568	3729
2023-09-07 09:53:49	2309	4081	4428
2023-09-02 10:39:33	2248	4065	4257
2023-09-01 09:34:24	1949	3868	4111
2023-08-31 09:25:36	1996	4315	4809
2023-08-31 09:18:43	1985	4296	4816
2023-08-29 10:05:32	2240	4135	4129
2023-08-26 10:39:41	2021	4299	4209
2023-08-25 13:19:27	2396	4661	4638
2023-08-25 10:13:41	2316	4944	5010
2023-08-25 10:00:19	2496	4915	4756
2023-08-24 10:22:50	2511	4818	4583
2023-08-24 09:27:33	2424	5025	4351
2023-08-23 10:20:39	2574	5640	5183
2023-08-23 10:00:27	2462	5279	4587
2023-08-22 09:46:34	3016	5876	4894
2023-08-19 10:32:30	2657	4462	4107
2023-08-08 13:40:43	2000	4283	3815
2023-08-08 12:53:37	334	678	620
2023-08-08 11:20:33	743	1157	1099
2023-08-07 14:06:05	2460	4533	4712

Background

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-12-13 14:23:22	0.100	0.900	5.700
2023-12-13 10:20:35	0.100	1.300	7.000
2023-12-12 13:24:51	0.300	1.900	8.250
2023-12-12 13:08:29	0.350	2.250	7.450
2023-12-11 10:21:07	0.150	1.400	2.850
2023-12-09 11:17:28	0.250	0.550	3.350
2023-12-08 10:23:40	0.500	0.900	4.600
2023-12-05 09:57:11	0.350	0.850	3.500
2023-12-02 11:14:14	0.200	1.150	3.150
2023-12-02 10:19:23	0.550	0.950	4.450
2023-12-01 09:57:55	0.250	1.100	2.850
2023-11-28 10:41:18	0.350	1.100	3.300
2023-11-21 10:25:48	0.100	1.250	4.250
2023-11-18 10:53:36	0.200	1.250	3.300
2023-11-16 11:46:23	0.700	1.550	3.400
2023-11-16 11:15:26	0.450	0.700	4.600
2023-11-16 10:30:30	0.450	1.050	3.850
2023-11-15 10:05:59	0.300	0.600	4.250
2023-11-14 10:21:12	0.100	1.350	4.050
2023-11-10 11:02:43	0.350	0.850	4.650
2023-11-09 11:53:53	0.350	0.900	4.800
2023-11-09 11:24:42	0.200	0.950	4.350
2023-11-08 09:56:12	0.150	0.600	3.250
2023-11-07 10:53:11	0.250	0.950	4.350
2023-11-07 10:29:48	0.050	1.200	3.450
2023-11-04 10:36:04	0.300	1.200	5.700
2023-11-04 10:12:21	0.550	1.550	4.300
2023-11-03 09:55:39	0.250	1.050	4.700
2023-11-02 09:43:00	0.200	0.900	5.150
2023-11-01 10:06:30	0.150	0.900	3.450
2023-10-31 10:32:51	0.000	0.850	4.050
2023-10-31 09:58:22	0.150	1.150	3.250
2023-10-24 10:16:51	0.550	1.200	3.900
2023-10-21 11:00:25	0.250	1.250	5.300
2023-10-20 10:03:57	0.050	0.750	3.150
2023-10-19 11:34:00	0.350	0.600	3.750
2023-10-14 11:26:08	0.300	1.000	5.350
2023-10-13 10:06:23	0.250	1.800	5.950
2023-10-13 09:54:29	0.300	2.150	4.150
2023-10-12 10:40:18	0.050	1.000	5.700
2023-10-11 09:58:46	0.200	1.000	5.250

Performance Report

Created Date	Channel 1 Count	Channel 2 Count	Channel 3 Count
2023-10-10 10:59:48	0.200	1.650	5.400
2023-10-10 10:47:06	0.250	1.200	4.950
2023-10-09 15:47:58	0.000	1.000	4.500
2023-10-09 15:34:05	1.050	1.250	4.150
2023-10-09 15:25:44	0.300	1.250	4.150
2023-10-09 15:19:50	0.400	1.050	4.750
2023-10-09 14:53:07	0.500	1.350	4.950
2023-10-09 13:19:49	0.350	0.750	4.650
2023-10-09 13:14:00	0.950	0.850	3.750
2023-10-09 09:47:20	0.150	0.950	5.700
2023-10-04 16:49:35	0.150	0.700	2.150
2023-10-04 15:55:18	0.100	0.700	3.500
2023-10-04 15:15:29	0.300	0.200	2.200
2023-09-21 10:00:54	0.000	0.550	3.250
2023-09-19 11:19:40	0.300	0.850	3.200
2023-09-16 10:28:46	0.350	1.000	4.000
2023-09-14 11:00:11	0.100	1.200	4.300
2023-09-09 10:05:04	0.400	1.200	4.550
2023-09-07 09:53:49	0.450	0.950	3.600
2023-09-02 10:39:33	0.300	0.600	4.500
2023-09-01 09:34:24	0.150	0.650	3.400
2023-08-31 09:25:36	0.250	1.300	3.300
2023-08-31 09:18:43	0.400	0.550	4.000
2023-08-29 10:05:32	0.050	1.650	2.650
2023-08-26 10:39:41	0.200	1.250	4.000
2023-08-25 13:19:27	0.200	1.100	4.400
2023-08-25 10:13:41	0.300	1.000	4.550
2023-08-25 10:00:19	0.050	1.100	3.950
2023-08-24 10:22:50	0.350	1.400	3.100
2023-08-24 09:27:33	0.500	0.750	4.900
2023-08-23 10:20:39	0.200	1.250	3.850
2023-08-23 10:00:27	0.250	0.850	5.300
2023-08-22 09:46:34	0.250	1.800	5.400
2023-08-19 10:32:30	0.050	1.150	3.950
2023-08-08 13:40:43	0.200	1.200	4.800
2023-08-08 12:53:37	0.150	0.350	1.500
2023-08-08 11:20:33	0.100	0.350	1.400
2023-08-07 14:06:05	0.050	0.750	3.850

Tune Parameters

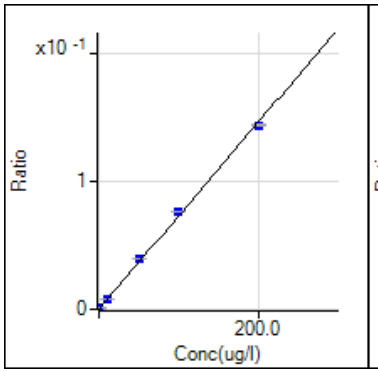
Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-12-13 14:23:22	0.0 V	-200.0 V	-90 V
2023-12-13 10:20:35	0.0 V	-200.0 V	-90 V
2023-12-12 13:24:51	0.0 V	-200.0 V	-90 V
2023-12-12 13:08:29	0.0 V	-195.0 V	-90 V
2023-12-11 10:21:07	0.0 V	-150.0 V	-80 V
2023-12-09 11:17:28	0.0 V	-140.0 V	-80 V
2023-12-08 10:23:40	0.0 V	-145.0 V	-80 V
2023-12-05 09:57:11	0.0 V	-150.0 V	-80 V
2023-12-02 11:14:14	0.0 V	-145.0 V	-80 V
2023-12-02 10:19:23	0.0 V	-145.0 V	-80 V
2023-12-01 09:57:55	0.0 V	-155.0 V	-80 V
2023-11-28 10:41:18	0.0 V	-155.0 V	-80 V
2023-11-21 10:25:48	0.0 V	-165.0 V	-90 V
2023-11-18 10:53:36	0.0 V	-170.0 V	-90 V
2023-11-16 11:46:23	0.0 V	-160.0 V	-90 V
2023-11-16 11:15:26	0.0 V	-160.0 V	-90 V
2023-11-16 10:30:30	0.0 V	-155.0 V	-80 V
2023-11-15 10:05:59	0.0 V	-160.0 V	-80 V
2023-11-14 10:21:12	0.0 V	-165.0 V	-90 V
2023-11-10 11:02:43	0.0 V	-175.0 V	-90 V
2023-11-09 11:53:53	0.0 V	-165.0 V	-90 V
2023-11-09 11:24:42	0.0 V	-165.0 V	-80 V
2023-11-08 09:56:12	0.0 V	-155.0 V	-80 V
2023-11-07 10:53:11	0.0 V	-155.0 V	-80 V
2023-11-07 10:29:48	0.0 V	-160.0 V	-80 V
2023-11-04 10:36:04	0.0 V	-165.0 V	-80 V
2023-11-04 10:12:21	0.0 V	-175.0 V	-90 V
2023-11-03 09:55:39	0.0 V	-170.0 V	-90 V
2023-11-02 09:43:00	0.0 V	-180.0 V	-90 V
2023-11-01 10:06:30	0.0 V	-160.0 V	-90 V
2023-10-31 10:32:51	0.0 V	-175.0 V	-90 V
2023-10-31 09:58:22	0.0 V	-175.0 V	-90 V
2023-10-24 10:16:51	0.0 V	-190.0 V	-100 V
2023-10-21 11:00:25	0.0 V	-185.0 V	-90 V
2023-10-20 10:03:57	0.0 V	-175.0 V	-90 V
2023-10-19 11:34:00	0.0 V	-185.0 V	-90 V
2023-10-14 11:26:08	0.0 V	-195.0 V	-100 V
2023-10-13 10:06:23	0.0 V	-195.0 V	-100 V
2023-10-13 09:54:29	0.0 V	-200.0 V	-100 V
2023-10-12 10:40:18	0.0 V	-195.0 V	-100 V
2023-10-11 09:58:46	0.0 V	-200.0 V	-100 V

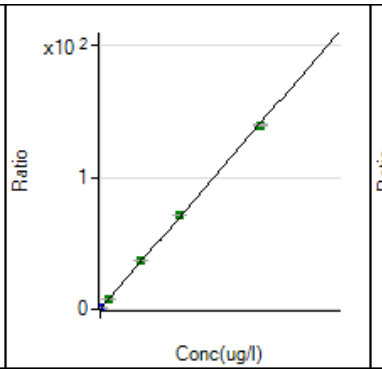
Performance Report

Created Date	Extract 1	Extract 2	Omega Bias
2023-10-10 10:59:48	0.0 V	-200.0 V	-110 V
2023-10-10 10:47:06	0.0 V	-200.0 V	-100 V
2023-10-09 15:47:58	0.0 V	-200.0 V	-100 V
2023-10-09 15:34:05	0.0 V	-195.0 V	-100 V
2023-10-09 15:25:44	0.0 V	-195.0 V	-100 V
2023-10-09 15:19:50	0.0 V	-195.0 V	-100 V
2023-10-09 14:53:07	0.0 V	-195.0 V	-100 V
2023-10-09 13:19:49	0.0 V	-200.0 V	-110 V
2023-10-09 13:14:00	0.0 V	-200.0 V	-110 V
2023-10-09 09:47:20	0.0 V	-200.0 V	-110 V
2023-10-04 16:49:35	0.0 V	-160.0 V	-100 V
2023-10-04 15:55:18	0.0 V	-165.0 V	-100 V
2023-10-04 15:15:29	0.0 V	-170.0 V	-100 V
2023-09-21 10:00:54	0.0 V	-150.0 V	-90 V
2023-09-19 11:19:40	0.0 V	-155.0 V	-90 V
2023-09-16 10:28:46	0.0 V	-160.0 V	-100 V
2023-09-14 11:00:11	0.0 V	-165.0 V	-100 V
2023-09-09 10:05:04	0.0 V	-155.0 V	-100 V
2023-09-07 09:53:49	0.0 V	-165.0 V	-100 V
2023-09-02 10:39:33	0.0 V	-170.0 V	-110 V
2023-09-01 09:34:24	0.0 V	-175.0 V	-110 V
2023-08-31 09:25:36	0.0 V	-180.0 V	-110 V
2023-08-31 09:18:43	0.0 V	-180.0 V	-110 V
2023-08-29 10:05:32	0.0 V	-170.0 V	-110 V
2023-08-26 10:39:41	0.0 V	-180.0 V	-110 V
2023-08-25 13:19:27	0.0 V	-175.0 V	-110 V
2023-08-25 10:13:41	0.0 V	-175.0 V	-110 V
2023-08-25 10:00:19	0.0 V	-180.0 V	-110 V
2023-08-24 10:22:50	0.0 V	-185.0 V	-110 V
2023-08-24 09:27:33	0.0 V	-190.0 V	-110 V
2023-08-23 10:20:39	0.0 V	-170.0 V	-100 V
2023-08-23 10:00:27	0.0 V	-175.0 V	-100 V
2023-08-22 09:46:34	0.0 V	-175.0 V	-100 V
2023-08-19 10:32:30	0.0 V	-170.0 V	-100 V
2023-08-08 13:40:43	0.0 V	-155.0 V	-90 V
2023-08-08 12:53:37	0.0 V	-140.0 V	-90 V
2023-08-08 11:20:33	0.0 V	-175.0 V	-100 V
2023-08-07 14:06:05	0.0 V	-160.0 V	-100 V

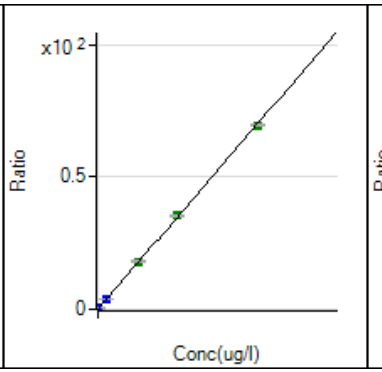
Calibration for C:\Agilent\ICPMH\1\DATA\2023\xa121323m1.b\025SMPL.d



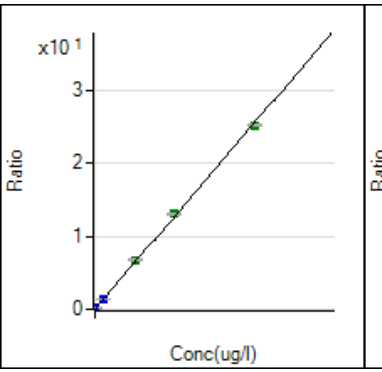
9 Be [2]
ISTD: 45 Sc
y = 7.304E-4 x + 1.529E-6
R 0.9995
DL 0.01088
BEC 0.002093



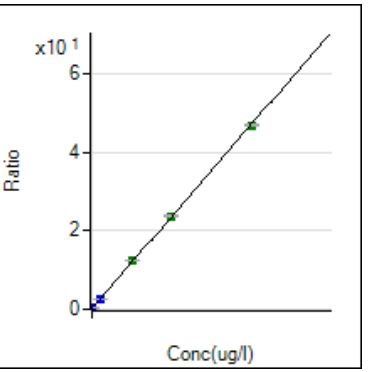
23 Na [2]
ISTD: 45 Sc
y = 7.026E-3 x + 3.491E-2
R 0.9999
DL 0.2135
BEC 4.968



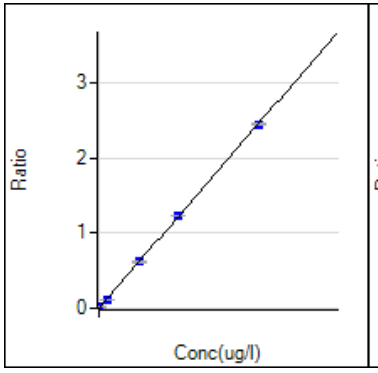
24 Mg [2]
ISTD: 45 Sc
y = 3.495E-3 x + 3.742E-4
R 0.9999
DL 0.05737
BEC 0.1071



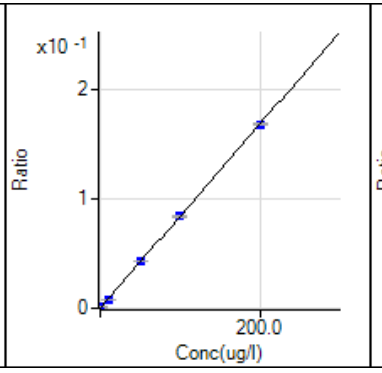
27 Al [2]
ISTD: 45 Sc
y = 1.276E-3 x + 2.821E-3
R 0.9997
DL 0.6394
BEC 2.21



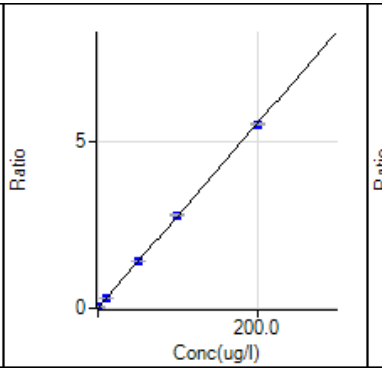
39 K [2]
ISTD: 45 Sc
y = 2.344E-3 x + 1.591E-1
R 0.9999
DL 2.956
BEC 67.9



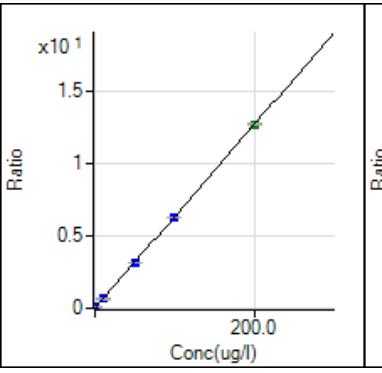
44 Ca [2]
ISTD: 45 Sc
y = 1.223E-4 x + 1.110E-3
R 1.0000
DL 2.76
BEC 9.078



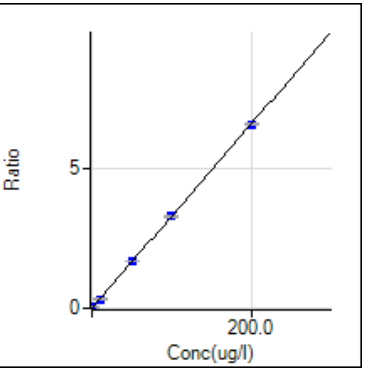
47 Ti [2]
ISTD: 45 Sc
y = 8.404E-4 x + 5.241E-5
R 1.0000
DL 0.02024
BEC 0.06237



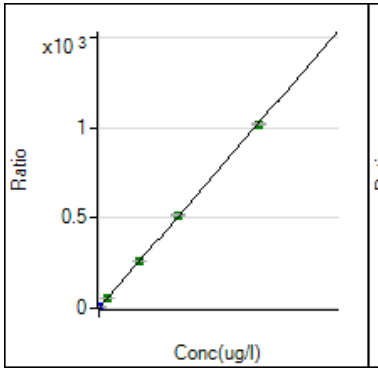
51 V [2]
ISTD: 45 Sc
y = 2.764E-2 x + 4.647E-3
R 1.0000
DL 0.03008
BEC 0.1682



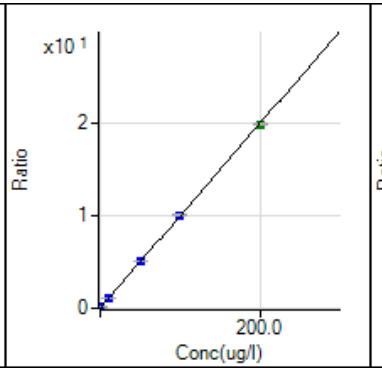
52 Cr [2]
ISTD: 72 Ge
y = 6.356E-2 x + 3.514E-3
R 1.0000
DL 0.0103
BEC 0.05528



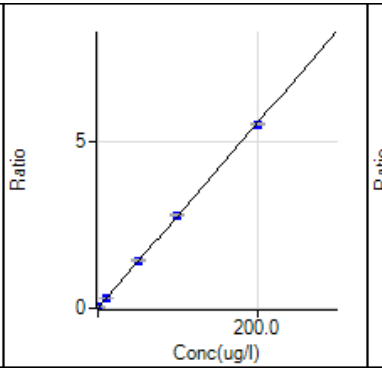
55 Mn [2]
ISTD: 72 Ge
y = 3.277E-2 x + 1.908E-3
R 1.0000
DL 0.01594
BEC 0.05822



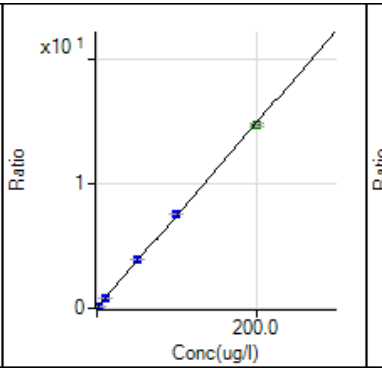
56 Fe [2]
ISTD: 72 Ge
y = 5.115E-2 x + 3.616E-2
R 1.0000
DL 0.008461
BEC 0.7069



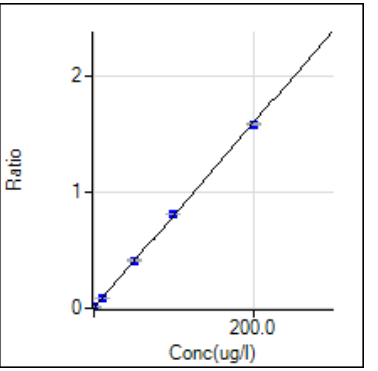
59 Co [2]
ISTD: 72 Ge
y = 1.001E-1 x + 1.930E-4
R 1.0000
DL 0.001002
BEC 0.001927



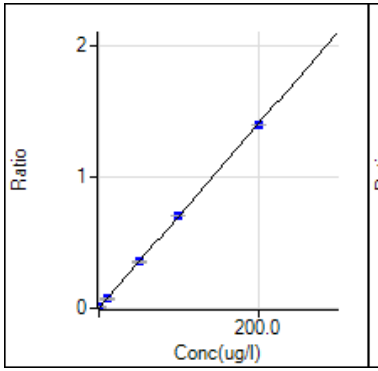
60 Ni [2]
ISTD: 72 Ge
y = 2.776E-2 x + 6.828E-4
R 0.9999
DL 0.008072
BEC 0.0246



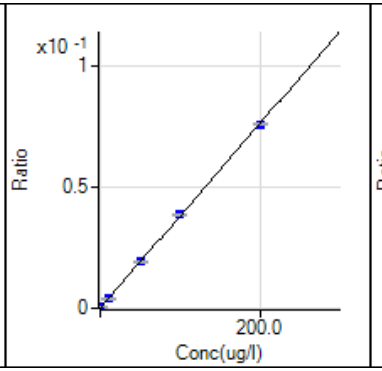
63 Cu [2]
ISTD: 72 Ge
y = 7.424E-2 x + 3.776E-2
R 0.9999
DL 0.03963
BEC 0.5086



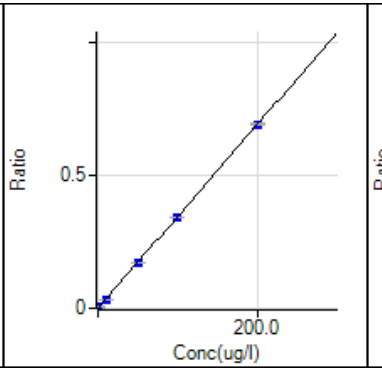
66 Zn [2]
ISTD: 74 Ge
y = 7.947E-3 x + 4.190E-3
R 0.9999
DL 0.02626
BEC 0.5273



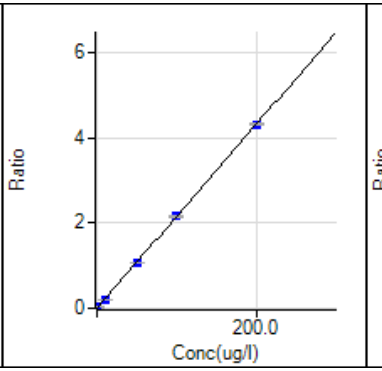
75 As [2]
ISTD: 72 Ge
y = 7.000E-3 x + 2.868E-4
R 1.0000
DL 0.01564
BEC 0.04097



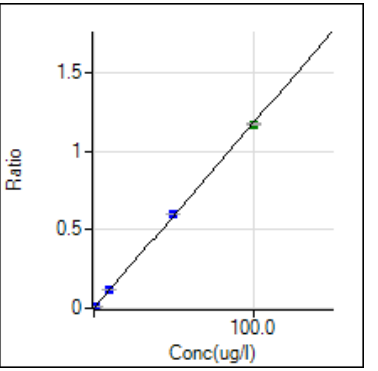
78 Se [2]
ISTD: 74 Ge
y = 3.811E-4 x + 2.787E-5
R 1.0000
DL 0.04771
BEC 0.07315



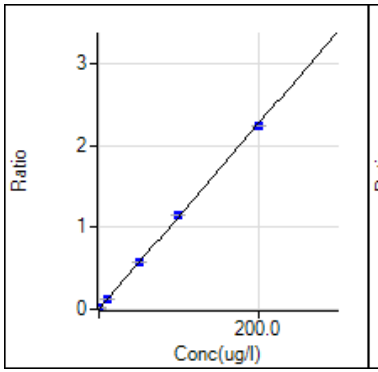
88 Sr [2]
ISTD: 115 In
y = 3.462E-3 x + 2.503E-4
R 1.0000
DL 0.007124
BEC 0.07228



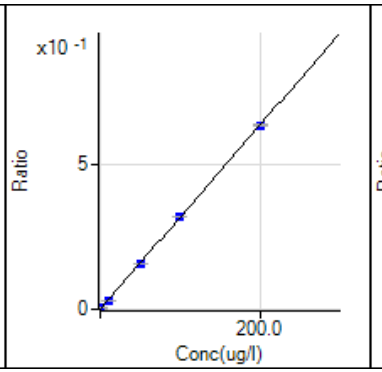
95 Mo [2]
ISTD: 74 Ge
y = 2.158E-2 x + 1.114E-4
R 1.0000
DL 0.002202
BEC 0.005163



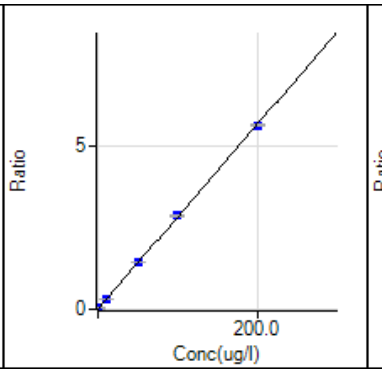
107 Ag [2]
ISTD: 115 In
y = 1.176E-2 x + 6.724E-5
R 0.9999
DL 0.002663
BEC 0.00572



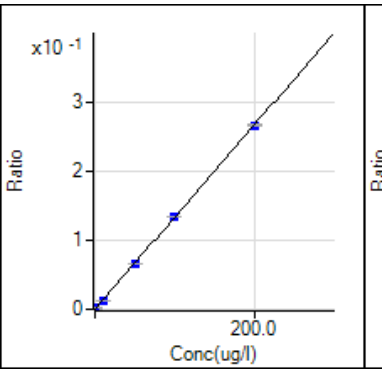
111 Cd [2]
ISTD: 74 Ge
y = 1.129E-2 x + 2.438E-5
R 0.9999
DL 0.004246
BEC 0.002159



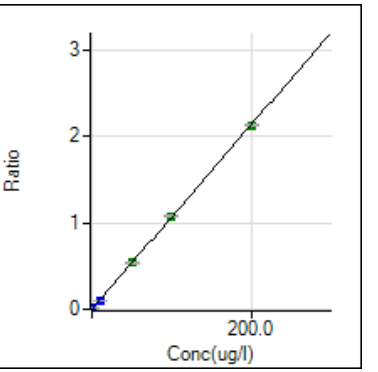
118 Sn [2]
ISTD: 115 In
y = 3.173E-3 x + 2.225E-4
R 1.0000
DL 0.02202
BEC 0.07013



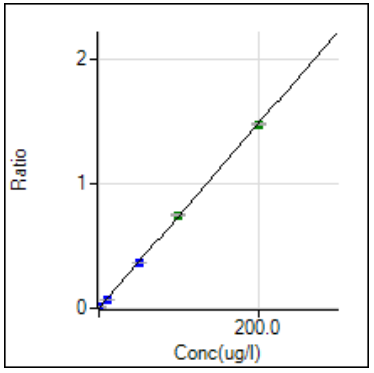
121 Sb [2]
ISTD: 74 Ge
y = 2.841E-2 x + 4.056E-4
R 1.0000
DL 0.0006359
BEC 0.01428



137 Ba [2]
ISTD: 115 In
y = 1.331E-3 x + 2.038E-5
R 1.0000
DL 0.02578
BEC 0.01531



205 Tl [2]
ISTD: 209 Bi
y = 1.068E-2 x + 3.319E-5
R 1.0000
DL 0.00275
BEC 0.003107



208 Pb [2]
ISTD: 209 Bi
y = 7.385E-3 x + 3.084E-4
R 1.0000
DL 0.003577
BEC 0.04176

SGS Orlando

Date:	12/04/23
[24hr] **Time**	13:19

Analysts Name:	Thomas F
MP Batch ID:	MP43235
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1422	1	KU15244
Conc. HCl (B)	24003593	ACC1396	0.25	KU15244
NA	NA	MET7509	0.25	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	**93**	**Corr. Factor**	**0.5**	**Corrected Observed Temp. C**	93.5
pH Paper Lot Number	**230320**			**Filter Lot Number**		**306067223**		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	**50**	**50**	NA	
	NA	Spike Blank(SB)	**50**	**50**	NA	
	9	Matrix Spike(MS)	**50**	**50**	Y	
	9	Matrix Spike Dup(MSD)	**50**	**50**	Y	
	9	Duplicate(DUP)	**50**	**50**	Y	
1(QC) C	9	FC11600-3	**50**	**50**	Y	
2	3	FC11600-1	**50**	**50**	Y	
3	3	FC11600-2	**50**	**50**	Y	
4	3	FC11600-4	**50**	**50**	Y	
5	3	FC11600-5	**50**	**50**	Y	
6	3	FC11600-6	**50**	**50**	Y	
7	3	FC11600-7	**50**	**50**	Y	
8	1	FC11626-1	**50**	**50**	Y	
9	1	FC11626-3	**50**	**50**	Y	
10	1	FC11603-1	**50**	**50**	Y	
11	1	FC11603-2	**50**	**50**	Y	
12	1	FC11603-3	**50**	**50**	Y	
13	1	FC11603-4	**50**	**50**	Y	
14	1	FC11603-5	**50**	**50**	Y	
15	1	FC11603-6	**50**	**50**	Y	
16	13	FC11642-2	**50**	**50**	Y	
17	2	FC11636-1B	**50**	**50**	Y	
18	1	FC11636-2A	**50**	**50**	Y	
19	1	FC11636-3A	**50**	**50**	Y	
20	1	FC11636-4A	**50**	**50**	Y	
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A **Used for SB, MS, MSD**
B **For reagent volumes used refer to SOP MET 103, current verion**
C **Parent sample used to prepare MS, MSD, DUP**
D **Additional matrix QC**

SGS Orlando

Date:	12/04/23
[24hr] **Time**	13:50

Analysts Name:	Thomas F
MP Batch ID:	MP43236
Method	SW846-3010A

Reagent / Lot Number		Spk.Soln(A)	Vol. Used (ml)	Pipette Number
Conc. HNO3 (B)	24002372	ACC1382	0.05	MU45274
Conc. HCl (B)	24003593	ACC1396	0.2	KU15244
NA	NA	MET7508	1	KU15244
NA	NA	NA	NA	NA

HotBlock I.D.	12	**Therm ID**	6130	**Temp. C**	**93**	**Corr. Factor**	**0.5**	**Corrected Observed Temp. C**	93.5
pH Paper Lot Number	**230320**			**Filter Lot Number**		**306067223**		**Digestion Tube Lot Number**	2211204

	Bot#	Sample #	Initial Vol.(ml)	Final Vol.(ml)	pH<2	Comments
	NA	Method Blank(MB)	**50**	**50**	NA	
	NA	Spike Blank(SB)	**50**	**50**	NA	
	37	Matrix Spike(MS)	**50**	**50**	Y	
	37	Matrix Spike Dup(MSD)	**50**	**50**	Y	
	37	Duplicate(DUP)	**50**	**50**	Y	
1(QC) C	37	FC10213-5	**50**	**50**	Y	
2	12	FC10213-6	**50**	**50**	Y	
3	12	FC10186-1	**50**	**50**	Y	
4	1	FC11619-1A	**50**	**50**	Y	
5	1	FC11619-2A	**50**	**50**	Y	
6	2	FC11619-1F	**50**	**50**	Y	
7	2	FC11629-2F	**50**	**50**	Y	
8	2	FC11636-1	**50**	**50**	Y	
9	1	FC11636-2	**50**	**50**	Y	
10	1	FC11636-3	**50**	**50**	Y	
11	1	FC11636-4	**50**	**50**	Y	
12						
13						
14						
15						
16						
17						
18						
19						
20						
21 [D]						
22 [D]						
23 [D]						
24 [D]						

Protected Worksheet

A Used for SB, MS, MSD
B For reagent volumes used refer to SOP MET 103, current verion
C Parent sample used to prepare MS, MSD, DUP
D Additional matrix QC

7.4.2

7

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP39462/GN96091	0.50	0.0	mg/l	10	9.96	99.6	90-110%
Chloride	GP39462/GN96091	2.0	0.0	mg/l	50	49.1	98.2	90-110%
Fluoride	GP39462/GN96091	0.20	0.0	mg/l	2.5	2.26	90.4	90-110%
Nitrogen, Nitrate	GP39462/GN96091	0.10	0.0	mg/l	2.5	2.44	97.6	90-110%
Nitrogen, Nitrite	GP39462/GN96091	0.10	0.0	mg/l	2.5	2.54	101.6	90-110%
Sulfate	GP39462/GN96091	2.0	0.0	mg/l	50	48.8	97.6	90-110%

Associated Samples:
Batch GP39462: FC11636-1B
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP39462/GN96091	FC11759-4	mg/l	32.2	10	38.8	66.0N(a)	90-110%
Chloride	GP39462/GN96091	FC11759-4	mg/l	3880	50	3760	-240.0(b)	90-110%
Fluoride	GP39462/GN96091	FC11759-4	mg/l	12 U	2.5	0.0	0.0N(a)	90-110%
Nitrogen, Nitrate	GP39462/GN96091	FC11759-4	mg/l	8.0 U	2.5	11.7	468.0N(a)	90-110%
Nitrogen, Nitrite	GP39462/GN96091	FC11759-4	mg/l	8.0 U	2.5	8.4	336.0N(a)	90-110%
Sulfate	GP39462/GN96091	FC11759-4	mg/l	188	50	218	60.0N(a)	90-110%

Associated Samples:
Batch GP39462: FC11636-1B
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP39462/GN96091	FC11759-4	mg/l	32.2	10	38.3	1.3	15%
Chloride	GP39462/GN96091	FC11759-4	mg/l	3880	50	3690	1.9	15%
Fluoride	GP39462/GN96091	FC11759-4	mg/l	12 U	2.5	0.0	0.0	15%
Nitrogen, Nitrate	GP39462/GN96091	FC11759-4	mg/l	8.0 U	2.5	11.7	0.0	15%
Nitrogen, Nitrite	GP39462/GN96091	FC11759-4	mg/l	8.0 U	2.5	8.4	0.0	15%
Sulfate	GP39462/GN96091	FC11759-4	mg/l	188	50	213	2.3	15%

Associated Samples:
Batch GP39462: FC11636-1B
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023120801.CSV Date Analyzed: 11/18/23 Methods: EPA 300/SW846 9056A
Analyst: JR Run ID: GN96091
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:05	GN96091-STD1	1		STDA
11:25	GN96091-STD2	1		STDB
11:46	GN96091-STD3	1		STDC
12:06	GN96091-STD4	1		STDD
12:27	GN96091-STD5	1		STDE
12:47	GN96091-STD6	1		STDF
13:08	GN96091-STD7	1		STDG
13:29	GN96091-STD8	1		STDH
13:49	GN96091-STD9	1		STDI
14:10	GN96091-STD10	1		STDJ
14:30	GN96091-STD11	1		STDK
14:51	GN96091-ICV1	1		
15:11	GN96091-ICB1	1		
15:32	GN96091-CRI1	1		
15:52	GN96091-CCV1	1		
16:13	GN96091-CCB1	1		
11:26	GN96091-CCV2	1		
11:46	GN96091-CCB2	1		
12:07	GP39461-MB1	1		
13:03	GP39461-MB2	1		
13:23	GP39461-B1	1		
14:05	FC11362-20LB	1		(sample used for QC only; not part of login FC11636)
14:25	GP39461-B2	1		
14:46	GP39461-S1	1		
15:06	GP39461-S2	1		
15:27	ZZZZZZ	1		
15:47	ZZZZZZ	1		
16:08	GN96091-CCV3	1		
16:28	GN96091-CCB3	1		
16:49	ZZZZZZ	1		
17:10	ZZZZZZ	1		
17:30	ZZZZZZ	1		
17:51	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023120801.CSV Date Analyzed: 11/18/23 Methods: EPA 300/SW846 9056A
Analyst: JR Run ID: GN96091
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:11	ZZZZZZ	1		
18:32	ZZZZZZ	1		
18:52	ZZZZZZ	1		
19:13	GP39462-MB1	1		
19:34	GP39462-B1	1		
19:54	ZZZZZZ	500		
20:14	GN96091-CCV4	1		
20:35	GN96091-CCB4	1		
20:56	ZZZZZZ	100		
21:16	ZZZZZZ	200		
21:36	FC11759-4	200		(sample used for QC only; not part of login FC11636)
21:57	GP39462-S1	200		
22:17	GP39462-S2	200		
22:37	ZZZZZZ	5		
23:18	FC11627-1	5		(sample used for QC only; not part of login FC11636)
23:38	GP39462-S3	5		
23:59	GP39462-S4	5		
00:19	GN96091-CCV5	1		
00:40	GN96091-CCB5	1		
01:21	ZZZZZZ	25		
02:01	FC11636-1B	1		
02:22	ZZZZZZ	1		
02:43	ZZZZZZ	1		
03:03	ZZZZZZ	1		
03:24	ZZZZZZ	1		
03:44	ZZZZZZ	1		
04:05	ZZZZZZ	5		
04:25	GN96091-CCV6	1		
04:46	GN96091-CCB6	1		
05:07	ZZZZZZ	10		
05:27	ZZZZZZ	5		
05:47	ZZZZZZ	5		
06:08	GP39463-MB1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023120801.CSV Date Analyzed: 11/18/23 Methods: EPA 300/SW846 9056A
Analyst: JR Run ID: GN96091
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
06:28	GP39463-B1	1		
06:49	FC11687-7	10		(sample used for QC only; not part of login FC11636)
07:09	GP39463-S1	10		
07:30	GP39463-S2	10		
07:50	ZZZZZZ	1		
08:11	ZZZZZZ	5		
08:31	GN96091-CCV7	1		
08:52	GN96091-CCB7	1		
09:13	ZZZZZZ	5		
09:33	ZZZZZZ	50		
09:53	ZZZZZZ	50		
10:14	GN96091-CCV8	1		
10:34	GN96091-CCB8	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC11636
Account: SCMAW - Sovereign Consulting
Project: Shepley's Hill (SHL); Devens, MA

File ID: 42023120801.CSV Date Analyzed: 11/18/23 Methods: EPA 300/SW846 9056A
Run ID: GN96091 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN96091-ICV1	Chloride	49.1	2.0	0.80	50	98.2	90-110
GN96091-ICV1	Sulfate	48.9	2.0	0.60	50	97.8	90-110
GN96091-ICB1	Chloride	0.80 U	2.0	0.80			
GN96091-ICB1	Sulfate	0.60 U	2.0	0.60			
GN96091-CRI1	Chloride	1.08	2.0	0.80	1	108.0	50-150
GN96091-CRI1	Sulfate	0.726	2.0	0.60	1	72.6	50-150
GN96091-CCV1	Chloride	50.5	2.0	0.80	50	101.0	90-110
GN96091-CCV1	Sulfate	51.4	2.0	0.60	50	102.8	90-110
GN96091-CCB1	Chloride	0.80 U	2.0	0.80			
GN96091-CCB1	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV2	Chloride	52.3	2.0	0.80	50	104.6	90-110
GN96091-CCV2	Sulfate	51.7	2.0	0.60	50	103.4	90-110
GN96091-CCB2	Chloride	0.80 U	2.0	0.80			
GN96091-CCB2	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV3	Chloride	52.5	2.0	0.80	50	105.0	90-110
GN96091-CCV3	Sulfate	51.5	2.0	0.60	50	103.0	90-110
GN96091-CCB3	Chloride	0.80 U	2.0	0.80			
GN96091-CCB3	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV4	Chloride	52.6	2.0	0.80	50	105.2	90-110
GN96091-CCV4	Sulfate	51.6	2.0	0.60	50	103.2	90-110
GN96091-CCB4	Chloride	0.80 U	2.0	0.80			
GN96091-CCB4	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV5	Chloride	52.8	2.0	0.80	50	105.6	90-110
GN96091-CCV5	Sulfate	51.9	2.0	0.60	50	103.8	90-110
GN96091-CCB5	Chloride	0.80 U	2.0	0.80			
GN96091-CCB5	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV6	Chloride	53.0	2.0	0.80	50	106.0	90-110
GN96091-CCV6	Sulfate	52.1	2.0	0.60	50	104.2	90-110
GN96091-CCB6	Chloride	0.80 U	2.0	0.80			
GN96091-CCB6	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV7	Chloride	53.2	2.0	0.80	50	106.4	90-110
GN96091-CCV7	Sulfate	52.7	2.0	0.60	50	105.4	90-110
GN96091-CCB7	Chloride	0.80 U	2.0	0.80			
GN96091-CCB7	Sulfate	0.60 U	2.0	0.60			
GN96091-CCV8	Chloride	53.2	2.0	0.80	50	106.4	90-110
GN96091-CCV8	Sulfate	52.4	2.0	0.60	50	104.8	90-110
GN96091-CCB8	Chloride	0.80 U	2.0	0.80			
GN96091-CCB8	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK LOT #	STOCK VENDOR	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
1ºNO2	NO2	WC2131	Ricca	2/1/2024	1000	2.5	25	100	12/8/2023	JR	IC015319	12/9/2023
1ºNO3	NO3	WC2088	Ricca	10/1/2024	1000	2.5	25	100	12/8/2023	JR	IC015320	12/9/2023
CCV	NO2/NO3	IC015307/8	REF	12/9/2023	100	5	200	2.5	12/8/2023	JR	IC015321	12/9/2023
CCV	SO4	WC2073	Ricca	6/1/2024	1000	10	200	50	12/8/2023	JR	IC015321	12/9/2023
CCV	Cl	WC2139	Ricca	3/1/2025	1000	10	200	50	12/8/2023	JR	IC015321	12/9/2023
CCV	F	WC2032	Ricca	6/1/2024	1000	0.5	200	2.5	12/8/2023	JR	IC015321	12/9/2023
CCV	Br	WC2092	Fisher	10/1/2024	1000	2	200	10	12/8/2023	JR	IC015321	12/9/2023
B1	NO2/NO3/F	WC2159	Absolute	11/10/2025	100	1.25	50	2.5	12/8/2023	JR	IC015322	12/9/2023
B1	SO4/Cl	---	---	---	2000	---	---	50	12/8/2023	JR	IC015322	12/9/2023
B1	Br	---	---	---	400	---	---	10	12/8/2023	JR	IC015322	12/9/2023
1ºNO2	NO2	WC2131	Ricca	2/1/2024	1000	2.5	25	100	12/9/2023	JR	IC015323	12/10/2023
1ºNO3	NO3	WC2088	Ricca	10/1/2024	1000	2.5	25	100	12/9/2023	JR	IC015324	12/10/2023
CCV	NO2/NO3	IC015323/4	REF	12/10/2023	100	5	200	2.5	12/9/2023	JR	IC015325	12/10/2023
CCV	SO4	WC2073	Ricca	6/1/2024	1000	10	200	50	12/9/2023	JR	IC015325	12/10/2023
CCV	Cl	WC2139	Ricca	3/1/2025	1000	10	200	50	12/9/2023	JR	IC015325	12/10/2023
CCV	F	WC2032	Ricca	6/1/2024	1000	0.5	200	2.5	12/9/2023	JR	IC015325	12/10/2023
CCV	Br	WC2092	Fisher	10/1/2024	1000	2	200	10	12/9/2023	JR	IC015325	12/10/2023
B1	NO2/NO3/F	WC2159	Absolute	11/10/2025	100	1.25	50	2.5	12/9/2023	JR	IC015326	12/10/2023
B1	SO4/Cl	---	---	---	2000	---	---	50	12/9/2023	JR	IC015326	12/10/2023
B1	Br	---	---	---	400	---	---	10	12/9/2023	JR	IC015326	12/10/2023

Method: (EPA300.0 / SW846 9056A (circle one))

Date:	12/8/2023 9:54	**Prep Batchs:**	39461/2/3	**Vial lot#**	739566-G 23558	**ICAL:**	---
Analyst:	**JR**	**Analytical Batch:**	96091	**Eluent lot#**	GN35474	**ICV:**	---
Instrument:	**#4**	**Calibration Date:**	11/18/2023	**Suppressor regen. lot#**	GN36084	**CCV:**	IC015321
Inst. File Name:	42023120801.csv	**Pump pressure:**	9.11MPa	**Filter lot#**	---	**QC:**	IC015322

Sample#						**Ions Needed**						**Results OK or Dilution Needed**						**Comments**
	Bot#	Matrix	Scon	DF	Filter (y/n)	F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br	NO3	SO4	Scon Meter: Scon 7
CCV	---	AQ	---	1	N		X			X	X							
CCB	---	AQ	---	1	N		X			X	X							
MB1	---	AQ	---	1	N		X			X	X							
MB2	---	AQ	---	1	N		X			X	X							
B1	---	AQ	---	1	N		X			X	X							
B2	---	AQ	---	1	N		X			X	X	F	F	F	F	F	F	Wrong vial injected
FC11362-20LB	3	AQ	---	1	N		X			X	X							
B2	---	AQ	---	1	N		X			X	X							
FC11362-20LBS1	3	AQ	---	1	N		X			X	X							
FC11362-20LBS2	3	AQ	---	1	N		X			X	X							
FC11432-1LB	3	AQ	---	1	N		X			X	X							
FC11432-2LB	3	AQ	---	1	N		X			X	X							
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							
FC11432-3LB	3	AQ	---	1	N		X			X	X							
FC11432-4LB	3	AQ	---	1	N		X			X	X							
FC11432-5LB	3	AQ	---	1	N		X			X	X							
FC11432-6LB	3	AQ	---	1	N		X			X	X							
FC11432-7LB	3	AQ	---	1	N		X			X	X							
FC11432-8LB	3	AQ	---	1	N		X			X	X							
FC11432-9LB	3	AQ	---	1	N		X			X	X							
MB1	---	AQ	---	1	N	X	X	X	X	X	X							
B1	---	AQ	---	1	N	X	X	X	X	X	X							
FC11759-1	18	AQ	43mS	500	N	X	X	X	X	X	X							
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							
FC11759-2	18	AQ	9.8mS	100	N	X	X	X	X	X	X							
FC11759-3	18	AQ	13mS	200	N	X	X	X	X	X	X							

Method: ~~EPA300.0~~ / SW846 9056A (circle one)

Date:	12/8/2023 9:54	**Prep Batchs:**	39461/2/3	**Vial lot#**	739566-G 23558	**ICAL:**	---
Analyst:	**JR**	**Analytical Batch:**	96091	**Eluent lot#**	GN35474	**ICV:**	---
Instrument:	**#4**	**Calibration Date:**	11/18/2023	**Suppressor regen. lot#**	GN36084	**CCV:**	IC015321
Inst. File Name:	42023120801.csv	**Pump pressure:**	9.11MPa	**Filter lot#**	---	**QC:**	IC015322

Sample#						**Ions Needed**						**Results OK or Dilution Needed**						**Comments**
	Bot#	Matrix	Scon	DF	Filter (y/n)	F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br	NO3	SO4	Scon Meter: Scon 7
FC11759-4	18	AQ	11mS	200	N	X	X	X	X	X	X							
FC11759-4S1	18	AQ	11mS	200	N	X	X	X	X	X	X							
FC11759-4S2	18	AQ	11mS	200	N	X	X	X	X	X	X							
FC11584-2	7	AQ	756uS	5	N	X												
FC11725-1	10	AQ	5.6mS	50	N	X						RR						RR for confirmation
FC11627-1	3	AQ	874uS	5	N						X							
FC11627-1S3	3	AQ	874uS	5	N	X	X	X	X	X	X							
FC11627-1S4	3	AQ	874uS	5	N	X	X	X	X	X	X							
CCV	---	AQ	---	1	N	X	X	X	X	X	X							
CCB	---	AQ	---	1	N	X	X	X	X	X	X							
FC11635-1	11	AQ	4.6mS	25	N		X				X							
FC11635-2	11	AQ	4.2mS	25	N		X				X							
FC11635-3	11	AQ	4.3mS	25	N		X				X							
FC11636-1B	1	AQ	390uS	1	N		X				X							
FC11642-2	6	AQ	(1)	1	N		X				X							Dilutions made from
FC11642-3	5	AQ	(1)	1	N		X				X							historical results.
FC11642-4	5	AQ	(1)	1	N		X				X							
FC11642-5	5	AQ	(1)	1	N		X				X							
FC11642-6	5	AQ	(1)	1	N		X				X							
FC11657-1	1	AQ	407uS	5	N						X							
CCV	---	AQ	---	1	N		X				X							
CCB	---	AQ	---	1	N		X				X							
FC11657-4	1	AQ	---	10	N						X							
FC11657-5	1	AQ	---	5	N						X							
FC11657-8	1	AQ	---	5	N						X							
MB1	---	AQ	---	1	N		X				X							
B1	---	AQ	---	1	N		X				X							
FC11687-7	13	AQ	1320uS	10	N		X				X							

Method: EPA300.0 / SW846 9056A (circle one)

Date:	12/8/2023 9:54	**Prep Batchs:**	39461/2/3	**Vial lot#**	739566-G 23558	**ICAL:**	---
Analyst:	**JR**	**Analytical Batch:**	96091	**Eluent lot#**	GN35474	**ICV:**	---
Instrument:	**#4**	**Calibration Date:**	11/18/2023	**Suppressor regen. lot#**	GN36084	**CCV:**	IC015321
Inst. File Name:	42023120801.csv	**Pump pressure:**	9.11MPa	**Filter lot#**	---	**QC:**	IC015322

Sample#						**Ions Needed**						**Results OK or Dilution Needed**						**Comments**
	Bot#	Matrix	Scon	DF	Filter (y/n)	F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br	NO3	SO4	Scon Meter: Scon 7
FC11687-7S1	13	AQ	1320uS	10	N		X				X							
FC11687-7S2	13	AQ	1320uS	10	N		X				X							
FC11687-8	13	AQ	---	1	N		X				X							
FC11728-10	1	AQ	---	5	N						X							
CCV	---	AQ	---	1	N		X				X							
CCB	---	AQ	---	1	N		X				X							
FC11728-14	1	AQ	---	5	N						X							
FC11635-1	11	AQ	4.6mS	50	N		X				X							
FC11635-3	11	AQ	4.3mS	50	N		X				X							
CCV	---	AQ	---	1	N		X				X							
CCB	---	AQ	---	1	N		X				X							

SGS AC[illegible]EST - ORLANDO

SPL[illegible]AMPLE PREP SHEET

Analyst: CP

Method: 1312SPLP

Scan as: SPLPE_**MMDDYY**

Therm. ID: 17061487 Corr. Factor (±°C): +0.1

Starting Room Temp. (21-25 °C)°C: 23/23 {obs/corr}

Lo/Hi Room Temp. (21-25 °C)°C: 23/25 (obs) 23/25 (corr)

Date / Time Tumbling Started: 12/07/23 13:30 {mm/dd/yy 24:00}

Date / Time Tumbling Finished: 12/08/23 08:30 {mm/dd/yy 24:00}

Balance ID: 8341326158 pH Fluid 1 (4.15-4.25): —— *pH Fluid 3: 7.00 *

pH Meter ID: HH1165 pH Fluid 2 (4.95-5.05): —— *

Tumbler ID T-4 RPM (28-32) 30 Tumbler ID T-6 RPM (28-32) 30 Tumbler ID —— RPM (28-32) ——

Sample ID	Bottle Number	Analysis** M / SO / GN	Original Matrix	Amount of Solids (g)	Volume of Fluid (ml)	Fluid Type 1 / 2 / 3	Filtration Date/Time {mm/dd/yy 24:00}	Filtrate Added (ml) If Solids <100%	Extraction Bottle #
FC11362-1LB	3	GN	SO	44.9	900	3	12/8/23 / 08:30	NA	15
-12LB	3			45.0					16
-13LB	3			44.9					17
-14LB	3			45.0					18
-15LB	3			44.9					19
-16LB	3			45.0					20
-17LB	3			45.0					21
-18LB	3			45.0					22
-19LB	3			45.0					23
-20LB	3			44.9					24
FC11432-1LB	3			45.0					13
-2LB	3			45.0					12
-3LB	3			44.9					11
-4LB	3			45.0					10
-5LB	3			45.0					9
-6LB	3			45.0					8
-7LB	3			45.0					7
-8LB	3			45.0					6
-9LB	3			45.0					5
LB	——	——	——	——					14
					CP 12/7/23				

* Fluid pH must be checked with each use. Fluid is unbuffered and the exact pH may not be attainable. ** M = Metals, SO = Semivolatile Organics, GN = Cyanide or Nutrients

Fluid 1 Lot #: —— Fluid 2 Lot #: —— Fluid 3 Lot #: N/A DI Water Filter Lot #: 114774

Relinquished By: [signature] Date: 12/8/23 Accepted By: [signature] Date: 12/9/23

LM 01/17 splp sample prep sheet 01[illegible]17.xls

Sample data

Ident	STDK
Sample type	Standard 10
Determination start	2023-11-18 14:30:44 UTC-5
Method	SGS In-Vial Anions191003A
Operator	JR

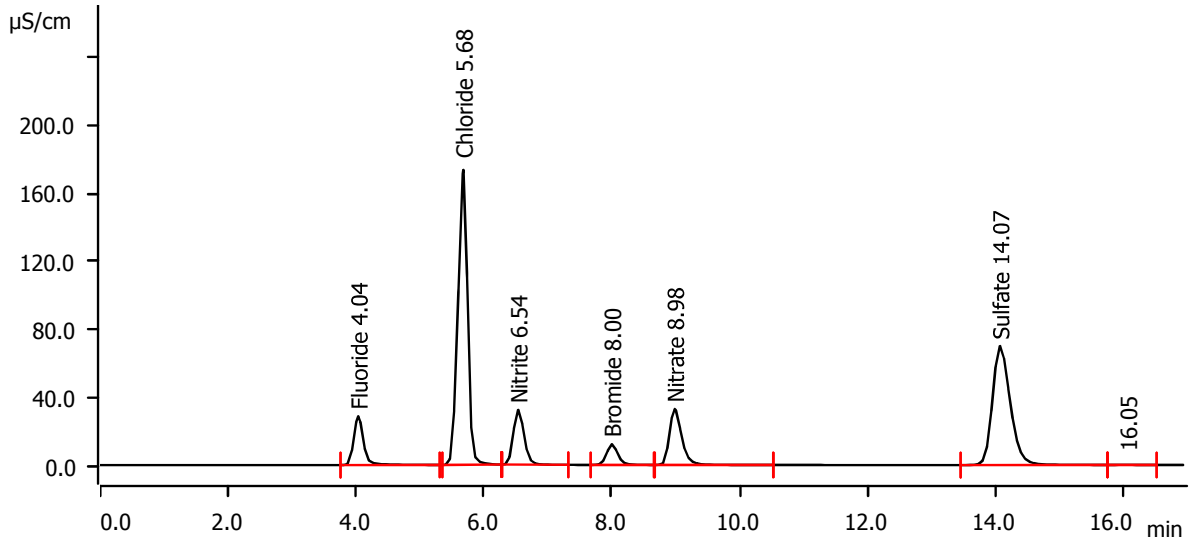
Anions

Data source	Conductivity detector 1 (930 Compact IC Flex 1)	
Channel	Conductivity	
Recording time	17.0	min
Integration	Automatically	
Column type	Metrosep A Supp 5 - 150/4.0	
Eluent composition	not defined	
Flow	0.700	mL/min
Maximum flow monitored	yes	
Pressure	8.77	MPa
Maximum pressure monitored	yes	
Temperature	30.0	°C

Pressure

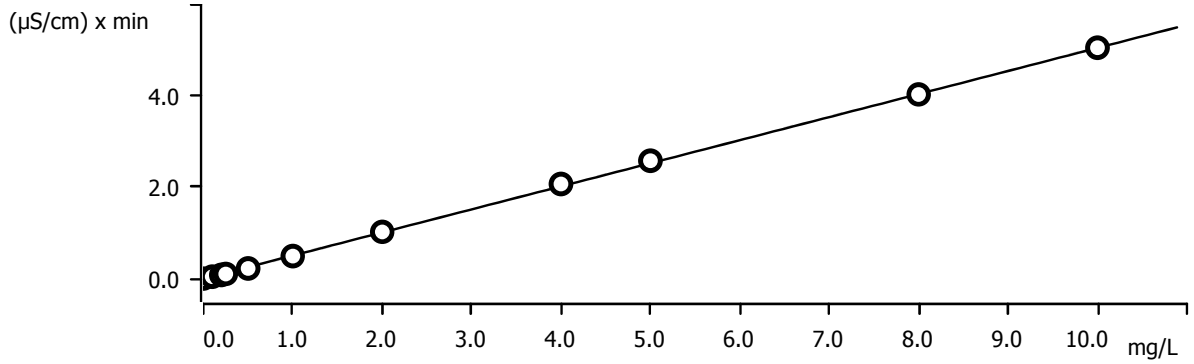
Data source	Pump (930 Compact IC Flex 1)	
Channel	System pressure	
Recording time	17.5	min
Integration	Automatically	
Flow	-----	mL/min
Maximum flow monitored	no	
Pressure	-----	MPa
Maximum pressure monitored	no	
Temperature	-----	℃

Anions



Peak number	Retention time min	Area (µS/cm) x min	Height µS/cm	Concentration mg/L	Component name
1	4.035	5.0576	28.554	10.010	Fluoride
2	5.678	29.9879	172.610	100.769	Chloride
3	6.537	6.3052	32.036	9.954	Nitrite
4	8.003	2.4716	12.066	20.766	Bromide
5	8.983	7.2644	32.735	10.249	Nitrate
6	14.072	22.5191	69.597	101.310	Sulfate
7	16.053	0.0114	0.035	invalid	

Fluoride (Anions)



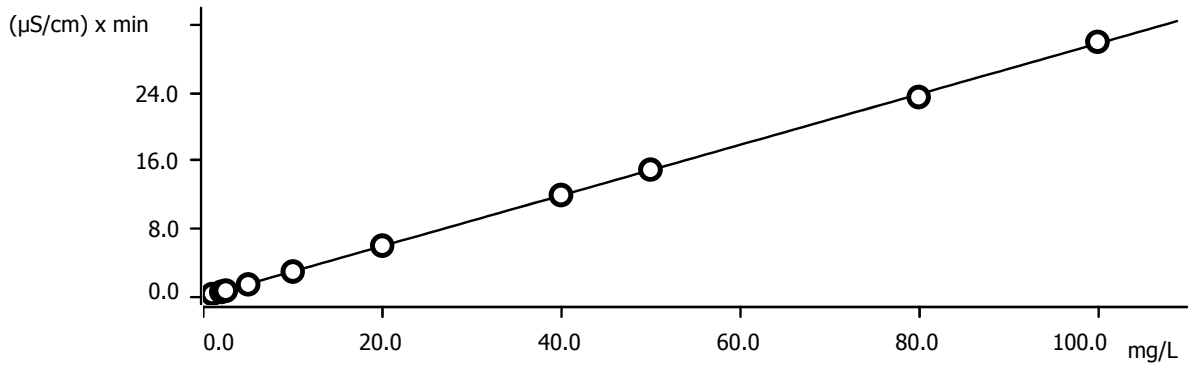
Function: . . . . . *A = 2.17860E-4 + 0.0252612× Q*

Relative standard deviation . . . . . *2.099173 %*

Correlation coefficient *0.999873*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	0.0012	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0416	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.0808	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.1024	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2216	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.4932	STDF	2023-11-18 12:47:59 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	1.0241	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.0715	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	2.5818	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	4.0348	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	5.0576	STDK	2023-11-18 14:30:44 UTC-5

Chloride (Anions)



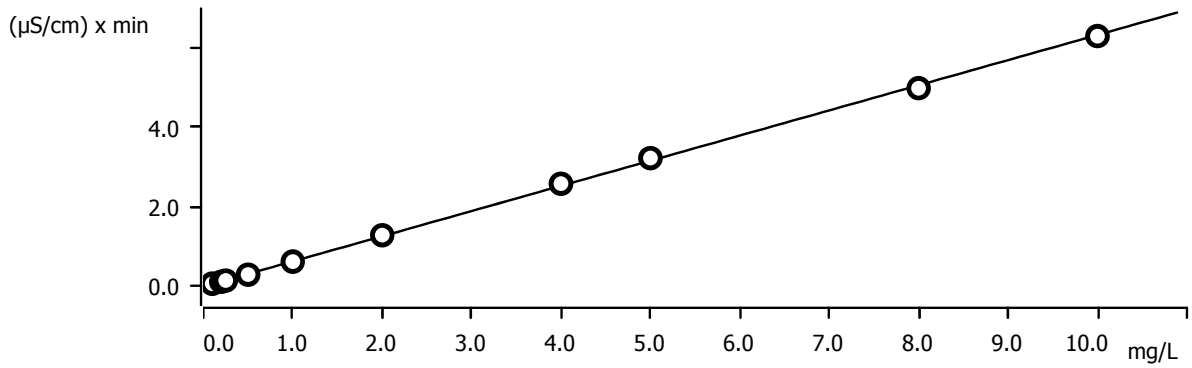
Function: . . . . . *A = - 0.0823867 + 0.0149205× Q*

Relative standard deviation . . . . . *1.589146 %*

Correlation coefficient *0.999916*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	1.000	20.0	1.0	1.0	0.2427	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	2.000	20.0	1.0	1.0	0.4905	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	2.500	20.0	1.0	1.0	0.6368	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	5.000	20.0	1.0	1.0	1.3723	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	10.000	20.0	1.0	1.0	2.8916	STDF	2023-11-18 12:47:59 UTC-5
Standard 6	1	20.000	20.0	1.0	1.0	5.9368	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	40.000	20.0	1.0	1.0	11.9092	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	50.000	20.0	1.0	1.0	14.9096	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	80.000	20.0	1.0	1.0	23.4685	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	100.000	20.0	1.0	1.0	29.9879	STDK	2023-11-18 14:30:44 UTC-5

Nitrite (Anions)



Function: . . . . . *A = - 0.0233242 + 0.0317897× Q*

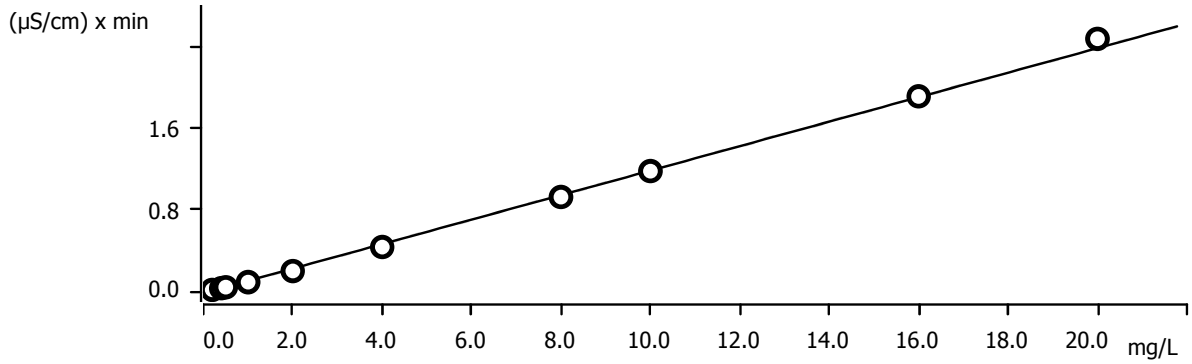
Relative standard deviation . . . . . *2.176146 %*

Correlation coefficient *0.999842*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0488	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.0975	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.1264	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2765	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.6049	STDF	2023-11-18 12:47:59 UTC-5

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.2730	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.5732	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	3.2205	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	4.9901	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	6.3052	STDK	2023-11-18 14:30:44 UTC-5

Bromide (Anions)



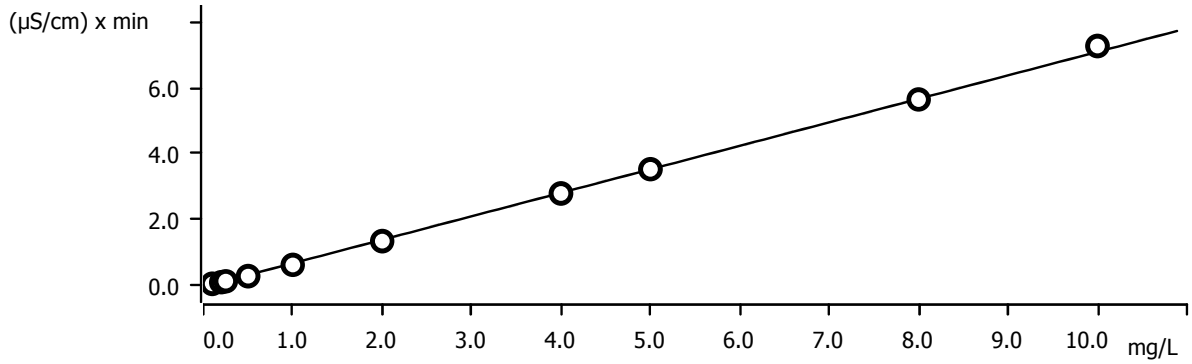
Function: . . . . . *A = - 0.0129249 + 5.98209E-3× Q*

Relative standard deviation . . . . . *4.946095 %*

Correlation coefficient *0.999240*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	0.200	20.0	1.0	1.0	0.0178	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	0.400	20.0	1.0	1.0	0.0345	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	0.500	20.0	1.0	1.0	0.0443	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	1.000	20.0	1.0	1.0	0.0935	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	2.000	20.0	1.0	1.0	0.2020	STDF	2023-11-18 12:47:59 UTC-5
Standard 6	1	4.000	20.0	1.0	1.0	0.4373	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	8.000	20.0	1.0	1.0	0.9253	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	10.000	20.0	1.0	1.0	1.1785	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	16.000	20.0	1.0	1.0	1.9091	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	20.000	20.0	1.0	1.0	2.4716	STDK	2023-11-18 14:30:44 UTC-5

Nitrate (Anions)



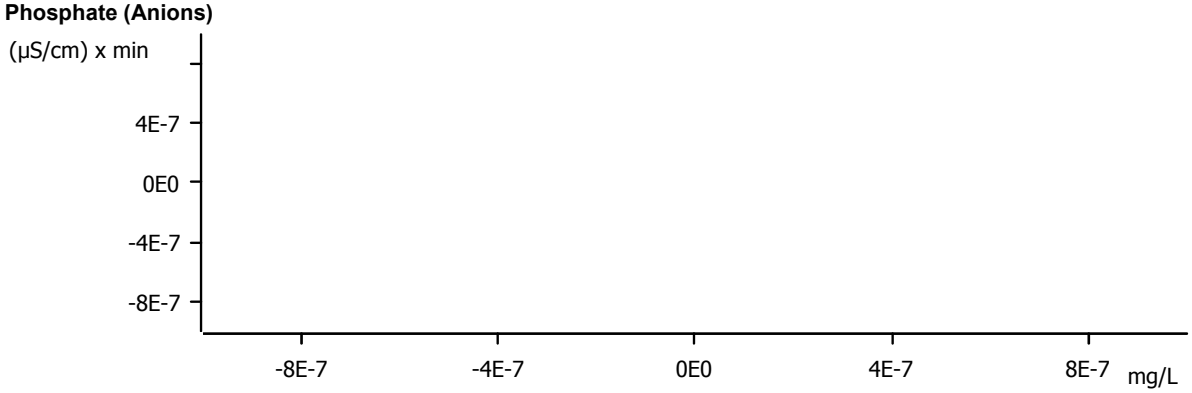
Function: . . . . . *A = - 0.0356219 + 0.0356128× Q*

Relative standard deviation . . . . . *3.165150 %*

Correlation coefficient *0.999682*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	0.0537	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	0.1024	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	0.1318	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	0.2862	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	0.6286	STDF	2023-11-18 12:47:59 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	1.3464	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	2.7927	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	3.5295	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	5.6444	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	7.2644	STDK	2023-11-18 14:30:44 UTC-5

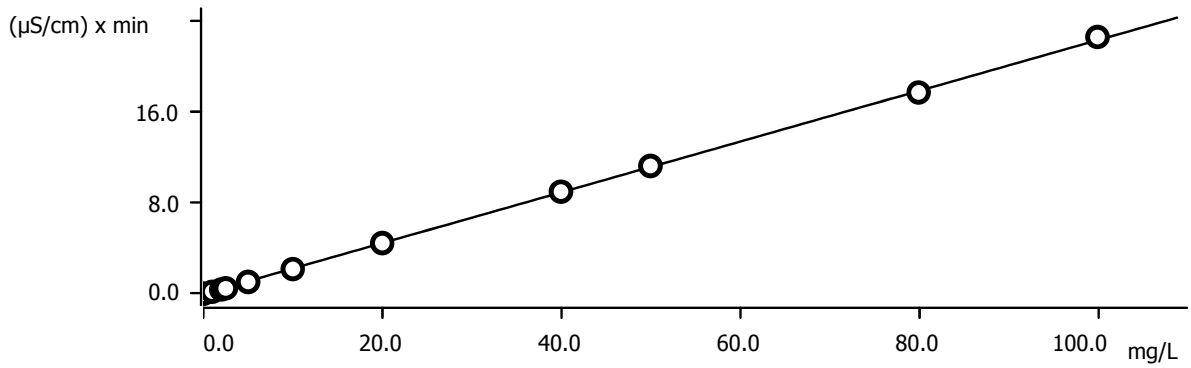
Phosphate (Anions)



Function: . . . . . .
Relative standard deviation . . . . . *invalid %*
Correlation coefficient . . . . . *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-11-18 12:47:59 UTC-5
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-11-18 14:30:44 UTC-5

Sulfate (Anions)



Function: . . . . . *A = 0.0100097 + 0.0111091× Q*
Relative standard deviation . . . . . *1.944806 %*
Correlation coefficient *0.999891*

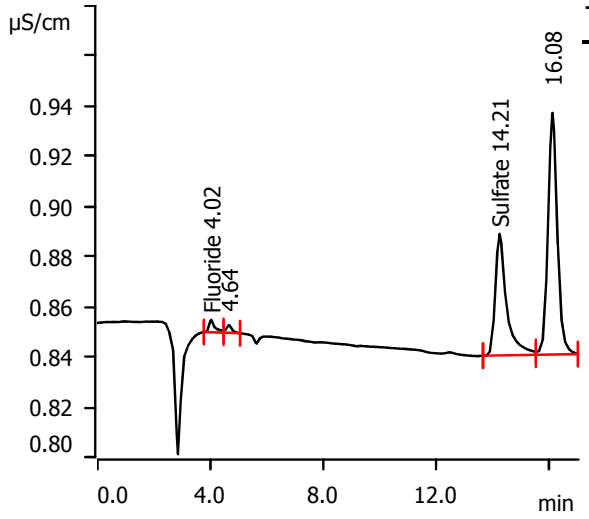
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	0.0223	STDA	2023-11-18 11:05:09 UTC-5
Standard 1	1	1.000	20.0	1.0	1.0	0.1968	STDB	2023-11-18 11:25:45 UTC-5
Standard 2	1	2.000	20.0	1.0	1.0	0.3943	STDC	2023-11-18 11:46:21 UTC-5
Standard 3	1	2.500	20.0	1.0	1.0	0.4913	STDD	2023-11-18 12:06:54 UTC-5
Standard 4	1	5.000	20.0	1.0	1.0	1.0513	STDE	2023-11-18 12:27:26 UTC-5
Standard 5	1	10.000	20.0	1.0	1.0	2.1793	STDF	2023-11-18 12:47:59 UTC-5

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.4596	STDG	2023-11-18 13:08:32 UTC-5
Standard 7	1	40.000	20.0	1.0	1.0	8.9605	STDH	2023-11-18 13:29:05 UTC-5
Standard 8	1	50.000	20.0	1.0	1.0	11.2177	STDI	2023-11-18 13:49:38 UTC-5
Standard 9	1	80.000	20.0	1.0	1.0	17.6505	STDJ	2023-11-18 14:10:11 UTC-5
Standard 10	1	100.000	20.0	1.0	1.0	22.5191	STDK	2023-11-18 14:30:44 UTC-5

Sample data

Ident . . . . . STDA
Sample type . . . . . Standard 100
Determination start 2023-11-18 11:05:09
Dilution factor 1.00

Anions

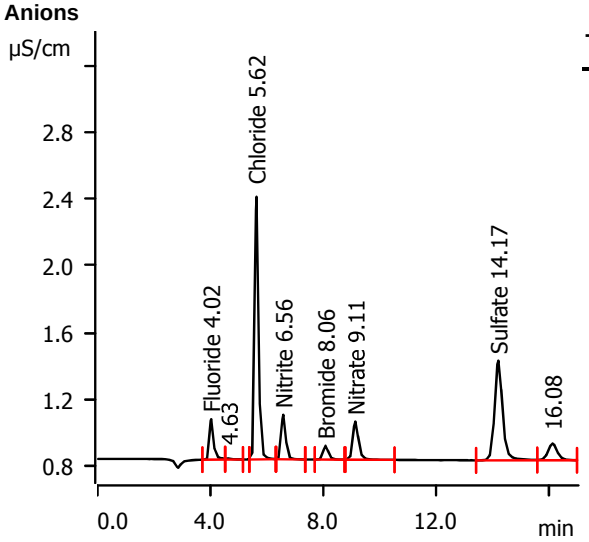


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0012	0.002	0.002
14.21	Sulfate	0.0223	0.055	0.055

Sample data

Ident . . . . . STDB
Sample type . . . . . Standard 1
Determination start 2023-11-18 11:25:45
Dilution factor 1.00

Anions

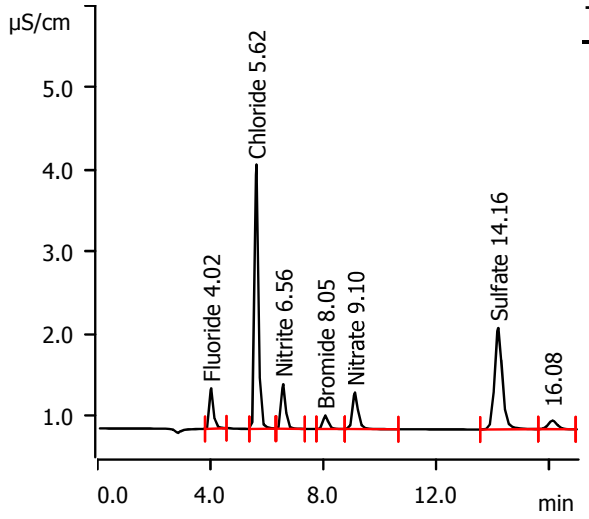


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0416	0.082	0.082
5.62	Chloride	0.2427	1.089	1.089
6.56	Nitrite	0.0488	0.113	0.113
8.06	Bromide	0.0178	0.257	0.257
9.11	Nitrate	0.0537	0.125	0.125
14.17	Sulfate	0.1968	0.841	0.841

Sample data

Ident . . . . . STDC
Sample type . . . . . Standard 2
Determination start 2023-11-18 11:46:21
Dilution factor 1.00

Anions

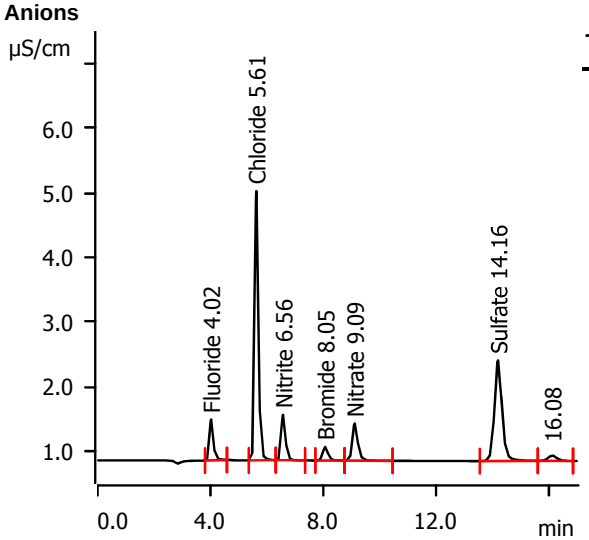


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0808	0.159	0.159
5.62	Chloride	0.4905	1.920	1.920
6.56	Nitrite	0.0975	0.190	0.190
8.05	Bromide	0.0345	0.396	0.396
9.10	Nitrate	0.1024	0.194	0.194
14.16	Sulfate	0.3943	1.730	1.730

Sample data

Ident . . . . . STDD
Sample type . . . . . Standard 3
Determination start 2023-11-18 12:06:54
Dilution factor 1.00

Anions

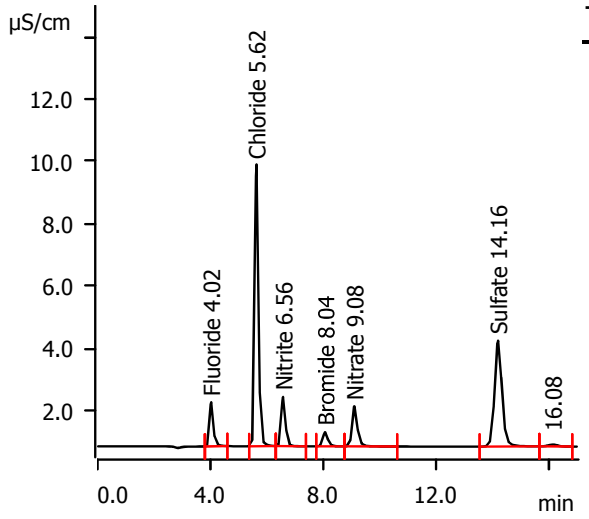


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.1024	0.202	0.202
5.61	Chloride	0.6368	2.410	2.410
6.56	Nitrite	0.1264	0.235	0.235
8.05	Bromide	0.0443	0.478	0.478
9.09	Nitrate	0.1318	0.235	0.235
14.16	Sulfate	0.4913	2.166	2.166

Sample data

Ident . . . . . STDE
Sample type . . . . . Standard 4
Determination start 2023-11-18 12:27:26
Dilution factor 1.00

Anions

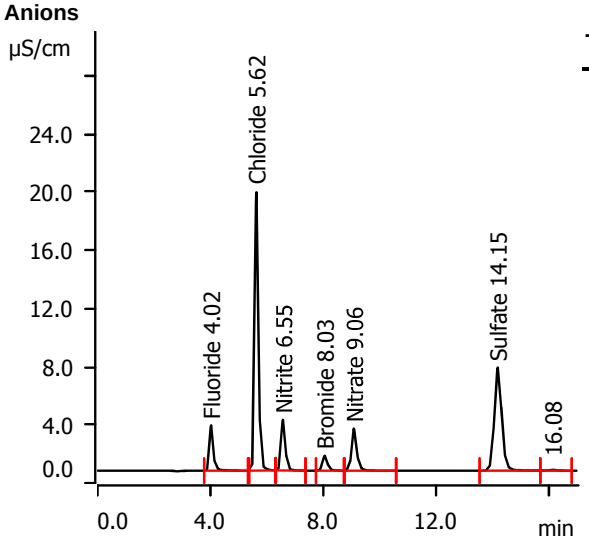


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.2216	0.438	0.438
5.62	Chloride	1.3723	4.875	4.875
6.56	Nitrite	0.2765	0.472	0.472
8.04	Bromide	0.0935	0.889	0.889
9.08	Nitrate	0.2862	0.452	0.452
14.16	Sulfate	1.0513	4.687	4.687

Sample data

Ident . . . . . STDF
Sample type . . . . . Standard 5
Determination start 2023-11-18 12:47:59
Dilution factor 1.00

Anions

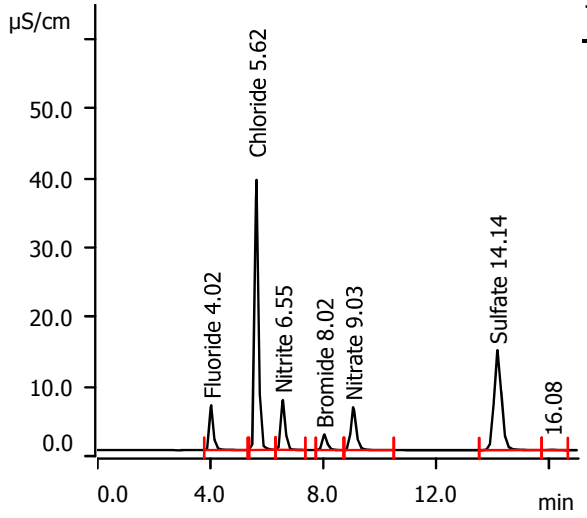


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.4932	0.976	0.976
5.62	Chloride	2.8916	9.966	9.966
6.55	Nitrite	0.6049	0.988	0.988
8.03	Bromide	0.2020	1.796	1.796
9.06	Nitrate	0.6286	0.933	0.933
14.15	Sulfate	2.1793	9.764	9.764

Sample data

Ident . . . . . STDG
Sample type . . . . . Standard 6
Determination start 2023-11-18 13:08:32
Dilution factor 1.00

Anions

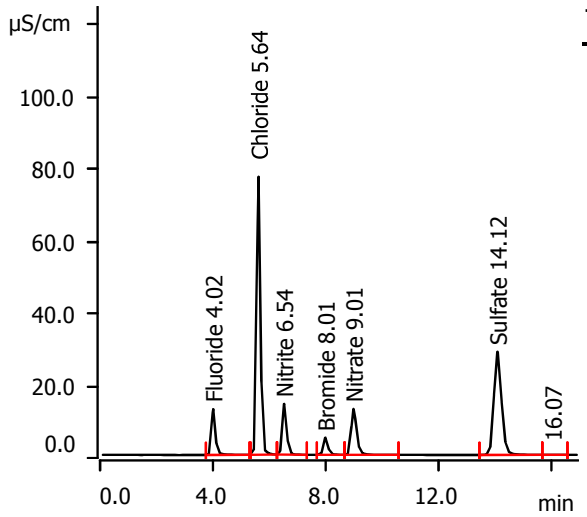


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.0241	2.027	2.027
5.62	Chloride	5.9368	20.171	20.171
6.55	Nitrite	1.2730	2.039	2.039
8.02	Bromide	0.4373	3.763	3.763
9.03	Nitrate	1.3464	1.940	1.940
14.14	Sulfate	4.4596	20.027	20.027

Sample data

Ident . . . . . STDH
Sample type . . . . . Standard 7
Determination start 2023-11-18 13:29:05
Dilution factor 1.00

Anions

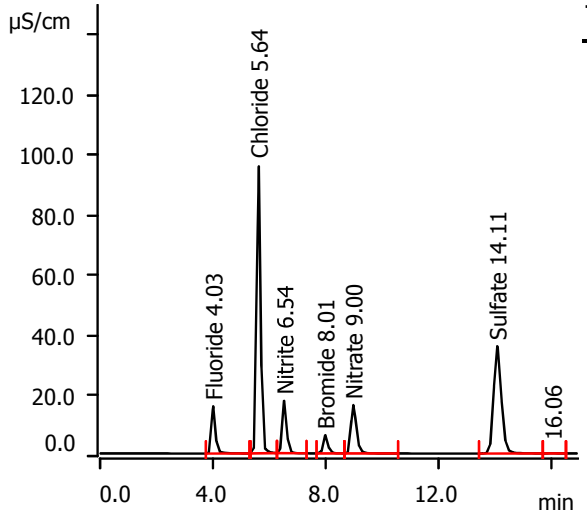


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	2.0715	4.100	4.100
5.64	Chloride	11.9092	40.185	40.185
6.54	Nitrite	2.5732	4.084	4.084
8.01	Bromide	0.9253	7.842	7.842
9.01	Nitrate	2.7927	3.971	3.971
14.12	Sulfate	8.9605	40.284	40.284

Sample data

Ident . . . . . STDI
Sample type . . . . . Standard 8
Determination start 2023-11-18 13:49:38
Dilution factor 1.00

Anions

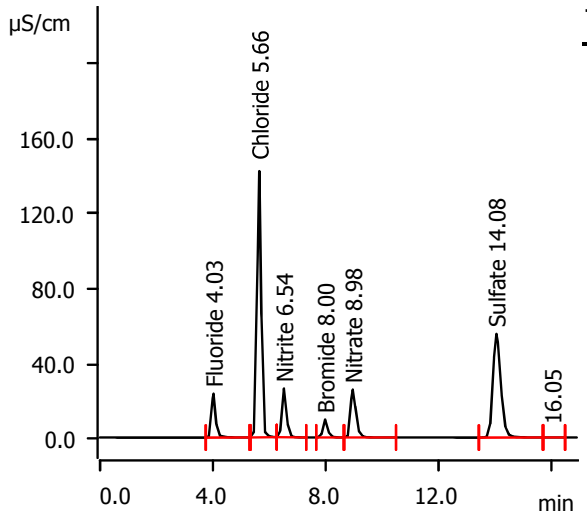


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	2.5818	5.110	5.110
5.64	Chloride	14.9096	50.240	50.240
6.54	Nitrite	3.2205	5.102	5.102
8.01	Bromide	1.1785	9.958	9.958
9.00	Nitrate	3.5295	5.005	5.005
14.11	Sulfate	11.2177	50.444	50.444

Sample data

Ident . . . . . STDJ
Sample type . . . . . Standard 9
Determination start 2023-11-18 14:10:11
Dilution factor 1.00

Anions

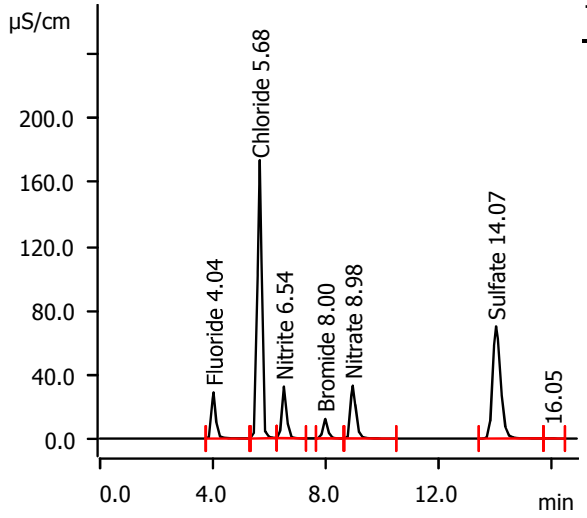


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.03	Fluoride	4.0348	7.986	7.986
5.66	Chloride	23.4685	78.922	78.922
6.54	Nitrite	4.9901	7.885	7.885
8.00	Bromide	1.9091	16.065	16.065
8.98	Nitrate	5.6444	7.975	7.975
14.08	Sulfate	17.6505	79.397	79.397

Sample data

Ident . . . . . STDK
Sample type . . . . . Standard 10
Determination start 2023-11-18 14:30:44
Dilution factor 1.00

Anions

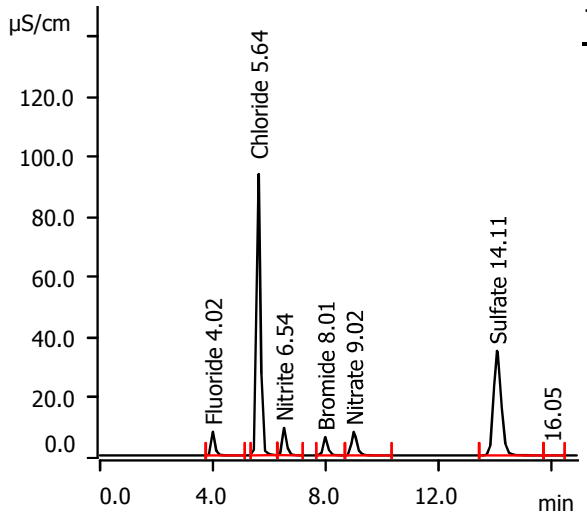


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.04	Fluoride	5.0576	10.010	10.010
5.68	Chloride	29.9879	100.769	100.769
6.54	Nitrite	6.3052	9.954	9.954
8.00	Bromide	2.4716	20.766	20.766
8.98	Nitrate	7.2644	10.249	10.249
14.07	Sulfate	22.5191	101.310	101.310

Sample data

Ident ICV
Sample type . . . . . Sample
Determination start 2023-11-18 14:51:16
Dilution factor 1.00

Anions

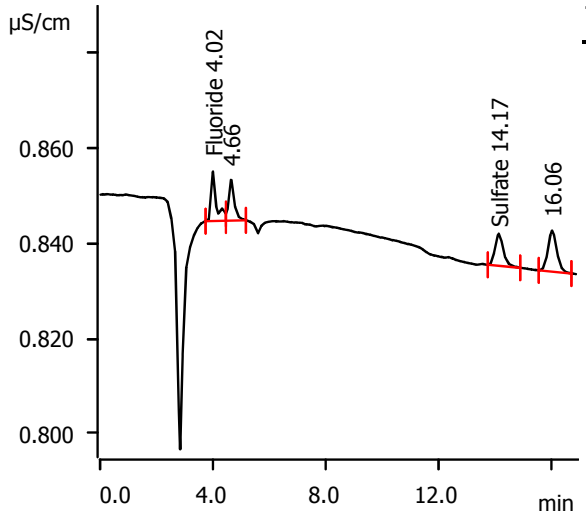


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.1990	2.373	2.373
5.64	Chloride	14.5645	49.083	49.083
6.54	Nitrite	1.6037	2.559	2.559
8.01	Bromide	1.1814	9.982	9.982
9.02	Nitrate	1.7019	2.440	2.440
14.11	Sulfate	10.8795	48.921	48.921

Sample data

Ident . . . . . ICB
Sample type . . . . . Sample
Determination start 2023-11-18 15:11:53
Dilution factor 1.00

Anions

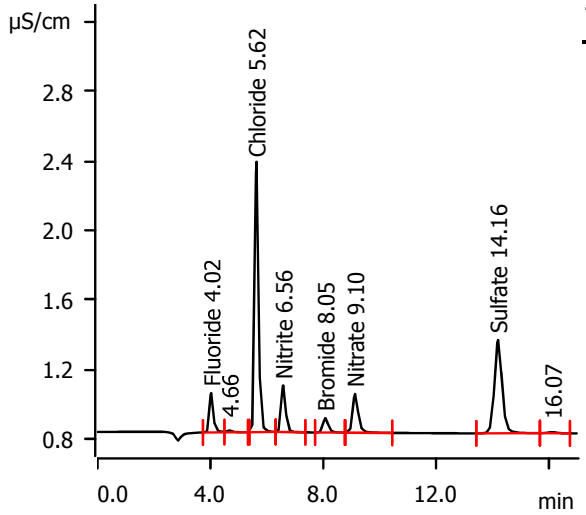


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0023	0.004	0.004
14.17	Sulfate	0.0023	-0.035	-0.035

Sample data

Ident . . . . . CRI
Sample type . . . . . Sample
Determination start 2023-11-18 15:32:25
Dilution factor 1.00

Anions

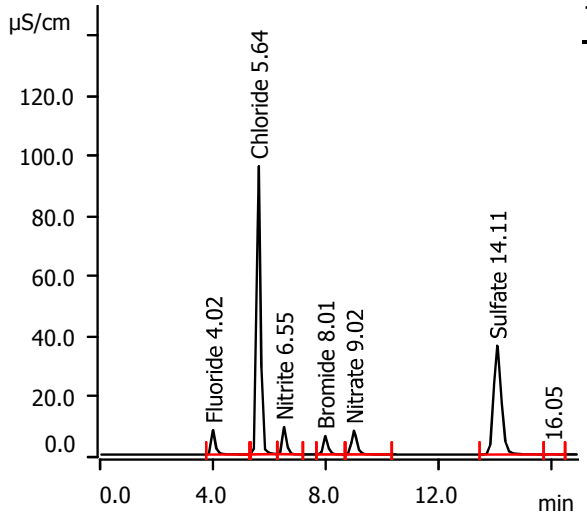


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0370	0.073	0.073
5.62	Chloride	0.2398	1.080	1.080
6.56	Nitrite	0.0490	0.114	0.114
8.05	Bromide	0.0178	0.257	0.257
9.10	Nitrate	0.0521	0.123	0.123
14.16	Sulfate	0.1713	0.726	0.726

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-11-18 15:52:57
Dilution factor 1.00

Anions

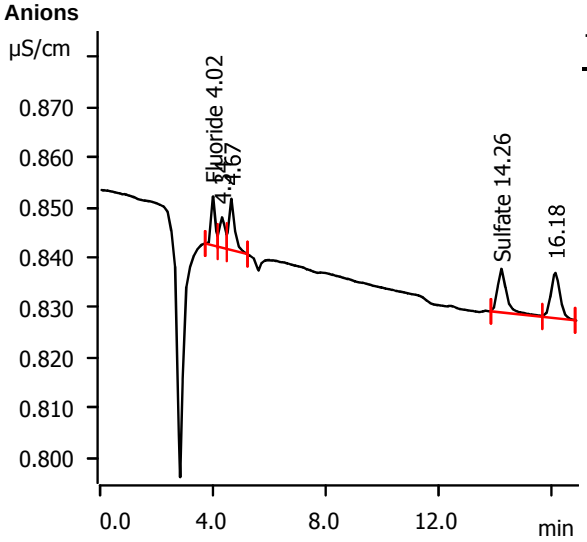


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	1.3548	2.681	2.681
5.64	Chloride	14.9892	50.506	50.506
6.55	Nitrite	1.6006	2.554	2.554
8.01	Bromide	1.1863	10.023	10.023
9.02	Nitrate	1.7188	2.463	2.463
14.11	Sulfate	11.4213	51.360	51.360

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-11-18 16:13:36
Dilution factor 1.00

Anions

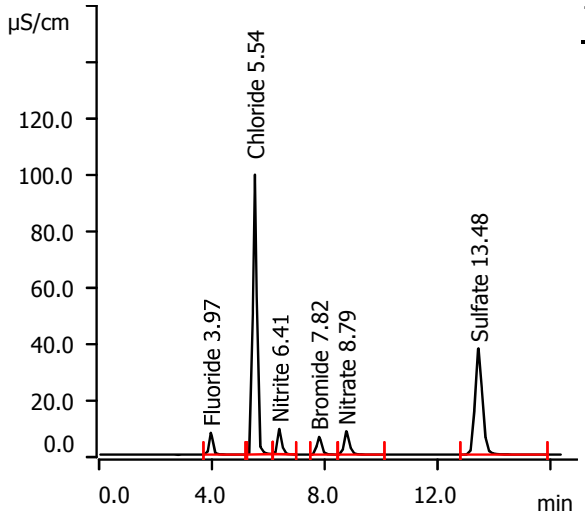


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.02	Fluoride	0.0016	0.003	0.003
14.26	Sulfate	0.0033	-0.030	-0.030

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-08 11:26:01
Dilution factor 1.00

Anions

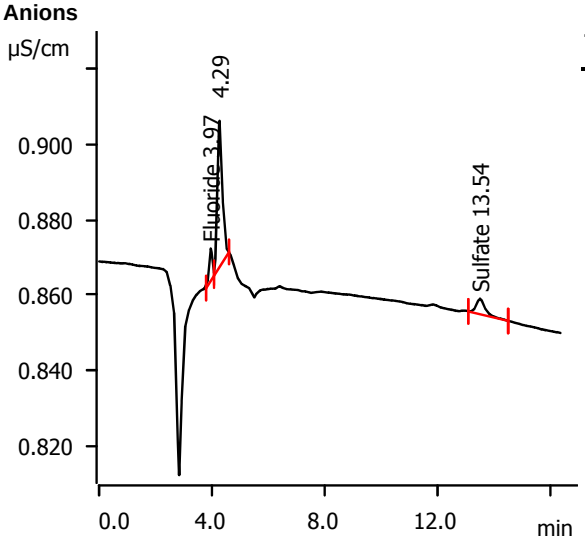


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.2061	2.387	2.387
5.54	Chloride	15.5222	52.293	52.293
6.41	Nitrite	1.5813	2.524	2.524
7.82	Bromide	1.2273	10.366	10.366
8.79	Nitrate	1.7796	2.549	2.549
13.48	Sulfate	11.4917	51.677	51.677

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-08 11:46:40
Dilution factor 1.00

Anions

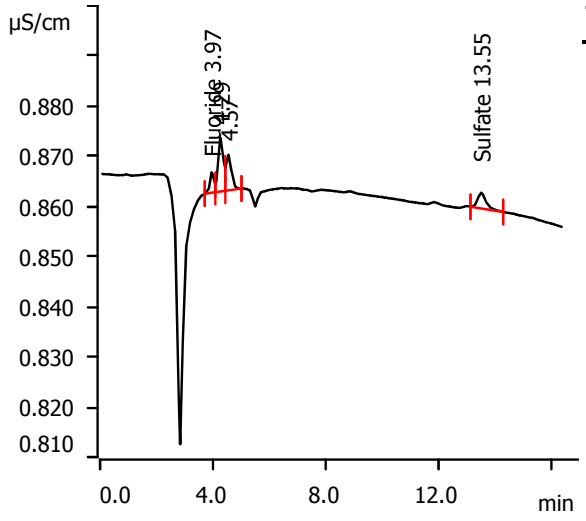


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0011	0.002	0.002
13.54	Sulfate	0.0015	-0.038	-0.038

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-12-08 12:07:16
Dilution factor 1.00

Anions

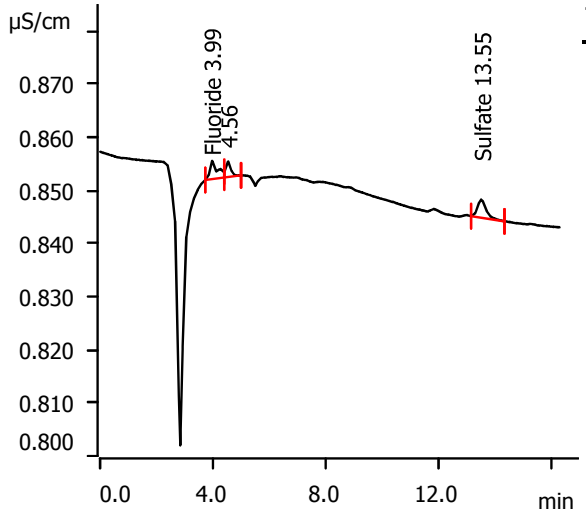


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0006	0.001	0.001
13.55	Sulfate	0.0011	-0.040	-0.040

Sample data

Ident MB2
Sample type . . . . . Sample
Determination start 2023-12-08 13:03:23
Dilution factor 1.00

Anions

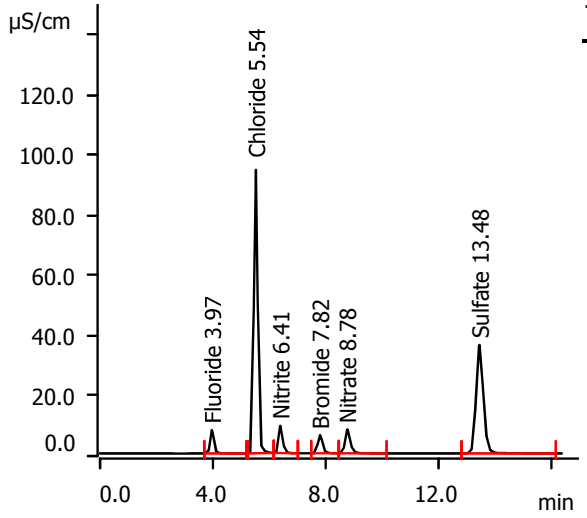


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.99	Fluoride	0.0011	0.002	0.002
13.55	Sulfate	0.0012	-0.040	-0.040

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-12-08 13:23:54
Dilution factor 1.00

Anions

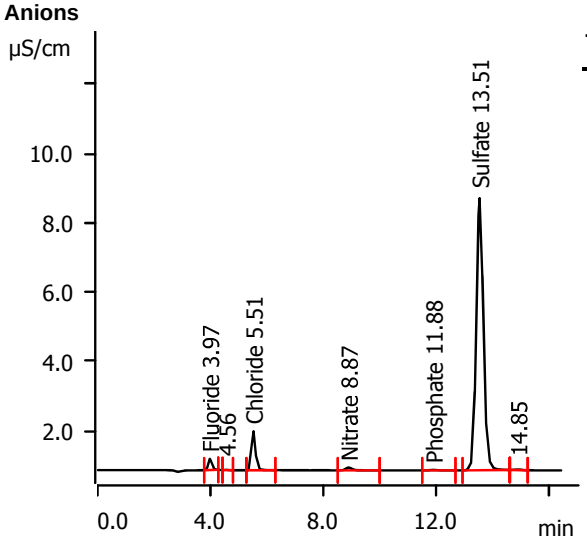


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1959	2.367	2.367
5.54	Chloride	14.6144	49.250	49.250
6.41	Nitrite	1.5940	2.544	2.544
7.82	Bromide	1.1817	9.985	9.985
8.78	Nitrate	1.7080	2.448	2.448
13.48	Sulfate	10.9871	49.406	49.406

Sample data

Ident B2
Sample type . . . . . Sample
Determination start 2023-12-08 13:44:27
Dilution factor 1.00

Anions

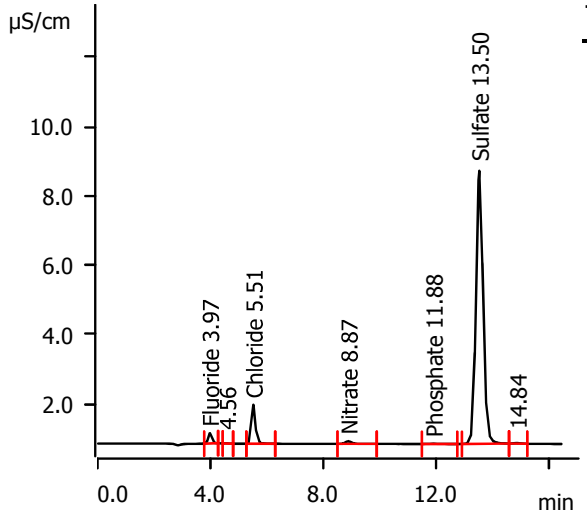


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0490	0.097	0.097
5.51	Chloride	0.1750	0.863	0.863
8.87	Nitrate	0.0195	0.077	0.077
11.88	Phosphate	0.0046	invalid	invalid
13.51	Sulfate	2.2958	10.288	10.288

Sample data

Ident FC11362-20LB
Sample type . . . . . Sample
Determination start 2023-12-08 14:05:01
Dilution factor 1.00

Anions

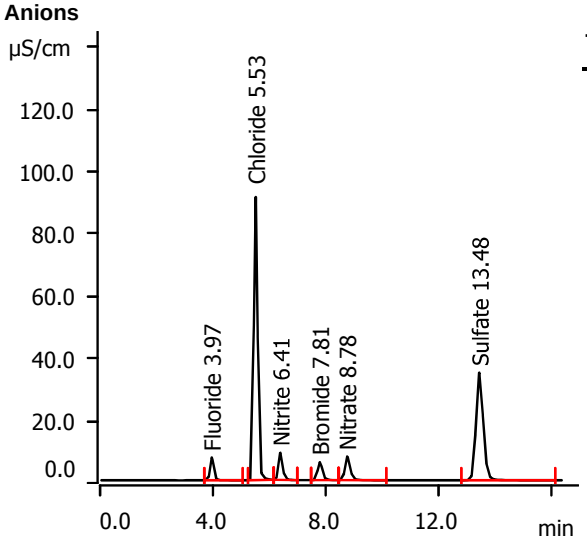


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0446	0.088	0.088
5.51	Chloride	0.1743	0.860	0.860
8.87	Nitrate	0.0192	0.077	0.077
11.88	Phosphate	0.0034	invalid	invalid
13.50	Sulfate	2.2993	10.303	10.303

Sample data

Ident B2
Sample type . . . . . Sample
Determination start 2023-12-08 14:25:33
Dilution factor 1.00

Anions

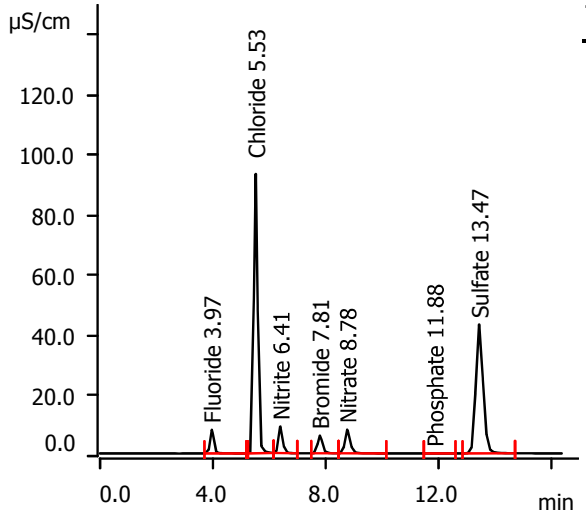


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1122	2.201	2.201
5.53	Chloride	14.0607	47.395	47.395
6.41	Nitrite	1.5341	2.450	2.450
7.81	Bromide	1.1344	9.589	9.589
8.78	Nitrate	1.6403	2.353	2.353
13.48	Sulfate	10.4798	47.123	47.123

Sample data

Ident FC11362-20LBS1
Sample type . . . . . Sample
Determination start 2023-12-08 14:46:05
Dilution factor 1.00

Anions

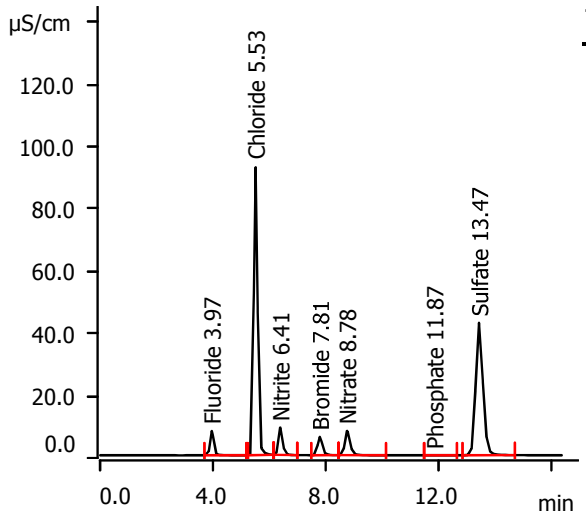


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.2063	2.387	2.387
5.53	Chloride	14.5124	48.909	48.909
6.41	Nitrite	1.5627	2.495	2.495
7.81	Bromide	1.1556	9.767	9.767
8.78	Nitrate	1.6970	2.433	2.433
11.88	Phosphate	0.0033	invalid	invalid
13.47	Sulfate	13.0114	58.517	58.517

Sample data

Ident FC11362-20LBS2
Sample type . . . . . Sample
Determination start 2023-12-08 15:06:41
Dilution factor 1.00

Anions

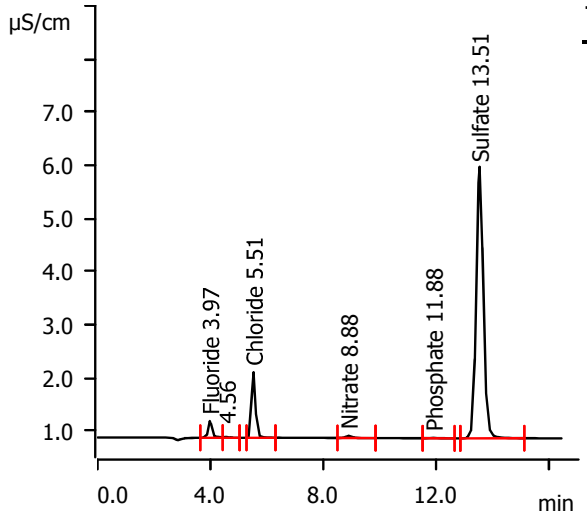


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1930	2.361	2.361
5.53	Chloride	14.3922	48.506	48.506
6.41	Nitrite	1.5462	2.469	2.469
7.81	Bromide	1.1448	9.677	9.677
8.78	Nitrate	1.6817	2.411	2.411
11.87	Phosphate	0.0029	invalid	invalid
13.47	Sulfate	12.9074	58.049	58.049

Sample data

Ident FC11432-1LB
Sample type . . . . . Sample
Determination start 2023-12-08 15:27:14
Dilution factor 1.00

Anions

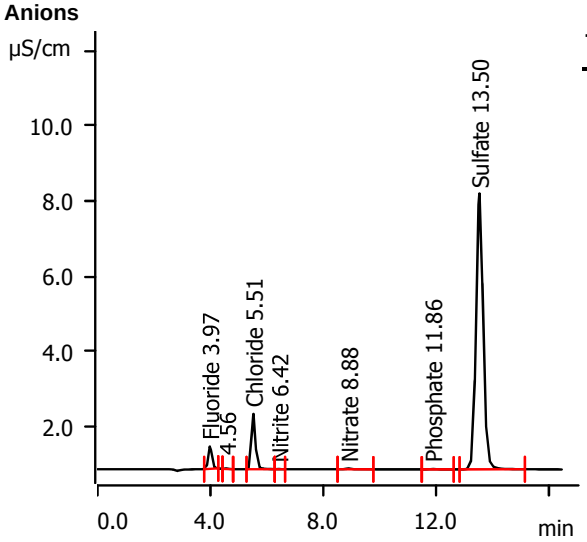


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0518	0.102	0.102
5.51	Chloride	0.1911	0.917	0.917
8.88	Nitrate	0.0099	0.064	0.064
11.88	Phosphate	0.0022	invalid	invalid
13.51	Sulfate	1.4925	6.672	6.672

Sample data

Ident FC11432-2LB
Sample type . . . . . Sample
Determination start 2023-12-08 15:47:46
Dilution factor 1.00

Anions

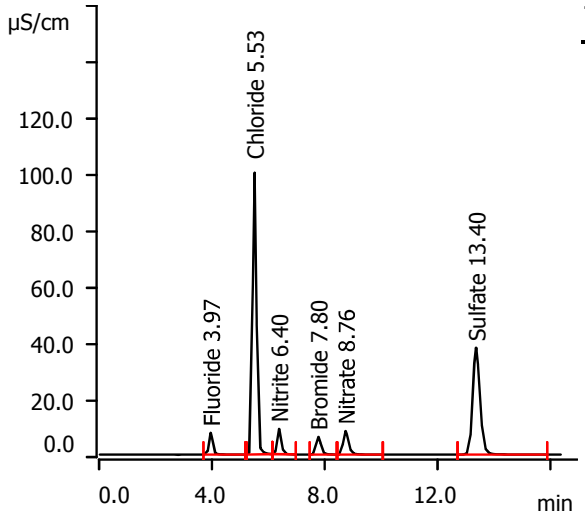


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0887	0.175	0.175
5.51	Chloride	0.2281	1.041	1.041
6.42	Nitrite	0.0003	0.037	0.037
8.88	Nitrate	0.0050	0.057	0.057
11.86	Phosphate	0.0030	invalid	invalid
13.50	Sulfate	2.1510	9.636	9.636

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-08 16:08:20
Dilution factor 1.00

Anions

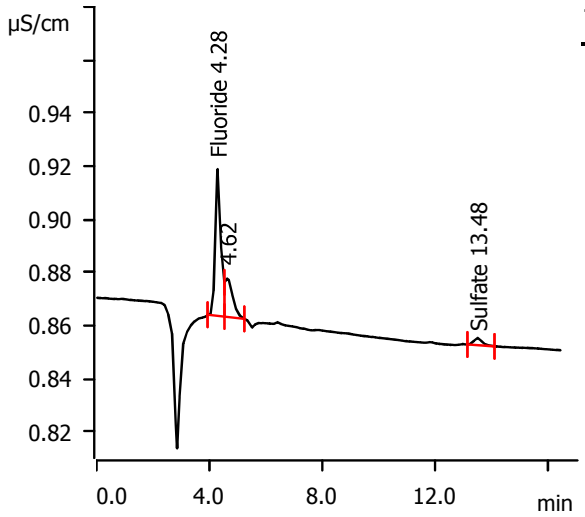


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1886	2.352	2.352
5.53	Chloride	15.5711	52.456	52.456
6.40	Nitrite	1.5771	2.517	2.517
7.80	Bromide	1.2324	10.409	10.409
8.76	Nitrate	1.7884	2.561	2.561
13.40	Sulfate	11.4458	51.471	51.471

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-08 16:28:59
Dilution factor 1.00

Anions

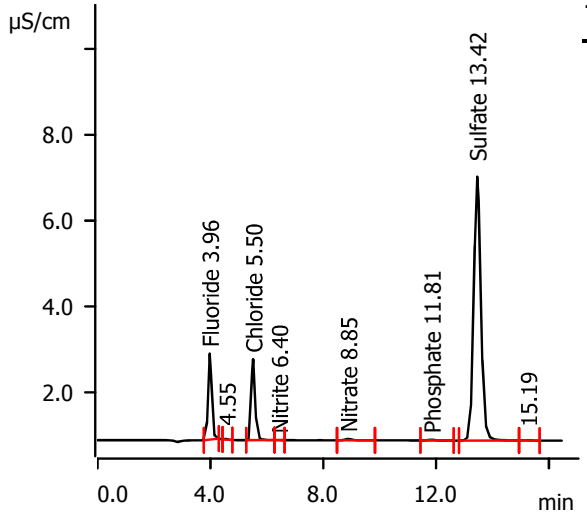


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0127	0.025	0.025
13.48	Sulfate	0.0009	-0.041	-0.041

Sample data

Ident FC11432-3LB
Sample type . . . . . Sample
Determination start 2023-12-08 16:49:33
Dilution factor 1.00

Anions

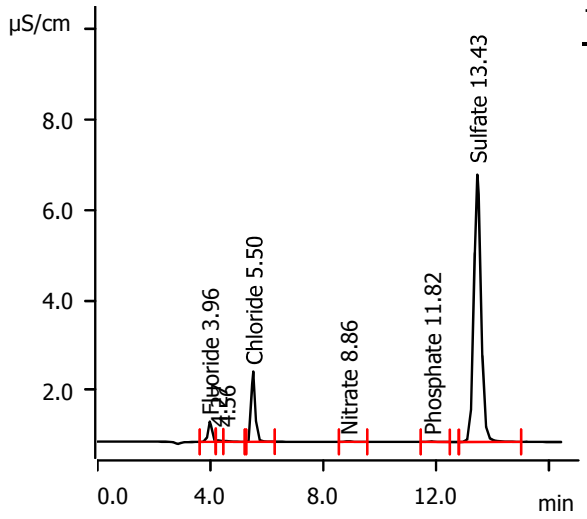


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.2913	0.576	0.576
5.50	Chloride	0.2910	1.251	1.251
6.40	Nitrite	0.0005	0.037	0.037
8.85	Nitrate	0.0083	0.062	0.062
11.81	Phosphate	0.0057	invalid	invalid
13.42	Sulfate	1.7907	8.015	8.015

Sample data

Ident FC11432-4LB
Sample type . . . . . Sample
Determination start 2023-12-08 17:10:11
Dilution factor 1.00

Anions

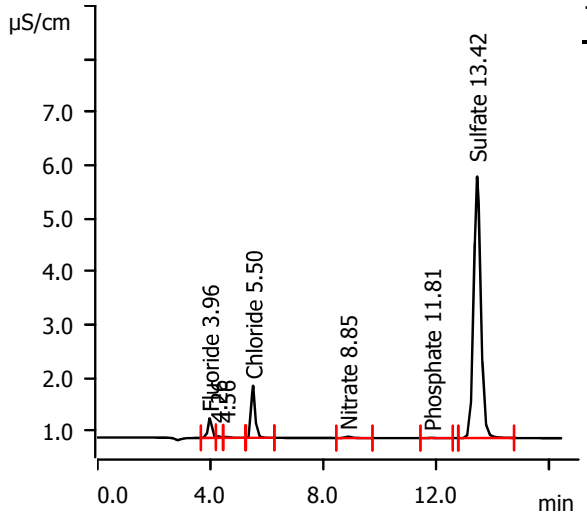


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0692	0.136	0.136
5.50	Chloride	0.2399	1.080	1.080
8.86	Nitrate	0.0032	0.055	0.055
11.82	Phosphate	0.0036	invalid	invalid
13.43	Sulfate	1.7202	7.697	7.697

Sample data

Ident FC11432-5LB
Sample type . . . . . Sample
Determination start 2023-12-08 17:30:44
Dilution factor 1.00

Anions

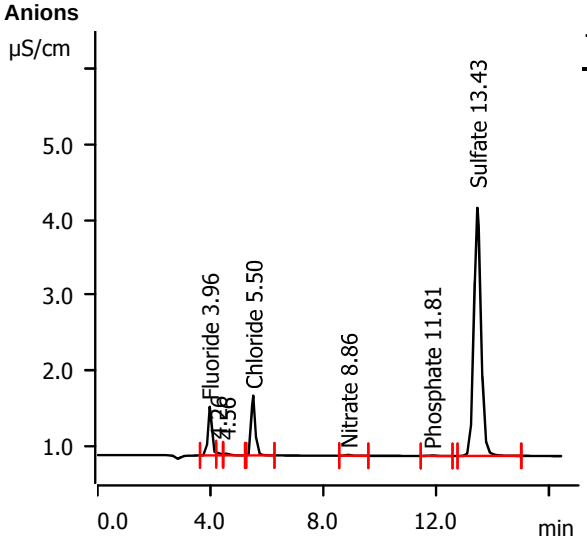


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0570	0.112	0.112
5.50	Chloride	0.1525	0.787	0.787
8.85	Nitrate	0.0064	0.059	0.059
11.81	Phosphate	0.0017	invalid	invalid
13.42	Sulfate	1.4271	6.378	6.378

Sample data

Ident FC11432-6LB
Sample type . . . . . Sample
Determination start 2023-12-08 17:51:17
Dilution factor 1.00

Anions

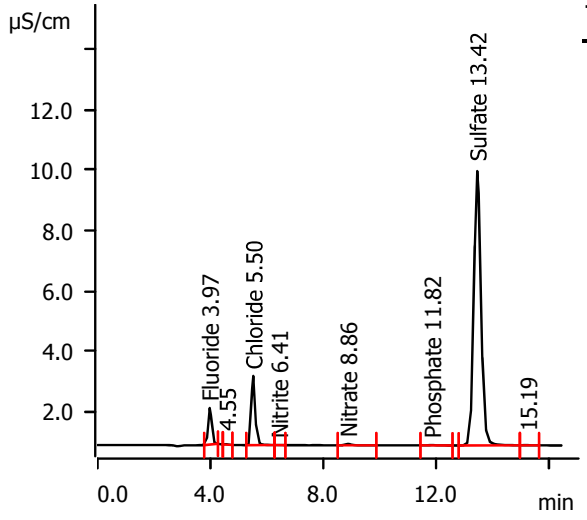


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0994	0.196	0.196
5.50	Chloride	0.1250	0.695	0.695
8.86	Nitrate	0.0029	0.054	0.054
11.81	Phosphate	0.0018	invalid	invalid
13.43	Sulfate	0.9580	4.267	4.267

Sample data

Ident FC11432-7LB
Sample type . . . . . Sample
Determination start 2023-12-08 18:11:51
Dilution factor 1.00

Anions

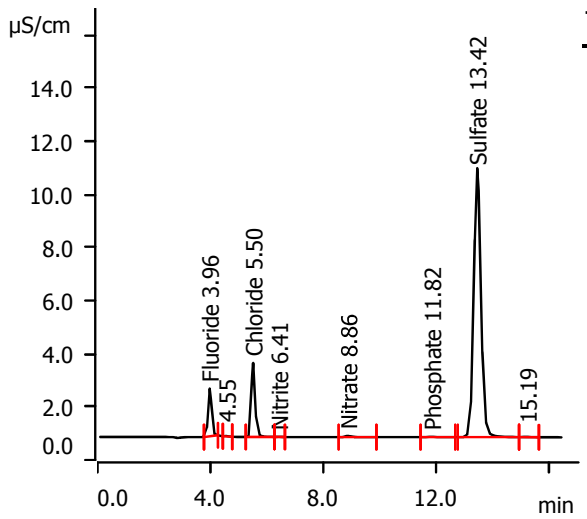


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.1762	0.348	0.348
5.50	Chloride	0.3525	1.457	1.457
6.41	Nitrite	0.0006	0.038	0.038
8.86	Nitrate	0.0110	0.066	0.066
11.82	Phosphate	0.0037	invalid	invalid
13.42	Sulfate	2.6659	11.954	11.954

Sample data

Ident FC11432-8LB
Sample type . . . . . Sample
Determination start 2023-12-08 18:32:25
Dilution factor 1.00

Anions

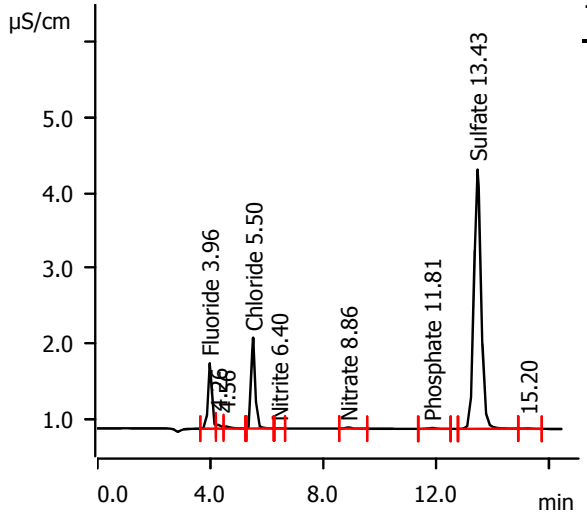


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.2580	0.510	0.510
5.50	Chloride	0.4246	1.699	1.699
6.41	Nitrite	0.0007	0.038	0.038
8.86	Nitrate	0.0115	0.066	0.066
11.82	Phosphate	0.0050	invalid	invalid
13.42	Sulfate	2.9679	13.313	13.313

Sample data

Ident FC11432-9LB
Sample type . . . . . Sample
Determination start 2023-12-08 18:52:57
Dilution factor 1.00

Anions

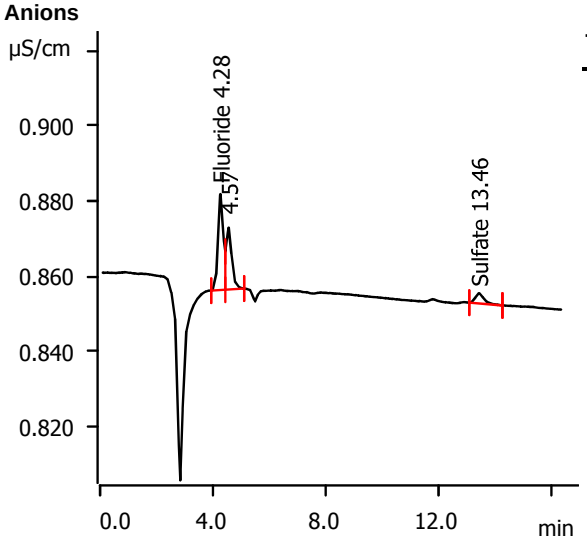


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.1311	0.259	0.259
5.50	Chloride	0.1870	0.903	0.903
6.40	Nitrite	0.0004	0.037	0.037
8.86	Nitrate	0.0040	0.056	0.056
11.81	Phosphate	0.0033	invalid	invalid
13.43	Sulfate	1.0012	4.461	4.461

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-12-08 19:13:32
Dilution factor 1.00

Anions

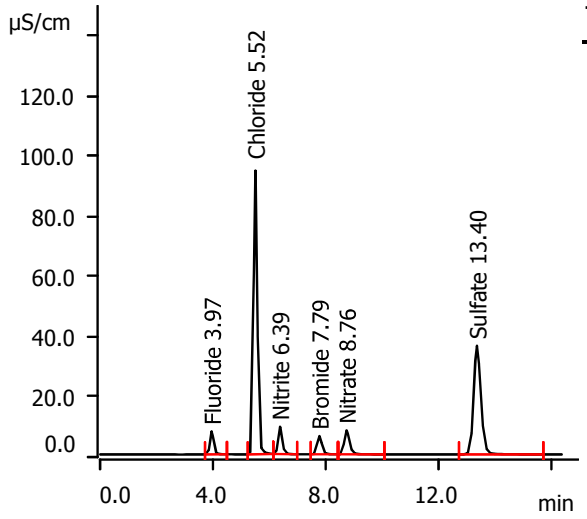


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0056	0.011	0.011
13.46	Sulfate	0.0010	-0.041	-0.041

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-12-08 19:34:04
Dilution factor 1.00

Anions

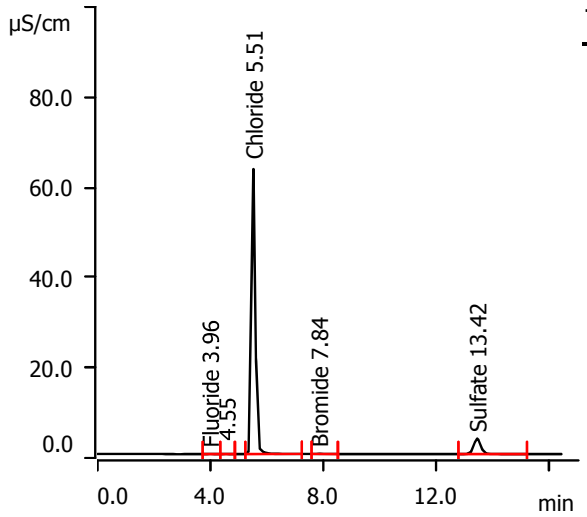


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1430	2.262	2.262
5.52	Chloride	14.5724	49.110	49.110
6.39	Nitrite	1.5899	2.537	2.537
7.79	Bromide	1.1792	9.964	9.964
8.76	Nitrate	1.7039	2.442	2.442
13.40	Sulfate	10.8586	48.828	48.828

Sample data

Ident FC11759-1
Sample type . . . . . Sample
Determination start 2023-12-08 19:54:37
Dilution factor 500.00

Anions

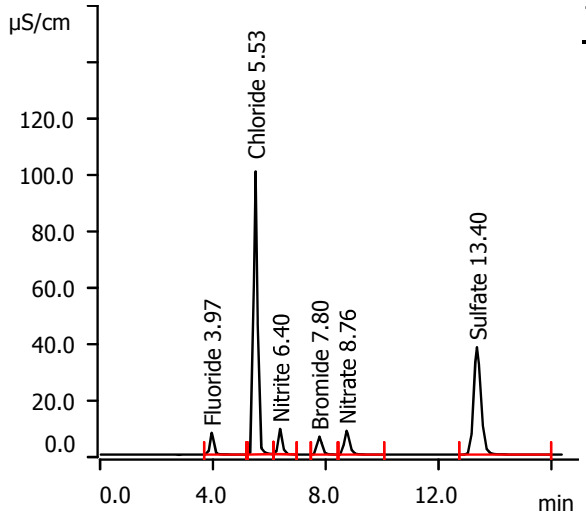


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0011	0.002	0.897
5.51	Chloride	9.7087	32.811	16405.433
7.84	Bromide	0.0111	0.201	100.419
13.42	Sulfate	0.9983	4.448	2224.071

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-08 20:14:56
Dilution factor 1.00

Anions

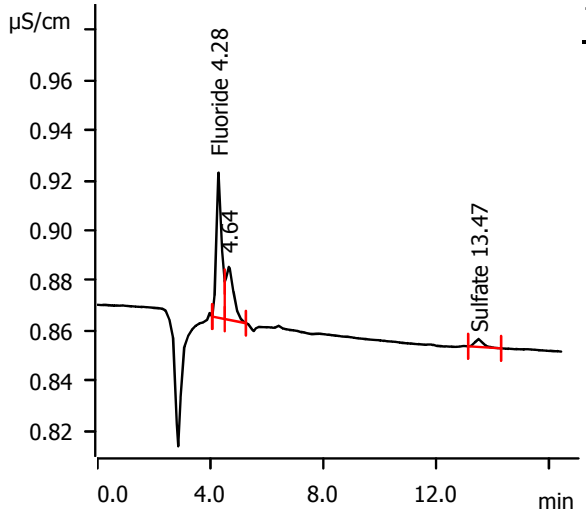


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1893	2.354	2.354
5.53	Chloride	15.6187	52.616	52.616
6.40	Nitrite	1.5700	2.506	2.506
7.80	Bromide	1.2371	10.448	10.448
8.76	Nitrate	1.7954	2.571	2.571
13.40	Sulfate	11.4796	51.623	51.623

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-08 20:35:32
Dilution factor 1.00

Anions

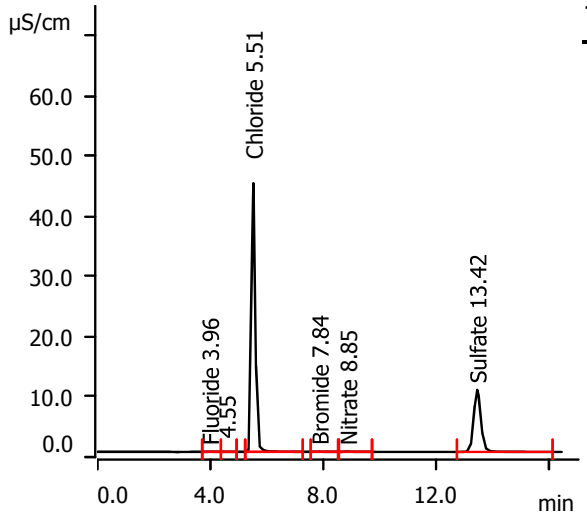


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0128	0.025	0.025
13.47	Sulfate	0.0011	-0.040	-0.040

Sample data

Ident FC11759-2
Sample type . . . . . Sample
Determination start 2023-12-08 20:56:05
Dilution factor 100.00

Anions

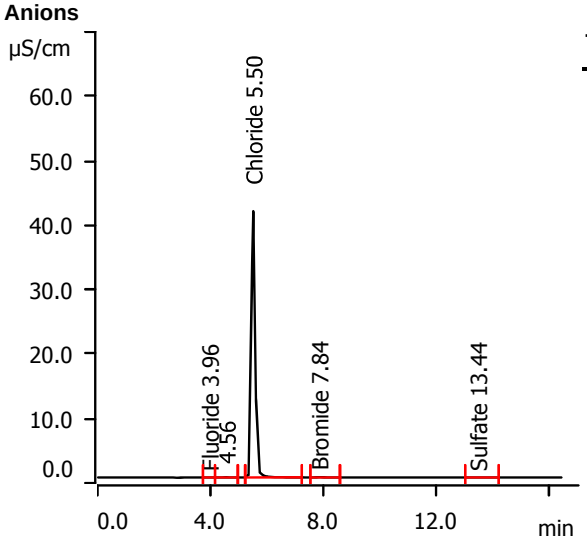


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0029	0.005	0.536
5.51	Chloride	6.8477	23.223	2322.345
7.84	Bromide	0.0088	0.182	18.156
8.85	Nitrate	0.0134	0.069	6.885
13.42	Sulfate	3.0249	13.569	1356.931

Sample data

Ident FC11759-3
Sample type . . . . . Sample
Determination start 2023-12-08 21:16:24
Dilution factor 200.00

Anions

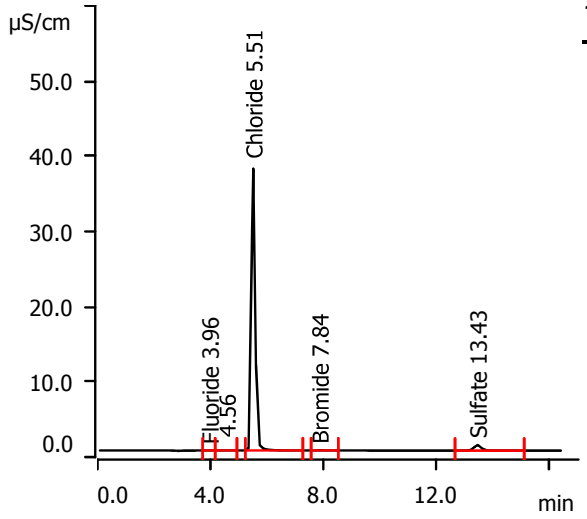


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0010	0.002	0.324
5.50	Chloride	6.2948	21.371	4274.107
7.84	Bromide	0.0087	0.180	36.071
13.44	Sulfate	0.0020	-0.036	-7.229

Sample data

Ident FC11759-4
Sample type . . . . . Sample
Determination start 2023-12-08 21:36:43
Dilution factor 200.00

Anions

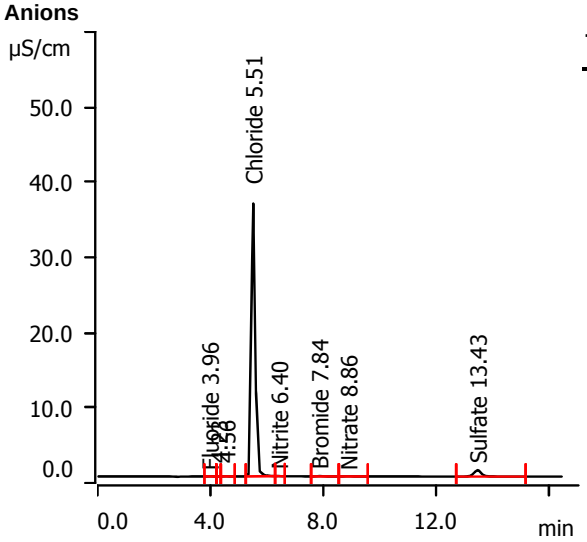


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0007	0.001	0.178
5.51	Chloride	5.7006	19.379	3875.884
7.84	Bromide	0.0064	0.161	32.229
13.43	Sulfate	0.2185	0.938	187.647

Sample data

Ident FC11759-4S1
Sample type . . . . . Sample
Determination start 2023-12-08 21:57:03
Dilution factor 200.00

Anions

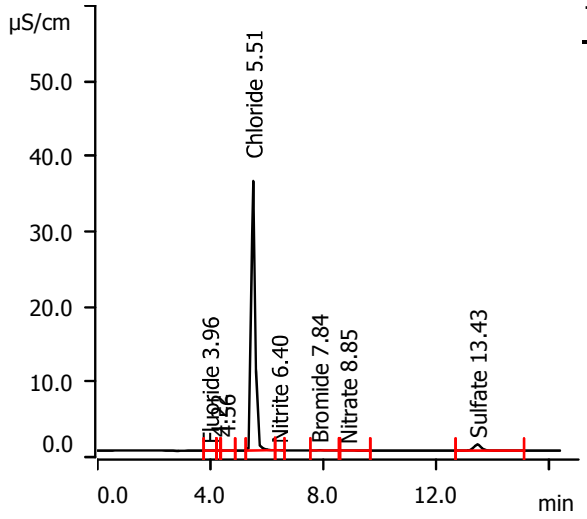


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0035	0.006	1.293
5.51	Chloride	5.5203	18.775	3755.026
6.40	Nitrite	0.0035	0.042	8.425
7.84	Bromide	0.0103	0.194	38.824
8.86	Nitrate	0.0060	0.058	11.685
13.43	Sulfate	0.2523	1.090	218.088

Sample data

Ident FC11759-4S2
Sample type . . . . . Sample
Determination start 2023-12-08 22:17:24
Dilution factor 200.00

Anions

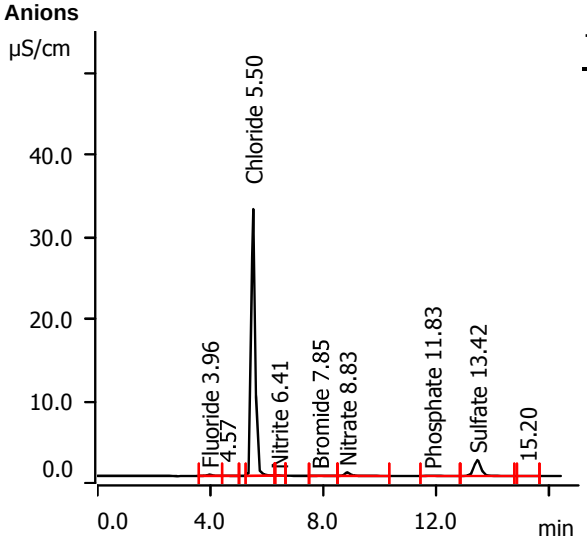


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0035	0.007	1.312
5.51	Chloride	5.4273	18.464	3692.723
6.40	Nitrite	0.0034	0.042	8.410
7.84	Bromide	0.0100	0.192	38.340
8.85	Nitrate	0.0059	0.058	11.660
13.43	Sulfate	0.2466	1.065	213.004

Sample data

Ident FC11584-2
Sample type . . . . . Sample
Determination start 2023-12-08 22:37:44
Dilution factor 5.00

Anions

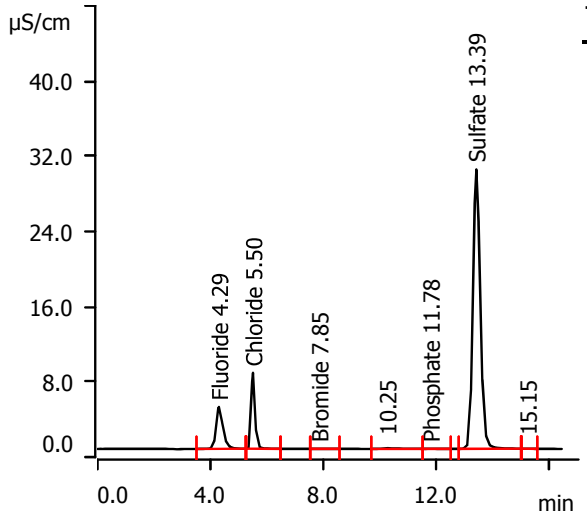


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0304	0.060	0.299
5.50	Chloride	4.9980	17.025	85.125
6.41	Nitrite	0.0046	0.044	0.220
7.85	Bromide	0.0034	0.137	0.683
8.83	Nitrate	0.0963	0.185	0.926
11.83	Phosphate	0.0106	invalid	invalid
13.42	Sulfate	0.5622	2.485	12.426

Sample data

Ident FC11725-1
Sample type . . . . . Sample
Determination start 2023-12-08 22:58:06
Dilution factor 50.00

Anions

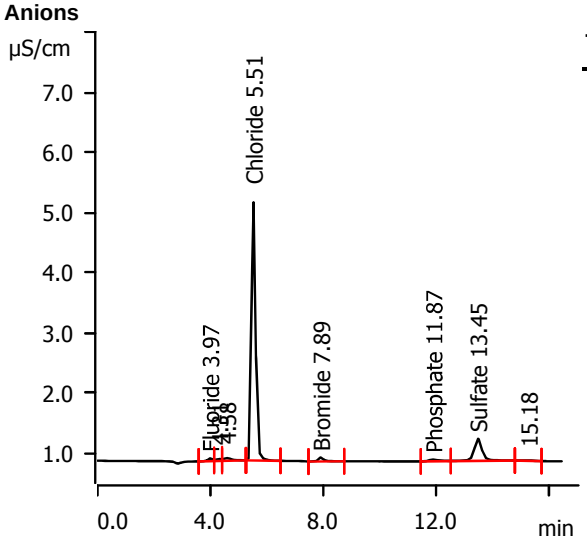


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.29	Fluoride	1.2480	2.470	123.491
5.50	Chloride	1.2302	4.399	219.938
7.85	Bromide	0.0011	0.118	5.877
11.78	Phosphate	0.0052	invalid	invalid
13.39	Sulfate	8.8754	39.901	1995.075

Sample data

Ident FC11627-1
Sample type . . . . . Sample
Determination start 2023-12-08 23:18:27
Dilution factor 5.00

Anions

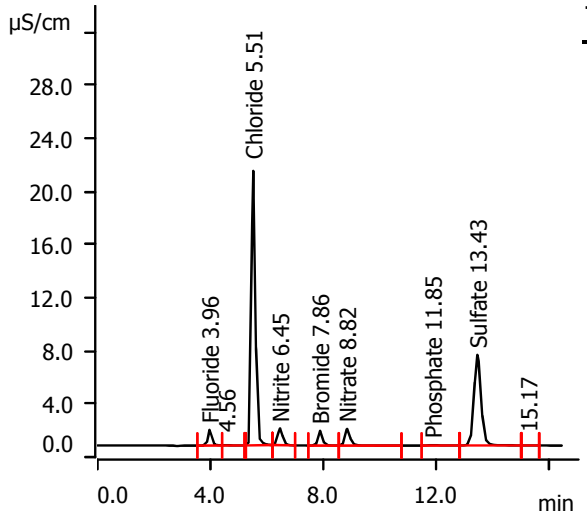


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0086	0.017	0.083
5.51	Chloride	0.6885	2.583	12.917
7.89	Bromide	0.0152	0.235	1.175
11.87	Phosphate	0.0126	invalid	invalid
13.45	Sulfate	0.1234	0.510	2.552

Sample data

Ident FC11627-1S3
Sample type . . . . . Sample
Determination start 2023-12-08 23:38:49
Dilution factor 5.00

Anions

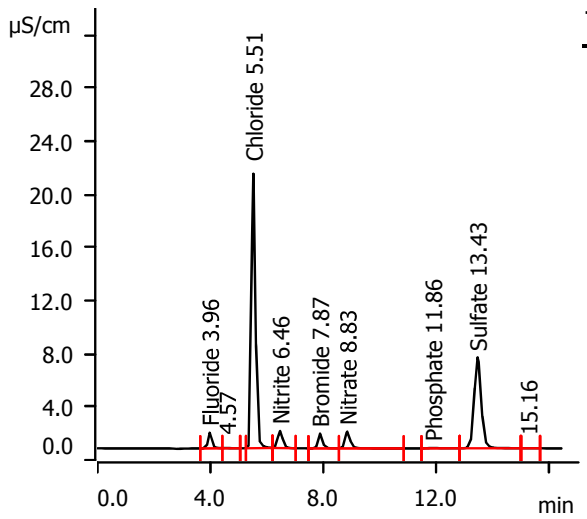


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.1854	0.366	1.832
5.51	Chloride	3.3092	11.366	56.828
6.45	Nitrite	0.2485	0.427	2.137
7.86	Bromide	0.2043	1.816	9.079
8.82	Nitrate	0.2713	0.431	2.154
11.85	Phosphate	0.0146	invalid	invalid
13.43	Sulfate	1.9798	8.866	44.328

Sample data

Ident FC11627-1S4
Sample type . . . . . Sample
Determination start 2023-12-08 23:59:10
Dilution factor 5.00

Anions

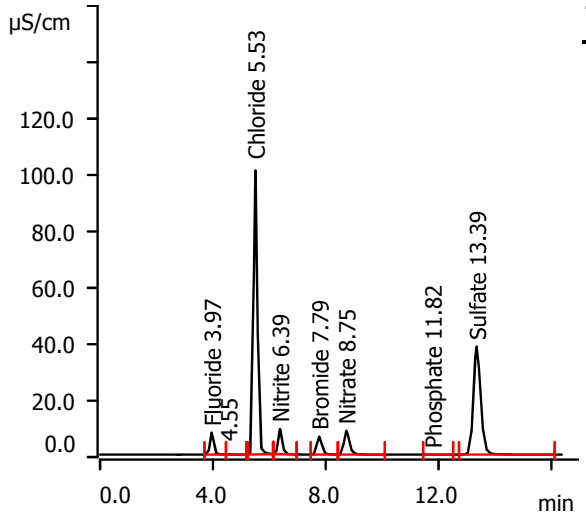


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.1874	0.370	1.852
5.51	Chloride	3.3254	11.420	57.100
6.46	Nitrite	0.2502	0.430	2.151
7.87	Bromide	0.2057	1.827	9.136
8.83	Nitrate	0.2732	0.434	2.168
11.86	Phosphate	0.0157	invalid	invalid
13.43	Sulfate	1.9931	8.925	44.627

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-09 00:19:32
Dilution factor 1.00

Anions

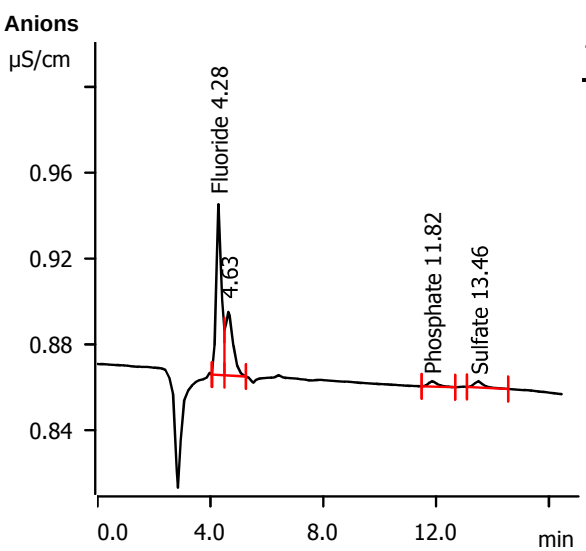


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1863	2.348	2.348
5.53	Chloride	15.6665	52.776	52.776
6.39	Nitrite	1.5647	2.498	2.498
7.79	Bromide	1.2412	10.482	10.482
8.75	Nitrate	1.8010	2.579	2.579
11.82	Phosphate	0.0014	invalid	invalid
13.39	Sulfate	11.5410	51.899	51.899

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-09 00:40:15
Dilution factor 1.00

Anions

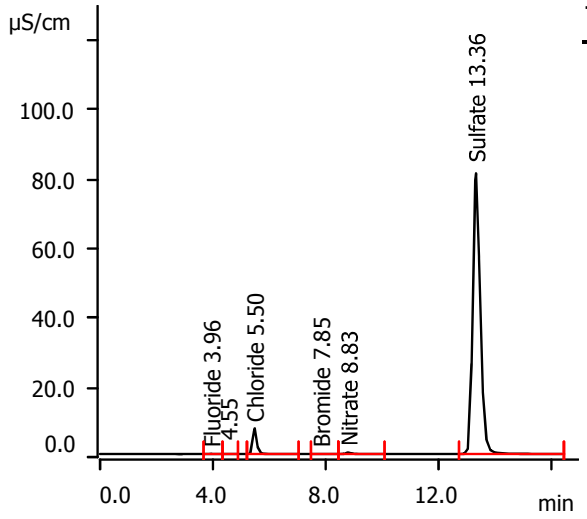


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0175	0.034	0.034
11.82	Phosphate	0.0010	invalid	invalid
13.46	Sulfate	0.0011	-0.040	-0.040

Sample data

Ident FC11635-1
Sample type . . . . . Sample
Determination start 2023-12-09 01:00:51
Dilution factor 25.00

Anions

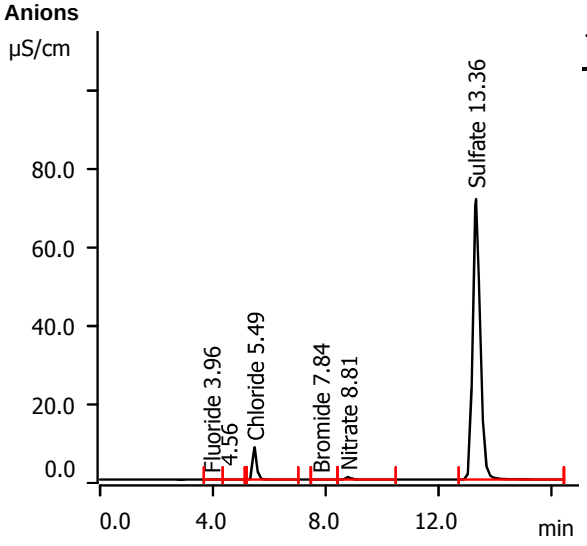


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0065	0.013	0.313
5.50	Chloride	1.1345	4.078	101.952
7.85	Bromide	0.0033	0.136	3.391
8.83	Nitrate	0.0994	0.190	4.739
13.36	Sulfate	25.1005	112.928	2823.200

Sample data

Ident FC11635-2
Sample type . . . . . Sample
Determination start 2023-12-09 01:21:12
Dilution factor 25.00

Anions

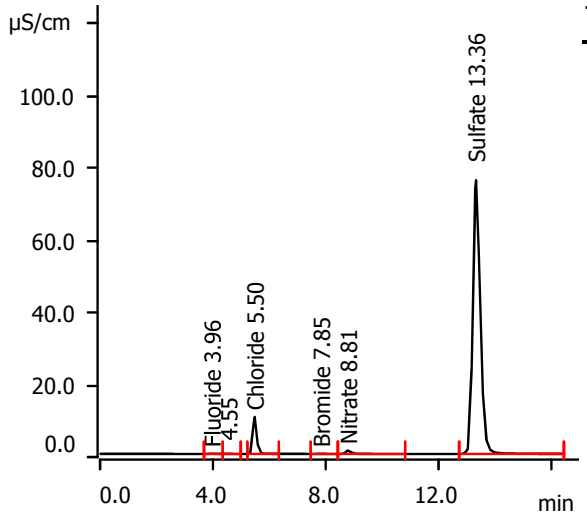


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0065	0.012	0.312
5.49	Chloride	1.2551	4.482	112.053
7.84	Bromide	0.0035	0.137	3.429
8.81	Nitrate	0.1461	0.255	6.377
13.36	Sulfate	22.0313	99.114	2477.846

Sample data

Ident FC11635-3
Sample type . . . . . Sample
Determination start 2023-12-09 01:41:33
Dilution factor 25.00

Anions

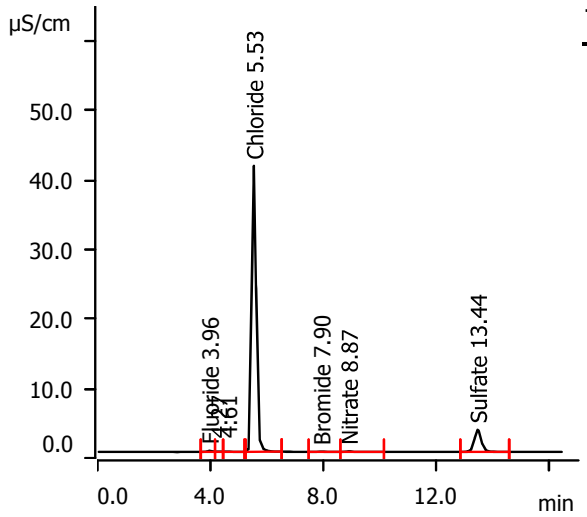


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0060	0.011	0.284
5.50	Chloride	1.5519	5.477	136.915
7.85	Bromide	0.0034	0.137	3.413
8.81	Nitrate	0.2052	0.338	8.454
13.36	Sulfate	23.4230	105.378	2634.446

Sample data

Ident FC11636-1B
Sample type . . . . . Sample
Determination start 2023-12-09 02:01:55
Dilution factor 1.00

Anions

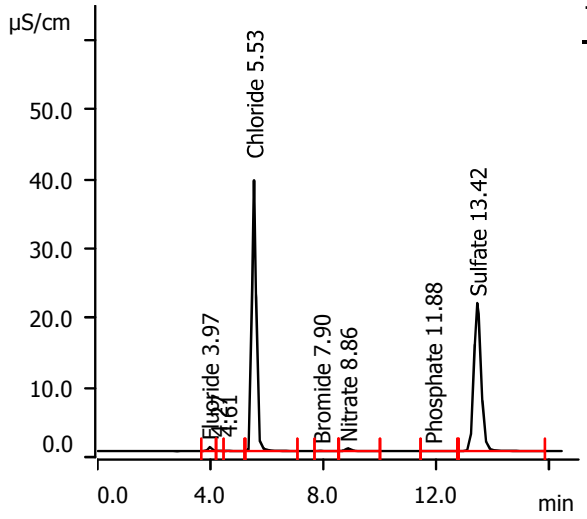


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0285	0.056	0.056
5.53	Chloride	7.3160	24.793	24.793
7.90	Bromide	0.0156	0.238	0.238
8.87	Nitrate	0.0222	0.081	0.081
13.44	Sulfate	0.9166	4.081	4.081

Sample data

Ident FC11642-2
Sample type . . . . . Sample
Determination start 2023-12-09 02:22:35
Dilution factor 1.00

Anions

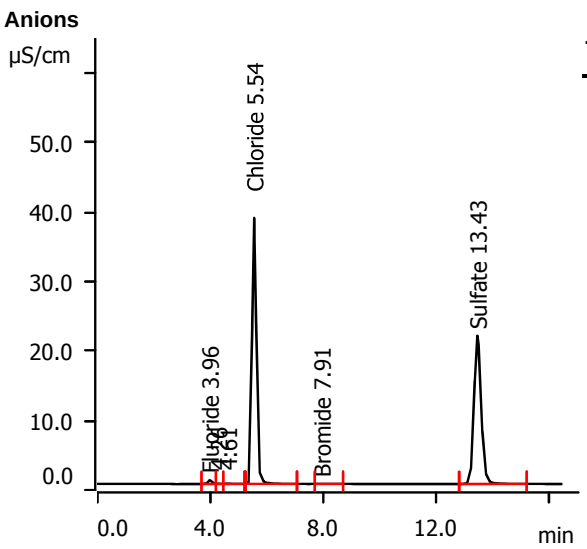


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0896	0.177	0.177
5.53	Chloride	6.6190	22.457	22.457
7.90	Bromide	0.0049	0.149	0.149
8.86	Nitrate	0.0873	0.173	0.173
11.88	Phosphate	0.0027	invalid	invalid
13.42	Sulfate	6.2986	28.304	28.304

Sample data

Ident FC11642-3
Sample type . . . . . Sample
Determination start 2023-12-09 02:43:09
Dilution factor 1.00

Anions

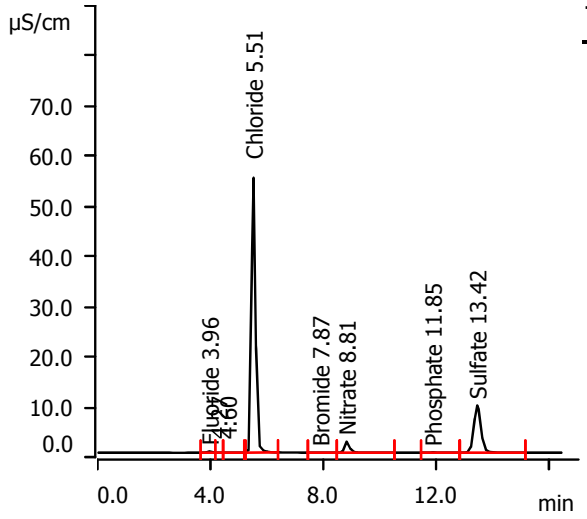


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0889	0.176	0.176
5.54	Chloride	6.6248	22.476	22.476
7.91	Bromide	0.0049	0.149	0.149
13.43	Sulfate	6.2886	28.259	28.259

Sample data

Ident FC11642-4
Sample type . . . . . Sample
Determination start 2023-12-09 03:03:44
Dilution factor 1.00

Anions

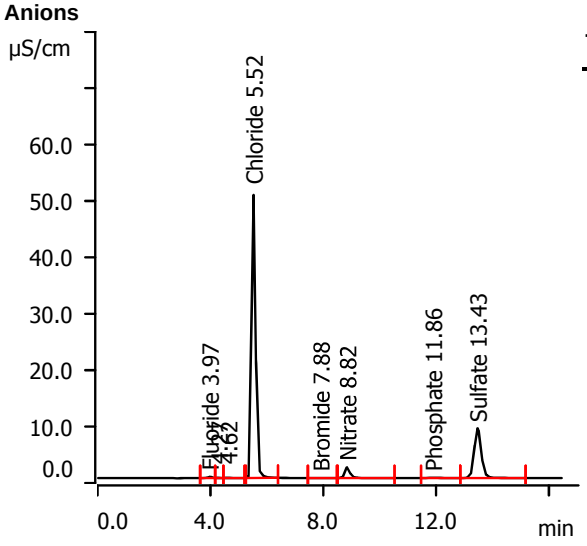


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0409	0.080	0.080
5.51	Chloride	8.7454	29.583	29.583
7.87	Bromide	0.0039	0.141	0.141
8.81	Nitrate	0.4624	0.699	0.699
11.85	Phosphate	0.0244	invalid	invalid
13.42	Sulfate	2.7395	12.285	12.285

Sample data

Ident FC11642-5
Sample type . . . . . Sample
Determination start 2023-12-09 03:24:19
Dilution factor 1.00

Anions

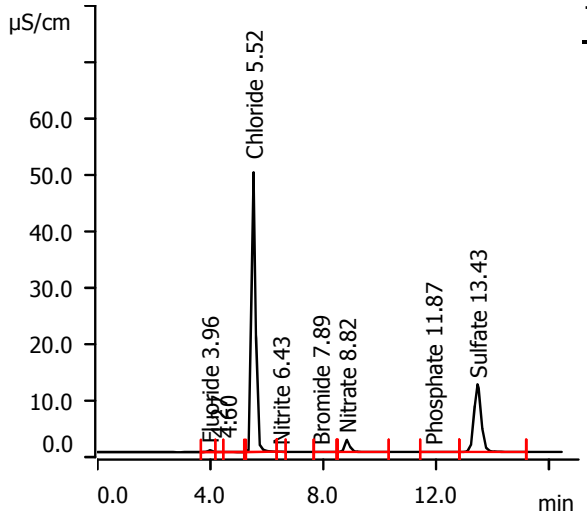


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0377	0.074	0.074
5.52	Chloride	7.9391	26.881	26.881
7.88	Bromide	0.0036	0.138	0.138
8.82	Nitrate	0.4032	0.616	0.616
11.86	Phosphate	0.0252	invalid	invalid
13.43	Sulfate	2.5666	11.507	11.507

Sample data

Ident FC11642-6
Sample type . . . . . Sample
Determination start 2023-12-09 03:44:55
Dilution factor 1.00

Anions

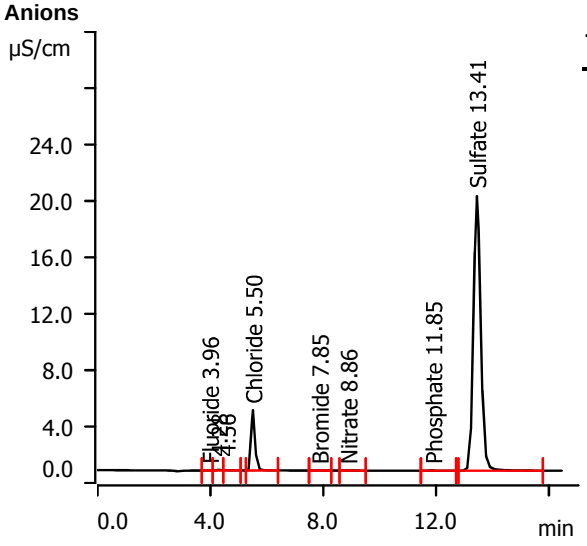


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0513	0.101	0.101
5.52	Chloride	7.9119	26.790	26.790
6.43	Nitrite	0.0020	0.040	0.040
7.89	Bromide	0.0027	0.131	0.131
8.82	Nitrate	0.4491	0.681	0.681
11.87	Phosphate	0.0120	invalid	invalid
13.43	Sulfate	3.4994	15.705	15.705

Sample data

Ident FC11657-1
Sample type . . . . . Sample
Determination start 2023-12-09 04:05:29
Dilution factor 5.00

Anions

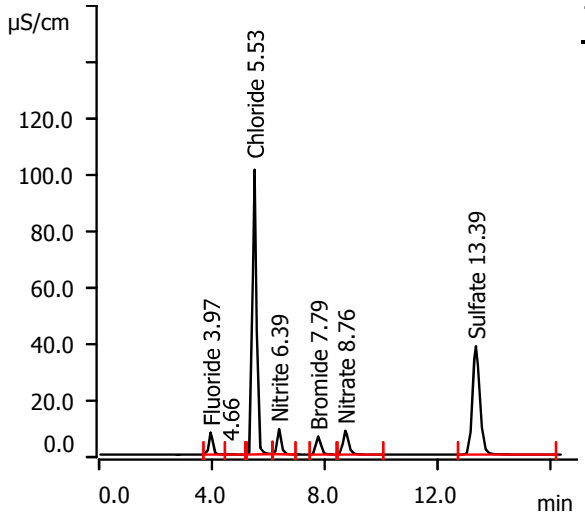


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0014	0.002	0.012
5.50	Chloride	0.6528	2.464	12.319
7.85	Bromide	0.0032	0.135	0.674
8.86	Nitrate	0.0016	0.052	0.261
11.85	Phosphate	0.0021	invalid	invalid
13.41	Sulfate	5.7760	25.952	129.760

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-09 04:25:50
Dilution factor 1.00

Anions

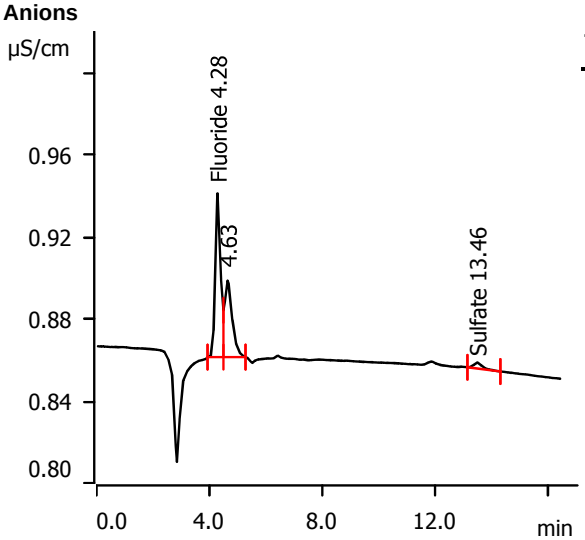


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.1926	2.360	2.360
5.53	Chloride	15.7210	52.959	52.959
6.39	Nitrite	1.5597	2.490	2.490
7.79	Bromide	1.2453	10.517	10.517
8.76	Nitrate	1.8070	2.587	2.587
13.39	Sulfate	11.5786	52.068	52.068

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-09 04:46:33
Dilution factor 1.00

Anions

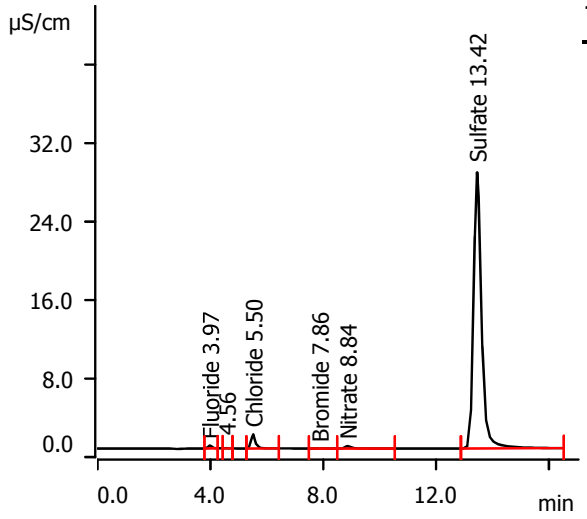


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0177	0.035	0.035
13.46	Sulfate	0.0010	-0.040	-0.040

Sample data

Ident FC11657-4
Sample type . . . . . Sample
Determination start 2023-12-09 05:07:10
Dilution factor 10.00

Anions

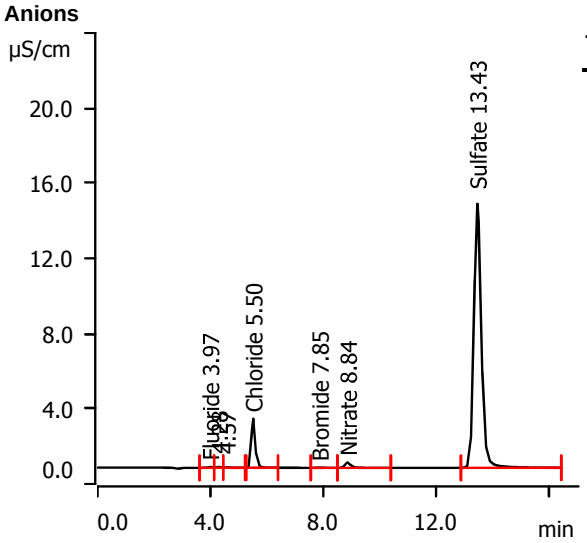


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0445	0.088	0.876
5.50	Chloride	0.2368	1.070	10.695
7.86	Bromide	0.0021	0.126	1.258
8.84	Nitrate	0.0634	0.139	1.390
13.42	Sulfate	9.1799	41.272	412.722

Sample data

Ident FC11657-5
Sample type . . . . . Sample
Determination start 2023-12-09 05:27:30
Dilution factor 5.00

Anions

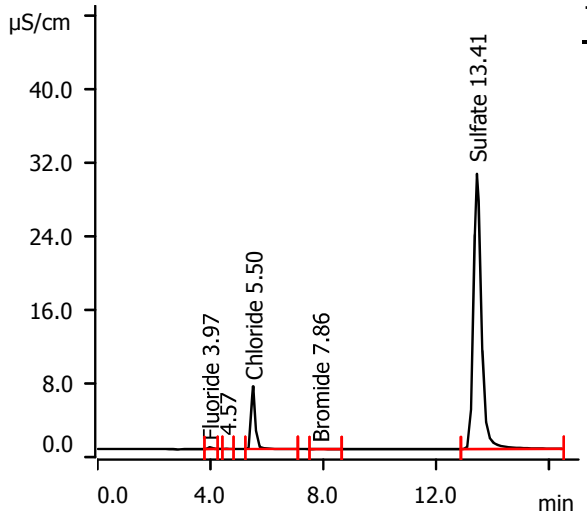


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0072	0.014	0.069
5.50	Chloride	0.4027	1.625	8.127
7.85	Bromide	0.0015	0.120	0.602
8.84	Nitrate	0.0661	0.143	0.714
13.43	Sulfate	4.3114	19.360	96.799

Sample data

Ident FC11657-8
Sample type . . . . . Sample
Determination start 2023-12-09 05:47:51
Dilution factor 5.00

Anions

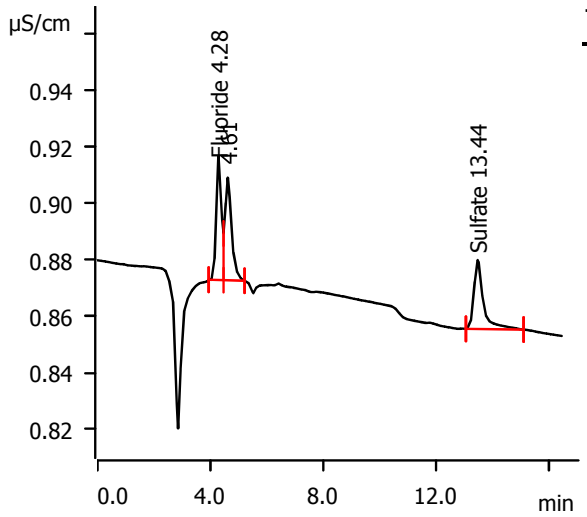


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0297	0.058	0.292
5.50	Chloride	1.0865	3.917	19.585
7.86	Bromide	0.0024	0.128	0.639
13.41	Sulfate	9.6753	43.502	217.510

Sample data

Ident MB1
Sample type . . . . . Sample
Determination start 2023-12-09 06:08:11
Dilution factor 1.00

Anions

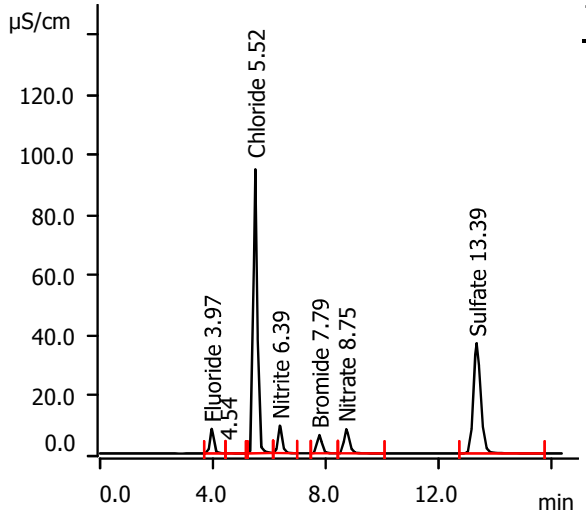


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.28	Fluoride	0.0095	0.018	0.018
13.44	Sulfate	0.0095	-0.002	-0.002

Sample data

Ident B1
Sample type . . . . . Sample
Determination start 2023-12-09 06:28:52
Dilution factor 1.00

Anions

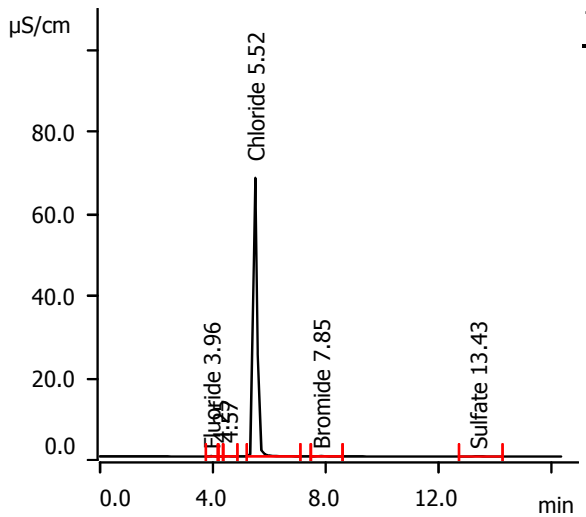


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.2675	2.508	2.508
5.52	Chloride	14.6244	49.284	49.284
6.39	Nitrite	1.5949	2.545	2.545
7.79	Bromide	1.1832	9.997	9.997
8.75	Nitrate	1.7080	2.448	2.448
13.39	Sulfate	11.0515	49.696	49.696

Sample data

Ident FC11687-7
Sample type . . . . . Sample
Determination start 2023-12-09 06:49:33
Dilution factor 10.00

Anions

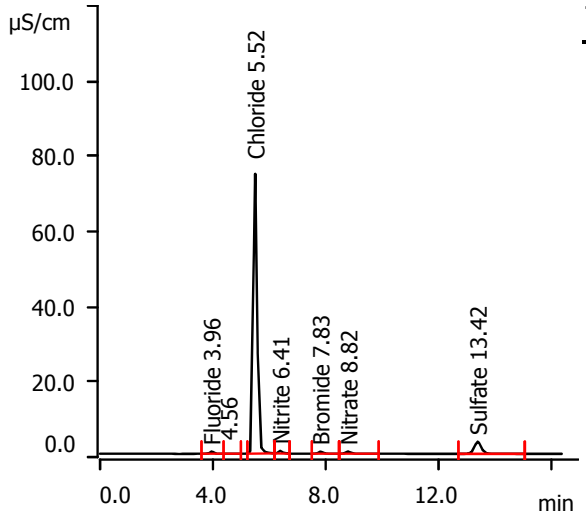


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0128	0.025	0.248
5.52	Chloride	10.4926	35.438	354.378
7.85	Bromide	0.0167	0.248	2.479
13.43	Sulfate	0.0198	0.044	0.441

Sample data

Ident FC11687-7S1
Sample type . . . . . Sample
Determination start 2023-12-09 07:09:53
Dilution factor 10.00

Anions

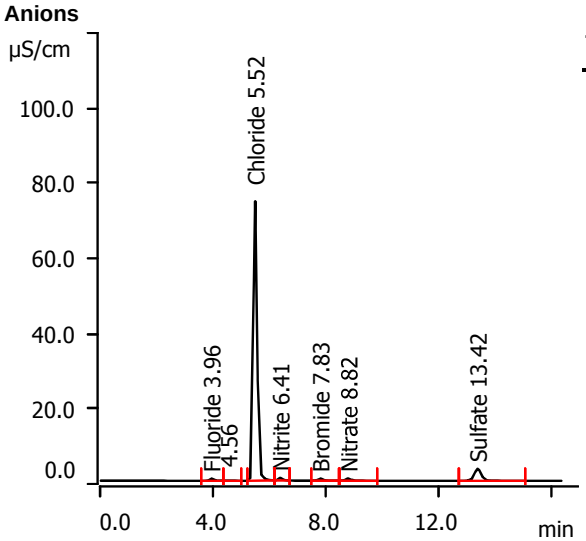


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0946	0.187	1.868
5.52	Chloride	11.5349	38.931	389.308
6.41	Nitrite	0.1182	0.223	2.226
7.83	Bromide	0.1103	1.030	10.298
8.82	Nitrate	0.1314	0.235	2.346
13.42	Sulfate	0.9343	4.160	41.600

Sample data

Ident FC11687-7S2
Sample type . . . . . Sample
Determination start 2023-12-09 07:30:14
Dilution factor 10.00

Anions

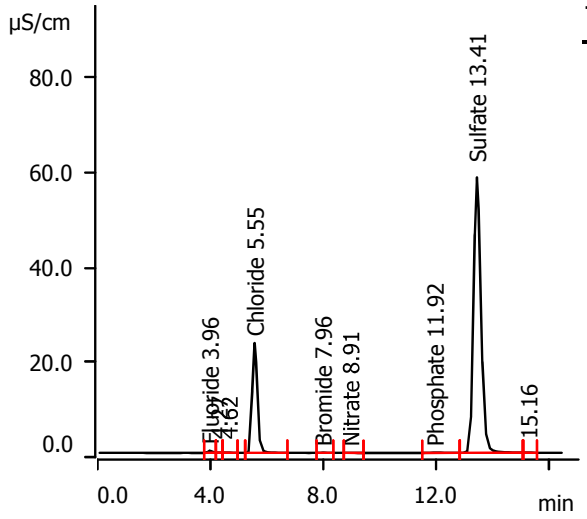


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0949	0.187	1.875
5.52	Chloride	11.4773	38.738	387.377
6.41	Nitrite	0.1179	0.222	2.221
7.83	Bromide	0.1094	1.022	10.223
8.82	Nitrate	0.1303	0.233	2.330
13.42	Sulfate	0.9244	4.116	41.156

Sample data

Ident FC11687-8
Sample type . . . . . Sample
Determination start 2023-12-09 07:50:35
Dilution factor 1.00

Anions

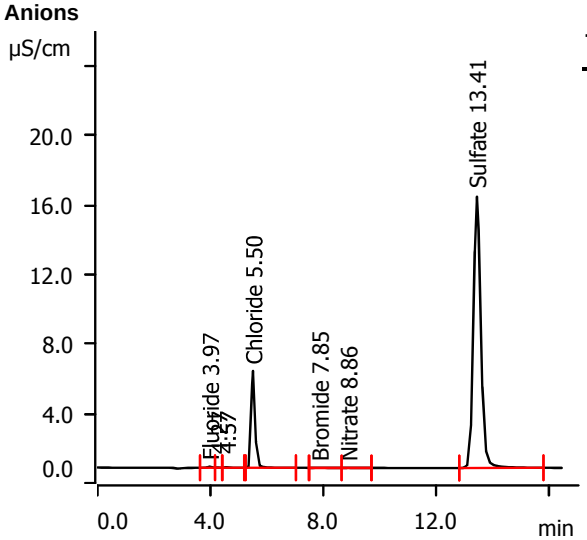


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0696	0.137	0.137
5.55	Chloride	4.7657	16.246	16.246
7.96	Bromide	0.0085	0.179	0.179
8.91	Nitrate	0.0016	0.052	0.052
11.92	Phosphate	0.0328	invalid	invalid
13.41	Sulfate	17.4065	78.299	78.299

Sample data

Ident FC11728-10
Sample type . . . . . Sample
Determination start 2023-12-09 08:11:17
Dilution factor 5.00

Anions

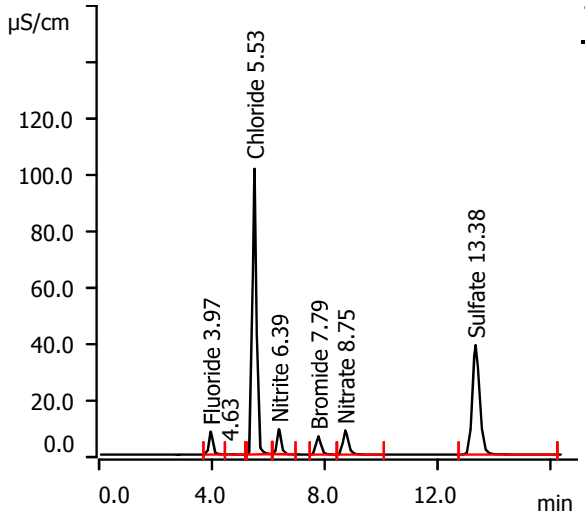


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0115	0.022	0.111
5.50	Chloride	0.8611	3.162	15.809
7.85	Bromide	0.0026	0.130	0.649
8.86	Nitrate	0.0011	0.052	0.258
13.41	Sulfate	4.7313	21.250	106.249

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-09 08:31:38
Dilution factor 1.00

Anions

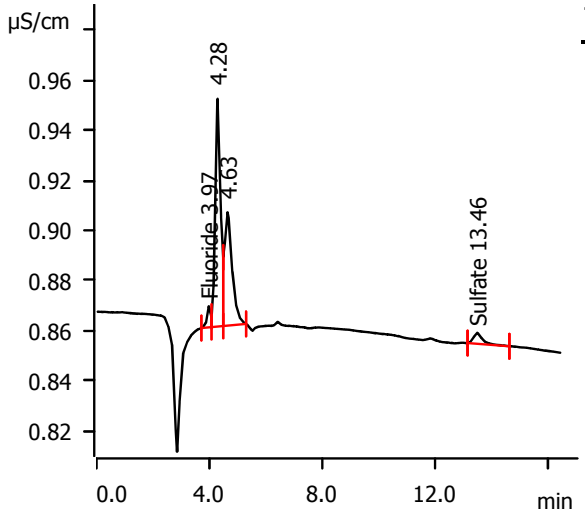


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	1.2686	2.511	2.511
5.53	Chloride	15.7857	53.176	53.176
6.39	Nitrite	1.5543	2.481	2.481
7.79	Bromide	1.2510	10.564	10.564
8.75	Nitrate	1.8147	2.598	2.598
13.38	Sulfate	11.7274	52.738	52.738

Sample data

Ident . . . . . CCB
Sample type . . . . . Sample
Determination start 2023-12-09 08:52:20
Dilution factor 1.00

Anions

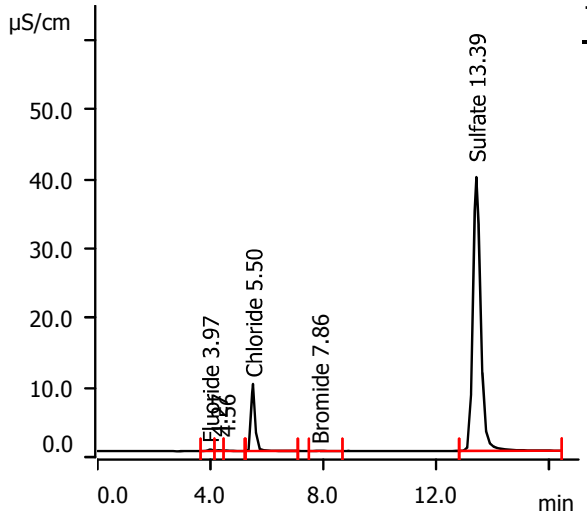


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0013	0.002	0.002
13.46	Sulfate	0.0016	-0.038	-0.038

Sample data

Ident FC11728-14
Sample type . . . . . Sample
Determination start 2023-12-09 09:13:08
Dilution factor 5.00

Anions

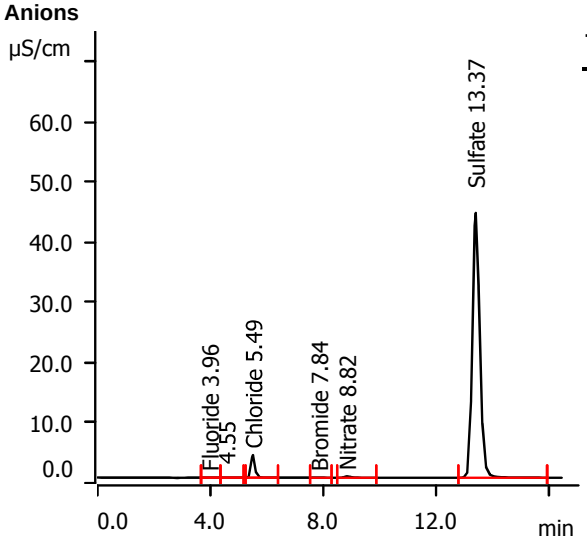


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.97	Fluoride	0.0354	0.070	0.348
5.50	Chloride	1.5219	5.376	26.881
7.86	Bromide	0.0042	0.144	0.718
13.39	Sulfate	12.4514	55.996	279.982

Sample data

Ident FC11635-1
Sample type . . . . . Sample
Determination start 2023-12-09 09:33:34
Dilution factor 50.00

Anions

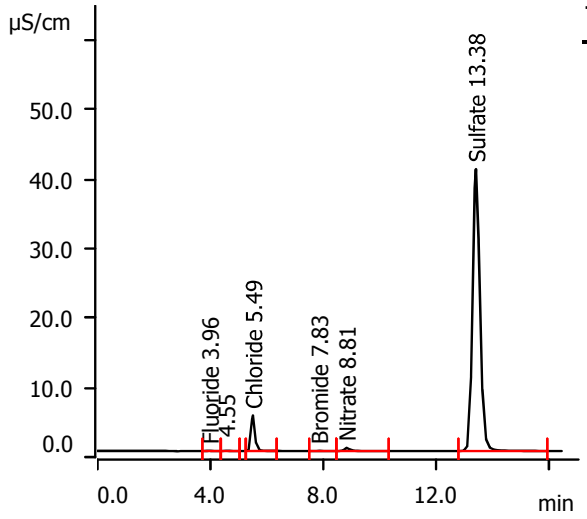


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0038	0.007	0.354
5.49	Chloride	0.5706	2.188	109.412
7.84	Bromide	0.0017	0.122	6.110
8.82	Nitrate	0.0511	0.122	6.087
13.37	Sulfate	13.2907	59.774	2988.712

Sample data

Ident FC11635-3
Sample type . . . . . Sample
Determination start 2023-12-09 09:53:56
Dilution factor 50.00

Anions

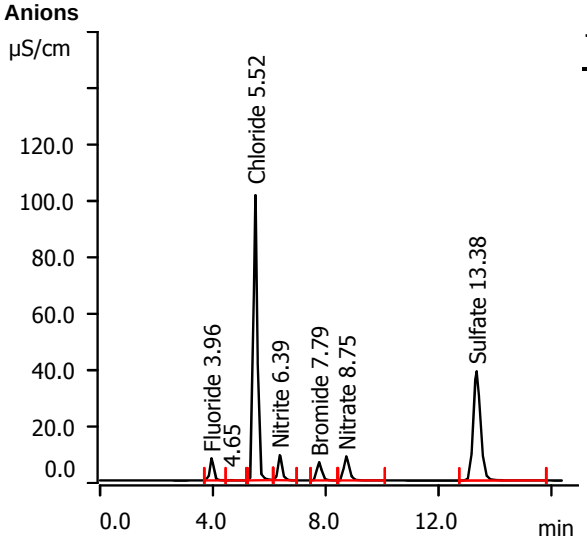


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	0.0033	0.006	0.309
5.49	Chloride	0.7722	2.864	143.194
7.83	Bromide	0.0019	0.124	6.180
8.81	Nitrate	0.1016	0.193	9.631
13.38	Sulfate	12.2156	54.935	2746.761

Sample data

Ident CCV
Sample type . . . . . Sample
Determination start 2023-12-09 10:14:16
Dilution factor 1.00

Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
3.96	Fluoride	1.2105	2.395	2.395
5.52	Chloride	15.7960	53.210	53.210
6.39	Nitrite	1.5520	2.478	2.478
7.79	Bromide	1.2541	10.590	10.590
8.75	Nitrate	1.8198	2.605	2.605
13.38	Sulfate	11.6631	52.449	52.449

Misc. Forms

Custody Documents and Other Forms

(SGS Dayton, NJ)

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits

CHAIN OF CUSTODY

"SGS North America Inc. - Orlando
4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com/ehsusa"

FED-EX Tracking #: | Bottle Order Control #:
SGS Quote #: | SGS Job #: FC11636

Client / Reporting Information

Company Name: SGS North America Inc.
Street Address: 4405 Vineland Rd, Suite C-15
City: Orlando State: FL Zip: 32811
Project Contact: evita.martinez@sgs.com E-mail:
Phone #: 407-425-6700 Fax #:
Sampler(s) Name(s): JR Phone:

Project Information

Project Name: Shepley's Hill (SHL); Devens, MA
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	NO2 ,NO32 ,NO3O ,	LAB USE ONLY
1A	EFFLUENT		12/1/23	8:00:00 AM	JR	AQ										X	

Turnaround Time (Business days)

Approved By (SGS PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [X] other Due 12/18/2023

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C" X FULT1
- [ ] TRRP
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

samples are in SGS NJ

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2		2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice	Cooler Temp.
5		5	[ ] Intact [ ] Not intact	[ ]	[ ]	

10.1 10

FC11636: Chain of Custody
Page 1 of 3
SGS Dayton, NJ

NITRATE TO DAYTON ONLY

TF 112923 49

E/PN

SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # : PAGE 1 OF 1

SGS - ORLANDO Quote # SKIFF # JD77946

Client / Reporting Information

Company Name: Sovereign Consulting Inc.
Address: 9 Payson Road, Suite 150
City: Foxborough State: MA Zip: 02035
Project Contact: Steven Passafaro Email: spassafaro@sovcon.com
Phone #: 508-339-3200
Sampler(s) Name(s) (Printed)
Sampler 1: Sovereign Staff

Project Information

Project Name: Shepley's Hill (SHL), Devens, MA
Street:
City: Devens State: MA
Project # AC001.J02
Fax #
Client Purchase Order #

Analytical Information

SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NAOH+ZNA	DI WATER	MEOH	Total Arsenic - 6020A	Total Ba, Mn, Mg - 6010C	Chloride 300.0	Nitrate - 353.2	Sulfate - 300.0	Total Fe & Mn - 6010C	LAB USE ONLY
1	Effluent	12/1/23	8:00	JWR	w	4		x			x	x				X	X	X	X	X		
	Influent EW-01	12/1/23	8:30	JWR	w	1					x					X					X	
	Influent EW-03	12/1/23	8:40	JWR	w	1					x					X					X	
	Influent EW-04	12/1/23	8:50	JWR	w	1					x					X					X	

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid

CONTACT ORLANDO FOR JW

Turnaround Time (Business days)

X 10 Day (Business)
7 Day
X 5 Day - Arsenic Only
3 Day RUSH
2 Day RUSH
1 Day RUSH
Other

Approved By: / Date:

Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

☐ COMMERCIAL "A" (RESULTS ONLY)
☐ COMMERCIAL "B" (RESULTS PLUS QC)
☐ REDT1 (EPA LEVEL 3)
☒ FULLT1 (EPA LEVEL 4)
☒ EDD'S

...al Assessment
... Verification

Comments / Remarks

See Project QAPP for all specific project requirements.
5-Day Rush on Arsenic Samples

SGS Service Center
Northborough, MA

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature] Sovcon	12/1/23 1345	2 Noel Fiwa Sovcon	3 Noel Fiwa Sovcon	12-1-23 14:38	4 [signature]
5 [signature]	12/1/23 8:00	6 [signature]	7 [signature]	12/1/23 18:50	8 [signature]

Lab Use Only : Cooler Temperature (s) Celsius (corrected): 1.5 18.40

[signature] 12/1/23 22:05

http://www.sgs.com/en/terms-and-conditions

10.1 10

FC11636: Chain of Custody
Page 2 of 3

SGS Sample Receipt Summary

Job Number: FC11636 **Client:** SGS NORTH AMERICA INC **Project:** SHEPLEY'S HILL (SHL); DEVENS, MA

Date / Time Received: 12/1/2023 10:05:00 PM **Delivery Method:** SGS **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (1.5);

Cooler Temps (Corrected) °C: Cooler 1: (1.5);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

QC Evaluation: DOD QSM5.x Limits

Job Number: FC11636
Account: SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA
Collected: 12/01/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No DOD QSM5.x Limits found for methods in this job.

* Sample used for QC is not from job FC11636

General Chemistry

QC Data Summaries

(SGS Dayton, NJ)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Nitrogen, Nitrate + Nitrite	GP50833/GN48868	0.10	0.0	mg/l	2	1.98	99.0	90-110%
Nitrogen, Nitrite	GN48800	0.010	0.0	mg/l	0.04	0.040	100.0	90-110%
Nitrogen, Nitrite	GN48800	0.010	0.0	mg/l				

Associated Samples:
Batch GN48800: FC11636-1A
Batch GP50833: FC11636-1A
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Nitrogen, Nitrate + Nitrite	GP50833/GN48868	JD77893-1	mg/l	2.0	2.1	4.9	0-20%

Associated Samples:
Batch GP50833: FC11636-1A
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Nitrogen, Nitrate + Nitrite	GP50833/GN48868	JD77893-1	mg/l	2.0	2	4.0	100.0	90-110%
Nitrogen, Nitrite	GN48800	JD77893-1	mg/l	0.0	0.04	0.040	100.0	22-140%

Associated Samples:
Batch GN48800: FC11636-1A
Batch GP50833: FC11636-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Nitrite	GN48800	JD77893-1	mg/l	0.0	0.04	0.040	0.0	20%

Associated Samples:
Batch GN48800: FC11636-1A
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D120423W1.NO32 Date Analyzed: 12/04/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN48868
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:45	GN48868-STD1	1		STDA
17:47	GN48868-STD2	1		STDB
17:48	GN48868-STD3	1		STDC
17:49	GN48868-STD4	1		STDD
17:50	GN48868-STD5	1		STDE
17:51	GN48868-STD6	1		STDF
17:52	GN48868-STD7	1		STDG
17:53	GN48868-STD8	1		STDH
17:56	GN48868-ICV1	1		
17:57	GN48868-ICB1	1		
17:58	GN48868-CCV1	1		
17:59	GN48868-CCB1	1		
18:00	GP50832-MB1	1		
18:01	GP50832-B1	1		
18:02	GP50832-S1	1		
18:03	GP50832-S2	1		
18:05	GP50832-D1	1		
18:06	JD77920-1	1		(sample used for QC only; not part of login FC11636)
18:07	JD77920-2	1		(sample used for QC only; not part of login FC11636)
18:08	ZZZZZZ	1		
18:09	ZZZZZZ	1		
18:10	ZZZZZZ	1		
18:11	GN48868-CCV2	1		
18:12	GN48868-CCB2	1		
18:14	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:16	ZZZZZZ	1		
18:17	ZZZZZZ	1		
18:18	ZZZZZZ	1		
18:19	ZZZZZZ	1		
18:20	ZZZZZZ	1		
18:21	ZZZZZZ	1		
18:22	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D120423W1.NO32 Date Analyzed: 12/04/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN48868
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:24	ZZZZZZ	1		
18:25	GN48868-CCV3	1		
18:26	GN48868-CCB3	1		
18:27	ZZZZZZ	1		
18:28	ZZZZZZ	1		
18:29	ZZZZZZ	1		
18:30	ZZZZZZ	1		
18:31	ZZZZZZ	1		
18:33	GP50833-MB1	1		
18:34	GP50833-B1	1		
18:35	GP50833-S1	1		
18:36	GP50833-S2	1		
18:37	GP50833-D1	1		
18:38	GN48868-CCV4	1		
18:39	GN48868-CCB4	1		
18:40	JD77893-1	1		(sample used for QC only; not part of login FC11636)
18:41	JD77893-2	1		(sample used for QC only; not part of login FC11636)
18:43	ZZZZZZ	1		
18:44	ZZZZZZ	1		
18:45	ZZZZZZ	1		
18:46	ZZZZZZ	1		
18:47	ZZZZZZ	1		
18:48	ZZZZZZ	1		
18:49	ZZZZZZ	1		
18:50	ZZZZZZ	1		
18:52	GN48868-CCV5	1		
18:53	GN48868-CCB5	1		
18:54	ZZZZZZ	1		
18:55	FC11636-1A	1		
18:58	GN48868-CCV6	1		
18:59	GN48868-CCB6	1		
19:48	GN48868-CCV7	1		
19:50	GN48868-CCB7	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D120423W1.NO32 Date Analyzed: 12/04/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN48868
Parameters: Nitrogen, Nitrate + Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:51	ZZZZZZ	3		
19:52	ZZZZZZ	3		
19:55	GN48868-CCV8	1		
19:56	GN48868-CCB8	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: FC11636
Account: ALSE - SGS Orlando, FL
Project: SCMAW: Shepley's Hill (SHL); Devens, MA

File ID: D120423W1.NO32 Date Analyzed: 12/04/23 Methods: EPA 353.2/LACHAT
Run ID: GN48868 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN48868-ICV1	Nitrogen, Nitrate + Nitrite	1.91	0.10	0.090	2	95.5	90-110
GN48868-ICB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV1	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN48868-CCB1	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV2	Nitrogen, Nitrate + Nitrite	2.50	0.10	0.090	2.5	100.0	90-110
GN48868-CCB2	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV3	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN48868-CCB3	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV4	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN48868-CCB4	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV5	Nitrogen, Nitrate + Nitrite	2.51	0.10	0.090	2.5	100.4	90-110
GN48868-CCB5	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV6	Nitrogen, Nitrate + Nitrite	2.50	0.10	0.090	2.5	100.0	90-110
GN48868-CCB6	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV7	Nitrogen, Nitrate + Nitrite	2.53	0.10	0.090	2.5	101.2	90-110
GN48868-CCB7	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			
GN48868-CCV8	Nitrogen, Nitrate + Nitrite	2.55	0.10	0.090	2.5	102.0	90-110
GN48868-CCB8	Nitrogen, Nitrate + Nitrite	0.090 U	0.10	0.090			

(!) Outside of QC limits

General Chemistry

Raw Data

(SGS Dayton, NJ)

Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN48800
GP Batch ID:
Date: 12/2/2023
Instrument ID: Pipet II GLASS PIPETTE CLASS A

Original Calibration Information — Calibration Date: 10/17/2023

	Blank	Std 1	Std 2	Std 3	Std 4	Std 5	Std 6	Std 7
Known:	0.000	0.010	0.025	0.050	0.075	0.100	0.200	
Absorbance:	0.000	0.032	0.084	0.171	0.252	0.339	0.684	
Actual Value:	#DIV/0!	0.010	0.025	0.050	0.074	0.100	0.200	
% RE:	#DIV/0!	1.50	-0.19	-0.95	1.14	0.42	-0.20	

Continuing Calibration Check Standards Data: 12/2/2023

	Blank	Std 1	Std 6
Known:	0.000	0.010	0.200
Absorbance:	0.000	0.032	0.669
Recovery:	0.0%	98.5%	98.0%
Actual Value:		0.010	0.196

Correlation Coeff. = 0.99997
Slope = 0.29227
Intercept = 0.00050

Bottle #	Sample ID	Time Analyzed	Initial Wt (g) or Vol (ml)	Final Vol (ml)	Dilution	Sample Abs	Background Abs.	Result From Curve (mg/L)	Final Result	DL	Units	Factor	pH between 5 and 9 (Y or N)
	ICV	9:38	50	50	1	0.328	NA	0.096	0.096	NA	mg/l	NA	
	CCV	10:25	50	50	1	0.326	NA	0.096	0.096	NA	mg/l	NA	
	CCB	10:25	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
	GN48800-MB1	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	
	GN48800-B1	10:25	50	50	1	0.135	0.000	0.040	0.040	0.010	mg/l	1	
	GN48800-S1	10:25	50	50	1	0.134	0.000	0.040	0.040	0.010	mg/l	1	
	GN48800-MSD1	10:25	50	50	1	0.134	0.000	0.040	0.040	0.010	mg/l	1	
7	JD77893-1	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
7	JD77893-2	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
6	JD77893-3	10:25	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
7	JD77893-5	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
4	JD77894-1	10:25	50	50	1	0.027	0.000	0.008	0.008	0.010	mg/l	1	Y
4	JD77894-2	10:25	50	50	1	0.030	0.000	0.009	0.009	0.010	mg/l	1	Y
	CCVA	10:25	50	50	1	0.668	NA	0.196	0.196	NA	mg/l	NA	
	CCB	10:25	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
4	JD77894-3	10:25	50	50	1	0.004	0.000	0.002	0.002	0.010	mg/l	1	Y
4	JD77894-4	10:25	50	50	1	0.325	0.000	0.095	0.095	0.010	mg/l	1	Y
4	JD77894-5	10:25	50	50	1	0.003	0.000	0.001	0.001	0.010	mg/l	1	Y
4	JD77894-6	10:25	50	50	1	0.034	0.000	0.010	0.010	0.010	mg/l	1	Y
4	JD77894-7	10:25	50	50	1	0.020	0.000	0.006	0.006	0.010	mg/l	1	Y
4	JD77894-8	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
	JD77894-9	10:25	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
7	JD77916-1	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
7	JD77916-2	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
7	JD77916-3	10:25	50	50	1	0.047	0.000	0.014	0.014	0.010	mg/l	1	Y
	CCV	10:25	50	50	1	0.325	NA	0.095	0.095	NA	mg/l	NA	
	CCB	10:25	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
7	JD77916-4	10:25	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
7	JD77916-5	10:25	50	50	1	0.058	0.000	0.017	0.017	0.010	mg/l	1	Y
7	JD77916-6	10:25	50	50	1	0.006	0.000	0.002	0.002	0.010	mg/l	1	Y
7	JD77916-8	10:25	50	50	1	0.011	0.000	0.004	0.004	0.010	mg/l	1	Y
	GN48800-MB2	10:25	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	
	GN48800-B2	10:46	50	50	1	0.133	0.000	0.039	0.039	0.010	mg/l	1	
	GN48800-S2	10:46	50	50	1	0.133	0.000	0.039	0.039	0.010	mg/l	1	
	GN48800-MSD2	10:46	50	50	1	0.132	0.000	0.039	0.039	0.010	mg/l	1	
4	JD77922-19	10:46	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
9	JD77922-22	10:46	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
	CCVA	10:46	50	50	1	0.661	NA	0.194	0.194	NA	mg/l	NA	
	CCB	10:46	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	

12/4/23

Analyst: _____ Date: _____ QC Reviewer: _____ Date: _____

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Test: Nitrogen, Nitrite
Product: NO2
Method: SM4500NO2 B-11 (Aqueous) ◉ Units: mg/l
SM4500NO2 B-11 M (Solids) ○ mg/kg

Analyst: MARCINK
GN Batch ID: GN48800
GP Batch ID:
Date: 12/2/2023
Instrument ID: Pipet II GLASS PIPETTE CLASS A

9	JD77922-23	10:46	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
9	JD77922-26	10:46	50	50	1	0.001	0.000	0.001	0.001	0.010	mg/l	1	Y
9	JD77922-27	10:46	50	50	1	0.000	0.000	0.000	0.000	0.010	mg/l	1	Y
9	JD77920-1	10:46	50	50	5	0.175	0.000	0.052	0.258	0.050	mg/l	1	Y
11	JD77920-2	10:46	50	50	5	0.197	0.000	0.058	0.290	0.050	mg/l	1	Y
11	JD77942-1	10:46	50	50	1	0.013	0.000	0.004	0.004	0.010	mg/l	1	Y
11	JD77942-2	10:46	50	50	1	0.080	0.000	0.024	0.024	0.010	mg/l	1	Y
2	JD77946-1A	10:46	50	50	1	0.016	0.000	0.005	0.005	0.010	mg/l	1	Y
		10:46	50	50	1								
		10:46	50	50	1								
	CCV	10:46	50	50	1	0.326	NA	0.096	0.096	NA	mg/l	NA	
	CCB	10:46	50	50	1	0.000	NA	0.000	0.000	NA	mg/l	NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCVA		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
			50	50	1								
	CCV		50	50	1		NA			NA		NA	
	CCB		50	50	1		NA			NA		NA	

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Analyst: _____ Date: _____ QC Reviewer: _____ Date: _____

SGS

Test: **Nitrogen, Nitrite**
Product: **NO2**
Method: **SM18 4500 NO2B (aqueous)**
SM18 4500 NO2B M (solids)

Units: (mg/l) mg/kg

Analyst: MK
GNBatch ID: GN48800
GPBatch ID:
Date: 12/2/23

Preparation Batch QC Summary Units = mg/L

Method Blank ID: GN48800-MB1 Date: 12/2/23 Result: <DL DL: 0.01 <DL:
Spike Blank ID: -SB1 Date: ↓ Result: 0.038 Spike: 0.04 %Rec.: 100%
MS ID: -S1 Samp. Result: 0.00 MS Result: 0.040 Spike: 0.04 %Rec:
MSDUP ID: -MSD1 Samp. Result: 0.00 MSDUP Result: 0.040 Spike: 0.04 %Rec: 100%
MSDUP ID: MSDUP Result: MS Result: %RPD:

Method Blank ID: GN48800-MB2 Date: 12/2/23 Result: <DL DL: <DL:
Spike Blank ID: -SB2 Date: ↓ Result: 0.039 Spike: 0.04 %Rec.: 97.5%
MS ID: -S2 Samp. Result: 0.00 MS Result: 0.039 Spike: 0.04 %Rec:
MSDUP ID: -MSD2 Samp. Result: 0.00 MSDUP Result: 0.039 Spike: 0.04 %Rec: 97.5%
MSDUP ID: MSDUP Result: MS Result: %RPD:

Analysis Batch QC Summary Units =
ICV (Ext): 12/2/23 Result: 0.096 TV: 0.1 %Rec: 96%

CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: 0.196 TV: 0.2 %Rec.: 98%
CCV : Result: 0.095 TV: 0.1 %Rec.: 95%
CCVA : Result: 0.194 TV: 0.2 %Rec.: 97%
CCV : Result: 0.096 TV: 0.1 %Rec.: 96%
CCVA : Result: TV: 0.2 %Rec.:

CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:
CCB: Result: DL: <DL:

Reagent Reference Numbers:
QC------BS/MS/MSD------2 ML OF 1 PPM NO2 STD -- 50 ML DI/H2O/SAMPLE ---- TV 0.04 MG/L
MS/MSD SAMPLE NO --- QC1 =
QC2 =

* SIGN SAMPLE FILTERED IN LAB

Analyst: Date:

Comments:

Form: GN032-01
Rev. Date:9/4/09]

12.1 12

SGS

Reagent Information Log - Nitrite as Nitrogen

Reagent	Reagent # or Manufacturer/Lot
Calibration Source: 1000 mg/l nitrite stock **(STD)**	**ERA LOT #261221M XP: 12/14/2023**
External Check **(ICV)**	**ERA LOT #240722M XP: 8/26/2024**
Spiking Solution Source STD	ERA LOT NO 050423M XP 05-APR-2025
NO2 Color Reagent	GNE11-73003-NO2 XP 12/10/2023
NH4OH	FISHER 193136 XP 2/20/2027

All standards and stocks were made as described in the SOP for this method (circle one): Y or N
If no (N), see attached page for standards prep.

Form: GN087A-42
Rev. Date:12/2/2023

12.1 12

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: _____

GN or GP Number: _____

Standard	Manufacturer/Lot Number	Concentration	Expiration Date
1000 mg/l Nitrite Standard	ERA LOT# 050423	1000 PPM	4/5/2025
1000 mg/l Nitrite Standard (ICV)	ERA LOT# 240722M	1000 PPM	8/6/2024

Standard Description	Lot or Tracking #	Initial Volume	Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
10 PPM NO2 STANDARD	GNE12-73232-NO2	1.0 ml	1000 mg/l Nitrite Standard	A	DI water	100 ml	10 mg/l	12/2/2023	MK	12/2/2023
1 PPM NO2 STANDARD	GNE12-73234-NO2	10.0 ml	10 PPM NO2 STANDARD	A	DI water	100 ml	1 mg/L	12/2/2023	MK	12/2/2023
10 PPM NO2 EXTERNAL	GNE12-73233-NO2	1.0 ml	Nitrite Standard (ICV)	A	DI water	100 ml	10 mg/l	12/2/2023	MK	12/2/2023
1 PPM NO2 EXTERNAL	GNE12-73235-NO2	10.0 ml	10 PPM NO2 EXTERNAL	A	DI water	100 ml	1 mg/l	12/2/2023	MK	12/2/2023

Standard Description	Intermediate or Stock used to prepare standard	Initial Volume	Concentration of Standard Used	Autopipet ID	Diluent	Final Volume	Final Concentration	Expiration Date	Analyst	Date
0.2 mg/L (high)	GNE12-73234-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	12/2/2023	MK	12/2/2023
0.1 mg/L		10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L			
0.075 mg/L		7.5 ml	1.0 mg/L	A	DI water	100 ml	0.075 mg/L			
0.05 mg/L		5.0 ml	1.0 mg/L	A	DI water	100 ml	0.05 mg/L			
0.025 mg/L		2.5 ml	1.0 mg/L	A	DI water	100 ml	0.025 mg/L			
0.01 mg/L (low)	GNE12-73234-NO2	1.0 ml	1.0 mg/L	A	DI water	100 ml	0.01 mg/L	12/2/2023	MK	12/2/2023
0 mg/L	NA	NA	NA	NA	NA	100 ml	NA	12/2/2023	MK	12/2/2023
CCV	GNE12-73234-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	12/2/2023	MK	12/2/2023
CCVA	GNE12-73234-NO2	20.0 ml	1.0 mg/L	A	DI water	100 ml	0.2 mg/L	12/2/2023	MK	12/2/2023
ICV	GNE12-73235-NO2	10.0 ml	1.0 mg/L	A	DI water	100 ml	0.1 mg/L	12/2/2023	MK	12/2/2023

* If Class A glass pipets are used, enter an A. For balances or autopipets, then enter the appropriate Accutest ID number.

Form: GN121-01
Rev. Date: 1/13/09

LABORATORY REVIEW SIGNATURE FORM
(To be stored with the raw data)

File ID: D120423W1.NO32 Date Analyzed: 12/04/23 Methods: EPA 353.2/LACHAT
Analyst: JD Run ID: GN48868

The following analyst(s) have reviewd this run and attest that, to the best of their knowledge, this documentation is complete and correct:

Analyst: JD Date 12/5/23

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

Analyst: _____ Date _____

The following supervisor or their designee has reviewed this run and attests that, to the best of their knowledge, this documentation is complete and correct:

Supervisor (or designee): _____ Date 12/5/23

12.2 12

Author: Chemistry

Date : 12/4/2023

Original Run Filename: OM_12-4-2023_05-45-06PM.OMN Created: 12/4/2023 5:45:06 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_12-4-2023_05-45-06PM.OMN Last Modified: 12/4/2023 7:02:03 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

NO32
d120423w1. no32
GN 48868

Sample	Rep.	Cup No.	Channel 2 NO32 (mg/L)	Detection Time	MDF	
STDA	1	1	5.00	12/4/2023@5:45:59 PM		
STDB	1	2	4.00	12/4/2023@5:47:07 PM		
STDC	1	3	2.50	12/4/2023@5:48:15 PM		
STDD	1	4	1.00	12/4/2023@5:49:23 PM		
STDE	1	5	0.500	12/4/2023@5:50:30 PM		
STDF	1	6	0.200	12/4/2023@5:51:38 PM		
STDG	1	7	0.100	12/4/2023@5:52:45 PM		
STDH	1	8	0.00	12/4/2023@5:53:52 PM		
EFFCHK	1	9	1.86	12/4/2023@5:54:59 PM		— 93%
	Known Conc:		2.00			
ICV	1	10	1.91	12/4/2023@5:56:06 PM		— 95.5%
	Known Conc:		2.00			
ICB	1	11	0.0425	12/4/2023@5:57:13 PM		
	Known Conc:		0.00			
CCV	1	12	2.53	12/4/2023@5:58:19 PM		— 101.2%
	Known Conc:		2.50			
CCB	1	13	0.0512	12/4/2023@5:59:26 PM		
	Known Conc:		0.00			
GP50832-MB1	1	14	0.0514	12/4/2023@6:00:32 PM		
GP50832-B1	1	15	1.99	12/4/2023@6:01:39 PM		— 99.5%
GP50832-S1	1	16	4.03	12/4/2023@6:02:46 PM		
GP50832-S2	1	17	4.34	12/4/2023@6:03:54 PM		
GP50832-D1	1	18	2.36	12/4/2023@6:05:02 PM		
JD77920-1	1	19	2.34	12/4/2023@6:06:10 PM		
JD77920-2	1	20	2.33	12/4/2023@6:07:17 PM		
JD77922-19	1	21	0.0575	12/4/2023@6:08:24 PM		
JD77922-22	1	22	0.0574	12/4/2023@6:09:32 PM		
JD77922-23	1	23	0.0446	12/4/2023@6:10:39 PM		
CCV	1	12	2.50	12/4/2023@6:11:46 PM		— 100%
	Known Conc:		2.50			
CCB	1	13	0.0511	12/4/2023@6:12:52 PM		
	Known Conc:		0.00			
JD77922-26	1	24	0.0483	12/4/2023@6:14:00 PM		
JD77922-27	1	25	0.0643	12/4/2023@6:15:07 PM		
JD77942-1	1	26	5.36	12/4/2023@6:16:14 PM		]-outof range
JD77942-2	1	27	6.70	12/4/2023@6:17:21 PM		
JD77894-1	1	28	0.0678	12/4/2023@6:18:27 PM		
JD77894-2	1	29	0.0614	12/4/2023@6:19:34 PM		
JD77894-3	1	30	0.0582	12/4/2023@6:20:40 PM		
JD77894-4	1	31	0.0560	12/4/2023@6:21:48 PM		
JD77894-5	1	32	0.0582	12/4/2023@6:22:56 PM		
JD77894-6	1	33	0.0577	12/4/2023@6:24:04 PM		
CCV	1	12	2.53	12/4/2023@6:25:11 PM		— 101.2%
	Known Conc:		2.50			
CCB	1	13	0.0504	12/4/2023@6:26:17 PM		
	Known Conc:		0.00			
JD77894-7	1	34	0.0700	12/4/2023@6:27:25 PM		
JD77894-8	1	35	0.0463	12/4/2023@6:28:32 PM		
JD77894-9	1	36	0.0702	12/4/2023@6:29:40 PM		
JD77949-1	1	37	0.0578	12/4/2023@6:30:47 PM		
JD77949-3	1	38	0.0567	12/4/2023@6:31:54 PM		
GP50833-MB1	1	39	0.0501	12/4/2023@6:33:01 PM		
GP50833-B1	1	40	1.98	12/4/2023@6:34:08 PM		— 99%
GP50833-S1	1	41	3.97	12/4/2023@6:35:15 PM		
GP50833-S2	1	42	1.99	12/4/2023@6:36:21 PM		
GP50833-D1	1	43	2.06	12/4/2023@6:37:28 PM		
CCV	1	12	2.53	12/4/2023@6:38:35 PM		— 101.2%
	Known Conc:		2.50			
CCB	1	13	0.0506	12/4/2023@6:39:41 PM		
	Known Conc:		0.00			

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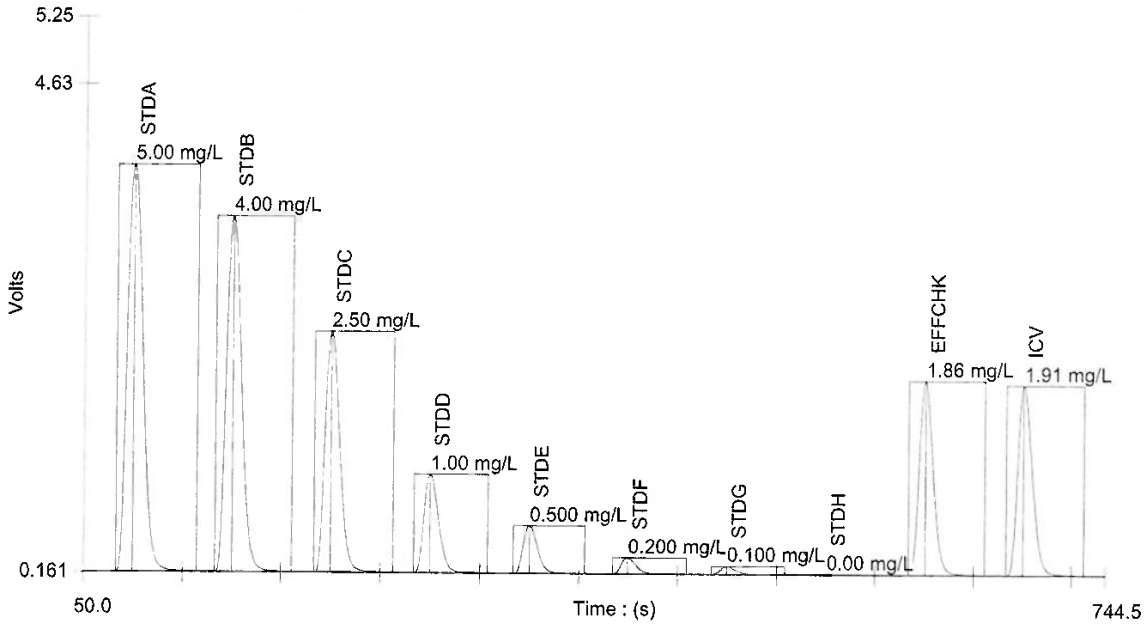
Author: Chemistry

Date : 12/4/2023

JD77893-1	1	44	2.03	12/4/2023@6:40:48 PM
JD77893-2	1	45	0.111	12/4/2023@6:41:54 PM
JD77893-3	1	46	0.0743	12/4/2023@6:43:02 PM
JD77893-5	1	47	0.0611	12/4/2023@6:44:10 PM
JD77916-1	1	48	0.0550	12/4/2023@6:45:17 PM
JD77916-2	1	49	0.0428	12/4/2023@6:46:25 PM
JD77916-3	1	50	0.0692	12/4/2023@6:47:33 PM
JD77916-4	1	51	0.0570	12/4/2023@6:48:40 PM
JD77916-5	1	52	0.421	12/4/2023@6:49:47 PM
JD77916-6	1	53	0.0496	12/4/2023@6:50:54 PM
CCV	1	12	2.51	12/4/2023@6:52:01 PM — 100.4%
	Known Conc:		2.50	
CCB	1	13	0.0484	12/4/2023@6:53:08 PM
	Known Conc:		0.00	
	Calibration:		Table/Fig. : 1	
JD77916-8	1	54	0.0563	12/4/2023@6:54:15 PM
JD77946-1A	1	55	0.0730	12/4/2023@6:55:22 PM
CCV	1	12	2.50	12/4/2023@6:58:34 PM — 100%
	Known Conc:		2.50	
CCB	1	13	0.0477	12/4/2023@6:59:41 PM
	Known Conc:		0.00	

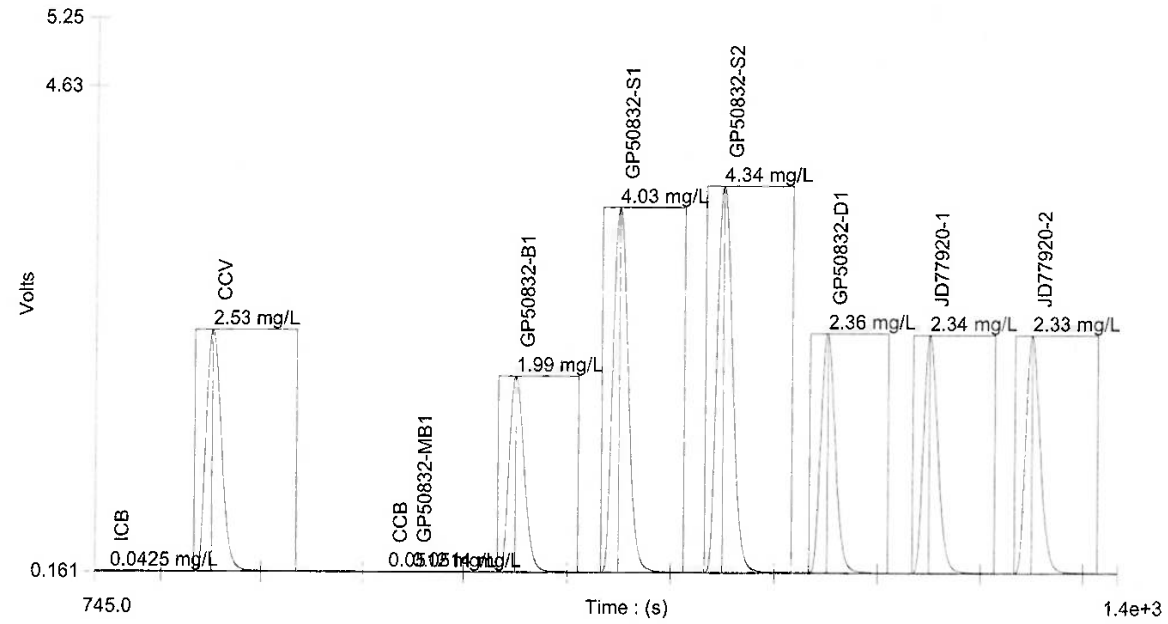
Channel 2 - Set: 1 / 7



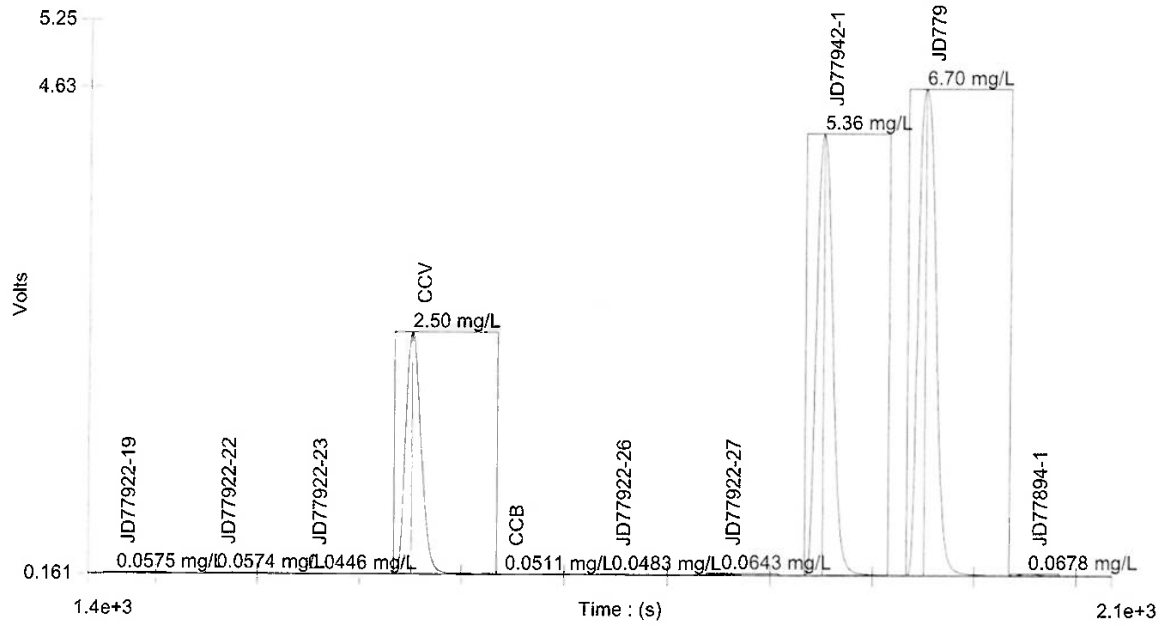
Author: Chemistry

Date : 12/4/2023

Channel 2 - Set: 2 / 7



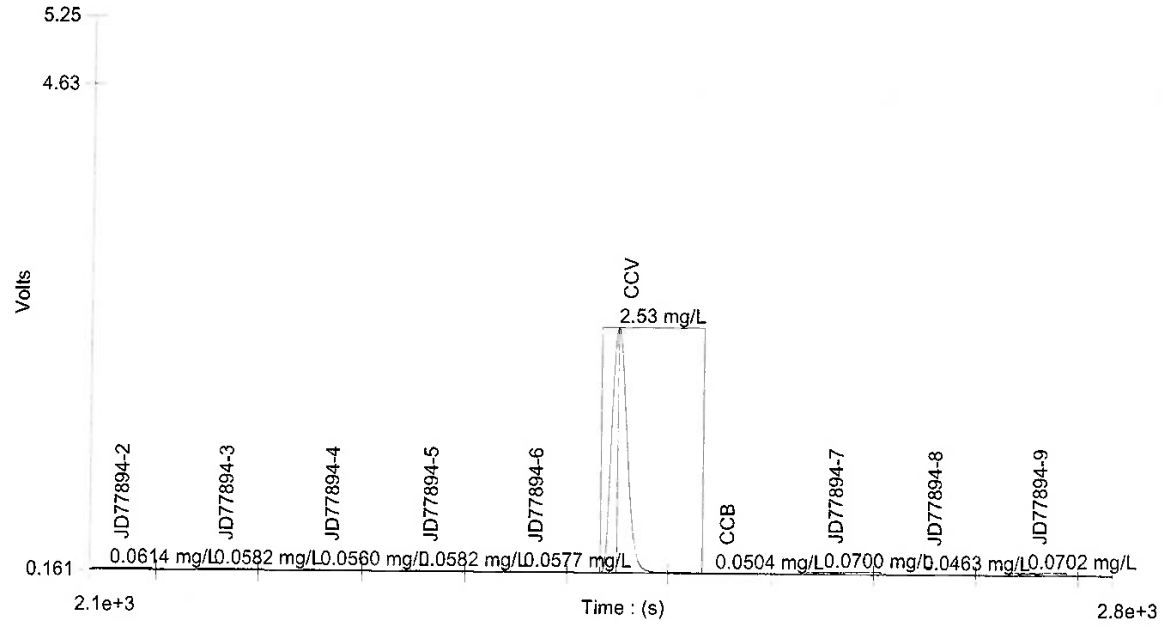
Channel 2 - Set: 3 / 7



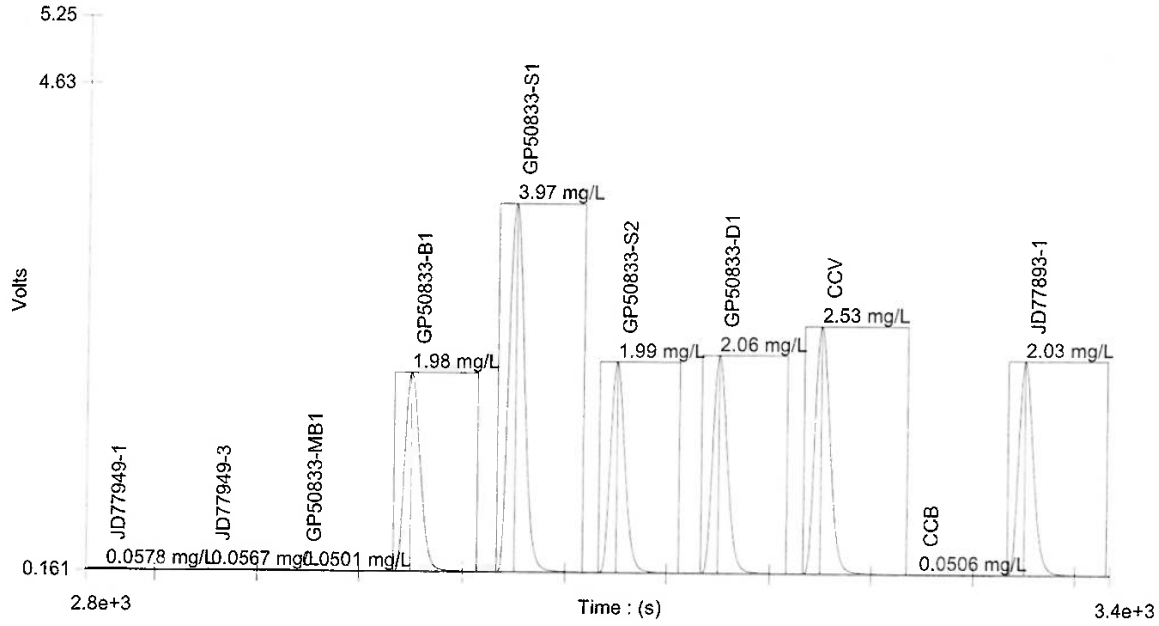
Author: Chemistry

Date : 12/4/2023

Channel 2 - Set: 4 / 7



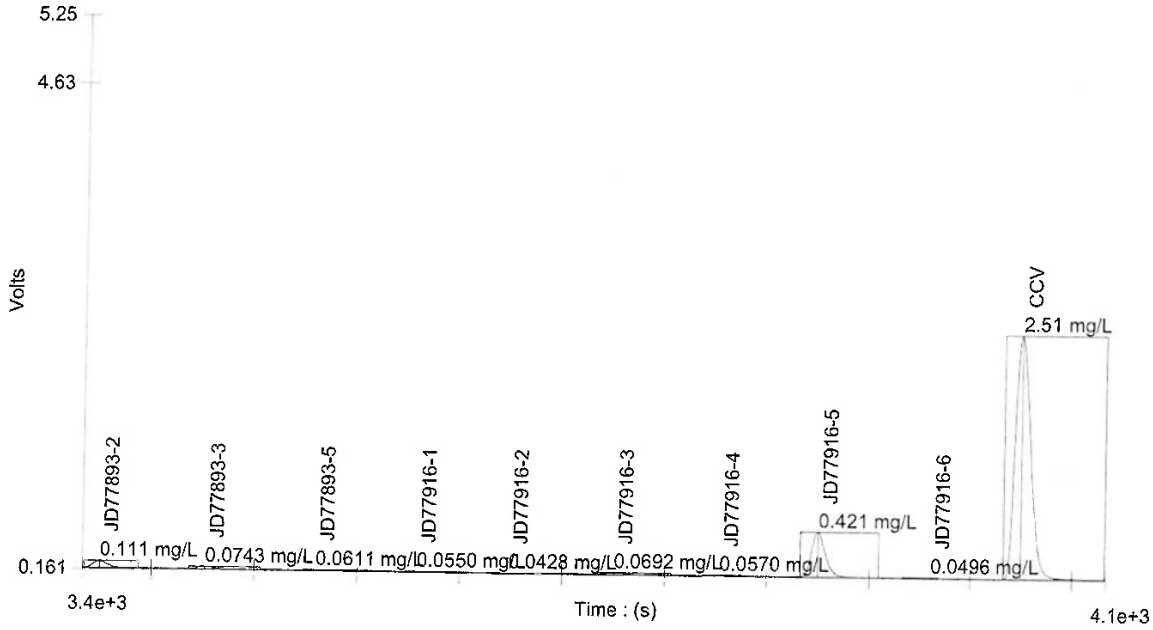
Channel 2 - Set: 5 / 7



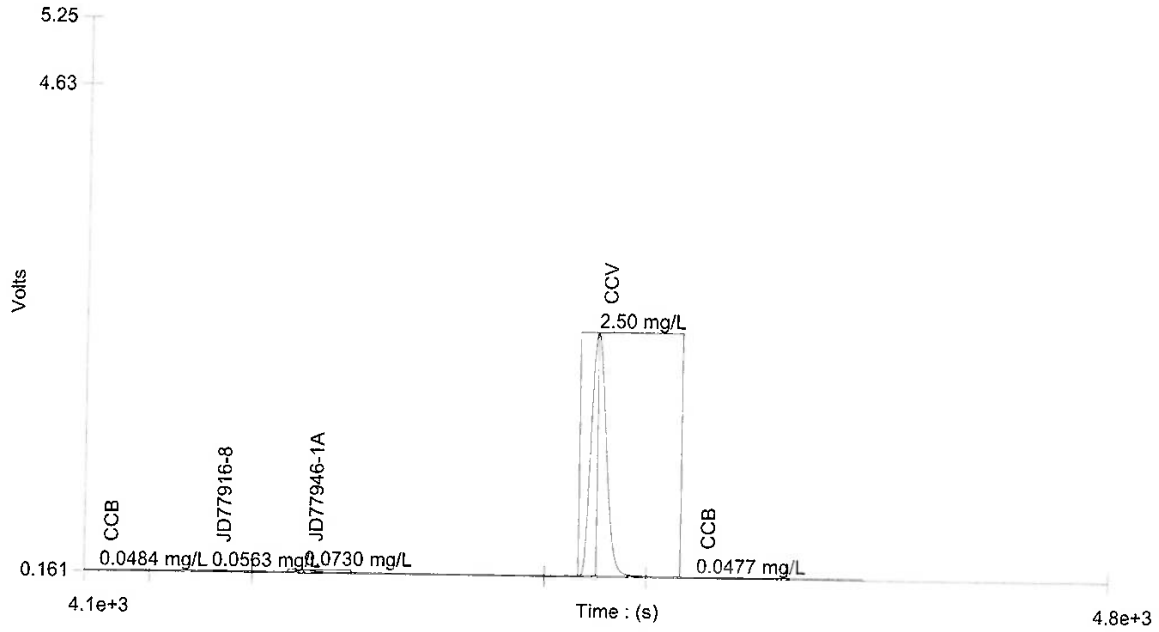
Author: Chemistry

Date : 12/4/2023

Channel 2 - Set: 6 / 7



Channel 2 - Set: 7 / 7



Author: Chemistry

Date : 12/4/2023

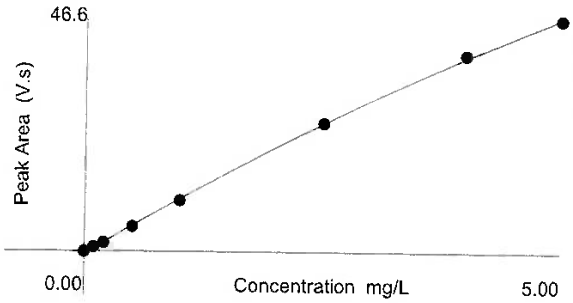
Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	46.6	3.72	0.0	0.6	4.95	12/4/2023	5:45:59 PM
2	4.00	1	39.4	3.26	0.0	-1.2	4.07	12/4/2023	5:47:07 PM
3	2.50	1	25.7	2.21	0.0	-0.1	2.51	12/4/2023	5:48:15 PM
4	1.00	1	10.2	0.900	0.0	3.4	0.953	12/4/2023	5:49:23 PM
5	0.500	1	4.88	0.434	0.0	4.9	0.470	12/4/2023	5:50:30 PM
6	0.200	1	1.64	0.144	0.0	7.9	0.189	12/4/2023	5:51:38 PM
7	0.100	1	0.816	0.0706	0.0	-26.0	0.119	12/4/2023	5:52:45 PM
8	0.00	1	-0.115	-4.30e-3			0.0407	12/4/2023	5:53:52 PM

-4.9%

-19%

Figure : 1 (NO32)



Area = - 0.395 * Conc^2 + 11.4 * Conc - 0.493
Conc = 4.58e-4 * Area^2 + 0.0839 * Area + 0.0503
Correlation Coefficient (r) = 0.99986

Weighting : None

12.2 12

Author: Chemistry

Date : 12/4/2023

Original Run Filename: OM_12-4-2023_07-48-06PM.OMN Created: 12/4/2023 7:48:06 PM
Original Run Author's Signature: [Chemistry]
Current Run Filename: OM_12-4-2023_07-48-06PM.OMN Last Modified: 12/4/2023 7:59:00 PM
Current Run Author's Signature: [Chemistry]
Description: Default New Run

Sample	Rep.	Cup No.	Channel 2 NO32 (mg/L)	Detection Time	MDF
CCV	1	12	2.53	12/4/2023@7:48:57 PM	
	Known Conc:		2.50		
CCB	1	13	0.0470	12/4/2023@7:50:04 PM	
	Known Conc:		0.00		
	Calibration:		Table/Fig. : 1		
JD77942-1	1	56	1.86	12/4/2023@7:51:11 PM	3.00
JD77942-2	1	57	2.53	12/4/2023@7:52:18 PM	3.00
CCV	1	12	2.55	12/4/2023@7:55:30 PM	
	Known Conc:		2.50		
CCB	1	13	0.0502	12/4/2023@7:56:37 PM	
	Known Conc:		0.00		

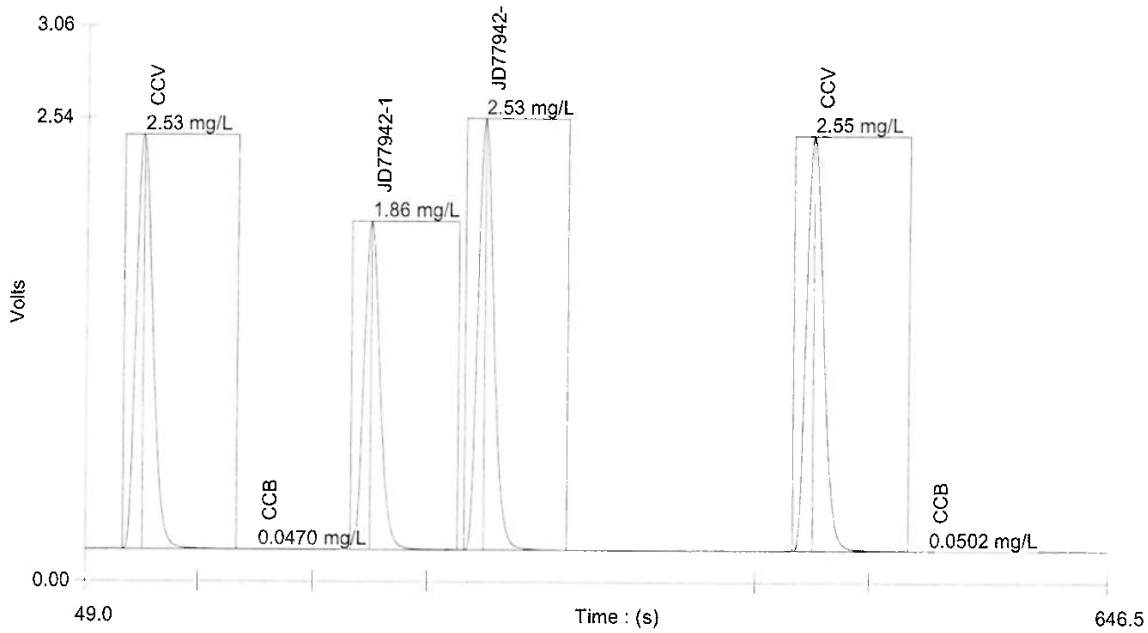
101.2%

NO32
d 120423w2.no32
GN48868

- 5ml sample, 10ml DI H2O

102%

Channel 2 - Set: 1 / 1



12.2
12

- 1 -

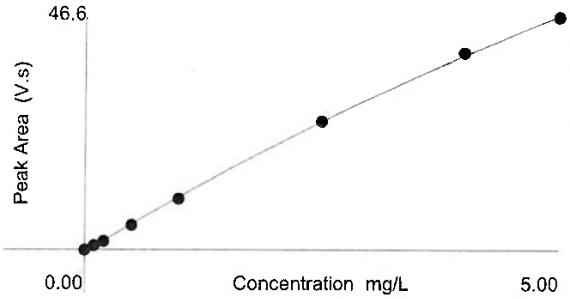
Author: Chemistry

Date : 12/4/2023

Table : 1 (NO32)

	Known Conc. (mg/L)	Rep.	Peak Area (V.s)	Peak Height (V)	% RSD	% Residual	Det. Conc (mg/L)	Detection Date	Detection Time
1	5.00	1	46.6	3.72	0.0	0.6	4.95	12/4/2023	5:45:59 PM
2	4.00	1	39.4	3.26	0.0	-1.2	4.07	12/4/2023	5:47:07 PM
3	2.50	1	25.7	2.21	0.0	-0.1	2.51	12/4/2023	5:48:15 PM
4	1.00	1	10.2	0.900	0.0	3.4	0.953	12/4/2023	5:49:23 PM
5	0.500	1	4.88	0.434	0.0	4.9	0.470	12/4/2023	5:50:30 PM
6	0.200	1	1.64	0.144	0.0	7.9	0.189	12/4/2023	5:51:38 PM
7	0.100	1	0.816	0.0706	0.0	-26.0	0.119	12/4/2023	5:52:45 PM
8	0.00	1	-0.115	-4.30e-3			0.0407	12/4/2023	5:53:52 PM

Figure : 1 (NO32)



Area = - 0.395 * Conc^2 + 11.4 * Conc - 0.493
Conc = 4.58e-4 * Area^2 + 0.0839 * Area + 0.0503
Correlation Coefficient (r) = 0.99986

Weighting : None

SGS

GENERAL CHEMISTRY STANDARD PREPARATION LOG

Product: NO32

GN/GP number: GN48868

Analyst: JD

Date: 12/4/2023

Intermediate Standard Description	Stock used to prepare standard	Stock concentration	Stock volume used in ml	Pipette ID*	Diluent	Final Volume	Final Conc. of Intermediate (mg/l)	Expiration Date	Standard ID
100 ppm NO3 intermediate	GNE12-72667-NO32	1000	10	52	Carrier	100 ml	100	12/27/2023	NO32-100-112723
100 ppm NO2 Intermediate	GNE12-72665-NO32	1000	10	52	Carrier	100 ml	100	12/27/2023	NO2-100-112723
100 ppm NO3 External	GNE12-72666-NO32	1000	10	52	Carrier	100 ml	100	12/27/2023	NO32E-100-112723

Standard Description	Intermediate or Stock used to prepare standard	Intermediate or Stock concentration	Intermediate or Stock volume used in ml		Diluent	Final Volume	Final Conc. of Standard (mg/l)	Expiration Date	
5.0 mg/l NO3	NO32-100-112723	100 mg/l	5.0	52	Carrier	100 ml	5.0	12/4/2023	STDA-112723
4.0 mg/l NO3	NO32-100-112723	100 mg/l	4.0	52	Carrier	100 ml	4.0	12/4/2023	STDB-112723
2.5 mg/l NO3	NO32-100-112723	100 mg/l	2.5	52	Carrier	100 ml	2.5	12/4/2023	STDC-112723
1.0 mg/l NO3	NO32-100-112723	100 mg/l	1.0	52	Carrier	100 ml	1.0	12/4/2023	STDD-112723
0.5 mg/l NO3	NO32-100-112723	100 mg/l	0.5	52	Carrier	100 ml	0.5	12/4/2023	STDE-112723
0.2 mg/l NO3	NO32-100-112723	100 mg/l	0.2	52	Carrier	100 ml	0.2	12/4/2023	STDF-112723
0.1 mg/l NO3	NO32-100-112723	100 mg/l	0.1	52	Carrier	100 ml	0.1	12/4/2023	STDG-112723
Effcheck 2.0	NO2-100-112723	100 mg/l	2.0	52	Carrier	100 ml	2.0	12/4/2023	EFFcheck-112723
ICV	NO32E-100-112723	100 mg/l	2.0	52	Carrier	100 ml	2.0	12/4/2023	ICV-112723

*If Class A glass pipettes are used, enter an A.

SGS

Reagent Information Log - Nitrate Lachat Autoanalyzer

Reagent	Reagent # or Manufacturer/Lot	Expiration Date
Ammonium Chloride Buffer Solution	GNE5-71268-NO32	5/21/2024
Sulfanilamide Color Reagent	GNE11-73002-NO32	12/9/2023
1:1 NH4OH	GNE6-71503-NO3	12/16/2023
Carrier Solution	GNE8-72026-NO32	2/9/2024
Nitrate Stock Solution	GNE6-71424-NO32	12/12/2023
1000 ppm Nitrite Solution	GNE6-71425-NO32	12/12/2023
Nitrate External Stock Solution	GNE6-71426-NO32	12/12/2023

Reason codes for data corrections: 1-reviewer error correction: 2-transcription error; 3-computer error; 4-analyst error

Form: GN087A-43
Rev. Date: 7/19/06

12.2 12

SGS Dayton

Analyst: JD

Prep Date: 12/4/2023

Batch ID: GP50832

Pipette ID: 52 and 57B

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
GP50832-MB1				Y	
GP50832-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP50832-S1	0.5ML OF 100PPM	50MLS	JD77920-1	Y	
GP50832-S2	0.5ML OF 100PPM	50MLS	JD77920-2	Y	
GP50832-D1				Y	
JD77920-1				Y	
JD77920-2				Y	
JD77922-19				Y	
JD77922-22				Y	
JD77922-23				Y	
JD77922-26				Y	
JD77922-27				Y	
JD77942-1				Y	
JD77942-2				Y	
JD77894-1				Y	
JD77894-2				Y	
JD77894-3				Y	
JD77894-4				Y	
JD77894-5				Y	
JD77894-6				Y	
JD77894-7				Y	
JD77894-8				Y	
JD77894-9				Y	
JD77949-1				Y	
JD77949-3				Y	

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

12.2 12

SGS Dayton Analyst: JD

Prep Date: 12/4/2023

Batch ID: GP50833

Pipette ID: 52 and 57B

pH paper Lot: 206722 XP 03/01/2025

Nitrate-Nitrite (NO32) AQUEOUS QC Prep Log / Sample pH Log

Sample ID	Standard Prep	Std Final Volume		SAMPLE pH 5 - 9 (Y / N)	Chlorine Present (Y / N) If Y, add sodium thiosuldate
EDTA BUFFER SOLN.	N/A	N/A		9.1	
GP50833-MB1				Y	
GP50833-B1	1.0ML OF 100PPM	100MLS	CARRIER	Y	
GP50833-S1	0.5ML OF 100PPM	50MLS	JD77893-1	Y	
GP50833-S2	0.5ML OF 100PPM	50MLS	JD77893-2	Y	
GP50833-D1				Y	
JD77893-1				Y	
JD77893-2				Y	
JD77893-3				Y	
JD77893-5				Y	
JD77916-1				Y	
JD77916-2				Y	
JD77916-3				Y	
JD77916-4				Y	
JD77916-5				Y	
JD77916-6				Y	
JD77916-8				Y	
JD77946-1A				Y	

Form GN319-04 Aqueous

Rev date: 03/06/2023

Reviewer: _____

Date: _____

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Appendix C

Summary of Quality Control Exceedances and Data Validation Reports

Arsenic Treatment Plant

- November 2023. The recoveries of the SVOC surrogate compounds 2,4,6-tribromophenol, 2-fluorophenol, and phenol-d5 were less than 10% in sample EFFLUENT. The results for all compounds reported with the acid fraction were qualified as rejected (R). The results for these compounds are not usable.

Spring 2023

- The matrix spike (MS)/matrix spike duplicate (MSD) performed using sample PZ-12-10-SPR23 exhibited recoveries for dissolved organic carbon less than the acceptance criteria. The dissolved organic carbon result in sample PZ-12-10-SPR23 was qualified as estimated (J) with a potential for low bias.
- The MS/MSD performed using sample SHM-05-40X-SPR23 exhibited recoveries for dissolved manganese less than the acceptance criteria. The dissolved manganese result in sample SHM-05-40X-SPR23 was qualified as estimated (J) with a potential for low bias.
- The serial dilution performed using sample SHM-13-08-SPR23 exhibited difference between the results for dissolved manganese greater than the acceptance criteria. The dissolved manganese result in sample SHM-13-08-SPR23 was qualified as estimated (J).

Fall 2023

- The differences between the chloride and sulfate results in the field duplicate analysis were greater than the acceptance criteria in association with field duplicate samples SHL-DUP09-FAL23 and SHP-2016-07B-FAL23, and SHL-DUP10-FAL23 and SHP-2023-3B-FAL23. The chloride and sulfate results in these samples were qualified as estimated (J).
- The MS/MSD performed using sample SHM-93-18B-FAL23 exhibited an MSD recovery for dissolved manganese less than the acceptance criteria. The dissolved manganese result in sample SHM-93-18B-FAL23 was qualified as estimated (J) with a potential for low bias.
- Dissolved manganese was detected in the lab blank. The dissolved manganese result in sample SHP-2016-1A-FAL23 was qualified as not detected (U).
- Alkalinity was detected in the equipment blank SHL-RB03-FAL23. The alkalinity result in sample SHL-23-FAL23 was qualified as estimated with a possible high bias (J+).

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_E:

SDG #	**Fraction**
680-236128-1	Alkalinity, Chloride, Sulfate, DOC

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-236128-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236128-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-PZ-2012-1A-SPR23	680-236128-1	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-1B-SPR23	680-236128-2	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-7B-SPR23	680-236128-3	Water	Field Sample/N	X	X	X	X	X
SHM-05-41B-SPR23	680-236128-4	Water	Field Sample/N	X	X	X	X	X
SHP-2016-3A-SPR23	680-236128-5	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236128-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 35 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist,
Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.

U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high
Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result	

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_H:

SDG #	**Fraction**
680-236378-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-236378-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236378-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-PZ-2012-2A-SPR23	680-236378-1	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-2B-SPR23	680-236378-2	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-7A-SPR23	680-236378-3	Water	Field Sample/N	X	X	X	X	X
PZ-12-01-SPR23	680-236378-4	Water	Field Sample/N	X	X	X	X	X
PZ-12-02-SPR23	680-236378-5	Water	Field Sample/N	X	X	X	X	X
PZ-12-03-SPR23	680-236378-6	Water	Field Sample/N	X	X	X	X	X
PZ-12-04-SPR23	680-236378-7	Water	Field Sample/N	X	X	X	X	X
PZ-12-05-SPR23	680-236378-8	Water	Field Sample/N	X	X	X	X	X
SHM-93-22B-SPR23	680-236378-9	Water	Field Sample/N	X	X	X	X	X
SHP-2016-2A-SPR23	680-236378-10	Water	Field Sample/N	X	X	X	X	X
SHP-2016-2B-SPR23	680-236378-11	Water	Field Sample/N	X	X	X	X	X
SHP-2016-3B-SPR23	680-236378-12	Water	Field Sample/N	X	X	X	X	X
SHP-2016-4A-SPR23	680-236378-13	Water	Field Sample/N	X	X	X	X	X
SHP-2016-4B-SPR23	680-236378-14	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236378-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 98 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.

U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high
Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result	

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

October 3, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on September 21, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57535:

SDG #	**Fraction**
680-236378-2	Dissolved Metals

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

31 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57535 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)																															
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236378-2	09/21/23	10/05/23	14	0																														

Data Validation Report for 680-236378-2

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236378-2
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Long Ngo, Senior Scientist
Date Submitted:	

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	SW6010C - Dissolved	SW6020A - Dissolved
EPA-PZ-2012-2A-SPR23	680-236378-1	Water	Field Sample/N	X	X
EPA-PZ-2012-2B-SPR23	680-236378-2	Water	Field Sample/N	X	X
EPA-PZ-2012-7A-SPR23	680-236378-3	Water	Field Sample/N	X	X
PZ-12-01-SPR23	680-236378-4	Water	Field Sample/N	X	X
PZ-12-02-SPR23	680-236378-5	Water	Field Sample/N	X	X
PZ-12-03-SPR23	680-236378-6	Water	Field Sample/N	X	X
PZ-12-04-SPR23	680-236378-7	Water	Field Sample/N	X	X
PZ-12-05-SPR23	680-236378-8	Water	Field Sample/N	X	X
SHM-93-22B-SPR23	680-236378-9	Water	Field Sample/N	X	X
SHP-2016-2A-SPR23	680-236378-10	Water	Field Sample/N	X	X
SHP-2016-2B-SPR23	680-236378-11	Water	Field Sample/N	X	X
SHP-2016-3B-SPR23	680-236378-12	Water	Field Sample/N	X	X
SHP-2016-4A-SPR23	680-236378-13	Water	Field Sample/N	X	X
SHP-2016-4B-SPR23	680-236378-14	Water	Field Sample/N	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236378-2. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 42 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.

October 03, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist,
Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Long Ngo, Senior Scientist, Laboratory Data Consultants, Inc.

October 03, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW6010C, Dissolved, Lab Blank

The purpose of laboratory blanks is to determine the existence and magnitude of cross-contamination problems resulting from laboratory activities. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in laboratory blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
MB6807930081A (LB)	Iron	44.5	< 20	< 100	ug/l	U/None*	L	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

No results associated with this QC element required qualification.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
L	Lab Blank
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?		•		Iron was detected in the method blank but no results were qualified.
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_I:

SDG #	Fraction
680-236434-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-236434-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236434-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-DUP01-SPR23	680-236434-3	Water	Field Duplicate/FD	X	X	X	X	X
EPA-PZ-2012-4A-SPR23	680-236434-1	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-4B-SPR23	680-236434-2	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-5A-SPR23	680-236434-4	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-5B-SPR23	680-236434-5	Water	Field Sample/N	X	X	X	X	X
PZ-12-06-SPR23	680-236434-6	Water	Field Sample/N	X	X	X	X	X
PZ-12-09-SPR23	680-236434-8	Water	Field Sample/N	X	X	X	X	X
PZ-12-10-SPR23	680-236434-9	Water	Field Sample/N	X	X	X	X	X
SHL-11-SPR23	680-236434-10	Water	Field Sample/N	X	X	X	X	X
SHL-DUP02-SPR23	680-236434-7	Water	Field Duplicate/FD	X	X	X	X	X
SHM-05-41C-SPR23	680-236434-11	Water	Field Sample/N	X	X	X	X	X
SHM-96-5B-SPR23	680-236434-12	Water	Field Sample/N	X	X	X	X	X
SHM-DUP04-SPR23	680-236434-13	Water	Field Duplicate/FD	X	X	X	X	X
SHP-01-38A-SPR23	680-236434-14	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06B-SPR23	680-236434-16	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06C-SPR23	680-236434-17	Water	Field Sample/N	X	X	X	X	X
SHP-2016-1A-SPR23	680-236434-18	Water	Field Sample/N	X	X	X	X	X
SHP-DUP05-SPR23	680-236434-15	Water	Field Duplicate/FD	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236434-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 1 results (0.79%) out of the 126 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW9060A, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
PZ-12-10-SPR23 (MS)	Dissolved Organic Carbon	76.0	80 - 120	10 - 120	percent	J/UJ	M	
PZ-12-10-SPR23 (SD)	Dissolved Organic Carbon	77.0	80 - 120	10 - 120	percent	J/UJ	M	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

Qualified Results associated with the MS Recovery for SW9060A, Dissolved

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
PZ-12-10-SPR23 680-236434-9	N	Dissolved Organic Carbon	1.50	0.620 J J1	0.620 J	-	mg/l	M/TR

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Table of All Qualified Results

Test Method: SW9060A		**Extraction Method: FLDFLT**						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
PZ-12-10-SPR23 680-236434-9	N	Dissolved Organic Carbon	1.50	0.620 J J1	0.620 J	-	mg/l	M/TR

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
M	MS Recovery
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		MS and MSD recovery outside limits. Parent result qualified J.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236434-1

Location	Analysis
EPA-PZ-2012-4B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Alkalinity, Total (as CaCO3)	95.0	94.0	5.00	1.06	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Iron (FLDFLT)	46000	45000	100	2.20	30	OK	NA
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Manganese (FLDFLT)	1000	1000	10.0	0.00	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Arsenic (FLDFLT)	1700	1600	5.00	6.06	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Chloride	31.0	31.0	0.500	0.00	30	OK	NA
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Sulfate	27.0	27.0	1.00	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236434-1

Location	Analysis
EPA-PZ-2012-4B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-SPR23 / EPA-DUP01-SPR23	680-236434-2 / 680-236434-3	Dissolved Organic Carbon (FLDFLT)	1.90	1.80	1.50	5.41	30	NA	OK

Location	Analysis
PZ-12-06	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Alkalinity, Total (as CaCO3)	41.0	40.0	5.00	2.47	30	OK	NA

Location	Analysis
PZ-12-06	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Iron (FLDFLT)	ND	31.0	100	NA	30	NA	OK
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Manganese (FLDFLT)	160	160	10.0	0.00	30	OK	NA

Location	Analysis
PZ-12-06	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Arsenic (FLDFLT)	ND	ND	5.00	NA	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG

Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236434-1

Location	Analysis
PZ-12-06	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Chloride	1.80	1.80	0.500	0.00	30	NA	OK
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Sulfate	42.0	42.0	1.00	0.00	30	OK	NA

Location	Analysis
PZ-12-06	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-SPR23 / SHL-DUP02-SPR23	680-236434-6 / 680-236434-7	Dissolved Organic Carbon (FLDFLT)	0.960	0.900	1.50	6.45	30	NA	OK

Location	Analysis
SHM-96-5B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Alkalinity, Total (as CaCO3)	180	170	5.00	5.71	30	OK	NA

Location	Analysis
SHM-96-5B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Iron (FLDFLT)	14000	13000	100	7.41	30	OK	NA
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Manganese (FLDFLT)	8400	8500	10.0	1.18	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236434-1

Location	Analysis
SHM-96-5B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Arsenic (FLDFLT)	950	880	5.00	7.65	30	OK	NA

Location	Analysis
SHM-96-5B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Chloride	37.0	37.0	0.500	0.00	30	OK	NA
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Sulfate	25.0	24.0	1.00	4.08	30	OK	NA

Location	Analysis
SHM-96-5B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-SPR23 / SHM-DUP04-SPR23	680-236434-12 / 680-236434-13	Dissolved Organic Carbon (FLDFLT)	1.40	1.40	1.50	0.00	30	NA	OK

Location	Analysis
SHP-01-38A	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Alkalinity, Total (as CaCO3)	58.0	58.0	5.00	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236434-1

Location	Analysis
SHP-01-38A	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Iron (FLDFLT)	15000	14000	100	6.90	30	OK	NA
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Manganese (FLDFLT)	1500	1400	10.0	6.90	30	OK	NA

Location	Analysis
SHP-01-38A	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Arsenic (FLDFLT)	80.0	77.0	5.00	3.82	30	OK	NA

Location	Analysis
SHP-01-38A	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Chloride	1.10	1.00	0.500	9.52	30	NA	OK
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Sulfate	9.90	9.80	1.00	1.02	30	OK	NA

Location	Analysis
SHP-01-38A	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-SPR23 / SHP-DUP05-SPR23	680-236434-14 / 680-236434-15	Dissolved Organic Carbon (FLDFLT)	0.960	0.970	1.50	1.04	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_K:

SDG #	**Fraction**
680-236498-2	Wet Chemistry, Dissolved Metals

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-236498-2

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236498-2
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-PZ-2012-3A-SPR23	680-236498-20	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-3B-SPR23	680-236498-21	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-6A-SPR23	680-236498-22	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-6B-SPR23	680-236498-23	Water	Field Sample/N	X	X	X	X	X
EW-01-SPR23	680-236498-24	Water	Field Sample/N	X	X	X	X	X
EW-04-SPR23	680-236498-25	Water	Field Sample/N	X	X	X	X	X
PZ-12-07-SPR23	680-236498-13	Water	Field Sample/N	X	X	X	X	X
PZ-12-08-SPR23	680-236498-14	Water	Field Sample/N	X	X	X	X	X
SHL-10-SPR23	680-236498-15	Water	Field Sample/N	X	X	X	X	X
SHL-19-SPR23	680-236498-16	Water	Field Sample/N	X	X	X	X	X
SHL-20-SPR23	680-236498-17	Water	Field Sample/N	X	X	X	X	X
SHL-4-SPR23	680-236498-19	Water	Field Sample/N	X	X	X	X	X
SHL-DUP03-SPR23	680-236498-18	Water	Field Duplicate/FD	X	X	X	X	X
SHL-RB01-SPR23	680-236498-29	Water	Equipment Blank/EB		X	X		
SHM-07-05X-SPR23	680-236498-4	Water	Field Sample/N	X	X	X	X	X
SHM-11-02-SPR23	680-236498-5	Water	Field Sample/N	X	X	X	X	X
SHM-11-06-SPR23	680-236498-6	Water	Field Sample/N	X	X	X	X	X
SHM-13-04-SPR23	680-236498-7	Water	Field Sample/N	X	X	X	X	X
SHM-13-06-SPR23	680-236498-8	Water	Field Sample/N	X	X	X	X	X

Data Validation Report for 680-236498-2

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHM-13-07-SPR23	680-236498-9	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06A-SPR23	680-236498-10	Water	Field Sample/N	X	X	X	X	X
SHP-2016-07A-SPR23	680-236498-11	Water	Field Sample/N	X	X	X	X	X
SHP-2016-07B-SPR23	680-236498-12	Water	Field Sample/N	X	X	X	X	X
SHP-2016-5A-SPR23	680-236498-26	Water	Field Sample/N	X	X	X	X	X
SHP-2016-5B-SPR23	680-236498-27	Water	Field Sample/N	X	X	X	X	X
SHP-DUP06-SPR23	680-236498-28	Water	Field Duplicate/FD	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236498-2. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- LLLCS Recovery
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 178 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.

U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high
Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result	

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236498-2

Location	Analysis
SHL-20	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Alkalinity, Total (as CaCO3)	86.0	84.0	5.00	2.35	30	OK	NA

Location	Analysis
SHL-20	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Iron (FLDFLT)	49000	47000	100	4.17	30	OK	NA
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Manganese (FLDFLT)	3600	3500	10.0	2.82	30	OK	NA

Location	Analysis
SHL-20	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Arsenic (FLDFLT)	820	780	5.00	5.00	30	OK	NA

Location	Analysis
SHL-20	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Chloride	110	110	0.500	0.00	30	OK	NA
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Sulfate	53.0	54.0	1.00	1.87	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236498-2

Location	Analysis
SHL-20	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-SPR23 / SHL-DUP03-SPR23	680-236498-17 / 680-236498-18	Dissolved Organic Carbon (FLDFLT)	1.50	1.50	1.50	0.00	30	NA	OK

Location	Analysis
SHP-2016-5A	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Alkalinity, Total (as CaCO3)	46.0	46.0	5.00	0.00	30	OK	NA

Location	Analysis
SHP-2016-5A	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Iron (FLDFLT)	1600	1600	100	0.00	30	OK	NA
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Manganese (FLDFLT)	210	210	10.0	0.00	30	OK	NA

Location	Analysis
SHP-2016-5A	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Arsenic (FLDFLT)	2.40	2.60	5.00	8.00	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
Field Duplicates for SDG: 680-236498-2

Location	Analysis
SHP-2016-5A	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Chloride	24.0	24.0	0.500	0.00	30	OK	NA
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Sulfate	1.20	1.20	1.00	0.00	30	NA	OK

Location	Analysis
SHP-2016-5A	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-5A-SPR23 / SHP-DUP06-SPR23	680-236498-26 / 680-236498-28	Dissolved Organic Carbon (FLDFLT)	5.00	4.90	1.50	2.02	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_L:

SDG #	**Fraction**
680-236818-1	Wet Chemistry, Dissolved Metals

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-236818-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-236818-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHM-05-40X-SPR23	680-236818-5	Water	Field Sample/N	X	X	X	X	X
SHM-13-03-SPR23	680-236818-1	Water	Field Sample/N	X	X	X	X	X
SHM-13-08-SPR23	680-236818-2	Water	Field Sample/N	X	X	X	X	X
SHP-01-36X-SPR23	680-236818-3	Water	Field Sample/N	X	X	X	X	X
SHP-01-37X-SPR23	680-236818-4	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-236818-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- LLLCS Recovery
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 2 results (5.71%) out of the 35 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW6010C, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHM-05-40X-SPR23 (MS)	Manganese	87.0	90 - 114	10 - 125	percent	J/UJ	M	
SHM-05-40X-SPR23 (SD)	Manganese	87.0	90 - 114	10 - 125	percent	J/UJ	M	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

Qualified Results associated with the MS Recovery for SW6010C, Dissolved

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHM-05-40X-SPR23 680-236818-5	N	Manganese	10.0	630 J1	630 J	-	ug/l	M

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Quality Control Outliers for test method SW6020A, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHM-05-40X-SPR23 (MS)	Arsenic	150	84 - 116	10 - 125	percent	J/None	M	Spike amount Insignificant
SHM-05-40X-SPR23 (SD)	Arsenic	20.0	84 - 116	10 - 125	percent	J/UJ	M	Spike amount Insignificant

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

No results associated with this QC element required qualification.

Table of All Qualified Results

Test Method: SW6010C		Extraction Method: FLDFLT						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHM-05-40X-SPR23 680-236818-5	N	Manganese	10.0	630 J1	630 J	-	ug/l	M
SHM-13-08-SPR23 680-236818-2	N	Manganese	10.0	670	670 J		ug/l	A

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Table of Results with Modified Qualifiers

Modified Qualifiers for test method SW6010C, Dissolved							
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	ADR Result	Modified Result	Reason
SHM-13-08-SPR23 680-236818-2	N	Manganese	10.0	670	670	670 J	A

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Reason Code Definitions

Code	Definition
A	Serial dilution
M	MS Recovery
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		Manganese outside limits. Parent result qualified UJ.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		Arsenic recovery outside limits. Spike amount >4X, no data qualified.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•		•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

August 28, 2023

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on July 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57156_M:

SDG #	**Fraction**
680-237047-1	Wet Chemistry, Dissolved Metals

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

547 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	VOA (8260D)		Pest. (8081B)		Metals (6010C/20A /7470A)		As,Mn (6010C /6020A)		3 D.Met. (6010C /6020A)		VPH (MADEP -VPH		EPH (MADEP -EPH		Methane Ethane Ethene																	
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	8	0	-	-	-	-	-	-	7	0	-	-	-	-	6	0																
B	680-236086-1	07/26/23	08/09/23	5	0	-	-	-	-	-	-	4	0	-	-	-	-	3	0																
C	680-236086-2	07/26/23	08/09/23	2	0	-	-	-	-	2	0	-	-	2	0	-	-	-	-																
D	680-236120-1	07/26/23	08/09/23	-	-	5	0	5	0	-	-	-	-	5	0	10	0	-	-																
E	680-236128-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
F	680-236128-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	4	0	-	-	-	-	-	-																
G	680-236128-3	07/26/23	08/09/23	6	0	-	-	-	-	4	0	-	-	4	0	-	-	-	-																
H	680-236378-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	14	0	-	-	-	-	-	-																
I	680-236434-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	18	0	-	-	-	-	-	-																
J	680-236498-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	2	0	-	-	-	-	-	-																
K	680-236498-2	07/26/23	08/09/23	-	-	-	-	-	-	-	-	26	0	-	-	-	-	-	-																
L	680-236818-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	5	0	-	-	-	-	-	-																
M	680-237047-1	07/26/23	08/09/23	-	-	-	-	-	-	-	-	1	0	-	-	-	-	-	-																
Total	TR/PG			24	0	5	0	5	0	6	0	86	0	11	0	10	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156

Stage 2B EQUIS EDD

LDC# 57156 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	Alk (2320B)		COD (410.4)		CN- (9012B)		Cl (9056A)		DOC (9060A)		NO_3 /NO_2-N (353.2)		SO_4 (9056A)		S= (9034)		TDS (2540C)		TOC (9060A)													
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-236018-1	07/26/23	08/09/23	6	0	-	-	-	-	-	-	-	-	6	0	6	0	6	0	-	-	6	0												
B	680-236086-1	07/26/23	08/09/23	3	0	-	-	-	-	-	-	-	-	3	0	3	0	3	0	-	-	3	0												
D	680-236120-1	07/26/23	08/09/23	5	0	5	0	5	0	5	0	-	-	5	0	5	0	-	-	5	0	-	-												
E	680-236128-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
H	680-236378-1	07/26/23	08/09/23	14	0	-	-	-	-	14	0	14	0	-	-	14	0	-	-	-	-	-	-												
I	680-236434-1	07/26/23	08/09/23	18	0	-	-	-	-	18	0	18	0	-	-	18	0	-	-	-	-	-	-												
K	680-236498-2	07/26/23	08/09/23	25	0	-	-	-	-	25	0	25	0	-	-	25	0	-	-	-	-	-	-												
L	680-236818-1	07/26/23	08/09/23	5	0	-	-	-	-	5	0	5	0	-	-	5	0	-	-	-	-	-	-												
M	680-237047-1	07/26/23	08/09/23	1	0	-	-	-	-	1	0	1	0	-	-	1	0	-	-	-	-	-	-												
Total	TR/PG			82	0	5	0	5	0	73	0	68	0	14	0	82	0	9	0	5	0	9	0	0	0	0	0	0	0	0	0	0	0	0	352

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

Data Validation Report for 680-237047-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Spring 2023
SDG:	680-237047-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Allie Jefferson, Chemist/ERPIMS Specialist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	August 24, 2023

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHP-2016-1B-SPR23	680-237047-1	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-237047-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 7 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

August 24, 2023

Reviewed by Allie Jefferson, Chemist/ERPIMS Specialist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

August 28, 2023

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.

UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		All data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

February 13, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on January 24, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #55966:

SDG #	**Fraction**
FC1773	Metals

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

39 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 55966 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC1773	01/24/23	02/14/23	1	0																														

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Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

March 6, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on February 14, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56116:

SDG #	**Fraction**
FC2422	Metals

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

43 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 56116 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC2422	02/14/23	03/08/23	1	0																														

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2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

April 20, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on March 31, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56393:

SDG #	**Fraction**
FC3333	Metals, Wet Chemistry

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

129 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A)

LDC# 56393 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)

LDC	SDG#	DATE REC'D	(3) DATE DUE	(3) Metals (6010D)		Fe,Mn (6010D)		As (6020B)		Cl,SO_4 (300.0 /9056A)		NO_3N (353.2)		NO_2-N (353.2)		NO_3/ NO_2-N (353.2)																					
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC3333	03/31/23	04/21/23	1	0	2	0	2	0	1	0	1	0	1	0	1	0																				
Total	TR/PG			1	0	2	0	2	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9

Shaded cells indicate Stage 4 validation (all other cells are ADR review). These sample counts do not include MS, MSD, or DUP's.

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2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

June 27, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on April 26, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56577:

SDG #	Fraction
FC5089	Arsenic

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

51 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 56577 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC5089	04/26/23	05/17/23	1	0																														

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

June 27, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on May 24, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56746:

SDG #	**Fraction**
FC5877	Arsenic

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

41 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 56746 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC5877	05/24/23	06/15/23	1	0																														
Total	TR/PG			1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

Shaded cells indicate Stage 4 validation (all other cells are ADR review). These sample counts do not include MS, MSD, or DUP's.

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LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

August 23, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on June 27, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #56970:

SDG #	**Fraction**
FC6782	Metals, Wet Chemistry

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,



Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

108 pages-ADV (no worksheets) (1 SDG per LDC#) R1 (changed job name) Attachment 1

ADR (Stage 2A)

LDC# 56970 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)

LDC	SDG#	DATE REC'D	(3) DATE DUE	(3) Metals (6010D)		Fe, Mn (6010D)		As (6020B)		Cl, SO_4 (300.0 /9056A)		NO_3-N (353.2)		NO_2-N (4500 -NO2)		NO_3/ NO_2-N (353.2)		NO_3/ NO_2-N (300.0)																	
Matrix: Water/Sediment				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC6782	06/27/23	07/19/23	1	0	2	0	2	0	1	0	1	0	1	0	1	0	1	0																
Total	TR/PG			1	0	2	0	2	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10

Shaded cells indicate Level IV validation (all other cells are ADR review). These sample counts do not include MS, MSD, or DUP's.

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LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

August 22, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on August 4, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57220:

SDG #	**Fraction**
FC7605/223072146	Arsenic

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,



Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

96 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 57220 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC7605/ 223072146	08/04/23	08/25/23	1	0																														

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Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

October 12, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on September 6, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57446:

SDG #	**Fraction**
FC8458/20285718	Arsenic

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

ADR (Stage 2A) **LDC# 57446 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix: Water/Sediment				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC8458/20285718	09/06/23	09/27/23	1	0																														

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Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

December 14, 2023

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fraction listed below. This SDG was received on November 20, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57971:

SDG #	**Fraction**
FC10888	Arsenic

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Allie Robertson

Allie Robertson
ajefferson@lab-data.com
Project Manager/Chemist

37 pages-ADV (no worksheets)

Attachment 1

ADR (Stage 2A) **LDC# 57971 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	As (6020B)																															
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC10888	11/20/23	12/13/23	1	0																														

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

February 7, 2024

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 22, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58287:

SDG #	Fraction
FC10955	Volatiles, Semivolatiles, Chlorinated Pesticides and Polychlorinated Biphenyls, Metals, Mercury, Wet Chemistry

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Chemist

359 pages-ADV (no worksheets) (1 SDG per LDC#) Attachment 1

ADR (Stage 2A) **LDC# 58287 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)** **Bill to Luciano's Excavation**

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (624.1)		SVOA (625.1)		Pest. /PCBs (608.3)		Metals (6010D /7470A)		As (6020B)		Cl,SO_4 (300.0 /9056A)		NO_3-N (353.2)		NO_2-N (4500 -NO2)		NO_3/ NO_2-N (353.2)		NO_3/ NO_2-N (300.0)		O&G (1664A)													
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC10955	12/22/23	01/16/24	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0										

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

February 7, 2024

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on January 2, 2024. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58288:

SDG #	**Fraction**
FC10954	Volatiles, Metals, Methane and Ethene

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Chemist

181 pages-ADV (no worksheets) (1 SDG per LDC#) Attachment 1

ADR (Stage 2A) **LDC# 58288 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)** **Bill to Luciano's Excavation**

LDC	SDG#	DATE REC'D	(3) DATE DUE	VOA (8260D)		Fe, Mn (6010D)		As (6020B)		Methane Ethane (175)																											
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC10954	01/02/24	01/23/24	3	0	3	0	3	0	3	0																										
Total	TR/PG			3	0	3	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12

Shaded cells indicate Level IV validation (all other cells are ADR review). These sample counts do not include MS, MSD, or DUP's.

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LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Sovereign Consulting Inc.
16 Chestnut Street, Suite 500
Foxborough, MA 02045
ATTN: Mr. Steven Passafaro
spassafaro@sovcon.com

January 30, 2024

SUBJECT: Shepley's Hill - Data Validation

Dear Mr. Passafaro,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 22, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58243:

SDG #	**Fraction**
FC11636	Metals, Wet Chemistry

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan (QAPP) for Shepley's Hill Landfill Treatment System O&M Services, Devens, Massachusetts (March 2015)
- US Environmental Protection Agency (EPA) National Functional Guidelines (NFG) for Inorganic Superfund Data Review (January 2017)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Chemist

125 pages-ADV (no worksheets) (1 SDG per LDC#) Attachment 1

ADR (Stage 2A) **LDC# 58243 (Sovereign Consulting, Inc. - Foxborough, MA / Shepley's Hill)**

LDC	SDG#	DATE REC'D	(3) DATE DUE	(3) Metals (6010D)		Fe, Mn (6010D)		As (6020B)		Cl, SO_4 (300.0 /9056A)		NO_3-N (353.2)		NO_2-N (4500 -NO2)		NO_3/ NO_2-N (353.2)		NO_3/ NO_2-N (300.0)																	
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	FC11636	12/22/23	01/16/24	1	0	3	0	4	0	1	0	1	0	1	0	1	0	1	0																
Total	TR/PG			1	0	3	0	4	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13

Shaded cells indicate Level IV validation (all other cells are ADR review). These sample counts do not include MS, MSD, or DUP's.

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LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

February 20, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_E:

SDG #	**Fraction**
680-242827-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

250 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																									
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																								
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																								
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																								
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																								
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																								
Total	TR/PG			104	0	104	0	104	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

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Data Validation Report for 680-242827-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242827-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	February 20, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHP-2023-2A-FAL23	680-242827-1	Water	Field Sample/N	X	X	X	X	X
SHP-2023-2B-FAL23	680-242827-2	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242827-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 14 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

February 20, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

February 20, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.

UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high
Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result	

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

February 20, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_D:

SDG #	**Fraction**
680-242517-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

250 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																									
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																								
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																								
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																								
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																								
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																								
Total	TR/PG			104	0	104	0	104	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

V:\LOGIN\Arcadis\Fort Devens\58197ST.wpd

Data Validation Report for 680-242517-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242517-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	February 20, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-PZ-2012-1A-FAL23	680-242517-4	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-1B-FAL23	680-242517-5	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-2A-FAL23	680-242517-6	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-2B-FAL23	680-242517-7	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-4A-FAL23	680-242517-8	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-4B-FAL23	680-242517-9	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-6A-FAL23	680-242517-10	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-6B-FAL23	680-242517-11	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-7A-FAL23	680-242517-12	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-7B-FAL23	680-242517-13	Water	Field Sample/N	X	X	X	X	X
SHL-10-FAL23	680-242517-14	Water	Field Sample/N	X	X	X	X	X
SHL-3-FAL23	680-242517-15	Water	Field Sample/N	X	X	X	X	X
SHL-4-FAL23	680-242517-16	Water	Field Sample/N	X	X	X	X	X
SHL-DUP08-FAL23	680-242517-1	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP11-FAL23	680-242517-2	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP12-FAL23	680-242517-3	Water	Field Duplicate/FD	X	X	X	X	X
SHL-RB02-FAL23	680-242517-31	Water	Equipment Blank/EB	X	X	X	X	X
SHM-05-39A-FAL23	680-242517-17	Water	Field Sample/N	X	X	X	X	X
SHM-05-39B-FAL23	680-242517-18	Water	Field Sample/N	X	X	X	X	X

Data Validation Report for 680-242517-1

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHM-05-40X-FAL23	680-242517-19	Water	Field Sample/N	X	X	X	X	X
SHM-05-41A-FAL23	680-242517-20	Water	Field Sample/N	X	X	X	X	X
SHM-05-41B-FAL23	680-242517-21	Water	Field Sample/N	X	X	X	X	X
SHM-05-41C-FAL23	680-242517-22	Water	Field Sample/N	X	X	X	X	X
SHM-07-05X-FAL23	680-242517-23	Water	Field Sample/N	X	X	X	X	X
SHM-10-06-FAL23	680-242517-24	Water	Field Sample/N	X	X	X	X	X
SHM-13-01-FAL23	680-242517-25	Water	Field Sample/N	X	X	X	X	X
SHP-01-36X-FAL23	680-242517-26	Water	Field Sample/N	X	X	X	X	X
SHP-01-37X-FAL23	680-242517-27	Water	Field Sample/N	X	X	X	X	X
SHP-01-38A-FAL23	680-242517-28	Water	Field Sample/N	X	X	X	X	X
SHP-2016-5A-FAL23	680-242517-29	Water	Field Sample/N	X	X	X	X	X
SHP-2016-5B-FAL23	680-242517-30	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242517-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 217 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

February 20, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

February 20, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW6010C, Dissolved, Equipment Blank

The purpose of equipment blanks is to determine the existence and magnitude of cross-contamination problems resulting from the process during sampling. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in equipment blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHL-RB02-FAL23 (EB)	Iron	20.0	< 20	< 100	ug/l	U/None*	V	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

No results associated with this QC element required qualification.

Qualified Results

No results associated with this sample delivery group required qualification.

Table of Results with Modified Qualifiers

Modified Qualifiers for test method SW6010C, Dissolved

FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	ADR Result	ADR Reason	Modified Result	Reason
SHL-10-FAL23 680-242517-14	N	Iron	100	20.0 J	100 U	V	20.0 J	TR

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Reason Code Definitions

Code	Definition
TR	Trace Level Detect
V	Equipment Blank

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?		•		Analyte detected in the equipment blank but no results were qualified as the equipment blank detect was less than 1/2 the LOQ.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242517-1

Location	Analysis
EPA-PZ-2012-4B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Alkalinity, Total (as CaCO3)	230	230	5.50	0.00	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Iron (FLDFLT)	68000	68000	100	0.00	30	OK	NA
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Manganese (FLDFLT)	2600	2600	10.0	0.00	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Arsenic (FLDFLT)	3000	3100	5.00	3.28	30	OK	NA

Location	Analysis
EPA-PZ-2012-4B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Chloride	22.0	22.0	0.550	0.00	30	OK	NA
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Sulfate	13.0	13.0	1.50	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242517-1

Location	Analysis
EPA-PZ-2012-4B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-4B-FAL23 / SHL-DUP11-FAL23	680-242517-9 / 680-242517-2	Dissolved Organic Carbon (FLDFLT)	2.60	2.40	1.50	8.00	30	NA	OK

Location	Analysis
EPA-PZ-2012-6B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Alkalinity, Total (as CaCO3)	140	150	5.50	6.90	30	OK	NA

Location	Analysis
EPA-PZ-2012-6B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Iron (FLDFLT)	66000	67000	100	1.50	30	OK	NA
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Manganese (FLDFLT)	2300	2300	10.0	0.00	30	OK	NA

Location	Analysis
EPA-PZ-2012-6B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Arsenic (FLDFLT)	430	450	5.00	4.55	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242517-1

Location	Analysis
EPA-PZ-2012-6B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Chloride	3.10	3.10	0.550	0.00	30	OK	NA
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Sulfate	3.00	3.20	1.50	6.45	30	NA	OK

Location	Analysis
EPA-PZ-2012-6B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
EPA-PZ-2012-6B-FAL23 / SHL-DUP12-FAL23	680-242517-11 / 680-242517-3	Dissolved Organic Carbon (FLDFLT)	1.90	2.00	1.50	5.13	30	NA	OK

Location	Analysis
SHP-01-38A	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Alkalinity, Total (as CaCO3)	74.0	75.0	5.50	1.34	30	OK	NA

Location	Analysis
SHP-01-38A	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Iron (FLDFLT)	18000	18000	100	0.00	30	OK	NA
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Manganese (FLDFLT)	1800	1800	10.0	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242517-1

Location	Analysis
SHP-01-38A	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Arsenic (FLDFLT)	110	100	5.00	9.52	30	OK	NA

Location	Analysis
SHP-01-38A	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Chloride	0.600	0.600	0.550	0.00	30	NA	OK
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Sulfate	6.50	6.80	1.50	4.51	30	NA	OK

Location	Analysis
SHP-01-38A	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-01-38A-FAL23 / SHL-DUP08-FAL23	680-242517-28 / 680-242517-1	Dissolved Organic Carbon (FLDFLT)	1.30	1.20	1.50	8.00	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

February 20, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_A:

SDG #	**Fraction**
680-242110-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

250 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																									
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																								
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																								
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																								
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																								
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																								
Total	TR/PG			104	0	104	0	104	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

V:\LOGIN\Arcadis\Fort Devens\58197ST.wpd

Data Validation Report for 680-242110-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242110-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	February 20, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
PZ-12-07-FAL23	680-242110-1	Water	Field Sample/N	X	X	X	X	X
PZ-12-08-FAL23	680-242110-2	Water	Field Sample/N	X	X	X	X	X
SHM-11-02-FAL23	680-242110-3	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242110-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 21 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

February 20, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

February 20, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW6010C, Dissolved, Lab Blank

The purpose of laboratory blanks is to determine the existence and magnitude of cross-contamination problems resulting from laboratory activities. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in laboratory blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
MB6808044271A (LB)	Iron	52.1	< 20	< 100	ug/l	U/None*	L	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

No results associated with this QC element required qualification.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
L	Lab Blank
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?		•		No results were qualified due to method blank contamination.
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?			•	Not applicable to this method.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

February 20, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_B:

SDG #	**Fraction**
680-242420-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

250 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																									
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																								
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																								
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																								
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																								
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																								
Total	TR/PG			104	0	104	0	104	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

V:\LOGIN\Arcadis\Fort Devens\58197ST.wpd

Data Validation Report for 680-242420-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242420-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	February 20, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
PZ-12-01-FAL23	680-242420-3	Water	Field Sample/N	X	X	X	X	X
PZ-12-02-FAL23	680-242420-4	Water	Field Sample/N	X	X	X	X	X
PZ-12-09-FAL23	680-242420-5	Water	Field Sample/N	X	X	X	X	X
PZ-12-10-FAL23	680-242420-6	Water	Field Sample/N	X	X	X	X	X
SHL-11-FAL23	680-242420-7	Water	Field Sample/N	X	X	X	X	X
SHL-12-FAL23	680-242420-8	Water	Field Sample/N	X	X	X	X	X
SHL-15-FAL23	680-242420-9	Water	Field Sample/N	X	X	X	X	X
SHL-19-FAL23	680-242420-10	Water	Field Sample/N	X	X	X	X	X
SHL-22-FAL23	680-242420-11	Water	Field Sample/N	X	X	X	X	X
SHL-7-FAL23	680-242420-12	Water	Field Sample/N	X	X	X	X	X
SHL-9-FAL23	680-242420-13	Water	Field Sample/N	X	X	X	X	X
SHL-DUP03-FAL23	680-242420-1	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP06-FAL23	680-242420-2	Water	Field Duplicate/FD	X	X	X	X	X
SHL-RB01-FAL23	680-242420-44	Water	Equipment Blank/EB	X	X	X	X	X
SHM-05-42A-FAL23	680-242420-14	Water	Field Sample/N	X	X	X	X	X
SHM-05-42B-FAL23	680-242420-15	Water	Field Sample/N	X	X	X	X	X
SHM-10-05A-FAL23	680-242420-16	Water	Field Sample/N	X	X	X	X	X
SHM-10-10-FAL23	680-242420-17	Water	Field Sample/N	X	X	X	X	X
SHM-10-11-FAL23	680-242420-18	Water	Field Sample/N	X	X	X	X	X

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHM-10-12-FAL23	680-242420-19	Water	Field Sample/N	X	X	X	X	X
SHM-10-16-FAL23	680-242420-20	Water	Field Sample/N	X	X	X	X	X
SHM-11-06-FAL23	680-242420-21	Water	Field Sample/N	X	X	X	X	X
SHM-13-02-FAL23	680-242420-22	Water	Field Sample/N	X	X	X	X	X
SHM-13-03-FAL23	680-242420-23	Water	Field Sample/N	X	X	X	X	X
SHM-13-05-FAL23	680-242420-24	Water	Field Sample/N	X	X	X	X	X
SHM-13-06-FAL23	680-242420-25	Water	Field Sample/N	X	X	X	X	X
SHM-13-07-FAL23	680-242420-26	Water	Field Sample/N	X	X	X	X	X
SHM-13-08-FAL23	680-242420-27	Water	Field Sample/N	X	X	X	X	X
SHM-13-14D-FAL23	680-242420-28	Water	Field Sample/N	X	X	X	X	X
SHM-13-14S-FAL23	680-242420-29	Water	Field Sample/N	X	X	X	X	X
SHM-13-15-FAL23	680-242420-30	Water	Field Sample/N	X	X	X	X	X
SHM-93-22B-FAL23	680-242420-31	Water	Field Sample/N	X	X	X	X	X
SHM-93-22C-FAL23	680-242420-32	Water	Field Sample/N	X	X	X	X	X
SHM-93-24A-FAL23	680-242420-33	Water	Field Sample/N	X	X	X	X	X
SHM-99-31A-FAL23	680-242420-34	Water	Field Sample/N	X	X	X	X	X
SHM-99-31B-FAL23	680-242420-35	Water	Field Sample/N	X	X	X	X	X
SHM-99-31C-FAL23	680-242420-36	Water	Field Sample/N	X	X	X	X	X
SHM-99-32X-FAL23	680-242420-37	Water	Field Sample/N	X	X	X	X	X
SHP-2016-1A-FAL23	680-242420-38	Water	Field Sample/N	X	X	X	X	X
SHP-2016-1B-FAL23	680-242420-39	Water	Field Sample/N	X	X	X	X	X
SHP-2016-2A-FAL23	680-242420-40	Water	Field Sample/N	X	X	X	X	X
SHP-2016-2B-FAL23	680-242420-41	Water	Field Sample/N	X	X	X	X	X
SHP-2016-4A-FAL23	680-242420-42	Water	Field Sample/N	X	X	X	X	X
SHP-2016-4B-FAL23	680-242420-43	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242420-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 1 results (0.32%) out of the 308 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

February 20, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

February 20, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method SW6010C, Dissolved, Lab Blank

The purpose of laboratory blanks is to determine the existence and magnitude of cross-contamination problems resulting from laboratory activities. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in laboratory blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
MB6808059451A (LB)	Manganese	2.29	< 1.3	< 10	ug/l	U/None*	L	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

Qualified Results associated with the Lab Blank for SW6010C, Dissolved

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHP-2016-1A-FAL23 680-242420-38	N	Manganese	10.0	2.80 J	10.0 U		ug/l	L

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Quality Control Outliers for test method SW6010C, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHM-10-12-FAL23 (MS)	Iron	66.0	87 - 115	10 - 125	percent	J/UJ	M	Spike amount Insignificant
SHM-10-12-FAL23 (SD)	Iron	18.0	87 - 115	10 - 125	percent	J/UJ	M	Spike amount Insignificant
SHM-10-12-FAL23 (MS)	Manganese	80.0	90 - 114	10 - 125	percent	J/UJ	M	Spike amount Insignificant
SHM-10-12-FAL23 (SD)	Manganese	45.0	90 - 114	10 - 125	percent	J/UJ	M	Spike amount Insignificant
SHM-13-05-FAL23 (MS)	Manganese	45.0	90 - 114	10 - 125	percent	J/UJ	M	Spike amount Insignificant
SHM-13-05-FAL23 (SD)	Manganese	65.0	90 - 114	10 - 125	percent	J/UJ	M	Spike amount Insignificant

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

No results associated with this QC element required qualification.

Quality Control Outliers for test method SW6020A, Dissolved, Equipment Blank

The purpose of equipment blanks is to determine the existence and magnitude of cross-contamination problems resulting from the process during sampling. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in equipment blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHL-RB01-FAL23 (EB)	Arsenic	1.10	< 0.86	< 5	ug/l	U/None*	V	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

No results associated with this QC element required qualification.

Quality Control Outliers for test method SW6020A, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHM-10-12-FAL23 (MS)	Arsenic	-20.0	84 - 116	10 - 125	percent	J/X	M	Spike amount Insignificant
SHM-10-12-FAL23 (SD)	Arsenic	-190	84 - 116	10 - 125	percent	J/X	M	Spike amount Insignificant

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

No results associated with this QC element required qualification.

Table of All Qualified Results

Test Method: SW6010C		Extraction Method: FLDFLT						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHP-2016-1A-FAL23 680-242420-38	N	Manganese	10.0	2.80 J	10.0 U		ug/l	L

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
L	Lab Blank
M	MS Recovery
TR	Trace Level Detect
V	Equipment Blank

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?		•		One result qualified U at the LOQ due to method blank contamination.
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		MS/MSD %R greater than %R limits but no results were qualified due to sample >4x spike.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?		•		Analyte detected in the equipment blank but no results were qualified as the equipment blank detect was less than 1/2 the LOQ.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		MS/MSD %R lower than %R limits but no results were qualified due to sample > 4x Spike.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Field Duplicate Report By SDG

Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242420-1

Location	Analysis
SHL-22	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Alkalinity, Total (as CaCO3)	270	270	5.50	0.00	30	OK	NA

Location	Analysis
SHL-22	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Iron (FLDFLT)	140	160	100	13.3	30	NA	OK
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Manganese (FLDFLT)	8200	8000	10.0	2.47	30	OK	NA

Location	Analysis
SHL-22	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Arsenic (FLDFLT)	10.0	11.0	5.00	9.52	30	NA	OK

Location	Analysis
SHL-22	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Chloride	35.0	33.0	0.550	5.88	30	OK	NA
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Sulfate	16.0	16.0	1.50	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242420-1

Location	Analysis
SHL-22	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-22-FAL23 / SHL-DUP03-FAL23	680-242420-11 / 680-242420-1	Dissolved Organic Carbon (FLDFLT)	1.40	1.20	1.50	15.4	30	NA	OK

Location	Analysis
SHM-11-06	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Alkalinity, Total (as CaCO3)	190	190	5.50	0.00	30	OK	NA

Location	Analysis
SHM-11-06	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Iron (FLDFLT)	76000	76000	100	0.00	30	OK	NA
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Manganese (FLDFLT)	1800	1900	10.0	5.41	30	OK	NA

Location	Analysis
SHM-11-06	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Arsenic (FLDFLT)	800	780	5.00	2.53	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242420-1

Location	Analysis
SHM-11-06	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Chloride	78.0	78.0	0.550	0.00	30	OK	NA
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Sulfate	13.0	13.0	1.50	0.00	30	OK	NA

Location	Analysis
SHM-11-06	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-11-06-FAL23 / SHL-DUP06-FAL23	680-242420-21 / 680-242420-2	Dissolved Organic Carbon (FLDFLT)	3.40	3.70	1.50	8.45	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

February 20, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_C:

SDG #	**Fraction**
680-242429-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

250 pages-ADV

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																									
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																								
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																								
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																								
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																								
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																								
Total	TR/PG			104	0	104	0	104	0	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	520

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

V:\LOGIN\Arcadis\Fort Devens\58197ST.wpd

Data Validation Report for 680-242429-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242429-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	February 20, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
N5-P1-FAL23	680-242429-4	Water	Field Sample/N	X	X	X	X	X
PZ-12-03-FAL23	680-242429-5	Water	Field Sample/N	X	X	X	X	X
PZ-12-04-FAL23	680-242429-6	Water	Field Sample/N	X	X	X	X	X
PZ-12-05-FAL23	680-242429-7	Water	Field Sample/N	X	X	X	X	X
PZ-12-06-FAL23	680-242429-8	Water	Field Sample/N	X	X	X	X	X
SHL-20-FAL23	680-242429-9	Water	Field Sample/N	X	X	X	X	X
SHL-5-FAL23	680-242429-10	Water	Field Sample/N	X	X	X	X	X
SHL-8D-FAL23	680-242429-11	Water	Field Sample/N	X	X	X	X	X
SHL-8S-FAL23	680-242429-12	Water	Field Sample/N	X	X	X	X	X
SHL-DUP01-FAL23	680-242429-1	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP02-FAL23	680-242429-2	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP07-FAL23	680-242429-3	Water	Field Duplicate/FD	X	X	X	X	X
SHM-10-02-FAL23	680-242429-13	Water	Field Sample/N	X	X	X	X	X
SHM-10-03-FAL23	680-242429-14	Water	Field Sample/N	X	X	X	X	X
SHM-10-04-FAL23	680-242429-15	Water	Field Sample/N	X	X	X	X	X
SHM-10-07-FAL23	680-242429-16	Water	Field Sample/N	X	X	X	X	X
SHM-10-08-FAL23	680-242429-17	Water	Field Sample/N	X	X	X	X	X
SHM-10-13-FAL23	680-242429-18	Water	Field Sample/N	X	X	X	X	X
SHM-10-14-FAL23	680-242429-19	Water	Field Sample/N	X	X	X	X	X

Data Validation Report for 680-242429-1

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHM-10-15-FAL23	680-242429-20	Water	Field Sample/N	X	X	X	X	X
SHM-13-04-FAL23	680-242429-21	Water	Field Sample/N	X	X	X	X	X
SHM-96-5B-FAL23	680-242429-22	Water	Field Sample/N	X	X	X	X	X
SHM-96-5C-FAL23	680-242429-23	Water	Field Sample/N	X	X	X	X	X
SHP-99-29X-FAL23	680-242429-24	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242429-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 0 results (0.00%) out of the 168 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

February 20, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

February 20, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

No Outliers were associated with this sample delivery group.

Qualified Results

No results associated with this sample delivery group required qualification.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
TR	Trace Level Detect

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.

U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias	
-	The result may be biased low
+	The result may be biased high
Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result	

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?			•	Not applicable to this method.
Were target analytes reported in the field blank(s) less than MDL?			•	Not applicable to this method.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242429-1

Location	Analysis
PZ-12-06	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Alkalinity, Total (as CaCO3)	26.0	27.0	5.50	3.77	30	NA	OK

Location	Analysis
PZ-12-06	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Iron (FLDFLT)	ND	ND	100	NA	30	NA	OK
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Manganese (FLDFLT)	29.0	29.0	10.0	0.00	30	NA	OK

Location	Analysis
PZ-12-06	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Arsenic (FLDFLT)	ND	ND	5.00	NA	30	NA	OK

Location	Analysis
PZ-12-06	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Chloride	0.790	0.790	0.550	0.00	30	NA	OK
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Sulfate	11.0	11.0	1.50	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242429-1

Location	Analysis
PZ-12-06	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
PZ-12-06-FAL23 / SHL-DUP01-FAL23	680-242429-8 / 680-242429-1	Dissolved Organic Carbon (FLDFLT)	0.750	0.980	1.50	26.6	30	NA	OK

Location	Analysis
SHL-20	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Alkalinity, Total (as CaCO3)	110	130	5.50	16.7	30	OK	NA

Location	Analysis
SHL-20	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Iron (FLDFLT)	62000	62000	100	0.00	30	OK	NA
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Manganese (FLDFLT)	4000	4000	10.0	0.00	30	OK	NA

Location	Analysis
SHL-20	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Arsenic (FLDFLT)	880	890	5.00	1.13	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242429-1

Location	Analysis
SHL-20	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Chloride	100	100	0.550	0.00	30	OK	NA
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Sulfate	59.0	60.0	1.50	1.68	30	OK	NA

Location	Analysis
SHL-20	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-20-FAL23 / SHL-DUP02-FAL23	680-242429-9 / 680-242429-2	Dissolved Organic Carbon (FLDFLT)	3.90	3.90	1.50	0.00	30	NA	OK

Location	Analysis
SHM-96-5B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Alkalinity, Total (as CaCO3)	160	170	5.50	6.06	30	OK	NA

Location	Analysis
SHM-96-5B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Iron (FLDFLT)	25000	24000	100	4.08	30	OK	NA
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Manganese (FLDFLT)	7800	7500	10.0	3.92	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242429-1

Location	Analysis
SHM-96-5B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Arsenic (FLDFLT)	1600	1500	5.00	6.45	30	OK	NA

Location	Analysis
SHM-96-5B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Chloride	38.0	38.0	0.550	0.00	30	OK	NA
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Sulfate	23.0	24.0	1.50	4.26	30	OK	NA

Location	Analysis
SHM-96-5B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHM-96-5B-FAL23 / SHL-DUP07-FAL23	680-242429-22 / 680-242429-3	Dissolved Organic Carbon (FLDFLT)	1.30	1.50	1.50	14.3	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ARCADIS U.S., Inc.
3109 West Martin Luther King Jr. Blvd, Suite 350
Tampa, FL 33607
ATTN: Mr. Nathan Mullens
nrmullens@seres-es.com

March 1, 2024

SUBJECT: Fort Devens - Data Validation

Dear Mr. Mullens,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on December 13, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #58197_F:

SDG #	**Fraction**
680-242677-1	Dissolved Metals, Wet Chemistry

The data validation was performed under Stage 2B guidelines. The analysis was validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng
pgeng@lab-data.com
Project Manager/Senior Chemist

310 pages-ADV R1 (added F)

Attachment 1

Stage 2B EQUIS EDD

LDC# 58197 (Arcadis - Millersville, MD / Fort Devens)

LDC	SDG#	DATE REC'D	(2) DATE DUE	3 D.Met. (6010C /6020A)		Alk (2320B)		DOC (9060A)		Cl (9056A)		SO_4 (9056A)																							
Matrix: Water/Soil				W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	680-242110-1	12/13/23	12/28/23	3	0	3	0	3	0	3	0	3	0																						
B	680-242420-1	12/13/23	12/28/23	44	0	44	0	44	0	44	0	44	0																						
C	680-242429-1	12/13/23	12/28/23	24	0	24	0	24	0	24	0	24	0																						
D	680-242517-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																						
E	680-242827-1	12/13/23	12/28/23	2	0	2	0	2	0	2	0	2	0																						
F	680-242677-1	12/13/23	12/28/23	31	0	31	0	31	0	31	0	31	0																						
Total	TR/PG			135	0	135	0	135	0	135	0	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	675

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation). These sample counts do not include MS/MSD, and DUPs

V:\LOGIN\Arcadis\Fort Devens\58197ST.wpd

Data Validation Report for 680-242677-1

Facility:	Former Fort Devens, Long Term Monitoring
Event:	Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
SDG:	680-242677-1
Guidance Document:	Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020
Prime Contractor:	Seres - Arcadis SB Joint Venture, LLC, Charleston, SC
Project Manager:	Jennifer Singer
Contract Laboratory(ies):	Eurofins Environment Testing TestAmerica, Savannah, GA
Data Review Contractor:	Laboratory Data Consultants, Inc.
Data Review Level:	2B
Primary Data Reviewer:	Long Ngo, Environmental Scientist
Second Reviewer:	Pei Geng, Senior Scientist
Date Submitted:	March 01, 2024

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
EPA-PZ-2012-3A-FAL23	680-242677-4	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-3B-FAL23	680-242677-5	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-5A-FAL23	680-242677-6	Water	Field Sample/N	X	X	X	X	X
EPA-PZ-2012-5B-FAL23	680-242677-7	Water	Field Sample/N	X	X	X	X	X
EW-01-FAL23	680-242677-8	Water	Field Sample/N	X	X	X	X	X
EW-03-FAL23	680-242677-9	Water	Field Sample/N	X	X	X	X	X
EW-04-FAL23	680-242677-10	Water	Field Sample/N	X	X	X	X	X
SHL-23-FAL23	680-242677-11	Water	Field Sample/N	X	X	X	X	X
SHL-24-FAL23	680-242677-12	Water	Field Sample/N	X	X	X	X	X
SHL-DUP04-FAL23	680-242677-1	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP09-FAL23	680-242677-2	Water	Field Duplicate/FD	X	X	X	X	X
SHL-DUP10-FAL23	680-242677-3	Water	Field Duplicate/FD	X	X	X	X	X
SHL-RB03-FAL23	680-242677-31	Water	Equipment Blank/EB	X	X	X	X	X
SHM-10-06A-FAL23	680-242677-13	Water	Field Sample/N	X	X	X	X	X
SHM-93-10D-FAL23	680-242677-14	Water	Field Sample/N	X	X	X	X	X
SHM-93-18B-FAL23	680-242677-15	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06A-FAL23	680-242677-16	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06B-FAL23	680-242677-17	Water	Field Sample/N	X	X	X	X	X
SHP-2016-06C-FAL23	680-242677-18	Water	Field Sample/N	X	X	X	X	X

Data Validation Report for 680-242677-1

Field Sample ID	Lab Sample ID	Matrix	Type/Type Code	A2320B	SW6010C - Dissolved	SW6020A - Dissolved	SW9056A	SW9060A - Dissolved
SHP-2016-07A-FAL23	680-242677-19	Water	Field Sample/N	X	X	X	X	X
SHP-2016-07B-FAL23	680-242677-20	Water	Field Sample/N	X	X	X	X	X
SHP-2016-3A-FAL23	680-242677-21	Water	Field Sample/N	X	X	X	X	X
SHP-2016-3B-FAL23	680-242677-22	Water	Field Sample/N	X	X	X	X	X
SHP-2023-1A-FAL23	680-242677-23	Water	Field Sample/N	X	X	X	X	X
SHP-2023-1B-FAL23	680-242677-24	Water	Field Sample/N	X	X	X	X	X
SHP-2023-3A-FAL23	680-242677-25	Water	Field Sample/N	X	X	X	X	X
SHP-2023-3B-FAL23	680-242677-26	Water	Field Sample/N	X	X	X	X	X
SHP-2023-4A-FAL23	680-242677-27	Water	Field Sample/N	X	X	X	X	X
SHP-2023-4B-FAL23	680-242677-28	Water	Field Sample/N	X	X	X	X	X
SHP-2023-5A-FAL23	680-242677-29	Water	Field Sample/N	X	X	X	X	X
SHP-2023-5B-FAL23	680-242677-30	Water	Field Sample/N	X	X	X	X	X

This report assesses the analytical data quality associated with the analyses listed on the preceding cover page at 2B data validation level. This assessment has been made through a combination of automated data review (ADR) and supplemental manual review, the details of which are described below. The approach taken in the review of this data set is consistent with the requirements contained in the Quality Assurance Project Plan, Long Term Monitoring Program, Former Fort Devens, 2020 and the additional guidance documents incorporated by reference to the extent possible. Where definitive guidance is not provided, results have been evaluated in a conservative manner using professional judgment.

Sample collection was managed and directed by Seres - Arcadis SB Joint Venture, LLC, Charleston, SC; analyses were performed by Eurofins Environment Testing TestAmerica, Savannah, GA and were reported under sample delivery group (SDG) 680-242677-1. Data have been evaluated electronically based on electronic data deliverables (EDDs) provided by the laboratory, and hard copy data summary forms have also been reviewed during this effort and compared to the automated review output by the reviewers whose signatures appear on the following page. Findings based on the automated data submission and manual data verification processes are detailed in the ADR narrative and throughout this report.

All quality control (QC) elements associated with this SDG have been reviewed by a project chemist in accordance with the requirements defined for the project. This review is documented in the attached Data Review Checklists. The QC elements listed below were supported by the electronic deliverable and were evaluated using ADR processes.

- Blank - Negative
- Calibration Blank
- Calibration Blank - Negative
- Continuing Calibration Verification
- Equipment Blank
- Field Duplicate RPD
- Interference Check Sample A
- Interference Check Sample A - Negative
- Interference Check Sample AB
- Lab Blank
- LCS Recovery
- LCS RPD
- MS Recovery
- MS RPD
- Prep Hold Time
- Test Hold Time

Results of the ADR process were subsequently reviewed and updated as applicable by the data review chemists identified on the signature page. Quality control elements that were not included in the electronic deliverable were reviewed manually and findings are documented within this report. Summaries of findings and associated qualified results are documented throughout this report.

A total of 10 results (4.61%) out of the 217 results (sample and field QC samples) reported are qualified based on review and 0 results (0.00%) have been rejected or deemed a serious deficiency (X qualifier). Trace values, defined as results that are qualified as estimated because they fall between the detection limit and the reporting limit/limit of quantitation, are not counted as qualified results in the above count. The qualified results are detailed throughout this report and discussed in the narrative below, where appropriate.

Narrative Comments

Analytical Method	Data Reviewer Comment
A2320B	No additional comments; see Checklist for detail.
SW6010C	No additional comments; see Checklist for detail.
SW6020A	No additional comments; see Checklist for detail.
SW9056A	No additional comments; see Checklist for detail.
SW9060A	No additional comments; see Checklist for detail.

March 01, 2024

Reviewed by Long Ngo, Environmental Scientist, Laboratory Data Consultants, Inc.

As the First Reviewer, I certify that I have performed a data review process in accordance with the requirements of the project guidance document, and have compared the electronic data to the laboratory's hard copy report and have verified the consistency of the reported sample results and method quality control data between the two deliverables.

Reviewed by Pei Geng, Senior Scientist, Laboratory Data Consultants, Inc.

March 01, 2024

As the Second Reviewer, I certify that I have performed a quality assurance review of the report generated by the First Reviewer.

Quality Control Outliers for test method A2320B, Equipment Blank

The purpose of equipment blanks is to determine the existence and magnitude of cross-contamination problems resulting from the process during sampling. Reported results were evaluated to determine compliance with the required acceptance criteria. Summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and contaminants found in equipment blanks are listed below along with any associated qualified results.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHL-RB03-FAL23 (EB)	Alkalinity, Total (as CaCO3)	4.40	< 2.2	< 5.5	mg/l	U/None*	V	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

*Blank flags displayed in the above table identify qualification of the sample result when it is less than or equal to the LOQ/RL. Sample results above the LOD or LOQ will be qualified based on the validation guidance assigned in the project setup.

Qualified Results associated with the Equipment Blank for A2320B

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHL-23-FAL23 680-242677-11	N	Alkalinity, Total (as CaCO3)	5.50	7.10	7.10 J	+	mg/l	V

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Quality Control Outliers for test method SW6010C, Dissolved, MS Recovery

Data for matrix spikes/matrix spike duplicates (MS/MSD) are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. These data alone cannot be used to evaluate the precision and accuracy of individual samples. However, when exercising professional judgment, MS/MSD data can be used in conjunction with other available QC information. Reported results were evaluated to determine compliance with the required acceptance criteria, and summary forms were evaluated and compared to electronic data deliverables. Findings of this review, and any associated qualified results, are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHM-93-18B-FAL23 (SD)	Manganese	88.0	90 - 114	10 - 125	percent	J/UJ	M	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

Qualified Results associated with the MS Recovery for SW6010C, Dissolved

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHM-93-18B-FAL23 680-242677-15	N	Manganese	10.0	790 J1	790 J	-	ug/l	M

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Quality Control Outliers for test method SW9056A, Field Duplicate RPD

Field duplicate analyses are performed in order to assess sample collection/laboratory precision for each sample matrix. Summary forms were evaluated and compared to electronic data deliverables. Field duplicate results that were outside of the acceptance criteria are listed below.

Sample ID/ Lab Sample ID	Analyte	Result	Warning Limits	Control Limits	Units	Qualifier	Reason Code	Comment
SHL-DUP09-FAL23 (N)	Chloride	2.30	< 0.55	< 0.55	mg/l	J/UJ	D3	
SHL-DUP09-FAL23 (N)	Sulfate	69.1	< 30	< 30	rpd	J/None	D3	
SHL-DUP09-FAL23 (N)	Sulfate	69.1	< 30	< 30	rpd	J/UJ	D3	
SHL-DUP10-FAL23 (N)	Chloride	164	< 30	< 30	rpd	J/UJ	D3	
SHL-DUP10-FAL23 (N)	Sulfate	183	< 30	< 30	rpd	J/None	D3	
SHL-DUP10-FAL23 (N)	Sulfate	183	< 30	< 30	rpd	J/UJ	D3	

Where two qualifiers are listed, such as 'J/UJ', the first applies to positive results, and the second to non-detect results.
Upper and Lower Warning and Control Limits are abbreviated UWL, LWL, UCL, and LCL in the Comment field.

Qualified Results associated with the Field Duplicate RPD for SW9056A

FieldSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHL-DUP09-FAL23 680-242677-2	FD	Chloride	1.10	4.70 D	4.70 J		mg/l	D3
SHL-DUP09-FAL23 680-242677-2	FD	Sulfate	3.00	37.0 D	37.0 J		mg/l	D3
SHL-DUP10-FAL23 680-242677-3	FD	Chloride	0.550	9.00	9.00 J		mg/l	D3
SHL-DUP10-FAL23 680-242677-3	FD	Sulfate	1.50	23.0	23.0 J		mg/l	D3
SHP-2016-07B-FAL23 680-242677-20	N	Chloride	0.550	2.40	2.40 J		mg/l	D3
SHP-2016-07B-FAL23 680-242677-20	N	Sulfate	1.50	18.0	18.0 J		mg/l	D3
SHP-2023-3B-FAL23 680-242677-26	N	Chloride	5.50	90.0 D	90.0 J		mg/l	D3
SHP-2023-3B-FAL23 680-242677-26	N	Sulfate	15.0	520 D	520 J		mg/l	D3

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOD) or (LOQ) based on the sample concentration and the validation guidance. In instances where no LOD is provided, results are reported down to the LOQ.

Table of All Qualified Results

Test Method: A2320B		Extraction Method: NONE						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHL-23-FAL23 680-242677-11	N	Alkalinity, Total (as CaCO3)	5.50	7.10	7.10 J	+	mg/l	V

Test Method: SW6010C		Extraction Method: FLDFLT						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHM-93-18B-FAL23 680-242677-15	N	Manganese	10.0	790 J1	790 J	-	ug/l	M

Test Method: SW9056A		Extraction Method: NONE						
FieldSample ID / LabSample ID	Type	Analyte	LOQ	Lab Result	Qualified Result	Bias	Units	Reason
SHL-DUP09-FAL23 680-242677-2	FD	Chloride	1.10	4.70 D	4.70 J		mg/l	D3
SHL-DUP09-FAL23 680-242677-2	FD	Sulfate	3.00	37.0 D	37.0 J		mg/l	D3
SHL-DUP10-FAL23 680-242677-3	FD	Chloride	0.550	9.00	9.00 J		mg/l	D3
SHL-DUP10-FAL23 680-242677-3	FD	Sulfate	1.50	23.0	23.0 J		mg/l	D3
SHP-2016-07B-FAL23 680-242677-20	N	Chloride	0.550	2.40	2.40 J		mg/l	D3
SHP-2016-07B-FAL23 680-242677-20	N	Sulfate	1.50	18.0	18.0 J		mg/l	D3
SHP-2023-3B-FAL23 680-242677-26	N	Chloride	5.50	90.0 D	90.0 J		mg/l	D3
SHP-2023-3B-FAL23 680-242677-26	N	Sulfate	15.0	520 D	520 J		mg/l	D3

Analytes not found in project samples are reported as not detected at the limit of detection (LOD) unless blank contamination occurs and then the sample may be reported as not detected at the (LOQ) based on the sample concentration.
In instances where no LOD is provided, results are reported down to the LOQ.
Trace values are not included in the qualified results table unless additional reason codes are associated.

Results with Modified Qualifiers

No qualifiers associated with this sample delivery group were modified manually.

Reason Code Definitions

Code	Definition
D3	Field Duplicate RPD
M	MS Recovery
TR	Trace Level Detect
V	Equipment Blank

Flag Code and Definitions

Flag	Definition
J	Estimated Value
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a tentative identification.
NJ	The analyte has been tentatively identified or presumptively as present and the associated numerical value was the estimated concentration in the sample.
R	The data are rejected due to deficiencies in meeting QC criteria and may not be used for decision making.
U	Undetected: The analyte was analyzed for, but not detected.
UJ	The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
X	Result may require rejection; PDT attention required

Bias

-	The result may be biased low
+	The result may be biased high

Note - The bias field is a separate field; however, it is an integral part of the final flag (qualifier) on the sample result

Review Questions

Method: A2320B (Alkalinity by Titrimetric Method)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?		•		Result qualified J+ due to equipment blank contamination.
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?			•	Not applicable to this method.
Were MS/MSD recoveries within project acceptance limits?			•	Not applicable to this method.
Was the MS/MSD RPD within project acceptance limits?			•	Not applicable to this method.
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6010C (Trace Metals by Inductively Coupled Plasma/Atomic Emission Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		Result qualified J- due to MS/MSD %R below %R limits.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW6020A (Trace Metals by Inductively Coupled Plasma/Mass Spectrometry)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9056A (Anion Chromatography)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?	•			
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?		•		MS/MSD %R below %R limits but no results were qualified due to sample result > 4x spike.
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?		•		Several results qualified J due to field duplicate RPD > 30. Result qualified J due to field duplicate difference greater than twice the LOQ as results were <5x the LOQ.
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Review Questions

Method: SW9060A (Total Organic Carbon)				
Review Questions	Yes	No	NA	Comment
Did Chain-of-Custody information agree with laboratory report and EDD for requested field samples and tests?	•			
Were samples preserved properly and received in good condition?	•			
Were holding times met?	•			
Were all requested target analytes reported?				
Was the Calibration within acceptance criteria?	•			
Was either analysis of an ICV performed after each ICAL or a second source standard prior to sample analysis?	•			
Were all reported analytes for the ICV within the required criteria?	•			
Were ICB/CCBs run at the required frequency?	•			
Were target analytes in the ICBs/CCBs non-detect?	•			
Was a method blank prepared and analyzed with each batch?	•			
Were target analytes in the method blank less than MDL?	•			
Were field blanks (EBs or FBs) submitted with these samples?	•			
Were target analytes reported in the field blank(s) less than MDL?	•			
Was an LCS/LCSD pair prepared and analyzed with each batch?	•			
Were LCS/LCSD recoveries within project acceptance limits?	•			
Was the LCS/LCSD RPD within project acceptance limits?	•			
Was a MS/MSD pair prepared with each batch?	•			
Were MS/MSD recoveries within project acceptance limits?	•			
Was the MS/MSD RPD within project acceptance limits?	•			
If a field duplicate was analyzed, were the RPDs within QAPP acceptance limits?	•			
Were QAPP specified laboratory LOQs/RLs achieved?	•			
Have all Laboratory Case Narrative comments/findings been addressed in the data review process?	•			
Were any data recommended for rejection (exclusion) in the data validation process?		•		Data acceptable as reported and qualified.

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242677-1

Location	Analysis
SHL-24	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Alkalinity, Total (as CaCO3)	52.0	50.0	5.50	3.92	30	OK	NA

Location	Analysis
SHL-24	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Iron (FLDFLT)	ND	ND	100	NA	30	NA	OK
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Manganese (FLDFLT)	ND	ND	10.0	NA	30	NA	OK

Location	Analysis
SHL-24	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Arsenic (FLDFLT)	4.30	3.80	5.00	12.3	30	NA	OK

Location	Analysis
SHL-24	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Chloride	45.0	44.0	0.550	2.25	30	OK	NA
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Sulfate	25.0	25.0	1.50	0.00	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242677-1

Location	Analysis
SHL-24	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHL-24-FAL23 / SHL-DUP04-FAL23	680-242677-12 / 680-242677-1	Dissolved Organic Carbon (FLDFLT)	ND	ND	1.50	NA	30	NA	OK

Location	Analysis
SHP-2016-07B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Alkalinity, Total (as CaCO3)	130	130	5.50	0.00	30	OK	NA

Location	Analysis
SHP-2016-07B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Iron (FLDFLT)	420	410	100	2.41	30	NA	OK
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Manganese (FLDFLT)	300	290	10.0	3.39	30	OK	NA

Location	Analysis
SHP-2016-07B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Arsenic (FLDFLT)	74.0	73.0	5.00	1.36	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242677-1

Location	Analysis
SHP-2016-07B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Chloride	2.40	4.70	0.550	64.8	30	NA	2.3
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Sulfate	18.0	37.0	1.50	69.1	30	Out	NA

Location	Analysis
SHP-2016-07B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2016-07B-FAL23 / SHL-DUP09-FAL23	680-242677-20 / 680-242677-2	Dissolved Organic Carbon (FLDFLT)	1.50	1.70	1.50	12.5	30	NA	OK

Location	Analysis
SHP-2023-3B	A2320B

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Alkalinity, Total (as CaCO3)	110	110	5.50	0.00	30	OK	NA

Location	Analysis
SHP-2023-3B	SW6010C

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Iron (FLDFLT)	20000	20000	100	0.00	30	OK	NA
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Manganese (FLDFLT)	1200	1100	10.0	8.70	30	OK	NA

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Field Duplicate Report By SDG
Former Fort Devens, Long Term Monitoring
Seres-Arcadis JV, Long Term Monitoring, SHL, Fall 2023
Field Duplicates for SDG: 680-242677-1

Location	Analysis
SHP-2023-3B	SW6020A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Arsenic (FLDFLT)	61.0	63.0	5.00	3.23	30	OK	NA

Location	Analysis
SHP-2023-3B	SW9056A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Chloride	90.0	9.00	5.50	164	30	Out	NA
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Sulfate	520	23.0	15.0	183	30	Out	NA

Location	Analysis
SHP-2023-3B	SW9060A

Field ID - Primary/Field Dup	Lab ID - Primary/Field Dup	Analyte	Primary Result	FD Result	RL	RPD	RPD Criteria	RPD Check	RL Check
SHP-2023-3B-FAL23 / SHL-DUP10-FAL23	680-242677-26 / 680-242677-3	Dissolved Organic Carbon (FLDFLT)	1.80	1.60	1.50	11.8	30	NA	OK

FD = Field Duplicate
RL = Reporting Limit
RPD = Relative Percent Difference

RL Check = If either the primary sample or field duplicate result is less than 5 times the RL then the criteria used to determine if the field duplicate is outside QC limits is +/- RL for Water and +/- 2 times RL for Soil"

Appendix D

Site-Wide Hydraulic Monitoring Results from 2019 through 2023

Appendix D
Site-Wide Hydraulic Monitoring Results from 2019 through 2023
Shepley's Hill Landfill, Former Fort Devens Army Installation, Massachusetts

Well ID	TOR Elevation (ft NAVD88)	April 2019		October 2019		May 2020		November 2020		May 2021		October 2021		April 2022		October 2022		June 2023		November 2023	
		DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)
20-1	278.52	-	-	39.50	239.02	-	-	45.35	233.17	-	-	-	-	-	-	-	-	--	--	--	--
27-1	270.66	-	-	41.12	229.54	-	-	42.85	227.81	-	-	-	-	-	-	-	-	--	--	--	--
27-2	275.15	-	-	47.45	227.70	-	-	51.50	223.65	-	-	-	-	-	-	-	-	--	--	--	--
3-2	268.20	-	-	39.53	228.67	-	-	40.00	228.20	-	-	-	-	-	-	-	-	--	--	--	--
32M-01-13XBR	257.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.80	240.08	-	-
32M-01-14XBR	256.06	-	-	24.65	231.41	-	-	25.88	230.18	-	-	-	-	-	-	-	-	22.42	233.64	--	--
32M-01-14XOB	256.56	-	-	26.38	230.18	-	-	27.05	229.51	-	-	-	-	-	-	-	-	24.43	232.13	--	--
32M-01-15XBR	257.70	-	-	22.57	235.13	-	-	22.32	235.38	-	-	-	-	-	-	-	-	20.60	237.76	--	--
32M-01-16XBR	257.50	-	-	24.54	232.96	-	-	26.94	230.56	-	-	-	-	-	-	-	-	22.75	234.75	--	--
32M-01-17XBR	259.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.11	234.00	-	-
32M-01-18XBR	258.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.10	241.22	-	-
32M-92-01X	260.17	-	-	11.38	248.79	-	-	20.96	239.21	-	-	-	-	-	-	-	-	17.53	242.64	--	--
32M-92-03X	260.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.65	232.37	-	-
32Z-01-05XOB	261.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.72	232.68	-	-
32Z-01-06XBR	261.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.49	245.36	-	-
32Z-01-07XOB	259.48	-	-	19.38	240.10	-	-	19.55	239.93	-	-	-	-	-	-	-	-	15.92	243.56	--	--
32Z-01-08XOB	260.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.10	242.39	-	-
32Z-01-09XOB	257.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.76	231.61	-	-
32Z-01-10XBR	257.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.01	240.40	-	-
32Z-01-11XBR	261.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	-	-
32Z-01-12XBR	257.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.24	238.61	-	-
32Z-99-02X	259.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.20	240.51	-	-
CAP-2B	250.21	-	-	22.80	227.41	-	-	23.70	226.51	-	-	-	-	-	-	-	-	--	--	--	--
CH-1D	250.59	-	-	21.80	228.79	-	-	21.77	228.82	-	-	-	-	-	-	-	-	--	--	--	--
CH-1S	250.63	-	-	22.00	228.63	-	-	21.87	228.76	-	-	-	-	-	-	-	-	--	--	--	--
EPA-PZ-2012-1A	223.79	10.84	212.95	12.15	211.64	10.38	213.41	12.27	211.52	11.12	212.67	9.74	214.05	10.55	213.24	12.81	210.98	11.44	212.35	10.38	213.41
EPA-PZ-2012-1B	223.53	10.56	212.97	11.80	211.73	10.09	213.44	11.93	211.60	10.81	212.72	9.51	214.02	10.30	213.23	12.51	211.02	11.13	212.40	10.09	213.44
EPA-PZ-2012-2A	223.38	10.39	212.99	11.42	211.96	9.94	213.44	11.51	211.87	10.62	212.76	9.40	213.98	10.11	213.27	12.20	211.18	10.86	212.52	10.06	213.32
EPA-PZ-2012-2B	223.37	10.42	212.95	11.44	211.93	9.98	213.39	11.51	211.86	10.60	212.77	9.45	213.92	10.30	213.07	12.15	211.22	10.92	212.45	10.02	213.35
EPA-PZ-2012-3A	222.65	10.20	212.45	11.68	210.97	9.81	212.84	11.76	210.89	10.50	212.15	9.20	213.45	9.95	212.70	12.27	210.38	10.86	211.79	9.66	212.99
EPA-PZ-2012-3B	222.57	10.17	212.40	11.60	210.97	9.68	212.89	11.70	210.87	10.48	212.09	9.19	213.38	9.86	212.71	12.25	210.32	10.85	211.72	9.59	212.98
EPA-PZ-2012-4A	226.60	14.37	212.23	15.92	210.68	13.94	212.66	16.00	210.60	14.58	212.02	13.41	213.19	14.08	212.52	16.46	210.14	15.03	211.57	13.76	212.84
EPA-PZ-2012-4B	226.39	15.24	211.15	15.76	210.63	13.85	212.54	15.90	210.49	14.62	211.77	13.40	212.99	14.03	212.36	16.48	209.91	14.94	211.45	13.67	212.72
EPA-PZ-2012-5A	220.01	7.50	212.51	8.96	211.05	7.42	212.59	9.05	210.96	7.96	212.05	6.68	213.33	7.37	212.64	9.66	210.35	8.31	211.70	7.28	212.73
EPA-PZ-2012-5B	219.38	6.91	212.47	8.24	211.14	6.63	212.75	8.32	211.06	7.23	212.15	6.04	213.34	6.74	212.64	8.86	210.52	7.66	211.72	6.49	212.89
EPA-PZ-2012-6A	234.25	21.89	212.36	23.68	210.57	21.49	212.76	23.70	210.55	22.28	211.97	20.96	213.29	21.64	212.61	24.24	210.01	22.68	211.57	21.31	212.94
EPA-PZ-2012-6B	234.08	21.85	212.23	23.55	210.53	21.39	212.69	23.63	210.45	22.26	211.82	21.04	213.04	21.62	212.46	24.12	209.96	22.63	211.45	21.28	212.80
EPA-PZ-2012-7A	234.16	22.95	211.21	27.79	206.37	21.32	212.84	23.58	210.58	22.10	212.06	21.07	213.09	21.61	212.55	24.11	210.05	22.53	211.63	21.31	212.85
EPA-PZ-2012-7B	234.03	21.83	212.20	23.39	210.64	21.37	212.66	23.45	210.58	22.11	211.92	20.98	213.05	21.51	212.52	24.02	210.01	22.51	211.52	21.25	212.78
MW-1	251.84	-	-	Dry	-	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-11A	258.57	-	-	8.90	249.67	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-14	256.61	-	-	Dry	-	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-16	270.23	-	-	9.55	260.68	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-22	267.64	-	-	Dry	-	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-4-1	247.33	-	-	Dry	-	-	-	7.60	239.73	-	-	-	-	-	-	-	-	--	--	--	--
MW-7	249.10	-	-	Dry	-	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
MW-9	243.91	-	-	Dry	-	-	-	Dry	-	-	-	-	-	-	-	-	-	--	--	--	--
N1-P1	229.92	-	-	12.99	216.93	-	-	14.85	215.07	-	-	13.72	216.20	-	-	13.14	216.78	--	--	14.26	215.66
N1-P2	229.93	-	-	13.01	216.92	-	-	14.28	215.65	-	-	13.62	216.31	-	-	14.45	215.48	--	--	14.18	215.75
N1-P3	230.08	-	-	12.97	217.11	-	-	13.71	216.37	-	-	13.39	216.69	-	-	13.80	216.28	--	--	13.99	216.09
N2-P1	222.01	-	-	4.65	217.36	-	-	5.24	216.77	-	-	4.96	217.05	-	-	5.34	216.67	--	--	5.55	216.46
N2-P2	222.16	-	-	4.99	217.17	-	-	5.26	216.90	-	-	5.15	217.01	-	-	5.42	216.74	--	--	5.71	216.45
N3-P1	220.83	-	-	4.15	216.68	-	-	4.86	215.97	-	-	4.48	216.35	-	-	4.06	216.77	--	--	4.41	216.42

Well ID	TOR Elevation (ft NAVD88)	April 2019		October 2019		May 2020		November 2020		May 2021		October 2021		April 2022		October 2022		June 2023		November 2023	
		DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)
N3-P2	220.84	-	-	3.85	216.99	-	-	4.14	216.70	-	-	3.96	216.88	-	-	4.09	216.75	--	--	4.46	216.38
N5-P1	242.65	-	-	24.00	218.65	-	-	24.70	217.95	-	-	22.30	220.35	-	-	24.61	218.04	--	--	21.81	220.84
N5-P2	242.69	-	-	24.25	218.44	-	-	24.80	217.89	-	-	22.66	220.03	-	-	24.50	218.19	--	--	22.01	220.68
N6-P1	258.60	34.59	224.01	36.68	221.92	-	-	37.52	221.08	-	-	35.19	223.41	-	-	37.46	221.14	--	--	34.60	224.00
N7-P1	255.59	-	-	31.15	224.44	-	-	32.00	223.59	-	-	29.10	226.49	-	-	32.15	223.44	--	--	28.96	226.63
N7-P2	256.04	-	-	31.20	224.84	-	-	32.10	223.94	-	-	29.18	226.86	-	-	32.25	223.79	--	--	29.03	227.01
PSP-01	218.14	1.50	216.32	2.80	217.62	-	-	Destroyed	-	-	-	-	-	-	-	-	-	--	--	--	--
PZ-12-01	237.55	20.42	217.13	20.12	217.43	20.20	217.35	20.80	216.75	20.55	217.00	20.04	217.51	20.30	217.25	21.01	216.54	20.67	216.88	20.42	217.13
PZ-12-02	237.79	19.57	218.22	20.80	216.99	19.29	218.50	20.81	216.98	20.04	217.75	19.42	218.37	19.44	218.35	20.99	216.80	19.99	217.80	19.44	218.35
PZ-12-03	236.40	19.54	216.86	19.95	216.45	19.36	217.04	19.55	216.85	19.60	216.80	19.04	217.36	19.50	216.90	19.71	216.69	19.77	216.63	19.52	216.88
PZ-12-04	238.20	18.96	219.24	19.90	218.30	18.73	219.47	20.71	217.49	19.66	218.54	19.01	219.19	18.85	219.35	20.73	217.47	19.38	218.82	18.83	219.37
PZ-12-05	238.73	21.62	217.11	21.09	217.64	21.10	217.63	21.78	216.95	21.71	217.02	21.06	217.67	21.61	217.12	21.88	216.85	21.90	216.83	21.68	217.05
PZ-12-06	242.18	22.73	219.45	23.64	218.54	22.46	219.72	24.44	217.74	23.43	218.75	22.65	219.53	22.60	219.58	24.51	217.67	23.12	219.06	22.58	219.60
PZ-12-07	244.59	27.70	216.89	27.08	217.51	27.35	217.24	27.75	216.84	27.65	216.94	26.60	217.99	27.48	217.11	27.99	216.60	27.98	216.61	27.75	216.84
PZ-12-08	244.83	24.08	220.75	26.41	218.42	23.88	220.95	27.35	217.48	25.00	219.83	23.71	221.12	23.98	220.85	26.38	218.45	24.60	220.23	24.08	220.75
PZ-12-09	241.93	23.89	218.04	23.97	217.96	23.29	218.64	24.60	217.33	23.75	218.18	23.12	218.81	23.45	218.48	24.78	217.15	24.10	217.83	23.75	218.18
PZ-12-10	242.28	21.71	220.57	22.81	219.47	21.02	221.26	23.45	218.83	21.91	220.37	21.21	221.07	21.20	221.08	23.48	218.80	21.89	220.39	21.32	220.96
Q4-1	268.38	-	-	32.70	235.68	-	-	35.10	233.28	-	-	-	-	-	-	-	-	--	--	--	--
Q5-1	260.99	-	-	28.53	232.46	-	-	31.15	229.84	-	-	-	-	-	-	-	-	--	--	--	--
RSK-15	225.54	-	-	8.05	217.49	-	-	8.73	216.81	-	-	-	-	-	-	-	-	--	--	--	--
RSK-19	218.76	-	-	1.35	217.41	-	-	1.99	216.77	-	-	-	-	-	-	-	-	--	--	--	--
RSK-25	239.21	-	-	21.69	217.52	-	-	Destroyed	-	-	-	-	-	-	-	-	-	--	--	--	--
RSK-27	241.45	-	-	22.37	219.08	-	-	23.55	217.90	-	-	-	-	-	-	-	-	--	--	--	--
RSK-28	239.24	-	-	20.75	218.49	-	-	21.66	217.58	-	-	-	-	-	-	-	-	--	--	--	--
RSK-32	236.91	-	-	18.61	218.30	-	-	19.41	217.50	-	-	-	-	-	-	-	-	--	--	--	--
RSK-34	233.16	-	-	16.06	217.10	-	-	Destroyed	-	-	-	-	-	-	-	-	-	--	--	--	--
RSK-35	233.64	-	-	17.01	216.63	-	-	17.76	215.88	-	-	-	-	-	-	-	-	--	--	--	--
RSK-37	220.55	-	-	3.10	217.45	-	-	3.97	216.58	-	-	-	-	-	-	-	-	--	--	--	--
RSK-7	222.01	-	-	4.63	217.38	-	-	5.24	216.77	-	-	-	-	-	-	-	-	--	--	--	--
SHL-10	248.02	31.14	216.88	30.56	217.46	30.67	217.35	31.20	216.82	30.98	217.04	30.45	217.57	30.83	217.19	31.40	216.62	31.31	216.71	31.11	216.91
SHL-11	235.47	18.57	216.90	18.05	217.42	18.36	217.11	18.67	216.80	18.67	216.80	18.13	217.34	18.53	216.94	18.88	216.59	18.83	216.64	18.53	216.94
SHL-12	248.62	-	-	22.58	226.04	-	-	23.35	225.27	-	-	20.11	228.51	-	-	23.75	224.87	--	--	19.51	229.11
SHL-13	220.71	-	-	6.59	214.12	-	-	7.17	213.54	-	-	5.83	214.88	-	-	7.77	212.94	--	--	6.71	214.00
SHL-15	259.92	-	-	20.47	239.45	16.32	243.60	21.00	238.92	-	-	17.39	241.44	-	-	20.83	238.00	17.62	241.21	18.01	240.82
SHL-17	233.79	-	-	8.88	224.91	-	-	8.20	225.59	-	-	4.86	228.93	-	-	8.93	224.86	--	--	5.35	228.44
SHL-18	237.56	-	-	25.12	212.44	-	-	19.55	218.01	-	-	18.36	217.35	-	-	19.85	215.86	--	--	18.86	216.85
SHL-19	240.50	23.56	216.94	22.97	217.53	23.15	217.35	22.68	217.82	23.45	214.98	22.41	216.02	23.30	215.13	23.93	214.50	23.96	214.47	23.59	214.84
SHL-20	235.95	17.38	218.57	18.00	217.95	17.11	218.84	18.80	217.15	17.90	218.05	17.30	218.65	17.25	218.70	18.89	217.06	17.74	218.21	17.53	218.42
SHL-21																				44.72	215.28
SHL-22	219.58	-	-	8.68	210.90	-	-	9.15	210.43	-	-	6.40	213.18	-	-	9.05	210.53	--	--	6.73	212.85
SHL-23	241.29	-	-	30.21	211.08	-	-	30.36	210.93	-	-	27.15	214.14	-	-	30.60	210.69	--	--	27.07	214.22
SHL-24	238.75	-	-	15.79	222.96	-	-	16.35	222.40	-	-	14.05	224.70	-	-	16.96	221.79	--	--	14.41	224.34
SHL-25	258.01	-	-	27.68	230.33	24.62	233.39	28.82	229.19	-	-	-	-	-	-	-	-	26.21	231.80	--	--
SHL-3	246.95	-	-	29.35	217.60	-	-	30.55	216.40	-	-	29.72	217.23	-	-	30.63	216.32	--	--	30.22	216.73
SHL-4	227.48	10.68	216.80	10.00	217.48	10.13	217.35	10.68	216.80	10.69	214.81	10.05	215.45	10.58	214.92	10.77	214.73	10.90	214.60	10.62	214.88
SHL-5	217.60	-	-	5.65	211.95	-	-	6.55	211.05	-	-	2.37	214.44	-	-	6.81	210.00	--	--	3.43	213.38
SHL-7	236.33	-	-	18.14	218.19	-	-	17.60	218.73	-	-	16.83	219.50	-	-	19.02	217.31	--	--	17.60	218.73
SHL-8D	220.78	-	-	8.21	212.57	-	-	8.40	212.38	-	-	6.71	214.07	-	-	9.00	211.78	--	--	7.21	213.57
SHL-8S	220.97	-	-	8.33	212.64	-	-	8.56	212.41	-	-	6.83	214.14	-	-	9.09	211.88	--	--	7.38	213.59
SHL-9	221.95	-	-	12.18	209.77	-	-	11.74	210.21	-	-	8.48	212.40	-	-	11.72	209.16	--	--	9.17	211.71
SHM-05-39A	221.53	-	-	12.45	209.08	-	-	12.25	209.28	-	-	10.76	210.77	-	-	13.05	208.48	--	--	11.20	210.33
SHM-05-39B	221.51	-	-	Dry	-	-	-	12.99	208.52	-	-	11.61	209.90	-	-	13.69	207.82	--	--	12.02	209.49
SHM-05-40X	223.19	13.93	209.26	14.95	208.24	13.66	209.53	14.99	208.20	14.12	209.07	13.45	209.74	13.88	209.31	15.73	207.46	14.52	208.67	13.86	209.33

Well ID	TOR Elevation (ft NAVD88)	April 2019		October 2019		May 2020		November 2020		May 2021		October 2021		April 2022		October 2022		June 2023		November 2023	
		DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)
SHM-05-41A	222.48	-	-	11.95	210.53	-	-	12.01	210.47	-	-	9.68	213.10	-	-	12.55	209.93	--	--	10.02	212.76
SHM-05-41B	222.33	11.60	210.73	40.09	182.24	9.96	212.37	11.68	210.65	10.61	211.72	9.58	212.75	10.03	212.30	12.35	209.98	10.95	211.38	9.83	212.50
SHM-05-41C	222.57	10.82	211.75	12.15	210.42	10.31	212.26	12.12	210.45	11.00	211.57	9.71	212.86	10.28	212.29	12.61	209.96	11.17	211.40	10.10	212.47
SHM-05-42A	216.81	-	-	8.05	208.76	-	-	5.90	210.91	-	-	3.85	212.96	-	-	6.55	210.26	--	--	4.28	212.53
SHM-05-42B	216.80	-	-	7.50	209.30	-	-	6.00	210.80	-	-	3.85	212.95	-	-	6.61	210.19	--	--	4.25	212.55
SHM-07-03	227.90	19.50	208.40	24.00	203.90	19.03	208.87	20.70	207.20	19.71	208.19	18.36	209.54	19.48	208.42	--	--	--	--	--	--
SHM-07-05X	223.40	14.19	209.21	15.30	208.10	2.75	220.65	14.95	208.45	14.28	209.12	13.78	209.62	14.19	209.21	16.01	207.39	14.70	208.70	13.71	209.69
SHM-10-01	209.65	-	-	4.20	205.45	-	-	4.23	205.42	-	-	2.95	206.70	-	-	4.69	204.96	--	--	4.25	205.40
SHM-10-02	223.03	-	-	18.24	204.79	-	-	18.31	204.72	-	-	16.74	206.29	-	-	18.62	204.41	--	--	18.16	204.87
SHM-10-03	232.05	-	-	26.87	205.18	-	-	27.03	205.02	-	-	25.58	206.47	-	-	27.43	204.62	--	--	26.61	205.44
SHM-10-04	212.61	-	-	6.69	205.92	-	-	6.52	206.09	-	-	5.39	207.22	-	-	7.38	205.23	--	--	5.93	206.68
SHM-10-05A	235.09	-	-	25.72	209.37	-	-	25.28	209.81	-	-	24.43	210.66	-	-	26.16	208.93	--	--	24.55	210.54
SHM-10-06	232.91	-	-	20.00	212.91	-	-	20.31	212.60	-	-	17.71	215.20	-	-	20.65	212.26	--	--	18.22	214.69
SHM-10-06A	248.54	-	-	35.30	213.24	-	-	36.11	212.43	-	-	33.18	215.36	-	-	35.97	212.57	--	--	33.82	214.72
SHM-10-07	246.82		246.82	27.08	219.74	-	-	27.85	218.97	-	-	25.82	221.00	-	-	27.83	218.99	--	--	25.36	221.46
SHM-10-08	214.36	-	-	9.97	204.39	-	-	9.78	204.58	-	-	8.06	206.30	-	-	9.98	204.38	--	--	9.69	204.67
SHM-10-10	217.11	-	-	11.75	205.36	-	-	10.92	206.19	-	-	9.98	207.13	-	-	11.69	205.42	--	--	10.87	206.24
SHM-10-11	263.76	38.17	225.59	40.23	223.53	-	-	41.24	222.52	-	-	38.63	225.13	-	-	41.18	222.58	--	--	38.16	225.60
SHM-10-12	255.17	-	-	33.75	221.42	-	-	34.70	220.47	-	-	32.45	222.72	-	-	34.66	220.51	--	--	31.75	223.42
SHM-10-13	244.77	-	-	25.95	218.82	-	-	26.80	217.97	-	-	24.46	220.31	-	-	26.72	218.05	--	--	23.96	220.81
SHM-10-14	237.62	-	-	20.48	217.14	-	-	21.11	216.51	-	-	18.52	219.10	-	-	21.12	216.50	--	--	18.21	219.41
SHM-10-15	243.68	-	-	24.40	219.28	-	-	25.30	218.38	-	-	22.71	220.97	-	-	25.17	218.51	--	--	22.11	221.57
SHM-10-16	219.23	-	-	8.62	210.61	-	-	8.63	210.60	-	-	6.44	212.79	-	-	9.25	209.98	--	--	6.77	212.46
SHM-11-02	240.73	21.91	218.82	22.32	218.41	21.55	219.18	23.90	216.83	22.39	218.34	21.77	218.96	21.86	218.87	23.25	217.48	22.22	218.51	21.75	218.98
SHM-11-06	236.17	19.36	216.81	20.11	216.06	18.97	217.20	20.75	215.42	19.72	216.45	18.79	217.38	19.12	217.05	20.95	215.22	19.88	216.29	19.14	217.03
SHM-11-07	240.83	-	-	22.40	218.43	-	-	23.24	217.59	-	-	21.39	219.44	-	-	23.23	217.60	--	--	21.21	219.62
SHM-13-01	208.08	-	-	3.48	204.60	-	-	3.28	204.80	-	-	1.68	206.40	-	-	3.50	204.58	--	--	3.23	204.85
SHM-13-02	218.72	-	-	13.03	205.69	-	-	13.04	205.68	-	-	11.83	206.89	-	-	13.54	205.18	--	--	12.90	205.82
SHM-13-03	212.05	4.88	207.17	5.68	206.37	5.11	206.94	5.39	206.66	5.14	206.91	5.18	206.87	5.34*	206.71	6.42	205.63	5.84	206.21	5.57	206.48
SHM-13-04	227.02	18.71	208.31	19.71	207.31	18.54	208.48	19.65	207.37	19.03	207.99	18.29	208.73	18.71	208.31	20.36	206.66	19.33	207.69	18.79	208.23
SHM-13-05	225.14	-	-	17.15	207.99	-	-	16.96	208.18	-	-	15.80	209.34	-	-	17.83	207.31	--	--	16.31	208.83
SHM-13-06	223.89	17.00	206.89	17.72	206.17	17.07	206.82	17.63	206.26	17.51	206.38	16.72	207.17	17.23	206.66	18.37	205.52	17.73	206.16	17.41	206.48
SHM-13-07	225.64	18.47	207.17	19.23	206.41	18.54	207.10	19.11	206.53	18.97	206.67	18.05	207.59	18.69	206.95	19.93	205.71	19.25	206.39	18.82	206.82
SHM-13-08	227.90	20.90	207.00	20.90	207.00	20.06	207.84	20.68	207.22	20.36	207.54	19.59	208.31	20.18	207.72	21.55	206.35	20.65	207.25	20.23	207.67
SHM-13-14D	210.48	-	-	3.98	206.50	-	-	3.63	206.85	-	-	2.84	207.64	-	-	4.63	205.85	--	--	3.56	206.92
SHM-13-14S	210.55	-	-	4.12	206.43	-	-	3.65	206.90	-	-	3.11	207.44	-	-	4.75	205.80	--	--	3.76	206.79
SHM-13-15	210.58	-	-	4.32	206.26	-	-	4.03	206.55	-	-	3.26	207.32	-	-	4.96	205.62	--	--	4.07	206.51
SHM-93-10D	248.01	-	-	30.03	217.98	-	-	30.71	217.30	-	-	29.89	218.12	-	-	30.96	217.05	--	--	30.22	217.79
SHM-93-18B	237.31	-	-	18.64	218.67	-	-	19.25	218.06	-	-	17.78	219.53	-	-	19.54	217.77	--	--	18.51	218.80
SHM-93-22B	219.39	7.12	212.27	8.48	210.91	6.67	212.72	9.73	209.66	7.36	212.03	6.18	213.21	6.99	212.40	9.09	210.30	7.71	211.68	6.60	212.79
SHM-93-22C	220.69	-	-	9.85	210.84	-	-	11.35	209.34	-	-	7.76	212.93	-	-	10.29	210.40	--	--	7.64	213.05
SHM-93-24A	238.42	-	-	16.12	222.30	-	-	16.68	221.74	-	-	14.55	223.87	-	-	16.63	221.79	--	--	14.98	223.44
SHM-96-5B	218.92	6.24	212.68	7.49	211.43	5.79	213.13	7.63	211.29	6.50	212.42	5.20	213.72	5.92	213.00	8.10	210.82	6.80	212.12	5.74	213.18
SHM-96-5C	218.39	-	-	6.97	211.42	-	-	7.08	211.31	-	-	4.73	213.66	-	-	7.61	210.78	--	--	5.22	213.17
SHM-99-31A	214.34	-	-	3.98	210.36	-	-	1.67	212.67	-	-	1.47	212.87	-	-	4.42	209.92	--	--	3.00	211.34
SHM-99-31B	214.39	-	-	4.85	209.54	-	-	4.57	209.82	-	-	3.18	211.21	-	-	5.40	208.99	--	--	3.54	210.85
SHM-99-31C	214.60	-	-	5.15	209.45	-	-	4.87	209.73	-	-	3.45	211.15	-	-	5.70	208.90	--	--	3.92	210.68
SHM-99-32X	221.28	-	-	10.80	210.48	-	-	10.42	210.86	-	-	8.96	212.32	-	-	11.19	210.09	--	--	9.38	211.90
SHP-01-36X	223.95	7.71	216.24	6.67	217.28	7.56	216.39	7.35	216.60	7.69	216.26	7.09	216.86	7.56	216.39	7.57	216.38	7.89	216.06	7.69	216.26
SHP-01-37X	222.79	6.46	216.33	5.85	216.94	6.36	216.43	6.04	216.75	6.40	216.39	5.87	216.92	6.35	216.44	6.10	216.69	7.56	215.23	6.48	216.31
SHP-01-38A	220.86	4.05	216.81	3.32	217.54	3.59	217.27	3.96	216.90	4.17	214.60	3.62	215.15	4.01	214.76	3.93	214.84	4.28	214.49	4.15	214.62
SHP-01-38B	221.03	4.25	216.78	3.49	217.54	-	-	4.08	216.95	-	-	3.71	217.32	-	-	4.62	216.41	--	--	4.27	216.76
SHP-05-43	260.17	44.73	215.44	45.05	215.12	-	-	45.61	215.10	-	-	44.21	216.50	-	-	46.74	213.97	--	--	44.58	216.13

Well ID	TOR Elevation (ft NAVD88)	April 2019		October 2019		May 2020		November 2020		May 2021		October 2021		April 2022		October 2022		June 2023		November 2023	
		DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)	DTW (ft bmp)	GWE (ft NAVD88)
SHP-05-44	258.55	41.77	216.78	42.41	216.14	-	-	42.19	215.95	-	-	41.27	216.87	-	-	42.40	215.74	--	--	41.72	216.42
SHP-05-45A	228.48	-	-	17.73	210.75	-	-	17.90	210.58	-	-	14.99	213.49	-	-	18.38	210.10	--	--	15.31	213.17
SHP-05-45B	229.11	-	-	18.42	210.69	-	-	18.31	210.80	-	-	15.79	213.32	-	-	18.83	210.28	--	--	15.92	213.19
SHP-05-46A	228.18	-	-	16.95	211.23	-	-	17.11	211.07	-	-	14.31	213.87	-	-	17.53	210.65	--	--	14.68	213.50
SHP-05-46B	227.60	14.77	212.83	16.30	211.30	-	-	16.38	211.22	-	-	13.72	213.88	-	-	16.88	210.72	--	--	14.00	213.60
SHP-05-47A	217.39	4.19	213.20	5.56	211.83	-	-	3.54	213.85	-	-	3.92	213.47	-	-	5.91	211.48	--	--	4.83	212.56
SHP-05-47B	215.40	2.23	213.17	2.43	212.97	-	-	2.28	213.12	-	-	1.99	213.41	-	-	3.00	212.40	--	--	2.98	212.42
SHP-05-48A	217.31	-	-	3.82	213.49	-	-	4.45	212.86	-	-	4.31	213.00	-	-	Dry	Dry	--	--	4.84	212.47
SHP-05-48B	215.96	3.20	212.76	2.84	213.12	-	-	3.07	212.89	-	-	2.86	213.10	-	-	Dry	Dry	--	--	3.68	212.28
SHP-05-49A	216.67	5.50	211.17	5.68	210.99	-	-	5.57	211.10	-	-	5.03	211.64	-	-	5.32	211.35	--	--	5.05	211.62
SHP-05-49B	215.14	3.97	211.17	4.18	210.96	-	-	3.32	211.82	-	-	3.32	211.82	-	-	4.27	210.87	--	--	3.95	211.19
SHP-2016-06A	241.90	27.79	214.11	30.17	211.73	26.31	215.59	29.98	211.92	29.39	212.51	27.10	214.80	27.65	214.25	30.38	211.52	29.97	211.93	27.15	214.75
SHP-2016-06B	241.89	20.31	221.58	24.05	217.84	19.68	222.21	24.65	217.24	23.06	218.83	20.68	221.21	19.51	222.38	24.52	217.37	21.68	220.21	20.13	221.76
SHP-2016-06C	241.92	19.49	222.43	23.75	218.17	19.74	222.18	24.35	217.57	21.14	220.78	20.77	221.15	19.95	221.97	24.34	217.58	21.40	220.52	21.12	220.80
SHP-2016-07A	265.30	15.56	249.74	Dry	-	14.91	250.39	31.46	233.84	16.14	249.16	17.40	247.90	15.21	250.09	31.60	233.70	19.35	245.95	18.92	246.38
SHP-2016-07B	265.33	22.02	243.31	35.80	229.53	21.74	243.59	35.54	229.79	22.68	242.65	23.52	241.81	22.31	243.02	33.47	231.86	25.34	239.99	24.82	240.51
SHP-2016-1A	227.27	14.65	212.62	16.85	210.42	14.30	212.97	16.62	210.65	15.16	212.11	13.56	213.71	14.48	212.79	17.22	210.05	15.59	211.68	14.15	213.12
SHP-2016-1B	227.24	16.19	211.05	17.75	209.49	16.19	211.05	18.00	209.24	16.89	210.35	14.83	212.41	16.03	211.21	18.33	208.91	17.05	210.19	15.10	212.14
SHP-2016-2A	225.93	13.69	212.24	15.41	210.52	14.37	212.66	15.28	210.65	14.03	211.90	12.83	213.10	13.43	212.50	15.84	210.09	14.39	211.54	13.20	212.73
SHP-2016-2B	225.95	13.78	212.17	16.29	209.66	13.35	212.60	15.30	210.65	14.10	211.85	12.87	213.08	13.51	212.44	15.84	210.11	14.40	211.55	13.23	212.72
SHP-2016-3A	223.18	10.90	212.28	12.50	210.68	10.81	212.37	11.52	211.66	11.17	212.01	9.87	213.31	10.57	212.61	13.13	210.05	11.59	211.59	10.46	212.72
SHP-2016-3B	223.18	10.91	212.27	12.37	210.81	10.55	212.63	12.47	210.71	11.32	211.86	10.06	213.12	10.67	212.51	12.98	210.20	11.59	211.59	10.44	212.74
SHP-2016-4A	229.97	17.73	212.24	24.83	205.14	17.41	212.56	19.17	210.80	18.13	211.84	16.87	213.10	17.29	212.68	19.88	210.09	18.41	211.56	17.29	212.68
SHP-2016-4B	229.75	17.57	212.18	19.10	210.65	17.13	212.62	19.45	210.30	17.95	211.80	16.68	213.07	17.73	212.02	19.67	210.08	18.22	211.53	16.95	212.80
SHP-2016-5A	227.01	14.77	212.24	16.10	210.91	14.35	212.66	16.35	210.66	15.07	211.94	13.82	213.19	14.47	212.54	16.89	210.12	15.43	211.58	14.19	212.82
SHP-2016-5B	226.95	14.77	212.18	16.28	210.67	14.29	212.66	16.38	210.57	15.08	211.87	13.84	213.11	14.43	212.52	16.87	210.08	15.36	211.59	14.11	212.84
SHP-2017-01	229.63	18.54	211.09	20.17	209.46	17.62	212.01	20.31	209.32	18.93	210.70	17.42	212.21	18.18	211.45	20.58	209.05	19.38	210.25	17.31	212.32
SHP-2017-02	230.05	19.28	210.77	20.80	209.25	18.58	211.47	20.90	209.15	19.49	210.56	18.01	212.04	18.81	211.24	21.23	208.82	19.74	210.31	17.62	212.43
SHP-2023-1A	237.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	23.19	214.15
SHP-2023-1B	236.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	23.33	213.33
SHP-2023-2A	221.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	7.91	213.43
SHP-2023-2B	221.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	7.91	213.49
SHP-2023-3A	228.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	14.00	214.11
SHP-2023-3B	228.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	14.69	214.05
SHP-2023-4A	254.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	39.96	214.53
SHP-2023-4B	253.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	39.68	214.19
SHP-2023-5A	260.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	45.25	215.01
SHP-2023-5B	260.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	45.93	214.72
SHP-95-27X	237.45	-	-	14.03	223.42	-	-	31.90	205.55	-	-	28.83	208.62	-	-	34.74	202.71	--	--	14.81	222.64
SHP-99-01C	274.15	-	-	24.54	249.61	-	-	24.95	249.20	-	-	10.08	264.07	-	-	26.91	247.24	--	--	11.64	262.51
SHP-99-29X	243.34	20.82	222.52	23.95	219.39	-	-	25.85	217.49	-	-	21.57	221.77	-	-	24.73	218.61	--	--	21.01	222.33
SHP-99-34B	224.91		224.91	13.80	211.11	-	-	13.80	211.11	-	-	12.24	212.67	-	-	14.25	210.66	--	--	12.15	212.76
SHP-99-35X	258.23	34.54	223.69	36.35	221.88	-	-	36.80	221.43	-	-	35.31	222.92	-	-	36.76	221.47	--	--	36.56	221.67
SHSG-13-01G	205.53	-	-	1.50	203.03	-	-	Dry	-	-	-	-	-	-	-	--	--	--	--	--	--
SHSG-13-02G	208.25	-	-	-	-	-	-	2.85	202.16	-	-	2.30	205.01	-	-	1.45	203.56	--	--	--	--
SHSG-13-03G	209.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--	--	--
SHSG-14-01G	213.71	-	-	2.30	213.01	-	-	2.47	210.54	-	-	2.88	213.01	-	-	1.47	211.54	--	--	1.50	211.51

Notes:
TOR elevations from November 2017 Shepley's Hill Landfill (SHL) survey data (North American Vertical Datum [NAVD] 1988)

Acronyms and Abbreviations:
- = not measured
bmp = below measuring point
TOR = top of riser (referenced measuring point)

Appendix E

Historical Groundwater Monitoring Well Analytical Results

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
EPA-PZ-2012-1A	10/13/2014	2.0 U	121	937	40	22	2.2	5.1 J	5.93	0.145	0.36	0.38	10.1	109.0
EPA-PZ-2012-1A	10/22/2015	4.0 U	149	470	39	52	2.3	12	5.44	0.290	1.28	0.27	10.5	71.6
EPA-PZ-2012-1A	11/17/2016	3.0 U	200	380	25	61	1.7	2.7	6.13	0.263	9.09	0.17	10.3	127.2
EPA-PZ-2012-1A	05/25/2017	3.0 U	210	240	36	27	2.6	7.6	5.99	0.219	7.59	0.54	8.0	36.2
EPA-PZ-2012-1A	11/14/2017	3.0 U	110	160	43	5.3	2.8	11	6.79	1.690	1.60	--	8.8	167.0
EPA-PZ-2012-1A	04/16/2018	3.0 U	83	110	40	5.8	3.0	4.9	6.06	0.101	3.16	1.46	7.2	99.0
EPA-PZ-2012-1A	11/13/2018	3.0 U	160	190	51	6.9	2.3	3.8	5.67	0.203	1.22	0.15	10.2	-11.3
EPA-PZ-2012-1A	04/16/2019	3.0 U	270	250	51	3.3	2.4	3.2	6.10	0.120	2.30	0.59	7.4	140.0
EPA-PZ-2012-1A	11/07/2019	3.0 U	190	240	43	11	3.0	3.6	6.10	0.120	4.10	0.24	9.6	79.0
EPA-PZ-2012-1A	05/19/2020	3.0 U	270	290	44	15	1.7	1.2	6.06	0.122	3.04	4.10	9.4	91.5
EPA-PZ-2012-1A	10/30/2020	3.0 U	140	170	39	3.7	1.8 U	1.8	6.59	0.081	3.70	0.78	7.2	88.8
EPA-PZ-2012-1A	06/15/2021	5.3	120	170	33	1.6 J	0.5 U	2.6	6.28	0.055	47.37	0.77	12.9	93.8
EPA-PZ-2012-1A	11/01/2021	3.0 U	180	180	47	0.86	2.1	12	6.20	0.194	4.6	0.91	7.9	88.2
EPA-PZ-2012-1A	05/11/2022	1.8 J	400	320	57	0.99	2.3	1.8	5.83	0.020	1.9	0.58	11.6	111.0
EPA-PZ-2012-1A	10/18/2022	2.1 J	400	240	46	3.7	2.1	1.3	5.97	0.065	1.11	1.32	12.6	100.7
EPA-PZ-2012-1A	06/09/2023	1.1 J	350	250	41	5.8	2.0	1.6	5.96	0.121	1.00	0.83	9.7	55.6
EPA-PZ-2012-1A	10/30/2023	1.7 J	240	170	36	16	1.8	1.9	6.15	0.106	3.79	0.33	11.2	97.8
EPA-PZ-2012-1B	10/13/2014	**160**	**21,500**	**6,900**	304	17	2.4	3.8 J	6.54	0.587	28.2	0.14	10.9	-58.8
EPA-PZ-2012-1B	10/22/2015	**288**	**19,200**	**9,450**	266	19	2.2	6.7 J	5.91	0.635	8.66	0.60	11.0	-59.0
EPA-PZ-2012-1B	11/17/2016	**260**	**16,000**	**9,600**	250	22	1.8	5.5	6.58	0.519	0.92	0.13	10.4	3.7
EPA-PZ-2012-1B	05/25/2017	**240**	**14,000**	**9,700**	260	26	1.9	6.7	6.37	0.665	26.1	0.52	9.4	-23.5
EPA-PZ-2012-1B	11/14/2017	**200**	**13,000**	**11,000**	220	30	1.7	6.6	7.22	0.540	3.57	3.06	9.1	22.5
EPA-PZ-2012-1B	04/16/2018	**170**	**13,000**	**10,000**	210	37	1.7	11	6.75	0.519	1.98	0.94	7.1	0.3
EPA-PZ-2012-1B	11/13/2018	**170**	**13,000**	**9,700**	200	34	1.6 U	11	6.39	0.648	54.7	0.35	10.7	-72.7
EPA-PZ-2012-1B	04/16/2019	**160**	**15,000**	**13,000**	240	26	2.1	3.4	6.50	0.590	35.0	0.68	8.3	11.0
EPA-PZ-2012-1B	11/07/2019	**220**	**13,000**	**9,400**	190	30	2.7	20	6.40	0.480	18.0	0.28	9.8	-33.0
EPA-PZ-2012-1B	05/19/2020	**150**	**9,600**	**9,000**	200	36	1.5	14	6.31	0.496	3.08	2.30	11.8	-52.5
EPA-PZ-2012-1B	10/30/2020	**210**	**11,000**	**8,000**	170	35	1.8 U	18	6.47	0.282	10.2	2.95	7.3	9.1
EPA-PZ-2012-1B	06/15/2021	**160**	**10,000**	**7,800**	190	39	0.5 U	16	6.56	0.373	5.06	0.39	14.5	-36.3
EPA-PZ-2012-1B	11/01/2021	**140**	8,600	**7,900**	170	41	1.4	17	6.57	0.638	3.79	0.97	7.8	-33.2
EPA-PZ-2012-1B	05/11/2022	**150**	**9,400**	**8,100**	140	36	1.6	14	6.29	0.078	6.40	0.52	13.4	-24.8
EPA-PZ-2012-1B	10/18/2022	**200**	**12,000**	**7,000**	180	35	2.4	21	6.35	0.293	2.74	1.27	12.0	-40.8
EPA-PZ-2012-1B	06/09/2023	**170**	**10,000**	**8,300**	160	38	1.4 J	25	6.43	0.549	1.20	0.76	10.1	-69.3
EPA-PZ-2012-1B	10/30/2023	**120**	**12,000**	**9,700**	190	41	1.5	21	6.41	0.480	3.70	0.31	10.8	-23.6
EPA-PZ-2012-2A	10/14/2014	2.0 U	50 U	7.5 U	7.6	1.5	1.2	7.7 J	5.89	0.040	0.69	5.63	10.6	223.4
EPA-PZ-2012-2A	10/22/2015	4.0 U	100 U	15 U	9.3	1.8	0.42 J	7.5 J	4.85	0.047	0.85	5.18	13.1	130.1
EPA-PZ-2012-2A	11/17/2016	3.0 U	28 J	1.7 J	7.5	9.1	0.58 J	5.5	6.04	0.060	0.94	5.11	10.6	172.4
EPA-PZ-2012-2A	05/31/2017	3.0 U	50 U	1.8 J	9.0	5.6	1.0 U	5.7	5.99	0.079	6.73	3.01	8.9	36.7
EPA-PZ-2012-2A	11/08/2017	3.0 U	75 U	2.0 J	8.6 U	8.5	0.45 J	4.6	6.26	0.058	6.96	4.72	10.0	59.3
EPA-PZ-2012-2A	04/16/2018	3.0 U	50 U	3.0 J	7.6	6.8	1.0 J	5.5	6.04	0.053	2.95	5.96	6.9	126.9
EPA-PZ-2012-2A	11/13/2018	1.9 J	160	160	8.9	8.3	1.0 U	5.4	5.43	0.121	0.99	2.63	11.2	32.5
EPA-PZ-2012-2A	04/12/2019	3.0 U	50 U	1.5 J	10	2.6	0.50 U	5.8	5.80	0.047	0.72	5.30	7.1	190.0
EPA-PZ-2012-2A	10/24/2019	3.0 U	50 U	1.6 J	9.4 J	4.4	0.46 J	6.9	5.40	0.051	1.40	6.60	10.0	160.0
EPA-PZ-2012-2A	05/19/2020	3.0 U	50 U	1.1 J	11	2.8	0.74 J	6.3	4.47	0.040	0.22	3.61	12.1	410.0
EPA-PZ-2012-2A	11/05/2020	3.0 U	50 U	1.5 J	13	6.9	1.0 U	6.2	5.55	0.047	1.90	5.79	12.4	264.0
EPA-PZ-2012-2A	05/20/2021	3.0 U	50 U	1.4 J	6.4 U	4.1	0.74 J	6.6	5.85	0.009	5.47	1.11	12.7	141.2
EPA-PZ-2012-2A	11/01/2021	1.5 J	50 U	1.2 J	17	2.9	0.64 J	6.2	5.84	0.132	5.17	4.63	7.8	195.1
EPA-PZ-2012-2A	05/12/2022	3.0 U	130	1.9 J	11	1.9	0.75 J	5.2	5.46	0.005	1.70	3.25	12.2	271.0
EPA-PZ-2012-2A	10/18/2022	3.0 U	50 U	5.0 U	12	3.7	0.87 J	5.6	5.67	0.033	0.87	5.49	11.7	272.2
EPA-PZ-2012-2A	06/12/2023	3.0 U	50 U	1.5 J	11	2.7	1.0 U	6.5	5.29	0.055	0.21	4.44	13.5	191.9
EPA-PZ-2012-2A	10/30/2023	3.0 U	50 U	5.9 J	15	3.9	1.0 U	5.8	5.57	0.057	4.10	3.31	10.6	203.0
EPA-PZ-2012-2B	10/14/2014	2.0 U	52 J	**5,910**	152	12	2.2	3.5 J	6.37	0.298	0.55	0.56	11.5	112.9
EPA-PZ-2012-2B	10/22/2015	4.0 U	100 U	**7,080**	159	17	1.8	7.5	5.40	0.380	0.67	0.51	13.3	79.1
EPA-PZ-2012-2B	11/17/2016	3.0 U	44 J	**6,100**	150	18	1.8	4.9	6.27	0.324	0.69	0.17	10.4	114.7
EPA-PZ-2012-2B	05/31/2017	3.3	59	**6,800**	160	21	1.7	4.6	6.09	0.400	8.45	0.66	10.9	14.6
EPA-PZ-2012-2B	11/08/2017	3.0 U	26 J	**7,400**	180	31	1.7	5.1	6.46	0.386	3.97	0.97	9.8	22.9
EPA-PZ-2012-2B	04/16/2018	3.0 U	21 J	**6,000**	140	27	1.8	7.0	6.32	0.354	2.29	0.94	8.2	87.9
EPA-PZ-2012-2B	11/13/2018	3.0 U	50 U	**6,600**	130	36	1.6 U	9.2	6.92	0.506	3.98	0.28	10.3	-24.9
EPA-PZ-2012-2B	04/12/2019	3.0 U	97	**6,400**	130	35	1.7	13	6.20	0.390	12.0	0.57	8.4	150.0
EPA-PZ-2012-2B	10/24/2019	3.0 U	250	**6,200**	140	35	1.6	10	5.90	0.380	27.0	0.35	11.0	180.0
EPA-PZ-2012-2B	05/20/2020	3.0 U	680	**4,700**	110	31	1.2	5.9	6.28	0.292	20.9	3.81	9.6	46.8
EPA-PZ-2012-2B	11/05/2020	3.0 U	4,300	**6,000**	130	45	1.4 U	10	5.93	0.288	12.4	0.81	12.4	54.2
EPA-PZ-2012-2B	05/20/2021	1.6 J	5,000	**6,300**	130	48	1.6	12	6.20	0.073	8.14	1.24	13.9	-32.7
EPA-PZ-2012-2B	11/01/2021	1.5 J	5,500	**5,400**	140 J	39	0.8 U	7.4	6.12	0.550	4.68	0.88	7.7	41.9
EPA-PZ-2012-2B	05/12/2022	1.8 J	5,900	**4,200**	110	29	1.3	5.4	5.89	0.040	1.90	0.55	12.9	85.6
EPA-PZ-2012-2B	10/18/2022	2.7 J	**10,000**	**6,600**	150	51	2.4	8.3	6.01	0.281	3.31	1.16	12.3	13.2
EPA-PZ-2012-2B	06/12/2023	2.6 J	**9,300**	**4,900**	130	37	1.4 J	11	5.83	0.444	16.50	0.18	16.5	7.9
EPA-PZ-2012-2B	10/30/2023	2.7 J	8,000	**4,200**	110	38	1.1 J	7.7	6.03	0.303	9.00	0.33	10.4	31.3
EPA-PZ-2012-3A	10/08/2014	**21**	**19,200**	730	108	15	8.4	1.2 J	5.86	0.299	0.00	0.50	11.7	0.4
EPA-PZ-2012-3A	10/26/2015	**16**	**16,400**	674	105	40	9.1	1.1 J	5.19	0.392	1.14	0.01	12.8	-11.5
EPA-PZ-2012-3A	11/18/2016	**23**	**14,000**	710	75	66	8.7	0.56 J	6.09	0.416	3.36	1.60	9.8	-16.0
EPA-PZ-2012-3A	05/25/2017	**19**	**17,000**	850	73	94	8.7	0.50 J	5.85	0.534	9.78	1.08	10.0	-11.5
EPA-PZ-2012-3A	11/08/2017	**12**	**14,000**	670	80	67	8.6	0.57 J	6.16	0.371	1.83	0.02	11.2	8.1
EPA-PZ-2012-3A	04/24/2018	**13**	**12,000**	600	92	48	10	1.2	6.29	0.389	3.40	0.69	11.8	-18.4
EPA-PZ-2012-3A	11/14/2018	**15**	**13,000**	690	100	44	9.9	1.2	5.51	0.373	5.50	0.81	9.7	42.7
EPA-PZ-2012-3A	04/16/2019	**15**	**16,000**	920	89	32	11	1.0 U	6.10	0.340	8.00	0.51	11.0	16.0
EPA-PZ-2012-3A	10/28/2019	**16**	**17,000**	950	96	34	9.7	0.94 J	5.60	0.320	1.90	0.38	11.0	50.0
EPA-PZ-2012-3A	05/21/2020	**17**	**14,000**	890	100	27	9.4	10 U	6.14	0.258	0.02	3.50	10.3	-11.0
EPA-PZ-2012-3A	11/02/2020	**12**	**13,000**	720	97	27	9.8	1.0 U	5.76	0.195	8.40	0.92	10.6	223.0
EPA-PZ-2012-3A	05/24/2021	**15**	**14,000**	910	89	21	9.7	1.0 U	5.87	0.163	4.05	2.63	12.7	7.7
EPA-PZ-2012-3A	11/03/2021	**16**	**14,000**	920	96 J	20	8.4	1.0 U	5.81	0.204	9.22	0.71	11.8	-5.2
EPA-PZ-2012-3A	05/05/2022	**17**	**15,000**	880	86	22	8.3	1.0 U	5.73	0.190	2.03	0.76	10.3	-19.3
EPA-PZ-2012-3A	10/17/2022	**15**	**15,000**	880	83	24	9.5	1.0 U	5.75	0.252	1.90	0.59	11.8	285.3
EPA-PZ-2012-3A	06/16/2023	**16**	**14,000**	860	84	26	8.0	1.0 U	5.44	0.326	0.86	0.71	12.2	28.6
EPA-PZ-2012-3A	11/01/2023	**17**	**13,000**	730	85	57	7.4	3.8	5.80	0.255	7.40	0.01	11.9	22.3
EPA-PZ-2012-3B	10/09/2014	**3,830**	**62,100**	**5,930**	265	16	2.5	49	6.70	0.658	12.1	0.21	11.2	-113.9
EPA-PZ-2012-3B	10/26/2015	**4,070**	**63,400**	**6,620**	260	17	3.3	4.5 J	5.41	0.701	4.61	0.26	12.7	-109.4
EPA-PZ-2012-3B	11/18/2016	**3,600**	**52,000**	**5,600**	220	19	2.0	6.7	6.76	0.626	16.5	1.67	10.6	-106.6
EPA-PZ-2012-3B	05/25/2017	**4,000**	**49,000**	**5,600**	200	22	2.3	8.5	6.55	0.658	22.0	2.41	10.3	-65.7
EPA-PZ-2012-3B	11/09/2017	**3,400**	**53,000**	**6,300**	220	23	2.1	8.6	6.98	0.496	11.0	0.38	10.7	-92.2
EPA-PZ-2012-3B	04/24/2018	**2,900**	**45,000**	**5,500**	210	25	1.6	12	6.98	0.638	7.26	0.77	11.6	-96.2
EPA-PZ-2012-3B	11/14/2018	**3,000**	**44,000**	**5,600**	200	27	1.8 U	11	6.34	0.577	14.4	0.18	8.8	-53.6
EPA-PZ-2012-3B	04/16/2019	**2,700**	**45,000**	**5,800**	180	28	1.9	12	6.70	0.610	33.0	0.42	12.0	-80.0
EPA-PZ-2012-3B	10/28/2019	**3,200**	**49,000**	**5,900**	180	29	1.7	15	6.50	0.560	9.70	0.27	10.0	-54.0
EPA-PZ-2012-3B	05/21/2020	**3,200**	**44,000**	**5,600**	180	27	1.7	15	6.64	0.533	0.02	3.72	11.6	-97.8
EPA-PZ-2012-3B	11/02/2020	**2,700**	**37,000**	**5,300**	170	29	1.4	16	6.42	0.311	35.5	0.88	9.5	131.0
EPA-PZ-2012-3B	05/24/2021	**2,800**	**39,000**	**5,100**	160	32	1.6	18	6.50	0.323	7.49	3.28	12.7	-61.2
EPA-PZ-2012-3B	11/03/2021	**2,500**	**38,000**	**5,500**	160	33	0.8 U	18	6.52	0.398	1.06	0.75	11.2	-94.4
EPA-PZ-2012-3B	05/05/2022	**2,600**	**38,000**	**5,100**	140	33	1.8	17	6.49	0.376	5.81	0.75	11.5	-96.6
EPA-PZ-2012-3B	10/17/2022	**2,700**	**37,000**	**5,800**	150	34	1.7	18	6.51	0.483	3.21	0.69	11.2	-132.9
EPA-PZ-2012-3B	06/16/2023	**2,400**	**38,000**	**5,900**	170	35	1.5	17	6.26	0.651	3.70	0.71	13.3	-79.4
EPA-PZ-2012-3B	11/01/2023	**2,500**	**48,000**	**4,100**	140	40	1.7	13	6.60	0.494	7.10	0.01	11.8	-88.2
EPA-PZ-2012-4A	10/08/2014	4.8	**16,500**	**2,740**	46	145	6.3	10	6.03	0.690	0.47	0.03	13.0	-26.8
EPA-PZ-2012-4A	10/26/2015	5.6	**14,300**	**2,000**	48	210	7.6	6.1	6.43	0.769	1.02	0.35	12.9	-33.1
EPA-PZ-2012-4A	11/17/2016	5.1	5,200	710	69	110	12	9.4	6.21	0.525	0.91	1.13	13.2	5.6
EPA-PZ-2012-4A	05/25/2017	2.9 J	3,100	400	67	49	15	5.4	6.34	0.368	6.42	0.38	9.8	-4.0
EPA-PZ-2012-4A	11/08/2017	3.4	4,800	610	74	63	11	4.2	6.45	0.347	1.73	0.12	12.4	-2.3
EPA-PZ-2012-4A	04/16/2018	2.5 J	3,700	500	83	39	11	5.9	6.43	0.324	0.72	0.79	6.7	-15.9
EPA-PZ-2012-4A	11/13/2018	3.5	5,300	710	81	54	9.7	9.4	6.05	0.382	2.00	0.68	11.6	31.9

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
EPA-PZ-2012-4A	04/15/2019	2.5 J	4,100	560	79	29	11	3.4	6.40	0.290	2.70	0.71	11.0	2.0
EPA-PZ-2012-4A	10/31/2019	4.5	7,000	920	79	55	8.9	2.7	6.20	0.360	2.70	0.30	13.0	-33.0
EPA-PZ-2012-4A	05/19/2020	2.7 J	4,900	640	75	39	9.4	1.5	6.45	0.279	0.02	3.84	13.1	-52.6
EPA-PZ-2012-4A	10/30/2020	3.6	5,800	790	74	48	7.5	1.7	6.38	0.431	8.77	0.89	6.7	72.4
EPA-PZ-2012-4A	05/25/2021	2.5 J	4,600	620	75	29	8.9	5.7	6.12	0.156	3.0	3.19	12.7	0.1
EPA-PZ-2012-4A	11/05/2021	4.2	4,100	560	94 J	25	9.4	6.3	6.39	0.419	6.8	1.11	8.5	-4.4
EPA-PZ-2012-4A	05/10/2022	2.8 J	4,200	580	87	14	10	1.8	6.34	0.243	34.0	0.85	18.2	-41.8
EPA-PZ-2012-4A	10/13/2022	3.3 J	4,400	610	88	21	9.3	1.0 U	6.10	0.238	1.41	0.63	14.9	8.0
EPA-PZ-2012-4A	06/14/2023	2.5 J	3,900	540	71	14	8.7	1.1	6.12	0.222	0.75	0.67	17.4	-13.3
EPA-PZ-2012-4A	10/30/2023	4.3	8,000	1,100	78	56	7.4	1.0 U	6.02	0.308	2.02	0.01	13.3	-16.5
EPA-PZ-2012-4B	10/06/2014	**2,680**	**76,800**	784	208	16	2.6	4.9 J	6.60	0.578	3.33	0.35	12.9	-118.5
EPA-PZ-2012-4B	10/26/2015	**3,520**	**85,600**	984	224	17	4.0	11	6.68	0.515	14.1	0.45	11.7	-119.2
EPA-PZ-2012-4B	11/17/2016	**2,200**	**70,000**	640	210	18	2.7	0.90 J	6.36	0.569	13.2	1.46	11.8	-70.9
EPA-PZ-2012-4B	05/25/2017	**2,300**	**73,000**	850	200	19	3.1	1.1	6.45	0.670	10.5	0.52	10.3	-64.2
EPA-PZ-2012-4B	11/08/2017	**2,300**	**71,000**	890	220	21	2.5	2.2	6.76	0.550	2.09	0.22	10.7	-73.2
EPA-PZ-2012-4B	04/16/2018	**1,900**	**72,000**	790	200	23	2.8	3.7	6.63	0.632	14.1	1.04	6.7	-65.1
EPA-PZ-2012-4B	11/13/2018	**2,000**	**75,000**	880	190	21	2.9	3.2	6.30	0.614	3.10	0.30	10.0	-42.4
EPA-PZ-2012-4B	04/15/2019	**2,000**	**72,000**	880	140	22	2.9	6.8	6.60	0.600	14.0	0.60	12.0	-63.0
EPA-PZ-2012-4B	10/31/2019	**2,100**	**62,000**	690	130	26	2.1	17	6.50	0.510	9.50	1.70	12.0	-98.0
EPA-PZ-2012-4B	05/19/2020	**1,800**	**66,000**	640	160	25	2.6	12	6.69	0.505	0.02	3.86	14.6	-104.0
EPA-PZ-2012-4B	10/29/2020	**2,000**	**59,000**	780	140	28	2.6	12	6.46	0.468	33.3	3.51	9.1	5.4
EPA-PZ-2012-4B	05/25/2021	**2,000**	**63,000**	960	120	29	2.2	9.5	6.43	0.312	11.1	2.91	13.0	-66.9
EPA-PZ-2012-4B	11/05/2021	**2,000**	**49,000**	740	120 J	29	2.1	20	6.71	0.588	5.97	1.14	6.8	-76.9
EPA-PZ-2012-4B	05/10/2022	**1,800**	**50,000**	770	120	33	1.9	17	6.59	0.426	2.63	0.82	15.4	-101.0
EPA-PZ-2012-4B	10/13/2022	**2,100**	**49,000**	810	120	30	1.8	17	6.49	0.457	3.44	0.58	14.6	-103.3
EPA-PZ-2012-4B	06/14/2023	**1,700**	**46,000**	1,000	95	31	1.9	27	6.44	0.509	4.12	0.54	17.5	-104.3
EPA-PZ-2012-4B	10/30/2023	**3,000**	**68,000**	**2,600**	230	22	2.6	13	6.31	0.431	2.51	0.01	12.3	-79.8
EPA-PZ-2012-5A	10/14/2014	2.0 U	6,450	86	24	17	6.0	7.2 J	5.57	0.093	2.68	0.07	11.3	71.1
EPA-PZ-2012-5A	10/26/2015	4.0 U	6,560	90	22	9.5	5.8	5.5	5.51	0.101	1.08	0.48	10.3	35.9
EPA-PZ-2012-5A	11/17/2016	3.0 U	6,300	79	22	12	5.5	4.3	5.90	0.084	0.88	0.22	10.7	48.9
EPA-PZ-2012-5A	05/31/2017	3.0 U	6,400	83	23	12	6.0	4.3	5.45	0.133	9.13	0.48	10.5	25.9
EPA-PZ-2012-5A	11/10/2017	3.0 U	6,300	84	22	13	5.5	3.5	5.82	0.085	2.78	0.56	9.5	56.7
EPA-PZ-2012-5A	04/23/2018	1.5 J	6,500	87	23	14	6.2	5.1	5.71	0.111	7.72	0.85	9.4	6.2
EPA-PZ-2012-5A	11/15/2018	1.5 J	6,200	90	18	14	5.9	3.9	6.42	0.071	1.94	0.27	7.7	112.0
EPA-PZ-2012-5A	04/12/2019	1.5 J	7,200	96	22	15	6.5	4.2	5.70	0.120	5.20	0.39	7.9	36.0
EPA-PZ-2012-5A	11/05/2019	2.2 J	6,800	96	24	16	6.3	5.1	5.20	0.110	3.30	0.20	9.5	80.0
EPA-PZ-2012-5A	05/22/2020	3.0 U	6,700	88	26	15	6.7	4.0	5.57	0.106	2.78	3.73	9.6	52.3
EPA-PZ-2012-5A	11/10/2020	3.0 U	5,800 J	87	22	15	6.3	4.4	6.17	0.333	9.60	0.82	13.2	74.7
EPA-PZ-2012-5A	05/20/2021	3.0 U	6,200	88	25	13	6.7	4.2	5.53	0.017	2.79	1.95	10.5	10.4
EPA-PZ-2012-5A	10/26/2021	3.0 U	6,200	90	33	15	7.4	4.2	5.51	0.085	1.03	0.27	11.6	36.7
EPA-PZ-2012-5A	05/05/2022	1.4 J	5,800	87	25	14	6.9	3.9	5.30	0.079	2.77	0.76	10.2	43.8
EPA-PZ-2012-5A	10/19/2022	1.2 J	4,700	88	24	13	6.7	3.2	5.19	0.093	2.47	0.64	9.9	399.5
EPA-PZ-2012-5A	06/14/2023	1.1 J	5,600	89	23	14	7.1	4.3	5.08	0.125	3.30	0.71	11.5	92.7
EPA-PZ-2012-5A	11/01/2023	4.3 J	4,600	100	25	14	6.0	3.4	5.55	0.092	14.50	0.09	10.7	90.6
EPA-PZ-2012-5B	10/14/2014	3.2 J	471	**11,900**	311	6.5	1.9	3.6 J	6.44	0.598	0.01	0.16	11.0	34.3
EPA-PZ-2012-5B	10/26/2015	3.7	181	**12,300**	286	18	2.2	1.7 J	6.13	0.626	1.42	0.33	10.7	24.4
EPA-PZ-2012-5B	11/17/2016	2.4 J	130	**11,000**	250	20	1.7	2.7	6.62	0.501	0.83	0.19	10.2	21.4
EPA-PZ-2012-5B	05/31/2017	1.6 J	130	**11,000**	230	24	1.7	2.7	7.00	0.534	3.14	0.90	7.8	108.9
EPA-PZ-2012-5B	11/10/2017	3.0 U	290	**10,000**	220	30	1.6	3.5	6.69	0.435	3.24	0.18	9.3	86.3
EPA-PZ-2012-5B	04/23/2018	3.0 U	100	**9,600**	220	35	1.8	7.2	6.39	0.539	3.74	0.78	10.3	18.3
EPA-PZ-2012-5B	11/15/2018	**12**	910	**10,000**	200	40	1.6	7.1	6.35	0.344	10.4	0.54	7.5	16.1
EPA-PZ-2012-5B	04/12/2019	2.7 J	390	**11,000**	200	42	1.7	8.9	6.40	0.530	4.40	0.33	8.8	38.0
EPA-PZ-2012-5B	11/05/2019	**14**	940	**9,800**	190	40	1.3	12	6.20	0.450	2.00	0.28	9.4	-22.0
EPA-PZ-2012-5B	05/22/2020	2.4 J	300	**9,600**	190	37	1.4	10	6.81	0.464	23.1	3.69	10.8	24.8
EPA-PZ-2012-5B	11/10/2020	2.5 J	230	**9,000**	180	42	1.5	11	6.40	0.116	4.23	7.13	16.8	65.7
EPA-PZ-2012-5B	05/20/2021	3.3	200	**10,000**	180	40	1.4	9.9	6.49	0.079	< 0.1	1.22	12.5	-77.3
EPA-PZ-2012-5B	10/26/2021	3.6	140	**9,800**	180	45	1.3	12	6.41	0.356	< 0.1	0.26	11.4	-14.0
EPA-PZ-2012-5B	05/05/2022	1.5 J	140	**8,800**	150	44	1.4	15	6.14	0.330	1.41	0.80	11.1	33.0
EPA-PZ-2012-5B	10/19/2022	1.4 J	180	**9,600**	160	43	1.3	16	6.31	0.432	3.15	0.57	10.9	423.7
EPA-PZ-2012-5B	06/14/2023	**12**	550	**10,000**	160	46	1.2 J	19	5.88	0.537	1.30	0.64	11.8	45.8
EPA-PZ-2012-5B	11/01/2023	2.9 J	230	**9,000**	160	44	1.2 J	19	6.33	0.427	4.10	0.02	10.5	53.7
EPA-PZ-2012-6A	10/09/2014	2.0 U	50 U	7.5 U	32	41	0.87 J	22	6.28	0.323	0.97	7.40	9.4	177.3
EPA-PZ-2012-6A	10/26/2015	4.0 U	100 U	15 U	26	67	1.6	13	6.64	0.289	5.19	8.50	8.8	37.2
EPA-PZ-2012-6A	11/17/2016	1.6 J	34 J	3.0 U	24	3.4	0.98 J	4.0	7.02	0.071	6.51	6.32	8.8	202.8
EPA-PZ-2012-6A	05/24/2017	3.0 U	50 U	1.5 J	21	72	1.2	34	5.98	0.407	13.5	11.98	8.7	18.3
EPA-PZ-2012-6A	11/09/2017	3.0 U	29 J	5.0 U	37	9.7	1.5	14	6.81	0.112	3.35	5.17	9.2	43.8
EPA-PZ-2012-6A	04/20/2018	3.0 U	50 U	2.9 J	39	150	1.3	28	6.54	0.588	2.63	7.95	8.1	38.2
EPA-PZ-2012-6A	11/09/2018	3.0 U	50 U	3.0 U	62	14	2.0	19	6.68	0.216	3.60	8.56	10.1	37.0
EPA-PZ-2012-6A	04/22/2019	1.6 J	50 U	7.8 J	25	58	0.50 U	3.7	6.30	0.260	5.00	9.20	12.0	160.0
EPA-PZ-2012-6A	10/25/2019	3.0 U	50 U	3.0 U	32	4.7	0.85 J	4.0	6.10	0.088	13.0	7.00	9.7	180.0
EPA-PZ-2012-6A	05/22/2020	3.0 U	50 U	3.0 U	37	3.3	0.71 J	2.8	6.30	0.084	4.04	8.01	13.7	282.0
EPA-PZ-2012-6A	11/11/2020	3.0 U	50 U	3.0 U	38	9.3	0.97 J	3.9	6.45	0.150	2.34	0.46	15.4	-1.6
EPA-PZ-2012-6A	05/20/2021	3.0 U	50 U	3.0 U	25	33	0.90 J	4.2	7.14	0.162	7.11	9.37	22.8	155.1
EPA-PZ-2012-6A	11/03/2021	3.0 U	50 U	3.0 U	62 J	0.93	0.8 U	3.7	6.64	0.206	4.68	9.20	6.5	95.2
EPA-PZ-2012-6A	05/06/2022	3.0 U	50 U	5.0 U	38	39	1.1	4.5	5.97	0.169	2.25	7.08	13.6	132.0
EPA-PZ-2012-6A	10/24/2022	3.0 U	50 U	5.0 U	35	1.8	0.98 J	2.4	6.34	0.049	1.46	5.79	11.9	181.9
EPA-PZ-2012-6A	06/15/2023	0.97 J	50 U	5.0 U	29	1.2	0.66 J	1.8	6.26	0.067	0.66	9.68	14.1	142.8
EPA-PZ-2012-6A	10/30/2023	7.0	32 J	1.6 J	38	3.8	0.91 J	3.2	6.08	0.088	2.58	6.88	11.3	119.2
EPA-PZ-2012-6B	10/09/2014	**515**	**18,000**	1,020	49	1.5	9.5	3.7 J	6.94	0.158	0.73	0.54	9.8	-123.2
EPA-PZ-2012-6B	10/26/2015	**386**	**19,600**	667	46	5.0	1.4	3.5 J	6.31	0.102	2.81	0.75	8.4	10.3
EPA-PZ-2012-6B	11/17/2016	**370**	**24,000**	870	67	5.7	1.2	4.5	6.55	0.166	12.0	0.75	9.0	-30.0
EPA-PZ-2012-6B	05/24/2017	**430**	**27,000**	900	57	16	1.5	3.1	6.42	0.268	9.46	0.66	9.5	-38.7
EPA-PZ-2012-6B	11/09/2017	**350**	**21,000**	1,000	53	9.4	1.4	3.6	7.14	0.165	4.55	0.20	9.3	-97.7
EPA-PZ-2012-6B	04/20/2018	**96**	4,900	760	44	6.4	1.5	4.6	6.98	0.159	2.90	0.87	8.8	-69.7
EPA-PZ-2012-6B	11/09/2018	**300**	**18,000**	890	48	3.4	1.4 U	3.4	6.74	0.100	37.4	1.76	9.2	4.5
EPA-PZ-2012-6B	04/22/2019	**350**	**19,000**	950	39	17	1.6	12	6.80	0.200	36.0	6.80	12.0	-55.0
EPA-PZ-2012-6B	10/25/2019	**370**	**17,000**	960	47	10	1.3	9.4	6.60	0.190	9.90	0.15	10.0	-60.0
EPA-PZ-2012-6B	05/22/2020	**220**	**14,000**	720	36	8.8	1.1	3.5	6.46	0.117	6.99	0.45	11.2	52.3
EPA-PZ-2012-6B	11/11/2020	**300**	**16,000**	970	42	3.7	1.3	2.8	7.97	0.375	3.24	4.94	12.7	123.0
EPA-PZ-2012-6B	05/20/2021	**220**	**16,000**	860	41	3.0	1.3	2.5	7.20	0.123	4.15	1.07	24.1	-99.7
EPA-PZ-2012-6B	11/03/2021	**250**	**21,000**	990	39 J	8.5	0.8 U	4.4	6.98	0.260	7.17	1.16	6.5	-83.8
EPA-PZ-2012-6B	05/10/2022	**250**	**15,000**	800	31	4.1	1.3	3.6	6.63	0.105	11.30	0.83	12.7	-103.0
EPA-PZ-2012-6B	10/24/2022	**300**	**21,000**	1,100	52	6.0	1.4	5.6	6.73	0.105	3.21	1.60	12.6	-108.7
EPA-PZ-2012-6B	06/15/2023	**270**	**19,000**	730	46	9.3	1.4 J	4.6	6.58	0.189	4.42	0.73	14.4	-104.9
EPA-PZ-2012-6B	10/30/2023	**430**	**66,000**	**2,300**	140	3.1	1.9	3.0	6.30	0.316	1.83	0.04	10.4	-89.9
EPA-PZ-2012-7A	10/14/2014	2.0 U	50 U	121	60	150	--	9.3 J	6.60	0.604	1.04	1.80	13.2	97.0
EPA-PZ-2012-7A	10/27/2015	4.0 U	100 U	5.9 J	40	145	0.80 J	7.9	3.95	0.654	0.82	2.72	11.2	136.1
EPA-PZ-2012-7A	11/21/2016	3.0 U	28 J	49	28	320	0.77 J	6.8	6.31	0.815	2.49	4.93	10.0	123.1
EPA-PZ-2012-7A	05/24/2017	3.0 U	19 J	16	22	210	1.0	8.2	6.01	0.812	8.70	8.35	11.8	38.0
EPA-PZ-2012-7A	11/17/2017	3.0 U	75 U	22	25	160	0.50 U	4.0	6.41	0.549	4.52	3.01	10.2	161.3
EPA-PZ-2012-7A	04/18/2018	3.0 U	50 U	6.4 J	25	160	1.0 U	6.1	6.15	0.608	0.95	4.82	10.7	87.5
EPA-PZ-2012-7A	11/16/2018	3.0 U	50 U	8.0 J	30	89	0.66 J	9.7	6.08	0.373	0.68	5.60	8.9	14.5
EPA-PZ-2012-7A	04/19/2019	3.0 U	50 U	3.0 U	21	180	0.50 U	2.1	5.70	0.660	1.80	6.00	10.0	120.0
EPA-PZ-2012-7A	10/31/2019	2.3 J	50 U	47	22	120	0.67 J	5.0	6.00	0.450	2.80	3.60	12.0	94.0
EPA-PZ-2012-7A	05/22/2020	3.0 U	50 U	10 U	18	160	0.96 J	3.0	5.79	0.626	2.61	5.64	16.5	291.0
EPA-PZ-2012-7A	11/06/2020	3.0 U	200	3.0 J	24	100	1.0 U	8.2	8.12	0.145	3.48	0.46	12.6	44.4
EPA-PZ-2012-7A	06/16/2021	4.0 U	80 U	6.4	12	140	0.5 U	5.0	6.79	0.409	4.48	6.21	16.3	189.3
EPA-PZ-2012-7A	11/02/2021	3.0 U	50 U	3.0 J	31 J	67	0.8 U	2.1	6.06	0.439	2.78	7.12	8.3	135.3
EPA-PZ-2012-7A	05/12/2022	3.0 U	50 U	6.4 J	24	160	1.1	4.4	5.81	0.546	3.37	4.27	15.4	189.0

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
EPA-PZ-2012-7A	10/24/2022	3.0 U	50 U	2.8 J	21	170	1.3 J	4.3	5.86	0.364	1.81	4.75	13.0	115.2
EPA-PZ-2012-7A	06/13/2023	3.0 U	50 U	2.7 J	24	67	0.65 J	6.1	5.66	0.314	0.02	6.89	13.3	232.4
EPA-PZ-2012-7A	10/31/2023	1.5 J	32 J	2.3 J	29	2.9	4.1	2.0 U	5.99	0.102	22.90	4.13	11.5	-4.1
EPA-PZ-2012-7B	10/14/2014	**1,250**	**34,800**	1,460	77	0.77 U	2.4	4.9 J	6.67	0.229	3.18	0.20	12.9	-92.9
EPA-PZ-2012-7B	10/27/2015	**1,330**	**36,900**	1,380	773	3.0	3.6	12	5.59	0.275	0.68	0.95	11.7	-115.4
EPA-PZ-2012-7B	11/21/2016	**1,000**	**26,000**	930	45	34	1.5	0.50 U	6.60	0.202	17.2	7.04	10.1	-55.2
EPA-PZ-2012-7B	05/24/2017	**1,500**	**18,000**	930	39	1.8	1.4	3.5	6.45	0.175	11.4	0.41	11.5	-58.1
EPA-PZ-2012-7B	11/17/2017	**1,200**	**19,000**	830	44	1.7	1.3	3.5	6.91	0.140	389	0.33	10.0	-94.1
EPA-PZ-2012-7B	04/18/2018	**1,300**	**20,000**	1,200	46	2.3	1.5	3.5	6.81	0.161	5.97	1.01	9.4	-83.3
EPA-PZ-2012-7B	11/16/2018	**1,100**	**16,000**	1,000	40	1.2	1.5	3.4 J	6.54	0.138	15.8	0.57	10.0	-65.1
EPA-PZ-2012-7B	04/19/2019	**1,500**	**22,000**	**2,700**	52	9.6	0.50 U	5.0	6.20	0.210	1.00	0.77	11.0	-34.0
EPA-PZ-2012-7B	11/05/2019	**1,300**	**23,000**	**1,900**	50	1.3	1.3	4.7	6.70	0.150	6.40	0.23	9.8	-93.0
EPA-PZ-2012-7B	05/22/2020	**1,400**	**16,000**	**2,700**	38	1.2	1.1	3.3	6.56	0.117	5.06	0.37	13.6	38.6
EPA-PZ-2012-7B	11/06/2020	**1,300**	**21,000**	**2,500**	52	1.4	1.1 U	2.8	6.50	0.505	4.23	1.05	9.9	96.1
EPA-PZ-2012-7B	06/16/2021	**1,300**	**19,000**	**2,900**	56	1.7 J	0.5 U	3.2	7.75	0.098	4.84	0.64	14.7	-81.5
EPA-PZ-2012-7B	11/02/2021	**1,200**	**24,000**	**3,400**	56 J	1.3	0.8 U	3.3	6.75	0.307	4.25	1.18	8.6	-81.8
EPA-PZ-2012-7B	05/12/2022	**1,300**	**15,000**	**3,100**	31	1.1	1.1	2.4	6.74	0.101	3.99	0.65	12.3	-107.0
EPA-PZ-2012-7B	10/24/2022	**770**	**12,000**	1,600	40	1.5	1.8	0.59 J	6.67	0.098	10.16	1.48	12.8	-99.9
EPA-PZ-2012-7B	06/09/2023	**1,200**	**18,000**	**3,500**	36	0.96	0.92 J	3.0	6.59	0.157	1.50	0.82	12.4	-91.2
EPA-PZ-2012-7B	10/31/2023	**1,000**	**27,000**	**4,900**	71	1.4	1.2 J	3.2	6.69	0.203	0.28	0.49	11.7	-53.5
EW-01	08/29/2016	**1,500**	**62,000**	**2,100**	260	16	4.8	2.0	--	--	--	--	--	--
EW-01	06/14/2017	**1,900**	**63,000**	**2,200**	170	15	4.5	3.7	--	--	--	--	--	--
EW-01	11/28/2017	**1,800**	**71,000**	**2,200**	180	15	4.2	3.8	--	--	--	--	--	--
EW-01	04/19/2018	**1,500**	**60,000**	**2,100**	190 J	15	4.7	4.1	--	--	--	--	--	--
EW-01	12/18/2018	**1,900**	**75,000**	**2,500**	240	15	4.3	4.2	--	--	--	--	--	--
EW-01	04/12/2019	**1,500**	**64,000**	**2,100**	200	15	4.4	4.0	--	--	--	--	--	--
EW-01	11/05/2019	**1,600**	**65,000**	**2,100**	210	18	4.2	6.6	--	--	--	--	--	--
EW-01	05/08/2020	**1,500**	**63,000**	**2,000**	--	--	--	--	--	--	--	--	--	--
EW-01	05/18/2020	**1,600**	**65,000**	**2,100**	250	17	4.8	5.1	6.62	0.569	40.0	9.26	11.8	-43.3
EW-01	10/30/2020	**1,400**	**56,000**	**1,800**	210	18	4.1	4.8	6.76	0.284	6.18	2.11	6.7	74.7
EW-01	06/15/2021	**1,400**	**66,000**	**2,200**	250	16	5.1	4.9	6.68	0.443	1.46	2.49	15.3	-60.1
EW-01	11/05/2021	**1,600**	**63,000**	**2,100**	210 J	19	4.6	4.3	6.41	0.622	5.45	2.93	5.4	-38.7
EW-01	05/13/2022	**1,500**	**70,000**	**2,200**	200	18	4.8	3.7	--	--	--	--	--	--
EW-01	05/25/2022	**1,600**	**65,000**	**2,200**	230	17	4.9	4.1	6.60	0.624	4.51	0.18	11.1	-1.0
EW-01	08/23/2022	**1,500**	**63,000**	**2,100**	200	18	4.8	5.2	6.79	0.620	1.81	6.00	11.8	-52.5
EW-01	10/21/2022	**1,600**	**64,000**	**2,100**	230	18	4.6	4.5	6.27	0.393	7.82	4.17	14.0	-67.9
EW-01	11/18/2022	**1,700**	**61,000**	**2,000**	200	18	4.4	5.7	6.26	0.529	1.63	2.09	10.8	-193.0
EW-01	06/16/2023	**1,600**	**63,000**	**2,100**	220	17	4.2	5.5	5.99	0.717	1.00	3.68	13.5	-50.6
EW-01	11/03/2023	**1,900**	**69,000**	**2,100**	250	21	4.2	2.1	6.42	0.365	0.01	2.15	10.6	-55.0
EW-03	11/03/2023	**540**	**45,000**	**1,800**	170	25	2.5	22	6.50	0.345	1.78	2.10	10.2	-52.0
EW-04	08/29/2016	**2,400**	**35,000**	**2,200**	130	9.1	2.0	4.2	--	--	--	--	--	--
EW-04	06/14/2017	**3,500**	**42,000**	**2,700**	100	8.1	2.0	4.4	--	--	--	--	--	--
EW-04	11/28/2017	**3,500**	**45,000**	**2,700**	98	7.5	1.9	4.5	--	--	--	--	--	--
EW-04	04/19/2018	**3,300**	**37,000**	**2,300**	110 J	6.4	2.2	4.6	--	--	--	--	--	--
EW-04	12/18/2018	**4,000**	**56,000**	**3,200**	160	6.8	2.4	5.0	--	--	--	--	--	--
EW-04	04/12/2019	**2,900**	**41,000**	**2,400**	100	5.2	1.9	4.4	--	--	--	--	--	--
EW-04	11/05/2019	**3,200**	**38,000**	**2,100**	110	6.8	1.7	6.4	--	--	--	--	--	--
EW-04	05/08/2020	**3,100**	**39,000**	**2,400**	--	--	--	--	--	--	--	--	--	--
EW-04	05/18/2020	**3,300**	**39,000**	**2,400**	130	5.8	1.9	5.3	7.73	0.317	39.3	9.54	11.9	-65.3
EW-04	10/30/2020	**3,000**	**33,000**	**2,100**	100	6.7	1.9 U	4.5	6.78	0.171	6.00	0.68	9.1	-38.3
EW-04	06/15/2021	**3,000**	**39,000**	**2,500**	130	6.6	0.5 U	5.2	6.60	0.246	7.14	2.78	16.4	-55.5
EW-04	11/05/2021	**3,400**	**39,000**	**2,500**	120 J	6.9	2.1	4.7	6.60	0.440	7.13	3.04	6.6	-25.3
EW-04	05/13/2022	**3,000**	**41,000**	**2,600**	100	6.3	2.2	4.3	--	--	--	--	--	--
EW-04	10/21/2022	**3,000**	**37,000**	**2,400**	120	5.6	1.9	3.9	6.34	0.194	2.42	3.49	13.9	-62.4
EW-04	06/16/2023	**3,100**	**34,000**	**2,300**	110	4.9	1.6	4.8	6.10	0.374	1.80	3.50	13.3	-47.2
EW-04	11/03/2023	**5,900**	**68,000**	**2,700**	230	11	3.5	5.5	6.36	0.321	0.18	3.31	10.4	-58.0
N5-P1	10/12/2010	--	--	--	300	20	--	11 U	6.06	1.353	1.00	0.31	12.3	-61.8
N5-P1	10/10/2011	--	--	--	280	16	--	9.5	6.60	0.548	2.00	0.18	12.7	-60.0
N5-P1	10/18/2012	--	--	--	270	20	--	11	6.79	0.386	18.0	0.55	11.7	-100.0
N5-P1	10/22/2013	**2,500**	7,520	**8,570**	313	18	--	11	6.73	0.620	0.46	0.57	13.6	-69.5
N5-P1	10/08/2014	**327**	563	**2,010**	230	20	2.4	17	7.20	0.303	0.61	0.25	13.8	-108.3
N5-P1	10/23/2015	**2,170**	3,440	**7,250**	250	16	2.7	14	6.25	0.560	1.52	0.51	11.5	-25.0
N5-P1	12/22/2016	**4,200**	**35,000**	**9,000**	110 J	18	2.3	14	6.26	0.887	3.57	1.35	10.7	-41.0
N5-P1	06/15/2017	**4,700**	**20,000**	**9,400**	220	220	2.4	220	7.12	0.269	6.97	0.48	14.0	-82.1
N5-P1	11/09/2017	**4,700**	**44,000**	**6,800**	230	16	2.7	9.0	6.81	0.381	4.18	0.85	11.1	-23.0
N5-P1	11/14/2018	**540**	570	**2,000**	140	19	1.2 U	16	7.66	0.337	21.5	2.25	8.4	-50.4
N5-P1	11/06/2019	**4,400**	**43,000**	**6,200**	240	21	2.6	12	6.60	0.590	9.90	0.55	11.0	-43.0
N5-P1	10/30/2020	**520**	510	980	130	19	1.2 U	17	6.81	0.527	11.7	0.63	9.2	10.7
N5-P1	11/04/2021	**540**	280	980	140	18	0.8 U	17	7.19	0.428	4.11	1.25	4.2	-23.4
N5-P1	10/19/2022	**560**	380	1,300	130	18	1.0	16	6.90	0.208	3.22	1.37	13.5	-48.2
N5-P1	10/24/2023	**4,300**	**22,000**	**6,900**	220	15	2.7	10	6.44	0.561	1.1	1.05	13.1	-76.5
N5-P2	10/12/2010	--	--	--	700	14	--	1.0	6.43	0.519	1.00	0.35	12.1	-60.7
N5-P2	10/10/2011	--	--	--	690	14	--	1.0	6.20	1.080	2.00	0.17	12.8	-32.0
N5-P2	10/17/2012	--	--	--	640	13	--	2.0 U	6.25	0.850	82.0	1.21	14.9	-132.4
N5-P2	10/22/2013	**21**	**75,400**	459	652	15	--	0.67 J	6.34	1.271	3.36	0.72	14.2	-71.6
N5-P2	10/23/2015	**26**	**38,200**	426	574	15	13	4.2	5.64	1.340	1.29	0.39	12.2	-57.2
N5-P2	11/22/2016	**35**	**72,000**	490	610	13	12	1.0 U	6.26	0.887	3.57	1.35	10.7	-41.0
PZ-12-01	05/28/2013	**441**	**27,100**	**3,930**	201	38	2.4	14	6.50	0.421	4.19	0.23	12.4	-86.3
PZ-12-01	05/25/2017	**680**	**41,000**	**3,100**	190	49	2.6	5.2	5.89	0.416	12.1	0.52	10.5	-18.6
PZ-12-01	11/03/2017	**420**	**53,000**	670	150	14	2.1	2.9	6.43	0.532	7.93	0.52	14.1	-63.1
PZ-12-01	04/12/2018	**700**	**55,000**	**2,800**	180	45	2.4	8.4	6.36	0.544	7.18	0.94	11.0	-0.3
PZ-12-01	11/06/2018	**570**	**59,000**	**1,800**	140	48	2.2	5.9	6.27	0.583	23.4	1.01	11.2	-38.4
PZ-12-01	04/18/2019	**470**	**54,000**	1,700	170	58	3.3	11	6.50	0.660	9.60	0.71	10.0	-54.0
PZ-12-01	11/01/2019	**560**	**52,000**	**1,800**	140	62	2.0	14	6.40	0.600	4.50	0.36	11.0	-64.0
PZ-12-01	05/18/2020	**540**	**54,000**	**2,000**	190	60	2.4	16	6.49	0.602	0.81	0.43	11.3	-1.4
PZ-12-01	11/02/2020	**600**	**52,000**	**1,900**	160	57	1.9	19	6.56	0.621	1.96	0.69	10.2	-8.5
PZ-12-01	05/19/2021	**580**	**66,000**	**2,300**	180	60	2.8	13	6.55	0.674	6.99	0.88	24.9	-91.9
PZ-12-01	10/21/2021	**580**	**62,000**	**2,400**	140	75	2.5	14	6.50	0.894	7.46	1.03	14.5	-73.8
PZ-12-01	05/04/2022	**600**	**64,000**	**2,500**	170	84	3.3	17	6.36	0.611	2.38	0.74	11.1	-87.8
PZ-12-01	10/13/2022	**570**	**58,000**	**2,400**	140	86	2.4	25	6.54	0.440	9.73	1.31	14.1	-73.8
PZ-12-01	06/12/2023	**540**	**63,000**	**2,800**	170	93	2.5	21	6.20	0.900	22.40	0.74	17.0	-71.3
PZ-12-01	10/25/2023	**610**	**65,000**	**2,900**	160	100	6.0	25	6.36	0.353	1.40	0.66	20.0	-52.9
PZ-12-02	05/21/2013	**627**	**58,600**	1,330	213	42	2.8	4.5 U	6.37	0.665	4.58	0.15	12.3	-87.0
PZ-12-02	05/26/2017	**500**	**56,000**	840	180	33	2.6	1.3	6.01	0.378	10.3	0.34	10.2	-34.6
PZ-12-02	11/03/2017	**660**	**45,000**	**2,200**	150	46	2.7	6.1	6.31	0.477	1.72	0.33	13.1	-63.7
PZ-12-02	04/12/2018	**400**	**60,000**	780	160	34	2.5	4.2	6.91	0.466	4.07	0.93	11.9	36.0
PZ-12-02	11/06/2018	**300**	**64,000**	930	180	41	3.5	0.55 J	6.17	0.621	23.7	0.35	11.7	-58.1
PZ-12-02	04/18/2019	**190**	**73,000**	1,300	240	47	5.8	6.0	6.40	0.780	5.50	1.20	9.8	-57.0
PZ-12-02	11/01/2019	**270**	**74,000**	1,200	220	68	3.9	2.8	6.40	0.770	3.10	1.50	12.0	-64.0
PZ-12-02	05/15/2020	**210**	**74,000**	1,400	260	54	4.3	5 U	5.49	0.710	7.77	0.56	13.7	99.1
PZ-12-02	11/02/2020	**270**	**64,000**	1,100	200	64	3.0	1.0 U	6.63	0.504	30.0	0.37	8.5	-17.6
PZ-12-02	05/19/2021	**290**	**71,000**	1,400	200	67	3.4	1.0 U	6.42	0.679	3.44	0.91	22.1	-75.0
PZ-12-02	10/21/2021	**270**	**67,000**	1,400	180	63	3.7	1.0 U	6.46	0.954	0.48	1.14	15.6	-69.3
PZ-12-02	05/04/2022	**250**	**65,000**	1,200	210	61	4.0	1.0 U	6.34	0.589	3.45	0.67	11.0	-82.1
PZ-12-02	10/13/2022	**280**	**66,000**	1,200	200	81	3.5	1.0 U	6.46	0.475	3.91	1.20	14.9	-74.0
PZ-12-02	06/13/2023	**270**	**66,000**	1,400	190	50	3.5	1.0 U	6.12	0.796	22.40	0.74	13.5	-75.5
PZ-12-02	10/25/2023	**280**	**79,000**	1,700	220	82	5.8	1.0 U	6.31	0.351	0.49	0.49	17.8	-53.7
PZ-12-03	05/24/2013	**659**	**40,100**	**2,950**	227	53	3.3	21	6.60	0.563	1.94	0.23	12.2	-105.4
PZ-12-03	05/26/2017	**600**	**39,000**	**2,700**	170	33	2.3	5.6	6.35	0.359	10.9	0.30	10.0	-64.1

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
PZ-12-03	11/06/2017	**620**	**41,000**	**3,800**	140	12	2.8	48	6.44	0.416	9.32	0.47	13.1	-60.1
PZ-12-03	04/19/2018	**610**	**32,000**	**3,000**	140 J	40	2.0	7.4	6.63	0.511	2.15	1.12	7.9	-75.6
PZ-12-03	11/07/2018	**560**	**31,000**	**3,300**	150	47	1.8	5.1	6.35	0.537	31.7	0.43	13.3	-59.2
PZ-12-03	04/18/2019	**630**	**39,000**	**3,900**	170	--	2.0	--	6.70	0.600	12.0	0.64	10.0	-65.0
PZ-12-03	10/30/2019	**790**	**63,000**	**4,600**	190	51	1.9	20	6.30	0.630	2.70	0.29	11.0	-80.0
PZ-12-03	05/18/2020	**740**	**42,000**	**3,600**	180	57	2.3	4.2	6.29	0.574	39.2	0.32	12.2	9.8
PZ-12-03	11/02/2020	**720**	**50,000**	**3,300**	170	47	1.7	3.0	6.50	0.572	24.2	0.52	8.2	-2.3
PZ-12-03	05/20/2021	**790**	**50,000**	**3,600**	160	62	2.1	1.5	7.14	0.601	42.59	0.95	23.6	-110.4
PZ-12-03	10/26/2021	**740**	**45,000**	**3,500**	160	65	2.0	3.8	6.70	0.590	4.73	0.90	7.2	-80.7
PZ-12-03	05/05/2022	**750**	**45,000**	**3,600**	160	75	2.1	3.5	6.50	0.669	9.22	0.57	17.5	-105.0
PZ-12-03	10/14/2022	**720**	**53,000**	**4,100**	160	54	2.3	7.5	6.70	0.357	13.16	1.31	12.5	-97.5
PZ-12-03	06/13/2023	**710**	**44,000**	**3,700**	140	85	1.9	7.8	6.33	0.789	5.30	0.68	15.7	-89.9
PZ-12-03	10/24/2023	**840**	**51,000**	**4,100**	160	100	2.4	5.7	6.51	0.467	3.31	0.55	14.9	-55.3
PZ-12-04	05/24/2013	**610**	**56,300**	1,310	171	51	3.5	5.0	6.53	0.447	4.29	0.29	13.3	-86.9
PZ-12-04	05/26/2017	**640**	**47,000**	850	110	10	2.1	1.9	6.30	0.258	9.69	0.29	10.4	-61.9
PZ-12-04	11/06/2017	**68**	3,700	1,200	150	23	2.0	1.0	6.22	0.474	9.42	0.33	13.3	-78.2
PZ-12-04	04/19/2018	**690**	**53,000**	1,300	130 J	13	2.2	2.8	6.45	0.451	1.38	2.96	8.6	-58.1
PZ-12-04	11/07/2018	**630**	**56,000**	1,600	99 J	39	1.8	0.96 J	7.22	0.461	16.3	0.55	13.3	-65.0
PZ-12-04	04/18/2019	**670**	**66,000**	1,700	150	44	2.2	1.8	6.50	0.580	4.00	0.52	11.0	-61.0
PZ-12-04	10/30/2019	**730**	**78,000**	**2,000**	180	62	2.2	2.4	6.40	0.630	5.20	0.26	12.0	-72.0
PZ-12-04	05/18/2020	**750**	**73,000**	**1,900**	230	40	2.4	3.8	6.10	0.585	7.99	0.32	12.6	17.9
PZ-12-04	11/02/2020	**710**	**75,000**	**1,900**	160	61	2.3 U	1.0 U	6.51	0.277	3.37	0.91	9.4	43.8
PZ-12-04	05/20/2021	**800**	**61,000**	1,600	180	29	2.3	1.5	7.03	0.480	5.14	0.97	23.2	-96.9
PZ-12-04	10/26/2021	**720**	**64,000**	1,700	130	43	2.3	0.81 J	6.58	0.541	0.83	0.83	7.5	-75.6
PZ-12-04	05/05/2022	**710**	**57,000**	1,400	150	49	2.2	0.88 J	6.34	0.554	10.80	0.62	18.1	-87.3
PZ-12-04	10/13/2022	**690**	**63,000**	1,700	130	79	2.2	0.80 J	6.62	0.404	3.66	1.18	15.3	-93.1
PZ-12-04	06/13/2023	**720**	**56,000**	1,500	130	31	2.0	2.2	6.20	0.577	5.30	0.57	15.9	-82.1
PZ-12-04	10/24/2023	**720**	**62,000**	1,600	120	57	2.4	0.60 J	6.36	0.433	1.89	0.57	16.2	-61.8
PZ-12-05	05/22/2013	**741**	**67,700**	1,710	188	31	2.4	4.5 U	6.46	0.571	0.87	0.31	12.2	-99.6
PZ-12-05	05/26/2017	**260**	**24,000**	1,300	55	2.4	1.3	12	6.27	0.128	6.91	0.27	10.1	-44.7
PZ-12-05	11/06/2017	**260**	**32,000**	**1,900**	86	2.0	1.1	8.0	6.12	0.225	0.29	0.16	12.5	-43.1
PZ-12-05	04/13/2018	**190**	**29,000**	**2,000**	76	2.1	1.3	8.8	6.41	0.204	1.09	0.36	12.4	-68.7
PZ-12-05	11/07/2018	**140**	**33,000**	**2,200**	57 J	1.8	1.3 U	13 J	5.80	0.215	15.2	0.22	12.6	-8.0
PZ-12-05	04/16/2019	**220**	**56,000**	**3,600**	59	9.1	1.4	23	6.20	0.340	4.80	0.65	12.0	-66.0
PZ-12-05	10/30/2019	**210**	**38,000**	**2,500**	120	7.7	1.1	13	6.20	0.290	3.50	2.00	12.0	-39.0
PZ-12-05	05/18/2020	**160**	**19,000**	1,400	76	4.4	1.0	7.0	6.08	0.166	5.31	0.34	13.6	46.7
PZ-12-05	11/03/2020	**140**	**38,000**	**3,500**	120	12	2.3 U	7.0	6.24	0.243	3.11	0.60	10.3	58.9
PZ-12-05	05/21/2021	**86**	**13,000**	1,400	40	1.4	1.2	5.0	6.82	0.117	4.25	1.05	20.6	-43.8
PZ-12-05	10/26/2021	**49**	**12,000**	1,200	50	0.73	1.2	2.7	6.06	0.201	7.47	1.22	8.7	13.1
PZ-12-05	05/09/2022	6.9	6,800	890	35	1.6	1.3	6.1	5.71	0.099	15.80	2.43	14.1	63.5
PZ-12-05	10/14/2022	**14**	5,800	780	63	2.0	2.2	7.7	6.03	0.097	47.59	1.33	13.6	47.9
PZ-12-05	06/13/2023	1.7 J	380	180	40	1.1	0.83 J	3.4	5.65	0.068	8.20	5.49	18.0	104.4
PZ-12-05	10/24/2023	3.6 J	150	130	35	0.55	1.3 J	1.3 J	5.65	0.135	0.29	3.11	14.7	-0.8
PZ-12-06	05/24/2013	**244**	**54,600**	1,350	293	51	30	10	6.23	0.700	2.90	1.57	13.0	-71.6
PZ-12-06	05/26/2017	**41 J**	**20,000**	**2,000**	65	1.4	1.1	7.8	6.38	0.129	8.46	0.32	10.0	-24.3
PZ-12-06	11/06/2017	**49**	**27,000**	**2,600**	90	1.6	1.4	36	6.08	0.279	6.97	0.57	13.1	-39.7
PZ-12-06	04/13/2018	**25**	**19,000**	**2,400**	100	3.1	1.1	14	6.14	0.254	2.12	0.73	12.0	-52.3
PZ-12-06	11/07/2018	**48**	**16,000**	**1,900**	58 J	0.56	1.2 U	17 J	6.17	0.188	15.8	0.29	13.5	-21.7
PZ-12-06	04/16/2019	**31**	**23,000**	**6,800**	100	7.6	2.8	70	5.90	0.430	5.70	0.56	12.0	-9.6
PZ-12-06	10/29/2019	**40**	**16,000**	**2,900**	100	2.0	0.96 J	15	6.00	0.230	6.60	0.31	16.0	-29.0
PZ-12-06	05/18/2020	5.2	4,200	1,200	74	3.3	1.0	62	5.52	0.289	8.55	0.27	12.1	70.6
PZ-12-06	11/03/2020	**13**	7,100	**2,400**	110	7.5	1.5 U	23	7.69	0.241	331	3.85	12.9	100.0
PZ-12-06	05/21/2021	2.0 J	1,100	780	46	2.3	1.0	18	6.23	0.122	12	1.22	16.0	128.1
PZ-12-06	10/26/2021	1.8 J	490	170	35	0.38 J	0.98 J	11	5.91	0.153	3.51	0.98	8.1	115.1
PZ-12-06	05/09/2022	3.0 U	41 J	240	49	3.2	1.3	36	5.48	0.230	3.39	0.91	12.4	225.0
PZ-12-06	10/14/2022	1.4 J	920	860	53	8.4	0.83 J	10	5.87	0.107	2.85	1.24	17.4	118.5
PZ-12-06	06/13/2023	3.0 U	50 U	160	41	1.8	0.96 J	42	5.18	0.308	4.23	0.69	17.3	202.3
PZ-12-06	10/24/2023	3.0 U	50 U	29	26	0.79	0.75 J	11	5.64	0.115	2.23	0.88	13.2	13.2
PZ-12-07	05/24/2013	**484**	**29,000**	1,620	105	6.3	2.2	13	6.41	0.276	18.0	0.29	11.5	-390.0
PZ-12-07	06/03/2017	**110**	7,500	1,300	59	2.5	1.3	33	5.93	0.109	8.86	4.64	11.0	14.6
PZ-12-07	11/06/2017	3.8	75 U	1,200	75	2.3	1.2	32	6.37	0.212	17.9	3.26	13.1	22.9
PZ-12-07	04/12/2018	**72**	3,200	850	64	1.9	1.2	30	6.61	0.200	1.97	3.42	12.3	3.8
PZ-12-07	11/09/2018	3.0 U	35 J	19	13	0.82	2.8	1.4	6.13	0.037	25.5	6.63	13.5	78.3
PZ-12-07	04/16/2019	**100**	4,500	1,500	120	2.2	1.7	44	6.70	0.350	9.70	2.50	11.0	-14.0
PZ-12-07	11/01/2019	**94**	5,100	1,400	94	4.2	2.2	99	6.40	0.440	8.70	2.90	12.0	47.0
PZ-12-07	05/15/2020	**70**	3,500	1,000	85	1.3	1.5	32	5.44	0.227	7.46	7.78	12.5	274.0
PZ-12-07	11/05/2020	**110**	3,800	1,100	87	2.2	1.4 U	50	7.49	0.167	29.8	0.42	13.6	89.7
PZ-12-07	06/15/2021	**88**	3,200	1,100	80	1.3 J	1.4 U	24	6.95	0.162	29.1	6.01	13.9	-4.2
PZ-12-07	10/27/2021	**140**	4,600	1,600	120 J	1.4	1.8	42	6.92	0.488	47.3	1.65	7.1	-57.1
PZ-12-07	05/06/2022	**130**	2,900	980	80	0.89	1.4	16	6.51	0.181	34.8	4.53	14.1	-10.6
PZ-12-07	10/17/2022	**110**	3,300	1,600	99	2.30	2.3	59	6.57	0.198	46.8	3.82	12.1	-29.1
PZ-12-07	06/15/2023	**62**	2,100	1,200	90	1.0	0.98 J	17	6.51	0.270	24.3	4.76	10.5	-24.9
PZ-12-07	10/20/2023	**74**	2,500	1,100	88	0.98	3.7	22	6.63	0.236	29.8	3.12	13.6	-36.6
PZ-12-08	05/24/2013	1.9	174	361	46	5.8	6.9	7.4	5.90	0.125	9.20	2.68	10.6	131.7
PZ-12-08	06/03/2017	3.1	590	44	21	0.67	2.5	3.7	7.38	0.039	14.8	8.60	10.4	23.9
PZ-12-08	11/06/2017	2.3 J	2,200	1,600	55	1.3	1.9	21	5.82	0.194	24.2	0.48	13.9	68.0
PZ-12-08	04/13/2018	1.5 J	420	790	30	1.0	1.8	7.4	6.01	0.090	1.02	7.68	9.8	94.8
PZ-12-08	11/09/2018	3.0 U	35 J	19	13	0.82	2.8	1.4	6.13	0.037	25.5	6.63	13.5	78.3
PZ-12-08	04/12/2019	**160**	**23,000**	1,200	70	1.0	0.50 U	26	6.10	0.240	89.0	3.90	10.0	52.0
PZ-12-08	10/31/2019	**17**	**14,000**	**2,600**	88	5.6	1.2	13	5.80	0.230	26.0	0.35	13.0	64.0
PZ-12-08	05/19/2020	1.7 J	5,200	1,200	58	0.60	1.3	16	6.06	0.127	18.9	4.90	10.7	99.7
PZ-12-08	11/05/2020	**24**	**17,000**	1,700	85	1.1	1.7 U	8.8	6.99	0.182	39.6	1.39	9.8	122.0
PZ-12-08	05/21/2021	3.0 U	4,700	1,400	46	0.92	1.3	14	6.52	0.124	49.7	1.06	19.9	64.1
PZ-12-08	10/27/2021	3.0 U	6,100	1,300	52 J	0.51	1.2	15	6.13	0.261	49.9	1.35	8.0	32.9
PZ-12-08	05/06/2022	3.8 J	**12,000**	**2,900**	65	0.69	1.4	18	5.72	0.187	84.1	0.95	13.2	40.2
PZ-12-08	10/17/2022	**14**	**18,000**	**2,300**	91	1.9	1.6	9.0	5.96	0.129	34.5	1.23	12.0	5.6
PZ-12-08	06/15/2023	1.9 J	2,100	770	42	1.1	0.99 J	15	5.70	0.162	59.1	0.85	13.4	55.4
PZ-12-08	10/20/2023	3.0 U	4,100	1,100	50	0.63	2.9	9.7	6.08	0.174	21.2	0.65	15.8	-22.9
PZ-12-09	05/21/2013	1.1	30 U	176	55	4.3	1.1	27	6.34	0.187	3.46	3.83	13.2	112.6
PZ-12-09	06/08/2017	3.0 U	50 U	30	80	3.1	1.1	34	6.53	0.177	6.88	3.02	10.5	63.0
PZ-12-09	11/07/2017	3.0 U	75 U	2.4 J	55	1.6	0.81 J	21	6.91	0.131	1.95	7.48	11.9	83.4
PZ-12-09	04/12/2018	3.0 U	50 U	17	80	2.1	1.0 U	26	6.88	0.233	2.22	4.12	11.4	79.5
PZ-12-09	11/06/2018	3.0 U	26 J	10 U	76 J	1.5	1.0 U	16	6.21	0.200	3.95	0.97	11.8	55.8
PZ-12-09	04/16/2019	3.0 U	50 U	37	72	1.3	0.50 U	13	6.80	0.200	8.70	1.90	11.0	120.0
PZ-12-09	10/31/2019	3.1	50 U	12	69	1.4	0.64 J	20	6.30	0.180	10.0	0.86	12.0	160.0
PZ-12-09	05/15/2020	3.0 U	50 U	17	84	1.1	0.52 J	13	4.70	0.177	4.89	5.94	12.4	285.0
PZ-12-09	10/26/2020	1.6 J	50 U	14	110	1.1	0.46 J	10	6.82	0.071	2.43	4.47	9.2	165.0
PZ-12-09	05/21/2021	1.7 J	50 U	32	85	0.97	0.66 J	11	7.44	0.177	8.43	2.15	21.5	117.8
PZ-12-09	11/01/2021	3.0 U	50 U	7.2 J	90	2.30	0.74 J	2.3	6.88	0.333	0.52	6.03	9.2	115.3
PZ-12-09	05/06/2022	1.7 J	50 U	43	84	0.89	0.61 J	9.8	6.55	0.181	3.74	2.00	14.4	108.0
PZ-12-09	10/17/2022	2.0 J	50 U	3.0 J	87	0.82	0.86 J	9.2	6.58	0.115	0.67	2.43	11.2	127.8
PZ-12-09	06/14/2023	1.4 J	20 J	4.5 J	71	1.1	1.0 U	10	6.46	0.218	2.40	3.20	15.1	90.2
PZ-12-09	10/25/2023	2.1 J	50 U	10	88	0.9	5.1	9.2	6.78	0.181	4.49	2.12	18.6	-27.8
PZ-12-10	05/22/2013	0.69 J	30 U	2.5 U	16	1.8	2.0	4.5 U	5.88	0.043	1.10	10.37	10.2	191.3
PZ-12-10	06/08/2017	3.0 U	50 U	3.0 U	25	0.99	1.1	6.7	5.67	0.046	6.50	9.67	9.5	131.6
PZ-12-10	11/07/2017	3.0 U	75 U	5.0 U	36	0.81	0.89 J	8.1	6.30	0.074	1.95	7.24	12.0	129.9
PZ-12-10	04/12/2018	3.0 U	21 J	1.4 J	17	0.86	1.0 U	2.0	6.24	0.044	1.57	10.04	9.7	121.5
PZ-12-10	11/06/2018	3.0 U	50 U	3.0 U	38 J	0.98	1.0 U	2.3	5.35	0.088	2.98	3.50	13.1	74.3
PZ-12-10	04/16/2019	3.0 U	790	8.8	44	0.91	0.50 U	6.1	6.10	0.097	2.60	3.50	9.1	170.0

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
PZ-12-10	10/31/2019	3.0 U	50 U	1.2 J	36	0.86	0.69 J	11	5.20	0.095	1.90	6.80	13.0	180.0
PZ-12-10	05/15/2020	3.0 U	50 U	10 U	33	0.46 J	0.64 J	7.2	6.23	0.068	2.46	10.90	11.2	122.0
PZ-12-10	10/26/2020	3.0 U	50 U	3.0 U	30	0.44 J	0.94 J	9.7	8.24	0.044	1.53	2.27	16.3	120.0
PZ-12-10	05/24/2021	3.0 U	50 U	3.0 U	29	1.0	0.59 J	1.8	10.28	0.046	0.74	8.84	15.4	204.9
PZ-12-10	10/27/2021	3.0 U	50 U	3.0 U	53 J	0.42 J	0.85 J	2.4	6.24	0.208	0.47	8.01	8.2	158.3
PZ-12-10	05/09/2022	3.0 U	50 U	5.0 U	49	1.7	0.87 J	7.3	6.17	0.113	2.74	6.69	14.0	177.0
PZ-12-10	10/14/2022	3.0 U	50 U	5.0 U	37	1.0 J	0.74 J	4.5 J	6.16	0.053	1.28	5.51	15.3	173.4
PZ-12-10	06/14/2023	3.0 U	24 J	5.0 U	45	0.81	0.62 J	4.9	6.05	0.132	1.20	6.17	15.8	118.8
PZ-12-10	10/25/2023	3.0 U	50 U	5.0 U	74	0.45 J	2.0	3.2	6.28	0.169	0.70	6.02	17.1	-1.2
SHL-10	10/14/2010	--	--	--	31	1.3	--	6.0	6.51	0.089	1.00	9.16	12.8	136.9
SHL-10	10/16/2012	--	--	--	26	1.1	--	4.2	6.89	0.073	0.36	0.87	9.8	59.1
SHL-10	05/22/2013	1.2	30 J	2.5 U	24	5.8	1.6	4.6 J	6.62	0.055	1.22	10.05	11.5	149.8
SHL-10	10/08/2014	2.0 U	50 U	7.5 U	34	2.8	0.57 J	9.8 J	6.54	0.076	8.11	8.68	10.9	173.6
SHL-10	10/23/2015	4.0 U	100 U	15 U	36	3.0	1.0 U	10	6.59	0.084	1.53	7.74	11.3	86.6
SHL-10	12/01/2016	3.0 U	18 J	2.6 J	11	1.4	0.96 J	2.7	6.59	0.081	16.2	7.29	10.5	43.6
SHL-10	06/01/2017	3.0 U	50	3.0 U	5.4	1.1	9.1	1.5	6.53	0.022	8.67	9.14	9.5	184.2
SHL-10	11/29/2017	3.0 U	75 U	5.0 U	7.5 U	0.95	0.50 U	2.1	6.25	0.030	1.42	9.24	10.8	104.9
SHL-10	04/19/2018	3.0 U	85	1.2 J	12	1.1	1.0 U	2.0	6.57	0.032	2.18	9.74	10.3	46.8
SHL-10	11/06/2018	3.0 U	50 U	3.0 U	9.3 J	0.78 J	1.0 U	1.1 J	5.46	0.032	4.71	0.94	10.6	103.0
SHL-10	04/12/2019	3.0 U	50 U	3.0 U	14	0.97 J	0.50 U	2.5	6.30	0.041	3.90	5.70	10.0	170.0
SHL-10	10/29/2019	3.0 U	50 U	3.0 U	28	1.4	0.58 J	6.8	6.80	0.075	9.80	8.80	11.0	150.0
SHL-10	05/07/2020	3.0 U	50 U	3.0 U	--	--	--	--	5.71	0.025	1.22	8.37	10.0	77.6
SHL-10	05/19/2020	3.0 U	50 U	10 U	9.2 J	1.0	0.38 J	1.6	5.79	0.022	3.50	9.55	13.5	164.0
SHL-10	11/09/2020	3.0 U	50 U	23 U	20	1.1	1.7 U	4.0	6.53	0.534	35.8	0.52	10.6	21.5
SHL-10	05/24/2021	3.0 U	29 J	2.1 J	10 U	1.2	1.2	1.5	5.95	0.274	6.30	1.00	10.6	198.6
SHL-10	11/02/2021	3.0 U	50 U	3.0 U	6.4 J	0.61	0.8 U	1.6	6.46	0.089	1.11	2.15	8.8	100.0
SHL-10	05/12/2022	3.0 U	50 U	2.0 J	11	0.92	4.6	1.8	6.11	0.004	2.20	7.30	12.1	140.0
SHL-10	10/24/2022	7.7	2,400	1,100	41	2.0	2.3	6.4	6.27	0.117	4.43	2.06	11.3	37.2
SHL-10	06/15/2023	1.5 J	200	31	12	1.5	0.62 J	1.8	5.57	0.052	6.1	1.48	13.4	90.3
SHL-10	10/30/2023	3.6 J	20J	4.2 J	10	0.92	0.76	1.6	5.78	0.024	1.3	7.22	10.2	228.7
SHL-11	10/13/2010	--	--	--	230	19	--	6.1	6.38	0.580	0.72	0.24	12.7	-70.0
SHL-11	10/06/2011	--	--	--	240	15	--	1.6	6.20	0.597	4.00	0.30	13.1	-41.2
SHL-11	10/15/2012	--	--	--	200	20	--	19	6.71	0.365	79.0	0.35	14.8	-108.2
SHL-11	05/23/2013	**496**	**19,800**	**2,430**	160	41	2.1	20	6.75	0.462	8.50	0.18	12.2	-96.0
SHL-11	10/22/2013	**752**	**27,600**	**3,610**	164	43	--	20	6.54	0.530	0.43	0.42	12.8	-97.6
SHL-11	04/23/2014	**587**	**25,100**	**3,950**	157	48	1.9	20	6.45	0.390	4.94	0.26	10.3	-54.9
SHL-11	10/08/2014	**793**	**44,700**	**4,320**	242	43	2.8	70	6.61	0.623	5.51	0.44	12.4	-90.3
SHL-11	06/04/2015	**925**	**53,400**	**3,310**	187	64	1.6	0.95 J	7.01	0.676	11.3	0.31	11.6	-134.2
SHL-11	10/23/2015	**642**	**45,800**	**3,560 J**	173	41	3.0	527	6.32	0.630	8.17	1.12	11.5	-78.4
SHL-11	06/27/2016	**970**	**57,000**	**3,500**	200	63	2.5	0.80 U	6.28	0.696	10.2	13.26	0.2	-73.0
SHL-11	11/16/2016	**520**	**32,000**	**1,900**	160	45	1.9	3.3	6.34	0.492	11.5	1.10	11.7	-49.1
SHL-11	05/31/2017	**880**	**47,000**	**3,000**	170	51	2.1	2.8	6.23	0.404	12.8	0.38	10.3	70.9
SHL-11	11/03/2017	**870**	**57,000**	**2,500**	150	57	2.0	2.2	6.61	0.590	14.2	0.17	13.2	-79.0
SHL-11	04/12/2018	**820**	**53,000**	**2,300**	160	54	2.1	3.6	7.32	0.504	9.62	0.65	11.5	55.0
SHL-11	11/07/2018	**910**	**51,000**	1,600	130	61	1.9	0.96 J	7.33	0.585	20.6	0.42	12.1	-91.4
SHL-11	04/22/2019	**960**	**58,000**	1,700	140	65	2.0	4.7	6.70	0.640	32.0	0.84	11.0	-82.0
SHL-11	10/30/2019	**920**	**50,000**	**1,900**	140	64	1.7	14	6.60	0.550	3.80	0.23	12.0	-110.0
SHL-11	05/05/2020	**850**	**64,000**	1,800	--	--	--	--	7.47	0.634	21.0	0.44	10.3	-77.4
SHL-11	05/18/2020	**900**	**68,000**	1,700	220	67	2.0	2.3	6.30	0.637	14.1	0.32	12.0	9.3
SHL-11	10/29/2020	**900**	**48,000**	**2,000**	120	66	2.4	16	6.05	0.247	6.30	2.96	8.5	71.3
SHL-11	05/20/2021	**1,200**	**82,000**	**2,800**	230	73	2.3	1.0 U	7.01	0.653	1.09	0.95	20.1	-106.8
SHL-11	10/26/2021	**990**	**66,000**	**2,000**	130	81	2.1	3	6.75	0.659	3.74	1.05	7.4	-95.2
SHL-11	05/05/2022	**930**	**87,000**	1,500	180	89	2.4	0.46 J	6.48	0.713	54.4	0.58	14.6	-111.0
SHL-11	10/13/2022	**940**	**65,000**	2,000	170	94	2.0	9.5	6.77	0.447	0.3	1.12	14.2	-113.8
SHL-11	06/14/2023	**840**	**74,000**	1,400	150	100	2.0	0.5 J	6.38	0.993	8.20	0.73	16.5	-103.8
SHL-11	10/26/2023	**950**	**77,000**	1,800	170	120	5.2	11	6.46	0.168	19.77	0.56	16.1	-55.0
SHL-12	06/08/2015	2.0 J	50 U	15 J	63	24	1.8	92	--	--	--	--	--	--
SHL-12	11/21/2016	1.6 J	20 J	**2,000**	92	62	2.6	100	6.17	0.457	2.04	1.07	11.2	81.0
SHL-12	11/29/2017	2.4 J	120	**2,100**	78	61	2.1	92	6.86	0.640	2.96	0.69	12.7	144.4
SHL-12	11/26/2018	1.9 J	50 U	150	76	19	2.3	61	6.00	0.340	3.23	3.88	11.6	105.0
SHL-12	11/07/2019	7.4	660	890	69	40	3.2	98	5.90	0.439	12.2	3.14	10.4	105.0
SHL-12	11/02/2020	2.3 J	130	180	63	57	1.7 U	90	5.95	0.161	12.1	0.69	10.7	-1.4
SHL-12	10/26/2021	2.8 J	110	440	110	47	1.5	66	6.16	0.411	13.1	1.40	13.0	88.7
SHL-12	05/26/2022	1.4 J	34 J	74	83	82	2.2	100	6.51	0.534	10.2	2.18	12.0	140.0
SHL-12	08/23/2022	3.0 U	50 U	13	52	85	2.8	120	5.92	0.635	0.99	3.12	12.6	141.0
SHL-12	10/18/2022	3.0 U	50 U	100	110	93	2.1	130	6.21	0.881	60.8	1.56	13.9	188.2
SHL-12	11/08/2022	3.0 U	50 U	5.0 U	64 J	45	2.0	110	6.02	0.476	1.96	2.22	12.2	151.0
SHL-12	10/26/2023	5.0	500	380	130	25	2.8	60	6.11	0.448	7.30	2.32	14.9	155.0
SHL-13	10/11/2010	--	--	--	19	82	--	6.5	5.62	0.317	3.08	2.54	15.5	169.0
SHL-13	10/06/2011	--	--	--	18	66	--	4.7	5.72	0.273	0.00	0.25	14.6	42.0
SHL-13	10/15/2012	--	--	--	23	61	--	5.5	5.91	0.254	0.23	0.67	16.3	61.5
SHL-13	10/22/2013	2.0 U	43 J	30	23	61	--	8.0 J	6.08	0.269	0.20	0.35	13.9	127.0
SHL-13	10/22/2015	2.9 J	1,210	549	23	90	2.0	5.3 J	5.32	0.338	0.26	0.41	17.8	28.8
SHL-15	10/14/2010	--	--	--	70	11	--	20	5.73	0.241	1.00	0.21	11.5	-0.3
SHL-15	10/06/2011	--	--	--	140	22	--	14	6.17	0.403	0.90	0.27	12.4	66.1
SHL-15	10/16/2012	--	--	--	84	26	--	14	5.98	0.348	1.30	3.27	13.1	-18.7
SHL-15	10/22/2013	**35**	6,610	437	91	17	--	10	5.91	0.266	2.08	0.31	13.5	-23.6
SHL-15	06/09/2015	**32**	3,570	198	75	120	8.5	14	5.82	0.392	23.8	0.24	10.2	-151.5
SHL-15	01/21/2016	**19**	4,100	230	93	100	3.3	22	6.16	0.565	2.25	1.89	11.3	-10.7
SHL-15	11/15/2017	**200**	**11,000**	820	130	4.6	8.8	1.0	6.36	0.271	4.79	0.34	13.3	13.2
SHL-15	11/12/2018	**44**	**15,000**	670	100	2.5	6.2	2.4	5.84	0.268	4.35	0.72	12.5	12.9
SHL-15	11/01/2019	**110**	1,500	540	100	7.0	2.6	29	5.80	0.290	2.90	0.21	12.0	71.0
SHL-15	11/02/2020	**26**	4,500	250	100	19	2.8	9.1	6.74	0.178	15.9	4.35	9.9	142.0
SHL-15	11/02/2021	**22**	7,000	250	110 J	19	2.8	4.7	5.99	0.431	4.66	1.01	6.9	-28.7
SHL-15	05/23/2022	**45**	3,100	140	83	23	3.1	14	5.77	0.300	0.61	0.35	13.2	17.1
SHL-15	08/23/2022	**28**	2,100	140	95	25	2.7	15	5.83	0.313	2.02	0.45	14.5	-20.6
SHL-15	10/19/2022	**40**	4,200	220	110	24 J	3.4	10	5.84	0.197	1.51	1.53	11.4	-19.1
SHL-15	11/08/2022	**58**	2,300	190	81 J	15	4.3	19	5.95	0.288	1.27	0.65	11.6	20.4
SHL-15	10/26/2023	**23**	7,800	400	99	20	7.8	3.6	6.05	0.137	7.31	0.43	17.4	-53.5
SHL-19	10/14/2010	--	--	--	80	2.2	--	22	5.86	0.240	40.0	0.57	11.0	22.0
SHL-19	10/07/2011	--	--	--	38	1.2	--	13	4.97	0.107	13.0	3.66	13.1	128.0
SHL-19	10/16/2012	--	--	--	66	2.3	--	22	5.67	0.194	79.0	0.27	10.5	22.0
SHL-19	05/24/2013	3.8	1,460	580	55	1.0	1.8	13	5.86	0.137	17.0	1.01	10.8	98.9
SHL-19	10/24/2013	**34**	8,380	1,630	65	2.8	--	17	6.76	0.110	123	0.50	11.5	-85.9
SHL-19	10/08/2014	3.1 J	5,640	**2,210 J**	62	2.5	2.4	18	6.09	0.180	30.7	0.52	12.8	29.6
SHL-19	10/27/2015	3.1 J	8,850	**2,770**	334	75	1.0	17	6.13	0.167	50.7	0.59	11.1	-50.2
SHL-19	11/21/2016	3.0 U	50 U	9.8 J	45	2.3	0.69 J	17	6.56	0.147	28.4	9.39	10.5	161.0
SHL-19	06/02/2017	1.6 J	50 U	3.0 U	14	0.67	1.0	2.9	5.72	0.300	11.0	9.83	10.2	117.9
SHL-19	11/07/2017	3.0 U	75 U	2.2 J	47	2.6	1.0	33	6.51	0.156	2.74	7.25	12.6	90.9
SHL-19	04/19/2018	3.0 U	21 J	3.0 U	39 J	1.1	1.0 U	15	6.57	0.112	1.19	8.38	15.3	53.7
SHL-19	11/07/2018	**20 J**	1,400	18 J	39	1.1	1.0 U	11	6.71	0.107	49.4	8.26	13.1	58.2
SHL-19	04/12/2019	3.0 U	23 J	3.0 U	71	1.3	0.50 U	26	6.40	0.210	26.0	5.60	8.2	170.0
SHL-19	10/29/2019	4.4	100	56	90	1.1	0.74 J	23	6.20	0.210	15.0	9.00	11.0	110.0
SHL-19	05/08/2020	3.0 U	50 U	3.0 U	--	--	--	--	6.64	0.069	4.50	8.18	8.1	126.0
SHL-19	05/19/2020	**20**	1,400	62	33	0.31 J	0.68 J	3.2	6.45	0.056	7.99	10.30	13.3	112.0
SHL-19	10/26/2020	3.0 U	50 U	15	88	0.92	1.0	19	6.45	0.513	10.7	3.37	10.4	17.1
SHL-19	05/19/2021	8.1	400	18	46	0.89	0.87 J	6.1	7.00	0.017	79.2	0.33	13.3	105.3
SHL-19	10/27/2021	3.0 U	50 U	3.0 U	62 J	0.68	0.91 J	9.5	6.69	0.278	6.51	7.55	9.5	114.0
SHL-19	05/06/2022	5.6	230	2.8 J	75	0.77	0.91 J	11	6.26	0.166	12.7	6.78	13.3	151.0

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHL-19	10/17/2022	1.2 J	50 U	5.0 U	78	0.80	1.4	12	6.31	0.108	3.3	3.94	11.9	172.1
SHL-19	06/16/2023	1.5 J	20 J	5.0 U	49	1.0	1.0 U	3.5	6.57	0.145	12.5	7.84	14.3	67.0
SHL-19	10/26/2023	1.5 J	50 U	5.0 U	71	0.71	4.5	8.4	6.61	0.068	4.67	6.86	22.4	-11.2
SHL-20	10/13/2010	--	--	--	140	20	--	8.8	6.43	0.395	1.71	0.20	12.0	88.0
SHL-20	10/06/2011	--	--	--	140	22	--	14	6.17	0.403	1.60	0.27	12.4	66.1
SHL-20	10/15/2012	**140**	--	**3,000**	120	22	--	22	6.36	0.277	16.0	2.43	12.7	50.1
SHL-20	05/22/2013	**621**	**17,700**	**2,150**	111	36	1.4	31	6.75	0.414	0.54	0.19	12.2	-85.6
SHL-20	10/22/2013	**641**	**38,500**	1,590	81	50	--	23	6.51	0.443	4.10	1.87	12.8	-93.6
SHL-20	04/23/2014	**701**	**40,700 J**	**1,760**	120	50	1.6	26	6.21	0.499	6.31	0.85	11.0	-58.7
SHL-20	10/08/2014	**763**	**52,500**	1,700	153	61	2.0	4.0 J	6.40	0.620	2.43	0.43	12.9	-87.8
SHL-20	06/05/2015	**794**	**53,400**	**3,310**	118	59	1.5	15	6.61	0.530	9.24	0.47	12.7	-86.4
SHL-20	10/23/2015	**855**	**59,300**	**2,060**	139	62	2.2	3.5 J	6.46	0.606	7.31	0.57	10.8	-119.0
SHL-20	06/27/2016	**880**	**63,000**	**2,400**	210	63	2.6	0.80 U	6.46	0.719	9.08	16.36	0.3	-67.6
SHL-20	11/16/2016	**830**	**45,000**	1,500	140	50	2.0	2.0	6.58	0.505	3.24	0.91	11.6	-89.0
SHL-20	05/31/2017	**860**	**54,000**	**2,300**	150	61	2.1	3.8	6.43	0.449	11.9	0.32	11.4	-84.9
SHL-20	11/07/2017	**860**	**71,000**	**2,300**	170	59	2.3	1.0 U	6.52	0.474	9.82	0.32	11.7	-62.3
SHL-20	04/12/2018	**830**	**56,000**	**2,100**	160	61	2.2	1.0 U	7.34	0.610	1.33	0.64	12.3	11.0
SHL-20	11/07/2018	**970**	**43,000**	**1,800**	72 J	58	1.8	37	7.32	0.500	3.02	3.47	11.8	-70.6
SHL-20	04/22/2019	**770**	**41,000**	**2,200**	80	61	1.7	40	6.20	0.520	3.90	0.42	9.2	-68.0
SHL-20	11/01/2019	**830**	**45,000**	**1,900**	99	62	1.3	29	6.60	0.550	3.00	0.17	11.0	-91.0
SHL-20	11/11/2019	1.8	50	2.1	-	-	-	-	6.00	0.340	14.0	2.60	11.0	67.0
SHL-20	05/05/2020	1.9 J	50 U	26	-	-	-	-	6.48	0.373	9.77	2.62	10.4	169.0
SHL-20	05/18/2020	**810**	**37,000**	**2,600**	110	60	1.3	36	6.54	0.511	17.6	0.40	11.7	3.4
SHL-20	10/29/2020	**760**	**52,000**	**2,100**	110	63	1.8	28	6.67	0.035	2.40	1.17	8.7	97.8
SHL-20	05/20/2021	3.0	50 U	4.6 J	59	58	0.98 J	30	6.88	0.349	1.52	6.82	18.7	205.2
SHL-20	10/21/2021	**840**	**57,000**	**3,600**	120	75	2.0	43	6.69	0.851	16	0.96	11.6	-93.1
SHL-20	05/05/2022	**830**	**54,000**	**4,000**	95	94	1.8	51	6.55	0.607	3.54	0.65	13.6	-105.0
SHL-20	10/13/2022	**870**	**73,000**	**2,400**	150	110	2.2	7.3	6.67	0.493	5.65	1.14	14.5	-98.7
SHL-20	06/15/2023	**820**	**49,000**	**3,600**	86	110	1.5	53	6.38	0.907	8.5	0.68	18.7	-108.8
SHL-20	10/24/2023	**880**	**62,000**	**4,000**	110	100	3.9	59	6.43	0.399	1.67	0.42	13.7	-55.0
SHL-22	04/21/2010	--	--	--	340	21	--	5.9	6.77	0.933	0.05	0.10	9.2	-40.0
SHL-22	10/12/2010	--	--	--	380	23	--	5.9	6.47	0.783	0.03	0.31	9.8	-14.1
SHL-22	04/06/2011	--	--	--	370	22	--	5.3 U	6.67	0.750	0.00	0.22	8.2	-43.6
SHL-22	10/07/2011	--	--	--	380	22	--	5.3	6.54	0.776	0.00	0.27	11.1	15.3
SHL-22	04/10/2012	--	--	--	380	22	--	2.2 U	6.42	0.981	2,000	2.13	8.8	-20.6
SHL-22	10/17/2012	--	--	--	360	21	--	6.0	6.72	0.705	0.85	0.45	9.8	-20.2
SHL-22	05/28/2013	**34**	453	**9,200**	400	20	2.2	5.8	6.68	0.492	0.91	1.28	9.2	18.7
SHL-22	10/23/2013	**53**	615	**9,700**	388	20	--	6.6 J	6.70	0.511	0.00	0.39	10.6	-6.9
SHL-22	04/24/2014	**49**	564	**9,430**	393	20	2.2	5.9 J	6.71	0.757	0.18	0.16	8.2	7.1
SHL-22	10/09/2014	**45**	436	**8,820**	378	20	1.8	7.2 J	6.67	0.526	1.99	0.31	10.2	5.8
SHL-22	10/26/2015	**16**	123	**10,200**	362	195	2.2	5.8	6.03	0.557	0.19	0.44	9.8	0.3
SHL-22	11/17/2016	9.4	110	**8,900**	230	20	1.8	5.2	6.62	0.700	1.01	1.54	10.4	60.0
SHL-22	11/13/2017	6.1	110	**9,400**	330	20	1.9	4.7	6.74	0.497	5.96	0.26	10.4	37.9
SHL-22	11/12/2018	5.0	47 J	**8,500**	330	23	2.7	5.3	6.50	0.763	1.17	0.31	10.4	-140.0
SHL-22	11/04/2019	6.2	74	**8,900**	320	26	1.5	10	6.60	0.680	4.00	0.55	9.8	47.0
SHL-22	11/03/2020	2.4 J	50 U	**7,700**	320	29	1.5 U	8.9	6.52	0.043	1.06	10.10	10.6	200.0
SHL-22	11/04/2021	5.0	51	**8,000**	320	31	0.8 U	12	6.53	0.478	0.96	0.89	10.3	120.0
SHL-22	10/25/2022	4.4 J	39 J	**7,900**	270	31	1.3 J	13	6.56	0.564	3.80	0.74	10.5	89.2
SHL-22	10/27/2023	10	140	**8,200**	270	35	1.4 J	16	6.63	0.492	2.90	0.54	14.2	33.8
SHL-23	08/12/2010	0.14 J	17 J	6.9	4.3	1.3	1.0 U	4.9	6.45	0.025	--	10.06	10.4	209.8
SHL-23	10/13/2010	--	--	--	4.3	1.9	--	5.5	4.98	0.031	1.00	10.43	11.5	264.1
SHL-23	10/15/2012	--	--	--	4.8	2.1	--	4.8	5.32	0.024	1.1	11.55	11.3	290.1
SHL-23	06/10/2015	2.0 U	50 U	22	3.9 U	2.5	0.36 J	26	5.22	0.026	3.25	8.59	9.6	134.6
SHL-23	10/26/2015	4.0 U	100 U	9.3 J	4.1 J	3.0	1.6	5.4	4.78	0.024	1.06	10.09	10.6	165.1
SHL-23	11/22/2016	3.0 U	50 U	8.3 J	4.2 J	3.4	0.67 J	4.2	5.50	0.036	1.38	10.20	9.2	210.2
SHL-23	11/27/2017	3.0 U	75 U	24	5.0 U	7.1	0.50 U	5.3	4.96	0.045	0.84	8.90	9.3	102.9
SHL-23	11/08/2018	3.0 U	50 U	25	5.0 U	8.8	1.0 U	5.6	4.46	0.059	1.18	5.52	9.9	105.0
SHL-23	11/13/2019	3.0 U	50 U	14	4.5	4.8	1.0 U	6.7	4.50	0.044	4.60	7.50	8.6	250.0
SHL-23	11/12/2020	3.0 U	50 U	11 U	5.8 J	4.3	1.6	6.2	6.97	0.202	0.00	2.66	11.4	159.0
SHL-23	11/09/2021	3.0 U	50 U	18	6.4 U	2.3	0.8 U	5.1	5.46	0.088	3.34	12.00	7.1	216.0
SHL-23	05/31/2022	3.0 U	50 U	31	4.3 J	2.5	0.6 U	5.7	5.44	0.036	6.14	9.77	10.4	155.0
SHL-23	08/30/2022	3.0 U	50 U	12	5.6 J	2.9	0.93 J	5.2	5.35	0.039	6.19	9.57	12.3	90.0
SHL-23	10/26/2022	3.0 U	50 U	12	5.2	3.8	1.6 U	4.9	5.51	0.024	4.92	9.94	11.7	199.2
SHL-23	11/14/2022	3.2 J	110 J	12	32	3.9	0.83 J	4.5	5.50	0.040	2.22	10.8	9.69	-62.6
SHL-23	11/02/2023	2.4 J	29 J	17	7.1J	2.7	1.3 J	4.9	5.45	0.063	2.95	9.87	9.5	31.5
SHL-24	06/09/2015	4.9	50 U	7.5 U	46	33	0.36 U	26	--	--	--	--	--	--
SHL-24	10/27/2015	6.5	50 U	7.5 U	52	24	0.37 J	20	--	--	--	--	--	--
SHL-24	11/21/2016	5.5	50 U	3.0 U	45	24	0.50 J	20	7.34	0.145	5.13	7.68	4.9	9.8
SHL-24	11/29/2017	4.8	75 U	5.0 U	45	37	0.50 U	24	7.16	0.589	1.27	2.01	12.1	117.2
SHL-24	11/28/2018	3.4	50 U	3.0 U	48	37	1.0 U	22	7.17	0.291	1.88	6.42	10.2	45.4
SHL-24	11/07/2019	4.2	50 U	3.0 U	49	38	1.6	26	7.20	0.270	11.0	1.90	11.0	95.0
SHL-24	10/26/2020	3.9	50 U	3.0 U	50	39	1.0 U	24	7.58	0.136	1.12	3.91	16.1	130.0
SHL-24	11/04/2021	3.8	50 U	3.0 U	60	42	0.8 U	24	8.08	0.247	0.88	1.90	10.6	82.2
SHL-24	06/02/2022	3.8 J	50 U	5.0 U	45	41	0.6 U	25	7.23	0.298	2.73	1.61	12.6	34.0
SHL-24	08/30/2022	4.1 J	180	1.3 J	49	41	0.6 U	24	7.01	0.282	2.25	1.61	17.1	102.0
SHL-24	10/14/2022	3.8 J	50 U	5.0 U	48	41	0.5 U	25	7.04	0.290	0.21	2.66	13.0	163.1
SHL-24	11/10/2022	3.7 J	50 U	5.0 U	47	40	1.0 U	25	7.19	0.256	0.43	1.17	13.6	70.2
SHL-24	11/01/2023	4.3	50 U	5.0 U	52	45	1.0 U	25	6.97	0.296	1.81	1.91	12.2	61.6
SHL-3	11/27/2017	3.0 U	75 U	2.6 J	99	1.9	1.7	21	5.53	0.261	5.07	7.01	12.3	126.3
SHL-3	11/05/2018	3.0 U	22 J	3.0 U	150	1.8	1.9	22	6.06	0.342	6.78	6.57	12.7	37.9
SHL-3	10/29/2019	3.0 U	50 U	1.3 J	99	1.3	1.4	7.3	6.00	0.220	3.60	5.10	12.0	160.0
SHL-3	11/09/2020	3.0 U	50 U	10 U	61	0.65	1.6 U	6.3	6.00	0.147	65.2	0.80	12.7	-17.2
SHL-3	11/03/2021	3.0 U	17 J	1.6 J	150 J	0.79	0.8 U	8.4	6.99	0.219	1.46	8.52	13.1	84.1
SHL-3	10/21/2022	3.0 U	27 J	2.9 J	67	1.9	1.5	3.8	5.58	0.158	6.26	5.35	12.6	209.7
SHL-3	10/30/2023	3.0 U	50 U	5.0 U	89	0.61	0.95 J	7.6	6.32	0.177	6.1	9.64	11.1	260.2
SHL-4	10/14/2010	--	--	--	110	25	--	7.2	6.01	0.334	0.03	0.46	12.2	47.0
SHL-4	10/07/2011	--	--	--	32	1.6	--	2.3	5.65	0.082	0.00	1.44	12.6	274.0
SHL-4	10/16/2012	--	--	--	55	13	--	0.65 J	5.69	0.162	0.84	0.34	13.6	47.0
SHL-4	05/24/2013	2.6	58 J	481	123	13	2.4	15	6.10	0.278	0.36	0.27	10.4	107.1
SHL-4	11/19/2013	6.2	637	**1,830**	112	18	3.3	69	6.13	0.427	0.06	0.33	11.5	35.2
SHL-4	10/08/2014	**37**	8,030 J	**2,480 J**	114	6.0	2.7	15	6.20	0.239	11.7	0.30	17.7	4.2
SHL-4	10/27/2015	**37**	3,470	**2,320**	71	15	3.0	16	6.15	0.189	3.70	0.82	13.0	6.2
SHL-4	11/21/2016	**110**	**22,000**	**3,300**	84	1.4	1.4	22	6.43	0.219	18.0	0.81	11.7	-20.0
SHL-4	06/07/2017	**74**	**15,000**	**2,000**	65	1.6	1.5	24	5.99	0.149	12.1	0.42	10.3	-8.2
SHL-4	11/07/2017	**130**	**15,000**	**2,500**	76	1.5	1.4	18	6.62	0.163	4.14	0.17	12.3	-38.2
SHL-4	04/19/2018	**110**	**15,000**	**2,600**	64 J	1.7	1.4	24	6.28	0.212	4.31	1.05	8.8	-1.6
SHL-4	11/14/2018	**150**	**17,000**	**3,200**	68	1.2	1.5	22	6.32	0.313	22.4	0.21	11.3	-15.2
SHL-4	04/16/2019	**98**	**14,000**	**2,900**	55	0.93	1.6	18	6.30	0.190	7.70	0.59	11.0	-28.0
SHL-4	10/29/2019	**69**	**11,000**	**3,900**	90	1.5	1.5	17	6.10	0.210	18.0	0.29	12.0	-4.1
SHL-4	05/20/2020	**220**	**24,000**	**2,500**	100	1.5	1.3	27	6.58	0.262	21.0	0.46	11.0	18.6
SHL-4	11/12/2020	**110**	**15,000**	**2,500**	76	1.5	1.6	21	5.77	0.081	33.1	0.85	15.1	92.8
SHL-4	05/25/2021	**180**	**17,000**	1,700	80	0.93	1.2	17	6.32	0.140	4.09	3.24	12.6	-27.2
SHL-4	11/01/2021	**220**	**14,000**	1,400	71	0.76	1.1	16	7.10	0.175	6.10	0.01	13.8	-37.2
SHL-4	05/03/2022	**110**	6,900	1,400	73	0.98	2.3	28	6.20	0.174	21.0	0.84	11.4	-36.4
SHL-4	10/13/2022	**120**	**13,000**	**1,900**	65	1.2	1.3	18	6.19	0.186	7.89	0.70	17.1	-11.1
SHL-4	06/16/2023	**170**	**18,000**	**2,100**	110	2.0	2.1	66	6.13	0.474	10.30	0.76	14.1	-54.6
SHL-4	10/30/2023	**170**	**12,000**	1,500	70	1.1	1.2 J	12	6.34	0.166	2.30	1.17	11.2	-45.2
SHL-5	04/22/2010	--	--	--	25	3.6	--	1.0 U	5.86	0.090	0.56	0.09	7.2	-254.0
SHL-5	10/11/2010	--	--	--	20	2.9	--	2.1	5.39	0.123	0.44	0.34	13.9	108.0

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHL-5	04/05/2011	--	--	--	12	3.7	--	2.2	5.78	0.060	0.20	0.34	4.3	85.2
SHL-5	10/11/2011	--	--	--	33	0.60	--	1.1	5.28	0.078	1.00	0.14	15.2	130.0
SHL-5	04/10/2012	--	--	--	24	3.3	--	1.7 U	5.54	0.084	2,100	0.54	7.7	111.8
SHL-5	10/15/2012	--	--	--	37	2.9	--	4.7	5.42	0.099	4.10	0.49	14.0	82.4
SHL-5	05/21/2013	3.7	999	286	23	16	4.1	4.5 U	5.59	0.100	3.36	0.36	10.8	82.9
SHL-5	10/22/2013	**15**	2,380	429	44	4.3	--	0.87 J	5.73	0.088	0.90	0.86	13.8	-89.4
SHL-5	04/22/2014	2.0 U	282	159	27	63	5.1	4.5 J	5.87	0.235	1.63	0.43	6.3	141.4
SHL-5	10/13/2014	**13**	8,390	320	41	35	10	5.6 J	5.98	0.205	1.27	0.18	13.1	4.7
SHL-5	10/21/2015	**13**	700	293	38	31	11	2.4	6.24	0.170	0.44	0.93	12.7	38.7
SHL-5	11/17/2016	3.0 U	190	130	26	15	6.7	17	5.74	0.132	0.66	0.23	10.8	130.1
SHL-5	11/10/2017	3.7	640	190	42	6.2	6.9	4.4	6.38	0.100	3.34	0.19	12.4	63.7
SHL-5	11/14/2018	2.8 J	610	140	32	3.8	6.4	0.54 J	5.37	0.132	2.11	0.43	8.4	3.4
SHL-5	11/08/2019	5.1	390	170	41	12	8.0	11	5.50	0.140	3.60	0.00	12.0	63.0
SHL-5	11/09/2020	4.6	2,100	290	30	13	8.2	1.0 U	5.91	0.175	8.90	0.79	9.1	84.3
SHL-5	11/02/2021	8.0	2,100	280	43 J	4.3	5.3	1.0 U	6.34	0.082	4.90	1.77	13.3	80.8
SHL-5	10/17/2022	**14**	7,900	710	25	73	3.7	1.0 U	5.52	0.287	1.29	0.76	12.4	464.3
SHL-5	10/24/2023	**16**	3,900	270	56	24	7.1	1.0 U	5.61	0.149	3.9	0.36	14.7	49.1
SHL-7	11/15/2017	3.0	180	110	48	13	0.50 U	5.3	6.70	0.162	6.18	0.39	11.8	87.9
SHL-7	11/12/2018	3.0 U	22 J	34	59	4.6	1.1 U	3.5	6.27	0.137	4.95	0.27	14.5	128.0
SHL-7	11/13/2019	3.0 U	160	13	61	26	1.0	12	7.70	0.190	4.20	3.30	9.4	-4.5
SHL-7	11/03/2020	3.0 U	700	63	39	73	1.0 U	3.0	5.94	0.154	2.00	0.66	13.9	89.0
SHL-7	11/04/2021	3.0 U	320	5.8 J	62	4.4	0.8 U	2.5	6.93	0.110	21.7	0.19	13.1	105.0
SHL-7	05/26/2022	3.0 U	94 J	3.4 J	21	210	0.6 U	9.1	5.99	0.170	19.8	3.56	12.9	134.0
SHL-7	08/24/2022	3.0 U	130	9.9 J	35	100	0.75 J	2.4	5.89	0.765	2.97	0.47	13.1	115.0
SHL-7	10/19/2022	3.0 U	87 J	13	67	56	1.2	12	6.14	0.378	72.4	1.20	11.7	146.3
SHL-7	11/17/2022	3.0 U	120	6.0 J	50	11	0.91 J	9.4	6.43	0.140	2.46	0.71	11.6	81.6
SHL-7	10/26/2023	3.0 U	28 J	17	42	3.7	0.93 J	3.8	5.96	0.091	5.2	0.90	17.8	137.8
SHL-8D	04/22/2010	--	--	--	36	12	--	7.5	6.28	0.167	0.03	1.50	10.3	-121.0
SHL-8D	10/11/2010	--	--	--	23	9.6	--	8.0	6.02	0.102	0.98	3.65	11.3	14.3
SHL-8D	04/05/2011	--	--	--	20	19	--	7.0	6.13	0.124	0.00	3.47	10.2	88.0
SHL-8D	10/06/2011	--	--	--	22	7.9	--	7.6	6.13	0.091	0.00	5.39	10.6	43.0
SHL-8D	04/11/2012	--	--	--	5.0	12	--	5.8 U	5.89	0.164	130	0.83	9.5	89.6
SHL-8D	10/15/2012	--	--	--	18	24	--	6.4	6.17	0.092	1.2	2.19	13.0	60.5
SHL-8D	05/21/2013	0.72 J	30 U	2.5 U	28	30	0.64 U	6.2	6.12	0.138	0.32	1.67	13.7	48.7
SHL-8D	10/22/2013	2.0 U	30 U	2.5 U	13	12	--	7.5 J	6.21	0.090	0.00	3.25	11.1	83.9
SHL-8D	04/22/2014	2.0 U	30 U	2.5 U	11	28	0.73 J	6.3 J	5.92	0.147	0.15	2.08	10.9	146.6
SHL-8D	10/09/2014	2.0 U	50 U	7.5 U	16	43	0.41 J	7.2 J	5.88	0.204	0.60	0.77	10.9	101.8
SHL-8D	10/27/2015	4.0 U	70 J	39	29	6.3	1.0	3.6 J	5.42	0.069	0.32	0.35	9.9	49.2
SHL-8D	11/17/2016	3.0 U	50 U	9.9 J	27	13	0.73 J	7.1	6.34	0.101	1.06	0.16	10.6	36.9
SHL-8D	11/08/2017	3.0 U	34 J	8.7	23	21	0.54 J	7.1	6.44	0.137	4.66	0.25	10.1	38.3
SHL-8D	11/13/2018	3.0 U	50 U	6.6 J	24	25	1.0 U	7.5	5.84	0.227	6.59	0.19	10.8	-47.0
SHL-8D	10/24/2019	3.0 U	22 J	11	24	38	0.68 J	7.4	6.00	0.190	0.72	0.19	10.0	120.0
SHL-8D	11/10/2020	3.0 U	100 U	19	21	45	1.0	7.5	5.98	0.066	2.30	4.07	13.3	163.0
SHL-8D	11/02/2021	3.0 U	89	15	33 J	38	0.8 U	8.3	6.70	0.166	0.1 U	0.01	11.4	37.7
SHL-8D	10/19/2022	3.0 U	50 U	1.3 J	13	62	0.89 J	5.1	5.77	0.262	2.54	1.16	11.1	152.1
SHL-8D	10/24/2023	3.0 U	50 U	3.9 J	40	52	1.0 U	6.1	5.57	0.170	2.10	1.26	11.6	154.9
SHL-8S	04/22/2010	--	--	--	20	6.7	--	6.6	6.28	0.101	0.01	2.39	9.9	-91.0
SHL-8S	10/11/2010	--	--	--	20	7.5	--	5.0	6.15	0.078	0.47	1.72	10.2	145.0
SHL-8S	04/05/2011	--	--	--	21	6.4	--	6.1	6.15	0.077	0.00	4.37	10.2	138.0
SHL-8S	10/06/2011	--	--	--	21	7.1	--	5.4	6.06	0.082	0.00	2.24	10.4	175.0
SHL-8S	04/10/2012	--	--	--	20	5,200	--	4.0 U	6.21	0.097	580	6.90	10.0	139.8
SHL-8S	10/15/2012	--	--	--	19	7.4	--	4.3	6.37	0.051	1.1	4.56	12.6	110.1
SHL-8S	05/28/2013	0.93 J	100 U	15 U	22	6.0	16	6.2	6.40	0.074	1.33	5.94	10.3	146.2
SHL-8S	10/22/2013	2.0 U	30 U	2.5 U	18	6.8	--	6.4 J	6.20	0.075	0.70	2.49	10.8	230.0
SHL-8S	04/22/2014	2.0 U	79 J	6.1 J	26	6.3	0.55 J	6.0 J	6.54	0.077	0.62	5.53	10.1	160.8
SHL-8S	10/09/2014	2.0 U	50 U	83	25	5.0	0.59 J	7.8 J	6.06	0.084	1.50	0.53	10.8	127.8
SHL-8S	10/27/2015	4.0 U	100 U	15 U	22	6.0	0.49 J	7.3	5.47	0.065	0.29	2.36	9.4	101.1
SHL-8S	11/17/2016	3.0 U	50 U	3.0 U	24	5.0	0.36 J	6.8	6.42	0.076	1.01	4.11	10.4	170.2
SHL-8S	11/08/2017	3.0 U	75 U	5.0 U	23	5.6	0.43 J	5.7	6.28	0.085	5.91	4.03	10.0	68.7
SHL-8S	11/13/2018	3.0 U	50 U	1.3 J	23	5.9	1.0 U	6.3	5.78	0.145	5.66	3.48	10.9	29.8
SHL-8S	10/24/2019	3.0 U	50 U	1.7 J	26	5.9	0.37 J	6.7	6.00	0.082	1.10	4.70	9.6	170.0
SHL-8S	11/10/2020	3.0 U	70 U	7.3 J	24	7.2	1.0 U	6.1	6.52	0.194	72.3	0.83	8.7	3.6
SHL-8S	11/02/2021	3.0 U	50 U	3.0 U	35 J	7.4	0.8 U	5.4	6.90	0.075	0.28	3.47	11.3	128.0
SHL-8S	10/20/2022	3.0 U	50 U	5.0 U	25	6.4	0.54 J	5.0	6.16	0.090	4.49	5.08	10.4	235.7
SHL-8S	10/24/2023	3.0 U	50 U	5.0 U	24	7.9	1.0 U	5.8	5.91	0.062	3.80	4.68	10.4	133.7
SHL-9	04/21/2010	--	--	--	580	6.3	--	6.6	6.58	0.204	4.10	0.12	8.4	-74.0
SHL-9	10/12/2010	--	--	--	770	7.3	--	4.3	6.35	0.204	0.89	0.21	10.2	-70.0
SHL-9	04/06/2011	--	--	--	580	3.4	--	6.8 U	6.48	0.160	24.0	0.27	7.7	-38.7
SHL-9	10/07/2011	--	--	--	670	14	--	7.8	6.26	0.223	0.00	0.27	11.8	-55.1
SHL-9	04/10/2012	--	--	--	860	5.0	--	4.4	6.20	0.268	4,600	0.34	8.5	-19.3
SHL-9	10/17/2012	--	--	--	85	4.4	--	6.8	6.94	0.210	0.72	0.36	9.1	-80.3
SHL-9	05/28/2013	**30**	**9,590 J**	497	88	5.5	4.6	4.5 U	6.51	0.199	1.71	0.27	9.0	-54.1
SHL-9	10/23/2013	**33**	8,890	439	64	23	--	2.1 J	6.52	0.160	0.58	0.22	10.9	-76.4
SHL-9	04/23/2014	**22**	**9,530**	533	62	24	4.8	6.7 J	6.28	0.211	20.0	0.71	7.4	5.3
SHL-9	10/09/2014	**29**	**9,820**	469	56	37	4.5	8.5 J	6.45	0.183	7.51	0.11	9.7	-42.1
SHL-9	10/28/2015	**19**	**15,900**	451	82	14	11	1.6 J	5.96	0.299	1.51	0.28	9.4	-7.8
SHL-9	11/17/2016	**38**	6,800	350	52	78	5.8	10	6.34	0.431	42.0	0.81	10.5	-13.0
SHL-9	11/15/2017	**25**	6,400	360	55	21	5.3	11	7.89	0.418	4.77	2.06	10.2	4.9
SHL-9	11/12/2018	**28**	3,700	220	76	26	8.1	8.9	6.25	0.339	4.55	0.28	11.2	-131.0
SHL-9	10/30/2019	**33**	3,800	190	100	20	8.7	3.8	6.30	0.270	21.0	0.36	11.0	5.0
SHL-9	11/03/2020	**35**	6,200	390	69	50	5.7	1.6	6.28	0.150	33.5	1.71	12.1	196.0
SHL-9	11/02/2021	**35**	4,100	260	76 J	8.8	7.0	4.1	6.39	0.140	3.47	0.85	13.0	-16.6
SHL-9	10/25/2022	**40**	4,800	270	92	6.9	7.6	0.76 J	6.34	0.320	2.50	0.61	11.8	-7.7
SHL-9	10/27/2023	**43**	7,400	540	69	55	5.1	0.86J	6.22	0.257	5.70	0.30	15.8	-8.6
SHM-05-39A	08/12/2010	**236**	**24,500**	680	100	7.1	2.9	6.0	6.45	0.263	--	0.35	11.4	-52.9
SHM-05-39A	10/13/2012	--	--	--	87	3.6	--	3.8	6.62	0.213	2.00	0.16	12.1	-66.0
SHM-05-39A	10/04/2011	--	--	--	110	13	--	4.3	6.63	0.297	0.17	0.20	11.3	-92.0
SHM-05-39A	10/16/2012	--	--	--	50	17	--	4.8	6.28	0.149	40.0	0.37	14.3	69.6
SHM-05-39A	10/24/2013	**146**	**14,700**	575	52	19	--	4.0 J	6.70	0.133	0.35	0.23	11.9	-94.3
SHM-05-39A	10/29/2015	4.0 U	100 U	417	57	18	1.8	5.4 J	6.47	0.175	5.62	3.35	13.4	16.5
SHM-05-39A	10/26/2020	7.3	150	96	59	26	1.1	5.2	6.91	0.523	11.5	0.77	10.8	-70.5
SHM-05-39A	11/10/2021	2.0 J	50 U	180	58	25	0.88 J	5.6	6.62	0.317	8.82	1.45	10.3	83.0
SHM-05-39A	11/03/2022	2.4 J	50 U	3.0 J	43	31	1.3 J	5.7	6.56	0.120	19.31	7.34	10.9	197.1
SHM-05-39A	10/31/2023	**150**	**15,000**	610	48	21	1.7	3.2	6.45	0.174	31.1	0.22	12.7	-53.0
SHM-05-39B	10/13/2010	--	--	--	300	130 J	--	4.0 J	6.75	0.896	3.54	0.19	12.9	-68.1
SHM-05-39B	10/05/2011	--	--	--	420	93 J	--	3.2	6.85	0.919	3.00	0.11	13.1	-66.0
SHM-05-39B	10/16/2012	--	--	--	420	37	--	2.0 J	6.91	1.365	55.0	1.67	15.3	-126.7
SHM-05-39B	10/24/2013	**113**	**9,580**	1,230	71	89	--	3.8 J	6.93	0.278	0.97	0.40	10.8	-95.3
SHM-05-39B	10/29/2015	**293**	**37,800**	1,500	63	525	3.0	10	6.82	1.712	5.44	2.81	13.8	-160.8
SHM-05-39B	11/10/2021	**250**	**19,000**	980	36	220	0.97 J	5.0 U	6.31	0.557	58.2	1.26	9.9	55.2
SHM-05-39B	10/26/2022	**440**	**18,000**	810	50	150	1.5 U	6.8	6.84	0.704	31.2	0.66	14.1	-99.0
SHM-05-39B	10/31/2023	**59**	1,400	160	79	74	1.8	6.3	6.72	0.355	29.6	0.07	12.7	-56.7
SHM-05-40X	10/31/2007	**2,620**	**43,500**	1,244	220	13	--	1.7	6.71	0.565	7.89	1.62	11.0	-134.1
SHM-05-40X	08/12/2010	**3,180**	**22,500**	544	94	8.9	2.0	8.1	6.45	0.256	--	0.40	11.4	-21.5
SHM-05-40X	10/07/2010	--	--	--	160	12	--	5.8	6.47	0.409	0.34	0.22	10.7	-106.1
SHM-05-40X	10/05/2011	--	--	--	159	11	--	4.2	6.48	3.950	4.10	0.24	10.5	-77.3
SHM-05-40X	10/17/2012	--	--	--	150	9.7	--	5.9	6.71	0.374	40.0	0.19	10.6	-133.2
SHM-05-40X	10/24/2013	**3,100**	**28,800**	--	165	13	--	4.8 J	6.87	0.253	2.21	0.32	10.6	-136.3
SHM-05-40X	10/13/2014	**3,070**	**40,800**	1,080	178	12	5.8	5.4 J	6.85	0.334	8.65	0.39	10.5	-130.2

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-05-40X	10/29/2015	**2,060**	**39,800**	955	174	13	4.3	4.5 J	6.71	0.445	5.92	4.13	11.7	-144.8
SHM-05-40X	11/21/2016	**2,400**	**35,000**	800	160	10	2.0	2.9	6.88	0.347	4.79	1.09	10.1	-107.1
SHM-05-40X	06/06/2017	**25 J**	9,000	1,700	8.6	8.6	2.0	8.6	7.10	0.046	40.2	5.09	11.7	71.6
SHM-05-40X	11/17/2017	**2,200**	**43,000**	1,100	150	14	2.1	2.7	6.73	0.331	3.45	0.20	9.6	-66.1
SHM-05-40X	04/17/2018	**1,900**	**28,000**	740	180	130	2.1	4.6	6.66	1.026	0.80	0.98	10.5	-60.9
SHM-05-40X	11/26/2018	**2,400**	**41,000**	980	120 J	23 J	2.0	3.7 J	6.44	0.532	6.49	1.20	9.0	0.5
SHM-05-40X	04/23/2019	**2,100**	**27,000**	690	74	38	1.9	3.5	6.80	0.360	3.00	0.41	10.0	-110.0
SHM-05-40X	11/08/2019	**2,200**	**33,000**	820	140	23	2.8	5.4	6.50	0.390	13.0	0.44	8.1	20.0
SHM-05-40X	05/19/2020	**1,900**	**23,000**	700	110	27	1.7	3.1 J	5.33	1.560	22.0	0.36	12.4	236.0
SHM-05-40X	11/11/2020	**2,100**	**24,000**	670	150	11	1.6	3.8	7.67	0.423	5.51	0.46	11.4	7.9
SHM-05-40X	05/27/2021	**2,200**	**34,000**	1,000	170	19	2.0	4.0	6.78	0.070	43.4	1.17	16.7	-134.5
SHM-05-40X	11/08/2021	**2,100**	**27,000**	830	140	19	1.5	3.4	6.84	0.538	4.81	1.25	9.0	-77.1
SHM-05-40X	05/12/2022	**1,900**	**24,000**	730	100	17	1.9	3.3	6.37	0.273	3.81	0.89	12.5	-91.7
SHM-05-40X	05/25/2022	**2,000**	**23,000**	730	100	18	1.4	3.8	6.60	0.355	1.70	0.32	11.4	-54.0
SHM-05-40X	08/26/2022	**1,800**	**24,000**	800	120	16	2.3	4.1	6.76	0.351	3.26	0.32	14.8	-55.9
SHM-05-40X	10/26/2022	**2,200**	**29,000**	880	150	17	1.7 U	4.4	6.61	0.499	8.10	0.69	12.5	-92.9
SHM-05-40X	11/18/2022	**2,100**	**25,000**	750	110	14	1.5	4.4	6.64	0.357	9.69	0.39	9.5	-196.0
SHM-05-40X	06/21/2023	**2,000**	**20,000**	630	100	15	1.4 J	4.4	6.57	0.299	23.94	0.24	15.5	-97.6
SHM-05-40X	10/31/2023	**1,500**	**12,000**	390	79	6.3	4.8	4.3	6.86	0.175	0.83	0.65	8.8	-53.4
SHM-05-41A	04/21/2010	--	--	--	37	1.4	--	7.9	6.60	0.121	0.15	0.09	9.5	-34.0
SHM-05-41A	10/07/2010	--	--	--	31	3.0	--	7.3	6.09	0.095	0.67	0.26	10.2	1.3
SHM-05-41A	04/04/2011	--	--	--	37	2.5	--	6.7	6.46	0.100	2.70	0.32	8.4	1.8
SHM-05-41A	10/04/2011	--	--	--	41	2.2	--	5.2	5.76	0.107	3.90	0.48	11.0	44.9
SHM-05-41A	04/11/2012	--	--	--	30	3.0	--	6.2 U	6.20	0.111	1,200	0.52	9.6	18.4
SHM-05-41A	10/17/2012	--	--	--	34	2.0	--	6.1	6.25	0.090	1.40	0.35	13.0	-33.5
SHM-05-41A	05/22/2013	**12**	5,530	569	33	3.3	1.2	7.9	6.27	0.101	3.79	0.76	10.4	17.6
SHM-05-41A	10/23/2013	**13**	4,560	534	41	2.8	--	5.8 J	6.42	0.069	0.66	0.35	10.2	-18.0
SHM-05-41A	04/23/2014	9.7	6,240	576	35	21	1.9	4.9 J	6.22	0.172	6.28	0.72	9.3	45.3
SHM-05-41A	10/09/2014	**14**	8,040	552	38	3.5	1.5	6.8 J	6.39	0.081	0.42	0.08	10.9	-20.0
SHM-05-41A	10/26/2015	**15**	6,330	308	32	5.5	1.5	5.4	5.79	0.088	0.28	2.16	10.1	54.2
SHM-05-41A	11/18/2016	**19**	4,600	160	33	5.7	1.5	4.1	6.45	0.103	1.03	1.53	10.7	81.2
SHM-05-41A	11/20/2017	**18**	5,900	210	25	17	1.1	3.3	6.73	0.142	3.79	0.46	9.4	43.5
SHM-05-41A	11/16/2018	**16**	4,400	160	29	11	1.2	5.7	5.52	0.193	2.55	0.21	10.4	-0.9
SHM-05-41A	11/08/2019	**31**	6,300	260	36	5.8	1.0 U	8.5	6.10	0.120	36.0	0.10	8.0	9.5
SHM-05-41A	11/06/2020	**18**	4,800	170	36	5.9	1.0 U	6.5	8.17	0.104	6.25	0.32	11.8	19.8
SHM-05-41A	11/05/2021	**20**	2,900	150	6.4 J	4.3	2.2	0.47 J	6.30	0.086	21.2	7.24	6.6	107.0
SHM-05-41A	10/17/2022	**48**	**10,000**	180	31	16	1.6	5.2	6.75	0.165	3.54	0.91	10.8	-62.4
SHM-05-41A	10/30/2023	4.6 J	360	21	13	14	13	1.3 J	6.31	0.075	1.64	0.67	11.2	-18.6
SHM-05-41B	08/09/2010	**1,130**	**28,000**	656 J	--	--	2.6	--	6.43	0.310	--	0.32	11.8	42.6
SHM-05-41B	04/21/2010	--	--	--	120	7.0	--	5.0	6.74	0.392	9.60	0.08	9.6	-124.0
SHM-05-41B	10/07/2010	--	--	--	100	2.9	--	5.3	6.65	0.259	1.64	0.35	10.3	-86.8
SHM-05-41B	04/04/2011	--	--	--	120	1.5	--	5.7	6.73	0.266	0.50	0.16	8.4	-80.4
SHM-05-41B	10/04/2011	--	--	--	83	1.5	--	3.5	6.29	0.209	5.80	0.35	10.9	-61.2
SHM-05-41B	04/11/2012	--	--	--	66	3.0	--	3.3 U	6.44	0.199	8,400	0.14	10.0	-57.2
SHM-05-41B	10/17/2012	--	--	--	100	3.1	--	4.1	6.58	0.259	41.0	0.22	12.2	-150.1
SHM-05-41B	05/22/2013	**812**	**32,300**	780	97	5.8	2.8	8.7	6.55	0.302	3.03	0.26	10.0	-94.0
SHM-05-41B	10/23/2013	**716**	**21,400**	583	81	4.3	--	4.7 J	6.88	0.155	4.49	0.46	10.1	-120.4
SHM-05-41B	04/23/2014	**678**	**25,900**	766	88	3.8	2.3	5.2 J	6.60	0.245	15.0	0.47	9.3	-37.7
SHM-05-41B	10/09/2014	**638**	**24,300**	752	97	2.5	1.7	5.3 J	6.76	0.195	10.7	0.41	10.5	-93.0
SHM-05-41B	06/08/2015	**626**	**28,500**	947	93	19	1.6	3.8 J	6.67	0.315	6.90	0.09	13.3	-64.0
SHM-05-41B	10/26/2015	**614**	**27,300**	890	34	18	1.7	5.8	5.32	0.269	30.9	0.27	11.3	-23.3
SHM-05-41B	06/27/2016	**670**	**32,000**	1,100	130	7.9	1.9	1.7	6.43	0.327	11.7	13.23	0.3	-59.7
SHM-05-41B	11/18/2016	**730**	**41,000**	1,400	120	10	1.8	1.8	6.67	0.373	9.82	0.29	12.1	-103.7
SHM-05-41B	06/06/2017	**630**	**53,000**	**1,800**	130	15	1.8	2.3	7.12	0.479	9.06	1.73	6.6	-50.9
SHM-05-41B	11/20/2017	**620**	**50,000**	**1,800**	110	16	1.6	1.8	6.86	0.300	6.48	0.31	10.1	-69.1
SHM-05-41B	04/20/2018	**330**	**33,000**	1,300	110	810	1.7	5.4	6.47	3.310	4.91	1.85	8.5	-33.9
SHM-05-41B	11/16/2018	**510**	**42,000**	1,400	81	17	1.4	4.0	6.13	0.437	5.01	0.19	9.9	-70.0
SHM-05-41B	04/18/2019	**360**	**23,000**	840	65	430	2.2	11	6.40	1.400	14.0	0.41	6.6	-44.0
SHM-05-41B	11/08/2019	**530**	**24,000**	720	62	2.3	1.0 U	6.4	6.60	0.190	25.0	0.13	9.3	-60.0
SHM-05-41B	05/21/2020	**420**	**22,000**	740	84	430	1.7	5.7	6.43	0.333	12.0	0.26	13.5	44.4
SHM-05-41B	11/06/2020	**570**	**35,000**	1,100	86	48	1.7 U	2.5 J	7.58	1.940	3.34	0.54	13.6	-19.9
SHM-05-41B	05/27/2021	**440**	**28,000**	990	71	11	1.5	3.9	6.65	0.150	51.7	1.34	15.4	-59.8
SHM-05-41B	11/08/2021	**440**	**34,000**	1,200	96	11	1.5	3.0	6.65	0.451	3.11	1.20	9.7	-62.7
SHM-05-41B	05/09/2022	**390**	**21,000**	770	56	50	2.8	3.9	6.26	0.310	1.76	0.78	11.7	-68.2
SHM-05-41B	10/17/2022	**710**	**15,000**	150	31	110	9.2	1.0 U	7.00	0.318	5.30	0.85	10.8	-115.2
SHM-05-41B	06/09/2023	**630**	**30,000**	930	66	7.0	2.0	3.0	6.54	0.271	16.40	0.76	11.2	-124.6
SHM-05-41B	10/30/2023	**420**	**18,000**	640	54	5.8	6.1	2.4	6.71	0.107	3.38	0.50	10.8	-56.1
SHM-05-41C	04/21/2010	--	--	--	350	30	--	1.0 U	7.17	0.963	0.80	0.11	10.1	-167.0
SHM-05-41C	10/07/2010	--	--	--	350	29	--	1.0 U	7.01	0.753	0.43	0.29	10.7	-132.0
SHM-05-41C	04/04/2011	--	--	--	250	130	--	2.9	7.03	1.132	19.0	0.28	8.7	-99.0
SHM-05-41C	10/04/2011	--	--	--	340	28	--	0.30 J	6.28	0.775	4.80	0.36	11.1	-88.7
SHM-05-41C	04/11/2012	--	--	--	330	30	--	2.1 U	7.00	0.929	150,000	0.19	9.2	-116.8
SHM-05-41C	10/18/2012	--	--	--	350	28	--	0.81 J	6.93	0.714	170	0.70	9.0	-164.5
SHM-05-41C	05/21/2013	**709**	**14,700**	**2,530**	375	153	3.9	4.5 U	6.98	1.081	2.70	0.26	11.5	-98.5
SHM-05-41C	10/23/2013	**890**	**16,200**	**2,940**	364	29	--	1.4 J	7.16	0.511	0.44	0.93	10.1	-165.9
SHM-05-41C	04/23/2014	**1,490**	**17,600**	1,660	378	437	4.5	4.2 J	7.14	1.905	4.91	0.57	9.5	-121.7
SHM-05-41C	10/09/2014	**946**	**16,000**	**2,540**	368	90	4.1	2.6 J	7.13	0.699	0.42	0.14	11.0	-152.2
SHM-05-41C	06/08/2015	**883**	**16,700**	**2,880**	368	41	3.8	1.4 J	7.02	0.825	4.59	0.49	12.1	-131.7
SHM-05-41C	10/26/2015	**851**	**15,700**	**2,740**	370	34	6.4	2.1 J	6.29	0.654	0.12	0.54	10.3	-98.1
SHM-05-41C	06/27/2016	**810**	**17,000**	**3,100**	370	30	3.8	1.9	6.83	0.798	5.66	12.83	0.5	-93.6
SHM-05-41C	11/18/2016	**820**	**17,000**	**3,100**	360	27	3.7	2.6	7.21	0.732	0.34	0.70	10.1	-113.3
SHM-05-41C	06/06/2017	**390**	8,000	**2,400**	270	180	2.8	4.3	7.43	1.130	8.42	0.90	6.7	-76.7
SHM-05-41C	11/20/2017	**740**	**16,000**	**2,900**	360	25	3.1	2.9	7.05	0.559	6.62	0.39	9.7	-97.1
SHM-05-41C	04/20/2018	**800**	**18,000**	**3,000**	370	23	3.6	3.1	7.06	0.808	0.15	1.87	8.0	-118.9
SHM-05-41C	04/15/2019	**91**	**10,000**	**3,700**	280	550	6.0	10 U	6.80	2.600	4.50	1.20	9.8	-90.0
SHM-05-41C	11/08/2019	**29**	3,400	820 J	86	1,900	1.0 U	14 J	6.80	5.900	6.90	0.05	8.3	-53.0
SHM-05-41C	05/21/2020	**660**	**14,000**	**2,400**	360	1,200	3.1	10	6.20	4.550	7.96	0.37	12.4	89.7
SHM-05-41C	11/06/2020	**610**	**14,000**	**2,600**	350	380	3.2	2.4	5.63	0.067	15.6	0.68	12.2	176.0
SHM-05-41C	05/27/2021	**800**	**14,000**	**2,100**	340	970	3.0	10 U	6.95	2.570	0.8	0.61	14.4	-101.2
SHM-05-41C	11/04/2021	**280 J**	**8,800**	1,100 J	130	24	3.4	4.3	6.93	0.428	12	1.33	6.5	-75.0
SHM-05-41C	05/06/2022	**270 J**	4,700	940	260	180	3.8	3.7	6.78	0.809	4.3	0.80	10.9	-122.0
SHM-05-41C	10/17/2022	**28**	1,600	39	25	86	3.5	1.0 U	6.54	0.361	10.9	0.99	10.6	-19.9
SHM-05-41C	06/14/2023	**37**	2,200	60	26	87	4.0	1.0 U	6.26	0.425	4.1	0.66	11.7	-37.4
SHM-05-41C	10/30/2023	**57**	3,600	300	44	90	5.4	1.0 U	6.39	0.259	0.2	0.46	11.2	-42.4
SHM-05-42A	08/12/2010	--	--	--	160	2.0	--	5.8	6.08	0.071	3.50	5.11	9.6	-95.0
SHM-05-42A	04/22/2010	1.3	388	140	18	1.6	1.0 U	5.6	6.50	0.061	--	1.20	10.4	89.5
SHM-05-42A	10/13/2010	--	--	--	230	2.2	--	5.9	5.75	0.070	1.00	0.31	9.8	102.7
SHM-05-42A	04/05/2011	--	--	--	210	2.3	--	6.4	6.05	0.070	0.00	0.16	8.8	95.2
SHM-05-42A	10/07/2011	--	--	--	190	1.8	--	4.5	5.23	0.061	0.08	1.95	10.3	156.3
SHM-05-42A	04/11/2012	--	--	--	170	2.7	--	3.8 U	5.60	0.063	2,700	6.09	9.0	186.2
SHM-05-42A	10/18/2012	--	--	--	23	3.3	--	4.3	6.04	0.066	0.73	0.54	9.9	125.5
SHM-05-42A	05/22/2013	0.89 J	224	103	23	2.8	0.65 J	5.6	6.06	0.062	0.00	0.38	9.6	86.2
SHM-05-42A	10/23/2013	2.0 U	111	66	23	2.8	--	6.3 J	6.09	0.061	0.28	2.53	8.0	73.2
SHM-05-42A	04/23/2014	2.0 U	961	193	23	4.3	3.1	7.5 J	5.86	0.062	0.88	0.23	9.2	101.2
SHM-05-42A	10/09/2014	2.0 U	130	130	35	5.5	0.87 J	7.6 J	5.81	0.073	2.20	0.09	10.6	123.7
SHM-05-42A	10/28/2015	4.0 U	122	199	32	4.5	0.98 J	8.3	5.33	0.076	0.20	0.91	9.4	103.7
SHM-05-42A	11/18/2016	3.0 U	110	510	33	4.8	0.96 J	11	6.21	0.089	0.86	0.25	9.0	144.6
SHM-05-42A	11/28/2017	3.0 U	170	680	27	5.5	0.50 U	7.5	6.42	0.105	4.11	0.27	8.7	127.3
SHM-05-42A	11/15/2018	3.0 U	950	680	31	5.7	0.96 J	7.4	5.92	0.164	2.01	0.24	7.5	46.7

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-05-42A	11/05/2019	3.0 U	50 U	50	26	8.3	0.78 J	5.8	5.80	0.084	2.30	0.23	9.8	100.0
SHM-05-42A	11/09/2020	3.0 U	50 U	100	26	7.4	1.1 U	7.6	6.22	0.296	6.30	0.72	12.1	-24.5
SHM-05-42A	10/25/2021	3.0 U	560	310	31	4.1	1.1	7.2	5.94	0.063	0.1 U	0.86	10.8	83.1
SHM-05-42A	10/20/2022	3.0 U	69 J	76	28	6.3	1.0 J	6.5	5.55	0.083	1.91	0.62	10.5	417.9
SHM-05-42A	10/25/2023	3.0 U	240	22	23	2.6	0.52 J	3.8	5.85	0.044	3.60	1.66	12.5	127.7
SHM-05-42B	04/22/2010	--	--	--	290	23	--	5.2	6.52	0.863	6.00	0.19	9.8	-272.0
SHM-05-42B	10/13/2010	--	--	--	300	25	--	3.9	6.52	0.691	1.00	0.53	9.9	-64.6
SHM-05-42B	04/01/2011	--	--	--	340	32	--	3.3	6.44	0.759	0.00	0.25	8.8	-63.0
SHM-05-42B	10/07/2011	--	--	--	330	31	--	3.4	6.36	0.755	0.30	0.26	10.4	-44.1
SHM-05-42B	04/11/2012	--	--	--	320	26	--	2.4 U	6.45	0.895	37,000	0.54	9.6	-59.0
SHM-05-42B	10/18/2012	--	--	--	300	25	--	3.2	6.53	0.643	48.0	0.69	10.2	-116.8
SHM-05-42B	05/22/2013	**238**	**51,100**	**2,900**	318	28	3.4	4.5 U	6.58	0.655	1.20	0.37	9.9	-49.9
SHM-05-42B	10/23/2013	**232**	**43,200**	**3,280**	313	21	--	3.3 J	6.48	0.654	0.96	0.16	10.8	-105.7
SHM-05-42B	04/23/2014	**229**	**38,000**	**6,110**	308	18	3.9	2.0 J	6.43	0.643	3.08	0.14	9.4	-36.9
SHM-05-42B	10/09/2014	**215**	**34,300**	**6,450**	293	17	2.9	1.5 J	6.60	0.498	3.40	0.10	10.7	-78.6
SHM-05-42B	10/28/2015	**206**	**27,500**	**6,950**	221	15	2.5	2.4 J	6.33	0.389	0.21	0.41	9.7	-11.2
SHM-05-42B	11/18/2016	**180**	**27,000**	**6,500**	200	22	2.3	3.7	6.56	0.441	97.0	0.40	9.1	-8.3
SHM-05-42B	11/28/2017	**160**	**20,000**	**4,200**	110	38	1.5	3.6	7.17	0.364	2.87	0.48	8.5	-34.2
SHM-05-42B	11/15/2018	**160**	**21,000**	**4,800**	150	26	1.8	3.3	6.54	0.517	3.52	0.47	7.5	-38.1
SHM-05-42B	11/05/2019	**170**	**29,000**	**6,300**	170	34	1.6	9.7	6.40	0.450	4.70	0.19	9.6	-54.0
SHM-05-42B	11/09/2020	**160**	**28,000**	**6,200**	170	38	1.8 U	9.4	5.84	1.270	12.9	7.85	14.2	139.0
SHM-05-42B	10/25/2021	**150**	**29,000**	**6,600**	160	45	2.1	13	6.25	0.439	0.30	0.83	10.9	-57.8
SHM-05-42B	10/20/2022	**150**	**26,000**	**5,800**	150	45	1.3 J	7.5	6.24	0.443	0.75	0.62	10.7	-12.5
SHM-05-42B	10/25/2023	**140**	**25,000**	**6,600**	140	49	1.3J	9.1	6.23	0.365	2.10	0.25	12.2	-34.8
SHM-07-03	10/31/2007	0.50 U	73 J	211	21	6.4	--	24	--	--	--	--	--	--
SHM-07-03	08/12/2010	0.29 J	54	9.7	18	8.2	1.0 U	10	5.81	0.081	--	6.61	12.3	133.9
SHM-07-03	05/28/2013	1.0	100 U	15 U	17	29	1.3	6.4	5.81	0.147	12.0	4.82	12.8	139.2
SHM-07-03	06/09/2015	2.0 U	98 K	18	17	180	0.77 J	8.8 J	5.75	0.601	7.34	7.55	12.6	136.7
SHM-07-03	06/30/2016	3.2	660	82	13	200	1.3	7.6	5.78	0.686	36.7	4.42	17.4	140.8
SHM-07-03	06/01/2017	3.0 U	83	23	13	210	1.0 U	5.6	5.70	0.786	9.81	7.40	12.6	76.5
SHM-07-03	11/17/2017	3.0 U	470	41	12	150	0.50 U	6.2	6.09	0.435	11.2	0.60	10.1	59.4
SHM-07-03	04/17/2018	3.1	620	60	16	840	1.0 U	9.0	5.96	3.125	51.3	4.32	11.3	85.1
SHM-07-03	11/19/2018	3.0 U	540	27	180	170	2.5	6.8	5.33	0.638	12.5	4.22	8.5	232.0
SHM-07-03	04/18/2019	3.0 U	260	3.0 U	28	170	1.6	10	5.60	0.650	22.0	5.40	8.3	1700.0
SHM-07-03	11/07/2019	3.0 U	200	7.3 J	16	130	1.9	8.8	5.60	0.444	602	7.80	9.2	117.6
SHM-07-03	05/15/2020	3.0 U	110	26	25	130	0.84 J	6.1	5.62	0.443	19.1	5.58	13.8	290.0
SHM-07-03	11/11/2020	3.0 U	320	8.9 J	15 U	320	0.87 J	11	6.75	0.253	27.4	0.81	18.2	56.2
SHM-07-03	05/27/2021	3.0 U	37 J	2.0 J	31	120	0.83 J	7.4	6.02	0.060	16.0	0.26	16.9	158.7
SHM-07-03	11/10/2021	3.0 U	120	2.1 J	35	110	0.60 J	7.5	6.12	0.552	9.3	7.29	8.2	159.0
SHM-07-03	05/12/2022	3.0 U	50 U	13	23	240	0.78 J	6.4	5.44	0.751	11.1	4.84	16.2	149.0
SHM-07-05X	10/31/2007	--	--	--	46	60	--	12	7.61	0.429	5.01	1.85	11.1	19.0
SHM-07-05X	06/08/2015	4.8	50 U	7.5 U	157	77	4.2	28	7.41	0.460	3.05	6.47	13.7	37.9
SHM-07-05X	06/30/2016	**11**	50 U	10	160	200	2.0	25	6.06	1.000	13.5	0.03	17.6	56.2
SHM-07-05X	06/01/2017	**54**	870	550	120	1,100	3.3	19	7.19	3.798	20.0	1.46	14.7	-45.9
SHM-07-05X	11/17/2017	**890**	**19,000**	**2,200**	220	24	2.2	6.4	7.17	0.472	2.85	0.18	9.5	-106.3
SHM-07-05X	04/18/2018	**430**	**11,000**	1,500	170	1,300	3.1	13	6.83	4.659	11.0	1.20	13.5	-57.1
SHM-07-05X	11/26/2018	**100**	**9,800**	1,700	210	96	2.9	6.8	6.63	0.785	32.1	0.85	9.6	6.0
SHM-07-05X	04/18/2019	**950**	**23,000**	**1,900**	220	130	2.8	8.0	6.70	1.500	35.0	2.00	7.6	-66.0
SHM-07-05X	11/08/2019	**500**	**18,000**	**1,900**	240	68	3.1	8.7	6.80	0.660	14.0	0.46	7.4	11.0
SHM-07-05X	05/18/2020	**15**	3,400	74	30	46	3.0	2.3	6.27	0.188	119	0.92	12.8	216.0
SHM-07-05X	11/11/2020	**83**	1,900	140	38	48	2.0	2.7	6.40	0.608	4.02	0.28	14.8	101.0
SHM-07-05X	05/27/2021	**150**	2,700	530	87	390	2.1	4.2	6.98	0.212	4.18	0.38	18.4	-83.3
SHM-07-05X	11/08/2021	**24**	560	53	6.4 U	22	1.7	5.0 U	6.08	0.207	5.27	1.65	10.6	86.6
SHM-07-05X	05/12/2022	**110**	4,200	110	26	360	3.3	5.0 U	6.41	1.090	3.15	0.90	15.7	-67.1
SHM-07-05X	10/26/2022	**60**	740	200	26	37	13	7.8	6.50	0.345	26.2	0.63	16.7	25.8
SHM-07-05X	06/16/2023	**370**	5,500	860	140	98	10	2.6	6.89	0.710	2.3	0.60	19.3	-124.6
SHM-07-05X	10/31/2023	**760**	**14,000**	1,200	170	59	8.7	2.7	6.82	0.290	0.5	0.56	7.8	-59.9
SHM-10-01	07/13/2010	0.68 J	373	**10,600**	130	12	--	6.8	6.19	0.297	3.34	0.18	12.4	63.5
SHM-10-01	08/12/2010	3.5 J	886	**10,700**	130	14	1.5	7.0	6.61	0.291	--	0.49	11.9	42.2
SHM-10-01	09/08/2010	7.9	1,680	**10,300**	140	11	1.6	8.7	6.31	0.299	0.15	0.12	12.7	11.3
SHM-10-01	10/24/2012	1.4	210	--	89	8.5	--	6.2 U	6.39	0.143	0.95	0.40	11.5	48.3
SHM-10-01	05/29/2013	1.3	124	**5,970 J**	73	4.0	5.3	6.5	6.53	0.160	0.00	0.16	10.6	51.2
SHM-10-01	06/09/2015	2.0 U	93 J	**14,800**	137	18	1.1	8.6 J	6.08	0.310	0.50	1.03	11.0	98.0
SHM-10-02	07/15/2010	0.43 J	881	**2,180**	250	160	--	20	6.42	0.836	3.47	0.45	12.2	80.8
SHM-10-02	09/07/2010	1.1	843	**2,190**	260	120	2.5	19	5.94	0.881	0.64	0.87	12.5	-258.3
SHM-10-02	10/22/2012	1.1	100 UJ	--	448	62	--	7.4 U	6.52	0.726	1.78	0.48	12.2	40.2
SHM-10-02	05/29/2013	1.5	34 J	**2,450**	444	62	3.8	8.8	6.53	0.537	1.04	0.20	11.4	73.2
SHM-10-02	06/08/2015	3.2 J	50 U	**4,700**	291	215	2.0	12	6.47	1.173	0.31	0.69	11.3	59.8
SHM-10-02	11/21/2017	3.0 U	75 U	**1,800**	140	88	1.5	5.8	7.38	0.530	1.92	0.80	11.5	202.9
SHM-10-02	11/28/2018	3.0 U	50 U	1,600	130	93	1.2	7.1	6.38	0.580	1.51	1.70	10.6	139.0
SHM-10-02	11/14/2019	3.0 U	50 U	1,400	90	120	1.3	7.8	6.70	0.500	1.10	9.60	11.0	150.0
SHM-10-02	11/10/2020	3.0 U	50 U	**2,000**	110	150	1.2	6.3	6.80	0.598	9.84	0.52	16.5	93.5
SHM-10-02	11/01/2021	3.0 U	50 U	1.2 J	90	110	1.1	6.5	7.15	0.488	0.1 U	4.54	13.8	93.1
SHM-10-02	11/04/2022	3.0 U	50 U	940	110	100	1.2 J	6.4	6.35	0.572	3.17	4.28	13.7	286.7
SHM-10-02	10/23/2023	3.0 U	50 U	**6,800**	130	580	1.1 J	19	6.05	0.944	0.02	0.04	12.1	112.6
SHM-10-03	07/14/2010	0.78 J	866	153	96	1,000	--	38	6.60	3.331	31.7	1.47	16.1	75.7
SHM-10-03	09/07/2010	0.51 J	1,030	44	78	1,100	1.0 U	39	6.31	3.341	13.4	1.72	11.9	148.1
SHM-10-03	10/23/2012	1.0 U	79 J	--	57	900	--	38	6.51	2.230	21.9	1.45	13.8	-3.6
SHM-10-03	05/24/2013	1.5	51 J	37	72	870	0.72 J	35	6.54	1.981	3.68	0.61	11.5	61.5
SHM-10-03	06/09/2015	4.2	50 U	38	74	1,000	0.61 J	67	6.41	3.485	2.54	0.31	12.6	140.0
SHM-10-03	11/21/2017	3.0 U	75 U	15	170	320	1.0	19	6.96	1.162	4.89	0.52	11.6	103.1
SHM-10-03	11/28/2018	3.0 U	50 U	7.5 J	170	260	1.0 U	13	6.83	1.170	2.37	2.21	9.8	152.0
SHM-10-03	11/14/2019	8.5	50 U	4.0 J	150	120	1.4	11	7.10	0.580	2.60	4.20	9.6	120.0
SHM-10-03	11/10/2020	1.9 J	75 U	8.0 J	160	110	1.7	7.5	6.03	0.459	6.01	0.73	11.6	96.0
SHM-10-03	10/28/2021	3.0 U	32 J	4.2 J	140 J	88	1.1	5.4	7.61	0.483	0.11	0.16	11.4	36.0
SHM-10-03	11/03/2022	3.0 U	50 U	9.0 J	170	130	0.95 J	6.7	7.00	0.721	3.18	1.17	12.9	60.4
SHM-10-03	10/23/2023	3.0 U	50 U	30	130	730	0.81J	15	6.21	1.267	0.02	0.31	11.8	90.9
SHM-10-04	07/14/2010	0.64	5,190	**2,500**	99	74	--	84	6.37	0.630	17.7	0.23	10.8	9.9
SHM-10-04	09/07/2010	0.79 J	1,650	**3,100**	100	92	2.7	87	5.99	0.656	4.28	0.23	12.1	43.7
SHM-10-04	10/22/2012	1.0 U	100 U	--	81	83	--	71	5.89	0.460	4.15	0.27	11.6	65.0
SHM-10-04	05/29/2013	1.0	100 U	622	100	83	1.9	82	6.01	0.382	1.67	0.16	10.2	180.1
SHM-10-04	06/08/2015	2.0 U	50 U	597	58	140	1.3	65	6.14	0.710	0.17	0.24	10.9	96.9
SHM-10-04	11/21/2017	3.0 U	180	330	100	92	1.5	17	6.33	0.473	1.28	0.26	11.2	151.2
SHM-10-04	11/26/2018	3.0 U	50 U	320	80	97	1.1	23	6.16	0.522	2.97	0.39	10.7	71.0
SHM-10-04	11/14/2019	3.0 U	50 U	330	71	89	1.1	20	6.80	0.420	3.10	0.43	11.0	100.0
SHM-10-04	11/12/2020	3.0 U	50 U	280 J	63	90	1.2	17	5.64	0.165	6.20	1.21	13.5	158.0
SHM-10-04	10/28/2021	3.0 U	50 U	390	81 J	81	1.2	21	6.62	0.371	0.17	0.10	11.9	97.1
SHM-10-04	11/03/2022	3.0 U	50 U	290	62	47 J	1.2 J	34 J	6.28	0.388	3.67	1.07	14.3	145.7
SHM-10-04	10/24/2023	3.0 U	50 U	600	77	92	1.1 J	27	6.27	0.264	0.02	0.23	11.9	119.3
SHM-10-05A	07/15/2010	4.6	1,880	620	43	34	--	10	6.29	0.186	5.12	1.42	19.1	31.7
SHM-10-05A	09/08/2010	5.2	677	122	36	29	1.0 U	11	5.27	0.200	8.92	3.20	20.2	-29.0
SHM-10-05A	10/23/2012	3.0	68 J	--	42	31	--	8.0	6.04	0.208	4.30	4.84	14.4	164.8
SHM-10-05A	10/24/2012	--	--	--	48	4.0	--	3.3	--	--	--	--	--	--
SHM-10-05A	05/22/2013	3.1	30 U	16	39	31	0.79 J	7.2	6.26	0.145	2.47	1.31	13.5	158.1
SHM-10-05A	06/09/2015	3.0 U	50 U	10 J	29	36	0.70 J	9.5 J	6.10	0.207	1.26	1.86	14.0	208.2
SHM-10-05A	11/16/2017	2.1 J	75 U	5.4	25	48	0.50 U	11	6.68	0.242	4.17	1.60	11.9	161.9
SHM-10-05A	11/13/2018	3.0 U	50 U	3.7 J	24	62	1.0 U	6.7	6.18	0.276	24.7	1.38	11.4	65.7
SHM-10-05A	11/12/2019	2.0 J	50 U	2.4 J	32	32	0.62 J	9.5	5.70	0.210	4.20	2.60	11.0	180.0
SHM-10-05A	11/12/2020	2.0 J	96 U	10 U	36	43	0.89 J	8.8	6.50	0.479	28.3	0.77	8.3	-10.6

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-10-05A	10/27/2021	3.0 U	50 U	2.0 J	39 J	49	1.6	6.1	6.16	0.187	0.1 U	1.03	13.6	89.8
SHM-10-05A	10/24/2022	1.3 J	58 J	3.8 J	23	62	0.71 J	6.5	6.35	0.294	12.9	1.60	15.0	149.2
SHM-10-05A	10/25/2023	1.2 J	50 U	3.8 J	23	58	0.56 J	6.5	5.73	0.176	0.02	3.29	18.4	110.2
SHM-10-06	07/08/2010	**1,680 J**	**117,000**	699	360	17	--	0.89	6.62	0.754	21.4	0.55	21.7	-93.8
SHM-10-06	09/08/2010	**2,710**	**145,000**	9.6	300	15	5.0	0.49 J	6.16	0.783	3.72	2.83	11.6	-64.3
SHM-10-06	10/23/2012	**2,300**	**111,000**	--	184	17	--	5.0 U	6.57	0.587	3.38	1.18	15.8	-122.1
SHM-10-06	10/23/2012	--	--	--	117	14	--	0.99	--	--	--	--	--	--
SHM-10-06	05/23/2013	**1,980**	**107,000**	**1,890**	227	16	3.7	4.5 U	6.60	0.473	4.66	0.86	13.2	-120.7
SHM-10-06	10/08/2014	**1,900**	**92,000**	**2,080**	238	18	2.9	4.8 J	6.73	0.515	3.49	0.41	11.5	-119.3
SHM-10-06	10/22/2015	**2,150**	**88,800**	**2,090**	183	18	5.4	3.7 J	6.65	0.535	3.00	0.41	11.0	-123.5
SHM-10-06	11/21/2016	**1,700**	**77,000**	**3,100**	210	27	2.3	5.1	6.83	0.613	0.18	1.55	8.4	-89.3
SHM-10-06	11/16/2017	**1,600**	**88,000**	**5,000**	180	26	2.5	5.4	6.90	0.483	3.57	0.31	9.7	-79.1
SHM-10-06	11/12/2018	**1,200**	**81,000**	**3,300**	160	27	2.5	5.7	6.64	0.592	2.90	0.20	12.2	-82.1
SHM-10-06	11/01/2019	**1,300**	**81,000**	**2,400**	150	29	2.2	11	6.60	0.580	3.40	0.08	11.0	-75.0
SHM-10-06	10/30/2020	**1,000**	**63,000**	1,400	140	33	1.9 U	7.8	5.59	0.150	6.30	0.82	9.3	50.0
SHM-10-06	11/02/2021	**990**	**78,000**	**2,800**	150 J	30	2.4	6.9	7.40	0.546	0.1 U	0.12	14.1	-96.2
SHM-10-06	10/13/2022	**930**	**73,000**	**2,400**	100	36	1.8	12	6.32	0.460	1.61	0.65	13.4	-89.9
SHM-10-06	10/31/2023	**250**	**30,000**	1,100	93	30	1.8	6.3	6.52	0.340	3.61	0.34	15.5	-73.4
SHM-10-06A	07/07/2010	**61**	**19,900 J**	1,620	100	3.4	--	2.5 B	6.51	0.209	5.38	1.49	19.7	-22.6
SHM-10-06A	09/09/2010	**94**	**42,900**	**4,080**	190	11	3.3	3.2	5.94	0.431	40.6	0.39	10.7	-157.3
SHM-10-06A	10/24/2012	**72**	**19,900**	--	67	4.5	--	5.9 U	5.90	0.190	13.9	0.63	11.0	-203.0
SHM-10-06A	10/24/2012	--	--	--	46	--	--	--	--	--	--	--	--	--
SHM-10-06A	05/22/2013	**73**	**11,400**	1,430	49	1.8	1.9	4.5 U	6.57	0.090	3.67	0.55	12.6	-12.3
SHM-10-06A	11/20/2013	**23**	3,410	**1,960**	54	1.5	1.8	2.1 J	6.49	0.107	0.44	0.22	9.3	-61.6
SHM-10-06A	10/07/2014	**96**	**27,800**	**3,480**	119	10	5.4	2.7 J	6.19	0.199	4.63	0.41	11.8	-25.1
SHM-10-06A	10/21/2015	4.0 U	100 U	1,170	27	1.5	2.2	5.1	6.78	0.065	6.39	0.59	11.5	53.1
SHM-10-06A	12/02/2016	**76**	**11,000**	1,200	59	11	1.7	9.6	6.08	0.147	9.41	2.43	9.0	36.2
SHM-10-06A	11/30/2017	**74**	**28,000**	190	61	15	1.6	7.7	7.00	0.170	23.0	2.99	8.2	55.9
SHM-10-06A	11/07/2018	**64**	6,100	550	57 J	8.7	1.4 U	6.4	5.87	0.164	4.91	0.58	10.5	13.8
SHM-10-06A	11/07/2019	**63**	8,900	710	93	13	1.0 U	6.1	6.00	0.220	9.90	0.99	11.0	40.0
SHM-10-06A	11/13/2020	**71**	**9,800**	1,500	85	20	1.4	4.5	7.74	0.644	5.27	0.41	12.7	-45.4
SHM-10-06A	11/03/2021	**76**	**14,000**	1,400	85 J	12	0.8 U	5.1	6.27	0.150	0.60	0.13	9.3	68.3
SHM-10-06A	10/24/2022	**66**	**9,100**	1,200	81	12	1.7	5.7	6.01	0.356	10.7	1.08	12.7	25.8
SHM-10-06A	11/03/2023	**59**	**11,000**	950	62	5.5	8.5	4.9	6.30	0.159	28.7	0.01	12.2	-12.5
SHM-10-07	05/27/2010	**818 J**	**70,600 J**	**3,110 J**	300	48	--	8.6	6.97	0.751	237	0.15	13.4	-195.0
SHM-10-07	09/09/2010	**918**	**56,800**	**1,940**	240	41	3.5	2.3	6.54	0.635	15.4	0.43	12.4	-105.6
SHM-10-07	10/22/2012	**1,100**	**69,000**	--	191	47	--	5.0 U	6.45	0.516	21.3	0.13	12.1	-86.0
SHM-10-07	10/22/2012	--	--	--	143	58	--	0.14	--	--	--	--	--	--
SHM-10-07	05/23/2013	**1,210**	**94,900**	**2,670**	243	62	3.5	5.6	6.50	0.561	4.60	1.23	12.0	-109.6
SHM-10-07	10/07/2014	**861**	**53,330**	**2,150**	162	55	2.8	1.9 J	6.80	0.634	44.0	0.27	12.2	-92.8
SHM-10-07	10/22/2015	**926**	**43,900**	**2,410**	127	56	2.8	4.0 J	6.61	0.453	7.21	0.48	12.3	-117.1
SHM-10-07	12/01/2016	**750**	**26,000**	**3,400**	130	54	2.3	10	6.83	0.413	--	0.78	12.1	-87.4
SHM-10-07	11/07/2017	**970**	**44,000**	**1,800**	110	52	1.9	6.9	6.66	0.360	7.93	0.47	11.2	-72.9
SHM-10-07	11/09/2018	**900**	**39,000**	**1,800**	100	54	1.9	8.8	6.68	0.498	283	0.29	10.7	-82.7
SHM-10-07	11/06/2019	**1,000**	**52,000**	**2,000**	150	64	1.9	7.7	6.60	0.580	15.0	3.10	11.0	-97.0
SHM-10-07	11/10/2020	**1,000**	**46,000**	**2,100**	130	70	2.1	7.0	6.46	0.656	4.65	0.36	14.7	113.0
SHM-10-07	11/01/2021	**980**	**40,000**	**1,700**	120	75	1.8	9.8	6.57	0.507	2.87	0.97	12.4	-97.1
SHM-10-07	05/26/2022	**980**	**50,000**	**1,900**	83	83	2.2	8.4	6.48	0.634	8.82	0.30	12.1	-71.7
SHM-10-07	08/31/2022	**1,000**	**47,000**	**1,900**	100	86	1.8	13	6.63	0.604	25.3	0.27	15.3	-26.3
SHM-10-07	10/18/2022	**1,100**	**42,000**	**2,300**	120	88	2.4	12	6.54	0.394	8.32	1.37	13.3	-103.9
SHM-10-07	11/10/2022	**1,000**	**46,000**	**2,400**	120	91	1.9	11	6.64	0.661	15.2	0.44	12.8	-143.0
SHM-10-07	10/23/2023	**1,100**	**52,000**	**2,300**	100	110	1.8	11	6.33	0.389	8.76	0.02	12.4	-104.1
SHM-10-08	07/15/2010	0.73 J	1,310 J	885 J	480	71	--	15	6.73	0.917	7.15	0.21	11.0	33.7
SHM-10-08	09/07/2010	1.6	1,260	376	500	79	3.8	15	6.19	1.079	1.37	3.61	12.1	-233.0
SHM-10-08	10/22/2012	1.9	37 J	--	459	54	--	7.8 U	6.63	0.713	0.00	0.40	11.6	45.1
SHM-10-08	05/21/2013	1.9	43 J	242	499	56	3.2	10	6.73	0.721	1.70	0.49	11.9	7.8
SHM-10-08	06/08/2015	3.6 J	50 U	328	426	120	2.6	6.9 J	6.36	0.937	1.29	0.39	10.7	102.8
SHM-10-08	11/21/2017	3.0 U	75 U	470	430	51	3.0	7.1	7.22	0.878	1.70	1.26	10.8	219.8
SHM-10-08	11/26/2018	2.0 J	50 U	540	430	58	3.0	11	6.57	0.759	4.65	2.05	10.0	82.4
SHM-10-08	11/14/2019	3.0 U	50 U	550	350	69	2.1	7.9	6.30	0.710	3.60	4.20	9.8	170.0
SHM-10-08	11/10/2020	3.0 U	53 U	340	220	89	1.7	5.2	6.33	5.090	2.55	0.32	16.9	216.0
SHM-10-08	11/01/2021	3.0 U	50 U	540	160	110	1.3	5.5	7.19	0.574	0.1 U	0.60	13.6	84.1
SHM-10-08	11/04/2022	3.0 U	50 U	570	120	120	1.0 J	5.8	6.32	0.648	3.59	1.03	15.2	229.1
SHM-10-08	10/24/2023	3.6 J	35 J	540	160	120	1.1 J	6.2	6.46	0.379	0.02	0.07	11.5	75.8
SHM-10-10	07/13/2010	1.3 J	799	**24,200**	350	19	--	0.56 J	6.61	0.658	4.52	0.85	12.1	28.7
SHM-10-10	08/12/2010	3.6 J	1,180	**22,000**	320	23	3.9	0.79 J	6.57	0.622	--	0.76	11.3	-9.1
SHM-10-10	09/08/2010	2.4 J	700	**25,200**	320	17	3.8	0.34 J	6.55	0.617	0.71	0.16	13.1	63.3
SHM-10-10	10/24/2012	1.0	180	--	295	21	--	5.0 U	6.55	0.464	3.25	0.28	12.1	37.6
SHM-10-10	05/29/2013	1.7	83 J	**26,400**	343	19	2.9	4.5 U	6.62	0.579	0.46	3.07	11.2	48.8
SHM-10-10	11/20/2013	2.0 J	49 J	**23,300**	256	61	16	2.9 J	6.53	0.557	0.39	0.36	12.0	75.2
SHM-10-10	10/10/2014	2.6 J	50 U	**25,800**	327	44	3.5	4.0 J	6.57	0.484	0.98	0.26	12.1	78.8
SHM-10-10	10/23/2015	2.9 J	100 U	**16,000**	271	51	3.9	6.6 J	6.53	0.561	0.89	4.59	11.7	17.2
SHM-10-10	11/29/2016	3.5	21 J	**10,000**	240	49	2.9	3.6	6.65	0.488	6.01	2.06	12.0	105.7
SHM-10-10	11/27/2017	3.0 U	75 U	**8,600**	150	280	2.0	46	7.35	1.040	1.39	0.31	11.5	117.6
SHM-10-10	11/20/2018	3.0 U	50 U	**5,900**	14	260	0.66 J	7.3	6.37	1.150	6.19	0.21	9.3	186.0
SHM-10-10	11/11/2019	3.0 U	50 U	**8,400**	260	93	2.6	4.9	6.50	0.790	1.20	0.58	11.0	43.0
SHM-10-10	11/09/2020	3.0 U	50 U	3.0 U	200	64	2.8 U	3.9	5.97	0.541	19.0	0.19	12.0	15.9
SHM-10-10	11/08/2021	3.0 U	18 J	**3,300**	230	34	1.6	2.8	6.42	0.403	1.29	0.15	13.6	132.0
SHM-10-10	10/20/2022	3.0 U	50 U	1.5 J	95	180	1.4 J	12	6.82	0.855	3.22	5.07	12.9	196.1
SHM-10-10	10/26/2023	1.7	21 J	**4,700**	160	29	1.5	2.7	6.44	0.240	0.02	0.02	15.5	78.4
SHM-10-11	08/30/2010	**342 J**	**55,700**	**2,320**	160	24	3.3	19	6.12	0.419	4.05	1.68	13.2	-32.0
SHM-10-11	10/19/2010	**463**	**61,000**	**2,260**	140	23	3.4	19 J	6.28	4.140	4.28	0.41	11.6	-42.1
SHM-10-11	10/23/2012	**440**	**56,100**	--	77	26	--	29	6.27	0.304	1.10	1.78	11.2	-34.0
SHM-10-11	10/23/2012	--	--	--	67	25	--	28	--	--	--	--	--	--
SHM-10-11	05/23/2013	**460**	**65,100**	**2,510**	102	21	2.9	30	6.15	0.287	2.01	0.80	11.3	-46.1
SHM-10-11	11/19/2013	**432**	**60,400**	**2,400**	121	30	2.7	35	6.41	0.421	0.45	0.33	10.6	-43.5
SHM-10-11	10/21/2015	**503**	**59,700**	**2,430**	52	32	2.6	45	6.01	0.348	1.54	0.40	11.2	-19.9
SHM-10-11	12/01/2016	**520**	**52,000**	**2,600**	120	29	2.5	48	6.32	0.345	16.9	0.80	11.1	-49.7
SHM-10-11	11/30/2017	**540**	**59,000**	**2,900**	89	32	2.4	52	7.05	0.363	9.19	0.25	11.0	-38.1
SHM-10-11	11/09/2018	**620**	**61,000**	**3,600**	73	33	2.7	74	6.34	0.504	5.81	0.21	11.3	-49.9
SHM-10-11	11/07/2019	**560**	**63,000**	**2,800**	150	32	1.0 U	51	6.20	0.500	15.0	0.20	11.0	-21.0
SHM-10-11	11/12/2020	**430**	**47,000**	**1,900**	130	34	2.5	56	5.78	0.394	13.1	0.50	12.3	53.6
SHM-10-11	11/05/2021	**680**	**50,000**	**2,900**	96 J	34	3.8	68	6.38	0.682	12.0	0.70	9.4	-45.0
SHM-10-11	10/20/2022	**530**	**55,000**	**2,500**	160	42	2.0	53	6.14	0.315	1.99	1.06	11.6	-49.8
SHM-10-11	10/25/2023	**560**	**51,000**	**2,600**	89	51	2.4	59	6.12	0.542	7.3	0.87	15.7	-77.9
SHM-10-12	08/30/2010	**3,560**	**104,000**	**7,000**	240	3.7	4.1	1.7	6.04	0.460	8.43	3.55	14.4	-34.9
SHM-10-12	10/20/2010	**3,120**	**90,000**	**6,200**	240	4.4	4.3	1.4	5.93	0.432	1.60	0.32	10.9	-14.5
SHM-10-12	10/23/2012	**4,100**	**78,600**	--	131	2.5	--	5.0 U	5.74	0.322	0.20	0.29	11.5	8.4
SHM-10-12	05/23/2013	**3,580**	**56,300**	**6,450**	171	7.3	24	7.9	6.09	0.302	4.36	0.26	11.8	-44.9
SHM-10-12	11/19/2013	**3,570**	**89,600**	**6,270**	210	4.0	3.5	3.8 J	6.35	0.428	0.16	0.72	10.5	-19.3
SHM-10-12	10/07/2014	**3,510**	**84,100**	**6,970**	191	3.5	3.9	4.0 J	6.02	0.368	0.43	0.31	14.0	-29.1
SHM-10-12	10/22/2015	**3,850**	**85,600**	**7,760**	136	4.5	4.1	6.1	6.09	0.452	0.38	0.33	10.7	-27.1
SHM-10-12	12/01/2016	**2,900**	**65,000**	**7,000**	200	8.1	4.0	9.7	6.12	0.367	--	1.99	12.8	-22.6
SHM-10-12	11/30/2017	**3,300**	**79,000**	**7,700**	210	4.9	3.5	3.5	6.89	0.392	6.62	0.35	10.8	-19.0
SHM-10-12	11/08/2018	**3,300**	**79,000**	**6,500**	170	4.9	3.1	3.7	5.58	0.443	23.8	0.25	11.1	-12.7
SHM-10-12	11/14/2019	**3,400**	**65,000**	**5,400**	170	4.1	2.9	2.6	5.40	0.400	25.0	0.26	9.5	20.0
SHM-10-12	11/11/2020	**3,400**	**69,000**	**5,000**	170	2.9	4.1	1.7	6.35	0.332	12.4	0.68	8.2	-64.6
SHM-10-12	11/04/2021	**2,900**	**66,000**	**5,100**	180	3.3	7.0	3.2	6.03	0.535	42.9	0.78	8.2	-16.8
SHM-10-12	10/20/2022	**3,200**	**66,000**	**5,200**	180	2.5	3.7	1.5	5.92	0.214	3.73	0.91	11.4	-32.8

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-10-12	10/25/2023	**3,700**	**71,000**	**5,600**	160	3.0	3.3	2.0	5.87	0.389	17.5	0.96	13.1	-56.4
SHM-10-13	09/01/2010	**575**	**84,100**	**1,850 J**	380	18	5.6	0.12 U	6.32	0.782	18.8	2.76	13.6	-68.6
SHM-10-13	10/19/2010	**672**	**94,600**	**2,060**	360	21	8.7	0.12 U	6.27	0.743	12.0	0.12	12.5	-52.5
SHM-10-13	10/23/2012	**670**	**68,800**	--	296	17	--	5.3 U	6.42	0.597	14.2	0.11	12.5	-44.5
SHM-10-13	10/23/2012	--	--	--	240	18	--	0.11 J	--	--	--	--	--	--
SHM-10-13	05/23/2013	**565**	**83,400 J**	1,130	292	20	5.1	4.5 U	6.35	0.571	14.4	0.22	12.6	-91.7
SHM-10-13	10/07/2014	**532**	**55,700**	1,670	266	25	4.7	22	6.56	0.527	3.05	0.20	11.8	-112.2
SHM-10-13	10/22/2015	4.5	354	327	162	36	2.8	102	6.47	0.629	3.50	0.29	13.1	62.7
SHM-10-13	11/28/2016	**530**	**67,000**	1,000	280	16	3.9	1.0 U	6.50	0.432	3.11	1.80	9.0	-46.8
SHM-10-13	11/09/2017	**450**	**82,000**	1,300	260	21	3.5	1.0 U	6.76	0.374	7.84	0.36	11.7	-61.2
SHM-10-13	11/14/2018	**570**	**72,000**	1,200	230	22	3.2	4.9	6.98	0.614	65.2	1.08	9.1	-64.5
SHM-10-13	11/06/2019	**460**	**69,000**	960	260	30	4.1	2.5	6.50	0.710	12.0	0.55	10.0	-39.0
SHM-10-13	10/30/2020	**430**	**58,000**	1,200	250	31	4.3	1.0 U	6.28	0.244	10.7	0.93	6.3	-67.4
SHM-10-13	11/04/2021	**410**	**58,000**	1,500	250	29	5.0	1.0 U	6.59	0.849	4.31	0.79	9.1	-80.5
SHM-10-13	10/20/2022	**410**	**52,000**	790	280	29	4.9	1.0 U	6.38	0.448	6.51	1.21	13.6	-88.4
SHM-10-13	10/24/2023	**510**	**75,000**	990	220	28	4.1	1.0 U	6.28	0.713	4.2	1.05	13.8	-100.5
SHM-10-14	09/02/2010	**4,100**	**73,000**	**4,720**	360	6.3	8.7	3.7	6.35	0.645	34.7	0.18	14.5	-87.4
SHM-10-14	10/19/2010	**5,860**	**92,700**	**4,180**	320	4.8	62	0.67 J	6.35	0.693	34.5	0.36	12.0	-38.6
SHM-10-14	10/23/2012	**6,200 J**	**94,400**	--	194	5.0	--	5.0 U	6.26	0.445	4.88	0.13	12.4	-41.0
SHM-10-14	05/23/2013	**5,540**	**83,100**	**2,800**	241	5.8	21	6.4	6.24	0.467	10.1	0.20	11.4	-67.0
SHM-10-14	10/08/2014	**5,380**	**92,100**	**2,810**	283	5.5	23	1.8 J	6.30	0.482	4.56	0.19	13.7	-76.1
SHM-10-14	10/22/2015	**2,320**	**63,500**	**3,650**	169	4.0	4.7	2.7 J	6.22	0.418	3.68	0.37	12.3	-30.2
SHM-10-14	11/28/2016	**4,900**	**85,000**	**2,300**	280	4.5	3.8	1.0 U	6.40	0.433	12.4	0.14	11.2	-46.3
SHM-10-14	11/09/2017	**5,400**	**95,000**	**2,300**	240	5.2	3.9	1.0 U	6.49	0.430	4.70	0.66	11.1	-42.1
SHM-10-14	11/08/2018	**3,900**	**75,000**	**2,600**	200	4.2	3.5	1.0 U	7.65	0.512	55.1	0.50	13.0	-79.8
SHM-10-14	11/06/2019	**4,500**	**78,000**	**2,400**	200	4.0	3.4	2.4	6.50	0.470	13.0	11.00	11.0	31.0
SHM-10-14	11/10/2020	**5,000**	**86,000**	**1,900**	250	5.1	4.1	1.0 U	6.28	0.244	10.7	0.93	6.3	-67.4
SHM-10-14	11/02/2021	**4,100**	**76,000**	**2,000**	200 J	3.9	3.7	1.0 U	5.94	0.419	3.69	0.80	11.3	-59.5
SHM-10-14	05/26/2022	**5,000**	**77,000**	**2,300**	160	4.3	3.7	0.64 J	6.17	0.550	16.4	0.17	12.6	-34.2
SHM-10-14	08/31/2022	**6,100**	**75,000**	**2,800**	200	4.6	3.6	0.46 J	6.04	0.533	31.0	0.27	15.2	9.5
SHM-10-14	10/19/2022	**4,900**	**80,000**	**2,300**	230	4.3	3.7	1.0 U	6.14	0.318	2.70	1.19	12.3	-56.0
SHM-10-14	11/07/2022	**5,300**	**75,000**	**2,000**	220	4.8	4.8	1.0 U	6.19	0.578	41.6	0.30	13.8	-84.1
SHM-10-14	10/24/2023	**4,600**	**74,000**	**2,300**	170	3.8	4.4	1.0 U	6.16	0.535	42.4	1.14	13.4	-78.5
SHM-10-15	09/01/2010	**8,110**	**63,300**	**10,700**	210	5.7	4.2	3.8	6.21	0.503	16.3	0.25	16.0	-52.7
SHM-10-15	09/01/2010	**8,110**	**63,300**	**10,700**	240	11	3.2	8.4	6.21	0.503	16.3	0.25	16.0	-52.7
SHM-10-15	10/20/2010	**6,230**	**52,000**	**8,680**	230	12	4.0	10	5.94	0.510	59.5	0.36	12.0	-10.9
SHM-10-15	10/23/2012	**7,000**	**46,600**	--	172	10	--	9.5 U	6.43	0.376	5.10	0.20	12.0	-49.0
SHM-10-15	10/23/2012	--	--	--	147	9.5	--	10	--	--	--	--	--	--
SHM-10-15	05/24/2013	**1,090**	8,290	**1,960**	196	7.5	3.4	7.4	6.37	0.440	12.0	0.49	15.1	-73.9
SHM-10-15	11/20/2013	**5,740**	**47,400**	**8,210**	210	9.5	2.8	11	6.51	0.048	10.3	0.38	10.4	-65.9
SHM-10-15	10/07/2014	**5,870 J**	**46,500 J**	**8,530 J**	207	9.0	2.6	12	6.45	0.351	29.7	0.08	12.3	-90.8
SHM-10-15	10/23/2015	**5,450**	**41,500**	**7,600**	197	9.0	2.9	11	6.25	0.492	1.05	0.76	11.1	-60.1
SHM-10-15	11/22/2016	**5,100**	**44,000**	**7,700**	210	12	2.8	11	6.44	0.382	8.19	0.99	10.8	-56.3
SHM-10-15	11/09/2017	**6,400**	**52,000**	**8,600**	200	12	2.5	9.3	6.70	0.327	5.52	0.47	10.4	-30.2
SHM-10-15	11/14/2018	**5,800**	**48,000**	**8,200**	200	12	2.7	10	6.96	0.497	50.3	0.50	9.7	-60.1
SHM-10-15	11/14/2019	**5,600**	**44,000**	**7,300**	200	12	2.4	14	6.40	0.430	6.80	0.16	10.0	79.0
SHM-10-15	11/02/2020	**6,800**	**44,000**	**7,300**	220	8.1	2.2	8.1	6.22	0.387	25.9	0.87	11.5	-65.4
SHM-10-15	11/04/2021	**6,300**	**43,000**	**7,700**	190	7.8	2.8	8.6	6.40	0.611	5.11	0.89	7.2	-46.2
SHM-10-15	10/19/2022	**7,500**	**44,000**	**7,600**	200	6.7	3.0	7.5	6.24	0.286	37.2	1.69	13.2	-59.1
SHM-10-15	10/24/2023	**7,400**	**45,000**	**7,600**	180	7.7	3.1	9.6	6.25	0.499	2.7	1.06	16.2	-82.3
SHM-10-16	09/02/2010	**495**	**53,100**	**1,790**	330	31	5.3	2.9	6.98	0.784	78.5	0.17	11.4	-233.8
SHM-10-16	10/20/2010	**1,090**	**46,900**	1,150	320	28	10	3.2	6.77	0.793	34.6	0.34	10.6	-129.2
SHM-10-16	10/23/2012	**1,600**	**41,700**	--	281	25	--	6.8 U	6.64	0.533	0.65	0.26	10.2	-86.2
SHM-10-16	10/24/2012	--	--	--	247	24	--	3.0	--	--	--	--	--	--
SHM-10-16	05/28/2013	**1,350**	**42,700**	1,280	309	21	3.8	4.7 J	6.71	0.632	0.08	0.15	9.4	-128.0
SHM-10-16	11/20/2013	**1,530**	**44,500**	1,480	312	24	3.7	2.9 J	6.75	0.677	0.84	0.19	9.4	-115.6
SHM-10-16	10/28/2015	**1,760**	**44,600**	1,410 J	290	29	4.0	4.6 J	7.02	0.354	0.31	2.63	10.1	-13.1
SHM-10-16	06/27/2016	**1,900**	**43,000**	1,600	300	23	3.3	2.2	6.77	0.690	1.74	11.27	1.5	-93.8
SHM-10-16	11/29/2016	**1,600**	**43,000**	1,700	320	21	2.8	2.8	6.76	0.523	5.87	1.12	9.1	-101.9
SHM-10-16	06/02/2017	**1,800**	**79,000**	**4,000**	190	25	2.7	8.5	6.77	0.704	6.36	6.65	10.9	-68.0
SHM-10-16	11/17/2017	**1,200**	**40,000**	**1,800**	290	20	2.2	3.2	6.93	0.429	4.74	0.30	9.3	-75.5
SHM-10-16	11/15/2018	**1,100**	**37,000**	1,700	260	21	2.1	3.9	6.64	0.756	0.50	0.33	9.0	-50.1
SHM-10-16	11/13/2019	**1,200**	**37,000**	1,700	280	24	1.9	3.7	6.50	0.560	11.0	0.69	7.6	42.0
SHM-10-16	05/06/2020	**1,100**	**34,000**	**1,900**	--	--	--	--	6.69	0.685	0.97	0.79	9.3	-80.9
SHM-10-16	11/12/2020	**1,100**	**29,000**	**2,100**	290	26	1.8	3.9	6.76	0.533	14.9	0.49	9.3	-29.7
SHM-10-16	10/22/2021	**1,100**	**33,000**	**2,100**	280 J	31	2.1	5.9	6.48	0.560	20.9	0.78	12.1	-91.2
SHM-10-16	05/25/2022	**1,100**	**32,000**	**2,100**	220	30	1.7	6.1	6.64	0.647	8.35	0.33	10.7	-74.5
SHM-10-16	08/29/2022	**990**	**31,000**	**2,000**	220	32	1.8	5.9	6.63	0.594	8.69	0.20	12.5	-34.2
SHM-10-16	10/18/2022	**1,000**	**30,000**	**2,400**	250	30	1.7	5.3	6.56	0.638	16.1	0.68	13.1	-161.6
SHM-10-16	11/17/2022	**1,100**	**35,000**	**2,300**	170	33	1.7	6.9	6.69	0.534	6.13	1.31	9.5	-99.3
SHM-10-16	10/25/2023	**940**	**28,000**	**2,600**	250	30	1.7	6.2	6.59	0.471	8.3	0.38	12.4	-87.1
SHM-11-02	10/22/2012	7.1	2,000	--	228	42	--	16	7.32	0.468	19.6	0.21	14.4	-135.0
SHM-11-02	11/20/2013	3.2 J	2,470	146	92	35	38	9.9 J	8.38	0.241	21.3	0.30	10.8	-279.2
SHM-11-02	04/24/2014	2.0 U	1,270	268	52	35	42	5.3 J	7.23	0.196	22.7	0.79	10.8	-118.3
SHM-11-02	10/08/2014	2.0 U	5,030	224	109	41	21	1.2 J	7.91	0.351	19.0	0.06	15.4	-289.0
SHM-11-02	06/05/2015	2.0 U	1,720	479	44	37	39	0.50 U	7.35	0.232	8.50	0.13	17.1	-195.4
SHM-11-02	10/27/2015	4.0 U	3,340	278	51	36	28	5.0 U	7.21	0.247	13.0	0.40	12.3	-232.6
SHM-11-02	06/27/2016	3.0	**12,000**	310	130	49	2.9	0.80 U	7.33	0.400	22.7	19.40	0.4	-188.0
SHM-11-02	11/16/2016	3.0 U	**15,000**	330	140	45	3.1	1.0 U	7.32	0.343	11.7	0.79	11.8	-139.9
SHM-11-02	05/31/2017	3.0 U	**13,000**	280	140	45	3.4	1.0 U	7.39	0.312	8.14	0.19	12.3	-209.6
SHM-11-02	11/06/2017	2.5 J	**14,000**	330	160	47	1.9	1.7	7.26	0.500	5.25	0.31	13.1	-177.6
SHM-11-02	04/19/2018	2.0 J	**17,000**	310	160 J	46	1.8	1.0 U	7.57	0.505	9.99	1.05	8.8	-198.5
SHM-11-02	11/07/2018	8.7	**31,000**	**1,900**	280	45	70	1.0 U	6.94	0.841	34.1	0.52	15.1	-144.0
SHM-11-02	04/26/2019	**37**	**34,000**	**2,300**	280	44	2.6	1.0 U	7.60	0.750	8.60	0.40	12.0	-240.0
SHM-11-02	11/13/2019	**33**	**22,000**	1,600	250	47	1.0 U	1.1	7.40	0.630	9.90	0.24	9.5	-190.0
SHM-11-02	05/19/2020	**13**	**12,000**	880	220	44	1.6	1.4	6.96	0.526	8.29	0.39	14.1	-131.0
SHM-11-02	11/03/2020	**12**	**11,000**	830	250	42	1.3 U	0.85 J	7.16	0.533	10.4	0.46	9.2	41.3
SHM-11-02	05/24/2021	**16**	8,400	640	240	48	1.3	7.5	7.49	0.371	12.2	3.51	13.4	-131.7
SHM-11-02	10/26/2021	3.0 U	100	38	78	44	1.7	1.0 U	9.34	0.344	24.1	1.10	8.5	-207.9
SHM-11-02	05/06/2022	**14**	8,900	750	200	50	1.4	4.3	7.49	0.461	5.5	0.79	11.8	-199.0
SHM-11-02	10/14/2022	**7.1**	7,000	550	160	50	1.4	1.6	7.51	0.468	11.6	0.96	12.8	-207.8
SHM-11-02	06/16/2023	3.0 U	670	120	69	48	1.5	0.41 J	8.43	0.351	18.3	0.66	15.8	-237.0
SHM-11-02	10/20/2023	**13**	**9,900**	690	210	62	4.7	6.2	7.36	0.413	47.8	0.67	16.0	-107.3
SHM-11-06	10/22/2012	**920**	**84,100**	--	287	21	--	5.0 U	6.41	0.561	4.24	1.80	13.1	-83.0
SHM-11-06	05/28/2013	**1,020**	**73,200**	990	262	20	3.1	6.8	6.54	0.495	3.19	0.34	12.1	-105.7
SHM-11-06	11/20/2013	**1,000**	**74,600**	938	220	23	3.2	6.8 J	6.45	0.578	2.23	0.36	9.3	-104.4
SHM-11-06	10/08/2014	**825**	**63,600**	818	173	36	2.7	5.2 J	6.53	0.633	2.18	0.20	12.7	-88.3
SHM-11-06	10/27/2015	**821**	4,680	687	118	41	2.2	14	6.62	0.492	0.74	0.65	11.4	-131.2
SHM-11-06	11/16/2016	**900**	**56,000**	1,400	170	50	--	0.77 J	6.30	0.433	5.17	1.40	11.8	-67.1
SHM-11-06	06/06/2017	**730**	**67,000**	1,700	160	54	1.9	2.2	6.12	0.415	6.12	0.31	8.9	-59.9
SHM-11-06	11/07/2017	**780**	**62,000**	1,400	150	50	1.8	5.9	6.52	0.413	7.21	0.31	11.5	-54.9
SHM-11-06	04/13/2018	**600**	**56,000**	1,400	160	49	1.9	7.4	7.18	0.524	1.70	0.70	11.6	12.7
SHM-11-06	11/12/2018	**750**	**64,000**	1,400	140	48	1.9	6.2	6.53	0.560	14.0	0.22	12.5	-69.9
SHM-11-06	04/18/2019	**680**	**59,000**	1,300	140	48	1.9	8.4	6.60	0.590	17.0	0.90	9.3	-72.0
SHM-11-06	11/01/2019	**780**	**69,000**	1,700	190	46	2.1	8.6	6.30	0.640	3.40	0.18	10.0	-61.0
SHM-11-06	05/20/2020	**750**	**77,000**	**2,000**	220	50	2.1	4.7	5.77	1.060	0.02	3.21	15.4	-38.3
SHM-11-06	11/02/2020	**620**	**62,000 J**	1,600 J	150	55	1.8	9.6	6.13	0.245	9.40	2.04	13.5	165.0
SHM-11-06	05/19/2021	**710**	**63,000**	**1,800**	160	59	2.0	11	6.31	0.109	18.1	0.98	13.2	-75.0
SHM-11-06	11/09/2021	**870**	**74,000**	**2,400**	200	58	1.5	5.5	6.52	0.890	6.58	1.1	12.4	-67.8

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-11-06	05/04/2022	**770**	**78,000**	**1,900**	210	60	2.7	5.1	6.18	0.588	5.23	0.92	10.5	-80.4
SHM-11-06	10/14/2022	**630**	**54,000**	1,400	180	65	2.4	15	6.03	0.703	4.44	0.85	13.0	-74.8
SHM-11-06	06/15/2023	**650**	**60,000**	1,300	190	92	2.8	21	6.27	1.007	8.30	0.66	13.4	-87.1
SHM-11-06	10/26/2023	**800**	**76,000**	**1,800**	190	78	3.4	13	6.39	0.162	0.96	0.54	18.6	-51.1
SHM-13-01	11/21/2013	2.2 J	30 U	7.4 J	25	32	0.82 J	12	6.46	0.163	0.31	6.48	10.2	165.1
SHM-13-01	10/27/2015	2.1 J	100 U	15 U	14	48	0.47 J	7.6	6.13	0.198	0.61	7.92	10.9	99.9
SHM-13-01	11/28/2017	1.5 J	75 U	5.9	16	95	0.50 U	6.7	6.20	0.306	0.40	6.41	10.3	58.6
SHM-13-01	11/26/2018	1.5 J	50 U	5.7 J	17	130	1.0 U	7.6	5.99	0.476	3.97	8.45	11.1	114.0
SHM-13-01	11/14/2019	1.9 J	50 U	3.3 J	17	340	0.93 J	9.5	5.80	1.100	9.00	4.50	11.0	110.0
SHM-13-01	11/09/2020	3.0 U	50 U	10 U	20	150	1.2 U	8.7	5.69	4.690	2.95	4.26	11.8	230.0
SHM-13-01	11/08/2021	1.7 J	50 U	2.4 J	32	110	0.8 U	7.8	6.03	0.300	0.71	0.12	12.1	174.0
SHM-13-01	10/26/2022	2.2 J	130	2.4 J	23	83	0.74 U	12	5.42	0.387	2.81	6.95	15.0	262.5
SHM-13-01	10/31/2023	1.7 J	50 U	1.3 J	29	290	0.71 J	14	5.71	0.829	3.76	7.45	10.5	131.1
SHM-13-02	05/29/2013	2.5	30 U	**7,960**	160	9.5	34	6.5	7.23	0.311	0.22	0.16	11.5	-107.7
SHM-13-02	11/21/2013	2.7 J	250	**9,490**	161	8.0	1.9	5.7 J	6.99	0.024	1.84	0.10	10.9	-17.0
SHM-13-02	10/10/2014	2.6 J	261	**15,800**	220	31	1.6	5.0 J	6.72	0.430	0.26	0.22	12.0	-8.6
SHM-13-02	10/23/2015	2.6	100 U	**13,200**	155	15	1.7	10	6.83	0.302	0.96	0.26	11.0	4.9
SHM-13-02	11/29/2016	1.8 J	35 J	**12,000**	170	21	1.6	6.8	6.84	0.382	2.65	1.31	10.3	41.3
SHM-13-02	11/27/2017	3.0 U	59 J	**20,000**	180	120	2.1	8.1	6.66	0.510	0.25	3.04	10.8	86.0
SHM-13-02	11/15/2018	3.0 U	50 U	**17,000**	98	160	1.7	8.9	6.12	0.509	0.63	0.59	8.7	75.0
SHM-13-02	11/11/2019	3.0 U	50 U	**9,400**	160	51	1.7	7.1	6.50	0.430	4.60	4.30	11.0	46.0
SHM-13-02	11/05/2020	3.0 U	50 U	74	110	41	1.5 U	4.4	4.93	0.315	5.60	1.15	10.8	14.4
SHM-13-02	11/08/2021	3.0 U	50 U	69	120	43	0.99 J	4.2	6.45	0.263	10.3	0.05	13.7	150.0
SHM-13-02	10/26/2022	3.0 U	50 U	**2,500**	100	42	1.5 U	6.6	5.59	0.375	2.38	2.99	14.9	194.3
SHM-13-02	10/27/2023	1.3 J	37 J	**10,000**	170	20	1.4 J	3.2	6.36	0.322	0.02	0.03	16.3	86.3
SHM-13-03	05/29/2013	**318**	**13,600**	**6,740**	372	39	4.4	5.6	6.56	0.730	1.20	0.14	11.7	-99.2
SHM-13-03	11/20/2013	**137**	**11,200**	**9,640**	391	38	4.3	5.0 J	6.50	0.563	0.54	0.40	10.3	-41.8
SHM-13-03	04/23/2014	**120**	6,770	**7,990**	287	24	7.3	4.7 J	6.10	0.433	0.22	0.16	9.3	-12.5
SHM-13-03	10/10/2014	**81**	7,590	**12,100**	390	38	3.7	4.7 J	6.53	0.557	0.69	0.13	12.6	-57.7
SHM-13-03	06/08/2015	**76**	7,190	**12,600**	380	37	6.6	6.6 J	6.48	0.677	3.98	0.25	13.2	-71.3
SHM-13-03	10/23/2015	**69**	6,610	**10,800**	273	37	3.9	5.4 J	6.43	0.473	0.81	0.29	12.6	-91.4
SHM-13-03	06/28/2016	**53**	5,500	**9,300**	300	37	4.1	2.8	6.33	0.590	5.41	16.38	1.2	-46.4
SHM-13-03	11/28/2016	**55**	5,800	**8,400**	120	93	1.9	7.3	6.63	0.544	2.40	1.40	9.9	-40.7
SHM-13-03	06/07/2017	**46**	3,900	**8,900**	290	32	3.8	7.4	7.00	0.661	4.74	0.66	8.1	-65.6
SHM-13-03	11/27/2017	**46**	4,000	**12,000**	180	130	2.5	4.2	6.61	0.452	0.97	3.02	11.4	119.3
SHM-13-03	04/25/2018	**26**	830	**9,900**	320	44	3.0	5.8	6.66	0.702	7.66	0.89	10.0	-18.5
SHM-13-03	11/19/2018	**44**	2,000	**13,000**	120	160	2.5	3.8	6.52	0.993	3.77	0.23	9.8	59.9
SHM-13-03	04/16/2019	**110**	7,000	**8,400**	200	200	2.5	4.6	6.40	1.100	3.60	0.37	8.1	4.0
SHM-13-03	11/11/2019	**140**	8,600	**10,000**	280	32	2.5	6.0	6.40	0.620	0.98	0.40	11.0	-1.0
SHM-13-03	05/21/2020	**150**	**10,000**	**11,000**	220	180	2.3	2.9	5.08	0.658	3.60	0.42	11.3	44.7
SHM-13-03	10/29/2020	**83**	6,200	**7,500**	140	64	2.6	3.5	6.17	0.290	128.0	2.89	14.7	239.0
SHM-13-03	06/17/2021	**49**	6,500	**12,000**	99	180	3.2	6.5	6.42	0.753	22.1	0.72	17.8	-5.5
SHM-13-03	11/05/2021	**39**	3,900	**11,000**	260 J	90	3.1	3.3	7.25	0.605	5.81	0.02	11	44.8
SHM-13-03	05/06/2022	**53**	3,800	**8,400**	210	59	2.5	3.6	6.34	0.150	22.9	0.23	10.7	-16.9
SHM-13-03	10/20/2022	**69**	4,900	**7,500**	160	52	1.8	3.7	7.05	0.525	15.3	1.09	15.6	-11.5
SHM-13-03	06/20/2023	**180**	7,500	**7,200**	220	34	2.1	4.5	6.45	0.596	1.6	0.22	17.9	-53.1
SHM-13-03	10/27/2023	**280**	**10,000**	**6,300**	160	120	1.9	4.9	6.32	0.643	24.9	0.01	13.9	-46.6
SHM-13-04	05/28/2013	**2,060**	**40,900**	**2,130**	40	200	1.8	10	6.46	0.717	3.63	0.71	11.7	-73.6
SHM-13-04	04/24/2014	**61**	334	238	30	167	0.92 J	10	6.35	0.866	2.18	3.21	10.6	92.4
SHM-13-04	10/13/2014	**693**	6,410	392	41	110	1.6	13	6.48	0.464	2.31	2.04	11.9	-13.2
SHM-13-04	06/09/2015	**620**	**12,500**	843	33	175	1.1 J	14	5.89	0.680	2.68	2.01	11.6	41.1
SHM-13-04	10/28/2015	**212**	4,620	429	38	175	0.94	12	6.43	0.595	3.49	1.81	11.9	-19.3
SHM-13-04	06/28/2016	**20**	110	72	39	310	1.2	15	6.29	1.251	10.8	14.58	3.2	153.6
SHM-13-04	11/28/2016	**140 J**	2,500	260 J	48	180	0.93 J	11	6.31	0.750	11.4	3.86	12.2	44.0
SHM-13-04	06/06/2017	**350**	4,700	**3,700**	57	57	1.3	57	6.32	0.617	12.9	3.97	9.5	69.9
SHM-13-04	11/14/2017	**160**	3,200	520	42	250	0.50 U	13	6.65	0.813	4.93	2.19	11.9	65.1
SHM-13-04	04/17/2018	**340**	5,900	620	61	200	1.2	7.9	6.59	0.850	11.2	3.20	11.0	14.2
SHM-13-04	11/13/2018	**190 J**	2,400	180	45	120	1.0 U	9.7	6.63	0.565	49.5	5.82	12.3	7.3
SHM-13-04	04/15/2019	**430**	2,400	100	41	75	0.50 U	9.8	6.50	0.380	26.0	4.70	11.0	40.0
SHM-13-04	11/12/2019	**600**	3,400	84	46	250	1.1	11	6.30	1.000	2.50	4.00	10.0	58.0
SHM-13-04	05/20/2020	**200**	1,300	100	44	160	0.89 J	8.0	6.42	0.640	10.4	6.05	13.4	49.1
SHM-13-04	11/06/2020	**260 J**	2,400	160	36	100	1.0 U	10	6.13	0.134	3.70	1.15	12.4	217.0
SHM-13-04	06/15/2021	**68**	680	61	36	290	1.9 U	12	6.20	1.129	49.3	5.01	14.0	72.8
SHM-13-04	10/26/2021	**31**	60	18	41	170	1.0	9.3	6.18	0.595	60.3	5.86	13.3	130.0
SHM-13-04	05/06/2022	**50**	410	24	33	330	1.1	7.7	6.13	0.311	69.8	5.30	12.0	117.0
SHM-13-04	10/13/2022	**96**	540	17	38	560	1.0	9.0	5.94	1.815	71.7	6.68	13.8	141.7
SHM-13-04	06/16/2023	**320**	2,600	120	33	240	1.2 J	10	6.11	1.022	1.1	4.73	15.3	37.5
SHM-13-04	10/24/2023	**63**	550	61	40	130	0.89	9.6	6.16	0.282	66.9	5.17	13.3	71.6
SHM-13-05	05/28/2013	8.9	597	**4,680**	423	37	4.7	12	6.88	0.629	2.05	0.27	11.1	-136.0
SHM-13-05	11/21/2013	6.8	1,860	**5,720**	425	42	4.5	11	7.94	0.044	2.11	0.44	10.3	-154.6
SHM-13-05	10/13/2014	**11**	4,580	**5,940**	455	36	3.6	8.4 J	6.88	0.686	1.11	0.44	11.0	-159.0
SHM-13-05	10/28/2015	**12**	3,470	**3,660**	359	43	3.9	13	6.94	0.688	0.74	0.39	11.2	-94.1
SHM-13-05	11/28/2016	**11**	3,700	**3,500**	360	41	3.0	12	6.88	0.808	0.84	1.76	10.7	-52.9
SHM-13-05	11/16/2017	8.4	3,000	**3,600**	410	38	2.8	9.9	6.98	0.656	3.20	0.37	10.7	-46.9
SHM-13-05	11/13/2018	**12**	3,300	**3,600**	390	37	2.6	12	7.23	0.831	25.6	0.51	10.5	-58.4
SHM-13-05	11/12/2019	**16**	3,100	**3,400**	410	39	2.5	12	6.80	0.740	15.0	0.36	9.3	48.0
SHM-13-05	11/06/2020	6.4	1,000	1,100	140	38	2.0 U	7.9	6.86	5.000	14.2	0.06	16.1	-131.0
SHM-13-05	10/26/2021	**18**	3,500	**2,900**	410	42	2.7	11	6.92	0.730	0.56	1.08	12.5	-122.0
SHM-13-05	10/13/2022	**17**	2,500	**3,300**	360	36	2.3	7.6	6.81	0.742	0.92	0.92	14.8	-85.5
SHM-13-05	10/25/2023	**8.0**	1,500	**4,400**	54	31	10	2.1	6.03	0.136	0.02	0.11	13.9	-42.3
SHM-13-06	06/13/2013	**3,180 J**	**19,700 J**	**1,830**	84	19	1.0	6.4	7.16	0.287	4.07	0.14	12.4	-154.4
SHM-13-06	11/21/2013	**2,540**	**39,900 J**	**2,490**	33	145	1.5	11	6.84	0.587	1.24	0.25	11.3	-119.4
SHM-13-06	04/24/2014	**2,850**	**25,000**	**1,820**	61	70	1.5	8.9 J	6.94	0.446	2.51	0.28	11.7	-104.3
SHM-13-06	10/13/2014	**2,360**	**25,400**	1,570	46	130	1.1	9.9 J	7.04	0.569	1.23	0.10	12.0	-145.6
SHM-13-06	06/08/2015	**2,460**	**35,200**	**1,840**	40	240	0.91 J	10	7.00	0.924	1.53	0.18	11.8	-128.2
SHM-13-06	12/22/2015	**2,160**	**32,600**	1,640	57	192	1.0	9.1	--	--	--	--	--	--
SHM-13-06	06/28/2016	**2,500**	**30,000**	1,400	70	130	1.4	7.1	6.55	0.666	8.36	14.44	0.4	-98.2
SHM-13-06	11/28/2016	**2,700**	**27,000**	1,200	80	110	1.4	6.5	7.10	0.429	11.7	0.46	12.0	-123.4
SHM-13-06	06/06/2017	**2,800**	**36,000**	**3,100**	110	110	1.9	110	6.84	0.638	6.03	0.64	12.9	-100.1
SHM-13-06	11/14/2017	**2,700**	**43,000**	**2,100**	86	130	1.3	5.1	7.07	0.518	17.2	0.32	11.6	-103.1
SHM-13-06	04/17/2018	**2,700**	**29,000**	**2,200**	85	80	1.2	5.1	7.10	0.441	3.01	0.57	10.6	-106.1
SHM-13-06	11/13/2018	**2,400**	**25,000**	1,400	89	140	1.4	6.7	7.67	0.720	54.6	0.45	11.4	-133.0
SHM-13-06	04/16/2019	**3,100**	**18,000**	1,100	73	70	1.4	6.3	6.40	0.450	6.60	0.79	7.8	-51.0
SHM-13-06	11/12/2019	**1,900**	**18,000**	880	44	100	1.0	5.7	6.40	0.440	11.0	0.45	10.0	41.0
SHM-13-06	05/19/2020	**2,900**	**22,000**	1,200	57	95	1.1	2.7 J	6.70	0.402	29.2	0.53	11.5	22.3
SHM-13-06	11/09/2020	**2,200**	**20,000**	980	51	120	1.7 U	6.7	6.35	0.498	77.3	0.85	14.6	-26.3
SHM-13-06	06/16/2021	**2,200**	**20,000**	1,200	57	63	3.9	6.3	7.15	0.371	35.3	0.62	17.7	-143.9
SHM-13-06	11/04/2021	**1,800**	**18,000**	1,500	68	99	0.8 U	8.3	7.57	0.407	3.82	0.45	14.1	-65.2
SHM-13-06	05/06/2022	**2,400**	**15,000**	1,100	56	34	1.2	6.2	6.95	0.076	8.6	0.53	13.0	-131.0
SHM-13-06	10/13/2022	**2,300**	**15,000**	1,400	54	24	1.1	3.6	6.97	0.236	17.5	0.95	13.4	-115.3
SHM-13-06	06/16/2023	**2,300**	**21,000**	1,300	43	110	0.95 J	6.9	6.71	0.541	4.4	0.24	15.7	-116.3
SHM-13-06	10/26/2023	**2,200**	**14,000**	730	56	85	1.0	6.2	6.86	0.296	2.5	0.05	15.5	-124.2
SHM-13-07	11/21/2013	**1,340**	**30,000**	**2,710**	45	225	1.6	12	6.80	0.773	4.70	0.14	12.5	-97.4
SHM-13-07	04/24/2014	**1,280**	**39,200**	**3,660**	31	212	1.2	7.7 J	6.84	0.734	26.8	0.29	11.0	-106.1
SHM-13-07	10/10/2014	**962**	**25,200**	**2,160**	62	165	8.8	16	6.90	0.787	4.90	0.15	12.8	-126.3
SHM-13-07	06/08/2015	**946**	**18,800**	**3,460**	57	120	3.2	10	6.82	0.565	24.8	0.19	12.7	-60.7
SHM-13-07	10/23/2015	**531**	**11,500**	1,390	91	68	1.7	12	6.88	0.366	4.83	0.17	12.4	-140.2
SHM-13-07	06/28/2016	**320**	**29,000**	**4,900**	80	260	1.5	6.7	6.28	0.990	9.72	15.01	0.8	-47.1
SHM-13-07	11/28/2016	**140**	9,100	**1,800**	85	200	1.4	9.8	6.57	0.918	13.0	2.10	12.0	-9.1

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-13-07	06/07/2017	**230**	6,900	790	87	49	2.0	8.9	6.30	0.267	19.2	0.22	11.5	-15.3
SHM-13-07	11/28/2017	**620**	**16,000**	**2,700**	97	230	1.4	8.2	7.52	0.874	5.24	0.26	12.1	-67.3
SHM-13-07	04/17/2018	**470**	**18,000**	**2,300**	86	120	1.4	7.9	6.83	0.610	6.17	0.82	10.8	-53.9
SHM-13-07	11/20/2018	**490**	**20,000**	**2,200**	260	95	6.4	5.2	6.60	0.630	25.2	0.21	9.8	-27.0
SHM-13-07	04/16/2019	**470**	**23,000**	**3,100**	60	100	1.4	5.8	6.20	0.560	12.0	0.49	8.6	-18.0
SHM-13-07	11/11/2019	**750**	**27,000**	**4,700**	65	180	1.2	4.9	6.40	0.770	16.0	0.15	12.0	-39.0
SHM-13-07	05/22/2020	**400**	**12,000**	**2,500**	72	96	1.2	7.5	5.64	0.471	8.63	0.92	17.4	199.0
SHM-13-07	11/05/2020	**420**	**15,000**	**2,000**	44	170	1.0 U	8.4	6.55	0.612	15.9	0.27	18.0	-120.0
SHM-13-07	06/15/2021	**290**	**14,000**	**1,700**	58	160	4.4	6.4	6.63	0.647	35.7	0.72	14.8	-62.3
SHM-13-07	11/04/2021	**290**	**18,000**	**2,400**	56	210	0.8 U	4.0 J	7.10	0.692	0.7	0.19	14	5.1
SHM-13-07	05/06/2022	**210**	**12,000**	1,200	48	120	1.0	10	6.50	0.141	4.7	0.23	11.9	-53.2
SHM-13-07	10/13/2022	**350**	**15,000**	**2,000**	54	97	1.2	5.5	6.58	0.445	11.1	0.92	13.8	-63.3
SHM-13-07	06/16/2023	**280**	**18,000**	**2,400**	41	73	0.79 J	7.6	6.23	0.371	5.3	0.32	15.2	-52.3
SHM-13-07	10/26/2023	**580**	**12,000**	1,300	65	45	1.0	4.8	6.61	0.203	4.9	0.01	14.0	-82.1
SHM-13-08	06/13/2013	**928**	**35,900**	941	141	8.5	2.8	7.3	6.84	0.378	2.92	0.74	12.8	-122.4
SHM-13-08	11/21/2013	**994**	**35,400**	826	116	8.0	3.2	3.7 J	6.84	0.323	0.98	0.24	11.3	-131.1
SHM-13-08	04/24/2014	**1,040**	**50,600**	1,170	173	15	3.8	4.9 J	6.89	0.439	1.14	0.38	11.3	-123.8
SHM-13-08	10/13/2014	**978**	**52,200 J**	1,160	140	130	3.6	6.5 J	6.90	0.733	0.39	0.16	11.8	-146.1
SHM-13-08	06/08/2015	**975**	**113,000**	**2,180**	112 J	140 J	2.4 J	0.50 U	6.76	0.376	6.10	0.83	14.1	-88.1
SHM-13-08	10/28/2015	**954**	**78,000**	1,620	126	145	2.8	10	6.46	0.728	3.21	0.47	11.3	-148.0
SHM-13-08	06/29/2016	**770**	**68,000**	1,600	90	140	2.6	2.7	6.54	0.782	3.58	15.68	0.3	-106.1
SHM-13-08	11/28/2016	**870**	**62,000**	1,500	200	74	2.9	4.0	6.93	0.714	3.01	1.74	11.9	-132.2
SHM-13-08	06/06/2017	**900**	**74,000**	**2,100**	67	240	2.4	4.4	6.73	1.084	9.89	0.37	10.8	-45.9
SHM-13-08	11/14/2017	**810**	**54,000**	1,400	90	130	2.1	3.5	7.05	0.464	6.94	0.55	11.1	-117.3
SHM-13-08	04/17/2018	**830**	**48,000**	1,300	95	95	2.6	4.8	6.82	0.556	1.83	0.68	10.8	-78.3
SHM-13-08	11/19/2018	**310**	**32,000**	940	250	50	3.2	4.1	6.71	0.442	33.2	0.39	9.8	29.8
SHM-13-08	04/16/2019	**800**	**30,000**	760	73	31	2.0	3.7	6.50	0.320	5.30	0.36	9.4	-66.0
SHM-13-08	11/11/2019	**930**	**41,000**	970	100	33	1.9	4.4	6.40	0.390	4.70	0.55	11.0	70.0
SHM-13-08	05/22/2020	**630**	**19,000**	410	110	17	2.1	2.8	5.05	0.314	7.66	0.99	15.4	252.0
SHM-13-08	11/10/2020	**1,000**	**59,000**	2,100	150	72	2.7	5.2	5.57	0.409	14.3	3.62	10.9	94.3
SHM-13-08	05/27/2021	**890**	**50,000**	1,400	120	130	2.0	3.3	6.96	0.056	6.53	1.19	17.3	-155.5
SHM-13-08	11/04/2021	**820**	**38,000**	920	120	25	2.1	3.8	7.66	0.354	4.10	0.01	12.6	-109.0
SHM-13-08	05/06/2022	**890**	**37,000**	1,100	110	23	1.9	3.6	6.81	0.107	2.30	0.33	12.9	-133.0
SHM-13-08	10/13/2022	**890**	**38,000**	1,100	120	37	2.9	2.5	6.76	0.455	4.06	0.90	13.8	-121.3
SHM-13-08	06/20/2023	**780**	**23,000**	670	77	8.7	1.7	4.8	6.92	0.280	1.02	0.21	16.0	-137.4
SHM-13-08	10/25/2023	**930**	**32,000**	1,000	87	14	1.8	4.5	6.68	0.168	3.43	0.01	13.4	-131.8
SHM-13-14D	02/19/2014	7.9	**11,800**	1,190	81	48	1.9	12	6.85	0.349	26.0	0.09	9.2	-82.0
SHM-13-14D	10/10/2014	9.6	**20,900**	**2,910**	44	320	1.3	7.2 J	6.75	1.233	1.24	0.19	12.4	-79.6
SHM-13-14D	12/02/2016	9.1	4,900	1,400	48	130	0.93 J	7.5	6.82	0.478	70.0	2.37	13.7	23.9
SHM-13-14D	11/27/2017	**11**	1,600	190	77	56	1.7	7.7	6.87	0.332	5.58	3.29	10.8	159.9
SHM-13-14D	11/15/2018	6.1	2,600	370	83	75	1.8	6.4	6.58	0.474	2.51	0.59	11.0	31.4
SHM-13-14D	11/11/2019	**12**	2,600	470	74	120	1.4	7.0	6.40	0.490	0.78	0.24	11.0	29.0
SHM-13-14D	10/29/2020	3.0 U	50 U	380	53	120	1.9	15	5.83	0.305	5.90	0.67	11.4	158.0
SHM-13-14D	11/05/2021	3.3	3,800	720	71 J	34	0.8 U	4.9	6.54	0.202	5.68	0.95	11.1	-21.6
SHM-13-14D	11/02/2022	3.0 U	50 U	300	41	29	1.2	5.1	6.35	0.209	5.56	1.01	13.6	202.9
SHM-13-14D	10/27/2023	1.7 J	110	6.7 J	460	43	1.3 J	8.4	6.21	0.243	15.60	2.02	14.1	164.7
SHM-13-14S	02/19/2014	2.0 U	241	56	58	91	1.2	9.6 J	5.88	0.440	1.97	0.59	6.5	96.3
SHM-13-14S	10/10/2014	2.0 U	94 J	87	75	100	1.9	8.1 J	5.87	0.320	0.88	0.45	12.8	139.4
SHM-13-14S	12/02/2016	3.0 U	75 U	1,300	29	150	1.3	2.9	6.74	0.569	4.75	0.28	10.6	155.4
SHM-13-14S	11/27/2017	4.0	280	160	51	200	2.7	0.45 J	5.71	0.693	32.1	0.27	12.1	179.1
SHM-13-14S	11/15/2018	3.0 U	50 U	710	35	110	1.3	13	6.16	0.463	3.65	0.83	10.6	70.5
SHM-13-14S	11/11/2019	1.9 J	50 U	410	42	140	1.8	19	5.90	0.650	0.71	0.39	11.0	57.0
SHM-13-14S	10/29/2020	1.5 J	110	27	87	120	1.8	7.3	6.56	0.394	12.7	0.67	11.2	14.5
SHM-13-14S	11/05/2021	3.0 U	18 J	39	6.4 J	100	0.8 U	16	6.34	0.344	10.3	0.51	9.8	147.0
SHM-13-14S	11/02/2022	3.0 U	50 U	160	33	73	1.2 J	12	5.70	0.374	8.49	1.94	14.7	197.0
SHM-13-14S	10/27/2023	1.5 J	49 J	15	29	100	0.94 J	12	5.83	0.409	2.8	2.22	13.7	174.3
SHM-13-15	02/19/2014	3.8 J	623	**4,860**	273	46	2.9	7.7 J	6.59	0.642	42.3	0.44	9.2	-172.7
SHM-13-15	10/10/2014	8.1	1,050	**4,480**	315	38	2.8	5.5 J	6.56	0.704	0.23	0.15	13.4	20.4
SHM-13-15	12/02/2016	5.5	1,400	**3,600**	200	82	1.8	8.2	6.58	0.612	0.94	0.24	12.2	-6.9
SHM-13-15	11/27/2017	5.7	1,100	**7,200**	380	48	3.4	10	7.27	0.790	7.52	0.74	10.5	12.7
SHM-13-15	11/15/2018	1.6 J	200	1,000	150	84	1.8	7.7	7.20	0.607	1.00	0.33	9.0	46.5
SHM-13-15	11/11/2019	5.1	770	**5,800**	430	43	3.2	9.6	6.10	0.920	2.90	0.41	11.0	44.0
SHM-13-15	10/29/2020	7.1	1,200	**4,300**	320	42	2.5	5.4	11.20	0.275	15.7	1.08	19.4	-122.0
SHM-13-15	11/05/2021	1.8 J	110	**2,300**	260 J	66	3.1	6.3	7.79	0.530	6.41	0.01	10.7	61.3
SHM-13-15	10/31/2022	7.0	850	**4,300**	270 J	54	2.5	12	6.64	0.727	13.1	1.03	14.2	19.2
SHM-13-15	10/27/2023	1.7 J	36 J	**3,500**	230	63	1.7	5.7	6.70	0.599	3.1	1.18	13.2	86.2
SHM-93-10C	10/16/2007	--	--	--	--	--	--	--	--	--	--	--	--	--
SHM-93-10C	10/14/2010	--	--	--	170	23	--	1.9	7.31	0.469	1.00	0.30	12.1	-30.7
SHM-93-10C	10/16/2012	--	--	--	180	23	--	18	7.28	0.434	1.0	1.23	9.5	16.3
SHM-93-10C	10/22/2015	**12**	100 U	15 U	162	23	1.0 U	20	7.69	0.342	0.48	2.38	12.2	43.3
SHM-93-10D	10/29/2019	3.0 U	73	2.1 J	54	29	0.95 J	17 J	12.00	0.400	20.0	0.51	11.0	88.0
SHM-93-10D	11/11/2020	3.0 U	490	9.9 J	53	30	1.2	18	5.86	0.392	8.50	0.69	12.6	216.0
SHM-93-10D	11/10/2021	3.0 U	140	3.6 J	42	30	0.47 J	19	11.00	0.212	14.0	0.01	12.0	-4.6
SHM-93-10D	10/21/2022	1.6 J	140	2.5 J	54	31	1.4 J	20	11.20	0.288	41.8	1.77	15.1	81.6
SHM-93-10D	11/01/2023	1.1 J	63 J	1.6 J	49	32	1.2 J	22	10.77	0.226	24.3	1.35	10.0	-58.8
SHM-93-18B	11/13/2019	3.0 U	50 U	1.4 J	60	51	0.61 J	33	7.70	0.320	1.90	7.60	9.2	2.3
SHM-93-18B	11/12/2020	3.0 U	50 U	450	49	140	0.83 J	34	6.45	0.322	42.0	0.90	9.1	-24.2
SHM-93-18B	11/08/2021	3.0 U	50 U	520	56	170	0.8 U	35	6.08	0.661	0.1 U	0.98	12.6	204.0
SHM-93-18B	05/31/2022	3.0 U	50 U	860 J	44	180	0.6 U	33	6.36	0.794	2.55	0.24	12.3	69.8
SHM-93-18B	08/25/2022	0.93 J	50 U	570 J	46	200	0.54 J	34	6.16	0.789	4.14	0.34	17.9	139.0
SHM-93-18B	11/03/2022	3.0 U	50 U	750	45	220	0.5 J	34	6.14	0.571	3.88	1.21	17.5	141.1
SHM-93-18B	11/09/2022	3.0 U	50 U	680	45	210	1.0 U	33	6.25	0.751	1.36	0.39	11.9	152.0
SHM-93-18B	11/03/2023	3.0 U	50 U	790	49	270	3.8	34	6.20	0.575	0.61	0.69	12.4	-12.9
SHM-93-22B	04/21/2010	--	--	--	380	22	--	4.4	6.71	0.953	5.20	0.11	8.1	-125.0
SHM-93-22B	10/11/2010	--	--	--	350	24	--	3.7	6.52	0.745	1.18	0.29	9.5	-83.2
SHM-93-22B	04/06/2011	--	--	--	330	26	--	3.5 U	6.57	0.749	8.60	0.23	7.0	-78.8
SHM-93-22B	10/11/2011	--	--	--	330	23	--	3.6	6.36	0.704	5.00	0.16	11.1	-63.0
SHM-93-22B	04/10/2012	--	--	--	340 J	19	--	1.9 U	6.25	0.908	95,000	0.37	8.7	-59.8
SHM-93-22B	10/17/2012	--	--	--	340	22	--	4.4	6.54	0.415	39.0	0.55	10.8	-141.4
SHM-93-22B	05/28/2013	**1,150**	**30,000**	**9,680**	337	22	2.9	4.5 U	6.57	0.471	71.0	0.22	8.9	80.4
SHM-93-22B	10/23/2013	**1,150**	**31,300**	**9,450**	334	21	--	4.4 J	6.59	0.485	1.20	0.39	10.2	1.8
SHM-93-22B	04/24/2014	**997**	**28,300 J**	**10,600 J**	329	22	2.8	2.9 J	6.48	0.734	0.45	0.14	7.6	-66.3
SHM-93-22B	10/08/2014	**690**	**19,300**	**11,700**	338	21	2.7	4.9 J	6.51	0.503	3.44	0.29	10.3	-43.8
SHM-93-22B	06/08/2015	**1,050**	**19,500**	**12,100**	309	19	2.2	3.3 J	6.39	0.628	9.60	0.65	9.5	-49.3
SHM-93-22B	10/23/2015	**670**	**12,500**	**11,500**	283	18	4.0	5.2 J	5.27	0.475	10.6	0.41	9.1	2.7
SHM-93-22B	06/27/2016	**630**	**17,000**	**9,800**	290	18	2.2	1.5	6.37	0.570	10.9	11.31	1.7	-64.8
SHM-93-22B	11/17/2016	**480**	**12,000**	**9,100**	260	19	1.8	2.1	6.47	0.590	23.2	1.40	10.4	-45.9
SHM-93-22B	05/23/2017	**310**	**18,000**	**9,700**	230	21	2.1	1.9	6.30	0.626	34.7	0.48	8.7	1.0
SHM-93-22B	11/13/2017	**360**	**16,000**	**10,000**	240	25	1.8	1.9 J	6.48	0.418	7.68	0.41	9.8	-41.7
SHM-93-22B	04/24/2018	**270**	**17,000**	**9,500**	240	33	1.4	4.2	6.75	0.601	4.84	0.70	11.1	-34.5
SHM-93-22B	11/14/2018	**170**	8,600	**8,400**	230	33	1.7 U	4.4	6.62	0.658	3.99	0.48	11.5	-65.8
SHM-93-22B	04/12/2019	**83**	3,000	**9,500**	260	31	1.8	5.6	6.70	0.600	6.10	0.45	6.8	13.0
SHM-93-22B	11/04/2019	**370**	**11,000**	**10,000**	250	35	1.6	10	6.30	0.620	12.0	0.62	9.1	1.5
SHM-93-22B	05/21/2020	**170**	**10,000**	**9,300**	240	34	1.6	7.9	6.13	0.481	17.3	0.32	11.0	0.3
SHM-93-22B	11/03/2020	**300**	**12,000**	**9,000**	220	34	1.4 U	7.8	7.52	0.192	4.20	2.46	9.2	-13.9
SHM-93-22B	06/15/2021	**96**	6,500	**7,800**	220	36	1.8 U	9.7	6.64	0.373	12.1	2.15	10.3	-12.4
SHM-93-22B	11/04/2021	**440**	**13,000**	**9,500**	200	37	0.8 U	11	6.59	0.423	3.63	0.73	11.9	-65.5
SHM-93-22B	05/09/2022	**34**	1,100	**6,600**	190	39	1.4	12	6.81	0.107	2.30	0.33	12.9	-133.0
SHM-93-22B	10/25/2022	**120**	6,500	**9,300**	180	40	1.4 J	13	6.38	0.509	9.30	0.62	10.9	-13.6

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-93-22B	06/12/2023	**110**	5,000	**9,400**	180	40	1.3 J	17	6.20	0.531	13.90	0.74	11.0	-6.0
SHM-93-22B	10/27/2023	**300**	**10,000**	**9,500**	180	37	1.4	17	6.49	0.406	10.30	0.37	14.6	-56.0
SHM-93-22C	04/21/2010	--	--	--	110	10	--	6.1	8.23	0.321	2.20	1.10	11.3	-38.0
SHM-93-22C	10/12/2010	--	--	--	110	12	--	5.8	7.82	0.286	1.05	0.58	10.9	-103.1
SHM-93-22C	04/06/2011	--	--	--	120	10	--	6.0 U	8.84	0.284	0.00	0.78	9.9	-1.0
SHM-93-22C	10/05/2011	--	--	--	120	8.4	--	6.1	7.50	0.282	1.00	0.14	12.1	-42.0
SHM-93-22C	04/11/2012	--	--	--	120	9.9	--	6.6 U	7.46	0.361	1,600	1.26	8.2	-105.3
SHM-93-22C	10/17/2012	--	--	--	120	10	--	6.9	8.04	0.140	0.30	0.41	8.4	-163.1
SHM-93-22C	05/28/2013	**20**	568	140	133	10	3.6	7.5	7.83	0.196	3.37	0.45	10.7	-145.7
SHM-93-22C	10/23/2013	**25**	555	154	137	11	--	7.0 J	7.79	0.198	0.31	0.40	10.9	-164.8
SHM-93-22C	04/24/2014	**32**	397	145	140	11	3.5	6.3 J	7.77	0.294	0.82	0.17	8.9	-89.5
SHM-93-22C	10/08/2014	**46**	519	**8,800**	375	20	2.4	7.9 J	6.65	0.743	0.73	0.25	10.9	18.2
SHM-93-22C	10/23/2015	**137**	1,410	271	201	25	3.5	3.9 J	6.78	0.384	0.30	0.30	10.6	-127.1
SHM-93-22C	11/29/2016	**120**	850	260	200	23	2.7	1.3	7.74	0.451	3.27	0.82	9.0	-122.6
SHM-93-22C	11/13/2017	3.8	63 J	7.6	110	26	2.9	6.5	7.29	0.286	5.12	3.01	10.1	32.9
SHM-93-22C	11/14/2018	3.8	50 U	3.0 U	120	25	3.3	6.5	7.26	0.404	1.18	2.29	9.2	-62.7
SHM-93-22C	11/04/2019	4.3	50 U	3.0 U	120	22	3.2	7.6	7.60	0.320	4.30	2.30	9.0	31.0
SHM-93-22C	05/06/2020	4.5	50 U	3.0 U	--	--	--	--	7.46	0.305	0.85	2.74	8.8	28.1
SHM-93-22C	11/03/2020	4.4	50 U	10 U	120	20	2.8	5.1	5.86	0.046	2.99	8.09	12.0	257.0
SHM-93-22C	11/04/2021	5.0	50 U	1.5 J	140	20	3.1	5.6	7.60	0.241	0.1 U	2.54	11.4	-33.1
SHM-93-22C	10/25/2022	**11**	54 J	17	130	19	3.0	4.7	7.48	0.414	2.80	1.98	11.4	-42.1
SHM-93-22C	10/27/2023	8.0	50 U	1.4	130	19	2.7	5.8	7.48	0.242	2.80	1.29	13.0	2.8
SHM-93-24A	11/08/2019	3.0 U	50 U	7.7 J	22	180	2.1	54	5.80	0.713	12.4	9.40	11.5	124.0
SHM-93-24A	10/26/2020	3.0 U	50 U	6.4 J	25	190	0.68 J	55	6.17	0.324	124	1.07	12.0	2.6
SHM-93-24A	11/05/2021	3.0 U	50 U	20	6.4 J	180	0.8 U	94	6.12	0.745	1.68	7.01	13.4	152.5
SHM-93-24A	06/02/2022	3.0 U	50 U	6.4 J	23	180	0.6 U	49	6.09	0.774	5.22	7.24	12.6	76.1
SHM-93-24A	08/30/2022	1.2 J	50 U	6.4 J	26	210	0.89 J	41	5.90	0.790	1.65	7.77	16.0	151.0
SHM-93-24A	10/14/2022	3.0 U	50 U	11	15	210	0.71 J	45	5.26	0.806	0.38	8.53	13.4	233.3
SHM-93-24A	11/10/2022	3.0 U	50 U	7.4 J	20	180	0.75 J	40	6.00	0.632	0.59	3.43	14.2	177.0
SHM-93-24A	10/26/2023	3.0 U	50 U	13	25	190	1.0 J	52	5.71	0.791	7.50	7.60	17.9	208.0
SHM-96-5B	04/22/2010	--	--	--	330 J	19	--	4.4	6.51	0.883	0.18	0.16	10.2	-278.0
SHM-96-5B	10/11/2010	--	--	--	320	21	--	4.5	6.34	0.685	0.24	0.13	11.2	-35.0
SHM-96-5B	04/05/2011	--	--	--	340	17	--	3.8	6.54	0.681	1.00	0.19	10.2	-60.0
SHM-96-5B	10/06/2011	--	--	--	310	20	--	4.1	6.15	0.702	4.40	0.38	12.9	-19.8
SHM-96-5B	04/10/2012	--	--	--	330	18	--	1.6 U	6.35	0.869	42,000	0.25	9.8	-43.0
SHM-96-5B	10/15/2012	--	--	--	320	18	--	5.4	6.56	0.475	52.0	0.69	14.7	-71.6
SHM-96-5B	05/21/2013	**1,400**	**20,000**	**9,670**	315	19	2.7	5.4	6.42	0.652	9.01	0.36	10.8	-43.7
SHM-96-5B	10/22/2013	**1,660**	**24,700**	**9,980**	315	18	--	5.0 J	6.55	0.560	0.58	1.31	11.6	-69.0
SHM-96-5B	04/22/2014	**1,340**	**17,100**	**9,810**	345	18	2.4	4.5 J	6.21	0.642	4.61	0.73	10.1	-29.4
SHM-96-5B	10/09/2014	**991**	**13,100**	**10,500**	318	17	2.7	5.7 J	6.53	0.484	0.41	0.12	12.1	-54.8
SHM-96-5B	06/05/2015	**1,210**	**16,200**	**9,810**	296	28	2.0	6.9 J	6.54	0.618	4.03	1.36	14.3	-56.8
SHM-96-5B	10/21/2015	**799**	**11,000**	**11,600**	256	19	2.2	7.2	7.42	0.541	0.17	0.60	13.2	-18.3
SHM-96-5B	06/27/2016	**1,100**	**15,000**	**10,000**	280	20	1.8	5.1	6.30	0.593	11.2	13.74	0.2	-19.1
SHM-96-5B	11/17/2016	**990**	**13,000**	**11,000**	250	23	1.7	6.2	6.59	0.573	0.97	0.67	13.0	-6.9
SHM-96-5B	05/31/2017	**1,200**	**16,000**	**9,400**	230	27	1.7	8.0	7.21	0.588	3.05	0.98	7.7	-12.6
SHM-96-5B	11/10/2017	**990**	**15,000**	**9,200**	230	29	1.7	8.9	6.79	0.403	25.3	0.66	10.2	-26.1
SHM-96-5B	04/23/2018	**980**	**15,000**	**8,500**	220	32	1.7	13	6.60	0.594	37.0	0.78	11.6	-60.3
SHM-96-5B	11/26/2018	**100**	50 U	28	240	19	1.7	4.4	6.67	0.500	2.41	4.02	9.8	36.4
SHM-96-5B	04/23/2019	**1,100**	**14,000**	**8,300**	220	33	1.8	14	6.50	0.550	19.0	0.87	8.6	-41.0
SHM-96-5B	11/07/2019	**41**	50 U	23	230	23	2.5	9.6	6.80	0.490	4.40	3.40	10.0	150.0
SHM-96-5B	05/19/2020	**1,100**	**15,000**	**8,000**	210	30	1.6	17	6.47	0.491	21.4	0.50	11.3	82.6
SHM-96-5B	11/10/2020	**720**	8,600	**7,900**	210	35	1.6	16	5.58	0.086	14.6	0.99	8.2	266.0
SHM-96-5B	05/20/2021	**930**	**13,000**	**7,800**	190	37	1.4	19	6.49	0.087	70.2	1.01	14.3	-48.6
SHM-96-5B	11/09/2021	**1,200**	**15,000**	**7,500**	190	36	0.74 J	20	6.43	0.458	0.1 U	0.02	11.9	-65.4
SHM-96-5B	05/10/2022	**980**	**14,000**	**7,800**	170	35	1.4	21	6.41	0.088	42.9	0.47	10.9	-49.3
SHM-96-5B	10/19/2022	**840**	**11,000**	**8,800**	180	35	1.5	20	6.46	0.492	10.3	0.69	12.3	-183.7
SHM-96-5B	06/14/2023	**950**	**14,000**	**8,400**	180	37	1.4 J	25	6.21	0.585	1.0	0.84	12.6	-45.0
SHM-96-5B	10/24/2023	**1,600**	**25,000**	**7,800**	160	38	1.3 J	23	6.39	0.400	5.9	0.60	12.7	-65.7
SHM-96-5C	04/22/2010	--	--	--	30	34	--	1.0 U	6.31	1.008	0.19	0.14	9.8	-267.0
SHM-96-5C	10/11/2010	--	--	--	310	31	--	2.0	6.19	0.712	0.49	0.12	10.6	-51.0
SHM-96-5C	04/05/2011	--	--	--	340	28	--	1.6	6.33	0.744	15.0	0.20	9.4	-32.2
SHM-96-5C	10/06/2011	--	--	--	310	28	--	1.7	6.16	0.721	4.60	0.22	12.2	-3.1
SHM-96-5C	04/10/2012	--	--	--	310	27	--	2.0 U	6.00	0.885	6,600	0.11	9.5	32.7
SHM-96-5C	10/17/2012	--	--	--	300	27	--	2.6	6.30	0.396	0.62	0.84	12.0	-71.0
SHM-96-5C	05/28/2013	**10**	2,200	**12,600**	318	24	3.8	4.5 U	6.29	0.482	4.82	0.18	10.0	-64.9
SHM-96-5C	10/22/2013	5.5	609	**12,900**	315	19	--	3.4 J	6.21	0.529	0.10	1.41	11.6	-20.1
SHM-96-5C	04/22/2014	**11**	3,980	**10,400**	326	20	3.8	2.6 J	6.18	0.618	3.66	0.16	9.8	7.8
SHM-96-5C	10/09/2014	**18**	7,300	**8,310**	302	18	2.8	3.5 J	6.39	0.466	0.35	0.07	11.8	-28.1
SHM-96-5C	10/21/2015	**40**	**22,000**	**7,820**	265	21	5.2	5.0	7.02	0.637	18.0	0.91	12.1	-33.7
SHM-96-5C	11/17/2016	**42**	**16,000**	**6,200**	250	19	4.4	2.1	6.57	0.588	2.57	0.18	11.4	-48.7
SHM-96-5C	11/10/2017	**34**	**13,000**	**6,900**	240	21	3.1	1.8	6.66	0.365	4.92	0.47	9.6	-12.9
SHM-96-5C	11/20/2018	**31**	**22,000**	**2,100**	130	28	1.5	1.2	6.07	0.360	24.2	0.25	8.9	15.5
SHM-96-5C	11/07/2019	**13**	1,900	**14,000**	240	28	3.3	8.1	6.40	0.540	3.80	0.31	9.8	-37.0
SHM-96-5C	11/10/2020	**29**	7,500	**9,700**	200	31	2.4	6.4	6.27	0.335	12.6	0.69	13.1	8.4
SHM-96-5C	11/08/2021	**45**	**17,000**	**5,700**	160	29	1.2	5.4	6.25	0.382	1.00	0.90	11.2	-73.2
SHM-96-5C	10/19/2022	**54**	**29,000**	**5,700**	160	35	1.7	5.1	6.23	0.425	1.25	0.65	11.1	-174.3
SHM-96-5C	10/24/2023	**64**	**28,000**	**5,700**	150	36	1.9	8.9	5.11	0.355	5.30	0.26	12.4	-67.6
SHM-99-31A	10/13/2010	28,000	--	--	32	46	--	5.6	5.83	0.241	0.24	0.11	13.6	6.4
SHM-99-31A	10/05/2011	5,700	--	--	38	3.0	--	6.6	5.55	0.151	1.80	0.28	15.6	3.2
SHM-99-31A	10/18/2012	150	--	--	22	46	--	15	5.78	0.169	2.20	0.42	13.7	-6.0
SHM-99-31A	10/23/2013	**36**	4,210	311	15	26	--	9.7 J	5.83	0.145	3.79	1.02	12.5	41.9
SHM-99-31A	10/29/2015	**2**	7,300	443	17	63	2.4	7.4	5.48	0.271	4.44	0.48	13.1	20.5
SHM-99-31A	11/02/2020	**9**	7,600	270	14 U	20	3.9	7.4	6.61	0.308	4.60	1.10	6.7	-37.1
SHM-99-31A	10/25/2021	**25**	5,000	270	47	26	6.7	1.2	5.67	0.158	2.61	0.84	13.7	48.4
SHM-99-31A	10/14/2022	**29**	**13,000**	650	30	89	3.1	0.95 J	5.52	0.325	3.18	0.51	13.7	443.7
SHM-99-31A	10/25/2023	**26**	**6,000**	330	44	17	6.3	1.7J	5.53	0.119	2.5	0.38	13.4	57.8
SHM-99-31B	08/12/2010	**29**	**14,600**	478	86	4.0	6.5	3.0	6.03	0.186	--	0.19	10.7	33.9
SHM-99-31B	10/13/2010	--	--	--	86	3.4	--	3.8	6.27	0.211	0.19	0.15	10.6	-71.0
SHM-99-31B	10/05/2011	--	--	--	83	3.3	--	4.1	6.22	0.201	0.19	0.22	11.8	-46.0
SHM-99-31B	10/18/2012	--	--	--	73	2.3	--	5.3	6.31	0.175	1.30	0.31	10.4	-85.0
SHM-99-31B	10/23/2013	**62**	**9,460**	448	64	4.3	--	7.6 J	6.56	0.176	1.02	2.42	11.2	-57.7
SHM-99-31B	10/29/2015	**59**	7,430	340	57	5.0	3.5	6.2	5.81	0.156	0.84	0.28	11.0	-23.4
SHM-99-31B	10/30/2020	1.9 J	17 J	1.5 J	35	8.8	2.3	4.7	6.78	0.077	5.30	6.46	6.7	97.6
SHM-99-31B	10/25/2021	1.6 J	50 U	30 U	39	8.8	2.5	5.0	6.45	0.102	2.61	4.53	11.9	50.1
SHM-99-31B	10/14/2022	1.6 J	2,400 J	7.4 J	34	8.3	2.1	5.8	6.61	0.109	2.29	4.53	13.6	556.2
SHM-99-31B	10/25/2023	1.0 J	50 U	5.0 U	34	9.2	1.8	5.2	6.43	0.091	1.9	4.06	13	87.6
SHM-99-31C	10/13/2010	--	--	--	350	30	--	3.5	6.46	0.811	0.25	0.16	10.6	-80.0
SHM-99-31C	10/05/2011	--	--	--	340	27	--	3.9	6.50	0.809	1.90	0.27	11.6	-59.2
SHM-99-31C	10/18/2012	--	--	--	310	28	--	5.2	6.75	0.641	19.0	0.64	13.8	-117.1
SHM-99-31C	10/23/2013	**205**	**16,400**	**6,160**	348	32	--	5.7 J	6.70	0.737	3.71	0.23	11.1	-95.7
SHM-99-31C	10/13/2014	**180**	**15,800**	**5,060**	315	25	4.2	6.0 J	6.71	0.634	4.22	0.17	10.9	-78.4
SHM-99-31C	10/29/2015	**194**	**14,700**	**5,200**	313	23	3.6	5.0	6.62	0.663	8.32	1.31	13.4	-73.9
SHM-99-31C	11/29/2016	**200**	**17,000**	**5,900**	330	25	3.0	3.9	6.66	0.534	6.59	0.67	9.4	-57.7
SHM-99-31C	11/28/2017	**200**	**17,000**	**5,600**	320	31	2.5	4.4	6.73	0.675	1.99	3.83	8.6	-26.6
SHM-99-31C	11/29/2018	**160**	**15,000**	**5,300**	270	33	2.6	4.6	6.87	0.695	2.39	1.34	8.9	-46.4
SHM-99-31C	11/14/2019	**140**	**11,000**	**4,700**	250	31	2.0	5.4	6.70	0.300	6.40	0.78	9.4	-78.0
SHM-99-31C	05/19/2020	**180**	**15,000**	**4,900**	--	--	--	--	6.65	0.553	7.37	0.71	9.6	-126.0
SHM-99-31C	10/30/2020	**140**	**12,000**	**4,600**	230	31	1.9 U	4.7	6.63	0.241	11.4	1.06	8.8	-36.1
SHM-99-31C	10/25/2021	**150**	**12,000**	**4,900**	260	59	2.7	9.5	6.40	0.467	1.01	0.85	10.7	-75.6

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHM-99-31C	10/14/2022	**56**	4,700	**5,100**	260	30	1.7	7.0	6.58	0.574	1.27	0.60	14.6	-87.9
SHM-99-31C	10/25/2023	**140**	**13,000**	**5,000**	250	31	1.6	5.8	6.52	0.494	4.9	0.36	16.2	-75.0
SHM-99-32X	10/13/2010	--	--	--	390	39	--	3.9	6.51	0.879	0.42	0.16	10.5	-77.0
SHM-99-32X	10/04/2011	--	--	--	380	32	--	2.4	6.42	0.825	5.00	0.33	11.5	-36.0
SHM-99-32X	10/17/2012	--	--	--	370	36	--	2.8	6.54	0.469	28.0	0.63	10.5	-136.4
SHM-99-32X	10/23/2013	**107**	**18,400**	**10,900**	342	32	--	2.9 J	6.45	0.704	0.37	0.17	11.2	-77.9
SHM-99-32X	10/13/2014	**94**	**16,800**	**9,670**	280	33	2.1	4.9 J	6.64	0.462	17.4	1.89	11.2	-83.0
SHM-99-32X	11/21/2016	**59**	4,800	**3,900**	76	55	1.2	4.9	7.06	0.354	12.3	0.35	10.4	-31.2
SHM-99-32X	11/28/2017	**60**	4,900	**4,000**	81	64 J	1.2	5.6	6.91	0.362	4.28	1.85	10.2	-59.1
SHM-99-32X	11/15/2018	6.3	1,200	1,700	50	56	1.5	5.8	6.52	0.289	42.1	2.10	4.1	170.0
SHM-99-32X	11/12/2019	**47**	6,700	**4,100**	78	64	1.4	17	6.40	0.370	7.80	0.16	9.2	12.0
SHM-99-32X	05/19/2020	**22**	4,900	**3,200**	--	--	--	--	6.81	0.326	9.63	0.54	11.4	-101.0
SHM-99-32X	10/30/2020	**26**	4,200	**2,800**	58	72	1.2 U	11	6.42	0.232	2.70	0.97	13.6	46.3
SHM-99-32X	10/25/2021	**27**	4,500	**3,100**	47	79	1.5	8.1	6.79	0.313	5.61	0.92	11.3	-88.8
SHM-99-32X	10/18/2022	**24**	4,200	**3,100**	54	72	1.4	8.7	6.46	0.351	4.68	0.73	12.4	-104.8
SHM-99-32X	10/26/2023	**47**	6,800	**6,100**	160	59	1.2	16	6.57	0.394	3.2	0.35	13.8	-52.8
SHP-01-36X	10/14/2010	--	--	--	24	40	--	9.2	6.50	0.218	1.00	0.12	15.8	-78.0
SHP-01-36X	10/10/2011	--	--	--	28	46	--	4.3	5.82	0.208	1.00	0.18	19.8	-43.0
SHP-01-36X	10/16/2012	--	--	--	40	63	--	5.1	6.52	0.379	23.0	0.36	15.0	-73.4
SHP-01-36X	11/19/2013	4.8	75 J	23	24	76	--	24	6.42	0.351	0.63	7.07	6.8	118.8
SHP-01-36X	10/09/2014	**11**	535	68	26	110	3.1	8.1 J	6.27	0.329	2.99	0.32	17.4	39.2
SHP-01-36X	10/27/2015	9.0	686	111	24	105	2.7	7.7	6.12	0.329	0.91	1.40	11.8	27.2
SHP-01-36X	11/22/2016	4.5	350	28	24	84	3.1	8.4	6.82	0.370	0.47	2.50	8.2	36.5
SHP-01-36X	06/02/2017	4.3	490	39	27	84	3.6	3.9	6.55	0.382	6.69	0.59	14.5	32.9
SHP-01-36X	11/13/2017	**17**	6,800	220	26	66	5.0	2.9	6.31	0.293	1.20	1.08	12.1	7.5
SHP-01-36X	04/13/2018	**11**	3,400	77	18	110	3.2	7.7	7.00	0.403	1.51	0.94	8.3	69.4
SHP-01-36X	11/08/2018	7.8	550	39	25	53	3.6	5.4	6.42	0.239	28.2	0.34	11.8	36.4
SHP-01-36X	04/12/2019	6.3	870	33	22	81	2.1	7.3	7.30	0.330	1.30	1.30	7.5	170.0
SHP-01-36X	11/04/2019	**11**	1,500	78	27	67	3.5	6.0	6.40	0.300	--	0.30	12.0	37.0
SHP-01-36X	05/20/2020	5.9	760	32	33	62	2.8	5.6	6.41	0.272	0.02	3.18	11.8	23.4
SHP-01-36X	11/11/2020	6.6	530	49	33	74	2.9	8.6	6.66	0.247	3.20	3.38	15.4	44.9
SHP-01-36X	05/24/2021	6.3	720	39	33	65	3.3	4.4	6.35	0.224	0.48	0.15	16.0	36.9
SHP-01-36X	11/01/2021	**13**	1,300	46	35	47	3.6	3.0	6.18	0.212	1.04	0.85	16.3	13.5
SHP-01-36X	05/10/2022	7.5	1,200	110	22	80	2.5	5.5	6.13	0.058	8.50	0.43	12.7	31.0
SHP-01-36X	10/25/2022	6.6	620	98	33	86	3.4	14	5.85	0.424	9.02	1.29	15	74.6
SHP-01-36X	06/21/2023	8.4	590	25	28	83	3.2	4.8	6.34	0.374	0.72	0.28	19.5	1.6
SHP-01-36X	10/31/2023	10	1,300	47	36	53	3.8	2.8	6.20	0.228	0.2	1.07	15.0	1.9
SHP-01-37X	10/14/2010	--	--	--	44	60	--	1.0 U	6.21	0.300	0.29	0.42	16.7	-43.0
SHP-01-37X	10/16/2012	--	--	--	37	62	--	3.0	6.40	0.287	1.60	0.38	14.7	-105.8
SHP-01-37X	11/19/2013	4.7	1,430	569	4.4 J	76	2.0 U	78	5.64	0.433	0.43	3.12	6.9	123.3
SHP-01-37X	10/09/2014	8.5	3,410	158	12	80	3.1	8.0 J	6.22	0.350	0.10	1.80	17.1	28.0
SHP-01-37X	10/27/2015	**14**	1,090	136	26	95	3.8	6.3	6.30	0.325	0.88	3.02	11.7	0.7
SHP-01-37X	11/22/2016	**11**	1,000	46	22	86	4.3	11	7.85	0.367	0.71	3.60	8.7	-28.5
SHP-01-37X	06/02/2017	6.5	1,400	72	24	100	3.5	8.0	6.64	0.470	8.32	1.15	12.6	13.6
SHP-01-37X	11/13/2017	**13**	1,500	110	26	71	4.9	3.8	6.42	0.301	2.88	1.91	11.2	25.4
SHP-01-37X	04/13/2018	9.9	1,200	160	28	89	3.5	7.0	6.87	0.350	1.77	0.90	8.1	88.0
SHP-01-37X	11/08/2018	**17**	2,200	120	36	110	3.6	4.0	6.30	0.447	22.7	0.15	13.7	11.6
SHP-01-37X	04/12/2019	**15**	5,400	440	65	28	2.1	21	7.00	0.290	7.40	0.62	8.5	140.0
SHP-01-37X	11/04/2019	**13**	4,500	210	28	69	3.9	7.8	6.60	0.310	2.60	0.39	13.0	-4.3
SHP-01-37X	05/20/2020	**13**	1,500	150	37	68	2.4	6.6	6.58	0.315	0.73	3.77	12.2	-17.0
SHP-01-37X	11/11/2020	6.1	430	53	25	75	3.7	8.3	5.82	0.191	7.10	0.88	15.0	29.6
SHP-01-37X	05/24/2021	**11**	1,100	97	30	89	2.8	7.4	6.62	0.301	0.42	0.28	15.0	-5.0
SHP-01-37X	11/01/2021	**13**	1,200	98	41	71	4.2	6.5	6.29	0.296	1.59	0.74	14.8	3.7
SHP-01-37X	05/09/2022	**25**	2,500	350	51	31	1.9	13	6.09	0.052	2.70	1.16	11.3	30.9
SHP-01-37X	10/26/2022	5.0	670	55	30	85	5.3 U	14	5.94	0.429	2.87	2.92	14.8	52.1
SHP-01-37X	06/21/2023	**12**	960	85	44	76	3.0	6.7	6.54	0.390	1.61	0.34	17.8	-34.5
SHP-01-37X	10/31/2023	**21**	2,100	150	59	41	2.4	8.5	6.25	0.247	0.70	1.38	13.9	-20.1
SHP-01-38A	10/14/2010	--	--	--	140	28	--	18	6.37	0.433	1.00	0.91	12.8	-70.0
SHP-01-38A	10/12/2011	--	--	--	200	24	--	11	5.95	0.500	3.00	0.21	13.4	-39.0
SHP-01-38A	10/15/2012	--	--	--	180	44	--	18	6.19	0.499	30.0	0.36	12.8	-73.1
SHP-01-38A	05/23/2013	**412**	**10,200**	254	64	5.3	2.1	6.3	6.66	0.156	4.30	0.12	10.8	-70.1
SHP-01-38A	11/19/2013	**247**	**17,900**	**2,200**	79	7.0	2.2	115	6.14	0.435	0.31	1.25	12.3	-20.7
SHP-01-38A	10/09/2014	**263**	**23,500**	**2,490**	94	11	20	49	6.23	0.256	0.37	0.16	14.1	-47.0
SHP-01-38A	10/28/2015	**314**	**38,400**	**2,950**	112	11	1.8	21	6.28	0.388	1.39	0.36	12.7	-52.8
SHP-01-38A	11/16/2016	**320**	**20,000**	**1,900**	78	4.3	1.4	13	6.18	0.163	5.96	0.78	12.2	-34.6
SHP-01-38A	06/12/2017	**190**	**15,000**	1,300	55	1.0	1.4	16	5.34	0.205	9.84	0.70	13.7	-4.2
SHP-01-38A	11/07/2017	**190**	**20,000**	1,500	70	2.2	1.5	8.6	6.30	0.183	3.16	0.30	14.0	-24.0
SHP-01-38A	04/19/2018	**140**	**12,000**	1,000	39 J	1.2	1.7	11	6.46	0.142	1.45	1.51	7.2	-33.4
SHP-01-38A	11/08/2018	**130**	**19,000**	1,600	61	1.8	1.5 U	10	5.94	0.181	21.1	0.34	12.0	9.9
SHP-01-38A	04/12/2019	**79**	**15,000**	1,300	41	1.3	1.3	8.6	6.80	0.140	2.40	0.59	7.3	130.0
SHP-01-38A	11/04/2019	**130**	**25,000**	**2,000**	94	8.5	1.3	13	6.00	0.250	2.20	0.37	12.0	0.8
SHP-01-38A	05/21/2020	**87**	**13,000**	1,200	60	0.49 J	1.1	16	7.63	0.330	5.23	0.88	11.7	23.1
SHP-01-38A	11/11/2020	**150**	**24,000**	**2,200**	90	14	1.4	8.0	8.70	0.501	7.22	0.45	10.2	-7.5
SHP-01-38A	05/27/2021	**95**	**13,000**	1,100	53	0.87	1.2	11	6.36	0.109	4.82	0.42	14.1	11.7
SHP-01-38A	11/01/2021	**110**	**16,000**	1,400	67	0.65	1.4	6.8	5.92	0.146	1.27	0.74	13	-2.3
SHP-01-38A	05/09/2022	**87**	**17,000**	1,400	70	1.4	1.2	5.9	5.98	0.034	2.30	0.54	10.9	-3.7
SHP-01-38A	10/25/2022	**140**	**24,000**	**1,800**	73	13	1.3 J	5.8	5.46	0.311	10.30	1.27	15.0	17.5
SHP-01-38A	06/14/2023	**80**	**15,000**	1,500	58	1.1	0.96 J	9.9	5.96	0.182	1.50	0.85	11.7	-6.9
SHP-01-38A	10/31/2023	**110**	**18,000**	**1,800**	74	0.6	1.3 J	6.5	6.01	0.150	0.50	1.11	12.6	-11.5
SHP-01-38B	05/23/2013	**900**	**47,100**	**2,240**	190	52	3.6	4.5 U	6.62	0.583	0.00	0.30	10.8	-109.1
SHP-01-38B	10/28/2015	**903**	**43,600**	**2,320**	145	43	4.4	7.0	6.34	0.610	0.34	0.15	11.1	-100.0
SHP-05-45A	08/09/2010	**34**	**22,100**	--	--	--	--	3.6	--	6.20	0.294	--	0.30	14.0
SHP-05-45A	10/28/2015	**28**	**17,500**	325	109	7.5	6.3	5.0 U	--	--	--	--	--	--
SHP-05-46B	08/09/2010	**81**	**34,800**	--	--	--	--	14	--	5.71	0.662	--	0.81	12.9
SHP-05-46B	10/28/2015	7.7	802	361	94	27	12	5.0 U	--	--	--	--	--	--
SHP-2016-06A	06/15/2017	**520**	64	**3,300**	120	120	3.4	120	7.49	0.204	9.63	5.47	13.5	62.3
SHP-2016-06A	11/28/2017	**600**	320	**2,000**	130	13	9.0	74	6.78	0.413	3.32	0.60	8.3	-105.2
SHP-2016-06A	04/18/2018	**280**	120	**1,800**	140	10	6.0	57	7.71	0.424	6.86	1.40	8.6	-113.8
SHP-2016-06A	11/09/2018	**480**	94	**2,600**	170	16	13	1.0 U	7.57	0.427	4.55	0.60	9.2	-183.0
SHP-2016-06A	04/17/2019	**2,800**	1,400	**1,900**	190	16	22	150	7.30	0.720	2.30	1.50	8.1	-97.0
SHP-2016-06A	11/05/2019	**860**	400	**2,300**	230	15	18	180	7.20	0.690	1.70	0.68	10.0	-67.0
SHP-2016-06A	05/21/2020	**760**	160	920	140	8.7	3.2	36	6.13	0.143	0.02	3.33	10.8	1.3
SHP-2016-06A	11/12/2020	**640**	340	1,000	150	4.9	3.3	41	8.27	0.399	3.15	0.44	11.9	2.8
SHP-2016-06A	05/25/2021	**960**	130	730	140	4.8	3.7	46	7.99	0.259	10.7	0.13	17.4	-176.9
SHP-2016-06A	11/09/2021	**1,000**	820	1,100 J	210	5.6	8.8	85	7.76	0.636	15.7	1.70	5.9	-99.6
SHP-2016-06A	05/11/2022	**1,500**	690	1,200	150	6.6	7.0	59	7.99	0.443	4.23	0.39	17.1	-217.0
SHP-2016-06A	05/25/2022	**1,100**	440	1,200	150	6.7	6.5	62	8.20	0.449	2.09	0.46	11.1	-154.0
SHP-2016-06A	08/23/2022	**1,700**	610	1,100	140	6.9	7.0	77	7.97	0.406	3.10	4.70	13.8	-124.0
SHP-2016-06A	10/26/2022	**1,900**	1,200	1,400	140	5.6	7.8	70	7.40	0.278	3.01	1.41	15.1	-142.2
SHP-2016-06A	11/14/2022	**1,400**	530	1,300	120	6.1	6.1	58	7.64	0.406	6.47	0.58	9.31	-166.0
SHP-2016-06A	06/15/2023	**1,900**	860	1,100	140	5.9	7.7	61	7.40	0.518	26.72	1.1	17.8	-124.6
SHP-2016-06A	11/02/2023	**1,800**	1,200	1,100	140	5.9	8.7	55	7.40	0.253	17.89	0.54	6.6	-49.0
SHP-2016-06B	06/15/2017	**830**	120	**2,500**	130	130	1.8	130	7.14	0.246	6.91	1.09	13.7	48.6
SHP-2016-06B	11/28/2017	**1,300**	240	1,600	130	10	5.8	110	6.81	0.469	8.45	0.79	7.2	-69.5
SHP-2016-06B	04/18/2018	**1,300**	1,800	**4,700**	240	51	36	730	7.73	1.463	7.25	0.81	10.1	-113.9
SHP-2016-06B	11/07/2018	**1,300**	1,000	1,600	280	40	25	530	7.63	1.900	41.8	0.65	10.4	-75.2
SHP-2016-06B	04/17/2019	**1,300**	990	1,200	260	27	21	440	7.50	1.600	20.0	0.42	9.6	-110.0
SHP-2016-06B	11/05/2019	**1,200**	1,100	1,200	310	17	36	380	7.60	1.100	6.20	0.56	11.0	-96.0
SHP-2016-06B	05/21/2020	**1,100**	310	430	260	7.4	14	210	7.23	0.971	3.83	0.38	13.9	-13.9

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHP-2016-06B	11/12/2020	**1,100**	240	550	160	3.6	4.8	76	8.98	0.256	7.13	0.36	9.6	-7.8
SHP-2016-06B	05/25/2021	**1,200**	180	320	190	2.9	6.8	65	8.16	0.327	1.82	0.54	16.8	-148.5
SHP-2016-06B	11/09/2021	**510**	56	130	220	2.5	6.6	60	8.07	0.605	26.40	0.81	7.8	-118.0
SHP-2016-06B	05/11/2022	**340**	100	190	120	1.6	1.3	14	7.98	0.307	11.8	0.34	12.4	-192.0
SHP-2016-06B	05/25/2022	**540**	140	200	130	1.6	0.91 J	16	8.29	0.281	3.63	0.52	10.3	-129.0
SHP-2016-06B	08/23/2022	**470**	120	170	130	1.5	1.4	14	8.30	0.288	8.95	4.12	13.1	-168.0
SHP-2016-06B	10/26/2022	**290**	140	210	130	1.5	1.6 U	19	7.79	0.181	4.73	1.45	14.3	-145.1
SHP-2016-06B	11/14/2022	**420**	120	180	120	1.5	1.4 J	14	7.87	0.277	12.1	0.80	9.26	-140.0
SHP-2016-06B	06/14/2023	**330**	130	140	120	1.5	1.0 U	12	7.46	0.288	4.89	0.82	16.1	-65.7
SHP-2016-06B	11/02/2023	**340**	150	210	130	1.5	3.2	11	7.64	0.250	3.87	0.54	7.7	-48.5
SHP-2016-06C	06/14/2017	**320**	360	**1,900**	140	140	2.9	140	7.51	0.276	8.70	1.07	18.6	38.7
SHP-2016-06C	11/28/2017	**280**	140	330	120	1.5	0.50 U	8.4	7.08	0.253	9.57	2.79	7.7	-87.1
SHP-2016-06C	04/18/2018	**210**	97 J	220	120	1.6	1.0 U	10	7.77	0.236	1.38	0.50	10.4	-64.5
SHP-2016-06C	11/07/2018	**300**	340	230	120	1.8	1.0 U	22	7.64	0.255	9.74	0.38	11.2	-37.5
SHP-2016-06C	04/17/2019	**250**	130	220	120	1.5	0.50 U	9.2	7.30	0.260	4.10	1.40	9.3	-42.0
SHP-2016-06C	11/05/2019	**270**	110	170	120	1.8	0.40 J	12	7.90	0.240	8.00	2.20	11.0	-64.0
SHP-2016-06C	05/21/2020	**310**	100	200	130	1.5	0.47 J	10	6.03	0.244	2.74	0.43	17.3	272.0
SHP-2016-06C	11/12/2020	**350**	150	180	130	1.5	1.0 U	9.4	7.05	0.174	42.1	1.38	8.4	-13.5
SHP-2016-06C	05/25/2021	**310**	110	180	120	1.5	0.47 J	8.5	7.98	0.165	4.02	0.66	17.3	-143.5
SHP-2016-06C	11/09/2021	**290**	130	180	130	1.4	0.66 J	8.5	8.15	0.371	17.3	0.81	8.8	-124.0
SHP-2016-06C	05/11/2022	**360**	120	190	110	1.5	0.56 J	8.5	7.94	0.244	10.5	0.42	16.9	-177.0
SHP-2016-06C	05/25/2022	**370**	120	180	110	1.4	0.6 U	9.3	8.16	0.255	2.68	0.50	10.7	-129.0
SHP-2016-06C	08/23/2022	**360**	120	150	120	1.5	0.88 J	8.9	8.20	0.251	7.40	4.18	14.2	-117.0
SHP-2016-06C	10/26/2022	**380**	150	180	110	1.4	1.2 U	13	7.75	0.160	5.55	1.10	15.2	-162.6
SHP-2016-06C	11/14/2022	**380**	150	190	94	1.5	1.0 U	9.0	7.83	0.239	4.16	0.79	9.1	-126.0
SHP-2016-06C	06/14/2023	**320**	120	150	120	1.6	1.0 U	9.0	7.50	0.269	35	0.29	18.0	-125.2
SHP-2016-06C	11/02/2023	**300**	120	140	120	1.6	3.7	8.6	7.47	0.267	0.1	0.32	9.2	-45.7
SHP-2016-07A	06/13/2017	**81**	5,900	560	28	28	0.81 J	28	4.49	0.062	8.59	0.43	13.4	103.6
SHP-2016-07A	11/30/2017	**12**	39 J	**7,300**	64	2.5	1.9	8.8	6.60	0.149	5.88	5.30	8.6	154.1
SHP-2016-07A	04/19/2018	**84**	5,800	**5,400**	32	2.0	1.4	4.0	6.05	0.060	3.15	0.87	8.1	40.3
SHP-2016-07A	11/09/2018	**200**	410	600	43	6.5	1.3 U	100	5.76	0.102	22.8	0.12	12.2	32.7
SHP-2016-07A	04/22/2019	**19**	3,400	**3,600**	20	1.5	0.50 U	3.4	5.10	0.058	1.70	0.90	8.3	89.0
SHP-2016-07A	05/20/2020	**74**	5,600	**4,100**	34	1.4	1.8	2.9	6.12	0.068	2.22	0.39	13.7	10.1
SHP-2016-07A	06/16/2021	**160**	**11,000**	**5,200**	38	2.2	3.2	2.4	5.93	0.090	7.25	2.98	13.5	-7.7
SHP-2016-07A	10/27/2021	**130**	**7,100**	**3,700**	37	1.7	1.0	3.3	6.02	0.053	0.1 U	0.11	11.4	-20.8
SHP-2016-07A	05/10/2022	2.2 J	210	**1,900**	9.1	1.5	0.89 J	4.6	5.32	0.032	2.49	2.51	13.1	117.0
SHP-2016-07A	05/24/2022	**93**	140	**510**	120	2.7	2.7	29	7.25	0.316	2.18	0.77	13.8	-37.8
SHP-2016-07A	06/15/2023	**180**	**9,600**	**3,900**	41	1.7	1.8	1.9	5.83	0.110	2.13	0.80	14.5	-32.9
SHP-2016-07A	11/01/2023	**95**	4,900	**2,300**	25	1.7	0.87 J	3.9	5.79	0.048	0.60	1.23	12.4	-6.1
SHP-2016-07B	06/13/2017	7.9	270	760	99	99	3.3	99	6.67	0.301	7.32	1.34	19.2	32.3
SHP-2016-07B	11/30/2017	**11**	230	1,700	100	4.3	1.9	42	7.32	0.290	18.9	1.47	10.5	-44.4
SHP-2016-07B	04/19/2018	**200**	870	**2,000**	160	16	9.3	200	7.22	0.630	23.2	1.18	6.9	-45.9
SHP-2016-07B	11/08/2018	**150**	**10,000**	**7,000**	120	2.1	4.5	4.7	6.68	0.491	8.43	0.34	12.0	-43.9
SHP-2016-07B	04/19/2019	**80**	210	700	120	4.1	3.0	71	7.00	0.380	12.0	0.87	14.0	-8.8
SHP-2016-07B	11/06/2019	**35**	84	350	110	2.9	1.5	36	7.10	0.300	28.0	0.98	13.0	18.0
SHP-2016-07B	05/15/2020	**57**	110	470	130	2.6	1.6	34	7.09	0.211	0.02	4.47	13.3	16.7
SHP-2016-07B	11/13/2020	**65**	460	580	110	2.6	1.6	30	7.46	0.207	6.62	0.30	12.5	45.5
SHP-2016-07B	06/16/2021	**100**	340	450	140	3.2	3.5	32	7.05	0.160	7.14	3.39	15.5	-33.1
SHP-2016-07B	10/27/2021	**130**	270	340	150 J	2.9	3.5	36	7.29	0.263	2.19	0.21	11.5	-91.5
SHP-2016-07B	05/11/2022	**100**	110	350	130	2.7	2.8	28	6.86	0.298	3.43	1.05	15.3	-47.4
SHP-2016-07B	05/23/2022	**37**	72 J	140	100	3.1	1.6	24	7.32	0.264	2.64	6.32	11.7	-3.1
SHP-2016-07B	08/30/2022	**67**	110	380	130	2.9	3.2	42	7.35	0.332	45.7	1.02	24.6	-75.8
SHP-2016-07B	10/18/2022	**160**	560	510	140	2.8	3.8	33	7.26	0.333	12.9	0.71	12.2	-150.1
SHP-2016-07B	11/16/2022	**120**	500	520	120	2.5	3.6	22	7.15	0.285	36.5	0.49	10.4	-222.0
SHP-2016-07B	06/15/2023	**63**	270	400	110	1.9	1.6	16	6.94	0.310	12.8	0.74	18.9	-62.5
SHP-2016-07B	11/01/2023	**74**	420	300	130	2.4	1.5	18	7.01	0.228	6.73	1.18	11.4	-93.5
SHP-2016-1A	05/23/2017	3.0 U	220	82	15	1.2	1.0 U	4.9	4.77	0.042	9.35	7.46	10.3	140.6
SHP-2016-1A	11/14/2017	3.0 U	75 U	33	22	1.0	0.50 U	4.5	6.93	0.070	1.27	6.07	10.8	122.8
SHP-2016-1A	11/13/2018	3.0 U	50 U	4.0 J	21	0.69	1.0 U	3.7 J	5.38	0.063	6.98	2.79	12.5	79.6
SHP-2016-1A	04/22/2019	3.0 U	50 U	2.3 J	20	1.2	0.50 U	3.0	5.10	0.056	4.80	8.10	8.5	170.0
SHP-2016-1A	11/08/2019	3.0 U	20 J	4.7 J	24	0.48 J	1.7	4.8	5.70	0.068	6.80	0.00	11.0	36.0
SHP-2016-1A	05/15/2020	3.0 U	50 U	10 U	17	0.55	0.65 J	3.2	5.59	0.043	2.37	10.50	11.5	190.0
SHP-2016-1A	11/05/2020	3.0 U	240	6.6 J	16	0.53	1.0 U	4.5	7.64	0.045	8.48	3.52	12.9	101.0
SHP-2016-1A	05/25/2021	3.0 U	50 U	3.0 U	22	0.91	0.95 J	3.4	5.97	0.032	0.2	9.77	12.1	246.9
SHP-2016-1A	11/02/2021	3.0 U	50 U	1.4 J	33 J	0.51	0.80 U	3.2	5.97	0.051	4.45	7.57	14.6	136.0
SHP-2016-1A	05/10/2022	3.0 U	50 U	5.0 U	21	0.79	0.73 J	2.4	5.86	0.051	1.48	8.15	12.0	236.0
SHP-2016-1A	10/21/2022	3.0 U	50 U	2.9 J	23	0.84	1.0 J	2.9	5.67	0.036	2.12	6.77	9.9	183.9
SHP-2016-1A	06/14/2023	3.0 U	50 U	5.0 U	22	0.80	0.71 J	3.0	5.82	0.066	4.39	8.55	15	137.1
SHP-2016-1A	10/27/2023	3.0 U	27 J	2.8 J	39	0.47 J	3.6	2.8	5.51	0.048	4.17	7.15	16.2	33.5
SHP-2016-1B	05/23/2017	**120**	**21,000**	1,200	82	2.6	3.2	0.63 J	6.66	0.147	12.5	0.21	10.7	-96.4
SHP-2016-1B	11/14/2017	**170**	**27,000**	1,700	120	5.8	2.4	0.98 J	7.35	0.281	3.07	1.48	9.8	-46.7
SHP-2016-1B	11/13/2018	**130**	**16,000**	970	69	3.0	2.0	2.3	6.10	0.189	7.50	0.90	9.2	-9.9
SHP-2016-1B	04/22/2019	**120**	**18,000**	1,200	68	12	2.2	2.6	5.70	0.230	1.40	0.48	11.0	-22.0
SHP-2016-1B	11/08/2019	**180**	**34,000**	1,700	140	11	4.0	7.3	5.70	0.330	6.80	0.89	10.0	36.0
SHP-2016-1B	05/19/2020	**110**	**15,000**	840	66	6.7	1.9	2.2	6.76	0.175	17.3	4.54	11.7	-91.8
SHP-2016-1B	11/05/2020	**140**	**24,000**	1,100	91	5.0	1.8 U	2.6	8.74	0.081	5.00	2.87	11.6	7.2
SHP-2016-1B	05/25/2021	**120**	**17,000**	960	58	2.3	1.9	3.6	6.59	0.110	0.58	0.60	15.1	-59.7
SHP-2016-1B	11/02/2021	**110**	**15,000**	860	60 J	3.9	1.9	2.5	6.49	0.123	5.45	0.81	12.4	-68.9
SHP-2016-1B	05/10/2022	**110**	**18,000**	910	66	2.5	1.9	2.4	6.44	0.163	8.04	0.89	14.1	-66.5
SHP-2016-1B	10/21/2022	**140**	**27,000**	1,300	110	7.5	2.8	5.9	6.29	0.166	1.92	1.23	13.3	-62.9
SHP-2016-1B	06/26/2023	**110**	**17,000**	830	54	3.3	1.9	3.3	6.47	0.134	6.63	1.09	19.1	-68.7
SHP-2016-1B	10/27/2023	**190**	**44,000**	**2,100**	140	9.7	3.0	4.9	6.27	0.139	1.66	0.30	18.2	-40.6
SHP-2016-2A	05/24/2017	**58**	4,300	420	110	8.3	2.5	4.6	10.07	0.186	95.9	1.15	9.5	-177.6
SHP-2016-2A	11/20/2017	**51**	420	30	81	7.2	1.7	3.3	11.91	0.197	13.2	--	9.0	-196.3
SHP-2016-2A	04/23/2018	**32**	430	32	92	6.4	1.6	3.9	9.65	0.234	30.8	1.76	10.0	-43.1
SHP-2016-2A	11/15/2018	**17**	19 J	190	58	5.1	1.1	3.1	9.44	0.184	22.4	3.07	9.1	-51.4
SHP-2016-2A	04/19/2019	**16**	22 J	450	64	3.3	0.50 U	4.8	8.70	0.150	8.50	1.10	9.8	-31.0
SHP-2016-2A	10/24/2019	**11**	25 J	400	51	2.5	1.2	5.0	8.10	0.120	4.60	2.50	11.0	160.0
SHP-2016-2A	05/20/2020	9.5	32 J	290	58	2.1	0.66 J	3.8	8.47	0.096	2.60	2.28	11.2	-46.9
SHP-2016-2A	11/06/2020	8.5	120 U	290	57	2.2	1.0 U	3.6	6.51	0.269	4.60	0.78	10.4	-78.2
SHP-2016-2A	05/21/2021	**12**	50 U	120	51	2.4	0.78 J	3.8	10.17	0.014	1.3	1.21	12.8	16.1
SHP-2016-2A	11/09/2021	**8.9**	50 U	170	62	2.7	1.6	3.8	9.29	0.100	1.95	3.45	12.8	70.6
SHP-2016-2A	05/11/2022	3.0 J	50 U	320	48	2.6	0.82 J	2.7	7.00	0.086	3.38	2.65	10.2	48.0
SHP-2016-2A	10/20/2022	2.0 J	50 U	590	48	2.5	0.65 J	2.5	6.82	0.091	0.57	2.86	10.2	526.8
SHP-2016-2A	06/13/2023	3.2 J	50 U	130	39	2.7	0.54 J	3.5	6.75	0.103	1.8	4.81	10.1	164.9
SHP-2016-2A	10/26/2023	3.6 J	50 U	130	36	3.0	0.69 J	3.0	6.83	0.058	7.5	5.94	11.9	167.8
SHP-2016-2B	05/24/2017	**350**	**64,000**	**2,700**	220	16	2.7	0.47 J	6.48	0.421	9.67	0.51	9.5	-91.3
SHP-2016-2B	11/20/2017	**550**	**65,000**	**2,900**	200	20	2.7	0.88 J	8.76	0.528	2.27	--	8.3	-69.9
SHP-2016-2B	04/23/2018	**420**	**59,000**	**2,600**	200	18	2.6	2.2	6.83	0.578	4.79	0.81	10.0	-69.5
SHP-2016-2B	11/15/2018	**430**	**52,000**	**2,700**	170	18	2.3	2.4	6.79	0.634	1.44	0.27	8.1	-79.6
SHP-2016-2B	04/19/2019	**450**	**43,000**	**2,200**	150	9.6	2.2	4.3	6.30	0.440	2.50	0.48	8.5	-49.0
SHP-2016-2B	10/24/2019	**560**	**46,000**	**2,400**	170	15	2.2	5.1	6.50	0.490	3.00	0.19	9.9	-33.0
SHP-2016-2B	05/20/2020	**260**	**31,000**	**1,900**	120	7.7	1.8	2.3	6.38	0.248	1.15	0.46	8.6	19.5
SHP-2016-2B	11/06/2020	**520**	**43,000**	**2,400**	10 U	14	1.8 U	3.2	6.53	0.097	3.40	1.17	6.6	151.0
SHP-2016-2B	05/21/2021	**450**	**47,000**	**2,800**	150	17	2.3	3.2	6.77	0.048	0.31	1.52	12.6	-129.1
SHP-2016-2B	11/09/2021	**380**	**35,000**	**2,200**	130	13	1.8	2.7	6.54	0.320	10.8	0.07	12.5	-83.5
SHP-2016-2B	05/11/2022	**140**	**39,000**	**2,500**	110	16	1.9	3.4	6.22	0.308	1.80	0.90	10.9	-80.3
SHP-2016-2B	10/20/2022	**480**	**38,000**	**2,400**	140	14	2.0	4.7	6.53	0.369	0.93	0.65	10.1	-60.0
SHP-2016-2B	06/13/2023	**420**	**33,000**	**2,300**	110	10	1.6	4.5	6.18	0.383	2.1	0.73	11.4	-74.3

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHP-2016-2B	10/26/2023	**370**	**24,000**	**1,700**	79	3.7	1.5	4.0	6.54	0.177	8.8	0.43	11.9	-84.6
SHP-2016-3A	05/23/2017	4.8	1,700	190	61	2.7	3.0	3.7	7.06	0.097	35.1	1.59	7.3	-61.9
SHP-2016-3A	11/15/2017	7.0	3,200	590	77	8.2	3.8	0.92 J	7.96	0.171	1.89	1.87	8.5	-31.4
SHP-2016-3A	04/24/2018	3.2	5,000	600	55	4.0	1.5	3.2	7.52	0.150	1.09	1.40	9.8	-87.5
SHP-2016-3A	11/12/2018	4.5	**9,400**	830	69	6.5	1.9	1.5	6.53	0.255	0.90	0.32	11.0	-81.4
SHP-2016-3A	04/18/2019	4.0	8,100	530	43	2.5	0.50 U	1.4	6.30	0.120	2.00	1.10	4.3	-34.0
SHP-2016-3A	10/28/2019	4.1	**11,000**	740	49	14	1.1	2.5	6.50	0.240	2.90	0.21	9.1	-86.0
SHP-2016-3A	05/20/2020	3.1	7,400	380	37	1.9	0.90 J	2.2	6.16	0.085	1.09	1.13	10.1	94.4
SHP-2016-3A	11/02/2020	5.3	**14,000**	670	55	14	1.3	1.7	6.30	0.151	11.8	1.01	7.3	-43.9
SHP-2016-3A	06/16/2021	4.1 J	8,380	394	36	2.7	1.4 U	2.8	6.41	0.080	3.6	3.36	8.9	-32.7
SHP-2016-3A	11/04/2021	5.8	**13,000**	490	75	2.4	0.8 U	1.2	6.64	0.113	0.1 U	0.98	11.9	-61.8
SHP-2016-3A	05/09/2022	3.6 J	7,000	270	33	1.8	0.92 J	1.3	6.17	0.071	1.1	2.56	7.7	-40.2
SHP-2016-3A	10/24/2022	4.6 J	**11,000**	410	37	7.5	1.1 J	1.0	6.31	0.232	2.8	0.75	9.4	-27.2
SHP-2016-3A	06/09/2023	3.4 J	6,300	260	32	2.7	0.89 J	2.6	6.41	0.114	3.3	2.88	8.7	-29.0
SHP-2016-3A	11/01/2023	3.4 J	**11,000**	400	47	34	0.89 J	1.7	6.05	0.197	3.6	0.61	11.8	-9.0
SHP-2016-3B	05/23/2017	**240**	**54,000**	**4,100**	200	18	3.5	0.56 J	6.45	0.398	7.19	0.32	8.7	-70.1
SHP-2016-3B	11/15/2017	**270**	**53,000**	**4,000**	240	18	2.9	0.47 J	7.87	0.512	1.15	2.51	8.9	-45.4
SHP-2016-3B	04/24/2018	**240**	**43,000**	**3,400**	170	16	2.2	1.9	6.79	0.485	3.85	0.84	10.0	-49.6
SHP-2016-3B	11/12/2018	**240**	**43,000**	**3,200**	150	18	2.3	2.0	6.36	0.570	3.62	0.29	10.1	-72.5
SHP-2016-3B	04/18/2019	**230**	**42,000**	**3,000**	150	12	2.3	3.4	6.20	0.420	2.70	0.52	6.0	-44.0
SHP-2016-3B	10/28/2019	**260**	**36,000**	**2,800**	130	11	1.8	4.5	6.50	0.160	3.00	0.37	8.7	-52.0
SHP-2016-3B	05/20/2020	**160**	**25,000**	**2,000**	100	5.9	1.7	2.4	6.36	0.202	2.22	0.29	10.0	55.0
SHP-2016-3B	11/03/2020	**180**	**29,000**	**2,200**	110	5.9	1.9 U	1.8	6.43	0.305	6.50	0.87	10.1	-69.6
SHP-2016-3B	05/27/2021	**200**	**36,000**	**2,400**	100	16	1.9	3.2	6.48	0.235	4.13	0.39	14.7	-43.6
SHP-2016-3B	11/04/2021	**200**	**44,000**	**3,000**	120	18	2.1	4.3	6.38	0.291	0.32	0.94	11.3	-67.5
SHP-2016-3B	05/09/2022	**210**	**31,000**	**2,200**	94	8.3	1.7	3.9	6.18	0.233	0.51	0.78	9.1	-70.1
SHP-2016-3B	10/24/2022	**260**	**34,000**	**2,900**	110	18	1.7	5.6	6.34	0.433	4.50	0.72	9.6	-61.3
SHP-2016-3B	06/12/2023	**220**	**40,000**	**2,900**	120	19	1.8	6.1	6.27	0.400	2.00	0.70	11.8	-67.7
SHP-2016-3B	11/01/2023	**230**	**43,000**	**3,000**	130	21	1.8	9.0	6.31	0.373	27.90	0.05	10.8	-62.5
SHP-2016-4A	05/24/2017	10	3,400	150	57	4.9	2.5	6.2	7.05	0.098	62.0	0.73	9.9	-75.1
SHP-2016-4A	11/16/2017	4.6	610	170	43	5.5	1.4	2.6	8.30	0.091	20.9	2.08	7.2	-6.5
SHP-2016-4A	04/24/2018	3.8	1,600	710	44	7.0	0.89 J	3.7	6.92	0.121	5.18	1.23	11.0	-43.0
SHP-2016-4A	11/12/2018	1.5 J	960	1,000	24	5.4	1.1 U	5.7	5.56	0.141	2.15	2.59	8.2	24.6
SHP-2016-4A	04/19/2019	3.0 U	84	640	24	6.2	0.50 U	6.6	5.60	0.082	7.40	4.80	9.9	210.0
SHP-2016-4A	11/05/2019	3.0 U	24 J	580	16	8.9	0.63 J	7.8	6.30	0.084	9.10	2.70	8.1	50.0
SHP-2016-4A	05/21/2020	3.0 U	68	70	11	4.2	0.70 J	6.9	5.82	0.046	1.60	6.48	11.2	153.0
SHP-2016-4A	11/06/2020	3.0 U	50 U	110	17	4.2	1.0 U	4.6	6.40	0.157	2.79	0.72	11.2	-5.1
SHP-2016-4A	05/21/2021	3.0 U	50 U	44	13	6.3	0.82 J	6.6	6.25	0.008	< 0.1	0.64	10.6	111.2
SHP-2016-4A	11/04/2021	3.0 U	50 U	69	6.4 U	2.2	0.8 U	4.5	6.13	0.030	1.71	8.97	9.3	114.0
SHP-2016-4A	05/11/2022	3.0 U	50 U	64	12	3.2	0.96 J	4.2	5.88	0.008	2.2	8.87	12.1	214.0
SHP-2016-4A	10/21/2022	3.0 U	50 U	67	16	3.4	0.81 J	2.9	5.86	0.120	2.0	2.82	10.0	220.0
SHP-2016-4A	06/13/2023	3.0 U	50 U	40	8.1	3.9	0.73 J	4.5	5.45	0.052	2.9	9.26	10.5	223.5
SHP-2016-4A	10/26/2023	1.1 J	50 U	43	37	4.1	0.73 J	2.8	5.85	0.040	9.3	10.28	13.1	173.7
SHP-2016-4B	05/24/2017	**1,100**	**75,000**	**1,900**	220	17	5.5	1.0 U	6.50	0.415	6.68	0.27	8.9	-95.4
SHP-2016-4B	11/16/2017	**1,800**	**62,000**	1,400	230	18	2.6	0.78 J	7.79	0.524	2.65	3.76	7.7	-58.9
SHP-2016-4B	04/23/2018	**1,300**	**55,000**	1,500	190	17	2.3	2.1	6.71	0.541	6.51	0.75	9.4	-64.8
SHP-2016-4B	11/12/2018	**1,400**	**53,000**	1,500	160	16	2.3	2.6	6.30	0.594	23.1	0.50	8.9	-109.0
SHP-2016-4B	04/19/2019	**1,400**	**41,000**	1,300	130	10	1.9	4.7	6.10	0.370	4.20	0.62	10.0	-62.0
SHP-2016-4B	11/05/2019	**1,500**	**50,000**	**2,000**	170	17	1.8	5.4	6.50	0.490	8.10	--	8.3	-60.0
SHP-2016-4B	05/21/2020	**650**	**29,000**	**1,900**	91	4.0	1.4	4.0	6.52	0.207	0.09	0.39	10.0	4.4
SHP-2016-4B	11/06/2020	**1,700**	**48,000**	**2,600**	160	22	1.7 U	5.1	6.19	0.040	7.20	4.27	10.3	148.0
SHP-2016-4B	05/21/2021	**690**	**32,000**	**2,100**	83	4.5	1.7	3.7	6.79	0.034	0.16	1.72	11.0	-124.4
SHP-2016-4B	11/04/2021	**1,100**	**36,000**	**2,300**	120	14	0.8 U	6.3	6.60	0.252	0.94	0.81	9.1	-95.9
SHP-2016-4B	05/10/2022	**730**	**31,000**	**2,200**	67	4.8	1.4	3.9	6.58	0.039	4.90	0.70	11.1	-110.0
SHP-2016-4B	10/21/2022	**1,400**	**45,000**	**2,800**	140	26	1.7	11	6.50	0.464	2.20	0.73	10.5	-89.4
SHP-2016-4B	06/13/2023	**1,100**	**36,000**	**2,800**	120	9.7	1.5	5.6	6.21	0.396	1.26	0.70	11.9	-75.2
SHP-2016-4B	10/26/2023	**1,000**	**32,000**	**2,900**	90	6.7	1.4	11	6.62	0.210	6.50	0.49	12	-91.7
SHP-2016-5A	05/24/2017	2.3 J	8,000	260	63	27	18	1.0 U	6.76	0.162	9.94	0.26	9.2	-78.3
SHP-2016-5A	11/16/2017	2.2 J	4,900	140	73	17	8.6	0.76 J	8.19	0.174	5.74	1.60	8.2	-59.4
SHP-2016-5A	04/24/2018	2.5 J	3,900	110	70	14	7.9	2.8	7.02	0.191	7.68	0.40	11.6	-58.5
SHP-2016-5A	11/14/2018	2.8 J	4,000	140	66	40	5.6	6.7	6.26	0.375	1.52	0.24	9.7	14.6
SHP-2016-5A	04/23/2019	3.9	3,200	100	67	25	6.3	6.7	6.50	0.240	7.90	0.59	8.8	-9.9
SHP-2016-5A	11/05/2019	3.2	4,400	190	65	67	4.1	4.8	6.20	0.380	8.10	0.45	8.1	30.0
SHP-2016-5A	05/21/2020	3.0	2,000	150	60	31	6.5	2.1	5.96	0.180	4.63	0.23	9.6	114.0
SHP-2016-5A	11/09/2020	3.9	2,200	200	56	39	5.5	2.7	6.56	0.339	2.10	0.76	12.8	-87.7
SHP-2016-5A	06/22/2021	3.0 J	1,700	170	56	19	6.9	4.1	7.14	0.154	< 0.1	3.54	10.7	0.4
SHP-2016-5A	11/09/2021	3.4	2,000	220	67	24	6.1	2.6	6.31	0.184	0.56	0.10	11.7	-33.3
SHP-2016-5A	05/10/2022	3.3 J	1,700	190	64	9.5	6.9	3.4	6.19	0.140	4.87	0.82	11.5	-28.7
SHP-2016-5A	10/21/2022	3.5 J	1,300	140	61	3.2	7.6	1.1	6.37	0.216	7.40	0.78	10.6	-21.3
SHP-2016-5A	06/16/2023	2.4 J	1,600	210	46	24	5.0	1.2	6.20	0.207	2.90	0.71	11.2	-0.7
SHP-2016-5A	10/31/2023	2.9 J	2,100	270	63	26	6.0	1.6	6.33	0.187	4.70	0.35	11.3	-7.3
SHP-2016-5B	05/24/2017	**620**	**66,000**	**4,100**	240	19	4.4	1.0 U	6.40	0.462	7.86	0.59	9.3	-76.9
SHP-2016-5B	11/20/2017	**700**	**64,000**	**4,700**	200	19	3.3	0.63 J	8.44	0.518	1.96	--	9.1	-64.1
SHP-2016-5B	04/24/2018	**620**	**57,000**	**4,300**	200	19	2.8	2.3	7.19	0.578	5.29	0.75	10.8	-71.5
SHP-2016-5B	11/14/2018	**520**	**52,000**	**4,000**	190	21	2.6	1.2	6.85	0.735	6.82	0.87	8.2	-81.0
SHP-2016-5B	04/23/2019	**610**	**64,000**	**5,100**	180	21	2.6	0.81 J	6.70	0.600	37.0	0.69	9.2	-81.0
SHP-2016-5B	11/05/2019	**720**	**66,000**	**3,500**	210	20	2.5	5.2	6.50	0.590	13.0	0.34	8.5	-70.0
SHP-2016-5B	05/21/2020	**470**	**47,000**	**2,500**	150	12	2.6	1.6	5.99	0.352	3.62	0.33	10.3	61.9
SHP-2016-5B	11/09/2020	**730**	**57,000**	**2,600**	160	25	2.7 U	9.6	5.92	0.118	67.9	1.50	7.9	0.2
SHP-2016-5B	05/27/2021	**630**	**55,000**	**2,300**	130	28	1.9	4.0	6.96	0.056	6.53	1.19	17.3	-155.5
SHP-2016-5B	11/10/2021	**550**	**58,000**	**3,000**	150	28	2.5	9.8	6.40	0.377	0.1 U	0.02	12.0	-65.9
SHP-2016-5B	05/10/2022	**560**	**56,000**	**2,900**	130	19	2.2	5.0	6.39	0.398	1.07	0.85	11.9	-90.2
SHP-2016-5B	05/25/2022	**530**	**49,000**	**2,700**	120	17	1.9	5.5	6.54	0.465	2.99	0.25	11.7	-83.1
SHP-2016-5B	08/29/2022	**590**	**56,000**	**3,300**	150	27	2.2	11.0	6.62	0.400	2.81	0.55	13.1	-30.1
SHP-2016-5B	10/21/2022	**710**	**58,000**	**3,500**	160	21	2.3	7.2	6.52	0.503	3.20	0.61	11.3	-97.9
SHP-2016-5B	11/17/2022	**670**	**58,000**	**3,400**	91	23	2.1	7.1	6.60	0.452	2.81	1.67	9.3	-77.0
SHP-2016-5B	06/16/2023	**590**	**55,000**	**2,800**	140	29	2.0	9.3	6.40	0.612	1.80	0.71	13.2	-92.6
SHP-2016-5B	10/31/2023	**550**	**58,000**	**2,800**	180	22	2.6	12	6.48	0.501	3.70	0.16	11.6	-82.3
SHP-2023-1A	11/03/2023	1.3 J	37 J	370	38	0.55	0.86 J	1.4 J	5.82	0.077	1.55	1.16	13.5	105.0
SHP-2023-1B	11/03/2023	**530**	310	1,000	120	33	1.0 J	20	6.69	0.327	6.91	0.52	13.6	-34.1
SHP-2023-2A	11/06/2023	**87**	**24,000**	1,300	58	2.7	2.5	4.3	6.29	0.184	78.80	0.44	11.0	-41.9
SHP-2023-2B	11/06/2023	**890**	**18,000**	**2,900**	180	55	5.4	70	6.70	0.475	15.98	0.52	12.1	-54.3
SHP-2023-3A	11/02/2023	2.1 J	25 J	6.2 J	28	0.31 J	2.3	0.99 J	5.92	0.052	1.1	0.12	16.1	109.4
SHP-2023-3B	11/02/2023	**61**	**20,000**	1,200	110	90	1.8	520	6.44	0.320	12.2	0.16	12.5	-49.9
SHP-2023-4A	11/02/2023	3.0 U	50 U	240	14	1.2	0.78 J	4.6	5.89	0.038	11.80	1.57	9.5	111.7
SHP-2023-4B	11/02/2023	6.3	270	**5,200**	220	54	15	35	6.62	0.529	157.4	0.01	9.6	-36.6
SHP-2023-5A	11/03/2023	3.0 U	50 U	90	34	2.5	1.0 J	5.9	5.93	0.070	34.90	6.70	9.7	207.4
SHP-2023-5B	11/03/2023	6.2	6,700	**6,000**	160	70	1.9	35	6.45	0.551	14.6	0.01	10.7	-129.0
SHP-99-29X	10/29/2007	--	**41,000**	**10,000**	--	--	--	--	--	--	--	--	--	--
SHP-99-29X	10/12/2010	--	--	--	130	2.5	--	4.9	5.67	0.270	1.00	0.13	11.9	-8.8
SHP-99-29X	10/11/2012	--	--	--	110	4.1	--	3.0 J	5.54	0.287	6.00	0.27	12.1	-1.0
SHP-99-29X	10/17/2012	--	--	--	92	1.6	--	4.8	5.82	0.191	3.60	0.29	11.3	-75.7
SHP-99-29X	10/22/2013	**2,760**	**43,300**	**6,430**	101	2.3	--	5.6 J	6.02	0.230	4.29	0.90	13.1	-48.3
SHP-99-29X	10/07/2014	**3,000**	**49,100**	**8,510**	120	3.0	1.5	7.8 J	5.92	0.180	13.2	0.13	11.6	-17.8
SHP-99-29X	10/22/2015	**3,810**	**48,500**	**8,340**	108	2.8	1.5	6.2	5.73	0.243	3.35	0.35	12.3	27.3
SHP-99-29X	11/22/2016	**3,900**	**57,000**	**9,600**	140	2.3	1.5	6.1	5.97	0.229	7.89	1.03	11.4	-4.1
SHP-99-29X	11/09/2017	**2,100**	**47,000**	**2,500**	98	3.5	2.4	2.0	6.47	0.207	8.70	0.40	10.7	4.0
SHP-99-29X	11/08/2018	**1,200**	**50,000**	**2,700**	81	4.6	3.1	1.9	7.24	0.265	49.5	0.56	12.1	22.7
SHP-99-29X	11/06/2019	**1,600**	**42,000**	**3,900**	110	5.5	2.8	5.1	5.60	0.240	4.10	0.51	11.0	14.0

Appendix E
Historical Groundwater Monitoring Well Analytical Results
Shepley's Hill Landfill - Devens Massachusetts

Analytical Method		Dissolved Metals			Anions		General Chemistry		Field Parameters					
Analyte		Arsenic	Iron	Manganese	Alkalinity	Chloride	DOC	Sulfate	pH	SPC	Turbidity	DO	Temp	ORP
Unit		(µg/L)	(µg/L)	(µg/L)	mg/L	mg/L	mg/L	mg/L	SU	mS/cm	NTU	mg/L	°C	mV
Screening Limit*		10	9,100	1,715										
Well ID	Date													
SHP-99-29X	11/02/2020	**2,300**	**44,000**	**5,500**	100	2.3	2.4	3.2	6.50	0.240	2.90	0.21	9.1	-86.0
SHP-99-29X	11/02/2021	**1,600**	**40,000**	**2,800**	92 J	2.7	2.2	2.2	5.92	0.176	6.60	0.76	11.1	-16.4
SHP-99-29X	10/19/2022	**2,300**	**30,000**	**4,200**	78	2.0	2.0	2.4	5.75	0.111	3.52	1.16	13.5	-0.8
SHP-99-29X	10/24/2023	**1,000**	**36,000**	1,500	86	2.3	2.2	1.1	5.80	0.225	12.3	1.10	12.5	-46.0

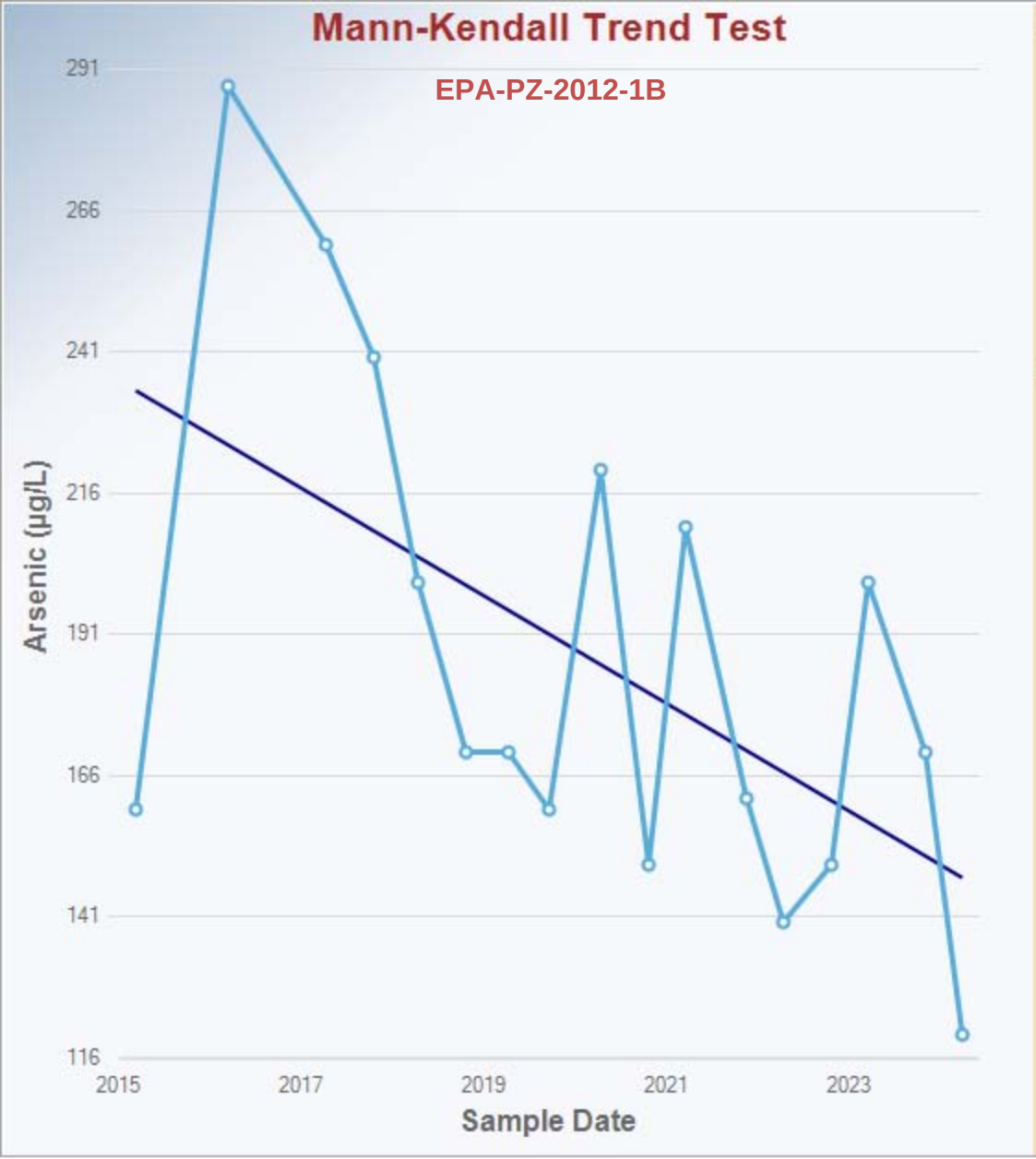
Notes:
1. *Screening Limits: Shepley's Hill Landfill (SHL) Cleanup Goals
2. Screening Limits Source: USACE. 1995. Record of Decision, Shepley's Hill Landfill Operable Unit, Fort Devens, Massachusetts. September.
3. -- : no data available

Analytical Parameters:
- # = Above Cleanup Goal
- = Spring 2023 sampling result
- = Fall 2023 sampling result

Acronyms and Abbreviations:
°C = degrees Celsius
µg/L = microgram per liter
µS/cm = microSiemen per centimeter
DO = dissolved oxygen
DOC = dissolved organic carbon
J = The analyte was positively identified, the quantitation is an estimation.
mg/L = milligram per liter
mV = millivolt
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SPC = specific conductivity
SU = standard unit
Temp = temperature
U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.

Appendix F

ProUCL Outputs



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	24.1385
Standardized Value of S	-2.4442
M-K Test Value (S)	-60
Tabulated p-value	0.0070
Approximate p-value	0.0073

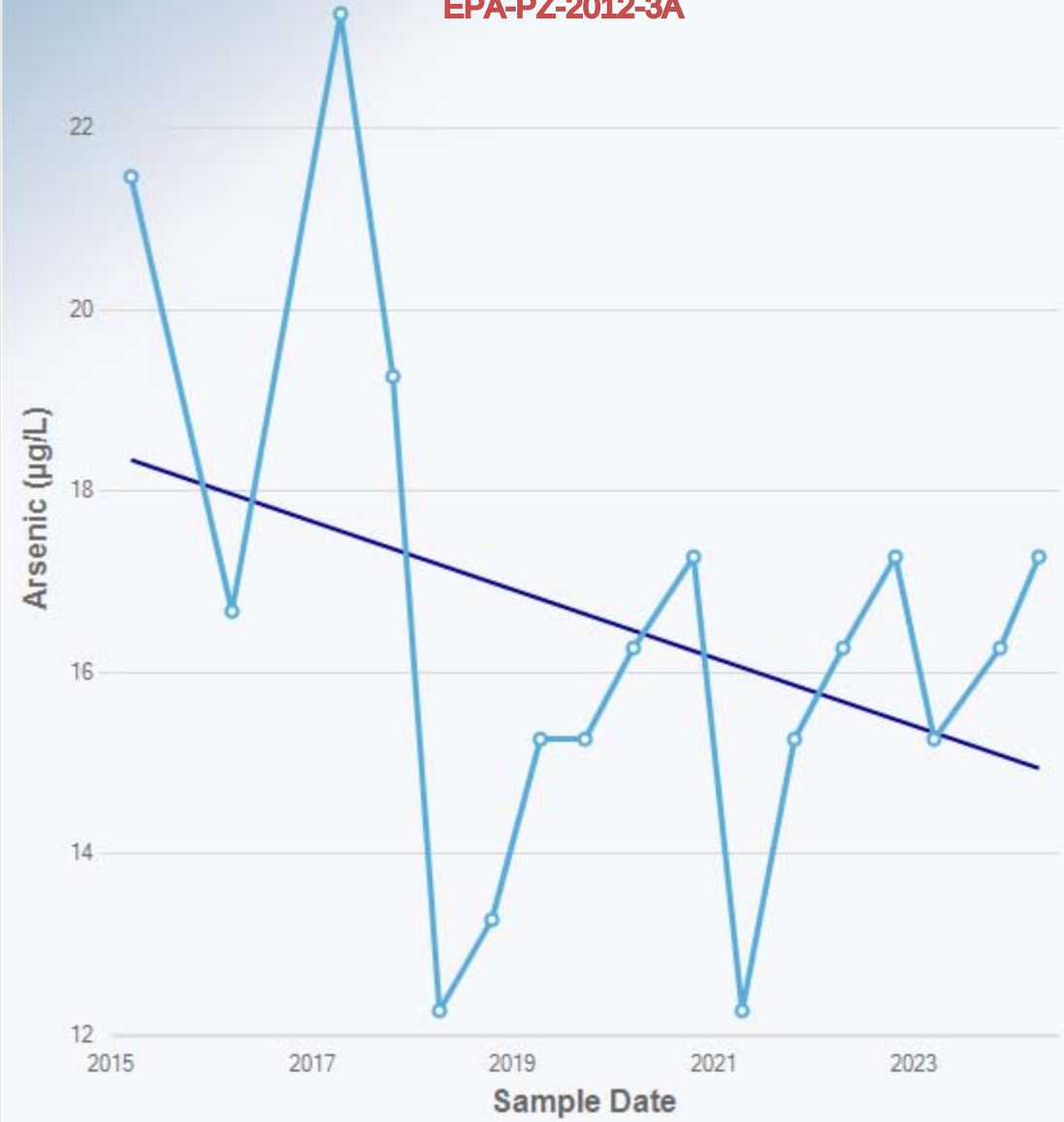
OLS Regression Line (Blue)

OLS Regression Slope	-9.5665
OLS Regression Intercept	19,508.7292

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

EPA-PZ-2012-3A



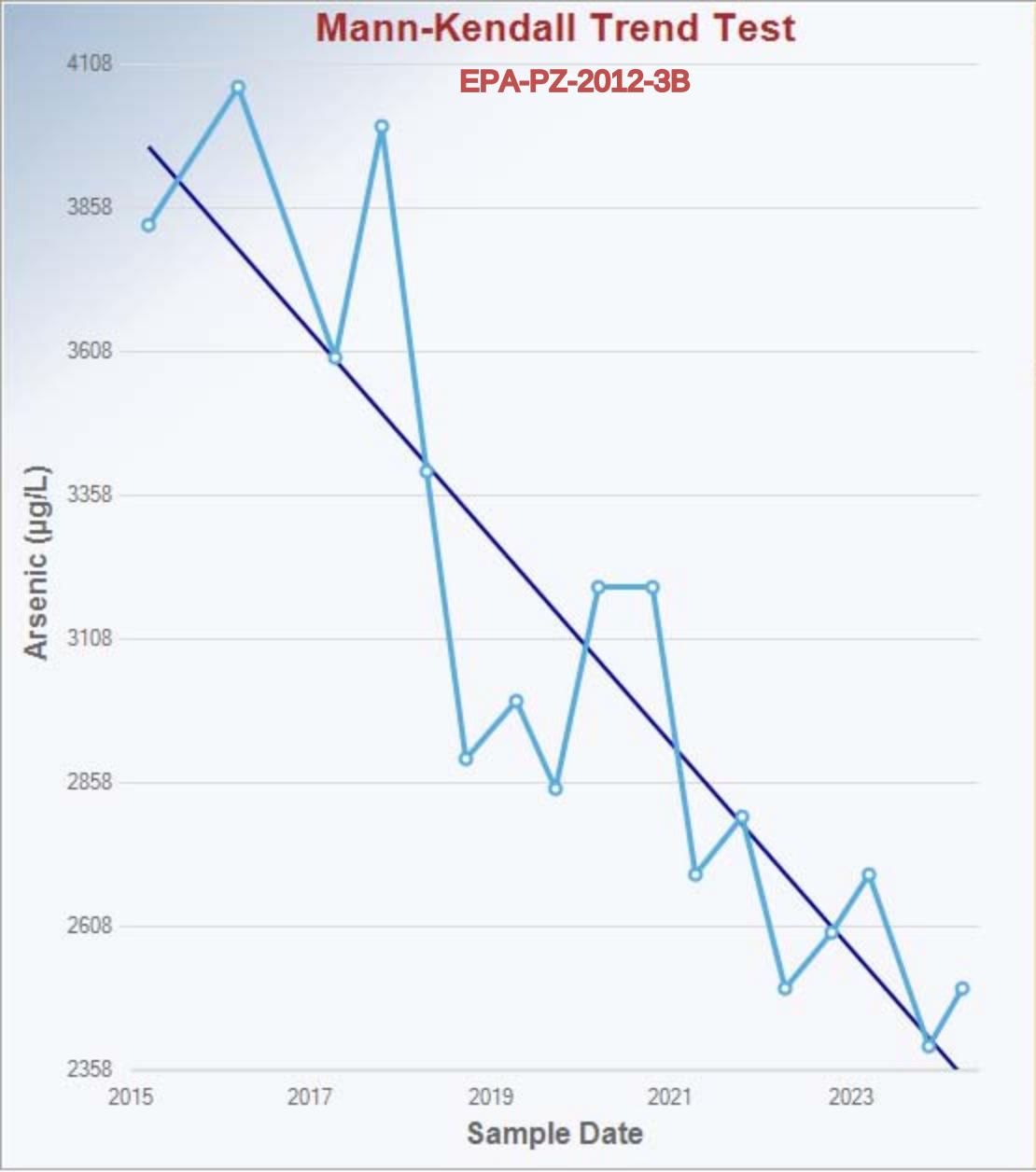
Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	23.9235
Standardized Value of S	-0.3344
M-K Test Value (S)	-9
Tabulated p-value	0.3880
Approximate p-value	0.3690

OLS Regression Line (Blue)

OLS Regression Slope	-0.3759
OLS Regression Intercept	775.3776

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	24.2143
Standardized Value of S	-4.2124
M-K Test Value (S)	-103
Tabulated p-value	0.0000
Approximate p-value	0.0000

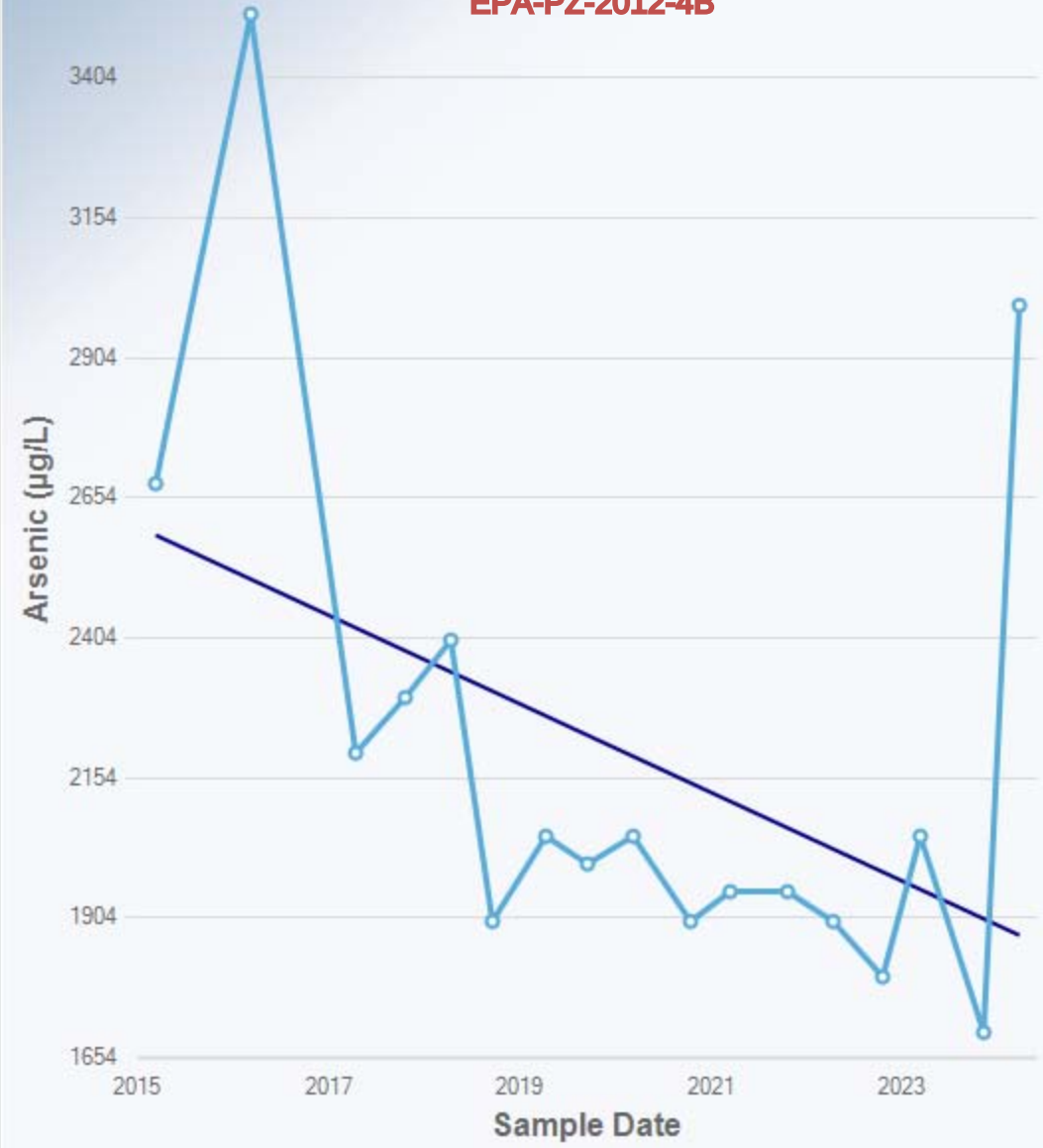
OLS Regression Line (Blue)

OLS Regression Slope	-179.2681
OLS Regression Intercept	365,154.4458

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

EPA-PZ-2012-4B



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	24.1039
Standardized Value of S	-2.4892
M-K Test Value (S)	-61
Tabulated p-value	0.0070
Approximate p-value	0.0064

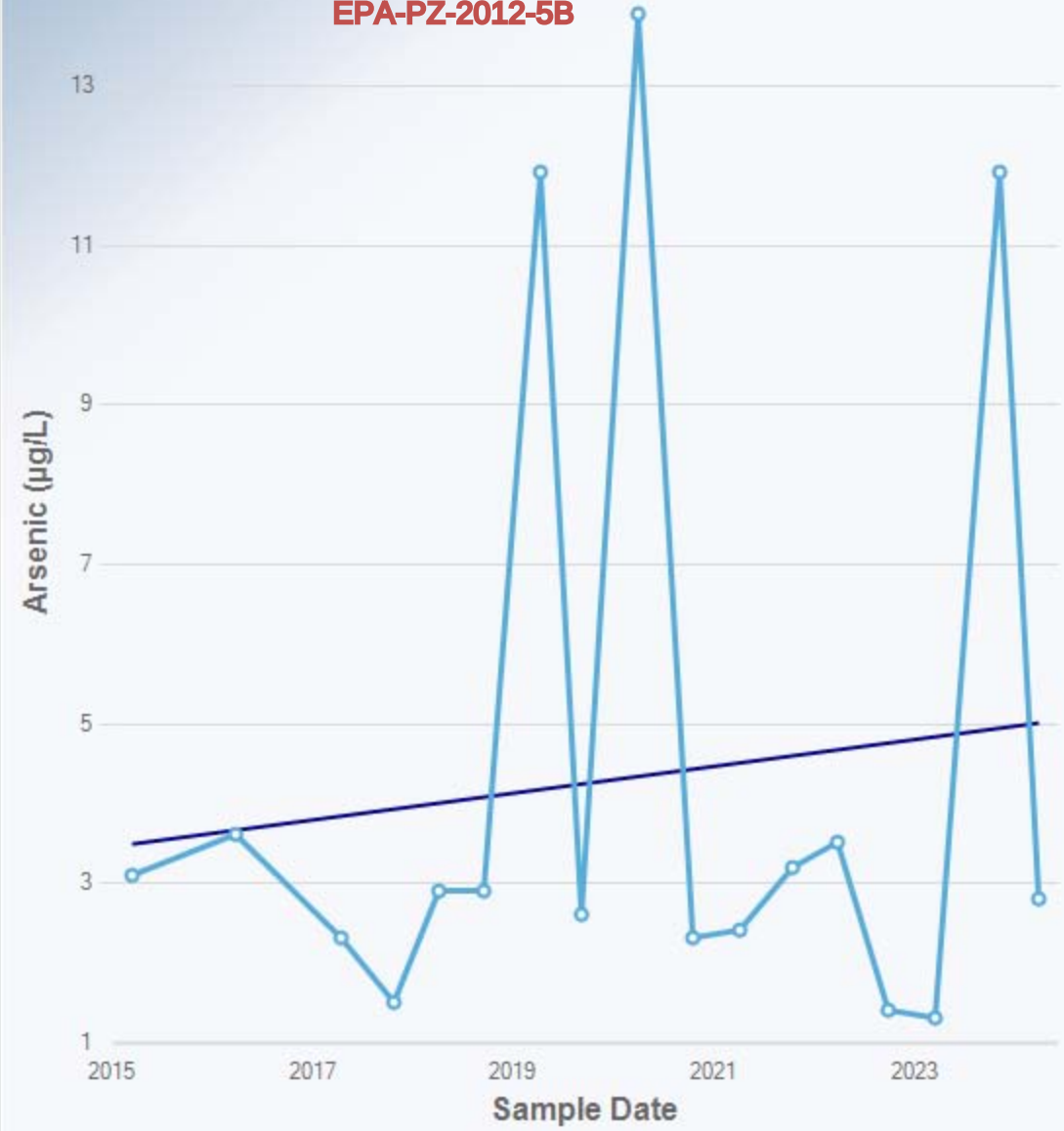
OLS Regression Line (Blue)

OLS Regression Slope	-79.2170
OLS Regression Intercept	162,197.0062

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

EPA-PZ-2012-5B



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	24.2143
Standardized Value of S	-0.3304
M-K Test Value (S)	-9
Tabulated p-value	0.3880
Approximate p-value	0.3706

OLS Regression Line (Blue)

OLS Regression Slope	0.1664
OLS Regression Intercept	-331.7249

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

EPA-PZ-2012-6B



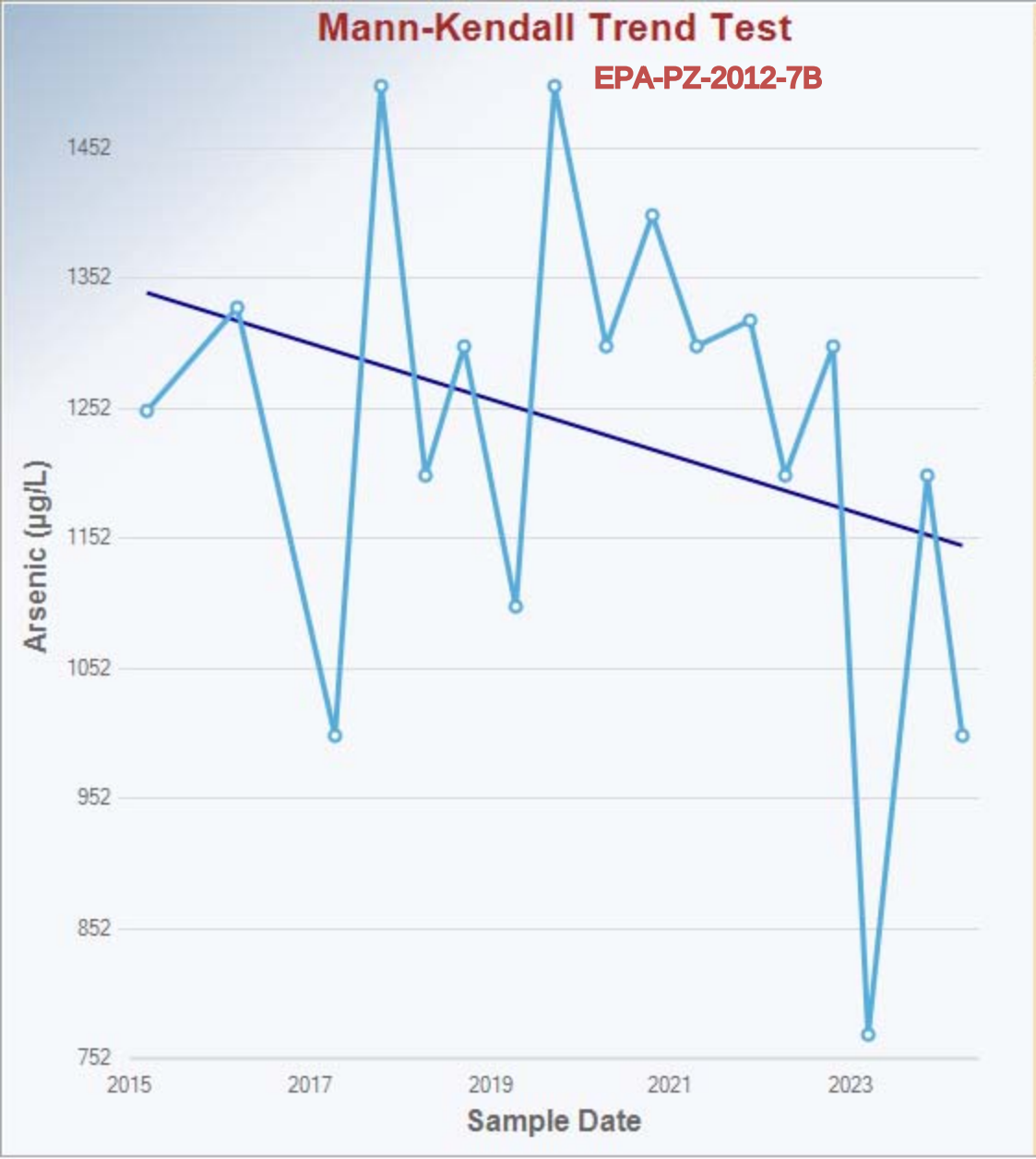
Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	24.1730
Standardized Value of S	-1.7375
M-K Test Value (S)	-43
Tabulated p-value	0.0460
Approximate p-value	0.0412

OLS Regression Line (Blue)

OLS Regression Slope	-15.2299
OLS Regression Intercept	31,078.2985

Statistically significant evidence of a decreasing trend at the specified level of significance.



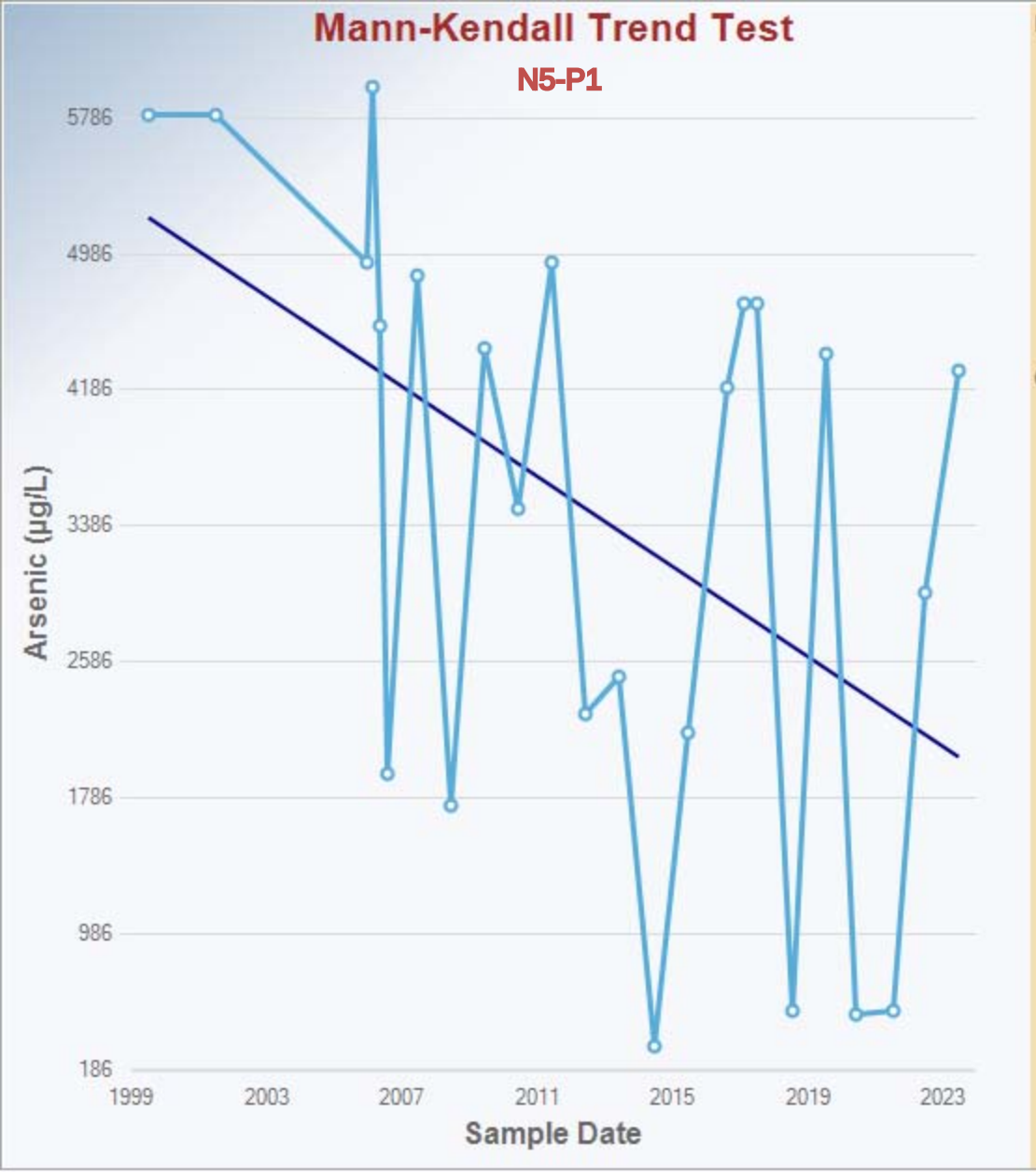
Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	23.9792
Standardized Value of S	-1.1677
M-K Test Value (S)	-29
Tabulated p-value	0.1350
Approximate p-value	0.1215

OLS Regression Line (Blue)

OLS Regression Slope	-21.4636
OLS Regression Intercept	44,585.3147

Insufficient statistical evidence of a significant trend at the specified level of significance.



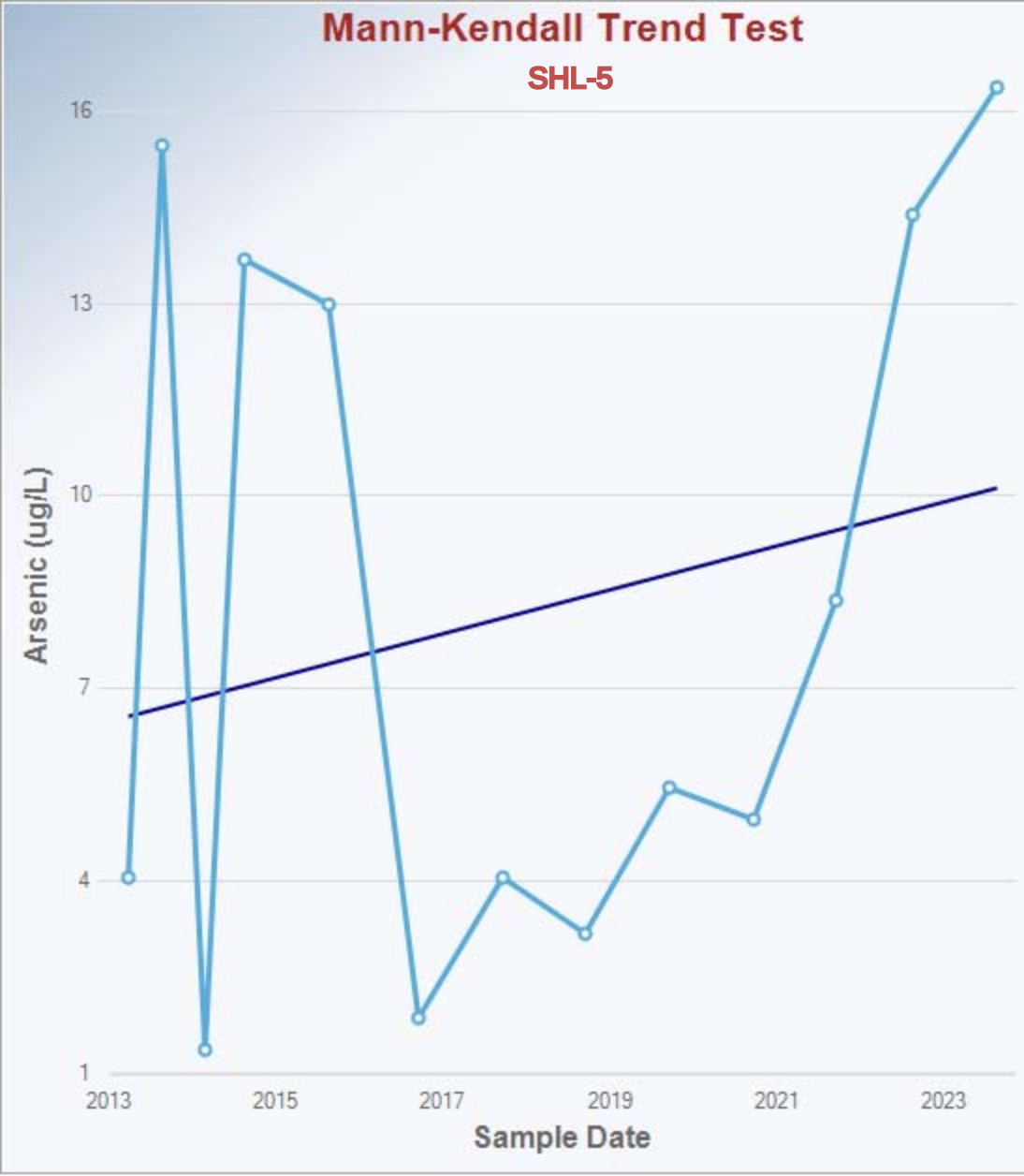
Mann-Kendall Trend Analysis

n	24
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	40.2782
Standardized Value of S	-2.5324
M-K Test Value (S)	-103
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0057

OLS Regression Line (Blue)

OLS Regression Slope	-132.4601
OLS Regression Intercept	270,101.2027

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3605
Standardized Value of S	1.2225
M-K Test Value (S)	21
Tabulated p-value	0.1260
Approximate p-value	0.1108

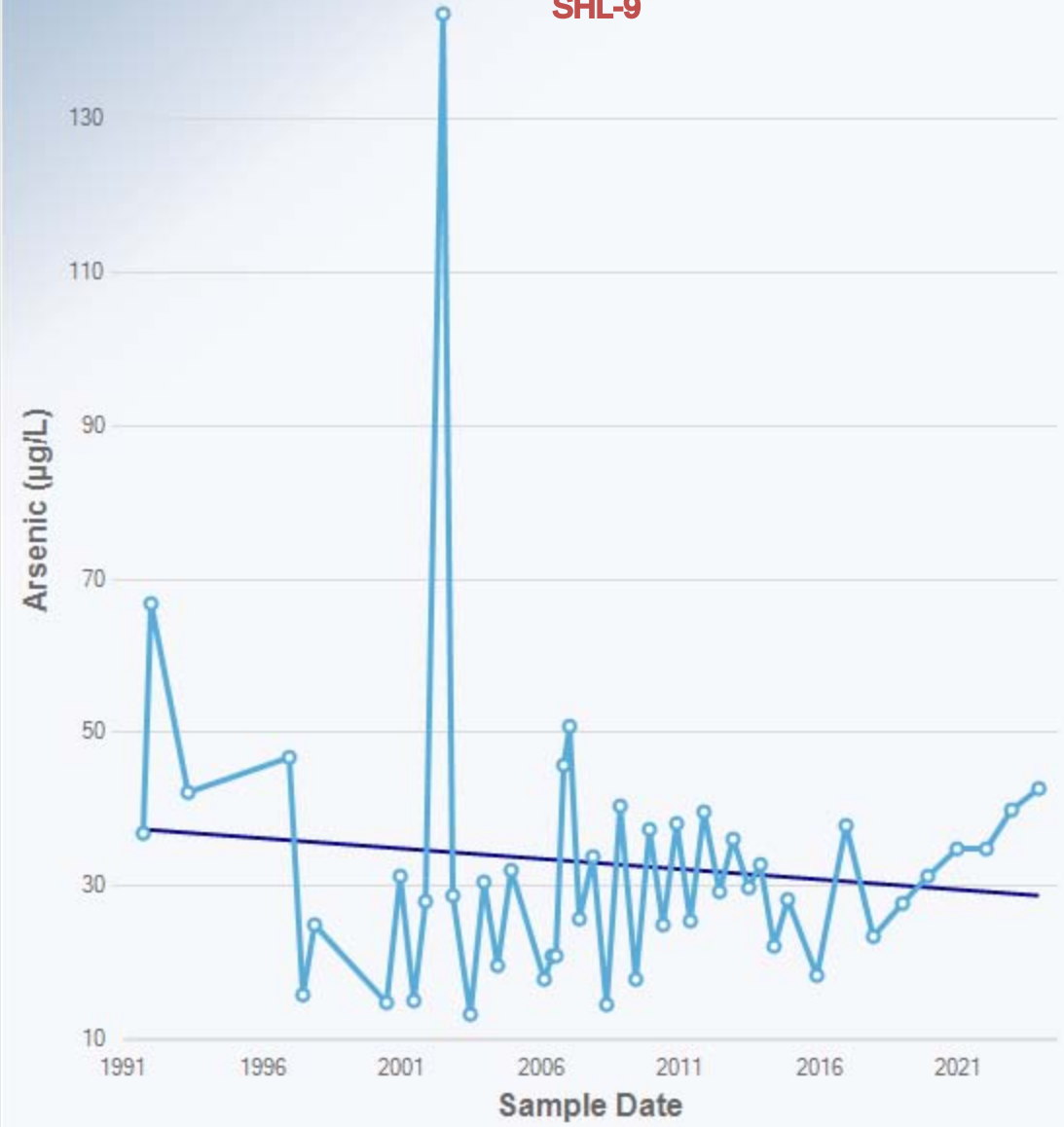
OLS Regression Line (Blue)

OLS Regression Slope	0.3404
OLS Regression Intercept	-679.0770

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHL-9



Mann-Kendall Trend Analysis

n	46
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	105.6030
Standardized Value of S	0.8049
M-K Test Value (S)	86
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.2104

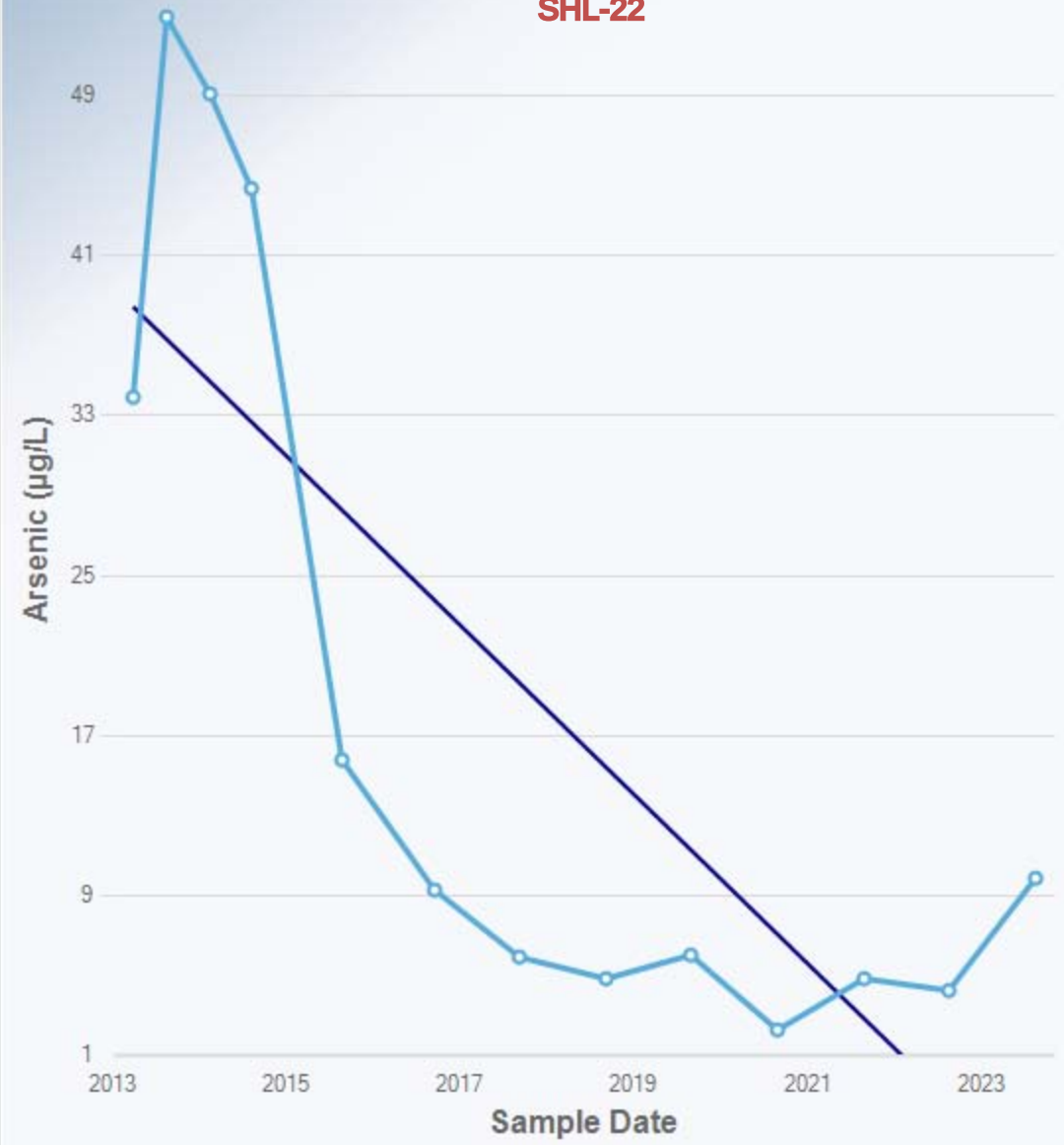
OLS Regression Line (Blue)

OLS Regression Slope	-0.2738
OLS Regression Intercept	582.9738

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHL-22



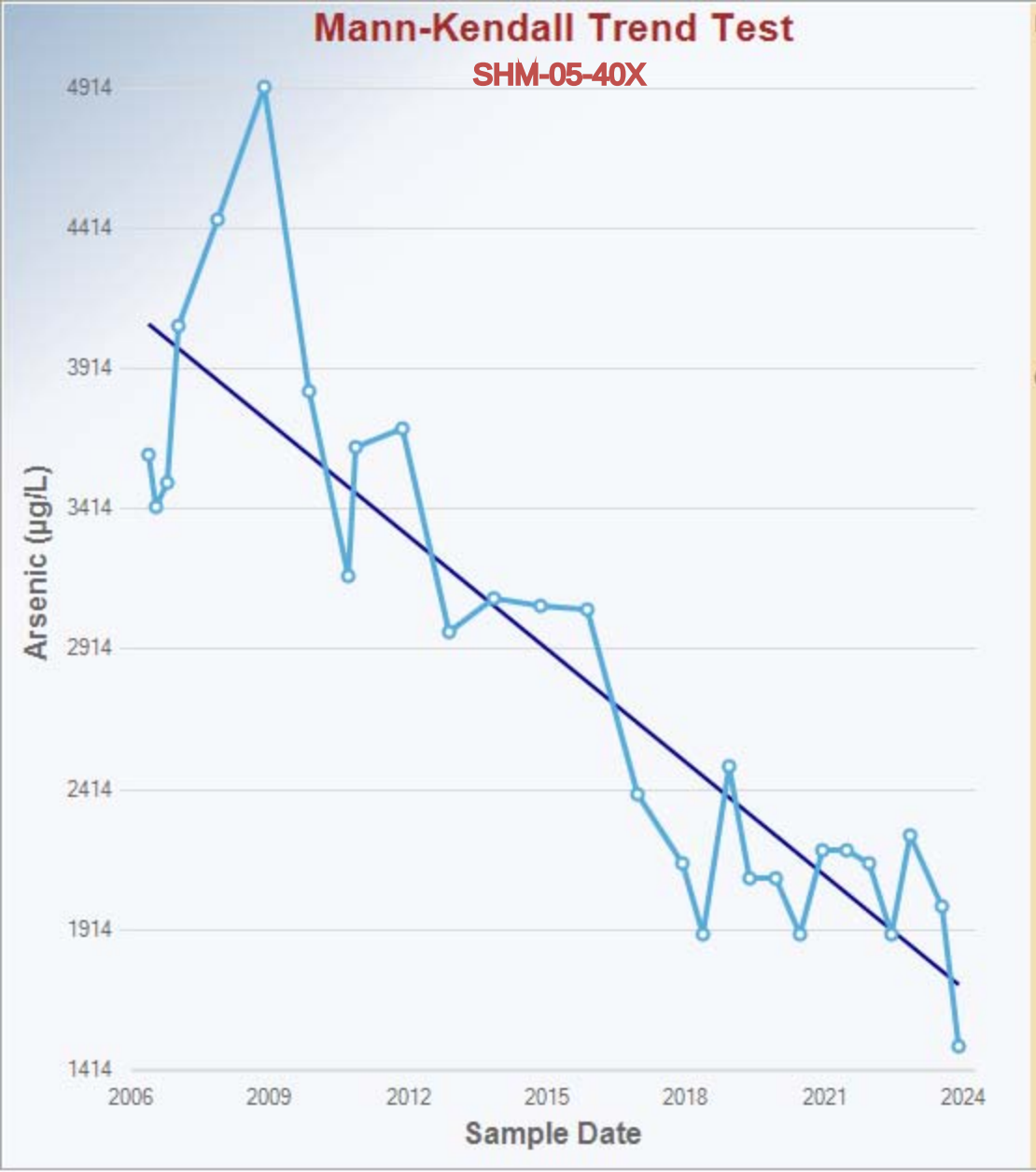
Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3605
Standardized Value of S	-2.9339
M-K Test Value (S)	-49
Tabulated p-value	0.0010
Approximate p-value	0.0017

OLS Regression Line (Blue)

OLS Regression Slope	-4.2312
OLS Regression Intercept	8,557.7144

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	28
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	50.5503
Standardized Value of S	-5.0049
M-K Test Value (S)	-254
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-134.4631
OLS Regression Intercept	273,847.9510

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-05-41A



Mann-Kendall Trend Analysis

n	29
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	53.2917
Standardized Value of S	-2.9461
M-K Test Value (S)	-158
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0016

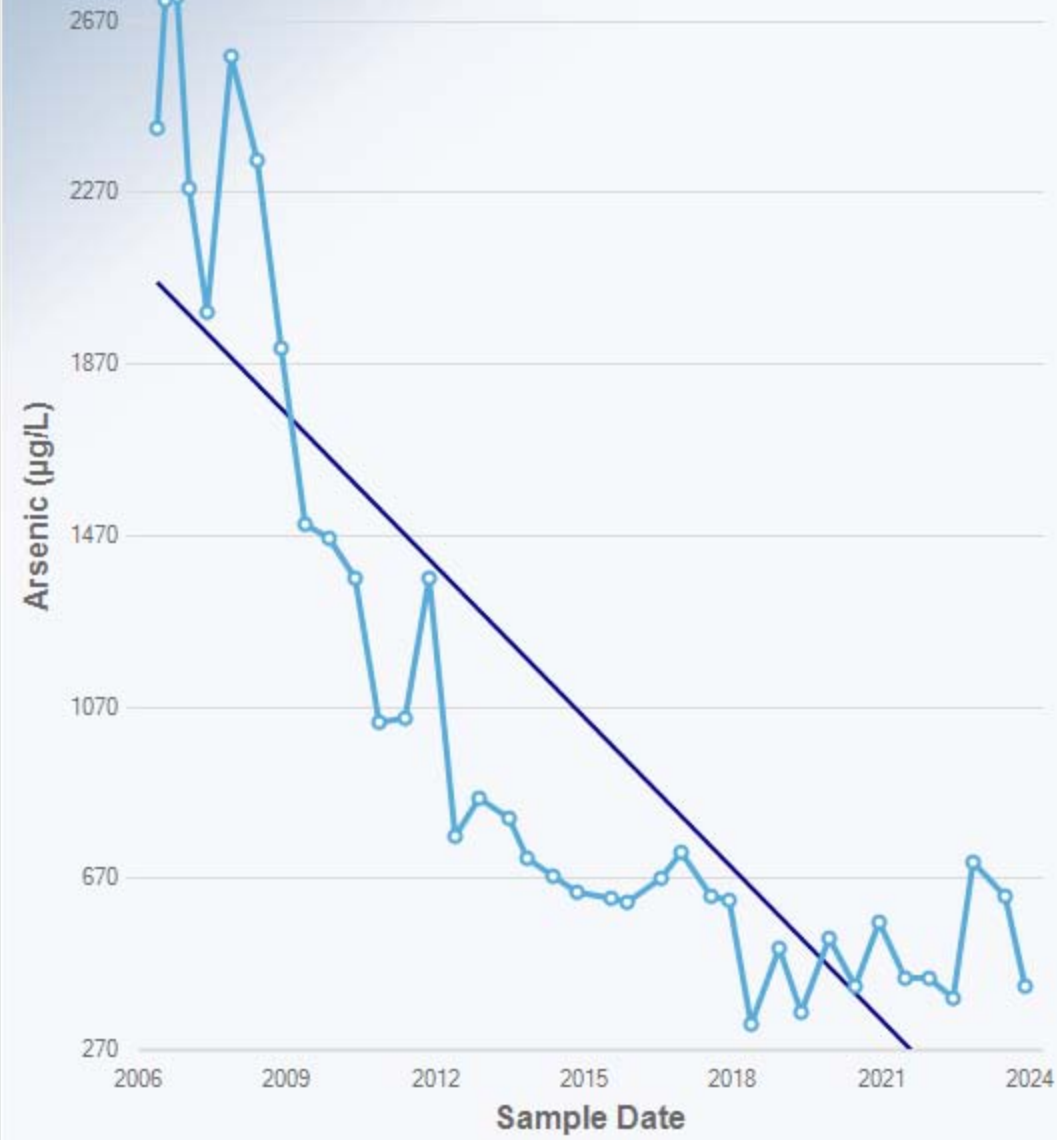
OLS Regression Line (Blue)

OLS Regression Slope	-1.0464
OLS Regression Intercept	2,131.4449

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-05-41B



Mann-Kendall Trend Analysis

n	38
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	79.5236
Standardized Value of S	-6.8785
M-K Test Value (S)	-548
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

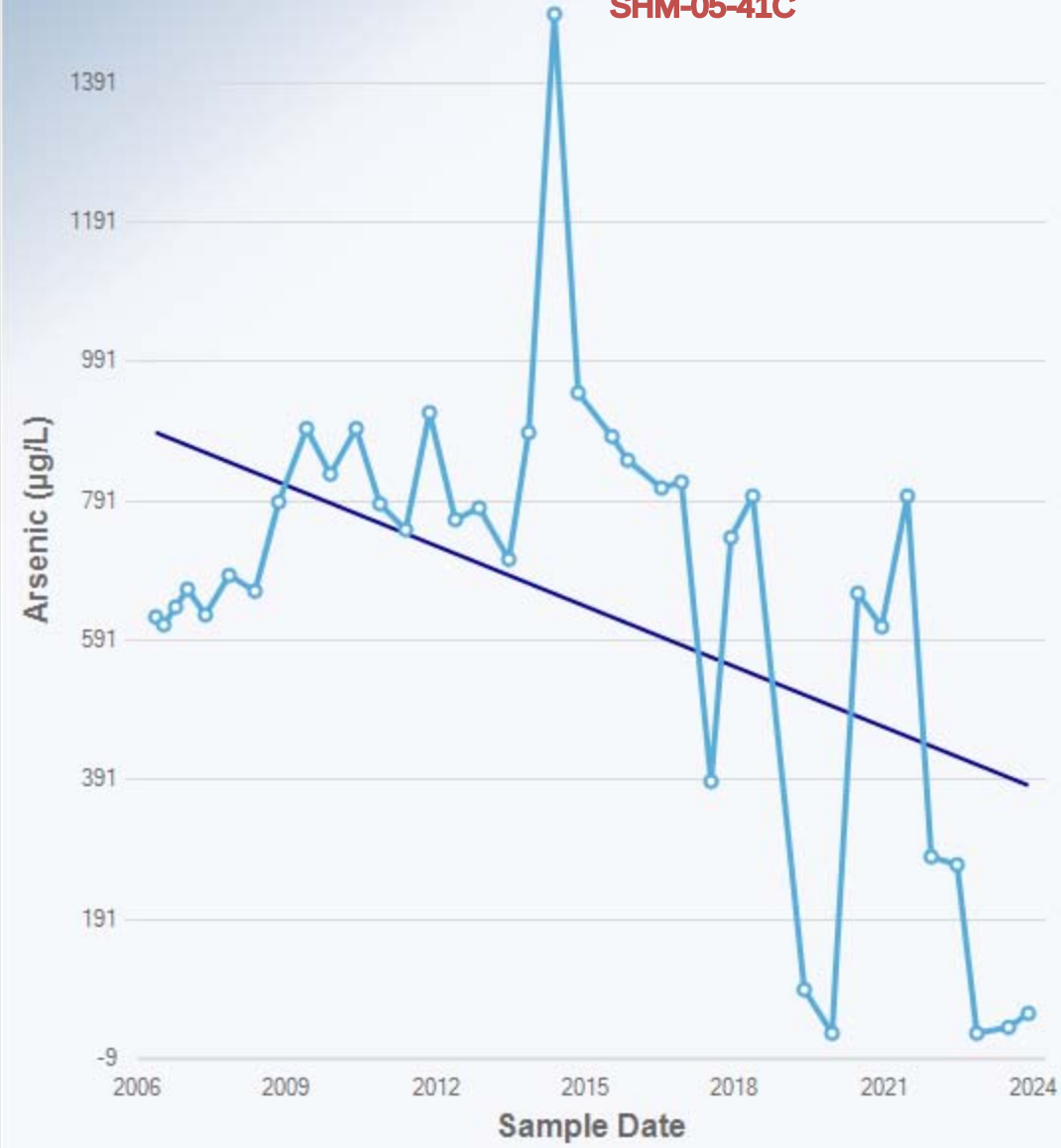
OLS Regression Line (Blue)

OLS Regression Slope	-118.0270
OLS Regression Intercept	238,859.9122

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-05-41C



Mann-Kendall Trend Analysis

n	37
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	76.4526
Standardized Value of S	-1.7004
M-K Test Value (S)	-131
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0445

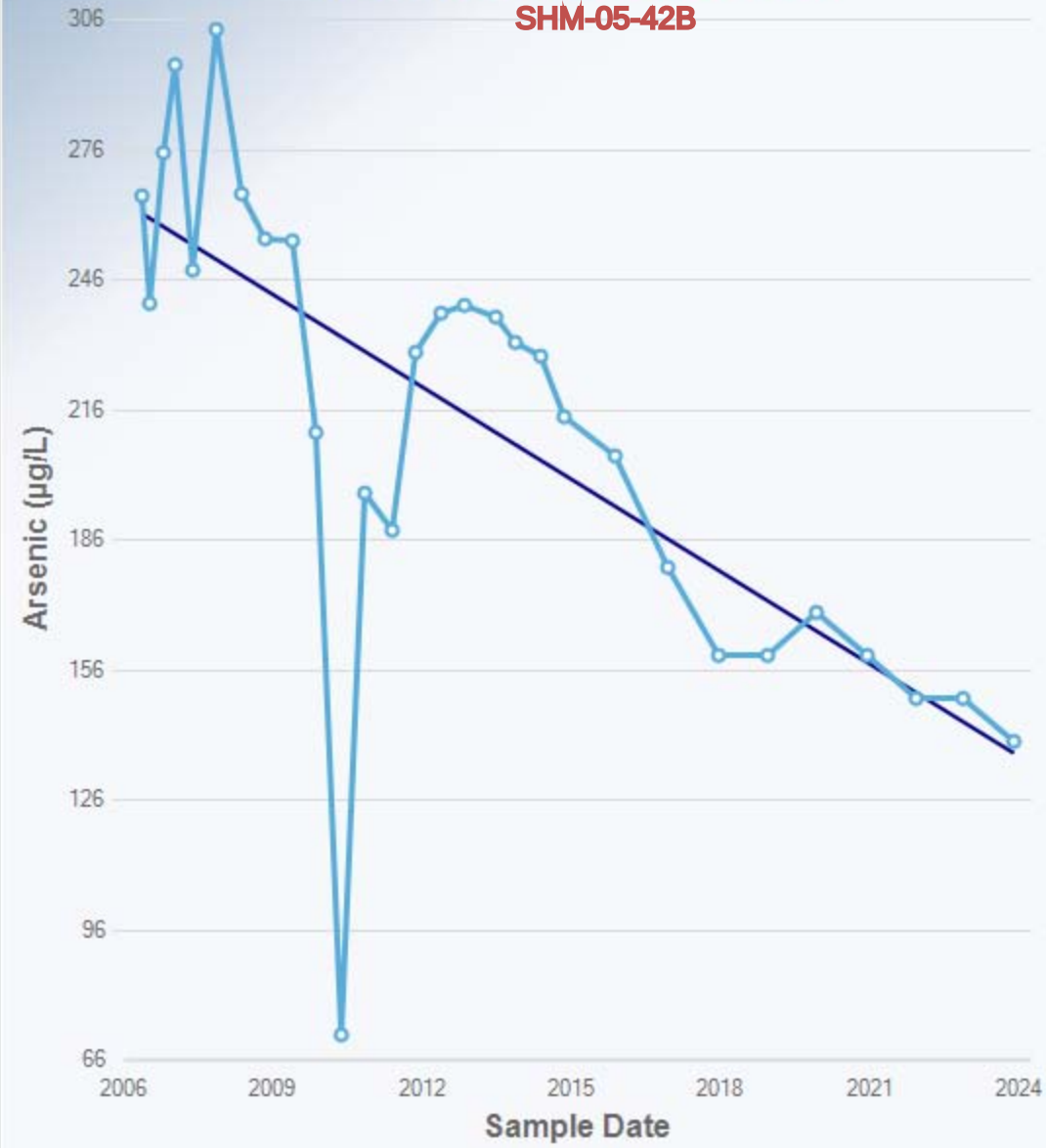
OLS Regression Line (Blue)

OLS Regression Slope	-28.9150
OLS Regression Intercept	58,902.4975

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-05-42B



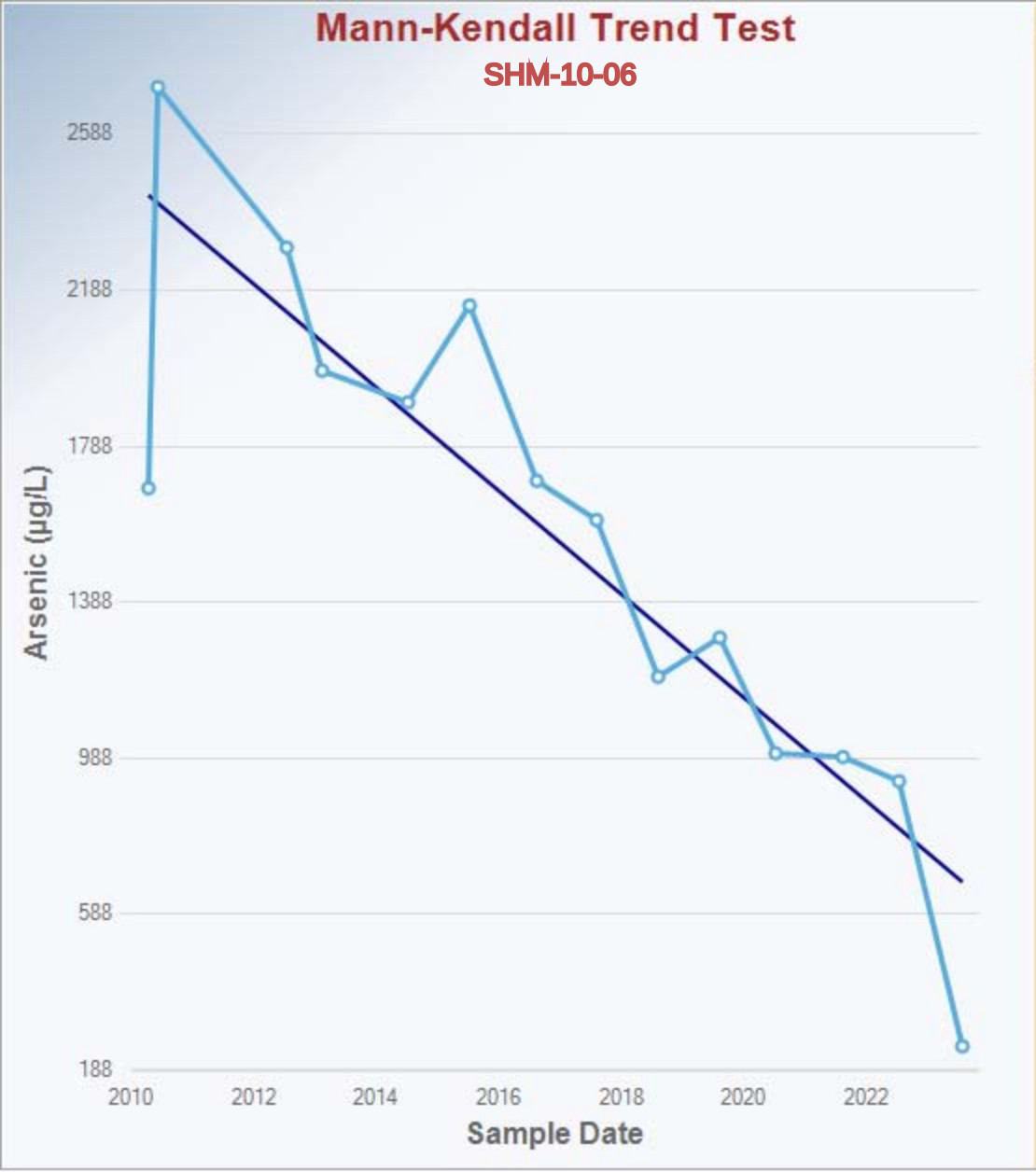
Mann-Kendall Trend Analysis

n	29
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	53.2666
Standardized Value of S	-5.0501
M-K Test Value (S)	-270
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-7.1321
OLS Regression Intercept	14,571.3591

Statistically significant evidence of a decreasing trend at the specified level of significance.



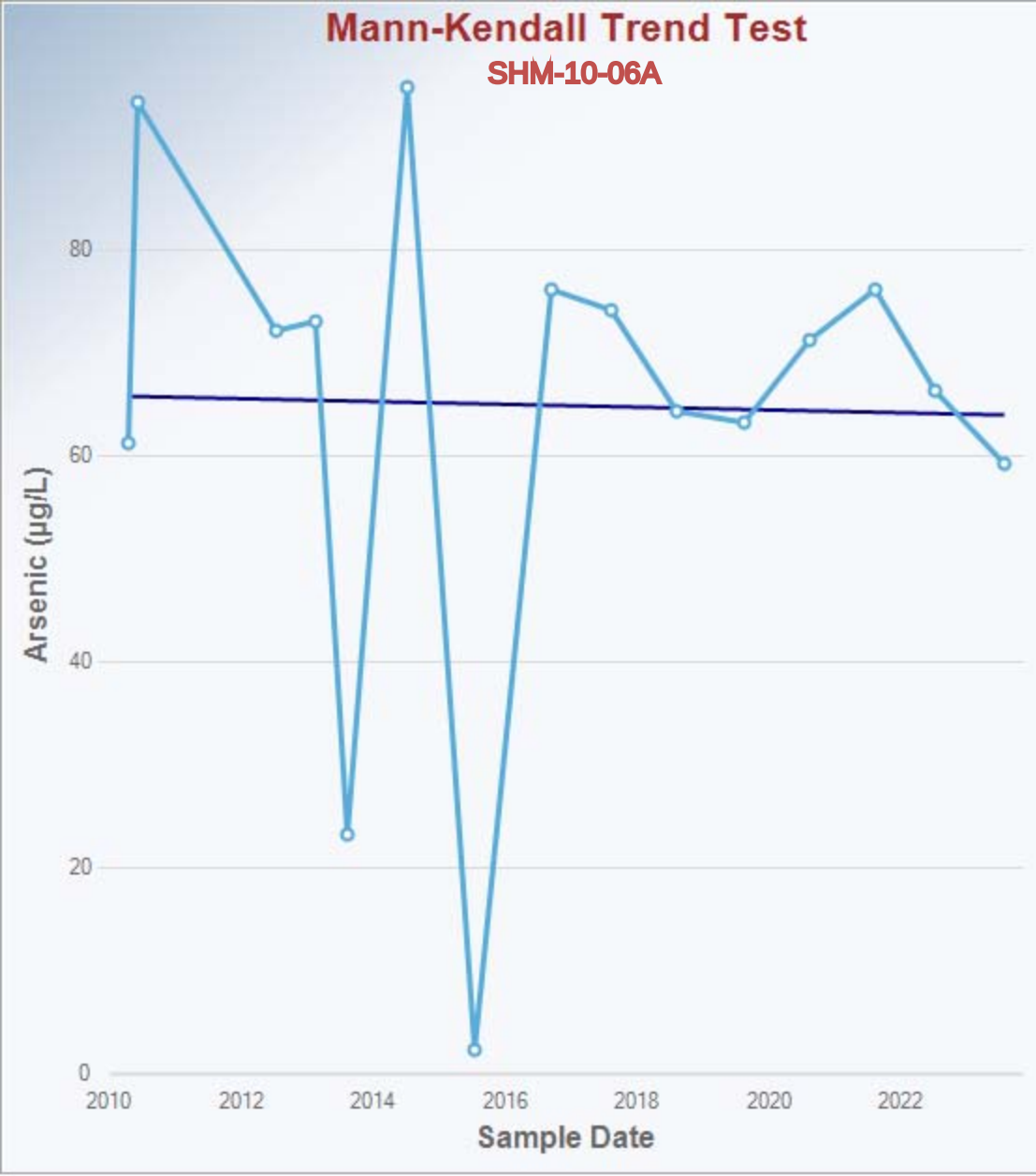
Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2665
Standardized Value of S	-3.9416
M-K Test Value (S)	-73
Tabulated p-value	0.0000
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-132.7078
OLS Regression Intercept	269,248.5024

Statistically significant evidence of a decreasing trend at the specified level of significance.



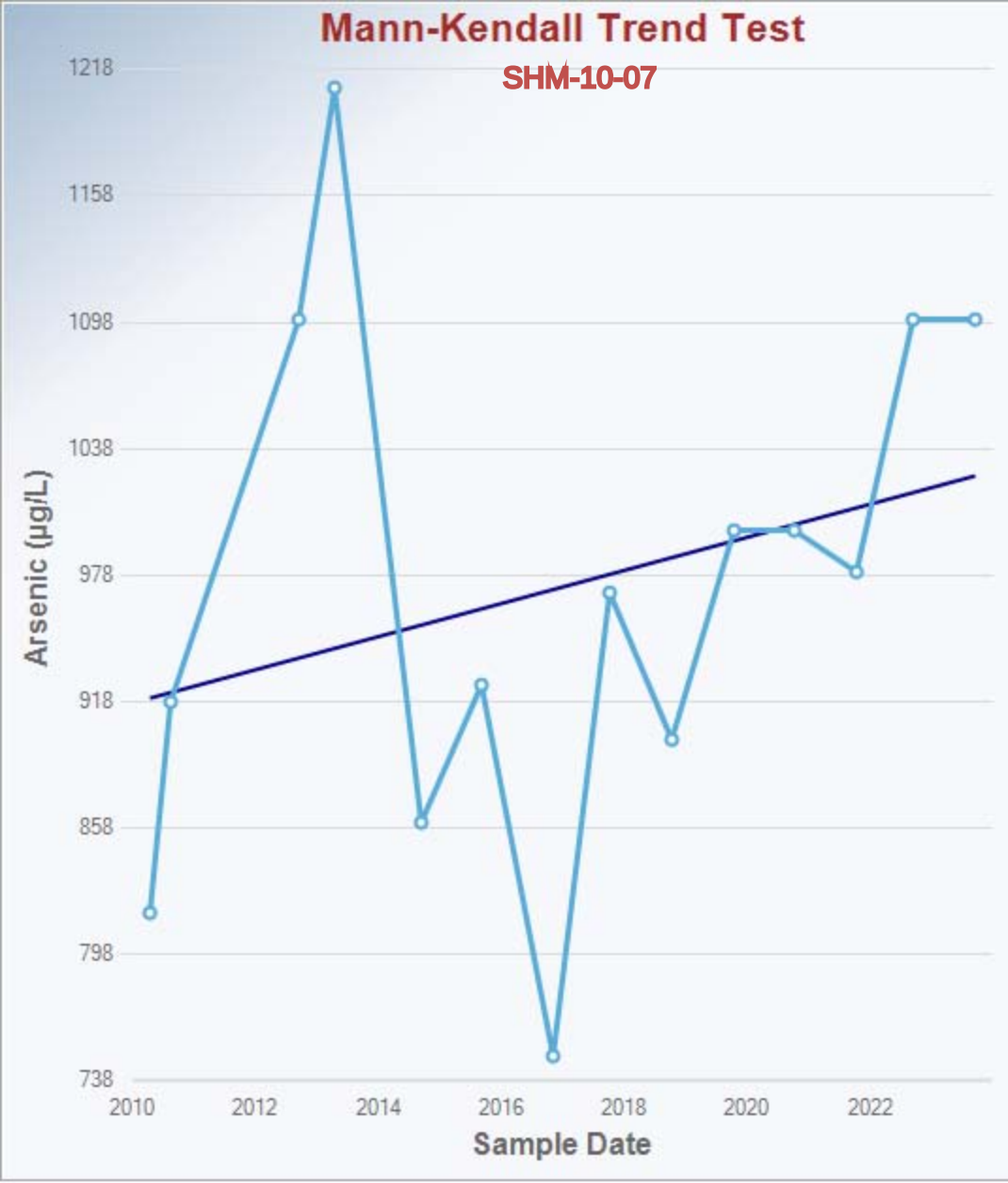
Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.1825
Standardized Value of S	-0.5450
M-K Test Value (S)	-12
Tabulated p-value	0.2790
Approximate p-value	0.2929

OLS Regression Line (Blue)

OLS Regression Slope	-0.1307
OLS Regression Intercept	328.3463

Insufficient statistical evidence of a significant trend at the specified level of significance.



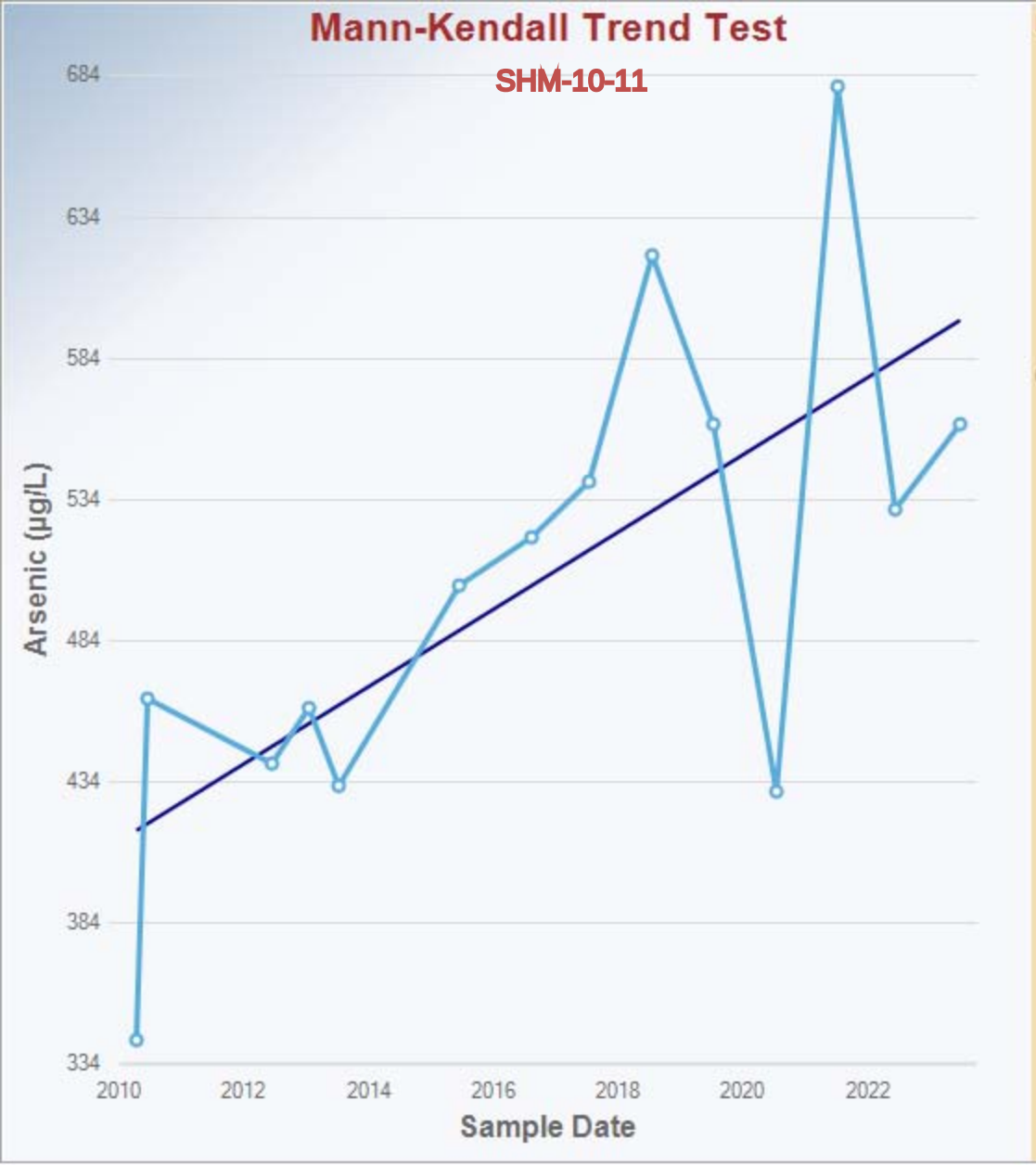
Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.1384
Standardized Value of S	1.6540
M-K Test Value (S)	31
Tabulated p-value	0.0500
Approximate p-value	0.0491

OLS Regression Line (Blue)

OLS Regression Slope	7.8538
OLS Regression Intercept	-14,869.0299

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2392
Standardized Value of S	2.5769
M-K Test Value (S)	48
Tabulated p-value	0.0030
Approximate p-value	0.0050

OLS Regression Line (Blue)

OLS Regression Slope	13.6893
OLS Regression Intercept	-27,107.8227

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-10-12



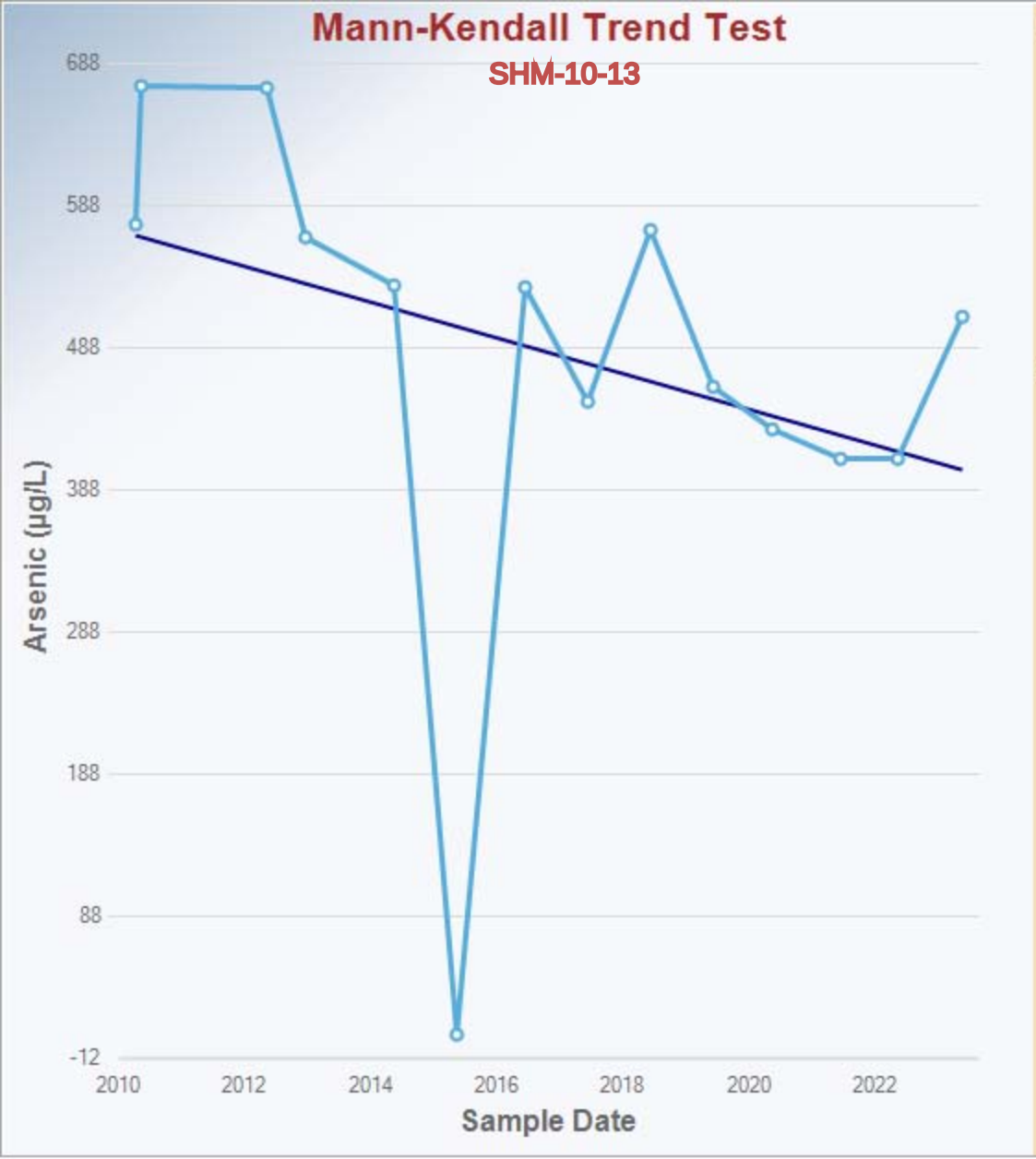
Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.1825
Standardized Value of S	-1.2387
M-K Test Value (S)	-26
Tabulated p-value	0.1010
Approximate p-value	0.1077

OLS Regression Line (Blue)

OLS Regression Slope	-24.6255
OLS Regression Intercept	53,089.0913

Insufficient statistical evidence of a significant trend at the specified level of significance.



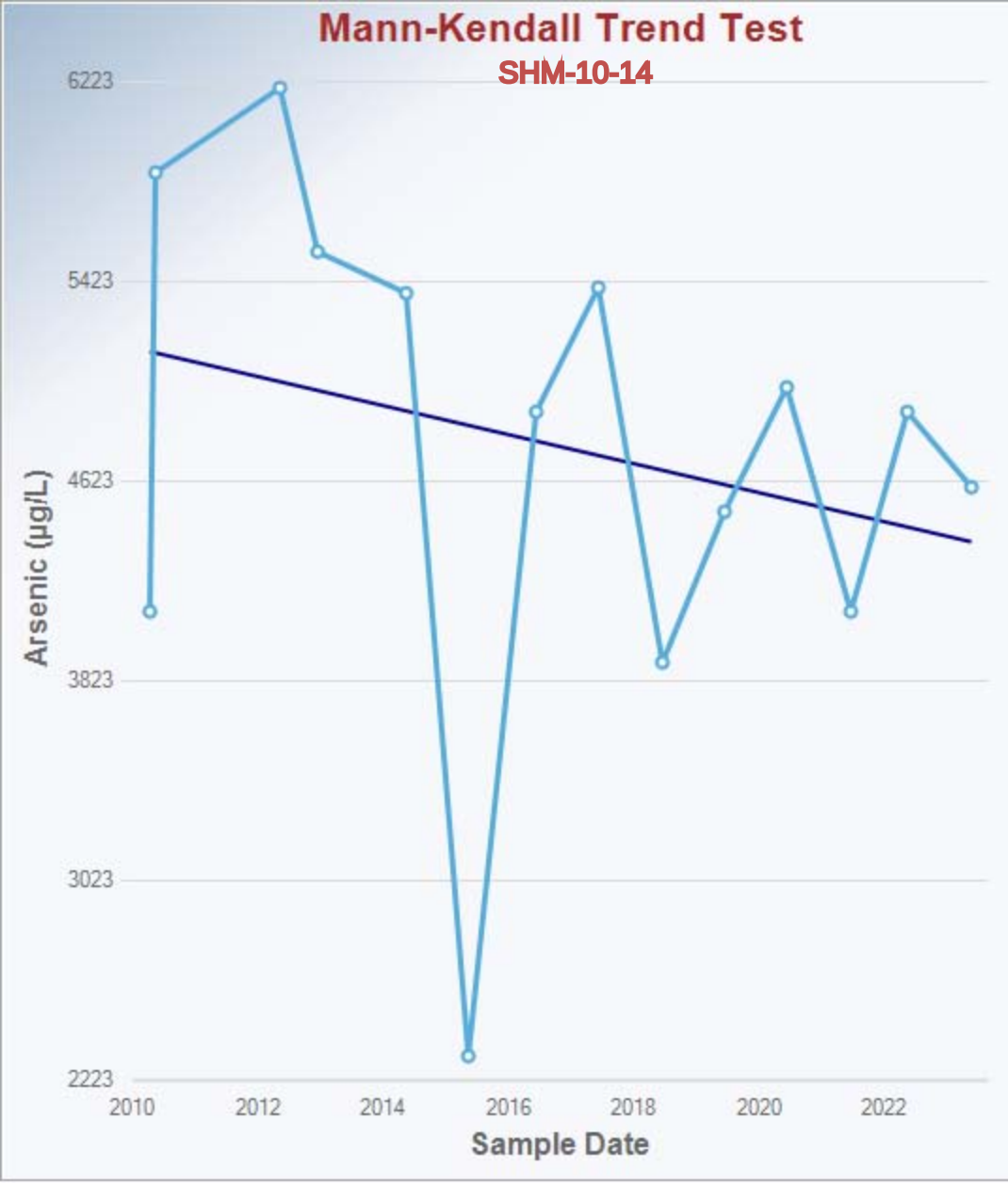
Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2392
Standardized Value of S	-2.6865
M-K Test Value (S)	-50
Tabulated p-value	0.0020
Approximate p-value	0.0036

OLS Regression Line (Blue)

OLS Regression Slope	-12.6730
OLS Regression Intercept	26,049.2071

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2117
Standardized Value of S	-1.3178
M-K Test Value (S)	-25
Tabulated p-value	0.0960
Approximate p-value	0.0938

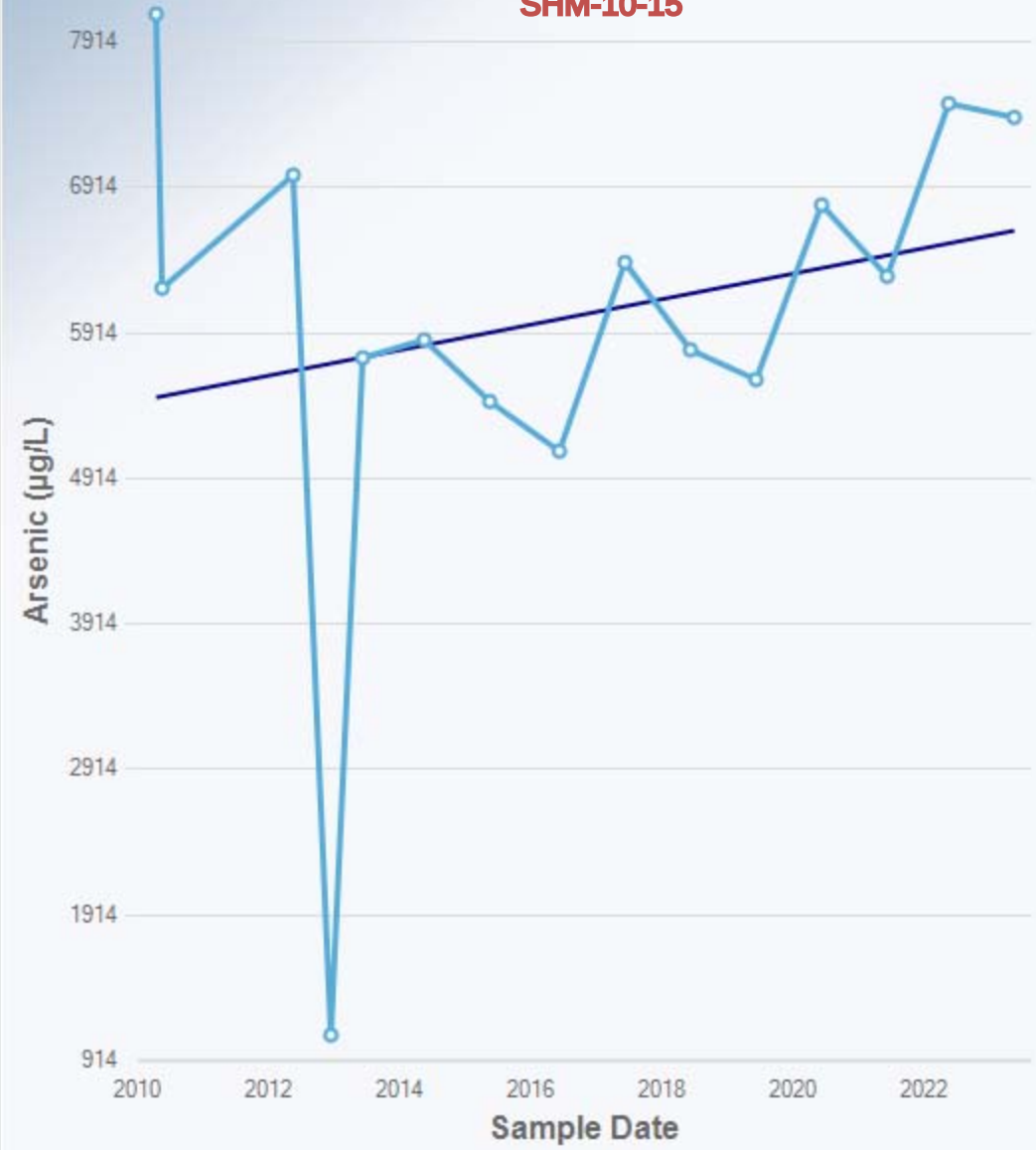
OLS Regression Line (Blue)

OLS Regression Slope	-58.5169
OLS Regression Intercept	122,806.3028

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-10-15



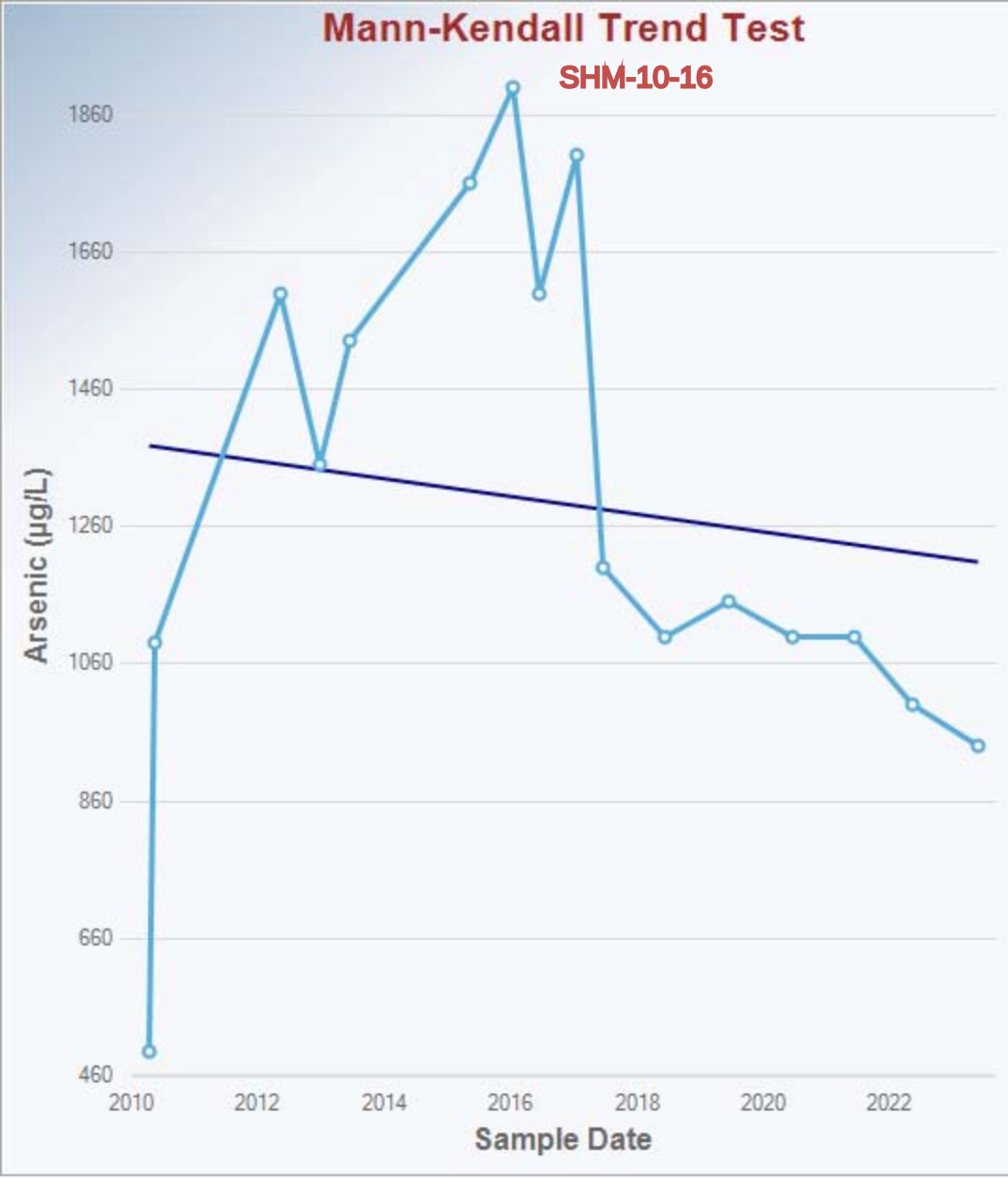
Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.2073
Standardized Value of S	0.6928
M-K Test Value (S)	15
Tabulated p-value	0.2480
Approximate p-value	0.2442

OLS Regression Line (Blue)

OLS Regression Slope	87.0645
OLS Regression Intercept	-169,583.6521

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1058
Standardized Value of S	-1.3119
M-K Test Value (S)	-30
Tabulated p-value	0.0970
Approximate p-value	0.0948

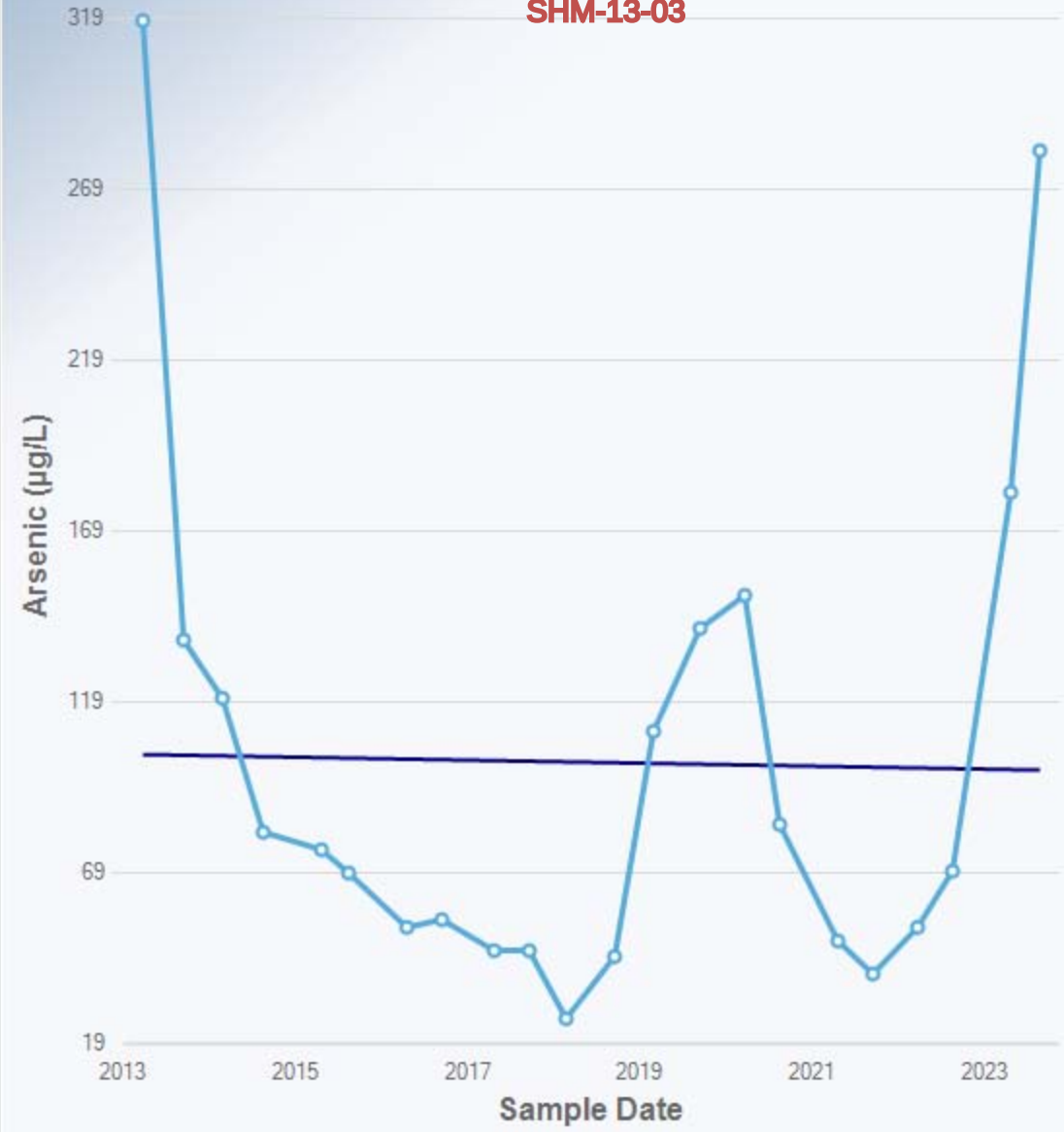
OLS Regression Line (Blue)

OLS Regression Slope	-13.0884
OLS Regression Intercept	27,695.9373

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-13-03



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	-0.5080
M-K Test Value (S)	-19
Tabulated p-value	0.3080
Approximate p-value	0.3057

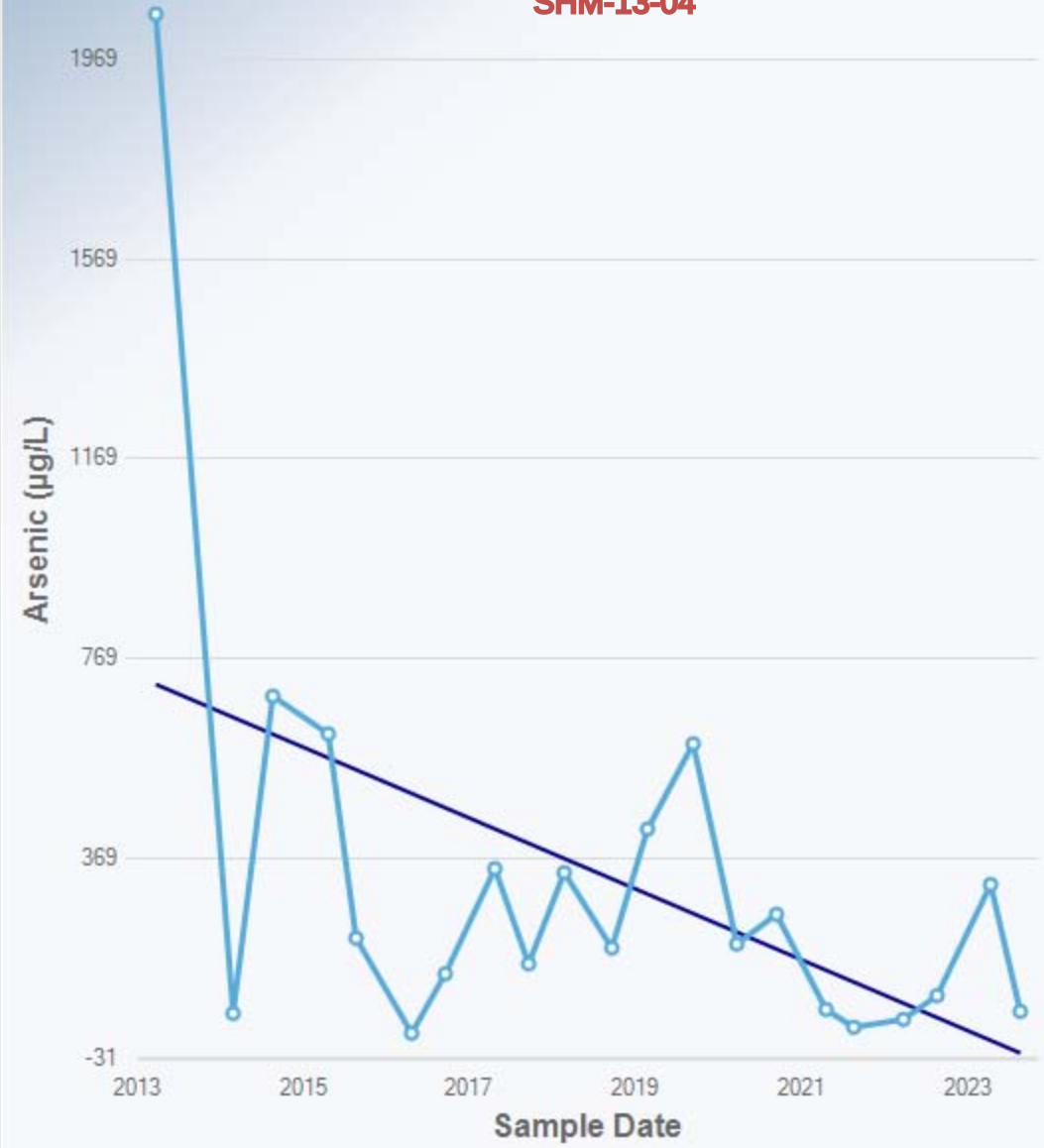
OLS Regression Line (Blue)

OLS Regression Slope	-0.4190
OLS Regression Intercept	946.7817

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-13-04



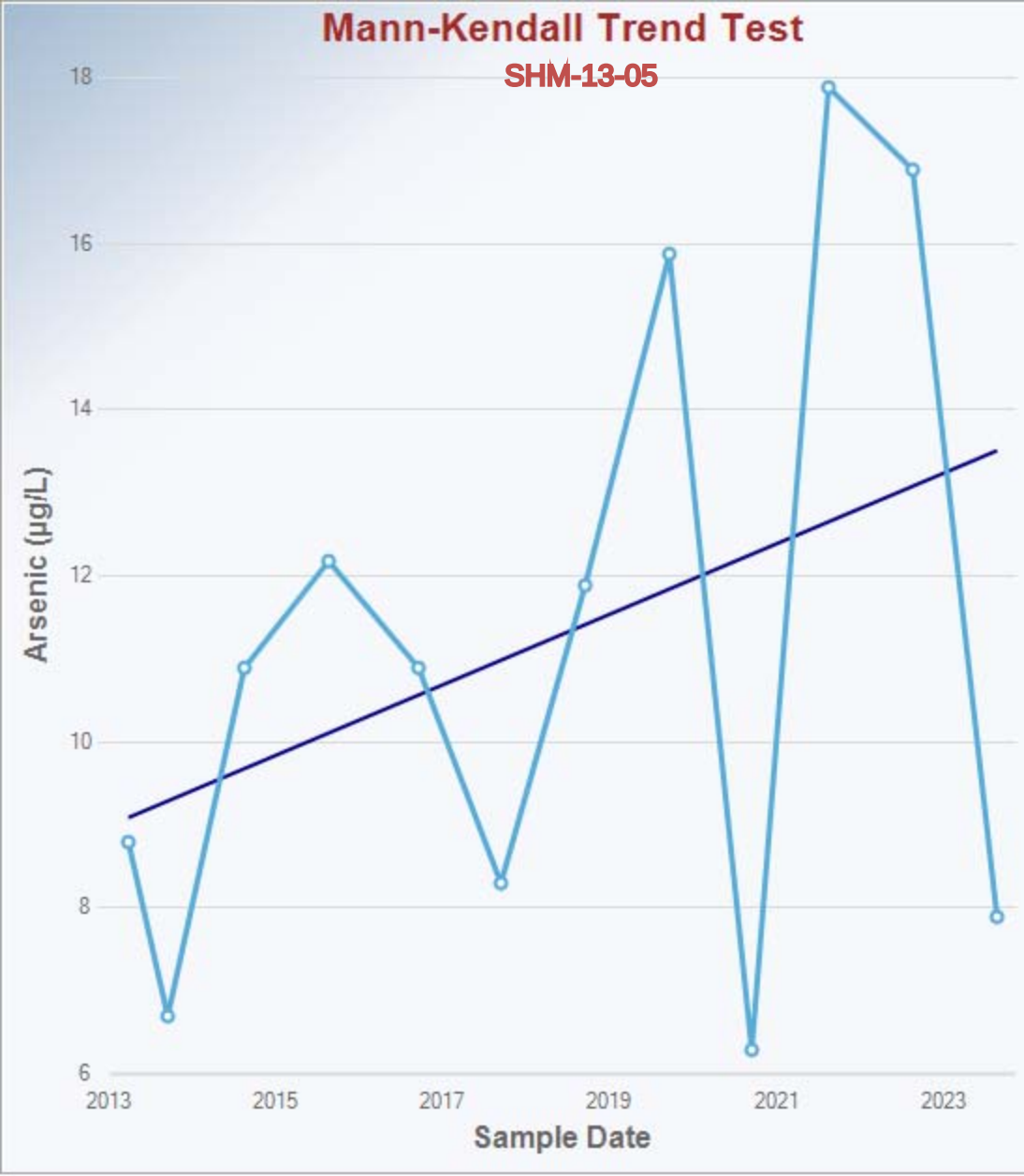
Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	33.1160
Standardized Value of S	-1.7212
M-K Test Value (S)	-58
Tabulated p-value	0.0430
Approximate p-value	0.0426

OLS Regression Line (Blue)

OLS Regression Slope	-70.6248
OLS Regression Intercept	142,912.8439

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	12
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	14.5488
Standardized Value of S	0.9623
M-K Test Value (S)	15
Tabulated p-value	0.1900
Approximate p-value	0.1680

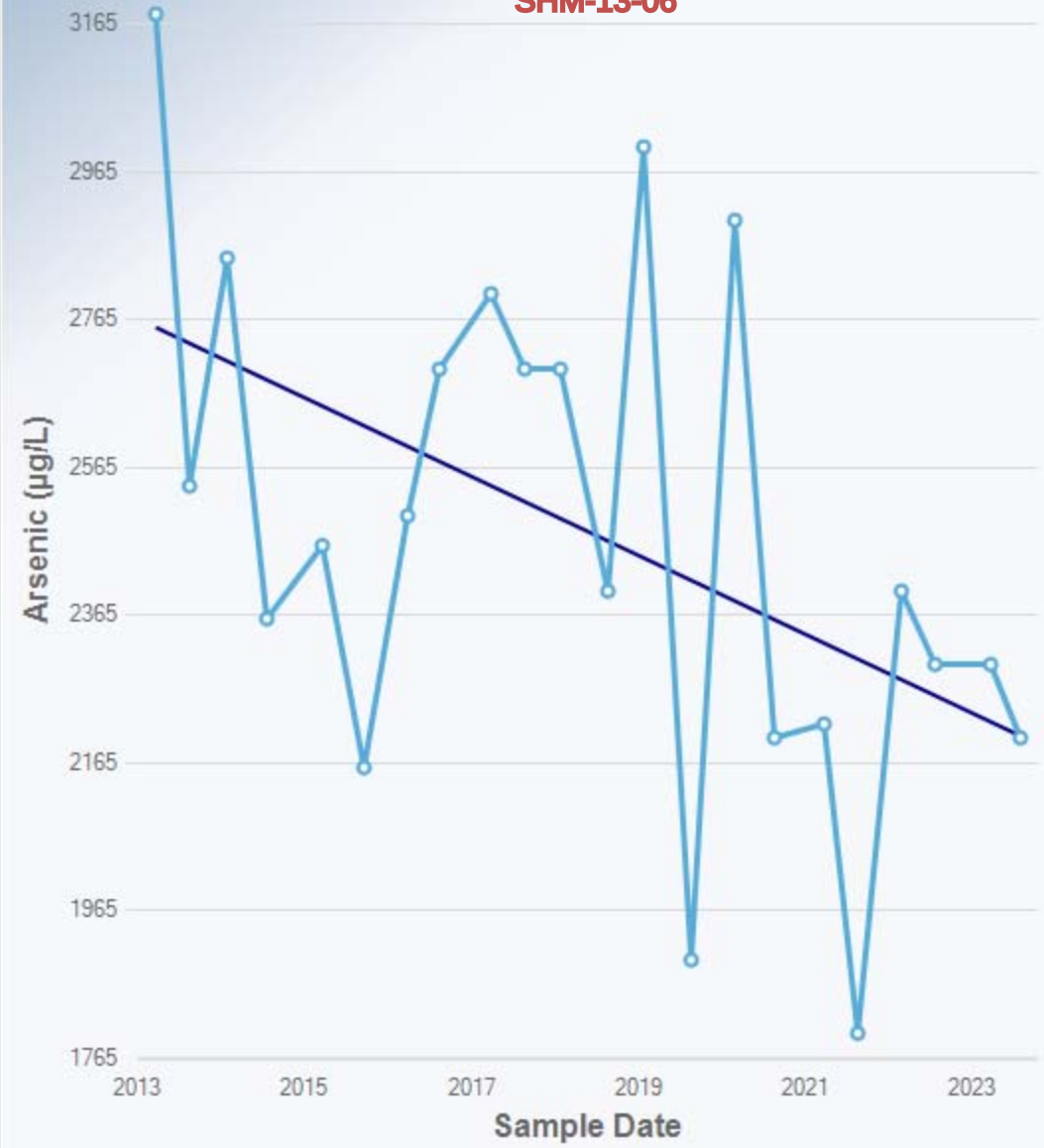
OLS Regression Line (Blue)

OLS Regression Slope	0.4239
OLS Regression Intercept	-844.2173

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-13-06



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3695
Standardized Value of S	-2.0922
M-K Test Value (S)	-75
Tabulated p-value	0.0180
Approximate p-value	0.0182

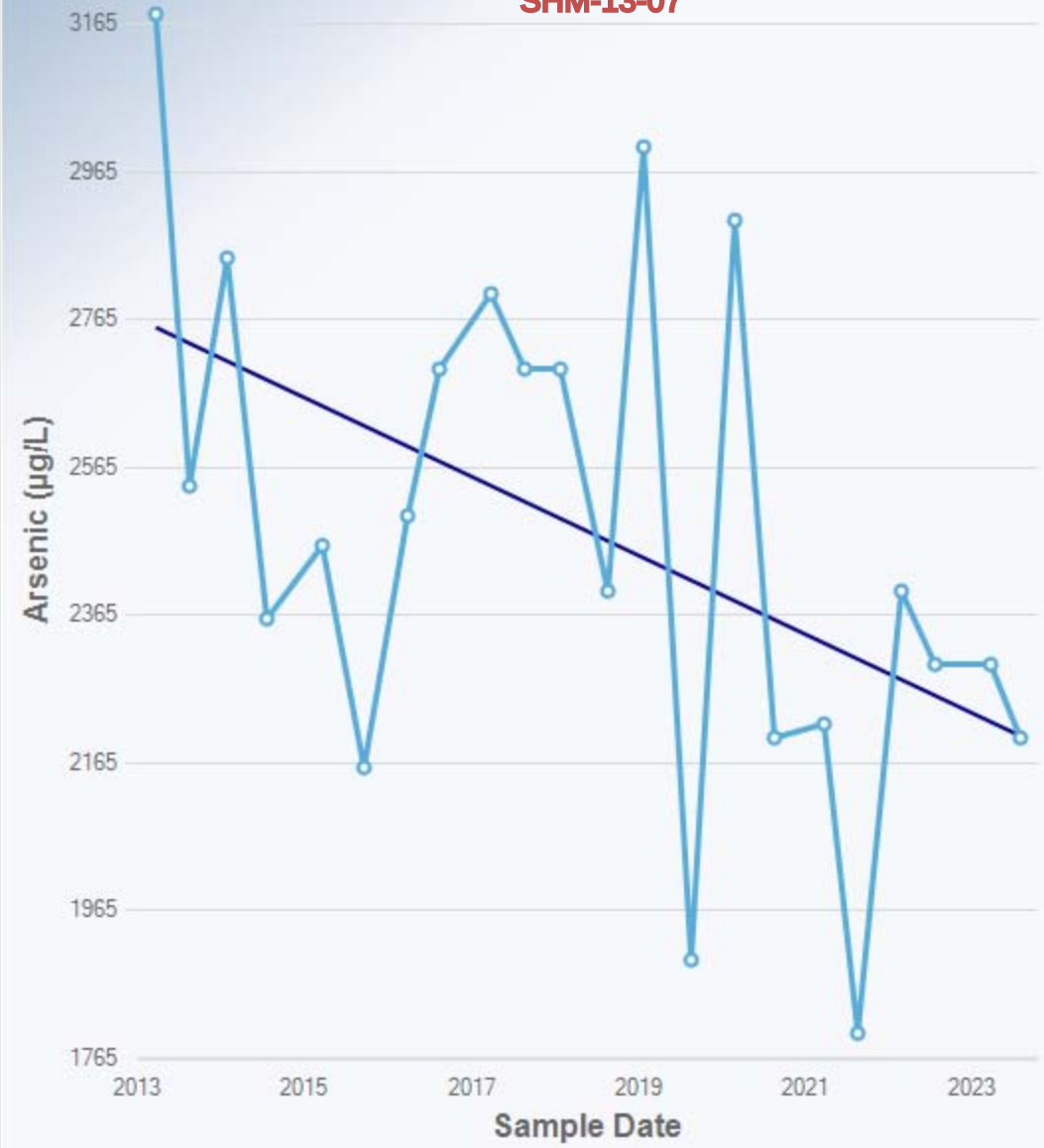
OLS Regression Line (Blue)

OLS Regression Slope	-53.3701
OLS Regression Intercept	110,215.6109

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-13-07



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3695
Standardized Value of S	-2.0922
M-K Test Value (S)	-75
Tabulated p-value	0.0180
Approximate p-value	0.0182

OLS Regression Line (Blue)

OLS Regression Slope	-53.3701
OLS Regression Intercept	110,215.6109

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3977
Standardized Value of S	-1.7515
M-K Test Value (S)	-63
Tabulated p-value	0.0400
Approximate p-value	0.0399

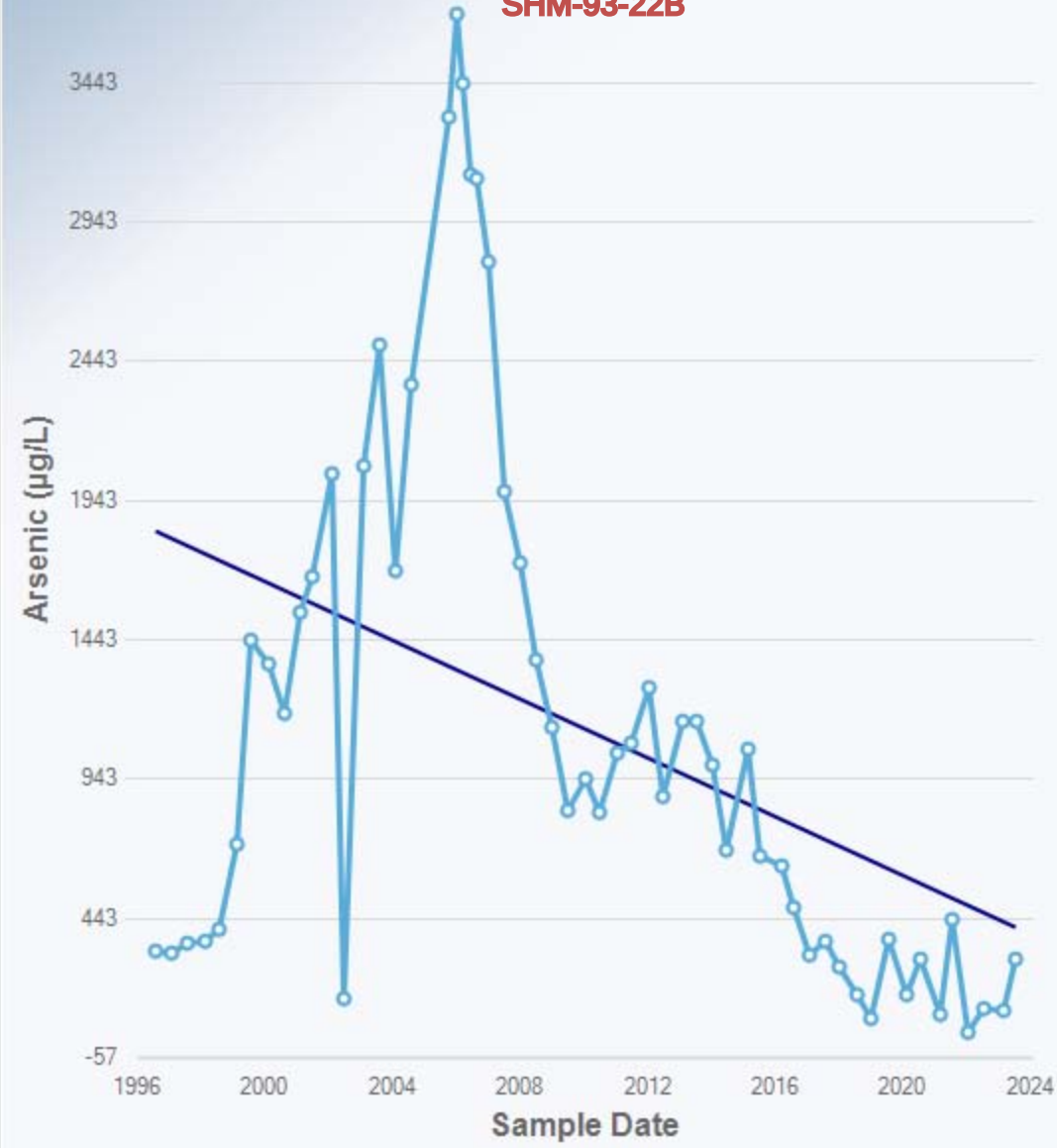
OLS Regression Line (Blue)

OLS Regression Slope	-12.3007
OLS Regression Intercept	25,690.4212

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-93-22B



Mann-Kendall Trend Analysis

n	56
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	141.4814
Standardized Value of S	-4.3398
M-K Test Value (S)	-615
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

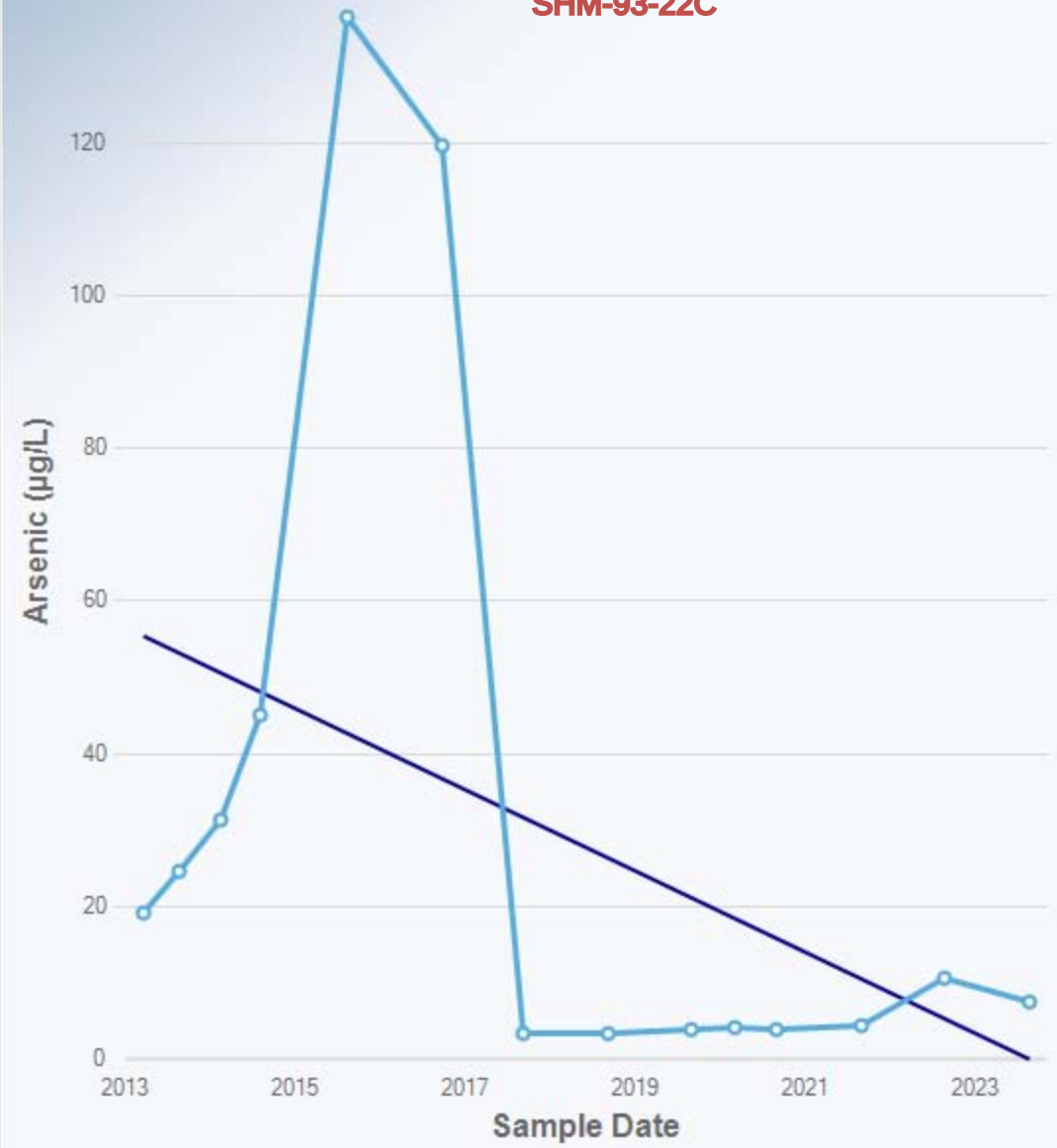
OLS Regression Line (Blue)

OLS Regression Slope	-52.6091
OLS Regression Intercept	106,885.2150

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-93-22C



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2392
Standardized Value of S	-0.6031
M-K Test Value (S)	-12
Tabulated p-value	0.2590
Approximate p-value	0.2732

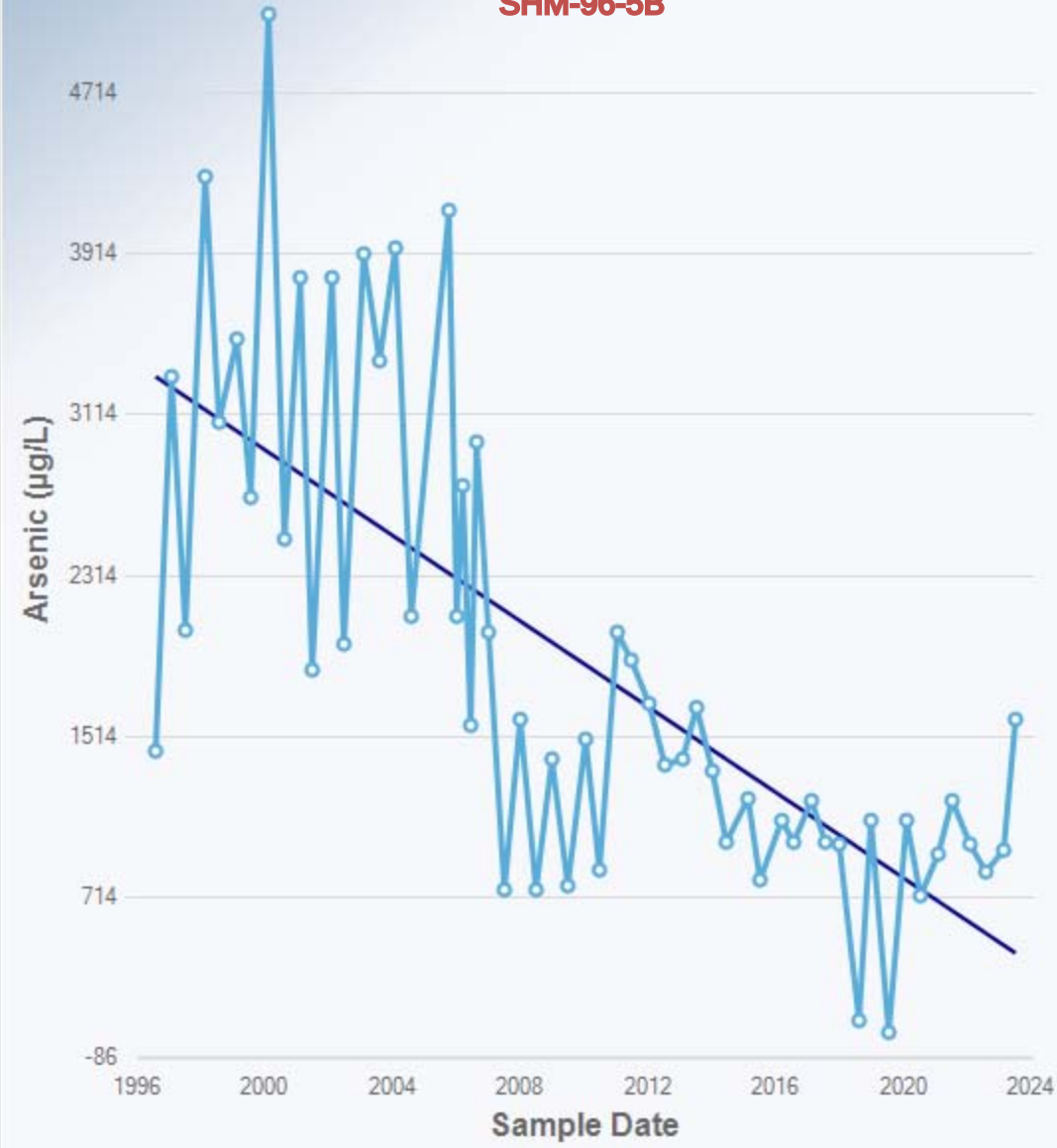
OLS Regression Line (Blue)

OLS Regression Slope	-5.3203
OLS Regression Intercept	10,767.9202

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-96-5B



Mann-Kendall Trend Analysis

n	56
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	141.4579
Standardized Value of S	-6.1361
M-K Test Value (S)	-869
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0000

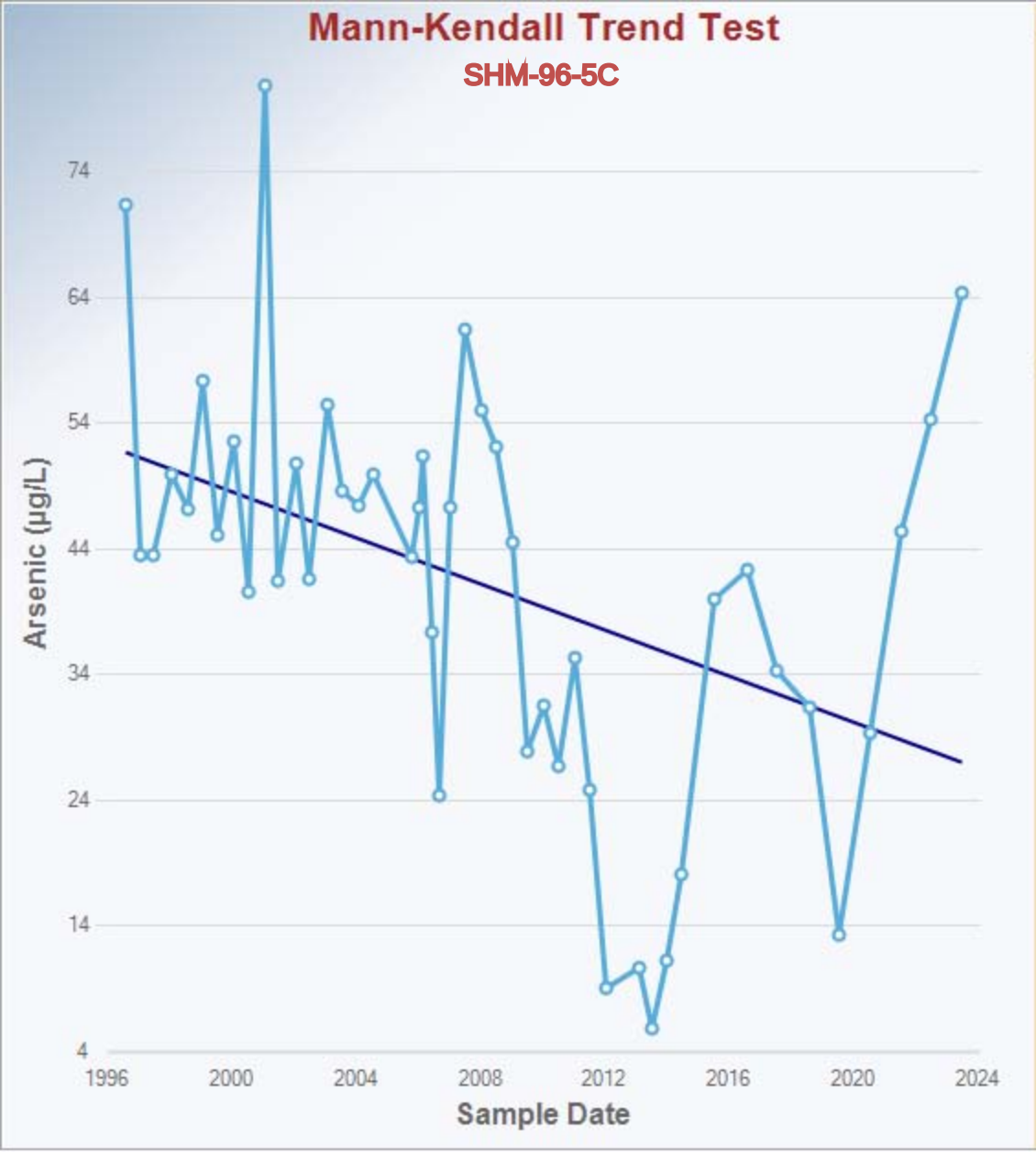
OLS Regression Line (Blue)

OLS Regression Slope	-106.5225
OLS Regression Intercept	216,021.3350

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-96-5C



Mann-Kendall Trend Analysis

n	46
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	105.6078
Standardized Value of S	-3.0869
M-K Test Value (S)	-327
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0010

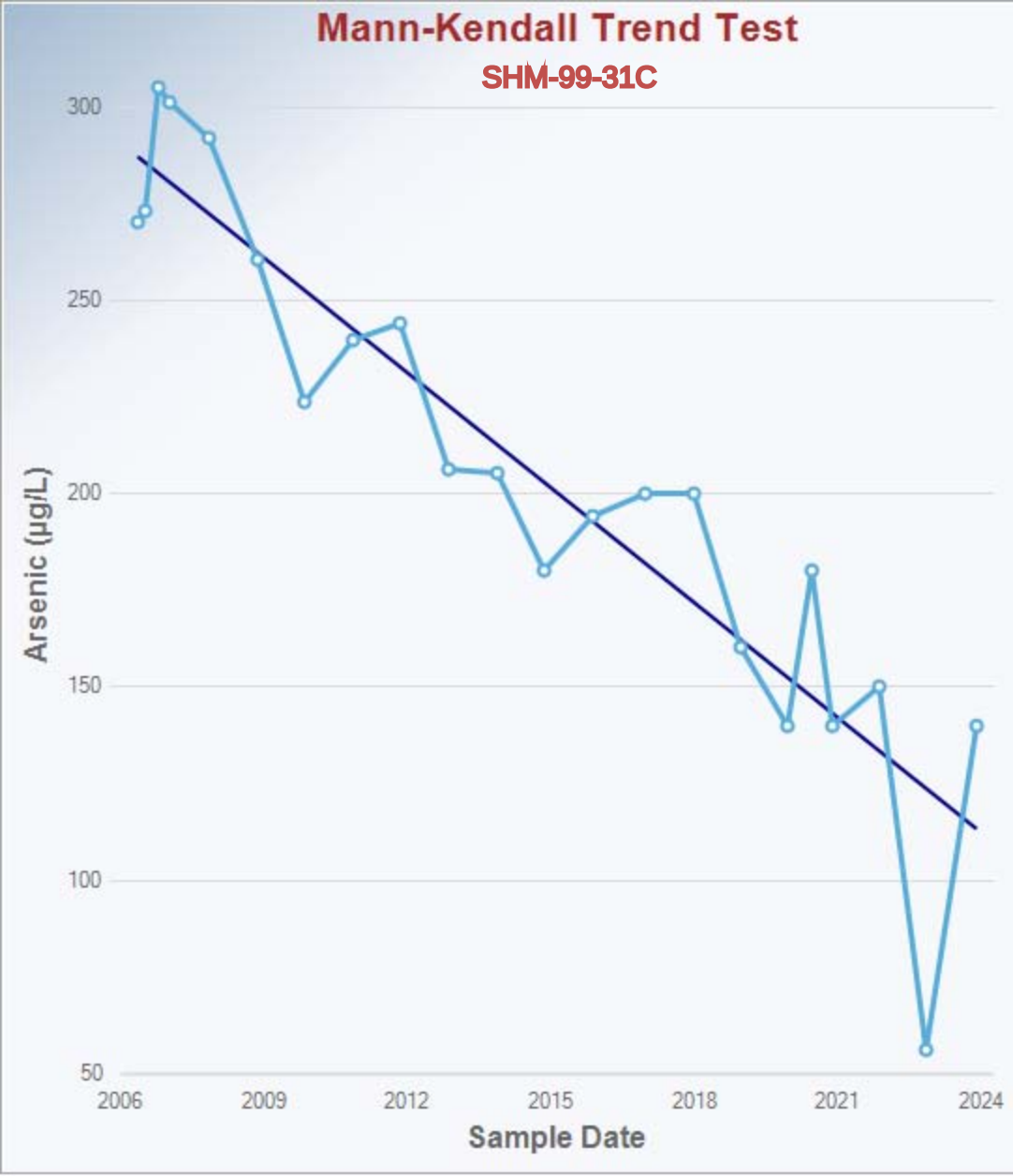
OLS Regression Line (Blue)

OLS Regression Slope	-0.9178
OLS Regression Intercept	1,884.0236

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-99-31C



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3836
Standardized Value of S	-5.2284
M-K Test Value (S)	-186
Tabulated p-value	0.0000
Approximate p-value	0.0000

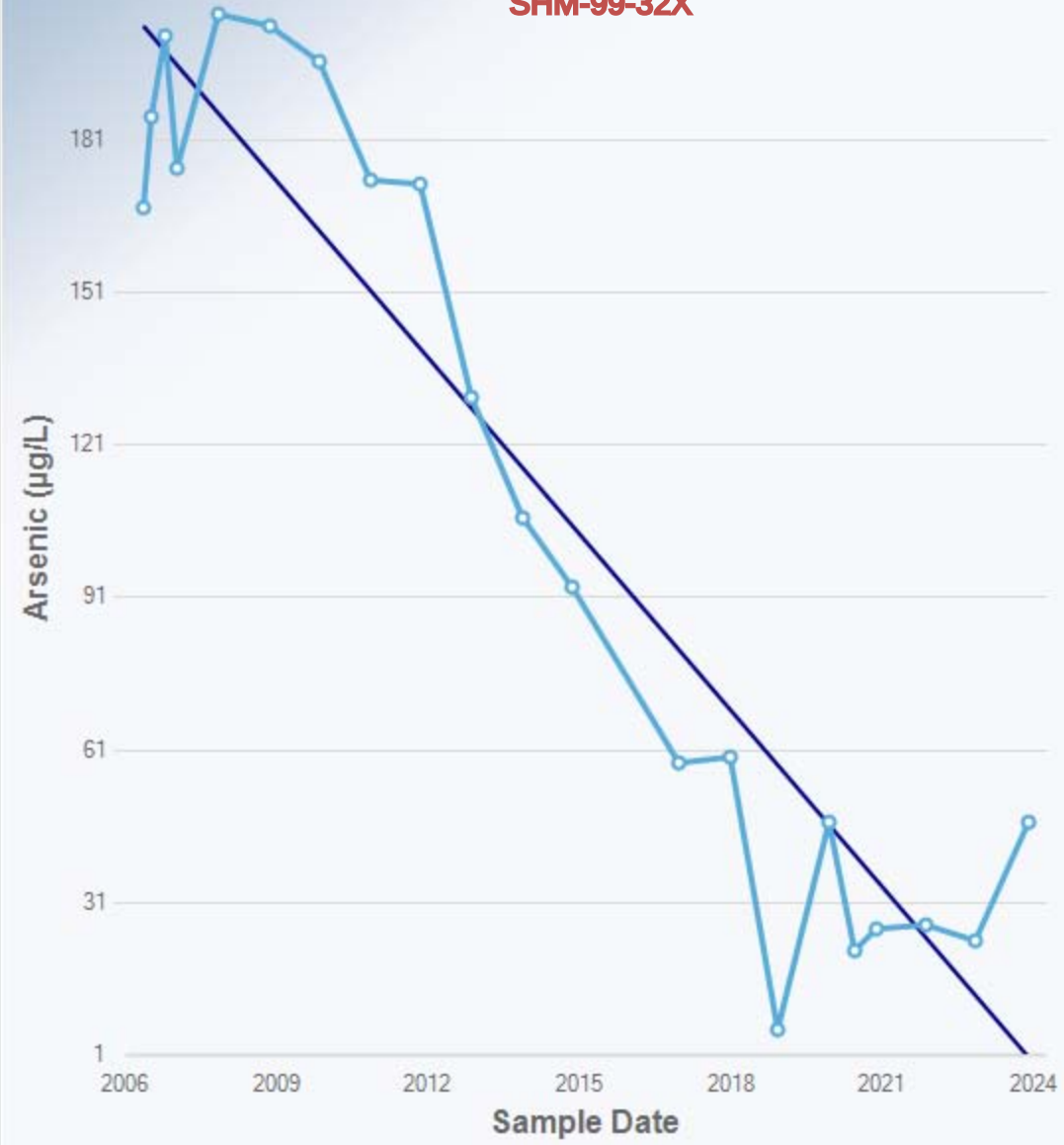
OLS Regression Line (Blue)

OLS Regression Slope	-9.9435
OLS Regression Intercept	20,237.0528

Statistically significant evidence of a decreasing trend at the specified level of significance.

Mann-Kendall Trend Test

SHM-99-32X



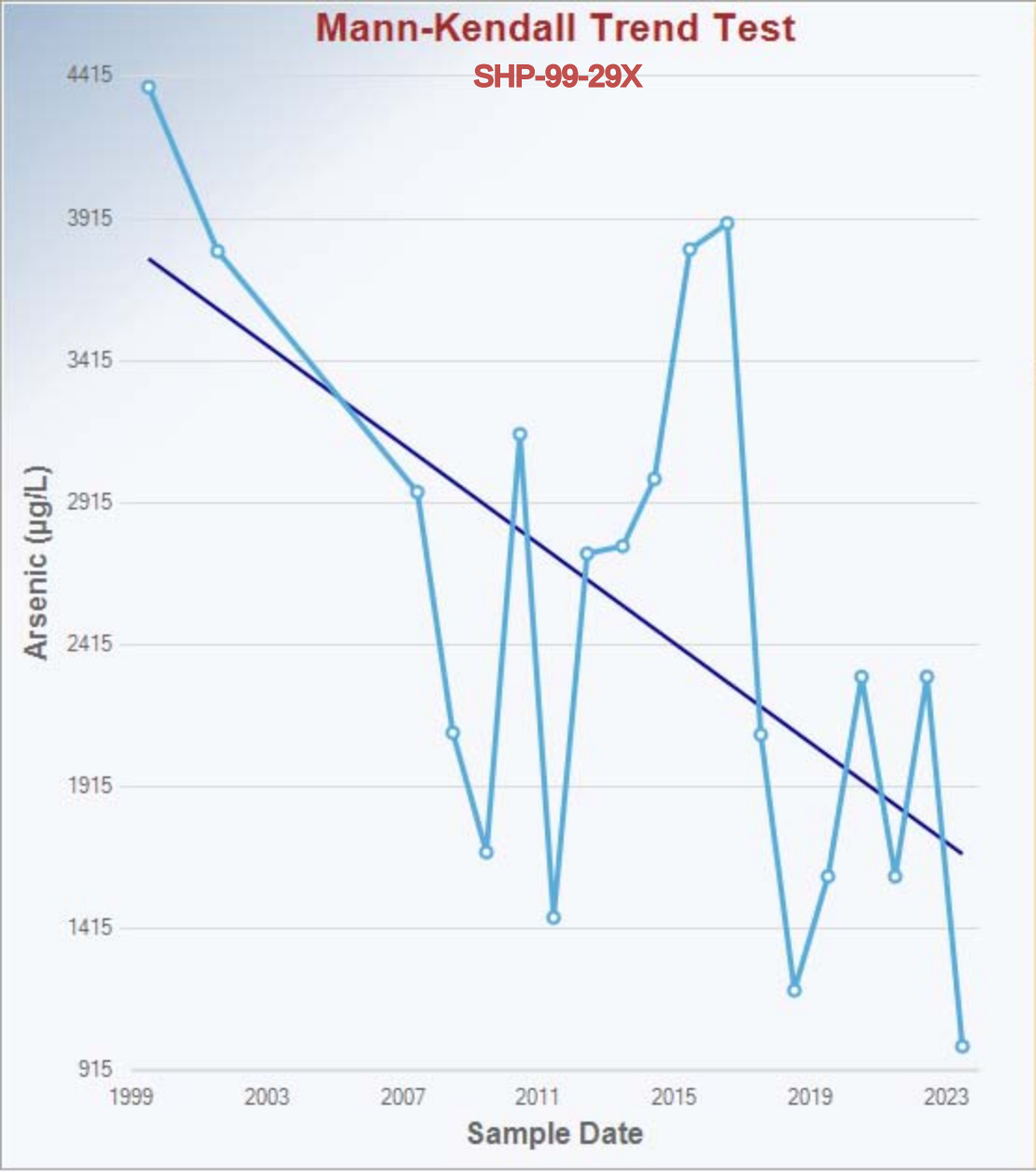
Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	33.1009
Standardized Value of S	-4.3503
M-K Test Value (S)	-145
Tabulated p-value	0.0000
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	-11.6038
OLS Regression Intercept	23,484.5986

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	19
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.5482
Standardized Value of S	-2.1017
M-K Test Value (S)	-61
Tabulated p-value	0.0170
Approximate p-value	0.0178

OLS Regression Line (Blue)

OLS Regression Slope	-87.5822
OLS Regression Intercept	178,930.3681

Statistically significant evidence of a decreasing trend at the specified level of significance.

Appendix G

Summary of Landfill and ATP Operations, Maintenance, and Monitoring

Sovereign Consulting Inc.
9 Payson Road, Suite 150
Foxborough, MA 02035

ANNUAL LANDFILL INSPECTION
Shepley's Hill Landfill
Devens, Massachusetts

Date of Inspection: 19 October 2023
Inspector/Company: Steven Passafaro, PE of Sovereign Consulting Inc.
Site Location: Shepley's Hill Landfill, Devens, Massachusetts

Weather Conditions:
Temperature: 50° F
Weather: Clear

Type of Inspection:
☒ Annual
☐ Post-Major Weather Event
☐ Re-Inspection of Deficiencies
☐ Other

Landfill Attribute & Observations	Comments and Recommendations	SAT	UNSAT
Cover Surface			
1. There are no new depressions on the cover surface	Continue monitoring for settlement that creates depressions.	☒	☐
2. No tree or shrub growth was observed on the landfill surface during the inspection. Small tree and shrub growth on the margins of the landfill were removed during annual mowing event.	Continue monitoring for tree and shrub growth on cover surface. Remove tree/shrub growth as necessary.	☒	☐

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ANNUAL LANDFILL INSPECTION
Shepley's Hill Landfill
Devens, Massachusetts

Landfill Attribute & Observations	Comments and Recommendations	SAT	UNSAT
3. The utility berm that was constructed through the middle of the landfill in 2004 provides utility service to the pumping station at the northeastern corner of the landfill. The vegetation atop the utility berm was mowed during the annual mowing event. The berm is intact and no adverse effects to the berm were observed.	Continue monitoring the utility berm for negative impacts on the drainage patterns.	☒	☐
Vegetative Growth			
1. The vegetation growth was normal and appeared to have no major stressed areas. The annual landfill mowing event was conducted from 3 October to 5 October 2023.	Continue mowing on an annual basis.	☒	☐
Landfill Gas Vents & Monitoring Wells			
1. As noted previously, gas vent GV-3 continues to be leaning about 15 to 20 degrees off center. This includes the concrete pad the vent is set in. The vent is still firmly in the ground, is stable, and does not rock or move in anyway. There is no evidence that the vent was struck by a vehicle, and the vent still appears to be functional. The remaining landfill gas vents are in good condition. All pipes are in functional condition with screens installed on all vents.	Continue to monitor GV-3 to ensure the angle of the vent does not worsen. Continue to monitor the condition of the remaining landfill gas vents to ensure they remain in good condition.	☒	☐
2. The perimeter landfill gas points are in good condition.	Continue to monitor the condition of the perimeter landfill gas points.	☒	☐

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ANNUAL LANDFILL INSPECTION
Shepley's Hill Landfill
Devens, Massachusetts

Landfill Attribute & Observations	Comments and Recommendations	SAT	UNSAT
3. All groundwater monitoring wells located on the landfill appeared to be in good condition.	Continue to monitor the condition of the landfill groundwater monitoring wells.	☒	☐
Drainage Swales			
1. Most of the southern drainage swale exhibited vegetative growth. Large growth was removed during annual mowing activities. Small growth and wetland plant life were not disturbed, as they have become a natural retardant to erosive forces.	Continue to monitor and clear drainage swales of invasive vegetative growth.	☒	☐
2. Vegetative growth was removed from all northern drainage swales during annual mowing activities.	Continue to monitor and clear drainage swales of vegetative growth.	☒	☐
3. Mowing is conducted to the edge of the swales.	Continue mowing annually.	☒	☐
Settlement			
1. No new depressions were observed within the landfill.	Continue to monitor for new depressions or settlement and repair as necessary.	☒	☐
Erosion			
1. There was no erosion observed.	Continue to monitor for erosion annually.	☒	☐

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ANNUAL LANDFILL INSPECTION
Shepley's Hill Landfill
Devens, Massachusetts

Landfill Attribute & Observations	Comments and Recommendations	SAT	UNSAT
Access Roads			
1. Overall, the landfill access road is in good condition.	Continue to monitor the condition of road. If rutting is observed, then repair and regrade portions of the access road as necessary.	☒	☐
Culverts and Catch Basins			
1. The culverts along the northern portion of the landfill were observed to be in good condition; some growth was removed from the culverts along the entrance road to the ATP during the annual mowing event to ensure proper use.	Continue to monitor and remove growth as necessary.	☒	☐
Security/Fencing			
1. Perimeter fencing is non-existent along much of the western boundary of the landfill (wooded area along Shepley's Hill), and along the southeastern boundary near the railroad tracks. However, no roads have open access to the landfill, and existing fence gates across roads that access the landfill are secured with chains and padlocks.	Continue to maintain proper security measures including ensure lockage of all landfill fence gates.	☒	☐
Wetland Encroachment			
1. Wetland encroachment was observed in the swales located in the southern portion of the landfill. Overall, the areas of encroachment are small and confined to the swales.	Continue to monitor wetland encroachment and continued mowing of the areas close to the existing growth will prevent the development of wide-spread wetland encroachment issues.	☒	☐

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Foxborough, MA 02035

ANNUAL LANDFILL INSPECTION
Shepley's Hill Landfill
Devens, Massachusetts

Landfill Attribute & Observations	Comments and Recommendations	SAT	UNSAT
Other Observations			
1. The recreation field located south of the landfill access road in the middle of the southern area of the landfill appears to be in good condition, and tire rutting was not observed between the field and the landfill access road. 2. No other outstanding issues were observed.	1. Continue to monitor the recreation field and the associated access road to ensure that tire rutting does not develop and that there is minimal impact to the landfill cover as part of recreational usage. 2. Ensure all post closure uses of the landfill do not compromise the integrity of the landfill cover or the network of landfill gas vents and groundwater monitoring wells.	☒	☐

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Conditions of Northern Portion of Landfill



Description - Current Conditions of Western Portion of Landfill and Western Drainage Swale

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Conditions of Southern Portion of Landfill



Description - Current Conditions of Eastern Portion of Landfill

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Condition of the Northern Barrier Wall Area



Description - Current Condition of the Southern Barrier Wall Area

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Conditions of Red Cove Area



Description - Current Condtion of Southern Drainage Swale

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Condition of Eastern Drainage Swale



Description - Current Condition of the Northern Landfill Access Road

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Condition of the Southern Landfill Access Road



Description - Current condition of Recreation Field Access Point

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Condtions of Southern Portion of Recreation Field



Description - Current Condtions of Northern Portion of Recreation Field

Shepley's Hill Landfill
Annual Inspection - October 2023



Description - Current Condtions of GV-3.

Table G-1: 2023 Gas Monitoring Results

Date: 10/19/2023 **Start of Day Weather:** 50°F Sunny **End of Day Weather:** 65°F Sunny **Field Team: Joe Rogers, Noel Lioce**

		Initial Readings									Post Purge Readings							
ID	**Time**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
GV-1	14:00	0.4	12.1	0.0	37.0	0.0	6.3	1.3	4	167	0.5	10.9	0.0	51.0	0.0	7.1	1.8	29.81
GV-2	13:53	0.0	19.4	0.0	0.7	0.0	1.4	0.6	4	167	0.0	6.7	0.0	>99	0.0	8.2	5.5	29.81
GV-3	14:10	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.81
GV-4	14:18	0.0	11.6	0.0	75.0	0.0	6.4	2.8	4	167	0.0	16.3	0.0	0.0	0.0	3.4	0.0	29.81
GV-5	14:25	0.0	16.6	0.0	5.0	0.0	3.4	0.0	4	167	0.0	16.2	0.0	6.0	0.0	3.5	0.0	29.81
GV-6	14:45	0.0	10.6	0.0	65.0	0.0	5.8	2.4	4	167	0.2	9.1	0.0	54.0	0.0	6.2	1.9	29.81
GV-7	14:37	0.0	7.3	0.0	56.0	0.0	5.5	2.0	4	167	0.0	6.3	0.0	60.0	0.0	5.9	2.2	29.81
GV-8	14:31	0.0	13.3	0.0	25.0	0.0	4.6	0.8	4	167	0.0	13.0	0.0	0.0	0.0	4.3	0.0	29.81
GV-9	14:51	0.3	7.9	0.0	>99	0.0	6.4	3.1	4	167	0.2	4.9	0.0	>99	0.0	8.8	6.3	29.70
GV-10	14:59	0.1	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	12.4	0.0	22.0	0.0	4.1	0.5	29.70
GV-11	15:05	0.0	14.9	0.0	15.0	0.0	3.4	0.3	4	167	0.0	10.5	0.0	87.0	0.0	4.2	2.9	29.70
GV-12	11:08	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
GV-13	9:56	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
GV-14	10:59	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	19.0	0.0	44.0	0.0	1.8	1.7	29.88
GV-15	10:51	0.1	17.6	0.0	19.0	0.0	2.4	0.7	4	375	0.0	17.1	0.0	30.0	0.0	2.9	1.2	29.88
GV-16	11:14	0.0	15.2	0.0	33.0	0.0	4.0	1.2	4	375	0.0	14.7	0.0	24.0	0.0	4.0	0.8	29.88
GV-17	11:26	0.0	15.4	0.0	13.0	0.0	3.4	0.4	4	375	0.0	14.1	0.0	14.0	0.0	3.6	0.4	29.88
GV-18	11:40	0.0	18.4	0.0	>99	0.0	4.3	4.2	4	375	0.0	9.8	0.0	>99	0.0	13.2	14.6	29.88
LGP-01-01X	12:12	0.0	20.5	0.0	0.0	0.0	0.6	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.5	0.0	30.45
LGP-09-01XA	12:06	0.1	20.4	0.0	0.0	0.0	0.6	0.0	2	157	0.0	20.4	0.0	0.0	0.0	0.7	0.0	30.45
LGP-09-01XB	12:09	0.7	20.0	0.0	0.0	0.0	1.1	0.0	2	157	0.0	20.0	0.0	0.0	0.0	1.2	0.0	30.45
LGP-01-02X	12:02	0.0	18.8	0.0	0.0	0.0	3.1	0.0	2	83	0.0	18.8	0.0	0.0	0.0	3.1	0.0	30.45
LGP-09-02X	11:57	0.6	18.5	0.0	0.0	0.0	3.5	0.0	2	204	0.2	18.5	0.0	0.0	0.0	3.4	0.0	30.45
LGP-01-03X	12:22	0.6	19.4	0.0	0.0	0.0	2.2	0.0	2	83	0.0	19.4	0.0	0.0	0.0	2.3	0.0	30.45
LGP-09-03X	12:25	0.0	20.0	0.0	0.0	0.0	1.6	0.0	2	167	0.0	20.1	0.0	0.0	0.0	1.3	0.0	30.45
LGP-01-04X	12:32	0.0	20.2	0.0	0.0	0.0	1.2	0.0	2	83	0.0	20.2	0.0	0.0	0.0	1.2	0.0	30.45
LGP-09-04X	12:36	0.0	20.2	0.0	0.0	0.0	1.1	0.0	2	120	0.0	20.3	0.0	0.0	0.0	1.1	0.0	30.45
LGP-05-05X	8:25	1.2	16.4	0.0	70.0	0.0	8.0	3.5	2	93	0.0	20.7	0.0	0.0	0.0	0.1	0.0	29.88
LGP-09-05X	8:11	0.1	13.4	0.0	>99	0.0	0.2	0.1	2	167	0.0	20.9	0.0	0.0	0.0	0.1	0.1	29.88
LGP-05-06X	8:35	0.4	16.3	0.0	0.0	0.0	4.9	0.0	2	93	0.0	17.7	0.0	0.0	0.0	4.2	0.0	29.88
LGP-09-06X	8:41	0.0	18.8	0.0	0.0	0.0	10.2	0.0	2	120	0.0	20.9	0.0	0.0	0.0	2.3	0.0	29.88
LGP-05-07X	9:07	0.0	20.9	0.0	0.0	0.0	1.0	0.0	2	65	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.88
LGP-05-08X	9:13	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	93	0.0	20.9	0.0	0.0	0.0	8.0	0.0	29.88
LGP-09-08X	9:34	1.4	10.1	0.0	66.0	0.0	16.8	4.3	2	185	0.5	14.4	0.0	0.0	0.0	8.2	0.0	29.88
LGP-05-09X	9:20	0.0	20.9	0.0	0.0	0.0	9.6	1.2	2	93	0.0	16.8	0.0	0.0	0.0	7.8	0.0	29.88
LGP-09-09X	9:25	0.2	19.7	0.0	8.0	0.0	8.4	1.8	2	185	0.0	20.9	0.0	0.0	0.0	1.3	0.0	29.88
LGP-05-10X	10:33	0.0	20.4	0.0	0.0	0.0	0.1	0.0	2	93	0.0	20.3	0.0	0.0	0.0	1.6	0.0	29.88
LGP-09-10X	10:32	0.4	19.8	0.0	0.0	0.0	1.1	0.0	2	148	0.0	13.0	0.0	0.0	0.0	6.6	0.0	29.88
LGP-05-11X	10:28	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
LGP-09-11X	10:21	0.9	8.5	0.0	>99	0.0	11.5	4.5	2	139	0.6	17.0	0.0	4.0	0.0	11.7	0.0	29.88
LGP-05-13X	10:12	0.0	19.7	0.0	0.0	5.0	2.4	0.0	2	56	0.0	16.5	0.0	0.0	0.0	4.3	0.0	29.88
LGP-05-14X	10:07	0.1	6.0	0.0	0.0	0.0	7.2	0.0	2	93	0.0	4.9	0.0	0.0	0.0	9.9	0.0	29.88
LGP-09-15X	9:50	0.0	17.6	0.0	0.0	0.0	3.2	0.0	2	111	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.88

Ambient Readings	**Time**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
Start of Day	8:07	0	20.2	0	0	0	0.1	0.1	29.88
Mid Morning	10:23	0	20.9	0	0	0	0	0	29.88
Mid Day	12:40	0	20.9	0	0	0	0	0	30.45
Mid Afternoon	14:58	0	20.9	0	0	0	0	0	29.70
End of Day	15:18	0	20.9	0	0	0	0	0	29.82

Notes:

VOC = Volatile Organic Compounds
O_2 = Oxygen
LEL = Lower Explosive Limit
CO = Carbon Monoxide
CO_2 = Carbon Dioxide
CH_4 = Methane
H_2S = Hydrogen Sulfide
"Hg = inches of Mercury
lpm = Liters per minute
sec = Seconds
ppm = Parts per million
% = Percentage

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	Date	Time	VOC (ppm)	0_2 (%)	H_2S (ppm)	LEL (%)	CO (ppm)	CO_2 (%)	CH_4 (%)	Purge Rate (lpm)	Purge Time (sec)	VOC (ppm)	0_2 (%)	H_2S (ppm)	LEL (%)	CO (ppm)	CO_2 (%)	CH_4 (%)	Bar. Pres.("Hg)
GV-1	10/26/2012	12:54	0.2	8.6	0	16	0	9.5	0.8	4	167	0.5	8.0	0	23	0	10.8	1.1	29.87
	11/12/2013	8:46	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.2	0.0	29.98
	10/17/2014	14:49	0.0	21.0	0.0	0.0	0.0	0.0	0.0	4	167	0.0	18.4	0.0	3.0	4.0	1.9	0.1	29.32
	10/20/2015	9:21	0.0	20.8	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.90
	10/18/2016	17:48	0.1	8.8	0.0	21	0.0	9.4	1.1	4	167	0.1	6.1	0.0	24	0.0	11.8	1.2	29.55
	10/18/2017	15:05	0.0	19.6	0.0	0.0	0.0	1.0	0.0	4	167	0.0	11.4	0.0	12.0	0.0	6.9	0.3	29.98
	10/18/2018	14:28	0.0	21.3	0.0	0.0	0.0	0.4	0.0	4	167	0.0	21.1	0.0	0.0	0.0	0.5	0.0	30.03
	10/16/2019	14:07	0.0	9.1	0.0	64.0	0.0	8.4	1.3	4	167	0.0	5.6	0.0	66.0	0.0	11.0	3.3	29.71
	10/13/2020	13:15	0.5	8.8	0.0	32.0	0.0	9.2	0.8	4	167	0.5	8.8	0.0	31.0	0.0	9.1	0.8	29.57
	10/20/2021	14:09	0.0	22.2	3.0	3.0	0.0	0.1	0.0	4	167	0.0	20.6	3.0	3.0	0.0	1.0	0.1	29.57
	10/27/2022	13:41	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:00	0.4	12.1	0.0	37.0	0.0	6.3	1.3	4	167	0.5	10.9	0.0	51.0	0.0	7.1	1.8	29.81
GV-2	10/26/2012	13:05	0.4	9.9	0	87	0	9.6	4.3	4	167	0.6	4.0	0	>100	0	15.4	9.3	29.87
	11/12/2013	8:56	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:40	0.0	20.8	1.0	0.0	0.0	0.1	0.0	4	167	0.0	15.2	0.0	68.0	4.0	5.1	3.5	29.32
	10/20/2015	10:50	0.1	19.4	0.0	27.0	0.0	1.2	0.8	4	167	0.1	16.4	0.0	83.0	1.0	4.2	2.5	29.89
	10/18/2016	17:43	0.1	8.7	0.0	99	0.0	10.3	4.9	4	167	0.0	3.9	0.0	100	0.0	14.8	7.2	29.55
	10/18/2017	14:58	0.0	20.5	0.0	5.0	0.0	0.5	0.1	4	167	0.0	11.3	0.0	69.0	0.0	6.7	2.7	29.99
	10/18/2018	14:23	0.0	21.6	0.0	0.0	0.0	0.0	0.0	4	167	0.0	21.6	0.0	0.0	0.0	0.1	0.0	30.03
	10/16/2019	14:15	0.0	11.5	0.0	74.0	0.0	7.5	3.0	4	167	0.0	2.6	0.0	99.0	0.0	13.7	7.7	29.71
	10/13/2020	13:35	0.4	1.2	0.0	45.0	0.0	11.3	9.6	4	167	0.7	1.1	0.0	99.0	0.0	11.3	9.8	29.57
	10/20/2021	14:03	0.0	22.3	3.0	3.0	0.0	0.0	0.0	4	167	0.0	22.3	3.0	3.0	1.0	0.0	0.0	29.57
	10/27/2022	13:49	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	13:53	0.0	19.4	0.0	0.7	0.0	1.4	0.6	4	167	0.0	6.7	0.0	>99	0.0	8.2	5.5	29.81
GV-3	10/26/2012	13:22	0.0	20.9	0	0	0	0.0	0.0	4	167	0.0	20.9	0	0	0	0.0	0.0	29.87
	11/12/2013	9:09	0.1	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:25	0.0	20.7	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.32
	10/20/2015	8:50	0.0	20.5	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.5	0.0	0.0	0.0	0.1	0.1	29.88
	10/18/2016	17:31	0.0	18.3	0.0	13	0.0	1.8	0.6	4	167	0.0	19.9	0.0	0	0.0	0.0	0.0	29.55
	10/18/2017	14:39	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.98
	10/18/2018	14:12	0.0	21.3	0.0	0.0	0.0	0.0	0.0	4	167	0.0	21.4	0.0	0.0	0.0	0.0	0.0	30.03
	10/16/2019	13:40	0.0	21.1	0.0	3.0	0.0	0.0	0.1	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.1	29.71
	10/13/2020	13:25	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.57
	10/20/2021	13:28	0.0	22.0	3.0	3.0	0.0	0.0	0.0	4	167	0.0	22.0	3.0	3.0	1.0	0.0	0.0	29.57
	10/27/2022	13:32	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:10	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.81
GV-4	10/26/2012	13:15	0.6	7.4	0	72	0	10.4	3.4	4	167	0.5	11.3	0	39	0	6.8	1.9	29.87
	11/12/2013	9:18	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:33	0.0	18.0	0.0	21.0	5.0	2.5	1.0	4	167	0.2	1.8	0.0	100.0	0.0	14.3	8.1	29.32
	10/20/2015	9:00	0.1	10.0	0.0	71.0	0.0	8.7	2.1	4	167	0.2	10.1	0.0	100.0	0.0	10.1	3.1	29.88
	10/18/2016	17:37	0.2	8.7	0.0	80	0.0	11.0	4.0	4	167	0.2	5.2	0.0	100	0.0	14.0	5.3	29.55
	10/18/2017	14:48	0.0	13.3	0.0	61.0	0.0	4.8	2.1	4	167	0.0	15.2	0.0	30.0	0.0	4.1	1.0	29.97
	10/18/2018	14:18	0.0	21.5	0.0	0.0	0.0	0.0	0.0	4	167	0.0	21.5	0.0	0.0	0.0	0.0	0.0	30.03
	10/16/2019	13:58	0.0	5.5	0.0	91.0	0.0	11.7	5.1	4	167	0.0	9.3	0.0	63.0	0.0	8.5	2.7	29.71
	10/13/2020	13:45	0.5	5.4	0.0	99.0	0.0	12.8	6.4	4	167	0.5	5.8	0.0	99.0	0.0	12.3	6.0	29.55
	10/20/2021	13:34	0.0	17.3	3.0	43.0	0.0	2.7	0.8	4	167	0.0	18.2	3.0	18.0	1.0	2.1	0.3	29.57
	10/27/2022	13:24	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:18	0.0	11.6	0.0	75.0	0.0	6.4	2.8	4	167	0.0	16.3	0.0	0.0	0.0	3.4	0.0	29.81
GV-5	10/26/2012	13:55	1.5	13.4	0	1	0	5.2	0.0	4	167	0.2	14.0	0	0	0	4.8	0.0	29.87
	11/12/2013	9:48	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:02	0.0	6.9	0.0	0.0	5.0	6.7	0.0	4	167	0.0	5.9	0.0	0.0	5.0	7.9	0.0	29.32
	10/20/2015	9:12	0.1	19.7	0.0	4.0	0.0	0.6	0.1	4	167	0.0	20.5	0.0	0.0	0.0	0.4	0.0	29.88
	10/18/2016	17:01	0.0	14.2	0.0	0	0.0	5.0	0.0	4	167	0.0	12.4	0.0	0	0.0	6.3	0.0	29.55
	10/18/2017	13:47	0.0	18.0	0.0	0.0	0.0	1.3	0.0	4	167	0.0	18.1	0.0	0.0	0.0	1.9	0.0	29.98
	10/18/2018	12:58	0.0	21.7	0.0	0.0	0.0	0.1	0.0	4	167	0.0	21.8	0.0	1.0	0.0	0.1	0.1	30.02
	10/16/2019	14:43	0.0	12.2	0.0	6.0	0.0	6.4	6.2	4	167	0.0	12.6	0.0	0.0	0.0	6.2	0.2	29.71
	10/13/2020	13:55	0.0	12.8	0.0	4.0	0.0	5.6	0.1	4	167	0.0	13.5	0.0	0.4	0.0	5.9	0.1	29.55
	10/20/2021	12:14	0.0	21.0	2.0	0.0	1.0	0.2	0.0	4	167	0.0	21.4	2.0	0.0	1.0	0.0	0.0	29.61
	10/27/2022	13:17	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:25	0.0	16.6	0.0	5.0	0.0	3.4	0.0	4	167	0.0	16.2	0.0	6.0	0.0	3.5	0.0	29.81

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	Date	Time	VOC (ppm)	0_2 (%)	H_2S (ppm)	LEL (%)	CO (ppm)	CO_2 (%)	CH_4 (%)	Purge Rate (lpm)	Purge Time (sec)	VOC (ppm)	0_2 (%)	H_2S (ppm)	LEL (%)	CO (ppm)	CO_2 (%)	CH_4 (%)	Bar. Pres.("Hg)
GV-6	10/26/2012	13:31	0.4	5.8	0	>100	0	12.8	7.5	4	167	0.7	5.7	0	85	0	11.4	4.2	29.87
	11/12/2013	9:29	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:14	70.1	2.6	0.0	>100	3.0	14.3	8.0	4	167	0.1	0.5	0.0	>100	0.0	17.5	9.4	29.32
	10/20/2015	13:16	0.0	3.3	0.0	100.0	0.0	13.7	7.6	4	167	0.0	1.7	0.0	100.0	0.0	14.8	7.8	29.88
	10/18/2016	17:29	0.0	6.5	0.0	100	0.0	14.1	6.0	4	167	0.1	6.9	0.0	100	0.0	14.0	5.7	29.55
	10/18/2017	14:31	0.0	14.8	0.0	46.0	0.0	4.0	1.0	4	167	0.0	14.3	0.0	49.0	0.0	43.0	1.8	29.97
	10/18/2018	14:06	0.0	21.1	0.0	0.0	0.0	0.1	0.0	4	167	0.0	21.1	0.0	0.0	0.0	0.1	0.0	30.03
	10/16/2019	13:38	1.0	1.6	0.0	97.0	0.0	14.4	6.5	4	167	0.0	1.6	0.0	51.0	0.0	14.7	5.4	29.71
	10/13/2020	14:10	0.7	4.5	0.0	99.0	0.0	12.9	2.8	4	167	0.7	4.0	0.0	99.0	0.0	12.0	2.9	29.55
	10/20/2021	13:20	0.0	20.1	3.0	23.0	1.0	1.2	0.5	4	167	0.0	20.2	3.0	14.0	0.0	1.1	0.2	29.61
	10/27/2022	12:51	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:45	0.0	10.6	0.0	65.0	0.0	5.8	2.4	4	167	0.2	9.1	0.0	54.0	0.0	6.2	1.9	29.81
GV-7	10/26/2012	14:15	0.5	1.1	0	>100	2	12.1	6.6	4	167	0.4	1.2	0	63	0	11.1	3.2	29.87
	11/12/2013	9:57	0.0	20.7	0	0	0	0.1	0.0	4	167	0.0	20.5	0	0	0	0.1	0.0	29.98
	10/17/2014	13:47	0.0	2.9	0.0	>100	0.0	11.4	7.6	4	167	0.0	0.6	0.0	>100	0.0	13.8	8.2	29.32
	10/20/2015	11:30	0.0	5.4	0.0	100.0	0.0	11.6	8.2	4	167	0.0	1.1	0.0	100.0	1.0	14.1	7.9	29.89
	10/18/2016	17:10	0.0	11.8	0.0	100	0.0	7.7	5.6	4	167	0.0	2.5	0.0	100	0.0	16.8	11.0	29.55
	10/18/2017	13:37	0.0	18.2	0.0	10.0	0.0	0.9	0.3	4	167	0.0	18.6	0.0	5.0	0.0	0.8	0.0	29.98
	10/18/2018	12:47	0.0	21.6	1.0	1.0	0.0	0.0	0.1	4	167	0.0	21.6	1.0	0.0	0.0	0.0	0.0	30.02
	10/16/2019	14:27	0.0	0.3	0.0	99.0	0.0	15.2	13.3	4	167	0.0	0.1	0.0	99.0	0.0	15.1	12.1	29.71
	10/13/2020	14:20	0.5	0.2	0.0	99.0	0.0	15.8	12.4	4	167	0.3	1.5	0.0	99.0	0.0	15.0	12.2	29.55
	10/20/2021	13:41	0.0	21.5	3.0	16.0	0.0	0.2	0.0	4	167	0.0	20.1	3.0	13.0	0.0	0.8	0.2	29.57
	10/27/2022	12:59	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:37	0.0	7.3	0.0	56.0	0.0	5.5	2.0	4	167	0.0	6.3	0.0	60.0	0.0	5.9	2.2	29.81
GV-8	10/26/2012	14:05	0.7	10.1	0	1	0	7.0	0.1	4	167	0.1	9.1	0	0	1	7.4	0.0	29.87
	11/12/2013	10:04	0.0	20.3	0	0	0	0.1	0.0	4	167	0.0	20.2	0	0	0	0.1	0.0	29.98
	10/17/2014	13:54	0.0	6.7	0.0	15.0	6.0	6.6	0.8	4	167	0.0	5.8	0.0	9.0	6.0	7.7	0.4	29.32
	10/20/2015	11:39	0.0	12.7	0.0	45.0	0.0	6.2	1.4	4	167	0.0	10.6	0.0	27.0	0.0	7.3	0.8	29.89
	10/18/2016	16:53	0.0	13.6	0.0	9	0.0	5.2	0.4	4	167	0.0	8.1	0.0	2	0.0	9.6	0.1	29.55
	10/18/2017	13:56	0.0	17.7	0.0	9.0	0.0	1.8	0.1	4	167	0.0	17.8	0.0	0.0	0.0	1.9	0.0	29.95
	10/18/2018	12:52	0.0	21.7	1.0	0.0	0.0	0.1	0.0	4	167	0.0	21.5	0.0	0.0	0.0	0.1	0.0	30.02
	10/16/2019	14:26	0.0	8.2	0.0	49.0	0.0	9.0	2.5	4	167	0.0	5.8	0.0	5.0	0.0	11.1	0.3	29.71
	10/13/2020	14:30	0.0	9.2	0.0	58.0	0.0	8.7	1.5	4	167	0.6	9.0	0.0	59.0	0.0	8.8	1.5	29.55
	10/20/2021	13:55	0.0	19.5	3.0	3.0	0.0	1.5	0.1	4	167	0.0	19.5	3.0	8.0	1.0	1.5	0.0	29.57
	10/27/2022	13:09	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:31	0.0	13.3	0.0	25.0	0.0	4.6	0.8	4	167	0.0	13.0	0.0	0.0	0.0	4.3	0.0	29.81
GV-9	10/26/2012	13:40	0.6	3.0	0	99	0	11.7	4.9	4	167	1.2	3.2	0	>100	0	18.1	22.0	29.87
	11/12/2013	9:39	0.0	20.9	0	0	0	0.1	0.0	4	167	0.0	20.9	0	0	0	0.1	0.0	29.98
	10/17/2014	14:10	0.2	1.0	0.0	>100	0.0	16.8	9.1	4	167	0.2	0.3	0.0	0.0	0.0	18.7	17.0	29.32
	10/20/2015	13:24	0.2	7.1	0.0	100.0	0.0	11.2	5.9	4	167	0.4	0.7	0.0	100.0	0.0	19.1	17.8	29.88
	10/18/2016	17:17	0.0	5.5	0.0	100	0.0	15.7	7.6	4	167	0.0	4.9	0.0	100	0.0	17.1	13.7	29.55
	10/18/2017	14:23	0.0	14.9	0.0	49.0	0.0	3.3	1.5	4	167	0.0	10.1	0.0	100.0	0.0	9.1	10.3	29.98
	10/18/2018	14:00	0.0	20.7	0.0	3.0	0.0	0.3	0.2	4	167	0.0	20.1	0.0	11.0	0.0	0.7	0.5	30.03
	10/16/2019	13:27	0.0	0.0	0.0	40.0	0.0	16.0	8.8	4	167	0.0	0.1	0.0	99.0	0.0	17.0	13.1	29.71
	10/13/2020	13:00	0.5	2.3	0.0	99.0	0.0	16.0	6.6	4	167	0.5	1.1	0.0	99.0	0.0	16.2	6.7	29.57
	10/20/2021	12:38	0.0	21.1	2.0	2.0	1.0	0.2	0.0	4	167	0.0	20.9	2.0	2.0	0.0	0.3	0.2	29.61
	10/27/2022	12:43	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	14:51	0.3	7.9	0.0	>99	0.0	6.4	3.1	4	167	0.2	4.9	0.0	>99	0.0	8.8	6.3	29.70
GV-10	10/26/2012	14:22	0.3	2.8	0	50	2	10.5	2.6	4	167	0.2	4.0	0	30	2	9.5	1.5	29.87
	11/12/2013	10:22	0.0	20.7	0	0	0	0.2	0.0	4	167	0.0	20.6	0	0	0	0.1	0.0	29.98
	10/17/2014	13:30	0.0	1.9	0.0	55.0	0.0	11.6	2.7	4	167	0.0	1.3	0.0	54.0	0.0	12.1	2.7	29.32
	10/20/2015	13:03	0.0	4.2	0.0	100.0	0.0	11.6	4.2	4	167	0.0	2.0	0.0	100.0	0.0	12.4	4.3	29.89
	10/18/2016	16:40	0.0	6.1	0.0	100	0.0	14.4	8.4	4	167	0.0	2.2	0.0	100	0.0	16.3	7.8	29.55
	10/18/2017	14:17	0.0	18.6	0.0	0.0	0.0	0.9	0.0	4	167	0.0	17.6	0.0	0.0	0.0	1.3	0.0	29.98
	10/18/2018	12:41	0.0	21.6	1.0	0.0	0.0	0.0	0.0	4	167	0.0	21.6	1.0	0.0	0.0	0.0	0.0	30.02
	10/16/2019	13:17	0.0	1.1	0.0	51.0	0.0	14.1	3.0	4	167	0.0	2.0	0.0	45.0	0.0	13.6	2.4	29.71
	10/13/2020	12:50	0.5	2.1	0.0	99.0	0.0	12.4	2.2	4	167	0.5	1.9	0.0	99.0	0.0	13.2	3.2	29.55
	10/20/2021	12:32	0.0	21.5	2.0	2.0	1.0	0.0	0.0	4	167	0.0	21.4	2.0	2.0	0.0	0.1	0.0	29.61
	10/27/2022	12:34	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.73
	10/19/2023	14:59	0.1	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	12.4	0.0	22.0	0.0	4.1	0.5	29.70

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
GV-11	10/26/2012	14:30	0.2	11.8	0	9	0	5.2	0.5	4	167	0.1	11.3	0	16	0	5.1	0.8	29.87
	11/12/2013	10:14	0.0	20.6	0	0	0	0.1	0.0	4	167	0.0	20.6	0	0	0	0.2	0.0	29.98
	10/17/2014	13:37	0.0	13.3	0.0	5.0	4.0	4.9	0.2	4	167	0.0	6.9	0.0	2.0	6.0	5.0	1.0	29.32
	10/20/2015	12:54	0.0	14.1	0.0	0.0	0.0	4.5	1.1	4	167	0.0	13.7	0.0	22.0	1.0	4.8	0.6	29.89
	10/18/2016	16:46	0.1	13.8	0.0	23	0.0	4.9	1.1	4	167	0.0	12.2	0.0	15	0.0	5.6	0.7	29.55
	10/18/2017	14:12	0.0	19.5	0.0	3.0	0.0	0.7	0.0	4	167	0.0	18.0	0.0	5.0	0.0	1.5	0.0	29.98
	10/18/2018	12:35	0.0	21.3	0.0	0.0	0.0	0.0	0.0	4	167	0.0	21.4	0.0	0.0	0.0	0.1	0.0	30.02
	10/16/2019	13:09	0.0	10.9	0.0	99.0	0.0	6.8	2.5	4	167	0.0	5.9	0.0	99.0	0.0	6.5	9.0	29.71
	10/13/2020	12:40	0.6	11.9	0.0	78.0	0.0	6.8	2.2	4	167	0.5	11.8	0.0	75.0	0.0	6.0	2.6	29.57
	10/20/2021	12:24	0.0	21.2	2.0	0.0	0.0	0.2	0.0	4	167	0.0	20.9	2.0	0.0	0.0	0.3	0.1	29.61
	10/27/2022	12:25	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.73
	10/19/2023	15:05	0.0	14.9	0.0	15.0	0.0	3.4	0.3	4	167	0.0	10.5	0.0	87.0	0.0	4.2	2.9	29.70
GV-12	10/26/2012	14:40	0.1	0.9	0	>100	0	9.3	6.1	4	167	0.2	1.0	0	>100	1	10.1	6.5	29.87
	11/12/2013	11:00	0.0	20.4	0	0	0	0.2	0.0	4	167	0.0	20.6	0	0	0	0.2	0.0	29.98
	10/17/2014	12:55	0.0	12.6	1.0	14.0	2.0	5.3	0.7	4	167	0.0	4.9	0.0	24.0	5.0	7.4	1.2	29.32
	10/20/2015	13:35	0.1	7.5	0.0	100.0	0.0	10.2	8.3	4	167	0.0	0.8	0.0	100.0	0.0	14.6	11.8	29.88
	10/18/2016	16:16	0.0	3.1	0.0	100	0.0	14.7	9.5	4	167	0.0	1.5	0.0	100	0.0	15.7	9.7	29.55
	10/18/2017	13:11	0.0	20.5	0.0	0.0	0.0	0.2	0.0	4	167	0.0	20.3	0.0	0.0	10.0	0.4	0.0	29.99
	10/18/2018	12:28	0.0	21.2	1.0	0.0	0.0	0.0	0.0	4	167	0.0	21.3	1.0	0.0	0.0	0.0	0.0	30.02
	10/16/2019	13:00	0.0	3.3	0.0	95.0	0.0	10.7	7.0	4	167	0.0	0.0	0.0	99.0	0.0	12.4	8.8	29.71
	10/13/2020	12:25	0.4	2.8	0.0	99.0	0.0	14.6	9.9	4	167	0.3	1.2	0.0	99.0	0.0	14.2	9.6	29.57
	10/20/2021	13:09	0.0	22.0	2.0	3.0	0.0	0.0	0.0	4	167	0.0	22.0	3.0	4.0	1.0	0.1	0.0	29.61
	10/27/2022	12:15	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.73
	10/19/2023	11:08	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
GV-13	10/26/2012	15:51	1.5	19.4	0	77	0	2.0	3.8	4	167	0.5	18.1	0	>100	0	3.7	5.2	29.77
	11/12/2013	11:11	0.1	20.6	0	0	0	0.4	0.0	4	167	0.0	20.5	0	6	0	0.4	0.0	29.98
	10/17/2014	10:01	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.7	0.0	0.0	0.0	0.2	0.0	29.40
	10/20/2015	13:45	0.1	20.1	0.0	15.0	0.0	0.7	0.4	4	167	0.1	19.3	0.0	32.0	0.0	1.2	0.8	29.88
	10/18/2016	8:44	0.0	19.6	0.0	0	0.0	0.3	0.0	4	167	0.0	19.7	0.0	0	0.0	0.1	0.0	29.73
	10/18/2017	9:40	0.0	20.9	0.0	0.0	0.0	0.4	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.4	0.0	30.02
	10/18/2018	9:04	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.1	0.0	30.06
	10/16/2019	11:44	0.0	12.4	0.0	47.0	0.0	5.0	3.4	4	167	0.0	16.2	0.0	30.0	0.0	2.5	2.1	29.85
	10/13/2020	11:25	0.6	19.2	0.0	40.0	0.0	4.8	2.1	4	167	0.0	11.5	0.0	82.0	0.0	33.0	1.5	29.61
	10/20/2021	10:12	0.0	21.8	1.0	0.0	0.0	0.1	0.0	4	167	0.0	21.8	1.0	0.0	0.0	0.0	0.0	29.60
	10/27/2022	9:42	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:56	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
GV-14	10/26/2012	15:37	0.6	20.9	0	>100	0	15.7	29.5	4	167	0.5	3.0	0	>100	0	19.7	34.9	29.87
	11/12/2013	12:30	0.2	11.2	0	>100	0	6.3	7.9	4	167	0.3	8.1	0	>100	0	8.3	10.3	29.91
	10/17/2014	10:12	0.0	20.1	0.0	29.0	30.0	1.6	1.7	4	167	0.2	17.1	0.0	100.0	0.0	4.4	6.1	29.40
	10/20/2015	14:00	0.1	20.4	0.0	15.0	0.0	0.6	0.3	4	167	0.0	13.9	0.0	100.0	0.0	7.0	11.9	29.88
	10/18/2016	10:00	0.0	19.3	0.0	7	0.0	0.7	0.3	4	167	0.0	19.7	0.0	2	0.0	0.3	0.1	29.72
	10/18/2017	10:20	0.0	20.5	0.0	0.0	0.0	0.6	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.3	0.0	30.02
	10/18/2018	12:21	0.0	21.3	1.0	0.0	0.0	0.0	0.0	4	167	0.0	21.3	1.0	0.0	0.0	0.0	0.0	30.02
	10/16/2019	11:55	0.0	20.6	0.0	99.0	0.0	0.2	0.2	4	167	0.0	3.7	0.0	99.0	0.0	15.1	29.3	29.85
	10/13/2020	11:35	0.6	19.1	0.0	99.0	0.0	21.0	9.9	4	167	0.0	19.7	0.0	99.0	0.0	6.1	10.0	29.61
	10/20/2021	10:30	0.0	21.6	1.0	2.0	1.0	0.1	0.0	4	167	0.0	21.4	2.0	2.0	0.0	0.2	0.0	29.60
	10/27/2022	9:58	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.56
	10/19/2023	10:59	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	167	0.0	19.0	0.0	44.0	0.0	1.8	1.7	29.88
GV-15	10/26/2012	15:27	1.0	1.5	0	>100	4	22.5	24.3	4	375	0.4	1.5	0	>100	1	22.6	23.9	29.87
	11/12/2013	14:39	0.3	6.4	0	75	0	10.5	7.9	4	375	0.2	4.8	0	>100	0	11.4	8.6	29.91
	10/17/2014	10:56	0.0	15.2	1.0	25.0	5.0	5.0	1.3	4	375	0.0	20.7	0.0	0.0	0.0	0.1	0.0	29.33
	10/20/2015	16:15	0.1	20.6	0.0	23.0	0.0	0.7	0.6	4	375	0.1	3.1	0.0	100.0	0.0	21.2	24.9	29.88
	10/18/2016	16:05	0.0	2.7	0.0	100	0.0	23.3	22.3	4	375	0.0	2.8	0.0	100	0.0	22.9	21.2	29.55
	10/18/2017	13:02	0.0	16.9	0.0	35.0	0.0	2.4	1.1	4	375	0.0	16.0	0.0	42.0	0.0	3.2	1.4	29.98
	10/18/2018	12:11	0.0	21.5	0.0	0.0	0.0	0.0	0.1	4	375	0.0	21.4	0.0	0.0	0.0	0.0	0.0	30.10
	10/16/2019	12:10	0.0	1.8	0.0	99.0	0.0	21.9	23.5	4	375	0.0	0.0	0.0	99.0	0.0	21.0	26.5	29.85
	10/13/2020	11:55	0.4	4.3	0.0	99.0	0.0	22.2	17.5	4	375	0.3	4.3	0.0	99.0	0.0	22.2	24.0	29.59
	10/20/2021	10:50	0.0	21.8	2.0	0.0	1.0	0.1	0.0	4	375	0.0	21.8	2.0	0.0	1.0	0.0	0.0	29.60
	10/27/2022	10:08	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	375	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.69
	10/19/2023	10:51	0.1	17.6	0.0	19.0	0.0	2.4	0.7	4	375	0.0	17.1	0.0	30.0	0.0	2.9	1.2	29.88

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
GV-16	10/26/2012	14:50	0.3	1.2	0	>100	2	20.3	14.1	4	375	0.4	2.2	0	>100	2	20.3	13.7	29.87
	11/12/2013	10:45	0.0	20.8	0	0	0	0.3	0.0	4	375	0.0	20.0	0	0	0	0.3	0.0	29.98
	10/17/2014	13:04	0.0	1.2	0.0	100.0	0.0	19.5	15.8	4	375	0.1	0.7	0.0	100.0	0.0	20.2	17.0	29.32
	10/20/2015	15:55	0.1	20.1	0.0	27.0	0.0	23.7	17.3	4	375	0.2	6.1	0.0	100.0	0.0	16.7	11.0	29.88
	10/18/2016	16:22	0.0	1.7	0.0	100	0.0	25.5	19.9	4	375	0.0	1.9	0.0	100	0.0	25.5	19.9	29.55
	10/18/2017	13:19	0.0	17.2	0.0	14.0	0.0	2.4	0.4	4	375	0.0	16.8	0.0	12.0	0.0	2.7	0.3	29.90
	10/18/2018	12:00	0.0	21.6	0.0	0.0	0.0	0.0	0.0	4	375	0.0	21.7	0.0	0.0	0.0	0.0	0.0	30.10
	10/16/2019	12:48	0.0	0.0	0.0	99.0	22.1	0.0	20.2	4	375	0.0	0.0	0.0	99.0	0.0	22.4	19.2	29.71
	10/13/2020	12:15	0.2	0.9	0.0	99.0	0.0	22.0	17.5	4	375	0.4	0.1	0.0	99.0	0.0	22.2	17.3	29.59
	10/20/2021	12:57	0.0	20.4	2.0	8.0	0.0	0.2	0.0	4	375	0.0	20.3	2.0	10.0	0.0	1.3	0.1	29.61
	10/27/2022	12:04	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	375	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.73
	10/19/2023	11:14	0.0	15.2	0.0	33.0	0.0	4.0	1.2	4	375	0.0	14.7	0.0	24.0	0.0	4.0	0.8	29.88
GV-17	10/26/2012	15:02	0.0	3.3	0	>100	2	22.7	20.7	4	375	0.3	2.7	0	>100	2	22.9	20.9	29.87
	11/12/2013	10:30	0.0	20.5	0	0	0	0.3	0.0	4	375	0.0	20.0	0	0	0	0.3	0.0	29.98
	10/17/2014	13:16	0.0	0.2	97.0	100.0	0.0	24.6	27.5	4	375	0.1	0.0	0.0	100.0	0.0	25.0	28.4	29.32
	10/20/2015	16:08	0.2	2.2	0.0	100.0	0.0	23.2	21.5	4	375	0.1	1.1	0.0	100.0	0.0	24.3	22.8	29.88
	10/18/2016	16:30	0.0	1.7	0.0	100	0.0	27.5	26.0	4	375	0.0	3.6	0.0	100	0.0	25.1	24.3	29.55
	10/18/2017	13:27	0.0	16.1	0.0	20.0	0.0	2.4	0.4	4	375	0.0	15.8	0.0	21.0	0.0	3.2	0.6	29.94
	10/18/2018	11:51	0.0	21.2	0.0	0.0	0.0	0.1	0.0	4	375	0.0	21.4	0.0	0.0	0.0	0.1	0.0	30.10
	10/16/2019	12:36	0.0	2.6	0.0	99.0	0.0	23.4	25.6	4	375	0.0	0.0	0.0	99.0	0.0	23.4	26.1	29.71
	10/13/2020	12:05	0.4	4.3	0.0	99.0	0.0	14.6	9.9	4	375	0.3	0.3	0.0	99.0	0.0	39.1	19.0	29.59
	10/20/2021	12:45	0.0	20.5	2.0	25.0	0.0	0.6	0.3	4	375	0.0	20.5	3.0	21.0	0.0	0.7	0.4	29.61
	10/27/2022	11:52	0.0	20.9	0.0	0.0	0.0	0.1	0.0	4	375	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.73
	10/19/2023	11:26	0.0	15.4	0.0	13.0	0.0	3.4	0.4	4	375	0.0	14.1	0.0	14.0	0.0	3.6	0.4	29.88
GV-18	10/26/2012	15:15	0.5	5.3	0	>100	4	25.8	34.6	4	375	0.4	0.8	0	>100	3	26.3	35.5	29.87
	11/12/2013	14:23	0.2	5.9	0	>100	0	15.5	16.2	4	375	0.2	3.2	0	>100	0	17.9	18.9	29.91
	10/17/2014	11:12	0.0	20.8	0.0	0.0	0.0	0.1	0.0	4	375	0.0	20.7	0.0	0.0	0.0	0.1	0.0	29.33
	10/20/2015	16:25	0.1	5.6	0.0	100.0	0.0	21.2	29.1	4	375	0.2	8.8	0.0	100.0	0.0	17.1	24.1	29.88
	10/18/2016	15:55	0.0	4.8	0.0	100	0.0	22.9	25.2	4	375	0.0	2.6	0.0	100	0.0	26.4	29.3	29.55
	10/18/2017	12:55	0.0	20.2	0.0	7.0	0.0	0.5	0.1	4	375	0.0	20.3	0.0	0.0	0.0	0.5	0.1	29.98
	10/18/2018	11:40	0.0	20.9	0.0	0.0	0.0	0.2	0.0	4	375	0.0	21.2	0.0	0.0	0.0	0.1	0.0	30.10
	10/16/2019	12:21	0.0	0.7	0.0	99.0	0.0	21.3	23.4	4	375	0.0	1.0	0.0	99.0	0.0	21.2	23.4	29.71
	10/13/2020	11:45	0.1	18.8	0.0	14.0	0.0	2.7	3.2	4	375	0.5	19.8	0.0	88.0	0.0	1.5	1.6	29.59
	10/20/2021	10:56	0.0	21.9	2.0	0.0	0.0	0.0	0.0	4	375	0.0	21.9	2.0	0.0	0.0	0.0	0.0	29.60
	10/27/2022	10:18	0.0	20.9	0.0	0.0	0.0	0.0	0.0	4	375	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.69
	10/19/2023	11:40	0.0	18.4	0.0	>99	0.0	4.3	4.2	4	375	0.0	9.8	0.0	>99	0.0	13.2	14.6	29.88
LGP-01-01X	10/26/2012	7:55	0.0	20.9	0	0	0	0.7	0.0	2	83	0.0	20.3	0	0	0	0.7	0.0	29.88
	11/12/2013	7:36	0.0	20.8	0	0	0	0.4	0.0	2	83	0.0	20.9	0	0	0	0.5	0.0	29.98
	10/17/2014	15:00	0.0	20.4	0.0	0.0	0.0	0.6	0.0	2	83	0.0	20.6	0.0	0.0	0.0	0.6	0.0	29.32
	10/20/2015	9:45	0.0	20.6	0.0	0.0	0.0	0.7	0.0	2	83	0.0	20.5	0.0	0.0	0.0	0.7	0.0	29.90
	10/18/2016	17:56	0.0	18.9	0.0	0	0.0	1.4	0.0	2	83	0.0	19.3	0.0	0	0.0	0.9	0.0	29.55
	10/18/2017	8:55	0.0	20.3	0.0	0.0	0.0	0.8	0.0	2	83	0.0	20.4	0.0	0.0	0.0	0.9	0.0	30.00
	10/18/2018	14:48	0.0	20.9	0.0	0.0	0.0	1.0	0.0	2	83	0.0	20.9	0.0	0.0	0.0	1.0	0.0	30.03
	10/16/2019	15:37	0.0	21.0	0.0	0.0	0.0	0.5	0.1	2	83	0.0	21.1	0.0	0.0	0.0	0.5	0.1	29.64
	10/13/2020	15:40	0.0	20.9	0.0	0.0	0.0	0.5	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.5	0.0	29.52
	10/20/2021	14:14	0.0	21.2	4.0	3.0	0.0	0.1	0.0	2	83	0.0	21.3	4.0	3.0	0.0	0.8	0.0	29.61
	10/27/2022	14:34	0.0	20.9	0.0	0.0	0.0	0.5	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	12:12	0.0	20.5	0.0	0.0	0.0	0.6	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.5	0.0	30.45
LGP-09-01XA	10/26/2012	8:00	0.0	20.3	0	0	0	0.8	0.0	2	157	0.0	20.4	0	0	0	0.8	0.0	29.89
	11/12/2013	7:42	0.0	20.9	0	0	0	0.7	0.0	2	157	0.0	20.9	0	0	0	0.7	0.0	29.98
	10/17/2014	15:03	0.4	20.6	0.0	0.0	0.0	0.6	0.0	2	157	0.0	20.7	0.0	0.0	0.0	0.6	0.0	29.32
	10/20/2015	9:33	0.0	20.8	0.0	0.0	0.0	0.8	0.0	2	157	0.0	20.3	0.0	0.0	0.0	0.9	0.0	29.90
	10/18/2016	18:01	0.0	19.7	0.0	0	0.0	0.5	0.0	2	157	0.0	19.6	0.0	0	0.0	0.6	0.0	29.55
	10/18/2017	9:00	0.0	20.2	0.0	0.0	0.0	0.8	0.0	2	157	0.0	20.2	0.0	0.0	0.0	1.0	0.0	30.00
	10/18/2018	14:43	0.0	20.6	0.0	0.0	0.0	1.2	0.0	2	157	0.0	20.6	0.0	0.0	0.0	1.2	0.0	30.03
	10/16/2019	15:48	0.0	21.0	0.0	0.0	0.0	0.5	0.1	2	157	0.0	21.2	0.0	0.0	0.0	0.6	0.1	29.64
	10/13/2020	15:45	0.0	20.9	0.0	0.0	0.0	0.5	0.0	2	157	0.0	20.9	0.0	0.0	0.0	0.6	0.0	29.52
	10/20/2021	14:22	0.0	21.1	3.0	3.0	0.0	0.9	0.0	2	157	0.0	21.1	3.0	3.0	0.0	1.0	0.0	29.61
	10/27/2022	14:27	0.0	20.9	0.0	0.0	0.0	0.0	0.0	2	157	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	12:06	0.1	20.4	0.0	0.0	0.0	0.6	0.0	2	157	0.0	20.4	0.0	0.0	0.0	0.7	0.0	30.45

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
LGP-09-01XB	10/26/2012	8:06	0.1	20.9	0	0	0	0.9	0.0	2	259	0.0	20.9	0	0	0	0.9	0.0	29.89
	11/12/2013	7:50	0.2	20.9	0	0	0	0.2	0.0	2	259	0.0	20.9	0	0	0	1.0	0.0	29.98
	10/17/2014	15:02	0.7	20.5	0.0	0.0	0.0	0.6	0.0	2	157	0.0	20.6	0.0	0.0	0.0	0.6	0.0	29.32
	10/20/2015	9:40	0.0	20.2	0.0	0.0	0.0	0.9	0.0	2	157	0.0	20.2	0.0	0.0	0.0	0.9	0.0	29.90
	10/18/2016	18:05	0.0	19.5	0.0	0	0.0	0.7	0.0	2	157	0.0	19.5	0.0	0	0.0	0.7	0.0	29.55
	10/18/2017	9:05	1.0	20.1	0.0	0.0	0.0	1.0	0.0	2	157	0.0	20.1	0.0	0.0	0.0	1.0	0.0	30.00
	10/18/2018	14:38	0.0	20.8	0.0	1.0	0.0	0.9	0.1	2	157	0.0	20.6	0.0	0.0	0.0	1.0	0.0	30.03
	10/16/2019	15:43	0.0	20.8	0.0	0.0	0.0	0.7	0.1	2	157	0.0	20.9	0.0	0.0	0.0	0.8	0.1	29.64
	10/13/2020	15:50	0.3	20.9	0.0	0.0	0.0	0.7	0.0	2	157	0.2	20.4	0.0	0.0	0.0	0.5	0.0	29.52
	10/20/2021	14:18	1.3	21.1	3.0	6.0	2.0	0.8	0.0	2	157	0.0	21.2	3.0	3.0	0.0	0.9	0.0	29.61
	10/27/2022	14:31	1.0	20.3	0.0	0.0	0.0	0.0	0.0	2	157	0.0	20.9	0.0	0.0	0.0	0.7	0.0	29.80
	10/19/2023	12:09	0.7	20.0	0.0	0.0	0.0	1.1	0.0	2	157	0.0	20.0	0.0	0.0	0.0	1.2	0.0	30.45
LGP-01-02X	10/26/2012	8:26	0.0	19.8	0	0	0	1.4	0.0	2	83	0.0	20.2	0	0	0	1.5	0.0	29.89
	11/12/2013	8:02	0.0	20.9	0	0	0	0.9	0.0	2	83	0.0	20.8	0	0	0	0.9	0.0	29.98
	10/17/2014	15:18	0.0	20.2	0.0	0.0	0.0	0.8	0.0	2	83	0.0	20.2	0.0	0.0	0.0	0.9	0.0	29.32
	10/20/2015	9:58	0.0	20.3	0.0	0.0	0.0	1.1	0.0	2	83	0.0	20.2	0.0	0.0	0.0	1.3	0.0	29.90
	10/18/2016	18:09	0.0	19.4	0.0	0	0.0	1.0	0.0	2	83	0.0	19.3	0.0	0	0.0	1.2	0.0	29.55
	10/18/2017	9:18	0.0	19.9	0.0	0.0	0.0	1.3	0.0	2	83	0.0	20.0	0.0	0.0	0.0	1.2	0.0	30.01
	10/18/2018	15:01	0.0	18.7	0.0	0.0	0.0	3.2	0.0	2	83	0.0	18.8	1.0	0.0	0.0	3.2	0.0	30.03
	10/16/2019	15:28	0.0	20.8	0.0	0.0	0.0	0.9	0.1	2	83	0.0	20.8	0.0	0.0	0.0	0.9	0.1	29.64
	10/13/2020	15:25	0.0	20.9	0.0	0.0	0.0	0.2	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.53
	10/20/2021	14:26	0.0	22.1	4.0	3.0	1.0	0.1	0.0	2	83	0.0	21.3	3.0	3.0	0.0	0.9	0.0	29.61
	10/27/2022	14:12	0.0	19.5	0.0	0.0	0.0	1.3	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.80
	10/19/2023	12:02	0.0	18.8	0.0	0.0	0.0	3.1	0.0	2	83	0.0	18.8	0.0	0.0	0.0	3.1	0.0	30.45
LGP-09-02X	10/26/2012	8:20	0.1	19.6	0	0	0	1.7	0.0	2	204	0.0	19.7	0	0	0	1.7	0.0	29.89
	11/12/2013	8:07	0.2	20.9	0	0	0	1.1	0.0	2	204	0.1	20.6	0	0	0	1.3	0.0	29.98
	10/17/2014	15:20	0.0	20.2	0.0	0.0	0.0	1.0	0.0	2	204	0.0	20.3	1.0	0.0	0.0	1.1	0.0	29.32
	10/20/2015	9:52	0.0	20.1	0.0	0.0	0.0	1.4	0.0	2	204	0.0	20.0	0.0	0.0	0.0	0.3	0.0	29.90
	10/18/2016	18:12	0.0	19.4	0.0	0	0.0	1.0	0.0	2	204	0.0	19.5	0.0	0	0.0	0.9	0.0	29.55
	10/18/2017	9:13	0.0	19.8	0.0	0.0	0.0	1.1	0.0	2	204	0.0	19.9	0.0	0.0	0.0	1.2	0.0	30.00
	10/18/2018	14:56	0.0	18.9	1.0	0.0	0.0	3.2	0.0	2	204	0.0	18.5	2.0	0.0	0.0	3.5	0.0	30.03
	10/16/2019	15:26	0.0	20.7	0.0	0.0	0.0	1.1	0.1	2	204	0.0	20.9	0.0	0.0	0.0	1.2	0.2	29.64
	10/13/2020	15:30	0.0	20.9	0.0	0.0	0.0	1.0	0.0	2	204	0.0	20.9	0.0	0.0	0.0	1.1	0.0	29.53
	10/20/2021	14:24	1.4	19.4	4.0	7.0	1.0	3.1	0.0	2	204	0.0	19.0	4.0	4.0	0.0	3.2	0.0	29.61
	10/27/2022	14:17	1.0	19.4	0.0	0.0	0.0	1.4	0.0	2	204	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	11:57	0.6	18.5	0.0	0.0	0.0	3.5	0.0	2	204	0.2	18.5	0.0	0.0	0.0	3.4	0.0	30.45
LGP-01-03X	10/26/2012	8:47	0.0	20.2	0	0	0	1.1	0.0	2	83	0.0	20.2	0	0	0	1.1	0.0	29.91
	11/12/2013	8:15	0.0	20.8	0	0	0	0.9	0.0	2	83	0.0	20.7	0	0	0	0.9	0.0	29.98
	10/17/2014	15:29	0.0	20.2	0.0	0.0	0.0	0.8	0.0	2	83	0.0	20.2	0.0	0.0	0.0	0.8	0.0	29.32
	10/20/2015	10:10	0.0	20.3	0.0	0.0	0.0	1.1	0.0	2	83	0.0	20.3	0.0	0.0	0.0	1.1	0.0	29.90
	10/18/2016	18:15	0.0	19.6	0.0	0	0.0	0.7	0.0	2	83	0.0	19.6	0.0	0	0.0	0.7	0.0	29.55
	10/18/2017	8:40	0.0	20.2	0.0	0.0	0.0	1.0	0.0	2	83	0.0	20.1	0.0	0.0	0.0	1.2	0.0	30.00
	10/18/2018	15:07	0.0	19.9	1.0	0.0	0.0	1.8	0.0	2	83	0.0	20.0	0.0	0.0	0.0	1.6	0.0	30.03
	10/16/2019	15:22	0.0	20.8	0.0	0.0	0.0	0.8	0.1	2	83	0.0	20.9	0.0	0.0	0.0	0.8	0.1	29.64
	10/13/2020	15:05	0.0	20.9	0.0	0.0	0.0	0.6	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.53
	10/20/2021	14:45	0.0	21.0	4.0	4.0	0.0	1.2	0.0	2	83	0.0	21.2	3.0	4.0	0.0	1.2	0.0	29.61
	10/27/2022	14:51	0.0	20.0	0.0	0.0	0.0	0.9	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.2	0.0	29.87
	10/19/2023	12:22	0.6	19.4	0.0	0.0	0.0	2.2	0.0	2	83	0.0	19.4	0.0	0.0	0.0	2.3	0.0	30.45
LGP-09-03X	10/26/2012	8:40	0.4	19.8	0	0	0	1.4	0.0	2	167	0.0	19.9	0	0	0	1.5	0.0	29.91
	11/12/2013	8:20	0.1	20.7	0	0	0	1.2	0.0	2	167	0.0	20.6	0	0	0	1.3	0.0	29.98
	10/17/2014	15:31	0.5	20.1	0.0	0.0	0.0	1.0	0.0	2	167	0.0	20.8	0.0	0.0	0.0	0.3	0.0	29.32
	10/20/2015	10:19	0.0	20.1	0.0	0.0	0.0	1.2	0.0	2	167	0.0	20.2	0.0	0.0	0.0	1.3	0.0	29.90
	10/18/2016	18:19	0.0	19.4	0.0	0	0.0	0.9	0.0	2	167	0.0	19.4	0.0	0	0.0	1.0	0.0	29.55
	10/18/2017	8:46	0.0	19.8	0.0	0.0	0.0	1.5	0.0	2	167	0.0	19.8	0.0	0.0	0.0	1.6	0.0	30.00
	10/18/2018	15:12	0.0	19.8	0.0	0.0	0.0	1.9	0.0	2	167	0.0	19.6	0.0	0.0	0.0	2.0	0.0	30.03
	10/16/2019	15:16	0.0	20.8	0.0	0.0	0.0	1.0	0.1	2	167	0.0	20.7	0.0	0.0	0.0	1.0	0.1	29.64
	10/13/2020	15:15	0.1	20.9	0.0	0.0	0.0	0.0	0.0	2	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.53
	10/20/2021	14:41	0.5	22.1	4.0	7.0	1.0	0.1	0.0	2	167	0.0	20.3	3.0	3.0	1.0	1.7	0.0	29.61
	10/27/2022	14:44	0.0	20.0	0.0	0.0	0.0	0.09	0.0	2	167	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	12:25	0.0	20.0	0.0	0.0	0.0	1.6	0.0	2	167	0.0	20.1	0.0	0.0	0.0	1.3	0.0	30.45

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
LGP-01-04X	10/26/2012	8:54	0.0	20.5	0	0	0	0.8	0.0	2	83	0.0	20.9	0	0	0	0.8	0.0	29.91
	11/12/2013	8:27	0.0	20.9	0	0	0	0.5	0.0	2	83	0.0	20.9	0	0	0	0.5	0.0	29.98
	10/17/2014	15:38	0.0	20.5	0.0	0.0	0.0	0.5	0.0	2	83	0.0	20.5	0.0	0.0	0.0	0.5	0.0	29.32
	10/20/2015	11:11	0.0	20.1	0.0	0.0	0.0	0.7	0.0	2	83	0.0	20.2	0.0	0.0	0.0	0.8	0.0	29.89
	10/18/2016	18:23	0.0	19.7	0.0	0	0.0	0.5	0.0	2	83	0.0	19.6	0.0	0	0.0	0.7	0.0	29.55
	10/18/2017	8:20	0.0	20.4	0.0	0.0	0.0	0.8	0.1	2	83	0.0	20.3	0.0	0.0	0.0	1.0	0.1	30.00
	10/18/2018	15:20	0.0	20.4	0.0	0.0	0.0	1.6	0.0	2	83	0.0	20.4	0.0	0.0	0.0	1.6	0.0	30.03
	10/16/2019	15:05	0.0	20.9	0.0	0.0	0.0	0.5	0.1	2	83	0.0	20.9	0.0	0.0	0.0	0.5	0.2	29.65
	10/13/2020	14:45	0.0	20.9	0.0	0.0	0.0	0.0	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.5	0.0	29.55
	10/20/2021	14:36	0.0	20.8	4.0	5.0	1.0	1.2	0.0	2	83	0.0	20.7	3.0	4.0	1.0	1.4	0.0	29.61
	10/27/2022	14:05	0.0	20.1	0.0	0.0	0.0	0.08	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	12:32	0.0	20.2	0.0	0.0	0.0	1.2	0.0	2	83	0.0	20.2	0.0	0.0	0.0	1.2	0.0	30.45
LGP-09-04X	10/26/2012	9:00	0.0	20.4	0	0	0	0.8	0.0	2	120	0.0	20.4	0	0	0	0.9	0.0	29.91
	11/12/2013	8:33	0.1	20.9	0	0	0	0.6	0.0	2	120	0.0	20.8	0	0	0	0.7	0.0	29.98
	10/17/2014	15:40	0.1	20.6	0.0	0.0	0.0	0.5	0.0	2	120	0.0	20.5	0.0	0.0	0.0	0.5	0.0	29.32
	10/20/2015	11:18	0.0	20.8	0.0	0.0	0.0	0.8	0.0	2	120	0.0	20.3	0.0	0.0	0.0	0.9	0.0	29.89
	10/18/2016	18:27	0.0	19.7	0.0	0	0.0	0.6	0.0	2	120	0.0	19.6	0.0	0	0.0	0.7	0.0	29.55
	10/18/2017	8:27	0.0	20.5	0.0	0.0	0.0	0.6	0.0	2	120	0.0	20.3	0.0	0.0	0.0	1.0	0.0	30.00
	10/18/2018	15:24	0.0	19.9	0.0	0.0	0.0	1.8	0.0	2	120	0.0	19.7	0.0	0.0	0.0	1.9	0.0	30.03
	10/16/2019	15:11	0.0	21.0	0.0	0.0	0.0	0.2	0.1	2	120	0.0	21.0	0.0	0.0	0.0	0.6	0.1	29.65
	10/13/2020	14:55	0.0	20.9	0.0	0.0	0.0	0.0	0.0	2	120	0.0	20.9	0.0	0.0	0.0	0.5	0.0	29.53
	10/20/2021	14:34	0.0	20.6	3.0	3.0	1.0	1.4	0.0	2	120	0.0	20.7	3.0	4.0	1.0	1.4	0.0	29.61
	10/27/2022	13:59	0.0	20.9	0.0	0.0	0.0	0.03	0.0	2	120	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.80
	10/19/2023	12:36	0.0	20.2	0.0	0.0	0.0	1.1	0.0	2	120	0.0	20.3	0.0	0.0	0.0	1.1	0.0	30.45
LGP-05-05X	10/26/2012	9:10	0.3	14.4	0	3	0	7.1	0.2	2	93	0.0	12.4	0	0	0	9.7	0.0	29.91
	11/12/2013	14:10	0.2	17.1	0	13	0	7.6	0.4	2	93	0.1	18.1	0	2	0	5.6	0.0	29.91
	10/17/2014	11:43	0.0	2.5	1.0	100.0	0.0	17.1	12.2	2	93	0.2	0.0	1.0	100.0	0.0	29.7	30.1	29.33
	10/20/2015	15:35	0.2	14.4	0.0	6.0	0.0	6.0	0.0	2	93	0.3	1.1	0.0	44.0	0.0	18.9	1.5	29.88
	10/18/2016	15:41	0.0	8.0	0.0	100	0.0	16.7	9.7	2	93	0.0	2.6	0.0	100	0.0	27.6	16.7	29.65
	10/18/2017	11:55	0.0	15.2	0.0	40.0	0.0	8.1	1.5	2	93	0.0	14.3	0.0	0.0	0.0	6.9	0.0	30.00
	10/18/2018	11:27	0.0	14.9	1.0	66.0	0.0	8.7	3.3	2	93	0.0	19.5	1.0	6.0	0.0	2.6	0.3	30.10
	10/16/2019	8:33	0.0	11.7	0.0	12.0	0.0	11.7	0.8	2	93	0.0	9.9	0.0	0.0	0.0	0.1	0.2	29.95
	10/13/2020	7:50	0.0	14.0	0.0	0.0	0.0	0.5	0.0	2	93	0.0	14.0	0.0	0.0	0.0	9.2	0.0	29.67
	10/20/2021	8:30	0.7	15.4	0.0	30.0	1.0	21.6	18.1	2	93	0.7	17.8	0.0	17.0	0.0	5.6	1.5	29.55
	10/27/2022	7:50	0.0	6.4	0.0	7.0	0.0	15.0	11.4	2	93	0.0	20.9	0.0	5.0	0.0	0.1	0.0	29.56
	10/19/2023	8:25	1.2	16.4	0.0	70.0	0.0	8.0	3.5	2	93	0.0	20.7	0.0	0.0	0.0	0.1	0.0	29.88
LGP-09-05X	10/26/2012	9:18	2.5	10.6	0	30	0	14.4	1.5	2	167	0.2	9.3	0	0	0	13.0	0.0	29.91
	11/12/2013	14:15	0.8	10.4	0	42	0	14.2	2.4	2	167	0.1	11.4	0	0	0	13.0	0.0	29.91
	10/17/2014	11:45	0.3	1.7	1.0	100.0	0.0	20.2	16.0	2	167	0.3	0.0	1.0	100.0	0.0	30.1	33.5	29.33
	10/20/2015	15:40	0.6	9.3	0.0	65.0	0.0	13.1	1.7	2	167	0.3	0.5	0.0	100.0	0.0	24.7	9.1	29.88
	10/18/2016	15:36	0.0	6.1	0.0	100	0.0	20.5	13.2	2	167	0.0	1.6	0.0	100	0.0	30.1	21.9	29.65
	10/18/2017	11:48	0.0	10.6	0.0	100.0	0.0	13.8	4.6	2	167	0.0	12.8	0.0	0.0	0.0	9.4	0.0	30.00
	10/18/2018	11:32	1.0	18.0	1.0	34.0	0.0	5.1	1.7	2	167	0.0	19.3	1.0	3.0	0.0	2.8	0.2	30.10
	10/16/2019	8:43	0.55	22.0	0.0	53.0	0.0	0.2	0.2	2	167	0.0	3.0	0.0	31.0	0.0	0.2	0.2	29.95
	10/13/2020	8:00	30.7	12.0	0.0	30.0	0.0	1.3	1.3	2	167	0.5	0.9	0.0	99.0	0.0	22.0	61.0	29.67
	10/20/2021	8:35	0.1	14.0	0.0	99.0	1.0	11.4	10.0	2	167	1.9	21.5	0.0	48.0	0.0	0.2	0.0	29.55
	10/27/2022	8:00	0.0	0.0	0.0	74.0	0.0	15.5	5.0	2	167	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	8:11	0.1	13.4	0.0	>99	0.0	0.2	0.1	2	167	0.0	20.9	0.0	0.0	0.0	0.1	0.1	29.88
LGP-05-06X	10/26/2012	9:37	0.0	17.5	0	0	0	0.0	0.0	2	93	0.0	15.9	0	0	0	4.9	0.0	29.91
	11/12/2013	14:01	0.1	18.7	0	2	0	2.6	0.0	2	93	0.1	19.7	0	2	0	2.7	0.0	29.91
	10/17/2014	11:34	0.0	17.2	0.0	0.0	0.0	3.0	0.0	2	93	0.0	16.5	0.0	0.0	5.0	3.6	0.0	29.33
	10/20/2015	15:23	0.0	17.0	0.0	0.0	0.0	3.7	0.0	2	93	0.0	17.3	0.0	0.0	0.0	3.5	0.0	29.88
	10/18/2016	15:29	0.0	16.8	0.0	0	0.0	3.0	0.0	2	93	0.0	16.3	0.0	0	0.0	3.5	0.0	29.65
	10/18/2017	11:36	0.0	17.6	0.0	0.0	0.0	2.7	0.0	2	93	0.0	17.6	0.0	0.0	0.0	3.5	0.0	30.00
	10/18/2018	11:20	0.0	14.2	2.0	0.0	0.0	5.3	0.0	2	93	0.0	14.6	2.0	0.0	0.0	5.2	0.0	30.10
	10/16/2019	9:00	0.0	18.3	0.0	0.0	0.0	2.3	0.2	2	93	0.0	18.8	0.0	0.0	0.0	2.5	0.2	29.93
	10/13/2020	8:15	0.0	20.4	0.0	0.0	0.0	1.6	0.0	2	93	0.0	20.4	0.0	0.0	0.0	0.0	0.0	29.67
	10/20/2021	8:44	0.0	16.0	0.0	6.0	1.0	4.7	0.0	2	93	0.0	15.7	0.0	0.0	1.0	4.9	0.0	29.55
	10/27/2022	8:13	0.0	16.8	0.0	6.0	0.0	4.1	0.0	2	93	0.0	20.9	0.0	4.0	0.0	0.1	0.0	29.56
	10/19/2023	8:35	0.4	16.3	0.0	0.0	0.0	4.9	0.0	2	93	0.0	17.7	0.0	0.0	0.0	4.2	0.0	29.88

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**0_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
LGP-09-06X	10/26/2012	9:28	0.2	10.2	0	0	0	8.6	0.0	2	120	0.0	10.9	0	0	0	8.4	0.0	29.91
	11/12/2013	14:06	0.1	15.5	0	1	0	5.8	0.0	2	120	0.1	15.7	0	1	0	5.8	0.0	29.91
	10/17/2014	11:32	0.5	6.9	7.0	0.0	5.0	6.2	0.0	2	120	0.0	6.6	1.0	0.0	5.0	6.5	0.0	29.32
	10/20/2015	15:30	0.2	14.1	0.0	0.0	0.0	5.6	0.0	2	120	0.0	14.1	0.0	0.0	0.0	5.8	0.0	29.88
	10/18/2016	15:23	0.0	14.4	0.0	0	0.0	5.0	0.0	2	120	0.0	13.7	0.0	0	0.0	5.5	0.0	29.65
	10/18/2017	11:41	0.0	14.4	0.0	0.0	0.0	6.1	0.0	2	120	0.0	14.5	0.0	0.0	0.0	6.1	0.0	30.01
	10/18/2018	11:15	0.0	9.5	0.0	0.0	0.0	10.1	0.0	2	120	0.0	11.6	1.0	0.0	0.0	8.5	0.0	30.10
	10/16/2019	8:52	0.0	16.2	0.0	0.0	0.0	0.2	0.2	2	120	0.0	16.1	0.0	0.0	0.0	5.0	0.2	29.93
	10/13/2020	8:25	0.0	20.9	0.0	0.0	0.0	3.6	0.0	2	120	0.0	17.2	0.0	0.0	0.0	3.6	0.0	29.67
	10/20/2021	8:51	0.3	14.2	0.0	8.0	0.0	12.1	0.0	2	120	0.0	21.4	0.0	0.0	1.0	0.1	0.0	29.55
	10/27/2022	8:10	0.0	10.2	0.0	6.0	0.0	7.6	0.0	2	120	0.0	20.9	0.0	4.0	0.0	0.1	0.0	29.56
	10/19/2023	8:41	0.0	18.8	0.0	0.0	0.0	10.2	0.0	2	120	0.0	20.9	0.0	0.0	0.0	2.3	0.0	29.88
LGP-05-07X	10/26/2012	9:45	0.1	15.4	0	0	0	7.7	0.0	2	65	0.0	13.2	0	0	0	6.8	0.0	29.91
	11/12/2013	13:55	0.1	19.8	0	1	0	2.0	0.0	2	65	0.0	19.6	0	0	0	2.7	0.0	29.91
	10/17/2014	11:25	0.1	1.1	0.0	100.0	0.0	20.6	10.4	2	65	0.2	0.0	0.0	100.0	0.0	21.9	8.4	29.33
	10/20/2015	15:17	0.1	10.8	0.0	0.0	0.0	7.3	0.0	2	65	0.0	8.1	0.0	0.0	0.0	12.7	0.0	29.88
	10/18/2016	15:15	0.1	10.7	0.0	4	0.0	10.4	0.2	2	65	0.0	9.4	0.0	0	0.0	11.9	0.0	29.65
	10/18/2017	11:27	0.0	17.9	0.0	0.0	0.0	3.9	0.0	2	65	0.0	18.4	0.0	0.0	0.0	3.8	0.0	30.01
	10/18/2018	11:08	0.0	12.5	1.0	7.0	0.0	10.5	0.4	2	65	0.0	16.3	0.0	0.0	0.0	6.7	0.0	30.10
	10/16/2019	9:09	0.0	18.2	0.0	0.0	0.0	3.7	0.2	2	65	0.0	15.4	0.0	0.0	0.0	6.0	0.2	NR
	10/13/2020	8:40	0.0	21.9	0.0	0.0	0.0	0.1	0.0	2	65	0.0	12.2	0.0	0.0	0.0	6.1	0.0	29.65
	10/20/2021	8:56	0.0	12.8	0.0	0.0	0.0	8.1	1.0	2	65	0.2	13.2	1.0	8.0	0.0	11.3	0.0	29.55
	10/27/2022	8:21	0.0	9.8	0.0	99.0	0.0	8.8	9.4	2	65	0.0	20.9	0.0	5.0	0.0	0.1	0.0	29.56
	10/19/2023	9:07	0.0	20.9	0.0	0.0	0.0	1.0	0.0	2	65	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.88
LGP-05-08X	10/26/2012	9:55	0.8	9.8	0	0	0	4.4	0.0	2	93	0.0	7.7	0	0	0	13.5	0.0	29.91
	11/12/2013	13:42	0.1	17.7	0	0	0	5.2	0.0	2	93	0.0	14.1	0	0	0	8.6	0.0	29.91
	10/17/2014	11:38	0.3	3.8	20.0	17.0	1.0	13.2	0.9	2	93	0.2	0.0	0.0	69.0	4.0	19.8	3.4	29.33
	10/20/2015	15:05	0.0	16.9	0.0	0.0	0.0	7.2	0.0	2	93	0.0	4.7	0.0	0.0	0.0	14.8	0.0	29.88
	10/18/2016	15:10	0.0	9.7	0.0	2	0.0	10.4	0.1	2	93	0.0	1.8	0.0	8	0.0	10.1	0.4	29.65
	10/18/2017	11:18	0.0	12.4	0.0	0.0	0.0	0.4	0.0	2	93	0.0	10.7	0.0	0.0	0.0	10.3	0.0	30.01
	10/18/2018	10:50	0.0	20.9	1.0	0.0	0.0	0.4	0.0	2	93	0.0	17.6	1.0	0.0	0.0	2.5	0.0	30.10
	10/16/2019	9:25	0.0	15.7	0.0	0.0	0.0	6.6	0.2	2	93	0.0	7.0	0.0	0.0	0.0	14.5	0.2	29.93
	10/13/2020	8:55	0.0	17.9	0.0	0.0	0.0	3.9	0.0	2	93	0.0	12.5	0.0	0.0	0.0	0.0	0.0	29.65
	10/20/2021	9:04	1.6	18.7	1.0	52.0	1.0	1.7	0.5	2	93	3.1	2.5	1.0	29.0	1.0	18.6	1.0	29.55
	10/27/2022	8:28	0.0	9.7	0.0	36.0	0.0	4.8	0.7	2	93	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:13	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	93	0.0	20.9	0.0	0.0	0.0	8.0	0.0	29.88
LGP-09-08X	10/26/2012	10:05	0.8	5.6	0	0	1	3.8	0.0	2	185	0.1	2.2	0	4	0	18.6	0.2	29.91
	11/12/2013	13:48	0.2	7.7	0	7	0	14.6	0.2	2	185	0.1	1.8	0	3	0	18.7	0.0	29.91
	10/17/2014	10:40	0.4	1.0	0.0	21.0	5.0	17.2	1.1	2	185	0.3	0.0	0.0	90.0	4.0	20.3	4.4	29.40
	10/20/2015	15:10	0.1	10.5	0.0	5.0	0.0	13.9	0.0	2	185	0.1	0.7	0.0	9.0	0.0	20.3	0.3	29.88
	10/18/2016	15:05	0.1	8.4	0.0	13	0.0	12.0	0.6	2	185	0.2	4.4	0.0	27	0.0	19.3	1.3	29.65
	10/18/2017	11:09	0.0	7.3	0.0	11.0	0.0	15.0	0.5	2	185	0.0	7.8	0.0	0.0	0.0	14.4	0.0	30.01
	10/18/2018	10:56	0.0	8.4	2.0	4.0	0.0	15.7	0.2	2	185	0.0	7.8	2.0	0.0	0.0	16.1	0.0	30.10
	10/16/2019	9:18	0.0	5.9	0.0	0.0	0.0	16.5	0.2	2	185	0.0	2.8	0.0	5.0	0.0	19.3	0.3	NR
	10/13/2020	9:05	0.0	11.1	0.0	4.0	0.0	12.9	0.0	2	185	0.0	3.1	0.0	0.0	0.0	16.7	0.0	29.65
	10/20/2021	9:00	0.3	14.3	1.0	99.0	1.0	8.8	6.1	2	185	1.5	0.2	3.0	19.0	1.0	21.0	4.7	29.55
	10/27/2022	8:33	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2	185	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:34	1.4	10.1	0.0	66.0	0.0	16.8	4.3	2	185	0.5	14.4	0.0	0.0	0.0	8.2	0.0	29.88
LGP-05-09X	10/26/2012	10:15	0.1	13.8	0	0	0	7.2	0.0	2	93	0.0	13.2	0	0	0	7.9	0.0	29.91
	11/12/2013	13:27	0.0	16.9	0	0	0	6.0	0.0	2	93	0.0	18.1	0	0	0	5.4	0.0	29.91
	10/17/2014	8:46	0.0	5.8	0.0	0.0	0.0	9.0	0.0	2	93	0.0	0.5	0.0	0.0	0.0	16.7	0.0	29.40
	10/20/2015	14:55	0.0	16.0	0.0	0.0	0.0	5.1	0.0	2	93	0.0	14.0	0.0	0.0	0.0	6.6	0.0	29.88
	10/18/2016	14:58	0.0	10.6	0.0	0	0.0	9.0	0.0	2	93	0.0	8.3	0.0	0	0.0	11.4	0.0	29.65
	10/18/2017	10:56	0.0	14.3	0.0	0.0	0.0	7.2	0.0	2	93	0.0	14.0	0.0	0.0	0.0	7.5	0.0	30.01
	10/18/2018	10:32	0.0	8.7	1.0	4.0	0.0	13.7	0.2	2	93	0.0	9.9	1.0	0.0	0.0	12.9	0.0	30.10
	10/16/2019	9:53	0.0	14.4	0.0	0.0	0.0	15.2	0.2	2	93	0.0	20.9	0.0	0.0	0.0	7.4	0.2	29.86
	10/13/2020	8:20	0.0	20.4	0.0	0.0	0.0	1.4	0.0	2	93	0.0	16.5	0.0	0.0	0.0	6.6	0.0	29.67
	10/20/2021	9:10	0.0	0.8	1.0	2.0	1.0	10.2	3.5	2	93	0.0	2.0	1.0	0.0	1.0	13.9	0.8	29.55
	10/27/2022	8:37	0.0	9.2	0.0	0.0	0.0	0.1	0.0	2	93	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:20	0.0	20.9	0.0	0.0	0.0	9.6	1.2	2	93	0.0	16.8	0.0	0.0	0.0	7.8	0.0	29.88

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
LGP-09-09X	10/26/2012	10:25	0.4	17.5	0	0	0	1.0	0.0	2	185	0.1	7.3	0	4	0	13.1	0.0	29.91
	11/12/2013	13:32	0.2	11.9	0	0	0	10.2	0.0	2	185	0.0	5.2	0	0	0	15.0	0.0	29.91
	10/17/2014	8:49	0.0	20.7	0.0	0.0	0.0	0.1	0.0	2	185	0.0	0.2	0.0	28.0	6.0	18.5	1.4	29.40
	10/20/2015	15:00	0.1	11.3	0.0	0.0	0.0	9.7	0.0	2	185	0.0	3.7	0.0	0.0	6.0	16.7	0.0	29.88
	10/18/2016	14:48	0.1	5.9	0.0	5	0.0	13.5	0.2	2	185	0.0	1.8	0.0	2	0.0	18.2	0.1	29.65
	10/18/2017	11:00	0.0	10.5	0.0	5.0	0.0	0.1	0.0	2	185	0.0	10.5	0.0	0.0	0.0	11.1	0.0	30.01
	10/18/2018	10:26	1.0	6.7	1.0	32.0	0.0	15.1	1.6	2	185	0.0	7.1	1.0	2.0	0.0	15.2	0.1	30.10
	10/16/2019	9:37	0.0	10.1	0.0	0.0	0.0	10.9	0.2	2	185	0.0	5.4	0.0	0.0	0.0	15.3	0.2	29.93
	10/13/2020	9:30	0.0	13.6	0.0	0.0	0.0	10.7	0.0	2	185	0.0	9.0	0.0	0.0	0.0	13.3	0.0	29.65
	10/20/2021	9:07	0.8	0.4	1.0	99.0	1.0	16.0	8.9	2	185	0.0	0.8	5.0	0.0	1.0	17.4	3.4	29.55
	10/27/2022	8:41	0.0	7.0	0.0	12.0	0.0	9.9	0.4	2	185	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:25	0.2	19.7	0.0	8.0	0.0	8.4	1.8	2	185	0.0	20.9	0.0	0.0	0.0	1.3	0.0	29.88
LGP-05-10X	10/26/2012	10:51	0.1	14.6	0	0	0	4.6	0.0	2	93	0.1	10.1	0	0	0	10.5	0.0	29.89
	11/12/2013	13:15	0.0	20.2	0	0	0	1.9	0.0	2	93	0.0	19.0	0	0	0	4.1	0.0	29.91
	10/17/2014	9:07	0.0	2.3	0.0	10.0	0.0	16.4	8.0	2	93	0.0	0.0	0.0	100.0	0.0	21.4	14.0	29.40
	10/20/2015	14:40	0.0	14.8	0.0	0.0	0.0	5.3	0.0	2	93	0.0	6.7	0.0	0.0	0.0	10.2	0.0	29.88
	10/18/2016	14:38	0.3	8.3	0.0	46	0.0	11.7	2.3	2	93	0.0	1.6	0.0	100	0.0	20.1	5.2	29.65
	10/18/2017	10:47	0.0	16.9	0.0	0.0	0.0	3.2	0.0	2	93	0.0	15.4	0.0	0.0	0.0	6.1	0.0	30.02
	10/18/2018	10:05	0.0	19.3	1.0	7.0	0.0	2.8	0.4	2	93	0.0	20.0	1.0	0.0	0.0	2.3	0.0	30.10
	10/16/2019	10:06	0.0	15.4	0.0	0.0	0.0	5.2	0.2	2	93	0.0	8.3	0.0	0.0	0.0	11.9	0.2	29.86
	10/13/2020	9:45	0.0	19.6	0.0	0.0	0.0	2.6	0.0	2	93	0.0	13.1	0.0	0.0	0.0	0.4	0.0	29.63
	10/20/2021	9:40	0.2	14.5	1.0	14.0	0.0	6.6	2.7	2	93	0.2	15.2	1.0	15.0	0.0	5.3	0.4	29.58
	10/27/2022	8:58	0.0	17.4	0.0	41.0	0.0	8.5	4.4	2	93	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:33	0.0	20.4	0.0	0.0	0.0	0.1	0.0	2	93	0.0	20.3	0.0	0.0	0.0	1.6	0.0	29.88
LGP-09-10X	10/26/2012	11:00	0.1	17.2	0	0	0	9.5	0.0	2	148	0.1	7.0	0	0	0	14.4	0.0	29.89
	11/12/2013	13:20	0.1	15.0	0	0	0	8.3	0.0	2	148	0.0	14.3	0	0	0	8.9	0.0	29.91
	10/17/2014	9:09	0.0	1.2	0.0	100.0	0.0	19.8	14.0	2	148	0.1	0.0	0.0	100.0	0.0	23.1	20.5	29.40
	10/20/2015	14:45	0.1	10.4	0.0	0.0	0.0	9.7	0.0	2	148	0.0	2.9	0.0	5.0	0.0	16.5	0.0	29.88
	10/18/2016	14:32	0.0	6.1	0.0	100	0.0	15.9	6.2	2	148	0.0	1.4	0.0	100	0.0	22.0	10.1	29.65
	10/18/2017	10:42	0.0	18.6	0.0	0.0	0.0	2.2	0.0	2	148	0.0	12.0	0.0	0.0	0.0	9.8	0.0	30.02
	10/18/2018	10:11	0.0	20.8	1.0	0.0	0.0	1.6	0.0	2	148	1.0	12.1	1.0	0.0	0.0	11.8	0.0	30.10
	10/16/2019	10:15	0.0	2.5	0.0	5.0	0.0	14.1	0.3	2	148	0.0	2.7	0.0	7.0	0.0	17.7	0.5	29.86
	10/13/2020	9:55	0.0	15.4	0.0	0.0	0.0	6.8	0.0	2	148	0.0	6.2	0.0	0.0	0.0	13.4	0.0	29.63
	10/20/2021	9:45	0.1	21.9	1.0	2.0	0.0	0.1	0.0	2	148	0.0	21.4	1.0	0.0	0.0	0.4	0.0	29.58
	10/27/2022	9:04	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	148	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:32	0.4	19.8	0.0	0.0	0.0	1.1	0.0	2	148	0.0	13.0	0.0	0.0	0.0	6.6	0.0	29.88
LGP-05-11X	10/26/2012	10:35	0.2	15.9	0	0	0	12.6	0.0	2	83	0.0	9.8	0	0	0	10.8	0.0	29.91
	11/12/2013	13:02	0.1	19.2	0	0	0	2.8	0.0	2	83	0.1	16.1	0	0	0	6.5	0.0	29.91
	10/17/2014	9:20	0.1	3.1	0.0	44.0	5.0	13.2	2.2	2	83	0.0	0.0	0.0	100.0	0.0	19.8	8.7	29.40
	10/20/2015	14:25	0.1	15.5	0.0	0.0	0.0	5.5	0.0	2	83	0.0	8.5	0.0	0.0	0.0	11.6	0.0	29.88
	10/18/2016	14:22	0.2	7.8	0.0	24	0.0	11.7	1.2	2	83	0.1	2.7	0.0	54	0.0	17.8	2.7	29.65
	10/18/2017	10:09	0.0	12.9	0.0	4.0	0.0	9.1	0.1	2	83	0.0	10.4	0.0	0.0	0.0	12.0	0.0	30.02
	10/18/2018	9:58	1.0	11.1	1.0	5.0	0.0	13.0	0.3	2	83	1.0	14.2	1.0	25.0	0.0	11.1	1.3	30.06
	10/16/2019	10:36	0.0	14.8	0.0	0.0	0.0	5.6	0.2	2	83	0.0	8.5	0.0	0.0	0.0	10.9	0.2	29.86
	10/13/2020	10:10	0.0	20.1	0.0	0.0	0.0	1.9	0.0	2	83	0.0	14.3	0.0	0.0	0.0	7.3	0.0	29.63
	10/20/2021	9:29	0.1	12.5	1.0	50.0	1.0	9.9	3.1	2	83	0.0	12.7	1.0	0.0	1.0	10.9	0.8	29.58
	10/27/2022	9:14	0.0	9.2	0.0	22.0	0.0	4.7	0.7	2	83	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:28	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	83	0.0	20.9	0.0	0.0	0.0	0.0	0.0	29.88
LGP-09-11X	10/26/2012	10:41	1.0	1.5	0	54	0	10.5	0.8	2	139	0.2	0.8	0	3	0	18.8	0.1	29.91
	11/12/2013	13:10	0.4	12.2	0	0	0	9.1	0.0	2	139	0.1	14.0	0	0	0	8.7	0.0	29.91
	10/17/2014	9:22	0.0	16.1	0.0	26.0	5.0	12.6	1.9	2	139	0.2	20.5	0.0	1.0	3.0	0.9	0.2	29.40
	10/20/2015	14:30	0.3	7.7	0.0	20.0	0.0	14.1	0.5	2	139	0.1	2.9	0.0	2.0	3.0	17.2	0.0	29.88
	10/18/2016	14:10	0.1	3.8	0.0	61	0.0	16.3	3.0	2	139	0.1	2.7	0.0	100	0.0	18.4	5.8	29.65
	10/18/2017	10:17	0.0	8.9	0.0	18.0	0.0	15.2	1.0	2	139	0.0	6.5	0.0	0.0	0.0	15.8	0.0	30.02
	10/18/2018	9:51	0.0	8.1	0.0	85.0	0.0	14.1	4.3	2	139	0.0	2.9	1.0	24.0	0.0	18.7	1.2	30.06
	10/16/2019	10:30	0.0	6.8	0.0	0.0	0.0	11.9	0.2	2	139	0.0	4.6	0.0	0.0	0.0	15.0	0.2	29.86
	10/13/2020	10:20	0.4	14.6	0.0	0.0	0.0	9.6	0.2	2	139	0.0	9.9	0.0	0.0	0.0	12.2	0.0	29.63
	10/20/2021	9:33	0.1	21.8	1.0	99.0	0.0	0.1	0.0	2	139	1.5	1.8	1.0	99.0	3.0	14.5	14.8	29.58
	10/27/2022	9:21	0.0	4.6	0.0	46.0	0.0	14.8	2.5	2	139	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:21	0.9	8.5	0.0	>99	0.0	11.5	4.5	2	139	0.6	17.0	0.0	4.0	0.0	11.7	0.0	29.88

Table G-2
Historical Gas Monitoring Results: 2012-Present
Shepley's Hill Landfill
Devens, Massachusetts

			Initial Readings									Post Purge Readings							
ID	**Date**	**Time**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Purge Rate (lpm)**	**Purge Time (sec)**	**VOC (ppm)**	**O_2 (%)**	**H_2S (ppm)**	**LEL (%)**	**CO (ppm)**	**CO_2 (%)**	**CH_4 (%)**	**Bar. Pres.("Hg)**
LGP-05-13X	10/26/2012	11:21	0.0	18.0	0	0	0	5.4	0.0	2	56	0.0	13.3	0	0	0	6.8	0.0	29.88
	11/12/2013	12:43	0.1	19.5	0	0	0	1.6	0.0	2	56	0.0	19.8	0	0	0	2.4	0.0	29.91
	10/17/2014	9:35	0.0	1.3	0.0	56.0	4.0	14.3	2.0	2	56	0.1	0.0	0.0	100.0	0.0	15.3	6.7	29.40
	10/20/2015	14:20	0.1	14.8	0.0	0.0	0.0	4.4	0.0	2	56	0.1	9.5	0.0	0.0	0.0	8.2	0.0	29.88
	10/18/2016	9:40	0.0	14.8	0.0	0	0.0	5.0	0.0	2	56	0.0	13.3	0.0	0	0.0	6.6	0.0	29.72
	10/18/2017	10:00	0.0	18.0	0.0	0.0	0.0	3.2	0.0	2	56	0.0	16.9	0.0	0.0	0.0	4.3	0.0	30.03
	10/18/2018	9:39	0.0	18.6	0.0	2.0	0.0	3.1	0.1	2	56	0.0	18.5	1.0	0.0	0.0	3.8	0.0	30.06
	10/16/2019	11:16	0.0	17.0	0.0	0.0	0.0	3.8	0.2	2	56	0.0	12.5	0.0	0.0	0.0	6.6	0.2	29.85
	10/13/2020	10:35	0.2	19.4	0.0	0.0	0.0	2.3	0.0	2	56	0.0	16.1	0.0	0.0	0.0	6.5	0.0	29.61
	10/20/2021	9:58	0.2	17.7	1.0	6.0	0.0	4.0	0.0	2	56	0.0	21.9	1.0	0.0	0.0	0.1	0.0	29.58
	10/27/2022	9:30	0.0	20.9	0.0	0.0	0.0	0.1	0.0	2	56	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:12	0.0	19.7	0.0	0.0	5.0	2.4	0.0	2	56	0.0	16.5	0.0	0.0	0.0	4.3	0.0	29.88
LGP-05-14X	10/26/2012	11:30	0.0	6.1	0	0	0	13.3	0.0	2	93	0.0	8.5	0	0	0	13.4	0.0	29.88
	11/12/2013	12:53	0.1	15.2	0	0	0	7.2	0.0	2	93	0.0	14.2	0	0	0	8.7	0.0	29.91
	10/17/2014	9:44	0.0	5.6	0.0	100.0	5.0	8.8	0.6	2	93	0.0	0.0	0.0	37.0	5.0	15.5	1.9	29.40
	10/20/2015	14:10	0.2	15.7	0.0	13.0	0.0	4.7	0.4	2	93	0.1	9.9	0.0	6.0	5.0	9.6	0.1	29.88
	10/18/2016	9:05	0.0	9.4	0.0	0	0.0	10.2	0.0	2	93	0.0	8.9	0.0	0	0.0	10.8	0.0	29.73
	10/18/2017	9:52	0.0	11.8	0.0	0.0	0.0	9.7	0.0	2	93	0.0	11.5	0.0	0.0	0.0	11.1	0.0	29.95
	10/18/2018	9:31	0.0	1.0	1.0	31.0	0.0	11.0	1.6	2	93	0.0	0.2	0.0	39.0	0.0	11.9	1.9	30.06
	10/16/2019	11:22	0.0	12.4	0.0	0.0	0.0	7.7	0.2	2	93	0.0	12.5	0.0	0.0	0.0	7.5	0.2	29.85
	10/13/2020	10:50	0.0	17.9	0.0	0.0	0.0	3.0	0.0	2	93	0.0	14.5	0.0	0.0	0.0	7.5	0.0	29.61
	10/20/2021	10:22	0.0	6.8	2.0	0.0	1.0	8.1	0.0	2	93	0.0	5.3	2.0	1.0	11.0	9.0	0.0	29.58
	10/27/2022	9:53	0.0	11.5	0.0	0.0	0.0	7.5	0.0	2	93	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	10:07	0.1	6.0	0.0	0.0	0.0	7.2	0.0	2	93	0.0	4.9	0.0	0.0	0.0	9.9	0.0	29.88
LGP-09-15X	10/26/2012	11:39	0.1	15.9	0	0	0	6.6	0.0	2	111	0.0	13.7	0	0	0	7.0	0.0	29.88
	11/12/2013	11:25	0.0	16.4	0	0	0	5.8	0.0	2	111	0.0	16.4	0	0	0	5.9	0.0	29.98
	10/17/2014	9:53	0.0	16.7	1.0	0.0	60.0	5.1	0.0	2	111	0.0	16.4	0.0	0.0	0.0	5.6	0.0	29.40
	10/20/2015	13:50	0.1	16.3	0.0	0.0	0.0	4.6	0.0	2	111	0.0	15.3	0.0	0.0	0.0	6.1	0.0	29.88
	10/18/2016	8:29	0.0	15.6	0.0	0	0.0	4.8	0.0	2	111	0.0	14.8	0.0	0	0.0	5.8	0.0	29.73
	10/18/2017	9:34	0.0	18.0	0.0	0.0	0.0	4.1	0.0	2	111	0.0	16.6	0.0	0.0	0.0	6.0	0.0	30.01
	10/18/2018	9:15	0.0	11.7	1.0	0.0	0.0	9.3	0.0	2	111	0.0	10.6	1.0	0.0	0.0	10.5	0.0	30.06
	10/16/2019	11:33	0.0	17.0	0.0	0.0	0.0	4.2	0.2	2	111	0.0	16.0	0.0	0.0	0.0	5.7	0.2	29.85
	10/13/2020	11:15	0.0	18.5	0.0	0.0	0.0	13.4	0.0	2	111	0.0	17.4	0.0	0.0	0.0	4.5	0.0	29.61
	10/20/2021	10:06	0.0	16.5	1.0	0.0	0.0	4.8	0.0	2	111	0.0	11.7	1.0	0.0	0.0	8.4	0.0	29.58
	10/27/2022	9:36	0.0	17.0	0.0	0.0	0.0	3.5	0.0	2	111	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.56
	10/19/2023	9:50	0.0	17.6	0.0	0.0	0.0	3.2	0.0	2	111	0.0	20.9	0.0	0.0	0.0	0.1	0.0	29.88

Notes:

VOC = Volatile Organic Compounds
O_2 = Oxygen
LEL = Lower Explosive Limit
CO = Carbon Monoxide
CO_2 = Carbon Dioxide
CH_4 = Methane
H_2S = Hydrogen Sulfide
"Hg = inches of Mercury
lpm = Liters per minute
sec = Seconds
ppm = Parts per million
% = Percentage

Table G-3
Landfill Gas Probe Construction Details
Shepley's Hill Landfill
Devens, Massachusetts

Gas Probe ID	Gas Probe Screen Interval (ft bgs)	Screen Length (ft)
LGP-01-01X	6.4 to 7.4	1
LGP-09-01XA	7.0 to 17.0	10
LGP-09-01XB	19.0 to 28.0	9
LGP-01-02X	5.0 to 6.0	1
LGP-09-02X	6.0 to 21.0	15
LGP-01-03X	5.0 to 6.0	1
LGP-09-03X	6.0 to 18.0	12
LGP-01-04X	3.0 to 4.0	1
LGP-09-04X	4.0 to 9.0	5
LGP-05-05X	6.0 to 7.0	1
LGP-09-05X (1)	7.0 to 14.5	7.5
LGP-05-06X	6.0 to 7.0	1
LGP-09-06X	7.0 to 12.0	5
LGP-05-07X (2)	3.0 to 4.0	1
LGP-05-08X	6.0 to 7.0	1
LGP-09-08X	7.0 to 19.0	12
LGP-05-09X	6.0 to 7.0	1
LGP-09-09X	7.0 to 19.0	12
LGP-05-10X	6.0 to 7.0	1
LGP-09-10X	7.0 to 14.0	7
LGP-05-11X	5.0 to 6.0	1
LGP-09-11X	7.0 to 14.0	7
LGP-05-13X	2.0 to 3.0	1
LGP-05-14X	6.0 to 7.0	1
LGP-09-15X	4.0 to 10.0	6

Notes:

(1) Bedrock was encountered at a depth of 15 ft bgs. Proposed total depth (19.60 ft) was unattainable due to refusal.

(2) Bedrock was encountered at a depth of 4 ft bgs. Installation of additonal gas probe was unattainable due to refusal.

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

ATP Flow Rate Summary

2023

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	583.50	744	78%	2,011,800	57.46	45.07
February	649.30	672	97%	2,147,700	55.13	53.27
March	715.00	744	96%	2,347,700	54.72	52.59
April	637.80	720	89%	2,096,300	54.78	48.53
May	714.00	744	96%	2,344,900	54.74	52.53
June	689.30	720	96%	2,265,500	54.78	52.44
July	714.80	744	96%	2,344,900	54.67	52.53
August	498.80	744	67%	1,628,300	54.41	36.48
September	0.00	720	0%	0	0.00	0.00
October	9.50	744	1%	10,500	18.42	0.24
November	307.00	720	43%	726,900	39.46	16.83
December	463.00	744	62%	1,101,700	39.66	24.68
Yearly Averages	**498.50**		**68%**	**1,585,517**	**44.85**	**36.26**
			Total Discharged	*19,026,200*		

2022

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	710.50	744	95%	2,328,000	54.61	52.15
February	638.50	672	95%	2,096,800	54.73	52.00
March	711.80	744	96%	2,335,000	54.67	52.31
April	639.50	720	89%	2,099,000	54.70	48.59
May	584.80	744	79%	1,930,700	55.02	43.25
June	491.00	720	68%	1,615,500	54.84	37.40
July	605.80	744	81%	2,006,900	55.21	44.96
August	664.30	744	89%	2,166,400	54.35	48.53
September	568.80	720	79%	1,801,200	52.78	41.69
October	692.50	744	93%	2,271,525	54.67	50.89
November	669.50	720	93%	2,232,400	55.57	51.68
December	711.00	744	96%	2,373,400	55.64	53.17
Yearly Averages	**640.67**		**88%**	**2,104,735**	**54.73**	**48.05**
			Total Discharged	*25,256,825*		

2021

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	689.50	744	93%	2,239,400	54.13	50.17
February	552.75	672	82%	1,808,400	54.53	44.85
March	713.00	744	96%	2,333,700	54.55	52.28
April	690.30	720	96%	2,259,700	54.56	52.31
May	711.50	744	96%	2,331,900	54.62	52.24
June	577.30	720	80%	1,887,700	54.50	43.70
July	690.00	744	93%	2,240,000	54.11	50.18
August	418.30	744	56%	1,336,500	53.25	29.94
September	617.00	720	86%	1,787,400	48.28	41.38
October	713.80	744	96%	2,057,400	48.04	46.09
November	662.50	720	92%	2,185,400	54.98	50.59
December	699.50	744	94%	2,301,900	54.85	51.57
Yearly Averages	**644.62**		**88%**	**2,064,117**	**53.37**	**47.11**
			Total Discharged	*24,769,400*		

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

2020

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	714.00	744	96%	2,322,300	54.21	52.02
February	666.80	696	96%	2,168,200	54.19	51.92
March	712.50	744	96%	2,313,900	54.13	51.83
April	659.00	720	92%	2,189,200	55.37	50.68
May	714.80	744	96%	2,328,000	54.28	52.15
June	685.80	720	95%	2,235,100	54.32	51.74
July	711.80	744	96%	2,318,100	54.28	51.93
August	680.00	744	91%	2,218,500	54.38	49.70
September	680.80	720	95%	2,213,300	54.18	51.23
October	714.80	744	96%	2,326,700	54.25	52.12
November	690.50	720	96%	2,243,900	54.16	51.94
December	662.30	744	89%	2,162,400	54.42	48.44
Yearly Averages	**691.09**		**94%**	**2,253,300**	**54.35**	**51.31**
			Total Discharged	*27,039,600*		

2019

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	632.50	744	85%	2,004,100	52.81	44.89
February	633.80	672	94%	2,066,100	54.33	51.24
March	678.30	744	91%	2,268,000	55.73	50.81
April	689.80	720	96%	2,246,200	54.27	52.00
May	714.50	744	96%	2,321,500	54.15	52.00
June	122.00	720	17%	393,300	53.73	9.10
July	697.50	744	94%	2,265,400	54.13	50.75
August	709.80	744	95%	2,309,700	54.23	51.74
September	688.10	720	96%	2,237,100	54.19	51.78
October	709.00	744	95%	2,308,000	54.25	51.70
November	689.00	720	96%	2,241,200	54.21	51.88
December	701.50	744	94%	2,284,500	54.28	51.18
Yearly Averages	**638.82**		**87%**	**2,078,758**	**54.19**	**47.42**
			Total Discharged	*24,945,100*		

2018

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	697.50	744	94%	2,347,800	56.10	52.59
February	599.50	672	89%	2,108,500	58.62	52.29
March	711.00	744	96%	2,340,000	54.85	52.42
April	674.08	720	94%	2,208,300	54.60	51.12
May	679.25	744	91%	2,285,700	56.08	51.20
June	679.00	720	94%	2,244,200	55.09	51.95
July	697.25	744	94%	2,301,600	55.02	51.56
August	710.50	744	95%	2,313,500	54.27	51.83
September	666.75	720	93%	2,215,300	55.38	51.28
October	704.75	744	95%	2,276,800	53.84	51.00
November	269.42	720	37%	903,800	55.91	20.92
December	435.92	744	59%	1,404,300	53.69	31.46
Yearly Averages	**627.08**		**86%**	**2,079,150**	**55.29**	**47.47**
			Total Discharged	*24,949,800*		

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

2017

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	707.42	744	95%	2,318,600	54.63	51.94
February	632.50	672	94%	2,072,500	54.61	51.40
March	711.67	744	96%	2,325,100	54.45	52.09
April	667.25	720	93%	2,182,300	54.51	50.52
May	702.95	744	94%	2,287,400	54.23	51.24
June	683.75	720	95%	2,234,300	54.46	51.72
July	700.75	744	94%	2,289,200	54.45	51.28
August	640.75	744	86%	2,281,000	59.33	51.10
September	708.75	720	98%	2,337,900	54.98	54.12
October	712.00	744	96%	2,328,400	54.50	52.16
November	609.80	720	85%	1,975,400	53.99	45.73
December	584.00	744	78%	2,049,700	58.50	45.92
Yearly Averages	**671.80**		**92%**	**2,223,483**	**55.22**	**50.77**
			Total Discharged	*26,681,800*		

2016

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	704.90	744	95%	2,583,000	61.07	57.86
February	665.80	696	96%	2,209,000	55.30	52.90
March	714.30	744	96%	2,359,700	55.06	52.86
April	676.30	720	94%	2,242,200	55.26	51.90
May	714.20	744	96%	2,366,500	55.22	53.01
June	686.40	720	95%	2,277,300	55.30	52.72
July	715.00	744	96%	2,369,200	55.23	53.07
August	706.70	744	95%	2,344,800	55.30	52.53
September	691.10	720	96%	2,292,000	55.27	53.06
October	712.80	744	96%	2,347,300	54.88	52.58
November	679.75	720	94%	2,259,400	55.40	52.30
December	713.75	744	96%	2,332,600	54.47	52.25
Yearly Averages	**698.42**		**95%**	**2,331,917**	**55.65**	**53.09**
			Total Discharged	*27,983,000*		

2015

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	492.10	744	66%	1,600,100	54.19	35.84
February	500.80	672	75%	1,779,800	59.23	44.14
March	590.80	744	79%	1,992,100	56.20	44.63
April	639.10	720	89%	2,198,900	57.34	50.90
May	630.80	744	85%	2,118,300	55.97	47.45
June	600.80	720	83%	2,073,000	57.51	47.99
July	603.10	744	81%	2,037,000	56.29	45.63
August	658.50	744	89%	2,454,900	62.13	54.99
September	680.50	720	95%	2,530,300	61.97	58.57
October	694.10	744	93%	2,577,600	61.89	57.74
November	680.70	720	95%	2,522,000	61.75	58.38
December	645.20	744	87%	2,399,400	61.98	53.75
Yearly Averages	**618.04**		**85%**	**2,190,283**	**58.87**	**50.00**
			Total Discharged	*26,283,400*		

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

2014

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	636.20	744	86%	1,905,500	49.92	42.69
February	589.60	672	88%	1,773,000	50.12	43.97
March	706.50	744	95%	2,112,000	49.82	47.31
April	567.50	720	79%	1,696,300	49.82	39.27
May	710.30	744	95%	2,124,000	49.84	47.58
June	649.44	720	90%	1,943,600	49.88	44.99
July	671.60	744	90%	2,019,100	50.11	45.23
August	727.80	744	98%	2,182,900	49.99	48.90
September	621.20	720	86%	1,871,900	50.22	43.33
October	549.11	744	74%	1,646,600	49.98	36.89
November	657.49	720	91%	1,980,900	50.21	45.85
December	648.68	744	87%	1,948,100	50.05	43.64
Yearly Averages	**644.62**		**88%**	**1,933,658**	**50.00**	**44.14**
			Total Discharged	*23,203,900*		

2013

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	592.80	744	80%	1,776,200	49.94	39.79
February	436.00	672	65%	1,310,700	50.10	32.51
March	644.80	744	87%	1,926,400	49.79	43.15
April	686.80	720	95%	2,055,600	49.88	47.58
May	506.50	744	68%	1,492,100	49.10	33.43
June	687.80	720	96%	2,055,700	49.81	47.59
July	677.13	744	91%	2,023,950	49.82	45.34
August	731.37	744	98%	2,185,000	49.79	48.95
September	563.10	720	78%	1,679,600	49.71	38.88
October	591.80	744	80%	1,769,700	49.84	39.64
November	623.62	720	87%	1,865,600	49.86	43.19
December	685.40	744	92%	2,055,100	49.97	46.04
Yearly Averages	**618.93**		**85%**	**1,849,638**	**49.80**	**42.17**
			Total Discharged	*22,195,650*		

2012

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	623.50	744	84%	1,673,400	44.73	37.49
February	547.65	696	79%	1,642,300	49.98	39.33
March	536.05	744	72%	1,530,400	47.58	34.28
April	596.70	720	83%	1,512,300	42.24	35.01
May	470.50	744	63%	1,458,500	51.66	32.67
June	664.60	720	92%	1,938,100	48.60	44.86
July	587.80	744	79%	1,557,500	44.16	34.89
August	661.30	744	89%	1,612,200	40.63	36.12
September	684.95	720	95%	1,807,400	43.98	41.84
October	579.85	744	78%	1,729,100	49.70	38.73
November	660.30	720	92%	1,979,100	49.95	45.81
December	641.10	744	86%	1,915,900	49.81	42.92
Yearly Averages	**604.53**		**83%**	**1,696,350**	**46.92**	**38.66**
			Total Discharged	*20,356,200*		

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

2011

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	667.50	744	90%	1,907,600	47.63	42.73
February	628.50	672	94%	1,766,400	46.84	43.81
March	490.75	744	66%	1,413,900	48.02	31.67
April	622.50	720	86%	1,834,200	49.11	42.46
May	692.25	744	93%	2,064,700	49.71	46.25
June	628.25	720	87%	1,872,000	49.66	43.33
July	591.25	744	79%	1,642,500	46.30	36.79
August	649.00	744	87%	1,904,500	48.91	42.66
September	631.75	720	88%	1,825,500	48.16	42.26
October	492.00	744	66%	1,438,700	48.74	32.23
November	639.75	720	89%	1,907,200	49.69	44.15
December	621.75	744	84%	1,843,300	49.41	41.29
Yearly Averages	**612.94**		**84%**	**1,785,042**	**48.51**	**40.80**
			Total Discharged	*21,420,500*		

2010

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	699.00	744	94%	2,030,000	48.40	45.47
February	576.50	672	86%	1,695,500	49.02	42.05
March	656.00	744	88%	1,922,900	48.85	43.08
April	670.25	720	93%	1,986,900	49.41	45.99
May	674.25	744	91%	1,997,200	49.37	44.74
June	615.50	720	85%	1,822,400	49.35	42.19
July	549.25	744	74%	1,606,700	48.75	35.99
August	621.50	744	84%	1,552,700	41.64	34.78
September	524.75	720	73%	1,207,200	38.34	27.94
October	597.50	744	80%	1,768,600	49.33	39.62
November	633.10	720	88%	1,869,600	49.22	43.28
December	645.25	744	87%	1,833,600	47.36	41.08
Yearly Averages	**621.90**		**85%**	**1,774,442**	**47.42**	**40.52**
			Total Discharged	*21,293,300*		

2009

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	641.50	744	86%	1,602,500	41.63	35.90
February	638.50	672	95%	1,625,700	42.44	40.32
March	334.25	744	45%	909,400	45.35	20.37
April	446.50	720	62%	1,292,500	48.25	29.92
May	553.25	744	74%	1,631,000	49.13	36.54
June	612.75	720	85%	1,793,400	48.78	41.51
July	625.50	744	84%	1,830,700	48.78	41.01
August	665.58	744	89%	1,935,700	48.47	43.36
September	639.50	720	89%	1,879,100	48.97	43.50
October	620.50	744	83%	1,832,600	49.22	41.05
November	648.25	720	90%	1,909,100	49.08	44.19
December	608.25	744	82%	1,773,100	48.58	39.72
Yearly Averages	**586.19**		**80%**	**1,667,900**	**47.39**	**38.12**
			Total Discharged	*20,014,800*		

Table G-4
2023 ATP Flow Rate Summary
Shepley's Hill Landfill

2008

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	617.75	744	83%	1,589,100	42.87	35.60
February	530.50	696	76%	1,418,100	44.55	33.96
March	639.75	744	86%	1,596,600	41.59	35.77
April	620.92	720	86%	1,586,500	42.58	36.72
May	636.25	744	86%	1,616,300	42.34	36.21
June	569.50	720	79%	1,424,400	41.69	32.97
July	617.50	744	83%	1,591,800	42.96	35.66
August	437.75	744	59%	1,101,700	41.95	24.68
September	656.50	720	91%	1,652,800	41.96	38.26
October	492.55	744	66%	1,238,900	41.92	27.75
November	664.00	720	92%	1,649,500	41.40	38.18
December	610.00	744	82%	1,521,400	41.57	34.08
Yearly Averages	**591.08**		**81%**	**1,498,925**	**42.28**	**34.15**
			Total Discharged	*17,987,100*		

2007

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	471.00	744	63%	739,600	26.17	16.57
February	0.00	672	0%	0	0.00	0.00
March	461.00	744	62%	672,400	24.31	15.06
April	572.00	720	79%	854,000	24.88	19.77
May	657.50	744	88%	974,700	24.71	21.83
June	627.25	720	87%	942,200	25.04	21.81
July	533.50	744	72%	970,500	30.32	21.74
August	599.50	744	81%	1,563,400	43.46	35.02
September	659.75	720	92%	1,809,100	45.70	41.88
October	629.92	744	85%	1,616,000	42.76	36.20
November	544.50	720	76%	1,436,200	43.96	33.25
December	630.00	744	85%	1,629,200	43.10	36.50
Yearly Averages	**532.16**		**72%**	**1,100,608**	**31.20**	**24.97**
			Total Discharged	*13,207,300*		

2006

	Total Run Time (Hours)	Total Available Hours Per Month	Percent Online	Gallons Discharged	Average Online Flow (GPM)	Average Effective Flow Rate (GPM)
January	0.00	744	0%	0	0.00	0.00
February	0.00	672	0%	0	0.00	0.00
March	Not Reported	744	#VALUE!	555,800	25.00	12.45
April	Not Reported	720	#VALUE!	833,600	25.00	19.30
May	Not Reported	744	#VALUE!	941,700	25.00	21.10
June	Not Reported	720	#VALUE!	979,000	25.00	22.66
July	Not Reported	744	#VALUE!	646,600	25.00	14.48
August	Not Reported	744	#VALUE!	327,200	25.00	7.33
September	Not Reported	720	#VALUE!	453,500	25.00	10.50
October	Not Reported	744	#VALUE!	597,500	25.00	13.38
November	Not Reported	720	#VALUE!	562,500	25.00	13.02
December	Not Reported	744	#VALUE!	606,800	25.00	13.59
Yearly Averages	**0.00**		**#VALUE!**	**542,017**	**20.83**	**12.32**
			Total Discharged	*6,504,200*		

Note: Run times for 2006 were not reported. However, according to the 2006 Annual Report, the average online flowrate was 25 gpm for 2006. System start up in March 2006

Table G-5
ATP Monthly Operations Summary
January 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
1/1/2023	24	81,300	56.5	System online and operating.
1/2/2023	24	80,000	55.6	System online and operating.
1/3/2023	24	80,000	55.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
1/4/2023	7.5	27,900	62.0	System offline at 0730 for CIP activities.
1/5/2023	1.0	3,600	60.0	System remains offline due to Chlorine Dioxide Skid fault.
1/6/2023	0	0	0.0	System offline.
1/7/2023	0	0	0.0	System offline.
1/8/2023	0	0	0.0	System offline.
1/9/2023	13.75	45,500	55.2	System online at 0945 following Chlorine Dioxide Skid fault reset. System offline from 1145 to 1215 while backflow preventer is repaired. Air sparged IPC. Manually pumped excess sludge.
1/10/2023	24	81,800	56.8	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
1/11/2023	24	83,500	58.0	System online and operating.
1/12/2023	24	82,800	57.5	System online and operating.
1/13/2023	24	83,200	57.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
1/14/2023	24	83,700	58.1	System online and operating.
1/15/2023	24	83,300	57.8	System online and operating.
1/16/2023	23.5	82,500	58.5	System offline from 0800 to 0830 to clean ClO2 eductor. Air sparged IPC. Manually pumped excess sludge.
1/17/2023	24	83,300	57.8	System online and operating.
1/18/2023	24	83,300	57.8	System online and operating.
1/19/2023	24	82,600	57.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
1/20/2023	24	83,000	57.6	System online and operating.
1/21/2023	24	83,200	57.8	System online and operating.
1/22/2023	24	83,700	58.1	System online and operating.
1/23/2023	24	82,200	57.1	System online and operating. Air sparged IPC. Manually pumped excess sludge.
1/24/2023	24	82,600	57.4	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
1/25/2023	24	83,400	57.9	System online and operating.
1/26/2023	15.25	55,800	61.0	System offline from 0545 to 1430 for MF Pump 2 and Actuator Valve V4 replacement.
1/27/2023	24	80,800	56.1	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
1/28/2023	24	81,400	56.5	System online and operating.
1/29/2023	24	81,200	56.4	System online and operating.
1/30/2023	6.5	25,300	64.9	System offline at 0630 for CIP activities. Replace seal in effluent pump 1.
1/31/2023	12.0	40,900	56.8	System restart at 1200 following CIP activities.

Total	**583.5**	**2,011,800**	
Total Available Hours	**744**	**Average On-line Flow**	**57.5**

Percent Online	**78**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
February 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
2/1/2023	24	79,800	55.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/2/2023	24	78,700	54.7	System online and operating.
2/3/2023	24	78,000	54.2	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/4/2023	24	78,800	54.7	System online and operating.
2/5/2023	24	78,700	54.7	System online and operating.
2/6/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/7/2023	24	78,400	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
2/8/2023	24	82,600	57.4	System online and operating.
2/9/2023	10.75	45,200	70.1	System offline at 1045 due to faulty fitting on the potable water line of the polymer.
2/10/2023	15	55,100	61.2	System online at 0900 following repairs. Air sparged IPC. Manually pumped excess sludge.
2/11/2023	24	78,800	54.7	System online and operating.
2/12/2023	24	78,800	54.7	System online and operating.
2/13/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/14/2023	24	78,700	54.7	System online and operating.
2/15/2023	24	78,400	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/16/2023	24	78,700	54.7	System online and operating.
2/17/2023	24	77,900	54.1	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/18/2023	24	78,700	54.7	System online and operating.
2/19/2023	24	79,700	55.3	System online and operating.
2/20/2023	24	78,400	54.4	System online and operating.
2/21/2023	24	77,500	53.8	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
2/22/2023	24	79,000	54.9	System online and operating.
2/23/2023	24	79,200	55.0	System online and operating.
2/24/2023	23.50	76,300	54.1	System offline from 1115 to 1145 for chlorine gas cylinder exchange. Air sparged IPC. Manually pumped excess sludge.
2/25/2023	24	78,600	54.6	System online and operating.
2/26/2023	24	78,600	54.6	System online and operating.
2/27/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
2/28/2023	24	78,700	54.7	System online and operating.

Total	**649.3**	**2,147,700**	
Total Available Hours	**672**	**Average On-line Flow**	**55.1**
Percent Online	**97**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
March 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
3/1/2023	24	78,600	54.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/2/2023	24	78,800	54.7	System online and operating.
3/3/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/4/2023	24	78,700	54.7	System online and operating.
3/5/2023	24	78,500	54.5	System online and operating.
3/6/2023	7.25	26,000	59.8	System offline at 0715 for CIP activities. Air sparged IPC. Manually pumped excess sludge.
3/7/2023	11.75	39,600	56.2	System restart at 1215 following CIP activities. FBRO pumped out.
3/8/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/9/2023	24	79,100	54.9	System online and operating.
3/10/2023	24	78,100	54.2	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/11/2023	24	79,300	55.1	System online and operating.
3/12/2023	24	75,800	52.6	System online and operating.
3/13/2023	24	79,000	54.9	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/14/2023	24	78,700	54.7	System online and operating.
3/15/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/16/2023	24	79,100	54.9	System online and operating.
3/17/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/18/2023	24	80,100	55.6	System online and operating.
3/19/2023	24	79,700	55.3	System online and operating.
3/20/2023	24	78,000	54.2	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/21/2023	24	79,400	55.1	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
3/22/2023	24	78,600	54.6	System online and operating.
3/23/2023	24	78,700	54.7	System online and operating.
3/24/2023	24	78,100	54.2	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/25/2023	24	78,700	54.7	System online and operating.
3/26/2023	24	78,800	54.7	System online and operating.
3/27/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/28/2023	24	78,800	54.7	System online and operating.
3/29/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
3/30/2023	24	78,800	54.7	System online and operating.
3/31/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.

Total	**715.0**	**2,347,700**	
Total Available Hours	**744**	**Average On-line Flow**	**54.7**
Percent Online	**96**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
April 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
4/1/2023	0	2,900	0.0	System offline due to power failure.
4/2/2023	0	900	0.0	System offline due to power failure.
4/3/2023	3	9,600	53.3	System offline due to power failure. Restart system at 0600. System offline at 0900 for CIP activities.
4/4/2023	10.75	35,800	55.5	System restart at 1315 following CIP activities.
4/5/2023	24	77,900	54.1	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
4/6/2023	24	78,600	54.6	System online and operating.
4/7/2023	24	78,500	54.5	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/8/2023	24	79,200	55.0	System online and operating.
4/9/2023	24	78,100	54.2	System online and operating.
4/10/2023	24	79,600	55.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/11/2023	24	78,800	54.7	System online and operating.
4/12/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/13/2023	24	78,400	54.4	System online and operating.
4/14/2023	24	79,600	55.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/15/2023	24	79,200	55.0	System online and operating.
4/16/2023	24	78,900	54.8	System online and operating.
4/17/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/18/2023	24	78,900	54.8	System online and operating.
4/19/2023	24	78,500	54.5	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
4/20/2023	24	78,200	54.3	System online and operating.
4/21/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/22/2023	24	78,800	54.7	System online and operating.
4/23/2023	24	79,000	54.9	System online and operating.
4/24/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/25/2023	24	78,500	54.5	System online and operating.
4/26/2023	24	79,200	55.0	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/27/2023	24	79,000	54.9	System online and operating.
4/28/2023	24	78,500	54.5	System online and operating. Air sparged IPC. Manually pumped excess sludge.
4/29/2023	24	78,800	54.7	System online and operating.
4/30/2023	24	78,800	54.7	System online and operating.

Total	**637.8**	**2,096,300**	
Total Available Hours	**720**	**Average On-line Flow**	**54.8**
Percent Online	**89**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
May 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
5/1/2023	24	78,600	54.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/2/2023	7.5	25,900	57.6	System offline at 0730 for CIP activities. FBRO pumped out.
5/3/2023	11.25	36,700	54.4	System restart at 1245 following CIP activities.
5/4/2023	24	78,800	54.7	System online and operating.
5/5/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/6/2023	24	78,800	54.7	System online and operating.
5/7/2023	24	78,800	54.7	System online and operating.
5/8/2023	24	79,400	55.1	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/9/2023	24	78,900	54.8	System online and operating.
5/10/2023	24	79,100	54.9	System online and operating.
5/11/2023	24	79,100	54.9	System online and operating.
5/12/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/13/2023	24	78,700	54.7	System online and operating.
5/14/2023	24	79,000	54.9	System online and operating.
5/15/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/16/2023	24	79,400	55.1	System online and operating.
5/17/2023	24	79,000	54.9	System online and operating.
5/18/2023	24	78,100	54.2	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
5/19/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/20/2023	24	79,000	54.9	System online and operating.
5/21/2023	24	78,800	54.7	System online and operating.
5/22/2023	23.25	76,000	54.5	System offline between 1500 and 1545 to clean basket strainer. Air sparged IPC. Manually pumped excess sludge.
5/23/2023	24	78,800	54.7	System online and operating.
5/24/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/25/2023	24	78,700	54.7	System online and operating.
5/26/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
5/27/2023	24	78,700	54.7	System online and operating.
5/28/2023	24	78,800	54.7	System online and operating.
5/29/2023	24	79,000	54.9	System online and operating.
5/30/2023	24	78,400	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
5/31/2023	24	79,400	55.1	System online and operating.

Total	**714.0**	**2,344,900**	
Total Available Hours	**744**	**Average On-line Flow**	**54.7**
Percent Online	**96**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
June 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
6/1/2023	24	78,300	54.4	System online and operating.
6/2/2023	24	78,800	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/3/2023	24	79,200	55.0	System online and operating.
6/4/2023	24	78,600	54.6	System online and operating.
6/5/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/6/2023	24	79,300	55.1	System online and operating.
6/7/2023	7.75	26,200	56.3	System offline at 0745 for CIP activities. Air compressor repaired.
6/8/2023	9.50	31,100	54.6	System restart at 1430 following CIP activities.
6/9/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/10/2023	24	78,900	54.8	System online and operating.
6/11/2023	24	78,900	54.8	System online and operating.
6/12/2023	24	78,900	54.8	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/13/2023	24	79,200	55.0	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
6/14/2023	24	79,300	55.1	System online and operating.
6/15/2023	24	78,600	54.6	System online and operating.
6/16/2023	24	78,600	54.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/17/2023	24	78,800	54.7	System online and operating.
6/18/2023	24	79,300	55.1	System online and operating.
6/19/2023	24	79,200	55.0	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/20/2023	24	78,800	54.7	System online and operating.
6/21/2023	24	79,100	54.9	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/22/2023	24	78,500	54.5	System online and operating.
6/23/2023	24	79,000	54.9	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/24/2023	24	78,800	54.7	System online and operating.
6/25/2023	24	78,900	54.8	System online and operating.
6/26/2023	24	79,100	54.9	System online and operating. Air sparged IPC. Manually pumped excess sludge.
6/27/2023	24	78,500	54.5	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumpout.
6/28/2023	24	78,900	54.8	System online and operating.
6/29/2023	24	78,800	54.7	System online and operating.
6/30/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.

Total	**689.3**	**2,265,500**	
Total Available Hours	**720**	**Average On-line Flow**	**54.8**
Percent Online	**96**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
July 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
7/1/2023	24	78,900	54.8	System online and operating.
7/2/2023	24	78,900	54.8	System online and operating.
7/3/2023	24	78,800	54.7	System online and operating.
7/4/2023	24	78,800	54.7	System online and operating.
7/5/2023	24	78,400	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/6/2023	24	78,900	54.8	System online and operating.
7/7/2023	24	79,600	55.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/8/2023	24	79,000	54.9	System online and operating.
7/9/2023	24	78,800	54.7	System online and operating.
7/10/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/11/2023	8.0	27,500	57.3	System offline at 0800 for CIP activities. FBRO Pumpout.
7/12/2023	10.75	35,100	54.4	System restart at 1315 following CIP activities.
7/13/2023	24	78,500	54.5	System online and operating.
7/14/2023	24	78,600	54.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/15/2023	24	79,200	55.0	System online and operating.
7/16/2023	24	78,700	54.7	System online and operating.
7/17/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/18/2023	24	79,000	54.9	System online and operating.
7/19/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/20/2023	24	78,700	54.7	System online and operating.
7/21/2023	24	77,600	53.9	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/22/2023	24	78,700	54.7	System online and operating.
7/23/2023	24	79,000	54.9	System online and operating.
7/24/2023	24	79,200	55.0	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/25/2023	24	77,800	54.0	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO Pumpout.
7/26/2023	24	78,500	54.5	System online and operating.
7/27/2023	24	78,500	54.5	System online and operating.
7/28/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
7/29/2023	24	79,100	54.9	System online and operating.
7/30/2023	24	78,900	54.8	System online and operating.
7/31/2023	24	78,200	54.3	System online and operating. Air sparged IPC. Manually pumped excess sludge.

Total	**714.8**	**2,344,900**	
Total Available Hours	**744**	**Average On-line Flow**	**54.7**

Percent Online	**96**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
August 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
8/1/2023	24	78,500	54.5	System online and operating.
8/2/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/3/2023	24	78,200	54.3	System online and operating.
8/4/2023	24	78,300	54.4	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/5/2023	24	78,400	54.4	System online and operating.
8/6/2023	24	78,300	54.4	System online and operating.
8/7/2023	24	78,600	54.6	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/8/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge. FBRO pumped out.
8/9/2023	24	78,200	54.3	System online and operating.
8/10/2023	24	78,700	54.7	System online and operating.
8/11/2023	24	77,900	54.1	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/12/2023	24	78,400	54.4	System online and operating.
8/13/2023	24	78,700	54.7	System online and operating.
8/14/2023	14.0	46,500	55.4	System offline at 1400 due to low chlorine gas levels. Air sparged IPC. Manually pumped excess sludge.
8/15/2023	14.25	46,300	54.2	System restarted at 0945 following chlorine gas delivery.
8/16/2023	24	78,500	54.5	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/17/2023	24	78,300	54.4	System online and operating.
8/18/2023	24	78,700	54.7	System online and operating. Air sparged IPC. Manually pumped excess sludge.
8/19/2023	24	78,600	54.6	System online and operating.
8/20/2023	7.75	25,100	54.0	System offline at 0745 due to broken effluent pump union.
8/21/2023	0	0	0.0	Repaired effluent pump union. Initiated CIP.
8/22/2023	11.25	36,700	54.4	System restart at 1245 following CIP activities. FBRO pumped out
8/23/2023	24	79,000	54.9	System online and operating.
8/24/2023	17.25	54,200	52.4	System offline at 1715 due to V7 I/O card malfunction.
8/25/2023	2.25	6,200	45.9	Replaced V7 I/O card. Operated system between 0715 to 0930. System offline at 0930 for upgrade activities.
8/26/2023	0	1,000	0.0	System offline
8/27/2023	0	0	0.0	System offline
8/28/2023	0	0	0.0	System offline
8/29/2023	0	0	0.0	System offline
8/30/2023	0	0	0.0	System offline
8/31/2023	0	0	0.0	System offline

Total	**498.8**	**1,628,300**	
Total Available Hours	**744**	**Average On-line Flow**	**54.4**

Percent Online	**67**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
September 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
9/1/2023	0	0	0.0	System offline
9/2/2023	0	0	0.0	System offline
9/3/2023	0	0	0.0	System offline
9/4/2023	0	0	0.0	System offline
9/5/2023	0	0	0.0	System offline
9/6/2023	0	0	0.0	System offline
9/7/2023	0	0	0.0	System offline
9/8/2023	0	0	0.0	System offline
9/9/2023	0	0	0.0	System offline
9/10/2023	0	0	0.0	System offline
9/11/2023	0	0	0.0	System offline
9/12/2023	0	0	0.0	System offline
9/13/2023	0	0	0.0	System offline
9/14/2023	0	0	0.0	System offline
9/15/2023	0	0	0.0	System offline
9/16/2023	0	0	0.0	System offline
9/17/2023	0	0	0.0	System offline
9/18/2023	0	0	0.0	System offline
9/19/2023	0	0	0.0	System offline
9/20/2023	0	0	0.0	System offline
9/21/2023	0	0	0.0	System offline
9/22/2023	0	0	0.0	System offline
9/23/2023	0	0	0.0	System offline
9/24/2023	0	0	0.0	System offline
9/25/2023	0	0	0.0	System offline
9/26/2023	0	0	0.0	System offline
9/27/2023	0	0	0.0	System offline
9/28/2023	0	0	0.0	System offline
9/29/2023	0	0	0.0	System offline
9/30/2023	0	0	0.0	System offline

Total	**0.0**	**0**	
Total Available Hours	**720**	**Average On-line Flow**	**0.0**

Percent Online	**0**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
October 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
10/1/2023	0	0	0.0	System offline
10/2/2023	0	0	0.0	System offline
10/3/2023	0	0	0.0	System offline
10/4/2023	0	0	0.0	System offline
10/5/2023	0	0	0.0	System offline
10/6/2023	0	0	0.0	System offline
10/7/2023	0	0	0.0	System offline
10/8/2023	0	0	0.0	System offline
10/9/2023	0	0	0.0	System offline
10/10/2023	0	0	0.0	System offline
10/11/2023	0	0	0.0	System offline
10/12/2023	0	0	0.0	System offline
10/13/2023	0	0	0.0	System offline
10/14/2023	0	0	0.0	System offline
10/15/2023	0	0	0.0	System offline
10/16/2023	0	0	0.0	System offline
10/17/2023	0	0	0.0	System offline
10/18/2023	0	0	0.0	System offline
10/19/2023	0	0	0.0	System offline
10/20/2023	0	0	0.0	System offline
10/21/2023	0	0	0.0	System offline
10/22/2023	0	0	0.0	System offline
10/23/2023	3.5	4,800	22.9	System online from 1030 to 1400 for system testing using potable water.
10/24/2023	0	0	0.0	System offline
10/25/2023	0	0	0.0	System offline
10/26/2023	0	0	0.0	System offline
10/27/2023	0	0	0.0	System offline
10/28/2023	0	0	0.0	System offline
10/29/2023	0	0	0.0	System offline
10/30/2023	0	0	0.0	System offline
10/31/2023	6.0	5,700	15.8	System online from 0730 to 1330 for system testing.

Total	**9.5**	**10,500**	
Total Available Hours	**720**	**Average On-line Flow**	**0.0**

Percent Online	**1**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
November 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
11/1/2023	5.0	6,800	22.7	System online from 0745 to 1245 for system prove out
11/2/2023	6.0	15,500	43.1	System online from 0800 to 1400 for system prove out
11/3/2023	5.5	18,000	54.5	System online from 0715 to 1345 for system prove out
11/4/2023	0	0	0.0	System offline
11/5/2023	0	0	0.0	System offline
11/6/2023	8.75	27,200	51.8	System online from 0545 to 1430 for system prove out
11/7/2023	8.0	25,900	54.0	System online from 0705 to 1535 for system prove out
11/8/2023	13.0	35,300	45.3	System online from 0730 to 1830 for system prove out
11/9/2023	14.25	44,200	51.7	System online at 0945 for system prove out
11/10/2023	7.75	25,500	54.8	System turned off at 0745 due to faulty backwash fitting
11/11/2023	0	0	0.0	System offline
11/12/2023	0	1,000	0.0	System offline
11/13/2023	14.25	45,300	53.0	System online at 0945.
11/14/2023	24	70,500	49.0	System online and operating. FBRO pumpout
11/15/2023	24	70,800	49.2	System online and operating.
11/16/2023	24	60,200	41.8	System online and operating.
11/17/2023	24	44,400	30.8	System online and operating.
11/18/2023	24	45,100	31.3	System online and operating.
11/19/2023	24	45,000	31.3	System online and operating.
11/20/2023	24	44,800	31.1	System online and operating.
11/21/2023	20.75	39,800	32.0	System offline from 0845 to 1200 for maintenance
11/22/2023	7.0	15,000	35.7	System offline at 0700
11/23/2023	0	0	0.0	System offline
11/24/2023	0	1,000	0.0	System offline
11/25/2023	0	1,000	0.0	System offline
11/26/2023	0	900	0.0	System offline
11/27/2023	14.25	14,600	17.1	System online from 0745 to 2200 for system prove out
11/28/2023	4.5	6,400	23.7	System online from 1000 to 1430 for system prove out, FBRO pumpout
11/29/2023	5.0	10,200	34.0	System online from 0715 to 1415 for system prove out
11/30/2023	5.0	12,500	41.7	System online from 0715 to 1430 for system prove out

Total	**307.0**	**726,900**	
Total Available Hours	**720**	**Average On-line Flow**	**29.3**
Percent Online	**43**		

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-5
ATP Monthly Operations Summary
December 2023
Shepley's Hill Landfill
Devens, Massachusetts

Date	Hours Online	Gallons Discharged	Average Effluent Flowrate	Status
12/1/2023	7.25	15,600	35.9	System online from 0715 to 1430 for system prove out
12/2/2023	0.0	0	0.0	System offline
12/3/2023	0.0	0	0.0	System offline
12/4/2023	15.25	29,600	32.3	System online from 0845 for system prove out
12/5/2023	24	48,100	33.4	System online and operating
12/6/2023	22.75	45,400	33.3	System offline from 1445 to 1600 for maintenance
12/7/2023	24	48,700	33.8	System online and operating
12/8/2023	24	48,200	33.5	System online and operating
12/9/2023	24	47,100	32.7	System online and operating
12/10/2023	24	18,900	13.1	System online and operating
12/11/2023	24	47,600	0.0	System online and operating
12/12/2023	22.25	52,900	0.0	System offline from 0845 to 1030 for static mixer install. FBRO pumpout
12/13/2023	24	61,700	42.8	System online and operating
12/14/2023	13.75	38,700	46.9	System offline at 1345 for double diaghram pump install.
12/15/2023	4.75	12,100	42.5	System online from 0715 to 1200 for system prove out. EW-4 offline due to faulty electrical contactor.
12/16/2023	0	1,000	0.0	System offline
12/17/2023	0	1,000	0.0	System offline
12/18/2023	16.25	31,700	32.5	System online at 0745 for system prove out
12/19/2023	21.5	78,700	61.0	System offline from 0915 to 1145 for maintenance
12/20/2023	13.5	78,700	97.2	System offline from 0630 to 1700 for system programming
12/21/2023	15.5	71,200	76.6	System online and operating at 0830
12/22/2023	8.5	22,100	43.3	System offline at 0830
12/23/2023	0	900	0.0	System offline
12/24/2023	0	1,000	0.0	System offline
12/25/2023	0	900	0.0	System offline
12/26/2023	13.75	30,200	36.6	System online at 1015 for system prove out
12/27/2023	24	53,300	37.0	System online operating. FBRO pump out
12/28/2023	24	54,200	37.6	System online and operating
12/29/2023	24	53,600	37.2	System online operating. Replaced electrical contactor for EW-4.
12/30/2023	24	54,200	37.6	System online and operating
12/31/2023	24	54,400	37.8	System online and operating

Total	**463.0**	**1,101,700**	
Total Available Hours	**744**	**Average On-line Flow**	**29.5**

Percent Online	**62**

Note:

Flowrate in Gallons per Minute (GPM)

Clean in Place (CIP)

Table G-6
Historical ATP Monthly Discharge Totals
Shepley's Hill Landfill
Devens, Massachusetts

Month	Discharge Flow (gallons)	Month	Discharge Flow (gallons)	Month	Discharge Flow (gallons)	Month	Discharge Flow (gallons)
startup 8&9/2005	213,900	Nov-10	1,869,600	Aug-15	2,454,900	May-20	2,328,000
Mar-06	555,800	Dec-10	1,833,600	Sep-15	2,530,300	Jun-20	2,235,100
Apr-06	833,600	Jan-11	1,907,600	Oct-15	2,577,600	Jul-20	2,318,100
May-06	941,700	Feb-11	1,766,400	Nov-15	2,522,000	Aug-20	2,218,500
Jun-06	979,000	Mar-11	1,413,900	Dec-15	2,399,400	Sep-20	2,213,300
Jul-06	646,600	Apr-11	1,834,200	Jan-16	2,583,000	Oct-20	2,326,700
Aug-06	327,200	May-11	2,064,700	Feb-16	2,209,000	Nov-20	2,243,900
Sep-06	453,500	Jun-11	1,872,000	Mar-16	2,359,700	Dec-20	2,162,400
Oct-06	597,500	Jul-11	1,642,500	Apr-16	2,242,200	Jan-21	2,239,400
Nov-06	562,500	Aug-11	1,904,500	May-16	2,366,500	Feb-21	1,808,400
Dec-06	606,800	Sep-11	1,825,500	Jun-16	2,277,300	Mar-21	2,333,700
Jan-07	739,600	Oct-11	1,438,700	Jul-16	2,369,200	Apr-21	2,259,700
Feb-07	0	Nov-11	1,907,200	Aug-16	2,344,800	May-21	2,331,900
Mar-07	672,400	Dec-11	1,843,300	Sep-16	2,292,000	Jun-21	1,887,700
Apr-07	854,000	Jan-12	1,814,900	Oct-16	2,347,300	Jul-21	2,240,000
May-07	974,700	Feb-12	1,641,400	Nov-16	2,259,400	Aug-21	1,336,500
Jun-07	942,200	Mar-12	1,530,400	Dec-16	2,332,600	Sep-21	1,787,400
Jul-07	970,500	Apr-12	1,512,300	Jan-17	2,318,600	Oct-21	2,057,400
Aug-07	1,563,400	May-12	1,374,700	Feb-17	2,072,500	Nov-21	2,185,400
Sep-07	1,809,100	Jun-12	1,938,100	Mar-17	2,325,100	Dec-21	2,301,900
Oct-07	1,616,000	Jul-12	1,557,500	Apr-17	2,182,300	Jan-22	2,328,000
Nov-07	1,436,200	Aug-12	1,595,800	May-17	2,287,400	Feb-22	2,096,800
Dec-07	1,629,200	Sep-12	1,807,400	Jun-17	2,234,300	Mar-22	2,335,000
Jan-08	1,589,100	Oct-12	1,729,100	Jul-17	2,289,200	Apr-22	2,099,000
Feb-08	1,418,100	Nov-12	1,979,100	Aug-17	2,249,500	May-22	1,930,700
Mar-08	1,596,600	Dec-12	1,915,900	Sep-17	2,337,900	Jun-22	1,615,500
Apr-08	1,586,500	Jan-13	1,776,000	Oct-17	2,328,400	Jul-22	2,006,900
May-08	1,616,300	Feb-13	1,310,700	Nov-17	1,975,400	Aug-22	2,166,400
Jun-08	1,424,400	Mar-13	1,926,400	Dec-17	2,049,700	Sep-22	1,801,200
Jul-08	1,591,800	Apr-13	2,055,600	Jan-18	2,347,800	Oct-22	2,271,525
Aug-08	1,101,700	May-13	1,492,100	Feb-18	2,108,500	Nov-22	2,232,400
Sep-08	1,652,800	Jun-13	2,055,700	Mar-18	2,340,000	Dec-22	2,373,400
Oct-08	1,238,900	Jul-13	2,023,050	Apr-18	2,208,300	Jan-23	2,011,800
Nov-08	1,649,500	Aug-13	2,185,000	May-18	2,285,700	Feb-23	2,147,700
Dec-08	1,521,400	Sep-13	1,679,300	Jun-18	2,244,200	Mar-23	2,347,700
Jan-09	1,602,500	Oct-13	1,697,700	Jul-18	2,301,600	Apr-23	2,096,300
Feb-09	1,625,700	Nov-13	1,865,600	Aug-18	2,313,500	May-23	2,344,900
Mar-09	909,400	Dec-13	2,054,300	Sep-18	2,215,300	Jun-23	2,265,500
Apr-09	1,292,500	Jan-14	1,905,500	Oct-18	2,276,800	Jul-23	2,344,900
May-09	1,631,000	Feb-14	1,773,000	Nov-18	903,800	Aug-23	1,628,300
Jun-09	1,793,400	Mar-14	2,108,500	Dec-18	1,404,300	Sep-23	0
Jul-09	1,830,700	Apr-14	1,696,300	Jan-19	2,004,100	Oct-23	10,500
Aug-09	1,935,700	May-14	2,124,000	Feb-19	2,066,100	Nov-23	726,900
Sep-09	1,879,100	Jun-14	1,943,600	Mar-19	2,268,000	Dec-23	1,101,700
Oct-09	1,832,600	Jul-14	2,019,100	Apr-19	2,246,200		
Nov-09	1,909,100	Aug-14	2,182,900	May-19	2,329,900		
Dec-09	1,773,100	Sep-14	1,871,900	Jun-19	393,300		
Jan-10	2,030,000	Oct-14	1,646,600	Jul-19	2,265,400		
Feb-10	1,695,500	Nov-14	1,980,900	Aug-19	2,309,700		
Mar-10	1,922,900	Dec-14	1,948,100	Sep-19	2,237,100		
Apr-10	1,986,900	Jan-15	1,600,100	Oct-19	2,308,000		
May-10	1,997,200	Feb-15	1,779,800	Nov-19	2,241,200		
Jun-10	1,882,400	Mar-15	1,992,100	Dec-19	2,284,500		
Jul-10	1,606,700	Apr-15	2,198,900	Jan-20	2,322,300		
Aug-10	1,552,700	May-15	2,118,300	Feb-20	2,168,200		
Sep-10	1,207,200	Jun-15	2,071,100	Mar-20	2,313,900		
Oct-10	1,768,600	Jul-15	2,037,000	Apr-20	2,189,200		

Cummulative Total	393,329,675

Table G-7
2023 ATP Filter Bed Roll-Off Disposal Totals
Shepley's Hill Landfill
Devens, Massachusetts

Date	Sludge Removed for Disposal (Tons)
1/10/2023	7.32
1/24/2023	7.32
2/7/2023	10.95
2/21/2023	10.20
3/7/2023	8.70
3/21/2023	9.50
4/5/2023	8.96
4/19/2023	10.50
5/2/2023	9.72
5/18/2023	10.69
5/30/2023	8.56
6/13/2023	8.79
6/27/2023	10.54
7/11/2023	8.89
7/25/2023	9.82
8/8/2023	10.20
8/22/2023	8.05
8/28/2023	7.97
11/14/2023	9.61
11/28/2023	8.62
12/12/2023	9.50
12/27/2023	9.06
YEARLY TOTAL	**203.45**

Note:

All Filter Bed Roll-off disposal activities completed by Gobal Remdiation Services Inc. (East Taunton, MA)

All Filter Bed Roll-off sludge disposed of at Tradebe Treatment & Recycling (Stoughton, MA)

Table G-8
2023 ATP Routine and Non-Routine System Maintenance, Repairs, and Upgrades
Shepley's Hill Landfill

Routine and Non-Routine System Maintenance, Repairs, and Upgrades

Activity	Type	Description	Shutdown Period
Routine MF Skid CIPs	Routine	Routine MF Skid CIPs are conducted monthly, or as needed, to clean and maintain each MF module.	January - 1/4/23 at 07:30 to 1/5/23 at 12:45 February - 1/30/23 at 06:30 to 1/31/23 at 12:00 March - 3/6/23 at 07:15 to 3/7/23 at 12:15 April - 4/3/23 at 09:00 to 4/4/23 at 13:15 May - 5/2/23 at 07:30 to 5/3/23 at 12:45 June - 6/1/23 at 07:45 to 6/8/23 at 14:30 July - 7/11/23 at 08:00 to 7/12/23 at 13:15 August - 8/21/23 at 08:30 to 8/22/23 at 12:45
Chlorine Gas Cylinder Replacement	Routine	Chlorine gas cylinders are replaced as necessary as part of plant operations. During replacement activities, the system is offline.	2/24/23 from 11:15 to 11:45 8/14/23 at 14:00 to 8/15/23 at 09:45
Chlorine Dioxide Skid Maintenance	Non-Routine	On 5 January 2023, the chlorine dioxide skid PLC experienced a fault. This fault was corrected on 9 January 2023. On 16 January 2023, the system was offline briefly to clean the chlorine dioxide eductor.	1/5/23 at 13:00 until 1/9/23 at 09:45 (PLC fault) 1/16/23 between 08:00 and 08:30 (eductor cleaning)
Backflow Preventor Maintenance	Non-Routine	On 9 January 2023, the system was shutdown to repair a leaking potable water backflow preventor.	1/9/23 between 11:45 and 12:15
Microfilter Pump P2 and Microfilter Valve V4 Replacement	Non-Routine	On 26 January 2023, the system was shut down to replace microfilter Pump P2 and microfilter valve V4.	1/26/23 between 05:45 and 14:30
Effluent Pump Maintenance	Non-Routine	On 30 January 2023, the seal in Effluent Pump 1 was found to be leaking and was replaced. On 20 August 2023, a piping union on Effluent Pump 2 failed resulting in system shutdown. The union was subsequently replaced on 21 August 2023 during a CIP.	None - conducted during CIP to minimize downtime (pump seal) 8/20/23 from 07:45 to 8/21/23 during CIP (pump union)
Polymer Skid Water Line Repair	Non-Routine	On 9 February 2023, the system was shut down due to a failure of a fitting on the potable water line of the polymer skid. The fitting was subsequently replaced, and the system was restarted on 10 February 2023.	2/9/23 from 10:45 until 2/10/23 at 09:00
Microfilter Basket Strainer Maintenance	Non-Routine	On 22 May 2023, the system shut down to clean and inspect the microfilter basket strainer due to observed high pressure.	5/22/23 from 15:00 to 15:45
Air Compressor Maintenance	Non-Routine	On 7 June 2023, the oil cooler was replaced in the original air compressor for the system, and this air compressor was subsequently brought back online.	None - conducted during CIP to minimize downtime
Microfilter I/O Card Replacement	Non-Routine	On 24 August 2023, the I/O card for the microfilter skid failed. The I/O card was subsequently replaced on 25 August 2023.	8/24/23 at 17:15 to 8/25/23 at 07:15
System Upgrades	Non-Routine	On 25 August 2023, the system was shut down and drained ahead of upgrade activities. Between 28 August and 1 September 2023, the chlorine dioxide dosing system was subsequently removed. Between 5 September and 30 October 2023, new system components were installed, and a new extraction well (EW-3) was installed and developed between 5 September and 11 September 2023. The system was leak tested with potable water on 23 October 2023, and beginning on 31 October 2023, the system was restarted for testing using extracted groundwater. Throughout November and December 2023, the upgraded system was operated intermittently at varying flow rates from each extraction well.	8/25/23 - System shut down for upgrades 10/30/23 - System restart with intermittent operations at varying flow rates through 12/31/23
EW-4 Electrical Contactor Replacement	Non-Routine	On 15 December 2023, the electrical contactor for extraction well EW-4 failed, and the well was brought offline. The contactor was subsequently replaced on 29 December 2023.	None - The system was operated using only EW-1 and EW-3 until the contactor was replaced.

Notes
CIP = Clean-in-Place
MF = Microfilter

Table G-9
Historical ATP As/Fe/Mn Influent Concentrations
Shepley's Hill Landfill

		EW-01			EW-03			EW-04		
Date	**Flow**	**As**	**Fe**	**Mn**	**As**	**Fe**	**Mn**	**As**	**Fe**	**Mn**
12/6/2006	40	2.77	92.00	2.47	--	--	--	5.00	72.00	1.75
12/6/2006	50	2.76	90.00	2.45	--	--	--	5.24	72.00	1.73
12/7/2006	25	2.64	87.00	2.43	--	--	--	4.93	70.00	1.71
8/7/2007	55	2.40	88.00	2.46	--	--	--	4.09	67.00	1.71
9/11/2007	55	2.58	80.00	2.32	--	--	--	4.04	54.00	1.52
12/27/2007	51	2.45	77	2.29	--	--	--	3.88	56	1.66
3/6/2008	52	2.43	74	2.2	--	--	--	3.74	50	1.55
6/17/2008	52	2.43	75.00	2.20	--	--	--	3.59	50.00	1.60
9/10/2008	52	2.22	78.00	2.22	--	--	--	3.60	54.00	1.78
12/2/2008	52	2.33	78.0	2.25	--	--	--	3.63	50.0	1.73
4/13/2009	53	2.51	81.0	2.37	--	--	--	3.77	55.0	1.90
6/24/2009	53	2.41	78.0	2.22	--	--	--	3.91	48.0	1.73
9/15/2009	54	2.32	76.0	2.14	--	--	--	3.72	41.0	1.56
12/15/2009	52	2.36	72.0	1.99	--	--	--	3.53	40.0	1.51
3/16/2010	52	2.37	73.0	2.19	--	--	--	3.54	38.0	1.66
6/23/2010	52	2.4	72.0	2.09	--	--	--	3.78	39.0	1.67
9/24/2010	50	2.79	81.0	3.3	--	--	--	4.29	56.0	2.19
12/22/2010	55	2.21	81.0	2.17	--	--	--	3.81	48.0	1.99
3/16/2011	55	2.14	76.0	2.22	--	--	--	4.38	42.0	1.96
6/20/2011	56	2.08	72.0	2.12	--	--	--	4.36	50.0	2.17
9/13/2011	56	2.04	74.0	2.05	--	--	--	3.75	46.0	2.16
12/20/2011	56	2.19	77.0	2.26	--	--	--	3.91	45.0	2.26
3/6/2012	49	2.23	81.0	2.26	--	--	--	3.71	47.0	2.22
6/7/2012	50	2.28	74.0	2.03	--	--	--	3.66	48.0	2.13
9/14/2012	50	2.31	76.0	2.13	--	--	--	3.15	43.0	2.04
12/5/2012	50	2.04	78.0	2.25	--	--	--	3.25	45.0	2.12
3/1/2013	50	2.29	73.0	2.04	--	--	--	3.85	45.0	2.00
6/3/2013	50	2.05	63.0	1.86	--	--	--	3.67	47.0	2.26
9/10/2013	50	1.91	65.0	1.97	--	--	--	3.44	37.0	1.98
12/9/2013	52	2.13	78.0	2.33	--	--	--	3.82	42.0	2.19
3/6/2014	50	1.98	72.0	2.10	--	--	--	3.28	42.0	2.08
6/2/2014	49	1.90	73.0	2.26	--	--	--	3.19	39.0	2.21
9/5/2014	50	1.83	76.1	2.32	--	--	--	3.20	43.9	2.44
12/4/2014	50.1	1.80	73.6	2.29	--	--	--	3.24	45.0	2.52
3/5/2015	56.2	2.00	75.5	2.34	--	--	--	3.82	50.3	2.61
6/5/2015	57.6	2.09	75.5	2.35	--	--	--	3.69	50.1	2.61
9/9/2015	61.7	1.89	72.5	2.28	--	--	--	3.28	43.3	2.39
12/7/2015	62.0	1.92	68.3	2.24	--	--	--	3.24	39.0	2.35
3/2/2016	55.1	1.87	64.7	2.06	--	--	--	3.18	36.5	2.18
6/3/2016	55.3	1.82	68.6	2.18	--	--	--	3.38	41.4	2.47
9/7/2016	55.3	1.82	71.7	2.13	--	--	--	2.99	41.9	2.32
12/2/2016	54.5	1.82	57.4	1.99	--	--	--	3.14	37.0	2.43
3/2/2017	54.5	1.81	61.9	2.21	--	--	--	3.73	38.7	2.56
6/9/2017	54.5	1.71	62.1	2.19	--	--	--	3.26	41.1	2.66
9/13/2017	55.0	1.91	64.1	2.18	--	--	--	3.47	39.9	2.47
12/11/2017	45.9	1.74	68.6	2.36	--	--	--	3.08	46.6	2.85
3/8/2018	54.9	1.74	64.3	2.11	--	--	--	3.10	42.0	2.49
6/4/2018	55.1	1.75	65.4	2.14	--	--	--	3.20	41.4	2.47
9/7/2018	55.4	1.60	65.1	2.25	--	--	--	2.83	38.8	2.49
12/17/2018	53.7	1.74	68.0	2.22	--	--	--	3.78	55.9	3.14
3/12/2019	55.7	1.61	64.6	2.09	--	--	--	3.28	41.8	2.42
7/8/2019	54.1	1.62	69.3	2.17	--	--	--	3.52	47.8	2.56
9/6/2019	54.2	1.63	65.3	2.09	--	--	--	3.11	40.1	2.29
12/6/2019	54.3	1.64	65.9	1.92	--	--	--	3.32	40.5	2.12
3/6/2020	54.3	1.74	65.5	2.22	--	--	--	3.67	37.6	2.36
6/5/2020	54.3	1.55	68.8	2.13	--	--	--	6.37	41.7	2.39
9/4/2020	54.2	1.75	64.8	2.05	--	--	--	3.32	35.9	2.17
12/5/2020	54.4	1.67	58.5	1.97	--	--	--	3.04	31.6	2.16
3/5/2021	54.6	1.55	58.8	1.93	--	--	--	3.64	33.7	2.17
6/4/2021	54.6	1.73	63.4	2.08	--	--	--	3.34	35.9	2.27
9/7/2021	48.2	1.70	70.8	2.30	--	--	--	3.41	41.7	2.67
12/10/2021	54.8	1.65	64.8	2.13	--	--	--	3.35	39.8	2.53
3/4/2022	54.7	1.42	69.1	2.26	--	--	--	2.80	37.0	2.36
6/3/2022	54.8	1.48	64.7	2.21	--	--	--	2.73	36.9	2.44
9/9/2022	52.8	1.55	66.9	2.17	--	--	--	2.92	37.3	2.34
12/9/2022	55.6	1.49	63.9	2.09	--	--	--	2.81	32.2	2.07
3/10/2023	54.7	1.59	62.5	2.13	--	--	--	2.86	37.4	2.47
6/9/2023	54.8	1.48	62.5	2.08	--	--	--	3.14	37.5	2.36
11/3/2023	29.3	1.86	70.3	2.02	0.586	47.7	1.70	5.89	75.4	2.99
12/1/2023	24.7	1.85	73.7	2.4	1.70	69.0	2.26	4.70	66.2	3.32

Note:
Concentrations reported in mg/l (ppm)
Flow reported in gallons per a minute (gpm)

Figure 3-1
Influent Metals Concentrations - GWTP
Shepley's Hill Landfill

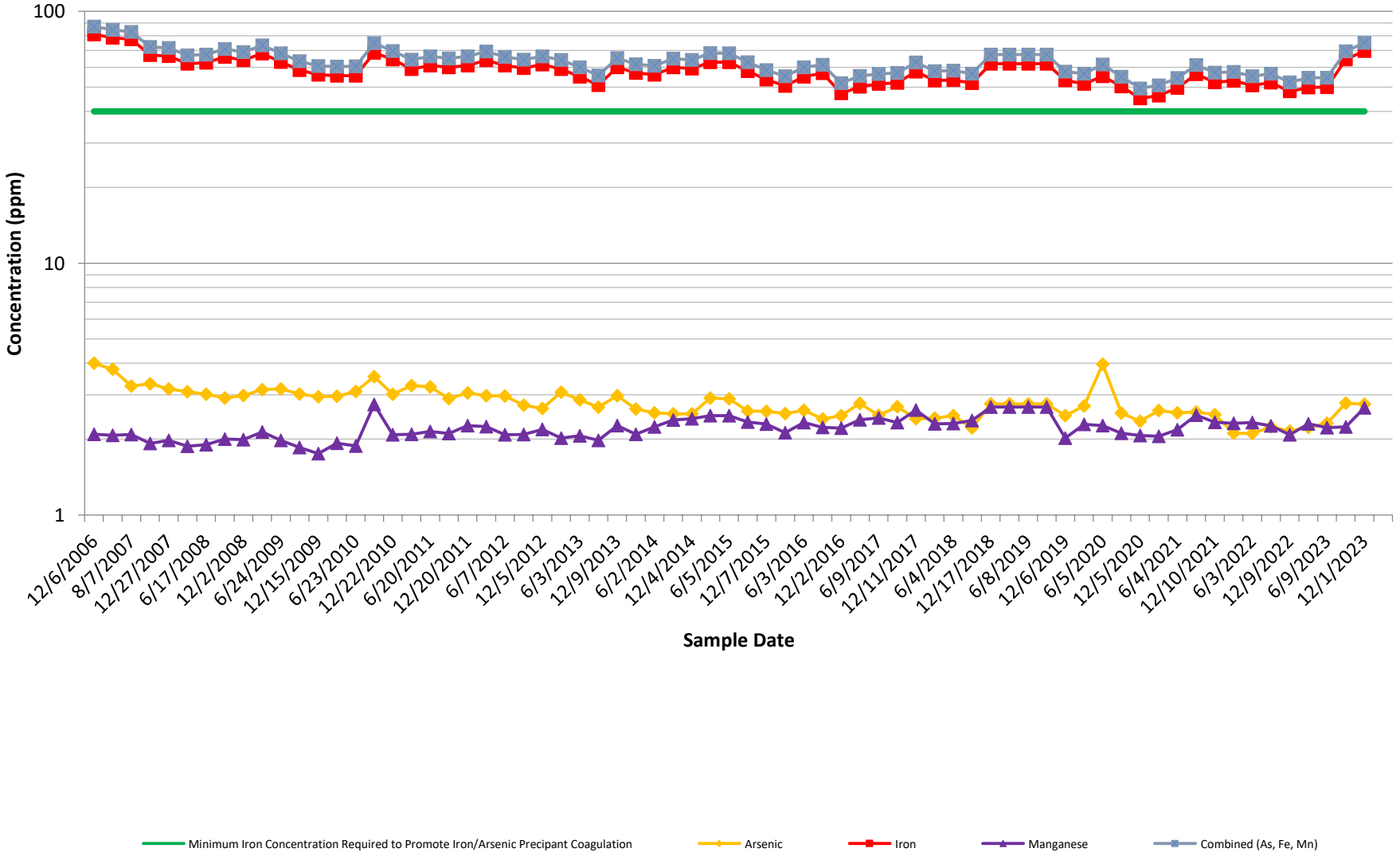

Table G-10
ATP Influent VOC and Dissolved Gases Concentrations - 3 November 2023

EW-01			EW-03			EW-04		
Analyte	**Result**		**Analyte**	**Result**		**Analyte**	**Result**	
Acetone	ND		Acetone	ND		Acetone	ND	
Acrolein	ND		Acrolein	ND		Acrolein	ND	
Acrylonitrile	ND		Acrylonitrile	ND		Acrylonitrile	ND	
Benzene	0.53	J	Benzene	0.84	J	Benzene	0.65	J
Bromodichloromethane	ND		Bromodichloromethane	ND		Bromodichloromethane	ND	
Bromoform	ND		Bromoform	ND		Bromoform	ND	
2-Butanone (MEK)	ND		2-Butanone (MEK)	ND		2-Butanone (MEK)	ND	
Carbon Disulfide	ND		Carbon Disulfide	ND		Carbon Disulfide	ND	
Carbon Tetrachloride	ND		Carbon Tetrachloride	ND		Carbon Tetrachloride	ND	
Chlorobenzene	ND		Chlorobenzene	ND		Chlorobenzene	ND	
Chloroethane	ND		Chloroethane	ND		Chloroethane	ND	
2-Chloroethyl Vinyl Ether	ND		2-Chloroethyl Vinyl Ether	ND		2-Chloroethyl Vinyl Ether	ND	
Chloroform	ND		Chloroform	ND		Chloroform	ND	
Dibromochloromethane	ND		Dibromochloromethane	ND		Dibromochloromethane	ND	
1,2-Dichlorobenzene	ND		1,2-Dichlorobenzene	ND		1,2-Dichlorobenzene	ND	
1,3-Dichlorobenzene	ND		1,3-Dichlorobenzene	ND		1,3-Dichlorobenzene	ND	
1,4-Dichlorobenzene	ND		1,4-Dichlorobenzene	ND		1,4-Dichlorobenzene	ND	
1,1-Dichloroethane	ND		1,1-Dichloroethane	ND		1,1-Dichloroethane	ND	
1,2-Dichloroethane	ND		1,2-Dichloroethane	ND		1,2-Dichloroethane	ND	
1,1-Dichloroethylene	ND		1,1-Dichloroethylene	ND		1,1-Dichloroethylene	ND	
cis-1,2-Dichloroethylene	ND		cis-1,2-Dichloroethylene	ND		cis-1,2-Dichloroethylene	ND	
trans-1,2-Dichloroethylene	ND		trans-1,2-Dichloroethylene	ND		trans-1,2-Dichloroethylene	ND	
1,2-Dichloropropane	ND		1,2-Dichloropropane	ND		1,2-Dichloropropane	ND	
cis-1,3-Dichloropropene	ND		cis-1,3-Dichloropropene	ND		cis-1,3-Dichloropropene	ND	
trans-1,3-Dichloropropene	ND		trans-1,3-Dichloropropene	ND		trans-1,3-Dichloropropene	ND	
Ethylbenzene	ND		Ethylbenzene	ND		Ethylbenzene	ND	
2-Hexanone	ND		2-Hexanone	ND		2-Hexanone	ND	
Methyl Bromide	ND		Methyl Bromide	ND		Methyl Bromide	ND	
Methyl Chloride	ND		Methyl Chloride	ND		Methyl Chloride	ND	
Methylene Chloride	ND		Methylene Chloride	ND		Methylene Chloride	ND	
4-Methyl-2-pentanone (MIBK)	ND		4-Methyl-2-pentanone (MIBK)	ND		4-Methyl-2-pentanone (MIBK)	ND	
Styrene	ND		Styrene	ND		Styrene	ND	
1,1,2,2-Tetrachloroethane	ND		1,1,2,2-Tetrachloroethane	ND		1,1,2,2-Tetrachloroethane	ND	
Tetrachloroethylene	ND		Tetrachloroethylene	ND		Tetrachloroethylene	ND	
Toluene	ND		Toluene	ND		Toluene	ND	
1,1,1-Trichloroethane	ND		1,1,1-Trichloroethane	ND		1,1,1-Trichloroethane	ND	
1,1,2-Trichloroethane	ND		1,1,2-Trichloroethane	ND		1,1,2-Trichloroethane	ND	
Trichloroethylene	ND		Trichloroethylene	ND		Trichloroethylene	ND	
Trichlorofluoromethane	ND		Trichlorofluoromethane	ND		Trichlorofluoromethane	ND	
Vinyl Acetate	ND		Vinyl Acetate	ND		Vinyl Acetate	ND	
Vinyl Chloride	ND		Vinyl Chloride	ND		Vinyl Chloride	ND	
m,p-Xylene	ND		m,p-Xylene	ND		m,p-Xylene	ND	
o-Xylene	ND		o-Xylene	ND		o-Xylene	ND	
Xylene (total)	ND		Xylene (total)	ND		Xylene (total)	ND	
EW-01 Totals	**0.53**		**EW-03 Totals**	**0.84**		**EW-04 Totals**	**0.65**	

EW-01		EW-03		EW-04	
Analyte	**Result**	**Analyte**	**Result**	**Analyte**	**Result**
Methane	3,810	Methane	156	Methane	2,360
Ethane	2.0	Ethane	ND	Ethane	ND

Notes:
J = Value is estimated. It is below the reportable detection limit but greater than the method detection limits.
ND = Non-detect at laboratory detection limit.
All units in µg/L.

Table G-11
Historical ATP Monthy Effluent Sampling Results (Arsenic)
Shepley's Hill Landfill
Devens, Massachusetts

Date	Effluent As Conc. (ppb)	Date	Effluent As Conc. (ppb)	Date	Effluent As Conc. (ppb)	Date	Effluent As Conc. (ppb)
8/29/2005	1.5	11/17/2009	11.6	7/1/2014	45.3	5/10/2019	19.6
8/30/2005	1.2	12/15/2009	43	8/7/2014	68.0	7/8/2019	16.2
8/31/2005	17.1	12/22/2009	9.4	9/5/2014	37.7	8/9/2019	25.3
9/1/2005	1	1/7/2010	25.2	10/1/2014	10.6	9/6/2019	24.8
9/2/2005	1	2/18/2010	33.1	11/6/2014	742	10/4/2019	24.9
9/6/2005	1	3/16/2010	3.2	11/14/2014	5.2	11/8/2019	31.5
9/8/2005	0.9	4/21/2010	14.4	12/4/2014	11.1	12/6/2019	34.6
9/9/2005	3	5/13/2010	10.4	1/2/2015	34.8	1/3/2020	25.8
3/10/2006	0.9	6/23/2010	24.6	2/12/2015	27.5	2/7/2020	24.0
3/15/2006	2	7/15/2010	17.5	3/5/2015	58.4	3/6/2020	20.0
3/23/2006	1	8/19/2010	29	4/10/2015	6.6	4/3/2020	34.1
4/7/2006	2	9/24/2010	13.9	5/7/2015	6.5	5/8/2020	17.9
4/14/2006	1.3	10/27/2010	22.3	6/5/2015	11.1	6/5/2020	37.8
4/20/2006	9	11/23/2010	26.1	7/10/2015	11.2	7/10/2020	36.9
4/27/2006	2	12/22/2010	10.3	8/10/2015	37.4	8/7/2020	44.6
5/22/2006	2	1/24/2011	55.8	9/9/2015	5.5	9/4/2020	60.6
6/27/2006	ND	2/16/2011	9.8	10/6/2015	6.2	10/9/2020	28.5
7/12/2006	2	3/16/2011	14.1	11/2/2015	15.5	11/4/2020	23.7
8/31/2006	13	4/21/2011	17.4	12/7/2015	5.9	12/4/2020	55.4
9/28/2006	28	5/16/2011	7.7	1/4/2016	11.7	1/8/2021	36.2
10/16/2006	4	6/20/2011	5.2	2/1/2016	13.5	2/17/2021	17.8
11/14/2006	2	7/22/2011	4.6	3/2/2016	19.5	3/5/2021	29.4
12/26/2006	34	8/11/2011	2.3	4/4/2016	11.3	4/8/2021	28.4
1/5/2007	19	9/13/2011	38.1	5/2/016	16.0	5/7/2021	38.1
1/16/2007	2	10/24/2011	20.3	6/3/2016	18.6	6/4/2021	33.0
1/23/2007	4	11/21/2011	12.5	7/5/2016	16.0	7/13/2021	81.4
1/30/2007	1	12/20/2011	15.1	8/1//16	17.4	7/21/2021	61.4
3/22/2007	1	1/24/2012	18.2	9/7/2016	15.3	8/19/2021	11.8
4/11/2007	ND	2/7/2012	28.1	10/3/2016	13.5	9/7/2021	17.2
5/16/2007	1.2	3/6/2012	16.1	11/1/2016	15.3	10/8/2021	25.5
6/13/2007	1.3	4/13/2012	269.3	12/2/2016	45.1	11/5/2021	40.2
7/12/2007	1.4	4/30/2012	14.9	1/6/2017	13.3	12/10/2021	9.9
8/7/2007	1.5	5/14/2012	90.5	2/8/2017	13.1	1/10/2022	8
9/11/2007	1.3	5/25/2012	8.7	3/2/2017	39.4	2/3/2022	8.8
10/10/2007	1.2	6/7/2012	12.7	4/12/2017	16.8	3/4/2022	2.8
11/6/2007	1.3	7/2/2012	23.0	5/18/2017	17.7	4/8/2022	26.3
12/27/2007	1.2	8/3/2012	17.1	6/9/2017	20.6	5/9/2022	20.0
1/10/2008	3	9/14/2012	23.9	7/14/2017	12.1	6/3/2022	4.5
2/13/2008	1	10/10/2012	15.6	8/16/2017	13.8	7/8/2022	1.6
3/6/2008	1.1	11/6/2012	32.9	9/13/2017	1.0	8/5/2022	17.5
4/10/2008	1	12/5/2012	11.9	10/10/2017	2.7	9/9/2022	8.8
5/15/2008	1	1/2/2013	14.3	11/10/2017	0.96 J	10/7/2022	24.4
6/17/2008	1	2/6/2013	15.7	12/11/2017	3.3	11/4/2022	19.4
7/8/2008	1.25	3/1/2013	15.1	1/8/2018	7.5	12/9/2022	13.4
8/6/2008	1	4/3/2013	14.1	2/7/2018	42.8	1/9/2023	24.1
9/10/2008	5.3	5/1/2013	13.9	3/8/2018	1.4 J	2/3/2023	14.7
10/14/2008	1.1	6/3/2013	20.5	4/5/2018	38.4	3/10/2023	14.1
11/4/2008	1	7/8/2013	15.5	5/4/2018	14.4	4/7/2023	5.7
12/2/2008	0.87	8/5/2013	15.0	6/4/2018	13.7	5/5/2023	25.9
1/13/2009	1.3	9/10/2013	11.0	7/6/2018	10.9	6/9/2023	10
2/3/2009	1.6	10/2/2013	13.9	8/10/2018	9.8	7/7/2023	4.88
3/5/2009	1.1	11/12/2013	19.2	9/7/2018	10.5	8/4/2023	17.8
4/13/2009	24.7	12/9/2013	20.7	10/4/2018	11.7	11/1/2023	8.0
5/26/2009	6.1	1/6/2014	17.8	11/12/2018	10.6	11/3/2023	5.0
6/24/2009	25.2	2/6/2014	20.2	12/17/2018	12.5	12/1/2023	30.9
7/16/2009	6.3	3/6/2014	19.2	1/11/2019	10.9		
8/18/2009	9.7	4/3/2014	15.1	2/8/2019	18.1		
9/15/2009	3.5	5/5/2014	19.3	3/12/2019	38.4		
10/20/2009	15.5	6/9/2014	7.2	4/5/2019	35.0		

Notes:
Tables Includes all daily/weekly (when required) Arsenic sampling results
ND - Non-detect

Table G-12
Historical ATP Quarterly Effluent Sampling Results
Shepley's Hill Landfill
Devens, Massachusetts

Sample Date	Effluent Limitation	9/2/2005	3/15/2006	6/27/2006	9/2/2006	12/26/2006	3/22/2007	6/13/2007	9/11/2007	12/27/2007	3/6/2008	6/17/2008	9/10/2008	12/2/2008	4/13/2009	6/24/2009	9/15/2009	12/8/2009	3/16/2010	6/23/2010
Analyte																				
BOD	--	NA	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solids, Total Suspended	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide, Total	--	ND	ND	0.007	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	--	54	44	50	100	50	68	56	60	67	80	60	58	62	63	58	58	62	68	67
pH	5.5 - 9.5	6.7	5.8	6.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Nitrate	--	ND	ND	ND	ND	ND	ND	0.18	0.32	0.21	0.36	0.26	0.16	0.3	0.19	0.14	0.14	0.18	0.38	0.69
Sulfate	--	ND	ND	ND	2.6	160	70	2.2	2.7	3.3	3	3.1	2.8	3.2	3.3	7.9	7.9	4.3	4.6	5.3
Oil & Grease	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals																				
Aluminium	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Anitmony	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.2	0.001	0.002	ND	0.028	0.034	0.002	0.0013	0.0013	0.0012	0.0011	0.00094	0.0053	0.00087	0.0247	0.0252	0.0035	0.043	0.0032	0.0246
Barium	--	ND	0.02	0.03	0.02	0.015	0.029	0.023	0.023	0.023	0.023	0.022	0.024	0.022	0.022	0.023	0.024	0.021	0.022	0.018
Beryllium	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.045	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	ND	ND	NA	NA	NA	ND	NA	NA	NA
Chromium	0.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	0.75	ND	ND	ND	ND	0.026	0.017	0.015	0.0049	0.0076 J	0.015	0.13	0.0096 J	0.011	0.0054 J	0.0059 J	0.01	0.015	0.0088 J	0.013
Lead	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0022 J	ND	ND	ND
Magnesium	--	ND	8.5	8.8	9.1	8.4	8.1	7.5	7.1	7.6	6.9	6.9	7.1	6.8	6.8	6.9	6.6	6.5	6.4	5.7
Manganese	--	ND	0.87	2.1	0.26	0.876	0.709	0.001	0.0026	0.0011 J	0.0008 J	ND	0.0026 J	ND	0.017	0.02	0.0041 J	0.029	0.0026 J	0.017
Mercury	0.001	ND	ND	ND	ND	ND	ND	ND	ND	0.0002 J	0.0002 J	0.0005 J	ND	ND	ND	ND	0.00003 J	0.00002 J	ND	ND
Nickel	--	ND	ND	ND	ND	ND	0.010	0.005	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	0.3	ND	ND	ND	ND	ND	ND	ND	ND	0.0009 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	ND	ND	ND	ND	ND	0.007	0.005	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																				
Bis(2-ethylhexyl)phthalate	--	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
All unit in mg/l, except for pH (standard pH units)
NA: Not Analyzed
ND: Non-detect at laboratory detection limit
--: Parameter no longer requirerd per Discharge Permit # 020
**: Metal is no longer required as part of quaterly sampling. Metal sampled as part of annual sampling per Discharge Permit # 020
All dectection limits are below discharge limits
J: Estimated value. The Target analyte concentration is below the quanitation limit (RL) but above the Method Dectection Limit (MDL)

Table G-12
Historical ATP Quarterly Effluent Sampling Results
Shepley's Hill Landfill
Devens, Massachusetts

Sample Date	Effluent Limitation	9/24/2010	12/22/2010	3/16/2011	6/20/2011	9/13/2011	12/20/2011	3/6/2012	6/7/2012	9/14/2012	12/5/2012	3/1/2013	6/3/2013	9/10/2013	12/9/2013	3/6/2014	6/2/2014	9/5/2014	12/4/2014	3/5/2015
Analyte																				
BOD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solids, Total Suspended	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	--	59	73	44	28	44	42	46	36	28	43	41.2	28	35	39	37	41	39	38.7	38.0
pH	5.5 - 9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Nitrate	--	0.15	0.35	0.06	0.12	0.09 J	0.09 J	0.06 J	0.07 J	0.099 J	0.12	ND	0.081 J	0.10	0.054 J	0.077 J	0.098 J	0.43	0.43	ND
Sulfate	--	4.4	3.9	4	3.5	3.6	3.5	3.4	2.6	58	3.9	3.35	2.97	3.64	4.30	4.97	4.74	4.8 J	6.0 J	3.4 J
Oil & Grease	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals																				
Aluminium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anitmony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.2	0.0139	0.0103	0.0141	0.0052	0.0381	0.0151	0.0161	0.0127	0.0239	0.0119	0.0151	0.0205	0.0110	0.0207	0.0192	0.0072	0.0377	0.0111	0.0584
Barium	--	0.025	0.021	0.024	0.018	0.023	0.023	0.023	0.022	0.020	0.023	0.023	0.020	0.021	0.023	0.025	0.023	0.025	ND	ND
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.045	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Chromium	0.4	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Copper	0.75	0.0063 J	**	**	**	0.009 J	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Lead	0.2	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Magnesium	--	5.7	6	6	5.9	5.8	6.2	6.2	5.9	5.2	6.2	5.6	5.5	5.1	5.8	6.3	5.3	6.14	6.37	6.06
Manganese	--	0.656	0.007	1.09	0.912	0.66	1.1	0.757	1.15	0.031	0.279	1.27	1.19	1.40	0.908	1.59	1.64	1.62	1.55	1.69
Mercury	0.001	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	0.03	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Silver	0.3	ND	**	**	**	ND	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																				
Bis(2-ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
All unit in mg/l, except for pH (standard pH units)
NA: Not Analyzed
ND: Non-detect at laboratory detection limit
--: Parameter no longer requirerd per Discharge Permit # 020
**: Metal is no longer required as part of quaterly sampling. Metal sampled as part of annual sampling per Discharge Permit # 020
All dectection limits are below discharge limits
J: Estimated value. The Target analyte concentration is below the quanitation limit (RL) but above the Method Dectection Limit (MDL)

Table G-12
Historical ATP Quarterly Effluent Sampling Results
Shepley's Hill Landfill
Devens, Massachusetts

Sample Date	Effluent Limitation	6/5/2015	9/9/2015	12/7/2015	3/2/2016	6/3/2016	9/7/2016	12/2/2016	3/2/2017	6/9/2017	9/13/2017	12/11/2017	3/8/2018	6/4/2018	9/7/2018	12/17/2018	3/12/2019	7/8/2019
Analyte																		
BOD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solids, Total Suspended	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	--	34.0	33.7	33.5	34.5	34.0	33.5	33.2	34.4	34.1	35.0	34.6	36.0	35.6	36.1	37.4	32.6	37.9
pH	5.5 - 9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Nitrate	--	0.20	0.34	0.22	0.13 J	0.19	0.24	0.34	0.35	0.30	0.22	0.37	0.11	0.40	0.23	0.22	0.098J	0.21
Sulfate	--	3.5	3.7 J	6.5 J	3.5 J	4.3 J	4.1 J	5.3 J	4.9 J	5.1 J	6.0	5.6	5.8	6.3	6.0	3.6	7.9	5.7
Oil & Grease	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals																		
Aluminium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anitmony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.2	0.0111	0.0055	0.0059	0.0195	0.0186	0.0153	0.0451	0.0394	0.0206	0.0010	0.0033	0.0014 J	0.0137	0.0105	0.0125	0.0384	0.0162
Barium	--	ND	ND	ND	ND	ND	ND	0.0206 J	0.0206 J	0.0188 J	0.0198 J	0.0229 J	0.0221 J	0.0231 J	0.0221 J	0.0216 J	0.0147J	0.0142J
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.045	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Chromium	0.4	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Copper	0.75	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Lead	0.2	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Magnesium	--	6.11	5.88	5.74	5.27	5.62	5.45	5.33	5.32	5.23	5.03 J	5.62	5.6	5.6	5.44	6.23	5.51	5.94
Manganese	--	1.67	1.75	1.77	1.44	1.53	1.46	1.40	1.61	1.57	1.66	1.91	1.65	1.60	1.55	1.16	0.0434	0.0184
Mercury	0.001	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	0.03	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Silver	0.3	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																		
Bis(2-ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
All unit in mg/l, except for pH (standard pH units)
NA: Not Analyzed
ND: Non-detect at laboratory detection limit
--: Parameter no longer requirerd per Discharge Permit # 020
**: Metal is no longer required as part of quaterly sampling. Metal sampled as part of annual sampling per Discharge Permit # 020
All dectection limits are below discharge limits
J: Estimated value. The Target analyte concentration is below the quanitation limit (RL) but above the Method Dectection Limit (MDL)

Table G-12
Historical ATP Quarterly Effluent Sampling Results
Shepley's Hill Landfill
Devens, Massachusetts

Sample Date	Effluent Limitation	12/6/2019	3/6/2020	6/5/2020	9/4/2020	12/4/2020	3/5/2021	6/4/2021	9/7/2021	12/10/2021	3/4/2022	6/3/2022	9/9/2022	12/9/2022	3/10/2023	6/9/2023	11/3/2023
Analyte																	
BOD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Solids, Total Suspended	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyanide, Total	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	--	35.5	34.9	35.8	32.4	36.6	34.0	36.2	36.3	43.3	41.3	37.9	35.2	26.8	29.9	30.5	19.6
pH	5.5 - 9.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Nitrate	--	0.28	0.26	0.17	0.29	0.25	0.19	0.26	0.12	0.19	0.17	ND	ND	ND	0.14	0.12	ND
Sulfate	--	5.7	6.8	4.9	5.1	5.6	7.8	4.6	5.1	5.4	6.2	5.1	6.1	5.9	5.8	6.0	9.2
Oil & Grease	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Metals																	
Aluminium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anitmony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	0.2	0.0346	0.0200	0.0378	0.0606	0.0554	0.0294	0.0330	0.0172	0.0099	0.0028	0.0045	0.0088	0.0134	0.0141	0.0100	0.005
Barium	--	0.0144J	0.0156J	0.0145J	0.0154 J	0.0135 J	ND	0.0135 J	ND	0.0151 J	0.0140 J	0.0153 J	0.0160 J	0.0226 J	0.0201 J	0.0181 J	0.0025 J
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	0.045	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Chromium	0.4	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Copper	0.75	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Lead	0.2	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Magnesium	--	5.33	5.83	5.55	5.13	4.66 J	4.77 J	5.09	5.80	5.28	5.14	4.89 J	5.33	5.03	4.98 J	4.93 J	5.77
Manganese	--	0.0373	0.0269	0.0445	0.0669	0.0606	0.0352	0.0385	0.0252	0.0199	0.0045 J	0.0060 J	0.0118 J	1.69	0.467	0.071	6.34
Mercury	0.001	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Nickel	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	0.03	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Silver	0.3	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Thallium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOCs																	
Bis(2-ethylhexyl)phthalate	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
All unit in mg/l, except for pH (standard pH units)
NA: Not Analyzed
ND: Non-detect at laboratory detection limit
--: Parameter no longer requirerd per Discharge Permit # 020
**: Metal is no longer required as part of quaterly sampling. Metal sampled as part of annual sampling per Discharge Permit # 020
All dectection limits are below discharge limits
J: Estimated value. The Target analyte concentration is below the quanitation limit (RL) but above the Method Dectection Limit (MDL)

Table G-12
Historical ATP Quarterly Effluent Sampling Results
Shepley's Hill Landfill
Devens, Massachusetts

Sample Date	Effluent Limitation	12/1/2023
Analyte		
BOD	--	--
Solids, Total Suspended	--	--
Cyanide, Total	--	--
Chloride	--	24.8
pH	5.5 - 9.5	--
Nitrogen, Nitrate	--	ND
Sulfate	--	4.1
Oil & Grease	--	--
Total Metals		
Aluminium	--	--
Anitmony	--	--
Arsenic	0.2	0.0309
Barium	--	0.0156 J
Beryllium	--	--
Cadmium	0.045	**
Chromium	0.4	**
Copper	0.75	**
Lead	0.2	**
Magnesium	--	5.82
Manganese	--	11.6
Mercury	0.001	**
Nickel	--	--
Selenium	0.03	**
Silver	0.3	**
Thallium	--	--
Zinc	--	--
VOCs		
Bis(2-ethylhexyl)phthalate	--	--

Table G-13
ATP Effluent Sampling Results - 3 November 2023
Shepley's Hill Landfill
Devens, Massachusetts

Analyte	Conc. (mg/l)	Analyte	Conc. (mg/l)	Analyte	Conc. (mg/l)	Analyte	Conc. (mg/l)
VOCs		**Semi-volatiles**		**Pesticdes and PCBSs**		**Metals and TPH**	
Acetone	ND	1,2,4-Trichlorobenzene	ND	Aldrin	ND	Cadmium	ND
Acrolein	ND	1-Methylnaphthalene	ND	Alpha-BHC	ND	Chromium (Total)	0.0022 J
Acrylonitrile	ND	1,2-Dichlorobenzene	ND	Beta-BHC	ND	Copper	0.0044 J
Benzene	0.00062 J	1,3-Dichlorobenzene	ND	Delta-BHC	ND	Lead	ND
Bromodichloromethane	ND	1,4-Dichlorobenzene	0.00070 J	Chlordane	ND	Mercury	ND
Bromoform	ND	2,4,5-Trichlorophenol	ND	cis-Chlordane	ND	Selenium	ND
Bromomethane	ND	2,4,6-Trichlorophenol	ND	trans-Chlordane	ND	Silver	0.00080 J
2-Butanone	ND	2,4-Dichlorophenol	ND	Dieldrin	ND		
Carbon disulfide	0.0021	2,4-Dinitrololuene	ND	4,4'-DDD	ND	TPH	ND
Carbon tetrachloride	ND	2,6-Dinitrololuene	ND	4,4'-DDE	ND		
Chlorobenzene	ND	2,4-Dimethylphenol	ND	4,4'-DDT	ND		
Chloroethane	ND	2,4-Dinitrophenol	ND	Endosulfan I	ND		
2-Chloroethyl vinyl ether	ND	3,3'-Dichlorobenzidine	ND	Endosulfan II	ND		
Chloroform	ND	2-Chloronaphthalene	ND	Endosulfan sulfate	ND		
Chloromethane	ND	2-Chlorophenol	ND	Endrin	ND		
Dibromochloromethane	ND	2-Methylnapthalene	ND	Endrin aldehyde	ND		
1,2-Dichlorobenzene	ND	2-Methylphenol	ND	Endrin ketone	ND		
1,3-Dichlorobenzene	ND	2-Nitroaniline	ND	Heptachlor	ND		
1,4-Dichlorobenzene	ND	2-Nitrophenol	ND	Heptachlor epoxide	ND		
1,1-Dichloroethane	ND	3-Methylphenol/4-Methylphenol	ND	Lindane	ND		
1,2-Dichloroethane	ND	3-Nitroaniline	ND	Methoxychlor	ND		
1,1-Dichloroethene	ND	4,6-Dinitro-o-cresol	ND	Toxaphene	ND		
cis-1,2-Dichloroethene	ND	4-Bromophenyl phenyl ether	ND				
trans-1,2-Dichloroethene	ND	4-Chloroaniline	ND	Aroclor 1016	ND		
1,2-Dichloropropane	ND	4-Chlorophenyl phenyl ether	ND	Aroclor 1221	ND		
cis-1,3-Dichloropropene	ND	4-Nitroaniline	ND	Aroclor 1232	ND		
trans-1,3-Dichloropropene	ND	4-Nitrophenol	ND	Aroclor 1242	ND		
Ethylbenzene	ND	Acenaphthylene	ND	Aroclor 1248	ND		
2-Hexanone	ND	Acenapthene	ND	Aroclor 1254	ND		
4-Methyl-2-pentanone	ND	Aniline	ND	Aroclor 1260	ND		
Methylene chloride	ND	Anthracene	ND				
Styrene	ND	Benzidine	ND				
1,1,2,2-Tetrachloroethane	ND	Benzo(a)anthracene	ND				
Tetrachloroethene	ND	Benzo(a)pyrene	ND				
Toluene	ND	Benzo(b)fluoranthene	ND				
1,1,1-Trichloroethane	ND	Benzo(ghi)perylene	ND				
1,1,2-Trichloroethane	ND	Benzo(k)fluoranthene	ND				
Trichloroethene	ND	Benzoic Acid	ND				
Trichlorofluoromethane	ND	Benzyl Alcohol	ND				
Vinyl acetate	ND	Bis(2-chloroethoxy) methane	ND				
Vinyl chloride	ND	Bis(2-chloroethyl)ether	ND				
o-Xylene	ND	Bis(2-chloroisopropyll)ether	ND				
p/m-Xylene	ND	Bis(2-ethylhexy)phthalate	ND				
Xylene (Total)	ND	Butyl benzyl phthalate	ND				
		Carbazole	ND				
		Chrysene	ND				
		Dibenzo(a,h)anthracene	ND				
		Dibenzofuran	ND				
		Diethyl phthalate	ND				
		Dimethyl phthalate	ND				
		Di-n-butylphthalate	ND				
		Di-n-octylphthalate	ND				
		Flourene	ND				
		Fluoranthene	ND				
		Hexachlorobenzene	ND				
		Hexachlorobutadiene	ND				
		Hexachlorocyclopentadiene	ND				
		Hexachloroethane	ND				
		Indeno(1,2,3-cd)pyrene	ND				
		Isophorone	ND				
		Naphthalene	ND				
		Nitrobenzene	ND				
		n-Nitrosodimethylamine	ND				
		n-Nitrosodi-n-propylamine	ND				
		N-Nitrosodiphenylamine	ND				
		p-Chloro-m-cresol	ND				
		Pentachlorophenol	ND				
		Phenanthrene	ND				
		Phenol	ND				
		Pyrene	ND				

Notes:

ND - Non-detect

J: Estimated value - the target analyte concentration is below the quanitation limit but above the method dectection limit (TPH).

Appendix H

LUCIP Documentation

Appendix H
LUCIP Documentation
Shepley's Hill Landfill
Former Fort Devens Army Installation, Devens, MA

Land Use Controls			
Name of Interviewer: Ian Martz (Arcadis)			
Name of Interviewees: Dan Van Schalkwyk (DPW), Bridgette Braley (Nashoba Associated-BOH), Charles Schultz (Town of Ayer)			
Contact Information: dvanschalkwyk@ayer.ma.us, 978-772-8240; bbraley@nashoba.org, 978-772-3335 x303; cshultz@ayer.ma.us, 978-772-8214			
Interview Notes: Emailed 2022 AR LUCIP form and updated informational pamphlet to interviewees on 1/11/2024. Received responses from all parties on 2/9/2024, answers to interview questions are provided below.			
Site Update: The Army is currently investigating PFAS which have been detected at the Former Fort Devens. A record-of-decision has not been completed for PFAS.			
Item	**Yes**	**No**	**Comments**
BOH, DPW and Building Department personnel familiar with LUC implementation, LUC coverage area, and informational pamphlet?	X		
Any issues reported with the implementation of the LUCs?		X	
Any changes to the SHL or Northern Impact Area (NIA)?		X	No projects completed by the Ayer DPW in 2023. In 2024, the Ayer DPW will be replacing the West Main Street Bridge over the Nonacoicus Brook (located at approximately 100 West Main Street). National Grid is relocating its gas regulator station from the proximity of the aforementioned West Main Street Bridge over Nonacoicus Brook to near 147 Old West Main Street. This involves replacing distribution main from ~100 West Main Street to 147 Old West Main Street.
Affirmative Measures			
Item	**Yes**	**No**	**Comments**
Annual distribution of educational materials completed?	X		Mailed LUC informational pamphlet to all property owners and residents and addresses located within the LUC area in September 2023. A copy of the pamphlet is included in this Appendix.
Updated list of land owners and residents within the LUC area prepared?	X		Confirmed current owners names and addresses through the Ayer Assessors website in September 2023. Created updated table of addresses, a copy of which is included in this Appendix.
Door-to-door survey completed?		X	Survey is only required every 5 years, and the last survey was completed in September 2019. The next door-to-door survey will be completed in 2024.
Met with DPW and Building Department to confirm water supply connections, and assess presence of private wells within LUC area?		X	A review of water supply connections and private wells is completed every 5 years, with the next review to be completed in 2024.

Map ID	LUC Street Address			Received? (Y/N)	Owner Name	Owner Address	City	State	Zip	Address Checked on Ayer Assessor Site (Y/N)	Additional Notes
Properties for Mailing											
26-351	5	Mechanic Street		N; vacant	Dorsey Ryan H	5 Mechanic Street	Ayer	MA	01432	Y; 10/4/23	
25-2	137	Old West Main Street		Y	Manni Pamela A	137 Old West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-13	2	Rogers Street	Apt. 2	N; not claimed	Rengard Llc	Po Box 664	Ayer	MA	01432	Y; 10/4/23	
25-13	2	Rogers Street	Apt. 1	Y	Rengard Llc	Po Box 664	Ayer	MA	01432	Y; 10/4/23	Duplex
32-28	2	Scully Road		N; not claimed	Hunley Cassandra	2 Scully Road	Ayer	MA	01432	Y; 10/4/23	
32-29	4	Scully Road		Y	Cole Larry A	4 Scully Road	Ayer	MA	01432	Y; 10/4/23	
32-43	7	Scully Road		Y	Two P Realty LLC	120 Central Avenue	Ayer	MA	01432	Y; 10/4/23	
32-44	11	Scully Road		N; not claimed	Ayer Masonic Association, Inc	PO Box 330	Ayer	MA	01432	Y; 10/4/23	
32-45	13	Scully Road	Apt. A	Y	Bourque David W & Mary L	13 Scully Road	Ayer	MA	01432	Y; 10/4/23	Duplex
32-45	13	Scully Road	Apt. B	Y	Bourque David W & Mary L	13 Scully Road	Ayer	MA	01432	Y; 10/4/23	Duplex
32-46	17	Scully Road		Y	Pinard James	120 Central Avenue	Ayer	MA	01432	Y; 10/4/23	
32-47	19	Scully Road		Y	Powers Jeremy A	19 Scully Road	Ayer	MA	01432	Y; 10/4/23	
32-49	33	Scully Road		N; not claimed	Olson Jonathan	33 Scully Road	Ayer	MA	01432	Y; 10/4/23	
32-52	31	Scully Road		Y	Logan George E	31 Scully Road	Ayer	MA	01432	Y; 10/4/23	
25-19	65	Shirley Street		Y	Dighton Gail	65 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
25-20	59	Shirley Street		Y	Ford John L	59 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
25-21	57	Shirley Street		Y	Miles Macuch	57 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
25-22	55	Shirley Street		Y	Norstrom Brian D	55 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-42	53	Shirley Street		Y	Slarskey Revocable Trust	53 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-50	50	Shirley Street		N; not claimed	Boak Susan Jones	50 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-51	44	Shirley Street	Apt. B	N; not claimed	Rogers Steven C	44 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-51	44	Shirley Street	Apt. A	Y	Rogers Steven C	44 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-51	44	Shirley Street	Apt. C	Y	Rogers Steven C	44 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-53	22	Shirley Street		N; not claimed	Cormier Janice	22 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-54	20	Shirley Street		Y	Neelands Ellen Bliss	20 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-55, 26-56	12	Shirley Street		Y	Tk-Investment Group Llc	12 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-63	41	Shirley Street		Y	Defrancisco Johanna L	75 Mystic Street, Apt 3	Arlington	MA	02474	Y; 10/4/23	
26-68	29	Shirley Street		N; not claimed	Roman Catholic Archbishop Of Boston	33 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-70	23	Shirley Street		N; not claimed	Macdougall Denise	23 Shirley St	Ayer	MA	01432	Y; 10/4/23	
26-71	17	Shirley Street		Y	Decot Kathleen M	343 Ayer Road	Harvard	MA	01451	Y; 10/4/23	Duplex
26-71	19	Shirley Street		Y	Decot Kathleen M	343 Ayer Road	Harvard	MA	01451	Y; 10/4/23	Duplex
26-73	15	Shirley Street		N; not claimed	Ellis Jason M	13 Shirley Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-73	13	Shirley Street		Y	Ellis Jason M	13 Shirley Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-74	11	Shirley Street		Y	Ranx Realty Llc	Po Box 4138	Andover	MA	01810	Y; 10/4/23	
26-77	9	Shirley Street	Apt. 2	N; not claimed	Cunningham Timothy F	8 Redskin Trail	Groton	MA	01450	Y; 10/4/23	Duplex
26-77	9	Shirley Street	Apt. 1	Y	Cunningham Timothy F	8 Redskin Trail	Groton	MA	01450	Y; 10/4/23	Duplex
32-10	71	Shirley Street		Y	Aitelhadj Amina	71 Shirley Street	Ayer	MA	01432	Y; 10/4/23	
26-46	3	Union Street		N; not claimed	Van Tassell Belinda M	3 Union Street	Ayer	MA	01432	Y; 10/4/23	
26-47	5	Union Street		N; not claimed	Solomon Kelly A	5 Union Street	Ayer	MA	01432	Y; 10/4/23	
26-48	7	Union Street		Y	King Nathanael	7 Union Street	Ayer	MA	01432	Y; 10/4/23	Duplex
25-1	139	West Main Street		N; not claimed	Cibor David	147 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-10	107	West Main Street		Y	Norstrom Russell R	107 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-12	130	West Main Street		Y	D'amico Anthony V	130 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-14	122	West Main Street		Y	Scullane Donald G & Shirley G	79 Pleasant Street	Ayer	MA	01432	Y; 10/4/23	
25-15	118	West Main Street		Y	James M Mazzola	118 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-16	116	West Main Street	Apt. 1	N; not claimed	Lapin Joshua A	116 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
25-16	116	West Main Street	Apt. 2	N; not claimed	Lapin Joshua A	116 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-17	114	West Main Street		N; not claimed	Aragones Jerry A	114 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-18	108	West Main Street		Y	Sheahan Timothy J	108 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-3	131	West Main Street		Y	Banchs Jose A III	37 Peabody Road	Shirley	MA	01464	Y; 10/4/23	Triplex
25-3	131-1/2	West Main Street		Y	Banchs Jose A III	37 Peabody Road	Shirley	MA	01464	Y; 10/4/23	
25-3	133	West Main Street		Y	Banchs Jose A III	37 Peabody Road	Shirley	MA	01464	Y; 10/4/23	
25-4	127	West Main Street		Y	Carlisle Robert C	127 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 1	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	Multiple
25-5	123-1/2	West Main Street	Apt. 2	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	

Map ID	LUC Street Address			Received? (Y/N)	Owner Name	Owner Address	City	State	Zip	Address Checked on Ayer Assessor Site (Y/N)	Additional Notes
25-5	123-1/2	West Main Street	Apt. 3	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 4	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 5	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 6	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 9	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123	West Main Street	Apt. 1	Y	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	Duplex
25-5	123-1/2	West Main Street	Apt. 7	Y	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 8	Y	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123-1/2	West Main Street	Apt. 10	Y	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	125	West Main Street		Y	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-5	123	West Main Street	Apt. 2	N; not claimed	Razzaboni Walter D & Rosemary	260 Elm Street, Suite 7	Milford	NH	03055	Y; 10/4/23	
25-6	117	West Main Street		Y	Crowley Charles G	96 Chestnut Hill Road	Amherst	NH	03031	Y; 10/4/23	Appears Abandoned
25-7	111	West Main Street		Y	Capparella James L	111 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
25-7	113	West Main Street		Y	Capparella James L	111 West Main Street	Ayer	MA	01432	Y; 10/4/23	
25-9	109	West Main Street		Y	White Sarah A	109 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-32	95	West Main Street		Y	Mcbreen John	95 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-33	91	West Main Street	Apt. L2	N; not claimed	Turra Realty Trust	57 Sandy Pond Rd	Ayer	MA	01432	Y; 10/4/23	Apartment
26-33	91	West Main Street	Apt. R2	N; not claimed	Turra Realty Trust	57 Sandy Pond Rd	Ayer	MA	01432	Y; 10/4/23	Apartment
26-33	91	West Main Street	Apt. L1	N; vacant	Turra Realty Trust	57 Sandy Pond Rd	Ayer	MA	01432	Y; 10/4/23	Apartment
26-33	91	West Main Street	Apt. L3	N; vacant	Turra Realty Trust	57 Sandy Pond Rd	Ayer	MA	01432	Y; 10/4/23	Apartment
26-33	91	West Main Street	Apt. R1	N; vacant	Turra Realty Trust	57 Sandy Pond Rd	Ayer	MA	01432	Y; 10/4/23	Apartment
26-332	82	West Main Street		Y	Clements Richard	82 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-339	65	West Main Street		Y	Leonard Kaela M	65 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-34	87	West Main Street	Apt. 1	N; not claimed	J & A Realty Trust	280 Great Road	Shirley	MA	01464	Y; 10/4/23	Duplex
26-34	87	West Main Street	Apt. 2	Y	J & A Realty Trust	280 Great Road	Shirley	MA	01464	Y; 10/4/23	Duplex
26-35	83	West Main Street	Apt. 2	N; not claimed	White Kelli J	83 West Main Street	Ayer	MA	01432	Y; 10/4/23	Apartment
26-35	83	West Main Street	Apt. 1	Y	White Kelli J	83 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-359	74	West Main Street		Y	Maclaughlin Ian	74 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-36	81	West Main Street	Apt. 2	N; not claimed	Jackson Dorothea M - Tr	81 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-36	81	West Main Street	Apt. 1	Y	Jackson Dorothea M - Tr	81 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-37	73	West Main Street	Apt. 1	N; not claimed	Alpine North Llc	Po Box 315	Nutting Lake	MA	01865	Y; 10/4/23	
26-37	73	West Main Street	Apt. 2	Y	Alpine North Llc	Po Box 315	Nutting Lake	MA	01865	Y; 10/4/23	
26-37	75	West Main Street	Apt. 1	Y	Alpine North Llc	Po Box 315	Nutting Lake	MA	01865	Y; 10/4/23	
26-37	75	West Main Street	Apt. 2	Y	Alpine North Llc	Po Box 315	Nutting Lake	MA	01865	Y; 10/4/23	
26-38	71	West Main Street	Apt. 2L	N; not claimed	Lorden Michael J - Tr	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	Apartment
26-38	71	West Main Street	Apt. 2R	Y	Lorden Michael J - Tr	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	Apartment
26-38	71	West Main Street	Apt. 1L	Y	Lorden Michael J - Tr	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	
26-38	71	West Main Street	Apt. 1R	Y	Lorden Michael J - Tr	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	
26-39	61	West Main Street	Apt. 2	N; not claimed	Rourkela LLC	36 Glendale Street, Apt 1	Maynard	MA	01754	Y; 10/4/23	Apartment
26-39	63	West Main Street	Apt. 3	N; not claimed	Rourkela LLC	36 Glendale Street, Apt 1	Maynard	MA	01754	Y; 10/4/23	Apartment
26-39	61	West Main Street	Apt. 1	Y	Rourkela LLC	36 Glendale Street, Apt 1	Maynard	MA	01754	Y; 10/4/23	Apartment
26-39	63	West Main Street	Apt. 1	Y	Rourkela LLC	36 Glendale Street, Apt 1	Maynard	MA	01754	Y; 10/4/23	
26-45	98	West Main Street		Y	Page Shari J	98 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-61	92	West Main Street		Y	Slack Cody R	92 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-64	88	West Main Street	Apt. 2	N; vacant	Toro Ramon A	88 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-64	86	West Main Street	Apt. 1	Y	Toro Ramon A	88 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-64	86	West Main Street	Apt. 2	Y	Toro Ramon A	88 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-64	88	West Main Street	Apt. 1	Y	Toro Ramon A	88 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-65	84	West Main Street		Y	Dickie Willard	84 West Main Street	Ayer	MA	01432	Y; 10/4/23	
26-66	76	West Main Street		N; not claimed	Mass Ave Rentals, Llc	69 Massachusetts Avenue	Lunenburg	MA	01462	Y; 10/4/23	Duplex
26-66	78	West Main Street		N; not claimed	Mass Ave Rentals, Llc	69 Massachusetts Avenue	Lunenburg	MA	01462	Y; 10/4/23	Duplex
26-67	70	West Main Street	Apt. 2	N; not claimed	Dausman Amanda R	70 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-67	70	West Main Street	Apt. 1	Y	Dausman Amanda R	70 West Main Street	Ayer	MA	01432	Y; 10/4/23	Duplex
26-69	64	West Main Street		N; refused letter	Lorden Michael J	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	
26-69	64b	West Main Street		N; refused letter	Lorden Michael J	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	
26-69	66	West Main Street		Y	Lorden Michael J	1810 Mariner Drive #402	Tarpon Springs	FL	34689	Y; 10/4/23	

Map ID	LUC Street Address			Received? (Y/N)	Owner Name	Owner Address	City	State	Zip	Address Checked on Ayer Assessor Site (Y/N)	Additional Notes
26-72	60	West Main Street		Y	Argo Trust LLC	53 Ardale Street	Roslindale	MA	02131	Y; 10/4/23	Commercial Building
26-75	50	West Main Street		Y	Alpha Residences LLC	100 Powder Mill Rd, Ste 136	Acton	MA	01720	Y; 10/4/23	Commercial Building
32-2	161	West Main Street	Apt. 1	Y	Cole Tanner S	Po Box 393	Lunenburg	MA	01462	Y; 10/4/23	
32-2	161	West Main Street	Apt. 2	Y	Cole Tanner S	Po Box 393	Lunenburg	MA	01462	Y; 10/4/23	
32-2	161	West Main Street	Apt. 3	Y	Cole Tanner S	Po Box 393	Lunenburg	MA	01462	Y; 10/4/23	
32-24	173	West Main Street		Y	Pinard James	Po Box 28	Ayer	MA	01432	Y; 10/4/23	
32-3	157	West Main Street		Y	Lynch Gary	157 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-4	149	West Main Street		Y	Varner Billy E	149 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-5	147	West Main Street		Y	Cibor David L	147 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-8	136	West Main Street	Apt. 2R	Y	Rzonca Stanley F	134 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-8	136	West Main Street	Apt. 1L	Y	Rzonca Stanley F	134 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-8	136	West Main Street	Apt. 1R	Y	Rzonca Stanley F	134 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-8	136	West Main Street	Apt. 2L	Y	Rzonca Stanley F	134 West Main Street	Ayer	MA	01432	Y; 10/4/23	
32-9	132	West Main Street		Y	Raffaelo Robert A	132 West Main Street	Ayer	MA	01432	Y; 10/4/23	
Other Properties (no mailings)											
25-8	0	West Main Street	--	--	Unknown	Unknown	Ayer	MA	01432	Y; 10/4/23	Undeveloped
25-11	0	West Main Street	--	--	Sullivan Barry F	7 Par Lane	Hudson	NH	03051	Y; 10/4/23	Undevelopable residential land
25-24	0	West Main Street	--	--	Manni Pamela A	137 West Main Street	Ayer	MA	01432	Y; 10/4/23	Undevelopable residential land
26-30	43-53	West Main Street	--	--	Slarsky Stephen M	1 Ledgeway	Ayer	MA	01432	Y; 10/4/23	Undevelopable commercial land
26-31	0	West Main Street	--	--	Town of Ayer	1 Main Street	Ayer	MA	01432	Y; 10/4/23	Vacant, Town-owned
26-40	0	West Main Street	--	--	Cournoyer Sheila S	53 Shirley Street	Ayer	MA	01432	Y; 10/4/23	Undevelopable residential land
26-41	108	West Main Street	--	--	Sheahan Timothy J	108 West Main Street	Ayer	MA	01432	Y; 10/4/23	Undeveloped
26-43	0	West Main Street	--	--	Unknown	Unknown	Ayer	MA	01432	Y; 10/4/23	Undeveloped
26-44	0	Shirley Street	--	--	King Nathanael	7 Union Street	Ayer	MA	01432	Y; 10/4/23	Accessory land w/ garage
26-49	0	Shirley Street	--	--	Norstrom Brian D	55 Shirley Street	Ayer	MA	01432	Y; 10/4/23	Accessary land w/ improvements
26-52	0	Shirley Street	--	--	Roman Catholic Archbishop Of Boston	29 Shirley St	Ayer	MA	01432	Y; 10/4/23	Parking Lot
26-62	8	Union Street	--	--	Roman Catholic Archbishop Of Boston	29 Shirley St	Ayer	MA	01432	Y; 10/4/23	Playground
32-6	0	West Main Street	--	--	Commonwealth of Massachusetts	10 Park Plaza Room 6160	Boston	MA	02116	Y; 10/4/23	ROW
32-7	0	West Main Street	--	--	Unknown	Unknown	Ayer	MA	01432	Y; 10/4/23	ROW
32-25	167	West Main Street	--	--	Town of Ayer	1 Main Street	Ayer	MA	01432	Y; 10/4/23	Vacant, Town-owned
32-26	163	West Main Street	--	--	Commonwealth of Massachusetts	10 Park Plaza Room 6160	Boston	MA	02116	Y; 10/4/23	ROW
32-27	0	West Main Street	--	--	PJ Keating Co	998 Reservoir Rd	Lunenburg	MA	01462	Y; 10/4/23	ROW
32-42	0	West Main Street	--	--	Town of Ayer	1 Main Street	Ayer	MA	01432	Y; 10/4/23	Vacant, Town-owned
32-50	0	Scully Road	--	--	Ctc Holdings Inc	22 West Main Street	Ayer	MA	01432	Y; 10/4/23	Undevelopable industrial land
33-1	0	Scully Road	--	--	Ctc Holdings Inc	22 West Main Street	Ayer	MA	01432	Y; 10/4/23	Undevelopable industrial land
33-3	0	Scully Road	--	--	Sullivan Wiliam J Jr	67 Dale Lane	Groton	MA	01450	Y; 10/4/23	Developable industrial land
33-4	0	Scully Road	--	--	Ctc Holdings Inc	22 West Main Street	Ayer	MA	01432	Y; 10/4/23	Lumber yards

How Are People Being Protected from Arsenic In Groundwater?

In August 2014, the Army released the final report called a "Land Use Control Implementation Plan" (LUCIP), based on the land use controls (LUCs) established per the Shepley Hill Landfill remedy. The LUCIP is part of the remedy for Shepley's Hill landfill. It establishes the framework for land use controls to protect people from exposure to contaminated groundwater. The final LUCIP is available at:

- Town of Ayer website (www.ayer.ma.us)
- Ayer Public Library
- Ayer Town Hall
  - The Board of Health Office
  - The Board of Selectman's Office
  - The Town Clerk

The Army has implemented Land Use Controls that will reduce the risk of arsenic exposure by:

- Supporting compliance with the Ayer Zoning By-laws and the Subdivision Control Regulations.
- Supporting compliance with a Moratorium on Groundwater Use issued by the Town of Ayer Board of Health limiting groundwater use where arsenic groundwater contamination is present.
- Supporting compliance with the Ayer Board of Health Well Regulations (Adopted January 10, 2001) – Town of Ayer permitting requirements for the installation and use of new drinking water wells.
- Continued public education and outreach.
- Continued groundwater monitoring and inspections where arsenic groundwater contamination is present.
- Conducting meetings with the Ayer Board of Health at least once a year.

Where to Get More Information

Comments on the Land Use Control Implementation Plan can be sent to the Army by mail or email:

U.S. Army
2530 Crystal Drive
Taylor Building, Room 5104A
Arlington, VA 22202
thomas.a.lineer.civ@mail.mil

If you have a water well in or near the affected area contact the Army and the Board of Health with your comments and well information:

Ayer Board of Health
1 Main Street (3rd Floor)
Ayer, MA -1432

References & Other Resources

Arsenic in Drinking Water-EPA Fact Sheet
http://www.epa.gov/dwreginfo/chemical-contaminant-rules

Toxicological Profile for Arsenic
https://wwwn.cdc.gov/TSP/substances/ToxSubstance.aspx?toxid=3

Town of Ayer 2022 Water Quality Report
https://www.ayer.ma.us/ccr

Town of Ayer Water Department
http://www.ayer.ma.us/water-department

Fort Devens Environmental Cleanup Website
https://www.nae.usace.army.mil/missions/projects-topics/former-fort-devens-environmental-cleanup/

Land Use Control Implementation Plan:

Restriction of Groundwater Use

SHEPLEY'S HILL LANDFILL

Introduction

A Land Use Control Implementation Plan has been established by the Army to protect human health and the environment from arsenic contamination in groundwater affecting a localized portion of the aquifer in the Town of Ayer. Arsenic contamination in groundwater is attributable to both naturally occurring causes and groundwater discharge from the former Shepley's Hill Landfill (SHL). SHL is located on the northeast corner of the former Main Post at Fort Devens.

What Area is Affected?

Groundwater contaminated with arsenic is located north of the SHL. Approximately 65 to 70 homes in the Town of Ayer are located within the impacted area.

What Is Arsenic?

Arsenic is an odorless and tasteless metal that is both naturally occurring in the environment and also a by-product of agricultural, mining and industrial activities. It can enter the groundwater from runoff or infiltration through the ground.

http://www.idwr.idaho.gov/WaterInformation/GWQuality/FactSheets/Arsenic/Arsenic.htm

Where Does Arsenic Drinking Water Come From?

Arsenic in groundwater can be from anthropogenic sources, originating from human activity, or from natural sources, such as minerals in soil and bedrock. Many arsenic compounds dissolve in water and can enter the groundwater by dissolving in rain or snow or through the discharge of industrial wastes. The arsenic in groundwater in the Town of Ayer is occurring in groundwater because of both natural conditions and from the former operation of the SHL. The SHL has been closed and capped since 1993. Since its closure, the SHL has had long term monitoring and maintenance of the existing landfill cap and groundwater monitoring. A groundwater extraction and treatment system has operated at the SHL since 2006, however, arsenic is still present at high levels in groundwater in an area north of the landfill.

What Are Health Effects of Consuming Water With Arsenic?

Arsenic is known to cause cancer and is classified as a carcinogen by the Environmental Protection Agency (EPA). Specifically, exposure to arsenic can result in cancer of the bladder, lungs, skin, kidneys, nasal passages, liver and prostate. Arsenic in drinking water can result in the following symptoms:

- Discoloration of the skin
- Irritation of the stomach and intestines
- Fatigue
- Abnormal heart rhythm
- Blood-vessel damage resulting in bruising
- Impaired nerve function causing "pins and needles" sensation in your hands and feet

How to Avoid Arsenic

Not using private well water for drinking or irrigation purposes where arsenic groundwater contamination is present will prevent exposure of arsenic from groundwater. Drinking public water provided from the Town of Ayer and avoiding drinking private well water will mitigate the risk of arsenic exposure. The Town of Ayer's public drinking water supply meets all state and federal standards. The Town of Ayer Department of Public Works Water Division conducts annual water quality reports to document that the Town of Ayer drinking water quality is safe for drinking. **If you have a private well, you need to notify the Town of Ayer Board of Health at the contact number provided below.** The Ayer Board of Health will work with the Army to make necessary arrangements to properly abandon the well and obtain a new source of water, if necessary.

Appendix I

Response to Comments

US Army Corps of Engineers ®

New England District
696 Virginia Road
Concord, Massachusetts
01742-2751

Project Name:	Former Fort Devens Army Installation		
Location:	Devens, Massachusetts	Reviewers:	Shawn Lowry (USEPA) and Joanne Dearden (MassDEP)
Document Name: Draft 2023 Annual Operations, Maintenance, and Monitoring Report, Shepley's Hill Landfill, Former Fort Devens Army Installation, Devens, Massachusetts, May 2024			

No.	Ref. Page / Para.	COMMENT	RESPONSE
		Shawn Lowry (1 July 2024)	
1.	PDF pages 46 and 6978-6985	While I don't have any substantial comments on the text of the report at this time, I wanted to let you know that some pages in the document aren't loading correctly for me. This happens when I try to view figure 1 (PDF page 46) and the photo log presented in PDF pages 6978-6985.	The PDF of the Final report has been revised to correct the identified issue.
		Joanne Dearden (10 July 2024)	
1.	N/A	MassDEP has reviewed the *2023 Annual Operations and Maintenance Report for Shepley's Hill Landfill at the Former Fort Devens Army Installation* dated May 2024. MassDEP does not have any comments on this submittal.	N/A
END OF COMMENTS			